

MINNESOTA DEPARTMENT OF TRANSPORTATION ANOKA COUNTY

CONSTRUCTION PLAN FOR 2" BITUMINOUS OVERLAY

LOCATED ON CR 16 BETWEEN DRAKE STREET AND UNIVERSITY AVE

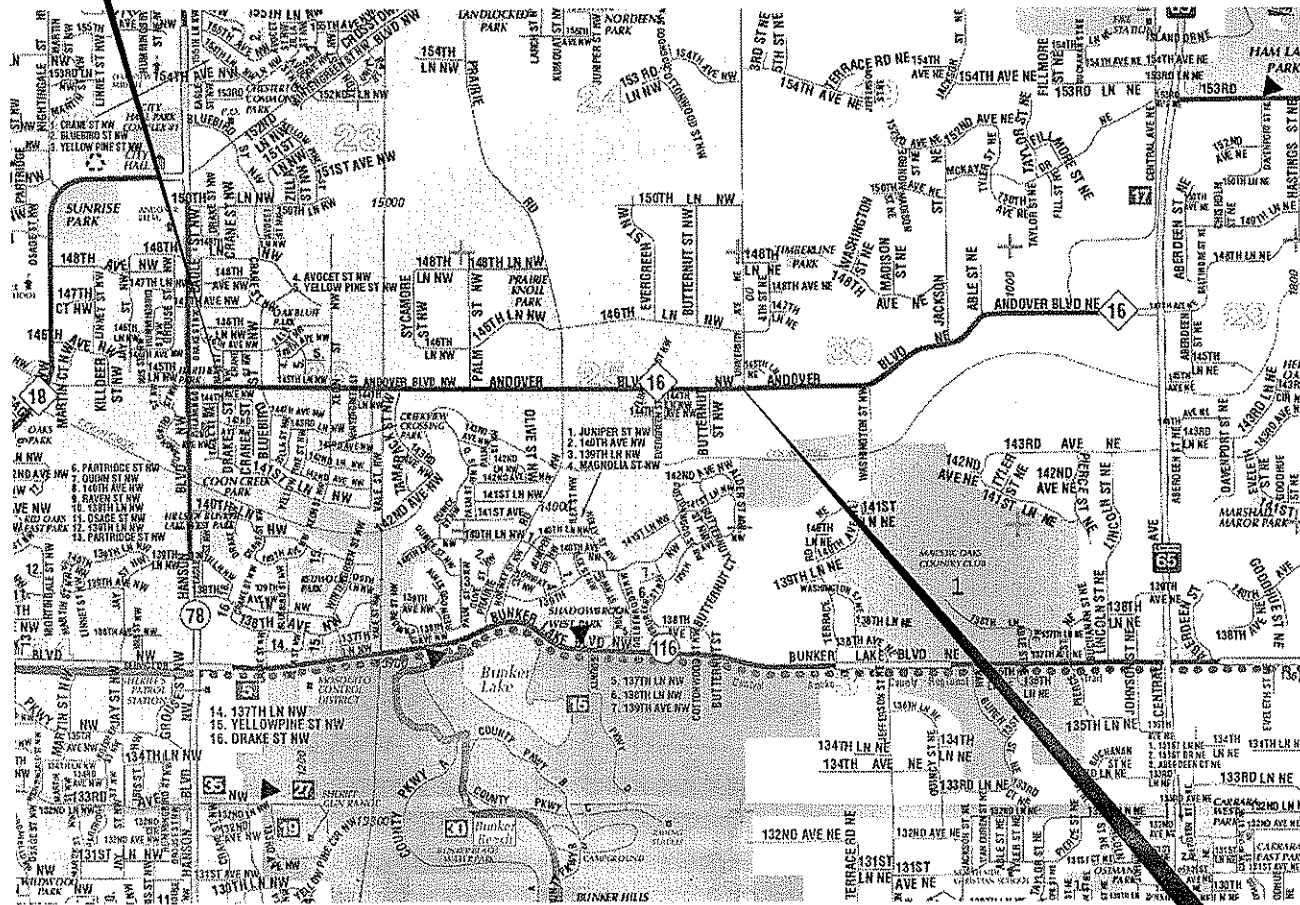
11-13-16

GROSS LENGTH	9975 FEET	1.889 MILES
BRIDGES-LENGTH	0.00 FEET	0.000 MILES
EXCEPTIONS-LENGTH	0.00 FEET	0.000 MILES
NET LENGTH	9975 FEET	1.889 MILES

BEGIN COUNTY PROJECT 11-13-16

CR 16 STA. 25+50

CITY OF ANDOVER



END COUNTY PROJECT 11-13-16

CR 16 STA. 125+25



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 _____

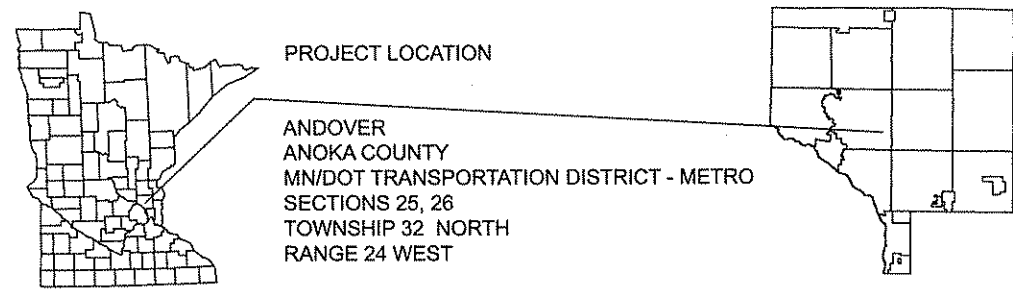
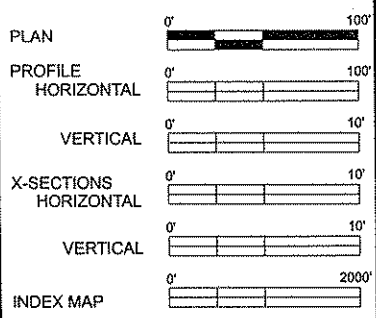
- BUILDING (One Story Frame) _____
- F-FRAME C-CONCRETE _____
- S-STONE T-TILE _____
- B-BRICK ST-STUCCO _____

- RAILROAD CROSSING BELL _____
- RAILROAD CROSSING GATE _____
- MANHOLE _____
- CATCH BASIN _____
- FIRE HYDRANT _____
- CAST IRON MONUMENT _____
- IRON PIN _____
- GRAVEL PIT _____
- SAND PIT _____
- BORROW 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 Termination) _____
- GAS MAIN _____
- WATERMAIN _____
- TELEPHONE CABLE IN CONDUIT _____
- ELECTRIC CABLE IN CONDUIT _____
- TELEPHONE MANHOLE _____
- ELECTRIC MANHOLE _____
- BURIED TELEPHONE CABLE _____
- BURIED ELECTRIC CABLE _____
- SEWER (Sanitary or Storm) _____
- SEWER MANHOLE _____

SCALES



GOVERNING SPECIFICATIONS

THE 2005 EDITION OF THE MINNESOTA DEPARTMENT OF TRANSPORTATION "STANDARD SPECIFICATIONS FOR CONSTRUCTION" SHALL GOVERN. ALL TRAFFIC CONTROL DEVICES SHALL CONFORM AND BE INSTALLED IN ACCORDANCE TO THE "MINNESOTA MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES" (MNMUTCD), AND PART VI, "FIELD MANUAL FOR TEMPORARY TRAFFIC CONTROL ZONE LAYOUTS."

INDEX

SHEET NO.	DESCRIPTION
1	TITLE SHEET
2	STATEMENT OF ESTIMATED QUANTITIES
3-4	TYPICAL SECTIONS
5-6	MISCELLANEOUS DETAILS
7-10	CONSTRUCTION PLAN
11-14	STRIPING PLAN

THIS PLAN CONTAINS 14 SHEETS

DESIGN DESIGNATION

ESAL 20	513,042
R VALUE	50
ADT (2010) =	3,954
Proj. ADT (2030) =	5,536
Proj. HCADT (2030) =	NA
Soil Factor	NA
9 TON DESIGN	
Functional Classification	MAJOR COLLECTOR
No. of Traffic Lanes	2
No. of Parking Lanes	0
Design Speed	50 MPH
Based on Stopping Sight Distance	N/A
Height of eye	3.5'
Height of object	2.0'
Design Speed not achieved at:	
STA. <u>25+50</u>	TO STA. <u>125+25</u> MPH

Approved: 3/4/2012
ANOKA COUNTY ENGINEER

NO	DATE	BY	CHKD	APPR	REVISION

NAME: P:12-01-09:CR_16_CSAH78-University\Plan1 Title.dgn 1:33:08 PM 02/29/2012

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: CHARLES CADENHEAD
SIGNATURE:
DATE: 3/2/12 LICENSE NO. 40416

DRAWN BY: JJ DATE: 2-29-2012
DESIGN BY: JJ DATE: 2-29-2012
CHECKED BY: SO DATE: 2-29-2012

ANOKA COUNTY
HIGHWAY DEPT.

STATE PROJECT NO. _____
STATE AID PROJECT NO. _____
CITY PROJECT NO. _____
COUNTY PROJECT NO. 11-13-16

TITLE SHEET
Sheet 1 of 14 Sheets

CSAH 16		STATEMENT OF ESTIMATED QUANTITIES		
ITEM NO.	ITEM	NOTE NO.	UNIT	TOTAL EST. QUANT.
2011.601	CONSTRUCTION SURVEYING		LUMP SUM	1
2021.501	MOBILIZATION		LUMP SUM	1
2104.505	REMOVE CONCRETE DRIVEWAY PAVEMENT		SQ YD	42
2104.511	SAWING CONCRETE PAVEMENT (FULL DEPTH)		LIN FT	121
2211.501	AGGREGATE BASE CLASS 5	10	TON	116
2221.501	AGGREGATE SHOULDERING CLASS 5		TON	635
2232.501	MILL BITUMINOUS SURFACE (2.0") (JOINTS)	1,5,6	SQ YD	376
2357.502	BITUMINOUS MATERIAL FOR TACK COAT		GALLON	1538
2360.501	TYPE SP 12.5 WEARING COURSE MIX (4,B)	7	TON	316
2360.501	TYPE SP 12.5 WEARING COURSE MIX (4,E)	5,6	TON	3298
2531.507	6" CONCRETE DRIVEWAY PAVEMENT		SQ YD	42
2540.602	INSTALL MAIL BOX SUPPORT		EACH	25
2563.601	TRAFFIC CONTROL	3,5,6,8,9	LUMP SUM	1
2581.501	REMOVABLE PREFORMED PLASTIC MARKING	2	LIN FT	200
2582.502	4" SOLID LINE WHITE - EPOXY	4	LIN FT	19927
2582.502	4" BROKEN LINE WHITE - EPOXY	4	LIN FT	40
2582.502	4" SOLID LINE YELLOW - EPOXY	4	LIN FT	4520
2582.502	4" BROKEN LINE YELLOW-EPOXY	4	LIN FT	1990
2582.502	4" DOUBLE SOLID LINE YELLOW - EPOXY	4	LIN FT	392
2582.602	PAVT MSSG (RR CROSSING) PREFORM THERMOPLASTIC	4	EACH	2
2582.603	24" WHITE PREF THERMOPLASTIC	4,8	LIN FT	24

CSAH 16		CONSTRUCTION NOTES
1	LOCATION TO BE DETERMINED BY ENGINEER	
2	MARKINGS SHALL BE PLACED AT THE END OF DAYS PAVING	
3	DO NOT PASS, PASS WITH CARE, AND NO CENTER STRIPE SIGNS TO BE INPLACE DURING PAVING OPERATIONS	
4	PERMANENT MARKINGS TO BE IN PLACE WITHIN 72 HOURS OF FINAL MAINLINE PAVING.	
5	CONTRACTOR IS RESPONSIBLE TO CORDINATE WITH RXR FOR WORK DONE INSIDE THEIR RIGHT OF WAY.	
6	RAILROAD SAFTEY SUPERVISOR IS INCIDENTAL TO PROJECT (CONTRACTOR'S RESPONSIBILITY)	
7	PAVING STREET APPROACHES OF DRIVEWAYS	
8	24" X 12' TEMPORARY WHITE STOPBARS MUST BE INSTALLELD EB & WB IMMEDIATELY FOLLOWING ROLLING ON EACH LIFT	
9	ALL TRAFFIC CONTROL METHODS SHALL CONFORM TO THE MINNESOTA MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES.	
10	ITEM FOR UNPAVED DRIVEWAYS / ENTRANCES	

CSAH 16		BASIS OF PLANNED QUANTITIES
2211.501	AGGREGATE BASE CLASS 5	CU YDS * 1.8 = TONS
2357.502	BITUMINOUS MATERIAL FOR TACK COAT	.05 GAL / SQ YD
2360.501	TYPE SP 12.5 WEARING COURSE MIX (4,E)	115 LBS/SQYD/IN THICKNESS
2360.502	TYPE SP 12.5 WEAR COURSE MIX (4,B)	115 LBS/SQYD/IN THICKNESS
2580.603	REMOVABLE LANE TAPE	2' AT 50' INTERVALS FOR SKIPS

NO	DATE	BY	CKD	APPR	REVISION

NAME: P:\12-01-00\CR_16_CSAH78-University\Plan2 Seq.dgn 03/01/2012 7:10:05 AM

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PRINT NAME: CHARLES CADENHEAD
 SIGNATURE: *[Signature]*
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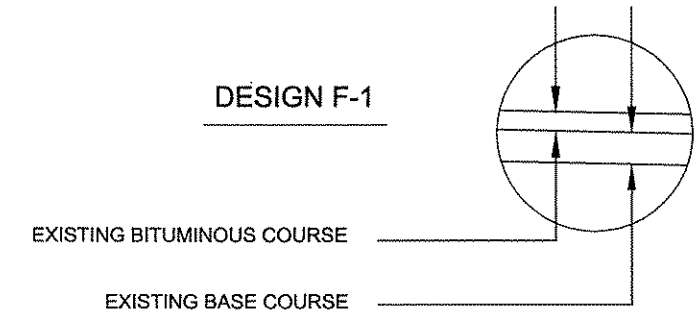
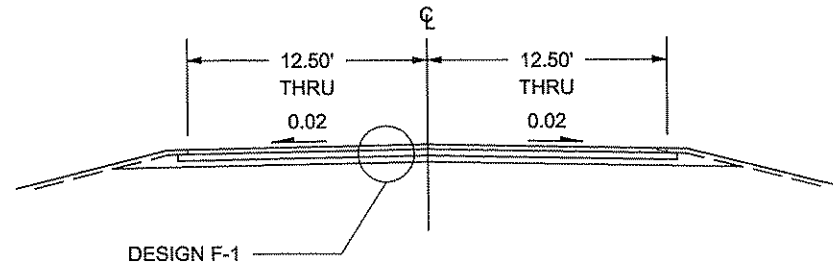
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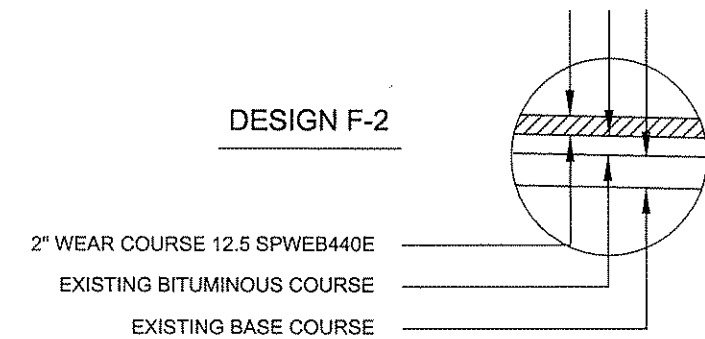
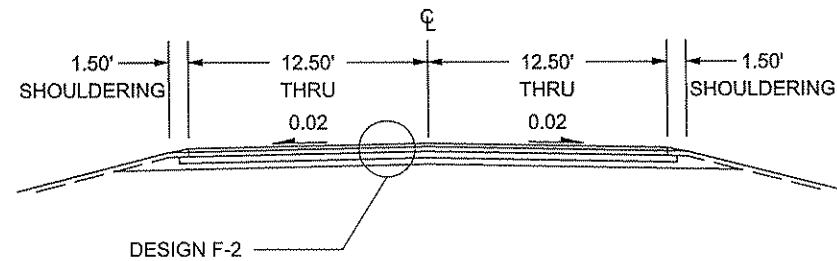
**ANOKA COUNTY
HIGHWAY DEPT.**

STATE PROJECT NO. _____
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 COUNTY PROJECT NO. 11-13-16

C.R. 16
EXISTING ROAD - RURAL SECTION
 STA 25+50 - STA 104+70
 STA 113+50 - STA 125+25



C.R. 16
PROPOSED ROAD - RURAL SECTION
 STA 25+50 - STA 104+70
 STA 113+50 - STA 125+25



GENERAL NOTES:

- ALL CROSS SLOPES ARE APPROXIMATE
- UNLESS OTHERWISE SPECIFIED, THE CLASS 5 CROSS SLOPES SHALL BE THE SAME AS THE FINISHED SURFACE OF THE MAINLINE.

NO	DATE	BY	CKD	APPR	REVISION

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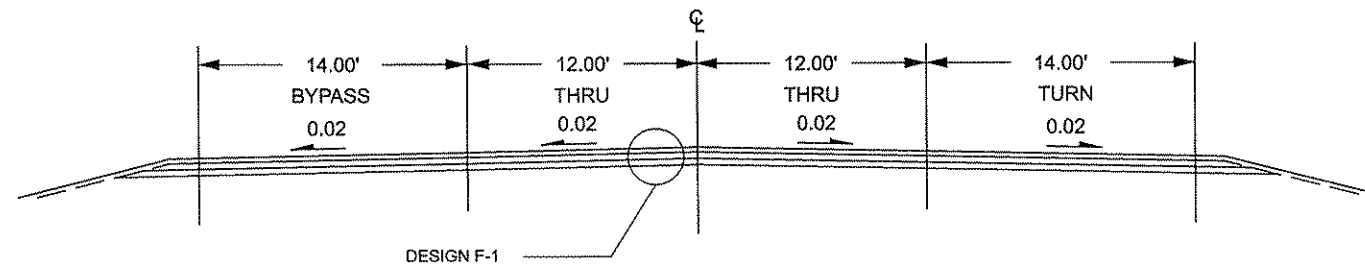
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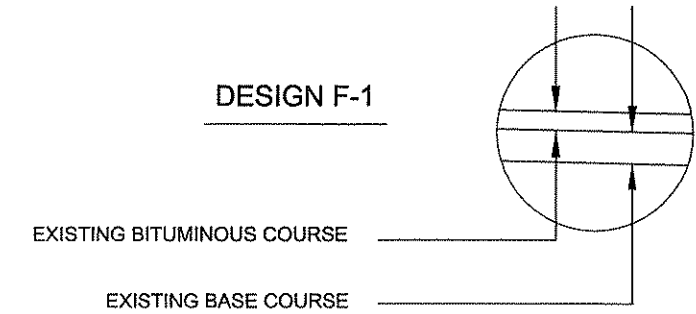
TYPICAL SECTIONS

Sheet 3 of 14 Sheets

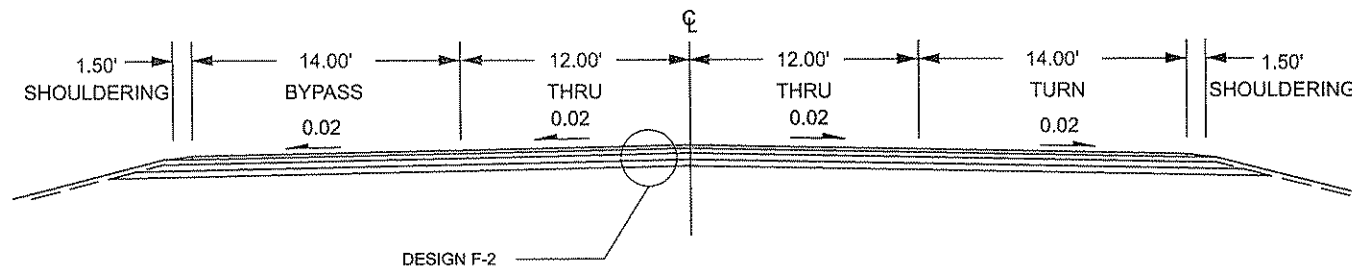
C.R. 16
EXISTING ROAD - RURAL SECTION
STA 104+70 - STA 113+50



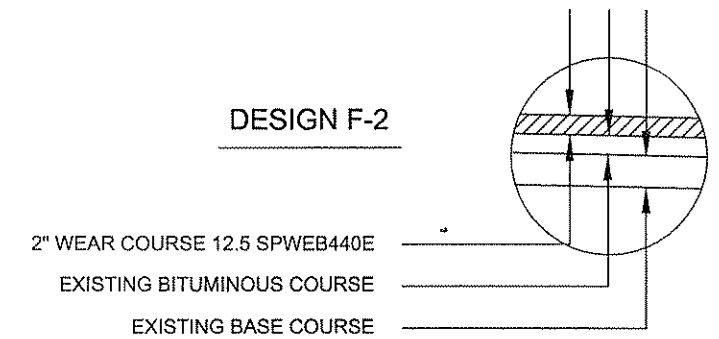
DESIGN F-1



C.R. 16
PROPOSED ROAD - RURAL SECTION - TURN LANES
104+70 - 109+50 LT 107+30 - 113+50 RT



DESIGN F-2



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- UNLESS OTHERWISE SPECIFIED, THE CLASS 5 CROSS SLOPES SHALL BE THE SAME AS THE FINISHED SURFACE OF THE MAINLINE.

NO	DATE	BY	CKD	APPR	REVISION

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PRINT NAME: CHARLES CADENHEAD
 SIGNATURE: *Charles Cadenhead*
 DATE: 3/2/12 LICENSE NO. 40416

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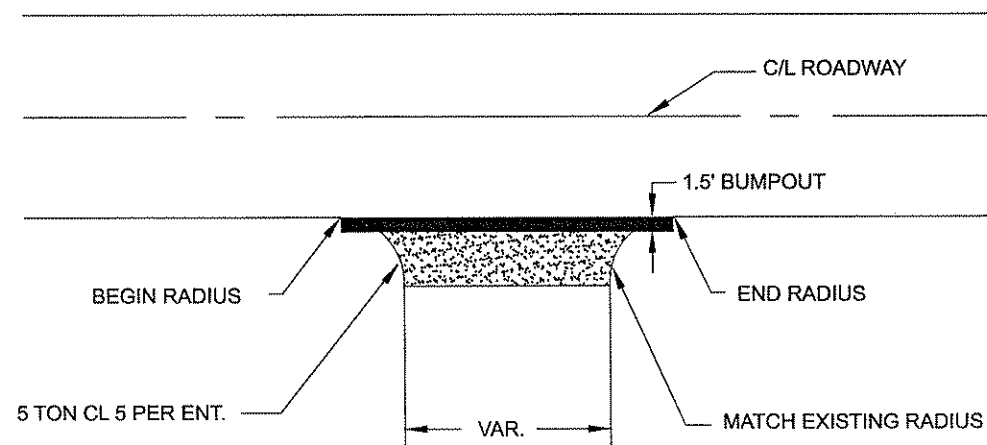
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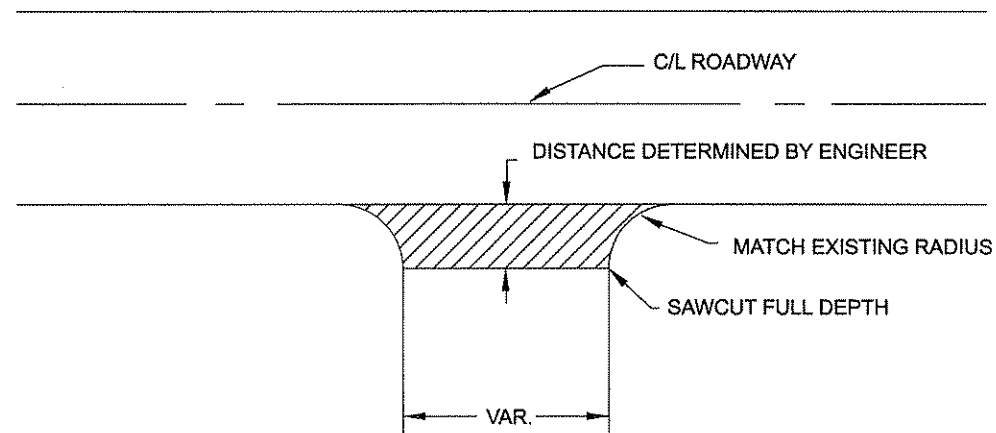
TYPICAL SECTIONS

Sheet 4 of 14 Sheets

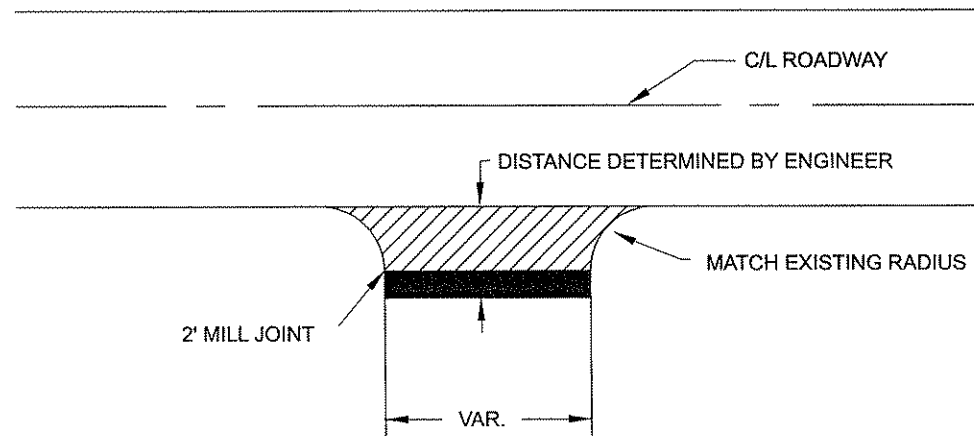
GRAVEL DRIVEWAYS & FIELD ENTRANCES



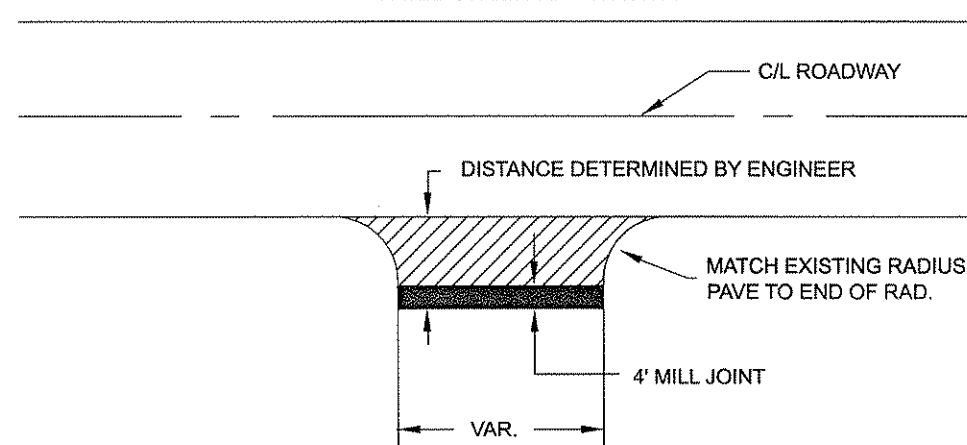
CONCRETE DRIVEWAYS



BIT. DRIVEWAYS



PAVED STREET APPROACHES



DRIVEWAYS BUMPED OUT AND PAVED WITH MAINLINE PAID AS MAINLINE.

DRIVEWAYS PAVED IN DIFFERENT OPERATION FROM MAIN LINE PAVING PAID AS ST./DR. APPROACH.

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: Charles Cadenhead
 SIGNATURE: *Charles Cadenhead*
 DATE: 7/2/12 LICENSE NO. 40416

DRAWN BY JJ DATE 2-29-2012
 DESIGN BY JJ DATE 2-29-2012
 CHECKED BY JO DATE 2-29-2012



ANOKA COUNTY
 HIGHWAY DEPT.

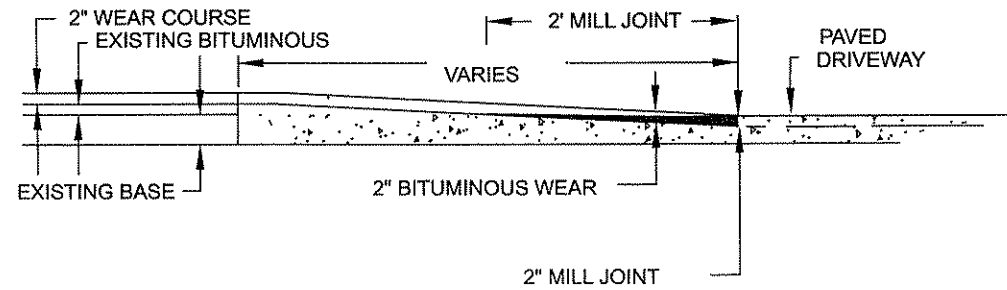
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 CITY PROJECT NO. _____
 COUNTY PROJECT NO. 11-13-16

MISCELLANEOUS
 DETAILS
 Sheet 5 of 14 Sheets

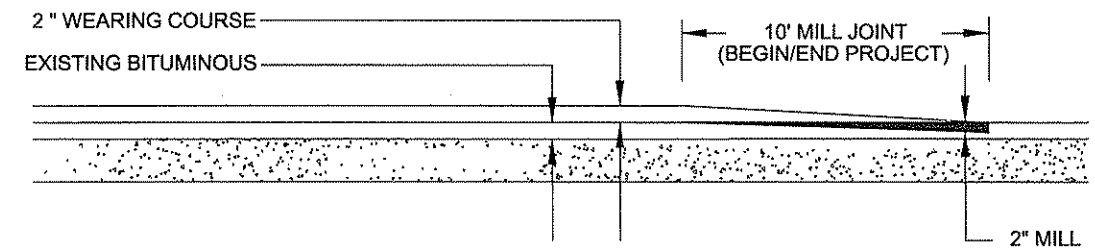
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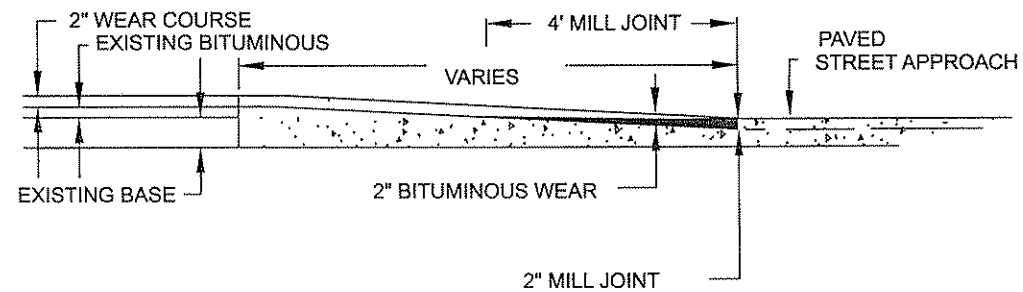
DRIVEWAY JOINT DETAILS A - A



MAINLINE MILL JOINT DETAIL



STREET APPROACH JOINT DETAILS B - B



NO	DATE	BY	CHKD	APPR	REVISION

NAME: P:\12-01-00\CR_16_(CSAH78-University)\Plan\4 Details.dgn 02/29/2012 1:35:08 PM

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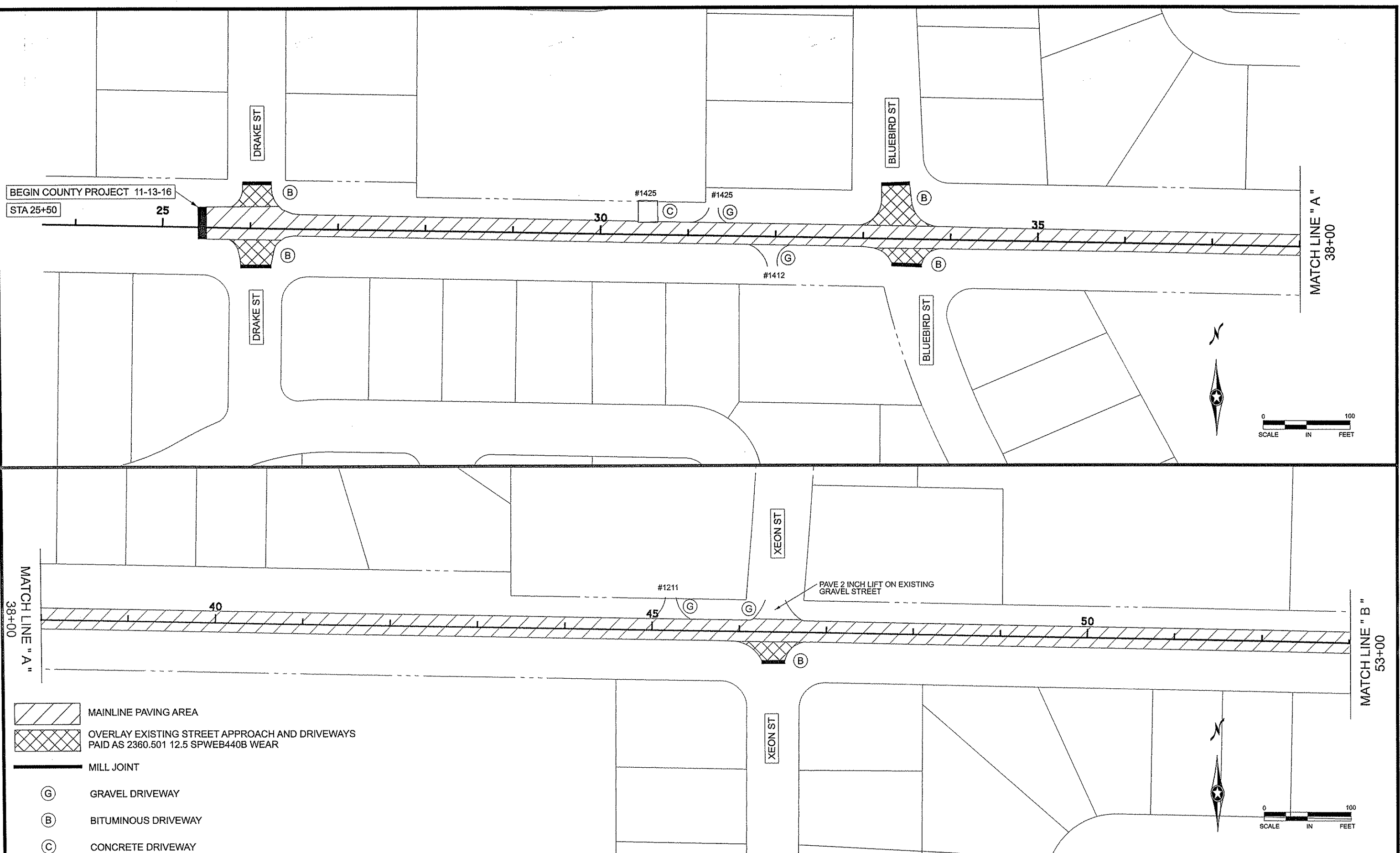
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ANOKA COUNTY
 HIGHWAY DEPT.

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MISCELLANEOUS
 DETAILS
 Sheet 6 of 14 Sheets



NO	DATE	BY	CKD	APPR	REVISION

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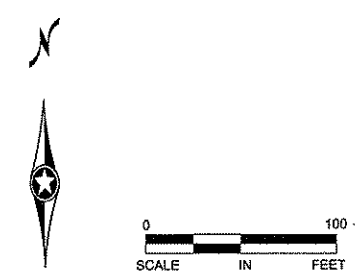
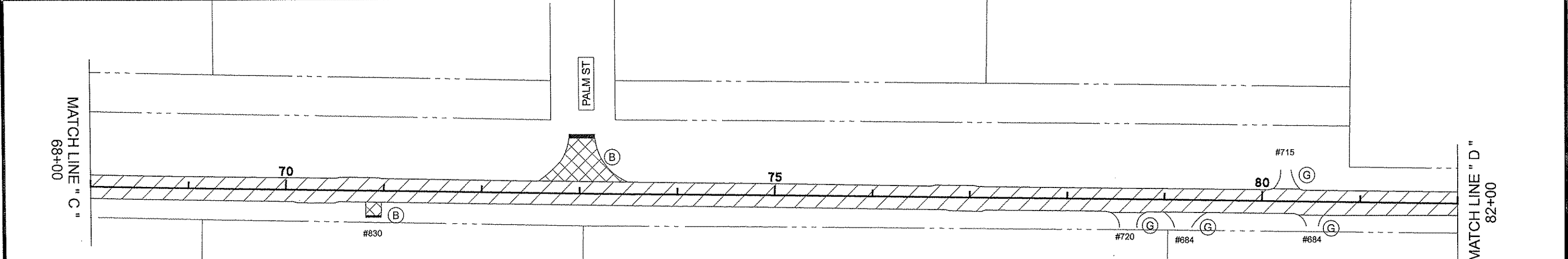
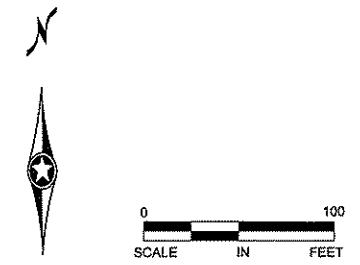
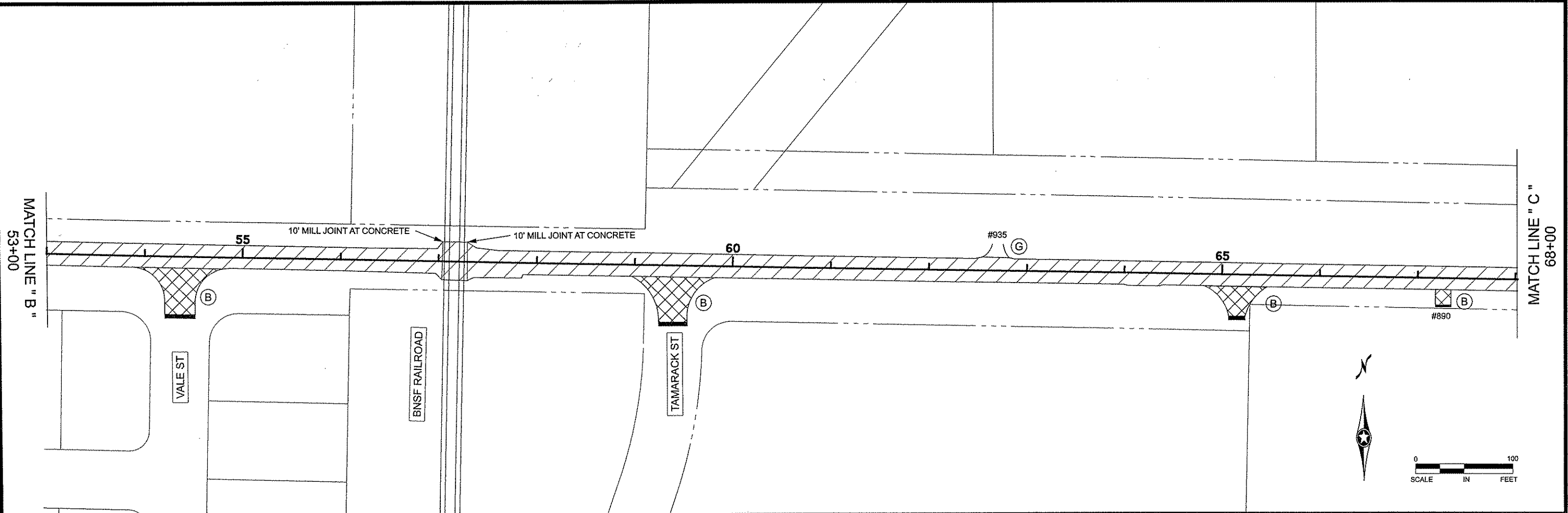
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CONSTRUCTION PLAN
 STA 25+50 TO 53+00
 Sheet 7 of 14 Sheets



- MAINLINE PAVING AREA
- OVERLAY EXISTING STREET APPROACH AND DRIVEWAYS PAID AS 2360.501 12.5 SPWEB440B WEAR
- MILL JOINT
- GRAVEL DRIVEWAY
- BITUMINOUS DRIVEWAY
- CONCRETE DRIVEWAY

NO	DATE	BY	CHKD	APPR	REVISION
NAME: P:\12-01-00\CR_16_(CSAH78-University)\Plan\5 plan.dgn					1:35:54 PM

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: CHARLES CADENHEAD
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 DATE: 2/2/12 LICENSE NO. 40416

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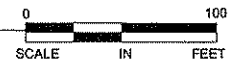
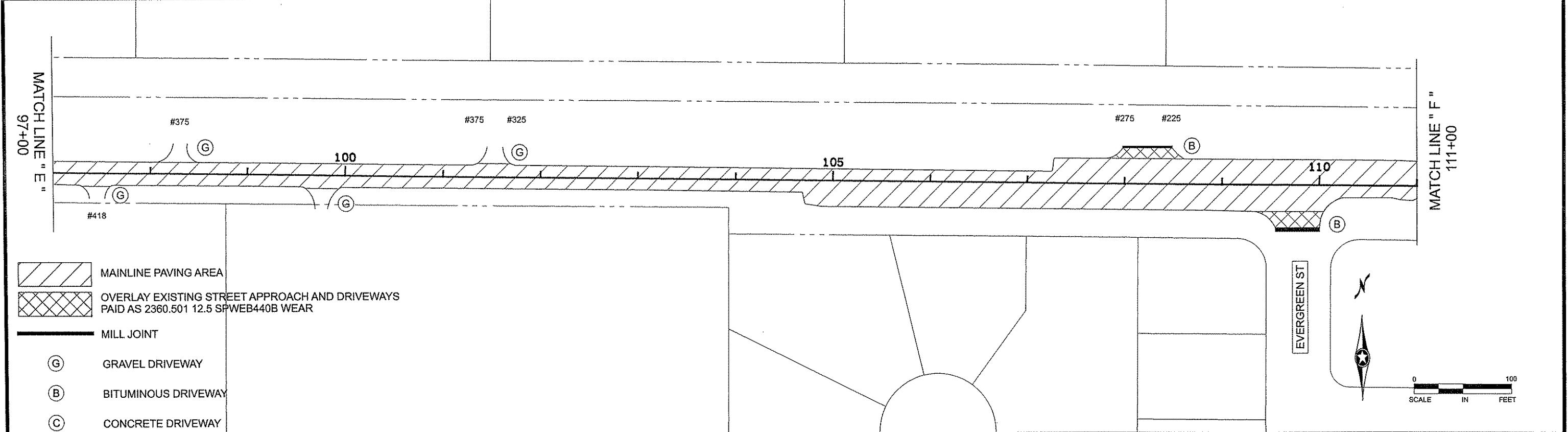
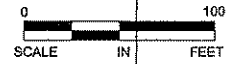
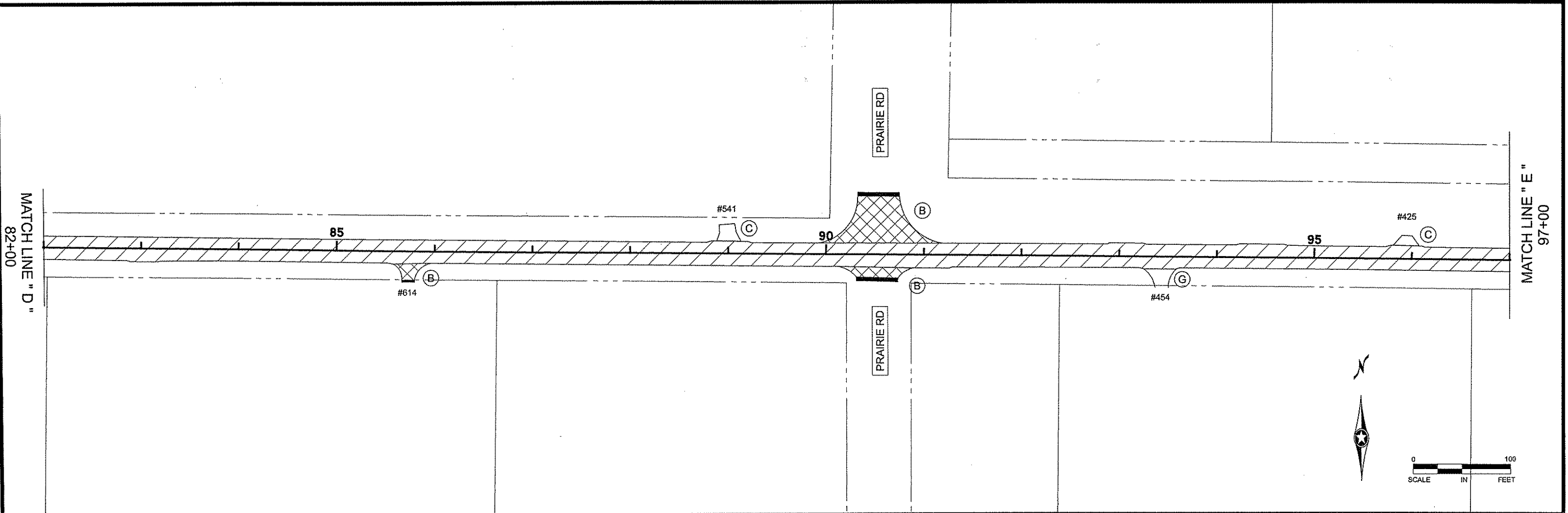
ANOKA COUNTY
HIGHWAY DEPT.

STATE PROJECT NO. _____
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CONSTRUCTION PLAN

STA 53+00 TO 82+00

Sheet 8 of 14 Sheets



- MAINLINE PAVING AREA
- OVERLAY EXISTING STREET APPROACH AND DRIVEWAYS PAID AS 2360.501 12.5 SPWEB440B WEAR
- MILL JOINT
- GRAVEL DRIVEWAY
- BITUMINOUS DRIVEWAY
- CONCRETE DRIVEWAY

NO	DATE	BY	CKD	APPR	REVISION
NAME: P:\12-01-00\CR_16_(CSAH78-University)\Plan5 plan.dgn					
02/29/2012 1:36:29 PM					

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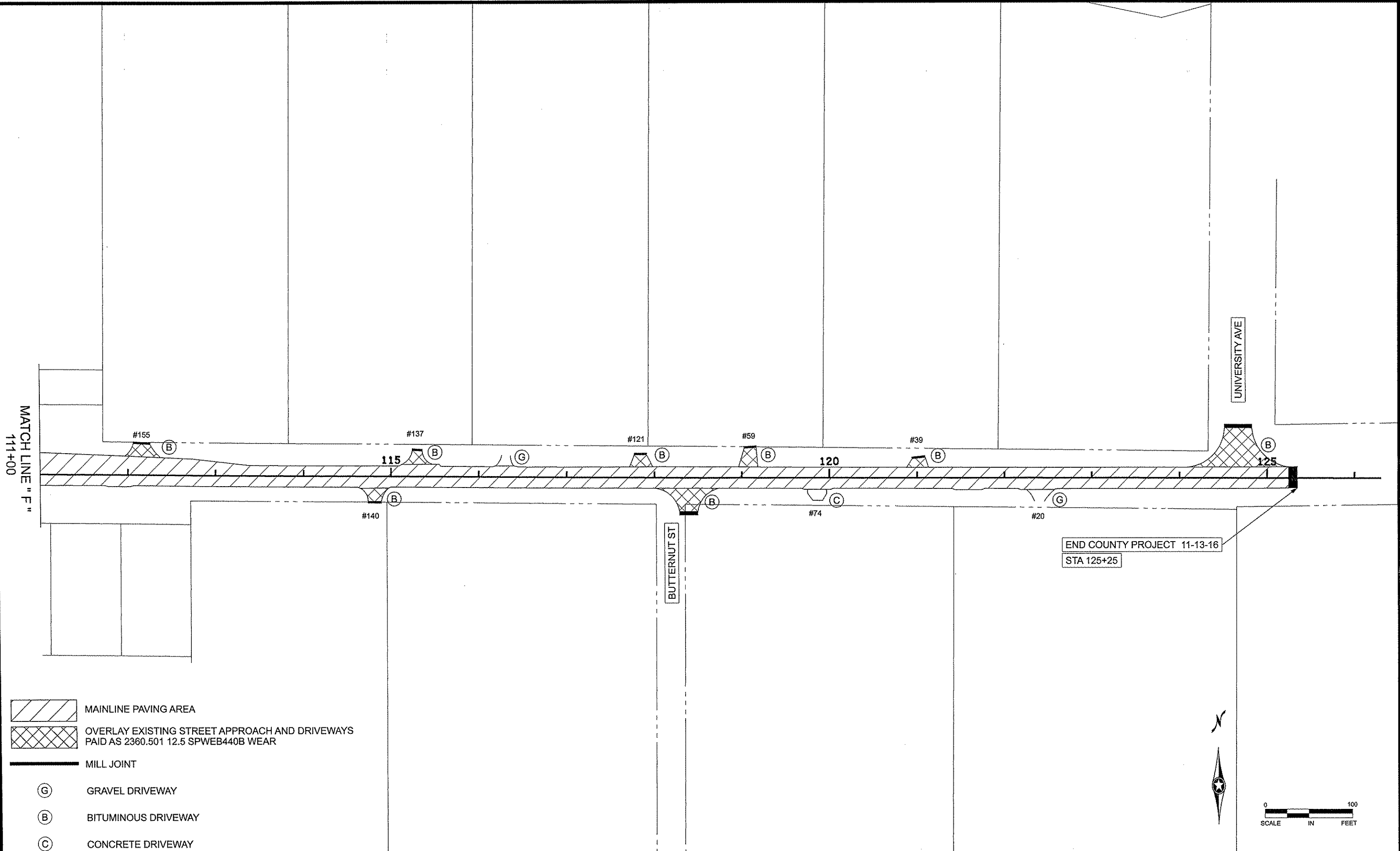
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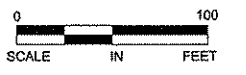
ANOKA COUNTY HIGHWAY DEPT.

STATE PROJECT NO. _____
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CONSTRUCTION PLAN
 STA 82+00 TO 111+00
 Sheet 9 of 14 Sheets



-  MAINLINE PAVING AREA
-  OVERLAY EXISTING STREET APPROACH AND DRIVEWAYS PAID AS 2360.501 12.5 SPWEB440B WEAR
-  MILL JOINT
-  GRAVEL DRIVEWAY
-  BITUMINOUS DRIVEWAY
-  CONCRETE DRIVEWAY



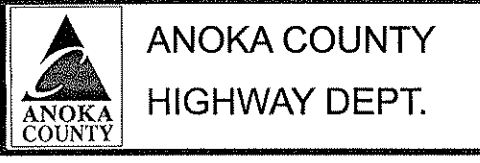
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CONSTRUCTION PLAN
 STA 111+00 TO 125+25
 Sheet 10 of 14 Sheets

PERMANENT PAVEMENT MARKING PLAN

NOTES AND GUIDELINES

GENERAL INFORMATION:

THE ENGINEER'S INVOLVEMENT IN THE APPLICATION OF THE MATERIAL SHALL BE LIMITED TO FIELD CONSULTATION AND INSPECTION. ANOKA COUNTY HIGHWAY DEPARTMENT WILL PLACE NECESSARY "SPOTTING" AT APPROPRIATE POINTS TO PROVIDE HORIZONTAL CONTROL FOR STRIPING AND TO DETERMINE NECESSARY STARTING AND CUTOFF POINTS, LONGITUDINAL JOINTS, PAVEMENT EDGES AND EXISTING MARKINGS MAY SERVE AS HORIZONTAL CONTROL WHEN SO DIRECTED.

EDGE LINES AND LANE LINES ARE TO BE BROKEN ONLY AT INTERSECTIONS WITH PUBLIC ROADS AND AT PRIVATE ENTRANCES IF THEY ARE CONTROLLED BY A YIELD SIGN, STOP SIGN OR TRAFFIC SIGNAL. THE BREAK POINT IS TO BE AT THE START OF THE RADIUS FOR THE INTERSECTION OR AT MARKED STOP LINES OR CROSSWALKS.

A TOLERANCE OF 1/4 INCH UNDER OR 1/4 INCH OVER THE SPECIFIED WIDTH WILL BE ALLOWED FOR STRIPING PROVIDED THE VARIATION IS GRADUAL AND DOES NOT DETRACT FROM THE GENERAL APPEARANCE. BROKEN LINE SEGMENTS MAY VARY UP TO ONE-HALF FOOT FROM THE SPECIFIED LENGTHS PROVIDED THE OVER AND UNDER VARIATIONS ARE REASONABLY COMPENSATORY. ALIGNMENT DEVIATIONS FROM THE CONTROL GUIDE SHALL NOT EXCEED 1 INCH. MATERIAL SHALL NOT BE APPLIED OVER LONGITUDINAL JOINTS, ESTABLISHMENT OF APPLICATION TOLERANCES SHALL NOT RELIEVE THE CONTRACTOR OF THEIR RESPONSIBILITY TO COMPLY AS CLOSELY AS PRACTICABLE WITH THE PLANNED DIMENSIONS.

EPOXY:

THE ROAD SURFACE SHALL BE CLEANED AT THE DIRECTION OF THE ENGINEER JUST PRIOR TO APPLICATION. PAVEMENT CLEANING SHALL CONSIST OF AT LEAST BRUSHING WITH A ROTARY BROOM (NON-METALLIC) OR AS RECOMMENDED BY THE MATERIAL MANUFACTURER AND ACCEPTABLE TO THE ENGINEER. NEW PORTLAND CEMENT CONCRETE SURFACES SHALL BE SANDBLAST CLEANED TO REMOVE ANY SURFACE TREATMENT AND/OR LAITANCE ON LOW SPEED (SPEED LIMIT 35 MPH OR LESS) URBAN PORTLAND CEMENT CONCRETE ROADWAYS. SANDBLAST CLEANING SHALL BE USED FOR ALL EPOXY PAVEMENT MARKINGS.

THE EPOXY MARKING APPLICATION SHALL IMMEDIATELY FOLLOW THE PAVEMENT CLEANING. GLASS BEANS SHALL BE APPLIED IMMEDIATELY AFTER APPLICATION OF THE EPOXY RESIN LINE TO PROVIDE AN IMMEDIATE NO-TRACK SYSTEM.

AN EPOLY RESIN LINE 4" WIDE AND 15 MILL THICKNESS (WET), REQUIRES AN APPLICATION RATE OF ONE (1) GALLON OF COMPONENTS FOR 320 FEET OF LINE. GLASS BEADS SHALL BE APPLIED AT A POUND PER GALLON RATE SUFFICIENT TO ACHIEVE AN ACCEPTABLE NO-TRACK SYSTEM.

OPERATIONS SHALL BE CONDUCTED ONLY WHEN THE ROAD PAVEMENT SURFACE TEMPERATURES ARE 50 DEGREES FAHRENHEIT OR GREATER.

PERMANENT PAVEMENT MARKINGS SHALL NOT BE PLACED OVER TEMPORARY TAPE MARKINGS.

PREFORMED THERMOPLASTIC:

THE PREFORMED THERMOPLASTIC MARKINGS SHALL BE APPLIED IN ACCORDANCE WITH THE MANUFACTURER'S RECOMMENDATIONS ON CLEAN AND DRY SURFACES. SEE SPECIAL PROVISIONS FOR PREFORMED THERMOPLASTIC MARKING SPECIFICATIONS.

PAINT:

AT THE TIME OF APPLYING THE MARKING MATERIAL, THE APPLICATION AREA SHALL BE FREE OF CONTAMINATION. THE CONTRACTOR SHALL CLEAN THE ROADWAY SURFACE PRIOR TO THE LINE APPLICAITON IN A MANNER AND TO THE EXTENT REQUIRED BY THE ENGINEER.

GLASS BEADS SHALL BE APPLIED IMMEDIATELY AFTER APPLICATION OF THE PAINT LINE.

EXCEPT WHEN USED AS A TEMPORARY MARKING, PAVEMENT MARKINGS SHALL ONLY BE APPLIED IN SEASONABLE WEATHER WHEN AIR TEMPERATURE IS 50 DEGREES FARHENHEIT OR HIGHER AND SHALL NOT BE APPLIED WHEN THE WIND OR OTHER CONDITIONS CAUSE A FILD OR DUST TO BE DEPOSITED ON THE PAVEMENT SURFACE AFTER CLEANING AND BEFORE THE MARKING MATERIAL CAN BE APPLIED.

THE FILLING OF TANKS, POURING OF MATERIALS OR CLEANING OF EQUIPMENT SHALL NOT BE PERFORMED ON UNPROTECTED PAVEMENT SURFACES UNLESS ADEQUATE PROVISIONS ARE MADE TO PREVENT SPILLAGE OF MATERIAL.

SYMBOLS & MATERIALS LEGEND

■ CROSSWALK BLOCK WHITE PREFORMED THERMOPLASTIC

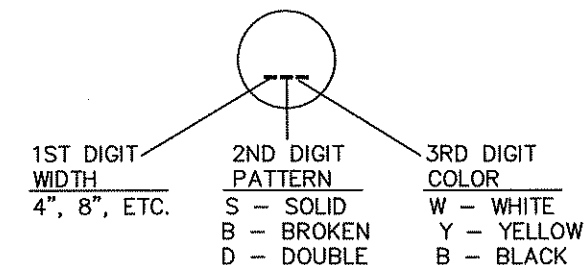
↩ PAVEMENT MESSAGE (LEFT ARROW) PREFORMED THERMOPLASTIC

STRIPING KEY

○ CIRCLE - EPOXY □ SQUARE PREFORMED THERMOPLASTIC

△ TRIANGLE - PAINT □ RxR POLYPREFORMED THERMOPLASTIC

⬠ PENTAGON - REMOVABLE PREFORMED PLASTIC MARKING



EXAMPLE: (4SW) = 4" SOLID LINE WHITE - EPOXY

PAVEMENT MARKING QUANTITIES		
Item	Quantity	Units
4" Double Solid Line Yellow - Epoxy	392	Lin Ft
4" Solid Line Yellow - Epoxy	4520	Lin Ft
4" Broken Line Yellow - Epoxy (10 ft stripe / 40 ft gap)	1990	Lin Ft
4" Solid Line White - Epoxy	19927	Lin Ft
4" Broken Line White - Epoxy (10 ft stripe / 40 ft gap)	40	Lin Ft
24" White Pref Thermoplastic	24	Lin Ft
Pavt Mssg (RR XING) Pref Thermoplastic	2	Each

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: CHARLES CADENHEAD
 SIGNATURE: *[Signature]*
 DATE: 3/2/12 LICENSE NO. 40416

DRAWN BY: MTH DATE: 1/03/12
 DESIGN BY: MTH DATE: 1/03/12
 CHECKED BY: JR DATE: 2/14/12

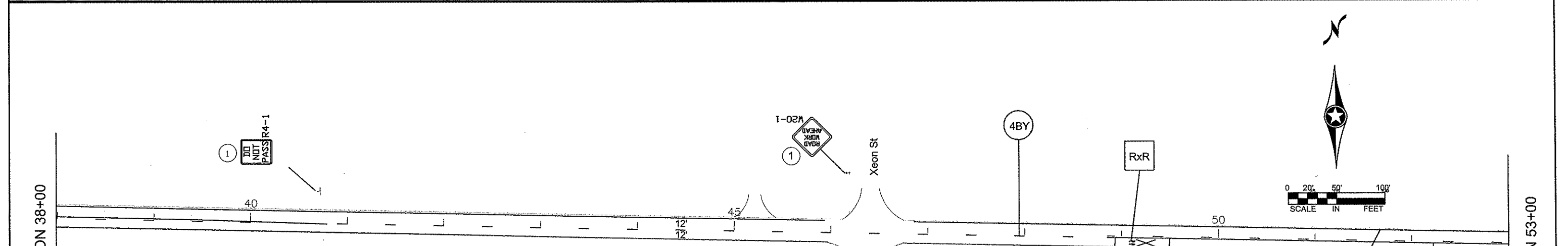
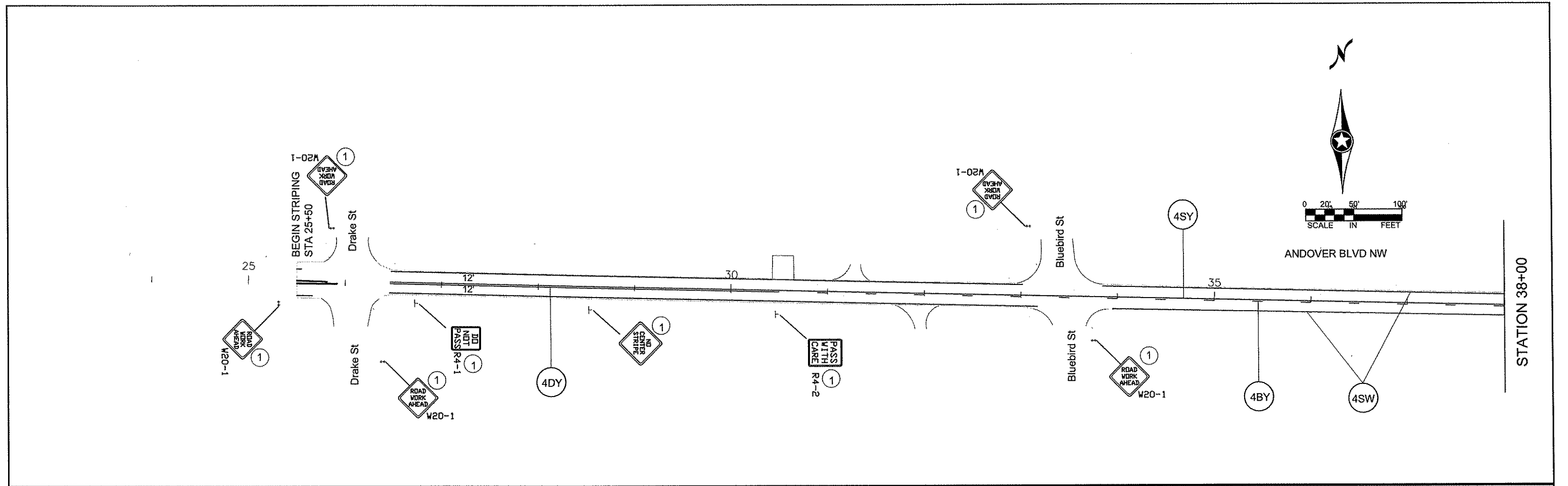


**ANOKA COUNTY
HIGHWAY DEPT.**

COUNTY PROJECT NO. 11-13-16

**PERMANENT MARKING
TABULATION**

Sheet 11A of 14 Sheets



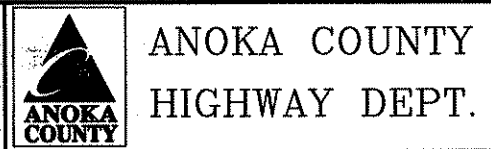
- NOTES:
- ALL TRAFFIC CONTROL DEVICES SHALL CONFORM AND BE PLACED IN ACCORDANCE TO THE "MINNESOTA MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES" (MN MUTCD), INCLUDING PART VI, "FIELD MANUAL FOR TEMPORARY TRAFFIC CONTROL ZONE LAYOUTS".
 - LOCATIONS OF PAVEMENT MARKINGS ARE APPROXIMATE. EXACT LOCATIONS WILL BE DETERMINED IN THE FIELD BY THE ENGINEER.
 - CONTRACTOR SHALL SUPPLY AND ERECT THE TEMPORARY TRAFFIC CONTROL SIGNS AS SHOWN ON THIS DRAWING AND DETAILED IN THE SPECIAL PROVISIONS FROM THE TIME WORK COMMENCES ON THIS ROADWAY UNTIL THIS ROADWAY IS PERMANENTLY STRIPED. ALL NECESSARY TEMPORARY TRAFFIC CONTROL SIGNS SHALL BE PAID FOR AS PART OF TRAFFIC CONTROL LUMP SUM.
 - ALL PERMANENT STRIPING AND PAVEMENT MESSAGES SHALL BE PLACED WITHIN 72 HOURS OF MAINLINE PAVING.
 - ANY REQUIRED PERMANENT SIGNING SHALL BE INSTALLED THE SAME DAY AS PERMANENT STRIPING
 - ALL EXISTING SIGNING SHALL REMAIN IN PLACE DURING CONSTRUCTION. IF A SIGN IS TO BE SALVAGED AND REINSTALLED, IT SHALL BE INSTALLED ON TEMPORARY SUPPORTS UNTIL THE PERMANENT INSTALLATION CAN BE MADE, AND THIS WILL BE CONSIDERED AS INCIDENTAL TO SIGN TYPE C REINSTALL INSTALLATION.

NO	DATE	BY	CKD	APPR	REVISION

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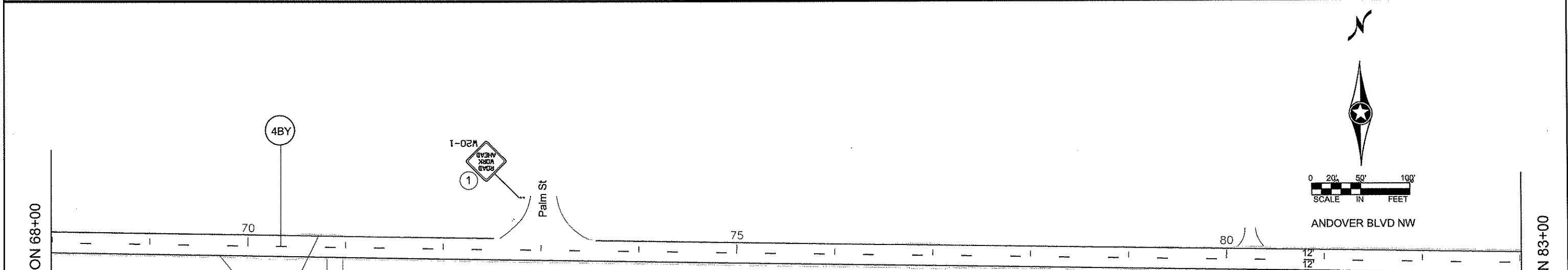
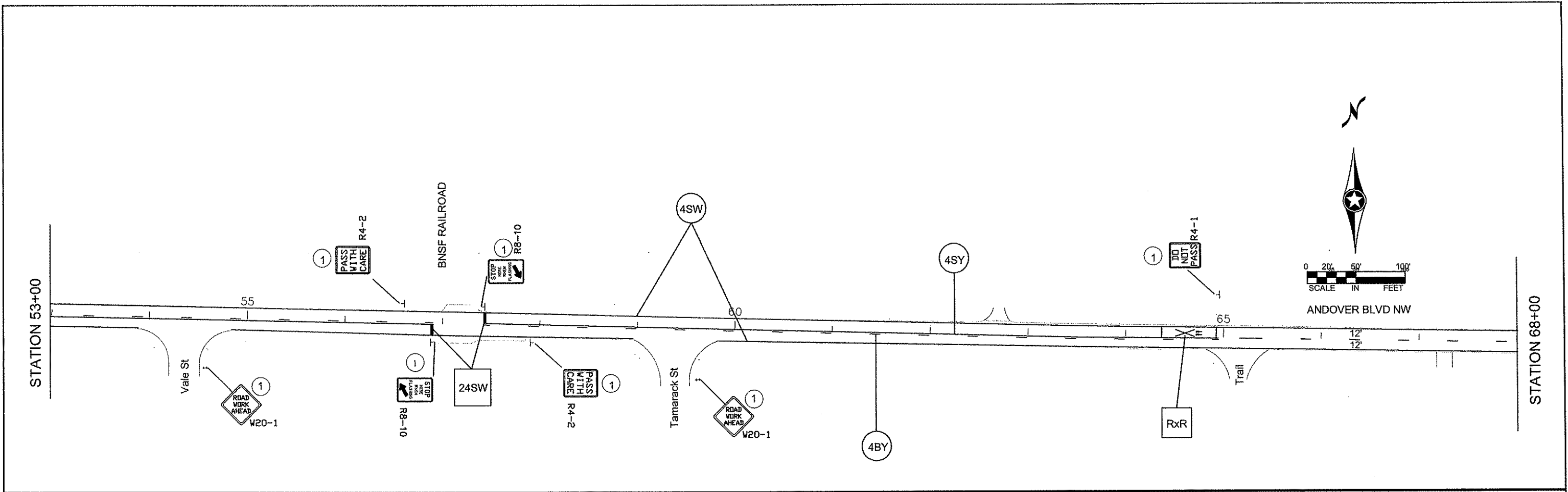
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STATE PROJECT NO. _____
 STATE AID PROJECT NO. _____
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CR 16 (Andover Blvd)
 TEMPORARY SIGNING
 PERMANENT STRIPING
 AND PAVEMENT MESSAGES

Sheet 11 of 14 Sheets



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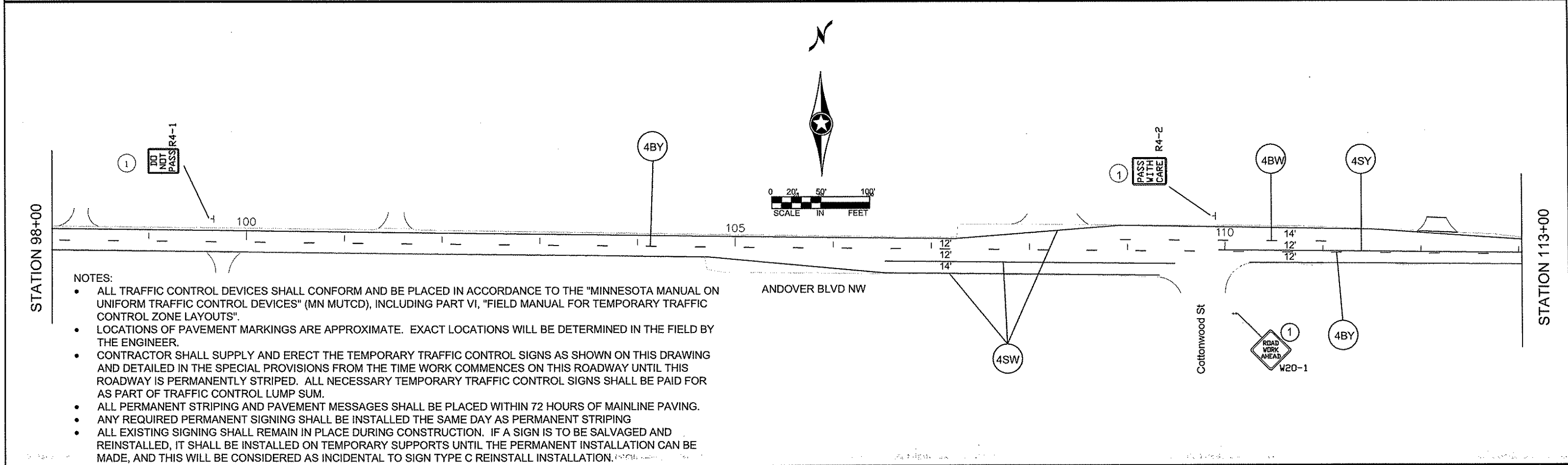
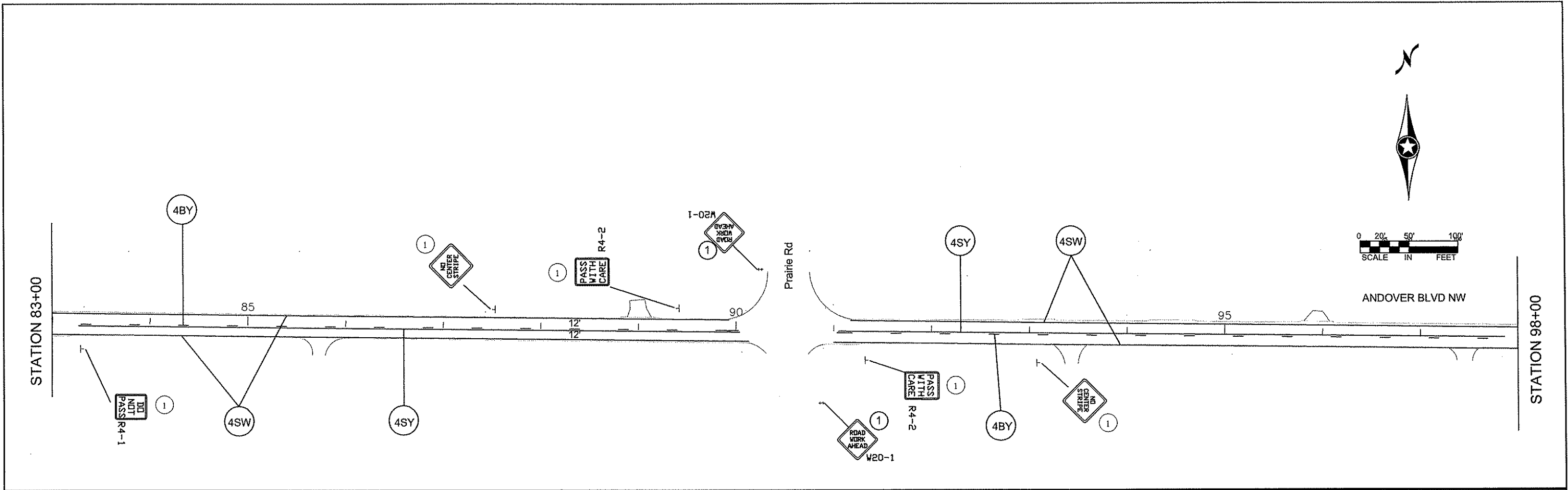
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ANOKA COUNTY
HIGHWAY DEPT.

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CR 16 (Andover Blvd)
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 AND PAVEMENT MESSAGES

Sheet 12 of 14 Sheets



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NO	DATE	BY	CKD	APPR	REVISION

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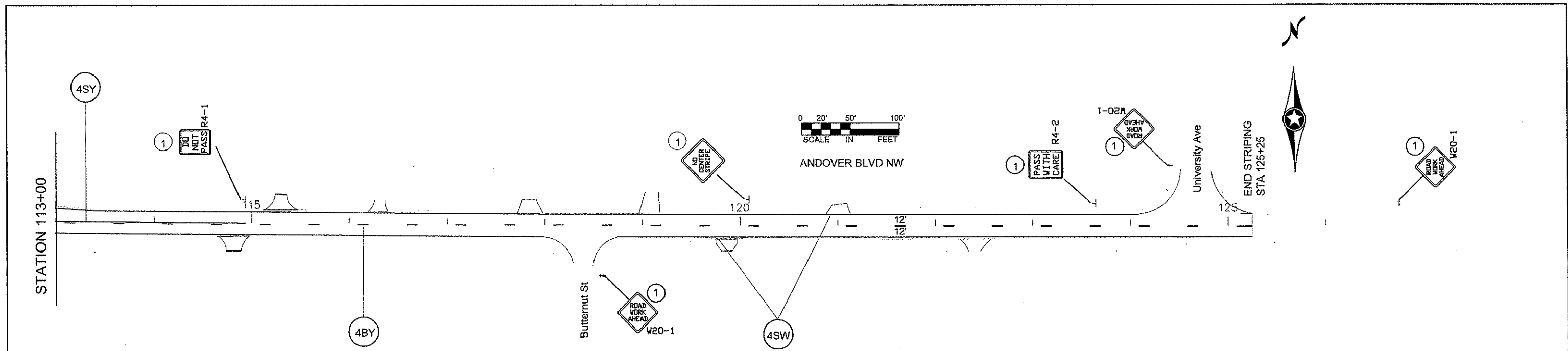
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ANOKA COUNTY
HIGHWAY DEPT.

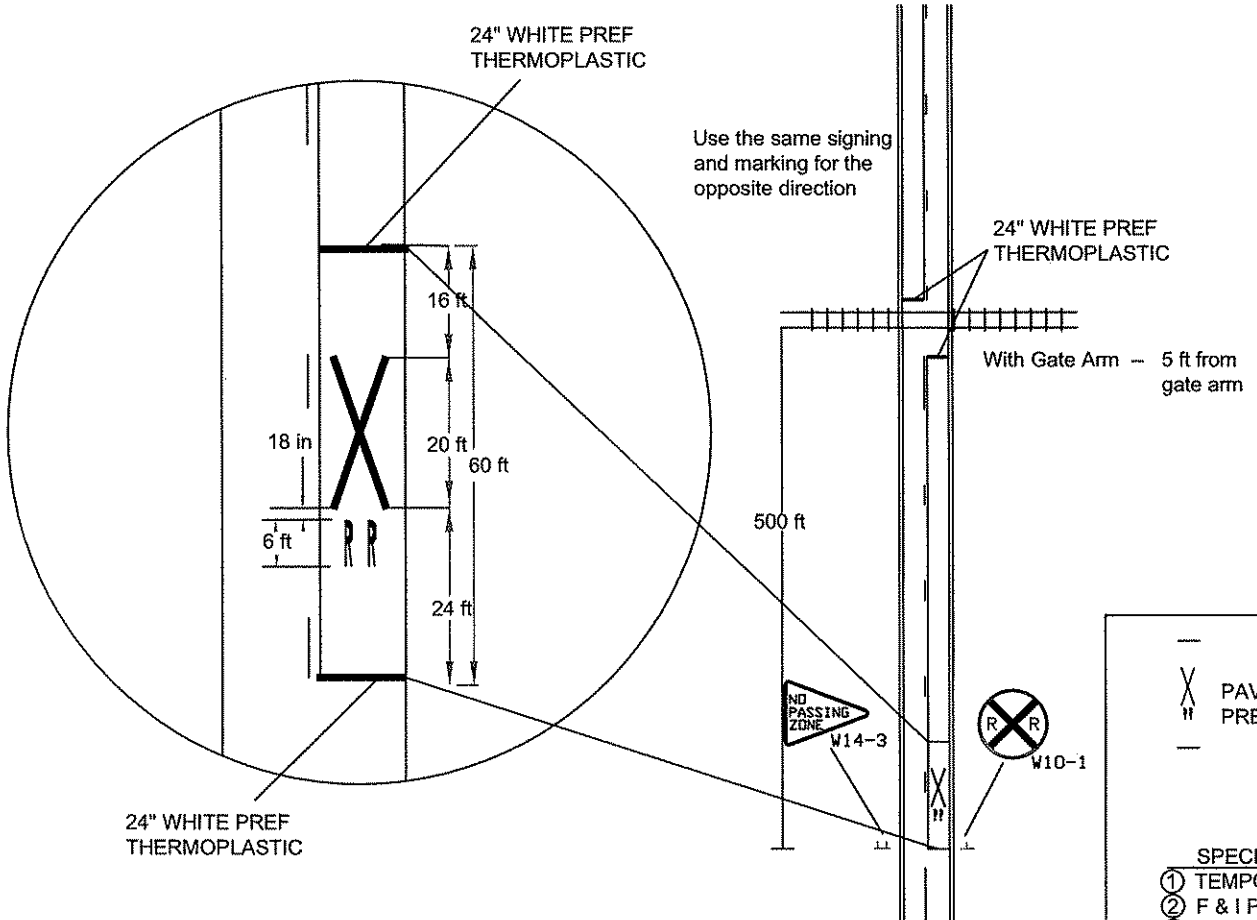
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 TEMPORARY SIGNING
 PERMANENT STRIPING
 AND PAVEMENT MESSAGES

Sheet 13 of 14 Sheets



RAILROAD CROSSING PAVEMENT MARKINGS



TEMPORARY TRAFFIC CONTROL SIGNS						
M.U.T.C.D. CODE	SIZE	PANEL AREA FT. ²	INSERT	QUANTITY	No. POST	MOUNTING HEIGHT TO PANEL/POST EDGE/FT.
W8-12	48" x 48"	16.00		2	2	7.0'
R4-1	24" x 30"	5.00		7	1	7.0'
R4-2	24" x 30"	5.00		4	1	7.0'
R8-10	24" x 30"	5.00		2	1	7.0'

TEMPORARY TRAFFIC CONTROL SIGNS						
M.U.T.C.D. CODE	SIZE	PANEL AREA FT. ²	INSERT	QUANTITY	No. POST	MOUNTING HEIGHT TO PANEL/POST EDGE/FT.
W8-1A	48" x 48"	16.00		AS NEEDED		
W8-1A	48" x 48"	16.00		AS NEEDED		
W8-8	48" x 48"	16.00		AS NEEDED		
W8-11	48" x 48"	16.00		AS NEEDED		
W8-11	48" x 48"	16.00		AS NEEDED (ESTIMATED 8)		

PAVEMENT MESSAGE RR CROSSING
 PREFORMED THERMOPLASTIC

SPECIAL PROVISIONS
 ① TEMPORARY TRAFFIC CONTROL SIGN
 ② F & I PERMANENT SIGN
 ③ SALVAGE PERMANENT SIGN
 ④ RE-INSTALL PERMANENT SIGN

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