

WATER MAIN PLAN LEGEND

RIGHT OF WAY LINE	----
DITCH CENTERLINE	----
FENCE LINE	-x-x-x-x-x-
RETAINING WALL	----
GRAVEL LINE	----
GUARD RAIL LINE	----
RAILROAD TRACK LINE	+++++
ROAD CENTERLINE	----
TREE LINE	----
STREAM LINE	----
WETLAND LINE	----
EX SANITARY LINE	-->>
PR SANITARY LINE	-->>
AB SANITARY LINE	AB-SAN
EX FORCEMAIN LINE	FM >>
PR FORCEMAIN LINE	FM >>
AB FORCEMAIN LINE	AB-FM
EX STORM LINE	-->>
PR STORM LINE	-->>
AB STORM LINE	AB-STRM
EX WATER MAIN	-----
PR WATER MAIN	-----
AB WATER MAIN	AB-W
EX WATER SERVICE	WS
PR WATER SERVICE	WS
EX GAS LINE	GAS
PR GAS LINE	3" PE GAS
AB GAS LINE	AB-GAS
EX STEAM LINE	STEAM
AB STEAM LINE	AB-STEAM
UG CABLE TV LINE	UGTV
AB CABLE TV LINE	AB-CATV
UG ELECTRIC LINE	UGE
AB ELECTRIC LINE	AB-ELEC
UG FIBEROPTIC LINE	UGFO
AB FIBEROPTIC LINE	AB-FO
UG TELEPHONE LINE	UGT
AB TELEPHONE LINE	AB-TELE
OH UTILITIES	OH

SYMBOLS

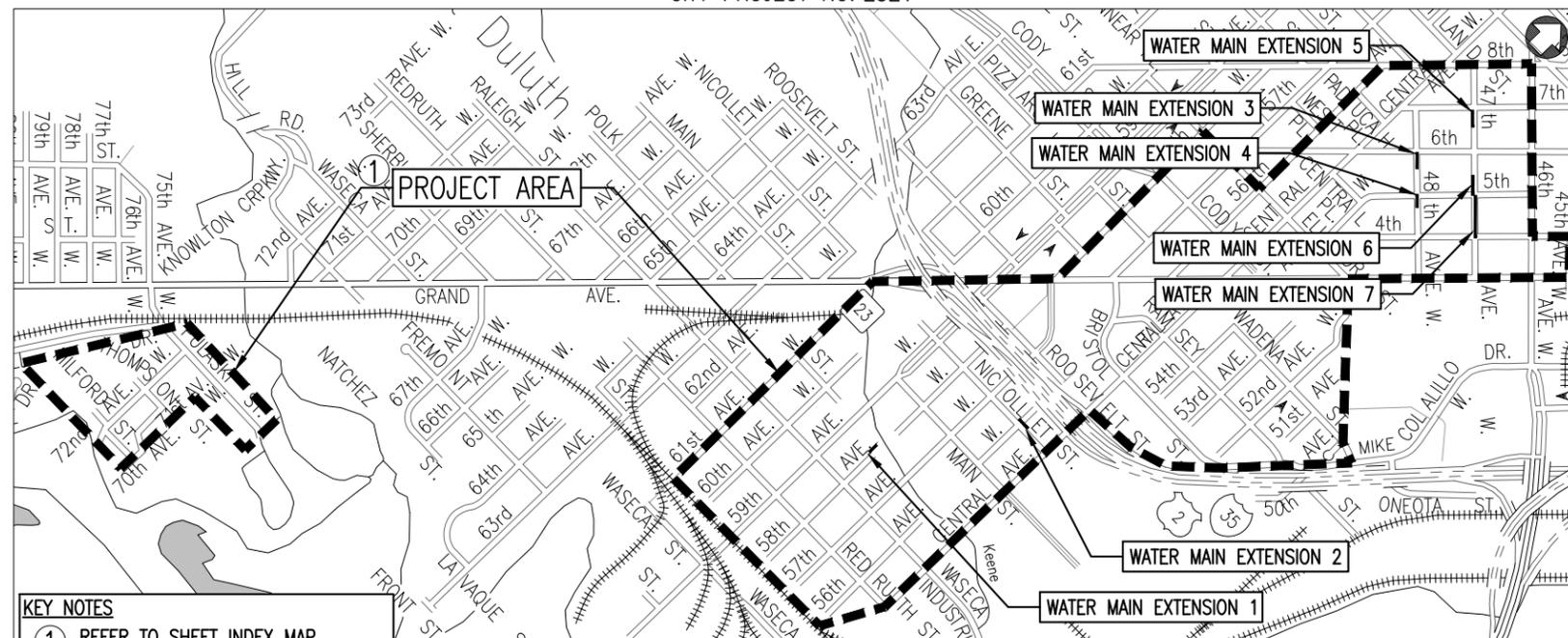
EX SANITARY MANHOLE	(SAN)
EX SANITARY CLEANOUT	(STRM)
EX STORM MANHOLE	(W)
EX STORM CATCHBASIN	(W&G)
EX. WATER MANHOLE	(W)
EX. WATER VALVE	(V)
EX. WATER HYDRANT	(H)
EX. WATER SHUTOFF	(S)
EX. WATER & GAS MH	(W&G)
EX. GAS MANHOLE	(GAS)
EX. GAS VALVE	(GV)
EX. GAS SHUTOFF	(S)
EX. STEAM MANHOLE	(STEAM)
EX. TELEPHONE MANHOLE	(T)
EX. ELECTRIC MANHOLE	(E)
EX. POWERPOLE	(P)
EX. LIGHT POLE	(L)
EX. ELECTRIC VAULT	(V)
EX. ANCHOR	(A)
EX. ELECTRIC TRANSFORMER	(ET)
EX. STREET LIGHT	(SL)
EX. SIGNAL W/ STREET LIGHT	(S)
EX. HANDHOLE	(H.H.)
EX. HANDHOLE	(H.H.)
EX. TELEPHONE PEDESTAL	(TP)
EX. WELL	(W)
BENCHMARK	(B)
FOUND CI MONUMENT	(M)
EX. SIGN	(S)
CONTROL POINT	(CP)
EX DECIDUOUS TREE	(DT)
EX CONIFEROUS TREE	(CT)
EX. PARKING METER	(PM)
EX. SOIL BORING	(SB#)

CITY OF DULUTH

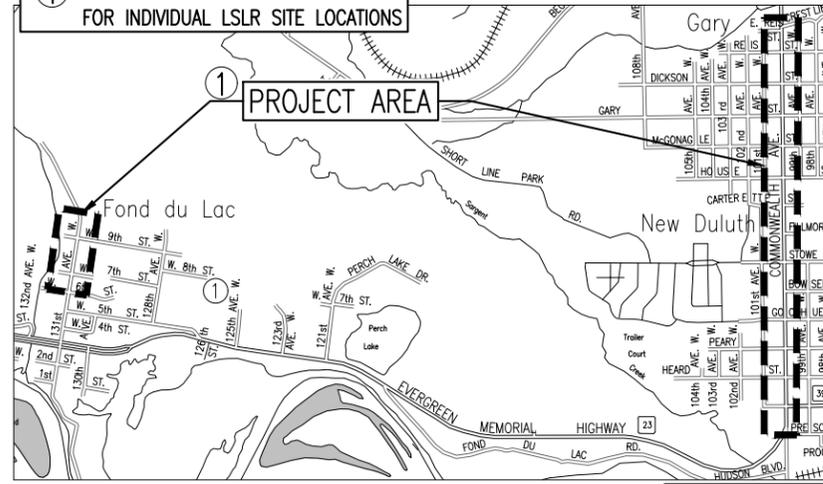
DEPARTMENT OF PUBLIC WORKS AND UTILITIES ENGINEERING DIVISION CONSTRUCTION PLANS FOR: LEAD SERVICE LINE REPLACEMENT (LSLR) – SPIRIT VALLEY

LEAD WATER SERVICE LINE REPLACEMENT, GRADING, BASE, ROADWAY PAVEMENT, SIDEWALK, CURB & GUTTER, AND WATER MAIN EXTENSIONS
LOCATION: DULUTH, MN – SPIRIT VALLEY NEIGHBORHOOD

CITY PROJECT NO. 2321



KEY NOTES
1 REFER TO SHEET INDEX MAP FOR INDIVIDUAL LSLR SITE LOCATIONS



BASIS OF DATUM

HORIZONTAL DATUM IS SAINT LOUIS COUNTY TRANSVERSE MERCATOR 1996 (SLCTM_96).
VERTICAL DATUM IS NAVD 88.

TRAFFIC CONTROL NOTE

ALL TRAFFIC CONTROL DEVICES AND SIGNING SHALL CONFORM AND BE INSTALLED IN ACCORDANCE WITH THE CURRENT "MINNESOTA MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES" (MnMUTCD), INCLUDING THE LATEST FIELD MANUAL FOR TEMPORARY TRAFFIC CONTROL ZONE LAYOUTS.

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

SCALES

- WATER SERVICE PLAN, 1"=30'
- INDEX MAPS, 1"=750', 1"=1500'
- WATER MAIN PLAN, 1"=20', 1"=40'
- 1"=20'(HORIZ.), 1"=4'(VERT.)
- WATER MAIN PROFILE, 1"=40'(HORIZ.), 1"=8'(VERT.)



PLAN REVISIONS		
DATE	SHEET NO.	APPROVER

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

GOVERNING SPECIFICATIONS

THE 2025 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>

THE 2019 EDITION OF THE CITY OF DULUTH PUBLIC WORKS AND UTILITIES DEPARTMENT CONSTRUCTION STANDARDS AND SUPPLEMENTS OR ADDENDUMS SHALL APPLY. AVAILABLE AT: <http://www.duluthmn.gov/engineering/standard-construction-specifications/>

ALL TRAFFIC CONTROL DEVICES SHALL CONFORM TO THE LATEST MNUTCD, INCLUDING THE LATEST FIELD MANUAL FOR TEMPORARY TRAFFIC CONTROL ZONE LAYOUTS.

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SHEET NO	DESCRIPTION
1	TITLE SHEET
2	LSLR SITE PLAN LEGEND
I1-I19	SITE INDEX MAPS
Q1	STATEMENT OF ESTIMATED QUANTITIES
C1-C19	QUANTITY CHARTS
D1-D30	CONSTRUCTION DETAILS
E1-E3	EROSION CONTROL PLAN & SWPPP
TC1-TC5	TRAFFIC CONTROL
S0-S441	LEAD SERVICE REPLACEMENT SITE PLANS
W1-W7	WATER MAIN EXTENSION PLANS

---THIS PLAN CONTAINS 505 SHEETS---

DESIGN TEAM: WRT, AI, CF, SD, ES

I HEREBY CERTIFY THAT THIS PLAN 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.

WILSON TAYLOR, P.E.

PROJECT ENGINEER (TYPED OR PRINTED NAME)

12/12/2025 59409
PROJECT ENGINEER DATE LIC. NO.

RECOMMENDED CITY APPROVAL

APPROVED CHIEF ENGINEER OF TRANSPORTATION DATE

APPROVED CHIEF ENGINEER OF UTILITIES DATE

APPROVED CITY ENGINEER DATE