

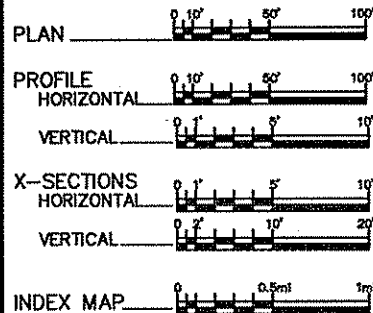
PLAN SYMBOLS

- COUNTY LINE.....
- TOWNSHIP OR RANGE LINE.....
- SECTION LINE.....
- QUARTER LINE.....
- SIXTEENTH LINE.....
- RIGHT OF WAY LINE.....
- SLOPE EASEMENT.....
- EXISTING RIGHT OF WAY.....
- PROPERTY LINE.....
- CORPORATE OR CITY LIMITS.....
- RETAINING WALL.....
- RAILROAD.....
- RAILROAD RIGHT OF WAY.....
- RIVER OR CREEK.....
- DRAINAGE DITCH.....
- CULVERT.....
- DROP INLET.....
- GUARD RAIL.....
- BARBED WIRE FENCE.....
- WOVEN WIRE FENCE.....
- CHAIN LINK FENCE.....
- WOOD FENCE.....
- STONE WALL OR FENCE.....
- HEDGE.....
- LOWLAND.....
- TIMBER.....
- ORCHARD.....
- BRUSH.....
- NURSERY.....
- CATTLE GUARD.....
- OVERPASS (Highway Over).....
- UNDERPASS (Highway Under).....
- BRIDGE.....
- BUILDING (One Story Frame).....
- F-FRAME C-CONCRETE.....
- S-STONE T-TILE.....
- B-BRICK ST-STUCCO.....
- RAILROAD CROSSING BELL.....
- RAILROAD CROSSING GATE.....
- MANHOLE.....
- CATCH BASIN.....
- FIRE HYDRANT.....
- CAST IRON MONUMENT.....
- IRON PIN.....
- GRAVEL PIT.....
- SAND PIT.....
- DORROW PIT.....
- ROCK QUARRY.....

UTILITY SYMBOLS

- POWER POLE LINE.....
- TELEPHONE OR TELEGRAPH POLE LINE.....
- JOINT TELEPHONE & POWER ON POWER POLES.....
- ON TELEPHONE POLES.....
- ANCHOR.....
- STEEL TOWER.....
- STREET LIGHT.....
- PEDESTAL (Cable Terminal).....
- GAS MAIN.....
- WATERMAIN.....
- TELEPHONE CABLE IN CONDUIT.....
- ELECTRIC CABLE IN CONDUIT.....
- TELEPHONE MANHOLE.....
- ELECTRIC MANHOLE.....
- BURIED TELEPHONE CABLE.....
- BURIED ELECTRIC CABLE.....
- AERIAL TELEPHONE CABLE.....
- SEWER (Sanitary or Storm).....
- SEWER MANHOLE.....

SCALES



MINNESOTA DEPARTMENT OF TRANSPORTATION

ANOKA COUNTY

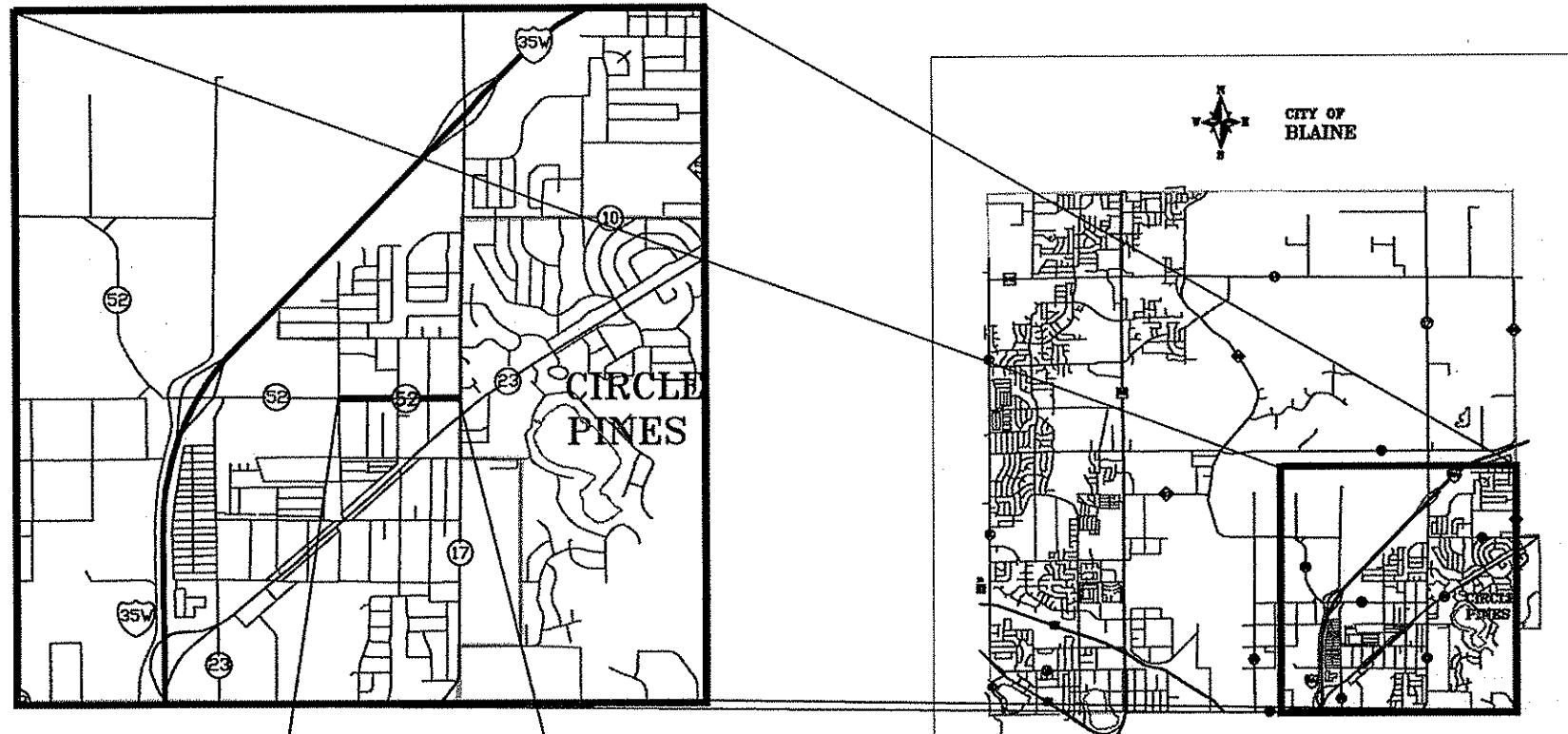
CONSTRUCTION PLAN FOR BITUMINOUS OVERLAY & TOPSOIL SHOULDERING

LOCATED ON CSAH 52 FROM HAMLIN AVE. TO CSAH 17

COUNTY PROJ. NO. 03-13-52

C.S.A.H. 52

GROSS LENGTH.....	2613.00 FEET	0.495 MILES
BRIDGES-LENGTH.....	0.00 FEET	0.000 MILES
EXCEPTIONS-LENGTH.....	0.00 FEET	0.000 MILES
NET LENGTH.....	2613.00 FEET	0.495 MILES



BEGIN C.P. 03-13-52
STA. 10+00

END C.P. 03-13-52
STA. 36+13

MINN. PROJ. NO. _____
MINN. PROJ. NO. _____

GOVERNING SPECIFICATIONS

THE 2000 EDITION OF THE MINNESOTA DEPARTMENT OF TRANSPORTATION "STANDARD SPECIFICATIONS FOR CONSTRUCTION" SHALL GOVERN. ALL TRAFFIC CONTROL DEVICES SHALL CONFORM TO THE MMUTCD, INCLUDING "FIELD MANUAL FOR TEMPORARY TRAFFIC CONTROL ZONE LAYOUTS - JANUARY, 2001."

INDEX

SHEET NO.	DESCRIPTION
1	TITLE SHEET
2	STATEMENT OF ESTIMATED QUANTITIES
3-4	TABULATIONS
5	TYPICAL
6-7	DETAILS
8	PLAN VIEW
9	STRIPING PLAN

THIS PLAN CONTAINS 9 SHEETS

DESIGN DESIGNATION

ESAL ₂₀	890,314
R VALUE.....	70
ADT (2002)=.....	6177
Proj. ADT (2022)=.....	9266
Proj. HCADT (2022)=.....	547
Soil Factor.....	NA
_____ TON DESIGN	

Functional Classification.....	COLLECTOR
No. of Traffic Lanes.....	2
No. of Parking Lanes.....	0
Design Speed.....	35 MPH
Based on Stopping Sight Distance.....	
Height of eye.....	3.5'
Height of object.....	0.5'
Design Speed not achieved at:	
STA. _____ TO STA. _____	MPH
STA. _____ TO STA. _____	MPH
STA. _____ TO STA. _____	MPH

Approved 4/29/03
ANOKA COUNTY ENGINEER

NO	DATE	BY	CKD	APPR	REVISION

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: MARK DALY
SIGNATURE:
DATE: 4/29/03 LICENSE NO. 21763

DRAWN BY J.F. DATE 4/29/03
DESIGN BY G.A. DATE 4/29/03
CHECKED BY _____ DATE _____

ANOKA COUNTY
HIGHWAY DEPT.

STATE PROJECT NO. _____
STATE AID PROJECT NO. _____
STATE AID PROJECT NO. _____
COUNTY PROJECT NO. 03-13-52


TITLE SHEET

Sheet 1 of 9 Sheets

A. STATEMENT OF ESTIMATED QUANTITIES					
TAB.	ITEM NO	ITEM	NOTE NO.	UNIT	QTY.
	2021.501	MOBILIZATION		LUMP SUM	1.00
H	2104.503	REMOVE CONCRETE DRIVEWAY PAVEMENT	3	SQ YD	78.00
J	2104.511	SAWING CONCRETE PAVEMENT (FULL DEPTH)		LIN FT	66.00
K	2120.601	TOPSOIL SHOULDERING (LV)		CU YD	40.00
L	2211.501	AGGREGATE BASE CLASS-5	2	TON	28.00
G	2232.501	MILL BITUMINOUS SURFACE (1 1/2")		SQ YD	235.00
D	2350.609	TYPE LV 3 WEARING COURSE MIXTURE	1	TON	1310.00
E	2350.609	TYPE LV 4 WEARING COURSE MIXTURE STREET APPR. & ENT.	1	TON	95.00
F	2357.502	BITUMINOUS MATERIAL FOR TACK COAT		GALLON	730.00
S	2504.602	ADJUST GATE VALVE AND BOX		EACH	12.00
Q	2506.522	ADJUST FRAME AND CASTING (SANITARY)		EACH	8.00
I	2531.507	6" CONCRETE DRIVEWAY PAVEMENT		SQ YD	78.00
O	2540.602	INSTALL MAIL BOX SUPPORT		EACH	39.00
	2563.601	TRAFFIC CONTROL		LUMP SUM	1.00
	2563.604	CONSTRUCTION SIGN SPECIAL (DIA. GRADE)	4	SQ FT	112.00
P	2564.603	4" SOLID LINE WHITE-EPOXY		LIN FT	5131.00
P	2564.603	4" SOLID LINE YELLOW-EPOXY		LIN FT	500.00
P	2564.603	4" BROKEN LINE YELLOW-EPOXY		LIN FT	550.00
N	2575.501	SEEDING		ACRE	0.21
	2575.502	SEED, MIXTURE 60B		POUND	21.00
	2575.512	MULCH MATERIAL, TYPE 2		GALLON	52.00
	2575.532	COMMERCIAL FERTILIZER, ANALYSIS 22-5-10 (SLOW RELEASE)		POUND	105.00
M	2580.501	TEMPORARY LANE MARKING		LIN FT	209.00

C. CONSTRUCTION NOTES	
NOTE NO.	DISCRIPTION
1	INCLUDES QUANTITY FOR ADDING 1/4" TO THE DESIGN THICKNESS.
2	RECYCLED GLASS WILL NOT BE ALLOWED IN CLASS 5.
3	AS DIRECTED BY THE ENGINEER.
4	2 - 8' X 7' SIGNS, SEE SPECIAL PROVISIONS.

B. BASIS OF ESTIMATED QUANTITIES	
SPEC NO.	RATE
2350	LV 3 WEARING COURSE MIXTURE, (LVWE35030B) LV 4 WEARING COURSE MIXTURE, STREET APPR. & ENT. (LVWE45030B) 110 LBS / SQ YD / INCH
2357	BITUMINOUS MATERIAL FOR TACK COAT 0.05 GAL SQ / YD / PER LIFT APPLIED
2575	SEED MIXTURE 60B BASED ON 100 LBS / ACRE
2575	MULCH MATERIAL TYPE 2 BASED ON 0.05 GAL. / SQ. YD.
2575	COMMERCIAL FERTILIZER ANALYSIS 22-5-10 (SLOW RELEASE) BASED ON 500 LBS / ACRE

					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.		DRAWN BY <u>J.F.</u> DATE <u>4/29/03</u>		 ANOKA COUNTY HIGHWAY DEPT.	STATE PROJECT NO. _____	STATEMENT OF ESTIMATED QUANTITIES Sheet <u>2</u> of <u>9</u> Sheets
					PRINT NAME: <u>MARK DALY</u>		DESIGN BY <u>G.A.</u> DATE <u>4/29/03</u>			STATE AID PROJECT NO. _____	
					SIGNATURE: <u>[Signature]</u>		CHECKED BY _____ DATE _____		STATE AID PROJECT NO. _____		
NO	DATE	BY	CHK	APPR	REVISION	DATE: <u>4/29/2003</u> LICENSE NO. <u>21763</u>		COUNTY PROJECT NO. <u>03-13-52</u>			

D. TYPE LV3 WEARING COURSE MAIN LINE 1.75" (110LBS/N/SY)				
MAINLINE STA.	STA.	L'	W'	SQ. YDS.
1000 C/L	3613	2613.0	VAR.	13563.0
AUTO CAD AREA = 13563.0				
1.5' KICK OUTS AGG. DR.	LOC			
HSE. # 3811	LT.	34	1.5	5.7
HSE. # 3851	LT.	41	1.5	6.8
HSE. # 3872	RT.	38	1.5	6.3
HSE. # 3891	LT.	30	1.5	5.0
HSE. # 3891	LT.	32	1.5	5.3
HSE. # 4034	RT.	31	1.5	5.2
HSE. # 4044	RT.	31	1.5	5.2
SQ. YDS. = 13602.5				
TONS = 1309.0				

F. BITUMINOUS MATERIAL FOR TACK 0.05 GAL/SQ YD			
	SQ YDS	GAL / SQ YD	GALLONS
MV3 WEAR MAIN LINE	13602.0	0.05	680.0
LV4 WEAR ST. APPR. ENT	972.0	0.05	48.6
GALLONS = 728.7			

E. TYPE LV4 WEARING COURSE ENT. / ST. APPR. 1.75" (110LBS/N/SY)				
ST. APPR. (PAVED)	LOC	L'	W'	SQ. YDS.
HAMLIN AVE.	LT.	AREA FROM AUTO CAD		70.0
HAMLIN AVE.	RT.	AREA FROM AUTO CAD		70.0
SYNDICATE AVE.	RT.	AREA FROM AUTO CAD		55.0
GRIGGS AVE.	RT.	AREA FROM AUTO CAD		47.0
GRIGGS AVE.	LT.	AREA FROM AUTO CAD		37.0
DUNLAP AVE.	LT.	AREA FROM AUTO CAD		48.0
DUNLAP AVE.	RT.	AREA FROM AUTO CAD		41.0
BIT. ENTRANCES				
HSE. # 3821	LT.	27	10	30.0
HSE. # 3812	RT.	19	10	21.1
HSE. # 3831 / 3841	LT.	23	10	25.6
HSE. # 3836	RT.	18	10	20.0
HSE. # 3854	RT.	21	10	23.3
HSE. # 3888	RT.	13	10	14.4
HSE. # 3901	LT.	19	10	21.1
HSE. # 3925	LT.	12	10	13.3
HSE. # 3951	LT.	12	10	13.3
HSE. # 3936	RT.	14	10	15.6
HSE. # 3946 / 3952	RT.	24	10	26.7
HSE. # 3963	LT.	19	10	21.1
HSE. # 3975	LT.	16	10	17.8
HSE. # 3975	LT.	18	10	20.0
HSE. # 3972	RT.	17	10	18.9
HSE. # 4010	RT.	19	10	21.1
HSE. # 4015	LT.	24	10	26.7
HSE. # 4035	LT.	14	10	15.6
HSE. # 4039	LT.	14	10	15.6
HSE. # 4054	RT.	14	10	15.6
HSE. # 4062	RT.	12.0	10.0	13.3
HSE. # 4067	RT.	25.0	10.0	27.8
HSE. # 4049	LT.	15.0	10.0	16.7
HSE. # 9375	RT.	20.0	10.0	22.2
BURGER KING	RT.	AREA FROM AUTO CAD		31.0
BURGER KING	RT.	AREA FROM AUTO CAD		34.0
SCHOOL	LT.	AREA FROM AUTO CAD		23.0
SCHOOL	LT.	AREA FROM AUTO CAD		39.0
SQ. YDS. = 971.7				
TONS = 94.0				

G. MILL BITUMINOUS SURFACE (BUTT JOINTS)				
ST. APPR.	LOC	LENGTH	WIDTH	SQ. YDS.
STA. 10+00	C/L	45	4.0	20.0
STA. 36+13	C/L	54	4.0	24.0
HAMLIN AVE.	LT.	47	4.0	20.9
HAMLIN AVE.	RT.	47	4.0	20.9
SYNDICATE AVE.	RT.	39	4.0	17.3
GRIGGS AVE.	RT.	35	4.0	15.6
GRIGGS AVE.	LT.	26	4.0	11.6
DUNLAP AVE.	LT.	25	4.0	11.1
DUNLAP AVE.	RT.	26	4.0	11.6
BIT. ENTRANCES				
HSE. # 3821	LT.	24	1.5	4.0
HSE. # 3812	RT.	17	1.5	2.8
HSE. # 3831 / 3841	LT.	23	1.5	3.8
HSE. # 3836	RT.	14	1.5	2.3
HSE. # 3854	RT.	21	1.5	3.5
HSE. # 3888	RT.	13	1.5	2.2
HSE. # 3901	LT.	9.5	1.5	1.6
HSE. # 3925	LT.	12	1.5	2.0
HSE. # 3951	LT.	12	1.5	2.0
HSE. # 3936	RT.	14	1.5	2.3
HSE. # 3946 / 3952	RT.	22	1.5	3.7
HSE. # 3963	LT.	19	1.5	3.2
HSE. # 3975	LT.	16	1.5	2.7
HSE. # 3975	LT.	18	1.5	3.0
HSE. # 3972	RT.	14	1.5	2.3
HSE. # 4010	RT.	19	1.5	3.2
HSE. # 4015	LT.	19	1.5	3.2
HSE. # 4035	LT.	14	1.5	2.3
HSE. # 4039	LT.	14	1.5	2.3
HSE. # 4054	RT.	14	1.5	2.3
HSE. # 4062	RT.	12	1.5	2.0
HSE. # 4067	RT.	25	1.5	4.2
HSE. # 4049	LT.	15	1.5	2.5
HSE. # 9375	RT.	17	1.5	2.8
BURGER KING	RT.	25	1.5	4.2
BURGER KING	RT.	30	1.5	5.0
SCHOOL	LT.	13	1.5	2.2
SCHOOL	LT.	26	1.5	4.3
SQ. YDS. = 234.8				

NO	DATE	BY	CHKD	APPR	REVISION

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: MARK DALY

SIGNATURE: [Signature]

DATE: 4/17/2003 LICENSE NO. 21763

DRAWN BY: J.F. DATE: 4/1/03

DESIGN BY: G.A. DATE: 4/1/03

CHECKED BY: _____ DATE: _____



ANOKA COUNTY
HIGHWAY DEPT.

STATE PROJECT NO. _____

STATE AID PROJECT NO. _____

CITY PROJECT NO. _____

COUNTY PROJECT NO. 03-13-52

TABULATION CHARTS

Sheet 3 of 9 Sheets

H. REMOVE CONCRETE DRIVEWAY PAVEMENT					
ADDR.	LOC	L'	W'	SQ. YDS.	
HSE. # 3800	LT.	32	10	35.6	
HSE. # 3875	LT.	16	10	17.8	
HSE. # 3912	RT.	11	10	12.2	
HSE. # 3914	RT.	11	10	12.2	
				SQ. YDS. = 77.8	

N. SEEDING						
STA.	STA.	LOC.	LENGTH'	WIDTH'	SQ. FT.	
1000	3020	LT.	2020	2.0	4040	
1000	3613	RT.	2613	2.0	5226	
					SQ. FT. = 9266.0	
					ACRES = 0.21	

I. 6" CONCRETE DRIVEWAY PAVEMENT					
ADDR.	LOC	L'	W'	SQ. YDS.	
HSE. # 3800	LT.	32	10	35.6	
HSE. # 3875	LT.	16	10	17.8	
HSE. # 3912	RT.	11	10	12.2	
HSE. # 3914	RT.	11	10	12.2	
				SQ. YDS. = 26.7	

O. MAIL BOX SUPPORTS								
1)	HSE. # 3800	RT.	14)	HSE. # 3891	LT.	27)	HSE. # 4000	LT.
2)	HSE. # 3801	LT.	15)	HSE. # 3901	LT.	28)	HSE. # 4005	LT.
3)	HSE. # 3812	RT.	16)	HSE. # 3900	LT.	29)	HSE. # 4010	LT.
4)	HSE. # 3821	LT.	17)	HSE. # 3912	LT.	30)	HSE. # 4015	LT.
5)	HSE. # 3811	LT.	18)	HSE. # 3914	LT.	31)	HSE. # 4034	LT.
6)	HSE. # 3831	LT.	19)	HSE. # 3925	LT.	32)	HSE. # 4044	LT.
7)	HSE. # 3841	LT.	20)	HSE. # 3936	LT.	33)	HSE. # 4035	LT.
8)	HSE. # 3836	RT.	21)	HSE. # 3951	LT.	34)	HSE. # 4039	LT.
9)	HSE. # 3854	RT.	22)	HSE. # 3946	LT.	35)	HSE. # 4054	LT.
10)	HSE. # 3851	LT.	23)	HSE. # 3952	LT.	36)	HSE. # 4062	LT.
11)	HSE. # 3875	LT.	24)	HSE. # 3963	LT.	37)	HSE. # 4049	LT.
12)	HSE. # 3872	RT.	25)	HSE. # 3972	LT.	38)	HSE. # 4067	LT.
13)	HSE. # 3888	RT.	26)	HSE. # 3975	LT.	39)	HSE. # 4047	LT.

J. SAWING CONCRETE PAVEMENT FULL DEPTH				
	LOC	L'		LENGTH
HSE. # 3800	LT.	32		32.0
HSE. # 3875	LT.	12		12.0
HSE. # 3912	RT.	11		11.0
HSE. # 3914	RT.	11		11.0
				LIN. FT. = 66.0

P. PERMANENT STRIPING	LIN. FT.
4" SOLID LINE WHITE-EPOXY	5131
4" SOLID LINE YELLOW-EPOXY	500
4" BROKEN LINE YELLOW-EPOXY	550

K. TOPSOIL SHOULDERING 1.0' SHLD. 1.5" DEPTH = CU.YDS.(CV)/STATION							
STA.	STA.	LOC.	L-IN STA.	DEPTH	CU. YDS./STA.	CU.YDS. (CV)	
1000	3020	LT.	19.9	1.5"	0.58	11.5	
1000	3613	RT.	25.8	1.5"	0.58	15	
					CU. YDS. (CV) = 26.5		
					CU. YDS. (LV) = 37.1		

Q. SANITARY M.H.		
STATION	OFFSET	
10+28	26' RT	
14+49	2.4' RT	
18+49	2' RT	
22+47	3' RT	
24+88	3.5' RT	
26+41	2.2' RT	
30+41	1.8' RT	
33+64	0.3' RT	

S. GATE VALVES		
STATION	OFFSET	
10+61	25' RT	
10+81	13' RT	
16+89	35' RT	
17+35	14' RT	
18+46	2.5' RT	
23+40	13.6' RT	
23+46	35.5' RT	
24+05	12' RT	
30+03	12' RT	
30+25	28' RT	
30+28	37' RT	
30+70	11.5' RT	

L. AGGREGATE BASE CLASS 5				
AGG. DR.	ADDR.	LOC.	TON	
	HSE. # 3811	LT.	4.0	
	HSE. # 3851	LT.	4.0	
	HSE. # 3872	RT.	4.0	
	HSE. # 3891	LT.	4.0	
	HSE. # 3891	LT.	4.0	
	HSE. # 4043	RT.	4.0	
	HSE. # 4044	RT.	4.0	
			TONS = 28.0	

R. STORM SEWER C.B.		
STATION	OFFSET	
34+28	27.4' LT	
34+30	32.5' RT	

M. TEMPORARY LANE MARKING 4' SKIPS AT 50' INTERVALS							
STA.	STA.	LOC.	LENGTH	TAPE LENGTH	LIFTS	LIN. FT.	
1000	3613	C/L	2613	209.0	1	209.0	
						LIN. FT. = 209.0	

NO	DATE	BY	CKD	APPR	REVISION
NAME: T:\LIB\dwg_template\Plan-Tab Sheet.dwg 03/25/2003 07:43:37 AM CST					

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: MARK DALY
 SIGNATURE: MD
 DATE: 4/17/2003 LICENSE NO. 21763

DRAWN BY J.F. DATE 4/1/03
 DESIGN BY G.A. DATE 4/1/03
 CHECKED BY _____ DATE _____

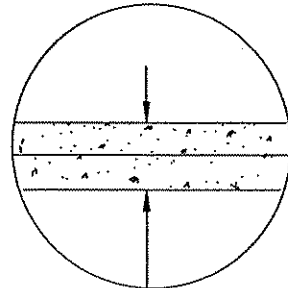


ANOKA COUNTY
HIGHWAY DEPT.

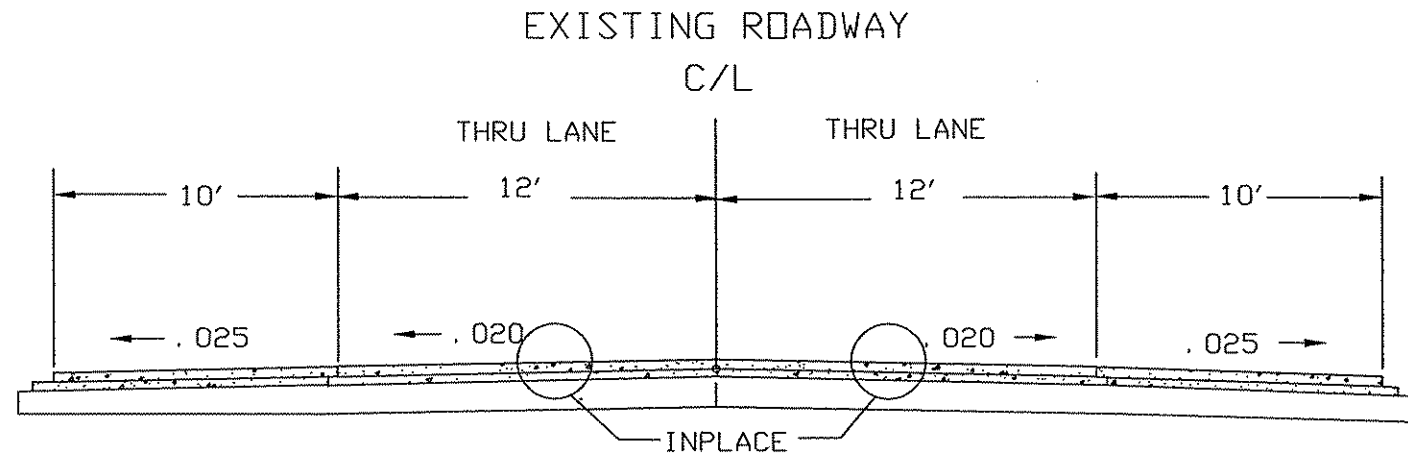
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 CITY PROJECT NO. _____
 COUNTY PROJECT NO. 03-13-52

TABULATION CHARTS
 Sheet 4 of 9 Sheets

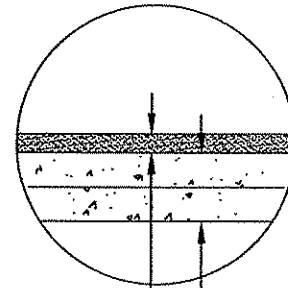
INPLACE
10+00 - 36+13



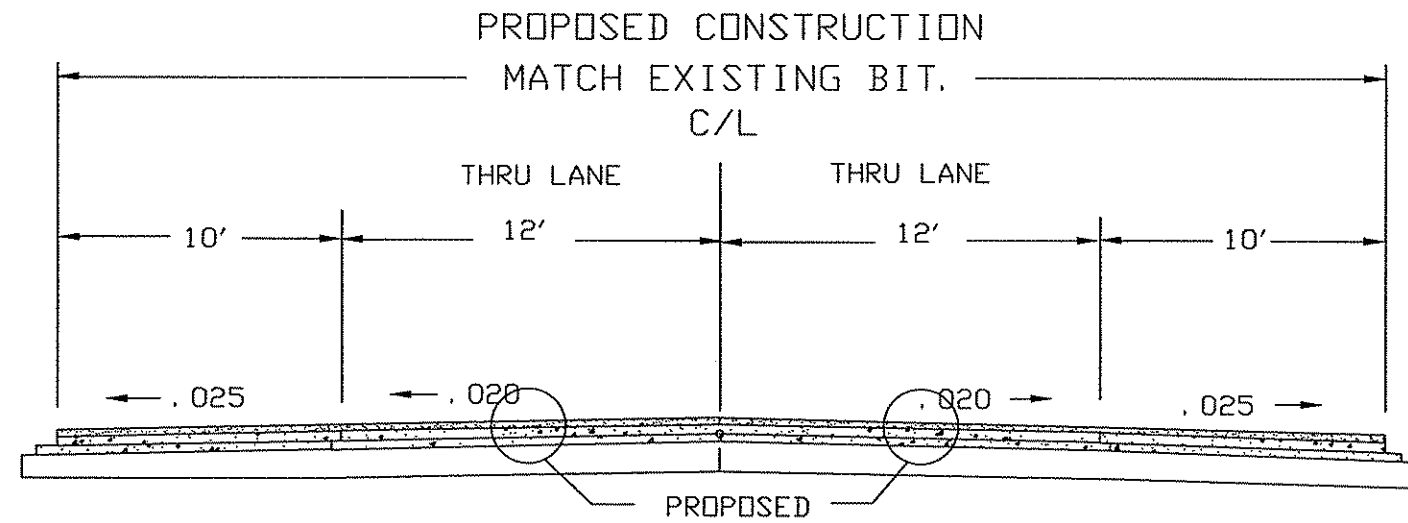
INPLACE BIT SURFACING



PROPOSED
10+00 - 36+13



1.5" LV 3 WEARING COURSE (LVWE35030B)
INPLACE BIT SURFACING



* NOTE. - 1.5" LV 3 WEARING COURSE OVERLAY
TO MATCH EXISTING BIT WIDTHS.

NO	DATE	BY	CHKD	APPR	REVISION

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: **MARK DALY**
SIGNATURE: *[Signature]*
DATE: **1/29/2003** LICENSE NO. **21763**

DRAWN BY **J.F.** DATE **4/29/03**
DESIGN BY **G.A.** DATE **4/29/03**
CHECKED BY _____ DATE _____

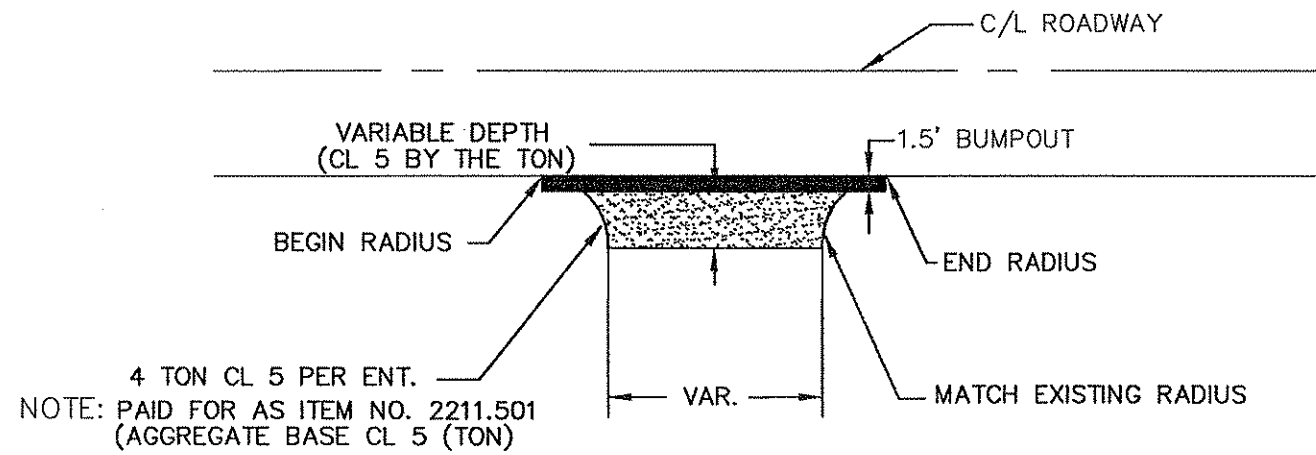


ANOKA COUNTY
HIGHWAY DEPT.

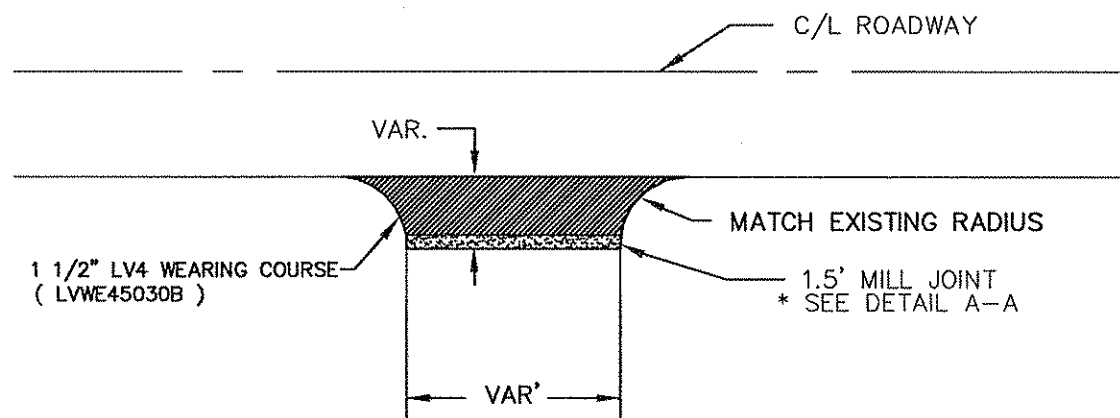
STATE PROJECT NO. _____
STATE AID PROJECT NO. _____
CITY PROJECT NO. _____
COUNTY PROJECT NO. **03-13-52**

TYPICAL
Sheet **5** of **9** Sheets

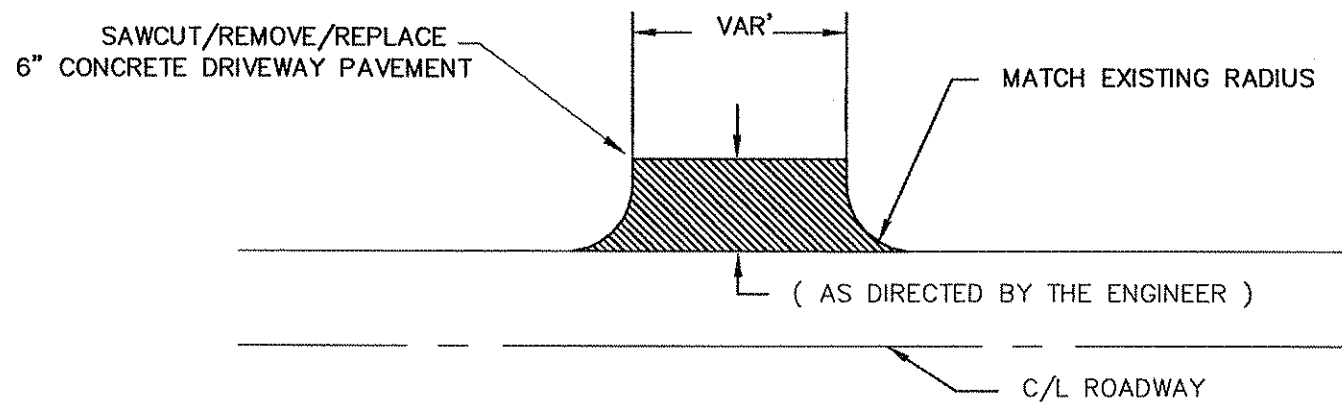
FIELD AND UNPAVED ENTRANCES



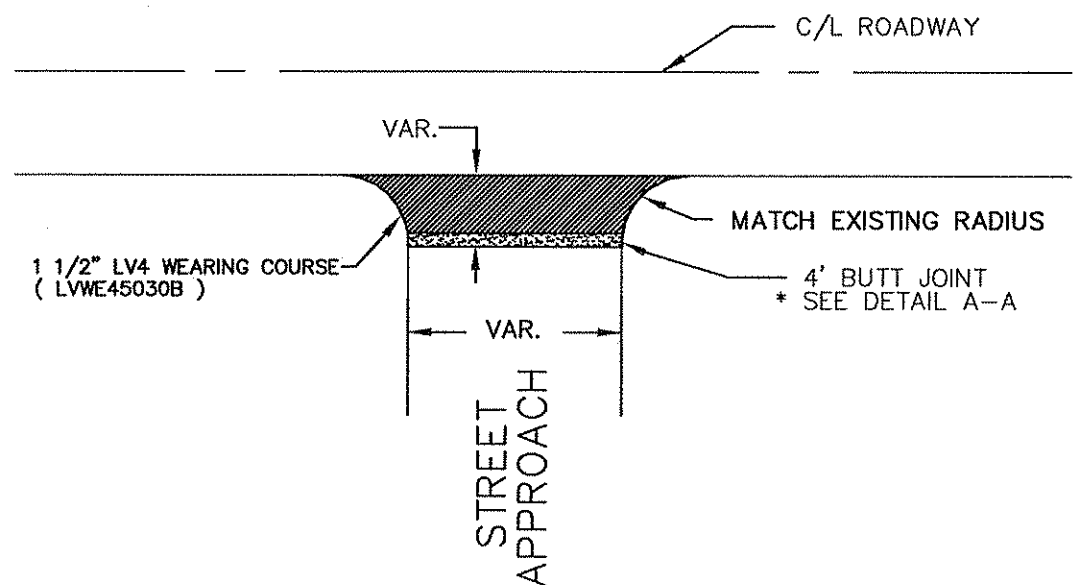
PAVED DRIVEWAYS



CONCRETE ENTRANCES



PAVED STREET APPROACHES



NO	DATE	BY	CHKD	APPR	REVISION

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: **MARK DALY**
 SIGNATURE: *[Signature]*
 DATE: **4/29/03** LICENSE NO. **21763**

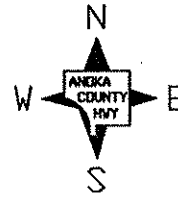
DRAWN BY: **J.F.** DATE: **4/29/03**
 DESIGN BY: **G.A.** DATE: **4/29/03**
 CHECKED BY: _____ DATE: _____



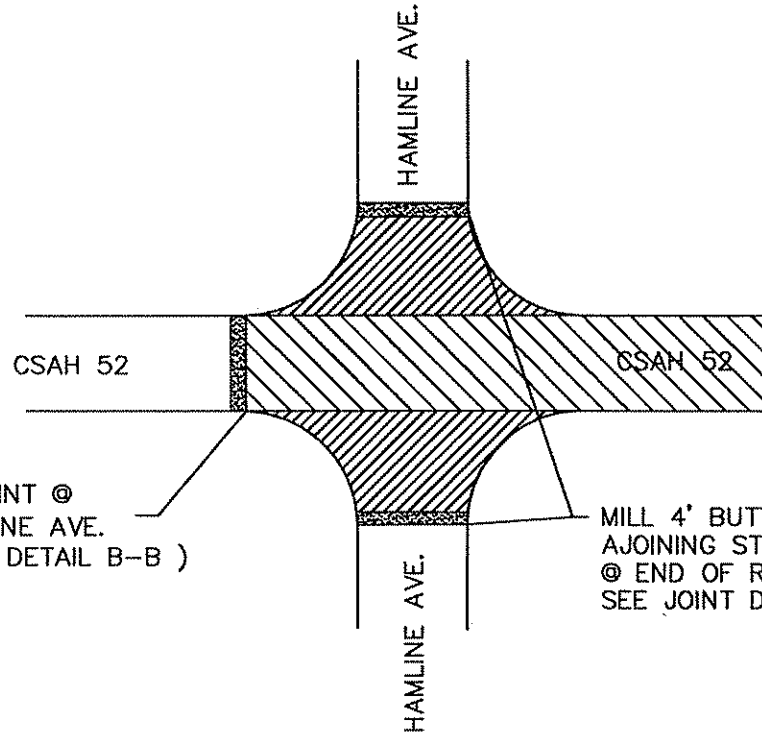
ANOKA COUNTY
HIGHWAY DEPT.

STATE PROJECT NO. _____
 STATE AID PROJECT NO. _____
 STATE AID PROJECT NO. _____
 COUNTY PROJECT NO. **03-13-52**

DETAILS
 Sheet **6** of **9** Sheets



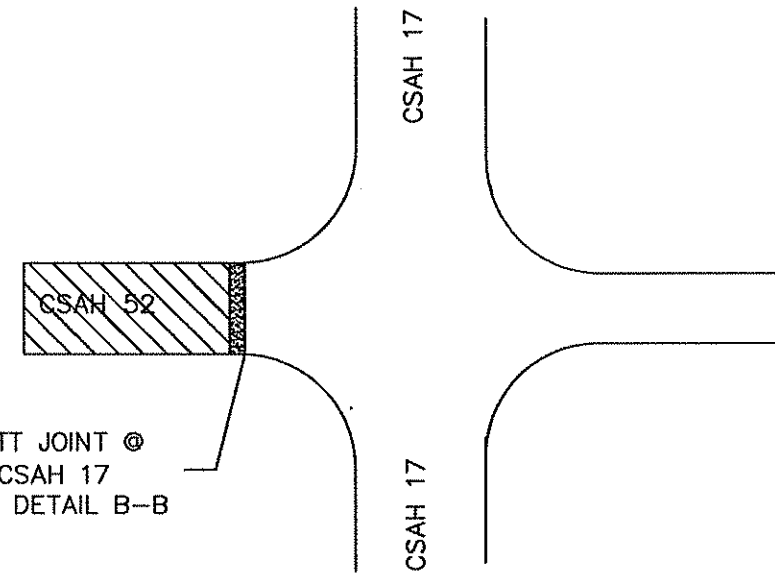
CSAH 52 @ HAMLINE AVE.
STA. 10+00 BEGIN C.P. 03-13-52



MILL 4' BUTT JOINT @
BEG. RAD. HAMLINE AVE.
(SEE MILL JOINT DETAIL B-B)

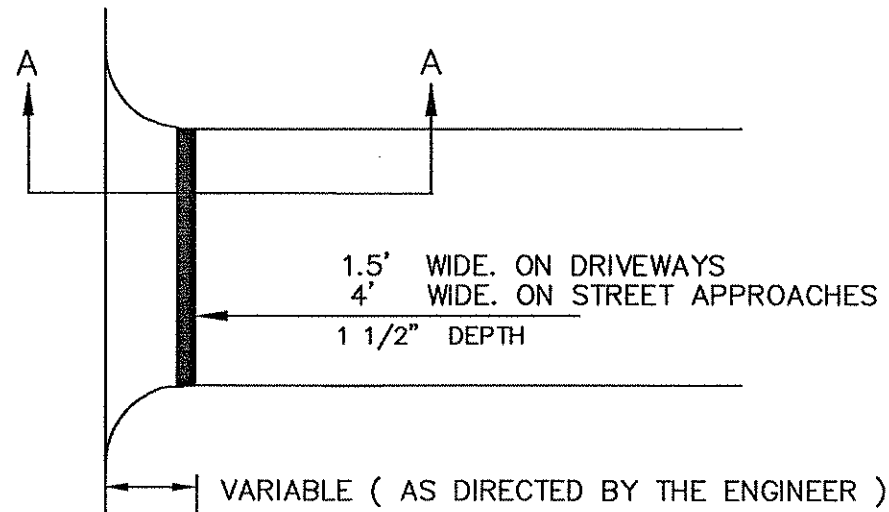
MILL 4' BUTT JOINTS @
AJOINING STREET APPROACHES.
@ END OF RADIUS FROM CSAH 52
SEE JOINT DETAIL A-A

CSAH 52 @ CSAH 17
STA. 36+13 END C.P. 03-13-52

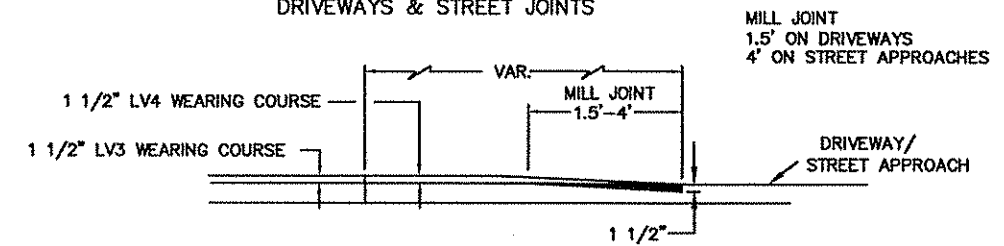


MILL 4' BUTT JOINT @
BEG. RAD. CSAH 17
SEE JOINT DETAIL B-B

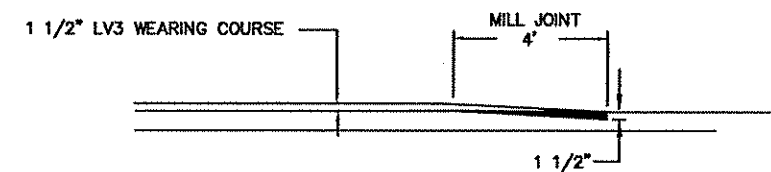
JOINT DETAILS
DRIVEWAYS/STREET APPROACHES



JOINT DETAILS A-A
DRIVEWAYS & STREET JOINTS



JOINT DETAILS B-B
JOINTS ON CSAH 52



NO	DATE	BY	CHKD	APPR	REVISION

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: **MARK DALY**
SIGNATURE: *Mark Daly*
DATE: **4/17/2003** LICENSE NO. **21763**

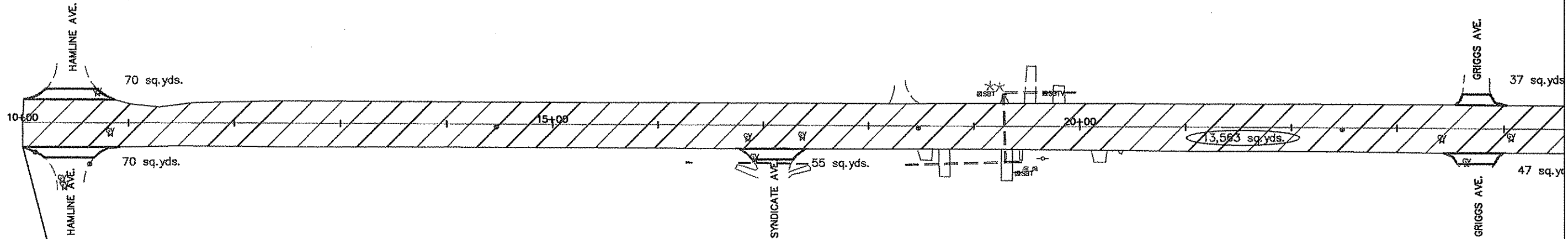
DRAWN BY: **J.F.** DATE: **4/1/03**
DESIGN BY: **G.A.** DATE: **4/1/03**
CHECKED BY: _____ DATE: _____



ANOKA COUNTY
HIGHWAY DEPT.

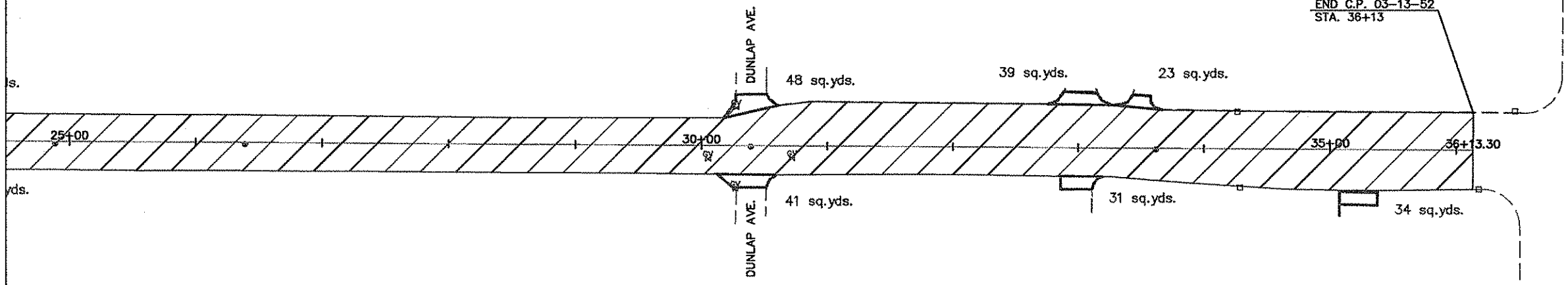
STATE PROJECT NO. _____
STATE AID PROJECT NO. _____
STATE AID PROJECT NO. _____
COUNTY PROJECT NO. **03-13-52**

DETAILS



BEGIN C.P. 03-13-52
STA. 10+00

= 1 1/2" OVERLAY LV3 WEARING COURSE (LVWE35030C)



SANITARY M.H.	
STATION	OFFSET
10+28	26' RT
14+49	2.4' RT
18+49	2' RT
22+47	3' RT
24+88	3.5' RT
26+41	2.2' RT
30+41	1.8' RT
33+64	0.3' RT

STORM SEWER C.B.	
STATION	OFFSET
34+28	27.4' LT
34+30	32.5' RT

GATE VALVES	
STATION	OFFSET
10+61	25' RT
10+81	13' RT
16+89	35' RT
17+35	14' RT
18+46	2.5' RT
23+40	13.6' RT
23+46	35.5' RT
24+05	12' RT
30+03	12' RT
30+25	28' RT
30+28	37' RT
30+70	11.5' RT

NO	DATE	BY	CHKD	APPR	REVISION

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: **MARK DAIX**
 SIGNATURE: *Mark Daix*
 DATE: 4/17/03 LICENSE NO. 21763

DRAWN BY: J.F. DATE: 4/1/03
 DESIGN BY: G.A. DATE: 4/1/03
 CHECKED BY: _____ DATE: _____

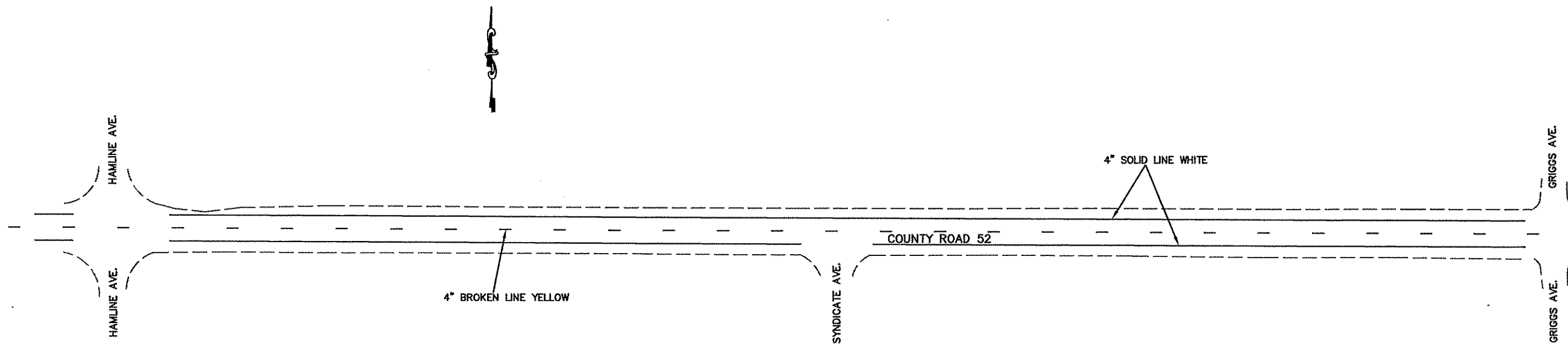


**ANOKA COUNTY
HIGHWAY DEPT.**

STATE PROJECT NO. _____
 STATE AID PROJECT NO. _____
 STATE AID PROJECT NO. _____
 COUNTY PROJECT NO. 03-13-52

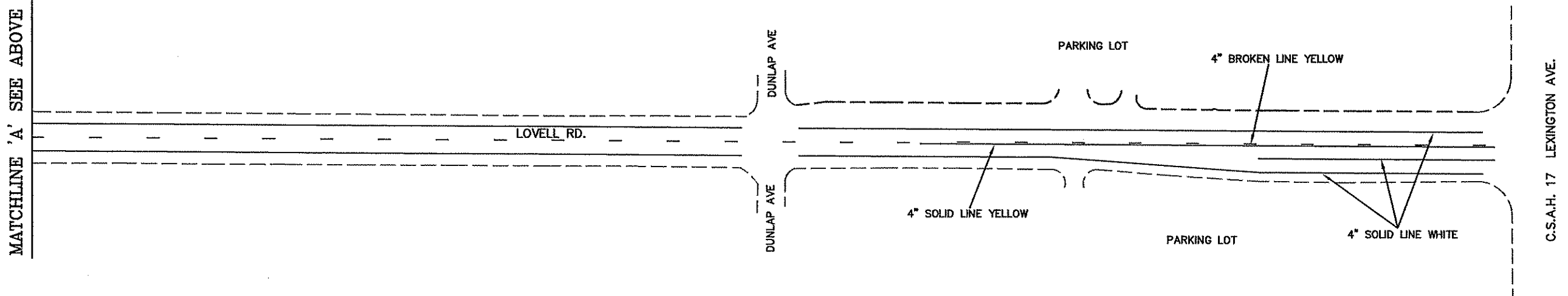
PLAN VIEW
 Sheet 8 of 9 Sheets

MATCHLINE 'A' SEE ABOVE RIGHT



MATCHLINE 'A' SEE BELOW LEFT

500' 4" SOLID LINE YELLOW - EPOXY
 5131' 4" SOLID LINE WHITE - EPOXY
 550' 4" BROKEN LINE YELLOW - EPOXY



C.S.A.H. 52 LOVELL RD.
 BETWEEN HAMLIN AVE. AND C.S.A.H. 17

NO	DATE	BY	CHKD	APPR	REVISION

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: MARK DALY
 SIGNATURE: *Mark Daly*
 DATE: 4/17/2003 LICENSE NO. 21763

DRAWN BY: ST DATE: 04/24/03
 DESIGN BY: DATE: _____
 CHECKED BY: DATE: _____



ANOKA COUNTY
 HIGHWAY DEPT.

STATE PROJECT NO. _____
 STATE AID PROJECT NO. _____
 STATE AID PROJECT NO. _____
 COUNTY PROJECT NO. 03-13-52

PERMANENT STRIPING
 Sheet 9 of 9 Sheets