

**CITY OF LINO LAKES
PLANNING & ZONING BOARD MEETING**

Wednesday, July 10, 2019

6:30 p.m.

Council Chambers

Please be courteous and turn off all electronic devices during the meeting.

AGENDA

1. CALL TO ORDER AND ROLL CALL
2. APPROVAL OF AGENDA
3. APPROVAL OF MINUTES: June 12, 2019
4. OPEN MIKE
5. ACTION ITEMS
 - A. Nature's Refuge PUD Final Plan/Final Plat
6. DISCUSSION ITEMS
 - A. Project Update
7. ADJOURN

Meeting guidelines on reverse side.

City of Lino Lakes Planning & Zoning Board MEETING GUIDELINES

Open Mike – The purpose of a Board Meeting is to accomplish the business of the city. When presenting at a meeting please remember to be respectful, and follow these guidelines:

- Please address the meeting chair.
- State your name and address for the record.
- Please observe a 4-minute limit.
- The topic must relate to city business.
- Open Mike is for items not on the agenda.
- A spokesperson must represent a group of five or more – groups will have 8 minutes.
- The Presiding Officer may limit duplicative presentations.
- Remember, the meeting is to discuss city business only.

Public Hearing - Held as a separate item of business on the agenda. The public hearing segment is your opportunity to tell the Board how you feel about issues scheduled to be heard. Typically, a hearing follows these steps:

- The Presiding Officer (Chair or Vice-Chair) will announce the proposal to be reviewed and ask for the staff report. The presiding Officer shall maintain strict order and etiquette at all meetings.
- Staff will present their report on the proposal.
- Board members will then ask City Staff questions about the proposal.
- The Presiding Officer will then open up the public hearing for anyone present who wishes to comment on the proposal. This is the time for the public to make comments or ask questions about the proposal.
Comments should be limited to four (4) minutes unless further time is granted by the Presiding Officer. All comments should be directed to the Board as a body and not to any individual Board Member or City Staff Member unless permission is granted by the Presiding Officer. No person shall be permitted to enter into any discussion, either directly or through a member of the Board without the permission of the Presiding Officer.
- After everyone in the audience wishing to speak has given his/her comments, the Presiding Officer shall close the public hearing.
- The Board will then discuss the proposal. No further public comments are allowed.
- The Board will then make a recommendation(s) and/or a decision.

When you are called upon for your comments, please step to the microphone at the podium and state your name and address for the record.

Occasionally, the Board may continue a hearing to another meeting before taking action.

Meeting Etiquette

The Planning & Zoning Board must preserve order and decorum while the meeting is in session. A resident shall not, by conversation or otherwise, delay or interrupt the proceedings or the business of the Board, nor disturb any resident or Board Member while speaking or refuse to obey the orders of the Board.

**CITY OF LINO LAKES
PLANNING & ZONING BOARD MINUTES**

DATE	: June 12, 2019
TIME STARTED	: 6:30 P.M.
TIME ENDED	: 8:05 P.M.
MEMBERS PRESENT	: Paul Tralle, Michael Ruhland, Michael Root, Sue Peacock, Neil Evenson, Perry Laden, Jeremy Stimpson
STAFF PRESENT	: Michael Grochala, Katie Larsen, Mara Strand

PLANNING & ZONING BOARD MEETING

I. CALL TO ORDER AND ROLL CALL:

Chair Tralle called the Lino Lakes Planning and Zoning Board meeting to order at 6:30 P.M. on June 12, 2019.

II. APPROVAL OF AGENDA

The Agenda was approved as presented.

III. SWEARING IN OF BOARD MEMBERS

Agenda item was skipped.

IV. ELECTION OF CHAIR & VICE CHAIR

It was moved by Mr. Root to appoint Mr. Tralle as Chair. The motion was passed unanimously.

It was moved by Mr. Laden to appoint Mr. Root as Vice Chair. The motion was passed unanimously.

V. APPROVAL OF MINUTES

Mr. Laden made a MOTION to approve the May 8, 2019 meeting minutes. Motion was supported by Mr. Stimpson. Motion carried 5-0. Abstained by Mr. Ruhland.

VI. OPEN MIKE

Chair Tralle declared Open Mike at 6:34 P.M.

DRAFT MINUTES

There was no one present for Open Mike.

Mr. Stimpson made a MOTION to close Open Mike at 6:34 P.M. Motion was supported by Mr. Evenson. Motion carried 6 - 0.

VII. ACTION ITEMS

A. 6626 Enid Trail – Variance for Curb Cub/Driveway Width

Katie Larsen, City Planner, presented the staff report.

Mr. Laden asked why the City is concerned about the property width at the property line rather than the curb. Ms. Larsen stated the ordinance is written as such, creates open space, and private utilities are located in the right of way.

Mr. Ruhland inquired about the escrow funds. Ms. Larsen confirmed the City is holding the funds and a temporary CO was issued.

Mr. Ruhland asked if the driveway is encroaching on the utility easement. There are utilities within boulevard right of way.

Rebecca and Adam Neeck, 6626 Enid Trail, presented to the Planning and Zoning Board. The first 50 feet of the driveway is compliant; from 50 to 60 feet is not in compliance. Mr. Neeck observed two driveways on Sioux Lane and Sioux Lookout that are out of compliance.

Mr. Laden asked if the applicant built the house and if they were a part of the driveway process. Ms. Neeck clarified that they built the home but were not a part of the driveway process.

Mr. Stimpson stated that the Sioux Lane and Sioux Lookout addresses were built when 36 foot wide driveways were allowed.

Mr. Root has trouble approving an ordinance when staff did not find any reasonable findings. His preference would be to revise the ordinance.

Mr. Stimpson asked how a 60 foot right of way ended up on this lot. Ms. Larsen noted that there are other properties in the development with the same situation and have compliant driveways.

Ms. Larsen clarified approval of the variance would allow for the current driveway to remain in place and the ability, in the future, to reconstruct as is.

Mr. Ruhland asked when the driveways, with the same situation and are compliant, were installed.

Kari Clark, Sharper Homes, 14840 Aberdeen Street, Ham Lake, reiterated the sequence of events with the builder and homeowner.

Ms. Peacock and Mr. Evenson stated they would like builders to keep to the ordinance and hold builders accountable.

Mr. Laden made a MOTION to approve the denial of 6626 Enid Trail-Variance for Curb Cut/Driveway Width. Motion was supported by Mr. Evenson. Motion carried 6-0.

B. 6650 Enid Trail – Variance for Impervious Surface Coverage

Katie Larsen, City Planner, presented the staff report.

Kari Clark, Sharper Homes, 14840 Aberdeen Street, Ham Lake, explained that previous Sharper Homes houses, within the development, were built out of compliance. The issue was brought to their attention in May of 2019. Development wide, Sharper is in compliance. They are out of compliance on a lot by lot basis.

Mr. Stimpson asked if there are ramifications for the existing properties that are over the 30%. Staff confirmed that the City was applying the 40% and this application, over the 40%, was a red flag being that it violates the variance guidelines.

Mr. Ruhland stated it is a large gap. Ms. Clark clarified the purpose of the rain garden.

Mr. Laden stated he has seen deprivation of the waterways over the years. He is disappointed seeing the City allow encroachment on the shoreland overlay district and not taking care of the issue from the start.

Mr. Root stated it is a large variance in a sensitive area and the environmental impact is too large.

Chair Tralle stated 13% is a large number; 1-2% allows for some leeway.

Mr. Root made a MOTION to approve the denial of 6650 Enid Trail-Variance for Impervious Surface Coverage. Motion was supported by Stimpson. Motion carried 6-0.

C. 1393 Hunters Rudge – Variance for Curb Cut/Driveway Width

Katie Larsen, City Planner, presented the staff report.

Mr. Ruhland asked what the ordinance was when the house was built. Mr. Grochala stated the ordinance changed in 1998 to allow for 36 feet wide driveways. The

ordinance was changed back in 2003 because of the excessive width. Other than the window, the 26 feet dates back to the early 70's.

Ms. Larsen stated the house is 15 feet back from the lot line. He applicant currently has the ability to widen the driveway 8 feet.

Mike Settimi, 1393 Hunters Ridge, explained why he would like a variance. The applicant has gained approval from the neighborhood architecture committee.

Mr. Root sympathizes with the need for a 30 foot wide driveway. He suggested expanding the driveway but not squaring it off.

To stay consistent, Mr. Evenson cannot support the variance. He supports a change in the ordinance.

Mr. Ruhland supports the variance because of when the property was built.

Ms. Peacock asked how many people are driving. Mr. Settimi stated 4 cars with 2 vehicles coming often.

Rob Rafferty, 1573 Merganser Court, was present and introduced himself.

Chair Tralle suggested a conversation with Council regarding driveway widths.

Mr. Evenson made a MOTION to approve the denial of 1393 Hunters Ridge – Variance for Curb Cut/Driveway Width. Motion was supported by Root. Motion carried 5-1.

VIII. DISCUSSION ITEMS

A. Project updates

Staff had positive conversations with the Council regarding tax increment financing for Lyngblomsten. The applicant wants to be building by October 2019.

Birch Street mill and overlay project will take place east of the S curve. The balance of the project, from Ware Road to the S curve, will happen in 2021.

Eastside Villas grading is in process.

Water tower #3 will be going out for bid.

Saddle Club 4th Addition was approved by City Council.

Lino Lakes Mini Storage earth work is taking place.

All Seasons Rental is under construction.

Second test well is being dug for the well house off Birch Street. Mr. Grochala explained the test well process.

The City is meeting with St. Paul Regional Water Services regarding alternative water source.

County is moving out the house and clearing trees at the northwest corner of Centerville Road/Ash Street.

Love To Grow On building is under construction.

IX. ADJOURNMENT

Mr. Stimpson made a MOTION to adjourn the meeting at 8:05 P.M. Motion was supported by Mr. Laden. Motion carried 6 - 0.

Respectfully submitted,

Mara Strand

**PLANNING & ZONING BOARD
AGENDA ITEM 5A**

STAFF ORIGINATOR: Katie Larsen, City Planner

P & Z MEETING DATE: July 10, 2019

REQUEST: Nature’s Refuge PUD Final Plan/Final Plat

CASE NUMBER: PF2019-003
FP2019-003

APPLICANT: Preferred Builders, Inc.
Attn: Keith Duffee
6750 Stillwater Boulevard North #4
Stillwater, MN 55082

OWNER: Same

REVIEW DEADLINE:

Complete Application Date:	TBD
60-Day Review Deadline:	TBD
120-Day Review Deadline:	TBD
Environmental Board Meeting:	NA
Park Board Meeting:	NA
Planning & Zoning Board Meeting:	July 10, 2019
Tentative City Council Work Session:	TBD
Tentative City Council Meeting:	TBD

The applicant is working on final HOA documents and title commitment so the land use application is incomplete; however, civil plans and the final plat were submitted and will be presented to the Planning & Zoning Board for review and comment.

BACKGROUND

The applicant, Preferred Builders, Inc., submitted a land use application for PUD Final Plan/Final Plat for Nature’s Refuge. The proposed residential development is a 61 lot single family conservation subdivision located north of Main Street and west of Lino Lakes Elementary School. The development contains 3 parcels totaling approximately 95 gross acres.

This plan review is based on the following revised plan sets:

- Sanitary Sewer, Watermain, Storm Sewer and Street Construction Plans prepared by Carlson McCain dated June 12, 2019
- Grading, Development & Erosion Control Plans prepared by Carlson McCain dated June 12, 2019
- Preliminary Plan Set prepared by Carlson McCain dated June 12, 2019
- Stormwater Management Plan prepared by Carlson McCain dated June 7, 2019
- Net Area Exhibit prepared by Carlson McCain dated June 12, 2019
- Site Landscape Plan prepared by Carlson McCain dated June 12, 2019

Previous Council Actions:

- June 25, 2018: Council adopted Ordinance No. 05-18 approving the rezoning of property from R-1, Single Family Residential to PUD, Planned Unit Development
- June 25, 2018: Council passed Resolution No. 18-70 approving PUD Development Stage Plan/Preliminary Plat

ANALYSIS

Zoning

On June 25, 2018, Council adopted Ordinance No. 05-18 approving the rezoning of the property from R-1, Single Family Residential to PUD, Planned Unit Development to provide the following flexibilities:

1. Reduced minor collector road right-of-way width from 80 feet to 60 feet on Street A and Street C
2. Reduced front setback from 40 feet to 30 feet on Street A and Street C
3. Reduced paved road surface width from 32 feet to 30 feet (back to back) on cul de sac Street D and cul de sac Street E

Density

The site is guided for low density residential development which requires a density of 1.6 to 3.9 units per net acre. The revised net density is 1.68 units per acre which is consistent with the Comprehensive Plan's guided land use and density. Wetlands and wetland buffers make up 57 acres (60%) of protected open space.

The following chart implements Met Council's formula for calculating net density.

	Preliminary Plat (6-15-18)	Revised Preliminary Plat (6-12-19)
Gross Area (acres)	95.05	95.05
Wetlands & Water Bodies	(42.33)	(42.33)
Public Parks & Open Space	0.00	0.00
Arterial ROW	(1.33)	(1.33)
Other (Utility Transmission Easement)	(0.40)	(0.40)
Other (Wetland Buffer Area)	(15.10)	(14.73)
Net Area (acres)	35.89	36.26
# of Units	61	61
Gross Density (units/acre)	0.64	0.64
Net Density (units/acre)	1.70	1.68

Zoning Requirements

The site was rezoned to PUD, Planned Unit Development with Ordinance No. 05-18 to allow flexibility in right-of-way width and setback from minor collector road. The regulations and performance standards of the R-1, Single Family Residential zoning district will be in effect unless otherwise stated in Council resolution or Development Agreement.

Lot Comparison R-1 vs. Nature's Refuge		
	Standard R-1 Requirements	Proposed Nature's Refuge
Min. Lot Size¹	10,800 sf	Min. = 10,800 sf Ave. = 13,164 sf
Min. Lot Width	80 ft	Min. = 80 ft
Min. Lot Depth	135 ft	Min. = 135 ft
Building Setback (feet)		

-From Local Streets	30 ft	30 ft
-From Collector or Arterial Streets	40 ft	30 ft (Street A-E) ² 40 ft (Main Street)
-Rear		
--Principal	30 ft	30 ft
-Accessory	5 ft	5 ft
-Side		
--Principal	10 ft	10 ft
--Accessory	5 ft	5 ft
Buffer Adjacent to Collector	15 foot	Provided
Impervious Surface	40%	Verified with Building Permits

¹Net area required is 10,800 sf of contiguous buildable land

²PUD flexibility approved by Council

A 15 foot wide landscape buffer has been provided along CSAH 14 (Main Street) outside of the existing 100 foot wide private utility easement and is contained in an outlot that will owned and maintained by a homeowner's association (HOA). A 6 foot high privacy fence is proposed along Lot 1, Block 6 that will provide screening along CSAH 14. Shrubs and plantings are provided along the exterior side of the fence.

Building Type and Construction

At the time of building permit, each individual single family dwelling unit will be reviewed for compliance with Section 1007.043(2)(a) General Building Provisions and the R-1, Single Family Residential requirements regarding floor area, garage and design and construction standards.

Subdivision Ordinance

Conformity with the Comprehensive Plan and Zoning Code

The PUD Final Plan/Final Plat is consistent with the PUD Development Stage Plan/Preliminary Plat.

Blocks and Lots

The preliminary plat has 61 single family lots and 6 outlots. The outlots are for stormwater management facilities, wetland areas, open space and trail corridors.

Ownership of each outlot (City, HOA, developer etc.) shall be determined with the complete land use application and detailed in the Homeowner's Association (HOA) documents.

Streets and Alleys

CSAH 14 (Main Street) is a Principal Arterial road. Streets A and Street C (north of Street A) are identified as minor collector roads in the Transportation Plan and provide a north-south corridor. The 1999 Anoka County TH 242/CSAH 14 Access Management Plan identifies at-grade full access at Wood Duck Trail and CSAH 23 (Lake Drive) and restricted movements along the site's corridor. The site plan has been reviewed by Anoka County Highway Department. They have identified the need for additional right-of-way (70-75 feet) and right and left turn lanes on CSAH 14 (Main Street). Twelve foot wide east bound and west bound turn lanes have been shown on the site plan. Detailed construction plans have been submitted with the PUD Final Plan/Final Plat and are being reviewed by Anoka County.

The internal road system (Streets A thru C) has 60 foot wide right-of-ways and 32 foot wide (back to back) paved road surface. Street D and Street E are cul de sacs with 60 foot wide right-of-way and 30 foot wide (back to back) paved road surface. The intersection of Street A and CSAH 14 (Main Street) has an 80 foot wide right-of-way and 42 foot wide (back to back) paved road surface. Sidewalks are proposed along the east side of both Street A and Street C.

Street C terminates in a temporary dead-end to the west, abutting 8024 Wood Duck Trail. This stub provides opportunity for future extension and residential development to Wood Duck Trail. This is consistent with the County Access Management Plan. Street C also terminates in a temporary cul de sac to the north and provides opportunity for future extension to the north.

Street B provides future access to Lino Lakes Elementary School to the east. In 2017, the school began a building remodeling and parking lot reconstruction project. An opportunity to eliminate the school's west driveway and connect with Nature's Refuge was identified as a safety benefit. The City and Anoka County are working with the school district to complete this connection. Ultimately, it is the school districts decision when to make this connection.

Easements

Standard drainage and utility easements at least 10 feet wide are provided along all lot lines. Easements at least 20 feet wide are provided over utility pipes.

Drainage and utility easements are required to be dedicated 10 feet above the high water level over stormwater drainage ponds and 10 feet outward from the delineated wetland boundary. This requirement is satisfied because easements have been dedicated over the entire outlots. Rear lot lines also have a minimum 10 foot wide easement.

A 100 foot wide private utility easement in favor of Great River Energy exists along the southern boundary of the development.

Landscaping shall be allowed in the drainage and utility easements covering the 15 foot wide landscape buffer area in Outlot E and Outlot F.

Storm Water Management and Erosion and Sediment Control

Per the revised Stormwater Management Plan prepared by Carlson McCain dated June 7, 2019, all of the site's stormwater eventually flows to ACD 32 and to the west. Stormwater leaves the project boundary at two locations: via ACD 32 and a small portion of the property discharges to a ditch along Main Street. The total proposed post-development impervious surface area is approximately 10.4 acres.

Soils on the site are classified as Hydrologic Soil Group A/D. Groundwater elevations ranged from 898 feet to 904 feet.

The revised Stormwater Management Plan and plan sheets identify four (4) stormwater ponds, two (2) infiltration basins and Wetland C on site. Wetland C will be enhanced and excavated to provide extended storage of treated stormwater. Pond 100 and Pond 400 are required for stormwater management. Pond 200 and Pond 300 are material excavation ponds. The storm water ponds and trails are located near the wetlands and upland buffers. This strategic design is the basis of the City's greenway system by creating a multi-functional greenway corridor intended to provide areas for stormwater management, upland buffers for wetland protection and natural resource conservation, and open space and trails for people.

A maintenance access trail is shown around Pond 200. This access trail will be graded but will not require gravel or paved improvements.

The site will be mass graded in one (1) phase. Residential home development will occur over several years.

Utilities

Public water, sanitary and storm sewer utilities will be installed within the development.

Sanitary Sewer

A 21" trunk sanitary sewer main located along CSAH 14 (Main Street) serves the site. An 8" and 10" sanitary sewer pipe serves the site internally. Future development to the north will potentially require a lift station. Sanitary sewer will also be stubbed to the west to accommodate future development.

Watermain

A 12” trunk watermain located along CSAH 14 (Main Street) serves the site. An 8” and 16” watermain serve the site internally and loops the system to CSAH 14 (Main Street). Watermain will be stubbed to the west and north property boundaries for future development.

Public Land Dedication

The City will require cash in lieu of land dedication. Per the City’s Park, Greenway & Trail System Plan, a neighborhood park is not programmed for this area. Lino Lakes Elementary School is immediately adjacent to the development.

Nature’s Refuge	
61 lots x \$3,000 =	\$183,000
Trail Construction Costs Credit =	(\$55,000)
TOTAL =	\$128,000

The Park, Greenway & Trail System Plan identifies the need for a future city trail running north-south through the development along greenway corridor. Due to concerns regarding potential impacts to the rare plant species behind Lots 1-4, Block 5, an 8.5 foot wide paved trail will be constructed on the west side of the development along Pond 100 and 200 utilizing the maintenance access path.

Outlot C of the revised plans accommodates a 25 foot wide trail corridor as required in the original review comments.

Plans have been revised to show a future 10 foot wide trail along CSAH 14 (Main Street). The timing of this trail construction is based on availability of funds and acquisition of additional right-of-way along those parcels not part of the plat (e.g. 625 and 635 Main Street). The section of sidewalk extending along Street A from Main Street to Street B has been revised to an 8 foot wide concrete sidewalk.

Credit has been given for trail construction costs.

The Park Board reviewed the plans on February 5, 2018. The Board recommends collecting park fees to potentially fund enhancements at Lino Lakes Elementary School.

Tree Preservation

The goal of tree preservation is to minimize unnecessary loss of habitat, biodiversity and forest resource and to replace removed trees in areas where tree cover is most critical. The revised Tree Inventory Report prepared by Carlson McCain dated June 15, 2018 identifies 1,151 significant trees on site and per Sheet L1, 415 existing trees will remain. The Tree Preservation Plan identifies the basic use area and environmentally sensitive areas. There are 201 trees within these areas proposed for removal. This requires 138

replacement trees for mitigation. The developer and Environmental Coordinator determined the best location for replacement trees along trail corridors and open space areas.

The Environmental Coordinator also reviewed the Tree Preservation Plan and made suggestions for removal of hazardous or unhealthy trees. There are 14 non-significant trees proposed for removal. No mitigation is required for these trees.

Landscaping

Boulevard trees are required at the rate of one (1) tree per lot frontage for single family. There are 61 single family lots requiring 66 boulevard trees. There are 84 boulevard trees proposed which is compliant with the ordinance.

Open area landscaping standards required 1 large tree and 3 large shrubs per 2,000 sf. Per the Landscape Plan, there is 432, 506 sf of open area requiring 216 overstory trees and 661 large shrubs. Sheet L1 indicates 415 existing trees plus an additional 216 open area trees and 661 shrubs which is compliant with the ordinance. Special attention has been made to create a landscape buffer along the west side of the development abutting the residential properties along Wood Duck Trail.

A 15 foot wide landscape buffer has been provided along CSAH 14 (Main Street) outside of the existing 100 foot wide private utility easement and is contained in an outlet that will owned and maintained by a homeowner's association (HOA). A 6 foot high privacy fence is proposed along Lot 1, Block 7 that will provide screening along CSAH 14. Shrubs and plantings are provided along the exterior side of the fence.

Landscaping shall be allowed in the drainage and utility easements covering the 15 foot wide landscape buffer area in Outlot E and Outlot F.

Environmental Assessment Worksheet (EAW)

As previously noted, in 2006 a mandatory Environmental Assessment Worksheet (EAW) was prepared for the original Nature's Refuge concept because the proposed 278 housing units exceeded the 250 housing unit threshold. The EAW thoroughly analyzed potential impacts to wetlands, rare plant and animal species, floodplain, water quality, noise, traffic and archeology. It was determined the project did not have the potential for significant environmental effects and the Council passed Resolution No. 07-06 making a Negative Declaration on the Need for an EIS.

The scope and size of the current proposed Nature's Refuge (61 housing units on 95 gross acres) is much smaller than the original 2006 proposal (278 housing units on 232 gross acres). An EAW is not required for the current proposed Nature's Refuge because the 62 housing units do not exceed the 250 housing unit threshold.

Traffic Study

The Traffic Study prepared by Spack Consulting on June 4, 2018 based was reviewed during the PUD Development Stage Plan/Preliminary Plat process. The development is forecasted to generate approximately 565 new trips per day with 45 new trips in the a.m. peak hour and 60 trips in the p.m. peak hour. Per the traffic study, the existing LOS is C and the 2021 Build LOS is C. The proposed development meets the subdivision ordinance requirements.

Wetlands

A WCA Notice of Decision for the wetland boundary delineation was approved by RCWD on June 16, 2016. Seven (7) wetlands were delineated on site totaling 41.66 acres. ACD 32 is not classified as a wetland.

A revised WCA Permit Application for wetland sequencing and mitigation was prepared by Kjolhaug Environmental Services on April 5, 2019. The project area is located within in the RCWD Lino Lakes Comprehensive Wetland Protection and Management Plan (CWPMP) area. The intent of the CWPMP is to preserve/enhance high-priority wetlands/wetland corridors. Six (6) of the 7 wetlands are in the Wetland Management Corridor (WMC). The exception is Wetland 1. Wetland buffer easements covering 14.73 upland acres will protect the WMC. Wetland impacts will be mitigated through the purchase of wetland bank credits.

In summary, post-development wetland hydrological regime is equal to predevelopment conditions, wetland water quality is higher overall than pre-development conditions, and wildlife habitat structure improves overall post-development likely due to removal/conversion of cropland to permanent upland buffer.

Per Sheet W1, Wetland Buffer Exhibit prepared by Carlson McCain revision dated June 15, 2018 and the Kjolhaug Wetland Application revision dated April 5, 2019:

Wetland Summary	
Total Delineated Wetlands	41.66 acres
Permanent Wetland Impact	1.7041 acres
Temporary Wetland Impact	1.3148 acres
WMC Buffer Area	14.73 acres
Wetland Bank Credit	2.8408 credit from Brad Moen bank

The applicant shall submit draft conservation easements over the applicable wetland outlots.

Rare & Endangered Species

Minnesota endangered and threatened species must be considered when submitting a wetland replacement plan. A rare plant survey identified portions of three populations of state-threatened plant species that would be impacted by the development. A Takings Permit Application has been submitted to the MNDNR for their review and approval. Impacts to this habitat have been minimized by reducing the road right-of-way width and setback and relocating the trail to the west side of the development.

Federal endangered species of concern in the region include the northern long-eared bat (NLEB). Based on the tree species present onsite and the fact that there are no known NLEB hibernacula or roosting colonies in the project vicinity, negative effects to the NLEB or its habitat are not expected.

Floodplain

The 2015 DFIRM indicates Zone A floodplain on site, mainly over the easterly wetland complex and along ACD 32. Per RCWD modeling data, the east floodplain base flood elevation is 904.5 and the west floodplain elevation is 904.2. Per March 14, 2019 revised Sheet FP, Floodplain Exhibit, 215 cy of floodplain fill is required related to the Street C/ACD 32 ditch crossing. Proposed floodplain mitigation is 47,700 cy.

A FEMA Conditional Letter of Map Revision (CLOMR) or Letter of Map Revision (LOMR) is not required because floodplain impacts do not encroach into any single family lots.

Growth Management Policy

Per the Comprehensive Plan (page 3-27), an annual average of 230 units per year over each 5 year phasing period not to exceed 345 units in any 1 year is allowed. At the end of the 5 year phasing period unallocated units will be averaged out over the next 5 years.

Nature's Refuge is proposed to be graded and developed in one (1) phase.

Homeowner's Association (HOA)

A homeowner's association shall be required to maintain landscape buffer areas, any common area/signage and possibly certain stormwater ponds (i.e. Pond 300). Details regarding ownership and maintenance will be finalized during the final plat process.

Development Agreement

A Development Agreement shall be drafted by the City, executed by the City and the developer and recorded by the developer.

Title Commitment

Title commitment shall be provided. The City Attorney will review and comment.

Stormwater Maintenance Agreement

Under the City's and RCWD Programmatic Stormwater Management Facility Maintenance Agreement, the City will be responsible for maintenance of the stormwater maintenance facilities.

Rice Creek Watershed District (RCWD)

RCWD issued a CAPROC for Permit #17-122 on May 22, 2019.

RECOMMENDATION

Staff recommends approval of the Nature's Refuge PUD Final Plan/Final Plat subject to the following conditions:

1. A Development Agreement shall be drafted by the City, executed and recorded by the developer.
2. Landscaping shall be allowed in the drainage and utility easements covering the 15 foot wide landscape buffer area in Outlot E and Outlot F.

The following items shall also be addressed:

1. All comments from City Engineer letter dated July 1, 2019 shall be addressed.
2. All plan sheets shall include street names as approved on the final plat.
3. The applicant shall prepare any required outlot deeds for City review and approval.
4. The applicant shall prepare any required conservation easement documents for City review and approval.
5. The applicant shall prepare separate trail easements over Outlot A, B, C, D and E for City review and approval.
6. Approval of MNDNR Takings Application shall be submitted.
7. Ownership and maintenance responsibilities of each outlot shall be determined at the time of final plat.
 - a. The applicant shall specifically detail the ownership, maintenance and conservation easement type proposed for the wetland bank land.
8. Draft homeowner's association documents shall be submitted with the final plat application.
9. Sheet 4, Existing Conditions:
 - a. Sheet 4 shows an existing garage structure in the southeast corner of Outlot A. It is assumed this garage belongs to 801 Main Street.
 - i. The applicant shall work with the property owner to have the structure properly located on their property.

- ii. A zoning permit is required.
 - iii. This shall be resolved prior to issuance of a grading permit.
- 10. Sheet 7, Existing Conditions:
 - a. The existing pole barn and garage near 635 Main Street structures shall be removed prior to issuance of a grading permit.
 - i. A demolition permit is required.
 - b. The existing gravel driveway access onto CSAH 14 (Main Street) shall be removed with the issuance of a grading permit.
- 11. Sheet 2, Preliminary Plat:
 - a. Net Density shall be revised to 1.68 lots per acre.
 - b. Wetland Buffer shall be revised to 14.7 acres.
- 12. Final Plat
 - a. The final plat shall include street names.

ATTACHMENTS

1. City Engineer letter dated July 1, 2019
2. Revised Preliminary Plat
3. PUD Final Plans (Utility, Grading and Landscaping)
4. Final Plat



Memorandum

To: *Katie Larsen, City Planner*

From: *Diane Hankee PE, City Engineer*

Date: *July 1, 2019*

Re: *Nature's Refuge Final Plat Review
Project No. 011406-000*

We have reviewed the Final Plat documents received June 12, 2019 for the Nature's Refuge development including:

- Final Utility Plan Set prepared by Carlson McCain
- Final Grading Plan prepared by Carlson McCain

The following are our review comments that should be responded to in writing by the applicant.

City comments are in blue.

Responses in purple.

Responses in Light Blue 06/06/19

The applicant shall submit an updated Geotechnical Report, SWMP, and RCWD approval for ACD 10-22-32 realignment, per our comments below.

Engineering

- **General**

The Nature's Refuge development includes 95 acres north of CSAH 14 (Main Street), west of CSAH 23 (Lake Street) and east of Wood Duck Trail. The revised project proposes 62 single family houses and associated infrastructure. This property was originally part of a larger development of which an Environmental Assessment Worksheet (EAW) was prepared. The evaluation concluded that the project did not have the potential for significant environmental effects. The EAW included a comprehensive analysis of the area which we incorporated as part of our review for Nature's Refuge.

The site has relatively flat topography, with elevations ranging from 904 to 914. Much of the site is below 905, which is the approximate elevation of the delineated wetlands on the site. The geotechnical conditions of the site indicate that there is one foot of topsoil

overlying glacier outwash including silty sand and poorly graded sand. Sandy lean clay was found 29 and 40 feet below grade. The groundwater elevation at the south end of the site is 904 and 898 at the north end of the site.

- ~~1. Street C shall be extended to the north side of Anoka County Ditch (ACD) 10-22-32. This includes the extension of sanitary sewer and watermain and culvert crossing reconstruction/extension. The road bed shall be graded and restored for future extension and paving.~~ **Street C extended to the north extents of the property.**
- ~~2. Sheet 13 (Preliminary Site and Utility Plan) shows an Outlot C in the same locations as previously identified Outlot B.~~ **Outlot lettering updated**
- ~~3. Each plan sheet should include an accurate legend.~~ **Legend updated.**
- ~~4. **This project is assumed to be phased with Blocks 3, 4, & 5 being constructed as Phase 2.**~~
~~Noted, 2 phases proposed.~~
Proposed all as one phase.
~~Noted, Final plans are shown as one phase.~~
- ~~5. **Standard Detail Plates from the City of Lino Lakes General Specifications and Standard Detail Plates dated February 2018 should be used in the "Details" section of the plans. Contact Ed Youngquist at the City of Lino Lakes for PDF versions.**~~ ~~The city detail plates will be added in with final grading plans as well as final street and utility plans.~~
- ~~6. **Applicant to include pedestrian curb ramps in final plat.**~~
~~Pedestrian ramps shown in final Utility and Street Construction plans.~~

- **Grading, Erosion and Sediment Control**

The Nature's Refuge development proposes the mass grading of 62 new single-family lots. It includes the extension of streets and utilities northerly from Main Street (CSAH 14). A project SWPPP was submitted and reviewed.

Comments:

- ~~1. The applicant shall submit the earthwork volume data for excavation and embankment.~~
Earthwork balance is attached.
- ~~2. The applicant shall ensure that the proposed grading is not in conflict with the existing elevation south of Street B at the edge of the site.~~
FES added to catch runoff in the created low area.
- ~~3. Label pre drainage and post drainage directional flow arrows.~~
~~This is shown on the drainage figures in the SWMP.~~
Drainage arrow need to be shown.
~~Drainage arrows added.~~
- ~~4. Show locations for stockpiles and BMP measures for stockpile management.~~
~~Stockpile locations will be determined by the grading contractor.~~
~~BMP measures are detailed in the SWPPP.~~
- ~~5. The applicant shall show a screening berm along Main Street (CSAH 14) and grades~~

to accommodate a trail, see comments in the transportation section.

~~A berm is not possible with the drainage swale in the Outlot D. A 15' landscape easement has been added along B4 L15-17 and a screening fence along B7 L1.~~

6. ~~The applicant shall add redundant perimeter control measures spaced 5' apart where a 50' buffer cannot be maintained from wetland or surface water areas. Areas include the eastern portions near Sta 3+00, Sta 6+50, Sta 7+50, Sta 12+00. Redundant perimeter silt fence added along entire length of wetland east of blocks 5 and 6 and east of Street C.~~
7. ~~The applicant shall review drainage being directed onto adjacent private property:~~
 - ~~• Water from Street B and A is directed to east and may require an easement from the landowner to drain to the proposed FES. Grading has been revised. Sidewalk revised to 8 feet and placed against curb to allow for additional grading to the east.~~
 - ~~• West side of L2B8? Grading has been revised on the west side of L2B8. A FES has been added and swale elevations added. Better define/pull back, into the yard from both the north and south, the swale on the west side of L2B8.~~
8. ~~Better define the grading for the future trail along Main St. and edit not to say "Grade 10' trail for future construction". Note sheet 4 of the sanitary profile does not show the trail cut in please edit.~~

- **Stormwater Management**

The existing site is undeveloped and has Anoka County Ditch (ACD) 10-22-32 flowing through the site from east to west. The site also contains several wetlands. The Nature's Refuge development proposes a storm sewer and ponding system. The system shall meet the

City's and Rice Creek Watershed District's (RCWD) Stormwater Management requirements. The total proposed impervious surface is 7.8 acres. They are proposing that the impervious areas be managed through storm water ponds, infiltration basins and wetlands and discharging to ACD 10-22-32.

Basin	NWL	HWL
Pond 100	902.5	905.2
Pond 200	901.5	902.6
Pond 300	902.0 Confirm	902.5
Pond 400	901.8	902.7
Basin 10	N/A	907.3
Wetland C	902.0	903.1

Per the submitted modeling the rate control for the site does not increase. The majority of the discharge leaving the site is through ACD 10-22-32. A CAPROC has been approved by RCWD for reference.

Noted.

Comments:

2. ~~RCWD is the ditch authority for ACD 10-22-32 and is responsible for the maintenance, function and capacity of the ditch. The City of Lino Lakes would be responsible for Pond 200 maintenance and function. The ditch, and its associated rights, extend east and shall not be routed through the pond. The easement will extend around the north end of the pond to provide RCWD with the access needed. This has been discussed with the watershed. Applicant shall address water quality calculations, and confirm whether Pond 200 is necessary for water quality treatment for the impervious surface increase. If the pond is not necessary to meet water quality treatment, then similar to Pond 300, Pond 200 is recommended to be private and be maintained by the Home Owners Association. If Pond 200 is necessary for water quality treatment, the applicant shall work with the City as well as the RCWD Ditch Authority. Pond 200 should be 2 cells separating ACD 10-22-32 into one basin, and the City Pond into a second basin as needed for water quality.~~

~~Pond 200 is not necessary to meet NURP requirements.~~

Pond 200 and Pond 300 are not necessary to meet NURP requirements and should be identified as something other than a pond (lake, basin, etc.) and are also recommended to be maintained by the Homeowners Association.

~~Designations for Pond 200 and 300 changed to Lake.~~

3. ~~Pond 300 is not considered a stormwater pond. It doesn't meet the requirements for water quality treatment due to the depth. It was not included as part of the water quality calculations. It is recommended that this borrow area should be private and maintained by the Home Owners Association. Comment Noted This shall be called out in the agreement and provided by the developer.~~
4. ~~The applicant needs to adjust the location of the outlet control structures such that City can access and maintain. Specific to Pond 200. Access is provided to outlet control structures.~~

Access is shown on plans via maintenance bench around pond and bituminous trails where ponds/lakes are not accessible from the road.

3A. Applicant to confirm that RCWD Ditch Authority to maintain outlets and culverts within ACD 10-22-32 easement and submit information to the City.

~~Waiting for verification from RCWD.~~

5. ~~The applicant shall include the 10-day snowmelt event in modeling and update the proposed 10-day snowmelt HWLs on the plans. 10-day snow melt added to the models and report.~~

Applicant shall include the modeled 10-day snowmelt HWLs on the plans.

~~10-day snow melt results are shown on the plans and will be included in the updated~~

~~SWMP.~~

6. The applicant shall confirm the amount of new impervious. There are different numbers in Section 1.2 and Section 2.5 of the Stormwater Management Plan, Section 2.2 of the Stormwater Pollution Prevention Plan (SWPPP), and the HydroCAD modeling. ~~New impervious area has been recalculated and confirmed.~~

Addressed for Stormwater Management Plan and HydroCAD. Applicant shall update the SWPPP.

~~SWPPP updated per SWMP updates.~~

~~**SWMP revision 5 dated 5/13/19 still contains three different net new impervious surface areas. Applicant has confirmed that the impervious surface reported in the RCWD CAPROC (8.7 acres) is the correct amount. This aligns with HydroCAD modeling, and water quality requirements for this amount are being met. The City recommends the applicant update their SWMP to reflect this number.**~~

~~SWMP updated to relate to 8.7 acres of proposed new impervious.~~

7. See Table C3 in RCWD Rule C: Stormwater Management Plans for maximum curve numbers for existing conditions and adjust modeling accordingly. See section 4b for adjustments to curve numbers for proposed conditions. ~~Curve numbers changed to match RCWD rules~~

8. The applicant shall confirm that the names of wetlands match between the existing conditions map and the existing conditions HydroCAD model. ~~Node IDs are changed~~

9. The applicant shall provide the wetland susceptibility class, bounce, and inundation periods for impacted wetlands. See Table C4 and section 8 in RCWD Rule C.

~~None of the wetlands provide retention or significant bounce in existing or proposed conditions because there is not a well-defined storage or outlet component.~~

The submitted HydroCAD model indicates that wetlands on the site have storage and outlets. Please provide wetland susceptibility class, bounce, and inundation periods for impacted wetlands.

~~Summary will be provided in the updated SWMP. The total bounce in the wetlands is less than 1 foot for the 100-year rainfall event. The outlets and storage are modeled as natural overflow weirs with typical undulating bottoms for storage.~~

~~**Wetland summary not provided in SWMP revision submitted; applicant must show with final SWMP revision wetland summary requirements noted above are being met.**~~

~~SWMP is updated with wetland summary bounce and inundation requirements.~~

10. The applicant shall refer to Table C5 in RCWD Rule C for soil infiltration rates.

~~Comment Noted~~

Applicant shall update infiltration rate in HydroCAD model for IB10 to be consistent with soil boring and Table C5.

~~Soil boring SB-2 was placed in the infiltration area. The soil was described as silty sand overlying coarse grained sand. This is consistent with an infiltration rate of 0.45.~~

11. The applicant shall update water quality standards to be consistent with the requirement to treat 1.1 inches of runoff for new or reconstructed impervious surface per section 6e of RCWD Rule C. See Table C1 in RCWD Rule C for the TP removal

factor for stormwater ponds and apply as necessary. The applicant shall verify that the site is meeting water quality treatment standards. ~~Meeting the standards is not feasible on this site due to the high water table.~~

~~**The applicant needs to meet water quality standards for the site. Please update Appendix C to account for the TP removal factor indicated for stormwater ponds (Table C1 in RCWD Rule C or Table 2 in Lino Lakes Code of Ordinances Chapter 1011). The applicant shall consider including a water quality discussion in Section 2 of the Stormwater Management Plan.**~~

Updated TP removals will be included in the updated SWMP

Updated TP not included in the revised Appendix C. Per RCWD CAPROC, water quality requirements are being met. It is recommended that applicant include a water quality discussion in section 2.

~~RCWD has approved this plan. Please verify that the city will require this. All ponds are designed to NURP standards. All ponds, basin expansions, the addition of infiltration, and enhancement of wetlands should cover TP requirements. Very little water is running directly offsite. The majority of the site is running through at least two of these (if not more) storm water practices.~~

Total required water quality treatment removal for the 8.7 acres of impervious surface is being met by volume reduction and NURP ponds. Calculations are found in Appendix C of the SWMP.

12. The applicant shall verify HWLs for ponds. In some instances, they differ between the HydroCAD modeling and the plans. ~~HWLs confirmed.~~

~~**The applicant shall revise the HWLs on the plans to match HydroCAD modeling.**~~

Plans are updated.

Applicant shall clarify why two different 100-yr HWL and 10-day Snowmelt elevations are shown on the plans.

Smaller text shows HydroCAD water levels. Larger text shows water levels provided by RCWD. Both are shown to compare the two.

13. The applicant shall clarify the intent of the low area on Outlot D. If intended to be a stormwater pond, please include it in modeling. ~~Node added~~

14. The applicant shall revise the ACD number it varies throughout the Stormwater Management Plan and SWPPP narratives. ~~Comment Noted and ditch ID consistent in report~~

~~**Addressed in Stormwater Management Plan. Applicant shall update the SWPPP.**~~

SWPPP updated per the SWMP.

15. The applicant shall verify the lot lines on Lot 12 Block 4, Lot 4 Block 1, and Lot 5 Block 1. It appears the structures may encroach on the drainage and utility easements. ~~Plan updated.~~

~~**The applicant shall verify the lot lines on Lot 24 Block 7. It appears the structure may encroach on the drainage and utility easement.**~~

Lot lines revised in this area as well as pad locations.

16. The applicant shall include the bottom elevation of the infiltration basin on the

grading plans. Elevations added.

Applicant shall verify the bottom elevation, as it differs between HydroCAD model, plans, and Appendix C. Verify the culvert outlet elevation; outlet should be above the exfiltration elevation. As a note: planting medium is not necessary below the bottom of the infiltration basin.

~~The infiltration is not intended to provide above-ground retention to prevent oversaturating the back yards of the adjacent lots. The area is a flat infiltration swale area.~~

The plan and HydroCAD Model now show the outlet elevation equal to the infiltration basin bottom. Note that with this design, infiltration volume credit cannot be claimed for IB10 and the SWMP must be updated. Volume of infiltration is the ponded volume (volume from basin bottom to the outlet elevation).

~~Outlet for infiltration basin 10 raised 0.5' above bottom of basin. Per RCWD comments, infiltration volumes have been updated.~~

17. ~~The applicant shall verify the retention volume calculation for Pond 400 in Appendix C as there appears to be an error. The volumes are correct.~~
18. ~~If needed, the opportunity may exist to maximize infiltration at the infiltration basin by constructing the basin to minimize the separation between the bottom of the basin and the water table. The basin needs minimum 3-foot separation from the water table and cannot be lowered.~~
19. ~~The applicant shall verify that the HWL of the Infiltration Basin is 2.0 feet below the low entry elevations of surrounding buildings. Separation requirement is met~~
20. ~~The applicant shall display and label emergency overflows with spot elevations and drainage arrows at all ponds and sags, specifically at the intersection of Street A and Street C and at the cul-de-sac of Street C. EOF's added.~~
21. ~~The applicant shall confirm that there is a 10-ft. setback between the HWL of the infiltration basin and the drainage and utility easements. HWL is covered by _____ easement.~~
22. ~~The applicant shall verify that the top berm of stormwater ponds is 2 ft. above the _____ HWL of the pond. Berm updated.~~
23. ~~The applicant shall label the safety bench on the plans. It shall be at least 10-ft wide. The pond slope cannot be greater than a 3:1 slope. Comment noted.~~
The applicant shall label the safety bench on the plans.
~~Safety bench label added.~~
24. ~~The storm sewer system and grading in the rear yards of Lot 1-3 Block 1 should be _____ evaluated to eliminate the middle structure and provide one EOF. The CB between Lot 1 & 2 should be moved north onto Lot 2 so that it is not on the property line. This is not possible to maintain minimum slopes.~~
25. **The applicant shall update the drainage area characteristics for Pond 100 in Appendix C. While the calculations appear to be correct, the applicant shall update all ponds in Appendix C to indicate that 1.1" of runoff is the required water quality volume for new impervious area.**
~~Included in the updated SWMP~~
26. **The applicant shall confirm the elevations of the broad-crested rectangular weir**

outlets of Ponds P200.

~~Weir elevation updated in the model~~

27. ~~The applicant shall verify NWLs (Pond 300, Wetland C) and 100-year HWLs (Pond 400) in Table 1. Note that infiltration basins do not have NWLs.~~
~~Normal water levels verified.~~
28. ~~**It is highly recommended (MPCA Stormwater Manual) that pond liners be installed at wet ponds in A or B soils.**~~
~~The MPCA stormwater manual recommends a liner for ponds in A or B soil to maintain permanent pool. The ponds on the development intersect the water table so a liner is not necessary.~~
~~**The applicant shall note that proposed water quality ponds are not within a Source Water Protection Area therefore they are not required to have a liner. However, it will be the responsibility of the Developer to show that the proposed dead pool volume can be maintained after construction.**~~
~~Based on the water levels of the wetlands on site, the dead pool volumes of the proposed ponds are assumed to be maintained post construction.~~
29. ~~**The applicant shall confirm that the starting elevations for the HydroCAD modeled storm pond storage start at the bottom of the pond (and not below).**~~
~~**Specific to Ponds P200.**~~
~~Pond 200 starts at 901.5 and the v-notch weir is set at 901.5.~~
30. ~~**On the Anoka County ditch system, there shall be consideration for beaver guards at all surface water structures**~~
~~Beaver guards will be discussed and confirmed with the ditch authority.~~
31. ~~**The applicant shall provide a design option, in coordination with RCWD, of culvert 3 that would reduce the susceptibility to being plugged by beavers.**~~
~~Please verify this is needed or can be something the City takes care of? This is not an engineering design standard.~~
~~**The ditch will be maintained by RCWD and Lake 200 will be the responsibility of the home owners association. If a Beaver prevention devise is used it would installed with the culvert and to be included in the plans. We will send the engineering information as we receive it.**~~
32. ~~**The applicant shall include flumes at the west end of Street C or provide information as to how the runoff will be maintained on site.**~~
~~See updated plans. The end of Street C will be directed south to the FES added with this revision.~~

- **Water Supply**

There is an existing 12 inch diameter trunk watermain located along CSAH 14 (Main Street). The Nature's Refuge development is proposed to be served by extending 8-inch diameter DIP watermain from an existing 8-inch diameter DIP watermain stub where Street A meets Main Street (CSAH 14), and installing 1-inch diameter Type K copper services. The City's Comprehensive Plan requires that a 16 inch diameter trunk main be extended north/south in this area. The proposed watermain extends west and north for future connection / looping.

Comments:

1. The applicant shall loop the system along the west side of Lot 25 Block 4 from Street C to Main Street. ~~Watermain loop added.~~

The watermain on L1B8 shall be located (moved east) under the trail in the outlot verses in an easement on the west side of the lot.

~~Watermain relocated under the trail in Outlot E.~~

2. The applicant shall install 16 inch diameter trunk watermain from Main Street north through the development. Along west side of Lot 25 Block 4 and to the north extents of Street C. Trunk oversizing credits will apply. ~~Watermain sizing updated.~~

3. Watermain shall be extended north along Street C under ACD 10-22-32.

~~Watermain extended to the northern property line.~~

4. 16 inch Gate Valves should be added east of Street D and just south of the ditch crossing.

~~Valves added~~

5. The existing hydrant along Main St will need to be relocated for the trail.

~~The existing hydrant should be moved when the trail along Main Street is installed. See comments on trail below. Also, by moving the hydrant, there will need to be a temporary easement provided in the exception piece and will have to be placed at the right of way line. The installation of the trail and hydrant relocation would be better constructed when the additional right of way is acquired by the county.~~

6. Trees should not be planted on top of the watermain (20' clear above) on Outlot E and shall be 10-15' back from the trail.

~~Landscape plans revised.~~

• Sanitary Sewer

There is an existing 21 inch diameter trunk sanitary sewer located along CSAH 14 (Main Street). The Nature's Refuge development is proposed to be served by extending 8-inch diameter PVC sanitary sewer throughout the development from an existing sanitary sewer manhole in Main Street (CSAH 14) just south of Outlot E, and installing 4-inch diameter Schedule 40 PVC services. The City's Comprehensive Plan requires that the sanitary system serves the future lift station and forcemain of Sanitary Sewer Sub-District 2K, discharging to the northernmost proposed manhole in Street C.

Comments:

1. The applicant shall increase the mainline sanitary sewer in Street C and D to 10-inch diameter at minimum grade 0.28%. Trunk oversizing credits will apply.

~~Sanitary sewer sizing updated.~~

2. The existing sanitary sewer stub at Main St and Street A shall be properly abandoned and plugged at the Manhole. ~~Note added to abandon.~~

3. The applicant shall add a note that sanitary services require the contractor to provide X, Y and Z GPS coordinates of wyes and service ends for future locating requirements.

~~This will be noted on final construction plans.~~

4. The applicant shall add a note that sanitary sewer pipe be installed with a tracer wire. A tracer wire box shall be provided at the surface for the ends of the sanitary sewer

service tracer wire to provide access to wire ends for future locating requirements.

~~This will be noted on the final construction plans.~~

5. Sanitary Sewer shall be extended north along Street C under ACD 10 22 32.

~~Sanitary sewer extended to the northern property line.~~

6. Sanitary Sewer shall be extended west along Street C from the most westerly manhole to the same extent as the watermain. ~~Sanitary stub added.~~

7. ~~L2B8 should call out a cleanout on the sanitary sewer service.~~

~~The service has been extended into the lot (to be installed with development).~~

~~Cleanouts are shown every 100'~~

- **Transportation**

The Nature's Refuge subdivision is proposed on the north side of Main Street (CSAH 14) between Lake Drive (CSAH 23) and 4th Avenue. Access will be from a new street connection (Street A) to Main Street (CSAH 14). The development will be set for future extensions to the west, north, and to Lino Lakes Elementary. To improve access control on Main Street, the City is working with School to remove their west access and connect to Nature's Refuge.

A Traffic Study evaluating the Nature's Refuge development was submitted by Spack

Consulting. The development includes 60 single family homes that are anticipated to generate approximately 565 new trips per day, 45 new trips in the a.m. peak hour and 60 trips in the p.m. peak hour.

Comments:

1. ~~The Study needs to provide an analysis of the existing LOS with and without the proposed development as outlined in the Section 1001.013(2)(c).~~

~~See revised memo from Spack. **The revised Traffic Study addressed a portion of this comment. The Study should also consider what the impacts are for an interim analysis a year after the development is completed as well as the no-build conditions without development for comparison.**~~

~~The May 17, 2018 revised Traffic Study addressed a portion of this comment: on page 5 for the planning level screening analysis by including the 2015 no-build analysis. However, an interim year was not considered to address when improvements with a two lane facility may be need prior to the 4 lane facility being constructed. In addition, the Intersection Analysis on page 7 and 8 did not include the 2015 no-build or interim year analysis.~~

~~Following discussions with the developers engineer an updated revised Traffic Study dated June 4, 2018 was prepared to address the remaining portion of the comment. The Study now includes the analysis of the interim 2021 conditions with the proposed~~

~~development with existing geometric conditions.~~

~~Noted per comment above.~~

- ~~2. Projected traffic from any future phases of development (extension of Street B, Street C, and Lino Lakes Elementary) that would use Street A to access Main Street (CSAH 14) should be included in the analysis. — See revised memo from Spack.~~
- ~~3. It is anticipated that Street A would require designated turn lanes at Main Street. The Study should evaluate the intersection of the new Site Access Street (Street A) and Main Street (CSAH 14) for both safety and operations. It is anticipated that Anoka County Highway Department will require right and left turn lanes on CSAH 14 (Main Street). The turn lane construction shall be add throughout the preliminary plat documents.
~~Turn lanes denoted throughout the plans. Detailed turn lane construction plans will be part of the final construction plans.~~
Turn lane construction plans shall be submitted.
Turn lane plans attached.
Plans submitted to Anoka County for review. The curb should extend from the east into the development? Looking at street plans and turn lane plans there would be a gap in the curb. Applicant to detail how the curb will drain and the ditch for the turn lanes. Generally, how is the drainage from the turn lanes being accommodated?~~
- ~~4. Upgrading Main Street (CSAH 14) to a 4 lane roadway has been identified by both Anoka County and the City for some time in the future but has not been programed. Therefore, should the analysis show that existing conditions do not require improvements at Street A and Main Street (CSAH 14), documentation should be provided of when in the future with the existing lane configurations the improvements would be needed. — See revised memo from Spack.~~
- ~~5. Assuming that the intersection of Main Street (CSAH 14) and Lake Drive (CSAH 23) will be addressed in the future, no further analysis over what is included in the current Traffic Study would be required. — Comment noted.~~
- ~~6. Street A and Street C shall be 32 feet wide from face of curb to face of curb. The plans currently show back of curb. — As discussed, 32' back to back is acceptable.~~
- ~~7. The cul du sac widths can be reduced to 28 feet wide from face of curb to face of curb.
~~Cul de saes have been updated to 28' back to back. As discussed, 28' back to back is acceptable.~~
Cul de saes shall be 30' back to back.
~~Cul de sac widths updated to 30' back to back.~~~~
- ~~8. The ACD 10-22-32 crossing shall be wide enough to accommodate the road, a 5-foot buffer and an 8.5 foot wide trail with 4:1 side slope tapers.
~~Ditch crossing updated. Street C extended to the northern property line.~~~~
- ~~9. The future trail extension along 10-22-32 should be relocated to the same crossing as Street C. Thus there would only be one ditch crossing.
~~Ditch crossing updated.~~~~
- ~~10. There is a future trail planned along the north side of Main Street. The plans~~

shall include the grading for this trail. This will likely also require hydrant relocation.

~~Grading for a future trail has been incorporated. Hydrants will be relocated at the time of trail construction.~~

The trail should be constructed from L2B8 to Street A.

From a quick review at this area, the proposed trail is set 8 feet behind the proposed curb line. In order to construct the trail, there will need to be approximately a 10 to 15 foot grading easement in the exception piece. The trail would be better constructed when the county is able to acquire this portion of right of way.

Staff agrees additional right of way or easement would be needed.

11. The applicant shall remove the trees identified in the Landscaping Plan from the sight line triangle of Street A and Main Street (CSAH) 14. ~~Revised per city comments.~~
12. Trees at the intersection of Street A & C should be moved from the site lines. ~~Landscaping plans revised.~~
13. A bituminous trail is recommended through this site. As noted in the wetland section of this report the proposed location, along Lots 1-6 Block 3, is within the 25 foot buffer and should be relocated. ~~The proposed trail location is allowed by RCWD rules and will therefore not be relocated. According to RCWD Rule F 6(e)(7)(iii) Buffer may enclose a linear surface for non-motorized travel no more than 10 feet in width. The linear surface must be at least 25 feet from the wetland edge. The area of the linear surface will not be eligible for replacement credit. For projects proposing non-motorized travel no more than 10 feet in width, the linear surface may be reduced to less than 25 feet from the wetland edge based on compelling need and a TEP recommendation to the District in support that the wetland protection afforded is reasonable given the circumstances. Per Kjolhaug Environmental Services.~~
14. The proposed sidewalks were reviewed. Pedestrian curb ramps will be required, and reviewed with the final construction plans. ~~Comment noted.~~
15. Street C temporary cul du sac should have continual curb and gutter and temporary paved eyebrows. The storm sewer will need to be adjusted. ~~Temporary cul de sac and storm sewer has been updated.~~
16. The Revised Traffic Study provided a summary of the Level of Service for each intersection movement for CSAH 14 and Street A. It concludes that in the build 2030 and build 2030+ conditions the southbound left turn would operate at a LOS F. Are the recommended improvements discussed on page 9 of the Study included with the build analysis? If not, what is the change in Level of Service with these improvements? What is the Level of Service for the interim year (see comment #1)? What is the Level of Service in the no-build condition?

This comment was not addressed in the May 17, 2018 revised Traffic Study. Following discussion with the developers engineer an updated revised Traffic Study, dated June 4, 2018 was prepared which did address the comment. The Study concluded that a southbound right turn lane would be needed at the CSAH 14 and Street A intersection. It appears the preliminary plat roadway width accommodates this and should be verified with the final plat (striping plan).

Noted per comment above.

17. ~~The applicant shall move the trail crossing to the intersection of Street C and Street E.~~
Trail crossing updated.
~~Ped crossing signs and striping should be added.~~
Noted. Pedestrian signs and striping will be added in final plans. Striping added on site plans.
18. ~~The applicant shall widen the sidewalk in front of Block 8, Lot 1 to 8.5 feet between the trail connections.~~
Trail in front of Lot 1, Block 8 updated.
~~L1B8 shall be 8.5' wide concrete sidewalk vs trail.~~
Revised to concrete.
19. ~~The applicant shall show striped crosswalks for the trail crossings with the final plat.~~
Crosswalk markings added.
~~Please add to the intersection of Street C and Street E.~~
Striping added to preliminary and final plans.
20. ~~Applicant shall adjust slopes on the back side of the trail to be a 4:1 specifically at the ACD 10-22-32 ditch crossing. This may require extending the culvert length.~~
Side slopes of trail checked, and are proposed at 4:1 slope.
21. ~~The applicant should install a fence or guardrail on the east side of the trail near Sta. 8+25.~~
Fence/Guardrail to be installed.
22. ~~It is suggested that the applicant move the trail crossing near Sta. 8+25 to the south, away from the ditch crossing. Note: the low point location would be adjusted so that the catch basins do not interfere with the pedestrian ramps.~~
Trail crossing unable to be moved.
- ~~23.~~ ~~Street lights shall be shown on the plans.~~
Street lights have been added to final signing and striping plans.
There should be a street light at the intersection of Street A and Main Street. The light at Street B could be moved and mid-block light location adjusted.
24. ~~The roadway typical sections shall include the city's standard 2' of subgrade replacement. The geotechnical report does not specifically identify that the in place material meets the subgrade specifications.~~
Detail revised to show 2' subgrade replacement.
8" of Class 5 and 2' of Select Granular required. Please edit detail.

- **Wetlands and Mitigation Plan**

The Nature's Refuge development site includes 7 wetlands on 41.55 acres as outlined in the WCA Notice of Decision approved by RCWD. The plan proposes to fill 2 acres of wetlands, some of which are denoted as "high priority wetlands" in the city's Comprehensive Plan. A wetland sequencing application was submitted by Kjolhaug Environmental Services to RCWD on January 8, 2018 and is currently incomplete. Approval of a complete sequencing application and submittal and approval of a wetland replacement plan will be required prior to issuance of a grading permit.

Wetlands are being reviewed by the Environmental Coordinator.
Noted.

Wetlands on the project are located within the Wetland Management Corridor and will require mitigation as noted in Rice Creek Watershed District's Rule F (Wetland Alteration), Section 6(b). ~~Wetland 1 is not located within the WMC. All other wetlands are located within the WMC. Per Kjolhaug Environmental Services.~~

- ~~1. An average 50 foot buffer (25 foot minimum) will be required around all wetland areas following construction. It does not appear that the proposed buffers meet the minimum buffer requirement in all locations.~~

~~*In an effort to minimize impacts to wetlands yet meet project purpose and need, proposed WMC buffer does not meet minimum requirements along some areas of proposed wetland fill. A variance application for these areas will be submitted to RCWD for review with the revised Wetland Permit. Per Kjolhaug Environmental Services.*~~

- ~~2. A 10 foot bituminous trail is proposed within the upland buffer adjacent to the wetland in Outlot B. This trail must maintain 25 feet from the edge of the wetland. **The City's Environmental Coordinator is reviewing the wetland buffer areas.**~~
Noted.

- ~~3. Two deep (30+ foot deep) ponds (Pond 200 and Pond 300) are proposed adjacent to wetlands within the project. The adjacent wetlands are denoted as "high priority wetlands" in the city's Comprehensive Plan and are noted as having exceptional vegetative diversity. The applicant shall take steps to ensure that the ponds will not drain the adjacent wetland areas. In the WCA Wetland Replacement Plan, the developer shall provide a plan to protect adjacent wetlands, the plan shall also include a mitigation plan if the wetlands are impacted post construction.~~

~~*With regards to pond construction and potential drainage effects on adjacent wetlands:*~~

- ~~*Pond 300 in the northeast portion of the development area will be a maximum of 22 feet deep, has a predicted NWL of 902 ft, and has no outlet (no outlet structure or emergency overflow). In reality, the open water portion of Pond 200 will be the elevation of the local water table and will vary throughout the year as the water table does because the pond does not have a controlled outlet to stabilize water levels. Because the pond does not have an outlet to drawn water down, it will not drain nearby wetlands (there is no where to drain the water if there is no outlet). For these reasons, drainage effects to Wetlands 3, 3a, or 3b from Pond 200 construction are not expected to occur. A similar pond with no outlet was constructed onsite sometime after 1991 near the proposed wetland banking wetland. That large, deep, open water pond was excavated adjacent to wetland and has not resulted in wetland drainage.*~~
- ~~*Pond 200 will be excavated in around the west end of ACD 10 22 32 (west of the current ditch crossing). The ditch currently drains freely to the west (no controlled outlet). Water levels in the ditch were measured at 901.5 feet by the engineer. Therefore, newly constructed Pond 200 will have an OSC with V notch weir invert of*~~

~~901.5 ft with the top of the weir at 902.5 ft. The adjacent wetland the southeast (Wetland 2) will have a NWL of 902.0 ft, and will have a raised outlet (EOF only) at 902.5 ft. Wetland 2 will need to be inundated with over 6 inches of water to outlet to Pond 200. That occurrence alone, usually occurring early in the growing season, will meet wetland hydrology requirements. For the remainder of the growing season, Pond 200 and adjacent Wetland 2 water levels will fluctuate with precipitation events and normal seasonal water table level variations. For these reasons, drainage effects to Wetland 2 from Pond 200 construction are not expected to occur.~~

- ~~Wetland 4 to the northwest of Pond 200 will not have an outlet, will not be connected to Pond 200, and will be physically separated by the pond maintenance bench/berm. For these reasons, drainage effects to Wetland 4 from Pond 200 construction are not expected to occur.~~

- ~~The current and proposed ditch crossing culvert invert elevations and size are equal pre and post development. Therefore, drainage effects to upstream wetlands are not expected to occur.~~

Per Kjolhaug Environmental Services

Applicant is submitting a geotechnical report addressing the existing wetland & soil conditions and present any proposals to protect the adjacent wetlands as needed. See attached Wetland permit application. Geotechnical report to be submitted when received.

4. A review of the DNR's Natural Heritage Information System (NHIS) Database revealed that rare features have been recorded in or near the wetlands on the property. In 2002, toothcup (*Rotala ramosior*), a state threatened species, was located within one wetland that is proposed to be filled. Autumn fimbry (*Fimbristylis autumnalis*) and Blanding's turtle (*Emydoidea blandingii*) have also been recorded near the project site. The developer will need to coordinate with the DNR to obtain a permit for the take (destroy, dig up, dispose of, possess, or transport) of threatened or endangered species.

~~MnRAM guidance and the 2017 Native Plant Communities Assessment Final Report prepared by CCES have been reviewed. Based on this review and for WCA/RCWD purposes, **vegetation quality for all wetlands onsite was determined to be low**, with an associated RCWD wetland degradation status of **marginally to severely degraded**. Specifically: (1) rare plants found onsite are not persistent and therefore item i of the special features tab in MnRAM does not apply and vegetation quality is Low, and (2) although the Native Plant Communities Assessment Final Report identified rare species onsite, the report also states that (paraphrasing) "these rare species were located within areas dominated by crops or agricultural weeds. While state listed species do occur within cropland and farmed wetland~~

~~areas, their presence alone is not enough to classify these areas as native plant communities or rare native plant communities." Rare plants were primarily~~

found in disturbed, annually farmed wetland fringe areas. Per Kjolhaug Environmental Services.

5. The ghost plat shown in Outlot B on the north end of the project (Sheet 10) appears to propose future wetland impacts. These impacts should be taken into account during the sequencing efforts discussed by the Wetland Conservation Act Technical Evaluation Panel. Road alignments should be considered that would minimize future wetland impacts. ~~The ghost plat is now shown to be proposed and has been modified to prevent wetland impacts.~~

A permit to take has been submitted to DNR by CCES for all rare species located in the development footprint (areas that will be physically altered/graded/converted to another use). It is important to note that the presence of rare species onsite is largely a function annual soil disturbance/farming practices. Once farming practices on the site cease (with or without development), rare species occurrence on the site is predicted to drop. Per Kjolhaug Environmental Services.

• **Geotechnical**

~~A geotechnical evaluation was completed in response to the concerns over draining the adjacent Pin Oak wetland and impacts to adjacent wells.~~

1. ~~The introductory paragraph and overall report shall provide recommendations for not only “dewatering” but also reference the “large borrow areas (Ponds 200 & 300) adjacent to existing wetlands”.~~
~~To be provided with updated Geo report.~~
2. ~~The applicant shall provide a map of identifying the location and quantity of piezometers and another map of auger probes.~~
~~To be provided with updated Geo report.~~
3. ~~The applicant shall provide an evaluation of subsurface geologic feature mapping that can suspend water, or drain with the ground water flow in the absence of geologic “lens”. The Minnesota Geologic survey would be a good reference and soil augerings, mentioned above, to verify lens or no lens.~~
~~To be provided with updated Geo report.~~
4. ~~The applicant shall provide a document specifically outline the plan to address well impacts and a plan to address wetland impacts that may occur as a result of this development. The plan may include items suggested in geotechnical memo, clay berms and clay lining of the borrow areas.~~
~~To be provided with updated Geo report.~~
5. ~~We recommend that the City, through the Development Agreement, require securities for mitigation costs associated with protecting the adjacent Pin Oak wetland and adjacent wells.~~

~~Noted.~~

~~Wetlands are being reviewed by the Environmental Coordinator.~~

~~Noted.~~

• **Floodplain**

The floodplain within the Nature's Refuge development is a Zone A. The 2015 DFIRM base flood elevation (BFE) from RCWD modeling identifies the BEF elevations of 904.5 (easterly floodplain) and 904.2 (westerly floodplain). The applicant is proposing to fill 37 cubic yards of floodplain and mitigate onsite. There are 29,533 cubic yards of floodplain mitigation proposed on site.

- ~~1. Floodplain impacts are proposed on site due to stormwater ponding and structures, and Lots 4-5 Block 3. A LOMR will be required. The applicant shall provide a copy of the CLOMR application to the City. The LOMR is to be in place prior to final plat.~~

~~This is not required as the floodplain boundary does not encroach any of the lots.~~

~~Noted.~~

The applicant is not proposing FEMA floodplain changes at this time.

- **Drainage and Utility Easements**

The municipal infrastructure proposed with the Nature's Refuge Preliminary Plat is generally within public right of way, easements and outlet.

- ~~1. Anoka County requires 75 foot right of way be dedicated along Main Street (CSAH 14).~~

~~Right of way updated along Main Street.~~

~~75 feet of right of way provided.~~

- ~~2. The right of way shown in the Ghost Plat shall be dedicated with the Plat.~~

~~Ghost plat is now shown to be proposed.~~

- ~~3. Street A, at Main Street (CSAH 14), will require turn lanes and thus additional right of way. Turn lanes added. No further Right of Way required.~~

- ~~4. Lot 25 Block 1 shall have a 20 foot drainage and utility easement for watermain-looped connection. Easement added.~~

- ~~5. Lot 5 Block 1 shall be chamfered at the northeast corner to accommodate future access to Pond 100. Plan updated and access path added.~~

- ~~6. Bituminous trails shall be within 25 foot easements if not within right of way or outlet.~~

~~Bituminous trail is only proposed in right of way or an outlet.~~

~~Trail easements should be dedicated.~~

Trail easements will be provided with separate document. Ownership of Outlots also to be determined.

- **Development Agreement**

A development agreement will be required with the final plat.

Comment noted.

- **Grading Agreement**

Not applicable at this time.

Comment noted.

- **Stormwater Maintenance Agreement**

A Stormwater Maintenance agreement will be required with the final plat.

Comment noted.

Per RCWD CAPROC (5-22-2019; Permit 17-122), the applicant will be responsible for submitting a maintenance agreement to the District, under which the applicant will be responsible for maintaining pond and crossings of the public drainage system (ACD 10-22-32) to ensure drainage function is maintained. The storm sewer system and treatment ponds may be covered under the City's programmatic agreement.

The maintenance agreement to be coordinated with the owner.

- **Permits Required**

The following permits shall be obtained prior to the issuance of a grading permit.

Comment noted. Permits will be obtained. Permits #3 & #4 will be obtained prior to final utility construction.

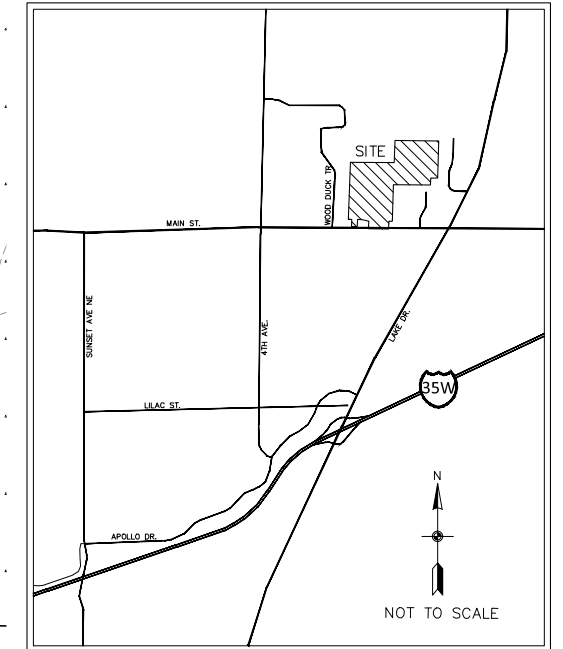
Comments:

1. NPDES Construction General Permit
2. City of Lino Lakes Zoning Permit for Grading
3. Minnesota Department of Health Watermain Extension Permit
4. MPCA Sanitary Sewer Extension Permit
5. Anoka County Permit for Work Within the ROW
6. Rice Creek Watershed Permit for Erosion and Sediment Control
7. Rice Creek Watershed Permit for Wetland Alteration
8. Rice Creek Watershed Permit for Stormwater Management (Rule C)
9. Rice Creek Watershed Permit for Floodplain Alteration (Rule E)
10. Rice Creek Watershed Permit for ACD 10-22-32 Alteration
11. FEMA Letter of Map Revision
12. DNR Permit for the Take or Endangered or Threatened Species Incidental to a Development Project.
13. DNR Water Appropriations Permit (for Construction Dewatering)
 - US Army Corps of Engineers Section 404 Permit

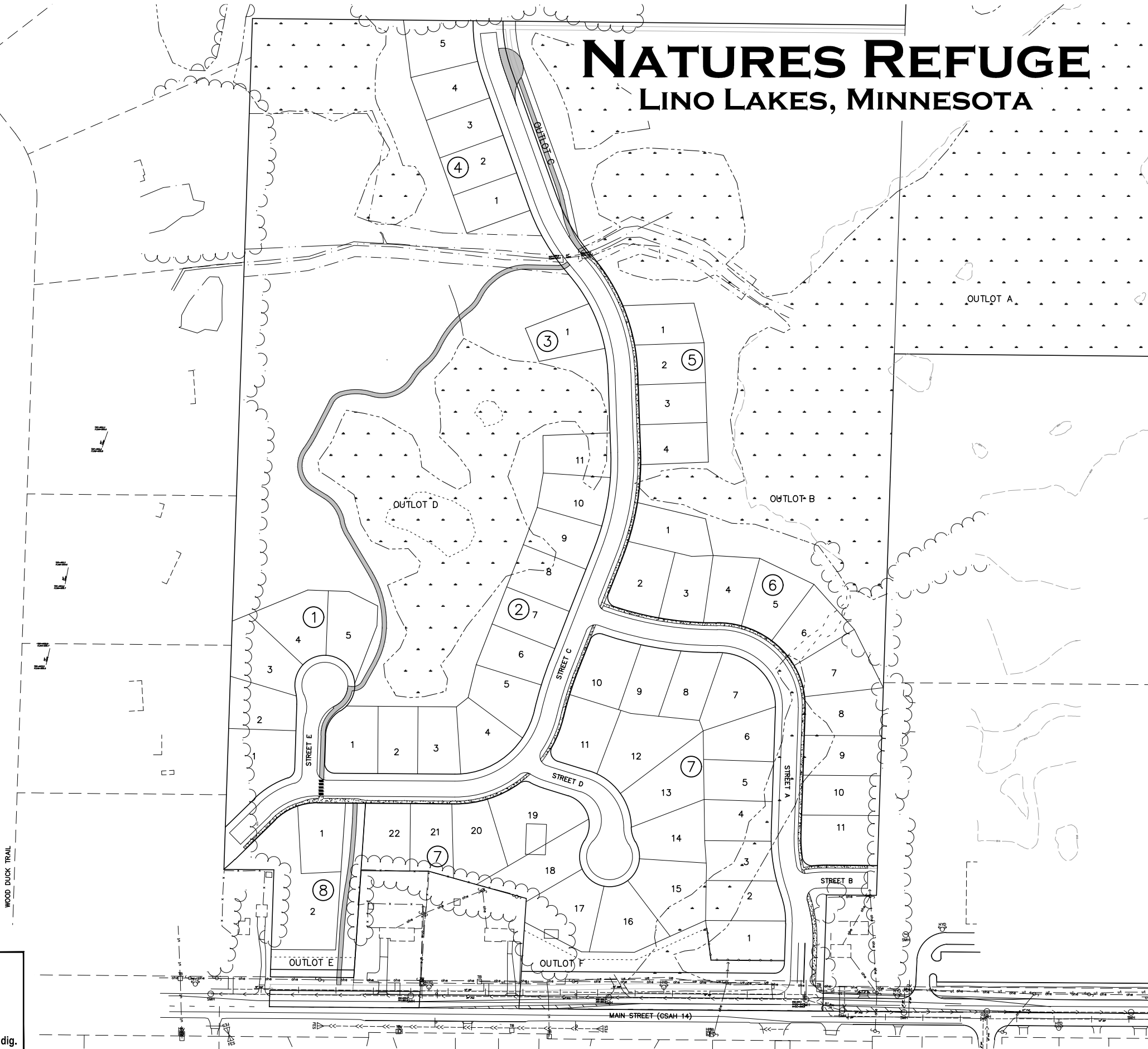
If you or the applicant has any questions regarding these comments, please contact Diane Hankee at (651) 982-2430 or diane.hankee@ci.lino-lakes.mn.us.

NATURES REFUGE

LINO LAKES, MINNESOTA

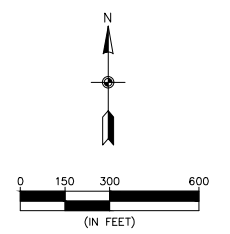


VICINITY MAP



SHEET INDEX

- 1. COVER
- 2. PRELIMINARY PLAT & EXISTING CONDITIONS INDEX
- 3-7. EXISTING CONDITIONS PRELIMINARY PLAT
- 8-12. PRELIMINARY PLAT PRELIMINARY SITE & UTILITY PLAN
- 13. PRELIMINARY GRADING & EROSION CONTROL PLAN INDEX
- 14. PRELIMINARY GRADING & EROSION CONTROL PLAN
- 15-17. PRELIMINARY GRADING & EROSION CONTROL PLAN DETAILS
- 18. DETAILS
- R1-R4. RESOURCE INVENTORY
- T1-T7. TREE PRESERVATION PLAN
- L1-L3. LANDSCAPE PLAN
- F1. FLOODPLAIN EXHIBIT
- W1-W2. WETLAND BUFFER EXHIBIT



BENCHMARK

- 1. Anoka County Benchmark No. 2011 set in the ground in a covered tube located 150 feet westerly of the centerline of Rondeau Road West and 40 feet northerly of the centerline of C.S.A.H. No. 14. Elevation=894.878 (NAVD 88)
- 2. Top Nut Hydrant East of the Southeast entrance to Lino Lakes Elementary School. Elevation=920.009 (NAVD 88)

CALL BEFORE YOU DIG

Know what's below. Call before you dig.

Carlson McCain

- environmental
- engineering
- surveying

3890 Pheasant Ridge Drive NE, Suite 100
 Blaine, MN 55449
 Phone: (763) 489-7900
 Fax: (763) 489-7959
 www.carlsonmccain.com

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

Print Name: Brian J. Krystoflak, P.E.
 Signature: *Brian J. Krystoflak*
 Date: 11/14/17 License #: 25063

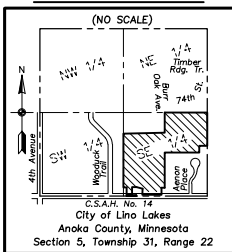
Drawn: JJO
 Designed: BJK
 Date: 11/14/17

Revisions:
 1. 1/15/18 Rev. Shts 15 & 16 Add USACE Wetland 8, 6/12/19 Revise Per City Comments
 2. 4/1/18 per City Comments
 3. 6/15/18 per City Comments
 4. 2/1/19 Grading Bid Set
 5. 3/14/19 Rev. Per Watershed Comments
 6. 5/13/19 per City Comments
 7. 5/17/19 Revise Sht. 2 Per City Comments

PREFERRED BUILDERS, INC.
 10500 Bren Road E.
 Minnetonka, MN 55343

NATURES REFUGE
 Lino Lakes, Minnesota

COVER



NATURES REFUGE

LEGAL DESCRIPTION

PARCEL DESCRIPTION: (Per Schedule A of Title Commitment LT File No. 550831, with a commitment date of January 24, 2017 at 8:00 A.M., prepared by Land Title, Inc. Issuing agent for First American Title Insurance Company)

Parcel A: The Northeast Quarter of the Southeast Quarter (NE 1/4 of SE 1/4) of Section 5, Township 31, Range 22, except the South 208.74 feet of the East 208.74 feet thereof, Anoka County, Minnesota. (abstract property)

Parcel B: The Southwest Quarter of the Southeast Quarter of Section 5, Township 31, Range 22, Anoka County, Minnesota. Except the following described tracts:

- Beginning at the Southeast corner of the said Section 5, thence North along East line thereof for 33 feet, thence West parallel to South line thereof for 2,219 feet to the actual point of beginning; thence continuing West on same course for 135 feet; thence North 3 degrees 26 minutes East for 242 feet; thence East parallel to described 1st course for 135 feet; thence South parallel to described 2nd course for 242 feet and to the actual point of beginning.
- Beginning at the Southwest corner of said Southeast Quarter of Southeast Quarter; thence North along West line thereof a distance of 275 feet; thence East parallel with South line thereof a distance of 100 feet; thence South parallel with said West line a distance of 275 feet to said South line; thence West along said South line for a distance of 100 feet to the actual point of beginning.
- Commencing at Southeast corner of said Southwest Quarter of Southeast Quarter; thence North along the East line thereof for a distance of 233 feet; thence West parallel to the South line thereof for a distance of 100 feet; thence South parallel to described 1st course 233 feet and to the South line of said Southwest Quarter of Southeast Quarter; thence East along said South line to the point of beginning.
- That part of the Southeast Quarter of Section 5, Township 31, Range 22, Anoka County, Minnesota, described as commencing at the Southeast corner thereof; thence North along the East line thereof for 33.00 feet; thence on an assumed bearing of North 89 degrees 19 minutes 35 seconds West and parallel with the South line of said Southeast Quarter for 221.68 feet to the actual point of beginning; thence North 4 degrees 06 minutes 25 seconds East 242.00 feet; thence South 74 degrees 11 minutes 56 seconds East 204.14 feet; thence South 4 degrees 06 minutes 25 seconds West a distance of 221.68 feet to the South line of said Southeast Quarter; thence North 89 degrees 19 minutes 35 seconds West along said South line a distance of 202.27 feet to its intersection with a line that bears South 4 degrees 06 minutes 25 seconds West from the point of beginning; thence North 4 degrees 06 minutes 25 seconds East a distance of 33.05 feet to the point of beginning.
- Parcel 13, Anoka County Highway Right of Way Plat No. 25 according to the map or plat thereof on file and of record in the office of the Anoka County Recorder.

Parcel C: The South half of the Northwest Quarter of the Southeast Quarter of Section 5, Township 31, Range 22, Anoka County, Minnesota. (abstract property)

GENERAL NOTES:

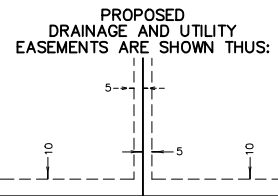
- Bearings shown are based on the South line of the Southwest Quarter of the Southeast Quarter of Section 5, Township 31, Range 22 which is assumed to bear North 89 degrees 33 minutes 46 seconds West.
- Surveyed property address - Address is currently unassigned, Lino Lakes, MN, 55014.
- Wetlands were delineated by Kjelhaug Environmental Services, Inc.
- Topography shown is a combination of field located elevations with LIDAR provided by the Minnesota Department of Natural Resources.
- Exception "1" listed in the above Legal Description does not define a basis of bearings. Please consult with a Title Attorney for a corrective action as needed.

PROPOSED SETBACKS

FRONT	30 FT.
SIDE (GARAGE)	5 FT.
SIDE (HOUSE)	10 FT.
SIDE CORNER	30 FT.
REAR SETBACK	30 FT.

SITE DATA

TOTAL SITE AREA	±95.05 AC.
TOTAL ROW AREA	±7.12 AC.
TOTAL OUTLOT AREA	±69.49 AC.
OUTLOT A	±38.64 AC.
OUTLOT B	±14.06 AC.
OUTLOT C	±0.24 AC.
OUTLOT D	±15.51 AC.
OUTLOT E	±0.43 AC.
OUTLOT F	±0.62 AC.
TOTAL LOT AREA	±18.44 AC.
SMALLEST LOT	±10,800 S.F.
LARGEST LOT	±31,430 S.F.
AVERAGE LOT	±13,164 S.F.
TOTAL NUMBER OF LOTS	67
SINGLE FAMILY	61
OUTLOTS	6
GROSS DENSITY	0.64 LOTS/AC. (61 lots/95.05 acres)
NET DENSITY	1.70 LOTS/AC.
EXISTING ZONING	R-1
PROPOSED ZONING	PUD
UTILITIES	AVAILABLE
TOTAL UTILITY TRANSMISSION EASMENT AREA	±1.78 AC.
TOTAL UTILITY TRANSMISSION EASEMENT AREA OUTSIDE OF RIGHT OF WAY	±0.40 AC.
WETLANDS & WATER BODIES	±42.33 AC.
CONSERVATION EASEMENT AREA	±68.21 AC.
PUBLIC PARKS & OPEN SPACE	0
ARTERIAL ROW	±1.33 AC.
WETLAND BUFFER AREA	±15.01 AC.



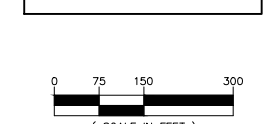
being 5 feet in width, and adjoining side lot lines, and 10 feet in width and adjoining right of way lines and rear lot lines unless otherwise shown on this plat.

LEGEND

- - Denotes Anoka County Section Monument
- - Denotes Found Iron Monument
- - Denotes 5/8 inch by 14 inch rebar, marked with RLS 40361
- (LOW DENSITY RESIDENTIAL) - Denotes Future Land Use per City of Lino Lakes 2030 Comprehensive Plan, dated April 21, 2009

BENCHMARK

- Anoka County Benchmark No. 2011 set in the ground in a covered tube located 150 feet westerly of the centerline of Rondoau Road West and 40 feet northerly of the centerline of C.S.A.H. No. 14. Elevation=894.878 (NAVD 88)
- Top Nut Hydrant East of the Southeast entrance to Lino Lakes Elementary School. Elevation=920.009 (NAVD 88)



Wetlands and Water Bodies includes Ditch area measured from the Top of Bank, excludes any areas within Wetlands or Wetland Buffers.

Conservation Easement area is the sum of Outlots A, B, and D

SHEET NOTE
Existing Condition details on Sheets 3 thru 7
Preliminary Plat details on Sheets 8 thru 12

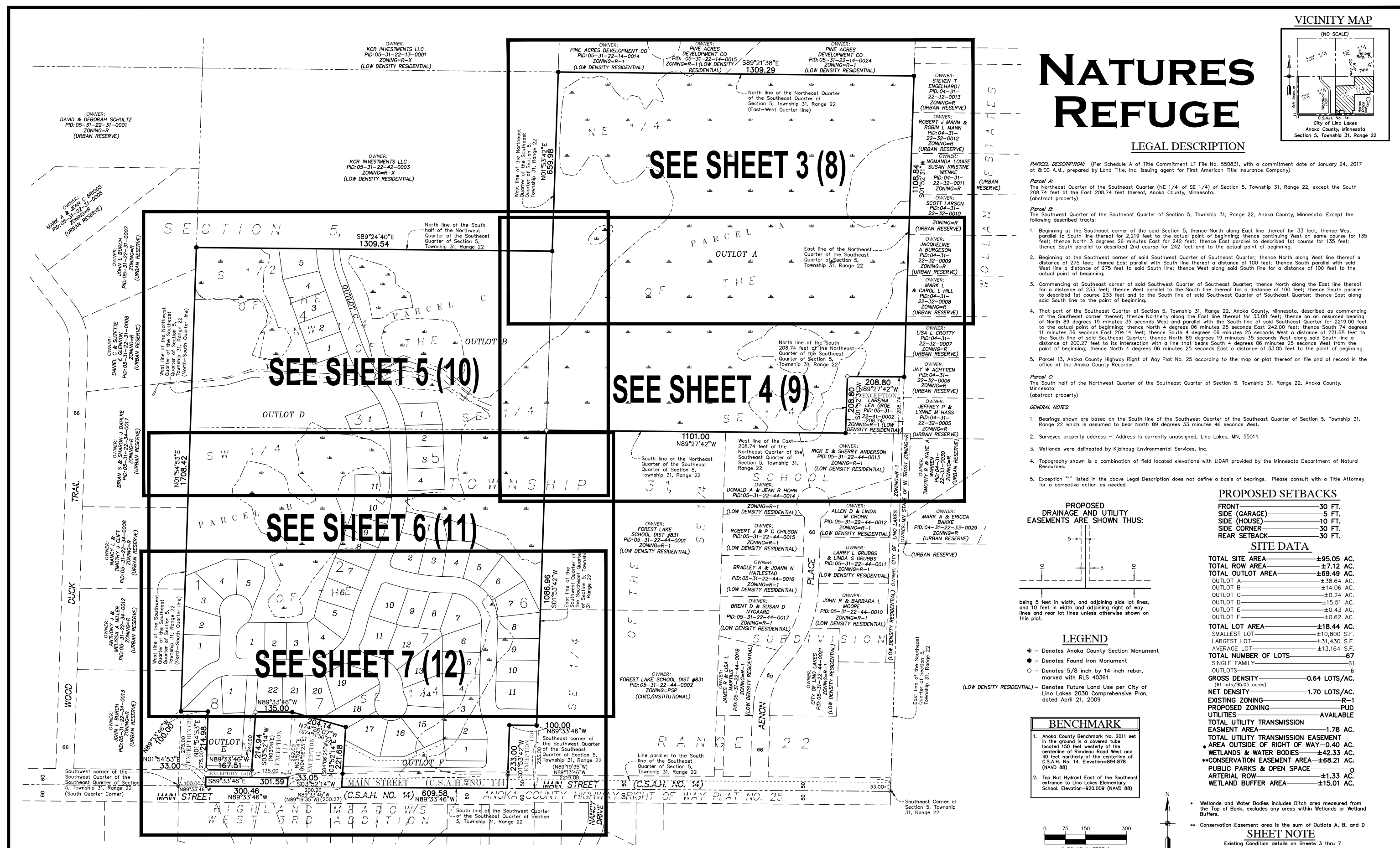
SEE SHEET 3 (8)

SEE SHEET 4 (9)

SEE SHEET 5 (10)

SEE SHEET 6 (11)

SEE SHEET 7 (12)



Carlson McCain
1890 Pheasant Ridge Drive NE, Suite 100
Blaine, MN 55449
Phone: (763) 489-7900
Fax: (763) 489-7959
www.carlsonmccain.com

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: 11/14/2017 License #: 40361

Print Name: Thomas R. Balluff, L.S.
Signature: *Thomas R. Balluff*
Date: 11/14/2017 License #: 40361

DRAWN BY: JAB
ISSUE DATE: 11/14/2017
FILE NO: 957

Revisions:
4/11/18 Revised Layout
6/15/18 Revised Layout
5/13/19 City Comments
5/17/19 City Comments

PREFERRED BUILDERS, INC.
10500 Bren Road E.
Minnetonka, MN 55343

NATURES REFUGE
Lino Lakes, Minnesota

PRELIMINARY PLAT & EXISTING CONDITIONS INDEX

PINE TOAKS ADDITION

OWNER:
PINE ACRES DEVELOPMENT CO
PID: 05-31-22-14-0014
ZONING=SINGLE FAMILY RESIDENTIAL
(LOW DENSITY RESIDENTIAL)

OWNER:
PINE ACRES DEVELOPMENT CO
PID: 05-31-22-14-0015
ZONING=SINGLE FAMILY RESIDENTIAL
(LOW DENSITY RESIDENTIAL)

North line of the Northeast Quarter of the Southeast Quarter of Section 5, Township 31, Range 22 (East-West Quarter Line)
S89°21'38"E
1309.29

OWNER:
PINE ACRES DEVELOPMENT CO
PID: 05-31-22-14-0024
ZONING=SINGLE FAMILY RESIDENTIAL

OWNER:
STEVEN T ENGELHARDT
PID: 04-31-22-32-0013
ZONING=RURAL
(URBAN RESERVE)

OWNER:
ROBERT J MANN & ROBIN L MANN
PID: 04-31-22-32-0012
ZONING=RURAL
(URBAN RESERVE)

OWNER:
NOMANDA LOUISE WIENKE & SUSAN KRISTINE WIENKE
PID: 04-31-22-32-0011
ZONING=RURAL
(URBAN RESERVE)

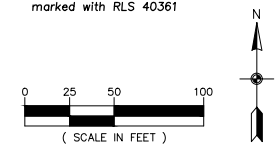
OWNER:
SCOTT LARSON
PID: 04-31-22-32-0010
ZONING=RURAL
(URBAN RESERVE)

OWNER:
SCOTT LARSON
PID: 04-31-22-32-0010
ZONING=RURAL
(URBAN RESERVE)

Bearings shown are based on the South line of the Southwest Quarter of the Southeast Quarter of Section 5, Township 31, Range 22 which is assumed to bear North 89 degrees 33 minutes 46 seconds West

LEGEND

- - Denotes Anoka County Monument
- - Denotes Found Iron Monument
- - Denotes 5/8 inch by 14 inch rebar, marked with RLS 40361



OWNER:
KCR INVESTMENTS LLC
PID: 05-31-22-42-0003
ZONING=RESIDENTIAL
(LOW DENSITY RESIDENTIAL)
N01°53'42"E
659.98

West line of the Northeast Quarter of the Southeast Quarter of Section 5, Township 31, Range 22

S89°24'40"E
←1309.54

1320.0

PARCEL A

OUTLOT A
±1,882,993 sq.ft.
Drainage & Utility Easement
(Over all of Outlot A)

SEE SHEET 10

SEE SHEET 9



3890 Pheasant Ridge Drive NE,
Suite 100
Blaine, MN 55449
Phone: (763) 489-7900
Fax: (763) 489-7959
www.carlsonmccain.com

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.

Print Name: Thomas R. Balluff, L.S.
Signature: *Thomas R. Balluff*
Date: 11/14/2017 License #: 40361

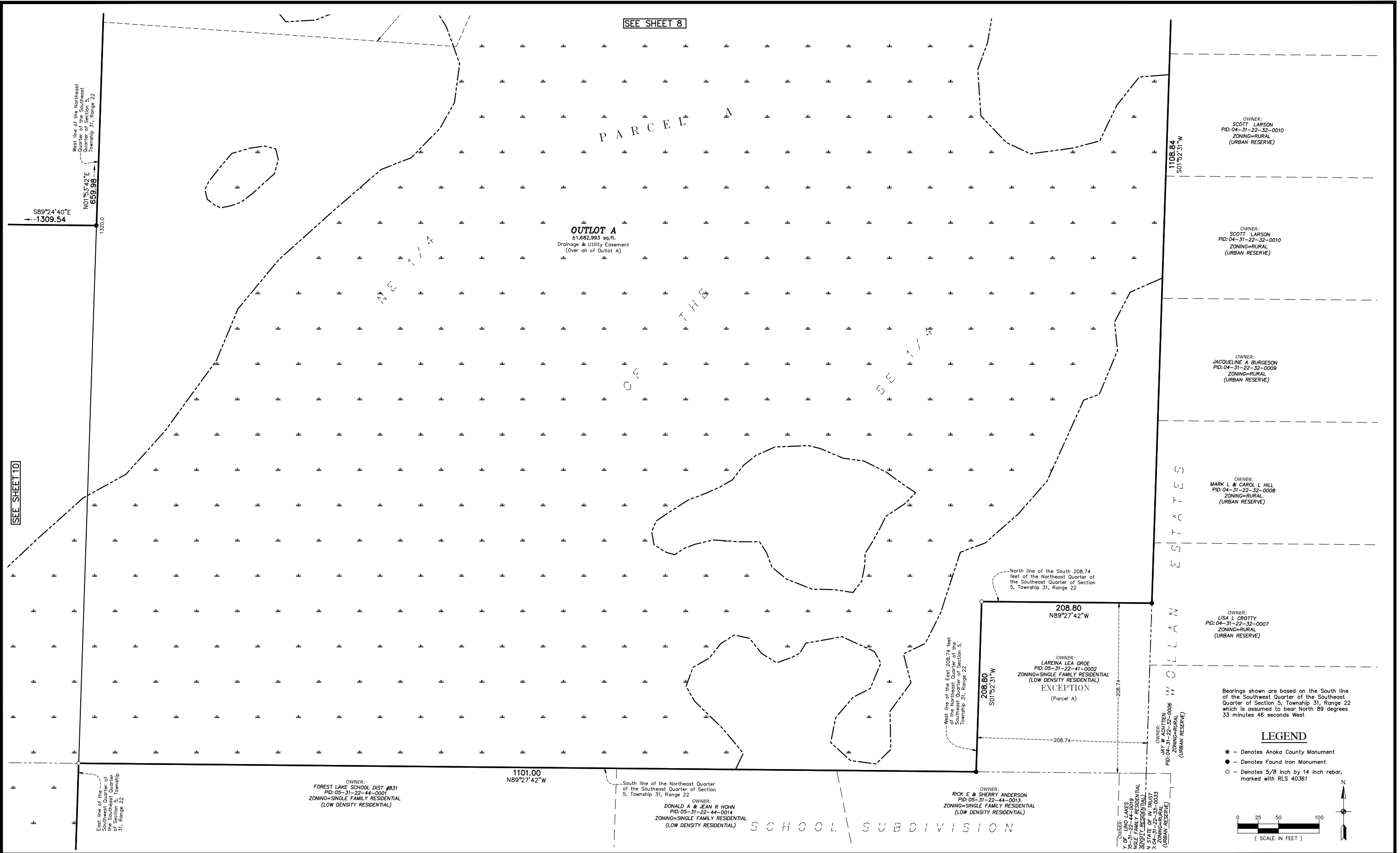
DRAWN BY: JAB
ISSUE DATE: 11/14/2017
FILE NO: 957

Revisions:
4/11/18 Revised Layout
6/15/18 Revised Layout
5/13/19 City Comments

PREFERRED BUILDERS, INC.
10500 Bren Road E.
Minnetonka, MN 55343

NATURES REFUGE
Lino Lakes, Minnesota

PRELIMINARY PLAT



SEE SHEET 8

PARCEL A

OUTLOT A
±1,682,993 sq.ft.
Drainage & Utility Easement
(Over all of Outlot A)

OUTLOT THE

OWNER:
SCOTT LARSON
PID: 04-31-22-32-0010
ZONING=RURAL
(URBAN RESERVE)

OWNER:
SCOTT LARSON
PID: 04-31-22-32-0010
ZONING=RURAL
(URBAN RESERVE)

OWNER:
JACQUELINE A. BURGESON
PID: 04-31-22-32-0009
ZONING=RURAL
(URBAN RESERVE)

OWNER:
MARK L. & CAROL L. HILL
PID: 04-31-22-32-0008
ZONING=RURAL
(URBAN RESERVE)

OWNER:
LISA L. CROTTY
PID: 04-31-22-32-0007
ZONING=RURAL
(URBAN RESERVE)

OWNER:
LARENA LEA GROE
PID: 05-31-22-44-0002
ZONING=SINGLE FAMILY RESIDENTIAL
(LOW DENSITY RESIDENTIAL)
EXCEPTION
(Parcel A)

OWNER:
RICK E. & SHERRY ANDERSON
PID: 05-31-22-44-0013
ZONING=SINGLE FAMILY RESIDENTIAL
(LOW DENSITY RESIDENTIAL)

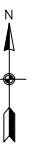
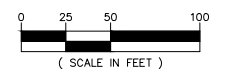
OWNER:
FOREST LAKE SCHOOL DIST #831
PID: 05-31-22-44-0001
ZONING=SINGLE FAMILY RESIDENTIAL
(LOW DENSITY RESIDENTIAL)

OWNER:
DONALD A. & JEAN R. HOHN
PID: 05-31-22-44-0014
ZONING=SINGLE FAMILY RESIDENTIAL
(LOW DENSITY RESIDENTIAL)

Bearings shown are based on the South line of the Southwest Quarter of the Southeast Quarter of Section 5, Township 31, Range 22 which is assumed to bear North 89 degrees 33 minutes 46 seconds West

LEGEND

- - Denotes Anoka County Monument
- - Denotes Found Iron Monument
- - Denotes 5/8 inch by 14 inch rebar, marked with RLS 40361



Carlson McCain
3890 Pheasant Ridge Drive NE, Suite 100
Blaine, MN 55449
Phone: (763) 489-7900
Fax: (763) 489-7959
www.carlsonmccain.com

- environmental engineering
- surveying

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.
Print Name: Thomas R. Balluff, L.S.
Signature: *Thomas R. Balluff*
Date: 11/14/2017 License #: 40361

DRAWN BY: JAB
ISSUE DATE: 11/14/2017
FILE NO: 957

Revisions:
4/11/18 Revised Layout
6/15/18 Revised Layout
5/13/19 City Comments

PREFERRED BUILDERS, INC.
10500 Bren Road E.
Minnetonka, MN 55343

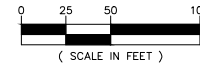
NATURES REFUGE
Lino Lakes, Minnesota

PRELIMINARY PLAT

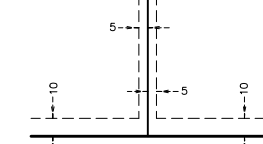
Bearings shown are based on the South line of the Southwest Quarter of the Southeast Quarter of Section 5, Township 31, Range 22 which is assumed to bear North 89 degrees 33 minutes 46 seconds West

LEGEND

- - Denotes Anoka County Monument
- - Denotes Found Iron Monument
- - Denotes 5/8 inch by 14 inch rebar, marked with RLS 40361



PROPOSED DRAINAGE AND UTILITY EASEMENTS ARE SHOWN THUS:

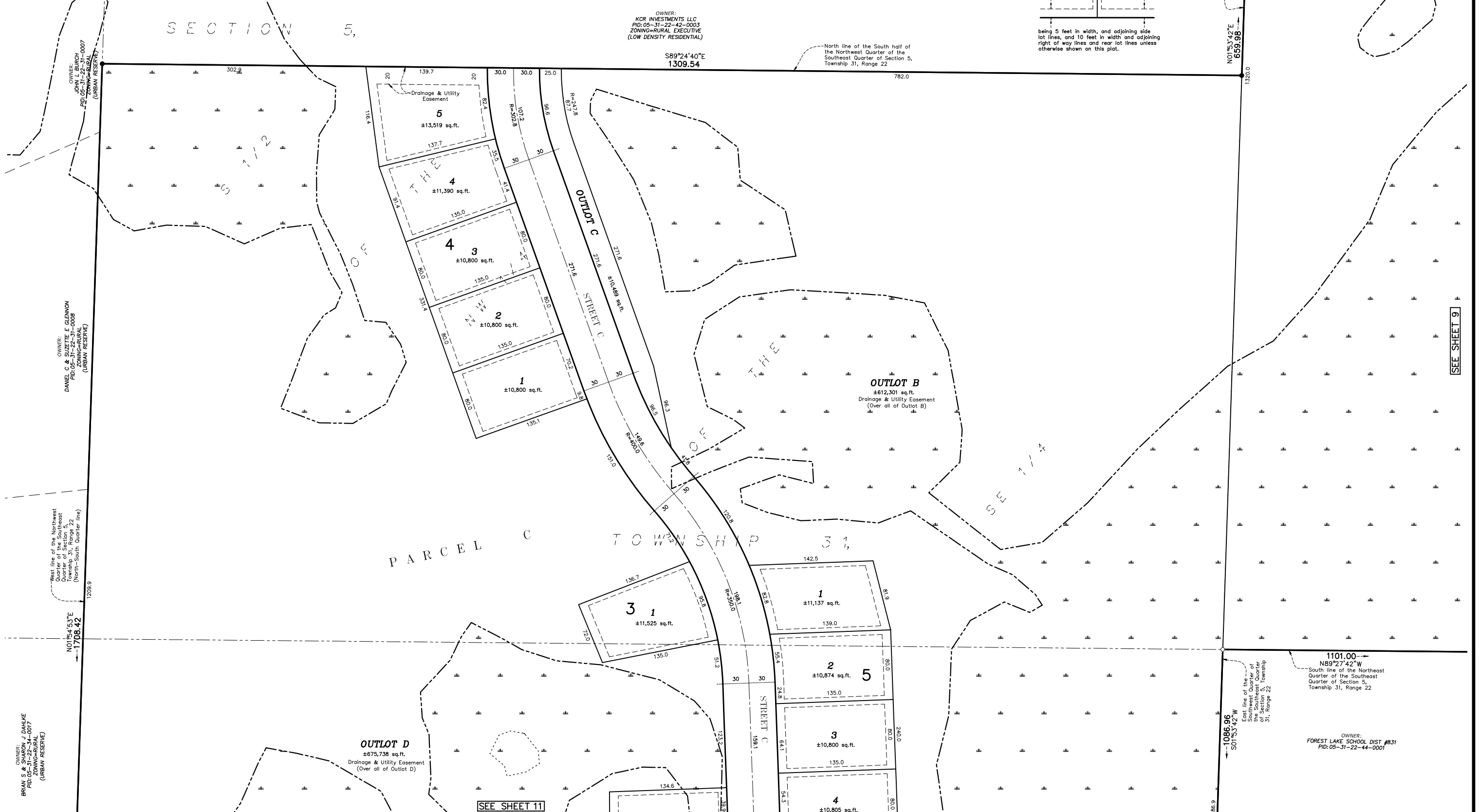


West line of the Northeast Quarter of the Southeast Quarter of Section 5, Township 31, Range 22
N01°53.42'E
659.96'

OWNER:
KCR INVESTMENTS LLC
PID:05-31-22-42-0003
ZONING=RURAL EXECUTIVE
(LOW DENSITY RESIDENTIAL)

S89°24'40"E
1309.54'

North line of the South half of the Northwest Quarter of the Southeast Quarter of Section 5, Township 31, Range 22



OWNER:
DANIEL C. & SUZETTE F. GLENNON
PID:05-31-22-31-0008
ZONING=RURAL
(URBAN RESERVE)

West line of the Northwest Quarter of the Southeast Quarter of Section 5, Township 31, Range 22 (North-South Quarter line)

N01°54'53"E
1708.42'

OWNER:
BRIAN S. & SHARON J. DAHLKE
PID:05-31-22-34-0017
ZONING=RURAL
(URBAN RESERVE)

1101.00' →
N89°27'42" W
South line of the Northeast Quarter of the Southeast Quarter of Section 5, Township 31, Range 22

OWNER:
FOREST LAKE SCHOOL DIST #831
PID:05-31-22-44-0001

East line of the Southwest Quarter of the Southeast Quarter of Section 5, Township 31, Range 22
S01°53.42'W
1086.96'

SEE SHEET 11

Carlson McCain
 • environmental engineering
 • surveying
 3890 Pheasant Ridge Drive NE, Suite 100
 Blaine, MN 55449
 Phone: (763) 489-7900
 Fax: (763) 489-7959
 www.carlsonmccain.com

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.
 Print Name: Thomas R. Balluff, L.S.
 Signature: *Thomas R. Balluff*
 Date: 11/14/2017 License #: 40361

DRAWN BY: JAB
 ISSUE DATE: 11/14/2017
 FILE NO: 957

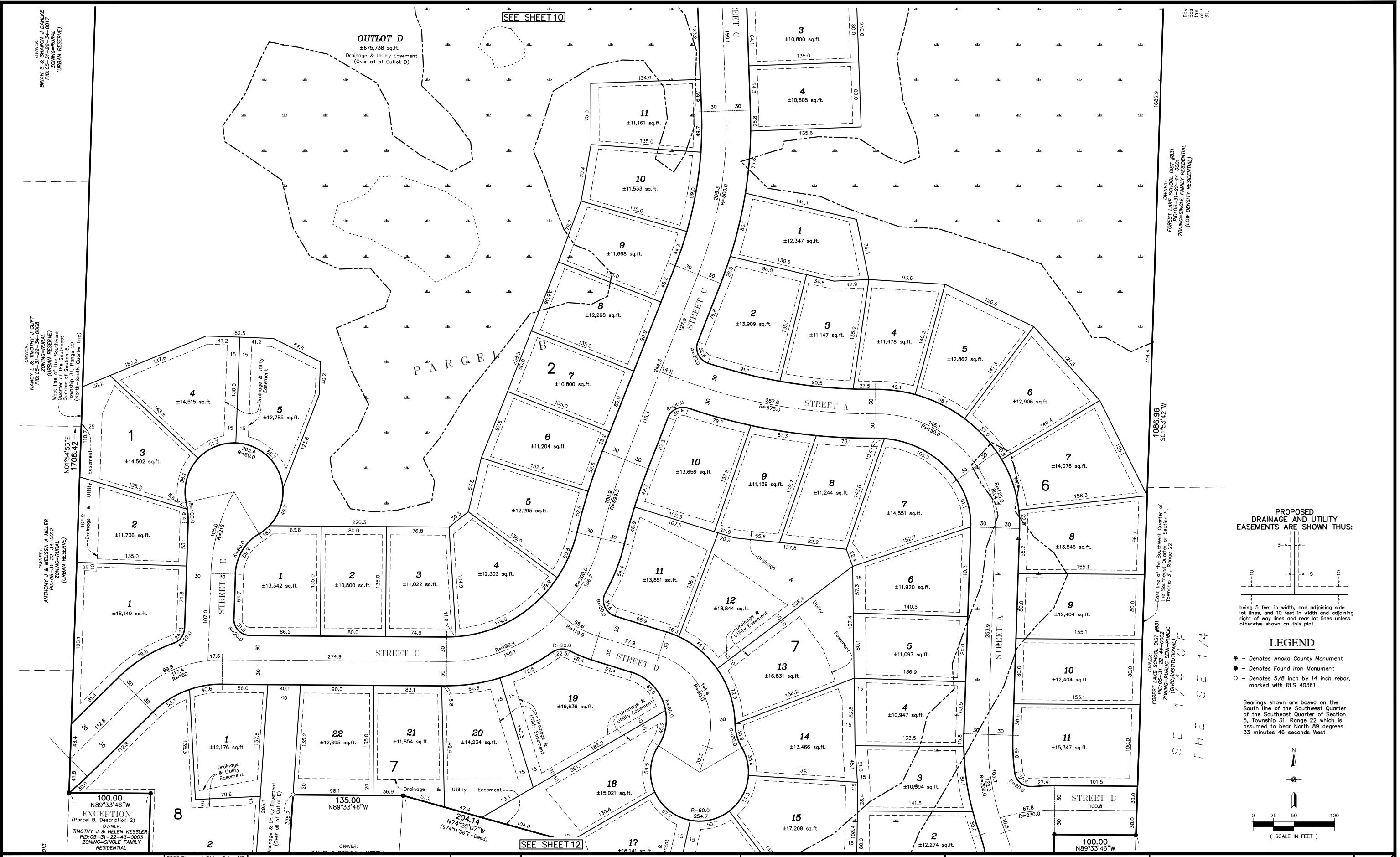
Revisions:
 4/11/18 Revised Layout
 6/15/18 Revised Layout
 5/13/19 City Comments

PREFERRED BUILDERS, INC.
 10500 Bren Road E.
 Minnetonka, MN 55343

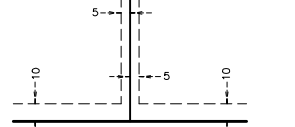
NATURES REFUGE
 Lino Lakes, Minnesota

PRELIMINARY PLAT

Base Data: 05/11/18 P:\pds\5401 - 5420\5412 - natures refuge\cad\survey\preliminary plat\5412.dwg



PROPOSED DRAINAGE AND UTILITY EASEMENTS ARE SHOWN THUS:

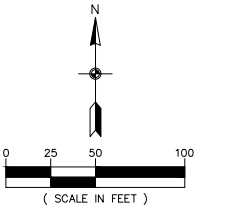


being 5 feet in width, and adjoining side lot lines, and 10 feet in width and adjoining right of way lines and rear lot lines unless otherwise shown on this plat.

LEGEND

- - Denotes Anoka County Monument
- - Denotes Found Iron Monument
- - Denotes 5/8 inch by 14 inch rebar, marked with RLS 40361

Bearings shown are based on the South line of the Southwest Quarter of the Southeast Quarter of Section 5, Township 31, Range 22 which is assumed to bear North 89 degrees 33 minutes 46 seconds West



See the of 31.

OWNER:
FOREST LAKE SCHOOL DIST. #831
ZONING=PUBLIC SEM-PUBLIC
(CIVIC/INSTITUTIONAL)

1086.96
S01°53'42"W

East line of the Southwest Quarter of the Southeast Quarter of Section 5, Township 31, Range 22

OWNER:
FOREST LAKE SCHOOL DIST. #831
ZONING=PUBLIC SEM-PUBLIC
(CIVIC/INSTITUTIONAL)

SEE THE S E 1 / 4

OWNER:
BRAY, S. & TIMOTHY J. CLIFT
PID: 05-31-22-34-0008
ZONING=RURAL
(URBAN RESERVE)

OWNER:
NANCY L. & TIMOTHY J. CLIFT
PID: 05-31-22-34-0008
ZONING=RURAL
(URBAN RESERVE)

OWNER:
ANTHONY J. & MELISSA A. MILLER
PID: 05-31-22-34-0012
ZONING=RURAL
(URBAN RESERVE)

100.00
N89°33'46"W
EXCEPTION
(Parcel B, Description 2)
OWNER:
TIMOTHY J. & HELEN KESSLER
PID: 05-31-22-43-0003
ZONING=SINGLE FAMILY
RESIDENTIAL

3890 Pheasant Ridge Drive NE,
Suite 100
Blaine, MN 55449
Phone: (763) 489-7900
Fax: (763) 489-7959
www.carlsonmccain.com

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.

Print Name: Thomas R. Balluff, L.S.
Signature: *Thomas R. Balluff*
Date: 11/14/2017 License #: 40361

DRAWN BY: JAB
ISSUE DATE: 11/14/2017
FILE NO: 957

Revisions:
4/11/18 Revised Layout
6/15/18 Revised Layout
3/14/19 Revised Easements Lots 889 Block 2
5/13/19 City Comments

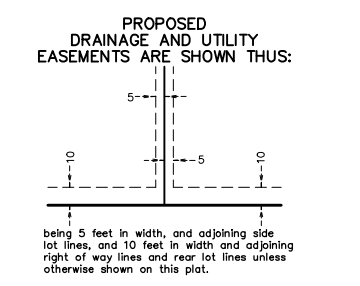
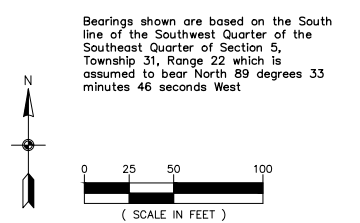
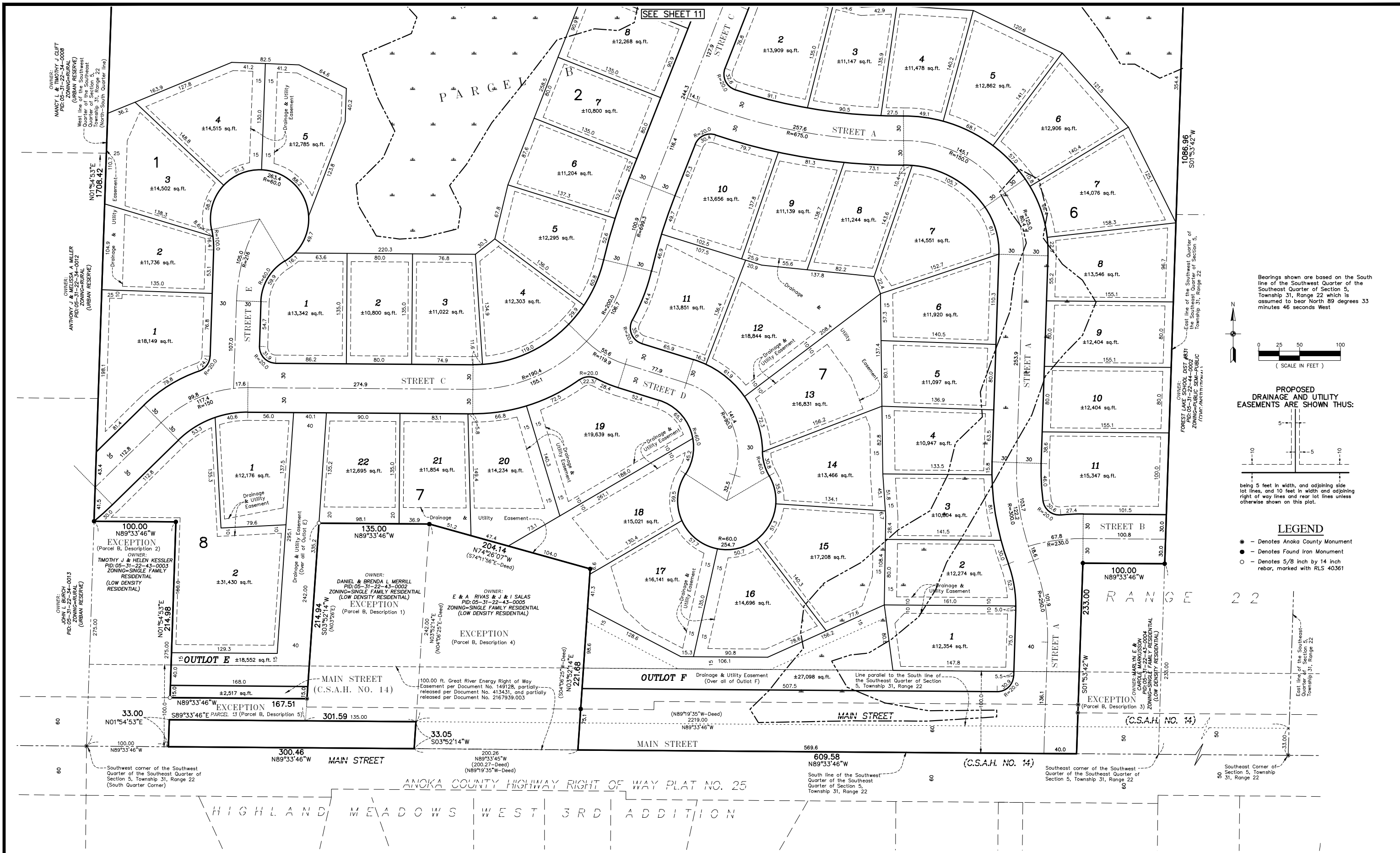
PREFERRED BUILDERS, INC.
10500 Bren Road E.
Minnetonka, MN 55343

NATURES REFUGE
Lino Lakes, Minnesota

PRELIMINARY PLAT

11
of
18

Base Data: 02/13/18 P:\pds\4011-5420\4412-natures-refuge\pds\survey\preliminary\plat\11.dwg



- LEGEND**
- - Denotes Anoka County Monument
 - - Denotes Found Iron Monument
 - - Denotes 5/8 inch by 14 inch rebar, marked with RLS 40361

Carlson McCain
 • environmental engineering
 • surveying
 3890 Pheasant Ridge Drive NE, Suite 100
 Blaine, MN 55449
 Phone: (763) 489-7900
 Fax: (763) 489-7959
 www.carlsonmccain.com

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.
 Print Name: Thomas R. Balluff, L.S.
 Signature: *Thomas R. Balluff*
 Date: 11/14/2017 License #: 40361

DRAWN BY: JAB
 ISSUE DATE: 11/14/2017
 FILE NO: 957

Revisions:
 4/11/18 Revised Layout
 6/15/18 Revised Layout
 5/13/19 City Comments

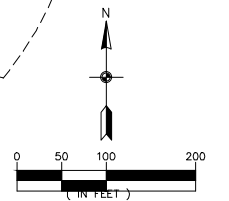
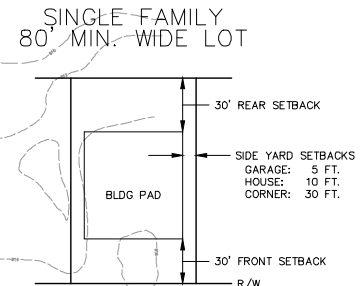
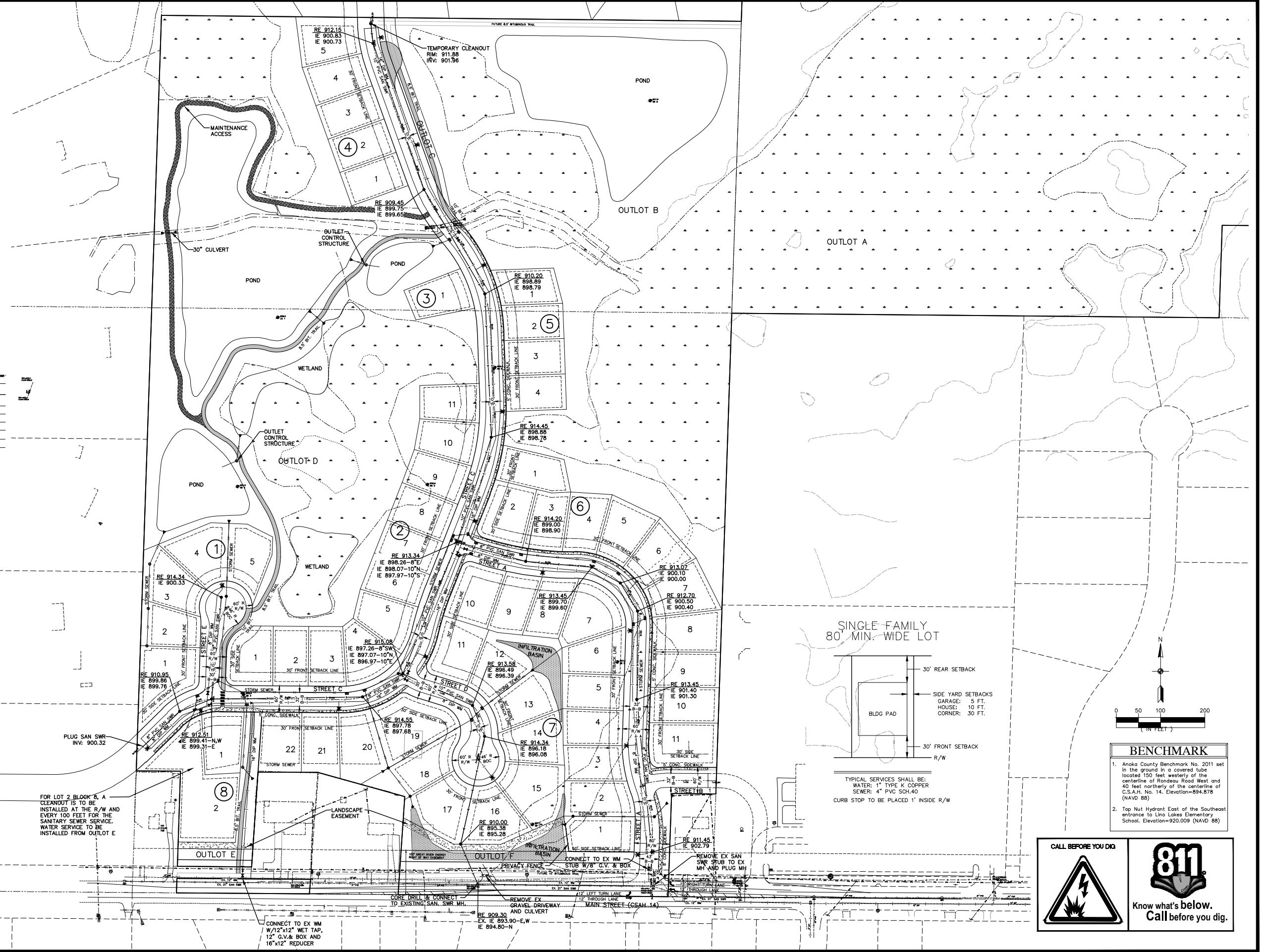
PREFERRED BUILDERS, INC.
 10500 Bren Road E.
 Minnetonka, MN 55343

NATURES REFUGE
 Lino Lakes, Minnesota

PRELIMINARY PLAT

E A N E E N

- | | |
|-------------------------|----------|
| EXISTING | PROPOSED |
| LIGHT POLE | |
| SANITARY MANHOLE | |
| MISCELLANEOUS SIGN | |
| EXISTING SPOT ELEVATION | |
| EXISTING TREE | |
| TELEVISION BOX | |
| FIRE HYDRANT | |
| GATE VALVE | |
| CLEANOUT | |
| ELECTRIC BOX | |
| GAS METER | |
| CATCH BASIN | |
| RAIN GUARDIAN | |
| ELECTRIC METER | |
| TELEPHONE BOX | |
| UTILITY POLE | |
| FLARED END SECTION | |
| STORM MANHOLE | |
| SERVICE | |
| SOIL BORING/TEST HOLE | |
| RETAINING WALL | |
| WATERMAIN | |
| SANITARY SEWER | |
| STORM SEWER | |
| PROPERTY LINE | |
| SETBACK LINE | |
| CURB | |
| WETLAND | |
| DITCH | |
| UNDERGROUND TELEPHONE | |
| UNDERGROUND ELECTRIC | |
| UNDERGROUND GAS | |
| UNDERGROUND FIBEROPTIC | |
| FENCE | |
| OVERHEAD ELECTRIC | |
| CONCRETE SURFACE | |
| BITUMINOUS SURFACE | |



BENCHMARK

- Anoka County Benchmark No. 2011 set in the ground in a covered tube located 150 feet westerly of the centerline of Rondeau Road West and 40 feet northerly of the centerline of C.S.A.H. No. 14. Elevation=894.878 (NAVD 88)
- Top Nut Hydrant East of the Southeast entrance to Lino Lakes Elementary School. Elevation=920.009 (NAVD 88)

TYPICAL SERVICES SHALL BE:
 WATER: 1" TYPE K COPPER
 SEWER: 4" PVC SCH.40
 CURB STOP TO BE PLACED 1' INSIDE R/W

CALL BEFORE YOU DIG

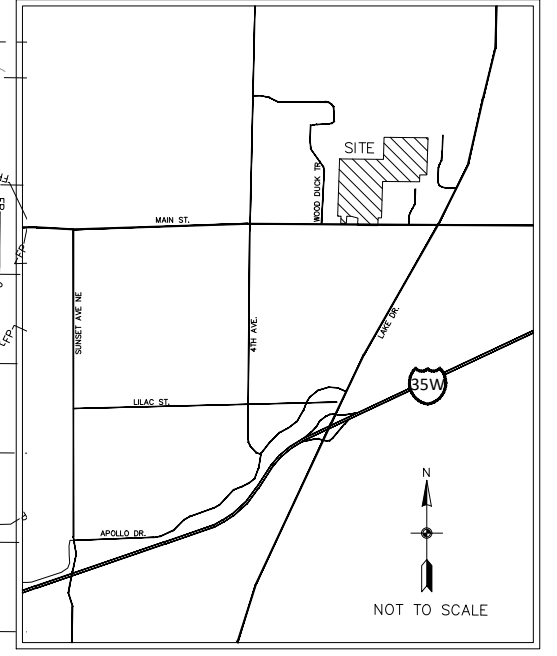
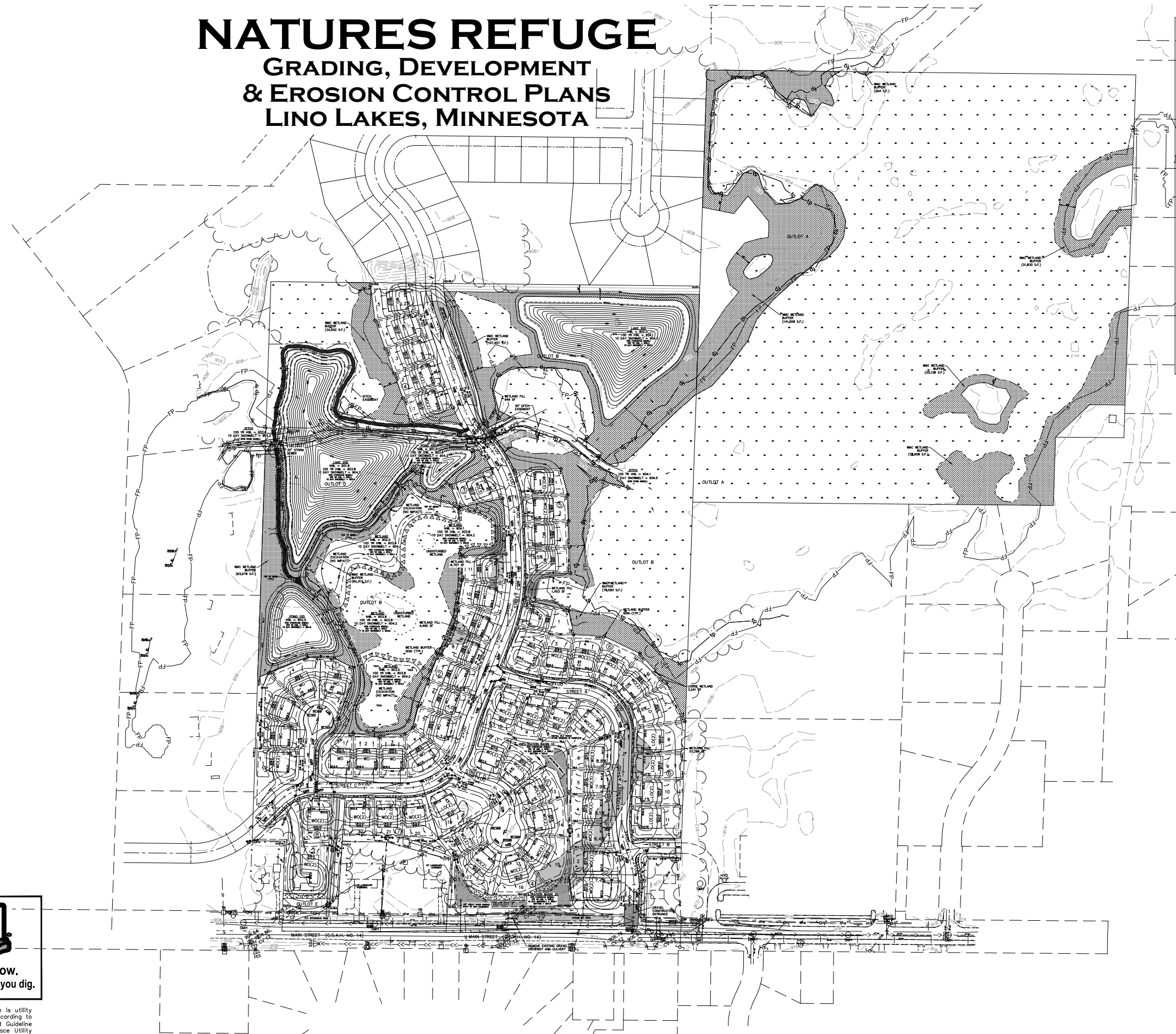
811

Know what's below.
Call before you dig.

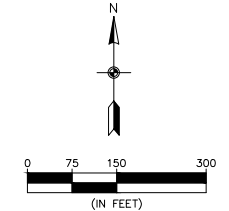
NATURES REFUGE

GRADING, DEVELOPMENT & EROSION CONTROL PLANS

LINO LAKES, MINNESOTA



VICINITY MAP



- BENCHMARK**
- Anoka County Benchmark No. 2011 set in the ground in a covered tube located 150 feet westerly of the centerline of Rondeau Road West and 40 feet northerly of the centerline of C.S.A.H. No. 14. Elevation=894.878 (NAVD 88)
 - Top Nut Hydrant East of the Southeast entrance to Lino Lakes Elementary School. Elevation=920.009 (NAVD 88)

- SHEET INDEX**
- COVER SHEET
 - GRADING INDEX
 5. GRADING, DEVELOPMENT & EROSION CONTROL PLANS
 - DETAILS

CALL BEFORE YOU DIG

Know what's below.
Call before you dig.

The subsurface utility information shown on this plan is utility Quality Level D. This quality level was determined according to the guidelines of C/ASCE 38-02, entitled "Standard Guideline for the Collection and Depiction of Existing Subsurface Utility Data."

Carlson McCain

- environmental
- engineering
- surveying

3890 Pheasant Ridge Drive NE, Suite 100
Blaine, MN 55449
Phone: (763) 489-7900
Fax: (763) 489-7959
www.carlsonmccain.com

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

Print Name: Brian J. Krystofak, P.E.
Signature: *Brian J. Krystofak*
Date: 5/13/19 License #: 25063

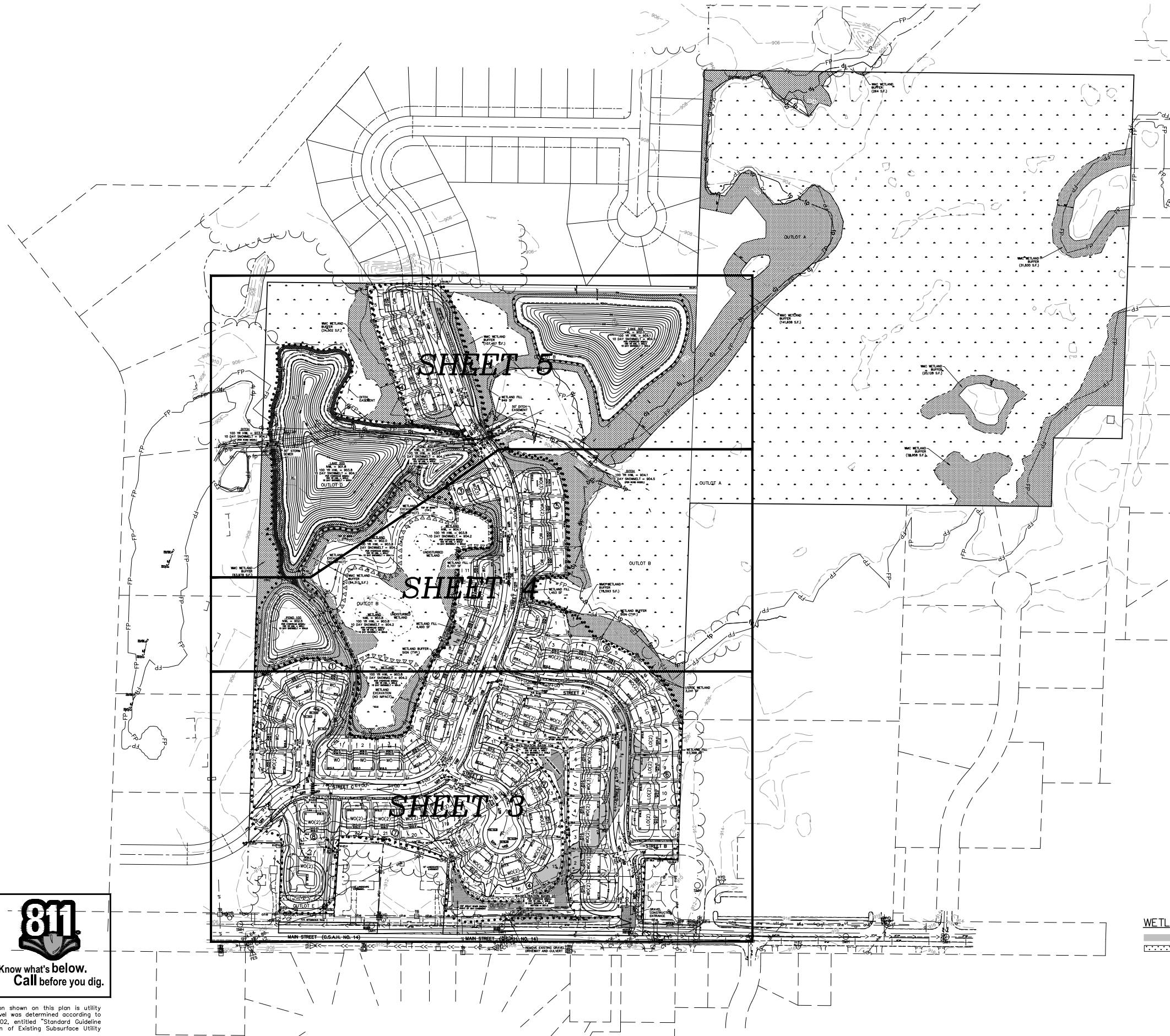
Drawn: LOC
Designed: BJK
Date: 5/13/19

Revisions:
1. 6/12/19 per City Comments

PREFERRED BUILDERS, INC.
10500 Bren Road E.
Minnetonka, MN 55343

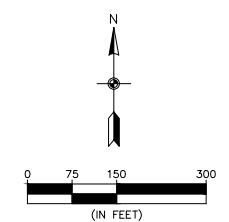
NATURES REFUGE
Lino Lakes, Minnesota

COVER



LEGEND	
EXISTING	PROPOSED
PROPERTY LINE	---
EASEMENT LINE	---
CURB LINE	---
BITUMINOUS	---
CONCRETE	---
SANITARY SEWER	---
STORM SEWER	---
WATER MAIN	---
OVERHEAD UTILITY	---
STORM CATCH BASIN	○
STORM MANHOLE	○
OUTLET CONTROL STRUCTURE	○
MANHOLE	○
HYDRANT	○
GATE VALVE	○
TELEVISION BOX	○
TELEPHONE BOX	○
UTILITY POLE	○
RETAINING WALL	---
FENCE	---
10' CONTOUR	---
2' CONTOUR	---
FEMA FLOOD PLAIN	---
WETLAND LINE	---
USACE WETLAND LINE	---
SPOT ELEVATION	00.0
EMERGENCY OVERFLOW	○
SILT FENCE	○
TREE FENCE	○
GRADING LIMITS	---
TREELINE	---
SOIL BORING	○
FEMA FLOODPLAIN	fp
RCWD FLOODPLAIN	fp

NOTE: ALL TOPSOILS REMOVED FROM BUFFER AREAS MUST BE STOCKPILED AND RETURNED AS CLOSE TO THE ORIGINAL LOCATION AS POSSIBLE.



BENCHMARK

- Anoka County Benchmark No. 2011 set in the ground in a covered tube located 150 feet westerly of the centerline of Rondeau Road West and 40 feet northerly of the centerline of C.S.A.H. No. 14. Elevation=894.878 (NAVD 88)
- Top Nut Hydrant East of the Southeast entrance to Lino Lakes Elementary School. Elevation=920.009 (NAVD 88)

WETLAND SUMMARY

WETLAND FILL	= 70,987 SF (1.6 AC)
WMC WETLAND BUFFER AREA	= 641,631 SF (14.7 AC)
REQUIRED WMC WETLAND BUFFER AREA	= 616,100 S.F. (14.1 AC)

BUFFER WIDTH:
 AVERAGE WIDTH 50' (ft)
 MINIMUM WIDTH 25' (ft)
 (NOTE: ALL AREAS EXCLUDE PAVED TRAIL SURFACES)
 * UNLESS OTHERWISE NOTED

CALL BEFORE YOU DIG

811
 Know what's below.
 Call before you dig.

The subsurface utility information shown on this plan is utility Quality Level D. This quality level was determined according to the guidelines of CI/ASCE 38-02, entitled "Standard Guideline for the Collection and Depiction of Existing Subsurface Utility Data."

Carlson McCain
 • environmental
 • engineering
 • surveying

3890 Pheasant Ridge Drive NE,
 Suite 100
 Blaine, MN 55449
 Phone: (763) 489-7900
 Fax: (763) 489-7959
 www.carlsonmccain.com

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

Print Name: Brian J. Krystofak, P.E.
 Signature: *Brian J. Krystofak*
 Date: 5/13/19 License #: 25063

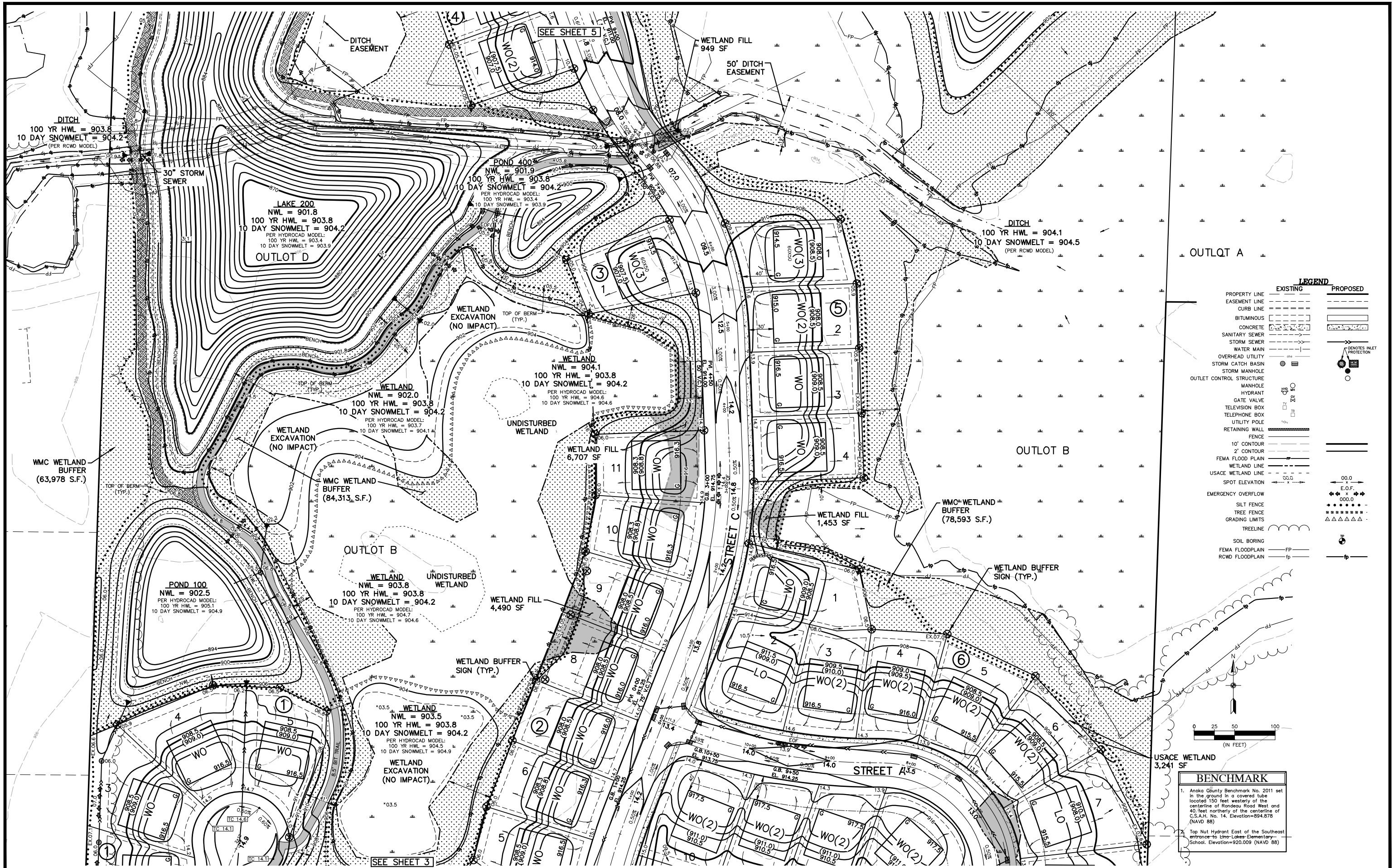
Drawn: LOC
 Designed: BJK
 Date: 5/13/19

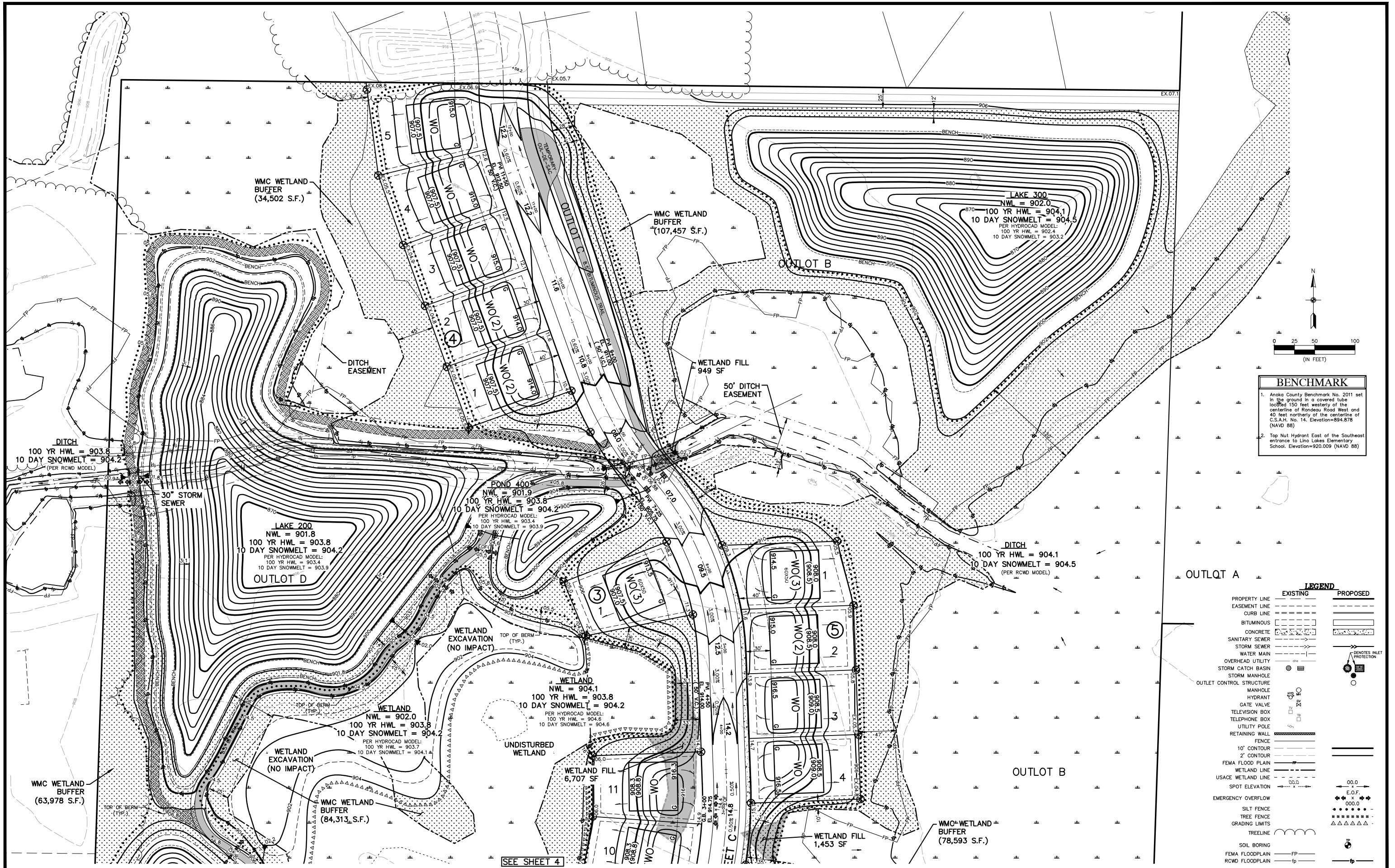
Revisions:
 1. 6/12/19 per City Comments

PREFERRED BUILDERS, INC.
 10500 Bren Road E.
 Minnetonka, MN 55343

NATURES REFUGE
 Lino Lakes, Minnesota

GRADING PLAN INDEX





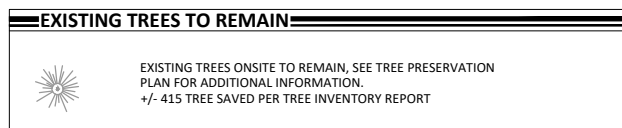
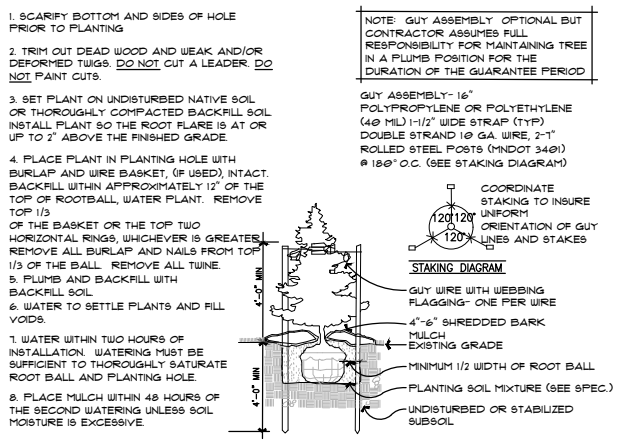
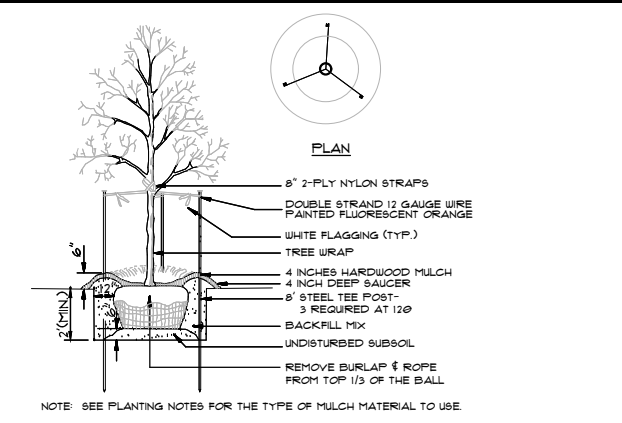
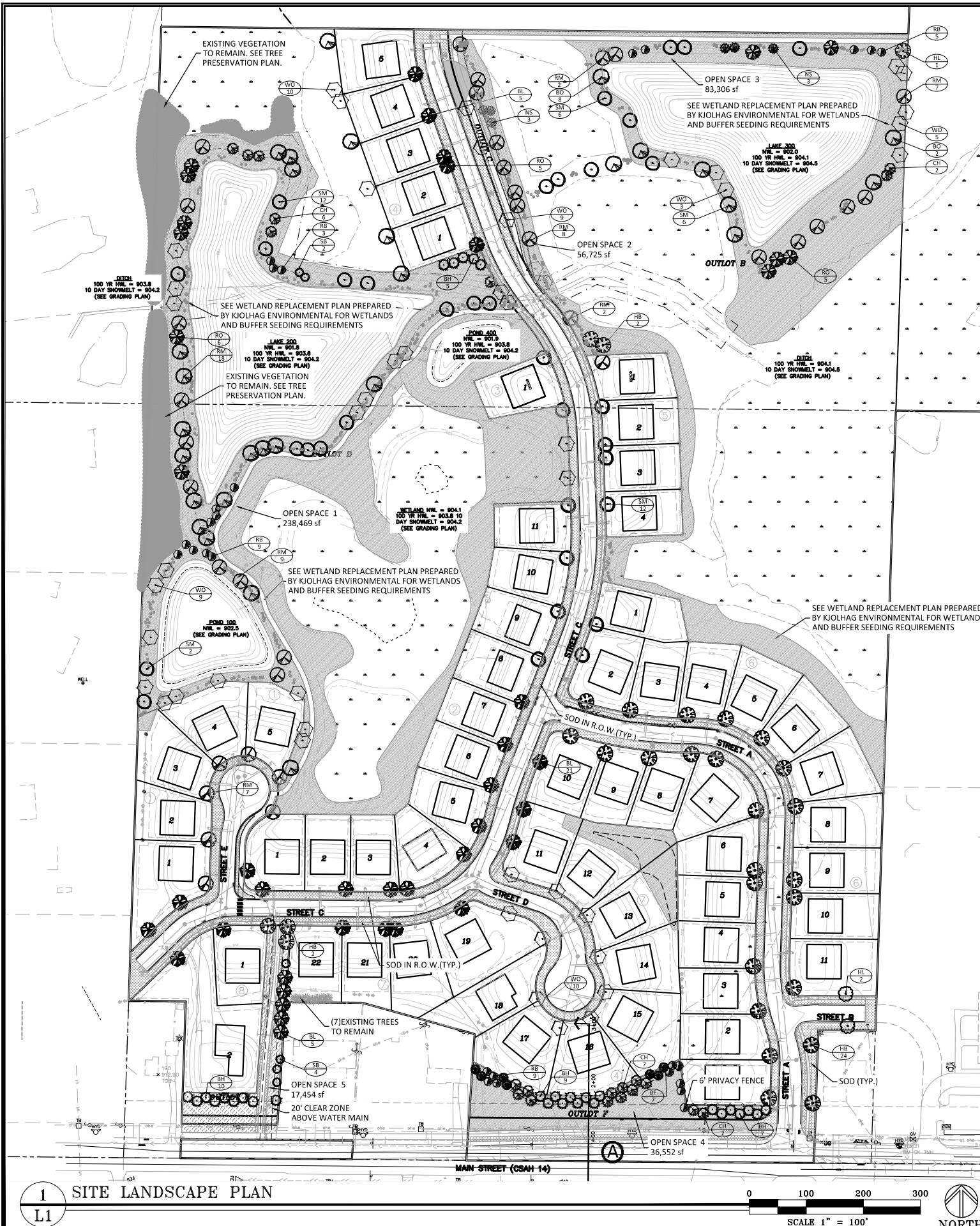
BENCHMARK

- Anoka County Benchmark No. 2011 set in the ground in a covered tube located 150 feet westerly of the centerline of Rondeau Road West and 40 feet northerly of the centerline of C.S.A.H. No. 14. Elevation=894.878 (NAVD 88)
- Top Nut Hydrant East of the Southeast entrance to Lino Lakes Elementary School. Elevation=920.009 (NAVD 88)

LEGEND

EXISTING	PROPOSED
PROPERTY LINE	---
EASEMENT LINE	---
CURB LINE	---
BITUMINOUS	---
CONCRETE	---
SANITARY SEWER	---
STORM SEWER	---
WATER MAIN	---
OVERHEAD UTILITY	---
STORM CATCH BASIN	---
STORM MANHOLE	---
OUTLET CONTROL STRUCTURE	---
MANHOLE	---
HYDRANT	---
GATE VALVE	---
TELEVISION BOX	---
TELEPHONE BOX	---
UTILITY POLE	---
RETAINING WALL	---
FENCE	---
10' CONTOUR	---
2' CONTOUR	---
FEMA FLOOD PLAIN	---
WETLAND LINE	---
USACE WETLAND LINE	---
SPOT ELEVATION	---
EMERGENCY OVERFLOW	---
SILT FENCE	---
TREE FENCE	---
GRADING LIMITS	---
TREELINE	---
SOIL BORING	---
FEMA FLOODPLAIN	---
RCWD FLOODPLAIN	---

SEE SHEET 4



CITY OF LINO LAKES LANDSCAPE CODE

- OPEN AREA LANDSCAPE STANDARDS (DOES NOT INCLUDE SINGLE FAMILY LOTS)**
 - ONE TREE & 3 LARGE SHRUBS PER 2000sf OF SITE OPEN SPACE (COMMON AREAS)
 - AREA "1" 238,469 sf = 120 TREES & 357 SHRUBS
 - AREA "2" 56,725 sf = 29 TREES & 85 SHRUBS
 - AREA "3" 83,306 sf = 42 TREES & 124 SHRUBS
 - AREA "4" 36,552 sf = 18 TREES & 55 SHRUBS
 - AREA "5" 17,454 sf = 7 TREES & 22 SHRUBS
 - TOTAL = 216 TREES & 661 SHRUBS
- OVERSTORY TREE = 2 UNDERSTORY TREES**
- 1 LARGE SHRUB = 3 SMALL SHRUBS**
- TREE PRESERVATION REPLACEMENT TREES = 138**
- BUFFER AND SCREEN STANDARDS**
 - BETWEEN RESIDENTIAL AND ARTERIAL/COLECTOR STREETS = 6' ht
 - OVERSTORY SOIL / UNDERSTORY 25ft
- BOULEVARD TREE STANDARDS**
 - ONE TREE PER LOT &
 - TREES SHALL BE PLACED WITHIN 14' OF THE BACK OF CURB
 - OVERSTORY / UNDERSTORY TREES = 66
- PROPOSED TREES**
 - OPEN AREAS TREES/TREE PRESERVATION = 216
 - Overstory/Evergreen = 200
 - Understory (1/2 Credit) = (32/2) 16
 - OPEN AREAS SHRUBS = 661
 - BOULEVARD TREES = 84

SEED MIX LEGEND (FOR ALL SHEETS)

SYM.	TYPE	SEED MIX
[Pattern]	WETLAND FRINGE	MN SEED MIX 33-262 (OLD BWSR US)
[Pattern]	MNDOT 260	MN SEED MIX 25-131 (OLD MNDOT 260)
[Pattern]	(USE EROSION CONTROL BLANKET FOR SLOPES OVER 3:1)	NOT INTENDED TO BE SODDED, OR RETENTION BASINS
[Pattern]	HARDWOOD MULCH	(NATURAL COLOR)
[Pattern]	SHREDDED HARDWOOD MULCH	(NATURAL COLOR)
[Pattern]	COMMERCIAL TURF - SOD	HIGHLAND SOD (PEAT SOIL IS UNACCEPTABLE)

TREE LEGEND

KEY	BOTANICAL NAME	COMMON NAME	SIZE	ROOT	QTY.	INSTALL HEIGHT	MATURE HEIGHT
HL	Gleditsia triacanthos var. inermis 'Shademaster'	SHADEMASTER HONEYLOCUST	2.5"	BB	2	10'	50'
RO	Quercus rubra	RED OAK	2.0"	BB	42	15'	60'
HB	Celtis occidentalis	HACKBERRY	2.5"	BB	30	15'	50'
SM	Ulmus x 'Cathedral'	CATHEDRAL ELM	2.5"	BB	35	14'	50'
RM	Acer rubrum 'Northwoods'	NORTHWOODS MAPLE	2.5"	BB	35	14'	50'
WO	Quercus bicolor	SWAMP WHITE OAK	2.0"	BB	47	15'	50'
BO	Quercus macrocarpa	BUR OAK	2.0"	BB	29	15'	50'

STAFF LEADER NO. "V" CROTCH

ORNAIMENTAL TREES

RB	Betula nigra 'Shilo Splash'	SHILOH SPLASH RIVER BIRCH	2"	BB	27	8'	25'
SB	Amelanchier x grandiflora 'Autumn Brilliance'	AUTUMN BRILLIANCE SERVICEBERRY	2"	BB	6	8'	20'

CLUMP FORM

EVERGREEN TREES

BH	Picea glauca var. Densata	BLACK HILLS SPRUCE	6"	BB	31	6'	40'
CH	Tsuga canadensis	CANADIAN HEMLOCK	6"	BB	21	6'	40'
AL	Larix laricina	AMERICAN LARCH	6"	BB	11	6'	60'
BF	Abies Balsamea	BALSAM FIR	6"	BB	7	6'	40'

FULL FORM TO GRADE

SHRUB LEGEND

KEY	BOTANICAL NAME	COMMON NAME	SIZE	ROOT	QTY.	INSTALL HEIGHT	MATURE HEIGHT
DBW	Salix purpurea 'Nana'	DWARF BLUE ARCTIC WILLOW	#5	CONT.	90	1'	3'x4'
RTD	Cornus Sericea 'Bailey'	RED TWIG DOGWOOD	#5	CONT.	107	1.5'	5'x5'
BCB	Aronica melonocarpa elata	BLACK CHOKEBERRY	#5	CONT.	62	1.5'	4'x4'
WIN	Ilex verticillata	WINTERBERRY	#5	CONT.	77	1.5'	5'x5'
SPF	Cornus racemosa	GRAY DOGWOOD	#5	CONT.	150	1.5'	4'x4'

QUANTITIES SHOWN IN THE PLANTING SCHEDULE ARE FOR THE CONTRACTOR'S CONVENIENCE. CONTRACTOR TO VERIFY QUANTITIES SHOWN ON THE PLAN.

PLANTING NOTES

- ALL PLANTS MUST BE HEALTHY, VIGOROUS MATERIAL, FREE OF PESTS AND DISEASE AND CONTAINER GROWN OR Balled and Burlapped as indicated in the LANDSCAPE LEGEND.
- ALL TREES MUST BE STRAIGHT TRUNKED AND FULL HEADED TO MEET ALL REQUIREMENTS SPECIFIED.
- THE LANDSCAPE ARCHITECT RESERVES THE RIGHT TO REJECT ANY PLANTS WHICH ARE DEEMED UNSATISFACTORY BEFORE, DURING, OR AFTER INSTALLATION.
- NO SUBSTITUTIONS OF PLANT MATERIAL SHALL BE ACCEPTED UNLESS APPROVED IN WRITING BY THE LANDSCAPE ARCHITECT.
- ALL PLANTING STOCK SHALL CONFORM TO THE "AMERICAN STANDARD FOR NURSERY STOCK," ANSI-Z60, LATEST EDITION, OF THE AMERICAN ASSOCIATION OF NURSERMEN, INC. AND SHALL CONSTITUTE MINIMUM QUALITY REQUIREMENTS FOR PLANT MATERIALS.
- EXISTING TREES AND SHRUBS TO REMAIN SHALL BE PROTECTED TO THE DRIP LINE FROM ALL CONSTRUCTION TRAFFIC, STORAGE OF MATERIALS ETC. WITH 4' HT. ORANGE PLASTIC SAFETY FENCING ADEQUATELY SUPPORTED BY STEEL FENCE POSTS 6" O.C. MAXIMUM SPACING.
- THE CONTRACTOR SHALL BE RESPONSIBLE FOR ALL MULCHES AND PLANTING SOIL QUANTITIES TO COMPLETE THE WORK SHOWN ON THE PLAN. VERIFY ALL QUANTITIES SHOWN ON THE LANDSCAPE LEGEND.
- LONG-TERM STORAGE OF MATERIALS OR SUPPLIES ON-SITE WILL NOT BE ALLOWED.
- THE CONTRACTOR SHALL KEEP PAVEMENTS, PLANTERS AND BUILDINGS CLEAN AND UNSTAINED. ALL PEDESTRIAN AND VEHICLE ACCESS TO BE MAINTAINED THROUGHOUT CONSTRUCTION PERIOD. ALL WASTES SHALL BE PROMPTLY REMOVED FROM THE SITE. ANY PLANT STOCK NOT PLANTED ON DAY OF DELIVERY SHALL BE HELED IN AND WATERED UNTIL INSTALLATION. PLANTS NOT MAINTAINED IN THIS MANNER WILL BE REJECTED. ANY DAMAGE TO EXISTING FACILITIES SHALL BE REPAVED AT THE CONTRACTOR'S EXPENSE.
- THE CONTRACTOR SHALL BE RESPONSIBLE FOR COMPLYING WITH ALL APPLICABLE CODES, REGULATIONS, AND PERMITS GOVERNING THE WORK.
- LOCATE AND VERIFY ALL UTILITIES, INCLUDING IRRIGATION LINES, WITH THE OWNER FOR PROPRIETARY UTILITIES AND Gopher STATE ONE CALL AT 454-0002 (TWIN CITIES METRO AREA) OR 800-252-1166 (GREATER MINNESOTA) 48 HOURS BEFORE DIGGING. CONTRACTOR SHALL BE RESPONSIBLE FOR THE PROTECTION AND REPAIR OF ANY DAMAGES TO SAME. NOTIFY THE LANDSCAPE ARCHITECT OF ANY CONFLICTS TO FACILITATE PLANT RELOCATION.
- PLANTING SOIL FOR TREES, SHRUBS AND GROUND COVERS: FERTILE, FRIABLE LOAM CONTAINING A LIBERAL AMOUNT OF HUMUS AND CAPABLE OF SUSTAINING VIGOROUS PLANT GROWTH. IT SHALL COMPLY WITH MN/DOT SPECIFICATION 3877. TYPE B SELECT TOPSOIL MIXTURE SHALL BE FREE FROM HARDPAK, SUBSOIL, STONES, CHEMICALS, NOXIOUS WEEDS, ETC. SOIL MIXTURE SHALL HAVE A PH BETWEEN 6.1 AND 7.5 AND 10-0-10 FERTILIZER AT THE RATE OF 3 POUNDS PER CUBIC YARD. IN PLANTING BEDS INCORPORATE THIS MIXTURE THROUGHOUT THE ENTIRE BED BY ROTOTILLING IT INTO THE TOP 12" OF SOIL.
- ALL PLANTS SHALL BE GUARANTEED FOR TWO COMPLETE GROWING SEASONS (APRIL 1 - NOVEMBER 1), UNLESS OTHERWISE SPECIFIED. THE GUARANTEE SHALL COVER THE FULL COST OF REPLACEMENT INCLUDING LABOR AND PLANTS.
- CONTRACTOR SHALL NOTIFY THE LANDSCAPE ARCHITECT AT LEAST 3 DAYS PRIOR TO PLANNED DELIVERY. THE CONTRACTOR SHALL NOTIFY THE LANDSCAPE ARCHITECT AT LEAST 24 HOURS IN ADVANCE OF BEGINNING PLANT INSTALLATION.
- SEASONS/TIME OF PLANTING AND SEEDING: NOTE: THE CONTRACTOR MAY ELECT TO PLANT IN OFF-SEASONS ENTIRELY AT HIS/HER RISK. DECIDUOUS POTTED PLANTS: 4/1 - 6/1; 9/21 - 11/1 EVERGREEN POTTED PLANTS: 4/1 - 6/1; 9/21 - 11/1 EVERGREEN B&B: 4/1 - 5/1; 9/21 - 11/1 TREE LAMB SEEDLINGS: 4/1 - 6/1; 7/20 - 9/20 NATIVE MIX SEEDINGS: 4/1 - 7/20; 9/20-10/20
- MAINTENANCE SHALL BEGIN IMMEDIATELY AFTER EACH PORTION OF THE WORK IS IN PLACE. PLANT MATERIAL SHALL BE PROTECTED AND MAINTAINED UNTIL THE INSTALLATION OF THE PLANTS IS COMPLETE. INSPECTION HAS BEEN MADE, AND PLANTINGS ARE ACCEPTED EXCLUSIVE OF THE GUARANTEE. MAINTENANCE SHALL INCLUDE WATERING, CULTIVATING, MULCHING, REMOVAL OF DEAD MATERIALS, RE-SETTING PLANTS TO PROPER GRADE AND KEEPING PLANTS IN A PLUMB POSITION. AFTER ACCEPTANCE, THE OWNER SHALL ASSUME MAINTENANCE RESPONSIBILITIES. HOWEVER, THE CONTRACTOR SHALL CONTINUE TO BE RESPONSIBLE FOR KEEPING THE TREES PLUMB THROUGHOUT THE GUARANTEE PERIOD.
- ANY PLANT MATERIAL WHICH DIES, TURNS BROWN, OR DEFOLIATES (PRIOR TO TOTAL ACCEPTANCE OF THE WORK) SHALL BE PROMPTLY REMOVED FROM THE SITE AND REPLACED WITH MATERIAL OF THE SAME SPECIES, QUANTITY, AND SIZE AND MEETING ALL LANDSCAPE LEGEND SPECIFICATIONS.
- WATERING: MAINTAIN A WATERING SCHEDULE WHICH WILL THOROUGHLY WATER ALL PLANTS ONCE A WEEK, IN EXTREMELY HOT, DRY WEATHER, WATER MORE OFTEN AS REQUIRED BY INDICATIONS OF HEAT STRESS SUCH AS WILTING LEAVES. CHECK MOISTURE UNDER MULCH PRIOR TO WATERING TO DETERMINE NEED. CONTRACTOR SHALL MAKE THE NECESSARY ARRANGEMENTS FOR WATER.
- CONTRACTOR SHALL REQUEST IN WRITING, A FINAL ACCEPTANCE INSPECTION.
- ALL DISTURBED AREAS TO BE TURF SEEDED, ARE TO RECEIVE 4" TOP SOIL, SEED, MULCH, AND WATER UNTIL A HEALTHY STAND OF GRASS IS OBTAINED.
- ALL DISTURBED AREAS TO RECEIVE NATIVE WETLAND SEEDS, ARE TO RECEIVE ENGINEERED SOIL, SEED, MULCH, AND WATER UNTIL A HEALTHY STAND OF GRASS IS OBTAINED.

Carlson McCain

- environmental
- engineering
- surveying

3890 Pheasant Ridge Drive NE,
Suite 100
Blaine, MN 55449
Phone: (763) 489-7900
Fax: (763) 489-7959
www.carlsonmccain.com

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 Landscape Architect under the laws of the State of Minnesota

Print Name: James A. Kalkes RLA
Signature: *James A. Kalkes*
Date: 11/14/2017 License #: 45071

Drawn: JAK
Designed: JAK
Date: 11/14/2017

Revisions:
1. 6/12/19 per City Comments
2. 6/27/19 per City Comments

PREFERRED BUILDERS, INC.
10500 Bren Road E.
Minnetonka, MN 55343

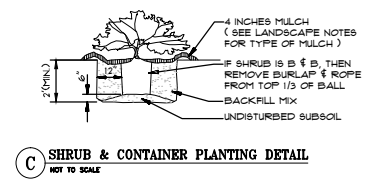
NATURES REFUGE
Lino Lakes, Minnesota

SITE LANDSCAPE PLAN

Scale 1" = 100'

NORTH

L1 of **3**



TREE LEGEND							
KEY	BOTANICAL NAME	COMMON NAME	SIZE	ROOT	QTY.	INSTALL HEIGHT	MATURE HEIGHT
DECIDUOUS TREES							
HL	Gleditsia triacanthos var. inermis 'Shademaster'	SHADEMASTER HONEYLOCUST	2.5"	BB	2	10'	50'
RO	Quercus rubra	RED OAK	2.0"	BB	43	15'	60'
HB	Celtis occidentalis	HACKBERRY	2.5"	BB	30	15'	50'
SM	Ulmus x 'Cathedral'	CATHEDRAL ELM	2.5"	BB	36	14'	50'
RM	Acer rubrum 'Northwoods'	NORTHWOODS MAPLE	2.5"	BB	34	14'	50'
WO	Quercus bicolor	SWAMP WHITE OAK	2.0"	BB	47	15'	50'
BO	Quercus macrocarpa	BUR OAK	2.0"	BB	29	15'	50'
ORNAMENTAL TREES							
RB	Betula nigra 'Shilo Splash'	SHILO SPLASH RIVER BIRCH	2"	BB	27	8'	25'
SB	Amelanchier x grandiflora 'Autumn Brilliance'	AUTUMN BRILLIANCE SERVICEBERRY	2"	BB	6	8'	20'
EVERGREEN TREES							
BH	Picea glauca var. densata	BLACK HILLS SPRUCE	6'	BB	31	6'	40'
CH	Tsuga canadensis	CANADIAN HEMLOCK	6'	BB	21	6'	40'
AL	Larix laricina	AMERICAN LARCH	6'	BB	11	6'	60'
BF	Abies balsamea	BALSAM FIR	6'	BB	7	6'	40'

SHRUB LEGEND							
KEY	BOTANICAL NAME	COMMON NAME	SIZE	ROOT	QTY.	INSTALL HEIGHT	MATURE HEIGHT
SHRUBS							
DBW	Salix purpurea 'Nana'	DWARF BLUE ARCTIC WILLOW	#5	CONT.	90	1'	3'x4'
RTD	Cornus sericea 'Bailey'	RED TWIG DOGWOOD	#5	CONT.	107	1.5'	5'x5'
BCB	Aronica melonocarpa elata	BLACK CHOKEBERRY	#5	CONT.	62	1.5'	4'x4'
WIN	Ilex verticillata	WINTERBERRY	#5	CONT.	77	1.5'	5'x5'
SPF	Cornus racemosa	GRAY DOGWOOD	#5	CONT.	150	1.5'	4'x4'

QUANTITIES SHOWN IN THE PLANTING SCHEDULE ARE FOR THE CONTRACTOR'S CONVENIENCE. CONTRACTOR TO VERIFY QUANTITIES SHOWN ON THE PLAN.

1 NORTH SHRUB PLAN

1 SOUTH SHRUB PLAN

L2

L2

Carlson McCain
 • environmental
 • engineering
 • surveying
 3890 Pheasant Ridge Drive NE,
 Suite 100
 Blaine, MN 55449
 Phone: (763) 489-7900
 Fax: (763) 489-7959
 www.carlsonmccain.com

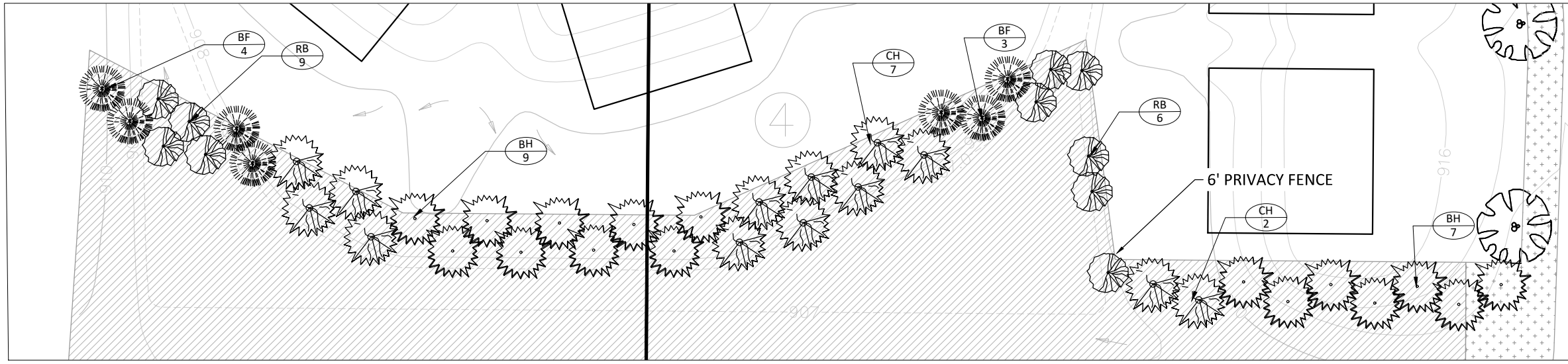
I hereby certify that this plan, specification or report was prepared by me or under my direct supervision and that I am a duly Licensed Landscape Architect under the laws of the State of Minnesota
 Print Name: James A. Kalkes RLA
 Signature: *James A. Kalkes*
 Date: 11/14/2017 License #: 45071
 Drawn: JAK
 Designed: JAK
 Date: 11/14/2017

Revisions:
 1. 8/12/19 per City Comments
 1. 6/27/19 per City Comments
PREFERRED BUILDERS, INC.
 10500 Bren Road E.
 Minnetonka, MN 55343

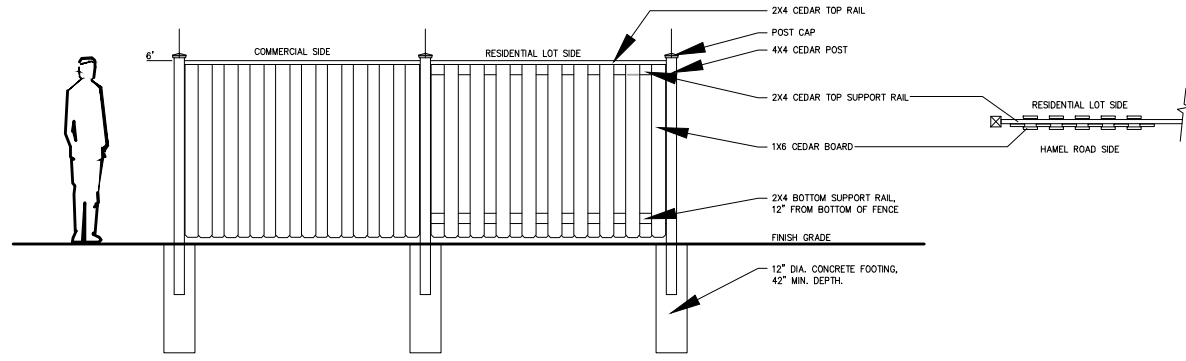
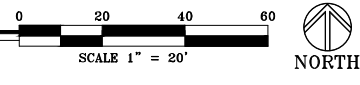
NATURES REFUGE
 Lino Lakes, Minnesota

OPEN AREA SHRUBS

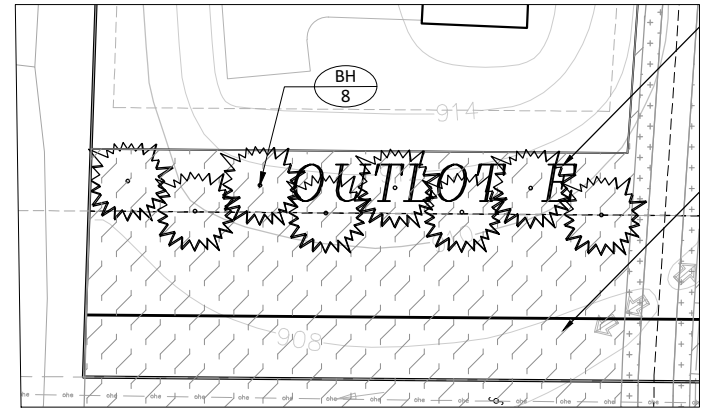
L2 of 3



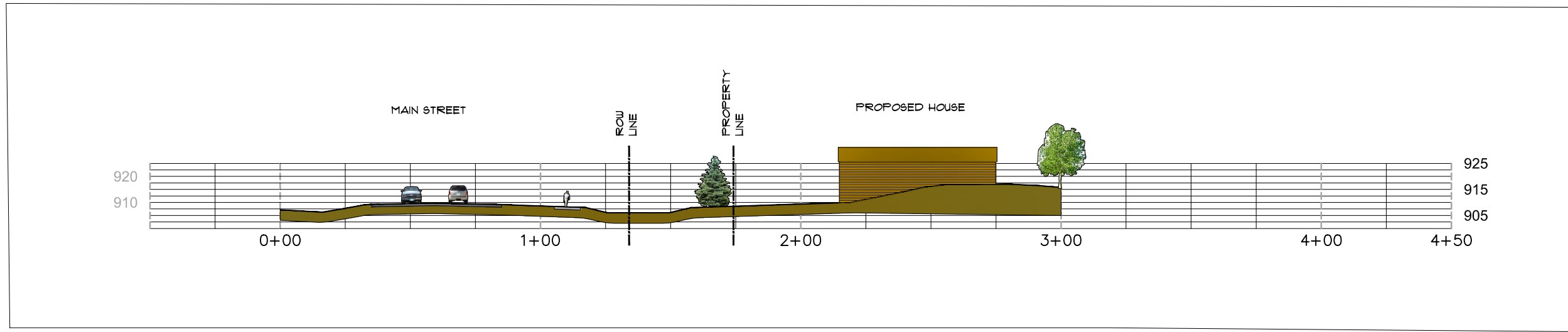
1 LANDSCAPE DETAILS
L3



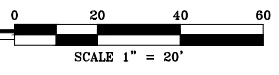
D SHRUB & CONTAINER PLANTING DETAIL
NOT TO SCALE



3 LANDSCAPE DETAILS
L2



1 LANDSCAPE CROSS SECTION
L3



Carlson McCain
 • environmental
 • engineering
 • surveying
 3890 Pheasant Ridge Drive NE,
 Suite 100
 Blaine, MN 55449
 Phone: (763) 489-7900
 Fax: (763) 489-7959
 www.carlsonmccain.com

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 Landscape Architect under the laws of the State of Minnesota
 Print Name: James A. Kalkes RLA
 Signature: *James A. Kalkes*
 Date: 11/14/2017 License #: 45071

Drawn: JAK
 Designed: JAK
 Date: 11/14/2017
 Revisions:
 1. 8/12/19 per City Comments
 1. 6/27/19 per City Comments


PREFERRED BUILDERS, INC.
 10500 Bren Road E.
 Minnetonka, MN 55343

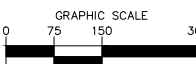
NATURES REFUGE
 Lino Lakes, Minnesota

LANDSCAPE DETAILS


NATURES REFUGE

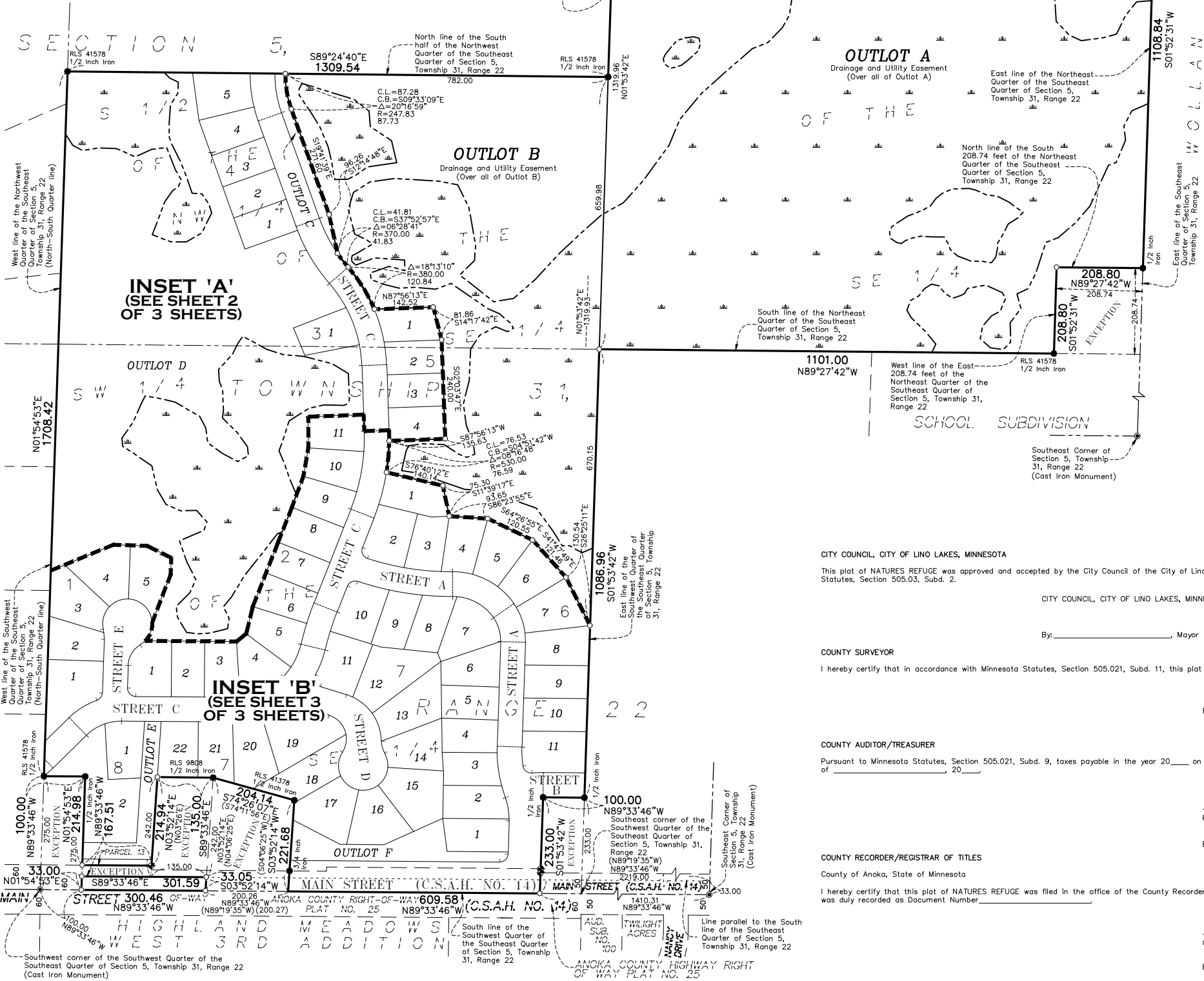
CITY OF LINO LAKES
COUNTY OF ANOKA
SEC. 5, TWP. 31, RGE. 22





 GRAPHIC SCALE
 1 INCH = 150 FEET
 For the purposes of this plat, the South line of the Southwest Quarter of the Southeast Quarter of Section 5, Township 31, Range 22 is assumed to have a bearing of North 89 degrees 33 minutes 46 seconds West.

- Denotes Found Cast Iron Right of Way Monument
- Denotes 5/8 inch by 14 inch Rebar, set or to be set within one year of recording of this plat and marked with license number 40361
- Denotes Found Monument, as noted
- ⊙ Denotes Found Anoka County Cast Iron Monument
- (200.27) Denotes Record Dimension
-  Denotes Existing Wetland, Delineated by Kjelhaug Environmental Services Company in 2016



KNOW ALL PERSONS BY THESE PRESENTS: That Preferred Builders, Inc., a Minnesota corporation, owner of the following described property:

The Northeast Quarter of the Southeast Quarter (NE 1/4 of SE 1/4) of Section 5, Township 31, Range 22, except the South 208.74 feet of the East 208.74 feet thereof, Anoka County, Minnesota.

And

The Southwest Quarter of the Southeast Quarter of Section 5, Township 31, Range 22, Anoka County, Minnesota. Except the following described tracts:

- Beginning at the Southeast corner of the said Section 5, thence North along East line thereof for 33 feet, thence on an assumed bearing of West, parallel with South line thereof for 2,219 feet to the actual point of beginning; thence continuing westerly on same course for 135 feet; thence North 3 degrees 26 minutes East for 242 feet; thence East parallel to described 1st course for 135 feet; thence South parallel to described 2nd course for 242 feet and to the actual point of beginning.
- Beginning at the Southwest corner of said Southwest Quarter of Southeast Quarter; thence North along West line thereof a distance of 275 feet; thence East parallel with South line thereof a distance of 100 feet; thence South parallel with said West line a distance of 275 feet to said South line; thence West along said South line for a distance of 100 feet to the actual point of beginning.
- Commencing at Southeast corner of said Southwest Quarter of Southeast Quarter; thence North along the East line thereof for a distance of 233 feet; thence West parallel to the South line thereof for a distance of 100 feet; thence South parallel to described 1st course 233 feet and to the South line of said Southwest Quarter of Southeast Quarter; thence East along said South line to the point of beginning.
- That part of the Southeast Quarter of Section 5, Township 31, Range 22, Anoka County, Minnesota, described as commencing at the Southeast corner thereof; thence Northerly along the East line thereof for 33.00 feet; thence on an assumed bearing of North 89 degrees 19 minutes 35 seconds West and parallel with the South line of said Southeast Quarter for 2219.00 feet to the actual point of beginning; thence North 4 degrees 06 minutes 25 seconds East 242.00 feet; thence South 74 degrees 11 minutes 56 seconds East 204.14 feet; thence South 4 degrees 06 minutes 25 seconds West a distance of 221.68 feet to the South line of said Southeast Quarter; thence North 89 degrees 19 minutes 35 seconds West along said South line a distance of 200.27 feet to its intersection with a line that bears South 4 degrees 06 minutes 25 seconds West from the point of beginning; thence North 4 degrees 06 minutes 25 seconds East a distance of 33.05 feet to the point of beginning.
- Parcel 13, Anoka County Highway Right of Way Plat No. 25 according to the map or plat thereof on file and of record in the office of the Anoka County Recorder.

And

The South half of the Northwest Quarter of the Southeast Quarter of Section 5, Township 31, Range 22, Anoka County, Minnesota.

Has caused the same to be surveyed and platted as NATURES REFUGE and does hereby dedicate to the public for public use the public ways and drainage and utility easements as shown on this plat.

In witness whereof said Preferred Builders, Inc., a Minnesota corporation, has caused these presents to be signed by its proper officer this ____ day of _____, 20__.

PREFERRED BUILDERS, INC.

Keith Duffee, Vice President

STATE OF _____
COUNTY OF _____

This instrument was acknowledged before me on _____ by Keith Duffee, Vice President of Preferred Builders, Inc., a Minnesota corporation, on behalf of the corporation.

(Signed)

(Printed)
Notary Public, _____
My commission expires _____

I, Thomas R. Balluff do hereby certify that this plat was prepared by me or under my direct supervision; that I am a duly Licensed Land Surveyor in the State of Minnesota; that this plat is a correct representation of the boundary survey; that all mathematical data and labels are correctly designated on this plat; that all monuments depicted on this plat have been, or will be correctly set within one year; that all water boundaries and wet lands, as defined in Minnesota Statutes, Section 505.01, Subd. 3, as of the date of this certificate are shown and labeled on this plat; and all public ways are shown and labeled on this plat.

Dated this ____ day of _____, 20__.

STATE OF _____
COUNTY OF _____

This instrument was acknowledged before me on _____ by Thomas R. Balluff.

(Signed)

(Printed)
Notary Public, _____
My commission expires _____

CITY COUNCIL, CITY OF LINO LAKES, MINNESOTA

This plat of NATURES REFUGE was approved and accepted by the City Council of the City of Lino Lakes, Minnesota at a regular meeting thereof held this ____ day of _____, 20__, and said plat is in compliance with the provisions of Minnesota Statutes, Section 505.03, Subd. 2.

CITY COUNCIL, CITY OF LINO LAKES, MINNESOTA

By: _____ Mayor By: _____ Clerk

COUNTY SURVEYOR

I hereby certify that in accordance with Minnesota Statutes, Section 505.021, Subd. 11, this plat has been reviewed and approved this ____ day of _____, 20__.

By: _____
Charles F. Gitzen
Anoka County Surveyor

COUNTY AUDITOR/TREASURER

Pursuant to Minnesota Statutes, Section 505.021, Subd. 9, taxes payable in the year 20__ on the land hereinbefore described have been paid. Also, pursuant to Minnesota Statutes, Section 272.12, there are no delinquent taxes and transfer entered this ____ day of _____, 20__.

Property Tax Administrator

By: _____ Deputy

COUNTY RECORDER/REGISTRAR OF TITLES

County of Anoka, State of Minnesota

I hereby certify that this plat of NATURES REFUGE was filed in the office of the County Recorder/Registrar of Titles for public record on this ____ day of _____, 20__, at ____ o'clock ____ M., and was duly recorded as Document Number _____.

County Recorder/Registrar of Titles

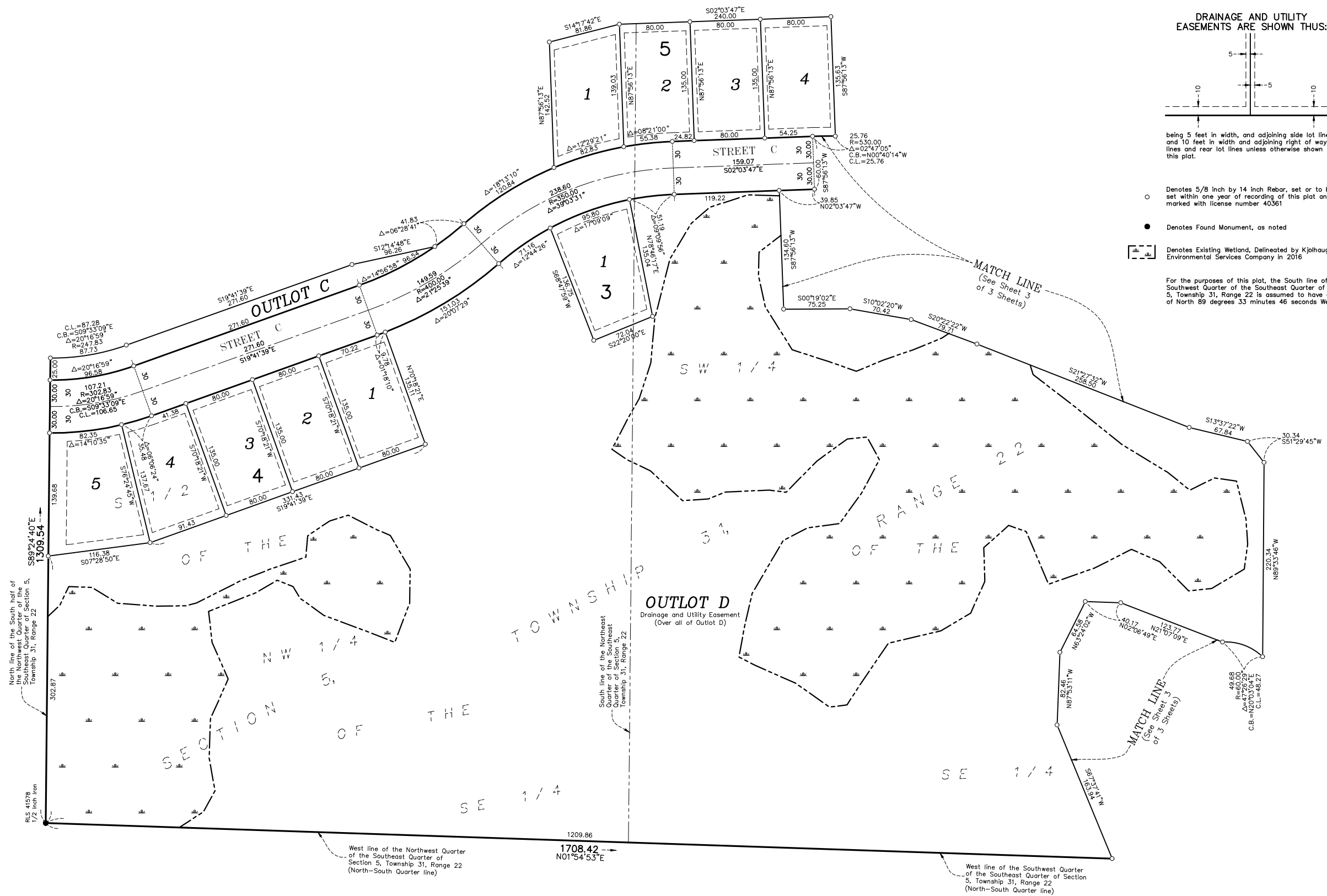
By: _____ Deputy



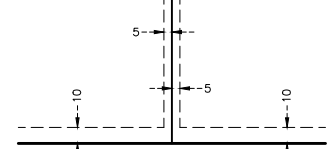
NATURES REFUGE

CITY OF LINO LAKES
 COUNTY OF ANOKA
 SEC. 5 TWP. 31, RGE. 22

INSET 'A'



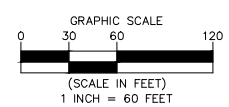
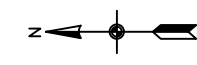
DRAINAGE AND UTILITY EASEMENTS ARE SHOWN THUS:



being 5 feet in width, and adjoining side lot lines, and 10 feet in width and adjoining right of way lines and rear lot lines unless otherwise shown on this plat.

- Denotes 5/8 inch by 14 inch Rebar, set or to be set within one year of recording of this plat and marked with license number 40361
- Denotes Found Monument, as noted
- ▬▬▬ Denotes Existing Wetland, Delineated by Kjolhaug Environmental Services Company in 2016

For the purposes of this plat, the South line of the Southwest Quarter of the Southeast Quarter of Section 5, Township 31, Range 22 is assumed to have a bearing of North 89 degrees 33 minutes 46 seconds West.



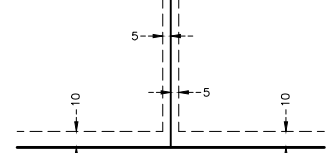
Carlson McCain
 ENVIRONMENTAL · ENGINEERING · SURVEYING

NATURES REFUGE

CITY OF LINO LAKES
COUNTY OF ANOKA
SEC. 5 TWP. 31, RGE. 22

INSET 'B'

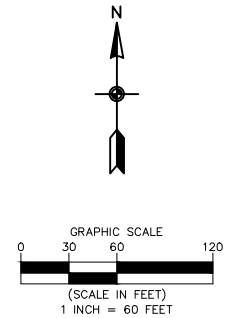
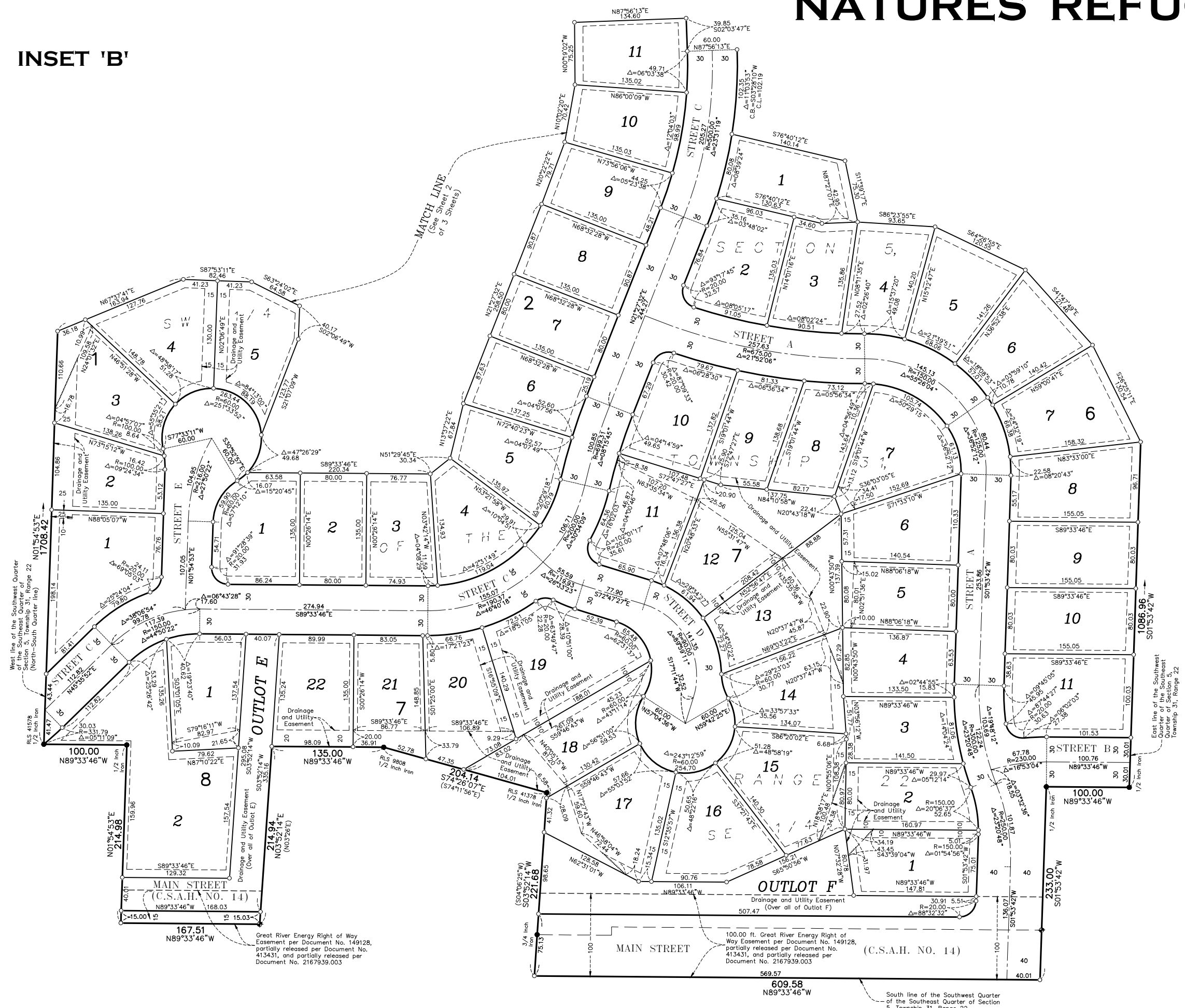
DRAINAGE AND UTILITY EASEMENTS ARE SHOWN THUS:



being 5 feet in width, and adjoining side lot lines, and 10 feet in width and adjoining right of way lines and rear lot lines unless otherwise shown on this plat.

- ◆ Denotes Found Cast Iron Right of Way Monument
- Denotes 5/8 inch by 14 inch Rebar, set or to be set within one year of recording of this plat and marked with license number 40361
- Denotes Found Iron Monument unless otherwise noted

For the purposes of this plat, the South line of the Southwest Quarter of the Southwest Quarter of Section 5, Township 31, Range 22 is assumed to have a bearing of North 89 degrees 33 minutes 46 seconds West.



Carlson McCain
ENVIRONMENTAL · ENGINEERING · SURVEYING