

CITY OF HAM LAKE

15544 Central Avenue NE
Ham Lake, Minnesota 55304
(763) 434-9555
Fax (763) 434-9599

CITY OF HAM LAKE PLANNING COMMISSION AGENDA MONDAY, APRIL 26, 2021

CALL TO ORDER: 6:00 p.m.

PLEDGE OF ALLEGIANCE

APPROVAL OF MINUTES: April 12, 2021

PUBLIC HEARINGS:

6:01 p.m. Jeff Stalberger, Crosstown Development, LLC, requesting Preliminary Plat approval and rezoning for Crosstown Rolling Acres 3rd Addition (49 Single Family Residential lots) in Section 6.

6:01 p.m. Jim Malvin and Tim Lang, Timber Valley Development, requesting Preliminary Plat approval and rezoning for Evergreen Estates (36 Single Family Residential lots) in Section 21.

NEW BUSINESS:

1. Classic Construction, Inc. requesting Commercial Site Plan approval to construct a 10,572 square foot daycare center at 13644 Radisson Road NE (PIN# 33-32-23-31-0006, Lot 9, Block 2 of Bunker Meadows).

COMMISSION BUSINESS:

1. City Council Update
2. Discussion of Article 9-220 of the City Code

CITY OF HAM LAKE
PLANNING COMMISSION MINUTES
MONDAY, APRIL 12, 2021

The Ham Lake Planning Commission met for its regular meeting on Monday, April 12, 2021 in the Council Chambers at Ham Lake City Hall located at 15544 Central Avenue NE in Ham Lake, Minnesota.

MEMBERS PRESENT: Commissioners Brian Pogalz, Kyle Lejonvarn, Erin Dixson, Dave Ringler, Scott Heaton, Jonathan Fisher, and Jeff Entsminger

MEMBERS ABSENT: None

OTHERS PRESENT: City Engineer, Tom Collins, Building and Zoning Official, Mark Jones and Building and Zoning Clerk, Jennifer Bohr

CALL TO ORDER: Chair Pogalz called the meeting to order at 6:00 p.m.

PLEDGE OF ALLEGIANCE:

The pledge of allegiance was recited by all in attendance.

APPROVAL OF MINUTES:

Motion by Lejonvarn, seconded by Ringler, to approve the minutes of the March 22, 2021 Planning Commission meeting as written. All in favor, motion carried.

PUBLIC HEARINGS:

Alexander Hattstrom requesting a Special Home Occupation Permit to operate Tactical Finishes, LLC at 14350 Ural Street NE

Alexander Hattstrom was present. Mr. Hattstrom stated he will be operating a coating, painting and refinishing business in a detached accessory building on his property. Mr. Hattstrom stated he will primarily be using a product called Cerakote, a ceramic based enamel paint, that can be applied to a variety of substrates including metals, polymers, glass, ceramics and wood. Mr. Hattstrom stated his focus is to coat firearms, sporting goods and other consumer products. Commissioner Lejonvarn completed the inspection, a copy which is on file. Commissioner Lejonvarn stated a hard surface driveway needs to be constructed from the edge of the current driveway to the accessory building and an exhaust system needs to be installed for the paint spray booth. Commissioner Lejonvarn stated Mr. Hattstrom is in the midst of construction; the air compressor was not hooked up so he was not able to determine if the noise generated by the compressor would be audible to neighbors. Commissioner Lejonvarn stated Mr. Hattstrom has applied for a Federal Firearms License but is awaiting its issuance. Commissioner Lejonvarn stated

he informed Mr. Hattstrom that no customer traffic was permitted; Mr. Hattstrom stated he would meet customers at a local business or have items shipped to him by customers. Commissioner Ringler asked if a permit had been obtained for the garage heater; Mr. Hattstrom stated he has applied for a permit for the heater.

Chair Pogalz opened the public hearing at 6:07 p.m. and asked for public comment.

Jerry Anderson, 3723 146th Avenue NE stated he is in support of the business; he has operated a paint shop himself. Mr. Anderson asked how waste from the products used will be disposed of.

Mr. Hattstrom stated he will be using two chemicals, Simple Green, an all-natural, organic, chemical-free cleaner, to degrease products before coating them and Cerakote. Mr. Hattstrom stated Cerakote is like epoxy where it must be applied within an hour of mixing before it hardens. Mr. Hattstrom stated he will be mixing the volume of Cerakote needed for each project; he expects very little waste product. Chair Pogalz asked if it is similar to paint where it can be disposed of in a garbage can after it has dried. Mr. Hattstrom stated Cerakote has properties very similar to paint. Mr. Hattstrom stated he has found he can dispose of any waste generated at the Elk River Hazardous Waste Disposal site. Commissioner Entsminger asked if the coating was sprayed on in a paint booth and air dried or dried via an electronic process. Mr. Hattstrom stated there are two types of Cerakote, the C-series is air cooled and the H-series is heated to approximately 300 degrees to cure the coating; he will be using both products.

Chair Pogalz asked for further public comment and with there being none, he closed the public hearing at 6:11 p.m.

Chair Pogalz asked the Commissioners if they had questions or required further discussion on this application; there were no additional questions or comments. **Motion by Lejonvarn, seconded by Ringler, to recommend approval of a Special Home Occupation Permit as requested by Alexander Hattstrom to operate Tactical Finishes, LLC at 14350 Ural Street NE, subject to meeting the guidelines for Special Home Occupation Permits per Article 9-350.3, completing the hard surface driveway between the existing driveway and accessory building, installation of a proper exhaust system meeting Minnesota Mechanical Code requirements, obtaining a permit for the garage heater, maintaining Safety Data Sheets (SDS) on-site for chemicals and paint products used, disposing of products used in an environmentally sound manner, no coating or selling of automotive parts or accessories, no discharging of firearms on-site, no on-street parking, generating no noise that is audible to neighboring properties, no outdoor storage, operating hours of 8:00 a.m. to 3:30 p.m. seven days a week, obtaining a Federal Firearms License and providing a copy of the license to the City before assembling or coating any firearms, completion of required actions by June 1, 2021 and meeting all City, State and County requirements. All in favor, motion carried. *This item will be placed on the April 19, 2021 City Council Agenda.***

Benjamin Cedarberg of Cedar Hill Group, LLC, requesting a Conditional Use Permit to operate Everwood Friends at 4453 Crosstown Boulevard NE

Benjamin Cedarberg was present. Mr. Cedarberg stated he and his wife operate a business which manufactures heirloom quality, maple, wooden children's blocks and sells them online. Mr. Cedarberg stated they create the wooden products, warehouse the finished goods and pack and ship the blocks from the Crosstown Boulevard NE location. Commissioner Dixon completed the inspection, a copy which is on file. Commissioner Dixon stated Mr. Cedarberg is currently using a driveway that goes through the 4425 Crosstown Boulevard NE property; that driveway is going to be vacated so he will then utilize the driveway to the east that provides access to the 4453 Crosstown Boulevard NE property. Commissioner Dixon stated the parking area is gravel. Commissioner Dixon stated she asked Mr. Cedarberg how he intended to dispose of sawdust, shavings and trimmings and Mr. Cedarberg stated the property owner wants to utilize the sawdust on the property so he will be taking the bulk of the waste; any additional waste will be placed in a dumpster for disposal. Commissioner Dixon stated no customers will come to the site as all sales are done online and traffic for shipping and delivery of raw materials occurs a few times per week. Commissioner Lejonvarn asked if the parking area was hard surfaced. Commissioner Dixon stated the surface was gravel. Building and Zoning Official, Mark Jones stated if the business is not open to the public, the Code is silent on the type of surface required for parking. There was some discussion among the Commissioners about the parking surface; it was determined if the City Code does not clearly define parking surface requirements discretion can be used to determine an acceptable surface and if there will be no customers or visitors coming on-site, a gravel parking surface could be considered acceptable.

Chair Pogalz opened the public hearing at 6:19 p.m. and asked for public comment; with there being none, Chair Pogalz closed the public hearing at 6:19 p.m.

Motion by Dixon, seconded by Fisher, to recommend approval of a Conditional Use Permit as requested by Benjamin Cedarberg to operate Everwood Friends at 4453 Crosstown Boulevard NE, subject to meeting the guidelines outlined in Article 9, Section 9-210.32.vii related to generating no noise which would violate the standards for residential uses found in the Minnesota Pollution Control Agency regulations, generating no odors, fumes, vibrations or light beyond the property lines, no on-site retail sales, any construction or building modifications meeting all chapters of the Minnesota State Building Code, no accumulation of sawdust, or wood shaving or trimmings on-site, business hours of 8:00 a.m. to 6:00 p.m. Monday through Saturday, and meeting all City, State and County requirements. All in favor, motion carried. *This item will be placed on the April 19, 2021 City Council Agenda.*

Anton Vovk requesting a Conditional Use Permit to operate A & A Companies, an auto repair shop, at 13408 Highway 65 NE

Mr. Anton Vovk was present. Mr. Vovk stated he operates an auto repair business providing automotive diagnostics, maintenance and engine, transmission, suspension, brake and body repair. Commissioner Lejonvarn asked if Mr. Vovk planned to do any painting of vehicles. Mr. Vovk stated he would not be painting any vehicles. Commissioner

Entsminger completed the inspection, a copy which is on file. Commissioner Entsminger stated he talked with Mr. Vovk about painting; he understands this is not permitted. Commissioner Entsminger stated he also spoke with Mr. Vovk about the need to keep the road easement along the north side of the building clear due to it being the only access to Jetson Inc. at 13414 Highway 65 NE as well as not parking any damaged cars or cars in need of repair nor storing anything outside of the unit he is working from. Commissioner Ringler stated the memo from Building and Zoning Official Jones stated damaged cars have been parked in spaces on the north side of the building; what action is being taken to address that issue. Commissioner Entsminger stated he spoke with Building and Zoning Official Jones about the parking and storage issues on the north side of the building; Building and Zoning Official Jones is currently doing annual Conditional Use Permit (CUP) inspections at the site and is addressing issues related to outside storage, parking and any other violations he discovers.

Chair Pogalz opened the public hearing at 6:26 p.m. and asked for public comment; with there being none, Chair Pogalz closed the public hearing at 6:26 p.m.

Anthony Revutskiy, property owner at 13408 Highway 65 NE, was present. Chair Pogalz asked Mr. Revutskiy to comment on how well his tenants are complying with the conditions of their CUP's and parking requirements. Mr. Revutskiy stated he has to address some issues from time to time but overall things are better than they used to be. Mr. Revutskiy stated he has talked with the owner of Jetson's Inc. about posting no parking signs along the road easement to help correct the issue of vehicles blocking the roadway.

Chair Pogalz asked the Commissioners if they had questions or required further discussion on this application; there were no additional questions or comments. **Motion by Entsminger, seconded by Fisher, to recommend approval of the application by Anton Vovk, requesting a Conditional Use Permit to operate A & A Companies at 13408 Highway 65 NE subject to the following conditions: (1) No motor vehicle sales (2) Allocating a total of thirteen parking spaces; three in front of the suite the business is renting (#109) for employee parking during business hours only and ten in the fenced area as presented on the site plan (3) All parking to be on hard surface in designated areas as shown on the site plan (4) A maximum of three employees (5) No outside storage of liquids, tires, parts, etc. (6) All repairs to be done inside the building (repairs include general auto maintenance and mechanical work such as replacing brakes, headlights and bulbs; all fluids to be contained and disposed of according to County and State requirements (7) No painting at this location (8) Hours of operation to be 9:00 a.m. to 6:00 p.m., Monday through Saturday (9) Security Lighting required (10) Maintain an open fire lane on the north side of the building (11) Meeting all City, State and County requirements. All in favor, motion carried. This item will be placed on the April 19, 2021 City Council Agenda.**

William Dwyer requesting a Conditional Use Permit to operate Gunner Insulation at 14665 Buchanan Street NE, Units 1 & 2

Pat Dwyer was present. Mr. Dwyer stated Gunner Insulation is an insulation installation and general contracting company. Mr. Dwyer stated the company is leasing units one and two of the building and they have twenty to twenty-five employees. Commissioner Heaton completed the inspection, a copy which is on file. Commissioner Heaton stated the front parking lot is striped and has designated handicap parking spaces. Commissioner Heaton stated insulation materials, various tools and insulation equipment are stored in the warehouse area; employees come to the building in the morning but then drive company trucks to job sites; the company's fleet of ten trucks are parked outside behind the building. Commissioner Lejonvarn asked if there was lighting in the back of the building. Mr. Dwyer stated there are wall packs in the back. Commissioner Heaton stated there is residential property to the west of the building but does not feel the business activity would be disruptive to the nearby residents.

Chair Pogalz opened the public hearing at 6:39 p.m. and asked for public comment; with there being none, Chair Pogalz closed the public hearing at 6:39 p.m.

Motion by Heaton, seconded by Ringler, to recommend approval of the application by William Dwyer, requesting a Conditional Use Permit to operate Gunner Insulation at 14665 Buchanan Street NE, Units 1 & 2, subject to the following conditions: operating hours of 6:30 a.m. to 7:30 p.m. Monday through Friday with occasional Saturdays, no outside storage of materials, parking per site plan for passenger vehicles in front of the building and company trucks in the back of the building, and meeting all City, State and County requirements. All in favor, motion carried. *This item will be placed on the April 19, 2021 City Council Agenda.*

Harlan Worsham requesting a Conditional Use Permit to operate Solid Rock Construction at 14665 Buchanan Street NE, Unit 4

Harlan Worsham was present. Mr. Worsham stated Solid Rock Construction specializes in commercial and residential interior and exterior remodeling and new construction; the company has thirteen employees and many subcontractors most of which drive a company vehicle and work off-site at job locations. Commissioner Heaton completed the inspection, a copy which is on file. Commissioner Heaton stated Solid Rock Construction is leasing unit four. Commissioner Heaton stated the usage of the building is similar to that of Gunner Insulation as there are offices at the front of the building and materials, tools and equipment are stored in the warehouse area. Commissioner Lejonvarn asked if the parking lot in the back of the building was striped. Commissioner Heaton stated he didn't believe the parking lot in the back was striped.

Chair Pogalz opened the public hearing at 6:42 p.m. and asked for public comment; with there being none, Chair Pogalz closed the public hearing at 6:43 p.m.

Motion by Heaton, seconded by Fisher, to recommend approval of the application by Harlan Worsham, requesting a Conditional Use Permit to operate Solid Rock Construction at 14665 Buchanan Street NE, Unit 4, subject to the following conditions: operating hours of 7:00 a.m. to 7:00 p.m. Monday through Friday with occasional Saturdays, no outside storage of materials, parking per site plan for passenger vehicles in front of the building and company trucks in the back of the

building, and meeting all City, State and County requirements. All in favor, motion carried. *This item will be placed on the April 19, 2021 City Council Agenda.*

NEW BUSINESS:

Andrew Berg requesting a Certificate of Occupancy to operate Latitude Studios Co. at 14665 Buchanan Street NE, Unit 3

Andrew Berg was present. Mr. Berg stated he is just starting Latitude Studios Co. Mr. Berg stated he will manufacture backyard office studios, sheds and gazebos (that are fully heated and cooled) by repurposing shipping containers. Mr. Berg stated he will have some floor models for customers to see on-site but will custom manufacture other units. Mr. Berg stated at present he is the only employee but hopes to have up to eight employees in the future. Commissioner Heaton completed the inspection, a copy which is on file. Commissioner Heaton stated Mr. Berg has a great business concept. **Motion by Heaton, seconded by Ringler, to recommend approval of the Certificate of Occupancy requested by Andrew Berg to operate Latitude Studios Co. at 14665 Buchanan Street NE, Unit 3, subject to the following conditions: operating hours of 7:00 a.m. to 7:30 p.m. Monday through Saturday, no outside storage, deliveries occurring between the hours of 7:30 a.m. to 7:30 p.m. Monday through Saturday, and meeting all City, State and County requirements. All in favor, motion carried.** *This item will be placed on the April 19, 2021 City Council Agenda.*

Holiday Stationstores LLC requesting Sketch Plan approval for a Minor Plat in Section 5

Jim Goepfner, Real Estate Development Manager and Denny Honsa of Honsa Surveying were present. Mr. Goepfner stated Holiday Stationstores intends to raze the current Holiday store and construct a new store and parking lot which will provide a new, more user-friendly convenience store space, ten gas pumps, a diesel fueling island and car wash. Mr. Goepfner stated the store brand will be Circle K a brand of Alimentation Couche-Tard which acquired Holiday in 2017. Mr. Goepfner provided images of the current site as well as the future site. Mr. Honsa provided an explanation of the sketch plan, including future street construction plans and land that will be dedicated to the City by Holiday for a trail that will run between Soderville Park and Chisholm Street NE. Mr. Honsa stated an additional outlot will be created to allow for future development of four to five residential lots in the southeast portion of the property. Commissioner Lejonvarn asked if the trail would be paved. Engineer Collins stated commercial plats do not have parkland requirements but Holiday has elected to dedicate land for a trail as it is in close proximity to the park which has no concession stand; once the development is platted, discussions and recommendations can be made for trail construction with funds from the Park and Beach fund. Commissioner Heaton asked what type of water treatment system the new store would have. Engineer Collins stated it is going to be a septic system. Chair Pogalz asked Engineer Collins to review his April 7, 2021 memo. Engineer Collins stated the proposed plat is located within the Commercial/Industrial Planned Unit Development Overlay District (CPOD) and future submissions must meet the procedural requirements of Article 9-420. Engineer Collins stated this plat will contain two zoning districts, Commercial Tier 1 (CD-1) and Residential Single Family (R-1) and will follow minor plat procedures. Engineer Collins stated Outlot A on the sketch plan will need to be separated into two outlots, with the westerly outlot being zoned CD-1 and the easterly R-1. Engineer Collins stated that a commercial site plan will be reviewed by the Planning Commission

in the future. **Motion by Pogalz, seconded by Fisher, to recommend approval of the Sketch Plan as presented by Holiday Stationstores LLC for a minor plat in Section 5 subject to meeting the recommendations of the City Engineer and meeting all City, State and County requirements. All in favor, motion carried. *This item will be placed on the April 19, 2021 City Council Agenda.***

COMMISSION BUSINESS:

City Council Update

Commissioner Entsminger attended the April 5, 2021 City Council meeting. Commissioner Lejonvarn will be attending the April 19, 2021 City Council meeting.

ADJOURNMENT:

Motion by Heaton, seconded by Dixon, to adjourn the Planning Commission meeting at 7:07 p.m. All in favor, motion carried.

Jennifer Bohr
Building and Zoning Clerk

**CITY OF HAM LAKE
PLANNING COMMISSION REQUEST APPLICATION
INSPECTION REPORT**

MTG DATE: April 26, 2021

INSPECTION ISSUED TO: Dave Ringler

APPLICANT/CONTACT: Jeff Stalberger

TELEPHONE NUMBER: 612-799-1471 or stally68@msn.com

BUSINESS/PLAT NAME: Crosstown Rolling Acres 3rd Add

ADDRESS/LOCATION OF INSPECTION: PID# 06-32-23-32-0002, 06-32-23-34-0002 & 0004, 06-32-23-43-0002 & 0006, 06-32-23-44-0011

APPLICATION FOR: Preliminary Plat

RECOMMENDATION: _____

DATE: _____

PLANNING COMMISSIONER SIGNATURE: _____



CITY OF HAM LAKE

PLANNING REQUEST

15544 Central Avenue NE

Ham Lake, MN 55304

Phone (763) 434-9555 Fax (763) 235-1697

Date of Application 7/21/2020

Date of Receipt _____
Receipt # _____

Meeting Appearance Dates:
Planning Commission X 4-26-2021 City Council _____

Please check request(s):

- | | |
|--|---|
| <input type="checkbox"/> Metes & Bounds Conveyance | <input type="checkbox"/> Commercial Building Permit |
| <input type="checkbox"/> Sketch Plan | <input type="checkbox"/> Certificate of Occupancy |
| <input checked="" type="checkbox"/> Preliminary Plat Approval* | <input type="checkbox"/> Home Occupation Permit |
| <input type="checkbox"/> Final Plat Approval | <input type="checkbox"/> Conditional Use Permit (New)* |
| <input checked="" type="checkbox"/> Rezoning* | <input type="checkbox"/> Conditional Use Permit (Renewal) |
| <input type="checkbox"/> Multiple Dog License* | <input type="checkbox"/> Other _____ |

**NOTE: Advisory Signage is required for land use alterations and future road connections. This application also requires a Public Hearing. Such fees shall be deducted from deposit.*

Development/Business Name: Crosstown Development LLC

Address/Location of property: Co. RD. 58 & Crosstown Blvd.

Legal Description of property: Outlot A - Crosstown Rolling Acres / Outlot A C.R.A 2nd Add

PIN # 06-32-23-32-0002 Current Zoning R-A Proposed Zoning R-1

Notes: 06-32-23-43-0002 *0004 Crosstown Rolling Acres 3rd Add.

Applicant's Name: Jeffrey Stralburger

Business Name: Crosstown Development LLC

Address 17404- WARD LK. Dr. NW

City Andover State Mn. Zip Code 55304

Phone 612-799-1471 Cell Phone _____ Fax _____

Email address STALLY68@Msn.com

You are advised that the 60-day review period required by Minnesota Statutes Chapter 15.99 does not begin to run until all of the required items have been received by the City of Ham Lake.

SIGNATURE [Signature] DATE 7/21/2020

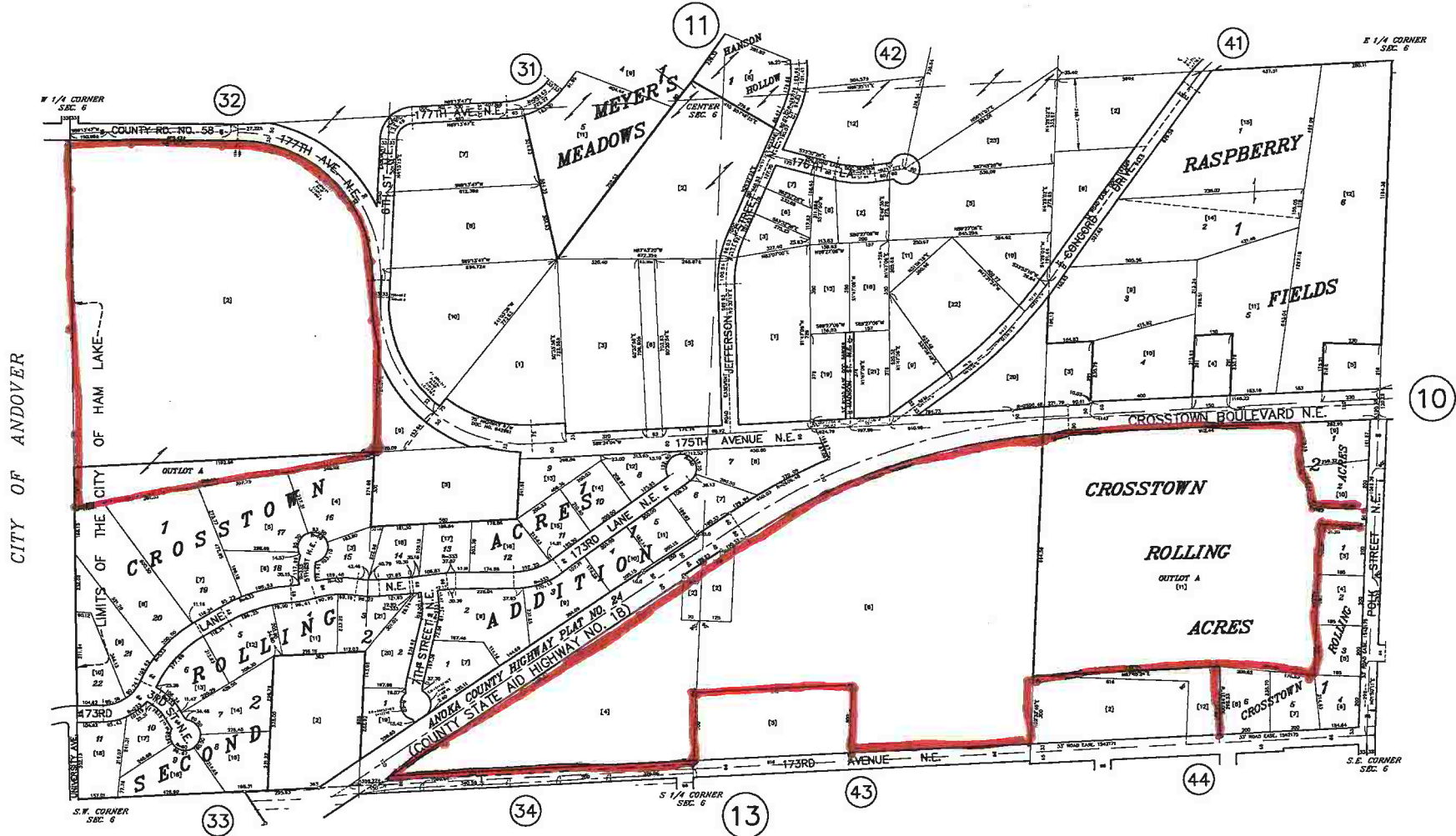
- FOR STAFF USE ONLY -

ACTION BY: Planning Commission _____
City Council _____

PROPERTY TAXES CURRENT YES NO

S 1/2 SECTION 6, T. 32, R. 23

CITY OF HAM LAKE



ANOKA COUNTY
SURVEYOR'S OFFICE
ROOM 224
2100 3RD AVENUE
ANOKA, MN 55303
(763) 324-3200

QUARTER QUARTER INDEX

22	21	12	11
23	24	13	14
32	31	42	41
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NORTH HALF OF SECTION

SOUTH HALF OF SECTION

PROPERTY IDENTIFICATION NUMBER

Section Number	Township	Range	Quarter	Specific Parcel
XX	XX	XX	XX	XXXX

SPECIFIC PARCEL NUMBERS ARE IN BRACKETS: [1]
EXAMPLE OF PIN NUMBER: 06-32-23-34-0004

THIS IS A COMPILATION OF RECORDS AS THEY APPEAR IN THE ANOKA COUNTY OFFICES AFFECTING THE AREA SHOWN. THIS DRAWING IS TO BE USED ONLY FOR REFERENCE PURPOSES AND THE COUNTY IS NOT RESPONSIBLE FOR ANY INACCURACIES HEREIN CONTAINED.



CITY OF HAM LAKE

15544 Central Avenue NE
Ham Lake, Minnesota 55304
(763) 434-9555
Fax: (763) 434-9599

NOTICE OF PUBLIC HEARING CITY OF HAM LAKE COUNTY OF ANOKA STATE OF MINNESOTA

TAKE NOTICE, that pursuant to the requirements of Minnesota Law, a public hearing shall be held before the Ham Lake Planning Commission on Monday, April 26, 2021 at 6:01 p.m. at the City Hall located at 15544 Central Avenue NE for the purpose of considering the application of Jeff Stalberger, Crosstown Development, LLC, requesting preliminary plat approval and rezoning to R-1 (single family residential) for the development of Crosstown Rolling Acres 3rd Addition (49 residential single family lots) located in Section 6, a parcel of certain land situated in the City of Ham Lake, Anoka County, Minnesota and which is described as follows to wit:

Outlot A, CROSSTOWN ROLLING ACRES, Anoka County, Minnesota.

AND

Outlot A, CROSSTOWN ROLLING ACRES SECOND ADDITION, Anoka County, Minnesota.

AND

That part of the Northwest Quarter of Southwest Quarter of Section 6, Township 32, Range: 23, Anoka County, Minnesota, lying southerly and southwesterly of the centerline of County Road No. 58 (A.K.A. 177th Avenue N.E.).

AND

That part of the South Half of the Southwest Quarter of Section 6, Township 32, Range 23, Anoka County, Minnesota, lying southeasterly of the southerly right of way line of C.S.A.H. No. 18 (A.K.A. Crosstown Boulevard N.E.).

AND

That part of the South Half of the Southwest Quarter of the Southeast Quarter of Section 6, Township 32, Range 23, Anoka County, Minnesota, lying southerly and southeasterly of the southerly right of way line of C.S.A.H. No. 18 (A.K.A. Crosstown Boulevard N.E.).

EXCEPT THAT PART OF THE SOUTHWEST QUARTER OF THE SOUTHEAST QUARTER OF SAID SECTION 6 DESCRIBED AS FOLLOWS:

Commencing at the Southwest corner of the Southwest Quarter of the Southeast Quarter of said Section 6; thence North along the West line of said Southwest Quarter of Southeast Quarter a distance of 300 feet; thence East and parallel with the South line of said Southwest Quarter of Southeast Quarter a distance of 616 feet; thence South and parallel with the West line of said Southwest Quarter of Southeast Quarter a distance of 300 feet, to the South line of said Southwest Quarter of Southeast Quarter; thence West along said South line to the point of beginning.

At such hearing both written and oral comments will be heard.

DATED: April 16, 2021

Jennifer Bohr
Zoning and Building Clerk
City of Ham Lake

Memorandum

Date: April 22, 2021
To: Planning Commissioners
From: Tom Collins, City Engineer *TPC*
Subject: Crosstown Rolling Acres Third Addition

Introduction:

The Preliminary Plat, Grading, Erosion Control and Tree Protection Plan, Livability Plan, Street and Storm Sewer Profiles, Stormwater Sizing & Location Plan, Details, Stormwater Drainage Report and Stormwater Pollution Prevention Plan were received March 25th, the revised Title Sheet T1 and Street Plan and Profile sheets C1.4 and C1.5 and revised storm sewer sizing calculations were received on March 31st and the revised Preliminary Plat Sheet 1 and Grading, Erosion Control and Tree Protection Plan Sheets 4 and 5 were received on April 22nd for the proposed 49 lot residential development located on 102.6 non-contiguous acres of parcels 06-32-23-32-0002, 06-32-23-34-0002, 06-32-23-34-0004, 06-32-23-43-0002, 06-32-23-43-0005, 06-32-23-43-0006 and 06-32-23-44-0011. The Third Addition is a portion of the overall Crosstown Rolling Acres plan that received Sketch Plan approval at the February 5, 2018 City Council meeting. The parcels are currently zoned Rural Single Family Residential (R-A) and will be zoned R-1. All of the prior review comments have been addressed.

Discussion:

173rd Avenue at Crosstown Boulevard is being realigned to a 90-degree intersection, per the requirements of the Anoka County Highway Department. There is an existing power line (and possibly other utilities) within the current roadway for 173rd Avenue. These utility(s) will need to be relocated to allow for the vacation of the right-of-way for that portion of 173rd Avenue adjacent to the outlots once the realignment is completed. If the utility(s) are not relocated, the road easement can be vacated while recording a drainage and utility easement containing the utility(s).

Three outlots are shown in the southwesterly portion of the proposed development. The 392 square foot Outlot A is to be combined with the adjacent 430 173rd Avenue parcel to the south. The 14,816 square foot Outlot B is to be combined with the adjacent 444 173rd Avenue parcel to the south. The 5,273 square foot Outlot C is to be combined with adjacent 450 173rd Avenue to the south. The Development Agreement will include the conveyance of the outlots to the adjacent properties.

A License Agreement will be required for Lot 15, Block 1 and Lot 9, Block 3 due to the septic lines crossing the drainage and utility easement. A License Agreement will also be required for the Lot 16, Block 1 driveway being located within a drainage and utility easement. The Lot 16, Block 1 driveway is proposed to be located within the drainage and utility easement so that Public Works can access the Pond 4 outlet and the storm sewer on the west side of the driveway

from the designated City maintenance access on the east side of the driveway. The License Agreements will be covered in the Development Agreement.

A FEMA Letter of Map Amendment is required for Lot 15, Block 1 and Lots 11 and 12, Block 3. The Development Agreement will stipulate that these lots are not eligible for a building permit until the Letter of Map Amendment is approved by FEMA.

The Braun Intertec Revised Summary of Water Level Readings and Lowest Floor Slab Recommendations that was received August 27, 2018 adequately addressed prior review comments. The April 20th Tradewell letter certifies that each of the proposed lots will support two standard septic systems in accordance with Minnesota Rules 7080.

The north portion of the development (Block 3) is located within the Upper Rum River Watershed Management Organization (URRWMO). The wetland buffers provided meet the requirements of the URRWMO based on the Minnesota Routine Assessment Method (MnRAM) functions and values assessment of the wetlands. The Plans show grading within wetland buffers. The URRWMO requires that any areas where vegetation is removed in the buffer area during construction must be reseeded with a native seed mix, and the applicant is responsible for maintenance or reseeded for 3 years through a legally enforceable agreement with the City. Per the attached City Attorney email, enforcement will be incorporated in the Development Agreement for the grading proposed by the Developer and either in the Short Form Development Agreement or as a special condition of any building permit for grading by lot owners.

The Coon Creek Watershed District conditionally approved the development at the March 22nd Board of Managers meeting. The Anoka County Highway Department has not completed their review. Per the attached Preliminary Turn Lane Plan, it is anticipated that the improvements to Crosstown Boulevard include the 7th Street connection from the Crosstown Rolling Acres Second Addition and construction of both east bound and west bound left and right turn lanes at 7th Street. The anticipated improvements to County Road 58 include removal of the 173rd Lane intersection and construction of a southbound right turn lane and a northbound bypass lane.

The Midwest Natural Resources rare plant survey documented the presence butternut trees within the properties, which the DNR has classified as endangered. The DNR is requiring the execution of a Special Permit for the taking of approximately 49 butternut trees. The Developer has acknowledged that the permit will be obtained after preliminary plat approval is received. Grading cannot commence without this permit.

Recommendations:

It is recommended that the Preliminary Plat of Crosstown Rolling Acres Third Addition be recommended for approval to the City Council.

**Tradewell Soil Testing
18330 Dahlia Street NW
Cedar, MN 55011**

April 20th, 2021

RFC Engineering
13635 Johnson Street NE
Ham Lake, MN 55304
Attention: Tom Collins

Dear Mr. Collins:

As a licensed site evaluator who conducted the soil borings in Crosstown Rolling Acres 3rd for Jeff Stalberger, I found the following: Each boring has at least 12" of natural, undisturbed and unmottled soil. In order to design and install a standard soil treatment system according to MN Chapter 7080 Code, at least 12" of natural soil with no signs of mottling is required. Therefore, each of the proposed lots will support 2 "standard" septic systems within the 7,500 square feet septic area as shown on the Grading Plan.
Sincerely,



Mark Tradewell
MPCA #307

Tom Collins

From: Joseph Murphy <joseph.murphy@carsoncs.net>
Sent: Wednesday, April 21, 2021 10:39 AM
To: Tom Collins
Subject: RE: Crosstown Rolling Acres 3rd Addition

Hi Tom,

I think that the enforcement of this URRWMO rule requirement will have to be incorporated into the development agreement and the short form development agreement. The obligations of the developer for grading and re-seeding Lots 2, 3, 4, 7 and 8 can be expressly included in the development agreement. The language of the development agreement can also provide that these specific obligations continue for the developer's successors in title. The grading during construction for lots 11 and 12 is potentially more complicated, but I think we can do so through the short form development agreement and recording that with the county. Similar to the drainage fund contribution or park land dedication lien typically expressed in the short form agreement, the city could make the release of the lien contingent upon the buyer entering into a legally enforceable agreement with the city upon the sale of each impacted lot. It could also potentially be addressed as a special condition of any building permit (or certificate of occupancy) issued by the city. Those are a few options, but we can continue to review how this URRWMO rule has been implemented in the past prior to drafting the development agreement and short form agreement.

Thanks,

Joseph Murphy
Carson, Clelland & Schreder
6300 Shingle Creek Parkway, Suite 305
Minneapolis, MN 55430
(763)-561-2800

From: Tom Collins [mailto:TCollins@rfcengineering.com]
Sent: Wednesday, April 14, 2021 9:35 AM
To: Joseph Murphy <joseph.murphy@carsoncs.net>
Subject: FW: Crosstown Rolling Acres 3rd Addition

Hi Joe,

The public hearing for the Preliminary Plat of Crosstown Rolling Acres 3rd Addition is scheduled for the April 26th Planning Commission meeting. Can I get a response to the November email below so that I can include it in my recommendation for approval memo?

Tom

From: Tom Collins
Sent: Wednesday, November 18, 2020 12:49 PM
To: 'Joseph Murphy' <joseph.murphy@carsoncs.net>
Subject: Crosstown Rolling Acres 3rd Addition

Hi Joe,

Crosstown Development is proposing a new residential development (Crosstown Rolling Acres 3rd Addition) that is within the Upper Rum River Watershed Management Organization (URRWMO). Ham Lake and the URRWMO have a joint powers agreement to enforce the URRWMO Rules. The URRWMO requires wetland buffers adjacent to wetlands, and the project is proposing filling within some wetland buffers. Per the URRWMO Rules:

“The delineated wetland, but not necessarily the buffer area, must be protected during construction with appropriate perimeter erosion control... Any areas where vegetation is removed in the buffer area during construction must be reseeded with a native seed mix, and the applicant is responsible for maintenance or reseeded for 3 years through a legally enforceable agreement with the city/township. These requirements do not apply if the buffer area vegetation is not disturbed during construction...”

Trying to determine how the City can enforce this Rule requirement. There are a total of 7 lots that are proposing grading within the buffer within Block 3. The grading for Lots 2, 3, 4, 7 and 8 will be completed by the Developer for construction of the stormwater ponds. The grading for Lots 11 and 12 will occur during home construction. It is anticipated that all of these 7 lots (shown in red on the attached) will sell well before the 3-year period expires, so trying to determine how the City can enforce the Rules. Include the requirement within the Development Agreement, which could pass on to the lot buyer? Have to record something with the County?

We are having the developer update the plans to stipulate that these areas need to be reseeded with native seed mix.

Tom

NOTICE OF PERMIT APPLICATION STATUS

Project: Crosstown Rolling Acres 3rd Addition

Date: March 26, 2021

Applicant: Crosstown Development
17404 Ward Lake Dr NW
Andover, MN 55304

Permit Application#: 20-097

Purpose: Residential development for 38 single family homes

Location: Crosstown Blvd NE (173rd-176th), Ham Lake MN

At their meeting on March 22, 2021 the Board of Managers of the Coon Creek Watershed District **conditionally approved** the above referenced project with 4 conditions and 2 stipulations. **This is NOT a permit.**

Since your last submittal on 3/25/2021, the following 2 conditions remain which must be addressed before permit issuance (please see note below on how to address conditions).

1. Receipt of escrows.
2. Provide DNR Takings Permit. If the DNR requires significant changes to the site plan, additional requirements and Board review may be needed prior to issuance of permit.

Please note that there is also 2 stipulations.

Please be advised that **this is NOT a permit**, and that work without a permit is a violation of the terms of the Coon Creek Watershed District Rule 5.1. If you have any questions, please call 763-755-0975.

Sincerely,



Erin Edison
Water Resource Regulation Coordinator

cc: File 20-097
Ed Matthiesen, Wenck
Danielle Tourtillott, Wenck
Tom Collins, City of Ham Lake

Tom Collins

From: Michelle A. Pritchard <Michelle.Pritchard@co.anoka.mn.us>
Sent: Tuesday, March 30, 2021 10:06 AM
To: David Krugler
Cc: Jane Rose; Daniel Frey; Joe J. MacPherson; Tom Collins
Subject: RE: PAN 20-097 (Crosstown Rolling Acres 3rd Addition)

David,

We actually didn't really get started on a review because they were missing several components in their plans that would be needed to do a comprehensive review. I did let them know on March 24 that they will need to include this information prior to our review, including road stationing, removals, shoulder information, cross-sections, signing/stripping, etc.

That said, we do share your concern about the excessive cross-slope and would ask them to provide an engineering justification for it. I think we'd want to see a superelevation plan, and they would need to update the typical section to match what they are actually proposing.

Michelle Pritchard

Design Engineer

Anoka County Highway Department

Direct – 763.324.3162

Office – 763.324.3100

Fax – 763.324.3020

Michelle.Pritchard@co.anoka.mn.us

From: David Krugler <DKrugler@rfcengineering.com>
Sent: Tuesday, March 30, 2021 9:32 AM
To: Michelle A. Pritchard <Michelle.Pritchard@co.anoka.mn.us>
Cc: Jane Rose <Jane.Rose@co.anoka.mn.us>; Daniel Frey <Daniel.Frey@co.anoka.mn.us>; Joe J. MacPherson <Joe.MacPherson@co.anoka.mn.us>; Tom Collins <TCollins@rfcengineering.com>
Subject: RE: PAN 20-097 (Crosstown Rolling Acres 3rd Addition)

Michelle,

We are reviewing the latest plan set from Plowe regarding Crosstown Rolling Acres 3rd Addition. Plowe has stated plans were supplied to Anoka County on 3/15. There is enough information for the proposed intersection of 176th Lane NE and CSAH 58 that has raised a question.

They are showing an existing 7.3% superelevation of CSAH 58 at the intersection. They are showing a 0.9% slope sloping away from the curve. The plan shows an algebraic difference of 8.2% which exceeds the maximum 7% algebraic difference between the through-lane slope and the shoulder slope and also which is less than the minimum 1% required for the shoulder.

The MnDOT design manual discusses the necessity to allow for a greater algebraic difference with supers larger than 6% and AASHTO allows up to a 8% algebraic difference.

Their typical also doesn't describe the slope conditions of the turn lane, if they are to match the superelevation or if they are to provide the 2% grade as suggested.

Do you have any concerns with this?



David A. Krugler, P.E.
RFC Engineering, Inc.
(763) 862-8000
(763) 862-8042 (fax)
(763) 207-9853 (Direct)

From: Michelle A. Pritchard <Michelle.Pritchard@co.anoka.mn.us>
Sent: Wednesday, January 20, 2021 8:48 AM
To: Joe J. MacPherson <Joe.MacPherson@co.anoka.mn.us>; Tom Collins <TCollins@rfcengineering.com>
Cc: Jane Rose <Jane.Rose@co.anoka.mn.us>; Daniel Frey <Daniel.Frey@co.anoka.mn.us>
Subject: RE: PAN 20-097 (Crosstown Rolling Acres 3rd Addition)

Thanks Tom. We have not received engineering plans, only preliminary sketches, so we have not done an engineering review yet. Dan Frey has been working with Adam Ginkel at Plowe to answer his design questions as they come up.

Michelle Pritchard

Design Engineer

Anoka County Highway Department

Direct – 763.324.3162

Office – 763.324.3100

Fax – 763.324.3020

Michelle.Pritchard@co.anoka.mn.us

From: Joe J. MacPherson <Joe.MacPherson@co.anoka.mn.us>
Sent: Wednesday, January 20, 2021 8:34 AM
To: Tom Collins <TCollins@rfcengineering.com>
Cc: Michelle A. Pritchard <Michelle.Pritchard@co.anoka.mn.us>; Jane Rose <Jane.Rose@co.anoka.mn.us>
Subject: RE: PAN 20-097 (Crosstown Rolling Acres 3rd Addition)

Thank you for the update. Please keep me informed on the status of this project so I can keep everyone on our end updated.

Sincerely,

Joe MacPherson

From: Tom Collins <TCollins@rfcengineering.com>
Sent: Wednesday, January 20, 2021 8:12 AM
To: Joe J. MacPherson <Joe.MacPherson@co.anoka.mn.us>
Cc: Michelle A. Pritchard <Michelle.Pritchard@co.anoka.mn.us>; Jane Rose <Jane.Rose@co.anoka.mn.us>
Subject: RE: PAN 20-097 (Crosstown Rolling Acres 3rd Addition)

Joe,

The temporary access will be removed with the Crosstown Rolling Acres 3rd Addition project. CRA3 has not yet received approval from the CCWD and has not received preliminary plat approval from the City. I do not know whether the Engineering Plan Review at the County has been completed and/or whether the County has issued a permit. Anticipating that the project will have all necessary approvals by the time road restrictions are lifted, and the CR58 temporary access will be removed after the CSAH 18 accesses are constructed.

Tom

From: Joe J. MacPherson <Joe.MacPherson@co.anoka.mn.us>

Sent: Wednesday, January 20, 2021 7:41 AM

To: Tom Collins <TCollins@rfcengineering.com>; Michelle A. Pritchard <Michelle.Pritchard@co.anoka.mn.us>; Jane Rose <Jane.Rose@co.anoka.mn.us>

Subject: FW: PAN 20-097 (Crosstown Rolling Acres 3rd Addition)

I wanted to check in on this development and the removal of the temporary access on CR 58 (175th Avenue). Have any of you heard anything about the status of this project recently?

Sincerely,

Joe MacPherson

From: JEFFREY Stalberger <stally68@msn.com>

Sent: Tuesday, November 3, 2020 11:23 AM

To: Joe J. MacPherson <Joe.MacPherson@co.anoka.mn.us>; Susan M. Burgmeier <Susan.Burgmeier@co.anoka.mn.us>; Jane Rose <Jane.Rose@co.anoka.mn.us>; Michelle A. Pritchard <Michelle.Pritchard@co.anoka.mn.us>

Subject: Fw: PAN 20-097 (Crosstown Rolling Acres 3rd Addition)

EXTERNAL EMAIL ALERT: This message originated from outside the Anoka County email system. **Use Caution** when clicking hyperlinks, downloading pictures or opening attachments.

Joe, see below.

We are moving forward just trying to get through the Coon Creek Water shed which is not an easy task.

Jeff

From: Adam Ginkel <adam@plowe.com>

Sent: Tuesday, November 3, 2020 10:29 AM

To: Matthew Danzl <mdanzl@cooncreekwd.org>; Tom Collins <TCollins@rfcengineering.com>

Cc: Jason Rud <jrud@egrud.com>; Jeff Stalberger <stally68@msn.com> <stally68@msn.com>; Matt Davich <mdavich@egrud.com>

Subject: PAN 20-097 (Crosstown Rolling Acres 3rd Addition)

Matt, Tom:

Below is a link to the revised plans and calculations for Crosstown Rolling Acres 3rd Addition. The revisions were in response to CCWD and RFC review comments.

<https://www.dropbox.com/sh/j7vk6pw37jes8lw/AAAnxDZIDxXmV-ilS4vJ4S2Oa?dl=0>

The link includes:

1. CROSSTOWN ROLLING ACRES 3RD(11-02-20), which includes:
 - a. Preliminary Plat
 - b. Grading, Erosion Control and Tree Protection Plan

- c. Livability Plan
 - d. Livability Chart
2. 1882 Civils (11-2-2020), which includes
 - a. Utility Plan
 - b. Details
 - c. SWPPP
3. Stormwater Drainage Report
4. Drainage Areas Maps
5. Storm sewer sizing calculations
6. Response memo to CCWD comments
7. Response memo to RFC comments
8. MPCA Contamination screening checklist
9. Rare Plant Survey (by Midwest Natural Resources)
10. Draft of a DNR "Take" permit

Two (2) paper copies of the above materials will be delivered to CCWD office. (Tom – if you would like a paper copy, let me know).

Thanks, and let me know if you have any questions.

Adam Ginkel
PLOWE ENGINEERING, INC.
6776 Lake Dr Ste 110
Lino Lakes, MN 55014
(651) 361-8234

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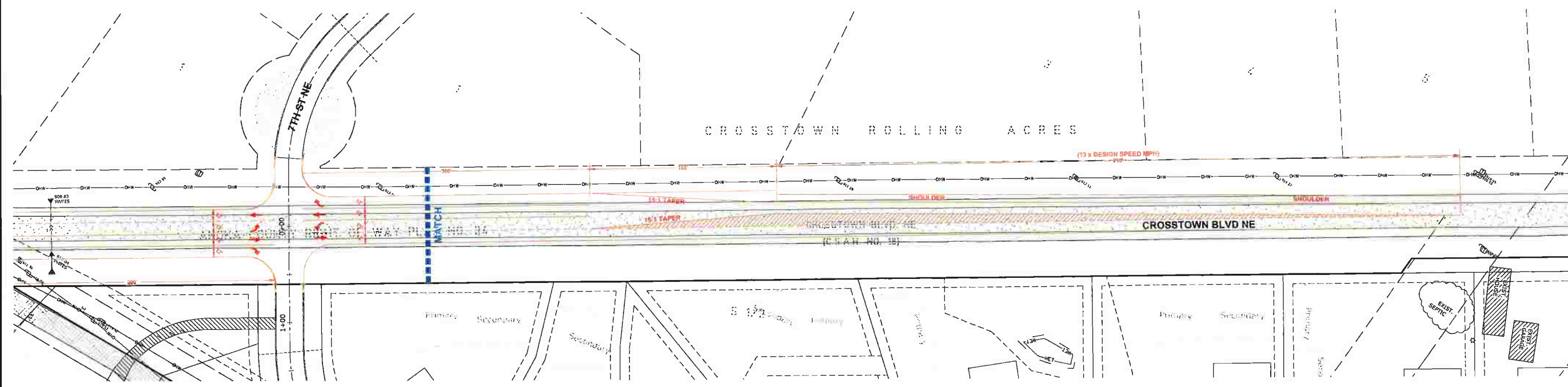
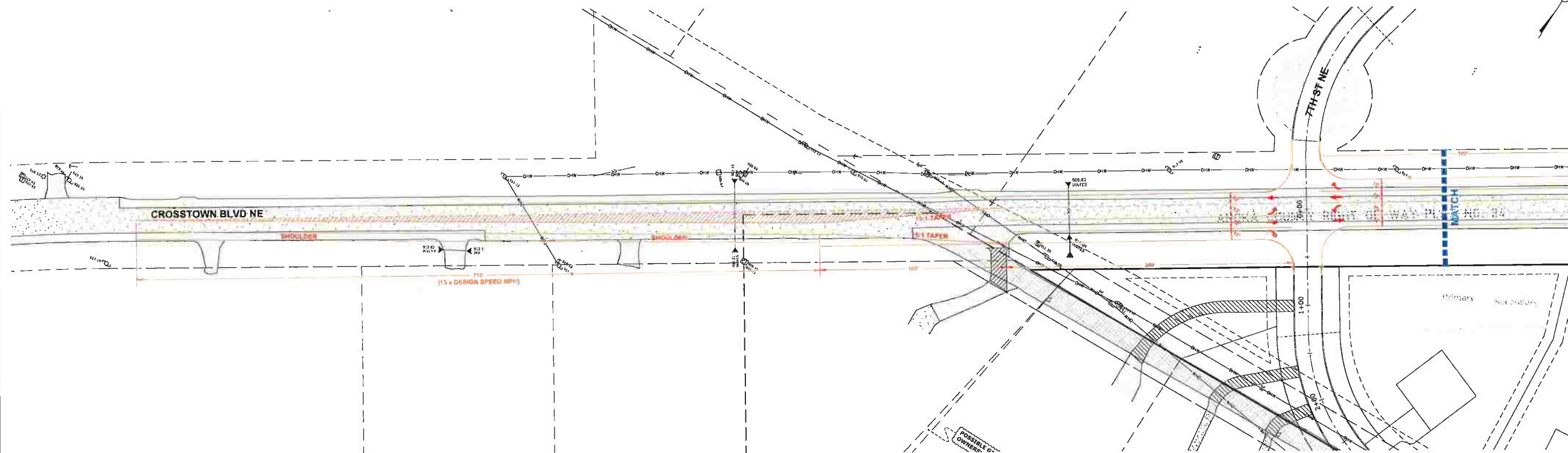
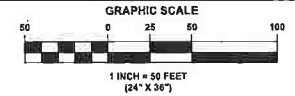
CROSTOWN ROLLING ACRES THIRD ADDITION

CITY OF HAM LAKE, ANOKA COUNTY, MN

PRELIMINARY TURN LANE PLAN



Know what's below.
Call before you dig.



6776 LAKE DRIVE
SUITE 110
LIND LAKE, MN 55014

PHONE: (651) 361-8210
FAX: (651) 361-8701

DRAWN BY: AG CHECK BY: CWP

JOB NO: 19-1882 DATE: 7-15-20

NO.	DATE	DESCRIPTION
1		
2		
3		
4		
5		
6		
7		
8		

HEREBY CERTIFY THAT THIS PLAN WAS PREPARED BY
A DAILY LICENSED PROFESSIONAL ENGINEER UNDER
THE LAWS OF THE STATE OF MINNESOTA.

PRELIMINARY
ADAM GINKEL
DATE: 07-15-2020 LIC. NO. 43983

CROSTOWN ROLLING ACRES
THIRD ADDITION
CITY OF HAM LAKE, MN
PREPARED FOR: CROSTOWN DEVELOPMENT LLC

SHEET
C2.1

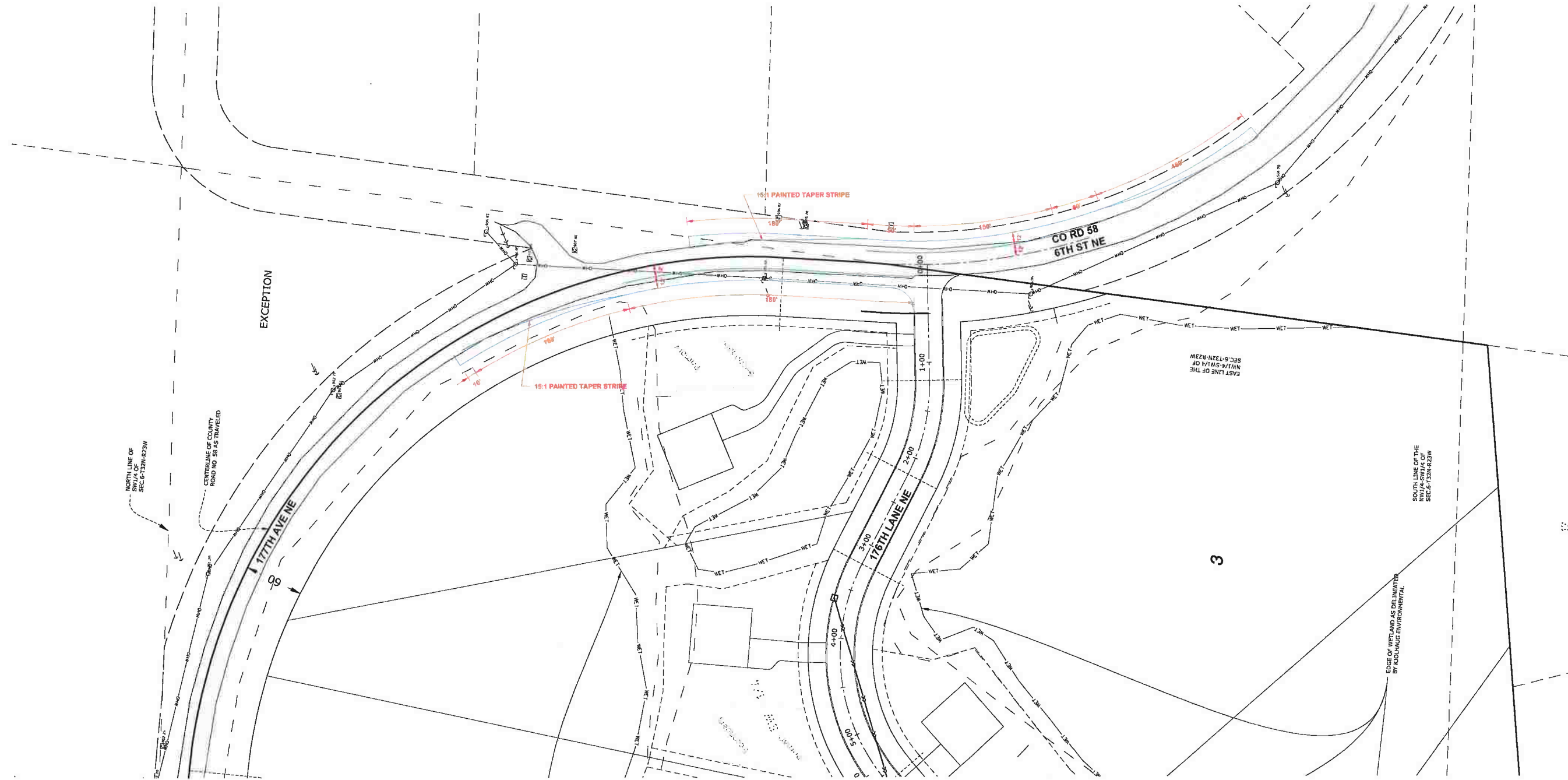
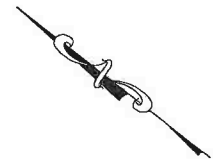
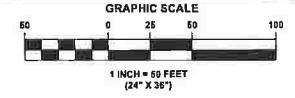
CROSTOWN ROLLING ACRES THIRD ADDITION

CITY OF HAM LAKE, ANOKA COUNTY, MN

PRELIMINARY TURN LANE PLAN



Know what's below.
Call before you dig.



Plowe
ENGINEERING, INC.

8778 LAKE DRIVE
SUITE 110
LIND LAKE, MN 55014
PHONE: (651) 351-8210
FAX: (651) 351-8781

DRAWN BY: AG
CHECK BY: CWP

JOB NO: 19-1882
DATE: 7-15-20

NO.	DATE	DESCRIPTION
1		
2		
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7		

I HEREBY CERTIFY THAT THIS PLAN WAS PREPARED BY
A FULLY LICENSED PROFESSIONAL ENGINEER UNDER
THE LAWS OF THE STATE OF MINNESOTA.
PRELIMINARY
ADAM GINKEL
DATE: 07.15.2020 LIC. NO. 45963

**CROSTOWN ROLLING ACRES
THIRD ADDITION**
CITY OF HAM LAKE, MN
PRELIMINARY TURN LANE PLAN
PREPARED FOR: CROSTOWN DEVELOPMENT LLC

SHEET
C2.2



Mr. Jeffrey Stalberger
2500 Shadywood Road, Suite 130
Orono, MN 55331

December 12, 2018

Mr. Stalberger,

Midwest Natural Resources, Inc. (MNR) is pleased to provide the following rare plant survey report for the recent survey effort for the Crosstown 2 South Development located in Ham Lake, Minnesota (**Figure 1**). This is a revised report, which now includes an additional parcel component that had been surveyed in 2017.

Background Data

Prior to conducting field surveys, MNR staff reviewed available data including aerial photographs and other spatial resources for the approximately 60-acre project area. This included the Minnesota Department of Natural Resources (DNR) Native Plant Community and the Sites of Biodiversity Significance data layers. There are no native plant communities mapped within the project area according to the Native Plant Community data layer (**Figure 2**), and the site is not within an area identified in the Sites of Biodiversity Significance data layer (**Figure 3**).

There was no request of the DNR's Natural Heritage Information System (NHIS) database to determine if there are known element occurrences either at the near the proposed development site. However, surveys conducted previously by MNR staff in the area documented the presence of butternut (*Juglans cinerea*) nearby.

Field Methods

The site was surveyed in two phases by MNR botanist, Otto Gockman. The eastern component was surveyed on September 29, 2017 as part of a preliminary reconnaissance effort. No formal report had been prepared for that survey. The western component was surveyed this year on October 3, 2018 and a subsequent report was issued in October.

The sites were evaluated for all potential state-listed species known from this region of the state. The survey effort involved meandering throughout the site, focusing on areas with suitable habitat for rare species. Both survey efforts additionally evaluated the potential for early season species since surveys were conducted at the end of each growing season.

Locations of state-listed species when observed were documented spatially using a sub-meter GPS unit. Representative photos were also collected for observed state-listed species were collected. Voucher specimens were not collected due to the growth form of the target species.

Results

The site includes a house and two large hay fields as well as several woodland areas. The wooded portions of the site are fire-dependent forest dominated by pin oak (*Quercus ellipsoidalis*), red oak (*Quercus rubra*), red maple (*Acer rubra*), and black cherry (*Prunus serotina*). The shrub layer varies in density but typically includes American hazel (*Corylus americana*), highbush blackberry (*Rubus allegheniensis*), and other species of *Rubus*. The ground layer is rare to sparse in terms of cover, likely due to the late timing of surveys. Ground layer species noted, include Pennsylvania sedge (*Carex pennsylvanica*) and interrupted fern (*Osmunda claytoniana*). The site also includes a portion of a wetland community dominated by reed canary grass (*Phalaris arundinacea*), woolgrass (*Scirpus cyperinus*), and steeplebush (*Spiraea tomentosa*).

In total, 105 vascular plant species were noted during survey efforts. This included butternut, which was found in the wooded components of the western segment (**Figure 4**). This species has a state status of Endangered in Minnesota. No other state listed species were observed during this late season survey effort. A list of all vascular plants observed during our survey effort were documented and included in **Appendix A** and representative photos of the site and of the butternut found onsite are provided in **Appendix B**.

Conclusion

As noted, one state-listed species, butternut, was documented during survey efforts. This species is protected by state law which prohibits the taking, importing, transportation, or selling of any part of a threatened or endangered species. A taking permit through the DNR will be required if impacts are unavoidable. No other state-listed species were observed, and no additional surveys next spring are recommended based on our field review. The spatial data collected during the survey effort has been provided to the DNR in accordance with our collector's permit. This dataset is also being provided to you to help with site planning.

Please feel free to contact us with any questions.

Best regards,



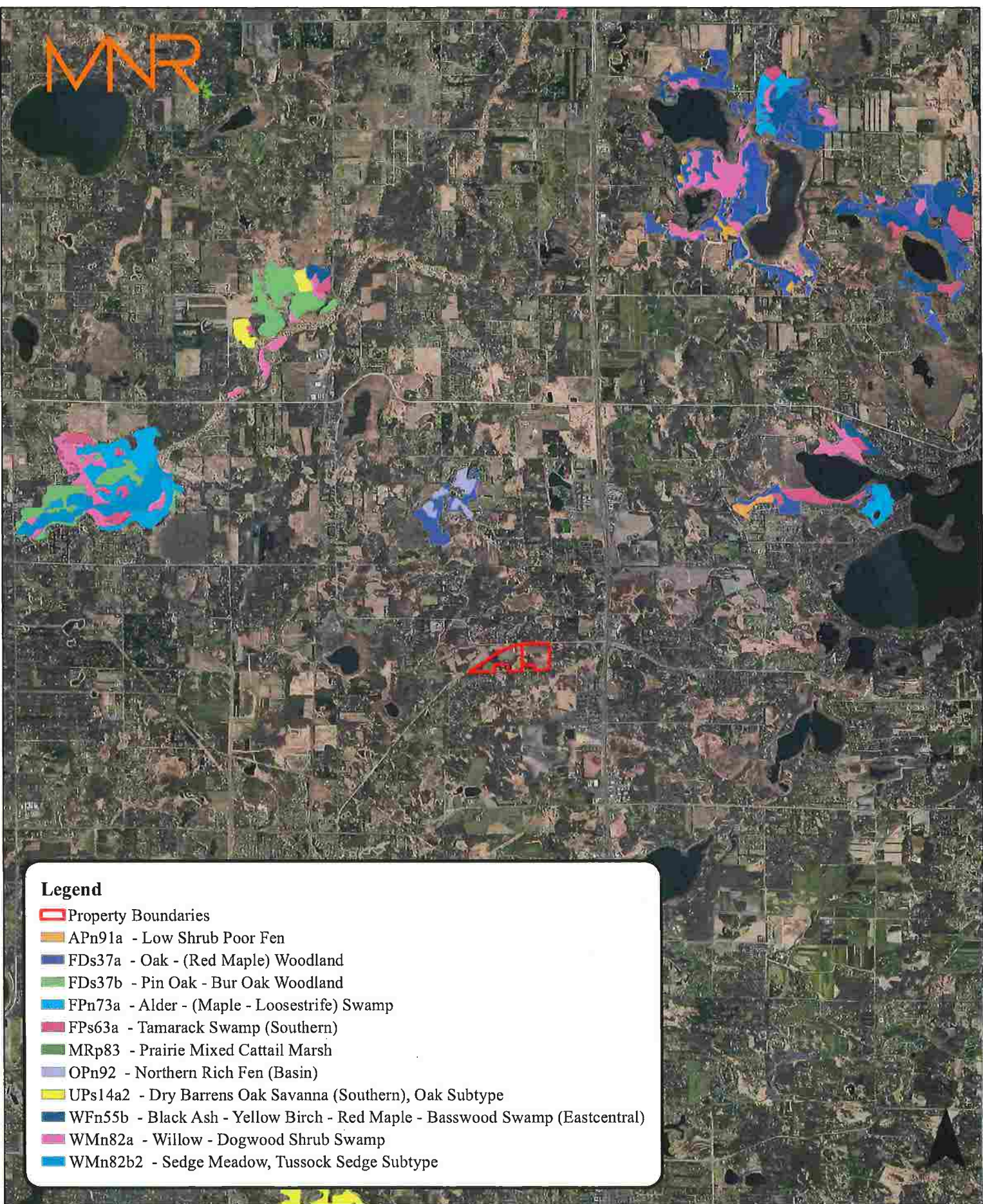
Scott A. Milburn, M.S., PWS, CWD
Sr. Botanist/President
Midwest Natural Resources, Inc.



Project Location
Crosstown 2 South/East Parcel
Ham Lake, Anoka County, Minnesota

Figure 1

MNR



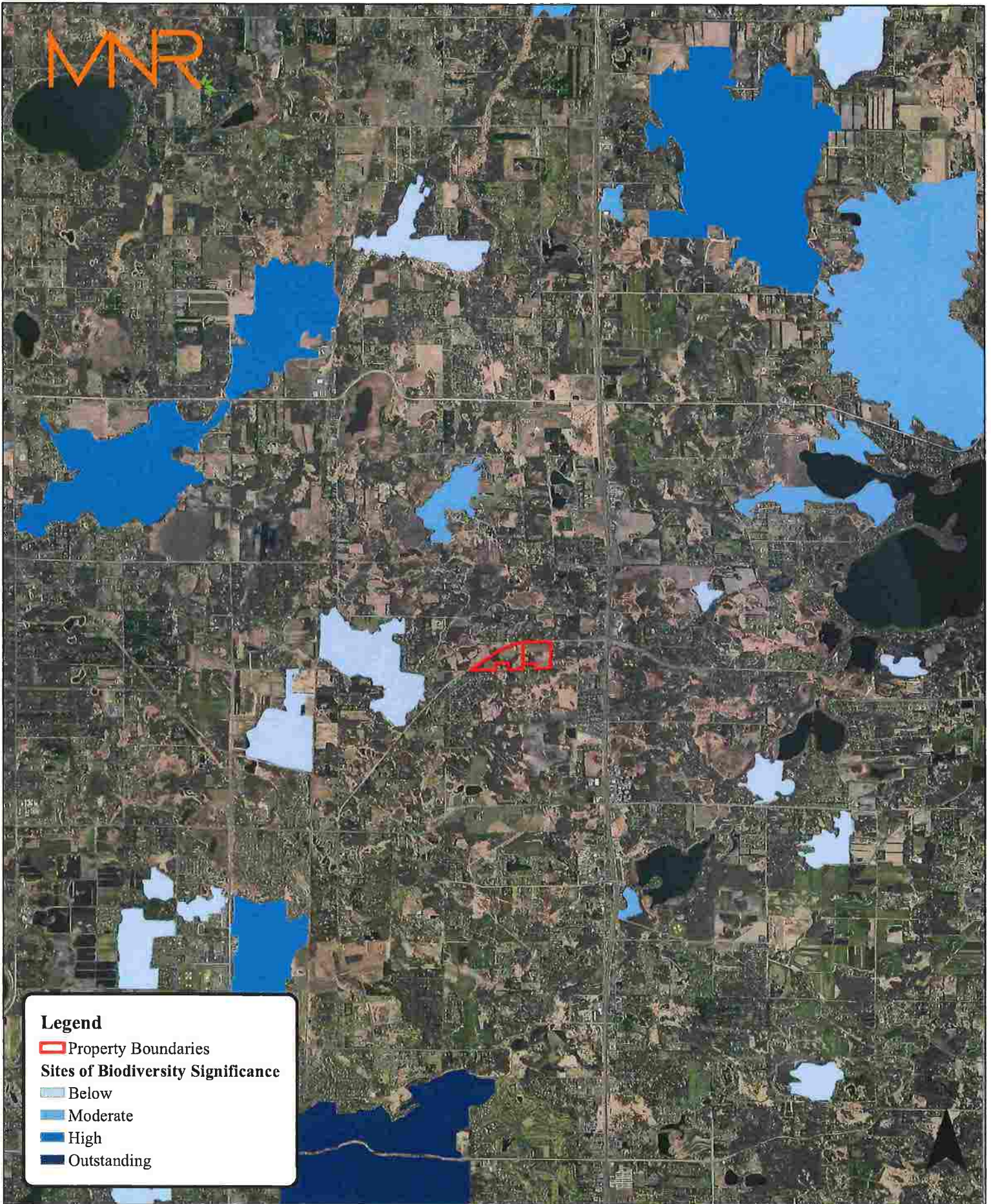
Legend

- Property Boundaries
- APn91a - Low Shrub Poor Fen
- FDs37a - Oak - (Red Maple) Woodland
- FDs37b - Pin Oak - Bur Oak Woodland
- FPn73a - Alder - (Maple - Loosestrife) Swamp
- FPs63a - Tamarack Swamp (Southern)
- MRp83 - Prairie Mixed Cattail Marsh
- OPn92 - Northern Rich Fen (Basin)
- UPs14a2 - Dry Barrens Oak Savanna (Southern), Oak Subtype
- WFn55b - Black Ash - Yellow Birch - Red Maple - Basswood Swamp (Eastcentral)
- WMn82a - Willow - Dogwood Shrub Swamp
- WMn82b2 - Sedge Meadow, Tussock Sedge Subtype

0 0.5 1 Miles
|-----|-----|

**DNR Native Plant Communities
Crosstown 2 South/East Parcel
Ham Lake, Anoka County, Minnesota**

Figure 2



**Sites of Biodiversity Significance
 Crosstown 2 South/East Parcel
 Ham Lake, Anoka County, Minnesota**

Figure 3

MNR



Legend
Juglans cinerea
●
▭ Property Boundaries

0 0.0425 0.085 Miles
|-----|

Survey Results
Crosstown 2 South/East Parcel
Ham Lake, Anoka County, Minnesota

Figure 4

APPENDIX A

Species List

Species List	
<i>Acer negundo</i>	<i>Morus alba</i>
<i>Acer rubrum</i>	<i>Onoclea sensibilis</i>
<i>Acer saccharinum</i>	<i>Osmorhiza claytonii</i>
<i>Achillea millefolium</i>	<i>Osmorhiza longistylis</i>
<i>Amphicarpaea bracteata</i>	<i>Osmunda regalis</i>
<i>Aquilegia canadensis</i>	<i>Parthenocissus vitacea</i>
<i>Aralia nudicaulis</i>	<i>Persicaria amphibia</i>
<i>Asclepias syriaca</i>	<i>Persicaria sagittata</i>
<i>Athyrium filix-femina</i>	<i>Phalaris arundinacea</i>
<i>Betula papyrifera</i>	<i>Phleum pratense</i>
<i>Botrychium dissectum</i>	<i>Picea cf glauca</i>
<i>Bromus inermis</i>	<i>Pinus banksiana</i>
<i>Calamagrostis canadensis</i>	<i>Pinus resinosa</i>
<i>Carex lasiocarpa</i>	<i>Pinus strobus</i>
<i>Carex pellita</i>	<i>Poa pratensis</i>
<i>Carex pennsylvanica</i>	<i>Populus tremuloides</i>
<i>Carex utriculata</i>	<i>Prunus serotina</i>
<i>Centaurea stoebe</i>	<i>Quercus alba</i>
<i>Conyza canadensis</i>	<i>Quercus ellipsoidalis</i>
<i>Cornus racemosa</i>	<i>Quercus rubra</i>
<i>Corylus americana</i>	<i>Rhus typhina</i>
<i>Corylus cornuta</i>	<i>Ribes missouriense</i>
<i>Dactylis glomerata</i>	<i>Robinia pseudoacacia</i>
<i>Desmodium glutinosum</i>	<i>Rubus idaeus</i>
<i>Dichanthelium acuminatum</i>	<i>Rubus occidentalis</i>
<i>Diervilla lonicera</i>	<i>Rumex acetosella</i>
<i>Dryopteris carthusiana</i>	<i>Sambucus racemosa</i>
<i>Dryopteris cristata</i>	<i>Scirpus cyperinus</i>
<i>Echinocystis lobata</i>	<i>Scutellaria galericulata</i>
<i>Eleocharis palustris</i>	<i>Solidago altissima</i>
<i>Elymus repens</i>	<i>Solidago canadensis</i>
<i>Eragrostis spectabilis</i>	<i>Sorbus aucuparia</i>
<i>Euthamia graminifolia</i>	<i>Sorghastrum nutans</i>
<i>Fragaria virginiana</i>	<i>Spiraea alba</i>
<i>Fraxinus pennsylvanica</i>	<i>Spiraea tomentosa</i>
<i>Glechoma hederacea</i>	<i>Symphotrichum ciliolatum</i>
<i>Gleditsia triacanthos</i>	<i>Symphotrichum lanceolatum</i>
<i>Helianthus hirsutus</i>	<i>Taraxacum officinale</i>
<i>Humulus lupulus</i>	<i>Thelypteris palustris</i>
<i>Ilex verticillata</i>	<i>Thuja occidentalis</i>
<i>Iris versicolor</i>	<i>Toxicodendron rydbergii</i>
<i>Juglans cinerea</i>	<i>Triadenum fraseri</i>
<i>Juglans nigra</i>	<i>Typha x glauca</i>
<i>Juncus brevicaudatus</i>	<i>Ulmus americana</i>
<i>Juncus canadensis</i>	<i>Ulmus pumila</i>
<i>Juniperus virginiana</i>	<i>Urtica dioica</i>
<i>Lonicera X bella</i>	<i>Uvularia sessilifolia</i>
<i>Lycopodium clavatum</i>	<i>Vaccinium angustifolium</i>
<i>Lycopus uniflorus</i>	<i>Verbascum thapsus</i>
<i>Maianthemum canadense</i>	<i>Viburnum lentago</i>
<i>Maianthemum racemosum</i>	<i>Viola sororia</i>
<i>Medicago sativa</i>	<i>Vitis riparia</i>
<i>Melilotus officinalis</i>	

APPENDIX B
Representative Photos



Residential component



Open hay field



Mesic hardwood forest



Wetland component



Juglans cinerea tree (left) and branch showing characteristic leaf-scar (right)



STATE OF MINNESOTA
DEPARTMENT OF NATURAL RESOURCES
DIVISION OF ECOLOGICAL AND WATER RESOURCES
500 LAFAYETTE ROAD, BOX 25
ST. PAUL, MN 55155

SPECIAL PERMIT NO. 28536
(Taking of endangered and/or threatened species)
April 27, 2020

TO WHOM IT MAY CONCERN:

Under the authority of Minn. Statutes, Section 84.0895 and Minn. Rules, Parts 6212.1800-2100, and informed by the accompanying Findings of Fact and Decision Rationale, permission is hereby granted to:

Jeff Stalberger
Crosstown Development, LLC
17404 Ward Lake Dr NW,
Andover, MN 55304

and his agents, employees, and contractors, to take 49 state-endangered Butternut trees (*Juglans cinerea*), incidental to development of the Crosstown Rolling Acres residential development in Ham Lake, Anoka County, MN, subject to the following conditions:

1. Permitted take of the specified listed species is limited to the 99.88 acre area of proposed development within Section 6, Township 32N, Range 23W, Ham Lake, Anoka County, as depicted in the attached graphic. Any additional taking of endangered or threatened species is beyond the authority of this permit and may only be conducted under the authority of a separate permit.
2. The Permittee shall contact the University of Minnesota Arboretum's Plant Conservation Program and allow them the opportunity to salvage any of the listed species for conservation purposes at least 7 days prior to destruction.
3. Compensatory mitigation for this taking totals dollars (\$26,000), which will be provided to the Minnesota Department of Natural Resources, pursuant to Minn. Statutes, 84.085 subd. 1., for the purpose of funding research, surveys, land protection, and/or land management activities contributing to the recovery and eventual delisting of endangered and threatened plants in Minnesota, and so create a net benefit to these species in Minnesota.
4. This permit is effective indefinitely upon receipt of a countersigned copy of this permit and the mitigation payment by the DNR. Receipt by the DNR will be confirmed by email.

Steve Colvin
Director, Division of Ecological and Water Resources

Date

I hereby certify that I have read, understand, and accept the provision of this permit and understand that this permit is not valid unless it is signed by me.

Jeff Stalberger, Permittee

Date

- C: Richard J. Baker, Endangered Species Coordinator, Div. Ecological and Water Resources
- Dan Lais, Regional Manager, Div. Ecological and Water Resources
- Jan Shaw Wolff, EMP Section Manager, Div. Ecological and Water Resources
- Jason Peterson, District Supervisor, Div. Enforcement
- Jane Norris, CMRR Supervisor, Div. Ecological and Water Resources
- Becky Horton, Reg. Env. Assessment Ecologist, Div. Ecological and Water Resources
- Kit Elstad-Haveles, Reg. Ecologist, Div. Ecological and Water Resources
- Jason Husveth, Critical Connections Ecological Services, Inc.
- Permit Clerk, Div. Fish and Wildlife

MNDNR Special Permit No. 28536
 Permittee: Stalberger

Area in which taking is permitted (“Proposed Crosstown Rolling Acres boundary”)

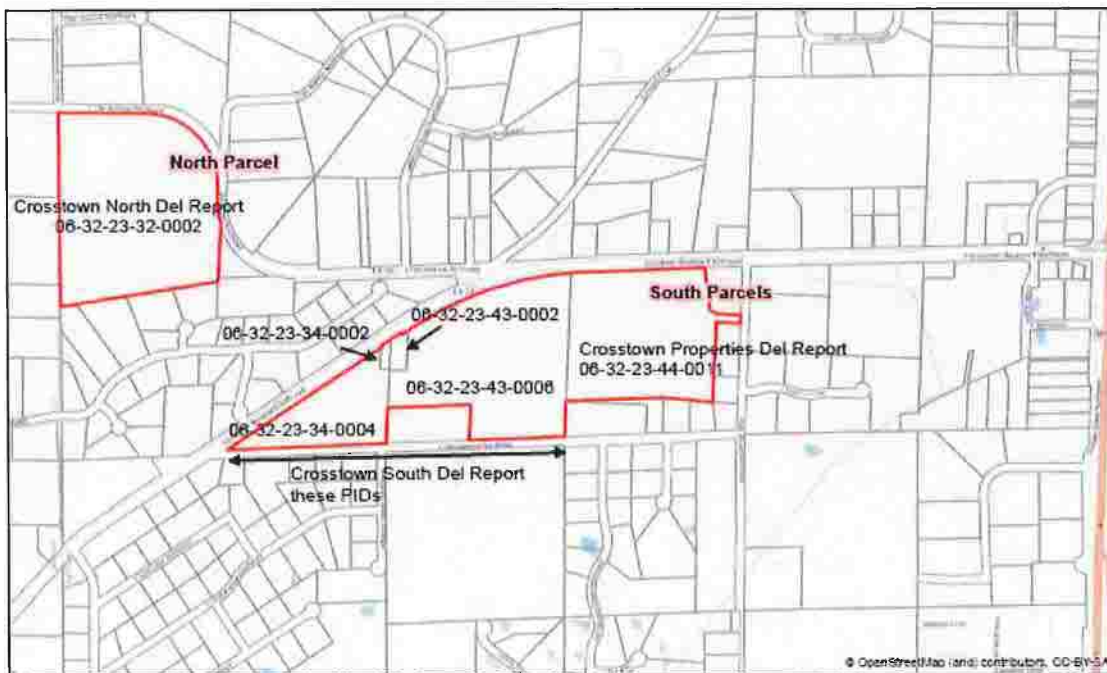
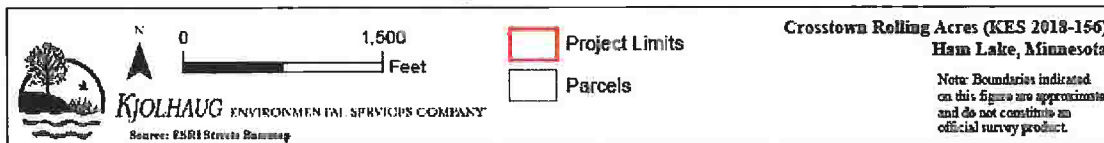


Figure 1 - Site Location





Findings of Fact and Decision Rationale for Endangered and Threatened Species Taking Permit #28536

Project: Crosstown Rolling Acres, Anoka County, MN
Applicant: Crosstown Development, Inc.

Date: April 27, 2020
Prepared By: Bridget Henning-Randa, Endangered Species Coordinator
Division of Ecological and Water Resources
Minnesota Department of Natural Resources

History of Permit Application

1. Crosstown Development, Inc. (“Applicant”) proposes to construct the Crosstown Rolling Acres residential development project (“Project”) in Section 6, T32N, R23W, Ham Lake, Anoka County, Minnesota.
2. Midwest Natural Resources conducted rare plant surveys on the project site in September 2017, October 2018, and August 2019, during which they located and assessed the health of 49 state-listed endangered butternut trees (*Juglans cinerea*).
3. On November 8, 2019, the DNR received from the Applicant’s contractor, Kjolhaug Environmental Services Company, Inc., an application for a Takings Permit on behalf of the Applicant for the taking of 49 state-listed endangered butternut (*Juglans cinerea*).

Justification and Scope of Proposed Taking

4. The Application proposes to develop 99.88 acres in the City of Ham Lake (“City”) into a single-family residential development.
5. The Application states that because the individual butternut on the north parcel and numerous individuals in the south parcels currently have butternut canker which will likely, over time, spread to nearby relatively healthy trees, complete avoidance of butternut trees was rejected as a feasible project alternative.
6. The Applicant rejects minimization because even though a small number of Butternut trees are currently in relatively good health and could be avoided with customized lot grading, these trees will likely succumb to canker in the future, and custom grading would still require work to occur in at least some of the root zone, which is a stressor that often leads to or is a factor in declined tree health and viability.
7. The Application proposes to take 49 butternut trees.
8. The impact will be direct destruction of 47 trees and indirect impact on 2 trees, which occur outside the grading limits.

Justification for Permit with Compensatory Mitigation

Crosstown Rolling Acres / Findings of Fact & Decision Rationale

9. *Juglans cinerea* (butternut) is a midsize to large tree that, in Minnesota, occurs in mesic hardwood forests. Until recently, it was a fairly common tree in southern Minnesota. The main issue facing butternut is the spread of the lethal fungal disease known as butternut canker, which has resulted in a massive die-off and the list of the species as endangered in Minnesota in 2013. There is no treatments for butternut canker and few trees are thought to be immune, but healthy and presumably resistant trees have been found growing adjacent to diseased trees. These trees could be extremely valuable in efforts to preserve the species.
10. Minn. Stat. § 84.0895 and Minn. R. 6212.1800 to 6212.2300 govern the taking of endangered or threatened species in Minnesota. Under this statute and the rules, the DNR may issue permits to applicants authorizing the take of such species under specified conditions.
11. Minn. Stat. § 84.0895, subd. 1, states that “a person may not take, import, transport, or sell any portion of an endangered species of wild animal or plant, ... except as provided in subdivisions 2 and 7.” Subdivision 7 authorizes the commissioner of natural resources to issue permits and prescribe conditions for the taking of endangered and threatened species of animals and plants under any of four conditions, including if “the act enhances the propagation or survival of the affected species” or “the social and economic benefits of the act outweigh the harm caused by it.”
12. Minn. R. 6212.1800, subp. 1 states that “[a] person may not take ... a threatened or endangered species of plant or animal without a permit from the commissioner.” Subpart 2 states that “[a] permit may not be issued unless the commissioner has first determined that the permitted act will not be detrimental to the species.”
13. Minn. R. 6212.2100 states that a permit for the taking of a threatened or endangered species of plant, animal, or insect, may be issued on prescribed conditions when the commissioner has determined that “the permitted act enhances the propagation or survival of the affected species” or “the social and economic benefits of the permitted act outweigh the harm caused by it, provided that the killing of a specimen for these purposes will be permitted only after all other alternatives have been evaluated and rejected.”
14. The DNR has determined that, under some circumstances where compensatory mitigation benefits the species as a whole, it is appropriate to condition a takings permit for a proposed project that involves the take of an endangered or threatened species on compensatory mitigation that provides a net benefit to the species. Consequently, when all other conditions found in statute and rule are met, a taking may be allowed, and where a condition of a permitted take is compensatory mitigation that benefits the species as a whole, a permit can be issued for the take of an endangered or threatened species.
15. The DNR concludes that the Project as currently proposed is a reasonable and necessary action that provides a social benefit to the public. The DNR finds that the Applicant has considered and evaluated reasonable alternatives for the Project, and cannot avoid the proposed take of this species of threatened plant.
16. The DNR has determined that the harm caused to butternut by the Project as currently proposed can be fully mitigated as set forth below.
17. With the implementation of compensatory mitigation as described below, the DNR concludes that the Project as currently proposed and mitigated will not be detrimental to Minnesota’s populations of buternut, but will enhance the conservation of these species in Minnesota. In addition, with the implementation of compensatory mitigation as described

Crosstown Rolling Acres / Findings of Fact & Decision Rationale

below, the social benefit of the Project outweighs the harm caused by the taking of the individual plants of this threatened species.

Valuation of Compensatory Mitigation for the Taking of Butternut

18. The Application request a permit to take 49 individual butternut trees, which have been assessed for their overall health and condition.
19. Compensatory mitigation will not be required for saplings or unhealthy trees.
20. Most of the trees are diseased or dying of butternut canker disease, but five of the individual trees have been given a rating of good (no apparent problems) and 15 trees are rated as fair (minor problems but, still relatively healthy), indicating they may have considerable conservation value to the species as a whole.
21. Two of the trees in good health are over 5 inches DBH and 11 of the trees in fair health are over 5 inches DBH, indicating they are potentially healthy and reproductive.
22. Minnesota's restitution rules (M.R. Parts 6133.0060-0070) place value on individuals of endangered animal species at \$2000 per individual. Using this guidance, and acknowledging that this guidance is intended to be applied to animals rather than plants, the DNR proposes that compensatory mitigation for the proposed taking be calculated as 13 healthy and reproductive individuals x \$2,000 per individual = \$26,000.

Based upon the above Findings of Fact, the DNR makes the following:

CONCLUSIONS

23. The DNR concludes that in order to attain a net benefit to Minnesota's population of butternut, it is necessary to condition any takings permit issued under Minn. Stat. § 84.095, subd. 7 on mitigation for that taking. The DNR concludes that compensatory mitigation totaling \$26,000 is reasonable.
24. The DNR concludes that pursuant to Minn. Stat. § 84.095, subd. 1 and Subd. 7 and Minn. R. 6212.1800, subp. 1 and Minn. R. 6212.2100 C, the social and economic benefits of the Project as mitigated outweigh the harm caused by the Project to the butternut as described herein.
25. DNR will issue an Endangered and Threatened Species Taking Permit for the Project that requires a compensatory mitigation payment to the DNR of \$26,000 to be used by the DNR to fund research, surveys, land protection, and/or land management activities contributing to the recovery and eventual delisting of endangered and threatened plants in Minnesota, and so create a net benefit to this species in Minnesota.



DNR RESPONSE TO COVID-19: For details on adjustments to DNR services, visit this webpage (https://www.dnr.state.mn.us/covid-19). For information on the state's response, visit the Minnesota COVID response webpage (https://mn.gov/covid19/).



[\(/index.html\)](#)

Search for...

Home (/index.html) > Nature (/nr/index.html) > ETSC (/ets/index.html) > Rare Species Guide (/rsg/index.html) >

Juglans cinerea L.

But

MN Status:
endangered
Federal Status:
none
CITES:
none
USFS:
none

Group:
vascular plant
Class:
Dicotyledoneae

Order:
Juglandales

Family:
Juglandaceae

Life Form:
tree

Longevity:
perennial

Leaf Duration:
deciduous

Water Regime:
terrestrial

Soils:
loam

Light:
partial shade

Habitats:
[Mesic Hardwood Forest](#)

Best time to see:



JAN

FEB

MAR

APR

MAY

Basis for Listing

Until recently, *Juglans cinerea* (butternut) was a fairly common forest tree in the eastern half of the United States and Canada. Unfortunately, *J. cinerea* is very susceptible to butternut canker (*Sirococcus clavigignenti-juglandacearum*), a lethal fungal disease of unknown origin. The disease was first reported in Wisconsin in 1967 (Renlund 1971) and reached southeastern Minnesota in the 1970s. It has since spread throughout the state and throughout the North American range of *J. cinerea*. The fungus attacks the cambium, leaving a blackened elliptical area of dead cambium just beneath the bark (Ostry et al. 1996 (http://www.na.fs.fed.us/spfo/pubs/howtos/ht_but/ht_but.htm)). When the number of cankers becomes too great, the branch or trunk is essentially girdled and dies. There is no known treatment or control for butternut canker, and few if any trees are immune. This tragic situation has progressed to the point where nearly all *J. cinerea* in Minnesota are now dead or dying. The species was listed as special concern in 1996. A status of endangered was considered at that time, but it was hoped the disease could be abated. Since that time, it has become clear the threat has not and will not likely be abated in the foreseeable future. For that reason, its status was elevated to endangered in 2013.

Description

Juglans cinerea is a midsize to large tree, with moderately thick gray to gray-brown bark. The leaves are alternate on the stem and pinnately compound, with 11-17 individual leaflets. The male flowers are borne on a slender catkin, and the female flowers are on a short spike. The fruit is an ellipsoidal nut enclosed in a thin husk covered with sticky glandular hairs.

Habitat

Juglans cinerea occurs in northern and central mesic hardwood forests (http://files.dnr.state.mn.us/natural_resources/npc/mesic_hardwood/lmf_mh_system.pdf) PDF in the Laurentian Mixed Forest Province (http://files.dnr.state.mn.us/natural_resources/npc/mesic_hardwood/lmf_mh_system.pdf) PDF and southern mesic hardwood forests (http://files.dnr.state.mn.us/natural_resources/npc/mesic_hardwood/ebf_mh_system.pdf) PDF in the Eastern Broadleaf Forest Province (<https://www.dnr.state.mn.us/ecs/222/index.html>). The species occurs in loamy or alluvial soils or in sandy soil if the water table is relatively near the surface. It is perhaps most common on river terraces elevated several feet or more above the active floodplain, where it is protected from siltation and flood scouring (Smith 2008) (https://www.dnr.state.mn.us/books/trees_shrubs_slides.html).

Biology / Life History

Until recently, *J. cinerea* was a fairly common tree in southern Minnesota, though it never occurred as a dominant tree. It was seen as scattered individuals or in small groves, typically with *Quercus* spp. (oaks), *Prunus serotina* (black cherry), *Tilia americana* (basswood), *Acer saccharum* (sugar maple), or *Ulmus americana* (American elm). *Juglans cinerea* is intolerant of shade, so it rarely reproduces in mature forests, unless there is a substantial gap in the canopy to provide light for seedlings. The greatest recorded age of a *J. cinerea* in Minnesota is 221 years (Hale 1996), which is probably near its maximum potential.

Conservation / Management

The main issue facing the conservation of *J. cinerea* is not loss of habitat but the spread of the lethal fungal disease known as butternut canker (http://www.na.fs.fed.us/spfo/pubs/howtos/ht_but/ht_but.htm). In some areas, healthy and presumably resistant trees have been found growing adjacent to diseased trees. These trees, if they are truly resistant, could be extremely valuable in efforts to



Map Interpretation (maps)



Map Interpretation (maps)

JUN

preserve the species, and they must not be cut down. Cuttings and seeds taken from disease resistant trees and propagated in t plantations could potentially provide stock for landscaping purposes and possibly for reestablishing wild populations. It is also ac to consider augmenting existing populations by direct planting of seeds taken from healthy trees.

JUL

Best Time to Search

AUG

When searching for *J. cinerea*, it is useful to know that the bark is distinctive and, with a little practice, can be recognized at a of the year. The flowers appear in mid-spring, and the fruits develop throughout the summer, though neither flowers nor fruits a needed for identification.

SEP

OCT

Conservation Efforts in Minnesota

NOV

Since 1992, there has been a moratorium on the harvest of healthy *J. cinerea* trees from state lands administered by the DNR D Forestry. While the moratorium does not prohibit the salvage or harvest of infected or dying trees; in some cases, it may be app to leave such trees for research purposes.

DEC

Authors/Revisions

Welby Smith (MNDNR), 2008 and 2018

(Note: all content ©MNDNR)



Questions?

Call 651-296-6157 or 888-MINNDNR (646-6367)

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Tom Collins

From: Henning-Randa, Bridget (DNR) <Bridget.Henning-Randa@state.mn.us>
Sent: Wednesday, May 6, 2020 9:01 AM
To: JEFFREY Stalberger; Tom Collins
Cc: Joyal, Lisa (DNR); Horton, Becky (DNR); Wolff, Jan Shaw (DNR); Melissa Barrett
Subject: RE: Crosstown Rolling Acres, Ham Lake - Permit for Take (Butternut)

Hi Jeff,

See my responses below in red.

Thanks,
Bridget

From: JEFFREY Stalberger <stally68@msn.com>
Sent: Tuesday, May 5, 2020 1:02 PM
To: Henning-Randa, Bridget (DNR) <Bridget.Henning-Randa@state.mn.us>; Tom Collins <TCollins@rfcengineering.com>
Cc: Joyal, Lisa (DNR) <lisa.joyal@state.mn.us>; Horton, Becky (DNR) <becky.horton@state.mn.us>; Wolff, Jan Shaw (DNR) <jan.wolff@state.mn.us>; Melissa Barrett <melissa@kjolhaugenv.com>
Subject: Re: Crosstown Rolling Acres, Ham Lake - Permit for Take (Butternut)

Hi Bridget, I do agree to the terms but have a couple questions.

- 1) I would like to wait for payment till we have preliminary plat approval from the city of Ham Lake if that is OK? Maybe 3 to 4 months. **The permit will not be effective until the payment is made. If you don't need the permit in hand, we can wait to issue the permit until you are prepared to pay. Once the invoice is issued there maybe fees, if it is not paid within a month, so it may be wise to wait. Let me know what you prefer.**
- 2) Do I sign this draft for the agreement or wait till you send the other? **Wait for the final draft signed by DNR before you sign.**
- 3) If, when we are done designing and its determined that we will not impact some of the trees can the cost be reduced to reflect that? **We could stop this permit and you could apply for a permit with different design that would have less impact and less mitigation costs. But if you are needing the permit now, I do not think we can make a refund after you have paid. At least we have never done so in the past. I will check with leadership to get a definitive answer on giving refunds.**

Thanks, Jeff Stalberger

From: Henning-Randa, Bridget (DNR) <Bridget.Henning-Randa@state.mn.us>
Sent: Tuesday, May 5, 2020 2:57 PM
To: JEFFREY Stalberger <stally68@msn.com>; Tom Collins <TCollins@rfcengineering.com>
Cc: Joyal, Lisa (DNR) <lisa.joyal@state.mn.us>; Horton, Becky (DNR) <becky.horton@state.mn.us>; Wolff, Jan Shaw (DNR) <jan.wolff@state.mn.us>; Melissa Barrett <melissa@kjolhaugenv.com>
Subject: RE: Crosstown Rolling Acres, Ham Lake - Permit for Take (Butternut)

Hello Tom and Jeff,

Please, see the attached draft permit. I am sending you these as a courtesy so that you can anticipate the permit terms and make appropriate preparations. You can expect the final permit shortly, hopefully today.

Take care.
Bridget

Bridget Henning-Randa, Ph.D.

Minnesota Endangered Species Consultant | Division of Ecological and Water Resources

Pronouns: she/her/hers

Minnesota Department of Natural Resources

500 Lafayette Rd., Box 25

St. Paul, MN 55155

Email: bridget.henning-randa@state.mn.us

<http://www.dnr.state.mn.us/eco/nhnrp>



From: Tom Collins <TCollins@rfcengineering.com>

Sent: Monday, May 4, 2020 4:30 PM

To: Henning-Randa, Bridget (DNR) <Bridget.Henning-Randa@state.mn.us>

Cc: Baker, Richard (DNR) <richard.baker@state.mn.us>; Joyal, Lisa (DNR) <lisa.joyal@state.mn.us>; Horton, Becky (DNR) <becky.horton@state.mn.us>; Norris, Jane C (DNR) <jane.norris@state.mn.us>; JEFFREY Stalberger <stally68@msn.com>; Melissa Barrett <melissa@kjolhaugenv.com>

Subject: RE: Crosstown Rolling Acres, Ham Lake - Permit for Take (Butternut)

Hi Bridget,

Please let us know the status of the requested permit to take when determined. The schedule is getting pretty tight. Thanks.

Tom

From: Henning-Randa, Bridget (DNR) [<mailto:Bridget.Henning-Randa@state.mn.us>]

Sent: Friday, April 24, 2020 10:02 AM

To: Tom Collins

Cc: Baker, Richard (DNR); Joyal, Lisa (DNR); Horton, Becky (DNR); Norris, Jane C (DNR); JEFFREY Stalberger; Melissa Barrett

Subject: RE: Crosstown Rolling Acres, Ham Lake - Permit for Take (Butternut)

Hello Mr. Collins,

Apologies for the delay. We have been going through staff changes, but I am currently working on this permit. I will be discussing this project and hope to have a decision to you next week. Our upper level management is largely consumed with the state's COVID response, but I will convey to them the urgency.

Thank you,
Bridget

Bridget Henning-Randa, PhD

Minnesota Endangered Species Coordinator | Division of Ecological and Water Resources
Pronouns: she/her/hers

Minnesota Department of Natural Resources

500 Lafayette Rd., Box 25

St. Paul, MN 55155

Email: bridget.henning-randa@state.mn.us

<http://www.dnr.state.mn.us/eco/nhnrp>



From: Tom Collins <TCollins@rfcengineering.com>

Sent: Friday, April 24, 2020 7:13 AM

To: Baker, Richard (DNR) <richard.baker@state.mn.us>; Joyal, Lisa (DNR) <lisa.joyal@state.mn.us>

Cc: Horton, Becky (DNR) <becky.horton@state.mn.us>; Norris, Jane C (DNR) <jane.norris@state.mn.us>;

JEFFREY Stalberger <stally68@msn.com>; Melissa Barrett <melissa@kjolhaugenv.com>

Subject: RE: Crosstown Rolling Acres, Ham Lake - Permit for Take (Butternut)

This message may be from an external email source.

Do not select links or open attachments unless verified. Report all suspicious emails to Minnesota IT Services Security Operations Center.

Hi Richard and Lisa,

I am the City Engineer for Ham Lake, and I am reaching out to request a determination on the butternut tree permit to take for the proposed Crosstown Rolling Acres project in Ham Lake. The application was submitted to the two of you on November 8, 2019. Richard's December 2nd email states that "The DNR received the subject Application for a Permit to Take from Melissa Barrett on 11/18/19. As stated on the DNR website, a permit will be issued or denied within 150 days of receipt." The application is beyond 150 days, so does that mean that the taking is approved? My understanding is that Melissa has not received a response to her email from last Friday. Becky and Jane – can you assist in this to determine the status of the permit? The developer's consultants need the determination to complete the design and the clock is ticking on being able to get approvals and construct this construction season.

Tom Collins

RFC Engineering, Inc.

13635 Johnson Street

Ham Lake, Minnesota 55304

P: (763) 862-8000

F: (763) 862-8042

From: Melissa Barrett <melissa@kjolhaugenv.com>
Sent: Friday, April 17, 2020 11:56 AM
To: Baker, Richard (DNR) <richard.baker@state.mn.us>
Cc: JEFFREY Stalberger <stally68@msn.com>; Joyal, Lisa (DNR) <lisa.joyal@state.mn.us>
Subject: RE: Crosstown Rolling Acres, Ham Lake - Permit for Take (Butternut)

Hello Richard,

I hope you are doing well. We believe that the 150 review period for this application has now past. Prior to investing too much time in plans and regulatory coordination, Jeff Stallberger would like to know the results of DNR review of this site and proposed taking of Butternut trees.

Are you able to provide an update on review of the application? Thank you.

Melissa Lauterbach-Barrett
Kjolhaug Environmental Services
2500 Shadywood Road, Suite 130
Orono, MN 55331
Office: 952-401-8757
Cell: 952-388-3752

From: Baker, Richard (DNR) <richard.baker@state.mn.us>
Sent: Thursday, January 23, 2020 12:36 PM
To: Melissa Barrett <melissa@kjolhaugenv.com>
Cc: JEFFREY Stalberger <stally68@msn.com>; Joyal, Lisa (DNR) <lisa.joyal@state.mn.us>
Subject: RE: Crosstown Rolling Acres, Ham Lake - Permit for Take (Butternut)

Thanks for your email, Melissa.

I have yet to review the Crosstown Rolling Acres permit application.

Rich Baker

Richard J. Baker
Minnesota Endangered Species Coordinator | Division of Ecological and Water Resources

Minnesota Department of Natural Resources
500 Lafayette Rd., Box 25
St. Paul, MN 55155
Phone: 651-259-5073
Fax: 651-296-1811
Email: richard.baker@state.mn.us
<http://www.dnr.state.mn.us/eco/nhnrp>

 **DEPARTMENT OF
NATURAL RESOURCES**



From: Melissa Barrett <melissa@kjolhaugenv.com>
Sent: Wednesday, January 22, 2020 2:06 PM
To: Baker, Richard (DNR) <richard.baker@state.mn.us>; JEFFREY Stalberger <stally68@msn.com>; Joyal, Lisa (DNR)

<lisa.joyal@state.mn.us>

Subject: RE: Crosstown Rolling Acres, Ham Lake - Permit for Take (Butternut)

Richard,

I just wanted to check in to see if you or Lisa have been able to review this application, and to see if you had any questions or comments, or if you think additional information will be required.

Thank you.

Melissa Barrett

Certified Wetland Delineator, Licensed Soil Scientist
Kjolhaug Environmental Services, Inc.
2500 Shadywood Road, Suite 130
Orono, MN 55331
Office: (952) 401-8757
Cell: (952) 388-3752

From: Baker, Richard (DNR) <richard.baker@state.mn.us>

Sent: Monday, December 2, 2019 10:25 AM

To: JEFFREY Stalberger <stally68@msn.com>; Melissa Barrett <melissa@kjolhaugenv.com>; Joyal, Lisa (DNR) <lisa.joyal@state.mn.us>

Subject: RE: Crosstown Rolling Acres, Ham Lake - Permit for Take (Butternut)

Mr. Stalberger,

The DNR received the subject Application for a Permit to Take from Melissa Barrett on 11/18/19. As stated on the DNR website, a permit will be issued or denied within 150 days of receipt.

Please get back to me with any questions or concerns.

Rich Baker

Richard J. Baker

Minnesota Endangered Species Coordinator | Division of Ecological and Water Resources

Minnesota Department of Natural Resources

500 Lafayette Rd., Box 25
St. Paul, MN 55155
Phone: 651-259-5073
Fax: 651-296-1811
Email: richard.baker@state.mn.us
<http://www.dnr.state.mn.us/eco/nhnrp>



From: JEFFREY Stalberger [<mailto:stally68@msn.com>]

Sent: Tuesday, November 26, 2019 1:11 PM

To: Melissa Barrett <melissa@kjolhaugenv.com>; Baker, Richard (DNR) <richard.baker@state.mn.us>; Joyal, Lisa (DNR)

<lisa.joyal@state.mn.us>

Subject: Re: Crosstown Rolling Acres, Ham Lake - Permit for Take (Butternut)

Hi Richard and Lisa, I wanted to check to see how things are going on the below taking permit in the Ham Lake subdivision. If its possible can you give me an idea what we would be looking at for timing on this?

Thank you

Happy Thanksgiving

Jeff Stalberer

From: Melissa Barrett <melissa@kjolhaugenv.com>

Sent: Friday, November 8, 2019 10:54 PM

To: Baker, Richard (DNR) <richard.baker@state.mn.us>; Joyal, Lisa (DNR) <lisa.joyal@state.mn.us>

Cc: Stally68@msn.com <Stally68@msn.com>; Mark Kjolhaug <mkjol@kjolhaugenv.com>

Subject: Crosstown Rolling Acres, Ham Lake - Permit for Take (Butternut)

Richard and Lisa,

Attached is an application to take butternut trees with the construction of residential project in Ham Lake.

Also Attached is MNR's GIS data for the observed trees.

I will send a hard copy of this application to Richard in the mail, as Scott Millburn indicated that some emails may not be getting to your inbox.

Thank you.

Melissa Barrett

Certified Wetland Delineator, Licensed Soil Scientist

Kjolhaug Environmental Services, Inc.

2500 Shadywood Road, Suite 130

Orono, MN 55331

Office: (952) 401-8757

Cell: (952) 388-3752

TITLE SHEET

~of~ CROSTOWN ROLLING ACRES THIRD ADDITION
 ~for~ CROSTOWN DEVELOPMENT, LLC
 17404 WARD LAKE DRIVE NW
 ANDOVER, MN 55304
 (612) 799-1471

PONDING CALCULATIONS AND STORM SEWER DESIGN BY PLOWE ENGINEERING, INC.



PLOWE ENGINEERING, INC.
 6776 LAKE DRIVE
 SUITE 110
 LINO LAKES, MN 55014
 PHONE: (651) 361-8210
 FAX: (651) 361-8701

SITE PLANNING & ENGINEERING

I HEREBY CERTIFY THAT THIS PLAN WAS PREPARED BY ME OR UNDER MY DIRECT SUPERVISION AND THAT I AM A DULY LICENSED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF MINNESOTA.

Adam Givkel
 ADAM GIVKEL
 DATE: 03.31.21 LIC. NO. 43963

NO.	DATE	DESCRIPTION	BY
1	11-2-20	CITY & CCWD REVIEW COMMENTS	
2	1-13-21	CITY & CCWD REVIEW COMMENTS	
3	2-26-21	CITY & CCWD REVIEW COMMENTS	
4	3-26-21	CITY COMMENTS	
5	3-31-21	CITY COMMENTS	

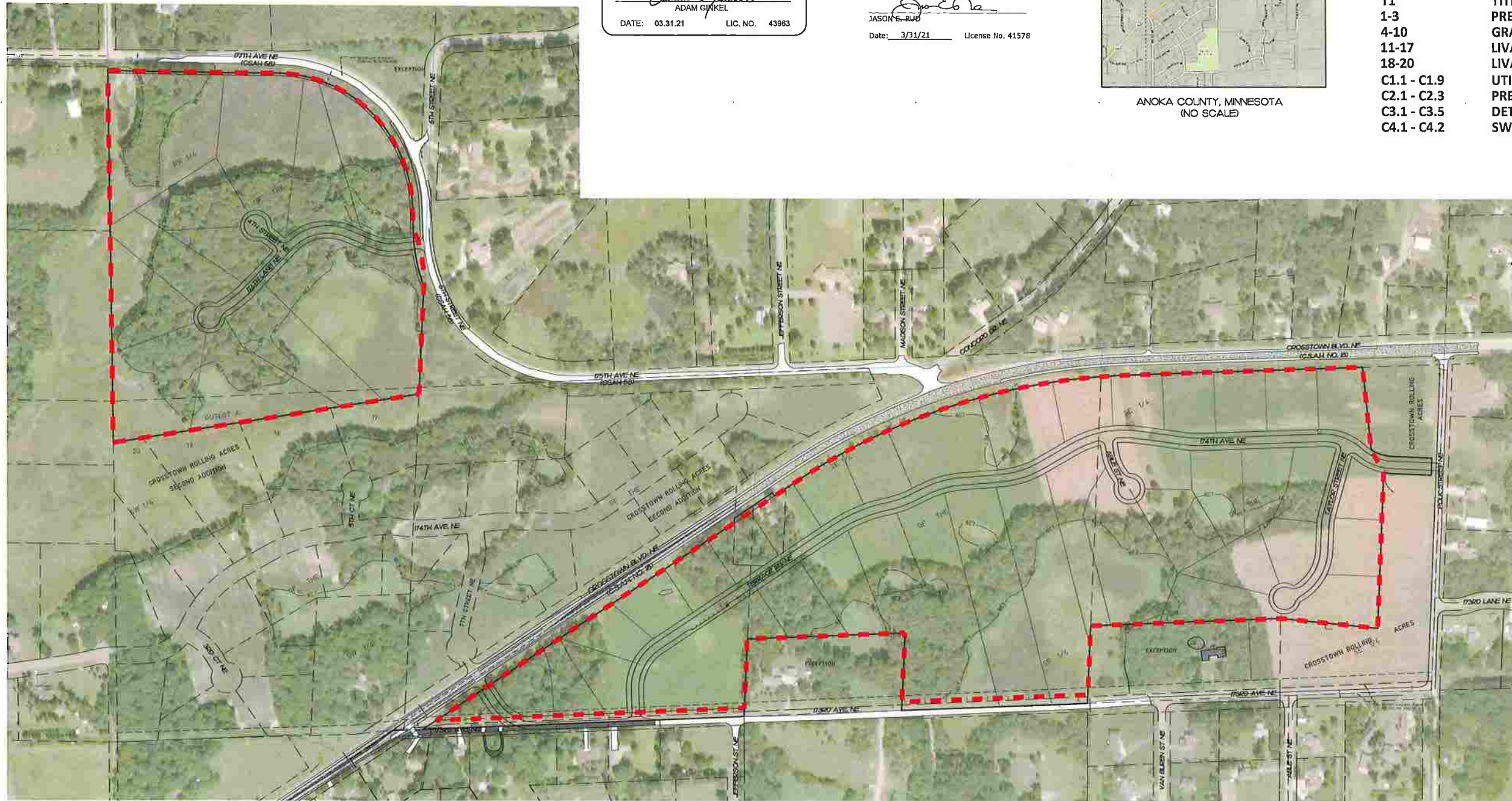
I hereby certify that this survey, plan or report was prepared by me or under my direct supervision and that I am a duly Registered Land Surveyor under the laws of the State of Minnesota.

Jason E. Rud
 JASON E. RUD
 Date: 3/31/21 License No. 41578

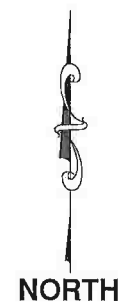
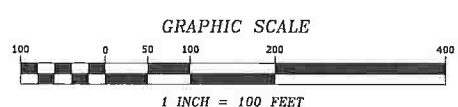


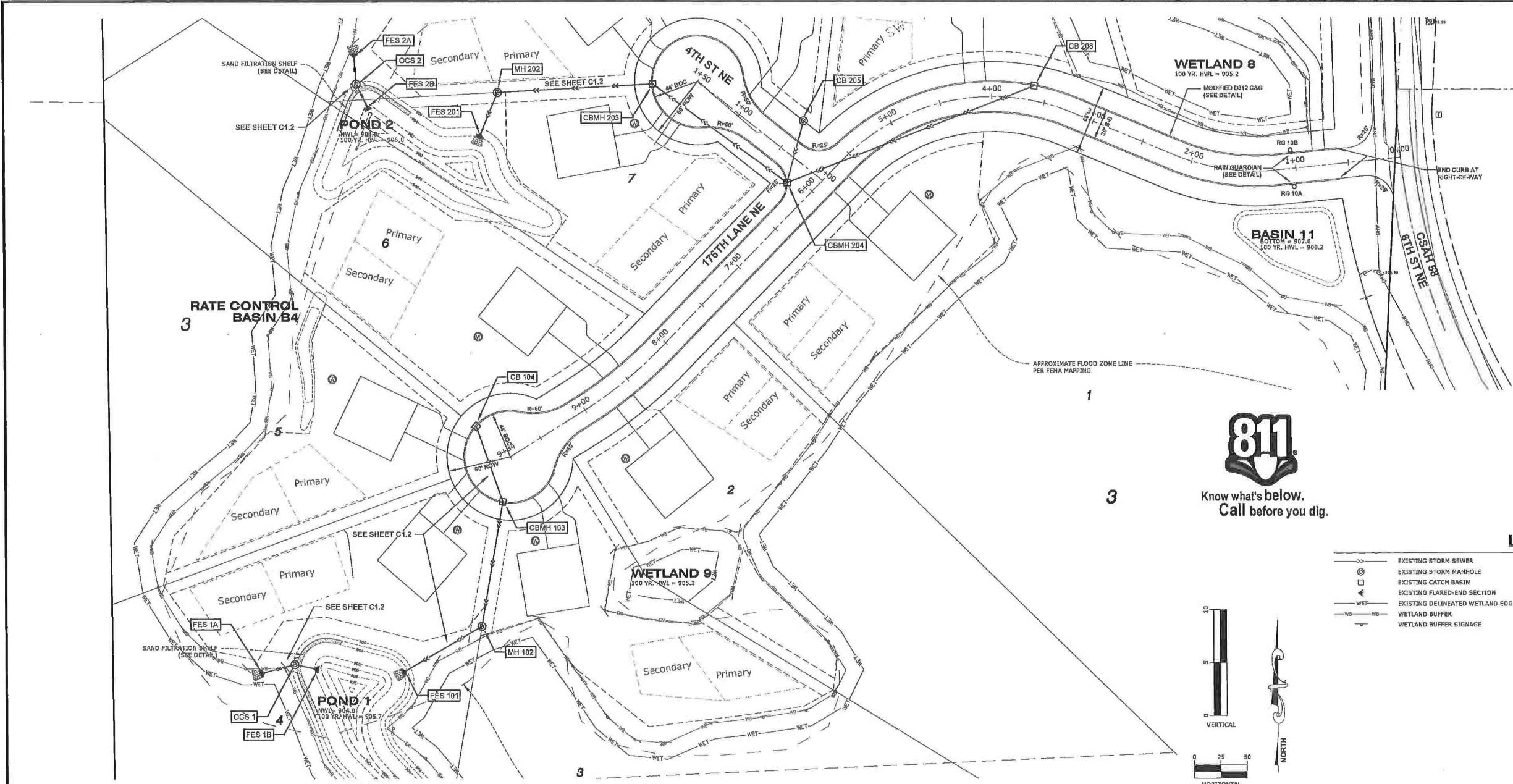
SHEET INDEX

SHEET	DESCRIPTION
T1	TITLE SHEET
1-3	PRELIMINARY PLAT
4-10	GRADING PLAN
11-17	LIVABILITY PLAN
18-20	LIVABILITY CHART
C1.1 - C1.9	UTILITY PLANS - PLAN/PROFILE
C2.1 - C2.3	PRELIMINARY TURN LANE DETAILS
C3.1 - C3.5	DETAILS
C4.1 - C4.2	SWPPP



E. G. RUD & SONS, INC.
 EST. 1977
 Professional Land Surveyors
 6776 Lake Drive NE, Suite 110
 Lino Lakes, MN 55014
 Tel. (651) 361-8200 Fax (651) 361-8701





GENERAL NOTES

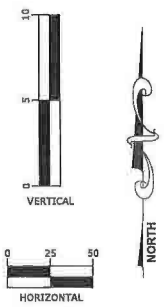
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STORM SEWER NOTES

1. FIELD VERIFY SIZE, ELEVATION, AND LOCATION OF EXISTING STORM SEWER AND NOTIFY ENGINEER OF ANY DISCREPANCIES PRIOR TO ANY INSTALLATIONS.
2. STORM SEWER SHALL BE:
 - (A) REINFORCED CONCRETE PIPE (RCP) ANSI C76 WITH R-4 GASKETS.
 - (B) HDPE PIPE SHALL MEET THE REQUIREMENTS OF AASHTO M24, TYPE B WITH WATER TIGHT CONNECTIONS. USE SANDGRANULAR MATERIAL FOR BACKFILLING AND COMPACTION OF HDPE/PVC PIPE IN ACCORDANCE WITH THE REQUIREMENTS OF ASTM D321.
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4. TRASH GUARDS ARE REQUIRED FOR ALL FLARED-END SECTIONS LESS THAN 48" IN DIAMETER.
5. PROVIDE CLASS III RIP-RAP W/ FILTER FABRIC AT ALL PIPE OUTLETS.
6. TIE LAST THREE SECTION OF CONCRETE PIPE, INCLUDING APRON, FOR CONCRETE PIPES LESS THAN 48" IN DIAMETER.
7. STORM SEWER LENGTHS INCLUDE THE LAYING LENGTH OF THE FLARED-END SECTION. LAYING LENGTH OF FLARED-END SECTION TO BE DEDUCTED FROM PAYMENT LENGTH OF PIPE.
8. ARCH PIPE JOINTS MUST BE WRAPPED WITH FABRIC OR OTHER PROTECTION TO PREVENT SEDIMENT FROM ENTERING PIPE.
9. SEE SHEET C3.1 FOR STRUCTURE SCHEDULE.

CURB & BITUMINOUS NOTES

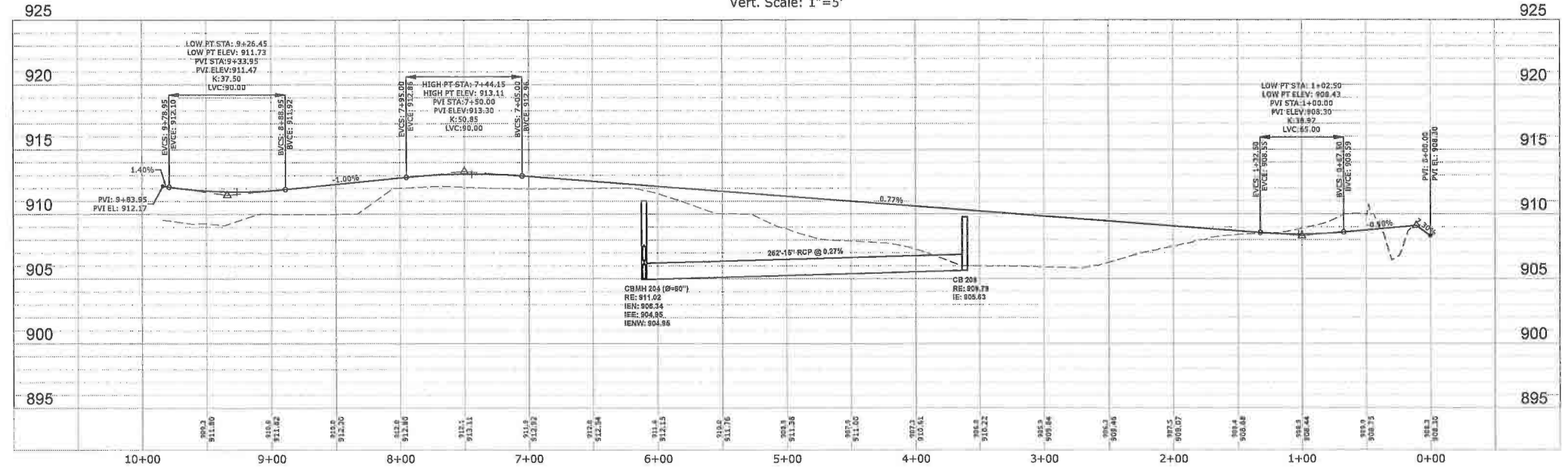
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LEGEND

- | | | | |
|---------|----------------------------------|---------|--------------------------------|
| --->--- | EXISTING STORM SEWER | --->--- | PROPOSED STORM SEWER PIPE |
| ⊙ | EXISTING STORM MANHOLE | ⊙ | PROPOSED DRAIN TILE & CLEANOUT |
| ⊠ | EXISTING CATCH BASIN | ⊙ | PROPOSED STORM MANHOLE |
| --->--- | EXISTING FLARED-END SECTION | ⊠ | PROPOSED CATCH BASIN |
| --->--- | EXISTING DELINEATED WETLAND EDGE | --->--- | PROPOSED FLARED-END SECTION |
| --->--- | WETLAND BUFFER | --->--- | PROPOSED RAIN GUARDIAN |
| --->--- | WETLAND BUFFER SIGNAGE | --->--- | PROPOSED RIP-RAP |

176th Ln NE
Horz. Scale: 1"=50'
Vert. Scale: 1"=5'



6776 LAKE DRIVE
SUITE 110
LINO LAKES, MN 55014
PHONE: (865) 361-8210
FAX: (865) 361-8701

DRAWN BY: AG CHECK BY: CVP
JOB NO: 19-1882 DATE: 7-16-20

NO.	DATE	DESCRIPTION
1	11-20-19	CCWD & CITY COMMENTS
2	12-24-19	CCWD & CITY COMMENTS
3	2-26-21	CCWD & CITY COMMENTS
4	2-26-21	CITY COMMENTS
5		
6		
7		
8		

HEREBY CERTIFY THAT THIS PLAN WAS PREPARED BY A DULY LICENSED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF MINNESOTA.

Adam Samuel
ADAM SAMUEL
DATE: 03.26.2021 LIC. NO. 43983

CROSSTOWN ROLLING ACRES
THIRD ADDITION
CITY OF HAMI LAKE, MN
PLAN PROFILE - 176TH LANE NE
PREPARED FOR: CROSSTOWN DEVELOPMENT LLC

SHEET
C1.1



Know what's below.
Call before you dig.

GENERAL NOTES

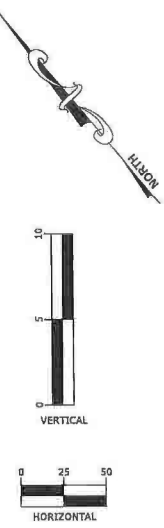
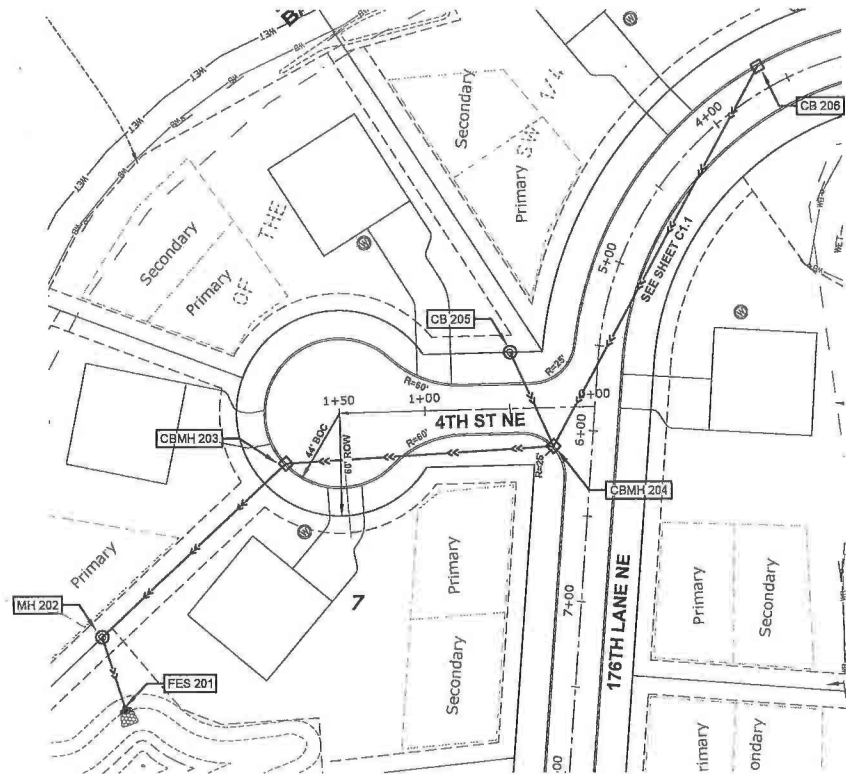
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STORM SEWER NOTES

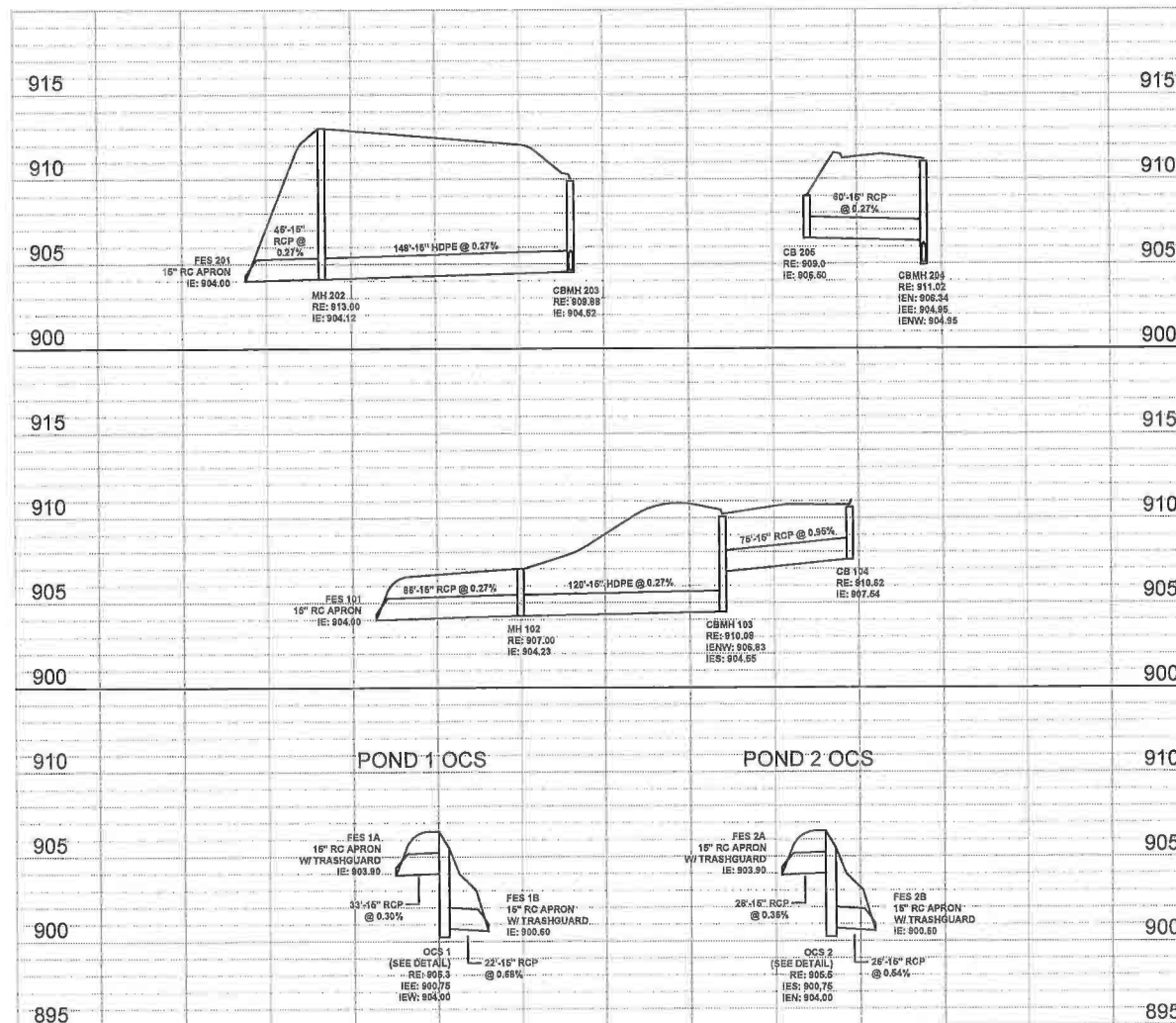
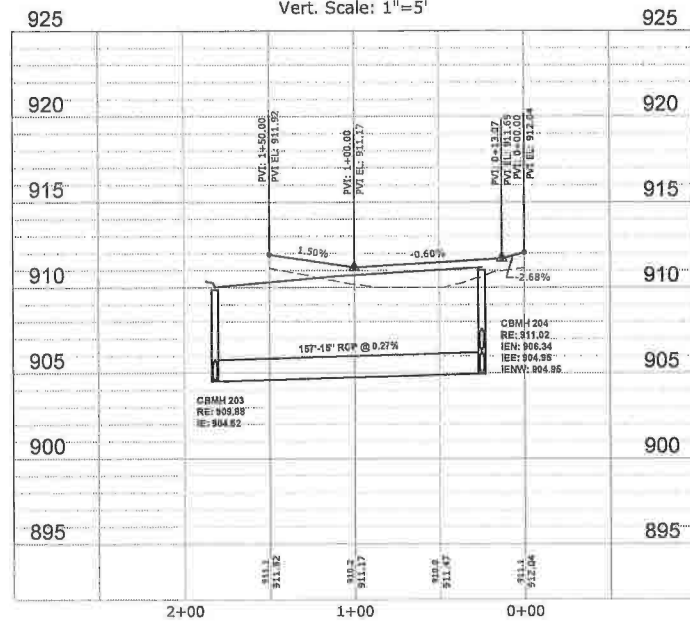
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2. STORM SEWER SHALL BE:
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 - (B) HDPE PIPE SHALL MEET THE REQUIREMENTS OF AASHTO M284, TYPE S WITH WATERTIGHT CONNECTIONS. USE SAND/GRAVEL MATERIAL FOR BACKFILLING AND COMPACTION OF HDPE/PIPE IN ACCORDANCE WITH THE REQUIREMENTS OF ASTM 2321.
3. DO NOT BACKFILL CATCH BASINS UNTIL FABRIC WRAP IS INSPECTED BY CITY.
4. TRASH GUARDS ARE REQUIRED FOR ALL FLARED-END SECTIONS LESS THAN 48" IN DIAMETER.
5. PROVIDE CLASS II RIP-RAP W/ FILTER FABRIC AT ALL PIPE OUTLETS.
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4th St NE
Horz. Scale: 1"=50'
Vert. Scale: 1"=5'



6776 LAKE DRIVE
SUITE 110
LINO LAKES, MN 55014

PHONE: (651) 351-8210
FAX: (651) 351-8701

DRAWN BY: AG
CHECK BY: CWP

JOB NO: 19-1882
DATE: 7-16-20

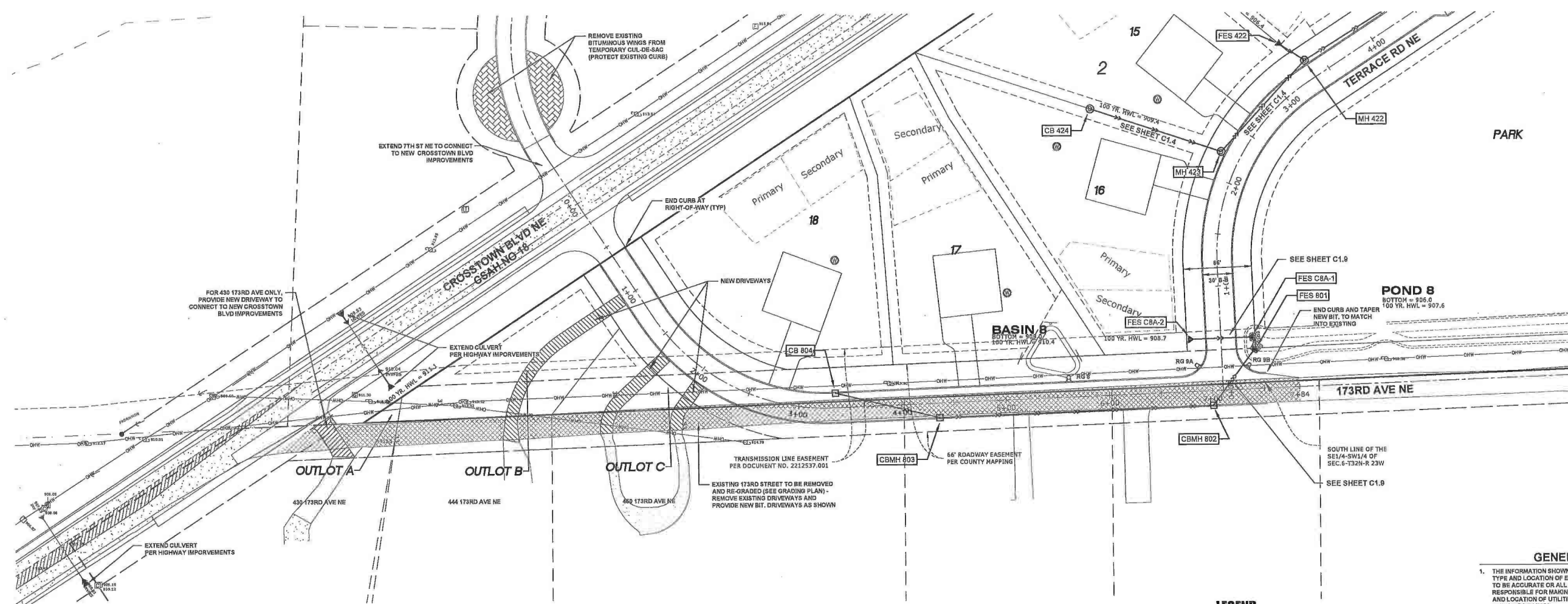
NO.	DATE	DESCRIPTION
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2	1-15-21	CCWD & CITY COMMENTS
3	2-26-21	CITY COMMENTS
4	3-26-21	CITY COMMENTS
5		
6		
7		
8		

HEREBY CERTIFY THAT THIS PLAN WAS PREPARED BY ME OR UNDER MY DIRECT SUPERVISION AND UNDER A SEAL AND IN ACCORDANCE WITH THE LAWS OF THE STATE OF MINNESOTA.

Adam Cinkal
ADAM CINKAL
DATE: 03.26.2021 LIC. NO. 43993

CROSSTOWN ROLLING ACRES
THIRD ADDITION
CITY OF HAM LAKE, MN
PLAN PROFILE - 4TH ST NE
PREPARED FOR: CROSSTOWN DEVELOPMENT LLC

SHEET
C1.2



PARK

POND 8
BOTTOM = 908.0
100 YR. HWL = 907.6

BASIN 8
BOTTOM = 909.7
100 YR. HWL = 908.7

OUTLOT A

OUTLOT B

OUTLOT C

FOR 430 173RD AVE ONLY,
PROVIDE NEW DRIVEWAY TO
CONNECT TO NEW CROSSTOWN
BLVD IMPROVEMENTS

REMOVE EXISTING
BITUMINOUS WINGS FROM
TEMPORARY CURB-S&G
(PROTECT EXISTING CURB)

END CURB AT
RIGHT-OF-WAY (TYP)

EXISTING 173RD STREET TO BE REMOVED
AND RE-GRADED (SEE GRADING PLAN) -
REMOVE EXISTING DRIVEWAYS AND
PROVIDE NEW BIT. DRIVEWAYS AS SHOWN

TRANSMISSION LINE EASEMENT
PER DOCUMENT NO. 2212537.001

66' ROADWAY EASEMENT
PER COUNTY MAPPIING

SOUTH LINE OF THE
SE1/4-SW1/4 OF
SEC.8-T32N-R 23W
SEE SHEET C1.9

EXTEND CULVERT
PER HIGHWAY IMPROVEMENTS

EXTEND CULVERT
PER HIGHWAY IMPROVEMENT

SEE SHEET C1.9
FES C8A-1
FES 801
END CURB AND TAPER
NEW BIT. TO MATCH
INTO EXISTING

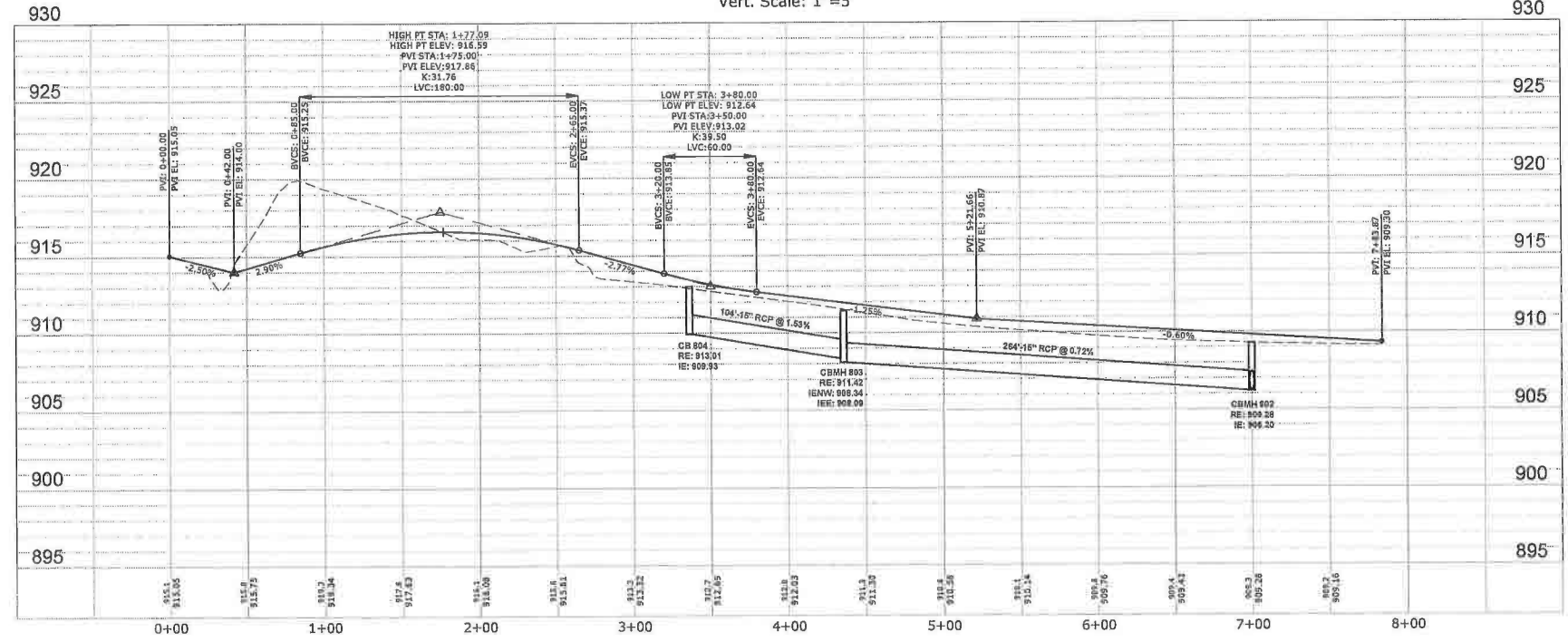
SEE SHEET C1.4
FES 422
SEE SHEET C1.4
MH 423

SEE SHEET C1.4
MH 424

LEGEND

- EXISTING STORM SEWER
- PROPOSED STORM SEWER PIPE
- ⊙ EXISTING STORM MANHOLE
- ⊙ PROPOSED DRAINILE & CLEANOUT
- ⊙ EXISTING CATCH BASIN
- ⊙ EXISTING FLARED-END SECTION
- ⊙ PROPOSED STORM MANHOLE
- ⊙ EXISTING Delineated WETLAND EDGE
- ⊙ PROPOSED CATCH BASIN
- ⊙ WETLAND BUFFER
- ⊙ PROPOSED FLARED-END SECTION
- ⊙ WETLAND BUFFER SIGNAGE
- ⊙ PROPOSED RAIN GUARDIAN
- ⊙ PROPOSED RIP-RAP

173rd Ave NE
Horz. Scale: 1"=50'
Vert. Scale: 1"=5'



GENERAL NOTES

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STORM SEWER NOTES

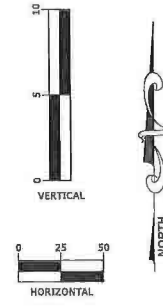
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Know what's below.
Call before you dig.



6778 LAKE DRIVE
SUITE 110
LIND LAKES, MN 55014

PHONE: (861) 361-8210
FAX: (861) 361-8701

DRAWN BY: AG
CHECK BY: CWP

JOB NO: 19-1882
DATE: 7-16-20

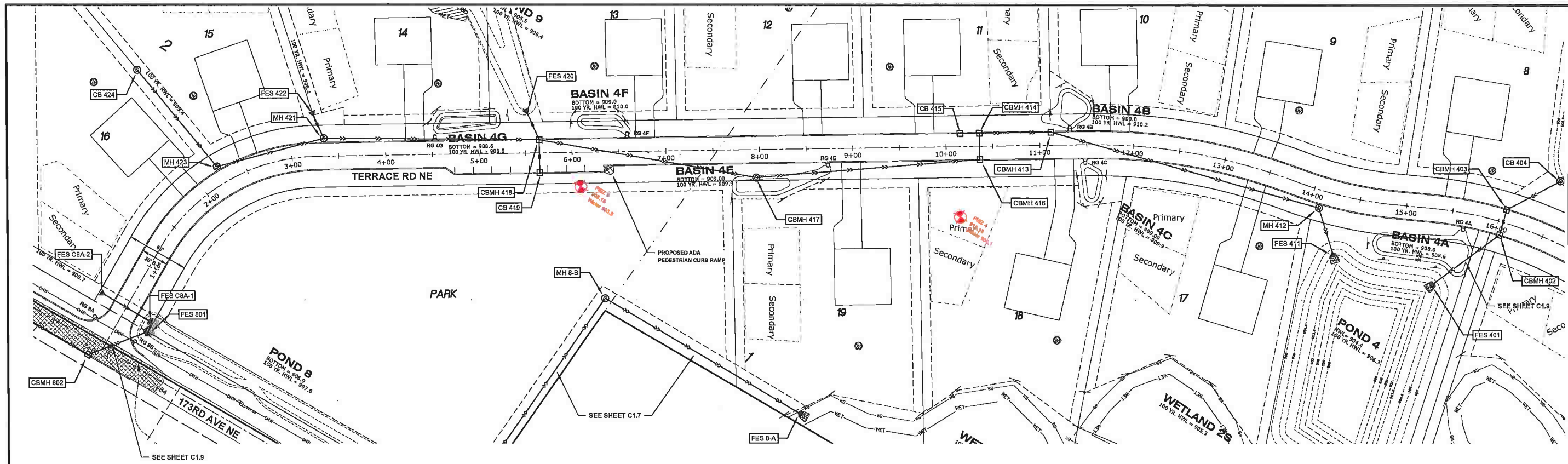
NO.	DATE	DESCRIPTION
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2	1-15-21	CCWD & CITY COMMENTS
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6		
7		
8		

I HEREBY CERTIFY THAT THIS PLAN WAS PREPARED BY ME OR UNDER MY DIRECT SUPERVISION AND IN ACCORDANCE WITH THE LAWS OF THE STATE OF MINNESOTA.

ADAM GAVEL
DATE: 03.26.2021 LIC. NO. 43963

CROSSTOWN ROLLING ACRES
THIRD ADDITION
CITY OF HAW LAKE, MN
PLAN PROFILE - 173RD AVE NE
PREPARED FOR: CROSSTOWN DEVELOPMENT LLC

SHEET
C1.3



PLowe
ENGINEERING, INC.

6776 LAKE DRIVE
SUITE 110
LINO LAKES, MN 55014

PHONE: (651) 361-8210
FAX: (651) 361-8701

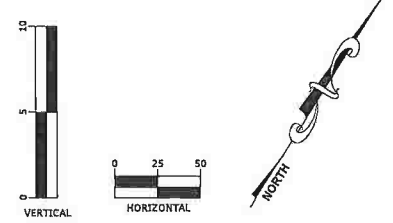
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JOB NO: 19-1882
DATE: 7-15-20

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7		
8		

HEREBY CERTIFY THAT THIS PLAN WAS PREPARED BY A DAILY LICENSED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF MINNESOTA.

Adam Spindel
ADAM SPINDEL
LIC. NO. 43963
DATE: 03.31.2021



LEGEND

	EXISTING STORM SEWER		PROPOSED STORM SEWER PIPE
	EXISTING STORM MANHOLE		PROPOSED DRAIN TILE & CLEANOUT
	EXISTING CATCH BASIN		PROPOSED STORM MANHOLE
	EXISTING FLARED-END SECTION		PROPOSED CATCH BASIN
	EXISTING DELINEATED WETLAND EDGE		PROPOSED FLARED-END SECTION
	WETLAND BUFFER		PROPOSED RAIN GUARDIAN
	WETLAND BUFFER SIGNAGE		PROPOSED RIP-RAP

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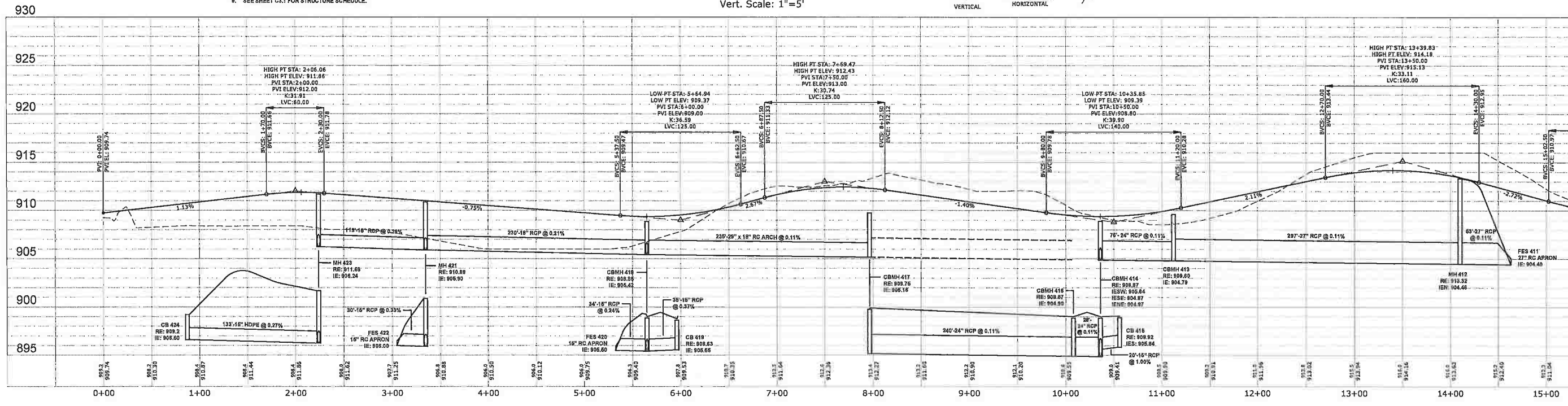
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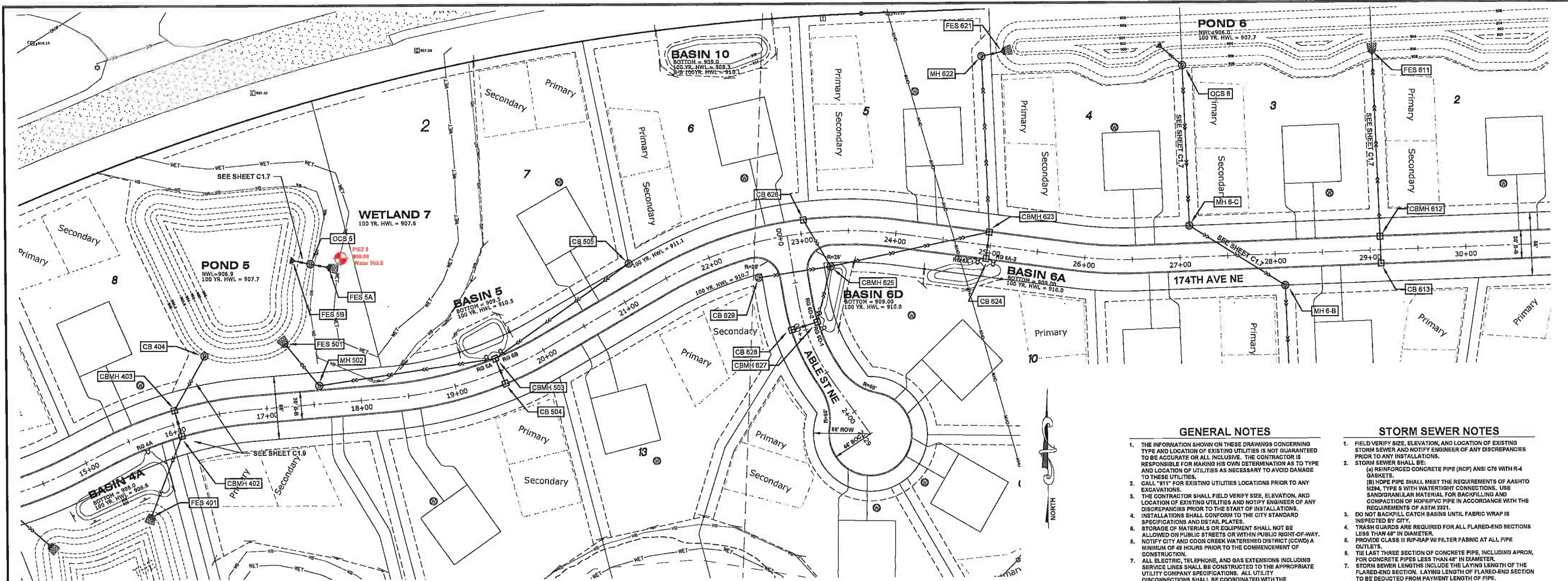
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Terrace Rd NE
Horz. Scale: 1"=50'
Vert. Scale: 1"=5'



**CROSSTOWN ROLLING ACRES
THIRD ADDITION**
CITY OF HAM LAKE, MN
PLAN PROFILE - TERRACE RD NE
PREPARED FOR: CROSSTOWN DEVELOPMENT LLC

SHEET
C1.4



LEGEND

- EXISTING STORM SEWER
- EXISTING STORM MANHOLE
- EXISTING CATCH BASIN
- EXISTING FLARED-END SECTION
- EXISTING DELINEATED WETLAND EDGE
- WETLAND BUFFER
- WETLAND BUFFER SIGNAGE
- PROPOSED STORM SEWER PIPE
- PROPOSED DRAIN TILE & CLEANOUT
- PROPOSED STORM MANHOLE
- PROPOSED CATCH BASIN
- PROPOSED FLARED-END SECTION
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Know what's below.
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Terrace Rd NE
Horz. Scale: 1"=50'
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GENERAL NOTES

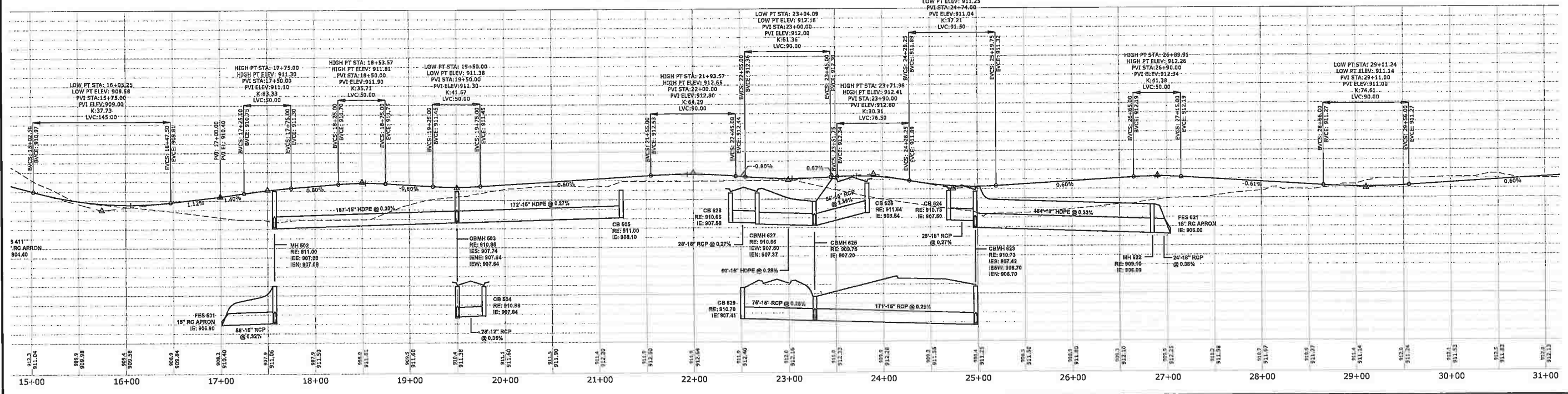
- THE INFORMATION SHOWN ON THESE DRAWINGS CONCERNING TYPE AND LOCATION OF EXISTING UTILITIES IS NOT GUARANTEED TO BE ACCURATE OR ALL INCLUSIVE. THE CONTRACTOR IS RESPONSIBLE FOR MAKING HIS OWN DETERMINATION AS TO TYPE AND LOCATION OF UTILITIES AS NECESSARY TO AVOID DAMAGE TO THESE UTILITIES.
- CALL "811" FOR EXISTING UTILITIES LOCATIONS PRIOR TO ANY EXCAVATION.
- THE CONTRACTOR SHALL FIELD VERIFY SIZE, ELEVATION, AND LOCATION OF EXISTING UTILITIES AND NOTIFY ENGINEER OF ANY DISCREPANCIES PRIOR TO THE START OF INSTALLATIONS.
- INSTALLATIONS SHALL CONFORM TO THE CITY STANDARD SPECIFICATIONS AND DETAIL PLATES.
- STORAGE OF MATERIALS OR EQUIPMENT SHALL NOT BE ALLOWED ON PUBLIC STREETS OR WITHIN PUBLIC RIGHT-OF-WAY.
- NOTIFY CITY AND COON CREEK WATERSHED DISTRICT (CCWD) A MINIMUM OF 48 HOURS PRIOR TO THE COMMENCEMENT OF CONSTRUCTION.
- ALL ELECTRIC, TELEPHONE, AND GAS EXTENSIONS INCLUDING SERVICE LINES SHALL BE CONSTRUCTED TO THE APPROPRIATE UTILITY COMPANY SPECIFICATIONS. ALL UTILITY DISCONNECTIONS SHALL BE COORDINATED WITH THE APPROPRIATE UTILITY COMPANY.

STORM SEWER NOTES

- FIELD VERIFY SIZE, ELEVATION, AND LOCATION OF EXISTING STORM SEWER AND NOTIFY ENGINEER OF ANY DISCREPANCIES PRIOR TO ANY INSTALLATIONS.
- STORM SEWER SHALL BE:
 - REINFORCED CONCRETE PIPE (RCP) ANSI C78 WITH R-4 GASKETS.
 - HDPE PIPE SHALL MEET THE REQUIREMENTS OF AASHTO M24, TYPE S WITH WATER TIGHT CONNECTIONS. USE SAND/GRANULAR MATERIAL FOR BACKFILLING AND COMPACTION OF HDPE/PPVC PIPE IN ACCORDANCE WITH THE REQUIREMENTS OF ASTM D221.
- DO NOT BACKFILL CATCH BASINS UNTIL FABRIC WRAP IS INSPECTED BY CITY.
- TRASH GUARDS ARE REQUIRED FOR ALL FLARED-END SECTIONS LESS THAN 48" IN DIAMETER.
- PROVIDE CLASS III RIP-RAP W/ FILTER FABRIC AT ALL PIPE OUTLETS.
- TIE LAST THREE SECTION OF CONCRETE PIPE, INCLUDING APRON, FOR CONCRETE PIPES LESS THAN 48" IN DIAMETER.
- STORM SEWER LENGTHS INCLUDE THE LAYING LENGTH OF THE FLARED-END SECTION. LAYING LENGTH OF FLARED-END SECTION TO BE DEDUCTED FROM PAYMENT LENGTH OF PIPE.
- ARCH PIPE JOINTS MUST BE WRAPPED WITH FABRIC OR OTHER PROTECTION TO PREVENT SEDIMENT FROM ENTERING PIPE.
- SEE SHEET C3.1 FOR STRUCTURE SCHEDULE.

CURB & BITUMINOUS NOTES

- REMOVAL AND DISPOSAL OF EXISTING STREET MATERIALS AS REQUIRED FOR CONSTRUCTION IS CONSIDERED INCIDENTAL.
- ALL MATCH POINTS AND PAVEMENT PATCHES TO BE SAW-CUT AT FULL DEPTH.
- RESTORE DISTURBED STREET TO EXISTING OR BETTER SECTION.
- BACKFILLING OF CURB IS INCIDENTAL TO CURB INSTALLATION.



6776 LAKE DRIVE
SUITE 110
LINO LAKES, MN 56014
PHONE: (855) 361-8210
FAX: (855) 361-8701

DRAWN BY: CHECK BY:
AG CWP
JOB NO: DATE:
19-1892 7-16-20

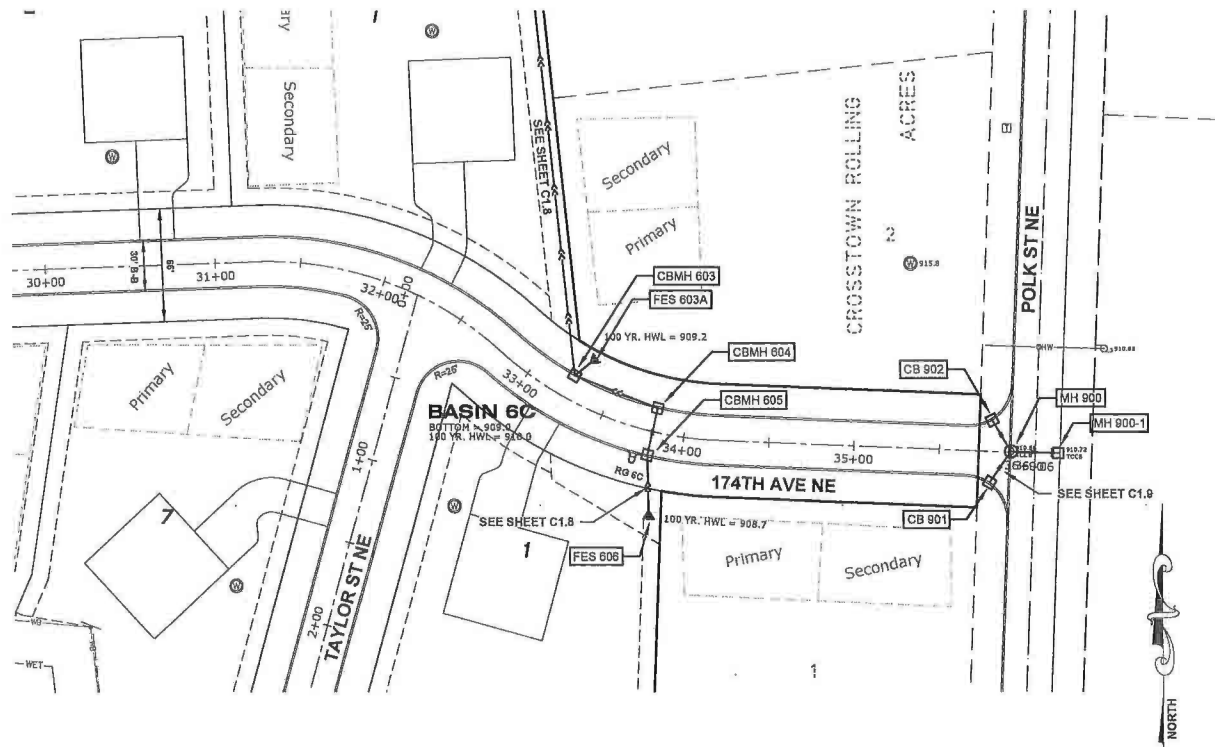
NO.	DATE	DESCRIPTION
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2	1-15-21	CCWD & CITY COMMENTS
3	2-25-21	CCWD & CITY COMMENTS
4	3-24-21	CITY COMMENTS
5	3-24-21	CITY COMMENTS
6		
7		
8		

HEREBY CERTIFY THAT THIS PLAN WAS PREPARED BY ME OR UNDER MY DIRECT SUPERVISION AND THAT I AM A DULY LICENSED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF MINNESOTA.

Adam Grinkel
ADAM GRINKEL
DATE: 03.31.2021 LIC. NO. 43963

CROSSTOWN ROLLING ACRES
THIRD ADDITION
CITY OF HAM LAKE, MN
PLAN PROFILE - TERRACE ST NE & 174TH AVE NE
PREPARED FOR: CROSSTOWN DEVELOPMENT LLC

SHEET
C1.5



GENERAL NOTES

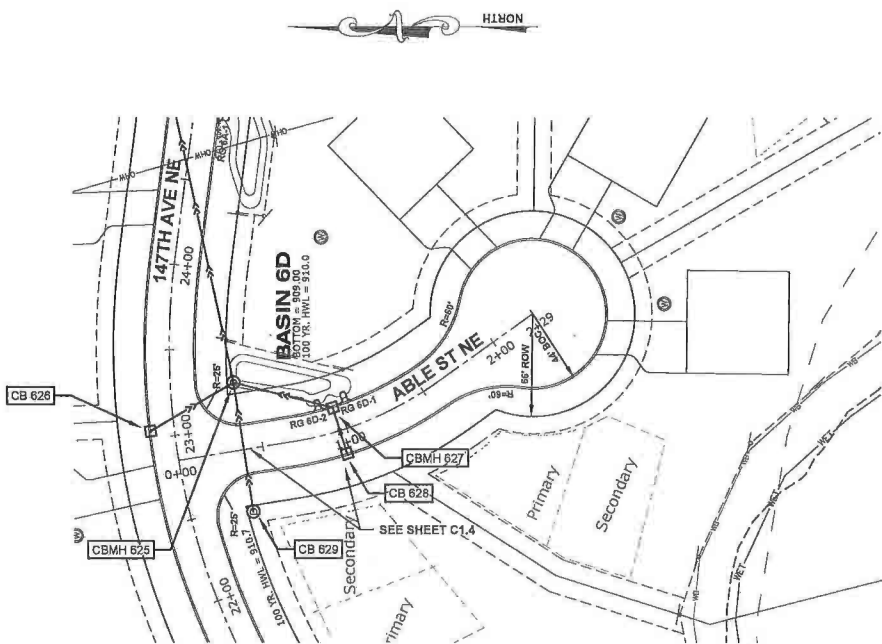
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5. STORAGE OF MATERIALS OR EQUIPMENT SHALL NOT BE ALLOWED ON PUBLIC STREETS OR WITHIN PUBLIC RIGHT-OF-WAY.
6. NOTIFY CITY AND COON CREEK WATERSHED DISTRICT (CCWD) A MINIMUM OF 48 HOURS PRIOR TO THE COMMENCEMENT OF CONSTRUCTION.
7. ALL ELECTRIC, TELEPHONE, AND GAS EXTENSIONS INCLUDING SERVICE LINES SHALL BE CONSTRUCTED TO THE APPROPRIATE UTILITY COMPANY SPECIFICATIONS. ALL UTILITY DISCONNECTIONS SHALL BE COORDINATED WITH THE APPROPRIATE UTILITY COMPANY.

STORM SEWER NOTES

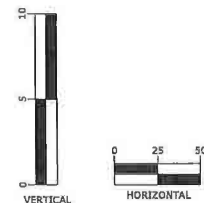
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 - (B) HDPE PIPE SHALL MEET THE REQUIREMENTS OF AASHTO M24, TYPE 8 WITH WATERTIGHT CONNECTIONS. USE SAND/GRANULAR MATERIAL FOR BACKFILLING AND COMPACTION OF HDPE/PVC PIPE IN ACCORDANCE WITH THE REQUIREMENTS OF ASTM 2321.
3. DO NOT BACKFILL CATCH BASINS UNTIL FABRIC WRAP IS INSPECTED BY CITY.
4. TRASH GUARDS ARE REQUIRED FOR ALL FLARED-END SECTIONS LESS THAN 48" IN DIAMETER.
5. PROVIDE CLASS III RIP-RAP W/ FILTER FABRIC AT ALL PIPE OUTLETS.
6. TIE LAST THREE SECTION OF CONCRETE PIPE, INCLUDING APRON, FOR CONCRETE PIPES LESS THAN 48" IN DIAMETER.
7. STORM SEWER LENGTHS INCLUDE THE LAYING LENGTH OF THE FLARED-END SECTION. LAYING LENGTH OF FLARED-END SECTION TO BE DEDUCTED FROM PAYMENT LENGTH OF PIPE.
8. ARCH PIPE JOINTS MUST BE WRAPPED WITH FABRIC OR OTHER PROTECTION TO PREVENT SEDIMENT FROM ENTERING PIPE.
9. SEE SHEET C3.1 FOR STRUCTURE SCHEDULE.

CURB & BITUMINOUS NOTES

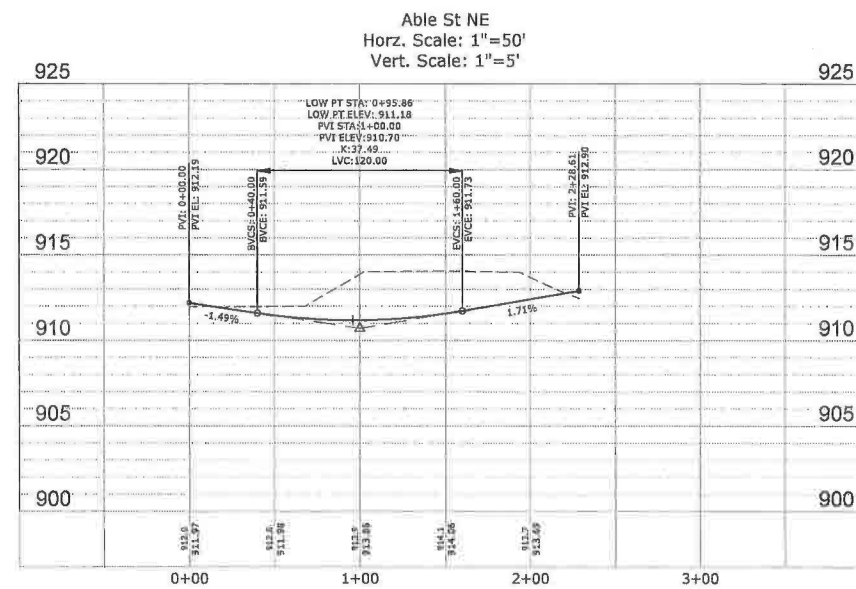
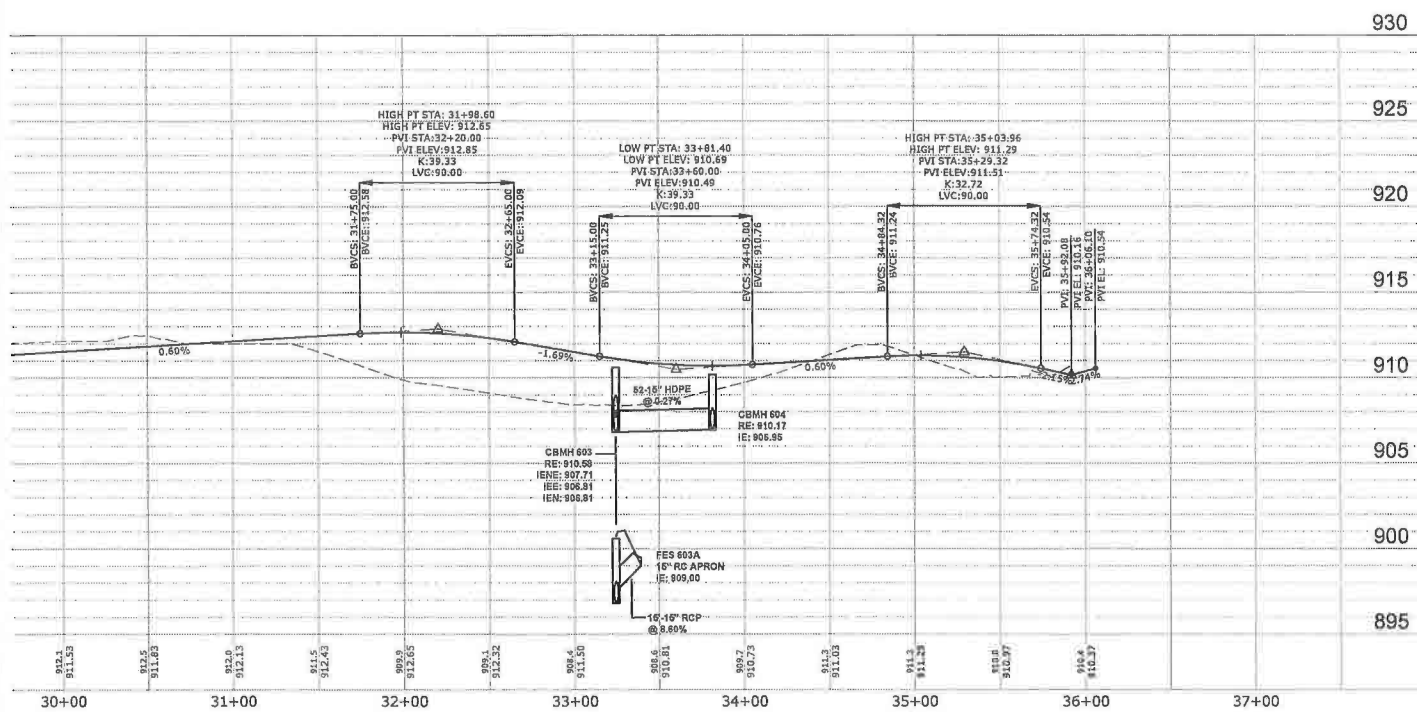
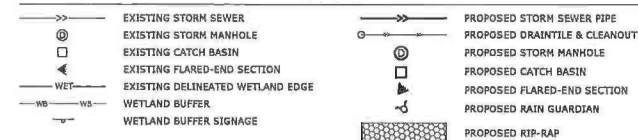
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2. ALL MATCH POINTS AND PAVEMENT PATCHES TO BE SAW-CUT AT FULL DEPTH.
3. RESTORE DISTURBED STREET TO EXISTING OR BETTER SECTION.
4. BACKFILLING OF CURB IS INCIDENTAL TO CURB INSTALLATION.



Know what's below.
Call before you dig.



LEGEND



PLOWE ENGINEERING, INC.
6776 LAKE DRIVE SUITE 110 LINO LAKES, MN 55014
PHONE: (651) 351-8210 FAX: (651) 351-8701

DRAWN BY: AG CHECK BY: CWP
JOB NO: 19-1882 DATE: 7-16-20

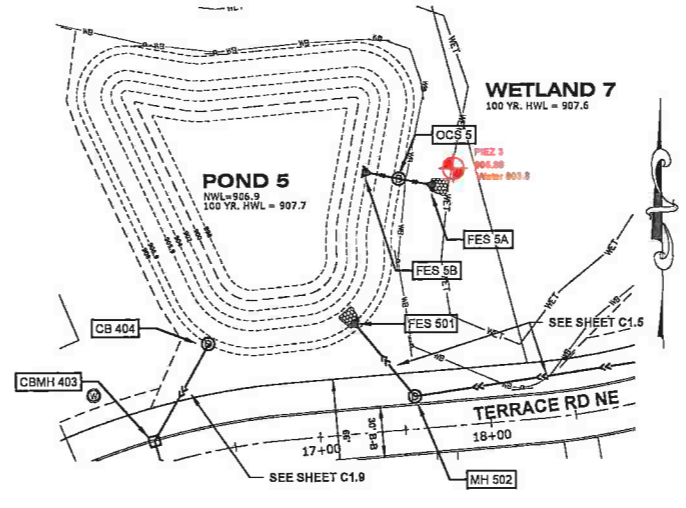
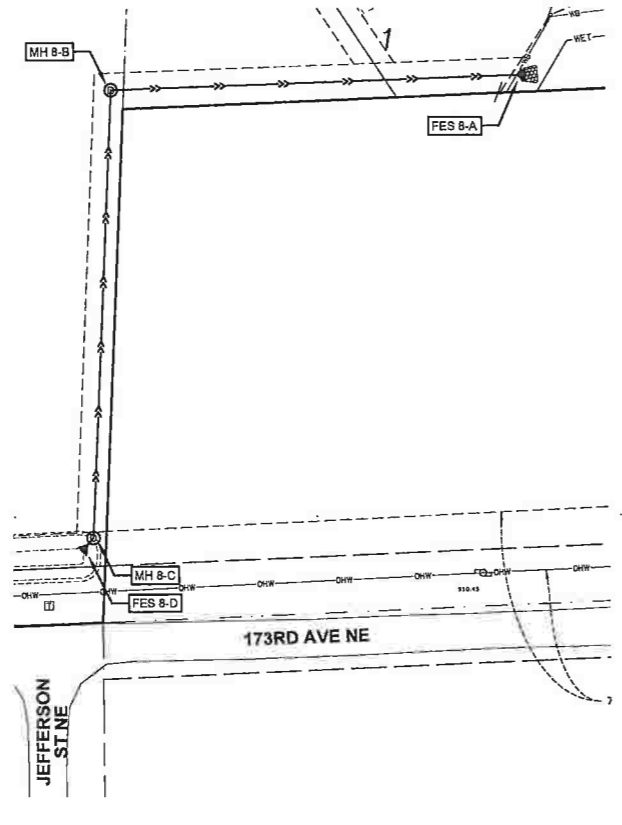
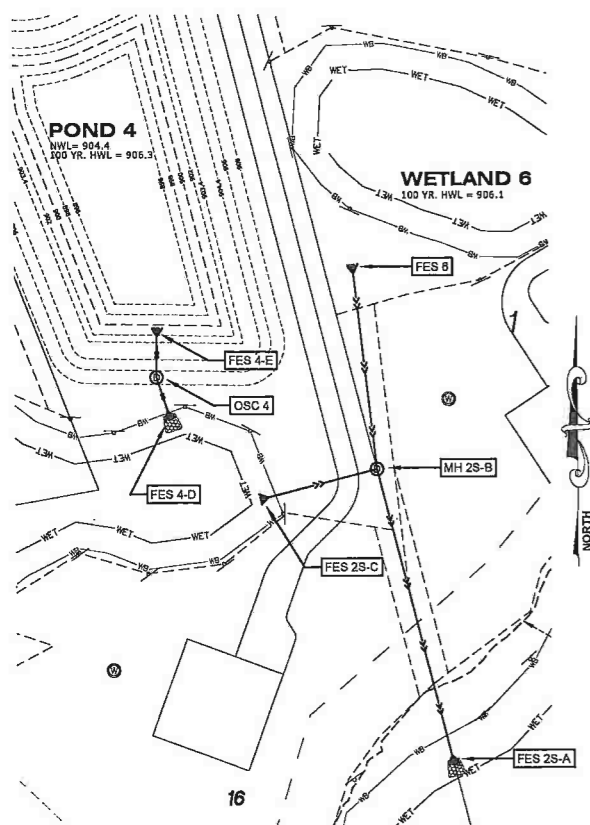
NO.	DATE	DESCRIPTION
1	11-2-20	CCWD & CITY COMMENTS
2	1-15-21	CCWD & CITY COMMENTS
3	1-15-21	CITY COMMENTS
4	3-26-21	CITY COMMENTS
5		
6		
7		
8		

HEREBY CERTIFY THAT THIS PLAN WAS PREPARED BY ME OR UNDER MY CLOSE PERSONAL SUPERVISION AND THAT I AM A DULY LICENSED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF MINNESOTA.

Adam Spakel
ADAM SPAKEL
DATE: 03.26.2021 LIC. NO. 43963

CROSSTOWN ROLLING ACRES THIRD ADDITION
CITY OF HAW LAKE, MN
PLAN PROFILE - 174TH ST NE & ABLE ST NE
PREPARED FOR: CROSSTOWN DEVELOPMENT LLC

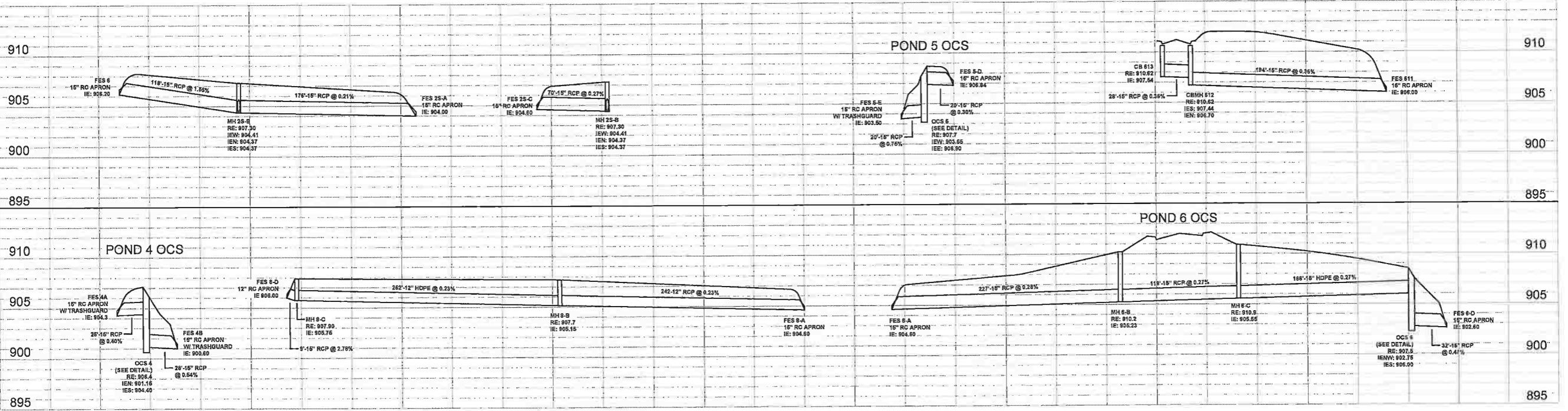
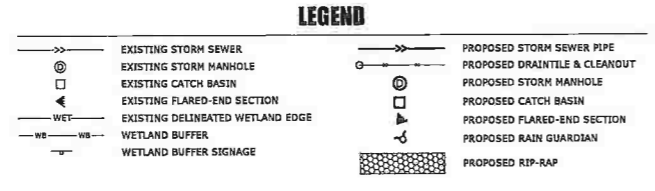
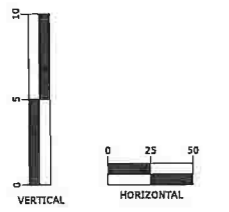
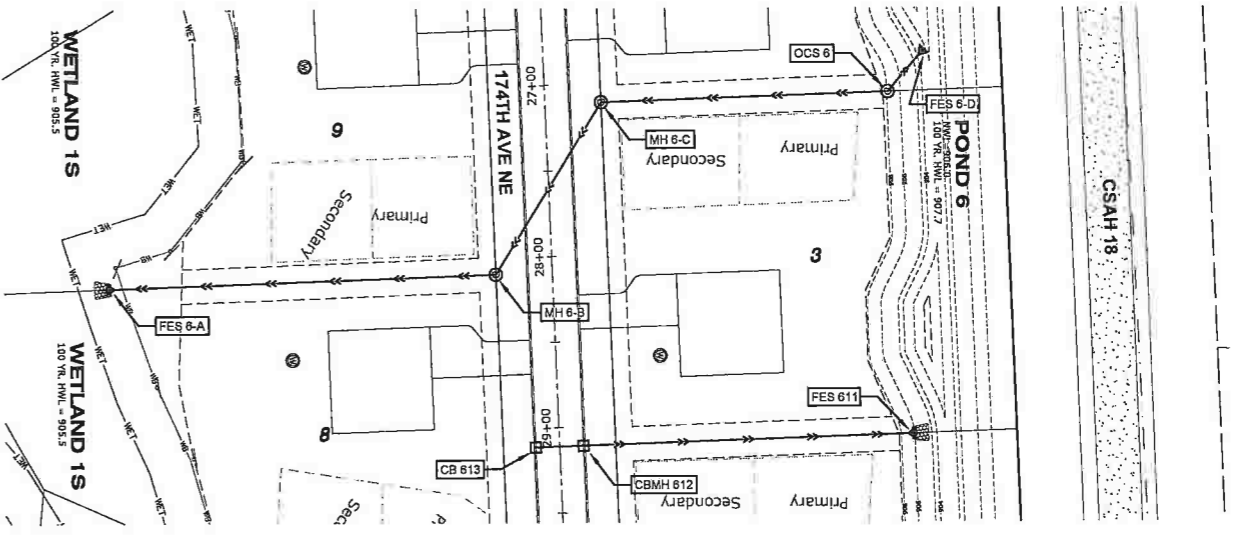
SHEET **C1.6**



- ### GENERAL NOTES
1. THE INFORMATION SHOWN ON THESE DRAWINGS CONCERNING TYPE AND LOCATION OF EXISTING UTILITIES IS NOT GUARANTEED TO BE ACCURATE OR ALL INCLUSIVE. THE CONTRACTOR IS RESPONSIBLE FOR MAKING HIS OWN DETERMINATION AS TO TYPE AND LOCATION OF UTILITIES AS NECESSARY TO AVOID DAMAGE TO THESE UTILITIES.
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 3. THE CONTRACTOR SHALL FIELD VERIFY SIZE, ELEVATION, AND LOCATION OF EXISTING UTILITIES AND NOTIFY ENGINEER OF ANY DISCREPANCIES PRIOR TO THE START OF INSTALLATIONS.
 4. INSTALLATIONS SHALL CONFORM TO THE CITY STANDARD SPECIFICATIONS AND DETAIL PLATES.
 5. STORAGE OF MATERIALS OR EQUIPMENT SHALL NOT BE ALLOWED ON PUBLIC STREETS OR WITHIN PUBLIC RIGHT-OF-WAY.
 6. NOTIFY CITY AND COON CREEK WATERSHED DISTRICT (CCWD) A MINIMUM OF 48 HOURS PRIOR TO THE COMMENCEMENT OF CONSTRUCTION.
 7. ALL ELECTRIC, TELEPHONE, AND GAS EXTENSIONS INCLUDING SERVICE LINES SHALL BE CONSTRUCTED TO THE APPROPRIATE UTILITY COMPANY SPECIFICATIONS. ALL UTILITY DISCONNECTIONS SHALL BE COORDINATED WITH THE APPROPRIATE UTILITY COMPANY.

- ### STORM SEWER NOTES
1. FIELD VERIFY SIZE, ELEVATION, AND LOCATION OF EXISTING STORM SEWER AND NOTIFY ENGINEER OF ANY DISCREPANCIES PRIOR TO ANY INSTALLATIONS.
 2. STORM SEWER SHALL BE:
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 - (B) HDPE PIPE SHALL MEET THE REQUIREMENTS OF AASHTO M24, TYPE S WITH WATERIGHT CONNECTIONS. USE SANDGRANULAR MATERIAL FOR BACKFILLING AND COMPACTION OF HDPE/PPC PIPE IN ACCORDANCE WITH THE REQUIREMENTS OF ASTM 2321.
 3. DO NOT BACKFILL CATCH BASINS UNTIL FABRIC WRAP IS INSPECTED BY CITY.
 4. TRASH GUARDS ARE REQUIRED FOR ALL FLARED-END SECTIONS LESS THAN 48" IN DIAMETER.
 5. PROVIDE CLASS II RIP-RAP W/ FILTER FABRIC AT ALL PIPE OUTLETS.
 6. TIE LAST THREE SECTION OF CONCRETE PIPE, INCLUDING APRON, FOR CONCRETE PIPES LESS THAN 48" IN DIAMETER.
 7. STORM SEWER LENGTHS INCLUDE THE LAYING LENGTH OF THE FLARED-END SECTION TO BE DEDUCTED FROM PAYMENT LENGTH OF PIPE.
 8. ARIUM PIPE JOINTS MUST BE WRAPPED WITH FABRIC OR OTHER PROTECTION TO PREVENT SEDIMENT FROM ENTERING PIPE.
 9. SEE SHEET C3.1 FOR STRUCTURE SCHEDULE.

- ### CURB & BITUMINOUS NOTES
1. REMOVAL AND DISPOSAL OF EXISTING STREET MATERIALS AS REQUIRED FOR CONSTRUCTION IS CONSIDERED INCIDENTAL.
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7710 LAKE DRIVE
SUITE 110
LIND LAKE, MN 56014
PHONE: (651) 381-8210
FAX: (651) 381-8701

DRAWN BY: AG
CHECK BY: CWP
JOB NO: 18-1882
DATE: 7-18-20

NO.	DATE	DESCRIPTION
1	11-2-20	CCWD & CITY COMMENTS
2	1-13-21	CCWD & CITY COMMENTS
3	2-28-21	CCWD & CITY COMMENTS
4	3-28-21	CITY COMMENTS
5		
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HEREBY CERTIFY THAT THIS PLAN WAS PREPARED BY ME OR UNDER MY DIRECT SUPERVISION AND THAT I AM A DULY LICENSED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF MINNESOTA.

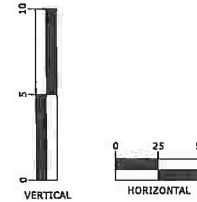
Adam Ginkel
ADAM GINKEL
L.C. NO. 43863
DATE: 03.28.2021

CROSTOWN ROLLING ACRES
THIRD ADDITION
CITY OF HAM LAKE, MN
PLAN PROFILE - MISC. STORM SEWER
PREPARED FOR: CROSTOWN DEVELOPMENT LLC

SHEET
C1.7



Know what's below.
Call before you dig.



GENERAL NOTES

1. THE INFORMATION SHOWN ON THESE DRAWINGS CONCERNING TYPE AND LOCATION OF EXISTING UTILITIES IS NOT GUARANTEED TO BE ACCURATE OR ALL INCLUSIVE. THE CONTRACTOR IS RESPONSIBLE FOR MAKING HIS OWN DETERMINATION AS TO TYPE AND LOCATION OF UTILITIES AS NECESSARY TO AVOID DAMAGE TO THESE UTILITIES.
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STORM SEWER NOTES

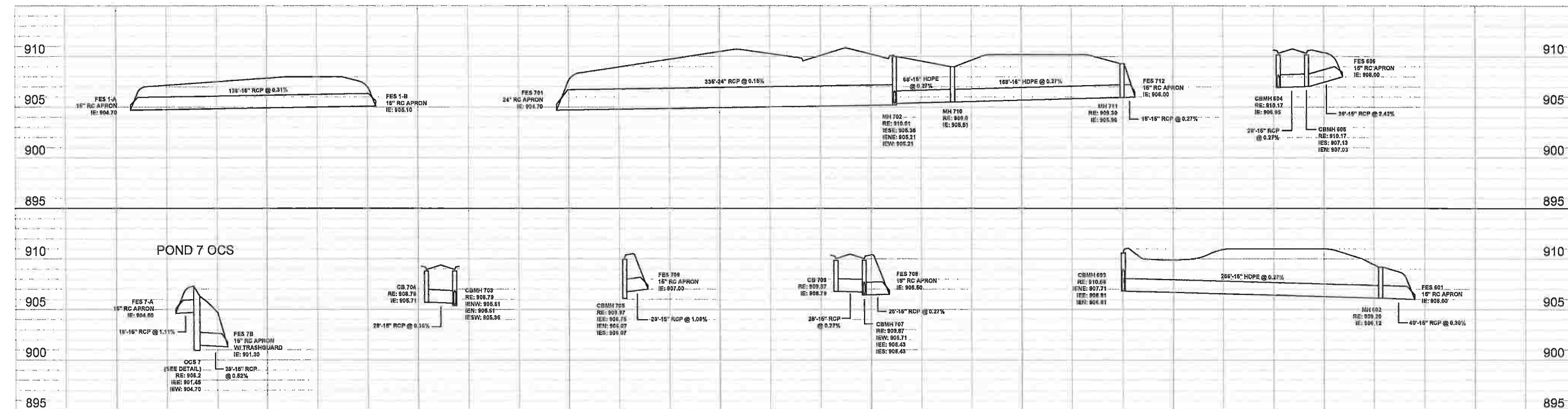
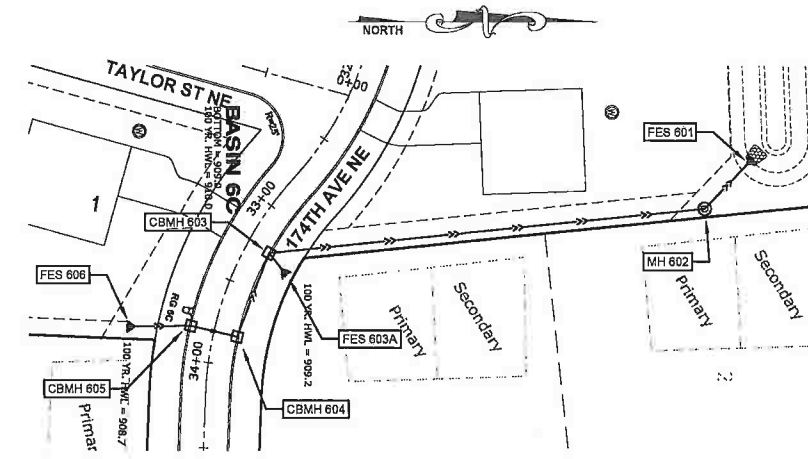
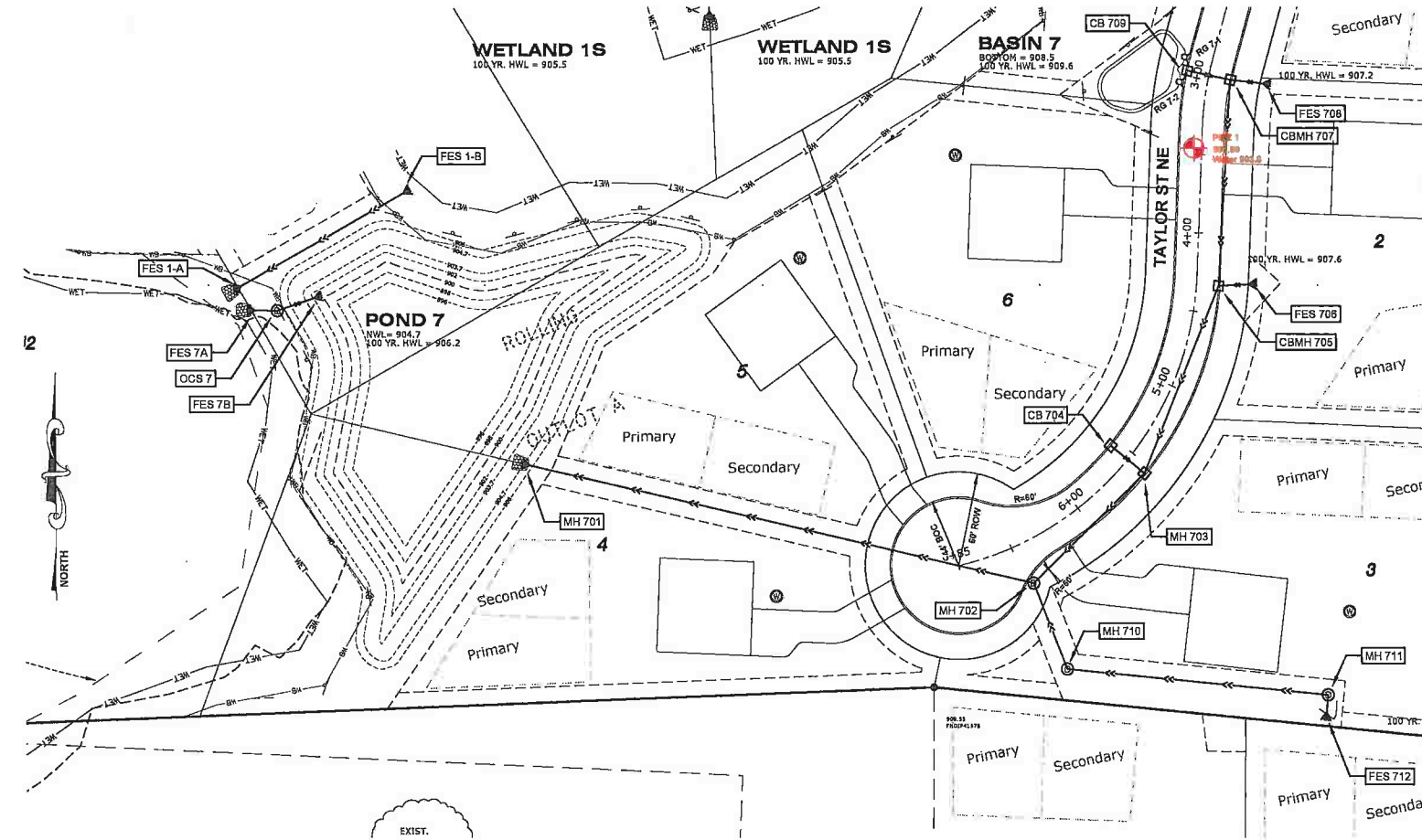
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3. DO NOT BACKFILL CATCH BASINS UNTIL FABRIC WRAP IS INSPECTED BY CITY.
4. TRASH GUARDS ARE REQUIRED FOR ALL FLARED-END SECTIONS LESS THAN 48" IN DIAMETER.
5. PROVIDE CLASS III RIP-RAP W/ FILTER FABRIC AT ALL PIPE OUTLETS.
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9. SEE SHEET C3.1 FOR STRUCTURE SCHEDULE.

CURB & BITUMINOUS NOTES

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4. BACKFILLING OF CURB IS INCIDENTAL TO CURB INSTALLATION.

LEGEND

	EXISTING STORM SEWER		PROPOSED STORM SEWER PIPE
	EXISTING STORM MANHOLE		PROPOSED DRAIN TILE & CLEANOUT
	EXISTING CATCH BASIN		PROPOSED STORM MANHOLE
	EXISTING FLARED-END SECTION		PROPOSED CATCH BASIN
	EXISTING DELINEATED WETLAND EDGE		PROPOSED FLARED-END SECTION
	WETLAND BUFFER		PROPOSED RAIN GUARDIAN
	WETLAND BUFFER SIGNAGE		PROPOSED RIP-RAP



PLOWE ENGINEERING, INC.

6776 LAKE DRIVE
SUITE 115
LIND LAKES, MN 55014
PHONE: (651) 351-6110
FAX: (651) 351-8701

DRAWN BY: CHECK BY:
AG CWP
JOB NO: DATE:
19-1982 7-16-20

NO.	DATE	DESCRIPTION
1	1-15-20	CCWD & CITY COMMENTS
2	2-2-21	CCWD & CITY COMMENTS
3	2-2-21	CCWD & CITY COMMENTS
4	3-22-21	CITY COMMENTS
5		
6		
7		
8		

HEREBY CERTIFY THAT THIS PLAN WAS PREPARED BY
AG
A DULY LICENSED PROFESSIONAL ENGINEER UNDER
THE LAWS OF THE STATE OF MINNESOTA.

Adam Kanvel
ADAM KANVEL
DATE: 05-25-2021 LIC. NO. 43963

**CROSSTOWN ROLLING ACRES
THIRD ADDITION**
CITY OF HAM LAKE, MN
PLAN PROFILE - MISC STORM SEWER
PREPARED FOR: CROSSTOWN DEVELOPMENT LLC

SHEET
C1.8

GENERAL NOTES

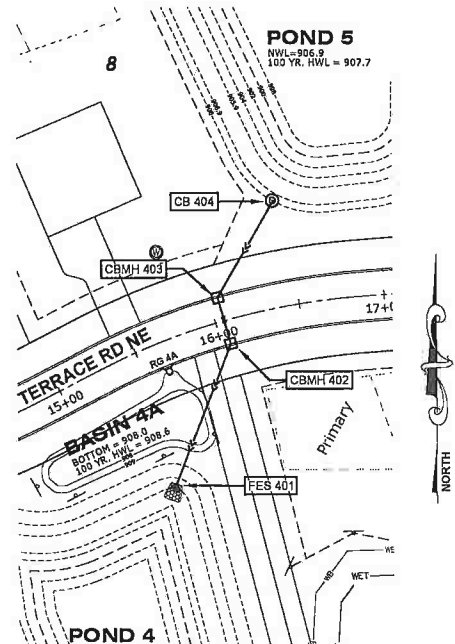
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STORM SEWER NOTES

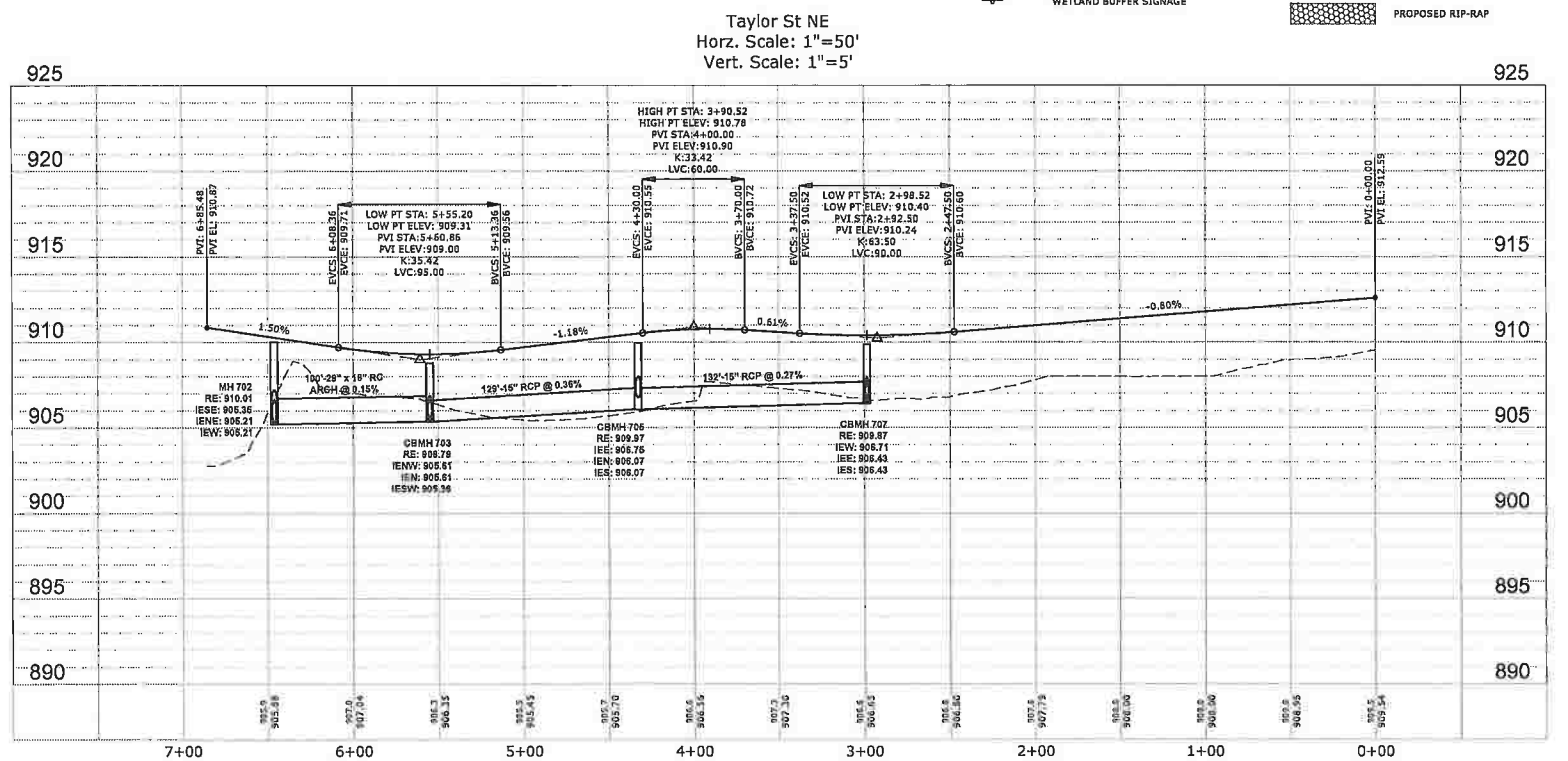
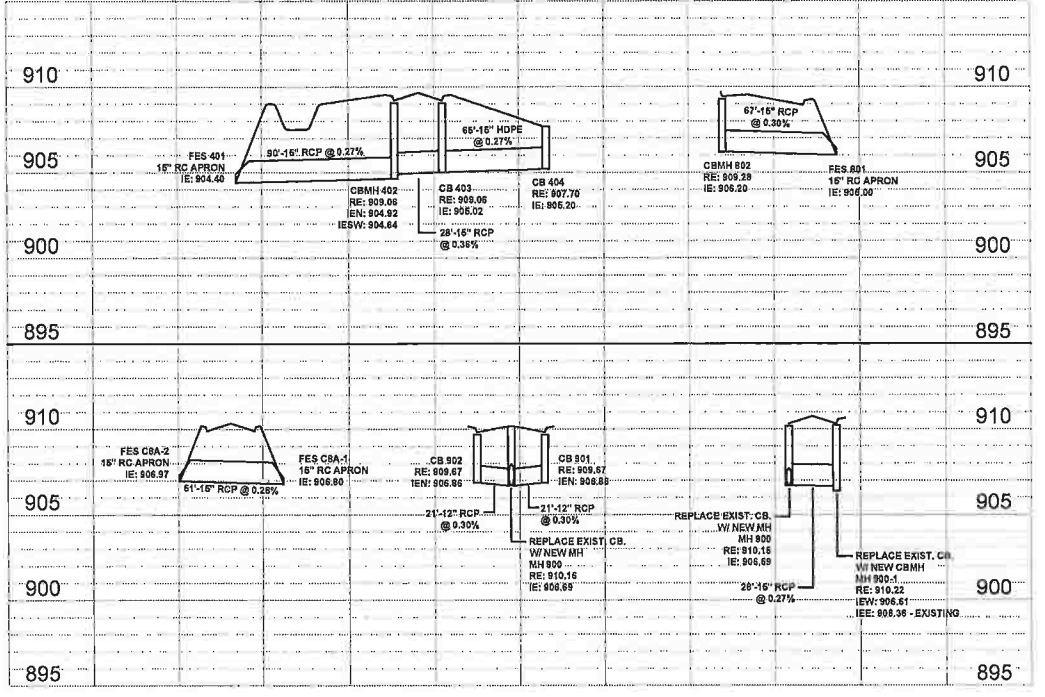
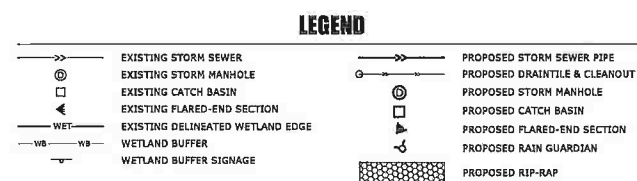
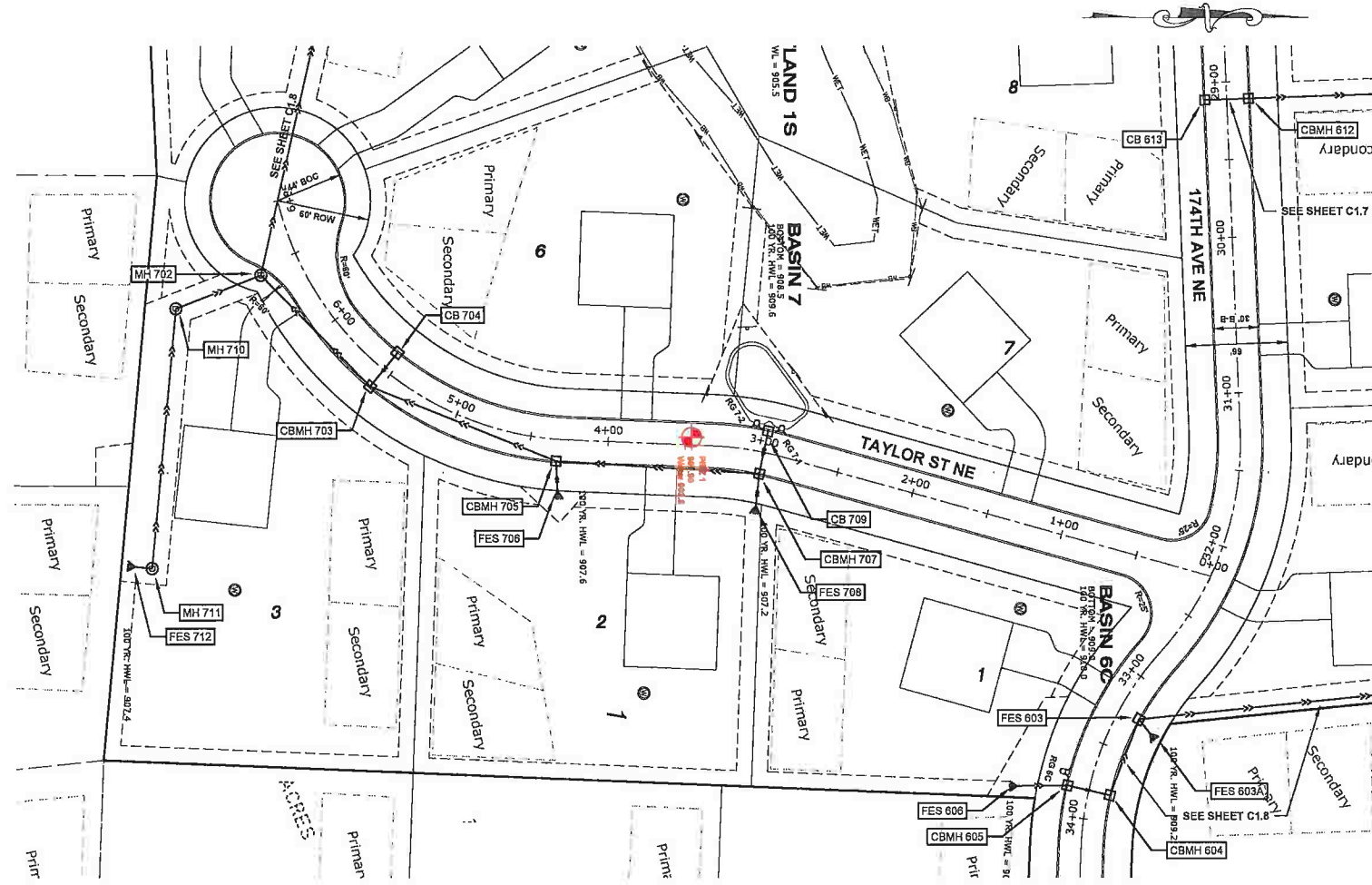
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CURB & BITUMINOUS NOTES

1. REMOVAL AND DISPOSAL OF EXISTING STREET MATERIALS AS REQUIRED FOR CONSTRUCTION IS CONSIDERED INCIDENTAL.
2. ALL MATCH POINTS AND PAVEMENT PATCHES TO BE SAW-CUT AT FULL DEPTH.
3. RESTORE DISTURBED STREET TO EXISTING OR BETTER SECTION.
4. BACKFILLING OF CURB IS INCIDENTAL TO CURB INSTALLATION.



Know what's below.
Call before you dig.



6776 LAKE DRIVE
SUITE 110
LINO LAKES, MN 55014
PHONE: (851) 361-8210
FAX: (851) 361-8701

DRAWN BY: AG
CHECK BY: CWP
JOB NO: 19-1882
DATE: 7-16-20

NO.	DATE	DESCRIPTION
1	7-16-20	CROSS TOWN ROLLING ACRES
2	7-16-20	CROSS TOWN ROLLING ACRES
3	7-16-20	CROSS TOWN ROLLING ACRES
4	7-16-20	CROSS TOWN ROLLING ACRES
5	7-16-20	CROSS TOWN ROLLING ACRES
6	7-16-20	CROSS TOWN ROLLING ACRES
7	7-16-20	CROSS TOWN ROLLING ACRES
8	7-16-20	CROSS TOWN ROLLING ACRES

I HEREBY CERTIFY THAT THIS PLAN WAS PREPARED BY
A DULY LICENSED PROFESSIONAL ENGINEER UNDER
THE LAWS OF THE STATE OF MINNESOTA.
ADAM SPARKEL
DATE: 05.25.2021 LIC. NO. 45993

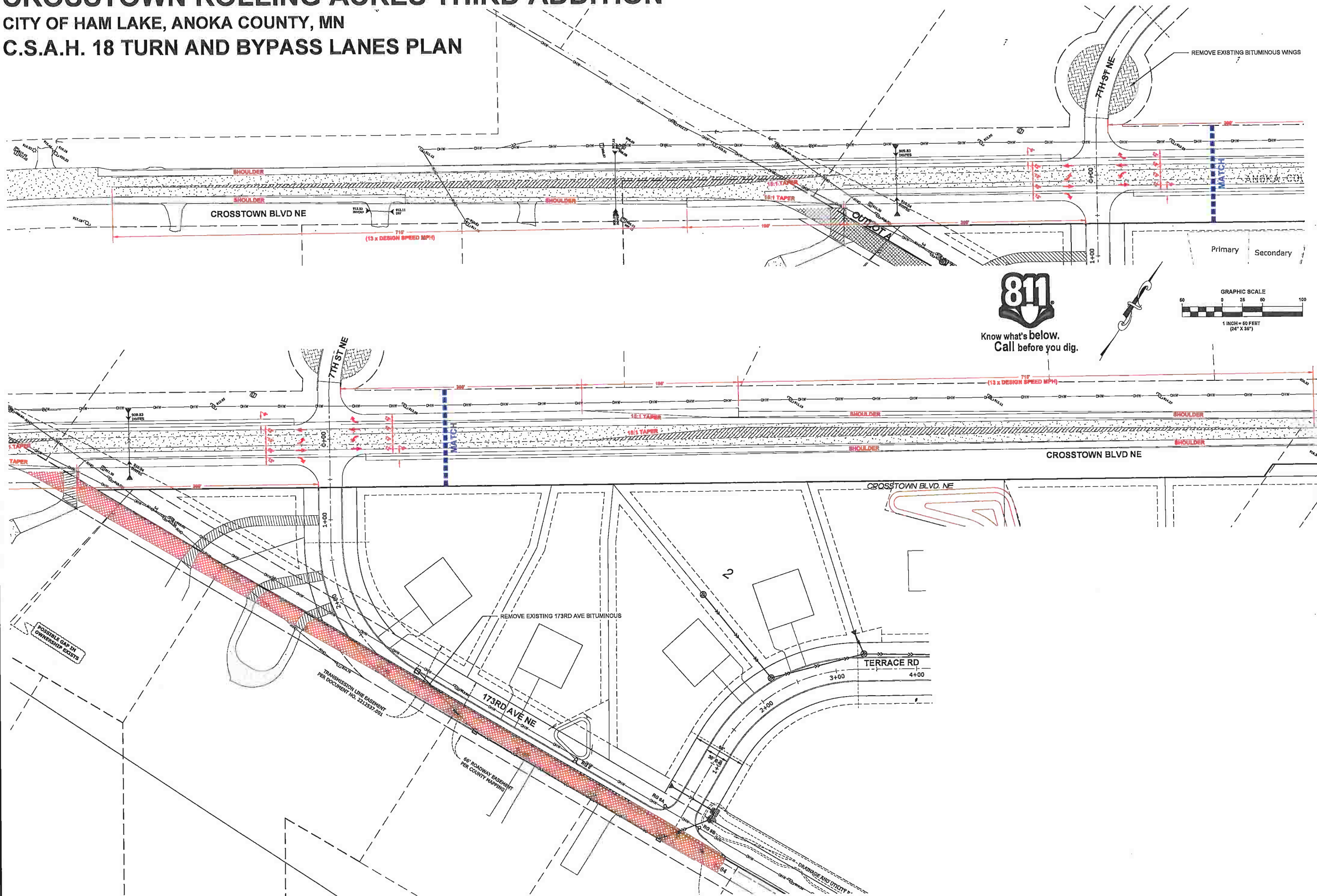
CROSSTOWN ROLLING ACRES
THIRD ADDITION
CITY OF HAM LAKE, MN
PLAN PROFILE - TAYLOR ST NE & MISC. STORM
PREPARED FOR: CROSSTOWN DEVELOPMENT LLC

SHEET
C1.9

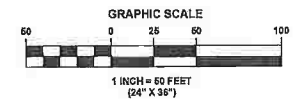
CROSTOWN ROLLING ACRES THIRD ADDITION

CITY OF HAM LAKE, ANOKA COUNTY, MN

C.S.A.H. 18 TURN AND BYPASS LANES PLAN



Know what's below.
Call before you dig.



6776 LAKE DRIVE
SUITE 110
LIND LAKE, MN 55014

PHONE: (851) 361-8210
FAX: (851) 361-8701

DRAWN BY: AG
CHECK BY: CWP

JOB NO: 19-1882
DATE: 7-16-20

NO.	DATE	DESCRIPTION
1	11-2-20	CCWD & CITY COMMENTS
2	1-13-21	CCWD & CITY COMMENTS
3	3-24-21	CITY COMMENTS
4	3-24-21	CITY COMMENTS
5		
6		
7		
8		

I HEREBY CERTIFY THAT THIS PLAN WAS PREPARED BY ME OR UNDER MY DIRECT SUPERVISION AND I AM A LICENSED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF MINNESOTA.

Adam Ginkel
ADAM GINKEL
DATE: 03.26.2021 LIC. NO. 43963

CROSTOWN ROLLING ACRES
THIRD ADDITION
CITY OF HAM LAKE, MN
PREPARED FOR: CROSTOWN DEVELOPMENT LLC

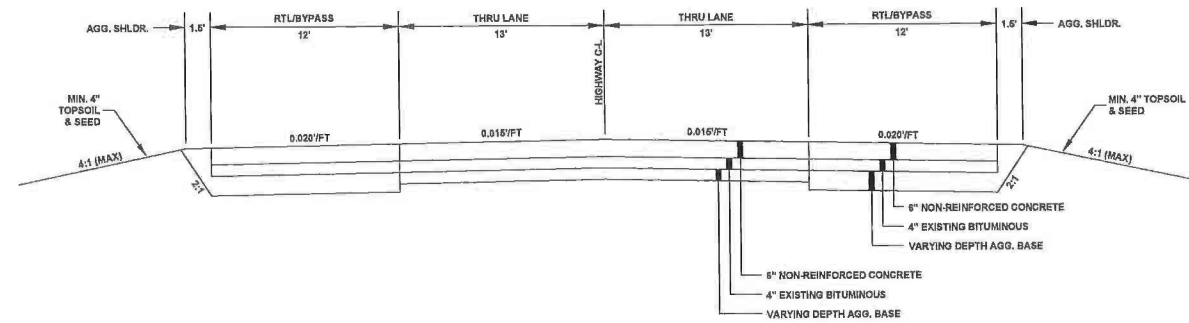
SHEET
C2.1

CROSTOWN ROLLING ACRES THIRD ADDITION

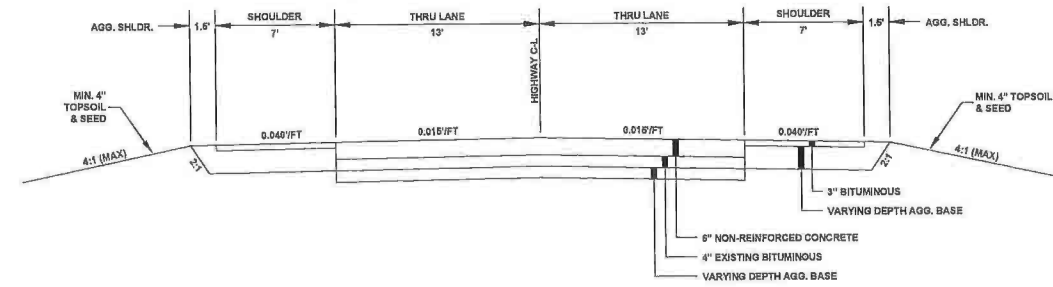
CITY OF HAM LAKE, ANOKA COUNTY, MN

C.S.A.H. 18 TURN AND BYPASS LANE DETAILS

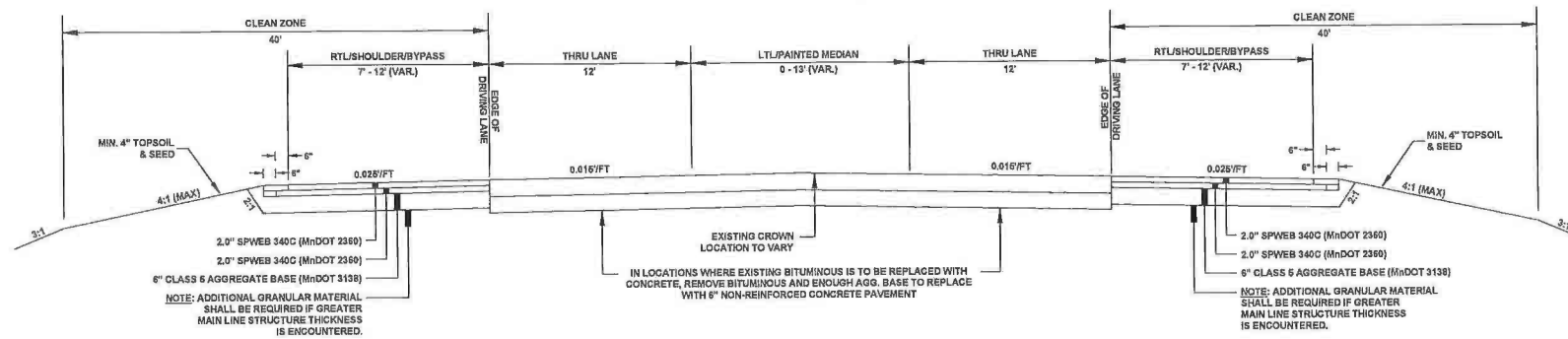
**C.S.A.H. 18 (CROSTOWN BLVD.) EXISTING TYP. SECTION
RTL / BYPASS LANES**



**C.S.A.H. 18 (CROSTOWN BLVD.) EXISTING TYP. SECTION
BITUMINOUS SHOULDER**



**C.S.A.H. 18 (CROSTOWN BLVD.) PROPOSED TYP. SECTION
RTL / BYPASS LANES**



- NOTES**
1. ALL INSTALLATIONS SHALL BE IN ACCORDANCE WITH MNDOT SPECIFICATIONS (LATEST EDITION)
 2. ALL DISTURBED SOIL MUST BE SEEDED (MNDOT 28-441), MULCHED (TYPE 1, DISC ANCHORED)
 3. USE ALL STRAW FIBER BLANKET FOR DITCH AND ON ALL SLOPES
 4. PAVEMENT MARKINGS SHALL BE EPOXY



PLOWE
ENGINEERING, INC.

6778 LAKE DRIVE
SUITE 110
LINO LAKES, MN 55014
PHONE: (851) 381-8210
FAX: (851) 361-8701

DRAWN BY: AG
CHECK BY: CWP

JOB NO: 19-1882
DATE: 7-16-20

NO.	DATE	DESCRIPTION
1	11-2-20	CROWD & CITY COMMENTS
2	1-23-21	CROWD & CITY COMMENTS
3	2-18-21	CITY COMMENTS
4	3-24-21	CITY COMMENTS
5		
6		
7		
8		

I HEREBY CERTIFY THAT THIS PLAN WAS PREPARED BY ME OR UNDER MY DIRECT SUPERVISION AND IN ACCORDANCE WITH THE LAWS OF THE STATE OF MINNESOTA.

Adam Ginkel
ADAM GINKEL
LIC. NO. 43953
DATE: 03.26.2021

**CROSTOWN ROLLING ACRES
THIRD ADDITION**
CITY OF HAM LAKE, MN
C.S.A.H. TURN AND BYPASS LANES DETAILS
PREPARED FOR: CROSTOWN DEVELOPMENT LLC

SHEET

C2.2

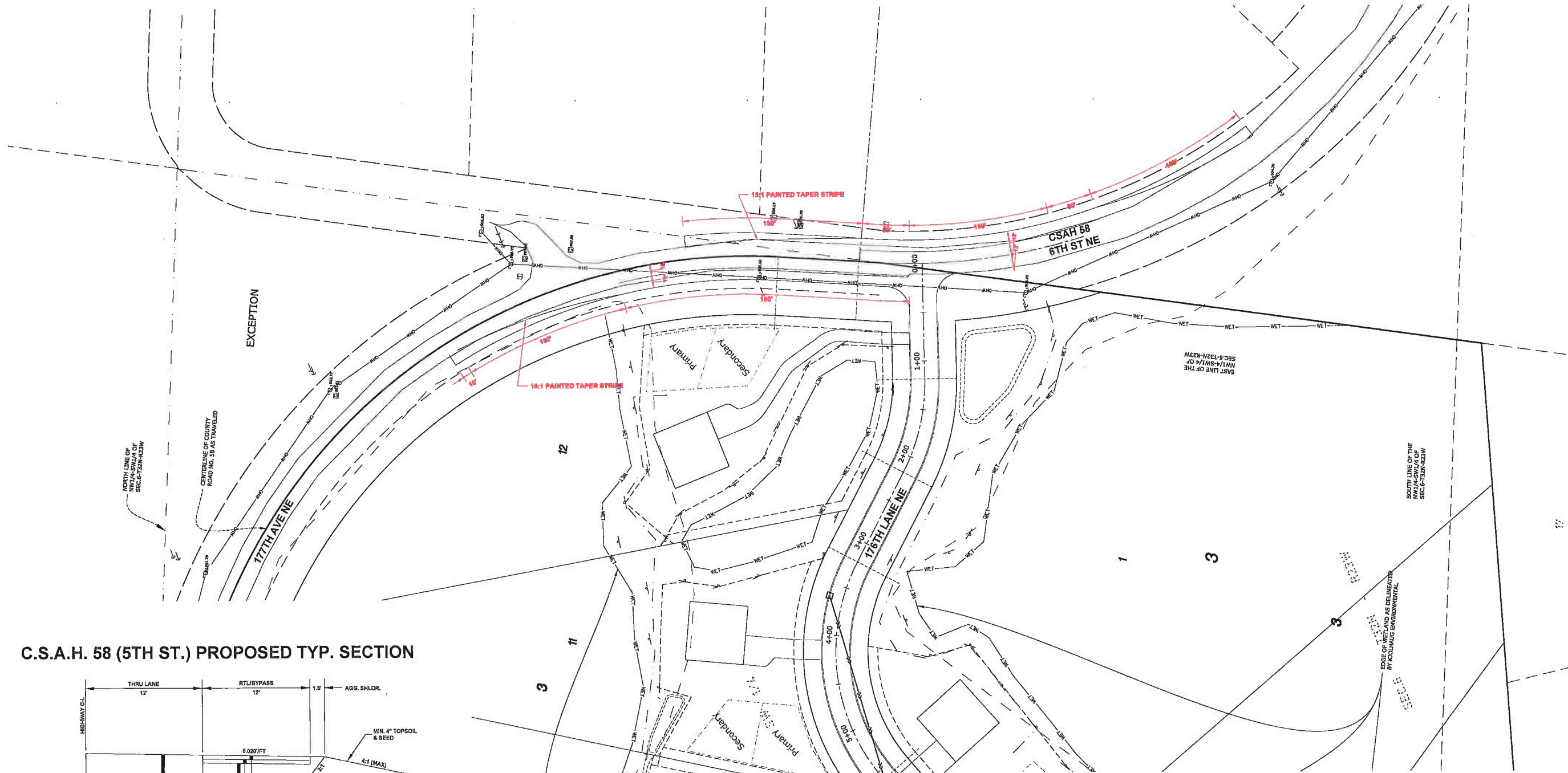
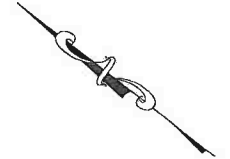
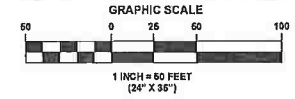
CROSTOWN ROLLING ACRES THIRD ADDITION

CITY OF HAM LAKE, ANOKA COUNTY, MN

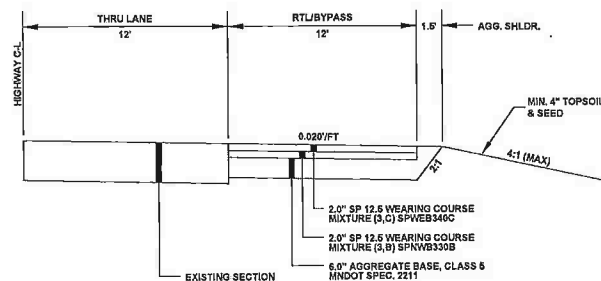
C.S.A.H. 58 TURN LANE PLAN



Know what's below.
Call before you dig.



C.S.A.H. 58 (5TH ST.) PROPOSED TYP. SECTION



- NOTES
1. ALL INSTALLATIONS SHALL BE IN ACCORDANCE WITH MNDOT SPECIFICATIONS (LATEST EDITION)
 2. ALL DISTURBED SOIL MUST BE SEEDDED (MNDOT 35-141) & MULCHED (TYPE 1, DISC ANCHORED)
 3. USE ALL STRAW FIBER BLANKET FOR DITCH AND ON ALL SLOPES
 4. PAVEMENT MARKINGS SHALL BE EPOXY



6776 LAKE DRIVE
SUITE 110
LINO LAKES, MN 55514
PHONE: (651) 351-8210
FAX: (651) 351-8701

DRAWN BY: AG
CHECK BY: CWP
JOB NO: 19-1882
DATE: 7-16-20

NO.	DATE	DESCRIPTION
1	11-2-20	CCWD & CITY COMMENTS
2	1-15-21	CCWD & CITY COMMENTS
3	3-22-21	CITY COMMENTS
4		
5		
6		
7		
8		

HEREBY CERTIFY THAT THIS PLAN WAS PREPARED BY ME OR UNDER MY DIRECT SUPERVISION AND I AM A DULY LICENSED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF MINNESOTA.

Adam Gankel
ADAM GANKEL
DATE: 03.26.2021 LIC. NO. 43963

CROSTOWN ROLLING ACRES
THIRD ADDITION
CITY OF HAM LAKE, MN
C.S.A.H. 58 TURN LANE PLAN
PREPARED FOR: CROSTOWN DEVELOPMENT LLC

SHEET
C2.3

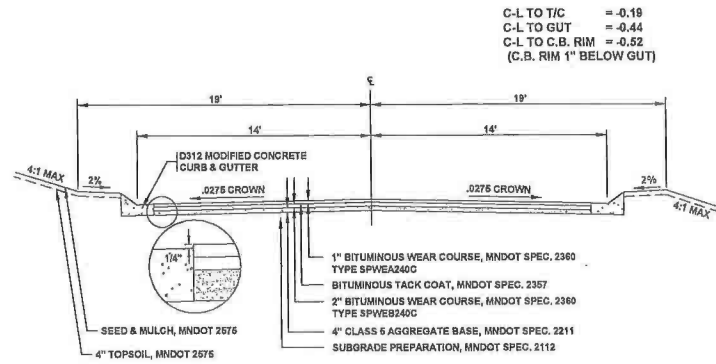
CROSTOWN ROLLING ACRES THIRD ADDITION

CITY OF HAM LAKE, ANOKA COUNTY, MN

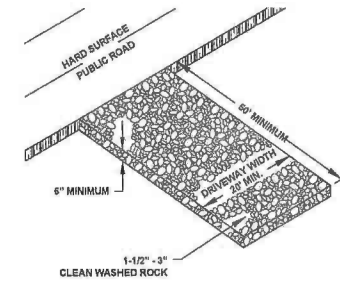
DETAILS



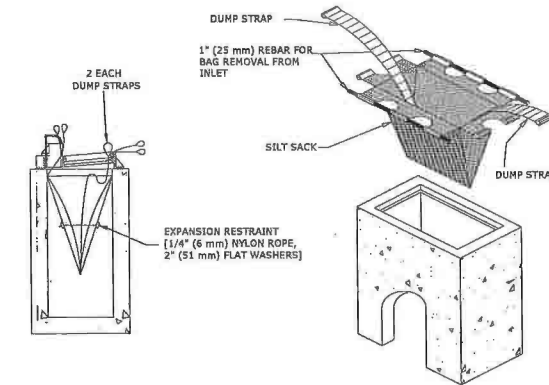
Know what's below.
Call before you dig.



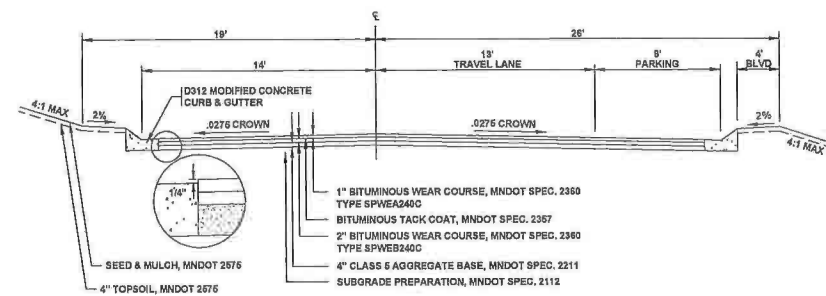
TYPICAL STREET SECTION (7-TON)
N.T.S.



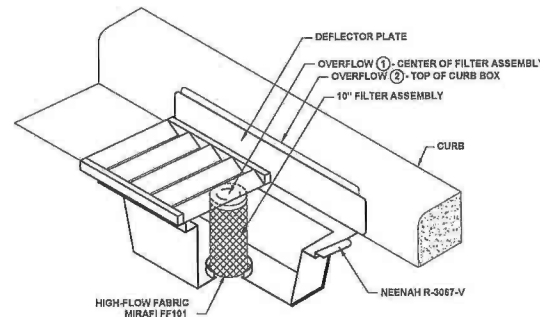
ROCK CONSTRUCTION ENTRANCE
N.T.S.



SILT SACK
N.T.S.

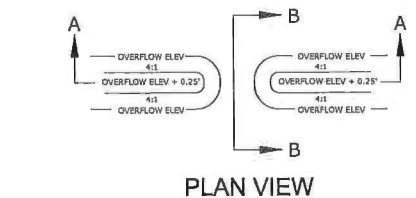
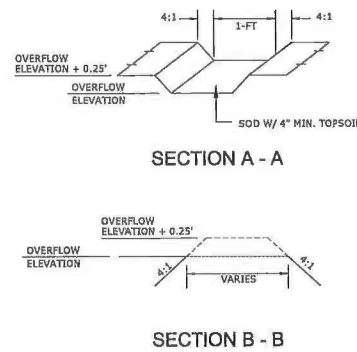


TYPICAL STREET SECTION (7-TON) AT PARALLEL PARKING STALLS
N.T.S.



WIMCO INLET PROTECTION
N.T.S.

STORM SEWER STRUCTURE SCHEDULE					
#	SIZE	CASTING	#	SIZE	CASTING
102	48" DIA.	NEENAH R-1733	612	48" DIA.	NEENAH R-3246-C
103	48" DIA.	NEENAH R-3246-C	613	2' x 3'	NEENAH R-3246-C
104	2' x 3'	NEENAH R-3246-C	622	48" DIA.	NEENAH R-1733
202	48" DIA.	NEENAH R-1733	623	48" DIA.	NEENAH R-3246-C
203	48" DIA.	NEENAH R-3246-C	624	2' x 3'	NEENAH R-3246-C
204	60" DIA.	NEENAH R-3246-C	625	60" DIA.	NEENAH R-4341
205	MNDOT DES. G	NEENAH R-4341	626	2' x 3'	NEENAH R-3246-C
206	2' x 3'	NEENAH R-3246-C	627	48" DIA.	NEENAH R-3246-C
402	48" DIA.	NEENAH R-3246-C	628	2' x 3'	NEENAH R-3246-C
403	2' x 3'	NEENAH R-3246-C	629	MNDOT DES. G	NEENAH R-4341
404	48" DIA.	NEENAH R-4341	702	48" DIA.	NEENAH R-1733
412	60" DIA.	NEENAH R-1733	703	60" DIA.	NEENAH R-3246-C
413	72" DIA.	NEENAH R-3246-C	704	2' x 3'	NEENAH R-3246-C
414	84" DIA.	NEENAH R-3246-C	705	48" DIA.	NEENAH R-3246-C
415	2' x 3'	NEENAH R-3246-C	706	48" DIA.	NEENAH R-3246-C
416	72" DIA.	NEENAH R-3246-C	707	2' x 3'	NEENAH R-3246-C
417	48" DIA.	NEENAH R-4341	709	48" DIA.	NEENAH R-1733
418	60" DIA.	NEENAH R-3246-C	710	48" DIA.	NEENAH R-1733
419	2' x 3'	NEENAH R-3246-C	711	48" DIA.	NEENAH R-1733
421	48" DIA.	NEENAH R-1733	802	48" DIA.	NEENAH R-3246-C
423	48" DIA.	NEENAH R-1733	803	48" DIA.	NEENAH R-3246-C
424	MNDOT DES. G	NEENAH R-4341	804	2' x 3'	NEENAH R-3246-C
502	48" DIA.	NEENAH R-1733	900	48" DIA.	NEENAH R-1733
503	48" DIA.	NEENAH R-3246-C	901	2' x 3'	NEENAH R-3246-C
504	2' x 3'	NEENAH R-3246-C	902	2' x 3'	NEENAH R-3246-C
505	MNDOT DES. G	NEENAH R-4341	6-B	48" DIA.	NEENAH R-1733
C4B-2	48" DIA.	NEENAH R-1733	6-C	48" DIA.	NEENAH R-1733
C4B-3	48" DIA.	NEENAH R-1733	8-B	48" DIA.	NEENAH R-1733
802	48" DIA.	NEENAH R-1733	8-C	48" DIA.	NEENAH R-1733
803	60" DIA.	NEENAH R-3246-C	25-B	48" DIA.	NEENAH R-1733
804	48" DIA.	NEENAH R-3246-C			
805	48" DIA.	NEENAH R-3246-C			



RATE CONTROL BASIN OVERFLOW
N.T.S.

PLOWE ENGINEERING, INC.
7775 LAKE DRIVE SUITE 110 LIND LAKE, MN 55014
PHONE: (651) 381-8210 FAX: (651) 381-8701

DRAWN BY: AG CHECK BY: CWP
JOB NO: 19-1882 DATE: 7-16-20

11-2-20 CWD & CITY COMMENTS
1-13-21 CWD & CITY COMMENTS
3-28-21 CITY COMMENTS

HEREBY CERTIFY THAT THIS PLAN WAS PREPARED BY ME OR UNDER MY DIRECT SUPERVISION AND THAT I AM A LICENSED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF MINNESOTA.

ADAM GRINDEL
DATE: 03-26-2021 LIC. NO. 43983

CROSTOWN ROLLING ACRES THIRD ADDITION CITY OF HAM LAKE, MN
PREPARED FOR: CROSTOWN DEVELOPMENT LLC

SHEET C3.1

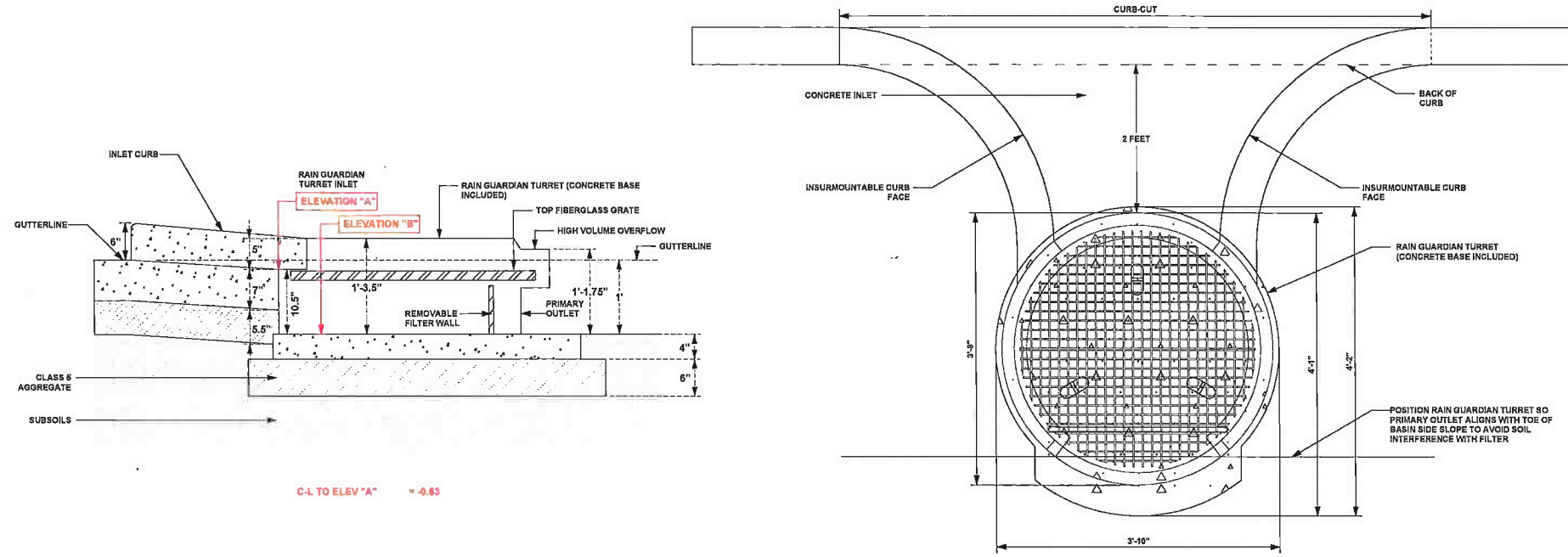
CROSTOWN ROLLING ACRES THIRD ADDITION

CITY OF HAM LAKE, ANOKA COUNTY, MN

DETAILS



Know what's below.
Call before you dig.

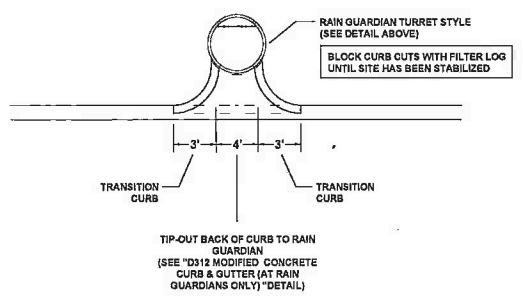


RAIN GARDEN - TURRET STYLE
N.T.S.

BASIN #	STREET	C-L STA	C-L ELEV	RG RIM	RG BOT	BASIN BOTTOM
SOUTH OF CROSTOWN						
4A	TERRACE	1565	909.79	909.16	908.29	908.0
4B	TERRACE	1132	910.53	909.90	909.03	909.0
4C	TERRACE	1148	910.87	910.24	909.37	909.0
4E	TERRACE	873	911.28	910.65	909.78	909.0
4F	TERRACE	659	910.58	909.95	909.08	909.0
4G	TERRACE	453	910.10	909.47	908.60	908.6
5-1	TERRACE	1941	911.44	910.81	909.94	909.5
5-2	TERRACE	1959	911.44	910.81	909.94	909.5
6A-1	174TH	2499	911.26	910.63	909.76	909.0
6A-2	174TH	2515	911.26	910.63	909.76	909.0
6C	174TH	3374	910.70	910.07	909.20	909.0
6D-1	ABLE	105	911.19	910.56	908.69	908.0
6D-2	ABLE	87	911.19	910.56	908.69	909.0
7-1	TAYLOR	291	910.40	909.77	908.90	908.5
7-2	TAYLOR	306	910.40	909.77	908.90	908.5
B	173RD	561	910.60	909.97	909.10	909.0
9A	173/TERRACE	N/A	N/A	909.01	908.14	N/A
9B	173/TERRACE	N/A	N/A	908.76	907.89	N/A
NORTH OF CROSTOWN						
10A	176TH LN	103	908.49	907.86	906.99	907.0
10B	176TH LN	103	908.49	907.86	906.99	907.0

C-L STA = CENTERLINE STATION AT RAIN GUARDIAN
 C-L ELEV = CENTERLINE ELEVATION AT RAIN GUARDIAN
 RG RIM = ELEVATION 'A'
 RG BOTTOM = ELEVATION 'B'
 BASIN BOTTOM = BOTTOM OF INFILTRATION BASIN

RAIN GUARDIAN ELEVATIONS
N.T.S.



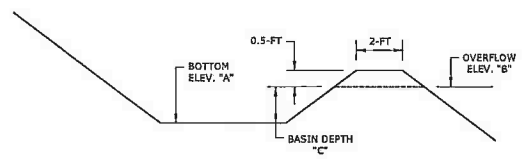
CURB CUTS @ RAIN GUARDIAN
N.T.S.

POST-CONSTRUCTION INFILTRATION TESTING IS REQUIRED. PERFORM TEST BY FILLING BASIN WITH SIX (6) INCHES OF WATER AND MONITORING DRAIN-DOWN TIMES. CONTACT COON CREEK WATERSHED DISTRICT AT LEAST 24 HOUR PRIOR TO WITNESS TEST.

DO NOT EXCAVATE BASIN TO FINAL GRADE, OR WITHIN THREE (3) FEET OF FINAL GRADE, UNTIL THE CONTRIBUTING DRAINAGE AREA HAS BEEN CONSTRUCTED AND FULLY STABILIZED UNLESS THEY PROVIDE RIGOROUS EROSION PREVENTION AND SEDIMENT CONTROLS (E.G., DIVERSION BERMS) TO KEEP SEDIMENT AND RUNOFF COMPLETELY AWAY FROM THE INFILTRATION AREA.

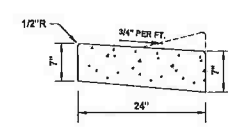
- NOTES
- CONTRACTOR TO MARK-OFF INFILTRATION BASIN AREA WITH SILTY FENCE OR OTHER VISIBLE MARKER.
 - USE LOW-IMPACT, EARTH MOVING EQUIPMENT SUCH AS WIDE TRACK OR MASHIN TRACK EQUIPMENT, OR OTHER LIGHT-EQUIPMENT WITH TURF-TYPE TIRES, IN INFILTRATION BASIN AREA.
 - NO MINING OR OVER-EXCAVATION IN INFILTRATION BASIN.
 - NO BURYING OF MATERIALS IN INFILTRATION BASIN.
 - FINAL GRADE ONLY UPON STABILIZATION OF UPSTREAM AREAS.
 - BASIN BOTTOM TO BE GRADED FLAT.
 - ALLEVIATE ANY COMPACTED SOILS PRIOR TO SEEDING.
 - INFILTRATION BASIN TO REMAIN UNLINED.
 - PROTECT INFILTRATION BASIN FROM RUN-OFF DURING CONSTRUCTION ACTIVITIES. EXCAVATE TO FINAL GRADE ONLY UPON STABILIZATION OF CONTRIBUTING DRAINAGE AREAS.

INFILTRATION BASIN OVERFLOW DETAIL

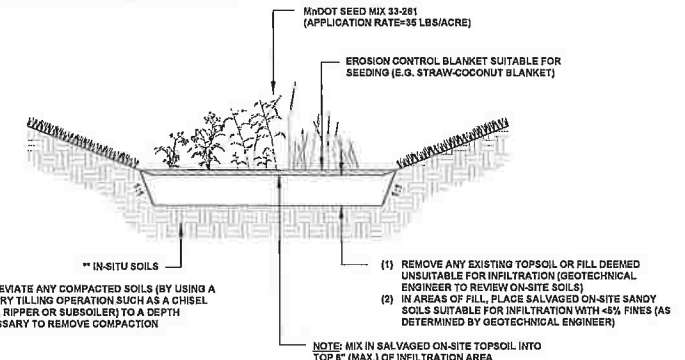


	INFILTRATION BASIN NUMBER													
	4A	4B	4C	4E	4F	4G	5	6A	6C	6D	7	8	9	10
BASIN BOTTOM ELEV. "A"	908.00	909.00	909.00	909.00	909.00	908.60	909.50	909.00	909.00	909.00	908.50	909.00	909.00	909.00
OUTLET ELEV. "B"	908.50	909.85	909.75	909.75	909.75	909.60	910.25	909.75	909.75	909.75	909.25	910.00	N/A	N/A
DEPTH (FT) "C"	0.50	0.85	0.75	0.75	0.75	1.00	0.75	0.75	0.75	0.75	0.75	1.00	N/A	N/A

D312 MODIFIED CONCRETE CURB & GUTTER (AT RAIN GUARDIANS ONLY)
N.T.S.



INFILTRATION BASINS
N.T.S.



6776 LAKE DRIVE
SUITE 110
LIND LAKES, MN 55014
PHONE: (651) 361-8210
FAX: (651) 361-8701

DRAWN BY: AG
CHECK BY: CWP
JOB NO: 19-1882
DATE: 7-16-20

NO.	DATE	DESCRIPTION
1	11-28-20	CROSS & CITY COMMENTS
2	11-28-20	CROSS & CITY COMMENTS
3	2-26-21	CROSS & CITY COMMENTS
4	2-26-21	CITY COMMENTS
5		
6		
7		
8		

HEREBY CERTIFY THAT THIS PLAN WAS PREPARED BY ME OR UNDER MY DIRECT SUPERVISION AND THAT I AM A DULY LICENSED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF MINNESOTA.
 Adam Spindel
 ADAM SPINDEL
 DATE: 03.26.2021 LIC. NO. 43963

CROSTOWN ROLLING ACRES
THIRD ADDITION
CITY OF HAM LAKE, MN
DETAILS
PREPARED FOR: CROSTOWN DEVELOPMENT LLC

SHEET
C3.2

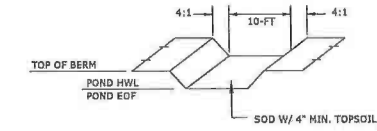
CROSTOWN ROLLING ACRES THIRD ADDITION

CITY OF HAM LAKE, ANOKA COUNTY, MN

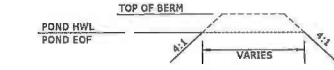
DETAILS



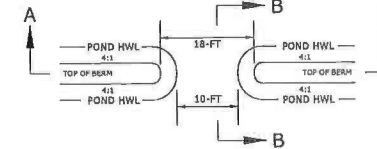
Know what's below.
Call before you dig.



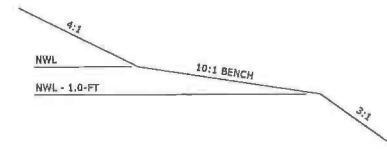
SECTION A - A



SECTION B - B



PLAN VIEW

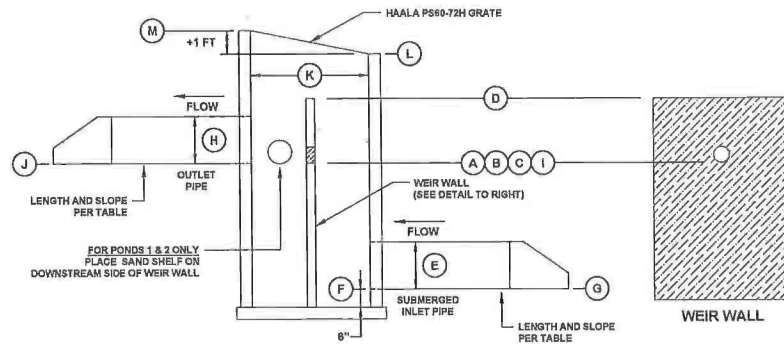


TYPICAL POND SECTION

N.T.S.

POND SODDED OVERFLOWS

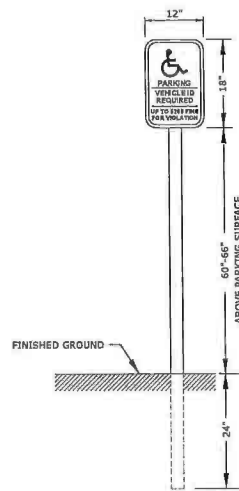
N.T.S.



POND O.C.S. DETAIL

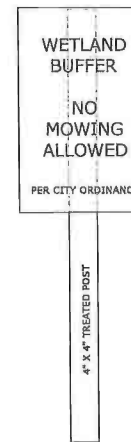
N.T.S.

	POND NUMBER						
	NORTH			SOUTH			
	1	2	4	5	6	7	
NWL	904.0	904.0	904.4	905.9	906.0	904.7	
HWL	905.7	906.0	906.3	907.7	907.7	906.2	
WEIR WALL							
ORIFICE TYPE	A	ROUND	ROUND	ROUND	ROUND	ROUND	ROUND
ORIFICE INVERT	B	904.60	904.50	904.40	906.90	906.00	904.70
ORIFICE DIAMETER (INCHES)	C	6.0	8.0	8.0	4.0	4.0	4.0
TOP OF WEIR WALL	D	905.7	906.0	906.3	907.7	907.7	906.2
SUBMERGED INLET PIPE							
DIAMETER (INCHES)	E	15	15	15	15	15	15
INVERT @ MANHOLE	F	900.75	900.75	901.15	903.65	902.75	901.45
INVERT @ SUBM. APRON	G	900.60	900.60	901.00	903.50	902.60	901.30
LENGTH		22	26	28	20	32	29
SLOPE		0.68%	26.00%	0.54%	0.75%	0.47%	0.52%
OUTLET PIPE							
DIAMETER (INCHES)	H	15	15	15	15	15	15
INVERT @ MANHOLE	I	904.00	904.00	904.40	906.90	906.00	904.70
INVERT @ DOWNSTREAM END	J	903.90	903.90	904.30	906.84	905.55	904.50
LENGTH		33	28	25	20	168	18
SLOPE		0.30%	0.36%	0.40%	0.30%	0.27%	1.11%
MANHOLE							
DIAMETER	K	60	60	60	60	60	60
RIM (LOW)	L	905.7	906.0	906.3	907.7	907.7	906.2
RIM (HIGH)	M	906.7	907.0	907.3	908.7	908.7	907.2



HANDICAP PARKING SIGN

N.T.S.



WETLAND BUFFER SIGNAGE

N.T.S.



INFILTRATION BASIN SIGNAGE

N.T.S.

- MONUMENT**
- CONSISTS OF A POST AND A SIGN.
- WETLAND BUFFER SIGNS**
- MOUNTED FLUSH WITH TOP OF POST
 - FASTENED WITH NON-REMOVABLE SCREWS OR BOLTS
 - SIZE: 12" H X 8" W ALUMINUM SHALL BE 5052-H38 R 6061-T6 ALLOY
 - GAUGE SHALL BE 0.090

- POST MATERIALS**
- 4" X 4" SQUARE
 - TREATED WOOD OR OTHER CITY-APPROVED MATERIAL

- COLOR**
- SHALL BE GREEN LETTERS ON WHITE BACKGROUND

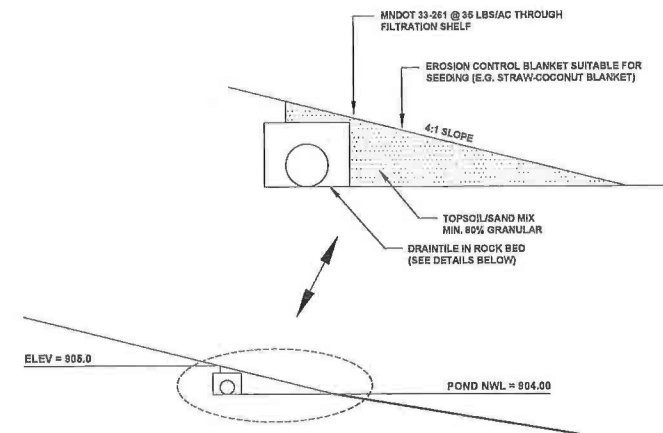
- POST INSTALLATION**
- MOUNTED TO A HEIGHT OF FOUR FEET ABOVE GRADE
 - SET AT LEAST 40 INCHES INTO GROUND
 - INSTALLED AT EACH LOT LINE WHERE IT CROSSES A WETLAND BUFFER WITH A MAXIMUM SPACING OF 300 FEET BETWEEN SIGNS
 - PLACE ADDITIONAL POSTS/SIGNS AS NECESSARY TO FOLLOW BUFFER

- MONUMENT**
- CONSISTS OF A POST AND A SIGN
- INFILTRATION BASIN SIGNS**
- MOUNTED FLUSH WITH TOP OF POST
 - FASTENED WITH NON-REMOVABLE SCREWS OR BOLTS
 - SIZE: 12" H X 8" W ALUMINUM SHALL BE 5052-H38 R 6061-T6 ALLOY
 - GAUGE SHALL BE 0.090

- POST MATERIALS**
- 4" X 4" SQUARE
 - TREATED WOOD OR OTHER CITY-APPROVED MATERIAL

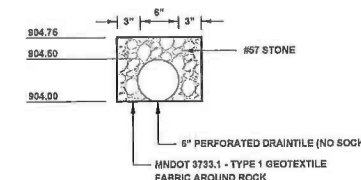
- COLOR**
- SHALL BE GREEN LETTERS ON WHITE BACKGROUND

- POST INSTALLATION**
- MOUNTED TO A HEIGHT OF FOUR FEET ABOVE GRADE
 - SET AT LEAST 42 INCHES INTO GROUND
 - INSTALLED AT EACH LOT LINE WHERE IT CROSSES A WETLAND BUFFER WITH A MAXIMUM SPACING OF 300 FEET BETWEEN SIGNS
 - PLACE ADDITIONAL POSTS/SIGNS AS NECESSARY TO FOLLOW BUFFER



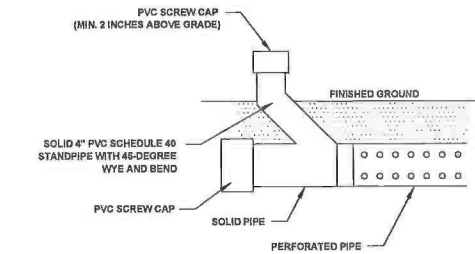
FILTRAION SHELF - PONDS 1 AND 2

N.T.S.



DRAINTILE IN ROCK BED

N.T.S.



CLEAN-OUT

N.T.S.



6778 LAKE DRIVE
SUITE 110
LINO LAKES, MN 55014
PHONE: (651) 381-8210
FAX: (651) 381-8701

DRAWN BY: AG
CHECK BY: CWP
JOB NO: 19-1882
DATE: 7-16-20

NO.	DATE	DESCRIPTION
1	7-16-20	ISSUE FOR PERMITS
2	7-16-20	ISSUE FOR PERMITS
3	7-16-20	ISSUE FOR PERMITS
4	7-16-20	ISSUE FOR PERMITS
5	7-16-20	ISSUE FOR PERMITS
6	7-16-20	ISSUE FOR PERMITS
7	7-16-20	ISSUE FOR PERMITS
8	7-16-20	ISSUE FOR PERMITS

I HEREBY CERTIFY THAT THIS PLAN WAS PREPARED BY ME OR UNDER MY CLOSE PERSONAL SUPERVISION AND THAT I AM A DULY LICENSED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF MINNESOTA.
ADAM SPARKEL
DATE: 03.28.2021 LIC. NO. 43983

CROSTOWN ROLLING ACRES
THIRD ADDITION
CITY OF HAM LAKE, MN
DETAILS
PREPARED FOR: CROSTOWN DEVELOPMENT LLC

SHEET
C3.3

CROSTOWN ROLLING ACRES THIRD ADDITION

CITY OF HAM LAKE, ANOKA COUNTY, MN

DETAILS



Know what's below.
Call before you dig.



PLOWE ENGINEERING, INC.

8778 LAKE DRIVE
SUITE 110
LINO LAKES, MN 55014
PHONE: (651) 351-8210
FAX: (651) 351-8701

DRAWN BY: AG
CHECK BY: CWP

JOB NO: 19-1882
DATE: 7-16-20

NO.	DATE	DESCRIPTION
1	11-20-19	COORD & CITY COMMENTS
2	11-20-19	CONTRACTOR COMMENTS
3	11-20-19	CONTRACTOR COMMENTS
4	11-20-19	CITY COMMENTS
5		
6		
7		
8		

I HEREBY CERTIFY THAT THIS PLAN WAS PREPARED BY ME OR UNDER MY CLOSE PERSONAL SUPERVISION AND THAT I AM A DULY LICENSED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF MINNESOTA.

Adam Givnel
ADAM GIVNEL
DATE: 03/26/2021 LIC. NO. 43983

CROSTOWN ROLLING ACRES
THIRD ADDITION
CITY OF HAM LAKE, MN
DETAILS
PREPARED FOR: CROSTOWN DEVELOPMENT LLC

SHEET
C3.4

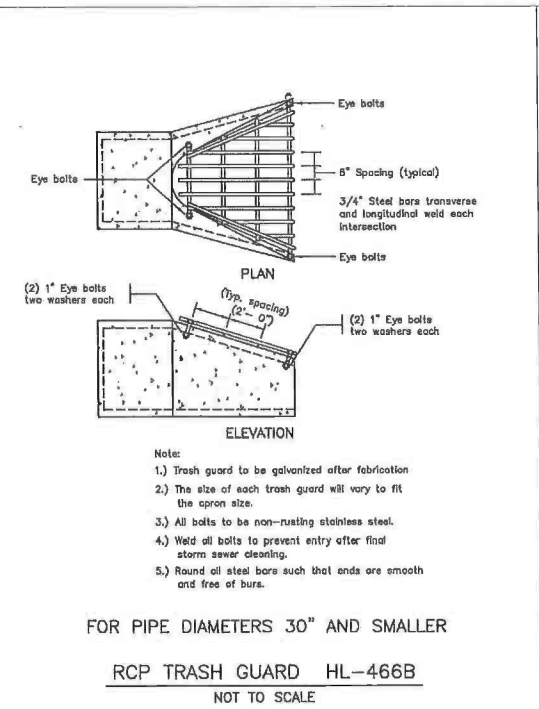
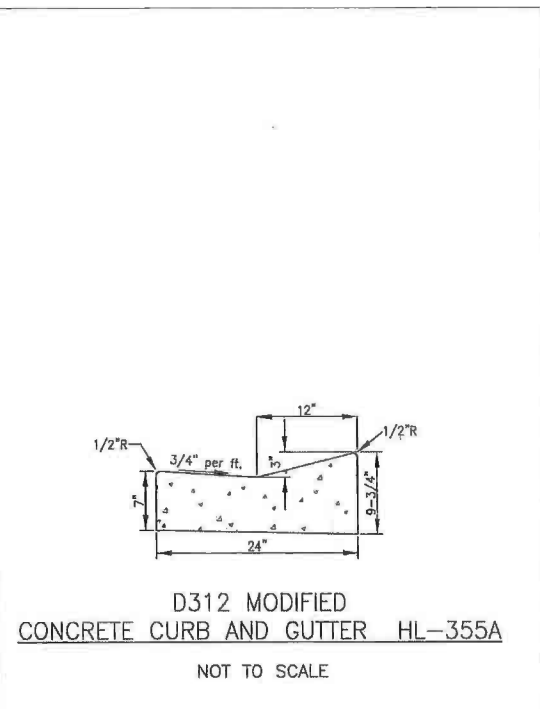
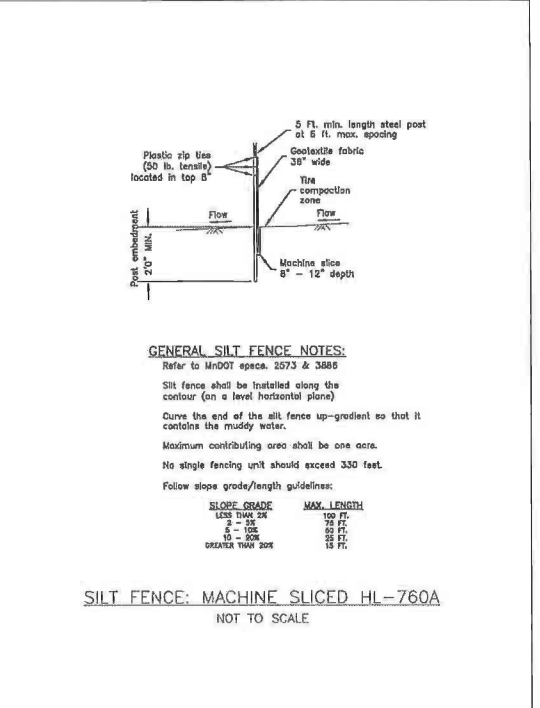
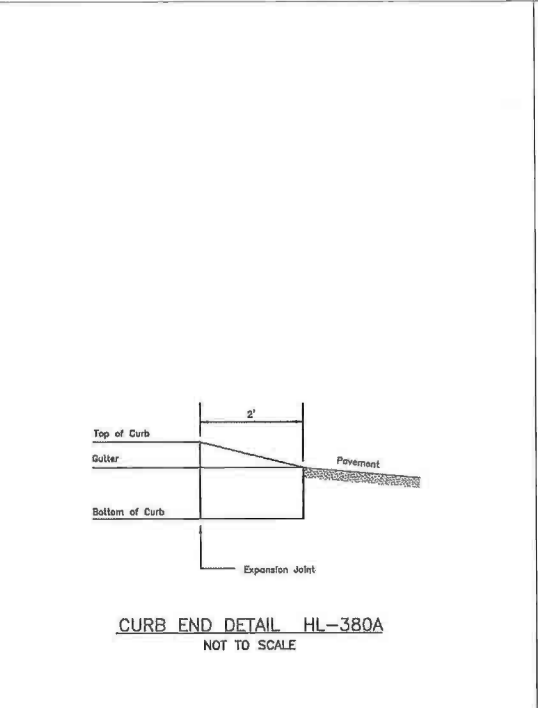
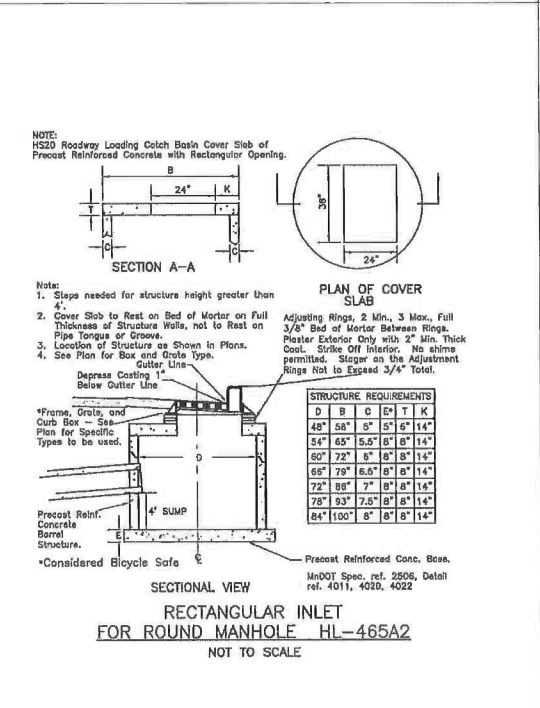
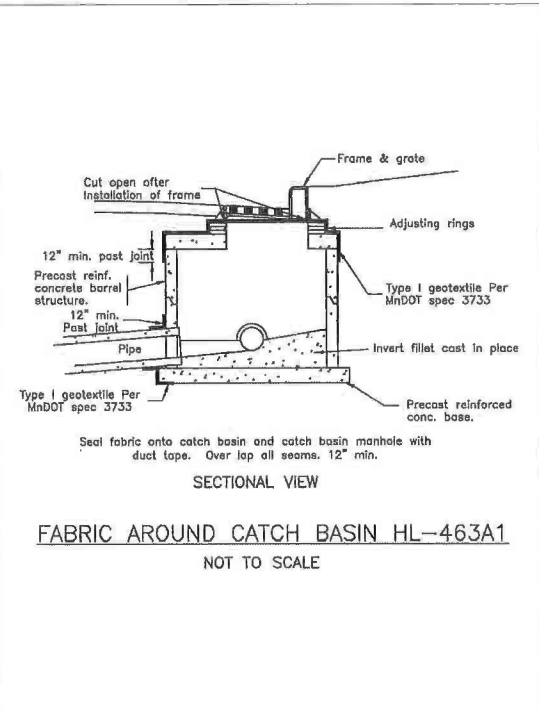
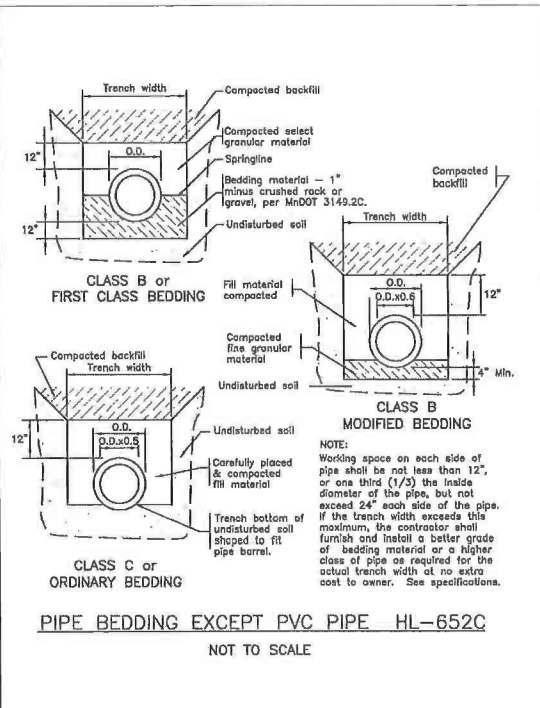
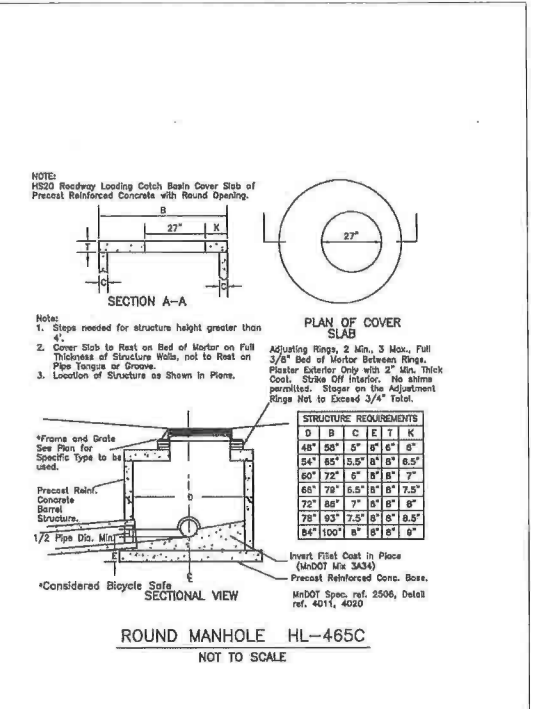
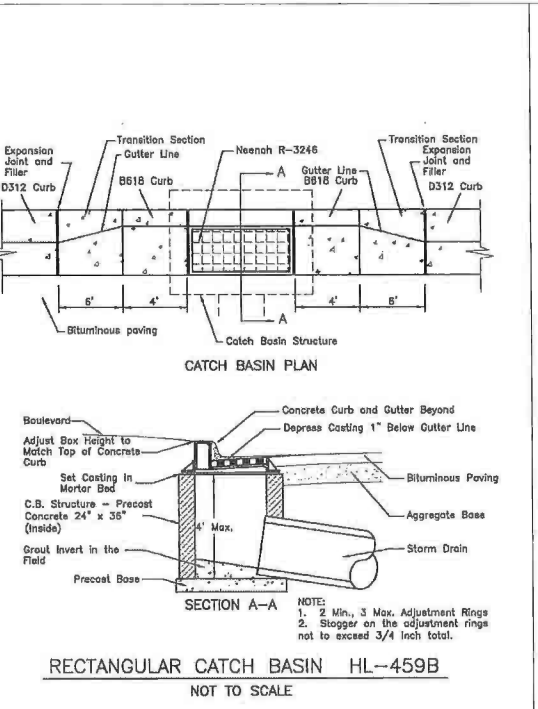


TABLE OF QUANTITIES
Riprap at RCP Outlets

Dia. Pipe (In.)	L (Ft.)	Class I			Class II			Class IV		
		Depth (Cu. Yd.)	Riprap (Cu. Yd.)	Depth (Cu. Yd.)	Riprap (Cu. Yd.)	Depth (Cu. Yd.)	Riprap (Cu. Yd.)			
12	8	3.0	4.4	5.9						
15	8			4.8						
18	10			6.4						
21	10			7.1						
24	12			9.2						
27	12			9.8						
30	14			12.3						
36	18			15.8						
42	18			15.7						
48	20			14.8						

TABLE OF QUANTITIES
Riprap at RCPA Outlets

Span (ft.)	L (ft.)	Class I			Class II			Class IV		
		Depth (Cu. Yd.)	Riprap (Cu. Yd.)	Depth (Cu. Yd.)	Riprap (Cu. Yd.)	Depth (Cu. Yd.)	Riprap (Cu. Yd.)			
22	18			6.1						
24	12			8.5						
36	14			7.5						
43	18			8.5						
51	18			11.3						
58	20			13.2						



CROSTOWN ROLLING ACRES THIRD ADDITION

CITY OF HAM LAKE, ANOKA COUNTY, MN

DETAILS



Know what's below.
Call before you dig.



PLOWE
ENGINEERING, INC.

6776 LAKE DRIVE
SUITE 110
LIND LAKE, MN 55014

PHONE: (651) 381-8210
FAX: (651) 381-8701

DRAWN BY: AG
CHECK BY: CWP

JOB NO: 19-1882
DATE: 7-16-20

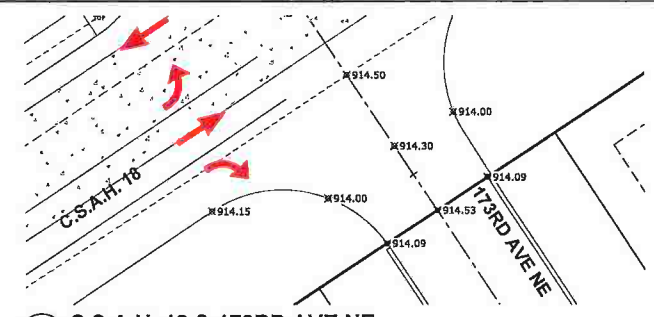
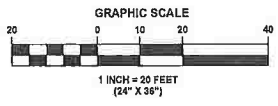
NO.	DATE	DESCRIPTION
1	11-20	CADD & CITY COMMENTS
2	12-21	CADD & CITY COMMENTS
3	3-26-21	CITY COMMENTS
4	3-26-21	CITY COMMENTS
5		
6		
7		
8		

HEREBY CERTIFY THAT THIS PLAN WAS PREPARED BY ME OR UNDER MY CLOSE PERSONAL SUPERVISION AND I AM A LICENSED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF MINNESOTA.

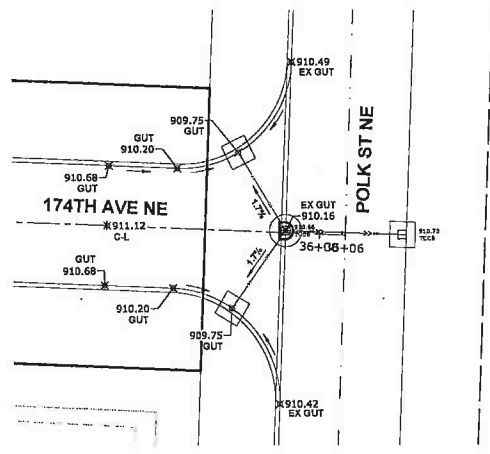
Adam Kinkel
ADAM KINKEL
LIC. NO. 43953
DATE: 03.26.2021

CROSTOWN ROLLING ACRES
THIRD ADDITION
CITY OF HAM LAKE, MN
DETAILS
PREPARED FOR: CROSTOWN DEVELOPMENT LLC

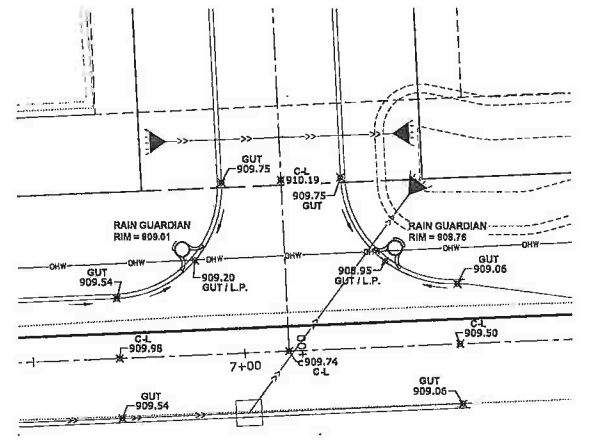
SHEET
C3.5



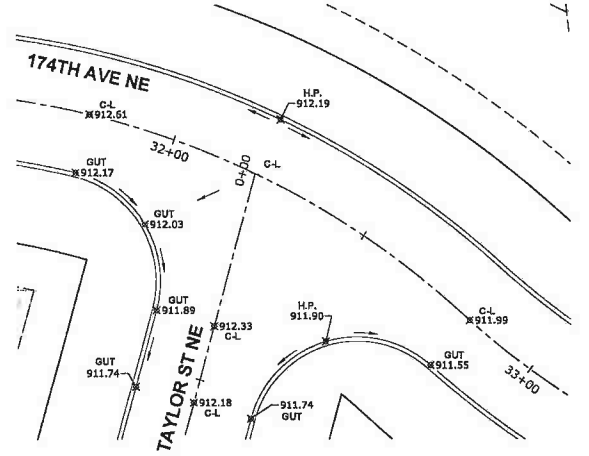
C.S.A.H. 18 & 173RD AVE NE
SCALE = 1:20



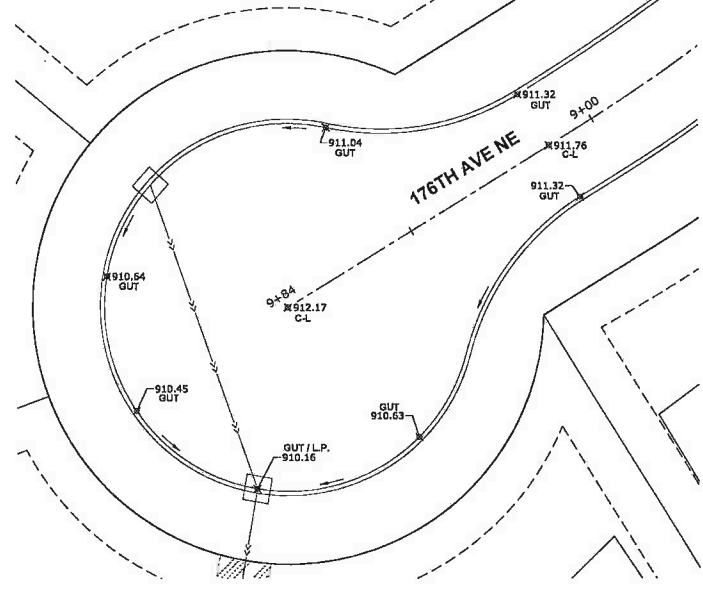
POLK ST NE & 174TH AVE NE
SCALE = 1:20



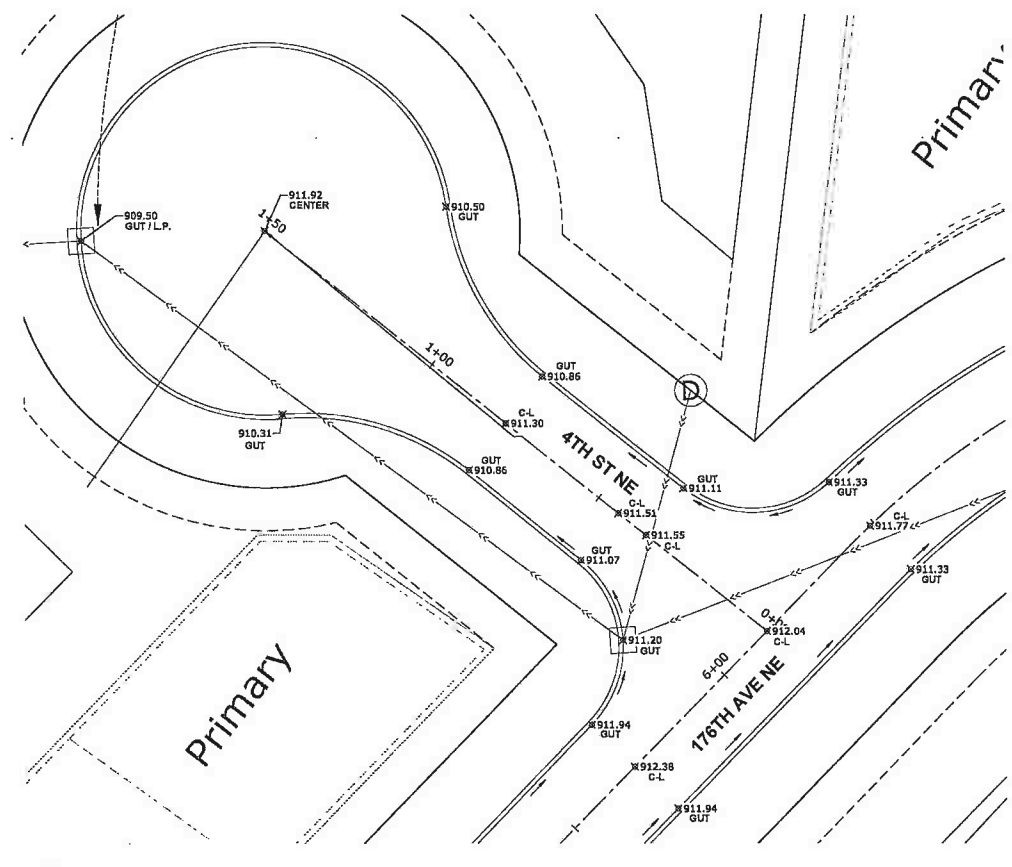
TERRACE RD NE & 173RD AVE NE
SCALE = 1:20



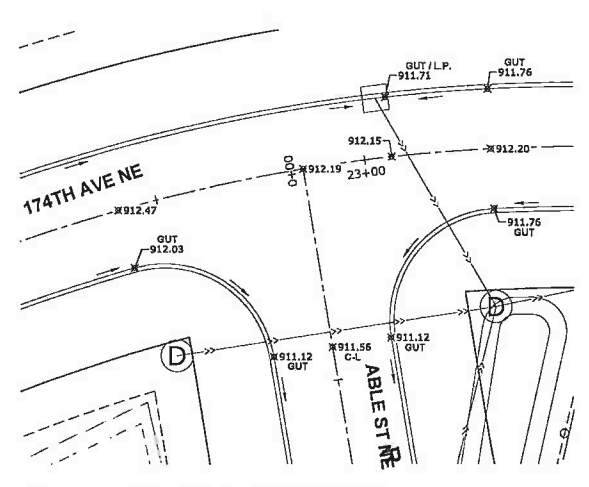
TAYLOR ST NE & 174TH AVE NE
SCALE = 1:20



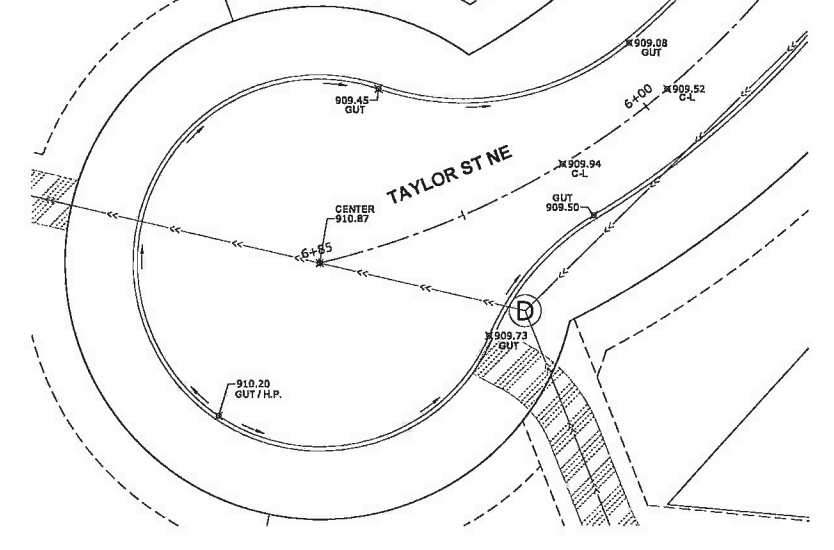
176TH AVE NE -- CUL-DE-SAC
SCALE = 1:20



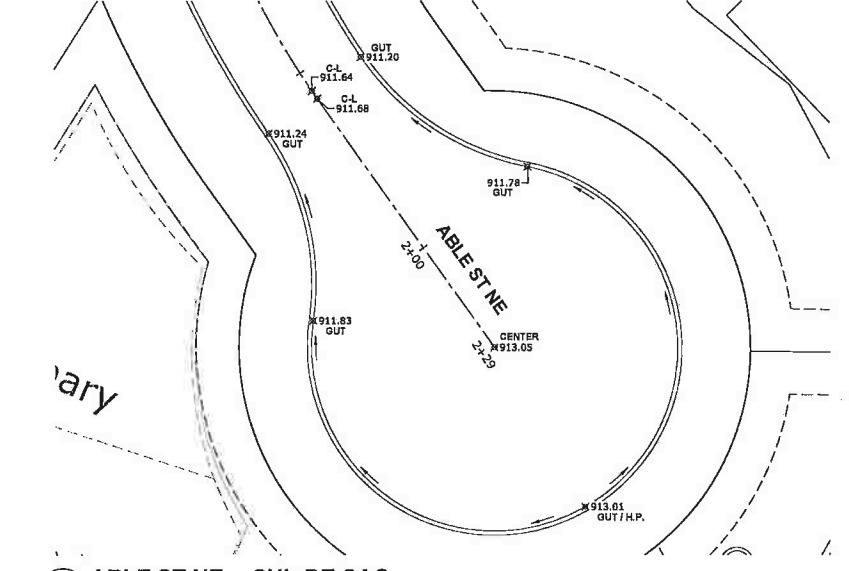
4TH ST NE & 176TH AVE NE
SCALE = 1:20



ABLE ST NE & 174TH AVE NE
SCALE = 1:20



TAYLOR ST NE -- CUL-DE-SAC
SCALE = 1:20



ABLE ST NE -- CUL-DE-SAC
SCALE = 1:20

PRELIMINARY PLAT

~of~ CROSSTOWN ROLLING ACRES THIRD ADDITION
 ~for~ CROSSTOWN DEVELOPMENT, LLC
 17404 WARD LAKE DRIVE NW
 ANDOVER, MN 55304
 (612) 799-1471

PROPERTY DESCRIPTION

Outlot A, CROSSTOWN ROLLING ACRES, Anoka County, Minnesota.

AND

Outlot A, CROSSTOWN ROLLING ACRES SECOND ADDITION, Anoka County, Minnesota.

AND

That part of the Northwest Quarter of Southwest Quarter of Section 6, Township 32, Range 23, Anoka County, Minnesota, lying southerly and southwesterly of the centerline of County Road No. 58 (A.K.A. 177th Avenue N.E.).

AND

That part of the South Half of the Southwest Quarter of Section 6, Township 32, Range 23, Anoka County, Minnesota, lying southerly and southeasterly of the southerly right of way line of C.S.A.H. No. 18 (A.K.A. Crosstown Boulevard N.E.).

AND

That part of the South Half of the Southwest Quarter of the Southeast Quarter of Section 6, Township 32, Range 23, Anoka County, Minnesota, lying southerly and southeasterly of the southerly right of way line of C.S.A.H. No. 18 (A.K.A. Crosstown Boulevard N.E.).

EXCEPT THAT PART OF THE SOUTHWEST QUARTER OF THE SOUTHEAST QUARTER OF SAID SECTION 6 DESCRIBED AS FOLLOWS:

Commencing at the Southwest corner of the Southwest Quarter of said Section 6; thence North along the West line of said Southwest Quarter of Southeast Quarter a distance of 300 feet; thence East and parallel with the South line of said Southwest Quarter of Southeast Quarter a distance of 616 feet; thence South and parallel with the West line of said Southwest Quarter of Southeast Quarter a distance of 300 feet, to the South line of said Southwest Quarter of Southeast Quarter; thence West along said South line to the point of beginning.

DEVELOPMENT DATA

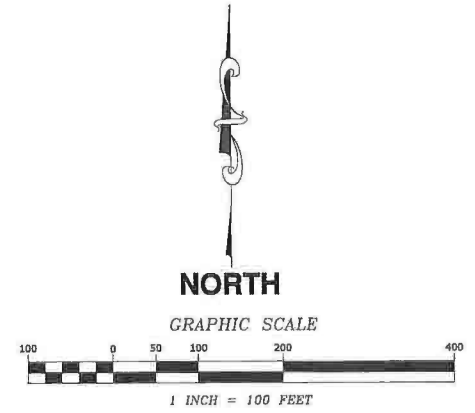
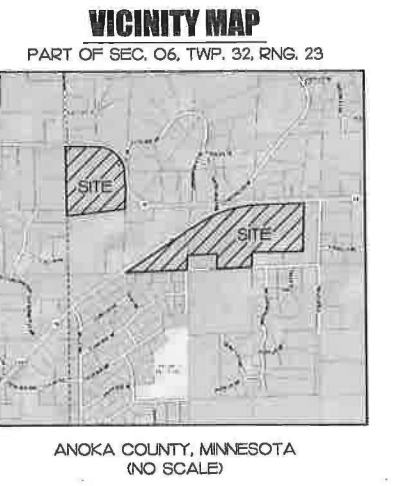
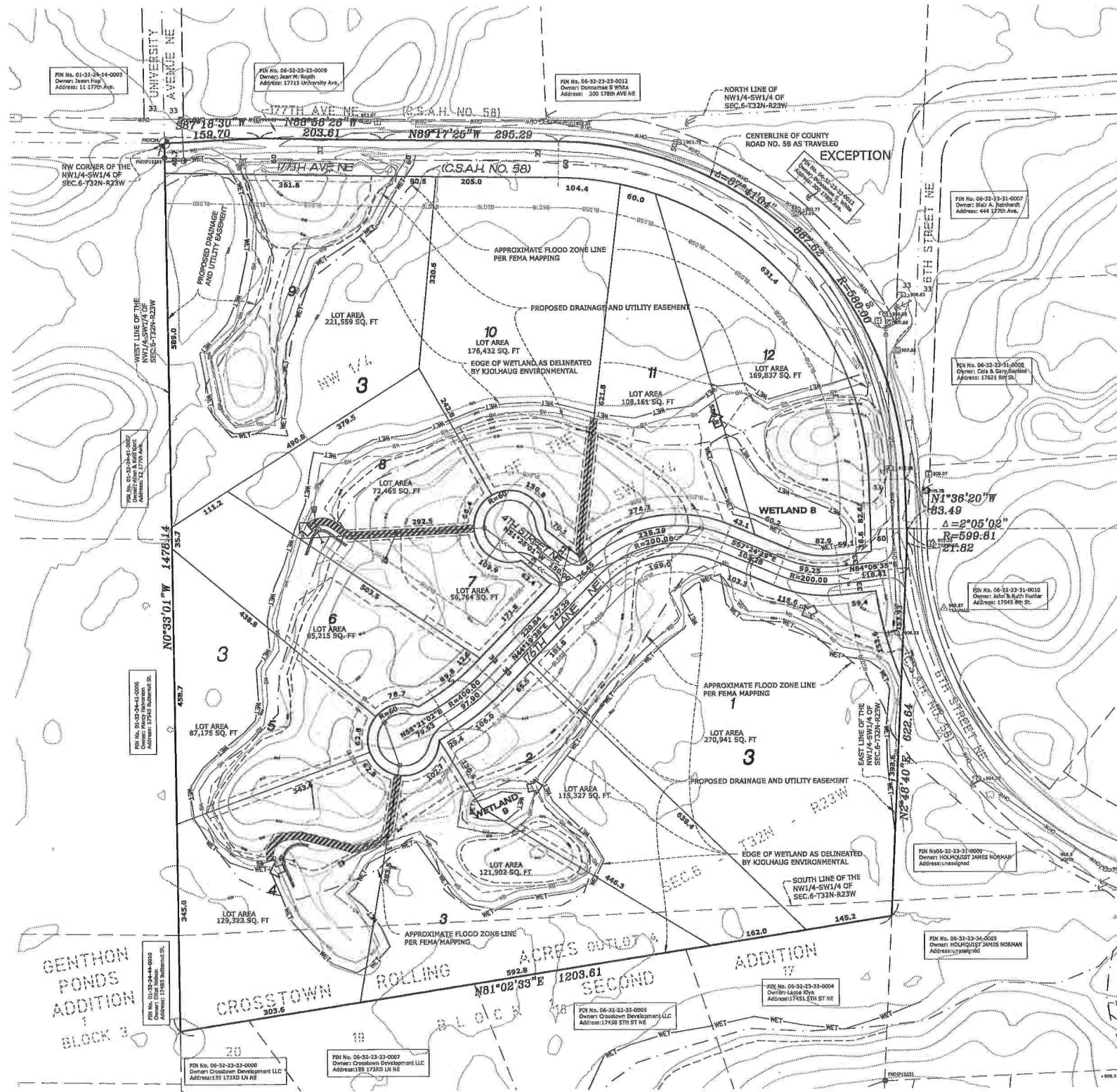
- TOTAL SITE AREA = 102.64± ACRES
- 49 PROPOSED SINGLE FAMILY LOTS
- PARK DEDICATION = 4.04± ACRES
- OUTLOT AREA = 0.47± ACRES
- AVERAGE LOT SIZE = 2.09± ACRES
- MINIMUM STREET FRONTAGE = 200 FEET
- MINIMUM LOT SIZE = 1.00 ACRES (INCLUDING HALF OF STREET ROW)
- PROPOSED ZONING = R-1
- BUILDING SETBACKS: FRONT = 30 FEET, SIDE = 10 FEET, REAR = 50 FEET, COUNTY ROAD = 50 FEET

EXISTING ZONING

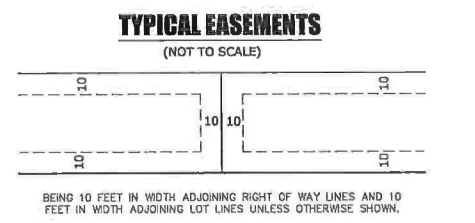
R-A - (Rural Single Family Residential)

NOTES

- Bearings shown are on Anoka County datum.
- Contours shown are per MnGEO LIDAR distribution and field verification.
- Total lot areas are calculated to street centerline per ordinance. Areas of lots adjacent to Crosstown Boulevard N.E. were calculated to the right of way line.
- Parcel is subject to Electrical Transmission Easement per Doc. No. 2212537.001 and 2212537.002.
- Parcel ID #: 06-32-23-32-0002, 06-32-23-34-0004, 06-32-23-34-0002, 06-32-23-43-0002, 06-32-23-43-0006, 06-32-23-44-0011



- ### LEGEND
- WET - DENOTES EDGE OF WETLAND AS DELINEATED BY KJOLHAUG ENVIRONMENTAL SERVICES, INC. (UNLESS OTHERWISE NOTED)
 - - DENOTES AREA 1' ABOVE MOTTLES
 - — — - DENOTES PHASE LINE
 - — — - DENOTES EXISTING 2 FOOT CONTOUR
 - — — - DENOTES PROPOSED 2 FOOT CONTOURS
 - — — - DENOTES EASEMENT LINE
 - — — - DENOTES BUILDING SETBACK LINE
 - — — - DENOTES WETLAND/VEGETATIVE BUFFER
 - — — - DENOTES APPROXIMATE FEMA FLOOD ZONE A LINE



I hereby certify that this survey, plan or report was prepared by me or under my direct supervision and that I am a duly Registered Land Surveyor under the laws of the State of Minnesota.

JASON E. RUD
 Date: 04/22/2021 License No. 41578

DRAWN BY:	JEN	JOB NO.:	17737PP	DATE:	07/15/2020
CHECK BY:	JER	SCANNED	<input type="checkbox"/>		
NO.	DATE	DESCRIPTION	BY		
1	11/02/20	CITY / WATERSHED COMMENTS	MMD		
2	01/13/21	CITY / WATERSHED COMMENTS	MMD		
3	02/26/21	CITY / WATERSHED COMMENTS	MMD		
4	03/26/21	CITY / WATERSHED COMMENTS	MMD		
5	04/22/21	CITY COMMENTS	MMD		

E.G. RUD & SONS, INC.
 EST. 1977
 Professional Land Surveyors
 6776 Lake Drive NE, Suite 110
 Lino Lakes, MN 55014
 Tel. (651) 361-8200 Fax (651) 361-8701
 www.egrud.com

PRELIMINARY PLAT

~of~ CROSTOWN ROLLING ACRES THIRD ADDITION
 ~for~ CROSTOWN DEVELOPMENT, LLC
 17404 WARD LAKE DRIVE NW
 ANDOVER, MN 55304
 (612) 799-1471

DEVELOPMENT DATA

TOTAL SITE AREA = 102.64± ACRES
 49 PROPOSED SINGLE FAMILY LOTS
 PARK DEDICATION = 4.04± ACRES
 OUTLOT AREA = 0.47± ACRES
 AVERAGE LOT SIZE = 2.09± ACRES
 MINIMUM STREET FRONTAGE = 200 FEET
 MINIMUM LOT SIZE = 1.00 ACRES (INCLUDING HALF OF STREET ROW)
 PROPOSED ZONING = R-1
 BUILDING SETBACKS FRONT = 30 FEET
 SIDE = 10 FEET
 REAR = 50 FEET
 COUNTY ROAD = 50 FEET

EXISTING ZONING

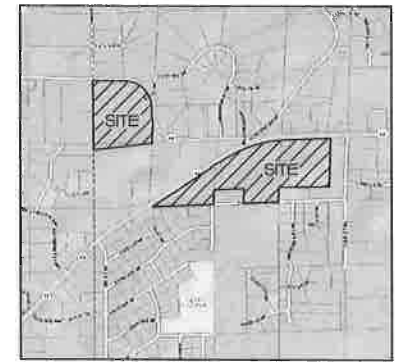
R-A - (Rural Single Family Residential)

NOTES

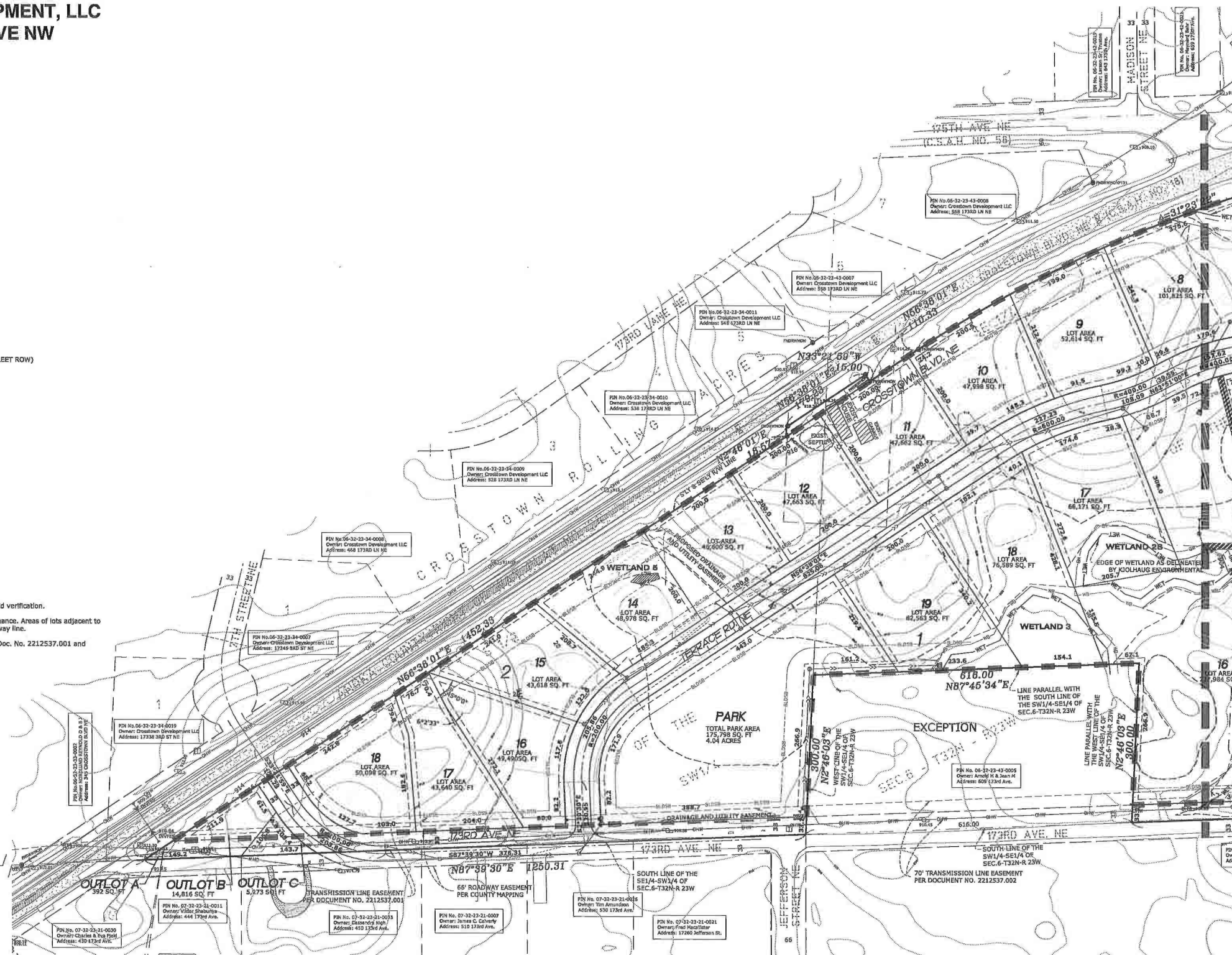
- Bearings shown are on Anoka County datum.
- Contours shown are per MnGeo LIDAR distribution and field verification.
- Total lot areas are calculated to street centerline per ordinance. Areas of lots adjacent to Crosstown Boulevard N.E. were calculated to the right of way line.
- Parcel is subject to Electrical Transmission Easement per Doc. No. 2212537.001 and 2212537.002.
- Parcel ID #s: 06-32-23-32-0002
 06-32-23-34-0004
 06-32-23-34-0002
 06-32-23-43-0002
 06-32-23-43-0006
 06-32-23-44-0011

VICINITY MAP

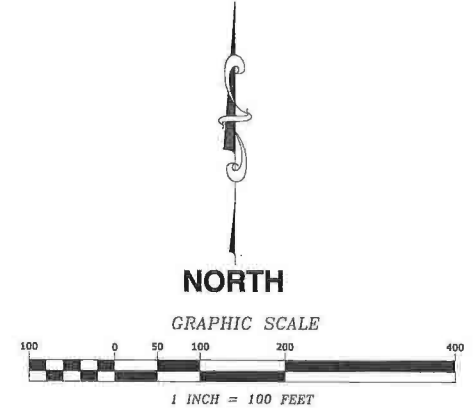
PART OF SEC. 06, TWP. 32, RNG. 23



ANOKA COUNTY, MINNESOTA
 (NO SCALE)



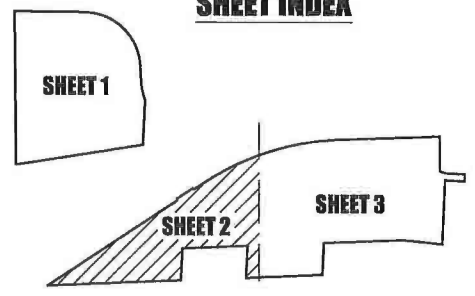
MATCHLINE: SEE SHEET 3



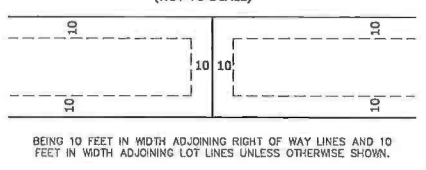
LEGEND

- WET - DENOTES EDGE OF WETLAND AS DELINEATED BY KJOLHAUG ENVIRONMENTAL SERVICES, INC. (UNLESS OTHERWISE NOTED)
- 1' ABOVE MOTTLES - DENOTES AREA 1' ABOVE MOTTLES
- PHASE LINE - DENOTES PHASE LINE
- EXISTING 2 FOOT CONTOUR - DENOTES EXISTING 2 FOOT CONTOUR
- PROPOSED 2 FOOT CONTOURS - DENOTES PROPOSED 2 FOOT CONTOURS
- EASEMENT LINE - DENOTES EASEMENT LINE
- BUILDING SETBACK LINE - DENOTES BUILDING SETBACK LINE
- WETLAND/VEGETATIVE BUFFER - DENOTES WETLAND/VEGETATIVE BUFFER
- FEMA FLOOD ZONE - DENOTES APPROXIMATE FEMA FLOOD ZONE A LINE

SHEET INDEX



TYPICAL EASEMENTS (NOT TO SCALE)



BEING 10 FEET IN WIDTH ADJOINING RIGHT OF WAY LINES AND 10 FEET IN WIDTH ADJOINING LOT LINES UNLESS OTHERWISE SHOWN.

E. G. RUD & SONS, INC.
 EST. 1917
 Professional Land Surveyors
 6776 Lake Drive NE, Suite 110
 Lino Lakes, MN 55014
 Tel. (651) 361-8200 Fax (651) 361-8701
 www.egrud.com

I hereby certify that this survey, plan or report was prepared by me or under my direct supervision and that I am a duly Registered Land Surveyor under the laws of the State of Minnesota.
 JASON E. RUD
 Date: 03/26/2021 License No. 41578

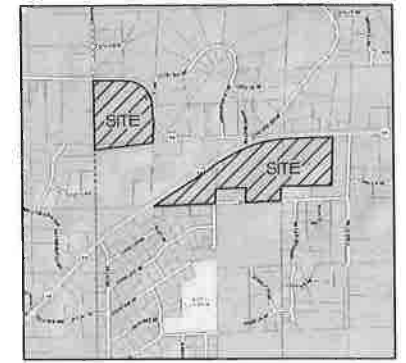
NO.	DATE	DESCRIPTION	BY
1	11/02/20	CITY / WATERSHED COMMENTS	MHD
2	01/13/21	CITY / WATERSHED COMMENTS	MHD
3	02/26/21	CITY / WATERSHED COMMENTS	MHD
4	03/26/21	CITY / WATERSHED COMMENTS	MHD

PRELIMINARY PLAT

~of~ CROSSTOWN ROLLING ACRES THIRD ADDITION
 ~for~ CROSSTOWN DEVELOPMENT, LLC
 17404 WARD LAKE DRIVE NW
 ANDOVER, MN 55304
 (612) 799-1471

VICINITY MAP

PART OF SEC. 06, TWP. 32, RNG. 23



ANOKA COUNTY, MINNESOTA
(NO SCALE)

DEVELOPMENT DATA

- TOTAL SITE AREA = 102.64± ACRES
- 49 PROPOSED SINGLE FAMILY LOTS
- PARK DEDICATION = 4.04± ACRES
- OUTLOT AREA = 0.47± ACRES
- AVERAGE LOT SIZE = 2.09± ACRES
- MINIMUM STREET FRONTAGE = 200 FEET
- MINIMUM LOT SIZE = 1.00 ACRES (INCLUDING HALF OF STREET ROW)
- PROPOSED ZONING = R-1
- BUILDING SETBACKS: FRONT = 30 FEET, SIDE = 10 FEET, REAR = 50 FEET, COUNTY ROAD = 50 FEET

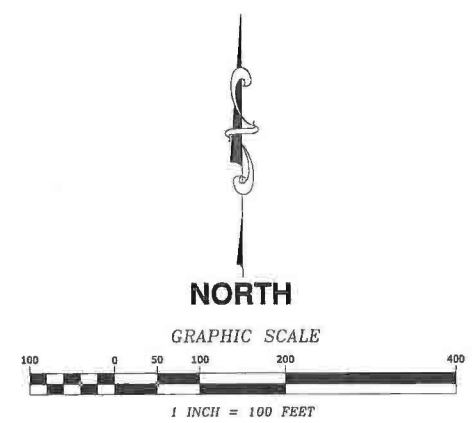
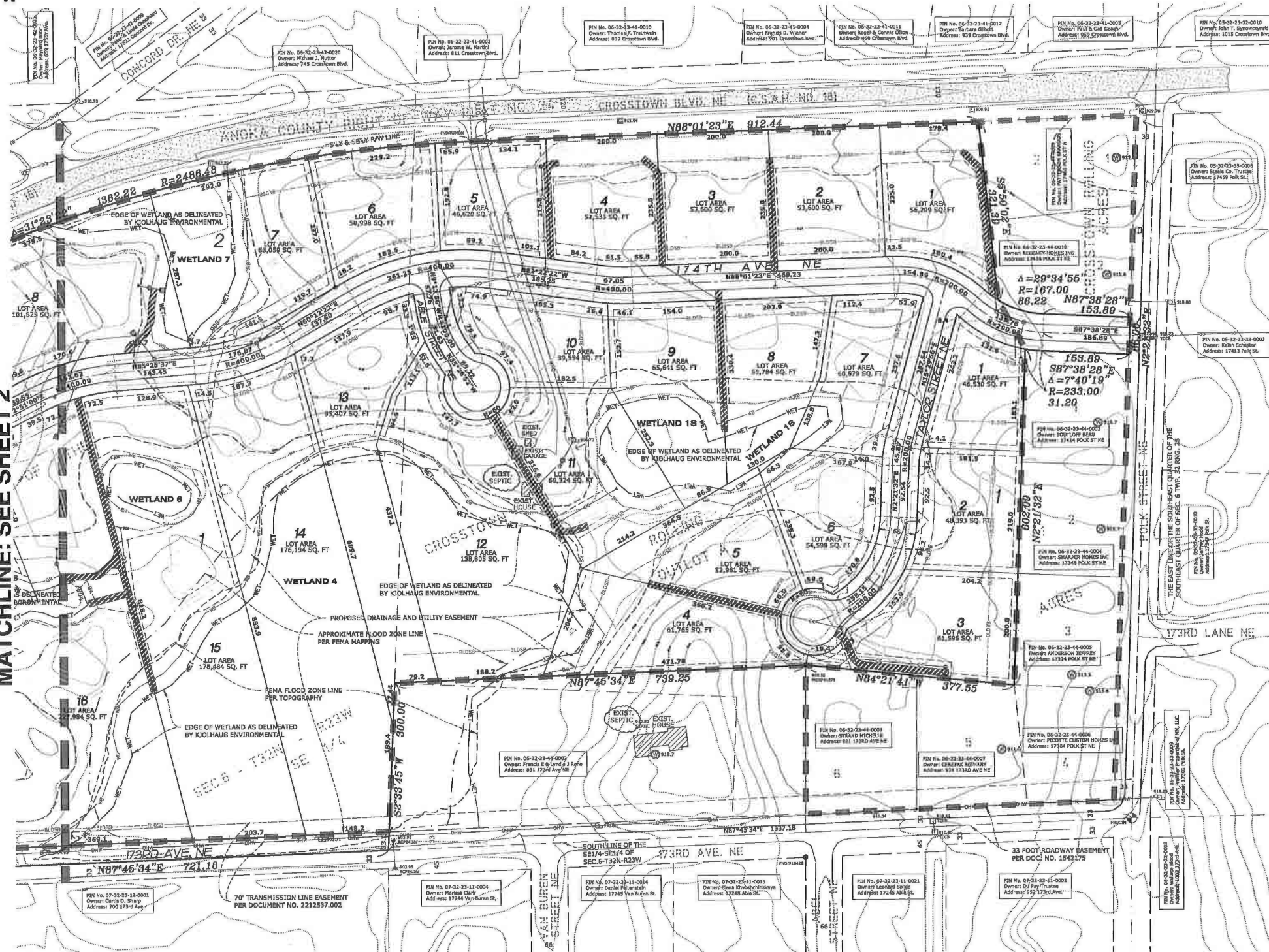
EXISTING ZONING

R-1 - (Rural Single Family Residential)

NOTES

- Bearings shown are on Anoka County datum.
- Contours shown are per MGED LIDAR distribution and field verification.
- Total lot areas are calculated to street centerline per ordinance. Areas of lots adjacent to Crosstown Boulevard N.E. were calculated to the right of way line.
- Parcel is subject to Electrical Transmission Easement per Doc. No. 2212537.001 and 2212537.002.
- Parcel ID #: 06-32-23-32-0002, 06-32-23-34-0004, 06-32-23-34-0002, 06-32-23-43-0002, 06-32-23-43-0006, 06-32-23-44-0011

MATCHLINE: SEE SHEET 2



LEGEND

- WET - DENOTES EDGE OF WETLAND AS DELINEATED BY KJOLHAUG ENVIRONMENTAL SERVICES, INC. (UNLESS OTHERWISE NOTED)
- - DENOTES AREA 1' ABOVE MOTTLES
- - DENOTES PHASE LINE
- - DENOTES EXISTING 2 FOOT CONTOUR
- - DENOTES PROPOSED 2 FOOT CONTOURS
- - DENOTES EASEMENT LINE
- - DENOTES BUILDING SETBACK LINE
- - DENOTES WETLAND/VEGETATIVE BUFFER
- - DENOTES APPROXIMATE FEMA FLOOD ZONE A LINE

SHEET INDEX



TYPICAL EASEMENTS (NOT TO SCALE)

I hereby certify that this survey, plan or report was prepared by me or under my direct supervision and that I am a duly Registered Land Surveyor under the laws of the State of Minnesota.

JASON E. RUD
 Date: 03/26/2021 License No. 41578

NO.	DATE	DESCRIPTION	BY
1	11/02/20	CITY / WATERSHED COMMENTS	MND
2	01/13/21	CITY / WATERSHED COMMENTS	MND
3	02/26/21	CITY / WATERSHED COMMENTS	MND
4	03/26/21	CITY / WATERSHED COMMENTS	MND
		DESCRIPTION	BY

GRADING, EROSION CONTROL AND TREE PROTECTION PLAN

~of~ CROSSTOWN ROLLING ACRES THIRD ADDITION

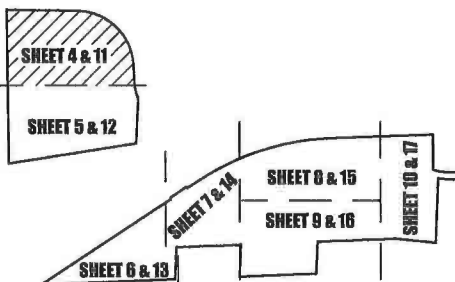
~for~ CROSSTOWN DEVELOPMENT, LLC

17404 WARD LAKE DRIVE NW
ANDOVER, MN 55304
(612) 799-1471

LEGEND

- DENOTES SOIL BORING BY TRADEWELL SOIL TESTING
- DENOTES PIEZOMETER OR PENETRATION BORING BY BRAUN INTERTEC, INC.
- DENOTES EMERGENCY OVERFLOW ELEVATION
- DENOTES EXISTING SPOT ELEVATION
- DENOTES WETLAND
- DENOTES EXISTING 2 FOOT CONTOUR
- DENOTES PROPOSED 2 FOOT CONTOURS
- DENOTES WETLAND DELINEATED BY KJOLHAUG ENVIRONMENTAL SERVICES COMPANY.
- DENOTES EASEMENT LINE
- DENOTES SETBACK LINE
- DENOTES PROPOSED STORM SEWER
- DENOTES PROPOSED SILT / TREE PROTECTION FENCE
- DENOTES BIO ROLL TO BE INSTALLED INSIDE SILT FENCE ADJACENT TO WETLAND
- DENOTES DIRECTION OF DRAINAGE
- DENOTES PROPOSED SPOT ELEVATION
- DENOTES PROPOSED CENTERLINE ELEVATION
- DENOTES PROPOSED WELL LOCATION
- DENOTES AREA 1' ABOVE MOTTLES
- DENOTES WETLAND/ VEGETATIVE BUFFER
- DENOTES WETLAND/ VEGETATIVE BUFFER SIGN
- DENOTES RIPRAP (RIPRAP TO BE VEGETATED IN WETLAND BUFFER)
- DENOTES PROPOSED STORM SEWER INLET PROTECTION
- DENOTES APPROXIMATE FEMA FLOOD ZONE A LINE
- DENOTES TREE PRESERVATION AREA
- DENOTES 12' POND ACCESS
- DENOTES FLOODPLAIN FILL

SHEET INDEX



PONDING CALCULATIONS AND STORM SEWER DESIGN BY PLOWE ENGINEERING, INC.



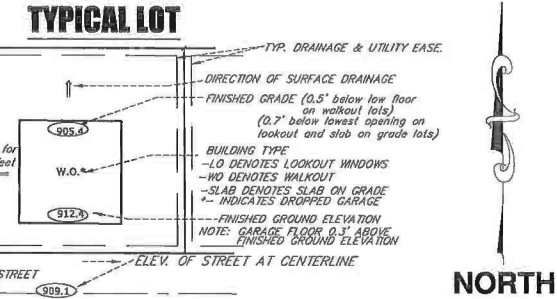
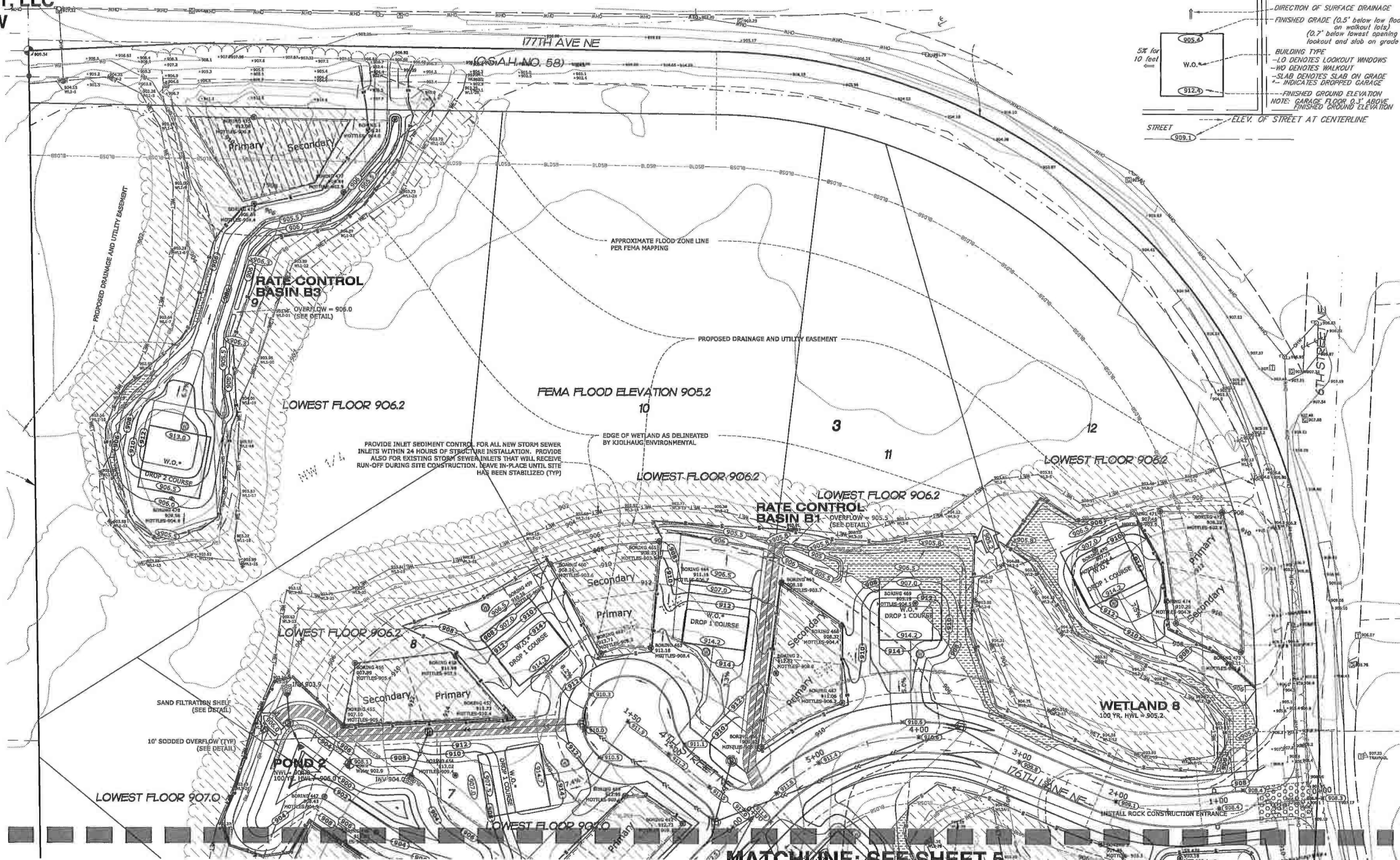
PLOWE ENGINEERING, INC.
6776 LAKE DRIVE
SUITE 110
LINO LAKES, MN 55014

SITE PLANNING & ENGINEERING PHONE: (651) 361-8210 FAX: (651) 361-8701

I HEREBY CERTIFY THAT THIS PLAN WAS PREPARED BY ME OR UNDER MY DIRECT SUPERVISION AND THAT I AM A DULY LICENSED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF MINNESOTA.

Adam Ginkel
ADAM GINKEL
DATE: 04.22.2021 LIC. NO. 43983

E. G. RUD & SONS, INC.
EST. 1977
Professional Land Surveyors
6776 Lake Drive NE, Suite 110
Lino Lakes, MN 55014
Tel. (651) 361-8200 Fax (651) 361-8701



EROSION CONTROL / REVEGETATION SPECS.

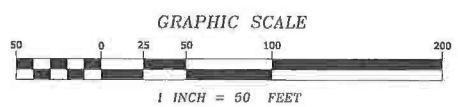
1. PRIOR TO ROUGH GRADING, INSTALL SILT STOP FENCE IN LOCATIONS SHOWN. ADDITIONAL SILT STOP FENCE WILL BE REQUIRED WHERE LOCAL CONDITIONS REQUIRE. INSTALL TREE PROTECTION AS DEEMED NECESSARY BY THE CITY FORESTER PRIOR TO ANY GRADING.
2. ANY GRADING SHALL PROCEED ON AN AREA BY AREA BASIS TO MINIMIZE UNCOMPLETED AREAS.
3. AS EACH AREA OUTSIDE THE STREET IS GRADED, PROVIDE NATIVE TOPSOIL, SEED, AND MULCH ANCHORED WITH A STRAIGHT SET DISC WITHIN SEVEN DAYS AFTER ROUGH GRADING.
4. MAINTAIN AND REPAIR SILT STOP FENCES (INCLUDING REMOVAL OF ACCUMULATED SILT) UNTIL VEGETATION IS ESTABLISHED.
5. AREAS IN BUFFER THAT HAVE VEGETATION REMOVED DURING CONSTRUCTION MUST BE RESEED WITH NATIVE MIX AND AND BE MONITORED AND MAINTAINED FOR 3 YEARS.
6. SEE "STORM WATER POLLUTION PREVENTION PLAN" FOR ADDITIONAL EROSION CONTROL NOTES AND SITE SEQUENCING.

I hereby certify that this survey, plan or report was prepared by me or under my direct supervision and that I am a duly Registered Land Surveyor under the laws of the State of Minnesota.

Jason E. Rud
JASON E. RUD
Date: 04/22/2021 License No. 41578

NOTES

- BEARINGS SHOWN ARE ON ANOKA COUNTY DATUM.
- TOTAL LOT AREAS ARE CALCULATED TO STREET CENTERLINE PER ORDINANCE.
- 2 FOOT CONTOUR INTERVAL (NAVD 88)
- CONTOURS SHOWN ARE PER MINGEO LIDAR DISTRIBUTION AND FIELD VERIFICATION
- ALL MATCH POINTS AND PAVEMENT PATCHES TO BE SAWCUT AT FULL DEPTH.
- TURF AREA TO BE RESEED WITHIN 7 DAYS AFTER COMPLETION OF ROUGH GRADING OR INACTIVITY.
- SEE PRELIMINARY UTILITY PLAN FOR STORM SEWER RIMS, INVERTS, AND SIZES.
- ALL PIPE APRONS PROVIDED WITH TRASH GUARDS
- PROVIDE CLASS III RIPRAP WITH FILTER FABRIC FOR ALL PIPE OUTLETS. INSTALL 6" OF TOPSOIL ON RIPRAP IN WETLAND BUFFERS AND SEED WITH SEED MIX MNDOT 33-261.
- IF DEWATERING IS REQUIRED, THE CONTRACTOR SHALL APPLY FOR A MN DNR DEWATERING PERMIT AND WILL PROVIDE WELL-FIELD LOCATIONS, RATES, DISCHARGE LOCATION, SCHEDULE AND QUANTITIES TO CCWD PRIOR TO ANY DEWATERING OPERATIONS.



FLOODPLAIN FILL NOTES

(UPPER RUM RIVER FLOODPLAIN FILL)
FEMA FLOODPLAIN FILL VOLUME = 18,463 CU-FIT
COMPENSATORY STORAGE VOLUME = 29,800 CU-FIT
(COMPENSATORY STORAGE PROVIDED IN POND 1 AND POND 2 BETWEEN NWL AND 905.2)

LOT GRADING NOTES

- PAD CONTOURS SHOWN ARE FOR DEMONSTRATION PURPOSES.
- HOUSE TYPES AND GRADING THAT VARY FROM WHAT IS PROPOSED ON THE GRADING PLAN REQUIRE A PLAN REVIEW BY THE CITY OF HAN LAKE.
- SILT FENCE TO BE INSTALLED BY BUILDER PRIOR TO HOUSE CONSTRUCTION.
- THERE IS TO BE NO GRADING WITHIN 15' AREAS

TREE PROTECTION NOTES

- TREE PROTECTION LIMITS TO BE MARKED IN FIELD PRIOR TO ANY TREE CLEARING ACTIVITY.
- SILT / TREE PROTECTION FENCE TO BE INSTALLED AT CONSTRUCTION LIMIT LINE.
- CARE IS TO BE TAKEN TO AVOID CONSTRUCTION ACTIVITY OR CONSTRUCTION VEHICLE TRAFFIC WITHIN THE DRIP LINE OF TREES IN THE TREE PROTECTION ZONE.
- FIELD DECISIONS WILL BE MADE ON LOCATION OF TREE PROTECTION LIMITS TO PRESERVE SIGNIFICANT TREES.
- SOME TREES AND DEAD FALL ARE TO BE CLEARED. THIS MAY BE DONE PRIOR TO INSTALLATION OF SILT / TREE PROTECTION FENCE. GRUBBING OF STUMPS WILL OCCUR AFTER EROSION CONTROL MEASURES ARE INSTALLED.

BENCHMARK

ANOKA COUNTY BENCHMARK NO. 3098
ELEVATION = 908.17 FEET (NAVD88)

NO.	DATE	DESCRIPTION	BY
1	11/02/20	CITY / WATERSHED COMMENTS	MMD
2	01/13/21	CITY / WATERSHED COMMENTS	MMD
3	02/26/21	CITY / WATERSHED COMMENTS	MMD
4	03/26/21	CITY / WATERSHED COMMENTS	MMD
5	04/22/21	CITY COMMENTS	MMD

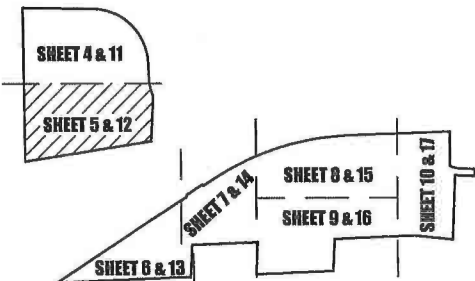
GRADING, EROSION CONTROL AND TREE PROTECTION PLAN

~of~ CROSSTOWN ROLLING ACRES THIRD ADDITION
 ~for~ CROSSTOWN DEVELOPMENT, LLC
 17404 WARD LAKE DRIVE NW
 ANDOVER, MN 55304
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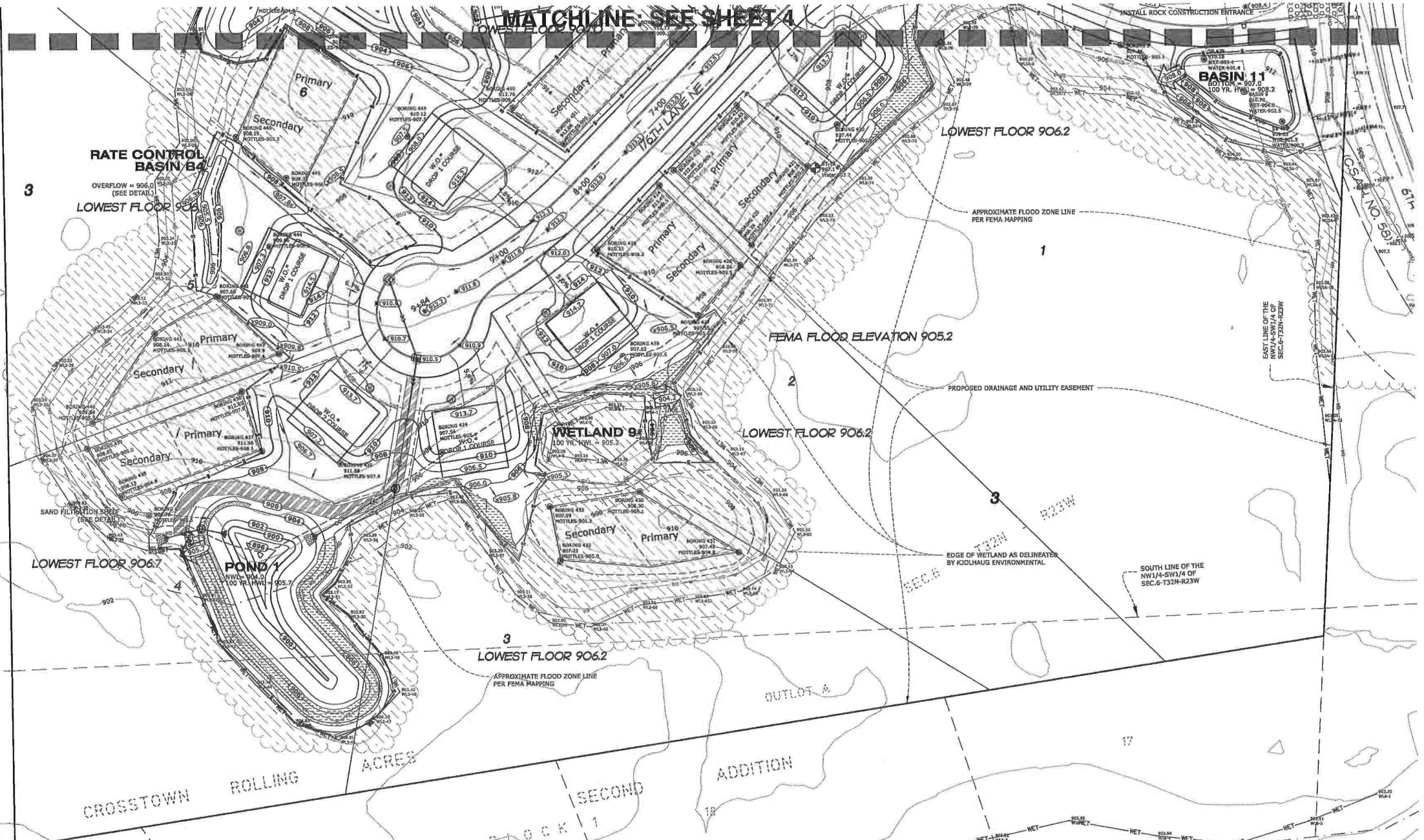
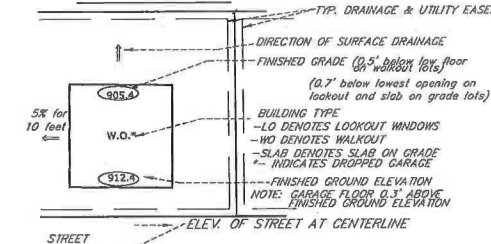
LEGEND

- DENOTES SOIL BORING BY TRADEWELL SOIL TESTING
- DENOTES PIEZOMETER OR PENETRATION BORING BY BRAUN INTERTEC, INC.
- DENOTES EMERGENCY OVERFLOW ELEVATION
- DENOTES EXISTING SPOT ELEVATION
- DENOTES WET LAND
- DENOTES EXISTING 2 FOOT CONTOUR
- DENOTES PROPOSED 2 FOOT CONTOURS
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SHEET INDEX



TYPICAL LOT



EROSION CONTROL / REVEGETATION SPECS.

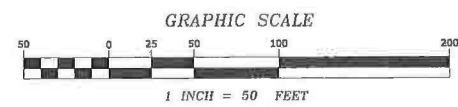
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6. SEE "STORM WATER POLLUTION PREVENTION PLAN" FOR ADDITIONAL EROSION CONTROL NOTES AND SITE SEQUENCING.

I hereby certify that this survey, plan or report was prepared by me or under my direct supervision and that I am a duly Registered Land Surveyor under the laws of the State of Minnesota.

JASON E. RUD
 Date: 04/22/2021 License No. 41578

NOTES

- BEARINGS SHOWN ARE ON ANOKA COUNTY DATUM.
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- 2 FOOT CONTOUR INTERVAL (NAVD 88)
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LOT GRADING NOTES

- PAD CONTOURS SHOWN ARE FOR DEMONSTRATION PURPOSES.
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FLOODPLAIN FILL NOTES

(UPPER RUM RIVER FLOODPLAIN FILL)
 FEMA FLOODPLAIN FILL VOLUME = 19,860 CU/YD
 COMPENSATORY STORAGE VOLUME = 25,000 CU/YD
 (COMPENSATORY STORAGE PROVIDED IN POND 1 AND POND 2 BETWEEN NWL AND 905.2)

BENCHMARK

ANKA COUNTY BENCHMARK NO. 3098
 ELEVATION = 908.17 FEET (NAVD88)

NO.	DATE	DESCRIPTION	BY
1	11/02/20	CITY / WATERSHED COMMENTS	MMD
2	01/13/21	CITY / WATERSHED COMMENTS	MMD
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4	03/26/21	CITY / WATERSHED COMMENTS	MMD
5	04/22/21	CITY COMMENTS	MMD

E.G. RUD & SONS, INC.
 EST. 1977 Professional Land Surveyors
 6776 Lake Drive NE, Suite 110
 Lino Lakes, MN 55014
 Tel. (651) 361-8200 Fax (651) 361-8701

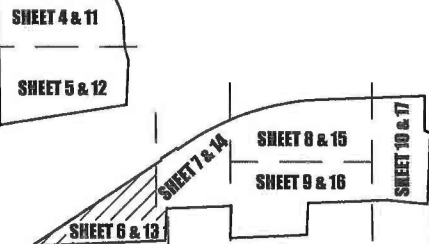
GRADING, EROSION CONTROL AND TREE PROTECTION PLAN

~of~ CROSSTOWN ROLLING ACRES THIRD ADDITION
 ~for~ CROSSTOWN DEVELOPMENT, LLC
 17404 WARD LAKE DRIVE NW
 ANDOVER, MN 55304
 (612) 799-1471

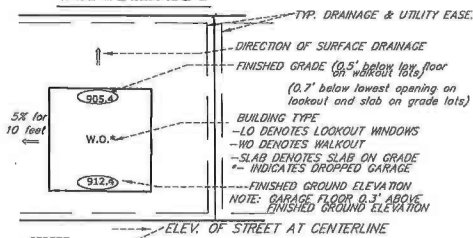
LEGEND

- DENOTES SOIL BORING BY TRADEWELL SOIL TESTING
- DENOTES PIEZOMETER OR PENETRATION BORING BY BRAUN INTERTEC, INC.
- DENOTES EMERGENCY OVERFLOW ELEVATION
- DENOTES EXISTING SPOT ELEVATION
- DENOTES WETLAND
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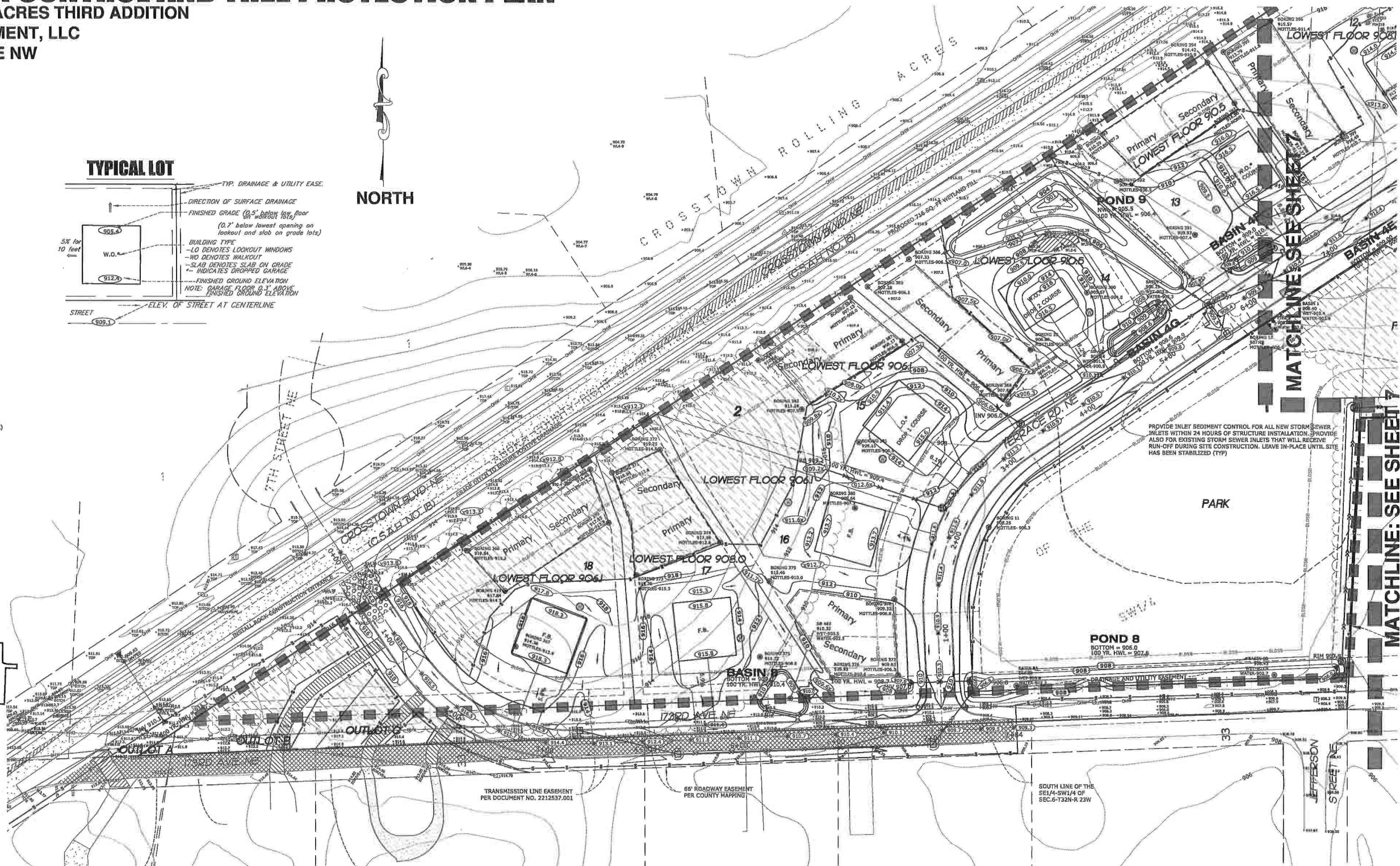
SHEET INDEX



TYPICAL LOT



NORTH



PROVIDE INLET SEDIMENT CONTROL FOR ALL NEW STORM SEWER INLETS WITHIN 24 HOURS OF STRUCTURE INSTALLATION. PROVIDE ALSO FOR EXISTING STORM SEWER INLETS THAT WILL RECEIVE RUN-OFF DURING SITE CONSTRUCTION. LEAVE IN-PLACE UNTIL SITE HAS BEEN STABILIZED (TYP)

PONDING CALCULATIONS AND STORM SEWER DESIGN BY
PLOWE ENGINEERING, INC.
 6776 LAKE DRIVE SUITE 110 LINO LAKE, MN 55014
 PHONE: (651) 361-8210 FAX: (651) 361-8701
 I HEREBY CERTIFY THAT THIS PLAN WAS PREPARED BY ME OR UNDER MY DIRECT SUPERVISION AND THAT I AM A DULY LICENSED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF MINNESOTA.
ADAM QUINKE
 DATE: 03.26.2021 LIC. NO. 43983

EROSION CONTROL / REVEGETATION SPECS.

1. PRIOR TO ROUGH GRADING, INSTALL SILT STOP FENCE IN LOCATIONS SHOWN. ADDITIONAL SILT STOP FENCE WILL BE REQUIRED WHERE LOCAL CONDITIONS REQUIRE. INSTALL TREE PROTECTION AS DEEMED NECESSARY BY THE CITY FORESTER PRIOR TO ANY GRADING.
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I hereby certify that this survey, plan or report was prepared by me or under my direct supervision and that I am a duly Registered Land Surveyor under the laws of the State of Minnesota.

JASON E. RUD
 Date: 03/26/2021 License No. 41578

NOTES

- BEARINGS SHOWN ARE ON ANOKA COUNTY DATUM.
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LOT GRADING NOTES

- PAD CONTOURS SHOWN ARE FOR DEMONSTRATION PURPOSES.
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TREE PROTECTION NOTES

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FLOODPLAIN FILL NOTES

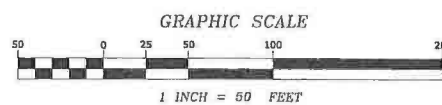
(COON CREEK WATERSHED FLOODPLAIN FILL)
 FEMA FLOODPLAIN FILL VOLUME = 2,700 CUFT
 COMPENSATORY STORAGE VOLUME = 19,827 CUFT
 (COMPENSATORY STORAGE PROVIDED IN POND 4 AND POND 7 BETWEEN NWL AND 904.5)

BENCHMARK

ANOKA COUNTY BENCHMARK NO. 3098
 ELEVATION = 908.17 FEET (NAVD88)

NO.	DATE	DESCRIPTION	BY
1	11/02/20	CITY / WATERSHED COMMENTS	MMD
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4	03/26/21	CITY / WATERSHED COMMENTS	MMD
5			

E. G. RUD & SONS, INC.
 187, 1977
 Professional Land Surveyors
 6776 Lake Drive NE, Suite 110
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 Tel. (651) 361-8200 Fax (651) 361-8701



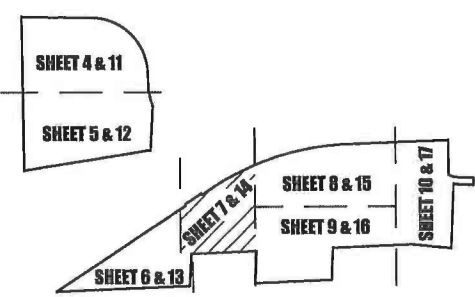
GRADING, EROSION CONTROL AND TREE PROTECTION PLAN

~of~ CROSSTOWN ROLLING ACRES THIRD ADDITION
 ~for~ CROSSTOWN DEVELOPMENT, LLC
 17404 WARD LAKE DRIVE NW
 ANDOVER, MN 55304
 (612) 799-1471

LEGEND

- ⊙ DENOTES SOIL BORING BY TRADEWELL SOIL TESTING
- ⊕ DENOTES PIEZOMETER OR PENETRATION BORING BY BRAUN INTERTEC, INC.
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- ⊕ DENOTES EXISTING SPOT ELEVATION
- ⊕ DENOTES WET LAND
- DENOTES EXISTING 2 FOOT CONTOUR
- DENOTES PROPOSED 2 FOOT CONTOURS
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- DENOTES EASEMENT LINE
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SHEET INDEX



PONDING CALCULATIONS AND STORM SEWER DESIGN BY
PLOWE ENGINEERING, INC.
 8775 LAKE DRIVE SUITE 110 LINO LAKES, MN 55014
 PHONE: (651) 361-8210 FAX: (651) 361-8701

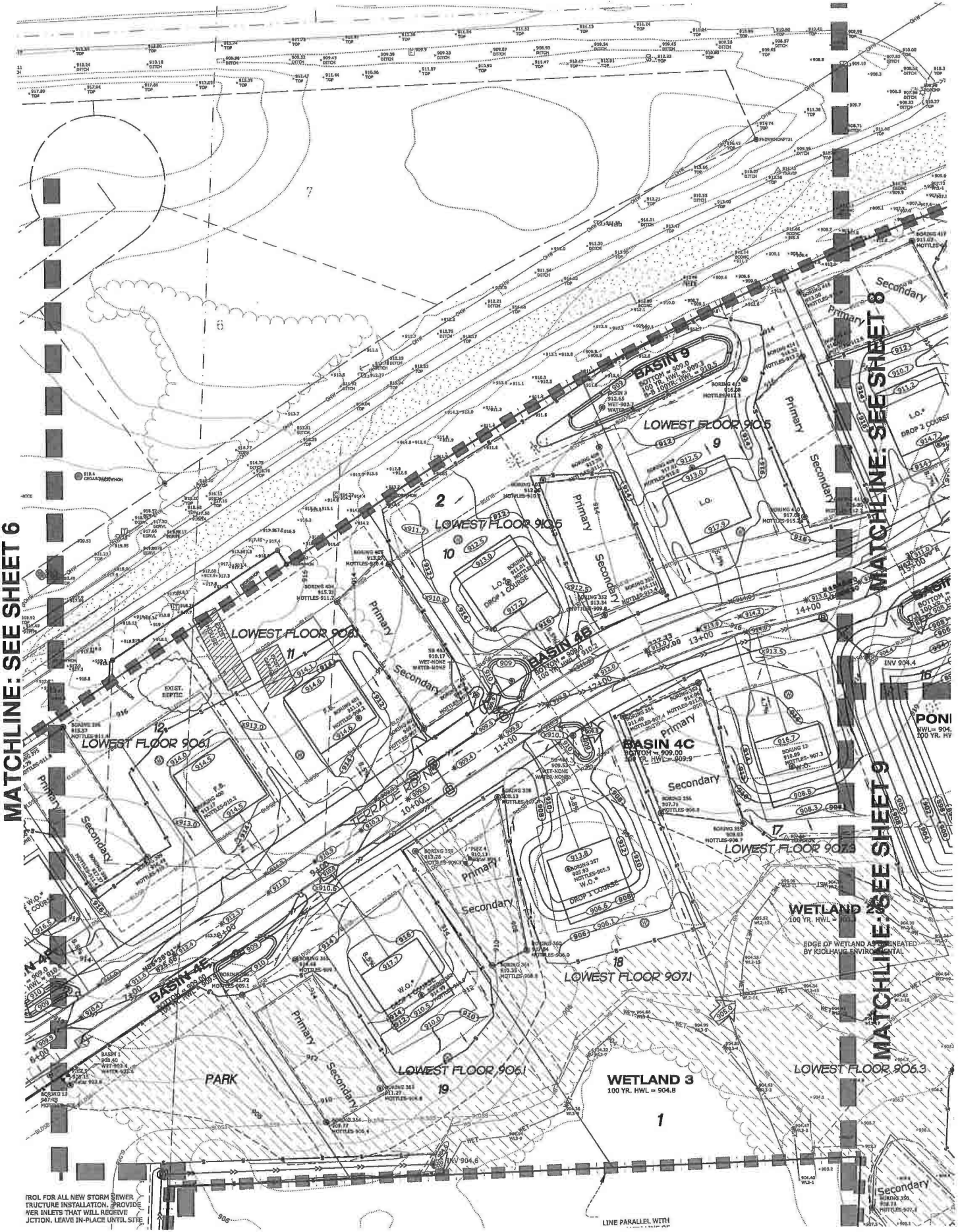
SITE PLANNING & ENGINEERING

I HEREBY CERTIFY THAT THIS PLAN WAS PREPARED BY ME OR UNDER MY DIRECT SUPERVISION AND THAT I AM A DULY LICENSED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF MINNESOTA.

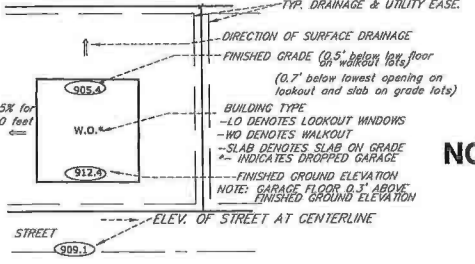
Adam Ginkel
ADAM GINKEL
 DATE: 03.26.2021 LIC. NO. 43983

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TYPICAL LOT



EROSION CONTROL / REVEGETATION SPECS.

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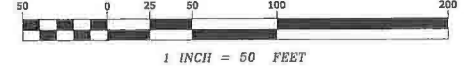
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GRAPHIC SCALE



BENCHMARK

I hereby certify that this survey, plan or report was prepared by me or under my direct supervision and that I am a duly Registered Land Surveyor under the laws of the State of Minnesota.

Jason E. Rud
JASON E. RUD
 Date: 03/26/2021 License No. 41578

ANOKA COUNTY BENCHMARK NO. 3098
 ELEVATION = 908.17 FEET (NAVD88)

NO.	DATE	DESCRIPTION	BY
1	11/02/20	CITY / WATERSHED COMMENTS	MMD
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E.G. RUD & SONS, INC.
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 www.egrud.com

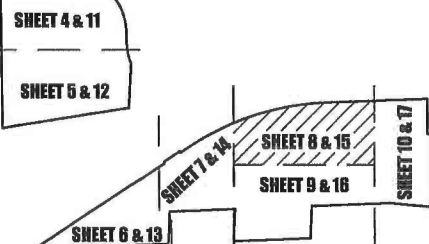
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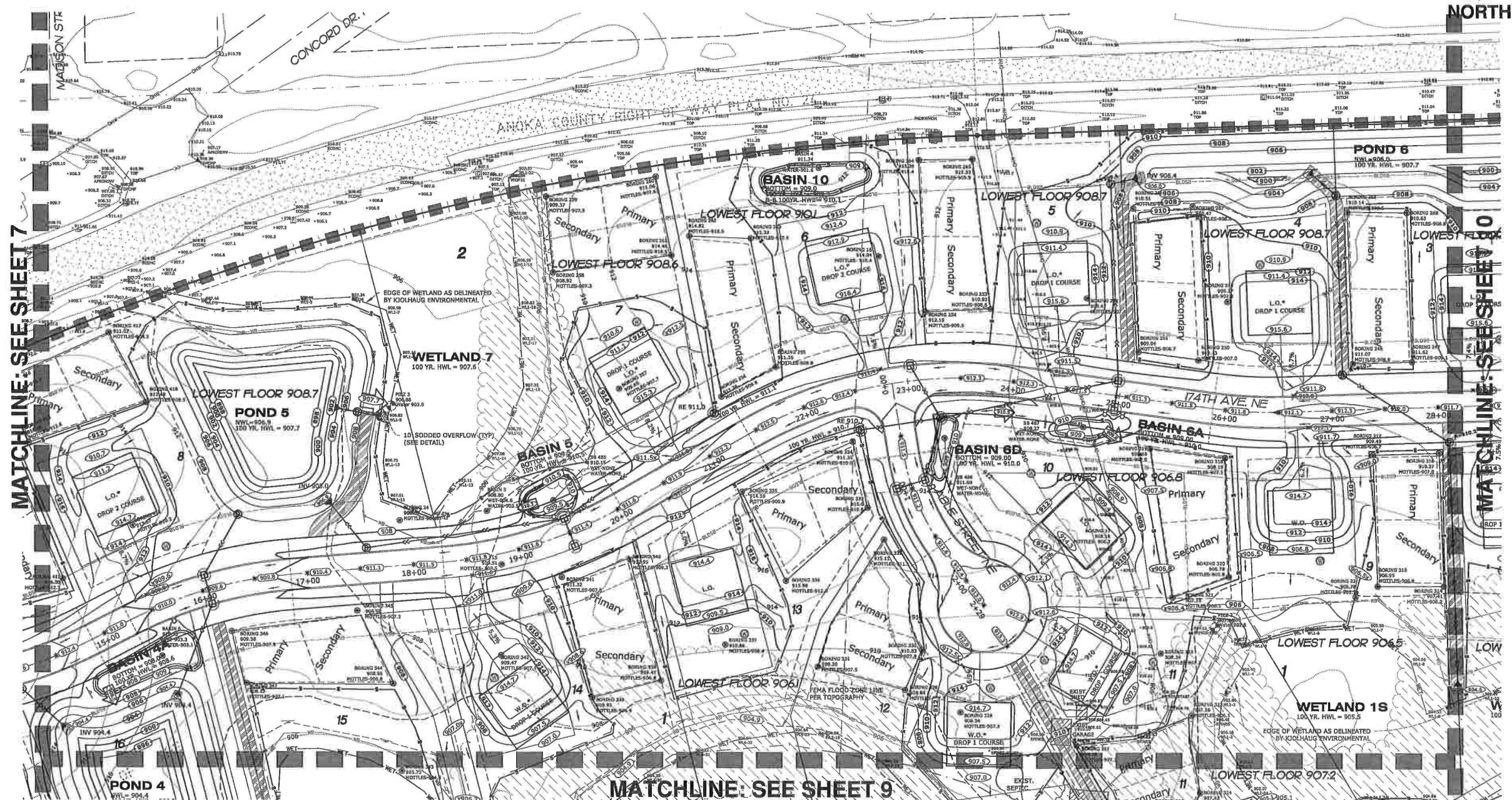
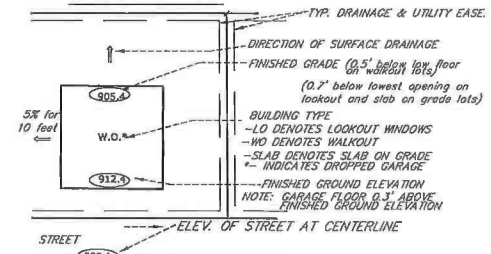
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SHEET INDEX



TYPICAL LOT



EROSION CONTROL / REVEGETATION SPECS.

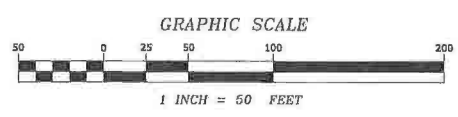
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I hereby certify that this survey, plan or report was prepared by me or under my direct supervision and that I am a duly Registered Land Surveyor under the laws of the State of Minnesota.

JASON E. RUD
 Date: 03/26/2021 License No. 41578

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BENCHMARK

ANOKIA COUNTY BENCHMARK NO. 309B
 ELEVATION = 908.17 FEET (NAVD88)

NO.	DATE	DESCRIPTION	BY
1	11/02/20	CITY / WATERSHED COMMENTS	MHD
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PONDING CALCULATIONS AND STORM SEWER DESIGN BY
PLOWE ENGINEERING, INC.
 6776 LAKE DRIVE SUITE 110 LINO LAKES, MN 55014
 PHONE: (651) 361-8210 FAX: (651) 361-8701
 I HEREBY CERTIFY THAT THIS PLAN WAS PREPARED BY ME OR UNDER MY DIRECT SUPERVISION AND THAT I AM A DULY LICENSED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF MINNESOTA.
ADAM GINKEL
 DATE: 03.26.2021 LIC. NO. 43983

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 Professional Land Surveyors
 6776 Lake Drive NE, Suite 110 Lino Lakes, MN 55014
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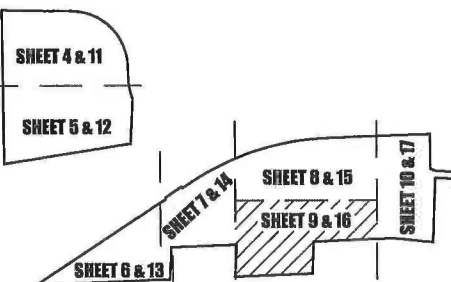
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~of~ CROSTOWN ROLLING ACRES THIRD ADDITION
 ~for~ CROSTOWN DEVELOPMENT, LLC
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 ANDOVER, MN 55304
 (612) 799-1471

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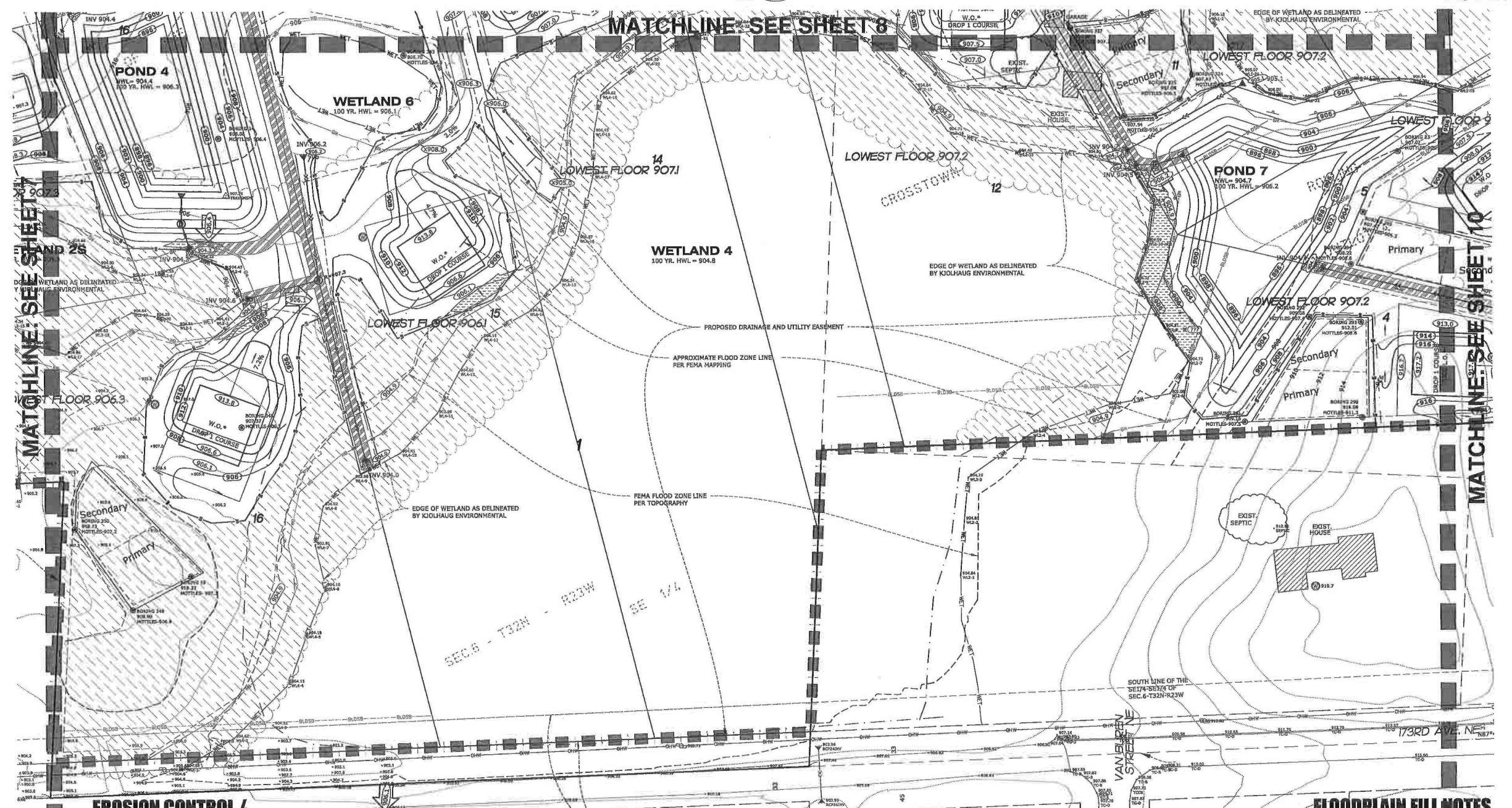
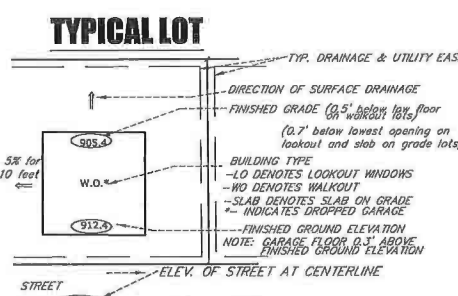


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EROSION CONTROL / REVEGETATION SPECS.

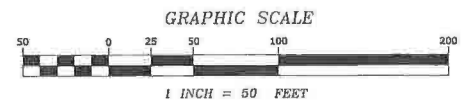
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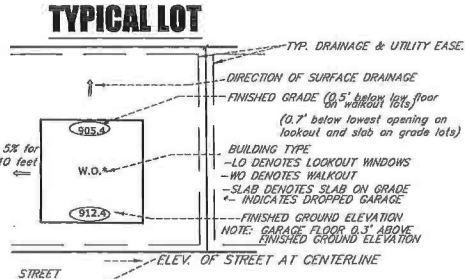
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SHEET INDEX

SHEET 4 & 11

SHEET 5 & 12

SHEET 6 & 13

SHEET 7 & 14

SHEET 8 & 15

SHEET 9 & 16



LOT GRADING NOTES

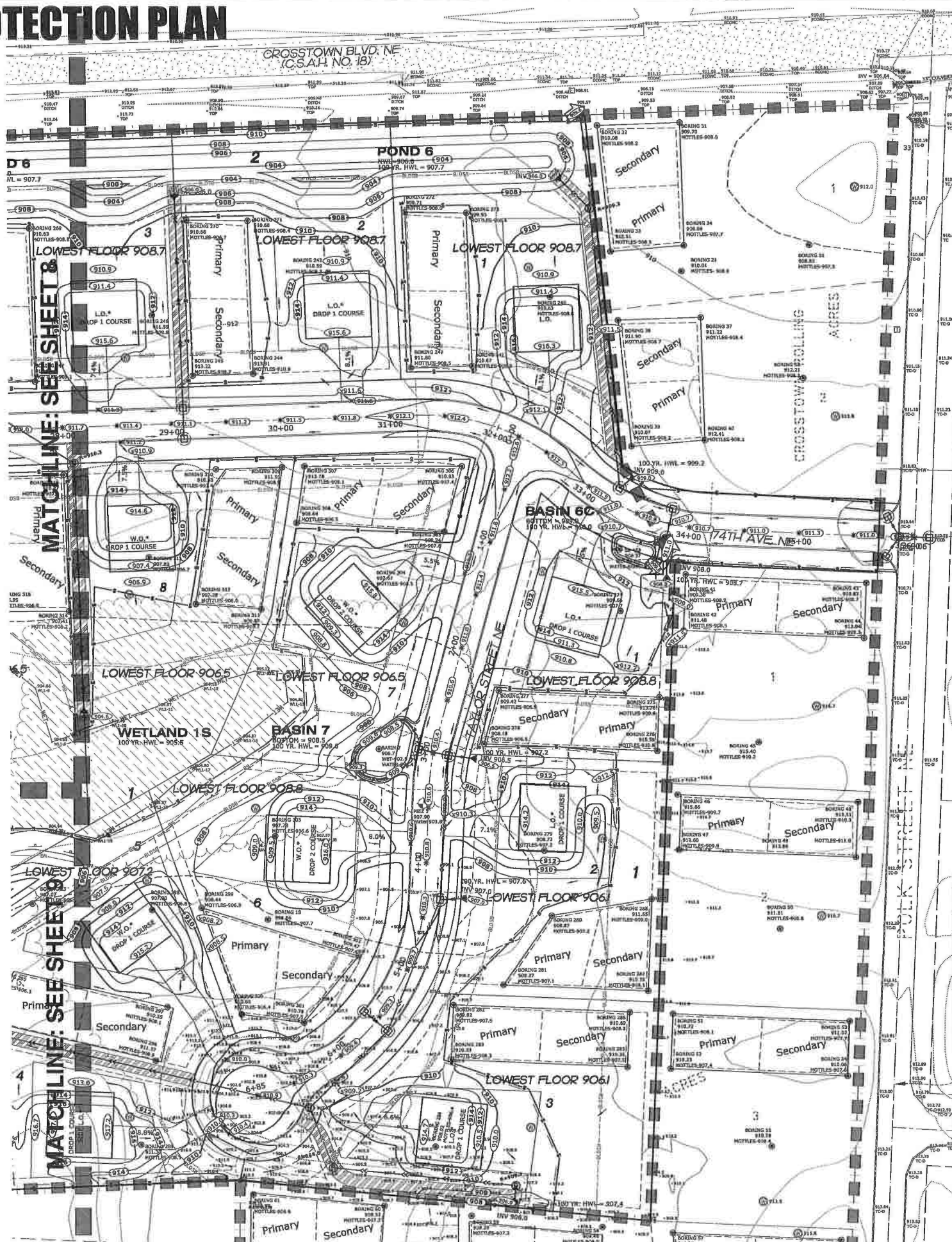
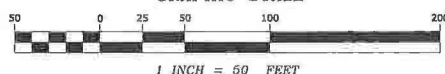
TREE PROTECTION NOTES

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- SILT / TREE PROTECTION FENCE TO BE INSTALLED AT CONSTRUCTION LIMIT LINE.
- CARE IS TO BE TAKEN TO AVOID CONSTRUCTION ACTIVITY OR CONSTRUCTION VEHICLE TRAFFIC WITHIN THE DRIP LINE OF TREES IN THE TREE PROTECTION ZONE.
- FIELD DECISIONS WILL BE MADE ON LOCATION OF TREE PROTECTION LIMITS TO PRESERVE SIGNIFICANT TREES.
- SOME TREES AND DEAD FALL ARE TO BE CLEARED. THIS MAY BE DONE PRIOR TO INSTALLATION OF SILT / TREE PROTECTION FENCE. GRUBBING OF STUMPS WILL OCCUR AFTER EROSION CONTROL MEASURES ARE INSTALLED.

NOTES

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- ALL PIPE APRONS PROVIDED WITH TRASH GUARDS
- PROVIDE CLASS III RIPRAP WITH FILTER FABRIC FOR ALL PIPE OUTLETS. INSTALL 6" OF TOPSOIL ON RIPRAP IN WETLAND BUFFERS AND SEED WITH SEED MIX MIXED 3:2:1.
- IF DEWATERING IS REQUIRED, THE CONTRACTOR SHALL APPLY FOR A MN DNR DEWATERING PERMIT AND WILL PROVIDE WELL-FIELD LOCATIONS, RATES, DISCHARGE LOCATION, SCHEDULE AND QUANTITIES TO CCWD PRIOR TO ANY DEWATERING OPERATIONS.

GRAPHIC SCALE



NORTH

FLOODPLAIN FILL NOTES

(COON CREEK WATERSHED FLOODPLAIN FILL)
 FEMA FLOODPLAIN FILL VOLUME = 2,700 CUFT
 COMPENSATORY STORAGE VOLUME = 19,627 CUFT
 (COMPENSATORY STORAGE PROVIDED IN POND 4 AND POND 7 BETWEEN NWL AND 904.9)

I hereby certify that this survey, plan or report was prepared by me or under my direct supervision and that I am a duly registered Land Surveyor under the laws of the State of Minnesota.

JASON E. RUD
 Date: 03/26/2021 License No. 41578

BENCHMARK

ANOKIA COUNTY BENCHMARK NO. 3098
 ELEVATION = 908.17 FEET (NAVD88)

NO.	DATE	DESCRIPTION	BY
1	11/02/20	CITY / WATERSHED COMMENTS	MND
2	01/13/21	CITY / WATERSHED COMMENTS	MND
3	02/26/21	CITY / WATERSHED COMMENTS	MND
4	03/26/21	CITY / WATERSHED COMMENTS	MND
5			

PONDING CALCULATIONS AND STORM SEWER DESIGN BY
 ANO ENGINEERING, INC.



PLOWE ENGINEERING, INC.
 8776 LAKE DRIVE
 SUITE 110
 LINO LAKES, MN 55014

SITE PLANNING & ENGINEERING PHONE: (651) 361-8210 FAX: (651) 361-8701

I HEREBY CERTIFY THAT THIS PLAN WAS PREPARED BY ME OR UNDER MY DIRECT SUPERVISION AND THAT I AM A DULY LICENSED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF MINNESOTA.

ADAM GINKEL
 DATE: 03.26.2021 LIC. NO. 43983

E.G. RUD & SONS, INC.
 EST. 1877 Professional Land Surveyors
 6776 Lake Drive NE, Suite 110
 Lino Lakes, MN 55014
 Tel. (651) 361-8200 Fax (651) 361-8701

LIVABILITY PLAN

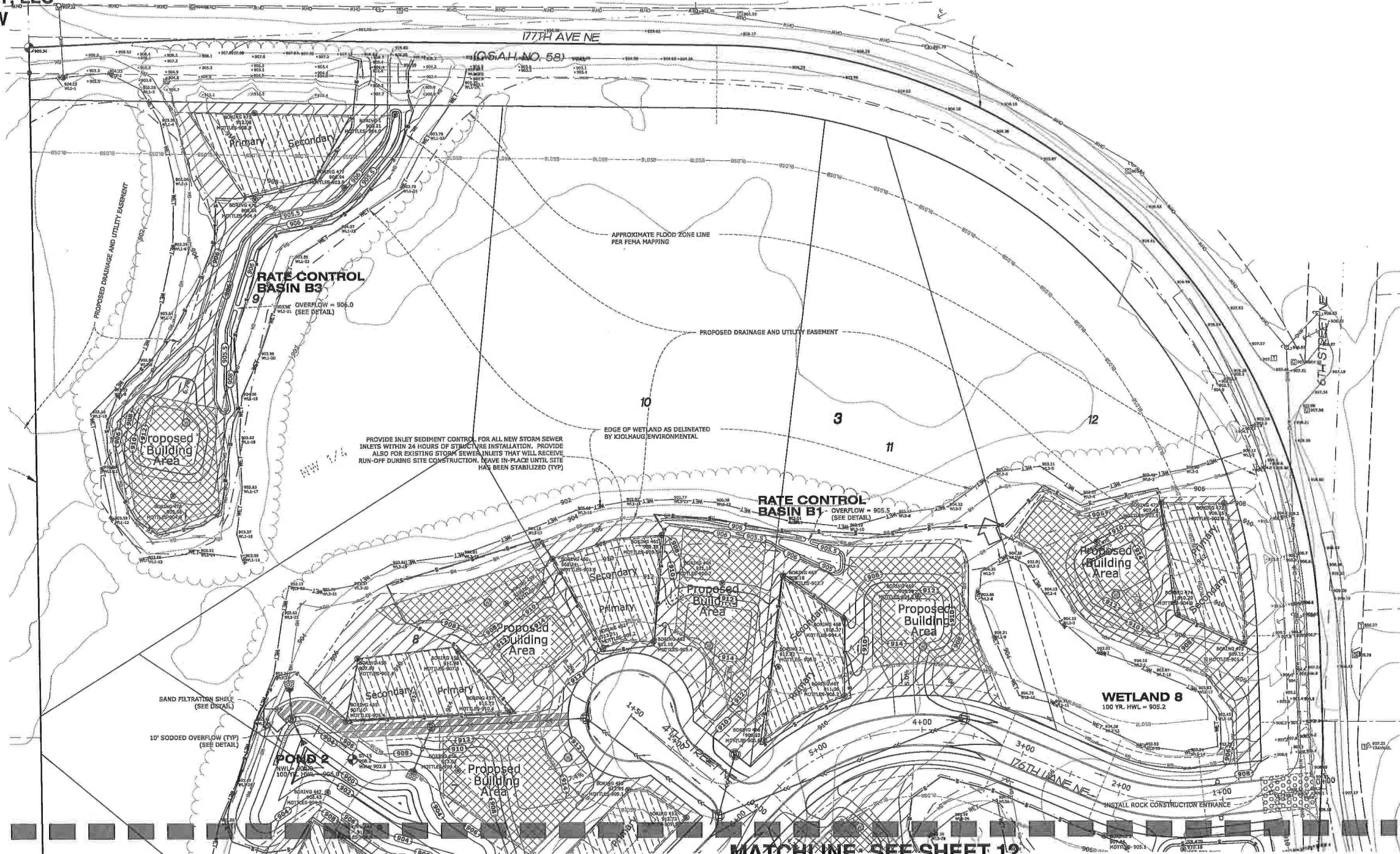
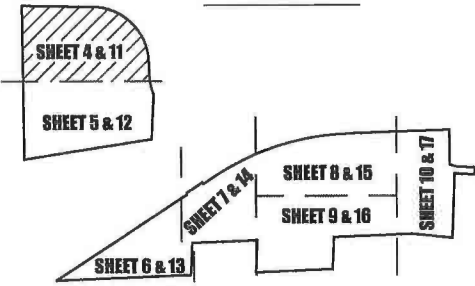
~of~ CROSTOWN ROLLING ACRES THIRD ADDITION
 ~for~ CROSTOWN DEVELOPMENT, LLC
 17404 WARD LAKE DRIVE NW
 ANDOVER, MN 55304
 (612) 799-1471



LEGEND

- DENOTES SOIL BORING BY TRADEWELL SOIL TESTING
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- DENOTES EXISTING SPOT ELEVATION
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- DENOTES PROPOSED YARD AREA
- DENOTES PROPOSED SEPTIC AREA
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SHEET INDEX



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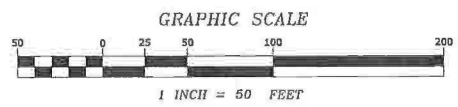
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Jason E. Rud
 JASON E. RUD
 Date: 03/26/2021 License No. 41578

BENCHMARK

ANOKA COUNTY BENCHMARK NO. 3098
 ELEVATION = 908.17 FEET (NAVD88)

DRAWN BY:	MMD	JOB NO.:	177377P	DATE:	07/15/2020
CHECK BY:	JER.	SCANNED	<input type="checkbox"/>		
NO.	DATE	DESCRIPTION	BY		
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4	03/26/21	CITY / WATERSHED COMMENTS	MMD		
5					



EST. 1977 **E.G. RUD & SONS, INC.**
 Professional Land Surveyors
 6776 Lake Drive NE, Suite 110
 Lino Lakes, MN 55014
 Tel. (651) 361-8200 Fax (651) 361-8701
 www.egrud.com

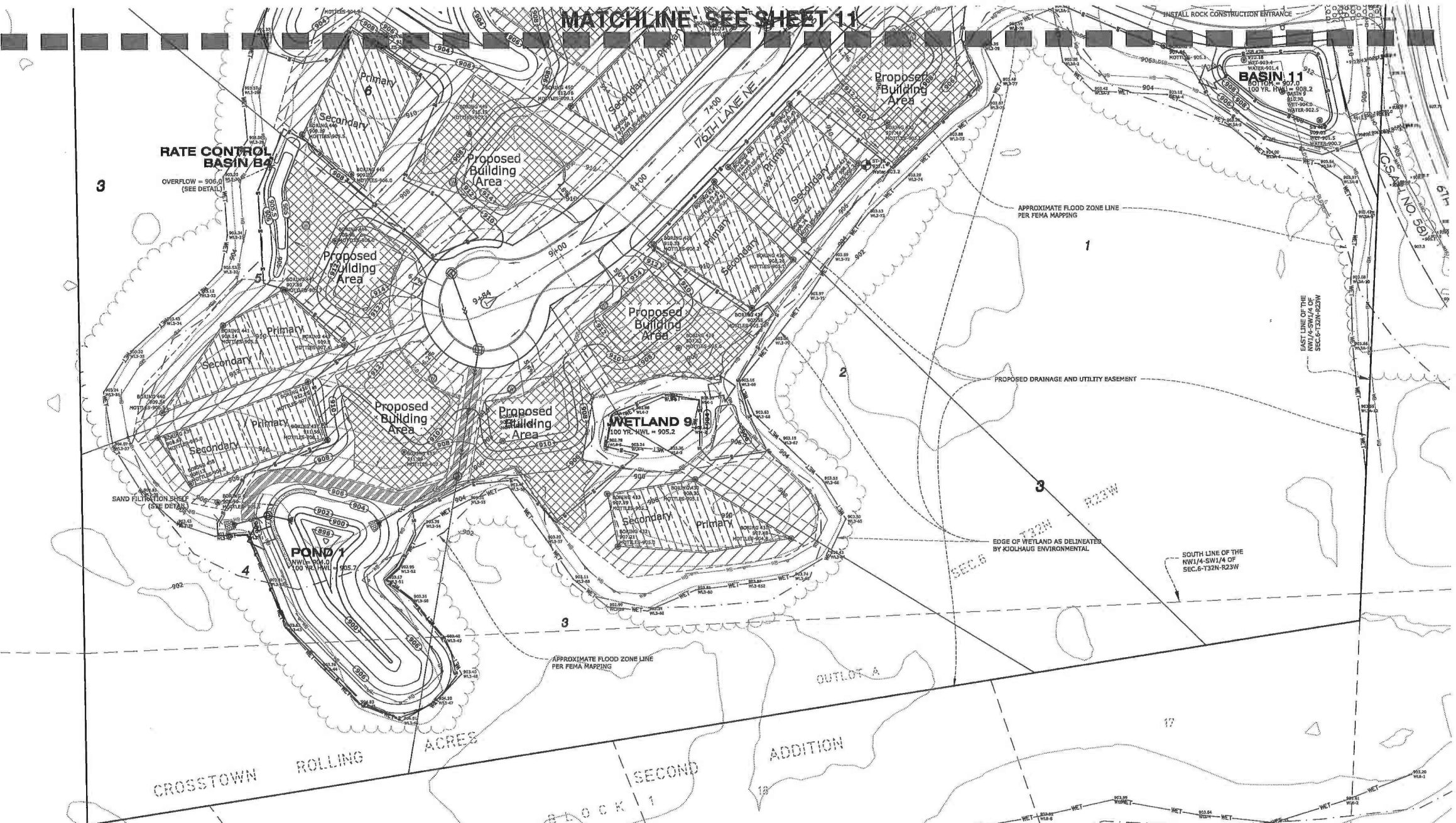
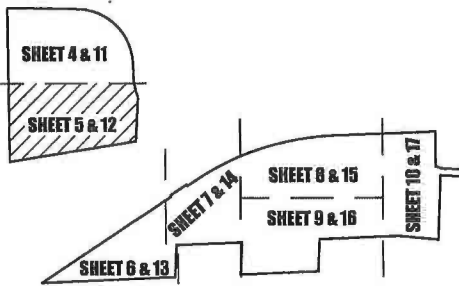
LIVABILITY PLAN

~of~ CROSSTOWN ROLLING ACRES THIRD ADDITION
 ~for~ CROSSTOWN DEVELOPMENT, LLC
 17404 WARD LAKE DRIVE NW
 ANDOVER, MN 55304
 (612) 799-1471



LEGEND

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PONDING CALCULATIONS AND STORM SEWER DESIGN BY
 PLOWE ENGINEERING, INC.

PLOWE ENGINEERING, INC.
 6776 LAKE DRIVE
 SUITE 110
 LINO LAKES, MN 55014

SITE PLANNING & ENGINEERING PHONE: (651) 361-8210
 FAX: (651) 361-8701

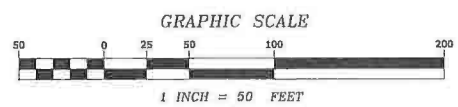
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Adam Quinkel
 ADAM QUINKEL
 DATE: 03.26.2021 LIC. NO. 43993

I hereby certify that this survey, plan or report was prepared by me or under my direct supervision and that I am a duly Registered Land Surveyor under the laws of the State of Minnesota.

Jason E. Rud
 JASON E. RUD
 Date: 03/26/2021 License No. 41578

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BENCHMARK

ANOKA COUNTY BENCHMARK NO. 3098
 ELEVATION = 908.17 FEET (NAVD88)

DRAWN BY:	MMD	JOB NO.:	17737PP	DATE:	07/15/2020
CHECK BY:	JER	SCANNED	<input type="checkbox"/>		
NO.	DATE	DESCRIPTION	BY		
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4	03/26/21	CITY / WATERSHED COMMENTS	MMD		

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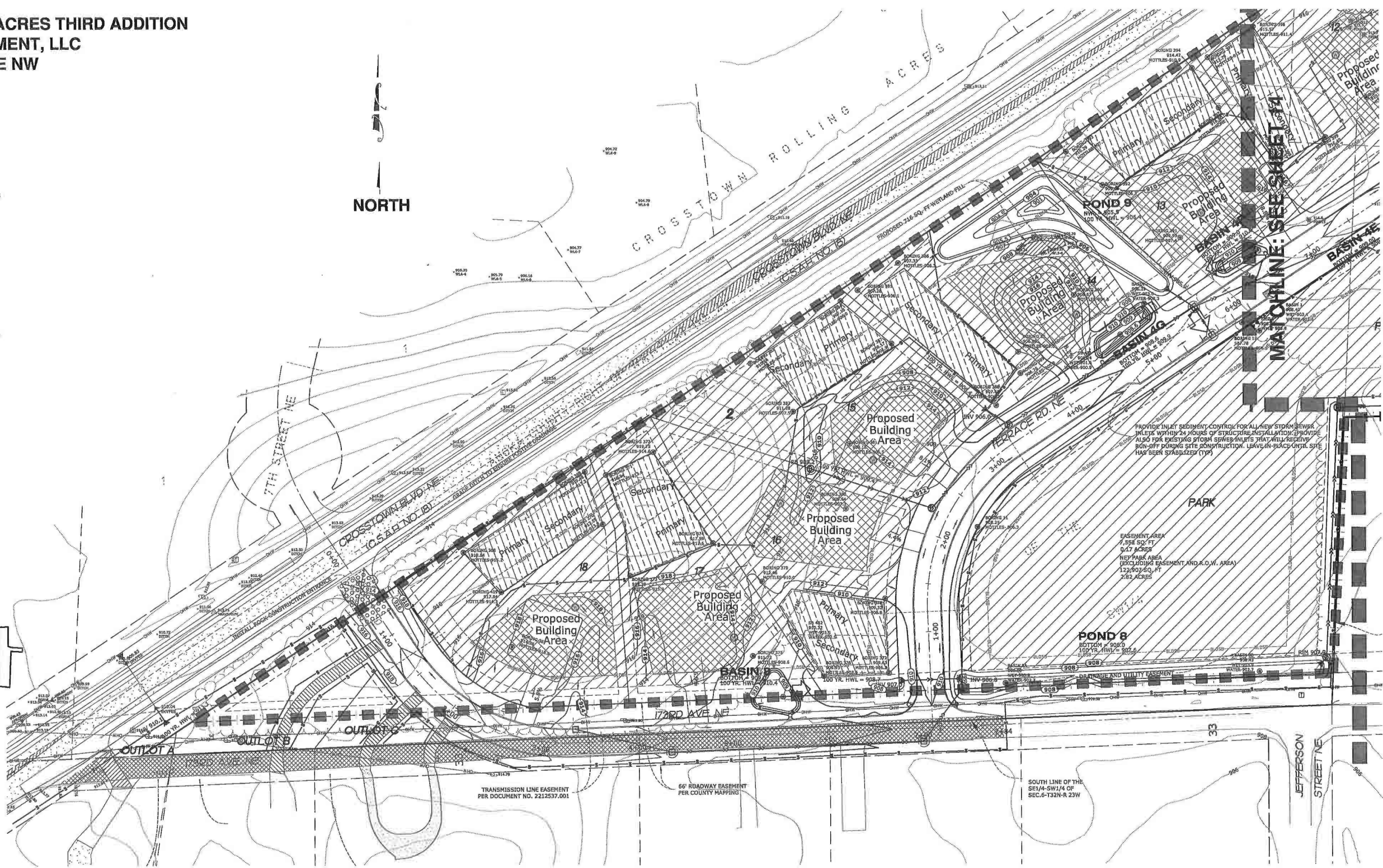
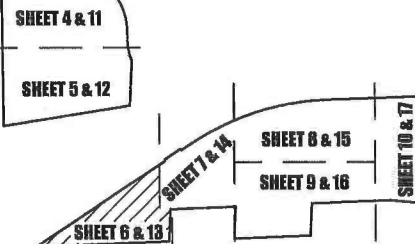
LIVABILITY PLAN

~of~ CROSTOWN ROLLING ACRES THIRD ADDITION
 ~for~ CROSTOWN DEVELOPMENT, LLC
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SHEET INDEX



PROVIDE INLET SEDIMENT CONTROL FOR ALL NEW STORM SEWER INLETS WITHIN 24 HOURS OF STRUCTURE INSTALLATION. PROVIDE ALSO FOR EXISTING STORM SEWER INLETS THAT WILL RECEIVE RUN-OFF DURING SITE CONSTRUCTION. LEAVE IN PLACE UNTIL SITE HAS BEEN STABILIZED (TYP)

EASEMENT AREA
 7,556 SQ. FT.
 0.47 ACRES
 NET PARK AREA
 (INCLUDING EASEMENT AND A.C.W. AREA)
 127,507 SQ. FT.
 3.62 ACRES

MATCHLINE: SEE SHEET 14

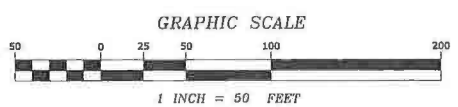
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Jason E. Rud
 JASON E. RUD
 Date: 03/26/2021 License No. 41578

AND STORM SEWER DESIGN BY
 PLOWE ENGINEERING, INC.

PLOWE
 ENGINEERING, INC.
 6776 LAKE DRIVE
 SUITE 110
 LINO LAKES, MN 55014

SITE PLANNING & ENGINEERING PHONE: (651) 361-8210
 FAX: (651) 361-8701

I HEREBY CERTIFY THAT THIS PLAN WAS PREPARED BY ME OR UNDER MY DIRECT SUPERVISION AND THAT I AM A DULY LICENSED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF MINNESOTA.

Adam Ginkel
 ADAM GINKEL
 DATE: 03.26.2021 LIC. NO. 43963

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 EST. 1977
 Professional Land Surveyors
 6776 Lake Drive NE, Suite 110
 Lino Lakes, MN 55014
 Tel. (651) 361-8200 Fax (651) 361-8701

LIVABILITY PLAN

~of~ CROSSTOWN ROLLING ACRES THIRD ADDITION
 ~for~ CROSSTOWN DEVELOPMENT, LLC
 17404 WARD LAKE DRIVE NW
 ANDOVER, MN 55304
 (612) 799-1471

LEGEND

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SHEET INDEX

SHEET 4 & 11

SHEET 5 & 12

SHEET 6 & 13

SHEET 8 & 15

SHEET 9 & 16

SHEET 10 & 17

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AND STORM SEWER DESIGN BY
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6776 LAKE DRIVE
SUITE 110
LINO LAKES, MN 55014

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ADAM GINKEL

DATE: 03.26.2021 LIC. NO. 43983

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EST. 1877

www.egrud.com

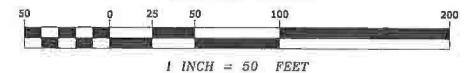
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GRAPHIC SCALE



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Jason E. Rud
JASON E. RUD
Date: 03/26/2021 License No. 41578

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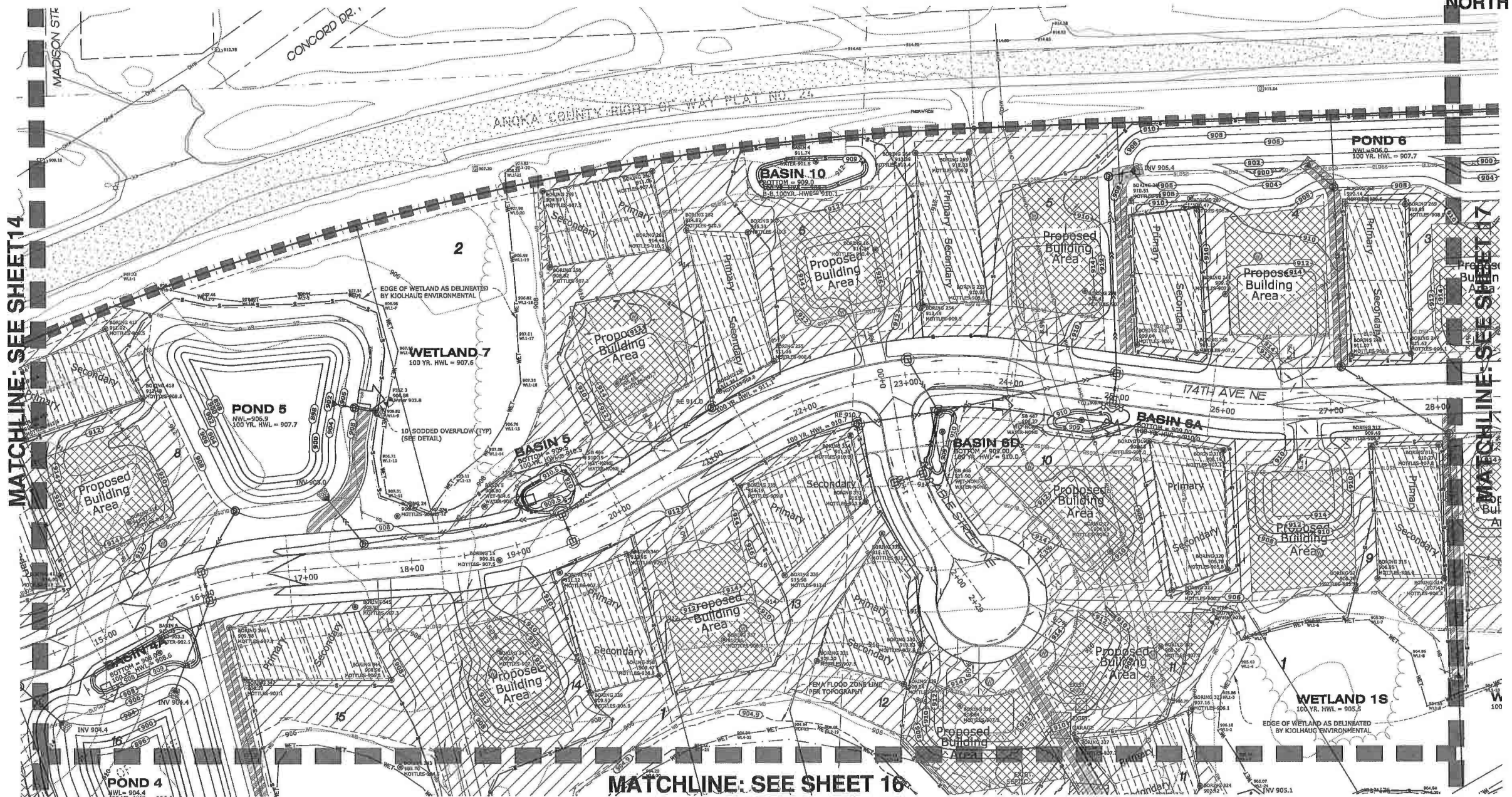
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ADAM QINKEL
DATE: 03.28.2021 LIC. NO. 43983

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EST. 1977
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BENCHMARK

ANOKA COUNTY BENCHMARK NO. 3098
ELEVATION = 908.17 FEET (NAVD88)

NO.	DATE	DESCRIPTION	BY
1	11/02/20	CITY / WATERSHED COMMENTS	MWD
2	01/13/21	CITY / WATERSHED COMMENTS	MWD
3	02/26/21	CITY / WATERSHED COMMENTS	MWD
4	03/26/21	CITY / WATERSHED COMMENTS	MWD
5			

GRAPHIC SCALE



LIVABILITY PLAN

~of~ CROSTOWN ROLLING ACRES THIRD ADDITION
 ~for~ CROSTOWN DEVELOPMENT, LLC
 17404 WARD LAKE DRIVE NW
 ANDOVER, MN 55304
 (612) 799-1471

NORTH

LEGEND

- DENOTES SOIL BORING BY TRADEWELL SOIL TESTING
- DENOTES PIEZOMETER OR PENETRATION BORING BY BRAUN INTERTEC, INC.
- DENOTES EXISTING SPOT ELEVATION
- DENOTES WETLAND
- DENOTES EXISTING 2 FOOT CONTOUR
- DENOTES PROPOSED 2 FOOT CONTOURS
- DENOTES WETLAND DELINEATED BY KJOLHAUG ENVIRONMENTAL SERVICES COMPANY.
- DENOTES EASEMENT LINE
- DENOTES SETBACK LINE
- DENOTES PROPOSED STORM SEWER
- DENOTES PROPOSED SILT / TREE PROTECTION FENCE
- DENOTES DIRECTION OF DRAINAGE
- DENOTES PROPOSED WELL LOCATION
- DENOTES WETLAND/ VEGETATIVE BUFFER
- DENOTES WETLAND/ VEGETATIVE BUFFER SIGN
- DENOTES PROPOSED BUILDING PAD AREA
- DENOTES PROPOSED YARD AREA
- DENOTES PROPOSED SEPTIC AREA
- DENOTES 12' POND ACCESS

SHEET INDEX

SHEET 4 & 11

SHEET 5 & 12

SHEET 6 & 13

SHEET 8 & 15

SHEET 9 & 16

SHEET 10 & 17

PONDING CALCULATIONS
AND STORM SEWER DESIGN BY
PLOWE ENGINEERING, INC.

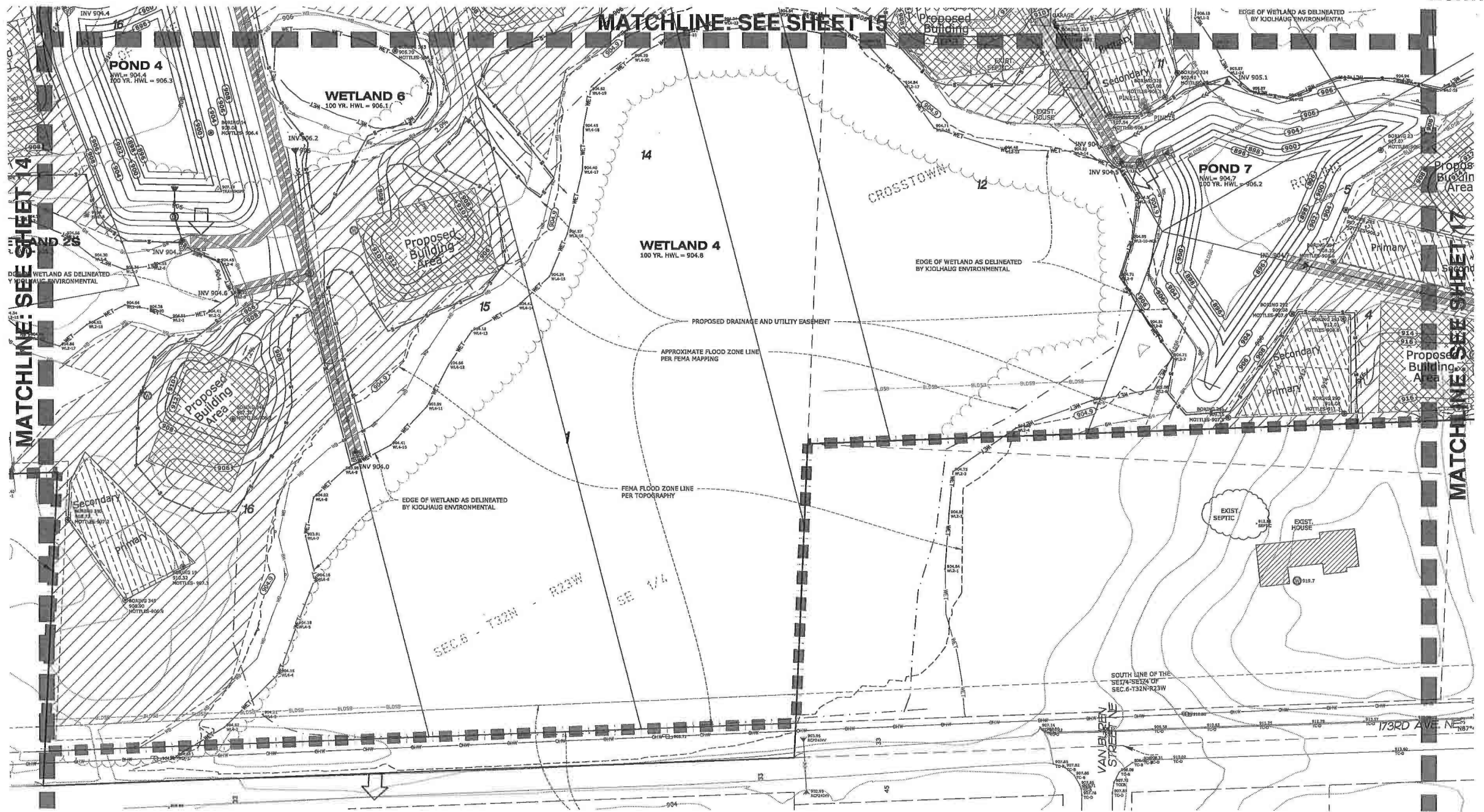
PLOWE
ENGINEERING, INC.
6776 LAKE DRIVE
SUITE 110
LINO LAKES, MN 55014

SITE PLANNING & ENGINEERING PHONE: (651) 361-8210
FAX: (651) 361-8701

I HEREBY CERTIFY THAT THIS PLAN WAS
PREPARED BY ME OR UNDER MY DIRECT
SUPERVISION AND THAT I AM A DULY
LICENSED PROFESSIONAL ENGINEER UNDER
THE LAWS OF THE STATE OF MINNESOTA.

Adam Ginkel
ADAM GINKEL
DATE: 03.26.2021 LIC. NO. 43983

E. G. RUD & SONS, INC.
EST. 1977
Professional Land Surveyors
6776 Lake Drive NE, Suite 110
Lino Lakes, MN 55014
Tel. (651) 361-8200 Fax (651) 361-8701



NOTES

- BEARINGS SHOWN ARE ON ANOKA COUNTY DATUM.
- TOTAL LOT AREAS ARE CALCULATED TO STREET CENTERLINE PER ORDINANCE.
- 2 FOOT CONTOUR INTERVAL (NAVD 85)
- CONTOURS SHOWN ARE PER MNGEO LIDAR DISTRIBUTION AND FIELD VERIFICATION.
- ALL MATCH POINTS AND PAVEMENT PATCHES TO BE SAWCUT AT FULL DEPTH.
- TURN AREA TO BE SEEDED WITHIN 7 DAYS AFTER COMPLETION OF ROUGH GRADING OR INACTIVITY.
- SEE PRELIMINARY UTILITY PLAN FOR STORM SEWER RINGS, INVERTS, AND SIZES.
- ALL PIPE APRONS PROVIDED WITH TRASH GUARDS
- PROVIDE CLASS III RIPRAP WITH FILTER FABRIC FOR ALL PIPE OUTLETS. INSTALL 6" OF TOPSOIL ON RIPRAP IN WETLAND BUFFERS AND SEED WITH SEED MIX MUDOT 33-263.
- IF DEWATERING IS REQUIRED, THE CONTRACTOR SHALL APPLY FOR A MN DNR DEWATERING PERMIT AND WILL PROVIDE WELL-FIELD LOCATIONS, RATES, DISCHARGE LOCATION, SCHEDULE AND QUANTITIES TO CCWD PRIOR TO ANY DEWATERING OPERATIONS.

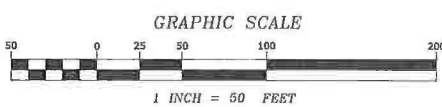
I hereby certify that this survey, plan
or report was prepared by me or under
my direct supervision and that I am
a duly Registered Land Surveyor under
the laws of the State of Minnesota.

Jason E. Rudy
JASON E. RUDY
Date: 03/26/2021 License No. 41578

BENCHMARK

ANOKA COUNTY BENCHMARK NO. 3098
ELEVATION = 908.17 FEET (NAVD85)

NO.	DATE	DESCRIPTION	BY
1	11/02/20	CITY / WATERSHED COMMENTS	HMD
2	01/13/21	CITY / WATERSHED COMMENTS	HMD
3	02/25/21	CITY / WATERSHED COMMENTS	HMD
4	03/26/21	CITY / WATERSHED COMMENTS	HMD
5			



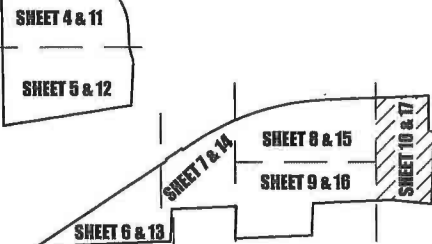
LIVABILITY PLAN

~of~ **CROSTOWN ROLLING ACRES THIRD ADDITION**
 ~for~ **CROSTOWN DEVELOPMENT, LLC**
 17404 WARD LAKE DRIVE NW
 ANDOVER, MN 55304
 (612) 799-1471

LEGEND

- DENOTES SOIL BORING BY TRADEWELL SOIL TESTING
- DENOTES PIEZOMETER OR PENETRATION BORING BY BRAIN INTERTEC, INC.
- DENOTES EXISTING SPOT ELEVATION
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- DENOTES PROPOSED 2 FOOT CONTOURS
- DENOTES WETLAND DELINEATED BY KULHHAUG ENVIRONMENTAL SERVICES COMPANY.
- DENOTES EASEMENT LINE
- DENOTES SETBACK LINE
- DENOTES PROPOSED STORM SEWER
- DENOTES PROPOSED SILT / TREE PROTECTION FENCE
- DENOTES DIRECTION OF DRAINAGE
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- DENOTES PROPOSED SEPTIC AREA
- DENOTES 12' POND ACCESS

SHEET INDEX



PLOWE ENGINEERING, INC.
 6776 LAKE DRIVE
 SUITE 110
 LINO LAKES, MN 55014

SITE PLANNING & ENGINEERING PHONE: (651) 361-8210
 FAX: (651) 361-8701

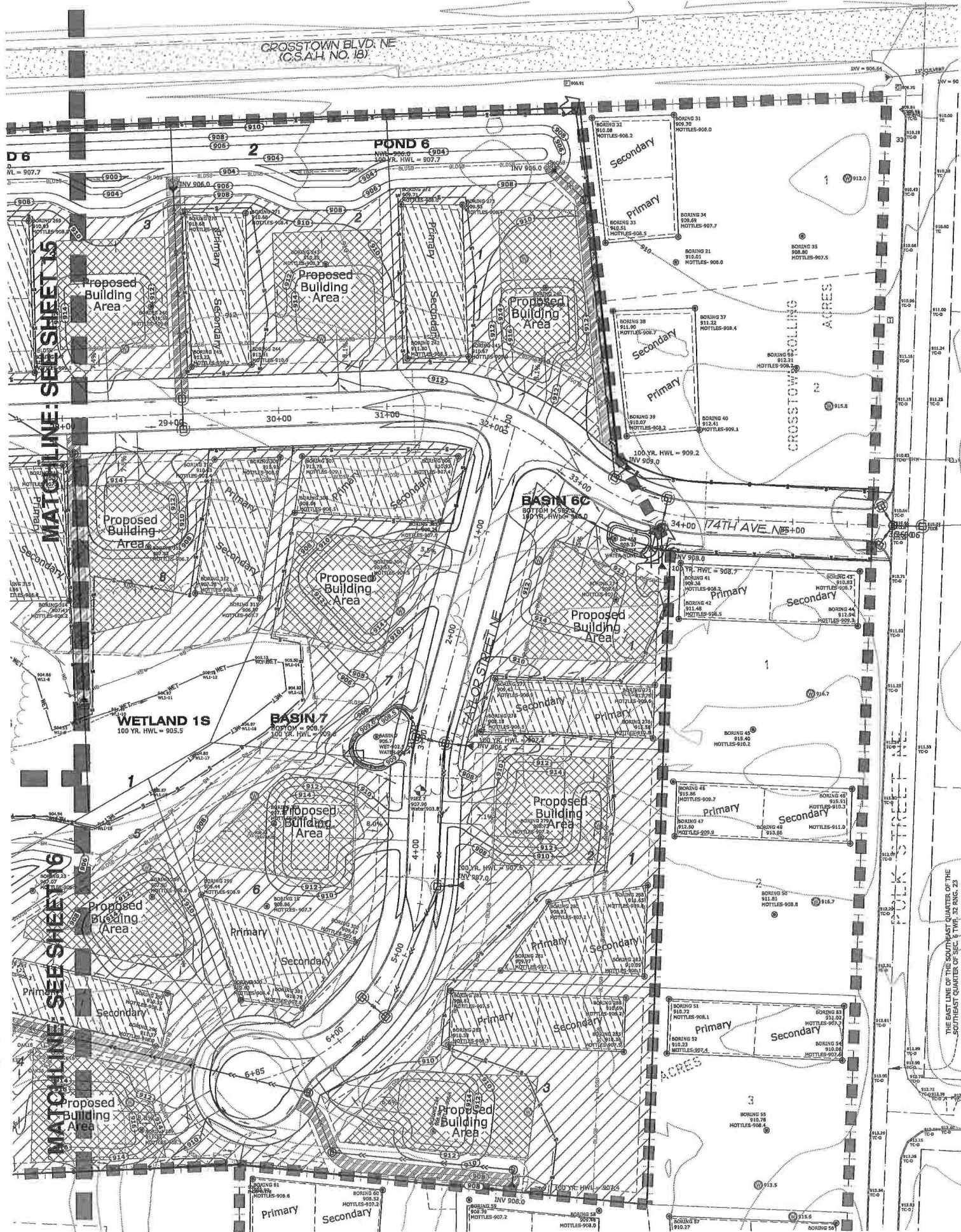
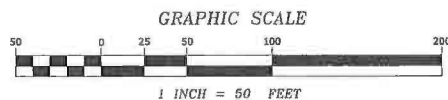
I HEREBY CERTIFY THAT THIS PLAN WAS PREPARED BY ME OR UNDER MY DIRECT SUPERVISION AND THAT I AM A DULY LICENSED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF MINNESOTA.

Adam Ginkel
ADAM GINKEL

DATE: 03.26.2021 LIC. NO. 43983

NOTES

- BEARINGS SHOWN ARE ON ANOKA COUNTY DATUM.
- TOTAL LOT AREAS ARE CALCULATED TO STREET CENTERLINE PER ORDINANCE.
- 2 FOOT CONTOUR INTERVAL (NAVD 88)
- CONTOURS SHOWN ARE PER MINGEO LIDAR DISTRIBUTION AND FIELD VERIFICATION.
- ALL MATCH POINTS AND PAVEMENT PATCHES TO BE SAWCUT AT FULL DEPTH.
- TURF AREA TO BE SEED WITHIN 7 DAYS AFTER COMPLETION OF ROUGH GRADING OR INACTIVITY.
- SEE PRELIMINARY UTILITY PLAN FOR STORM SEWER RIMS, INVERTS, AND SIZES.
- ALL PIPE APRONS PROVIDED WITH TRASH GUARDS
- PROVIDE CLASS III RIPRAP WITH FILTER FABRIC FOR ALL PIPE OUTLETS. INSTALL 6" OF TOPSOIL ON RIPRAP IN WETLAND BUFFERS AND SEED WITH SEED MIX MNDOT 33-261.
- IF DEWATERING IS REQUIRED, THE CONTRACTOR SHALL APPLY FOR A MN DNR DEWATERING PERMIT AND WILL PROVIDE WELL-FIELD LOCATIONS, RATES, DISCHARGE LOCATION, SCHEDULE AND QUANTITIES TO CCWD PRIOR TO ANY DEWATERING OPERATIONS.



I hereby certify that this survey, plan or report was prepared by me or under my direct supervision and that I am a duly Registered Land Surveyor under the laws of the State of Minnesota.

Jason E. Rude
JASON E. RUDE
 Date: 03/26/2021 License No. 41578

BENCHMARK

ANOKA COUNTY BENCHMARK NO. 3098
 ELEVATION = 908.17 FEET (NAVD88)

NO.	DATE	DESCRIPTION	BY
1	11/02/20	CITY / WATERSHED COMMENTS	MHD
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E. G. RUD & SONS, INC.
 EST. 1877
 Professional Land Surveyors
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LIVABILITY CHART

~of~ CROSSTOWN ROLLING ACRES THIRD ADDITION
 ~for~ CROSSTOWN DEVELOPMENT, LLC
 17404 WARD LAKE DRIVE NW
 ANDOVER, MN 55304
 (612) 799-1471

Livability Standards
 All residential lots shall contain at least 29,500 square feet of land which lies above the 100 year flood contour. Of this 29,500 square feet, the following additional requirements must be present:

A. **ISTS Area** Each lot must contain at least 7,500 square feet of contiguous area which is reserved for both the ISTS originally constructed and a future ISTS. The ISTS Area need not be contiguous to the Eligible Building Area or the Yard Area, but the entire ISTS Area must exist at an elevation at least one foot above Unsuitable Soils, and must contain Undisturbed Soils or soils which meet the requirements of Rule 7080 of the Minnesota Pollution Control Agency for ISTS construction standards. The ISTS Area may be irregular in shape, provided they do not encroach into areas reserved by easement or otherwise for roadway, drainage or utility purposes, and provided that all of the area can be reasonably used for ISTS construction without the need for variances.

B. **Eligible Building Area** Each lot shall contain at least 10,000 square feet of contiguous land which lies at an elevation at least four feet above Unsuitable Soils. The Eligible Building Area may not be irregular in shape, and should be generally rectangular or oval, with no peninsulas, narrow necks or peninsulas. Eligible Building Areas may not encroach into any areas reserved by easement or otherwise for roadway, drainage or utility purposes. Fill may be used to create Eligible Building Area.

C. **Yard Area** Each lot shall contain at least 12,000 contiguous square feet which:

- i) Lies above the 100 year flood contour, and
 - ii) Lies at least one foot above soils unsuitable for the intended usage of the Yard Area, and
 - iii) Is contiguous to the Eligible Building Area for a distance of at least fifty percent of the linear perimeter of the Eligible Building Area.
- Yard Areas may encroach into the dedicated easement area which lies at a distance of ten feet from the perimeter of the lot, and may encroach into areas reserved by easement or otherwise for other public utility purposes, but may not encroach into any other area reserved by dedication or otherwise for road or drainage purposes, any may not encroach into any areas within the 100 year flood contour or into designated wetlands. Yard Areas may be irregular in shape except within thirty feet of the locations where the Yard Area is contiguous to the Eligible Building Area, at which locations the Yard Area shall be a logical extension or expansion of this generally rectangular or oval shape of the Eligible Building Area. Fill may be used to create Yard Area.

D. **Building Pad Areas** The entire Building Pad must lie within the Eligible Building Area, and shall meet the separation requirements for the Eligible Building Area.

- E. **Low Floor Elevations**
- 1) For walkout designs, the low floor elevation shall be at least one foot above the 100 year flood contour, but, notwithstanding the 100 year flood contour, not less than one foot above unsuitable soils, as determined by the City's engineer.
 - 2) For other designs, the low floor elevation shall be at least one foot above the 100 year flood contour, but, notwithstanding the 100 year flood contour, not less than one foot above unsuitable soils, as determined by the City's engineer.

Lot	Block	Total Lot Area (sq. ft.)	Yard Area (sq. ft.)	Septic Area (sq. ft.)	Building Pad Area (sq. ft.)	Proposed Building Pad 4' Above Unsuitable (sq. ft.)	Garage Floor Elevation	Proposed Low Floor Elev.	Proposed Low Opening	Lowest Floor Elevation	Highest Anticipated		Boring #	Boring Elevation	Mottles Elevation	Building Type	Custom Graded
											Groundwater Elevation	Low Floor					
1	1	46,530	13,446	7,509	10,059	10,059	915.8	908.8	912.0	908.8	904.1	BASIN 6C INFIL. CALCS	274 275 276 277 278 488	909.66 913.76 915.58 909.42 908.18 908.37	907.7 909.6 910.8 906.9 906.5 NONE	L.O.* DRCP 1 COURSE COURSE WET WAT	NO
2	1	48,393	22,179	8,143	10,300	10,124	914.5	907.5	910.7	906.1	904.1	GROUNDWATER	279 280 281 282 283 284	908.73 908.67 909.27 910.38 911.65 908.73	907.2 907.2 907.1 908.1 909.0 907.2	L.O.* DRCP 1 COURSE COURSE COURSE	NO
3	1	61,596	28,856	8,117	10,436	10,436	915.0	908.0	911.2	906.1	904.1	GROUNDWATER	282 283 284 285 286	909.82 910.33 908.92 910.35 910.69	907.5 908.3 906.4 907.5 908.2	L.O.* DRCP 1 COURSE	NO
4	1	61,765	15,503	7,669	10,538	9,715	917.5	910.5	913.7	907.2	904.1	POND 7 HWL	289 290 291 292 293	911.30 918.06 909.15 908.08 912.01	908.3 911.3 907.5 907.4 908.8	SIDE L.O.* DRCP 1 COURSE	NO
5	1	52,961	13,070	7,788	10,061	5,748	915.5	908.5	908.5	907.2	904.1	POND 7 HWL	294 295 296 297 298	907.07 908.22 907.47 911.37 910.55	908.1 908.6 908.3 908.9 908.1	W.O.* DRCP 1 COURSE	NO
6	1	54,598	20,368	8,084	10,188	6,608	916.3	910.0	910.0	908.8	904.1	BASIN 7 INFIL. CALCS	299 300 301 302 303	908.68 908.44 910.78 909.47 907.78	907.7 906.4 907.5 907.6 906.6	W.O.* DRCP 2 COURSE	NO
7	1	60,879	18,193	7,805	10,214	6,876	916.1	908.8	909.8	906.5	904.1	WETLAND 1S HWL	304 305 306 307 308 309	907.67 909.24 910.63 912.78 908.64 911.91	906.5 907.4 908.1 908.5 906.5 908.9	W.O.* DRCP 2 COURSE WET WAT	NO
8	1	55,784	15,223	7,591	10,684	4,754	914.9	907.9	907.9	906.5	904.1	WETLAND 1S HWL	310 311 312 313	911.91 910.83 908.67 907.28	908.9 907.4 906.7 906.0	W.O.* DRCP 1 COURSE	NO
9	1	65,641	12,788	7,876	10,643	4,427	915.0	907.3	907.3	906.5	904.1	WETLAND 1S HWL	314 315 316 317	907.41 906.85 910.27 908.49	906.2 906.0 907.8 906.7	W.O. COURSE	NO
10	1	59,554	20,518	7,743	10,246	6,002	914.6	906.9	910.1	906.8	904.1	BASIN 6A INFIL. CALCS	318 319 320 321 488	908.19 908.18 906.78 907.10 911.80	907.1 907.0 905.8 906.1 NONE	W.O.* DRCP 1 COURSE WET WAT	NO
11	1	68,324	12,008	7,501	10,537	3,900	915.0	908.0	908.0	907.2	904.1	POND 7 HWL	322 323 324 325 326 327	908.38 907.18 907.42 907.08 907.54 910.38	907.2 906.1 906.3 906.1 906.5 907.2	W.O.* DRCP 1 COURSE COURSE	NO
12	1	138,805	18,454	7,804	10,276	4,527	915.0	908.0	908.0	907.2	904.1	POND 7 HWL	328 329 330 331 332	908.54 908.94 910.83 909.20 915.11	907.2 907.3 907.8 907.5 911.1	W.O.* DRCP 1 COURSE COURSE	NO
13	1	65,407	20,345	8,117	10,030	4,927	914.7	907.0	910.2	906.1	904.1	GROUNDWATER	333 334 335 336 337	915.00 911.35 914.19 915.88 910.88	910.8 910.0 909.9 912.0 908.4	L.O. COURSE	NO
14	1	176,184	24,087	7,521	10,030	6,834	915.0	908.0	908.0	907.1	904.1	WETLAND 6 HWL	338 339 340 341 342	909.51 909.47 912.95 911.32 908.47	907.5 906.8 906.3 907.8 907.1	W.O.* DRCP 1 COURSE	NO
15	1	178,484	45,324	7,590	10,075	4,975	914.1	907.1	907.1	906.1	904.1	GROUNDWATER	343 344 345 346 347	905.70 908.95 908.98 909.38 908.10	904.8 908.8 907.3 907.9 907.1	W.O.* DRCP 1 COURSE	NO
16	1	227,964	83,928	8,113	10,030	5,691	914.1	907.1	907.1	906.3	904.1	WETLAND 2S HWL	348 349 350 351 352 353	908.06 910.32 907.37 908.90 908.78 910.33	908.4 907.3 906.2 906.9 907.2 903.3	W.O.* DRCP 1 COURSE WET WAT	NO
17	1	66,171	28,333	7,810	10,040	7,842	917.0	908.3	909.3	907.3	904.1	POND 4 HWL	354 355 356	910.09 914.88 911.40	907.3 911.8 907.4	W.O. COURSE	NO

NOTES: * INDICATES DROPPED GARAGE ELEVATIONS BASED UPON 12 COURSE BASEMENT
 LOW OPENINGS LISTED ARE REFLECTING THE REAR YARD LOW OPENING
 WET - INDICATES ENCOUNTERED MOISTURE ELEVATION IN INFILTRATION AREA BORING.
 WAT - INDICATES WATER ELEVATION FOUND IN INFILTRATION BORING.

PONDING CALCULATIONS AND STORM SEWER DESIGN BY
PLOWE ENGINEERING, INC.

PLOWE ENGINEERING, INC.
 6776 LAKE DRIVE SUITE 110
 LINO LAKES, MN 56014

SITE PLANNING & ENGINEERING PHONE: (851) 361-8210
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Adam Ginkel
ADAM GINKEL

DATE: 03/26/2021 LIC. NO. 43983

I hereby certify that this survey, plan or report was prepared by me or under my direct supervision and that I am a duly Registered Land Surveyor under the laws of the State of Minnesota.

Jason E. Rud
JASON E. RUD

Date: 03/26/2021 License No. 41578

E. G. RUD & SONS, INC.

EST. 1977

Professional Land Surveyors

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www.egrud.com

BENCHMARK

ANKA COUNTY BENCHMARK NO. 3098
 ELEVATION = 908.17 FEET (NAVD88)

DRAWN BY: MMD		JOB NO: 1737FP		DATE: 07/15/2020	
CHECK BY: JER	SCANNED <input type="checkbox"/>				
1	11/02/20	CITY / WATERSHED COMMENTS	MMD		
2	01/13/21	CITY / WATERSHED COMMENTS	MMD		
3	02/26/21	CITY / WATERSHED COMMENTS	MMD		
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~of~ CROSSTOWN ROLLING ACRES THIRD ADDITION
 ~for~ CROSSTOWN DEVELOPMENT, LLC
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 Yard Areas may encroach into the dedicated easement area which lies at a distance of ten feet from the perimeter of the lot, and may encroach into areas reserved by easement or otherwise for other public utility purposes, but may not encroach into any other area reserved by dedication or otherwise for road or drainage purposes, any may not encroach into any areas within the 100 year flood contour or into designated wetlands. Yard Areas may be irregular in shape except within thirty feet of the locations where the Yard Area is contiguous to the Eligible Building Area, at which locations the Yard Areas shall be a logical extension or expansion of the generally rectangular or ovoid shape of the Eligible Building Area. Fill may be used to create Yard Area.

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E. Low Floor Elevations
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Lot	Block	Total Lot Area (sq. ft.)	Yard Area (sq. ft.)	Septic Area (sq. ft.)	Building Pad Area (sq. ft.)	Proposed Building Pad 4' Above Unsuitable (sq. ft.)	Garage Floor Elevation	Proposed Low Floor Elev.	Proposed Low Opening	Lowest Floor Elevation	Highest Anticipated Groundwater Elevation	Low Floor Determining Factor	Boring #	Boring Elevation	Mottles Elevation	Building Type	Custom Graded
18	1	76,589	27,045	7,682	10,074	7,047	914.1	907.1	907.1	907.1	904.1	BASIN 4C NFL. CALCS	357 358 359 360 361 PIEZ 4 484	905.93 908.13 913.28 907.84 910.35 910.13 909.53	905.3 907.1 909.3 906.0 908.5 NONE NONE	W.O.* DROP 1 COURSE WET WAT	NO
19	1	62,563	28,498	7,617	10,094	7,330	918.0	911.0	911.0	908.1	904.1	GROUNDWATER	362 363 364 365 366	914.99 911.27 909.77 914.48 911.72	910.5 906.8 908.4 909.7 909.1	W.O.* DROP 1 COURSE WET WAT	NO
PARK	1	175,798	130,618	NA	NA	NA	NA	NA	NA	NA	904.1	NA	11 12 BASIN 1 BASIN 8A BASIN 8B PIEZ 5	908.25 907.78 908.40 908.80 908.43 908.15	906.3 906.5 903.4 902.8 902.7 903.9 902.7	WET WAT WET WET WAT WAT	
1	2	58,209	17,212	7,851	10,642	5,827	918.6	908.9	912.1	908.7	904.1	POND 6 HWL	240 241 242 243 244 245 246 247 248 249	910.83 910.67 911.80 909.71 909.93 910.59 913.91 913.22 910.68 910.88 911.59 911.82 911.07 910.14 910.63	908.6 908.0 908.5 908.0 908.4 908.3 910.9 909.7 906.4 909.8 908.1 908.6	L.O.* DROP 1 COURSE L.O.* NO	
2	2	53,600	13,660	7,851	10,000	5,607	915.9	908.9	912.1	908.7	904.1	POND 6 HWL	243 244 245 246 247 248 249	910.59 913.91 913.22 910.68 910.88 911.59 911.82 911.07 910.14 910.63	908.3 910.9 909.7 906.4 909.8 908.1 908.6 909.9 908.6	L.O.* DROP 1 COURSE L.O.* NO	
3	2	53,600	13,985	7,851	10,000	4,538	915.9	908.9	912.1	908.7	904.1	POND 6 HWL	248 249 250 251 252 253 254 255	911.07 910.14 910.63 909.9 908.6 910.5 912.19 913.39 912.03	908.9 908.6 909.9 907.4 908.6 910.5 908.5 910.4 909.9	L.O.* DROP 1 COURSE L.O.* NO	
4	2	52,533	12,183	7,935	10,685	6,557	915.9	908.9	912.1	908.7	904.1	POND 6 HWL	250 251 252 253 254 255	909.27 909.13 909.04 910.51 910.47 909.42 910.63	907.8 907.0 906.7 908.3 908.8 907.4 908.6	L.O.* DROP 1 COURSE L.O.* NO	
5	2	48,620	21,592	7,863	10,158	6,911	915.9	908.9	912.1	908.7	904.1	POND 6 HWL	254 255 256 257 258 259 260 261 262 263	912.19 913.39 912.03 914.04 911.28 911.28 911.28 914.82 915.33 911.74 909.65 908.92 909.37 911.06 914.48 910.17 910.17 908.69 913.67 918.48 913.08 911.02 912.48 912.88	908.6 909.9 907.4 908.6 908.8 908.6 907.5 907.8 910.5 904.6 907.3 907.5 907.8 910.5 904.6 903.5 908.8 906.7 915.2 919.2 913.2 915.2 912.65 903.7 902.4 913.4 909.8 909.0 912.35 910.2 913.70 911.2 910.17 910.17 911.19 909.53 907.7 909.98 907.3 915.21 911.2 913.07 913.79 915.57 911.4 917.37 911.4 918.49 910.7 913.17 910.2	L.O.* DROP 2 COURSE L.O.* NO	
7	2	88,059	20,815	7,902	10,185	7,601	915.6	908.6	911.8	908.6	904.1	WETLAND 7 HWL	257 258 259 260 261 BASIN 5 485	909.65 908.92 909.37 911.06 914.48 908.80 910.17	907.7 907.3 907.5 907.8 910.5 904.6 903.5 NONE NONE	L.O.* DROP 1 COURSE WET WAT WAT	NO
8	2	101,825	17,190	7,708	10,999	5,171	915.0	908.7	911.9	908.7	904.1	POND 5 HWL	24 412 413 416 417 418 419 PIEZ 3 409 410 411 413 414 BASIN 3	906.69 913.67 918.48 913.08 911.02 912.48 912.88 917.02 917.88 916.50 915.08 916.32 912.65	906.7 919.2 919.2 918.8 910.5 908.5 908.5 915.0 915.2 912.3 915.2 915.2 903.7 902.4 913.4 909.8 909.0 910.2 911.2 910.17 910.17 911.19 909.53 907.7 909.98 907.3 915.21 911.2 913.07 913.79 915.57 911.4 917.37 911.4 918.49 910.7 913.17 910.2	L.O.* DROP 2 COURSE L.O.* NO	
9	2	52,614	20,502	7,588	10,308	3,370	918.2	910.5	913.7	910.5	904.1	BASIN 9 NFL. CALCS	409 410 411 413 414 BASIN 3	917.02 917.88 916.50 915.08 916.32 912.65	915.0 915.2 912.3 915.2 915.2 903.7 902.4	L.O. NO	
10	2	47,968	18,029	7,707	10,886	5,780	917.5	910.5	913.7	910.5	904.1	BASIN 9 NFL. CALCS	351 352 400 407 408 483	916.11 913.34 911.01 912.35 913.70 910.17	913.4 909.8 909.0 910.2 911.2 910.17	L.O.* DROP 1 COURSE WET WAT	NO
11	2	47,662	22,139	7,702	10,159	10,030	914.9	907.2	915.3	908.1	904.1	GROUNDWATER	401 402 403 404 405	911.19 909.53 909.98 915.21 913.07	908.2 907.7 907.3 911.2 910.4	FB NO	
12	2	47,663	22,223	7,747	10,030	4,761	914.8	907.1	915.2	908.1	904.1	GROUNDWATER	395 396 398 399 400	913.79 915.57 917.37 918.49 913.17	911.8 911.4 911.4 910.7 910.2	FB NO	
13	2	46,800	15,328	7,510	10,585	5,510	918.8	910.5	910.5	910.5	904.1	PER OVERFLOW	391 392 393 394 397 BASIN 2	909.53 909.19 910.29 914.42 918.50 906.29	907.4 908.5 907.3 910.9 none 903.0 902.3	WET WAT SIDE W.O.* DROP 2 COURSE WET WAT	NO

NOTES: * INDICATES DROPPED GARAGE ELEVATIONS BASED UPON 12 COURSE BASEMENT
 LOW OPENINGS LISTED ARE REFLECTING THE REAR YARD LOW OPENING
 WET - INDICATES ENCOUNTERED MOISTURE ELEVATION IN INFILTRATION AREA BORING.
 WAT - INDICATES WATER ELEVATION FOUND IN INFILTRATION BORING.

PONDING CALCULATIONS AND STORM SEWER DESIGN BY
PLOWE ENGINEERING, INC.
 8778 LAKE DRIVE SUITE 110 LINO LAKES, MN 55014
 PHONE: (651) 361-8210 FAX: (651) 361-8701

SITE PLANNING & ENGINEERING

I HEREBY CERTIFY THAT THIS PLAN WAS PREPARED BY ME OR UNDER MY DIRECT SUPERVISION AND THAT I AM A DULY LICENSED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF MINNESOTA.

Adam Dinkel
ADAM DINKEL

DATE: 03.26.2021 LIC. NO. 43963

I hereby certify that this survey, plan or report was prepared by me or under my direct supervision and that I am a duly Registered Land Surveyor under the laws of the State of Minnesota.

Jason E. Rud
JASON E. RUD
 Date: 03/26/2021 License No. 41578

EST. 1977 **E.G. RUD & SONS, INC.**
Professional Land Surveyors
 6776 Lake Drive NE, Suite 110 Lino Lakes, MN 55014
 Tel. (651) 361-8200 Fax (651) 361-8701

www.egrud.com

BENCHMARK
 ANOKA COUNTY BENCHMARK NO. 3098
 ELEVATION = 908.17 FEET (NAVD88)

DRAWN BY: HMD	JOB NO: 177377P	DATE: 07/15/2020
CHECK BY: JER	SCANNED: <input type="checkbox"/>	
1	11/02/20	CITY / WATERSHED COMMENTS HMD
2	01/13/21	CITY / WATERSHED COMMENTS HMD
3	02/26/21	CITY / WATERSHED COMMENTS HMD
4	03/26/21	CITY / WATERSHED COMMENTS HMD
5		
NO.	DATE	DESCRIPTION BY

LIVABILITY CHART

~of~ CROSSTOWN ROLLING ACRES THIRD ADDITION
 ~for~ CROSSTOWN DEVELOPMENT, LLC
 17404 WARD LAKE DRIVE NW
 ANDOVER, MN 55304
 (612) 799-1471

Livability Standards
 All residential lots shall contain at least 29,500 square feet of land which lies above the 100 year flood contour. Of this 29,500 square feet, the following additional requirements must be present.

A. ISTS Area Each lot must contain at least 7,500 square feet of contiguous area which is reserved for both the ISTS originally constructed and a future ISTS. The ISTS Area need not be contiguous to the Eligible Building Area or the Yard Area, but the entire ISTS Area must exist at an elevation at least one foot above Unsuitable Soils, and must contain Undisturbed Soils or soils which meet the requirements of Rule 7050 of the Minnesota Pollution Control Agency for ISTS construction standards. The ISTS Area may be irregular in shape, provided they do not encroach into areas reserved by easement or otherwise for roadway, drainage or utility purposes, and provided that all of the area can be reasonably used for ISTS construction without the need for variances.

B. Eligible Building Area Each lot shall contain at least 10,000 square feet of contiguous land which lies at an elevation at least four feet above Unsuitable Soils. The Eligible Building Area may not be irregular in shape, and should be generally rectangular or ovoid, with no peninsulas, narrow necks or peninsulas. Eligible Building Areas may not encroach into any areas reserved by easement or otherwise for roadway, drainage or utility purposes. Fill may be used to create Eligible Building Area.

C. Yard Area Each lot shall contain at least 12,000 contiguous square feet which:

- i) Lies above the 100 year flood contour, and
 - ii) Lies at least one foot above soils unsuitable for the intended use of the Yard area, and
 - iii) Is contiguous to the Eligible Building Area for a distance of at least fifty percent of the linear perimeter of the Eligible Building Area.
- Yard Areas may encroach into the dedicated easement area which lies at a distance of ten feet from the perimeter of the lot, and may encroach into areas reserved by easement or otherwise for other public utility purposes, but may not encroach into any other area reserved by dedication or otherwise for road or drainage purposes, any may not encroach into any areas within the 100 year flood contour or into designated wetlands. Yard Areas may be irregular in shape except within thirty feet of the locations where the Yard Area is contiguous to the Eligible Building Area, at which locations the Yard Areas shall be a logical extension or expansion of the generally rectangular or ovoid shape of the Eligible Building Area. Fill may be used to create Yard Area.

D. Building Pad Areas The entire Building Pad must lie within the Eligible Building Area, and shall meet the separation requirements for the Eligible Building Area.

- E. Low Floor Elevations**
- i) For walkout designs, the low floor elevation shall be at least one foot above the 100 year flood contour, but, notwithstanding the 100 year flood contour, not less than one foot above unsuitable soils, as determined by the City's engineer.
 - ii) For other designs, the low floor elevation shall be at least one foot above the 100 year flood contour, but, notwithstanding the 100 year flood contour, not less than one foot above unsuitable soils, as determined by the City's engineer.

Lot	Block	Total Lot Area (sq. ft.)	Yard Area (sq. ft.)	Septic Area (sq. ft.)	Building Pad Area (sq. ft.)	Proposed Building Pad 4' Above Unsuitable (sq. ft.)	Garage Floor Elevation	Propose Low Floor Elev.	Proposed Low Opening	Lowest Floor Elevation	Highest Anticipated Groundwater Elevation	Low Floor Delemning Factor	Boring #	Boring Elevation	Mottles Elevation	Building Type	Custom Graded
14	2	48,976	14,375	7,614	10,454	5,607	916.8	910.5	910.5	910.5	904.1	PER OVERFLOW	25 385 388 389 390 481	906.80 907.28 907.33 907.87 908.76 905.67 906.24	905.6 906.1 906.3 906.2 905.8 904.8 901.6	W.O.* DROP 2 COURSE WET WAT	NO
15	2	43,618	21,982	7,849	10,168	9,301	915.9	908.9	912.1	908.1	904.1	GROUNDWATER	381 382 383 384 387	909.15 911.28 910.64 907.13 908.17	906.5 907.5 907.5 906.0 906.9	L.O.* DROP 1 COURSE	NO
16	2	49,490	20,088	7,587	10,450	10,251	914.0	906.3	914.4	906.1	904.1	GROUNDWATER	376 377 378 379 380	909.93 909.63 909.32 912.46 908.64	907.6 906.3 906.8 910.0 907.3	F.B.	NO
17	2	43,640	12,900	7,776	10,172	7,638	916.1	908.4	916.5	908.0	904.1	BASIN 8 INFIL. CALCS	371 372 373 374 375 482	918.94 919.75 919.29 917.59 911.72 910.32	913.6 914.8 915.3 912.6 908.6 903.5	F.B.	NO
18	2	50,098	19,674	8,043	10,231	5,245	918.6	910.9	919.0	906.1	904.1	GROUNDWATER	367 368 369 370 419	914.38 919.94 919.48 917.55 917.84	913.9 913.2 913.8 913.8 914.3	F.B.	NO
1	3	270,941	13,435	7,748	10,001	4,685	914.0	907.0	907.0	906.2	903.4	FEMA HWL	3 420 421 422 423 424 425 479	907.44 907.44 908.16 910.43 912.66 908.74 910.18	905.1 905.1 905.2 908.9 905.2 905.4 901.4	W.O.* DROP 1 COURSE	NO
2	3	115,327	15,874	7,513	10,001	4,985	914.5	907.5	907.5	906.2	903.4	FEMA HWL	424 426 427 428 429	913.45 903.26 907.65 910.33 907.62	905.5 905.1 905.2 908.2 905.6	W.O.* DROP 1 COURSE	NO
3	3	121,902	13,006	7,626	10,329	3,945	914.0	907.0	907.0	906.2	903.4	FEMA HWL	430 431 432 433 434	908.30 907.48 907.21 907.59 907.54	905.1 904.8 905.0 905.3 905.4	W.O.* DROP 1 COURSE	NO
4	3	128,323	12,340	7,804	10,005	4,504	914.0	907.7	907.7	906.7	903.4	POND 1 HWL	4 435 436 437 438 439	906.70 911.66 912.85 911.66 908.13 908.67	905.5 907.4 907.9 908.1 904.8 905.0	W.O.* DROP 2 COURSE	NO
5	3	87,175	12,274	7,580	10,059	5,167	914.8	907.8	907.8	906.2	903.4	FEMA HWL	440 441 442 443 444	905.94 908.14 907.89 909.90 909.66	905.5 905.1 905.7 907.4 906.6	W.O.* DROP 1 COURSE	NO
6	3	85,215	21,621	8,564	10,771	5,903	915.5	908.5	908.5	907.0	903.4	POND 2 HWL	445 446 447 448 449	909.32 908.19 908.43 912.00 910.12	906.0 905.5 904.9 908.0 907.5	W.O.* DROP 1 COURSE	NO
7	3	56,764	12,276	8,785	10,119	5,008	915.0	908.0	908.0	907.0	903.4	POND 2 HWL	450 451 452 453 454	912.76 913.08 912.73 912.95 913.02	909.1 909.1 909.1 909.1 909.4	W.O.* DROP 1 COURSE	NO
8	3	72,465	13,622	7,702	10,112	4,355	914.5	907.5	907.5	906.2	903.4	FEMA HWL	455 456 457 458 459	907.10 907.89 915.73 911.98 910.26	905.4 905.4 910.4 907.8 905.8	W.O.* DROP 1 COURSE	NO
9	3	221,559	17,962	8,071	10,016	4,983	913.3	907.0	907.0	906.2	903.4	FEMA HWL	1 475 476 477 478	906.21 912.06 906.54 906.94 906.56	904.0 908.9 904.4 903.9 904.9	W.O.* DROP 2 COURSE	NO
10	3	178,432	12,337	7,653	10,023	5,577	914.5	907.5	907.5	906.2	903.4	FEMA HWL	460 461 462 463 464	908.24 908.35 913.71 912.18 911.16	903.8 903.8 909.2 900.4 900.7	W.O.* DROP 1 COURSE	NO
11	3	108,161	13,128	7,560	10,223	5,788	914.5	907.5	907.5	906.2	903.4	FEMA HWL	2 465 466 467 468 469	912.82 908.18 909.62 911.06 908.37 905.19	908.0 903.7 906.6 909.2 904.4 904.5	W.O.* DROP 1 COURSE	NO
12	3	169,837	12,646	7,657	10,388	5,672	914.5	907.5	907.5	906.2	903.4	FEMA HWL	470 471 472 473 474	907.75 907.46 908.25 909.11 910.20	904.4 903.8 902.9 905.4 904.9	W.O.* DROP 1 COURSE	NO

NOTES: * INDICATES DROPPED GARAGE ELEVATIONS BASED UPON 12 COURSE BASEMENT
 LOW OPENINGS LISTED ARE REFLECTING THE REAR YARD LOW OPENING
 WET - INDICATES ENCOUNTERED MOISTURE ELEVATION IN INFILTRATION AREA BORING.
 WAT - INDICATES WATER ELEVATION FOUND IN INFILTRATION BORING.

PONDING CALCULATIONS AND STORM SEWER DESIGN BY
PLOWE ENGINEERING, INC.
 6776 LAKE DRIVE SUITE 110 LINO LAKES, MN 55014
 PHONE: (851) 361-8210 FAX: (851) 361-8701
 I HEREBY CERTIFY THAT THIS PLAN WAS PREPARED BY ME OR UNDER MY DIRECT SUPERVISION AND THAT I AM A DULY LICENSED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF MINNESOTA.
ADAM GINKEL
 DATE: 03.26.2021 LIC. NO. 43963

I hereby certify that this survey, plan or report was prepared by me or under my direct supervision and that I am a duly Registered Land Surveyor under the laws of the State of Minnesota.
JASON E. RUD
 Date: 03/26/2021 License No. 41578

E. G. RUD & SONS, INC.
 EST. 1877 Professional Land Surveyors
 6776 Lake Drive NE, Suite 110 Lino Lakes, MN 55014
 Tel. (651) 361-8200 Fax (651) 361-8701

BENCHMARK
 ANOKA COUNTY BENCHMARK NO. 3099
 ELEVATION = 908.17 FEET (NAVD88)
 DRAWN BY: MMD JOB NO: 17737PP DATE: 07/15/2020
 CHECK BY: JER SCANNED

1	11/02/20	CITY / WATERSHED COMMENTS	MMD
2	01/13/21	CITY / WATERSHED COMMENTS	MMD
3	02/26/21	CITY / WATERSHED COMMENTS	MMD
4	03/26/21	CITY / WATERSHED COMMENTS	MMD
5			

 NO. DATE DESCRIPTION BY

**CITY OF HAM LAKE
PLANNING COMMISSION REQUEST APPLICATION
INSPECTION REPORT**

MTG DATE: April 26, 2021

INSPECTION ISSUED TO: Jonathan Fisher

APPLICANT/CONTACT: Jim Malvin & Tim Lang

TELEPHONE NUMBER: 612-859-2048 (Jim) or Jim.Malvin@comcast.net

BUSINESS/PLAT NAME: Evergreen Estates

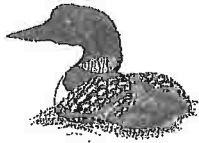
ADDRESS/LOCATION OF INSPECTION: 21-32-23-11-003, 21-32-23-12-0003, 21-32-23-13-0002 & 003 and 21-32-23-14-0004.

APPLICATION FOR: Preliminary Plat

RECOMMENDATION: _____

DATE: _____

PLANNING COMMISSIONER SIGNATURE: _____



CITY OF HAM LAKE

PLANNING REQUEST

15544 Central Avenue NE

Ham Lake, MN 55304

Phone (763) 434-9555 Fax (763) 235-1697

Date of Application 12-30-20

Date of Receipt 12-30-20
Receipt # _____

Meeting Appearance Dates:

Planning Commission 4-26-2021 City Council _____

Please check request(s):

- | | |
|--|---|
| <input type="checkbox"/> Metes & Bounds Conveyance | <input type="checkbox"/> Commercial Building Permit |
| <input type="checkbox"/> Sketch Plan | <input type="checkbox"/> Certificate of Occupancy |
| <input checked="" type="checkbox"/> Preliminary Plat Approval* | <input type="checkbox"/> Home Occupation Permit |
| <input type="checkbox"/> Final Plat Approval | <input type="checkbox"/> Conditional Use Permit (New)* |
| <input checked="" type="checkbox"/> Rezoning* | <input type="checkbox"/> Conditional Use Permit (Renewal) |
| <input type="checkbox"/> Multiple Dog License* | <input type="checkbox"/> Other _____ |

***NOTE: Advisory Signage is required for land use alterations and future road connections. This application also requires a Public Hearing. Such fees shall be deducted from deposit.**

Development/Business Name: Evergreen Estates

Address/Location of property: 153rd Ave NE And Xylife, North West corner

Legal Description of property: See Public Hearing Notice

PIN # 21-32-23-11-0003 Current Zoning R-A Proposed Zoning R-1

Notes: 21-32-23-12-0003 21-32-23-13-0002 + 0003 + 21-32-23-14-0004

Applicant's Name: Jim Malvin, Tim Lang

Business Name: Timber Valley Development

Address 320 Circle Heights Dr.

City Circle Pines State MN Zip Code _____

Phone 763-780-9090 Cell Phone 612-859-2048 Fax _____

Email address Jim.MALVIN@comcast.net

You are advised that the 60-day review period required by Minnesota Statutes Chapter 15.99 does not begin to run until all of the required items have been received by the City of Ham Lake.

SIGNATURE [Signature] DATE 12-30-20

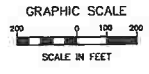
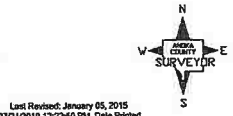
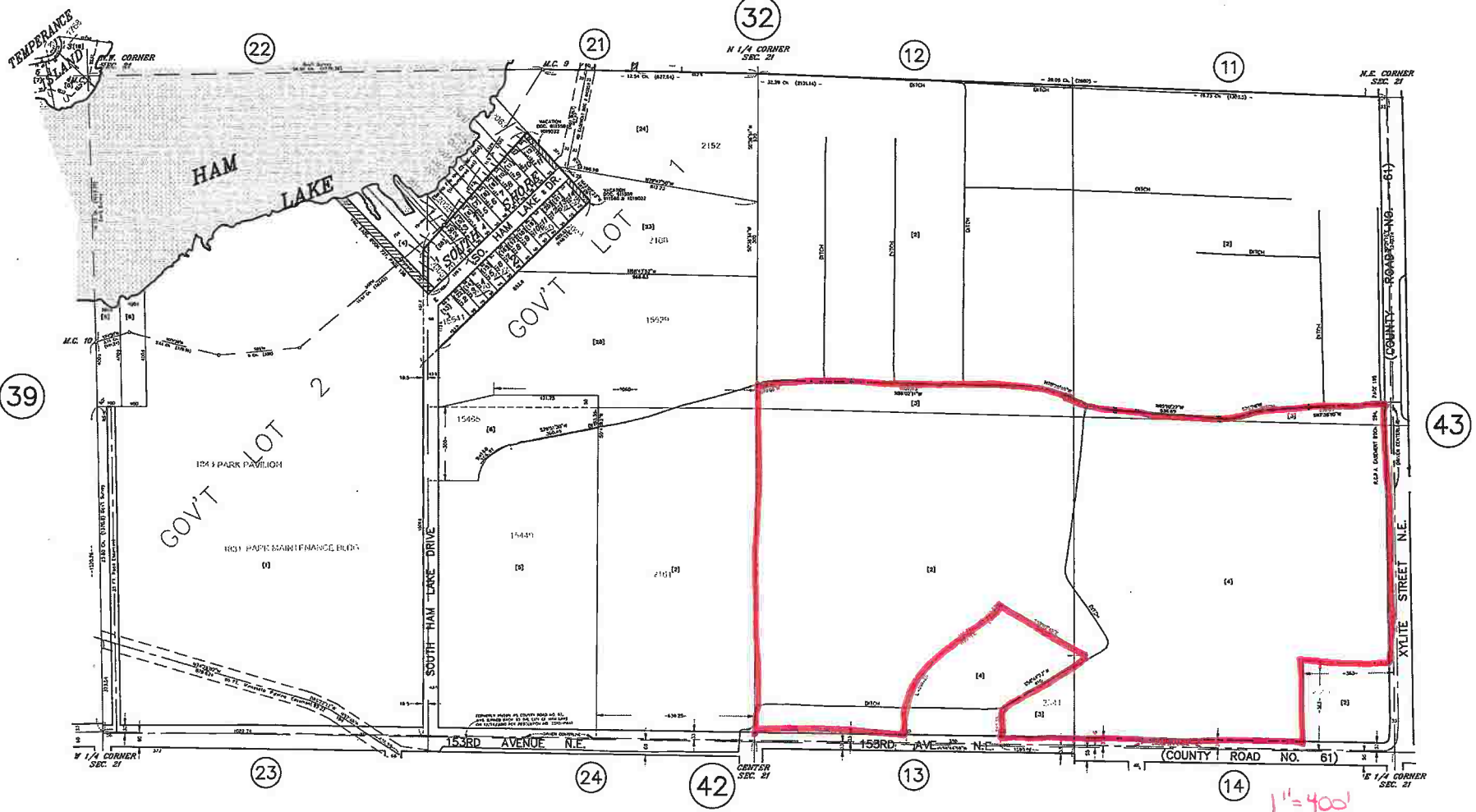
- FOR STAFF USE ONLY -

ACTION BY: Planning Commission _____
City Council _____

PROPERTY TAXES CURRENT YES NO

N 1/2 SECTION 21, T. 32, R. 23

CITY OF HAM LAKE



ANOKA COUNTY
SURVEYOR'S OFFICE
ROOM 224
2100 3RD AVENUE N.
ANOKA, MN 55303
(763) 323-5510

QUARTER QUARTER INDEX

22	21	12	11	NORTH HALF OF SECTION
23	24	13	14	
32	31	42	41	SOUTH HALF OF SECTION
33	34	43	44	

PROPERTY IDENTIFICATION NUMBER

Section	Township	Range	Quarter	Specific
Number	Number	Number	Number	Parcel
XX	XX	XX	XX	XXXX

SPECIFIC PARCEL NUMBERS ARE IN BRACKETS: (1)
EXAMPLE OF PIN NUMBER: 21-32-23-13-004

THIS IS A COMPILATION OF RECORDS AS THEY APPEAR IN THE ANOKA COUNTY OFFICES AFFECTING THE AREA SHOWN. THIS DRAWING IS TO BE USED ONLY FOR REFERENCE PURPOSES AND THE COUNTY IS NOT RESPONSIBLE FOR ANY INACCURACIES HEREIN CONTAINED.

Last Revised: January 05, 2015
07/01/2019 12:22:50 PM, Data Printed



CITY OF HAM LAKE

15544 Central Avenue NE
Ham Lake, Minnesota 55304
(763) 434-9555
Fax: (763) 434-9599

NOTICE OF PUBLIC HEARING CITY OF HAM LAKE COUNTY OF ANOKA STATE OF MINNESOTA

TAKE NOTICE, that pursuant to the requirements of Minnesota Law, a public hearing shall be held before the Ham Lake Planning Commission on Monday, April 26, 2021 at 6:01 p.m. at the City Hall located at 15544 Central Avenue NE for the purpose of considering the application of Jim Malvin and Tim Lang, Timber Valley Development, requesting preliminary plat approval and rezoning to R-1 (single family residential) for the development of Evergreen Estates (36 residential single family lots) located in Section 21, a parcel of certain land situated in the City of Ham Lake, Anoka County, Minnesota and which is described as follows to wit:

Parcel A:

The East Half of the Northeast Quarter, Section 21, Township 32, Range 23, Anoka County, Minnesota, except the following described parcels:

The South 363 feet of the East 363 feet of the Southeast Quarter of the Northeast Quarter of Section 21, Township 32, Range 23, Anoka County, Minnesota.

That part of the South Half of the Northeast Quarter of Section 21, Township 32, Range 23, Anoka County, Minnesota, described as follows:

Beginning at a point on the South line thereof, distant 1590.68 feet Westerly of the Southeast corner of said South Half of the Northeast Quarter; thence North 88 degrees 44 minutes 59 seconds West, assumed bearing along said South line a distance of 380.00 feet; thence North 01 degrees 15 minutes 01 seconds East, a distance of 60.00 feet; thence Northeasterly along a tangential curve, concave to the Southeast having a radius of 420.96 feet and a central angle of 53 degrees 55 minutes 59 seconds, a distance of 396.25 feet; thence North 55 degrees 11 minutes 00 seconds East, tangent to said curve, a distance of 151.88 feet; thence Northeasterly along a tangential curve, concave to the Northwest having a radius of 289.65 feet and a central angle of 22 degrees 44 minutes 54 seconds, a

distance of 115.00 feet; thence South 59 degrees 02 minutes 45 seconds East, not tangent to said curve, a distance of 405.92 feet; thence South 58 degrees 44 minutes 22 seconds West, a distance of 410.00 feet to the intersection with a line which bears North 01 degrees 15 minutes 01 seconds East from the point of beginning; thence South 01 degrees 15 minutes 01 seconds West, along said line, a distance of 152.35 feet to the point of beginning, Anoka County, Minnesota.

That part of the North Half of the Northeast Quarter of Section 21, Township 32, Range 23, Anoka County, Minnesota, described as beginning at the Northeast corner of said Northeast Quarter; thence on an assumed bearing of South 0 degrees 21 minutes 16 seconds East along the East line thereof a distance of 1240.74 feet; thence South 87 degrees 38 minutes 10 seconds West 476.67 feet; thence South 75 degrees 28 minutes West 163.64 feet; thence North 85 degrees 10 minutes 27 seconds West 536.89 feet; thence North 70 degrees 25 minutes 49 seconds West 261.00 feet; thence North 88 degrees 02 minutes 11 seconds West 1057.63 feet; thence South 77 degrees 06 minutes West 88.96 feet to the West line of said Northeast Quarter; thence North 0 degrees 44 minutes 13 seconds East along said West line 1262.95 feet to the Northwest corner of said Northeast Quarter; thence South 87 degrees 30 minutes 27 seconds East along the North line thereof 2537.79 feet to the point of beginning.

Parcel B:

That part of the West Half of the Northeast Quarter of Section 21, Township 32, Range 23, Anoka County, Minnesota, lying Southerly of the following described line:

Beginning at a point on the East line of said Northeast Quarter distant 1240.74 feet Southerly of the Northeast corner thereof, for the purpose of this description, said East line is assumed to bear South 00 degrees 21 minutes 16 seconds East; thence South 87 degrees 38 minutes 10 seconds West 476.67 feet; thence South 75 degrees 28 minutes West 163.64 feet; thence North 85 degrees 10 minutes 27 seconds West 536.89 feet; thence North 70 degrees 25 minutes 49 seconds West 261.00 feet; thence North 88 degrees 02 minutes 11 seconds West 1057.63 feet; thence South 77 degrees 05 minutes West 88.96 feet to the West line of said Northeast Quarter and there terminating.

Except the following described property:

That part of the South Half of said Northeast Quarter, described as follows:

Beginning at a point on the South line thereof, distant 1590.68 feet Westerly of the Southeast corner of said South Half of the Northeast Quarter; thence North 88 degrees 44 minutes 59 seconds West; assumed bearing along said South line, a distance of 380.00 feet; thence North 01 degrees 15 minutes 01 seconds East, a distance of 60.00 feet; thence Northeasterly along a tangential curve, concave to the Southeast, having a radius of 420.96 feet and a central angle of 53 degrees 55 minutes 59 seconds, a distance of 396.25 feet; thence North 55 degrees 11 minutes 00 seconds East, tangent to said curve, a distance of 151.88 feet; thence Northeasterly along a tangential curve, concave to the Northwest having

a radius of 289.65 feet and a central angle of 22 degrees 44 minutes 54 seconds, a distance of 115.00 feet; thence South 59 degrees 02 minutes 45 seconds East, not tangent to said curve, a distance of 405.92 feet; thence South 58 degrees 44 minutes 22 seconds West, a distance of 410.00 feet to the intersection with a line which bears North 01 degrees 15 minutes 01 seconds East from the point of beginning; thence South 01 degrees 15 minutes 01 seconds West, along said line, a distance of 152.35 feet to the point of beginning.

At such hearing both written and oral comments will be heard.

DATED: April 16, 2021

Jennifer Bohr
Zoning and Building Clerk
City of Ham Lake

Memorandum

Date: April 21, 2021
To: Planning Commissioners
From: Tom Collins, City Engineer *TPC*
Subject: Evergreen Estates

Introduction:

The Title Sheet, Preliminary Plat, Grading, Erosion Control and Tree Protection Plan, Livability Plan, Street and Storm Sewer Profiles, Stormwater Sizing & Location Plan, Details, Stormwater Drainage Report and Stormwater Pollution Prevention Plan were received April 20th for the proposed 36 lot residential development located on the 75.4 combined acres of parcels 21-32-23-11-0003, 21-32-23-12-0003, 21-32-23-13-0002, 21-32-23-13-0003 and 21-32-23-14-0004. The parcels are currently zoned Rural Single Family Residential (R-A) and will be zoned R-1. The project conforms to the Sketch Plan that was approved at the May 4, 2020 City Council meeting. All of the prior review comments have been addressed.

Discussion:

The plans include construction of a 10-foot-wide path on the north side of 153rd Avenue right-of-way from Quamba Street to the west. In addition, a 15-foot-wide path easement is included for the 4 lots adjacent to Xylite Street as per the May 20, 2020 Park and Tree Committee recommendation approved at the June 1, 2020 City Council meeting.

The Revised Braun Geotechnical Exploration Report, dated March 9th, adequately addressed prior review comments. The March 10th Tradewell septic certification certifies that each of the proposed lots will support two standard septic systems in accordance with Minnesota Rules 7080.

The Coon Creek Watershed District conditionally approved the development at the April 12th Board of Managers meeting. One condition is that documentation be provided from the DNR if the proposed project includes endangered or threatened species, rare natural communities, colonial waterbird nesting sites, migratory waterfowl concentration areas, deer wintering areas or wildlife travel corridors.

The initial Anoka County Transportation Division review letter, dated December 7, 2020, is attached, along with a follow-up letter dated April 20th. The County found that the northerly extension of Radisson Road into the plat was not feasible. The County is requiring that Quamba Street be constructed as right-in/right-out. This will require a revision to the plans, and potentially additional right-of-way dedication. The County is requiring construction of a west bound right turn lane at Quamba Street, a west bound right turn lane and east bound left turn lane at Urbank Street and a south bound right turn lane and a north bound left turn lane at 154th Lane. Per the attached April 20th email, the County is okay with the County Road 61 driveway access

for Lots 1, 2, 9 and 10 of Block 5. The County is requiring that the driveways be located directly adjacent to the side yard drainage and utility easements shared by Lot 1 and 2 and by Lots 9 and 10.

Recommendations:

It is recommended that the Preliminary Plat of Evergreen Estates be recommended for approval to the City Council, conditioned on the Plans being updated to meet the requirements of the Anoka County Transportation Division.

**Tradewell Soil Testing
18330 Dahlia Street NW
Cedar, MN 55011**

March 10th, 2021

RFC Engineering
13635 Johnson Street NE
Ham Lake, MN 55304
Attention: Tom Collins

Dear Mr. Collins:

As a licensed site evaluator who conducted the soil borings in Evergreen Estates for Timber Valley Development, I found the following: Each boring has at least 12" of natural, undisturbed and unmottled soil. In order to design and install a standard soil treatment system according to MN Chapter 7080 Code, at least 12" of natural soil with no signs of mottling is required. Therefore, each of the proposed lots will support 2 "standard" septic systems within the 7,500 square feet septic area as shown on the Grading Plan.

Sincerely,

A handwritten signature in black ink, appearing to read "Mark Tradewell". The signature is fluid and cursive, with the first name "Mark" written in a larger, more prominent script than the last name "Tradewell".

Mark Tradewell
MPCA #307

NOTICE OF PERMIT APPLICATION STATUS

Project: Evergreen Estates

Date: April 13, 2021

Applicant: Timber Valley Development
620 Civic Heights Dr, Ste 100
Circle Pines, MN 55014

Permit Application#: 20-103

Purpose: Construction of 36 single family lots, residential streets, associated infiltration basins and NURP pond.

Location: 2341 153rd Ave NE, Ham Lake

At their meeting on April 12, 2021, the Board of Managers of the Coon Creek Watershed District **conditionally approved** the above referenced project with 5 conditions and 3 stipulations: **This is NOT a permit.**

ISSUES/CONCERNS:

ISSUE	NEED
Escrows: \$2,000 + (39.96 ac * \$500/ac = \$21,980.00	1. Receipt of escrows.
<p>Stormwater & Hydraulics: The applicant is not meeting the volume management requirement equivalent to infiltrating runoff from the first inch of precipitation; however, the applicant is infiltrating 72% of the requirement and is achieving the maximum extent practicable due to site constraints.</p> <ul style="list-style-type: none"> • The elevation for the internal weir and orifice of OCS D is inconsistent between detail and HydroCAD model. • Rain Gaurdians to Basin D are not labeled on sheet C2.2 of the Civil Plan set. • Drainage Narrative states that there are 6 proposed infiltration basins. Plans only show 5. 	2. Update the elevation of the internal weir and orifice for the OCS D to be consistent between detail and HydroCAD model. 3. Label Rain Gaurdians to Basin D on Sheet C2.2 of the Civil Plan set. 4. Update Drainage Narrative to identify correct number of infiltration basins.
Wildlife: The proposed project may include endangered or threatened species, rare natural communities, colonial waterbird nesting sites, migratory	5. Provide documentation from the DNR if the proposed project includes endangered or threatened species, rare natural communities, colonial

waterfowl concentration areas, deer wintering areas or wildlife travel corridors.	waterbird nesting sites, migratory waterfowl concentration areas, deer wintering areas or wildlife travel corridors.
---	--

To secure Board review and obtain your permit, the District must receive:

Conditions:

1. Receipt of escrows.
2. Update the elevation of the internal weir and orifice for OCS D to be consistent between detail and HydroCAD model.
3. Label Rain Gaurdians to Basin D on Sheet C2.2 of the Civil Plan set.
4. Update Drainage Narrative to identify correct number of infiltration basins.
5. Provide documentation from the DNR if the proposed project includes endangered or threatened species, rare natural communities, colonial waterbird nesting sites, migratory waterfowl concentration areas, deer wintering areas or wildlife travel corridors.

After issuance, the permit will include the following stipulations that need to be fulfilled before permit closeout:

Stipulations:

1. Submittal of as-builts for the following stormwater management practices, including volume and critical elevations:

Stormwater Treatment Practices	Number
Infiltration Basins	5
Wet Sedimentation Pond	5
RainGuardians	4
Outlet Control Structures	7
Catch Basin Sump	3
Sediment Forebay	3

2. Completion of post construction infiltration tests on Infiltration Basins 8, A, B, C, and D by filling the basin to a minimum depth of 6 inches with water and monitoring the time necessary to drain, or multiple double ring infiltration tests to ASTM standards. The Coon Creek Watershed District shall be notified prior to the test to witness the results.
3. If dewatering becomes necessary, provide DNR dewatering permit and well-field location, rates, discharge location, schedule and quantities or dewatering plans must be submitting to the district 7 days prior to activity for review and approval.

Please be advised that **this is NOT a permit**, and that work without a permit is a violation of the terms of the Coon Creek Watershed District Rule 5.1. If you have any questions, please call 763-755-0975.

Sincerely,



Erin Edison
Water Resource Regulation Coordinator

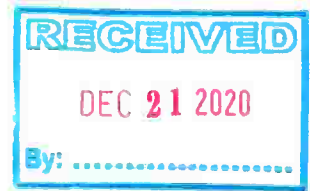
cc: File 20-103
Ed Matthiesen, Stantec
Eileen Weigel, Stantec
Tom Collins, Ham Lake

Note: Please respond to each of these items in writing when resubmitting the revised plans to the District. Resubmittals must include two hard copies and an electronic version sent to permitsubmittals@cooncreekwd.org. **Please submit written responses below the original typed comments, using extra sheets as necessary, addressing comments from the District.** If you have any questions, feel free to contact Erin Edison at (763) 755-0975. Pursuant to Coon Creek rule 7.3 deficiencies must be addressed and resubmitted within 60 days. Failure to do so shall be deemed a withdrawal of the permit application.



Anoka County
TRANSPORTATION DIVISION

Highway



Jennifer Bohr
City of Ham Lake
15544 Central Ave. NE
Ham Lake, MN 55304

December 7, 2020

RE: Sketch Plan – Evergreen Estates

Dear Jennifer,

We have reviewed the Sketch Plan for Evergreen Estates to be located north of CR 61 (153rd Avenue NE) and west of CR 61 (Xylite Street NE) within the City of Ham Lake, and I offer the following comments:

An additional 27 feet of right of way along CR 61 (153rd Ave. and Xylite St.) will be required for future reconstruction purposes (60 feet total right of way width north and west of CR 61 centerline). Any existing driveways or field entrances are to be removed and the ditch section restored to match existing depth, slope, and grades. Right of access should be dedicated to Anoka County along CR 61 (153rd Ave. and Xylite St.) with the exception for the approved street accesses. It is recommended that the sketch plan be reconfigured to eliminate the 4 direct residential access points onto county roads. Radisson Road NE should be extended north to accommodate accesses on 153rd Ave. and a CR 61 EB left turn lane and WB right turn lane will be required along 153rd Ave. at this extended Radisson Road NE. If a Radisson Road NE connection isn't feasible, a RI/RO at Quamba Street would be required as an EB left turn lane would not be feasible so close to Radisson Road NE. A WB right turn lane would then be required at Quamba Street. The centerlines for the 2 additional proposed accesses should be aligned directly across from Urbank Street NE and 154th Lane NE, respectively, to reduce the number of conflict points onto county roads. Urbank Street NE will require an EB CR 61 left turn lane and a WB CR 61 right turn lane. 154th Lane NE will require a NB CR 61 left turn lane and a SB CR 61 right turn lane. Please note that no plantings or private signs will be permitted within the county right of way and care must be exercised when locating private signs, buildings, structures, plantings, berms, etc. outside of the county right of way, so as not to create any new sight obstructions for this section of CR 61.

ACHD would like to work with local governments in promoting compatibility between land use and the county highway system. It should be recognized that residential land uses located adjacent to County highways often results in complaints about traffic noise. Existing and/or future traffic noise from CR 61 (153rd Ave./Xylite St.) could exceed noise standards established by the Minnesota Pollution Control Agency (MPCA), the U.S. Department of Housing and Urban Development, and the U.S. Department of Transportation. Minnesota Rule 7030.0030 states that municipalities are responsible for taking all reasonable measures to prevent land use activities listed in the MPCA's Noise Area Classification (NAC) where establishment of the land use would result in violations of established noise standards. It is advised that the City and the Developer assess the noise situation for this development as it is proposed to be located directly

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1440 Bunker Lake Boulevard N.W. ▲ Andover, MN 55304-4005
Office: 763-324-3100 ▲ Fax: 763-324-3020 ▲ www.anokacounty.us/highway

Affirmative Action / Equal Opportunity Employer

adjacent to CR 61, and take the level of action deemed necessary to minimize the impact of any highway noise by incorporating the appropriate noise mitigation elements into the design and phasing of this plat as applicable.

The ACHD Engineering Plan Review process will apply to this site. Calculations must be submitted along with a grading and erosion control plan that delineates the drainage areas for this development. The post-developed rate/volume of runoff must not exceed the pre-developed rate/volume of runoff for the 10-year critical design storm. Contact Michelle Pritchard, Engineer II, via phone at 763.324.3162 or via email at Michelle.Pritchard@co.anoka.mn.us for further information and to coordinate the ACHD Engineering Plan Review Process. Please submit the drainage calculations, grading and erosion control plans, right and left turn lane construction plans, ACHD Design Requirements Checklist for County Highway Modifications (copy available via our website), and the applicable engineering plan review fee (estimated at \$1,500.00) to Ms. Pritchard for her review and approval.

Following completion of the ACHD Engineering Plan Review Process outlined above, the contractor(s) who will be completing any work within the county right of way must begin the ACHD Permit process. Two Permits for Work within the County Right of Way (\$150.00 each) and two Street Access permits (\$250.00 each) must be obtained prior to the commencement of any construction. License permit bonding, methods of construction, design details, work zone traffic control, restoration requirements and follow-up inspections are typical elements of the permitting process. Contact Sue Burgmeier via phone at 763.324.3142 or via email at Susan.Burgmeier@co.anoka.mn.us for further information and to coordinate the ACHD Permit process.

Thank you for the opportunity to comment. Feel free to contact me if you have any questions regarding this review.

Sincerely,



Logan Keehr
Traffic Engineering Technician

xc: CR61/Plats+Developments/2020
Jerry Auge, Assistant County Engineer
Jane Rose, Traffic Engineering Manager
Michelle Pritchard, Engineer II
Chuck Glitzen, County Surveyor
Sean Thiel, Graduate Engineer
Sue Burgmeier, Traffic Engineering Technician



Anoka County

TRANSPORTATION DIVISION

Highway

Jennifer Bohr
City of Ham Lake
15544 Central Ave. NE
Ham Lake, MN 55304

April 20, 2021

RE: UPDATE - Preliminary Plat – Evergreen Estates

Dear Jennifer,

We have reviewed the preliminary plat for Evergreen Estates, to be located north of CR 61 (153rd Avenue NE) and west of CR 61 (Xylite Street NE) within the City of Ham Lake, and I offer the following comments:

Our comments from the letter dated December 7, 2020 still apply. Since a Radisson Road NE connection isn't feasible, a RI/RO at Quamba Street will be required as an EB left turn lane would not be feasible so close to Radisson Road NE. It can be anticipated that a WB right turn lane would then be required at Quamba Street. It can also be anticipated that Urbank Street NE will require an EB CR 61 left turn lane and a WB CR 61 right turn lane along with 154th Lane NE requiring a NB CR 61 left turn lane and a SB CR 61 right turn lane in conjunction with this development, and the exact turn lane requirements and design details for construction will be determined through the ACHD Engineering Plan Review process.

The ACHD Engineering Plan Review process will apply to this site. Construction plans for the right turn lane at Quamba Street, right and left turn lanes at Urbank Street NE, right and left turn lanes at 154th Lane NE, and drainage calculations must be submitted, along with a grading and erosion control plan that delineates the drainage areas for this development. The post-developed rate/volume of runoff must not exceed the pre-developed rate/volume of runoff for the 10-year critical design storm. Contact Michelle Pritchard, Engineer II, via phone at 763.324.3162 or via email at Michelle.Pritchard@co.anoka.mn.us for further information and to coordinate the ACHD Engineering Plan Review Process. Please submit the drainage calculations, grading and erosion control plans, ACHD Design Requirements Checklist for County Highway Modifications (copy available via our website), turn lane construction plans and the applicable ACHD Engineering Plan Review fee (estimated at \$1250.00) to Ms. Pritchard for her review and approval.

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Following the completion of the ACHD Engineering Plan Review process outlined above, the contractor(s) who will be completing any work within the county right of way must begin the ACHD Permit process. Two Permits for Work within the County Right of Way (150.00 each) and three Street Access permits (250.00 each) must be obtained prior to the commencement of any construction. License permit bonding, methods of construction, design details, work zone traffic control, restoration requirements and follow-up inspections are typical elements of the permitting process. Contact Sue Burgmeier via phone at 763.324.3142 or via email at Susan.Burgmeier@co.anoka.mn.us for further information and to coordinate the ACHD Permit process.

Thank you for the opportunity to comment. Feel free to contact me if you have any questions regarding this review.

Sincerely,



Logan Keehr
Traffic Engineering Technician

xc: CR 61/Plats+Developments/2021
Jerry Auge, Assistant County Engineer
Jane Rose, Traffic Engineering Manager
Michelle Pritchard, Engineer II
Chuck Gitzen, County Surveyor
Sean Thiel, Graduate Engineer
Sue Burgmeier, Traffic Engineering Technician

Tom Collins

From: Logan J. Keehr <Logan.Keehr@co.anoka.mn.us>
Sent: Tuesday, April 20, 2021 10:26 AM
To: Tom Collins
Subject: RE: Evergreen Estates

Yes we are okay with them.

Logan

-----Original Message-----

From: Tom Collins <TCollins@rfcengineering.com>
Sent: Tuesday, April 20, 2021 10:23 AM
To: Logan J. Keehr <Logan.Keehr@co.anoka.mn.us>
Subject: RE: Evergreen Estates

The December letter had concerns with the 4 proposed driveways to CR60. This letter states that those comments still apply. So are the 4 driveways okay with the County?

-----Original Message-----

From: Logan J. Keehr <Logan.Keehr@co.anoka.mn.us>
Sent: Tuesday, April 20, 2021 10:11 AM
To: Tom Collins <TCollins@rfcengineering.com>
Subject: RE: Evergreen Estates

Here is a PDF of the letter.

Logan

-----Original Message-----

From: Tom Collins <TCollins@rfcengineering.com>
Sent: Tuesday, April 20, 2021 10:10 AM
To: Logan J. Keehr <Logan.Keehr@co.anoka.mn.us>
Subject: RE: Evergreen Estates

Can I get a pdf? I am preparing my recommendation memo for preliminary plat approval, and would like to include.

-----Original Message-----

From: Logan J. Keehr <Logan.Keehr@co.anoka.mn.us>
Sent: Tuesday, April 20, 2021 10:06 AM
To: Tom Collins <TCollins@rfcengineering.com>
Subject: RE: Evergreen Estates

Hi Tom,

I just sent out an updated letter. That should cover everything in the plat.

Logan

-----Original Message-----

From: Tom Collins <TCollins@rfcengineering.com>
Sent: Thursday, April 15, 2021 6:48 AM
To: Logan J. Keehr <Logan.Keehr@co.anoka.mn.us>
Subject: RE: Evergreen Estates

Hi Logan,

What is the status of review of the Evergreen Estates project with the Highway Department?

Has the County approved the street connections to CR 61? Has the developer shown that the extension of Radisson Road to within the plat is not feasible? If so, is the County still requiring that Quamba Street be a RI/RO?

The plans show that the proposed driveways for the lots that have direct access to CR 61 (Lots 1, 2, 9 and 10 of Block 5) is directly adjacent to the 10-foot drainage and utility easement. Based on the email below, my interpretation is that the County is okay with that. The plat does propose a total driveway opening of 50-feet for each driveway. The maximum driveway width is 30 feet, so with the 10-foot drainage and utility easement the County could require that the opening be reduced to 40-feet for each driveway.

Tom

-----Original Message-----

From: Logan J. Keehr <Logan.Keehr@co.anoka.mn.us>
Sent: Tuesday, December 29, 2020 10:46 AM
To: Tom Collins <TCollins@rfcengineering.com>
Subject: RE: Evergreen Estates

Hi Tom,

I just heard back from Joe and this is what he said:

It is our recommendation and preference to not have any additional residential access points on to the county roadways. However, if the city is going to approve the plat as shown then the driveways should be arranged so they are located along adjoining lot lines.

Let me know if you have any other questions.

Logan

-----Original Message-----

From: Tom Collins <TCollins@rfcengineering.com>
Sent: Tuesday, December 29, 2020 9:28 AM
To: Logan J. Keehr <Logan.Keehr@co.anoka.mn.us>
Subject: RE: Evergreen Estates

Thanks Logan. The sooner the better. I understand that the preliminary plat and calculations will be submitted to the City and the Coon Creek Watershed District tomorrow.

-----Original Message-----

From: Logan J. Keehr <Logan.Keehr@co.anoka.mn.us>
Sent: Monday, December 28, 2020 9:23 AM
To: Tom Collins <TCollins@rfcengineering.com>

Subject: RE: Evergreen Estates

Hi Tom,

I am still waiting to hear back on this. I sent out an email last Monday and have not heard back yet. I will let you know as soon as I find out.

Logan

-----Original Message-----

From: Tom Collins <TCollins@rfcengineering.com>
Sent: Monday, December 21, 2020 1:28 PM
To: Logan J. Keehr <Logan.Keehr@co.anoka.mn.us>
Subject: Evergreen Estates

****EXTERNAL EMAIL ALERT****

This email originated from outside the Anoka County email system. Use caution when clicking hyperlinks, downloading pictures or opening attachments.

****EXTERNAL EMAIL ALERT****

Logan,

So the County will allow the 4 proposed driveways onto both 153rd Avenue and Xylite Street?

Tom

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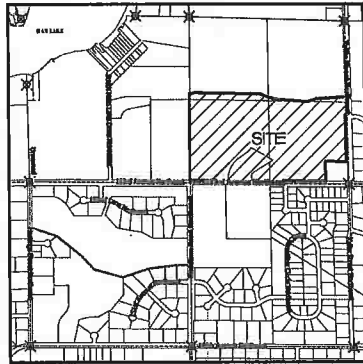
NOTICE: Unless restricted by law, email correspondence to and from Anoka County government offices may be public data subject to the Minnesota Data Practices Act and/or may be disclosed to third parties.

TITLE SHEET

~of~ EVERGREEN ESTATES
 ~for~ TIMBER VALLEY DEVELOPMENT
 620 CIVIC HEIGHTS DR # 100
 CIRCLE PINES, MN 55014
 (763) 780-9090

VICINITY MAP

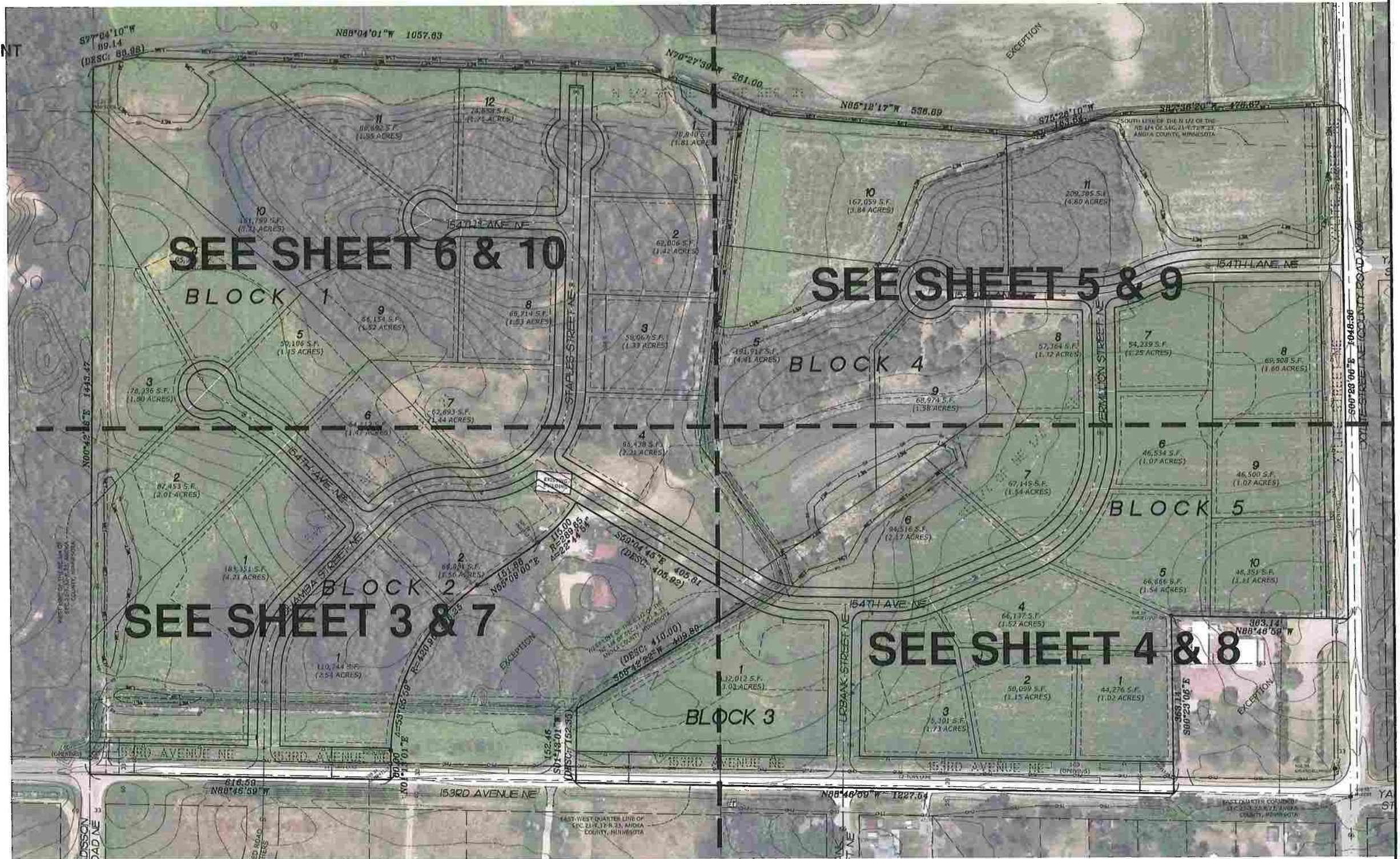
PART OF SEC. 21, TWP. 32, RNG. 23



ANOKA COUNTY, MINNESOTA
 (NO SCALE)

SHEET INDEX

- | | |
|-------|------------------|
| T1 | TITLE SHEET |
| 2 | PRELIMINARY PLAT |
| 3-6 | GRADING PLAN |
| 7-10 | LIVABILITY PLAN |
| 11-12 | LIVABILITY CHART |



PONDING CALCULATIONS AND STORM SEWER DESIGN BY
 PLOWE ENGINEERING, INC.

PLOWE ENGINEERING, INC.
 6778 LAKE DRIVE
 SUITE 110
 LINO LAKES, MN 55014
 PHONE: (651) 361-8210
 FAX: (651) 361-8701

SITE PLANNING & ENGINEERING

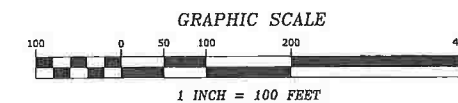
I HEREBY CERTIFY THAT THIS PLAN WAS PREPARED BY ME OR UNDER MY DIRECT SUPERVISION AND THAT I AM A DULY LICENSED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF MINNESOTA.

Charles W. Plowe
 CHARLES W. PLOWE
 DATE: 04.20.2021 LIC. NO. 19227

I hereby certify that this survey, plan or report was prepared by me or under my direct supervision and that I am a duly Registered Land Surveyor under the laws of the State of Minnesota.

Jason E. Ruld
 JASON E. RULD
 Date: 04/20/2021 License No. 41578

E. G. RUD & SONS, INC.
 Professional Land Surveyors
 6776 Lake Drive NE, Suite 110
 Lino Lakes, MN 55014
 Tel. (651) 361-8200 Fax (651) 361-8701



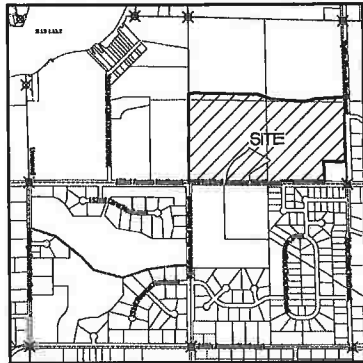
DRAWN BY: CMB	JOB NO: 200062PP	DATE: 12/28/20	
CHECK BY: JER	FIELD CREW: BH / SO		
1	03/10/21	CITY / WATERSHED COMMENTS	MND
2	03/31/21	CITY / WATERSHED COMMENTS	MND
3	04/20/21	CITY COMMENTS	MND
NO.	DATE	DESCRIPTION	BY

PRELIMINARY PLAT

~of~ EVERGREEN ESTATES
 ~for~ TIMBER VALLEY DEVELOPMENT
 620 CIVIC HEIGHTS DR # 100
 CIRCLE PINES, MN 55014
 (763) 780-9090

VICINITY MAP

PART OF SEC. 21, TWP. 32, RNG. 23



ANOKA COUNTY, MINNESOTA
 (NO SCALE)

PROPERTY DESCRIPTION

(Per Title Commitment prepared by The Title Group, Inc, Issuing Office File No. 201033787)

Parcel A:

The East Half of the Northeast Quarter, Section 21, Township 32, Range 23, Anoka County, Minnesota, except the following described parcels:

The South 363 feet of the East 363 feet of the Southeast Quarter of the Northeast Quarter of Section 21, Township 32, Range 23, Anoka County, Minnesota.

That part of the South Half of the Northeast Quarter of Section 21, Township 32, Range 23, Anoka County, Minnesota, described as follows:

Beginning at a point on the South line thereof, distant 1590.68 feet Westerly of the Southeast corner of said South Half of the Northeast Quarter; thence North 89 degrees 44 minutes 59 seconds West, assumed bearing along said South line a distance of 380.00 feet; thence North 01 degrees 15 minutes 01 seconds East, a distance of 60.00 feet; thence Northeast along a tangential curve, concave to the Southeast having a radius of 420.96 feet and a central angle of 53 degrees 35 minutes 59 seconds, a distance of 396.25 feet; thence North 55 degrees 11 minutes 00 seconds East, tangent to said curve, a distance of 615.88 feet; thence Northeast along a tangential curve, concave to the Northwest having a radius of 289.65 feet and a central angle of 22 degrees 44 minutes 54 seconds, a distance of 115.00 feet; thence South 59 degrees 02 minutes 45 seconds East, not tangent to said curve, a distance of 405.92 feet; thence South 58 degrees 44 minutes 22 seconds West, a distance of 410.00 feet to the intersection with a line which bears North 01 degrees 15 minutes 01 seconds East from the point of beginning; thence South 01 degrees 15 minutes 01 seconds West, along said line, a distance of 152.35 feet to the point of beginning, Anoka County, Minnesota.

That part of the North Half of the Northeast Quarter of Section 21, Township 32, Range 23, Anoka County, Minnesota, described as beginning at the Northeast corner of said Northeast Quarter; thence on an assumed bearing of South 0 degrees 21 minutes 16 seconds East along the East line thereof a distance of 1240.74 feet; thence South 87 degrees 38 minutes 10 seconds West 476.87 feet; thence South 75 degrees 28 minutes West 163.64 feet; thence North 85 degrees 10 minutes 27 seconds West 536.89 feet; thence North 70 degrees 25 minutes 49 seconds West 261.00 feet; thence North 88 degrees 02 minutes 11 seconds West 1057.63 feet; thence South 77 degrees 06 minutes West 88.96 feet to the West line of said Northeast Quarter; thence North 0 degrees 44 minutes 13 seconds East, along said West line 1262.95 feet to the Northwest corner of said Northeast Quarter; thence South 87 degrees 38 minutes 10 seconds East along the North line thereof 2337.79 feet to the point of beginning.

Parcel B:

That part of the West Half of the Northeast Quarter of Section 21, Township 32, Range 23, Anoka County, Minnesota, lying Southerly of the following described line:

Beginning at a point on the East line of said Northeast Quarter distant 1240.74 feet Southerly of the Northeast corner thereof, for the purpose of this description, said East line is assumed to bear South 0 degrees 21 minutes 16 seconds East; thence South 87 degrees 38 minutes 10 seconds West 476.87 feet; thence South 75 degrees 28 minutes West 163.64 feet; thence North 85 degrees 10 minutes 27 seconds West 536.89 feet; thence North 70 degrees 25 minutes 49 seconds West 261.00 feet; thence North 88 degrees 02 minutes 11 seconds West 1057.63 feet; thence South 77 degrees 06 minutes West 88.96 feet to the West line of said Northeast Quarter and there terminating.

Except the following described property:

That part of the South Half of said Northeast Quarter, described as follows:

Beginning at a point on the South line thereof, distant 1590.68 feet Westerly of the Southeast corner of said South Half of the Northeast Quarter; thence North 88 degrees 44 minutes 59 seconds West, assumed bearing along said South line, a distance of 380.00 feet; thence North 01 degrees 15 minutes 01 seconds East, a distance of 60.00 feet; thence Northeast along a tangential curve, concave to the Southeast, having a radius of 420.96 feet and a central angle of 53 degrees 35 minutes 59 seconds, a distance of 396.25 feet; thence North 55 degrees 11 minutes 00 seconds East, tangent to said curve, a distance of 615.88 feet; thence Northeast along a tangential curve, concave to the Northwest having a radius of 289.65 feet and a central angle of 22 degrees 44 minutes 54 seconds, a distance of 115.00 feet; thence South 59 degrees 02 minutes 45 seconds East, not tangent to said curve, a distance of 405.92 feet; thence South 58 degrees 44 minutes 22 seconds West, a distance of 410.00 feet to the intersection with a line which bears North 01 degrees 15 minutes 01 seconds East from the point of beginning; thence South 01 degrees 15 minutes 01 seconds West, along said line, a distance of 152.35 feet to the point of beginning.

I hereby certify that this survey, plan or report was prepared by me or under my direct supervision and that I am a duly Registered Land Surveyor under the laws of the State of Minnesota.

JASON E. RUD
 Date: 04/20/2021 License No. 41578

E. G. RUD & SONS, INC.
 EST. 1977
 Professional Land Surveyors
 6776 Lake Drive NE, Suite 110
 Lino Lakes, MN 55014
 Tel. (651) 361-8200 Fax (651) 361-8701
 www.egrud.com

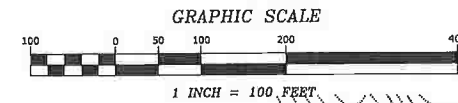
NOTES

- Bearings shown are on Anoka County datum.
- Title Commitment prepared by The Title Group, Inc, Issuing Office File No. 201033787, was used to supplement this survey.
- Total lot areas are calculated to street centerline per ordinance.
- Wetland delineation was completed by Kjoihaug Environmental.
- Parcel ID #'s: 21-32-23-14-0004, 21-32-23-13-0003, 21-32-23-13-0002, 21-32-23-12-0003, 21-32-23-11-0003

OWNER: Doris A. Titterud (As to Parcel A) and The Titterud Family Limited Partnership (As to Parcel B)

LEGEND

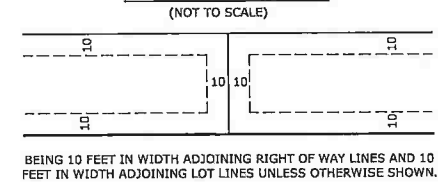
- DENOTES IRON MONUMENT FOUND AS LABELED
- DENOTES IRON MONUMENT SET, MARKED RLS# 41578
- DENOTES EXISTING CONTOURS
- DENOTES RESTRICTED ACCESS
- DENOTES AREA 1' ABOVE MOTTLES
- DENOTES WETLAND



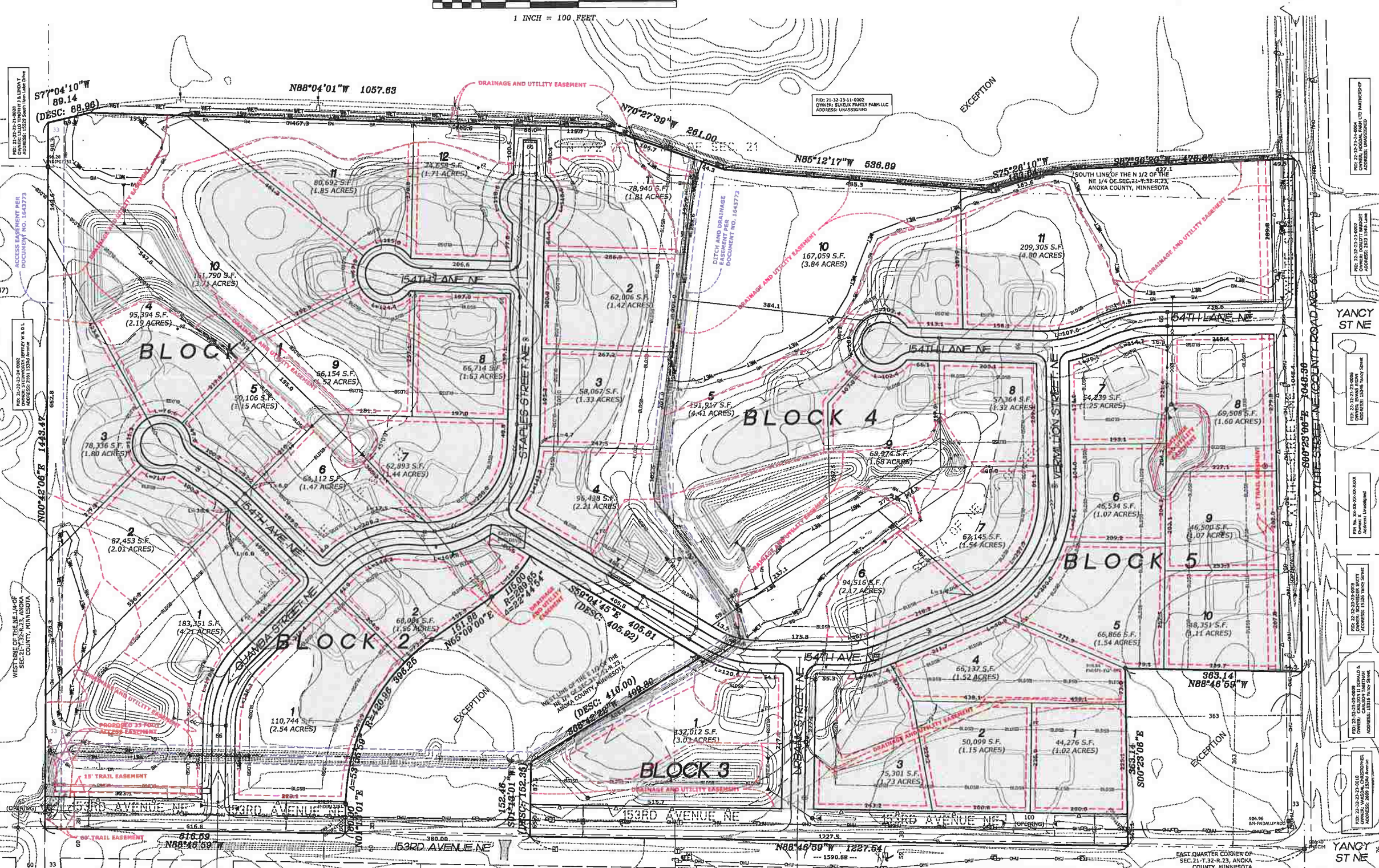
DEVELOPMENT DATA

- TOTAL SITE AREA = 75.40± ACRES
- 36 PROPOSED SINGLE FAMILY LOTS
- AVERAGE LOT SIZE = 2.09± ACRES
- MINIMUM STREET FRONTAGE = 200 FEET
- MINIMUM LOT SIZE = 1.00 ACRES (INCLUDING HALF OF STREET ROW)
- PROPOSED ZONING = R-1
- BUILDING SETBACKS: FRONT = 30 FEET, SIDE = 10 FEET, REAR = 50 FEET, COUNTY ROAD = 50 FEET

TYPICAL EASEMENTS



NO.	DATE	DESCRIPTION	BY
1	03/10/21	CITY / WATERSHED COMMENTS	MMD
2	03/31/21	CITY / WATERSHED COMMENTS	MMD
3	04/20/21	CITY COMMENTS	MMD



GRADING, EROSION CONTROL AND TREE PROTECTION PLAN

LOT GRADING NOTES

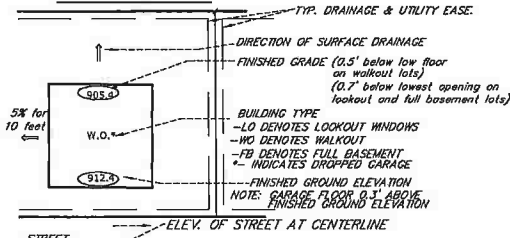
- PAD CONTOURS SHOWN ARE FOR DEMONSTRATION PURPOSES.
- HOUSE TYPES AND GRADING THAT VARY FROM WHAT IS PROPOSED ON THE GRADING PLAN REQUIRE A PLAN REVIEW BY THE CITY OF HAM LAKE.
- SILT FENCE TO BE INSTALLED BY BUILDER PRIOR TO HOUSE CONSTRUCTION.
- THERE IS TO BE NO GRADING WITHIN 15' AREAS

TREE PROTECTION NOTES

- TREE PROTECTION LIMITS TO BE MARKED IN FIELD PRIOR TO ANY TREE CLEARING ACTIVITY.
- SILT / TREE PROTECTION FENCE TO BE INSTALLED AT CONSTRUCTION LIMIT LINE.
- CARE IS TO BE TAKEN TO AVOID CONSTRUCTION ACTIVITY OR CONSTRUCTION VEHICLE TRAFFIC WITHIN THE DRIP LINE OF TREES IN THE TREE PROTECTION ZONE.
- FIELD DECISIONS WILL BE MADE ON LOCATION OF TREE PROTECTION LIMITS TO PRESERVE SIGNIFICANT TREES.
- SOME TREES AND DEAD FALL ARE TO BE CLEARED. THIS MAY BE DONE PRIOR TO INSTALLATION OF SILT / TREE PROTECTION FENCE. GRUBBING OF STUMPS WILL OCCUR AFTER EROSION CONTROL MEASURE ARE INSTALLED.

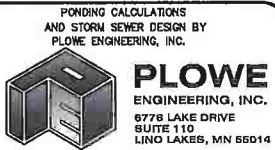
~of~ EVERGREEN ESTATES
 ~for~ TIMBER VALLEY DEVELOPMENT
 620 CIVIC HEIGHTS DR # 100
 CIRCLE PINES, MN 55014
 (763) 780-9090

TYPICAL LOT



LEGEND

- DENOTES SOIL BORING BY TRADEWELL SOIL TESTING
- PZ DENOTES PIEZOMETER OR PENETRATION BORING BY BRAUN INTERTEC, INC.
- 895.0 DENOTES EMERGENCY OVERFLOW ELEVATION
- x 912.36 DENOTES EXISTING SPOT ELEVATION
- DENOTES WET LAND
- DENOTES EXISTING 2 FOOT CONTOUR
- DENOTES PROPOSED 2 FOOT CONTOURS
- DENOTES WETLAND DELINEATED BY KJOLHAUG ENVIRONMENTAL SERVICES COMPANY.
- DENOTES EASEMENT LINE
- DENOTES SETBACK LINE
- DENOTES PROPOSED STORM SEWER
- DENOTES PROPOSED SILT / TREE PROTECTION FENCE
- DENOTES BIO ROLL TO BE INSTALLED INSIDE SILT FENCE ADJACENT TO WETLAND
- DENOTES DIRECTION OF DRAINAGE
- 895.0 DENOTES PROPOSED SPOT ELEVATION
- 905.3 DENOTES PROPOSED CENTERLINE ELEVATION
- DENOTES PROPOSED WELL LOCATION
- DENOTES AREA 1' ABOVE MOTTLER
- DENOTES WETLAND/ VEGETATIVE BUFFER
- DENOTES WETLAND/ VEGETATIVE BUFFER SIGN
- DENOTES RIPRAP (RIPRAP TO BE VEGETATED IN WETLAND BUFFER)
- DENOTES PROPOSED STORM SEWER INLET PROTECTION
- DENOTES TREE PRESERVATION AREA
- DENOTES 12' POND ACCESS
- DENOTES FLOODPLAIN FILL



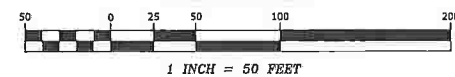
SITE PLANNING & ENGINEERING
 PHONE: (851) 381-8210
 FAX: (851) 381-8701

I HEREBY CERTIFY THAT THIS PLAN WAS PREPARED BY ME OR UNDER MY DIRECT SUPERVISION AND THAT I AM A DULY LICENSED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF MINNESOTA.

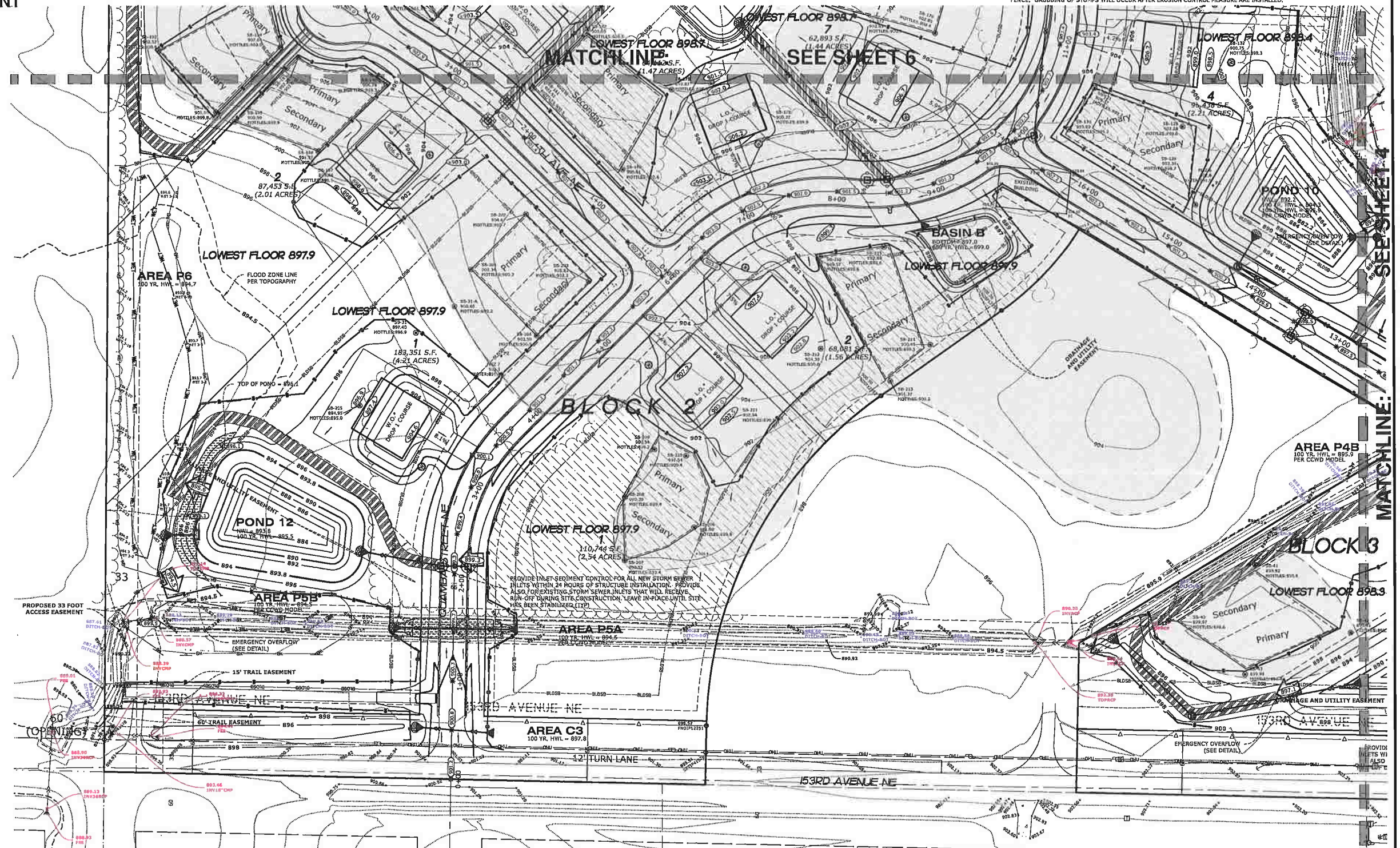
Charles W. Plowe
 CHARLES W. PLOWE

DATE: 04.20.2021 LIC. NO. 18227

GRAPHIC SCALE



E. G. RUD & SONS, INC.
 Professional Land Surveyors
 6776 Lake Drive NE, Suite 110
 Lino Lakes, MN 55014
 Tel. (651) 361-8200 Fax (651) 361-8701

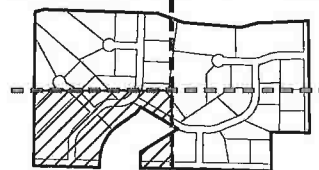


EROSION CONTROL / REVEGETATION SPECS.

- PRIOR TO ROUGH GRADING, INSTALL SILT STOP FENCE IN LOCATIONS SHOWN. ADDITIONAL SILT STOP FENCE WILL BE REQUIRED WHERE LOCAL CONDITIONS REQUIRE. INSTALL TREE PROTECTION AS DEEMED NECESSARY BY THE CITY FORESTER PRIOR TO ANY GRADING.
- ANY GRADING SHALL PROCEED ON AN AREA BY AREA BASIS TO MINIMIZE UNCOMPLETED AREAS.
- AS EACH AREA OUTSIDE THE STREET IS GRADED, PROVIDE NATIVE TOPSOIL, SEED, AND MULCH ANCHORED WITH A STRAIGHT SET DISC WITHIN SEVEN DAYS AFTER ROUGH GRADING.
- MAINTAIN AND REPAIR SILT STOP FENCES (INCLUDING REMOVAL OF ACCUMULATED SILT) UNTIL VEGETATION IS ESTABLISHED.
- SEE "STORM WATER POLLUTION PREVENTION PLAN" FOR ADDITIONAL EROSION CONTROL NOTES AND SITE SEQUENCING.

SHEET INDEX

SEE SHEET 6 & 10 SEE SHEET 5 & 9



SEE SHEET 3 & 7 SEE SHEET 4 & 8

(NO SCALE)

FLOODPLAIN FILL NOTES

- (COON CREEK WATERSHED FLOODPLAIN FILL)
- FLOODPLAIN FILL BETWEEN 59920A-11 AND 59920A-2 = 6,162 CU/FT (COMPENSATORY STORAGE = 57,293 CU/FT BETWEEN NWL AND 895.9)
- FLOODPLAIN FILL BETWEEN 59910-85.8 AND 59910-69.3 = 35,986 CU/FT (COMPENSATORY STORAGE = 155,609 CU/FT BETWEEN NWL AND 895.9)
- FLOODPLAIN FILL BETWEEN 59910-69.3 AND 59910-60 = 6,414 CU/FT (COMPENSATORY STORAGE PROVIDED IN POND 12 BETWEEN NWL AND 894.5)

NOTES

- BEARINGS SHOWN ARE ON ANOKA COUNTY DATUM.
- TOTAL LOT AREAS ARE CALCULATED TO STREET CENTERLINE PER ORDINANCE.
- 2 FOOT CONTOUR INTERVAL (NAVD 88)
- CONTOURS SHOWN ARE PER MINGEO LIDAR DISTRIBUTION AND FIELD VERIFICATION.
- ALL MATCH POINTS AND PAVEMENT PATCHES TO BE SAWCUT AT FULL DEPTH.
- TURF AREA TO BE SEEDED WITHIN 7 DAYS AFTER COMPLETION OF ROUGH GRADING OR INACTIVITY.
- SEE PRELIMINARY UTILITY PLAN FOR STORM SEWER RIMS, INVERTS, AND SIZES.
- BRAUN INTERTEC IS MONITORING SITE GROUND WATER ELEVATIONS WITH PIEZOMETERS, ANTICIPATED GROUNDWATER ELEVATIONS ARE BASED ON PRELIMINARY INFORMATION AND ARE SUBJECT TO REVISION.
- ALL PIPE APERTURES PROVIDED WITH TRASH GUARDS
- PROVIDE CLASS III RIPRAP WITH FILTER FABRIC FOR ALL PIPE OUTLETS. INSTALL 6" OF TOPSOIL ON RIPRAP IN WETLAND BUFFERS AND SEED WITH SEED MIX PNDOT 33-261.
- IF DEWATERING IS REQUIRED, THE CONTRACTOR SHALL APPLY FOR A MN DNR DEWATERING PERMIT AND WILL PROVIDE WELL-FIELD LOCATIONS, RATES, DISCHARGE LOCATION, SCHEDULE AND QUANTITIES TO CCWD 7 DAYS PRIOR TO ANY DEWATERING OPERATIONS.
- CONTRACTORS MUST BE PROVIDED WITH DNR FLYERS/ FACT SHEETS ON BLANDING'S TURTLES.

or report was prepared by me or under my direct supervision and that I am a duly Registered Land Surveyor under the laws of the State of Minnesota.

Jason E. Rud
 JASON E. RUD

Date: 04/20/2021 License No. 41578

NO.	DATE	DESCRIPTION	BY
1	03/10/21	CITY / WATERSHED COMMENTS	MMD
2	03/31/21	CITY / WATERSHED COMMENTS	MMD
3	04/12/21	CITY / WATERSHED COMMENTS	MMD
4	04/20/21	CITY COMMENTS	MMD

NORTH

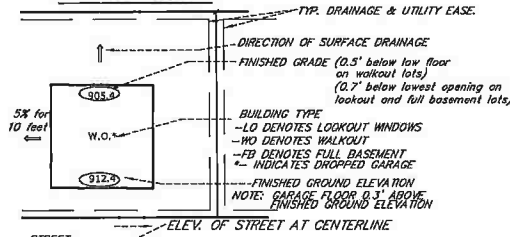
GRADING, EROSION CONTROL AND TREE PROTECTION PLAN

LOT GRADING NOTES

TREE PROTECTION NOTES

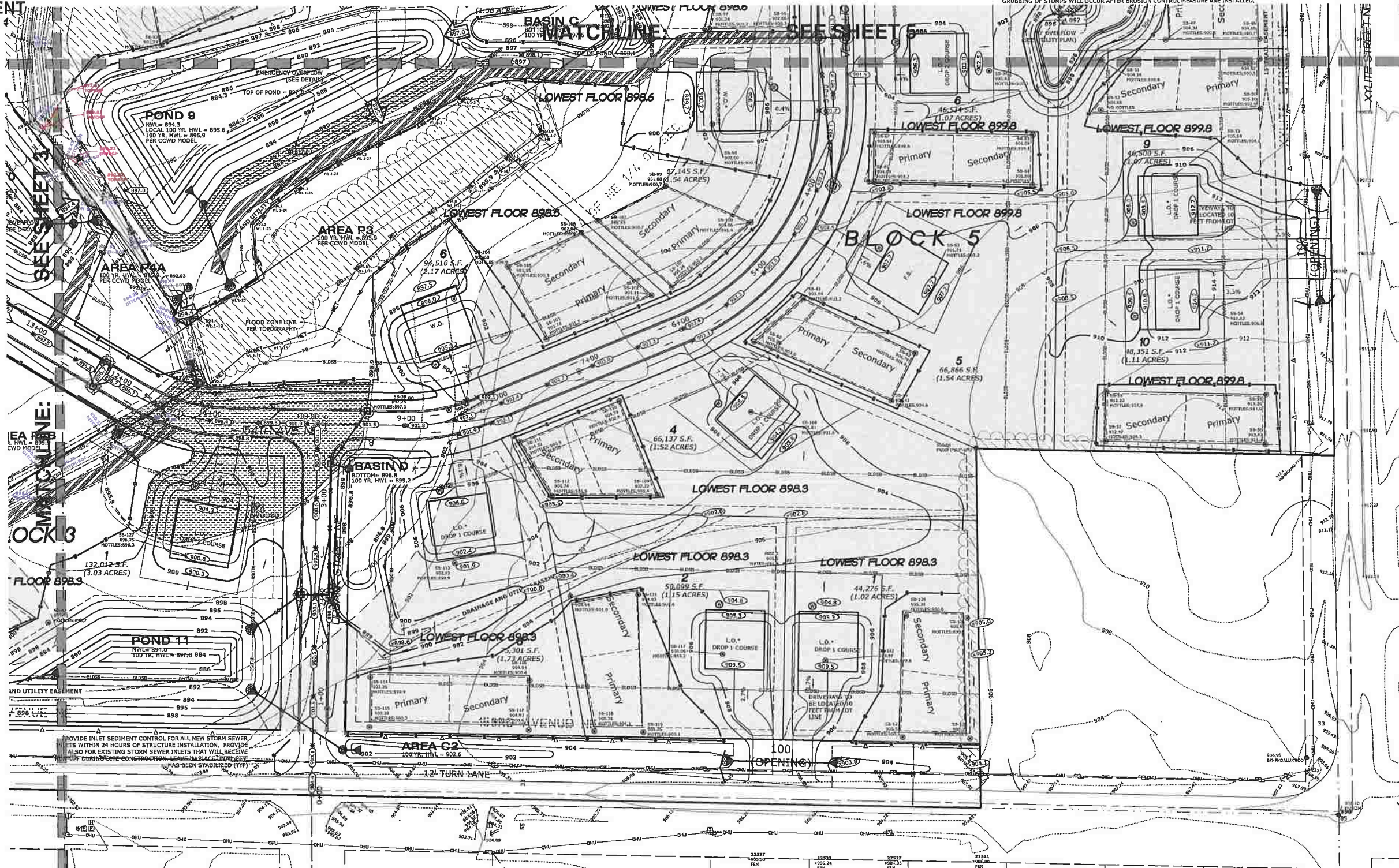
of EVERGREEN ESTATES
for TIMBER VALLEY DEVELOPMENT
620 CIVIC HEIGHTS DR # 100
CIRCLE PINES, MN 55014
(763) 780-9090

TYPICAL LOT



LEGEND

- DENOTES SOIL BORING BY TRADEWELL SOIL TESTING
- PZ DENOTES PIEZOMETER OR PENETRATION BORING BY BRAUN INTERTEC, INC.
- 899.0 DENOTES EMERGENCY OVERFLOW ELEVATION
- 912.3 DENOTES EXISTING SPOT ELEVATION
- DENOTES WET LAND
- DENOTES EXISTING 2 FOOT CONTOUR
- DENOTES PROPOSED 2 FOOT CONTOURS
- WET DENOTES WETLAND DELINEATED BY KJOLHAUG ENVIRONMENTAL SERVICES COMPANY.
- DENOTES EASEMENT LINE
- DENOTES SETBACK LINE
- DENOTES PROPOSED STORM SEWER
- DENOTES PROPOSED SILT / TREE PROTECTION FENCE
- DENOTES BIG HOLE TO BE INSTALLED INSIDE SILT FENCE ADJACENT TO WETLAND
- DENOTES DIRECTION OF DRAINAGE
- 899.0 DENOTES PROPOSED SPOT ELEVATION
- 905.3 DENOTES PROPOSED CENTERLINE ELEVATION
- DENOTES PROPOSED WELL LOCATION
- DENOTES AREA 1' ABOVE MOTTLÉS
- DENOTES WETLAND / VEGETATIVE BUFFER
- DENOTES WETLAND / VEGETATIVE BUFFER SIGN
- DENOTES RIPRAP (RIPRAP TO BE VEGETATED IN WETLAND BUFFER)
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- DENOTES TREE PRESERVATION AREA
- DENOTES 12' POND ACCESS
- DENOTES FLOODPLAIN FILL



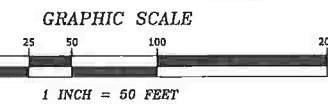
PONDING CALCULATIONS AND STORM SEWER DESIGN BY PLOWE ENGINEERING, INC.

PLOWE ENGINEERING, INC.
6776 LAKE DRIVE SUITE 110 LINO LAKES, MN 55014
PHONE: (651) 361-8210 FAX: (651) 361-8701

SITE PLANNING & ENGINEERING

I HEREBY CERTIFY THAT THIS PLAN WAS PREPARED BY ME OR UNDER MY DIRECT SUPERVISION AND THAT I AM A DULY LICENSED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF MINNESOTA.

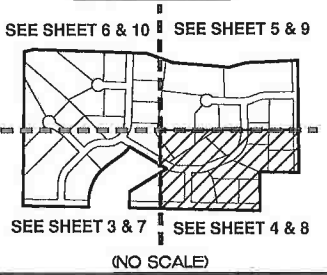
Charles W. Plowe
CHARLES W. PLOWE
DATE: 04.20.2021 LIC. NO. 18227



EROSION CONTROL / REVEGETATION SPECS.

1. PRIOR TO ROUGH GRADING, INSTALL SILT STOP FENCE IN LOCATIONS SHOWN. ADDITIONAL SILT STOP FENCE WILL BE REQUIRED WHERE LOCAL CONDITIONS REQUIRE. INSTALL TREE PROTECTION AS DEEMED NECESSARY BY THE CITY FORESTER PRIOR TO ANY GRADING.
2. ANY GRADING SHALL PROCEED ON AN AREA BY AREA BASIS TO MINIMIZE UNCOMPLETED AREAS.
3. AS EACH AREA OUTSIDE THE STREET IS GRADED, PROVIDE NATIVE TOPSOIL, SEED, AND MULCH ANCHORED WITH A STRAIGHT SET DISC WITHIN SEVEN DAYS AFTER ROUGH GRADING.
4. MAINTAIN AND REPAIR SILT STOP FENCES (INCLUDING REMOVAL OF ACCUMULATED SILT) UNTIL VEGETATION IS ESTABLISHED.
5. SEE "STORM WATER POLLUTION PREVENTION PLAN" FOR ADDITIONAL EROSION CONTROL NOTES AND SITE SEQUENCING.

SHEET INDEX



FLOODPLAIN FILL NOTES

- (COON CREEK WATERSHED FLOODPLAIN FILL)
- FLOODPLAIN FILL BETWEEN 59920A-11 AND 59920A-2 = 6,162 CU/YD COMPENSATORY STORAGE = 57,293 CU/YD (COMPENSATORY STORAGE PROVIDED IN POND 7 BETWEEN NWL AND 895.9)
 - FLOODPLAIN FILL BETWEEN 59910-85.8 AND 59910-69.3 = 35,966 CU/YD COMPENSATORY STORAGE = 135,609 CU/YD (COMPENSATORY STORAGE PROVIDED IN POND 9, POND 10, AND POND 11 BETWEEN NWL AND 895.9)
 - FLOODPLAIN FILL BETWEEN 59910-69.3 AND 59910-60 = 6,414 CU/YD COMPENSATORY STORAGE = 11,464 CU/YD (COMPENSATORY STORAGE PROVIDED IN POND 12 BETWEEN NWL AND 894.5)

NOTES

- BEARINGS SHOWN ARE ON ANOKA COUNTY DATUM.
- TOTAL LOT AREAS ARE CALCULATED TO STREET CENTERLINE PER ORDINANCE.
- 2 FOOT CONTOUR INTERVAL (NAVD 88)
- CONTOURS SHOWN ARE PER MINGED LIDAR DISTRIBUTION AND FIELD VERIFICATION
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- SEE PRELIMINARY UTILITY PLAN FOR STORM SEWER RIMS, INVERTS, AND SIZES.
- BRAUN INTERTEC IS MONITORING SITE GROUND WATER ELEVATIONS WITH PIEZOMETERS, ANTICIPATED GROUNDWATER ELEVATIONS ARE BASED ON PRELIMINARY INFORMATION AND ARE SUBJECT TO REVISION.
- ALL PIPE APRONS PROVIDED WITH TRASH GUARDS
- PROVIDE CLASS III RIPRAP WITH FILTER FABRIC FOR ALL PIPE OUTLETS. INSTALL 6" OF TOPSOIL ON RIPRAP IN WETLAND BUFFERS AND SEED WITH SEED MIX MNDOT 33-261.
- IF DEWATERING IS REQUIRED, THE CONTRACTOR SHALL APPLY FOR A MN DNR DEWATERING PERMIT AND WILL PROVIDE WELL-FIELD LOCATIONS, RATES, DISCHARGE LOCATION, SCHEDULE AND QUANTITIES TO CCWD 7 DAYS PRIOR TO ANY DEWATERING OPERATIONS.
- CONTRACTORS MUST BE PROVIDED WITH DNR FLYERS/ FACT SHEETS ON BLANDING'S TURTLES.

or report was prepared by me or under my direct supervision and that I am a duly Registered Land Surveyor under the laws of the State of Minnesota.

Jason E. Rud
JASON E. RUD
Date: 04/20/2021 License No. 41578

NO.	DATE	DESCRIPTION	BY
1	03/10/21	CITY / WATERSHED COMMENTS	MMD
2	03/31/21	CITY / WATERSHED COMMENTS	MMD
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		DESCRIPTION	BY

E. G. RUD & SONS, INC.
EST. 1917
Professional Land Surveyors
6776 Lake Drive NE, Suite 110
Lino Lakes, MN 55014
Tel. (651) 361-8200 Fax (651) 361-8701

NORTH

GRADING, EROSION CONTROL AND TREE PROTECTION PLAN

~of~ EVERGREEN ESTATES
 ~for~ TIMBER VALLEY DEVELOPMENT
 620 CIVIC HEIGHTS DR # 100
 CIRCLE PINES, MN 55014
 (763) 780-9090

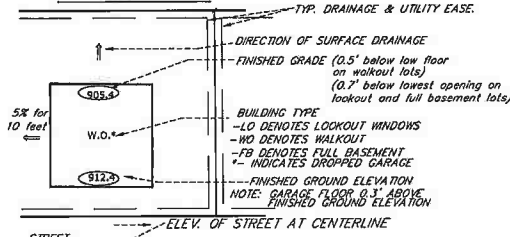
LOT GRADING NOTES

- PAD CONTOURS SHOWN ARE FOR DEMONSTRATION PURPOSES. HOUSE TYPES AND GRADING THAT VARY FROM WHAT IS PROPOSED ON THE GRADING PLAN REQUIRE A PLAN REVIEW BY THE CITY OF HAM LAKE.
- SILT FENCE TO BE INSTALLED BY BUILDER PRIOR TO HOUSE CONSTRUCTION.
- THERE IS TO BE NO GRADING WITHIN ISTS AREAS

TREE PROTECTION NOTES

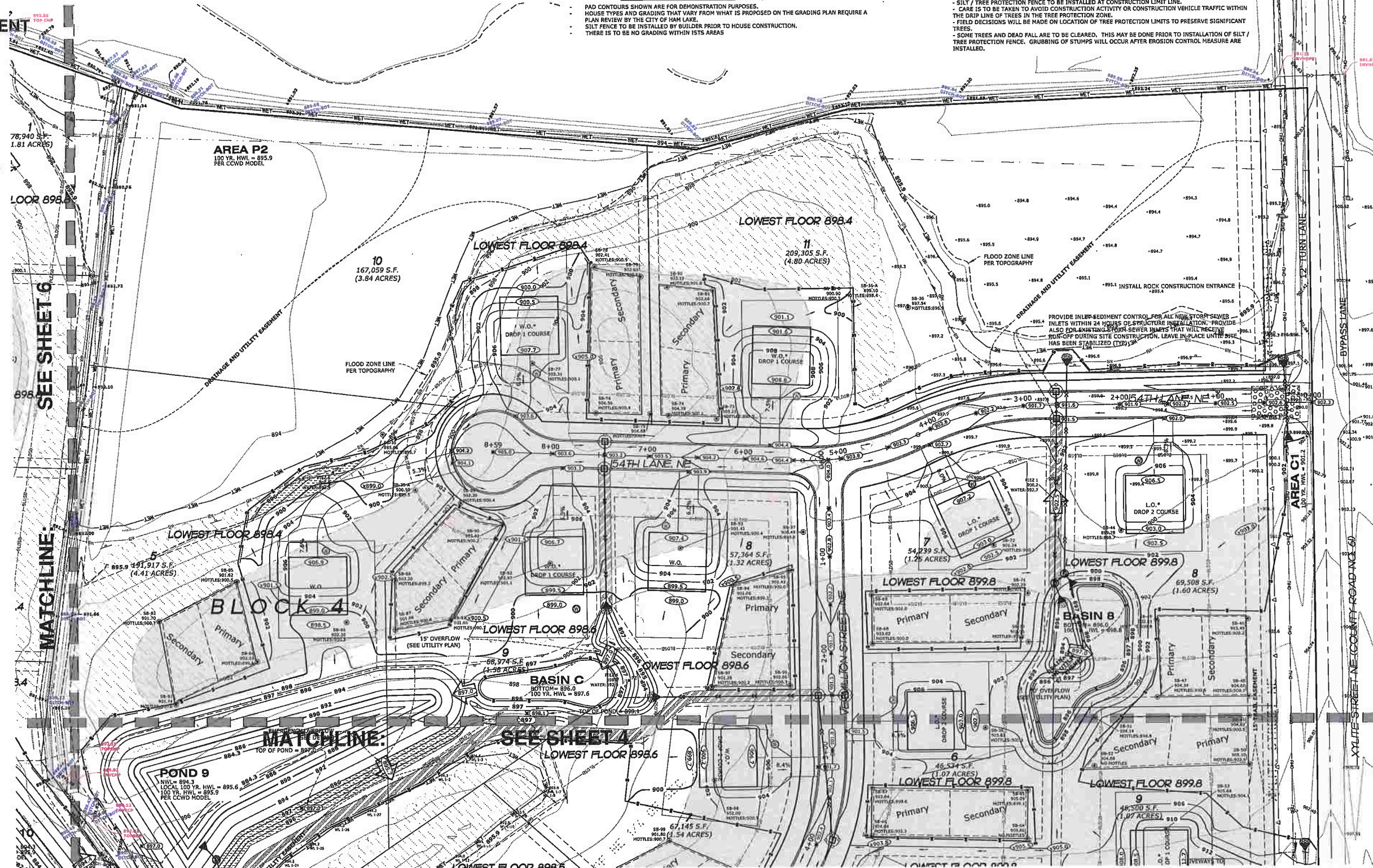
- TREE PROTECTION LIMITS TO BE MARKED IN FIELD PRIOR TO ANY TREE CLEARING ACTIVITY.
- SILT / TREE PROTECTION FENCE TO BE INSTALLED AT CONSTRUCTION LIMIT LINE.
- CARE IS TO BE TAKEN TO AVOID CONSTRUCTION ACTIVITY OR CONSTRUCTION VEHICLE TRAFFIC WITHIN THE DRIP LINE OF TREES IN THE TREE PROTECTION ZONE.
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TYPICAL LOT



LEGEND

- ⊙ DENOTES SOIL BORING BY TRADEWELL SOIL TESTING
- ⊙ PZ DENOTES PIEZOMETER OR PENETRATION BORING BY BRAUN INTERTEC, INC.
- ⊙ DENOTES EMERGENCY OVERFLOW ELEVATION
- ⊙ DENOTES EXISTING SPOT ELEVATION
- ⊙ DENOTES WET LAND
- ⊙ DENOTES EXISTING 2 FOOT CONTOUR
- ⊙ DENOTES PROPOSED 2 FOOT CONTOURS
- WET DENOTES WETLAND DELINEATED BY KJOLHAUG ENVIRONMENTAL SERVICES COMPANY.
- DENOTES EASEMENT LINE
- DENOTES SETBACK LINE
- DENOTES PROPOSED STORM SEWER
- DENOTES PROPOSED SILT / TREE PROTECTION FENCE
- DENOTES BIO ROLL TO BE INSTALLED INSIDE SILT FENCE ADJACENT TO WETLAND
- DENOTES DIRECTION OF DRAINAGE
- ⊙ DENOTES PROPOSED SPOT ELEVATION
- ⊙ DENOTES PROPOSED CENTERLINE ELEVATION
- ⊙ DENOTES PROPOSED WELL LOCATION
- ⊙ DENOTES AREA 1' ABOVE MOTTLES
- WV DENOTES WETLAND / VEGETATIVE BUFFER
- WV DENOTES WETLAND / VEGETATIVE BUFFER SIGN
- DENOTES RIPRAP (RIPRAP TO BE VEGETATED IN WETLAND BUFFER)
- DENOTES PROPOSED STORM SEWER INLET PROTECTION
- DENOTES TREE PRESERVATION AREA
- DENOTES 12' POND ACCESS
- DENOTES FLOODPLAIN FILL



PONDING CALCULATIONS AND STORM SEWER DESIGN BY PLOWE ENGINEERING, INC.

PLOWE ENGINEERING, INC.
 8778 LAKE DRIVE
 SUITE 110
 LINO LAKES, MN 55014

SITE PLANNING & ENGINEERING
 PHONE: (651) 981-8210
 FAX: (651) 981-8701

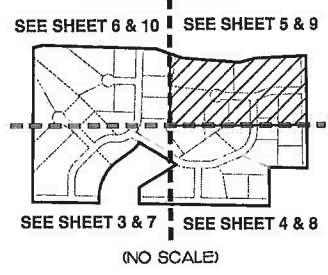
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Charles W. Plowe
 CHARLES W. PLOWE
 DATE: 04.20.2021 LIC. NO. 18227

EROSION CONTROL / REVEGETATION SPECS.

- PRIOR TO ROUGH GRADING, INSTALL SILT STOP FENCE IN LOCATIONS SHOWN. ADDITIONAL SILT STOP FENCE WILL BE REQUIRED WHERE LOCAL CONDITIONS REQUIRE. INSTALL TREE PROTECTION AS DEEMED NECESSARY BY THE CITY FORESTER PRIOR TO ANY GRADING.
- ANY GRADING SHALL PROCEED ON AN AREA BY AREA BASIS TO MINIMIZE UNCOMPLETED AREAS.
- AS EACH AREA OUTSIDE THE STREET IS GRADED, PROVIDE NATIVE TOPSOIL, SEED, AND MULCH ANCHORED WITH A STRAIGHT SET DISC WITHIN SEVEN DAYS AFTER ROUGH GRADING.
- MAINTAIN AND REPAIR SILT STOP FENCES (INCLUDING REMOVAL OF ACCUMULATED SILT) UNTIL VEGETATION IS ESTABLISHED.
- SEE "STORM WATER POLLUTION PREVENTION PLAN" FOR ADDITIONAL EROSION CONTROL NOTES AND SITE SEQUENCING.

SHEET INDEX



FLOODPLAIN FILL NOTES

- (COON CREEK WATERSHED FLOODPLAIN FILL)
- FLOODPLAIN FILL BETWEEN 5920A-11 AND 5920A-2 = 6,162 CU/FT
 COMPENSATORY STORAGE = 57,293 CU/FT
 (COMPENSATORY STORAGE PROVIDED IN POND 7 BETWEEN NWL AND 895.9)
 - FLOODPLAIN FILL BETWEEN 5910-85.8 AND 5910-69.3 = 35,986 CU/FT
 COMPENSATORY STORAGE = 155,809 CU/FT
 (COMPENSATORY STORAGE PROVIDED IN POND 9, POND 10, AND POND 11 BETWEEN NWL AND 895.9)
 - FLOODPLAIN FILL BETWEEN 5910-69.3 AND 5910-50 = 6,414 CU/FT
 COMPENSATORY STORAGE = 11,464 CU/FT
 (COMPENSATORY STORAGE PROVIDED IN POND 12 BETWEEN NWL AND 894.5)

NOTES

- BEARINGS SHOWN ARE ON ANOKA COUNTY DATUM.
- TOTAL LOT AREAS ARE CALCULATED TO STREET CENTERLINE PER ORDINANCE.
- 2 FOOT CONTOUR INTERVAL (NAVD 88)
- CONTOURS SHOWN ARE PER MINGO LIDAR DISTRIBUTION AND FIELD VERIFICATION
- ALL MATCH POINTS AND PAVEMENT PATCHES TO BE SAWCUT AT FULL DEPTH.
- TURF AREA TO BE SEEDDED WITHIN 7 DAYS AFTER COMPLETION OF ROUGH GRADING OR INACTIVITY.
- SEE PRELIMINARY UTILITY PLAN FOR STORM SEWER RIMS, INVERTS, AND SIZES.
- BRAIN INTERTEC IS MONITORING SITE GROUND WATER ELEVATIONS WITH PIEZOMETERS, ANTICIPATED GROUNDWATER ELEVATIONS ARE BASED ON PRELIMINARY INFORMATION AND ARE SUBJECT TO REVISION.
- ALL PIPE APRONS PROVIDED WITH TRASH GUARDS
- PROVIDE CLASS III RIPRAP WITH FILTER FABRIC FOR ALL PIPE OUTLETS. INSTALL 6" OF TOPSOIL ON RIPRAP IN WETLAND BUFFERS AND SEED WITH SEED MIX MNDOT 33-261.
- IF DEWATERING IS REQUIRED, THE CONTRACTOR SHALL APPLY FOR A MN DNR DEWATERING PERMIT AND WILL PROVIDE WELL-FIELD LOCATIONS, RATES, DISCHARGE LOCATION, SCHEDULE AND QUANTITIES TO CCWD 7 DAYS PRIOR TO ANY DEWATERING OPERATIONS.
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or report was prepared by me or under my direct supervision and that I am a duly Registered Land Surveyor under the laws of the State of Minnesota.

Jason E. Rud
 JASON E. RUD
 Date: 04/20/2021 License No. 41578

NO.	DATE	DESCRIPTION	BY
1	03/10/21	CITY / WATERSHED COMMENTS	MMD
2	03/31/21	CITY / WATERSHED COMMENTS	MMD
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GRAPHIC SCALE
 0 25 50 100 200
 1 INCH = 50 FEET

E. G. RUD & SONS, INC.
 EST. 1977
 Professional Land Surveyors
 6776 Lake Drive NE, Suite 110
 Lino Lakes, MN 55014
 Tel. (651) 361-8200 Fax (651) 361-8701

NORTH

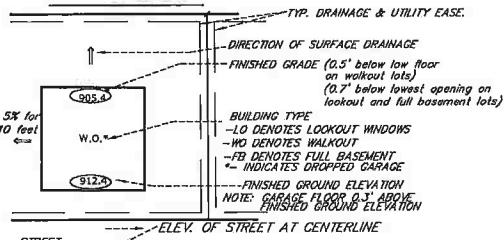
GRADING, EROSION CONTROL AND TREE PROTECTION PLAN

LOT GRADING NOTES

TREE PROTECTION NOTES

~of~ EVERGREEN ESTATES
 ~for~ TIMBER VALLEY DEVELOPMENT
 620 CIVIC HEIGHTS DR # 100
 CIRCLE PINES, MN 55014
 (763) 780-9090

TYPICAL LOT

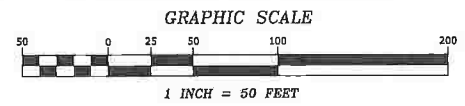


LEGEND

- ⊙ DENOTES SOIL BORING BY TRADEWELL SOIL TESTING
- ⊙ PZ DENOTES PIEZOMETER OR PENETRATION BORING BY BRAUN INTERTEC, INC.
- 899.0 DENOTES EMERGENCY OVERFLOW ELEVATION
- X 892.36 DENOTES EXISTING SPOT ELEVATION
- ⊙ DENOTES WET LAND
- DENOTES EXISTING 2 FOOT CONTOUR
- DENOTES PROPOSED 2 FOOT CONTOURS
- DENOTES WETLAND DELINEATED BY KIOHAUG ENVIRONMENTAL SERVICES COMPANY.
- DENOTES EASEMENT LINE
- DENOTES SETBACK LINE
- DENOTES PROPOSED STORM SEWER
- DENOTES PROPOSED SILT / TREE PROTECTION FENCE
- DENOTES BIG ROLL TO BE INSTALLED INSIDE SILT FENCE ADJACENT TO WETLAND
- DENOTES DIRECTION OF DRAINAGE
- ⊙ DENOTES PROPOSED SPOT ELEVATION
- ⊙ DENOTES PROPOSED CENTERLINE ELEVATION
- ⊙ DENOTES PROPOSED WELL LOCATION
- DENOTES AREA 1' ABOVE MOTTLER
- DENOTES WETLAND/ VEGETATIVE BUFFER
- DENOTES WETLAND/ VEGETATIVE BUFFER SIGN
- DENOTES RIPRAP (RIPRAP TO BE VEGETATED IN WETLAND BUFFER)
- DENOTES PROPOSED STORM SEWER INLET PROTECTION
- DENOTES TREE PRESERVATION AREA
- DENOTES 12' POND ACCESS
- DENOTES FLOODPLAIN FILL

PONDING CALCULATIONS AND STORM SEWER DESIGN BY
PLOWE ENGINEERING, INC.
 8776 LAKE DRIVE SUITE 110 LINO LAKES, MN 55014
 PHONE: (651) 381-8210 FAX: (651) 381-8701

I HEREBY CERTIFY THAT THIS PLAN WAS PREPARED BY ME OR UNDER MY DIRECT SUPERVISION AND THAT I AM A DULY LICENSED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF MINNESOTA.
Charles W. Plowe
 CHARLES W. PLOWE
 DATE: 04.20.2021 LIC. NO. 18227

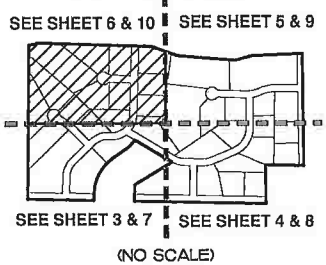


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Jason E. Rud
 Date: 04/20/2021 License No. 41578

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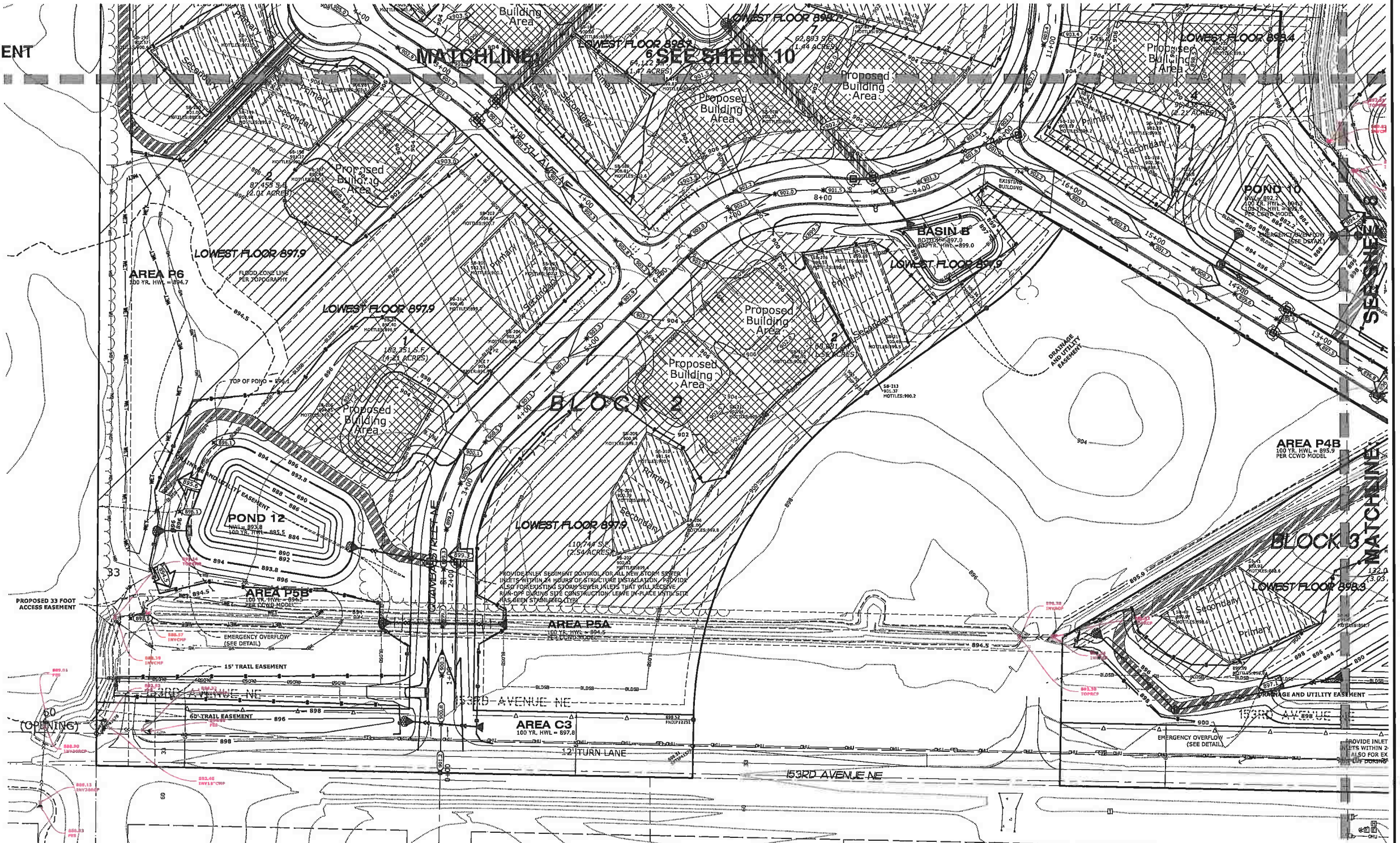
NORTH

LIVABILITY PLAN

~of~ EVERGREEN ESTATES
 ~for~ TIMBER VALLEY DEVELOPMENT
 620 CIVIC HEIGHTS DR # 100
 CIRCLE PINES, MN 55014
 (763) 780-9090

LEGEND

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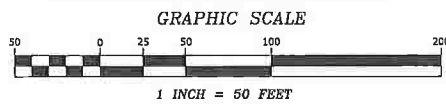
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PLOWE ENGINEERING, INC.
 6776 LAKE DRIVE SUITE 110 LINO LAKES, MN 55014

SITE PLANNING & ENGINEERING PHONE: (651) 361-8210 FAX: (651) 361-8701

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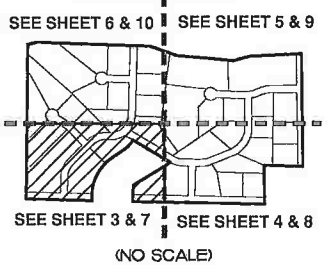
Charles W. Plowe
 CHARLES W. PLOWE
 DATE: 04.20.2021 LIC. NO. 18227



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SHEET INDEX



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Jason E. Kuo
 JASON E. KUO
 Date: 04/20/2021 License No. 41578

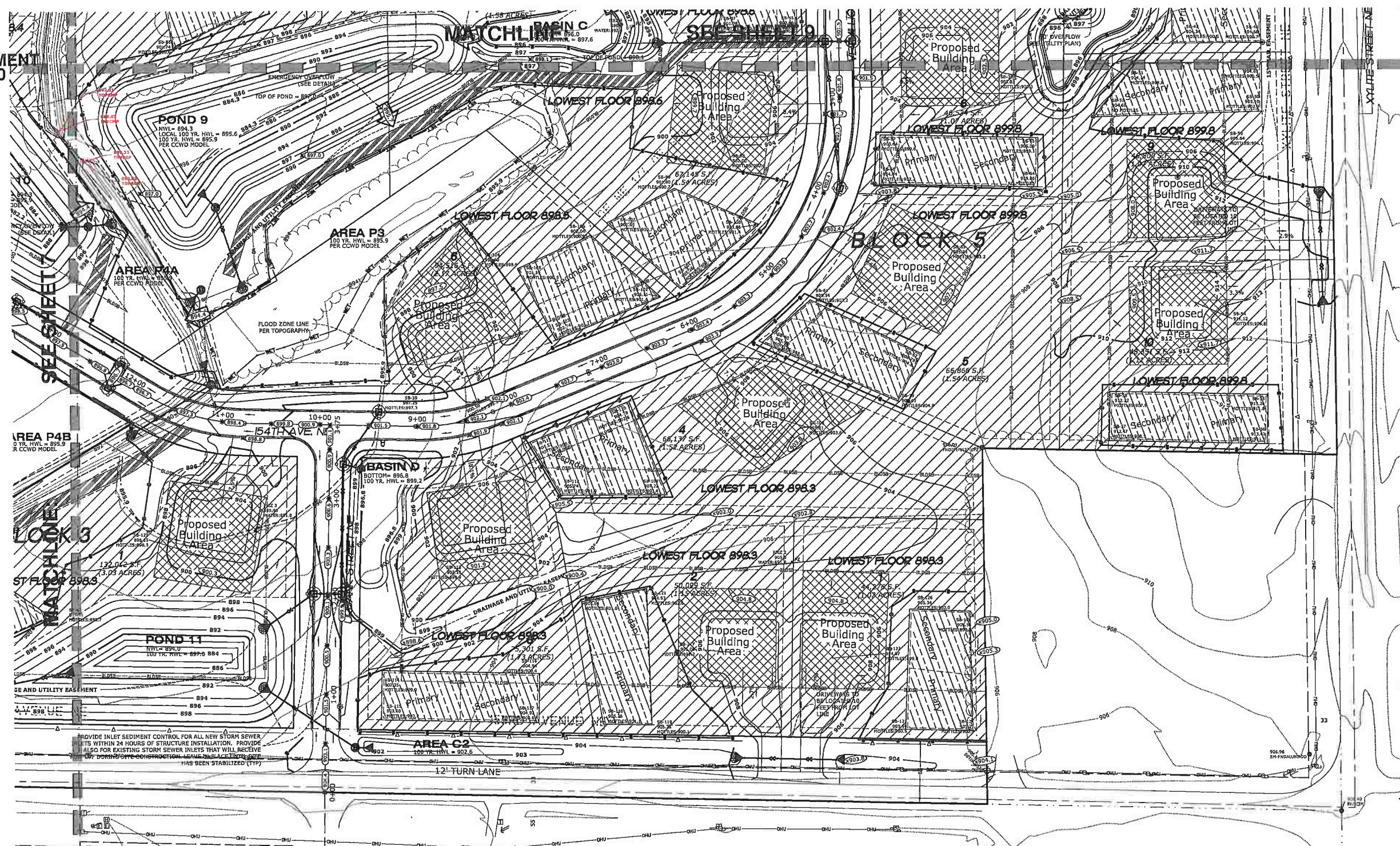
NO.	DATE	DESCRIPTION	BY
DRAWN BY:	MMD	JOB NO: 200062PP	DATE: 12/28/20
CHECK BY:	JER	FIELD CREW: BH / SO	
1	03/10/21	CITY / WATERSHED COMMENTS	MMD
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NORTH

LIVABILITY PLAN

~of~ EVERGREEN ESTATES
 ~for~ TIMBER VALLEY DEVELOPMENT
 620 CIVIC HEIGHTS DR # 100
 CIRCLE PINES, MN 55014
 (763) 780-9090



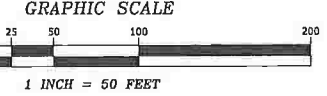
LEGEND

- ⊙ DENOTES SOIL BORING BY TRADEWELL SOIL TESTING
- ⊙ P2 DENOTES PIEZOMETER OR PENETRATION BORING BY BRAUN INTEREC, INC.
- ⊙ 992.34 DENOTES EXISTING SPOT ELEVATION
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PONDING CALCULATIONS AND STORM SEWER DESIGN BY
PLOWE ENGINEERING, INC.
 6776 LAKE DRIVE SUITE 110 LINO LAKES, MN 55014
 SITE PLANNING & ENGINEERING PHONE: (651) 361-8210 FAX: (651) 361-8701

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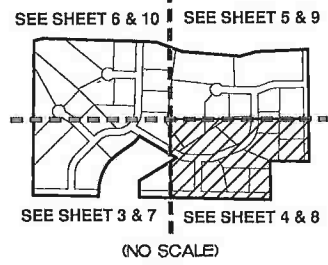
Charles W. Plowe
 CHARLES W. PLOWE
 DATE: 04.20.2021 LIC. NO. 19227



NOTES

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Jason E. Rud
 JASON E. RUD
 Date: 04/20/2021 License No. 41578

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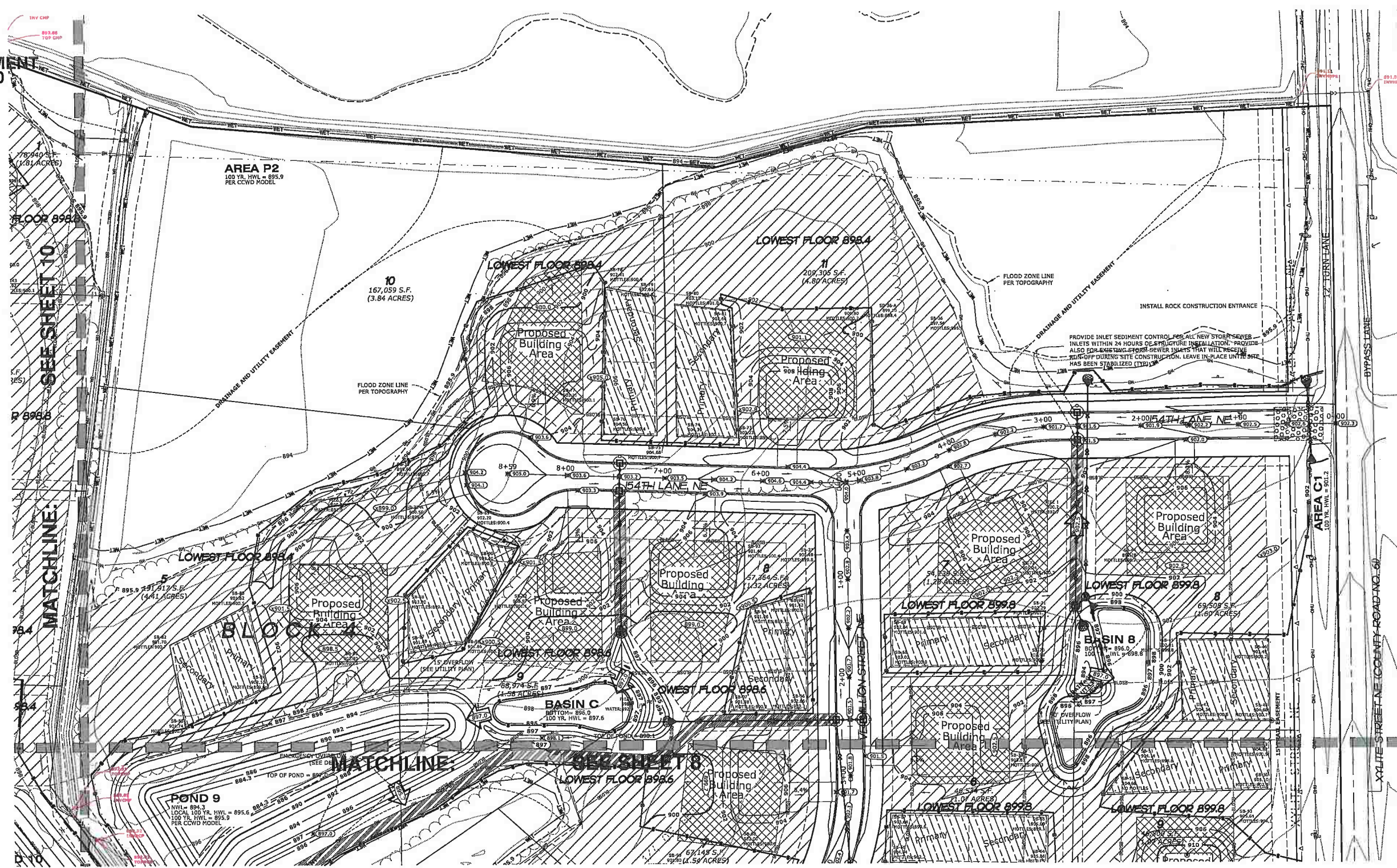
NORTH

LIVABILITY PLAN

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 ~for~ TIMBER VALLEY DEVELOPMENT
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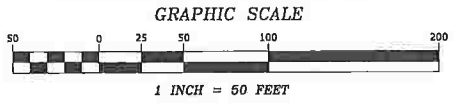
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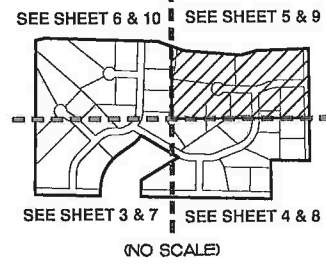
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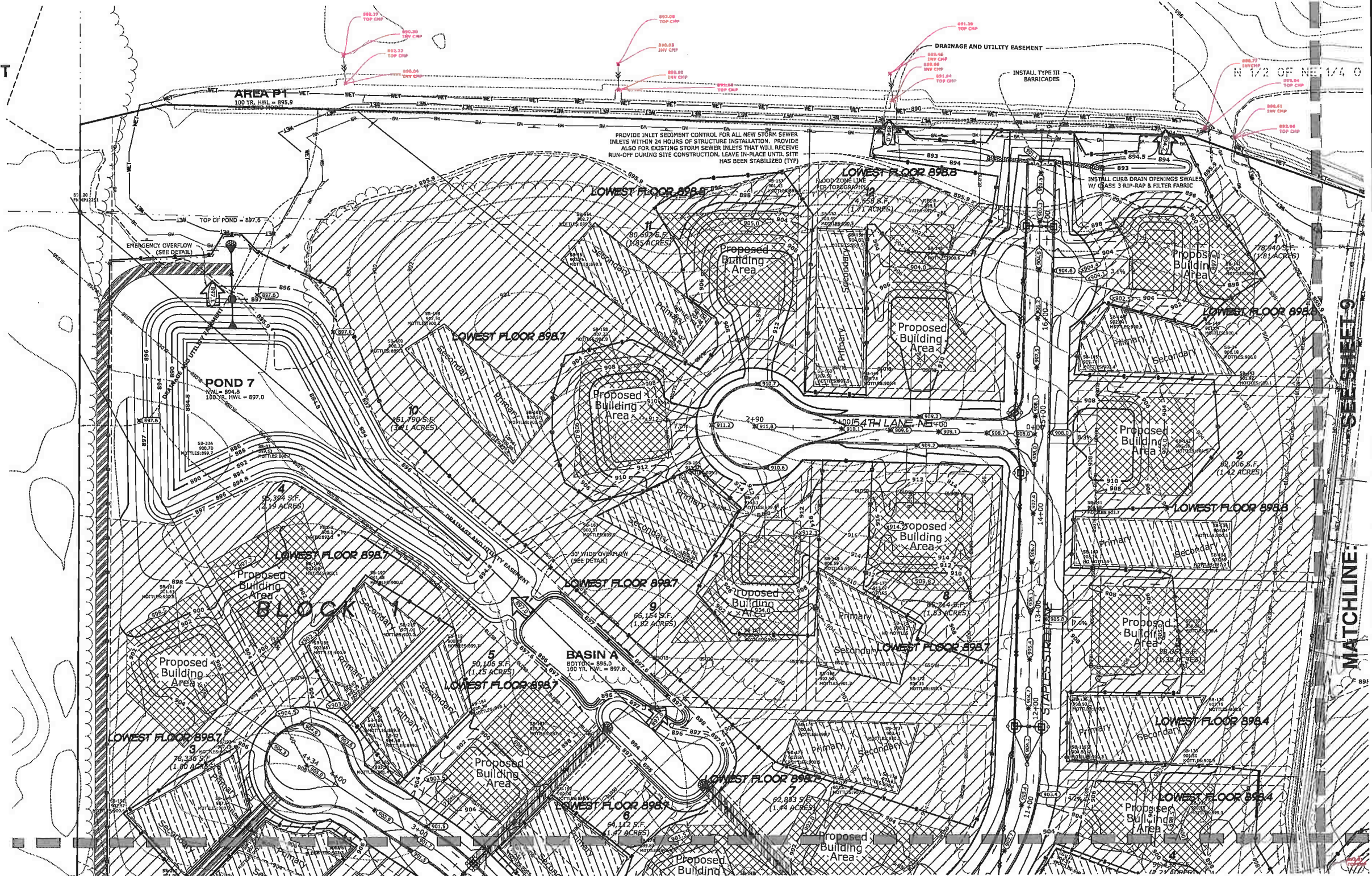
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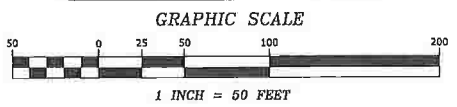
- ⊙ DENOTES SOIL BORING BY TRADEWELL SOIL TESTING
- ⊙ DENOTES PIEZOMETER OR PENETRATION BORING BY BRAUN INTERTEC, INC.
- x 932.36 DENOTES EXISTING SPOT ELEVATION
- WET DENOTES WET LAND
- DENOTES EXISTING 2 FOOT CONTOUR
- DENOTES PROPOSED 2 FOOT CONTOURS
- WET DENOTES WETLAND DELINEATED BY KJOLHAUG ENVIRONMENTAL SERVICES COMPANY.
- DENOTES EASEMENT LINE
- DENOTES SETBACK LINE
- DENOTES PROPOSED STORM SEWER
- DENOTES PROPOSED SILT / TREE PROTECTION FENCE
- DENOTES DIRECTION OF DRAINAGE
- ⊙ DENOTES PROPOSED WELL LOCATION
- DENOTES WETLAND/ VEGETATIVE BUFFER
- DENOTES WETLAND/ VEGETATIVE BUFFER SIGN
- ▨ DENOTES PROPOSED BUILDING PAD AREA
- ▨ DENOTES PROPOSED YARD AREA
- ▨ DENOTES PROPOSED SEPTIC AREA
- ▨ DENOTES 12' POND ACCESS



PONDING CALCULATIONS AND STORM SEWER DESIGN BY
PLOWE ENGINEERING, INC.
 6778 LAKE DRIVE SUITE 110 LINO LAKES, MN 55014
 SITE PLANNING & ENGINEERING PHONE: (651) 361-8210 FAX: (651) 361-8701

I HEREBY CERTIFY THAT THIS PLAN WAS PREPARED BY ME OR UNDER MY DIRECT SUPERVISION AND THAT I AM A DULY LICENSED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF MINNESOTA.

Charles W. Plowe
 CHARLES W. PLOWE
 DATE: 04.20.2021 LIC. NO. 18227

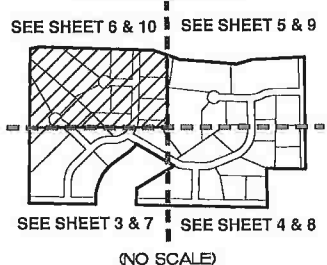


MATCHLINE: SEE SHEET 7

NOTES

- BEARINGS SHOWN ARE ON ANOKA COUNTY DATUM.
- TOTAL LOT AREAS ARE CALCULATED TO STREET CENTERLINE PER ORDINANCE.
- 2 FOOT CONTOUR INTERVAL (NAVD 88)
- CONTOURS SHOWN ARE PER MINGO LIDAR DISTRIBUTION AND FIELD VERIFICATION.
- ALL MATCH POINTS AND PAVEMENT PATCHES TO BE SAWCUT AT FULL DEPTH.
- TURF AREA TO BE SEED WITHIN 7 DAYS AFTER COMPLETION OF ROUGH GRADING OR INACTIVITY.
- SEE PRELIMINARY UTILITY PLAN FOR STORM SEWER RIMS, INVERTS, AND SIZES.
- BRAUN INTERTEC IS MONITORING SITE GROUND WATER ELEVATIONS WITH PIEZOMETERS, ANTICIPATED GROUNDWATER ELEVATIONS ARE BASED ON PRELIMINARY INFORMATION AND ARE SUBJECT TO REVISION.
- ALL PIPE APRONS PROVIDED WITH TRASH GUARDS
- PROVIDE CLASS III RIPRAP WITH FILTER FABRIC FOR ALL PIPE OUTLETS. INSTALL 6" OF TOPSOIL ON RIPRAP IN WETLAND BUFFERS AND SEED WITH SEED MIX HANDBOOK 33-261.
- IF DEWATERING IS REQUIRED, THE CONTRACTOR SHALL APPLY FOR A MIN DNR DEWATERING PERMIT AND WILL PROVIDE WELL- FIELD LOCATIONS, RATES, DISCHARGE LOCATION, SCHEDULE AND QUANTITIES TO CDD 7 DAYS PRIOR TO ANY DEWATERING OPERATIONS.
- CONTRACTORS MUST BE PROVIDED WITH DNR FLYERS/ FACT SHEETS ON BLANDING'S TURTLES.

SHEET INDEX



or report was prepared by me or under my direct supervision and that I am a duly Registered Land Surveyor under the laws of the State of Minnesota.

Jason E. Rod
 JASON E. ROD
 Date: 04/20/2021 License No. 41578

NO.	DATE	DESCRIPTION	BY
1	03/10/21	CITY / WATERSHED COMMENTS	MMD
2	03/31/21	CITY / WATERSHED COMMENTS	MMD
3	04/12/21	CITY / WATERSHED COMMENTS	MMD

E. G. RUD & SONS, INC.
 EST. 1977 Professional Land Surveyors
 6776 Lake Drive NE, Suite 110 Lino Lakes, MN 55014
 Tel. (651) 361-8200 Fax (651) 361-8701

NORTH

LIVABILITY PLAN

~of~ EVERGREEN ESTATES
 ~for~ TIMBER VALLEY DEVELOPMENT
 620 CIVIC HEIGHTS DR # 100
 CIRCLE PINES, MN 55014
 (763) 780-9090

Livability Standards
 All residential lots shall contain at least 29,500 square feet of land which lies above the 100 year flood contour. Of this 29,500 square feet, the following additional requirements must be present:

A. ISTS Area Each lot must contain at least 7,500 square feet of contiguous area which is reserved for both the ISTS originally constructed and a future ISTS. The ISTS Area need not be contiguous to the Eligible Building Area or the Yard Area, but the entire ISTS Area must exist at an elevation at least one foot above Unsuitable Soils, and must contain Undisturbed Soils or soils which meet the requirements of Rule 7090 of the Minnesota Pollution Control Agency for ISTS construction standards. The ISTS Area may be irregular in shape, provided they do not encroach into areas reserved by easement or otherwise for roadway, drainage or utility purposes, and provided that all of the area can be reasonably used for ISTS construction without the need for variances.

B. Eligible Building Area Each lot shall contain at least 10,000 square feet of contiguous land which lies at an elevation at least four feet above Unsuitable Soils. The Eligible Building Area may not be irregular in shape, and should be generally rectangular or oval, with no peninsulas, narrow necks or peninsulas. Eligible Building Areas may not encroach into any areas reserved by easement or otherwise for roadway, drainage or utility purposes. Fill may be used to create Eligible Building Area.

C. Yard Area Each lot shall contain at least 12,000 contiguous square feet which:


- i) Lies above the 100 year flood contour, and
 - ii) Lies at least one foot above soils unsuitable for the intended usage of the Yard Area, and
 - iii) Is contiguous to the Eligible Building Area for a distance of at least fifty percent of the linear perimeter of the Eligible Building Area.
- Yard Areas may encroach into the dedicated easement area which lies at a distance of ten feet from the perimeter of the lot, and may encroach into areas reserved by easement or otherwise for other public utility purposes, but may not encroach into any other area reserved by dedication or otherwise for road or drainage purposes, any may not encroach into any areas within the 100 year flood contour or into designated wetlands. Yard Areas may be irregular in shape except within thirty feet of the locations where the Yard Area is contiguous to the Eligible Building Area, at which locations the Yard Areas shall be a logical extension or expansion of the generally rectangular or oval shape of the Eligible Building Area. Fill may be used to create Yard Area.

D. Building Pad Areas The entire Building Pad must lie within the Eligible Building Area, and shall meet the separation requirements for the Eligible Building Area.

E. Low Floor Elevations
 i) For walkout designs, the low floor elevation shall be at least one foot above the 100 year flood contour, but, notwithstanding the 100 year flood contour, not less than one foot above unsuitable soils, as determined by the City's engineer.
 ii) For other designs, the low floor elevation shall be at least one foot above the 100 year flood contour, but, notwithstanding the 100 year flood contour, not less than one foot above unsuitable soils, as determined by the City's engineer.

Lot	Block	Total Lot Area (sq. ft.)	Yard Area (sq. ft.)	Septic Area (sq. ft.)	Building Pad Area (sq. ft.)	Proposed Building Pad 4' Above Unsuitable (sq. ft.)	Garage Floor Elevation	Proposed Low Floor Elev.	Proposed Low Opening Elevation	Lowest Floor Elevation	Highest Anticipated		Boiling #	Boiling Elevation	Mottles Elevation	Building Type	Custom Graded
											Elevation	Factor					
1	1	183,351	53,299	7,600	10,000	5,611	904.9	897.9	897.9	897.9	893.0 PEZ 7	anticipatd water level	31-A PIE 7	897.40 900.40 901.10 902.34 904.67 905.83 903.50 894.95	896.9 899.2 891.4(W) 900.2 900.7 902.2 900.5 899.0	W.O.* DROP 1 COURSE	NO
2	1	87,453	27,806	7,915	10,399	4,892	906.8	899.1	899.1	897.9	893.9 PEZ 7	anticipatd water level	195 196 197 198 199	907.29 908.78 899.44 901.27 900.90	903.0 903.3 898.5 900.1 899.9	W.O.	NO
3	1	78,336	28,273	7,835	12,217	5,896	907.2	899.5	899.5	898.7	894.7 PEZ 6	anticipatd water level	182 193 194 200	902.67 907.19 907.64 901.00	900.4 903.9 903.0 899.8	W.O.	NO
4	1	95,365	24,424	7,837	10,067	3,168	906.4	898.7	898.7	898.7	894.7 PEZ 6	anticipatd water level	33-A PIE 6	899.53 900.70 900.20 903.39 902.45 901.58 901.68 901.01	898.7 899.7 892.7(W) 900.4 900.2 900.1 900.9 900.0	W.O.	NO
5	1	60,108	17,711	7,603	10,073	4,069	905.5	899.2	899.2	898.7	894.7 PEZ 8	anticipatd water level	32 183 184 185 186 219	904.58 898.78 900.30 905.54 903.92 900.73	899.6 897.5 899.1 901.4 899.9 898.7	W.O.* DROP 2 COURSE	NO
6	1	84,112	24,532	9,107	10,009	4,802	906.5	899.5	902.7	898.7	894.7 PEZ 8	anticipatd water level	178 179 180 181 182	900.37 899.67 908.91 903.51 900.00	899.9 898.9 902.0 900.5 898.8	L.O.* DROP 1 COURSE	NO
7	1	62,863	29,839	7,576	10,119	4,064	907.0	900.0	903.2	898.7	894.7 PEZ 8	anticipatd water level	173 174 175 176	903.41 900.67 902.58 902.65	900.7 899.7 900.6 900.4	L.O.* DROP 1 COURSE	NO
8	1	66,714	32,620	7,930	10,091	10,091	914.8	907.8	911.0	896.7	894.7 PEZ 8	anticipatd water level	168 169 170 171 172	902.50 908.59 915.07 908.13 904.35	901.2 908.9 NONE NONE 899.5	L.O.* DROP 1 COURSE	NO
9	1	66,154	35,298	7,536	10,073	5,492	912.7	905.0	905.0	898.7	894.7 PEZ 8	anticipatd water level	163 164 165 166 167	900.51 913.32 914.11 903.38 900.44	899.8 905.3 909.9 900.7 899.6	W.O.	NO
10	1	161,780	69,738	8,218	10,620	9,540	916.0	909.0	909.0	898.7	894.7 PEZ 8	anticipatd water level	158 159 160 161 162	907.23 902.50 900.33 900.90 906.57	901.9 900.2 899.2 899.8 901.1	W.O.* DROP 1 COURSE	NO
11	1	80,692	33,567	8,033	10,360	8,426	913.7	906.0	906.0	898.8	894.8 PEZ 9	anticipatd water level	153 154 155 156 157	901.43 902.73 903.78 907.08 906.80	899.8 899.9 899.9 903.6 903.5	W.O.	NO
12	1	74,658	25,820	8,117	10,291	7,282	912.0	905.0	905.0	898.8	894.8 PEZ 9	anticipatd water level	148 149 150 151 152	904.75 609.73 909.50 904.80 903.69	900.6 906.4 905.5 900.5 900.5	W.O.* DROP 1 COURSE	NO
1	2	110,744	50,649	7,519	10,128	5,261	907.5	900.5	903.7	897.9	893.9 PEZ 7	anticipatd water level	206 207 208 209 210 211	901.00 900.82 900.39 900.54 901.54 902.94	899.8 899.4 899.4 899.2 900.4 899.9	L.O.* DROP 1 COURSE	NO
2	2	68,081	25,688	7,695	10,120	5,333	907.7	900.7	903.9	897.9	893.9 PEZ 7	anticipatd water level	212 213 214 215 216	904.30 901.37 900.48 899.69 899.57	900.0 900.2 899.5 899.6 898.6	L.O.* DROP 1 COURSE	NO
1	3	132,012	30,710	8,280	10,000	7,250	904.6	898.3	901.5	898.3	894.3 PEZ 3	anticipatd water level	40 41 42 43 127	898.00 899.97 899.92 899.91 899.99	891.4(W) 896.6 898.6 898.7 899.8	L.O.* DROP 2 COURSE	NO
1	4	78,940	26,197	7,623	11,078	4,471	906.5	898.8	898.8	898.8	894.8 PEZ 8	anticipatd water level	34 143 144 145 146 147	902.18 901.92 901.94 906.74 902.84 899.33	900.0 900.1 900.4 902.4 900.3 898.3	W.O.	NO
2	4	62,006	33,908	8,117	10,000	5,825	912.0	905.0	905.0	898.8	894.8 PEZ 9	anticipatd water level	138 139 140 141 142	903.99 904.34 908.74 908.69 905.18	901.0 900.5 900.5 903.7 901.5	W.O.* DROP 1 COURSE	NO
3	4	58,067	29,600	8,327	10,562	10,500	910.0	903.0	906.2	898.4	894.4 PEZ 6	anticipatd water level	133 134 135 136 137	901.80 902.75 904.80 906.50 904.99	900.5 900.8 900.3 900.5 899.4	L.O.* DROP 1 COURSE	NO
4	4	96,438	21,874	7,681	10,315	4,228	908.5	899.5	899.5	898.4	894.4 PEZ 6	anticipatd water level	PIE 6 128 129 130 131 132	902.80 902.38 902.28 903.69 904.37 900.75	891.9(W) 898.7 899.6 899.2 899.2 899.3	W.O.* DROP 1 COURSE	NO

PONDING CALCULATIONS AND STORM SEWER DESIGN BY PLOWE ENGINEERING, INC.



PLOWE ENGINEERING, INC.
 6776 LAKE DRIVE SUITE 110
 LINO LAKES, MN 55014

SITE PLANNING & ENGINEERING PHONE: (651) 361-8210 FAX: (651) 361-8701

I HEREBY CERTIFY THAT THIS PLAN WAS PREPARED BY ME OR UNDER MY DIRECT SUPERVISION AND THAT I AM A DULY LICENSED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF MINNESOTA.

Charles W. Plowe
 CHARLES W. PLOWE
 DATE: 04.20.2021 LIC. NO. 18227

E. G. RUD & SONS, INC.
 EST. 1977
 Professional Land Surveyors
 6776 Lake Drive NE, Suite 110
 Lino Lakes, MN 55014
 Tel. (651) 361-8200 Fax (651) 361-8701

I hereby certify that this survey, plan or report was prepared by me or under my direct supervision and that I am a duly Registered Land Surveyor under the laws of the State of Minnesota.

JASON E. RUD
 JASON E. RUD
 Date: 04/20/2021 License No. 41578

NOTES: * INDICATES DROPPED GARAGE ELEVATIONS BASED UPON 12 COURSE BASEMENT
 (W) INDICATES STATIC GROUNDWATER ELEVATION
 LOW OPENINGS LISTED ARE REFLECTING THE REAR YARD LOW OPENING

DRAWN BY: CHB	JOB NO: 200062PP	DATE: 12/28/20	
CHECK BY: JER	FIELD CREW: BH / SO		
1	03/10/21	CITY / WATERSHED COMMENTS MMD	
2	03/31/21	CITY / WATERSHED COMMENTS MMD	
3			
NO.	DATE	DESCRIPTION	BY

LIVABILITY PLAN

~of~ EVERGREEN ESTATES
 ~for~ TIMBER VALLEY DEVELOPMENT
 620 CIVIC HEIGHTS DR # 100
 CIRCLE PINES, MN 55014
 (763) 780-9090

Livability Standards
 All residential lots shall contain at least 29,500 square feet of land which lies above the 100 year flood contour. Of this 29,500 square feet, the following additional requirements must be present.

A. **ISTS Area** Each lot must contain at least 7,500 square feet of contiguous area which is reserved for both the ISTS originally constructed and a future ISTS. The ISTS Area need not be contiguous to the Eligible Building Area or the Yard Area, but the entire ISTS Area must exist at an elevation at least one foot above Unstable Soils, and must contain Undisturbed Soils or soils which meet the requirements of Rule 7080 of the Minnesota Pollution Control Agency for ISTS construction standards. The ISTS Area may be irregular in shape, provided they do not encroach into areas reserved by easement or otherwise for roadway, drainage or utility purposes, and provided that all of the area can be reasonably used for ISTS construction without the need for variances.

B. **Eligible Building Area** Each lot shall contain at least 10,000 square feet of contiguous land which lies at an elevation at least four feet above Unstable Soils. The Eligible Building Area may not be irregular in shape, and should be generally rectangular or oval, with no peninsulas, narrow necks or peninsulas. Eligible Building Areas may not encroach into any areas reserved by easement or otherwise for roadway, drainage or utility purposes. Fill may be used to create Eligible Building Area.

C. **Yard Area** Each lot shall contain at least 12,000 contiguous square feet which:
 i) Lies above the 100 year flood contour, and
 ii) Lies at least one foot above soils unsuitable for the intended usage of the Yard area, and
 iii) Is contiguous to the Eligible Building Area for a distance of at least fifty percent of the linear perimeter of the Eligible Building Area.

Yard Areas may encroach into the dedicated easement area which lies at a distance of ten feet from the perimeter of the lot, and may encroach into areas reserved by easement or otherwise for other public utility purposes, but may not encroach into any other area reserved by dedication or otherwise for road or drainage purposes, any may not encroach into any areas within the 100 year flood contour or into designated wetlands. Yard Areas may be irregular in shape except within thirty feet of the locations where the Yard Area is contiguous to the Eligible Building Area, at which locations the Yard Area shall be a logical extension or expansion of the generally rectangular or oval shape of the Eligible Building Area. Fill may be used to create Yard Area.

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E. **Low Floor Elevations**
 1) For walkout designs, the low floor elevation shall be at least one foot above the 100 year flood contour, but, notwithstanding the 100 year flood contour, not less than one foot above unsuitable soils, as determined by the City's engineer.
 2) For other designs, the low floor elevation shall be at least one foot above the 100 year flood contour, but, notwithstanding the 100 year flood contour, not less than one foot above unsuitable soils, as determined by the City's engineer.

Lot	Block	Total Lot Area (sq. ft.)	Yard Area (sq. ft.)	Septic Area (sq. ft.)	Building Pad Area (sq. ft.)	Proposed Building Pad 4' Above Unsuitable (sq. ft.)	Garage Floor Elevation	Proposed Low Floor Elev.	Proposed Low Opening	Lowest Floor Elevation	Highest Anticipated Groundwater Elevation	Low Floor Determining Factor	Boring #	Boring Elevation	Mottles Elevation	Building Type	Custom Graded
5	4	191,917	52,550	7,714	10,000	3,958	907.2	899.5	899.5	898.4	894.4	antic-pated	PIEZ 5	895.90	891.9(W)	W.O.	NO
												water level	35	895.98	892.7		
													35A	900.50	899.5		
													82	901.70	900.7		
													83	901.74	900.6		
													84	902.10	899.6		
													85	901.82	900.5		
													86	902.30	900.3		
													39	897.25	897.3	W.O.	NO
6	4	94,516	20,127	8,338	10,014	2,700	906.2	898.5	898.5	898.5	894.5	antic-pated	PIEZ 4	900.50	898.2		
												water level	38A	900.50	898.2		
													102	905.11	901.8		
													103	902.74	901.7		
													104	900.80	899.8		
													105	901.55	900.5		
													106	902.04	900.9		
													98	902.00	900.5	W.O.*	NO
													99	901.80	899.7		
													100	903.06	901.4	DROP	
													101	905.26	902.3	2 COURSE	
													107	901.85	900.7		
8	4	57,364	21,195	7,722	10,229	4,283	907.7	900.0	900.0	898.6	894.5	BASIN C	PIEZ 4	898.30	892.0(W)	W.O.	NO
												HWL	37	900.48	899.8		
													93	901.42	900.4		
													94	901.06	899.7		
													95	901.42	900.0		
													96	902.86	900.3		
													97	901.28	900.2		
													87	901.88	900.6	W.O.*	NO
													88	903.20	899.2	DROP	
													89	902.20	900.4	1 COURSE	
													90	903.40	900.2		
													91	901.86	900.7		
													92	902.87	901.1		
10	4	187,059	21,068	7,711	10,116	5,243	908.0	901.0	901.0	898.4	894.4	antic-pated	PIEZ 5	904.68	900.7	W.O.*	NO
												water level	76	904.56	900.4	DROP	
													77	903.31	900.1	1 COURSE	
													78	902.41	900.9		
													79	902.83	900.8		
11	4	209,305	58,513	7,761	10,000	5,109	909.1	902.1	902.1	898.4	894.4	antic-pated	PIEZ 5	897.54	898.9	W.O.*	NO
												water level	36A	899.10	898.4	DROP	
													36B	900.90	900.2	1 COURSE	
													73	903.23	899.9		
													74	904.38	900.1		
													80	903.12	901.0		
													81	902.86	900.7		
1	5	44,276	28,052	7,986	10,259	8,889	909.8	902.8	906.0	898.3	894.3	antic-pated	PIEZ 2	904.97	899.8	L.O.*	NO
												water level	123	905.50	900.5	DROP	
													124	905.27	900.9	1 COURSE	
													125	905.53	899.5		
													126	905.34	900.0		
2	5	50,099	25,304	7,765	10,000	10,000	908.8	902.8	906.0	898.3	894.3	antic-pated	PIEZ 2	905.50	891.9(W)	L.O.*	NO
												water level	118	905.26	901.1	DROP	
													119	905.26	900.1	1 COURSE	
													120	904.64	901.0		
													121	904.93	902.6		
													117	905.06	899.2		
3	5	75,301	29,028	8,117	10,000	5,854	909.9	899.9	903.1	898.3	894.3	antic-pated	PIEZ 2	902.52	899.9	L.O.*	NO
												water level	114	902.35	899.9	DROP	
													115	905.20	900.2	1 COURSE	
													116	904.34	900.4		
													117	904.82	900.6		
4	5	66,137	39,318	7,988	10,332	3,722	908.8	901.8	905.0	898.3	894.3	antic-pated	PIEZ 2	905.81	903.6	L.O.*	NO
												water level	109	907.22	903.4	DROP	
													110	904.78	902.6	1 COURSE	
													111	904.52	900.9		
													112	905.74	901.9		
5	5	66,866	42,524	7,888	10,000	5,622	908.0	900.3	908.4	899.8	894.3	PER	PIEZ 2	907.43	904.8	F.B.	NO
												BASIN 8	60	905.95	903.0		
												HWL	81	905.54	903.2		
													82	906.79	904.8		
													83	905.74	903.2		
6	5	48,534	19,091	8,117	10,000	4,855	906.8	900.5	903.7	899.8	895.2	PER	PIEZ 1	903.83	900.3	L.O.*	NO
												BASIN 8	64	905.88	900.0	DROP	
												HWL	65	905.09	899.1	2 COURSE	
													66	904.04	902.2		
													67	903.64	899.6		
													68	903.02	900.0	L.O.*	NO
													69	902.84	901.0	DROP	
													70	902.96	900.5	1 COURSE	
													71	902.29	901.1		
													72	901.24	900.2		
8	5	69,508	24,023	7,615	10,000	8,651	906.8	900.5	903.7	899.8	895.2	PER	PIEZ 1	900.20	892.7(W)	L.O.*	NO
												BASIN 8	44	899.78	898.7	DROP	
												HWL	45	902.81	899.8	2 COURSE	
													46	903.49	900.2		
													47	904.34	900.5		

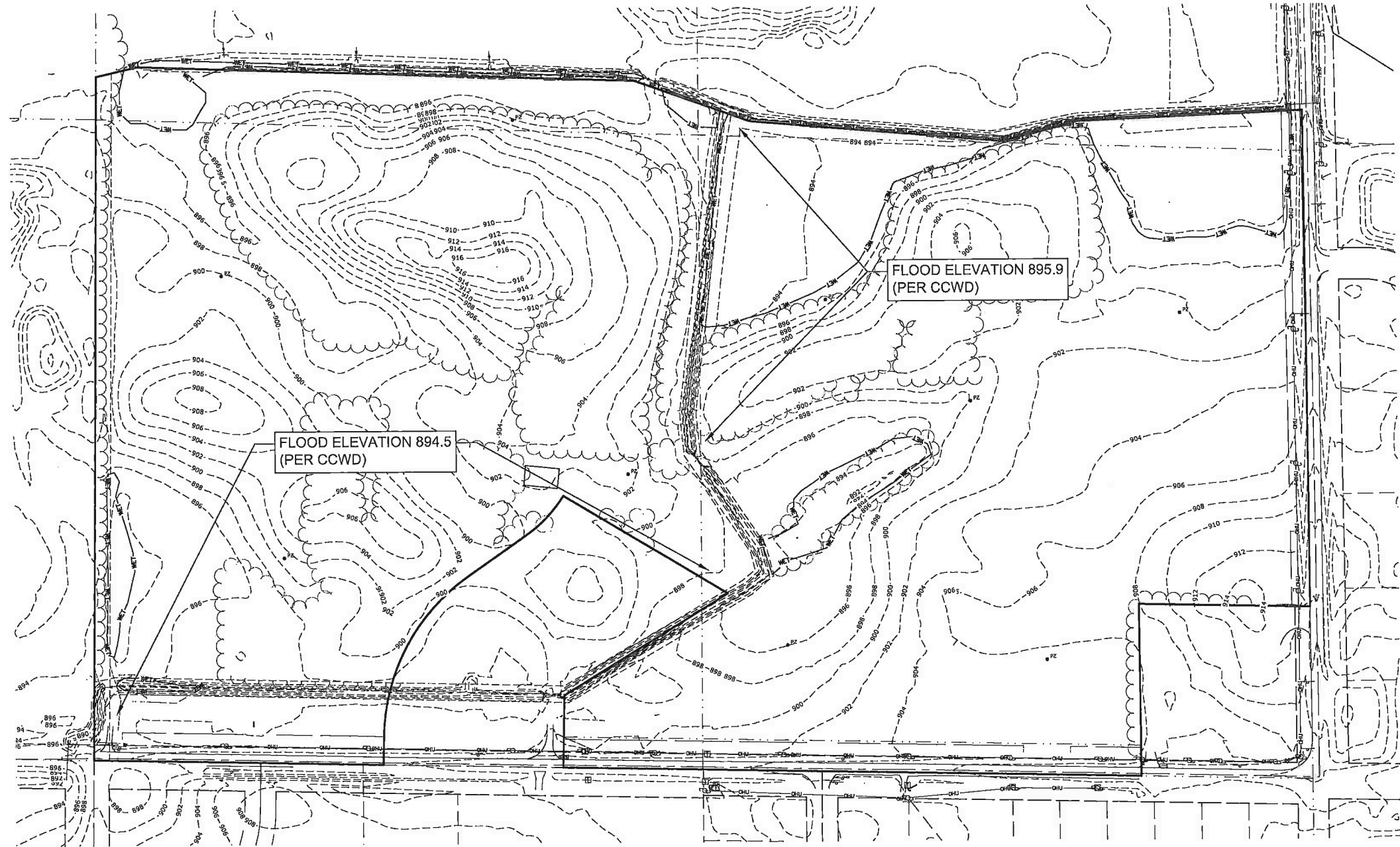
VICINITY MAP



NOT TO SCALE

EVERGREEN ESTATES

HAM LAKE, MINNESOTA



LEGEND

- OH— EXISTING OVERHEAD ELECTRIC
- UL— EXISTING UNDERGROUND TELEPHONE
- CL— EXISTING UNDERGROUND CABLE
- EXISTING TELEPHONE PEDESTAL
- EXISTING ELECTRICAL PEDESTAL
- EXISTING CABLE PEDESTAL
- EXISTING UTILITY POLE
- ☆ EXISTING LIGHT POLE
- SS— EXISTING STORM SEWER
- ⊙ EXISTING STORM MANHOLE
- EXISTING CATCH BASIN
- ◀ EXISTING FLARED-END SECTION
- ⊙ EXISTING WELL
- 918 EXISTING CONTOUR
- 920 EXISTING CONTOUR
- X— EXISTING FENCE
- WET EXISTING WETLAND
- S— PROPOSED STORM SEWER PIPE
- ⊙ PROPOSED STORM MANHOLE
- PROPOSED CATCH BASIN
- ◀ PROPOSED FLARED-END SECTION
- S— PROPOSED DIRECTION OF DRAINAGE

GENERAL NOTES

- THE INFORMATION SHOWN ON THESE DRAWINGS CONCERNING TYPE AND LOCATION OF EXISTING UTILITIES IS NOT GUARANTEED TO BE ACCURATE OR ALL INCLUSIVE. THE CONTRACTOR IS RESPONSIBLE FOR MAKING HIS OWN DETERMINATION AS TO TYPE AND LOCATION OF UTILITIES AS NECESSARY TO AVOID DAMAGE TO THESE UTILITIES.
- CALL "811" FOR EXISTING UTILITIES LOCATIONS PRIOR TO ANY EXCAVATIONS.
- THE CONTRACTOR SHALL FIELD VERIFY SIZE, ELEVATION, AND LOCATION OF EXISTING UTILITIES AND NOTIFY ENGINEER OF ANY DISCREPANCIES PRIOR TO THE START OF INSTALLATIONS.
- INSTALLATIONS SHALL CONFORM TO THE CITY STANDARD SPECIFICATIONS AND DETAIL PLATES.
- STORAGE OF MATERIALS OR EQUIPMENT SHALL NOT BE ALLOWED ON PUBLIC STREETS OR WITHIN PUBLIC RIGHT-OF-WAY.
- NOTIFY CITY AND COON CREEK WATERSHED DISTRICT (CCWD) A MINIMUM OF 48 HOURS PRIOR TO THE COMMENCEMENT OF CONSTRUCTION.
- ALL ELECTRIC, TELEPHONE, AND GAS EXTENSIONS INCLUDING SERVICE LINES SHALL BE CONSTRUCTED TO THE APPROPRIATE UTILITY COMPANY SPECIFICATIONS. ALL UTILITY DISCONNECTIONS SHALL BE COORDINATED WITH THE APPROPRIATE UTILITY COMPANY.

STORM SEWER NOTES

- FIELD VERIFY SIZE, ELEVATION, AND LOCATION OF EXISTING STORM SEWER AND NOTIFY ENGINEER OF ANY DISCREPANCIES PRIOR TO ANY INSTALLATIONS.
- STORM SEWER SHALL BE:
 - (A) REINFORCED CONCRETE PIPE (RCP) ANSI C76 WITH R-4 GASKETS
 - (B) HDPE PIPE SHALL MEET THE REQUIREMENTS OF AASHTO M294, TYPE S WITH WATERTIGHT CONNECTIONS. USE SAND/GRANULAR MATERIAL FOR BACKFILLING AND COMPACTION OF HDPE/PVC PIPE IN ACCORDANCE WITH THE REQUIREMENTS OF ASTM 2321.
- DO NOT BACKFILL CATCH BASINS UNTIL FABRIC WRAP IS INSPECTED BY CITY.
- TRASH GUARDS ARE REQUIRED FOR ALL FLARED-END SECTIONS LESS THAN 48" IN DIAMETER.
- PROVIDE CLASS III RIP-RAP W/ FILTER FABRIC AT ALL PIPE OUTLETS.
- TIE LAST THREE SECTION OF CONCRETE PIPE, INCLUDING APRON, FOR CONCRETE PIPES LESS THAN 48" IN DIAMETER.
- STORM SEWER LENGTHS INCLUDE THE LAYING LENGTH OF THE FLARED-END SECTION. LAYING LENGTH OF FLARED-END SECTION TO BE DEDUCTED FROM PAYMENT LENGTH OF PIPE.
- ARCH PIPE JOINTS MUST BE WRAPPED WITH FABRIC OR OTHER PROTECTION TO PREVENT SEDIMENT FROM ENTERING PIPE.
- SEE SHEET C3.1 FOR STRUCTURE SCHEDULE.

CURB & BITUMINOUS NOTES

- REMOVAL AND DISPOSAL OF EXISTING STREET MATERIALS AS REQUIRED FOR CONSTRUCTION IS CONSIDERED INCIDENTAL.
- ALL MATCH POINTS AND PAVEMENT PATCHES TO BE SAW-CUT AT FULL DEPTH.
- RESTORE DISTURBED STREET TO EXISTING OR BETTER SECTION.
- BACKFILLING OF CURB IS INCIDENTAL TO CURB INSTALLATION.

SHEET INDEX

CO	TITLE SHEET, EXISTING CONDITIONS & GENERAL NOTES
C1.1 - 1.0	STREET & STORM SEWER PLAN & PROFILE
C2.1 - 2.4	UTILITY PLAN
C3.1 - 3.3	DETAILS
C4.1 - 4.2	STORM WATER POLLUTION PREVENTION PLAN



PLOWE
ENGINEERING, INC.

8778 LAKE DRIVE
SUITE 110
LINO LAKE, MN 55014

PHONE: (651) 361-6210
FAX: (651) 361-6701

DRAWN BY: MQA
CHECK BY: CWP

JOB NO: 20-1933
DATE: 10-12-20

NO.	DATE	DESCRIPTION
1	3-10-21	CCWD & CITY COMMENTS
2	3-21-21	CCWD & CITY COMMENTS
3	4-14-21	CCWD & CITY COMMENTS
4		
5		
6		
7		
8		

I HEREBY CERTIFY THAT THIS PLAN WAS PREPARED BY ME OR UNDER MY DIRECT SUPERVISION AND I AM A duly Licensed Professional Engineer under the laws of the State of Minnesota.

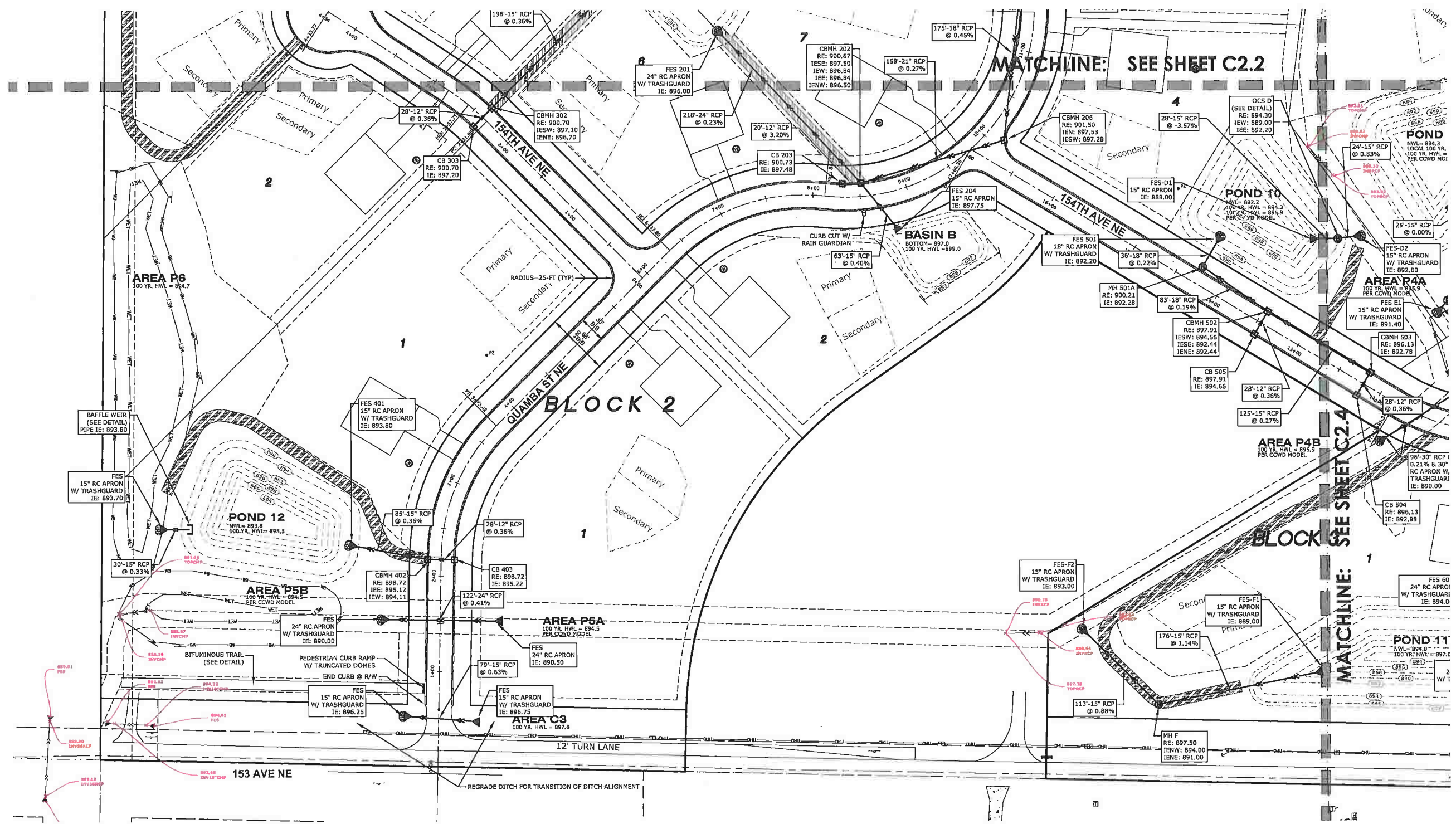
Charles W. Plowe
CHARLES W. PLOWE
DATE: 04.20.2021 LIC. NO. 18227

EVERGREEN ESTATES

CITY OF HAM LAKE, MN

TITLE SHEET, EXIST. CONDITIONS & GEN. NOTES
PREPARED FOR: TIMBER VALLEY DEVELOPMENT

SHEET
C0



PLOWE
ENGINEERING, INC.

6776 LAKE DRIVE
SUITE 110
LINO LAKES, MN 55014
PHONE: (651) 381-6210
FAX: (651) 381-6701

DRAWN BY: CHECK BY:
MQA CWP

JOB NO: DATE:
20-1933 10-12-20

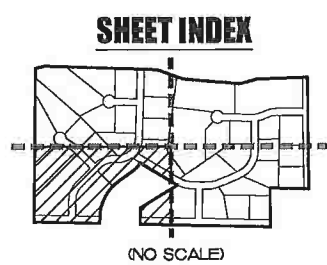
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1	3-10-21	CCWD & CITY COMMENTS
2	3-31-21	CCWD & CITY COMMENTS
3	4-14-21	CCWD & CITY COMMENTS
4	4-20-21	PIPE FROM 501A TO FES ADJ.
5		
6		
7		

UNLESS OTHERWISE NOTED THIS PLAN WAS PREPARED BY
ME OR UNDER MY DIRECT SUPERVISION AND THAT I AM
A DULY LICENSED PROFESSIONAL ENGINEER UNDER
THE LAWS OF THE STATE OF MINNESOTA.

Charles W. Plowe
CHARLES W. PLOWE
DATE: 04-20-2021 LIC. NO. 16227

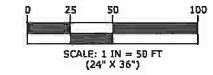
EVERGREEN ESTATES
CITY OF HAM LAKE, MN
UTILITY PLAN
PREPARED FOR: TIMBER VALLEY DEVELOPMENT

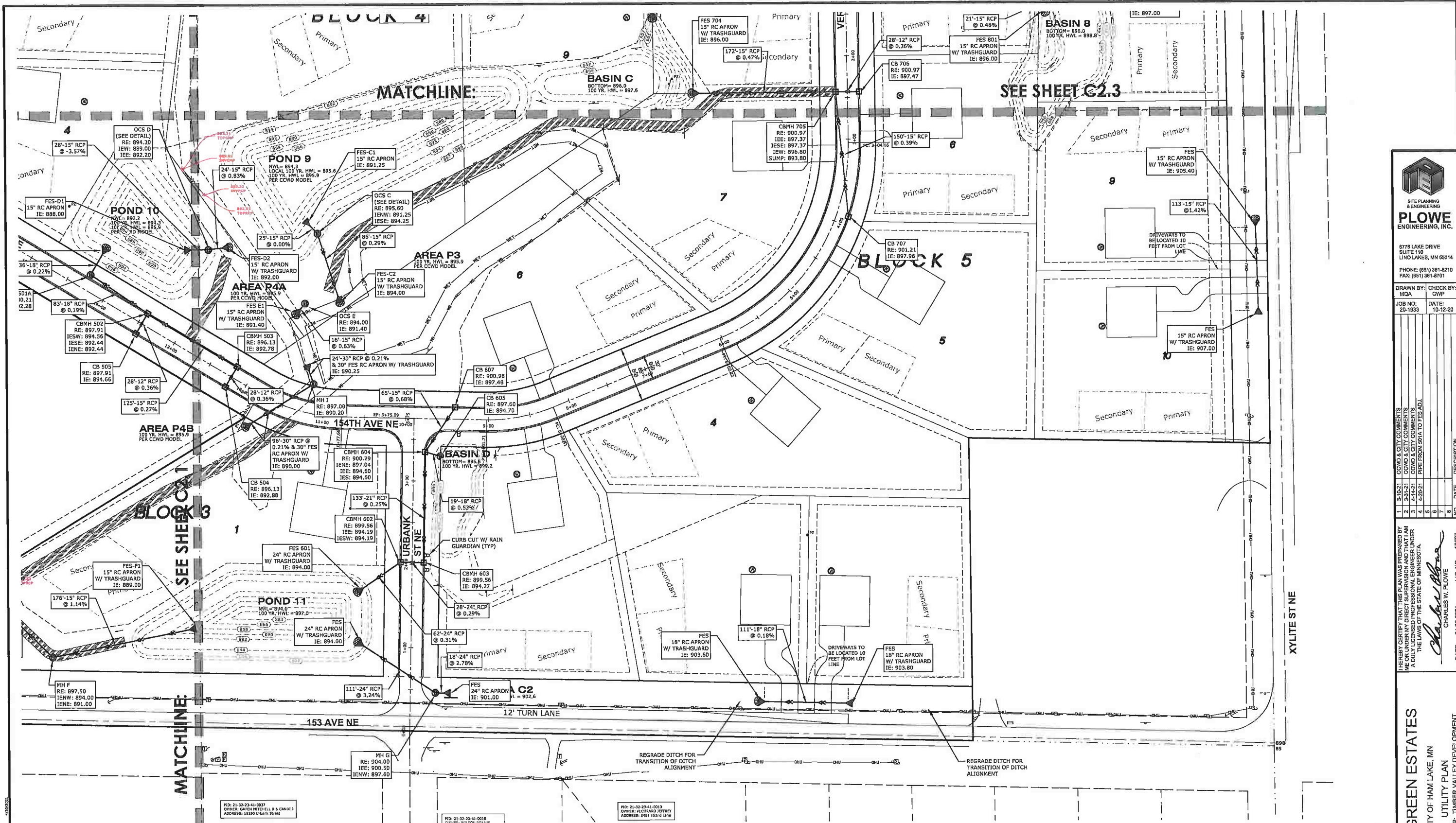
SHEET
C2.1



Know what's below.
Call before you dig.

SEE SHEET C0 FOR LEGEND AND
CONSTRUCTION NOTES
SEE SHEET C3.4 FOR STRUCTURE
SCHEDULE





6776 LAKE DRIVE
SUITE 110
LIND LAKE, MN 55014
PHONE: (651) 381-8210
FAX: (651) 381-8701

DRAWN BY: MDA
JOB NO: 20-1933

CHECK BY: CWP
DATE: 10-12-20

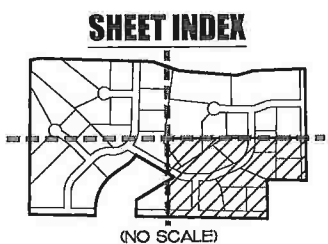
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5		
6		
7		
8		

I HEREBY CERTIFY THAT THIS PLAN WAS PREPARED BY ME OR UNDER MY DIRECT SUPERVISION AND THAT I AM A DULY LICENSED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF MINNESOTA.

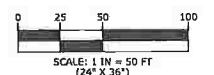
Charles W. Plowe
CHARLES W. PLOWE
DATE: 04-20-2021 LIC. NO. 19227

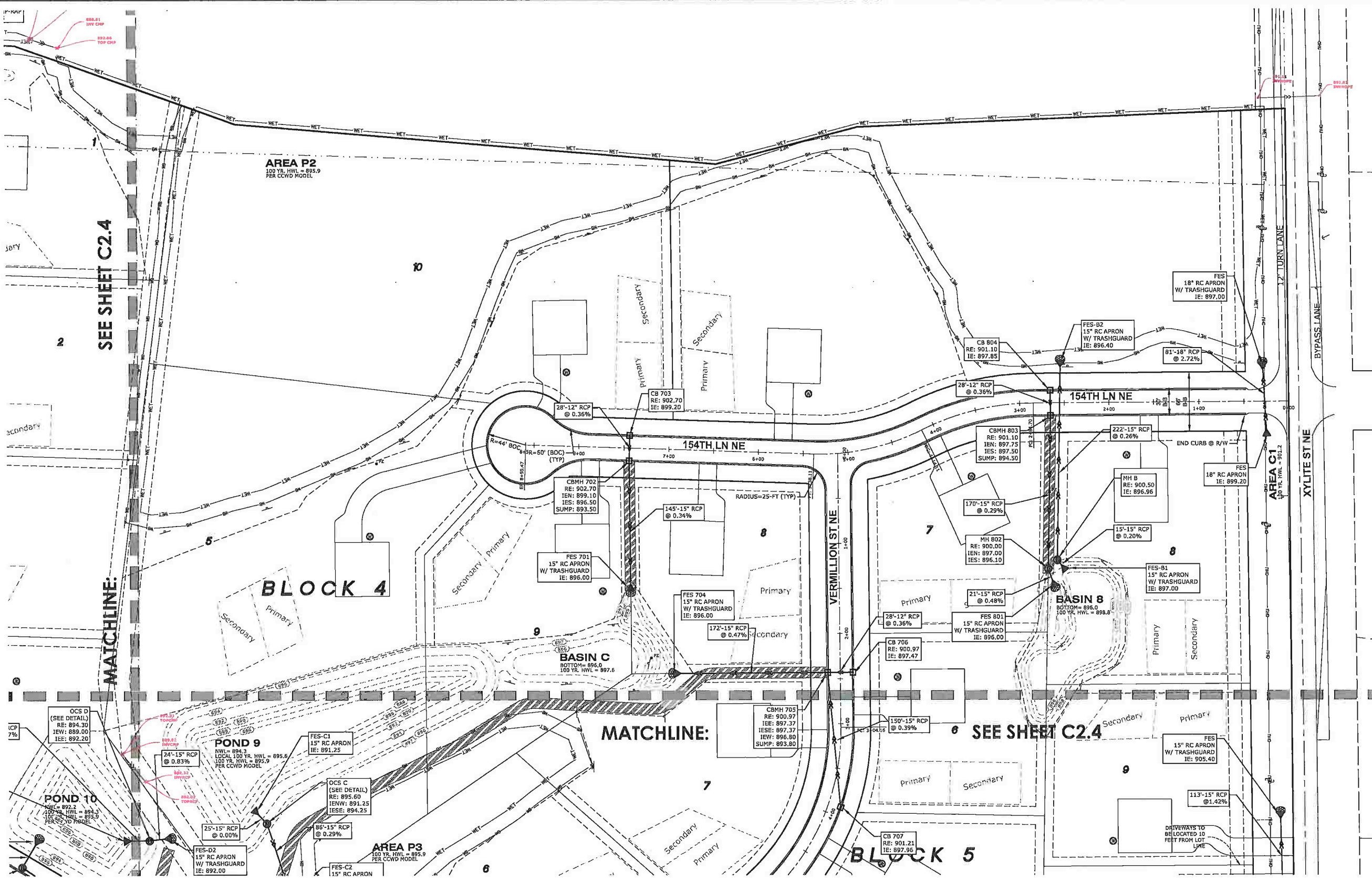
EVERGREEN ESTATES
CITY OF HAM LAKE, MN
UTILITY PLAN
PREPARED FOR: TIMBER VALLEY DEVELOPMENT

SHEET
C2.2



SEE SHEET C0 FOR LEGEND AND CONSTRUCTION NOTES
SEE SHEET C3.4 FOR STRUCTURE SCHEDULE





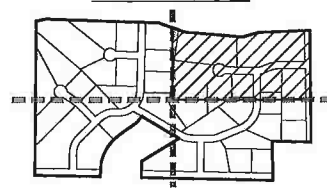
SEE SHEET C2.4

MATCHLINE:

MATCHLINE:

SEE SHEET C2.4

SHEET INDEX



(NO SCALE)



Know what's below.
Call before you dig.

SEE SHEET C0 FOR LEGEND AND CONSTRUCTION NOTES
SEE SHEET C3.4 FOR STRUCTURE SCHEDULE



PLOWE ENGINEERING, INC.

8778 LAKE DRIVE
SUITE 110
LINO LAKES, MN 55014

PHONE: (651) 381-8210
FAX: (651) 361-8701

DRAWN BY: MOA
JOB NO: 20-1933

CHECKED BY: CYP
DATE: 10-12-20

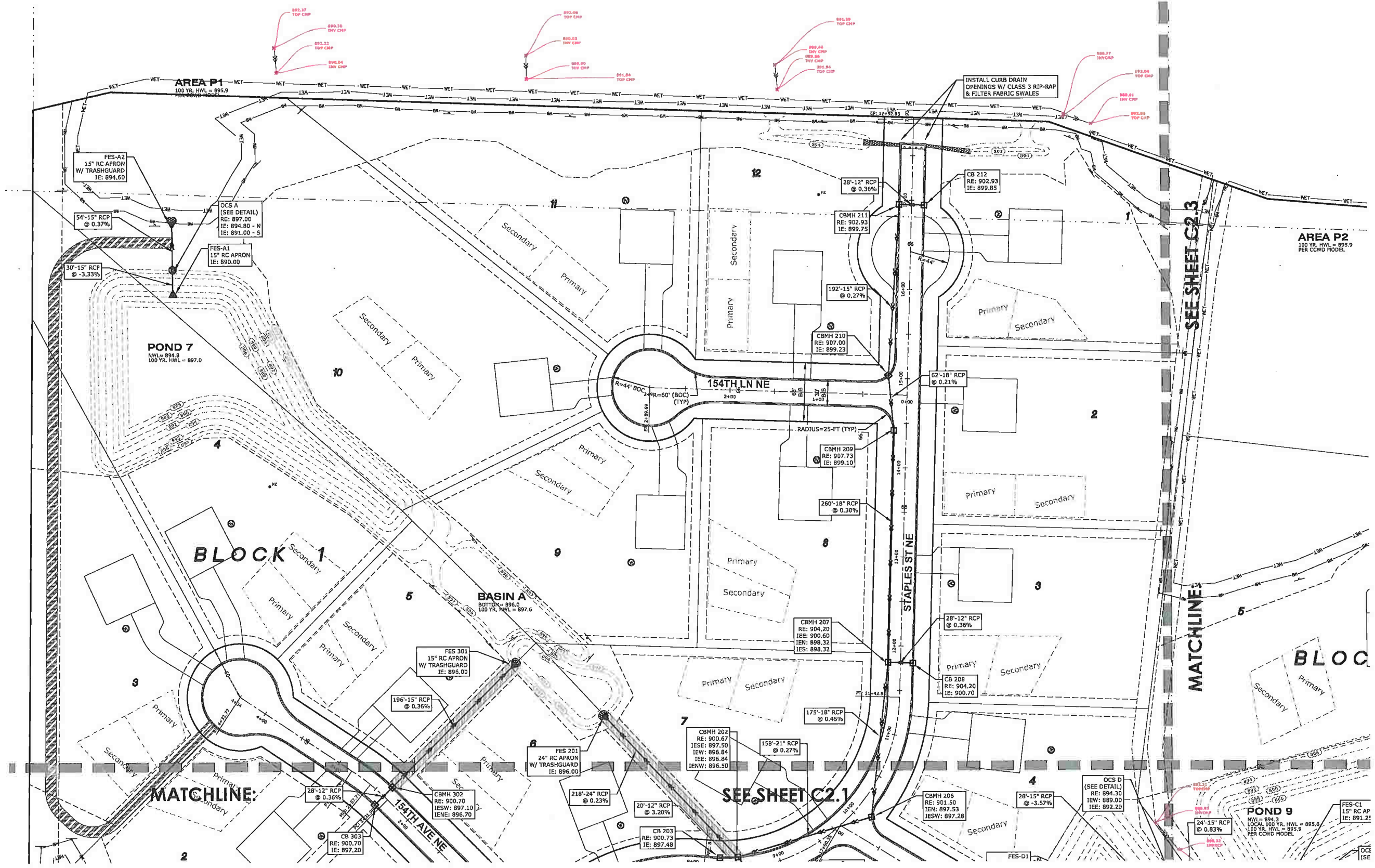
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2	10-12-20	ISSUE FOR PERMITS
3	10-12-20	ISSUE FOR PERMITS
4	10-12-20	ISSUE FOR PERMITS
5	10-12-20	ISSUE FOR PERMITS
6	10-12-20	ISSUE FOR PERMITS
7	10-12-20	ISSUE FOR PERMITS
8	10-12-20	ISSUE FOR PERMITS

I HEREBY CERTIFY THAT THIS PLAN WAS PREPARED BY ME OR UNDER MY CLOSE PERSONAL SUPERVISION AND THAT I AM A QUALIFIED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF MINNESOTA.

Charles W. Plowe
Charles W. Plowe
LIC. NO. 18227
DATE: 04-20-2021

EVERGREEN ESTATES
CITY OF HAM LAKE, MN
UTILITY PLAN
PREPARED FOR: TIMBER VALLEY DEVELOPMENT

SHEET
C2.3



PLOWE ENGINEERING, INC.
 8776 LAKE DRIVE
 SUITE 110
 LINO LAKES, MN 55014
 PHONE: (651) 381-8210
 FAX: (651) 381-8701

DRAWN BY: MGA
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 JOB NO: 20-1933
 DATE: 10-12-20

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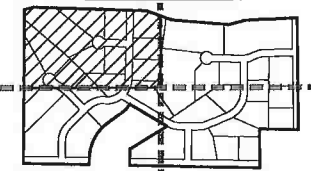
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 CHARLES W. PLOWE
 LIC. NO. 18227
 DATE: 04-20-2021

EVERGREEN ESTATES
 CITY OF HAM LAKE, MN
 UTILITY PLAN
 PREPARED FOR: TIMBER VALLEY DEVELOPMENT

SHEET
C2.4

SHEET INDEX

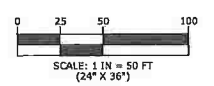


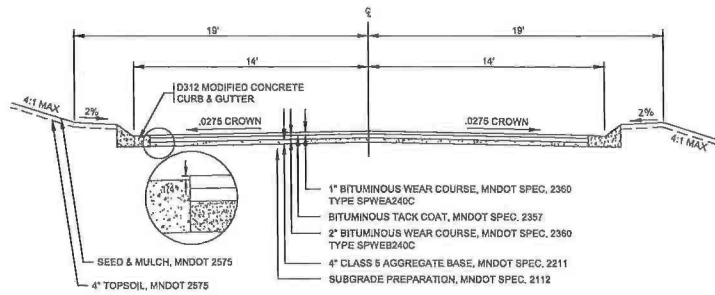
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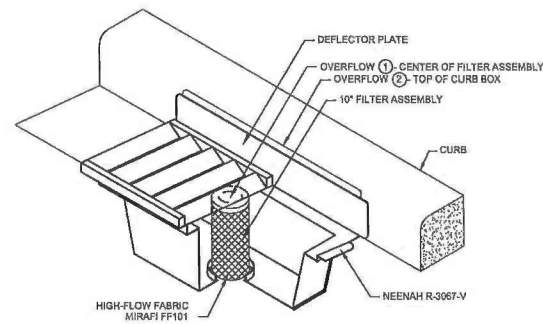
Know what's below.
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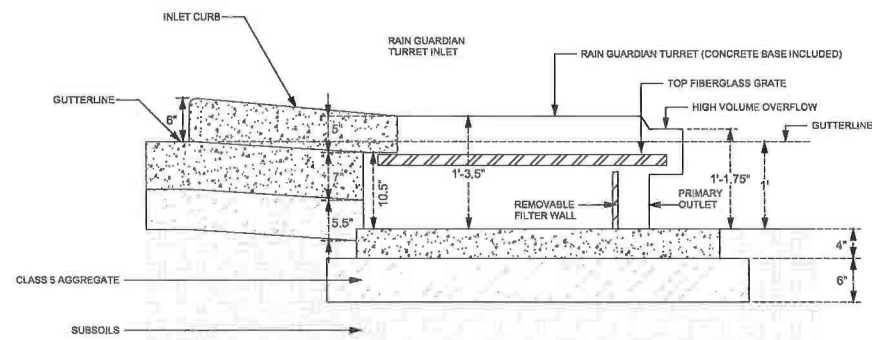




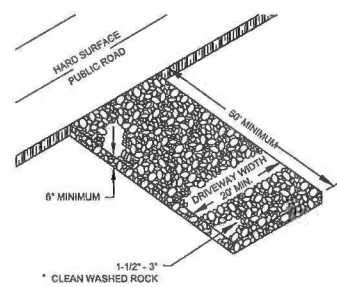
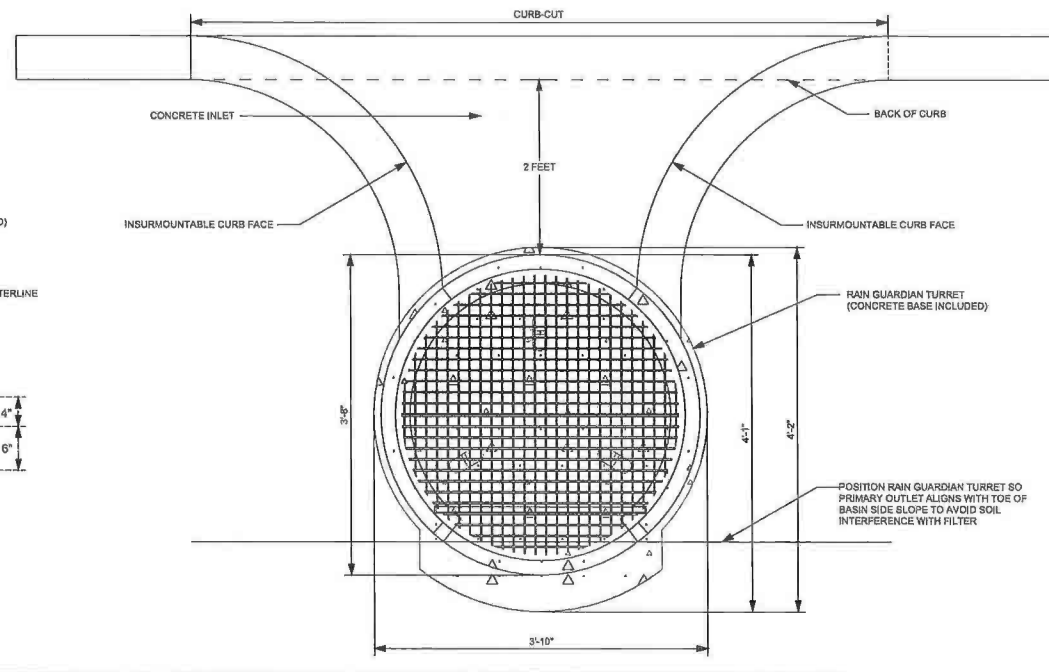
TYPICAL STREET SECTION (7-TON)
N.T.S.



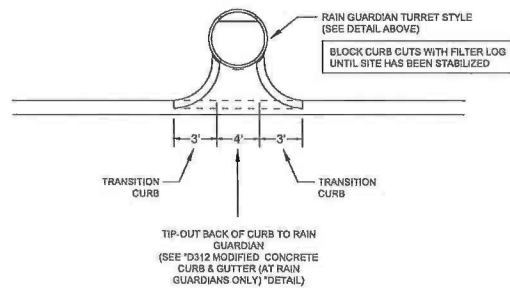
WIMCO INLET PROTECTION
N.T.S.



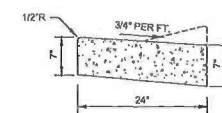
RAIN GARDEN - TURRET STYLE
N.T.S.



ROCK CONSTRUCTION ENTRANCE
N.T.S.



CURB CUTS @ RAIN GUARDIAN
N.T.S.



D312 MODIFIED CONCRETE CURB & GUTTER (AT RAIN GUARDIANS ONLY)
N.T.S.



6778 LAKE DRIVE
SUITE 110
LIND LAKE, MN 55014

PHONE: (651) 381-8210
FAX: (651) 351-8701

DRAWN BY: MQA
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Charles W. Plowe
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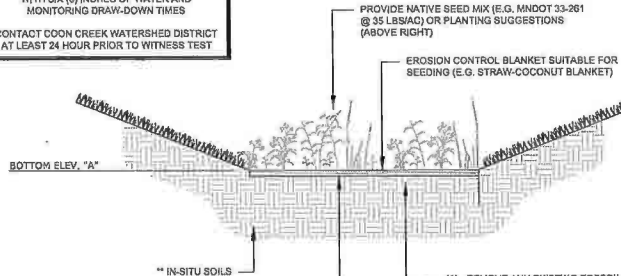
EVERGREEN ESTATES
CITY OF HAM LAKE, MN
DETAILS
PREPARED FOR: TIMBER VALLEY DEVELOPMENT

SHEET
C3.1

- NOTES**
1. MARK-OFF BASIN AREA (E.G. FENCING, SILT FENCE, ETC.) TO PREVENT CONSTRUCTION TRAFFIC FROM ENTERING BASIN AREA.
 2. USE LOW-IMPACT, EARTH MOVING EQUIPMENT (WIDE TRACK OR MARSH TRACK EQUIPMENT, OR LIGHT-EQUIPMENT WITH TURF-TYPE TIRES) WITHIN BASIN.
 3. PROTECT BASIN FROM RUN-OFF DURING CONSTRUCTION ACTIVITIES.
 4. DO NOT EXCAVATE BASIN TO FINAL GRADE UNTIL UPSTREAM DRAINAGE AREAS HAVE BEEN STABILIZED.
 5. REMOVE ANY TOPSOIL AND/OR UNSUITABLE SOILS WITHIN INFILTRATION BASIN FOOTPRINT. ANY SEDIMENT THAT IS WASHED INTO THE BASIN SHALL BE REMOVED.
 6. NO MINING OR OVER-EXCAVATION IN INFILTRATION BASIN.
 7. BASIN BOTTOM TO BE GRADED FLAT.
 8. ALLEVATE ANY COMPACTED SOILS PRIOR TO SEEDING.
 9. EXCAVATE BASIN TO FINAL GRADE ONLY UPON STABILIZATION OF CONTRIBUTING DRAINAGE AREAS. ALLEVATE ANY COMPACTED SOILS DUE TO FINAL GRADING OPERATIONS PRIOR TO SEEDING.

DO NOT EXCAVATE BASIN TO FINAL GRADE, OR WITHIN THREE (3) FEET OF FINAL GRADE, UNTIL THE CONTRIBUTING DRAINAGE AREA HAS BEEN CONSTRUCTED AND FULLY STABILIZED UNLESS THEY PROVIDE RIGOROUS EROSION PREVENTION AND SEDIMENT CONTROLS (E.G., DIVERSION BERMS) TO KEEP SEDIMENT AND RUNOFF COMPLETELY AWAY FROM THE INFILTRATION AREA.

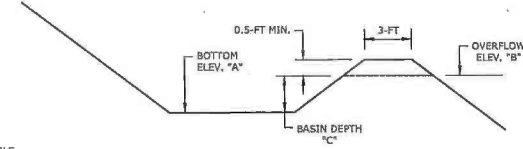
POST-CONSTRUCTION INFILTRATION TESTING IS REQUIRED; PERFORM TEST BY FILLING BASIN WITH SIX (6) INCHES OF WATER AND MONITORING DRAIN-DOWN TIMES. CONTACT COON CREEK WATERSHED DISTRICT AT LEAST 24 HOUR PRIOR TO WITNESS TEST.



PLANTING SUGGESTIONS

BOTTOM OF BASIN	SIDE SLOPES
NATIVE PLANTINGS	NATIVE PLANTINGS
GIANT BUR-REED	BIG BLUESTEM
WOOL GRASS SEDEGE	BLUE JOINT GRASS
CORD GRASS	SWITCH GRASS
BLUE FLAG IRIS	BLUE VERNAIN
SWAMP MILKWEED	PRAIRIE BLAZINGSTAR
TAMARACK	TAMARACK
JOE-PYE WEED	NEW ENGLAND ASTER
NEW ENGLAND ASTER	RED-OSIER DOGWOOD
PRAIRIE BLAZINGSTAR	SANDBAR WILLOW
DONSET	BLACK CHOKECHERRY
BLACK WILLOW	BLACK WILLOW

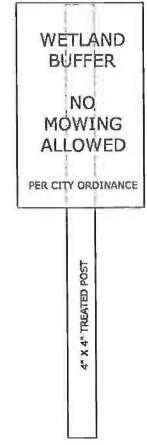
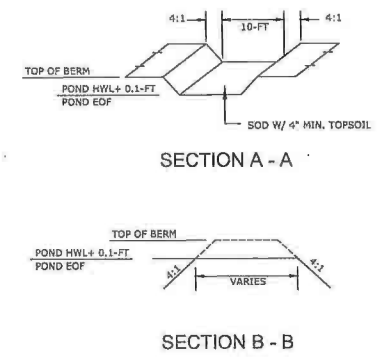
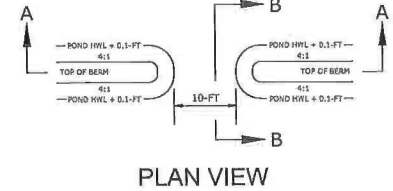
INFILTRATION BASIN OVERFLOW DETAIL



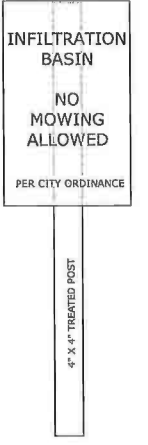
BASIN BOTTOM ELEV. "A"	INFILTRATION BASIN NUMBER				
	PB	A	B	C	D
896.00	896.00	897.00	896.00	896.75	
897.00	897.00	897.75	897.00	897.60	
DEPTH (FT)	1.00	1.00	0.75	1.00	0.85

INFILTRATION BASIN
N.T.S.

POND SODDED OVERFLOWS
N.T.S.



- MONUMENT**
1. CONSISTS OF A POST AND A SIGN
- WETLAND BUFFER SIGNS**
1. MOUNTED FLUSH WITH TOP OF POST
 2. FASTENED WITH NON-RHEINOLITE SCREWS OR RIVETS
 3. SIZE: 12" H X 8" W ALUMINUM SHALL BE 3052-H38 R 6061-T6 ALLOY
 4. GAUGE SHALL BE 0.080
- POST MATERIALS**
1. 4" X 4" SQUARE
 2. TREATED WOOD OR OTHER CITY-APPROVED MATERIAL
- COLOR**
1. SHALL BE GREEN LETTERS ON WHITE BACKGROUND
- POST INSTALLATION**
1. MOUNTED TO A HEIGHT OF FOUR FEET ABOVE GRADE
 2. SET AT LEAST 42 INCHES INTO GROUND
 3. INSTALLED AT EACH LOT LINE WHERE IT CROSSES A WETLAND BUFFER WITH A MAXIMUM SPACING OF 300 FEET BETWEEN SIGNS
 4. PLACE ADDITIONAL POSTS/SIGNS AS NECESSARY TO FOLLOW BUFFER

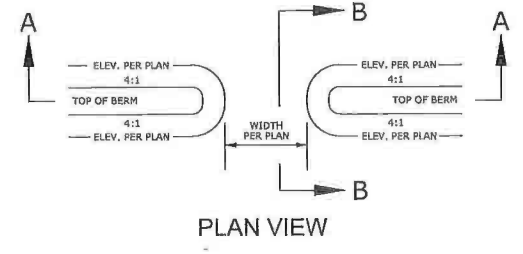
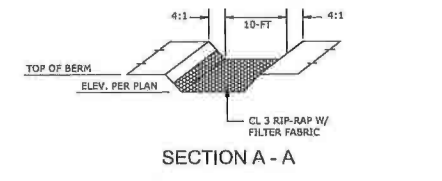
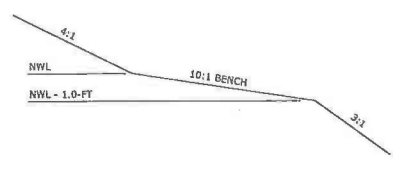


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WETLAND BUFFER SIGNAGE
N.T.S.

INFILTRATION BASIN SIGNAGE
N.T.S.

TYPICAL POND SECTION
N.T.S.



FOREBAY & INFILTRATION BASIN OVERFLOW
N.T.S.



PLOWE ENGINEERING, INC.

8778 LAKE DRIVE
SUITE 110
LINO LAKES, MN 55014

PHONE: (855) 351-8210
FAX: (855) 351-8701

DRAWN BY: MGA
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JOB NO: 20-1933
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NO.	DATE	DESCRIPTION
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Charles W. Plowe
CHARLES W. PLOWE
LIC. NO. 19227
DATE: 04-20-2021

EVERGREEN ESTATES
CITY OF HAM LAKE, MN
DETAILS
PREPARED FOR: TIMBER VALLEY DEVELOPMENT

SHEET
C3.2

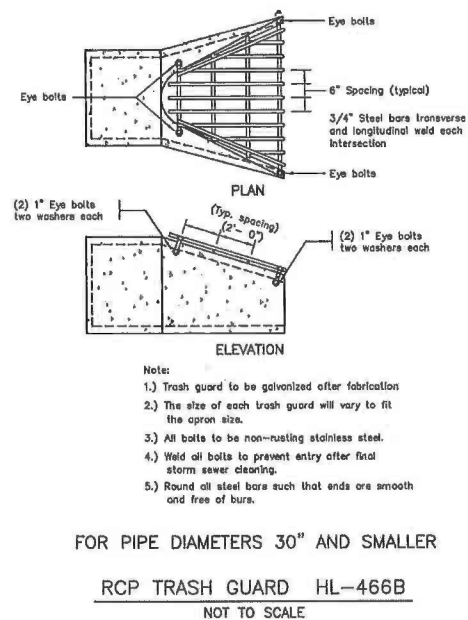
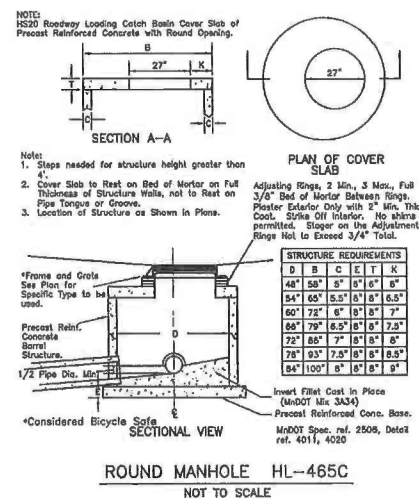
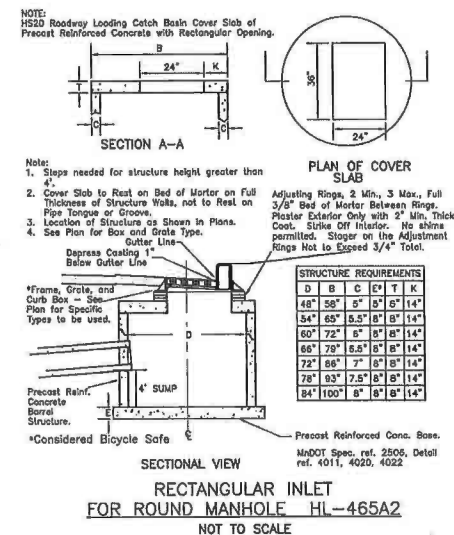
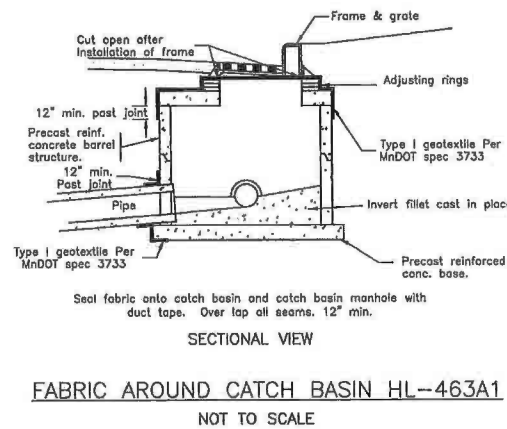
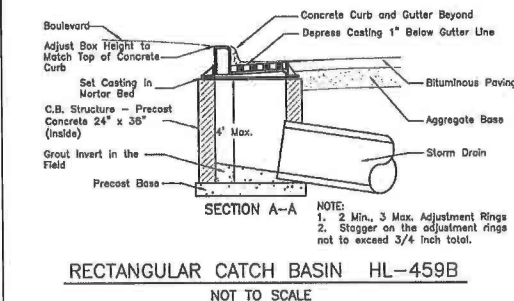
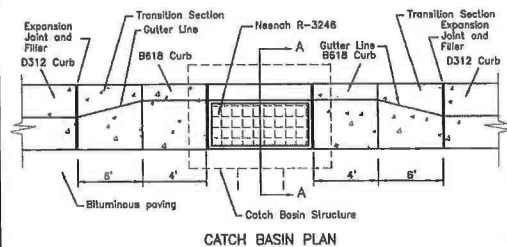
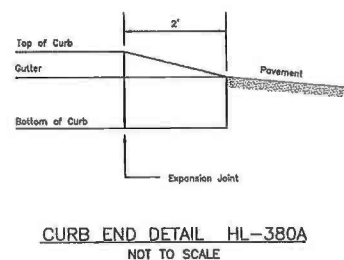
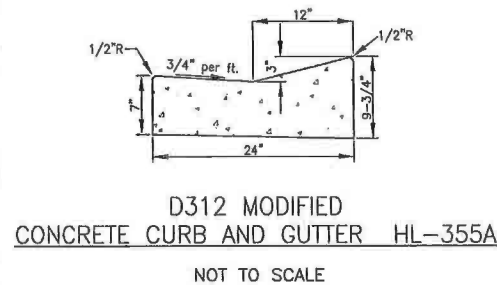


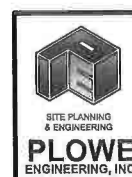
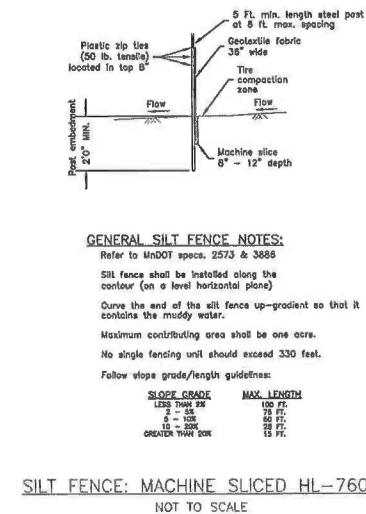
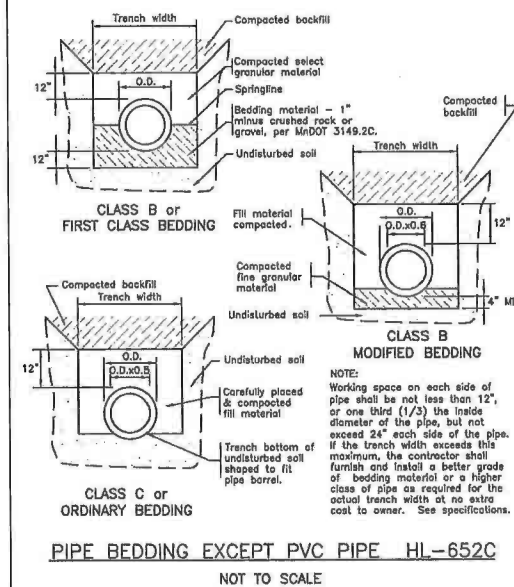
TABLE OF QUANTITIES

Riprap at RCP Outlets

Pipe (In.)	L (ft.)	Class I		Class II		Class III	
		Depth (ft.)	Qty. (cu. yd.)	Depth (ft.)	Qty. (cu. yd.)	Depth (ft.)	Qty. (cu. yd.)
12	8	3.0	4.4	4.8	5.9		
15	8	3.0	4.8	4.8	5.9		
18	10	3.0	6.4	4.8	8.5		
21	10	3.0	7.1	4.8	9.2		
24	12	3.0	8.5	4.8	10.5		
27	12	3.0	9.9	4.8	12.3		
30	14	3.0	12.3	4.8	16.4		
36	16	3.0	15.8	4.8	21.1		
42	18	3.0	18.7	4.8	24.9		
48	20	3.0	22.2	4.8	29.8		

Riprap at RCPA Outlets

Span (ft.)	L (ft.)	Class I		Class II		Class III	
		Depth (ft.)	Qty. (cu. yd.)	Depth (ft.)	Qty. (cu. yd.)	Depth (ft.)	Qty. (cu. yd.)
22	10	3.0	8.1	4.8	9.9		
28	12	3.0	9.9	4.8	12.3		
36	14	3.0	12.3	4.8	15.8		
43	16	3.0	14.3	4.8	18.0		
51	18	3.0	16.0	4.8	22.5		
58	20	3.0	19.8	4.8	28.4		



8778 LAKE DRIVE
SUITE 110
LIND LAKE, MN 55014

PHONE: (651) 381-8210
FAX: (651) 381-8701

DRAWN BY: MOA
CHECK BY: CWP

JOB NO: 20-1933
DATE: 10-12-20

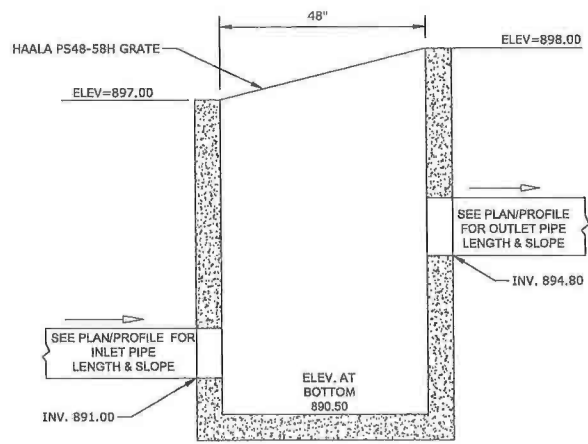
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7	10-12-20	ISSUE FOR PERMIT
8	10-12-20	ISSUE FOR PERMIT
9	10-12-20	ISSUE FOR PERMIT
10	10-12-20	ISSUE FOR PERMIT

I HEREBY CERTIFY THAT THIS PLAN WAS PREPARED BY ME OR UNDER MY CLOSE PERSONAL SUPERVISION AND THAT I AM A QUALIFIED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF MINNESOTA.

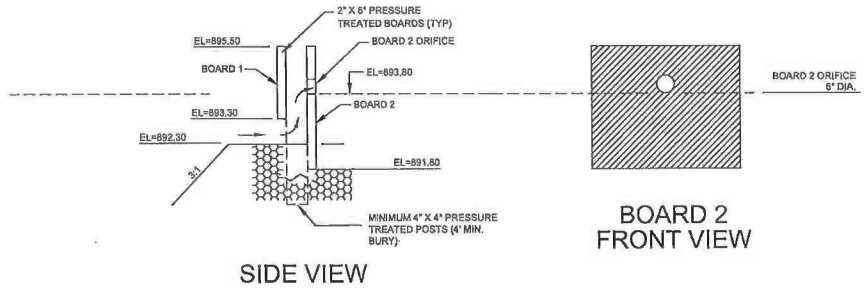
Charles W. Plowe
CHARLES W. PLOWE
LIC. NO. 18277

EVERGREEN ESTATES
CITY OF HAM LAKE, MN
DETAILS
PREPARED FOR: TIMBERVALLEY DEVELOPMENT

SHEET
C3.3

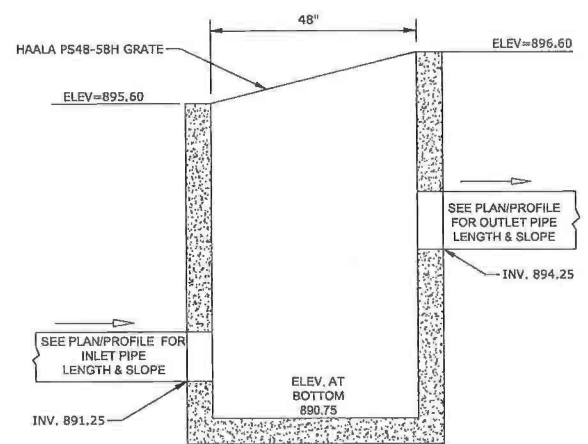


OUTLET CONTROL STRUCTURE "A" (POND 7)
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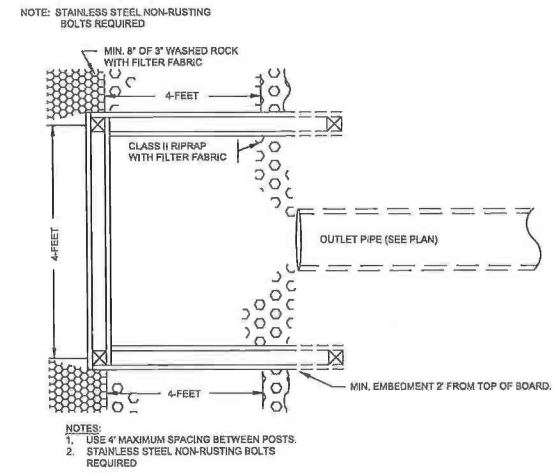


SIDE VIEW

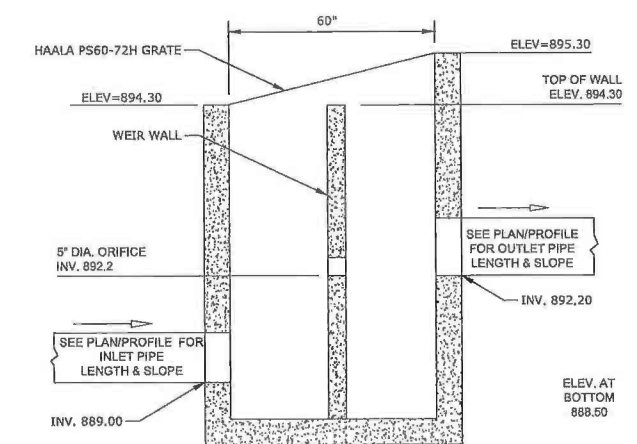
BOARD 2 FRONT VIEW



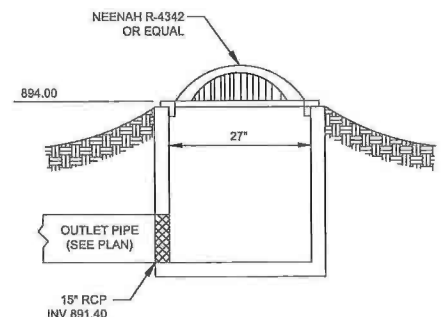
OUTLET CONTROL STRUCTURE "C" (POND 9)
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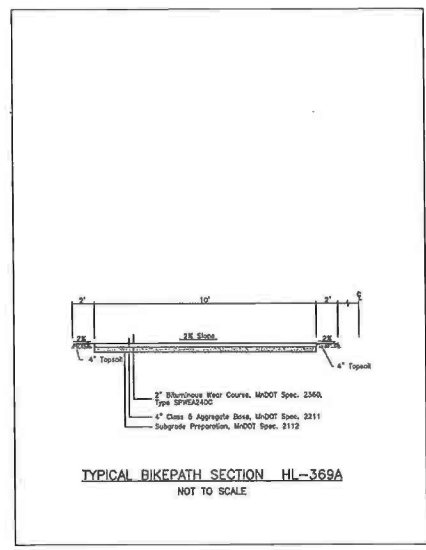
BAFFLE WEIR (WITH ORIFICE FOR RATE CONTROL) - POND 12
N.T.S.



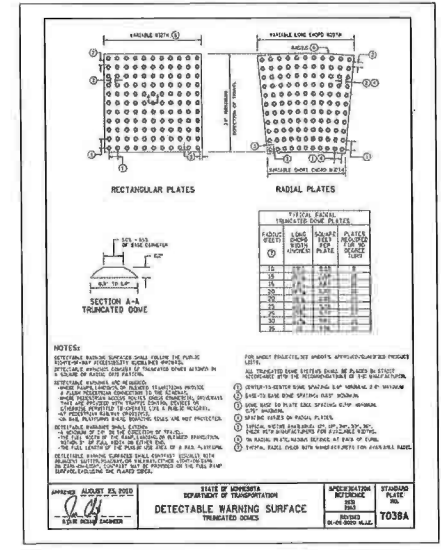
OUTLET CONTROL STRUCTURE "D" (POND 10)
N.T.S.



OUTLET CONTROL STRUCTURE "E" (OUTSIDE P3 WETLAND)
N.T.S.



TYPICAL BIKEPATH SECTION HL-369A
NOT TO SCALE



DETECTABLE WARNING SURFACE
TRUNCATED CONE

STORM SEWER STRUCTURE SCHEDULE					
#	SIZE	CASTING	#	SIZE	CASTING
202	72" DIA.	NEENAH R-3246-C	802	48" DIA.	NEENAH R-3246-C
203	2' x 3'	NEENAH R-3246-C	803	60" DIA.	NEENAH R-3246-C
206	48" DIA.	NEENAH R-3246-C	804	60" DIA.	NEENAH R-3246-C
207	48" DIA.	NEENAH R-3246-C	607	2' x 3'	NEENAH R-3246-C
208	2' x 3'	NEENAH R-3246-C			
209	48" DIA.	NEENAH R-3246-C			
210	48" DIA.	NEENAH R-3246-C	702	48" DIA.	NEENAH R-3246-C
211	48" DIA.	NEENAH R-3246-C	703	2' x 3'	NEENAH R-3246-C
212	2' x 3'	NEENAH R-3246-C			
302	48" DIA.	NEENAH R-3246-C	705	48" DIA.	NEENAH R-3246-C
303	2' x 3'	NEENAH R-3246-C	706	2' x 3'	NEENAH R-3246-C
			707	2' x 3'	NEENAH R-3246-C
402	48" DIA.	NEENAH R-3246-C	802	48" DIA.	NEENAH R-1733
403	2' x 3'	NEENAH R-3246-C	803	48" DIA.	NEENAH R-3246-C
			804	2' x 3'	NEENAH R-3246-C
501A	48" DIA.	NEENAH R-1733			
502	48" DIA.	NEENAH R-3246-C	B	48" DIA.	NEENAH R-1733
503	48" DIA.	NEENAH R-3246-C	F	60" DIA.	NEENAH R-1733
504	2' x 3'	NEENAH R-3246-C	G	48" DIA.	NEENAH R-1733
505	2' x 3'	NEENAH R-3246-C	J	60" DIA.	NEENAH R-1733



8776 LAKE DRIVE
SUITE 110
LIND LAKES, MN 55014
PHONE: (851) 381-8210
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DRAWN BY: MCA
CHECK BY: CWP
JOB NO: 20-1933
DATE: 10-12-20

NO.	DATE	DESCRIPTION
1	3-10-21	CORD & CITY COMMENTS
2	3-31-21	CORD & CITY COMMENTS
3	4-14-21	CORD & CITY COMMENTS
4		
5		
6		
7		
8		
9		

I HEREBY CERTIFY THAT THIS PLAN WAS PREPARED BY ME OR UNDER MY DIRECT SUPERVISION AND I AM A DULY LICENSED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF MINNESOTA.
Charles W. Plowe
CHARLES W. PLOWE
LIC. NO. 18227
DATE: 04-20-2021

EVERGREEN ESTATES
CITY OF HAM LAKE, MN
DETAILS
PREPARED FOR: TIMBER VALLEY DEVELOPMENT

SHEET
C3.4

4.1 TERMINATION OF COVERAGE, MINN. R. 7090

- 4.2 PERMITTEES MUST SUBMIT A NOT WITHIN 30 DAYS AFTER ALL TERMINATION CONDITIONS LISTED IN SECTION 13 ARE MET. PERMITS ARE DEEMED TO BE EXTENDED TO A TEMPORARY OR PERMANENT SEDIMENT BASIN ON THE PROJECT SITE UNLESS INFEASIBLE. PERMITTEES MAY DIVERT TO SURFACE WATERS IF THEY VISUALLY CHECK TO ENSURE ADEQUATE TREATMENT HAS BEEN OBTAINED AND NUISANCE CONDITIONS (SEE MINN. R. 7050.0210, SUBP. 2) WILL NOT RESULT FROM THE DISCHARGE. IF PERMITTEES CANNOT DISCHARGE THE WATER TO A SEDIMENTATION BASIN PRIOR TO ENTERING A SURFACE WATER, PERMITTEES MUST TREAT IT WITH APPROPRIATE BMPs SUCH THAT THE DISCHARGE DOES NOT ADVERSELY AFFECT THE SURFACE WATER OR DOWNSTREAM PROPERTIES. (MINN. R. 7050.0210)
- 10.3 IF PERMITTEES MUST DISCHARGE WATER CONTAINING OIL OR GREASE, THEY MUST USE AN OIL-WATER SEPARATOR OR SUITABLE FILTRATION DEVICE (E.G., CATCH-BEDS OR FILTER MEDIA) PRIOR TO DISCHARGE. (MINN. R. 7090)
- 10.4 PERMITTEES MUST DISCHARGE ALL WATER FROM DEWATERING OR BASIN-DRAINING ACTIVITIES IN A MANNER THAT DOES NOT CAUSE EROSION OR SCOUR IN THE IMMEDIATE VICINITY OF DISCHARGE POINTS OR INUNDATION OF WETLANDS IN THE IMMEDIATE VICINITY OF DISCHARGE POINTS THAT CAUSES SIGNIFICANT ADVERSE IMPACT TO THE WETLAND. (MINN. R. 7090)
- 10.5 IF PERMITTEES USE FILTERS WITH BACKWASH WATER, THEY MUST HALL THE BACKWASH WATER AWAY FOR DISPOSAL. RETURN THE BACKWASH WATER TO THE BEGINNING OF THE TREATMENT PROCESS, OR INCORPORATE THE BACKWASH WATER INTO THE SITE IN A MANNER THAT DOES NOT CAUSE EROSION, MINN. R. 7090

6.1 SWPPP AMENDMENTS, MINN. R. 7090

- 6.2 ONE OF THE INDIVIDUALS DESCRIBED IN ITEM 21.2(A) OR ITEM 21.2(B) OR ANOTHER QUALIFIED INDIVIDUAL MUST COMPLETE ALL SWPPP CHANGES. CHANGES INVOLVING THE USE OF A LESS STRINGENT BMP MUST INCLUDE A JUSTIFICATION DESCRIBING HOW THE REPLACEMENT BMP IS EFFECTIVE FOR THE SITE CHARACTERISTICS. (MINN. R. 7090)
- 6.3 PERMITTEES MUST AMEND THE SWPPP TO INCLUDE ADDITIONAL OR MODIFIED BMPs AS NECESSARY TO CORRECT PROBLEMS IDENTIFIED OR OTHER SITUATIONS WHENEVER THERE IS A CHANGE IN DESIGN, CONSTRUCTION OPERATION, MAINTENANCE, WEATHER OR SEASONAL CONDITIONS HAVING A SIGNIFICANT EFFECT ON THE DISCHARGE OF POLLUTANTS TO SURFACE WATERS OR GROUNDWATER. (MINN. R. 7090)
- 6.4 PERMITTEES MUST AMEND THE SWPPP TO INCLUDE ADDITIONAL OR MODIFIED BMPs AS NECESSARY TO CORRECT PROBLEMS IDENTIFIED OR OTHER SITUATIONS WHENEVER INSPECTIONS OR INVESTIGATIONS BY THE SITE OWNER OR OPERATOR, USEPA OR MPCA OFFICES INDICATE THE SWPPP IS NOT EFFECTIVE IN ELIMINATING OR SIGNIFICANTLY REDUCING POLLUTANTS TO SURFACE WATERS OR GROUNDWATER OR THE DISCHARGE AREAS EXCEEDING WATER QUALITY STANDARD EXCEEDANCES (E.G., NUISANCE CONDITIONS AS DEFINED IN MINN. R. 7050.0210, SUBP. 2) OR THE SWPPP IS NOT CONSISTENT WITH THE OBJECTIVES OF A USEPA APPROVED TMDL. (MINN. R. 7050.0210)

7.1 BMP SELECTION AND INSTALLATION, MINN. R. 7090

- 7.2 PERMITTEES MUST SELECT, INSTALL, AND MAINTAIN THE BMPs IDENTIFIED IN THE SWPPP AND IN THIS PERMIT IN AN APPROPRIATE AND FUNCTIONAL MANNER AND IN ACCORDANCE WITH RELEVANT MANUFACTURER SPECIFICATIONS AND ACCEPTED ENGINEERING PRACTICES. (MINN. R. 7090)
- 8.1 EROSION PREVENTION PRACTICES, MINN. R. 7090**
- 8.2 BEFORE WORK BEGINS, PERMITTEES MUST DETERMINE THE LOCATION OF AREAS NOT TO BE DISTURBED. (MINN. R. 7090)
- 8.3 PERMITTEES MUST MINIMIZE THE NEED FOR DISTURBANCE OF PORTIONS OF THE PROJECT WITH STEEP SLOPES, WHEN STEEP SLOPES MUST BE DISTURBED, PERMITTEES MUST USE TECHNIQUES SUCH AS PHASING AND STABILIZATION PRACTICES DESIGNED FOR STEEP SLOPES (E.G., SLOPE DRAINAGE AND TERRACING). (MINN. R. 7090)
- 8.4 PERMITTEES MUST STABILIZE ALL EXPOSED SOIL AREAS, INCLUDING STOCKPILES. STABILIZATION MUST BE INITIATED IMMEDIATELY TO LIMIT SOIL EROSION WHEN CONSTRUCTION ACTIVITY HAS PERMANENTLY OR TEMPORARILY CEASED ON ANY PORTION OF THE SITE AND WILL NOT RESUME FOR A PERIOD EXCEEDING 7 CALENDAR DAYS. STABILIZATION MUST BE COMPLETED NO LATER THAN 7 CALENDAR DAYS AFTER THE CONSTRUCTION ACTIVITY HAS CEASED. STABILIZATION IS NOT REQUIRED ON CONSTRUCTION OF ROADS, PARKING LOTS AND SIMILAR SURFACES. STABILIZATION IS NOT REQUIRED ON TEMPORARY STOCKPILES WITHOUT SIGNIFICANT SILT, CLAY OR ORGANIC COMPONENTS (E.G., CLEAN AGGREGATE STOCKPILES, DEMONSTRATION CONCRETE STOCKPILES, SAND STOCKPILES) BUT PERMITTEES MUST PROVIDE SEDIMENT CONTROLS AT THE BASE OF THE STOCKPILE. (MINN. R. 7090)
- 8.5 FOR PUBLIC WATER THAT THE MINNESOTA DNR HAS PROMULGATED "WORK IN WATER RESTRICTIONS" DURING SPECIFIED FISH SPAWNING TIME FRAMES, PERMITTEES MUST COMPLETE STABILIZATION OF ALL EXPOSED SOIL AREAS WITHIN 200 FEET OF THE WATER'S EDGE, AND THAT DRAIN TO THESE WATERS, WITHIN 24 HOURS DURING THE RESTRICTION PERIOD. (MINN. R. 7090)
- 8.6 PERMITTEES MUST STABILIZE THE NORMAL WETTED PERIMETER OF THE LAST 200 LINEAR FEET OF TEMPORARY OR PERMANENT DRAINAGE DITCHES OR SWALES THAT DRAIN WATER FROM THE SITE WITHIN 24 HOURS AFTER CONNECTING TO A SURFACE WATER OR PROCEED TO COMPLETE STABILIZATION OF REMAINING PORTIONS OF TEMPORARY OR PERMANENT DITCHES OR SWALES WITHIN 7 CALENDAR DAYS AFTER CONNECTING TO A SURFACE WATER OR PROPERTY EDGE AND CONSTRUCTION IN THAT PORTION OF THE DITCH TEMPORARILY OR PERMANENTLY CEASES. (MINN. R. 7090)
- 8.7 TEMPORARY OR PERMANENT DITCHES OR SWALES BEING USED AS A SEDIMENT CONTAINMENT SYSTEM DURING CONSTRUCTION (WITH PROPERLY DESIGNED ROCK-DITCH CHECKS, BIO ROLLS, SILT DILKS, ETC.) DO NOT NEED TO BE STABILIZED. PERMITTEES MUST STABILIZE THESE AREAS WITHIN 24 HOURS AFTER THEIR USE AS A SEDIMENT CONTAINMENT SYSTEM CEASES. (MINN. R. 7090)
- 8.8 PERMITTEES MUST NOT USE MULCH, HYDROMULCH, TACKIFIER, POLYACRYLAMIDE OR SIMILAR EROSION PREVENTION PRACTICES WITHIN ANY PORTION OF THE NORMAL WETTED PERIMETER OF A TEMPORARY OR PERMANENT DRAINAGE DITCH OR SWALE EXCEPT AS APPROVED BY THE MPCA. (MINN. R. 7090)
- 8.9 PERMITTEES MUST PROVIDE TEMPORARY OR PERMANENT ENERGY DISSIPATION AT ALL PIPE OUTLETS WITHIN 24 HOURS AFTER CONNECTION TO A SURFACE WATER OR PERMANENT STORMWATER TREATMENT SYSTEM. (MINN. R. 7090)
- 8.10 PERMITTEES MUST NOT DISTURB MERE LAND (E.G., PHASING) THAN CAN BE EFFECTIVELY INSPECTED AND MAINTAINED IN ACCORDANCE WITH SECTION 11. (MINN. R. 7090)

9.1 SEDIMENT CONTROL PRACTICES, MINN. R. 7090

- 9.2 PERMITTEES MUST ESTABLISH SEDIMENT CONTROL BMPs ON ALL DOWNDRAGMENT PERIMETERS OF THE SITE AND DOWNDRAGMENT AREAS OF THE SITE THAT DRAIN TO ANY SURFACE WATER, INCLUDING CURB AND GUTTER SYSTEMS. PERMITTEES MUST LOCATE SEDIMENT CONTROL PRACTICES UPDRAGMENT OF ANY BUFFER ZONES. PERMITTEES MUST INSTALL SEDIMENTATION CONTROLS IN THE SWPPP AND MUST MAINTAIN AND MONITOR THESE CONTROLS TO KEEP THE SEDIMENT CONTROL PRACTICES IN PLACE UNTIL THEY ESTABLISH PERMANENT COVER. (MINN. R. 7090)
- 9.3 IF DOWNDRAGMENT SEDIMENT CONTROLS ARE OVERLOADED, BASED ON FREQUENT FAILURE OR EXCESSIVE MAINTENANCE REQUIREMENTS, PERMITTEES MUST INSTALL ADDITIONAL UPDRAGMENT SEDIMENT CONTROL PRACTICES OR REDUNDANT BMPs TO ELIMINATE THE OVERLOADING AND AMEND THE SWPPP TO IDENTIFY THESE ADDITIONAL PRACTICES AS REQUIRED IN ITEM 6.3. (MINN. R. 7090)
- 9.4 TEMPORARY OR PERMANENT DRAINAGE DITCHES AND SEDIMENT BASINS DESIGNED AS PART OF A SEDIMENT CONTAINMENT SYSTEM (E.G., DITCHES WITH ROCK-CHECK DAMS) REQUIRE SEDIMENT CONTROL PRACTICES ONLY AS APPROPRIATE FOR SITE CONDITIONS. (MINN. R. 7090)
- 9.5 A FLOATING SILT CURTAIN PLACED IN THE WATER IS NOT A SEDIMENT CONTROL BMP TO SATISFY ITEM 9.2 EXCEPT WHEN WORKING ON A SHORELINE OR BELOW THE WATERLINE. IMMEDIATELY AFTER THE SHORT TERM CONSTRUCTION UPDRAGMENT SEDIMENT CONTROL PRACTICES FOR DETERMINING INFILTRATION RATES. (MINN. R. 7090)
- 9.6 PERMITTEES MUST TREAT REASONABLE STEPS TO PREVENT THE DISCHARGE OF SPILLED OR LEAKED CHEMICALS, INCLUDING FUEL, FROM ANY AREA WHERE CHEMICALS OR FUEL WILL BE LOADED OR UNLOADED INCLUDING THE USE OF DRIP PANS OR ABSORBENTS UNLESS INFEASIBLE. PERMITTEES MUST ENSURE ADEQUATE SUPPLIES ARE AVAILABLE AT ALL TIMES TO CLEAN UP DISCHARGED MATERIALS AND THAT AN APPROPRIATE DISPOSAL METHOD IS AVAILABLE FOR RECOVERED SPILLED MATERIALS. PERMITTEES MUST REPORT AND CLEAN UP SPILLS IMMEDIATELY AS REQUIRED BY MINN. STAT. 115.051, USING DRY CLEAN UP MEASURES WHERE POSSIBLE. (MINN. STAT. 115.051)
- 12.2 PERMITTEES MUST LIMIT VEHICLES EXTERIOR WASHING AND EQUIPMENT TO A DEFINED AREA OF THE SITE. PERMITTEES MUST CONTAIN RUNOFF FROM THE WASHING AREA IN A SEDIMENT BASIN OR OTHER SIMILARLY EFFECTIVE CONTROLS AND MUST DISPOSE WASTE FROM THE WASHING ACTIVITY PROPERLY. PERMITTEES MUST PROPERLY USE AND STORE SOLIDS, DETERGENTS, OR SOLVENTS. (MINN. R. 7090)
- 12.3 PERMITTEES MUST PROVIDE EFFECTIVE CONTAINMENT FOR ALL LIQUID AND SOLID WASTES GENERATED BY WASHOUT OPERATIONS (E.G., CONCRETE, STUCCO, PAINT, FORMAL RELEASE OILS, CURING COMPOUNDS AND OTHER CONSTRUCTION MATERIALS) RELATED TO THE CONSTRUCTION ACTIVITY. PERMITTEES MUST PROVIDE LIQUID AND SOLID WASTES FROM CONTACTING THE GROUND OR MUST DESCRIBE THE CONTROL MEASURES TO BE TAKEN TO PREVENT RUNOFF FROM THE WASHOUT OPERATIONS OR AREAS. PERMITTEES MUST PROPERLY DISPOSE LIQUID AND SOLID WASTES IN COMPLIANCE WITH MPCA RULES. PERMITTEES MUST INSTALL A SIGN INDICATING THE LOCATION OF THE WASHOUT FACILITY. (MINN. R. 7035, MINN. R. 7090)

13.1 PERMIT TERMINATION CONDITIONS, MINN. R. 7090

- 13.2 PERMITTEES MUST COMPLETE ALL CONSTRUCTION ACTIVITY AND MUST INSTALL PERMANENT COVER OVER ALL AREAS PRIOR TO SUBMITTING THE NOT. VEGETATIVE COVER MUST CONSIST OF A UNIFORM PERENNIAL VEGETATION WITH A DENSITY OF 70 PERCENT OF ITS EXPECTED FINAL GROWTH. VEGETATION IS NOT REQUIRED WHERE THE FUNCTION OF A SPECIFIC AREA DICTATES NO VEGETATION, SUCH AS IMPERVIOUS SURFACES OR THE BASE OF A SAND FILTER. (MINN. R. 7090)
- 13.3 PERMITTEES MUST CLEAN THE PERMANENT STORMWATER TREATMENT SYSTEM OF ANY ACCUMULATED SEDIMENT AND MUST ENSURE THE SYSTEM MEETS ALL APPLICABLE REQUIREMENTS IN SECTION 15 THROUGH 19 AND IS OPERATING AS DESIGNED. (MINN. R. 7090)
- 13.4 PERMITTEES MUST REMOVE ALL SEDIMENT FROM CONVEYANCE SYSTEMS PRIOR TO SUBMITTING THE NOT. (MINN. R. 7090)
- 13.5 PERMITTEES MUST REMOVE ALL TEMPORARY SYNTHETIC EROSION PREVENTION AND SEDIMENT CONTROL BMPs PRIOR TO SUBMITTING THE NOT. PERMITTEES MAY LEAVE BMPs DESIGNED TO DECOMPOSE ON-SITE IN PLACE. (MINN. R. 7090)
- 13.6 FOR RESIDENTIAL CONSTRUCTION ONLY, PERMIT COVERAGE TERMINATES ON INDIVIDUAL LOTS IF THE STRUCTURES ARE FINISHED AND TEMPORARY EROSION PREVENTION AND DOWNDRAGMENT PERMITTER CONTROL IS COMPLETE, THE RESIDENCE SELLS TO THE HOMEOWNER, AND THE PERMITTEE DISTRIBUTES THE MPCA'S "HOMEOWNER FACT SHEET" TO THE HOMEOWNER. (MINN. R. 7090)
- 13.7 FOR CONSTRUCTION PROJECTS ON AGRICULTURAL LAND (E.G., PIPELINES ACROSS CROPLAND), PERMITTEES MUST RETURN THE DISTURBED LAND TO ITS PRECONSTRUCTION AGRICULTURAL USE PRIOR TO SUBMITTING THE NOT. (MINN. R. 7090)

14.1 TEMPORARY SEDIMENT BASINS, MINN. R. 7090

- 14.2 WHERE TEN (10) OR MORE ACRES OF DISTURBED SOIL DRAIN TO A COMMON LOCATION, PERMITTEES MUST PROVIDE A TEMPORARY SEDIMENT BASIN TO PROVIDE TREATMENT OF THE RUNOFF BEFORE IT LEAVES THE CONSTRUCTION SITE OR ENTERS SURFACE WATERS. PERMITTEES MAY CONVERT A TEMPORARY SEDIMENT BASIN TO A PERMANENT BASIN AFTER CONSTRUCTION IS COMPLETE. THE TEMPORARY BASIN IS NO LONGER REQUIRED WHEN PERMANENT COVER HAS REDUCED THE ACREAGE OF DISTURBED SOIL TO LESS THAN TEN (10) ACRES DRAINING TO A COMMON LOCATION. (MINN. R. 7090)
- 14.3 THE TEMPORARY BASIN MUST PROVIDE THE STORAGE VOLUME OF RUNOFF FROM TWO (2) INCHES OF TWO (2)-YEAR, 24-HOUR STORM FROM EACH ACRE DRAINING TO THE BASIN OR 1,800 CUBIC FEET OF LIVE STORAGE PER ACRE DRAINING, WHICHEVER IS GREATER. (MINN. R. 7090)
- 14.4 WHERE PERMITTEES HAVE NOT CALCULATED THE TWO (2)-YEAR, 24-HOUR STORM RUNOFF AMOUNT, THE TEMPORARY BASIN MUST PROVIDE 3,800 CUBIC FEET OF LIVE STORAGE PER ACRE OF DRAINING. (MINN. R. 7090)
- 14.5 PERMITTEES MUST DESIGN BASIN OUTLETS TO PREVENT SHORT-CIRCUITING AND THE DISCHARGE OF FLOATING DEBRIS. (MINN. R. 7090)
- 14.6 PERMITTEES MUST DESIGN THE OUTLET STRUCTURE TO WITHDRAW WATER FROM THE SURFACE TO MINIMIZE THE DISCHARGE OF POLLUTANTS. PERMITTEES MAY TEMPORARILY BYPASS THE USE OF A SURFACE WITHDRAWAL MECHANISM DURING FROZEN CONDITIONS. THE BASIN MUST INCLUDE A STABILIZED EMERGENCY OVERFLOW TO PREVENT FAILURE OF POND INTEGRITY. (MINN. R. 7090)
- 14.7 PERMITTEES MUST PROVIDE ENERGY DISSIPATION FOR THE BASIN OUTLET WITHIN 24 HOURS AFTER CONNECTION TO A SURFACE WATER. (MINN. R. 7090)
- 14.8 PERMITTEES MUST LOCATE TEMPORARY BASINS OUTSIDE OF SURFACE WATERS AND ANY BUFFER ZONE REQUIRED IN ITEM 23.11. (MINN. R. 7090)
- 14.9 PERMITTEES MUST CONSTRUCT THE TEMPORARY BASIN PRIOR TO DISTURBING 10 OR MORE ACRES OF SOIL DRAINING TO A COMMON LOCATION. (MINN. R. 7090)
- 14.10 WHERE A TEMPORARY SEDIMENT BASIN MEETING THE REQUIREMENTS OF ITEM 14.3 THROUGH 14.8 IS INFEASIBLE, PERMITTEES MUST INSTALL EFFECTIVE SEDIMENT CONTROLS SUCH AS SMALLER SEDIMENT BASINS AND/OR SEDIMENT TRAPS, SILT FENCES, VEGETATIVE BUFFER STRIPS OR ANY APPROPRIATE COMBINATION OF MEASURES AS DICTATED BY INDIVIDUAL SITE CONDITIONS. IN DETERMINING WHETHER INSTALLING A SEDIMENT BASIN IS INFEASIBLE, PERMITTEES MUST CONSIDER PUBLIC SAFETY AND MAY CONSIDER FACTORS SUCH AS SITE SOILS, SLOPE, AND AVAILABLE AREA ON-SITE. PERMITTEES MUST DOCUMENT THIS DETERMINATION OF INFEASIBILITY IN THE SWPPP. (MINN. R. 7090)

15.1 PERMANENT STORMWATER TREATMENT SYSTEM, MINN. R. 7090

- 15.2 PERMITTEES MUST DESIGN THE PROJECT SO ALL STORMWATER DISCHARGED FROM THE PROJECT DURING AND AFTER CONSTRUCTION ACTIVITIES DOES NOT CAUSE A VIOLATION OF STATE WATER QUALITY STANDARDS, INCLUDING NUISANCE AND EROSION PREVENTION AND SEDIMENT CONTROL ACTS AND APPLICABLE FEDERAL, STATE, AND LOCAL REGULATIONS AND REGULATIONS CAUSED BY INUNDATION OR DECREASE OF FLOW. (MINN. R. 7090)
- 15.3 PERMITTEES MUST DESIGN AND CONSTRUCT A PERMANENT STORMWATER TREATMENT SYSTEM TO TREAT THE WATER QUALITY VOLUME IF THE PROJECT'S ULTIMATE DEVELOPMENT REPLACES VEGETATION AND/OR OTHER PERVIOUS SURFACES CREATING A NET INCREASE OF ONE (1) OR MORE ACRES OF CUMULATIVE IMPERVIOUS SURFACE. (MINN. R. 7090)
- 15.4 PERMITTEES MUST CALCULATE THE WATER QUALITY VOLUME AS ONE (1) INCH TIMES THE NET INCREASE OF IMPERVIOUS SURFACES CREATED BY THE PROJECT. (MINN. R. 7090)
- 15.5 PERMITTEES MUST FIRST CONSIDER VOLUME REDUCTION PRACTICES ON-SITE (E.G., INFILTRATION OR OTHER) WHEN DESIGNING THE PERMANENT STORMWATER TREATMENT SYSTEM. IF THIS PERMIT PROHIBITS INFILTRATION AS DESCRIBED IN ITEM 18.14 THROUGH ITEM 18.21, PERMITTEES MAY CONSIDER A WET SEDIMENTATION BASIN, FILTRATION BASIN OR REGIONAL POND. THIS PERMIT DOES NOT CONSIDER WET SEDIMENTATION BASINS AND FILTRATION SYSTEMS TO BE VOLUME REDUCTION PRACTICES. (MINN. R. 7090)
- 15.6 FOR PROJECTS WHERE THE FULL VOLUME REDUCTION REQUIREMENT CANNOT BE MET ON-SITE (E.G., THE SITE HAS INFILTRATION PROHIBITIONS), PERMITTEES MUST DOCUMENT THE REASONS IN THE SWPPP. (MINN. R. 7090)
- 15.7 PERMITTEES MUST DISCHARGE THE WATER QUALITY VOLUME TO A PERMANENT STORMWATER TREATMENT SYSTEM PRIOR TO DISCHARGE TO A SURFACE WATER. FOR PURPOSES OF THIS ITEM, SURFACE WATERS DO NOT INCLUDE MAN-MADE INFILTRATION SYSTEMS FOR DETERMINING INFILTRATION RATES. (MINN. R. 7090)
- 15.8 WHERE THE PROXIMITY TO BEDROCK PRECLUDES THE INSTALLATION OF ANY OF THE PERMANENT STORMWATER TREATMENT PRACTICES REQUIRED BY SECTIONS 15 THROUGH 18, PERMITTEES MUST INSTALL OTHER TREATMENT SUCH AS CATCH BASINS, SMALLER PONDS, OR GIRT CHAMBERS, PRIOR TO THE DISCHARGE OF STORMWATER TO SURFACE WATERS. (MINN. R. 7090)
- 15.9 FOR LINEAR PROJECTS WHERE PERMITTEES CANNOT TREAT THE ENTIRE WATER QUALITY VOLUME WITH THE EXISTING RIGHT-OF-WAY, PERMITTEES MUST MAKE A REASONABLE ATTEMPT TO OBTAIN ADDITIONAL RIGHT-OF-WAY, EASEMENT OR OTHER PERMISSION FOR STORMWATER TREATMENT TO PROVIDE A WATER QUALITY VOLUME (CALCULATED AS AN ATTEMPT MUST BE IN THE SWPPP. PERMITTEES MUST STILL CONSIDER VOLUME REDUCTION PRACTICES AS DESCRIBED IN ITEM 15.5. IF PERMITTEES CANNOT OBTAIN ADDITIONAL RIGHT-OF-WAY, EASEMENT OR OTHER PERMISSION, THEY MUST MAXIMIZE THE TREATMENT OF THE WATER QUALITY VOLUME PRIOR TO DISCHARGE TO SURFACE WATERS. (MINN. R. 7090)

18.1 INFILTRATION SYSTEMS, MINN. R. 7090

- 18.2 INFILTRATION OPTIONS INCLUDE, BUT ARE NOT LIMITED TO, INFILTRATION BASINS, INFILTRATION TRENCHES, RAINFALL GARDENS, BIORETENTION AREAS WITHOUT UNDERDRAINS, SWALES WITH IMPERMEABLE CHECK DAMS, AND NATURAL DEPRESSIONS. IF PERMITTEES USE AN INFILTRATION SYSTEM TO MEET THE REQUIREMENTS OF THIS PERMIT, THEY MUST INCORPORATE THE DESIGN PARAMETERS IN ITEM 18.3 THROUGH ITEM 18.21. PERMITTEES MUST FOLLOW THE INFILTRATION SYSTEM DESIGN IN ITEM 18.14 ANYTIME AN INFILTRATION SYSTEM IS DESIGNED, INCLUDING THOSE NOT REQUIRED BY THIS PERMIT. (MINN. R. 7090)
- 18.3 PERMITTEES MUST DESIGN INFILTRATION SYSTEMS SUCH THAT PRE-EXISTING HYDROLOGIC CONDITIONS OF WETLANDS IN THE VICINITY ARE NOT IMPACTED (E.G., INUNDATION OR BREACHING A PERCHED WATER TABLE SUPPORTING A WETLAND), AND CATCH BASIN, SMALLER PONDS, OR GIRT CHAMBERS, PRIOR TO THE DISCHARGE OF STORMWATER TO SURFACE WATERS. (MINN. R. 7090)
- 18.4 PERMITTEES MUST NOT EXCAVATE INFILTRATION SYSTEMS TO FINAL GRADE, OR WITHIN THREE (3) FEET OF FINAL GRADE, UNTIL THE CONTRIBUTING DRAINAGE AREA HAS BEEN CONSTRUCTED AND FULLY STABILIZED UNLESS THEY PROVIDE EROSION PREVENTION AND SEDIMENT CONTROLS (E.G., DIVERSION BERMS) TO KEEP SEDIMENT AND RUNOFF COMPLETELY AWAY FROM THE INFILTRATION AREA. (MINN. R. 7090)
- 18.5 WHEN EXCAVATING AN INFILTRATION SYSTEM TO WITHIN THREE (3) FEET OF FINAL GRADE, PERMITTEES MUST STAKE OFF AND MARK THE AREA SO HEAVY CONSTRUCTION VEHICLES OR EQUIPMENT DO NOT COMPACT THE SOIL IN THE INFILTRATION AREA. (MINN. R. 7090)
- 18.6 PERMITTEES MUST USE A PRETREATMENT DEVICE SUCH AS A VEGETATED FILTER STRIP, FOREBAY, OR WATER QUALITY INLET (E.G., GIRT CHAMBER) TO REMOVE SOLIDS, FLOATING MATERIALS, AND OIL AND GREASE FROM THE RUNOFF, TO THE MAXIMUM EXTENT PRACTICABLE, BEFORE THE SYSTEM ROUTES STORMWATER TO THE INFILTRATION SYSTEM. (MINN. R. 7090)
- 18.7 PERMITTEES MUST DESIGN INFILTRATION SYSTEMS TO PROVIDE A WATER QUALITY VOLUME (CALCULATED AS AN INSTANTANEOUS VOLUME) OF ONE (1) INCH OF RUNOFF, OR ONE (1) INCH MINUS THE VOLUME OF STORMWATER TREATED BY ANOTHER SYSTEM ON THE SITE, FROM THE NET INCREASE OF IMPERVIOUS SURFACES CREATED BY THE PROJECT. (MINN. R. 7090)
- 18.8 PERMITTEES MUST DESIGN THE INFILTRATION SYSTEM TO DISCHARGE ALL STORMWATER (INCLUDING STORMWATER IN EXCESS OF THE WATER QUALITY VOLUME) ROUTED TO THE SYSTEM THROUGH THE UPPERMOST SOIL SURFACE OR ENGINEERED MEDIA SURFACE WITHIN 48 HOURS. PERMITTEES MUST ROUTE ADDITIONAL FLOWS THAT CANNOT INFILTRATE WITHIN 48 HOURS TO BYPASS THE SYSTEM THROUGH A STABILIZED DISCHARGE POINT. (MINN. R. 7090)
- 18.9 PERMITTEES MUST PROVIDE A MEANS TO VISUALLY VERIFY THE INFILTRATION SYSTEM IS DISCHARGING THROUGH THE SOIL SURFACE OR FILTER MEDIA SURFACE WITHIN 48 HOURS OR LESS. (MINN. R. 7090)
- 18.10 PERMITTEES MUST PROVIDE AT LEAST ONE SOIL BORING, TEST PIT OR INFILTRATION TEST IN THE LOCATION OF THE INFILTRATION PRACTICE FOR DETERMINING INFILTRATION RATES. (MINN. R. 7090)
- 18.11 FOR DESIGN PURPOSES, PERMITTEES MUST USE THE FIELD MEASURED INFILTRATION RATES BY A 25 AS A SAFETY FACTOR OR PERMITTEES CAN USE SOIL-BORING RESULTS WITH THE INFILTRATION RATE CHART IN THE MINNESOTA STORMWATER MANUAL TO DETERMINE DESIGN INFILTRATION RATES. WHEN SOIL BORINGS INDICATE TYPE A SOILS, PERMITTEES SHOULD PERFORM FIELD MEASUREMENTS TO VERIFY THE RATES ARE ABOVE 8.3 INCHES PER HOUR. THIS PERMIT PROHIBITS INFILTRATION IF THE FIELD MEASURED INFILTRATION RATE IS ABOVE 8.3 INCHES PER HOUR. (MINN. R. 7090)
- 18.12 PERMITTEES MUST APPLY APPROPRIATE ON-SITE TESTING ENSURE A MINIMUM OF THREE (3) FEET OF SEPARATION FROM THE SEASONALLY SATURATED SOILS (OR FROM BEDROCK) AND THE BOTTOM OF THE PROPOSED INFILTRATION SYSTEM. (MINN. R. 7090)
- 18.13 PERMITTEES MUST DESIGN A MAINTENANCE ACCESS, TYPICALLY EIGHT (8) FEET WIDE, FOR THE INFILTRATION SYSTEM. (MINN. R. 7090)
- 18.14 THIS PERMIT PROHIBITS PERMITTEES FROM CONSTRUCTING INFILTRATION SYSTEMS THAT RECEIVE RUNOFF FROM VEHICLE FUELING AND MAINTENANCE AREAS INCLUDING CONSTRUCTION OF INFILTRATION SYSTEMS NOT REQUIRED BY THIS PERMIT. (MINN. R. 7090)
- 18.15 THIS PERMIT PROHIBITS PERMITTEES FROM CONSTRUCTING INFILTRATION SYSTEMS WHERE INFILTRATING STORMWATER MAY MOBILIZE HIGH LEVELS OF CONTAMINANTS IN SOIL OR GROUNDWATER. PERMITTEES MUST EITHER COMPLETE THE MPCA'S CONTAMINATION SCREENING CHECKLIST OR CONDUCT THE SITE ASSESSMENT TO DETERMINE THE SUITABILITY FOR INFILTRATION. PERMITTEES MUST RETAIN THE CHECKLIST OR ASSESSMENT WITH THE SWPPP. FOR MORE INFORMATION AND TO ACCESS THE MPCA'S "CONTAMINATION SCREENING CHECKLIST" SEE THE MINNESOTA STORMWATER MANUAL. (MINN. R. 7090)
- 18.16 THIS PERMIT PROHIBITS PERMITTEES FROM CONSTRUCTING INFILTRATION SYSTEMS IN AREAS WHERE SOIL INFILTRATION RATES ARE FIELD MEASURED AT MORE THAN 8.3 INCHES PER HOUR UNLESS THEY AMEND SOILS TO SLOW THE INFILTRATION RATE BELOW 8.3 INCHES PER HOUR. (MINN. R. 7090)
- 18.17 THIS PERMIT PROHIBITS PERMITTEES FROM CONSTRUCTING INFILTRATION SYSTEMS IN AREAS WITH LESS THAN THREE (3) FEET OF SEPARATION DISTANCE FROM THE BOTTOM OF THE INFILTRATION SYSTEM TO THE ELEVATION OF THE SEASONALLY SATURATED SOILS OR THE TOP OF BEDROCK. (MINN. R. 7090)
- 18.18 THIS PERMIT PROHIBITS PERMITTEES FROM CONSTRUCTING INFILTRATION SYSTEMS IN AREAS OF PREDOMINANTLY HYDROLOGIC SOIL GROUP TYPE D SOILS (CLAY). (MINN. R. 7090)
- 18.19 THIS PERMIT PROHIBITS PERMITTEES FROM CONSTRUCTING INFILTRATION SYSTEMS WITHIN A DRINKING WATER SUPPLY MANAGEMENT AREA (DWMA) AS DEFINED IN MINN. R. 4720.5100, SUBP. 13, IF THE SYSTEM WILL BE LOCATED:
 - A. IN AN EMERGENCY RESPONSE AREA (ERA) WITHIN A DWMA CLASSIFIED AS HAVING HIGH OR VERY HIGH VULNERABILITY TO CONTAMINATION FROM SOURCE PROTECTION OF HIGH OR VERY HIGH.
 - B. IN AN ERA WITHIN A DWMA CLASSIFIED AS MODERATE VULNERABILITY UNLESS A REGULATED MSA PERMITEE PERFORMED OR APPROVED A HIGHER LEVEL OF ENGINEERING REVIEW SUFFICIENT TO PROVIDE A FUNCTIONING TREATMENT SYSTEM AND TO PREVENT ADVERSE IMPACTS TO GROUNDWATER; OR
 - C. OUTSIDE OF AN ERA WITHIN A DWMA CLASSIFIED AS HAVING HIGH OR VERY HIGH VULNERABILITY, UNLESS A REGULATED MSA PERMITEE PERFORMED OR APPROVED A HIGHER LEVEL OF ENGINEERING REVIEW SUFFICIENT TO PROVIDE A FUNCTIONING TREATMENT SYSTEM AND TO PREVENT ADVERSE IMPACTS TO GROUNDWATER.SEE "HIGHER LEVEL OF ENGINEERING REVIEW" IN THE MINNESOTA STORMWATER MANUAL FOR MORE INFORMATION. (MINN. R. 7090)
- 18.20 THIS PERMIT PROHIBITS PERMITTEES FROM CONSTRUCTING INFILTRATION SYSTEMS IN AREAS WITHIN 1,000 FEET UPDRAGMENT OR 100 FEET DOWNDRAGMENT OF ACTIVE KARST FEATURES. (MINN. R. 7090)
- 18.21 THIS PERMIT PROHIBITS PERMITTEES FROM CONSTRUCTING INFILTRATION SYSTEMS IN AREAS THAT RECEIVE RUNOFF FROM THE FOLLOWING INDUSTRIAL FACILITIES NOT AUTHORIZED TO INFILTRATE STORMWATER UNDER THE NPDES STORMWATER PERMIT FOR INDUSTRIAL ACTIVITIES: AUTOMOBILE REPAIR SHOPS; SCRAP RECYCLING AND WASTE RECYCLING FACILITIES; HAZARDOUS WASTE TREATMENT, STORAGE, OR DISPOSAL FACILITIES; OR AIR TRANSPORTATION FACILITIES THAT CONDUCT DEICING ACTIVITIES. (MINN. R. 7090)

17.1 FILTRATION SYSTEMS, MINN. R. 7090

- 17.2 FILTRATION OPTIONS INCLUDE, BUT ARE NOT LIMITED TO: SAND FILTERS WITH UNDERDRAINS, BIOFILTRATION AREAS, SWALES USING UNDERDRAINS WITH IMPERMEABLE CHECK DAMS AND UNDERGROUND SAND FILTERS. IF PERMITTEES UTILIZE A FILTRATION SYSTEM TO MEET THE PERMANENT STORMWATER TREATMENT REQUIREMENTS OF THIS PERMIT, THEY MUST COMPLY WITH ITEMS 17.3 THROUGH 17.11. (MINN. R. 7090)
- 17.3 PERMITTEES MUST NOT INSTALL FILTER MEDIA UNTIL THEY CONSTRUCT AND FULLY STABILIZE THE CONTRIBUTING DRAINAGE AREA. THEY MUST ENSURE EROSION PREVENTION AND SEDIMENT CONTROLS (E.G., DIVERSION BERMS) TO KEEP SEDIMENT AND RUNOFF COMPLETELY AWAY FROM THE FILTRATION AREA. (MINN. 7090)
- 17.4 PERMITTEES MUST DESIGN FILTRATION SYSTEMS TO REMOVE AT LEAST 80 PERCENT OF TSS, SMALL SEDIMENTATION BASIN, WATER QUALITY INLET, FOREBAY OR HYDRODYNAMIC EXPANDER TO REMOVE SETTLEABLE SOLIDS, FLOATING MATERIALS, AND OILS AND GREASE FROM THE RUNOFF, TO THE MAXIMUM EXTENT PRACTICABLE, BEFORE RUNOFF ENTERS THE FILTRATION SYSTEM. (MINN. R. 7090)
- 17.5 PERMITTEES MUST DESIGN FILTRATION SYSTEMS TO TREAT A WATER QUALITY VOLUME (CALCULATED AS AN INSTANTANEOUS VOLUME) OF ONE (1) INCH OF RUNOFF, OR ONE (1) INCH MINUS THE VOLUME OF STORMWATER TREATED BY ANOTHER SYSTEM ON THE SITE, FROM THE NET INCREASE OF IMPERVIOUS SURFACES CREATED BY THE PROJECT. (MINN. R. 7090)
- 17.6 PERMITTEES MUST DESIGN THE FILTRATION SYSTEM TO DISCHARGE ALL STORMWATER (INCLUDING STORMWATER IN EXCESS OF THE WATER QUALITY VOLUME) ROUTED TO THE SYSTEM THROUGH THE UPPERMOST SOIL SURFACE OR ENGINEERED MEDIA SURFACE WITHIN 48 HOURS, ADDITIONAL FLOWS THAT THE SYSTEM CANNOT FILTER WITHIN 48 HOURS MUST BYPASS THE SYSTEM OR DISCHARGE THROUGH AN EMERGENCY OVERFLOW. (MINN. R. 7090)
- 17.7 PERMITTEES MUST DESIGN THE FILTRATION SYSTEM TO PROVIDE A MEANS TO VISUALLY VERIFY THE SYSTEM IS DISCHARGING THROUGH THE SOIL SURFACE OR FILTER MEDIA WITHIN 48 HOURS OR LESS. (MINN. R. 7090)
- 17.8 PERMITTEES MUST EMPLOY APPROPRIATE ON-SITE TESTING TO ENSURE A MINIMUM OF THREE (3) FEET OF SEPARATION BETWEEN THE SEASONALLY SATURATED SOILS (OR FROM BEDROCK) AND THE BOTTOM OF THE PROPOSED FILTRATION SYSTEM. (MINN. R. 7090)
- 17.9 PERMITTEES MUST ENSURE THAT FILTRATION SYSTEMS WITH LESS THAN THREE (3) FEET OF SEPARATION BETWEEN SEASONALLY SATURATED SOILS OR FROM BEDROCK ARE CONSTRUCTED WITH AN IMPERMEABLE LINER. (MINN. R. 7090)
- 17.10 PERMITTEES MUST DESIGN A MAINTENANCE ACCESS, TYPICALLY EIGHT (8) FEET WIDE, FOR THE FILTRATION SYSTEM. (MINN. R. 7090)

18.1 WET SEDIMENTATION BASIN, MINN. R. 7090

- 18.2 PERMITTEES USING A WET SEDIMENTATION BASIN TO MEET THE PERMANENT STORMWATER TREATMENT REQUIREMENTS OF THIS PERMIT MUST INCORPORATE THE DESIGN PARAMETERS IN ITEM 18.3 THROUGH 18.10. (MINN. R. 7090)
- 18.3 PERMITTEES MUST DESIGN THE BASIN TO HAVE A PERMANENT VOLUME OF 1,800 CUBIC FEET OF STORAGE BELOW THE DESIGN WATER SURFACE. FOR EACH ACRE THAT DRAINS TO THE BASIN, THE BASIN MUST BE AT LEAST THREE (3) FEET DEEP AND MUST HAVE NO DEPTH GREATER THAN 10 FEET. PERMITTEES MUST CONFIGURE THE BASIN TO REMAIN ABOVE OR RESURFACING OF SOLIDS. (MINN. R. 7090)
- 18.4 PERMITTEES MUST DESIGN THE BASIN TO PROVIDE LIVE STORAGE FOR A WATER QUALITY VOLUME (CALCULATED AS AN INSTANTANEOUS VOLUME) OF ONE (1) INCH OF RUNOFF, OR ONE (1) INCH MINUS THE VOLUME OF STORMWATER TREATED BY ANOTHER SYSTEM ON THE SITE, FROM THE NET INCREASE IN IMPERVIOUS SURFACES CREATED BY THE PROJECT. (MINN. R. 7090)
- 18.5 PERMITTEES MUST DESIGN BASIN OUTLETS SO THE WATER QUALITY VOLUME DISCHARGES AT NO MORE THAN 5.66 CUBIC FEET PER SECOND (CFS) PER ACRE OF SURFACE AREA OF THE BASIN. (MINN. R. 7090)
- 18.6 PERMITTEES MUST DESIGN BASIN OUTLETS TO PREVENT SHORT-CIRCUITING AND THE DISCHARGE OF FLOATING DEBRIS. BASIN OUTLETS MUST HAVE ENERGY DISSIPATION. (MINN. R. 7090)
- 18.7 PERMITTEES MUST DESIGN THE BASIN TO INCLUDE A STABILIZED EMERGENCY OVERFLOW TO ACCOMMODATE STORM EVENTS IN EXCESS OF THE BASIN'S HYDRAULIC DESIGN. (MINN. R. 7090)
- 18.8 PERMITTEES MUST DESIGN A MAINTENANCE ACCESS, TYPICALLY EIGHT (8) FEET WIDE, FOR THE BASIN. (MINN. R. 7090)
- 18.9 PERMITTEES MUST LOCATE BASINS OUTSIDE OF SURFACE WATERS AND ANY BUFFER ZONE REQUIRED IN ITEM 23.11. PERMITTEES MUST DESIGN BASINS TO AVOID DRAINING WATER FROM WETLANDS UNLESS THE IMPACT TO THE WETLAND CAN BE AVOIDED OR MITIGATED. (MINN. R. 7090)
- 18.10 PERMITTEES MUST DESIGN BASINS USING AN IMPERMEABLE LINER IF LOCATED WITHIN ACTIVE KARST TERRAIN. (MINN. R. 7090)

19.1 REGIONAL WET SEDIMENTATION BASINS, MINN. R. 7090

- 19.2 WHEN THE ENTIRE WATER QUALITY VOLUME CANNOT BE RETAINED ON-SITE, PERMITTEES CAN USE OR CREATE REGIONAL WET SEDIMENTATION BASINS PROVIDED THEY ARE CONSTRUCTED BASINS, NOT A NATURAL WETLAND OR WATER BODY. (WETLANDS USED AS REGIONAL BASINS MUST BE MITIGATED FOR. SEE SECTION 22). THE OWNER MUST ENSURE THE REGIONAL DESIGN CONFORMS TO ALL REQUIREMENTS TO AVOID BASINS THAT ARE IDENTIFIED IN SECTION 22.3, AND MUST BE LARGE ENOUGH TO ACCOUNT FOR THE ENTIRE AREA THAT DRAINS TO THE REGIONAL BASIN. PERMITTEES MUST VERIFY THAT THE REGIONAL BASIN WILL DISCHARGE AT NO MORE THAN 5.66 CFS PER ACRE OF SURFACE AREA OF THE BASIN TO AVOID SHORT-CIRCUITING OF THE WATER QUALITY VOLUME TO THE IMPERVIOUS SURFACES DRAINING TO THE BASIN. PERMITTEES CANNOT SIGNIFICANTLY DEGRADE WATERWAYS BETWEEN THE PROJECT AND THE REGIONAL BASIN. THE OWNER MUST OBTAIN WRITTEN AUTHORIZATION FROM THE APPLICABLE LGU OR PRIVATE ENTITY THAT OWNS AND MAINTAINS THE REGIONAL BASIN. (MINN. R. 7090)

20.1 SWPPP AVAILABILITY, MINN. R. 7090

- 20.2 PERMITTEES MUST KEEP THE SWPPP, INCLUDING ALL CHANGES TO IT, AND INSPECTIONS AND MAINTENANCE RECORDS AT THE SITE DURING NORMAL WORKING HOURS BY PERMITTEES WHO HAVE OPERATIONAL CONTROL OF THAT PORTION OF THE SITE. (MINN. R. 7090)

21.1 TRAINING REQUIREMENTS, MINN. R. 7090

- 21.2 PERMITTEES MUST ENSURE ALL OF THE FOLLOWING INDIVIDUALS RECEIVE TRAINING AND THE CONTENT AND EXTENT OF THE TRAINING IS COMMENSURATE WITH THE INDIVIDUAL'S JOB DUTIES AND RESPONSIBILITIES WITH REGARD TO ACTIVITIES DESCRIBED IN THIS PERMIT:
 - A. INDIVIDUALS PREPARING THE SWPPP FOR THE PROJECT.
 - B. INDIVIDUALS OVERSIGHT IMPLEMENTATION OF, REVISING AND/OR AMENDING THE SWPPP AND INDIVIDUALS PERFORMING INSPECTIONS FOR THE PROJECT, ONE OF THESE INDIVIDUALS MUST BE AVAILABLE FOR AN ON-SITE INSPECTION WITHIN 72 HOURS UPON REQUEST BY THE MPCA.
 - C. INDIVIDUALS INCLUDING ENGINEER OR SURVIVOR INSTALLATION, MAINTENANCE AND REPAIR OF BMPs. (MINN. R. 7090)
- 21.3 PERMITTEES MUST ENSURE THAT INDIVIDUALS IDENTIFIED IN SECTION 21.2 HAVE THE NECESSARY TRAINING AND EXPERIENCE FROM AGENCY, PROFESSIONAL ORGANIZATIONS, OR OTHER ENTITIES WITH EXPERTISE IN EROSION PREVENTION, SEDIMENT CONTROL, PERMANENT STORMWATER TREATMENT AND THE MINNESOTA NPDES/SDS CONSTRUCTION STORMWATER PERMIT. PERMITTEES MUST ENSURE THESE INDIVIDUALS ATTEND A REFRESHER TRAINING COURSE EVERY THREE (3) YEARS. (MINN. R. 7090)

23.1 ADDITIONAL REQUIREMENTS FOR DISCHARGES TO SPECIAL (PROHIBITED, RESTRICTED, OTHER) AND IMPAIRED WATERS, MINN. R. 7090

- 23.2 DISCHARGES TO THE TROUT STREAMS (OTHER SPECIAL WATER) LISTED IN MINN. R. 6284.0050, SUBP. 4 MUST INCORPORATE THE BMPs OUTLINED IN ITEMS 23.3, 23.10, 23.11, AND 23.12. (MINN. R. 6284.0050, SUBP. 4)
- 23.3 PERMITTEES MUST IMMEDIATELY INITIATE STABILIZATION OF EXPOSED SOIL AREAS, AS DESCRIBED IN ITEM 8.4 AND COMPLY WITH THE REQUIREMENTS OF ITEM 18.1 THROUGH 18.21. PERMITTEES MUST MAINTAIN THIS BUFFER ZONE AT ALL TIMES, BOTH DURING CONSTRUCTION AND AS A PERMANENT FEATURE POST CONSTRUCTION, EXCEPT WHERE A WATER CROSSING OR OTHER ENFORCEMENT IS NECESSARY TO COMPLETE THE PROJECT. PERMITTEES MUST FULLY DOCUMENT THE CIRCUMSTANCE AND REASONS THE BUFFER ZONE IS NECESSARY TO COMPLETE THE PROJECT AND THE REASONABLENESS OF THE BUFFER ZONE. THIS BUFFER ZONE REPLACEMENT OF EXISTING IMPERVIOUS SURFACE WITHIN THE BUFFER. PERMITTEES MUST MINIMIZE ALL POTENTIAL WATER QUALITY, SOILING AND OTHER ENVIRONMENTAL IMPACTS OF THESE EXCEPTIONS BY THE USE OF ADDITIONAL OR REDUNDANT BMPs TO PROTECT THE TRIBUTARY AND TO PROTECT THE TRIBUTARY FROM THE PROJECT. (MINN. R. 7090)
- 23.12 PERMITTEES MUST DESIGN THE PERMANENT STORMWATER TREATMENT SYSTEM SO THE DISCHARGE FROM THE PROJECT MINIMIZES ANY INCREASE IN THE TEMPERATURE OF TROUT STREAMS RESULTING FROM THE ONE (1) AND TWO (2) INCH PROVISIONS OF THIS PERMIT AS WELL AS ANY INCREASE IN THE TEMPERATURE OF DESIGNATED TROUT STREAMS LOCATED WITHIN THE SAME PUBLIC LAND SURVEY SYSTEM (PLSS) SECTION. PERMITTEES MUST INCORPORATE ONE OR MORE OF THE FOLLOWING MEASURES, IN ORDER OF PREFERENCE:
 - a. PROVIDE STORMWATER INFILTRATION OR OTHER VOLUME REDUCTION PRACTICES AS DESCRIBED IN ITEM 15.4 AND 15.5 TO REDUCE RUNOFF. INFILTRATION SYSTEMS MUST BE LOCATED WITHIN 100 FEET OF THE SYSTEM WITHIN 24 HOURS.
 - b. PROVIDE STORMWATER FILTRATION AS DESCRIBED IN SECTION 17. FILTRATION SYSTEMS MUST DISCHARGE ALL STORMWATER ROUTED TO THE SYSTEM WITHIN 24 HOURS.
 - c. MINIMIZE THE DISCHARGE FROM CONNECTED IMPERVIOUS SURFACED BY DISCHARGING TO VEGETATED AREAS, OR GRASS SWALES, AND THROUGH THE USE OF NON-STRUCTURAL CONTROLS.
 - d. IF PONDING IS USED, THE DESIGN MUST INCLUDE AN APPROPRIATE COMBINATION OF MEASURES SUCH AS SHADING, VEGETATED SWALE DISCHARGES OR CONSTRUCTED WETLAND TREATMENT CELLS THAT LIMIT TEMPERATURE INCREASES. THE POND MUST BE DESIGNED AS A DRY POND AND SHOULD DRAIN DOWN IN 24 HOURS OR LESS.
 - e. OTHER METHODS THAT MINIMIZE ANY INCREASE IN THE TEMPERATURE OF THE TROUT STREAM. (MINN. R. 7090)

24.1 GENERAL PROVISIONS, MINN. R. 7090

- 24.2 IF THE MPCA DETERMINES THAT AN INDIVIDUAL PERMIT WOULD MORE APPROPRIATELY REGULATE THE CONSTRUCTION OF THIS PERMIT, THE MPCA WILL REQUIRE AN INDIVIDUAL PERMIT TO CONTINUE THE CONSTRUCTION ACTIVITY. COVERAGE UNDER THIS GENERAL PERMIT WILL REMAIN EFFECTIVE UNTIL THE MPCA ISSUES AN INDIVIDUAL PERMIT. (MINN. R. 7001.0210, SUBP. 4)
- 24.3 IF THE PERMITEE CANNOT MEET THE TERMS AND CONDITIONS OF THIS PERMIT, AN OWNER MAY REQUEST AN INDIVIDUAL PERMIT, IN ACCORDANCE WITH MINN. R. 7001.0210, SUBP. 6.
- 24.4 ANY INTERESTED PERSON MAY PETITION THE MPCA TO REQUIRE AN INDIVIDUAL NPDES/SDS PERMIT IN ACCORDANCE WITH 40 CFR 122.260(b). (40 CFR 122.260(b))
- 24.5 PERMITTEES MUST MAKE THE SWPPP, INCLUDING ALL INSPECTION RECORDS, MAINTENANCE RECORDS, TRAINING RECORDS AND OTHER INFORMATION REQUIRED BY THIS PERMIT, AVAILABLE TO FEDERAL, STATE, AND LOCAL OFFICIALS WITHIN THREE (3) DAYS UPON REQUEST FOR THE DURATION OF THE PERMIT AND FOR THREE (3

PROJECT NAME
EVERGREEN ESTATES

PROJECT LOCATION
ADDRESS: 2341 153RD AVE NE, HAM LAKE, MN 55304

DEVELOPER
TIMBER VALLEY DEVELOPMENT
620 CIVIC HEIGHTS DRIVE, SUITE 100
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NARRATIVE - PERMANENT STORMWATER TREATMENT SYSTEMS
THE PROJECT CONSISTS OF THE CONSTRUCTION OF SINGLE FAMILY LOTS WITH ADJACENT PUBLIC STREETS.

PERMANENT STORMWATER MANAGEMENT TREATMENT SYSTEMS PER MPCA RULES, CITY OF HAM LAKE, AND COON CREEK WATERSHED DISTRICT ARE REQUIRED FOR THIS PROJECT. FEATURES INCLUDE SEVERAL NURP PONDS AND INFILTRATION BASINS. SEE STORMWATER DRAINAGE REPORT FOR FURTHER DISCUSSION.

SITE IMPERVIOUS AREAS

	BEFORE CONSTRUCTION	AFTER CONSTRUCTION
TOTAL SITE AREA	75.40 ACRES	
TOTAL ESTIMATED IMPERVIOUS	0.87 ACRES	8.81 ACRES
TOTAL ESTIMATED PERVIOUS	74.73 ACRES	66.59 ACRES

APPROX. 8.14 ACRE INCREASE IN IMPERVIOUS

TOTAL DISTURBED AREA

99.96 ACRES

SITE MAP W/ EXISTING AND FINAL GRADES AND DESIGN CALCULATIONS

SEE "STORMWATER DRAINAGE REPORT" FOR EXISTING AND PROPOSED AREA MAPS, DENOTING DRAINAGE AREA BOUNDARIES, DIRECTIONS OF FLOW, AND DISCHARGE POINTS WHERE STORMWATER LEAVES THE SITE.

RECEIVING WATERS WITHIN ONE MILE

NAME OF WATER BODY	TYPE OF WATER BODY	SPECIAL WATER	IMPAIRED WATER
COON CREEK	CREEK	NO	YES
HAM LAKE	LAKE	NO	YES
PRIVATE DITCHES	DITCH	NO	NO

BUFFER TO SURFACE WATER

IF THE SITE DRAINS TO A SURFACE WATER, IS A 50-FT NATURAL BUFFER ADJACENT TO THE SURFACE WATER PRESERVED?
YES NO N/A

NOTE: NATURAL BUFFERS ARE NOT REQUIRED ADJACENT TO ROAD DITCHES, JUDICIAL DITCHES, COUNTY DITCHES, STORMWATER CONVEYANCE CHANNELS, STORM DRAIN INLETS, AND SEDIMENT BASINS.

A) THERE ARE NUMEROUS WETLANDS ON THE SITE FROM WHICH A 50-FT NATURAL BUFFER CANNOT BE PRESERVED. REDUNDANT SEDIMENT CONTROL MEASURES ARE PROVIDED IN THOSE LOCATIONS.

TEMPORARY SEDIMENTATION BASINS

IF FIVE (5) OR MORE ACRES OF DISTURBED SOIL DRAIN TO A COMMON LOCATION, IS A TEMPORARY SEDIMENT BASIN PROVIDED FOR TREATMENT OF THE RUNOFF BEFORE IT LEAVES THE CONSTRUCTION SITE OR ENTERS SURFACE WATERS?
YES NO N/A

A) BECAUSE THIS SITE IS WITHIN ONE (1) MILE OF AN IMPAIRED WATER, THE REQUIREMENT BECOMES FIVE (5) ACRES. THE CONTRACTOR WILL PROVIDE TEMPORARY SEDIMENTATION BASINS IF FIVE (5) OR MORE ACRES OF DISTURBED SOIL DRAIN TO A COMMON LOCATION.

INFILTRATION FEASIBILITY

ARE THERE ANY INFILTRATION RESTRICTIONS FOR THE SITE (SEE 18.14 THROUGH 18.21)?
YES NO N/A

A) THE SITE HAS A HIGH SEASONAL WATER TABLE SO INFILTRATION IS NOT FEASIBLE IN ALL LOCATIONS.

ADDITIONAL STORMWATER MITIGATION MEASURES

ARE THERE ANY STORMWATER MITIGATION MEASURES PER:
YES NO
• ENVIRONMENTAL REVIEW DOCUMENT?
• ENDANGERED SPECIES REVIEW?
• ARCHAEOLOGICAL REVIEW?
• OTHER LOCAL, STATE OR FEDERAL REVIEW?

IF YES TO ANY OF THE ABOVE, DESCRIBE THE MITIGATION MEASURES. FOR PURPOSES OF THIS PERMIT, MITIGATION MEASURES MEANS ACTIONS NECESSARY TO AVOID, MINIMIZE, OR MITIGATE FOR IMPACTS RELATED TO EROSION PREVENTION, SEDIMENT CONTROL, THE PERMANENT STORMWATER TREATMENT SYSTEM, POLLUTION PREVENTION MEASURES AND DISCHARGES ASSOCIATED WITH THE PROJECT'S CONSTRUCTION ACTIVITY. [MINN. R. 7090]

LONG TERM OPERATION AND MAINTENANCE OF PERMANENT STORMWATER FACILITIES

THE PERMANENT STORMWATER MANAGEMENT FACILITIES WILL BE MAINTAINED IN PERPETUITY BY THE CITY OF HAM LAKE.

REVEGETATION SPECIFICATIONS

ITEM	MNDOT SPECIFICATION/NOTES
SOIL	3878
SEED **	3878
* FOR TURF ESTABLISHMENT	
COMMERCIAL TURF	MNDOT MIX 25-131 (200 LBS/ACRE)
RESIDENTIAL TURF	MNDOT MIX 25-131 (120 LBS/ACRE)
TEMPORARY FALL COVER	MNDOT MIX 21-112 (100 LBS/ACRE)
SPRING/SUMMER SOIL-BUILDING COVER	MNDOT MIX 21-111 (100 LBS/ACRE)
1-2 YEARS COVER	MNDOT MIX 22-111 (80.5 LBS/ACRE)
2-9 YEARS COVER	MNDOT MIX 22-112 (40 LBS/ACRE)
MULCH	3882 (TYPE 1 - DISC ANCHORED)
FERTILIZER	3961
WOOD FIBER BLANKET	3885 (CATEGORY 0)

* MOW A MINIMUM OF RESIDENTIAL TURF - ONCE PER 2 WEEKS
COMMERCIAL TURF - ONCE PER 4 WEEKS

** SEEDED AREAS SHALL BE EITHER MULCHED OR COVERED BY FIBROUS BLANKETS TO PROTECT SEEDS AND LIMIT EROSION.

QUANTITIES - ESTIMATED QUANTITIES FOR EROSION AND SEDIMENT CONTROL MEASURES

TYPE	QTY	UNIT
SILT FENCE		LINEAR FEET
RIP-RAP W/ GEO-FABRIC		CUBIC YARDS
TURF REINFORCEMENT MAT (ENKAMAT)		SQUARE YARDS
SEED & MULCH (GENERAL)		ACRE
ROCK CONSTRUCTION ENTRANCE		EACH
SOIL		SQUARE YARDS
EROSION CONTROL BLANKET		SQUARE YARDS
INLET PROTECTION		EACH

NARRATIVE - TIMING FOR INSTALLATION OF EROSION AND SEDIMENT CONTROL MEASURES

- A COPY OF THE APPROVED EROSION AND SEDIMENT CONTROL PLAN AND SWPPP MUST BE AVAILABLE ON THE PROJECT SITE AT ALL TIMES.
- CONTRACTOR SHALL INSTALL SILT FENCES AS SHOWN ON PLAN.
 - ADDITIONAL SILT FENCE MAY BE NECESSARY IF LOCAL CONDITIONS REQUIRE.
 - THE CONTRACTOR SHALL MAINTAIN SILT FENCE, INCLUDING THE REMOVAL OF ACCUMULATED SEDIMENT, THROUGH COMPLETION OF BUILDING CONSTRUCTION.
 - SILT FENCE SHALL REMAIN IN PLACE UNTIL THE SITE HAS BEEN STABILIZED.
- CONTRACTOR SHALL INSTALL THE ROCK CONSTRUCTION ENTRANCE WHEREVER CONSTRUCTION TRAFFIC ENTERS ONTO EXISTING PAVED SURFACES.
- CONTRACTOR TO INSTALL TREE PROTECTION FENCING AS APPLICABLE
- CONTRACTOR SHALL PERFORM SITE GRADING ON AN AREA-BY-AREA BASIS TO MINIMIZE UNSTABILIZED AREAS.
 - CONTRACTOR MUST IMMEDIATELY INITIATE STABILIZATION OF EXPOSED SOIL AREAS, AS DESCRIBED IN ITEM 8.4 OF THE PERMIT, AND COMPLETE THE STABILIZATION WITHIN SEVEN (7) CALENDAR DAYS AFTER THE CONSTRUCTION ACTIVITY IN THAT PORTION OF THE SITE TEMPORARILY OR PERMANENTLY CEASES.
- CONTRACTOR TO PROTECT PERMANENT STORMWATER MANAGEMENT FACILITIES FROM CONSTRUCTION RUN-OFF.
 - INFILTRATION SYSTEMS MUST NOT BE EXCAVATED TO FINAL GRADE UNTIL THE CONTRIBUTING DRAINAGE AREA HAS BEEN CONSTRUCTED AND FULLY STABILIZED.
- CONTRACTOR TO SHALL PAY SPECIAL ATTENTION TO ADJACENT PROPERTY LINES TO ENSURE THE EROSION CONTROL PRACTICES IN PLACE IN THOSE AREAS PREVENT MIGRATION OF SEDIMENT ONTO ADJACENT PROPERTIES.
- ALL EROSION AND SEDIMENT CONTROL MEASURES SHOWN ON THE PLANS OR IMPLEMENTED IN THE FIELD SHALL BE IN ACCORDANCE WITH THE CITY AND NPDES PHASE II PERMIT REQUIREMENTS.
- CONTRACTOR TO PROVIDE ADDITIONAL SILT FENCE, BIODOLLS, EROSION CONTROL BLANKET, OR OTHER APPROVED EQUAL FOR ANY SLOPES THAT APPEAR TO BE FAILING
- CONTRACTOR TO STABILIZE SOIL STOCKPILES; STABILIZATION SHALL BE INITIATED IMMEDIATELY
- CONTRACTOR SHALL FINAL GRADE SWALE AREAS UPON STABILIZATION OF UPSTREAM AREAS.
- CONTRACTOR SHALL BE RESPONSIBLE TO SWEEP/SURFACE ADJACENT STREETS WHEN MATERIALS OR DEBRIS HAVE WASHED/FLOWED ONTO ADJACENT STREETS OR AS DIRECTED BY CITY
- COORDINATE SMALL UTILITIES INSTALLATIONS (GAS, PHONE, ELECTRIC, GAS, ETC.) AFTER CURB & GUTTER INSTALLATION.

LIST OF IMPAIRED WATERS:

COON CREEK:

THIS CREEK HAS AN EPA-APPROVED IMPAIRMENT FOR BENTHIC MACROINVERTEBRATE BIODIVERSITY (ECSHCHECHIA COL). THESE IMPAIRMENTS ARE CONSIDERED TO BE CONSTRUCTION RELATED PARAMETERS AND REQUIRE THE ADDITIONAL BEST MANAGEMENT PRACTICES FOUND IN ITEMS 23.9 & 23.10.

HAM LAKE:

THIS CREEK HAS AN EPA-APPROVED IMPAIRMENT FOR MERCURY IN FISH TISSUE. THESE IMPAIRMENTS ARE CONSIDERED TO BE CONSTRUCTION RELATED PARAMETERS AND REQUIRE THE ADDITIONAL BEST MANAGEMENT PRACTICES FOUND IN ITEMS 23.9 & 23.10.

IF DEWATERING IS REQUIRED, PROVIDE WELL-FIELD LOCATION, RATES, DISCHARGE LOCATION, SCHEDULE AND QUANTITIES TO CCWD PRIOR TO ANY DEWATERING.

"BEST MANAGEMENT PRACTICES (BMPs)" MEANS THE MOST EFFECTIVE AND PRACTICABLE MEANS OF EROSION PREVENTION AND SEDIMENT CONTROL AND WATER QUALITY MANAGEMENT PRACTICES THAT ARE THE MOST EFFECTIVE AND PRACTICABLE MEANS OF CONTROL, PREVENT, AND MINIMIZE DEGRADATION OF SURFACE WATER, INCLUDING AVOIDANCE OF IMPACTS, CONSTRUCTION-PHASES, MINIMIZING THE LENGTH OF TIME SOIL AREAS ARE EXPOSED, PROHIBITIONS, POLLUTION PREVENTION THROUGH GOOD HOUSEKEEPING, AND OTHER MANAGEMENT PRACTICES PUBLISHED BY STATE OR DESIGNATED AREA-WIDE PLANNING AGENCIES. [MINN. R. 7090]

"CONSTRUCTION ACTIVITY" MEANS ACTIVITIES INCLUDING CLEARING, GRADING, AND EXCAVATING, THAT RESULT IN LAND DISTURBANCE OF EQUAL TO OR GREATER THAN ONE ACRE, INCLUDING THE DISTURBANCE OF LESS THAN ONE ACRE OF TOTAL LAND AREA THAT IS PART OF A LARGER COMMON PLAN OF DEVELOPMENT OR SALE IF THE LARGER COMMON PLAN WILL ULTIMATELY DISTURB EQUAL TO OR GREATER THAN ONE ACRE. THIS INCLUDES A DISTURBANCE TO THE LAND THAT RESULTS IN A CHANGE IN THE TOPOGRAPHY, EXISTING SOIL COVER, BOTH VEGETATIVE AND NONVEGETATIVE, OR THE EXISTING SOIL TOPOGRAPHY THAT MAY RESULT IN ACCUMULATED STORMWATER RUNOFF THAT MAY LEAD TO SOIL EROSION AND MOVEMENT OF SEDIMENT. CONSTRUCTION ACTIVITY DOES NOT INCLUDE A DISTURBANCE TO THE LAND OF LESS THAN FIVE ACRES FOR THE PURPOSE OF ROUTINE MAINTENANCE PERFORMED TO MAINTAIN THE ORIGINAL LINE AND GRADE, HYDRAULIC CAPACITY, AND ORIGINAL PURPOSE OF THE FACILITY. ROUTINE MAINTENANCE DOES NOT INCLUDE ACTIVITIES SUCH AS REPAIRS, REPLACEMENT AND OTHER TYPES OF NON-ROUTINE MAINTENANCE. PAVEMENT REHABILITATION THAT DOES NOT DISTURB THE UNDERLYING SOILS (E.G. MILL AND OVERLAY PROJECTS) IS NOT CONSTRUCTION ACTIVITY. [MINN. R. 7090]

"DEWATERING" MEANS THE REMOVAL OF SURFACE OR GROUND WATER TO DRY AND/OR SOLIDIFY A CONSTRUCTION SITE TO ENABLE CONSTRUCTION ACTIVITY. DEWATERING MAY REQUIRE A MINNESOTA DEPARTMENT OF WATER RESOURCES WATER APPROPRIATION PERMIT AND, IF DEWATERING WATER IS CONTAMINATED, DISCHARGE OF SUCH WATER MAY REQUIRE AN INDIVIDUAL MPCA NPDES/S05 PERMIT. [MINN. R. 7090]

"EROSION PREVENTION" MEANS MEASURES EMPLOYED TO PREVENT EROSION SUCH AS SOIL STABILIZATION PRACTICES, PERMANENT COVER OR CONSTRUCTION PHASING. [MINN. R. 7090]

"GENERAL CONTRACTOR" MEANS THE PARTY WHO SIGNS THE CONSTRUCTION CONTRACT WITH THE OWNER TO CONSTRUCT THE ENTIRE PROJECT DESCRIBED IN THE FINAL PLANS AND SPECIFICATIONS, WHERE THE CONSTRUCTION PROJECT INVOLVES MORE THAN ONE CONTRACTOR, THE GENERAL CONTRACTOR IS THE PARTY RESPONSIBLE FOR MANAGING THE ENTIRE PROJECT ON BEHALF OF THE OWNER. IN SOME CASES, THE OWNER IS THE GENERAL CONTRACTOR. IN THESE CASES, THE OWNER SIGNS THE PERMIT APPLICATION AS THE OPERATOR AND BECOMES THE SOLE PERMITTEE. [MINN. R. 7090]

"GROUNDWATER" MEANS THE WATER CONTAINED BELOW THE SURFACE OF THE EARTH IN THE SATURATED ZONE INCLUDING, WITHOUT LIMITATION, ALL WATERS WHETHER UNDER CONFINED, UNCONFINED, OR PERCHED CONDITIONS, IN NEAR SURFACE UNCONSOLIDATED SEDIMENT OR REGOLITH, OR IN ROCK FORMATIONS DEEPER UNDERGROUND. [MINN. R. 7090]

"HOMEOWNER FACT SHEET" MEANS AN MPCA FACT SHEET AVAILABLE TO THE MPCA CONSTRUCTION STORMWATER WEBSITE FOR PERMITTEES TO GIVE TO HOMEOWNERS AT THE TIME OF SALE. [MINN. R. 7090]

"INFEASIBLE" MEANS NOT TECHNOLOGICALLY POSSIBLE OR NOT ECONOMICALLY PRACTICABLE AND ACHIEVABLE IN LIGHT OF THE BEST INDUSTRY PRACTICES. [MINN. R. 7090]

"INITIATED IMMEDIATELY" MEANS TAKING AN ACTION TO COMMENCE SOIL STABILIZATION AS SOON AS PRACTICABLE, BUT NO LATER THAN THE END OF THE WORK DAY, FOLLOWING THE DAY WHEN THE LAND-DISTURBING ACTIVITIES TEMPORARILY OR PERMANENTLY CEASE. IF THE PERMITTEES KNOW THAT CONSTRUCTION WORK ON THAT PORTION OF THE SITE WILL BE TEMPORARILY CEASED FOR 14 OR MORE ADDITIONAL CALENDAR DAYS OR 7 CALENDAR DAYS WHERE ITEM 23.9 APPLIES, PERMITTEES CAN INITIATE STABILIZATION BY:

- PREPPING THE SOIL FOR VEGETATIVE OR NON-VEGETATIVE STABILIZATION; OR
- APPLYING MULCH OR OTHER NON-VEGETATIVE PRODUCT TO THE EXPOSED SOIL AREA; OR
- SEEDING OR PLANTING THE EXPOSED AREA; OR
- STARTING ANY OF THE ACTIVITIES IN A, C OR A PORTION OF THE AREA TO BE STABILIZED, BUT NOT ON THE ENTIRE AREA; OR
- FINALIZING ARRANGEMENTS TO HAVE STABILIZATION PRODUCT FULLY INSTALLED IN COMPLIANCE WITH THE APPLICABLE

DEADLINE FOR COMPLETING STABILIZATION. [MINN. R. 7090]

"IMPERVIOUS SURFACE" MEANS A CONSTRUCTED HARD SURFACE THAT EITHER PREVENTS OR REDUCES THE ENTRY OF WATER INTO THE SOIL AND CAUSES WATER TO RUN OFF THE SURFACE IN GREATER QUANTITIES AND AT AN INCREASED RATE OF FLOW THAN PRIOR TO DEVELOPMENT. EXAMPLES INCLUDE ROOFTOPS, SIDEWALKS, DRIVEWAYS, PARKING LOTS, AND CONCRETE, ASPHALT, OR GRAVEL ROADS, BRIDGES OVER SURFACE WATERS ARE CONSIDERED IMPERVIOUS SURFACES. [MINN. R. 7090]

"NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM (NPDES)" MEANS THE PROGRAM FOR ISSUING, MODIFYING, REVOKING, RESCUING, TERMINATING, MONITORING, AND ENFORCING PERMITS UNDER THE CLEAN WATER ACT, AS AMENDED (33 U.S.C. 1251 ET SEQ. SECTION 1342 AND 40 CFR PARTS 122, 123, 124 AND 440). [MINN. R. 7090]

"NATURAL BUFFER" MEANS AN AREA OF UNDISTURBED COVER SURROUNDING SURFACE WATERS WITHIN WHICH CONSTRUCTION ACTIVITIES ARE RESTRICTED, NATURAL BUFFER INCLUDES THE VEGETATION, EXPOSED ROCK, OR BARREN GROUND THAT EXISTS PRIOR TO COMMENCEMENT OF EARTH-DISTURBING ACTIVITIES. [MINN. R. 7090]

"NOTICE OF TERMINATION (NOT)" MEANS THE FORM (ELECTRONIC OR PAPER) REQUIRED FOR TERMINATING COVERAGE UNDER THE CONSTRUCTION GENERAL PERMIT. [MINN. R. 7090]

"OPERATOR" MEANS THE PERSON (USUALLY THE GENERAL CONTRACTOR), FIRM, GOVERNMENTAL AGENCY, OR OTHER ENTITY DESIGNATED BY THE OWNER WHO HAS DAY TO DAY OPERATIONAL CONTROL AND/OR THE ABILITY TO MODIFY PROJECT PLANS AND SPECIFICATIONS RELATED TO THE SWPPP. THE PERMIT APPLICATION MUST LIST THE OPERATOR AS A PERMITTEE. SUBCONTRACTORS HIRED BY AND UNDER SUPERVISION OF THE GENERAL CONTRACTOR ARE NOT OPERATORS. [MINN. R. 7090]

"OWNER" MEANS THE PERSON, FIRM, GOVERNMENTAL AGENCY, OR OTHER ENTITY POSSESSING THE TITLE OF THE LAND ON WHICH THE CONSTRUCTION ACTIVITIES WILL OCCUR OR, IF THE CONSTRUCTION ACTIVITY IS FOR A LEASE, EASEMENT, OR MINERAL RIGHTS LICENSE HOLDER, THE PARTY OR INDIVIDUAL IDENTIFIED AS THE LEASE, EASEMENT OR MINERAL RIGHTS LICENSE HOLDER; OR THE CONTRACTING GOVERNMENT AGENCY RESPONSIBLE FOR THE CONSTRUCTION ACTIVITY. [MINN. R. 7090]

"PERMANENT COVER" MEANS SURFACE TYPES THAT WILL PREVENT SOIL FAILURE UNDER EROSION CONDITIONS. EXAMPLES INCLUDE GRAVEL, CONCRETE, PERMANENT COVER, OR OTHER LANDSCAPED MATERIAL THAT WILL PERMANENTLY ARREST SOIL EROSION. PERMITTEES MUST ESTABLISH A UNIFORM PERMANENT VEGETATIVE COVER (I.E., EVENLY DISTRIBUTED, WITHOUT LARGE BARE AREAS) WITH A DENSITY OF 70 PERCENT OF THE NATIVE BACKGROUND VEGETATIVE COVER ON ALL AREAS NOT COVERED BY PERMANENT STRUCTURES, OR EQUIVALENT PERMANENT STABILIZATION MEASURES, PERMANENT COVER DOES NOT INCLUDE TEMPORARY BARRS SUCH AS WOOD FIBER BLANKET, MULCH, AND ROLLED EROSION CONTROL PRODUCTS. [MINN. R. 7090]

"PERMITTEES" MEANS THE PERSONS, FIRM, GOVERNMENTAL AGENCY, OR OTHER ENTITY IDENTIFIED AS THE OWNER AND OPERATOR ON THE APPLICATION SUBMITTED TO THE MPCA AND ARE RESPONSIBLE FOR COMPLIANCE WITH THE TERMS AND CONDITIONS OF THIS PERMIT. [MINN. R. 7090]

"PROJECT(S)" MEANS ALL CONSTRUCTION ACTIVITY PLANNED AND/OR CONDUCTED UNDER A PARTICULAR PERMIT. THE PROJECT OCCURS ON THE SITE OR SITES DESCRIBED IN THE PERMIT APPLICATION, THE SWPPP AND IN THE ASSOCIATED PLANS, SPECIFICATIONS AND CONTRACT DOCUMENTS. [MINN. R. 7090]

"PUBLIC WATERS" MEANS ALL WATER BASINS AND WATERCOURSES DESCRIBED IN MINN. STAT. SECT. 103G.005 SUBP. 15. [MINN. R. 7090]

"SEDIMENT CONTROL" MEANS METHODS EMPLOYED TO PREVENT SUSPENDED SEDIMENT IN STORMWATER FROM LEAVING THE SITE (E.G. SILT FENCES, COMPOST LOGS AND STORM DRAIN INLET PROTECTION). [MINN. R. 7090]

"STABILIZE," "STABILIZED," "STABILIZATION" MEANS THE EXPOSED GROUND SURFACE HAS BEEN COVERED BY APPROPRIATE MATERIALS SUCH AS MULCH, STARDED BOD, RIPRAP, PERVIOUS, ADAPTERS, IRRIGATION SYSTEMS, DRAINAGE SYSTEMS AND ALL OTHER BODIES OR ACCUMULATIONS OF WATER, SURFACE OR UNDERGROUND, NATURAL OR ARTIFICIAL, PUBLIC OR PRIVATE, WHICH ARE CONTAINED WITHIN, FLOW THROUGH, OR BORDER UPON THE STATE OR ANY PORTION THEREOF. [MINN. STAT. 118.01, SUBP. 22]

"STORMWATER" MEANS PRECIPITATION RUNOFF, STORMWATER RUNOFF, SNOWMELT RUNOFF, AND ANY OTHER SURFACE RUNOFF AND DRAINAGE. [MINN. R. 7090]

"STEEP SLOPES" MEANS SLOPES THAT ARE 1:3 (V:H) (33.3 PERCENT) OR STEEPER IN GRADE. [MINN. R. 7090]

"STORM WATER POLLUTION PREVENTION PLAN (SWPPP)" MEANS A PLAN FOR STORMWATER DISCHARGE THAT INCLUDES ALL REQUIRED CONTENT UNDER IN SECTION 5 THAT DESCRIBES THE EROSION PREVENTION, SEDIMENT CONTROL, AND WASTE CONTROL BMPs AND PERMANENT STORMWATER TREATMENT SYSTEMS. [MINN. R. 7090]

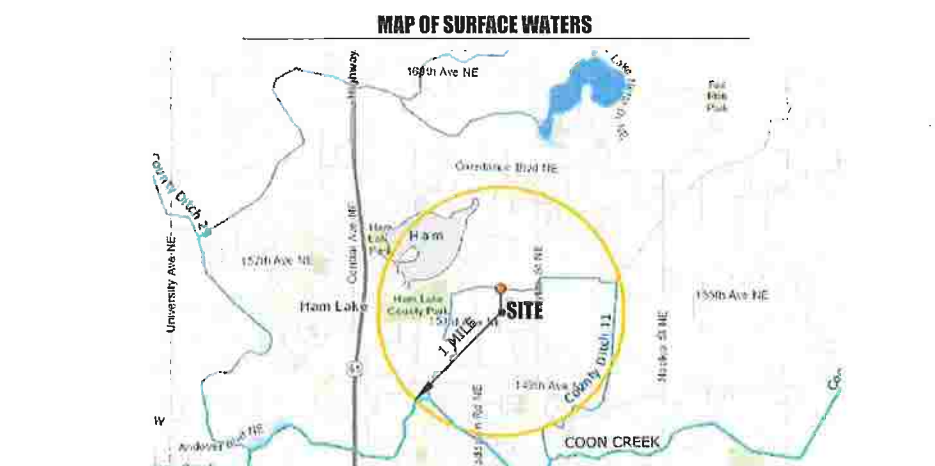
"SURFACE WATER OR WATERS" MEANS ALL STREAMS, LAKES, PONDS, MARSHES, WETLANDS, RESERVOIRS, SPRINGS, RIVERS, DRAINAGE SYSTEMS, WATERWAYS, WATERCOURSES, AND IRRIGATION SYSTEMS WHETHER NATURAL OR ARTIFICIAL, PUBLIC OR PRIVATE, EXCEPT THAT SURFACE WATERS DO NOT INCLUDE STORMWATER TREATMENT SYSTEMS CONSTRUCTED FROM UPLAND. THIS PERMIT DOES NOT CONSIDER STORMWATER TREATMENT SYSTEMS CONSTRUCTED IN WETLANDS AND MITIGATED IN ACCORDANCE WITH SECTION 22 AS SURFACE WATERS. [MINN. R. 7090]

"WATERS OF THE STATE" (AS DEFINED IN MINN. STAT. SECT. 115.01, SUBP. 22) MEANS ALL STREAMS, LAKES, PONDS, MARSHES, WATERWAYS, WELLS, SPRINGS, RESERVOIRS, ADAPTERS, IRRIGATION SYSTEMS, DRAINAGE SYSTEMS AND ALL OTHER BODIES OR ACCUMULATIONS OF WATER, SURFACE OR UNDERGROUND, NATURAL OR ARTIFICIAL, PUBLIC OR PRIVATE, WHICH ARE CONTAINED WITHIN, FLOW THROUGH, OR BORDER UPON THE STATE OR ANY PORTION THEREOF. [MINN. STAT. 118.01, SUBP. 22]

"WATER QUALITY VOLUME" MEANS ONE (1) INCH OF RUNOFF FROM THE NET INCREASE IN IMPERVIOUS SURFACES CREATED BY THE PROJECT (CALCULATED AS AN INSTANTANEOUS VOLUME). [MINN. R. 7090]

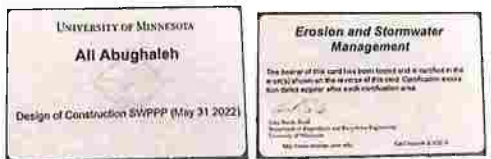
"WETLANDS" (AS DEFINED IN MINN. R. 7090.0168, SUBP. 1A.8) MEANS THOSE AREAS THAT ARE INUNDED OR SATURATED BY SURFACE WATER OR GROUNDWATER AT A FREQUENCY AND DURATION SUFFICIENT TO SUPPORT, AND UNDER NORMAL CIRCUMSTANCES DO SUPPORT, A PREVALENCE OF VEGETATION TYPICALLY ADAPTED FOR LIFE IN SATURATED SOIL CONDITIONS. WETLANDS GENERALLY INCLUDE SWAMPS, MARSHES, BOGS, AND SIMILAR AREAS. CONSTRUCTED WETLANDS DESIGNED FOR WASTEWATER TREATMENT ARE NOT WATERS OF THE STATE. WETLANDS MUST HAVE THE FOLLOWING ATTRIBUTES:

- A PREDOMINANCE OF HYDRO SOILS; AND
- INUNDED OR SATURATED BY SURFACE WATER OR GROUNDWATER AT A FREQUENCY AND DURATION SUFFICIENT TO SUPPORT, AND UNDER NORMAL CIRCUMSTANCES DO SUPPORT, A PREVALENCE OF HYDROPHYTIC VEGETATION TYPICALLY ADAPTED FOR LIFE IN A SATURATED SOIL CONDITION; AND
- UNDER NORMAL CIRCUMSTANCES SUPPORT A PREVALENCE OF SUCH VEGETATION. [MINN. R. 7090.0166, SUBP. 1A.8]



DOCUMENTATION OF TRAINED INDIVIDUALS

A. INDIVIDUAL WHO PREPARED THE SWPPP:
ALI ABUGHAZLEH
PLOWE ENGINEERING, INC.
8775 LAKE DRIVE
LINO LAKES, MN 55014
(651) 381-8235
ALI@plowe.com



B. INDIVIDUAL(S) OVERSEEING IMPLEMENTATION OF, REVISING AND/OR AMENDING THE SWPPP AND INDIVIDUALS PERFORMING INSPECTIONS FOR THE PROJECT, ONE OF THESE INDIVIDUALS MUST BE AVAILABLE FOR AN ONSITE INSPECTION WITHIN 72 HOURS UPON REQUEST BY THE MPCA. [MINN. R. 7090]

C. INDIVIDUAL(S) PERFORMING OR SUPERVISING THE INSTALLATION, MAINTENANCE AND REPAIR OF BMPs. [MINN. R. 7090]

NAME	COMPANY	ADDRESS 1	ADDRESS 2	PHONE	EMAIL

C. INDIVIDUAL(S) PERFORMING OR SUPERVISING THE INSTALLATION, MAINTENANCE AND REPAIR OF BMPs. [MINN. R. 7090]

NAME	COMPANY	ADDRESS 1	ADDRESS 2	PHONE	EMAIL

EVERGREEN ESTATES
CITY OF HAM LAKE, MN
SWPPP
PREPARED FOR: TIMBER VALLEY DEVELOPMENT

PLOWE ENGINEERING, INC.
8775 LAKE DRIVE
SUITE 110
LINO LAKES, MN 55014
PHONE: (651) 381-8210
FAX: (651) 381-8701

DRAWN BY: MGA
CHECK BY: CYP
JOB NO: 20-1933
DATE: 10-12-20

1. 3-10-21
2. 1-3-21
3. 1-3-21
4. 1-3-21
5. 1-3-21
6. 1-3-21
7. 1-3-21
8. 1-3-21

I HEREBY CERTIFY THAT THIS PLAN WAS PREPARED BY ME OR A FULLY LICENSED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF MINNESOTA.
Charles W. Plowe
CHARLES W. PLOWE
LIC. NO. 18227
DATE: 04-20-2021

**CITY OF HAM LAKE
PLANNING COMMISSION REQUEST APPLICATION
INSPECTION REPORT**

MTG DATE: April 26, 2021

INSPECTION ISSUED TO: Erin Dixson

APPLICANT/CONTACT: Classic Construction, Curt Strandlund or Kristin Erickson

TELEPHONE NUMBER: 763-434-8870 (office) 763-434-7120 (Kristin)

BUSINESS/PLAT NAME: Growing Generations Daycare

ADDRESS/LOCATION OF INSPECTION: 13644 Radisson Rd, L9B2 Bunker Meadows

APPLICATION FOR: Commercial Site Plan

RECOMMENDATION: _____

DATE: _____

PLANNING COMMISSIONER SIGNATURE: _____



CITY OF HAM LAKE

PLANNING REQUEST

15544 Central Avenue NE
Ham Lake, MN 55304

Phone (763) 434-9555 Fax (763) 235-1697

Date of Application 3/15/2021

Date of Receipt 3-15-2021
Receipt # 89419

Meeting Appearance Dates:
Planning Commission 4-24-2021 City Council _____

Please check request(s):

- | | |
|---|---|
| <input type="checkbox"/> Metes & Bounds Conveyance | <input checked="" type="checkbox"/> Commercial Building Permit |
| <input type="checkbox"/> Sketch Plan | <input type="checkbox"/> Certificate of Occupancy |
| <input type="checkbox"/> Preliminary Plat Approval* | <input type="checkbox"/> Home Occupation Permit |
| <input type="checkbox"/> Final Plat Approval | <input type="checkbox"/> Conditional Use Permit (New)* |
| <input type="checkbox"/> Rezoning* | <input type="checkbox"/> Conditional Use Permit (Renewal) |
| <input type="checkbox"/> Private Kennel License* | <input checked="" type="checkbox"/> Other <u>COMM SITE PLAN</u> |

**NOTE: Advisory Signage is required for land use alterations and future road connections. This application also requires a Public Hearing. Such fees shall be deducted from deposit.*

Development/Business Name: Growing Generation

Address/Location of property: Bunker Lake Blvd NE & Rainson

Legal Description of property: Lot 9, Block 2 Bunker RD NE

PIN # 33-32-23-31-0006 Current Zoning PUD/C2-3 Meadows Proposed Zoning _____

Notes: CONSTRUCT A Daycare Facility

Applicant's Name: Classic Construction, Inc. Attn: Krishin

Business Name: CCI General Contractor

Address 18842 NE Ulysses St.

City East Bethel State MN Zip Code 55011

Phone 763 939 8870 Cell Phone _____ Fax 763 934

Email address Krishin@ClassicConstructionInc. 7120
com

You are advised that the 60-day review period required by Minnesota Statutes Chapter 15.99 does not begin to run until all of the required items have been received by the City of Ham Lake.

SIGNATURE [Signature] DATE 3/15/2021

- FOR STAFF USE ONLY -

ACTION BY: Planning Commission _____
City Council _____

PROPERTY TAXES CURRENT YES NO

At Growing Generations, we believe that quality childcare and educational learning in all age groups depends upon consistent caregiving in a home like atmosphere. Children grow and learn best in a safe environment that provides opportunities to explore, create, and communicate with other children and adults. These groups function independently but cooperatively while following routines appropriate to individual needs. Our program is designed to be inclusive of all children, including those with identified disabilities and special learning developmental needs.

At Growing Generations, children are given the opportunity to explore materials and participate in a variety of experiences. Activities are carefully planned and implemented in an open-classroom setting. Children are free to choose from age-appropriate activities including art, music, language development, pre-math skills, science and nature, and dramatic play.

Learning and playing are not limited to the classroom; children of all ages will participate in the outdoor environment each day. There are opportunities for water play, motor development, and large group activities. The center provides age-appropriate playgrounds with proper equipment. Infants are also taken outside for walks in a stroller or in the arms of a teacher.

Growing Generations will employ up to 30 staff members at full enrollment with an average of 20 staff at any given time throughout the day. Most staff work 8 to 10 hours shifts and leave as children leave to meet state ratios. We will serve up to 120 children in the community on a daily basis. Our age groups consist of 24 Infants, 36 Toddlers, and 60 Preschoolers. Our Hours of operation will be from 6:00am to 6:00pm Monday through Friday.

Memorandum

Date: April 21, 2021
To: Planning Commissioners
From: Tom Collins, City Engineer *TPC*
Subject: Growing Generations Daycare

Introduction:

The proposed 10,572 square foot building is located on the 3.07-acre Lot 9, Block 2 of the 1998 Planned Unit Development (PUD) plat of Bunker Meadows (parcel ID 33-32-23-31-0006). A 200-scale half-section map, a 200-scale aerial photo and a 400-scale zoning map are attached. The underlying zoning of this parcel is Commercial Development Tier 3 (CD-3).

Discussion:

The Certificate of Survey received April 20th, the Title Sheet, Legend, Existing Conditions & Removal Plan, Grading, Drainage, and Erosion Control Plan, Utility Plan, Details & Notes, Stormwater Pollution Prevention Plan and the Turn Lane Plan received April 14th and the Landscape Plan received April 15th address the prior review comments. Per 11-1853 - where property lines are adjacent to residential areas, a planting screen of conifers or opaque fencing is required. The proposed screening to the south and west is shown on the Landscape Plan.

The proposed access to the parcel is off of Radisson Road, which is under the jurisdiction of Anoka County. Per the attached April 16th letter, the Anoka County Transportation Division has approved the plans. A right-of-way permit will need to be obtained prior to construction.

Growing Generations Daycare was approved by the Coon Creek Watershed District (CCWD) Board of Managers at their March 22nd meeting. The April 9th Notice of Permit Application Status is attached. An Operations and Maintenance Agreement for Stormwater Facilities needs to be executed between Growing Generations Daycare and CCWD for on-site stormwater treatment. Grading cannot commence until the CCWD issues a permit.

Recommendation:

It is recommended that the Growing Generations Daycare plans be recommended for approval.



13734

13737

2065

2215

CSAH 116)

2035
L6

L9

BUNKER
MEADOWS

L8

13644

B2

2055

2111

2036
L6

2056
L7

2108
L8

L10
13613

B4

OWATONNA ST.

13559
L11

RADISSON RD. (CSAH 52)

L11

L10

L9

13541
L12

13507

TH LN.

2034
L2

2054
L3

2112
L4

2128
L5

2144
L6

B3

LACINA
D1 ADDN.

1" = 200'



- R-A Rural Single Family Residential
- R-1 Single Family Residential
- PUD Planned Unit Development
- PUD - CD-3 Underlying Use
- CD-3 Commercial Development Tier 3
- Park
- Ditches

Sheet Title:
ZONING MAP

Drawn By:
EMP

Date:
4/19/2021

Project No.
2102.037

Project:
GROWING GENERATIONS DAYCARE

13635 Johnson Street
Ham Lake, MN 55304
Telephone (763) 862-8000
Fax (763) 862-8042



- E. Other areas where other than natural wooded vegetation is to be used as ground cover, identifying the ground cover to be used;
- F. Locations, trunk size, height and species of all trees to be planted;
- G. Locations where existing natural wooded vegetation will remain undisturbed;
- H. All other landscaping features to be used.

11-1850 MINIMUM LANDSCAPING REQUIREMENTS

11-1851 Paved Surfaces All surfaces upon which motor vehicles will be parked or driven, and all areas in which pedestrians will be walking from point to point shall be surfaced with asphalt or concrete, to specifications established by the City's engineer.

11-1852 Ground Cover On any side of a lot which abuts a public road, the area from the road right-of-way to the nearest building side shall be entirely covered with ground cover consisting of pavement, decorative rock bordered with edging, lawn grass intended for regular mowing, mulch, bark, wood chips or other commonly used landscaping ground cover. Shingles, aggregate and clay mixtures such as Class V material, recycled concrete or asphalt, and other non-conventional ground covers shall not be permitted. Loose ground cover shall be installed to a depth of at least three inches. Any area which is covered by landscaping ground cover (not lawn or pavement) shall also include one decorative shrub for each ten square feet of ground cover.

Side yards and rear yards which do not contain existing natural wooded vegetation shall either be covered with ground cover in the manner stated above for front yards, or shall be planted so as to encourage the emergence of natural wooded vegetation, through the planting of tree species expected to reach a height of at least twenty five feet. Areas so prepared shall not be required to have mown lawn areas, but may be allowed to return to a natural state.



11-1853 Tree Plantings Trees which are planted outside of areas intended to return to a natural wooded state shall be of a variety indigenous to the local climate. Deciduous trees shall, when planted, have a trunk size of at least one and one half inches at a height of four feet from ground level. Conifers shall have a height of at least five feet. Tree locations are subject to review and approval of the City in the landscaping plan review process, and while no specific number of trees are required, the following general principles shall be observed;

- A. Where property lines are adjacent to residential areas, a planting screen of conifers shall be required, of sufficient size and proximity to provide an intermingled screen within five years;
- B. Decorative trees shall be planted along the right of way lines of adjacent public roadways;

- C. The use of conifers shall be encouraged and preferred.
- D. Whenever possible, an attempt will be made to preserve stands of existing vegetation, particularly treed or wooded areas.

11-1860 Case by Case Evaluation

Recognizing that the City contains a wide variety of commercial land, the landscape approval process shall be on a case by case basis. Where wetlands are present, or where large distances separate a commercial lot from adjacent lands, for example, strict adherence to screening requirements may be unnecessary. Likewise, strict adherence to the remaining provisions of Article 11-1800 may be unnecessary where size, spatial relationships, topography or other physical features render a given landscaping plan aesthetically acceptable, and departures from the strict observance of the elements of Article 11-1800 shall not be considered variances requiring a showing of physical hardship. Conversely, an applicant shall be expected to meet the general spirit of this article in establishing an aesthetically pleasing landscaping plan.

11-1900 ILLICIT DISCHARGES AND CONNECTIONS TO STORM DRAINAGE SYSTEM

The purpose of this ordinance is to provide for the health, safety, and general welfare of the citizens of Ham Lake through the regulation of non-storm water discharges to the storm sewer drainage system to the maximum extent practicable as required by federal and state law. This ordinance establishes methods for controlling the introduction of pollutants into the Municipal Separate Storm Sewer System (MS4) in order to comply with requirements of the National Pollutant Discharge Elimination System (NPDES) permit process. The objectives of this ordinance are:

1. To regulate and minimize the contribution of pollutants to the municipal separate storm sewer system (MS4) by stormwater discharges by any user.
2. To prohibit Illicit Connections and Discharges to the municipal separate storm sewer system.
3. To establish legal authority to carry out all inspection, surveillance and monitoring procedures necessary to ensure compliance with this ordinance.

11-1900.10 DEFINITIONS

For the purposes of this Code, the following shall mean:

- a) **Authorized Enforcement Agency:** employees or designees of the Administrator of the City of Ham Lake designated to enforce this Ordinance.
- b) **Best Management Practices (BMPs):** schedules of activities, prohibitions of practices, general good house keeping practices, pollution prevention and educational practices, maintenance procedures and other management practices to prevent or reduce the



Anoka County

TRANSPORTATION DIVISION

Highway

Joseph J. MacPherson, PE
County Engineer

April 16, 2021

Kristin Erickson
Classic Construction, Inc.
18542 NE Ulysses Street
East Bethel, MN 55011

Re: Growing Generations Daycare
Anoka County Plan Approval

Dear Ms. Erickson,

Anoka County has reviewed the Growing Generations Daycare plan and has no further comments. You can contact our permits section at 763-324-3176 to obtain the right of way permit.

Sincerely,

Michelle Pritchard
Design Engineer

cc: File (Ham Lake)
Joe MacPherson, ACHD
Jerry Auge, ACHD
Jane Rose, ACHD
Sue Burgmeier, ACHD
I:\Eng\Plan Reviews\Ham Lake\2021\Growing Generations
Daycare\Resubmittal 4-7-21\Approval.docx

Our Passion Is Your Safe Way Home

1440 Bunker Lake Boulevard N.W. ▲ Andover, MN 55304-4005
Office: 763-324-3100 ▲ Fax: 763-324-3020 ▲ www.anokacounty.us/highway

Affirmative Action / Equal Opportunity Employer

NOTICE OF PERMIT APPLICATION STATUS

Project: Growing Generations Daycare

Date: April 09, 2021

Applicant: Classic Construction
18542 Ulysses St NE
East Bethel MN 55011

Permit Application#: 21-028

Purpose: Construction of a daycare facility, parking lot, and associated stormwater infrastructure

Location: SW corner at the intersection of Bunker Lake Blvd and Radisson Road NE

At their meeting on March 22, 2021 the Board of Managers of the Coon Creek Watershed District **conditionally approved** the above referenced project with 6 conditions and 2 stipulations. **This is NOT a permit.**

Since your last submittal on 3/31/2021, the following 3 conditions remain which must be addressed before permit issuance (please see note below on how to address conditions).

1. Receipt of escrows.
2. Provide proof of recording for O&M Agreement that meets District requirements.
3. TEP approval of the wetland delineation is required.

Please note that there are also 2 stipulations.

Please be advised that **this is NOT a permit**, and that work without a permit is a violation of the terms of the Coon Creek Watershed District Rule 5.1. If you have any questions, please call 763-755-0975.

Sincerely,



Erin Edison
Water Resource Regulation Coordinator

cc: File 21-028
Ed Matthiesen, Stantec
Danielle Tourtillott, Stantec
Tom Collins, City of Ham Lake

Note: Please respond to each of these items in writing when resubmitting the revised

plans to the District. Resubmittals must include two hard copies and/or an electronic version sent to permitsubmittals@cooncreekwd.org. **Please submit written responses below the original typed comments, using extra sheets as necessary, addressing comments from the District.** If you have any questions, feel free to contact Erin Edison at (763) 755-0975. Pursuant to Coon Creek rule 7.3 deficiencies must be addressed and resubmitted within 60 days. Failure to so shall be deemed a withdrawal of the permit application.

4/9/2021

To: Erin Edison, Tim Kelly From: Brady Schmitz, Stantec Consulting Services Inc.
Coon Creek Watershed Copy: Ed Matthiesen, P.E., Stantec Consulting Services Inc.
District
PAN: 21-028 Date: April 9, 2021

Reference: Growing Generallions Daycare Update

Exhibits:

1. Construction Plans (9 sheets); by Plowe, dated 03/30/2021, received 03/31/2021.
2. Drainage Report; by Plowe, dated 03/31/2021, received 03/31/2021.
3. Response Letter; by Plowe, dated 03/30/2021, received 03/31/2021.

In Response to the Coon Creek Watershed District "Notice of Permit Application Status" dated March 23, 2021:

1. Receipt of escrows. **NO**
2. Update construction plans to include the following:
 - a. Provide erosion control measures to protect adjacent properties and stormwater ponds from construction activities. Double row of perimeter control at waterbodies/creeks/wetlands with a natural buffer < 50 feet. **YES**
 - b. Provide construction detail for stabilization at the outlets of all storm sewer pipes. **YES**
 - c. Provide inlet protection at all storm sewer inlets during construction. **YES**
3. Provide statement whether dewatering will be required for the construction of the proposed project. If yes, provide DNR dewatering permit and well-field location, rates, discharge location, schedule and quantities and a note on plans stating dewatering plans must be submitted to the district 7 days prior to activity for review and approval. **YES**
4. Provide a construction detail for Rain Gaurdians. **YES**
5. Provide an O&M Agreement that meets District requirements. **NO**
6. Provide TEP approval of wetland delineation. **NO**

Findings: The infiltration basin was updated to be slightly smaller due to City comments. This resulted in a slight increase in the HWL and rates out of the basin. The HWL is still contained within the basin, rate control is met, and the basin provides more than the required water quality volume.

Recommendation: Approval with 3 Conditions and 2 Stipulations:

Conditions:

1. Receipt of escrows.
2. Provide proof of recording of an O&M Agreement that meets District requirements.
3. Provide TEP approval of wetland delineation.

Stipulations:

1. Submittal of as-builts for the following stormwater management practices, including volumes and critical elevations:

Stormwater Treatment Practices	Number
Infiltration Basin	1
RainGaurdians	2
Outlet Control Structure	1

2. Completion of a post construction infiltration test on Infiltration Basin (P1) by filling the basin to a minimum depth of 6 inches with water and monitoring the time necessary to

drain, or multiple double ring infiltration tests to ASTM standards. The Coon Creek Watershed District shall be notified prior to the test to witness the results.

Rosa
Architectural
Group
Inc.

1084 Sterling Street
St. Paul, Minnesota 55119
tel: 651-739-7988
fax: 651-739-3165

GROWING
GENERATIONS

HAM LAKE, MN

CLASSIC
CONSTRUCTION

PH: 763-434-8870
18542 ULYSSES ST. NE
EAST BETHEL, MN

I HEREBY CERTIFY THAT THIS PLAN, SPECIFICATION, OR
REPORT WAS PREPARED BY ME OR UNDER MY DIRECT
SUPERVISION AND THAT I AM A DULY LICENSED ARCHITECT
UNDER THE LAWS OF THE STATE OF MINNESOTA.

PRINT NAME: _____
SIGNED: _____
DATE: _____ REG. NO. _____

I HEREBY CERTIFY THAT THIS PLAN, SPECIFICATION, OR
REPORT WAS PREPARED BY ME OR UNDER MY DIRECT
SUPERVISION AND THAT I AM A DULY LICENSED ARCHITECT
UNDER THE LAWS OF THE STATE OF MINNESOTA.

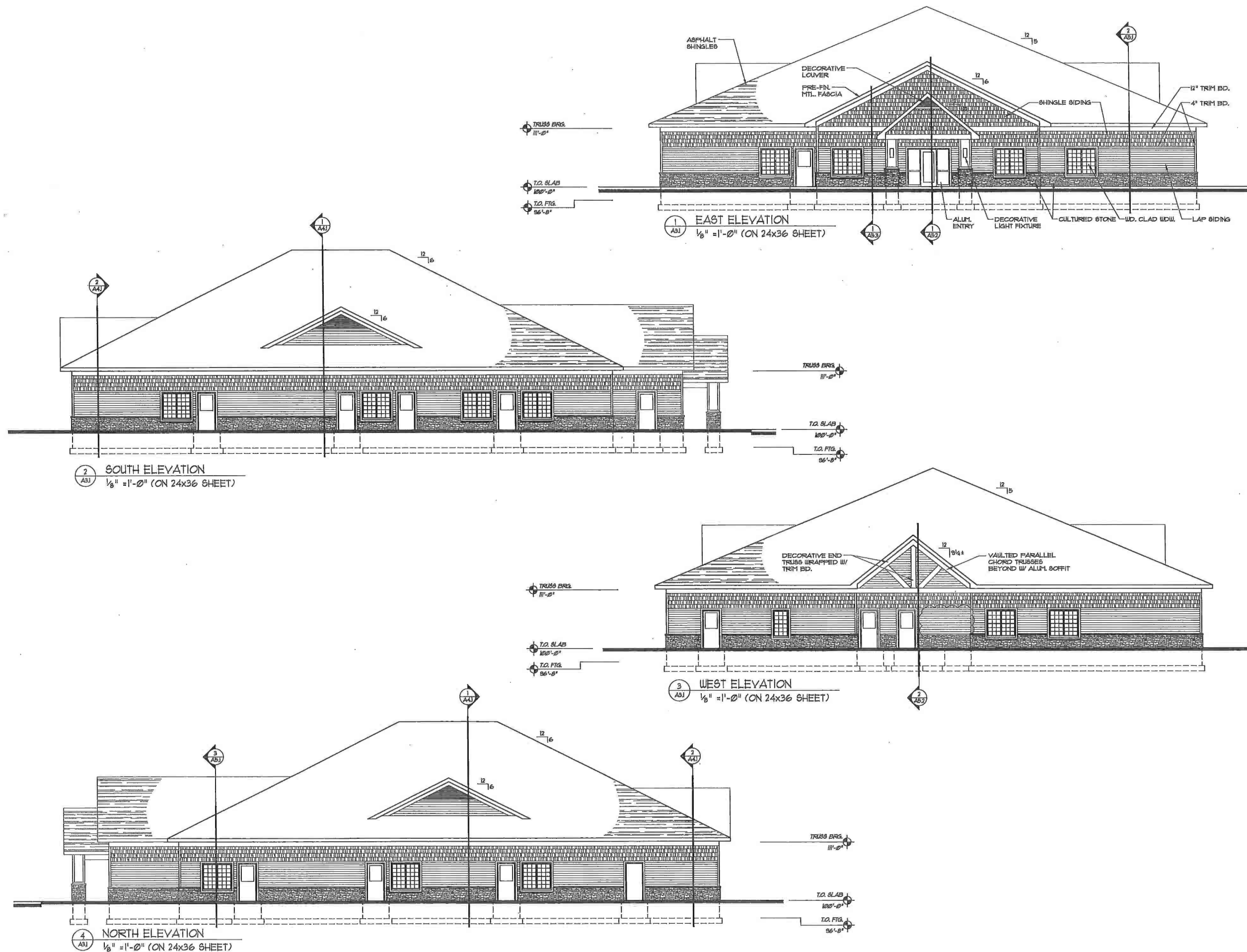
PRINT NAME: RUSSELL R. ROSA
SIGNED: Rosa
DATE: 4/8/21 REG. NO. 10233

PROJECT NUMBER: 22103
DATE: APRIL 5, 2021
DRAWN BY: KF
CHECKED BY: RR
REVISIONS: 4/15/21

ELEVATIONS

A3.1

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Rosa
Architectural
Group
Inc.

1084 Sterling Street
St. Paul, Minnesota 55119
tel: 651-739-7988
fax: 651-739-3165

GROWING
GENERATIONS

RADISSON RD. NE &
BUNKER LAKE
BLVD. NE
HAM LAKE, MN

CLASSIC
CONSTRUCTION

PH: 763-434-8870
18542 ULYSSES ST. NE
EAST BETHEL, MN

I HEREBY CERTIFY THAT THIS PLAN, SPECIFICATION, OR
REPORT WAS PREPARED BY ME OR UNDER MY DIRECT
SUPERVISION AND THAT I AM A DULY LICENSED PROFESSIONAL
UNDER THE LAWS OF THE STATE OF MINNESOTA.

PRINT NAME: _____

SIGNED: _____

DATE: _____ REG. NO. _____

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REPORT WAS PREPARED BY ME OR UNDER MY DIRECT
SUPERVISION AND THAT I AM A DULY LICENSED ARCHITECT
UNDER THE LAWS OF THE STATE OF MINNESOTA.

PRINT NAME: RUSSELL R. ROSA

SIGNED: Rosa

DATE: 4/5/21 REG. NO. 18039

PROJECT NUMBER: 22103

DATE: APRIL 5, 2021

DRAWN BY: JL

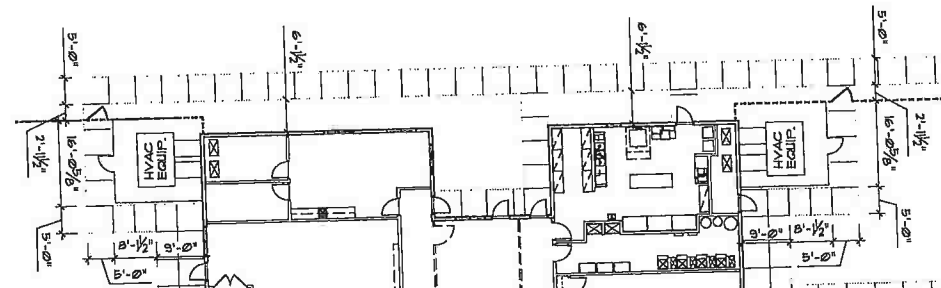
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REVISIONS: 4/15/21

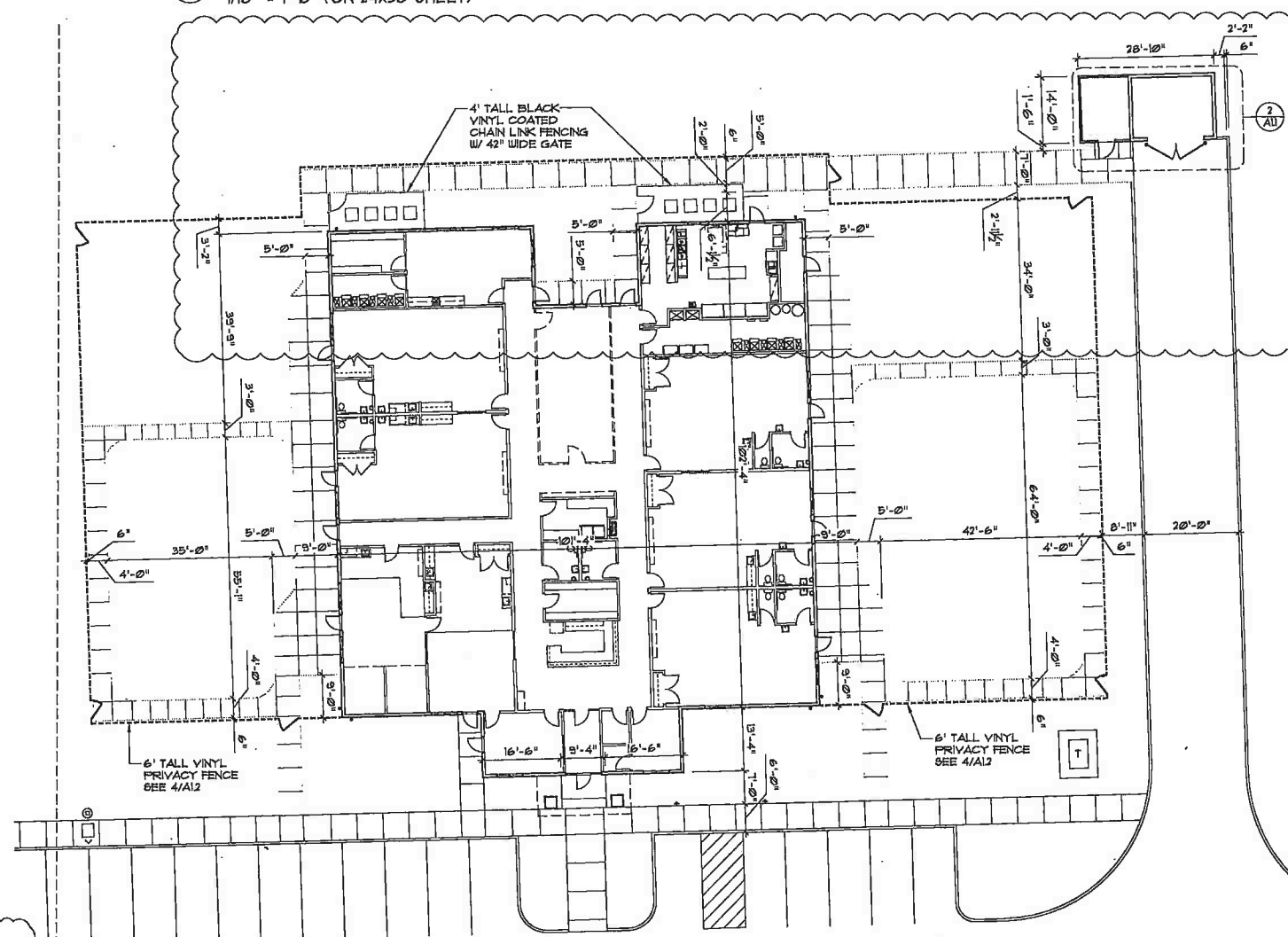
**SIDWALK DIMENSION PLAN
AND DETAILS**

A1.2

© COPYRIGHT 2021 ROSA ARCHITECTURAL GROUP



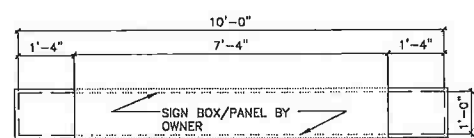
5 AL2 ALTERNATE SIDWALK PLAN FOR WEST SIDE OF BLDG.
1/16" = 1'-0" (ON 24x36 SHEET)



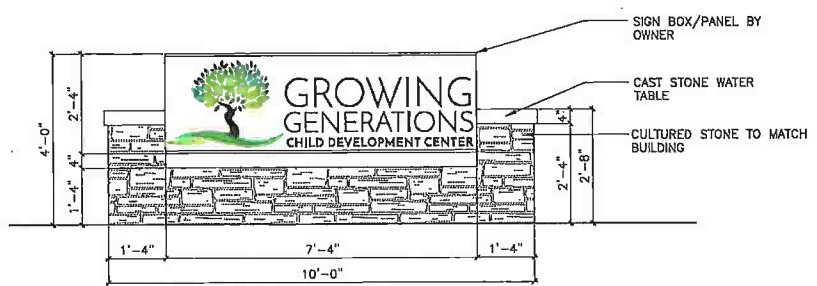
1 AL2 SIDWALK DIMENSION PLAN
1/16" = 1'-0" (ON 24x36 SHEET)



4 AL2 EXTERIOR FENCING ELEVATION
N.T.S.



3 AL2 MONUMENT SIGN PLAN
1/2" = 1'-0" (ON 24x36 SHEET)



2 AL2 MONUMENT SIGN ELEVATION
1/2" = 1'-0" (ON 24x36 SHEET)

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Group
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St. Paul, Minnesota 55119
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GROWING
GENERATIONS

RADISSON RD. NE &
BUNKER LAKE
BLVD. NE
HAM LAKE, MN

CLASSIC
CONSTRUCTION

PH: 763-434-8870
18542 ULYSSES ST. NE
EAST BETHEL, MN

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SUPERVISION AND THAT I AM A DULY LICENSED PROFESSIONAL
UNDER THE LAWS OF THE STATE OF MINNESOTA.

PRINT NAME: _____

SIGNED: _____

DATE: _____ REG. NO. _____

I HEREBY CERTIFY THAT THIS PLAN, SPECIFICATION, OR
REPORT WAS PREPARED BY ME OR UNDER MY DIRECT
SUPERVISION AND THAT I AM A DULY LICENSED ARCHITECT
UNDER THE LAWS OF THE STATE OF MINNESOTA.

PRINT NAME: RUSSELL R ROSA

SIGNED: Rosa

DATE: 4/5/21 REG. NO. 18033

PROJECT NUMBER: 22103

DATE: APRIL 5, 2021

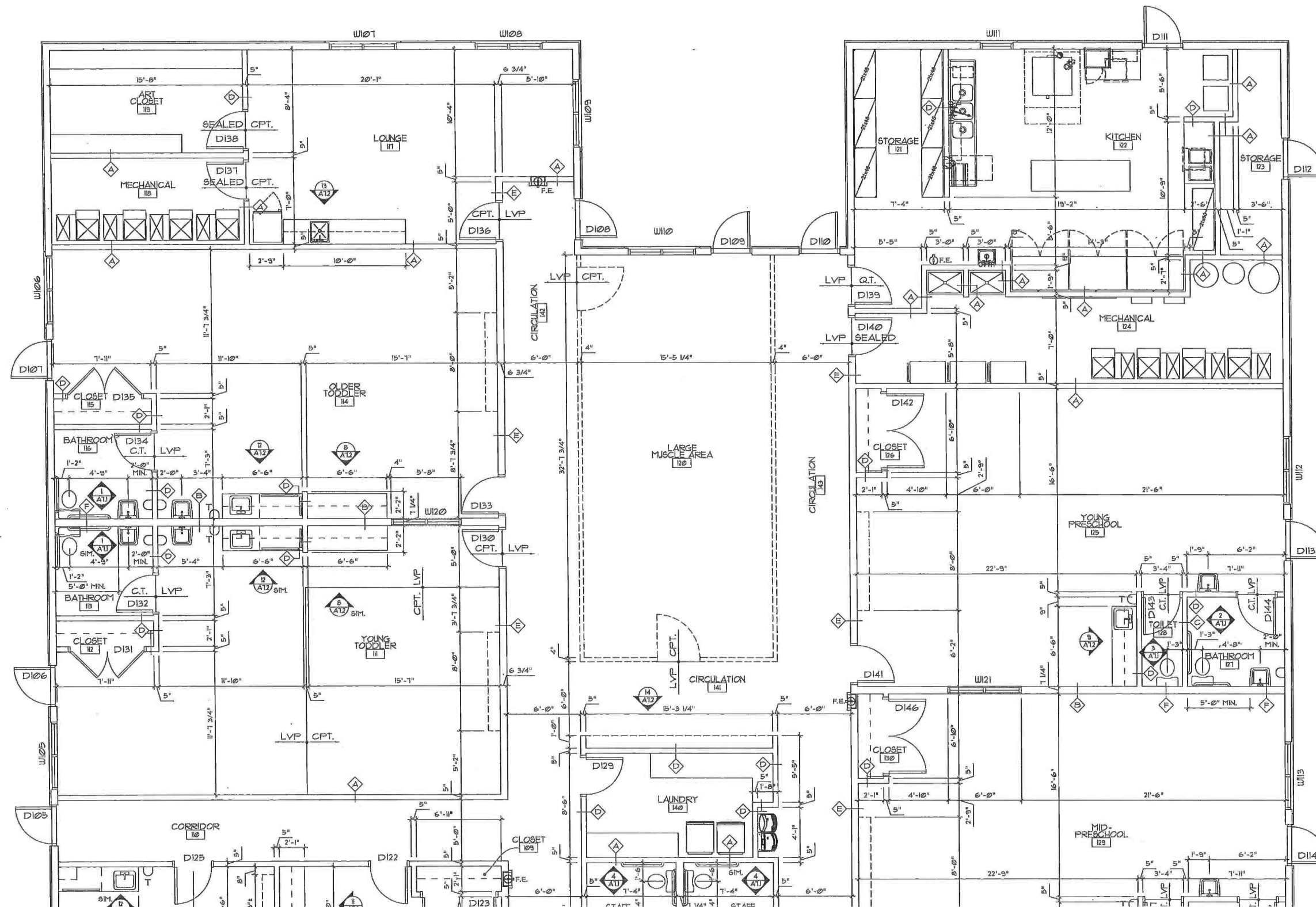
DRAWN BY: KF

CHECKED BY: RR

REVISIONS: _____

ENLARGED FLOOR PLAN

A2.2



1 ENLARGED FLOOR PLAN
A2.2 1/4" = 1'-0" (ON 24x36 SHEET)



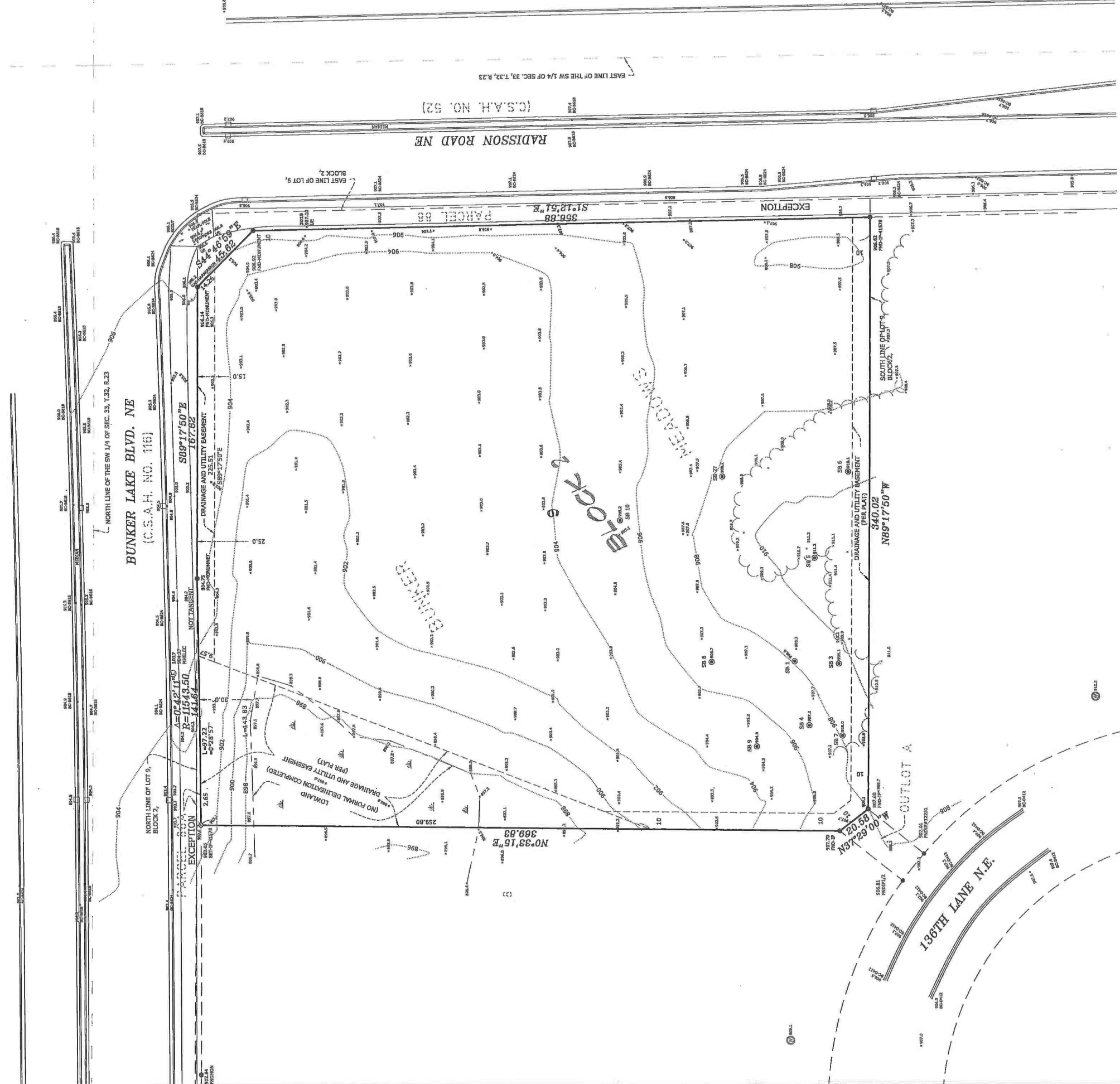
NORTH

CERTIFICATE OF SURVEY

for ~ CLASSIC CONSTRUCTION
of ~ GROWING GENERATIONS
HAM LAKE, MN

LEGAL DESCRIPTION

Lot 9, Block 2, BUNKER MEADOWS, EXCEPT any portions thereof contained within Parcels 88 and 88A, Anoka County Highway Right-of-Way Plat No. 73, Anoka County, Minnesota.

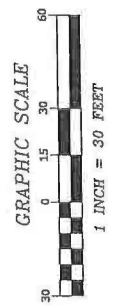


LEGEND

- DENOTES IRON MONUMENT FOUND AS LABELED
- DENOTES IRON MONUMENT SET, MARKED RLS# 41578
- DENOTES CATCH BASIN
- ⊗ DENOTES ELECTRICAL MANHOLE
- x 562.36 DENOTES EXISTING SPOT ELEVATION
- ▲ DENOTES WET LAND
- ⊙ DENOTES SOIL BORING
- ⊕ DENOTES WELL
- DENOTES EXISTING CONTOURS
- DENOTES TREE LINE
- DENOTES BITUMINOUS SURFACE
- DENOTES CONCRETE SURFACE

NOTES

- Field survey was completed by E.G. Rud and Sons, Inc. on 01/27/21 and 04/16/21.
- Bearings shown are on Anoka County datum.
- Parcel ID Number: 33-32-23-31-0006.
- Curb shots are taken at the top and back of curb.
- This survey was prepared without the benefit of title work. Additional easements, restrictions and/or encumbrances may exist other than those shown herein. Survey is subject to revision upon receipt of a current title commitment or an attorney's title opinion.
- Due to field work being completed during the winter season there may be improvements in addition to those shown that were not visible due to snow and ice conditions characteristic of Minnesota winters.



I hereby certify that this survey, plan or report was prepared by me or under my supervision and that I am a duly Registered Land Surveyor under the laws of the State of Minnesota.

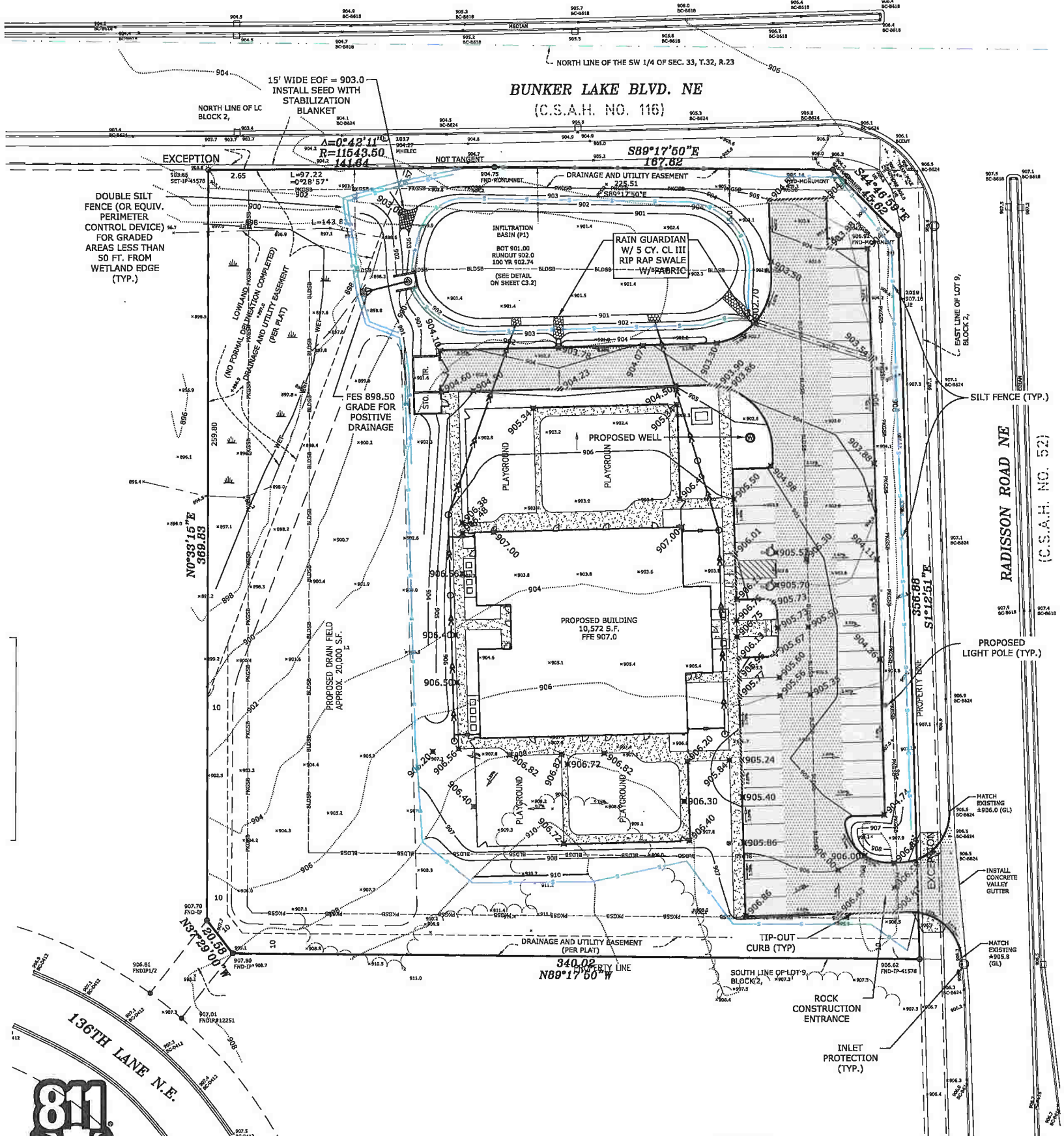
JASON E. RUD
Date: 04/20/2021 License No. 41578

BENCHMARK

MNDOT GS1D STATION #560 NGS NAME 02081K
ELEVATION: 904.693
DATUM: (NAVD83)

E.G. RUD & SONS, INC.
Professional Land Surveyors
6776 Lake Drive NE, Suite 110
Lino Lakes, MN 55014
Tel. (651) 361-8200 Fax (651) 361-8701
www.egrud.com

DRAWN BY: BCD	JOB NO: 21007781	DATE: 01/26/21
CHECK BY: JER	FIELD CREW: JH/CB	
1	04/19/21	ADDED SOIL BORING/WELL INFO
2	04/20/21	CLIENT COMMENT
3		
NO.	DATE	DESCRIPTION
BY		



ADDITIONAL NOTE:
 1. ANY COMPACTED SOILS WILL BE ALLEVIATED (BY USING A PRIMARY TILLING OPERATION SUCH AS A CHISEL PLOW, RIPPER OR SUBSOILER) TO 6" MIN. DEPTH PRIOR TO PLACING PLACING PLANTING MATERIAL. SCARIFY SOIL/PROVIDE SOIL AMENDMENTS AS NEEDED.

PARKING:

51 EXTERIOR SURFACE PARKING STALLS PROPOSED (2) OF WHICH ARE ADA ACCESSIBLE
 TOTAL BITUMINOUS (DRIVE AISLE & PARKING) = 25,087 SF (0.58 ACRES)
 PARKING STALL AREA = 9,348 SF (0.21 ACRES)
 COMMERCIAL DEVELOPMENT TIER 3 (CD-3) ZONING

CONTRACTOR SHALL CALL GOPHER STATE ONE PRIOR TO EXCAVATING AND GRADING ON SITE, AND SPECIFICALLY, WITHIN THE D&U EASEMENT TO PREVENT DAMAGE TO BURIED UTILITIES THAT MAY EXIST IN THE AREA. NOTIFY ENGINEER AND OWNERS OF UTILITIES SHOULD RELOCATION BE REQUIRED.

SITE SEQUENCING

- PRIOR TO ANY GRADING OPERATIONS, THE CONTRACTOR SHALL INSTALL ROCK CONSTRUCTION ENTRANCE (LOCATIONS TO BE DETERMINED - COORDINATE WITH OWNER) AND PERIMETER SILT FENCE AS SHOWN ON PLAN. (CONTACT CITY TO INSPECT EROSION CONTROL MEASURES PRIOR TO GRADING OPERATIONS, IF NECESSARY.) ADDITIONAL SILT FENCE MAY BE NECESSARY IF LOCAL CONDITIONS REQUIRE.
- THE CONTRACTOR SHALL PROVIDE ALL SOD, SEED, MULCH AND FERTILIZER WHICH SHALL CONFORM WITH THE FOLLOWING MNDOT SPECIFICATIONS AS MODIFIED BELOW.

ITEM	MNDOT SPECIFICATION/NOTES
SOD	3878
SEED **	3876
* FOR TURF ESTABLISHMENT	
COMMERCIAL TURF	MNDOT MIX 25-131 (220 LBS/ACRE)
RESIDENTIAL TURF	MNDOT MIX 25-131 (120 LBS/ACRE)
TEMPORARY	
FALL COVER	MNDOT MIX 21-112 (100 LBS/ACRE)
SPRING/SUMMER	MNDOT MIX 21-111 (100 LBS/ACRE)
SOIL-BUILDING COVER	MNDOT MIX 21-113 (110 LBS/ACRE)
1-2 YEARS COVER	MNDOT MIX 22-111 (30.5 LBS/ACRE)
2-5 YEARS COVER	MNDOT MIX 22-112 (40 LBS/ACRE)
MULCH	3882 (TYPE 1 - DISC ANCHORED)
FERTILIZER	3881
WOOD FIBER BLANKET	3885 (CATEGORY 2)

* MOW A MINIMUM OF ONCE PER 2 WEEKS
 ** SEEDED AREAS SHALL BE EITHER MULCHED OR COVERED BY FIBROUS BLANKETS TO PROTECT SEEDS AND LIMIT EROSION.

- ALL EXPOSED SOILS MUST HAVE TEMPORARY EROSION CONTROL PROTECTION OR PERMANENT COVER WITHIN SEVEN (7) DAYS.
- THE CONTRACTOR SHALL PAY SPECIAL ATTENTION TO ALL ADJACENT PROPERTY LINES AND MAKE SURE THE EROSION CONTROL PRACTICES IN PLACE IN THOSE AREAS PREVENT MIGRATION OF SEDIMENT ONTO ADJACENT PROPERTIES.
- THE CONTRACTOR SHALL MAINTAIN SILT FENCE, INCLUDING THE REMOVAL OF ACCUMULATED SEDIMENT, THROUGH COMPLETION OF BUILDING CONSTRUCTION. SILT FENCE TO BE REMOVED ONLY AFTER COMPLETION OF BUILDING CONSTRUCTION AND UPON ESTABLISHMENT OF VEGETATION.
- THE CONTRACTOR SHALL PROVIDE WOOD FIBER BLANKET FOR ALL AREAS OF CONCENTRATED FLOW AND FOR ALL SLOPES 3:1 OR GREATER.
- PROTECT ALL STORM WATER MANAGEMENT FACILITIES FROM CONSTRUCTION RUN-OFF. CONTRACTOR TO INSTALL AND CONSTRUCT SAID FACILITIES ONCE SITE HAS BEEN STABILIZED.
- IF ANY SLOPES APPEAR TO BE FAILING, THE CONTRACTOR SHALL PROVIDE ADDITIONAL SILT FENCE, BIOROLLS AND EROSION CONTROL BLANKET AS NEEDED.
- THE CONTRACTOR SHALL FINAL GRADE SWALE AREAS UPON STABILIZATION OF UPSTREAM AREAS.
- THE CONTRACTOR SHALL SOD ALL DISTURBED DRAINAGE AREAS, INCLUDING SWALES & OVERFLOWS.
- UPON GRADING COMPLETION THE CONTRACTOR SHALL PROVIDE NATIVE TOPSOIL WITH SOD OR SEED, AND MULCH ANCHORED WITH A STRAIGHT SET DISC WITHIN 48 HOURS OF FINAL GRADING.
- EXCESS SOIL SHOULD BE TREATED LIKE OTHER EXPOSED SOIL AND STABILIZED WITHIN 72 HOURS. ANY SOIL STOCKPILES ARE TO HAVE SILT FENCE PLACED ON DOWNSTREAM SIDES.
- IF A STREET, ALLEY, SIDEWALK OR OTHER PUBLIC PLACE SHOULD BECOME SOILED OR LITTERED, THE CONTRACTOR SHALL CAUSE SUCH SOILING OR LITTERING TO BE CLEANED UP BY SWEEPING NOT LATER THAN THE END OF THE WORKING DAY IN WHICH SUCH SOILING OR LITTERING SHALL HAVE OCCURRED OR BEEN OBSERVED.

OTHER POLLUTION CONTROL MEASURES

- CONSTRUCTION WASTE MATERIALS - ALL WASTE MATERIALS GENERATED AS A RESULT OF SITE CONSTRUCTION SHALL BE COLLECTED AND REMOVED ACCORDING TO ALL LOCAL AND/OR STATE WASTE MANAGEMENT REGULATIONS BY A LICENSED SOLID WASTE MANAGEMENT COMPANY. THE CONTRACTOR WILL ENSURE THAT ALL SITE PERSONNEL ARE INSTRUCTED IN THESE PRACTICES.
- HAZARDOUS WASTES - ALL HAZARDOUS WASTE MATERIALS SHALL BE STORED PROPERLY TO PREVENT SPILLS AND VANDALISM. WHEN NECESSARY, HAZARDOUS WASTES WILL BE DISPOSED OF IN THE MANNER SPECIFIED BY LOCAL AND/OR STATE REGULATION OR BY THE MANUFACTURER.
- SANITARY WASTE - ALL SANITARY WASTE WILL BE COLLECTED FROM THE PORTABLE UNITS BY A LOCAL, LICENSED WATER MANAGEMENT COMPANY, AS REQUIRED BY LOCAL REGULATION.
- OFFSITE VEHICLE TRACKING - A ROCK CONSTRUCTION ENTRANCE HAS BEEN PROVIDED TO HELP REDUCE VEHICLE TRACKING OF SEDIMENTS. IF A STREET, ALLEY, SIDEWALK OR OTHER PUBLIC PLACE SHOULD BECOME SOILED OR LITTERED, THE CONTRACTOR SHALL CAUSE SUCH SOILING OR LITTERING TO BE CLEANED UP BY SWEEPING NOT LATER THAN THE END OF THE WORKING DAY IN WHICH SUCH SOILING OR LITTERING SHALL HAVE OCCURRED OR BEEN OBSERVED. DUMP TRUCKS HAULING LOOSE MATERIALS (SAND, TOPSOIL, ETC.) TO AND/OR FROM THE SITE SHALL BE COVERED WITH A TARPULIN.
- VEHICLE CLEANING - NO ENGINE DEGREASING IS ALLOWED ON-SITE. EXTERNAL WASHING OF VEHICLES TO BE CONFINED TO A DEFINED AREA ("BOONE YARD") ON-SITE. CONTRACTOR TO PROVIDE DESIGNATED TRUCK WASHOUT AREA WITH APPROPRIATE SIGNAGE. WASHOUT AREA IS TO BE A MINIMUM OF 50' FROM DITCHES, PONDS, OR OTHER STORMWATER FEATURES. ALL LIQUID AND SOLID WASTE GENERATED BY WASHOUT OPERATIONS MUST BE CONTAINED IN A LEAK-PROOF CONTAINMENT FACILITY OR IMPERMEABLE LINER (E.G. COMPACTED CLAY LINER, IMPERMEABLE GEO-MEMBRANE) AND DISPOSED OF PROPERLY.
- SPILL PREVENTION AND CONTROL - ALL VEHICLES WILL BE CHECKED FOR LEAKING OIL AND FLUIDS. VEHICLES LEAKING FLUIDS WILL NOT BE ALLOWED ON-SITE. SPILL KITS WILL BE STORED ON-SITE AND ALL SPILLS WILL BE CLEANED UP IMMEDIATELY. SPENT ABSORBENT MATERIALS AND RAGS WILL BE HAULED OFF-SITE IMMEDIATELY AFTER THE SPILL IS CLEANED UP AND PROPERTY DISPOSED OF. SPILL PREVENTION AND CONTROL MEASURES SHALL BE IMPLEMENTED ONCE CONSTRUCTION BEGINS.
- SOIL STOCKPILES - INSTALL SILT FENCE OR OTHER EFFECTIVE SEDIMENT CONTROLS AROUND ALL TEMPORARY SOIL STOCKPILES. LOCATE SOIL OR DIRT STOCKPILES SUCH THAT DOWNSLOPE DRAINAGE LENGTH IS NO LESS THAN 8 M (25 FEET) FROM THE TOP OF THE PILE TO A SURFACE WATER, INCLUDING STORMWATER CONVEYANCES SUCH AS CURBS AND GUTTER SYSTEMS, OR CONDUITS AND DITCHES UNLESS THERE IS A BYPASS IN PLACE FOR THE STORMWATER. IF REMAINING FOR MORE THAN 7 DAYS, STABILIZE THE STOCKPILES BY MULCHING, VEGETATIVE COVER, TARPS, OR OTHER MEANS. DURING STREET REPAIR, COVER CONSTRUCTION SOIL OR DIRT STOCKPILES LOCATED CLOSER THAN 8 M (25 FEET) TO A ROADWAY OR DRAINAGE CHANNEL WITH TARPS, AND PROTECT STORM SEWER INLETS WITH SILT SOCKS OR STAKED SILT FENCE.
- PROVIDE W/MCO (OR APPROVED EQUAL) FOR INLET PROTECTION AT ALL EXISTING STORM SEWER INLETS THAT WILL RECEIVE RUN-OFF DURING CONSTRUCTION. INLET PROTECTION TO REMAIN IN-PLACE UNTIL AT LEAST 70% OF SITE VEGETATION HAS BEEN ESTABLISHED.
- CONTRACTOR TO PROVIDE DESIGNATED CONCRETE TRUCK WASHOUT AREA WITH APPROPRIATE SIGNAGE. KEEP WASHOUT AREAS AS FAR AS PRACTICAL FROM STORM DRAINS, DITCHES AND PONDS. DO NOT ALLOW RUN-OFF FROM THIS AREA BY CONSTRUCTING A TEMPORARY PIT OR BERMED AREA LARGE ENOUGH FOR LIQUID AND SOLID WASTE. AFTER WASTE CONCRETE IS SET, BREAK-UP AND DISPOSE OF PROPERLY.
- THE CONTRACTOR MUST DISCHARGE TURBID OR SEDIMENT-LADEN WATERS RELATED TO DEWATERING (E.G., PUMPED DISCHARGES, TRENCH/DITCH CUTS FOR DRAINAGE) TO A TEMPORARY OR PERMANENT SEDIMENTATION BASIN ON THE PROJECT SITE UNLESS INFEASIBLE. THE CONTRACTOR MAY DISCHARGE FROM THE TEMPORARY OR PERMANENT SEDIMENTATION BASINS TO SURFACE WATERS IF THE BASIN WATER HAS BEEN VISUALLY CHECKED TO ENSURE ADEQUATE TREATMENT HAS BEEN OBTAINED IN THE BASIN AND THAT NUISANCE CONDITIONS (SEE MINN. R. 7050.0210, SUBP. 2) WILL NOT RESULT FROM THE DISCHARGE. IF THE WATER CANNOT BE DISCHARGED TO A SEDIMENTATION BASIN PRIOR TO ENTERING THE SURFACE WATER, IT MUST BE TREATED WITH THE APPROPRIATE BMPs, SUCH THAT THE DISCHARGE DOES NOT ADVERSELY AFFECT THE RECEIVING WATER OR DOWNSTREAM PROPERTIES.

ALL WORK WITHIN ANOKA COUNTY RIGHT-OF-WAY SHALL CONFORM TO THE 2018 EDITION OF THE MNDOT STANDARD SPECIFICATIONS FOR CONSTRUCTION.

DRAWN BY: M.Q.A.
 CHECKD BY: M.Q.A.
 DESIGN BY: C.W.P.
 PROJ. NO.: 21-1956
 ORIGINAL DATE: JANUARY 28, 2021

REVISION DESCRIPTION

DATE	REVISION DESCRIPTION
3/21/21	INFILTRATION BASIN MODIFICATION; ADDED SITE NOTES

I hereby certify that this plan was prepared by me or under my direct supervision and that I am a duly Licensed Professional Engineer under the laws of the State of Minnesota.
Charles W. Plowe
 CHARLES W. PLOWE, P.E.
 LIC. NO. 04-16-2021
 DATE: 04-16-2021

GROWING GENERATIONS DAYCARE
 BUNKER LAKE, MINNESOTA
 GRADING, DRAINAGE, AND EROSION CONTROL PLAN

PREPARED FOR:
CLASSIC CONSTRUCTION



SITE PLANNING & ENGINEERING
PLOWE ENGINEERING, INC.
 6776 LAKE DRIVE
 SUITE 110
 LINO LAKES, MN 55014
 PHONE: (651) 361-8210
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NORTH

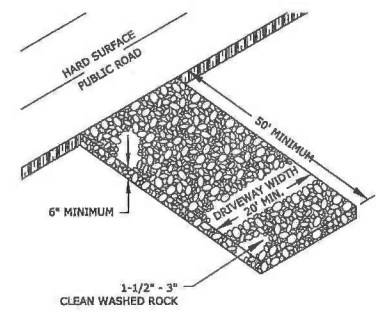
 0 15 30
 1 INCH = 30 FEET

G1

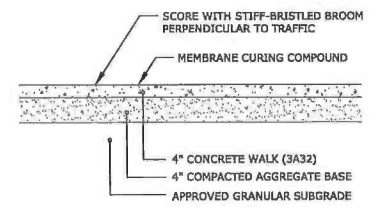
811
 Know what's below.
 Call before you dig.

**GRADING, DRAINAGE, AND EROSION CONTROL PLAN
 BUNKER LAKE BLVD NE & RADISSON ROAD NE**

DATE	REVISION DESCRIPTION
4/19/21	MODIFIED CONCRETE VALLEY GUTTER REF. TO B&B CURB

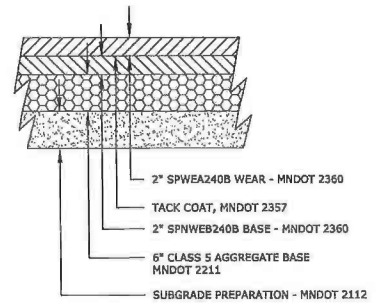


ROCK CONSTRUCTION ENTRANCE
NOT TO SCALE



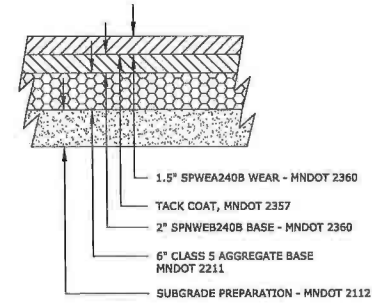
NOTES:
 1) USE EXPANSION JOINT WHERE NEW CONCRETE MEETS EXISTING CONCRETE OR STRUCTURE.
 2) CONTROL JOINTS SHALL BE CUT WITH A JOINTER HAVING A RADIUS OF 1/4" AND SPACED @ 5'-0" O.C. MAX. U.N.O.
 3) EXPANSION JOINTS SHALL BE SPACED AT 20'-0" O.C. MAX. AND SHALL CONSIST OF A 1/2" PRE-FORMED JOINT FILLER.
 4) ANTI-SPALLING COMPOUND SHALL BE APPLIED TO CONCRETE SURFACES.

TYPICAL CONCRETE SIDEWALK
NOT TO SCALE



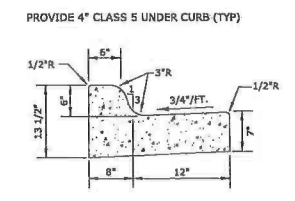
PAVING SHALL CONFORM TO THE LATEST EDITION OF MNDOT'S STANDARD SPECIFICATIONS FOR CONSTRUCTION AND THE CITY'S STANDARDS FOR STREET AND UTILITY CONSTRUCTION.
 PAVING SECTION SHALL BE REVIEWED AND APPROVED BY GEOTECHNICAL ENGINEER PRIOR TO ANY INSTALLATIONS.

BITUMINOUS - HEAVY DUTY
NOT TO SCALE



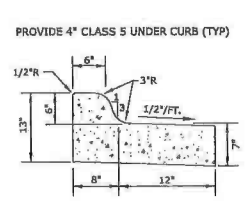
PAVING SHALL CONFORM TO THE LATEST EDITION OF MNDOT'S STANDARD SPECIFICATIONS FOR CONSTRUCTION AND THE CITY'S STANDARDS FOR STREET AND UTILITY CONSTRUCTION.
 PAVING SECTION SHALL BE REVIEWED AND APPROVED BY GEOTECHNICAL ENGINEER PRIOR TO ANY INSTALLATIONS.

BITUMINOUS - LIGHT DUTY
NOT TO SCALE



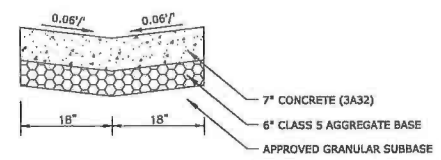
NOTE: FOR MECHANICALLY LAID CURB, SHOE MAY BE TILTED.

B612 CONCRETE CURB & GUTTER
NOT TO SCALE

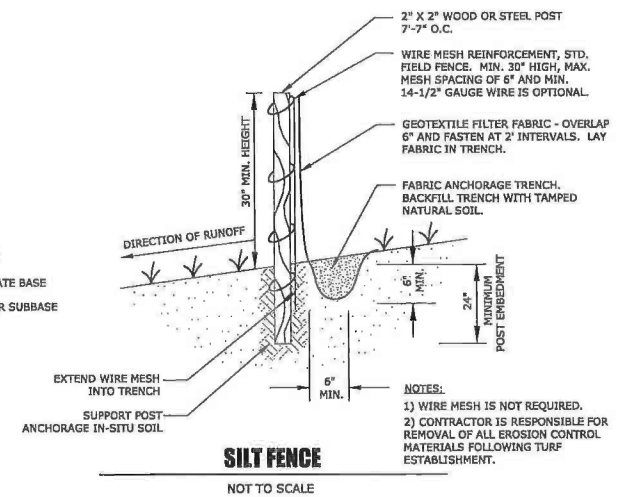


NOTE: FOR MECHANICALLY LAID CURB, SHOE MAY BE TILTED.

B612 CONCRETE CURB & GUTTER (TIP-OUT)
NOT TO SCALE

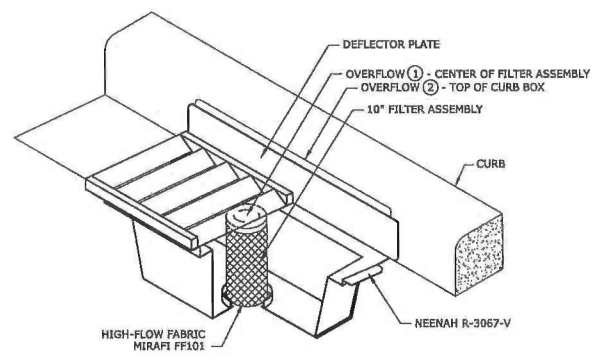


CONCRETE GUTTER SWALE
NOT TO SCALE

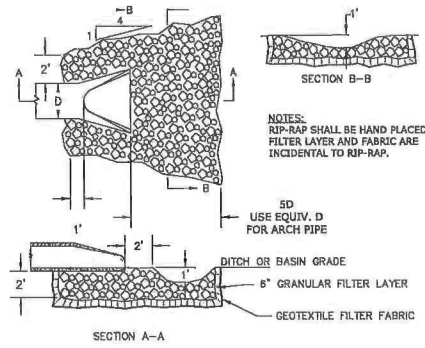


NOTES:
 1) WIRE MESH IS NOT REQUIRED.
 2) CONTRACTOR IS RESPONSIBLE FOR REMOVAL OF ALL EROSION CONTROL MATERIALS FOLLOWING TURF ESTABLISHMENT.

SILT FENCE
NOT TO SCALE



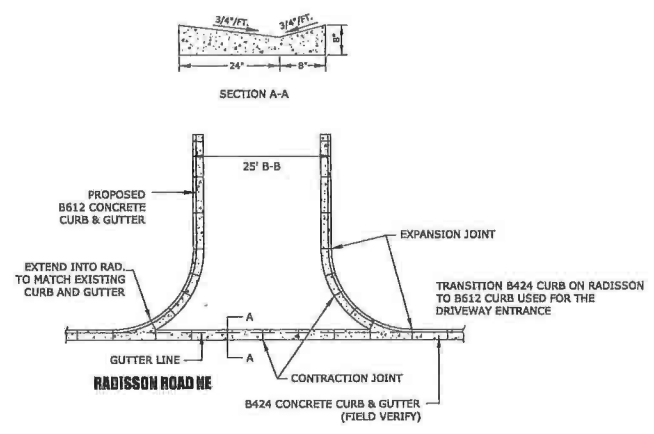
WIMCO INLET PROTECTION
NOT TO SCALE



NOTES:
 RIP-RAP SHALL BE HAND PLACED. FILTER LAYER AND FABRIC ARE INCIDENTAL TO RIP-RAP.
 SD USE EQUIV. D FOR ARCH PIPE

PIPE DIA.	RIP-RAP	PIPE DIA.	RIP-RAP	PIPE DIA.	RIP-RAP
12"	4	24"	10	42"	23
15"	5	27"	12	48"	29
18"	6	30"	14	54"	34
21"	8	36"	19	60"	39

RIP-RAP AT OUTLETS
NOT TO SCALE



CONCRETE CROSS GUTTER
NOT TO SCALE

I hereby certify that this plan was prepared by me or under my direct supervision and that I am a duly Licensed Professional Engineer under the laws of the State of Minnesota.
CHARLES W. PLOWE
 DATE: 04-16-2021 LIC. NO. 19327

GROWING GENERATIONS DAYCARE
 RAIN LAKE, MINNESOTA
 DETAILS & NOTES

PREPARED FOR:
CLASSIC CONSTRUCTION

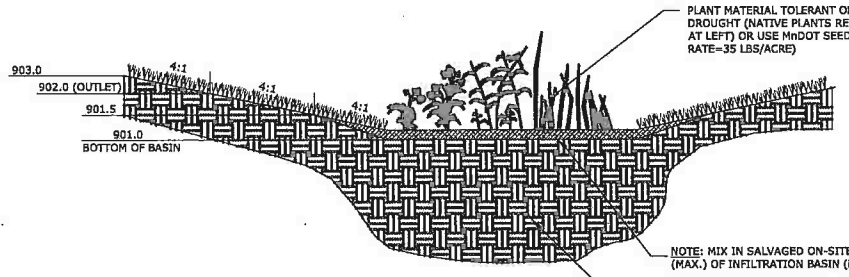
PLOWE ENGINEERING, INC.
 SITE PLANNING & ENGINEERING

6778 LAKE DRIVE
 SUITE 110
 LINDO LAKES, MN 55014
 PHONE: (951) 381-8210
 FAX: (951) 381-8701

PLANTING SUGGESTIONS

BOTTOM OF BASIN	SIDE SLOPES
NATIVE PLANTINGS	NATIVE PLANTINGS
GIANT BUR-REED	BIG BLUESTEM
WOOL GRASS SEDGE	BLUE JOINT GRASS
CORD GRASS	SWITCH GRASS
BLUE FLAG IRIS	BLUE VERVAIN
SWAMP MILKWEED	PRAIRIE BLAZINGSTAR
TAMARACK	TAMARACK
JOE-PYE WEED	NEW ENGLAND ASTER
NEW ENGLAND ASTER	RED-OSIER DOGWOOD
PRAIRIE BLAZINGSTAR	SANDBAR WILLOW
BONESET	BLACK CHOKECHERRY
BLACK WILLOW	BLACK WILLOW

- NOTES**
- WELL-BLENDED FILTRATION MEDIA TO BE COMPROMISED OF (BY VOLUME): 70-80% CLEAN CONSTRUCTION SAND AND 15-30% ON SITE TOPSOIL.
 - CONTRACTOR TO MARK-OFF INFILTRATION BASIN AREA WITH SILT FENCE OR OTHER VISIBLE MARKER.
 - USE LOW-IMPACT, EARTH MOVING EQUIPMENT SUCH AS WIDE TRACK OR MARSH TRACK EQUIPMENT, OR OTHER LIGHT-EQUIPMENT WITH TURF-TYPE TIRES, IN INFILTRATION BASIN AREA.
 - NO MINING OR OVER-EXCAVATION IN INFILTRATION BASIN.
 - NO BURYING OF MATERIALS IN INFILTRATION BASIN.
 - FINAL GRADE ONLY UPON STABILIZATION OF UPSTREAM AREAS.
 - BASIN BOTTOM TO BE GRADED FLAT.
 - ALLEVIATE ANY COMPACTED SOILS PRIOR TO SEEDING.
 - INFILTRATION BASIN TO REMAIN UNLINED.
 - PROTECT INFILTRATION BASIN FROM RUN-OFF DURING CONSTRUCTION ACTIVITIES. EXCAVATE TO FINAL GRADE ONLY UPON STABILIZATION OF CONTRIBUTING DRAINAGE AREAS.

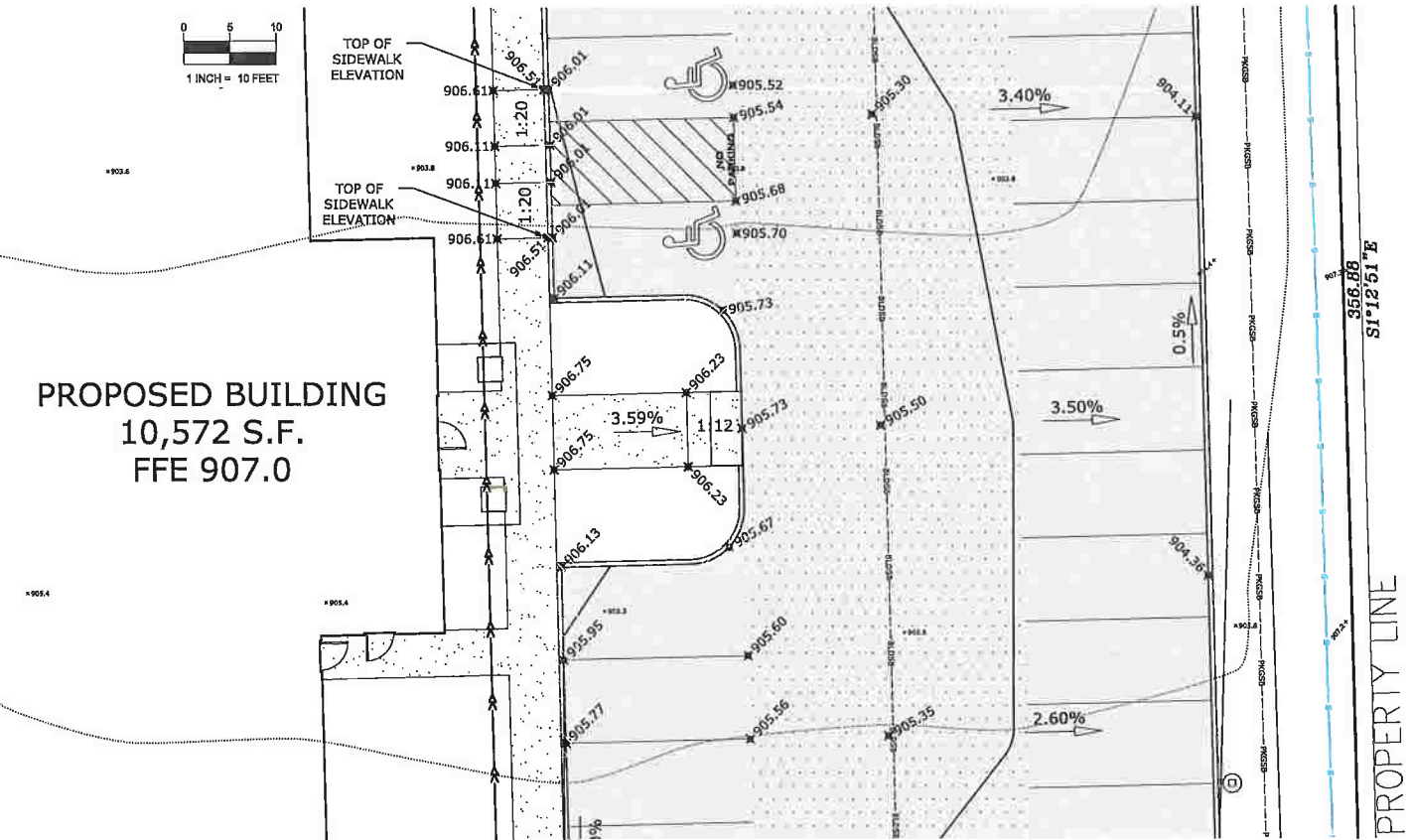
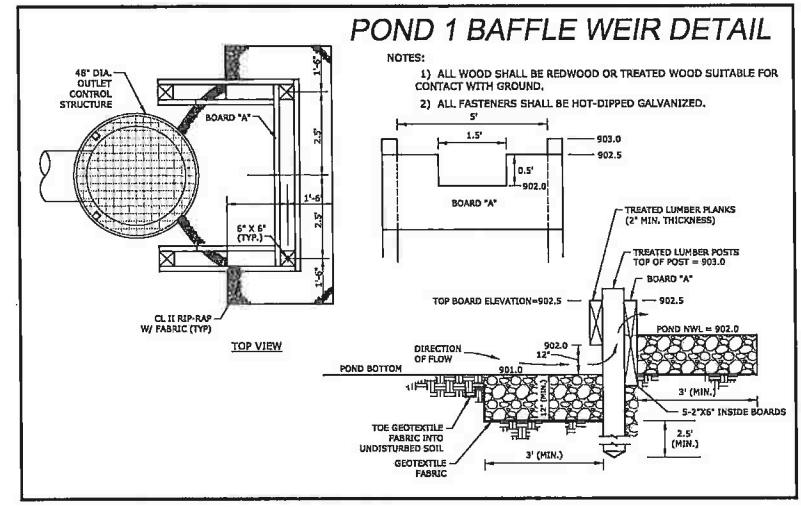


INFILTRATION BASIN (P1)

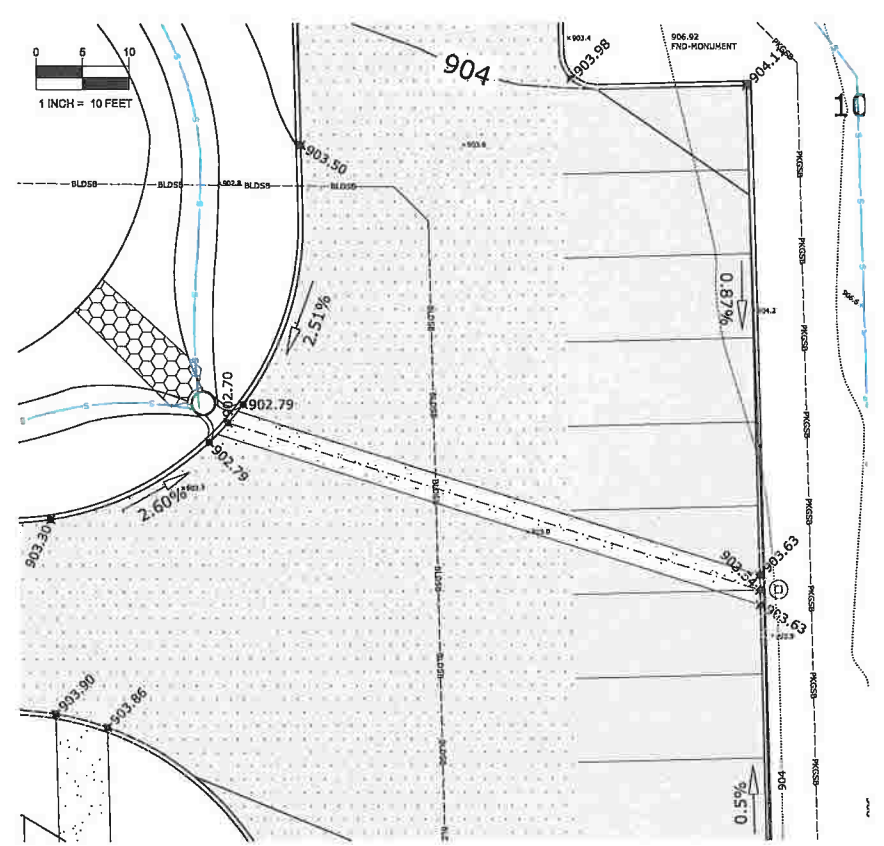
NOT TO SCALE

POST-CONSTRUCTION INFILTRATION TESTING IS REQUIRED; PERFORM TEST BY FILLING BASIN WITH SIX (6) INCHES OF WATER AND MONITORING DRAW-DOWN TIMES
 CONTACT COON CREEK WATERSHED DISTRICT AT LEAST 24 HOUR PRIOR TO WITNESS TEST

DO NOT EXCAVATE BASIN TO FINAL GRADE, OR WITHIN THREE (3) FEET OF FINAL GRADE, UNTIL THE CONTRIBUTING DRAINAGE AREA HAS BEEN CONSTRUCTED AND FULLY STABILIZED UNLESS THEY PROVIDE RIGOROUS EROSION PREVENTION AND SEDIMENT CONTROLS (E.G., DIVERSION BERMS) TO KEEP SEDIMENT AND RUNOFF COMPLETELY AWAY FROM THE INFILTRATION AREA.



HANDICAP ACCESS DETAIL



CONCRETE CROSS GUTTER DETAIL

DETAILS & NOTES
BUNKER LAKE BLVD NE & RADISSON ROAD NE

REVISION DESCRIPTION

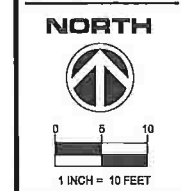
DATE	REVISION DESCRIPTION
4/16/21	REVERSED HANDICAP RAMP ARROW

I hereby certify that this plan was prepared by me or by a duly licensed Professional Engineer under the authority of the State of Minnesota.
PRELIMINARY
 CHARLES W. PLOWE
 LIC. NO. 04-16-2021
 DATE: 04-16-2021

GROWING GENERATIONS DAYCARE
 BUNKER LAKE, MINNESOTA
 DETAILS & NOTES

PREPARED FOR:
CLASSIC CONSTRUCTION

PLOWE ENGINEERING, INC.
 SITE PLANNING & ENGINEERING
 6776 LAKE DRIVE SUITE 110
 LINO LAKES, MN 55014
 PHONE: (651) 361-8210
 FAX: (651) 361-6701



C3.2

4.1 TERMINATION OF COVERAGE. (MINN. R. 7090)

- 4.2 PERMITTEES MUST SUBMIT A NOT WITHIN 30 DAYS AFTER ALL TERMINATION CONDITIONS LISTED IN SECTION 13 ARE COMPLETE. (MINN. R. 7090)
- 4.3 PERMITTEES MUST SUBMIT A NOT WITHIN 30 DAYS AFTER SELLING OR OTHERWISE LEGALLY TRANSFERRING THE ENTIRE SITE, INCLUDING PERMIT RESPONSIBILITY FOR ROADS (E.G., STREET SWEEPING) AND STORMWATER INFRASTRUCTURE FINAL CLEAN UP, OR TRANSFERRING THE SITE TO ANOTHER PARTY. THE PERMITTEES COVERAGE UNDER THIS PERMIT TERMINATES AT MIDNIGHT ON THE SUBMISSION DATE OF THE NOT. (MINN. R. 7090)
- 4.4 PERMITTEES MAY TERMINATE PERMIT COVERAGE PRIOR TO COMPLETION OF ALL CONSTRUCTION ACTIVITY IF THEY MEET ALL OF THE FOLLOWING CONDITIONS:
 - A. CONSTRUCTION ACTIVITY HAS CEASED FOR AT LEAST 90 DAYS; AND
 - B. AT LEAST 80 PERCENT (BY AREA) OF ALL ORIGINALLY PROPOSED CONSTRUCTION ACTIVITY HAS BEEN COMPLETED AND PERMANENT COVER HAS BEEN ESTABLISHED ON THOSE AREAS; AND
 - C. ON AREAS WHERE CONSTRUCTION ACTIVITY IS NOT COMPLETE, PERMANENT COVER HAS BEEN ESTABLISHED; AND
 - D. THE SITE COMPLIES WITH ITEM 13.3 THROUGH 13.7.AFTER PERMIT COVERAGE IS TERMINATED UNDER THIS ITEM, ANY SUBSEQUENT DEVELOPMENT ON THE REMAINING PORTIONS OF THE SITE WILL REQUIRE PERMIT COVERAGE IF THE SUBSEQUENT DEVELOPMENT ITSELF OR AS PART OF THE REMAINING COMMON PLAN OF DEVELOPMENT OR SALE WILL RESULT IN LAND DISTURBING ACTIVITIES OF ONE (1) OR MORE ACRES IN SIZE. (MINN. R. 7090)
- 4.5 PERMITTEES MAY TERMINATE COVERAGE UPON MPCA APPROVAL AFTER SUBMITTING INFORMATION DOCUMENTING THE OWNER CANCELED THE PROJECT. (MINN. R. 7090)

5.1 STORMWATER POLLUTION PREVENTION PLAN (SWPPP) CONTENT (MINN. R. 7090)

- 5.3 THE SWPPP MUST INCORPORATE SPECIFIC BEST MANAGEMENT PRACTICES (BMP) USED TO COMPLY WITH THE REQUIREMENTS OF THIS PERMIT. (MINN. R. 7090)
- 5.4 THE SWPPP MUST INCLUDE A NARRATIVE DESCRIBING THE TIMING FOR INSTALLATION OF ALL EROSION PREVENTION AND SEDIMENT CONTROL BMPs AND A DESCRIPTION OF THE PERMANENT STORMWATER TREATMENT SYSTEMS. (MINN. R. 7090)
- 5.5 THE SWPPP MUST INCLUDE THE LOCATION AND TYPE OF ALL TEMPORARY AND PERMANENT EROSION PREVENTION AND SEDIMENT CONTROL BMPs ALONG WITH PROCEDURES USED TO ESTABLISH ADDITIONAL TEMPORARY BMPs AS NECESSARY FOR THE SITE CONDITIONS DURING CONSTRUCTION. STANDARD DETAILS AND/OR SPECIFICATIONS FOR BMPs MUST BE INCLUDED IN THE FINAL PLANS AND SPECIFICATIONS FOR THE PROJECT. (MINN. R. 7090)
- 5.6 THE SWPPP MUST INCLUDE THE CALCULATIONS AND OTHER INFORMATION USED FOR THE DESIGN OF TEMPORARY SEDIMENT BASINS AND ANY OF THE PERMANENT STORMWATER TREATMENT SYSTEMS REQUIRED IN SECTION 15. (MINN. R. 7090)
- 5.7 THE SWPPP MUST INCLUDE ESTIMATED QUANTITIES ANTICIPATED AT THE START OF THE PROJECT FOR THE LIFE OF THE PROJECT FOR ALL EROSION PREVENTION AND SEDIMENT CONTROL BMPs (E.G., LINEAR FEET OF SILT FENCE OR SQUARE FEET OF EROSION CONTROL BLANKET). (MINN. R. 7090)
- 5.8 THE SWPPP MUST IDENTIFY THE NUMBER OF ACRES OF IMPERVIOUS SURFACE FOR BOTH PRE- AND POST-CONSTRUCTION. (MINN. R. 7090)
- 5.9 THE SWPPP MUST INCLUDE A SITE MAP WITH EXISTING AND FINAL GRADES, INCLUDING DRAINAGE AREA BOUNDARIES, DIRECTIONS OF FLOW AND ALL DISCHARGE POINTS WHERE STORMWATER IS LEAVING THE SITE OR ENTERING A SURFACE WATER. THE SITE MAP MUST INDICATE THE AREAS OF STEEP SLOPES. THE SITE MAP MUST ALSO INCLUDE IMPERVIOUS SURFACES, SOIL TYPES AND LOCATIONS OF POTENTIAL POLLUTANT-GENERATING ACTIVITIES AS IDENTIFIED IN SECTION 12. (MINN. R. 7090)
- 5.10 THE SWPPP MUST INCLUDE A MAP OF ALL SURFACE WATERS, EXISTING WETLANDS, AND STORMWATER PONDS OR BASINS THAT CAN BE IDENTIFIED ON MAPS SUCH AS UNITED STATES GEOLOGICAL SURVEY 7.5 MINUTE QUADRANGLE MAPS, THE NATIONAL WETLAND INVENTORY MAP OR EQUIVALENT MAPS AND ARE WITHIN ONE MILE (AERIAL RADIUS MEASUREMENT) FROM THE PROJECT BOUNDARIES THAT WILL RECEIVE STORMWATER FROM THE CONSTRUCTION SITE, DURING OR AFTER CONSTRUCTION. THE SWPPP MUST IDENTIFY IF THE SURFACE WATERS ARE SPECIAL OR IMPAIRED WATERS. (MINN. R. 7090)
- 5.11 THE SWPPP MUST INCLUDE A SITE MAP SHOWING CONSTRUCTION ACTIVITY AREAS THAT ARE ADJACENT TO AND DRAIN TO PUBLIC WATERS FOR WHICH THE DNR HAS PROMULGATED "WORK IN WATER RESTRICTIONS" DURING SPECIFIED FISH SPAWNING TIME FRAMES. (MINN. R. 7090)
- 5.12 PERMITTEES MUST IDENTIFY LOCATIONS OF 50' BUFFER ZONES AS REQUIRED IN ITEM 9.17 AND 100' PERMANENT BUFFER ZONES AS REQUIRED IN ITEM 23.11, ON PLAN SHEETS IN THE SWPPP. (MINN. R. 7090)
- 5.13 IF PERMITTEES DETERMINE COMPLIANCE WITH THE FOLLOWING REQUIREMENTS IS INFEASIBLE, THEY MUST DOCUMENT THE DETERMINATION:
 - a. TEMPORARY SEDIMENT BASIN AS DESCRIBED IN SECTION 14; AND
 - b. FOR LINEAR PROJECTS, IF THE PERMANENT STORMWATER TREATMENT SYSTEM CANNOT BE CONSTRUCTED WITHIN THE RIGHT-OF-WAY, A REASONABLE ATTEMPT MUST BE MADE TO OBTAIN ADDITIONAL RIGHT-OF-WAY (ITEM 15.9); AND
 - c. BUFFER ZONES AS DESCRIBED IN ITEM 9.17 AND ITEM 23.11. (MINN. R. 7090)
- 5.14 IF PERMITTEES DETERMINE THAT A TEMPORARY SEDIMENT BASIN IS INFEASIBLE AS DESCRIBED IN ITEM 14.10, THE SWPPP MUST IDENTIFY ALTERNATIVE TREATMENT SYSTEMS. (MINN. R. 7090)
- 5.15 WHERE SYSTEMS CANNOT MEET THE FULL VOLUME REDUCTION REQUIREMENT ON SITE. (E.G., THE SITE HAS INFILTRATION PROHIBITIONS. SEE ITEM 16.14 THROUGH ITEM 16.21) THE PERMITTEE MUST DOCUMENT THE REASONS IN THE SWPPP. (MINN. R. 7090)
- 5.16 THE SWPPP MUST INCLUDE ANY STORMWATER MITIGATION MEASURES PROPOSED TO BE PART OF THE FINAL PROJECT IN AN ENVIRONMENTAL REVIEW DOCUMENT, ENDANGERED SPECIES REVIEW, ARCHEOLOGICAL OR OTHER REQUIRED LOCAL, STATE OR FEDERAL REVIEW CONDUCTED FOR THE PROJECT. FOR PURPOSES OF THIS PERMIT, MITIGATION MEASURES MEANS ACTIONS NECESSARY TO AVOID, MINIMIZE, OR MITIGATE FOR IMPACTS RELATED TO EROSION PREVENTION, SEDIMENT CONTROL, THE PERMANENT STORMWATER TREATMENT SYSTEM, POLLUTION PREVENTION MANAGEMENT MEASURES AND DISCHARGES ASSOCIATED WITH THE PROJECT'S CONSTRUCTION ACTIVITY. (MINN. R. 7090)
- 5.17 THE SWPPP MUST DESCRIBE THE METHODS USED FOR PERMANENT COVER OF ALL EXPOSED SOIL AREAS. (MINN. R. 7090)
- 5.18 PERMITTEES MUST IDENTIFY THE LOCATIONS OF AREAS WHERE CONSTRUCTION WILL BE PHASED TO MINIMIZE THE DURATION OF EXPOSED SOIL AREAS IN THE SWPPP. (MINN. R. 7090)
- 5.19 FOR PROJECTS WITH A DISCHARGE POINT ON THE PROJECT WITHIN ONE (1) MILE (AERIAL RADIUS MEASUREMENT) OF AND FINISHED AND/OR TO AN IMPAIRED WATER, PERMITTEES MUST IDENTIFY THE IMPAIRED WATER, AND ANY UNITED STATES ENVIRONMENTAL PROTECTION AGENCY (USEPA) APPROVED TOTAL MAXIMUM DAILY LOAD (TMDL) FOR THE POLLUTANT(S) OR STRESSOR(S) DESCRIBED IN ITEM 23.7. PERMITTEES IDENTIFICATION MUST INCLUDE THOSE TMDLs APPROVED AT ANY TIME PRIOR TO PERMIT APPLICATION SUBMITTAL AND ARE STILL IN EFFECT. (MINN. R. 7090)
- 5.20 PERMITTEES MUST DOCUMENT IN THE SWPPP, ALL TRAINED INDIVIDUALS IDENTIFIED IN ITEM 21.2. DOCUMENTATION MUST INCLUDE:
 - a. NAMES OF PERSONNEL REQUIRED TO BE TRAINED; AND
 - b. DATES OF TRAINING AND NAME OF INSTRUCTOR(S) AND ENTITY PROVIDING TRAINING; AND
 - c. CONTENT OF TRAINING COURSE.

- IF PERMITTEES DO NOT KNOW THE NAMES OF THE INDIVIDUALS AT THE TIME OF APPLICATION, THE PERMITTEES MUST ENSURE THEY DOCUMENT TRAINING BEFORE CONSTRUCTION ACTIVITY COMMENCES. (MINN. R. 7090)
- 5.21 THE SWPPP MUST IDENTIFY A PERSON KNOWLEDGEABLE AND EXPERIENCED IN THE APPLICATION OF EROSION PREVENTION AND SEDIMENT CONTROL. BMPs WHO WILL COORDINATE WITH ALL CONTRACTORS, SUBCONTRACTORS, AND OPERATORS ON-SITE TO OVERSEE THE IMPLEMENTATION OF THE SWPPP. (MINN. R. 7090)
- 5.22 THE SWPPP MUST DESCRIBE ANY SPECIFIC CHEMICALS AND CHEMICAL TREATMENT SYSTEMS USED FOR ENHANCING THE SEDIMENTATION PROCESS AND HOW IT ACHIEVES COMPLIANCE WITH ITEM 9.16. (MINN. R. 7090)
- 5.23 THE SWPPP MUST IDENTIFY THE PERSON(S), ORGANIZATION, OR ENTITIES RESPONSIBLE FOR LONG-TERM OPERATION AND MAINTENANCE OF PERMANENT STORMWATER TREATMENT SYSTEMS. (MINN. R. 7090)
- 5.24 THE SWPPP MUST DESCRIBE METHODS TO MINIMIZE SOIL COMPACTION AND PRESERVE TOPSOIL, MINIMIZING SOIL COMPACTION IS NOT REQUIRED WHERE THE FUNCTION OF A SPECIFIC AREA DICTATES COMPACTION. (MINN. R. 7090)
- 5.25 THE SWPPP MUST INCLUDE ANY SITE ASSESSMENTS FOR GROUNDWATER OR SOIL CONTAMINATION REQUIRED IN ITEM 16.15. (MINN. R. 7090)
- 5.26 THE SWPPP MUST ACCOUNT FOR THE FOLLOWING FACTORS IN DESIGNING TEMPORARY EROSION PREVENTION AND SEDIMENT CONTROL BMPs:
 - a. THE EXPECTED AMOUNT, FREQUENCY, INTENSITY, AND DURATION OF PRECIPITATION; AND
 - b. THE NATURE OF STORMWATER RUNOFF AND RUN-ON AT THE SITE, INCLUDING FACTORS SUCH AS EXPECTED FLOW FROM IMPERVIOUS SURFACES, SLOPES, AND SITE DRAINAGE FEATURES; AND
 - c. THE STORMWATER VOLUME, VELOCITY, AND PEAK FLOW RATES TO MINIMIZE DISCHARGE OF POLLUTANTS IN STORMWATER AND TO MINIMIZE CHANNEL- AND STREAMBANK EROSION AND SOIL IN THE IMMEDIATE VICINITY OF DISCHARGE POINTS; AND
 - d. THE RANGE OF SOIL PARTICLES SIZES EXPECTED TO BE PRESENT. (MINN. R. 7090)

- 6.1 SWPPP AMENDMENTS. (MINN. R. 7090)
- 6.2 ONE OF THE INDIVIDUALS DESCRIBED IN ITEM 21.2.A OR ITEM 21.2.B OR ANOTHER QUALIFIED INDIVIDUAL, MUST COMPLETE ALL SWPPP CHANGES. CHANGES INVOLVING THE USE OF A LESS STRINGENT BMP MUST INCLUDE A JUSTIFICATION DESCRIBING HOW THE REPLACEMENT BMP IS EFFECTIVE FOR THE SITE CHARACTERISTICS. (MINN. R. 7090)
- 6.3 PERMITTEES MUST AMEND THE SWPPP TO INCLUDE ADDITIONAL OR MODIFIED BMPs AS NECESSARY TO CORRECT PROBLEMS IDENTIFIED OR ADDRESS SITUATIONS WHENEVER THERE IS A CHANGE IN DESIGN, CONSTRUCTION, OPERATION, MAINTENANCE, WEATHER OR SEASONAL CONDITIONS HAVING A SIGNIFICANT EFFECT ON THE DISCHARGE OF POLLUTANTS TO SURFACE WATERS OR GROUNDWATER. (MINN. R. 7090)
- 6.4 PERMITTEES MUST AMEND THE SWPPP TO INCLUDE ADDITIONAL OR MODIFIED BMPs AS NECESSARY TO CORRECT PROBLEMS IDENTIFIED OR ADDRESS SITUATIONS WHENEVER INSPECTIONS OR INVESTIGATIONS BY THE SITE OWNER OR OPERATOR, USEPA OR MPCA OFFICIALS INDICATE THE SWPPP IS NOT EFFECTIVE IN ELIMINATING OR SIGNIFICANTLY REDUCING THE DISCHARGE OF POLLUTANTS TO SURFACE WATERS OR GROUNDWATER OR THE DISCHARGES ARE CAUSING WATER QUALITY STANDARD EXCEEDANCES (E.G., NUISANCE CONDITIONS AS DEFINED IN MINN. R. 7050.0210, SUBP. 2) OR THE SWPPP IS NOT CONSISTENT WITH THE OBJECTIVES OF A USEPA APPROVED TMDL. (MINN. R. 7050.0210)

7.1 BMP SELECTION AND INSTALLATION. (MINN. R. 7090)

- 7.2 PERMITTEES MUST SELECT, INSTALL, AND MAINTAIN THE BMPs IDENTIFIED IN THE SWPPP AND IN THIS PERMIT IN AN APPROPRIATE AND EFFECTIVE MANNER IN ACCORDANCE WITH RELEVANT MANUFACTURER SPECIFICATIONS AND ACCEPTED ENGINEERING PRACTICES. (MINN. R. 7090)
- 8.1 EROSION PREVENTION PRACTICES. (MINN. R. 7090)
- 8.2 BEFORE WORK BEGINS, PERMITTEES MUST DELINEATE THE LOCATION OF AREAS NOT TO BE DISTURBED. (MINN. R. 7090)
- 8.3 PERMITTEES MUST MINIMIZE THE NEED FOR DISTURBANCE OF PORTIONS OF THE PROJECT WITH STEEP SLOPES, WHEN STEEP SLOPES MUST BE DISTURBED, PERMITTEES MUST USE TECHNIQUES SUCH AS PHASING AND STABILIZATION PRACTICES DESIGNED FOR STEEP SLOPES (E.G., SLOPE DRAINAGE AND TERRACING). (MINN. R. 7090)
- 8.4 PERMITTEES MUST STABILIZE ALL EXPOSED SOIL AREAS, INCLUDING STOCKPILES. STABILIZATION MUST BE INITIATED IMMEDIATELY TO PREVENT EROSION. CONSTRUCTION ACTIVITY HAS PERMANENTLY OR TEMPORARILY CEASED ON ANY PORTION OF THE SITE AND WILL NOT RESUME FOR A PERIOD EXCEEDING 7 CALENDAR DAYS, STABILIZATION MUST BE COMPLETED NO LATER THAN 7 CALENDAR DAYS AFTER THE CONSTRUCTION ACTIVITY HAS CEASED. STABILIZATION IS NOT REQUIRED ON CONSTRUCTED BASE COMPONENTS OF ROADS, PARKING LOTS AND SIMILAR SURFACES. STABILIZATION IS NOT REQUIRED ON TEMPORARY STOCKPILES WITHOUT SIGNIFICANT SILT, CLAY OR ORGANIC COMPONENTS (E.G., CLEAN AGGREGATE STOCKPILES, DEMOLITION CONCRETE STOCKPILES, SAND STOCKPILES) BUT PERMITTEES MUST PROVIDE SEDIMENT CONTROLS AT THE BASE OF THE STOCKPILE. (MINN. R. 7090)

- 8.5 FOR PUBLIC WATERS THAT THE MINNESOTA DNR HAS PROMULGATED "WORK IN WATER RESTRICTIONS" DURING SPECIFIED FISH SPAWNING TIME FRAMES, PERMITTEES MUST COMPLETE STABILIZATION OF ALL EXPOSED SOIL AREAS WITHIN 200 FEET OF THE WATER'S EDGE, AND THAT DRAIN TO THESE WATERS, WITHIN 24 HOURS DURING THE RESTRICTION PERIOD. (MINN. R. 7090)
- 8.6 PERMITTEES MUST STABILIZE THE NORMAL WETTED PERIMETER OF THE LAST 200 LINEAR FEET OF TEMPORARY OR PERMANENT DRAINAGE DITCHES OR SWALES FROM THE SITE WITHIN 24 HOURS AFTER CONNECTING TO A SURFACE WATER OR TEMPORARY DITCHES. PERMITTEES MUST COMPLETE STABILIZATION OF REMAINING PORTIONS OF TEMPORARY OR PERMANENT DITCHES OR SWALES WITHIN 7 CALENDAR DAYS AFTER CONNECTING TO A SURFACE WATER OR PROPERTY EDGE AND CONSTRUCTION IN THAT PORTION OF THE DITCH TEMPORARILY OR PERMANENTLY CEASES. (MINN. R. 7090)
- 8.7 TEMPORARY OR PERMANENT DITCHES OR SWALES BEING USED AS A SEDIMENT CONTAINMENT SYSTEM DURING CONSTRUCTION (WITH PROPERLY DESIGNED ROCK-DITCH CHECKS, BIO ROLLS, SILT DIKES, ETC.) DO NOT NEED TO BE STABILIZED. PERMITTEES MUST STABILIZE THESE AREAS WITHIN 24 HOURS AFTER THEIR USE AS A SEDIMENT CONTAINMENT SYSTEM CEASES. (MINN. R. 7090)
- 8.8 PERMITTEES MUST NOT USE MULCH, HYDROMULCH, TACKIFIER, POLYACRYLAMIDE OR SIMILAR EROSION PREVENTION PRACTICES WITHIN ANY PORTION OF THE NORMAL WETTED PERIMETER OF A TEMPORARY OR PERMANENT DRAINAGE DITCH OR SWALE SECTION WITH A CONTINUOUS SLOPE OF GREATER THAN 2 PERCENT. (MINN. R. 7090)
- 8.9 PERMITTEES MUST PROVIDE TEMPORARY OR PERMANENT ENERGY DISSIPATION AT ALL PIPE OUTLETS WITHIN 24 HOURS AFTER CONNECTION TO A SURFACE WATER OR PERMANENT STORMWATER TREATMENT SYSTEM. (MINN. R. 7090)
- 8.10 PERMITTEES MUST NOT DISTURB MORE LAND (I.E., PHASING) THAN CAN BE EFFECTIVELY INSPECTED AND MAINTAINED IN ACCORDANCE WITH SECTION 11. (MINN. R. 7090)

9.1 SEDIMENT CONTROL PRACTICES. (MINN. R. 7090)

- 9.2 PERMITTEES MUST ESTABLISH SEDIMENT CONTROL BMPs ON ALL DOWNGRADIENT PERIMETERS OF THE SITE AND DOWNGRADIENT AREAS OF THE SITE THAT DRAIN TO ANY SURFACE WATER, INCLUDING CURBS AND GUTTER SYSTEMS. PERMITTEES MUST LOCATE SEDIMENT CONTROL PRACTICES UPGRADIENT OF ANY BUFFER ZONES. PERMITTEES MUST INSTALL SEDIMENT CONTROL PRACTICES BEFORE ANY UPGRADIENT LAND-DISTURBING ACTIVITIES BEGIN AND MUST KEEP THE SEDIMENT CONTROL PRACTICES IN PLACE UNTIL THEY ESTABLISH PERMANENT COVER. (MINN. R. 7090)
- 9.3 IF DOWNGRADIENT SEDIMENT CONTROLS ARE OVERLOADED, BASED ON FREQUENT FAILURE OR EXCESSIVE MAINTENANCE REQUIREMENTS, PERMITTEES MUST INSTALL ADDITIONAL UPGRADIENT SEDIMENT CONTROL PRACTICES OR REDUNDANT BMPs TO ELIMINATE THE OVERLOADING AND AMEND THE SWPPP TO IDENTIFY THESE ADDITIONAL PRACTICES AS REQUIRED IN ITEM 6.3. (MINN. R. 7090)
- 9.4 TEMPORARY OR PERMANENT DRAINAGE DITCHES AND SEDIMENT BASINS DESIGNED AS PART OF A SEDIMENT CONTAINMENT SYSTEM (E.G., DITCHES WITH ROCK-CHECK DAMS) REQUIRE SEDIMENT CONTROL PRACTICES ONLY AS APPROPRIATE FOR THE SITUATION. (MINN. R. 7090)
- 9.5 A FLOATING SILT CURTAIN PLACED IN THE WATER IS NOT A SEDIMENT CONTROL BMP TO SATISFY ITEM 9.2 EXCEPT WHEN WORKING ON A SHORELINE OR BELOW THE WATERLINE. IMMEDIATELY AFTER THE SHORT TERM CONSTRUCTION ACTIVITY PANS OR ABSORBERS ARE IN PLACE, PERMITTEES MUST INSTALL PERIMETER CONTROL PRACTICES BEFORE THE NEXT PRECIPITATION EVENT EVEN IF THE SHORT-TERM ACTIVITY IS NOT COMPLETE. (MINN. R. 7090)
- 9.6 PERMITTEES MUST RE-INSTALL ALL SEDIMENT CONTROL PRACTICES ADJUSTED OR REMOVED TO ACCOMMODATE SHORT-TERM ACTIVITIES SUCH AS CLEARING OR GRUBBING, OR PASSAGE OF VEHICLES, IMMEDIATELY AFTER THE SHORT-TERM ACTIVITY COMPLETES. PERMITTEES MUST INSTALL PERIMETER CONTROL PRACTICES BEFORE THE NEXT PRECIPITATION EVENT EVEN IF THE SHORT-TERM ACTIVITY IS NOT COMPLETE. (MINN. R. 7090)
- 9.7 PERMITTEES MUST PROTECT ALL STORM DRAIN INLETS USING APPROPRIATE BMPs DURING CONSTRUCTION UNTIL THEY ESTABLISH PERMANENT COVER ON ALL AREAS WITH POTENTIAL FOR DISCHARGING TO THE INLET. (MINN. R. 7090)
- 9.8 PERMITTEES MAY REMOVE INLET PROTECTION FOR A PARTICULAR INLET IF A SPECIFIC SAFETY CONCERN (E.G., STREET FLOODING/FREEZING) IS IDENTIFIED BY THE PERMITTEES OR THE JURISDICTIONAL AUTHORITY (E.G., PUBLIC WORKS DEPARTMENT OR DEPARTMENT OF TRANSPORTATION ENGINEER). PERMITTEES MUST DOCUMENT THE NEED FOR REMOVAL IN THE SWPPP. (MINN. R. 7090)
- 9.9 PERMITTEES MUST PROVIDE SILT FENCE OR OTHER EFFECTIVE SEDIMENT CONTROLS AT THE BASE OF STOCKPILES ON THE DOWNGRADIENT PERIMETER. (MINN. R. 7090)
- 9.10 PERMITTEES MUST LOCATE STOCKPILES OUTSIDE OF NATURAL BUFFERS OR SURFACE WATERS, INCLUDING STORMWATER CONVEYANCES SUCH AS CURBS AND GUTTER SYSTEMS UNLESS THERE IS A BYPASS IN PLACE FOR THE STORMWATER. (MINN. R. 7090)
- 9.11 PERMITTEES MUST INSTALL A VEHICLE TRACKING BMP TO MINIMIZE THE TRACK OUT OF SEDIMENT FROM THE CONSTRUCTION SITE OR ONTO PAVED ROADS WITHIN THE SITE. (MINN. R. 7090)
- 9.12 PERMITTEES MUST USE STREET SWEEPING IF VEHICLE TRACKING BMPs ARE NOT ADEQUATE TO PREVENT SEDIMENT TRACKING ONTO TRUCKS. (MINN. R. 7090)
- 9.13 PERMITTEES MUST NOT INSTALL TEMPORARY SEDIMENT BASINS AS REQUIRED IN SECTION 14. (MINN. R. 7090)
- 9.14 IN ANY AREAS OF THE SITE WHERE FINAL VEGETATIVE STABILIZATION WILL OCCUR, PERMITTEES MUST RESTRICT VEHICLE AND EQUIPMENT USE TO MINIMIZE SOIL COMPACTION. (MINN. R. 7090)
- 9.15 PERMITTEES MUST PRESERVE TOPSOIL ON THE SITE, UNLESS INFEASIBLE. (MINN. R. 7090)
- 9.16 PERMITTEES MUST DIRECT DISCHARGES FROM BMPs TO VEGETATED AREAS UNLESS INFEASIBLE. (MINN. R. 7090)
- 9.17 PERMITTEES MUST PRESERVE A 50 FOOT NATURAL BUFFER OR, IF A BUFFER IS INFEASIBLE ON THE SITE, PROVIDE REDUNDANT (DOUBLE) PERIMETER SEDIMENT CONTROLS WHEN A SURFACE WATER IS LOCATED WITHIN 50 FEET OF THE PROJECT'S EARTH DISTURBANCES AND STORMWATER FLOWS TO THE SURFACE WATER. PERMITTEES MUST INSTALL PERIMETER SEDIMENT CONTROL PRACTICES LIMITED TO 1 FEET IN HEIGHT TO PROTECT NATURAL BUFFERS ARE NOT REQUIRED ADJACENT TO ROAD DITCHES, JUDICIAL DITCHES, COUNTY DITCHES, STORMWATER CONVEYANCE CHANNELS, STORM DRAIN INLETS, AND SEDIMENT BASINS. IF PRESERVING THE BUFFER IS INFEASIBLE, PERMITTEES MUST DOCUMENT THE REASONS IN THE SWPPP. SHOWING THE SILT LINE IS A REDUNDANT PERIMETER CONTROL. IF INSTALLED IN A MANNER THAT RETAINS ALL STORMWATER. (MINN. R. 7090)
- 9.18 PERMITTEES MUST USE POLYMERS, FLOCCULANTS, OR OTHER SEDIMENTATION TREATMENT CHEMICALS IN ACCORDANCE WITH ACCEPTED ENGINEERING PRACTICES, DOSING SPECIFICATIONS AND SEDIMENT REMOVAL DESIGN SPECIFICATIONS PROVIDED BY THE MANUFACTURER OR SUPPLIER. THE PERMITTEES MUST USE CONVENTIONAL EROSION AND SEDIMENT CONTROLS PRIOR TO CHEMICAL ADDITION AND MUST DIRECT TREATED STORMWATER TO A SEDIMENT CONTROL SYSTEM FOR FILTRATION OR SETTLEMENT OF THE FLOC PRIOR TO DISCHARGE. (MINN. R. 7090)

10.1 DEWATERING AND BASIN DRAINING. (MINN. R. 7090)

- 10.2 PERMITTEES MUST DISCHARGE TURBID OR SEDIMENT-LOADED WATERS RELATED TO DEWATERING OR BASIN DRAINING (E.G., PUMPED DISCHARGES, TRENCH DITCH CUTS FOR DRAINAGE) TO A TEMPORARY OR PERMANENT SEDIMENT BASIN ON THE PROJECT SITE UNLESS INFEASIBLE. PERMITTEES MAY DEWATER TO SURFACE WATERS IF THEY VISUALLY CHECK TO ENSURE ADEQUATE TREATMENT HAS BEEN OBTAINED AND NUISANCE CONDITIONS (SEE MINN. R. 7050.0210, SUBP. 2) WILL NOT RESULT FROM THE DISCHARGE. IF PERMITTEES CANNOT DISCHARGE THE WATER TO A SEDIMENTATION BASIN PRIOR TO ENTERING A SURFACE WATER, PERMITTEES MUST TREAT IT WITH APPROPRIATE BMPs SUCH THAT THE DISCHARGE DOES NOT ADVERSELY AFFECT THE SURFACE WATER OR DOWNSTREAM PROPERTIES. (MINN. R. 7050.0210)
- 10.3 IF PERMITTEES MUST DISCHARGE WATER CONTAINING OIL OR GREASE, THEY MUST USE AN OIL-WATER SEPARATOR OR SUITABLE FILTRATION DEVICE (E.G., CARTRIDGE FILTERS, ADSORBENTS PADS) PRIOR TO DISCHARGE. (MINN. R. 7090)
- 10.4 PERMITTEES MUST DISCHARGE ALL WATER FROM DEWATERING OR BASIN DRAINING ACTIVITIES IN A MANNER THAT DOES NOT CAUSE EROSION OR SCOUR IN THE IMMEDIATE VICINITY OF DISCHARGE POINTS OR RUNOFF OF WETLANDS IN THE IMMEDIATE VICINITY OF DISCHARGE POINTS THAT CAUSES SIGNIFICANT ADVERSE IMPACT TO THE WETLAND. (MINN. R. 7090)
- 10.5 IF PERMITTEES USE FILTERS WITH BACKWASH WATER, THEY MUST HAUL THE BACKWASH WATER AWAY FOR DISPOSAL, RETURN THE BACKWASH WATER TO THE BEGINNING OF THE TREATMENT PROCESS, OR INCORPORATE THE BACKWASH WATER INTO THE SITE IN A MANNER THAT DOES NOT CAUSE EROSION. (MINN. R. 7090)

11.1 INSPECTIONS AND MAINTENANCE. (MINN. R. 7090)

- 11.2 PERMITTEES MUST ENSURE A TRAINED PERSON, AS IDENTIFIED IN ITEM 21.2.B, WILL INSPECT THE ENTIRE CONSTRUCTION SITE AT LEAST ONCE EVERY SEVEN (7) DAYS DURING ACTIVE CONSTRUCTION AND WITHIN 24 HOURS AFTER A RAINFALL EVENT POINTS, AND:
 - 1.1.3 PERMITTEES MUST INSPECT AND MAINTAIN ALL PERMANENT STORMWATER TREATMENT BMPs. (MINN. R. 7090)
 - 1.1.4 PERMITTEES MUST INSPECT ALL EROSION PREVENTION AND SEDIMENT CONTROL BMPs AND POLLUTION PREVENTION MANAGEMENT MEASURES TO ENSURE THEY REMAIN EFFECTIVE. PERMITTEES MUST REPAIR, REPLACE OR SUPPLEMENT ALL NONFUNCTIONAL BMPs WITH FUNCTIONAL BMPs BY THE END OF THE NEXT BUSINESS DAY AFTER DISCOVERY UNLESS ANOTHER TIME FRAME IS SPECIFIED IN ITEM 11.5 OR 11.6. PERMITTEES MAY TAKE ADDITIONAL TIME IF FIELD CONDITIONS PREVENT ACCESS TO THE AREA. (MINN. R. 7090)
- 1.5 DURING EACH INSPECTION, PERMITTEES MUST INSPECT SURFACE WATERS, INCLUDING DRAINAGE DITCHES AND CONVEYANCE SYSTEMS BUT NOT CURBS AND GUTTER SYSTEMS, FOR EVIDENCE OF EROSION AND SEDIMENT DEPOSITION. PERMITTEES MUST REMOVE ALL DELTAS AND SEDIMENT DEPOSITED IN SURFACE WATERS, INCLUDING DRAINAGE WAYS, CATCH BASINS, AND OTHER DRAINAGE SYSTEMS AND REESTABLISH THE AREAS WHERE SEDIMENT REMOVAL RESULTS IN EXPOSED SOIL. PERMITTEES MUST COMPLETE REMOVAL AND STABILIZATION WITHIN SEVEN (7) CALENDAR DAYS OF DISCOVERY UNLESS PRECLUDED BY LEGAL, REGULATORY, OR PHYSICAL ACCESS CONSTRAINTS. PERMITTEES MUST USE ALL REASONABLE EFFORTS TO OBTAIN ACCESS, IF PRECLUDED, REMOVAL AND STABILIZATION MUST TAKE PLACE WITHIN SEVEN (7) DAYS OF OBTAINING ACCESS. PERMITTEES ARE RESPONSIBLE FOR CONTACTING ALL LOCAL, REGIONAL, STATE AND FEDERAL AUTHORITIES AND RECEIVING ANY APPLICABLE PERMITS, PRIOR TO CONDUCTING ANY WORK IN SURFACE WATERS. (MINN. R. 7090)
- 1.6 PERMITTEES MUST INSPECT CONSTRUCTION SITE VEHICLE EXIT LOCATIONS, STREETS AND CURBS AND GUTTER SYSTEMS WITHIN AND ADJACENT TO THE PROJECT FOR SEDIMENTATION FROM EROSION OR TRACKED SEDIMENT FROM VEHICLES. PERMITTEES MUST REMOVE SEDIMENT FROM ALL PAVED SURFACES WITHIN ONE (1) CALENDAR DAY OF DISCOVERY OR, IF APPLICABLE, WITHIN A SHORTER TIME TO AVOID A SAFETY HAZARD TO USERS OF PUBLIC STREETS. (MINN. R. 7090)

- 1.7 PERMITTEES MUST REPAIR, REPLACE OR SUPPLEMENT ALL PERIMETER CONTROL DEVICES WHEN THEY BECOME NONFUNCTIONAL OR THE SEDIMENT REACHES 1/2 OF THE HEIGHT OF THE DEVICE. (MINN. R. 7090)
- 1.8 PERMITTEES MUST DRAIN TEMPORARY AND PERMANENT SEDIMENTATION BASINS AND REMOVE THE SEDIMENT WHEN THE DEPTH OF SEDIMENT COLLECTED IN THE BASIN REACHES 1/2 THE STORAGE VOLUME. (MINN. R. 7090)
- 1.9 PERMITTEES MUST ENSURE THAT AT LEAST ONE INDIVIDUAL, PRESENT ON THE SITE OR AVAILABLE TO THE PROJECT SITE IN THREE (3) CALENDAR DAYS IS TRAINED IN THE JOB DUTIES DESCRIBED IN ITEM 21.2.B. (MINN. R. 7090)
- 1.10 PERMITTEES MAY ADJUST THE INSPECTION SCHEDULE DESCRIBED IN ITEM 11.2 AS FOLLOWS:
 - A. INSPECTIONS OF AREAS WITH PERMANENT COVER CAN BE REDUCED TO ONCE PER MONTH, EVEN IF CONSTRUCTION ACTIVITY CONTINUES ON OTHER PORTIONS OF THE SITE; OR
 - B. WHERE SITES HAVE PERMANENT COVER ON ALL EXPOSED SOIL AND NO CONSTRUCTION ACTIVITY IS OCCURRING ANYWHERE ON THE SITE, INSPECTIONS CAN BE REDUCED TO ONCE PER MONTH AND, AFTER 12 MONTHS, MAY BE SUSPENDED UNLESS CONSTRUCTION ACTIVITY RESUMES. THE MPCA MAY REQUIRE INSPECTIONS TO RESUME IF CONDITIONS WARRANT; OR
 - C. WHERE CONSTRUCTION ACTIVITY HAS BEEN SUSPENDED DUE TO FROZEN GROUND CONDITIONS, INSPECTIONS MAY BE SUSPENDED. INSPECTIONS MUST RESUME WITHIN 24 HOURS OF RUNOFF OCCURRING, OR UPON RESUMING CONSTRUCTION, WHICHEVER COMES FIRST. (MINN. R. 7090)
- 1.11 PERMITTEES MUST RECORD ALL INSPECTIONS AND MAINTENANCE ACTIVITIES WITHIN 24 HOURS OF BEING CONDUCTED AND THESE RECORDS MUST BE RETAINED WITH THE SWPPP. THESE RECORDS MUST INCLUDE:
 - A. DATE AND TIME OF INSPECTIONS; AND
 - B. NAME OF PERSONS CONDUCTING INSPECTIONS; AND
 - C. ACCURATE FINDINGS OF INSPECTIONS, INCLUDING THE SPECIFIC LOCATION WHERE CORRECTIVE ACTIONS ARE NEEDED; AND
 - D. CORRECTIVE ACTIONS TAKEN (INCLUDING DATES, TIMES, AND PARTY COMPLETING MAINTENANCE ACTIVITIES); AND
 - E. DATE OF ALL RAINFALL EVENTS GREATER THAN 1/2 INCHES IN 24 HOURS, AND THE AMOUNT OF RAINFALL FOR EACH EVENT. PERMITTEES MUST OBTAIN RAINFALL AMOUNTS BY EITHER A PROPERLY MAINTAINED RAIN GAUGE INSTALLED ON-SITE, A WEATHER STATION THAT IS WITHIN ONE MILE OF THE LOCATION, OR A WEATHER REPORTING SYSTEM THAT PROVIDES SITE SPECIFIC RAINFALL DATA FROM RADAR SUMMARIES; AND
 - F. IF PERMITTEES OBSERVE A DISCHARGE DURING THE INSPECTION, THEY MUST RECORD AND SHOULD PHOTOGRAPH AND DESCRIBE THE LOCATION OF THE DISCHARGE (I.E., COLOR, ODOR, SETTLED OR SUSPENDED SOLIDS, OIL, SHEEN, AND OTHER OBVIOUS INDICATORS OF POLLUTANTS); AND
 - G. ANY AMENDMENTS TO THE SWPPP PROPOSED AS A RESULT OF THE INSPECTION MUST BE DOCUMENTED AS REQUIRED IN SECTION 6 WITHIN SEVEN (7) CALENDAR DAYS. (MINN. R. 7090)

12.1 POLLUTION PREVENTION MANAGEMENT MEASURES. (MINN. R. 7090)

- 12.2 PERMITTEES MUST PLACE BUILDING PRODUCTS AND LANDSCAPE MATERIALS UNDER COVER (E.G., PLASTIC SHEETING OR TEMPORARY ROOFS) OR PROTECT THEM BY SIMILARLY EFFECTIVE MEANS DESIGNED TO MINIMIZE CONTACT WITH STORMWATER. PERMITTEES ARE NOT REQUIRED TO COVER OR PROTECT PRODUCTS WHICH ARE EITHER NOT A SOURCE OF CONTAMINATION TO STORMWATER OR ARE DESIGNED TO BE EXPOSED TO STORMWATER. (MINN. R. 7090)
- 12.3 PERMITTEES MUST PLACE PESTICIDES, FERTILIZERS AND TREATMENT CHEMICALS UNDER COVER (E.G., PLASTIC SHEETING OR TEMPORARY ROOFS) OR PROTECT THEM BY SIMILARLY EFFECTIVE MEANS DESIGNED TO MINIMIZE CONTACT WITH STORMWATER. (MINN. R. 7090)
- 12.4 PERMITTEES MUST STORE HAZARDOUS MATERIALS AND TOXIC WASTE (INCLUDING OIL, DIESEL FUEL, GASOLINE, HYDRAULIC FLUIDS, PAINT SOLVENTS, PETROLEUM-BASED PRODUCTS, WOOD PRESERVATIVES, ADDITIVES, CURING COMPOUNDS, AND ACIDS) IN SEALED CONTAINERS TO PREVENT SPILLS, LEAKS OR OTHER DISCHARGE. STORAGE AND DISPOSAL OF HAZARDOUS WASTE MATERIALS MUST BE IN COMPLIANCE WITH MINN. R. CH. 7049 INCLUDING SECONDARY CONTAINMENT AS APPLICABLE. (MINN. STAT. 115.091)
- 12.5 PERMITTEES MUST PROPERLY STORE, COLLECT AND DISPOSE SOLID WASTE IN COMPLIANCE WITH MINN. R. CH. 7035. (MINN. R. 7090)
- 12.6 PERMITTEES MUST POSITION PORTABLE TOILETS SO THEY ARE SECURE AND WILL NOT TIP OR BE KNOCKED OVER. PERMITTEES MUST PROPERLY DISPOSE SANITARY WASTE IN ACCORDANCE WITH MINN. R. CH. 7041. (MINN. R. 7041)
- 12.7 PERMITTEES MUST TAKE REASONABLE STEPS TO PREVENT THE DISCHARGE OF SPILLED OR LEAKED CHEMICALS, INCLUDING FUEL. FROM ANY AREA WHERE CHEMICALS OR FUEL WILL BE LOADED OR UNLOADED INCLUDING THE USE OF DRIP PANS OR ABSORBERS UNLESS INFEASIBLE. PERMITTEES MUST ENSURE ADEQUATE SUPPLIES ARE AVAILABLE AT ALL TIMES TO CLEAN UP DISCHARGED MATERIALS AND THAT AN APPROPRIATE DISPOSAL METHOD IS AVAILABLE FOR RECOVERED SPILLED MATERIALS. PERMITTEES MUST REPORT AND CLEAN UP SPILLS IMMEDIATELY AS REQUIRED BY MINN. STAT. 115.061, USING DRY CLEAN UP MEASURES WHERE POSSIBLE. (MINN. STAT. 115.061)
- 12.8 PERMITTEES MUST LIMIT VEHICLE EXTERIOR WASHING AND EQUIPMENT TO A DEFINED AREA OF THE SITE. PERMITTEES MUST CONTAIN RUNOFF FROM THE WASHING AREA IN A SEDIMENT BASIN OR OTHER SIMILARLY EFFECTIVE CONTROLS AND MUST DISPOSE WASTE FROM THE WASHING ACTIVITY PROPERLY. PERMITTEES MUST PROPERLY USE AND STORE SOAPS, DETERGENTS, OR SOLVENTS. (MINN. R. 7090)
- 12.9 PERMITTEES MUST PROVIDE EFFECTIVE CONTAINMENT FOR ALL LIQUID AND SOLID WASTES GENERATED BY WASHOUT OPERATIONS (E.G., CONCRETE, STUCCO, PAINT, FORM RELEASE OILS, CURING COMPOUNDS AND OTHER CONSTRUCTION MATERIALS) RELATED TO THE CONSTRUCTION ACTIVITY. PERMITTEES MUST PREVENT LIQUID AND SOLID WASHOUT WASTES FROM CONTACTING THE GROUND AND MUST DESIGN THE CONTAINMENT SO IT DOES NOT RESULT IN RUNOFF FROM THE PROJECT SITE OR INTO NEARBY SURFACES OR AT THE BASE OF A SAND FILTER. (MINN. R. 7090)
- 12.10 PERMITTEES MUST PROPERLY STORE, COLLECT AND DISPOSE SOLID WASTE IN COMPLIANCE WITH MINN. R. CH. 7035. (MINN. R. 7090)

13.1 PERMIT TERMINATION CONDITIONS. (MINN. R. 7090)

- 13.2 PERMITTEES MUST COMPLETE ALL CONSTRUCTION ACTIVITY AND MUST INSTALL PERMANENT COVER OVER ALL AREAS PRIOR TO SUBMITTING THE NOT. VEGETATIVE COVER MUST CONSIST OF A UNIFORM PERENNIAL VEGETATION WITH A DENSITY OF 70 PERCENT OF ITS EXPECTED FINAL GROWTH. VEGETATION IS NOT REQUIRED WHERE THE FUNCTION OF A SPECIFIC AREA DICTATES NO VEGETATION IS FEASIBLE. PERMITTEES MUST ENSURE ADEQUATE SUPPLIES ARE AVAILABLE AT ALL TIMES TO CLEAN UP DISCHARGED MATERIALS AND THAT AN APPROPRIATE DISPOSAL METHOD IS AVAILABLE FOR RECOVERED SPILLED MATERIALS. PERMITTEES MUST REPORT AND CLEAN UP SPILLS IMMEDIATELY AS REQUIRED BY MINN. STAT. 115.061, USING DRY CLEAN UP MEASURES WHERE POSSIBLE. (MINN. STAT. 115.061)
- 13.3 PERMITTEES MUST CLEAN THE PERMANENT STORMWATER TREATMENT SYSTEM OF ANY ACCUMULATED SEDIMENT AND MUST ENSURE THE SYSTEM MEETS ALL APPLICABLE REQUIREMENTS IN SECTION 15 THROUGH 19 AND IS OPERATING AS DESIGNED. (MINN. R. 7090)
- 13.4 PERMITTEES MUST REMOVE ALL SEDIMENT FROM CONVEYANCE SYSTEMS PRIOR TO SUBMITTING THE NOT. (MINN. R. 7090)
- 13.5 PERMITTEES MUST REMOVE ALL TEMPORARY SYNTHETIC EROSION PREVENTION AND SEDIMENT CONTROL BMPs PRIOR TO SUBMITTING THE NOT. PERMITTEES MAY LEAVE BMPs DESIGNED TO DECOMPOSE ON-SITE IN PLACE. (MINN. R. 7090)
- 13.6 FOR RESIDENTIAL CONSTRUCTION ONLY, PERMIT COVERAGE TERMINATES ON INDIVIDUAL LOTS IF THE STRUCTURES ARE FINISHED AND TEMPORARY EROSION PREVENTION AND DOWNGRADIENT PERIMETER CONTROL IS COMPLETE. THE RESIDENCE SELLS TO THE HOMEOWNER, AND THE PERMITTEE DISTRIBUTES THE MPCA'S "HOMEOWNER FACT SHEET" TO THE HOMEOWNER. (MINN. R. 7090)
- 13.7 FOR CONSTRUCTION PROJECTS ON AGRICULTURAL LAND (E.G., PIPELINES ACROSS CROPLAND), PERMITTEES MUST RETURN THE DISTURBED LAND TO ITS PRECONSTRUCTION AGRICULTURAL USE PRIOR TO SUBMITTING THE NOT. (MINN. R. 7090)

14.1 TEMPORARY SEDIMENT BASINS. (MINN. R. 7090)

- 14.2 WHERE FIVE (5) OR MORE ACRES OF DISTURBED SOIL DRAIN TO A COMMON LOCATION, PERMITTEES MUST PROVIDE A TEMPORARY SEDIMENT BASIN PRIOR TO THE BEGINNING OF THE RUNOFF FROM THE CONSTRUCTION SITE OR ENTERS SURFACE WATERS. PERMITTEES MAY CONVERT A TEMPORARY SEDIMENT BASIN TO A PERMANENT BASIN AFTER CONSTRUCTION IS COMPLETE. THE TEMPORARY BASIN IS NO LONGER REQUIRED WHEN PERMANENT COVER HAS REDUCED THE ACREAGE OF DISTURBED SOIL TO LESS THAN FIVE (5) ACRES DRAINING TO A COMMON LOCATION. (PROVISIONS TO MINN. R. 7090)
- 14.3 THE TEMPORARY BASIN MUST PROVIDE LIVE STORAGE FOR A CALCULATED VOLUME OF RUNOFF FROM A TWO (2)-YEAR, 24-HOUR STORM FROM EACH ACRE DRAINED TO THE BASIN OR 1,800 CUBIC FEET OF LIVE STORAGE PER ACRE DRAINED, WHICHEVER IS GREATER. (MINN. R. 7090)
- 14.4 WHERE PERMITTEES HAVE NOT CALCULATED THE TWO (2)-YEAR, 24-HOUR STORM RUNOFF AMOUNT, THE TEMPORARY BASIN MUST PROVIDE 3,600 CUBIC FEET OF LIVE STORAGE PER ACRE OF THE BASIN'S DRAINAGE AREA. (MINN. R. 7090)
- 14.5 PERMITTEES MUST DESIGN BASIN OUTLETS TO PREVENT SHORT-CIRCUITING AND THE DISCHARGE OF FLOATING DEBRIS. (MINN. R. 7090)
- 14.6 PERMITTEES MUST DESIGN THE OUTLET STRUCTURE TO WITHDRAW WATER FROM THE SURFACE TO MINIMIZE THE DISCHARGE OF POLLUTANTS. PERMITTEES MAY TEMPORARILY SUSPEND THE USE OF A SURFACE WITHDRAWAL MECHANISM DURING FROZEN CONDITIONS. THE BASIN MUST INCLUDE A STABILIZED EMERGENCY OVERTFLOW TO PREVENT FAILURE OF POND INTEGRITY. (MINN. R. 7090)
- 14.7 PERMITTEES MUST PROVIDE ENERGY DISSIPATION FOR THE BASIN OUTLET WITHIN 24 HOURS AFTER CONNECTION TO A SURFACE WATER. (MINN. R. 7090)
- 14.8 PERMITTEES MUST LOCATE TEMPORARY BASINS OUTSIDE OF SURFACE WATERS AND ANY BUFFER ZONE REQUIRED IN ITEM 23.11. (MINN. R. 7090)
- 14.9 PERMITTEES MUST CONSTRUCT THE TEMPORARY BASIN PRIOR TO DISTURBING 10 OR MORE ACRES OF SOIL DRAINING TO A COMMON LOCATION. (MINN. R. 7090)
- 14.10 WHERE A TEMPORARY SEDIMENT BASIN MEETING THE REQUIREMENTS OF ITEM 14.3 THROUGH 14.9 IS INFEASIBLE, PERMITTEES MUST INSTALL EFFECTIVE SEDIMENT CONTROLS SUCH AS SMALLER SEDIMENT BASINS AND/OR SEDIMENT TRAPS, SILT FENCES, VEGETATIVE BUFFER STRIPS OR ANY APPROPRIATE COMBINATION OF MEASURES AS DICTATED BY INDIVIDUAL SITE CONDITIONS. IN DETERMINING WHETHER SEDIMENT CONTROL MEASURES ARE FEASIBLE, PERMITTEES MUST CONSIDER PUBLIC SAFETY AND MAY CONSIDER FACTORS SUCH AS SITE SOILS, SLOPE, AND AVAILABLE AREA ON-SITE. PERMITTEES MUST DOCUMENT THIS DETERMINATION OF INFEASIBILITY IN THE SWPPP. (MINN. R. 7090)

15.1 PERMANENT STORMWATER TREATMENT SYSTEM. (MINN. R. 7090)

- 15.2 PERMITTEES MUST DESIGN THE PROJECT SO ALL STORMWATER DISCHARGED FROM THE PROJECT DURING AND AFTER CONSTRUCTION ACTIVITY MUST BE TREATED TO MEET OR EXCEED THE PERMIT DESIGN STANDARDS, INCLUDING NUISANCE CONDITIONS, EROSION IN RECEIVING CHANNELS OR ON DOWNSLOPE PROPERTIES, OR A SIGNIFICANT ADVERSE IMPACT TO WETLANDS CAUSED BY INUNDATION OR DECREASE OF FLOW. (MINN. R. 7090)
- 15.3 PERMITTEES MUST DESIGN AND CONSTRUCT A PERMANENT STORMWATER TREATMENT SYSTEM TO TREAT THE WATER QUALITY VOLUME IF THE PROJECT'S SEDIMENT REMOVAL REPLACES VEGETATION AND/OR OTHER PERVIOUS SURFACES CREATING A NET INCREASE OF ONE (1) OR MORE ACRES OF CUMULATIVE IMPERVIOUS SURFACE. (MINN. R. 7090)
- 15.4 PERMITTEES MUST CALCULATE THE WATER QUALITY VOLUME AS ONE (1) INCH TIMES THE NET INCREASE OF IMPERVIOUS SURFACES CREATED BY THE PROJECT. (MINN. R. 7090)
- 15.5 PERMITTEES MUST FIRST CONSIDER VOLUME REDUCTION PRACTICES ON-SITE (E.G., INFILTRATION OR OTHER) WHEN DESIGNING THE PERMANENT STORMWATER TREATMENT SYSTEM. IF THIS PERMIT PROHIBITS INFILTRATION AS DESCRIBED IN ITEM 16.14 THROUGH ITEM 16.21, PERMITTEES MAY CONSIDER A WET SEDIMENTATION BASIN, FILTRATION BASIN OR REGIONAL POND. THIS PERMIT DOES NOT CONSIDER WET SEDIMENTATION BASINS AND FILTRATION SYSTEMS TO BE VOLUME REDUCTION PRACTICES. (MINN. R. 7090)

- 15.6 PERMITTEES MUST FIRST CONSIDER VOLUME REDUCTION PRACTICES ON-SITE (E.G., INFILTRATION OR OTHER) WHEN DESIGNING THE PERMANENT STORMWATER TREATMENT SYSTEM. IF THIS PERMIT PROHIBITS INFILTRATION AS DESCRIBED IN ITEM 16.14 THROUGH ITEM 16.21, PERMITTEES MAY CONSIDER A WET SEDIMENTATION BASIN, FILTRATION BASIN OR REGIONAL POND. THIS PERMIT DOES NOT CONSIDER WET SEDIMENTATION BASINS AND FILTRATION SYSTEMS TO BE VOLUME REDUCTION PRACTICES. (MINN. R. 7090)
- 15.7 FOR PROJECTS WHERE THE FULL VOLUME REDUCTION REQUIREMENT CANNOT BE MET ON-SITE, (E.G., THE SITE HAS INFILTRATION PROHIBITIONS), PERMITTEES MUST DOCUMENT THE REASONS IN THE SWPPP. (MINN. R. 7090)
- 15.8 PERMITTEES MUST DISCHARGE THE WATER QUALITY VOLUME TO A PERMANENT STORMWATER TREATMENT SYSTEM PRIOR TO DISCHARGE TO A SURFACE WATER. FOR PURPOSES OF THIS ITEM, SURFACE WATERS DO NOT INCLUDE MAN-MADE DRAINAGE SYSTEMS THAT CONVEY STORMWATER TO A PERMANENT STORMWATER TREAT

18.1 WET SEDIMENTATION BASIN. [MINN. R. 7090]
 18.2 PERMITTEES USING A WET SEDIMENTATION BASIN TO MEET THE PERMANENT STORMWATER TREATMENT REQUIREMENTS OF THIS PERMIT MUST INCORPORATE THE DESIGN PARAMETERS IN ITEM 18.3 THROUGH 18.10. [MINN. R. 7090]
 18.3 PERMITTEES MUST DESIGN THE BASIN TO HAVE A PERMANENT VOLUME OF 1,600 CUBIC FEET OF STORAGE BELOW THE OUTLET PIPE FOR EACH ACRE THAT DRAINS TO THE BASIN. THE BASIN'S PERMANENT VOLUME MUST REACH A MINIMUM DEPTH OF AT LEAST THREE FEET AND MUST HAVE NO DEPTH GREATER THAN 10 FEET. PERMITTEES MUST CONFIGURE THE BASIN TO MINIMIZE SCOUR OR RESUSPENSION OF SOLIDS. [MINN. R. 7090]
 18.4 PERMITTEES MUST DESIGN THE BASIN TO PROVIDE LIVE STORAGE FOR A WATER QUALITY VOLUME (CALCULATED AS AN INSTANTANEOUS VOLUME) OF ONE (1) INCH OF RUNOFF, OR ONE (1) INCH MINUS THE VOLUME OF STORMWATER TREATED BY ANOTHER SYSTEM ON THE SITE, FROM THE NET INCREASE IN IMPERVIOUS SURFACES CREATED BY THE PROJECT. [MINN. R. 7090]
 18.5 PERMITTEES MUST DESIGN BASIN OUTLETS SO THE WATER QUALITY VOLUME DISCHARGES AT NO MORE THAN 5.66 CUBIC FEET PER SECOND (CFS) PER ACRE OF SURFACE AREA OF THE BASIN. [MINN. R. 7090]
 18.6 PERMITTEES MUST DESIGN BASIN OUTLETS TO PREVENT SHORT-CIRCUITING AND THE DISCHARGE OF FLOATING DEBRIS. BASIN OUTLETS MUST HAVE ENERGY DISSIPATION. [MINN. R. 7090]
 18.7 PERMITTEES MUST DESIGN THE BASIN TO INCLUDE A STABILIZED EMERGENCY OVERTFLOW TO ACCOMMODATE STORM EVENTS IN EXCESS OF THE BASIN'S HYDRAULIC DESIGN. [MINN. R. 7090]
 18.8 PERMITTEES MUST DESIGN A MAINTENANCE ACCESS, TYPICALLY EIGHT (8) FEET WIDE, FOR THE BASIN. [MINN. R. 7090]
 18.9 PERMITTEES MUST LOCATE BASINS OUTSIDE OF SURFACE WATERS AND ANY BUFFER ZONE REQUIRED IN ITEM 23.11. PERMITTEES MUST DESIGN BASINS TO AVOID DRAINING WATER FROM WETLANDS UNLESS THE IMPACT TO THE WETLAND COMPLIES WITH THE REQUIREMENTS OF SECTION 22. [MINN. R. 7090]
 18.10 PERMITTEES MUST DESIGN BASINS USING AN IMPERMEABLE LINER IF LOCATED WITHIN ACTIVE KARST TERRAIN. [MINN. R. 7090]

19.1 REGIONAL WET SEDIMENTATION BASINS. [MINN. R. 7090]
 19.2 WHEN THE ENTIRE WATER QUALITY VOLUME CANNOT BE RETAINED ONSITE, PERMITTEES CAN USE OR CREATE REGIONAL WET SEDIMENTATION BASINS PROVIDED THEY ARE CONSTRUCTED BASINS, NOT A NATURAL WETLAND OR WATER BODY. (WETLANDS USED AS REGIONAL BASINS MUST BE MITIGATED FOR, SEE SECTION 22). THE OWNER MUST ENSURE THE REGIONAL BASIN CONFORMS TO ALL REQUIREMENTS FOR REGIONAL BASINS AS DESCRIBED IN ITEMS 18.3 THROUGH 18.10 AND MUST BE LARGE ENOUGH TO ACCOUNT FOR THE ENTIRE AREA THAT DRAINS TO THE REGIONAL BASIN. PERMITTEES MUST VERIFY THAT THE REGIONAL BASIN WILL DISCHARGE AT NO MORE THAN 5.66 CFS PER ACRE OF SURFACE AREA OF THE BASIN AND MUST PROVIDE A LIVE STORAGE VOLUME OF ONE INCH TIMES ALL THE IMPERVIOUS AREA DRAINING TO THE BASIN. PERMITTEES CANNOT SIGNIFICANTLY DEGRADE WATERWAYS BETWEEN THE PROJECT AND THE REGIONAL BASIN. THE OWNER MUST OBTAIN WRITTEN AUTHORIZATION FROM THE APPLICABLE LGU OR PRIVATE ENTITY THAT OWNS AND MAINTAINS THE REGIONAL BASIN. [MINN. R. 7090]

20.1 SWPPP AVAILABILITY. [MINN. R. 7090]
 20.2 PERMITTEES MUST KEEP THE SWPPP, INCLUDING ALL CHANGES TO IT, AND INSPECTIONS AND MAINTENANCE RECORDS AT THE SITE DURING NORMAL WORKING HOURS BY PERMITTEES WHO HAVE OPERATIONAL CONTROL OF THAT PORTION OF THE SITE. [MINN. R. 7090]

21.1 TRAINING REQUIREMENTS. [MINN. R. 7090]
 21.2 PERMITTEES MUST ENSURE ALL OF THE FOLLOWING INDIVIDUALS RECEIVE TRAINING AND THE CONTENT AND EXTENT OF THE TRAINING IS COMMENSURATE WITH THE INDIVIDUAL'S JOB DUTIES AND RESPONSIBILITIES WITH REGARD TO ACTIVITIES COVERED UNDER THIS PERMIT:
 A. INDIVIDUALS PREPARING THE SWPPP FOR THE PROJECT.
 B. INDIVIDUALS OVERSEEING IMPLEMENTATION OF, REVISING AND/OR AMENDING THE SWPPP AND INDIVIDUALS PERFORMING INSPECTIONS FOR THE PROJECT. ONE OF THESE INDIVIDUALS MUST BE AVAILABLE FOR AN ONSITE INSPECTION WITHIN 72 HOURS UPON REQUEST BY THE MPCA.
 C. INDIVIDUALS PERFORMING OR SUPERVISING THE INSTALLATION, MAINTENANCE AND REPAIR OF BMPs. [MINN. R. 7090]
 21.3 PERMITTEES MUST ENSURE INDIVIDUALS IDENTIFIED IN SECTION 21 RECEIVE TRAINING FROM LOCAL, STATE, FEDERAL AGENCY OR PROFESSIONAL ORGANIZATION OR OTHER TRAINING COURSE AS DESCRIBED IN ITEM 8.4 AND COMPLETE CONTROL, PERMANENT STORMWATER TREATMENT AND THE MINNESOTA NPDES/S DISCHARGE PERMIT. PERMITTEES MUST ENSURE THESE INDIVIDUALS ATTEND A REFRESHER TRAINING COURSE EVERY THREE (3) YEARS. [MINN. R. 7090]

23.1 ADDITIONAL REQUIREMENTS FOR DISCHARGES TO SPECIAL (PROHIBITED, RESTRICTED, OTHER) AND IMPAIRED WATERS. [MINN. R. 7090]
 23.2 DISCHARGES TO THE TROUT STREAMS (OTHER SPECIAL WATER) LISTED IN MINN. R. 6284.0050, SUBP. 4 MUST INCORPORATE THE BMPS OUTLINED IN ITEMS 23.9, 23.10, 23.11, AND 23.12. [MINN. R. 7090]
 23.3 PERMITTEES MUST IMMEDIATELY INITIATE STABILIZATION OF EXPOSED SOIL AREAS, AS DESCRIBED IN ITEM 8.4 AND COMPLETE STABILIZATION WITHIN SEVEN (7) CALENDAR DAYS AFTER THE CONSTRUCTION ACTIVITY IN THAT PORTION OF THE SITE TEMPORARILY OR PERMANENTLY CEASES. [MINN. R. 7090]
 23.10 PERMITTEES MUST PROVIDE A TEMPORARY SEDIMENT BASIN AS DESCRIBED IN SECTION 14 FOR COMMON DRAINAGE LOCATIONS THAT SERVE AN AREA WITH FIVE (5) OR MORE ACRES DISTURBED AT ONE TIME. [MINN. R. 7090]
 23.11 PERMITTEES MUST INCLUDE AN UNDISTURBED BUFFER ZONE OF NOT LESS THAN 100 LINEAR FEET FROM A SPECIAL WATER (NOT INCLUDING TROUT STREAMS) AND MUST MAINTAIN THIS BUFFER ZONE AT ALL TIMES, BOTH DURING CONSTRUCTION AND AS A PERMANENT FEATURE POST CONSTRUCTION, EXCEPT WHERE A WATER CROSSING OR OTHER ENCROACHMENT IS NECESSARY TO COMPLETE THE PROJECT. PERMITTEES MUST FULLY DOCUMENT THE CIRCUMSTANCE AND REASONS THE BUFFER IS NECESSARY IN THE SWPPP AND INCLUDE RESTORATION ACTIVITIES. THIS PERMIT ALLOWS REPLACEMENT OF EXISTING IMPERVIOUS SURFACE WITHIN THE BUFFER. PERMITTEES MUST MINIMIZE ALL POTENTIAL WATER QUALITY, SCENIC AND OTHER ENVIRONMENTAL IMPACTS OF THESE EXCEPTIONS BY THE USE OF ADDITIONAL OR REDUNDANT (DOUBLE) BMPs AND MUST DOCUMENT THIS IN THE SWPPP FOR THE PROJECT. [MINN. R. 7090]
 23.12 PERMITTEES MUST DESIGN THE PERMANENT STORMWATER TREATMENT SYSTEM SO THE DISCHARGE FROM THE PROJECT MINIMIZES ANY INCREASE IN THE TEMPERATURE OF TROUT STREAMS RESULTING FROM THE ONE (1) AND TWO (2) YEAR 24-HOUR PRECIPITATION EVENTS. THIS INCLUDES ALL TRIBUTARIES OF DESIGNATED TROUT STREAMS LOCATED WITHIN THE SAME PUBLIC LAND SURVEY SYSTEM (PLSS) SECTION. PERMITTEES MUST INCORPORATE ONE OR MORE OF THE FOLLOWING MEASURES, IN ORDER OF PREFERENCE:
 a. PROVIDE STORMWATER INFILTRATION OR OTHER VOLUME REDUCTION PRACTICES AS DESCRIBED IN ITEM 16.4 AND 15.5, TO REDUCE RUNOFF; INFILTRATION SYSTEMS MUST DISCHARGE ALL STORMWATER ROUTED TO THE SYSTEM WITHIN 24 HOURS.
 b. PROVIDE STORMWATER FILTRATION AS DESCRIBED IN SECTION 17. FILTRATION SYSTEMS MUST DISCHARGE ALL STORMWATER ROUTED TO THE SYSTEM WITHIN 24 HOURS.
 c. MINIMIZE THE DISCHARGE FROM CONNECTED IMPERVIOUS SURFACES BY DISCHARGING TO VEGETATED AREAS, OR GRASS SWALES, AND THROUGH THE USE OF NON-STRUCTURAL CONTROLS.
 d. IF PONDING IS USED, THE DESIGN MUST INCLUDE AN APPROPRIATE COMBINATION OF MEASURES SUCH AS SHADING, VEGETATED SWALE DISCHARGES OR CONSTRUCTED WETLAND TREATMENT CELLS THAT LIMIT TEMPERATURE INCREASES. THE POND MUST BE DESIGNED AS A DRY POND AND SHOULD DRAIN DOWN IN 24 HOURS OR LESS.
 e. OTHER METHODS THAT MINIMIZE ANY INCREASE IN THE TEMPERATURE OF THE TROUT STREAM. [MINN. R. 7090]

24.1 GENERAL PROVISIONS. [MINN. R. 7090]
 24.2 IF THE MPCA DETERMINES THAT AN INDIVIDUAL PERMIT WOULD MORE APPROPRIATELY REGULATE THE CONSTRUCTION ACTIVITY, THE MPCA MAY REQUIRE AN INDIVIDUAL PERMIT TO CONTINUE THE CONSTRUCTION ACTIVITY. COVERAGE UNDER THIS GENERAL PERMIT WILL REMAIN IN EFFECT UNTIL THE MPCA ISSUES AN INDIVIDUAL PERMIT. [MINN. R. 7090]
 24.3 IF THE PERMITTEE CANNOT MEET THE TERMS AND CONDITIONS OF THIS GENERAL PERMIT, AN OWNER MAY REQUEST AN INDIVIDUAL PERMIT, IN ACCORDANCE WITH MINN. R. 7090.0210 SUBP. 6. [MINN. R. 7090]
 24.4 ANY INTERESTED PERSON MAY PETITION THE MPCA TO REQUIRE AN INDIVIDUAL NPDES/S DISCHARGE PERMIT IN ACCORDANCE WITH 40 CFR 122.28(b)(3), 40 CFR 122.28(b)(3).
 24.5 PERMITTEES MUST MAKE THE SWPPP, INCLUDING ALL INSPECTION REPORTS, MAINTENANCE RECORDS, TRAINING RECORDS AND OTHER INFORMATION REQUIRED BY THIS PERMIT, AVAILABLE TO FEDERAL, STATE, AND LOCAL OFFICIALS WITHIN THREE (3) DAYS UPON REQUEST FOR THE DURATION OF THE PERMIT AND FOR THREE (3) YEARS FOLLOWING THE NOT. [MINN. R. 7090]
 24.6 PERMITTEES MAY NOT ASSIGN OR TRANSFER THIS PERMIT EXCEPT WHEN THE TRANSFER OCCURS IN ACCORDANCE WITH THE APPLICABLE REQUIREMENTS OF ITEM 3.7 AND 3.8. [MINN. R. 7090]
 24.7 NOTHING IN THIS PERMIT MUST BE CONSTRUED TO RELIEVE THE PERMITTEES FROM CIVIL OR CRIMINAL PENALTIES FOR NONCOMPLIANCE WITH THE TERMS AND CONDITIONS PROVIDED HEREIN. NOTHING IN THIS PERMIT MUST BE CONSTRUED TO PRECLUDE THE INITIATION OF LEGAL ACTION OR TO RELIEVE THE PERMITTEES FROM ANY RESPONSIBILITIES, LIABILITIES, OR PENALTIES TO WHICH THE PERMITTEES IS/ARE OR MAY BE SUBJECT TO UNDER SECTION 311 OF THE CLEAN WATER ACT AND MINN. STAT. SECT. 115 AND 118, AS AMENDED. PERMITTEES ARE NOT LIABLE FOR PERMIT REQUIREMENTS FOR ACTIVITIES OCCURRING ON THOSE PORTIONS OF A SITE WHERE THE PERMIT HAS BEEN TRANSFERRED TO ANOTHER PARTY AS REQUIRED BY ITEM 3.7 OR THE PERMITTEES HAVE CONSENTED TO THE NOT AS REQUIRED IN SECTION 4. [MINN. R. 7090]
 24.8 THE PROVISIONS OF THIS PERMIT ARE SEVERABLE. IF ANY PROVISION OF THIS PERMIT OR THE APPLICATION OF ANY PROVISION OF THIS PERMIT TO ANY CIRCUMSTANCES IS HELD INVALID, THE APPLICATION OF SUCH PROVISION TO OTHER CIRCUMSTANCES, AND THE REMAINDER OF THIS PERMIT MUST NOT BE AFFECTED THEREBY. [MINN. R. 7090]
 24.9 THE PERMITTEES MUST COMPLY WITH THE PROVISIONS OF MINN. R. 7090.0150, SUBP. 3 AND MINN. R. 7090.1090, SUBP. 1(A), (B), 1(C), 1(D), 1(E), 1(F), 1(G), 1(H), AND 1(I). [MINN. R. 7090]
 24.10 THE PERMITTEES MUST ALLOW ACCESS AS PROVIDED IN 40 CFR 122.41(i) AND MINN. STAT. SECT. 115.04. THE PERMITTEES MUST ALLOW REPRESENTATIVES OF THE MPCA OR ANY MEMBER, EMPLOYEE OR AGENT THEREOF, WHEN AUTHORIZED BY IT, UPON PRESENTATION OF CREDENTIALS, TO ENTER UPON ANY PROPERTY, PUBLIC OR PRIVATE, FOR THE PURPOSE OF OBTAINING INFORMATION OR EXAMINATION OF RECORDS OR CONDUCTING SURVEYS OR INVESTIGATIONS. 40 CFR 122.41(i)
 24.11 FOR THE PURPOSES OF MINN. R. 7090 AND OTHER DOCUMENTS THAT REFER TO SECTIONS OF THIS PERMIT, "CONSTRUCTION ACTIVITY REQUIREMENTS" CORRESPONDS TO SECTIONS 5, 6 AND 14 THROUGH 21; "CONSTRUCTION ACTIVITY REQUIREMENTS" CORRESPONDS TO SECTIONS 7 THROUGH 13; AND "APPENDIX A" CORRESPONDS TO SECTIONS 22 AND 23. [MINN. R. 7090]

PROJECT NAME
 GROWING GENERATIONS DAYCARE

PROJECT LOCATION
 PID: 33-32-23-3-1-006

LATITUDE: 45.216
 LONGITUDE: 93.215

DEVELOPER
 CLASSIC CONSTRUCTION
 18542 ULYSSES ST. NE
 EAST BETHEL, MN 55011

CONTACT NAME: KYLE STRANDLUND
 CONTACT PHONE: 763-434-8670
 CONTACT E-MAIL: KYL@CLASSICCONSTRUCTIONINC.COM

NARRATIVE - PERMANENT STORMWATER TREATMENT SYSTEMS
 THE PROJECT CONSISTS OF THE CONSTRUCTION OF A COMMERCIAL BUILDING (DAYCARE FACILITY) AND AN INFILTRATION BASIN FOR STORMWATER TREATMENT.

PERMANENT STORMWATER MANAGEMENT TREATMENT SYSTEMS PER MPCA RULES, CITY OF HAM LAKE, AND COON CREEK WATERSHED DISTRICT ARE REQUIRED FOR THIS PROJECT.

RECEIVING WATERS WITHIN ONE MILE

NAME OF WATER BODY	TYPE OF WATER BODY	SPECIAL WATER	IMPAIRED WATER
COON CREEK	CREEK	NO	YES
ON-SITE INFILTRATION BASIN	BASIN	NO	NO

RECEIVING WATERS WITHIN ONE MILE

NAME OF WATER BODY	TYPE OF WATER BODY	SPECIAL WATER	IMPAIRED WATER
COON CREEK	CREEK	NO	YES
ON-SITE INFILTRATION BASIN	BASIN	NO	NO

TEMPORARY SEDIMENTATION BASINS

YES NO N/A IF FIVE (5) OR MORE ACRES OF DISTURBED SOIL DRAIN TO A COMMON LOCATION, IS A TEMPORARY SEDIMENT BASIN PROVIDED FOR TREATMENT OF THE RUNOFF BEFORE IT LEAVES THE CONSTRUCTION SITE OR ENTERS SURFACE WATERS?

INFILTRATION FEASIBILITY

YES NO N/A ARE THERE ANY INFILTRATION RESTRICTIONS FOR THE SITE (SEE 16.14 THROUGH 16.21)?

ADDITIONAL STORMWATER MITIGATION MEASURES

YES NO ARE THERE ANY STORMWATER MITIGATION MEASURES PER:
 • ENVIRONMENTAL REVIEW DOCUMENT?
 • ENDANGERED SPECIES REVIEW?
 • ARCHAEOLOGICAL REVIEW?
 • OTHER LOCAL, STATE OR FEDERAL REVIEW?

IF YES TO ANY OF THE ABOVE, DESCRIBE THE MITIGATION MEASURES. FOR PURPOSES OF THIS PERMIT, MITIGATION MEASURES MEANS ACTIONS NECESSARY TO AVOID, MINIMIZE, OR MITIGATE FOR IMPACTS RELATED TO EROSION PREVENTION, SEDIMENT CONTROL, THE PERMANENT STORMWATER TREATMENT SYSTEM, POLLUTION PREVENTION MANAGEMENT MEASURES AND DISCHARGES ASSOCIATED WITH THE PROJECT'S CONSTRUCTION ACTIVITY. [MINN. R. 7090]

LONG TERM OPERATION AND MAINTENANCE OF PERMANENT STORMWATER FACILITIES
 THE PERMANENT STORMWATER MANAGEMENT FACILITIES ARE PRIVATELY OWNED AND THE LONG TERM OPERATION AND MAINTENANCE WILL BE PROVIDED BY THE OWNER. THE CITY OF HAM LAKE SHALL NOT BE RESPONSIBLE FOR LONG-TERM OPERATIONS AND MAINTENANCE OF THE STORMWATER MANAGEMENT FACILITIES.

REVEGETATION SPECIFICATIONS

ITEM	MNDOT SPECIFICATION/NOTES
SOD	3878
SEED **	3878
* FOR TURF ESTABLISHMENT	
COMMERCIAL TURF	MNDOT MIX 25-131 (220 LBS/ACRE)
RESIDENTIAL TURF	MNDOT MIX 25-131 (120 LBS/ACRE)
TEMPORARY	
FALL COVER	MNDOT MIX 21-112 (100 LBS/ACRE)
SPRING/SUMMER	MNDOT MIX 21-111 (100 LBS/ACRE)
SOIL-BUILDING COVER	MNDOT MIX 21-113 (110 LBS/ACRE)
1-2 YEARS COVER	MNDOT MIX 22-111 (30.5 LBS/ACRE)
2-5 YEARS COVER	MNDOT MIX 22-112 (40 LBS/ACRE)
MULCH	3822 (TYPE 1 - DISC ANCHORED)
FERTILIZER	3881
WOOD FIBER BLANKET	3885 (CATEGORY 0)

* MOW A MINIMUM OF:
 RESIDENTIAL TURF - ONCE PER 2 WEEKS
 COMMERCIAL TURF - ONCE PER 4 WEEKS

** SEEDED AREAS SHALL BE EITHER MULCHED OR COVERED BY FIBROUS BLANKETS TO PROTECT SEEDS AND LIMIT EROSION.

QUANTITIES - ESTIMATED QUANTITIES FOR EROSION AND SEDIMENT CONTROL MEASURES

TYPE	QTY	UNIT
SILT FENCE	1600	LINEAR FEET
RIP-RAP W. GEO-FABRIC	-	CUBIC YARDS
TURF REINFORCEMENT MAT (ENKAMAT)	-	SQUARE YARDS
SEED & MULCH (GENERAL)	-	ACRE
ROCK CONSTRUCTION ENTRANCE	1	EACH
SOD	-	SQUARE YARDS
EROSION CONTROL BLANKET	-	SQUARE YARDS
INLET PROTECTION	-	EACH

NARRATIVE - TIMING FOR INSTALLATION OF EROSION AND SEDIMENT CONTROL MEASURES

- A COPY OF THE APPROVED EROSION AND SEDIMENT CONTROL PLAN AND SWPPP MUST BE AVAILABLE ON THE PROJECT SITE AT ALL TIMES.
- CONTRACTOR SHALL INSTALL SILT FENCE AS SHOWN ON PLAN.
 2.1. ADDITIONAL SILT FENCE MAY BE NECESSARY IF LOCAL CONDITIONS REQUIRE.
 2.2. THE CONTRACTOR SHALL MAINTAIN SILT FENCE, INCLUDING THE REMOVAL OF ACCUMULATED SEDIMENT, THROUGH COMPLETION OF BUILDING CONSTRUCTION.
- SILT FENCE SHALL REMAIN IN PLACE UNTIL SITE HAS BEEN STABILIZED.
- CONTRACTOR SHALL INSTALL THE ROCK CONSTRUCTION ENTRANCE WHEREVER CONSTRUCTION TRAFFIC ENTERS ONTO EXISTING PAVED SURFACES.
- CONTRACTOR TO INSTALL TREE PROTECTION FENCING AS APPLICABLE
- CONTRACTOR SHALL PERFORM SITE GRADING ON AN AREA-BY-AREA BASIS TO MINIMIZE UNSTABILIZED AREAS.
 5.1. CONTRACTOR MUST IMMEDIATELY INITIATE STABILIZATION OF EXPOSED SOIL AREAS, AS DESCRIBED IN ITEM 8.4 OF THE PERMIT, AND COMPLETE THE STABILIZATION WITHIN SEVEN (7) CALENDAR DAYS AFTER THE CONSTRUCTION ACTIVITY IN THAT PORTION OF THE SITE TEMPORARILY OR PERMANENTLY CEASES.
 6. CONTRACTOR TO PROTECT PERMANENT STORMWATER MANAGEMENT FACILITIES FROM CONSTRUCTION RUN-OFF.
 6.1. INFILTRATION SYSTEMS MUST NOT BE EXCAVATED TO FINAL GRADE UNTIL THE CONTRIBUTING DRAINAGE AREA HAS BEEN CONSTRUCTED AND FULLY STABILIZED.
- CONTRACTOR TO SHALL PAY SPECIAL ATTENTION TO ADJACENT PROPERTY LINES TO ENSURE THE EROSION CONTROL PRACTICES IN PLACE IN THOSE AREAS PREVENT MIGRATION OF SEDIMENT ONTO ADJACENT PROPERTIES.
- ALL EROSION AND SEDIMENT CONTROL MEASURES SHOWN ON THE PLANS OR IMPLEMENTED IN THE FIELD SHALL BE IN ACCORDANCE WITH THE CITY AND NPDES PHASE II PERMIT REQUIREMENTS.
- CONTRACTOR TO PROVIDE ADDITIONAL SILT FENCE, BIORILLS, EROSION CONTROL BLANKET, OR OTHER APPROVED EQUAL FOR ANY SLOPES THAT APPEAR TO BE FAILING
- CONTRACTOR TO STABILIZE SOIL STOCKPILES; STABILIZATION SHALL BE INITIATED IMMEDIATELY
- CONTRACTOR SHALL FINAL GRADE SWALE AREAS UPON STABILIZATION OF UPSTREAM AREAS.
- CONTRACTOR SHALL BE RESPONSIBLE TO SWEEP/SCRAPE ADJACENT STREETS WHEN MATERIALS OR DEBRIS HAVE WASHED/LOWED ONTO ADJACENT STREETS OR AS DIRECTED BY CITY
- COORDINATE SMALL UTILITIES INSTALLATIONS (GAS, PHONE, ELECTRIC, GAS, ETC.) AFTER CURB & GUTTER INSTALLATION.

LIST OF IMPAIRED WATERS:

COON CREEK
 THIS CREEK HAS AN EPA-APPROVED IMPAIRMENT FOR BENTHIC MACROINVERTEBRATE BIOASSESSMENTS AND ESCHERICHIA COLI. THESE IMPAIRMENTS ARE CONSIDERED TO BE CONSTRUCTION RELATED PARAMETERS AND REQUIRE THE ADDITIONAL BEST MANAGEMENT PRACTICES FOUND IN ITEMS 23.5 & 23.10.



DOCUMENTATION OF TRAINED INDIVIDUALS

A. INDIVIDUAL WHO PREPARED THE SWPPP:

ADAM GINKEL
 PLOWE ENGINEERING, INC.
 6778 LAKE DRIVE
 LINO LAKES MN 55014
 (651) 361-8234
 ADAM@plowe.com

UNIVERSITY OF MINNESOTA
Adam Ginkel

Design of Construction SWPPP (May 31 2023)

Erosion and Stormwater Management

The bearer of this card has been listed and is certified on the attached list of trained individuals card. Certification expires Sun dates appear after each construction area.

Key Areas: Soil Erosion and Sedimentation, Stormwater Management, Pollution Prevention, Wetland and Riparian Engineering, University of Minnesota
 100 University Avenue, SE, Corvallis, OR 97331

B. INDIVIDUAL(S) OVERSEEING IMPLEMENTATION OF, REVISING AND/OR AMENDING THE SWPPP AND INDIVIDUALS PERFORMING INSPECTIONS FOR THE PROJECT, ONE OF THESE INDIVIDUALS MUST BE AVAILABLE FOR AN ONSITE INSPECTION WITHIN 72 HOURS UPON REQUEST BY THE MPCA. [MINN. R. 7090]

NAME _____
 COMPANY _____
 ADDRESS 1 _____
 ADDRESS 2 _____
 PHONE _____
 EMAIL _____

C. INDIVIDUAL(S) PERFORMING OR SUPERVISING THE INSTALLATION, MAINTENANCE AND REPAIR OF BMPs. [MINN. R. 7090]

NAME _____
 COMPANY _____
 ADDRESS 1 _____
 ADDRESS 2 _____
 PHONE _____
 EMAIL _____



DRAWN BY: M.Q.A. DESIGN BY: C.V.P.
 CHECK BY: M.Q.A. PROJ. NO: 21-1956
 ORIGINAL DATE: JANUARY 28, 2021

DATE REVISION DESCRIPTION

I hereby certify that this plan was prepared by me or that I am a duly licensed professional Engineer under the laws of the State of Minnesota.
Charles W. Plowe
 CHARLES W. PLOWE
 LIC. NO. 16227
 DATE: 04-16-2021

GROWING GENERATIONS DAYCARE
PLOWE ENGINEERING, INC.
 6778 LAKE DRIVE SUITE 110 LINO LAKES, MN 55014
 PHONE: (651) 361-8210
 FAX: (651) 361-8701

PREPARED FOR: CLASSIC CONSTRUCTION

SITE PLANNING & ENGINEERING

STORM WATER POLLUTION PREVENTION PLAN

DRAWN BY: M.Q.A. DESIGN BY: C.W.P.
 CHCKD BY: M.Q.A. PROJ. NO. 21-1858
 ORIGINAL DATE: JANUARY 28, 2021

DATE	REVISION DESCRIPTION

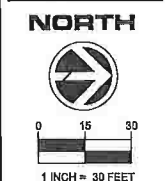
I hereby certify that this plan was prepared by me or under my direct supervision and that I am a duly Licensed Professional Engineer under the laws of the State of Minnesota.
Charles W. Plowe
 CHARLES W. PLOWE LIC. NO. 18227
 DATE: 04-16-2021

GROWING GENERATIONS DAYCARE
 MAIN LAKE, MINNESOTA
 TURN LANE PLAN

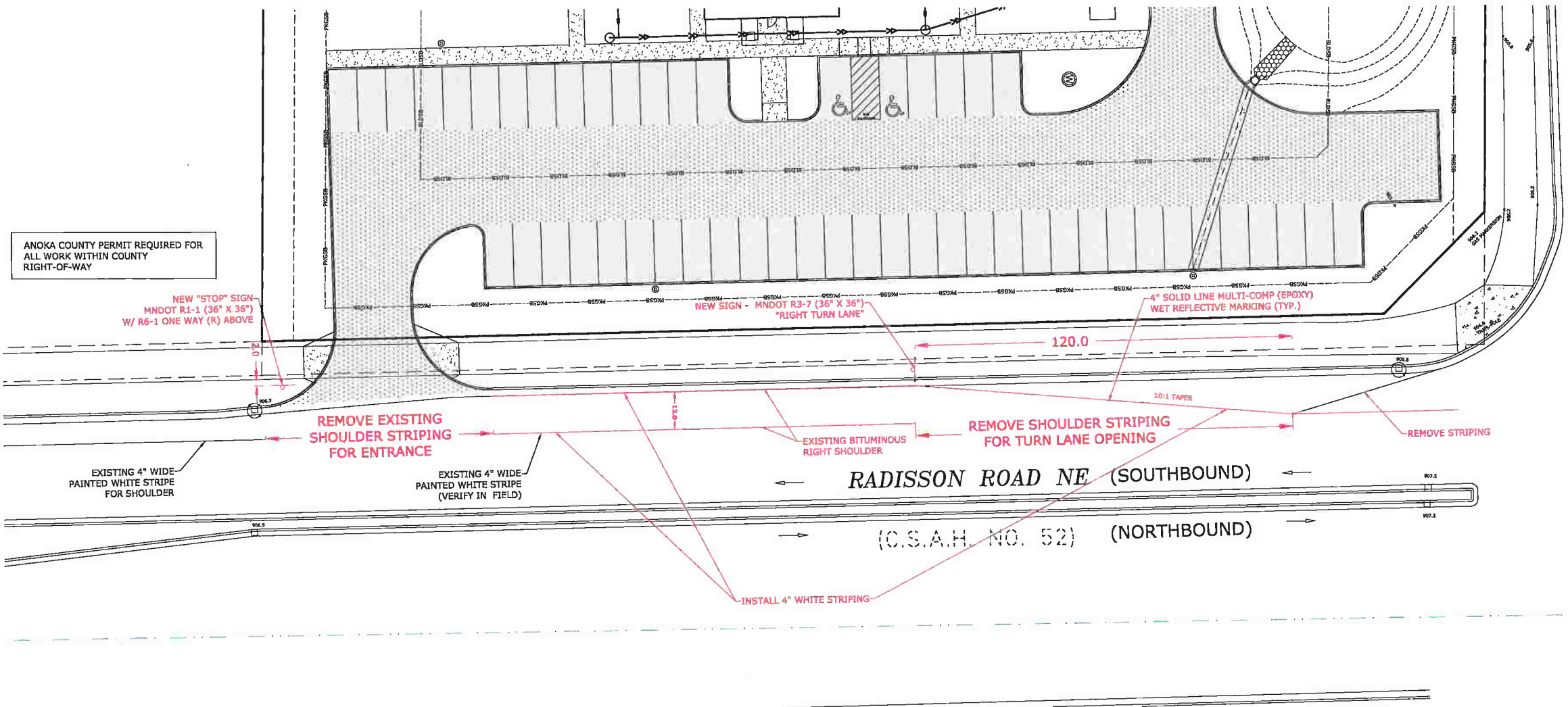
PREPARED FOR:
CLASSIC CONSTRUCTION



SITE PLANNING & ENGINEERING
PLOWE ENGINEERING, INC.
 8776 LAKE DRIVE
 SUITE 110
 LINO LAKES, MN 55014
 PHONE: (651) 361-8210
 FAX: (651) 361-8701



C5



ANOKA COUNTY PERMIT REQUIRED FOR ALL WORK WITHIN COUNTY RIGHT-OF-WAY

NEW "STOP" SIGN - MNDOT R1-1 (36" X 36") W/ R6-1 ONE WAY (R) ABOVE

NEW SIGN - MNDOT R3-7 (36" X 36") "RIGHT TURN LANE"

4" SOLID LINE MULTI-COMP (EPOXY) WET REFLECTIVE MARKING (TYP.)

REMOVE EXISTING SHOULDER STRIPING FOR ENTRANCE

EXISTING BITUMINOUS RIGHT SHOULDER

REMOVE SHOULDER STRIPING FOR TURN LANE OPENING

REMOVE STRIPING

EXISTING 4" WIDE PAINTED WHITE STRIPE FOR SHOULDER

EXISTING 4" WIDE PAINTED WHITE STRIPE (VERIFY IN FIELD)

RADISSON ROAD NE (SOUTHBOUND)

(C.S.A.H. NO. 52) (NORTHBOUND)

INSTALL 4" WHITE STRIPING

NOTE:- STRIPING PAINT:

AT THE TIME OF APPLYING THE MARKING MATERIAL, THE APPLICATION AREA SHALL BE FREE OF CONTAMINATION. THE CONTRACTOR SHALL CLEAN THE ROADWAY SURFACE PRIOR TO THE LINE APPLICATION IN A MANNER AND TO THE EXTENT REQUIRED BY THE ENGINEER.

EXCEPT WHEN USED AS A TEMPORARY MARKING, PAVEMENT MARKINGS SHALL ONLY BE APPLIED IN SEASONABLE WEATHER WHEN AIR TEMPERATURE IS 50°F OR HIGHER AND SHALL NOT BE APPLIED WHEN THE WIND OR OTHER CONDITIONS CAUSE A FILM OF DUST TO BE DEPOSITED ON THE PAVEMENT SURFACE AFTER CLEANING AND BEFORE THE MARKING MATERIAL CAN BE APPLIED.

THE FILLING OF TANKS, POURING OF MATERIALS OR CLEANING OF EQUIPMENT SHALL NOT BE PERFORMED ON UNPROTECTED PAVEMENT SURFACES UNLESS ADEQUATE PROVISIONS ARE MADE TO PREVENT SPILLAGE OF MATERIAL.

NOTES:

1. ALL NEW LANE LINE MARKINGS SHALL BE MULTI-COMP EPOXY MATERIAL.
2. THE CONTRACTOR SHALL BE RESPONSIBLE FOR INCURRING THE COST AND REPLACING ANY EXISTING PAVEMENT MARKINGS THAT HAVE BEEN DAMAGED FROM CONSTRUCTION ACTIVITIES AS DETERMINED BY THE PROJECT ENGINEER.
3. THE CONTRACTOR SHALL EXECUTE ANY PAVEMENT MARKING FIELD CHANGES THAT ARE DEEMED NECESSARY BY THE PROJECT ENGINEER.
4. ALL SIGNING AND STRIPING SHALL MEET ANOKA COUNTY STANDARDS AND SPECIFICATIONS.

CONTRACTOR SHALL FOLLOW MNDOT'S "TEMPORARY TRAFFIC CONTROL ZONE LAYOUTS FIELD MANUAL 2014" FOR TRAFFIC CONTROL.

ALL WORK WITHIN ANOKA COUNTY RIGHT-OF-WAY SHALL CONFORM TO THE 2018 EDITION OF THE MNDOT STANDARD SPECIFICATIONS FOR CONSTRUCTION.



**TURN LANE PLAN
 BUNKER LAKE BLVD NE & RADISSON ROAD NE**

4/16/2021 4:16 PM C:\PROJECTS\21-1858\GROWING GENERATIONS\ANOKA\0311\036.CAD\31-1858.DWG

Rosa Architectural Group Inc.

1084 Sterling Street
St. Paul, Minnesota 55119
tel: 651-739-7988
fax: 651-739-3165

GROWING GENERATIONS

RADISSON RD. NE & BUNKER LAKE BLVD. NE
HAM LAKE, MN

CLASSIC CONSTRUCTION

PH: 763-434-8870
18542 ULYSSES ST. NE
EAST BETHEL, MN

I HEREBY CERTIFY THAT THIS PLAN, SPECIFICATION, OR REPORT WAS PREPARED BY ME OR UNDER MY DIRECT SUPERVISION AND THAT I AM A DULY LICENSED PROFESSIONAL UNDER THE LAWS OF THE STATE OF MINNESOTA.

PRINT NAME: _____
SIGNER: _____
DATE: _____ REG. NO. _____

I HEREBY CERTIFY THAT THIS PLAN, SPECIFICATION, OR REPORT WAS PREPARED BY ME OR UNDER MY DIRECT SUPERVISION AND THAT I AM A DULY LICENSED ARCHITECT UNDER THE LAWS OF THE STATE OF MINNESOTA.

PRINT NAME: RUSSELL R ROSA
SIGNER: Rosa
DATE: 4/5/21 REG. NO. 18039

PROJECT NUMBER: 22103
DATE: APRIL 5, 2021
DRAWN BY: KF
CHECKED BY: RR
REVISIONS: 4/15/21

LANDSCAPE PLAN

L1.1

PLANT LIST: Site Plantings				
QTY.	KEY	BOTANICAL NAME	COMMON NAME	SIZE/ROOT
TREES				
7	ABM	Acer freemanii	Autumn Blaze Maple	2-1/2" B&B
12	PAE	Ulmus americana 'Princeton'	Princeton American Elm	2-1/2" B&B
3	PC	Morus 'Prairiefire'	Prairiefire Crabapple	1-1/2" B&B
9	BH	Picea glauca 'Densata'	Black Hills Spruce	6' B&B
3	CS	Picea pungens	Colorado Spruce	6' B&B
8	NS	Picea abies	Norway Spruce	6' B&B
TOTAL 42				
SHRUBS				
8	DN	Physocarpus opulifolius 'Monie'	Diabolo Ninebark	5 GAL. Pot
17	IHD	Cornus alba 'Ballhalo'	Ivory Halo Dogwood	5 GAL. Pot
5	LDN	Physocarpus opulifolius 'Donna May'	Little Devil Ninebark	5 GAL. Pot
14	GMB	Buxus 'Green Mountain'	Green Mountain Boxwood	5 GAL. Pot
7	EMH	Lonicera xylosteum 'Emerald Mound'	Emerald Mound Honeysuckle	2 GAL. Pot
TOTAL 61				
ORNAMENTAL GRASSES & PERENNIALS				
22	KFB	Calamagrostis acutiflora 'Karl Forester'	Karl Forester Feather Reed Grass	5 Gal. Pot
12	AJS	Sedum spectabile 'Herbstfreude'	Autumn Joy Sedum	1 Gal. Pot
31	BMH	Hosta 'Blueberry Muffin'	Blueberry Muffin Hosta	1 Gal. Pot
TOTAL 65				

PLANTING NOTES:

Contractor shall provide one year guarantee of all plant materials. The guarantee begins on the date of the Landscape Architect's written acceptance of the initial planting. Replacement plant materials shall also have a one year guarantee commencing upon planting.

All plants to be northern-green and hardy. Plants to be installed as per standard AAN planting practices. Use minimum 12" loam planting soil on trees and 6" on shrubs.

Contractor shall verify locations with all utilities prior to installation of plants.

Staking of trees optional; re-stake if not plumb after one year.

Wrap all smooth-barked trees-fasten top and bottom. Remove by April 1.

Open top of burlap on BB materials; remove pot on potted plants; split and break apart peat pots.

Prune plants as necessary - per standard nursery practice.

Owner shall be responsible for maintenance after acceptance of the work by the Owner.

Plants shall be immediately planted upon arrival at site. Property heel-in materials if necessary.

All disturbed areas to be seeded unless otherwise noted.

Planting beds for shrubs shall have 3" - 4" of 1-1/2" washed River rock mulch. No weed barrier fabric to be used. Separation of stone mulch from sod shall be by 4" vertical (commercial grade) black poly edging. Edging shall be placed and staked with smooth curves and straight lines.

All planting beds shall be prepared using Preen or an approved equal weed preventative.

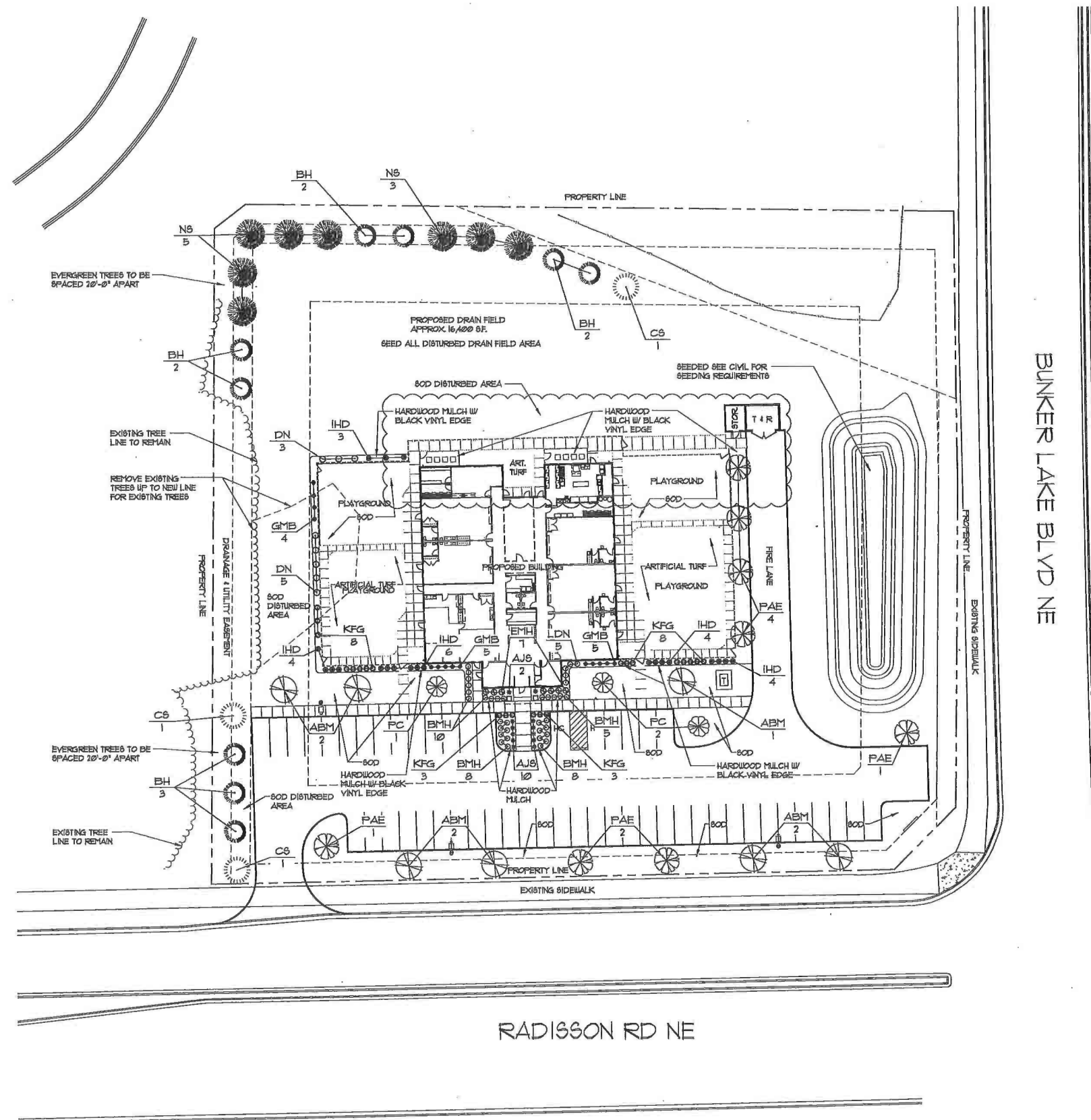
Organic black topsoil shall be spread over site where landscaping or sod to be placed, or as per City code.

Double shredded dark brown hardwood mulch 4" deep shall be provided around all new trees.

Field adjust tree and shrub locations to fit site and avoid utility locations and any changes that may have occurred to the buildings exterior and/or site in general.

Construction and soil types to be determined by the site Engineer.

Contractor to field adjust foundation shrubs to best suit space and building's architecture.



LANDSCAPE PLAN
1" = 30'-0" (ON 24x36 SHEET)
NORTH

Rosa
Architectural
Group
Inc.

1084 Sterling Street
St. Paul, Minnesota 55119
tel: 651-739-7988
fax: 651-739-3165

GROWING
GENERATIONS

RADISSON RD. NE &
BUNKER LAKE
BLVD. NE
HAM LAKE, MN

CLASSIC
CONSTRUCTION

PH: 763-434-8870
18542 ULYSSES ST. NE
EAST BETHEL, MN

I HEREBY CERTIFY THAT THIS PLAN, SPECIFICATION, OR
REPORT WAS PREPARED BY ME OR UNDER MY DIRECT
SUPERVISION AND THAT I AM A DULY LICENSED PROFESSIONAL
UNDER THE LAWS OF THE STATE OF MINNESOTA.

PRINT NAME: _____

SIGNED: _____

DATE: _____ REG. NO. _____

I HEREBY CERTIFY THAT THIS PLAN, SPECIFICATION, OR
REPORT WAS PREPARED BY ME OR UNDER MY DIRECT
SUPERVISION AND THAT I AM A DULY LICENSED ARCHITECT
UNDER THE LAWS OF THE STATE OF MINNESOTA.

PRINT NAME: RUSSELL R ROSA

SIGNED: Russ Rosa

DATE: 4/5/21 REG. NO. 18233

PROJECT NUMBER: 22103

DATE: APRIL 5, 2021

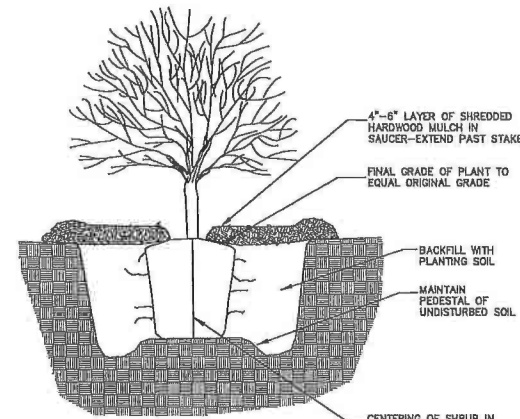
DRAWN BY: KF

CHECKED BY: RR

REVISIONS: _____

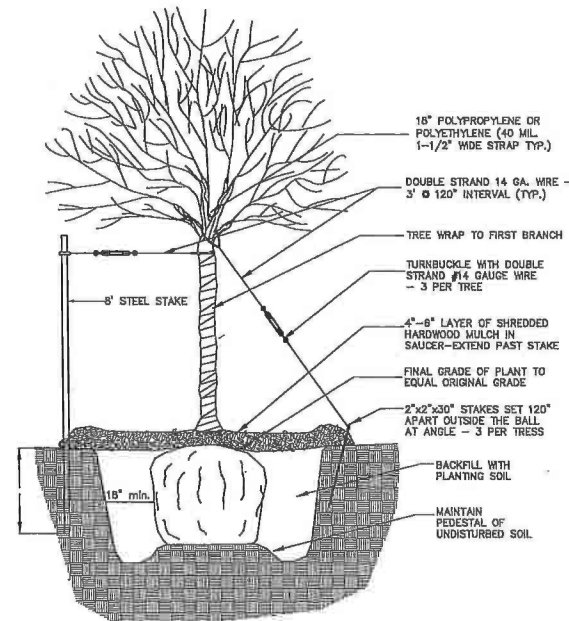
LANDSCAPE DETAILS

L1.2



NOTES:
HAND LOOSEN ROOTS OF CONTAINERIZED MATERIAL (TYP.).
SCARIFY BOTTOM AND SIDES OF HOLE PRIOR TO PLANTING.

SHRUB PLANTING DETAIL

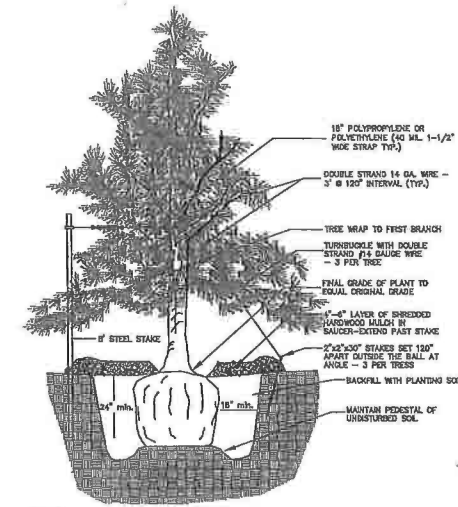


NOTES:
TWO ALTERNATE METHODS OF TREE STAKING ARE SHOWN.

IT IS THE CONTRACTOR'S OPTION TO STAKE TREES; HOWEVER, THE CONTRACTOR
IS RESPONSIBLE FOR THE MAINTAINING TREES IN A PLUMB POSITION THROUGHOUT
THE GUARANTEE PERIOD.

SCARIFY BOTTOM AND SIDES OF HOLE PRIOR TO PLANTING.

DECIDUOUS TREE PLANTING DETAIL



NOTES:
TWO ALTERNATE METHODS OF TREE STAKING ARE SHOWN.

IT IS THE CONTRACTOR'S OPTION TO STAKE TREES; HOWEVER, THE CONTRACTOR
IS RESPONSIBLE FOR THE MAINTAINING TREES IN A PLUMB POSITION THROUGHOUT
THE GUARANTEE PERIOD.

SCARIFY BOTTOM AND SIDES OF HOLE PRIOR TO PLANTING.

CENTER TO HAVE SHREDDED HARDWOOD MULCH UNLESS
OTHERWISE NOTED.

NO MULCH TO BE IN CONTACT WITH TRUNK.

CONIFEROUS TREE PLANTING DETAIL

Meeting Date: 04/26/2021

CITY OF HAM LAKE
STAFF REPORT

To: Planning Commission

From: Jennifer Bohr, Zoning & Building Clerk

Subject: Discussion of potential changes to Article 9-220

Introduction:

At the April 19, 2021 City Council meeting, Councilmember Jesse Wilken stated two Conditional Use Permits were approved at the meeting for a couple businesses occupying office/warehouse in suites in CD-2 zoning but the conditions listed were minimal. Councilmember Wilken stated Article 9-220 should be reviewed. The City Code allows offices and office buildings in the CD-1 and CD-2 zoning districts and enclosed storage and warehousing in the CD-2 zoning district as permitted uses but requires a Conditional Use Permit for an office/warehouse use in CD-1 & CD-2 zoning. The City of Ham Lake wants to be considered a business-friendly city. Councilmember Wilken stated the City Code should be updated and less restrictive in some areas, such as in the CD-2 zoning district, to reflect this.

Excerpt from April 19, 2021 City Council Minutes

11.3 Discussion of Article 9-220 of the City Code

Councilmember Wilken stated that some of the Conditional Use Permits that were approved earlier in the meeting are for properties located in CD-2 Zoning (Commercial Development Tier 2) and are to operate office/warehouse businesses; Commissioner Wilken feels that an office/warehouse business should be a permitted use in CD-2 Zoning. Councilmember Wilken stated the City Code should be reviewed and one of the changes should be to allow an office/warehouse as a permitted use in CD-2 Zoning. Councilmember Kirkeide agreed with Councilmember Wilken. **It was the consensus of the City Council to refer the review of Article 9-220 of the Ham Lake City Code to the Planning Commission for review.**

Discussion: The City Council would like the Planning Commission to review Article 9-220 of the City Code and recommend amendments they feel should be made.

9-220 Mercantile Districts The land uses described in Article 9-220 are intended to be applicable to developments which utilize subsurface sewage treatment systems (SSTS), and to developments which use approved combined sewage treatment systems. All building permits and Certificates of Occupancy in the Mercantile Districts shall require the review and approval of the City Council, after review and recommendation by the Planning Commission, excepting building permits and/or certificates of occupancy being issued for an alteration to an existing structure under circumstances in which the land use will be unchanged, and in which the alteration will not materially affect parking requirements, stormwater runoff, traffic, sewage treatment needs or aesthetics.

9-220.1 Standards Common to All Mercantile Districts The following standards shall apply to all of the mercantile districts as listed in Article 9-220.

- a) Paving** All parking lots, drives and surfaces upon which the public shall have access shall be paved according to specifications to be established by the city's engineer;
- b) Drainage** Surface water drainage and ponding needs shall be implemented in the manner directed by the city's engineer;
- c) Landscaping** Landscaping shall be implemented in the manner provided in Article 11-1800;
- d) Setbacks for Paved Areas** There shall be a ten foot setback between any lot line and the back of curb of any parking lot or driveway, and a six foot setback between the back of curb of any parking lot and any building;
- e) Buffering** When any mercantile land use is located adjacent to a residential area, it shall be screened by opaque fencing, vegetation, or both;
- f) Refuse Containers** Refuse containers shall be stored in locations which are completely screened from outside view; hazardous materials shall be stored and disposed of in the manner provided by law;
- g) Parking Lots and Lighting** Off-street parking shall be provided for all patrons and employees. The *Zoning Officer* shall maintain a schedule of parking requirements, to be ratified from time to time by resolution of the City Council, to serve as the general guideline for the establishment of parking requirements, subject to modification by the City Council where merited. Security lighting shall be permitted, and may be required on review of site plans, but shall be directed away from adjacent properties. No light or combination of lights that cast light upon a Residential Land Use shall exceed 4 foot candle meter reading as measured at the residential property line. All measurements shall be made after dark at the property line or edge of roadway.

h) Off-Street Loading All deliveries and bulk pickups of merchandise, inventory and supplies shall be made to loading facilities preferably located in the rear of the building, which loading facilities shall be sufficient to enable the prompt and safe transfer of goods.

i) Signage All signage shall conform to the provisions of Article 11-300.

j) Special Considerations Notwithstanding the limitations as to building styles, construction types and exterior treatments, the City Council, after Planning Commission review, may depart from strict adherence to the standards found in Article 9-220, where special conditions merit such departure, and where certain standards are met. Such special conditions and standards may include, without limitation, the following items.

i) The departure is not being requested for purely economic reasons;

ii) The nature of the business is such that it requires a specific type of building construction in order to improve the business function, such as requirements for sunlight, specialty equipment, interior lighting or the like;

iii) The business is a permitted or conditional use in the zoning district;

iv) The applicant proposes the usage of special aesthetic treatments which provide a superior exterior view, such as landscaping, vegetation screening, berming, or the like;

v) The property contains unusual topography, mature vegetation or other features which can be preserved or enhanced to produce an overall superior appearance;

vi) The property contains unusual accessibility problems to or from adjacent roadways;

vii) The applicant offers to implement more stringent design limitations in certain site plan features than would normally be required, in exchange for being permitted less stringent design limitations in other site plan features.

k) Outside Storage Outside storage and activities for areas zoned CD-3, CD-4, Industrial Park (I-P) and Light Industrial (I-1) shall be as specifically detailed in the Code Sections dealing with those land uses (Articles 9-220.4 through 9-220.7). For areas zoned CD-1 and CD-2, the following provisions shall apply to outside storage,

excepting Fireworks sales and storage, which are governed by the provisions of Article 9-330.6. **Unless specifically permitted by this Article 220.1(k), no Outside Storage shall be allowed in any area zoned CD-1 or CD-2.**

1) Definitions

aa) Outside Storage – personal property (not fixtures) that are located within the Approved Property Lines of any parcel bearing a CD zoning classification, but which are found outside of an enclosed, roofed building (including temporary structures). Outside Storage does not include Refuse Containers, customer vehicles, employee vehicles parked while the employee is on duty, delivery vehicles while in the process of delivery or pickup, construction materials or vehicles being used in an active construction project on the parcel, legal signs or banners, or legal temporary structures. Except where specifically excepted, Outside Storage does include inventory of the business occupying the parcel.

bb) Inventory - goods, except Vehicle Inventory, that are offered for sale in the ordinary course of business of any business occupying the parcel. For auto repair shops, inventory shall also be deemed to mean passenger vehicles or pickup trucks awaiting repair services.

cc) Vehicle Inventory – Automobiles, Trucks, Trailers, Manufactured Homes, Recreational Vehicles, Campers, Camper Tops, Truck Toppers, Boats or other wheeled conveyances that are offered for retail sale at a legal business location whose primary business is the retail sale of one or more of the above items. Rental equipment that may be offered for sale is not Vehicle Inventory. Vehicle Inventory that bears obvious signs that the vehicle is not presently capable of being legally operated or conveyed on a public road is not Vehicle Inventory, including, but not limited to vehicles lacking wheels or inflated tires, operable drive train components, broken windows or lights, required current vehicle registration, missing body parts, such as fenders, doors, hood lids, trunk lids, bumpers, lights or trim.

dd) Aesthetically Screened Outside Storage - Inventory or Vehicle Inventory behind an opaque barrier constructed of masonry or brick, attached to and matching or complementary to the main building, and of sufficient height and design so as to give the appearance that the barrier is a part of the main building. No object shall be stored inside of such a barrier if the object protrudes above the height of the barrier. Any gates through the barrier shall be opaque and of aesthetic design.

ee) Limited Outdoor Displays - Temporary displays of merchandise which are normally sold or displayed from within an enclosed retail store locations, but which are temporarily placed not

more than ten feet from an outside wall of the main retail sales building during business hours, and then returned to inside storage during non-business hours.”

ff) Improvement Stores – Businesses that have as their primary source of revenue the retail sale of plants, seeds, landscaping supplies, produce, or yard statuary.

gg) 24-Hour Convenience Stores – Businesses that sell gasoline at retail, and, from the same store location, also sell groceries, auto supplies, sundries, over-the-counter medications and personal products, sundries and other items for human consumption, and which remain open for business at all times of every day.

hh) Approved Property Lines – Are the outside perimeter of the real estate parcel or parcels which were shown on the site plan used for the initial municipal approval of a certificate of occupancy or conditional use permit for a particular operation.

ii) Pool Stores – retail stores that engage in the retail sales of above ground or below ground recreational swimming pools that contain electric filtration devices providing water circulation and filtration in the pool, and under conditions where an inventory of above ground or in ground swimming pools is maintained, connected by water and electricity to a source originating in a permanent retail building located on the same parcel. A Pool Store shall not be considered a retail store for the purposes of determining permitted uses under Article 9-220.2 (b) or 9-220.3(b).

jj) Screened Outside Storage – is Inventory or Vehicle Inventory behind an opaque barrier constructed of wood, metal, plastic, masonry, brick or earthen berm, or which is behind an opaque barrier composed of existing buildings or other structures on the property, or which is behind a semi-opaque barrier of vegetation that substantially conceals the storage from outside view.

2) Permitted Outside Storage

aa) Vehicle Inventory is permitted Outside Storage on any CD-1 or CD-2 parcel in connection with a business that is legally permitted to sell Vehicle Inventory. If specifically permitted by the conditions of any Conditional Use Permit or Temporary Conditional Use Permit for any such parcel, vehicles that do not meet the definition of Vehicle Inventory may also be permitted Outside Storage.

bb) Aesthetically Screened Outside Storage is permitted outside storage if used as a condition of approval of any site plan, Conditional Use Permit or Temporary Conditional Use Permit on any CD-1 or CD-2 parcel in connection with the new construction of a main commercial building on the parcel.

cc) Limited Outdoor Displays are permitted Outside Storage in both the CD-1 and CD-2 districts. If the business is a 24-Hour Convenience Store, the Limited Outdoor Display need not be moved indoors, but the business shall at all times maintain a clear pedestrian path on sidewalks that is at least 36 inches in width.

(dd) Inventory is permitted Outside Storage for Improvement Stores and Manufactured/Prefabricated Structure Sales but must be separately identified on the initial site plan submitted with the initial request for certificate of occupancy or conditional use permit, and must be stored only in conformance with that site plan. Bins or containers housing the Inventory shall also be permitted Outside Storage for Improvement Stores and Manufactured/Prefabricated Structure Sales as shall be other items necessarily incident to the storage, maintenance or protection of the Inventory.

ee) No Outside Storage shall be permitted for any business unless the storage is within the Approved Property Lines.

ff) Pool Stores may display above ground or below ground swimming pools as Permitted Outside Storage only on property under conditional use permit, subject to conditions to be established by the City Council, which must include, at a minimum, the following:

- 1) Pool water must be maintained in a sanitary condition;
- 2) Below ground pools must be surrounded by code-compliant fencing;
- 3) Above ground pools must be constructed in a code-compliant method relative to either fencing or sufficient elevation to prevent accidental entry into the pool;
- 4) Adequate security fencing around the storage display area must be installed to discourage after-hours entry into the pool storage area;
- 5) Reasonable screening from outside view shall be installed;
- 6) All sources of water and electricity shall be connected to the pools in a code-compliant manner;
- 7) Only pools that are intended for use with circulating filters shall be permitted outside; no "kiddy pools", wading pools or inflatable pools shall be permitted to be displayed outside.
- 8) Winter storage of outside pools shall be done in a manner that covers the pool surface and prevents the accidental entry into the pool;

gg) Screened Outside Storage is permitted outside storage if used as a condition of approval of any site plan, Conditional Use Permit or Temporary Conditional Use Permit on any CD-1 or CD-2 parcel involving pre-existing main buildings or structures that:

- 1) Historically utilized outside storage in connection with business operating on the property, and which uses were never abandoned;

- 2) Do not involve replacement or major remodeling of the existing structures, but utilizes the existing structures for the business to be operated;

Approval of Screened Outside Storage is discretionary with the City Council.

i) Revocation All permits and certificates of occupancy issued in the mercantile districts are subject to revocation under the provisions of Article 9-240.

3) Office/Warehouses Office/Warehouse is a term given to a structure that is designed to have office space in front, behind which is situated an open bay or bays, with the office and bay space to be occupied by a single business. The office space and the bay space may also include area for retail sales. The bay space may also be used for manufacturing, other industrial activity, or warehousing. Building Permits may be issued for Office/Warehouses in any Mercantile District as found in Article 9-220. However, specific uses within each Office/Warehouse are subject to the Permitted Use, Conditional Use and Temporary Conditional Use restrictions for the given zoning district in which the Office/Warehouse is constructed. The issuance of a building permit for an Office/Warehouse does not confer upon the property owner the right to use any portion of the structure in a manner inconsistent with the use restrictions for the zoning district in which the structure is located. All new tenants or occupants of any Office/Warehouse must observe the same conditions for site plan or other approval, as would any other occupant. Further, if the zoning district in which the Office/Warehouse is to be constructed contains restrictions on building materials or design, those restrictions must be followed.

9-220.2 Commercial Development 1 (CD-1)

The CD-1 zone is intended to apply to certain commercial uses on lands abutting the city's only major thoroughfare, Trunk Highway 65. In that these lands have high visibility to the traveling public, it is considered important to the preservation of land values in general, as well as important to the continuing ability of the city to generate the establishment of quality commercial development and the concomitant tax and employment base, that structures in the CD-1 zones observe specific construction and aesthetic standards, which are listed below. No usage shall be permitted in the CD-1 zone which does not observe the standards found in Article 9-220.2 (a) below.

a) Standards for Site and Building Construction

- i) Except for structures housing public utility feature, no metal or pole-type building shall be permitted;

- ii) Exterior wall surfaces shall be of brick, decorative masonry, stone, precast panel, architectural concrete, glass, stucco or wood framed with horizontal lap siding;
- iii) No galvanized surfaces shall be permitted, either on roofs or siding;
- iv) All roofs shall be colored and shall incorporate a minimum 18-inch soffit on the eave edge of the roof;
- v) All roofs shall have a minimum 12-inch overhang on the gable ends;
- vi) All roofs have a 9.5 inch fascia;
- vii) Standing metal seam roofing shall be permitted (Minimum 24 gauge, non-galvanized);

b) Permitted Uses (Including uses that are ancillary to the main use)

- Clubs and Lodges
- Medical Facilities
 - Assisted Living Facilities
 - Chiropractic
 - Clinics of all medical disciplines
 - Dental
 - Diagnostic Facilities
 - Hospitals
 - Laboratories
 - Nursing Homes
 - Treatment Rooms and Centers
 - Veterinary Clinics
- Hotels, Motels and Lodging Houses under Article 11-1100
- Offices and Office Buildings
- Park and Ride Lots
- Post Offices
- Public Utilities (metal or pole type construction allowed)
- Recreational Facilities (indoor unless noted)
 - Batting Cages
 - Billiard Parlors
 - Bowling Alleys
 - Dance/Gymnastic Studios
 - Health Clubs
 - Martial Arts Studios
 - Miniature Golf Courses (outdoor)
 - Paintball or Laser Tag Facilities
 - Parks (outdoor/publicly owned)
 - Roller Skating Facilities
 - Shooting Range
 - Skateboard Facilities
 - Virtual Golf Facilities
- Restaurants, including liquor service
- Retail Facilities - engaged in the sale of goods (Excluding

Motor Vehicle/ Boat/RV/Camper Sales), from freestanding one-store locations, shopping centers, strip malls or enclosed malls, including, but not limited to:

- Antique Stores
- Appliance Stores
- Automobile Parts Stores (new parts only)
- Bakeries
- Bicycle Stores
- "Big Box" Stores (subject to Article 9-400)
- Book Stores
- Butcher Shops/Meat Markets
- Camera Stores
- Candy Stores
- Carpet Stores
- Clothing Stores
- Coin Stores
- Convenience Stores
- Cosmetic Stores
- Discount Stores
- E-Cig Stores
- Electrical, HVAC and Plumbing Equipment Stores
- Electronics Stores
- Fireworks (under Article 9-330.6)
- Floral Stores
- Furniture Stores
- Gift Shop
- Grocery Stores
- Hardware Stores
- Health Stores
- Hobby/Game Stores
- Housewares Stores
- Improvement Stores (Lawn & Garden) as defined in Article 9-220.1 (k)(1)(ff)
- Jewelry Stores
- Liquor Stores
- Luggage Stores
- Music Stores
- Office Supply Stores
- Optical Supply Stores
- Paint/Wallpaper Stores
- Pet Stores
- Petroleum product sales (excluding vehicle repair)
- Pharmacies
- Shoe Stores
- Sporting Goods Stores
- Souvenir Stores

- Thrift Stores
- Tobacco Stores
- Video Stores
- Schools and Colleges
- Service Businesses
 - Appliance Repair Shops
 - Barber Shops
 - Beauty Shops
 - Car Washes
 - Day Cares (licensed)
 - Dry Cleaners
 - Electronics Repair Shops
 - Financial Institutions
 - Funeral Homes
 - Government Buildings
 - Insurance Agencies
 - Law Offices
 - Locksmiths
 - Manicure/Pedicure/Nail Care shops
 - Pet Grooming Shops
 - Photography Studios
 - Print Shops
 - Shoe Repair Shops
 - Specialty Retail Shops
 - Tailor Shops
 - Tanning Facilities
 - Travel Agencies
- Small Engine Sales and Repair
 - Air Compressors
 - Chain Saws
 - Garden Tractors
 - Lawn Mowers
 - Leaf Blowers
 - Other Motorized Gardening Equipment
 - Power Rakes
 - Power Washers
 - Rototillers
 - Shop Vacs
 - Snowblowers
 - Woodchippers
 - Woodsplitters
- Theatres
- Worship Centers and ancillary features owned by the entity that owns the Worship Center, including classrooms, recreational features, residences for staff, offices and kitchen/dining.

c) Conditional Uses

- Automobile Repair Shops (Passenger Vehicles, Pickup Trucks, ATVs, Snowmobiles, Motorcycles, Jet-skis, Boats and other Marine Equipment)
- Equipment Rental Businesses
- Light Manufacturing, defined as follows:

The fabrication or processing of goods for sale to retailers, wholesalers, other manufacturers or at retail that takes place entire within an enclosed building and that meets the following criteria:

 - a) The business does not generate any noise, odor or vibration detectable from adjoining properties, other than that which occurs in the normal course of business during shipping and receiving activities;
 - b) There is no outside storage of any item except Aesthetically Screened Outside Storage as defined in Article 9-220(k)(1)(dd) of this Code.
 - c) No outside cranes or booms are located on the site;
 - d) Retail sales of the business products can occur on the premises if the commodities are the commodities manufactured on site.
- Manufactured/Prefabricated Structure Sales (including, without limitation, housing units, gazebos, storage sheds, playhouses, screened porches, and shelters) together with incidental furnishings such as lawn chairs and picnic tables
- New Vehicle Sales (must have indoor showroom) limited to the following:
 - **Note:** Where the word "vehicle" is used, the term is hereby defined to exclude manufactured homes, busses, semi-tractors, semi-trailers over 30 feet in length, and heavy construction equipment, such as bulldozers, backhoes, road graders, earth moving equipment, cranes and excavators.
 - ATV's (all-terrain vehicles)
 - Automobiles
 - Boats
 - Campers
 - Golf Carts
 - Motorcycles, Motorbikes and Scooters
 - Recreational Vehicles
 - Snowmobiles
 - Commercial Trucks
 - Pickup Trucks
 - Trailers less than 30 feet in length
- Office Warehouses
- Pool Stores

- Residential Treatment Centers
- Service Businesses
 - Landscaping
- Sexually Oriented Business under Article 9-330.3
 - Self-Storage Facilities, limited to properties on which self-storage facilities were in existence as of January 1, 2014. "Properties" as used herein is intended to include "Expansion Parcels", which are tax parcels that were on said date contiguous to and in common ownership or control with the parcel on which self-storage facilities were in use on said date and which were lacking a permanent structure/usage and/or providing a parking area or driveway serving the parcel on which the self-storage units were located. Expansion Parcels do not include parcels that are separated by public roads from the parcel on which the self-storage units were located on said date. It is the intent of this language that the self-storage use be permitted to expand onto the Expansion Parcels if a Conditional Use Permit for such expansion is approved. Notwithstanding these provisions, all self-storage uses shall be considered non-conforming uses and if abandoned or damaged and unrepaired, are subject to the same criteria for termination of allowed usage status as for other non-conforming uses as provided in Article 9-150.1 of this Code.
- Temporary Commercial Structures under Article 9-330.7
- Therapeutic Massage under Article 9-330.5
- Transportation Facilities
- Used Vehicle Sales limited as follows
 - Collector Cars
 - Motor Homes and Recreational Vehicle Trailer Sales*
 - *(A "Trailer", for the purposes of this code, shall mean a conveyance which is primarily designed to be towed behind a motor vehicle on public highways for usage in camping at bona fide campgrounds or RV parks. The conveyance commonly known in the industry as a "Park Model" is not to be considered a Trailer.)
 - Facilities that meet the following criteria:
 - The lot on which the use is proposed is presently and lawfully used by a business whose primary business is in the automotive industry such as automobile specialty shop, auto repair or recreational vehicle sales lot; and
 - The sales are limited to passenger cars and pickup trucks; and
 - The primary business activity in the automotive industry that qualified the lot to be used for Used Vehicle Sales must continue to be the primary business activity on the lot; Used Vehicle Sales shall be an incidental use only, and shall not replace the primary business activity; or

- The used vehicle inventory is part of the overall inventory of a New Vehicle Sales operation, limited to vehicles that have been taken in trade by the owner

d) Temporary Conditional Uses Only

Certain modular housing sales lots may be allowed as Temporary Conditional Uses in the CD-1 areas under the following limited conditions:

- i)** The permit shall be for no longer than five years;
- ii)** No housing units shall be permitted which are manufactured homes, which were at one time manufactured homes, or which could become manufactured homes with the addition of wheels installed in a pre-engineered or pre-planned receptacle. It is the intention of this usage that the only housing units permitted for display in such areas are single family dwellings of wood frame construction, designed for placement on a permanent foundation in a typical single family residential neighborhood, and not designed for or commonly found in mobile home parks.
- iii)** A single housing unit may be used as a sales office.
- iv)** Marketing of housing units shall be only to consumer-homeowners, and not to retailers or wholesalers;
- v)** All units shall be placed on concrete blocks, at least two courses in height, giving the appearance of a full basement.
- vi)** All units shall be completely finished on the exterior to give the appearance that the unit is inhabited as a part of a quality single family neighborhood. Units may be assembled from pre-constructed component parts on site, but may not be constructed from scratch on the site. Assembly of any display unit shall be complete (weather permitting) within 14 days after commencement of assembly. Each display unit shall obtain a building permit from the City prior to commencement of assembly. A display unit, once in place, shall not be replaced for at least 24 months.
- vii)** All surfaces upon which the public is expected to drive, park or walk shall be paved with bituminous or concrete material according to specifications to be established by the City's engineer.
- viii)** All display units shall have an attached garage for two cars or more.
- ix)** A Site Plan shall be reviewed and approved by the City Council, after review and comment by the Planning Commission, which plan shall limit the number of units to be displayed, provide a landscaping plan, show the locations of all drives, walkways and parking areas, and provide photographic samples of the styles of units to be displayed.
- x)** The City Council may attach such other conditions to the Temporary Conditional Use Permit as are deemed appropriate or necessary to protect public safety, health or welfare, or to protect nearby property values.

9-220.3 Commercial Development II (CD-2)

The CD-2 Districts are located adjacent to the CD-1 Districts, and constitute a second tier of commercial activities along the T.H. 65 corridor. These

districts also have importance in presenting a visually pleasing image to the traveling public, but are less visible from the T.H. 65 roadway than the CD-1 districts.

a) Standards for Site and Building Construction

i) Metal or pole-type buildings shall be permitted if surfaces meet the requirements of ii below, and, provided that no galvanized surface may appear, all roofs shall be colored and incorporate a minimum 18 inch soffit on eave edges, 12 inch overhang on gable ends, and 6 inch fascia.

ii) Modern metal paneling or architectural metal panel may be used for roof and exterior wall surfaces. On all exterior wall surfaces, the surface may be modern metal paneling, used in combination with brick, decorative masonry, stone, precast panel, architectural concrete, architectural panel, glass, stucco or wood framed with horizontal lap siding;

Modern metal paneling may be used for roof and exterior wall surfaces, provided that on the wall sides facing T.H.65, no more than 25% of the surface area may be modern metal paneling, with the remaining portion of these surfaces being brick, decorative masonry, stone, precast panel, architectural concrete, glass, stucco or wood framed with horizontal lap siding; For other wall surfaces, there shall be a wainscot at least 42 inches in height which is composed of brick, decorative masonry, stone, precast panel, architectural concrete, glass, stucco or wood framed with horizontal lap siding;

b) Permitted Uses (Including uses that are ancillary to the main use)

- All Permitted Uses in the CD-1 District
- Broadcasting Studios
- Building Supply Yards/Lumber Yards
- Enclosed Storage and Warehousing
- Landscaping Businesses
- Manufacturing involving no non-enclosed storage
- Public Utilities (metal or pole type construction allowed)
- Research laboratories
- Used Vehicle Sales - limited to the following:
 - ATV's (all-terrain vehicles)
 - Automobiles
 - Boats
 - Campers
 - Golf Carts
 - Motorcycles, Motorbikes and Scooters
 - Recreational Vehicles
 - Snowmobiles
 - Commercial Trucks

- Pickup Trucks
- Trailers less than 30 feet in length
- Utility Companies

c) Conditional Uses

- All conditional uses or temporary conditional uses in the CD-1 District
- Flea Markets under Article 11-1500
- Kennels
- Pawn Shops under Article 11-1300
- Truck Terminals – as defined as a location where commercial trucks are parked and/or stored
 - Self-storage facilities, but not including the limitations and conditions imposed for such facilities as found in Article 9-220.2 (c).
 - Concrete Masonry

9-220.4 Commercial Development III (CD-3)

The CD-3 zones are areas of the City that are located outside of the TH 65 Corridor, which are suitable for certain institutional activities; neighborhood retail, or which operate under historic permits, and which involve no outside storage of supplies, equipment or inventory excepting motor vehicles used in the business (unless specifically allowed by historic permit) and except as stated below:

a) Permitted Uses (Including uses that are ancillary to the main use)

- Campgrounds (may include outside storage of firewood, equipment, picnic tables and other items common to a campground environment)
- Churches, including ancillary structures such as classrooms, offices, recreational facilities, parsonages or other dwellings for occupancy by church staff
- Convenience Stores including outdoor displays and inventory
- Financial Institutions
- Governmental, Business and Professional Offices
- Land Uses Specifically Authorized by Development
- Agreements in effect in whole or in part prior to January 1, 2000
- Licensed Day Care Centers
- Medical Clinics, including general medicine, specialty medicine, dental, optical and chiropractic
- Off Sale Liquor Stores
- Personal Services, including Beauty Shops and Barber Shops
- Petroleum Products Sales including outdoor displays and

inventory

- Plant Nurseries, Garden Centers and Produce Markets
(including limited outdoor display)
- Veterinary Clinics

b) Conditional Uses

- None

9-220.5 Commercial Development IV (CD-4)

The CD-4 zones are areas of the City that are located outside of the TH 65 Corridor, which are suitable for certain light industrial or construction trades, and which involve no outside storage of supplies, equipment or inventory excepting motor vehicles used in the business.

a) Permitted Uses (Including uses that are ancillary to the main use)

- Electrical, HVAC, Plumbing, Septic Contracting Businesses
- Indoor Storage
- Light Assembly
- Light Manufacturing or Re-Manufacturing
- Office/Warehouse
- Personal Services, including Beauty Shops and Barber Shops
- Small Retail Sales Facilities

b) Conditional Uses

- None

9-220.6 Industrial Park (I-P) This zoning category shall apply to mercantile parcels which are intended for manufacturing, warehousing, machining, tooling, fabricating, assembly, processing, equipment storage, storage of raw materials or supplies, and the like, as opposed to mercantile parcels used primarily for office or retail activities. Limited office space activity may occur in an Industrial Park, but only as incidental to the main industrial usage of a given parcel.

a) Physical Requirements

i) Building Materials All building construction shall be of masonry or of products made from concrete or materials related to concrete. Metal framed with architectural panel shall be allowed, but no other metal buildings shall be allowed in any I-P District.

ii) Screening Any I-P area developed after the effective date of this ordinance which is adjacent to land which is now or which is intended to become a residential land use shall be completely fenced by attractive, opaque fencing of sufficient height to completely screen all future activities within I-P area. Opaque fencing shall be deemed to mean only solid wood or solid metal components. Fence height

shall be as determined upon site plan review by the *Planning Commission*, which may also require different screening material, including earthen berming.

iii) Paving All drives, parking lots or sidewalks which will be utilized by the general public or by employees of the business shall be paved in accord with standards established by the City's engineer. Equipment storage areas may be surfaced with Class V or other material if the area so surfaced is not to be open to the general public.

iv) Landscaping Article 11-1800 of this code shall apply to landscaping in I-P areas.

b) Usage Limitations All uses in the I-P areas shall be subject to the same review procedures as are found in Article 9-220 for Mercantile Areas. The following specific usage limitations shall apply to the I-P areas:

i) Outside Storage All outside storage shall be fenced for security purposes. Trash containers or accumulations of waste or debris of any kind shall be completely screened from view from outside the lot. All waste and debris shall be properly and promptly disposed of, storage of such material being allowed only for the time interval reasonably necessary to arrange for regular disposal service. During hours in which the business activity within the main building is not being conducted, all storage areas shall be gated and locked. Machinery and vehicles stored on the premises shall be secured so as not to be readily operable or moveable during non-business hours. No unregistered motor vehicles or inoperable vehicle or machinery shall remain on the premises.

ii) Semi-Trailers, Large Trucks and Truck-Tractors Semi-trailers may be stored within the fenced area of an I-P lot, provided that each semi-trailer shall be fully licensed and road-worthy. The use of dilapidated, inoperable or otherwise non-functioning semi-trailers for warehousing or other purposes shall be prohibited. Large trucks and truck-tractors may likewise be stored within the fenced area, but shall likewise be fully and currently licensed and operable. Each semi-trailer shall have a parking stall with minimum dimensions of 12 feet by 125 feet.

iii) Noise Noise generated from lots in the I-P areas that are audible in *Residential Land Uses* shall not exceed standards as established by the Minnesota Pollution Control Agency.

iv) Lighting No light or combination of lights that cast light upon a *Residential Land Use* shall exceed 4 foot candle meter reading as measured at the residential property line. All measurements shall be made after dark at the property line or edge of roadway.

v) Fumes and Odor Fumes and odors generated from lots in the I-P districts shall not exceed published standards as established by

the United States Environmental Protection Agency, herein adopted by reference.

(c) Permitted Uses

- Assembly Businesses
- Cabinetry Assembly/Manufacturing Shops
- Construction Companies
- Electrical Companies
- Equipment Rental Businesses (large industrial equipment)
- Equipment Repair or Service Businesses
- Fabricating Companies
- Government Storage/Repair Centers
- Machine Shops
- Manufacturing Plants (Excepting Bituminous or Concrete)
- Motor Vehicle Sales - limited to the following:
 - ATV's (all-terrain vehicles)
 - Automobiles
 - Boats
 - Campers
 - Golf Carts
 - Motorcycles, Motorbikes and Scooters
 - Recreational Vehicles
 - Snowmobiles
 - Commercial Trucks
 - Pickup Trucks
 - Trailers less than 30 feet in length
- Plumbing and HVAC Companies
- Public Utilities (metal or pole type construction allowed)
- Textile Companies
- Tooling Companies
- Utility Companies
- Warehouses

(d) Conditional Uses

- Bituminous or Ready-Mix Concrete Plants
- Chemical/Paint Companies
- Uses which are normally permitted but which involve some retail sales
- Heavy Equipment Sales
- Trucking Companies
- Transfer Stations for Demolition Debris under the following conditions:

- 1) The Transfer Station is fully licensed/permitted by appropriate county, state and federal agencies having jurisdiction over its activities;
- 2) The term "Demolition Debris" refers only to concrete, stone, asphalt, wood, plastic, metal or composites. No shingles, putrescible items or hazardous materials shall be intentionally processed at the Transfer Station. Any putrescible items or hazardous materials found to be on the premise shall be handled and disposed of properly and legally.
- 3) The location of the actual site within the I-P area is in a sufficiently remote and screened portion of the area so as to eliminate disturbance of nearby existing or possible future residential neighborhoods through noise, light, vibration, odor, fumes, unsightliness or dust.
- 4) The activities at the Transfer Station shall be limited to the reception of Demolition Debris on roll-off containers or dump trucks, all contents of which are to be placed on the floor of a completely enclosed building, where the materials will be sorted and re-shipped to recyclers or landfills, in a manner consistent with all applicable regulations and codes. No outside storage of demolition debris will be permitted.

9-220.7 Light Industrial (I-1) I-1 zones are areas which are used for limited manufacturing purposes, involving frequent truck traffic for pickup and delivery of products and materials, and which require a significant portion of the manufacturing process to occur outside of enclosed buildings.

a) Permitted Uses

- Ready Mix Concrete Plants
- Priestesses Concrete Plants
- Monument Companies

b) Conditional Uses or Temporary Conditional Uses

- None

9-220.8 Commercial Development V (CD-5)

The CD-5 Zones are areas of the City that were designated a Multiple Use Options areas in Chapter 4, paragraph 4.7 of the 2005 Ham Lake Comprehensive Plan which are specifically designated by action of the Ham Lake City Council for rezoning to the CD-5 classification, and may also include other lands that are zoned R-A but which are found to either be located in close proximity to the intersections of minor or major arterials, or which abut other land that has been rezoned to the CD-5 classification. Because CD-5 lands will often be found near existing residential areas, or areas expected to develop into residential land uses,

building construction, screening and landscaping are to be of upscale quality, and ongoing grounds maintenance given high priority.

a) Permitted Uses

- Medical/Dental Clinics or Facilities
- Governmental, business and professional offices
- Parks
- Financial institutions
- Veterinary clinics
- Uses ancillary or incident to the above

b) Conditional Uses

The following uses shall be allowed by Conditional Use Permit or Temporary Conditional Use Permit only, after fulfillment of the requirements hereafter outlined.

- Office Warehouses meeting the requirements outlined in Article 9-220.1 and this Article of the Ham Lake City Code
- All Permitted Uses found in areas zoned CD-1 and CD-2 not permitted above, except Fireworks Sales
- Non-profit clubs, lodges or halls
- Institutional Uses (Governmental, Educational and Religious)
- Commercial Recreational Facilities
- Construction Companies
- Enclosed Storage and Warehousing
- Broadcasting Studios and Facilities
- Office Buildings
- Movie Theaters
- Convenience stores

c) Building, Outside Storage, Screening and Fencing Standards

All buildings constructed in the CD-5 districts shall meet the same standards as for buildings in the CD-1 zoning districts, as found in Article 9-220.2(a) of this Code. Outside storage shall meet the same standards as for uses in the CD-1 zoning districts, as found in Article 9-220.1(k) of this Code, in particular as regards screening attached to main buildings. Perimeter fencing shall be opaque and of such quality and appearance as is dictated by the conditions of approval of the Conditional Use Permit, but perimeter fencing may be up to eight feet in height, not counting the height of any beam upon which a perimeter fence may be constructed.

d) Maintenance Standards

The development agreement for each project approved in a CD-5 zone shall include a maintenance covenant guaranteeing the ongoing maintenance of

all buildings, fences, screens, landscaping, paving, curbing or other property improvements. The maintenance covenant shall be assured by an ongoing cash security deposit, Letter of Credit or by an Assessment Agreement permitting the City to complete any unperformed maintenance and to assess the cost thereof against the appropriate property.

e) Application Procedure

The initial application for a change to CD-5 zoning shall include the following, which is to be prepared by a registered land surveyor, registered civil engineer or registered architect:

- i) If the area is to be subdivided, a sketch plan for platting meeting the requirements of Article 10 of the City Code shall be provided;
- ii) A site plan for each parcel proposed for development that includes:
 - aa) The maximum perimeter of the footprint for every building to be constructed;
 - bb) The locations of all parking and drive areas;
 - cc) The locations of all ISTS and wells;
 - dd) The locations of all outside storage areas;
 - ee) The locations of all fencing and screening;
 - ff) The location of all landscaped or open areas and ponding.
- iii) For each proposed parcel, a narrative that states the range of specific land uses to which each parcel may be devoted. If Office-Warehouses are proposed, the range of potential land uses shall be given for each bay in each Office-Warehouse.
- iv) An identification of any variances that will be requested in the project.

f) Conceptual Approval

Following receipt of all of the items required in the application process, the proposal shall be reviewed by the Planning Commission, and then given conceptual approval, conditional approval or rejection by the City Council. Conceptual approval shall confer no "substantial reliance" or other developmental rights on the applicant, and is intended only as a measure of the initial reaction of the appointed and elected officials of the City to the proposed concept. However, in that the eventual rezoning of the property from R-A to CD-5 would require 4 or more affirmative votes of the City Council, Conceptual Approval shall also require 4 or more affirmative votes of the Ham Lake City Council.

g) Public Input

Following Conceptual Approval, the applicant shall submit the following more detailed project plans:

- i) Professionally prepared renderings of the outside plan view of all sides of each parcel proposed by the Developer, noting

screening heights. These drawings should accurately portray the future view to the property from all adjoining roads and parcels, and should accurately portray the portions of all areas screened from view;

- ii) A detailed landscaping plan showing the location, size and species of all plantings;
- iii) A colored site plan detailing the locations of all structures, roads, drives, parking stalls, turn lanes or other infrastructure improvements, open areas and ponding.
- iv) A traffic study prepared by a registered professional engineer showing the peak traffic consequences of the project, assuming the most traffic-intensive land uses from the range of land uses reported, and assessing the effect of such traffic on adjacent roads, neighborhoods, and intersections.
- iv) For any land uses proposed that are likely to store or frequently have on site any diesel engine vehicles (except non-business passenger vehicles and pickup trucks), self-propelled construction equipment, other noise-generating motors or devices, or which have loading dock facilities for semi-tractor/trailer deliveries or pickups, a noise study prepared by a qualified acoustical expert predicting the estimated noise levels to be experienced by adjoining properties (except roadways) for a distance of 500 feet from each parcel proposed.
- v) A lighting plan showing the location and illumination pattern of all proposed lighting on each parcel;

Upon submission of all of the above, the City Council shall order the conducting of a public hearing on the proposal. In its order for hearing, the City Council shall designate who shall conduct the public hearing (City Council, Planning Commission or both) and what degree and coverage of notice to give to nearby properties, but not to be less notice than is required by law. The City Council may require more than one public hearing, or may recess any public hearing for continuation.

h) Action Following Public Hearing

The public hearing, once conducted, shall be deemed to be the public hearing required by Minnesota Statutes Chapter 462.357 (subd. 3) for Zoning Changes and to be the public hearing required by Article 10-204 of this Code at the Preliminary Plat stage of any subdivision. Notwithstanding the provisions of Article 10-204, for plats submitted in areas proposed for rezoning to the CD-5 classification, some or all of the items normally required for submission before the public hearing (as detailed in Article 10-204 (A) and (B) may, in the discretion of the City's engineer, be submitted following the public hearing. Following the public hearing, the City Council (after review and recommendation by the Planning Commission if appropriate) shall adopt a resolution either rejecting the rezoning or

conditionally approving the rezoning, but such approval always conditioned on the successful completion of any remaining subdivision work and execution of an approved development agreement. If the City Council determines to reject the proposed rezoning, the rejection shall be deemed to also be a rejection of the proposed subdivision, if any.

i) Preliminary Plat Approval

If a subdivision is involved, then following the public hearing, and assuming a conditional approval of the rezoning request, the applicant shall submit the remaining items as required in Article 10-204 of the City Code for Preliminary Plat Approval. The City Council, shall act on the Preliminary Plat Approval after Planning Commission review and recommendation.

j) Final Approval of Subdivision and Rezoning

Following conditional rezoning approval and preliminary plat approval, the City's attorney shall prepare a written development agreement embodying all of the terms and conditions of all previous approvals, and all of the other requirements of this code. Upon approval of the agreement by the City Council, the City Council shall grant final plat and rezoning approval, subject to the execution of the development agreement, including the posting of all required security and municipal fees or deposits, within thirty days after City Council approval. If the applicant fails to execute an approved development agreement within 30 days of City Council approval, then the City Council shall move to reject both the zoning request and the subdivision request.

k) Deadlines for Filing and Completion; Security

The following timelines shall apply to the development of properties developed in the CD-5 districts. The Development Agreement may provide for the posting of reasonable security to guarantee the proper and timely completion of all improvements.

1. Projects involving subdivision:

aa) The plat must be filed within ninety days of the date of final approval.

bb) All infrastructure improvements in the subdivision must be completed within one year of the date of filing of the plat, except the second lift of bituminous paving, which shall be completed within a time frame established by the City's engineer.

cc) Office-warehouses may not be constructed as separate bays, and all bays of a given office-warehouse must be constructed together, in one construction season.

dd) The applicant shall observe an absorption rate of not less than one building unit each six months until all lots in the subdivision have been sold and improved with a building. The City shall grant reasonable extensions to this absorption rate where market conditions warrant.

2. Where no subdivision of land is involved, the applicant shall apply for a building permit for all structures proposed in the project within 90 days after final approval, and all site improvements, including completion of all buildings, shall be complete within one year of the date of issuance of the building permit.

9-220.9 Traditional Use Overlay Districts (TOD) TOD districts are areas that carry a CD-1 or CD-2 zoning category, but which have been specially designated for the exceptions stated in this section by reason of having historically carried on a specific land use or land uses that have involved a significant investment in infrastructure and/or buildings. Properties included in the following designation as qualifying for TOD treatment (see Article 9-220.94) were properties in the CD-1 and CD-2 zoning districts which carried an estimated value for improvements to real estate that were at least 50% of total market value on Anoka County property tax records for the year of enactment of this Article (2010), or, if contiguous parcels were owned by the same party and the aggregate of the two parcels met the above criteria, then both parcels were included for TOD treatment. If the owner of any property in a CD-1 or CD-2 zoning district that is not included in the initial designation for TOD treatment wishes to have their property included, a condition of approval will be that the owner demonstrate to the satisfaction of the Ham Lake City Council that the value of improvements on the parcel is at least 50% of the total market value expressed on County Tax records for the year in which application is made.

9-220.91 Permitted Uses, Conditional Uses and Temporary Conditional Uses
The uses detailed in Article 9-220.3 (b) and (c) shall apply to TOD districts, regardless of whether the underlying zoning in such districts is CD-1 or CD-2.

9-220.92 Exemption from Certain Building Standards

The owner of a parcel carrying the TOD designation shall not be required, as a condition of approval of any site plan or building permit, to upgrade existing facilities to meet building standards found in Articles 9-220.2(a) or 9-220.3 (a). New structures constructed on such parcels, such as expansions of existing buildings, may also be exempted from such standards on approval of the City Council if the adherence to the exterior appearance standards required by the foregoing code sections would not significantly improve the overall aesthetic appearance of the property.

9-220.93 Exemption from Certain Site Standards

The provisions of Article 9-220.1 (c), (e) and (h) shall not apply to Parcels carrying the TOD designation.

9-220.94 Designation of Specific Parcels

Parcels carrying the TOD overlay designation shall be identified by PID number, and shall include the following:

17-32-23-21-0005
17-32-23-21-0022
17-32-23-12-0006
17-32-23-12-0007
17-32-23-12-0008
20-32-23-42-0004
20-32-23-13-0011