

# MINNESOTA DEPARTMENT OF TRANSPORTATION SAINT LOUIS COUNTY

CONSTRUCTION PLAN FOR: SIGNAL SYSTEM REVISIONS

LOCATED IN: DULUTH, HERMANTOWN, AND PROCTOR

MNDOT STATE PROJ. NO.:	8821-320
ST. LOUIS COUNTY STATE PROJ. NO.	069-070-047
ST. LOUIS COUNTY PROJ. NO.	0000-390020
CITY OF DULUTH PROJ. NO.	1732
CITY OF HERMANTOWN PROJ. NO.	202-103-010



MINN. PROJ. NO. \_\_\_\_\_

**GOVERNING SPECIFICATIONS**

THE 2018 EDITION OF THE MINNESOTA DEPARTMENT OF TRANSPORTATION "STANDARD SPECIFICATIONS FOR CONSTRUCTION" SHALL GOVERN.

ALL TRAFFIC CONTROL DEVICES SHALL CONFORM TO THE MOST RECENT EDITION OF THE MINNESOTA MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES, INCLUDING THE "TEMPORARY TRAFFIC CONTROL FIELD MANUAL".

**INDEX**

- 1 TITLE SHEET
- 2 STATEMENT OF ESTIMATED QUANTITIES, NOTES AND STANDARD PLATES
- 3-6 SIGNAL SYSTEM MAPS
- 7-145 REVISE SIGNAL SYSTEM LAYOUTS

THIS PLAN CONTAINS 145 SHEETS



DESIGN SQUAD K. SHARBONO, T. OLSON, D. NIEVEEN

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.

Print Name: NICK VANGUNST

Signature: *Nick Van Gunst*

Date: 12/19/18 LIC. NO. 44683

APPROVED [Signature] 12/21/18  
CITY OF HERMANTOWN ENGINEER DATE

APPROVED [Signature] 12/21/18  
CITY OF DULUTH ENGINEER DATE

APPROVED [Signature] 12/21/2018  
ST. LOUIS COUNTY HIGHWAY ENGINEER DATE

RECOMMENDED FOR APPROVAL: \_\_\_\_\_ DATE: \_\_\_\_\_  
DISTRICT 1 TRAFFIC ENGINEER

APPROVED: DISTRICT 1 ENGINEER \_\_\_\_\_ DATE: \_\_\_\_\_

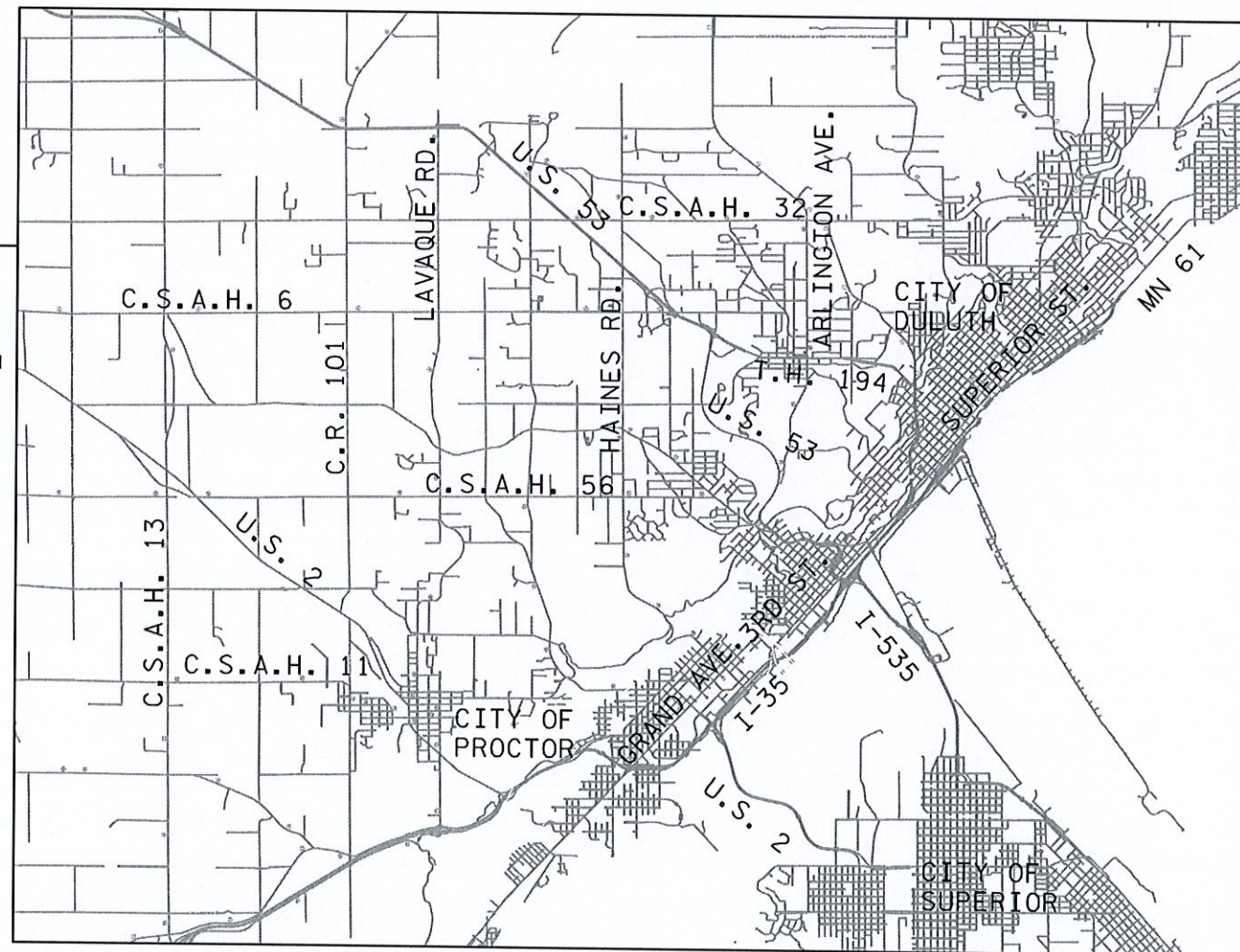
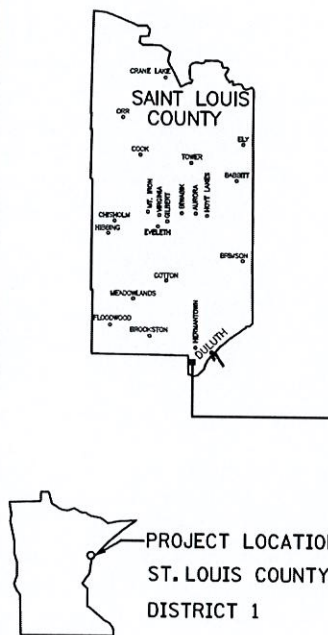
DISTRICT STATE AID ENGINEER: APPROVED FOR COMPLIANCE WITH STATE-AID RULES/POLICY \_\_\_\_\_ DATE: \_\_\_\_\_

STATE AID ENGINEER: APPROVED FOR STATE AID AND FEDERAL AID FUNDING \_\_\_\_\_ DATE: \_\_\_\_\_

SHEET NO. 1 OF 145 SHEETS

**PLAN SYMBOLS**

- SECTION SUBMISSION LINE \_\_\_\_\_
- EXISTING R/W \_\_\_\_\_
- NEW R/W \_\_\_\_\_
- TEMP EASE \_\_\_\_\_
- RAILROAD R/W \_\_\_\_\_
- ROAD SHOULDER \_\_\_\_\_
- EDGE OF LAKE \_\_\_\_\_
- SWAMP BOUNDARY \_\_\_\_\_
- MISCELLANEOUS BOUNDARY \_\_\_\_\_
- CORPORATE OR CITY LIMITS \_\_\_\_\_
- PROPERTY LINE \_\_\_\_\_
- RECREATIONAL TRAIL \_\_\_\_\_
- ROAD ALIGNMENT \_\_\_\_\_
- ALIGNMENT POINTS \_\_\_\_\_
- RIVER OR CREEK \_\_\_\_\_
- DRAINAGE DITCH \_\_\_\_\_
- BRIDGE \_\_\_\_\_
- RAILROAD (SINGLE TRACK) \_\_\_\_\_
- RR CROSSING PAVEMENT MARKING \_\_\_\_\_
- RR CROSSING GATE \_\_\_\_\_
- RR CROSSBUCK SIGN \_\_\_\_\_
- RR CROSSBUCK SIGN W/LIGHTS \_\_\_\_\_
- BARBED WIRE FENCE \_\_\_\_\_
- CHAIN LINK FENCE \_\_\_\_\_
- WOVEN WIRE, COMBINATION WOVEN AND BARB \_\_\_\_\_
- WOOD FENCE \_\_\_\_\_
- BILLBOARD \_\_\_\_\_
- RETAINING WALL \_\_\_\_\_
- GUARDRAIL (CABLE) \_\_\_\_\_
- GUARDRAIL (PLATE BEAM) \_\_\_\_\_
- DRAIN TILE \_\_\_\_\_
- CULVERT \_\_\_\_\_
- CULVERT WITH APRONS \_\_\_\_\_
- TREELINE OR BRUSHLINE \_\_\_\_\_
- DECIDUOUS TREES \_\_\_\_\_
- CONIFER (EVERGREEN) TREES \_\_\_\_\_
- HEDGE \_\_\_\_\_
- BUSH OR SHRUB \_\_\_\_\_
- SWAMP OR MARSH \_\_\_\_\_
- MONUMENT (CI,ACT,ACP,BCP,...) \_\_\_\_\_
- CONCRETE OR STONE MONUMENT \_\_\_\_\_
- IRON PIPE, PIN OR REBAR \_\_\_\_\_
- IRON PIN WITH BRASS DISK \_\_\_\_\_
- NAIL, PK NAIL, SPIKE, SFP, T-BAR, ... \_\_\_\_\_
- VERTICAL CONTROL \_\_\_\_\_
- HORIZONTAL CONTROL \_\_\_\_\_
- POWER POLE \_\_\_\_\_
- LIGHT POLE \_\_\_\_\_
- LIGHT AND TELEPHONE POLE \_\_\_\_\_
- LIGHT, TELEPHONE AND POWER POLE \_\_\_\_\_
- GUY POLE \_\_\_\_\_
- POLE ANCHOR \_\_\_\_\_
- TELEPHONE POLE \_\_\_\_\_
- TELEPHONE AND POWER POLE \_\_\_\_\_
- UNDERGROUND UTILITY PEDESTAL \_\_\_\_\_
- TELEPHONE MANHOLE (VAULT) \_\_\_\_\_
- ELECTRIC CABLE IN CONDUIT \_\_\_\_\_
- TELEPHONE CABLE IN CONDUIT \_\_\_\_\_
- BURIED ELECTRIC CABLE \_\_\_\_\_
- BURIED TELEPHONE CABLE \_\_\_\_\_
- GAS LINE \_\_\_\_\_
- WATER LINE \_\_\_\_\_
- VALVE \_\_\_\_\_
- FIRE HYDRANT \_\_\_\_\_
- WATER MANHOLE \_\_\_\_\_
- WELL \_\_\_\_\_
- LAWN SPRINKLER HEAD \_\_\_\_\_
- MANHOLE \_\_\_\_\_
- CATCH BASIN \_\_\_\_\_
- SEPTIC TANK \_\_\_\_\_
- FORCE MAIN LIFT STA. \_\_\_\_\_
- SEWER LINE \_\_\_\_\_
- PERMANENT BARRICADE \_\_\_\_\_
- TRAFFIC SIGNAL LIGHT \_\_\_\_\_
- HAND HOLE \_\_\_\_\_
- ENTRANCE \_\_\_\_\_
- BUILDING \_\_\_\_\_
- SATELLITE DISH \_\_\_\_\_
- STEEL TOWER \_\_\_\_\_
- FLAG POLE \_\_\_\_\_
- SIGN \_\_\_\_\_
- TYPE III BARRICADE \_\_\_\_\_
- CHANNELIZING DEVICE \_\_\_\_\_
- TYPE A WARNING LIGHT \_\_\_\_\_



PLAN \_\_\_\_\_ 40'

GENERAL LAYOUT \_\_\_\_\_ 2500'

INDEX MAP \_\_\_\_\_ 10000'

PLAN REVISIONS		
DATE	SHEET NO.	APPROVED BY

S.P. 069-070-047 CP 0000-390020

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 12/20/2018  
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