

**FORMER PROJECTS**

C.P. 56-04 GRADING & GRAVELING -1956  
 S.P. 46-603-02 BASE & BITUMINOUS -1965  
 S. 6805 (1)  
 S.P. 46-636-01 BRIDGE REPLACED & APPROACHS GRADED -2004  
 S.A.P. 46-636-02 SALVAGE BIT. & GRADED -2008

**MINN PROJ NO. STPX 4609 (209)**

MINNESOTA DEPARTMENT OF TRANSPORTATION

**COUNTY STATE AID HIGHWAY NO. 36**

CONSTRUCTION PLAN FOR: AGGREGATE BASE, BITUMINOUS BASE,  
BITUMINOUS WEAR & AGGREGATE SHOULDERING

LOCATED BETWEEN JACKSON CO. LINE TO T.H. 4 (GEOGRAPHIC DESCRIPTION)

LOCATED BETWEEN A POINT 61.0' WEST OF THE SW CORNER SEC 18 T103N R33W  
TO A POINT 668.503' EAST OF SE COR. SEC. 13 T103N R33W  
 (LEGAL DESCRIPTION)



**S.P. NO. 46-636-03**

GROSS LENGTH 32,567.85 FEET 6.168 MILES  
 BRIDGES LENGTH 99.90 FEET 0.018 MILES  
 EXCEPTIONS LENGTH 0.00 FEET 0.000 MILES  
 NET LENGTH 32,467.95 FEET 6.150 MILES

**BITUMINOUS SALVAGE STOCKPILE SITE**

**INDEX OF SHEETS**

SHEET NO. 1 TITLE SHEET & LAYOUT MAP  
 SHEET NO. 2 ESTIMATED QUANTITIES & CONSTRUCTION NOTES  
 SHEET NO. 3 TYPICAL SECTIONS  
 SHEET NO. 4 & 5 TRAFFIC CONTROL PLAN  
 THIS PLAN CONTAINS 5 SHEETS

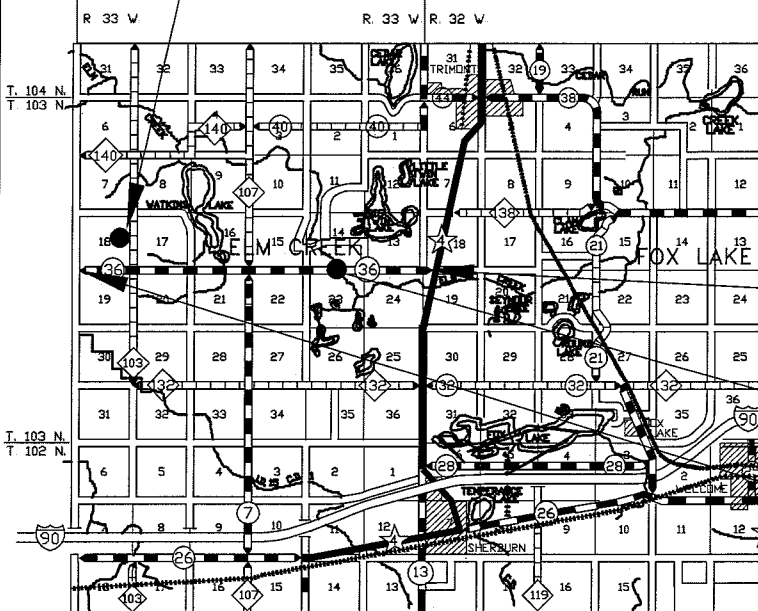
END S.P. 46-636-03

STA. 325+06.85

BRIDGE NO. 46599

BEGIN S.P. 46-636-03

STA. -0+61.00



**NOTE:**

THE SUBSURFACE UTILITY INFORMATION IN THIS PLAN IS UTILITY QUALITY LEVEL "D". THIS UTILITY 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 MINNESOTA DEPARTMENT OF TRANSPORTATION STANDARD SPECIFICATIONS FOR CONSTRUCTION 2005 EDITION DATED AUGUST 31, 2005

ALL APPLICABLE FEDERAL, STATE, AND LOCAL LAWS AND ORDINANCES WILL BE COMPLIED WITH, IN THE CONSTRUCTION OF THIS PROJECT.

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.

**DESIGN DESIGNATION (RURAL)**

ADT (CURRENT YEAR) 321 (2009)  
 ADT (FUTURE YEAR) 450 (2029)  
 9 TON DESIGN  
 DESIGN SPEED 55 MPH  
 SOIL FACTOR 130  
 SHOULDER WIDTH 6 FEET  
 STOPPING SIGHT DISTANCE  
 HEIGHT OF EYE 3.5 FEET  
 HEIGHT OF OBJECT 2.0 FEET

*Kevin Peyman*

KEVIN PEYMAN COUNTY ENGINEER

DATE 3/30/2009

**MARTIN**

COUNTY

REG. NO. 40,907

*Al E. Haeder*

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

DATE 4/1/09

*Julie Skallman*

APPROVED: FOR STATE AID & FEDERAL AID FUNDING: STATE AID ENGINEER.

DATE 4/21/09

# ESTIMATED QUANTITIES

SPECIFICATION NO.	ITEM	UNIT			TOTAL ESTIMATED QUANTITIES
1).	2105.533	SALVAGE AGGREGATE (L.V.)	CU. YD.		618
2).	2211.501	AGGREGATE BASE CLASS 5	TON		26,595
3).	2221.501	AGGREGATE SHOULDERING CLASS 1 MOD.	TON		25,522
	2357.502	BITUMINOUS MATERIAL FOR TACK COAT	GALLON		13,932
4).	2360.501	TYPE SP 9.5, WEARING COURSE MIXTURE, 2, C	TON		15,178
5).	2360.502	TYPE SP12.5, NON-WEARING COURSE MIXTURE, 2, B	TON		26,040

## BASIS FOR ESTIMATED QUANTITIES

- \* AGG. BASE CLASS 5 - 140 LBS/CU.FT. COMPACTED DRY WEIGHT DENSITY & 4% MOIST.
- \* AGG. SHOULDERING CL. 1 MOD. 140 LBS/CU.FT. COMPACTED DRY WEIGHT DENSITY & 4% MOIST.
- \* BITUMINOUS MATERIAL FOR TACK COAT - 0.05 GAL./SQ.YD. APPLICATION RATE.
- \* NON-WEARING & WEARING COURSE MIXTURES - 110 LBS./SQ.YD./INCH THICKNESS.

## CONSTRUCTION NOTES

- 1). SALVAGE AGGREGATE TO BE PLACED AT BOTH ENDS OF THE PROJECT = 247.5 CU. YARDS  
 BOTH ENDS OF THE BRIDGE = 247.5 CU. YARDS  
 ROAD APPROACH AT C.S.A.H. 7 = 123.75 CU. YARDS
- 2). INCLUDES 377.0 TONS FOR ROAD INTERSECTIONS  
 INCLUDES 320.0 TONS FOR FARM ENTRANCES  
 INCLUDES 488.0 TONS FOR FIELD ENTRANCES
- 3). INCLUDES 975.0 TONS FOR FIELD ENTRANCES
- 4). INCLUDES 412.50 TONS FOR ROAD INTERSECTIONS  
 INCLUDES 375.44 TONS FOR FARM ENTRANCES  
 INCLUDES 103.95 TONS FOR FIELD ENTRANCES
- 5). INCLUDES 687.50 TONS FOR ROAD INTERSECTIONS  
 INCLUDES 625.69 TONS FOR FARM ENTRANCES  
 INCLUDES 173.25 TONS FOR FIELD ENTRANCES

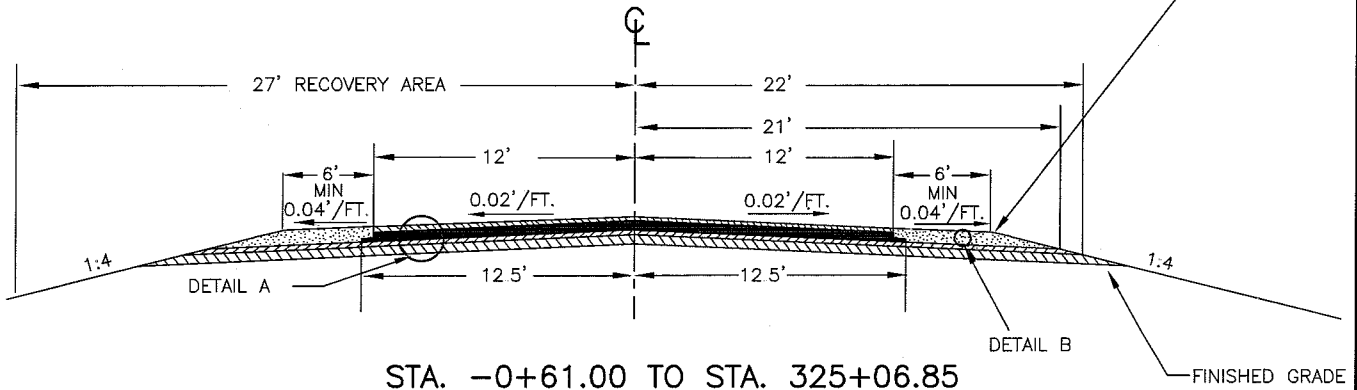
## STANDARD PLATES

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

PLATE NO.	DESCRIPTION
-----	APPROACHES AND ENTRANCES ( SEE SHEET 3 OF 5)
80001	STANDARD BARRICADES

# TYPICAL SECTION BASE AND SURFACE SECTION (RURAL)

**NOTE:** AFTER COMPLETION OF AGGREGATE SHOULDERING OPERATIONS, MARTIN COUNTY FORCES WILL SEED, FERTILIZE, AND BITUMINOUS TACK THE OUTSIDE 4' OF THE AGGREGATE SHOULDERS.



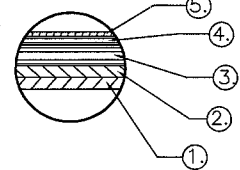
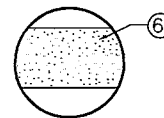
STA. -0+61.00 TO STA. 325+06.85  
9 TON DESIGN

**9 TON DESIGN**

- ① 3" - 4" CLASS 4 MOD. AGG. BASE 3138 (INPLACE)
- ② 3" CLASS 5 AGG. BASE 3138 (PROPOSED)
- ③ 2.5" 2360 ASPHALT BASE NON-WEAR TYPE SPNWB230B (PROPOSED)
- ④ 2.5" 2360 ASPHALT BASE NON-WEAR TYPE SPNWB230B (PROPOSED)
- ⑤ 2-1.5" LIFTS 2360 ASPHALT WEAR TYPE SPWEA240C (PROPOSED)
- ⑥ 8" AGG. SHOULDERING CLASS 1 MOD. 2221 (PROPOSED)

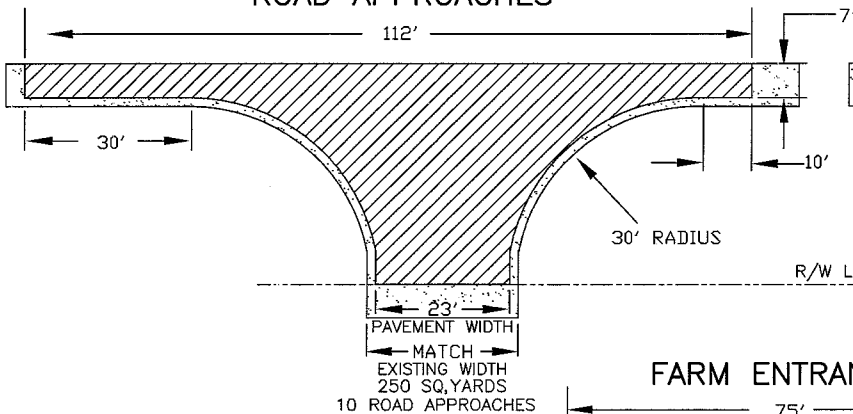
DETAIL B

DETAIL A

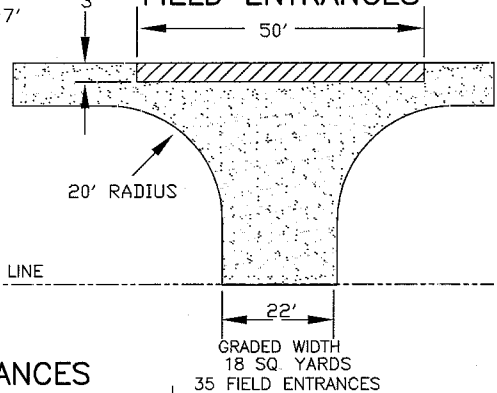


## APPROACHES AND ENTRANCES

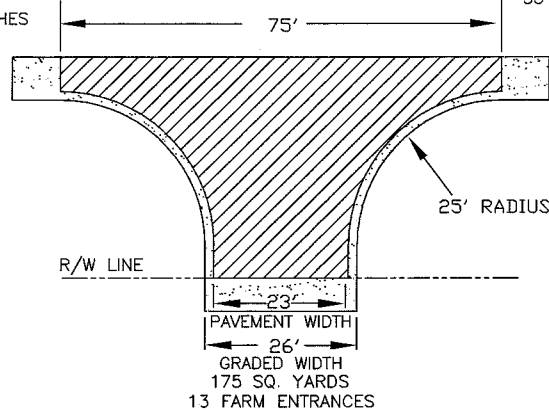
**ROAD APPROACHES**



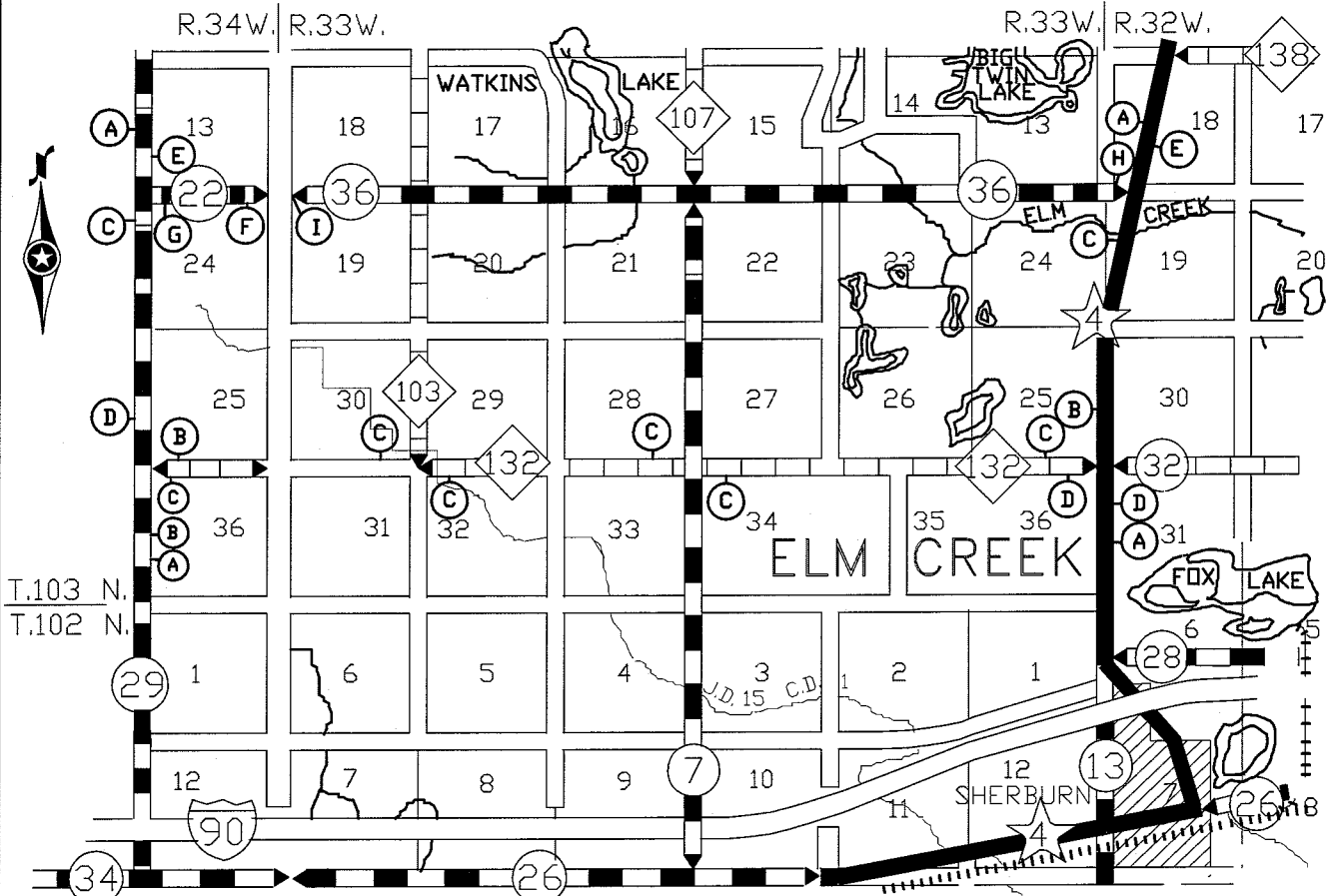
**FIELD ENTRANCES**



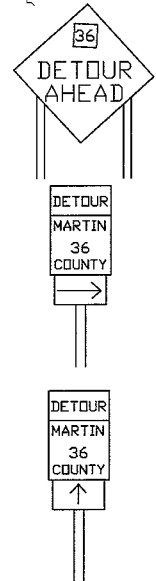
**FARM ENTRANCES**



# TRAFFIC CONTROL PLAN SHEET 1 OF 2



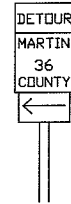
- (A) W20-2 (48 X 48)  
M1-X4 (24 X 24) MARTIN COUNTY 36  
MTD ON DBL U-CHANNEL POST SUPPORT  
4 REQUIRED  
LOCATED 1000' FROM INTERSECTION
- (B) M4-8 (24 X 12)  
M1-X4 (24 X 24)  
M6-1 (21 X 15)  
MTD ON SGL U-CHANNEL POST SUPPORT  
3 REQUIRED  
LOCATED 750' FROM INTERSECTION
- (C) M4-8 (24 X 12)  
M1-X4 (24 X 24)  
M6-3 (21 X 15)  
MTD ON SGL U-CHANNEL POST SUPPORT  
8 REQUIRED  
LOCATED 200' FROM INTERSECTION



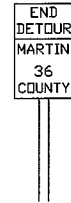
Note: All Traffic Control Devices and Signing shall Conform and be installed in accordance to the "Minnesota Manual of Uniform Traffic Control Devices" and Part VI "Field Manual or Temporary Traffic Control Zone Layout." The "Detour Signing" shall be done by "Martin County Forces."

# TRAFFIC CONTROL PLAN SHEET 2 OF 2

(D) M4-8 (24 X 12)  
 M1-X4 (24 X 24)  
 M6-1 (21 X 15)  
 MTD ON SGL U-CHANNEL POST SUPPORT  
 3 REQUIRED  
 LOCATED 750' FROM INTERSECTION



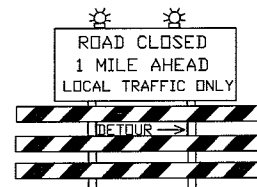
(E) M4-8a (24 X 18)  
 M1-X4 (24 X 24)  
 MTD ON SGL U-CHANNEL POST SUPPORT  
 2 REQUIRED  
 LOCATED 200' FROM INTERSECTION



(F) W20-3 (48 X 48)  
 MTD ON DBL U-CHANNEL POST SUPPORT  
 1 REQUIRED  
 LOCATED 750' FROM INTERSECTION



(G) R11-3a (60 X 30)  
 M4-10R (48 X 18)  
 AND TYPE III BARRICADE  
 1 REQUIRED  
 LOCATED AT INTERSECTION



(H) R11-4 (60 X 30)  
 M4-10L (48 X 18)  
 AND TYPE III BARRICADE  
 1 REQUIRED  
 LOCATED AT INTERSECTION



(I) R11-4 (60 X 30)  
 AND TYPE III BARRICADE  
 1 REQUIRED  
 LOCATED AT INTERSECTION

