

# MINNESOTA DEPARTMENT OF TRANSPORTATION ANOKA COUNTY

CONSTRUCTION PLAN FOR \_\_\_\_\_ MILL BITUMINOUS SURFACE, BITUMINOUS SURFACING, DRAINAGE, AND CURB & GUTTER

LOCATED ON C.S.A.H. 8 BETWEEN CSAH 35 (OLD CENTRAL AVE.) AND EAST COUNTY LINE

STATE PROJ. NO. 10-16-08

C.S.A.H. 8

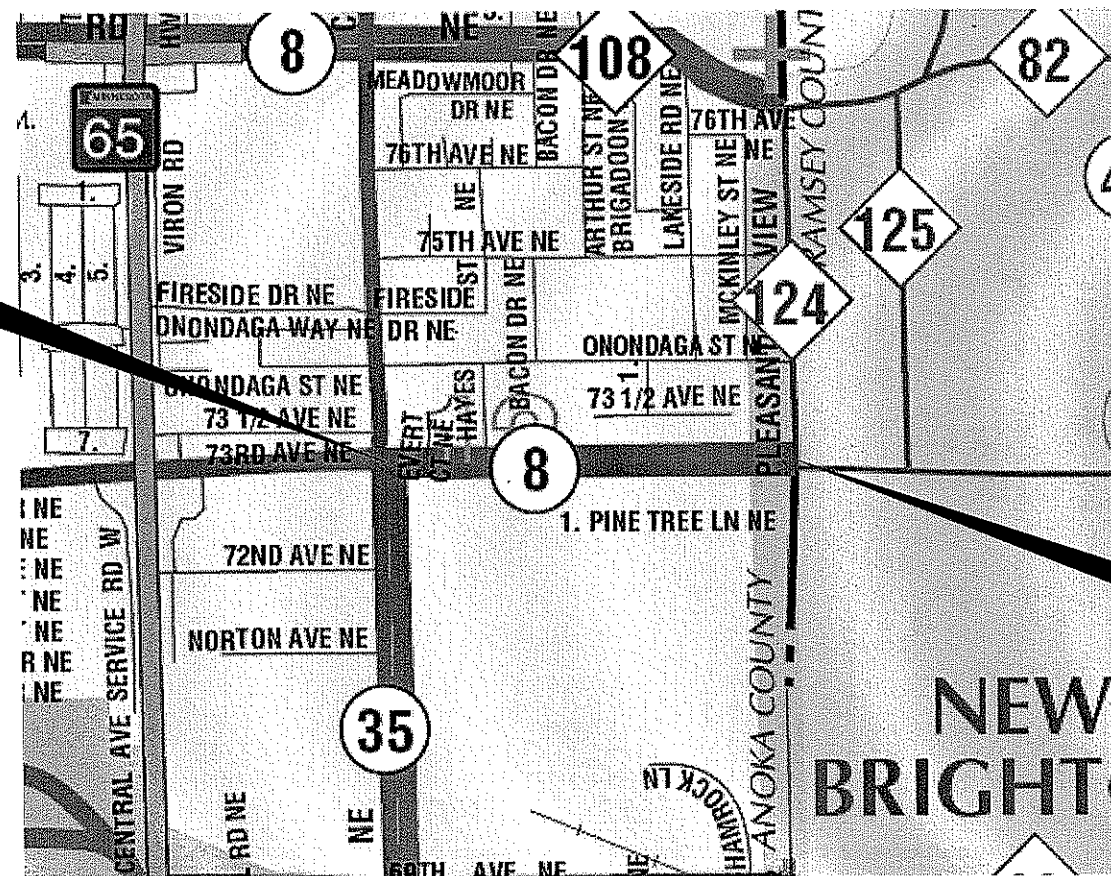
GROSS LENGTH	2661 FEET	0.504 MILES
BRIDGES-LENGTH	0.00 FEET	0.000 MILES
EXCEPTIONS-LENGTH	0.00 FEET	0.000 MILES
NET LENGTH	2661 FEET	0.504 MILES



CITY OF FRIDLEY

BEGIN COUNTY PROJECT 10-16-08  
C.S.A.H. 8 STA. 10+00

END COUNTY PROJECT 10-16-08  
C.S.A.H. 8 STA. 36+61



**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 \_\_\_\_\_

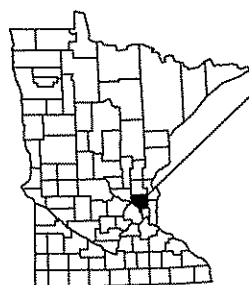
- LOWLAND \_\_\_\_\_
- TIMBER ORCHARD BRUSH NURSERY \_\_\_\_\_
- CATTLE GUARD \_\_\_\_\_
- OVERPASS (Highway Over) \_\_\_\_\_
- UNDERPASS (Highway Under) \_\_\_\_\_
- BRIDGE \_\_\_\_\_
- BUILDING (One Story Frame) \_\_\_\_\_
- F-FRAME C-CONCRETE
- S-STONE T-TILE
- B-BRICK ST-STUCCO
- RAILROAD CROSSING 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 \_\_\_\_\_

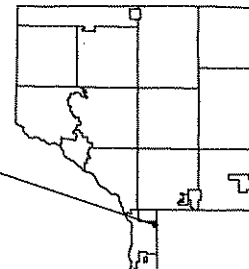
**SCALES**

- PLAN \_\_\_\_\_ 0' 100'
- PROFILE HORIZONTAL \_\_\_\_\_ 0' 100'
- VERTICAL \_\_\_\_\_ 0' 10'
- X-SECTIONS HORIZONTAL \_\_\_\_\_ 0' 10'
- VERTICAL \_\_\_\_\_ 0' 10'
- INDEX MAP \_\_\_\_\_ 0' 2000'



**PROJECT LOCATION**

CITY OF FRIDLEY  
ANOKA COUNTY  
MN/DOT TRANSPORTATION DISTRICT - METRO  
SECTION 12  
TOWNSHIP 30 NORTH  
RANGE 23 WEST



Approved 3/2/2010   
ANOKA COUNTY ENGINEER

**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 PAR 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	MISCELLANEOUS DETAILS
5	CONSTRUCTION STAGING PLAN
6	SIGNING & STRIPING PLAN

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: CHARLES CADENHEAD  
 SIGNATURE:   
 DATE: 3/2/10 LICENSE NO. 40416

DRAWN BY: KPR DATE: 3/1/10  
 DESIGN BY: KPR DATE: 3/1/10  
 CHECKED BY: JO DATE: \_\_\_\_\_

**ANOKA COUNTY**  
**HIGHWAY DEPT.**

COUNTY PROJECT NO. 10-16-08

TITLE SHEET  
Sheet 1 of 6 Sheets

CSAH 8		STATEMENT OF ESTIMATED QUANTITIES			
TAB NO.	ITEM NO.	ITEM	NOTE OR TAB NO.	UNIT	TOTAL EST. QUANT.
	2021.501	MOBILIZATION		LUMP SUM	1
A	2104.501	REMOVE CONCRETE CURB AND GUTTER	8	LIN FT	60
A	2104.505	REMOVE BITUMINOUS PAVEMENT	8	SQ YD	50
A	2104.511	SAWING CONCRETE PAVEMENT (FULL DEPTH)	8	LIN FT	18
A	2104.513	SAWING BITUMINOUS PAVEMENT (FULL DEPTH)	8	LIN FT	288
A	2232.501	MILL BITUMINOUS SURFACE (2.0")	1,6,7,10	SQ YD	14192
	2357.502	BITUMINOUS MATERIAL FOR TACK COAT	3	GALLON	710
	2360.501	TYPE SP 12.5 WEARING COURSE MIX (4,E) (WITHOUT SCRAP SHINGLES)		TON	1632
	2360.602	TYPE SP 12.5 WEARING COURSE MIX (4,E) (WITH SCRAP SHINGLES) ALTERNATE BID	13	TON	1632
A	2360.609	TYPE LV3 NON-WEAR COURSE MIX FOR CB PATCH (LVNW35030 B)	8	TON	12
A	2506.503	RECONSTRUCT DRAINAGE STRUCTURE	5,7,8	LIN FT	6
A,B	2506.516	CASTING ASSEMBLY	8	EACH	12
A	2506.602	GROUT CATCH BASIN OR MANHOLE	8	EACH	8
A	2531.501	CONCRETE CURB AND GUTTER DESIGN B618	5,8	LIN FT	60
	2563.601	TRAFFIC CONTROL		LUMP SUM	1
	2563.610	POLICE OFFICER		HOURL	8
A	2575.604	EROSION CONTROL BLANKET	8,9	SQ YD	106
	2581.501	REMOVABLE PREFORM PLASTIC MARKINGS	4	LIN FT	320
	2582.502	4" SOLID LINE WHITE - EPOXY	2	LIN FT	4913
	2582.502	4" SOLID LINE YELLOW - EPOXY	2	LIN FT	520
	2582.502	4" BROKEN LINE YELLOW-EPOXY	2	LIN FT	520

NOTES:

- 1 MILL AREAS TO BE MARKED BY ENGINEER.
- 2 MARKINGS SHALL BE PLACED WITH IN 72 HOURS OF FINAL MAINLINE PAVING.
- 3 TACK FOR MILLED BITUMINOUS AREAS. EST. AT 0.05 GAL / SQ YD.
- 4 TEMP LANE TAPE SKIPS SHALL BE PLACED ON NEW MAT AT END OF EACH PAVING DAY.
- 5 AGGREGATE BASE CLASS 7B USED FOR COMPACTING AROUND CB'S IS INCIDENTAL TO RECONSTRUCT DRAINAGE STRUCTURE.
- 6 MAINLINE MILLING INCLUDES DETAIL MILLING AROUND MANHOLES, GATE VALVES, AND ALL STRUCTURES IN BIT. PAVEMENT AREA TO BE MILLED.
- 7 THE CONTRACTOR SHALL LOCATE AND PROTECT MANHOLES AND GATE VALVES AT ALL TIMES DURING MILLING AND PAVING OPERATIONS.
- 8 SEE CB REPAIR DETAIL.
- 9 SEED, FERTILIZER, TOPSOIL AT ALL CB REPAIRS ARE INCIDENTAL TO EROSION CONTROL BLANKET.
- 10 AT GATE VALVES AND MANHOLES MILL 1 1/2" INCHES TAPER TO 2 INCHES.
- 11 RAS SHALL BE PART OF THE MIX DESIGN FOR THIS PROJECT.
- 12 DO NOT PASS, PASS WITH CARE, NO CENTER STRIPE, STOP HERE ON RED, BUMP AND BUMP AHEAD SIGNS TO BE INPLACE DURING MILL AND PAVING OPERATIONS.
- 13 TEAR OFF SCRAP SHINGLES SHALL BE INCLUDED IN THE WEARING MIXTURE AT 5% OF THE TOTAL WEIGHT OF MIXTURE. SEE SPECIAL PROVISIONS.

ITEM NO.

BASIS OF PLANNED QUANTITIES

2357.502	BITUMINOUS MATERIAL FOR TACK COAT	.05 GAL / SQ YD
2360.501	TYPE SP 12.5 WEARING COURSE MIX (4,E)	(SQ YD * IN. *115 LBS)/2000 = TONS
2360.609	TYPE LV3 NON-WEAR COURSE MIX FOR CB PATCH (LVNW35030 B)	(SQ YD * IN. *115 LBS)/2000 = TONS
2581.501	REMOVABLE PREFORM PLASTIC MARKINGS	((PROJECT LENGTH * 50) / 4)

STANDARD PLATE DETAIL

PLATE NO.

DESCRIPTION

4006L	MANHOLE OR CATCH BASIN	4126F	CATCH BASIN FRAME CASTING
4010H	CONCRETE SHORT CONE AND ADJUSTING RING	4161F	CURB BOX CASTING FOR CATCH BASIN
4020J	MANHOLE OR CATCH BASIN	4149C	CATCH BASIN GRATE CASTING
4026A	CONCRETE ENCASED CONCRETE ADJUSTING RINGS	7100H	CONCRETE CURB AND GUTTER
4101D	RING CASTING FOR MANHOLE	7111J	INSTALLATION OF CATCH BASIN CASTINGS
4110F	COVER CASTING FOR MANHOLE	8000I	STANDARD BARRICADES

NO	DATE	BY	CKD	APPR	REVISION
NAME: P:\10-01-00\CSAH_8_(Oldcentral-County line)\Plan2 Seq.dgn					
3/19/2010 3:17:45 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 CADEENHEAD

SIGNATURE: *Charles Cadeenhead*

DATE: 3/19/10 LICENSE NO. 40416

DRAWN BY: KPR DATE: 3/1/10

DESIGN BY: KPR DATE: 3/1/10

CHECKED BY: JO DATE:



ANOKA COUNTY  
HIGHWAY DEPT.

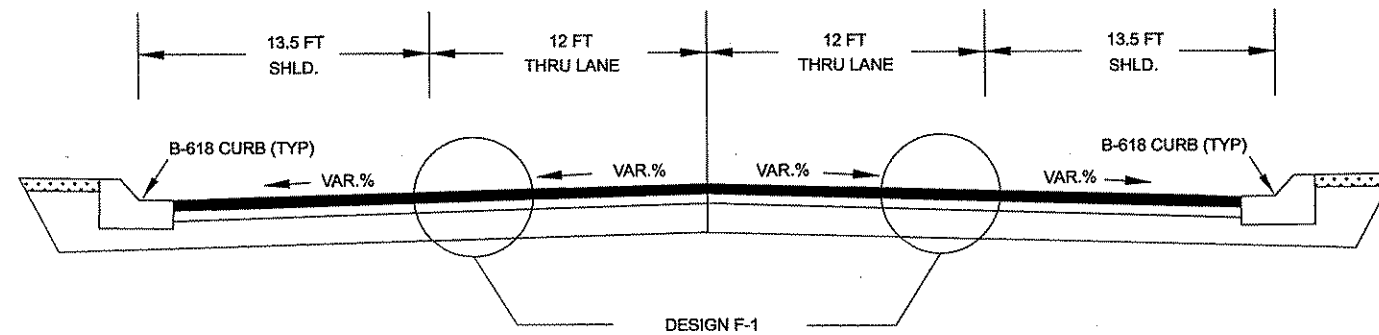
COUNTY PROJECT NO. 10-16-08

STATEMENT OF ESTIMATED QUANTITIES

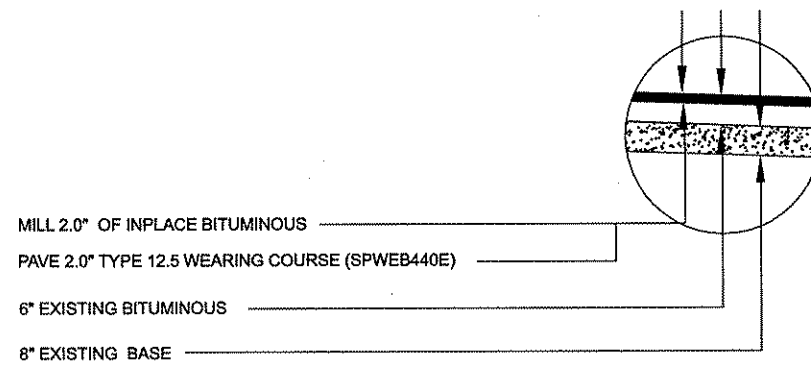
Sheet 2 of 6 Sheets

### TYPICAL SECTION

STA. 10+00 - STA. 36+61



### DESIGN F-1



MILL 2.0" OF INPLACE BITUMINOUS  
 PAVE 2.0" TYPE 12.5 WEARING COURSE (SPWEB440E)  
 6" EXISTING BITUMINOUS  
 8" EXISTING BASE

NO	DATE	BY	CKD	APPR	REVISION

NAME: P:\10-01-00\CSAH\_8\_(Oldcentral-County line)\Plan\typ.dgn 3/1/2010 11:01:23 AM

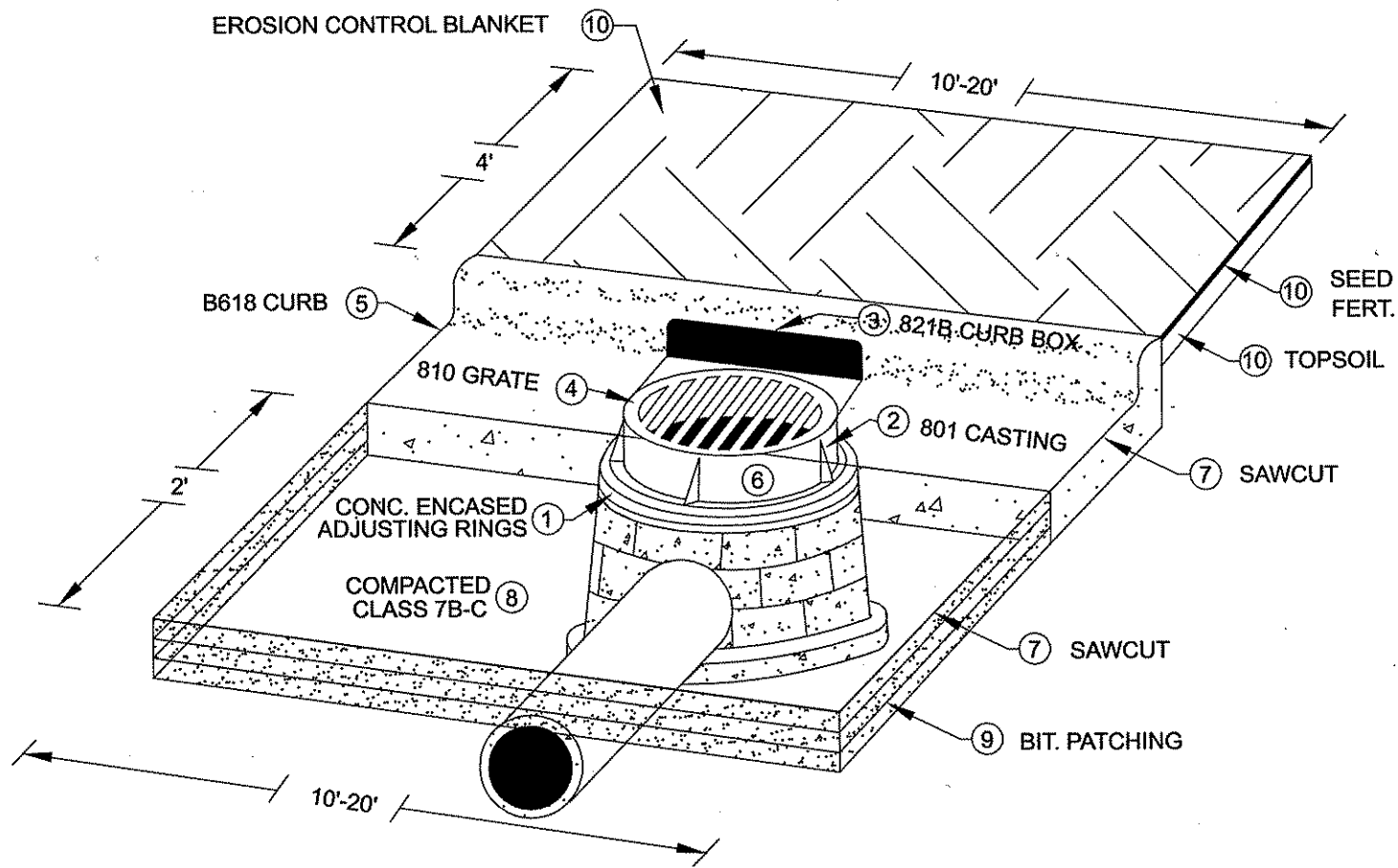
I HEREBY CERTIFY THAT THIS PLAN WAS PREPARED BY ME OR UNDER MY DIRECT SUPERVISION AND THAT I AM A DULY LICENSED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF MINNESOTA.  
 PRINT NAME: CHARLES CADENHEAD  
 SIGNATURE: *Charles Cadenhead*  
 DATE: 3/26/10 LICENSE NO. 40418

DRAWN BY: KPR DATE: 3/1/10  
 DESIGN BY: KPR DATE: 3/1/10  
 CHECKED BY: JO DATE: \_\_\_\_\_

**ANOKA COUNTY**  
**HIGHWAY DEPT.**

COUNTY PROJECT NO. 10-16-08

**C.B. REPAIR DETAIL**



NOTES.. FOR TRAFFIC CONTROL AT CATCH BASIN REPAIRS REFER TO THE MINNESOTA MANUAL ON TEMPORARY TRAFFIC CONTROL LAYOUTS FIELD MANUAL. REFER TO MINNESOTA STANDARD PLATES MANUAL FOR THE FOLLOWING...

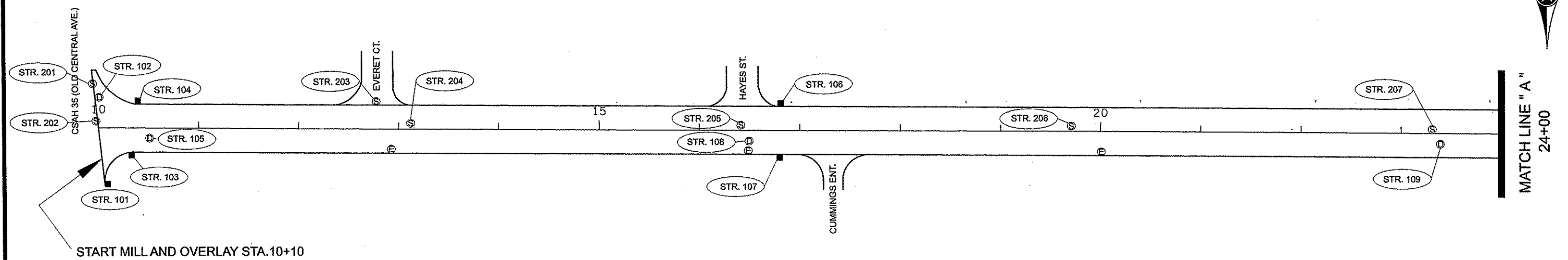
- ① CONCRETE ENCASED CONCRETE ADJUSTING RINGS STANDARD PLATE 4026A
- ② RING AND FRAME CASTING 801 STANDARD PLATE 4126F
- ③ CURB BOX 821B STANDARD PLATE 4161F
- ④ GRATE CASTING 810 STANDARD PLATE 4149C
- ⑤ CONCRETE CURB AND GUTTER DESIGN B STANDARD PLATE 7100G
- ⑥ INSTALLATION OF CATCH BASIN CASTINGS STANDARD PLATE 7111J
- ⑦ SAWCUT BIT./CONCRETE BUS PADS/CONCRETE CURB FULL DEPTH.
- ⑧ ADD AND COMPACT CL-7B-C AROUND REPAIRED STRUCTURE.
- ⑨ REMOVE VAR. DEPTH BITUMINOUS 3"-7" / PATCH 2-LIFTS OF BITUMINOUS.
- ⑩ REPLACE DISPLACED TOPSOIL- SEED, FERT. AND COVER WITH EROS. BLANKET. SEED, FERT. AND TOPSOIL INCIDENTAL TO BLANKET.

STRUCTURE	STATION	LOC.		STRUCTURE REPAIRS											ACTION
				SAW BIT. PAVEMENT	REMOVE BIT. PAVEMENT	REPLACE BIT. PAVEMENT	SAW CONC. PAVEMENT	EROSION CONT. BLANKET	REMOVE C&G	REPLACE B618 C&G	CASTING	GROUT	RECONSTRUCT DRAINAGE STR.		
				LF	SY	TON	LF	SY	LF	LF	EA	EA	FT		
101	10+06	57	RT												NONE
102	10+02	31	LT												NONE
103	10+30	24	RT	24	4.4	1	6	8.8	20	20	1		0.4	RE-RING / GROUT	
104	10+36	24	LT											NONE	
105	10+51	10	RT	24	4	1					1		0.8	RE-RING / GROUT	
106	16+80	24	LT									1		GROUT	
107	16+80	24	RT	24	4.4	1	6	8.8	20	20	1		0.4	RE-RING / GROUT	
108	16+50	11	RT	24	4	1					1		0.4	RE-RING / GROUT	
109	23+39	11	RT									1		GROUT	
111	25+00	24	LT											NONE	
112	25+00	24	RT									1		GROUT	
113	25+00	11	RT									1		GROUT	
114	35+87	24	LT	24	4.4	1	6	8.8	20	20	1		0.4	RE-RING / GROUT	
115	35+88	24	RT									1		GROUT	
201	10+00	44	LT									1		GROUT	
202	10+00	7	LT	24	4	1					1		0.6	RE-RING / GROUT	
203	12+78	27	LT									1		GROUT	
204	13+12	6	LT									1		GROUT	
205	16+42	5	LT	24	4	1					1		0.4	RE-RING / GROUT	
206	19+71	5	LT	24	4	1					1		0.4	RE-RING / GROUT	
207	23+31	4	LT	24	4	1					1		0.4	RE-RING / GROUT	
207A	24+20	4	LT	24	4	1					1		0.2	RE-RING / GROUT	
208	26+29	4	LT											NONE	
209	29+90	4	LT											NONE	
210	32+90	4	LT	24	4	1					1		0.6	RE-RING / GROUT	
211	36+07	22	LT											NONE	
212	36+09	4	LT	24	4	1					1		1	RE-RING / GROUT	
<b>TOTALS</b>				<b>288</b>	<b>49.2</b>	<b>12</b>	<b>18</b>	<b>26.4</b>	<b>60</b>	<b>60</b>	<b>12</b>	<b>8</b>	<b>6</b>		

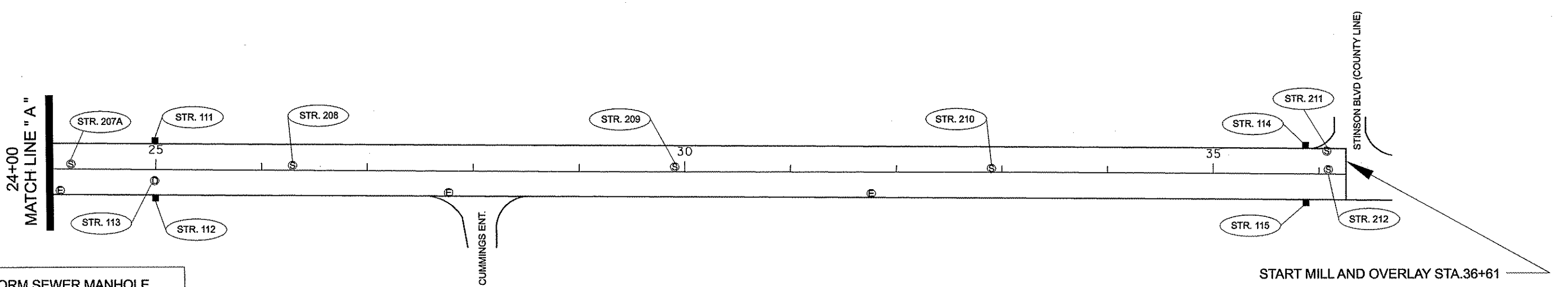
B. SCHEDULE OF CASTINGS				
ASSEMBLY	CASTING	GRATE	CURB BOX	QTY.
	801	810	821B	3
	700-8	716		9

- NOTES.. FOR TRAFFIC CONTROL AT MANHOLES REFER TO MINNESOTA TEMPORARY CONTROL ZONE LAYOUTS FIELD MANUAL.
- 1 ALL CASTING HIEGHTS ARE TO BE DETERMINED IN THE FIELD.
  - 2 ALL MANHOLE CASTINGS NEED TO HAVE "SANITARY SEWER" OR "WATER" STAMPED ON THEM.
  - 3 3 ARE DRAINAGE MANHOLES AND 6 ARE SANITARY SEWER MANHOLES.
  - 4 CONCRETE ENCASED CONCRETE ADJUSTING RINGS STANDARD PLATE 4026A

NOTE: NOT TO SCALE



START MILL AND OVERLAY STA. 10+10



- ⊙ STORM SEWER MANHOLE
- ⊗ WATERMAIN MANHOLE
- ⊙ SANITARY SEWER MANHOLE
- ⓔ ELECTRICAL MANHOLE
- STORM SEWER CATCH BASIN

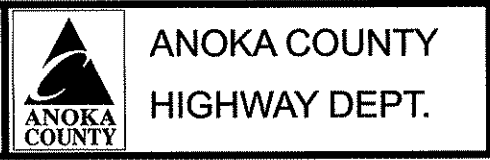
NO	DATE	BY	CKD	APPR	REVISION

NAME: P:\10-01-00\CSAH\_8\_(OldCentral-County line)\Plan\4 plan sheet 2.dgn 3/1/2010 11:09:08 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.

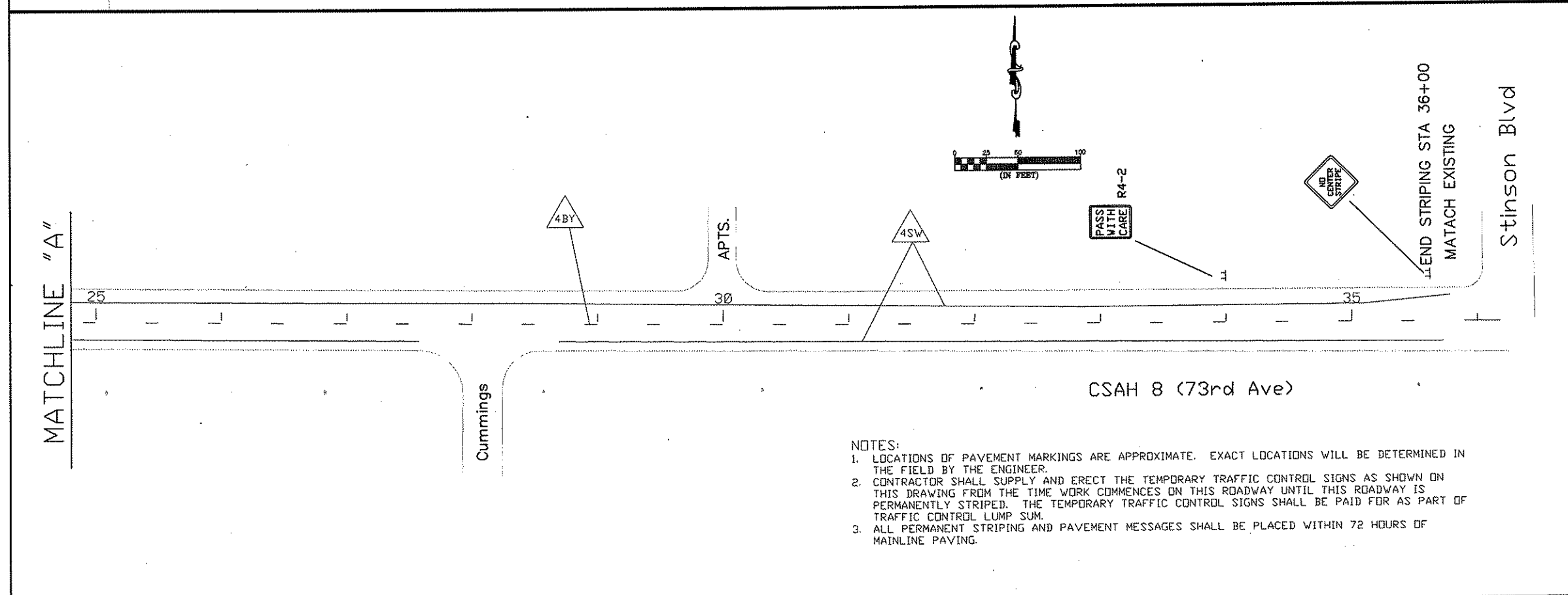
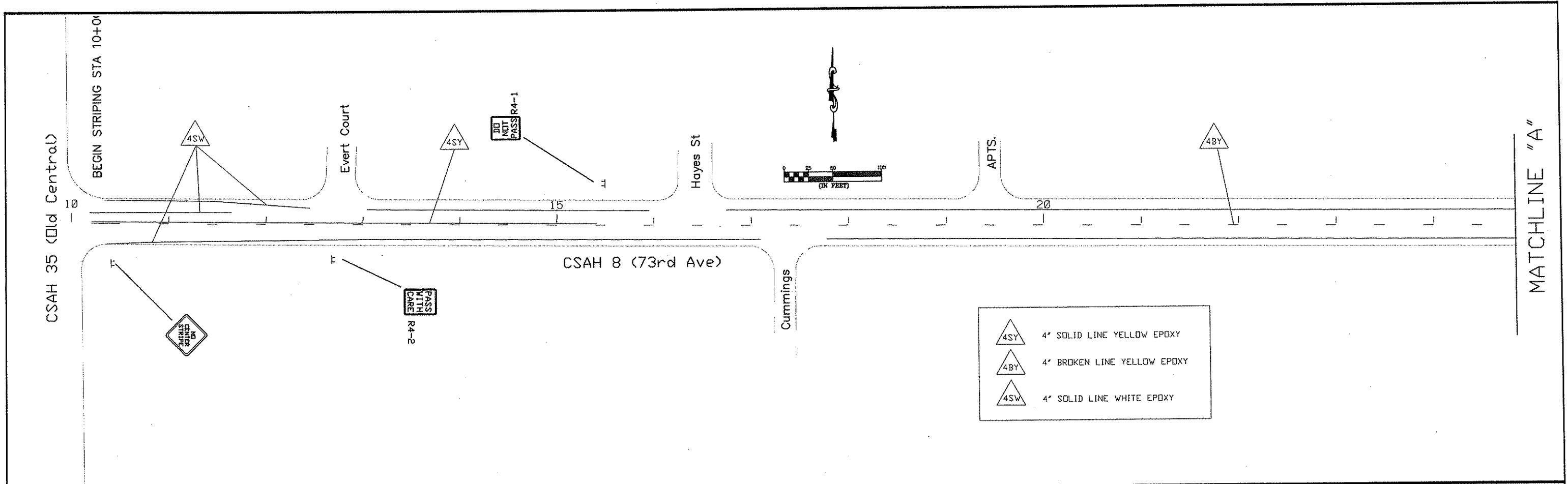
PRINT NAME: CHARLES CADENHEAD  
 SIGNATURE: *[Signature]*  
 DATE: 3/26/10 LICENSE NO. 40416

DRAWN BY: KPR DATE: 3/1/10  
 DESIGN BY: KPR DATE: 3/1/10  
 CHECKED BY: JO DATE: \_\_\_\_\_



COUNTY PROJECT NO. 10-16-08

CONSTRUCTION PLAN  
 Sheet 5 of 6 Sheets



	4' SOLID LINE YELLOW EPOXY
	4' BROKEN LINE YELLOW EPOXY
	4' SOLID LINE WHITE EPOXY

SIGN PANELS TYPE C						
M. U. T. C. & CODE	SIZE	PANEL AREA FT <sup>2</sup>	INSERT	QUANTITY	% POST	MARKING HEIGHT (TO MESSAGE) FT.
V8-1B	48" x 48"	16.00		2	2	7.0'
R4-1	24" x 30"	5.00		1	2	7.0'
R4-2	24" x 30"	5.00		2	2	7.0'

GENERAL NOTES:  
 1.) ALL TRAFFIC CONTROL DEVICES SHALL CONFORM AND BE PLACED IN ACCORDANCE TO THE "MINNESOTA MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES" (MN MUTCD), AND PART VI, "FIELD MANUAL FOR TEMPORARY TRAFFIC CONTROL ZONE LAYOUTS".

- NOTES:  
 1. LOCATIONS OF PAVEMENT MARKINGS ARE APPROXIMATE. EXACT LOCATIONS WILL BE DETERMINED IN THE FIELD BY THE ENGINEER.  
 2. CONTRACTOR SHALL SUPPLY AND ERECT THE TEMPORARY TRAFFIC CONTROL SIGNS AS SHOWN ON THIS DRAWING FROM THE TIME WORK COMMENCES ON THIS ROADWAY UNTIL THIS ROADWAY IS PERMANENTLY STRIPED. THE TEMPORARY TRAFFIC CONTROL SIGNS SHALL BE PAID FOR AS PART OF TRAFFIC CONTROL LUMP SUM.  
 3. ALL PERMANENT STRIPING AND PAVEMENT MESSAGES SHALL BE PLACED WITHIN 72 HOURS OF MAINLINE PAVING.

NO	DATE	BY	CKD	APPR	REVISION

NAME: T:\Traffic\dwg\CSAH 8 (Osbourne Rd)\ From CSAH 1 to East County Line.dwg

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 Ladegard  
 SIGNATURE: *Charles Ladegard*  
 DATE: 3/26/10 LICENSE NO. 40416

DRAWN BY: MTH DATE 02/03/10  
 DESIGN BY: DATE  
 CHECKED BY: DATE

ANOKA COUNTY  
 HIGHWAY DEPT.

STATE PROJECT NO. \_\_\_\_\_  
 STATE AID PROJECT NO. \_\_\_\_\_  
 CITY PROJECT NO. \_\_\_\_\_  
 COUNTY PROJECT NO. 10-16-08

CSAH 8 (73rd Avenue)  
 TEMPORARY SIGNING  
 PERMANENT STRIPING  
 AND PAVEMENT MESSAGES  
 Sheet 6 of 6 Sheets