



Planning & Development Division
Planning & Economic Development Department

Room 160
411 West First Street
Duluth, Minnesota 55802



218-730-5580



planning@duluthmn.gov

TO:

Erik Birkeland, Provisional Director, Property, Parks and Libraries
Jessica Peterson, Duluth Parks
Cliff Knettel, Duluth Parks
Katie Bennett, Duluth Parks
Jim Shoberg, Duluth Parks
Abbie Hopper, Duluth Parks
Bryan Thoreson, Duluth Property & Facilities
Danielle Erjavec, Duluth Property & Facilities
Henry Martinsen, Duluth Property & Facilities
Amanda Mangan, Duluth Attorney
Nicholas Anderson, Duluth Attorney
Jim Benning, Duluth Public Works & Utilities
Cari Pedersen, Chief Engineer of Transportation
Patrick F. Loomis, Duluth Engineering
Cindy Voigt, Duluth City Engineer
Tom Johnson, Duluth Project Engineer
Howard Smith, Chief Engineer of Utilities
Duncan Schwensohn, Duluth Public Works & Utilities
Branden Heidelberger, Duluth Engineering
Bill Byers, Duluth Engineering
Greg Guerro, Duluth Utility Ops Manager
Chris Kleist, Duluth Utility Operations
Peggy Billings, Engineering Technician
Bill Bergstrom, Engineering Technician
Andy Swanson, Duluth Utility Operations
Ryan Granlund, Duluth Utility Programs Coordinator
Shawn Krizaj, Duluth Fire Chief
John Otis, Duluth Deputy Fire Chief
Lisa Consie, Fire Marshal
Mike Ceynowa, Duluth Police
Mark Bauer, Duluth Parking
John Hinzmann, MnDOT
Jim Miles, MnDOT
Clark Christensen, City of Duluth Forester
Bri Speldrich, Area Hydrologist DNR

Patricia Fowler, DNR Liaison
Cliff Bentley, MnDNR
Brandon Kohlts, WLSSD
Anne Sims, SLC Assessor's Office
Jon Osterberg, SLC Accessors Office
Ron Chicka, MIC
Stacy Caldwell Melcher, SLC County Land Dept
Jim Foldesi, St Louis Co. Public Works
Jill Helmer, Minnesota Power
Dean Dulinski, Minnesota Power
Sue Larkin, Lumen
Joe Kutter, CenturyLink/Lumen
Michael Coughlin, CenturyLink/Lumen
Darren Kitchak, Charter Spectrum
Chad Lawrence, Charter Spectrum
Ben VanTassel, Planning and Economic Development Director
Jenn Reed Moses, Duluth Planning & Development
Tricia Hobbs, Duluth Planning & Development
Steven Robertson, Duluth Construction Services (CSI)
Blake Nelson, Building Inspector, CSI
Armella Bijold, Permitting Services Administrator, CSI
Reina Owecke, Permit Coordinator, CSI
Tara Smith, Permit Coordinator, CSI
Emily Schouweiler, Permit Coordinator, CSI
Kyle Deming, Planning & Development
Suzanne Kelley, Planning & Development
Jason Mozol, Planning & Development
Chris Lee, Planning & Development
Tom Church, Duluth Planning & Development
Sam Smith, Duluth Planning & Development
Christian Huelsman, Duluth Planning & Development
James Gittemeier, Duluth Planning & Development
Chris Belden, Duluth Transit Authority
Kariann Payton, Duluth GIS
CoD, Duluth GIS

DATE: October 15, 2025

SUBJECT: Planning Commission Meeting Agenda Items for **November 12, 2025**

The Duluth City Planning Commission has received **6** new application(s) for review. Please review the technical aspects and desirability of the proposals and provide comments at your earliest convenience. **Note that City of Duluth reviewers with access to EPL can view the applications there as well, by searching for the project number under "Manage Plans"**

PLIUP-2510-0040 Interim Use Permit for a Vacation Dwelling Unit at 4721 E Superior St by Reilly Brennan [CL]

PLIUP-2510-0041 Interim Use Permit for a Vacation Dwelling Unit at 38 Cato Ave by Darin Reinke [JM]

PLIUP-2510-0042 Interim Use Permit for a Vacation Dwelling Unit at 1520 Minnesota Ave by William Michels [CL]

PLSUB-2509-0013 Minor Subdivision at 010-3921-00020 (Harbor Highlands) by Fryberger Law Firm [CH]

PLVAC-2510-0010 Vacation of Right-of-Way at 2832 Jefferson St by Grace Shervey [CH]

PLVAR-2510-0013 Variance to Shoreland Regulations at 800 Railroad St by Donald Holm Construction [CH]

We appreciate your time and input. If you have any questions, comments or need additional background information, please find the initials of the assigned planner at the end of the application item and contact the planner directly.

Christian Huelsman - chuelsman@duluthmn.gov

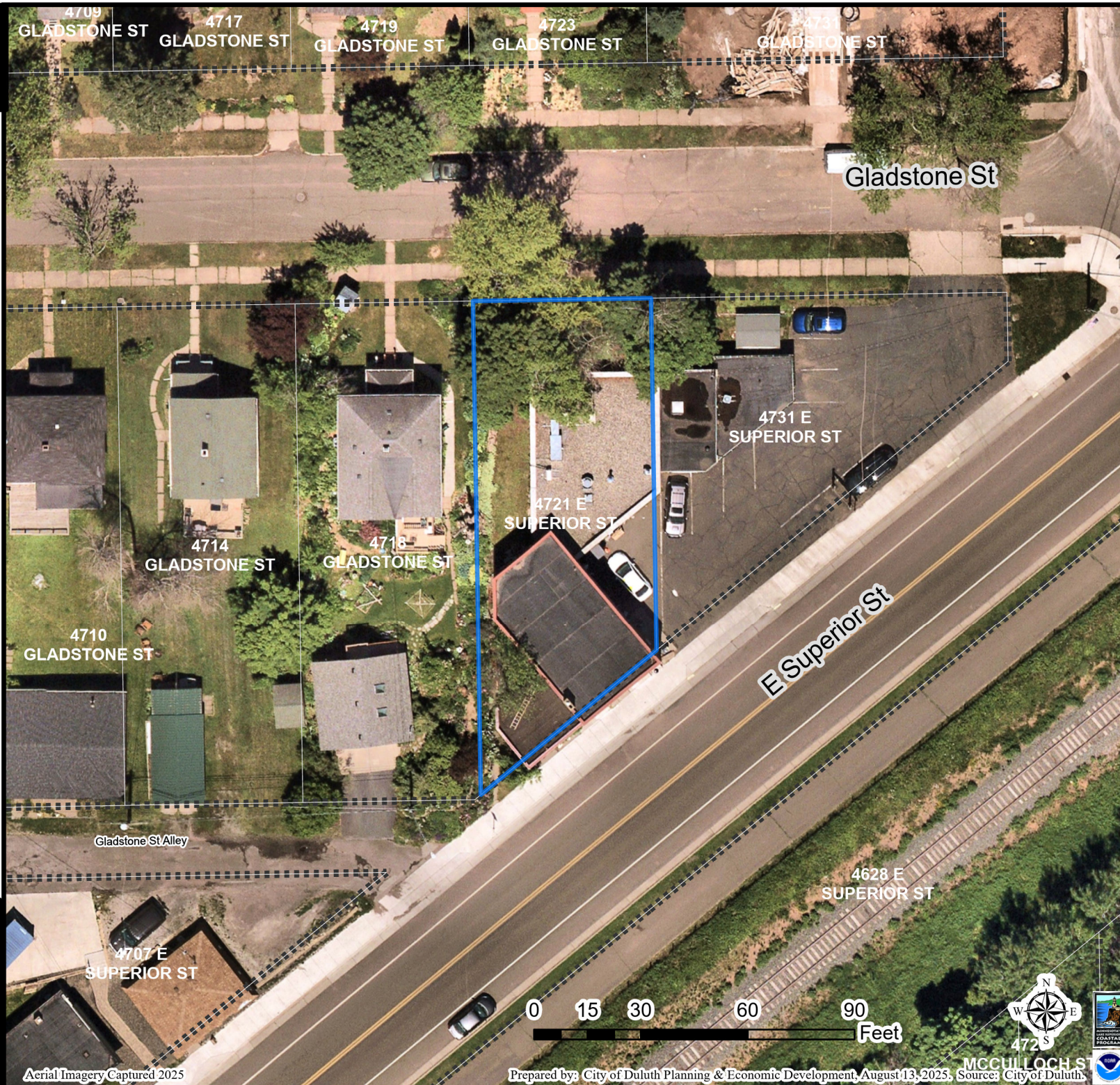
Chris Lee - clee@duluthmn.gov

Jason Mozol - jmozol@duluthmn.gov



PLIUP-2510-0040

Interim Use Permit for a VDU
4721 E Superior St



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No outdoor amenities
Guest Entrance

F-2 (Low-Rise
Neighborhood Mix)

R-1 (Residential
Traditional)

4721 E SUPERIOR ST

4731 E SUPERIOR ST

4710 GLADSTONE ST
4714 GLADSTONE ST

4628 E SUPERIOR ST

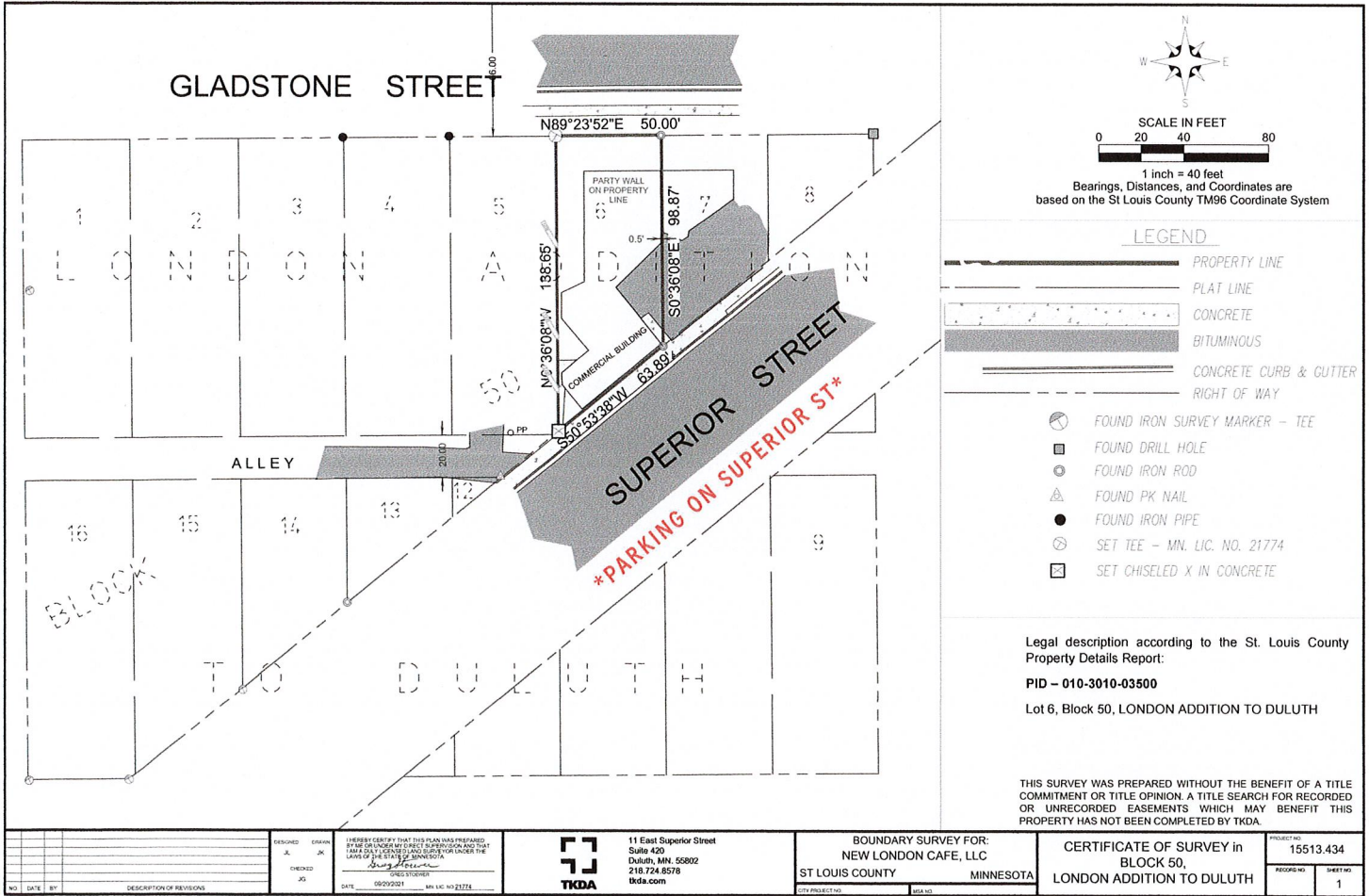
4728 MCCULLOUGH ST

4705 E SUPERIOR ST

4701 E SUPERIOR ST

4701 E SUPERIOR ST

PARKING
ON STREET



SCALE IN FEET
0 20 40 80

1 inch = 40 feet
Bearings, Distances, and Coordinates are based on the St. Louis County TM96 Coordinate System

LEGEND

- PROPERTY LINE
- PLAT LINE
- CONCRETE
- BITUMINOUS
- CONCRETE CURB & GUTTER
- RIGHT OF WAY
- FOUND IRON SURVEY MARKER - TEE
- FOUND DRILL HOLE
- FOUND IRON ROD
- FOUND PK NAIL
- FOUND IRON PIPE
- SET TEE - MN. LIC. NO. 21774
- SET CHISELED X IN CONCRETE

Legal description according to the St. Louis County Property Details Report:

PID - 010-3010-03500

Lot 6, Block 50, LONDON ADDITION TO DULUTH

THIS SURVEY WAS PREPARED WITHOUT THE BENEFIT OF A TITLE COMMITMENT OR TITLE OPINION. A TITLE SEARCH FOR RECORDED OR UNRECORDED EASEMENTS WHICH MAY BENEFIT THIS PROPERTY HAS NOT BEEN COMPLETED BY TKDA.

NO.	DATE	BY	DESCRIPTION OF REVISIONS

REVIEWED	DATE
JK	JK
CHECKED	DATE
JK	08/09/2021

DATE: 08/09/2021 MN. LIC. NO. 21774



11 East Superior Street
Suite 420
Duluth, MN. 55802
218.724.8578
tkda.com

BOUNDARY SURVEY FOR:
NEW LONDON CAFE, LLC
ST LOUIS COUNTY MINNESOTA

CERTIFICATE OF SURVEY in
BLOCK 50,
LONDON ADDITION TO DULUTH

PROJECT NO.	15513.434
RECORD NO.	
SHEET NO.	1



PLIUP-2510-0041

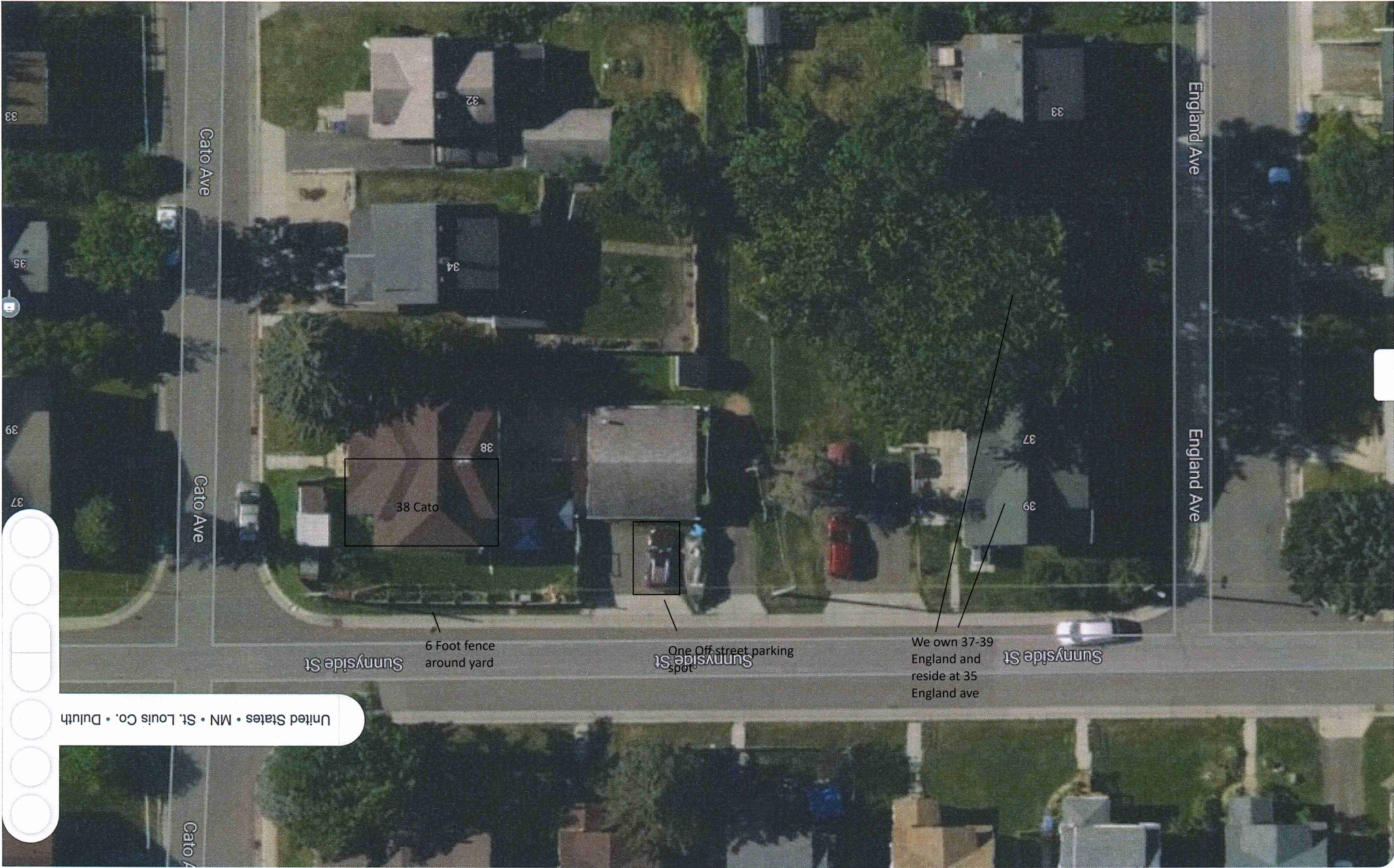
Interim Use Permit for a VDU
38 Cato Ave

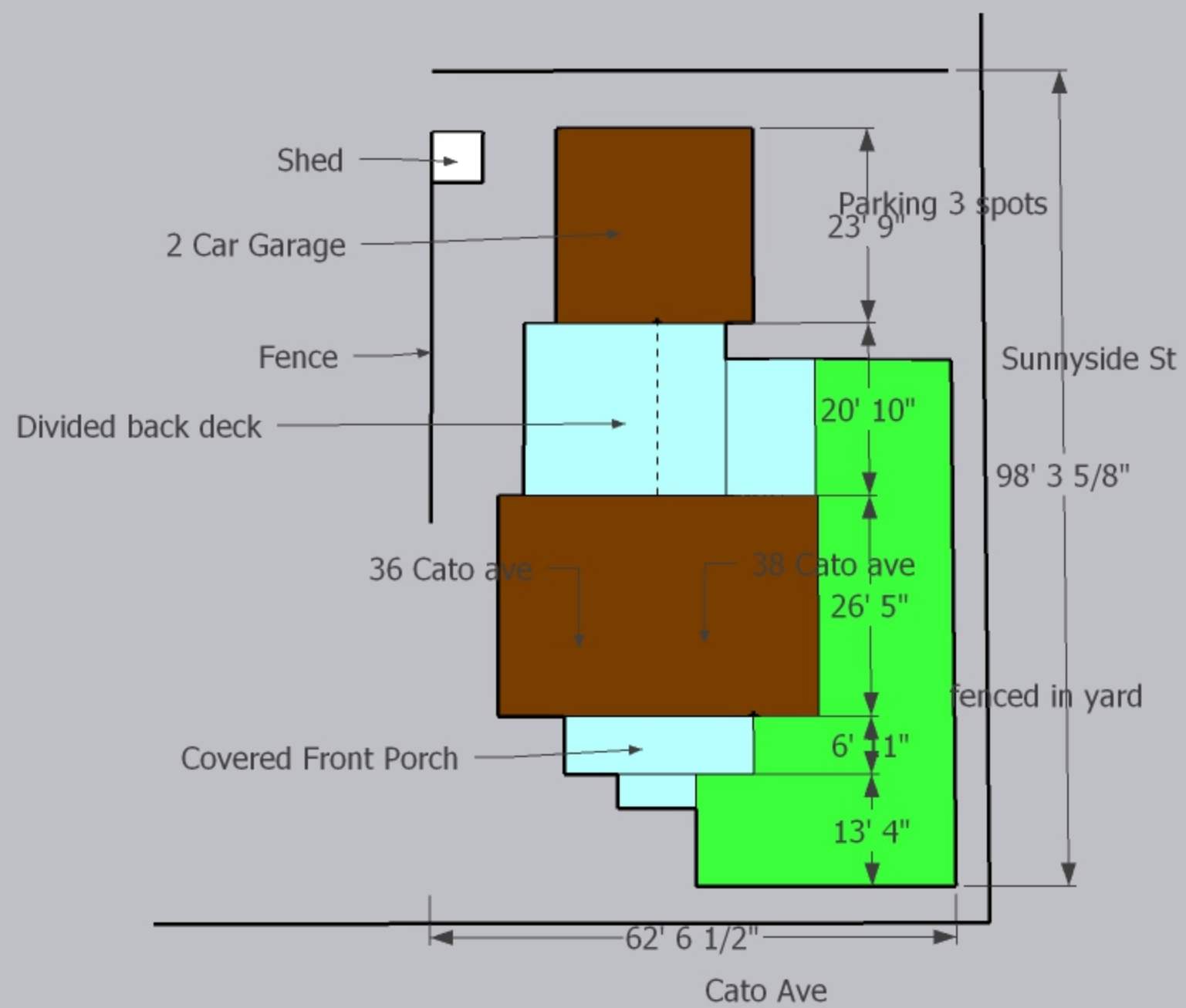


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Aerial Imagery Captured 2025

Prepared by: City of Duluth Planning & Economic Development, August 13, 2025. Source: City of Duluth.





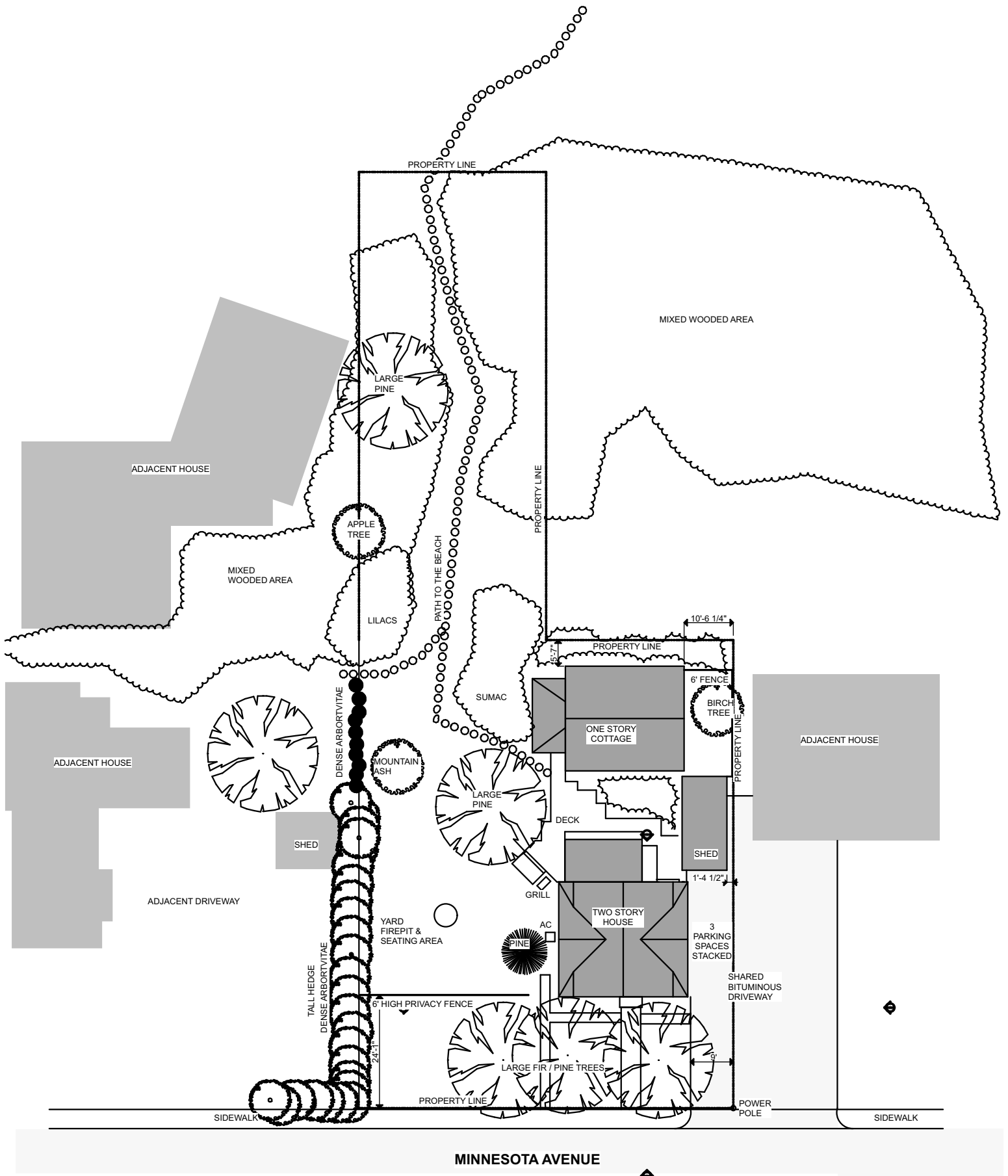


PLIUP-2510-0042

Interim Use Permit for a VDU
1520 Minnesota Ave



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Site Plan





PLSUB-2509-0013

Minor Subdivision
010-3921-00020 (Harbor Highlands)

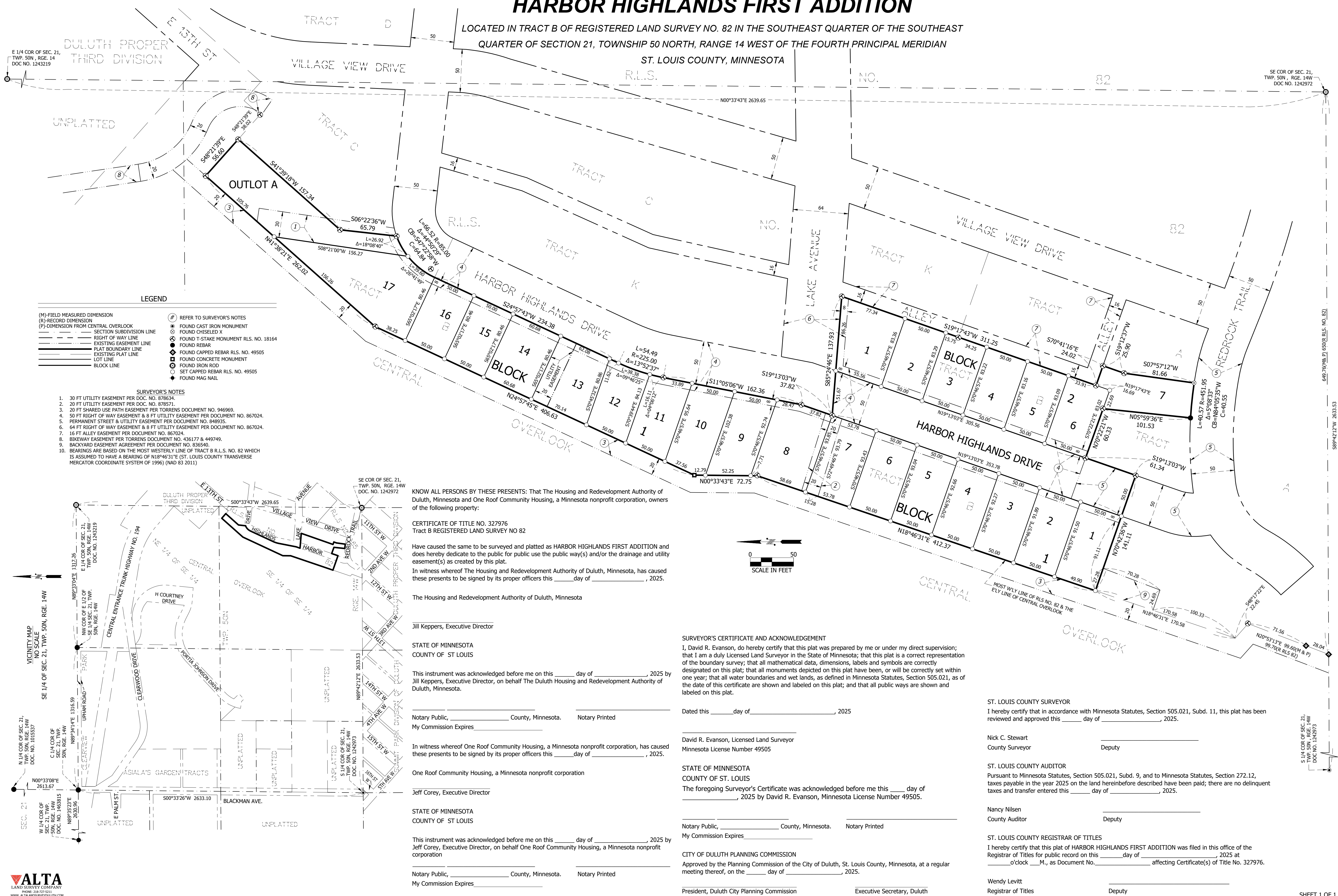
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HARBOR HIGHLANDS FIRST ADDITION

LOCATED IN TRACT B OF REGISTERED LAND SURVEY NO. 82 IN THE SOUTHEAST QUARTER OF THE SOUTHEAST QUARTER OF SECTION 21, TOWNSHIP 50 NORTH, RANGE 14 WEST OF THE FOURTH PRINCIPAL MERIDIAN

ST. LOUIS COUNTY, MINNESOTA



FRYBERGER

— LAW FIRM —

JAMES B. AIRD
Duluth Office
jaird@fryberger.com
218.725.6821

October 7, 2025

City of Duluth
Planning Commission
411 West First Street, Room 160
Duluth, MN 55802

Re: PLSUB-2411-0007
Harbor Highlands First Addition (the “Plat”)
Amendment to Final Plat Approval

Dear Planning Commission:

This firm represents the Duluth HRA (the “**HRA**”). This letter supplements and provides further information to support the HRA’s request to amend a prior final plat approval, previously approved March 27, 2025, under File Number PLSUB-2411-0007.

Pursuant to the City’s Uniform Development Code (“**UDC**”) § 50-37.5 and Minn. Stat. § 462.358, Subd. 4b(c), the HRA requests that the Planning Commission approve a Quit Claim Deed from the HRA to One Roof Community Housing (“**One Roof**” or the “**Developer**”) which would otherwise be noncompliant under the UDC. The proposed Quit Claim Deed is submitted along with this letter.

Further amendment to the plat is also necessary, simply to reflect that the HRA and One Roof would *jointly* dedicate the plat as owners, immediately after the recording of the Quit Claim Deed. The HRA respectfully requests the Commission re-approve this plat, as amended. A copy of the amended plat is included with this letter.

In all other respects, the Plat is the same as it was when approved by the Commission on March 27, 2025.

FRYBERGER, BUCHANAN, SMITH & FREDERICK, P.A.

CLOQUET
813 Cloquet Ave.
Cloquet, MN 55720
p: (218) 879-3363

DULUTH
302 West Superior St.
Suite 700
Duluth, MN 55802
p: (218) 722-0861

fryberger.com

SUPERIOR
1409 Hammond Ave.
Suite 330
Superior, WI 54880
p: (715) 392-7405

October 7, 2025

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UDC § 50-37.5 notes that “This Section applies to all applications to subdivided unplatted land.” Minn. Stat. § 462.358, Subd. 4b(a) provides that: “In a municipality in which subdivision regulations are in force and have been filed or recorded as provided in this section, no conveyance of land to which the regulations are applicable shall be filed or recorded, if the land is described in the conveyance by metes and bounds or by reference to an unapproved registered land survey made after April 21, 1961 or to an unapproved plat made after such regulations become effective.”

However, the UDC in Section 50-37.5 further states that “in any case in which compliance with the foregoing restrictions will create an unnecessary hardship and failure to comply does not interfere with the purpose of the subdivision regulations, the planning commission may waive such compliance by adoption of a resolution to that effect and the conveyance may then be filed or recorded.” This is supported by Minnesota Statutes § 462.358, Subd. 4b(c).

A waiver of the requirements of UDC § 50-37.5 is necessary because the HRA cannot obtain further revisions to prior approvals from the U.S. Department of Housing and Urban Development (“**HUD**”) for disposition of this Property in a timely fashion (further exacerbated now by the recent federal government shutdown), and it cannot follow HUD’s current requirements while remaining in compliance with § 50-37.5 of the UDC. This presents an unnecessary hardship.

The Quit Claim Deed we wish to the Commission to approve will allow the development to proceed, and any nonconformity created by the Quit Claim Deed will be immediately cured by the recording of the Plat. Therefore, failure to comply does not interfere with the purpose of the subdivision regulations.

Factual Background

The HRA owns 3.22 acres of vacant land in the City of Duluth, Minnesota (the “**City**”) in the Harbor Highlands / Central Hillside Revitalization Traditional Neighborhood Development, and is legally described as follows:

Tract B, Registered Land Survey No. 82, St. Louis County, Minnesota.

(hereinafter the “**Property**”).

The Property is subject to several Declarations of Trust in favor of HUD. The HRA requires HUD’s approval to convey the land to the Developer. The HRA has obtained such approval. However, the approval by HUD uses a legal description which is a “metes and bounds”

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description based on the “pre-plat” legal description. Current HUD approvals therefore require the conveyance be made to the Developer *prior to* recording of the Plat.

In HUD’s most recent approval, the legal description used by HUD allows for a conveyance to the Developer of all the Property, except a parcel of land which was identified previously as a possible site for an extension of Lake Avenue (the “**Lake Avenue Extension Lot**,” identified on the final plat as “Lot 8, Block 1”).

The HRA removed the Lake Avenue Extension Lot from HUD’s approval to accommodate the Commission’s desire to pursue the Lake Avenue extension. In its preliminary plat approval, the Commission had requested the HRA undertake the following action:

Lake Avenue Connection Condition: Within two (2) years of approval of the plat, Owner shall use its best efforts to take, or cause to be taken, all action and to do, or cause to be done, all things reasonably necessary, proper and advisable to consummate and effect, in the most expeditious manner practicable, the condition of preliminary plat approval in Planning File PLSUB-2406-0003 that Owner provide space for right of way to be dedicated for future connection of Lake Avenue in the plat (the “Condition”), including without limitation (i) cooperation with the City to achieve the Condition; (ii) obtaining consents from all third parties and governmental entities necessary, proper and advisable to achieve the Condition; (iii) assent to actions taken by the City, including legal proceedings, to achieve the Condition; and (iv) the execution of any additional instruments necessary to achieve the Condition. Owner shall give City prompt notice of any communication or actions taken in pursuit of achieving the Condition. Notwithstanding this obligation to endeavor to meet the Condition, Owner’s failure to meet the Condition will not be construed as default of this Agreement or final plat approval, provided that this waiver shall not be construed as a waiver of default of any other obligation under this Agreement or final plat approval. Owner shall not assign this obligation without the written consent of the City, which may be withheld in the City’s sole discretion.

Seeking to accommodate the Commission’s request to achieve the Lake Avenue Connection Condition, and seeking the most expedient possible way to close on the transaction, convey the Property to the Developer, and begin development of the Property, the HRA removed the Lake Avenue Extension Lot from HUD’s approval of the disposition of the property.

HUD has therefore approved the disposition of all of the Property except the Lake Avenue Extension Lot. It is the HRA’s intention to convey all the Property to One Roof, except for the Lake Avenue Extension Lot, which the HRA will retain. After recording of the Plat, the HRA

October 7, 2025

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will revisit the disposition of the Lake Avenue Extension Lot (which will then be "Lot 8, Block 1") with HUD.

Notwithstanding the failure to meet the foregoing Lake Avenue Connection Condition, the Planning Commission previously, on March 27, 2025, approved the final Plat.

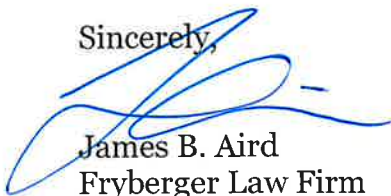
The HRA now simply requests that the Planning Commission allow the recording of the Quit Claim Deed to the Developer using the HUD-approved "pre-plat" legal description. This would create a non-conforming lot, but such nonconformity will be immediately cured by recording of the Plat. The only other change would be that One Roof and the HRA would jointly dedicate the Plat as owners.

The HRA cannot timely obtain amended approvals from HUD, and further delay of this development is an unnecessary hardship. Further delay unnecessarily jeopardizes the Developer's funding sources, and delays construction of 23 new units of housing at a time when recent reports suggest the City will require nearly 9,000 new units of housing by 2035.¹

Waiving the requirements of UDC § 50-37.5 for the Quit Claim Deed to One Roof will solve the problem imposed by the current HUD requirements and allow this development to proceed.

The City needs new housing. One Roof is ready to build it. The HRA is ready to convey land for that purpose. HUD has approved the disposition of all but one lot in this Property for housing. The Planning Commission has already approved this Plat. Accordingly, the HRA respectfully requests that the Planning Commission grant the foregoing requests so development can proceed.

Sincerely,



James B. Aird
Fryberger Law Firm

Attorneys for the Housing and Redevelopment Authority of Duluth, MN

¹ See Dan Kraker, MPR News, "Duluth faces severe housing crunch as population inches up" (September 28, 2025), available at: <https://www.mprnews.org/story/2025/09/28/duluth-faces-housing-issues-as-population-grows>



PLVAC-2510-0010

Vacation of Right-of-Way
Portion of S 29th Ave E

Legend

■■■■ Road or Alley ROW

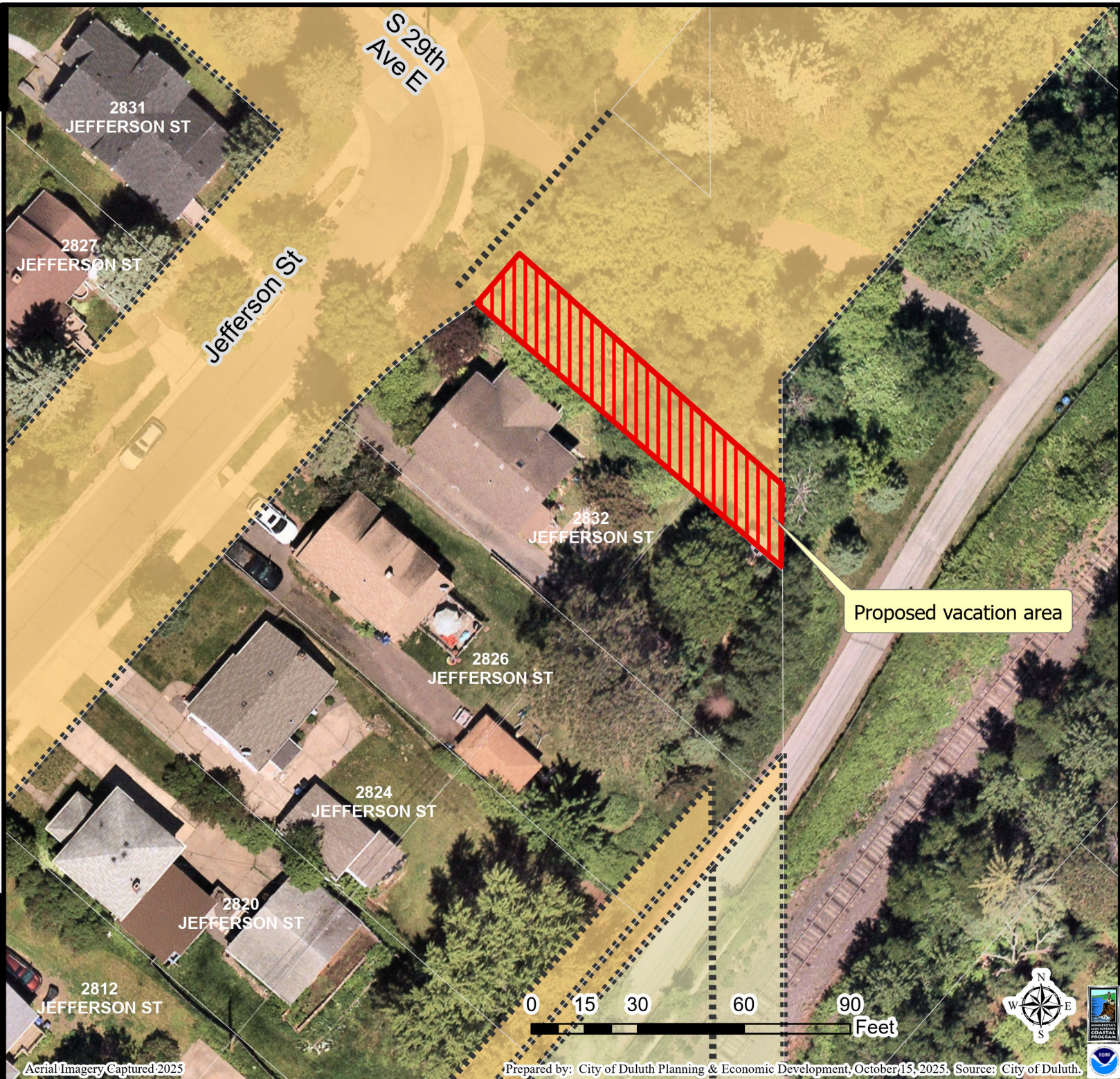
□ County Parcel Data

ROW

■ Railroad, Active -
currently in use

■ Road, Active - currently
in use

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LEGAL DESCRIPTION OF RIGHT OF WAY VACATION

All that part of Delaware Avenue, also known as 29th Avenue East abutting and lying adjacent to Block 42, HARRISON'S DIVISION OF DULUTH, according to the recorded plat thereof, St. Louis County, Minnesota, said right of way to be vacated is described as follows:

Commencing at the North most corner of said Block 42; thence on an assumed bearing of South 48 degrees 23 minutes 09 seconds East, along the Northeasterly line of said Block 42 for a distance of 7.20 feet to the point of beginning of said right of way vacation; thence continue South 48 degrees 23 minutes 09 seconds East, along said Northeasterly line 87.32 feet to the East line of said Block 42; thence North 00 degrees 30 minutes 21 seconds East, along said East line 19.91 feet to a line parallel with and distant 15 feet Northeasterly of the Northeasterly line of said Block 42; thence North 48 degrees 23 minutes 09 seconds West, along said parallel line 74.23 feet ; thence South 41 degrees 36 minutes 51 seconds West 15.00 feet to the point of beginning. Said right of way vacation contains 1,212 square feet or 0.03 acres.

LEGEND



RIGHT OF WAY
VACATION AREA

POC-POINT OF COMMENCEMENT
POB-POINT OF BEGINNING

— — — — — CENTER LINE

— — — — — RIGHT OF WAY LINE

— ... — ... — RIGHT OF WAY VACATION LINE

— — — — — EXISTING PLAT LINE



REFER TO SURVEYOR'S NOTES

SURVEYOR'S NOTES

1. PART OF BLOCK 42, HARRISON'S DIVISION OF DULUTH TAKEN FOR JEFFERSON STREET RIGHT OF WAY AS SHOWN ON OLD CITY OF DULUTH ENGINEERING RECORDS.
2. CENTERLINE OF JEFFERSON STREET AS SHOWN ON OLD CITY OF DULUTH ENGINEERING RECORDS.
3. BEARINGS ARE BASED ON THE ST. LOUIS COUNTY TRANSVERSE MERCATOR COORDINATE SYSTEM OF 1996. (NAD 83 2011)
4. THIS IS NOT A BOUNDARY SURVEY.

Approved by the City Engineer of the City of
Duluth, MN this _____ day of _____ 20__

By _____

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


David R. Evanson
MN License #49505
DATE:10-07-2025

RIGHT OF WAY VACATION EXHIBIT

CLIENT: GRACE SHERVY

REVISIONS:

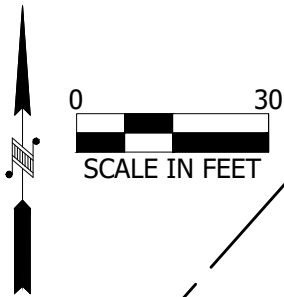
ADDRESS: 2832 JEFFERSON STREET
DULUTH, MN 55804

DATE: 10-07-2025

JOB NO: 24-369A SHEET 1 OF 2


ALTA
LAND SURVEY COMPANY
PHONE: 218-727-5211
LICENSED IN MN & WI
WWW.ALTALANDSURVEYDULUTH.COM

LINE	BEARING	DISTANCE
L1	S48°23'09"E	7.20
L2	S48°23'09"E	87.32
L3	N00°30'21"E	19.91
L4	N48°23'09"W	74.23
L5	S41°36'51"W	15.00



JEFFERSON ST.

29TH AVE EAST
(DELAWARE AVE PER PLAT)

DIVISION

BLOCK

DULUTH 42

N MOST COR
BLOCK 42, POC

POB

NELY LINE
BLOCK 42

E LINE
BLOCK 42

RIGHT OF WAY VACATION EXHIBIT

CLIENT: GRACE SHERVY

REVISIONS:

ADDRESS: 2832 JEFFERSON STREET
DULUTH, MN 55804

DATE: 10-07-2025

JOB NO: 24-369A SHEET 2 OF 2

ALTA
LAND SURVEY COMPANY

PHONE: 218-727-5211
LICENSED IN MN & WI
WWW.ALTALANDSURVEYDULUTH.COM

Petition to Vacate Street, Alley, or Utility Easement

Name: GRACE SHERVEY

Description of street, alley, or easement to vacate: ROW AT 29TH AND JEFFERSON ST.

My request for this vacation is to (indicate purpose of vacation):

A PARTIAL VACATION TO OBTAIN MORE YARD FOR

The City of Duluth will not need this street, alley, or easement in the future because:

THERE IS A LAKEWALK ACCESS ROAD ALREADY ON THE ROW.

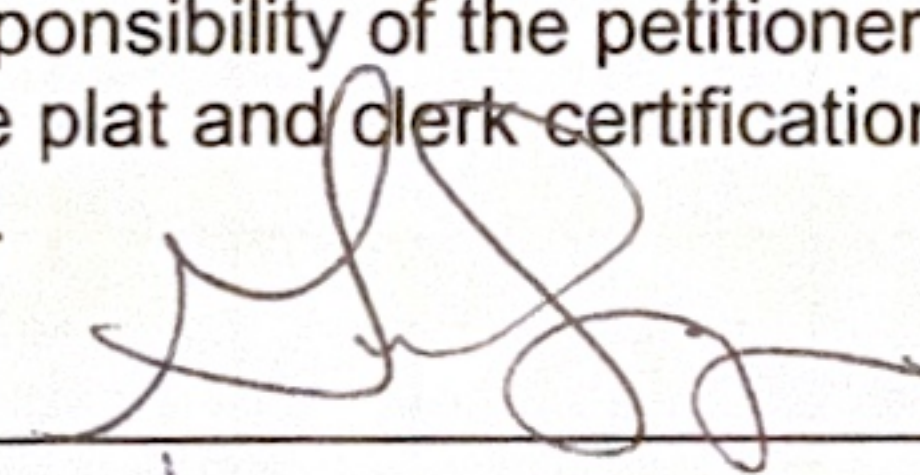
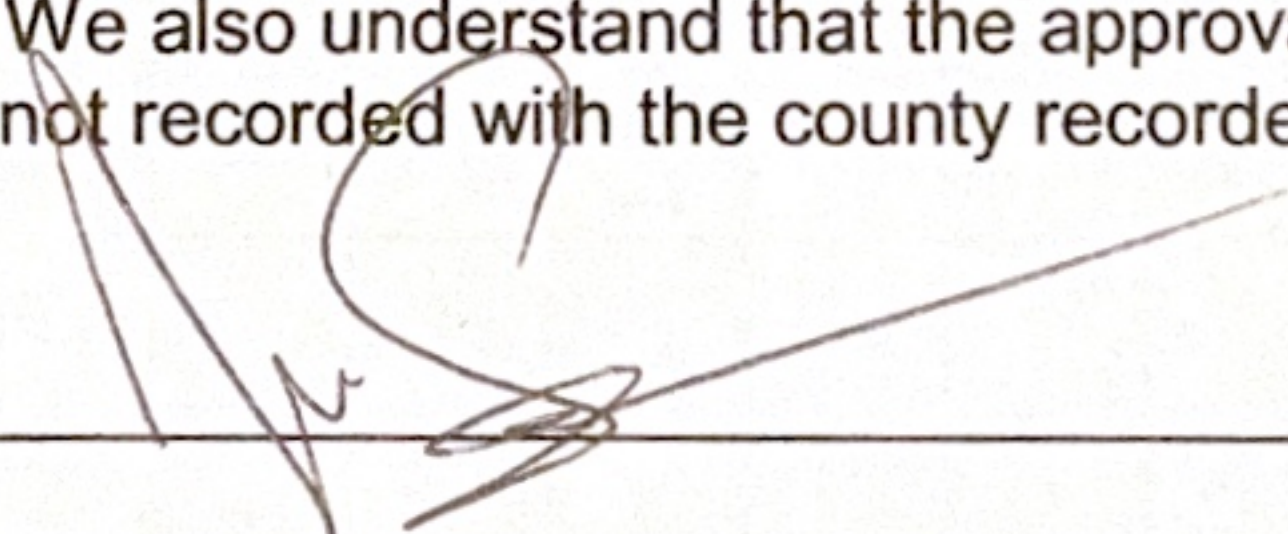
PLEASE TAKE NOTICE: Pursuant to Section 50-37.6 of the Duluth City Code, the above-identified applicant(s) petition the Duluth City Council to vacate the street, alley, or easement described in the attached legal description.

This petition is made upon the following facts and reasons (Identify the factual basis and reasons supporting the petition)¹:

TO GAIN MORE PROPERTY TO THE NE SO WE
CAN BUILD OUR ADDITION WITH THE PROPER
SETBACKS.

This petition is supported by a majority of the person(s) who own a majority of the lineal frontage of the land abutting upon the portion of the public easement proposed to be vacated. A copy of the signatures of these persons is attached hereto and made a part hereof.²

The petitioner(s) agree to provide the city with a plat of the easement(s) as required by Section 50-37.6B(3) of the Duluth City Code upon approval of the vacation. We understand that the vacation cannot occur without the submission of the required plat. We understand that the cost of producing the plat is the responsibility of the petitioner(s). We also understand that the approval will lapse and be of no effect if the plat and clerk certification is not recorded with the county recorder within 90 days after final approval.

Signature(s):  

Date: 10/08/25

Notice: This is public data.

¹ In order to vacate a public easement it must be demonstrated that the easement is useless for the purpose for which it was dedicated.

² If a property is owned in joint tenancy or by tenants in common, each individual with an ownership interest will be counted to determine if a majority of owners have signed the petition. An owner cannot sign for another owner unless legally authorized to do so, i.e. power of attorney, trustee, or court approved guardianship or conservatorship.



PLVAR-2510-0013

Variance to Shoreland Regulations
800 Railroad St

Legend

- Zoning Boundaries
- Road or Alley ROW
- County Parcel Data
- Variance Area

Zoning

UDC Zoning

- MU-W (Mixed Use Waterfront)
- MU-N (Mixed Use Neighborhood)
- I-G (Industrial General)

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LANDSCAPE ARCHITECTURE

+ ASSOCIATES

WWW.SASLANDARCH.COM

219 WEST FIRST STREET, SUITE 350
DULUTH, MN 55802
(P) 218.591.1335
(F) 218.722.6697

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WITHOUT WRITTEN CONSENT OF
SAS+ASSOCIATES.

ISSUE RECORD/REVISION

PURPOSE DATE

NEW BASE INFO 12/2/15

GENERAL STRUCTURAL NOTES

DESIGN CRITERIA

- DESIGNED IN ACCORDANCE WITH THE 2020 MINNESOTA STATE/2018 WISCONSIN COMMERCIAL BUILDING CODE
- DESIGN LOADS
- BUILDING RISK CATEGORY: II
- ALLOWABLE SOIL BEARING PRESSURE: 2000 PSF
- ASSUMED FILL SOIL DENSITY 120 PCF
- GROUND SNOW LOAD: Pg = 60 PSF

GENERAL

- THE STRUCTURAL DRAWINGS ARE TO BE WORKED TOGETHER WITH ARCHITECTURAL, MECHANICAL, ELECTRICAL, PLUMBING AND CIVIL DRAWINGS AND SPECIFICATIONS FOR ALL INTER-DISCIPLINE INTERFACE WORK WHICH MAY NOT BE INCLUSIVE ON THE STRUCTURAL DRAWINGS. CONTRACTOR IS RESPONSIBLE FOR COORDINATION AND SHALL REPORT ANY DISCREPANCY TO THE ENGINEER PRIOR TO COMMENCING THE WORK.
- OPENINGS AND PENETRATIONS NOT SHOWN IN THE CONTRACT DOCUMENTS THROUGH ANY STRUCTURAL ELEMENTS OR ITEMS EMBEDDED IN THE STRUCTURAL ELEMENTS SHALL BE SUBMITTED TO THE ENGINEER FOR REVIEW AND APPROVAL PRIOR TO IMPLEMENTING THE WORK.
- ALL PRE-ENGINEERED COMPONENTS AND SYSTEMS SHALL BE INSTALLED IN STRICT ACCORDANCE WITH THE MANUFACTURER'S RECOMMENDATIONS.
- PLANS, SECTIONS AND DETAILS SHALL NOT BE SCALED FOR DETERMINATION OF SIZE, QUANTITIES, LENGTHS, ETC.
- DO NOT PLACE MATERIALS OR EQUIPMENT ON COMPLETED FLOORS OR ROOFS IN EXCESS OF THE INDICATED DESIGN LIVE LOADS. AVOID IMPACT LOADING.
- ALL MEMBERS ARE DESIGNED TO RESIST THE DESIGN LOADS WITHIN THE COMPLETED STRUCTURAL SYSTEM. CONTRACTOR IS RESPONSIBLE FOR ADEQUATE SHORING, BRACING, ETC DURING CONSTRUCTION.
- CONTRACTOR IS RESPONSIBLE FOR PROTECTION OF ANY AND ALL STREETS, UTILITIES, EXISTING STRUCTURES, EQUIPMENT, ETC.
- EXISTING CONDITIONS AND RELATED DIMENSIONS INDICATED IN THE CONTRACT DOCUMENTS SHALL BE FIELD VERIFIED. ANY VERIFIED CONDITIONS THAT DIFFER FROM THAT INDICATED IN THE CONTRACT DOCUMENTS SHALL BE SUBMITTED TO THE ENGINEER FOR REVIEW AND APPROVAL PRIOR TO PRODUCTION OF SHOP DRAWINGS OR EXECUTION OF WORK IN THE FIELD.
- CONTRACTOR SHALL COORDINATE ALL WORK AS NEEDED WITH OWNER'S SPECIAL INSPECTOR TO ENSURE ALL REQUIREMENTS OF SPECIAL INSPECTION PROGRAM ARE MET.

FOUNDATION

- CONTRACTOR SHALL REMOVE ALL ORGANIC AND UNCOMPACTED FILL AND REPLACE WITH ENGINEERED FILL COMPACTED TO 95% MODIFIED PROCTOR.
- CONTRACTOR SHALL LOCATE ALL EXISTING UNDERGROUND UTILITIES BEFORE BEGINNING FOUNDATION EXCAVATIONS.
- NON-FROST SUSCEPTIBLE SOIL SHALL BE A SOIL THAT DOES NOT DISPLAY SIGNIFICANT DETRIMENTAL ICE SEGREGATION DURING FREEZING. GENERALLY SOILS WITH LESS THAN 6% BY MASS PASSING A #200 SIEVE.
- CONCRETE SHALL NOT BE PLACED INTO OR AGAINST SOIL CONTAINING FREE WATER, FROST OR ICE. SHOULD WATER ENTER OR ICE FORM IN A STRUCTURAL EXCAVATION AFTER BEING APPROVED, THE SOIL SHALL BE RE-INSPECTED AFTER REMOVAL OF WATER OR ICE AND RECOMPACTION TO COMPLY WITH GEOTECHNICAL REPORT UNO.
- RIGID INSULATION SHALL COMPLY WITH ASTM C578 AND SHALL BE TYPE X.

HELICAL PILES

- HELICAL PILES SHALL HAVE A MIN 3 1/2" DIAMETER SHAFT AND BE INSTALLED TO AN ALLOWABLE AXIAL CAPACITY OF 25 TONS SERVICE (50 TONS ULTIMATE).
- THE AVERAGE INSTALLATION TORQUE FOR THE FINAL FOUR FEET OF INSTALLATION SHALL BE EQUAL TO OR GREATER THAN THAT REQUIRED BY PILE MANUFACTURER FOR THE SPECIFIED AXIAL CAPACITY.
- HELICAL PILES SHALL BE HOT DIPPED GALVANIZED.
- CONTRACTOR SHALL MAINTAIN INSTALLATION LOGS FOR EACH PILE INDICATING FINAL INSTALLATION LENGTH AND HYDRAULIC PRESSURE WITH CORRESPONDING INSTALLATION TORQUE FOR EACH FOOT OF THE FINAL TEN FEET OF INSTALLATION.
- CONTRACTOR SHALL HIRE A SPECIALITY STRUCTURAL ENGINEER (SSE) FOR THE DESIGN AND ANALYSIS OF THE HELICAL PILE SYSTEM INCLUDING ALL COMPONENTS.

CONCRETE

- ALL CONCRETE WORK SHALL CONFORM TO ACI 301 SPECIFICATIONS FOR STRUCTURAL CONCRETE
- ALL CONCRETE SHALL BE NORMAL WEIGHT CONCRETE WITH A MINIMUM COMPRESSIVE STRENGTH AT 28 DAYS OF 4500 PSI UNO.
- CONCRETE EXPOSED TO REPEATED FREEZING AND THAWING SHALL CONTAIN 6%+/-1.5% AIR ENTRAINMENT AND HAVE A MAXIMUM W/C RATIO OF 0.45.
- ALL AGGREGATES SHALL CONFORM TO ASTM C33.
- PORTLAND CEMENT SHALL CONFORM TO ASTM C150.
- REINFORCING STEEL SHALL BE ASTM A615 GRADE 60.
- NO WELDING OF REINFORCING SHALL BE PERFORMED WITHOUT PRIOR APPROVAL FROM ENGINEER.
- ALL FORMING SHALL BE TRUE AND STRAIGHT IN ACCORDANCE WITH ACI STANDARDS.
- CONTRACTOR SHALL COMPLY WITH THE REQUIREMENTS OF ACI 305.1 AND ACI 306.1 LATEST EDITION FOR HOT AND COLD WEATHER CONSTRUCTION WHEN APPLICABLE.
- ALL LAP SPLICES SHALL BE CLASS B LAP SPLICES UNLESS NOTED OTHERWISE.
- REFER TO ARCHITECTURAL, MECHANICAL, ELECTRICAL AND PLUMBING DRAWINGS FOR FLOOR FINISHES, SLOPES, DRAINS, DEPRESSIONS, CELLS, EQUIPMENT PADS, ETC.
- CONCRETE MIX DESIGN FOR CONCRETE PIER TO HAVE ANTI-WASHOUT ADMIXTURE AND TO USE 6" DIAMETER TREMIE FOR POUR.

SUBMITTALS

- SHOP AND PLACEMENT DRAWINGS (INCLUDING CONNECTIONS) SHALL BE SUBMITTED TO THE ENGINEER OF RECORD FOR APPROVAL PRIOR TO COMMENCING FABRICATION FOR THE FOLLOWING ITEMS: CONCRETE REINFORCING STEEL
- THE FOLLOWING ITEMS SHALL BE SUBMITTED TO THE ENGINEER OF RECORD: HELICAL PILES
 - DRIVE HEAD TORQUE CHART RELATING HYDRAULIC PRESSURE TO INSTALLATION TORQUE
 - PILE MANUFACTURER CAPACITY CHART RELATING TORQUE TO AXIAL CAPACITY
- HELICAL INSTALLATION LOGS TO INCLUDE:
 - FINAL INSTALLED LENGTH
 - INSTALLATION TORQUE PER FOOT FOR FINAL FOUR FEET OF EMBEDMENT
 - FINAL CALCULATED ULTIMATE AXIAL CAPACITY
- CONCRETE MIX DESIGNS
- HOT/COLD WEATHER CONSTRUCTION PROCEDURES (CONCRETE & CMU)
- SPECIAL INSPECTION REPORTS & MATERIALS TESTING RESULTS

STRUCTURAL ABBREVIATIONS

ADDL ALT ANCH AB ARCH	ADDITIONAL ALTERNATE ANCHOR (ANCHORAGE) ANCHOR BOLT ARCHITECT, ARCHITECTURAL	EA EA END EF EW ELEC EL ELEV EQ EQ SP EQUIP ERECT EXIST EXP EXP ANCH EXP BOLT EXP JT EXT	EACH EACH END EACH FACE EACH WAY ELECTRICAL ELEVATION ELEVATOR EQUAL EQUALLY SPACED EQUIPMENT ERECTION EXISTING EXPANSION EXPANSION ANCHOR EXPANSION BOLT EXPANSION JOINT EXTERIOR	K KO	KIP (1000 POUNDS) KNOCK OUT	R REF REFIN REQD REV RD RO RTU R/W	RADIUS, REACTION REFERENCE REINFORCE, REINFORCING REQUIRED REVERSE OR REVISION ROOF DRAIN ROUGH OPENING ROOF TOP UNIT REINFORCED WITH		
BSMT BM BRG BTWN BLK BB BOT BFE BLDG	BASEMENT BEAM BEARING BETWEEN BLOCK BOND BEAM BOTTOM BOTTOM OF FOOTING ELEVATION BUILDING	FF FS FIN FLR FT FTG FDN FRMG	FAR FACE FAR SIDE FINISH FLOOR FOOT/FEET FOOTING FOUNDATION FRAMING	L LB LG LT WT LL LOC LONG LLH LLV LLBB LW LGS	ANGLE POUND LENGTH, LONG LIGHTWEIGHT LIVE LOAD LOCATION LONGITUDINAL LONG LEG HORIZONTAL LONG LEG VERTICAL LONG LEG BACK TO BACK LONG WAY LIGHT GAUGE STEEL	SC SCHD SECT SHT SIM SLBB SOG SP Ø SPA SPEC SQ SF STD STL STL JST STIFF STIR STRUCT SW SYM	SLIP CRITICAL SCHEDULE SECTION SHEET SIMILAR SHORT LEG BACK TO BACK SLAB ON GRADE SPACED AT SPACES SPECIFICATIONS SQUARE SQUARE FOOT/FEET STANDARD STEEL STEEL JOIST STIFFENER STIRRUPS STRUCTURAL SHORT WAY SYMMETRICAL		
CANT CIP CLG CTR CL OR Q CLR COL COMP CONC CMU CONN CONSTR CONSTR JT CONT CONTR CJT	CANTILEVER CAST IN PLACE CEILING CENTER CENTERLINE CLEAR COLUMN COMPOSITE CONCRETE CONCRETE MASONRY UNIT CONNECTION CONSTRUCTION CONSTRUCTION JOINT CONTINUOUS CONTRACTOR CONTROL JOINT	GA GB GL GR	GALVANIZED GAUGE GENERAL CONTRACTOR GRADE BEAM GLULAM GRADE	DL DBA DET DIAG DIA DIM DWLS DN DWG	DEAD LOAD DEPTH DEFORMED BAR ANCHOR DETAIL DIAGONAL DIAMETER DIMENSION DOWELS DOWN DRAWING	NS NIC NTS NO NFS	NEAR SIDE NOT IN CONTRACT NOT TO SCALE NUMBER NON FROST SUSCEPTIBLE	TEMP STL T & B TO OR T/ T/E TSE TL TRANS TOS TYP	TEMPERATURE STEEL TOP AND BOTTOM TOP OF TOP OF FOOTING ELEVATION TOP OF STEEL ELEVATION TOTAL LOAD TRANSVERSE TOP OF SLAB ELEVATION TYPICAL
		HDR HK HSS HT HORIZ	HEADER HOOK HOLLOW STRUCTURAL SECTION HEIGHT HORIZONTAL	IN ID IF INT	INCH/INCHES INSIDE DIAMETER INSIDE FACE INTERIOR	OC OPNG OPP OD OF OH	ON CENTER OPENING OPPOSITE OUTSIDE DIAMETER OUTSIDE FACE OVERHEAD	UNO	UNLESS NOTED OTHERWISE
		JT JST JBE JH	JOINT JOIST JOIST BEARING ELEVATION JOIST HEADER	PERP PL PT PVC PT PSF PSI PC PROJ	PERPENDICULAR PLATE POINT POLYVINYL CHLORIDE POST-TENSIONED POUNDS PER SQUARE FOOT POUNDS PER SQUARE INCH PRECAST PROJECTION	WIND WT WWF W W/O WP	WINDOW WEIGHT WELDED WIRE FABRIC WIDTH WITH WITHOUT WORK POINT		

CONCRETE REINFORCEMENT PROTECTION

EXPOSURE	STRUCTURAL ELEMENTS	BAR SIZE	CLEAR COVER
CONCRETE CAST AGAINST AND PERMANENTLY EXPOSED TO EARTH	ALL	ALL	3"
CONCRETE EXPOSED TO EARTH OR WEATHER	ALL	NO. 6 THRU NO. 18 BARS NO. 5 BAR, W31 OR D31 WIRE AND SMALLER	2" 1 1/2"
CONCRETE NOT EXPOSED TO WEATHER OR IN CONTACT WITH GROUND	SLABS, WALLS, JOISTS BEAMS, COLUMNS	NO. 14 AND NO. 18 BARS NO. 11 BAR AND SMALLER PRIMARY REINFORCEMENT, TIES, STIRRUPS, SPIRALS	1 1/2" 3/4" 1 1/2"

CONCRETE REINFORCEMENT TENSION DEVELOPMENT AND LAP SPICE LENGTHS

BAR SIZE	LAP SPlice CLASS	CONCRETE COVER = 0.75"		CONCRETE COVER = 1.00"		CONCRETE COVER = 1.50"		CONCRETE COVER ≥ 2.00"	
		TOP	OTHER	TOP	OTHER	TOP	OTHER	TOP	OTHER
#3	A	12	12	12	12	12	12	12	12
	B	16	16	16	16	16	16	16	16
#4	A	19	15	15	12	15	12	15	12
	B	24	19	20	16	20	16	20	16
#5	A	28	21	22	17	19	15	19	15
	B	36	28	29	22	24	19	24	19
#6	A	37	29	31	24	22	17	22	17
	B	48	37	40	31	29	22	29	22
#7	A	60	46	50	38	37	28	33	25
	B	78	60	64	50	48	37	42	33
#8	A	74	57	62	48	47	36	37	29
	B	96	74	80	62	60	47	48	37
#9	A	90	69	76	58	57	44	46	36
	B	117	90	98	76	74	57	60	46
#10	A	108	83	92	70	70	54	57	44
	B	140	108	119	92	91	70	74	57
#11	A	127	98	108	83	84	64	68	53
	B	165	127	141	108	109	84	89	68

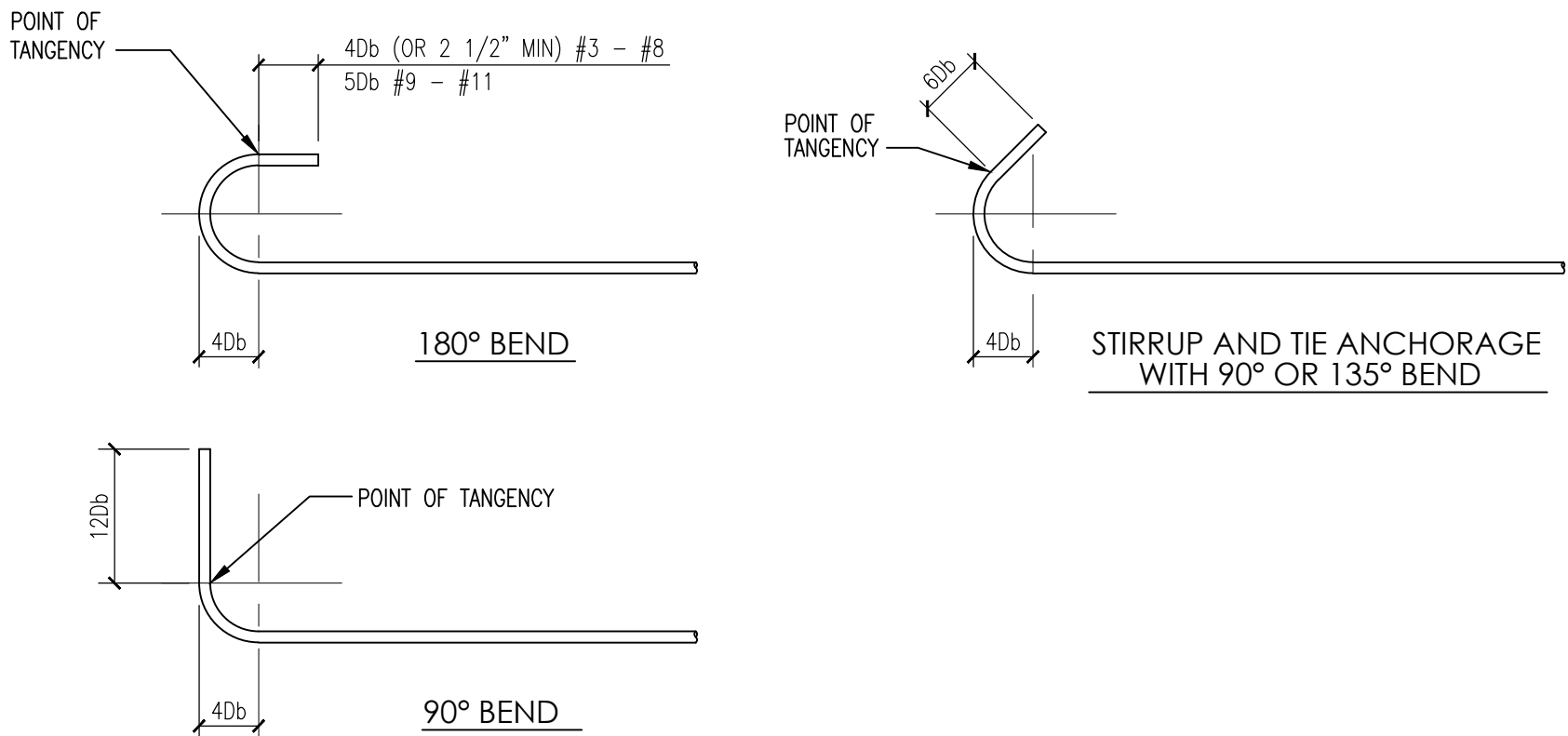
NOTES:

1. TABULATED VALUES ARE BASED ON GRADE 60 UNCOATED REINFORCING BARS AND 4000 PSI NORMAL WEIGHT CONCRETE. LENGTHS ARE IN INCHES.
2. TENSION DEVELOPMENT LENGTH AND LAP SPICE LENGTHS ARE CALCULATED PER ACI 25.4.2.3 AND 25.5.2.1.
3. TENSION DEVELOPMENT LENGTH = 1.0 x CLASS A LAP SPICE
4. FOR 3000 PSI AND 5000 PSI CONCRETE, MULTIPLY THE TABULATED VALUES BY 1.16 AND 0.90 RESPECTIVELY.
5. BAR c. - c. SPACING WAS ASSUMED TO BE GREATER THAN TWICE THE CONCRETE COVER PLUS ONE BAR DIAMETER.
6. TOP BARS ARE DEFINED AS HORIZONTAL BARS WITH MORE THAN 12 INCHES OF CONCRETE CAST BELOW THE BARS.
7. FOR LIGHTWEIGHT AGGREGATE CONCRETE, MULTIPLY THE TABULATED VALUES BY 1.3.
8. FOR EPOXY COATED REBAR, MULTIPLY THE TABULATED VALUES BY 1.2.
9. FOR LAP SPICE LENGTHS IN MASONRY SEE MASONRY NOTES.
10. COVER IS CLEAR DISTANCE FROM THE CONCRETE SURFACE TO OUTERMOST SURFACE OF REINFORCING.

STRUCTURAL SHEET INDEX

S0.0	GENERAL STRUCTURAL NOTES, ABBREVIATIONS
S1.0	SPA / EXISTING BUILDING PLAN
S2.0	CONCRETE MAT PLAN, SECTION AND DETAILS

STANDARD CONCRETE REINFORCING HOOKS





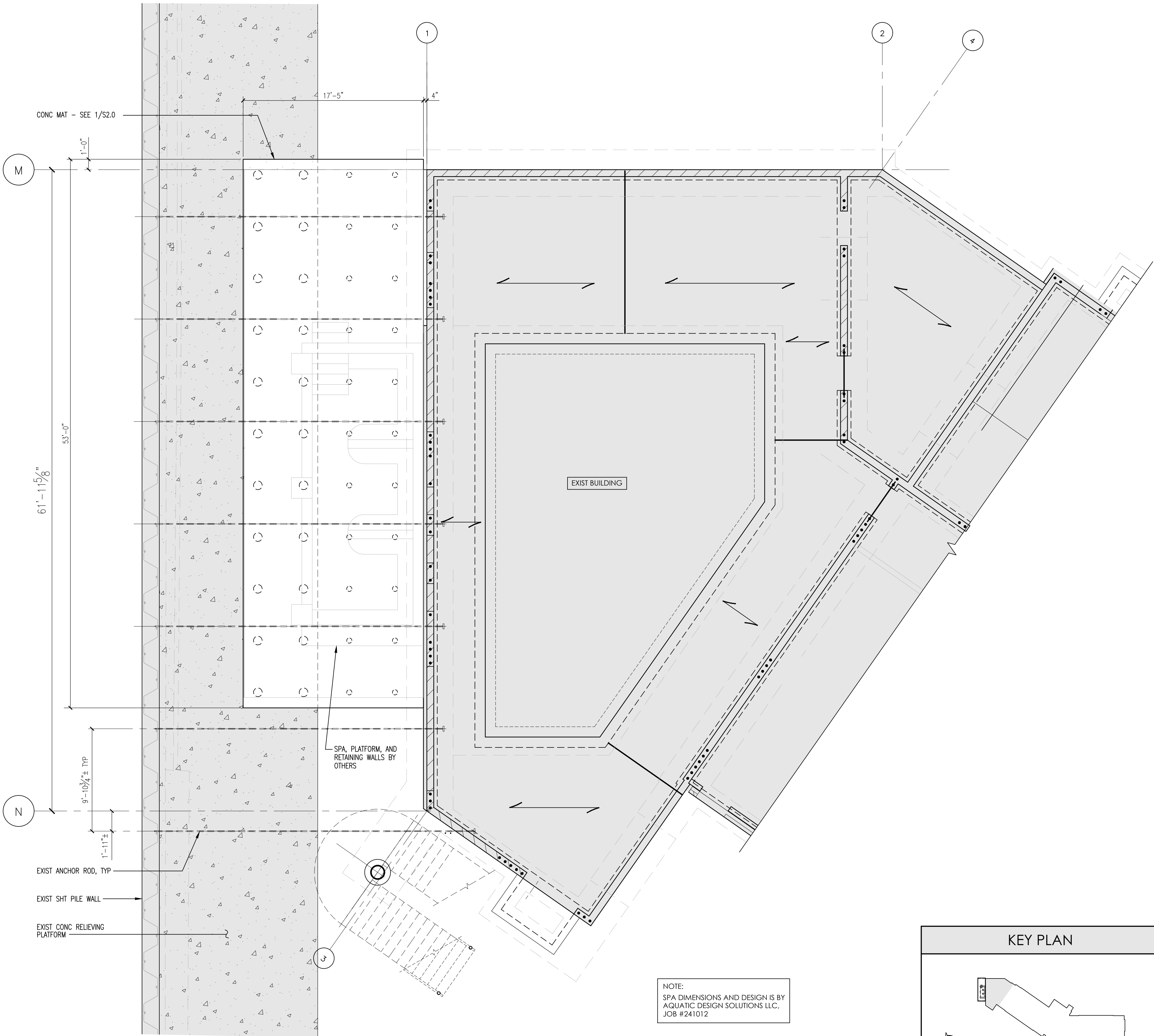
BORING LOG

B-1
Page 1 of 1

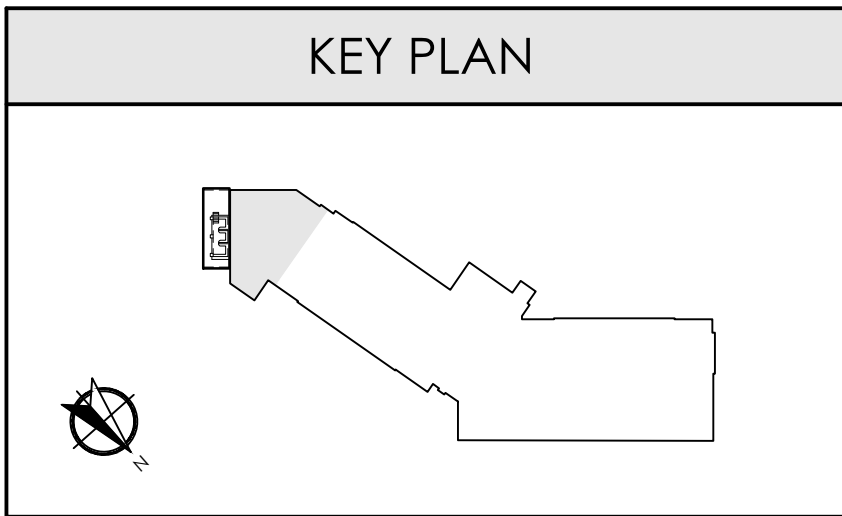
PROJECT: LaFarge Hotel		CLIENT: AMI Consulting Engineers, P.A.	TPT Project No.: 14M6673
ARCHITECT - ENGINEER: AMI Consulting Engineers, P.A.		SITE LOCATION: Duluth, Minnesota	
BORING LOCATION: See Boring Location Sketch		REPORT DATE: 6/10/14	
DEPTH (ft) ELEVATION (ft)	SAMPLE TYPE	DESCRIPTION OF MATERIAL	REPORT DATA: ○ UNCONFINED COMPRESSIVE STRENGTH (TONS/FT) ★ PERCENT PASSING #200 SIEVE X PLASTIC LIMIT % ● WATER CONTENT % △ LIQUID LIMIT % ◎ STANDARD PENETRATION TEST N-VALUE
0.0	SS	(FILL) Silty Sand with gravel, fine to medium grained, brown, moist to wet	10 20 30 40 50
10.0	SS	Start mud rotary drilling at 15 feet	10 20 30 40 50
20.0	SS		10 20 30 40 50
30.0	SS		10 20 30 40 50
40.0	SS		10 20 30 40 50
50.0	SS		10 20 30 40 50
60.0	SS		10 20 30 40 50
70.0	SS		10 20 30 40 50
80.0	SS		10 20 30 40 50
81.0	SS	Borehole backfilled with bentonite grout End of Boring	10 20 30 40 50
WATER LEVEL 2 ft. WD			
WATER LEVEL 06/06/14			
WATER LEVEL None Observed			
SPT HAMMER CME Autohammer			
RIG CME 1050			
CREW CHIEF Lou Dinnan			

HISTORICAL BORING LOG IN AREA OF NEW CONSTRUCTION

CONTRACTOR SHALL VERIFY LOCATION
OF EXISTING CONCRETE RELIEVING PAD
EDGE AND TIE ROD LOCATIONS.



1 SPA / EXIST BLDG PLAN
GA1.0 3/16" = 1'-0"

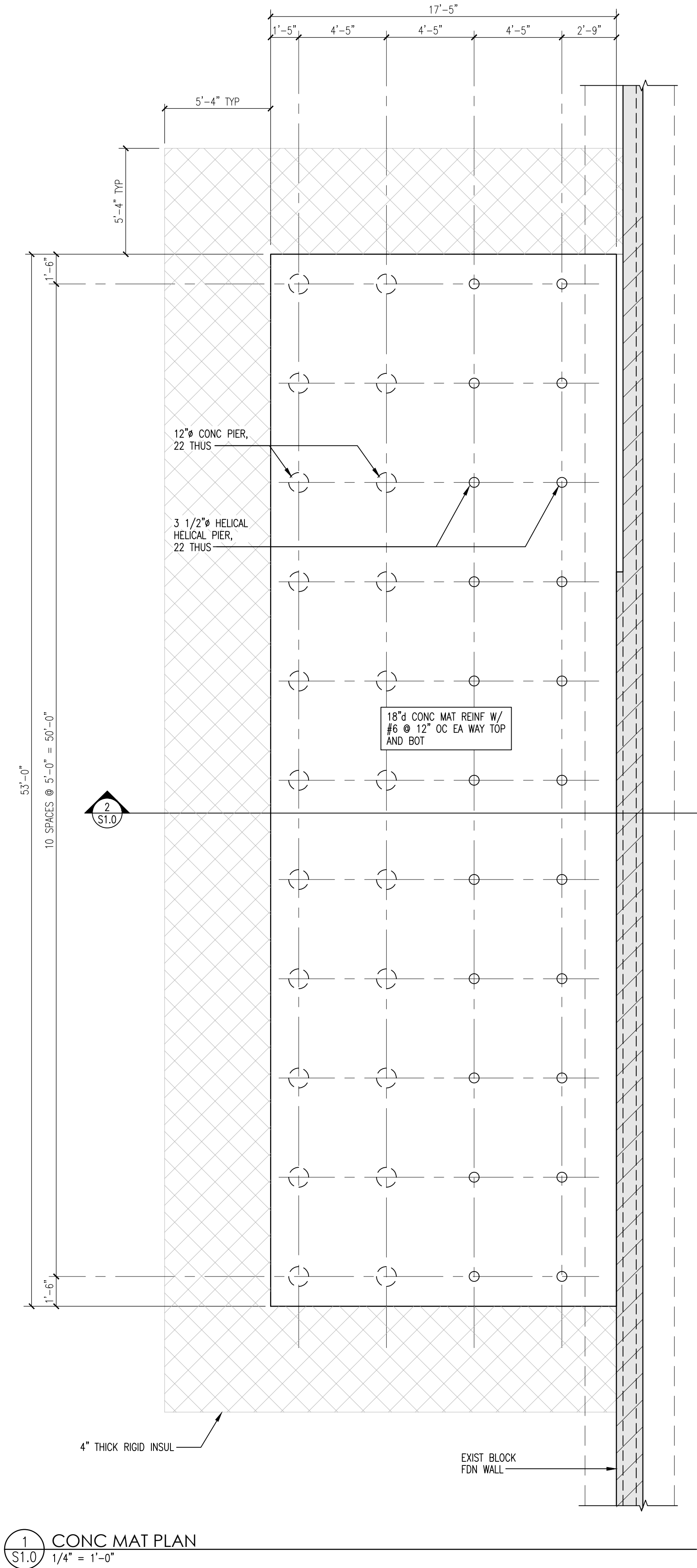


REV. BY:	DESCRIPTION	REV:	DATE:
	Issue for Construction	0	6-6-25

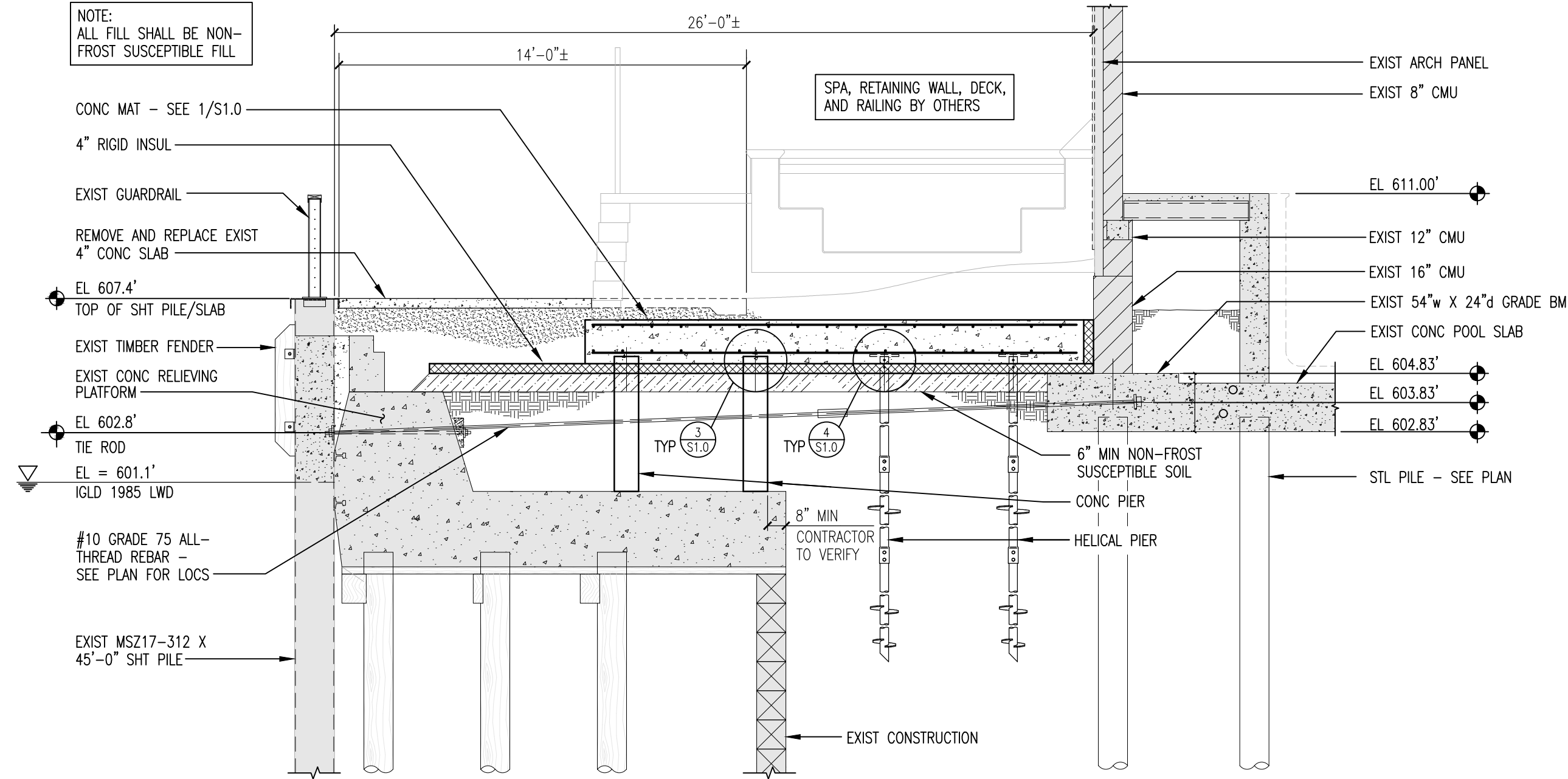
Pier B
Spa Addition
Duluth, Minnesota
Foundation Plan

JOB No: 251107
DATE: 6-6-25
DRAWN BY: DLB
DESIGNED BY: BN

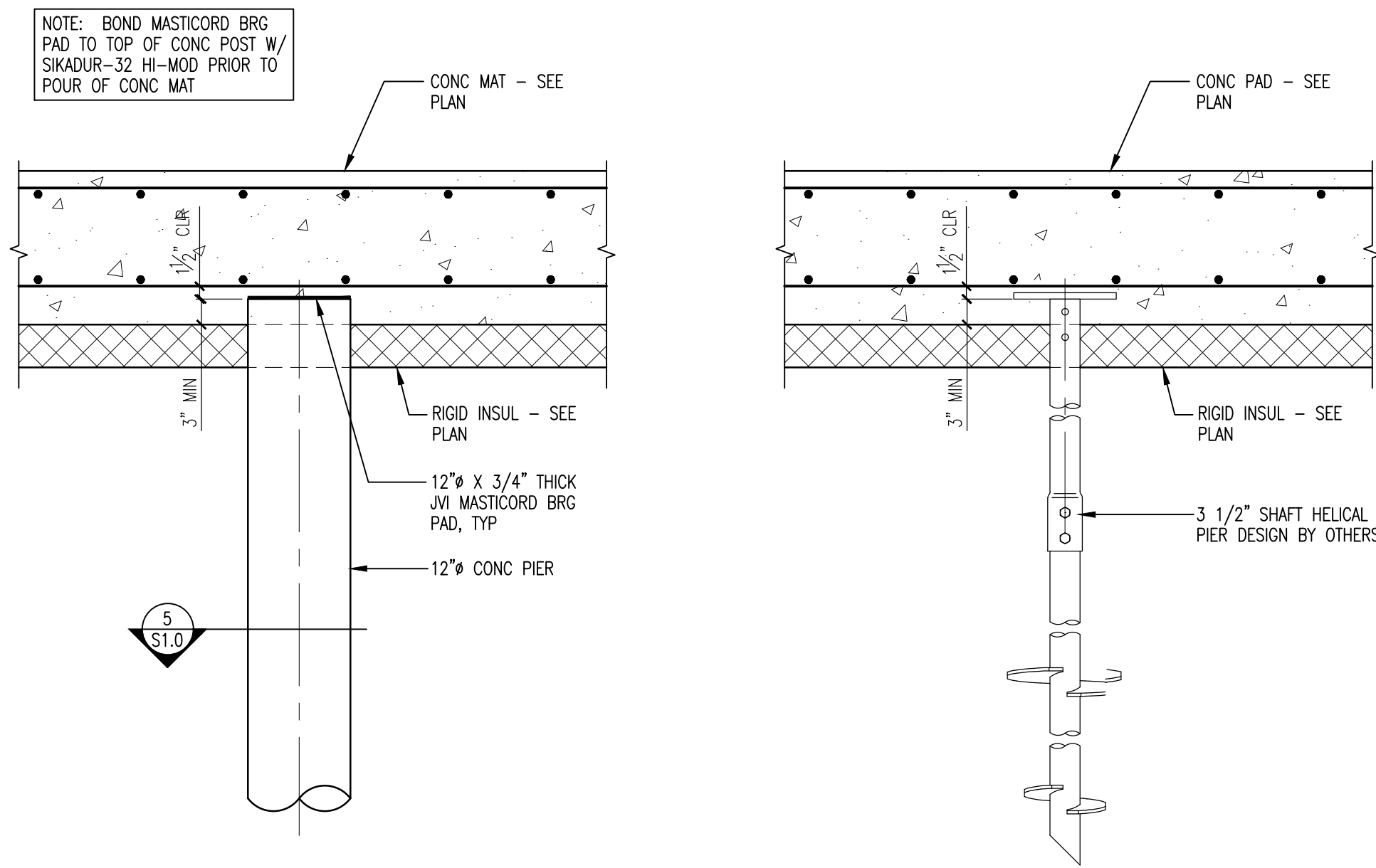
SHEET:
GA1.0



1
S1.0
CONC MAT PLAN
1/4" = 1'-0"

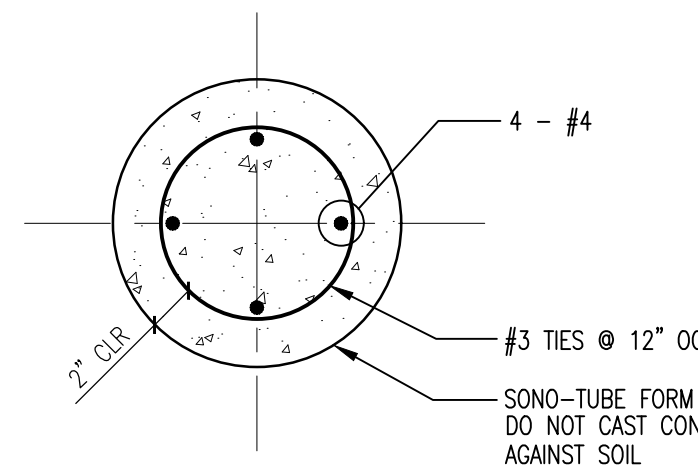


2
S1.0
SECTION
1/4" = 1'-0"



3
S1.0
SECTION AT CONC PIER
3/4" = 1'-0"

4
S1.0
SECTION AT HELICAL PIER
3/4" = 1'-0"



5
S1.0
CONC POST DETAIL
1 1/2" = 1'-0"

REV. BY:	DESCRIPTION	REV:	DATE:
	Issue for Construction	0	6-6-25

Pier B
Spa Addition
Duluth, Minnesota
Concrete Mat Plan
Section and Details

JOB No: 251107
DATE: 6-6-25
DRAWN BY: DLB
DESIGNED BY: BN

SHEET:

S1.0