

PLAN SYMBOLS

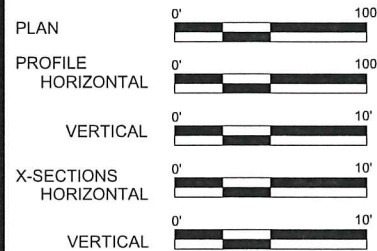
- COUNTY LINE _____
- TOWNSHIP OR RANGE LINE _____
- SECTION LINE _____
- QUARTER LINE _____
- SIXTEENTH LINE _____
- RIGHT OF WAY LINE _____
- SLOPE EASEMENT _____
- EXISTING RIGHT OF WAY _____
- PROPERTY LINE _____
- CORPORATE OR CITY LIMITS _____
- RETAINING WALL _____
- RAILROAD _____
- RAILROAD 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 Terminal) _____
- 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



MINNESOTA DEPARTMENT OF TRANSPORTATION

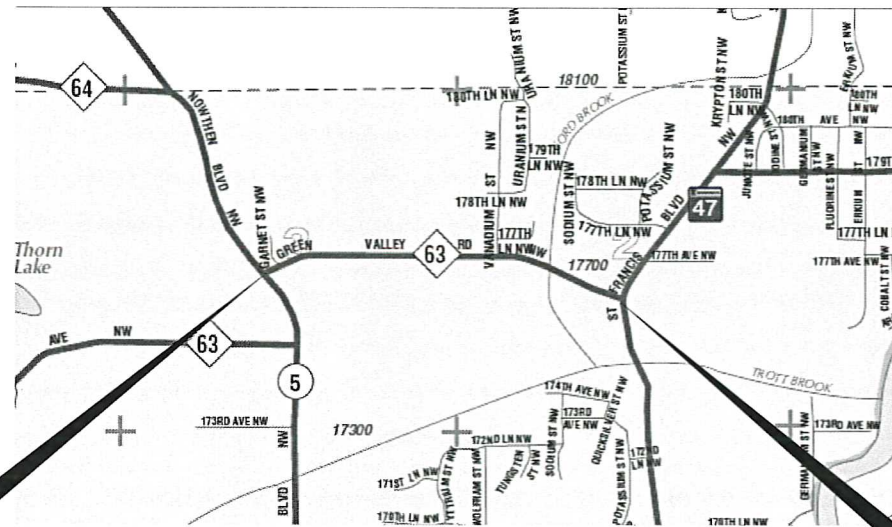
ANOKA COUNTY

CONSTRUCTION PLAN FOR BITUMINOUS RECLAMATION, BITUMINOUS SURFACING

LOCATED ON CR 63 BETWEEN CSAH 5 (NOWTHEN BLVD) AND TH 47 (ST FRANCIS BLVD)

COUNTY PROJ. NO. C.P. 14-54-63
CR 63

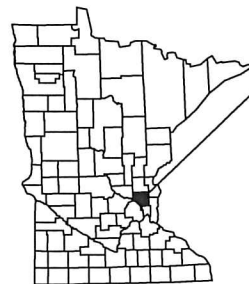
GROSS LENGTH	5946 FEET	1.126 MILES
BRIDGES-LENGTH	0.00 FEET	0.000 MILES
EXCEPTIONS-LENGTH	0.00 FEET	0.000 MILES
NET LENGTH	5946 FEET	1.126 MILES



CITY OF RAMSEY

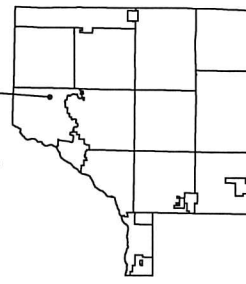
BEGIN C.P. 14-54-63
CR 63 STA. 11+12

END C.P. 14-54-63
CR 63 STA. 70+58



PROJECT LOCATION

CITY OF RAMSEY
ANOKA COUNTY
MN/DOT TRANSPORTATION DISTRICT - METRO
SECTIONS 2 AND 3
TOWNSHIP 32 NORTH
RANGE 25 WEST



GOVERNING SPECIFICATIONS

THE 2014 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	TYPICAL SECTIONS
4 - 6	MISCELLANEOUS DETAILS
7 - 9	CONSTRUCTION PLAN
10	PERMANENT MARKING TABULATION
11 - 13	TEMPORARY SIGNING, PERMANENT SIGNING AND STRIPING

THIS PLAN CONTAINS 13 SHEETS

Approved: ANOKA COUNTY ENGINEER 4/29/14

NO	DATE	BY	CKD	APPR	REVISION

NAME: P:\14-01-00\CR_63_CSAH5-TH47\Bases\PROPOSED\PLAN.dgn 04/08/2014 8:35:36 AM

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: ANDREW WITTER
SIGNATURE:
DATE: 4/23/14 LICENSE NO. 42757

DRAWN BY: SRK DATE: 2/1/2014
DESIGN BY: SRK DATE: 2/1/2014
CHECKED BY: DFP DATE: _____



ANOKA COUNTY
HIGHWAY DEPT.

COUNTY PROJECT NO. 14-54-63

TITLE SHEET

Sheet 1 of 13 Sheets

STATEMENT OF ESTIMATED QUANTITIES				
ITEM NO.	ITEM	NOTES	UNIT	TOTAL PROJECT QUANTITIES ESTIMATED
2021.501	MOBILIZATION		LUMP SUM	1
2101.502	CLEARING		TREE	30
2101.507	GRUBBING		TREE	30
2104.501	REMOVE PIPE CULVERTS		LIN FT	72
2104.505	REMOVE CONCRETE DRIVEWAY PAVEMENT		SQ YD	225
2104.505	REMOVE BITUMINOUS PAVEMENT		SQ YD	468
2104.509	REMOVE PIPE APRON		EACH	2
2104.511	SAWING CONCRETE PAVEMENT (FULL DEPTH)		LIN FT	225
2104.513	SAWING BIT PAVEMENT (FULL DEPTH)		LIN FT	232
2123.503	MOTOR GRADER		HOUR	20
2123.509	DOZER	13	HOUR	10
2130.501	WATER		M GALLON	120
2211.501	AGGREGATE BASE CLASS 5	1	TON	348
2215.501	FULL DEPTH RECLAMATION		SQ YD	16032
2215.502	HAUL BIT PAVEMENT RECLAMATION (LV)		C Y	100
2221.501	SHOULDER BASE AGGREGATE CLASS 5	2	TON	579
2232.501	MILL BITUMINOUS SURFACE (2")	3	SQ YD	154
2357.502	BITUMINOUS MATERIAL FOR TACK COAT		GALLON	824
2360.501	TYPE SP 12.5 WEARING COURSE MIX (4,B)	4,5	TON	83
2360.501	TYPE SP 12.5 WEARING COURSE MIX (4,E)		TON	3707
2501.511	24" PC-CS PIPE CULVERT		LIN FT	72
2501.515	24" PC-CS PIPE APRON		EACH	2
2531.507	6" CONCRETE DRIVEWAY PAVEMENT	6	SQ YD	225
2540.602	INSTALL MAILBOX SUPPORT	7	EACH	14
2563.601	TRAFFIC CONTROL	8,9	LUMP SUM	1
2563.613	PORTABLE CHANGEABLE MESSAGE SIGN	10	UNIT DAY	14
2575.523	EROSION CONTROL BLANKETS CATEGORY 0	14	SQ YD	89
2581.501	REMOVABLE PREFORM PAVEMENT MARKING TAPE	11	LIN FT	476
2582.502	4" SOLID LINE WHITE-EPOXY	12	LIN FT	11900
2582.502	4" SOLID LINE YELLOW-EPOXY	12	LIN FT	2765
2582.502	4" BROKEN LINE YELLOW-EPOXY	12	LIN FT	940
2582.502	4" DOUBLE SOLID LINE YELLOW-EPOXY	12	LIN FT	1245

CONSTRUCTION NOTES	
1	GRAVEL BASE FOR CONCRETE AND BITUMINOUS STREET APPROACHES AND DRIVEWAYS, ALSO 7 TONS FOR EACH GRAVEL ENTRANCE.
2	ITEM INCLUDES 7 TONS FOR EACH GRAVEL ENTRANCE AND GRAVEL STREET APPROACH.
3	ITEM INCLUDES 2" DEEP MILL AT BEGINNING AND END OF PROJECT, ALL PAVED STREET APPROACHES, AND DRIVEWAYS; SEE DETAILS FOR DIMENSIONS.
4	STREET APPROACHES AND DRIVEWAYS ARE TO BE PAVED AFTER MAINLINE PAVING BUT BEFORE FINAL STRIPING.
5	ITEM USED FOR PAVING BITUMINOUS STREET APPROACHES AND DRIVEWAYS.
6	CONTRACTOR IS RESPONSIBLE FOR CONTACTING PROPERTY OWNER 48 HOURS BEFORE STARTING OPERATION.
7	MAILBOXES ARE TO BE INSTALLED AT THE EXISTING MAILBOX LOCATION OR AS DIRECTED BY THE LOCAL POSTAL AUTHORITY, CONTRACTOR IS RESPONSIBLE FOR CONTACTING. MAILBOX REMOVAL AND INSTALLATION IS INCIDENTAL TO THIS ITEM.
8	ALL TRAFFIC CONTROL METHODS SHALL CONFORM TO THE CURRENT "MINNESOTA MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES".
9	DO NOT PASS, PASS WITH CARE AND NO CENTER STRIPE SIGNS TO BE INPLACE DURING MILLING, RECLAIMING OR PAVING OPERATIONS.
10	2 MESSAGE BOARDS, ONE ON THE EACH END OF PROJECT WILL BE INSTALLED 7 DAYS PRIOR TO ANY CONSTRUCTION; REFERENCE STRIPING PLAN FOR DETAILS.
11	CENTERLINE SKIPS TO BE APPLIED AS SOON AS POSSIBLE ON EACH NEW LIFT OF PAVEMENT; SKIPS MUST BE INPLACE BEFORE CONTR LEAVES FOR THE DAY. CONTRACTOR IS TO REMOVE PRIOR TO FINAL PAINT STRIPING.
12	FINAL STRIPING SHALL BE INSTALLED WITHIN 72 HOURS OF COMPLETION OF MAINLINE WEAR COURSE PAVING.
13	DRESSING OF DISTURBED AREAS AFTER COMPLETION OF CLEARING AND GRUBBING.
14	SEEDING, TYPE 4 FERTILIZER, 240 SEED AND PLACEMENT OF TOPSOIL ARE INCIDENTAL TO BLANKET.

BASIS OF PLANNED QUANTITIES		
2211.501	AGGREGATE BASE CLASS 5	1.8 TON / CUYD
2221.501	SHOULDER BASE AGGREGATE CLASS 5	1.8 TON / CUYD
2357.502	BITUMINOUS MATERIAL FOR TACK COAT	0.05 GAL / SQ YD
2360.501	TYPE SP 12.5 WEARING COURSE	115 LBS / SQ YD / IN THICKNESS
2581.501	REMOVABLE PREFORM PAVEMENT MARKING TAPE	2' AT 50' INTERVALS FOR SKIPS

NO	DATE	BY	CKD	APPR	REVISION	04/15/2014	1:38:25 PM
NAME: P:\14-01-00\CR_63_(CSAH5-TH47)\Base\PROPOSED\PLAN.dgn							

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 PRINT NAME: ANDREW WITTER
 SIGNATURE: *[Signature]*
 DATE: 4/28/14 LICENSE NO. 42757

DRAWN BY: SRK DATE: 04/15/2014
 DESIGN BY: SRK DATE: 04/15/2014
 CHECKED BY: DFF DATE: 04/15/2014

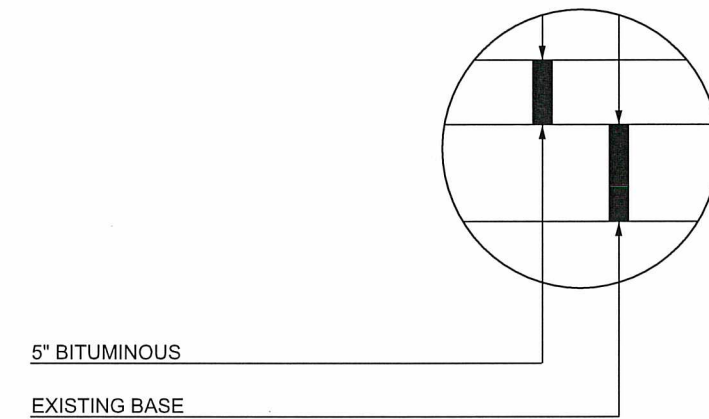
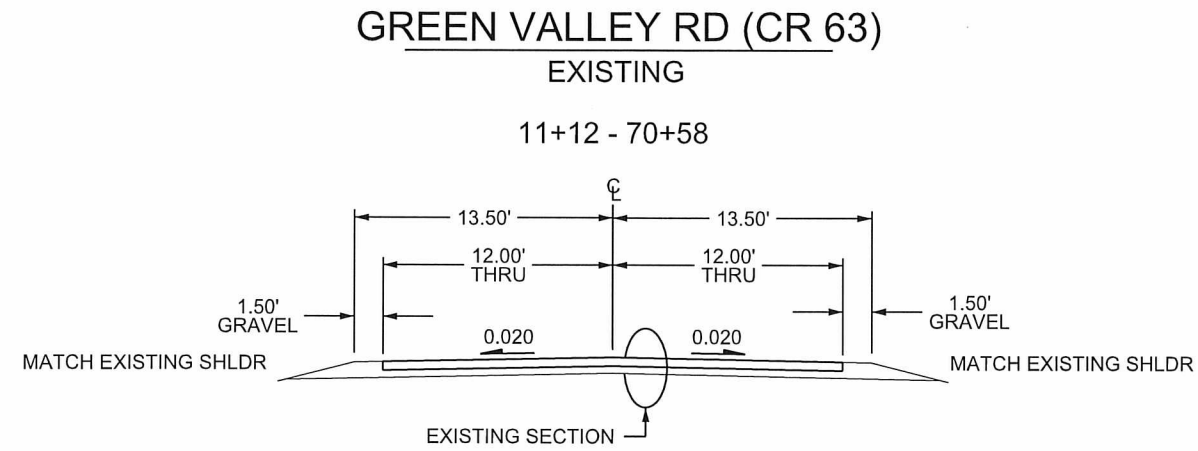


ANOKA COUNTY
 HIGHWAY DEPT.

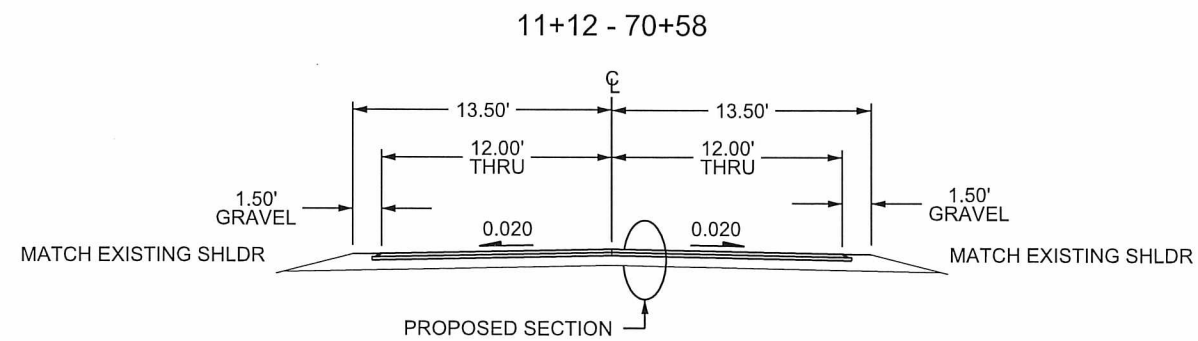
COUNTY PROJECT 14-54-63

STATEMENT OF ESTIMATED QUANTITIES
 Sheet 2 of 13 Sheets

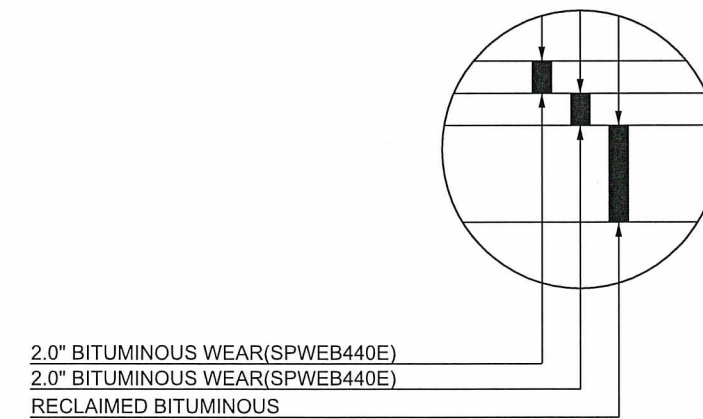
EXISTING SECTION



GREEN VALLEY RD (CR 63)
PROPOSED



PROPOSED RECLAIM SECTION



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SIGNATURE: *Andrew Witter*

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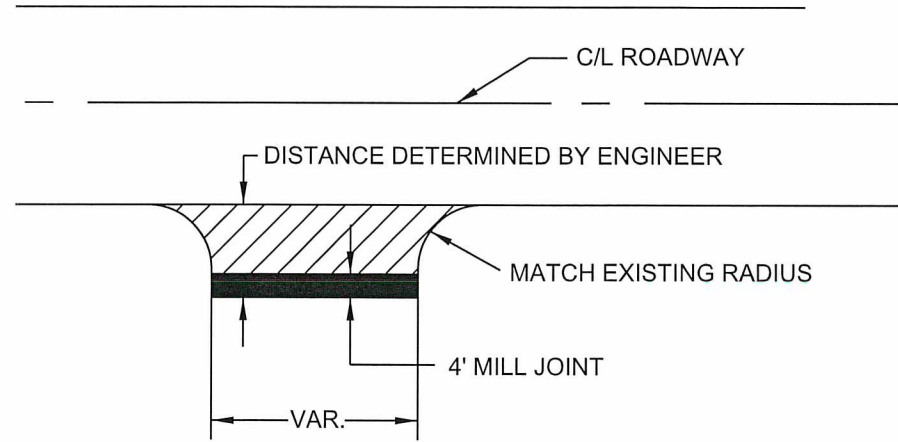
ANOKA COUNTY
HIGHWAY DEPT.

COUNTY PROJECT 14-54-63

TYPICAL SECTIONS

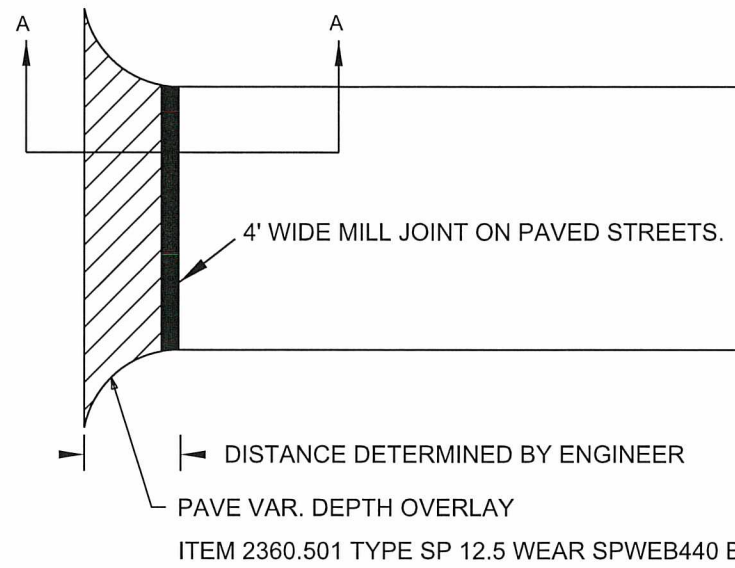
Sheet 3 of 13 Sheets

PAVED STREET APPROACHES

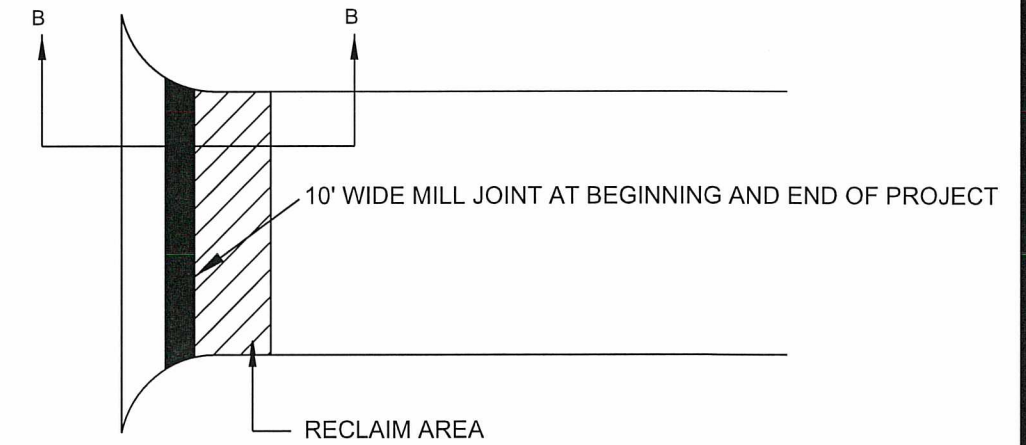


PAVED STREET APPROACHES

JOINT DETAILS

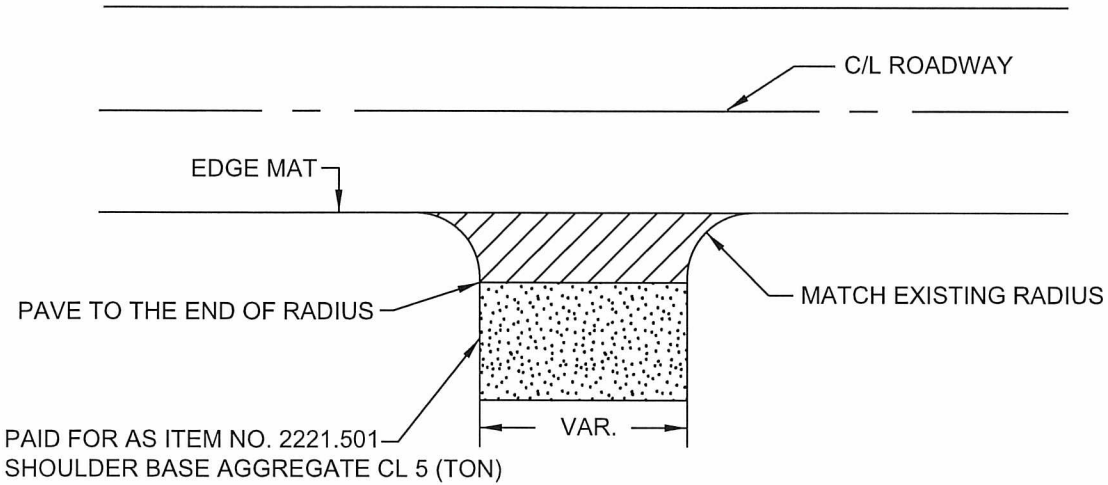


MAINLINE
JOINT DETAILS



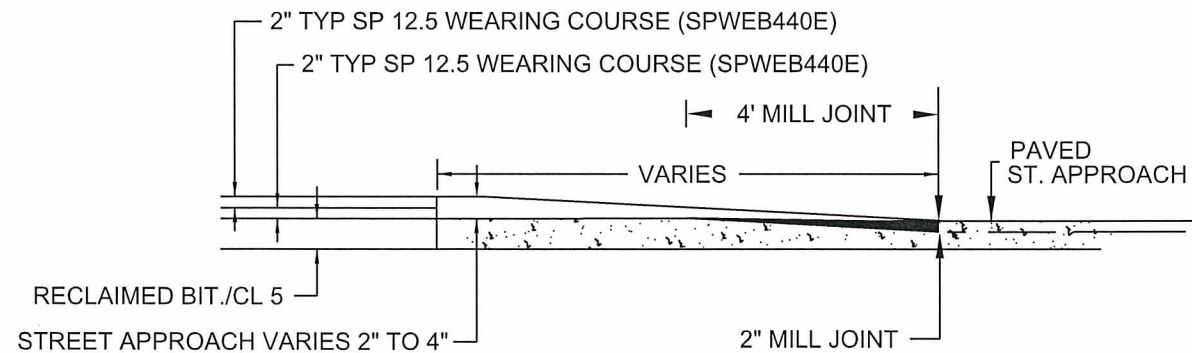
GRADING NEEDED TO TIE NONWEAR INTO EXISTING PAVING. TO BE PAID UNDER 2123.503 MOTOR GRADER HOURS

UN-PAVED STREET APPROACHES

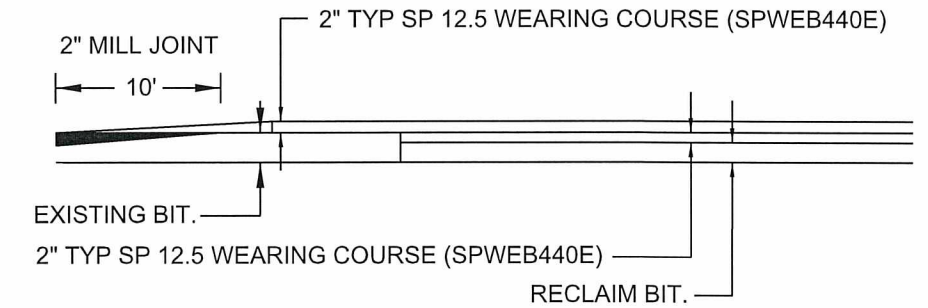


UNPAVED STREET APPROACHES, PAVED SEPARATE FROM MAINLINE, PAID AS STREET APPROACH.

PAVED STREET APPROACH JOINT DETAILS A - A



JOINT DETAILS B - B



NOT TO SCALE

NO	DATE	BY	CKD	APPR	REVISION	04/08/2014	8:40:03 AM
NAME: P:\14-01-00\CR_63_(CSAH5-TH47)\Base\PROPOSED\PLAN.dgn							

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 PRINT NAME: ANDREW WITTER
 SIGNATURE: *[Signature]*
 DATE: 4/20/14 LICENSE NO. 42757

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 CHECKED BY DFF DATE 04/08/2014



ANOKA COUNTY
HIGHWAY DEPT.

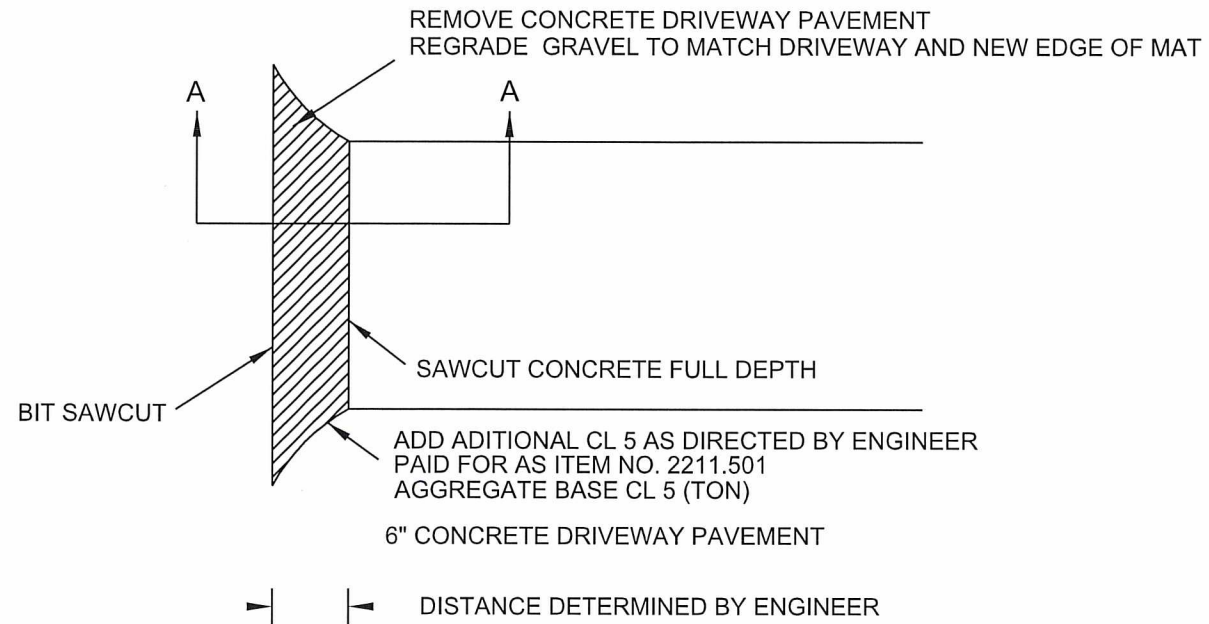
COUNTY PROJECT 14-54-63

MISCELLANEOUS DETAILS

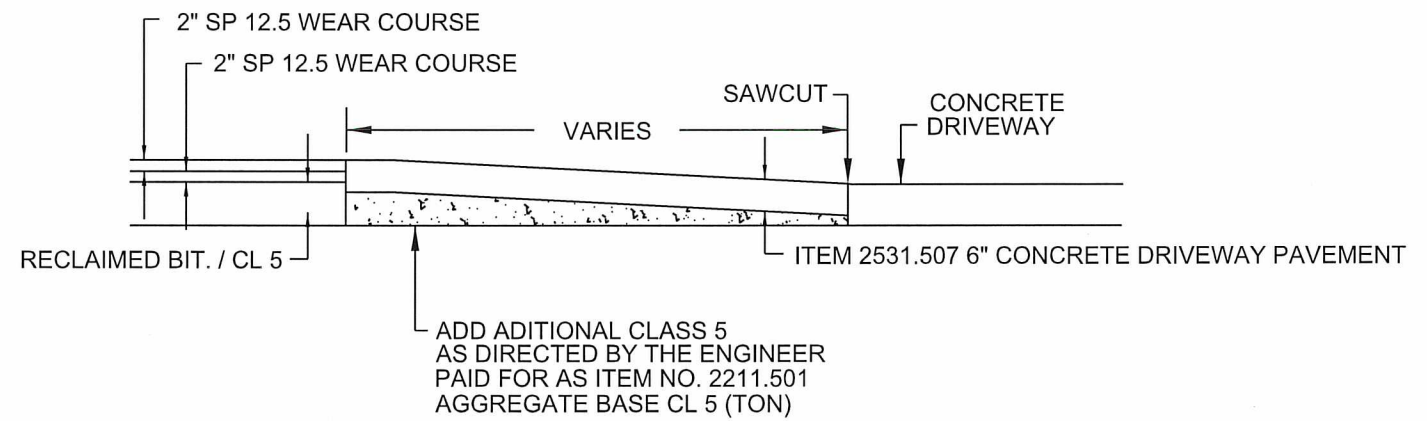
Sheet 4 of 13 Sheets

CONCRETE DRIVEWAYS

DETAILS

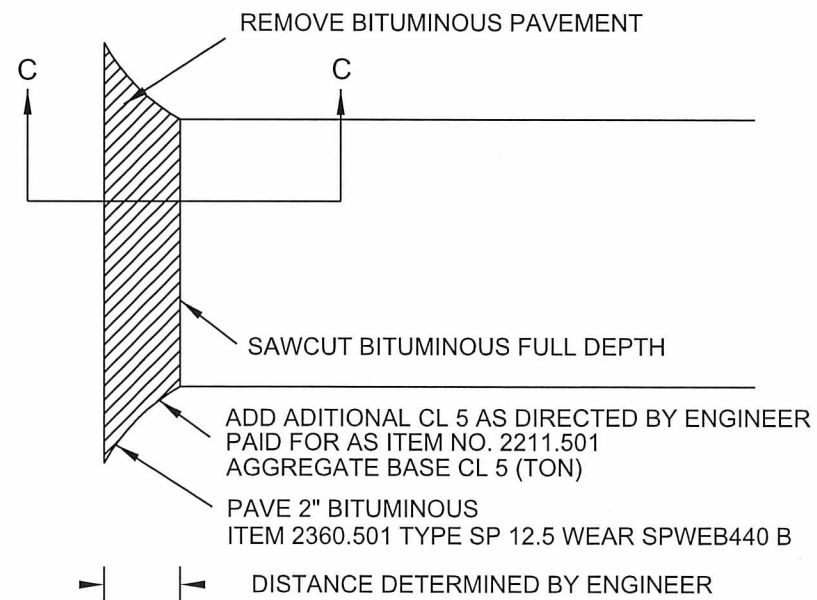


CONCRETE DRIVEWAY DETAILS A - A

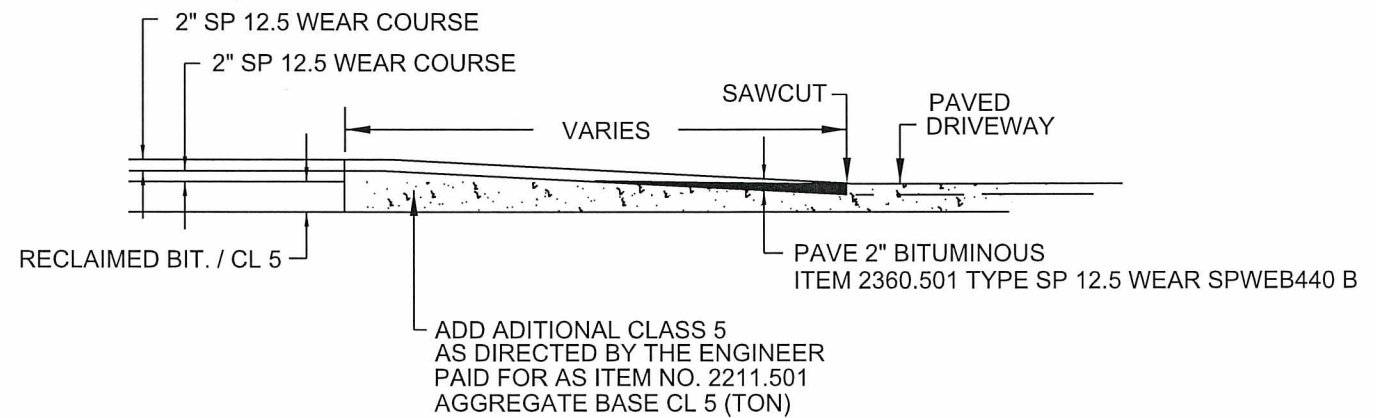


PAVED DRIVEWAYS

DETAILS



PAVED DRIVEWAY DETAILS C - C



NOT TO SCALE

NO	DATE	BY	CHKD	APPR	REVISION	04/08/2014	8:40:25 AM
NAME: P:\14-01-00\CR_63_(CSAH5-TH47)\Base\PROPOSED\PLAN.dgn							

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PRINT NAME: ANDREW WITTER

SIGNATURE: *Andrew Witter*

DATE: 4/28/14 LICENSE NO. 42757

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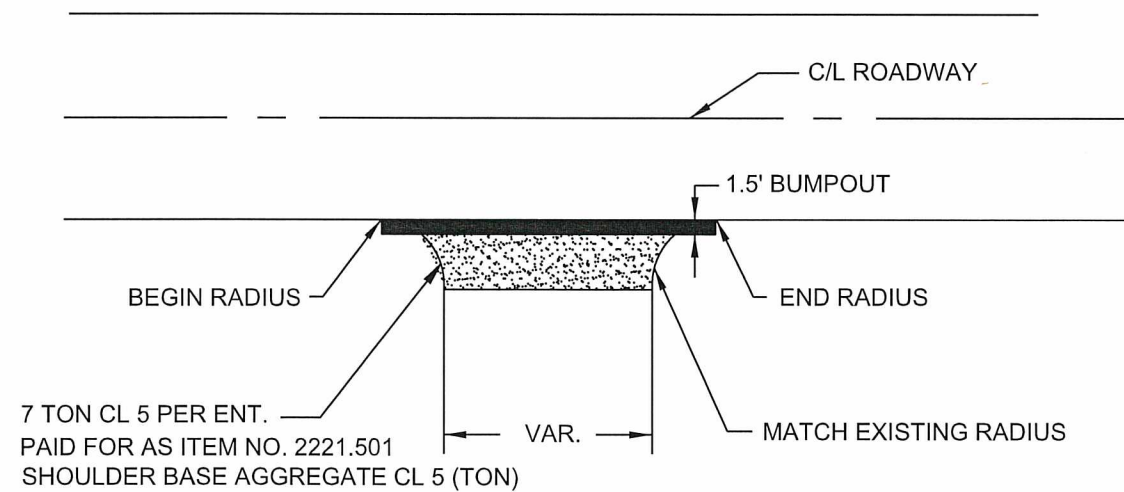
ANOKA COUNTY
HIGHWAY DEPT.

COUNTY PROJECT 14-54-63

MISCELLANEOUS DETAILS

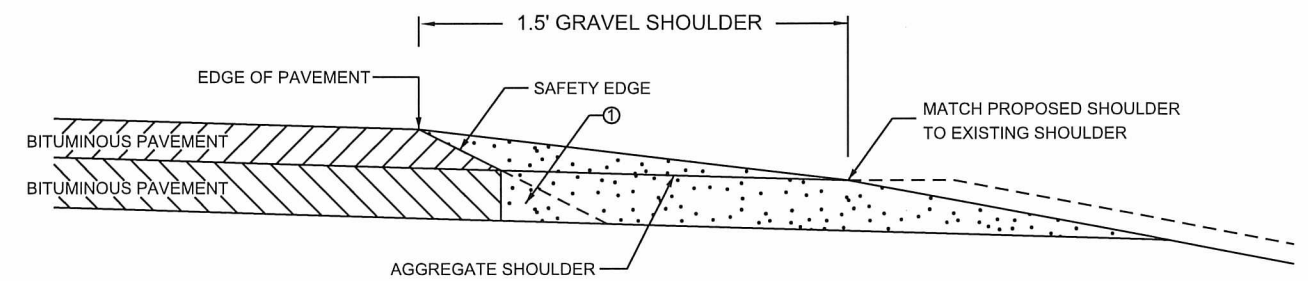
Sheet 5 of 13 Sheets

GRAVEL DRIVEWAYS AND FIELD ENTRANCES



SHOULDER DETAIL

BITUMINOUS SAFETY EDGE
GRAVEL SHOULDER



SAFETY EDGE TO BE USED IN ALL NON-CURB AREAS ON SHOULDER.

① OPTIONAL DESIGN EXTENDS SAFETY EDGE DEEPER THAN 6" AND WIDER THAN 10.5".

NOT TO SCALE

NO	DATE	BY	CKD	APPR	REVISION	04/08/2014	8:37:57 AM
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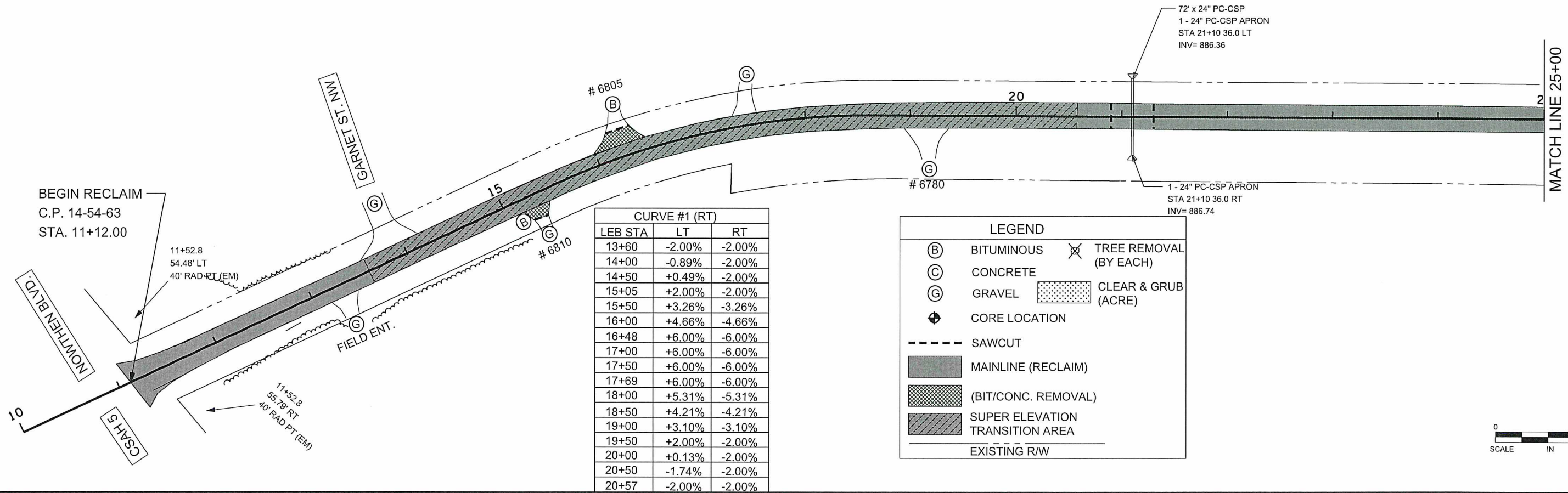


ANOKA COUNTY
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COUNTY PROJECT 14-54-63

MISCELLANEOUS DETAILS

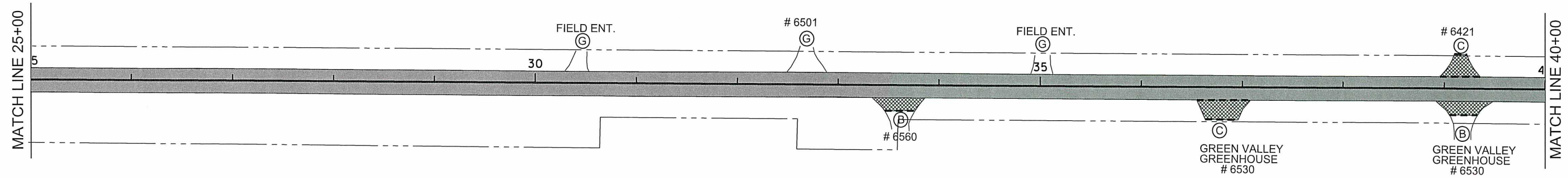
Sheet 6 of 13 Sheets



CURVE #1 (RT)		
LEB STA	LT	RT
13+60	-2.00%	-2.00%
14+00	-0.89%	-2.00%
14+50	+0.49%	-2.00%
15+05	+2.00%	-2.00%
15+50	+3.26%	-3.26%
16+00	+4.66%	-4.66%
16+48	+6.00%	-6.00%
17+00	+6.00%	-6.00%
17+50	+6.00%	-6.00%
17+69	+6.00%	-6.00%
18+00	+5.31%	-5.31%
18+50	+4.21%	-4.21%
19+00	+3.10%	-3.10%
19+50	+2.00%	-2.00%
20+00	+0.13%	-2.00%
20+50	-1.74%	-2.00%
20+57	-2.00%	-2.00%

LEGEND

- (B) BITUMINOUS
- (C) CONCRETE
- (G) GRAVEL
- ⊕ CORE LOCATION
- SAWCUT
- █ MAINLINE (RECLAIM)
- ▨ (BIT/CONC. REMOVAL)
- ▩ SUPER ELEVATION TRANSITION AREA
- EXISTING R/W
- ⊗ TREE REMOVAL (BY EACH)
- ▤ CLEAR & GRUB (ACRE)



NO	DATE	BY	CKD	APPR	REVISION	DATE	TIME

NAME: P:\14-01-00\CR_63_(CSAH5-TH47)\Base\PROPOSED\PLAN.dgn

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PRINT NAME: ANDREW WITTEK

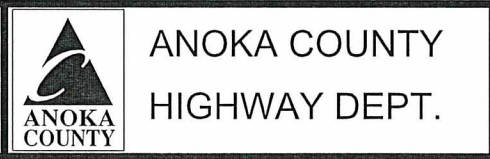
SIGNATURE: *Andrew Wittke*

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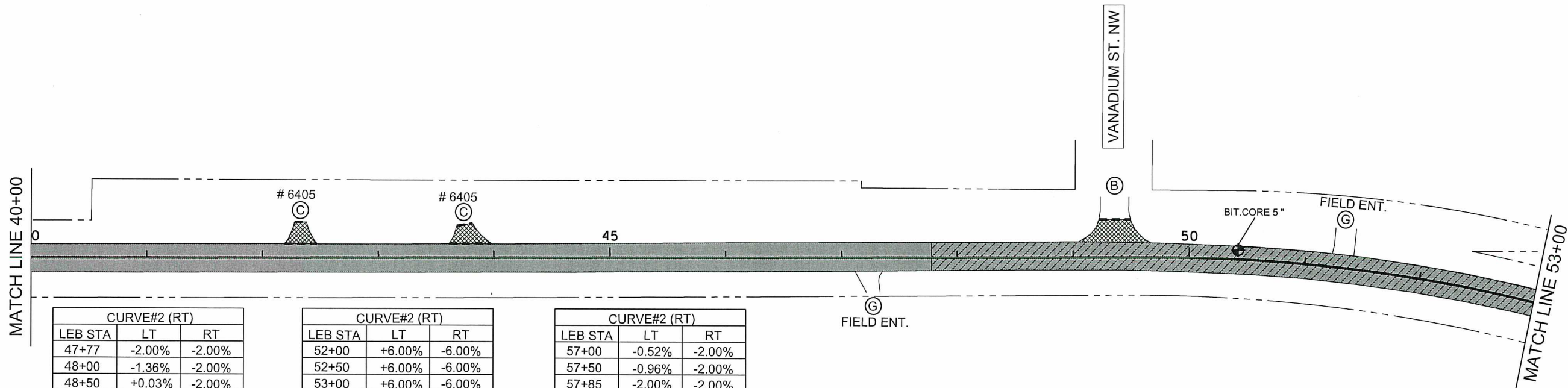


COUNTY PROJECT 14-54-63

CONSTRUCTION PLAN

STA 11+12.00 TO 40+00.00

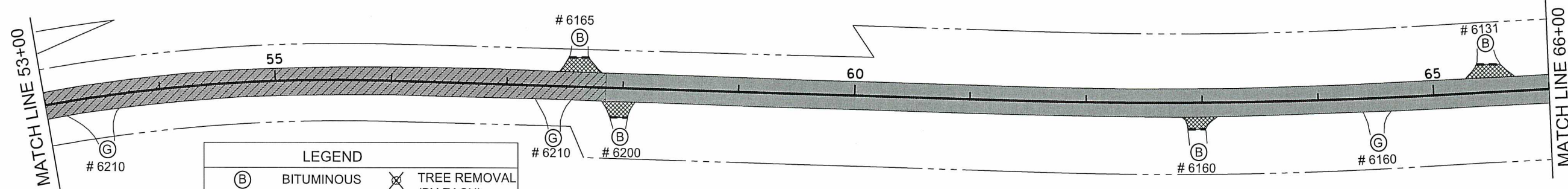
Sheet 7 of 13 Sheets



CURVE#2 (RT)		
LEB STA	LT	RT
47+77	-2.00%	-2.00%
48+00	-1.36%	-2.00%
48+50	+0.03%	-2.00%
49+00	+1.42%	-2.00%
49+21	+2.00%	-2.00%
49+50	+2.80%	-2.80%
50+00	+4.19%	-4.19%
50+50	+5.58%	-5.58%
50+65	+6.00%	-6.00%
51+00	+6.00%	-6.00%
51+50	+6.00%	-6.00%

CURVE#2 (RT)		
LEB STA	LT	RT
52+00	+6.00%	-6.00%
52+50	+6.00%	-6.00%
53+00	+6.00%	-6.00%
53+50	+6.00%	-6.00%
54+00	+6.00%	-6.00%
54+50	+6.00%	-6.00%
54+97	+6.00%	-6.00%
55+00	+5.92%	-5.92%
55+50	+4.61%	-4.61%
56+00	+3.31%	-3.31%
56+50	+2.00%	-2.00%

CURVE#2 (RT)		
LEB STA	LT	RT
57+00	-0.52%	-2.00%
57+50	-0.96%	-2.00%
57+85	-2.00%	-2.00%



LEGEND		
(B)	BITUMINOUS	(X) TREE REMOVAL (BY EACH)
(C)	CONCRETE	
(G)	GRAVEL	(Dotted) CLEAR & GRUB (ACRE)
(+)	CORE LOCATION	
(---)	SAWCUT	
(Solid Grey)	MAINLINE (RECLAIM)	
(Hatched)	(BIT/CONC. REMOVAL)	
(Diagonal Lines)	SUPER ELEVATION TRANSITION AREA	
(Dashed)	EXISTING R/W	



NO	DATE	BY	CKD	APPR	REVISION	04/08/2014	8:38:54 AM
NAME: P:\14-01-00\CR_63_(CSAH5-TH47)\Base\PROPOSED\PLAN.dgn							

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 SIGNATURE: *Andrew Witter*
 DATE: 4/28/14 LICENSE NO. 42757

DRAWN BY SRK DATE 04/08/2014
 DESIGN BY SRK DATE 04/08/2014
 CHECKED BY DFF DATE 04/08/2014



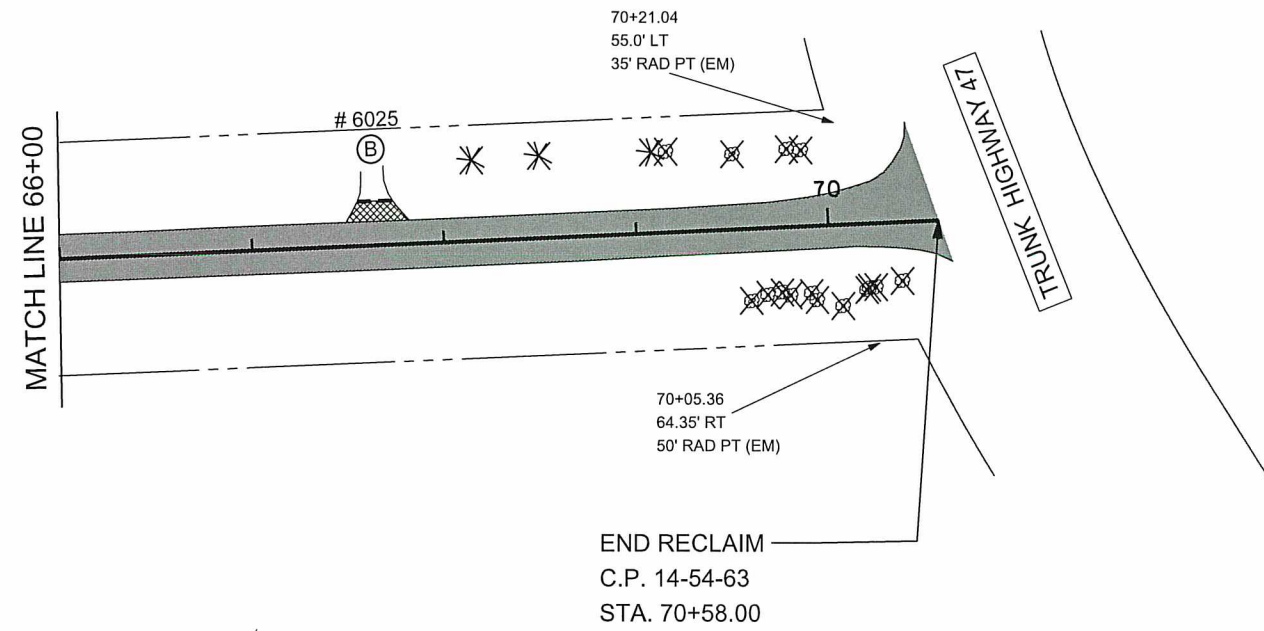
ANOKA COUNTY
 HIGHWAY DEPT.

COUNTY PROJECT 14-54-63

CONSTRUCTION PLAN
 STA 40+00.00 TO 66+00.00
 Sheet 8 of 13 Sheets



LEGEND			
(B)	BITUMINOUS	✕	TREE REMOVAL (BY EACH)
(C)	CONCRETE		
(G)	GRAVEL	▨	CLEAR & GRUB (ACRE)
⊕	CORE LOCATION		
---	SAWCUT		
▒	MAINLINE (RECLAIM)		
▨	(BIT/CONC. REMOVAL)		
▧	SUPER ELEVATION TRANSITION AREA		
---	EXISTING R/W		



NO	DATE	BY	CKD	APPR	REVISION	
	04/08/2014					8:39:17 AM

NAME: P:\14-01-00\CR_63_(CSAH5-TH47)\Base\PROPOSED\PLAN.dgn

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: ANDREW WITTER

SIGNATURE: *Andrew Witter*

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ANOKA COUNTY
HIGHWAY DEPT.

COUNTY PROJECT 14-54-63

CONSTRUCTION PLAN
STA 66+00.00 TO 70+58.00
Sheet 9 of 13 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 EPOXY 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 APPLICATION 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 FILM 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.

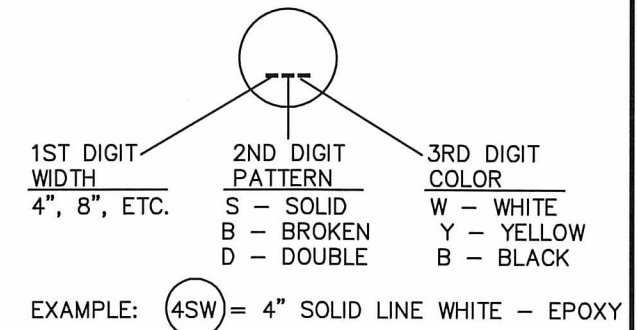
PERMANENT MARKING QUANTITIES		
ITEM	UNIT	TOTAL QUANTITY
4" SOLID LINE WHITE - EPOXY PAINT	LIN FT	11900
4" SOLID LINE YELLOW - EPOXY PAINT	LIN FT	2765
4" BROKEN LINE YELLOW - EPOXY PAINT	LIN FT	940
4" DOUBLE SOLID LINE YELLOW - EPOXY PAINT	LIN FT	1245

SYMBOLS & MATERIALS LEGEND

- CROSSWALK BLOCK WHITE PREFORMED THERMOPLASTIC
- ↩ PAVEMENT MESSAGE (LEFT ARROW) PREFORMED THERMOPLASTIC

STRIPING KEY

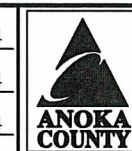
- CIRCLE - EPOXY
- SQUARE PREFORMED THERMOPLASTIC
- △ TRIANGLE - PAINT
- ⬠ PENTAGON - REMOVABLE PREFORMED PLASTIC MARKING



NO	DATE	BY	CKD	APPR	REVISION

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 PRINT NAME: ANDREW WITTER
 SIGNATURE: *[Signature]*
 DATE: 4/28/14 LICENSE NO. 42757

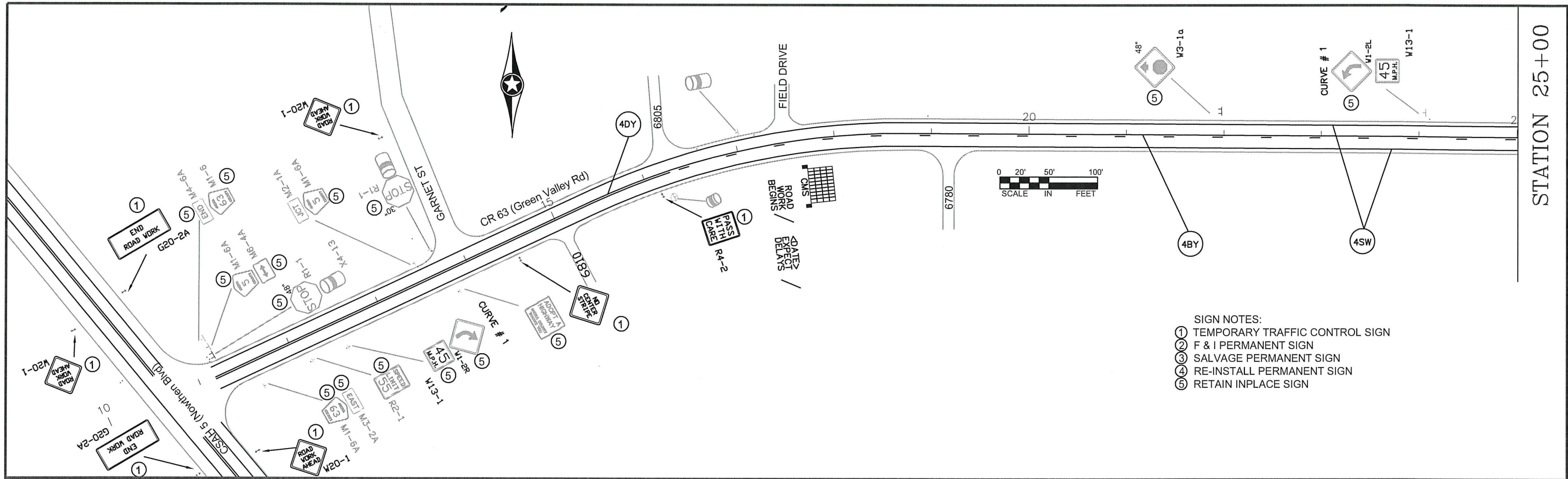
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 DESIGN BY: RLB DATE: 2/14/14
 CHECKED BY: JR DATE: 2/14/14



**ANOKA COUNTY
HIGHWAY DEPT.**

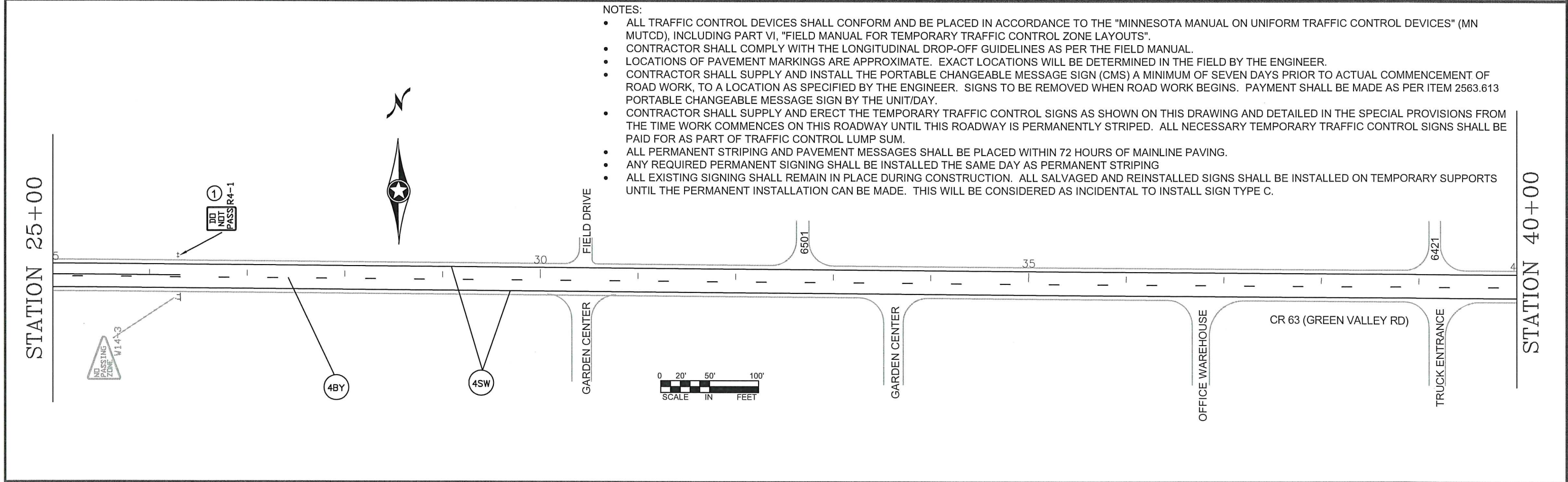
STATE PROJECT NO. _____
 STATE AID PROJECT NO. _____
 STATE AID PROJECT NO. _____
 COUNTY PROJECT NO. 14-54-63

PERMANENT MARKING
TABULATION
 Sheet 10 of 13 Sheets



STATION 25+00

- SIGN NOTES:
- ① TEMPORARY TRAFFIC CONTROL SIGN
 - ② F & I PERMANENT SIGN
 - ③ SALVAGE PERMANENT SIGN
 - ④ RE-INSTALL PERMANENT SIGN
 - ⑤ RETAIN INPLACE SIGN



STATION 40+00

- 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".
 - CONTRACTOR SHALL COMPLY WITH THE LONGITUDINAL DROP-OFF GUIDELINES AS PER THE FIELD MANUAL.
 - LOCATIONS OF PAVEMENT MARKINGS ARE APPROXIMATE. EXACT LOCATIONS WILL BE DETERMINED IN THE FIELD BY THE ENGINEER.
 - CONTRACTOR SHALL SUPPLY AND INSTALL THE PORTABLE CHANGEABLE MESSAGE SIGN (CMS) A MINIMUM OF SEVEN DAYS PRIOR TO ACTUAL COMMENCEMENT OF ROAD WORK, TO A LOCATION AS SPECIFIED BY THE ENGINEER. SIGNS TO BE REMOVED WHEN ROAD WORK BEGINS. PAYMENT SHALL BE MADE AS PER ITEM 2563.613 PORTABLE CHANGEABLE MESSAGE SIGN BY THE UNIT/DAY.
 - 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. ALL SALVAGED AND REINSTALLED SIGNS SHALL BE INSTALLED ON TEMPORARY SUPPORTS UNTIL THE PERMANENT INSTALLATION CAN BE MADE. THIS WILL BE CONSIDERED AS INCIDENTAL TO INSTALL SIGN TYPE C.

NO	DATE	BY	CKD	APPR	REVISION

NAME: P:\02-617-19\base\Traffic\Curves from CSAH 18 to CSAH 22.dwg

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PRINT NAME: ANDREW WITTER

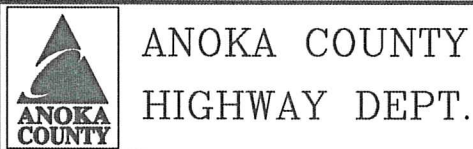
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DATE: 4/28/14 REG. NO. 42757

DRAWN BY: RLB DATE: 1/7/14

DESIGN BY: RLB DATE: 1/7/14

CHECKED BY: JR DATE: 1/7/14



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STATE AID PROJECT NO. _____

COUNTY PROJECT NO. 14-54-63

TEMPORARY SIGNING, PERMANENT SIGNING AND STRIPING

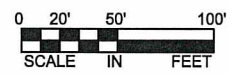
Sheet 11 of 13 Sheets

STATION 40+00

STATION 55+00

NOTES:

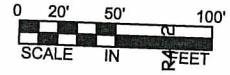
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- SIGN NOTES:
- ① TEMPORARY TRAFFIC CONTROL SIGN
 - ② F & I PERMANENT SIGN
 - ③ SALVAGE PERMANENT SIGN
 - ④ RE-INSTALL PERMANENT SIGN
 - ⑤ RETAIN INPLACE SIGN

STATION 55+00

TH AT (ST FRANCIS BLVD)



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ANOKA COUNTY
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TEMPORARY SIGNING,
PERMANENT SIGNING
AND STRIPING

Sheet 12 of 13 Sheets

TEMPORARY TRAFFIC CONTROL SIGNS						
M.U.T.C.D. CODE	SIZE	PANEL AREA FT. ²	INSERT	QUANTITY		MOUNTING HEIGHT TO PAVEMENT (EDED) FT.
					No. POST	
W8-12	48" x 48"	16.00		2	2	7.0'
R4-1	24" x 30"	5.00		3	1	7.0'
R4-2	24" x 30"	5.00		3	1	7.0'
G20-2A	48" x 24"	8.00		3	2	7.0'
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		
W8-9	48" x 48"	16.00		AS NEEDED		
	48" x 48"	16.00		AS NEEDED		
W8-11	48" x 48"	16.00		AS NEEDED		
W20-1	48" x 48"	16.00		AS NEEDED (ESTIMATED 5)		
CMS sign to be installed a minimum of seven days prior to actual commencement of road work. Signs to be removed when road work begins.				2		

NOTES:

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CHANGEABLE MESSAGE BOARD - MESSAGE SEQUENCE LAYOUT

		R	O	A	D		
		W	O	R	K		
	B	E	G	I	N	S	
	<	D	A	T	E	>	
	E	X	P	E	C	T	
	D	E	L	A	Y	S	

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TRAFFIC CONTROL
 QUANTITY