

**City of Lino Lakes  
Environmental Board Meeting**

**August 30, 2017  
6:30 p.m.**

**AGENDA**

**Pre-Meeting Site Visit at Distribution Alternatives, Clearwater Creek Business Park  
5:30**

1. Call to Order
2. Approval of Agenda
3. Approval of Minutes
4. Open Mike
5. Action Items

There are no Action Items

6. Discussion Items
  - A. Distribution Alternatives Completed Project Discussion
  - B. Blue Heron Days Event Summary Discussion
  - C. Textiles Recycling Status Update and General Recycling Updates
  - D. Wollan's Park Wetland Bank Update
  - E. Up-Coming Speakers and Agenda Items
7. Adjourn

**CITY OF LINO LAKES  
ENVIRONMENTAL BOARD MINUTES**

<b>DATE</b>	<b>: July 26, 2017</b>
<b>TIME STARTED</b>	<b>: 6:33 P.M.</b>
<b>TIME ENDED</b>	<b>: 8:38 P.M.</b>
<b>MEMBERS PRESENT</b>	<b>: Paula Andrzejewski, Liz Kaufenberg, Shawn Holmes, John Sullivan</b>
<b>MEMBERS ABSENT</b>	<b>: Steve Heiskary, Nancie Klebba, Alex Schwartz</b>
<b>STAFF PRESENT</b>	<b>: Marty Asleson, Diane Hankee</b>

**1. CALL TO ORDER:**

Ms. Kaufenberg called the Lino Lakes Environmental Board meeting to order at 6:33 p.m. on July 27, 2017.

**2. APPROVAL OF AGENDA:**

**ADD:** Discussion Item C. Peltier Lake Draw Down

Mr. Sullivan made a MOTION to approve the amended Agenda. Ms. Holmes seconded the motion. Motion carried 4-0.

**3. APPROVAL OF MINUTES**

May 26, 2017

Ms. Andrzejewski made a MOTION to approve the May 26, 2017 Meeting Minutes. Mr. Sullivan seconded the motion. Motion carried 4-0.

**4. OPEN MIKE**

Declared Open Mike at 6:35 p.m.

Closed Open Mike at 6:36 p.m.

**5. ACTION ITEMS**

A. All Season's Rental: Preliminary Plat, Rezone and Conditional Use

The propose development is an expansion of the All Season's Rental Business to an expanded adjacent area to the South. The owners Mr. Carlson and Mrs. Carlson are asking for Preliminary Plat review, a rezone from R-X, (Rural Executive) to GB (General Business). The project will need a conditional use permit, which will result in a Commercial Planned Unit Development planning process, and a permit for small engine repair.

The site is located at 7932 Lake Dr. It consists of 2.23-acre parcels/1.6 acres of disturbed area. The existing and proposed impervious area is 0.73 acres and 1.4 acres respectively.

Mr. Carlson has a concrete batch plant existing on the site. The owner will submit plans for concrete devices to collect concrete mix spillage at the the beginning of the process and concrete washout collection at the end of the process.

Mr. Carlson suggested that Mr. Asleson visited the site and discussed the concrete wash out area. In addition, there will be more wash out bays.

Ms. Holmes wanted to know what happens at the concrete from the wash out area.

Mr. Carlson said that all the concrete could be recycled after the product has dried out. In addition, the water can be reused in other batches of concrete.

Mr. Sullivan thought adding the small engine repair a good addition to the business.

Ms. Kaufenberg wanted to know if the irrigation system would include sensors.

Mr. Carlson yes there will be sensors.

Ms. Andrzejewski recommends forwarding the preliminary plat on to the Planning & Zoning Board and the City Council. Mr. Sullivan seconded the motion. Motion carried  
4 -0.

B. Natural Resources Revolving Fund Plan, Alison Harwood of WSB & Associates.

Ms. Harwood presented the Natural Resources Revolving Fund Plan findings highlighting the topics below

- Background
- Purpose & Goals
- Existing Bank Sites
- Site Selection Criteria
- Individual Site Review
- Credit Compensation
- Recommendations

Wollans Park has wetland credits just under 6 acres. Land in the area would be selling for about \$2 per square foot.

Site 1 Winters property – all farm land be resorted to the original wetlands

Site 2 Northeast Drainage area - farmland that would need to be re stored and created wetlands

Site 3 Otter Lake – and a tamarack area nearby  
Mr. Asleson mentioned that there is an occupied osprey pole on this piece of land

Site 4 12<sup>th</sup> Ave property - is drained farmland. Therefore, it will need to be restores and plug some of the drainage channels

Site 5 Pine Glen Outlot E - this site was partly drained so there would be altering or plugging up some of the drainage tile.

Site 6 Wollans Park II - adjacent land has some endangered plants in this area

#### Recommendations

- Future studies need to be done - Wetland delineations, botanical surveys, MnRAM assessments, and hydrology studies
- Coordination with agencies – Rice Creek Watershed District , US Army Corps of Engineers, Board of Water and Soil Resources, Anoka Conservation District
- Wetland bank pricing – Fee to be set annually, based on current market conditions
- Revolving fund – fund future maintenance of the established wetland bank, fund land acquisition for future bank sites, fund construction/restoration of future bank sites.

Ms. Kaufenberg so the sell price of wetland bank credits is done every year.

Ms. Harwood explained that yes, that is why it best to evaluate annually the price of wetland credits

Mr. Sullivan how close are we to selling Wollans wetland credits-

Mr. Asleson we could sell the wetland credits now if we wanted to and use that credit to buy one of the sites that we have just discussed

Ms. Andrzejewski made a motion to approve the Natural Resources Revolving Fund plan and make a recommendation to send this on to City Council. Ms. Holmes seconded. Motion 4 – 0.

#### C. 2040 Comprehensive Plan Update, WSB & Associates

Ms. Hankee presented the Open House feedback from the June 22, 2017 public meeting and the community visioning survey results.

##### Comments by Topic/Issue Area

- Land Use
- Utilities(sewer, water, storm drainage)
- Transportation
- Parks & natural resources

##### Request for changes affecting specific properties/locations

You can find the results of the Lino Lakes City survey and see the blog.

##### a. Natural Resources and Amenities Goals and Policies

Ms. Harwood presented the comments on natural resources, which were to encourage the restoration of Cedar Lake with good trails and public access

The City's Resource Management System Plan has goals, policies and plans in place and helps with the development within the city.

This is where the Natural Resources Revolving Fund be added to the comp plan.

Ms. Kaufenberg wondered would connecting our trails be in the comp plan

Ms. Harwood replied that would be more for the park and trail system.

Mr. Sullivan was concerned in directing funds for protecting resources – how can we direct City Council to fund more of these natural resources. Also the need for education on recycling, no grass clippings in the streets.

Ms. Kaufenberg would like to see organics goals and native plantings in the comp plan

Ms. Holmes would like to see education to land owners that abut the lakes

Mr. Asleson said the Rice Creek Watershed handles the information and education of the shoreland property owners.

Ms. Andrzejewski says that education can be creative and simple to do

## b. Local Surface Water Management

Ms. Thompson presented the Local Water Management Plan; updated in 2015 and needs updating again because of the comp plan updates. Moreover, it now will be a chapter in the comp plan and not a reference.

Rice Creek Watershed District new rules that implemented in 2017 and the new floodplain modeling. In addition, the Vadnais Lakes Area Watershed Management Watershed Management Plan last updated in 2016. Along with the new TMDL that are in effect.

A lot of the goals and policies are derived from state statute are to protect, preserve and manage the use of the natural and surface ground water.

This is the time to do the update. Because you now have a chance to promote the projects that, you want to pursue.

Last update previously identified issues with areas of ground water management, erosion and sediment control, the public drainage system among other items.

- It also identified actions for better site design techniques for developers.
- Coordinate with RCWD/VLAWMO to review wetland impact/replacements and establish watershed-based approaches and wetland bank
- Work with RCWD/VLAWMO to address flow constraints
- Work with RCWD and private landowners to maintain, improve, or abandon public ditch system, as needed or desired.
- Implement multi-function greenway corridor rather than perpetuating the subsurface ditch system.
- Partner with RCWD/VLAWMO for public engagement activities, grant opportunities, and habitat preservation projects

In the new plan should include new actions to address the TMDL and those could be ordinances, policies and public education. We are require to implement the new Watershed District floodplain modeling. Making sure the sanitation system is functioning properly. Among other items.

Mr. Sullivan how fast can we see action with our plans and in order to keep the drainage system open and staff to maintain the waterways, this maybe the opportunity to get better funding for these areas.

Ms. Thompson mentioned that working with the schools and have students go out and take water samples of area lakes would be a good education opportunity. This could be done with help from RCWSD as part of their outreach and public education.

Ms. Andrzejewski asked about the NE drainage system.

Ms. Thompson it is not city owned and is working with the landowners for a better drainage system and adding a greenway corridor

Ms. Kaufenberg instead of coming up with general ideas can we be or specific areas in the city

Ms. Thompson mentioned the city has done some work with residents such as rain gardens

There was other discussions on education of well owners, ground water level and septic systems.

## **6. DISCUSSION ITEMS**

### **A. Recycling Updates**

Mr. Alseson announced the new recycling intern will start August 15

### **B. Blue Heron Days Parade**

Next month on Saturday, August 19 is the Blue Heron Parade and the Environmental Board is the last unit in the parade which starts at 11:00am. Those that can make it will meet on the east side of Target

### **C. Pelitier Lake Draw Down**

Peliter Lake is scheduled again to draw down in mid September until it reaches 2.8 inches below normal in about 60 days.

There will be a simular meeting as last year on August 16 at Wargo at 5:00pm.

### **D. Shocking Carp barrier maybe installed between Rice Lake and Baldwin Lake**

## **7. ADJOURNMENT**

Mr. Sullivan made a MOTION to adjourn the meeting at 8:38 pm. Ms. Andrzejewski supported motion. Motion carried 4 - 0.

Respectfully submitted,  
Mary Fogarty  
Office Specialist

**ENVIRONMENTAL BOARD  
AGENDA ITEM 6A**

**STAFF ORIGINATOR:** Marty Asleson, Environmental Coordinator

**MEETING DATE:** August 30, 2017

**TOPIC:** Clearwater Creek Business Park/United  
Properties/Distribution Alternatives/Revisit

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**BACKGROUND**

Clearwater Creek Business Park was reviewed by the Environmental Board on July 29, 2016. Recommendations made at that meeting are included in the packet, along with relevant construction documents. A post construction site visit is scheduled for August 30, 2017. We will meet onsite at 5:30.

**ENVIRONMENTAL DIRECTION**

None Required. Environmental Board comments will be given to the Community Development Director.

**ATTACHMENTS**

1. Construction Plans
2. Environmental Board Recommendations
3. Conservation Easement.



# CLEARWATER CREEK BUSINESS PARK & 21ST AVENUE SOUTH CONSTRUCTION PLANS

## TITLE SHEET, NOTES & LEGEND

LINO LAKES, MN

ELEVATION DATA PER A.L.T.A. SURVEY PREPARED BY SUNDE LAND SURVEYING (DATED 4/25/2016) - VERIFY PRIOR TO ANY INSTALLATIONS - NAVD 88 DATUM

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TOP OF TOP NUT OF HYDRANT ON THE NORTH SIDE OF FAIRVIEW STREET IN THE NORTHWEST CORNER OF THE CUL-DE-SAC (ELEVATION = 907.69)

VICINITY MAP



LEGEND			
—OHW—	EXISTING OVERHEAD ELECTRIC	— —	PROPOSED WATER PIPE
—E—	EXISTING UNDERGROUND ELECTRIC	— —	PROPOSED SANITARY SEWER PIPE
—TEL—	EXISTING UNDERGROUND TELEPHONE	— —	PROPOSED STORM SEWER PIPE
—CBL—	EXISTING UNDERGROUND CABLE	— —	PROPOSED DRAIN TILE AND CLEAN-OUT
○ TCS	EXISTING TRAFFIC CONTROL SIGN	⊙	PROPOSED STORM MANHOLE
□ GP	EXISTING GUARD POST	□	PROPOSED CATCH BASIN
□ MB	EXISTING MAIL BOX	△	PROPOSED FLARED-END SECTION
□ CBX	EXISTING CONTROL BOX	⚡	PROPOSED GATE VALVE
○ PP	EXISTING UTILITY POLE	⚡	PROPOSED HYDRANT
⊙ LP	EXISTING LIGHT POLE	⊙	PROPOSED SANITARY SEWER MANHOLE
—>>>	EXISTING STORM SEWER	—928—	PROPOSED CONTOUR
— —	EXISTING WATER MAIN	—930—	PROPOSED CONTOUR
—>>>	EXISTING SANITARY SEWER	×24.60	PROPOSED SPOT ELEVATION (GUTTERLINE, BITUMINOUS SURFACE, OR GROUND SURFACE UNLESS OTHERWISE INDICATED)
—FM—FM—FM—	EXISTING FORCEMAIN	—4.0%	PROPOSED DIRECTION OF DRAINAGE
○	EXISTING STORM MANHOLE	⊙	PROPOSED RIP-RAP (LINO LAKES DETAIL STR-7)
⊗	EXISTING GATE VALVE	○	PROPOSED INLET PROTECTION (LINO LAKES DETAIL GEN-19)
⊕	EXISTING HYDRANT	■	PROPOSED HEAVY-DUTY TURF REINFORCEMENT MATERIAL
●	EXISTING SANITARY SEWER MANHOLE	⌒	PROPOSED SEDIMENT LOGS (LINO LAKES DETAIL GEN-18)
---930---	EXISTING CONTOUR		
---928---	EXISTING CONTOUR		
×920.99	EXISTING SPOT ELEVATION		
—x—	EXISTING FENCE		
⊕	DELINEATED WETLAND EDGE		

## SHEET INDEX

NO	TITLE SHEET, NOTES & LEGEND
C0	TITLE SHEET, NOTES & LEGEND
C1.1 - C1.2	GRADING, DRAINAGE & EROSION CONTROL PLAN
C1.3	WETLAND IMPACTS & SITE CONSTRUCTION ENTRANCE
C1.4	CURBING & PAVING PLAN
C1.5	SILT FENCE & WETLAND PROTECTION PLAN
C2.1 - C2.2	UTILITY PLAN (PRIVATE)
C3.1 - C3.3	PLAN PROFILE - STORM SEWER & STREET
C3.4	PLAN PROFILE - SANITARY & WATER
C4.1 - C4.4	DETAILS
C5.1 - C5.2	STORMWATER POLLUTION PREVENTION PLAN
C6	FLOODPLAIN PLAN (FILL & MITIGATION)
C7.1 - C7.6	CROSS-SECTIONS - 21ST AVE S

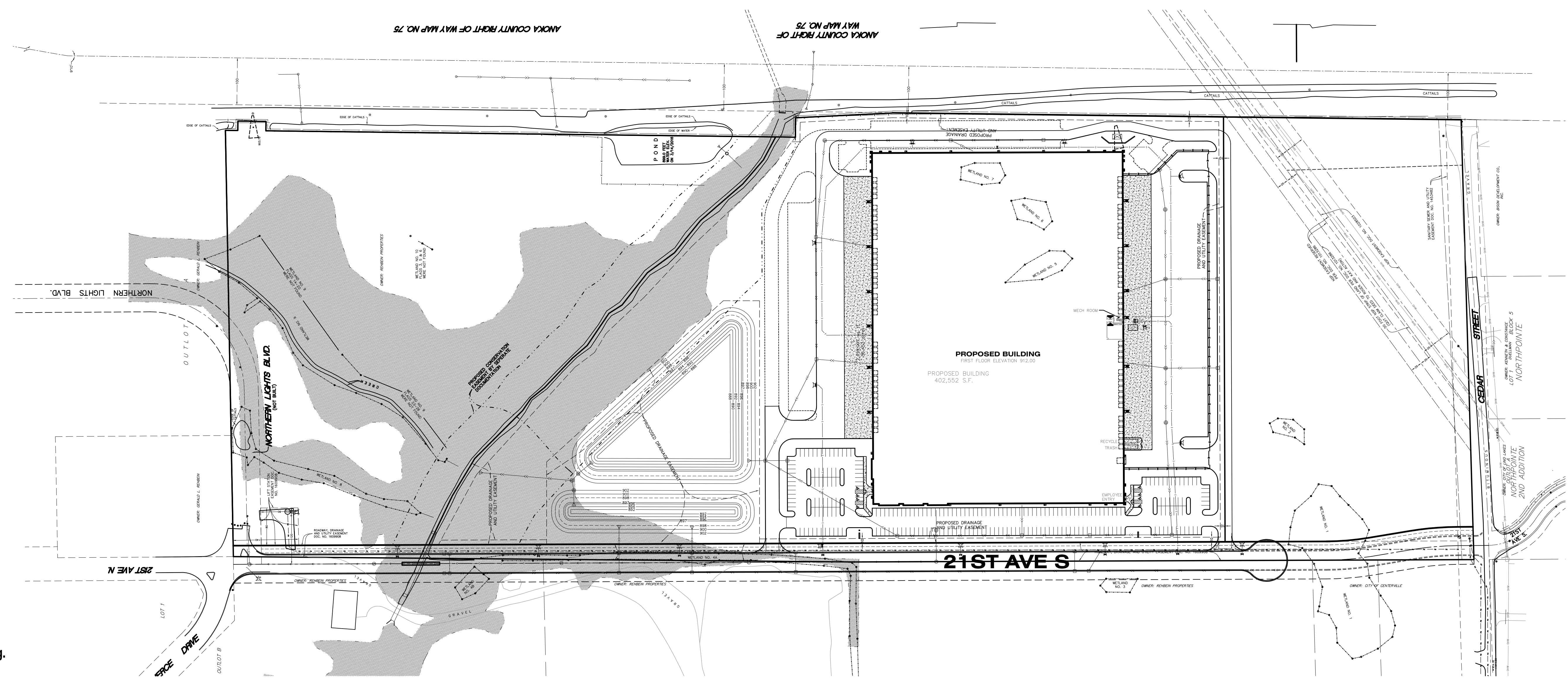
DRAWN BY: A.G.  
DESIGN BY: A.G.  
CHKCD BY: C.W.P.  
PROJ. NO. 16-1604

ORIGINAL DATE: MAY 16, 2016

DATE	REVISION DESCRIPTION
6-7-16	ROWD SUBMITTAL
6-17-16	CITY RESUBMITTAL
7-19-16	ISSUE FOR PERMIT
8-11-16	FINAL PLAN AND FINAL PLAN SUBMITTAL
9-22-16	CENTERVILLE & LINO REVIEW COMMENTS

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

*Adam Ginkel*  
ADAM GINKEL  
DATE: 09.22.2016 LIC. NO. 43963

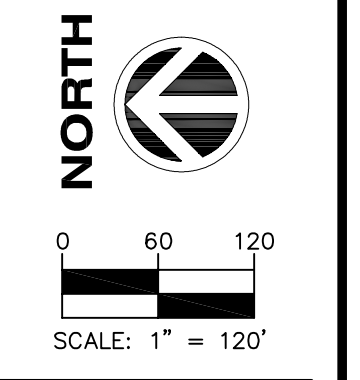


CLEARWATER CREEK BUSINESS PARK & 21ST AVENUE SOUTH CONSTRUCTION PLANS  
LINO LAKES, MINNESOTA  
TITLE SHEET & LEGEND

PREPARED FOR:  
RJ RYAN CONSTRUCTION

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

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



**C0**



### GENERAL NOTES

- 1) THE INFORMATION SHOWN ON THESE DRAWINGS CONCERNING TYPE AND LOCATION OF EXISTING UTILITIES IS NOT GUARANTEED TO BE ACCURATE OR ALL INCLUSIVE. THE CONTRACTOR IS RESPONSIBLE FOR MAKING HIS OWN DETERMINATION AS TO TYPE AND LOCATION OF UTILITIES AS NECESSARY TO AVOID DAMAGE TO THESE UTILITIES.
- 2) PREVIOUS GOPHER STATE ONE CALL TICKET NUMBERS: 160400111, 160480507 AND 160480514.
- 3) CALL "811" FOR EXISTING UTILITIES LOCATIONS PRIOR TO ANY EXCAVATIONS. VERIFY ALL UTILITIES CRITICAL TO CONSTRUCTION.
- 4) INSTALLATIONS SHALL CONFORM TO THE CITY GENERAL SPECIFICATIONS AND DETAIL PLATES DATED 2016.
- 5) THE CONTRACTOR SHALL NOTIFY CITY PUBLIC WORKS DEPARTMENT A MINIMUM OF 72 HOURS PRIOR TO THE INTERRUPTION OF ANY SEWER OR WATER SERVICES TO EXISTING HOMES OR BUSINESSES.
- 6) STORAGE OF MATERIALS OR EQUIPMENT SHALL NOT BE ALLOWED ON PUBLIC STREETS OR WITHIN PUBLIC RIGHT-OF-WAY.
- 7) NOTIFY CITY A MINIMUM OF 72 HOURS PRIOR TO THE COMMENCEMENT OF CONSTRUCTION.
- 8) THERE ARE NO KNOWN WELLS ON THE PROPERTY - IF A WELL IS ENCOUNTERED DURING CONSTRUCTION THEY MUST BE SEALED IN ACCORDANCE WITH MINNESOTA DEPARTMENT OF HEALTH REGULATIONS.

### CURB & BITUMINOUS NOTES

- 1) REMOVAL AND DISPOSAL OF EXISTING STREET MATERIALS AS REQUIRED FOR CONSTRUCTION IS CONSIDERED INCIDENTAL.
- 2) SAW-CUT EXISTING BITUMINOUS AND CONCRETE CURBS TO PROVIDE BUTT-JOINT. ALL SAW CUTS ARE TO BE FULL-DEPTH.
- 3) RESTORE DISTURBED STREET TO EXISTING OR BETTER SECTION.
- 4) BACKFILLING OF CURB IS INCIDENTAL TO CURB INSTALLATION.
- 5) CURB ENDS SHALL TERMINATE IN A THREE-FOOT BEAVER TAIL.

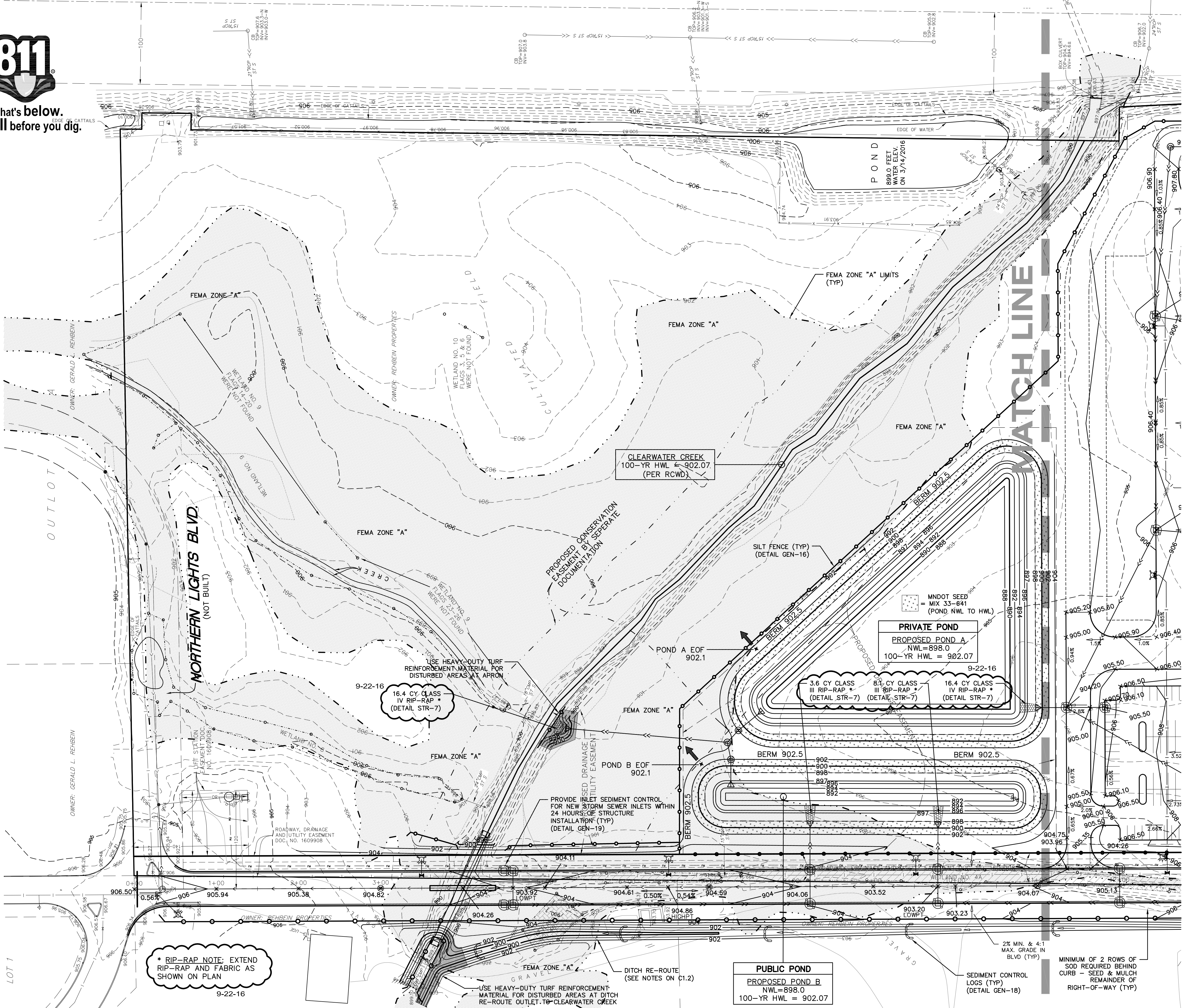
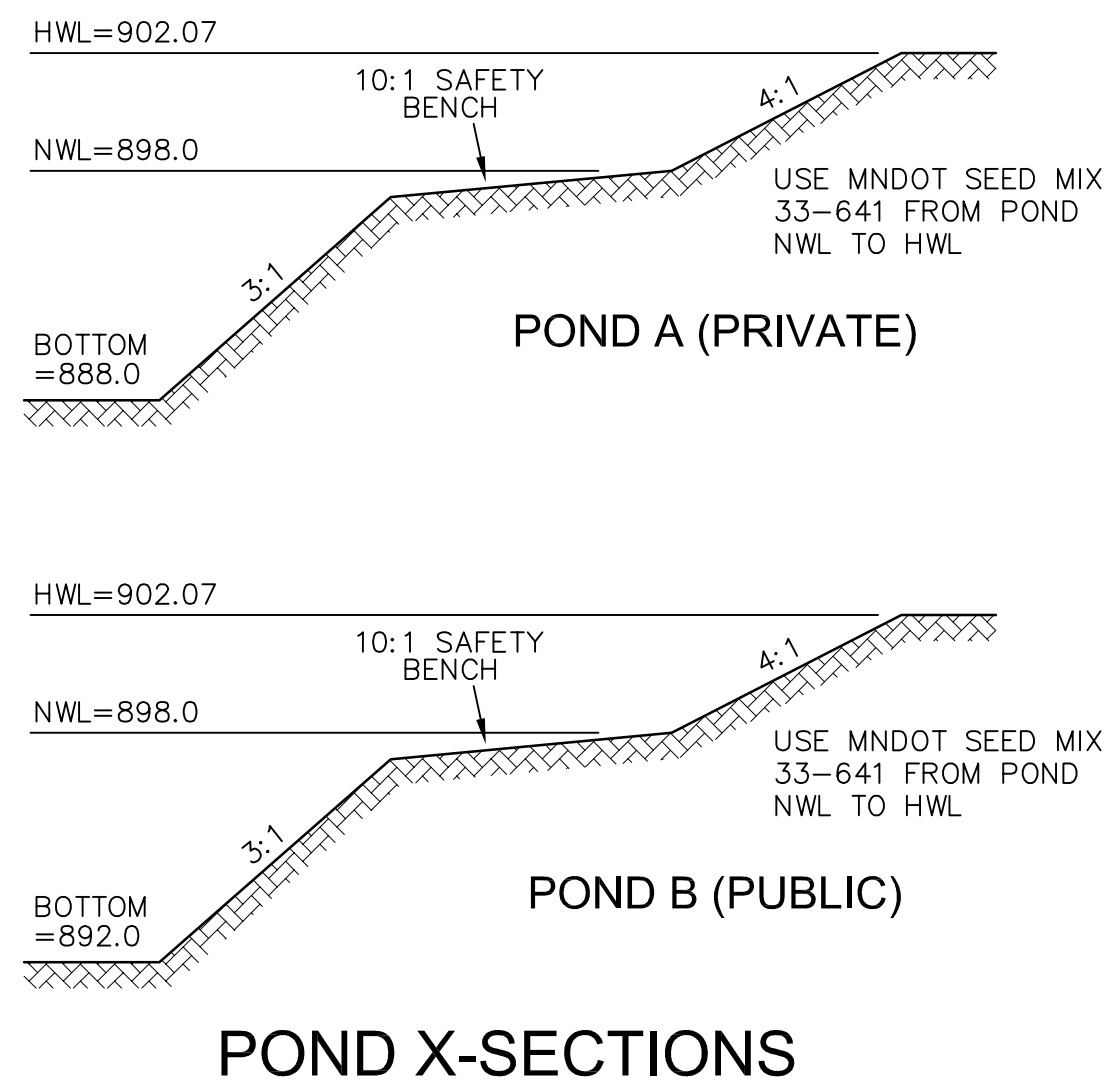
### GRADING, DRAINAGE & EROSION CONTROL NOTES

- 1) PRIOR TO ANY GRADING OPERATIONS, THE CONTRACTOR SHALL INSTALL ROCK CONSTRUCTION ENTRANCE (LOCATIONS TO BE DETERMINED - COORDINATE WITH OWNER) AND PERIMETER SILT FENCE AS SHOWN ON PLAN. ADDITIONAL SILT FENCE MAY BE NECESSARY IF LOCAL CONDITIONS REQUIRE.
- 2) CONTACT MARTY ASLESON, CITY ENVIRONMENTAL COORDINATOR, FOR INSPECTION OF ALL EROSION CONTROL MEASURES PRIOR TO ANY GRADING.
- 3) THE CONTRACTOR SHALL PERFORM SITE GRADING ON AN AREA-BY-AREA BASIS TO MINIMIZE UNSTABILIZED AREAS. AS EACH AREA IS COMPLETED, ALL EXPOSED SOILS MUST HAVE TEMPORARY EROSION CONTROL PROTECTION OR PERMANENT COVER WITHIN SEVEN (7) DAYS.
- 4) SEE SHEET C4.1 THROUGH C4.4 FOR STANDARD CONSTRUCTION DETAILS.
- 5) SEE SHEET C5.1 AND C5.2, STORM WATER POLLUTION PREVENTION PLAN (SWPPP) FOR ADDITIONAL EROSION CONTROL NOTES AND SITE SEQUENCING.
- 6) SEE SHEET C6 FOR FLOODPLAIN FILL AND MITIGATION EXHIBIT.
- 7) ANY EXISTING WELLS AND SEPTIC SYSTEMS TO BE FIELD LOCATED. WELLS TO BE ABANDONED PER ALL LOCAL AND STATE REQUIREMENTS. SEPTIC SYSTEMS TO BE REMOVED PER ALL LOCAL AND STATE REQUIREMENTS.
- 8) SEE SHEET C1.3 FOR QUANTIFICATION OF INDIVIDUAL WETLAND IMPACT AREAS.
- 9) DISTURBED AREAS TO BE SEEDED WITHIN SEVEN (7) DAYS. SEE SWPPP FOR SEED MIXES AND RATES; ALSO SEE LANDSCAPE PLAN (BY OTHERS).

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<b>CHECKED BY:</b> C.W.P.	<b>PROJ. NO.:</b> 16-1604
<b>ORIGINAL DATE:</b> MAY 16, 2016	

DATE	REVISION DESCRIPTION
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*Adam Ginkel*  
ADAM GINKEL  
DATE: 09.22.2016 LIC. NO. 43963

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**CLEARWATER CREEK  
BUSINESS PARK & 21ST AVE  
S CONSTRUCTION PLANS**

LINO LAKES, MINNESOTA

**GRADING, DRAINAGE  
& ESC PLAN**

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**PREPARED FOR:**  
RJ RYAN  
CONSTRUCTION

---

**SITE PLANNING & ENGINEERING**

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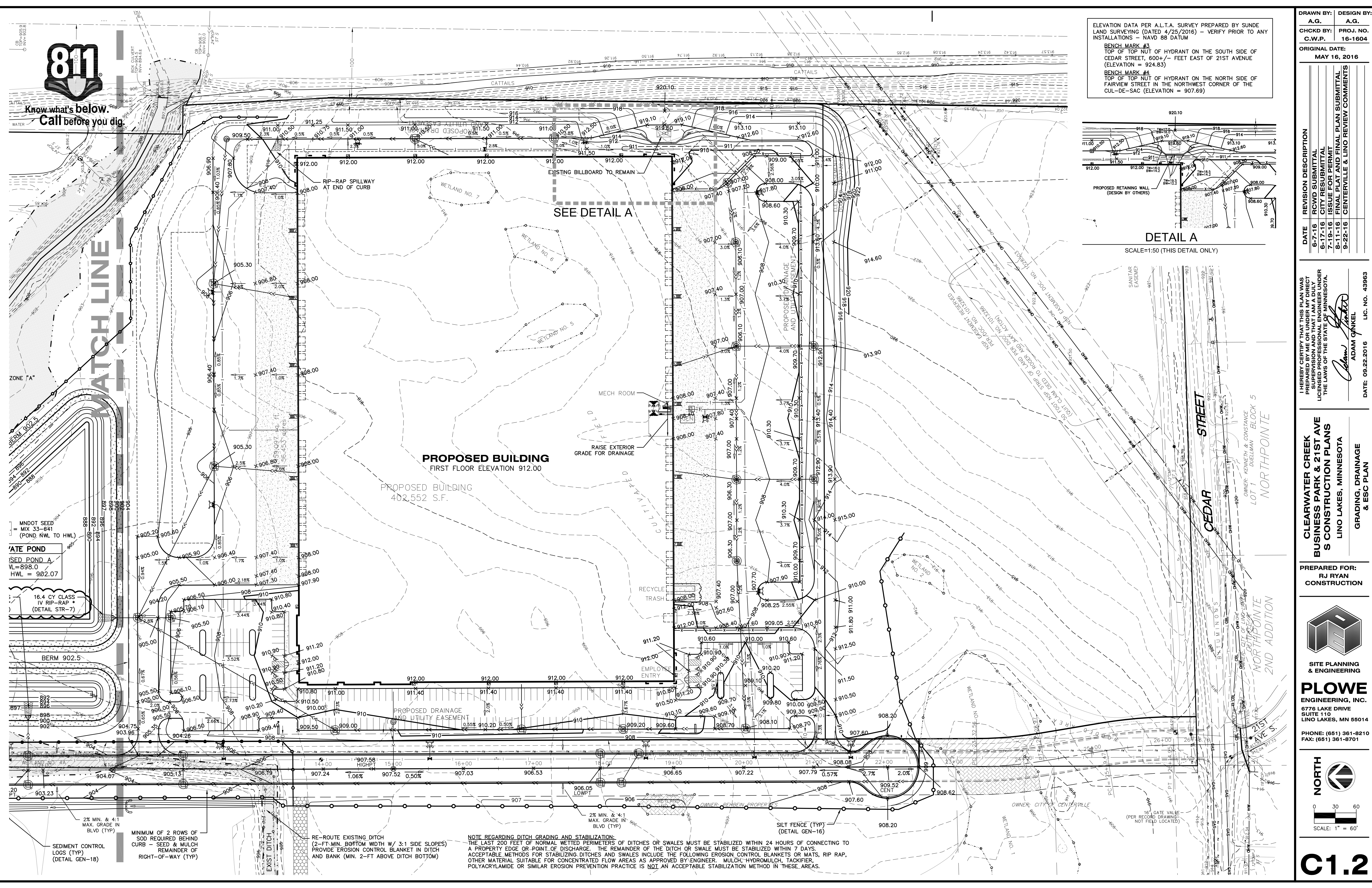
**NORTH**

SCALE: 1" = 60'

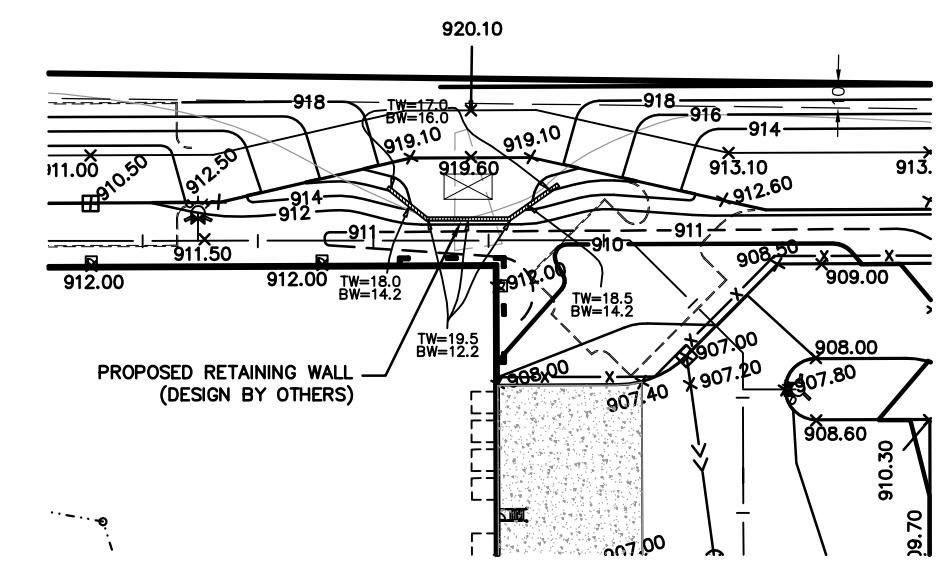
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Know what's below.  
Call before you dig.



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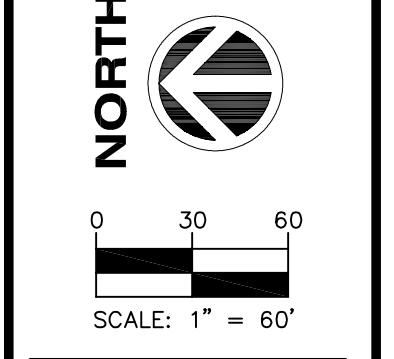
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LINO LAKES, MINNESOTA  
GRADING, DRAINAGE  
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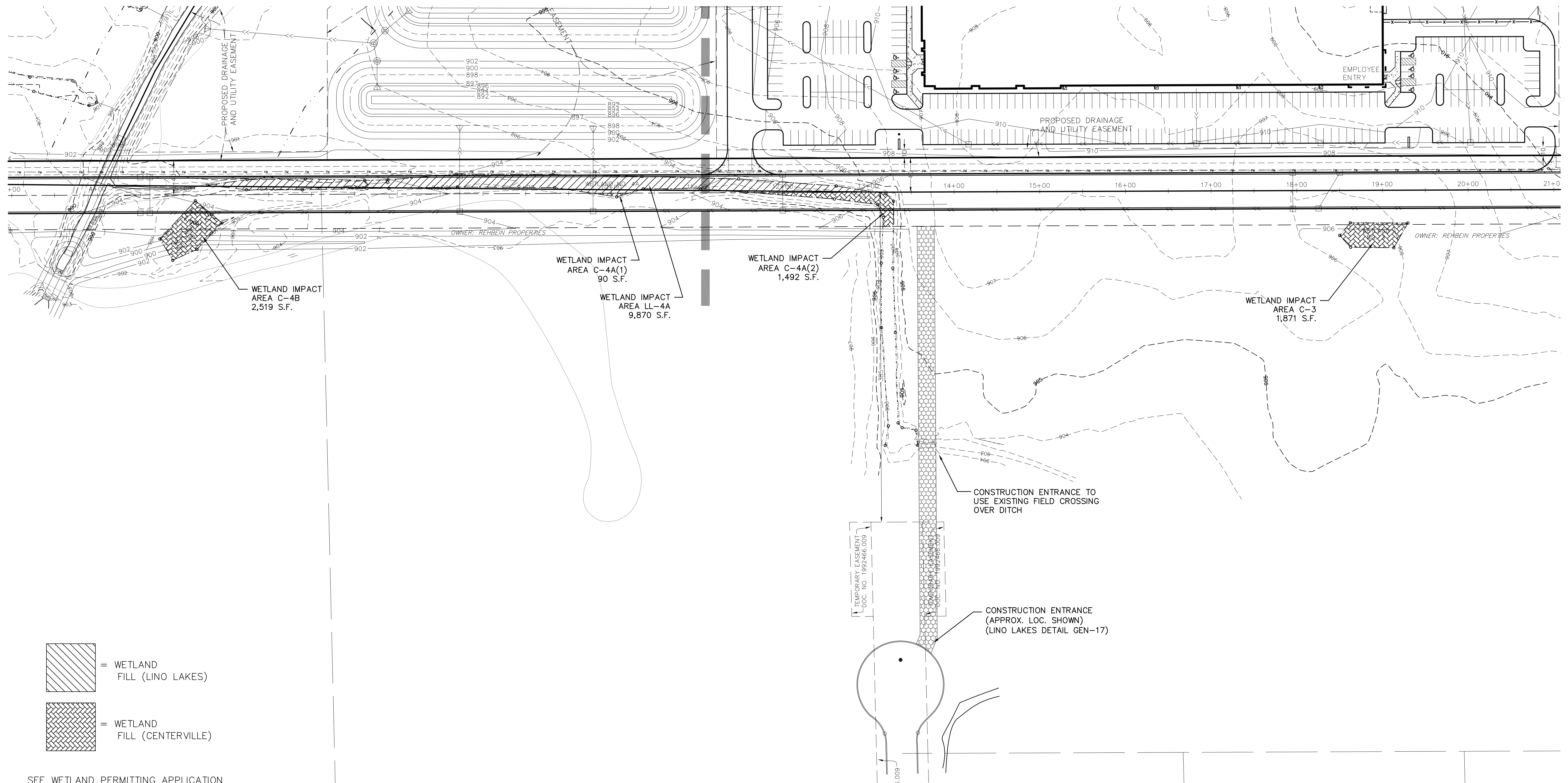


C1.2



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= WETLAND FILL (LINO LAKES)  
 = WETLAND FILL (CENTERVILLE)

SEE WETLAND PERMITTING APPLICATION PREPARED BY KJOLHAUG ENVIRONMENTAL FOR SEQUENCING, QUANTIFICATION, ETC.

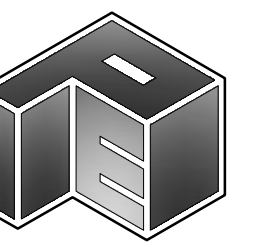
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CLEARWATER CREEK  
BUSINESS PARK & 21ST AVE  
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LINO LAKES, MINNESOTA  
WETLAND IMPACTS  
SITE CONSTRUCTION ENTRANCE

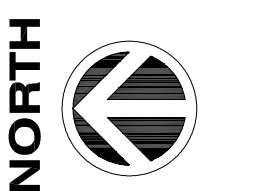
PREPARED FOR:  
RJ RYAN  
CONSTRUCTION



SITE PLANNING & ENGINEERING

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6776 LAKE DRIVE  
SUITE 110  
LINO LAKES, MN 55014

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



0 30 60  
SCALE: 1" = 60'

**C1.3**

- LANDSCAPE NOTES:**
- SEED/SOD AREAS AS SHOWN ON THE PLAN.
  - STORM WATER BASIN SEED MIXTURE = MANDOT SEED MIX #43-261 USE MANDOT SEEDING MANUAL FOR SEEDING METHODS
  - TURF SEED MIXTURE (TURF SEED) = HYDRO SEEDING MANDOT 25-131, LOW MAINTENANCE TURF -NATIVE SEED MIXTURE (NATIVE SEED) = MANDOT 35-641, MESC PRAIRIE SE
  - SEE PLAN FOR PLANTINGS TO BE PLANTED IN ROCK MULCH BED. PLANTING BED SEPARATED BY BLACK WIRE EDOG. OTHER PLANTINGS WED GROWTH MULCH KING TO PREVENT
  - UNDERGROUND IRRIGATION SYSTEM TO BE PROVIDED FOR ALL FOUNDATION PLANTINGS AND SLOPED OR HYDRO SEEDED TURF AREAS. PROVIDE MOISTURE SENSOR IRRIGATION DESIGN BY CONTRACTOR.
  - SITE IS VOID OF EXISTING SIGNIFICANT VEGETATION.
  - FINAL SPECIES SELECTION TO BE VERIFIED WITH THE CITY ENVIRONMENTAL BOARD.
  - PRIOR TO SODDING THE SUBGRADE SHALL BE SLOPED TO A MINIMUM OF 1% TO ELIMINATE WATER FROM BEING PLACED AT A DEPTH OF 1/2" OF THE LOOSE SOIL AND MIXED INTO THE TOP 2" OF THE SUBGRADE. THE REMAINDER OF THE SOIL CAN THEN BE ADDED.
  - CITY INSPECTION REQUIRED PRIOR TO SOD PLACEMENT

PLANTING SCHEDULE	QTY.	KEY COMMON NAME	BOTANICAL NAME	SIZE	MTHE/MARKS
9	48	AUTUMN BLAZE MAPLE	ACER SACCHARUM	2.5"	BB
6	1H	IMPERIAL HONEYLOCUST	GLEDITSIA TRICANTHOS	2.5"	BB
30	CT	COFFEE TREE	GYMNOCLADUS DIOICUS	2.5"	BB
12	0B	OHIO BUCKEYE	AESCLUUS GLABRA	1.5"	BB
5	SC	SPRING SNOW	MALUS SPRING SNOW	1.5"	BB
41	RS	RED SPLENDOR GRAB	MALUSHYBRIDUS 'RED SPLENDOR'	1.5"	BB
5	RS	RIVER BIRCH	BETULA NIGRA	1.25"	BB
43	BH	BLACK HILLS SPRUCE	PICEA GLAUCA DENSAITA	6"	BB
36	WP	WHITE PINE	PINUS STROBUS	6"	BB
25	RP	RED PINE	PINUS RESINOSA	6"	BB
84	RD	RED TWIGGED DOGWOOD	CORNUS BAILEYI 'CARDINAL'	6"	BB
84	RD	BURNING BUSH	EUONYMUS ALATUS 'COMPACTA'	6"	CONT.
46	4B	ROSA 'SANDY BERRERY'	BERRBERIS THUNBERGI 'ROSY GLOW'	6"	CONT.
10	B1	BLUE CHIP JUNIPER	JUNIPERUS BLUECHIP	6"	CONT.
80	GD	GARDEN GLOW CORNUS	CORNUS HESSA GARDEN GLOW	6"	CONT.
86	TA	ARBOREAL PURPLE LEAF SANDOCHERRY	PRUNUS OSTEYA	6"	CONT.
100	PS			6"	CONT.

**LANDSCAPE REQUIREMENT**

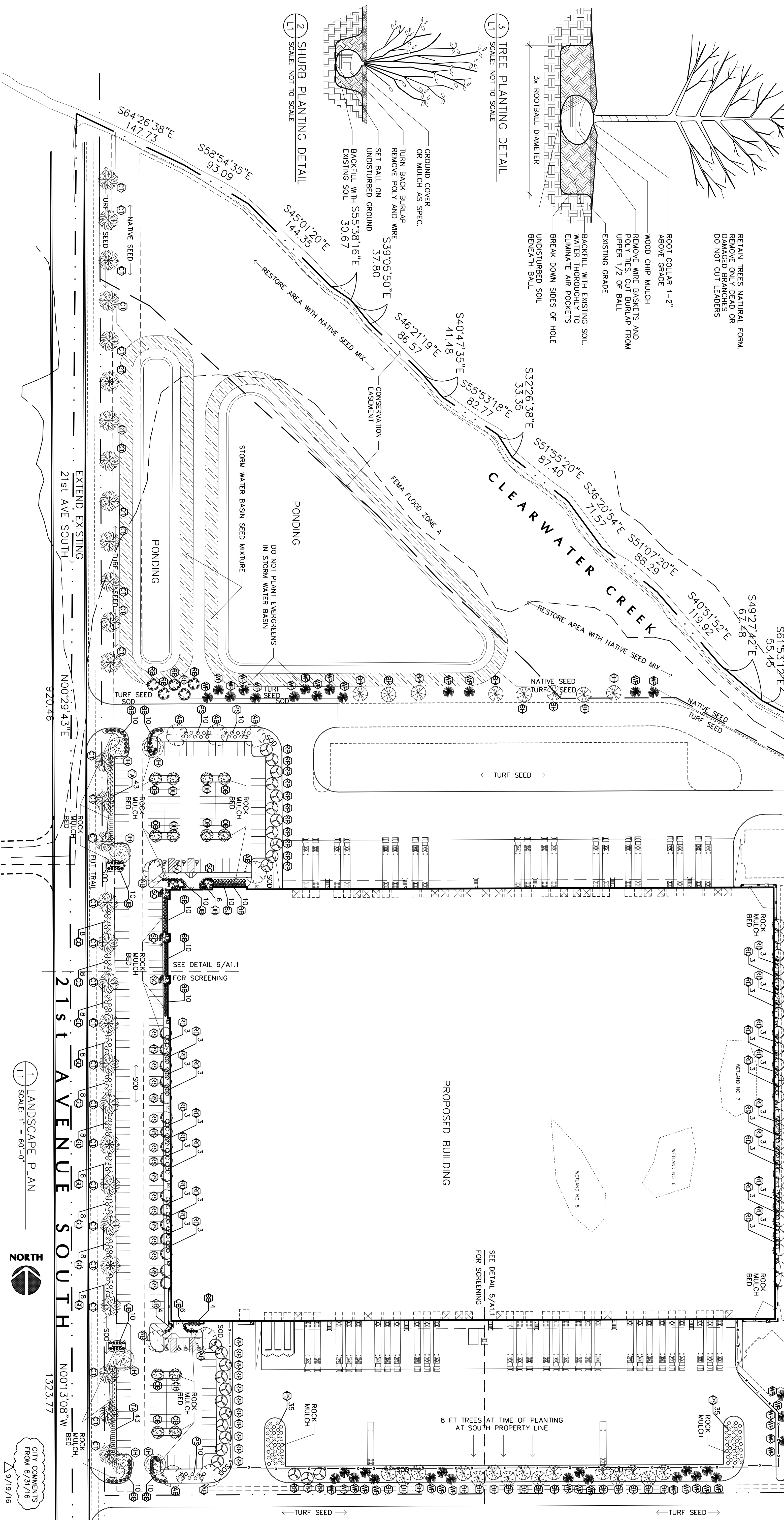
CANOPY COVER  
 PARKING AREA - 46,000 S.F.  
 REQUIRED CANOPY COVER = 46,000 S.F. X 40% = 18,400 S.F.  
 ISLAND TREES (14) AT 500 S.F. EACH = 7,000 S.F.  
 PERIM. TREES (41) AT 300 S.F. EACH = 12,300 S.F.  
 19,300 S.F. PROVIDED

**FOUNDATION PLANTINGS**  
 ELIGIBLE FOUNDATION TREES WITHIN 30 FT = 1,400 FT.  
 REQUIRED FOUNDATION TREES WITHIN 30 FT = 1,400 FT AT 2,100 FT = 28 TREES  
 LARGE TREE = 4 TREES  
 MED. TREE = 46 (2/3) = 31 TREES  
 SHRUBS WITHIN 30 FT = 1,400 FT AT 6,100 FT = 84 SHRUBS  
 164 SHRUBS PROVIDED

**OPEN AREA**  
 ELIGIBLE OPEN AREA - 4216,450 S.F.  
 (NOT INCL. POND, UNDISTURBED AREAS, OR PDN PLANTINGS)  
 REQUIRED PLANTINGS  
 TREES = 216,450 S.F. AT 1 TREE/2,000 = 108 TREES  
 SHRUBS = 216,450 S.F. AT 3 SHRUBS/2,000 = 325 SHRUBS  
 326 SHRUBS PROVIDED

**BUFFER/SCREEN**  
 BETWEEN PARKING AND STREET = 30' TALL CONT. YEAR ROUND PLANTINGS  
 BETWEEN PARKING AND STREET = 6' FT TALL CONT. YEAR ROUND PLANTINGS  
 + 1 TREE PER 50 FT

**INTERSTATE 35 E**



**1 LANDSCAPE PLAN**  
 SCALE: 1" = 60'-0"  
 CITY COMMENTS FROM 8/31/16  
 9/19/16

**CLEARWATER CREEK BUSINESS PARK**  
 Lino Lakes, Minnesota

**RJRyan**  
 Construction, Inc.  
 1000 Mendota Heights Blvd. Ph: 651-434-0285  
 1000 Mendota Heights Blvd. Ph: 651-434-0285  
 Mendota Heights, MN 55120 Ph: 651-434-0285

3600 American Blvd., W.  
 Suite 7500, MN 55431  
 952-835-5300

Commercial Design and Construction

Drawn By: JRB  
 Checked By: LL  
 Revisions:  
 4/19/16 PRELIMINARY  
 6/14/16 CITY SUBMITTAL  
 7/11/16 ISSUE FOR PERMIT  
 8/9/16 CITY COMMENTS  
 9/8/16 REVISION

**LANDSCAPE PLAN**  
 Sheet Number

Project No. 151007-1



# Memo

To: Katie Larsen  
From: Marty Asleson  
Date: June 29, 2016  
Re: Environmental Board Recommendations for the Clearwater Creek Business Park Proposal

---

The following recommendations were made by the Environmental Board on June 29

## Clearwater Creek Business Park

1. Soils should be monitored for impacts to the Drinking Water Service area contamination, and existing wetland resources. Impacts can be created by uncovering a "gravel-vein" or sand seams where polluted water can enter into a DWSMA water source, and where wetlands can be drained by creating a "drain situation" for close proximity wetlands. Gravel and or other pervious areas encountered in excavation areas for ponds and created wetlands and general excavation must be sealed
2. The applicant must provide a detailed tree preservation plan to the city.
3. Landscaping:
  - A. Plants that are intolerant of higher pH soils should not be used on this site.
  - B. Evergreens must not be used in any of the native seed mix areas. Evergreens may be planted in the sod and any irrigated cultured seed areas
  - C. MNDOT seeding methods as in the MNDOT Seeding Manual must be used for Native seed areas.
  - D. Native Seed areas must be planted and maintained by a City approved contractor that has experience and knowledge in the planting of a native seed area
  - E. A 5-year maintenance plan must be written for the site and accepted by the City
  - F. All cultured seed and sod areas must be irrigated.
  - G. Seed types must be identified on the landscape plan.
  - H. Seed types must be approved by the City.
  - I. Evergreens must not be planted in native seed areas.

4. AUAR

- A. A buffer on the south side of the ditch/creek be extended between the top of the bank to the ponding areas to the south or 150 feet with a minimum buffer distance of approximately 20 feet where buffer capability narrows with proposed infrastructure. The 50' buffer area on the north side of the creek should be measured from Top of Bank. Additional buffer will be determined when the north outlet is planned developed. All buffer areas must be placed under a Conservation Easement.
  - B. That in harmony with the intent of the AUAR, a surface water treatment train be further established by eliminating the pipe going from the ponds to the creek, and a filtration system be established from overflow from the ponds in the buffer area south of the creek. Engineering drawings must be submitted that encompass this filtration system and the area planted with a seed mix approved by the City. Engineering drawings for the intended function of this filtration system must be approved by the City Engineers.
  - C. A Phase One Archeological Study must be performed.
  - D. All other AUAR requirements and concerns listed in WSB document from Diane Hankee PE, City Engineer regarding the Clearwater Creek Business Park Plan Review for AUAR Conformance , WSB Project No. 2029-820 be addressed.
- 5. Lighting must be low-intensity, non-spilling, with fixture lenses that cut-off glare. All lights should be LED.
  - 6. Since this is in a moderate susceptibility to groundwater contamination area, drinking water protection must be provided throughout the construction process. All fueling units must be within containment structures, i.e., fueling tanks must be in a containment area. All Concrete washout must be contained and disposed of off-site.
  - 7. The submitted plan is site specific. The developer is responsible for all aspects of the MPCA requirements for construction site sediment and erosion control. There must not be any disturbance of the soils on this site until the SWIPP is fully engaged and authorized by City environmental and engineering.
- 5. A tree protection plan must be submitted
  - 6. A P-8 analysis must be performed for the site







2150438.005

When Recorded Return to L. Terry  
First American Title Insurance Company  
National Commercial Services  
801 Nicollet Mall, Suite 1900  
Minneapolis, MN 55402  
File No. NCS - 773837-MPLS  
⑤

\_\_\_\_\_ (Above Space is Reserved for Recording Information) \_\_\_\_\_

**CONSERVATION EASEMENT**

1. For the sum of one dollar and other valuable consideration, United Properties Development LLC, a limited liability company organized under the laws of Minnesota ("Grantor"), hereby conveys to the City of Lino Lakes, a municipal corporation organized under the laws of the State of Minnesota (City) an easement on and under the parcel lying in Anoka County, Minnesota, and legally described as follows:

Lot 1, Block 1, Clearwater Creek Business Park

("Burdened Property").

2. Exhibit "A", appended hereto and incorporated herein, delineates the area subject to this easement ("Easement Area"). This easement grants the City and its authorized representatives the right in perpetuity to enter the Easement Area to monitor, modify and maintain hydrological and vegetative conditions, including the right to:

- a. Alter land contours and realign channels within the Easement Area.
- b. Direct and redirect surface water flows; flood or drain lands, wholly or partly; and otherwise preserve surface flows through the Easement Area. This does not include the right to increase flood elevation, or drain or redirect surface flows on or across any lands outside of the Easement Area.
- c. Install, operate, maintain and remove structures to manage water flow and water elevation.
- d. Plant, remove and otherwise manage vegetation through means including but not limited to mowing, weeding, use of approved herbicides and controlled burns.

e. Install, maintain and remove sign or markers identifying Easement Area boundaries or describing terms applicable to the Easement Area.

f. Install, operate, maintain and remove equipment to sample or monitor soils, surface water or groundwater, including appurtenances such as power supply for the equipment.

g. Ingress and egress, equipment staging and use, material stockpiling and other actions as reasonably necessary or convenient for the work described.

3. Grantor also conveys to the City and its authorized representatives the right to cross and recross the Burdened Property to reach the Easement Area. The route will be determined through mutual consultation, but will provide a reasonable means of access. If a route cannot be mutually determined after reasonable effort, the City may cross and recross in a manner that minimizes disruption and damage to the Burdened Property. The City will repair or compensate Grantor for any damage to the Burdened Property.

4. Grantor reserves all rights and privileges associated with ownership of the Burdened Property except as specifically provided in this Easement. Grantor will not place any structure or improvement within, on or under the Easement Area; remove, destroy, cut, mow or otherwise alter vegetation within the Easement Area, or apply fertilizers, herbicides or pesticides on or to the Easement Area; fill, excavate or otherwise alter land contours within the Easement Area; or place waste material, including waste vegetation, permanently or temporarily within the Easement Area. Notwithstanding, Grantor may:

a. With prior written approval of City staff (not to be unreasonably withheld, conditioned or delayed), construct or install and maintain a structure or improvement for passive use of or recreation within the Easement Area, including bituminous trail and boardwalk no more than 8 feet in width with a surface area not to exceed 10,000 square feet, which may not be subject to motorized vehicle use by Grantor or anyone operating under Grantor's permission;

b. Build, maintain and replace typical agricultural fences on and over the Easement Area if surface flows are not restricted;

c. With prior written approval of City staff (not to be unreasonably withheld, conditioned or delayed), install and maintain utility system components including, without limitation, water, sanitary sewer, storm sewer, power, fuel, and communications lines and related facilities;

d. With prior written approval of City staff (not to be unreasonably withheld, conditioned or delayed), manage vegetation to prevent or control infestation, noxious weeds, disease, fire, personal injury or property damage, or to improve the hydrological function and value of the water resources within or associated with the Easement Area;

e. With prior written approval of City staff (not to be unreasonably withheld, conditioned or delayed), locate stormwater management facilities within the Easement Area.

5. No one other than Grantor holds any right, title or interest in the Easement Area or any part thereof.

6. This Easement extends only to the City, its successors and assigns, and their authorized representatives, and grants no right of access to the Burdened Property to any other party or member of the public.

7. This Easement is unlimited in duration without being re-recorded, and will run with and burden the Burdened Property and bind Grantor, Grantor's successors and assigns, and all those who use the Burdened Property by right of the Grantor. This easement is appurtenant to the surface waters and related water resources lying on and proximate to the Burdened Property and the protection of which lies within the mandate and authority of the Rice Creek Watershed District pursuant to Minnesota state statutes.

IN WITNESS WHEREOF, this 29 day of September, 2016.

UNITED PROPERTIES DEVELOPMENT LLC,  
a Minnesota limited liability company

By: [Signature]

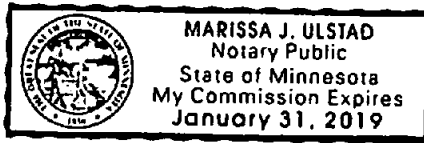
Its: VP

STATE OF MINNESOTA

COUNTY OF Hennepin

The foregoing instrument was acknowledged before me this 29 day of September, 2016, by Brandon Champagne the VP of United Properties Development LLC, a Minnesota limited liability company, on behalf of the Company.

[Signature]  
Notary Public



This Document was Drafted By:

City of Lino Lakes  
600 Town Center Parkway  
Lino Lakes, MN 55014

**EXHIBIT "A"**  
**(Delineation of Easement Area)**

EASEMENT SKETCH FOR:  
UNITED PROPERTIES

DESCRIPTION FOR CONSERVATION EASEMENT

An easement over and across that part of Lot 1, Block 1 and Outlot A, CLEARWATER CREEK BUSINESS PARK, according to the recorded plat thereof, Anoka County, Minnesota, lying southwesterly of a line drawn 70.00 feet northeasterly of the southwesterly line of said Outlot A and lying northeasterly of a line described as commencing at the northwest corner of said Lot 1; thence South 00 degrees 29 minutes 43 seconds West, assumed bearing, along the west line of said Lot 1 a distance of 191.39 feet to the point of beginning of the line to be described; thence South 61 degrees 29 minutes 43 seconds East 70.08 feet; thence South 47 degrees 27 minutes 50 seconds East 383.13 feet; thence South 43 degrees 29 minutes 10 seconds East 112.90 feet; thence South 46 degrees 50 minutes 59 seconds East 149.97 feet; thence South 43 degrees 12 minutes 18 seconds East 58.78 feet; thence North 89 degrees 46 minutes 52 seconds East 143.44 feet; thence South 61 degrees 53 minutes 12 seconds East 151.31 feet; thence South 89 degrees 18 minutes 38 seconds East 21.08 feet to an angle point in the east line of said Lot 1, said angle point being 42.01 feet south of the northeast corner of said Lot 1 and said line there terminating.

GENERAL NOTE

1.) The plat of Creekwater Business Park has not been recorded as of the date of this sketch.

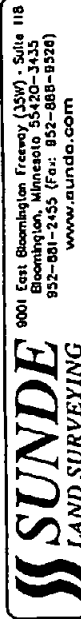
I hereby certify that this sketch, plan, or report was prepared by me or under my direct supervision and that I am a duly Licensed Land Surveyor under the laws of the State of Minnesota.

Dated this 9th day of August, 2016

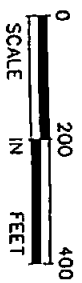
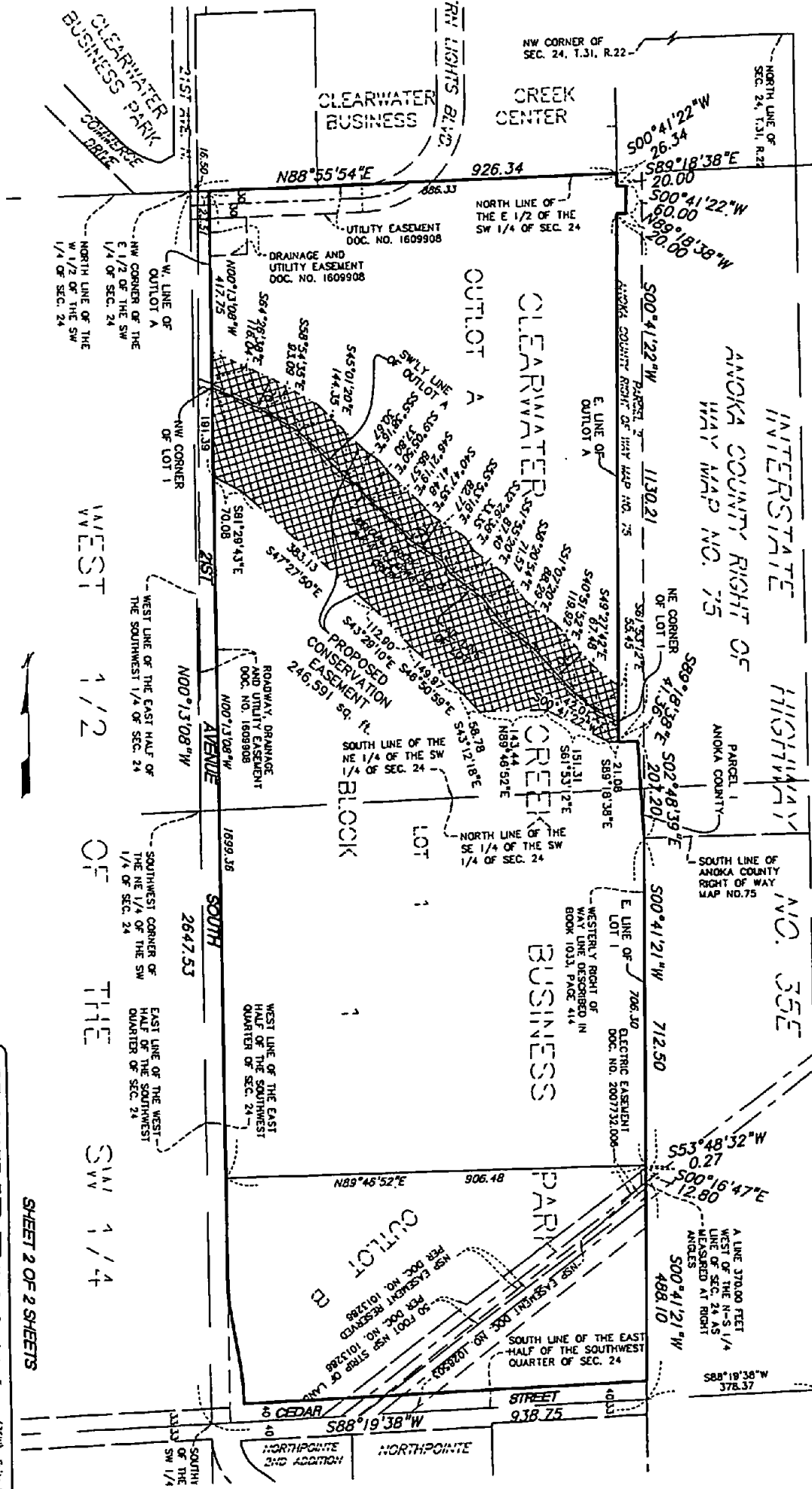
SUNDE LAND SURVEYING, LLC.

By: Mark S. Hanson Minn. Lic. No. 15480

SHEET 1 OF 2 SHEETS



EASEMENT SKETCH FOR:  
**UNITED PROPERTIES**



**SUNDE**  
 LAND SURVEYING

9001 East Boothgarden Freeway (138th) - Suite 110  
 Bloomington, Minnesota 55430-3435  
 952-881-2555 (Fax: 952-888-9556)  
 www.sunde.com

SHEET 2 OF 2 SHEETS

2018-018 060/20 1.31, R.22, S.24 201801000-CONSERVATION ESMT 049 340

ANOKA COUNTY MINNESOTA

Document No.: 2150438.005 ABSTRACT

I hereby certify that the within instrument was filed in  
this office for record on: 10/03/2016 11:27:00 AM

Fees/Taxes In the Amount of \$46.00

JONELL M. SAWYER

Anoka County Property Tax

Administrator/Recorder/Registrar of Titles

MEW, Deputy

Record ID: 3955307





**106GROUP**

# PHASE I ARCHAEOLOGICAL SURVEY FOR THE CLEARWATER CREEK BUSINESS PARK PROJECT

---

**Lino Lakes, Anoka County, MN**

August 2016



# PHASE I ARCHAEOLOGICAL SURVEY FOR THE CLEARWATER CREEK BUSINESS PARK PROJECT

**Lino Lakes, Anoka County, MN**

106 Group Project No. 2207-1911

**SUBMITTED TO:**

United Properties  
3600 American Blvd W. #750  
Minneapolis, MN 55431

**SUBMITTED BY:**

106 Group  
1295 Bandana Blvd #335  
St Paul MN 55108

**PRINCIPAL INVESTIGATOR & REPORT AUTHOR:**

Madeleine Bray, M.A., RPA

August 2016

## MANAGEMENT SUMMARY

In July 2016, The 106 Group Ltd. (106 Group) conducted a Phase I archaeological survey for the Clearwater Creek Business Park project. The proposed project consists of the construction of a 402,552 square foot warehouse and the extension of 21<sup>st</sup> Avenue South in the city of Lino Lakes, Anoka County, Minnesota. The survey was conducted under contract with United Properties. The project area is located on privately-owned land. At this time, the project is not subject to state or federal permitting or funding.

In 2004-2005, the 106 Group prepared a cultural resources assessment in support of the Interstate 35E (I-35E) Corridor Alternative Urban Areawide Review (AUAR). The assessment identified areas within the AUAR study area with a high potential to contain archaeological sites, which include the portion of the current project area lying within 500 feet of Clearwater Creek. The final AUAR Mitigation Plan requires that Phase I archaeological survey be conducted in areas of high archaeological potential. Therefore, this Phase I archaeological resources investigation has been prepared in compliance with the AUAR Mitigation Plan to determine whether the project area contains previously recorded that have been identified since the AUAR study or unrecorded archaeological resources that may be potentially eligible for listing in the National Register of Historic Places.

The project area is located in the southwest quarter of Section 24, Township 31N, Range 22W, in the city of Lino Lakes, Anoka County, Minnesota, and includes approximately 42.5 acres (17.2 hectares) within the Central Lakes Deciduous East archaeological region. The project area is bounded by Cedar Street to the south, I-35E to the east, and Clearwater Creek to the north.

The archaeological investigation consisted of a review of documentation of previously recorded sites within one mile (1.6 kilometers [km]) of the project area as well as a Phase I archaeological survey of the project area to identify any archaeological sites. Madeleine Bray, M.A., RPA served as principal investigator

During the Phase I archaeological investigation, the 106 Group identified no archaeological sites within the project area. The 106 Group recommends no further work.

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## 1.0 INTRODUCTION

In July 2016, The 106 Group Ltd. (106 Group) conducted a Phase I archaeological survey for the Clearwater Creek Business Park project. The proposed project consists of the construction of a 402,552 square foot warehouse and the extension of 21<sup>st</sup> Avenue South in the city of Lino Lakes, Anoka County, Minnesota. The survey was conducted under contract with United Properties. The project area is located on privately-owned land. At this time, the project is not subject to state or federal permitting or funding.

In 2004-2005, the 106 Group prepared a cultural resources assessment in support of the Interstate 35E (I-35E) Corridor Alternative Urban Areawide Review (AUAR) (Ketz and Vermeer 2005). The assessment identified areas within the AUAR study area with a high potential to contain archaeological sites, which included approximately 18 acres of the current project area lying within 500 feet of Clearwater Creek (Figure 1). The final AUAR Mitigation Plan requires that Phase I archaeological survey be conducted in areas of high archaeological potential (City of Lino Lakes 2005). Therefore, this Phase I archaeological resources investigation has been prepared in compliance with the AUAR Mitigation Plan to determine whether the project area contains previously recorded that have been identified since the AUAR study or unrecorded archaeological resources that may be potentially eligible for listing in the National Register of Historic Places (NRHP).

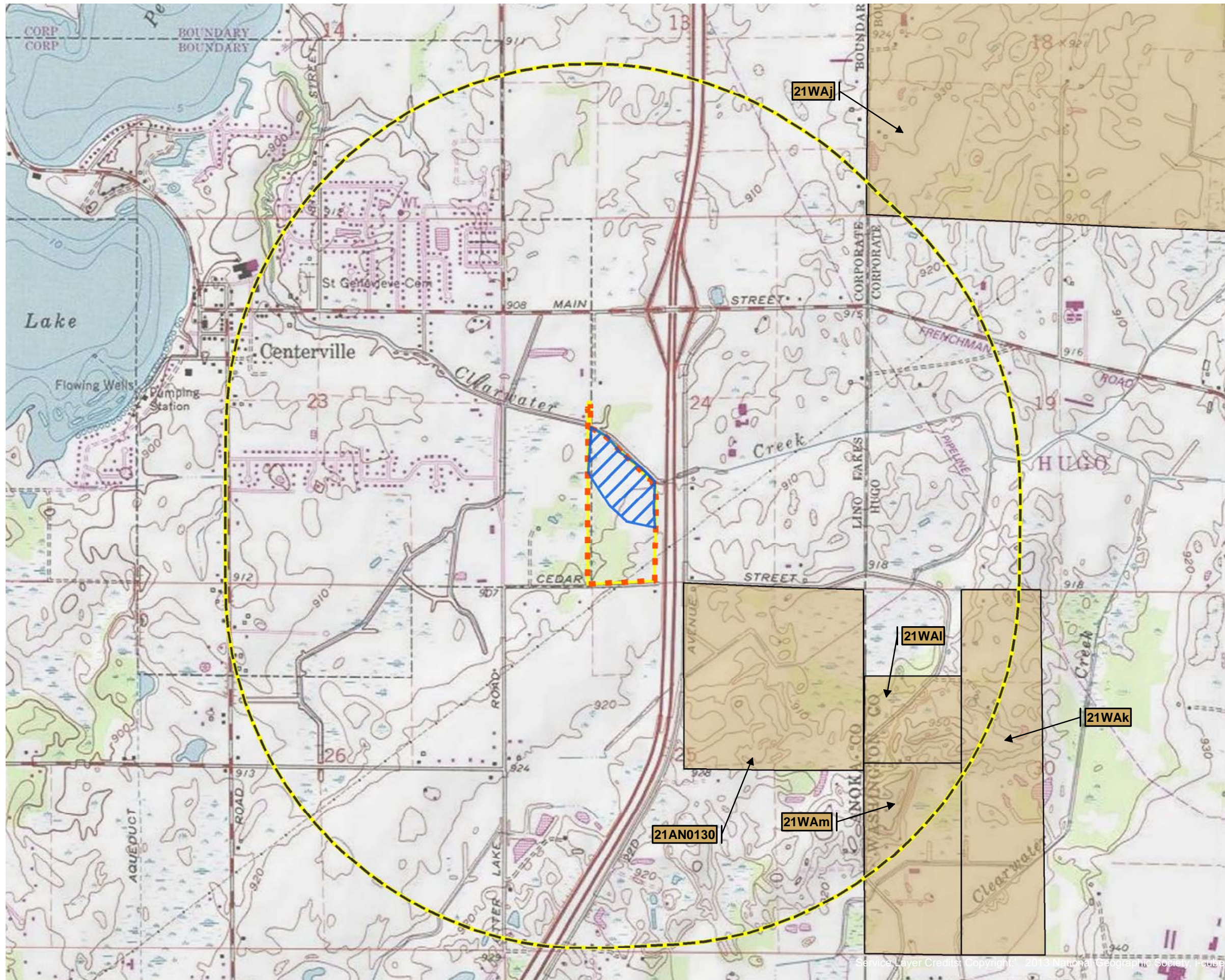
The project area is located in the southwest quarter of Section 24, Township 31N, Range 12W, in the city of Lino Lakes, Anoka County, Minnesota, and includes approximately 42.5 acres (17.2 hectares) within the Central Lakes Deciduous East archaeological region. The project area is bounded by Cedar Street to the south, I-35E to the east, and Clearwater Creek to the north (Figure 1).





The archaeological investigation consisted of a review of documentation of previously recorded sites within one mile (1.6 kilometers [km]) of the project area as well as a Phase I archaeological field survey to identify any archaeological sites within the construction limits of the project area. The archaeological survey consisted of:

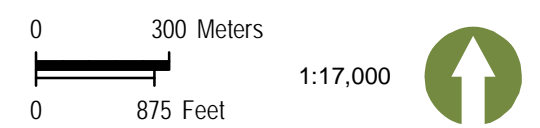
- a visual inspection of the entire project area,
- systematic pedestrian surface survey of areas within the project area characterized by adequate (greater than 25 percent) surface visibility, and
- shovel testing of areas within the project area characterized by moderate potential to contain archaeological resources and poor (less than 25 percent) ground surface visibility.

The following report describes project methodology, environmental setting, previous investigations, results, and recommendations for the project area. Because no archaeological resources were encountered during the survey the inclusion of cultural contexts would be extraneous to the report; therefore, none are presented here. Madeleine Bray, M.A., RPA served as principal investigator and the fieldwork was supervised by Justin Olson, M.A., RPA, and Tyler Lund-Kyrola, B.A. (See Appendix A for a list of project personnel).

Clearwater Creek Business Park Project  
 Phase I Archaeological Survey  
 Lino Lakes, Anoka County, MN



-  Project Area
-  AUAR - identified Area of High Archaeological Potential
-  One Mile Context Study Area
-  Previously Identified Archaeology Site



Project Location

Figure 1

## 2.0 METHODS

### 2.1 Objectives

The primary objective of the archaeological investigation was to determine whether the area to be affected by the proposed project possesses any intact archaeological resources, and if so, whether those resources are potentially eligible for listing in the NRHP. All work was conducted in accordance with the Minnesota State Historic Preservation Office (MnHPO) *Manual for Archaeological Projects in Minnesota* (Anfinson 2005), and the *Secretary of the Interior's Standards and Guidelines for Archeology and Historic Preservation* (48 Federal Register 44716-44740, National Park Service [NPS] 1983).

### 2.2 Background Research

As part of the cultural resources assessment for the I-35E Corridor AUAR, in November of 2004, the 106 Group conducted background research at MnHPO to identify archaeological sites within one mile (1.6 km) of the project area and on surveys previously conducted within the project area. In addition, online research was conducted to locate historical aerial photographs and historical maps. On July 15, 2016, prior to the start of the field survey, staff from the 106 Group conducted updated background research at MnHPO in order to identify previously identified sites and surveys that had been placed on file at MnHPO since the time of the 2004 literature review.

### 2.3 Field Methods

#### 2.3.1 VISUAL ASSESSMENT

During the field survey, members of the 106 Group archaeological field crew visually assessed all portions of the project area to verify the AUAR's assessment of archaeological potential within the project area.

Intensive field investigation focused on areas assessed as possessing greater potential to contain significant, intact archaeological resources. These areas included undisturbed portions of the project area:

- located within 500 feet (ft.) (150 meters [m]) of an existing or former water source of 40 acres (19 ha) or greater in extent, or within 500 ft. (150 m) of a former or existing perennial stream;
- located on topographically prominent landscape features;
- located within 300 ft. (100 m) of a previously reported site; or
- located within 300 ft. (100 m) of a former or existing historical structure or feature (such as a building foundation or cellar depression).

Areas characterized by a relatively low potential for containing archaeological resources included disturbed or inundated areas, former or existing wetland areas, poorly drained areas, and areas with a 20 percent or greater slope. Areas assessed as low potential were not investigated further.

### **2.3.2 PEDESTRIAN SURVEY**

Pedestrian survey was conducted in areas identified during the visual assessment as exhibiting a greater potential to contain intact archaeological deposits where 25 percent or more of the surface was visible. Due to the efficiency of the methodology, pedestrian survey was also conducted in portions of the survey area outside of the locations identified as possessing greater archaeological potential where 25 percent or more of the surface was visible. Pedestrian survey was employed to ascertain whether archaeological sites or above-ground features, such as earthworks or abandoned structural foundations, were present within the survey area. Pedestrian survey transects were placed 15 m (50 ft.) apart to ensure adequate coverage of the ground surface.

### **2.3.3 SHOVEL TESTING**

Shovel tests were excavated in areas identified during the visual assessment or pedestrian survey as exhibiting greater potential to contain intact archaeological deposits where less than 25 percent of the soil surface was visible. Tests were small, circular excavations, measuring approximately 35-45 centimeters (cm) in diameter. A single transect with a 10-m (33-ft.) testing interval was employed for most shovel tests.

All excavated soil matrices were passed through ¼-inch hardware mesh to ensure the consistent recovery of artifacts. Tests were excavated down to the level of culturally sterile subsoil.

Survey data were recorded through standardized forms and the field director's daily log. Recorded information included test locations and methods of testing; the numbers, types, and locations of recovered cultural materials; the depth of shovel tests and the thickness of excavated soil layers; soil textures and inclusions (both natural and cultural); and soil color according to Munsell color charts.



## 3.0 LITERATURE SEARCH

### 3.1 Previous Archaeological Studies and Sites

Research indicates that aside from the 2005 AUAR cultural resources assessment (Ketz and Vermeer 2005; summarized in the Introduction), no archaeological studies have been previously conducted within the project area. Three studies have been conducted within one mile of the project area. No previously identified sites are located within the project area. However, one site has been recorded (field confirmed) and four sites have been reported (not field confirmed) within one mile of the project area (Table 1, Figure 1).

All five of the previously recorded sites, including the previously recorded site (21AN130) and reported sites (21WAj, 21Wak, 21WAl, and 21WAm) consist of collections of precontact artifacts at the Minnesota Historical Society whose approximate locations were recorded based on information from informants.

Table 1. Previously Identified Archaeological Sites within 1 Mile of the Project Area

Site No.	Site Name	T	R	S	¼ Section	Description	NRHP Status
21WAj	-	31N	21W	18	-	Landowner Collection – Precontact artifact scatter	Not Evaluated
21Wak	-	31N	21W	30	E-NW, E-SW	Landowner Collection – Precontact artifact scatter	Not Evaluated
21WAl	-	31N	21W	30	SW-NW	Landowner Collection – Precontact artifact scatter	Not Evaluated
21WAm	-	31N	21W	30	W-SW	Landowner Collection – Precontact artifact scatter	Not Evaluated
21AN130	Iverson I	31N	22W	25	NE	Landowner Collection – Precontact artifact scatter	Not Evaluated

### 3.2 Historical Map Review

A review of the General Land Office (GLO) plat map from 1848 (GLO 1848), historical plat maps from 1887 and 1914 (Foote 1887, Webb Publishing Co. 1914), as well as the 1902 White Bear 15-minute and 1952 Centerville 7.5-minute USGS topographic maps and historical aerial photographs from 1938 (University of Minnesota 2016), did not indicate any past structures within the project area.

### 3.3 Environmental History Overview

The project area is generally very level and consists primarily of agricultural fields, with some trees and aquatic vegetation near Clearwater Creek, which bounds the project site to the north. Geologically, the project area lies within the Aitkin Lacustrine Plain, Silty geomorphic region. The project area is within the LLPD soil landscape unit, described as deep silt or loamy, poorly drained, dark colored soils. The LLPD soil landscape unit makes up approximately 1 percent of the Twin Cities Formation, Loamy, Rolling geomorphic region (Agricultural Experiment Station 1980). The primary soil association for the survey area includes the Blomford loamy fine sand, with other soil units being Dundas loam, Loamy wet sand, Nessel fine sandy loam, and Webster loam (USDA 2016).

## 4.0 RESULTS AND RECOMMENDATIONS

Staff from the 106 Group conducted a Phase I archaeological survey of the project area on July 13 and 20, 2016. Approximately 39.8 acres were characterized by plowed fields with 100 percent visibility, and were therefore subject to systematic pedestrian survey in 15-meter (50 feet) intervals (Figures 2 and 3).

Approximately 1.2 acres were visually assessed to be highly disturbed by roads or irrigation ditches and were, therefore, identified as having a low archaeological potential and not surveyed further (Figure 3).






An additional 0.8 acres were inundated by water and not surveyed. The remaining 0.8 acres, located along Clearwater Creek, were overgrown with trees and aquatic vegetation and exhibited low (less than 25 percent) visibility. Because of the proximity to the creek and low surface visibility, 21 shovel tests were excavated at 10-m intervals within the 0.8-acre area adjacent to the creek. Excavated shovel tests ranged in depth from 21 cm to 100 cm below surface. All shovel tests yielded negative results.

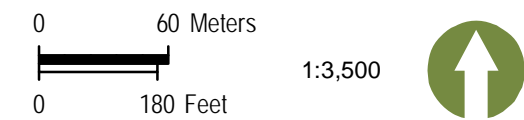
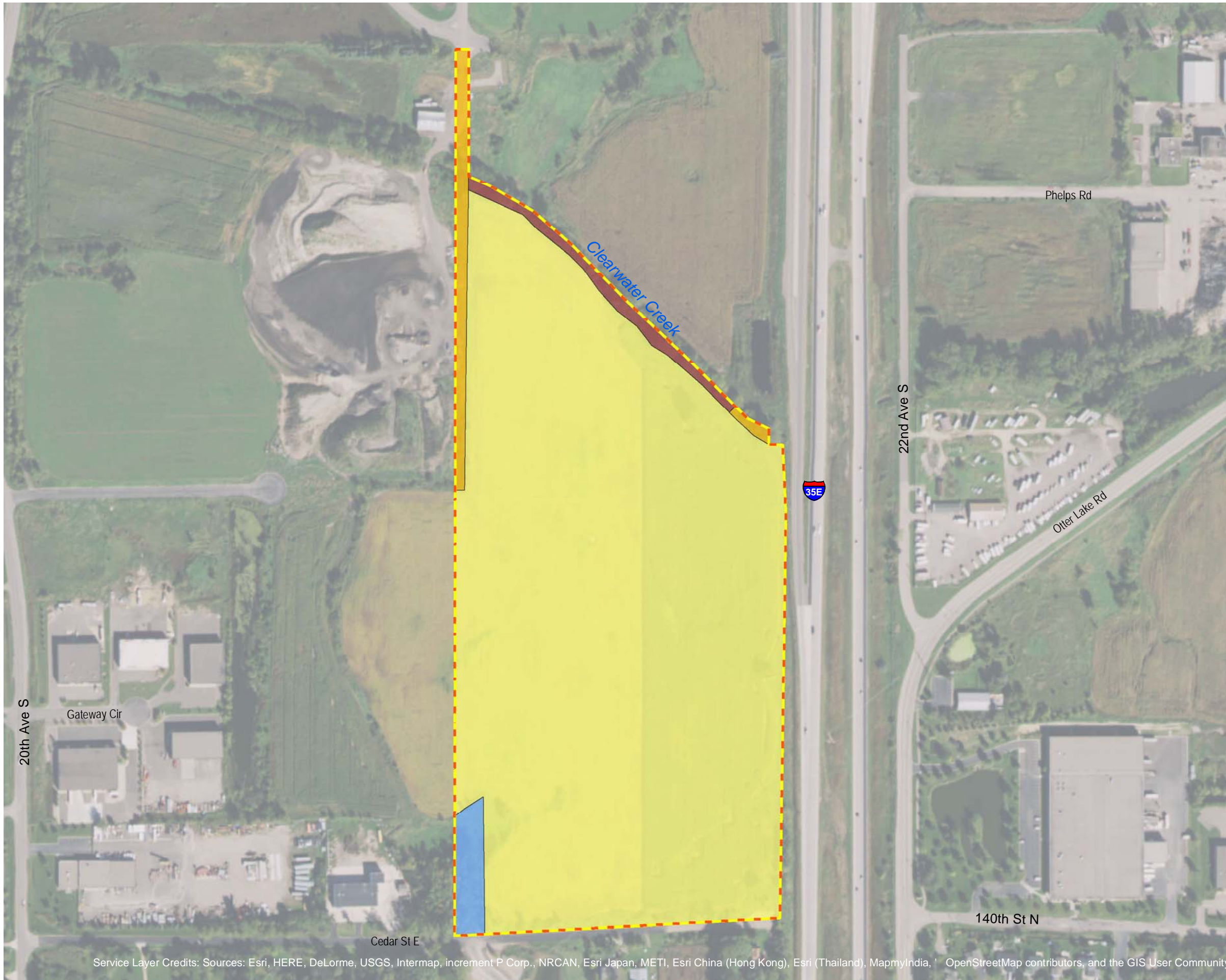
Since no archaeological resources were identified in the survey area, the 106 Group recommends that no further work is necessary.



Figure 2. Overview of the project area from the southwest corner, facing northeast.

Clearwater Creek Business Park Project  
 Phase I Archaeological Survey  
 Lino Lakes, Anoka County, MN

-  Project Area
-  Shovel Test
-  Pedestrian Survey
-  Visual Assessment
-  Inundated Area



Results

Service Layer Credits: Sources: Esri, HERE, DeLorme, USGS, Intermap, increment P Corp., NRCAN, Esri Japan, METI, Esri China (Hong Kong), Esri (Thailand), MapmyIndia, OpenStreetMap contributors, and the GIS User Community

Figure 3

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# APPENDIX A: PROJECT PERSONNEL

# LIST OF PERSONNEL

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**Principal Investigator**

Madeleine Bray, M.A., RPA

**Crew Chief**

Justin Olson, M.A., RPA

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