

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>

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?	STANDARD PLATES, BASIS FOR ESTIMATED QUANTITIES
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- THIS PLAN CONTAINS ??? SHEETS -	

DESIGN DESIGNATION - 8820.9941 (URBAN)

R VALUE	10	$\Sigma N1820$	=	1,199,608
ADT (Current Year)	2016	=	8,300	
ADT (Future Year)	2036	=	9,900	
D (Directional Distr.)		=	50/50%	
T (Heavy Commercial)		=	3.6%	
Proj. Soil Factor		=	130 (R=10)	

Design Loading	=	10 TON
Traffic Lanes	=	11'
Parking Width	=	7'
Bike Lanes	=	5'
Functional Class	=	Major Collector
Design Speed	=	30 mph

Based on STOPPING Sight Distance
Height Of Eye 3.5' Height of object 2.0'

DESIGN DESIGNATION - 8820.9946 (URBAN)

Urban Reconditioning sta. 500+00.00 to sta. 538+59.00

DESIGN SQUAD: JEFF ISACKSON, DARRELL MILLER, MARK ROMANO

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: STEPHEN E. KRASAWAY

SIGNATURE: _____

DATE: _____ LIC. NO.: 45397

APPROVED: _____ DATE: _____
ST. LOUIS COUNTY HIGHWAY ENGINEER

APPROVED: _____ DATE: _____
CITY OF DULUTH

DISTRICT STATE AID ENGINEER: REVIEWED FOR
COMPLIANCE WITH STATE-AID RULES/POLICY

STATE AID ENGINEER: APPROVED FOR FEDERAL AND STATE AID FUNDING
DATE: _____

SHEET NO. 1 OF SHEETS

PLAN SYMBOLS

COUNTY LINE	---
TOWNSHIP OR RANGE LINE	----
SECTION LINE	=====
QUARTER LINE	=====
SIXTEENTH LINE	=====
EXISTING R/W	=====
NEW R/W	=====
TEMP EASE	-----
RAILROAD R/W	=====
UNSURFACED RD. OR SHLD.	-----
EDGE OF LAKE	=====
SWAMP BOUNDARY	=====
MISCELLANEOUS BOUNDARY	=====
CORPORATE OR CITY LIMITS	=====
ALIGNMENT STATIONS	-----
ALIGNMENT POINTS	-----
PROPERTY LINES	-----
VACATED PLATTED PROPERTY	-----
RIVER OR CREEK	=====
DRAINAGE DITCH	=====
BRIDGE	=====
RECREATIONAL TRAIL	=====
RAILROAD (SINGLE TRACK)	=====
RR CROSSING PAVEMENT MARKING	=====
RR CROSSING SIGNAL AND GATE	=====
RR CROSSBUCK SIGN	=====
RR CROSSBUCK SIGN W/LIGHTS	=====
RR SWITCH	=====
BARBED WIRE FENCE	=====
CHAIN LINK FENCE	=====
WOVEN WIRE, OR WOVEN AND BARB	=====
WOOD FENCE	=====
BILLBOARD	=====
GUARD POST	=====
RETAINING WALL	=====
GUARDRAIL (CABLE)	=====
GUARDRAIL (PLATE BEAM)	=====
DRAIN TILE	=====
FLUME	=====
CULVERT APRON	=====
CULVERT	=====
WOODS OR BRUSH, NURSERY	=====
DECIDUOUS TREES	=====
CONIFER (EVERGREEN) TREES	=====
HEDGE	=====
BUSH OR SHRUB	=====
STUMP	=====
SWAMP OR MARSH	=====
CONCRETE OR STONE MONUMENT	=====
IRON PIPE	=====
CAST IRON OR CAPPED PIPE MONUMENT	=====
HUB	=====
NAIL OR SPIKE OR PK NAIL	=====
IRON PIN OR REBAR	=====
IRON PIN WITH BRASS DISK	=====
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 CABLE PEDESTAL	=====
TELEPHONE OR POWER MANHOLE (VAULT)	=====
ELECTRIC CABLE IN CONDUIT	=====
TELEPHONE CABLE IN CONDUIT	=====
BURIED ELECTRIC CABLE	=====
BURIED TELEPHONE CABLE	=====
GAS LINE	=====
GAS METER	=====
WATER LINE	=====
VALVE	=====
FIRE HYDRANT	=====
WATER MANHOLE	=====
WELL	=====
LAWN SPRINKLER HEAD	=====
STORM SEWER MANHOLE	=====
SEPTIC TANK	=====
SANITARY SEWER MANHOLE	=====
CATCH BASIN	=====
FORCE MAIN LIFT STA.	=====
SEWER LINE	=====
BARRICADE	=====
SIGN	=====
TRAFFIC SIGNAL W/MAST ARM	=====
PED. PUSH BUTTON STA.	=====
HAND HOLE	=====
YARD LIGHT	=====
ENTRANCE	=====
BUILDING	=====
SATELLITE DISH	=====
STEEL TOWER	=====
FLAG POLE	=====

MINNESOTA DEPARTMENT OF TRANSPORTATION

SAINT LOUIS COUNTY

CONSTRUCTION PLAN FOR: GRADING, STORM SEWER, WATERMAIN, SANITARY SEWER, AGGREGATE BASE,
CURB AND GUTTER, PLANT MIXED BITUMINOUS SURFACE, SIDEWALKS,
RETAINING WALLS.

LOCATED ON C.S.A.H. 9 (FOURTH STREET) & (WALLACE AVE.)

BETWEEN 6TH AVENUE EAST AND ARROWHEAD ROAD

FROM A POINT APPROX. 1542' SOUTH OF THE TO A POINT 463' WEST OF THE WEST 1/16 CORNER
NORTHWEST CORNER OF SEC. 22, T50N, R16W. OF SECTION 11, T50N, R14W.

STATE PROJ. NO. 069-609-040

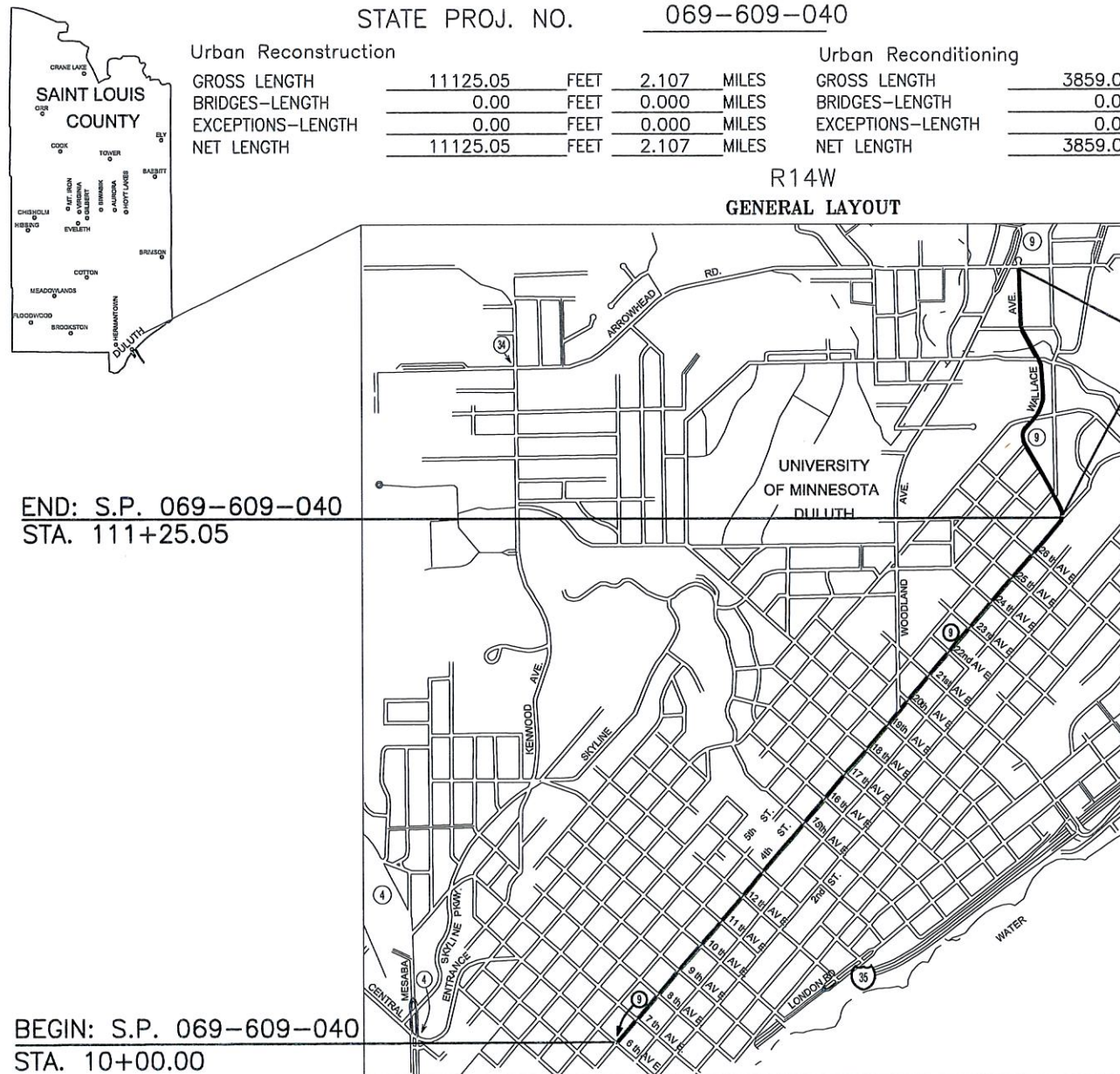
Urban Reconstruction

GROSS LENGTH	11125.05	FEET	2.107	MILES
BRIDGES-LENGTH	0.00	FEET	0.000	MILES
EXCEPTIONS-LENGTH	0.00	FEET	0.000	MILES
NET LENGTH	11125.05	FEET	2.107	MILES

Urban Reconditioning

GROSS LENGTH	3859.00	FEET	0.731	MILES
BRIDGES-LENGTH	0.00	FEET	0.000	MILES
EXCEPTIONS-LENGTH	0.00	FEET	0.000	MILES
NET LENGTH	3859.00	FEET	0.731	MILES

R14W GENERAL LAYOUT



END: S.P. 069-609-040
STA. 111+25.05

BEGIN: S.P. 069-609-040
STA. 10+00.00

SCALES

PLAN	20 ft.
PROFILE	50 ft. 10 ft. HORIZ. VERT.
INDEX MAP	25 mi.
GENERAL LAYOUT	0.50 mi.

PLAN REVISIONS

DATE	SHEET NO.	APPROVED BY

END: S.P. 069-609-040
STA. 538+59.00

BEGIN: S.P. 069-609-040
STA. 500+00.00

T50N



PREVIOUS PLANS

1985	S.A.P. 69-609-14	C.P. 98-857

STATE PRO. NO. 069-609-040 CP 0009-147349 TST