

Permit Application No.: **16-198/ W16-18**

Rules: **Erosion Control, Wetland Protection, Waterbody Crossings & Structures, & Stormwater Management**

Applicant: **Irwin Jacobs/ City of Orono**

Received: **4/26/2016**

Project: **Tanager Estates Subdivision/ Heritage Lane Extension**

Complete: **7/12/2016**

Location: **1700 Shoreline Drive, Orono/ Heritage Lane Right of Way**

Noticed: **7/13/2016**

Recommendation:

Approval of MCWD permit application and WCA Sequencing and Replacement Plan on the following conditions:

1. Submission of financial assurance for Erosion Control (\$1,500), Wetland Protection (\$5,000), and Stormwater Management (\$1,400);
2. Submission of a draft declaration for maintenance of wetland buffers, waterbody crossing, and stormwater facilities for MCWD approval, then recordation;
3. Reimbursement of fees in the amount of \$2618; and
4. Confirmation of withdrawal of wetland bank credits from a wetland bank.

And stipulations:

1. The applicant must submit as-built drawings of the road upon completion of construction;
2. The applicant must monitor Wetland 4 for one year post-construction of the road to ensure that there are no unpermitted permanent wetland impacts; and
3. Future site plans for the construction of the single family homes proposing impervious area materially inconsistent with the plans approved hereby will require re-analysis and permitting to demonstrate compliance with stormwater management requirements and may require consequent revisions in stormwater management design. All structures must maintain two feet of freeboard between the lowest opening and the high water level of stormwater facilities and waterbodies.

Background

In collaboration with the City of Orono, Irwin Jacobs has applied for a Minnehaha Creek Watershed District (MCWD) permit for Erosion Control, Wetland Protection, Waterbody Crossing & Structures, and Stormwater Management for the construction of the road and stormwater management infrastructure required for a proposed four-lot subdivision on 1700 Shoreline Drive in the City of Orono. One lot will include the current single family home and associated structures. Construction of the new homes is not proposed at this time or included in this approval. Erosion control permits for the construction of the three new homes will be submitted by contractors at a future time. These future permits must be in accordance with the stormwater requirements of the subdivision. The new properties will be accessed by way of the proposed extension of Heritage Lane through undeveloped City of Orono right-of-way, and the City has joined in the application to the extent that it involves work in the City-owned right of way. As stated in the approved Preliminary Plat for this development, the applicant will construct the proposed extension of the road on behalf of the City of Orono; the extension will be accepted by the City as public road upon its successful completion.

The proposed extension of Heritage Lane will result in 950 square feet of wetland fill located solely within the City of Orono right-of-way. The City of Orono has submitted a Wetland Conservation Act (WCA) Sequencing and Replacement Plan application to replace the public value of the wetland lost as a result of impact. Since the extension of Heritage Lane is directly connected to the subdivision of 1700 Shoreline Drive, the City's WCA Replacement Plan is supported by plans included in Jacob's MCWD permit application.

The project proposes a 0.9-acre increase of impervious cover over the 29.6-acre site and 950 square feet of permanent wetland impact within the City of Orono right-of-way. The parcel ultimately drains to Tanager Lake.

The applicants have submitted all exhibits, plans, and materials necessary to analyze compliance with MCWD and WCA rules. No variances from MCWD rule provisions are needed for approval of the permit. This permit and WCA Replacement Plan are before the Board of Managers for determination at the request of members of the public.

District Rule Summary

Erosion Control

The District exercises regulatory authority for erosion control in the City of Orono.

The Erosion Control rule is applicable for any project exceeding 5,000 square feet of land disturbance or 50 cubic yards of excavation. The proposed project involves approximately 2.7 acres of land disturbance, therefore the Erosion Control rule is triggered.

Erosion control best management practices including a rock construction entrance, silt fence, inlet protection, and tree protection are provided where necessary. A vegetative stabilization plan including the incorporation of six-inches of topsoil into underlying soils prior to final stabilization has also been provided. Concrete washout will be off-site. The NPDES permit will be obtained by the contractor prior to receipt of the MCWD permit.

Erosion control practices meet District requirements.

Wetland Protection and Wetland Conservation Act (WCA)

The District exercises regulatory authority for Wetland Protection in the City of Orono. The District is the local government unit charged with administering the Wetland Conservation Act in the City of Orono.

The District's Wetland Protection rule is applicable for any project proposing to drain or fill a wetland, and the wetland buffer provisions apply to work triggering the Stormwater Management or the District's Waterbody Crossings & Structures rule. This project proposes filling in a wetland and triggers the Stormwater Management and Waterbody Crossings & Structures rule, therefore the Wetland Protection rule is triggered.

The Wetland Conservation Act (WCA) governs draining, filling and excavation in wetlands other than public water wetlands. This project proposes filling in a wetland within City of Orono right-of-way.

A complete Wetland Conservation Act (WCA) application for Boundary and Type for the project parcel and the right-of-way was received on June 16th, 2015. A WCA Notice of Decision approving the boundaries & types for the six wetlands on-site was issued on August 12th, 2015.

The project proposes 950 square feet of permanent fill in the portion of Wetland 4, a Type 1, Seasonally Flooded Basin that is on the City right-of-way for the purpose of extending Heritage Lane in order to provide access to the proposed subdivision on 1700 Shoreline Drive. Wetland 4 is a Manage 2, non-public water wetland. As defined under 8420.0522 Subp. 1 of WCA, the public value of Wetland 4 is primarily B: flood water and stormwater retention and to a lesser extent, A: water quality and C: fish, wildlife, and native plant habitat. Wetland 4 extends outside of the right-of-way onto properties not owned by the City or Irwin Jacobs.

The City submitted a complete WCA Sequencing and Replacement Plan application supported by the project proponent on July 1st, 2016¹. A complete Sequencing application must demonstrate that an activity impacting a wetland complies with 8420.0520 Subp. 1A-E.

Under Subp. 1A, the applicant must first avoid direct or indirect impacts that may destroy or diminish the wetland under the criteria listed in Subp. 3A-3C. Under Subp. 3A, avoidance is not required based on any of the special circumstances indicated under 8420.0515. Since this project is not wetland dependent under Subp. 3B, the applicant must provide an alternative analysis under Subp 3C:

Alternative 1 was a no-build alternative; however, this alternative would not achieve the project's goals of providing access to the proposed subdivision on 1700 Shoreline Drive. Alternative 2 was to access the three new properties through an extension of the current single family home's driveway. Alternative 2 would require extensive grading through steep slopes and 1000 square feet of impacts to Wetland 5, a Manage 1 public water wetland with hydrologic connection to Lake Minnetonka that is of higher public value and quality than Wetland 4. Under Alternative 2, there would not be a designated buffer between the road and the eastern side of Wetland 5. Since the alternatives do meet the requirements of Subp. 3C(2)B (being in accordance with accepted engineering standards and practices) or Subp. 3C(2)D (being an environmentally preferable alternative), the alternatives were not considered feasible or prudent.

Under Subp. 1B, projects that cannot avoid impact must minimize impact to the wetland. The applicant minimizes impact by stabilizing the road with a retaining wall rather than side slopes, which would have required greater amounts of fill.

The applicant will not have to rectify impact as required by Subp. 1C, as there are no proposed temporary wetland impacts.

The applicant reduces impacts to Wetland 4 over time as required under Subp. 3D through declared maintenance of the storm sewer pipe and stormwater pond which replace the hydrologic function of Wetland 4 (discussed below). Correct maintenance of this infrastructure will maintain adequate hydrology to the non-impacted portions of Wetland 4.

The applicant proposes to replace unavoidable impacts as required by Subp. 3E and the MCWD Wetland Protection rule through the purchase of wetland banking credits at a ratio of 2:1 from a wetland bank within the same bank service area, as provided for in 8420.0422. The City has provided a signed purchase agreement for 1900 square feet of wetland bank credits from Wetland Bank #1375. The City did not pursue project-specific replacement, because there is not sufficient land area within the City of Orono right-of-way to mitigate for wetland impacts. Replacement was considered via a project within the 1700 Shoreline Drive subdivision, following direction in the TEP's August 3rd findings; however, wetlands on 1700 Shoreline Drive have not been historically impacted. Therefore, on-site mitigation would result in created, rather than restored, wetland which is less preferable than the use of banked wetland credits. Furthermore, it would be difficult to ensure the restoration's success due to its small size and location on private property. For these reasons, banking was determined to be the preferred alternative to replace the public value of the filled portion of Wetland 4.

While not included as part of the Replacement Plan mitigation credits, the public value of Wetland 4 will also be replaced in part through the proposed installation of a stormwater pond on the 1700 Shoreline Drive property. A storm sewer pipe will be placed one foot above the bottom elevation of Wetland 4 to direct displaced water from the Wetland under the road to a stormwater pond located on 1700 Shoreline Drive. Water from the stormwater pond will then infiltrate into the ground. By storing and infiltrating the stormwater, the proposed stormwater pond replaces the public values of B: flood water and stormwater retention and A: water quality of Wetland 4.

Therefore, the applicant demonstrated that the proposed activity complies with the principles required by a Sequencing Analysis under 8420.0520 Subp. 1A-E.

The TEP met on August 3rd, 2016 to review the application and confirm that findings from the TEP's January 12th, 2016 meeting had been addressed. The TEP was in agreement with the Sequencing analysis. The TEP also agreed that direct and indirect impacts to the portions of Wetland 4 located on properties not owned by the City or Jacobs were avoided because an adequate drainage area is maintained and one-foot of ponding is provided under the wetland's outlet to the new stormwater pond. The TEP stipulated that an as-built survey of the road must be submitted and monitoring of Wetland 4 must continue for one year following completion of the road to confirm that no unpermitted wetland impacts had occurred.

Under Section 2B of the MCWD Wetland Protection rule, a permit is required from the District pursuant to the excavation and buffer provisions in Sections 4 and 5 of the Rule respectively. Section 4, Excavation, is not relevant to this project as no excavation is proposed.

Under Section 5A of the MCWD Wetland Protection rule, buffers must be placed adjacent to all wetlands that will be impacted or are downgradient from activity and around each wetland that will be disturbed. Therefore, Wetlands 1, 2, 3, 4, and 6 are subject to Sections 5B-D of the Wetland Protection rule. Wetland 5 is not subject to

¹ Irwin Jacobs originally applied for a de Minimis exemption on January 11th, 2016 for the proposed wetland impacts. During a Technical Evaluation Panel (TEP) meeting on January 12th, 2016, the TEP determined that the project was not eligible for a de Minimis exemption because the proposed impact area is on City of Orono right-of-way rather than Jacobs' property. Since the proposed impact is greater than five percent of the City of Orono's portion of the wetland, de Minimis criteria were not met (8420.0420 Subp.8.c.2). The City of Orono was directed by the TEP to submit a WCA Sequencing and Replacement Plan application.

Sections 5B- D, because it is not downgradient of activity and will not be disturbed by the proposed land-disturbing activity.

Buffer width was determined as required under Section 5B. The management classes for Wetlands 1, 3, and 6 were based on MCWD's functional assessment of wetlands; the management classes for Wetlands 2 and 4 were based on a Minnesota Routine Assessment Method report evaluating the functions and values of the wetlands provided by the applicant. Buffers will be provided around Wetlands 1, 2, 3, and 6 in accordance with their management class. The City cannot provide buffer around Wetland 4 in compliance with the rule because of the limited extent of the right-of-way adjacent to the Wetland, as allowed under Section 6E.

Buffer averaging under Section 6C is provided around the Wetland 1 and 6 complex. The buffer width is reduced to between 37.5 and 50 feet on the eastern side of Wetland 1, however, compliant buffer is proposed around the entire wetland. The reduced buffer area, 22,200 square feet, is provided on the southern portion of Wetland 6. Buffer averaging is not proposed around the other wetlands.

Wetland	Management Class	Base Buffer Width	Provided Buffer Width
1	Preserve	75'	37.5' -112.5+
2	2	30'	30'
3	1	40'	40'
4	2	30'	0
6	Preserve	75'	75'+

Permanent buffer monuments are provided for in accordance with Section 5D.

A recorded declaration of the buffer as required under Section 5C will be a condition of the permit's final approval.

Therefore, the proposed project complies with Section 5 of the Wetland Protection rule.

There is currently a trail in the buffer of Wetland 1 that the applicant proposes to remove. Following removal of the trail, the area is proposed to be revegetated in accordance with Section 7 of the Wetland Protection Rule. The buffers of other on-site wetland are not proposed to be disturbed, therefore the requirements for revegetation of buffer areas in Section 7C of the rule do not apply.

The wetland protection plans meet the District's requirements.

Waterbody Crossings & Structures

The District exercises regulatory authority for Waterbody Crossings & Structures in the City of Orono.

The Waterbody Crossings & Structures rule is applicable anytime a road, utility, bridge or associated structure comes in contact with the bed or bank of any waterbody. The proposed extension of Heritage Lane will cross Wetland 4, therefore the rule is triggered.

Under the Waterbody Crossings & Structures rule, hydraulic capacity must be maintained. As Wetland 4's storage capacity is proposed to be reduced by fill, a storm sewer pipe will be installed under the road to direct displaced water from Wetland 4 to the proposed stormwater pond designed for the Development.

The proposed waterbody crossing was analyzed under the four criteria required by the Waterbody Crossing & Structures rule. 1) The extension of Heritage Lane meets a demonstrated specific need, which is access to the three proposed new homes within the 1700 Shoreline Drive subdivision. 2) Adequate hydraulic capacity is retained as the crossing is designed to convey drainage from the wetland to the proposed stormwater pond such that the normal water level of the wetland will be maintained and the 100-year high water level will be reduced by 2.03-feet on the north side of the proposed road and 2.51-feet on the south side of the proposed road. 3) The proposed waterbody crossing is exempt from providing navigational capacity as Wetland 4 is not navigable. 4) There is not sufficient depth and width to provide upland bank passage; multiple offset culverts are not feasible; the project is exempt from providing a wildlife shelf as is it is a rural section low traffic road.

The two other alternatives considered under the Waterbody Crossings & Structures were 1) no-build and 2) changing the access route to the current property owner's driveway. These alternatives were rejected for the reasons described in the Wetland Protection section as not being feasible or prudent. The proposed alternative is the minimal impact solution.

The waterbody crossings & structures plans meet the District's requirements.

Stormwater Management

The District exercises regulatory authority for Stormwater Management in the City of Orono.

The Stormwater Management rule is applicable anytime there is new impervious surface or replacement of existing impervious surface. This project proposes a 0.9-acre increase of impervious surface, therefore the rule is triggered.

For sites undergoing redevelopment that are greater than one acre with less than 40% site disturbance and less than a 50% increase in impervious surface, volume control, rate control, and phosphorus control requirements apply to the new impervious surfaces.

Size of Site (ac)	Site Drains To	Existing Impervious (ac)	Proposed Impervious (ac)
29.6 (2.7 acres disturbed)	Lake Minnetonka (Tanager Lake)	2.0	2.9

To meet the District's volume control rule, the applicant must provide 3,340 cubic-feet of abstraction. To achieve this, the applicant proposes to construct an infiltration basin and four raingardens. Infiltration rates were determined based on soil borings provided by the applicant which match the infiltration rates prescribed by MPCA guidelines. The infiltration practices are designed to provide 4,800 cubic-feet of infiltration, which is greater than the 3,340 cubic-feet volume that is required. Infiltration practices are designed to drawdown within 48-hours. The infiltration practices satisfy the volume requirement. The phosphorus requirement is met by meeting the volume requirement.

The rate control requirement mandates that there can be no-net increase in the peak runoff rate for the 1-, 10-, and 100-year storm events at the downgradient property boundary. All runoff from the site is directed to Tanager Lake or to a stormwater pond/infiltration basin for treatment before being discharge to Tanager Lake. Although rates are increased within certain drainage areas, the runoff rate decreases to the ultimate discharge point (Tanager Lake). The practices described above also provide enough storage to decrease peak run-off rates, therefore the District's rate control requirements are met:

Drainage Area	1-yr Rates (cfs)		10-yr Rates (cfs)		100-yr Rates (cfs)	
	Exist.	Prop.	Exist.	Prop.	Exist.	Prop.
Area 1	0.00	0.05	0.00	1.09	0.00	5.09
Area 2	0.37	0.37	4.14	3.30	14.52	11.73
Area 3	0.03	0.04	1.36	0.70	5.51	3.52
Area 4	0.84	0.70	11.11	5.63	39.75	19.02
Total to Tanager Lake	1.24	1.16	16.61	10.72	59.78	39.36

Of the downstream lakes and waterbodies, only Wetland 4 had an increased drainage area under the proposed plan. Impacts to Wetland 4 were analyzed under Section 8 of the Stormwater Management rule. No increases in the bounce or inundation to Wetland 4 are proposed for the 1-, 10-, or 100-year storm events:

Wetland	1-yr Bounce (ft)		10-yr Bounce (ft)		100-yr Bounce (ft)	
	Exist.	Prop.	Exist.	Prop.	Exist.	Prop.
Wetland 4	937.2	937.2	939.5	939.5	942.0	940.0
Wetland	1-yr Inundation (duration)		10-yr Inundation (duration)		100-yr Inundation (duration)	
	Exist.	Prop.	Exist.	Prop.	Exist.	Prop.
Wetland 4	0.5	0.5	0.5	0.5	0.5	0.5

There is at least two vertical feet of separation between the proposed low opening of structures and the 100- year high water level of all proposed stormwater facilities and waterbodies. Future plans for the construction of the new homes must show that the lowest opening for the house adjacent to Rain Garden 3 is above 938.13, that the lowest opening for the house adjacent to Rain Garden 4A is above 948.23, and that the lowest opening for the house adjacent to Rain Garden 4B is above 950.09

The proposed stormwater management plan meets the District's requirements.

Summary:

Irwin Jacobs is proposing a four-lot subdivision project and associated road extension that will trigger the District's Erosion Control, Wetland Protection, Stormwater Management, and Waterbody Crossings & Structures rule and a Wetland Conservation Act Replacement Plan. The project as proposed meets the applicable requirements under each of these District rules and the Wetland Conservation Act. Staff recommends approval of the MCWD permit application and Wetland Conservation Act Replacement Plan with the conditions provided above.

Attachments:

1. Permit Application
2. Site Location
3. Site Plan
4. Wetland Buffer Monument Locations
5. Alternative Road Access Site Plan
6. WCA Boundary and Type Notice of Decision- Approved August 12th, 2015
7. WCA Replacement Plan Notice of Application- Completed July 1st, 2016
8. Draft WCA Replacement Plan Notice of Decision
9. TEP Findings Report- January 12th, 2016
10. TEP Findings Report- August 3rd, 2016
11. City of Orono Resolution of the City Council 6569: A Resolution Granting Preliminary Plat Approval for a Class II Subdivision of Property Located at 1700 Shoreline Drive
12. Development Review prepared for the Foxhill Neighborhood Association- November 6th, 2015

16-198

WATER RESOURCE PERMIT APPLICATION FORM

Use this form to notify/apply to the Minnehaha Creek Watershed District (MCWD) of a proposed project or work which may fall within their jurisdiction. Fill out this form completely and submit with your site plan, maps, etc. to the MCWD at: 15320 Minnetonka Blvd. Minnetonka, MN 55345.

Keep a copy for your records.

YOU MUST OBTAIN ALL REQUIRED AUTHORIZATIONS BEFORE BEGINNING WORK.

1. Name of each property owner: IRWIN JACOBS
Mailing Address: 1700 SHORELINE DRIVE City: ORDNO State: MN Zip: 55391
Email Address: [REDACTED] Phone: [REDACTED] Fax: [REDACTED]

2. Property Owner Representative Information (not required) (licensed contractor, architect, engineer, etc...)
Business Name: GRONBERG + ASSOC., INC. Representative Name: MARK GRONBERG
Business Address: 445 N. WILLOW DRIVE City: LONG LAKE State: MN Zip: 55356
Email Address: [REDACTED] Phone: [REDACTED] Fax: [REDACTED]

3. Project Address: 1700 SHORELINE DRIVE City: ORDNO
State: MN Zip: 55391 Qtr Section(s): NE Section(s): 10 Township(s): 117 Range(s): 23
Lot: N/A Block: N/A Subdivision: N/A PID: 10-117-23-14-0018

4. Size of project parcel (square feet or acres): 29.64 ± AC. EXCL. SHORELINE DRIVE
Area of disturbance (square feet): 118,000 SF Volume of excavation/fill (cubic yards): 12,000 CY
Area of existing impervious surface: 2.0 ± AC. Area of proposed impervious surface: 2.7 ± AC.
Length of shoreline affected (feet): N/A Waterbody (& bay if applicable): LAKE MINNETONKA (TANAGER)

2.9 RW revision

5. Type of permit being applied for (Check all that apply):
 EROSION CONTROL WATERBODY CROSSINGS/STRUCTURES
 FLOODPLAIN ALTERATION STORMWATER MANAGEMENT
 WETLAND PROTECTION APPROPRIATIONS
 DREDGING ILLICIT DISCHARGE
 SHORELINE/STREAMBANK STABILIZATION

6. Project purpose (Check all that apply):
 SINGLE FAMILY HOME MULTI FAMILY RESIDENTIAL (apartments)
 ROAD CONSTRUCTION COMMERCIAL or INSTITUTIONAL
 UTILITIES SUBDIVISIONS (include number of lots) 4 (3 New)
 DREDGING LANDSCAPING (pools, berms, etc.)
 SHORELINE/STREAMBANK STABILIZATION OTHER (DESCRIBE):

7. NPDES/SDS General Stormwater Permit Number (if applicable): NOT YET RECEIVED

8. Waterbody receiving runoff from site: LAKE MINNETONKA (TANAGER LAKE)

9. Project Timeline: Start Date: SPRING/SUMMER 2016 Completion Date: FALL 2016

Permits have been applied for: City County MN Pollution Control Agency DNR COE
Permits have been received: City County MN Pollution Control Agency DNR COE

By signing below, I hereby request a permit to authorize the activities described herein. I certify that I am familiar with MCWD Rules and that the proposed activity will be conducted in compliance with these Rules. I am familiar with the information contained in this application and, to the best of my knowledge and belief, all information is true, complete and accurate. I understand that proceeding with work before all required authorizations are obtained may be subject to federal, state and/or local administrative, civil and/or criminal penalties.

Signature of Each Property Owner: [Signature] Date: 4/20/16

Received
APR 26 2016
By: _____

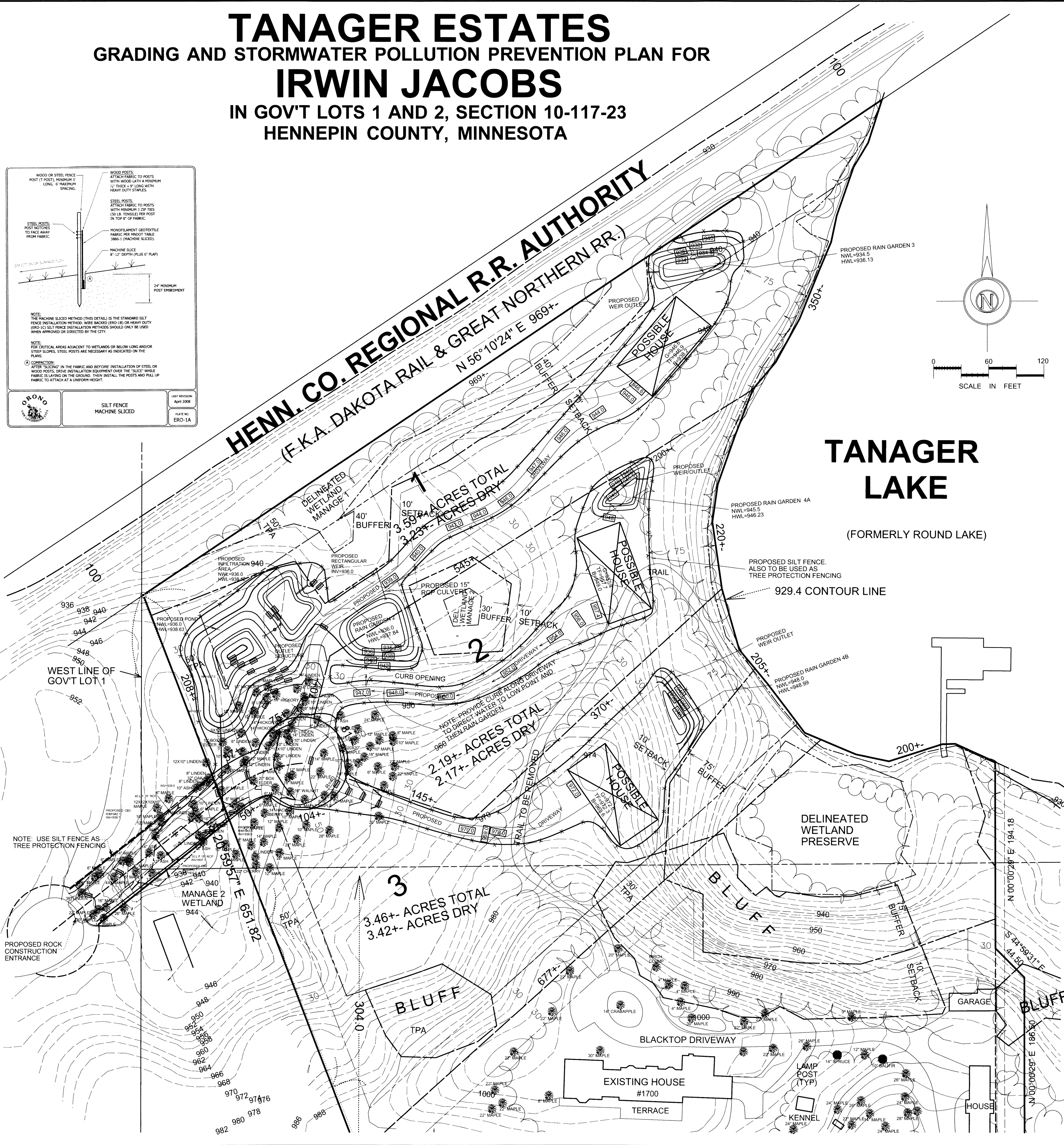
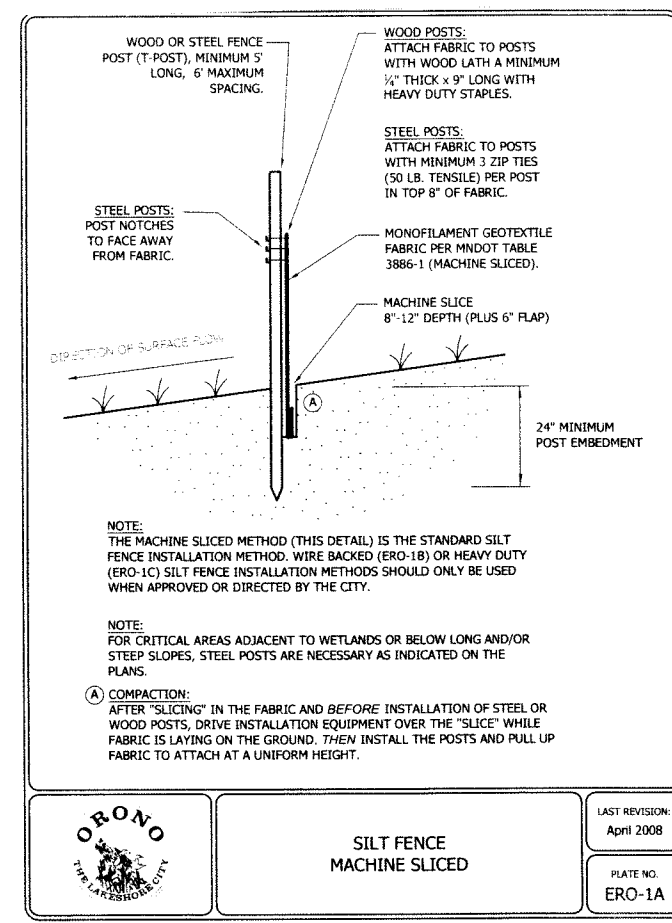


TANAGER ESTATES

GRADING AND STORMWATER POLLUTION PREVENTION PLAN FOR

IRWIN JACOBS

IN GOV'T LOTS 1 AND 2, SECTION 10-117-23
HENNEPIN COUNTY, MINNESOTA



EROSION AND SEDIMENT CONTROL GENERAL NOTES:

- PRIOR TO ANY CONSTRUCTION OR DEMOLITION, SILT FENCE AND FILTERS MUST BE INSTALLED.
- ALL EROSION CONTROL INSTALLATIONS SHALL REMAIN IN PLACE AND BE MAINTAINED IN GOOD CONDITION BY THE CONTRACTOR UNTIL THE SITE HAS BEEN RE-VEGETATED. CONTRACTOR MAY REMOVE NECESSARY SILT FENCING TO CONSTRUCT ROADWAYS, WHILE MAINTAINING ADEQUATE EROSION CONTROL IN ADJACENT AREA.
- THE CONTRACTOR SHALL SCHEDULE SITE GRADING, UTILITY INSTALLATION AND PAVEMENT CONSTRUCTION SO THAT THE GENERAL SITE CAN BE MULCHED AND RE-SEEDED SOON AFTER DISTURBANCE AREAS THAT WILL NOT BE SUBJECT TO CONSTRUCTION TRAFFIC SHALL BE SEEDED (MUDOT MX 190 @ 100#/AC AND MULCHED WITHIN SEVEN DAYS OF BEING DISTURBED).
- CONTRACTOR SHALL INSTALL EROSION CONTROL DEVICES AS INDICATED ON THIS EROSION CONTROL PLAN AND ANY ADDITIONAL REQUIRED, BASED ON MEANS, METHODS AND SEQUENCES OF CONSTRUCTION.
- BEST MANAGEMENT PRACTICES (BMP'S) REFER TO EROSION AND SEDIMENT CONTROL PRACTICES DEFINED IN THE MPCA PROTECTING WATER QUALITY IN URBAN AREAS AND THE MINNESOTA CONSTRUCTION SITE EROSION AND SEDIMENT CONTROL PLANNING HANDBOOK.
- ALL BMP'S SELECTED SHALL BE APPROPRIATE FOR THE TIME OF YEAR, SITE CONDITIONS, AND ESTIMATED DURATION OF USE.
- ALL SEPTIC AREAS ARE TO BE FENCED OFF FOR PROTECTION. PROTECTION TO EXTEND A MINIMUM OF 20' OUTSIDE OF SEPTIC AREAS.
- INSTALL PERIMETER CONTROL DEVICES AROUND ANY DIRT STOCKPILE AREAS.
- THE CONTRACTOR MUST SCHEDULE HIS OPERATIONS TO MINIMIZE THE AMOUNT OF DISTURBED AREA AT ANY GIVEN TIME. THE CONTRACTOR MUST LIMIT THEIR ACTIVITIES TO THE GRADING LIMITS SHOWN.
- EROSION CONTROL BLANKETS MUST BE INSTALLED BETWEEN THE NWL AND HWL OF ANY PROPOSED POND AFTER FINAL GRADING.
- WHEREVER POSSIBLE, PRESERVE THE EXISTING TREES, GRASS AND OTHER VEGETATIVE COVER TO HELP FILTER RUNOFF.
- ALL TREES NOT LISTED FOR REMOVAL SHALL BE PROTECTED. DO NOT OPERATE EQUIPMENT WITHIN THE DRILLPIE, ROOT ZONES OR WITHIN THE TREE PROTECTION FENCE AREA.
- SILT FENCE IS REQUIRED AT DOWN GRADIENT PERIMETER OF DISTURBED AREAS AND STOCKPILES. PROTECT WETLANDS AND ADJACENT PROPERTIES FROM SEDIMENTATION AND STORMWATER RUNOFF.
- THE BMP'S SHOWN ON THE PLANS ARE THE MINIMUM REQUIREMENTS FOR THE ANTICIPATED SITE CONDITIONS. AS CONSTRUCTION PROGRESSES AND UNEXPECTED OR SEASONAL CONDITIONS OCCUR, THE PERMITTEE CONTRACTOR SHALL ANTICIPATE THAT MORE BMP'S WILL BE NECESSARY TO ENSURE EROSION AND SEDIMENT CONTROL ON THE SITE. DURING THE COURSE OF CONSTRUCTION IT IS THE RESPONSIBILITY OF THE CONTRACTOR TO ADDRESS ANY NEW CONDITIONS THAT MAY BE CREATED BY CONSTRUCTION ACTIVITIES AND/OR CLIMATIC EVENTS.
- PROVIDE ADDITIONAL BMP'S OVER AND ABOVE THE MINIMUM REQUIREMENTS SHOWN ON THE PLANS, AS MAY BE NEEDED TO PROVIDE EFFECTIVE PROTECTION OF WATER AND SOIL RESOURCES.
- OPERATE TRACK EQUIPMENT (DOZER) UP AND DOWN EXPOSED SOIL SLOPES ON FINAL PASS, LEAVING TRACK GROOVES PERPENDICULAR TO THE SLOPE. DO NOT BACK-BLADE. LEAVE A SURFACE ROUGH TO MINIMIZE EROSION.
- ALL AREAS DISTURBED BY CONSTRUCTION SHALL BE STABILIZED FROM EROSION WITHIN 15 DAYS OF SUBSTANTIAL COMPLETION OF GRADING IN THAT AREA. TEMPORARY SEED AND MULCH SHALL COVER ALL EXPOSED SOILS IF GRADING COMPLETION IS DELAYED LONGER THAN 15 DAYS. PERMANENT SEED AND MULCH IS REQUIRED WITHIN 15 DAYS OF COMPLETION OF FINAL GRADING.
- GENERAL TEMPORARY SEED SHALL BE MUDOT MX 190 @ 100 LBS PER ACRE OR APPROVED EQUAL. PERMANENT SEED SHALL BE MUDOT MX 270 @ 120 LBS PER ACRE OR APPROVED EQUAL. (PLANTING PROGRESS AND UNEXPECTED OR SEASONAL CONDITIONS MAY REQUIRE MORE SEED). MULCH SHALL BE MUDOT TYPE 1 (CLEAN DIRT STRAW) @ 2 TONS PER ACRE AND DISK ANCHORED IN PLACE OR APPROVED EQUAL. FERTILIZER SHALL BE 80-80-80 NPK PER ACRE. (UNLESS P RESTRICTIONS APPLY AND INCORPORATED INTO THE SEED BED).
- ALL TEMPORARY EROSION AND SEDIMENT CONTROL MEASURES SHALL BE PROPERLY DISPOSED OF WITHIN THIRTY (30) DAYS AFTER FINAL SITE STABILIZATION IS ACHIEVED OR AFTER THE TEMPORARY MEASURES ARE NO LONGER NEEDED.
- REPORT ALL FOUND FIELD TILES TO THE ENGINEER FOR EVALUATION.
- CHANNELLED RUNOFF FROM ADJACENT AREAS RUNNING THROUGH THE SITE SHALL BE DIVERTED AROUND DISTURBED AREAS. IF PRACTICALLY FEASIBLE, RUNOFF SHALL BE CONVEYED IN A MANNER THAT WILL NOT ERODE THE CONVEYANCE AT RECEIVING CHANNELS. ALL TEMPORARY OR PERMANENT DRAINAGE CHANNELS MUST BE STABILIZED WITHIN 24 HOURS OF BEING CONNECTED TO A WATER OF THE STATE. SEDIMENT CONTROL IS REQUIRED ALONG CHANNEL EDGES TO REDUCE SEDIMENTATION INTO THE CHANNEL.
- ALL ACTIVITIES ON THE SITE SHALL BE CONDUCTED IN A LOGICAL SEQUENCE TO MINIMIZE THE AREA OF BARE SOIL EXPOSED AT ANY ONE TIME.
- ALL DISTURBED GROUND LEFT INACTIVE FOR 14 OR MORE DAYS MUST HAVE TEMPORARY OR PERMANENT STABILIZATION TEAR ROUND.
- FOR SITES WITH MORE THAN TEN ACRES DISTURBED AT ONE TIME, OR IF A CHANNEL ORIGINATES IN THE DISTURBED AREA, ONE OR MORE TEMPORARY OR PERMANENT SEDIMENTATION BASINS SHALL BE CONSTRUCTED. EACH SEDIMENTATION BASIN SHALL HAVE A SURFACE AREA OF AT LEAST ONE PERCENT OF THE AREA DRAINING TO THE BASIN AND AT LEAST THREE FEET OF DEPTH AND CONSTRUCTED IN ACCORDANCE WITH ACCEPTED DESIGN SPECIFICATIONS. SEDIMENT SHALL BE REMOVED TO MAINTAIN A DEPTH OF THREE FEET. THE BASIN DISCHARGE RATE SHALL ALSO BE SUFFICIENTLY LOW AS NOT CAUSE EROSION ALONG THE DISCHARGE CHANNEL OR THE RECEIVING WATER.
- PERIMETER SEDIMENT CONTROL MEASURES SHALL BE PLACED ALONG ALL DOWN GRADIENT PERIMETERS OF THE SITE. IF A CHANNEL OR AREA OF CONCENTRATED RUNOFF PASSES THROUGH THE SITE, PERIMETER SEDIMENT CONTROL MEASURES SHALL BE PLACED ALONG THE CHANNEL EDGES TO REDUCE SEDIMENT REACHING THE CHANNEL. ALL DOWN GRADIENT PERIMETER SEDIMENT CONTROL MEASURES MUST INCLUDE A MAINTENANCE AND INSPECTION SCHEDULE.
- ANY SOIL OR DIRT STORAGE PILES CONTAINING MORE THAN TEN CUBIC YARDS OF MATERIAL SHOULD NOT BE LOCATED WITHIN 25 FEET FROM A ROADWAY OR DRAINAGE CHANNEL. IF REMAINING FOR MORE THAN 14 DAYS, THEY SHALL BE STABILIZED BY MULCHING VEGETATIVE COVER, TARP OR OTHER MEANS AND ENCLOSED WITH DOWN GRADIENT PERIMETER SEDIMENT CONTROLS. PILES WHICH WILL BE IN EXISTENCE FOR LESS THAN 14 DAYS SHALL BE ENCLOSED WITH PERIMETER SEDIMENT CONTROLS.
- PIPE OUTLETS MUST HAVE ENERGY DISSIPATION INSTALLED WITHIN 24 HOURS OF CONNECTION TO WATERS OF THE STATE.

EROSION AND SEDIMENT CONTROL INSPECTION PROGRAM:

THE CONTRACTOR SHALL BE RESPONSIBLE FOR CONDUCTING INSPECTIONS OF ALL EROSION AND SEDIMENT CONTROL BMP'S ON SITE. INSPECTIONS AND RAINFALL ON SITE MUST BE DOCUMENTED AND READY AVAILABLE FOR REVIEW. INSPECTIONS ARE REQUIRED AS FOLLOWS:

- ONCE EVERY SEVEN DAYS ON EXPOSED SOIL AREAS.
- WITHIN 24 HOURS AFTER A ONE-HALF INCH OR GREATER RAIN EVENT OVER 24 HOURS.
- ONCE EVERY 30 DAYS ON STABILIZED AREAS.
- AS SOON AS RUNOFF OCCURS OR PRIOR TO RESUMING CONSTRUCTION ON FROZEN GROUND.

EROSION AND SEDIMENT CONTROL MAINTENANCE PROGRAM:

- WHEN SEDIMENT REACHES 1/3 THE HEIGHT OF THE BMP ON PERIMETER CONTROL DEVICES, SEDIMENT MUST BE REMOVED WITHIN 24 HOURS OF DISCOVERY.
- IF THE PERIMETER CONTROL DEVICE IS NOT FUNCTIONAL IT MUST BE REPAIRED OR REPLACED WITHIN 24 HOURS OF DISCOVERY.
- TEMPORARY SEDIMENT BASINS SHALL BE MAINTAINED WHEN SEDIMENT REACHES 1/2 THE OUTLET HEIGHT OR 1/2 THE BASIN STORAGE VOLUME. BASINS MUST BE DRAINED OR SEDIMENT REMOVED WITHIN 72 HOURS OF DISCOVERY.
- SEDIMENT MUST BE REMOVED FROM PAVED SURFACES WITHIN 24 HOURS OF DISCOVERY.
- EROSION INTO STREETS, WETLANDS OR WATER BODIES:
 - IF ERODED SOILS (INCLUDING TRACKED SOILS FROM CONSTRUCTION ACTIVITIES) ENTER OR APPEAR LIKELY TO ENTER STREETS, WETLANDS, OR OTHER WATER BODIES, PREVENTION STRATEGIES, CLEANUP AND RESTORATION APPROVALS FROM ALL STATE, FEDERAL, AND LOCAL AGENCIES AS NECESSARY, THEN IMPLEMENT THE CLEANUP AND RESTORATION PLAN WITHIN 48 HOURS OF OBTAINING THE ADJOINING PROPERTY OWNER'S PERMISSION AND APPROVAL FROM ALL APPLICABLE STATE, FEDERAL, AND LOCAL AGENCIES.

CONSTRUCTION SITE PRACTICES:

- ALL WASTE (UNUSED BUILDING MATERIAL (INCLUDING GARBAGE DEBRIS, CLEANING WASTES, WASTEWATER, TOXIC MATERIALS OR HAZARDOUS MATERIALS), COLLECTED SEDIMENT, ASPHALT AND CONCRETE MILLINGS, FLOATING DEBRIS, PAPER, PLASTIC, FABRIC, CONSTRUCTION SITE DEBRIS, AND OTHER WASTES) MUST BE PROPERLY CONTAINED ON SITE AND DISPOSED OFF SITE. NOT ALLOWED TO BE CARRIED BY RUNOFF INTO RECEIVING CHANNEL OR STORAGE SEWER SYSTEM.
- HAZARDOUS MATERIALS:
 - OIL, GASOLINE, PAINT AND ANY HAZARDOUS SUBSTANCES MUST BE PROPERLY STORED, INCLUDING SECONDARY CONTAINMENT, TO PREVENT SPILL, LEAKS, OR OTHER DISCHARGE.
 - RESTRICTED ACCESS TO STORAGE AREAS MUST BE PROVIDED TO PREVENT VANDALISM.
 - CONCRETE WASH MUST BE LIMITED TO A DEFINED AREA OF THE SITE AND RUNOFF MUST BE CONTAINED WITHIN THE DEFINED AREA.
 - STORAGE OF HAZARDOUS WASTE MUST BE IN COMPLIANCE WITH MPCA REGULATIONS.
- LIQUID WASTE:
 - ALL NON STORMWATER DISCHARGES (CONCRETE TRUCK WASHOUT, VEHICLE WASHING, MAINTENANCE SPILLS, ETC.) CONDUCTED DURING THE CONSTRUCTION ACTIVITY MUST COMPLY WITH THE NEWEST VERSION OF THE STATE NPDES PERMIT.
- SANITARY FACILITIES:
 - ADEQUATE ON-SITE SANITARY FACILITIES SHALL BE PROVIDED IN CONVENIENT LOCATIONS FOR ALL PERSONS WHO WORK ON THE SITE.
- TRACKING:
 - EACH SITE SHALL HAVE GRAVELED ROADS, ACCESS DRIVES AND PARKING AREAS OF SUFFICIENT WIDTH AND LENGTH TO PREVENT SEDIMENT FROM BEING TRACKED ONTO PUBLIC OR PRIVATE ROADWAYS.
 - ANY SEDIMENT REACHING A PUBLIC OR PRIVATE ROAD SHALL BE REMOVED BY STREET CLEANING BEFORE THE END OF EACH WORKDAY.
- DRAIN INLET PROTECTION:
 - ALL STORM DRAIN INLETS SHALL BE PROTECTED DURING CONSTRUCTION WITH CONTROL MEASURES AS APPROVED BY THE CITY.
 - THESE DEVICES SHALL REMAIN IN PLACE UNTIL FINAL STABILIZATION OF THE SITE.
 - A REGULAR INSPECTION AND MAINTENANCE PLAN SHALL BE DEVELOPED AND IMPLEMENTED TO ASSURE THESE DEVICES ARE OPERATIONAL AT ALL TIMES.
- EXTERNAL WASHING OF TRUCKS AND OTHER CONSTRUCTION VEHICLES MUST BE LIMITED TO A DEFINED AREA OF THE SITE. RUNOFF MUST BE CONTAINED AND WASTE PROPERLY DISPOSED OF. NO ENGINE DEGRASSING IS ALLOWED ON SITE.

GRADING GENERAL NOTES:

- PRIOR TO INITIAL GRADING, THE CONTRACTOR IS RESPONSIBLE TO MAKE SURE ALL REQUIRED PERMITS AND APPROVALS HAVE BEEN OBTAINED.
- ABSOLUTELY NO CONSTRUCTION, GRADING, OR REVISION SHALL BEGIN UNTIL:
 - THE CONTRACTOR HAS RECEIVED AND THOROUGHLY REVIEWED ALL PLANS AND OTHER DOCUMENTS APPROVED BY ALL OF THE PERMITTING AUTHORITIES.
 - ALL NECESSARY BMP'S ARE INSTALLED.
 - GOVERN STATE ONE CALL (800) 252-1166. MUST BE NOTIFIED 48 HOURS PRIOR TO START OF CONSTRUCTION.
 - ROCK CONSTRUCTION ENTRANCES (PER THE STANDARD DETAIL PLATE) MUST BE PROVIDED AT ALL CONSTRUCTION SITE ACCESS POINTS.
 - TEMPORARY SEDIMENT PONDS MUST BE ESTABLISHED IN INITIAL PHASE IN ORDER TO CAPTURE RUNOFF DURING GRADING OF THE CONSTRUCTION SITE.
 - IMPROVEMENTS TO CONFORM TO CITY AND COUNTY'S LATEST STANDARDS SPECIFICATION.
 - TOPSOIL MUST BE STRIPPED PRIOR TO ANY CONSTRUCTION. REUSE STOCKPILE ON SITE.
 - IMMEDIATELY FOLLOWING GRADING OF (3' OR GREATER) SIDE SLOPES AND DRAINAGE SWALES, WOOD FIBER BLANKET OR OTHER APPROVED SOIL STABILIZING METHOD (APPROVED BY ENGINEER) MUST BE APPLIED OVER SEED MIXTURE WITH A MINIMUM OF 6" TOPSOIL.
 - ALL FINISHED GRADES MUST SLOPE AWAY FROM PROPOSED BUILDINGS AT MINIMUM GRADE OF 2.0%.
 - CONTRACTOR IS REQUIRED TO KEEP A COPY OF THE EROSION CONTROL PLAN ON SITE, AT ALL TIMES.

SEDIMENT CONTROL PRACTICES:

- SEDIMENT CONTROL PRACTICES MUST MINIMIZE SEDIMENT FROM ENTERING SURFACE WATERS, INCLUDING CURBS AND GUTTER SYSTEMS AND STORM INLETS.
- SEDIMENT CONTROL PRACTICES MUST BE ESTABLISHED ON ALL DOWN GRADIENT PERIMETERS BEFORE ANY UPGRADING LAND DISTURBING ACTIVITIES BEGIN. THESE PRACTICES SHALL REMAIN IN PLACE UNTIL FINAL STABILIZATION HAS BEEN ESTABLISHED.
- THE TIMING OF THE INSTALLATION OF SEDIMENT CONTROL PRACTICES MAY BE ADJUSTED TO ACCOMMODATE SHORT-TERM ACTIVITIES SUCH AS CLEARING OR GRUBBING, OR PASSAGE OF VEHICLES. ANY SHORT-TERM ACTIVITY MUST BE COMPLETED AS QUICKLY AS POSSIBLE AND THE SEDIMENT CONTROL PRACTICES MUST BE INSTALLED IMMEDIATELY AFTER THE ACTIVITY IS COMPLETED. HOWEVER, SEDIMENT CONTROL PRACTICES MUST BE INSTALLED BEFORE THE NEXT PRECIPITATION EVENT EVEN IF THE ACTIVITY IS NOT COMPLETE.
- ALL STORM DRAIN INLETS MUST BE PROTECTED BY APPROPRIATE BMP'S DURING CONSTRUCTION UNTIL ALL SOURCES WITH POTENTIAL FOR DISCHARGING INTO THE INLET HAVE BEEN ESTABLISHED.
- TEMPORARY SOIL STOCKPILES MUST HAVE SILT FENCES OR OTHER EFFECTIVE SEDIMENT CONTROLS AND CANNOT BE PLACED IN SURFACE WATERS, INCLUDING STORM WATER CONVEYANCES SUCH AS CURBS AND GUTTER SYSTEMS, OR CONDUITS AND DITCHES.

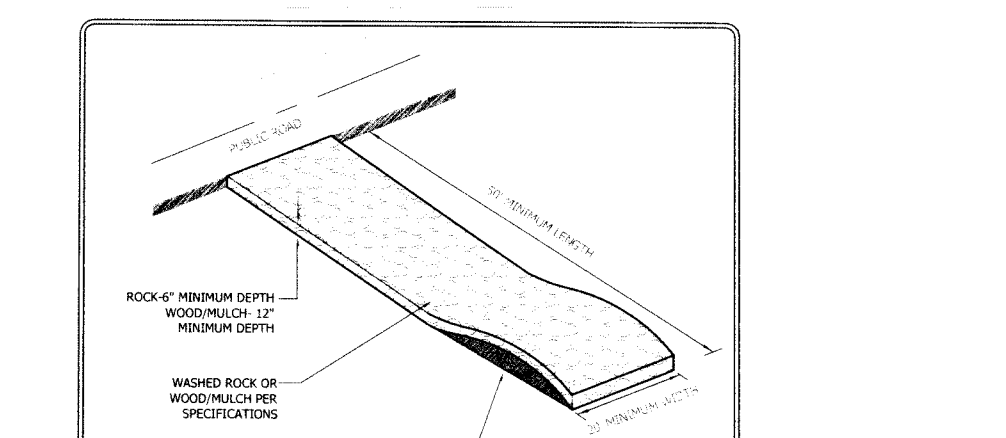
SITE DEWATERING PRACTICES:

- WATER PUMPED FROM THE SITE SHALL BE TREATED BY TEMPORARY SEDIMENTATION BASINS, BRIT CHAMBERS, SAND FILTERS, UPFLOW CHAMBERS, HYDROCYCLONES, SWIRL CONCENTRATORS OR OTHER APPROPRIATE CONTROLS AS APPROPRIATE. ALL WATER FROM DEWATERING MUST BE DISCHARGED IN A MANNER THAT DOES NOT CAUSE UNUSUAL CONDITIONS, EROSION IN RECEIVING CHANNELS OR ON DOWN-SLOPE PROPERTIES, OR INUNDATION IN WETLANDS CAUSING SIGNIFICANT ADVERSE IMPACT TO THE WETLAND.
- ALL DISCHARGE POINTS MUST BE ADEQUATELY PROTECTED FROM EROSION AND SCOUR. THE DISCHARGE MUST BE DISPERSED OVER NATURAL ROCK RIPRAP, SAND BAGS, PLASTIC SHEETING OR OTHER ACCEPTED ENERGY DISSIPATION MEASURES. ADEQUATE SEDIMENTATION CONTROL MEASURES ARE REQUIRED FOR DISCHARGE WATER THAT CONTAINS SUSPENDED SOLIDS.

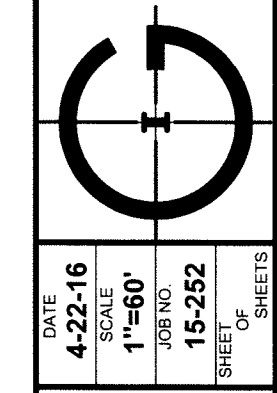
FINAL STABILIZATION:

THE CONTRACTOR MUST ENSURE FINAL STABILIZATION OF THE SITE. THE CONTRACTOR MUST SUBMIT A NOTICE OF TERMINATION (NOT) WITHIN 30 DAYS AFTER FINAL STABILIZATION IS COMPLETE, OR ANOTHER OWNER HAS ASSUMED CONTROL OF ALL AREAS OF THE SITE THAT HAVE NOT UNDERGONE FINAL STABILIZATION. FINAL STABILIZATION CAN BE ACHIEVED IN ONE OF THE FOLLOWING WAYS:

- ALL DRAINAGE DITCHES, CONSTRUCTED TO DRAIN WATER FROM THE SITE AFTER CONSTRUCTION IS COMPLETE, MUST BE STABILIZED TO PRECLUDE EROSION.
- ALL TEMPORARY SYNTHETIC AND STRUCTURAL EROSION PREVENTION AND SEDIMENT BMP'S (SUCH AS SILT FENCE) MUST BE REMOVED AS PART OF THE SITE FINAL STABILIZATION.
- THE CONTRACTORS MUST CLEAN UP ALL SEDIMENT FROM CONVEYANCES AND FROM TEMPORARY SEDIMENT BASINS THAT ARE TO BE USED AS PERMANENT WATER QUALITY MANAGEMENT BASIN. SEDIMENT MUST BE STABILIZED TO PREVENT IT FROM BEING WASHED BACK INTO THE BASIN. CONVEYANCES OR DRAINAGE WAYS DISCHARGING OFF-SITE OR TO SURF-ACE WATERS, THE CLEAN UP OF PERMANENT BASINS MUST BE SUFFICIENT TO RETURN THE BASIN TO DESIGN CAPACITY.
- 6" OF TOPSOIL WILL BE REQUIRED TO BE PLACED PRIOR TO FINAL STABILIZATION.



GRONBERG & ASSOCIATES, INC.
CIVIL ENGINEERS, LAND SURVEYORS, LAND PLANNERS
445 N. WILLOW DRIVE LONG LAKE, MN 55356
PHONE: 952-473-4141 FAX: 952-473-4435



DATE: 4-22-16
SCALE: 1"=60'
JOB NO: 15-252
SHEET NO: 15-252

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 Engineer under the laws of the State of Minnesota.

DATE: 4-22-16 MINN. LICENSE NUMBER: 222525

DATE	BY	REVISIONS
6-30-16		REMARKS
8-12-16		CURB NOTE
		ADDITIONAL NOTES

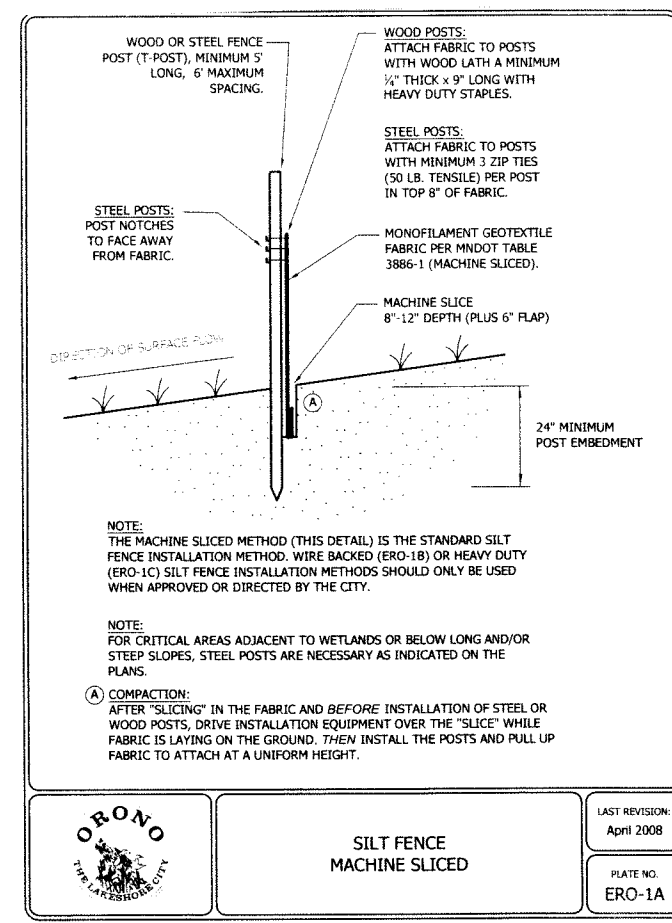
TANAGER ESTATES

GRADING AND STORMWATER POLLUTION PREVENTION PLAN FOR

IRWIN JACOBS

IN GOV'T LOTS 1 AND 2, SECTION 10-117-23

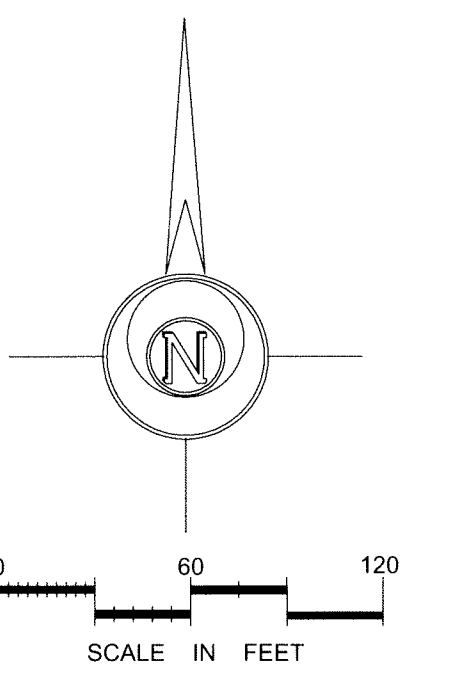
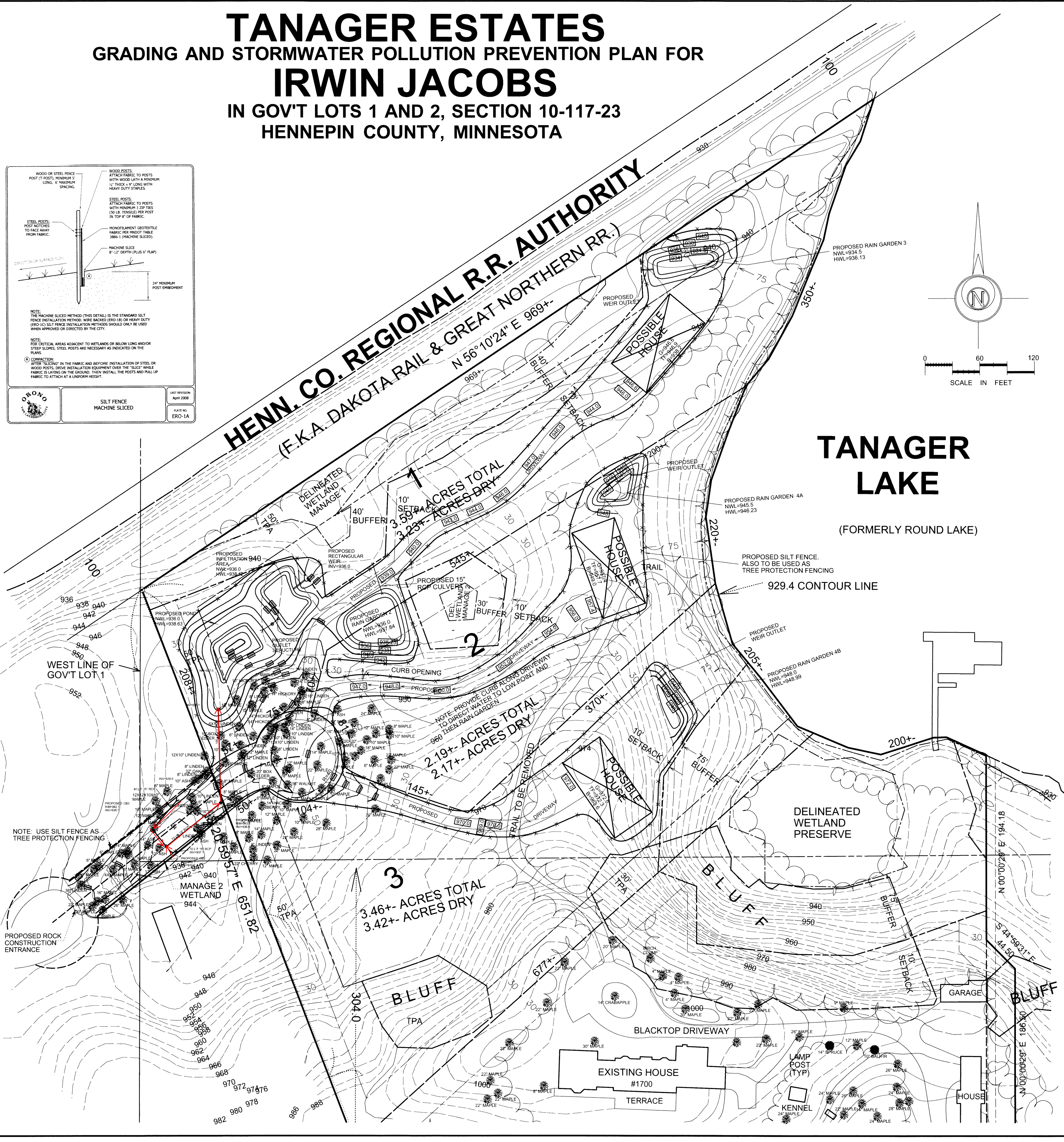
HENNEPIN COUNTY, MINNESOTA



HENN. CO. REGIONAL R.R. AUTHORITY
(F.K.A. DAKOTA RAIL & GREAT NORTHERN RR.)
N 56°10'24" E 969'

TANAGER LAKE

(FORMERLY ROUND LAKE)



- EROSION AND SEDIMENT CONTROL GENERAL NOTES:**
- PRIOR TO ANY CONSTRUCTION OR DEMOLITION, SILT FENCE AND FILTERS MUST BE INSTALLED.
 - ALL EROSION CONTROL INSTALLATIONS SHALL REMAIN IN PLACE AND BE MAINTAINED IN GOOD CONDITION BY THE CONTRACTOR UNTIL THE SITE HAS BEEN RE-VEGETATED. CONTRACTOR MAY REMOVE NECESSARY SILT FENCING TO CONSTRUCT ROADWAYS, WHILE MAINTAINING ADEQUATE EROSION CONTROL IN ADJACENT AREA.
 - THE CONTRACTOR SHALL SCHEDULE SITE GRADING, UTILITY INSTALLATION AND PAVEMENT CONSTRUCTION SO THAT THE GENERAL EROSION CONTROL MEASURES CAN BE SEVERED SOON AFTER DISTURBANCE AREAS THAT WILL NOT BE SUBJECT TO CONSTRUCTION TRAFFIC SHALL BE SEEDED (MUDOT MX 190 @ 100#/AC AND MULCHED WITHIN SEVEN DAYS OF BEING DISTURBED).
 - CONTRACTOR SHALL INSTALL EROSION CONTROL DEVICES AS INDICATED ON THIS EROSION CONTROL PLAN AND ANY ADDITIONAL REQUIRED, BASED ON MEANS, METHODS AND SEQUENCES OF CONSTRUCTION.
 - BEST MANAGEMENT PRACTICES (BMP'S) REFER TO EROSION AND SEDIMENT CONTROL PRACTICES DEFINED IN THE MPCA PROTECTING WATER QUALITY IN URBAN AREAS AND THE MINNESOTA CONSTRUCTION SITE EROSION AND SEDIMENT CONTROL PLANNING HANDBOOK.
 - ALL BMP'S SELECTED SHALL BE APPROPRIATE FOR THE TIME OF YEAR, SITE CONDITIONS, AND ESTIMATED DURATION OF USE.
 - ALL SEPTIC AREAS ARE TO BE FENCED OFF FOR PROTECTION. PROTECTION TO EXTEND A MINIMUM OF 20' OUTSIDE OF SEPTIC AREAS.
 - INSTALL PERIMETER CONTROL DEVICES AROUND ANY DIRT STOCKPILE AREAS.
 - THE CONTRACTOR MUST SCHEDULE HIS OPERATIONS TO MINIMIZE THE AMOUNT OF DISTURBED AREA AT ANY GIVEN TIME. THE CONTRACTOR MUST LIMIT THEIR ACTIVITIES TO THE GRADING LIMITS SHOWN.
 - EROSION CONTROL BLANKETS MUST BE INSTALLED BETWEEN THE NWL AND HWL OF ANY PROPOSED POND AFTER FINAL GRADING.
 - WHEREVER POSSIBLE, PRESERVE THE EXISTING TREES, GRASS AND OTHER VEGETATIVE COVER TO HELP FILTER RUNOFF.
 - ALL TREES NOT LISTED FOR REMOVAL SHALL BE PROTECTED. DO NOT OPERATE EQUIPMENT WITHIN THE DRILLPIE, ROOT ZONES OR WITHIN THE TREE PROTECTION FENCE AREA.
 - SILT FENCE IS REQUIRED AT DOWN GRADIENT PERIMETER OF DISTURBED AREAS AND STOCKPILES. PROTECT WETLANDS, WATERCOURSES AND ADJACENT PROPERTIES FROM SEDIMENTATION AND STORMWATER RUNOFF.
 - THE BMP'S SHOWN ON THE PLANS ARE THE MINIMUM REQUIREMENTS FOR THE ANTICIPATED SITE CONDITIONS. AS CONSTRUCTION PROGRESSES AND UNEXPECTED OR SEASONAL CONDITIONS OCCUR, THE PERMITTEE CONTRACTOR SHALL ANTICIPATE THAT MORE BMP'S WILL BE NECESSARY TO ENSURE EROSION AND SEDIMENT CONTROL ON THE SITE. DURING THE COURSE OF CONSTRUCTION IT IS THE RESPONSIBILITY OF THE CONTRACTOR TO ADDRESS ANY NEW CONDITIONS THAT MAY BE CREATED BY CONSTRUCTION ACTIVITIES AND/OR CLIMATIC EVENTS.
 - PROVIDE ADDITIONAL BMP'S OVER AND ABOVE THE MINIMUM REQUIREMENTS SHOWN ON THE PLANS, AS MAY BE NEEDED TO PROVIDE EFFECTIVE PROTECTION OF WATER AND SOIL RESOURCES.
 - OPERATE TRACK EQUIPMENT (DOZER) UP AND DOWN EXPOSED SOIL SLOPES ON FINAL PASS, LEAVING TRACK GROOVES PERPENDICULAR TO THE SLOPE. DO NOT BACK-BLADE. LEAVE A SURFACE ROUGH TO MINIMIZE EROSION.
 - ALL AREAS DISTURBED BY CONSTRUCTION SHALL BE STABILIZED FROM EROSION WITHIN 15 DAYS OF SUBSTANTIAL COMPLETION OF GRADING IN THAT AREA. TEMPORARY SEED AND MULCH SHALL COVER ALL EXPOSED SOILS. GRADING COMPLETION IS DELAYED LONGER THAN 15 DAYS, PERMANENT SEED AND MULCH IS REQUIRED WITHIN 15 DAYS OF COMPLETION OF FINAL GRADING.
 - GENERAL TEMPORARY SEED SHALL BE MUDOT MX 190 @ 100 LBS PER ACRE OR APPROVED EQUAL. PERMANENT SEED SHALL BE MUDOT MX 270 @ 120 LBS PER ACRE OR APPROVED EQUAL. (PLANTING PROGRESS AND UNEXPECTED OR SEASONAL CONDITIONS MAY REQUIRE MORE SEED). MULCH SHALL BE MUDOT TYPE 1 (CLEAN DIRT STRAW) @ 2 TONS PER ACRE AND DISK ANCHORED IN PLACE OR APPROVED EQUAL. FERTILIZER SHALL BE 80-80-80 NPK PER ACRE. (UNLESS P RESTRICTIONS APPLY AND INCORPORATED INTO THE SEED BED).
 - ALL TEMPORARY EROSION AND SEDIMENT CONTROL MEASURES SHALL BE PROPERLY DISPOSED OF WITHIN THIRTY (30) DAYS AFTER FINAL SITE STABILIZATION IS ACHIEVED OR AFTER THE TEMPORARY MEASURES ARE NO LONGER NEEDED.
 - REPORT ALL FOUND FIELD TILES TO THE ENGINEER FOR EVALUATION.
 - CHANNELLED RUNOFF FROM ADJACENT AREAS RUNNING THROUGH THE SITE SHALL BE DIVERTED AROUND DISTURBED AREAS. IF PRACTICALLY FEASIBLE, RUNOFF SHALL BE CONVEYED IN A MANNER THAT WILL NOT ERODE THE CONVEYANCE AT RECEIVING CHANNELS. ALL TEMPORARY OR PERMANENT DRAINAGE CHANNELS MUST BE STABILIZED WITHIN 24 HOURS OF BEING CONNECTED TO A WATER OF THE STATE. SEDIMENT CONTROL IS REQUIRED ALONG CHANNEL EDGES TO REDUCE SEDIMENTATION INTO THE CHANNEL.
 - ALL ACTIVITIES ON THE SITE SHALL BE CONDUCTED IN A LOGICAL SEQUENCE TO MINIMIZE THE AREA OF BARE SOIL EXPOSED AT ANY ONE TIME.
 - ALL DISTURBED GROUND LEFT INACTIVE FOR 14 OR MORE DAYS MUST HAVE TEMPORARY OR PERMANENT STABILIZATION TEAR ROUNDS.
 - FOR SITES WITH MORE THAN TEN ACRES DISTURBED AT ONE TIME, OR IF A CHANNEL ORIGINATES IN THE DISTURBED AREA, ONE OR MORE TEMPORARY OR PERMANENT SEDIMENTATION BASINS SHALL BE CONSTRUCTED. EACH SEDIMENTATION BASIN SHALL HAVE A SURFACE AREA OF AT LEAST ONE PERCENT OF THE AREA DRAINING TO THE BASIN AND AT LEAST THREE FEET OF DEPTH AND CONSTRUCTED IN ACCORDANCE WITH ACCEPTED DESIGN SPECIFICATIONS. SEDIMENT SHALL BE REMOVED TO MAINTAIN A DEPTH OF THREE FEET. THE BASIN DISCHARGE RATE SHALL ALSO BE SUFFICIENTLY LOW AS NOT CAUSE EROSION ALONG THE DISCHARGE CHANNEL OR THE RECEIVING WATER.
 - PERIMETER SEDIMENT CONTROL MEASURES SHALL BE PLACED ALONG ALL DOWN GRADIENT PERIMETERS OF THE SITE. IF A CHANNEL OR AREA OF CONCENTRATED RUNOFF PASSES THROUGH THE SITE, PERIMETER SEDIMENT CONTROL MEASURES SHALL BE PLACED ALONG THE CHANNEL EDGES TO REDUCE SEDIMENT REACHING THE CHANNEL. ALL DOWN GRADIENT PERIMETER SEDIMENT CONTROL MEASURES MUST INCLUDE A MAINTENANCE AND INSPECTION SCHEDULE.
 - ANY SOIL OR DIRT STORAGE PILES CONTAINING MORE THAN TEN CUBIC YARDS OF MATERIAL SHOULD NOT BE LOCATED WITHIN 25 FEET FROM A ROADWAY OR DRAINAGE CHANNEL. IF REMAINING FOR MORE THAN 14 DAYS, THEY SHALL BE STABILIZED BY MULCHING VEGETATIVE COVER, TARP OR OTHER MEANS AND ENCLOSED WITH DOWN GRADIENT PERIMETER SEDIMENT CONTROLS. PILES WHICH WILL BE IN EXISTENCE FOR LESS THAN 14 DAYS SHALL BE ENCLOSED WITH PERIMETER SEDIMENT CONTROLS.
 - PIPE OUTLETS MUST HAVE ENERGY DISSIPATION INSTALLED WITHIN 24 HOURS OF CONNECTION TO WATERS OF THE STATE.
- SEDIMENT CONTROL PRACTICES:**
- SEDIMENT CONTROL PRACTICES MUST MINIMIZE SEDIMENT FROM ENTERING SURFACE WATERS, INCLUDING CURBS AND GUTTER SYSTEMS AND STORM INLETS.
 - SEDIMENT CONTROL PRACTICES MUST BE ESTABLISHED ON ALL DOWN GRADIENT PERIMETERS BEFORE ANY UPGRADE LAND DISTURBING ACTIVITIES BEGIN. THESE PRACTICES SHALL REMAIN IN PLACE UNTIL FINAL STABILIZATION HAS BEEN ESTABLISHED.
 - THE TIMING OF THE INSTALLATION OF SEDIMENT CONTROL PRACTICES MAY BE ADJUSTED TO ACCOMMODATE SHORT-TERM ACTIVITIES SUCH AS CLEARING OR GRUBBING, OR PASSAGE OF VEHICLES. ANY SHORT-TERM ACTIVITY MUST BE COMPLETED AS QUICKLY AS POSSIBLE AND THE SEDIMENT CONTROL PRACTICES MUST BE INSTALLED IMMEDIATELY AFTER THE ACTIVITY IS COMPLETED. HOWEVER, SEDIMENT CONTROL PRACTICES MUST BE INSTALLED BEFORE THE NEXT PRECIPITATION EVENT EVEN IF THE ACTIVITY IS NOT COMPLETE.
 - ALL STORM DRAIN INLETS MUST BE PROTECTED BY APPROPRIATE BMP'S DURING CONSTRUCTION UNTIL ALL SOURCES WITH POTENTIAL FOR DISCHARGING INTO THE INLET HAVE BEEN ESTABLISHED.
 - TEMPORARY SOIL STOCKPILES MUST HAVE SILT FENCES OR OTHER EFFECTIVE SEDIMENT CONTROLS AND CANNOT BE PLACED IN SURFACE WATERS, INCLUDING STORM WATER CONVEYANCES SUCH AS CURBS AND GUTTER SYSTEMS, OR CROUETS AND DITCHES.

- EROSION AND SEDIMENT CONTROL INSPECTION PROGRAM:**
- THE CONTRACTOR SHALL BE RESPONSIBLE FOR CONDUCTING INSPECTIONS OF ALL EROSION AND SEDIMENT CONTROL BMP'S ON SITE. INSPECTIONS AND RAINFALL ON SITE MUST BE DOCUMENTED AND READY AVAILABLE FOR REVIEW. INSPECTIONS ARE REQUIRED AS FOLLOWS:
- ONCE EVERY SEVEN DAYS ON EXPOSED SOIL AREAS.
 - WITHIN 24 HOURS AFTER A ONE-HALF INCH OR GREATER RAIN EVENT OVER 24 HOURS.
 - ONCE EVERY 30 DAYS ON STABILIZED AREAS.
 - AS SOON AS RUNOFF OCCURS OR PRIOR TO RESUMING CONSTRUCTION ON FROZEN GROUND.
- EROSION AND SEDIMENT CONTROL MAINTENANCE PROGRAM:**
- WHEN SEDIMENT REACHES 1/3 THE HEIGHT OF THE BMP ON PERIMETER CONTROL DEVICES, SEDIMENT MUST BE REMOVED WITHIN 24 HOURS OF DISCOVERY.
 - IF THE PERIMETER CONTROL DEVICE IS NOT FUNCTIONAL IT MUST BE REPAIRED OR REPLACED WITHIN 24 HOURS OF DISCOVERY.
 - TEMPORARY SEDIMENT BASINS SHALL BE MAINTAINED WHEN SEDIMENT REACHES 1/2 THE OUTLET HEIGHT OR 1/2 THE BASIN STORAGE VOLUME. BASINS MUST BE DRAINED OR SEDIMENT REMOVED WITHIN 72 HOURS OF DISCOVERY.
 - SEDIMENT MUST BE REMOVED FROM PAVED SURFACES WITHIN 24 HOURS OF DISCOVERY.
 - EROSION INTO STREETS, WETLANDS OR WATER BODIES:
 - IF ERODED SOILS (INCLUDING TRACKED SOILS FROM CONSTRUCTION ACTIVITIES) ENTER OR APPEAR LIKELY TO ENTER STREETS, WETLANDS, OR OTHER WATER BODIES, PREVENTION STRATEGIES, CLEANUP AND RESTORATION APPROVALS FROM ALL STATE, FEDERAL, AND LOCAL AGENCIES AS NECESSARY, THEN IMPLEMENT THE CLEANUP AND RESTORATION PLAN WITHIN 48 HOURS OF OBTAINING THE ADJOINING PROPERTY OWNER'S PERMISSION AND APPROVAL FROM THE TRAVELING PUBLIC SURVEY CLEANUP OPERATIONS.
 - EROSION OFF-SITE:
 - IF EROSION BREACHES THE PERIMETER OF THE SITE, THE OWNER SHALL IMMEDIATELY DEVELOP A CLEANUP AND RESTORATION PLAN, OBTAIN RIGHT-OF-ENTRY FROM THE ADJOINING PROPERTY OWNER AND GET APPROPRIATE APPROVALS FROM ALL STATE, FEDERAL, AND LOCAL AGENCIES AS NECESSARY, THEN IMPLEMENT THE CLEANUP AND RESTORATION PLAN WITHIN 48 HOURS OF OBTAINING THE ADJOINING PROPERTY OWNER'S PERMISSION AND APPROVAL FROM THE TRAVELING PUBLIC SURVEY CLEANUP OPERATIONS.

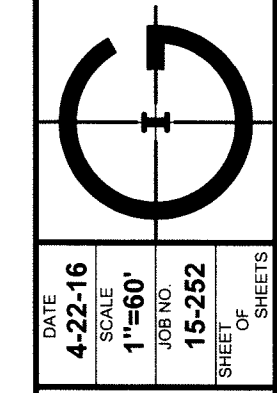
- CONSTRUCTION SITE PRACTICES:**
- ALL WASTE (UNUSED BUILDING MATERIAL (INCLUDING GARBAGE DEBRIS, CLEANING WASTES, WASTEWATER, TOXIC MATERIALS OR HAZARDOUS MATERIALS), COLLECTED SEDIMENT, ASPHALT AND CONCRETE MILLINGS, FLOATING DEBRIS, PAPER, PLASTIC, FABRIC, CONSTRUCTION SITE DEBRIS, ETC.) MUST BE PROPERLY CONTAINED ON SITE AND DISPOSED OFF-SITE. NOT ALLOWED TO BE CARRIED BY RUNOFF INTO RECEIVING CHANNEL OR STORAGE SEWER SYSTEM.
 - HAZARDOUS MATERIALS:
 - OIL, GASOLINE, PAINT AND ANY HAZARDOUS SUBSTANCES MUST BE PROPERLY STORED, INCLUDING SECONDARY CONTAINMENT, TO PREVENT SPILL, LEAKS, OR OTHER DISCHARGE.
 - RESTRICTED ACCESS TO STORAGE AREAS MUST BE PROVIDED TO PREVENT VANDALISM.
 - CONCRETE WASH MUST BE LIMITED TO A DEFINED AREA OF THE SITE AND RUNOFF MUST BE CONTAINED WITHIN THE DEFINED AREA.
 - STORAGE OF HAZARDOUS WASTE MUST BE IN COMPLIANCE WITH MPCA REGULATIONS.
 - LIQUID WASTE:
 - ALL NON STORMWATER DISCHARGES (CONCRETE TRUCK WASHOUT, VEHICLE WASHING, MAINTENANCE SPILLS, ETC.) CONDUCTED DURING THE CONSTRUCTION ACTIVITY MUST COMPLY WITH THE NEWEST VERSION OF THE STATE NPDES PERMIT.
 - SANITARY FACILITIES:
 - ADEQUATE ON-SITE SANITARY FACILITIES SHALL BE PROVIDED IN CONVENIENT LOCATIONS FOR ALL PERSONS WHO WORK ON THE SITE.
 - TRACKING:
 - EACH SITE SHALL HAVE GRAVELED ROADS, ACCESS DRIVES AND PARKING AREAS OF SUFFICIENT WIDTH AND LENGTH TO PREVENT SEDIMENT FROM BEING TRACKED ONTO PUBLIC OR PRIVATE ROADWAYS.
 - ANY SEDIMENT REACHING A PUBLIC OR PRIVATE ROAD SHALL BE REMOVED BY STREET CLEANING BEFORE THE END OF EACH WORKDAY.
 - DRAIN INLET PROTECTION:
 - ALL STORM DRAIN INLETS SHALL BE PROTECTED DURING CONSTRUCTION WITH CONTROL MEASURES AS APPROVED BY THE CITY.
 - THESE DEVICES SHALL REMAIN IN PLACE UNTIL FINAL STABILIZATION OF THE SITE.
 - A REGULAR INSPECTION AND MAINTENANCE PLAN SHALL BE DEVELOPED AND IMPLEMENTED TO ASSURE THESE DEVICES ARE OPERATIONAL AT ALL TIMES.
 - EXTERNAL WASHING OF TRUCKS AND OTHER CONSTRUCTION VEHICLES MUST BE LIMITED TO A DEFINED AREA OF THE SITE. RUNOFF MUST BE CONTAINED AND WASTE PROPERLY DISPOSED OF. NO ENGINE DEGRASSING IS ALLOWED ON SITE.

- GRADING GENERAL NOTES:**
- PRIOR TO INITIAL GRADING, THE CONTRACTOR IS RESPONSIBLE TO MAKE SURE ALL REQUIRED PERMITS AND APPROVALS HAVE BEEN OBTAINED.
 - ABSOLUTELY NO CONSTRUCTION, GRADING, OR REVISION SHALL BEGIN UNTIL:
 - THE CONTRACTOR HAS RECEIVED AND THOROUGHLY REVIEWED ALL PLANS AND OTHER DOCUMENTS APPROVED BY ALL OF THE PERMITTING AUTHORITIES.
 - ALL NECESSARY BMP'S ARE INSTALLED.
 - GOVERNOR STATE ONE CALL (800) 252-1166, MUST BE NOTIFIED 48 HOURS PRIOR TO START OF CONSTRUCTION.
 - ROCK CONSTRUCTION ENTRANCES (PER THE STANDARD DETAIL PLATE) MUST BE PROVIDED AT ALL CONSTRUCTION SITE ACCESS POINTS.
 - TEMPORARY SEDIMENT PONDS MUST BE ESTABLISHED IN INITIAL PHASE IN ORDER TO CAPTURE RUNOFF DURING GRADING OF THE CONSTRUCTION SITE.
 - IMPROVEMENTS TO CONFORM TO CITY AND COUNTY'S LATEST STANDARDS SPECIFICATION.
 - TOPSOIL MUST BE STRIPPED PRIOR TO ANY CONSTRUCTION. REUSE STOCKPILE ON SITE.
 - IMMEDIATELY FOLLOWING GRADING OF (3' OR GREATER) SIDE SLOPES AND DRAINAGE SWALES, WOOD FIBER BLANKET OR OTHER APPROVED SOIL STABILIZING METHOD (APPROVED BY ENGINEER) MUST BE APPLIED OVER SEED MIXTURE WITH A MINIMUM OF 6" TOPSOIL.
 - ALL FINISHED GRADES MUST SLOPE AWAY FROM PROPOSED BUILDINGS AT MINIMUM GRADE OF 2.0%.
 - CONTRACTOR IS REQUIRED TO KEEP A COPY OF THE EROSION CONTROL PLAN ON SITE, AT ALL TIMES.

- SITE DEWATERING PRACTICES:**
- WATER PUMPED FROM THE SITE SHALL BE TREATED BY TEMPORARY SEDIMENTATION BASINS, GRIT CHAMBERS, SAND FILTERS, UPFLOW CHAMBERS, HYDROCYCLONES, SWIRL CONCENTRATORS OR OTHER APPROPRIATE CONTROLS AS APPROPRIATE. ALL WATER FROM DEWATERING MUST BE DISCHARGED IN A MANNER THAT DOES NOT CAUSE UNUSUAL CONDITIONS, EROSION, RECEIVING CHANNELS OR ON-DOWNSLOPE PROPERTIES, OR INUNDATION IN WETLANDS CAUSING SIGNIFICANT ADVERSE IMPACT TO THE WETLAND.
 - ALL DISCHARGE POINTS MUST BE ADEQUATELY PROTECTED FROM EROSION AND SCOUR. THE DISCHARGE MUST BE DISPERSED OVER NATURAL ROCK RIPRAP, SAND BAGS, PLASTIC SHEETING OR OTHER ACCEPTED ENERGY DISSIPATION MEASURES. ADEQUATE SEDIMENTATION CONTROL MEASURES ARE REQUIRED FOR DISCHARGE WATER THAT CONTAINS SUSPENDED SOLIDS.

- FINAL STABILIZATION:**
- THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE FINAL STABILIZATION OF THE SITE. THE CONTRACTOR MUST SUBMIT A NOTICE OF TERMINATION (NOT) WITHIN 30 DAYS AFTER FINAL STABILIZATION IS COMPLETE, OR ANOTHER OWNER HAS ASSUMED CONTROL OF ALL AREAS OF THE SITE THAT HAVE NOT UNDERGONE FINAL STABILIZATION. FINAL STABILIZATION CAN BE ACHIEVED IN ONE OF THE FOLLOWING WAYS:
- ALL SOIL DISTURBING ACTIVITIES AT THE SITE HAVE BEEN COMPLETED AND ALL SOILS MUST BE STABILIZED BY A UNIFORM PERMANENT VEGETATIVE COVER WITH A DENSITY OF 70 PERCENT OVER THE ENTIRE PERVIOUS SURFACE AREA, OR OTHER EQUIVALENT MEANS NECESSARY TO PREVENT SOIL FAILURE UNDER NORMAL CONDITIONS AND:
 - ALL DRAINAGE DITCHES, CONSTRUCTED TO DRAIN WATER FROM THE SITE AFTER CONSTRUCTION IS COMPLETE, MUST BE STABILIZED TO PRECLUDE EROSION.
 - THE CONTRACTORS MUST CLEAN UP ALL SEDIMENT FROM CONVEYANCES AND FROM TEMPORARY SEDIMENT BASINS THAT ARE TO BE USED AS PERMANENT WATER QUALITY MANAGEMENT BASINS. SEDIMENT MUST BE STABILIZED TO PREVENT IT FROM BEING WASHED BACK INTO THE BASIN, CONVEYANCES OR DRAINAGEWAYS DISCHARGING OFF-SITE OR TO SURFACE WATERS. THE CLEAN UP OF PERMANENT BASINS MUST BE SUFFICIENT TO RETURN THE BASIN TO DESIGN CAPACITY.
 - 6" OF TOPSOIL WILL BE REQUIRED TO BE PLACED PRIOR TO FINAL STABILIZATION.

GRONBERG & ASSOCIATES, INC.
CIVIL ENGINEERS, LAND SURVEYORS, LAND PLANNERS
445 N. WILLOW DRIVE LONG LAKE, MN 55356
PHONE: 952-473-4141 FAX: 952-473-4435



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 Engineer under the laws of the State of Minnesota.

DATE: 6-30-16 MINN. LICENSE NUMBER: 15-252

DATE	BY	REVISIONS
6-30-16		REMARKS
8-12-16		CURB NOTE
		ADDITIONAL NOTES

DATE	BY	REVISIONS
6-30-16		REMARKS
8-12-16		CURB NOTE
		ADDITIONAL NOTES

Minnesota Wetland Conservation Act

Notice of Decision

Local Government Unit (LGU) Minnehaha Creek Watershed District	Address 15320 Minnetonka Blvd Minnetonka, MN 55345
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1. PROJECT INFORMATION

Applicant Name Irwin Jacobs & City of Orono	Project Name 1700 Shoreline Drive	Date of Application 6/4/15 (Incomplete) 6/16/15 (Complete)	Application Number W15-21
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Attach site locator map

Type of Decision:

<input checked="" type="checkbox"/> Wetland Boundary or Type	<input type="checkbox"/> No-Loss	<input type="checkbox"/> Exemption	<input type="checkbox"/> Sequencing
<input type="checkbox"/> Replacement Plan	<input type="checkbox"/> Banking Plan		

Technical Evaluation Panel Findings and Recommendation (if any):

<input type="checkbox"/> Approve	<input type="checkbox"/> Approve with conditions	<input type="checkbox"/> Deny
Summary (or attach):		

2. LOCAL GOVERNMENT UNIT DECISION

Date of Decision: 8/12/15		
<input checked="" type="checkbox"/> Approved	<input type="checkbox"/> Approved with conditions (include below)	<input type="checkbox"/> Denied

LGU Findings and Conclusions (attach additional sheets as necessary):

Irwin Jacobs and the City of Orono applied for wetland boundary & type confirmation for the wetlands located at 1700 Shoreline Drive and on the Heritage Lane Extension Easement in the City of Orono, Hennepin County, Minnesota (PID 1011723140018). Legal description: Section 10, Township 117N, Range 23W.

A wetland delineation was conducted by Svoboda Ecological Resources on April 23 and 27, 2015. A complete delineation report and WCA application were submitted to MCWD on 6/16/15. Six wetlands were delineated on site. Wetland 1 was identified as a Type 3 shallow marsh/Type 4 deep marsh adjacent to Tanager Lake; Wetlands 2 and 4 were identified as forested, Type 1 seasonally flooded basins; Wetland 3 was identified as a Type 3 shallow marsh; Wetland 5 was identified as a Type 3 shallow marsh/Type 4 deep marsh; and wetland 6 was identified as a Type 3 shallow marsh with Type 2 fresh, wet meadow fringe. Two DNR Public Waters are present on site.

MCWD and BWSR reviewed the boundaries in the field on 7/28/15. MCWD and BWSR requested that additional flags be positioned around Wetland 4 to fill in gaps in the flagged boundary but otherwise were in agreement with the boundaries of the wetlands on site as they relate to the two property boundaries. MCWD and BWSR discussed that the boundaries of Wetland 4 extend off of the two subject properties, and advised that any future impacts proposed for Wetland 4 must also consider any direct or indirect impacts to the portions of Wetland 4 not covered by this wetland delineation.

MCWD approves the wetland boundaries and types as delineated in the field and documented in the delineation report for the two subject parcels. This decision is valid for five years. A future project located on this property may require a permit from the MCWD.

For Replacement Plans using credits from the State Wetland Bank:

Bank Account #	Bank Service Area	County	Credits Approved for Withdrawal (sq. ft. or nearest .01 acre)

Replacement Plan Approval Conditions. In addition to any conditions specified by the LGU, the approval of a Wetland Replacement Plan is conditional upon the following:

- Financial Assurance:** For project-specific replacement that is not in-advance, a financial assurance specified by the LGU must be submitted to the LGU in accordance with MN Rule 8420.0522, Subp. 9 (List amount and type in LGU Findings).
- Deed Recording:** For project-specific replacement, evidence must be provided to the LGU that the BWSR “Declaration of Restrictions and Covenants” and “Consent to Replacement Wetland” forms have been filed with the county recorder’s office in which the replacement wetland is located.
- Credit Withdrawal:** For replacement consisting of wetland bank credits, confirmation that BWSR has withdrawn the credits from the state wetland bank as specified in the approved replacement plan.

Wetlands may not be impacted until all applicable conditions have been met!

LGU Authorized Signature:

Signing and mailing of this completed form to the appropriate recipients in accordance with 8420.0255, Subp. 5 provides notice that a decision was made by the LGU under the Wetland Conservation Act as specified above. If additional details on the decision exist, they have been provided to the landowner and are available from the LGU upon request.	
Name Beth Brown	Title Permitting Technician

Signature <i>Elizabeth Brown</i>	Date 8/12/15	Phone Number and E-mail (952) 641-4504 ebrown@minnehahacreek.org
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THIS DECISION ONLY APPLIES TO THE MINNESOTA WETLAND CONSERVATION ACT. Additional approvals or permits from local, state, and federal agencies may be required. Check with all appropriate authorities before commencing work in or near wetlands.

Applicants proceed at their own risk if work authorized by this decision is started before the time period for appeal (30 days) has expired. If this decision is reversed or revised under appeal, the applicant may be responsible for restoring or replacing all wetland impacts.

This decision is valid for three years from the date of decision unless a longer period is advised by the TEP and specified in this notice of decision.

3. APPEAL OF THIS DECISION

Pursuant to MN Rule 8420.0905, any appeal of this decision can only be commenced by mailing a petition for appeal, including applicable fee, within thirty (30) calendar days of the date of the mailing of this Notice to the following as indicated:

Check one:

<input checked="" type="checkbox"/> Appeal of an LGU staff decision. Send petition and \$0 fee (if applicable) to: Minnehaha Creek Watershed District 15320 Minnetonka Blvd Minnetonka, MN 55345	<input type="checkbox"/> Appeal of LGU governing body decision. Send petition and \$500 filing fee to: Executive Director Minnesota Board of Water and Soil Resources 520 Lafayette Road North St. Paul, MN 55155
--	---

4. LIST OF ADDRESSEES

<input checked="" type="checkbox"/> SWCD TEP member: Stacey Lijewski – stacey.lijewski@co.hennepin.mn.us
<input checked="" type="checkbox"/> BWSR TEP member: Ben Meyer – ben.meyer@state.mn.us
<input type="checkbox"/> LGU TEP member (if different than LGU Contact):
<input checked="" type="checkbox"/> DNR TEP member: Kate Drewry – kate.drewry@state.mn.us
<input checked="" type="checkbox"/> DNR Regional Office (if different than DNR TEP member): Brooke Haworth - brooke.haworth@state.mn.us
<input type="checkbox"/> WD or WMO (if applicable):
<input checked="" type="checkbox"/> Applicant (notice only) and Landowner (if different): Irwin Jacobs – mbsteadman@cbburnet.com , City of Orono – jloftus@ci.orono.mn.us
<input checked="" type="checkbox"/> Members of the public who requested notice (notice only): Frank Svoboda (SER) – franks@gpsinnovations.com , Christine Mattson (City of Orono) – cmattson@ci.orono.mn.us
<input checked="" type="checkbox"/> Corps of Engineers Project Manager (notice only): Melissa Jenny – melissa.m.jenny@usace.army.mil
<input type="checkbox"/> BWSR Wetland Bank Coordinator (wetland bank plan applications only)

5. MAILING INFORMATION

➤ For a list of BWSR TEP representatives: www.bwsr.state.mn.us/aboutbwsr/workareas/WCA_areas.pdf

➤ For a list of DNR TEP representatives: www.bwsr.state.mn.us/wetlands/wca/DNR_TEP_contacts.pdf

➤ Department of Natural Resources Regional Offices:

<u>NW Region:</u> Reg. Env. Assess. Ecol.	<u>NE Region:</u> Reg. Env. Assess. Ecol.	<u>Central Region:</u> Reg. Env. Assess.	<u>Southern Region:</u> Reg. Env. Assess. Ecol.
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Div. Ecol. Resources 2115 Birchmont Beach Rd. NE Bemidji, MN 56601	Div. Ecol. Resources 1201 E. Hwy. 2 Grand Rapids, MN 55744	Ecol. Div. Ecol. Resources 1200 Warner Road St. Paul, MN 55106	Div. Ecol. Resources 261 Hwy. 15 South New Ulm, MN 56073
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For a map of DNR Administrative Regions, see: http://files.dnr.state.mn.us/aboutdnr/dnr_regions.pdf

- For a list of Corps of Project Managers: www.mvp.usace.army.mil/regulatory/default.asp?pageid=687
or send to:

US Army Corps of Engineers
St. Paul District, ATTN: OP-R
180 Fifth St. East, Suite 700
St. Paul, MN 55101-1678

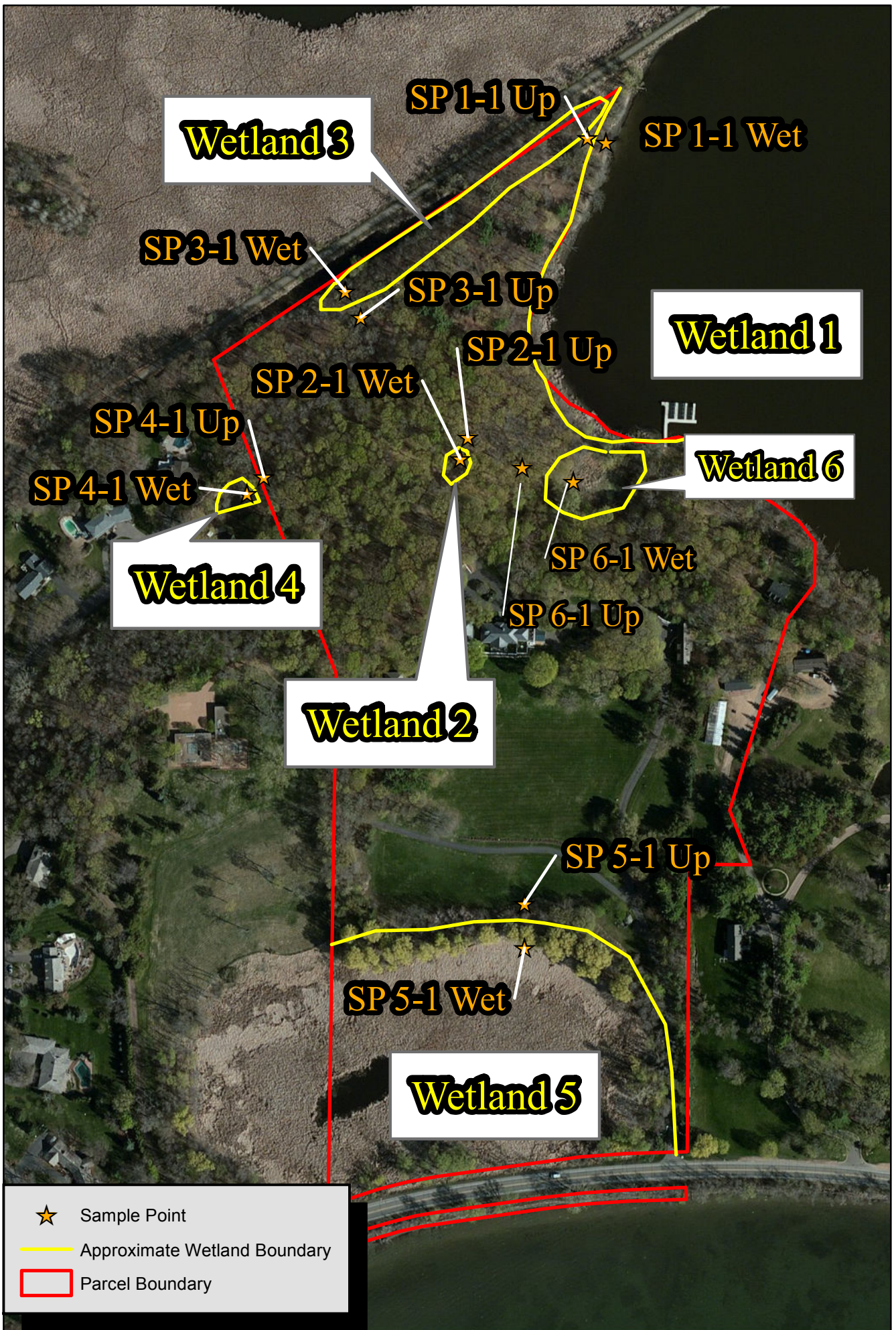
- For Wetland Bank Plan applications, also send a copy of the application to:

Minnesota Board of Water and Soil Resources
Wetland Bank Coordinator
520 Lafayette Road North
St. Paul, MN 55155

6. ATTACHMENTS

In addition to the site locator map, list any other attachments:

Approved wetland boundaries

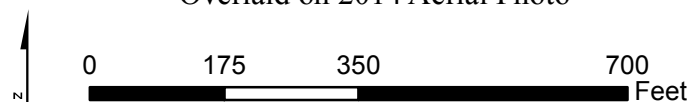


T117N R23W S10

Approximate Wetland Boundaries

Figure 5

Overlaid on 2014 Aerial Photo



2015-004
1700 Shoreline Dr
Orono, Minnesota

Minnesota Wetland Conservation Act

Notice of Application

Local Government Unit (LGU) Minnehaha Creek Watershed District	Address 15320 Minnetonka Blvd Minnetonka, MN 55345
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1. PROJECT INFORMATION

Applicant Name City of Orono (Mike Gaffron)	Project Name Heritage Lane Extension	Date of Application 04/04/2016 (Incomplete) 07/01/2016 (Complete)	Application Number W16-18
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Type of Application (check all that apply):

<input type="checkbox"/> Wetland Boundary or Type	<input type="checkbox"/> No-Loss	<input type="checkbox"/> Exemption	<input checked="" type="checkbox"/> Sequencing
<input checked="" type="checkbox"/> Replacement Plan	<input type="checkbox"/> Banking Plan		

Summary and description of proposed project (attach additional sheets as necessary):

City of Orono (Mike Gaffron) has applied for replacement plan approval for proposed impacts to one wetland located in the City of Orono, Hennepin County, Minnesota. Legal description: Southeast ¼, Northeast 1/4 of Section 10, Township 117N, Range 23W. The Boundary and Type application for this wetland was approved on August 12th, 2015. The replacement plan approval was requested on April 4th, 2016. A complete application was received on July 1st, 2016.

The applicant proposes to extend Heritage Lane to the edge of the adjoining property in the northeast in order to access three new single family homes. The extension will require placing fill along the northerly edge of Wetland 4. This fill will impact approximately 950 square feet (0.022 acres) of the 2,050 square feet of Type 1, floodplain forest wetland located within the 0.40 parcel.

A no-build alternative and alternative project locations were provided in the sequencing discussion of the application. The no-build alternative could not be pursued because it would not fulfil the project purpose, need, goals, or requirements. No alternative access exists as lots on either side of the parcel have been developed. Access off of Shoreline Drive would require extensive grading to meet the slopes required by the Fire Department. This parcel was originally platted as City of Orono right-of-way/public road in 1965 and has since been maintained by the City.

The applicant has minimized impacts to the wetland by using retaining walls to accommodate street width requirements. A culvert will be placed at 927.1 feet, or one foot above the existing wetland elevation. The drainage area: wetland area will increase. Runoff will be generated from the auto court and roof and from the tributary area of Wetland 1 located on the adjacent parcel.

Cross drainage will be provided to connect the two remaining parts of Wetland 1. The proposed culvert will drain to a stormwater pond and will meet the requirements of MCWD's Waterbody Crossings & Structures rule.

Findings from a TEP meeting on January 12th, 2016 stated that the wetland's hydrology was surface water driven and that there must be no direct or indirect impacts to the portions of Wetland 4 that lie on property not owned by the applicant. The 1-year storm elevation has been maintained at 937.2 The 100-year storm elevation has been reduced from 942.02 to 939.51 so as not to exacerbate flooding.

The applicant proposes to replace the wetland impact through purchase of 0.044 acres of wetland impact credit from Wetland Bank Account #1375 located in Carver County, Major Watershed 19, and Wetland Bank Service Area 7.

2. APPLICATION REVIEW AND DECISION

Signing and mailing of this completed form to the appropriate recipients in accordance with 8420.0255, Subp. 3 provides notice that an application was made to the LGU under the Wetland Conservation Act as specified above. A copy of the application is attached. Comments can be submitted to:

Name and Title of LGU Contact Person Rachel Workin Permitting Technician	Comments must be received by (minimum 15 business-day comment period): 08/01/2016
Address (if different than LGU) 15320 Minnetonka Blvd Minnetonka, MN 55345	Date, time, and location of decision: A decision will be made following the review of the application and completion of the comment period.
Phone Number and E-mail Address (952) 473-2855 ksylvia@minnehahacreek.org	Decision-maker for this application: <input checked="" type="checkbox"/> Staff <input type="checkbox"/> Governing Board or Council

Signature: _____

Date: 07/11/2016

3. LIST OF ADDRESSEES

<input checked="" type="checkbox"/> SWCD TEP member: Stacey Lijewski – stacey.lijewski@hennepin.us
<input checked="" type="checkbox"/> BWSR TEP member: Ben Meyer – ben.meyer@state.mn.us
<input type="checkbox"/> LGU TEP member (if different than LGU Contact):
<input checked="" type="checkbox"/> DNR TEP member: Becky Horton - becky.horton@state.mn.us
<input checked="" type="checkbox"/> DNR Regional Office (if different than DNR TEP member): Leslie Parris - leslie.parris@state.mn.us
<input type="checkbox"/> WD or WMO (if applicable):
<input checked="" type="checkbox"/> Applicant (notice only) and Landowner (if different): Mike Gaffron - mgaffron@ci.orono.mn.us
<input checked="" type="checkbox"/> Members of the public who requested notice (notice only): frank@gpsinnovations.com ; markg@gronbergassoc.com ; mbsteadman@cbburnet.com
<input checked="" type="checkbox"/> Corps of Engineers Project Manager (notice only): Melissa Jenny – melissa.m.jenny@usace.army.mil
<input type="checkbox"/> BWSR Wetland Bank Coordinator (wetland bank plan applications only)

4. MAILING INFORMATION

- For a list of BWSR TEP representatives: www.bwsr.state.mn.us/contact/WCA_areas.pdf
- For a list of DNR TEP representatives: www.bwsr.state.mn.us/wetlands/wca/DNR_TEP_contacts.pdf
- Department of Natural Resources Regional Offices:

<u>NW Region:</u> Reg. Env. Assess. Ecol. Div. Ecol. Resources 2115 Birchmont Beach Rd. NE Bemidji, MN 56601	<u>NE Region:</u> Reg. Env. Assess. Ecol. Div. Ecol. Resources 1201 E. Hwy. 2 Grand Rapids, MN 55744	<u>Central Region:</u> Reg. Env. Assess. Ecol. Div. Ecol. Resources 1200 Warner Road St. Paul, MN 55106	<u>Southern Region:</u> Reg. Env. Assess. Ecol. Div. Ecol. Resources 261 Hwy. 15 South New Ulm, MN 56073
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For a map of DNR Administrative Regions, see: http://files.dnr.state.mn.us/aboutdnr/dnr_regions.pdf

- For a list of Corps of Project Managers: www.mvp.usace.army.mil/regulatory/default.asp?pageid=687 or send to:

- - US Army Corps of Engineers
 - St. Paul District, ATTN: OP-R
 - 180 Fifth St. East, Suite 700
 - St. Paul, MN 55101-1678

- For Wetland Bank Plan applications, also send a copy of the application to:
 - Minnesota Board of Water and Soil Resources
 - Wetland Bank Coordinator
 - 520 Lafayette Road North
 - St. Paul, MN 55155

5. ATTACHMENTS

In addition to the application, list any other attachments:

- | |
|--|
| <input checked="" type="checkbox"/> Wetland Impacts Summary |
| <input type="checkbox"/> |
| <input type="checkbox"/> |

GRONBERG & ASSOCIATES, INC.

SURVEYING, ENGINEERING AND LAND PLANNING

445 N. WILLOW DRIVE

LONG LAKE, MINNESOTA 55356

952-473-4141

FAX: 952-473-4435

HERITAGE LANE (WETLAND 4) IMPACT SUMMARY

EXISTING WETLAND

Existing drainage area = 4.2± acres

Existing wetland area = 0.047± acres

Ratio of drainage area to wetland = $4.2/0.047 = 89.4$

PROPOSED WETLAND

Proposed drainage area = 3.2± acres

Proposed wetland area = 0.025± acres

Ratio of drainage area to wetland = $3.2/0.025 = 128$

The drainage area to wetland ratio is greater in the proposed condition. Also, the proposed outlet culvert elevation is at 937.1 feet or 1 foot above the existing wetland elevation in that area allowing 1 foot of water to build up so the wetland will not be drained. The 1 year storm elevation has been maintained at 937.2 feet for both the existing and proposed conditions. The 100 year storm elevation has been reduced from 942.02 to 939.51 in order to help the neighbors out.

Minnesota Wetland Conservation Act

Notice of Decision

Local Government Unit (LGU) Minnehaha Creek Watershed District	Address 15320 Minnetonka Blvd Minnetonka, MN 55345
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1. PROJECT INFORMATION

Applicant Name City of Orono (Mike Gaffron)	Project Name Heritage Lane Extension	Date of Application 04/04/2016 (Incomplete) 07/01/2016 (Complete)	Application Number W16-18
<input checked="" type="checkbox"/> Attach site locator map			

Type of Decision:

<input type="checkbox"/> Wetland Boundary or Type	<input type="checkbox"/> No-Loss	<input type="checkbox"/> Exemption	<input checked="" type="checkbox"/> Sequencing
<input checked="" type="checkbox"/> Replacement Plan		<input type="checkbox"/> Banking Plan	

Technical Evaluation Panel Findings and Recommendation (if any):

<input checked="" type="checkbox"/> Approve	<input type="checkbox"/> Approve with conditions	<input type="checkbox"/> Deny
Summary (or attach):		

2. LOCAL GOVERNMENT UNIT DECISION

Date of Decision: XXXX		
<input checked="" type="checkbox"/> Approved	<input type="checkbox"/> Approved with conditions (include below)	<input type="checkbox"/> Denied

LGU Findings and Conclusions (attach additional sheets as necessary):

DRAFT

City of Orono (Mike Gaffron) has applied for replacement plan approval for proposed impacts to one wetland located in the City of Orono, Hennepin County, Minnesota. Legal description: Southeast ¼, Northeast ¼ of Section 10, Township 117N, Range 23W. The Boundary and Type application for this wetland was approved on August 12th, 2015. The replacement plan approval was requested on April 4th, 2016. A complete application was received on July 1st, 2016.

The applicant proposes to extend Heritage Lane to the edge of 1700 Shoreline Drive in order to provide access to three new single family homes that will be built as part of a proposed subdivision of that parcel. The extension will require placing permanent fill along the northerly edge of Wetland 4. This fill will impact approximately 950 square feet (0.022 acres) of the 2,050 square feet of Wetland 4 located within the 0.40 acre right-of-way. Wetland 4 is a Type 1, Seasonally Flooded Basin. As defined under 8420.0522 Subp. 1 of WCA, the public value of Wetland 4 is primarily B: flood water and stormwater retention and to a lesser extent, A: water quality and C: fish, wildlife, and native plant habitat. Wetland 4 extends outside of the right-of-way on to properties not owned by the City.

The Technical Evaluation Panel (TEP) conducted a pre-application meeting on January 12th, 2016. During this pre-application meeting, the TEP concluded that 1) the project is not eligible for the de-Minimis exemption 2), the project should investigate on-site mitigation, and 3) there must be no direct or indirect impacts to the portions of Wetland 4 that lie on property not owned by the applicant.

The City submitted a complete WCA Sequencing and Replacement application on July 1st, 2016. A complete Sequencing application must demonstrate that an activity impacting a wetland complies with 8420.0520 Subp. 1A-E.

Under Subp. 1A, the applicant must first avoid direct or indirect impacts that may destroy or diminish the wetland under the criteria listed in Subp. 3A-3C. Under Subp. 3A, avoidance is not required based on any of the special circumstances indicated under 8420.0515. Since this project is not wetland dependent under Subp. 3B, the applicant must provide an alternative analysis under Subp 3C:

Alternative 1 was a no-build alternative; however, this alternative would not achieve the project's goals of providing access to the proposed subdivision on 1700 Shoreline Drive. Alternative 2 was to access the three new properties through an extension of the current single family home's driveway. Alternative 2 would require extensive grading through steep slopes and 1000 square feet of impacts to Wetland 5, a Manage 1 public water wetland with hydrologic connection to Lake Minnetonka that is of higher public value and quality than Wetland 4. Under Alternative 2, there would not be a designated buffer between the road and the eastern side of Wetland 5. Since the alternatives do not meet the requirements of Subp. 3C(2)B (being in accordance with accepted engineering standards and practices) or Subp. 3C(2)D (being an environmentally preferable alternative), the alternatives were not considered feasible or prudent.

Under Subp. 1B, projects that cannot avoid impact must minimize impact to the wetland. The applicant minimizes impact by stabilizing the road with a retaining wall rather than side slopes, which would have required greater amounts of fill.

The applicant will not have to rectify impact as required by Subp. 1C, as there are no proposed temporary wetland impacts.

The applicant reduces impacts to Wetland 4 over time as required under Subp. 3D through declared maintenance of the storm sewer pipe and stormwater pond which replace the hydrologic function of Wetland 4 (discussed below). Correct maintenance of this infrastructure will maintain adequate hydrology to the non-impacted portions of Wetland 4.

The applicant replaces unavoidable impacts as required by Subp. 3E rule through the purchase of wetland banking credits at a ratio of 2:1 from a wetland bank within the same bank service area, as

provided for in 8420.0422. The City has provided a signed purchase agreement for 1900 square feet of wetland bank credits from Wetland Bank #1375.

The TEP held a follow-up meeting on August 3rd, 2016 to determine if the Sequencing Analysis was performed correctly and to confirm that all findings from the January 12th, 2016 meeting had been addressed. The TEP agreed that the sequencing analysis had been performed correctly. The TEP also concluded that the applicant demonstrated that project will not cause impacts to the Wetland outside of the project boundary because an adequate drainage area to the Wetland is maintained and one-foot of ponding is provided under the Wetland's outlet to the new stormwater pond (discussed below).

The City did not pursue project-specific replacement, because there is not sufficient land area within the City of Orono right-of-way to mitigate for wetland impacts. Therefore, mitigation would need to occur within the 1700 Shoreline Drive subdivision. The five-year maintenance obligation would be difficult due to accessibility of private property. Furthermore, the wetlands on 1700 Shoreline Drive have not been historically impacted. Therefore on-site mitigation would result in created, rather than restored, wetlands which is less preferable than banking. Based on the small quantity of impacts and the difficulty in ensuring the success of on-site mitigation, banking was determined to be the preferred alternative to replace the public value of the filled portion of Wetland 4.

While not included as part of the Replacement Plan mitigation credits, the public value of Wetland 4 will also be replaced through the proposed installation of a stormwater pond on the 1700 Shoreline Drive property. A storm sewer pipe will be placed at 927.1 feet, or one foot above the bottom elevation of Wetland 4 to direct displaced water from the Wetland under the road to a stormwater pond located on 1700 Shoreline Drive. Water from the stormwater pond will then infiltrate into the ground. By storing and infiltrating the stormwater, the proposed stormwater pond replaces the public value of B: flood water and stormwater retention and A: water quality.

The applicant has provided sufficient information regarding project purpose and need, impact avoidance and minimization, and wetland bank credit purchase for the replacement plan application to be considered complete.

For Replacement Plans using credits from the State Wetland Bank:

Bank Account # 1375	Bank Service Area 7	County Hennepin	Credits Approved for Withdrawal (sq. ft. or nearest .01 acre) 0.044-acres
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Replacement Plan Approval Conditions. In addition to any conditions specified by the LGU, the approval of a Wetland Replacement Plan is conditional upon the following:

- Financial Assurance:** For project-specific replacement that is not in-advance, a financial assurance specified by the LGU must be submitted to the LGU in accordance with MN Rule 8420.0522, Subp. 9 (List amount and type in LGU Findings).
- Deed Recording:** For project-specific replacement, evidence must be provided to the LGU that the BWSR “Declaration of Restrictions and Covenants” and “Consent to Replacement Wetland” forms have been filed with the county recorder’s office in which the replacement wetland is located.
- Credit Withdrawal:** For replacement consisting of wetland bank credits, confirmation that BWSR has withdrawn the credits from the state wetland bank as specified in the approved replacement plan.

Wetlands may not be impacted until all applicable conditions have been met!

LGU Authorized Signature:

Signing and mailing of this completed form to the appropriate recipients in accordance with 8420.0255, Subp. 5 provides notice that a decision was made by the LGU under the Wetland Conservation Act as specified above. If additional details on the decision exist, they have been provided to the landowner and are available from the LGU upon request.		
Name Rachel Workin	Title Permitting Technician	
Signature	Date XXX	Phone Number and E-mail (952) 641-4518 rworkin@minnehahacreek.org

THIS DECISION ONLY APPLIES TO THE MINNESOTA WETLAND CONSERVATION ACT. Additional approvals or permits from local, state, and federal agencies may be required. Check with all appropriate authorities before commencing work in or near wetlands.

Applicants proceed at their own risk if work authorized by this decision is started before the time period for appeal (30 days) has expired. If this decision is reversed or revised under appeal, the applicant may be responsible for restoring or replacing all wetland impacts.

This decision is valid for three years from the date of decision unless a longer period is advised by the TEP and specified in this notice of decision.

3. APPEAL OF THIS DECISION

Pursuant to MN Rule 8420.0905, any appeal of this decision can only be commenced by mailing a petition for appeal, including applicable fee, within thirty (30) calendar days of the date of the mailing of this Notice to the following as indicated:

Check one:

<input checked="" type="checkbox"/> Appeal of an LGU staff decision. Send petition and \$0 fee (if applicable) to: Minnehaha Creek Watershed District 15320 Minnetonka Blvd Minnetonka, MN 55345	<input type="checkbox"/> Appeal of LGU governing body decision. Send petition and \$500 filing fee to: Executive Director Minnesota Board of Water and Soil Resources 520 Lafayette Road North St. Paul, MN 55155
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4. LIST OF ADDRESSEES

<input checked="" type="checkbox"/> SWCD TEP member: Stacey Lijewski – stacey.lijewski@hennepin.us <input checked="" type="checkbox"/> BWSR TEP member: Ben Meyer – ben.meyer@state.mn.us <input type="checkbox"/> LGU TEP member (if different than LGU Contact): <input checked="" type="checkbox"/> DNR TEP member: Becky Horton- becky.horton@state.mn.us <input checked="" type="checkbox"/> DNR Regional Office (if different than DNR TEP member): Leslie Parris - leslie.parris@state.mn.us <input type="checkbox"/> WD or WMO (if applicable): <input checked="" type="checkbox"/> Applicant (notice only) and Landowner (if different): Mike Gaffron- mgaffron@ci.orono.mn.us <input checked="" type="checkbox"/> Members of the public who requested notice (notice only): frank@gpsinnovations.com; markg@gronbergassoc.com; mbsteadman@cbburnet.com <input checked="" type="checkbox"/> Corps of Engineers Project Manager (notice only): Melissa Jenny – melissa.m.jenny@usace.army.mil <input type="checkbox"/> BWSR Wetland Bank Coordinator (wetland bank plan applications only)
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5. MAILING INFORMATION

➤ For a list of BWSR TEP representatives: www.bwsr.state.mn.us/aboutbwsr/workareas/WCA_areas.pdf

➤ For a list of DNR TEP representatives: www.bwsr.state.mn.us/wetlands/wca/DNR_TEP_contacts.pdf

➤ Department of Natural Resources Regional Offices:

NW Region: Reg. Env. Assess. Ecol. Div. Ecol. Resources 2115 Birchmont Beach Rd. NE Bemidji, MN 56601	NE Region: Reg. Env. Assess. Ecol. Div. Ecol. Resources 1201 E. Hwy. 2 Grand Rapids, MN 55744	Central Region: Reg. Env. Assess. Ecol. Div. Ecol. Resources 1200 Warner Road St. Paul, MN 55106	Southern Region: Reg. Env. Assess. Ecol. Div. Ecol. Resources 261 Hwy. 15 South New Ulm, MN 56073
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For a map of DNR Administrative Regions, see: http://files.dnr.state.mn.us/aboutdnr/dnr_regions.pdf

➤ For a list of Corps of Project Managers: www.mvp.usace.army.mil/regulatory/default.asp?pageid=687
or send to:

US Army Corps of Engineers
St. Paul District, ATTN: OP-R
180 Fifth St. East, Suite 700
St. Paul, MN 55101-1678

➤ For Wetland Bank Plan applications, also send a copy of the application to:

Minnesota Board of Water and Soil Resources
Wetland Bank Coordinator
520 Lafayette Road North
St. Paul, MN 55155

6. ATTACHMENTS

In addition to the site locator map, list any other attachments:

- Complete application**
-
-

Minnesota Wetland Conservation Act Technical Evaluation Panel Findings Report

Date(s) of Site Visit/Meeting:	<u>1/12/15</u>	LGU:	<u>MCWD</u>
County:	<u>Hennepin</u>	LGU Contact:	<u>Beth Brown</u>
Project Name:	<u>1700 Shoreline Drive/ Tanager Estates</u>	Phone #:	<u>952-641-4504</u>
Location of Project: (attach map if possible)	<u>1700 Shoreline Drive, Orono, MN</u>	Email Address:	<u>ebrown@minnehahacreek.org</u>

<u>TEP ATTENDEES:</u>	<u>OTHER ATTENDEES:</u>	<u>OTHER ATTENDEES:</u>
LGU: Beth Brown	Melissa Jenny (ACOE)	Mark Gronberg (Gronberg & Associates)
SWCD: Stacey Lijewski (HCES)	Tom Dietrich (MCWD)	Frank Svoboda (Svoboda Ecological Resources)
BWSR: Ben Meyer	Erik Megow (Wenck Associates)	Mike Gaffron, Adam Edwards, Jeremy Barnhart, Bob Bean (City of Orono)
DNR:	Mike Steadman (Coldwell Banker Burnet)	

PROJECT DESCRIPTION AND PURPOSE OF MEETING:

Pre-application meeting to discuss a proposed ~950 sf wetland impact within the City of Orono's Heritage Lane easement for a road entry into a proposed residential development.

TYPE OF MEETING: *Check all applicable*

Office On-Site Phone Conference E-Mail Other: _____

TEP FINDINGS AND RECOMMENDATIONS ¹:

The TEP discussed that approximately 1/2 of the wetland proposed for impact (Wetland 4) lies on an adjacent property not owned by the applicant.

The TEP concluded that:

1. The proposed ~950 sf impact to Wetland 4 is not eligible for a de minimis exemption under WCA 8420.0420 Subp. 8.A. since the proposed impact area is greater than five percent of the landowner's portion of the wetland (8420.0420 Subp.8.C.(2)).
2. The project must therefore submit a WCA wetland replacement plan application, including a sequencing analysis that discusses the project's impact avoidance and minimization efforts and its plan for wetland mitigation.

Sequencing Analysis:

The City and applicant stated that (a) Wetland 4 lies in a city easement that was originally platted for a public road in the 1960s; (b) the only alternate access to the proposed residential development is off of Shoreline Drive and would be a traffic hazard; involve some impact to the southern and eastern sides of Wetland 5; and require travel through steep slopes; and (c) the City therefore requires that access to the development follow the proposed route through Wetland 4. The TEP recommended that the applicant include this and any additional information available in the project's wetland impact alternatives analysis.

Wetland Mitigation:

All parties agreed that on-site mitigation for the proposed impact is likely feasible. The TEP recommended the applicant further investigate actions eligible for credit on site, such as the potential expansion of Wetland 2 for wetland creation credit.

¹ TEP Findings should be a meaningful concise summary detailing the project conditions, technical data, and what rules apply. The TEP recommendation should be clear, based on rule and best professional judgement.

Minnesota Wetland Conservation Act

Technical Evaluation Panel Findings Report

Date(s) of Site Visit/Meeting:	<u>8/03/2016</u>	LGU:	<u>MCWD</u>
County:	<u>Hennepin</u>	LGU Contact:	<u>Katherine Sylvia</u>
Project Name:	<u>Heritage Lane/1700 Shoreline Drive/Tanager Estates</u>	Phone #:	<u>952-473-2855</u>
Location of Project: (attach map if possible)	<u>Heritage Lane/1700 Shoreline Drive, Orono, MN</u>	Email Address:	<u>ksylvia@minnehahacreek.org</u>

<u>TEP ATTENDEES:</u>	<u>OTHER ATTENDEES:</u>	<u>OTHER ATTENDEES:</u>
LGU: Katherine Sylvia (MCWD)	Wes Boll (Wenck Associates)	
SWCD:	Rachel Workin (MCWD)	
BWSR: Ben Meyer		
DNR:		

PROJECT DESCRIPTION AND PURPOSE OF MEETING:

TEP meeting to evaluate the WCA Sequencing and Replacement plan application for the extension of Heritage Lane associated with the development of 1700 Shoreline Drive/Tanager Estates, Orono.

TYPE OF MEETING: *Check all applicable*

Office
 On-Site
 Phone Conference
 E-Mail
 Other: _____

TEP FINDINGS AND RECOMMENDATIONS ¹:

The TEP discussed whether the City of Orono's application to extend Heritage Lane through undeveloped City Right-of-Way met sequencing and replacement plan requirements under WCA. The TEP also discussed whether the application addressed the TEP's findings and recommendations from the January 12th, 2016 Findings Report to 1) Submit a WCA Sequencing and Replacement Plan application instead of De-Minimis 2) Investigate on-site mitigation and 3) Demonstrate that there will be no direct or indirect impacts to the portions of the wetland that lie on property not owned by the applicant.

The TEP concluded that:

1. The applicant minimized impacts to the wetland through the use of a retaining wall under the road; the applicant demonstrated that the project will not cause impacts to the wetland outside of the project boundary because an adequate drainage area is maintained and one-foot of ponding is provided under the wetland's outlet to the new stormwater pond.
2. Extending Heritage Lane is the preferred alternative. The two-alternatives set forth are extending the current driveway used to access 1700 Shoreline Drive and no-build. It was determined that the amount of grading needed to widen and extend the current driveway would result in impacts to the adjacent Public Water wetland. The no-build alternative would not meet the project's goal of providing access to the Tanager Estates development. The TEP also agreed that the primary function of the impacted wetland, stormwater management, would be replaced by providing a hydraulic connection to the proposed stormwater pond.
3. The applicant addressed all findings and recommendations from the January 12th, 2015 report except for investigating on-site mitigation. Further investigation is needed to determine if this option is possible.
4. An as-built survey as well as monitoring from one year following completion of the road will be required to ensure that no additional wetland impacts were incurred during construction.

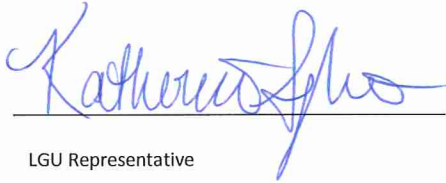
¹ TEP Findings should be a meaningful concise summary detailing the project conditions, technical data, and what rules apply. The TEP recommendation should be clear, based on rule and best professional judgement.

SIGNATURES

SWCD Representative

Date

Do not concur



8/10/16

BWSR Representative

Date

Do not concur

LGU Representative

Date

Do not concur

DNR Representative

Date

Do not concur

¹ TEP Findings should be a meaningful concise summary detailing the project conditions, technical data, and what rules apply. The TEP recommendation should be clear, based on rule and best professional judgement.

SIGNATURES

SWCD Representative

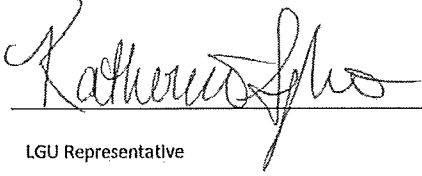
Date

Do not concur

BWSR Representative

Date

Do not concur



8/10/16

LGU Representative

Date

Do not concur

DNR Representative

Date

Do not concur

 8/10/2016

¹ TEP Findings should be a meaningful concise summary detailing the project conditions, technical data, and what rules apply. The TEP recommendation should be clear, based on rule and best professional judgement.



CITY OF ORONO
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**A RESOLUTION
GRANTING PRELIMINARY PLAT APPROVAL
FOR A CLASS III SUBDIVISION OF
PROPERTY LOCATED AT 1700 SHORELINE DRIVE
- FILE NO. 15-3774**

WHEREAS, Irwin L. Jacobs and Alexandra Jacobs (hereinafter the “Owners”) are owners of the property located at 1700 Shoreline Drive in Orono, Minnesota which is legally described as follows:

See **EXHIBIT A**, attached (hereinafter the Property); and

WHEREAS, on July 22, 2015, Michael Steadman (hereinafter the “Developer”) on behalf of the Owners filed a complete subdivision application with the City for preliminary approval of a 4-lot residential plat of the Property; and

WHEREAS, after due published and mailed notice in accordance with Minnesota Statutes 462.358 et. seq. and the City of Orono’s Zoning and Subdivision Codes, the Orono Planning Commission held public hearings on August 17, 2015 and September 21, 2015, at which time all persons desiring to be heard concerning this application were given the opportunity to speak thereon; and

WHEREAS, on September 21, 2015 the Planning Commission reviewed the application and recommended on a vote of 6 – 0 that the Council grant preliminary plat approval subject to a number of conditions; and

WHEREAS, the City Council reviewed the proposal at a regular meeting held on October 12, 2015, received additional public comments, and on a vote of 5-0 tabled the application to allow the Developer to consider alternative options for extension of a cul-de-sac from Heritage Lane for providing vehicular access to the Property; and

WHEREAS, the City Council again reviewed the proposal at its regular meeting held on October 26, 2015 and on a vote of 4-0 directed Staff to prepare a resolution approving the preliminary plat with construction of an extension of Heritage Lane and a new cul-de-sac, to be developed as a public roadway; and



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WHEREAS, the City Council again reviewed the proposal at its regular meeting held on November 23, 2015, and on a vote of 5-0 tabled the application and directed staff to prepare a revised draft resolution reflecting Council discussion regarding the proposed lake access outlots on Smith’s Bay and regarding traffic control requirements; and

WHEREAS, the City Council hereby makes the following findings with regards to this application:

FINDINGS

1. This application was reviewed as Zoning File #15-3774.
2. The property is zoned LR-1A Single Family Lakeshore Residential District, which requires a minimum lot area of 2.0 acres and minimum lot width of 200’.
3. The Property is approximately 31.0 acres in total area of which approximately 7.6 acres is wetland and approximately 23.4 acres is non-wetland area.
4. The Property is guided in the 2008-2030 Orono Community Management Plan (CMP) for single family residential use at a maximum density of 1 unit per 2 acres. The proposed layout contains 4 lots on 23.44 non-wetland acres, for an overall density of 1 unit per 5.86 dry acres.
5. Proposed Lot 4 contains the existing residence and accessory structures on approximately 20 acres. The portion of the property proposed to be developed to create Lots 1, 2 and 3 is located in the northerly portion of the Property abutting Tanager Lake, a connected bay of Lake Minnetonka.
6. The proposed Lots are characterized as follows:

Lot Areas (all figures are approximate)	Wetland (acres)	Total Dry (acres)	Total (acres)
Lot 1	0.23	3.36	3.59
Lot 2	0.06	2.13	2.19
Lot 3	0.04	3.42	3.46
(Existing residence) Lot 4	7.23	12.91	20.14
Proposed Cul-de-sac Public R-O-W	0.00	0.24	0.24



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Existing CR15 R-O-W	0.00	1.08	1.08
Lakeshore Outlot A	0.00	0.30	0.30
Total	7.56	23.44	31.0

7. The Property contains a variety of natural features. The northern portion of the Property in which the 3 new lots will be created is characterized by steep wooded slopes and areas of bluff; small wetlands; natural drainageways; and approximately 975 feet of shoreline abutting Tanager Lake, a bay of Lake Minnetonka. Tanager Lake is classified as a Recreational Development lake. The southerly 20 acres of the property, containing the existing residence which will remain, is characterized by gradual south-facing slopes maintained as lawn, and a 7-acre wetland. The Property also has approximately 700 feet of shoreline on Smith's Bay of Lake Minnetonka, separated from the main portion of the property by County Road 15 (Shoreline Drive).

8. The proposed plat creates three new 2-plus acre lots for single family residential development. All three lots will be served via individual driveways accessing a new public cul-de-sac to be constructed by the Developer in conjunction with a new 300-foot public extension of Heritage Lane. Heritage Lane was originally platted as a public road in 1965 and has since been maintained by the City. With the extension, Heritage Lane will be approximately 1600 feet in length from its "Y" intersection with Heritage Drive. The City's standard for maximum length of a cul-de-sac road is 1000 feet. The Council finds that the proposed road length in excess of 1000 feet technically requires a **length variance**, which variance is justified by the limited number of additional homes to be served; the lack of reasonable alternatives for access to the new lots based on topographic constraints as well as the shape of the Property; and the fact that the new cul-de-sac will meet City dimensional standards and will replace the existing cul-de-sac which is substandard.

9. Residents of the Foxhill neighborhood have expressed concerns of safety, noise and general neighborhood disruption anticipated with regards to the construction of the public road improvements. The Council finds that it is appropriate that special conditions be established for Heritage Lane for this extension to minimize the disruption and enhance public safety.



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10. Each proposed lot contains at least 2.0 acres of dry buildable land and has a proposed building site meeting the LR-1A setback standards (50' front and rear, 30' sides, and 75' from the OHWL of Tanager Lake for sewered property). Proposed Lot 4 contains an existing residence structure which will continue to meet required setbacks. Each Lot will contain suitable area meeting all established setback requirements to allow the construction of single family residences.
11. Proposed Lots 1, 2 and 3 each abut the shore of Tanager Lake and meet the required 200' minimum lot width requirement as measured at the shoreline (established by OHWL 929.4' contour) and at the 75' lakeshore setback line. Proposed Lot 4 will continue to have frontage on Tanager Lake (200'). The portion of the Property comprising proposed Lot 4 includes 705 lineal feet of lakeshore south of County Road 15 which is proposed to be platted as Outlot A. Outlot A shall remain in common ownership with proposed Lot 4 and shall be allowed as lake access for Lot 4.
12. A stormwater quality (NURP) pond is proposed to be located within Lot 1 which will receive a majority of the runoff from the proposed extension of Heritage Lane. This ponding area will be subject a drainage & utility easement and does not count toward dry buildable acreage for Lot 1. All stormwater management shall be subject to MCWD requirements and approvals, and shall provide for appropriate stormwater retention per NPDES regulations. The property will be subject to the Stormwater and Drainage Trunk Fee for 3 new lots (existing house lot is excluded) at \$7,680 per lot for a total fee of **\$23,040**.
13. The Parks, Trails and Open Space element of the Orono Community Management Plan (CMP) has no current plans for parks that specifically require dedication of park land from this property. Because dedication of land for park purposes is not required at this location, a Park Dedication Fee in lieu of land per City Ordinance would be appropriate. Absent a park land dedication, with 3 new building sites being proposed, payment of the standard Park Dedication fee for 3 new building lots would be required at the current maximum rate of \$5,550 per new lot, for a total fee of **\$16,650**.
14. Conservation Design. The Developer has submitted a Conservation Design Report prepared by Svoboda Ecological Resources dated September 15, 2015 that inventories and describes in detail the environmental features of the site, defining what natural values of the site should be preserved or enhanced and how that



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should occur. An inventory and analysis of the natural features of the site can be summarized as follows:

- The existing landscape of the site is a mixture of forest, wetland, and shoreline as well as a residence with a manicured lawn. The trees consist of green ash, boxelder, sugar maple, basswood, black willow, and common buckthorn, among others.
- A wetland delineation and report was completed for the property and wetland boundaries were reviewed and confirmed by the Minnehaha Creek Watershed District. The dominant vegetation in the wetland community are invasive species, including reed canary grass and narrow leaf cattail. No rare, threatened or endangered plants are known to exist nor were apparent during the site visit by Svoboda.
- Basic views into the property from offsite are documented as mainly positive, and based on the layout of the proposed development, positive views will be preserved.
- Minnesota Land Cover Classification System (MLCCS) data indicates a variety of land surfaces are found on the property, including artificial surfaces, planted or cultivated vegetation, forests and herbaceous areas.
- A tree survey was completed for the area to be impacted by the cul-de-sac, in which all significant trees were identified as to species, size, and location.
- The subject parcel was identified as a conceptual greenway corridor on Map 3A-5 and has a high quality community onsite in the form of the maple-basswood forest present. Due to this high quality community, management and protection will occur in the forms of removal of invasive species present as well as the attempt to avoid any and all significant trees to the extent possible.

A summary of the proposed Conservation Design Master Plan includes the following:

- Existing drainage patterns will generally be maintained.
- Wetlands will be preserved and buffered, with the exception of the small wetland within the Heritage Lane right-of-way, which will be highly impacted. This is the only viable location for the road extension, requiring **deminimus filling of wetland which requires approval per Zoning Code Sections 78-1609/1610**; encroachment of MCWD wetland buffer; and the need to establish appropriate culverts and drainageways.
- A vegetation management plan for the invasive species observed onsite will be implemented.



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- Tree Preservation Areas along the perimeter of the site and including the defined bluff areas, will be established, such areas to be subject to covenants for tree protection. The trees existing on the subject parcel range from poor to good health. The majority appear to be in good health. Dead trees will be removed from the lots if they are within grading areas or if they pose a safety hazard. Other protective measures include the review of any home building plans by an architectural review committee in order to minimize tree loss. Perimeter areas around the wetlands are protected by MCWD required wetland buffers.
 - There will be 110 trees removed for the construction of the extension of Heritage Lane and the new cul de sac.
 - Within individual lots, tree clearing will be avoided to the extent possible, but due to the lots being located within the maple basswood forest, a certain amount of tree clearing will be unavoidable. Building pad footprints have been selected to take advantage of natural clearings and existing flat grades whenever possible. When clearing is required, removal will first focus on undesirable tree species. Any significant trees that are removed will be replaced at the required ratio and all work will abide by any Orono city code regarding tree replacement.
 - Due to the proposed house locations within the maple basswood forest, all positive views will remain, with the residences protected from view by the large trees. The rolling hills onsite will further assist with the protection from negative views.
15. The property is within the Metropolitan Urban Service Area (MUSA). The Developer has proposed to serve each of Lots 1, 2 and 3 with municipal sewer via the existing municipal pressure sewer force main located within Heritage Lane. The Property was not assessed for construction of the 1998 Shoreline/Heritage sewer project and will be subject to the appropriate connection charge per the Orono Fee Schedule. An engineering design for the new sewer connection will be required prior to final plat approval. The anticipated design will include an extension of the municipal forcemain to the new cul-de-sac, with each of the three new homes having an individual grinder pump discharging to the force main.
16. The proposed site grading plan includes creation of individual house building pads as part of the subdivision improvements for Lots 1 and 2. The "existing grades" for measuring building heights and number of stories will be the proposed grades as shown on the grading plan.



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CONCLUSIONS, ORDER AND CONDITIONS

NOW, THEREFORE, BE IT RESOLVED, that based upon one or more of the findings noted above, the City Council of the City of Orono hereby grants Preliminary Plat Approval for Michael Steadman on behalf of Irwin Jacobs, et al, for a 4-lot residential plat per the Preliminary Plat survey and drawings by Mark S. Gronberg of Gronberg & Associates, Inc., revisions dated 09/11/15 attached hereto as **Exhibit B**, subject to the following conditions and revisions:

1. The portion of the property between Shoreline Drive and Smiths Bay shall be platted as one outlot, to be shown as Outlot A. Outlot A shall remain in common ownership with proposed Lot 4 and shall be allowed as lake access for Lot 4, subject to the pertinent regulations of the City of Orono and the Lake Minnetonka Conservation District.
2. Developer shall be required to implement and adhere to the recommendations contained within the Conservation Design Master Plan, which will be incorporated into the Development Agreement unless incorporated into the recorded development covenants. Permanent markers of a design and material acceptable to the City shall be placed at all all corner points to demarcate the Tree Preservation Areas. Tree Preservation Areas within individual lots shall be surveyed and located on a plat drawing with private covenants specifically providing for the preservation of these areas. Such covenants shall include limitations on the location of homes, accessory buildings, driveways and ancillary facilities, and shall establish requirements for the replacement of trees as specified in the Conservation Design Master Plan.
3. All areas delineated as wetlands as shown on the preliminary plat drawing shall be subject to the City's standard Wetland Conservation and Flowage Easement to be granted by the Developer. The Developer is advised that the City-required minimum setbacks from the delineated wetland boundaries and from MCWD-imposed wetland buffers shall be adhered to. Subject to MCWD approval with regard to potential mitigation requirements, the City will grant approval for the proposed deminimus filling of wetland and removal of the filled wetland from the Wetland Overlay District per Zoning Code Sections 78-1609/1610 to accommodate the road extension.
4. Vehicular access to Lots 1, 2 and 3 shall be as via an extension of Heritage Lane ending in a new cul-de-sac, to be constructed by the Developer. Individual driveways extending from the new cul-de-sac shall provide access to individual homes. The road extension and new cul-de-sac shall be constructed to City standards per plans to be approved by the



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City Engineer, and shall upon satisfactory completion and the recommendation of the City Engineer be accepted by the City as a public road. Removal or retention of the existing cul-de-sac wings shall be determined prior to final plat approval and if removal is warranted, the costs of such removal and driveway re-establishment for the affected properties on Heritage Lane shall be borne by the Developer.

5. Developer shall be responsible for extension of the municipal pressure sewer system within the new road and cul-de-sac to serve the three new homes as well as the existing principal residence on Lot 4, subject to plans to be submitted to the City Engineer for approval prior to final plat approval.
6. The Developer shall establish covenants providing for future maintenance of the stormwater ponds and stormwater management facilities, subject to City approval.
7. Approval is subject to Minnehaha Creek Watershed District (MCWD) approval and permits as required. Final plat approval shall not be granted until the Developer has provided evidence that all required MCWD permits and approvals have been obtained.
8. Construction Activity and Traffic Control. Due to the use of Heritage Lane as the access for site improvements and home construction, the following conditions proposed by the Developer and Owner shall be implemented:
 - (a) The contractor, for each new lot owner, shall meet with the neighbors at the outset and throughout the construction period as needed to answer any questions and address any issues that they have;
 - (b) All construction traffic shall be parked within the new road and cul-de-sac and lots in the new subdivision;
 - (c) Hours for road and home construction shall be restricted to 9:00 AM to 4:00 PM Monday through Friday (no Saturdays, Sundays or holidays) during the portion of the year when Orono Schools are in regular session. During the summer months when Orono Schools are not in regular session, hours for road and home construction shall be subject to the standard City code limitations on construction activity (Monday through Friday, 7:00 AM to 8:00 PM; Weekends and Holidays, 8:00 AM to 8:00 PM).
 - (d) Street sweeping of Heritage Lane shall be done on a daily basis;
 - (e) The contractor shall restrict the speed limit for construction vehicles to 15 MPH on Heritage Lane;



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- (f) The contractor shall inform all employees, delivery trucks and subcontractors that if they fail to abide by these restrictions they will not be allowed to work on the project;
- (g) An email address and phone number for the contractor shall be given to the neighbors so they can easily inform the contractor at any time if there are concerns that need to be addressed.
- (h) The City will assist with monitoring traffic during the hours that school buses are expected to be present if the City receives reports of repeated problems during the restricted hours as defined in item 8c above. If it is determined by the City that a CSO or Officer needs to be present during the morning Heritage Lane school bus schedule times, the City may arrange for a CSO or Officer to be present at those specific times, and the Developer shall be billed the actual costs thereof at a cost of \$50 per hour. School bus pickup/dropoff times as provided by the Orono School District are as follows:
AM – Secondary: 7:00 – 7:20 Elementary: 8:20 - 8:40
PM – Secondary: 2:55 - 3:15 Elementary: 4:05 - 4:25
- (i) If the majority of homeowners on Heritage Lane submit a written request, and only after a public hearing and upon approval by the City Council, the City will install temporary speed bumps within Heritage Lane. This provision shall apply only during road and home construction and shall not be permanent.
- (j) Developer shall install signage within the right-of-way of Heritage Lane at a location to be approved by the Public Works Director indicating that all construction traffic shall make right turns only onto Shoreline Drive when exiting Heritage Lane.
- The above conditions shall be included in the sale documents for each lot, and shall be enforced by the Developer and Owner.

9. **Development Fees**

- A. Park Dedication Fee. The development is subject to the standard Park Dedication Fee requirement. Because the value of each newly created lot will be in excess of the threshold value of \$69,375.00 the 8% park fee cap of \$5,550 per lot will apply. Park dedication fee will be 3 lots x \$5,550 = **\$16,650.**
- B. Storm Water and Drainage Trunk Fee. The development is subject to the standard Storm Water and Drainage Trunk Fee of \$7,680 per new lot x 3 new lots = **\$23,040.**
- C. Sewer Connection Charge. The development is subject to a Sewer Connection Charge based on the 2015 Orono Fee Schedule for the 1998 Shoreline/Heritage Sewer Project at the rate of \$22,440 per lot x 4 lots = **\$89,760.**



CITY OF ORONO
RESOLUTION OF THE CITY COUNCIL

NO. 5869

10. **City Engineer Recommendations and Approval.** Applicant shall adhere to the general recommendations of the City Engineer in his comment letters dated 8/13/15 and 10/22/15 as well as ongoing recommendations relating to any issues that arose after the City Engineer's comment letters. Final plat approval shall be granted only upon confirmation by the City Engineer that all engineering concerns have been satisfactorily addressed.
11. **Plans and Specifications.** The following plans and specifications shall be submitted for review and approval by the City and other appropriate jurisdictions prior to final plat approval, to ensure that the proposed plat will accomplish the intended purposes:
 - a) Final grading, drainage and erosion control plan and SWPPP, showing existing and proposed contours, anticipated building locations, elevations, stormwater facilities and calculations, utilities and erosion control measures to be used during construction. Final Plat Approval will not be granted until the Minnehaha Creek Watershed District has approved the stormwater management plans.
 - b) Private Covenants including Preservation areas plan depicting all areas within individual Lots subject to protective covenants and easements.
 - c) Engineering details and design for any proposed retaining walls.
 - d) Road and driveway construction plans including proposed plan and profile views, typical street section, geotechnical report, R-value recommendation and pavement design.
 - e) Sufficient detail to meet the recommendations of the City Engineer.
12. **Other Easements.**
 - a) Drainage and Utility Easements shall be dedicated to the public in each of the 4 Lots on the final plat 10' along all exterior property lines, and 5' either side of interior property lines, except such easements shall be increased to accommodate drainage where required, subject to City staff approval.
 - b) A Flowage and Conservation Easement and Restrictive Covenant for Wetlands shall be granted to the City of Orono over all delineated wetlands on the Property.
 - c) The road and cul-de-sac extension of Heritage Lane shall be shown as dedicated public roadway on the Plat.



CITY OF ORONO
RESOLUTION OF THE CITY COUNCIL

NO. 6569

13. **Developer's Agreement.** Developer shall execute a Developer's Agreement for construction of improvements on the Property to ensure all site improvements are installed to the City's specifications and satisfaction. Said Developer's Agreement may contain additional conditions not noted in this Preliminary Plat Approval resolution relating to any issue that arose after the date of this resolution. No land alterations can take place until erosion control is established and the City is in receipt of a final grading and road plan and Storm Water Pollution Prevention Plan (SWPPP). No improvements can begin until the City Engineer has approved all improvement plans. A Letter of Credit must accompany a fully executed Developer's Agreement written to 150% of the cost of the proposed site improvements, including any required landscaping. No building permits will be issued until all drainage facilities and improvements have been installed and satisfactory road base and initial lift of bituminous has been installed.

FINAL SUBMITTALS

The following list of final submittals must be submitted to the Planning Director prior to the regularly scheduled Council meeting on the second and fourth Mondays of the month. These submittals are as follows:

1. Record plat drawings in the form of two (2) mylar copies (one copy for the City's records and one for filing with Hennepin County) and one (1) copy reduced to 1" = 200'. Drawing to include:
 - A. Lot lines platted per preliminary plat drawings by Mark S. Gronberg last revision dated 9/11/15 attached hereto as **Exhibit B**, except as modified herein.
 - B. Dedication of "drainage and utility easements" 10' along exterior property lines and 5' along the interior property line.
 - C. Dedication of areas shown as wetlands.
 - D. Dedication of "Drainage Easements" over all drainageways.
 - E. Naming of plat.
2. Legal documents required:
 - A. Title opinion addressed to the City or a title insurance policy in favor of the City. All owners, mortgage holders or others with property interest



CITY OF ORONO
RESOLUTION OF THE CITY COUNCIL

NO. 5569

indicated therein shall sign the plat and all other documents affected by such interest.

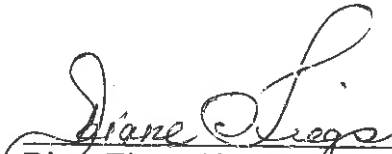
- B. The applicant must provide certified copies of all recorded easements currently affecting the property.
- C. Signed Flowage and Conservation Easement and Restrictive Covenant for Wetlands.
- D. Signed Developer's Agreement.
- E. Letter of Credit for construction of improvements. The City Engineer shall establish the amount to be provided in the Letter of Credit.

Note: Item C may be a separate document or included in the recorded development covenants subject to acceptance by the City Attorney.

- 3. Plat approval fees to be paid: Total due: **\$130,150.00.**
 - A. Final plat fee = \$700.00
 - B. Park Dedication Fee: \$16,650.00
 - C. Stormwater and Drainage Trunk Fee: \$23,040.00
 - D. Sewer Connection Charge: \$89,760.00

Adopted by the City Council of the City of Orono, Minnesota at a regular meeting held this 14th day of December, 2015.

ATTEST:



Diane Tieg, City Clerk



Lili Tod McMillan, Mayor

Property Owner



LEGAL DESCRIPTION

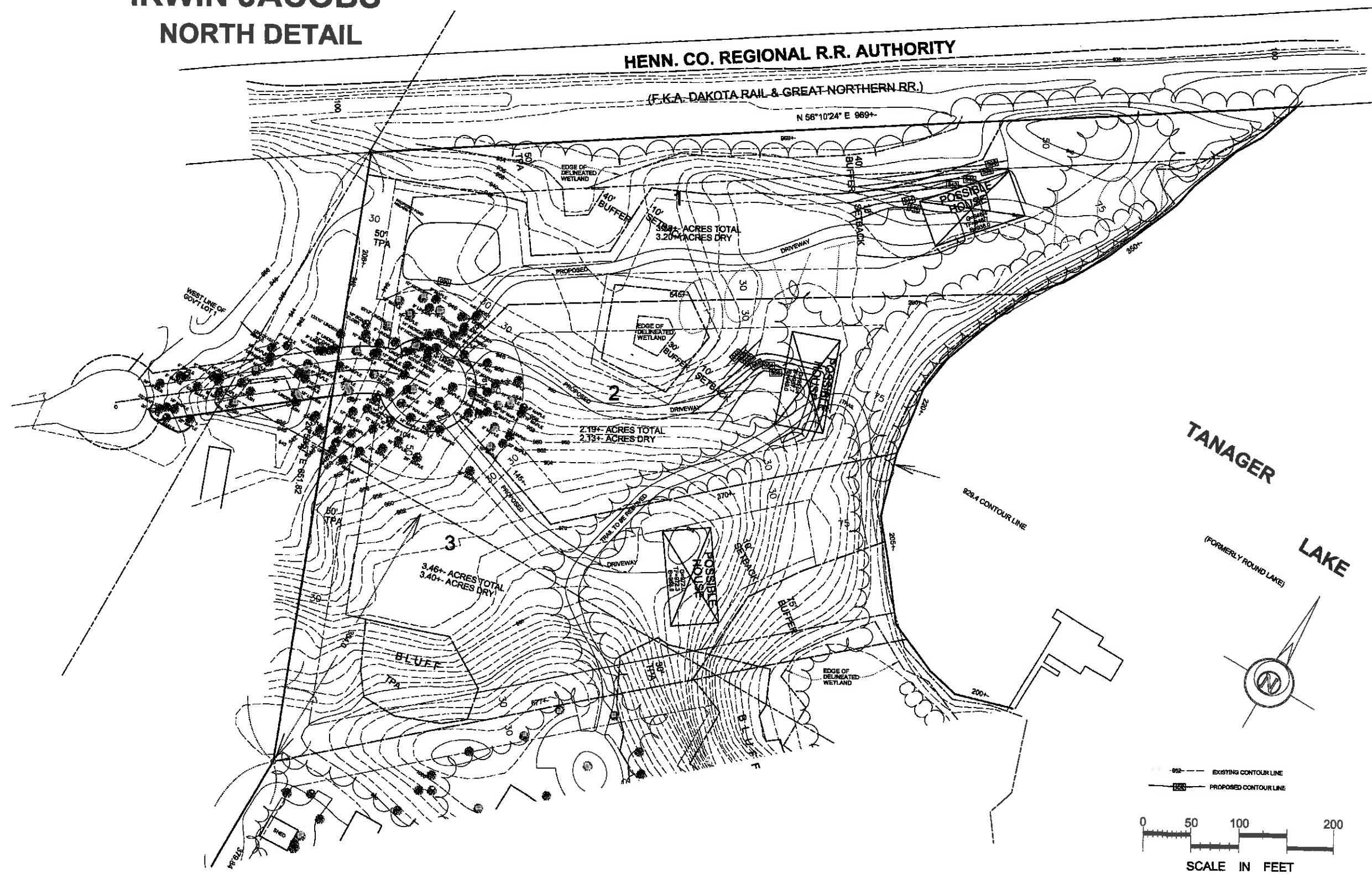
The following described property in Hennepin County, Minnesota:

LEGAL DESCRIPTION OF PREMISES :

That part of Government Lots 1 and 2, Section 10, Township 117 North, Range 23 West of the 5th Principal Meridian which is described to wit: Beginning at a point 6 chains west of the meander post in the Southeast corner of said Lot 2 in said Section 10; thence running north 20 chains more or less, to the shore of Round Lake, so-called (now known as Tanager Lake); thence along and around the westerly and northerly shore of said Lake to the meander corner in the North shore of said Lake and between Sections 10 and 11 in said Township and Range; thence north on the section line between said Sections 10 and 11 to the southerly line of the right-of-way of the Minnetonka Branch of the Great Northern Railway (now known as the Hennepin County Regional Railroad Authority); thence southwestery along said southerly line of said right-of-way to the point of intersection of said southerly line of the said right-of-way with the West line of said Lot 1; thence turning and running in a straight line in a southeasterly direction 654.8 feet, more or less, to a point which is 236.8 feet east of the West line of said Lot 2, and at the same time 304 feet south of the North line of said Lot 2; thence south on a line parallel with and distant 236.8 feet east from the West line of said Lot 2, 1016 feet, more or less, to the shore of Lake Minnetonka; thence eastery along the said shore of said Lake Minnetonka to the place of beginning.

ALSO that part of Lot 2, Block 1, MILLSTON which lies westerly of the following described line: Commencing at the southwest corner of said Lot; thence north along the west line of said lot a distance of 340.00 feet to the point of beginning of the line being described; thence northeasterly, deflecting right 45 degrees a distance of 44.50 feet; thence northerly, deflecting left 45 degrees a distance of 186.50 feet; thence northwesterly, deflecting left 45 degrees a distance of 44.50 feet to said west line, and said line there ending.

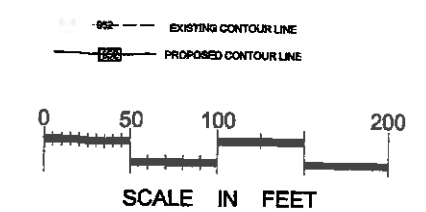
TANAGER ESTATES PRELIMINARY PLAT FOR IRWIN JACOBS NORTH DETAIL



HENN. CO. REGIONAL R.R. AUTHORITY
(F.K.A. DAKOTA RAIL & GREAT-NORTHERN RR.)

N 56°10'24" E 969±

TANAGER LAKE
(FORMERLY ROUND LAKE)



REVISIONS BY: _____ DATE: _____ REMARKS: _____ 1-15-18 2-13-18 7-24-18 8-14-18		DESIGNER: _____ DRAWN: _____ CHECKED: _____ REVISIONS: _____ REVISIONS: _____ REVISIONS: _____ REVISIONS: _____	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 Engineer under the laws of the State of Minnesota. DATE: 8-2-18 SIGNATURE: _____ LICENSE NUMBER: 22227	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 Engineer under the laws of the State of Minnesota. DATE: 8-2-18 SIGNATURE: _____ LICENSE NUMBER: 22227	GRONBERG & ASSOCIATES, INC. CIVIL ENGINEERS, LAND SURVEYORS, LAND PLANNERS 445 N. WILLOW DRIVE LONG LAKE, MN 55356 PHONE: 952-473-4141 FAX: 952-473-4436
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TANAGER ESTATES PRELIMINARY PLAT FOR IRWIN JACOBS SOUTH DETAIL



DATE	REVISIONS	DESIGNED	DRAWN	CHECKED
4-28-15	REMARKS			
7-21-16	REVISED WETLANDS, BUFFERS			
8-11-15				

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 Land Surveyor under the laws of the State of Minnesota.
 DATE: 8/22/16 MINN. LICENSE NUMBER: 117257
 [Signature]

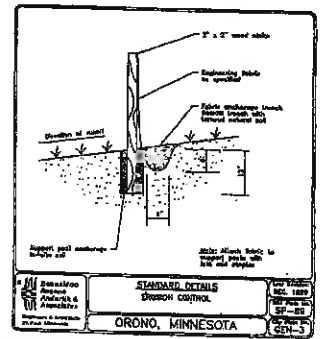
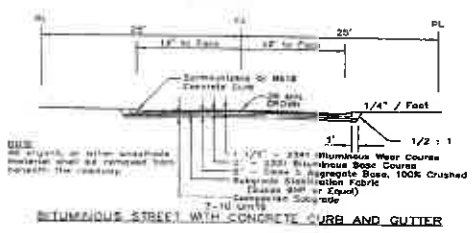
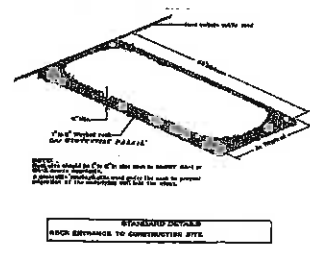
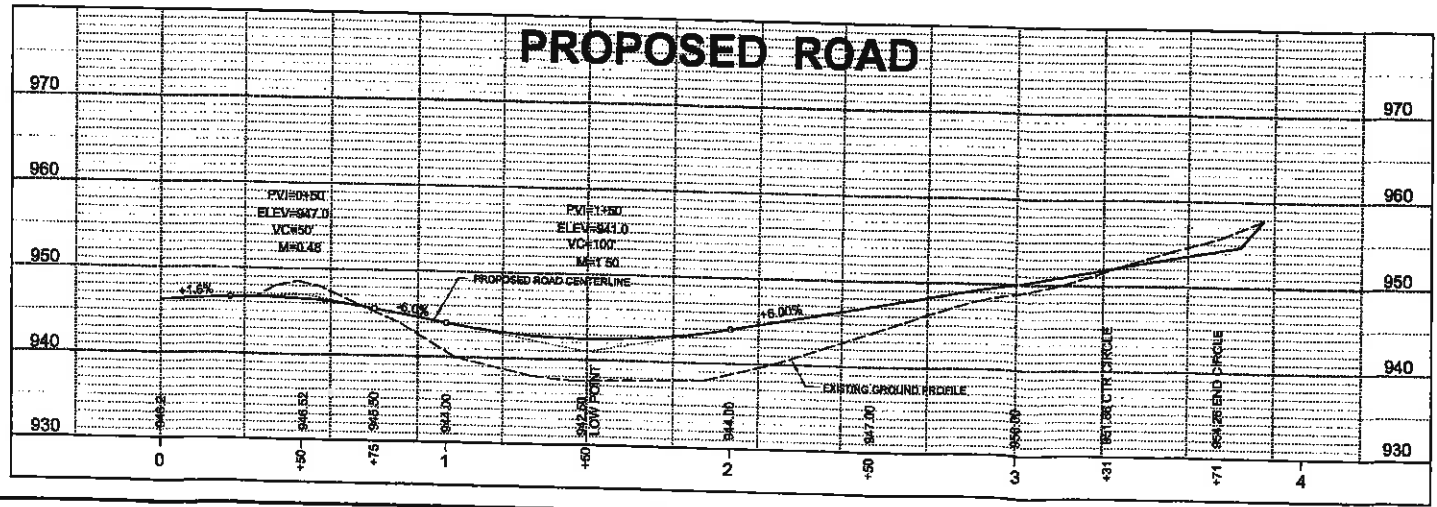
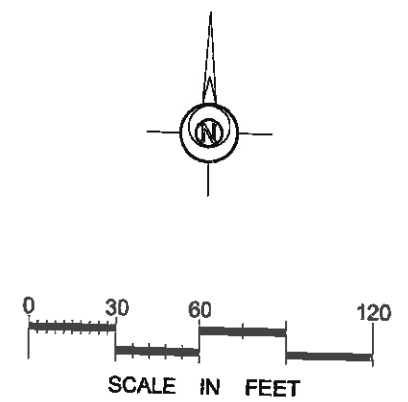
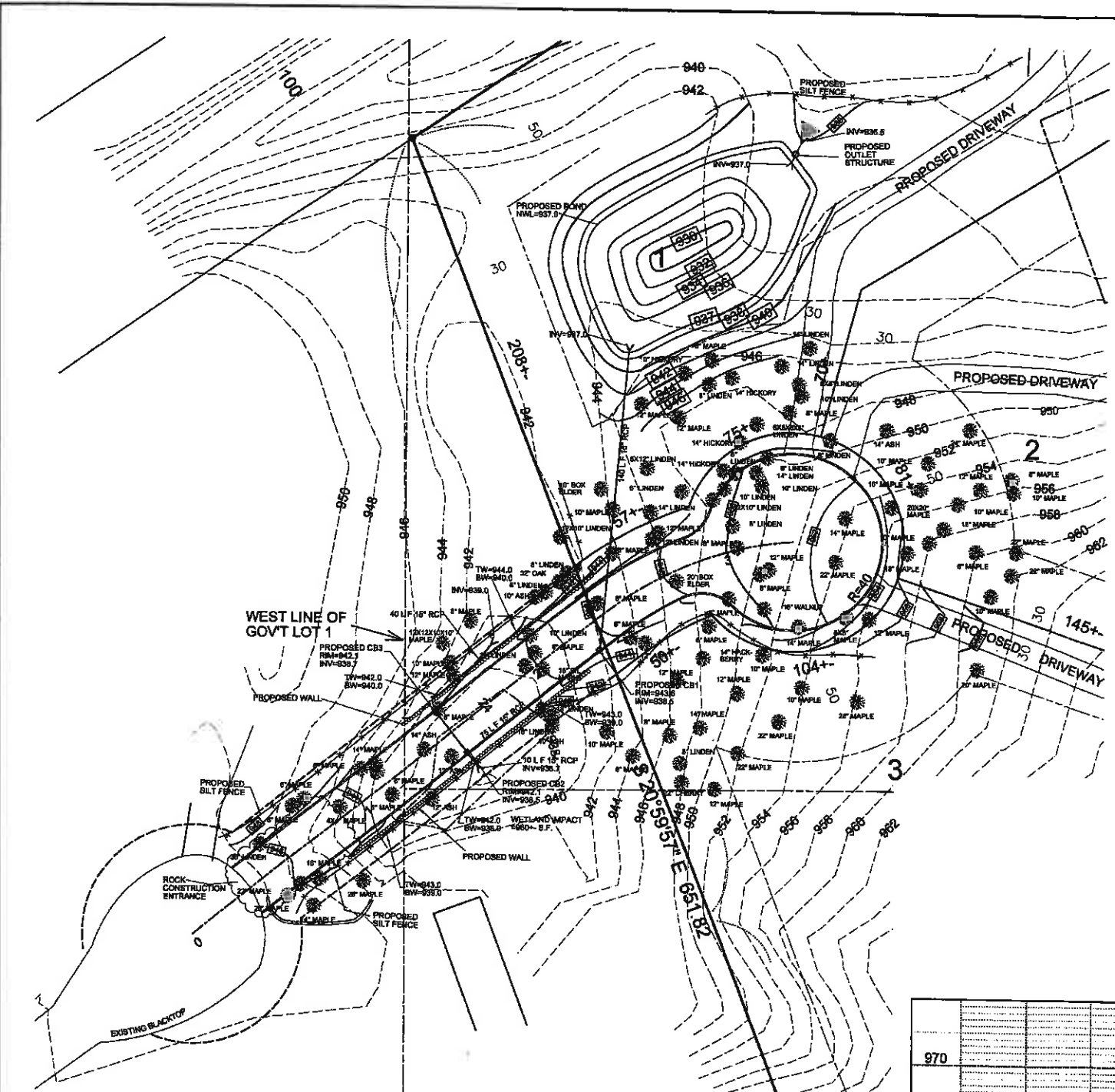
DATE	SCALE	PROJECT
4-28-15	1"=50'	
7-21-16	1"=50'	
8-11-15	1"=50'	



GRONBERG & ASSOCIATES, INC.
 CIVIL ENGINEERS, LAND SURVEYORS, LAND PLANNERS
 445 N. WILLOW DRIVE LONG LAKE, MN 55356
 PHONE: 952-473-4141 FAX: 952-473-4435

SCALE IN FEET
 0 50 100 200

TANAGER ESTATES PROPOSED ROAD PLAN & PROFILE



GRONBERG & ASSOCIATES, INC.
 CIVIL ENGINEERS, LAND SURVEYORS, LAND PLANNERS
 445 N. WILLOW DRIVE LONG LAKE, MN 55356
 PHONE: 952-473-4141 FAX: 952-473-4435

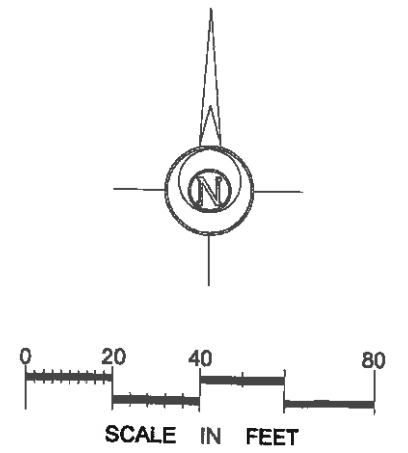
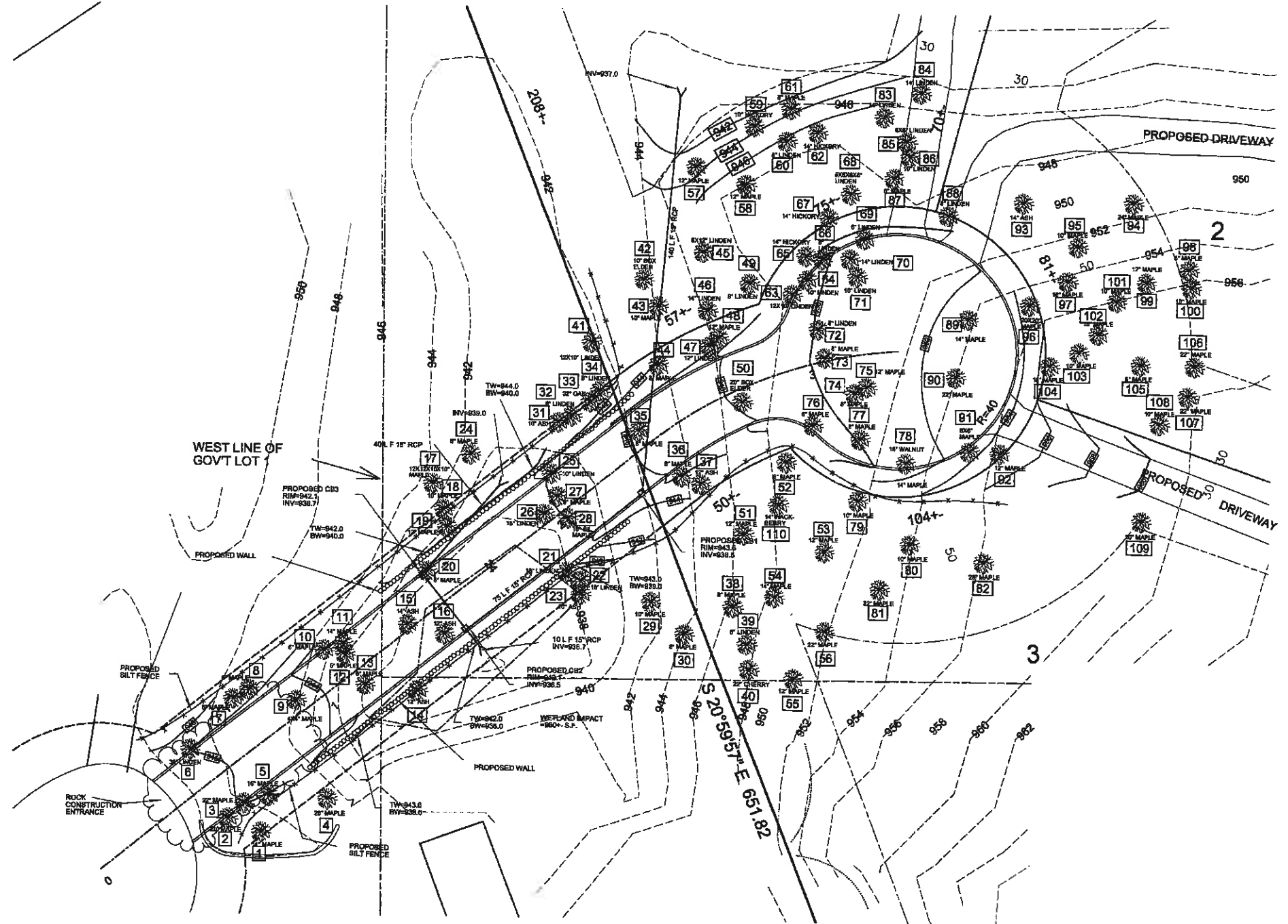
DATE: 7-21-15
 DRAWN BY: [Signature]
 CHECKED BY: [Signature]

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 Engineer under the laws of the State of Minnesota.
 DATE: 7-21-15 MINN. LICENSE NUMBER: 12252

DATE: 7-21-15 MINN. LICENSE NUMBER: 12252

REVISIONS
 DATE BY REVISIONS
 8-11-15 [Signature] REVISED GRADING, PROFILE

TANAGER ESTATES TREE INVENTORY



GRONBERG & ASSOCIATES, INC.
 CIVIL ENGINEERS, LAND SURVEYORS, LAND PLANNERS
 445 N. WILLOW DRIVE LONG LAKE, MN 55356
 PHONE: 952-473-4141 FAX: 952-473-4435



DATE	9-11-15
SCALE	1"=20'
REPORT	15-252
PROJECT	

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 Land Surveyor under the laws of the State of Minnesota.

DESIGNED	DRAWN	CHECKED

REVISIONS



MEMO

To: Board of Managers

From: Rachel Workin, Permitting Technician

Date: August 22nd, 2016

Re: Board Packet Material for Permit #16-198 and WCA Application W16-18: 1700 Shoreline Drive and Heritage Lane Extension

Managers,

Attached is a development review of the Preliminary Plat application for the 1700 Shoreline Drive subdivision prepared by Todd A. Erickson, PE for the Foxhill Homeowners Association. This review was provided to Minnehaha Creek Watershed District by the Foxhill Homeowners Association as part of the Public Comment period. MCWD staff has reviewed the memo and determined that all points have been addressed or are outside of the scope of MCWD rules.

Sincerely,

A handwritten signature in blue ink that reads "Rachel Workin". The signature is written in a cursive, flowing style.

Rachel Workin
Permitting Technician

DEVELOPMENT REVIEW

Project: Irwin Jacobs, 1700 Shoreline Drive, Preliminary Plat

To: Steve Byrnes / Foxhill Home Owners Association

From: Todd A. Erickson, PE

Date: 11-06-2015

Re: Jacobs Development - Preliminary Plat Review

Mr. Byrnes,

As requested, I have reviewed the documentation submitted for the Jacobs Development and have found some inadequacies and issues associated with the proposed development, below are my findings:

- 1) Their original application does not indicate a request for variance for roadway length and for maximum number of homes served on a cul de sac as found in Ordinance Section 82-281.
 - a. The maximum length allowed is 1000-feet.
 - b. The maximum number of homes allowed is 10.
 - c. A variance will be required by City Council to move this forward. This was not identified in the City Staff Report.
 - d. This length of cul de sac and number of homes is a restriction based on safety concerns for residents located on a dead end street. This is a standard practice throughout the metro area and should not be overlooked.
 - e. An economic hardship of having to provide an access road from Shoreline Drive is not a suitable argument.

- 2) The applicant did not include any calculations to support the size of the pond or provide a high water elevation of the pond or adjacent wetland(s) to support the placement of homes or the low floor elevation of these homes to protect them from flooding.

- 3) The applicant did not identify proposed impervious surface calculations. Based on the provided drawings, they have depicted 1.04 acres of new impervious surface. Depending upon how the watershed views this application as a new development or redevelopment will require different standards be met.
 - a. The redevelopment standard will require that infiltration be provided for all new impervious surface in addition to rate and phosphorus control.
 - b. The development standard, because the site is less than 20% impervious would not require any storm water improvements. This is confusing in that they have provided rate control ponding but have not shown infiltration ponding.
 - c. The Minnesota Pollution Control requirement requires any site that has disturbance over one acre requires the treatment of 1.1 inches of runoff from the net increase in impervious area. This is regardless of the watershed requirements. This site is proposing over two acres of disturbance as indicated triggering an NPDES Permit. The staff report indicates that this permit would be required as well.

- 4) The original application did not provide a wetland mitigation plan for the wetland they planned on disturbing with the roadway placement, they only indicated that it would be disturbed. This wetland is depicted to be larger than 400 sq. ft. and would not be considered de minimis and viable for filling.
 - a. My experience with this type of issue, is that the watershed will not look favorably upon this design and will direct the developer to provide an alternate access to the proposed lots.
 - b. This application is grossly inadequate in regards to the permitting requirements and should not be approved until a proper drainage report is submitted with the platting documentation showing compliance with the watershed rules.

- 5) The original application does not provide a tree survey that is representative of the total disturbed area. Trees are not shown on the plan in the area of the proposed storm water ponding area and is misleading to the public of what trees and the total number of trees that are to be removed.
 - a. The depicted tree removal near the retaining wall would require additional removal to construct the wall properly with geogrid which extends 5-10 feet beyond the face of the wall.
 - b. It has been my experience that any work within the drip line of these types of trees will kill the trees and they should be removed as part of the project.
 - c. Additional trees will be required to be removed based on my argument above that an infiltration basin area will also need to be constructed.

- 6) The argument associated with the alternate access is misleading. An alternate design can be provided with 10% max slope access to the site if the alternate roadway was constructed alongside the northern edge of the existing driveway.

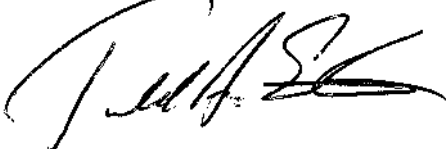
This alternate design would not require the amount of tree removal as depicted and could be restored once the home sites are completed.

- 7) As the applicant had indicated in their submittal package, this is one of the last large parcels of property available in Orono. It has been my experience that a ghost plat is typically provided or requested by the governing authority. This is to depict how this property will developed in the future so not to create an adverse condition with this approval. This is typically done regardless if the applicant indicates that they would not subdivide any further. This is an important planning tool the City should use at this time. The applicant did not provide this document.
- 8) The original and subsequent documents provided to the City do not identify the location nor the elevation of the existing or proposed sanitary sewer they are proposing to extend to this area. A plan with rim and inverts and alignments are industry standard for preliminary plat approvals of this type of development. If the lots are to be serviced with septic systems, a design with soil borings and percolation testing will need to be provided.
- 9) During my site inspection it appeared that a drain field exists where a home site pad is proposed. Documentation will need to be provided for the design and location for an alternate site for this system or shown that it does not impede upon this building site.
- 10) Although the County may require additional work to accomplish an access, adequate spacing and sight lines from existing roads appear to exist and Shoreline Drive appears to be a viable access to this site.

It is my recommendation that the City Council should be asked to deny this incomplete application based on the above findings. A redesign is possible and this project could eventually be approved if the above issues and additional issues raised by the City Engineer are addressed.

Please contact me if you have any questions.

Sincerely,
EricksonCivil

A handwritten signature in black ink, appearing to read 'Todd A. Erickson', written over a faint, illegible background.

Todd A. Erickson, PE