

GOVERNING SPECIFICATIONS

THE 2016 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 2017 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/>

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".

WARNING:

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

INDEX

SHEET NO.	DESCRIPTION
1	TITLE SHEET
2	SEQ
3	TRAFFIC CONTROL PLAN
4	PLAN & PROFILE

THIS PLAN CONTAINS 4 SHEETS

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.

THOMAS M. PFEFFER

PROJECT ENGINEER (TYPED OR PRINTED NAME)

Thomas M. Pfeffer 3/21/17 22442
PROJECT ENGINEER DATE LIC. NO.

CITY APPROVAL

Chad Jensen 3/21/17
APPROVED CHIEF ENGINEER OF TRANSPORTATION DATE

[Signature] 3/21/17
APPROVED CHIEF ENGINEER OF UTILITIES DATE

[Signature] 3/23/17
APPROVED CITY ENGINEER DATE

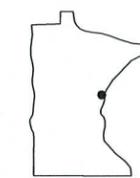
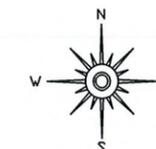
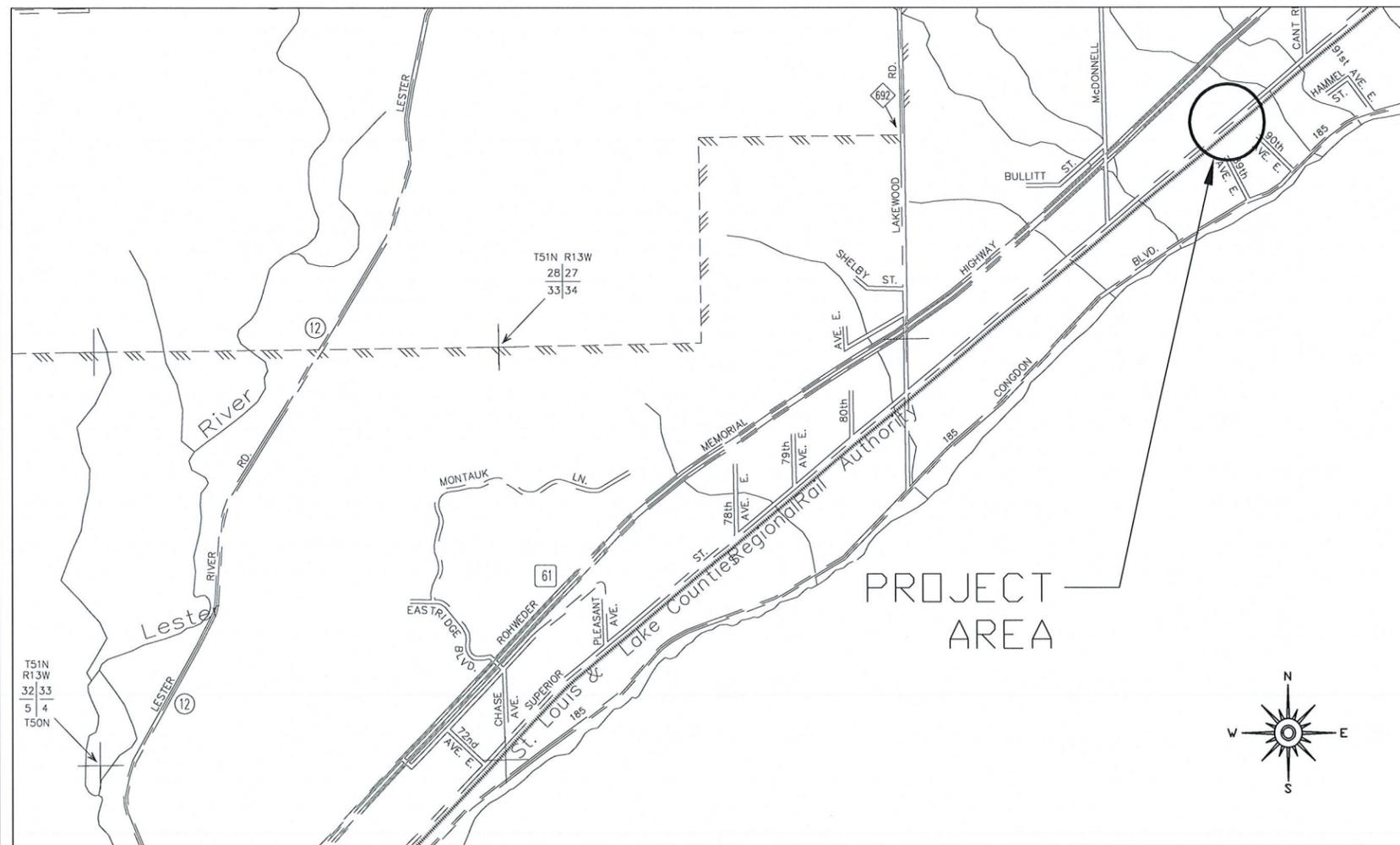
CITY OF DULUTH

DEPARTMENT OF PUBLIC WORKS AND UTILITIES ENGINEERING DIVISION

CONSTRUCTION PLANS FOR:

89TH AVE E CREEK WATERMAIN REPLACEMENT

CITY PROJECT NO. 1311



PROJECT LOCATION
ST. LOUIS COUNTY
CITY OF DULUTH
SEC 26
T 51N
R 13W

PLAN LEGEND

RIGHT OF WAY LINE	---
DITCH CENTERLINE	---
FENCE LINE	---
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	---
EX FORCEMAIN LINE	---
PR FORCEMAIN LINE	---
AB FORCEMAIN LINE	---
EX STORM LINE	---
PR STORM LINE	---
AB STORM LINE	---
EX WATER LINE	---
PR WATER LINE	---
AB WATER LINE	---
EX GAS LINE	---
PR GAS LINE	---
AB GAS LINE	---
EX STEAM LINE	---
PR STEAM LINE	---
AB STEAM LINE	---
UG CABLE TV LINE	---
AB CABLE TV LINE	---
UG ELECTRIC LINE	---
AB ELECTRIC LINE	---
UG FIBEROPTIC LINE	---
AB FIBEROPTIC LINE	---
UG TELEPHONE LINE	---
AB TELEPHONE LINE	---
OH ELECTRIC LINE	---
OH TELEPHONE LINE	---
OH CABLE TV LINE	---

SYMBOLS

EX SANITARY MANHOLE	(SAN)
EX SANITARY CLEANOUT	(X)
EX STORM MANHOLE	(STRM)
EX STORM CATCHBASIN	(W)
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	(V)
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	(P)
EX. WELL	(W)
BENCHMARK	(B)
FOUND CI MONUMENT	(M)
EX. SIGN	(S)
CONTROL POINT	(C)
EX DECIDUOUS TREE	(D)
EX CONIFEROUS TREE	(C)
EX. PARKING METER	(P)
EX. SOIL BORING	(SB#)

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CITY OF DULUTH PROJECT NO. 1311

DRAWN BY: JJM

SHEET NO. 1 OF 4

STATEMENT OF ESTIMATED QUANTITIES

NOTES	ITEM NUM	SPEC NUM	DESCRIPTION	UNIT	QUANTITY
	1	2021.501	MOBILIZATION	LS	1.00
	2	2104.525	ABANDON WATER MAIN	EACH	1
	3	2211.502	AGGREGATE BASE CLASS 5 (LV)	C Y	20
1	4	2504.602	CONNECT TO EXISTING 8" HDPE WATER MAIN	EACH	2
	5	2504.603	8" DIPS HDPE SDR 11 WATER MAIN [H.D.D.]	L F	200
	6	2504.602	8" X 3/4" TAPPING TEE W/ELECTROFUSION SADDLE	EACH	1
	7	2504.602	WATER TRACER BOX	EACH	3
	8	2504.602	RECONNECT EXISTING 3/4" WATER SERVICE	EACH	1
	9	2504.602	RELOCATE EXISTING WATER SERVICE VALVE	EACH	1
	10	2563.601	TRAFFIC CONTROL	LS	1.00
	11	2573.502	SILT FENCE, TYPE H.I.	L F	200
	12	2575.523	EROSION CONTROL BLANKET CATEGORY 3	S Y	350
2	13	2575.601	TURF ESTABLISHMENT	LUMP SUM	1.00

NOTES:

- 1 ITEM INCLUDES TRENCH EXCAVATION, PIPE BEDDING & COVER MATERIAL, PIPE, FITTINGS AND TRACER WIRE
- 2 ITEM INCLUDES 4" SALVAGED OR IMPORTED TOPSOIL, FERTILIZER, AND SEED MIX NO. 25-141.

CERTIFIED BY: **THOMAS M. PFEFFER**

REG. NO.: **22442**

E. SUPERIOR ST. WATERMAIN REPLACEMENT AT 89TH AVENUE EAST CREEK

DRAWN BY: **JJM**

SIGNATURE: _____



DATE: **3/21/2017**

CITY OF DULUTH

SEQ

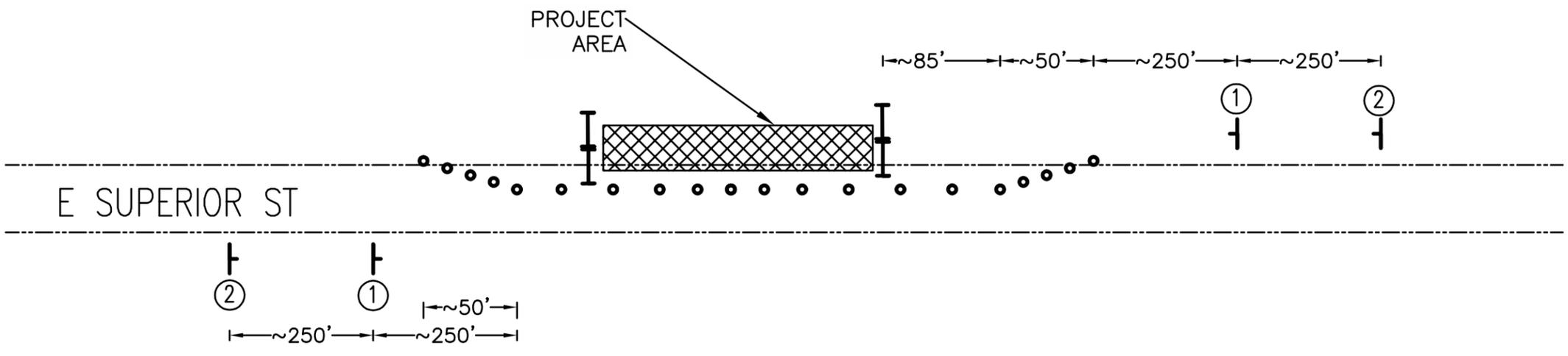
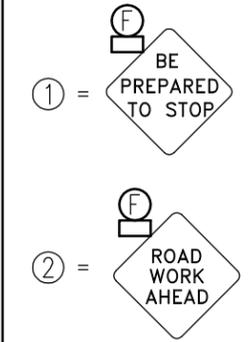
CITY PROJECT NO.: **1311**

STATE AID PROJECT NO.:

SHEET NO. **2** OF **4**

LEGEND

- =TYPE "B" CHANNELIZING DEVICE
- ⓕ =TYPE "A" FLASHER
- ⊥ =SIGN
- ▬ =TYPE III BARRICADE W/ FLASHER



TRAFFIC CONTROL PLAN

NOTES:

1. THE CONTRACTOR SHALL FURNISH, INSTALL AND MAINTAIN THE DEVICES IN THIS TRAFFIC CONTROL PLAN UNLESS OTHERWISE NOTED.
2. ALL TRAFFIC CONTROL DEVICES SHALL CONFORM TO THE 2014 MINNESOTA MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES INCLUDING "TEMPORARY TRAFFIC CONTROL ZONE LAYOUTS FIELD MANUAL 2014" (AVAILABLE AT: <http://www.dot.state.mn.us/trafficeng/publ/fieldmanual/index.html>)
3. FIELD CONDITIONS MAY REQUIRE MODIFICATIONS OF THIS LAYOUT AS DEEMED NECESSARY BY THE ENGINEER.
4. THE NUMBER AND PLACEMENT OF TRAFFIC CONTROL DEVICES WILL DEPEND UPON THE SEQUENCE OF THE CONTRACTORS OPERATION.
5. ALL DISTANCES ARE APPROXIMATE.
6. THE CONTRACTOR IS RESPONSIBLE FOR PROTECTING ANY WORK AREAS NEAR TRAFFIC IN ACCORDANCE WITH MMUTCD.
7. IF THE CONTRACTOR DECIDES TO PERFORM THE CONSTRUCTION WORK IN A SEQUENCE OTHER THAN SHOWN IN THIS TRAFFIC CONTROL PLAN, THE CONTRACTOR SHALL PROVIDE COMPLETE REVISED TRAFFIC CONTROL PLANS TO BE APPROVED BY THE ENGINEER.
8. ALL TRAFFIC CONTROL DEVICES, INCLUDING OVERHEAD SIGNS ON ROADS OPEN TO TRAFFIC THAT ARE NOT CONSISTENT WITH TRAFFIC OPERATION, SHALL BE COVERED, REMOVED OR REVISED AS DIRECTED BY THE ENGINEER.
9. "ROAD CLOSED TO THRU TRAFFIC" SIGNS SHALL BE INSTALLED ON TYPE III BARRICADES AND SHALL BE LOCATED AT A POINT IN THE STREET AS TO PERMIT LOCAL TRAFFIC USE BUT EFFECTIVELY DISCOURAGE THRU TRAFFIC USE.
10. TYPE "A" LOW INTENSITY AMBER WARNING LIGHTS SHALL BE MOUNTED ON ALL ADVANCE WARNING SIGNS AND ON ALL TYPE I AND TYPE III BARRICADES WHEN USED AT NIGHT OR TO IDENTIFY HAZARDS.
11. ADDITIONAL SIGNING MAY BE REQUIRED FOR SEPARATE LANE CLOSURES. THE SIGNING SHALL BE IN CONFORMANCE WITH "TEMPORARY TRAFFIC CONTROL ZONE LAYOUTS FIELD MANUAL 2014" AND SHALL BE CONSIDERED INCIDENTAL TO "TRAFFIC CONTROL".

CERTIFIED BY: THOMAS M. PFEFFER	REG. NO.: 22442		E. SUPERIOR ST. WATERMAIN REPLACEMENT AT 89TH AVENUE EAST CREEK	DRAWN BY: JJM
SIGNATURE: <i>Thomas M. Pfeffer</i>	DATE: 3/21/2017	△	CITY OF DULUTH	TRAFFIC CONTROL PLAN
		△	CITY PROJECT NO.: 1311	STATE AID PROJECT NO.:
				SHEET NO. 3 OF 4

