

MINNESOTA DEPARTMENT OF TRANSPORTATION LYON COUNTY

CONSTRUCTION PLAN FOR: BITUMINOUS OVERLAY AND AGGREGATE SHOULDERS.

COUNTY STATE AID HIGHWAY NO. 10

BETWEEN: 160TH AVE. TO C.S.A.H. 24

FROM: 368' SOUTH OF THE S.W. COR.
SEC. 19 T113N-R42W (160TH AVE.)

TO: S.E. COR. SEC. 19 T113N-R42W (C.S.A.H. 24)

STATE AID PROJECT 042-610-043

GROSS LENGTH 5,362.00 FEET 1.016 MILES

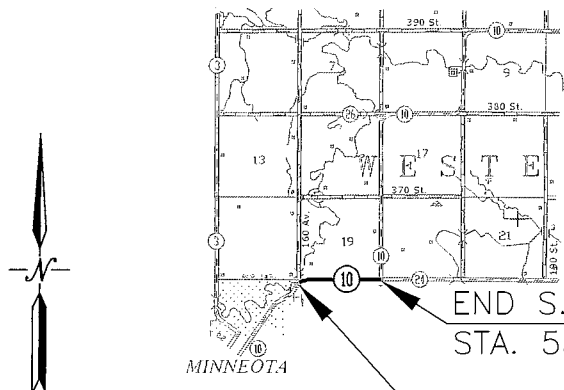
BRIDGE LENGTH 00.00 FEET 0.000 MILES

EXCEPTIONS LENGTH 00.00 FEET 0.000 MILES

NET LENGTH 5,362.00 FEET 1.016 MILES

SHEET NO. 1 TITLE SHEET
SHEET NO. 2 ESTIMATED QUANTITY SHEET
SHEET NO. 3 TYPICAL SECTIONS SHEET
SHEET NO. 4 TRAFFIC CONTROL PLAN SHEET

THIS PLAN CONTAINS 4 SHEETS



END S.A.P. 042-610-043
STA. 53+62.00

BEG. S.A.P. 042-610-043
STA. 0+00.00

FUNCTIONAL CLASSIFICATION:

MAJOR COLLECTOR

DESIGN SPEED 55 MPH

ADT (2017) 680

PROJ ADT (2037) 690

NO. OF TRAFFIC LANES: 2

S.F. 130 %

R VALUE = 10

TON DESIGN 10

ESALS (20 YR): 280,000

SHOULDER WIDTH: 6.00'

STOPPING SITE DISTANCE BASED ON:

3.5' HEIGHT OF EYE

2.0' HEIGHT OF OBJECT

GRADED SAP 042-610-022 (1992)

SURFACED SAP 042-610-022 (1992)

I HEREBY CERTIFY THAT THIS PLAN WAS PREPARED BY ME OR UNDER MY DIRECT SUPERVISION AND THAT I AM A DULY REGISTERED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF MINNESOTA.

Signature: *Aaron VanMoer* Typed Name: Aaron VanMoer
Design Engineer

Date: 2/15/17 License No.: 50428

Aaron VanMoer Date: 2/15/17
Approved County Engineer

Tom D. Brunnett Date: 2/16/17
District State Aid Engineer:
Reviewed for Compliance with State Aid Rules/Policy

Tom D. Brunnett Date: 2/16/17
Approved for State Aid Funding - for State Aid Engineer

GOVERNING SPECIFICATIONS

THE 2016 EDITION OF THE MINNESOTA DEPARTMENT OF TRANSPORTATION "STANDARD SPECIFICATIONS FOR CONSTRUCTION".

	ITEM NO.	ITEM	UNIT	MUN.	RURAL	TOTAL ESTIMATED QUANTITY
	2021.501	MOBILIZATION	LUMP SUM		1.00	1.00
	2051.501	MAINTENANCE & RESTORATION OF HAUL ROADS	LUMP SUM		1.00	1.00
1	2221.501	SHOULDER BASE AGGREGATE CLASS 5 MOD	TON		1,650.00	1,650.00
2	2232.501	MILL BITUMINOUS SURFACE (1.5")	SQ YD		22.00	22.00
3	2360.501	TYPE SP12.5 WEAR COURSE MIXTURE (3,B)	TON		2,575.00	2,575.00
	2563.601	TRAFFIC CONTROL	LUMP SUM		1.00	1.00
4	2582.502	4" SOLID LINE PAINT	LIN FT		1,080.00	1,080.00
5	2582.502	6" SOLID LINE PAINT	LIN FT		10,600.00	10,600.00

CONSTRUCTION NOTES

1. INCLUDES 20 TONS EACH AT 4 FIELD ENTRANCES.
2. MILL 8'x24' AS DIRECTED BY THE ENGINEER.
3. 30° SAFETY EDGE SHALL BE INCLUDED. BITUMINOUS SAFETY EDGE SHALL EXTEND AT A 30° ANGLE FROM THE TOP OF EACH COURSE. BITUMINOUS TACK COAT SHALL BE INCLUDED WITH THE TOTAL BID PRICE.
4. YELLOW CENTER LINE PAINT. QUANTITY INCLUDES SOLID AND BROKEN LINES. BROKEN LINES 10' PAINT AND 40' SKIP.
5. WHITE EDGE LINE PAINT.

BASIS FOR ESTIMATED QUANTITIES

WEAR COURSE MIXTURE

BITUMINOUS MATERIAL FOR MIXTURE (MAXIMUM DENSITY)
110LBS./SQ.YD./INCH OF DEPTH

TACK COAT

BITUMINOUS MATERIAL FOR TACK COAT .05 GALS. PER SQ.YD.

SHOULDER BASE AGGREGATE CL 5 MOD

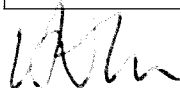
140 LBS./C.Y.

STANDARD PLATES AS APPROVED BY THE FEDERAL HIGHWAY
ADMINISTRATION SHALL APPLY ON THIS PROJECT.

STANDARD PLATES

PLATE NO.	DESCRIPTION
8000 J	CHANNELIZERS
9000 E	APPROACHES AND ENTRANCES

CERTIFIED BY:












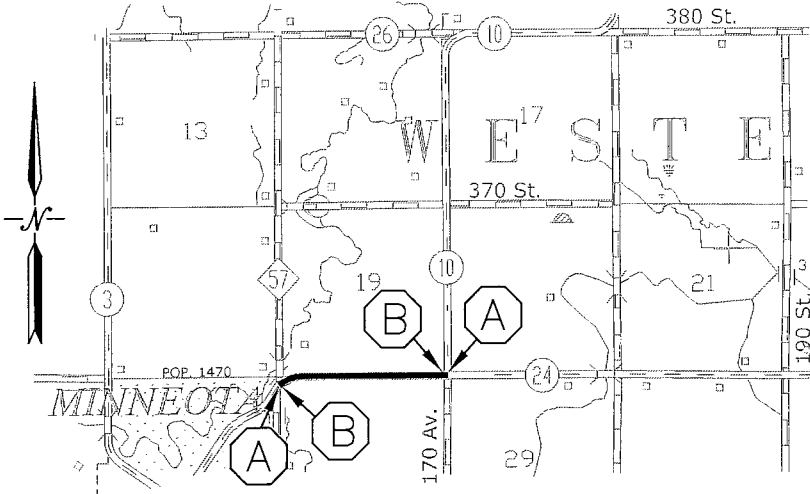
LIC. NO. 50428

LICENSED PROFESSIONAL ENGINEER

STATE AID PROJECT 042-610-043 SHEET 2 OF 4 SHEETS

TEMPORARY TRAFFIC CONTROL PLAN

TEMPORARY TRAFFIC CONTROL SIGNS			
INSERT	SIGN	QUANTITY	NOTES
(A)	 G20-1 NEXT 1.0 MILES	2	INSTALL ON TYPE 3 BARRICADE BLACK ON ORANGE 48"x24"
(B)	 W8-12	2	INSTALL 1/MILE MINIMUM BLACK ON ORANGE 48"x48"
	 W8-9	AS NEEDED	INSTALL 1/MILE MINIMUM BLACK ON ORANGE 48"x48"
	 W8-11	AS NEEDED	INSTALL 1/MILE MINIMUM BLACK ON ORANGE 48"x48"
	 W8-1A	AS NEEDED	BLACK ON ORANGE 48"x48"
	 W8-1A	AS NEEDED	BLACK ON ORANGE 48"x48"
	 W20-1	AS NEEDED	BLACK ON ORANGE 48"x48"
	 R4-1	0	INSTALL AT NO PASSING ZONE BLACK ON WHITE 24"x30"
	 R4-2	0	INSTALL AT NO PASSING ZONE BLACK ON WHITE 24"x30"



SIGN SPECIFIC NOTES:

1. R4-1 AND R4-2 SIGNS TO BE INSTALLED AT ENDS OF SOLID YELLOW LINES. R4-1 SIGNS TO BE INSTALLED OPPOSITE INPLACE NO PASSING ZONE SIGNS. R4-2 SIGNS TO BE INSTALLED AT THE TERMINATION OF SOLID YELLOW LINE. SIGNS SHALL BE INSTALLED PRIOR TO REMOVING CENTERLINE MARKINGS AND SHALL REMAIN INPLACE UNTIL FINAL STRIPING IS RESTORED.

GENERAL TEMPORARY SIGNING NOTES:

1. TRAFFIC CONTROL SHALL MEET THE REQUIREMENTS OF THE CURRENT EDITION OF THE MnMUTCD, INCLUDING THE FIELD MANUAL FOR TEMPORARY TRAFFIC CONTROL ZONE LAYOUTS.
2. ALL NECESSARY TRAFFIC CONTROL DEVICES ON THIS PROJECT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR. THE CONTRACTOR IS RESPONSIBLE FOR THE IMMEDIATE REPAIR OR REPLACEMENT OF ALL TRAFFIC CONTROL DEVICES THAT BECOME DAMAGED, MOVED, OR DESTROYED.
3. ALL INPLACE REGULATORY AND WARNING SIGNS TO REMAIN INPLACE THROUGHOUT CONSTRUCTION.
4. THE CONTRACTOR SHALL FURNISH, INSTALL, MAINTAIN, AND REMOVE ALL TRAFFIC CONTROL DEVICES REQUIRED TO PROVIDE SAFE MOVEMENT OF LOCAL VEHICULAR TRAFFIC THROUGHOUT THE PROJECT. THE ENGINEER WILL HAVE THE RIGHT TO MODIFY THE REQUIREMENTS OF TRAFFIC CONTROL AS DEEMED NECESSARY DUE TO FIELD CONDITIONS. THE STREET SHALL REMAIN OPEN TO LOCAL TRAFFIC AT ALL TIMES.

CERTIFIED BY:  LIC. NO. 50428

LICENSED PROFESSIONAL ENGINEER