





Purchasing Division
Finance Department
Room 120
411 West First Street
Duluth, Minnesota 55802

 218-730-5340
 purchasing@duluthmn.gov

Addendum No. 1
Solicitation 25-99824
Perch Lake Landing Site Improvements

This addendum serves to notify all bidders of the following changes to the solicitation documents:

1. Please insert the attached plans into the Bid Package.

Please acknowledge receipt of this Addendum by checking the acknowledgement box within the www.bidexpress.com solicitation.

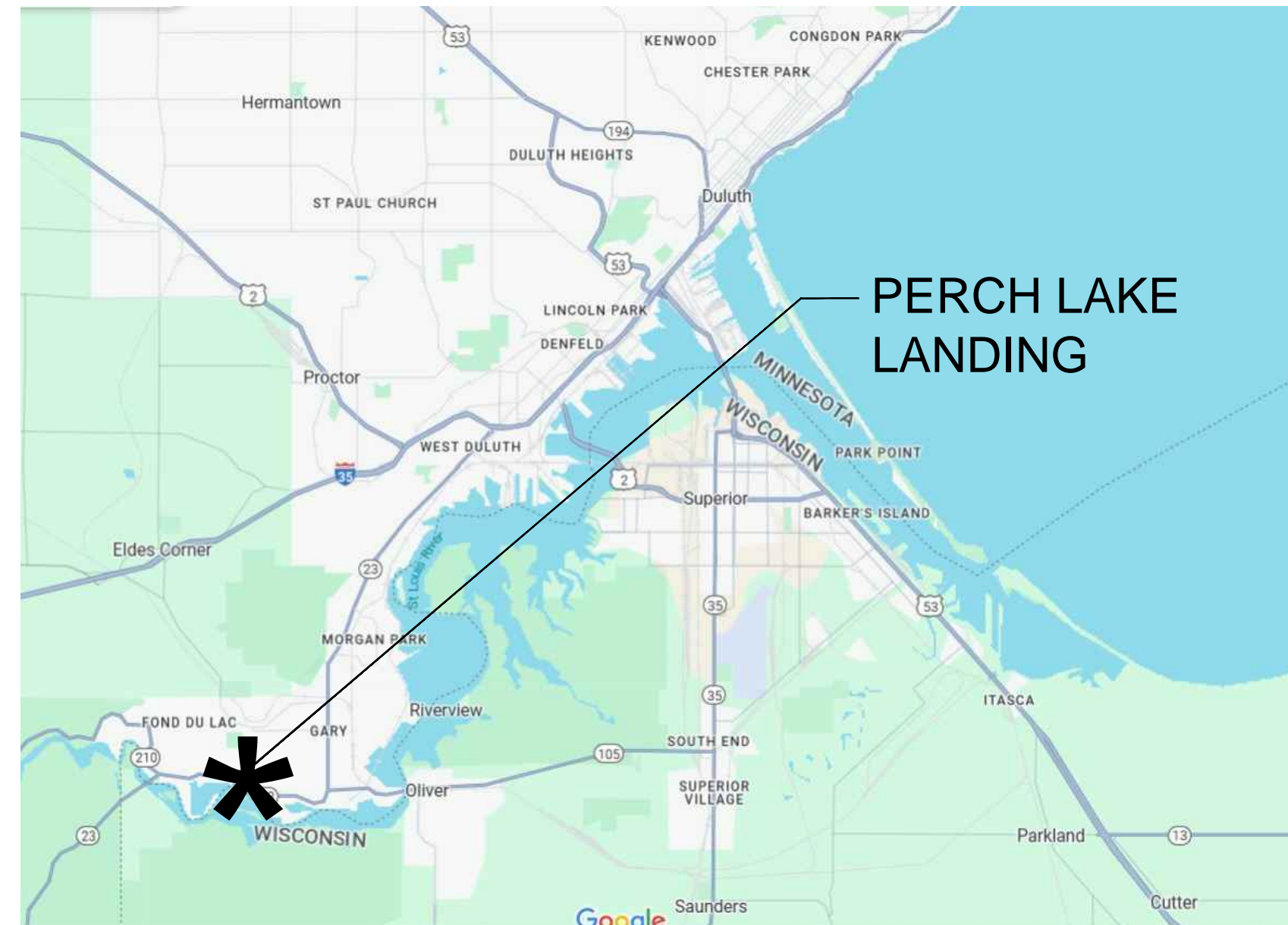
Posted: **December 12, 2025**

PERCH LAKE LANDING PARKING & SITE IMPROVEMENTS

BID SOLICITATION #

12100 HWY 23 - DULUTH, MN

NOVEMBER 2025



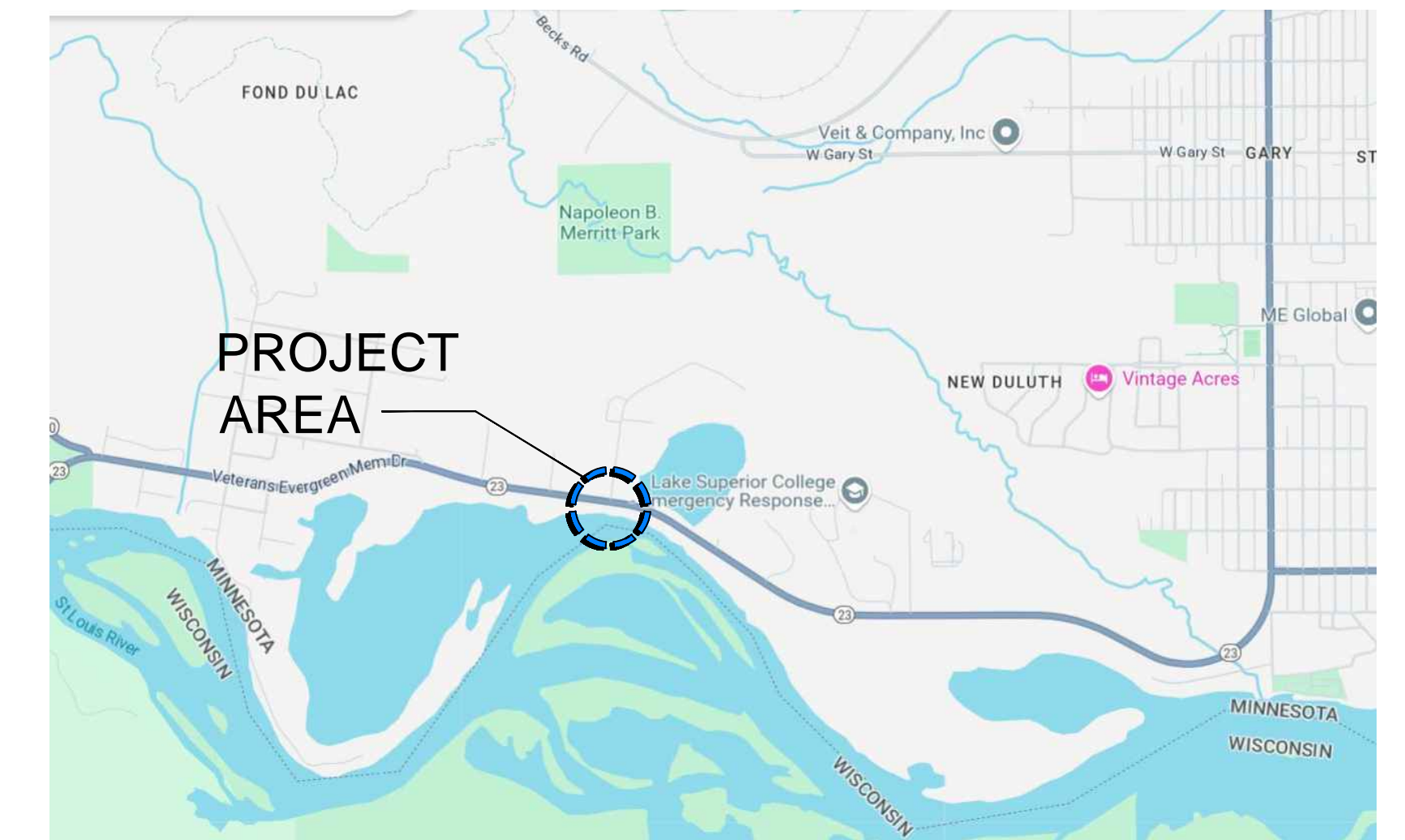
CONTACT LIST

OWNER
CITY OF DULUTH
DEPARTMENT OF PARKS & RECREATION
DULUTH CITY HALL
411 W 1ST STREET
DULUTH, MN 55802

LANDSCAPE ARCHITECT
SAS+ASSOCIATES 219 W. FIRST STREET, SUITE 350
DULUTH, MN 55802
TEL. (218)391-1335
MAIL@SASLANDARCH.COM
CONTACT: LUKE SYDOW, PLA

CIVIL ENGINEER
NORTHLAND CONSULTING ENGINEERS (NCE)
102 S. 21st AVE WEST, SUITE 1
DULUTH, MN 55806
TEL. (218)727-5995

VICINITY MAP



WARNING:
LOCATION OF UNDERGROUND UTILITIES TO BE
VERIFIED BY CONTRACTOR. CALL BEFORE
DIGGING. GOPHER STATE ONE CALL - 811
1-800-252-1166 REQUIRED BY LAW

GOVERNING SPECIFICATIONS

THE 2018 EDITION OF THE MINNESOTA DEPARTMENT OF
TRANSPORTATION
"STANDARD SPECIFICATIONS FOR CONSTRUCTION" SHALL GOVERN.
AVAILABLE AT: <http://www.dot.state.mn.us/pre-letting/spec/index.html>
and
2019 City of Duluth Construction Standards

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**CONTRACTOR IS RESPONSIBLE FOR
CONDUCTING ALL WORK IN CONFORMANCE
WITH ALL CITY OF DULUTH STANDARDS.**

**CONTRACTOR IS RESPONSIBLE FOR OBTAINING
ALL REQUIRED PERMITS FROM THE CITY AND
OTHER REGULATORY AGENCIES FOR THIS WORK
PRIOR TO COMMENCING OPERATIONS.**

I HEREBY CERTIFY THAT THIS PLAN 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.

Luke W. Sydow
LANDSCAPE ARCHITECT (TYPED OR PRINTED NAME)

9/2025

CITY APPROVAL

APPROVED FACILITIES MANAGER DATE



SITE CONSTRUCTION NOTES:

1. EXISTING PLAN FROM SITE SURVEY BY ALTA SURVEY DULUTH, MN. VERIFY EXISTING CONDITIONS AND REPORT ANY DISCREPANCIES TO THE PROJECT MANAGER IMMEDIATELY.
2. THE CONTRACTOR SHALL DETERMINE THE EXACT LOCATIONS OF ALL EXISTING UTILITIES BEFORE COMMENCING WORK. CONTRACTOR AGREES TO BE FULLY RESPONSIBLE FOR ANY AND ALL DAMAGE WHICH MIGHT BE CAUSED BY THE CONTRACTOR'S FAILURE TO LOCATE AND PRESERVE ANY AND ALL UTILITIES. CALL GOPHER STATE ONE AT 811 FOR UTILITY LOCATE MINIMUM OF 72 HOURS PRIOR TO ANY SITE WORK.
3. THE GENERAL CONTRACTOR IS RESPONSIBLE FOR IMPLEMENTATION AND ON-GOING MAINTENANCE OF STORM WATER AND SEDIMENT CONTROL BEST MANAGEMENT PRACTICES (BMP) AND COMPLIANCE WITH ALL STATE OF MINNESOTA AND CITY OF DULUTH EROSION AND SEDIMENT CONTROL REGULATIONS. THIS CONTRACTOR SHALL CONDUCT THEIR WORK IN A MANNER TO LIMIT EROSION AND TO PRESERVE THE EROSION AND SEDIMENT CONTROL BMP MEASURES. THIS CONTRACTOR SHALL BE RESPONSIBLE FOR ANY RE-ESTABLISHMENT AND RESTORATION THAT MAY BE NECESSARY DUE TO THEIR FAILURE TO CONDUCT THEIR WORK IN A CAREFUL RESPONSIBLE MANNER.
4. PERIMETER SEDIMENT BMP'S SHALL BE IMPLEMENTED PRIOR TO THE START OF CONSTRUCTION ACTIVITY. STORM INLET PROTECTION SHALL BE MAINTAINED ON ALL STORM DRAINAGE STRUCTURES.
5. ALL EROSION AND SEDIMENT CONTROL BMP'S SHALL REMAIN IN PLACE AND BE MAINTAINED AS OPERATIONAL UNTIL PERMANENT VEGETATIVE COVER IS ESTABLISHED AND ALL PAVING IS COMPLETE. THE GENERAL CONTRACTOR SHALL BE RESPONSIBLE FOR REMOVING ALL EROSION CONTROL PROTECTION ITEMS FROM THE SITE AT THE COMPLETION OF THE PROJECT.
6. BIODEGRADABLE JUTE EROSION CONTROL NETTING SHALL BE USED ON ALL SLOPES GREATER THAN 3:1.
7. THE CONTRACTOR SHALL BE RESPONSIBLE FOR INSTALLING AND MAINTAINING ADEQUATE FENCING AROUND CONSTRUCTION AREA TO LIMIT ACCESS TO CONSTRUCTION SITE BY OTHERS.
8. SIGN CONSTRUCTION ENTRY DURING CONSTRUCTION.
9. THE CONTRACTOR SHALL MAINTAIN A CLEAN SITE AT ALL TIMES AND SHALL BE RESPONSIBLE FOR REMOVING TRASH AND CONSTRUCTION DEBRIS FROM THE SITE ON A DAILY BASIS. THE TRACKING OF SOIL ONTO ADJOINING ROADWAYS, WALKS AND PARKING AREAS SHALL NOT BE ALLOWED.
10. THE CONTRACTOR SHALL BE RESPONSIBLE FOR PROTECTING ALL PAVEMENTS AND SURFACES TO REMAIN AND SHALL BE RESPONSIBLE FOR REPAIRING/REPLACING ANY DAMAGED SURFACES.
11. IDENTIFY STAGING AREA FOR APPROVAL BY OWNERS REPRESENTATIVE.
12. PROTECT ALL TREES TO REMAIN PER DETAIL.
13. PROTECT EXISTING WALLS, POSTS, FOOTINGS, BUILDINGS, WALLS, ETC. THROUGHOUT CONSTRUCTION.
14. ALL HORIZONTAL AND VERTICAL CONTROL POINTS SHALL BE ESTABLISHED AND MAINTAINED BY THE GENERAL CONTRACTOR.
15. ALL GRADES AND ELEVATIONS SHOWN ARE FINISHED GRADES AND ELEVATIONS.
16. RESTORE ALL AREAS DISTURBED BY CONSTRUCTION WITH TOPSOIL AND PLANTING BEDS/SOD/SEED/MULCH AS SPECIFIED AND INDICATED ON PLANS.
17. ALL GRADES SHALL SLOPE AWAY FROM BUILDINGS AT A 2% MINIMUM SLOPE.
18. ALL SIDEWALKS, CURB RAMPS, AND OTHER SITE ELEMENTS MUST CONFORM TO THE STATE OF MINNESOTA ACCESS CODES AND STANDARDS, AND WITH FEDERAL ADA GUIDELINES
19. IN THE EVENT OF A DISCREPANCY WITH PLANT QUANTITIES, THE PLAN, NOT THE PLANT LIST SHALL GOVERN THE REQUIRED QUANTITIES.
20. COORDINATE ALL WORK BETWEEN TRADES. NOTIFY THE PROJECT MANAGER IMMEDIATELY OF ANY CONFLICT THAT AFFECTS THIS SITE WORK.
21. ALL CONCRETE SHALL BE A MINIMUM 4000 PSI WITH FIBERMESH REINFORCEMENT.
22. CONTRACTOR TO OBTAIN CITY PERMITS AND APPROVALS PRIOR TO BEGINNING WORK.
23. CONTRACTOR SHALL COORDINATE CONSTRUCTION ENTRANCE AND STAGING AREA WITH THE CITY OF DULUTH PRIOR TO COMMENCING CONSTRUCTION.
24. NOTIFY CITY OF DULUTH AND LANDSCAPE ARCHITECT 72 HRS. PRIOR TO START OF CONSTRUCTION TO SCHEDULE A PRE-CONSTRUCTION MEETING.

PLANTING NOTES:

THESE PLANTING NOTES APPLY TO ALL PLANT AND PLANT-RELATED ASPECTS OF THIS PROJECT. IF THIS PLAN SET CONTAINS A SEPARATE SET OF SPECIFICATIONS, THOSE SEPARATE SPECIFICATIONS SHALL GOVERN.

- 1) ALL SHRUBS TO BE A MINIMUM OF 3'-0" FROM ALL WALKS OR CURBS (MEASURED FROM THE CENTER OF THE PLANT)
- 2) EVERGREEN AND DECIDUOUS TREES SHALL BE SUPPORTED WITH A SYSTEM OF HEAVY DUTY T-BAR STEEL POST STAKES, MINIMUM OF 6' IN LENGTH, WITH WHITE T-POST CAPS AND WITH 17-GAUGE GALVANIZED STEEL WIRE GUYS SECURED TO TREE WITH PROFESSIONAL-GRADE STRAPS (DARK GREEN OR BEIGE IN COLOR), SPECIFICALLY DESIGNED FOR TREE GUYING, ABOVE THE FIRST BRANCH OF DECIDUOUS TREES (4' ABOVE GRADE MINIMUM), 4' ABOVE TOP OF ROOT BALL ON EVERGREEN TREES. STAKES SHALL BE 3' MIN, 5' MAXIMUM FROM TRUNK OF TREE. TREE STRAPS TO BE USED SHALL BE SELECTED BASED ON MANUFACTURER'S RECOMMENDATION FOR THE SIZE TREE RECEIVING THE STRAPS. RUBBER HOSE SHALL NOT BE USED. WIRE TO BE TAUT BUT NOT OVER-TIGHT. TREE GUYING SHALL NOT PREVENT TREE FROM SLIGHT SWAYING UNDER NORMAL ENVIRONMENTAL CONDITIONS, WHICH HELPS DEVELOP ROOT AND TRUNK STRUCTURE. FLAG EACH WIRE WITH WHITE PLASTIC FLAGGING TAPE CENTERED ON WIRE. ADD ADDITIONAL FLAG ON WIRES GUYING EVERGREENS 12" ABOVE IN-GROUND STAKE.
- 3) CONFERS TO HAVE 2 STEEL POST STAKES, WIRES AND STRAPS FOR TREES 6' IN HEIGHT AND LESS, 3 STEEL POST STAKES, WIRES AND STRAPS FOR TREES ABOVE 6' IN HEIGHT. DECIDUOUS TREES TO HAVE 2 STEEL POST STAKES, WIRES AND STRAPS FOR TREES 2-1/2" CALIPER AND LESS, 3 STAKES, WIRES AND STRAPS ABOVE 2-1/2" CALIPER. ONE STAKE SHALL BE ORIENTATED IN THE DIRECTION OF THE PREVAILING WINDS. REMOVE STAKES, GUY WIRES, STRAPS, AND FLAGGING AFTER 1 YEAR FROM DATE OF INITIAL ACCEPTANCE, OR WHEN DIRECTED BY OWNER OR OWNER REPRESENTATIVE.
- 4) EACH TREE OR SHRUB, WHETHER CONTAINERIZED OR BALLED AND BURLAPPED, SHALL HAVE THE ROOT FLAIR EXPOSED AND SOIL ABOVE THE LEVEL OF THE ROOT FLAIR REMOVED. SET TREE IN PLANTING PIT WITH ROOT FLAIR 1" ABOVE SURROUNDING SOIL SURFACE. THE PLANTING PIT FOR EACH TREE OR PLANT SHALL BE MEASURED, DUG, VERIFIED AND MODIFIED AS NEEDED TO OBTAIN THE PROPER DEPTH FOR EACH INDIVIDUAL PLANT.
- 5) TREE SHALL ONLY BE MOVED BY THE BALL / WIRE BASKET. PLUMB TREE ONLY BY THE ROOT BALL. DO NOT PLUMB TREE BY OVERLY / AGGRESSIVELY PULLING OR PUSHING ON TRUNK OR BRANCHES.
- 6) AFTER TREE HAS BEEN SET IN THE PLANTING PIT TO PROPER GRADE AND PLUMBED, REMOVE TOP 1/2 OF WIRE BASKET. REMOVE TWINE OR ROPE HOLDING BURLAP OR PLASTIC AROUND ROOT BALL. REMOVE AS MUCH PLASTIC WRAPPING OR TREATED BURLAP AS POSSIBLE. IF REGULAR BURLAP CONTAINS THE ROOT BALL, BACKFILL 1/2 OF PIT, REMOVE TOP 1/2 OF BURLAP AND COMPLETE BACKFILL. SOIL SHALL BE SETTLED AROUND ROOT BALL TO REMOVE LARGE AIR VOIDS WITH WATER. BACKFILL SHALL NOT BE PLACED ON TOP OF ROOTBALL.
- 7) CARE SHALL BE TAKEN TO INSURE BALL REMAINS INTACT WITH MINIMAL DISTURBANCE TO THE INTEGRITY OF THE SOIL BALL AND / OR TREE ROOTS. SOIL BALLS OF TREES WHICH ARE DEEMED BY THE OWNER OR OWNERS REPRESENTATIVE TO NOT BE OF ADEQUATE INTEGRITY, OR TRUNKS WHICH ARE LOOSE FROM THEIR SOIL BALLS, BEFORE OR AFTER BEING PLACED INTO THE PLANTING PIT, MAY BE REJECTED. CONTRACTOR SHALL PROMPTLY REMOVE REJECTED PLANT MATERIAL FROM SITE AND REPLACE WITH PLANT MATERIAL ORIGINALLY SCHEDULED. INSTALL AS ORIGINALLY SPECIFIED.
- 8) PLANTING SOIL BACKFILL SHALL BE COMPRISED OF THE FOLLOWING: 50% NATIVE SOIL THOROUGHLY INTERMIXED WITH 50% SPECIFIED TOPSOIL. TOPSOIL IS DEFINED AS FRIABLE LOAM SURFACE SOIL. SATISFACTORY TOPSOIL SHALL BE FREE OF SUBSOIL, LUMPS, STONES AND OTHER MATTER OVER 1" IN DIAMETER; WITHOUT WEEDS, ROOTS, OR OTHER OBJECTIONABLE MATERIAL. SEE #10 BELOW FOR DETAILED SPECIFICATIONS.

9) STRIPPING: UNLESS OTHERWISE RECOMMENDED IN SOIL REPORT, STRIP TOPSOIL, IF EXISTING, FROM AREA(S) TO BE GRADED OR PLANTED, TO WHATEVER DEPTHS ENCOUNTERED IN MANNER TO PREVENT INTERMINGLING WITH UNDERLYING SUBSOIL OR OTHER OBJECTIONABLE MATERIAL. STRIPPED TOPSOIL MAY BE RE-USED ON THIS PROJECT IF TESTING CONFIRMS IT IS IN COMPLIANCE WITH THE SPECIFICATIONS BELOW FOR LOAM TOPSOIL BORROW.

10) TOPSOIL (IMPORTED OR EXISTING REUSED ON SITE) SHALL CONFORM WITH TABLE BELOW, FOR LOAM TOPSOIL BORROW TO BE USED AS A TURF AND PLANT GROWING MEDIUM. COORDINATE FURNISHING AND PLACING WITH OTHER OPERATIONS.

	MINIMUM	MAXIMUM
MATERIAL PASSING 3/4 IN (19.0 MM)	100%	
MATERIAL PASSING NO.4 (4.75 MM)	≥90%	
CLAY	5%	30%
SILT	10%	60%
SAND & GRAVEL	15%	60%
ORGANIC MATTER	8%	15%
PH	6.1	7.5

COORDINATE FURNISHING AND PLACING WITH OTHER OPERATIONS.

- 1) UPON COMPLETION OF ROUGH GRADING, SUB-GRADE SHALL BE PREPARED. SURFACE SHALL BE LOOSENEED BY ROTOTILLING TO MINIMUM DEPTH OF 6", AND MATERIALS OVER 1" IN LARGEST DIMENSION SHALL BE REMOVED.
- 2) AFTER COMPLETION OF SUB-GRADE PREPARATION, PLACE MINIMUM 4" SETTLED MEASURE DEPTH OF TOPSOIL OVER ENTIRE AREA TO RECEIVE SOD UNLESS OTHERWISE NOTED. SMOOTH GRADE TO WITHIN 1-3/4" OF FINISH GRADE AFTER SETTLEMENT TO ELIMINATE IRREGULARITIES. FINISHED GRADE SHALL BE SET SUCH THAT NEW SOD SURFACE IS 1" BELOW FINISHED SIDEWALK OR BACK OF CURB EDGE.
- 3) INTERMIX TOPSOIL MIXTURE WITH LOOSENEED SUB-GRADE BY MEANS OF A ROTOTILLER.
- 4) "PLANTING SOIL" FOR ALL PLANT MATERIAL (EXCLUDING SOD), SHALL BE 50% NATIVE SOIL THOROUGHLY INTERMIXED WITH 50% SPECIFIED TOPSOIL.

14) ADD 3" OF SELECT PLANTING SOIL TO AREAS TO RECEIVE SOD. TILL PLANTING SOIL INTO EXISTING SOILS TO A DEPTH OF 6" PRIOR TO PLACEMENT OF PLANTING SOIL. REMOVE ALL STONES, STICKS AND OTHER DEBRIS MEASURING MORE THAN 1" FROM AREAS TO RECEIVE SOD.

12) SOIL AMENDMENTS TO BE SPREAD EVENLY OVER AREA AT A RATE OF 4 CY./1,000 SF AND MIXED THOROUGHLY INTO SOIL SURFACE. PROVIDE OWNER/ LANDSCAPE ARCHITECT PROPOSED PRODUCT PRIOR TO INSTALLATION; INSTALL PER MANUFACTURER'S RECOMMENDATIONS.

13) FABRIC WEED BARRIER - SHALL BE A 4 OZ. SPUNBONDED NON-WOVEN POLYESTER FABRIC, MIRAFI, INC. - MIRASCAPE LANDSCAPE FABRIC OR APPROVED EQUAL. PROVIDE SAMPLE TO OWNERS REPRESENTATIVE FOR APPROVAL. PERENNIAL AND GROUND COVER BEDS DO NOT RECEIVE WEED CONTROL FABRIC.

14) MULCH SHALL BE SHREDDED HARDWOOD AS NOTED ON PLAN AND/ OR DETAILS. **SUBMIT SAMPLE AND SUPPLIER FOR APPROVAL.**

15) ALL PLANTING BEDS TO BE EDGED WITH 5" TALL x 1/4" WIDE STEEL EDGER (BLACK) OR SPADE DUG EDGE. **SUBMIT SAMPLE FOR APPROVAL.**

16) THE TREES/SHRUBS AND SOD/SEED AREAS ARE TO BE MAINTAINED (WATERING, MOWING, FERTILIZING) UNTIL THE OWNER ACCEPTANCE AND THE WARRANTY PERIOD BEGINS.

17) ALL PLANT MATERIAL TO HAVE A ONE (1) -YEAR WARRANTY FROM FINAL DATE OF ACCEPTANCE.



LANDSCAPE ARCHITECTURE

+ ASSOCIATES

WWW.SASLANDARCH.COM

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ISSUE RECORD/REVISION

PURPOSE	DATE

**PERCH LAKE LANDING
IMPROVEMENTS**

CITY OF DULUTH, MINNESOTA

SHEET KEY

SHEET TITLE
NOTES

DATE 9/5/2025

DRAWN BY: AMA

CHECKED BY: LWS

PROJECT NUMBER
24170

SHEET NUMBER
N-1

GENERAL NOTES

GENERAL CIVIL NOTES

SHOP DRAWINGS FOR THE FOLLOWING ITEMS, BUT NOT LIMITED TO, SHALL BE SUBMITTED FOR REVIEW PRIOR TO CONSTRUCTION IF APPLICABLE:

- A. BITUMINOUS MIX DESIGN
B. CONCRETE MIX DESIGN
C. STORM SEWER COMPONENTS
D. WATER MAIN COMPONENTS
E. SANITARY SEWER COMPONENTS
F. CONCRETE STRUCTURES
G. STORM WATER TREATMENT MATERIALS
H. GEOSYNTHETIC PRODUCTS

DIMENSIONS AND QUANTITIES ARE NOT REVIEWED BY THE ENGINEER OF RECORD; THEREFORE, THEY SHALL BE VERIFIED BY THE CONTRACTOR. THE CONTRACTOR SHALL REVIEW AND STAMP DRAWINGS PRIOR TO REVIEW BY THE ENGINEER OF RECORD.

SHOP DRAWING SUBMITTALS PROCESSED BY THE ENGINEER ARE NOT CHANGE ORDERS. THE PURPOSE OF SHOP DRAWING SUBMITTALS BY THE CONTRACTOR IS TO DEMONSTRATE TO THE ENGINEER THAT THE CONTRACTOR UNDERSTANDS THE DESIGN CONCEPT BY INDICATING WHICH MATERIAL IS INTENDED TO BE FURNISHED AND INSTALLED AND BY DETAILING THE INTENDED FABRICATION AND INSTALLATION METHODS.

UTILITIES

THE SUBSURFACE UTILITY INFORMATION IN THIS PLAN IS TO UTILITY LEVEL "D" AS DEFINED BY C/ASCE 38-02. THE CONTRACTOR SHALL BE RESPONSIBLE FOR NOTIFYING "GSDC" AT (1-800-252-1166) TWO WORKING DAYS PRIOR TO ANY EXCAVATION OR CONSTRUCTION.

GEOTECHNICAL & MATERIAL TESTING

THE CONTRACTOR SHALL VERIFY RECOMMENDATIONS NOTED IN THE GEOTECHNICAL REPORT PRIOR TO INSTALLATION OF SITE IMPROVEMENT MATERIALS. THE CONTRACTOR SHALL IMMEDIATELY NOTIFY ENGINEER OF ANY DISCREPANCIES BETWEEN THE GEOTECHNICAL REPORT AND THE PLANS.

OWNER HAS OPTION TO COMPLETE QUALITY ASSURANCE OF MATERIAL TESTING. MATERIAL TESTING SHALL FOLLOW THE MnDOT SCHEDULE OF MATERIAL CONTROL UNLESS NOTED IN THE CONTRACT DOCUMENTS.

AMERICANS WITH DISABILITIES ACT (ADA)

ALL PEDESTRIAN FACILITIES ON THIS PROJECT MUST BE CONSTRUCTED ACCORDING TO PUBLIC RIGHTS-OF-WAY ACCESSIBILITY GUIDELINES (PROWAG) WHICH CAN BE FOUND AT: http://www.dot.state.mn.us/ada/pdf/PROWAG.pdf and MnDOT STANDARD PLANS 5-297.250 & 5-297.254

THE CONTRACTOR MUST DESIGNATE A RESPONSIBLE PERSON COMPETENT IN ALL ASPECTS OF PROWAG TO ASSESS PROPOSED SIDEWALK LAYOUT AT EACH SITE BEFORE WORK BEGINS. THE DESIGNATED PERSON MUST HAVE ATTENDED THE MnDOT ADA CONSTRUCTION CERTIFICATION COURSE AND RECEIVED A PASSING SCORE WITHIN THE PAST 3 YEARS.

IF THE PLAN OR SITE CONDITIONS DO NOT ALLOW ACCESSIBILITY STANDARDS TO BE MET, THE CONTRACTOR SHALL CONSULT WITH THE ENGINEER TO DETERMINE A RESOLUTION. THE ENGINEER SHALL RESPOND TO THE CONTRACTOR IN A TIMELY MANNER (UP TO 24 HOURS) WITH A SOLUTION ON HOW TO PROCEED.

IF THE CONTRACTOR CONSTRUCTS ANY PEDESTRIAN FACILITIES THAT ARE NOT PER PLAN, DO NOT MEET THE REQUIREMENTS OF PROWAG, OR DO NOT FOLLOW THE AGREED UPON RESOLUTION WITH THE ENGINEER, THE CONTRACTOR WILL BE RESPONSIBLE FOR CORRECTING THE DEFICIENT FACILITIES WITH NO COMPENSATION PAID FOR THE CORRECTIVE WORK.

SURVEY STAKES & BENCHMARKS

THE CONTRACTOR IS RESPONSIBLE FOR ALL STAKING OPERATIONS UNLESS OTHERWISE NOTED IN THE CONTRACT DOCUMENTS.

IF NOTED IN THE CONTRACT DOCUMENTS FOR THE OWNER TO PROVIDE STAKING OPERATIONS, THE CONTRACTOR SHALL GIVE THE ENGINEER AT LEAST 72 HOURS NOTICE IN WRITING BEFORE REQUIRING ANY SURVEYS OR CONSTRUCTION STAKES TO BE SET, OR BEFORE COMMENCING WORK ON ANY PORTION OF THE CONTRACT, OR AT ANY NEW PLACE, AS WELL AS AT ANY PLACE WHERE WORK HAS BEEN RELINQUISHED OR STOPPED FOR ANY CAUSE.

THE CONTRACTOR IS RESPONSIBLE FOR THE PRESERVATION OF ALL SUCH STAKES AND BENCH MARKS IN THEIR PROPER POSITIONS, AND IN CASE OF ANY OF THEM BEING LOST, DESTROYED, OR OBLITERATED AFTER ONCE HAVING BEEN GIVEN, THE CONTRACTOR SHALL AT ONCE NOTIFY THE OWNER IN WRITING AND ALL EXPENSE INCURRED BY THE OWNER IN REPLACING THE SAME MAY BE CHARGED AGAINST THE CONTRACTOR AND DEDUCTED FROM THE ESTIMATES.

ENGINEER'S AUTHORITY

THE ENGINEER SHALL GIVE ALL ORDERS AND DIRECTIONS CONTEMPLATED UNDER THIS CONTRACT AND SPECIFICATIONS RELATIVE TO THE EXECUTION OF THE WORK. THE ENGINEER SHALL DETERMINE THE AMOUNT, QUALITY, ACCEPTABILITY, AND FITNESS OF THE SEVERAL KINDS OF WORK AND MATERIALS WHICH ARE TO BE PAID FOR UNDER THIS CONTRACT AND SHALL DECIDE ALL QUESTIONS WHICH MAY ARISE IN RELATION TO SAID WORK AND THE CONSTRUCTION THEREOF.

THE ENGINEER'S ESTIMATES AND DECISIONS SHALL BE FINAL AND CONCLUSIVE, EXCEPT AS HEREIN OTHERWISE EXPRESSLY PROVIDED. IN CASE ANY QUESTIONS SHALL ARISE BETWEEN THE PARTIES HERETO RELATIVE TO SAID CONTRACT OR SPECIFICATIONS, THE DETERMINATION OF DECISION OF THE ENGINEER SHALL BE A CONDITION PRECEDENT TO THE RIGHT OF THE CONTRACTOR TO RECEIVE ANY MONEY OR PAYMENT FOR WORK UNDER THIS CONTRACT AFFECTED IN ANY MANNER OR TO ANY EXTENT BY SUCH QUESTION.

THE CONTRACTOR IS TO FURNISH THE ENGINEER OR SUPERVISOR WITH ALL REQUIRED ASSISTANCE TO FACILITATE THOROUGH INSPECTION, OR CULLING OVER REMOVAL OF DOUBTFUL OR DEFECTIVE MATERIAL, OR FOR THE THOROUGH EXAMINATION INTO ANY OF THE WORK PERFORMED, OR FOR ANY OTHER PURPOSE REQUIRED IN THE DISCHARGE OF THEIR DUTIES.

THE ENGINEER WILL NOT BE RESPONSIBLE FOR THE ACTS OF OMISSIONS OF THE CONTRACTOR, OR ANY SUBCONTRACTORS, OR ANY OF THE THEIR SUPERINTENDENCE, AGENTS, OR EMPLOYEES.

CHANGES IN WORK

NO CHANGES IN THE WORK COVERED BY THE APPROVED CONTRACT DOCUMENTS SHALL BE MADE WITHOUT HAVING PRIOR WRITTEN APPROVAL BY THE ENGINEER.

SYMBOLS

Table with 3 columns: PROPOSED, EXISTING, DESCRIPTION. Lists various symbols for site property, easement, lot, control/benchmark, RLS monument, T-bar, chiseled X, calculated monument, rebar/nail, centerline, bit pavement, pavers, conc pavement, gravel, riprap, C&G (spill curb), striping, truncated domes, flag pole, mail box, post, bollard, parking meter, sign, chain link fence, barbed wire fence, miscellaneous fence, guard rail, vegetation, tree, wetland, building, retaining wall, doors, overhang, stoop/footing, down drain, major contour line, minor contour line, top of slope, toe of slope, slope catch line (fill), slope catch line (cut), flowline, overhead utility line, utility pole, guy wire, valve, utility box, meter, clean-out, storm pipe, drainage manhole, CB - square grate, CB - round grate, apron/end section, forcemain pipe, sanitary pipe, sanitary manhole, water line, water manhole, hydrant, well, gas line, gas manhole, regulator, electrical line, electrical manhole, light pole, traffic signal, electrical transformer, fiber optic, telecommunication, cable, communication manhole.

ABBREVIATIONS

Table with 2 columns: ACRONYM, DESCRIPTION. Lists abbreviations for ARCH, AP, BIT, BF, BM, BMP, DI, C&G, CB, CL & GR, CMP, CONC, COR, CP, CR, CSP, DMH, E, EB, EF, EG, EL, FF, FFE, FG, FL, FL IN, FL OUT, GB, HDPE, HP, INV, LP, LT, MECH, MH, N, NB, OS, PVC, %, R, RCP, RP, RT, R/W, SB, SDR, SH, SMH, STRUCT, SWPPP, TC, T.E., 1:3, VCP, WB.

GOVERNING SPECIFICATIONS

THE 2020 EDITION OF THE MINNESOTA DEPARTMENT OF TRANSPORTATION 'STANDARD SPECIFICATIONS FOR CONSTRUCTION' SHALL GOVERN. AVAILABLE AT: http://www.dot.state.mn.us/pre-letting/spec/

UTILITY DETAIL LEVEL

THE SUBSURFACE UTILITY INFORMATION IN THIS PLAN IS UTILITY LEVEL D. THIS QUALITY LEVEL WAS DETERMINED ACCORDING TO THE GUIDELINES OF C/ASCE 38-02, ENTITLED "STANDARD GUIDELINES FOR THE COLLECTION AND DEPICTION OF EXISTING SUBSURFACE UTILITY DATA".

WARNING: LOCATION OF UNDERGROUND UTILITIES TO BE VERIFIED BY CONTRACTOR. CALL BEFORE DIGGING. Gopher State One Call 1-800-252-1166 REQUIRED BY LAW.

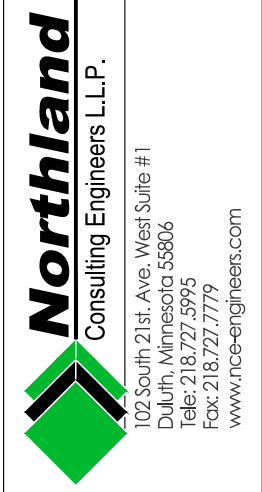
BASIS OF BEARING/CONTROL

CONTROL BASED ON THE ST. LOUIS COUNTY TRANSVERSE MERCATOR COORDINATE SYSTEM OF 1996

Table with 4 columns: POINT NAME, NORTHING, EASTING, ELEVATION. Row 1: TOP OF PK ON GUARD RAIL POST, 3296446.20, 4805820.89, 608.91

SHEET INDEX

Table with 2 columns: SHEET NUMBER, SHEET NAME. Rows: C1.0 TITLE, C2.0 TOPOGRAPHIC & BOUNDARY SURVEY, C3.0 DETAILS, C4.0 EXISTING CONDITIONS & REMOVALS, C5.0 SITE PLAN, C6.0 GRADING PLAN, C7.0 EROSION CONTROL PLAN, C8.0 EROSION CONTROL NOTES



PERCH LAKE LANDING PARKING AND SITE IMPROVEMENTS 12100 HIGHWAY 23 DULUTH, MN 55808

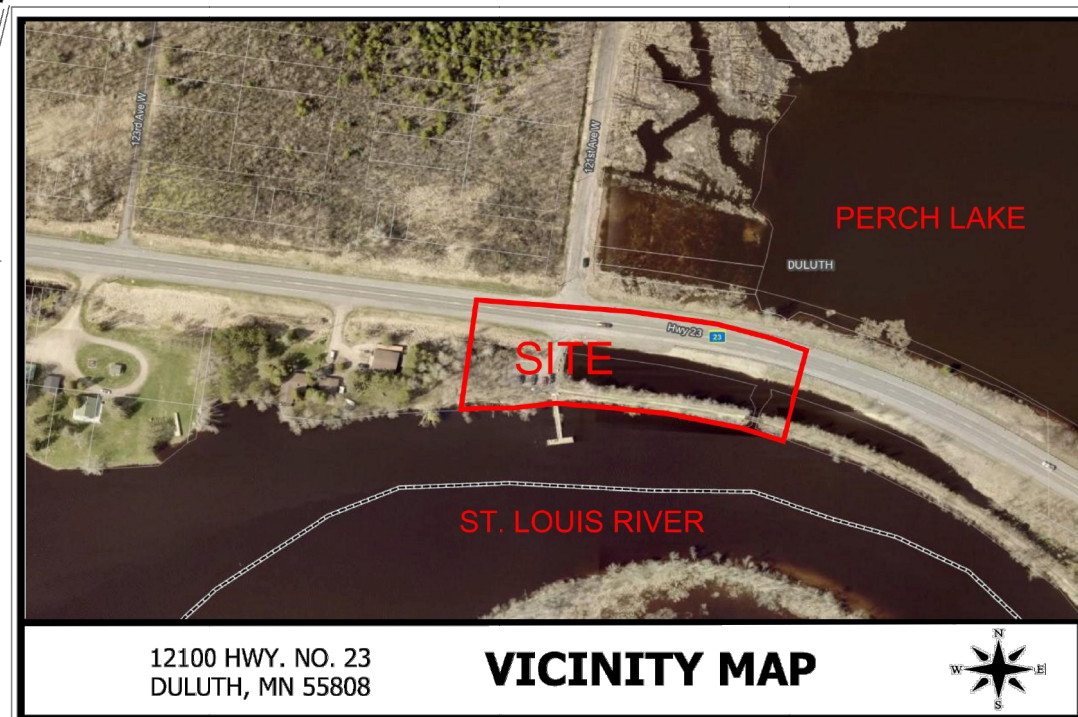
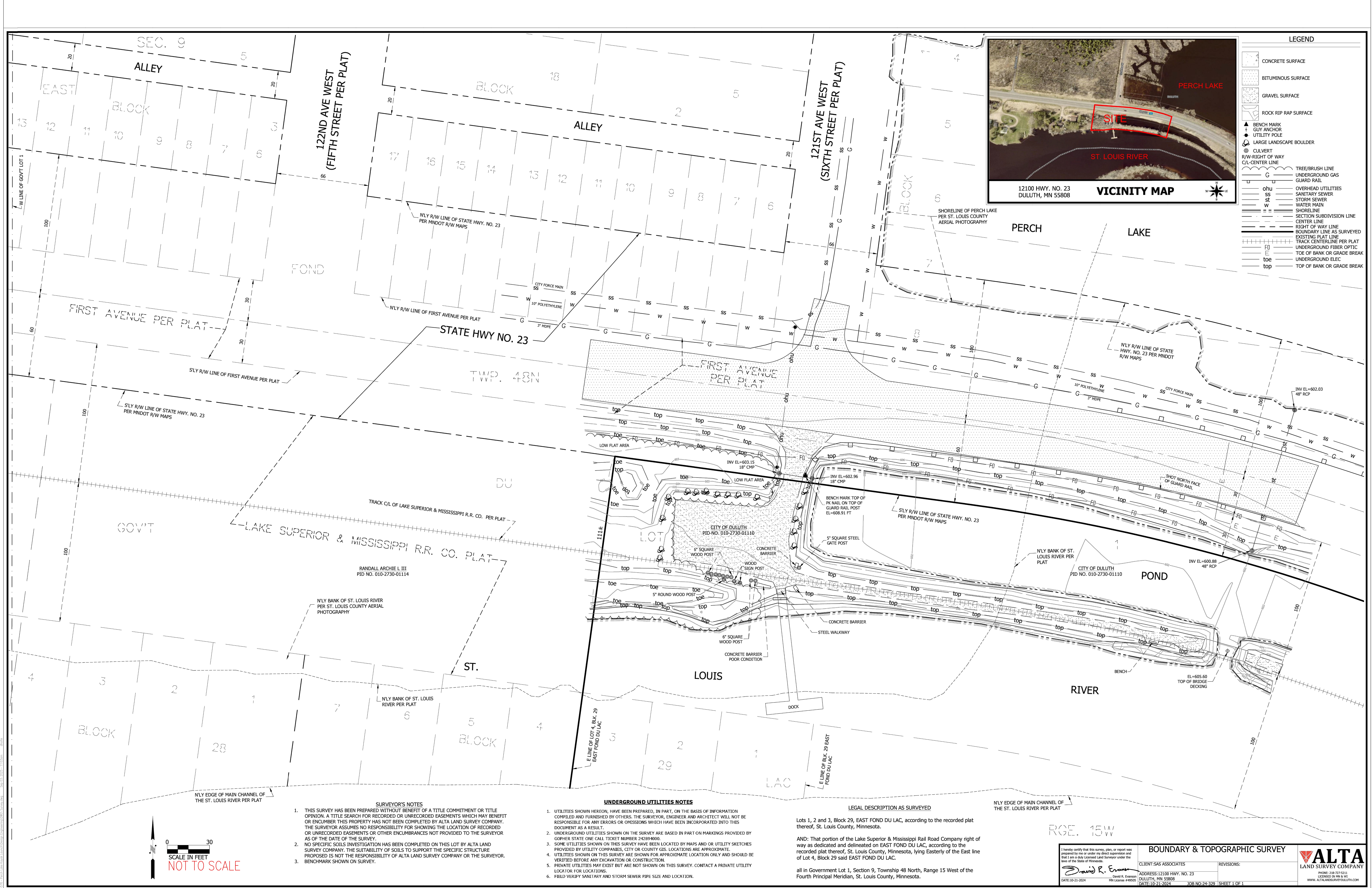
I hereby certify that this plan, specification, or report was prepared by me or under my direct supervision and that I am a duly licensed Professional Engineer under the laws of the State of Minnesota. Engineer: Adam Znak Lic. No. 54549

REVISIONS:

PROJECT: 24-576 CHECKED: TTP DRAWN: DRH DATE: 08/27/25

Sheet Title TITLE

Sheet Number C1.0



LEGEND

- CONCRETE SURFACE
- BITUMINOUS SURFACE
- GRAVEL SURFACE
- ROCK RIP RAP SURFACE
- BENCH MARK
- GUY ANCHOR
- UTILITY POLE
- LARGE LANDSCAPE BOULDER
- CULVERT
- R/W-RIGHT OF WAY
- C/L-CENTER LINE
- TREE/BRUSH LINE
- UNDERGROUND GAS
- GUARD RAIL
- OVERHEAD UTILITIES
- SANITARY SEWER
- STORM SEWER
- WATER MAIN
- SHORELINE
- SECTION SUBDIVISION LINE
- CENTER LINE
- RIGHT OF WAY LINE
- BOUNDARY LINE AS SURVEYED
- EXISTING PLAT LINE
- TRACK CENTERLINE PER PLAT
- UNDERGROUND FIBER OPTIC
- TOE OF BANK OR GRADE BREAK
- UNDERGROUND ELEC
- TOP OF BANK OR GRADE BREAK



SURVEYOR'S NOTES

- THIS SURVEY HAS BEEN PREPARED WITHOUT BENEFIT OF A TITLE COMMITMENT OR TITLE OPINION. A TITLE SEARCH FOR RECORDED OR UNRECORDED EASEMENTS WHICH MAY BENEFIT OR ENCUMBER THIS PROPERTY HAS NOT BEEN COMPLETED BY ALTA LAND SURVEY COMPANY. THE SURVEYOR ASSUMES NO RESPONSIBILITY FOR SHOWING THE LOCATION OF RECORDED OR UNRECORDED EASEMENTS OR OTHER ENCUMBRANCES NOT PROVIDED TO THE SURVEYOR AS OF THE DATE OF THE SURVEY.
- NO SPECIFIC SOILS INVESTIGATION HAS BEEN COMPLETED ON THIS LOT BY ALTA LAND SURVEY COMPANY. THE SUITABILITY OF SOILS TO SUPPORT THE SPECIFIC STRUCTURE PROPOSED IS NOT THE RESPONSIBILITY OF ALTA LAND SURVEY COMPANY OR THE SURVEYOR.
- BENCHMARK SHOWN ON SURVEY.

UNDERGROUND UTILITIES NOTES

- UTILITIES SHOWN HEREON, HAVE BEEN PREPARED, IN PART, ON THE BASIS OF INFORMATION COMPILED AND FURNISHED BY OTHERS. THE SURVEYOR, ENGINEER AND ARCHITECT WILL NOT BE RESPONSIBLE FOR ANY ERRORS OR OMISSIONS WHICH HAVE BEEN INCORPORATED INTO THIS DOCUMENT AS A RESULT.
- UNDERGROUND UTILITIES SHOWN ON THE SURVEY ARE BASED IN PART ON MARKINGS PROVIDED BY GOPHER STATE ONE CALL TICKET NUMBER 242894000.
- SOME UTILITIES SHOWN ON THIS SURVEY HAVE BEEN LOCATED BY MAPS AND/OR UTILITY SKETCHES PROVIDED BY UTILITY COMPANIES, CITY OR COUNTY GIS. LOCATIONS ARE APPROXIMATE.
- UTILITIES SHOWN ON THIS SURVEY ARE SHOWN FOR APPROXIMATE LOCATION ONLY AND SHOULD BE VERIFIED BEFORE ANY EXCAVATION OR CONSTRUCTION.
- PRIVATE UTILITIES MAY EXIST BUT ARE NOT SHOWN ON THIS SURVEY. CONTACT A PRIVATE UTILITY LOCATOR FOR LOCATIONS.
- FIELD VERIFY SANITARY AND STORM SEWER PIPE SIZE AND LOCATION.

LEGAL DESCRIPTION AS SURVEYED

Lots 1, 2 and 3, Block 29, EAST FOND DU LAC, according to the recorded plat thereof, St. Louis County, Minnesota.

AND: That portion of the Lake Superior & Mississippi Rail Road Company right of way as dedicated and delineated on EAST FOND DU LAC, according to the recorded plat thereof, St. Louis County, Minnesota, lying Easterly of the East line of Lot 4, Block 29 said EAST FOND DU LAC.

all in Government Lot 1, Section 9, Township 48 North, Range 15 West of the Fourth Principal Meridian, St. Louis County, Minnesota.

RGE. 15W

BOUNDARY & TOPOGRAPHIC SURVEY

David R. Evans
DATE: 10-21-2024

CLIENT: SAS ASSOCIATES
ADDRESS: 12100 HWY. NO. 23
DULUTH, MN 55808
DATE: 10-21-2024

REVISIONS:

PROJECT: 24-576
CHECKED: TTP
DRAWN: DRH
DATE: 08/27/25

ALTA
LAND SURVEY COMPANY
PHONE: 218-727-9211
LICENSED IN MN & WI
WWW.ALTA-LANDSURVEY.COM

Northland
Consulting Engineers L.L.P.
Duluth, MN 55812, 218.277.9779
FAX: 218.277.9795
WWW.NORTHLANDENGINEERS.COM

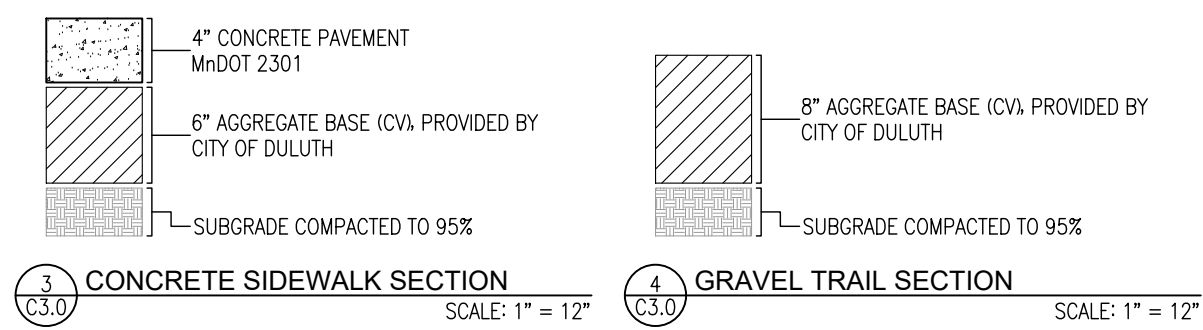
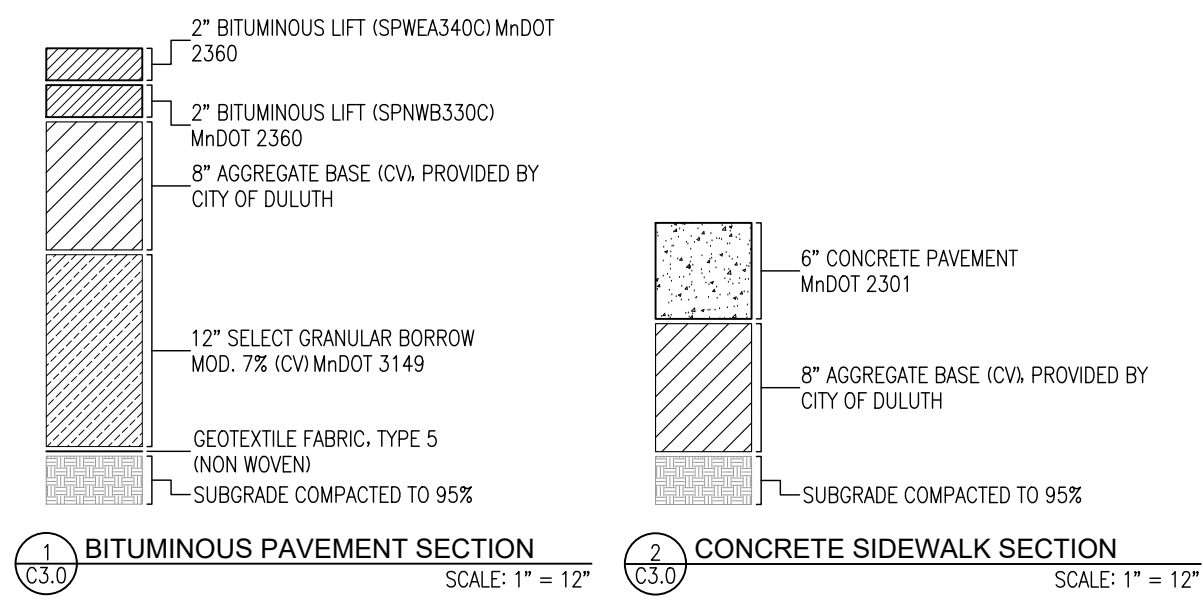
PERCH LAKE LANDING
PARKING AND SITE IMPROVEMENTS

12100 HIGHWAY 23 DULUTH, MN 55808

REVISIONS:

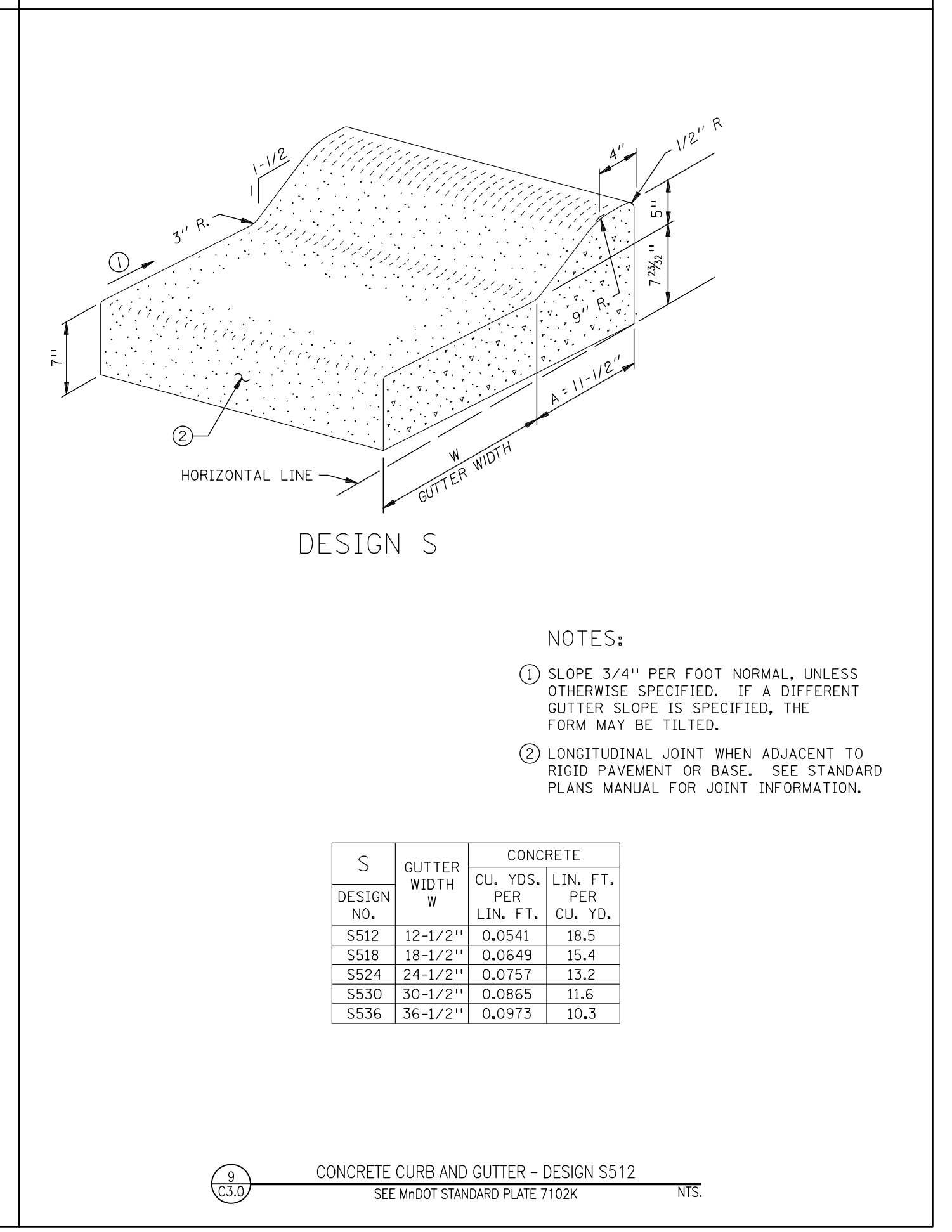
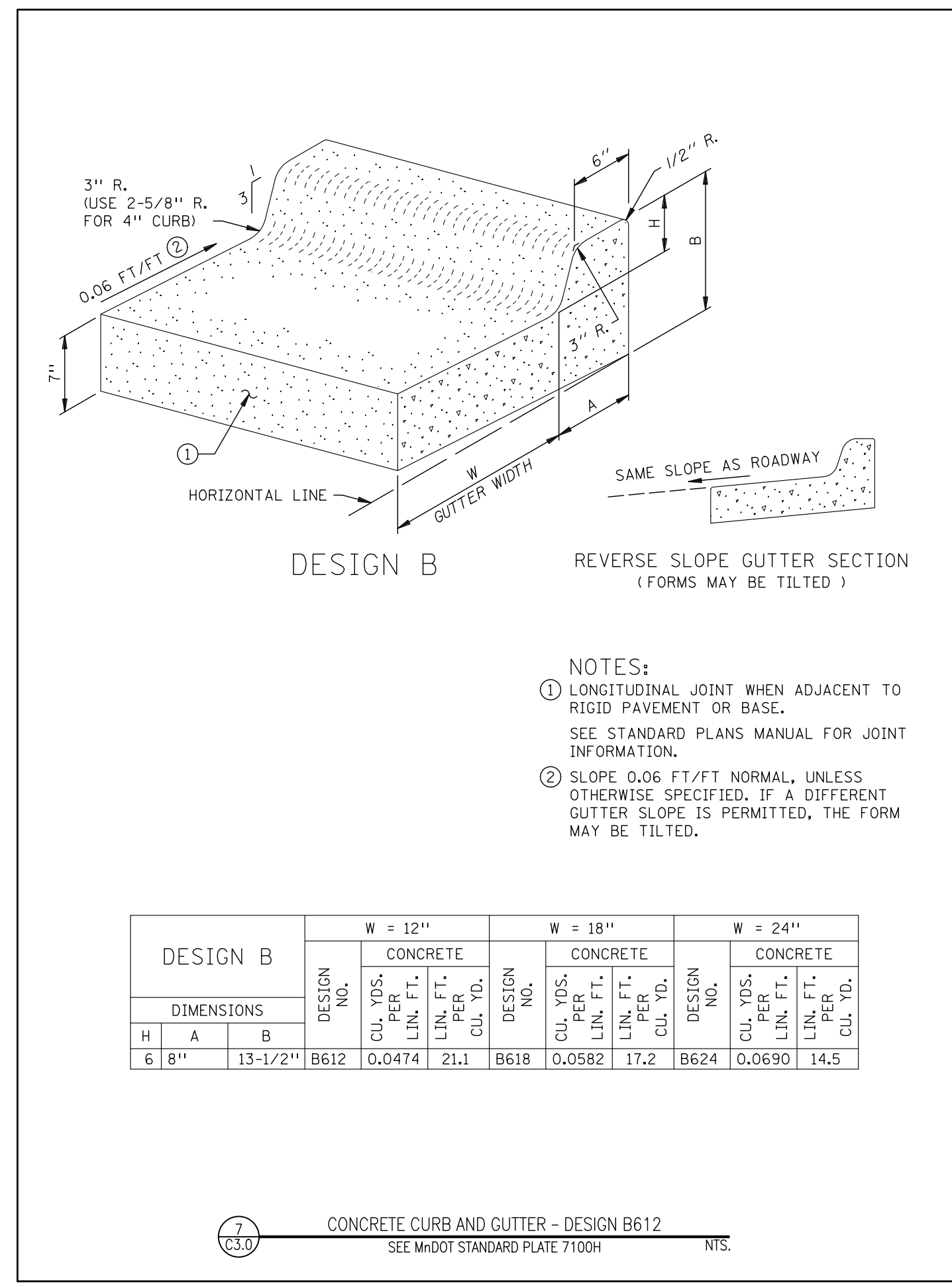
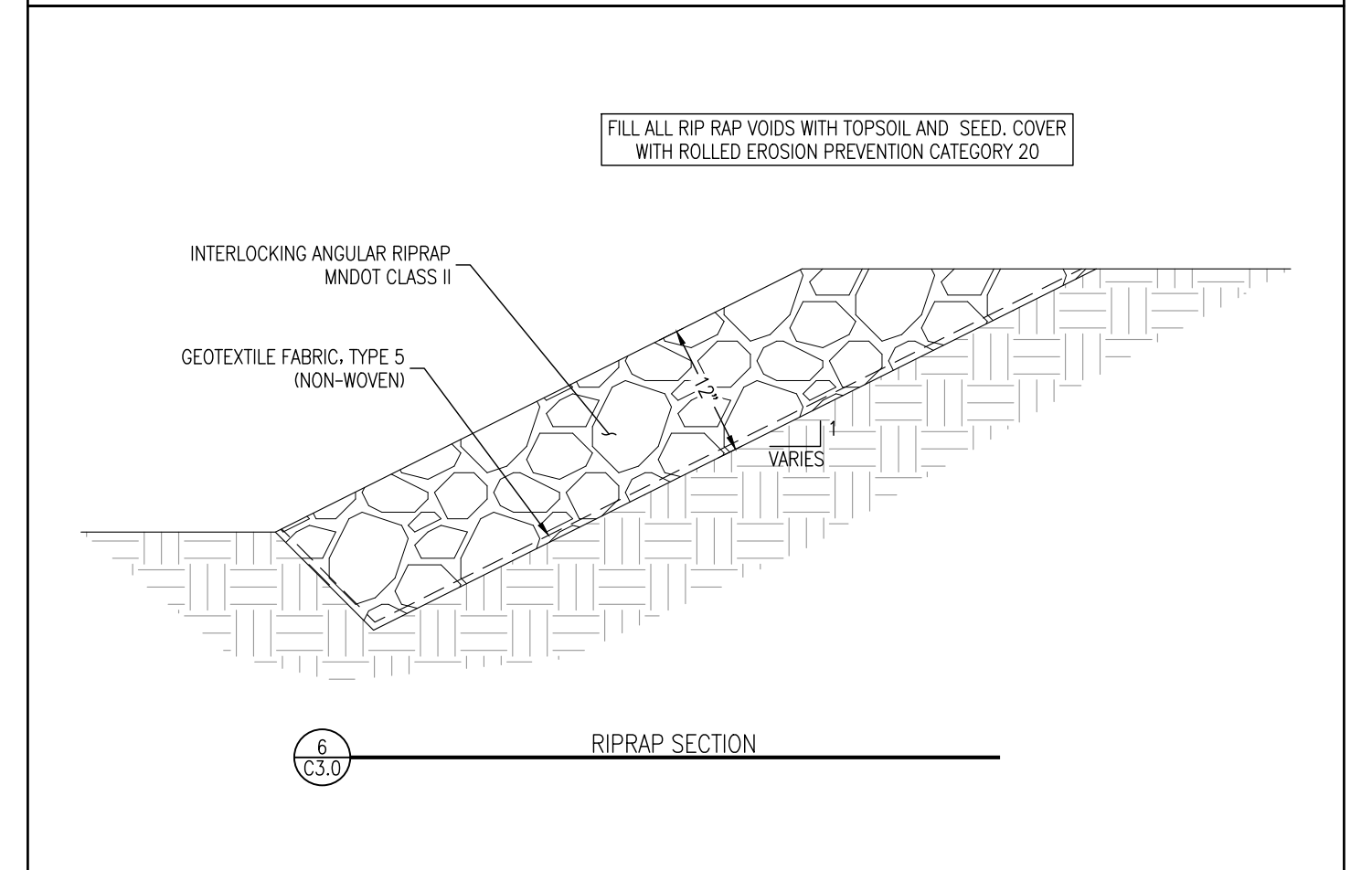
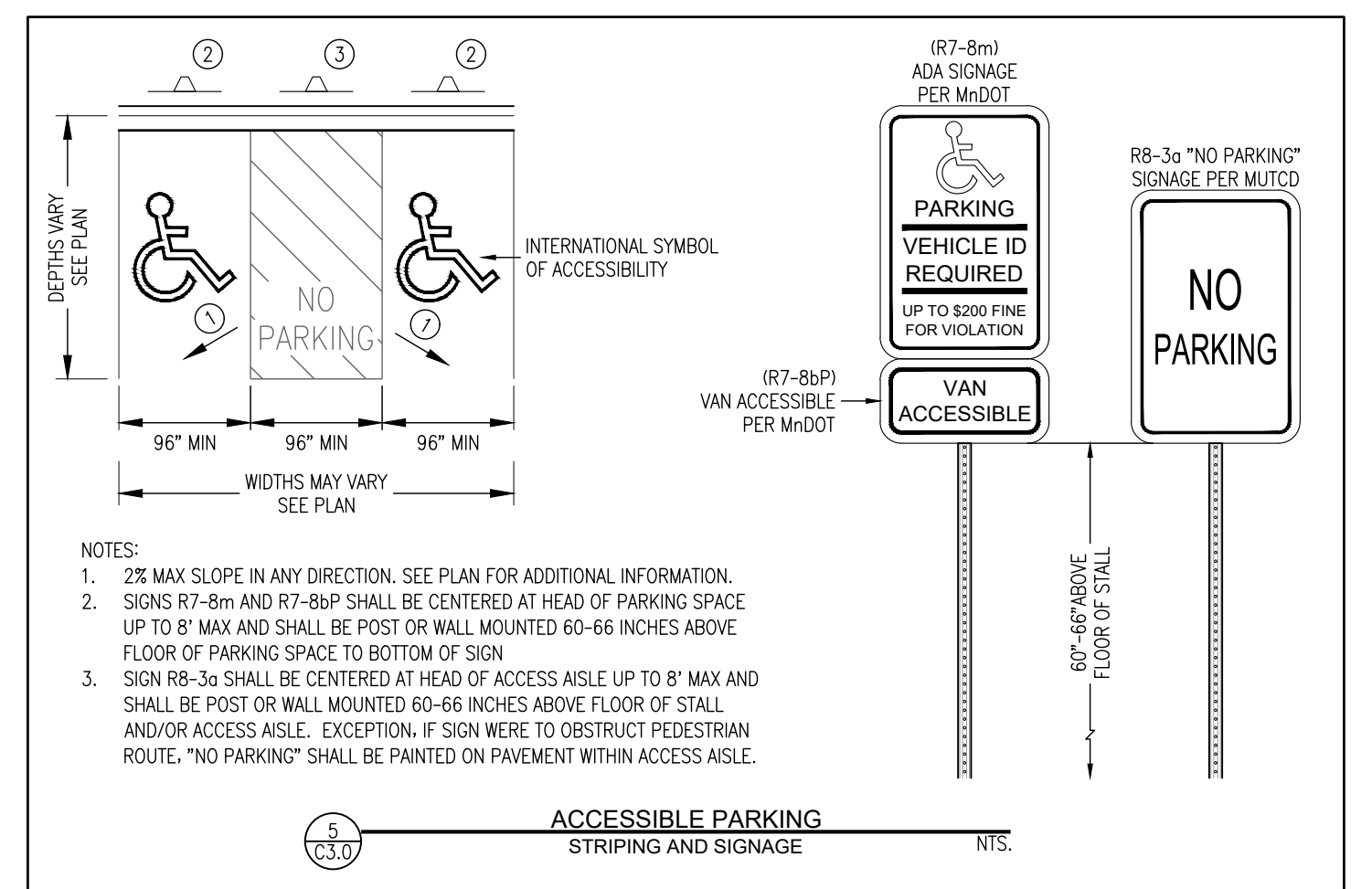
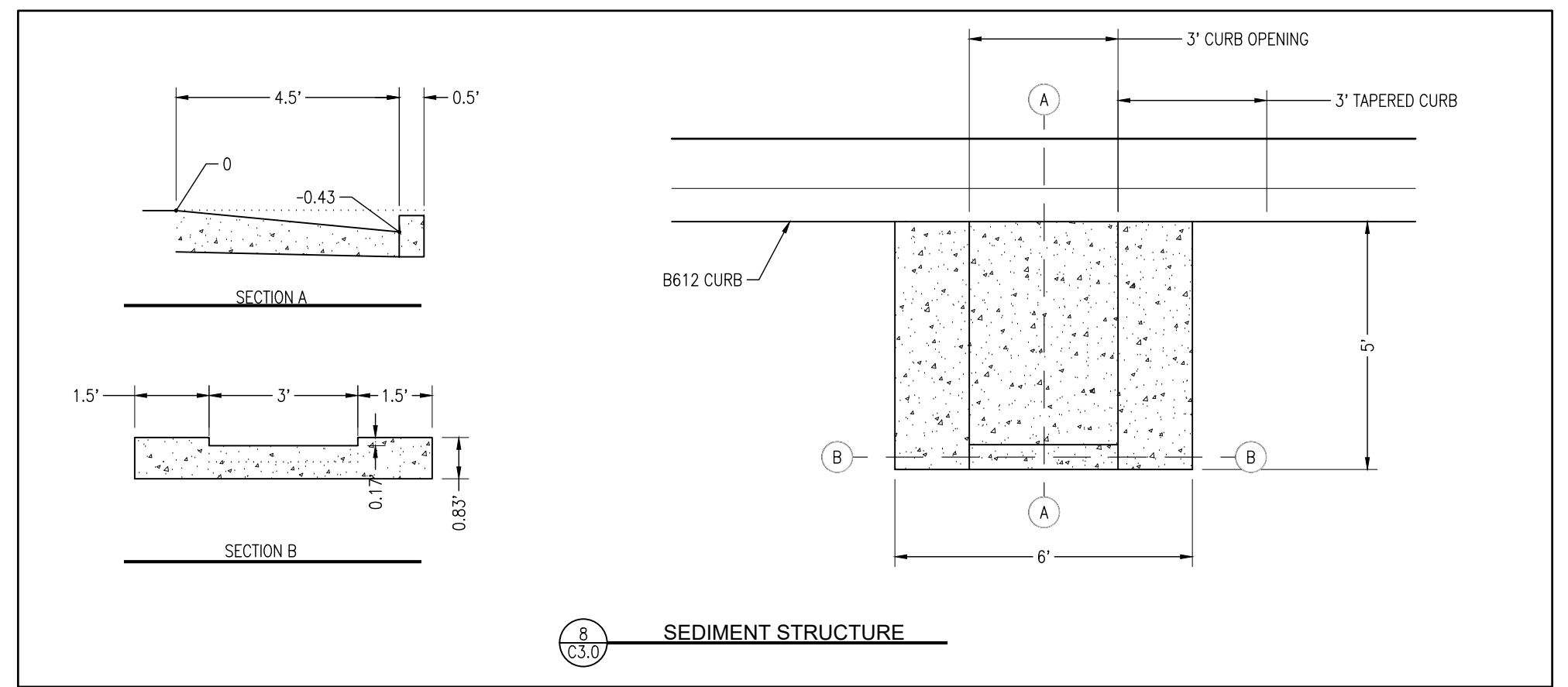
Sheet Title: TOPOGRAPHIC & BOUNDARY SURVEY

Sheet Number: C2.0



*SEE SHEET D-1 FOR PAVILION CONCRETE SLAB (5/D-1) AND CONCRETE WALK AT VAULT TOILET (7/D-1) DETAILS.

NOTE: CONTRACTOR RESPONSIBLE FOR TRUCKING CITY PROVIDED CV FROM PARKS MAINTENANCE YARD @ 110 N. 42ND AVE W.



7 CONCRETE CURB AND GUTTER - DESIGN B612
C3.0 SEE MNDOT STANDARD PLATE 7100H NTS.

9 CONCRETE CURB AND GUTTER - DESIGN S512
C3.0 SEE MNDOT STANDARD PLATE 7102K NTS.

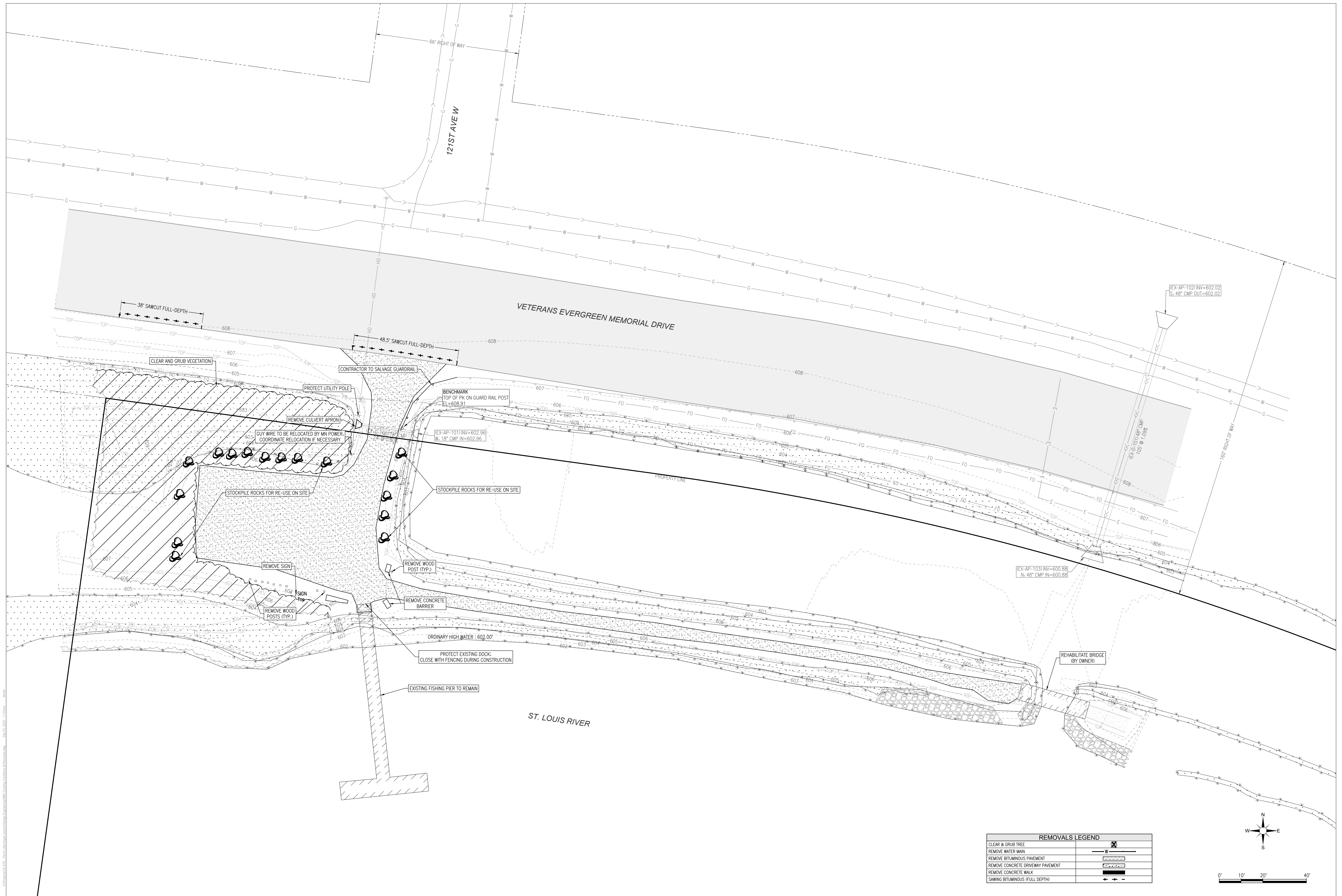
I hereby certify that this plan, specification, or report was prepared by me or under my direct supervision and that I am a duly licensed Professional Engineer under the laws of the State of Minnesota.
Adam Zmek
Lic. No. 55456
Engineer-Adam Zmek

REVISIONS:

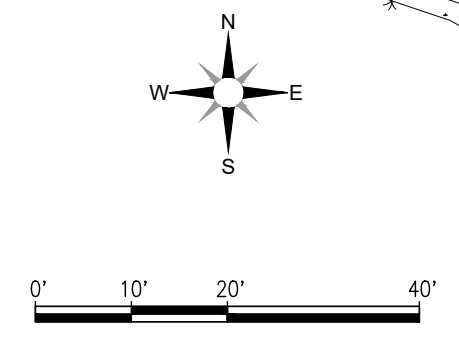
PROJECT: 24-576
CHECKED: TTP
DRAWN: DRH
DATE: 08/27/25

Sheet Title
DETAILS

Sheet Number
C3.0



REMOVALS LEGEND	
CLEAR & GRUB TREE	
REMOVE WATER MAIN	
REMOVE BITUMINOUS PAVEMENT	
REMOVE CONCRETE DRIVEWAY PAVEMENT	
REMOVE CONCRETE WALK	
SAWING BITUMINOUS (FULL DEPTH)	



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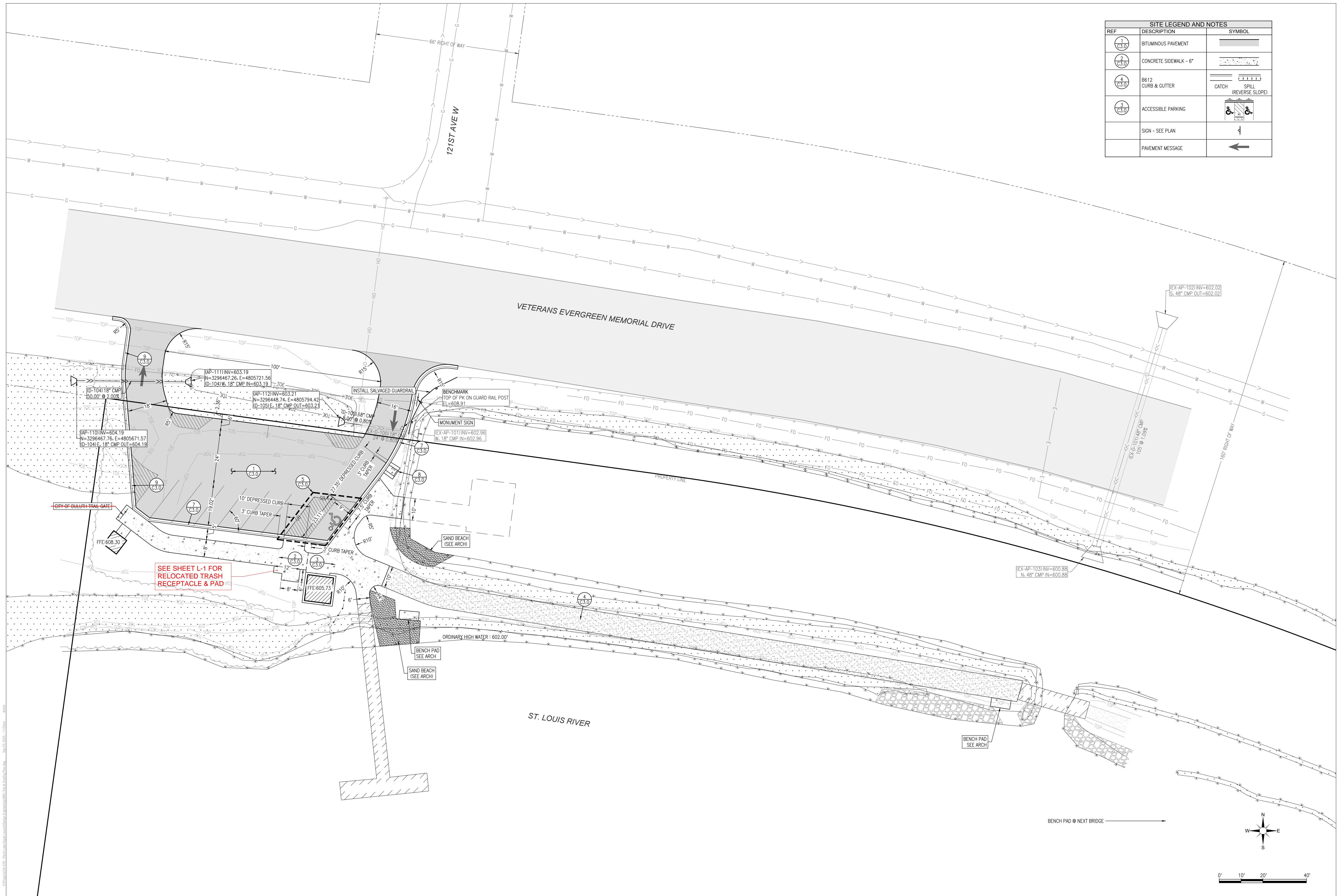
 Engineer-Adam Znak
 Lic. No. 54569

REVISIONS:

PROJECT: 24-576
 CHECKED: TTP
 DRAWN: DRH
 DATE: 08/27/25

Sheet Title:
EXISTING CONDITIONS & REMOVALS

Sheet Number:
C4.0



SITE LEGEND AND NOTES		
REF	DESCRIPTION	SYMBOL
1 C.S.O.	BITUMINOUS PAVEMENT	[Symbol]
2 C.S.O.	CONCRETE SIDEWALK - 6"	[Symbol]
4 C.S.O.	B612 CURB & GUTTER	[Symbol]
3 C.S.O.	ACCESSIBLE PARKING	[Symbol]
	SIGN - SEE PLAN	[Symbol]
	PAVEMENT MESSAGE	[Symbol]



PERCH LAKE LANDING
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 12100 HIGHWAY 23 DULUTH, MN 55808

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 Engineer-Adam Zmek
 Lic. No. 54569

REVISIONS:

PROJECT: 24-576
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 DATE: 08/27/25

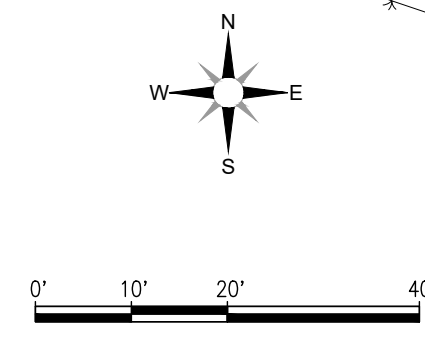
Sheet Title
SITE PLAN

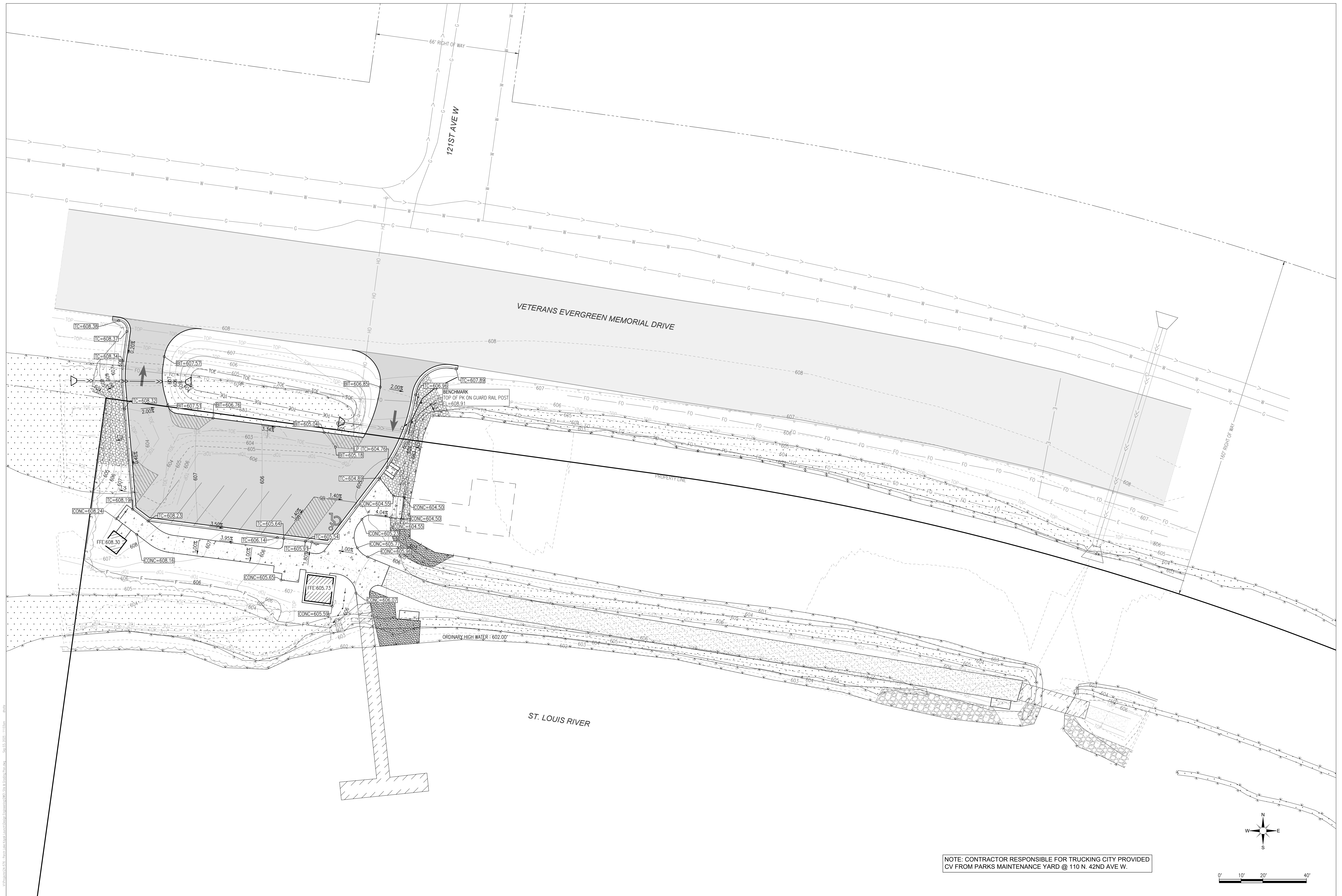
Sheet Number
C5.0

SEE SHEET L-1 FOR RELOCATED TRASH RECEPTACLE & PAD

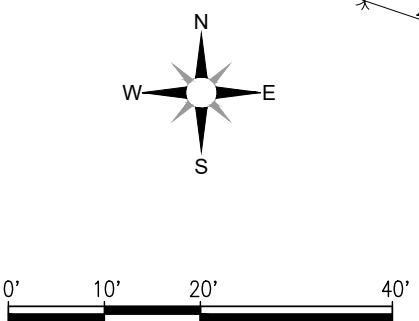
CITY OF DULUTH TRAIL GATE

BENCH PAD @ NEXT BRIDGE





NOTE: CONTRACTOR RESPONSIBLE FOR TRUCKING CITY PROVIDED
CV FROM PARKS MAINTENANCE YARD @ 110 N. 42ND AVE W.



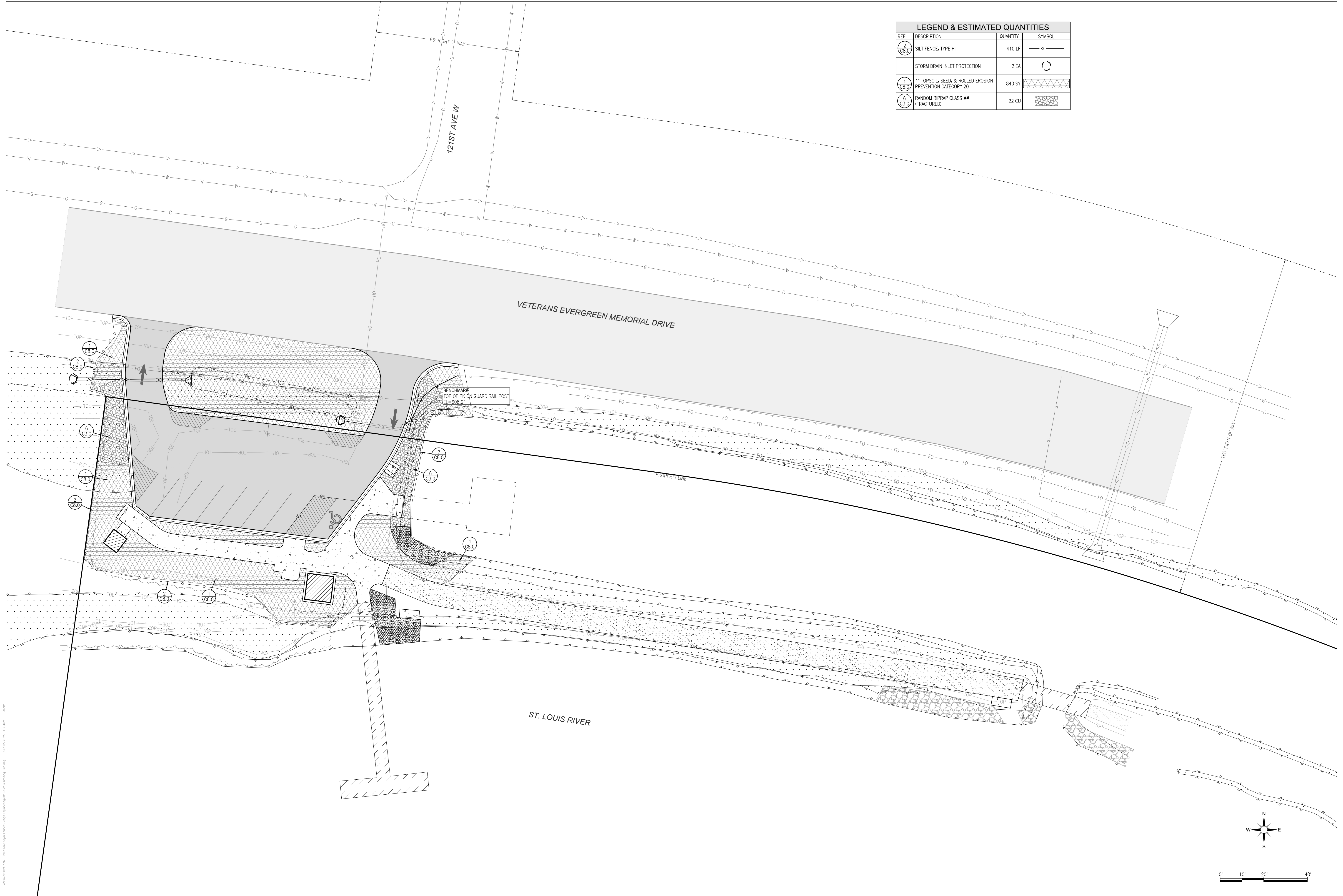
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Adam Znak
Engineer-Adam Znak
Lic. No. 54569

REVISIONS:

PROJECT: 24-576
CHECKED: TTP
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DATE: 08/27/25

Sheet Title
GRADING PLAN

Sheet Number
C6.0



LEGEND & ESTIMATED QUANTITIES			
REF	DESCRIPTION	QUANTITY	SYMBOL
2 C8.0	SILT FENCE, TYPE HI	410 LF	○ —
	STORM DRAIN INLET PROTECTION	2 EA	⊗
1 C8.0	4" TOPSOIL, SEED, & ROLLED EROSION PREVENTION CATEGORY 20	840 SY	▨
6 C8.0	RANDOM RIPRAP CLASS ## (FRACTURED)	22 CU	⊞



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Adam Znak
Engineer-Adam Znak Lic. No. 54569

REVISIONS:

PROJECT: 24-576
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DRAWN: DRH
DATE: 08/27/25

Sheet Title:
EROSION CONTROL PLAN

Sheet Number:
C7.0

EROSION PREVENTION PRACTICES

CONTRACTOR SHALL MINIMIZE THE NEED FOR DISTURBANCE OF PORTIONS OF THE PROJECT WITH STEEP SLOPES. WHEN STEEP SLOPES MUST BE DISTURBED, CONTRACTOR MUST USE TECHNIQUES SUCH AS PHASING AND STABILIZATION PRACTICES DESIGNED FOR STEEP SLOPES.

CONTRACTOR SHALL STABILIZE ALL EXPOSED SOIL AREAS, INCLUDING STOCKPILES. STABILIZATION MUST BE INITIATED IMMEDIATELY TO LIMIT SOIL EROSION WHEN CONSTRUCTION ACTIVITY HAS PERMANENTLY OR TEMPORARILY CEASED ON ANY PORTION OF THE SITE AND WILL NOT RESUME FOR A PERIOD EXCEEDING 14 CALENDAR DAYS. STABILIZATION MUST BE COMPLETED NO LATER THAN 14 CALENDAR DAYS AFTER THE CONSTRUCTION ACTIVITY HAS CEASED.

FOR PUBLIC WATERS THAT THE MNDNR HAS PROMULGATED "WORK IN WATER RESTRICTIONS" DURING SPECIFIED FISH SPawning TIME FRAMES, CONTRACTOR MUST COMPLETE STABILIZATION OF ALL EXPOSED SOIL AREAS WITHIN 200 FEET OF THE WATER'S EDGE, AND THAT DRAIN TO THESE WATERS, WITHIN 24 HOURS DURING THE RESTRICTION PERIOD.

CONTRACTOR MUST STABILIZE THE NORMAL WETTED PERIMETER OF THE LAST 200 LINEAR FEET OF TEMPORARY OR PERMANENT DRAINAGE DITCHES OR SWALES THAT DRAIN WATER FROM THE SITE WITHIN 24 HOURS AFTER CONNECTING TO A SURFACE WATER OR PROPERTY EDGE. CONTRACTOR MUST COMPLETE STABILIZATION OF REMAINING PORTIONS OF TEMPORARY OR PERMANENT DITCHES OR SWALES WITHIN 14 CALENDAR DAYS AFTER CONNECTING TO A SURFACE WATER OR PROPERTY EDGE AND CONSTRUCTION IN THAT PORTION OF THE DITCH TEMPORARILY OR PERMANENTLY CEASES.

TEMPORARY OR PERMANENT DITCHES OR SWALES BEING USED AS SEDIMENT CONTAINMENT SYSTEM DURING CONSTRUCTION DO NOT NEED TO BE STABILIZED. CONTRACTOR MUST STABILIZE THESE AREAS WITHIN 24 HOURS AFTER THEIR USE AS A SEDIMENT CONTAINMENT SYSTEM CEASES.

CONTRACTOR MUST NOT USE MULCH, HYDROMULCH, TACKIFIER, POLYACRYLAMIDE OR SIMILAR EROSION PREVENTION PRACTICES WITHIN ANY PORTION OF THE NORMAL WETTED PERIMETER OF A TEMPORARY OR PERMANENT DRAINAGE DITCH OR SMALL SECTION WITH A CONTINUOUS SLOPE OF GREATER THAN 2 PERCENT.

CONTRACTOR MUST PROVIDE TEMPORARY OR PERMANENT ENERGY DISSIPATION AT ALL PIPE OUTLETS WITHIN 24 HOURS AFTER CONNECTION TO A SURFACE WATER OR PERMANENT STORMWATER TREATMENT SYSTEM.

CONTRACTOR MUST NOT DISTURB MORE LAND (I.E., PHASING) THAN CAN BE EFFECTIVELY INSPECTED AND MAINTAINED.

SEDIMENT CONTROL PRACTICES

CONTRACTOR MUST ESTABLISH SEDIMENT CONTROL BMPs ON ALL DOWNGRADIENT PERIMETERS OF THE SITE AND DOWNGRADIENT AREAS OF THE SITE THAT DRAIN TO ANY SURFACE WATER, INCLUDING CURB AND GUTTER SYSTEMS. CONTRACTOR MUST LOCATE SEDIMENT CONTROL PRACTICES UPGRADIENT OF ANY BUFFER ZONES. CONTRACTOR MUST INSTALL SEDIMENT CONTROL PRACTICES BEFORE ANY UPGRADIENT LAND-DISTURBING ACTIVITIES BEGIN AND MUST KEEP THE SEDIMENT CONTROL PRACTICES IN PLACE UNTIL THEY ESTABLISH PERMANENT COVER.

IF DOWNGRADIENT SEDIMENT CONTROLS ARE OVERLOADED, BASED ON FREQUENT FAILURE OR EXCESSIVE MAINTENANCE REQUIREMENTS, CONTRACTOR MUST INSTALL ADDITIONAL UPGRADIENT SEDIMENT CONTROL PRACTICES OR REDUNDANT BMPs TO ELIMINATE THE OVERLOADING AND AMEND THE SWPPP TO IDENTIFY THESE ADDITIONAL PRACTICES AS REQUIRED IN ITEM 6.3.

CONTRACTOR MUST RE-INSTALL ALL SEDIMENT CONTROL PRACTICES ADJUSTED OR REMOVED TO ACCOMMODATE SHORT-TERM ACTIVITIES SUCH AS CLEARING OR GRUBBING, OR PASSAGE OF VEHICLES. IMMEDIATELY AFTER THE SHORT-TERM ACTIVITY IS COMPLETED, CONTRACTOR MUST RE-INSTALL SEDIMENT CONTROL PRACTICES BEFORE THE NEXT PRECIPITATION EVENT EVEN IF THE SHORT-TERM ACTIVITY IS NOT COMPLETE.

CONTRACTOR MUST PROTECT ALL STORM DRAIN INLETS USING APPROPRIATE BMPs DURING CONSTRUCTION UNTIL THEY ESTABLISH PERMANENT COVER ON ALL AREAS WITH POTENTIAL FOR DISCHARGING TO THE INLET.

CONTRACTOR MAY REMOVE INLET PROTECTION FOR A PARTICULAR INLET IF A SPECIFIC SAFETY CONCERN IS IDENTIFIED.

CONTRACTOR MUST PROVIDE SILT FENCE OR OTHER EFFECTIVE SEDIMENT CONTROLS AT THE BASE OF STOCKPILES ON THE DOWNGRADIENT PERIMETER.

CONTRACTOR MUST LOCATE STOCKPILES OUTSIDE OF NATURAL BUFFERS OR SURFACE WATERS, INCLUDING STORMWATER CONVEYANCES SUCH AS CURB AND GUTTER SYSTEMS UNLESS THERE IS A BYPASS IN PLACE FOR THE STORMWATER.

CONTRACTOR MUST INSTALL A VEHICLE TRACKING BMP TO MINIMIZE THE TRACK OUT OF SEDIMENT FROM THE CONSTRUCTION SITE OR ONTO PAVED ROADS WITHIN THE SITE.

CONTRACTOR MUST USE STREET SWEEPING IF VEHICLE TRACKING BMPs ARE NOT ADEQUATE TO PREVENT SEDIMENT TRACKING ONTO THE STREET.

CONTRACTOR MUST INSTALL TEMPORARY SEDIMENT BASINS AS REQUIRED IN SECTION 14.

IN ANY AREAS OF THE SITE WHERE FINAL VEGETATIVE STABILIZATION WILL OCCUR, CONTRACTOR MUST RESTRICT VEHICLE AND EQUIPMENT USE TO MINIMIZE SOIL COMPACTION.

CONTRACTOR MUST PRESERVE TOPSOIL ON THE SITE, UNLESS INFEASIBLE.

CONTRACTOR MUST DIRECT DISCHARGES FROM BMPs TO VEGETATED AREAS UNLESS INFEASIBLE.

CONTRACTOR MUST PRESERVE A 50 FOOT NATURAL BUFFER OR, IF A BUFFER IS INFEASIBLE ON THE SITE, PROVIDE REDUNDANT PERIMETER SEDIMENT CONTROLS WHEN A SURFACE WATER IS LOCATED WITHIN 50 FEET OF THE PROJECT'S EARTH DISTURBANCES AND STORMWATER FLOWS TO THE SURFACE WATER. CONTRACTOR MUST INSTALL PERIMETER SEDIMENT CONTROLS AT LEAST 5 FEET APART UNLESS LIMITED BY LACK OF AVAILABLE SPACE. NATURAL BUFFERS ARE NOT REQUIRED ADJACENT TO ROAD DITCHES, JUDICIAL DITCHES, COUNTY DITCHES, STORMWATER CONVEYANCE CHANNELS, STORM DRAIN INLETS, AND SEDIMENT BASINS.

DEWATERING AND BASIN DRAINING

CONTRACTOR MUST DISCHARGE TURBID OR SEDIMENT-LOADED WATERS RELATED TO DEWATERING OR BASIN DRAINING

TO A TEMPORARY OR PERMANENT SEDIMENT BASIN ON THE PROJECT SITE UNLESS INFEASIBLE. CONTRACTOR MAY DEWATER TO SURFACE WATERS IF THEY VISUALLY CHECK TO ENSURE ADEQUATE TREATMENT HAS BEEN OBTAINED AND NOISANCE CONDITIONS WILL NOT RESULT FROM THE DISCHARGE. IF CONTRACTOR CANNOT DISCHARGE THE WATER TO A SEDIMENTATION BASIN PRIOR TO ENTERING A SURFACE WATER, CONTRACTOR MUST TREAT IT WITH APPROPRIATE BMPs SUCH THAT THE DISCHARGE DOES NOT ADVERSELY AFFECT THE SURFACE WATER OR DOWNSTREAM PROPERTIES.

IF CONTRACTOR MUST DISCHARGE WATER CONTAINING OIL OR GREASE, THEY MUST USE AN OIL-WATER SEPARATOR OR SUITABLE FILTRATION DEVICE (E.G., CARTRIDGE FILTERS, ADSORBENTS PADS) PRIOR TO DISCHARGE.

CONTRACTOR MUST DISCHARGE ALL WATER FROM DEWATERING OR BASIN-DRAINING ACTIVITIES IN A MANNER THAT DOES NOT CAUSE EROSION OR SCOUR IN THE IMMEDIATE VICINITY OF DISCHARGE POINTS OR RUINATION OF WETLANDS IN THE IMMEDIATE VICINITY OF DISCHARGE POINTS THAT CAUSES SIGNIFICANT ADVERSE IMPACT TO THE WETLAND.

IF CONTRACTOR USE FILTERS WITH BACKWASH WATER, THEY MUST HAUL THE BACKWASH WATER AWAY FOR DISPOSAL, RETURN THE BACKWASH WATER TO THE BEGINNING OF THE TREATMENT PROCESS, OR INCORPORATE THE BACKWASH WATER INTO THE SITE IN A MANNER THAT DOES NOT CAUSE EROSION.

INSPECTIONS AND MAINTENANCE

CONTRACTOR MUST INSPECT AND MAINTAIN ALL PERMANENT STORMWATER TREATMENT BMPs.

CONTRACTOR MUST INSPECT ALL EROSION PREVENTION AND SEDIMENT CONTROL BMPs AND POLLUTION PREVENTION MANAGEMENT MEASURES TO ENSURE INTEGRITY AND EFFECTIVENESS. CONTRACTOR MUST REPAIR, REPLACE OR SUPPLEMENT ALL NONFUNCTIONAL BMPs WITH FUNCTIONAL BMPs BY THE END OF THE NEXT BUSINESS DAY AFTER DISCOVERY. CONTRACTOR MAY TAKE ADDITIONAL TIME IF FIELD CONDITIONS PREVENT ACCESS TO THE AREA.

DURING EACH INSPECTION, CONTRACTOR MUST INSPECT SURFACE WATERS, INCLUDING DRAINAGE DITCHES AND CONVEYANCE SYSTEMS FOR MUD CURB AND GUTTER SYSTEMS. FOR EVIDENCE OF EROSION AND SEDIMENT DEPOSITION, CONTRACTOR MUST REMOVE ALL BELLS AND SEDIMENT DEPOSITED IN SURFACE WATERS, INCLUDING DRAINAGE WAYS, CATCH BASINS, AND OTHER DRAINAGE SYSTEMS AND RESTABILIZE THE AREAS WHERE SEDIMENT REMOVAL RESULTS IN EXPOSED SOIL. CONTRACTOR MUST COMPLETE REMOVAL AND STABILIZATION WITHIN SEVEN (7) CALENDAR DAYS OF DISCOVERY UNLESS PRECULDED BY LEGAL, REGULATORY, OR PHYSICAL ACCESS CONSTRAINTS. CONTRACTOR MUST USE ALL REASONABLE EFFORTS TO OBTAIN ACCESS. IF PRECULDED, REMOVAL AND STABILIZATION MUST TAKE PLACE WITHIN SEVEN (7) DAYS OF OBTAINING ACCESS.

CONTRACTOR MUST INSPECT CONSTRUCTION SITE VEHICLE EXIT LOCATIONS, STREETS AND CURB AND GUTTER SYSTEMS WITHIN AND ADJACENT TO THE PROJECT FOR SEDIMENTATION FROM EROSION OR TRACKED SEDIMENT FROM VEHICLES. CONTRACTOR MUST REMOVE SEDIMENT FROM ALL PAVED SURFACES WITHIN ONE (1) CALENDAR DAY OF DISCOVERY OR, IF APPLICABLE, WITHIN A SHORTER TIME TO AVOID A SAFETY HAZARD TO USERS OF PUBLIC STREETS.

CONTRACTOR MUST REPAIR, REPLACE OR SUPPLEMENT ALL PERIMETER CONTROL DEVICES WHEN THEY BECOME NONFUNCTIONAL OR THE SEDIMENT REACHES 1/2 OF THE HEIGHT OF THE DEVICE.

CONTRACTOR MUST DRAIN TEMPORARY AND PERMANENT SEDIMENTATION BASINS AND REMOVE THE SEDIMENT WHEN THE DEPTH OF SEDIMENT COLLECTED IN THE BASIN REACHES 1/2 THE STORAGE VOLUME.

POLLUTION PREVENTION MANAGEMENT MEASURES

CONTRACTOR MUST PLACE BUILDING PRODUCTS AND LANDSCAPE MATERIALS THAT ARE CONSIDERED TO BE A SOURCE OF CONTAMINATION, PESTICIDES, FERTILIZERS, AND CHEMICALS UNDER COVER TO MINIMIZE CONTACT WITH STORMWATER.

CONTRACTOR MUST STORE HAZARDOUS MATERIALS AND TOXIC WASTE IN SEALED CONTAINERS TO PREVENT SPILLS, LEAKS OR OTHER DISCHARGE. STORAGE AND DISPOSAL OF HAZARDOUS WASTE MATERIALS MUST BE IN COMPLIANCE WITH MINN. R. CH. 7045 INCLUDING SECONDARY CONTAINMENT AS APPLICABLE.

CONTRACTOR MUST PROPERLY STORE, COLLECT AND DISPOSE SOLID WASTE IN COMPLIANCE WITH MINN. R. CH. 7035.

CONTRACTOR MUST POSITION PORTABLE TOILETS SO THEY ARE SECURE AND WILL NOT TIP OR BE KNOCKED OVER.

CONTRACTOR MUST TAKE REASONABLE STEPS TO PREVENT THE DISCHARGE OF SPILLED OR LEAKED CHEMICALS, INCLUDING FUEL, FROM ANY AREA WHERE CHEMICALS OR FUEL WILL BE LOADED OR UNLOADED INCLUDING THE USE OF DRIP PANS OR ABSORBENTS UNLESS INFEASIBLE. CONTRACTOR MUST ENSURE ADEQUATE SUPPLIES ARE AVAILABLE AT ALL TIMES TO CLEAN UP DISCHARGED MATERIALS AND THAT AN APPROPRIATE DISPOSAL METHOD IS AVAILABLE FOR RECOVERED SPILLED MATERIALS. CONTRACTOR MUST REPORT AND CLEAN UP SPILLS IMMEDIATELY AS REQUIRED BY MINN. STAT. 115.061, USING DRY CLEAN UP MEASURES WHERE POSSIBLE.

CONTRACTOR MUST LIMIT VEHICLE EXTERIOR WASHING AND EQUIPMENT TO A DEFINED AREA OF THE SITE. CONTRACTOR MUST CONTAIN RUNOFF FROM THE WASHING AREA IN A SEDIMENT BASIN OR OTHER SIMILARLY EFFECTIVE CONTROLS AND MUST DISPOSE WASTE FROM THE WASHING ACTIVITY PROPERLY. CONTRACTOR MUST PROPERLY USE AND STORE SOAPS, DETERGENTS, OR SOLVENTS.

CONTRACTOR MUST PROVIDE EFFECTIVE CONTAINMENT FOR ALL LIQUID AND SOLID WASTES GENERATED BY WASHOUT OPERATIONS RELATED TO THE CONSTRUCTION ACTIVITY. CONTRACTOR MUST PREVENT LIQUID AND SOLID WASHOUT WASTES FROM CONTACTING THE GROUND AND MUST DESIGN THE CONTAINMENT SO IT DOES NOT RESULT IN RUNOFF FROM THE WASHOUT OPERATIONS OR AREAS. CONTRACTOR MUST PROPERLY DISPOSE LIQUID AND SOLID WASTES IN COMPLIANCE WITH MPCA RULES. CONTRACTOR MUST INSTALL A SIGN INDICATING THE LOCATION OF THE WASHOUT FACILITY.

PERMANENT COVER

CONTRACTOR MUST COMPLETE ALL CONSTRUCTION ACTIVITY AND MUST INSTALL PERMANENT COVER OF ALL AREAS. PERMANENT VEGETATIVE COVER MUST CONSIST OF A UNIFORM PERENIAL VEGETATION WITH A DENSITY OF 70 PERCENT OF ITS EXPECTED FINAL GROWTH.

CONTRACTOR MUST CLEAN THE PERMANENT STORMWATER TREATMENT SYSTEM OF ANY ACCUMULATED SEDIMENT AND MUST ENSURE THE SYSTEM IS OPERATING AS DESIGNED.

CONTRACTOR MUST REMOVE ALL SEDIMENT FROM CONVEYANCE SYSTEMS

CONTRACTOR MUST REMOVE ALL TEMPORARY SYNTHETIC EROSION PREVENTION AND SEDIMENT CONTROL BMPs. CONTRACTOR MAY LEAVE BMPs DESIGNED TO DECOMPOSE ON-SITE IN PLACE.

STORM WATER POLLUTION PREVENTION PLAN (SWPPP) NARRATIVE

THIS SWPPP HAS BEEN PREPARED TO SATISFY THE REQUIREMENTS OF THE MPCA NPDES CONSTRUCTION STORM WATER PERMIT. THE SWPPP DOCUMENT INCLUDES THE FOLLOWING DOCUMENTS TO DEFINE THE REQUIREMENTS FOR TEMPORARY AND PERMANENT STORM WATER MANAGEMENT AND EROSION CONTROL:

- 1. SWPPP NARRATIVE & DETAILS
- 2. PLAN SHEETS AND PROJECT SPECIFICATIONS
- 3. STORMWATER MANAGEMENT PLAN

PROJECT INFORMATION:	
PROJECT LOCATION:	12100 MN-23, DULUTH, MN 55808
LATITUDE AND LONGITUDE:	46.659194, -92.256577
PROJECT NAME:	PERCH LAKE LANDING
PROJECT DESCRIPTION:	PARKING LOT RECONSTRUCTION AND SITE IMPROVEMENTS
EST. PROJECT TIMELINE:	SUMMER 2025

CONTACTS	
OWNER:	
CONTACT NAME:	ROB HURD
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PHONE:	218-626-5130
EMAIL:	RHURD@DULUTH.MN.GOV
ENGINEER:	NORTHLAND CONSULTING ENGINEERS, L.L.P.
CONTACT NAME:	TRENT PRIGGE, P.E.
ADDRESS:	102 S. 21ST AVE., W. SUITE ONE, DULUTH, MN 55806
PHONE:	(218) 727-5995
EMAIL:	TRENT@NCE-DULUTH.COM

SWPPP DESIGNER TRAINING INFORMATION	
SWPPP DESIGNER:	TRENT PRIGGE
CERTIFICATION CLASS AND EXPIRATION YEAR:	DESIGN OF CONSTRUCTION SWPPP, 2026
NAME OF INSTRUCTOR:	UNIVERSITY OF MINNESOTA
EMPLOYER:	NORTHLAND CONSULTING ENGINEERS, L.L.P.

CONTRACTOR'S EROSION CONTROL

THE CONTRACTOR MUST PROVIDE AND ATTACH CONTACT INFORMATION FOR THEIR CERTIFIED EROSION CONTROL SUPERVISOR. THIS INFORMATION MUST ACCOMPANY THE SWPPP PRIOR TO THE START OF ANY CONSTRUCTION ACTIVITY. THIS PERSON SHALL BE TRAINED, KNOWLEDGEABLE AND EXPERIENCED IN THE IMPLEMENTATION OF EROSION AND SEDIMENT CONTROL MEASURES. THIS INDIVIDUAL MUST OVERSEE INSTALLATION, MAINTENANCE AND INSPECTION OF THE EROSION AND SEDIMENT CONTROL BMPs AND MAKE PROPER REVISION AND/OR AMENDMENTS TO THE SWPPP. A CERTIFIED PERSON REPRESENTING THE CONTRACTOR MUST BE AVAILABLE FOR AN ON-SITE INSPECTION WITHIN 72 HOURS UPON REQUEST BY THE MPCA.

THE CONTRACTOR IS RESPONSIBLE FOR DETERMINING THE NECESSARY TRAINING AND CERTIFICATIONS FOR THEIR RESPONSIBLE INDIVIDUALS AND CONTRACTOR MUST PROVIDE SAID TRAINING OVERSEES FOR ANY INDIVIDUAL:

- 1.) OVERSEEING IMPLEMENTATION, INSTALLATION AND MAINTENANCE OF SWPPP ELEMENTS.
- 2.) REVISIONS AND/OR AMENDING OF THE SWPPP.
- 3.) CONDUCTING SWPPP INSPECTIONS.

CONTRACTOR MUST FILL OUT THE TABLE BELOW AND PROVIDE DOCUMENTATION OF TRAINED INDIVIDUALS AT THE TIME OF APPLICATION OR BEFORE CONSTRUCTION ACTIVITY COMMENCES.

CONTRACTOR'S EROSION CONTROL SUPERVISORS				
NAME/S:				
CERTIFICATION CLASS AND EXPIRATION YEAR:	CONSTRUCTION SITE MANAGEMENT - UNIVERSITY OF MINNESOTA			
NAME OF INSTRUCTOR:	UNIVERSITY OF MINNESOTA			
EMPLOYER:				

GENERAL SWPPP IMPLEMENTATION PHASING	
1.)	CONSTRUCT VEHICLE TRACKING BMP(S)
2.)	INSTALL SEDIMENT CONTROL BMPs ON ALL DOWN GRADIENT PERIMETERS.
3.)	INSTALL STORM DRAIN INLET PROTECTION WHERE NECESSARY.
4.)	INSTALL ANY TEMPORARY STABILIZATION DURING CONSTRUCTION AS NEEDED.
5.)	MONITOR SITE FOR SEDIMENT AND REPAIR/REPLACE OR SUPPLEMENT BMPs AS REQUIRED.
6.)	INSTALL FINAL STABILIZATION AS REQUIRED PER CONTRACT.
7.)	AFTER SITE HAS ACHIEVED A DENSITY OF 70% PERMANENT COVERAGE, TEMPORARY BMPs MAY BE REMOVED. RE-STABILIZE ANY AREAS DISTURBED BY REMOVAL ACTIVITIES.

CONSTRUCTION STORMWATER PERMIT TIMELINES	
IMMEDIATELY	INSTALL PERIMETER CONTROL AT BASE STOCK PILES.
24 HOURS	STABILIZE EXPOSED SOILS WITHIN 200 FEET OF PUBLIC WATERS. STABILIZE WETTED PERIMETER OF DITCHES WITHIN 200 FEET AFTER CONNECTING TO A SURFACE WATER OR PROPERTY EDGE. INSTALL ENERGY DISSIPATION AT ALL PIPE OUTLETS. RECORD ALL INSPECTIONS AND MAINTENANCE ACTIVITIES.
7 DAYS	IF RECEIVING WATERS WITHIN 1 MILE OF THE SITE ARE SPECIAL OR IMPAIRED, EXPOSED SOILS MUST BE STABILIZED AFTER CONSTRUCTION HAS CEASED FOR 7 DAYS.
14 DAYS	IF RECEIVING WATERS WITHIN 1 MILE OF THE SITE ARE NOT SPECIAL OR IMPAIRED, EXPOSED SOILS MUST BE STABILIZED AFTER CONSTRUCTION HAS CEASED FOR 14 DAYS.

INSPECTION RECORDS

CONTRACTOR'S CERTIFIED EROSION CONTROL SUPERVISOR IS RESPONSIBLE FOR ALL INSPECTION AND MAINTENANCE RECORDS. DOCUMENTS SHALL BE KEPT WITH THE SWPPP DOCUMENT.

OPERATION AND MAINTENANCE OF PERMANENT STORM WATER CONTROLS

FOLLOWING CONSTRUCTION COMPLETION THE OWNER AND CONTRACTOR ARE RESPONSIBLE FOR NOTICE OF TERMINATION OR TRANSFER OF PERMIT.

THE OPERATION AND MAINTENANCE OF THE PERMANENT STORM WATER CONTROLS SHALL BE THE RESPONSIBILITY OF THE OWNER. THE OWNER MUST FOLLOW THE LONG TERM OPERATIONS AND MAINTENANCE PLAN AS OUTLINED AS PART OF THE SWPPP IN THE STORM WATER MANAGEMENT PLAN.

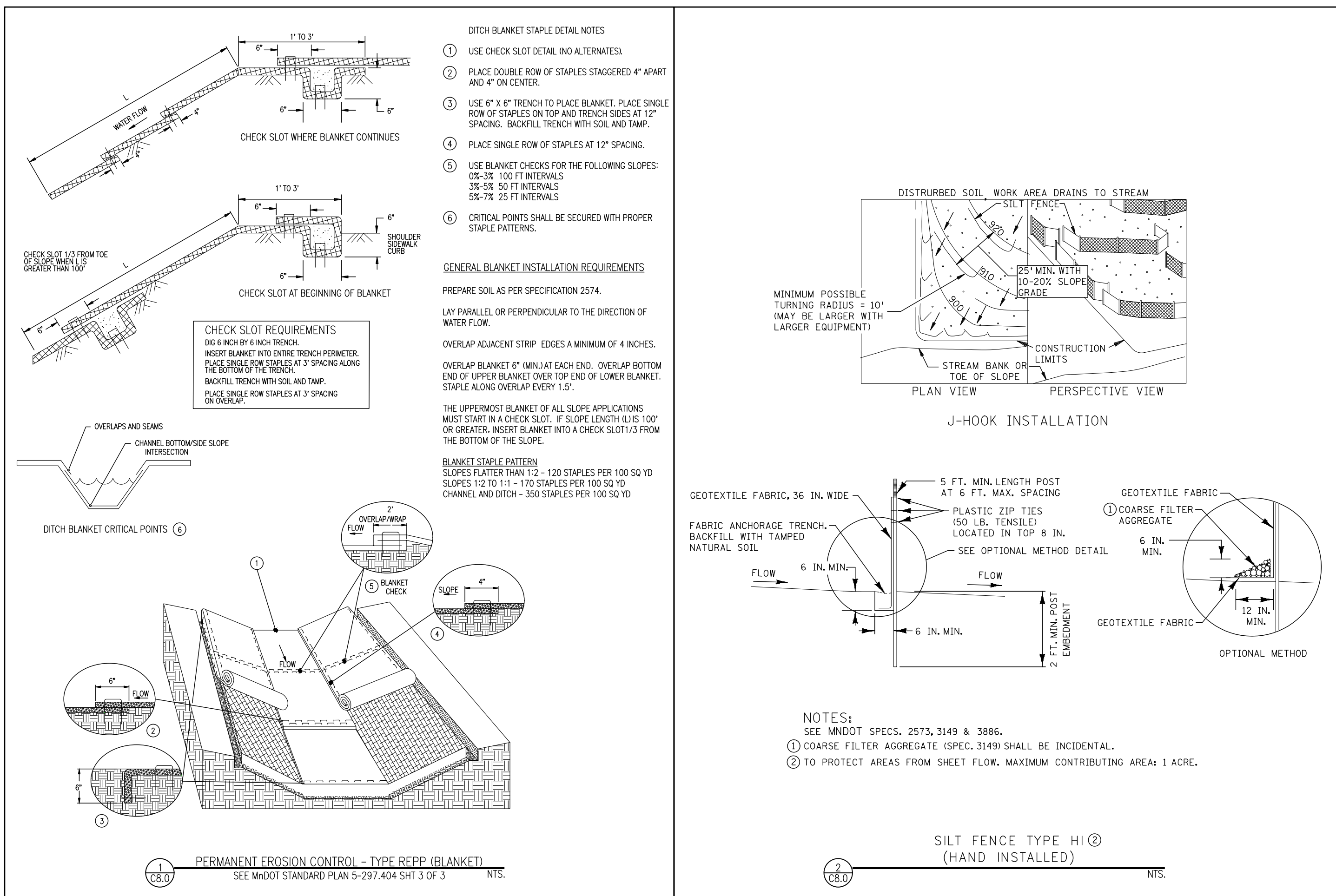
TEMPORARY SEDIMENT BASIN CALCULATIONS

CONTRACTOR SHALL BE RESPONSIBLE FOR SIZING OF TEMPORARY SEDIMENT BASINS BASED OFF THE INFORMATION SHOWN BELOW.

THE TEMPORARY BASIN MUST PROVIDE LIVE STORAGE FOR A CALCULATED VOLUME OF RUNOFF FROM A TWO (2)-YEAR, 24-HOUR STORM FROM EACH ACRE DRAINED TO THE BASIN OR 1,800 CUBIC FEET OF LIVE STORAGE PER ACRE DRAINED, WHICHEVER IS GREATER.

WHERE PERMITTEES HAVE NOT CALCULATED THE TWO (2)-YEAR, 24-HOUR STORM RUNOFF AMOUNT, THE TEMPORARY BASIN MUST PROVIDE 3,600 CUBIC FEET OF LIVE STORAGE PER ACRE OF THE BASINS' DRAINAGE AREA.

SWPPP IMPLEMENTATION CONTACTS - CITY OF DULUTH				
AGENCY	PERMIT	NAME	PHONE	E-MAIL
MINNESOTA POLLUTION CONTROL AGENCY	NPDES	JIM DEXTER	(218) 529-6253	JAMES.DEXTER@STATE.MN.US
SOIL AND WATER CONSERVATION DISTRICT	N/A	RC BOHEIM	(218) 723-4629	RC.BOHEIM@SOUTHSTLOUISWCDC.ORG
MNDNR WATERS AREA HYDROLOGIST	N/A	BRIANNA SPELDORCH	(218) 302-3246	BRIANNA.SPELDORCH@STATE.MN.US
CORPS OF ENGINEERS	N/A	ANDY CHAMBERS	(218) 720-5291	ANDREW.R.CHAMBERS@USACE.ARMY.MIL
STATE DUTY OFFICER	N/A	MPCA	(800) 422-0798	
CITY REVIEW	N/A	TOM JOHNSON	(218) 730-5103	TJOHNSON@DULUTH.MN.GOV



CALCULATIONS	
SOILS INFORMATION- PREDOMINATELY CLAY SOILS	
DESCRIPTION	AREA (ACRES)
TOTAL AREA	0.386 ACRES
TOTAL DISTURBED AREA	0.139 ACRES
EXISTING IMPERVIOUS AREA	0.181 ACRES
POST CONSTRUCTION IMPERVIOUS AREA	0.181 ACRES
CHANGE IN IMPERVIOUS AREA	0.022 ACRES INCREASE

RECEIVING WATERS WITHIN ONE MILE OF PROJECT			
NAME	SPECIAL OR IMPAIRED	WORK IN WATER RESTRICTIONS	TMDL
ST. LOUIS RIVER	IMPAIRED		NONE

SENSITIVE AREAS	
IS THE PROJECT LOCATION IN A KARST AREA?	NO
DOES THE PROJECT FLOW TO A CALCAREOUS FEN?	NO

SWPPP AMENDMENTS

THIS SWPPP IS A STARTING POINT FOR EROSION PREVENTION AND SEDIMENT CONTROL ON THE SITE. CONTRACTOR'S OPERATIONS AND PHASING OF CONSTRUCTION ACTIVITY WILL REQUIRE THE CONTRACTOR TO MODIFY AND AMEND THE SWPPP AND SUBSEQUENT BMPs USED ON SITE. IF SITE CONDITIONS PROVE IN-PLACE BMPs ARE INEFFECTIVE, THE SWPPP MUST BE AMENDED TO DOCUMENT ADDITIONAL OR MODIFIED BMPs AS NECESSARY TO CORRECT PROBLEMS IDENTIFIED. ANY AMENDMENT SHALL BE NOTED ON THE PLAN AND KEPT AS RECORD AND AVAILABLE AT THE SITE.

AMENDMENTS TO THE SWPPP MUST BE DOCUMENTED AND SENT TO THE OWNER AND ENGINEER.

AMENDMENTS TO SWPPP	
NO. AND DESCRIPTION	DATE:
1.	
2.	
3.	
4.	
5.	



PERCH LAKE LANDING
PARKING AND SITE IMPROVEMENTS

12100 HIGHWAY 23 DULUTH, MN 55808

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.

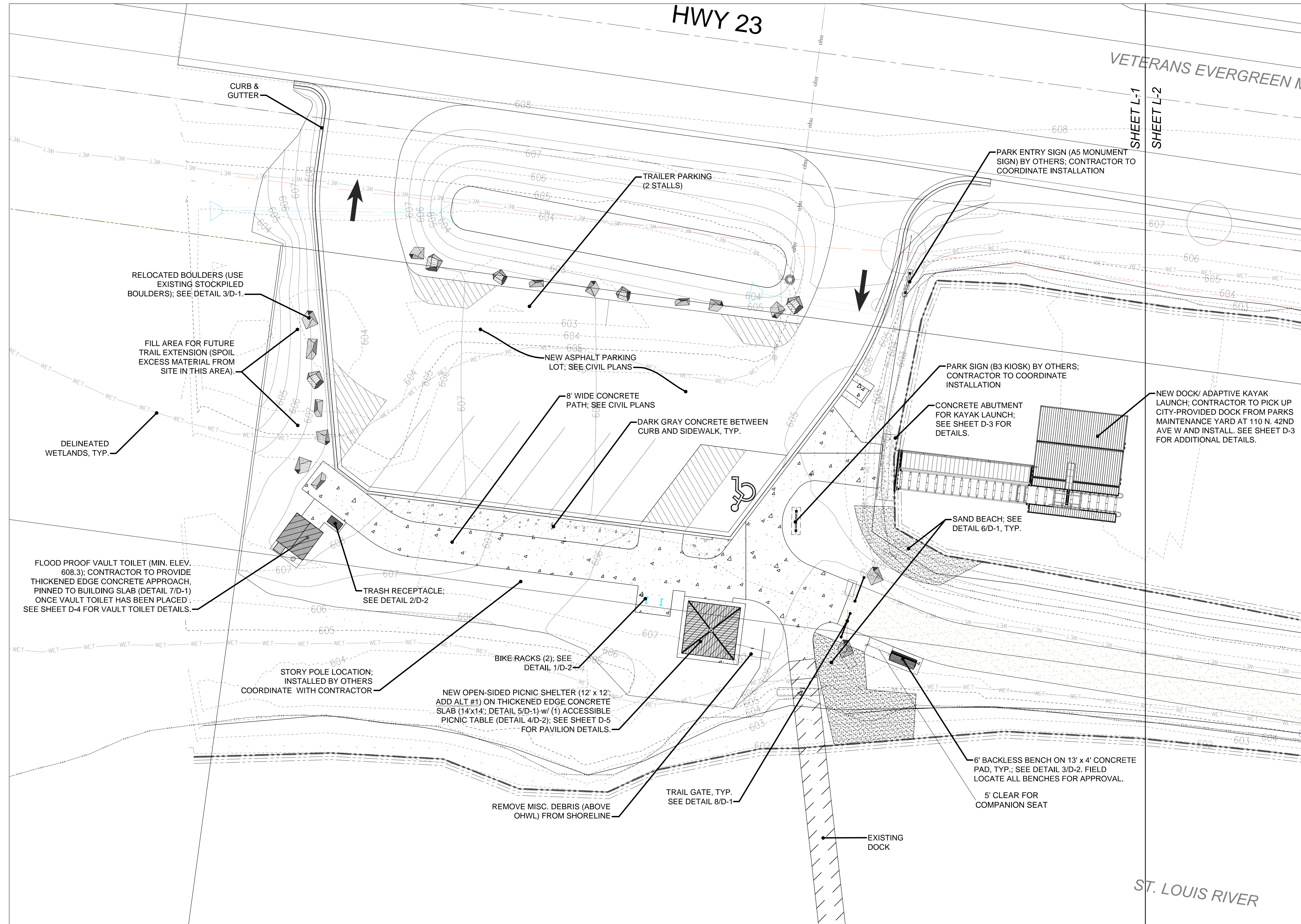
Adam Znak
Lic. No. 54549
Engineer-Adam Znak

REVISIONS:

PROJECT: 24-576
CHECKED: TTP
DRAWN: DRH
DATE: 08/27/25

Sheet Title:
EROSION CONTROL NOTES

Sheet Number
C8.0



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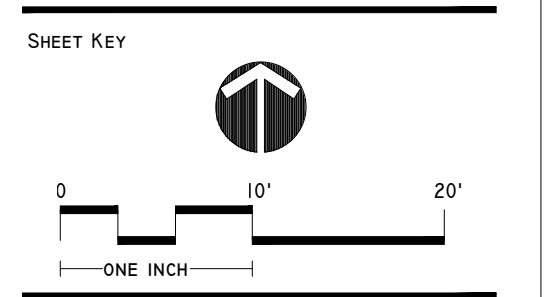
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PURPOSE	DATE

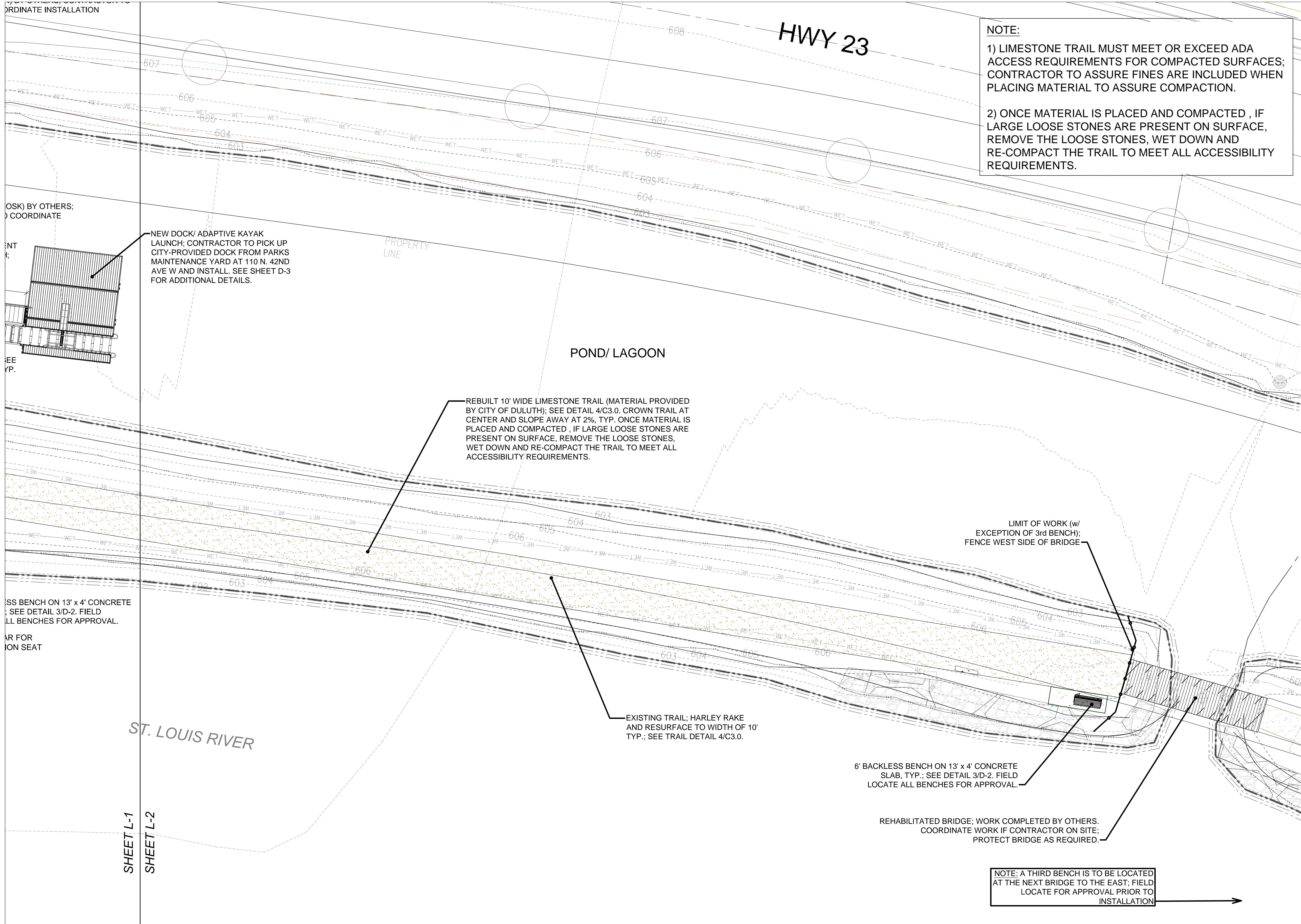
PERCH LAKE LANDING IMPROVEMENTS
 CITY OF DULUTH, MINNESOTA



SHEET TITLE
SITE PLAN WEST

DATE:	9/5/2025
DRAWN BY:	AMA
CHECKED BY:	LWS
PROJECT NUMBER	24170
SHEET NUMBER	L-1

Nov 21, 2025 - 1:20pm
 C:\Users\lucap@perchlake.com\AppData\Local\Temp\lucap\lucap_7888181b_24107 - Perch Lake Landing - Bid Set.dwg



NOTE:

1) LIMESTONE TRAIL MUST MEET OR EXCEED ADA ACCESS REQUIREMENTS FOR COMPACTED SURFACES; CONTRACTOR TO ASSURE FINES ARE INCLUDED WHEN PLACING MATERIAL TO ASSURE COMPACTION.

2) ONCE MATERIAL IS PLACED AND COMPACTED, IF LARGE LOOSE STONES ARE PRESENT ON SURFACE, REMOVE THE LOOSE STONES, WET DOWN AND RE-COMPACT THE TRAIL TO MEET ALL ACCESSIBILITY REQUIREMENTS.

NEW DOCK/ ADAPTIVE KAYAK LAUNCH; CONTRACTOR TO PICK UP CITY-PROVIDED DOCK FROM PARKS MAINTENANCE YARD AT 110 N. 42ND AVE W AND INSTALL. SEE SHEET D-3 FOR ADDITIONAL DETAILS.

REBUILT 10' WIDE LIMESTONE TRAIL (MATERIAL PROVIDED BY CITY OF DULUTH); SEE DETAIL 4/C3.0. CROWN TRAIL AT CENTER AND SLOPE AWAY AT 2%, TYP. ONCE MATERIAL IS PLACED AND COMPACTED, IF LARGE LOOSE STONES ARE PRESENT ON SURFACE, REMOVE THE LOOSE STONES, WET DOWN AND RE-COMPACT THE TRAIL TO MEET ALL ACCESSIBILITY REQUIREMENTS.

EXISTING TRAIL; HARLEY RAKE AND RESURFACE TO WIDTH OF 10' TYP.; SEE TRAIL DETAIL 4/C3.0.

6' BACKLESS BENCH ON 13' x 4' CONCRETE SLAB, TYP.; SEE DETAIL 3/D-2. FIELD LOCATE ALL BENCHES FOR APPROVAL.

LIMIT OF WORK (w/ EXCEPTION OF 3rd BENCH); FENCE WEST SIDE OF BRIDGE

REHABILITATED BRIDGE; WORK COMPLETED BY OTHERS. COORDINATE WORK IF CONTRACTOR ON SITE; PROTECT BRIDGE AS REQUIRED.

NOTE: A THIRD BENCH IS TO BE LOCATED AT THE NEXT BRIDGE TO THE EAST; FIELD LOCATE FOR APPROVAL PRIOR TO INSTALLATION



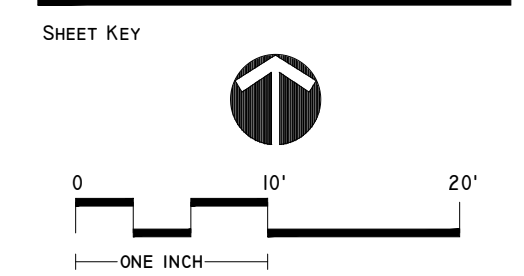
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PURPOSE	DATE

PERCH LAKE LANDING IMPROVEMENTS
CITY OF DULUTH, MINNESOTA

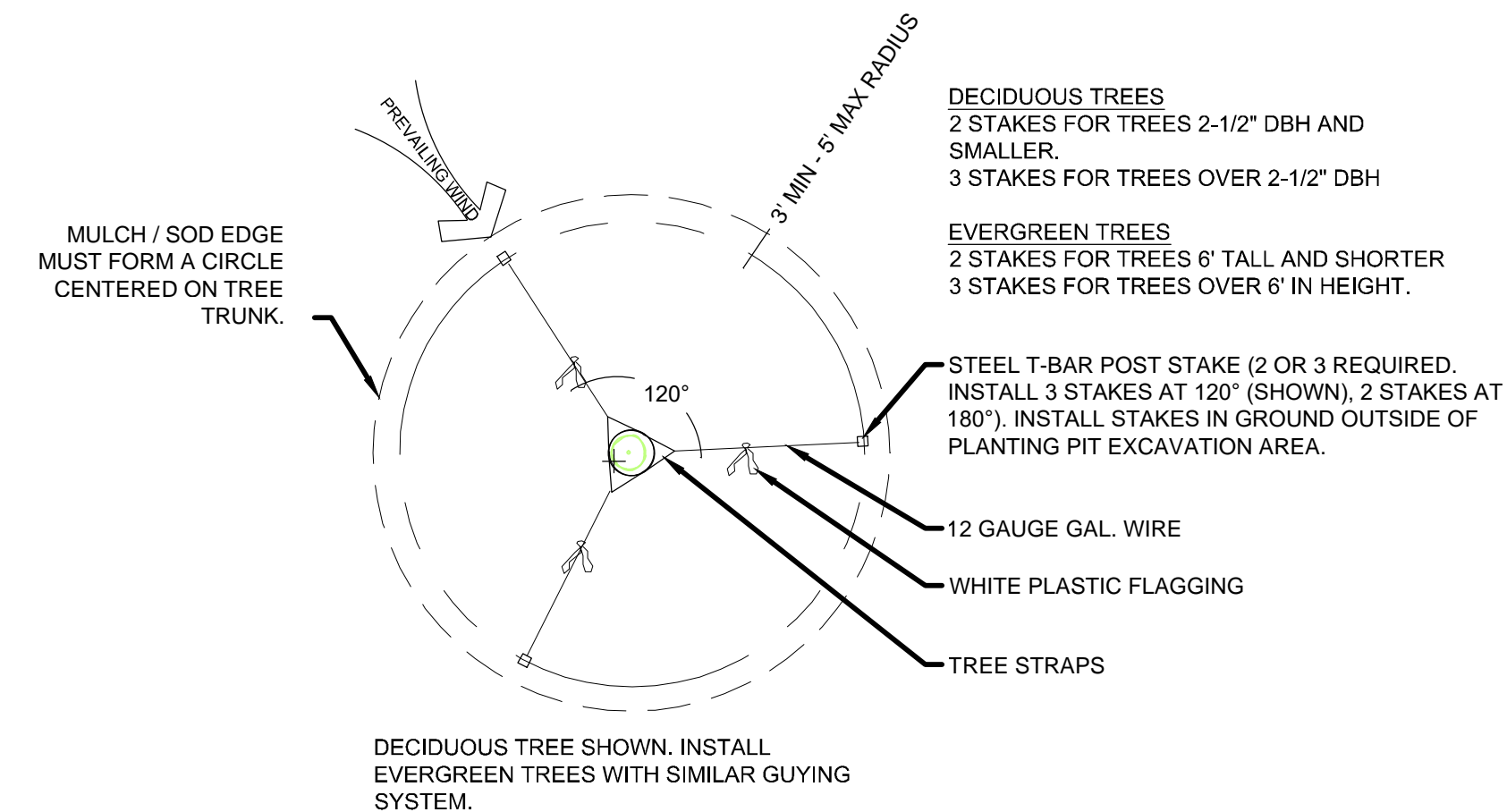


SHEET TITLE
SITE PLAN EAST

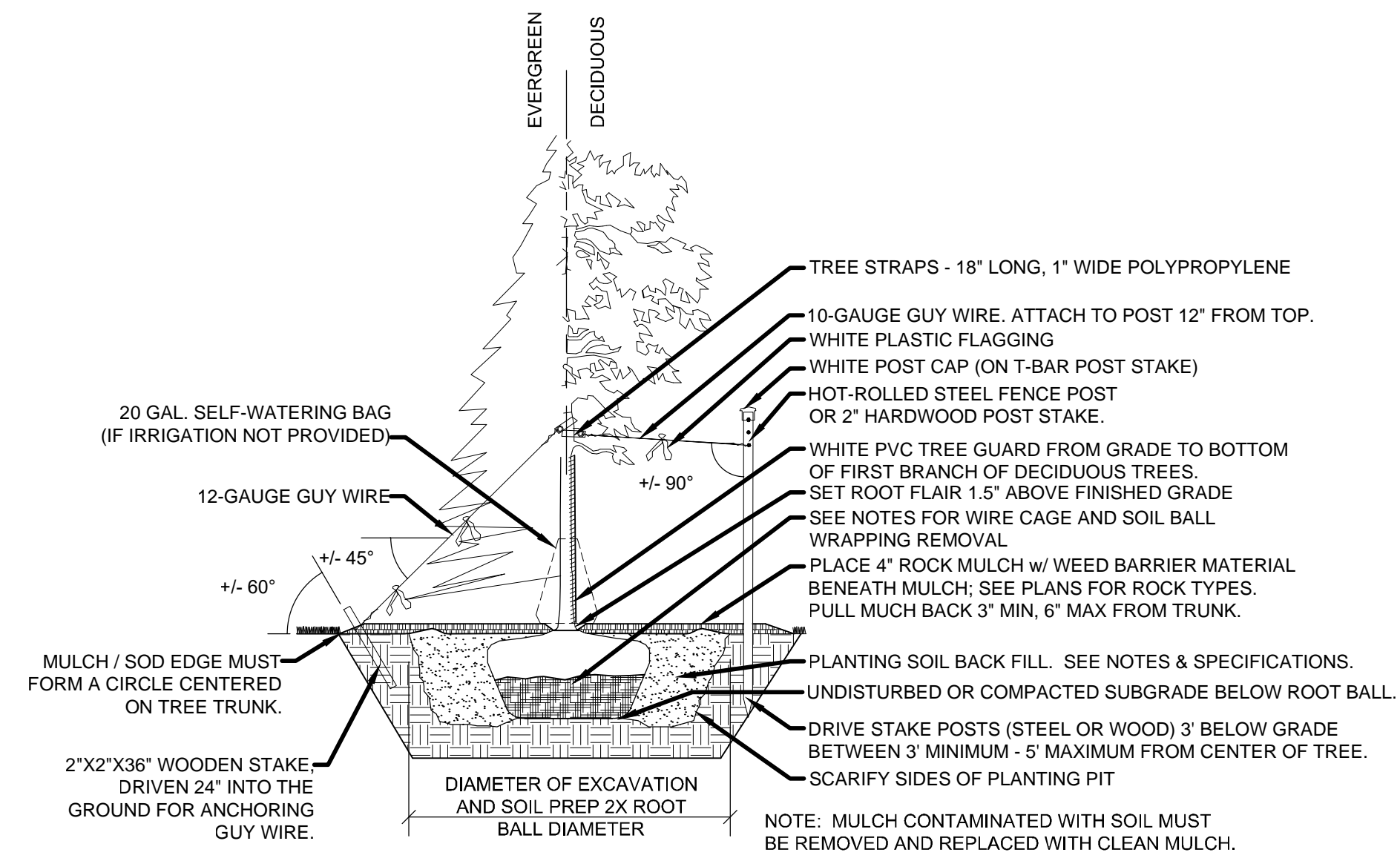
DATE	9/5/2025
DRAWN BY:	AMA
CHECKED BY:	LWS
PROJECT NUMBER	24170
SHEET NUMBER	L-2

Nov 21, 2025, 1:20pm
C:\Users\lscappalano\OneDrive\Documents\Perch Lake Landing - Bid Set.dwg

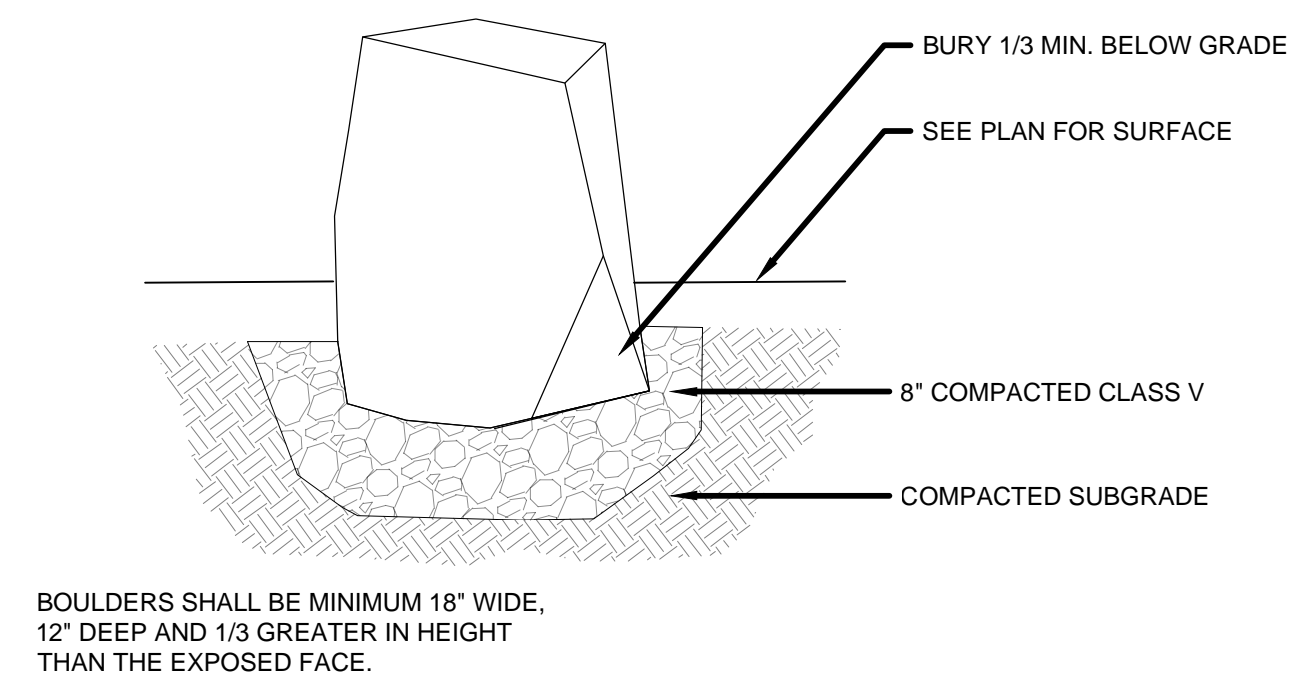
SHEET L-1
SHEET L-2



1 TREE GUYING DETAIL
SCALE: NOT TO SCALE

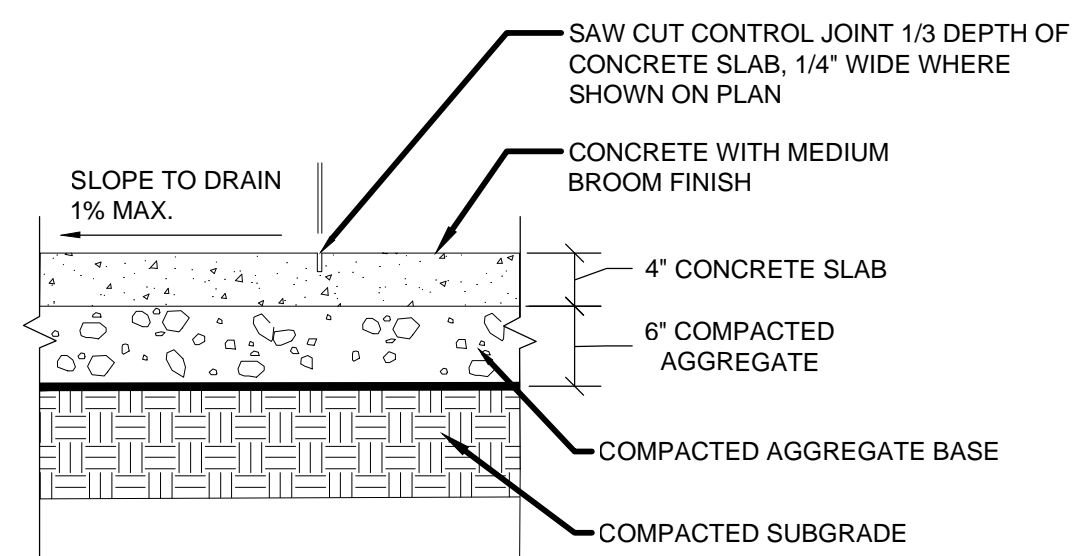


2 TREE PLANTING DETAIL
SCALE: NOT TO SCALE

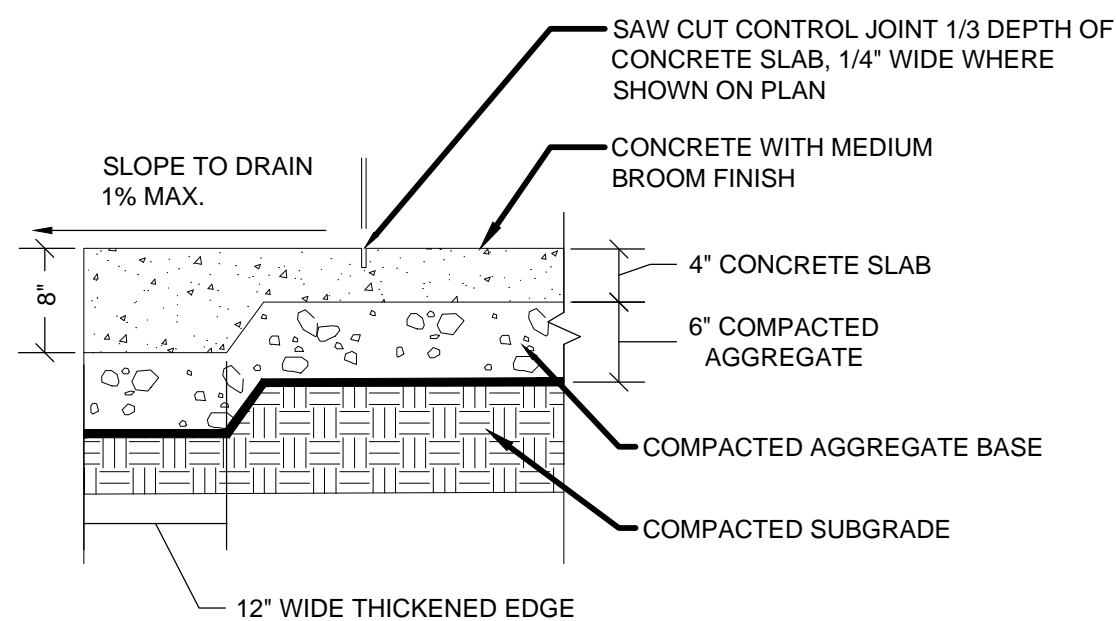


3 BOULDER DETAIL
SCALE: NOT TO SCALE

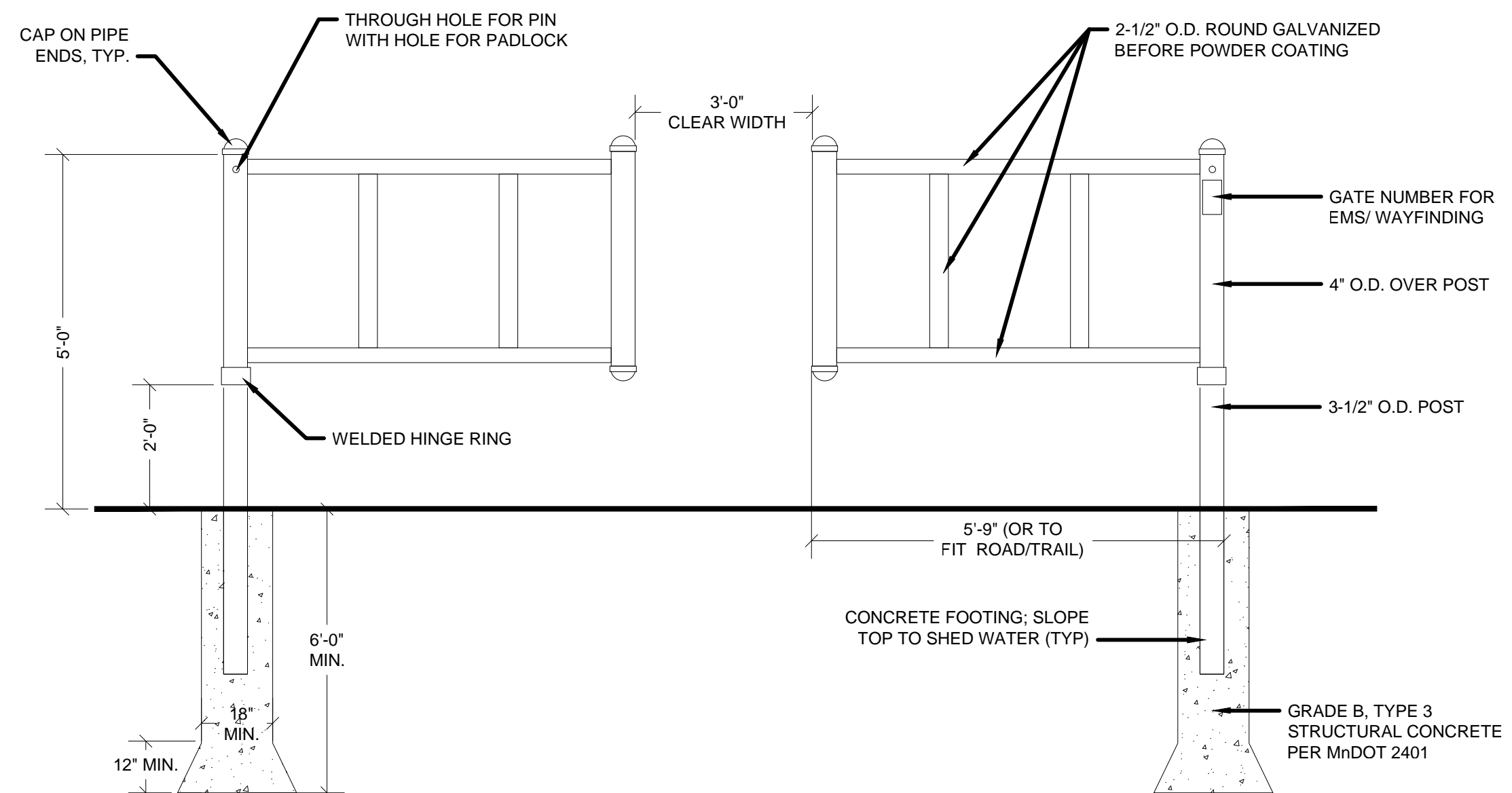
NOTE: CONTRACTOR SHALL STAKE LOCATION OF ALL BOULDERS TO BE PLACED FOR REVIEW AND APPROVAL BY LANDSCAPE ARCHITECT. CONTRACTOR SHALL PLACE BOULDERS AND ADJUST FINAL DEPTH, LOCATION AND ROTATION AT THE DIRECTION OF THE LANDSCAPE ARCHITECT PRIOR TO BACK FILLING POURING OF ADJOINING CONC. SIDEWALKS.



4 BENCH CONCRETE SLAB
SCALE: NOT TO SCALE

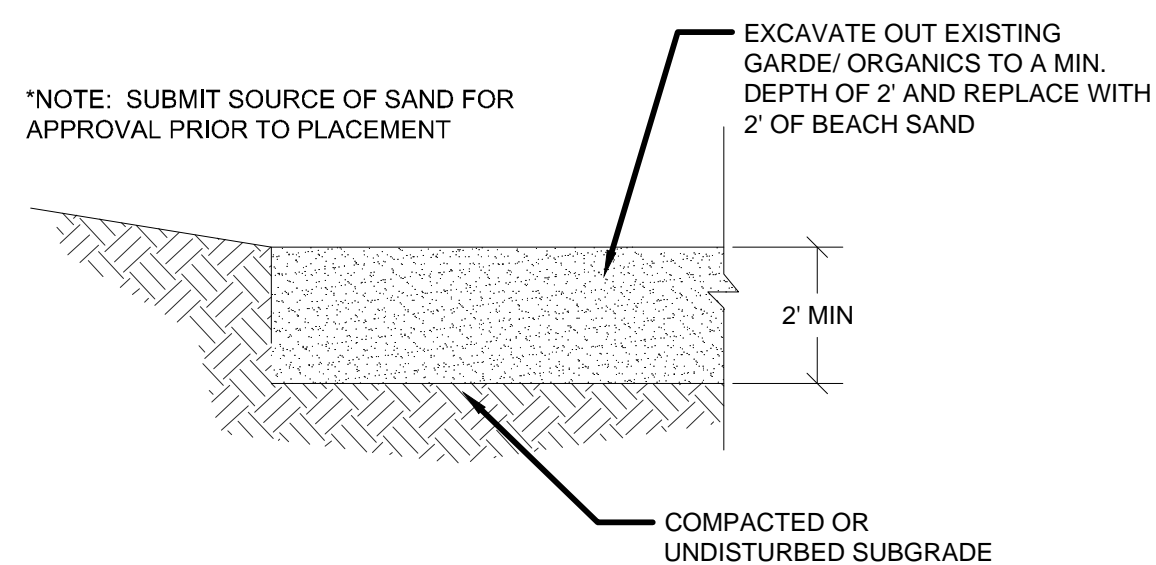


5 PAVILION CONCRETE SLAB
SCALE: NOT TO SCALE

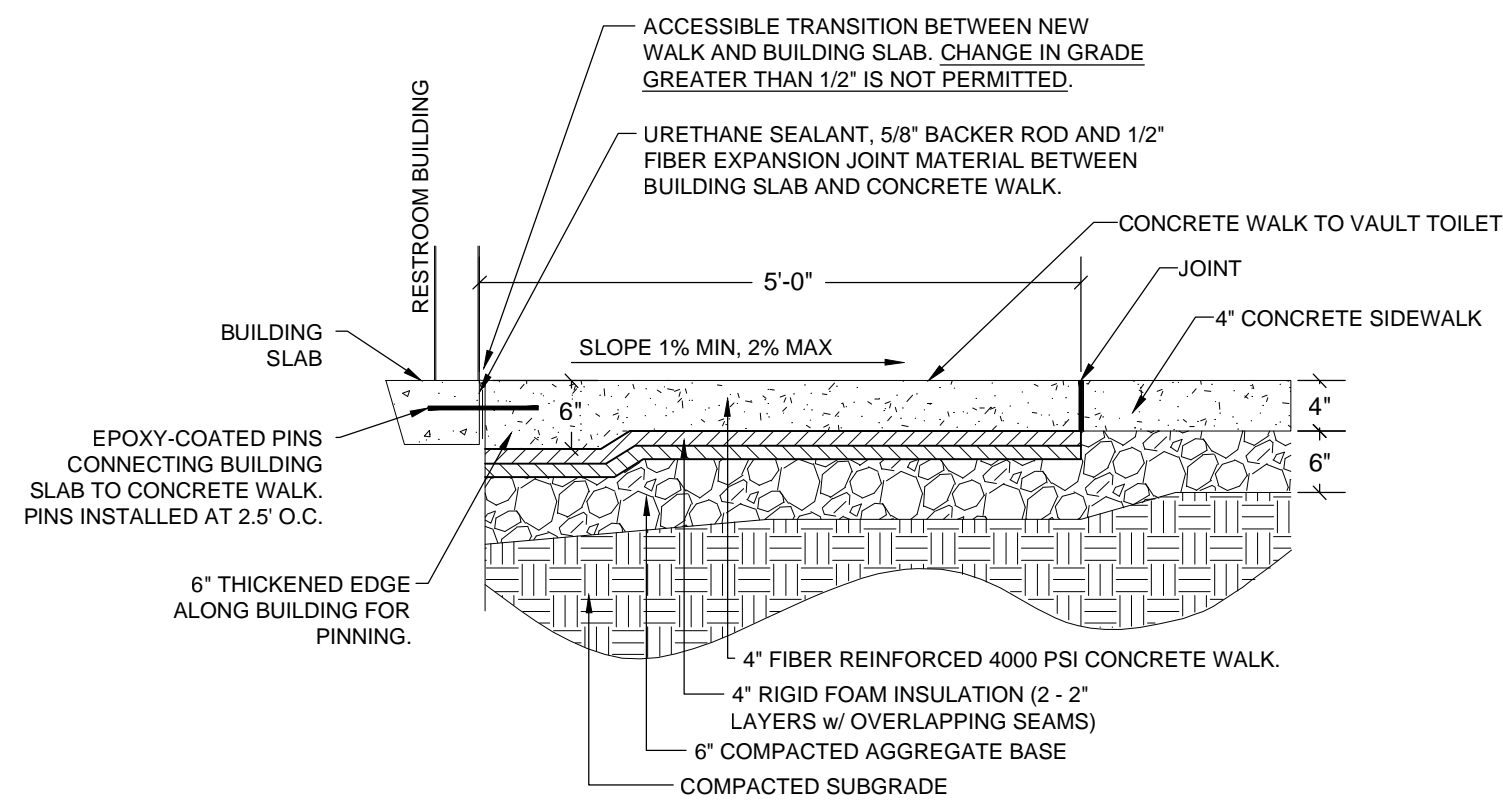


8 STANDARD TRAIL GATE- CITY OF DULUTH
SCALE: NOT TO SCALE

- CONSTRUCTION NOTES:
1. CONTRACTOR TO INSTALL OWNER-SUPPLIED TRAIL GATE (1 TOTAL). SEE PLANS FOR LOCATION.
 2. GATES SHALL BE ABLE TO BE UNLOCKED AND OPENED TO ALLOW MAINTENANCE AND EMERGENCY VEHICLES THROUGH
 3. GATES SHALL BE ABLE TO BE LOCKED "OPEN" OR "CLOSED." SIGNAGE ON GATE SHALL INCLUDE A UNIQUE IDENTIFYING NUMBER FOR MAINTENANCE AND SAFETY PURPOSES AS WELL AS A CLEAR DESIGNATION OF WHAT USERS ARE ALLOWED ON THE TRAILS.
 4. METAL ITEMS TO BE GALVANIZED PRIOR TO POWDER COATING.
 5. GATE PAY ITEM (PER GATE) INCLUDES TWO SWING ARMS, POSTS, LOCKS AND FOUNDATIONS.
 6. CONTRACTOR TO PICK UP GATES (2 TOTAL) AT 110 N. 42nd AVE W.



6 SAND BEACH DETAIL
SCALE: NOT TO SCALE



7 CONCRETE WALK AT VAULT TOILET
SCALE: NOT TO SCALE

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ISSUE RECORD/REVISION

PURPOSE	DATE

PERCH LAKE LANDING IMPROVEMENTS
CITY OF DULUTH, MINNESOTA

SHEET KEY

SHEET TITLE
DETAILS

DATE: 9/5/2025
DRAWN BY: AMA
CHECKED BY: LWS
PROJECT NUMBER: 24170
SHEET NUMBER: D-1



* CITY OF DULUTH (OWNER) SUPPLIED BIKE RACKS TO BE DERO HEAVY DUTY HOOP RACK (MODEL #HRHD-A; <https://www.dero.com/product/hoop-rack-heavy-duty/>). RACKS ARE SURFACE MOUNT AND POWDER COATED GLOSS BLACK.

*CONTRACTOR TO INSTALL (2) BIKE RACK UNITS (PROVIDED BY CITY).

1 BIKE RACK (PROVIDED BY OWNER; CONTRACTOR TO INSTALL)
SCALE: NOT TO SCALE



QUICK SPECS

Part Number: N3-19201932DP2
Total Capacity: 64 Gal
of Units: 2
Unit Capacity: 32 Gal
Dimensions: 39" w x 21" l x 43" h
Weight: 119 lbs
Setting: Indoor/Outdoor
Material: Plastic Lumber

* TRASH RECEPTACLE TO BE MANCHESTER SIDELOAD DOUBLE RECYCLING STATION w/ (2) 32-GALLON UNITS BY RECYCLE AWAY. UNITS TO BE BLUE FOR RECYCLING AND GREEN FOR WASTE, UNLESS OTHERWISE DIRECTED BY OWNER. SUBMIT ANY EQUALS FOR PRE-APPROVAL. (https://www.recycleaway.com/Manchester-SideLoad-Double-Recycling-Station_p_925.html#mz-expanded-view-1262559940520)

2 TRASH RECEPTACLE
SCALE: NOT TO SCALE



NOTES:
 1) BENCHES TO BE 6' BOARDWALK BENCH FROM BRIGHT IDEA SHOPS (SKU: FP2020) & ANCHOR KIT FOR INSTALLATION (<https://www.brightideashops.com/products/6-flat-boardwalk-bench>) TOTAL OF THREE (3) BENCHES TO BE PROVIDED AS SHOWN ON PLANS.
 2) BENCH TO BE MADE FROM RECYCLED PLASTIC LUMBER; FRAME TO BE BLACK AND SLATS TO BE CEDAR COLOR, UNLESS DIRECTED OTHERWISE BY OWNER.
 3) SUBMIT EQUALS FOR APPROVAL PRIOR TO BIDDING.

3 6' BENCH w/ BACK
SCALE: NOT TO SCALE



NOTES:
 1) PICNIC TABLE TO BE 8' (w/ 6' BENCHES) WHEELCHAIR ACCESSIBLE PICNIC TABLE FROM BRIGHT IDEA SHOPS (SKU: FP1030) (<https://www.brightideashops.com/products/wheelchair-accessible-picnic-table>) TOTAL OF (1) TABLE TO BE PROVIDED.
 2) TABLE TO BE MADE FROM RECYCLED PLASTIC LUMBER; FRAME TO BE BLACK AND SLATS TO BE CEDAR COLOR, UNLESS DIRECTED OTHERWISE BY OWNER.
 3) SUBMIT EQUALS FOR APPROVAL PRIOR TO BIDDING.

4 ACCESSIBLE PICNIC TBLE
SCALE: NOT TO SCALE



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ISSUE RECORD/REVISION

PURPOSE	DATE

PERCH LAKE LANDING IMPROVEMENTS
CITY OF DULUTH, MINNESOTA

SHEET KEY

SHEET TITLE
DETAILS

DATE: 9/5/2025
 DRAWN BY: AMA
 CHECKED BY: LWS
 PROJECT NUMBER: 24170
 SHEET NUMBER: D-2



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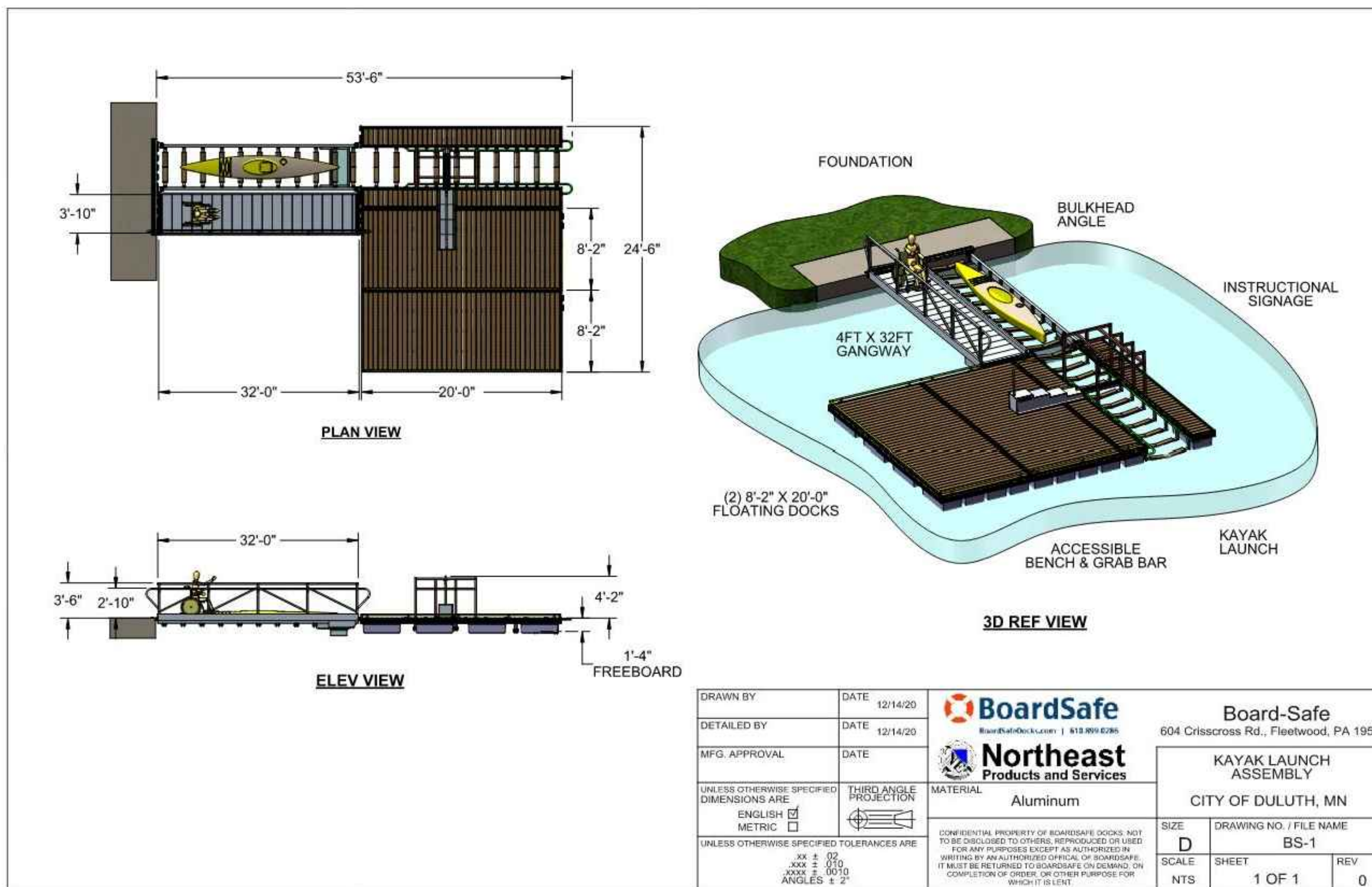
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ISSUE RECORD/REVISION

PURPOSE	DATE

PERCH LAKE LANDING IMPROVEMENTS

CITY OF DULUTH, MINNESOTA



WORK SCOPE & SPECIFICATIONS:

Gangway :

- All framing components to be Marine Grade 6061 or 6063 Aluminum.
- Supplemental flotation is required to be added to the bottom of the gangway and chute to provide a freeboard of 16φ to 18φ (with no live load present)
- Flotation at end of gangway is plastic encapsulated foam.
- Structural truss railing to be located on gangway side of the structure.
- Railing to be located at a minimum height of 42-inches.
- An intermediate handrail is to be located at 34-inches.
- Decking to be 12-inch wide, raised rib, knurled aluminum, welded in place.
- Integrated hinges are to be located at the top and bottom of the gangway. Hinges are to be mechanically attached; welded connections will not be permitted. 1 1/4φ schedule 40 stainless steel pipe hinge pins with stainless steel hardware
- A 4-inch toe kick should be provided on sides of gangway.

Kayak Chute:

- Hinge pins will be supplied for the top and bottom attachment.
- All framing components to be Marine Grade 6061 or 6063 Aluminum.
- Supplemental flotation is required to be added to the bottom of the chute to provide a freeboard of 16φ to 18φ (with no live load present)
- Flotation at end of chute is plastic encapsulated foam.
- Structural Truss Railing to be located on gangway side
- Slide pads running the full length of the structure will be composite decking, matching the dock surface.

Floating Docks:

- 16φ freeboard with no live load present
- 2.5φ draft depth with no live load present
- 50-Series Dock Frame
 - Track in top of extrusion allows for bolting accessories such as cleats to the top perimeter of dock.
 - Rectangular aluminum extrusion
 - Measures 6.06φ high by 3.77φ wide
 - Weight of 3.69lb/lineal foot
- All framing components are Marine Grade 6061 or 6063 Aluminum.
- All fasteners are stainless steel.
- All flotation is plastic encapsulated foam.
- Decking is Gray Composite with a span rating of 24φ on center
 - 5/4φ x 6φ nominal sizing
 - Fiberglass reinforced HDPE
- Decking is attached using the TimberStrong fastening system, meaning there are no fasteners in the deck surface.
 - Fastener is mechanically attached to each corresponding deck board, per TimberStrong specifications
 - Attachment at each joist is with one #10 stainless steel, self-tapping screw, placed through the TimberStrong fastener and into the corresponding joist

Kayak Launch With Adaptive Boarding Kit:

- 16-inch freeboard with no live load present.
- All framing components are Marine Grade 6061 or 6063 Aluminum.
- All fasteners are stainless steel.
- All flotation is plastic encapsulated foam.
- Decking is 12-inch wide, raised rib, knurled aluminum, welded in place.
- Slide pads in cradle are composite decking.
- Skids will be included underneath kayak launch to assist with seasonal removal
- Adaptive Boarding Kit to include the following components:
 - All framing components are Marine Grade 6061 or 6063 Aluminum.
 - All fasteners are stainless steel.
 - One (1) kayak roll cage.
 - One (1) overhead grab bar.
 - One (1) informational instruction sign.
 - One (1) 4-tiered boarding bench with retractable seat.
 - Four (4) hand straps suspended from roll cage.

Bulkhead Mounting Angle Kit:

- For attachment to concrete foundation.
- Aluminum angles with integrated attachment of hinges.
 - Hinges are to be mechanically attached
 - 1 1/4" schedule 40 pipe hinge pins with stainless steel hardware

Dock-to-Dock Threshold Strip:

- A flat aluminum threshold strip is used to attach dock sections together.
- The strip is to be held in place by a stainless-steel bolted connection through the strip and into hex nuts located in the top track of the 50 series extrusion.

Mending Plates:

- Installed on the vertical face of the docks.
- Attachment is made to the vertical face and into hex nuts located in the top track of the 50 series extrusion.

Toe Kicks:

- Toe kicks are 5-inch high, square aluminum tube, bolted to dock track with stainless steel bolts.
- Toe kick is included on all open sides of floating dock.

NOTES:

- CONTRACTOR TO INSTALL OWNER-SUPPLIED BOARDSAFE KAYAK LAUNCH
- CONTRACTOR TO PICK UP AT 110 N. 42nd AVE W. CITY STAFF TO LOAD LAUNCH ONTO CONTRACTOR SUPPLIED TRUCK. CONTRACTOR RESPONSIBLE FOR OFF-LOADING AT PROJECT SITE.
- CONCRETE ABUTMENT DESIGN AND INSTALLATION BY CONTRACTOR; MUST SUPPLY STAMPED SHOP DRAWINGS FOR APPROVAL.
- COORDINATE ABUTMENT DESIGN w/ LAUNCH MANUFACTURER

SHEET KEY

SHEET TITLE
KAYAK LAUNCH DETAILS

DATE 9/5/2025

DRAWN BY: AMA

CHECKED BY: LWS

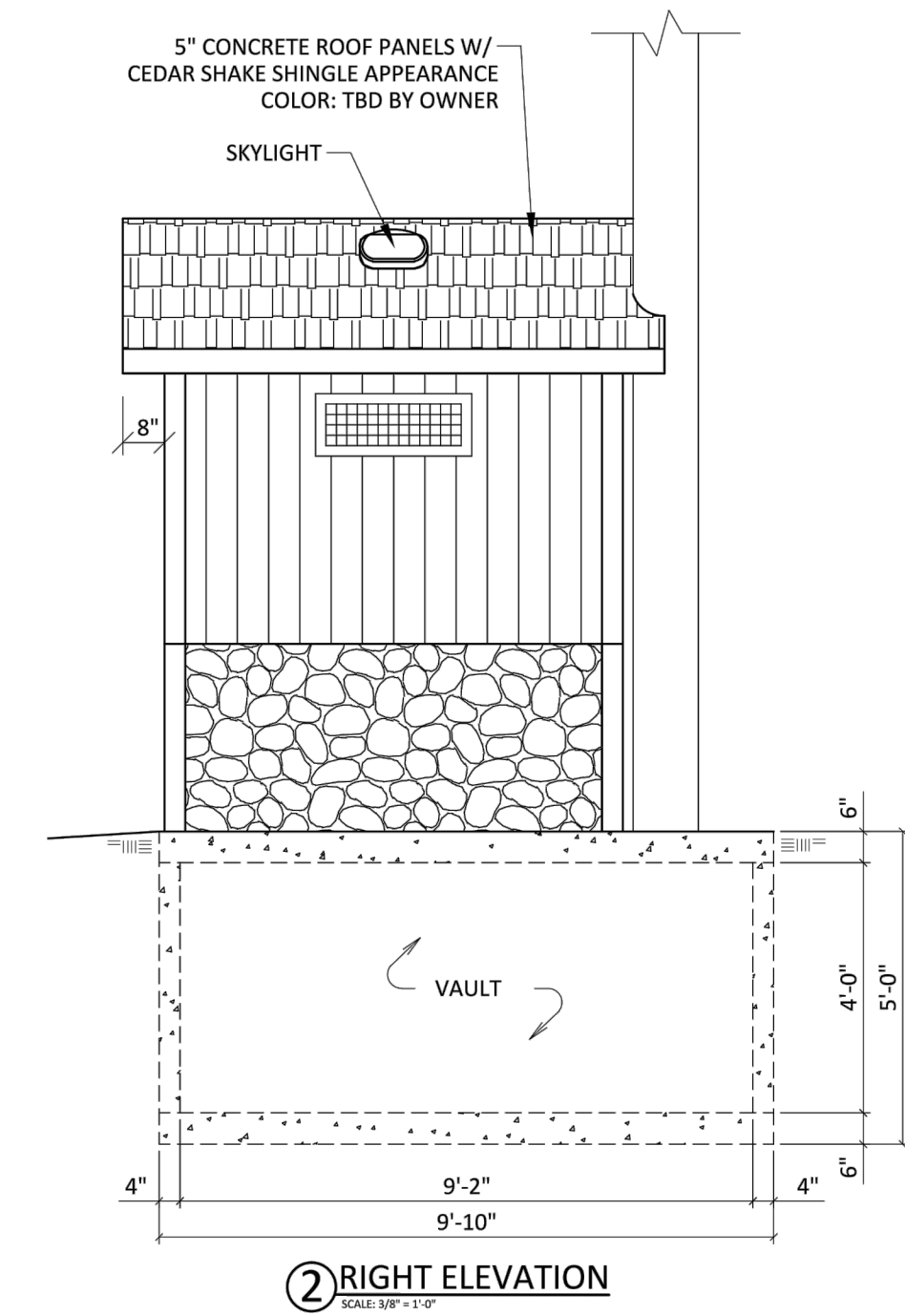
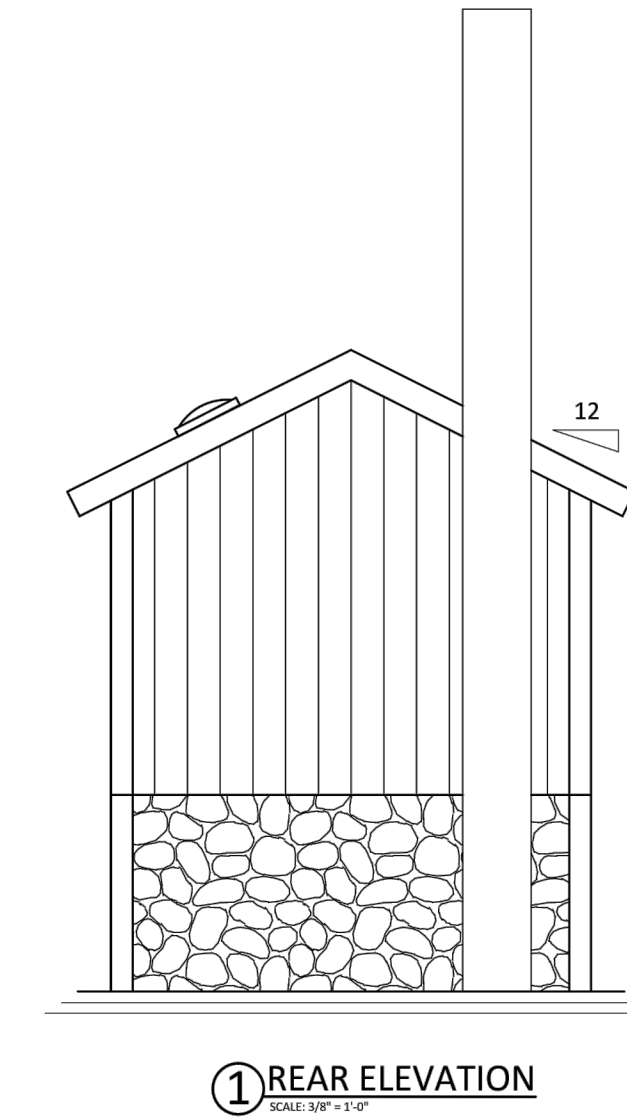
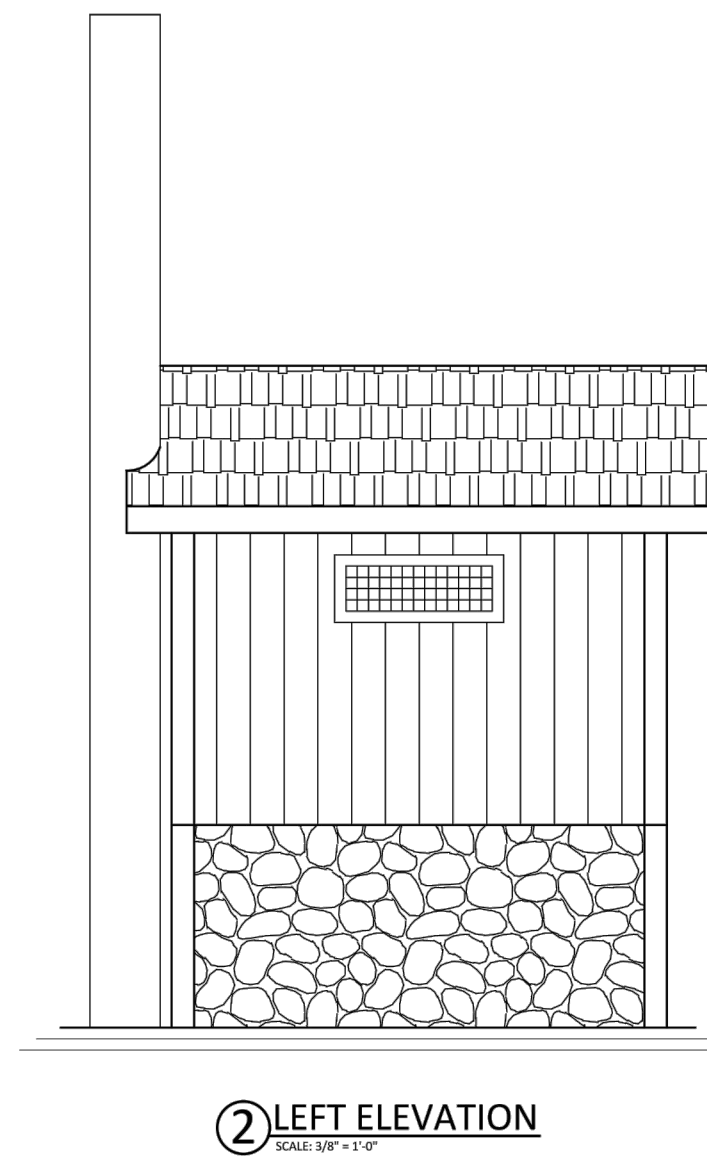
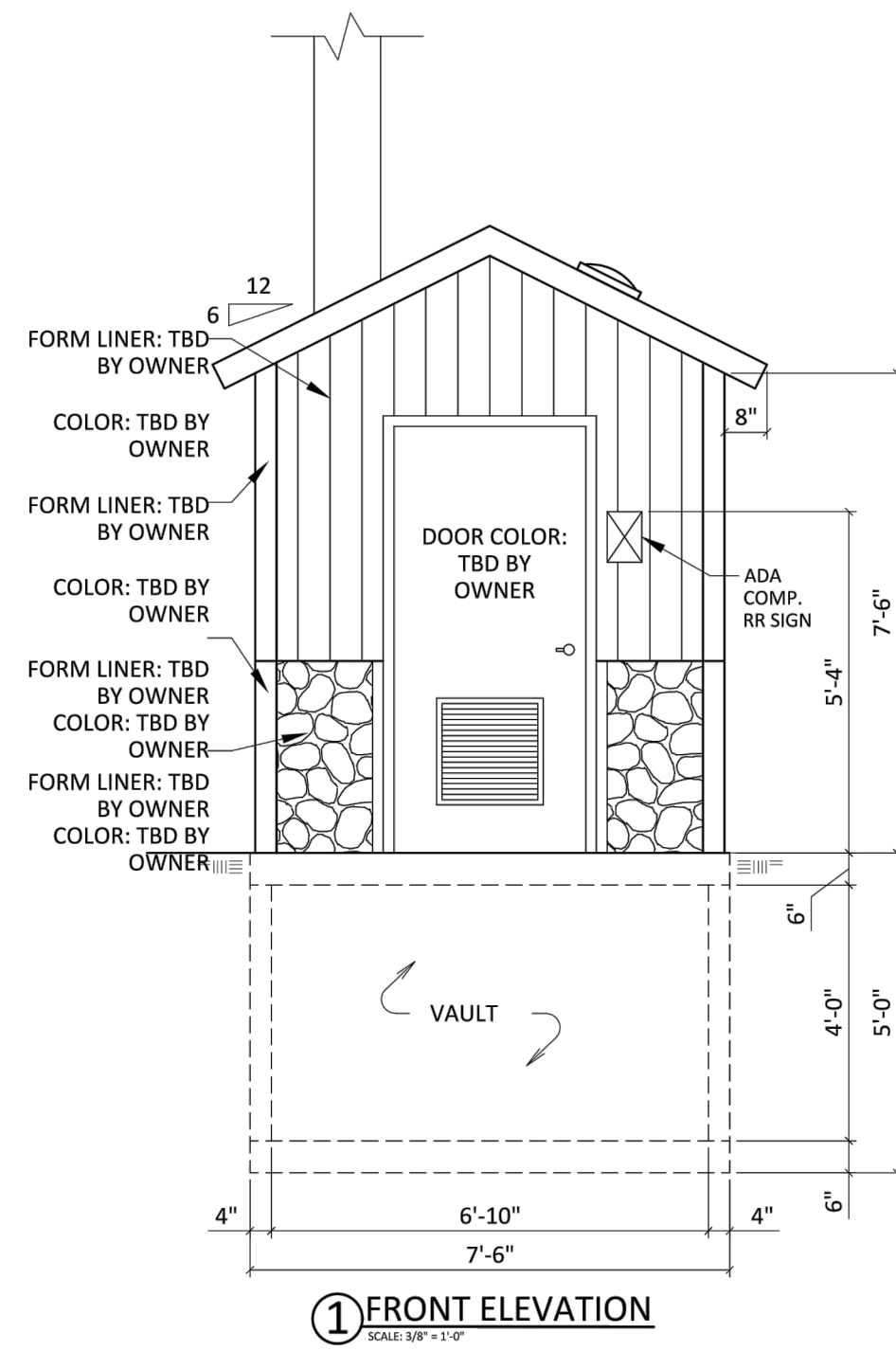
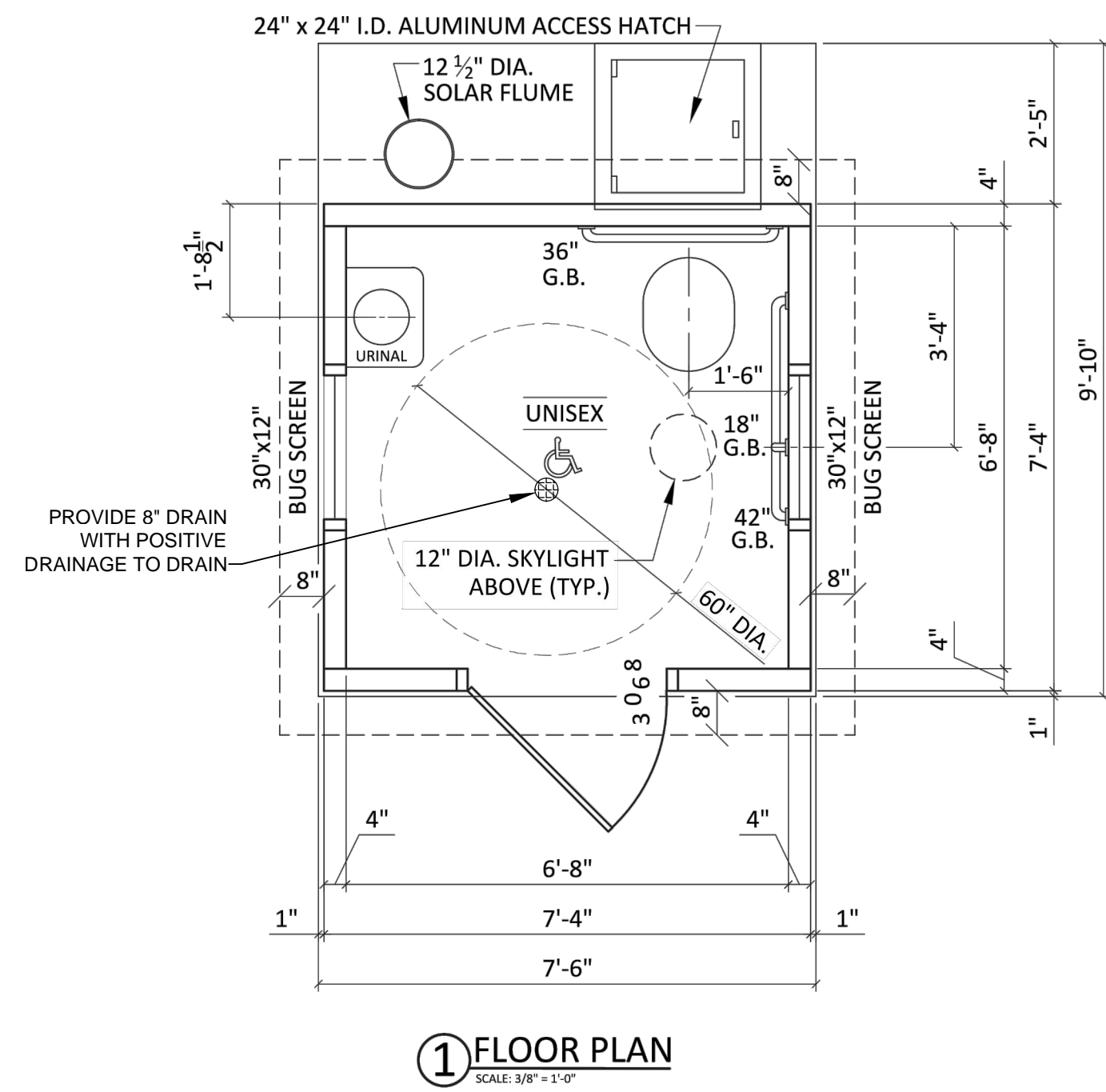
PROJECT NUMBER
24170

SHEET NUMBER
D-3

VAULT TOILET NOTES:

- 1) VAULT TOILET TO BE 'TEAL' MODEL BY HUFFCUTT OR APPROVED EQUAL (HUFFCUTT CONCRETE INC.; 4154 123RD ST CHIPPEWA FALLS, WI 54729; (715) 723-7446; HUFFCUTT.COM).
- 2) MANUFACTURER TO PROVIDE A WRITTEN WARRANTY PROVIDING 20 YEARS STRUCTURAL, MANUFACTURER'S WARRANTY ON ALL HARDWARE AND COMPONENTS NOT PRODUCED AT PRECAST CONCRETE MANUFACTURER'S PLANT, AND 3 YEARS AGAINST DEFECTS IN PAINT, CAULK, AND GROUT.
- 3) **COLORS AND MATERIALS FOR SIDING, DOORS, ROOF, ETC. TO BE DETERMINED BY OWNER PRIOR TO ORDERING.**
- 4) CONTRACTOR TO PROVIDE SIGNED SHOP DRAWINGS FROM VAULT TOILET MANUFACTURER FOR APPROVAL.
- 5) DRAWINGS SHOWN BELOW ARE FOR REFERENCE ONLY.

- VAULT -
TEAL



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LANDSCAPE ARCHITECTURE

+ ASSOCIATES

WWW.SASLANDARCH.COM

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MAIL@SASLANDARCH.COM

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ISSUE RECORD/REVISION

PURPOSE	DATE

PERCH LAKE LANDING IMPROVEMENTS
CITY OF DULUTH, MINNESOTA

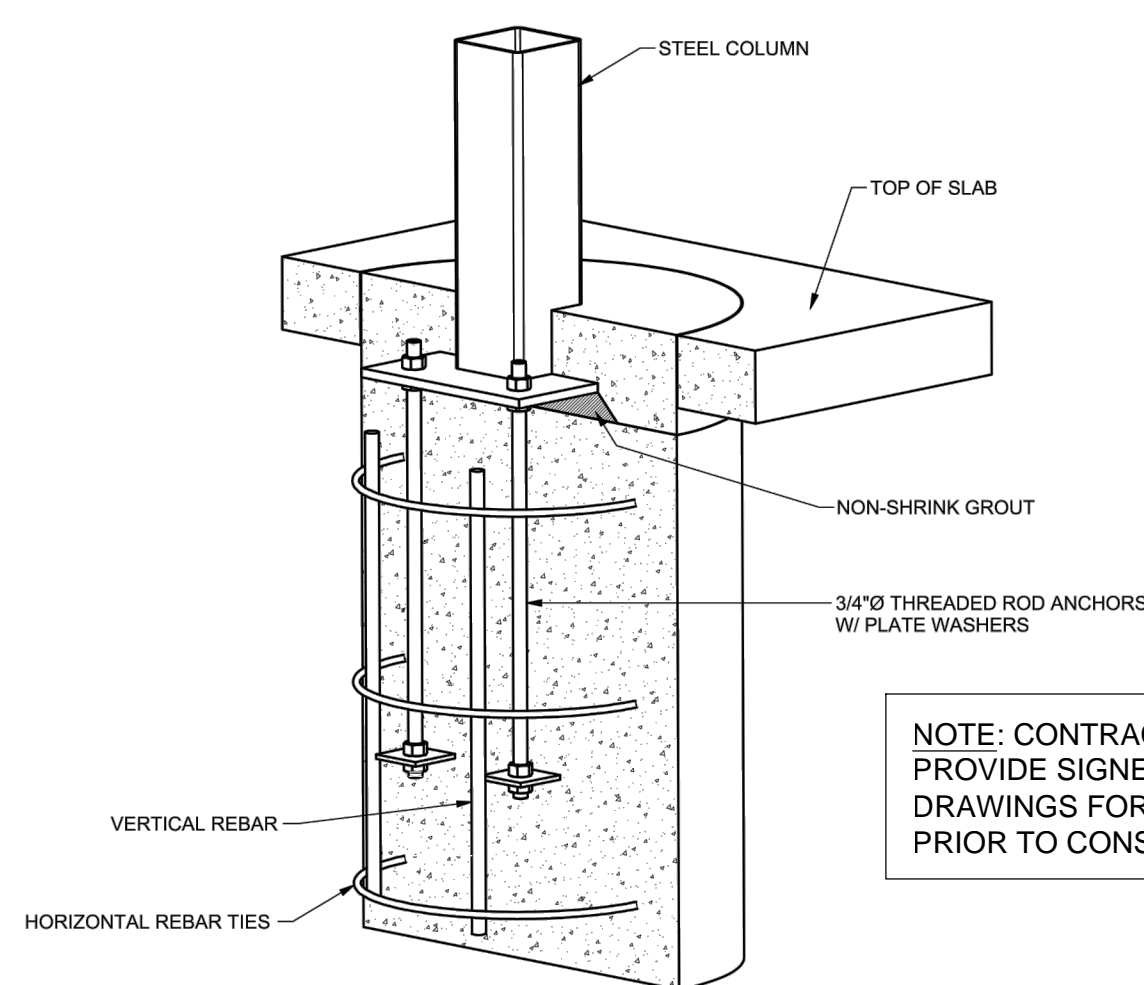
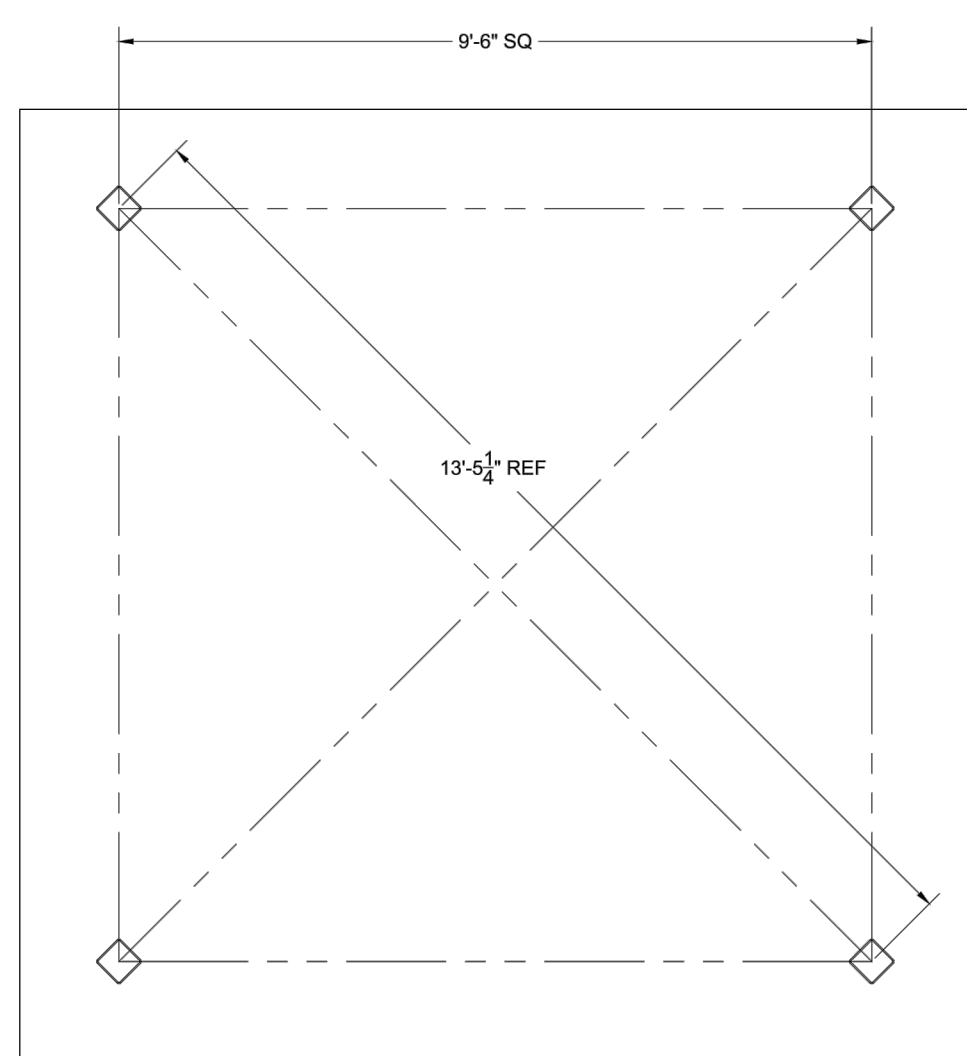
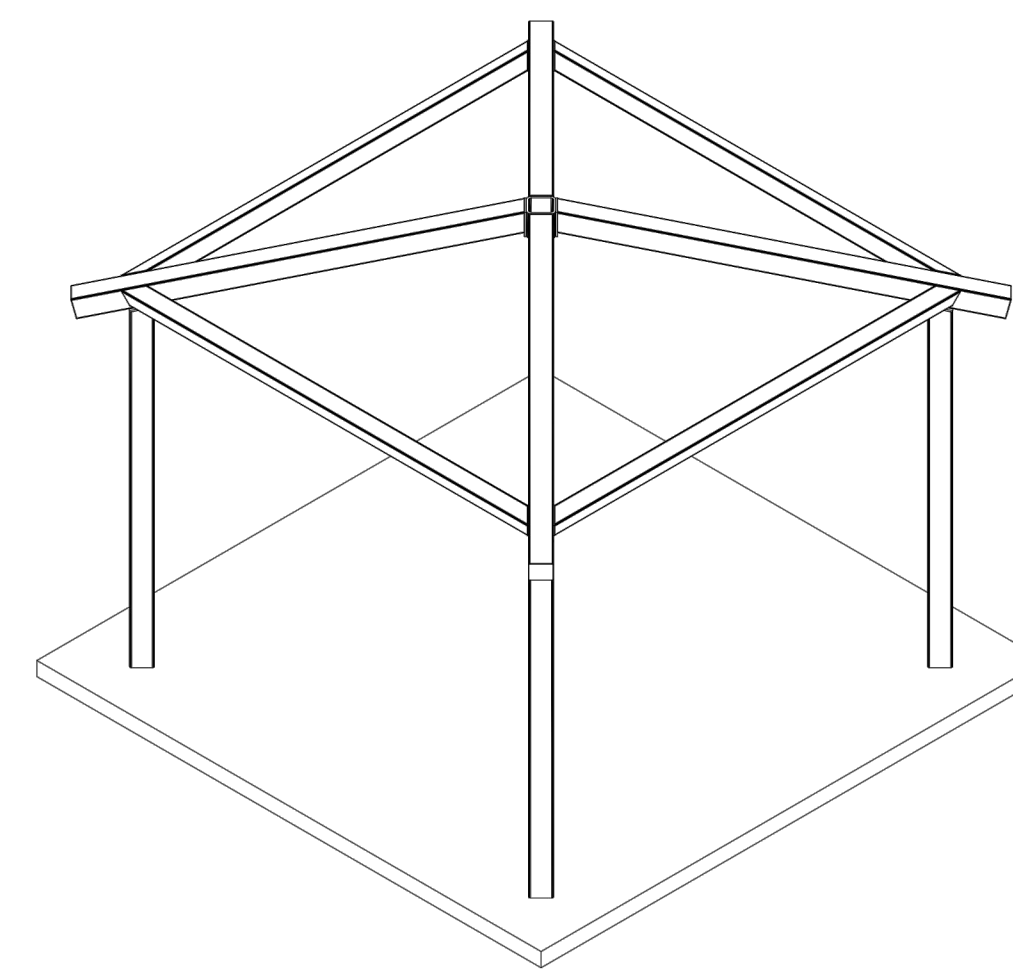
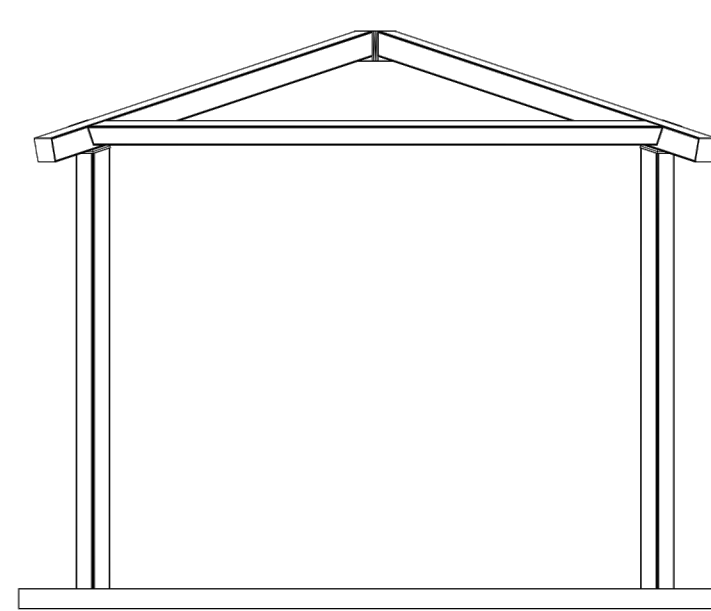
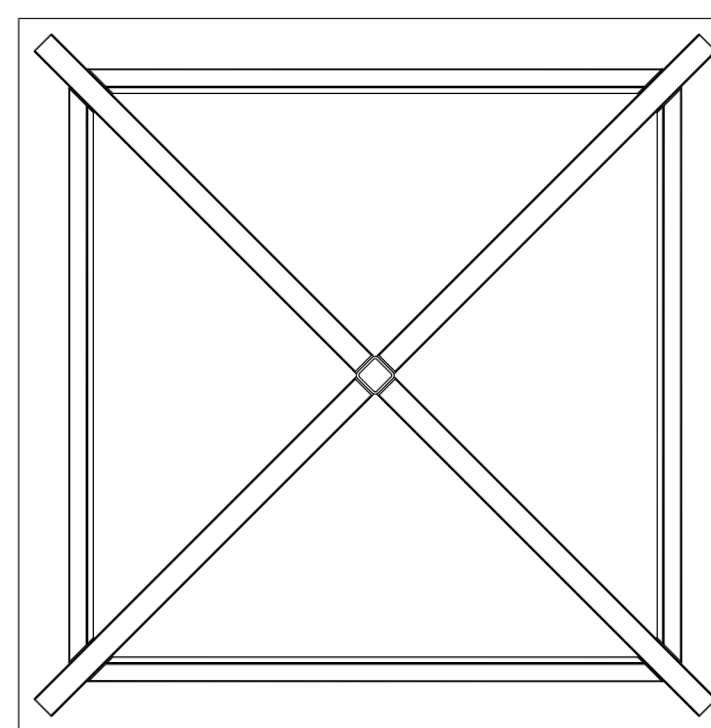
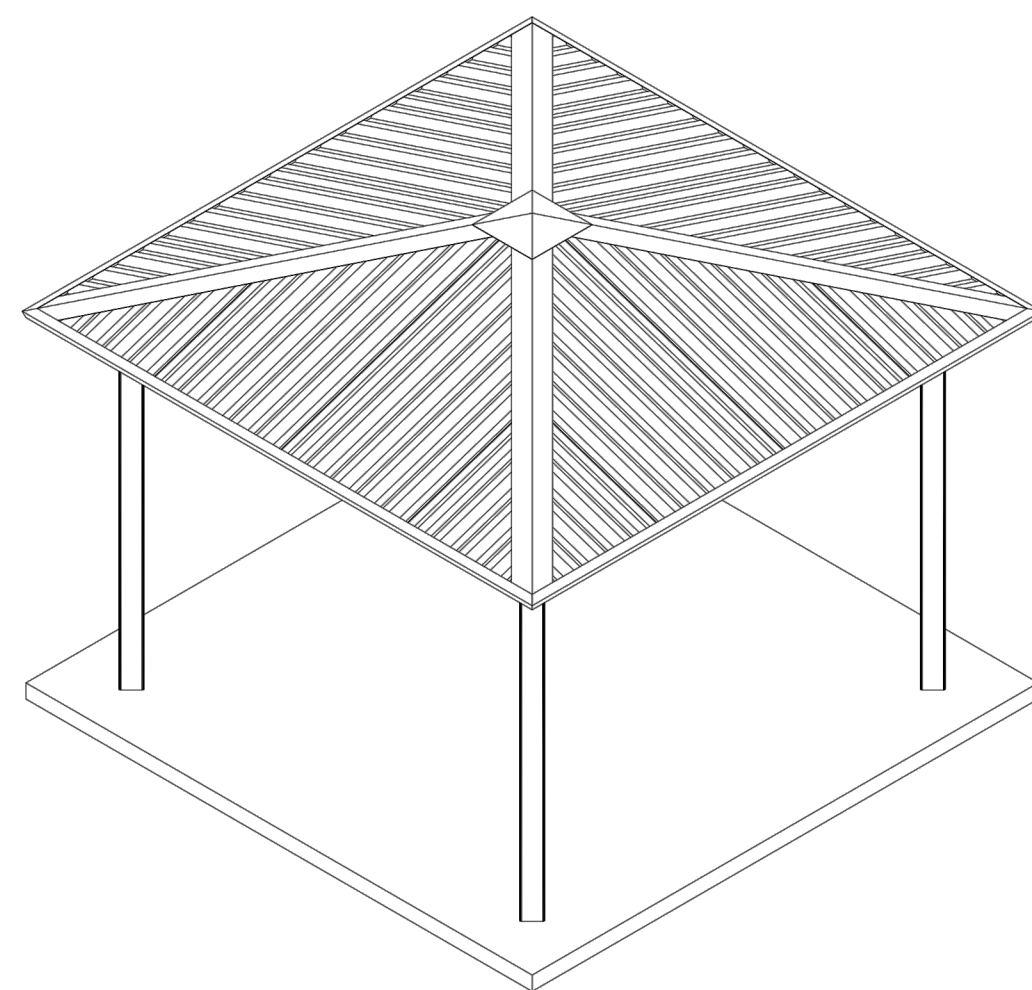
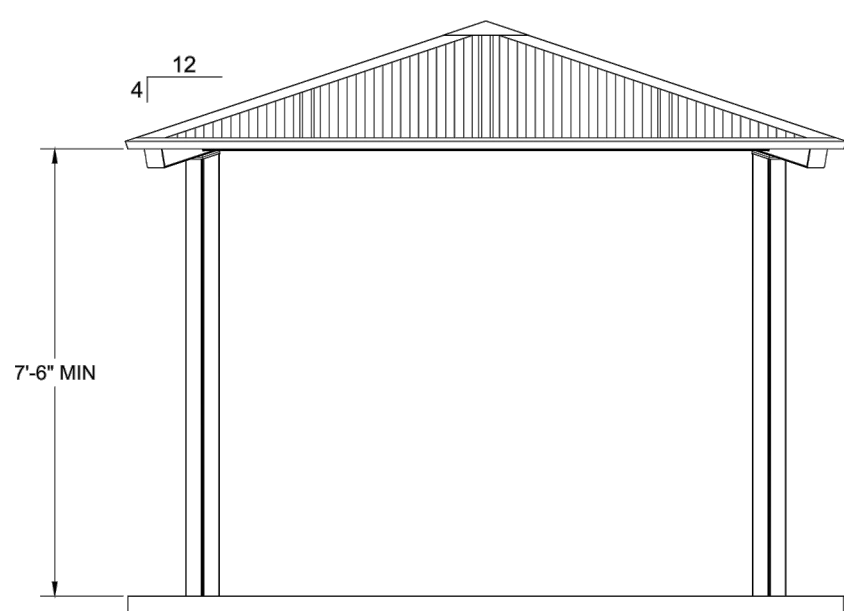
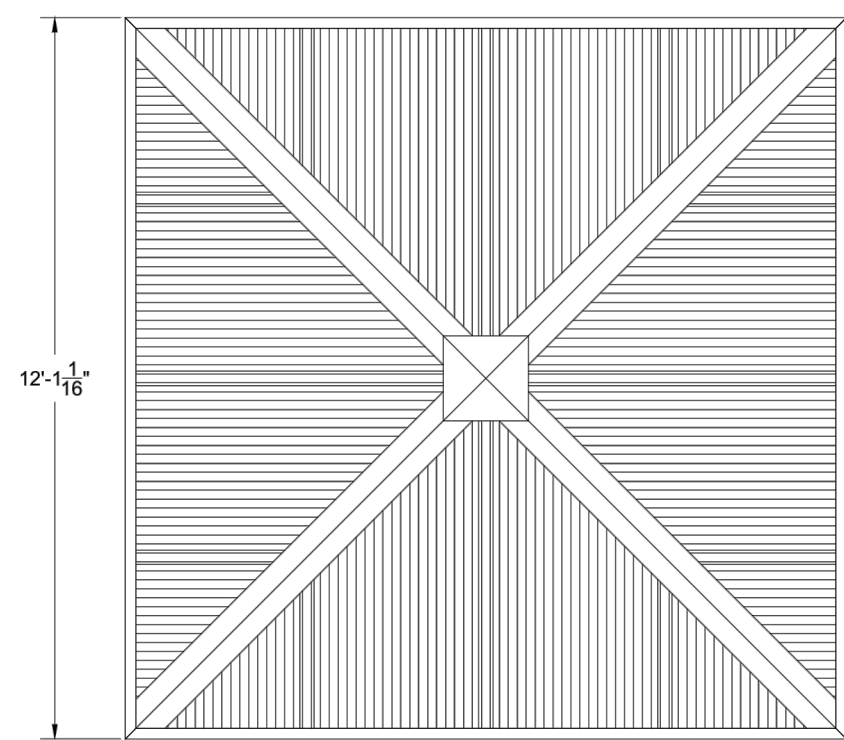
SHEET KEY

SHEET TITLE
VAULT TOILET DETAILS

DATE	9/5/2025
DRAWN BY:	AMA
CHECKED BY:	LWS
PROJECT NUMBER	24170
SHEET NUMBER	D-4

PAVILION NOTES (ADD ALT #1):

- 1) PAVILION TO BE 12'x12' SQUARE w/ STEEL FRAME & STANDING RIB METAL ROOF. UNDERSIDE OF ROOF TO BE TONGUE AND GROOVE.
- 2) CLEARANCE FROM FLOOR ELEVATION TO ROOF EDGE TO BE 7'-6" MIN. ROOF PITCH TO BE 4:12.
- 3) **STEEL FRAME TO BE POWDER COATED; COLORS FOR FRAME AND ROOF TO BE DETERMINED BY OWNER.**
- 4) CONTRACTOR TO PROVIDE SIGNED SHOP DRAWINGS FROM PAVILION MANUFACTURER FOR APPROVAL.
- 5) DRAWINGS SHOWN BELOW ARE FOR REFERENCE ONLY.



NOTE: CONTRACTOR TO PROVIDE SIGNED PIER SHOP DRAWINGS FOR APPROVAL PRIOR TO CONSTRUCTION.

STEEL COLUMN PIER DETAIL

TYPICAL PIER DIAMETER IS BETWEEN 2'-0" AND 3'-0"
 TYPICAL PIER DEPTH IS BETWEEN 3'-6" AND 5'-6"
 ACTUAL DESIGN WILL VARY DUE TO BUILDING CODE REQUIREMENTS AND MAY BE SUBSTANTIALLY LARGER.



LANDSCAPE ARCHITECTURE

+ ASSOCIATES

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PURPOSE	DATE

**PERCH LAKE LANDING
 IMPROVEMENTS**
 CITY OF DULUTH, MINNESOTA

SHEET KEY

SHEET TITLE
**PAVILION DETAILS
 ADD ALT #1**

DATE: 9/5/2025
 DRAWN BY: AMA
 CHECKED BY: LWS
 PROJECT NUMBER: 24170
 SHEET NUMBER: D-5