

11/23/30 AM

02/09/2035

\\NAE\Anoka\010601\plans\hwy\149\F\anokc010601_111.dgn

PLAN SYMBOLS

- STATE LINE
- COUNTY LINE
- TOWNSHIP OR RANGE LINE
- SECTION LINE
- QUARTER LINE
- SIXTEENTH LINE
- RIGHT-OF-WAY LINE
- EXISTING RIGHT-OF-WAY LINE
- CONTROL OF ACCESS LINE
- PROPERTY LINE (Except Land Lines)
- VACATED PLATTED PROPERTY
- CORPORATE OR CITY LIMITS

- TRUNK HIGHWAY CENTER LINE
- RETAINING WALL
- RAILROAD
- RAILROAD RIGHT-OF-WAY LINE
- DRAINAGE DITCH
- DRAIN TILE
- CULVERT
- DROP INLET
- GUARD RAIL
- BARBED WIRE FENCE
- WOVEN WIRE FENCE
- CHAIN LINK FENCE
- WOODEN FENCE
- CATCH BASIN
- FIRE HYDRANT
- BRIDGE
- BUILDING

- IRON PIPE OR ROD
- MONUMENT (STONE, CONCRETE, OR METAL)

UTILITY SYMBOLS

- POWER POLE LINE
- TELEPHONE OR TELEGRAPH POLE LINE
- JOINT TELEPHONE AND POWER ON POWER POLES
- ON TELEPHONE POLES

- ANCHOR
- STEEL TOWER
- STREET LIGHT
- PEDESTAL (TELEPHONE CABLE TERMINAL)

- GAS MAIN
- WATER MAIN
- CONDUIT
- TELEPHONE CABLE IN CONDUIT

- ELECTRIC CABLE IN CONDUIT
- TELEPHONE MANHOLE
- ELECTRIC MANHOLE
- BURIED TELEVISION CABLE
- BURIED TELEPHONE CABLE
- BURIED ELECTRIC CABLE

- SEWER, (SANITARY)
- SEWER, (STORM)
- SEWER MANHOLE
- HANDHOLE
- CATCH BASIN

MINNESOTA DEPARTMENT OF TRANSPORTATION

ANOKA COUNTY HIGHWAY DEPARTMENT

ANOKA COUNTY, MN

CONSTRUCTION PLAN FOR: GRADING, BITUMINOUS PAVEMENT, DRAINAGE CURB AND GUTTER, STRIPING, AND TRAFFIC SIGNAL

S.P. NO. 02-623-014, S.P. NO. 0280-56

LOCATED AT INTERSECTION OF

C.S.A.H. 23 (LAKE DRIVE) & C.R. 105 (NAPLES STREET)

MINN. PROJ. NO. HES 0204 (039)

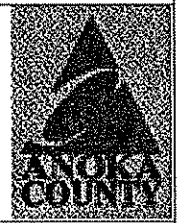
INDEX

SHEET NO.	DESCRIPTION
1	TITLE SHEET
2	STATEMENT OF ESTIMATED QUANTITIES
3	STANDARD PLATES AND CONSTRUCTION NOTES
4-5	QUANTITY TABULATIONS
6	EARTHWORK SUMMARY
7-8	INPLACE UTILITY TABULATIONS
9	TYPICAL SECTIONS
10-13	STANDARD PLAN SHEETS
14-15	ALIGNMENT PLAN AND TABULATION
16-18	TOPOGRAPHY, UTILITY, AND REMOVAL PLAN
19-22	CONSTRUCTION PLAN AND DETAILS
23-24	INPLACE ROAD PROFILES
25-27	DRAINAGE, TURF ESTABLISHMENT, AND EROSION CONTROL PLANS
28-41	SIGNING PLAN
42-48	PAVEMENT MARKINGS
49-54	TRAFFIC SIGNALS
55-56A, 57	TRAFFIC CONTROL
X1-X10	CROSS SECTIONS

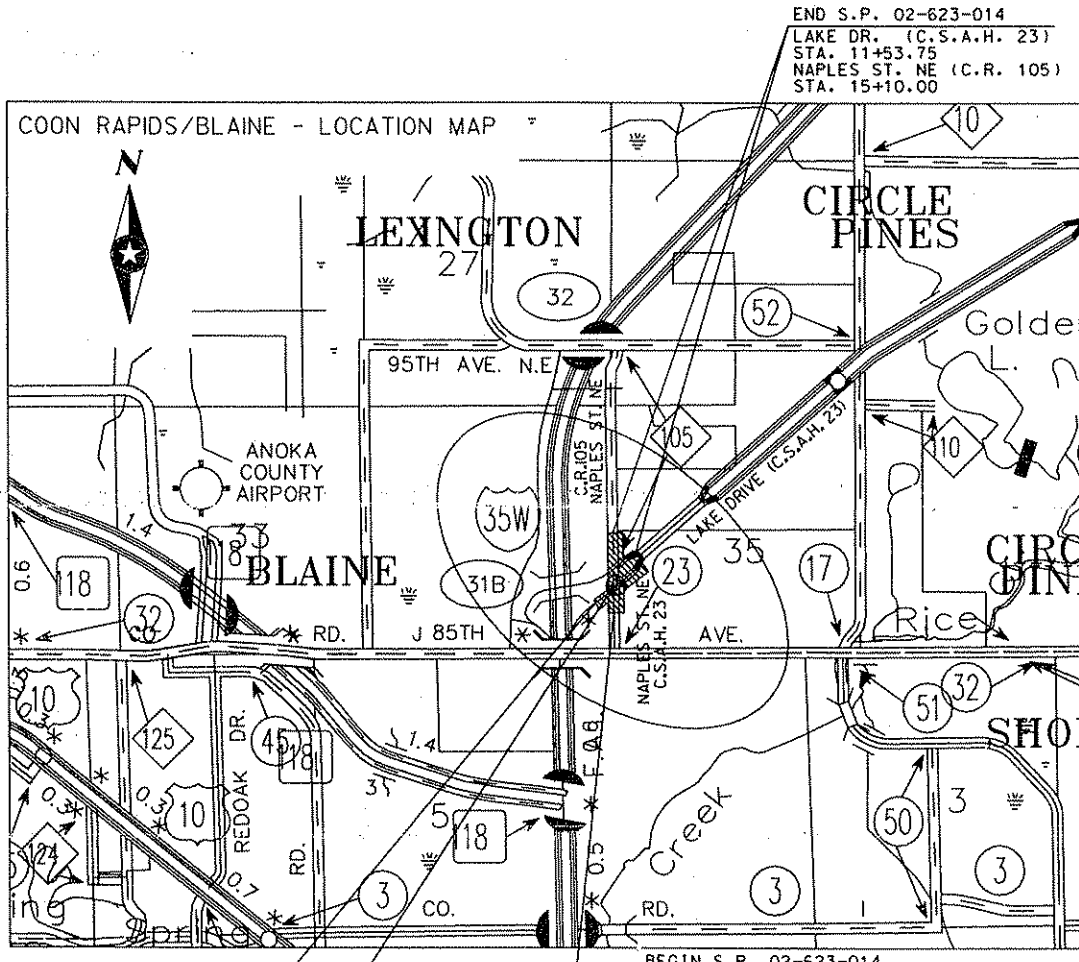
THIS PLAN CONTAINS 68 SHEETS

ANOKA COUNTY HIGHWAY DEPARTMENT
1440 BUNKER LANE BLVD N.W.
ANDOVER, MN 55304

PHONE: (763) 862-4200
FAX: (763) 862-4201



- APPROVED *[Signature]* DATE 1/14/06
BLAINE CITY ENGINEER
- APPROVED *[Signature]* DATE 2/13/06
ANOKA COUNTY ENGINEER
- RECOMMENDED FOR APPROVAL *[Signature]* DATE 3/31/06
DISTRICT TRANSPORTATION ENGINEER
- RECOMMENDED FOR APPROVAL *[Signature]* DATE 4/20/06
DISTRICT MATERIALS ENGINEER
- RECOMMENDED FOR APPROVAL *[Signature]* DATE 3/31/06
DISTRICT WATER RESOURCES ENGINEER
- RECOMMENDED FOR APPROVAL *[Signature]* DATE 4/17/06
DISTRICT TRAFFIC ENGINEER
- RECOMMENDED FOR APPROVAL *[Signature]* DATE 4/26/06
FOR STATE PRE-LETTING ENGINEER
- OFFICE OF LAND MANAGEMENT APPROVAL *[Signature]* DATE 4/27/06
DIRECTOR, LAND MANAGEMENT
- RECOMMENDED FOR APPROVAL *[Signature]* DATE 4/28/06
STATE DESIGN ENGINEER
- [Signature]* DATE 4/7/06
DISTRICT STATE AID ENGINEER REVIEWED FOR COMPLIANCE WITH STATE AID RULES/POLICY
- APPROVED FOR STATE AID FUNDING: STATE AID ENGINEER *[Signature]* DATE 4-7-06



GOVERNING SPECIFICATIONS
THE 2000 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" (MM MUTCD) AND PART VI, "FIELD MANUAL FOR TEMPORARY TRAFFIC CONTROL ZONE LAYOUTS."

DESIGN DESIGNATION

BASED ON: STOPPING SIGHT DISTANCE
HEIGHT OF EYE: 3.5 FT. HEIGHT OF OBJECT: 2.0 FT.

S.P. 0280-56 - MN/DOT RAMP

GROSS LENGTH	462 FT.	0.087 MILES
BRIDGE LENGTH	0 FT.	0 MILES
EXCEPTION LENGTH	0 FT.	0 MILES
FUNCTIONAL CLASSIFICATION	MINOR ARTERIAL	
NO. OF TRAFFIC LANES	2	
NO. OF PARKING LANES	0	
STRUCTURAL DESIGN	9 TON	
R VALUE	60	
ESALS	566,000	
EXISTING ADT (2005)	1,070	
20 YEAR PROJECTED ADT (2025)	1,400	
% HCADT IN PM	7.1	
DESIGN SPEED	50 MPH	

S.P. 02-623-014 - LAKE DRIVE (C.S.A.H. 23)

GROSS LENGTH	1292 FT.	0.245 MILES
BRIDGE LENGTH	0 FT.	0 MILES
EXCEPTION LENGTH	0 FT.	0 MILES
FUNCTIONAL CLASSIFICATION	MINOR ARTERIAL	
NO. OF TRAFFIC LANES	2	
NO. OF PARKING LANES	0	
STRUCTURAL DESIGN	9 TON	
R VALUE	60	
ESALS	7,372,000	
EXISTING ADT (2005)	15,000	
20 YEAR PROJECTED ADT (2025)	19,900	
% HCADT IN PM	4.9	
DESIGN SPEED	50 MPH	

S.P. 02-623-014 - NAPLES STREET NE (C.R. 105)

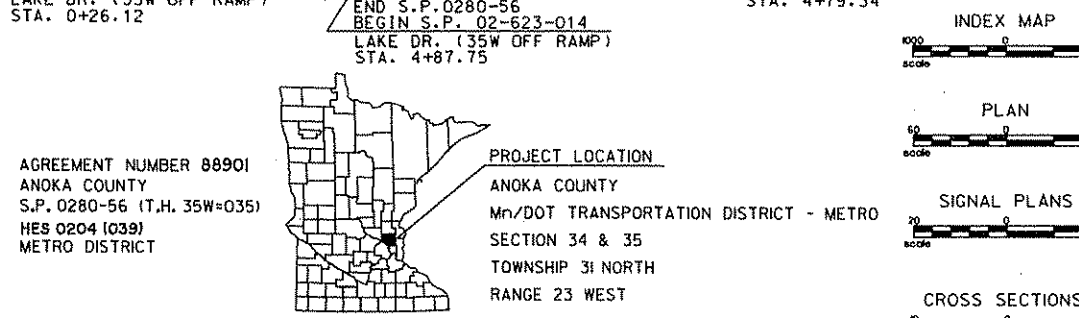
GROSS LENGTH	58 FT.	0.097 MILES
BRIDGE LENGTH	0 FT.	0 MILES
EXCEPTION LENGTH	0 FT.	0 MILES
FUNCTIONAL CLASSIFICATION	COLLECTOR	
NO. OF TRAFFIC LANES	2	
NO. OF PARKING LANES	0	
STRUCTURAL DESIGN	9 TON	
R VALUE	69	
ESALS	908,000	
EXISTING ADT (2005)	3,700	
20 YEAR PROJECTED ADT (2025)	4,900	
% HCADT IN PM	3.8	
DESIGN SPEED	35 MPH	

S.P. 02-623-014 - NAPLES STREET NE (C.S.A.H. 23)

GROSS LENGTH	520 FT.	0.100 MILES
BRIDGE LENGTH	0 FT.	0 MILES
EXCEPTION LENGTH	0 FT.	0 MILES
FUNCTIONAL CLASSIFICATION	MINOR ARTERIAL	
NO. OF TRAFFIC LANES	2	
NO. OF PARKING LANES	0	
STRUCTURAL DESIGN	9 TON	
R VALUE	60	
ESALS	1,354,000	
EXISTING ADT (2005)	5,500	
20 YEAR PROJECTED ADT (2025)	7,300	
% HCADT IN PM	4.1	
DESIGN SPEED	45 MPH	

NOTES:
THE SUBSURFACE UTILITY INFORMATION IN THIS PLAN IS UTILITY QUALITY LEVEL "D". THIS QUALITY LEVEL WAS DETERMINED ACCORDING TO THE GUIDELINES OF CI/ASCE 38-02, ENTITLED "STANDARD GUIDELINES FOR THE COLLECTION AND DEPICTION OF EXISTING SUBSURFACE UTILITY DATA."

SCALES
INDEX MAP
PLAN
SIGNAL PLANS
CROSS SECTIONS



AGREEMENT NUMBER 88901
ANOKA COUNTY
S.P. 0280-56 (T.H. 35W=035)
HES 0204 (039)
METRO DISTRICT

PROJECT LOCATION
ANOKA COUNTY
Mn/DOT TRANSPORTATION DISTRICT - METRO
SECTION 34 & 35
TOWNSHIP 31 NORTH
RANGE 23 WEST

PLAN REVISIONS		
DATE	SHEET NO.	APPROVED BY

STATE PROJ. NO.	CHARGE IDENTIFIER

STATE PROJ. NO. 02-623-014
STATE PROJ. NO. 0280-56 (T.H. 35W=394)

SEH
PHONE: (651) 490-2000
3838 WADSWAS CENTER DR.
ST. PAUL, MN 55119

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.

[Signature] NAME: SUSAN M. MASON
DATE 02/09/2006 C. NO. 18612

SHEET NO. 1 OF 57 SHEETS

STATEMENT OF ESTIMATED QUANTITIES

Table with columns: TAB, SHEET NO., ITEM NO., ITEM DESCRIPTION, UNIT, TOTAL ESTIMATED QUANTITY, S.P. 02-623-14, S.P. 0280-56, NON-PARTICIPATING (LOCAL FUNDS ONLY). Rows include items like CELLULAR MOBILE TELEPHONE, MOBILIZATION, FIELD OFFICE TYPE D, REMOVE CURB AND GUTTER, etc.

STATEMENT OF ESTIMATED QUANTITIES

Table with columns: TAB, SHEET NO., ITEM NO., ITEM DESCRIPTION, UNIT, TOTAL ESTIMATED QUANTITY, S.P. 02-623-14, S.P. 0280-56, NON-PARTICIPATING (LOCAL FUNDS ONLY). Rows include items like 3" RIGID STEEL CONDUIT, ARMORED CABLE, EQUIPMENT PAD B, TEMPORARY LIGHTING SYSTEM, etc.

INDEX OF TABULATIONS

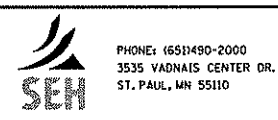
Table with columns: TAB, SHEET, DESCRIPTION. Rows include: A 4 MISCELLANEOUS REMOVALS, B 4 PAVEMENT SAWING, C 4 BITUMINOUS PAVEMENT, etc.

NOTES:

- ① QUANTITIES UNDER S.P. 0280-56 WILL BE PAID FOR AS LUMP SUM AS PER COOPERATIVE AGREEMENT NUMBER 8890, REMAINDER TO BE PAID BY ANOKA COUNTY.
② EXISTING PAVEMENT THICKNESSES TO BE REMOVED ARE ASSUMED TO BE: C.R. 105 (NAPLES ST. NE) - 3.5"
③ SALVAGED SIGNS THAT ARE NOT BEING REINSTALLED WILL BE SALVAGED TO ANOKA COUNTY.
④ 40% MN/DOT S.P. 0280-56
⑤ WATER FOR DUST CONTROL.

DESIGN TEAM table with columns: DRAWN BY, DESIGNER, CHECKED BY, NO., BY, DATE, REVISIONS.

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.
Certified By: Susan M. Mason, Licens. No. 18612
Printed Name: SUSAN M. MASON Date: 04/24/2006



ANOKA COUNTY, MINNESOTA
INTERSECTION IMPROVEMENTS:
CSAH 23 @ INTERSTATE HIGHWAY 35W

STATEMENT OF ESTIMATED QUANTITIES
STATE PROJECT NO. 02-623-014, STATE PROJECT NO. 0280-56

FILE NO. ANOKC006.01, DATE 04/24/2006, 2/57

The following standard plates, approved by the Federal Highway Administration shall apply on this project.

STANDARD PLATES	
PLATE NO.	DESCRIPTION
3000L	REINFORCED CONCRETE PIPE (5 SHEETS)
3006G	GASKET JOINT FOR R.C. PIPE
3007D	SHEAR REINFORCEMENT FOR PRECAST DRAINAGE STRUCTURES
3100G	CONCRETE APRON FOR REINFORCED CONCRETE PIPE
4005L	MANHOLE OR CATCH BASIN
4006L	MANHOLE OR CATCH BASIN PRECAST (DESIGN G OR DESIGN H)
4010H	CONCRETE SHORT CONE AND ADJUSTING RING (SECTIONAL CONCRETE)
4011E	PRECAST CONCRETE BASE
4020J	MANHOLE OR CATCH BASIN COVER
4101D	RING CASTING FOR MANHOLE OR CATCH BASIN
4110F	COVER CASTING FOR MANHOLE
4129G	CATCH BASIN FRAME CASTING
4132F	CATCH BASIN FRAME CASTING
4143E	STOOL GRATE & CONCRETE FRAME
4154B	CATCH BASIN GRATE CASTING
4160D	CURB BOX CASTING FOR CATCH BASIN
7036F	PEDESTRIAN CURB RAMP FOR THE HANDICAPPED
7100H	CONCRETE CURB & GUTTER
7111J	INSTALLATION OF CATCH BASIN CASTINGS
7113A	CONCRETE APPROACH NOSE DETAIL
8000I	STANDARD BARRICADES
8106B	EQUIPMENT PAD B
8110D	TRAFFIC SIGNAL BRACKETING (POLE MOUNTED)
8111D	TRAFFIC SIGNAL BRACKETING (PEDESTAL MOUNTED)
8112D	PEDESTAL FOUNDATION (TRAFFIC CONTROL SIGNALS)
8114A	P.V.C. HANDHOLE / PULLBOX
8115D	PEDESTRIAN PUSH BUTTON INSTALLATION
8118C	SERVICE EQUIPMENT AND POLE TRAFFIC CONTROL SIGNALS
8119C	GROUND MOUNTED CABINET FOUNDATION
8120L	POLE FOUNDATION
8121D	TRANSFORMER BASE AND POLE BASE PLATE
8122D	PEDESTAL AND PEDESTAL BASE
8123E	POLE AND MAST ARM
8124E	MAST ARM SIGNAL HEAD MOUNTS
8126G	POLE FOUNDATION

BASIS OF ESTIMATED QUANTITIES	
ITEM	BASIS
BITUMINOUS PAVEMENT	113 LBS/SY/INCH
BITUMINOUS MATERIAL FOR TACK COAT	0.05 GAL/SY
BITUMINOUS PATCHING MIXTURE	20 TONS/LANE-MILE
MIXTURE FOR JOINTS & CRACKS	20,000 LBS/LANE-MILE
COMM. FERT. ANALYSIS 22-5-10	350 LBS/ACRE
AGGREGATE BASE CLASS 5	13.7 FT ³ /TON
SEED MIXTURE 250GR	70 LBS/ACRE
MULCH MATERIAL TYPE I	2 TONS/ACRE

SOIL AND CONSTRUCTION NOTES

1. THE TOP OF THE "GRADING GRADE" IS DEFINED AS THE BOTTOM OF THE AGGREGATE BASE OR THE TOP OF THE SELECTED GRADING SOIL, THE GRANULAR MATERIAL (SPEC 3149.2B1) OR THE SELECT GRANULAR MATERIAL (SPEC 3149.2B2) AS IS APPROPRIATE.
2. UNSUITABLE MATERIALS ARE TOPSOILS, DEBRIS, PEAT, MUCK AND ORGANIC, OR OTHER UNSTABLE SOILS.
3. SUITABLE MATERIALS SHALL BE ALL OTHER MINERAL SOILS ENCOUNTERED ON THE PROJECT OR FROM BORROW, NOT PREVIOUSLY DEFINED AS BEING UNSUITABLE.
4. SELECT GRANULAR MATERIAL IS DEFINED AS MATERIAL MEETING THE REQUIREMENTS OF SPEC 3149.2B2.
5. STRIP SOD AND TOPSOIL FROM AREAS TO BE DISTURBED BY CONSTRUCTION AND REUSE AS SLOPE DRESSING. FOR ESTIMATING PURPOSES, THE DEPTH OF TOPSOIL AVAILABLE IS CONSIDERED TO BE 1.0 FEET IN ALL AREAS.
6. ALL TOPSOIL STRIPPING WILL BE CONSIDERED TO BE COMMON EXCAVATION.
7. IN FILL SECTIONS, TOPSOIL AND OTHER UNSUITABLE MATERIALS SHALL BE ELIMINATED FROM THE UPPER 3 FEET OF THE "GRADING GRADE" BENEATH THE ROADWAY, WITHIN THE LIMITS SHOWN IN THE TYPICAL SECTIONS.
8. PROVIDE FOR THE REMOVAL AND DISPOSAL OF ANY INPLACE SURFACING, GUARDRAIL, OTHER STRUCTURES, OR DEBRIS THAT WOULD INTERFERE WITH CONSTRUCTION. ALL SUCH MATERIALS SHALL BECOME THE PROPERTY OF THE CONTRACTOR AND SHALL EITHER BE RECYCLED TO THE EXTEND ALLOWED OR DISPOSED OF OFF THE PROJECT LIMITS IN ACCORDANCE WITH SPEC 2104.03.C. PROVIDE FOR SAW CUTTING AS DEEMED NECESSARY BY THE ENGINEER.
9. PROVIDE FOR SUBGRADE CORRECTIONS AND SUBCUTS FOR UNIFORMITY AND COMPACTION AND EMBANKMENT CONSTRUCTION DETAILS AS INDICATED IN THE TYPICAL SECTIONS. SELECTED GRADING SOILS FROM THE ROADBED OR ADJACENT CUTS SHALL BE USED IN THE LOWER PORTION OF THE NEW CONSTRUCTION AND THE GRANULAR MATERIAL AND/OR SELECT GRANULAR MATERIAL SHALL BE USED IN THE UPPER PORTION.
10. COMPACTION OF THE GRADING AND AGGREGATE ITEMS SHALL BE BY THE "SPECIFIED DENSITY" METHOD, EXCEPT THAT, IN AREAS WHERE CRUSHED CONCRETE OR SALVAGED ASPHALT IS USED FOR AGGREGATE BASE, COMPACTION OF THE AGGREGATE BASE LAYER SHALL BE BY THE "PENETRATION INDEX" METHOD.
11. WHERE WIDENING ADJACENT TO EXISTING PAVEMENT, EXCAVATIONS SHALL BE BACKFILLED PROMPTLY TO AVOID UNDERMINING OF THE EXISTING PAVEMENT. CUT VERTICALLY TO THE BOTTOM OF THE PROPOSED SURFACING OR NEW SURFACING, WHICHEVER IS DEEPER, THEN 2V:1H TO THE BOTTOM OF THE RECOMMENDED SUBGRADE TREATMENT. IT IS THE CONTRACTOR'S RESPONSIBILITY TO ENSURE THAT EXISTING PAVEMENT DESIGNATED TO REMAIN INPLACE IS NOT UNDERMINED BY ADJACENT EXCAVATION OR CONSTRUCTION ACTIVITY. ANY SUCH EXISTING PAVEMENT UNDERMINED OR OTHERWISE DAMAGED BY CONSTRUCTION ACTIVITY SHALL BE REMOVED AND REPLACED TO THE SATISFACTION OF THE ENGINEER, AT NO COST TO THE COUNTY.
12. WHERE MATCHING NEW SURFACING, AT CROSSROADS OR PROJECT TERMINI, TO EXISTING PAVEMENTS, CUT VERTICALLY TO THE BOTTOM OF THE PROPOSED SURFACING OR NEW SURFACING, WHICHEVER IS DEEPER, THEN 1V:20H TO THE BOTTOM OF THE RECOMMENDED SUBGRADE TREATMENT.
13. DITCH BOTTOMS, TOE OF FILL, CUT RUNOUTS, AND THE TOP EDGE OF THE BACKSLOPES SHALL BE ROUNDED REGARDLESS OF THE SECTION USED ON THE CROSS SECTION SHEETS.
14. PLACE A MINIMUM OF 6 INCHES OF TOPSOIL ON ALL AREAS SCHEDULED FOR PERMANENT TURF ESTABLISHMENT.
15. SOD/SEED ALL AREAS AS INDICATED IN THE TURF ESTABLISHMENT AND EROSION CONTROL PLANS. PROVIDE MULCH MATERIAL TYPE 1 AND COMMERCIAL FERTILIZER, ANALYSIS 22-5-10 FOR AREAS TO BE SEEDDED.
16. PROVIDE FOR A UNIFORM BITUMINOUS TACK COAT BETWEEN ALL BITUMINOUS COURSES AND FOR COATING THE INPLACE PCC SURFACE PRIOR TO PLACEMENT OF BITUMINOUS PATCH AND OVERLAY. THE TACK COAT SHALL BE IN CONFORMANCE WITH SPECIFICATION 2357 AND CONSIST OF EMULSIFIED ASPHALT (CSS-1 OR CSS-1H). THE TACK COAT SHALL BE APPLIED BETWEEN BITUMINOUS COURSES AT A RATE OF 0.03 GAL./SY TO 0.05 GAL./SY AND TO THE PCC SURFACE AT A RATE OF 0.05 GAL./SY TO 0.08 GAL./SY (THE APPLICATION RATES REPRESENT UNDILUTED EMULSIFIED ASPHALT QUANTITIES).
17. ALL TRAFFIC CONTROL DEVICES SHALL CONFORM TO THE MINNESOTA MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES, INCLUDING THE FIELD MANUAL FOR TEMPORARY TRAFFIC CONTROL ZONE LAYOUTS, DATED JANUARY 2004.
18. THE CONTRACTOR IS HEREBY REMINDED OF THEIR RESPONSIBILITY UNDER STATE LAW TO CONTACT ALL UTILITIES THAT MAY HAVE FACILITIES IN THE AREA. CONTACT MUST BE MADE THROUGH GOPHER STATE ONE-CALL.
19. THE EXISTING PAVEMENT THICKNESSES ARE ASSUMED TO BE AS FOLLOWS:
CR 105 (NAPLES ST) - 3.5"
CSAH 23 (NAPLES ST) - 3.5"
LAKE DRIVE (CSAH 23) - 8" REINFORCED CONCRETE WITH BITUMINOUS OVERLAY
20. WHENEVER THE WORD "INCIDENTAL" IS USED IN THIS PLAN, IT SHALL MEAN NO DIRECT COMPENSATION WILL BE MADE.
21. NO WORK, INCLUDING THE STOCKPILING OF BITUMINOUS PAVEMENT, CONCRETE PAVEMENT, OF UNSUITABLE SOILS REMOVED FROM THE SITE SHALL EXTEND BEYOND THE RIGHT-OF-WAY OR TEMPORARY EASEMENT UNLESS THE CONTRACTOR HAS PROVIDED THE COUNTY WITH A COPY OF THE LANDOWNER'S PERMISSION FOR SUCH WORK. THIS MUST ALSO BE APPROVED BY THE ENGINEER.

DESIGN TEAM	NO.	BY	DATE	REVISIONS
DRAWN BY: JMT				
DESIGNER: HLR				
CHECKED BY: APM				

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.

Certified By: *Susan M. Mason* Lic. No. 18612
 Licensed Professional Engineer
 SUSAN M. MASON Date: 04/24/2006



PHONE: (651)490-2000
 3535 VADNAIS CENTER DR.
 ST. PAUL, MN 55110



ANOKA COUNTY, MINNESOTA

INTERSECTION IMPROVEMENTS:
CSAH 23 @ INTERSTATE HIGHWAY 35W

CONSTRUCTION NOTES & STANDARD PLATES

STATE PROJECT NO. 02-623-014, STATE PROJECT NO. 0280-56

FILE NO.	3
ANOKC0106.01	
DATE	57
04/24/2006	

MISCELLANEOUS REMOVALS A										
STATION TO STATION	LOCATION	REMOVE CURB & GUTTER	REMOVE CONCRETE MEDIAN	REMOVE CONCRETE PAVEMENT	REMOVE BITUMINIOUS PAVEMENT	REMOVE DRAINAGE STRUCTURE	REMOVE STORM SEWER PIPE	REMOVE RCP APRON	REMOVE METAL CULVERT	REMOVE CASTING
		LIN FT	SQ YD	SQ YD	SQ YD	EACH	LIN FT	EACH	LIN FT	EACH
LAKE DR. NE (HWY 35W OFF RAMP)										
4+75 - 4+89	RT	42	92							
LAKE DR. NE (CSAH 23)										
3+77 - 11+54	RT			1,711	1,413					
6+18 - 11+54	LT	542								
6+37 - 6+80	LT					1	44			
6+77 - 6+80	LT & RT						64	1		
LAKE DR. SW (CSAH 23)										
3+75 - 5+63	RT				510					
4+76 - 5+67	LT & RT					1	124	1		1
5+22 - 5+30	LT	28	28							
5+67 - 9+13	LT				356					
7+99 - 10+40	RT		2,156							
4+13 - 10+82	LT & RT	540		1,609						
NAPLES ST. NE (CSAH 23)										
4+79 - 9+38	LT & RT				1,148					
6+32 - 7+35	RT								95	
NAPLES ST. NE (CR 105)										
11+47 - 15+10	LT & RT				1,431					
PROJECT TOTALS		1,152	2,276	3,320	4,859	2	232	2	95	1

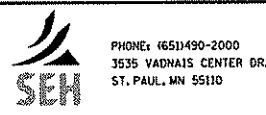
PAVEMENT SAWING B			
STATION TO STATION	LOCATION	SAWING CONCRETE PAVEMENT (FULL DEPTH)	SAWING BIT. PAVEMENT (FULL DEPTH)
		LIN FT	LIN FT
LAKE DR. NE (CSAH 23)			
4+88	LT & RT	27	
10+42 - 10+77	RT		35
11+54	LT & RT	20	6
LAKE DR. SW (CSAH 23)			
4+13	RT	30	
10+40	LT & RT	16	6
NAPLES ST. NE (CSAH 23)			
4+79 - 8+24	LT & RT		385
6+59 - 7+12	RT		53
NAPLES ST. NE (CR 105)			
15+10	LT & RT		25
PROJECT TOTALS		93	510

BITUMINOUS PAVEMENT C										
STATION TO STATION	LOCATION	AREA	2360 TYPE SP 12.5 WEARING COURSE DEPTH (SPWEB440F)	2360 TYPE SP 12.5 NON WEARING COURSE DEPTH (SPNWB430B)	BIT. MATERIAL FOR TACK COAT	2360 TYPE SP 12.5 WEARING COURSE (SPWEB440F)	2360 TYPE SP 12.5 NON WEARING COURSE (SPNWB430B)	BIT. MATERIAL FOR TACK COAT	BITUMINOUS PATCHING MIXTURE (SPWEB440F)	MIXTURE FOR JOINTS & CRACKS
			SQ YD	INCHES	INCHES	COURSES	TON	TON	GAL	TON
LAKE DR. NE (HWY 35W OFF RAMP)										
0+26 - 4+88	LT	546	4.0		2	123		55		
0+26 - 4+88	RT	520	4.0		2	118		52		
0+26 - 4+88	LT & RT	1,385	4.0		2	313		138	4	2
LAKE DR. NE (CSAH 23)										
4+88 - 11+54	LT & RT	2,829	4.0	2.0	3	639	320	424		
LAKE DR. SW (CSAH 23)										
4+13 - 10+40	LT & RT	2,844	4.0	2.0	3	643	321	427		
NAPLES ST. NE (CSAH 23)										
4+79 - 10+16	LT & RT	1,975	4.0		2	446		198		
NAPLES ST. NE (CR 105)										
10+78 - 15+10	LT & RT	1,551	4.0	2.0	3	351	175	233		
PROJECT TOTALS						2633	816	1526	4	2

MISCELLANEOUS REMOVALS
PAVEMENT SAWING
BITUMINOUS PAVEMENT

DESIGN TEAM				
DRAWN BY: JMT				
DESIGNER: HLR				
CHECKED BY: APM				
NO.	BY	DATE	REVISIONS	

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.
 Certified By: *Susan M. Mason* Lic. No. 18612
 Printed Name: SUSAN M. MASON Date: 04/24/2006



ANOKA COUNTY, MINNESOTA
**INTERSECTION IMPROVEMENTS:
 CSAH 23 @ INTERSTATE HIGHWAY 35W**

QUANTITY TABULATIONS
 STATE PROJECT NO. 02-623-014, STATE PROJECT NO. 0280-56

FILE NO. ANOKC0106.01	4
DATE 04/24/2006	57

AGGREGATE BASE D			
STATION TO STATION	LOCATION	DESCRIPTION	AGGREGATE BASE CLASS 5
			TON
LAKE DR. NE (HWY 35W OFF RAMP)			
0+26 - 4+88	LT	BIT. ROADWAY	179
0+26 - 4+88	RT	BIT. ROADWAY	170
0+26 - 5+22	LT & RT	BIT. ROADWAY CORNERS	52
4+56 - 4+90	RT	CONCRETE WALK	10
4+56 - 4+90	RT	CURB	15
LAKE DR. NE (CSAH 23)			
4+88 - 11+54	LT & RT	BIT. ROADWAY	1236
4+88 - 11+54	RT	BIT. ROADWAY CORNERS	87
LAKE DR. SW (CSAH 23)			
4+13 - 10+40	LT & RT	BIT. ROADWAY	1242
4+13 - 10+40	RT	BIT. ROADWAY CORNERS	85
4+13 - 10+40	LT	CURB	21
5+29 - 5+51	LT	CONCRETE WALK	6
7+97 - 10+40	RT	MEDIAN	152
NAPLES ST. NE (CSAH 23)			
4+79 - 10+16	RT	BIT. ROADWAY	647
4+79 - 10+16	RT	BIT. ROADWAY CORNERS	25
9+87 - 10+13	RT	CONCRETE WALK	4
NAPLES ST. NE (CR 105)			
10+78 - 15+10	LT & RT	BIT. ROADWAY	508
10+78 - 15+10	LT & RT	BIT. ROADWAY CORNERS	75
10+85 - 11+28	LT	CONCRETE WALK	7
11+80 - 12+33	RT	CONCRETE WALK	8
PROJECT TOTALS			4529

CONCRETE ITEMS E						
STATION TO STATION	LOCATION	CONCRETE CURB & GUTTER DESIGN B418	CONCRETE MEDIAN NOSE DESIGN 7113A	4" CONCRETE WALK	CONCRETE PEDESTRIAN CURB RAMP	TRUNCATED DOME
		LIN FT	EACH (1)	SQ FT	EACH (1)	SQ FT
LAKE DR. NE (HWY 35W OFF RAMP)						
4+55 - 4+91	RT	95				
4+56 - 4+64	RT		1	34		
4+59 - 4+90	RT			488		
LAKE DR. NE (CSAH 23)						
6+18 - 11+54	LT	547				
LAKE DR. SW (CSAH 23)						
5+06 - 10+40	RT	532				
5+29 - 5+55	LT	71				
5+29 - 5+51	LT			262	3	24
5+46 - 5+54	LT		1	34		
7+97 - 10+40	RT			1450		
NAPLES ST. NE (CSAH 23)	RT			194	1	8
9+87 - 10+13						
NAPLES ST. NE (CR 105)						
10+85 - 11+28	LT			384	1	8
11+80 - 12+33	RT			443	1	8
PROJECT TOTALS		1245	2	3289	6	48

TEMPORARY EROSION CONTROL F			
STATION TO STATION	LOCATION	SILT FENCE TYPE MACHINE SLICED	INLET PROTECTION
		LIN FT	EACH
LAKE DR. NE (HWY 35W OFF RAMP)	RT		
0+27 - 5+10	LT	470	
0+27 - 5+22		515	
LAKE DR. NE (CSAH 23)			
5+81 - 11+55	RT	586	
6+37			1
6+77			1
LAKE DR. SW (CSAH 23)	LT & RT		
4+13 - 10+50	LT & RT	453	
5+11	RT		1
NAPLES ST. NE (CSAH 23)			
4+80 - 10+26	LT & RT	495	
NAPLES ST. NE (CR 105)			
11+28 - 18+10		794	
PROJECT TOTALS		3313	3

TURF ESTABLISHMENT G						
STATION TO STATION	LOCATION	SEEDING	SEED MIXTURE 250 GR	MULCH MATERIAL TYPE 1	DISK ANCHORING	COMMERCIAL FERTILIZER ANALYSIS 22-5-10 @ 300 LBS/AC (SOD)
		ACRE	POUND	TON	ACRE	LB
LAKE DR. NE (HWY 35W OFF RAMP)						
0+27 - 5+10	RT	0.1	8	0.2	0.1	40
0+27 - 5+22	LT	0.1	6	0.2	0.1	30
LAKE DR. NE (CSAH 23)						
5+81 - 11+55	RT	0.1	6	0.2	0.1	28
LAKE DR. SW (CSAH 23)						
4+13 - 10+50	LT & RT	0.2	16	0.5	0.2	78
NAPLES ST. NE (CSAH 23)						
4+80 - 10+26	RT	0.1	6	0.2	0.1	32
NAPLES ST. NE (CR 105)						
11+28 - 15+10	LT & RT	0.1	7	0.2	0.1	33
PROJECT TOTALS		0.6	48	1.4	0.7	241

DRAINAGE H							
STATION TO STATION	LOCATION	18" CS PIPE CULVERT	24" RC PIPE CULVERT CLASS IV	18" CS PIPE APRON	24" RC PIPE APRON WITH TRASH GUARD	DRAINAGE STRUCTURE DESIGN F	CASTING ASSEMBLY B-9
		LIN FT	LIN FT	EACH	EACH	EACH	EACH
LAKE DR. NE (CSAH 23)	LT						
6+37 - 6+24	LT & RT		25			1	1
6+77 - 6+37			65		1		
LAKE DR. SW (CSAH 23)	LT & RT						
5+11 - 4+68			84		1	1	1
NAPLES ST. NE (CSAH 23)	45' RT						
6+32 - 7+40		107		2			
PROJECT TOTALS		107	174	2	2	2	2

① FOR INFORMATION ONLY. PAID FOR AS 4" CONCRETE WALK. (INCLUDED IN 4" CONCRETE WALK COLUMN.) THE TRUNCATED DOME AREA IS PAID FOR SEPARATELY.

AGGREGATE BASE
CONCRETE ITEMS
TEMPORARY EROSION CONTROL
TURF ESTABLISHMENT
DRAINAGE

Default w:\oe\enokc\010601\p\shfts\tabs\enokc010601.tbb.dgn

DESIGN TEAM		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. Certified By: <i>Susan M. Mason</i> Lic. No. 18612 Licensed Professional Engineer SUSAN M. MASON Date: 04/24/2006 Printed Name:	 PHONE: (651)490-2000 3535 VADNAIS CENTER DR. ST. PAUL, MN 55110	 ANOKA COUNTY, MINNESOTA INTERSECTION IMPROVEMENTS: CSAH 23 @ INTERSTATE HIGHWAY 35W	QUANTITY TABULATIONS STATE PROJECT NO. 02-623-014, STATE PROJECT NO. 0280-56	FILE NO. ANOKC0106.01	5 57
DRAWN BY: JMT						DATE 04/24/2006	
DESIGNER: HLR							
CHECKED BY: APM							
NO.	BY	DATE	REVISIONS				

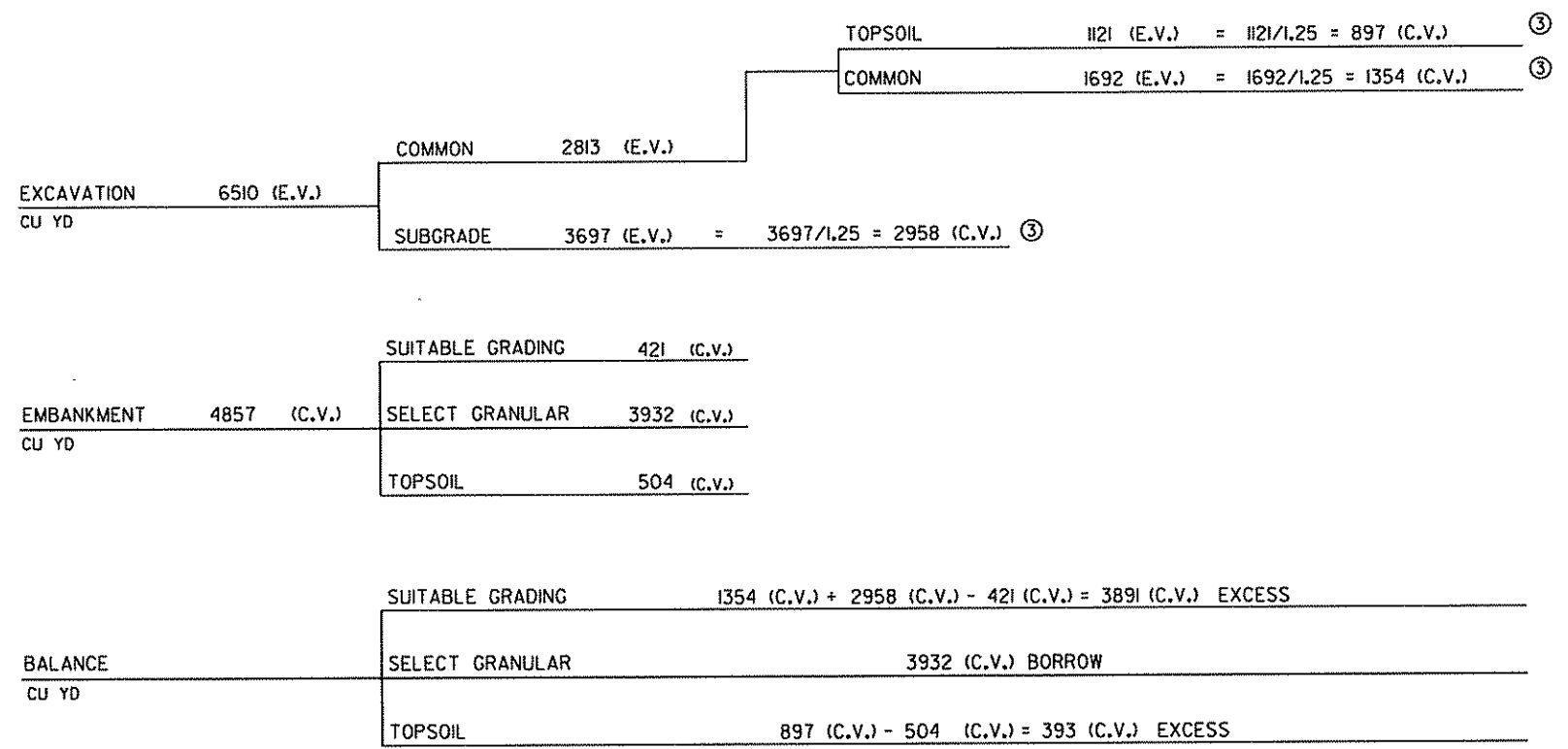
10:55:52 AM
03/28/2006

Default

w:\oe\anokc\010601\plans\ts\table\anokc010601.tbl.dgn

EARTHWORK QUANTITIES ②						
ALIGNMENT	EXCAVATION			EMBANKMENT		
	TOPSOIL ①	COMMON	SUBGRADE	SUITABLE GRADING	SELECT GRANULAR	TOPSOIL
	CU YD	CU YD	CU YD	CU YD	CU YD	CU YD
LAKE DR. NE (HWY 35W OFF RAMP) (LEFT TURN LANE)	143	3	162	35	188	54
LAKE DR. NE (HWY 35W OFF RAMP) (RIGHT TURN LANE)	156	10	160	59	202	72
LAKE DR. SW (CSAH 23)	303	1117	2161	103	2208	203
NAPLES ST. NE (CSAH 23)	206	150	538	182	643	96
NAPLES ST. NE (CR 105)	④ 313	412	676	42	691	78
TOTALS	1121	1692	3697	421	3932	504

EARTHWORK BALANCE



- NOTES:
- ① TOPSOIL STRIPPING INCLUDED IN THE COMMON EXCAVATION PAY QUANTITY.
 - ② ALL EXCESS MATERIAL IS PROPERTY OF THE CONTRACTOR.
 - ③ ASSUMES 125% SHRINKAGE FACTOR.
 - ④ INCLUDES 1-3 FOOT DEEP TOPSOIL BETWEEN STATION 12+00 TO 13+00

DESIGN TEAM	NO.	BY	DATE	REVISIONS
DRAWN BY: JMT				
DESIGNER: HLR				
CHECKED BY: APM				

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.

Certified By: *Susan M. Mason* Lic. No. 18612
 Printed Name: SUSAN M. MASON Date: 03/28/2006



ANOKA COUNTY, MINNESOTA
**INTERSECTION IMPROVEMENTS:
 CSAH 23 @ INTERSTATE HIGHWAY 35W**

**EARTHWORK TABULATION
 AND SUMMARY**

STATE PROJECT NO. 02-623-014, STATE PROJECT NO. 0280-56

FILE NO. ANOKC0106.01	6
DATE 03/28/2006	57

INPLACE PUBLIC UTILITIES TABULATION			
POWER/ELECTRIC - MNDOT			
STATION TO STATION	OFFSET	ITEM	REMARKS
LAKE DRIVE SW (C.S.A.H. 23)			
0+00 - 1+39	8' LT - 6' LT	P-BUR	LEAVE AS IS
2+11	8' LT	LIGHT	LEAVE AS IS
1+39 - 3+30	6' LT - 10' LT	P-BUR	LEAVE AS IS
3+30 - 4+18	10' LT - 11' LT	P-BUR	LEAVE AS IS
4+18 - 4+65	11' LT - 24' LT	P-BUR	LEAVE AS IS
4+65 - 4+74	24' LT - 29' LT	P-BUR	LEAVE AS IS
4+69	18' LT	LIGHT	SALVAGE ①
4+69 - 4+84	18' LT - 30' LT	P-OH	ADJUST AS NEEDED
4+74 - 5+17	29' LT - 73' LT	P-BUR	ADJUST AS NEEDED
4+84 - 5+17	30' LT - 73' LT	P-OH	ADJUST AS NEEDED
5+17 - 5+46	73' LT - 52' LT	P-BUR	ADJUST AS NEEDED
5+46 - 7+32	52' LT - 48' LT	P-BUR	ADJUST AS NEEDED
5+46 - 6+83	52' LT - 16' LT	P-OH	ADJUST AS NEEDED
6+30	45' LT	LIGHTING	SERVICE CABINET
6+83 - 7+32	16' LT - 46' LT	P-OH	ADJUST AS NEEDED
6+93	16' LT - 78' RT	P-BUR	ADJUST AS NEEDED
6+93 - 4+74	78' RT - 106' RT	P-OH	ADJUST AS NEEDED
6+83 - 7+96	16' LT - 14' LT	P-OH	LEAVE AS IS ①
6+83	10' LT	LIGHT	SALVAGE
7+32	48' LT	BOX	LEAVE AS IS ①
7+96	10' LT	LIGHT	SALVAGE
10+25	11' LT	LIGHT	ADJUST AS NEEDED
LAKE DRIVE NE			
5+75	27' RT	LIGHT	SALVAGE
6+44	24' RT	HH	ADJUST AS NEEDED

INPLACE PUBLIC UTILITIES TABULATION			
POWER/ELECTRIC - XCEL ENERGY			
STATION TO STATION	OFFSET	ITEM	REMARKS
LAKE DRIVE SW (C.S.A.H. 23)			
5+76 - 7+45	67' LT - 64' LT	PP/P-OH	ADJUST AS NEEDED
7+45 - 9+03	64' LT - 60' LT	PP/P-OH	LEAVE AS IS
6+83 - 7+96	16' LT - 14' LT	P-OH	LEAVE AS IS
9+03 - 10+85	60' LT - 49' LT	PP/P-OH	LEAVE AS IS
10+85 - 12+64	49' LT - 55' LT	PP/GUY/P-OH	LEAVE AS IS
12+64 - 13+65	55' LT	PP/P-OH	LEAVE AS IS
13+65	55' LT	PP	LEAVE AS IS
NAPLES ST. NE			
0+20 - 2+20	30' LT - 46' LT	PP/P-OH	LEAVE AS IS
2+20 - 3+85	46' LT - 47' LT	PP/P-OH	LEAVE AS IS
3+85 - 6+22	47' LT - 45' LT	PP/P-OH	LEAVE AS IS
6+22 - 8+16	45' LT - 25' LT	PP/GUY/P-OH	LEAVE AS IS
8+16 - 11+68	25' LT - 26' LT	PP/GUY/P-OH	LEAVE AS IS
11+68 - 12+65	26' LT	PP/GUY/P-OH	LEAVE AS IS
12+65 - 14+57	26' LT - 24' LT	PP/P-OH	LEAVE AS IS
14+57 - 16+52	24' LT - 27' LT	PP/P-OH	LEAVE AS IS
16+52 - 18+64	27' LT - 26' LT	PP/P-OH	LEAVE AS IS
18+64 - 18+80	26' LT - 23' LT	PP/P-OH	LEAVE AS IS
18+80 - 19+05	23' LT - 24' LT	PP/GUY/P-OH	LEAVE AS IS
19+05 - 19+27	24' LT	PP/P-OH	LEAVE AS IS
19+27	24' LT	PP	LEAVE AS IS
8+11 - 12+08	50' RT - 38' RT	PP/GUY/P-OH	ADJUST AS NEEDED
12+08	38' RT	PP	ADJUST AS NEEDED

① SALVAGE LIGHTING UNIT, DELIVER TO MNDOT.

INPLACE PUBLIC UTILITIES TABULATION			
GAS - CENTERPOINT ENERGY			
STATION TO STATION	OFFSET	ITEM	REMARKS
NAPLES ST. NE			
3+75 - 8+16	41' LT - 25' LT	GAS	LEAVE AS IS
8+16 - 8+77	25' LT - 39' LT	GAS	LEAVE AS IS
8+77 - 9+16	39' LT - 41' LT	GAS	LEAVE AS IS
9+16 - 9+98	41' LT - 53' LT	GAS	LEAVE AS IS
9+98 - 10+28	53' LT - 45' LT	GAS	LEAVE AS IS
10+28 - 10+44	45' LT - 44' LT	GAS	LEAVE AS IS
10+44 - 11+00	44' LT - 48' LT	GAS	LEAVE AS IS
11+00 - 11+07	48' LT - 45' LT	GAS	LEAVE AS IS
11+07 - 11+43	45' LT - 32' LT	GAS	LEAVE AS IS
11+43 - 11+69	32' LT - 28' LT	GAS	LEAVE AS IS
11+69 - 12+15	28' LT - 26' LT	GAS	LEAVE AS IS
12+15 - 13+66	26' LT - 29' LT	GAS	LEAVE AS IS

INPLACE PUBLIC UTILITIES TABULATION			
WATER/WATER MAIN - CITY OF BLAINE			
STATION TO STATION	OFFSET	ITEM	REMARKS
NAPLES ST. NE			
0+25 - 0+61	39' RT - 38' RT	WATER LINE/VALVE	LEAVE AS IS
0+51	54' RT	HYDRANT	LEAVE AS IS
0+61 - 4+89	38' RT	WATER LINE/VALVE	LEAVE AS IS
4+89 - 6+69	39' RT	WATER LINE/VALVE	ADJUST

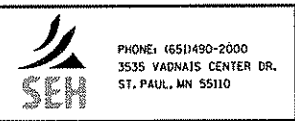
UTILITY WORK WILL BE PERFORMED BY OTHERS UNLESS NOTED OTHERWISE. UTILITY WORK APPLIES TO THE CONSTRUCTION/EXCAVATION AREA LIMITS ONLY.

THE SUBSURFACE UTILITY INFORMATION IN THIS PLAN IS UTILITY QUALITY LEVEL D. THIS UTILITY QUALITY LEVEL WAS DETERMINED ACCORDING TO THE GUIDELINES OF CI/ASCE 83-02, ENTITLED "STANDARD GUIDELINES FOR THE COLLECTIONS AND DEPICTION OF EXISTING SUBSURFACE UTILITY DATA."

DESIGN TEAM				
DRAWN BY:	JMT			
DESIGNER:	HLR			
CHECKED BY:	APM			
NO.	BY	DATE	REVISIONS	

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.

Certified By: *Susan M. Mason* Lic. No. 18612
 Printed Name: SUSAN M. MASON Date: 03/28/2006



ANOKA COUNTY, MINNESOTA
INTERSECTION IMPROVEMENTS:
CSAH 23 @ INTERSTATE HIGHWAY 35W

INPLACE UTILITY TABULATIONS

STATE PROJECT NO. 02-623-014, STATE PROJECT NO. 0280-56

FILE NO.	ANOKC0106.01	7
DATE	03/28/2006	57

INPLACE PUBLIC UTILITIES TABULATION			
STORM - CITY OF BLAINE			
STATION TO STATION	OFFSET	ITEM	REMARKS
NAPLES ST. NE			
0+15 - 1+25	43' RT - 44' RT	CULVERT	LEAVE AS IS
2+49 - 3+21	44' RT - 44' RT	CULVERT	LEAVE AS IS
3+63 - 4+85	50' LT - 53' LT	CULVERT	LEAVE AS IS
6+33 - 7+34	40' RT - 40' RT	CULVERT	REMOVE ①
9+91	323' LT	CATCH BASIN	LEAVE AS IS
10+46	103' LT	CATCH BASIN	LEAVE AS IS
10+46 - 10+66	103' LT - 61' LT	STORM SEWER	LEAVE AS IS
10+66	61' LT	CATCH BASIN	LEAVE AS IS
10+66 - 11+16	131' RT - 91' RT	STORM SEWER	REMOVE ①
11+16	91' RT	MANHOLE	REMOVE ①③
10+81	65' RT	CATCH BASIN	REMOVE ①②
10+81 - 11+16	65' RT - 91' RT	STORM SEWER	REMOVE ①
11+16 - 11+37	91' RT - 32' LT	STORM SEWER	REMOVE ①
10+66 - 10+87	61' LT - 73' LT	STORM SEWER	LEAVE AS IS, CLEAN OUT ④
15+16 - 15+42	27' LT - 28' RT	CULVERT	LEAVE AS IS

INPLACE PUBLIC UTILITIES TABULATION			
TELEPHONE - QWEST			
STATION TO STATION	OFFSET	ITEM	REMARKS
NAPLES ST. NE			
1+16	27' RT	MANHOLE	ADJUST AS NEEDED
1+16 - 8+13	27' RT - 17' RT	T-BUR	ADJUST AS NEEDED
8+13 - 11+87	17' RT - 15' RT	T-BUR	ADJUST AS NEEDED
11+87	15' RT	MANHOLE	ADJUST AS NEEDED
11+87 - 11+95	15' RT	T-BUR	ADJUST AS NEEDED
11+95	15' RT	MANHOLE	ADJUST AS NEEDED
LAKE DRIVE SW (C.S.A.H. 23)			
5+43	62' LT	MANHOLE	ADJUST AS NEEDED
5+43 - 6+18	62' LT - 56' LT	T-BUR	ADJUST AS NEEDED
6+18	56' LT	MANHOLE	LEAVE AS IS
5+49 - 6+27	69' LT - 56' LT	T-BUR	ADJUST AS NEEDED
6+27	56' LT	MANHOLE	ADJUST AS NEEDED
6+27 - 10+87	56' LT - 72' LT	T-BUR	LEAVE AS IS
10+87 - 12+63	72' LT - 55' LT	T-BUR/PED	LEAVE AS IS
12+63 - 12+80	55' LT - 57' LT	PED	LEAVE AS IS
12+80	57' LT	MANHOLE	LEAVE AS IS
12+80 - 13+65	57' LT	T-BUR	LEAVE AS IS

INPLACE PUBLIC UTILITIES TABULATION			
SANITARY - CITY OF BLAINE			
STATION TO STATION	OFFSET	ITEM	REMARKS
NAPLES ST. NE			
0+53	60' RT	SAN MH	LEAVE AS IS
0+55	53' LT	SAN MH	LEAVE AS IS
LAKE DRIVE NE			
10+60	149' RT	SAN MH	LEAVE AS IS

INPLACE PUBLIC UTILITIES TABULATION			
TELEVISION - COMCAST			
STATION TO STATION	OFFSET	ITEM	REMARKS
NAPLES ST. NE			
11+13	38' LT	TV PED	LEAVE AS IS

- ① THESE ITEMS ARE ALSO SHOWN IN THE MISCELLANEOUS REMOVAL TAB.
- ② REMOVE DRAINAGE STRUCTURE AND RING CASTING.
- ③ REMOVE DRAINAGE STRUCTURE.
- ④ INCIDENTAL.

UTILITY WORK WILL BE PERFORMED BY OTHERS UNLESS NOTED OTHERWISE. UTILITY WORK APPLIES TO THE CONSTRUCTION/EXCAVATION AREA LIMITS ONLY.

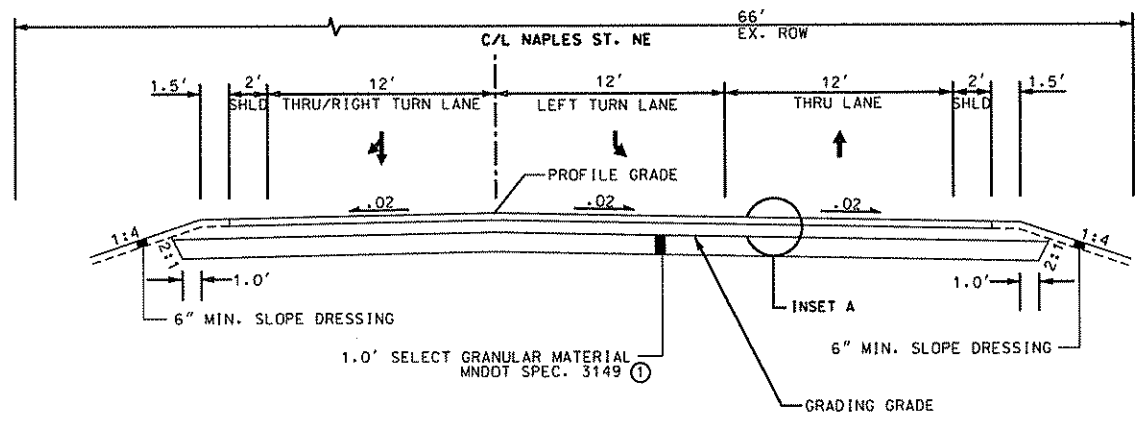
THE SUBSURFACE UTILITY INFORMATION IN THIS PLAN IS UTILITY QUALITY LEVEL D. THIS UTILITY QUALITY LEVEL WAS DETERMINED ACCORDING TO THE GUIDELINES OF CI/ASCE 83-02, ENTITLED "STANDARD GUIDELINES FOR THE COLLECTIONS AND DEPICTION OF EXISTING SUBSURFACE UTILITY DATA."

DESIGN TEAM		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. Certified By: <i>Susan M. Mason</i> Lic. No. 18612 Printed Name: SUSAN M. MASON Date: 03/28/2006	 PHONE: (651)490-2000 3535 VADNAIS CENTER DR. ST. PAUL, MN 55110	 ANOKA COUNTY, MINNESOTA INTERSECTION IMPROVEMENTS: CSAH 23 @ INTERSTATE HIGHWAY 35W	INPLACE UTILITY TABULATIONS STATE PROJECT NO. 02-623-014, STATE PROJECT NO. 0280-56	FILE NO.	8 57
DRAWN BY: JMT	ANOKC0106.01						
DESIGNER: HLR	DATE						
CHECKED BY: APM	03/28/2006						
NO.	BY	DATE	REVISIONS				

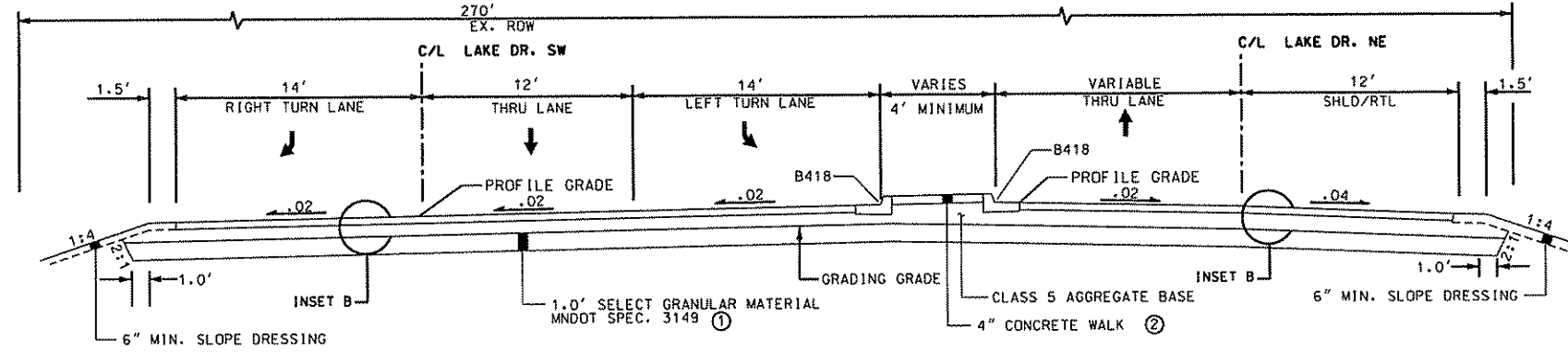
10:55:55 AM
03/28/2006

Default

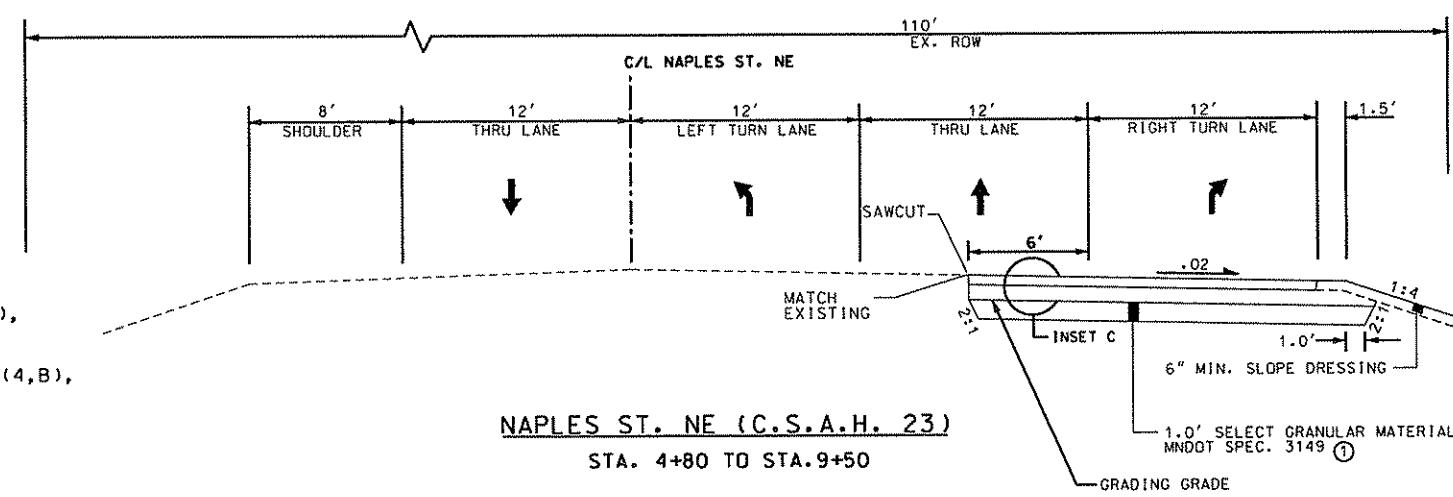
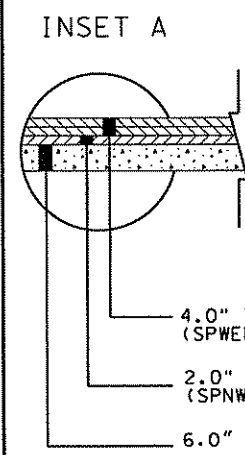
w:\aoc\anokc\010601\p1nshits\def\anokc010601_rsa.dgn



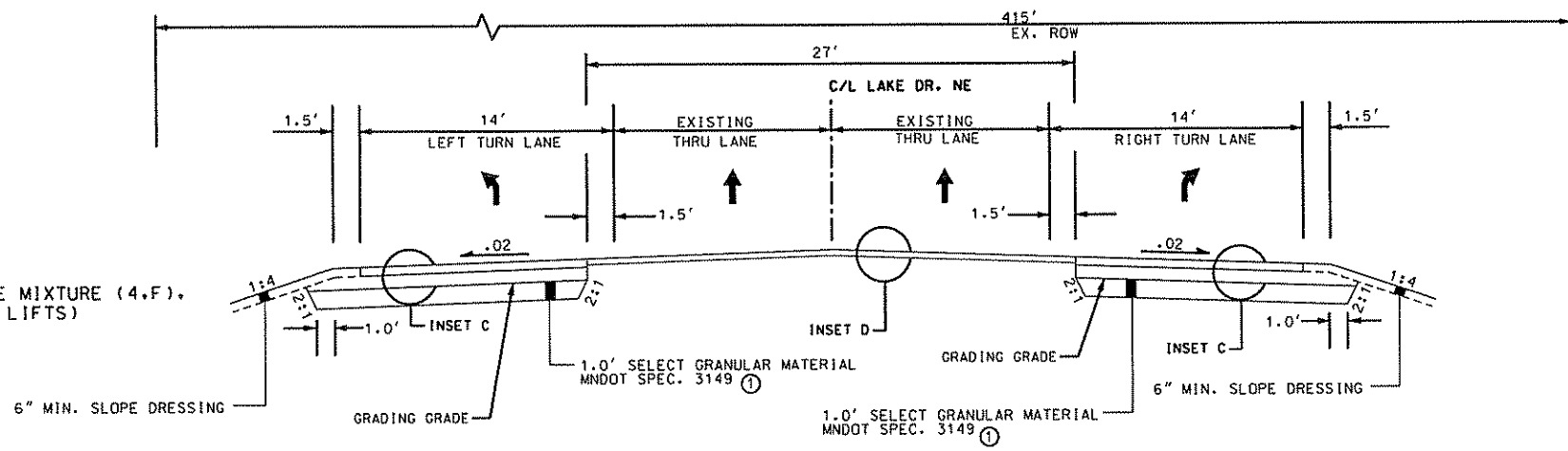
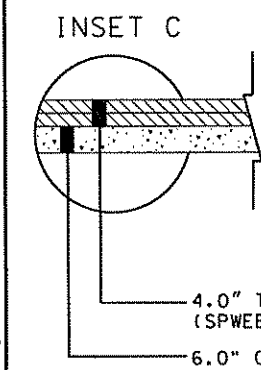
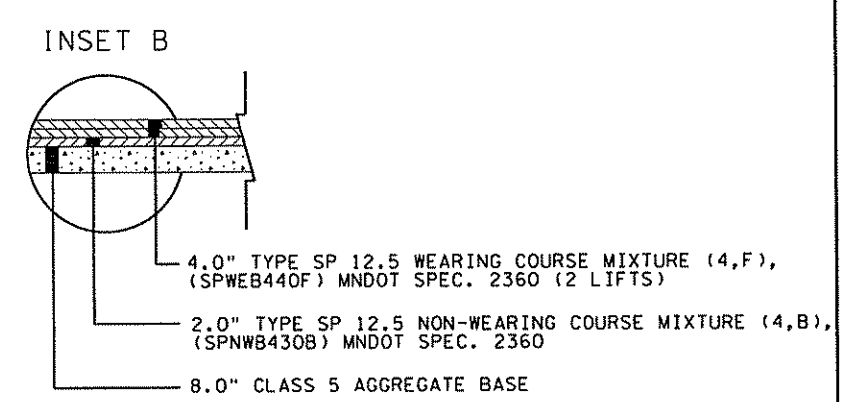
NAPLES ST. NE (C.R. 105)
STA. 11+18 TO STA. 15+10



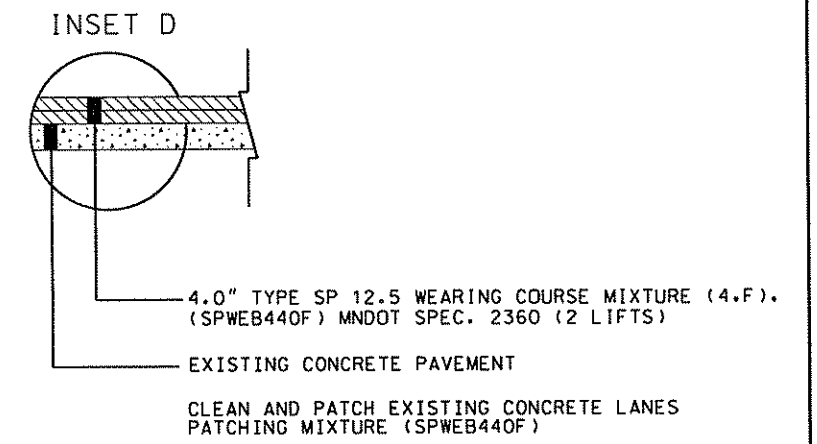
LAKE DR. (C.S.A.H. 23)
STA. 5+00 TO STA. 11+54



NAPLES ST. NE (C.S.A.H. 23)
STA. 4+80 TO STA. 9+50



LAKE DR. NE (INTERSTATE HWY 35W OFF RAMP)
STA. 0+26 TO STA. 5+00



GENERAL NOTES:

- ALL CROSS SLOPES ARE IN FT./FT.
- MAXIMUM ROLLOVER 0.07 FT./FT.
- UNLESS OTHERWISE SPECIFIED, THE GRADING GRADE CROSS SLOPES SHALL BE THE SAME AS THE FINISHED SURFACE.
- SEE CROSS SECTIONS FOR VARIABLE SIDE SLOPES AND SPECIFIC LIMITS OF SUBGRADE EXCAVATION.

NOTES:

- ① SEE PROFILES AND CROSS SECTIONS FOR LOCATION AND DEPTH OF SUBGRADE EXCAVATION REQUIRED. SUBCUT EXCAVATION IN CUT SECTIONS ONLY.
- ② LAKE DR. SW STA. 7+97 TO STA. 10+40

DESIGN TEAM				REVISIONS			
DRAWN BY:	JMT			NO.	BY	DATE	
DESIGNER:	HLR						
CHECKED BY:	APM						

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.
 Certified By: *Susan M. Mason* Lic. No. 18612
 Printed Name: SUSAN M. MASON Date: 03/28/2006

SEH
 PHONE: (651)490-2000
 3535 VADNAIS CENTER DR.
 ST. PAUL, MN 55110

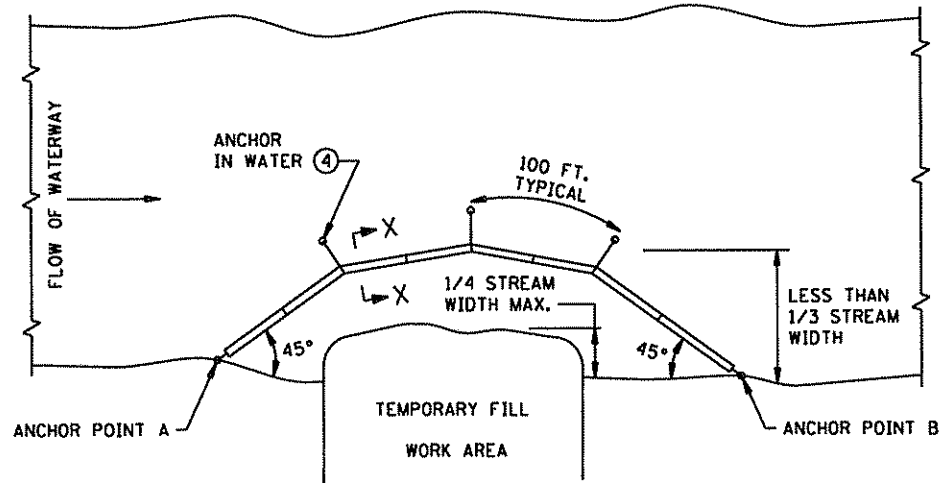


ANOKA COUNTY, MINNESOTA
**INTERSECTION IMPROVEMENTS:
 CSAH 23 @ INTERSTATE HIGHWAY 35W**

TYPICAL SECTIONS
 STATE PROJECT NO. 02-623-014, STATE PROJECT NO. 0280-56

FILE NO.	ANOKC0106.01
DATE	03/28/2006
9	57

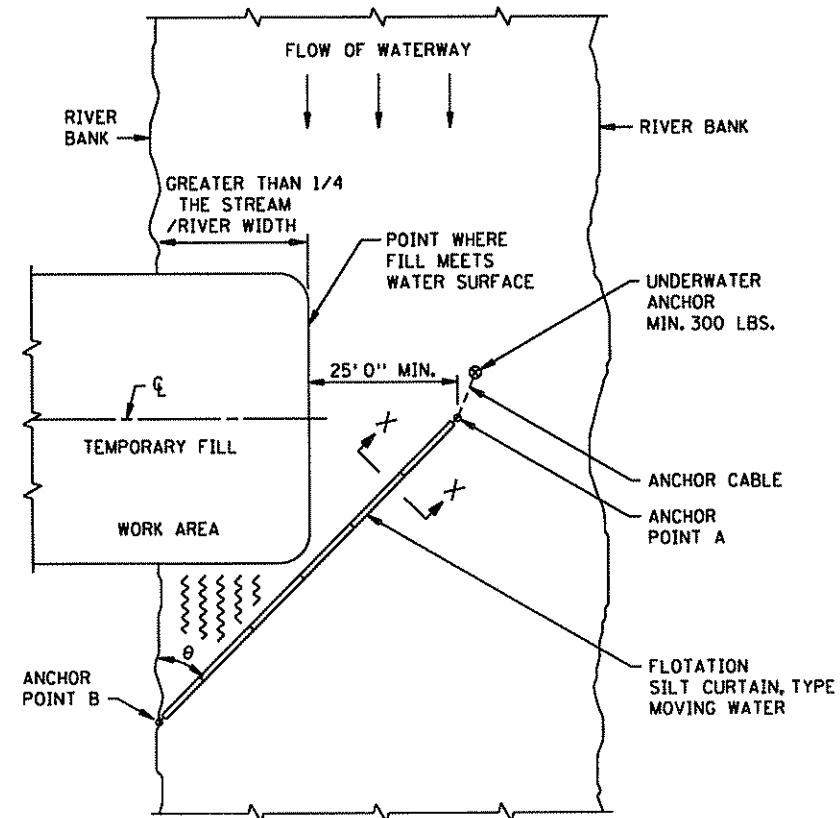
09:19:03 AM



PLAN VIEW
FLOTATION SILT CURTAIN - TYPE WORK AREA
 (SPEC. 3887)

FOR CONTAINING OVERFLOWS FROM WEIRS, STANDPIPES, SETTLING PONDS

DESIGN GUIDELINES:
 WHEN TEMPORARY FILL ENCLOSES LESS THAN 1/4 OF THE WIDTH OF STREAM.
 MAXIMUM WATER VELOCITY: 5 FT./SEC.
 MAXIMUM WATER DEPTH: 11 FT.



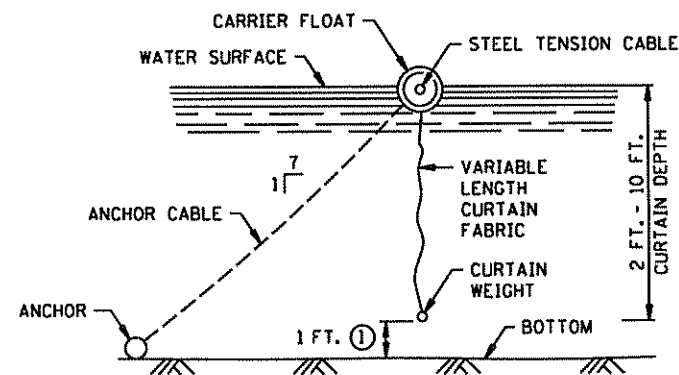
∠ θ	RIVER VELOCITY
45°	SLOW, LESS THAN 3 FT./SEC.
35°	MODERATE, 3 - 5 FT./SEC.

PLAN VIEW

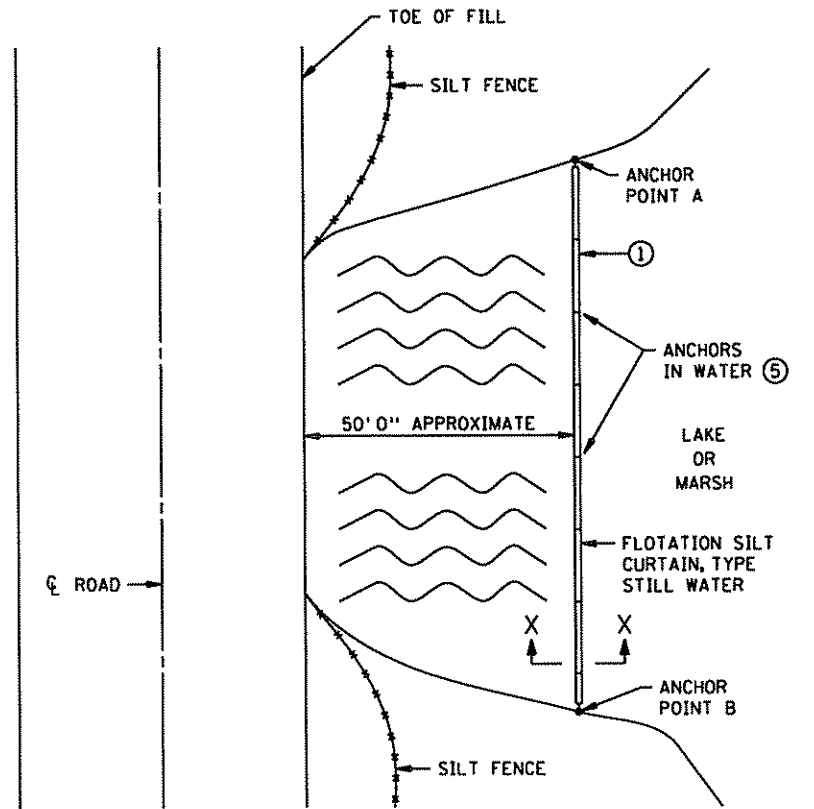
FLOTATION SILT CURTAIN - TYPE MOVING WATER
 (SPEC. 3887)

DESIGN GUIDELINES:

WHEN TEMPORARY FILL ENCLOSES MORE THAN 1/4 BUT LESS THAN 1/3 WIDTH OF THE STREAM.
 MAXIMUM WATER DEPTH: 11 FT. ①
 MINIMUM WATER DEPTH: 3 FT.
 MAXIMUM WATER VELOCITY: 5 FT./SEC.



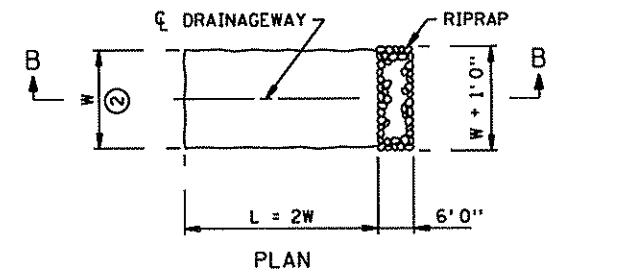
SECTION X-X
FLOTATION SILT CURTAINS
 (SPEC. 3887)



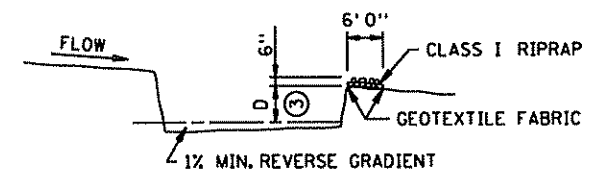
PLAN VIEW

FLOTATION SILT CURTAIN - TYPE STILL WATER
 (SPEC. 3887)

DESIGN GUIDELINES:
 MAXIMUM WATER DEPTH: 11 FT. ①
 MINIMUM WATER DEPTH: 3 FT.



PLAN

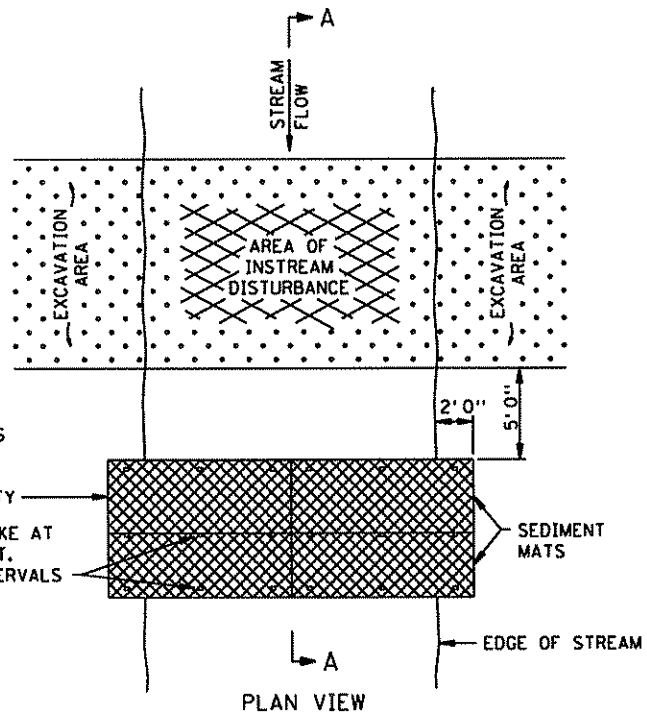


SECTION B-B
SEDIMENT TRAP DETAIL
 (SPEC. 2573)

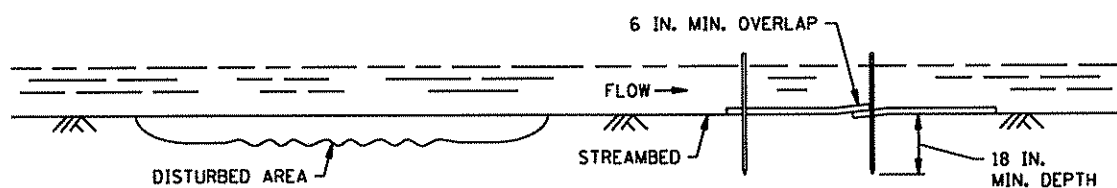
NOTES:

SEE SPECS. 2573, 3887 & 3894.

- ① CURTAIN 1 FT. FROM BOTTOM
- ② W = 10 FT. MIN., 20 FT. MAX.
- ③ D = 2 FT.
- ④ 100 FT. MAX. SPACING BETWEEN ANCHORS, MIN. 40 LBS.
- ⑤ USE ENOUGH ANCHORS TO HOLD SILT CURTAIN IN PLACE.



PLAN VIEW



SECTION A-A
SEDIMENT MAT
 (SPEC. 3894)

TYPICAL STREAMBED INSTALLATION

DESIGN GUIDELINES:
 MAXIMUM FLOW VELOCITY: 5 FT./SEC.
 MAXIMUM FLOW DEPTH: 2 FT.

STANDARD SHEET NO.
 5-297.405 (1 OF 4)
 STANDARD APPROVED:
 July 30, 2001

TITLE:
TEMPORARY EROSION CONTROL

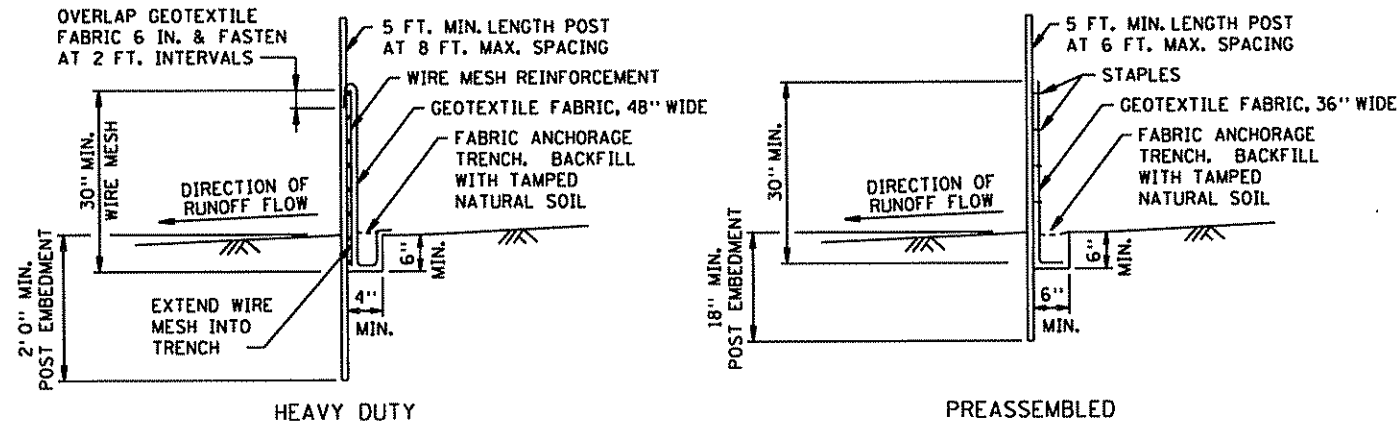
STATE PROJ. NO. 02-623-014

SHEET NO. 10 OF 57 SHEETS

03/09/2006

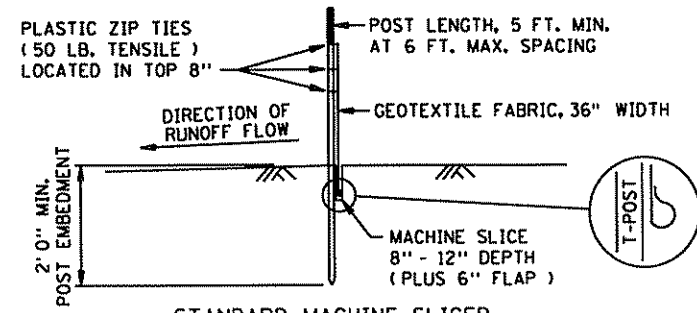
okc\010601\p\inshts\stdpin\s4051g01.spr

09:15:07 AM



HEAVY DUTY

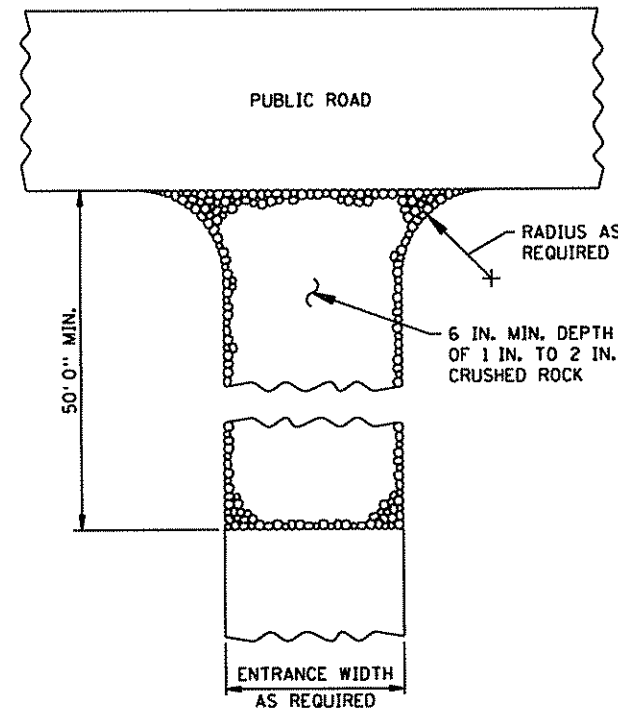
PREASSEMBLED



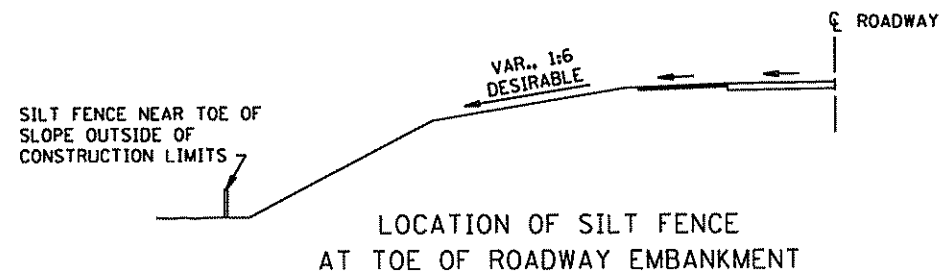
STANDARD MACHINE SLICED

DESIGN GUIDELINES:
MAXIMUM CONTRIBUTING AREA: 3 ACRES

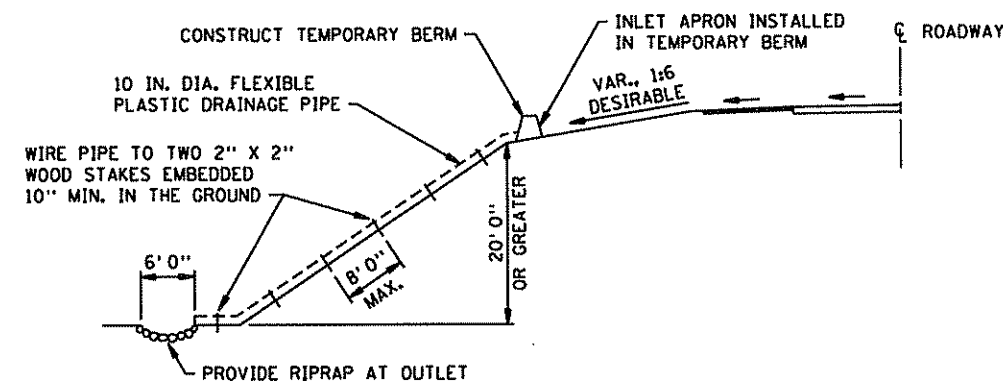
SILT FENCE DETAILS
TO PROTECT AREAS FROM SHEET FLOW
(SEE SPEC. 3886)



ROCK CONSTRUCTION ENTRANCE ①

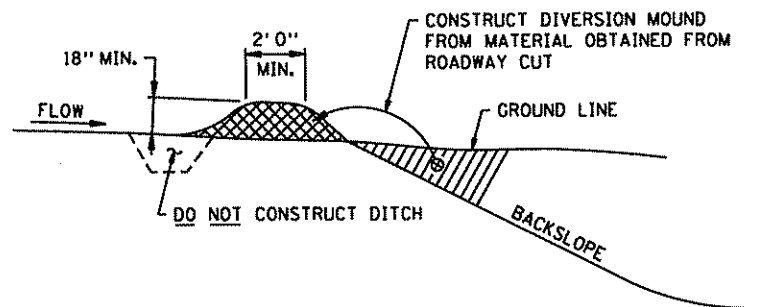


LOCATION OF SILT FENCE
AT TOE OF ROADWAY EMBANKMENT



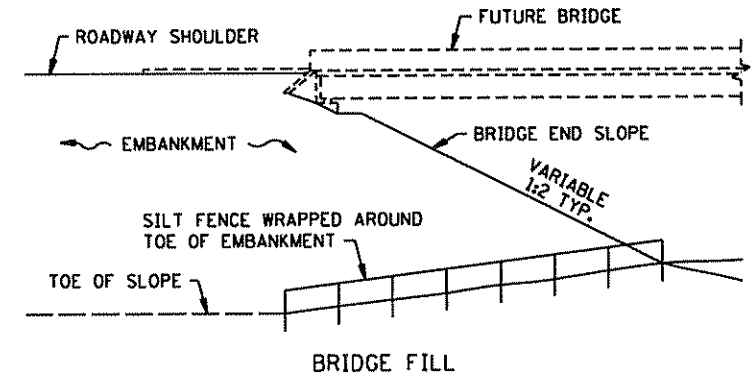
TEMPORARY DRAIN ON FILL SLOPE

DESIGN GUIDELINES:
STORM FREQUENCY: 2 YEAR - 24 HOUR
MAXIMUM DRAINAGE AREA: 3 ACRES

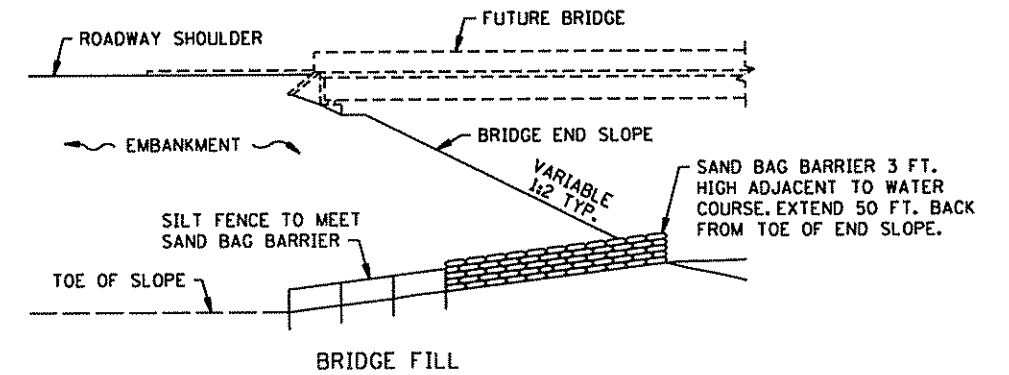


DIVERSION MOUND

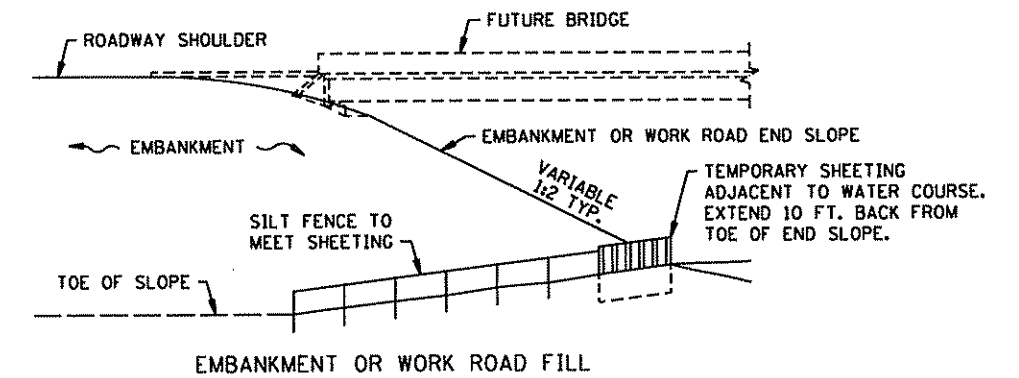
DESIGN GUIDELINES:
STORM FREQUENCY: 10 YEAR - 24 HOUR
MAXIMUM DRAINAGE AREA: 5 ACRES
MAXIMUM DIVERSION: GRADE 5%



DESIGN GUIDELINES:
WATER COURSE FLOW VELOCITY: STAGNANT
CONTRIBUTING SLOPE AREA: 1/2 ACRE



DESIGN GUIDELINES:
MAX. WATER COURSE FLOW VELOCITY: 7 FT./SEC.
CONTRIBUTING SLOPE AREA: 1 ACRE



DESIGN GUIDELINES:
MAX. WATER COURSE FLOW VELOCITY: 15 FT./SEC.
CONTRIBUTING SLOPE AREA: 3 ACRES

SILT FENCE AT BRIDGE EMBANKMENT

NOTES:

SEE SPECS. 2573 & 3886.

① ROCKS AT ENTRANCE CLEAN WORKSITE MUD OFF OF TRUCK TIRES BEFORE DRIVING ON MAIN ROAD. THIS WILL PREVENT AUTO DAMAGE. WE NEED TO KEEP CONSTRUCTION SEDIMENT OUT OF DRAINAGE SYSTEMS AND WETLANDS.

STANDARD SHEET NO. 5-297.405 (2 OF 4)	TITLE:
STANDARD APPROVED: JULY 30, 2001	TEMPORARY EROSION CONTROL

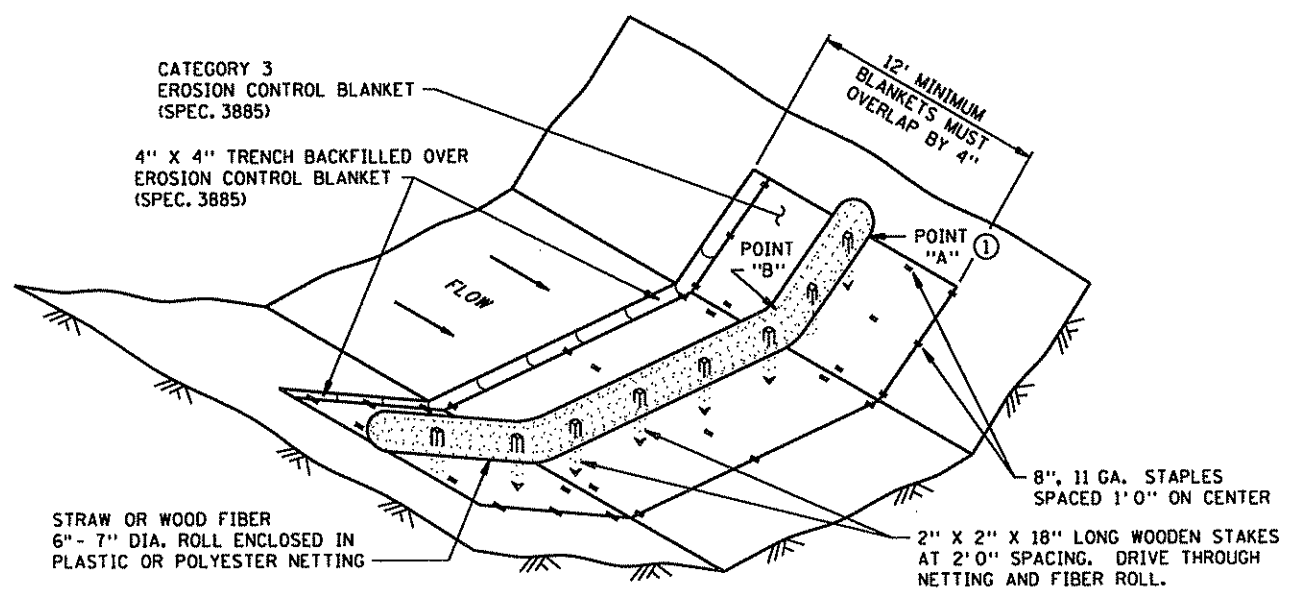
STATE PROJ. NO. 02-623-014

SHEET NO. 11 OF 57 SHEETS

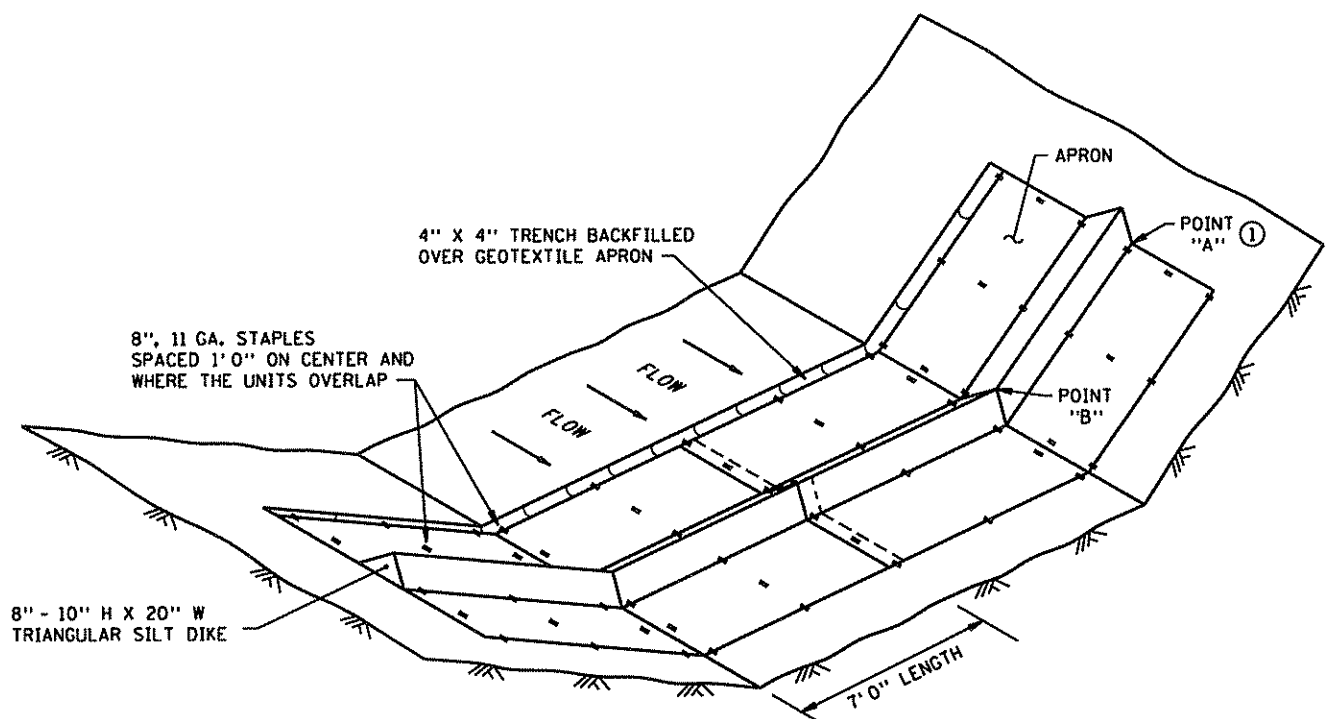
03/09/2006

gnokc\010601\pfrshfts\stfdp\m\4052g01.spn

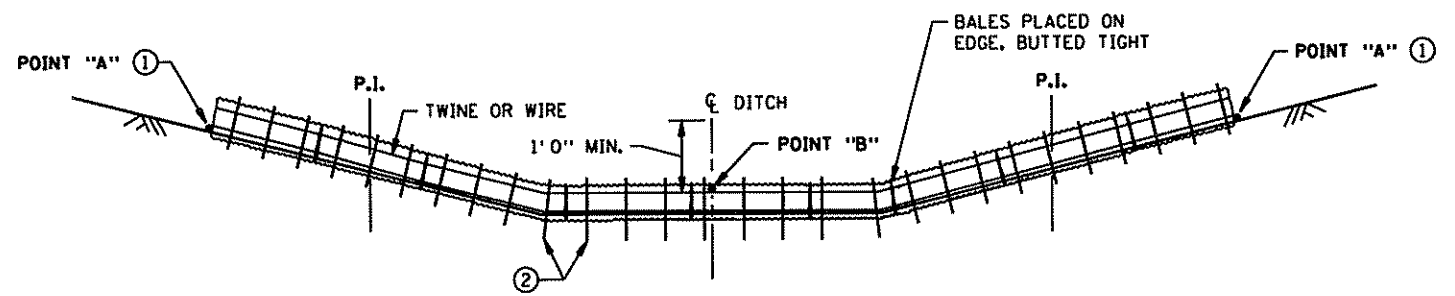
PLOTTED/REVISED: \$\$\$@DATE@\$\$\$\$
 \$\$\$@PATH@FILENAME@\$\$\$
 I PLOT NAME: \$\$\$@IPLLOTNAME\$\$\$
 PATH & FILE NAME:
 FILE NAME: S4053K02.SPN



BIOROLL BLANKET SYSTEM
(TYPE 3 SPEC. 3889)

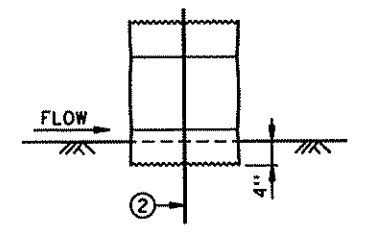


GEOTEXTILE TRIANGULAR DIKE
(TYPE 6 SPEC. 3889)

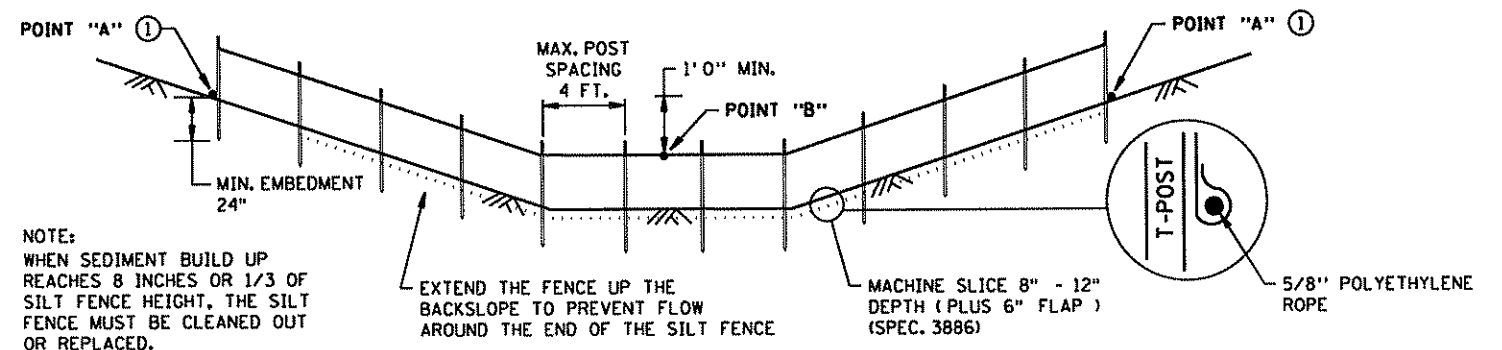


BALE DITCH CHECK

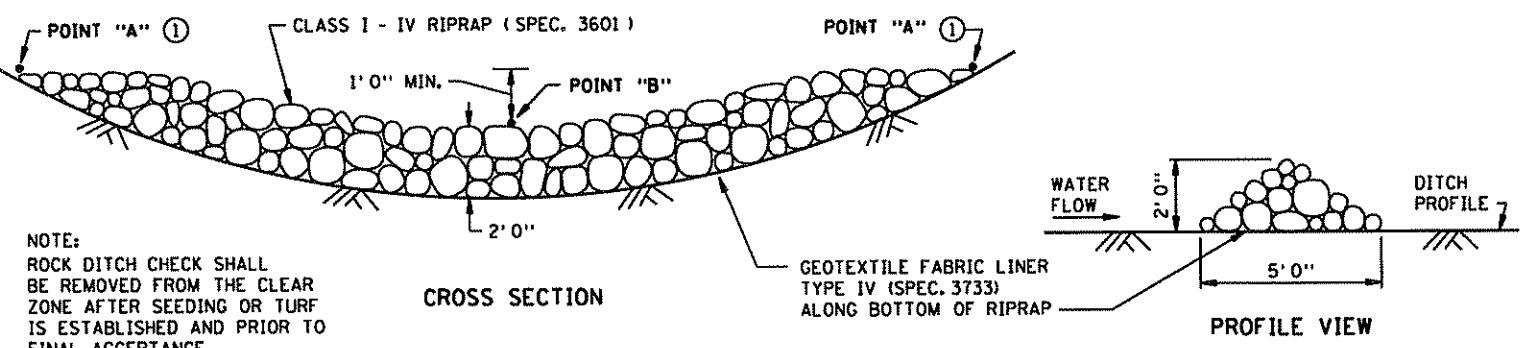
(USED ON ROUGH GRADED SOIL. REMOVE AFTER ROUGH GRADING IS COMPLETED. CAN BE USED AT WETLAND PERIMETERS ANYTIME)



**EMBEDMENT METHOD
BALE CHECK DETAIL**



MACHINE SLICED SILT FENCE
(TYPE 1 SPEC. 3889)



CROSS SECTION

PROFILE VIEW

ROCK CHECK
(TYPE 7 SPEC. 3889)

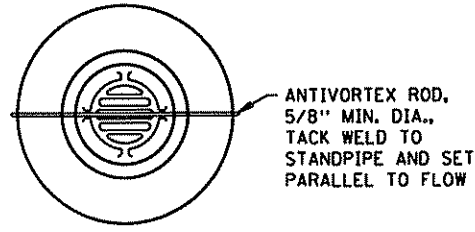
- NOTES:**
 SEE SPECS. 2573, 3882, 3885, 3886 & 3889.
 SPACING BETWEEN EACH DITCH CHECK SHOULD BE DETERMINED FROM SPACING FORMULA:

$$\text{SPACING OF DITCH CHECKS (FT)} = \left(\frac{\text{HEIGHT OF DITCH CHECK (FT)} \times 100}{\text{DITCH GRADE IN PERCENT}} \right)$$

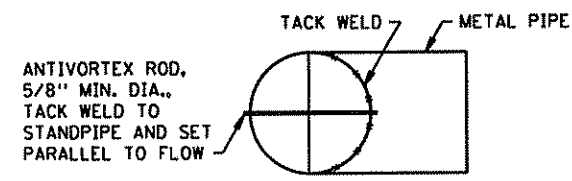
 ① POINT A MUST BE 1'0" MIN. HIGHER THAN POINT B TO ENSURE THAT WATER FLOWS OVER THE DIKE AND NOT AROUND THE ENDS.
 ② TWO 2 IN. X 2 IN. WOOD STAKES OR REINFORCING BARS IN EACH BALE AND EMBEDDED IN THE GROUND 10 IN. MINIMUM.

STANDARD SHEET NO. 5-297.405 (3 OF 4)	TITLE: TEMPORARY EROSION CONTROL DITCH CHECKS
STANDARD APPROVED: NOVEMBER 5, 2002	
STATE PROJ. NO. 02-623-014	
SHEET NO. 12 OF 57 SHEETS	

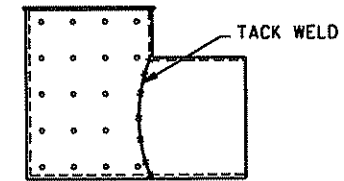
PLOTTED/REVISED: \$\$\$@DATE@\$\$\$
 \$\$\$@PATH@ILENAME@\$\$\$
 I PLOT NAME: \$\$\$@IPLOT#NAME@\$\$\$
 FILE NAME: S4054K02.SPN
 PATH & FILE NAME:



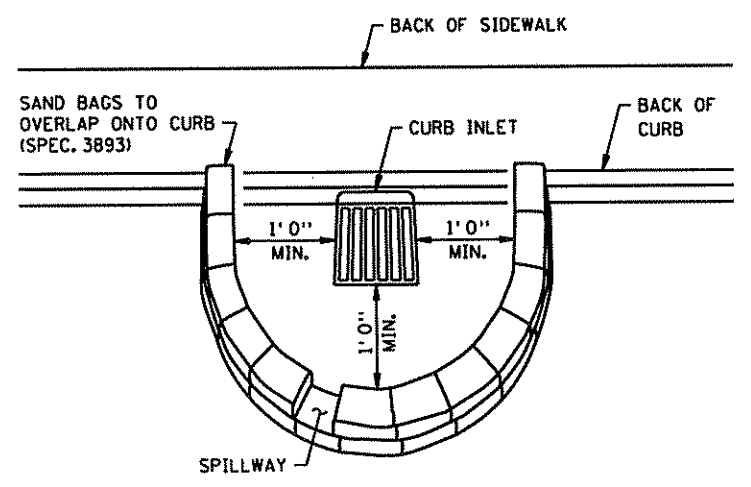
PLAN VIEW



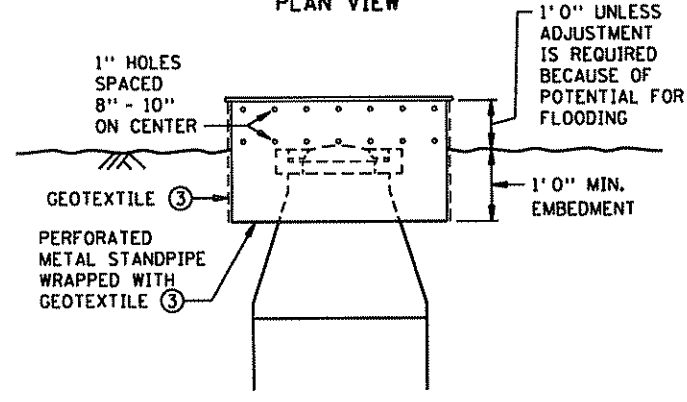
PLAN VIEW



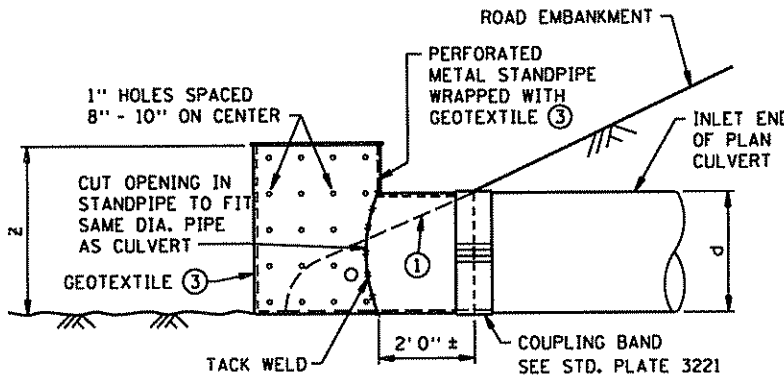
CULVERT STANDPIPE



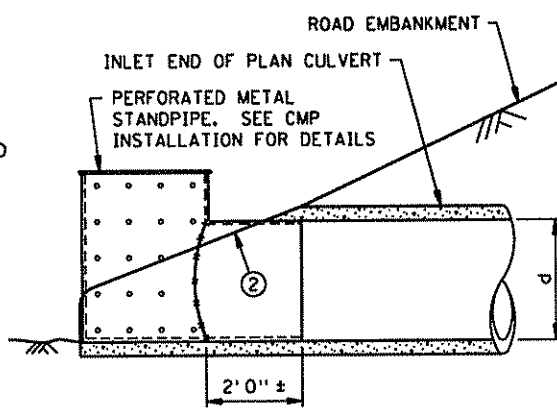
SANDBAG BARRIER AT STREET INLET
THIS INLET PROTECTION IS USED DURING ROUGH GRADING
ONLY. USE BEFORE ROAD IS OPEN TO TRAFFIC OR IS PAVED.
(SPEC. 3893)



ELEVATION
RISER STANDPIPE
TO PROTECT DROP INLET



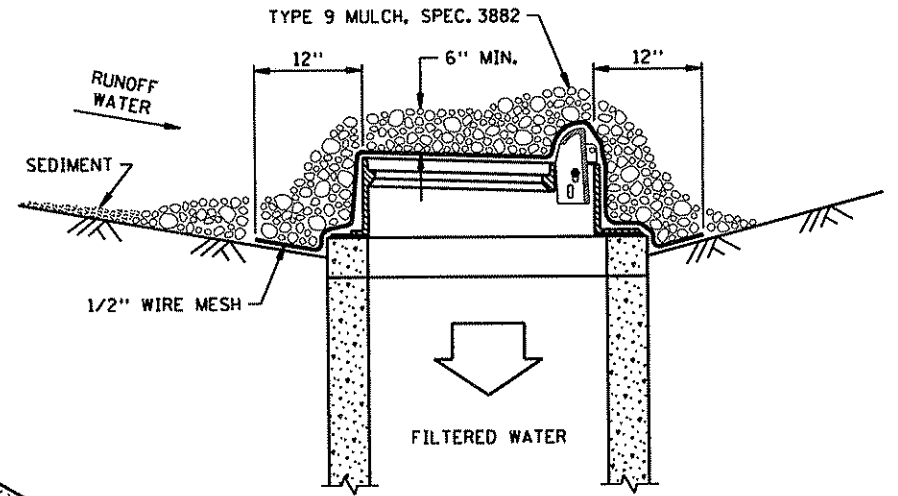
ELEVATION OF CSP INSTALLATION



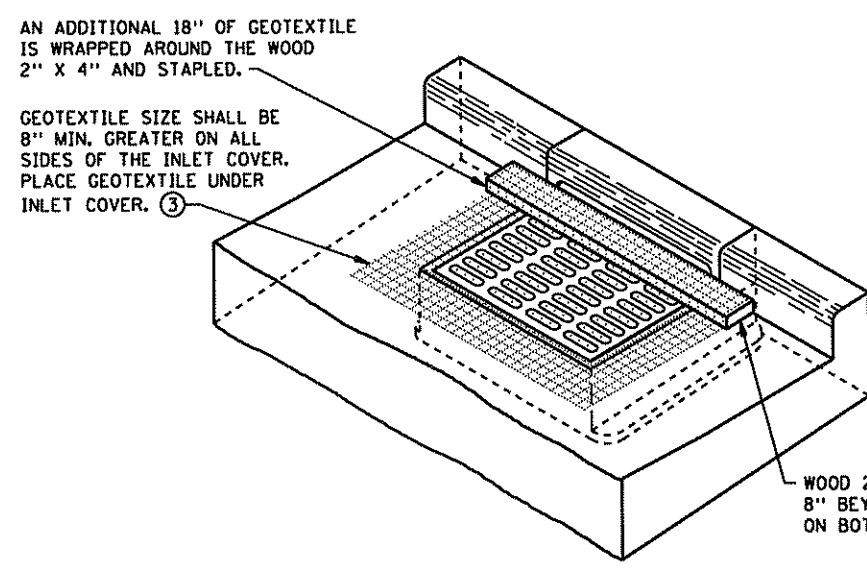
ELEVATION OF RCP INSTALLATION

CULVERT STANDPIPE PROTECTION

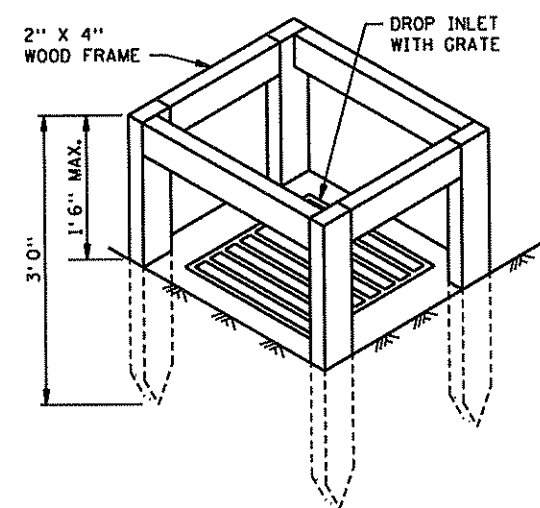
FOR SEDIMENT CONTROL ON CULVERT INLET
(TYPE D SPEC. 3891)
CULVERT SIZE: 12" - 36"
d = DIA. OF STANDPIPE EQUAL TO DIA. OF PLAN CULVERT
Z = LENGTH OF PERFORATED STANDPIPE (d + 12")



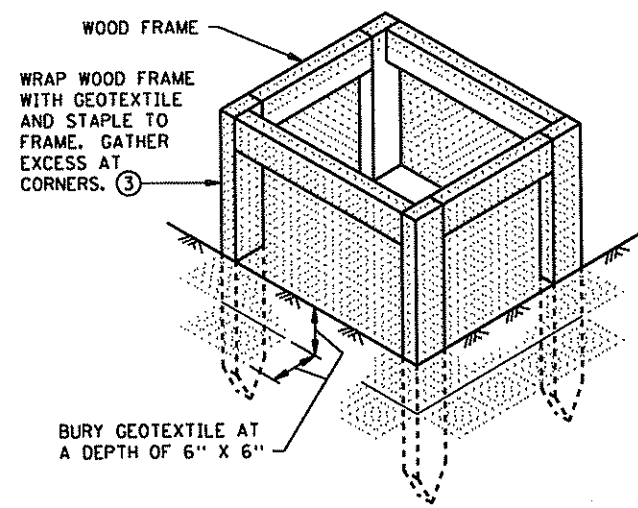
AGGREGATE FILTER AT CURB INLET
(TYPE B WITHOUT CURB SPEC. 3891)
(TYPE C WITH CURB SPEC. 3891)



GEOTEXTILE FILTER AT STREET INLET WITH CURB BOX
TYPE C SPEC. 3891



SILT FENCE BOX TO PROTECT DROP INLETS
USE WHERE INLET DRAINS AN AREA WITH SLOPES AT 1:3 OR LESS
(TYPE A SPEC. 3891)



- NOTES:**
SEE SPECS. 2573, 3891 & 3893.
MANUFACTURED ALTERNATIVES LISTED ON Mn/DOT'S
APPROVED PRODUCTS LIST MAY BE SUBSTITUTED.
- ① FOR CSP, REMOVE TEMPORARY STANDPIPE AND INSTALL
CULVERT APRON AFTER VEGETATION IS ESTABLISHED.
 - ② FOR RCP, INSTALL CULVERT APRON AND SLIDE
TEMPORARY STANDPIPE INTO RCP. AFTER VEGETATION
IS ESTABLISHED REMOVE TEMPORARY STANDPIPE.
 - ③ ALL GEOTEXTILE USED FOR INLET PROTECTION SHALL BE
MONOFILAMENT IN BOTH DIRECTIONS, MEETING SPEC. 3886
FOR MACHINE SLICED.

STANDARD SHEET NO. 5-297.405 (4 OF 4)	TITLE: TEMPORARY EROSION CONTROL TEMPORARY INLET PROTECTION
STANDARD APPROVED: NOVEMBER 5, 2002	
STATE PROJ. NO. 02-623-014	SHEET NO. 13 OF 57 SHEETS

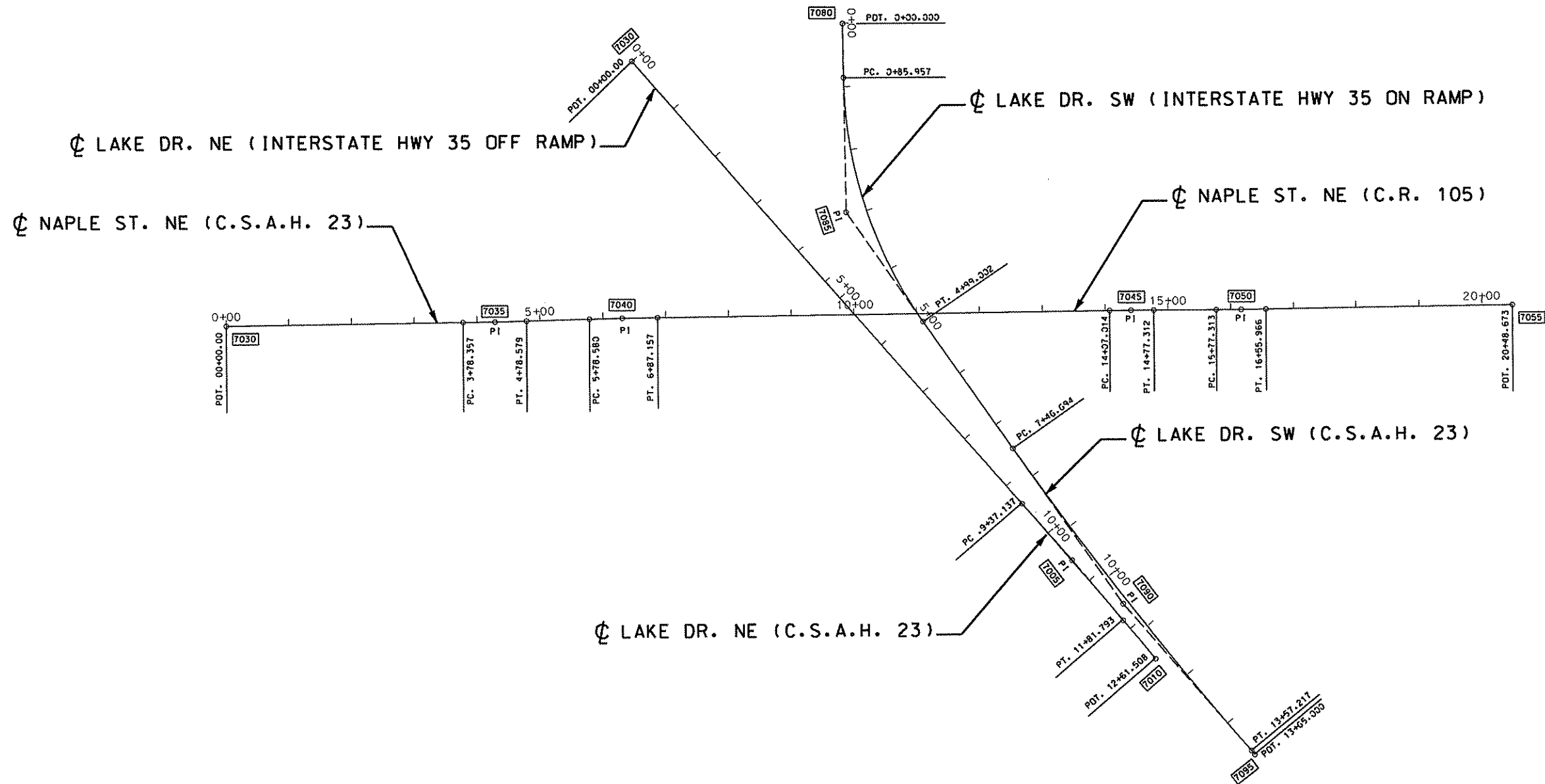
10:55:56 AM
03/28/2006

Default

w:\oe\anoka\010601\p1shh\rs\align\anoka010601.dwg

HORIZONTAL CONTROL: THE HORIZONTAL CONTROL SHOWN ON THIS PLAN IS ENGLISH IN NAD 83 COUNTY DATUM.


VERTICAL CONTROL: THE VERTICAL CONTROL SHOWN ON THIS PLAN IS ENGLISH IN NGVD 29 DATUM.



DESIGN TEAM			
DRAWN BY:	JMT		
DESIGNER:	HLR		
CHECKED BY:	APM		
NO.	BY	DATE	REVISIONS

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.

Certified By: *Susan M. Mason* Lic. No. 18612
 Printed Name: SUSAN M. MASON Date: 03/28/2006



PHONE: (651)490-2000
 3535 VADNAIS CENTER DR.
 ST. PAUL, MN 55110



ANOKA COUNTY, MINNESOTA
**INTERSECTION IMPROVEMENTS:
 CSAH 23 @ INTERSTATE HIGHWAY 35W**

ALIGNMENT PLAN

STATE PROJECT NO. 02-623-014, STATE PROJECT NO. 0280-56

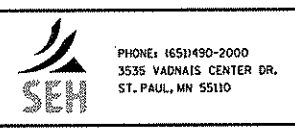
FILE NO. ANOKC0106.01	14
DATE 03/28/2006	57

ALIGNMENT TABULATION										K	
POINT NUMBER	POINT	STATION	CIRCULAR CURVE DATA					COORDINATES		BEARING	
			DELTA	DEGREE	RADIUS	TANGENT	LENGTH	X	Y		
NAPLES DR. NE (NAPLES)											
7030	POT	0+00.000							521,281.8006	133,093.3434	
	PC	3+78.357							521,278.3847	133,471.6851	N 0° 31' 02.24" W
7035	PI	4+28.469	0° 45' 06.15" LT	0° 45' 00.15"	7,639.000'	50.112'	100.222'		521,277.9323	133,521.7948	PI
	CC								513,639.6961	133,402.7182	
	PT	4+78.579							521,276.8225	133,571.8944	N 1° 16' 08.39" W
	PC	5+78.580							521,274.6079	133,671.8702	N 1° 16' 08.39" W
7040	PI	6+32.869	0° 48' 51.76" RT	0° 45' 00.15"	7,639.000'	54.290'	108.578'		521,273.4056	133,726.1466	PI
	CC								528,911.7343	133,841.0463	
	PT	6+87.157							521,272.9748	133,780.4346	N 0° 27' 16.63" W
	PC	14+07.014							521,267.2631	134,500.2692	N 0° 27' 16.63" W
7045	PI	14+42.164	0° 31' 38.15" RT	0° 45' 00.15"	7,639.000'	35.149'	70.298'		521,266.9842	134,535.4173	PI
	CC								528,906.0226	134,560.8809	
	PT	14+77.312							521,267.0288	134,570.5665	N 0° 04' 21.53" E
	PC	15+77.313							521,267.1555	134,670.5665	N 0° 04' 21.53" E
7050	PI	16+16.640	0° 35' 23.77" LT	0° 45' 00.15"	7,639.000'	39.327'	78.653'		521,267.2054	134,709.8936	PI
	CC								513,628.1617	134,680.2522	
	PT	16+55.966							521,266.8504	134,749.2191	N 0° 31' 02.24" W
7055	POT	20+48.673							521,263.3049	135,141.9097	
LAKE DR. N.E. (LAKENE)											
7000	POT	0+00.000							520,866.2100	133,743.2065	
	PC	9+37.137							521,573.7019	134,357.7639	N 49° 01' 15.74" E
7005	PI	10+59.469	1° 13' 23.86" RT	0° 30' 00.02"	11,459.000'	122.333'	244.656'		521,666.0569	134,437.9873	PI
	CC								529,088.3062	125,706.7869	
	PT	11+81.793							521,760.1035	134,516.2208	N 50° 14' 39.60" E
7010	POT	12+61.508							521,821.3870	134,567.2000	
LAKE DR. S.W. (LAKESW)											
7080	POT	0+00.000							520,808.6446	134,078.9926	
	PC	0+85.957							520,894.5968	134,079.9396	N 89° 22' 07.43" E
7085	PI	2+98.800	34° 06' 01.67" LT	8° 15' 21.15"	694.000'	212.843'	413.045'		521,107.4265	134,082.2846	PI
	CC								520,886.9507	134,773.8975	
	PT	4+99.002							521,282.3466	134,203.5485	N 55° 16' 05.76" E
	PC	7+46.694							521,485.9069	134,344.6672	N 55° 16' 05.76" E
7090	PI	10+52.245	6° 06' 17.20" LT	0° 59' 59.73"	5,730.000'	305.551'	610.523'		521,737.0171	134,518.7499	PI
	CC								518,221.3266	139,053.7451	
	PT	13+57.217							521,968.1901	134,718.5503	N 49° 09' 48.56" E
7095	POT	13+65.000							521,974.0786	134,723.6397	

DESIGN TEAM			
DRAWN BY:	JMT		
DESIGNER:	HLR		
CHECKED BY:	APM		
NO.	BY	DATE	REVISIONS

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.

Certified By: *Susan M. Mason* Lic. No. 18612
 Licensed Professional Engineer
 Printed Name: SUSAN M. MASON Date: 03/28/2006



ANOKA COUNTY, MINNESOTA
INTERSECTION IMPROVEMENTS:
CSAH 23 @ INTERSTATE HIGHWAY 35W

ALIGNMENT TABULATIONS

STATE PROJECT NO. 02-623-014, STATE PROJECT NO. 0280-56

FILE NO.	15
ANOKC0106.01	
DATE	03/28/2006
	57

10:55:59 AM
03/28/2006

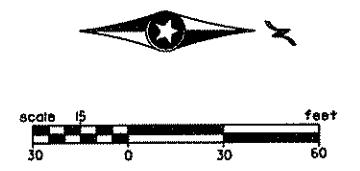
Default

W:\oe\anoka\010601\p1shst\removadis\anokc010601_rmc.dgn

LEGEND

- REMOVE CURB AND GUTTER
- REMOVE CONCRETE PAVEMENT
- REMOVE BITUMINOUS PAVEMENT
- REMOVE CONCRETE MEDIAN
- SAWCUT CONCRETE PAVEMENT (FULL DEPTH)
- SAWCUT BITUMINOUS PAVEMENT (FULL DEPTH)
- INPLACE ARMORED CABLE
- INPLACE RIGID STEEL CONDUIT
- INPLACE 200 WATT HPS LIGHTING UNIT
- LIGHTING UNIT NUMBER

BEGIN CONSTRUCTION
S.P. 0280-56
LAKE DR. NE
STA. 0+26.12



LAKE DR. NE (INTERSTATE HWY 35 OFF RAMP)

CONTRACTOR TO CLEAN AND PATCH EXISTING CONCRETE

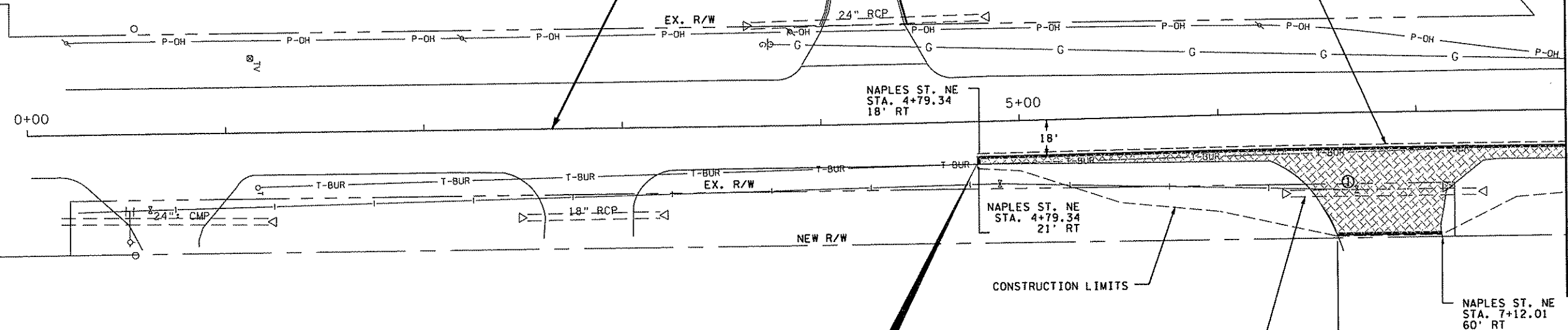
CONSTRUCTION LIMITS

CONSTRUCTION LIMITS

NAPLES ST. NE (C.S.A.H. 23)

CONSTRUCTION LIMITS

MATCHLINE STA. 7+75.74 NAPLES ST. NE



BEGIN CONSTRUCTION
S.P. 02-623-014
NAPLES ST. NE (C.S.A.H. 23)
STA. 4+79.34

REMOVE METAL CULVERT AND APRONS

NAPLES ST. NE
STA. 6+58.96
60' RT

NAPLES ST. NE
STA. 7+12.01
60' RT

NOTES:
① ADJUST VALVE.

DESIGN TEAM				
DRAWN BY:	JMT			
DESIGNER:	HLR			
CHECKED BY:	APM			
	NO.	BY	DATE	REVISIONS

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.
Certified By: *Susan M. Mason* Lic. No. 18612
Printed Name: SUSAN M. MASON Date: 03/28/2006

PHONE: (651)490-2000
3535 VADNAIS CENTER DR.
ST. PAUL, MN 55110



ANOKA COUNTY, MINNESOTA
**INTERSECTION IMPROVEMENTS:
CSAH 23 @ INTERSTATE HIGHWAY 35W**

**TOPOGRAPHY, UTILITY &
REMOVAL PLANS**
STATE PROJECT NO. 02-623-014, STATE PROJECT NO. 0280-56

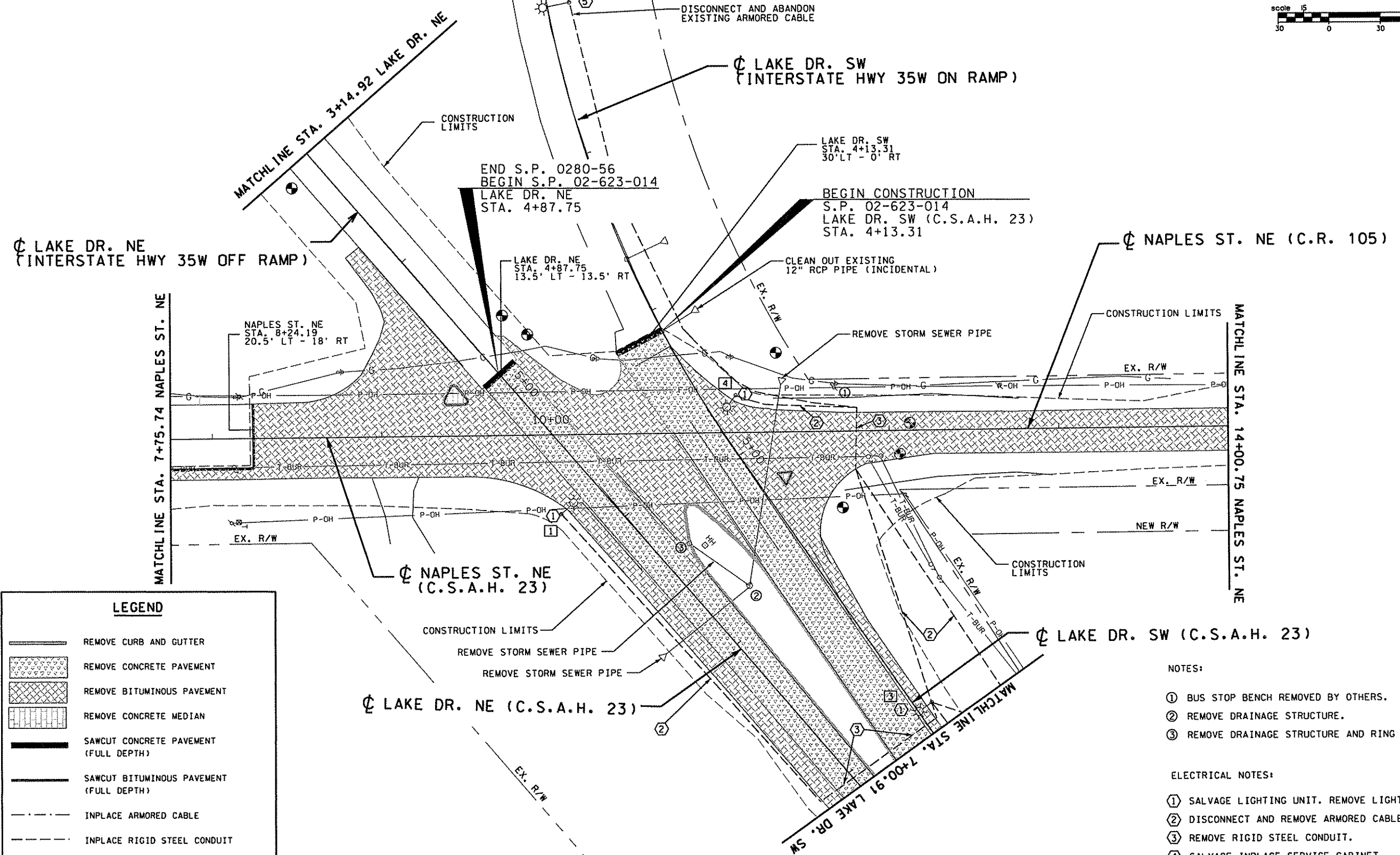
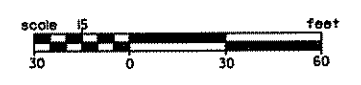
FILE NO.	16
ANOKC0106.01	
DATE	03/28/2006
	57

10:56:03 AM

03/28/2006

Default

w:\a06\anokc\010601\plans\sh\removals\anokc010601_rmb.dgn



LEGEND

	REMOVE CURB AND GUTTER
	REMOVE CONCRETE PAVEMENT
	REMOVE BITUMINOUS PAVEMENT
	REMOVE CONCRETE MEDIAN
	SAWCUT CONCRETE PAVEMENT (FULL DEPTH)
	SAWCUT BITUMINOUS PAVEMENT (FULL DEPTH)
	INPLACE ARMORED CABLE
	INPLACE RIGID STEEL CONDUIT
	INPLACE 200 WATT HPS LIGHTING UNIT
	LIGHTING UNIT NUMBER

- NOTES:**
- ① BUS STOP BENCH REMOVED BY OTHERS.
 - ② REMOVE DRAINAGE STRUCTURE.
 - ③ REMOVE DRAINAGE STRUCTURE AND RING CASTING.

- ELECTRICAL NOTES:**
- ① SALVAGE LIGHTING UNIT. REMOVE LIGHT STANDARD BASE.
 - ② DISCONNECT AND REMOVE ARMORED CABLE.
 - ③ REMOVE RIGID STEEL CONDUIT.
 - ④ SALVAGE INPLACE SERVICE CABINET.
 - ⑤ CONTRACTOR SHALL MAINTAIN LIGHTING OF LAKE DR. S.B. RAMP WITH TEMPORARY OVERHEAD CONDUCTORS.

DESIGN TEAM				
DRAWN BY:	JMT			
DESIGNER:	HLR			
CHECKED BY:	APM			
NO.	BY	DATE	REVISIONS	

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.

Certified By: *Susan M. Mason* Lic. No. 18612
 Printed Name: SUSAN M. MASON Date: 03/28/2006

SEH
 PHONE: 651/490-2000
 3535 YADNAIS CENTER DR.
 ST. PAUL, MN 55110



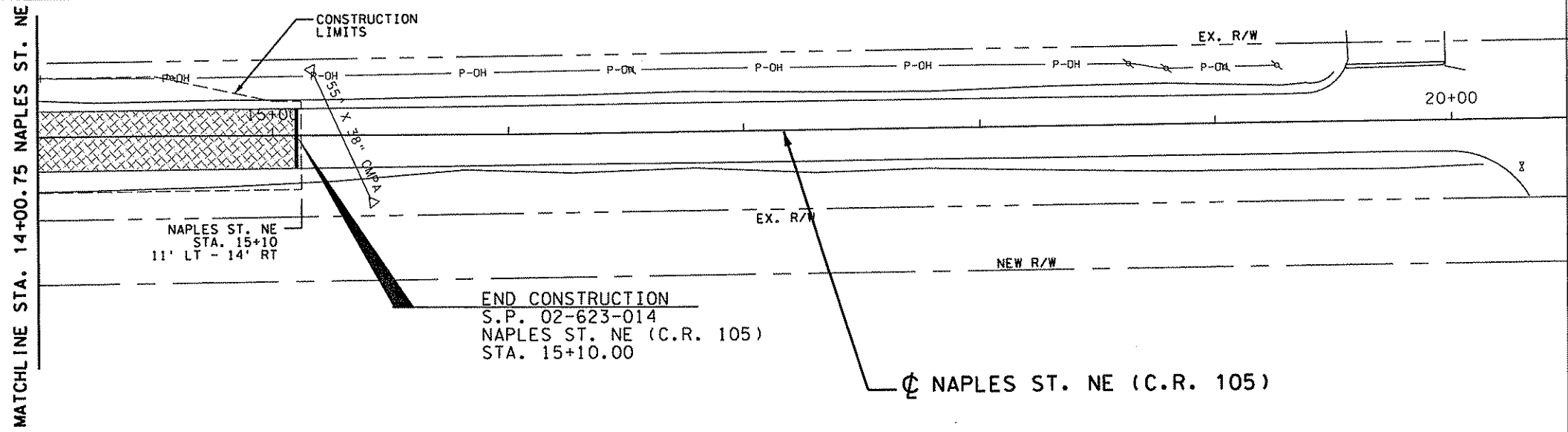
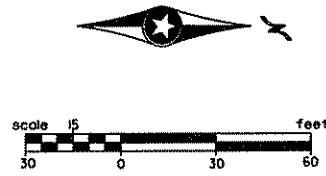
ANOKA COUNTY, MINNESOTA
**INTERSECTION IMPROVEMENTS:
 CSAH 23 @ INTERSTATE HIGHWAY 35W**

**TOPOGRAPHY, UTILITY &
 REMOVAL PLANS**

STATE PROJECT NO. 02-623-014, STATE PROJECT NO. 0280-56

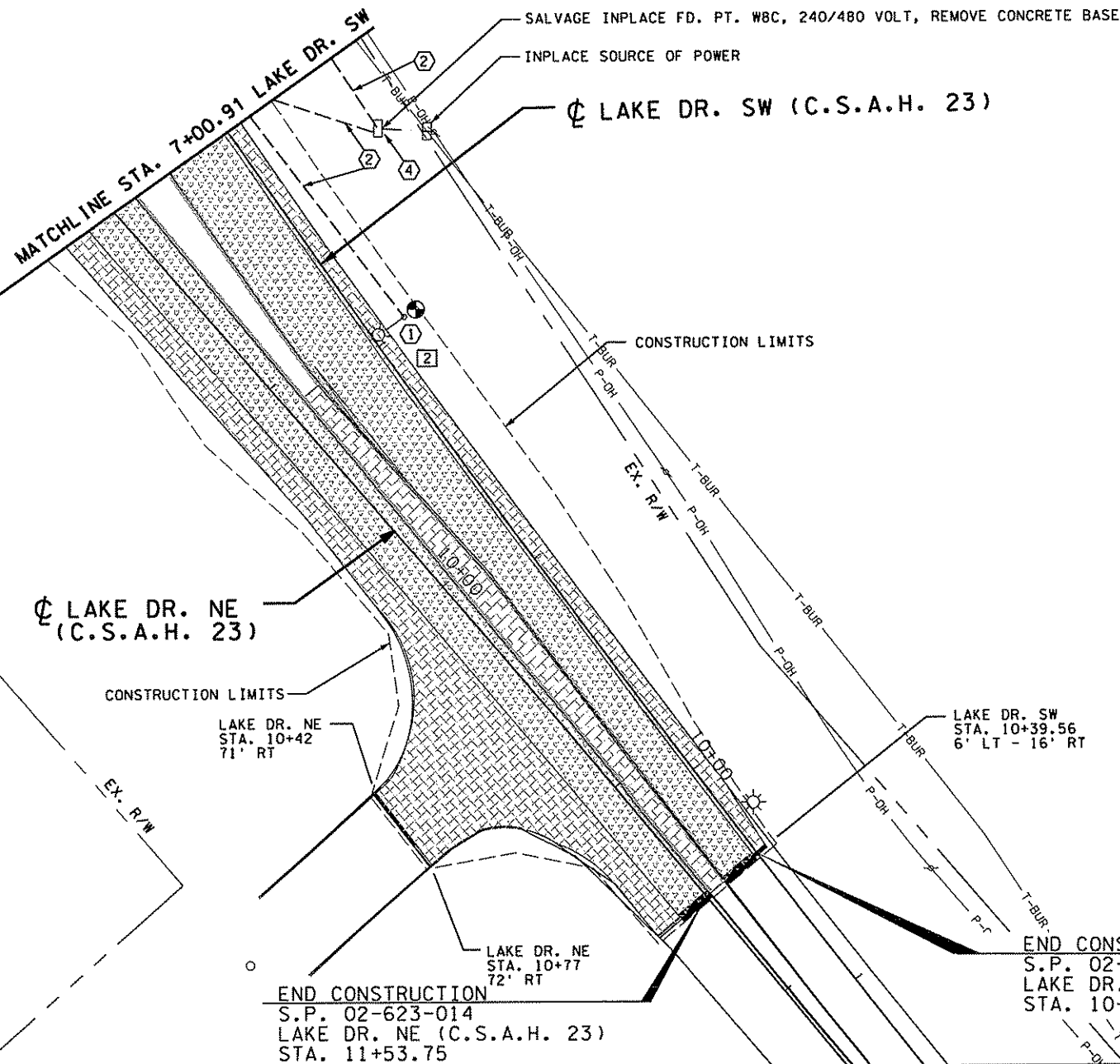
FILE NO.	ANOKC0106.01	17
DATE	03/28/2006	57

10:56:08 AM
03/28/2006



END CONSTRUCTION
S.P. 02-623-014
NAPLES ST. NE (C.R. 105)
STA. 15+10.00

☉ NAPLES ST. NE (C.R. 105)



☉ LAKE DR. SW (C.S.A.H. 23)

☉ LAKE DR. NE (C.S.A.H. 23)

END CONSTRUCTION
S.P. 02-623-014
LAKE DR. SW (C.S.A.H. 23)
STA. 10+39.56

LEGEND

- REMOVE CURB AND GUTTER
- REMOVE CONCRETE PAVEMENT
- REMOVE BITUMINOUS PAVEMENT
- REMOVE CONCRETE MEDIAN
- SAWCUT CONCRETE PAVEMENT (FULL DEPTH)
- SAWCUT BITUMINOUS PAVEMENT (FULL DEPTH)
- INPLACE ARMORED CABLE
- INPLACE RIGID STEEL CONDUIT
- INPLACE 200 WATT HPS LIGHTING UNIT
- LIGHTING UNIT NUMBER

- ELECTRICAL NOTES:**
- ① SALVAGE LIGHTING UNIT. REMOVE LIGHT STANDARD BASE.
 - ② DISCONNECT AND REMOVE ARMORED CABLE.
 - ③ REMOVE RIGID STEEL CONDUIT.
 - ④ SALVAGE INPLACE SERVICE CABINET.
 - ⑤ CONTRACTOR SHALL MAINTAIN LIGHTING OF LAKE DR. S.B. RAMP WITH TEMPORARY OVERHEAD CONDUCTORS.

DESIGN TEAM				
DRAWN BY:	JMT			
DESIGNER:	HLR			
CHECKED BY:	APM			
NO.	BY	DATE	REVISIONS	

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.

Certified By: *Susan M. Mason* Lic. No. 18612
Printed Name: SUSAN M. MASON Date: 03/28/2006

PHONE: (651)490-2000
3535 YADONIS CENTER DR.
ST. PAUL, MN 55110



ANOKA COUNTY, MINNESOTA
**INTERSECTION IMPROVEMENTS:
CSAH 23 @ INTERSTATE HIGHWAY 35W**



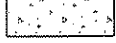

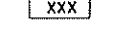


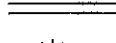

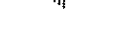
**TOPOGRAPHY, UTILITY &
REMOVAL PLANS**

STATE PROJECT NO. 02-623-014, STATE PROJECT NO. 0280-56

09:43:01 AM
04/24/2006

DETAIL POINTS				
POINT	ALIGNMENT NAME	STATION	OFFSET	ELEVATION
142	NAPLES ST. NE	8+00.00	18.00' RT	909.53
143	NAPLES ST. NE	8+00.00	36.00' RT	909.17
144	NAPLES ST. NE	7+50.00	18.00' RT	910.21
145	NAPLES ST. NE	7+50.00	36.00' RT	909.85
146	NAPLES ST. NE	7+00.00	18.00' RT	910.42
147	NAPLES ST. NE	7+00.00	60.61' RT	909.38
148	NAPLES ST. NE	6+50.00	18.00' RT	910.62
149	NAPLES ST. NE	6+50.00	49.55' RT	909.99
150	NAPLES ST. NE	6+00.00	18.00' RT	910.70
151	NAPLES ST. NE	6+00.00	34.99' RT	910.36
152	NAPLES ST. NE	5+50.00	18.00' RT	910.35
153	NAPLES ST. NE	5+50.00	29.31' RT	910.12
154	NAPLES ST. NE	4+79.34	18.00' RT	910.30
155	NAPLES ST. NE	4+79.33	21.23' RT	910.24
179	LAKE DR. NE	3+00.00	26.00' RT	907.14
180	LAKE DR. NE	3+00.00	13.50' RT	907.39
181	LAKE DR. NE	3+00.00	0.00	907.66
182	LAKE DR. NE	3+00.00	13.50' LT	907.39
183	LAKE DR. NE	3+00.00	26.00' RT	907.14
184	LAKE DR. NE	2+00.00	25.08' RT	906.89
185	LAKE DR. NE	2+00.00	13.50' RT	907.13
186	LAKE DR. NE	2+00.00	0.00	907.40
187	LAKE DR. NE	2+00.00	13.50' LT	907.13
188	LAKE DR. NE	2+00.00	25.09' LT	906.89
189	LAKE DR. NE	1+00.00	20.00' RT	906.65
190	LAKE DR. NE	1+00.00	13.50' RT	906.78
191	LAKE DR. NE	1+00.00	0.00	907.05
192	LAKE DR. NE	1+00.00	13.50' LT	906.78
193	LAKE DR. NE	1+00.00	20.00' LT	906.65
194	LAKE DR. NE	0+26.12	20.00' RT	905.93
195	LAKE DR. NE	0+26.12	13.50' RT	906.32
196	LAKE DR. NE	0+26.12	0.00	906.46
197	LAKE DR. NE	0+26.12	13.50' LT	906.32
198	LAKE DR. NE	0+26.12	20.00' RT	905.81

LEGEND ①

-  BITUMINOUS PAVEMENT INSET A
-  BITUMINOUS PAVEMENT INSET B
-  BITUMINOUS PAVEMENT INSET C
-  BITUMINOUS PAVEMENT INSET D
-  POINT NUMBER
-  INPLACE ARMORED CABLE
-  DIRECT BURIED ARMORED CABLE
4 CONDUCTOR NO. 4 AWG
-  3" RIGID STEEL CONDUIT
-  INSTALL SALVAGED LIGHTING UNIT
-  PERMANENT GROUND ROD
(25 OHMS OR LESS)

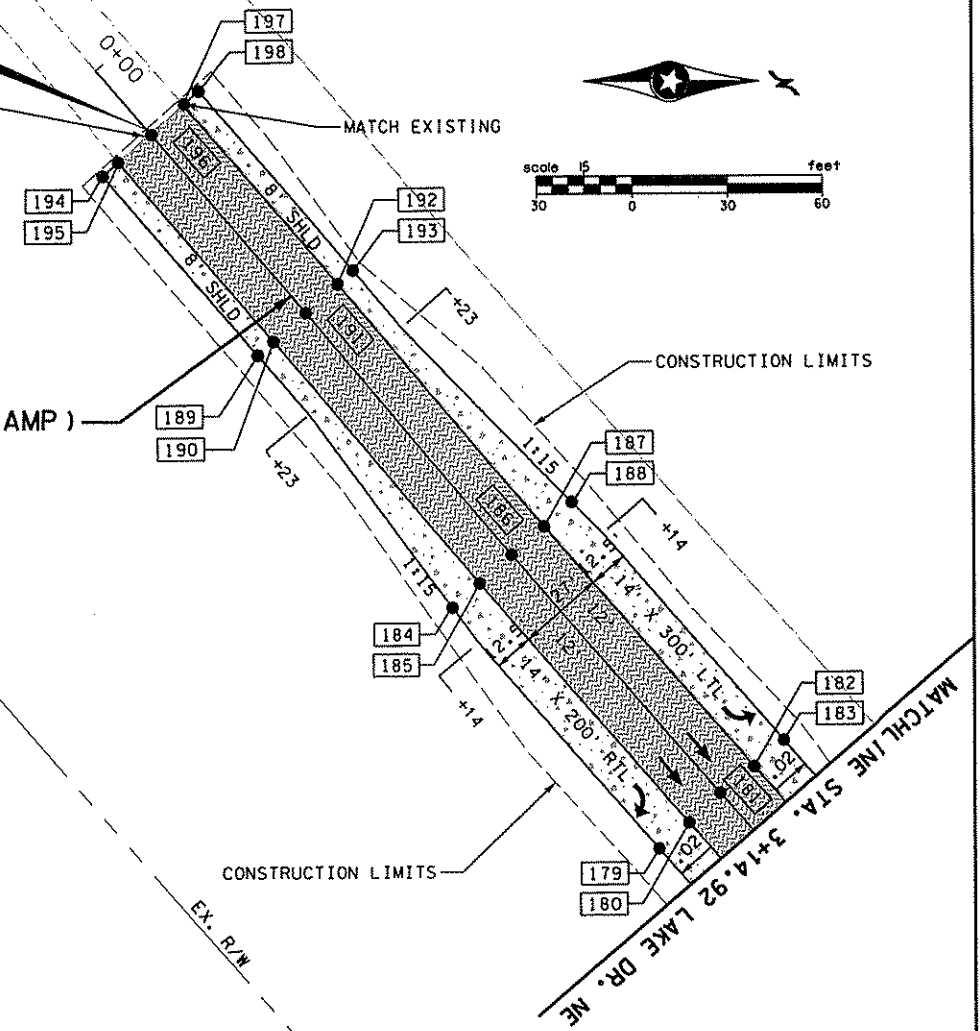
STREET RADII

	RADIUS	ALIGNMENT	STATION	LOCATION
A	50'	NAPLES ST. NE	6+15.47	86.0' RT
B	50'	NAPLES ST. NE	7+55.07	86.0' RT

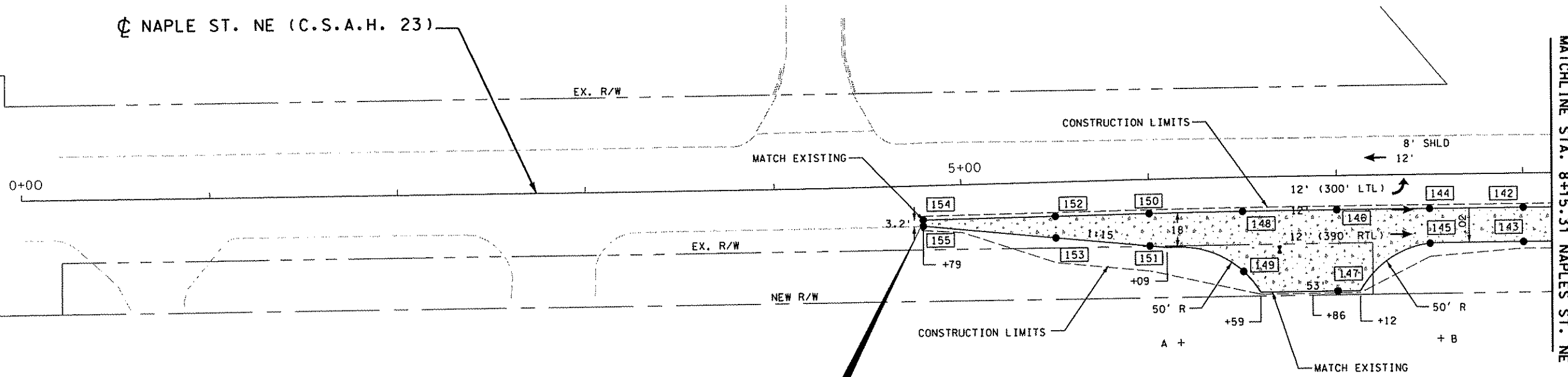
BEGIN CONSTRUCTION
S.P. 0280-56
LAKE DR. NE
STA. 0+26.12

LAKE DR. NE
(INTERSTATE HWY 35W OFF RAMP)

MATCH EXISTING
(SEE PROFILE FOR
OVERLAY DETAIL)



NAPLES ST. NE (C.S.A.H. 23)



BEGIN CONSTRUCTION
S.P. 02-623-014
NAPLES ST. NE (C.S.A.H. 23)
STA. 4+79.34

NOTES:
① SEE TYPICAL SECTIONS FOR BITUMINOUS PAVEMENT DESIGNS.

DESIGN TEAM			
DRAWN BY:	JMT		
DESIGNER:	HLR		
CHECKED BY:	APM		
NO.	BY	DATE	REVISIONS

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.
Certified By: *Susan M. Mason* Lic. No. 18612
Printed Name: SUSAN M. MASON Date: 04/24/2006

SEH
PHONE: (651)490-2000
3535 VADNAIS CENTER DR.
ST. PAUL, MN 55110





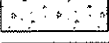

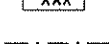





ANOKA COUNTY, MINNESOTA
**INTERSECTION IMPROVEMENTS:
CSAH 23 @ INTERSTATE HIGHWAY 35W**

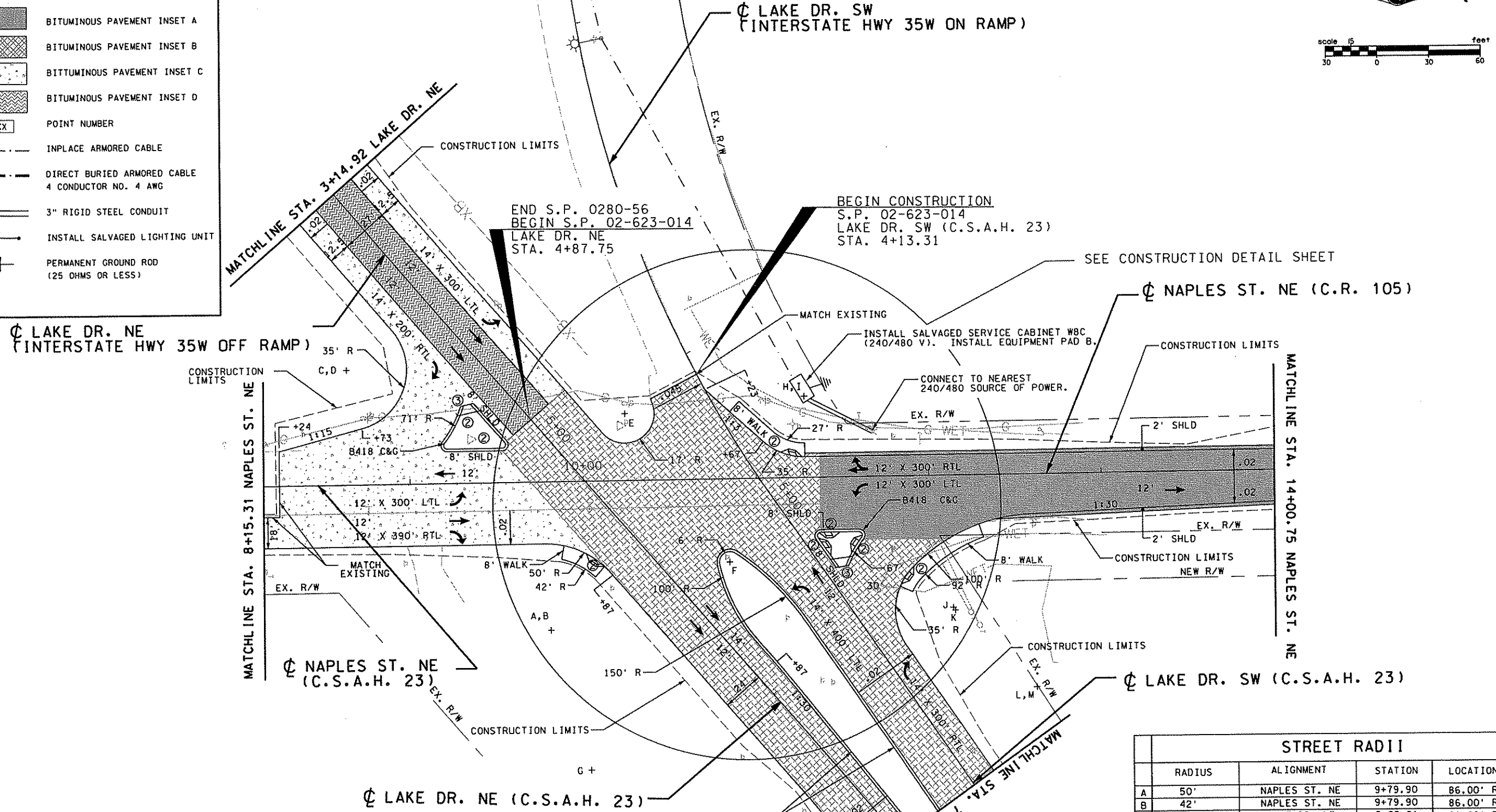
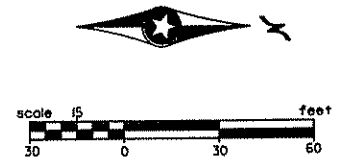
CONSTRUCTION PLANS
STATE PROJECT NO. 02-623-014, STATE PROJECT NO. 0280-56

FILE NO. ANOKC0106.01	19
DATE 04/24/2006	57

Default
w:\a\anokc\010601\p\insts\cp_anokc010601_cpa.dgn

LEGEND ①

-  BITUMINOUS PAVEMENT INSET A
-  BITUMINOUS PAVEMENT INSET B
-  BITUMINOUS PAVEMENT INSET C
-  BITUMINOUS PAVEMENT INSET D
-  POINT NUMBER
-  INPLACE ARMORED CABLE
-  DIRECT BURIED ARMORED CABLE
4 CONDUCTOR NO. 4 AWG
-  3" RIGID STEEL CONDUIT
-  INSTALL SALVAGED LIGHTING UNIT
-  PERMANENT GROUND ROD
(25 OHMS OR LESS)



ELECTRICAL NOTES

1. CONTRACTOR SHALL MAINTAIN LIGHTING OF LAKE DR. S.B. RAMP WITH TEMPORARY OVERHEAD CONDUCTORS.
2. PROVIDE TEMPORARY LIGHTING OF NAPLES ST./LAKE DR. INTERSECTION.
3. COORDINATE WITH XCEL ENERGY DESIGN ENGINEER B.J. GRANT AT 651-779-3135 TO PROVIDE NEW ELECTRIC SERVICE.
4. PROVIDE NECESSARY SERVICE EQUIPMENT TO PROVIDE COMPLETE OPERATIONAL SYSTEM.


NOTES:

- ① SEE TYPICAL SECTIONS FOR BITUMINOUS PAVEMENT DESIGNS.
- ② CONSTRUCT PEDESTRIAN RAMP PER MNDOT STD. PLATE 7036.
- ③ CONSTRUCT CONCRETE MEDIAN NOSE PER MNDOT STD. PLATE 7113.

STREET RADII			
RADIUS	ALIGNMENT	STATION	LOCATION
A	50'	NAPLES ST. NE	9+79.90 86.00' RT
B	42'	NAPLES ST. NE	9+79.90 86.00' RT
C	35'	LAKE DR. NE	3+95.91 61.00' RT
D	71'	LAKE DR. NE	3+95.91 61.00' RT
E	17'	LAKE DR. NE	5+21.29 43.00' RT
F	6'	LAKE DR. NE	6+26.16 31.75' LT
G	150'	LAKE DR. NE	6+62.74 107.52' RT
H	35'	LAKE DR. SW	4+56.83 47.24' LT
I	27'	LAKE DR. SW	4+56.83 47.24' LT
J	67'	LAKE DR. SW	6+09.78 49.00' RT
K	35'	LAKE DR. SW	6+11.79 49.00' RT
L	92'	LAKE DR. SW	6+75.38 62.00' RT
M	100'	LAKE DR. SW	6+75.38 62.00' RT

DESIGN TEAM	NO.	BY	DATE	REVISIONS
DRAWN BY: JMT				
DESIGNER: HLR				
CHECKED BY: APM				

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.

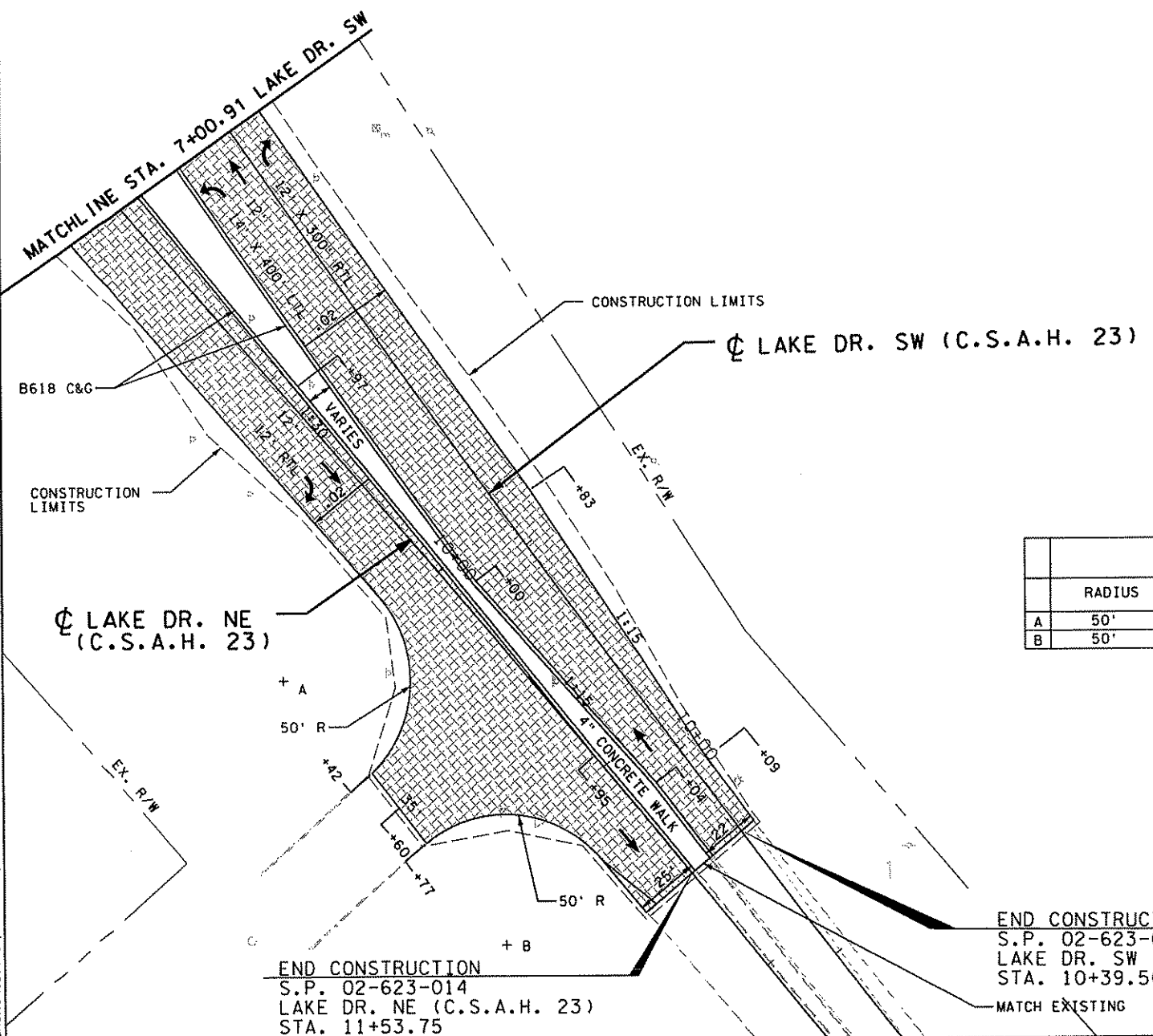
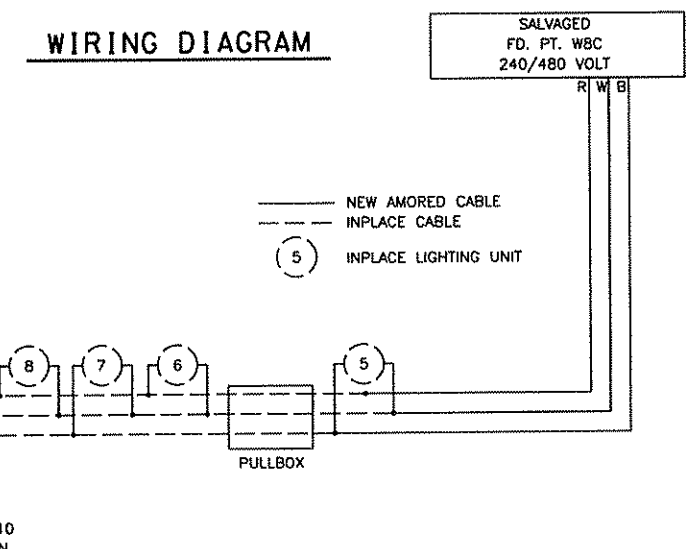
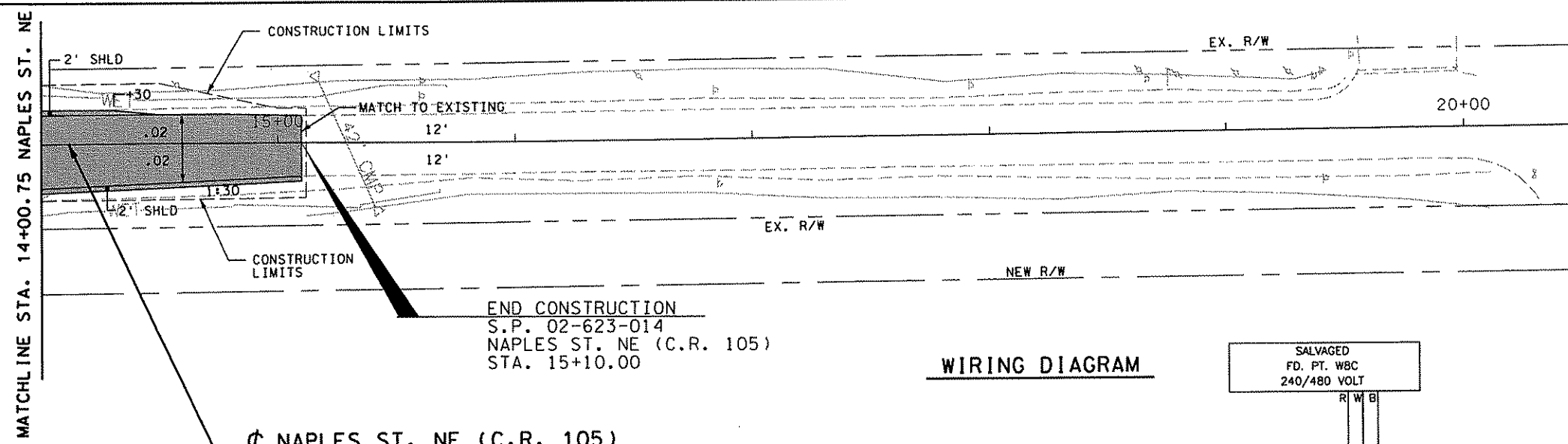
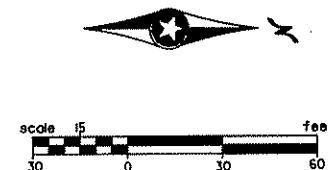
Certified By:  Lic. No. 18612
 Printed Name: SUSAN M. MASON Date: 04/24/2006



ANOKA COUNTY, MINNESOTA
**INTERSECTION IMPROVEMENTS:
 CSAH 23 @ INTERSTATE HIGHWAY 35W**

CONSTRUCTION PLANS
 STATE PROJECT NO. 02-623-014, STATE PROJECT NO. 0280-56

FILE NO. ANDK0106.01	20 57
DATE 04/24/2006	



STREET RADII

	RADIUS	ALIGNMENT	STATION	LOCATION
A	50'	LAKE DR. NE	9+92.11	74.00' RT
B	50'	LAKE DR. NE	11+28.83	74.00' RT

LEGEND ①

- BITUMINOUS PAVEMENT INSET A
- BITUMINOUS PAVEMENT INSET B
- BITUMINOUS PAVEMENT INSET C
- BITUMINOUS PAVEMENT INSET D
- POINT NUMBER
- INPLACE ARMORED CABLE
- DIRECT BURIED ARMORED CABLE
4 CONDUCTOR NO. 4 AWG
- 3" RIGID STEEL CONDUIT
- INSTALL SALVAGED LIGHTING UNIT
- PERMANENT GROUND ROD
(25 OHMS OR LESS)

- ELECTRICAL NOTES**
- CONTRACTOR SHALL MAINTAIN LIGHTING OF LAKE DR. S.B. RAMP WITH TEMPORARY OVERHEAD CONDUCTORS.
 - PROVIDE TEMPORARY LIGHTING OF NAPLES ST./LAKE DR. INTERSECTION.

NOTES:

① SEE TYPICAL SECTIONS FOR BITUMINOUS PAVEMENT DESIGNS.

DESIGN TEAM			
DRAWN BY:	JMT		
DESIGNER:	HLR		
CHECKED BY:	APM		
NO.	BY	DATE	REVISIONS

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.

Certified By: *Susan M. Mason* Lic. No. 18612
Printed Name: SUSAN M. MASON Date: 04/24/2006

SEH

PHONE: 1651490-2000
3535 VADNAIS CENTER DR.
ST. PAUL, MN 55110



ANOKA COUNTY, MINNESOTA

**INTERSECTION IMPROVEMENTS:
CSAH 23 @ INTERSTATE HIGHWAY 35W**

CONSTRUCTION PLANS

STATE PROJECT NO. 02-623-014, STATE PROJECT NO. 0280-56

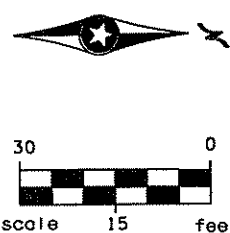
FILE NO.	21
ANOKC0106.01	
DATE	57
04/24/2006	

10:56:19 AM

03/28/2006

Default

w:\ae\anoka\010601\plans\ts\cp\anoka\010601_cpdfa.dgn



DETAIL POINTS				
POINT	ALIGNMENT NAME	STATION	OFFSET	ELEVATION
100	LAKE DR. SW	4+13.31	30.13' RT	907.05
101	LAKE DR. SW	4+13.31	0.00	905.71
102	NAPLES ST. NE	11+50.00	0.00	905.86
103	NAPLES ST. NE	11+50.00	14.00' LT	905.58
104	NAPLES ST. NE	12+00.00	0.00	905.51
105	NAPLES ST. NE	12+00.00	14.00' LT	905.23
106	NAPLES ST. NE	12+50.00	0.00	905.16
107	NAPLES ST. NE	12+50.00	14.00' LT	904.88
108	NAPLES ST. NE	12+50.00	25.61' RT	904.65
109	NAPLES ST. NE	12+00.00	44.16' RT	905.07
110	LAKE DR. SW	6+00.00	16.05' LT	906.64
111	LAKE DR. SW	6+00.00	0.00	906.97
112	LAKE DR. SW	6+00.00	26.00' RT	907.37
113	LAKE DR. SW	5+50.00	26.78' RT	907.05

DETAIL POINTS				
POINT	ALIGNMENT NAME	STATION	OFFSET	ELEVATION
114	LAKE DR. SW	5+50.00	0.00	906.64
115	LAKE DR. SW	5+46.76	27.14' RT	907.04
116	LAKE DR. SW	5+46.76	8.00' LT	906.46
117	LAKE DR. SW	5+31.55	29.83' RT	906.99
118	LAKE DR. SW	5+31.55	8.00' LT	906.36
119	NAPLES ST. NE	11+36.78	32.00' RT	905.64
120	NAPLES ST. NE	11+58.84	32.00' RT	905.48
121	NAPLES ST. NE	11+60.41	32.23' RT	905.45
122	LAKE DR. SW	5+51.16	16.55' LT	905.87
123	LAKE DR. SW	5+11.54	35.94' RT	906.98
124	LAKE DR. SW	5+07.69	41.45' RT	907.68
125	LAKE DR. NE	6+23.22	26.50' LT	908.37
126	LAKE DR. NE	6+50.00	16.37' LT	908.27
127	LAKE DR. NE	7+00.00	13.57' LT	908.42
128	LAKE DR. NE	7+00.00	0.00	908.26
129	LAKE DR. NE	6+50.00	0.00	908.06
130	LAKE DR. NE	7+00.00	24.00' RT	907.78
131	LAKE DR. NE	6+50.00	24.00' RT	907.58
132	LAKE DR. NE	6+00.00	0.00	907.86
133	LAKE DR. NE	6+00.00	24.00' RT	907.38
134	LAKE DR. NE	5+35.50	0.00	907.61
135	NAPLES ST. NE	9+50.00	0.00	908.12
136	NAPLES ST. NE	9+50.00	36.00' RT	907.40
137	NAPLES ST. NE	9+00.00	0.00	908.62
138	NAPLES ST. NE	9+00.00	36.00' RT	907.90
139	NAPLES ST. NE	8+60.00	0.00	909.02
140	NAPLES ST. NE	8+24.19	0.00	909.52
141	NAPLES ST. NE	8+60.00	36.00' RT	908.30
156	NAPLES ST. NE	8+24.19	12.00' LT	908.66
157	NAPLES ST. NE	8+24.19	20.00' LT	908.50

LAKE DR. NE (INTERSTATE HWY 35W OFF RAMP)

NAPLE ST. NE (C.S.A.H. 23)

LAKE DR. SW (INTERSTATE HWY 35W ON RAMP)

NAPLES ST. NE (C.R. 105)

LAKE DR. SW (C.S.A.H. 23)

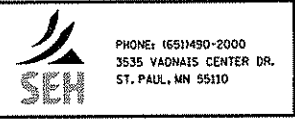
LAKE DR. NE (C.S.A.H. 23)

DETAIL POINTS				
POINT	ALIGNMENT NAME	STATION	OFFSET	ELEVATION
158	NAPLES ST. NE	8+24.19	18.00' RT	909.21
159	NAPLES ST. NE	8+60.00	29.33' LT	908.36
160	NAPLES ST. NE	8+97.38	56.05' LT	906.76
161	NAPLES ST. NE	9+53.36	20.00' LT	907.68
162	NAPLES ST. NE	9+21.93	20.00' LT	908.00
163	NAPLES ST. NE	9+20.35	23.22' LT	907.80
164	NAPLES ST. NE	9+29.69	39.43' LT	907.12
165	LAKE DR. NE	4+63.79	20.00' RT	907.26
166	LAKE DR. NE	4+87.69	20.00' RT	907.32
167	LAKE DR. NE	4+87.75	13.50' RT	907.35
168	LAKE DR. NE	4+87.75	0.00	907.42
169	LAKE DR. NE	4+87.75	13.50' LT	907.15
170	LAKE DR. NE	4+87.75	26.00' LT	906.90
171	LAKE DR. NE	4+00.00	26.00' RT	907.23
172	LAKE DR. NE	4+00.00	13.50' RT	907.48
173	LAKE DR. NE	4+00.00	0.00	907.75
174	LAKE DR. NE	4+00.00	13.50' LT	907.48
175	LAKE DR. NE	4+00.00	26.00' RT	907.23
176	LAKE DR. NE	5+21.29	26.00' LT	907.03
177	LAKE DR. NE	5+38.02	39.97' LT	907.16
178	NAPLES ST. NE	10+50.17	0.00	907.46

DESIGN TEAM				
NO.	BY	DATE	REVISIONS	

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.

Certified By: *Susan M. Mason* Lic. No. 18612
 Printed Name: SUSAN M. MASON Date: 03/28/2006



ANOKA COUNTY, MINNESOTA
**INTERSECTION IMPROVEMENTS:
 CSAH 23 @ INTERSTATE HIGHWAY 35W**

CONSTRUCTION DETAIL

STATE PROJECT NO. 02-623-014, STATE PROJECT NO. 0280-56

FILE NO. ANOKC0106.01 **22**
 DATE 03/28/2006 **57**

10:56:21 AM

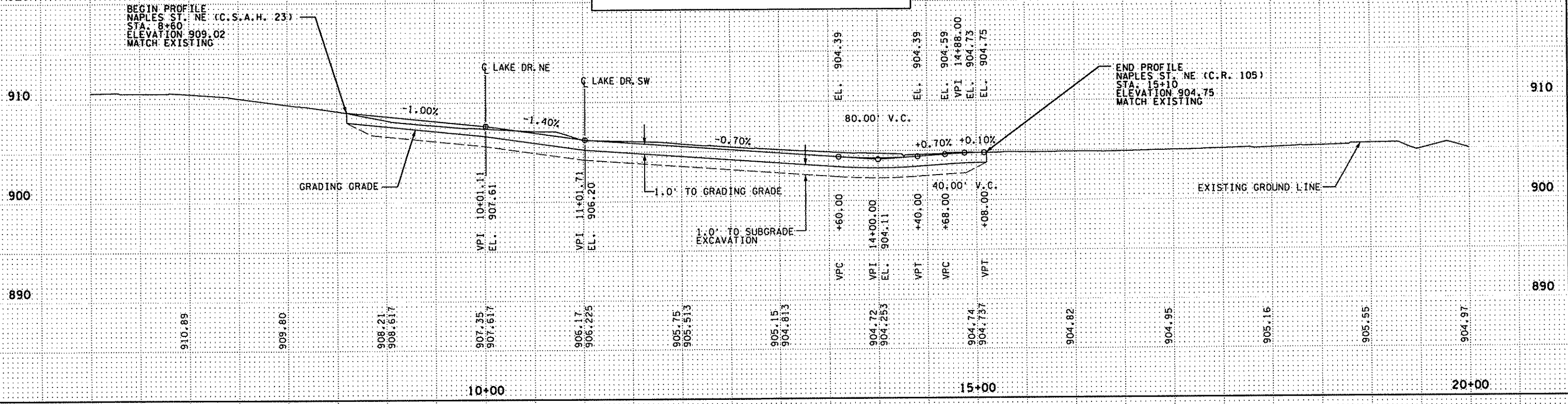
03/28/2006

Default

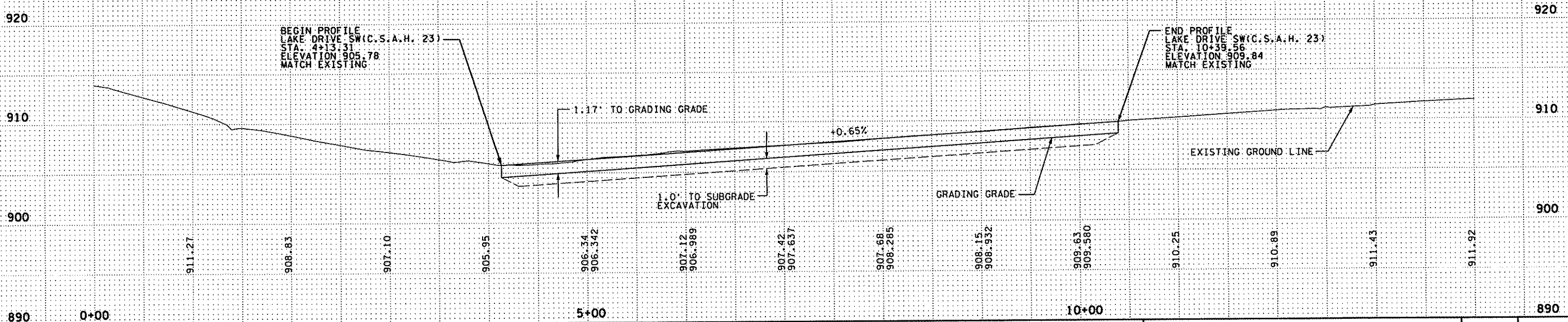
w:\a\anokc\010601\plans\ts\pr\files\anokc010601_pra.dgn

NAPLES ST. NE
 (C.S.A.H. 23 / C.R. 105)
 DESIGN SPEED: 35 MPH

VERTICAL CONTROL:
 THE VERTICAL CONTROL SHOWN ON THIS PLAN IS
 ENGLISH IN NGVD 29 DATUM.



LAKE DR. SW
 (C.S.A.H. 23)
 DESIGN SPEED: 50 MPH



DESIGN TEAM			
DRAWN BY:	JMT		
DESIGNER:	HLR		
CHECKED BY:	APM		
NO.	BY	DATE	REVISIONS

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.

Certified By: *Susan M. Mason* Lic. No. 18612
 Printed Name: SUSAN M. MASON Date: 03/28/2006



ANOKA COUNTY, MINNESOTA
INTERSECTION IMPROVEMENTS:
CSAH 23 @ INTERSTATE HIGHWAY 35W

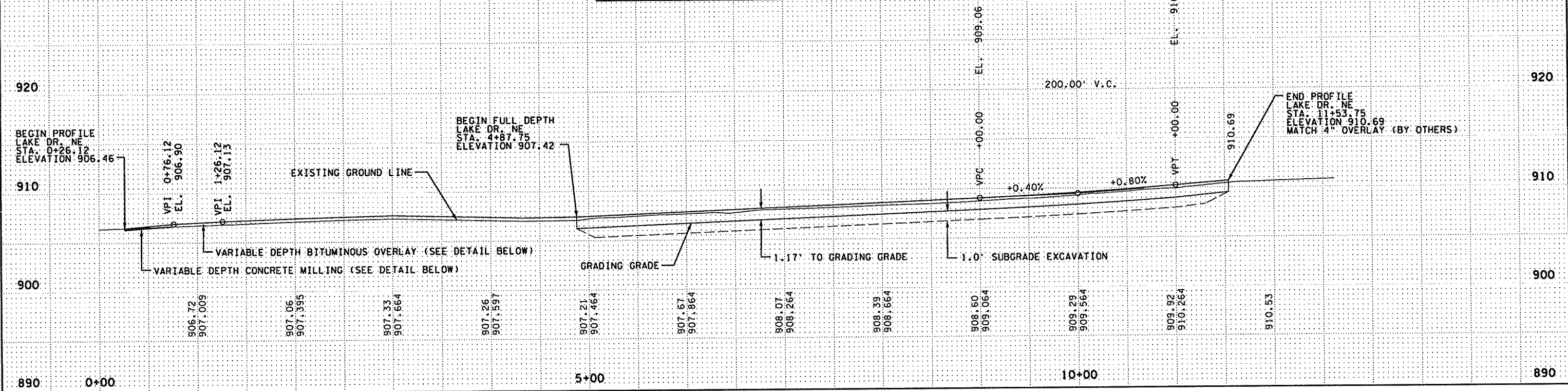
PROFILES
 NAPLES DRIVE NE (C.R. 105) & LAKE DRIVE SW (CSAH 23)
 STATE PROJECT NO. 02-623-014, STATE PROJECT NO. 0280-56

FILE NO.	ANOKC0106.01	23
DATE	03/28/2006	57

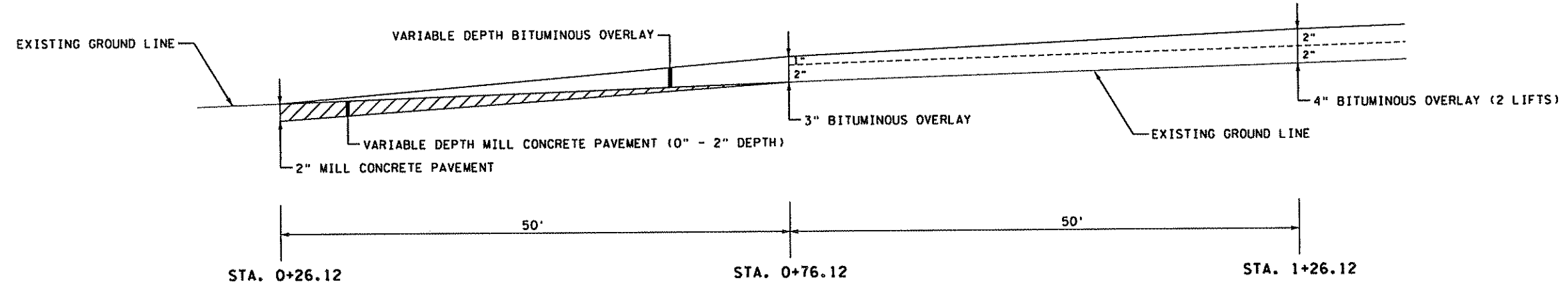
10:56:22 AM 03/28/2006 De-fault w:\06\anoka\010601\plans\shs\pro files\anokc010601.prb.dgn

**LAKE DR. NE
(C.S.A.H. 23)
DESIGN SPEED: 50 MPH**

VERTICAL CONTROL:
THE VERTICAL CONTROL SHOWN ON THIS PLAN IS ENGLISH IN NGVD 29 DATUM.



**OVERLAY DETAIL
ON LAKE DR. NE
(I-35W OFF-RAMP)**



DESIGN TEAM			
DRAWN BY:	JMT		
DESIGNER:	HLR		
CHECKED BY:	APM		
NO.	BY	DATE	REVISIONS

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.

Certified By: *Susan M. Mason* Lic. No. 18612

Printed Name: SUSAN M. MASON Date: 03/28/2006

SEH

PHONE: (651)490-2000
3535 VADNAIS CENTER DR.
ST. PAUL, MN 55110



ANOKA COUNTY, MINNESOTA

**INTERSECTION IMPROVEMENTS:
CSAH 23 @ INTERSTATE HIGHWAY 35W**

PROFILES
LAKE DR. NE

STATE PROJECT NO. 02-623-014, STATE PROJECT NO. 0280-56

FILE NO. ANOKC0106.01	24
DATE 03/28/2006	57

10:56:26 AM
03/28/2006

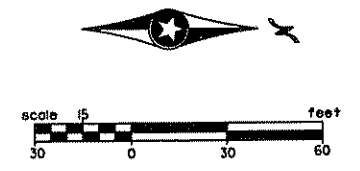
Default

w:\a06\anoka\010601\plans\shs\drainage\anoka010601.dpa.dgn

GENERAL NOTES:

ROCK CONSTRUCTION ENTRANCE WILL BE
INSTALLED AT CONSTRUCTION SITE ENTRANCES.
REVEGETATION WILL OCCUR WITHIN 14
DAYS OF FINAL GRADING.

BEGIN CONSTRUCTION
S.P. 0280-56
LAKE DR. NE
STA. 0+26.12



☉ LAKE DR. NE (INTERSTATE HWY 35W OFF RAMP)

LEGEND

- SILT FENCE
- PROPOSED STORM SEWER
- SEED MIX 250 WITH TYPE 1 MULCH
- INLET PROTECTION TYPE C
- INLET PROTECTION TYPE D

CONSTRUCTION LIMITS

CONSTRUCTION LIMITS

EX. R/W

MATCHLINE STA. 3+14.92 LAKE DR. NE

☉ NAPLES ST. NE (C.S.A.H. 23)

EX. R/W

24" RCP

CONSTRUCTION LIMITS

5+00

MATCHLINE STA. 7+75.74 NAPLES ST. NE

EX. R/W

18" RCP

NEW R/W

CONSTRUCTION LIMITS


REPLACE 18" CS PIPE
CULVERT AND
18" CS PIPE APRONS

BEGIN CONSTRUCTION
S.P. 02-623-014
NAPLES ST. NE (C.S.A.H. 23)
STA. 4+79.34

DESIGN TEAM			
DRAWN BY:	JMT		
DESIGNER:	HLR		
CHECKED BY:	APM		
NO.	BY	DATE	REVISIONS

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.

Certified By: *Susan M. Mason* Lic. No. 18612
Printed Name: SUSAN M. MASON Date: 03/28/2006



PHONE: (651)490-2000
3535 VADNAIS CENTER DR.
ST. PAUL, MN 55110



ANOKA COUNTY, MINNESOTA
INTERSECTION IMPROVEMENTS:
CSAH 23 @ INTERSTATE HIGHWAY 35W

DRAINAGE, TURF ESTABLISHMENT & EROSION CONTROL PLANS

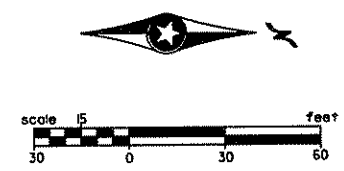
STATE PROJECT NO. 02-623-014, STATE PROJECT NO. 0280-56

FILE NO. ANOKC0106.01	25
DATE 03/28/2006	57

10:56:34 AM
03/28/2006
Default
w:\a0\anoka\010601\plans\shfts\drainage\anokc010601.dwg.dgn

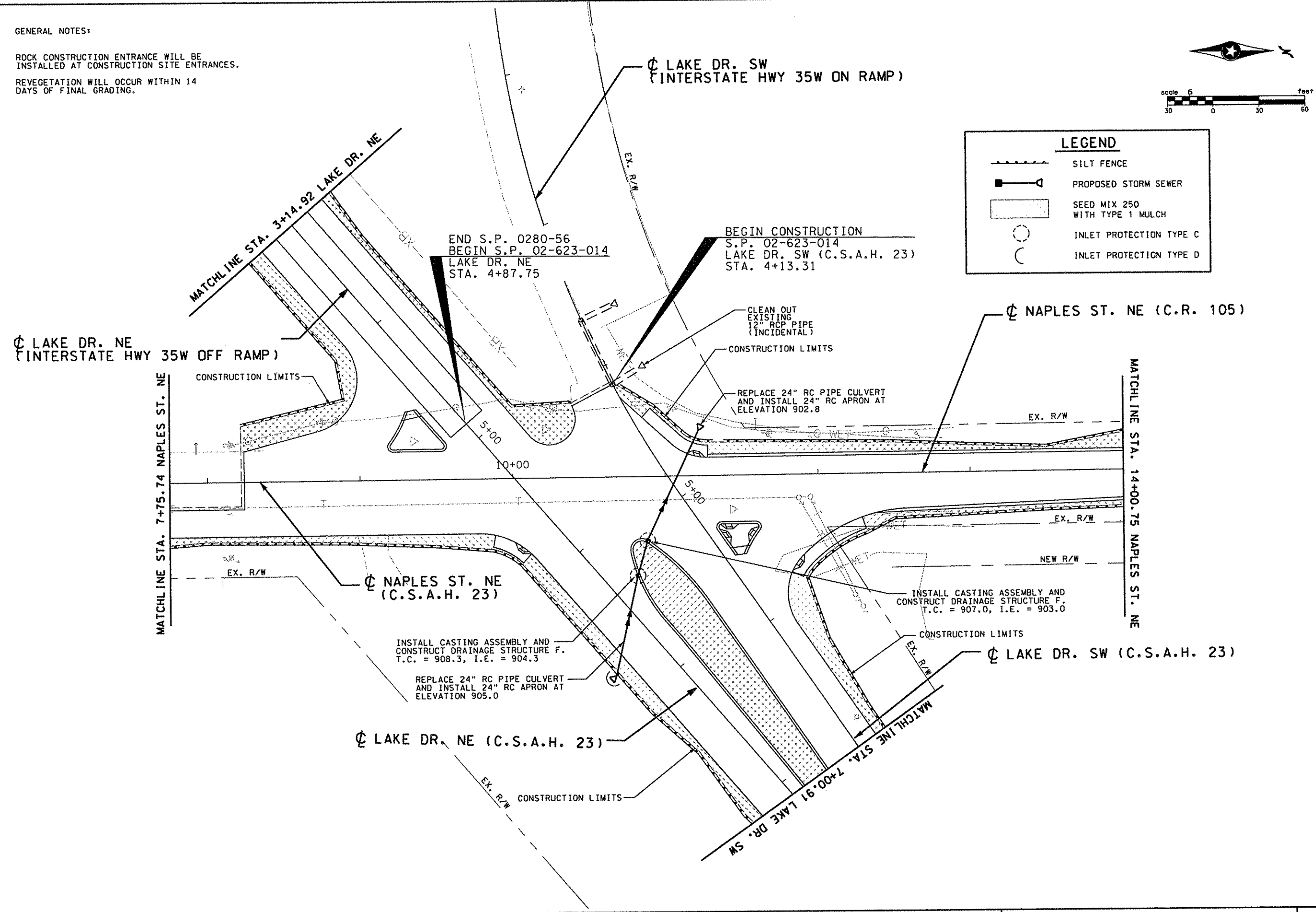
GENERAL NOTES:

ROCK CONSTRUCTION ENTRANCE WILL BE INSTALLED AT CONSTRUCTION SITE ENTRANCES.
REVEGETATION WILL OCCUR WITHIN 14 DAYS OF FINAL GRADING.



LEGEND

- SILT FENCE
- PROPOSED STORM SEWER
- SEED MIX 250 WITH TYPE 1 MULCH
- INLET PROTECTION TYPE C
- INLET PROTECTION TYPE D



DESIGN TEAM			
DRAWN BY:	JMT		
DESIGNER:	HLR		
CHECKED BY:	APM		
NO.	BY	DATE	REVISIONS

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.

Certified By: *Susan M. Mason* Lic. No. 18612
 Printed Name: SUSAN M. MASON Date: 03/28/2006

SEH

PHONE: (651)490-2000
 3535 VADNAIS CENTER DR.
 ST. PAUL, MN 55110

ANOKA COUNTY

ANOKA COUNTY, MINNESOTA
**INTERSECTION IMPROVEMENTS:
 CSAH 23 @ INTERSTATE HIGHWAY 35W**

**DRAINAGE, TURF ESTABLISHMENT &
 EROSION CONTROL PLANS**

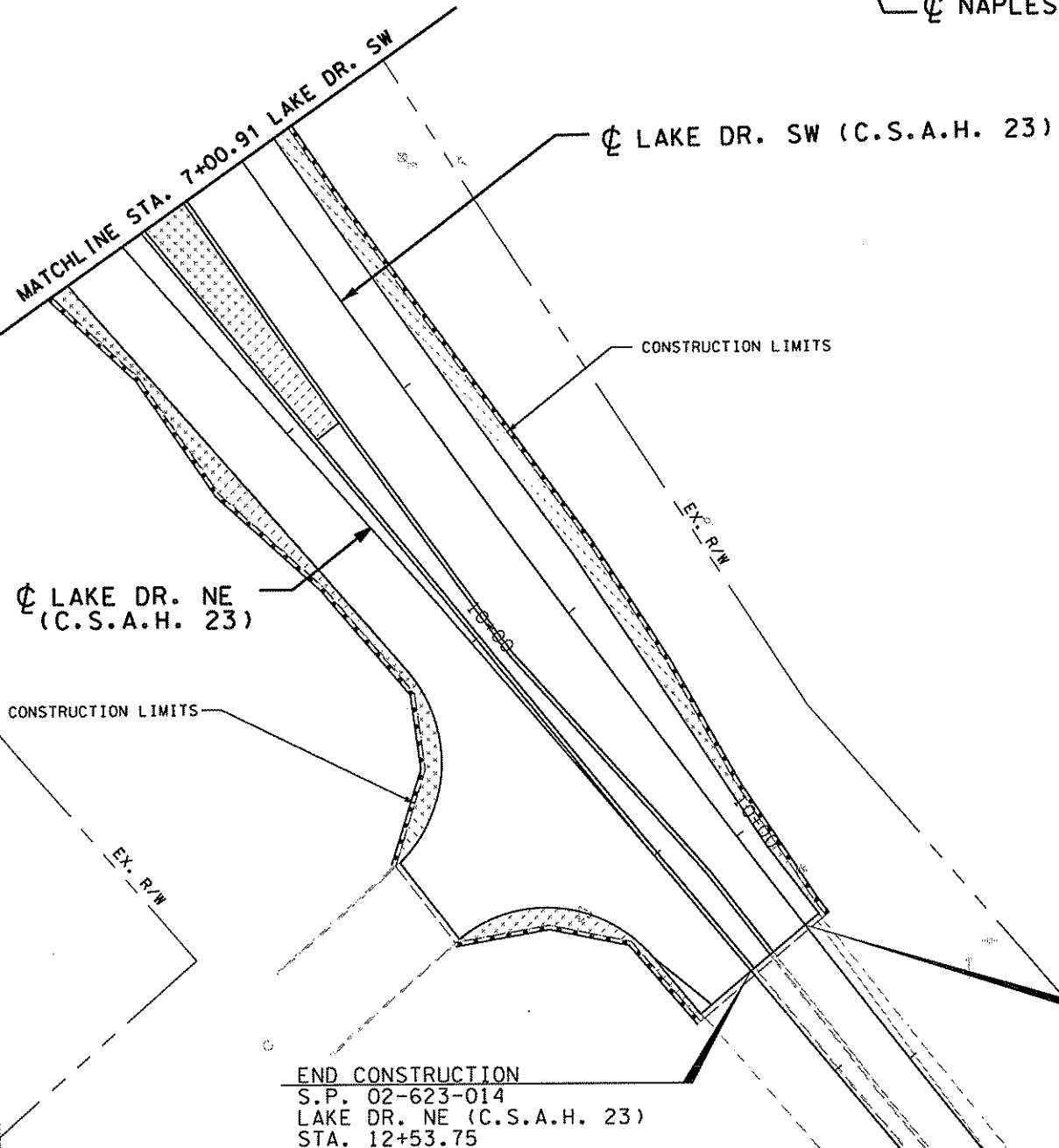
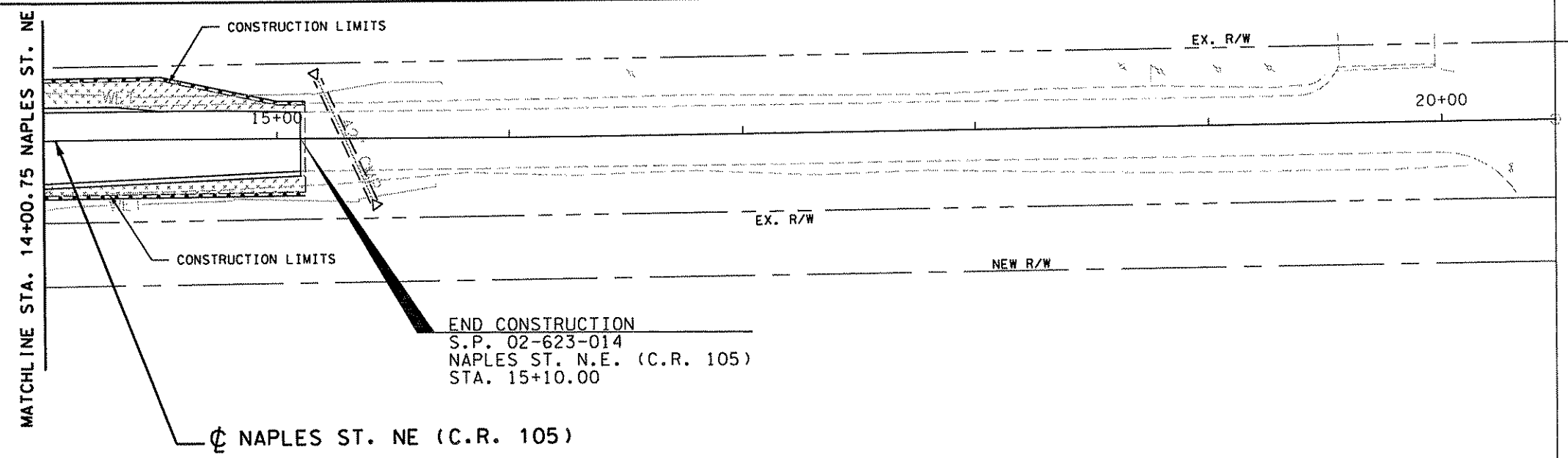
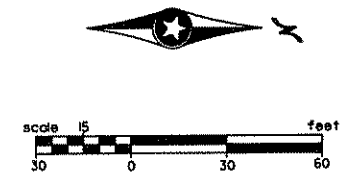
STATE PROJECT NO. 02-623-014, STATE PROJECT NO. 0280-56

FILE NO. ANOKC0106.01	26
DATE 03/28/2006	57

10:56:41 AM
03/28/2006

Default

w:\a\anoka\010601\plans\15\drainage\anoka\010601.dpc.dgn



LEGEND	
	SILT FENCE
	PROPOSED STORM SEWER
	SEED MIX 250 WITH TYPE 1 MULCH
	INLET PROTECTION TYPE C
	INLET PROTECTION TYPE D

GENERAL NOTES:
 ROCK CONSTRUCTION ENTRANCE WILL BE INSTALLED AT CONSTRUCTION SITE ENTRANCES.
 REVEGETATION WILL OCCUR WITHIN 14 DAYS OF FINAL GRADING.

END CONSTRUCTION
 S.P. 02-623-014
 LAKE DR. SW (C.S.A.H. 23)
 STA. 10+39.56

END CONSTRUCTION
 S.P. 02-623-014
 LAKE DR. NE (C.S.A.H. 23)
 STA. 12+53.75

DESIGN TEAM				
DRAWN BY:	JMT			
DESIGNER:	HLR			
CHECKED BY:	APM			
NO.	BY	DATE	REVISIONS	

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.
 Certified By: *Susan M. Mason* Lic. No. 18612
 Printed Name: SUSAN M. MASON Date: 03/28/2006



ANOKA COUNTY, MINNESOTA
INTERSECTION IMPROVEMENTS:
CSAH 23 @ INTERSTATE HIGHWAY 35W

DRAINAGE, TURF ESTABLISHMENT & EROSION CONTROL PLANS
 STATE PROJECT NO. 02-623-014, STATE PROJECT NO. 0280-56

FILE NO. ANOKC0106.01	27
DATE 03/28/2006	57

SALVAGE & INSTALL SIGN TYPE C							
SIGN NO.	TOTAL QUANTITY	POSTS			MTG. HT. (FT) (1)	PANEL SIZE (IN)	PANEL LEGEND
		NO. & TYPE	KNEE BRACES QUANT.	LENGTH (FT)			
C-100	1	1-U	-	12	7	16 x 16	BUS STOP
C-101	1	1-U	-	12	7	16 x 16	BUS STOP
C-102	1	2-U	1	14	7	30 x 36	CHECK YOUR TURN SIGNAL
TOTAL	3						

SALVAGE & INSTALL SIGN TYPE SPECIAL			
SIGN NO.	TOTAL QUANTITY	POST NO. & TYPE	PANEL LEGEND
S-100	1	1-0	88TH AVE NE LAKE DR
TOTAL	1		

DELINEATORS & MARKERS		
TYPE	QUANTITY	LOCATION
X4-2	4	RIGHT TURN ISLAND
X4-6	1	MEDIAN
X4-6	1	MEDIAN

GENERAL NOTES:

1. Post lengths are approximate and include embedment, but do not include additional length required for splice.
2. See Mn/DTT Standard Signs Manual for punching code and detailed drawings of Type C Signs.
3. See sheets 36 to 38 for structural details.
4. See sheet 41 for Delineator & Marker placement.

SPECIFIC NOTES:

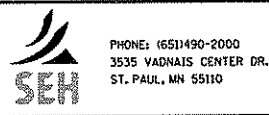
- (1) Mounting height is minimum. See sheet 36 for typical mounting.
- (2) Mount in concrete. The Anoka County Highway Department will stake signs to be mounted in concrete & install post base as concrete is poured.
- (3) Mount back to back.
- (4) Mount below sign D-102.
- (5) Signs will not be reused on this project, and shall be salvaged to Anoka County
- (6) See standard signs manual for Hazard Marker (X4-2).
- (7) Yellow on non-reflectorized yellow.
- (8) Mount on 3 lb/ft post.
- (9) See Standard Signs Manual for Guide Delineator (X4-6).

SIGN PANELS TYPE C										
SIGN NO.	QUANTITY	POSTS			MTG. HT. (FT) (1)	PANEL			CODE NO.	PANEL LEGEND
		NO. & TYPE	KNEE BRACES QUANT.	LENGTH (FT)		PANEL SIZE (IN.)	AREA (SQ FT)	TOTAL AREA (SQ FT)		
C-1	1	2-U	-	13	7	30 x 30	6.25	6.25	R1-1	STOP
C-2	1	2-U	-	14	7	36 x 12	3.00	3.00	R6-1R	ONE WAY (RIGHT)
						30 x 30	6.25	6.25	R1-1	STOP
C-3	2	2-U	1	14	7	36 x 36	9.00	18.00	R1-2	YIELD
C-4	1	2-U	-	13	7	24 x 30	5.00	5.00	R2-1	SPEED LIMIT 35
C-5	2	2-U	-	13	7	30 x 30	6.25	12.50	R3-7R	RIGHT LANE MUST TURN RIGHT
C-6	1	2-U	-	13	7	30 x 30	6.25	6.25	R3-7L	LEFT LANE MUST TURN LEFT
C-7	1	2-U	-	13	7	30 x 30	6.25	6.25	R3-7L	LEFT LANE MUST TURN LEFT
						36 x 24	6.00	6.00	R5-1a	WRONG WAY
C-8	1	2-U	1	13	7	54 x 30	11.25	11.25	R3-30ACA	LANE USE SIGN (LEFT, THRU, RIGHT)
C-9	2	2-U	-	13	7	36 x 30	7.50	15.00	R3-30AD	LANE USE SIGN (LEFT, THRU/RIGHT)
C-10	2	2-U	1	15	7	36 x 48	12.00	24.00	R4-7	KEEP RIGHT
C-11	4	2-U	-	13	7	30 x 30	6.25	25.00	R5-1	DO NOT ENTER
C-12	1	2-U	-	13	7	30 x 30	6.25	6.25	R5-1	DO NOT ENTER
C-13	1	2-U	-	12	7	36 x 12	3.00	3.00	R6-1R	ONE WAY (RIGHT)
C-14	1	2-U	1	16	7	24 x 12	2.00	2.00	M3-2a	EAST
						24 x 24	4.00	4.00	M1-6	ANOKA COUNTY 23
						24 x 30	5.00	5.00	R12-2	AXLE WEIGHT LIMIT 5 TONS
C-15	1	2-U	-	14	7	30 x 36	7.50	7.50	R16-X16	CHECK YOUR TURN SIGNAL
C-20	1	2-U	1	14	7	36 x 36	9	9	W3-3	SIGNAL AHEAD
C-21	1	2-U	1	14	7	36 x 36	9	9	W6-1	DIVIDED HIGHWAY
C-22	1	2-U	1	15	7	36 x 36	9	9	W9-1L	LEFT LANE ENDS
						24 x 18	3	3	W20-100p	500 FEET
C-23	1	2-U	1	14	7	36 x 36	9	9	W9-2R	LANE ENDS MERGE RIGHT
C-24	1	2-U	1	16	7	48 x 60	20	20	W14-3	NO PASSING ZONE
C-30	1	2-U	-	14	7	21 x 15	2.1875	2.1875	M2-1a	JCT
						24 x 24	4	4	M1-6	ANOKA COUNTY 23
C-31	1	2-U	1	16	7	21 x 15	2.1875	2.1875	M2-1a	JCT
						24 x 24	4	4	M1-6	ANOKA COUNTY 23
						24 x 24	4	4	M1-6	ANOKA COUNTY 105
C-32	1	2-U	1	15	7	24 x 12	2	2	M3-3a	SOUTH
						24 x 24	4	4	M1-6	ANOKA COUNTY 23
						21 x 15	2.1875	2.1875	M6-1aL	LEFT ARROW
C-33	1	2-U	-	14	7	24 x 24	4	4	M1-6	ANOKA COUNTY 23
						21 x 15	2.1875	2.1875	M6-6aR	THRU & RIGHT ARROWS
C-34	1	2-U	-	14	7	24 x 24	4	4	M1-6	ANOKA COUNTY 23
						21 x 15	2.1875	2.1875	M6-6aL	THRU & LEFT ARROWS
C-35	1	2-U	-	14	7	21 x 15	2.1875	2.1875	M2-1a	JCT
						24 x 24	4	4	M1-6	ANOKA COUNTY 105
C-36	1	2-U	-	14	7	24 x 12	2	2	M3-1a	NORTH
						24 x 24	4	4	M1-6	ANOKA COUNTY 105
C-37	1	2-U	-	14	7	24 x 12	2	2	M4-6a	END
						24 x 24	4	4	M1-6	ANOKA COUNTY 105
C-38	1	2-U	-	14	7	24 x 24	4	4	M1-6	ANOKA COUNTY 105
						21 x 15	2.1875	2.1875	M6-1aR	RIGHT ARROW
C-39	1	2-U	-	14	7	24 x 24	4	4	M1-6	ANOKA COUNTY 105
						21 x 15	2.1875	2.1875	M6-1aL	LEFT ARROW
TOTAL								229.50		

DESIGN TEAM				
DRAWN BY:	JMT			
DESIGNER:	HLR			
CHECKED BY:	APM			
	NO.	BY	DATE	REVISIONS

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.

Certified By: *Susan M. Mason* Lic. No. 18612
 Printed Name: SUSAN M. MASON Date: 03/28/2006



ANOKA COUNTY, MINNESOTA
 INTERSECTION IMPROVEMENTS:
 CSAH 23 @ INTERSTATE HIGHWAY 35W

SIGNING TABULATIONS
 STATE PROJECT NO. 02-623-014, STATE PROJECT NO. 0280-56

FILE NO. ANOKC0106.01 28
 DATE 03/28/2006 57

09:43:14 AM
04/24/2006

SIGN PANELS TYPE OVERLAY					
SIGN NO.	TOTAL QUANTITY	PANEL SIZE (IN.)	UNIT AREA (SQ. FT.)	TOTAL AREA (SQ. FT.)	PANEL LEGEND
M1-1	1	24 x 24	4	4	
TOTAL			4	4	

REMOVE SIGN TYPE SPECIAL (STREET NAME SIGNS)	
TOTAL QUANTITY	2

REMOVE DELINEATORS	
TOTAL QUANTITY	5

REMOVE MARKERS	
TOTAL QUANTITY	1

SALVAGE SIGN TYPE C	
TOTAL QUANTITY	35 (5)

GENERAL NOTES:

1. Post lengths are approximate and include embedment, but do not include additional length required for splice.
2. See Mn/DOIT Standard Signs Manual for punching code and detailed drawings of Type C Signs.
3. See sheets 36 to 38 for structural details.
4. See sheet 41 for Delineator & Marker placement.

SPECIFIC NOTES:

- (1) Mounting height is minimum. See sheet 36 for typical mounting.
- (2) Mount in concrete. The Anoka County Highway Department will stake signs to be mounted in concrete & install post base as concrete is poured.
- (3) Mount back to back.
- (4) Mount below sign D-102.
- (5) Signs will not be reused on this project, and shall be salvaged to Anoka County
- (6) See standard signs manual for Hazard Marker (X4-2).
- (7) Yellow on non-reflectorized yellow.
- (8) Mount on 3 lb/ft post.
- (9) See Standard Signs Manual for Guide Delineator (X4-6).

SIGN PANELS TYPE D										
SIGN NO.	QUANTITY	POSTS				MTG. HT. (FT) (1)	PANEL			PANEL LEGEND
		NO. & TYPE	KNEE BRACES QUANT.	LENGTH (FT)	SPACING (IN)		PANEL SIZE (IN.)	AREA (SQ FT)	TOTAL AREA (SQ FT)	
D-100	1	2-U	2	18	36	7	60 x 84	35	35	
D-101	1	2-U	2	14	54	7	78 x 36	19.5	19.5	
D-102	1	2-U	2	16	60	7	102 x 60	42.5	42.5	
TOTAL	3									

REMOVE SIGN TYPE D										
SIGN NO.	TOTAL QUANTITY	POSTS				MTG. HT. (FT) (1)	PANEL SIZE (IN)	PANEL LEGEND		
		NO. & TYPE	KNEE BRACES QUANT.	LENGTH (FT)	SPACING (IN.)					
D-100	1	2-U	2	18	36	7	60 x 84			
D-101	1	2-U	2	14	54	7	78 x 36			
D-102	1	2-U	2	16	60	7	102 x 60			
TOTAL	3									

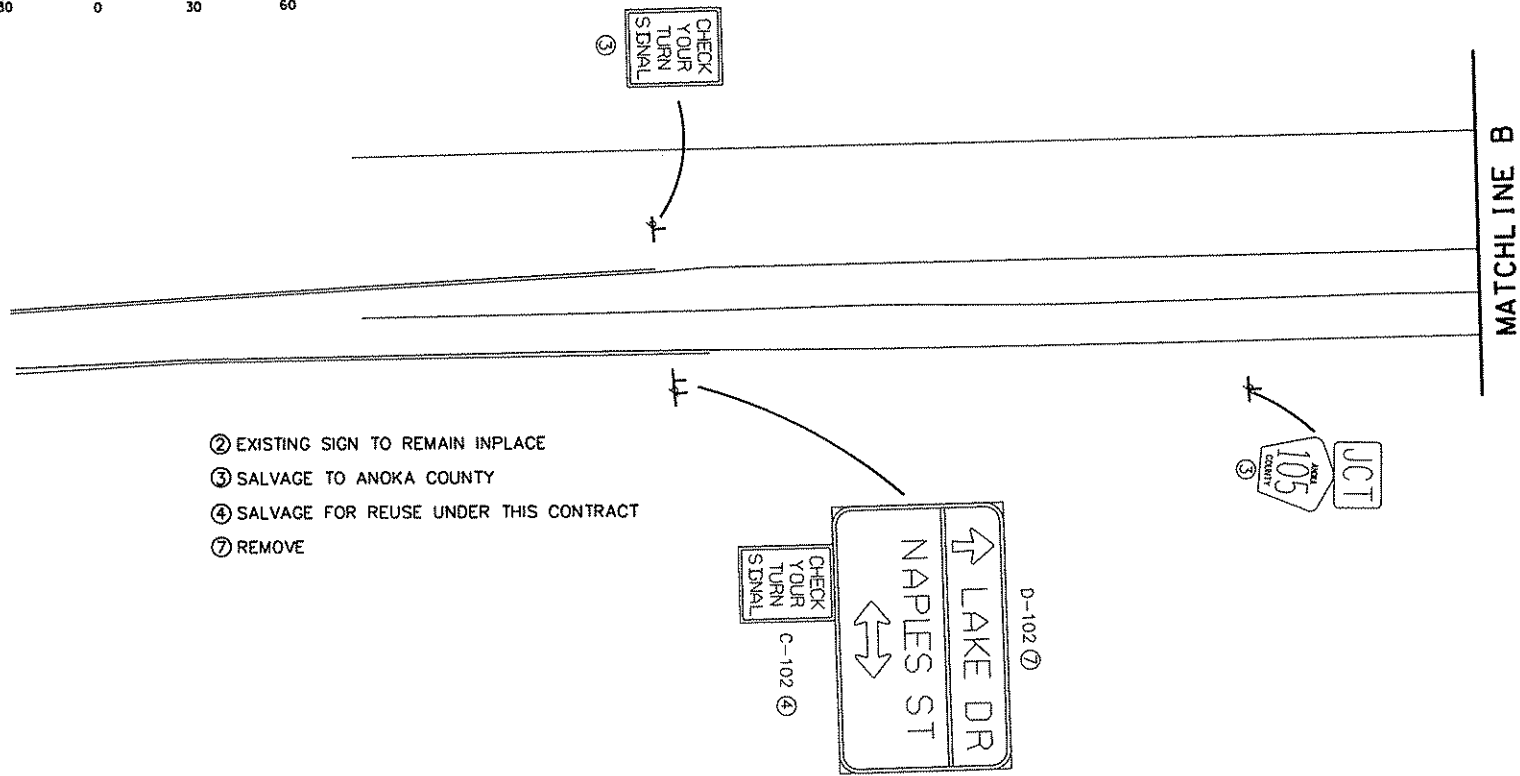
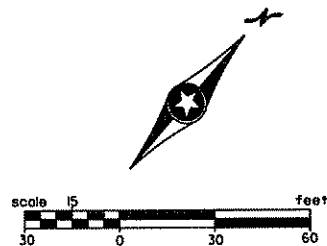
Default
w:\a0e\anoka\010601\p1nshrs\signing\anokc010601_rbs.dgn

DESIGN TEAM		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.	ANOKA COUNTY, MINNESOTA	FILE NO. ANOKC0106.01	29
DRAWN BY: JMT		Certified By: Lic. No. 18612	INTERSECTION IMPROVEMENTS:	DATE	57
DESIGNER: HLR		Printed Name: SUSAN M. MASON Date: 04/24/2006	CSAH 23 @ INTERSTATE HIGHWAY 35W	04/24/2006	
CHECKED BY: APM	NO. BY DATE REVISIONS		STATE PROJECT NO. 02-623-014, STATE PROJECT NO. 0280-56		

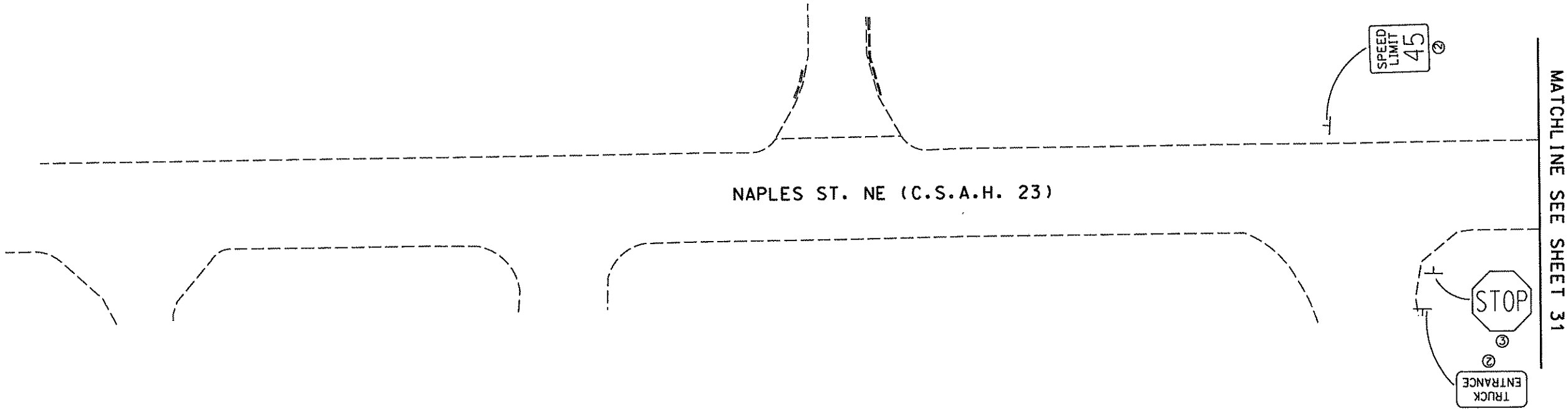
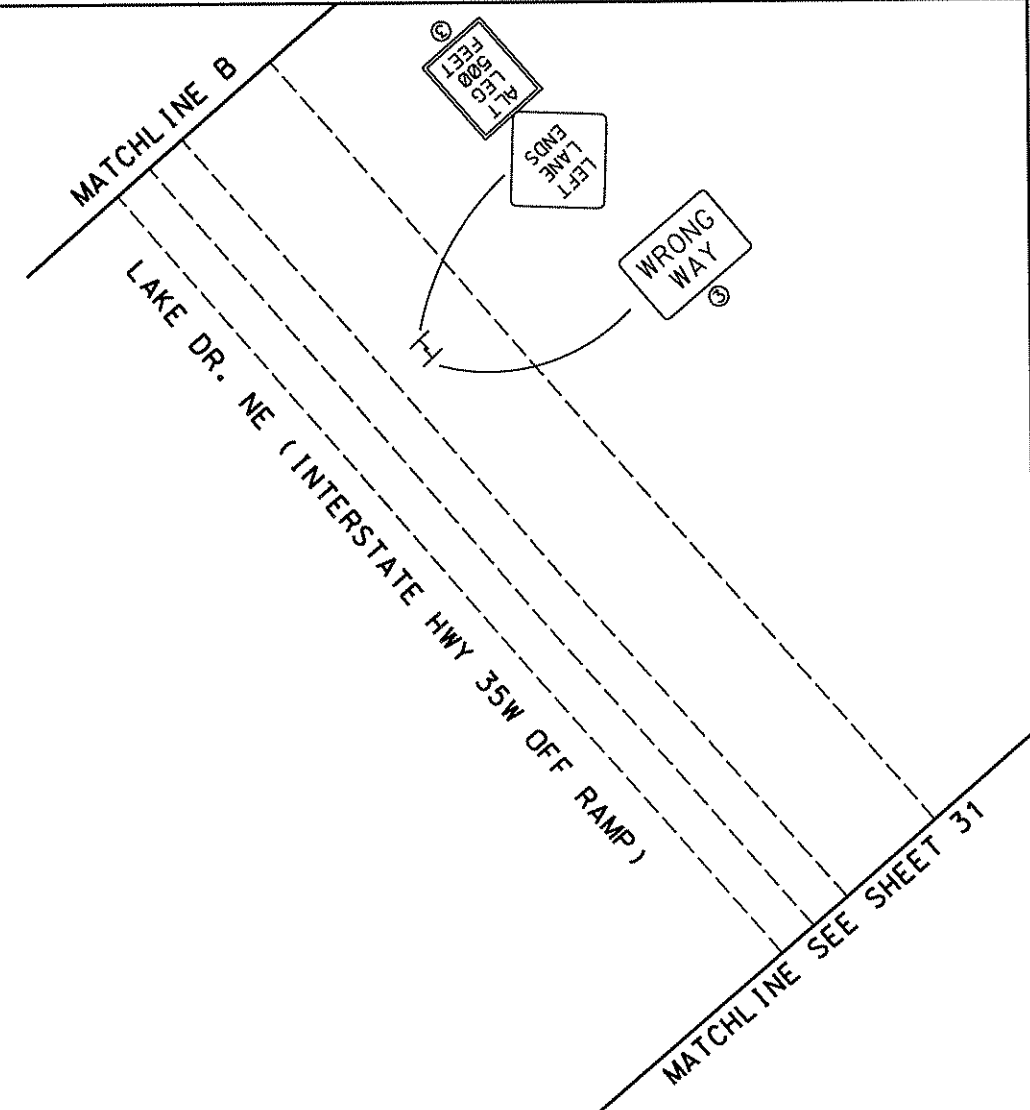
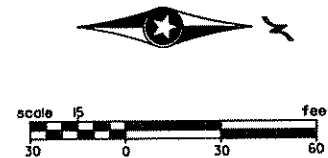
10:56:47 AM
03/28/2006

Default

w:\oe\anoka\010601\planshts\signing\existing\anoka010601_esc.dgn



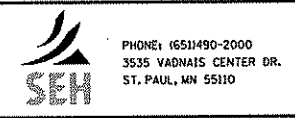
- ② EXISTING SIGN TO REMAIN INPLACE
- ③ SALVAGE TO ANOKA COUNTY
- ④ SALVAGE FOR REUSE UNDER THIS CONTRACT
- ⑦ REMOVE



DESIGN TEAM			
DRAWN BY:	JMT		
DESIGNER:	HLR		
CHECKED BY:	APM		
NO.	BY	DATE	REVISIONS

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.

Certified By: *Susan M. Mason* Lic. No. 18612
 Printed Name: SUSAN M. MASON Date: 03/28/2006

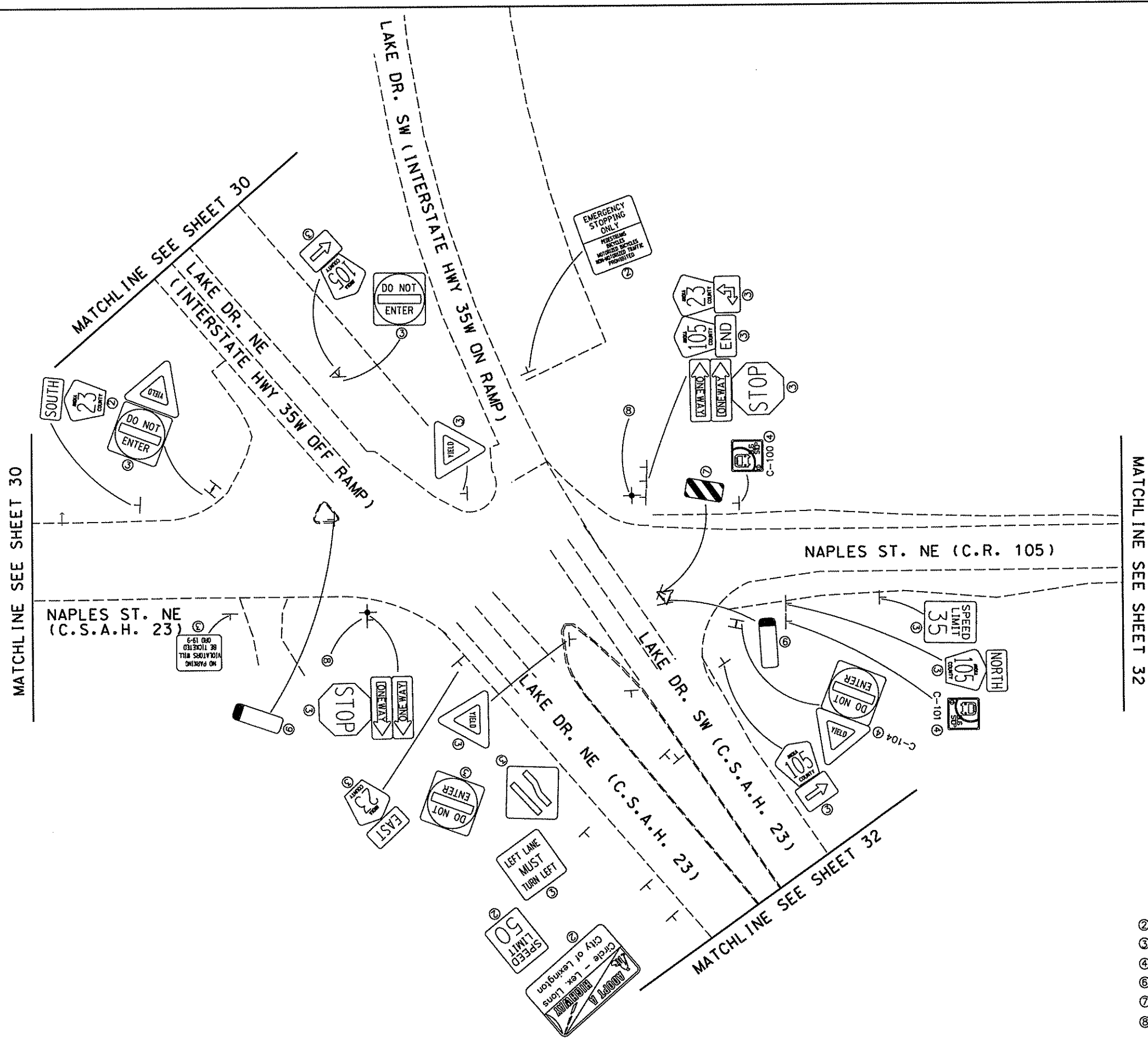
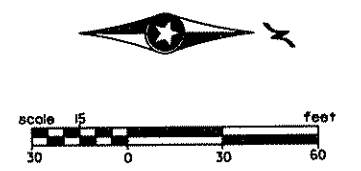


ANOKA COUNTY, MINNESOTA
INTERSECTION IMPROVEMENTS:
CSAH 23 @ INTERSTATE HIGHWAY 35W

EXISTING SIGNING PLAN

STATE PROJECT NO. 02-623-014, STATE PROJECT NO. 0280-56

FILE NO. ANOKC0106.01	30
DATE 03/28/2006	57



- ② EXISTING SIGN TO REMAIN INPLACE
- ③ SALVAGE TO ANOKA COUNTY
- ④ SALVAGE FOR REUSE UNDER THIS CONTRACT
- ⑥ REMOVE DELINEATOR
- ⑦ REMOVE MARKER
- ⑧ REMOVE SIGN TYPE SPECIAL (STREET NAME SIGNS)

DESIGN TEAM				
DRAWN BY:	JMT			
DESIGNER:	HLR			
CHECKED BY:	APM			
NO.	BY	DATE	REVISIONS	

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.

Certified By: *Susan M. Mason* Lic. No. 18612
 Printed Name: SUSAN M. MASON Date: 03/28/2006

SEH
 PHONE: 651490-2000
 3535 YADNAIS CENTER DR.
 ST. PAUL, MN 55110



ANOKA COUNTY, MINNESOTA
**INTERSECTION IMPROVEMENTS:
 CSAH 23 @ INTERSTATE HIGHWAY 35W**

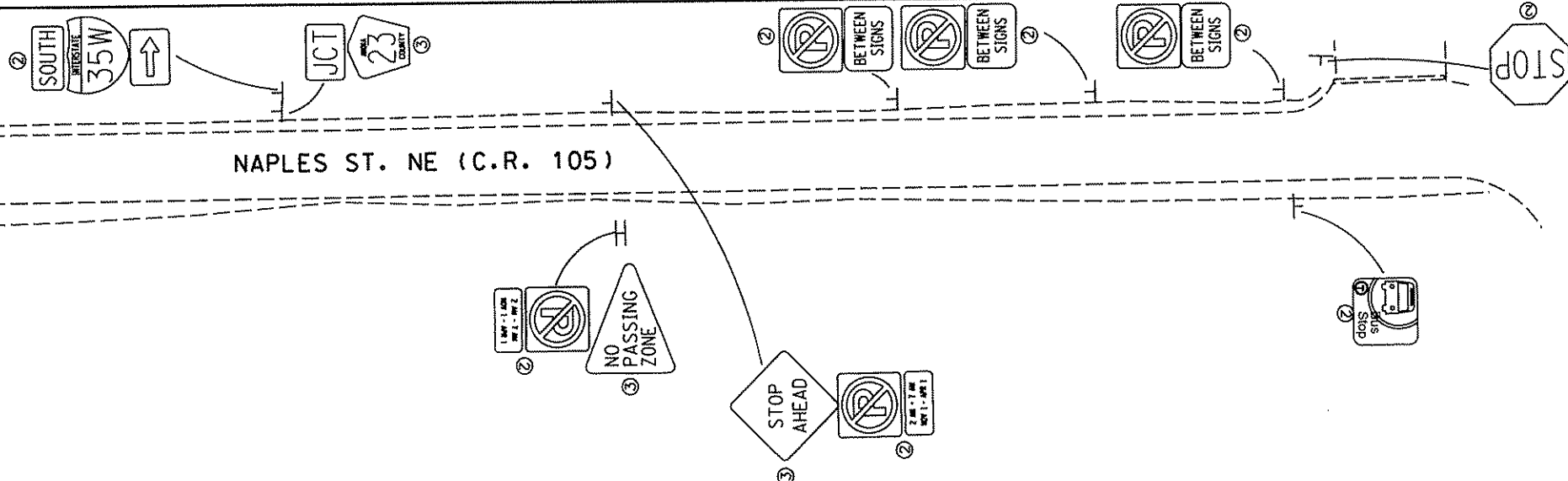
EXISTING SIGNING PLAN
 STATE PROJECT NO. 02-623-014, STATE PROJECT NO. 0280-56

FILE NO.	ANOKC0106.01	31
DATE	03/28/2006	57

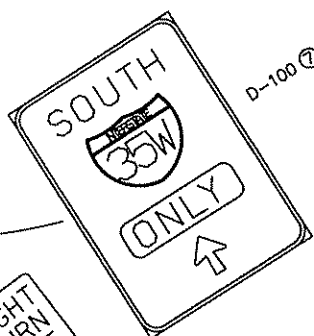


MATCHLINE SEE SHEET 31

NAPLES ST. NE (C.R. 105)

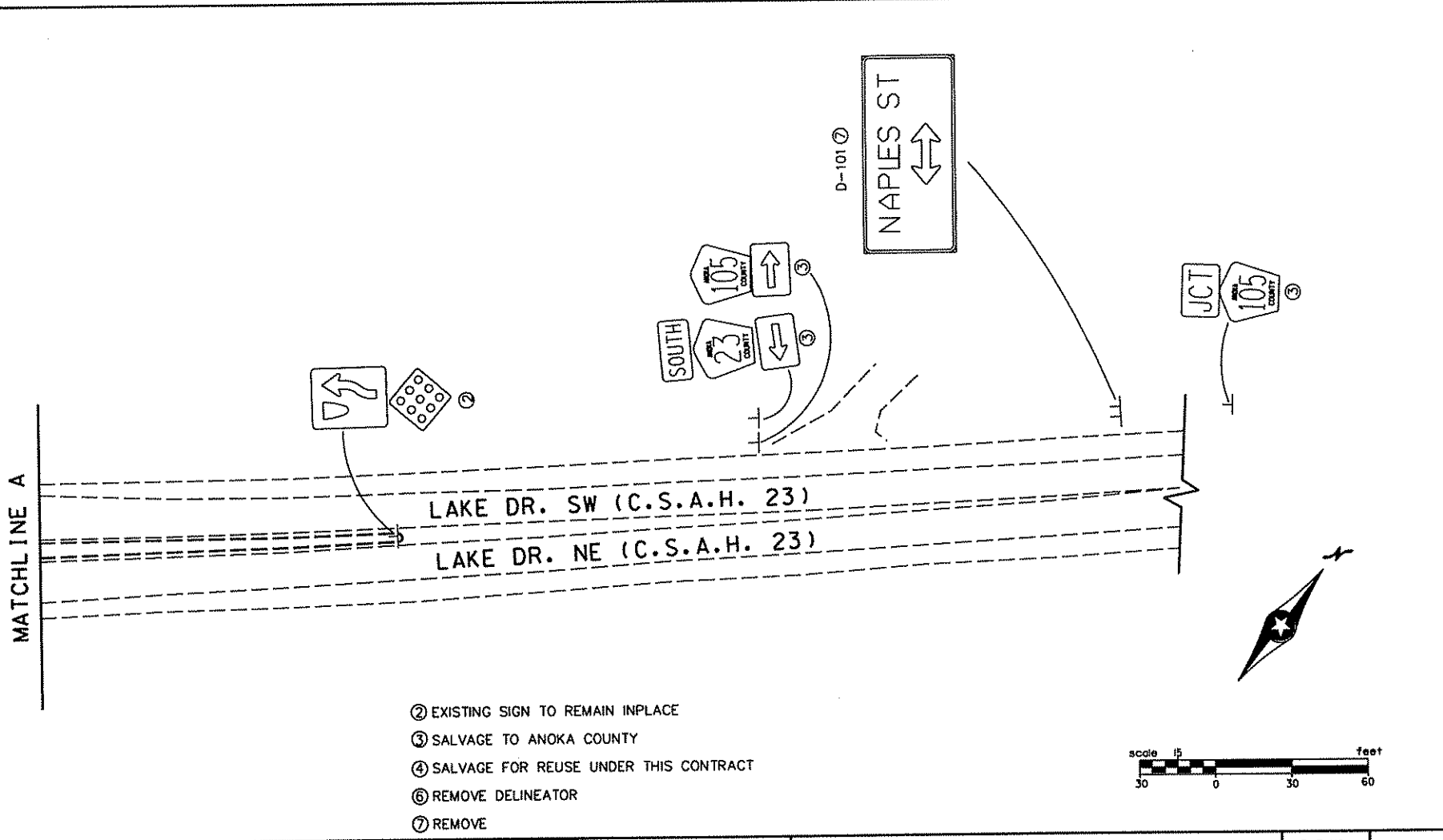


MATCHLINE SEE SHEET 31

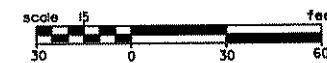


LAKE DR. SW (C.S.A.H. 23)
LAKE DR. NE (C.S.A.H. 23)

MATCHLINE A



- ② EXISTING SIGN TO REMAIN INPLACE
- ③ SALVAGE TO ANOKA COUNTY
- ④ SALVAGE FOR REUSE UNDER THIS CONTRACT
- ⑥ REMOVE DELINEATOR
- ⑦ REMOVE



DESIGN TEAM			
DRAWN BY:	JMT		
DESIGNER:	HLR		
CHECKED BY:	APM		
NO.	BY	DATE	REVISIONS

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.

Certified By: *Susan M. Mason* Lic. No. 18612
 Printed Name: SUSAN M. MASON Date: 04/24/2006



PHONE: (651)490-2000
 3535 VADNAIS CENTER DR.
 ST. PAUL, MN 55110



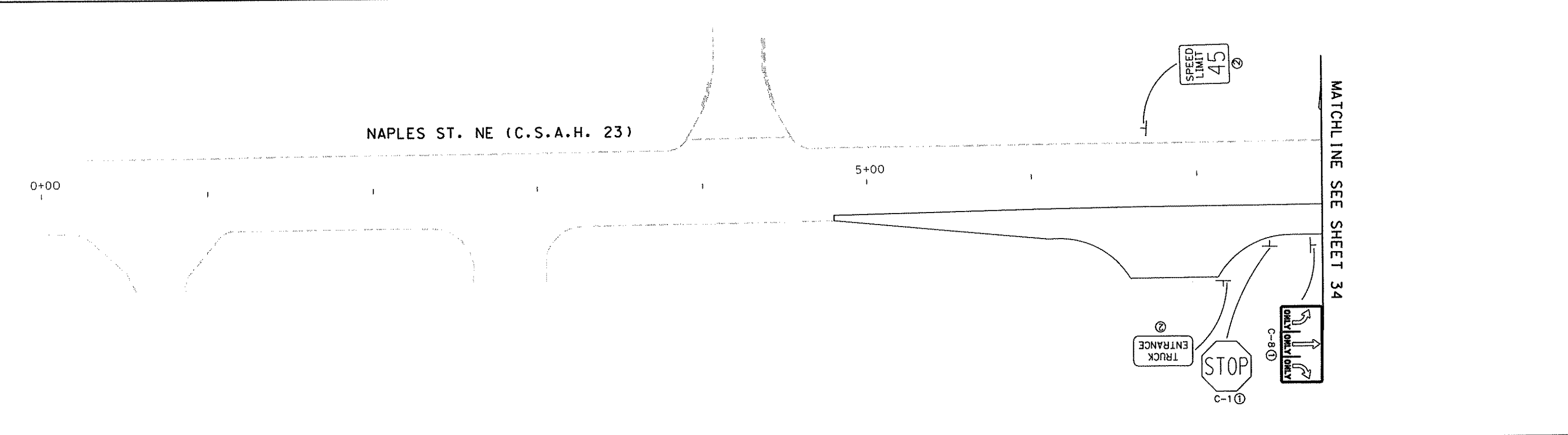
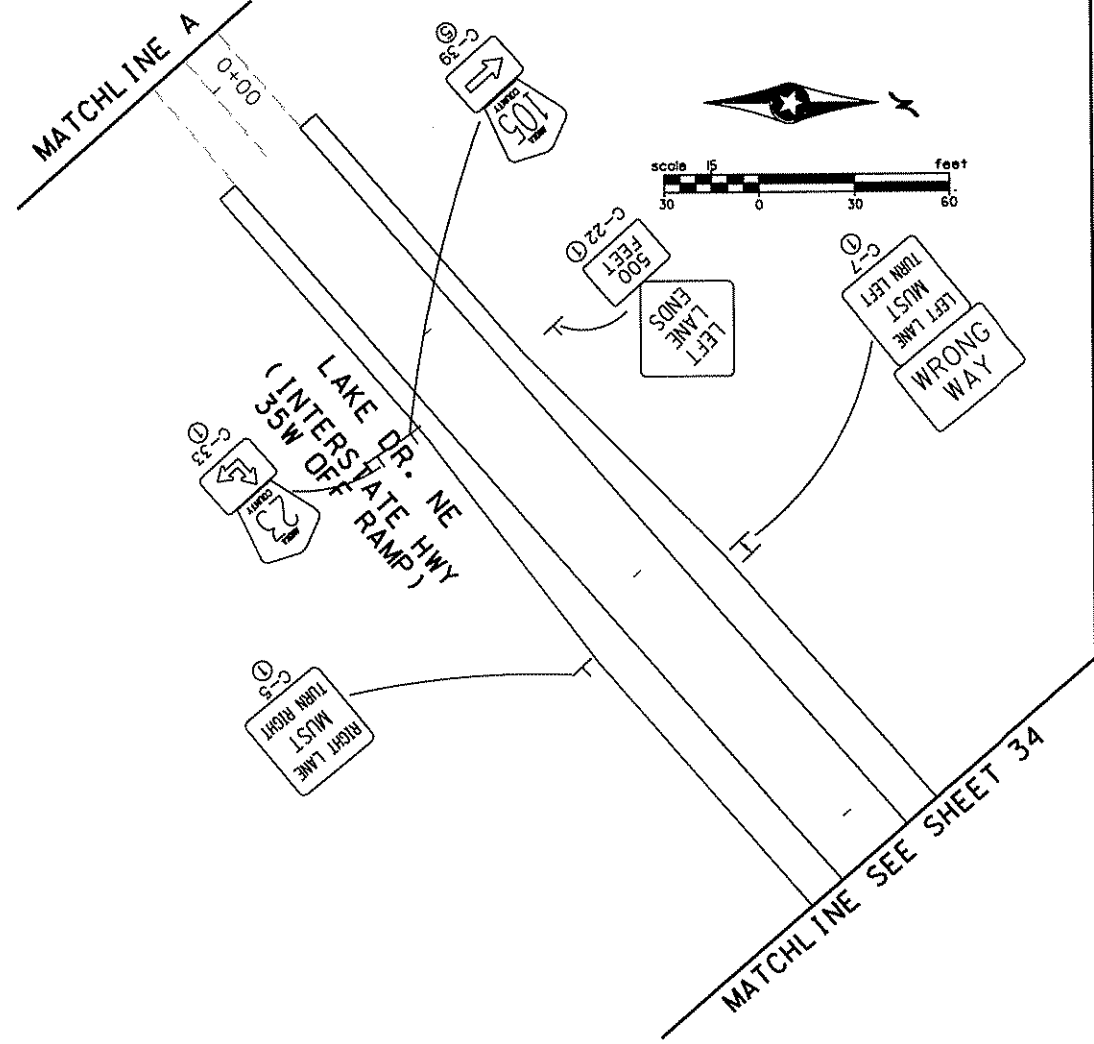
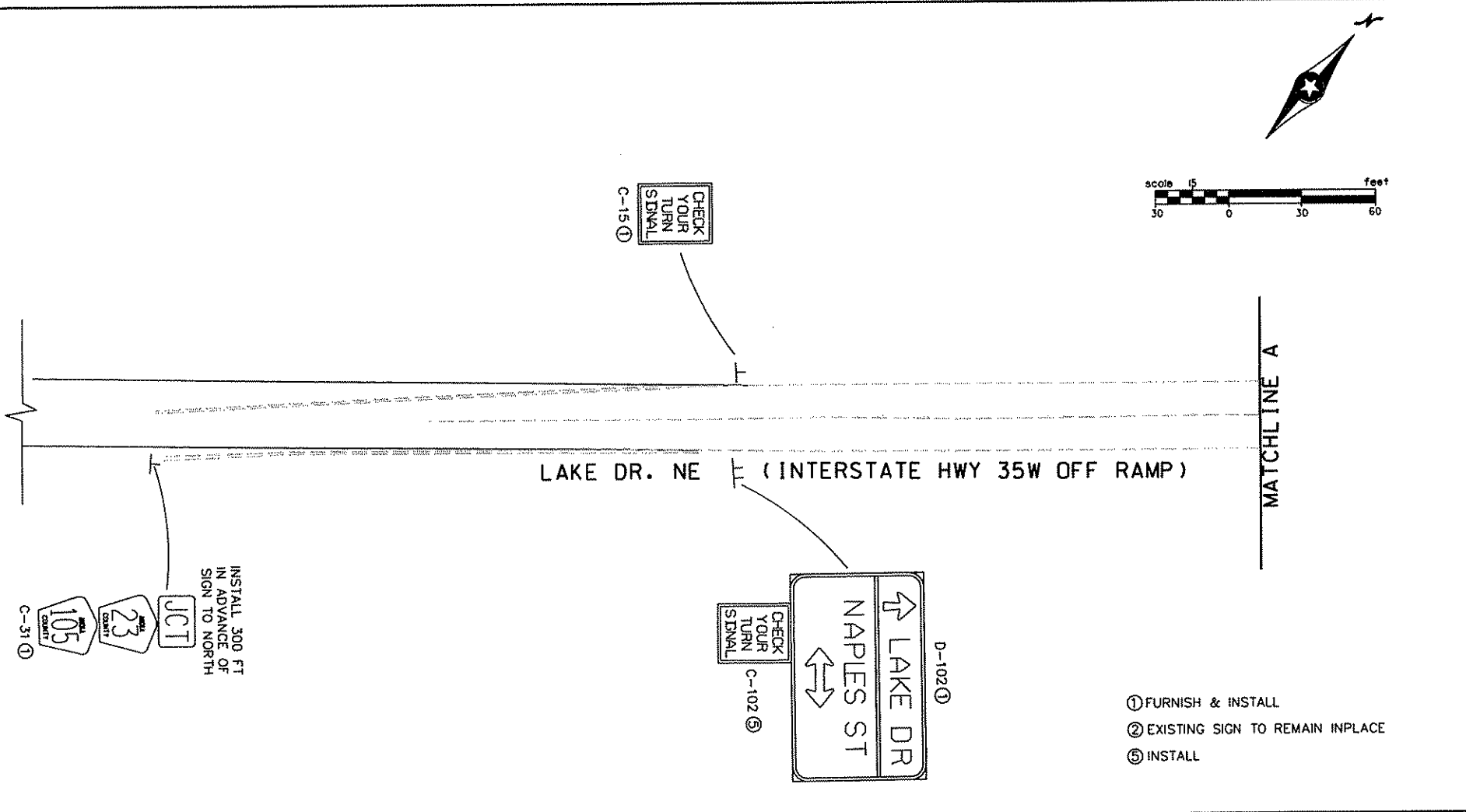
ANOKA COUNTY, MINNESOTA
**INTERSECTION IMPROVEMENTS:
 CSAH 23 @ INTERSTATE HIGHWAY 35W**

EXISTING SIGNING PLAN

STATE PROJECT NO. 02-623-014, STATE PROJECT NO. 0280-56

FILE NO.
 ANOKC0106.01
 DATE
 04/24/2006

32
 57



DESIGN TEAM			
DRAWN BY:	JMT		
DESIGNER:	HLR		
CHECKED BY:	APM		
NO.	BY	DATE	REVISIONS

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.

Certified By: *Susan M. Mason* Lic. No. 18612
Printed Name: SUSAN M. MASON Date: 04/24/2006

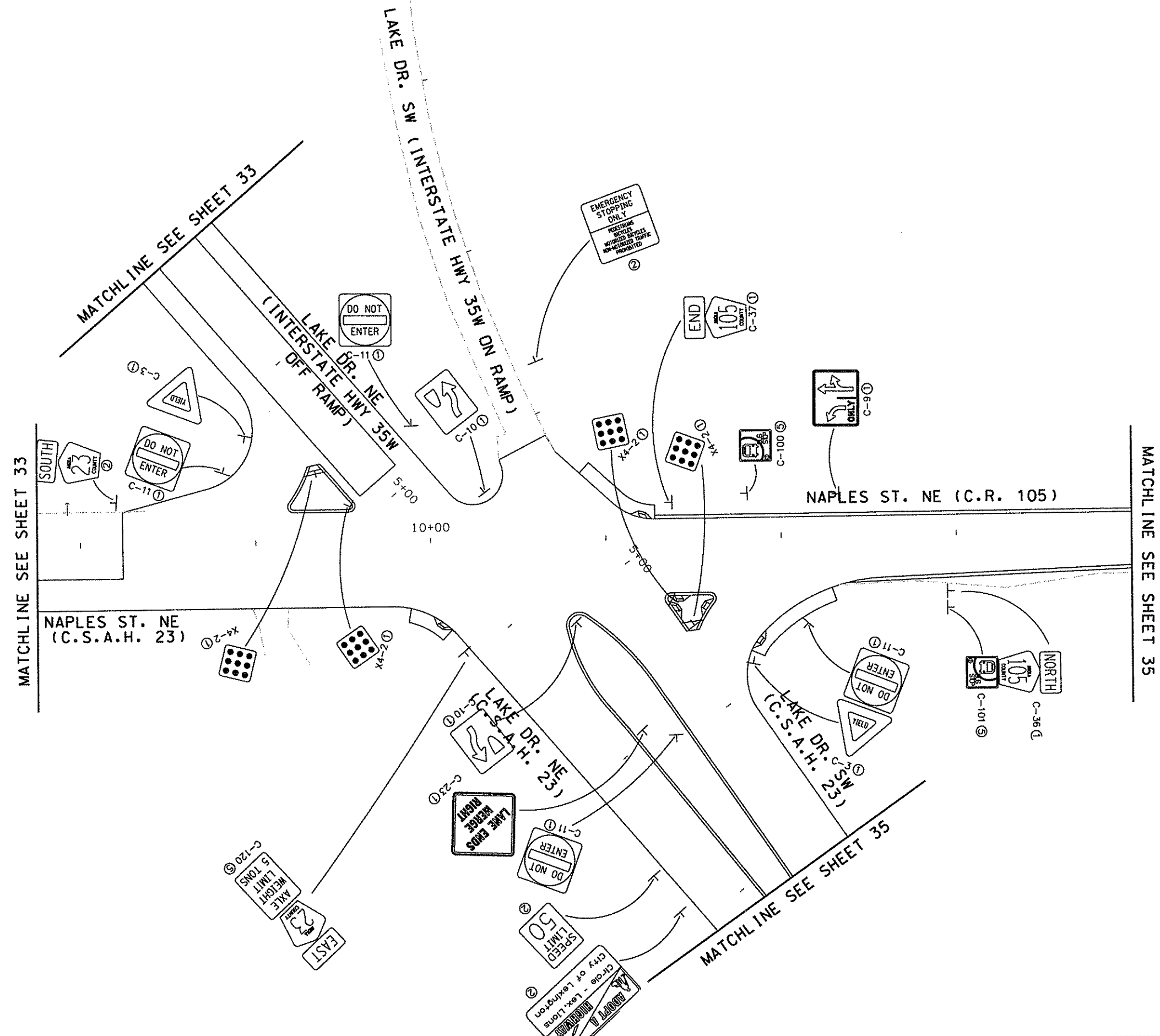
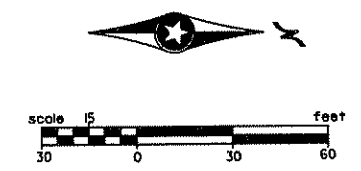
SEH
PHONE: (651)490-2000
3535 VADNAIS CENTER DR.
ST. PAUL, MN 55110



ANOKA COUNTY, MINNESOTA
**INTERSECTION IMPROVEMENTS:
CSAH 23 @ INTERSTATE HIGHWAY 35W**

SIGNING PLAN
STATE PROJECT NO. 02-623-014, STATE PROJECT NO. 0280-56

FILE NO.	33
ANOKC0106.01	
DATE	04/24/2006
	57



- ① FURNISH & INSTALL
- ② EXISTING SIGN TO REMAIN IN PLACE
- ③ INSTALL

DESIGN TEAM			
DRAWN BY:	JMT		
DESIGNER:	HLR		
CHECKED BY:	APM		
NO.	BY	DATE	REVISIONS

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.

Certified By: *Susan M. Mason* Lic. No. 18612
 Printed Name: SUSAN M. MASON Date: 03/28/2006

PHONE: 651/490-2000
 3935 VADNAIS CENTER DR.
 ST. PAUL, MN 55110



ANOKA COUNTY, MINNESOTA
**INTERSECTION IMPROVEMENTS:
 CSAH 23 @ INTERSTATE HIGHWAY 35W**

SIGNING PLAN

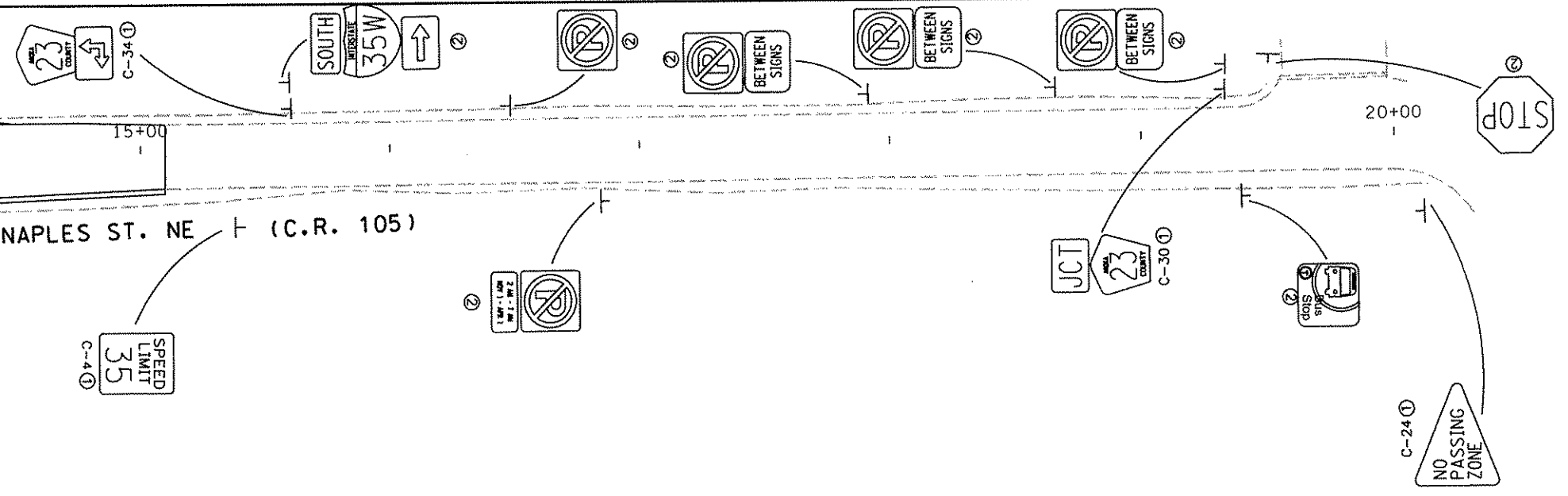
STATE PROJECT NO. 02-623-014, STATE PROJECT NO. 0280-56

FILE NO.	ANOKC0106.01	34
DATE	03/28/2006	57



MATCHLINE SEE SHEET 34

NAPLES ST. NE (C.R. 105)

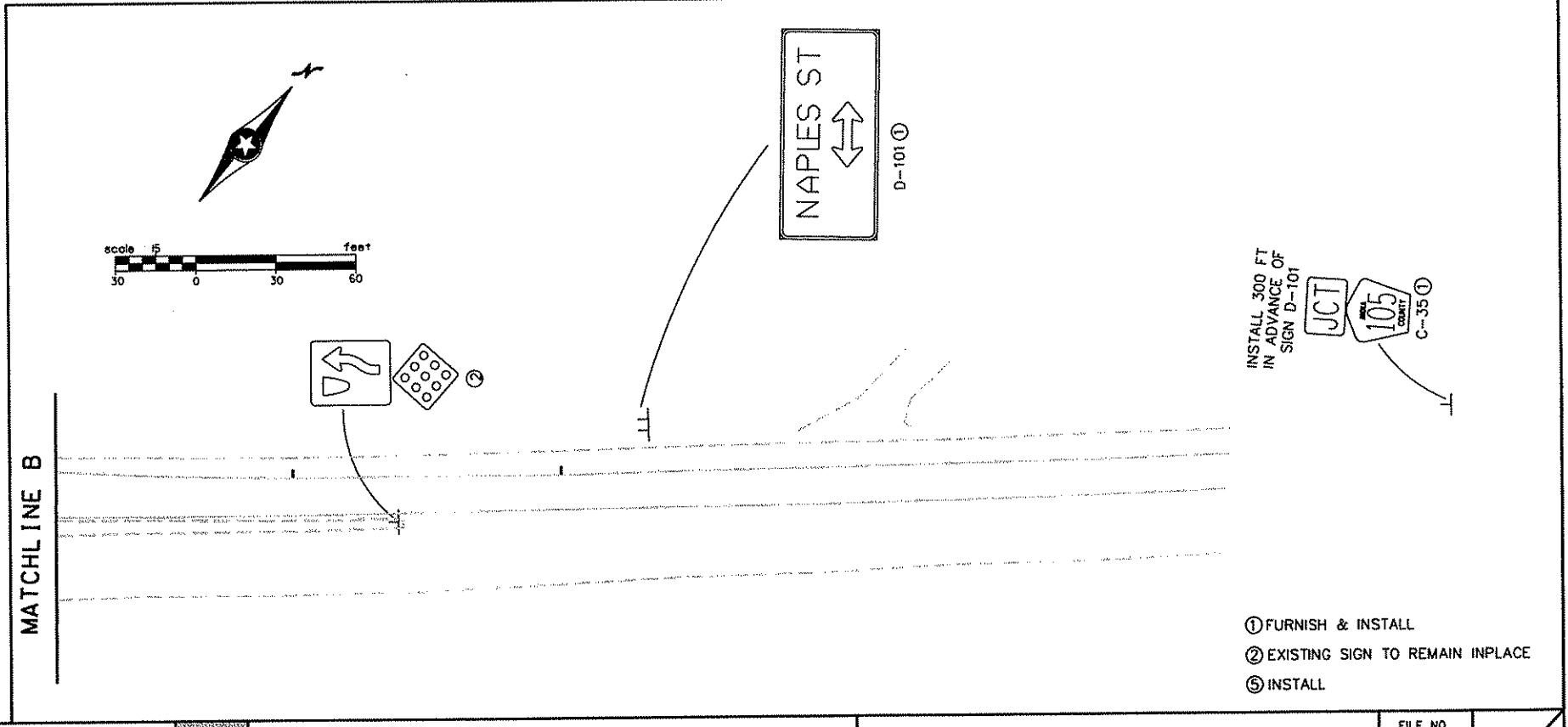
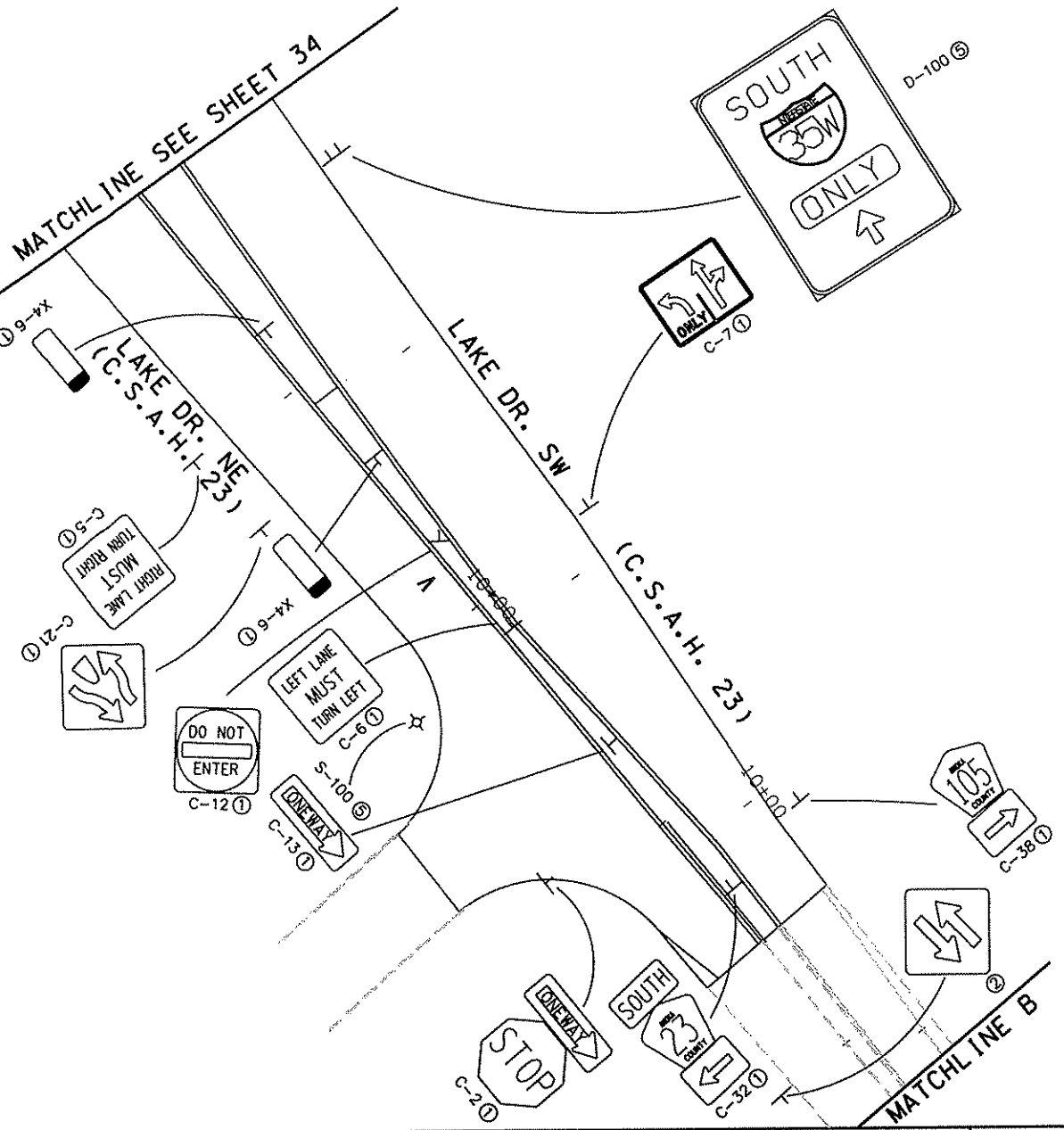


MATCHLINE SEE SHEET 34

LAKE DR. NE (C.S.A.H. 23)

LAKE DR. SW (C.S.A.H. 23)

(C.S.A.H. 23)



- ① FURNISH & INSTALL
- ② EXISTING SIGN TO REMAIN INPLACE
- ③ INSTALL

DESIGN TEAM				
DRAWN BY:	JMT			
DESIGNER:	HLR			
CHECKED BY:	APM			
NO.	BY	DATE	REVISIONS	

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.

Certified By: *Susan M. Mason* Lic. No. 18612
 Printed Name: SUSAN M. MASON Date: 04/24/2006

PHONE: (651)490-2000
 3535 VADNAIS CENTER DR.
 ST. PAUL, MN 55110



ANOKA COUNTY, MINNESOTA

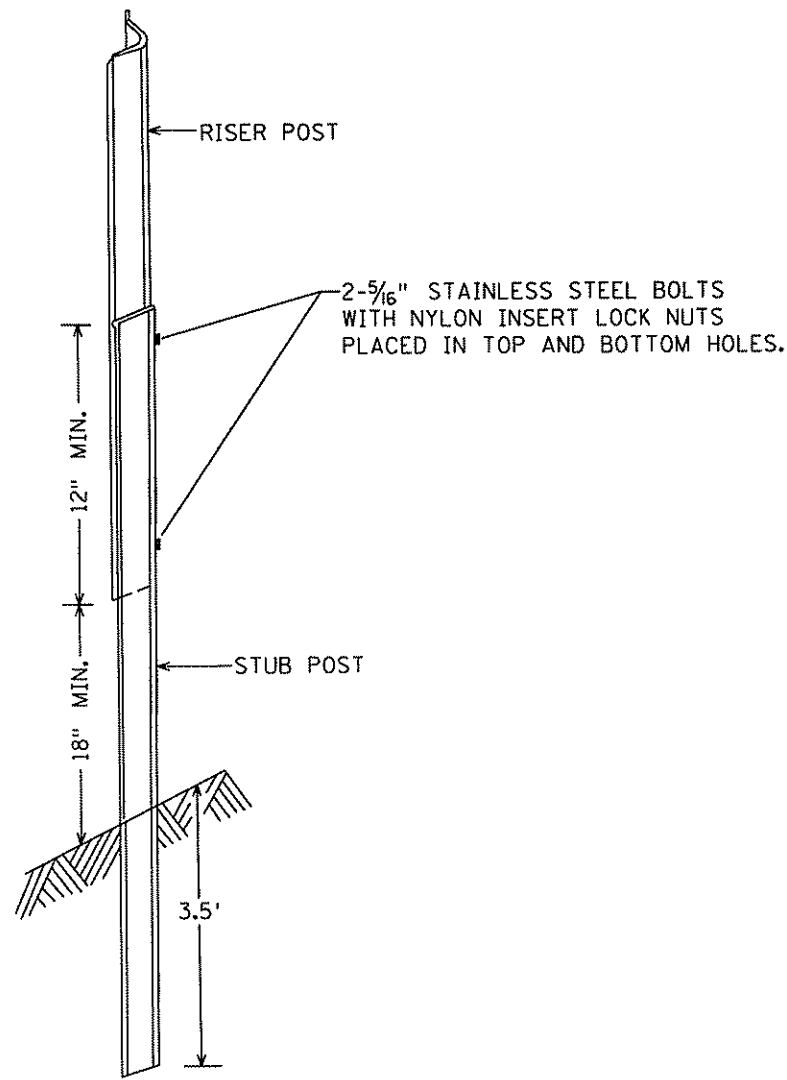
INTERSECTION IMPROVEMENTS: CSAH 23 @ INTERSTATE HIGHWAY 35W

SIGNING PLAN

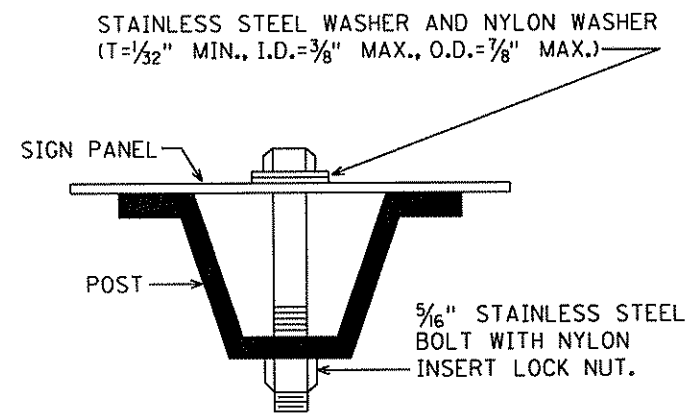
STATE PROJECT NO. 02-623-014, STATE PROJECT NO. 0280-56

FILE NO.	ANOKC0106.01	35
DATE	04/24/2006	57

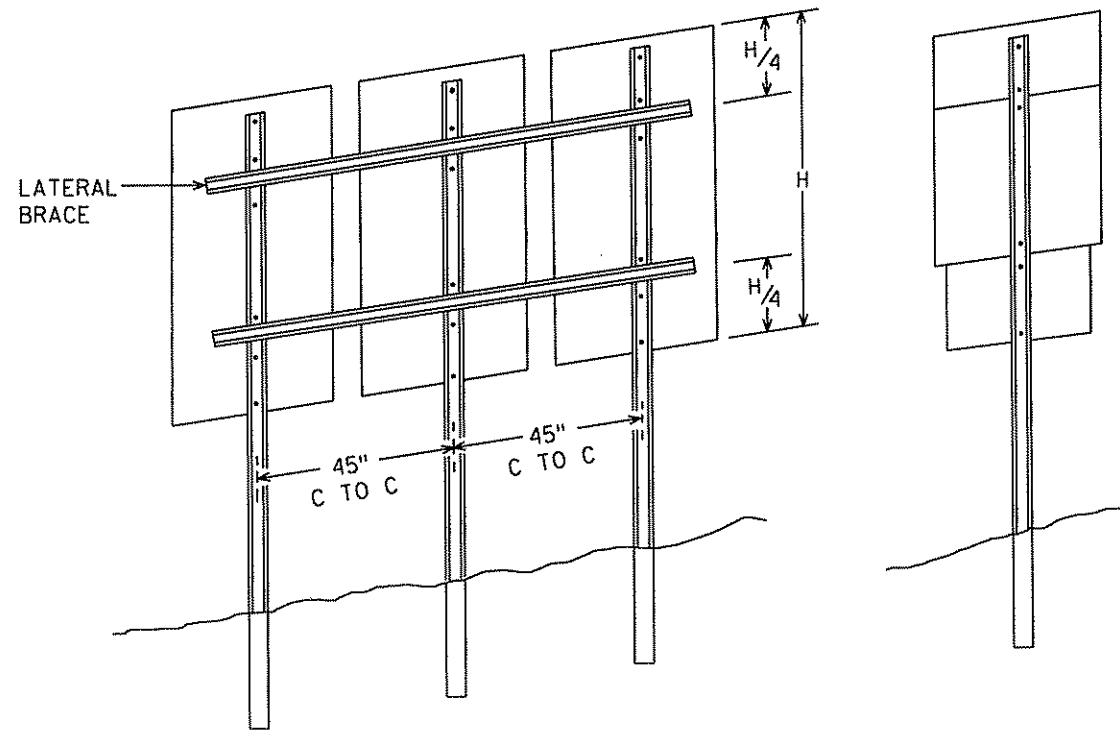
TYPE "C" & "D" POST



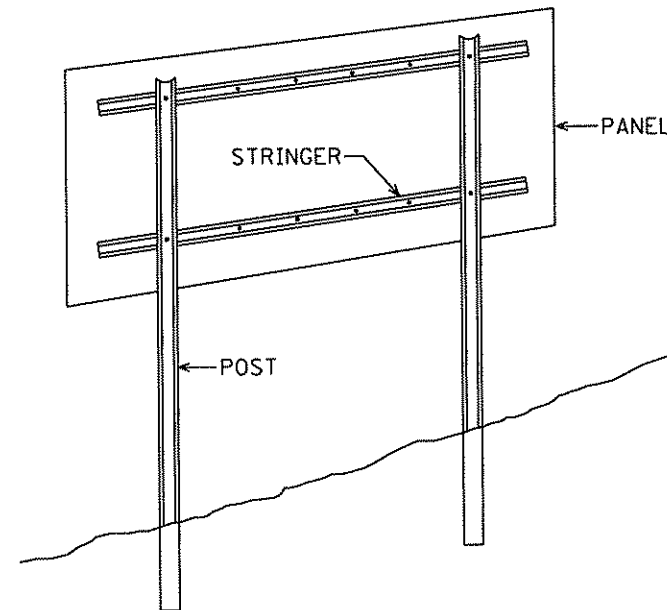
"U POST" SPLICE



"U POST" MOUNTING
TYPE "C" SIGNS



TYPICAL TYPE "C" INSTALLATIONS



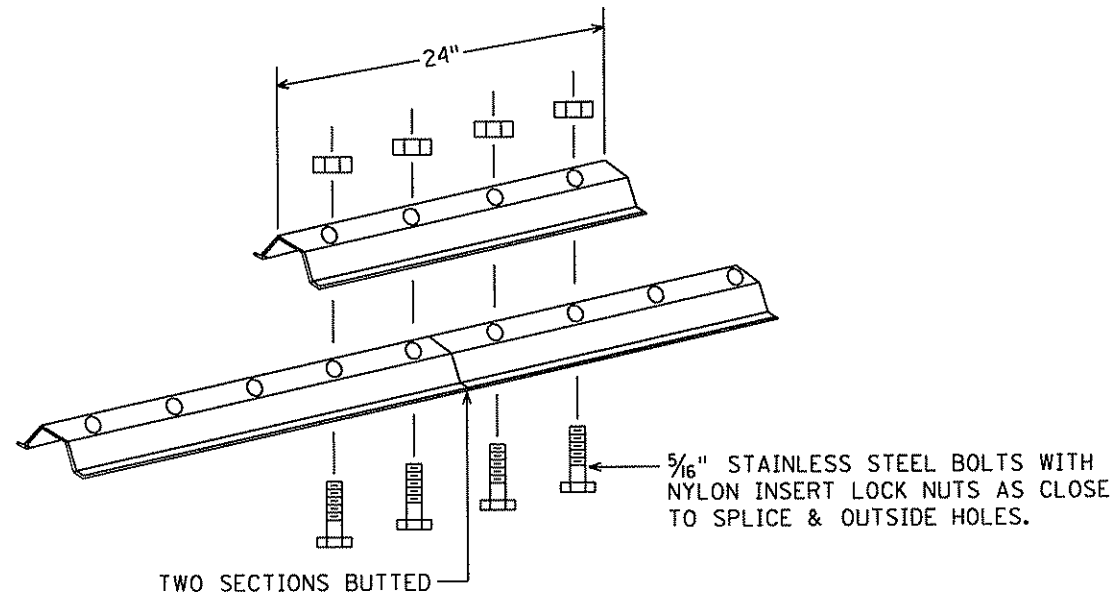
TYPICAL TYPE "D" INSTALLATION

NOTES:

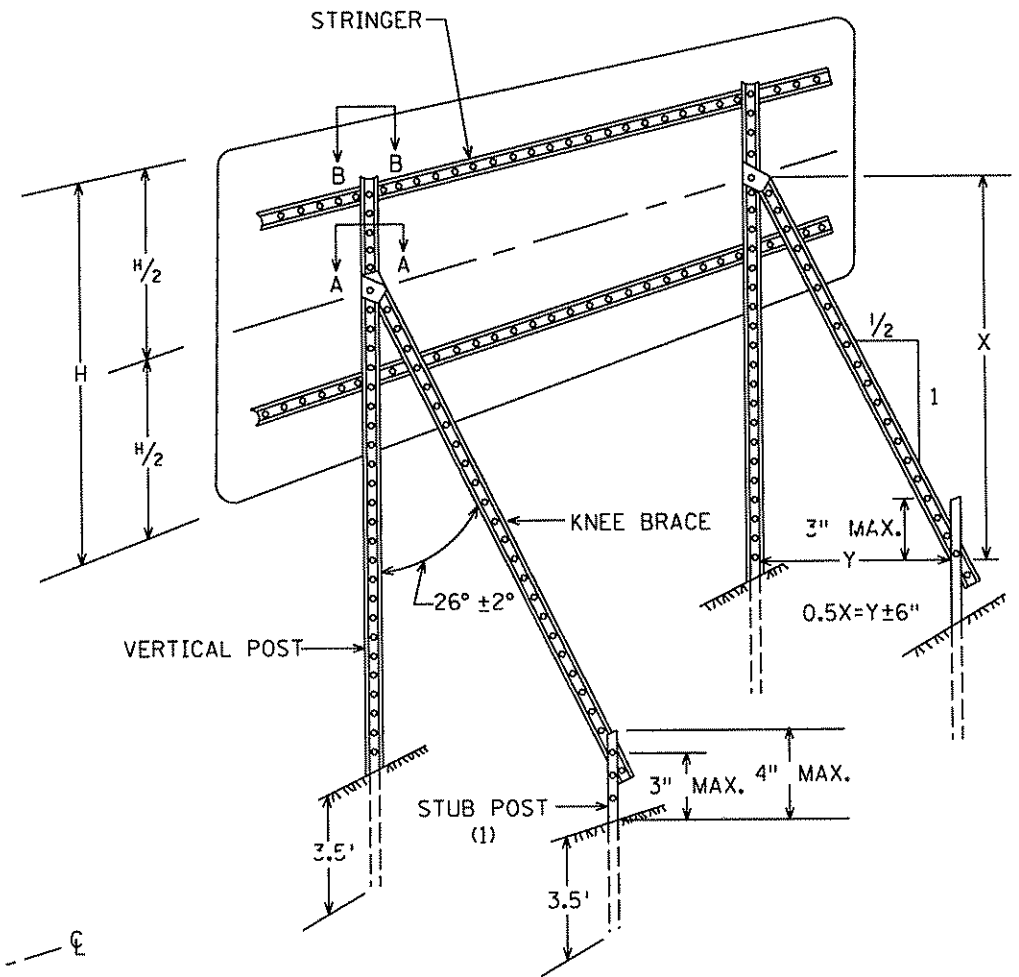
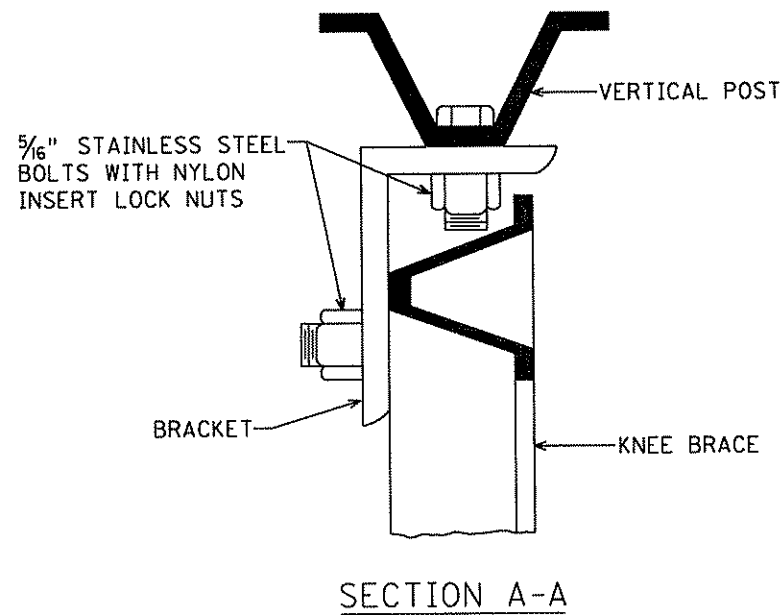
1. USE 3# STUB POSTS, RISER POSTS, STRINGERS, KNEE BRACES, LATERAL BRACES AND KNEE BRACE STUB POSTS. ALL SHALL CONFORM TO MN/DOT 3401.
2. FOR TYPE "D" SIGN POSTS LENGTHS AND SPACINGS, SEE SIGN DATA SHEET.
3. TYPE "D" SIGN PANELS SHALL BE BOLTED TO STRINGERS AT 24" MAXIMUM INTERVALS IN ACCORDANCE WITH TYPE "D" STRINGER AND PANEL-JOINT DETAIL (SEE STANDARD SIGNS MANUAL).
4. MOUNTING (PUNCHING CODE) FOR TYPE "C" SIGN PANELS SHALL BE AS INDICATED IN THE STANDARD SIGNS MANUAL UNLESS OTHERWISE SPECIFIED.
5. ALL RISER (VERTICAL) "U POSTS" SHALL BE SPLICED. DRIVEN STUB POSTS SHALL BE AT LEAST 7' LONG.
6. USE STAINLESS STEEL 5/16" BOLTS, WASHERS, AND NYLON INSERT LOCK NUTS AS SHOWN FOR ALL GROUND MOUNTED AND OVERHEAD MOUNTED SIGNS.
7. STAINLESS STEEL WASHER WITH SAME DIMENSIONS SHALL BE PROVIDED BETWEEN ALL NYLON WASHERS AND BOLT HEADS.
8. BRACING STUBS SHALL BE NO MORE THAN 4" ABOVE GROUND AND EMBEDDED AT LEAST 3 1/2'.
9. A-FRAME BRACKET SHALL BE STEEL CONFORMING TO MN/DOT 3306 AND GALVANIZED IN ACCORDANCE WITH MN/DOT 3394.
10. COLLARS SHALL BE USED TO SHIM OVERLAYS AND DEMOUNTABLE LEGEND AWAY FROM PANEL WHERE INTERFERENCE WITH BOLT HEADS IS ENCOUNTERED. MN/DOT 3352.2A5.
11. 2 AND 3 POST TYPE "C" SIGNS SHALL BE REINFORCED WITH AT LEAST ONE LATERAL BRACE. INSTALLATIONS WHERE THE TOTAL PANEL HEIGHT IS 60" OR MORE SHALL HAVE TWO LATERAL BRACES LOCATED APPROXIMATELY AT THE QUARTER POINTS.
12. WHERE 2 OR MORE SINGLE POST SIGNS (TYPE "C") ARE MOUNTED SIDE BY SIDE, THEY SHALL BE REINFORCED Laterally BY AT LEAST 2 POST SECTIONS, BOLTED AT EACH POST AND LOCATED APPROXIMATELY AT THE QUARTER POINTS AS SHOWN IN SKETCH.

TYPE C & D SIGN
STRUCTURAL DETAILS

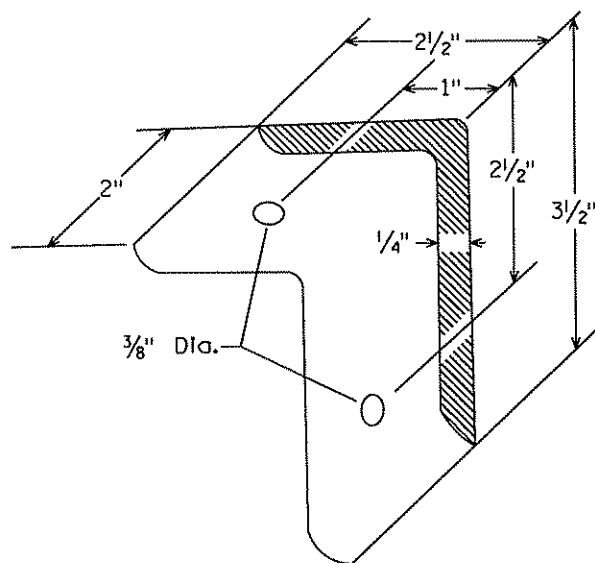
Sheet 1 of 3



LATERAL BRACE OR STRINGER SPLICE DETAIL (EXPLODED VIEW)

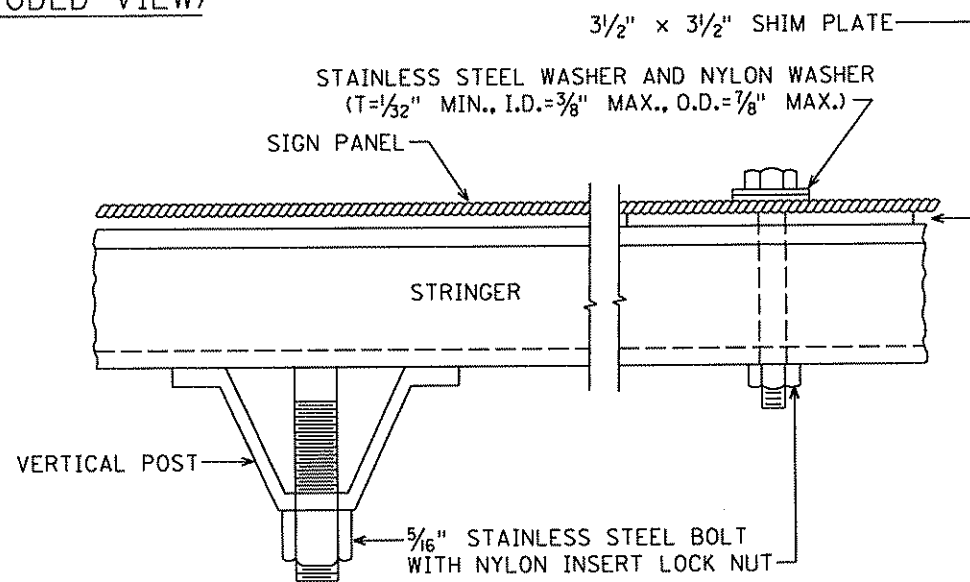


TYPICAL "A-FRAME" INSTALLATION TYPE "D" SIGNS

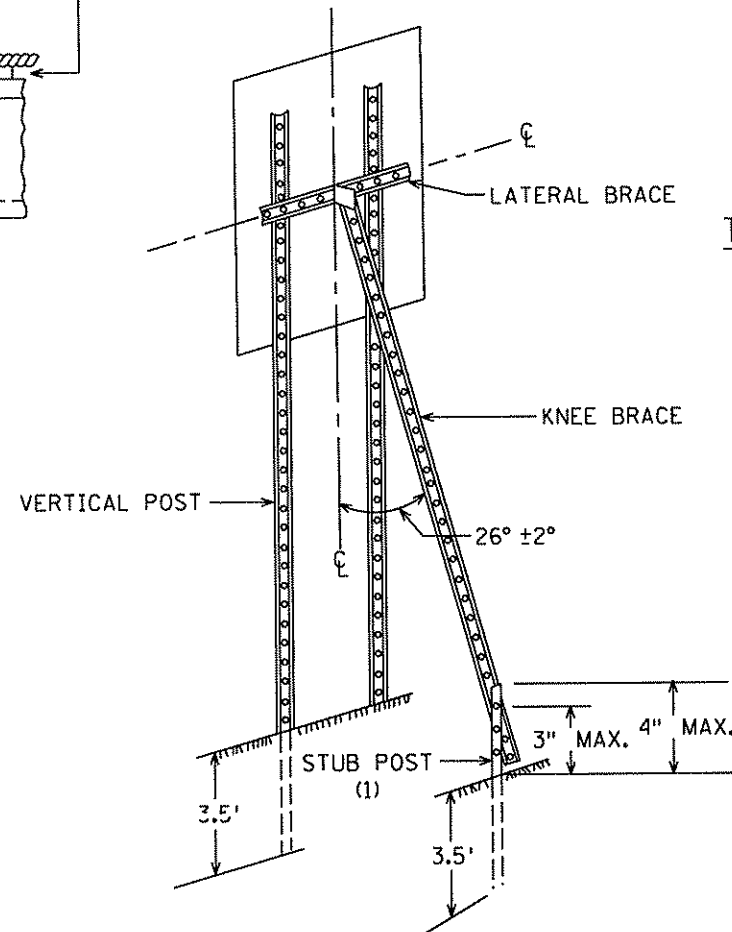


A-FRAME BRACKET

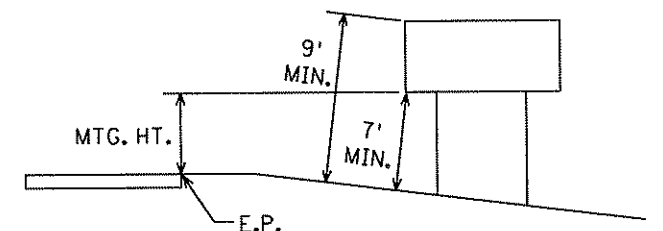
(STEEL MN/DOT 3306 GALVANIZED PER MN/DOT 3394)



SECTION B-B



TYPICAL "A-FRAME" INSTALLATION TYPE "C" SIGNS



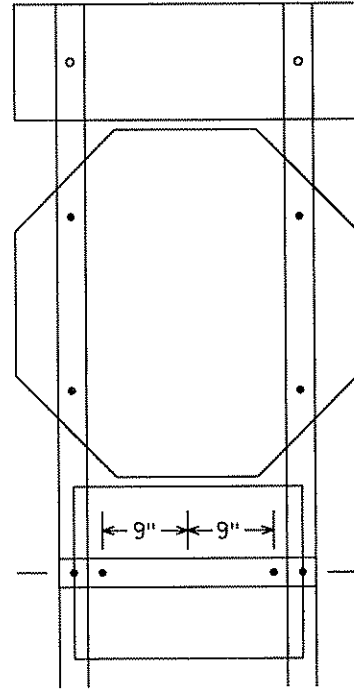
TYPICAL MOUNTING

(1) OFFSET STUB POST 1' TOWARD ROADWAY RELATIVE TO VERTICAL POST.

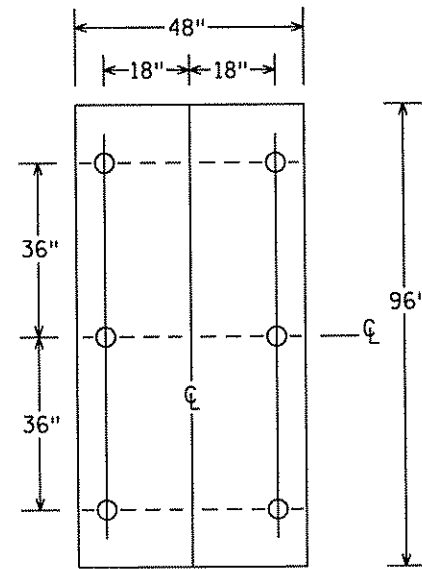
TYPE C & D SIGN STRUCTURAL DETAILS

Sheet 2 of 3

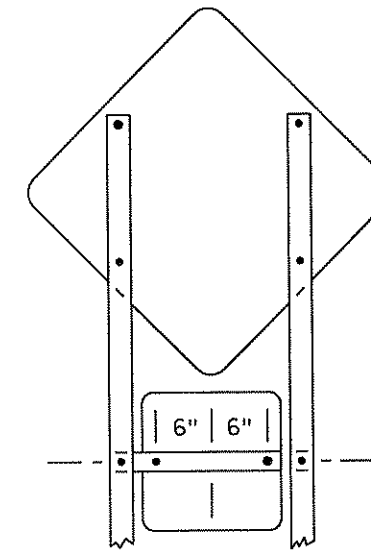
KNEE BRACE SPLICE



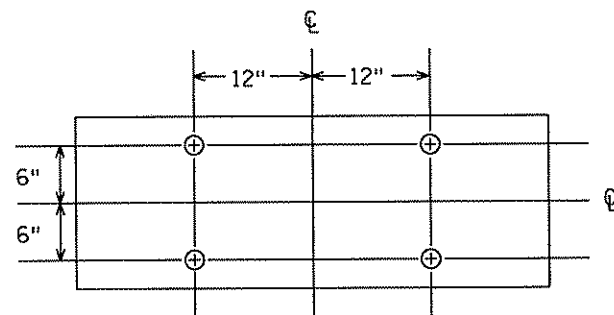
R6-1, R1-1 & (R6-3 OR R6-3a)
MOUNTING



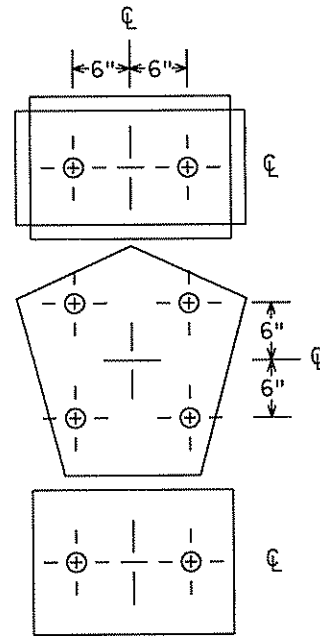
PUNCHING FOR R2-4b
SPEED LIMIT



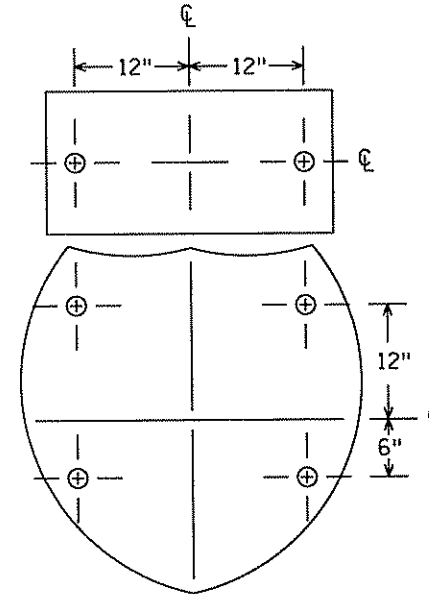
(W1-1, W1-2, W1-3, W1-4 OR W1-5) & W13-1
MOUNTING



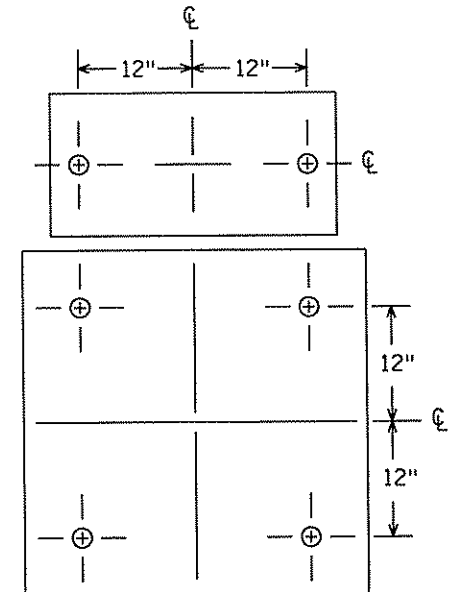
PUNCHING FOR R6-1(48" x 18")



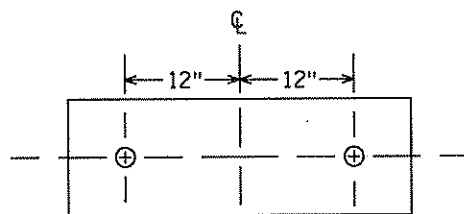
M2-1A [21" x 15"] OR
(M3-1A, M3-2A, M3-3A OR M3-4A) [24" x 12"] AND
M1-6 [24" x 24"] AND
(M5-1A, M5-2A, M6-1A, M6-2A, M6-3A M6-4A, M6-5A OR M6-6A) [21" x 15"]
PUNCHING



(M3-1A, M3-2A, M3-3A OR M3-4A) [30" x 15"] AND
M1-1 [45" x 36" OR 36" x 36"]
PUNCHING



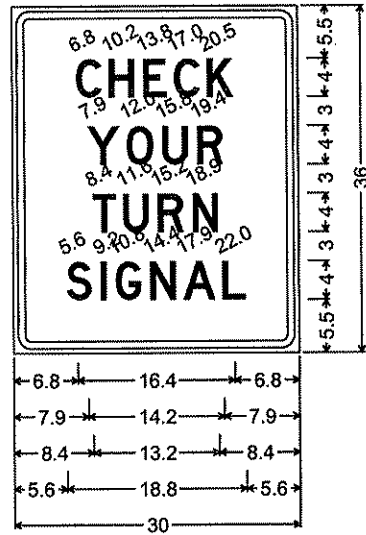
(M3-1, M3-1A, M3-2, M3-2A, M3-3, M3-3A M3-4 OR
M3-4A) [30" x 15"] AND (M1-4 OR M1-5A) [36" x 36"]
PUNCHING



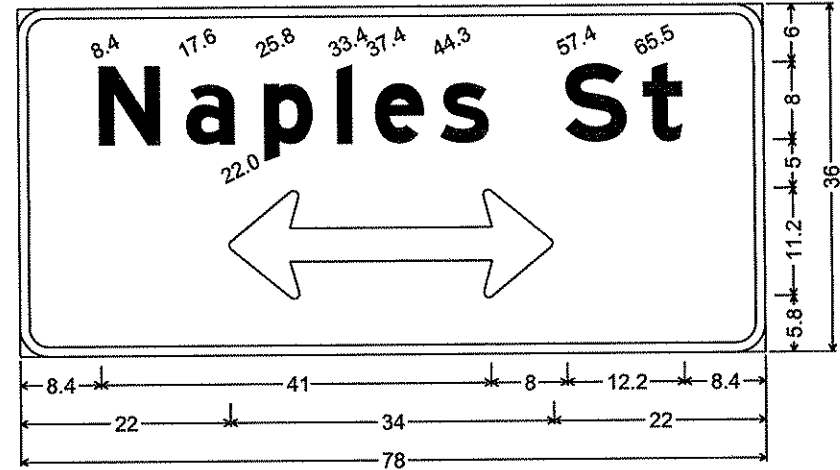
PUNCHING FOR R6-1(36" x 12")

TYPE C & D SIGN
STRUCTURAL DETAILS

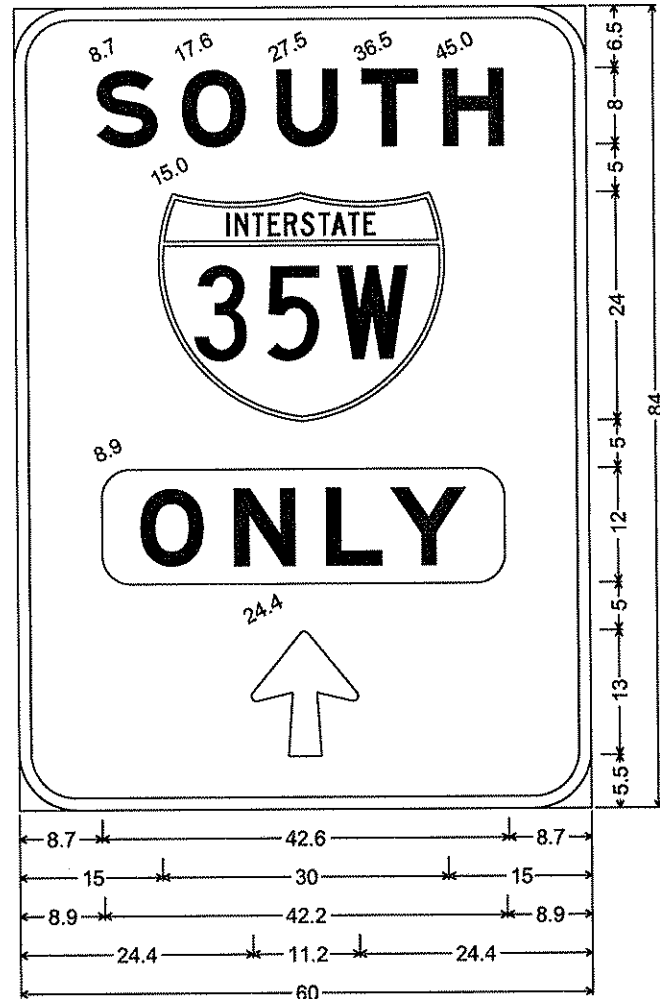
Sheet 3 of 3



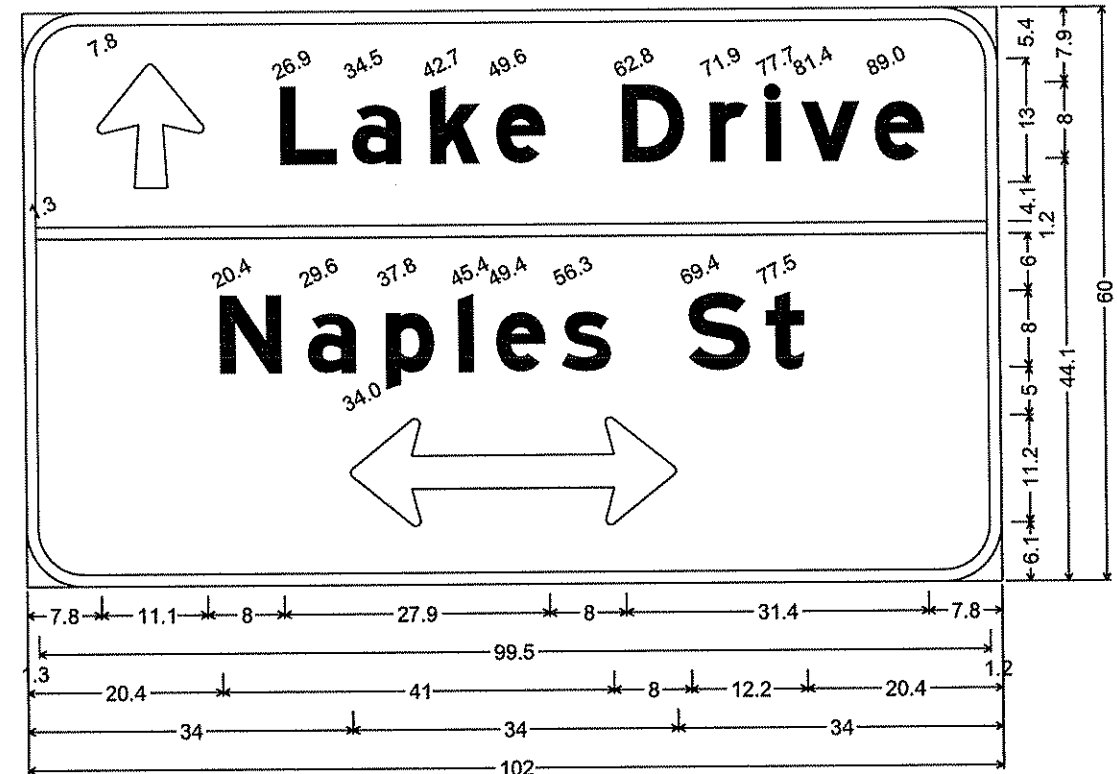
C-15;
 1.9" Radius, 0.8" Border, 0.5" Indent, Black on White;
 [CHECK] D; [YOUR] D;
 [TURN] D; [SIGNAL] D;



D-101; 3.0" Radius, 1.0" Border, White on Green;
 [Naples St] E Mod; Double Headed Arrow 5 - 34.0" 0°;



D-100; 6.0" Radius, 1.3" Border, White on Green;
 [SOUTH] E Mod 125% spacing;
 Rounded Rectangle 3.0" Radius Yellow;
 Arrow 5 - 13.0" 90°;



D-102; 6.0" Radius, 1.3" Border, White on Green;
 Arrow 5 - 13.0" 90°; [Lake Drive] E Mod; [Naples St] E Mod;
 Double Headed Arrow 5 - 34.0" 0°;

DESIGN TEAM	NO.	BY	DATE	REVISIONS
DRAWN BY: JMT				
DESIGNER: HLR				
CHECKED BY: APM				

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.
 Certified By: *Susan M. Mason* Lic. No. 18612
 Printed Name: SUSAN M. MASON Date: 03/28/2006

SEH
 PHONE: (651)490-2000
 3535 VADNAIS CENTER DR.
 ST. PAUL, MN 55110

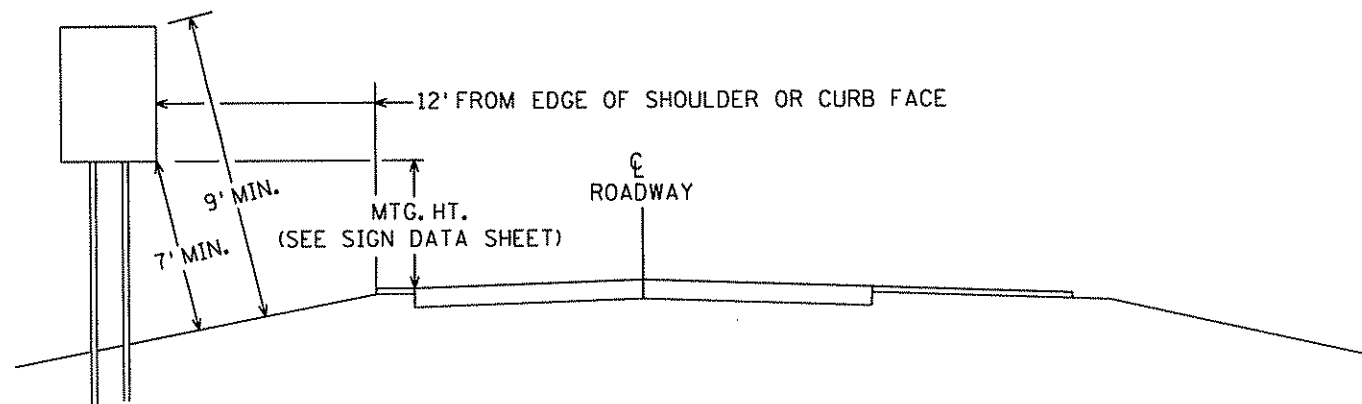


ANOKA COUNTY, MINNESOTA
INTERSECTION IMPROVEMENTS:
CSAH 23 @ INTERSTATE HIGHWAY 35W

TYPE "C" & "D" SIGN
 STATE PROJECT NO. 02-623-014, STATE PROJECT NO. 0280-56

FILE NO. ANOKC0106.01	39
DATE 03/28/2006	57

ROADSIDE PLACEMENT



ROUTE MARKER, REGULATORY & WARNING SIGNS - TYPE C
 MINOR GUIDE SIGNS - TYPE D

NOTES:

1. IF A SECONDARY SIGN IS MOUNTED BELOW A MAJOR SIGN, THE MAJOR SIGN SHALL BE AT LEAST 8' ABOVE THE PAVEMENT EDGE AND THE SECONDARY SIGN AT LEAST 5'.
2. ALL ROUTE MARKERS, WARNING AND REGULATORY SIGNS SHALL BE AT LEAST 6' ABOVE PAVEMENT EDGE EXCEPT WHERE HEAVY PEDESTRIAN TRAFFIC IS ENCOUNTERED THEY SHALL BE 7'.
3. SIGN FACES SHALL BE VERTICAL.
4. OVERHEAD SIGNS SHALL BE POSITIONED AT RIGHT ANGLES TO THE THRU ROADWAY UNLESS OTHERWISE NOTED.
5. TO AVOID SPECULAR GLARE, $\angle A$ SHALL BE APPROXIMATELY 93° FOR SIGNS LOCATED LESS THAN 30' FROM THE EDGE OF PAVEMENT AND APPROXIMATELY 92° FOR SIGNS LOCATED 30' OR MORE FROM EDGE OF PAVEMENT. THIS APPLIES TO SIGNS TYPE A, C, & D AND INCLUDES SIGNS IN THE GORE.

DESIGN TEAM				
DRAWN BY:	JMT			
DESIGNER:	HLR			
CHECKED BY:	APM			
	NO.	BY	DATE	REVISIONS

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.

Certified By: *Susan M. Mason* Lic. No. 18612
 Printed Name: SUSAN M. MASON Date: 03/28/2006



PHONE: (651)490-2000
 3535 VADNAIS CENTER DR.
 ST. PAUL, MN 55110



ANOKA COUNTY, MINNESOTA
INTERSECTION IMPROVEMENTS:
CSAH 23 @ INTERSTATE HIGHWAY 35W

SIGN PLACEMENT

STATE PROJECT NO. 02-623-014, STATE PROJECT NO. 0280-56

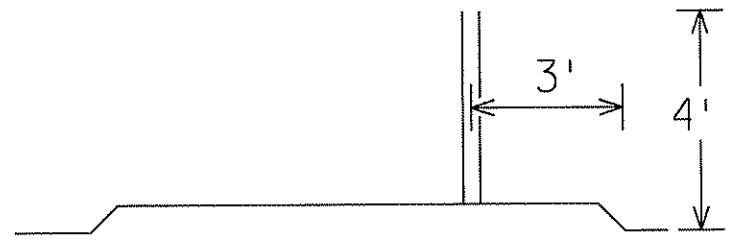
FILE NO.	40
ANOKC0106.01	
DATE	57
03/28/2006	

10:57:01 AM

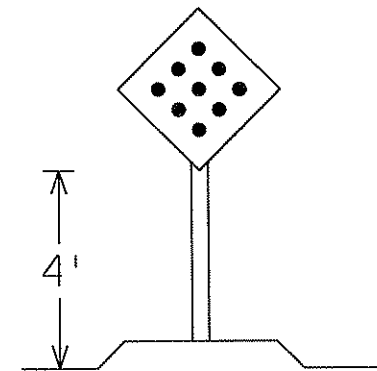
03/28/2006

Default

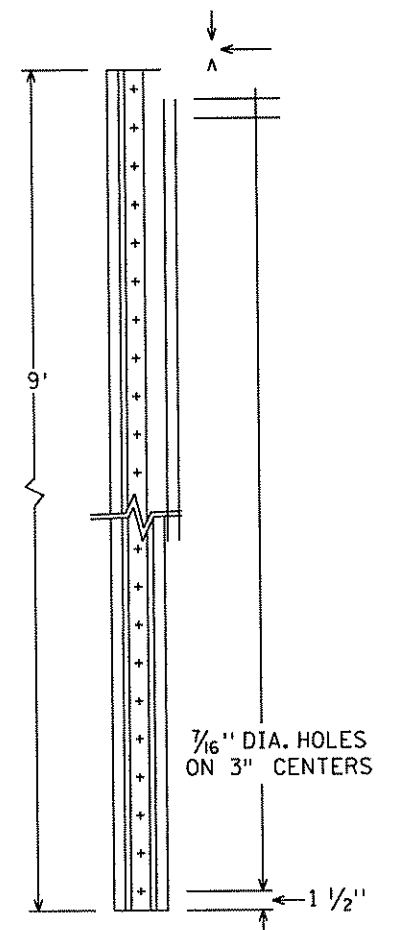
w:\ge\anoka\010601\p\shshts\signing\anoka\010601_sign_details.dgn



RAISED ISLAND
CLEARANCE MARKER
(X4-4)



RAISED ISLAND
HAZARD MARKER
(X4-2)



MN/DOT 3401
NORMAL WEIGHT = 2 LB./FT.

DELINEATOR POST

DESIGN TEAM			
DRAWN BY:	JMT		
DESIGNER:	HLR		
CHECKED BY:	AFM		
NO.	BY	DATE	REVISIONS

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.

Certified By: *Susan M. Mason* Lic. No. 18612
 Printed Name: SUSAN M. MASON Date: 03/28/2006

SEH
 PHONE: 1651490-2000
 3535 VADNAIS CENTER DR.
 ST. PAUL, MN 55110





ANOKA COUNTY, MINNESOTA
INTERSECTION IMPROVEMENTS:
CSAH 23 @ INTERSTATE HIGHWAY 35W

DELINEATORS & MARKERS
 STATE PROJECT NO. 02-623-014, STATE PROJECT NO. 0280-56



FILE NO. ANOKC0106.01	41 57
DATE 03/28/2006	

PAVEMENT MARKING TABULATIONS

SYMBOLS & MATERIALS LEGEND

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

STRIPING KEY

-  CIRCLE - EPOXY
-  SQUARE - PREFORMED THERMOPLASTIC

GENERAL INFORMATION:

THE ENGINEER'S INVOLVEMENT IN THE APPLICATION OF THE MATERIAL SHALL BE LIMITED TO FIELD CONSULTATION AND INSPECTION. THE CONTRACTOR 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:

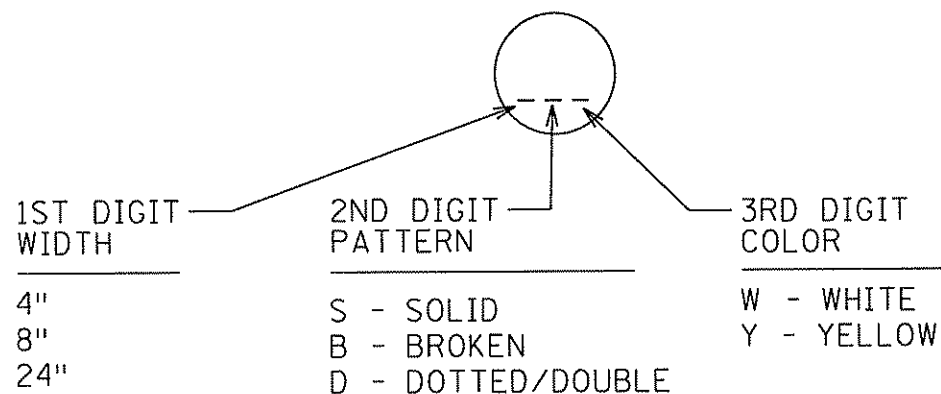
THE ROAD SURFACE SHALL BE CLEANED AT THE DIRECTION OF THE ENGINEER JUST PRIOR TO APPLICATION. PAVEMENT CLEANING SHALL CONSIST OF AT LEAST BRUSHING WITH A ROTARY BROOM (NON-METALLIC) OR AS RECOMMENDED BY THE MATERIAL MANUFACTURER AND ACCEPTABLE TO THE ENGINEER. NEW PORTLAND CEMENT CONCRETE SURFACES SHALL BE SANDBLAST CLEANED TO REMOVE ANY SURFACE TREATMENTS AND/OR LAITANCE. ON LOW SPEED (SPEED LIMIT 35 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 BEADS 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 F° OR GREATER.

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



EXAMPLE:  = 4" SOLID LINE WHITE - EPOXY

PERMANENT PAVEMENT MARKING TABULATION SHEET

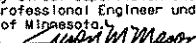
M

ITEM	UNIT	QUANTITY
PAVEMENT MESSAGE (RIGHT ARROW) - PREFORMED THERMOPLASTIC	EA	7
PAVEMENT MESSAGE (LEFT ARROW) - PREFORMED THERMOPLASTIC	EA	6
4" SOLID LINE WHITE - EPOXY	LF	5360
4" SOLID LINE YELLOW - EPOXY	LF	2050
4" BROKEN LINE WHITE - EPOXY	LF	560
4" DOUBLE SOLID YELLOW - EPOXY	LF	2280
8" SOLID LINE WHITE - EPOXY	LF	210
12" SOLID LINE YELLOW - EPOXY	LF	60
24" SOLID LINE YELLOW - EPOXY	LF	105
24" SOLID LINE WHITE - PREFORMED THERMOPLASTIC	LF	125
ZEBRA CROSSWALK WHITE - PREFORMED THERMOPLASTIC	SF	920

10:57:02 AM 03/28/2006 Default \\s01\anokc\010601\pshshts\str\pimg\anokc010601...stt.ab.dgn

DESIGN TEAM				
DRAWN BY:	JMT			
DESIGNER:	HLR			
CHECKED BY:	APM			
	NO.	BY	DATE	REVISIONS

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.

Certified By:  Lic. No. 18612
 Printed Name: SUSAN M. MASON Date: 03/28/2006



PHONE: (651)490-2000
 3535 VADNAIS CENTER DR.
 ST. PAUL, MN 55110



ANOKA COUNTY, MINNESOTA
INTERSECTION IMPROVEMENTS:
CSAH 23 @ INTERSTATE HIGHWAY 35W

PAVEMENT MARKING TABULATIONS

STATE PROJECT NO. 02-623-014, STATE PROJECT NO. 0280-56

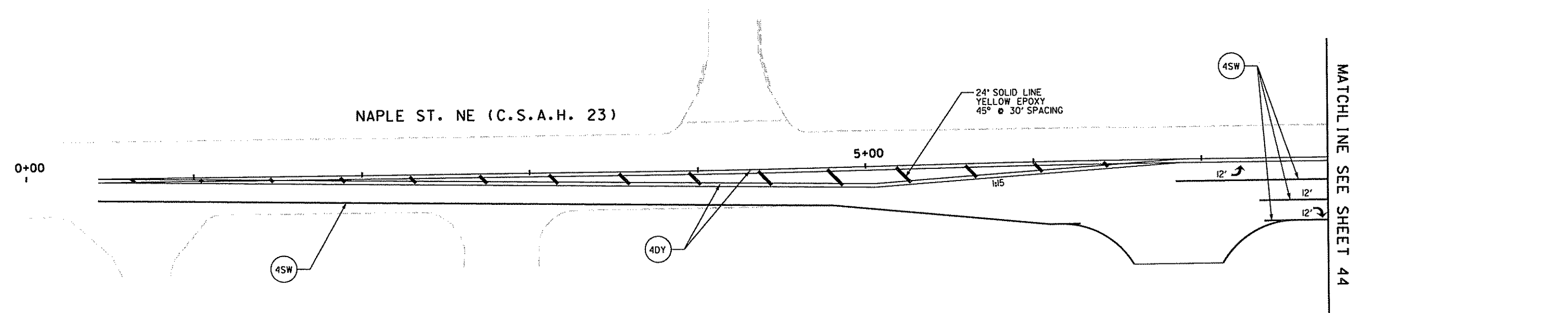
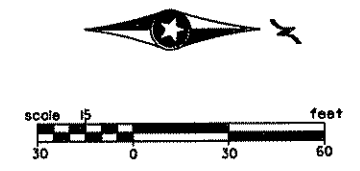
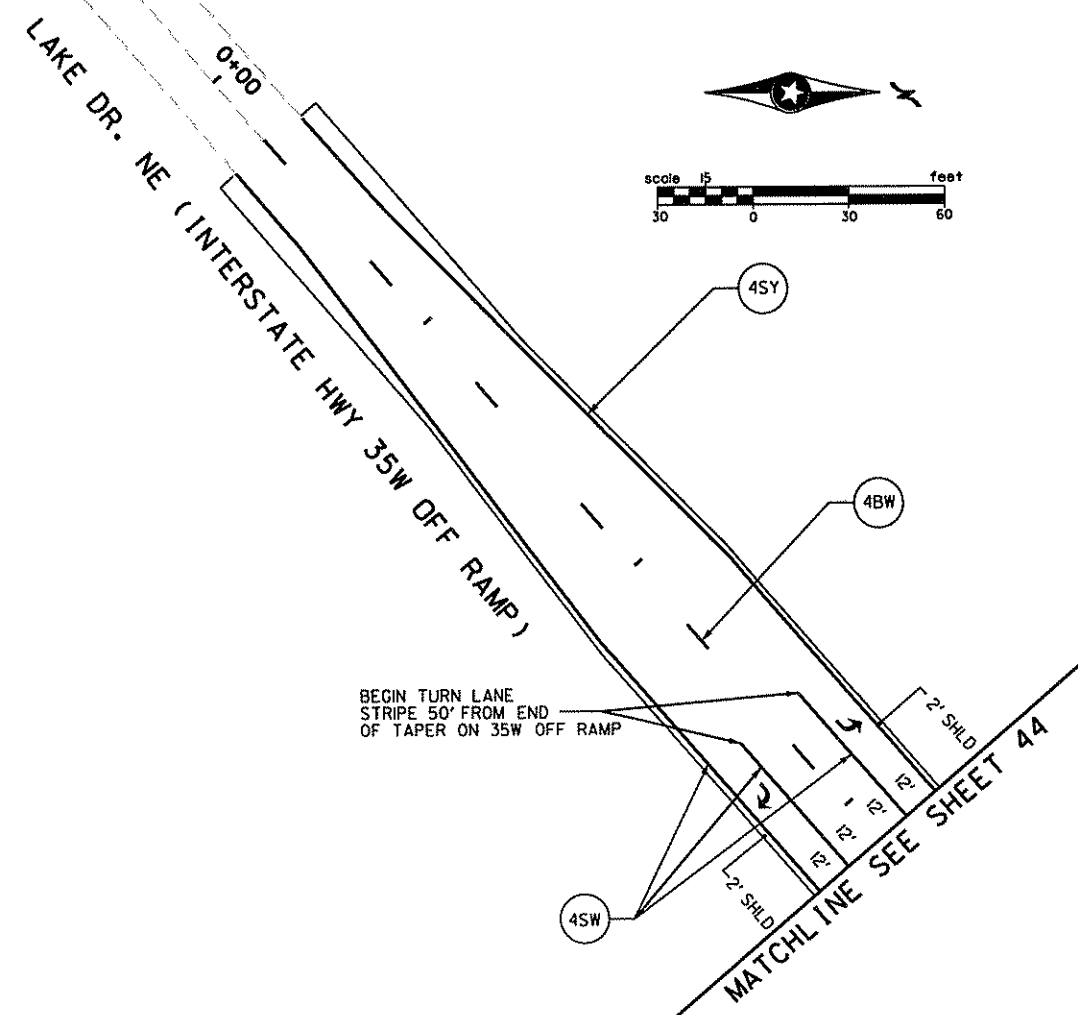
FILE NO. ANOKC0106.01	42
DATE 03/28/2006	57

10:57:04 AM

03/28/2006

Default

w:\oe\anoka\010601\plans\striping\anoka\010601_sta.dgn



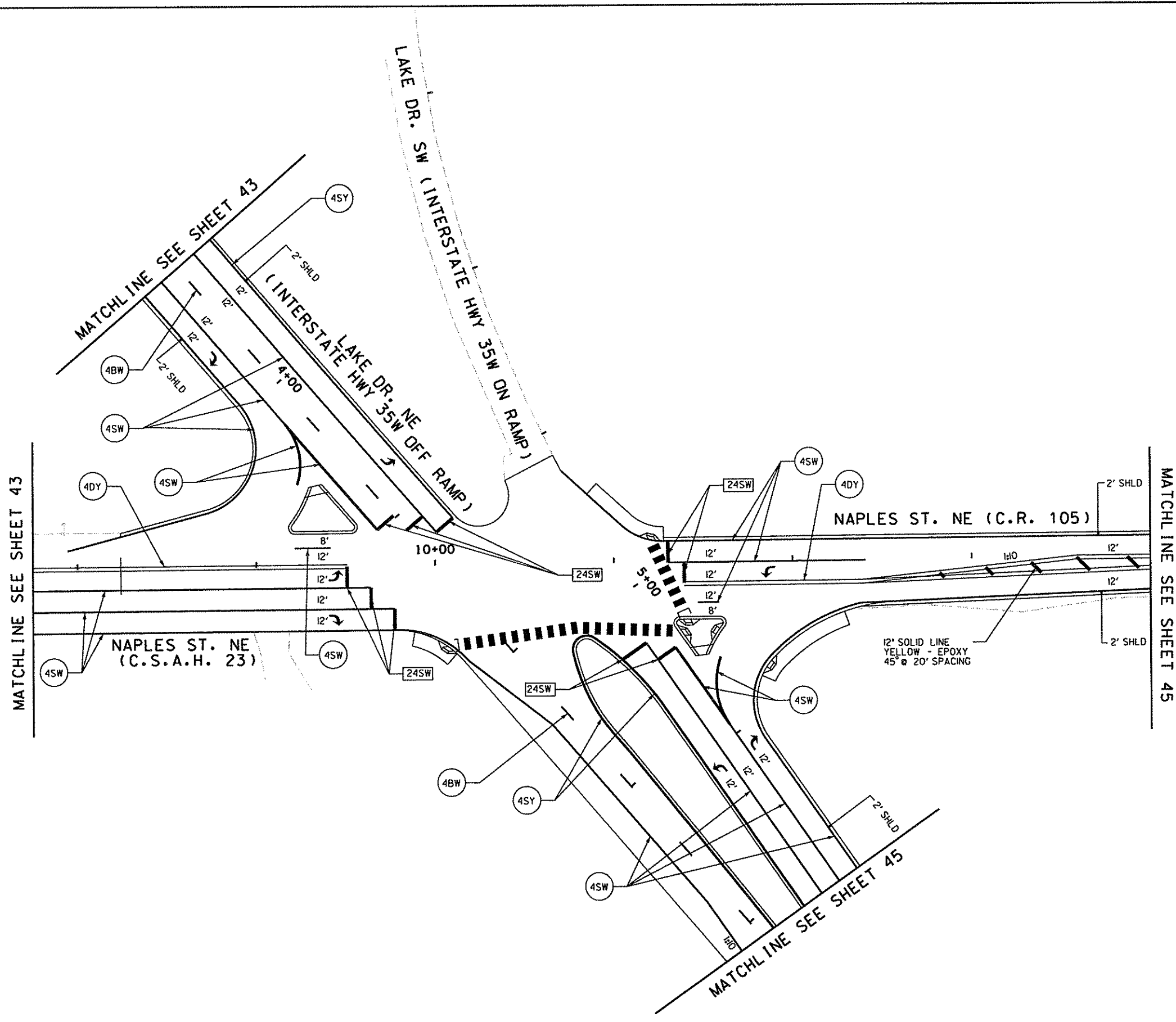
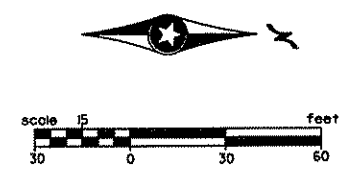
DESIGN TEAM				I hereby certify that this plan was prepared by me or under my direct supervision and that I am a duly Licensed Professional Engineer under the laws of the State of Minnesota. Certified By: <i>Susan M. Mason</i> Lic. No. 18612 Printed Name: SUSAN M. MASON Date: 03/28/2006	PHONE: 651-490-2000 3535 VADNAIS CENTER DR. ST. PAUL, MN 55110	ANOKA COUNTY	ANOKA COUNTY, MINNESOTA		PAVEMENT MARKING PLAN		FILE NO.	43
DRAWN BY: JMT							INTERSECTION IMPROVEMENTS: CSAH 23 @ INTERSTATE HIGHWAY 35W		STATE PROJECT NO. 02-623-014, STATE PROJECT NO. 0280-56		DATE	
DESIGNER: HLR											03/28/2006	
CHECKED BY: APM												
	NO.	BY	DATE	REVISIONS								

10:57:06 AM

03/28/2006

Default


w:\anok\anok\010601\plans\striping\anokc010601.stb.dgn



DESIGN TEAM			
DRAWN BY:	JMT		
DESIGNER:	HLR		
CHECKED BY:	APM		
NO.	BY	DATE	REVISIONS

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.

Certified By: *Susan M. Mason* Lic. No. 18612
 Printed Name: SUSAN M. MASON Date: 03/28/2006



PHONE: (651)490-2000
 3535 VADNAIS CENTER DR.
 ST. PAUL, MN 55110



ANOKA COUNTY, MINNESOTA
**INTERSECTION IMPROVEMENTS:
 CSAH 23 @ INTERSTATE HIGHWAY 35W**

PAVEMENT MARKING PLAN

STATE PROJECT NO. 02-623-014, STATE PROJECT NO. 0280-56

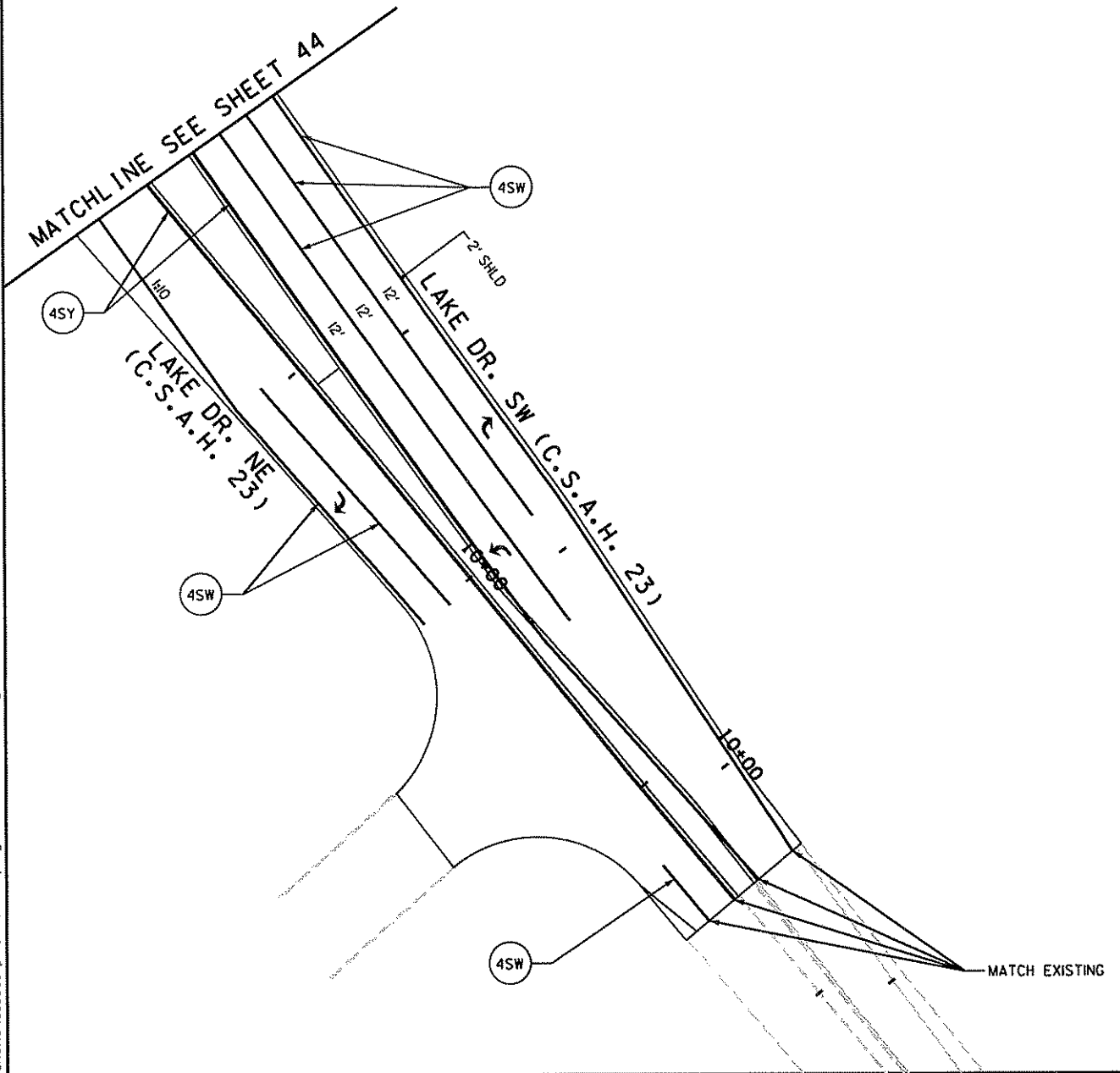
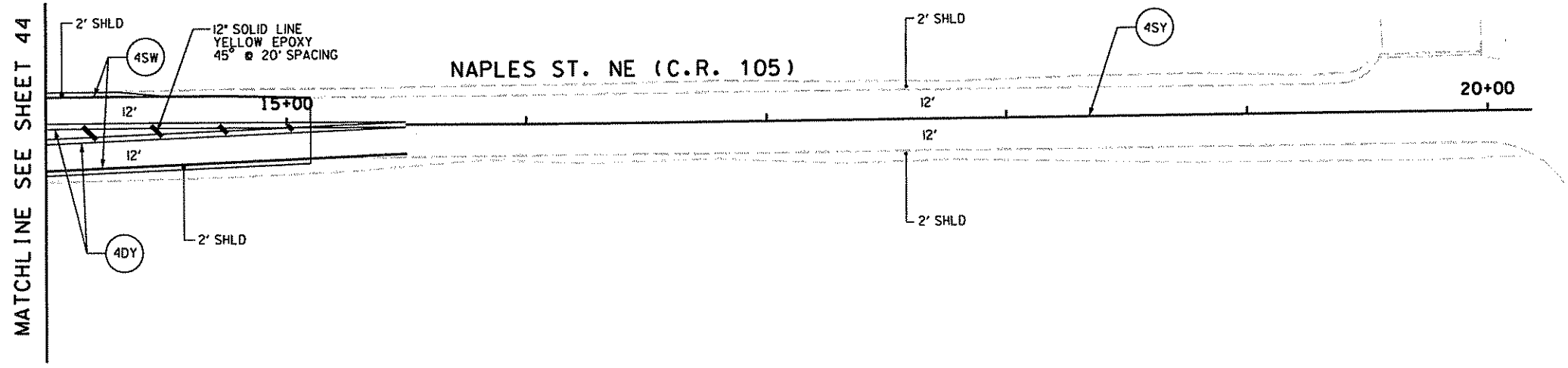
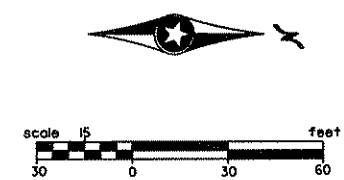
FILE NO.	44
ANOKC0106.01	
DATE	03/28/2006
	57

10:57:09 AM

03/28/2006

Default

w:\06\anoka\010601\p1nshrs\striping\anokc010601.stc.dgn



DESIGN TEAM			
DRAWN BY:	JMT		
DESIGNER:	HLR		
CHECKED BY:	APM		
NO.	BY	DATE	REVISIONS

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.

Certified By: *Susan M. Mason* Lic. No. 18612
 Printed Name: SUSAN M. MASON Date: 03/28/2006



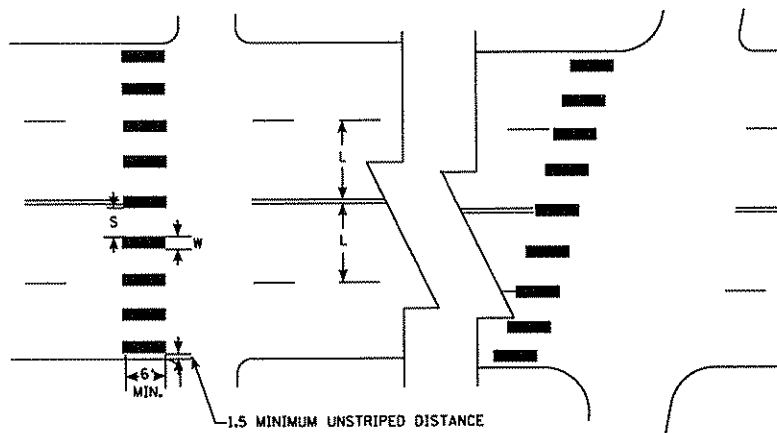
ANOKA COUNTY, MINNESOTA
**INTERSECTION IMPROVEMENTS:
 CSAH 23 @ INTERSTATE HIGHWAY 35W**

PAVEMENT MARKING PLAN
 STATE PROJECT NO. 02-623-014, STATE PROJECT NO. 0280-56

FILE NO. ANOKC0106.01	45
DATE 03/28/2006	57

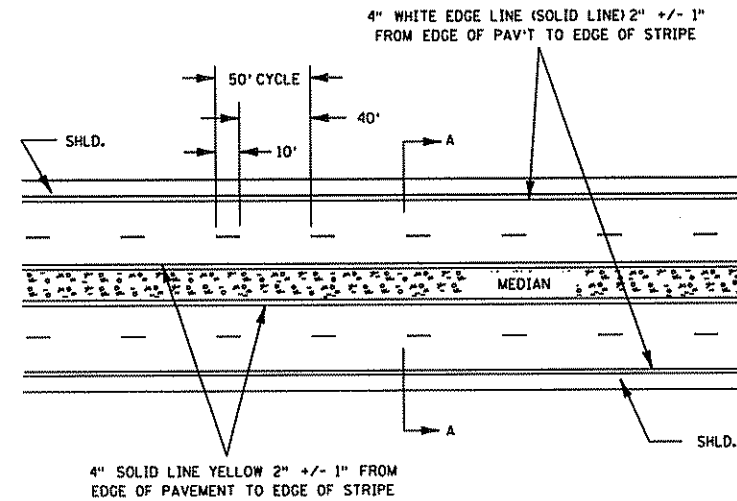
MARKINGS FOR PEDESTRIAN CROSSWALKS

(L) WIDTH OF INSIDE LANE	(W) WIDTH OF PAINTED AREA	(S) WIDTH OF SPACE
9'	2.0'	2.5'
10'	2.5'	2.5'
11'	2.5'	3.0'
12'	3.0'	3.0'
13'	3.0'	3.5'

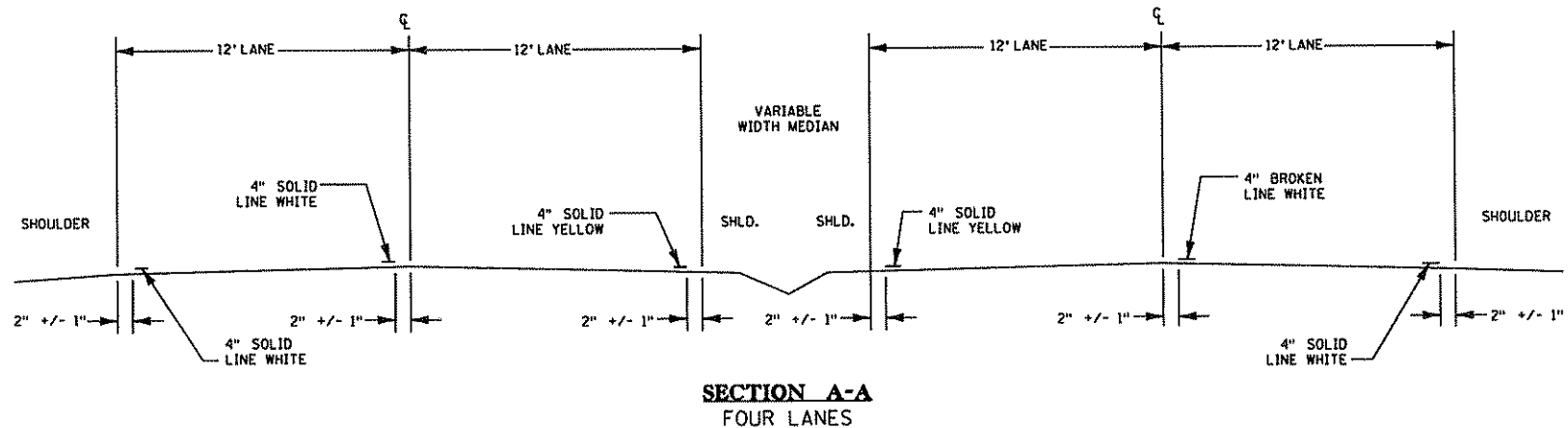


NOTES:

1. PAINTED AREAS TO BE CENTERED ON CENTERLINE AND LANE LINES.
2. A MINIMUM OF 1.5 FT. CLEAR DISTANCE SHALL BE LEFT ADJACENT TO THE CURB. IF LAST PAINTED AREA FALLS INTO THIS DISTANCE IT MUST BE OMITTED.
3. ON TWO LANE TWO WAY STREETS, USE SPACING SHOWN FOR AN 11 FT. INSIDE LANE.
4. FOR DIVIDED ROADWAYS, ADJUSTMENTS IN SPACING OF THE BLOCKS SHOULD BE MADE IN THE MEDIAN SO THAT THE BLOCKS ARE MAINTAINED IN THEIR PROPER LOCATION ACROSS THE TRAVELED PORTION OF THE ROADWAY.
5. AT SKEWED CROSSWALKS, THE BLOCKS ARE TO REMAIN PARALLEL TO THE LANE LINES AS SHOWN.



TYPICAL 4-LANE DIVIDED LANE MARKINGS



DESIGN TEAM	NO.	BY	DATE	REVISIONS
DRAWN BY: JMT				
DESIGNER: HLR				
CHECKED BY: APM				

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.
 Certified By: *Susan M. Mason* Lic. No. 18612
 Printed Name: SUSAN M. MASON Date: 03/28/2006

SEH
 PHONE: (651)90-2000
 3535 VADNAIS CENTER DR.
 ST. PAUL, MN 55110

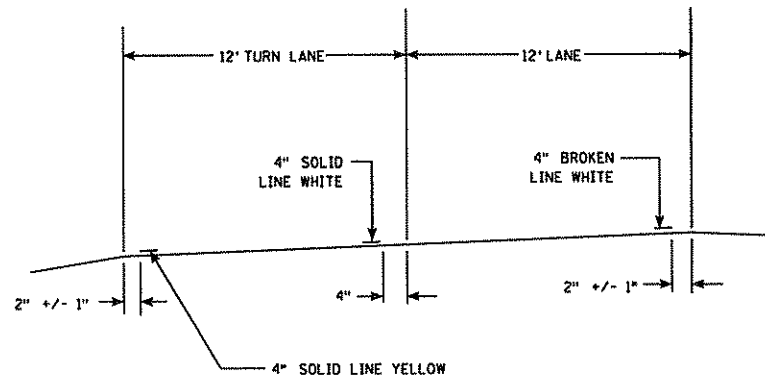


ANOKA COUNTY, MINNESOTA
INTERSECTION IMPROVEMENTS:
CSAH 23 @ INTERSTATE HIGHWAY 35W

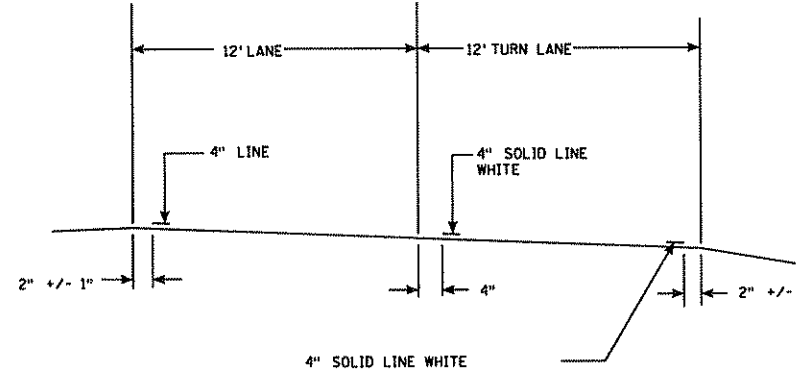
PAVEMENT MARKING DETAILS
 STATE PROJECT NO. 02-623-014, STATE PROJECT NO. 0280-56

FILE NO. ANOKC0105.01	46
DATE 03/28/2006	57

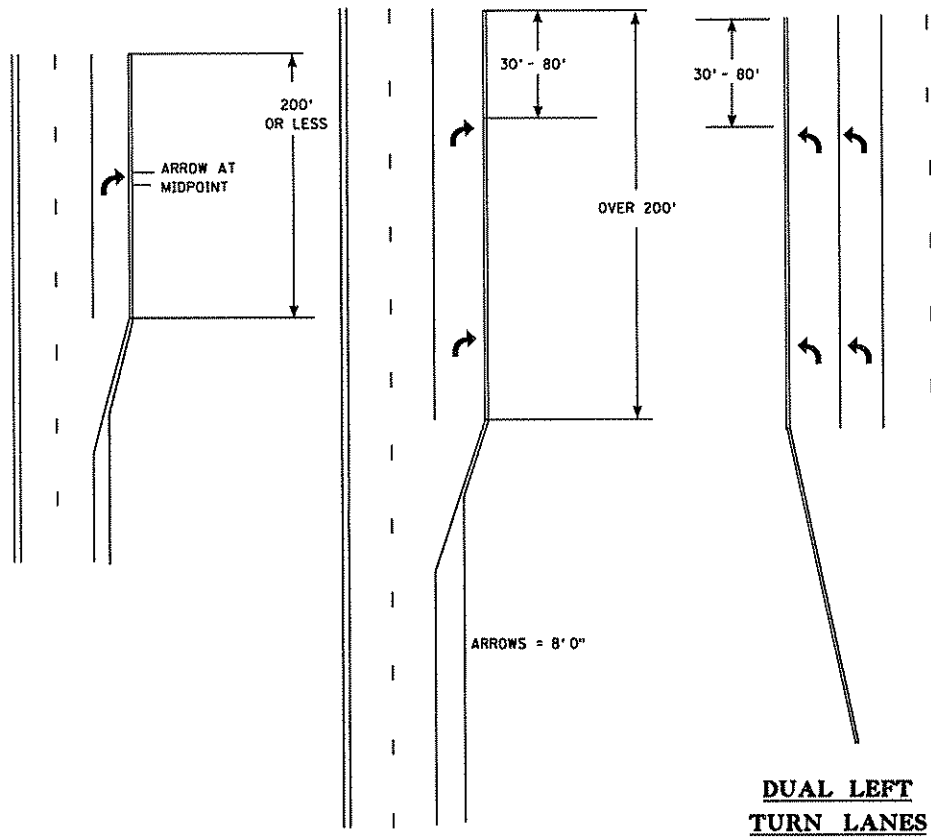
TYPICAL LEFT TURN LANE



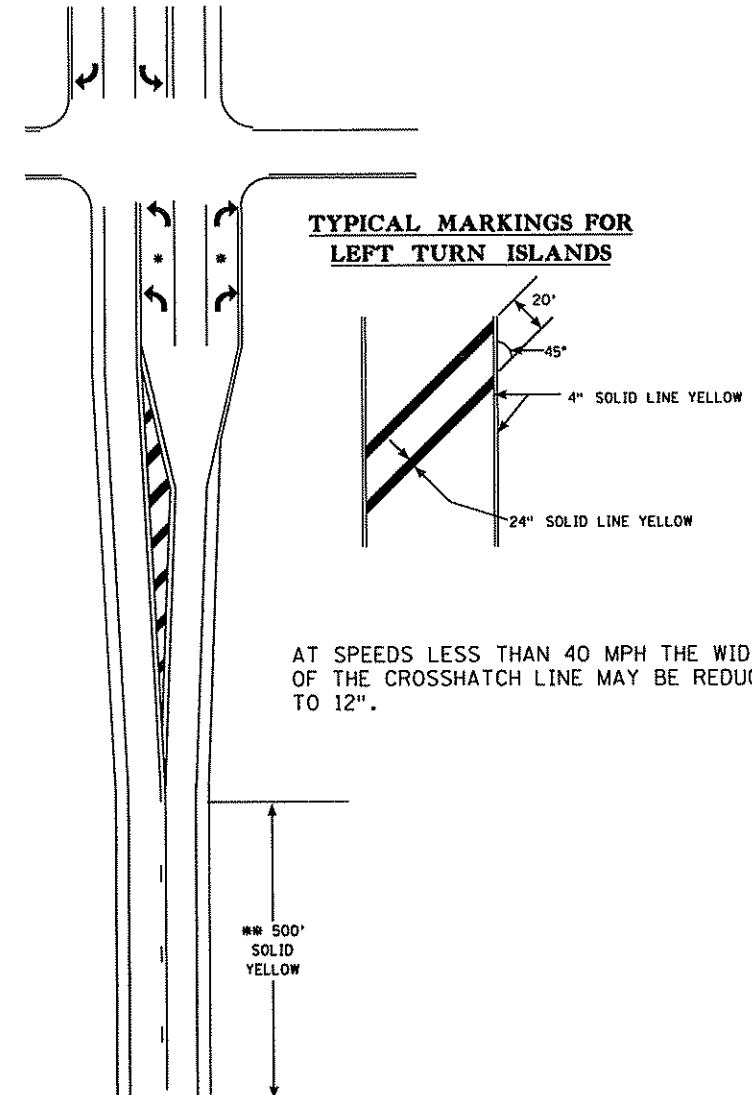
TYPICAL RIGHT TURN LANE



TYPICAL MESSAGE PLACEMENT FOR TURN LANES



TYPICAL MARKINGS FOR LEFT TURN ISLANDS



DESIGN TEAM			
DRAWN BY:	JMT		
DESIGNER:	HLR		
CHECKED BY:	APM		
NO.	BY	DATE	REVISIONS

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.

Certified By: *Susan M. Mason* Lic. No. 18612
 Licensed Professional Engineer
 Printed Name: SUSAN M. MASON Date: 03/28/2006

SEH
 PHONE: (651)490-2000
 3535 VADNAIS CENTER DR.
 ST. PAUL, MN 55110

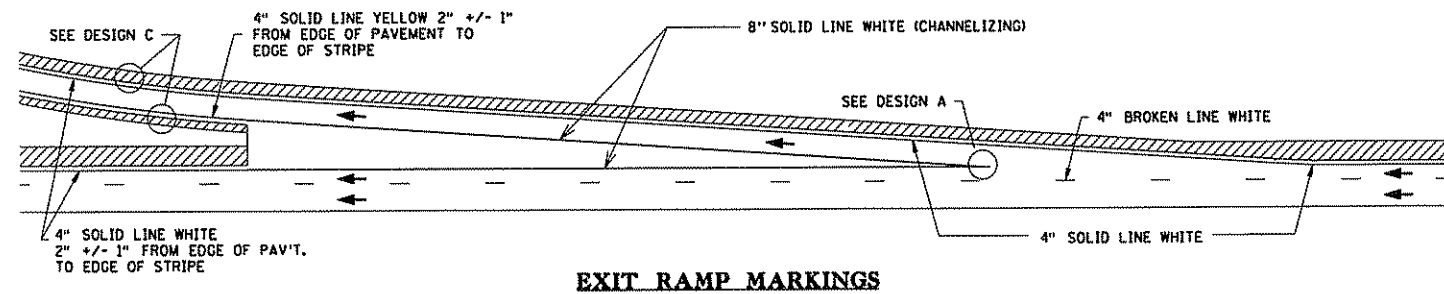


ANOKA COUNTY, MINNESOTA
INTERSECTION IMPROVEMENTS:
CSAH 23 @ INTERSTATE HIGHWAY 35W

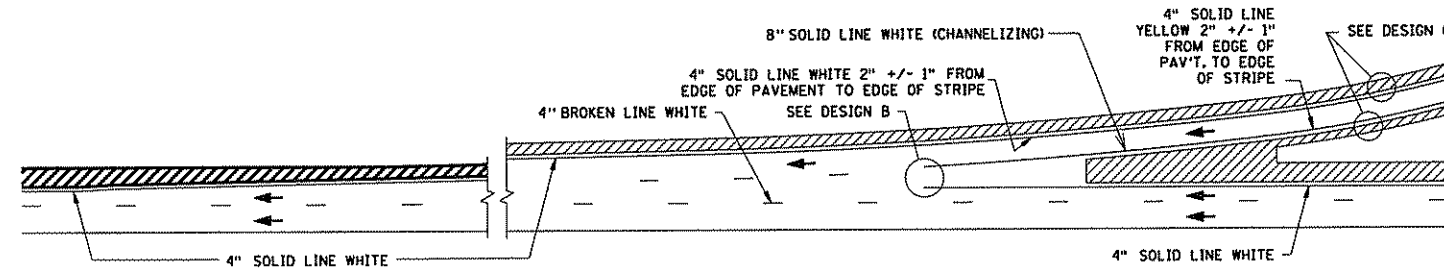
PAVEMENT MARKING DETAILS

STATE PROJECT NO. 02-623-014, STATE PROJECT NO. 0280-56

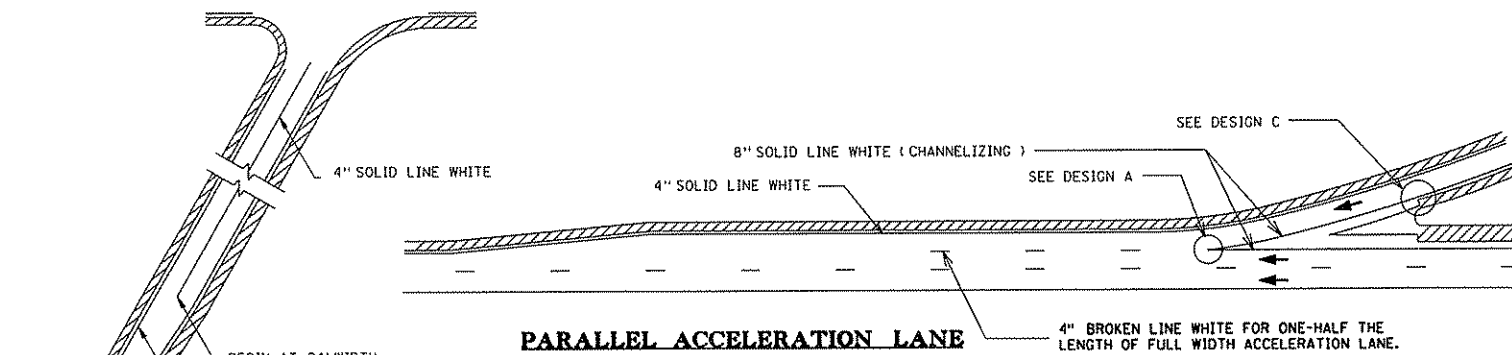
FILE NO. ANOKC0106.01	47
DATE 03/28/2006	57



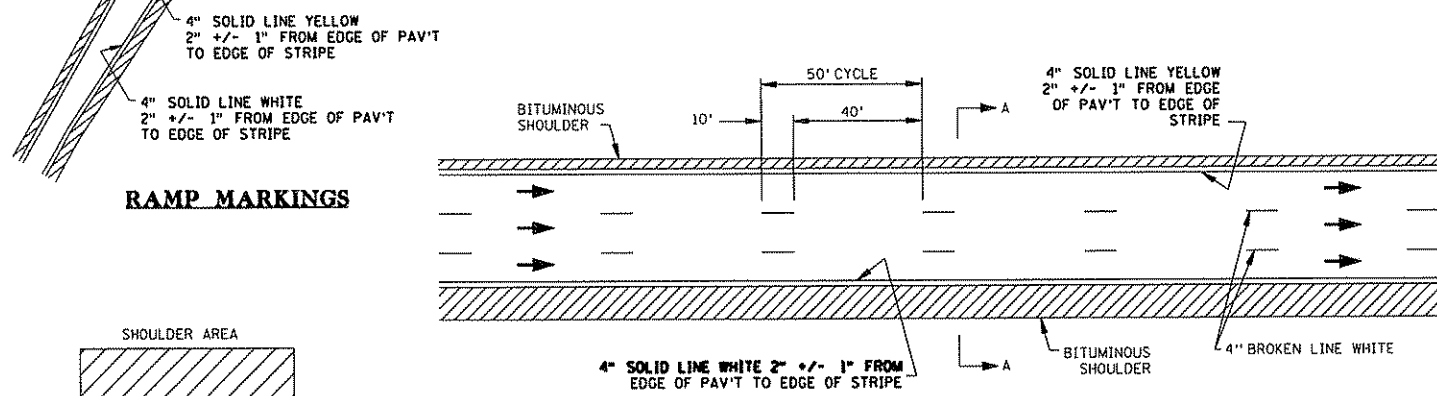
EXIT RAMP MARKINGS



TAPERED ACCELERATION LANE



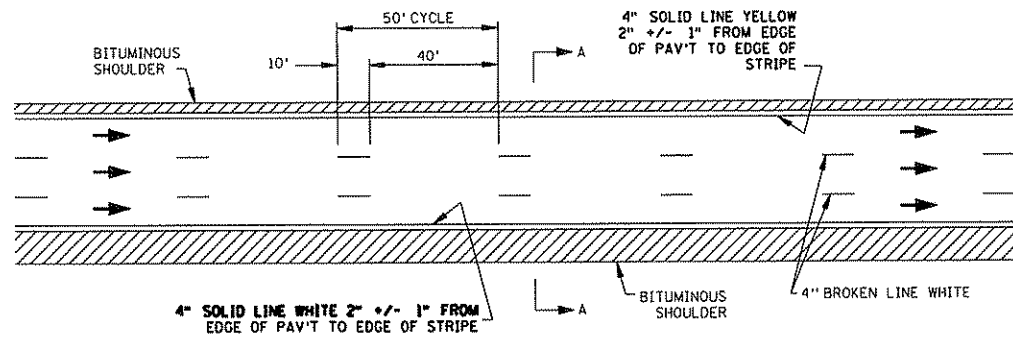
PARALLEL ACCELERATION LANE



RAMP MARKINGS

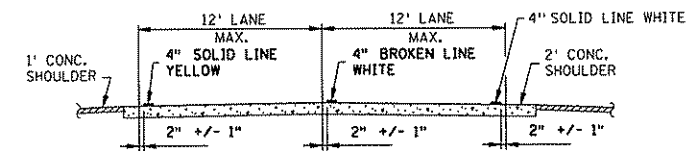
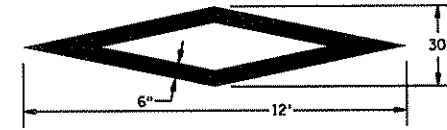


SHOULDER AREA

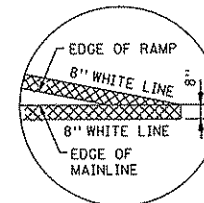


THROUGH LANE MARKINGS

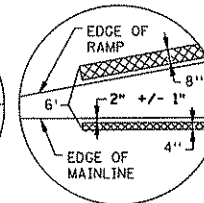
WHITE HOV PAVEMENT MARKER



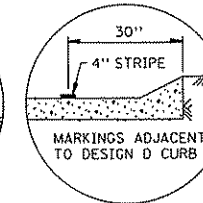
SECTION A-A (TWO LANES)



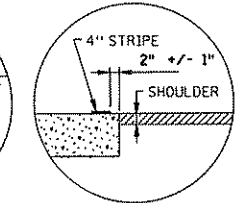
DESIGN A



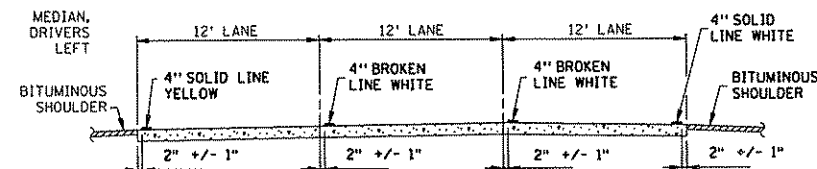
DESIGN B



DESIGN C URBAN



DESIGN C RURAL



SECTION A-A (THREE LANES)

DESIGN TEAM			
DRAWN BY:	JMT		
DESIGNER:	HLR		
CHECKED BY:	APM		
NO.	BY	DATE	REVISIONS

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.

Certified By: *Susan M. Mason* Lic. No. 18612
 Printed Name: SUSAN M. MASON Date: 03/28/2006

PHONE: (651)490-2000
 3535 VADNAIS CENTER DR.
 ST. PAUL, MN 55110

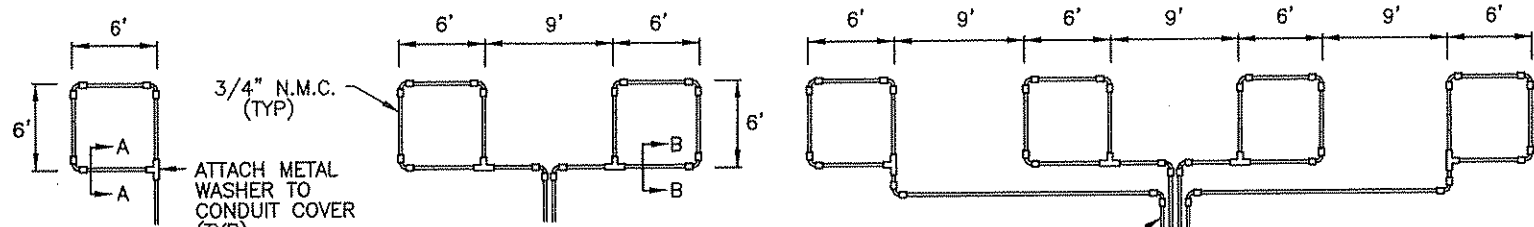


ANOKA COUNTY, MINNESOTA
 INTERSECTION IMPROVEMENTS:
 CSAH 23 @ INTERSTATE HIGHWAY 35W

PAVEMENT MARKING DETAILS

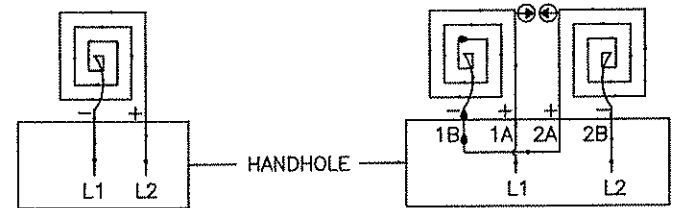
STATE PROJECT NO. 02-623-014, STATE PROJECT NO. 0280-56

FILE NO.	48
ANOKC0106.01	
DATE	03/28/2006
	57



ATTACH METAL WASHER TO CONDUIT COVER (TYP)

LOOP RETURN CONDUITS MAY BE PLACED IN COMMON TRENCH (TYP)

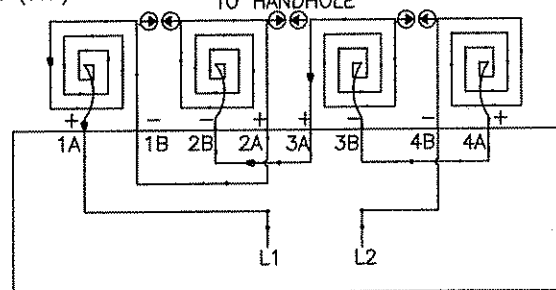


LOOP DETECTOR DETAIL 'A'
(LOOP PHASING FOR SINGLE CONNECTION)

LOOP CONNECTIONS SHALL BE LABELED AND SPLICED IN THE HANDHOLE AS FOLLOWS:

- L1 TO 1A
- 1B TO 2A
- 2B TO L2

LOOP DETECTOR DETAIL 'B'
(LOOP PHASING FOR SERIES CONNECTION)

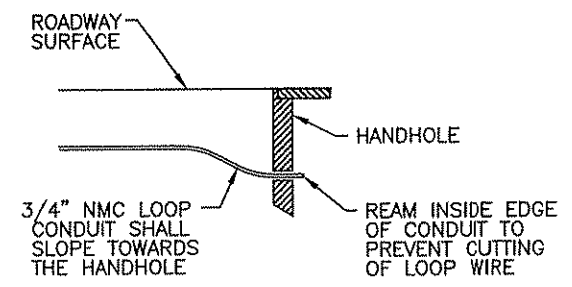
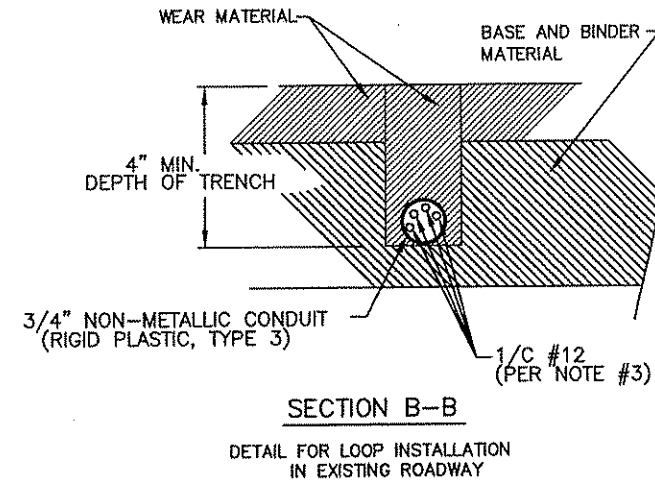
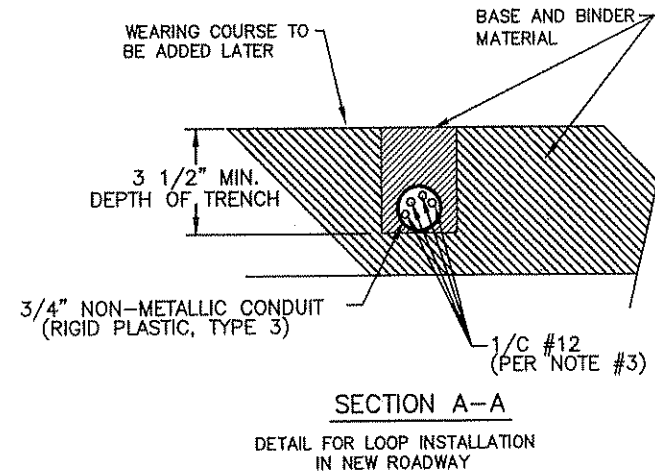


LOOP CONNECTIONS SHALL BE LABELED AND SPLICED IN THE HANDHOLE AS FOLLOWS:

- L1 TO 1A 3B TO 4A
- 1B TO 2A 4B TO L2
- 2B TO 3A

LOOP DETECTOR DETAIL 'C'
(LOOP PHASING FOR SERIES CONNECTION)

SPLICE CONTROL CABLE TO L1 & L2 IN HANDHOLE. ALL CONDUCTORS SHALL BE TAGGED IN HANDHOLE (1A, 1B, ECT)



LOOP DETECTOR WIRING

- 1) ALL CORNERS SHALL BE 90° CONDUIT BENDS.
- 2) CONNECT WIRES IN HANDHOLES USING SPLICE KIT METHOD DESCRIBED IN THE SPECIAL PROVISIONS.
- 3) LOOP DETECTOR WIRES SHALL BE #12 AWG CROSSED LINKED POLYETHYLENE (XLP). SEE SPECIAL PROVISIONS.
- 4) LOOP LEAD IN WIRES SHALL BE TWISTED A MIN. OF (5) TURNS PER FOOT THROUGH THE CONDUIT TO THE HANDHOLE.
- 5) NMC DESIGNATES NON-METALLIC CONDUIT (SPEC. 3803)
- 6) LOOPS 6' x 6' THRU 6' x 14' SHALL HAVE (4) TURNS.
- 7) LOOPS 6' x 15' AND LARGER SHALL HAVE (2) TURNS.

LEGEND OF SYMBOLS

CONTROLLER AND SERVICE EQUIP. NO's	(A)
SIGNAL BASE NO.	(B)
SIGNAL FACE NO.	(C)
LUMINAIRE NO.	(D)
CONTROLLER AND CABINET	(E)
CONTROLLER AND CABINET - IN PLACE	(F)
HANDHOLE	(G)
HANDHOLE - IN PLACE	(H)
RIGID STEEL CONDUIT (RSC)	(I)
RIGID STEEL CONDUIT (RSC) - IN PLACE	(J)
SIGNAL FACE WITH BACKGROUND SHIELD	(K)
SIGNAL FACE W/O BACKGROUND SHIELD	(L)
SIGNAL FACE - IN PLACE	(M)
PEDESTRIAN INDICATORS	(N)
PEDESTRIAN INDICATORS - IN PLACE	(O)
PEDESTRIAN PUSH BUTTONS ON PEDESTAL OR POLE	(P)
PEDESTRIAN PUSH BUTTON STATION	(Q)
TRAFFIC SIGNAL PEDESTAL	(R)
TRAFFIC SIGNAL PEDESTAL - INPLACE	(S)
TRAFFIC SIGNAL POLE AND MAST ARM	(T)
TRAFFIC SIGNAL POLE AND MAST ARM - IN PLACE	(U)
STREET LIGHT POLE AND LUMINAIRE	(V)
STREET LIGHT POLE AND LUMINAIRE - IN PLACE	(W)
MAST ARM AND LUMINAIRE	(X)
MAST ARM AND LUMINAIRE - INPLACE	(Y)
WOOD POLE	(Z)
WOOD POLE - IN PLACE	(AA)
SOURCE OF POWER	(AB)
RAILROAD SIGNAL - IN PLACE	(AC)
RIGHT OF WAY LINE	(AD)
CENTERLINE	(AE)
EDGE OF ROADWAY	(AF)
SHOULDERLINE	(AG)
CURB LINE	(AH)
STOP BAR	(AI)
EMERGENCY VEHICLE PREEMPTION DETECTOR	(AJ)

ABBREVIATIONS

3-1(EG)	SIGNAL HEAD PHASE "3" - NO "1"	P2-1(EG)	PED INDICATION PHASE "2" - NO. "1"
BR. GR.	BARE GROUND	PB	PUSH BUTTON
CH. SW.	CHECK SWITCH	PB2-1(EG)	PUSH BUTTON PHASE "2" - NO. "1"
CLR	CLEAR	PEC	PHOTOELECTRIC CELL
D2-1(EG)	DETECTOR PHASE "2" - NO. "1"	PED	PEDESTRIAN
DWK	DON'T WALK	R	RED
EQG	EQUIPMENT GROUND	R&S	REMOVE AND SALVAGE
EVP	EMERGENCY VEHICLE PRE-EMPTION	RLTA	RED LEFT TURN ARROW
F&I	FURNISH AND INSTALL	RRTA	RED RIGHT TURN ARROW
FL	FLASH/FLASHING	RSC	RIGID STEEL CONDUIT
G	GREEN	SOP	SOURCE OF POWER
GLTA	GREEN LEFT TURN ARROW	SPR	SPARE
GRN	GREEN	ST. LHT	STREET LIGHT
GR. R	GROUND ROD	STA	STATION
GRTA	GREEN RIGHT TURN ARROW	SW	SWITCH
GTHA	GREEN THRU ARROW	SWD	SWITCHED
HH	HANDHOLE	S&R	SALVAGE AND REINSTALL
HPS	HIGH PRESSURE SODIUM	TDW	TELEPHONE DROP WIRE
JB	JUNCTION BOX	WLK	WALK
LUM	LUMINAIRE	YEL	YELLOW
NEU	NEUTRAL	YLTA	YELLOW LEFT TURN ARROW
NMC	NONMETALLIC CONDUIT	YRTA	YELLOW RIGHT TURN ARROW
		YTHA	YELLOW THRU ARROW

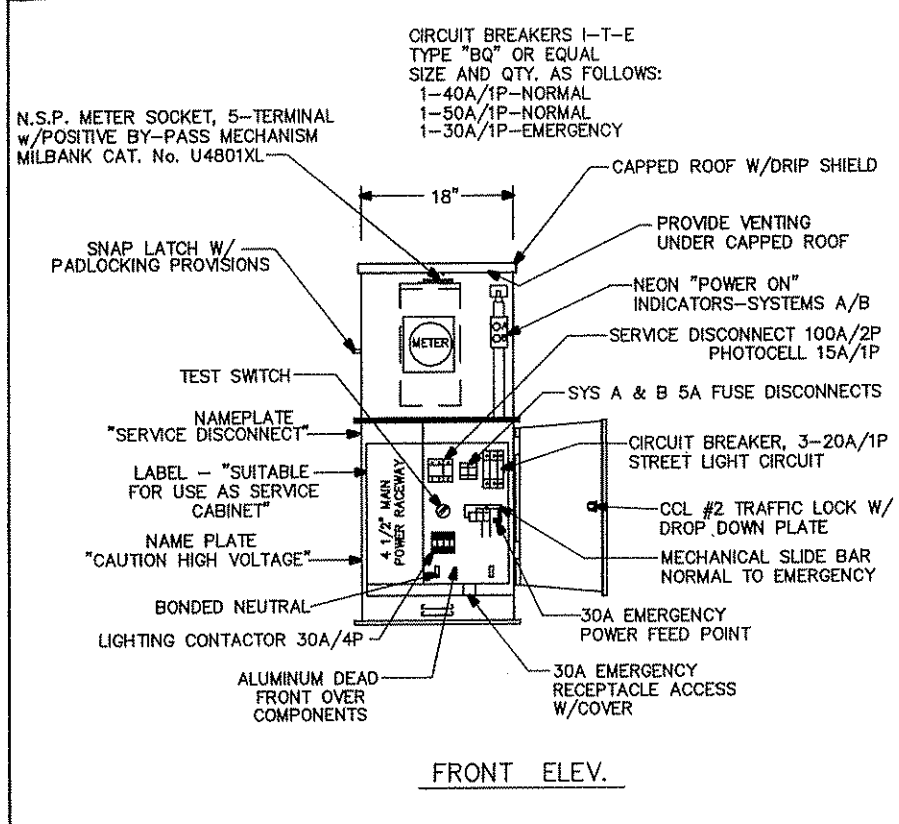
STANDARD PLATES	
THESE STANDARD PLATES AS APPROVED BY FHWA SHALL APPLY:	
PLATE NO.	DESCRIPTION
* 8110 D	TRAFFIC SIGNAL BRACKETING - POLE MOUNTED
* 8111 D	TRAFFIC SIGNAL BRACKETING - PEDESTAL MOUNTED
* 8112 D	PEDESTAL FOUNDATION
* 8114 A	PVC HANDHOLE/PULLBOX
* 8115 D	PEDESTRIAN PUSH BUTTON INSTALLATION
* 8118 C	SERVICE EQUIPMENT AND POLE-TRAFFIC CONTROL SIGNALS
* 8119 C	GROUND MOUNTED CABINET FOUNDATION
* 8120 L	PAS5 POLE FOUNDATION
* 8121 D	TRANSFORMER BASE AND POLE BASE PLATE
* 8122 D	PEDESTAL AND PEDESTAL BASE
* 8123 E	POLE AND MAST ARM
* 8124 E	MAST ARM SIGNAL HEAD MOUNTS
* 8126 G	PAS0 AND PAT00 POLE FOUNDATION

CONDUCTOR COLOR CODE

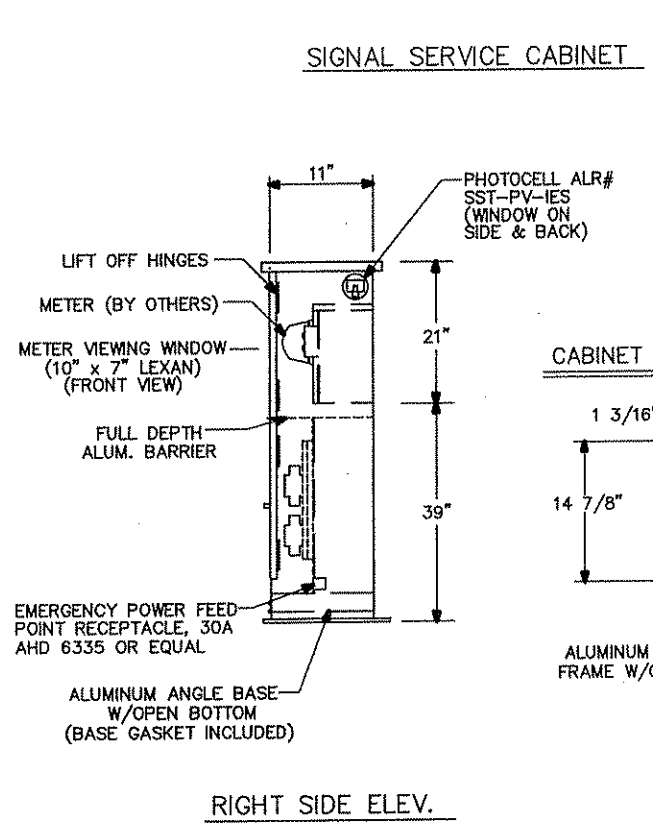
R	RED
O	ORANGE
BL	BLUE
WH	WHITE
R/BLK	RED WITH BLACK TRACER
O/BLK	ORANGE WITH BLACK TRACER
BL/BLK	BLUE WITH BLACK TRACER
WH/BLK	WHITE WITH BLACK TRACER
BLK	BLACK
BLK/WH	BLACK WITH WHITE TRACER
G/BLK	GREEN WITH BLACK TRACER
G	GREEN

w:\oe\anoka\010601\signals\LAKEDETT13.dwg

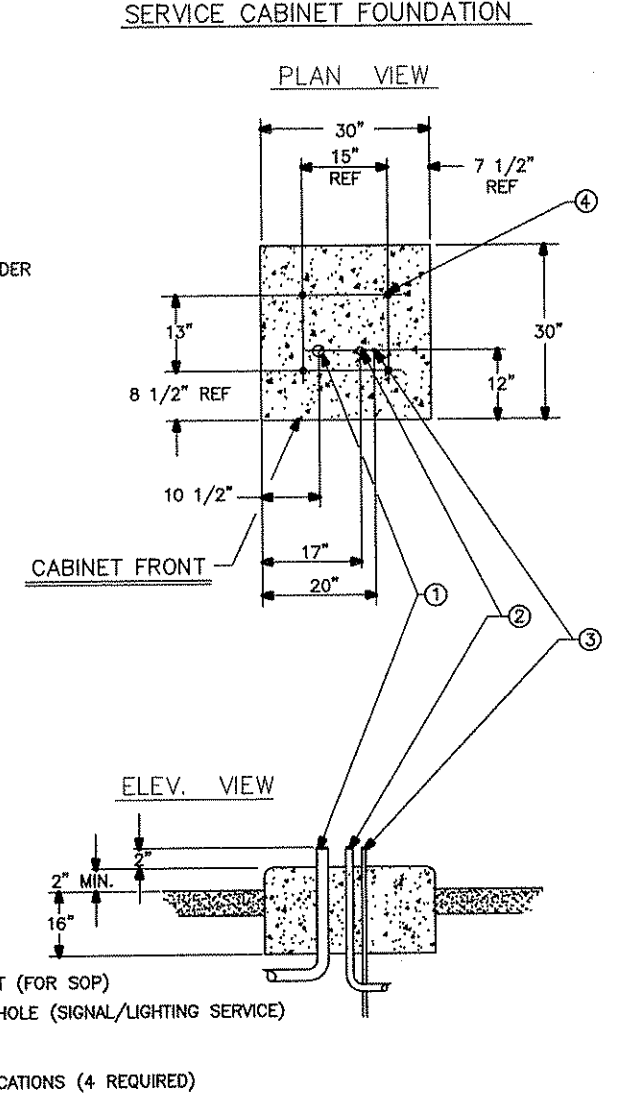
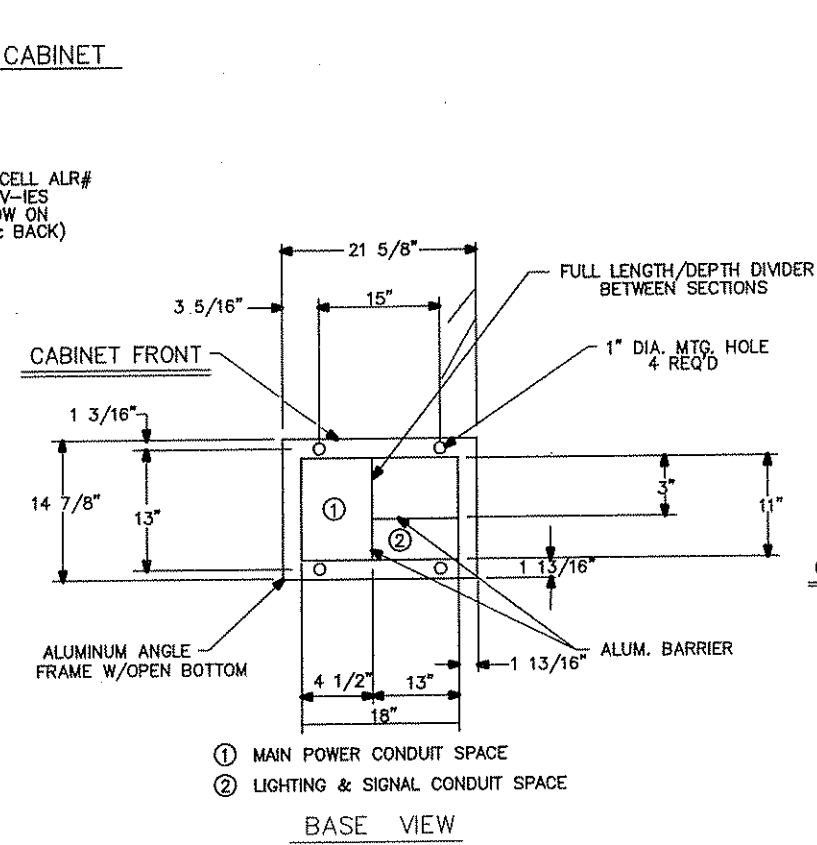
DESIGN TEAM	1	JMG	04/24/06	STATE COMMENTS	I hereby certify that this plan was prepared by me or under my direct supervision and that I am a duly Licensed Professional Engineer under the laws of the State of Minnesota. Certified By: <i>John M. Gray</i> Lic. No. 22457 Printed Name: JOHN M. GRAY Date: 04/24/06		ANOKA COUNTY, MINNESOTA INTERSECTION IMPROVEMENTS: CSAH 23 @ INTERSTATE HIGHWAY 35W	TRAFFIC SIGNAL SYSTEM DETAILS & STANDARD PLATES CSAH 23 (LAKE DRIVE) AT NAPLES STREET STATE PROJECT NO. 02-623-014	FILE NO. 49 ANOKC0106.01 DATE 04/24/06 57
-------------	---	-----	----------	----------------	--	--	---	--	--



FRONT ELEV.



RIGHT SIDE ELEV.



CONSTRUCTION NOTES

ENCLOSURE SHALL BE FABRICATED FROM 1/8" ALUMINUM FOR OUTDOOR WEATHERPROOF SERVICE.

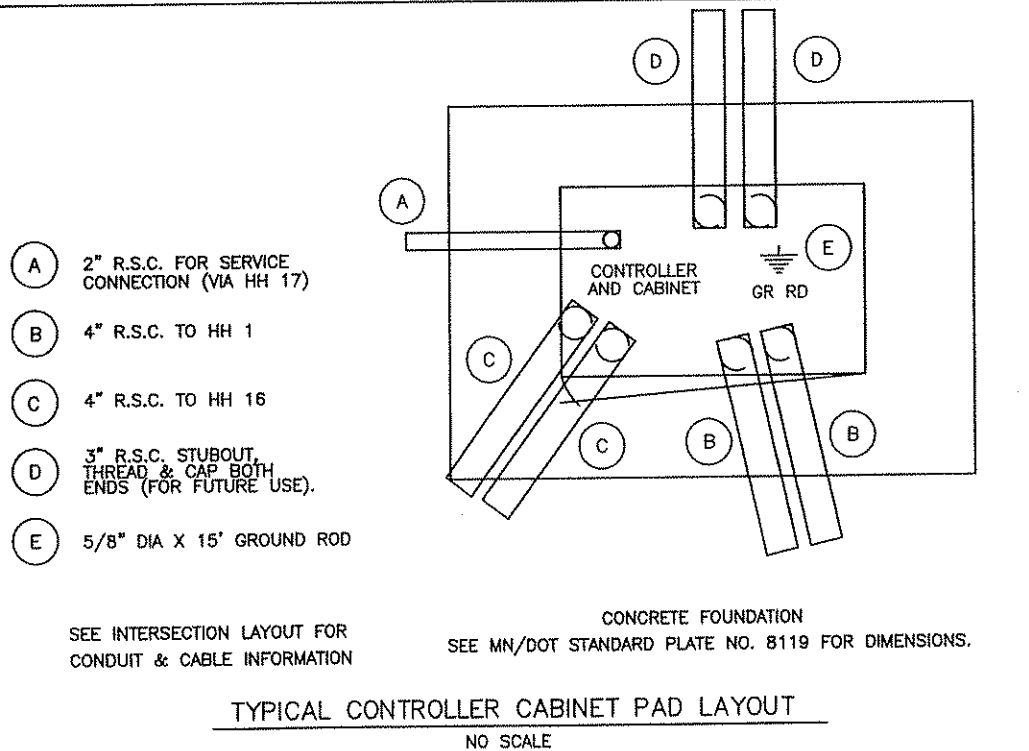
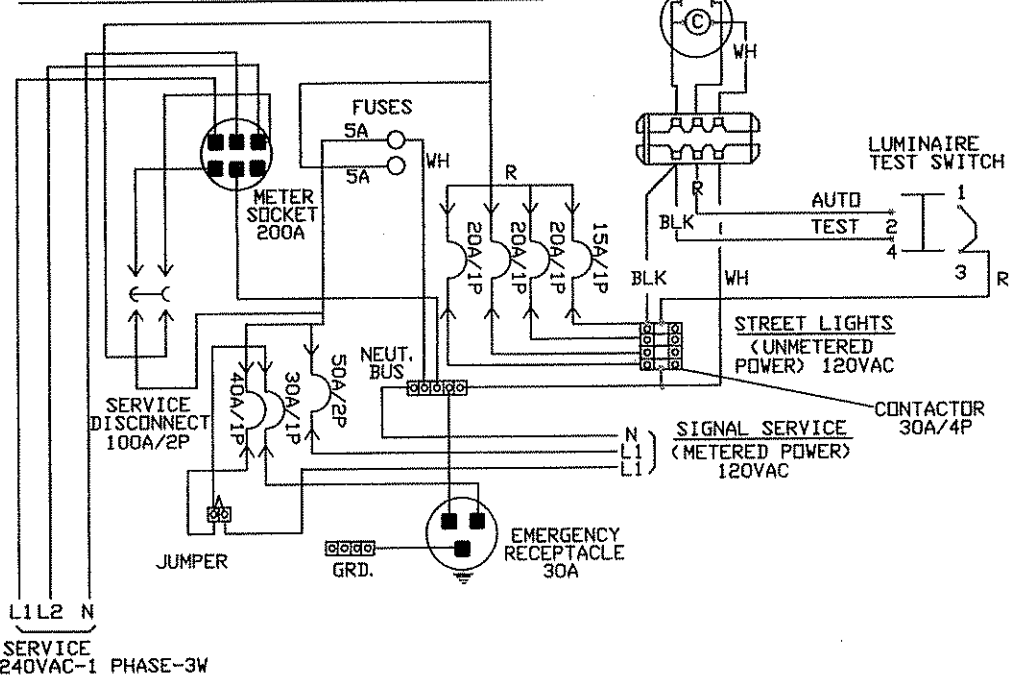
DOORS TO BE NEOPRENE GASKETED. ALL HINGES, PINS AND LOCKS TO BE OF NON-CORRODING CONSTRUCTION.

CABINET SHALL HAVE ANODIC COATING FOR ALL ALUMINUM SURFACES. SEE SPECIAL PROVISIONS.

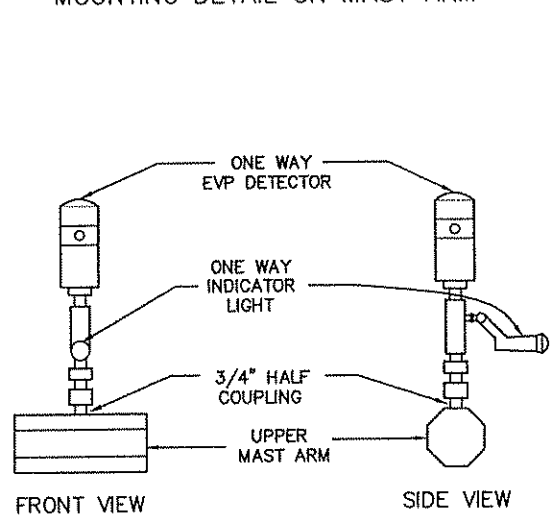
NEMA 3R ENCLOSURE SHALL BE "UL" APPROVED.

CABINET SHALL HAVE BASE GASKET INCLUDED.

FEED POINT WIRING DIAGRAM



EVP DETECTOR AND LIGHT MOUNTING DETAIL ON MAST ARM



w:\a01\anokc\010601\signals\LAKEDET13.dwg

DESIGN TEAM	1	JMG	04/24/06	STATE COMMENTS	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:	JMG				Certified By: <i>J.M.G.</i> Lic. No. 22457
DESIGNER:	JMG				Printed Name: JOHN M. GRAY Date: 04/24/06
CHECKED BY:	JMG				
	NO.	BY	DATE	REVISIONS	

SEH
PHONE: (651)490-2000
3535 VADNAIS CENTER DR.
ST. PAUL, MN 55110

ANOKA COUNTY, MINNESOTA
INTERSECTION IMPROVEMENTS:
CSAH 23 @ INTERSTATE HIGHWAY 35W

TRAFFIC SIGNAL SYSTEM
CABINET & EVP DETAILS
CSAH 23 (LAKE DRIVE) AT NAPLES STREET
STATE PROJECT NO. 02-623-014

FILE NO.	50
ANOKC0106.01	
DATE	04/24/06
	57

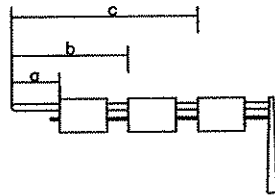
MAST ARM MOUNTED SIGN PANELS									
SIGN PANELS - TYPE D									
SIGN PANEL	SIZE (inches)	NO. REQ.	NO. POSTS/STIFFENERS PER SIGN	BAND SPACING (**)	AREA (sq.ft.) PER SIGN	POLE NO.	a	b	c
D-1	54x66	1	4	-	24.75	1	4'	-	-
D-2	78x18	1	4	-	9.75	1	-	16'	-
D-3	54x66	1	4	-	24.75	3	-	14'	-
D-4	66x18	1	4	-	8.25	3	-	-	22'
D-5	72x60	1	4	-	30.00	4	15'	-	-
D-6	78x18	1	3	-	9.75	4	-	28'	-
D-7	54x66	1	4	-	24.75	6	-	14'	-
D-8	66x18	1	3	-	8.25	6	-	-	22'
TOTALS		8			140.25				

(**)= SPACING BETWEEN STIFFENERS SHALL NOT EXCEED 36 INCHES AND SHALL BE UNIFORMLY SPACED. SEE SPECIAL PROVISIONS AND STANDARD SIGNS MANUAL, PAGE 105A (REVISION DATE: 1/1/03) FOR BRACKET SPACING REQUIREMENTS.

SIGNAL POLE/MAST ARM MOUNTED SIGNS						
SIGN PANELS - TYPE C						
SIGN PANEL	SIZE (in.)	NO. REQ.	NO. POSTS/STIFFENERS PER SIGN	BAND SPACING (**)	SQ. FT. PER SIGN	POLE NO. a
R6-1L	36x12	2	①	-	3.00	1,4
R9-3a	18x18	4	①	-	2.25	2,4,5,6
R10-12	36x48	2	2	-	12.00	3,6
TOTALS		8			39.00	

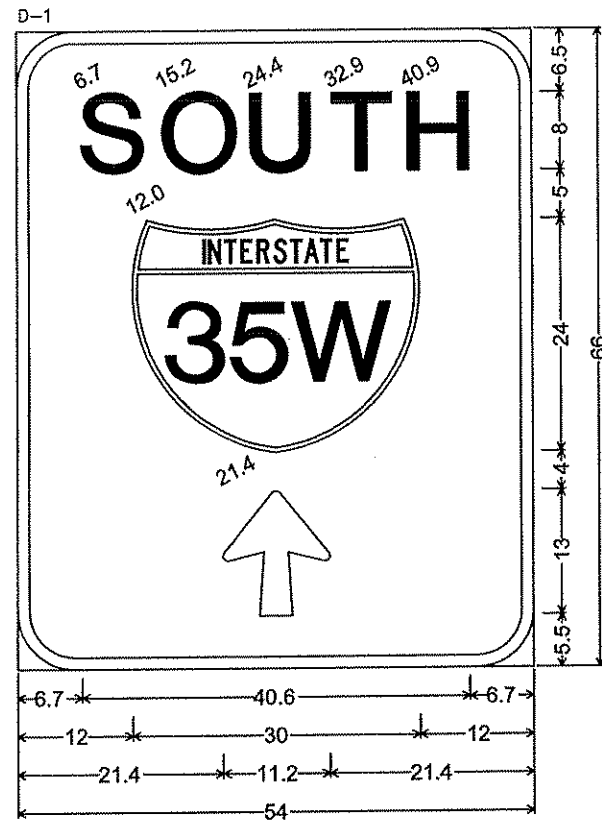
(**)= SPACING BETWEEN STIFFENERS SHALL NOT EXCEED 36 INCHES AND SHALL BE UNIFORMLY SPACED. SEE SPECIAL PROVISIONS AND STANDARD SIGNS MANUAL, PAGE 105A (REVISION DATE: 1/1/03) FOR BRACKET SPACING REQUIREMENTS.

OVERLAYS				
CODE NO.	QUANTITY	SIZE (in.)	LEGEND	SQ.FT. PER OVERLAY
M1-1	3	30x24	INTERSTATE 35W	5.00
M1-6a	1	24x24	COUNTY 23	4.00
M1-X4c	1	24x24	COUNTY 105	4.00

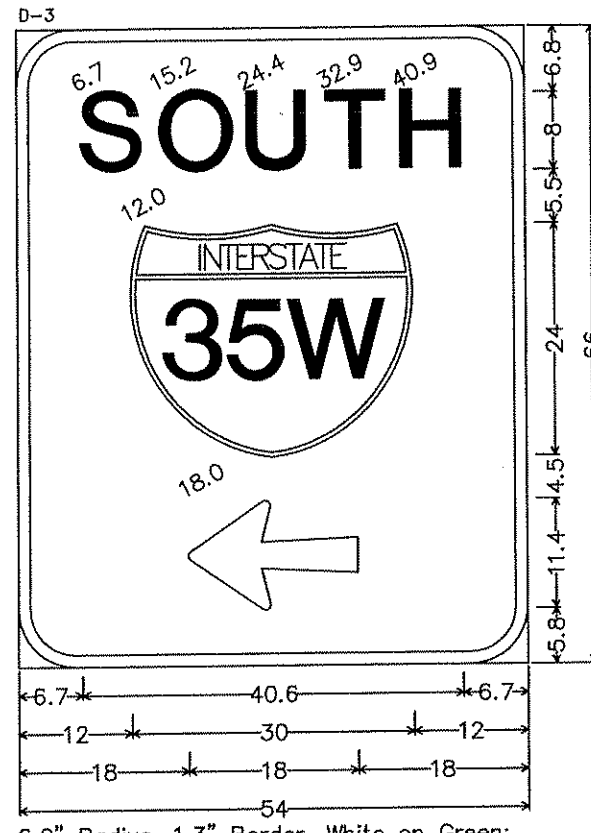


NOTES:

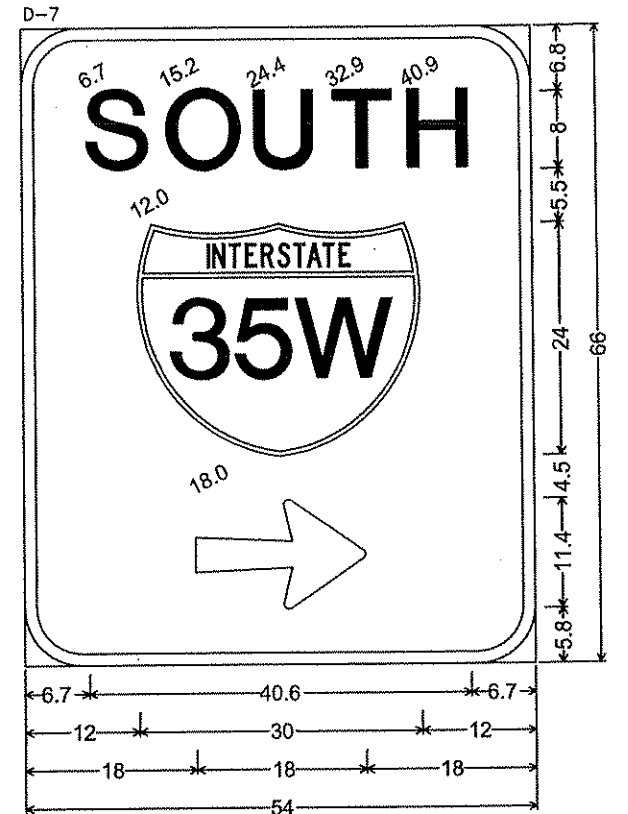
- COLOR FOR TYPE D SIGNS SHALL BE WHITE LEGEND AND BORDER ON GREEN BACKGROUND, FULLY REFLECTORIZED.
- CORNERS EXTENDING BEYOND THE BORDER SHALL NOT BE TRIMMED.
- FOR STRUCTURAL DETAILS OF MAST ARM MOUNTED SIGNS, SEE STANDARD SIGNS MANUAL, PAGE 105A (REVISION DATE: 1/1/03), AND SPECIAL PROVISIONS.
- SEE STANDARD SIGNS MANUAL FOR ARROW AND OVERLAY DETAILS.
- SEE STANDARD SIGNS MANUAL FOR DETAILED DRAWINGS OF TYPE C SIGN PANELS.
- SIGN PANELS TO BE FURNISHED AND INSTALLED INCIDENTAL.
- ① = MOUNT ON TRAFFIC SIGNAL MAST ARM POLE OR PEDESTAL POLE AS NOTED IN PLANS & SPECIAL PROVISIONS.
- ALL NEW TYPE C AND D SIGNS SHALL BE FABRICATED USING PRISMATIC RETROREFLECTIVE SHEETING. SEE SPECIAL PROVISIONS.



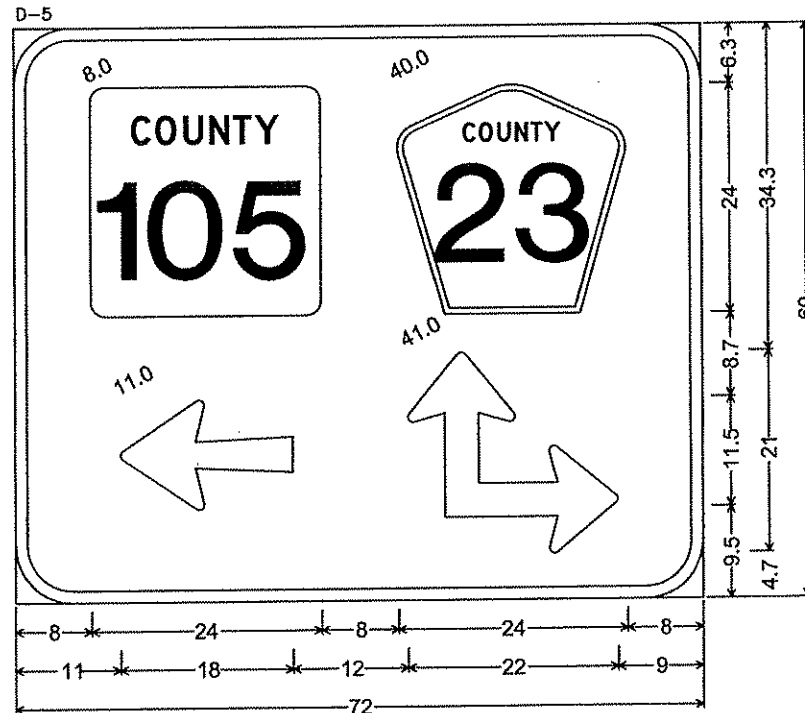
6.0" Radius, 1.3" Border, White on Green;
[SOUTH] E Mod 125% spacing;
Arrow 5 - 13.0" 90°;



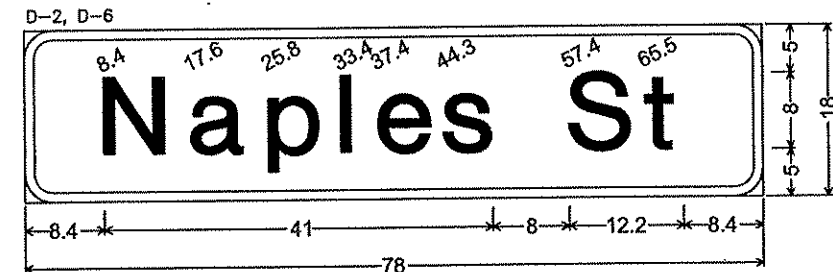
6.0" Radius, 1.3" Border, White on Green;
[SOUTH] E Mod 125% spacing;
Arrow 14 - 18.0" 180°;



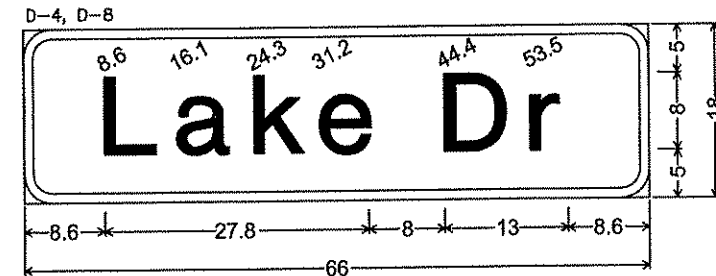
6.0" Radius, 1.3" Border, White on Green;
[SOUTH] E Mod 125% spacing;
Arrow 14 - 18.0" 0°;



6.0" Radius, 1.3" Border, White on Green;
Arrow 14 - 18.0" 180°; 90 Deg Double Headed Arrow 22.0" X 21.0°;



3.0" Radius, 1.0" Border, White on Green;
[Naples St] E Mod;

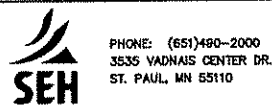


3.0" Radius, 1.0" Border, White on Green;
[Lake Dr] E Mod;

w:\oe_anoka\010601_signals\LAKEDET13.dwg

DESIGN TEAM	1	JMG	04/24/06	STATE COMMENTS
DRAWN BY:	JMG			
DESIGNER:	JMG			
CHECKED BY:	JMG			
NO.	BY	DATE	REVISIONS	

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.
Certified By: *John M. Gray* Lic. No. 22457
Printed Name: JOHN M. GRAY Date: 04/24/06



ANOKA COUNTY, MINNESOTA
INTERSECTION IMPROVEMENTS:
CSAH 23 @ INTERSTATE HIGHWAY 35W

TRAFFIC SIGNAL SYSTEM
SIGNAL SIGNING DETAILS
CSAH 23 (LAKE DRIVE) AT NAPLES STREET
STATE PROJECT NO. 02-623-014

FILE NO.	51
ANOKC0106.01	
DATE	04/24/06
	57

NOTES:

- 1) LOCATION OF POLES, CONTROLLER CABINET, SERVICE CABINET, LOOP DETECTORS AND HANDHOLES SHALL BE DETERMINED IN THE FIELD BY THE ENGINEER.
- 2) SEE SPECIAL PROVISIONS FOR COUNTY FURNISHED MATERIALS.
- 3) LOOP DETECTOR WIRES SHALL BE CROSS-LINKED POLYETHYLENE (XLP) IN 3/4" N.M.C. SEE SPECIAL PROVISIONS.
- 4) NEW HANDHOLES SHALL BE PVC HANDHOLES WITH METAL FRAMES AND COVERS.
- 5) EACH SIGNAL FACE SHALL HAVE BACKGROUND SHIELD.
- 6) EACH PEDESTRIAN INDICATION SHALL BE ONE SECTION "FILLED" HAND/WALKING PERSON INDICATIONS.
- 7) ALL VEHICLE SIGNAL INDICATIONS, AND ALL PEDESTRIAN SIGNAL INDICATIONS SHALL BE LED.
- 8) SEE SPECIAL PROVISIONS AND DETAILS REGARDING SIGNS TO BE FURNISHED & INSTALLED BY CONTRACTOR (INCIDENTAL).
- 9) CONTRACTOR SHALL PROVIDE EXTENDED BRACKETS FOR EACH POLE MOUNTED VEHICLE AND PEDESTRIAN SIGNAL FACE.
- 10) A 3/4" HALF COUPLING, 3/4" PIPE NIPPLE AND CONDUIT OUTLET BODY SHALL BE FURNISHED AND INSTALLED 6 FEET FROM THE END OF EACH MAST ARM (FOR EVP).
- 11) CONTRACTOR SHALL COORDINATE ALL TRAFFIC SIGNAL INSTALLATION WORK WITH ROAD CONSTRUCTION TO BE COMPLETED BY OTHERS AS PART OF ENTIRE PROJECT.
- 12) ALL MAST ARM POLE AND PEDESTAL POLE MOUNTED VEHICLE AND PEDESTRIAN SIGNAL INDICATIONS SHALL BE MOUNTED USING ONE-WAY SIGNAL HEAD MOUNTS. SEE SPECIAL PROVISIONS.

N.M.C. LOOP DETECTORS			
NUMBER	SIZE (FT.)	LOCATION	FUNCTION
D1-1	6x6	40'	1
D1-2	6x6	10'	1
D2-1	6x6	400'	1
D2-2	6x6	400'	1
D3-1	2-6x6	15' & 45'	7
D3-2	2-6x6	0' & 30'	7
D4-1	6x6	180'	3,8
D4-2	2-6x6	0' & 15'	7
D5-1	6x6	40'	1
D5-2	6x6	10'	1
D6-1	6x6	400'	1
D7-1	2-6x6	15' & 45'	7
D7-2	2-6x6	0' & 30'	7
D8-1	6x6	300'	3,8
D8-2	2-6x6	0' & 15'	7
D8-3	2-6x6	0' & 15'	1

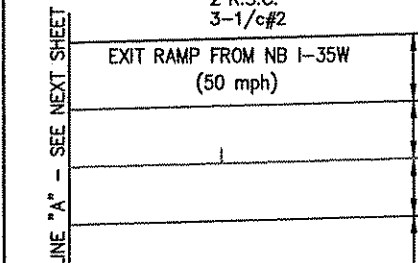
LOOP DETECTORS FUNCTIONS:

- 1) CALL AND EXTEND
- 2) CALL ONLY
- 3) EXTEND ONLY
- 4) CALL ONLY DENSITY
- 5) DELAYED CALL ONLY
- 6) DELAYED CALL ONLY DENSITY
- 7) DELAYED CALL- IMMEDIATE EXTEND
- 8) CARRY OVER (STRETCH)
- 9) ADVISORY DETECTOR
- 10) SAMPLING DETECTOR
- 11) SPECIAL DETECTOR

NOTE: LOCATION = DISTANCE FROM STOP BAR TO FRONT OF LOOP DETECTOR.

- (B) SIGNAL SERVICE CABINET**
 CABINET FOUNDATION
 EXTEND INTO H.H.17:
 2"R.S.C.
 METERED SIGNAL SERVICE
 3-1/c#6
 UNMETERED STREET LIGHT SERVICE
 4-3/c#12 (LUM)
 EXTEND INTO H.H.18:
 2"R.S.C.
 3-1/c#2

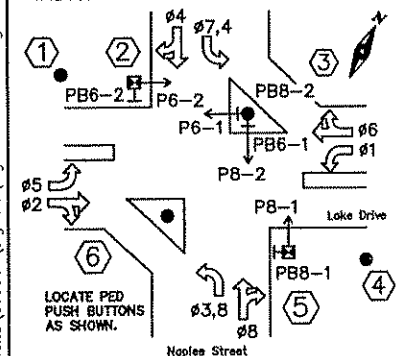
- 4"R.S.C.
 2-12/c#12
 3-3/c#12
 1-3/c#20
 4-2/c#14
 1-3/c#12 (LUM)
 4"R.S.C.
 3-12/c#12
 2-3/c#12
 1-3/c#20
 5-2/c#14
 1-3/c#12 (LUM)



SIGNAL SYSTEM OPERATIONS:

- SIGNAL SYSTEM FLASH MODE SHALL BE ALL RED.
- NORMAL OPERATION SHALL BE 8 PHASE, WITH PHASES 1 & 5 BEING PROTECTED LEFT TURN PHASES, AND PHASES 3 & 7 BEING PROTECTED/PERMISSIVE LEFT TURN PHASES.
- VEHICLE SIGNAL PHASES 2 AND 6 SHALL OPERATE ON RECALL.

CONTROLLER PHASING, PEDESTRIAN INDICATIONS AND PUSH BUTTONS



MN/DOT SYSTEM ID = 38478

DESIGN TEAM	1	JMG	8/3/05	ADDED ONE-WAY MOUNTS
DRAWN BY:	2	JMG	10/21/05	REVISED PER STATE COMMENTS
DESIGNER:	3	JMG	3/16/06	COUNTY, STATE COMMENTS
CHECKED BY:	4	JMG	04/24/06	STATE COMMENTS
	NO.	BY	DATE	REVISIONS

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.
 Certified By: *[Signature]* Lic. No. 22457
 Printed Name: JOHN M. GRAY Date: 04/24/06

SEH
 PHONE: (651)490-2000
 3535 VADNAIS CENTER DR.
 ST. PAUL, MN 55110



ANOKA COUNTY, MINNESOTA
INTERSECTION IMPROVEMENTS:
CSAH 23 @ INTERSTATE HIGHWAY 35W

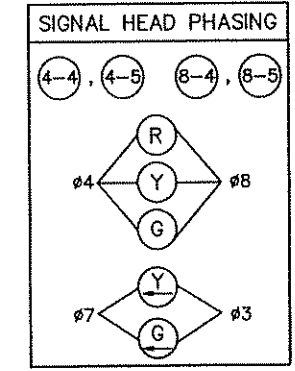
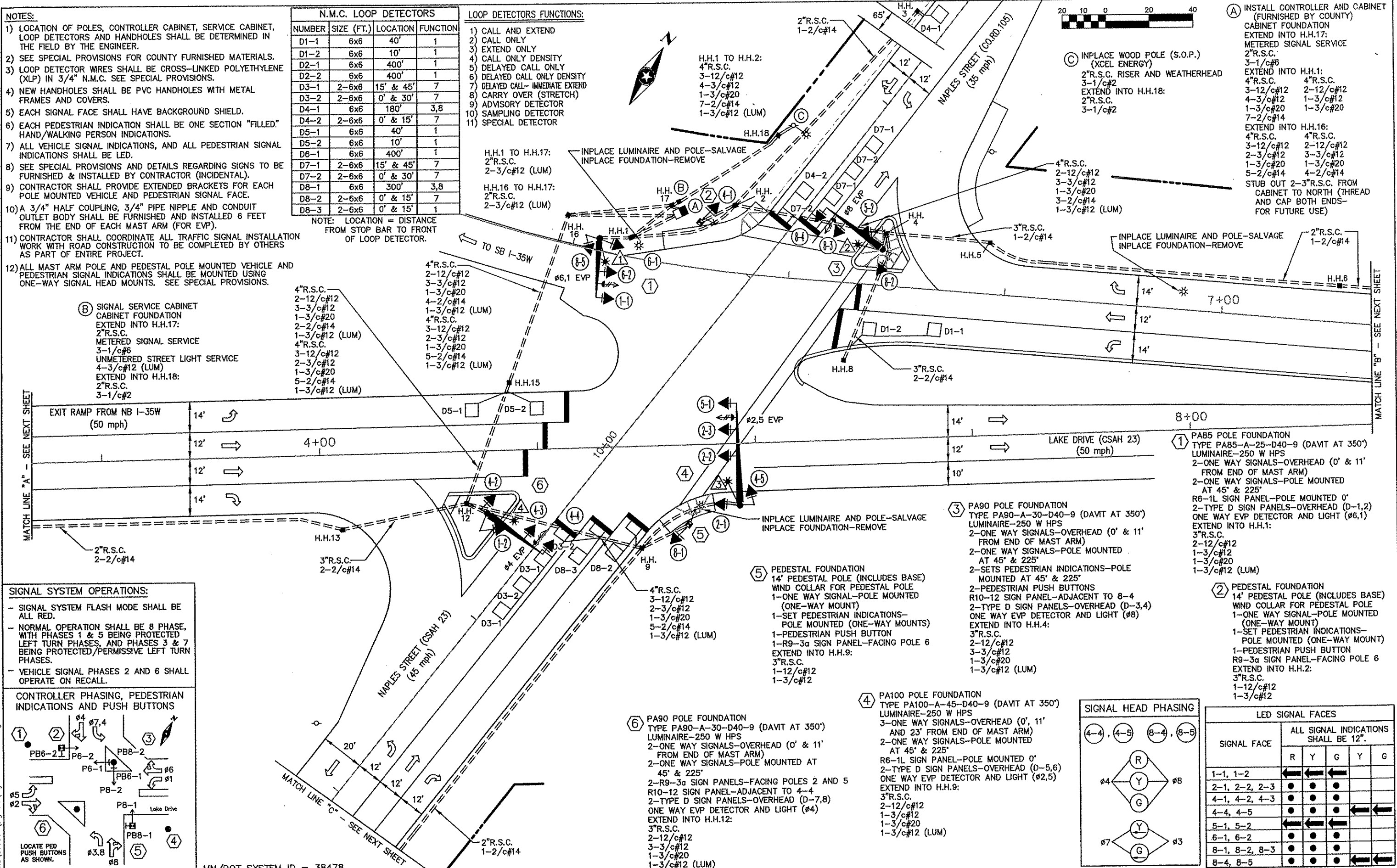
TRAFFIC SIGNAL SYSTEM
INTERSECTION LAYOUT
CSAH 23 (LAKE DRIVE) AT NAPLES STREET
 STATE PROJECT NO. 02-623-014

FILE NO.	52
ANOKC0106.01	
DATE	04/24/06
	57

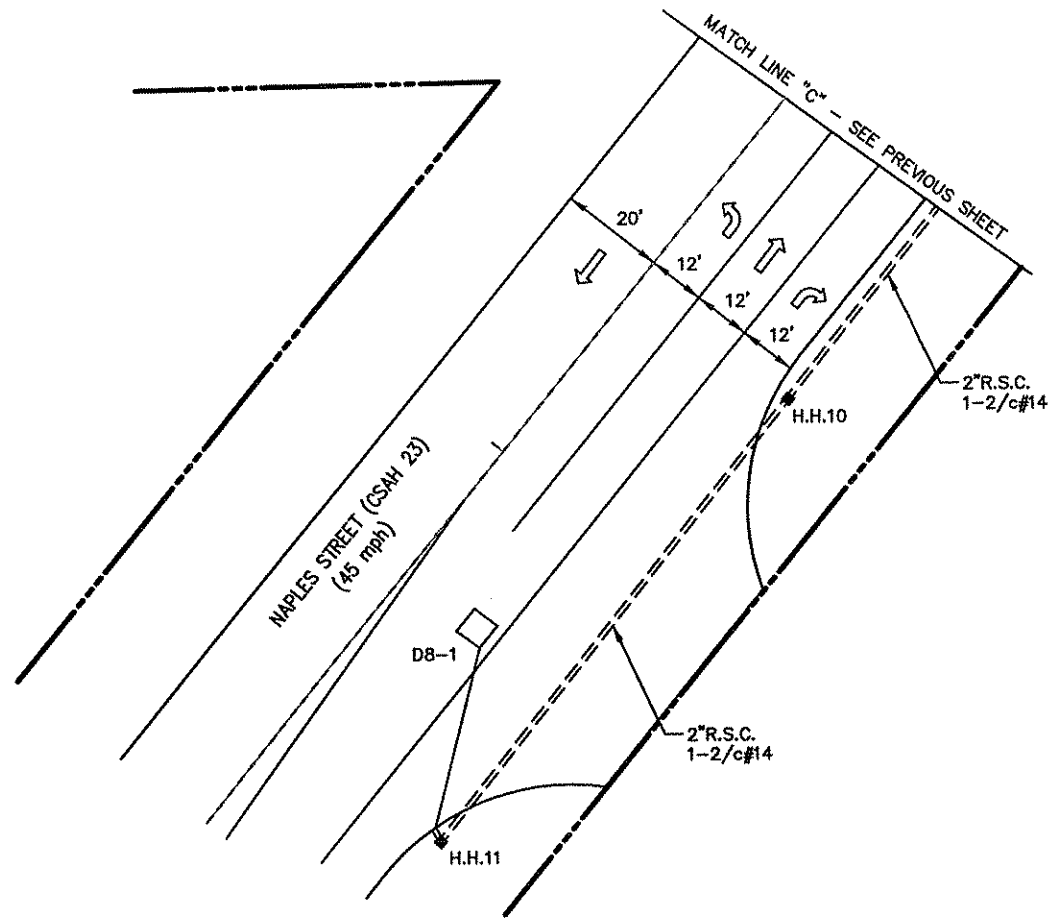
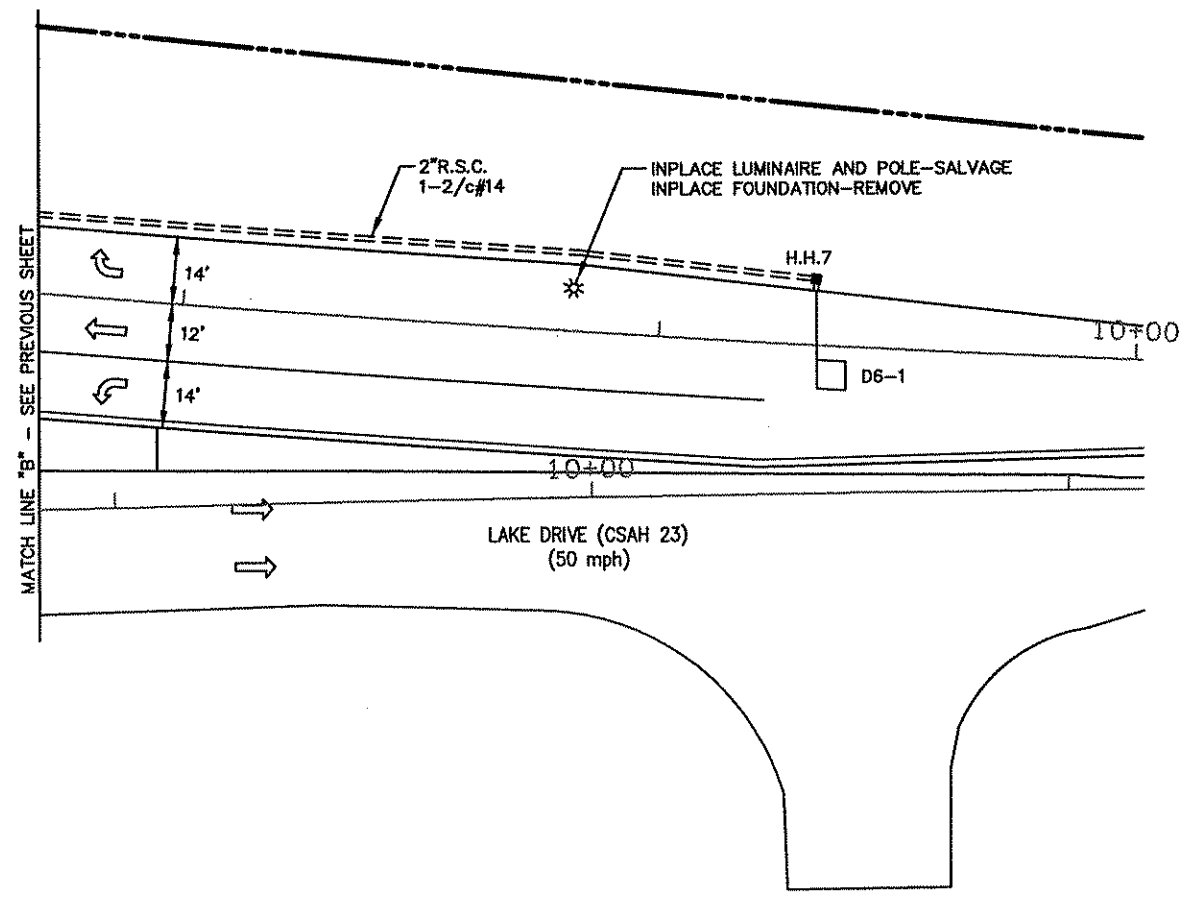
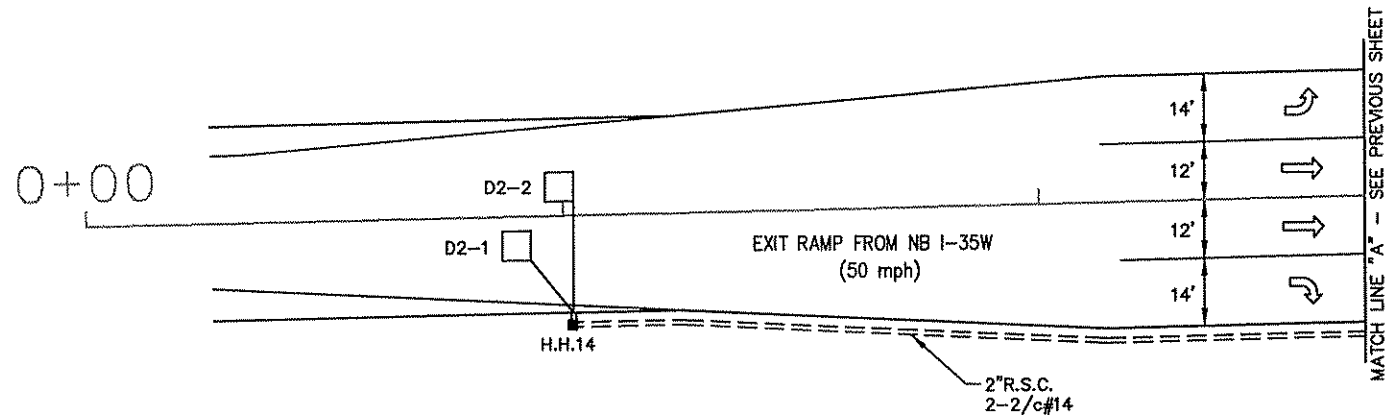


- (A) INSTALL CONTROLLER AND CABINET (FURNISHED BY COUNTY)**
 CABINET FOUNDATION
 EXTEND INTO H.H.17:
 METERED SIGNAL SERVICE
 2"R.S.C.
 3-1/c#6
 EXTEND INTO H.H.1:
 4"R.S.C. 4"R.S.C.
 3-12/c#12 2-12/c#12
 4-3/c#12 1-3/c#12
 2"R.S.C. 2"R.S.C.
 3-1/c#2 1-3/c#20
 7-2/c#14
 EXTEND INTO H.H.16:
 4"R.S.C. 4"R.S.C.
 3-12/c#12 2-12/c#12
 2-3/c#12 3-3/c#12
 1-3/c#20 1-3/c#20
 5-2/c#14 4-2/c#14
 STUB OUT 2-3"R.S.C. FROM CABINET TO NORTH (THREAD AND CAP BOTH ENDS-FOR FUTURE USE)

- (C) INPLACE WOOD POLE (S.O.P.) (XCEL ENERGY)**
 2"R.S.C. RISER AND WEATHERHEAD
 3-1/c#2
 EXTEND INTO H.H.18:
 2"R.S.C.
 3-1/c#2



LED SIGNAL FACES					
SIGNAL FACE	ALL SIGNAL INDICATIONS SHALL BE 12"				
	R	Y	G	Y	G
1-1, 1-2	●	●	●	●	●
2-1, 2-2, 2-3	●	●	●	●	●
4-1, 4-2, 4-3	●	●	●	●	●
4-4, 4-5	●	●	●	●	●
5-1, 5-2	●	●	●	●	●
6-1, 6-2	●	●	●	●	●
8-1, 8-2, 8-3	●	●	●	●	●
8-4, 8-5	●	●	●	●	●



MN/DOT SYSTEM ID = 38478

w:\ee\anokc\010601\signals\sigbase2-8305.dwg

DESIGN TEAM			
DRAWN BY:	JMG		
DESIGNER:	JMG		
CHECKED BY:	JMG		
NO.	BY	DATE	REVISIONS

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.

Certified By: *[Signature]* Lic. No. 22457
 Printed Name: JOHN M. GRAY Date: 03/16/06

SEH
 PHONE: (651)490-2000
 3535 VADNAIS CENTER DR.
 ST. PAUL, MN 55110

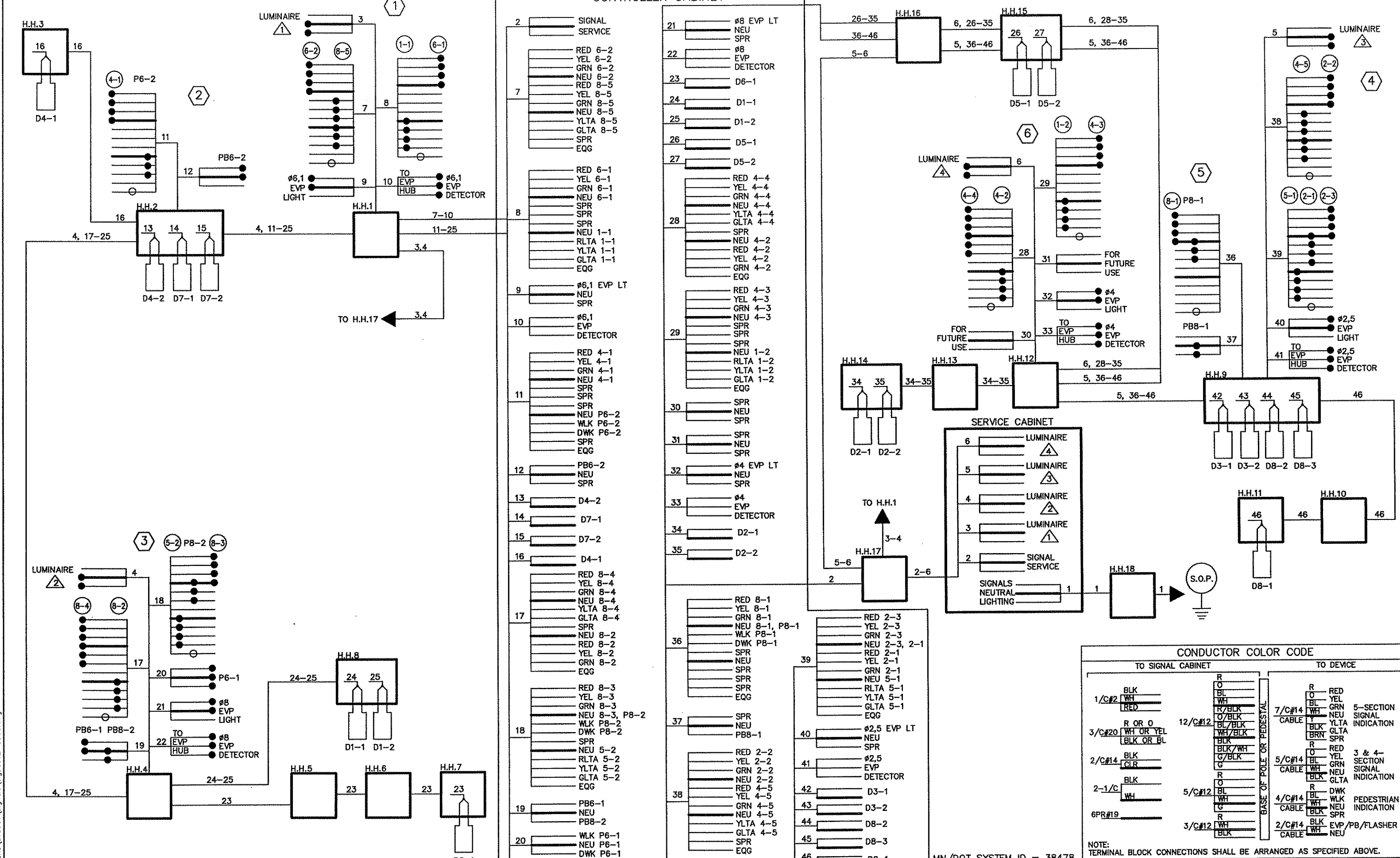


ANOKA COUNTY, MINNESOTA
 INTERSECTION IMPROVEMENTS:
 CSAH 23 @ INTERSTATE HIGHWAY 35W

TRAFFIC SIGNAL SYSTEM
 INTERSECTION LAYOUT
 CSAH 23 (LAKE DRIVE) AT NAPLES STREET
 STATE PROJECT NO. 02-623-014

FILE NO.	53
ANOKC0106.01	
DATE	03/16/06
	57

CONTROLLER CABINET



CONDUCTOR COLOR CODE

TO SIGNAL CABINET	BASE OF POLE OR PEDESTAL	TO DEVICE
1/C#20 WH OR YEL	R	R RED
3/C#20 WH OR YEL	O	O YEL
2/C#14 BLK CLR	BL	BL GRN
2-1/C WH	WH	WH NEU
6PR#19	R/BLK	R/BLK YLTA
	O/BLK	O/BLK GLTA
	BLK/BLK	BLK/BLK SPR
	BLK/WH	O RED
	C/BLK	BL YEL
	G	BL GRN
	R	BLK GLTA
	O	R DWK
	BL	BL WLK
	WH	WH NEU
	G	BLK NEU
	R	BLK SPR
	WH	WH EVP/PB/FLASHER
	BLK	WH NEU

NOTE: TERMINAL BLOCK CONNECTIONS SHALL BE ARRANGED AS SPECIFIED ABOVE.

w:\a06\amokc\010601\signals\sigbase2-8305.dwg

DESIGN TEAM	1	JMG	10/21/05	REVISED PER STATE COMMENTS
DRAWN BY:	JMG	JMG	3/16/06	COUNTY, STATE COMMENTS
DESIGNER:	JMG			
CHECKED BY:	JMG			
NO.	BY	DATE	REVISIONS	

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.
 Certified By: *John M. Gray* Lic. No. 22457
 Printed Name: JOHN M. GRAY Date: 03/16/06

SEH PHONE: (651)490-2000
 3535 VADNAIS CENTER DR.
 ST. PAUL, MN 55110



ANOKA COUNTY, MINNESOTA
INTERSECTION IMPROVEMENTS:
 CSAH 23 @ INTERSTATE HIGHWAY 35W

TRAFFIC SIGNAL SYSTEM
 FIELD WIRING DIAGRAM
 CSAH 23 (LAKE DRIVE) AT NAPLES STREET
 STATE PROJECT NO. 02-623-014

FILE NO.	ANOKC0106.01	54
DATE	03/16/06	57

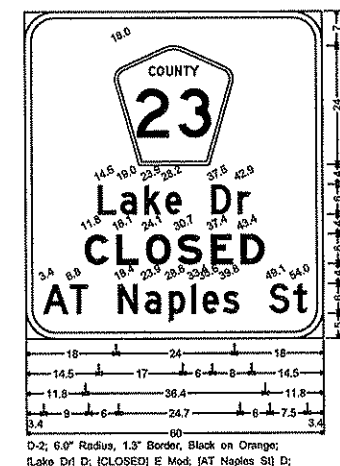
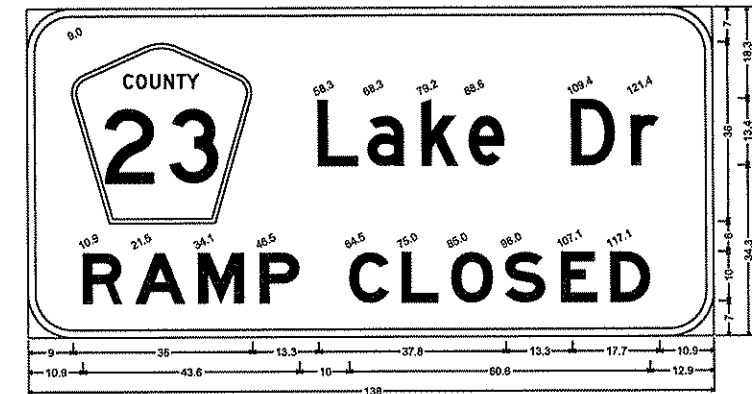
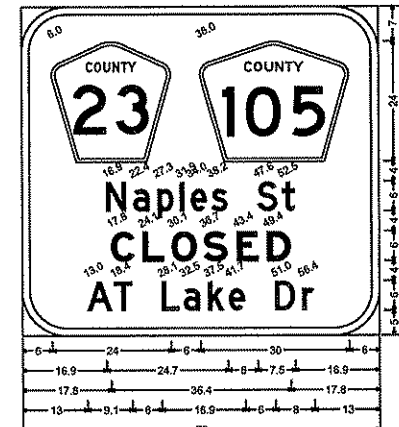
TRAFFIC CONTROL SIGNS / DEVICES				ESTIMATED QUANTITY	NOTE
SIGN OR DEVICE	CODE NO.	COLOR	SIZE		
	TYPE "A" FLASHER	-	-	41	
	TYPE III BARRICADE	WHITE ON BLACK	8'	28	
	REFLECTORIZED DRUM	BLACK ON ORANGE	18 x 36 (MIN)	23	
	R11-2	BLACK ON WHITE	48"x3"	2	
	R11-2	BLACK ON WHITE	48"x3"	4	
	R11-3A	BLACK ON WHITE	60"x30"	2	
	R11-4	BLACK ON WHITE	60"x30"	2	
	W9-1	BLACK ON YELLOW	48 x 48	1	
	W20-1	BLACK ON ORANGE	48 x 48	2	
	W20-3	BLACK ON ORANGE	48"x48"	6	
	W20-100P	BLACK ON ORANGE	42"x24"	2	
	W20-100P	BLACK ON ORANGE	42"x24"	2	
	W20-100P	BLACK ON ORANGE	42"x24"	2	
	W20-100P	BLACK ON ORANGE	42"x24"	1	
	W20-X16	BLACK ON ORANGE	48 x 48	1	
	W21-X5R	BLACK ON ORANGE	48 x 48	1	
	M1-1	WHITE & RED ON BLUE	30"x24"	5	
	M1-6A	WHITE & RED ON BLUE	30"x24"	14	
	M1-6A	WHITE & RED ON BLUE	24"x24"	9	
	M1-6A	WHITE & RED ON BLUE	36"x36"	3	DENOTED ON PLAN AS O.S.
	M1-6A	WHITE & RED ON BLUE	24"x24"	3	

TRAFFIC CONTROL SIGNS / DEVICES				ESTIMATED QUANTITY	NOTE
SIGN OR DEVICE	CODE NO.	COLOR	SIZE		
	M3-3MA	WHITE ON BLUE	24"x12"	5	
	M4-5A	WHITE ON BLUE	24"x12"	22	
	M4-8A	BLACK ON ORANGE	24"x18"	2	
	M4-8	BLACK ON ORANGE	24"x12"	9	
	M4-8	BLACK ON ORANGE	36"x18"	3	DENOTED ON PLAN AS O.S.
	M4-10R	BLACK ON ORANGE	48"x18"	1	
	M5-1AL	WHITE ON BLUE	21"x15"	3	
	M5-1AR	WHITE ON BLUE	21"x15"	6	
	M5-2AR	WHITE ON BLUE	30"x24"	1	DENOTED ON PLAN AS O.S.
	M6-1AL	WHITE ON BLUE	21"x15"	6	
	M6-1AR	WHITE ON BLUE	21"x15"	7	
	M6-2AR	WHITE ON BLUE	30"x24"	1	DENOTED ON PLAN AS O.S.
	M6-3A	WHITE ON BLUE	21"x15"	7	
	M6-3A	WHITE ON BLUE	30"x24"	1	DENOTED ON PLAN AS O.S.
	G20-X1	BLACK ON ORANGE	90"x78"	2	DENOTED ON PLAN AS O.S.
	G20-X1	BLACK ON ORANGE	72"x60"	4	
	D-1	BLACK ON ORANGE	72"x66"	2	
	D-2	BLACK ON ORANGE	60"x66"	2	
	D-3	BLACK ON ORANGE	138"x66"	1	

TRAFFIC CONTROL DEVICES & SYMBOLS LEGEND

NOTES:
CONTRACTOR SHALL FURNISH AND INSTALL ALL DEVICES SHOWN UNLESS NOTED OTHERWISE. EXACT LOCATION OF TRAFFIC CONTROL DEVICES TO BE DETERMINED BY THE ENGINEER.

SYMBOL	DESCRIPTION
	TRAFFIC CONTROL SIGN
	TYPE III BARRICADE
	EXISTING OR IN PLACE SIGN
	WORK AREA/ROAD CLOSED TO TRAFFIC



TRAFFIC CONTROL NOTES & GUIDELINES

GENERAL INFORMATION:

1. THE CONTRACTOR SHALL FURNISH, INSTALL AND MAINTAIN THE PAVEMENT MARKINGS, PAVEMENT MARKING REMOVALS, SIGNS, AND DEVICES IN THIS TRAFFIC CONTROL PLAN UNLESS OTHERWISE NOTED.
2. FIELD CONDITIONS MAY REQUIRE MODIFICATIONS OF THIS LAYOUT AS DEEMED NECESSARY BY THE ENGINEER.
3. ALL DISTANCES ARE APPROXIMATE.
4. THE CONTRACTOR IS RESPONSIBLE FOR PROTECTING ANY WORK AREAS NEAR TRAFFIC IN ACCORDANCE WITH THE MNMUTCD.

SIGNING:

1. ALL TRAFFIC CONTROL DEVICES THAT ARE NOT CONSISTENT WITH TRAFFIC OPERATION SHALL BE COVERED, REMOVED OR REVISED AS DIRECTED BY THE ENGINEER.
2. WHEN SIGNS ARE INSTALLED, THEY SHALL BE MOUNTED ON POSTS DRIVEN INTO THE GROUND AT THE PROPER HEIGHT AND LATERAL OFFSET AS DETAILED IN THE MNMUTCD. IF THIS IS NOT POSSIBLE THEY WILL BE MOUNTED ON PORTABLE SUPPORTS AS APPROVED BY THE ENGINEER. WHEN THE SIGNS ARE REMOVED THE SIGN POSTS SHALL ALSO BE REMOVED AS SOON AS POSSIBLE.
3. ALL ORANGE SIGNS SHALL BE MADE OF DIAMOND GRADE ORANGE REFLECTIVE SHEETING OR AN APPROVED SUBSTITUTE.
4. THE CONTRACTOR SHALL COORDINATE THE INSTALLATION OF THE FINAL SIGNS TO ASSURE THAT THE FINAL SIGNS ARE INSTALLED AS NEEDED, OR PROVIDE TEMPORARY SIGNING AT THEIR EXPENSE UNTIL THE FINAL SIGNING IS INSTALLED.

PAY ITEM TABULATION

ITEM	UNIT	TOTAL
REMOVABLE PREFORMED PLASTIC MARKING	LIN FT	565
RAISED PAVEMENT MARKER TEMPORARY	EACH	57

DESIGN TEAM	NO.	BY	DATE	REVISIONS
DRAWN BY: JMT				
DESIGNER: HLR				
CHECKED BY: APM				

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.
 Certified By: *Tiffany J. Dagon* Lic. No. 40535
 Printed Name: TIFFANY J. DAGON Date: 03/28/2006

PHONE: (651)490-2000
3535 VADNAIS CENTER DR.
ST. PAUL, MN 55110



ANOKA COUNTY, MINNESOTA
INTERSECTION IMPROVEMENTS:
CSAH 23 @ INTERSTATE HIGHWAY 35W

FILE NO.	ANOKC006.01	DATE
55		03/28/2006
57		

STATE PROJECT NO. 02-623-014, STATE PROJECT NO. 0280-56

Blaine

CENTERWOOD RD.

PETERSBURG RD.

ANOKA

SHOREVIEW

CIRCLE

SCALE 600'


BS = Both Sides of Roadway

SEE SHEET 56A FOR TEMPORARY TRAFFIC CONTROL IN THIS AREA

DESIGN TEAM				
DRAWN BY:	JMT			
DESIGNER:	HLR			
CHECKED BY:	APM			
NO.	BY	DATE	REVISIONS	

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.

Certified By: *Tiffany J. Dagon* Lic. No. 40535
 Licensed Professional Engineer
 Printed Name: TIFFANY J. DAGON Date: 03/28/2006



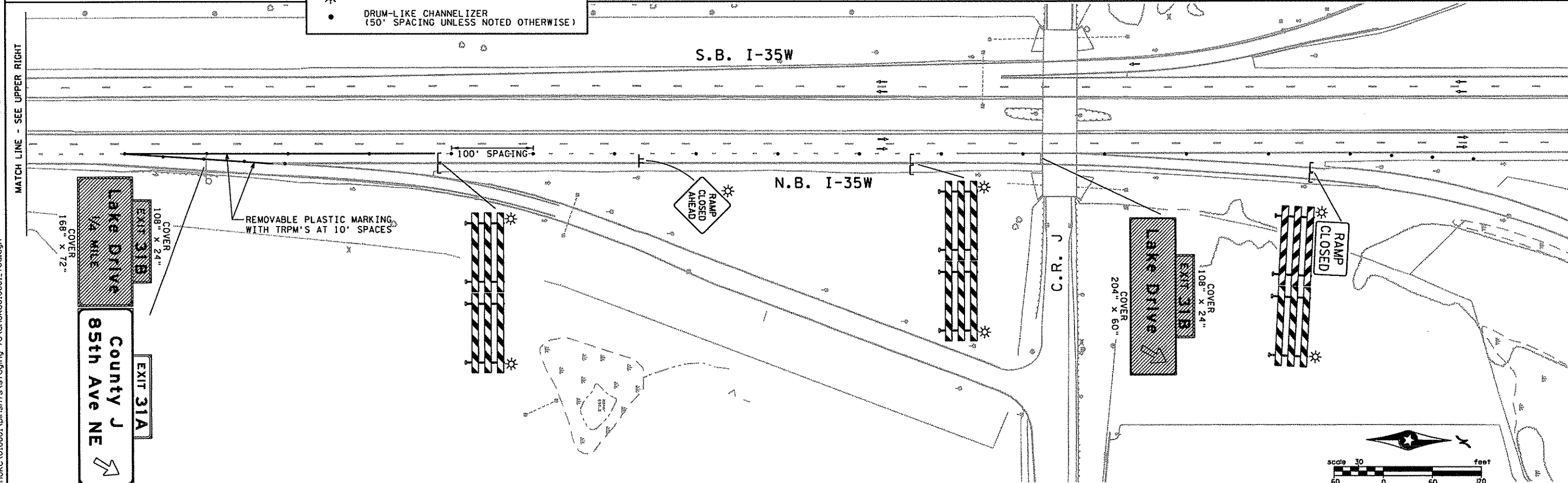
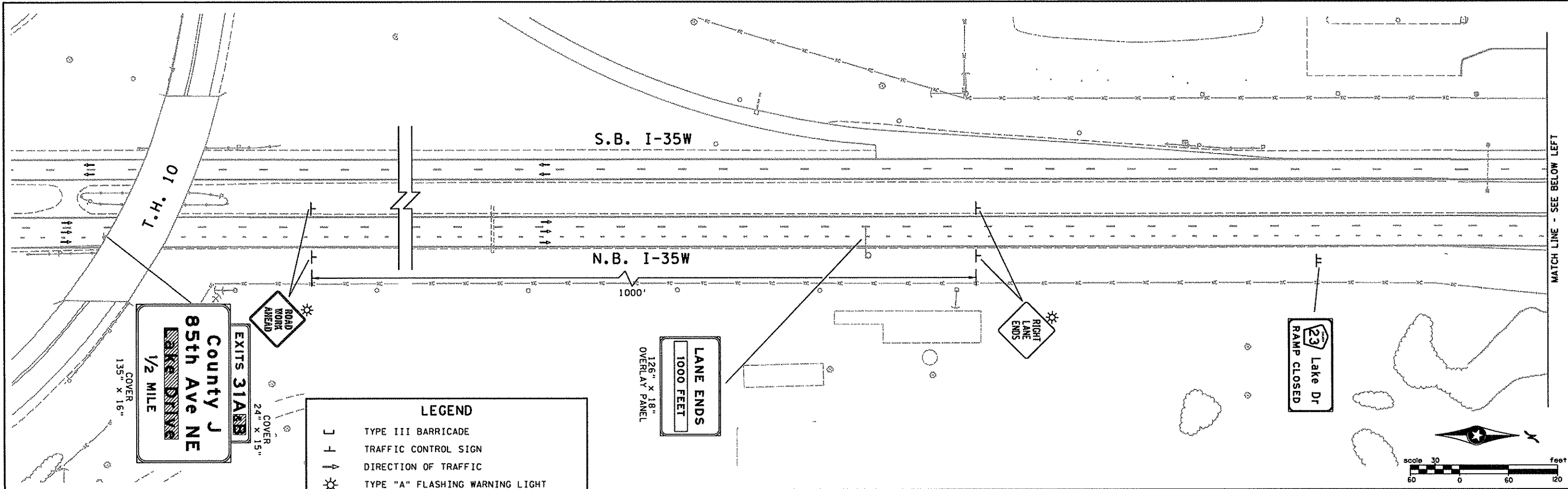
PHONE: (651)490-2000
 3535 VADNAIS CENTER DR.
 ST. PAUL, MN 55110



ANOKA COUNTY, MINNESOTA
**INTERSECTION IMPROVEMENTS:
 CSAH 23 @ INTERSTATE HIGHWAY 35W**

DETOUR PLAN

STATE PROJECT NO. 02-623-014, STATE PROJECT NO. 0280-56



DESIGN TEAM				
DRAWN BY:	UMT			
DESIGNER:	HLR			
CHECKED BY:	APM			
NO.	BY	DATE	REVISIONS	

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.

Certified By: *Susan M. Mason* Lic. No. 18612
 SUSAN M. MASON
 Printed Name: SUSAN M. MASON Date: 03/28/2006

PHONE: (651)490-2000
 3535 VADNAIS CENTER DR.
 ST. PAUL, MN 55110



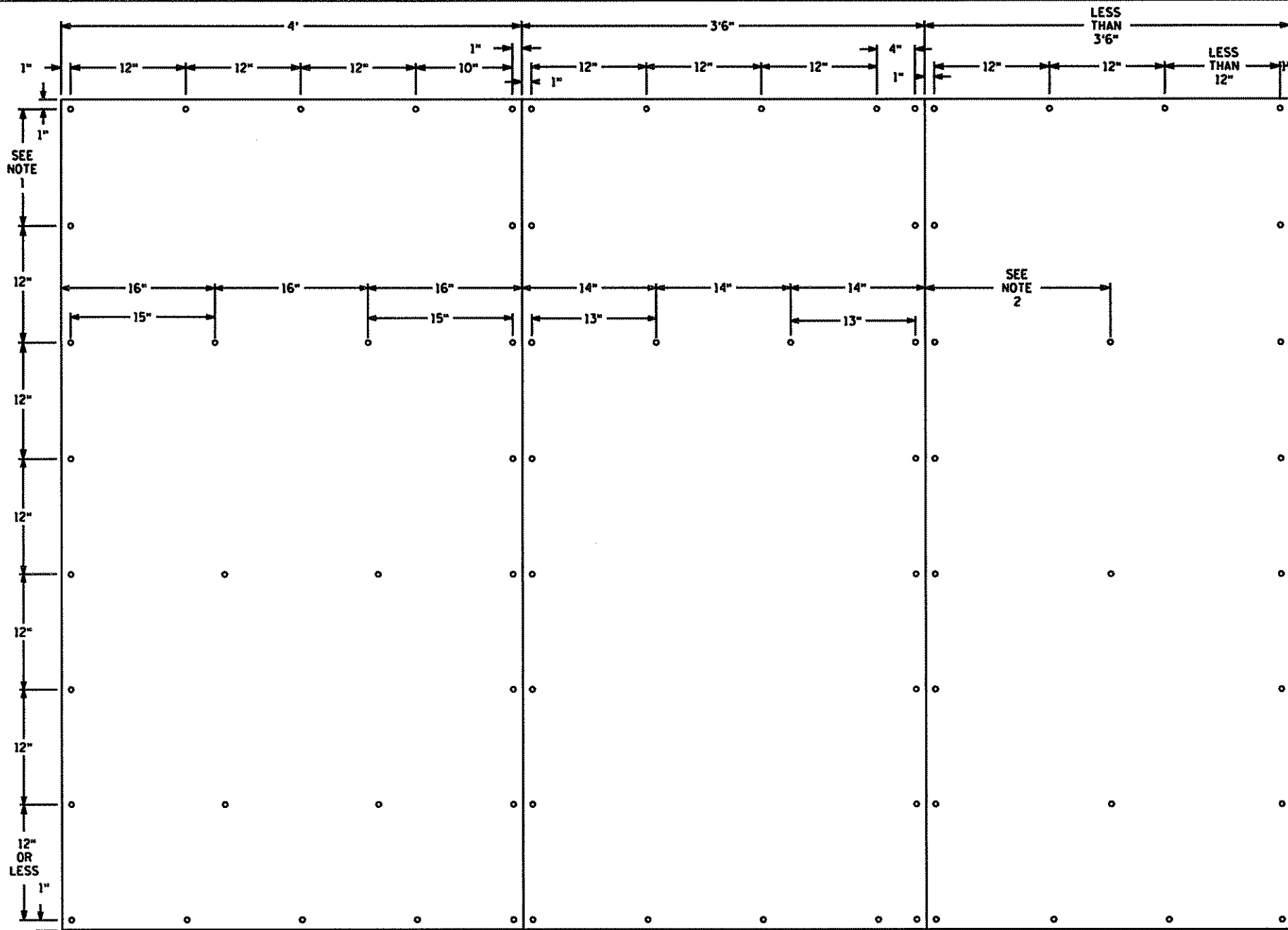
ANOKA COUNTY, MINNESOTA
**INTERSECTION IMPROVEMENTS:
 CSAH 23 @ INTERSTATE HIGHWAY 35W**

TRAFFIC CONTROL PLAN
 STATE PROJECT NO. 02-623-014, STATE PROJECT NO. 0280-56

FILE NO.	56A
ANOKC0106.01	
DATE	03/28/2006
	57

REVISED: 22-MAR-2001
 PLOTTED: \$\$\$TIMEANDDATEOFPLOTT\$\$\$

METRO DIVISION - TRAFFIC
 PLOT NAME: IPARMNAME.i
 PATH & FILENAME: \$\$\$FILENAMEANDPATH\$\$\$



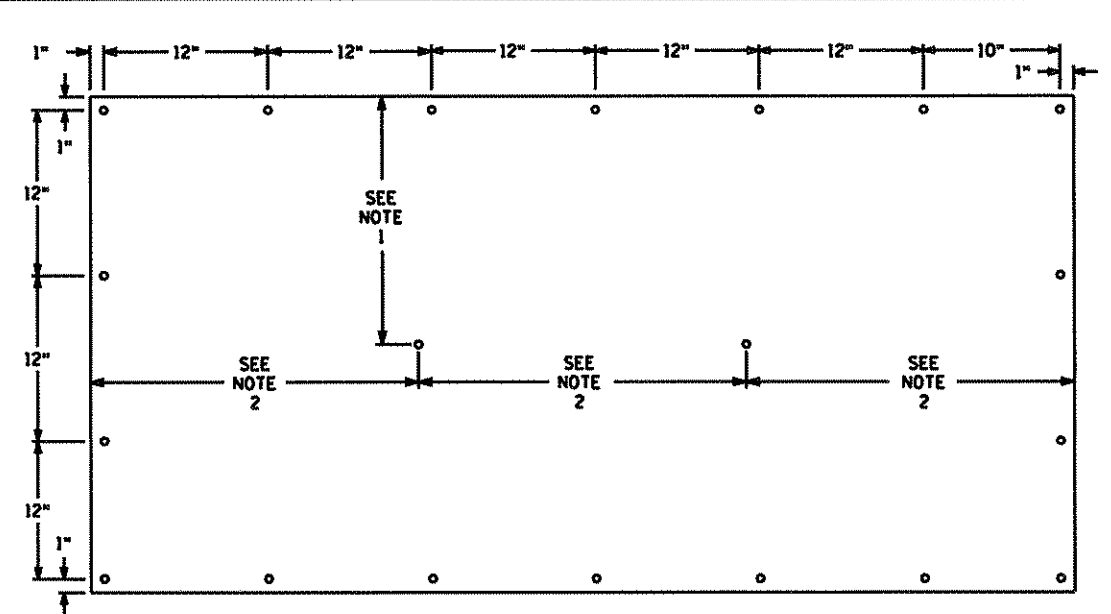
TEMPORARY CONSTRUCTION SIGN PANEL OVERLAY COVERING A COMPLETE SIGN PANEL

OVERLAY ASSEMBLY STEPS:

1. DRILL 13/64" HOLES ON THE SHEET ALUMINUM OVERLAYS IN ACCORDANCE WITH HOLE SPACING ON DIAGRAM. OUTSIDE HOLES SHALL NOT BE SPACED MORE THAN 12" APART.
2. ATTACH ONE PLASTIC WASHER (1/8" THICK, 3/8" I.D. AND 7/8" O.D.), WITH DOUBLE FACED TAPE, CENTERED BEHIND EACH DRILLED HOLE.
3. POSITION THE FAR LEFT SHEET ALUMINUM OVERLAY PANEL WITH THE BOTTOM FLUSH WITH THE INPLACE SIGN PANEL AND THE LOWER LEFT EDGE OF THE OVERLAY PANEL LINED UP WITH THE LOWER LEFT EDGE OF THE BOTTOM INPLACE PANEL SECTION.
4. DRILL ALL OUTSIDE HOLES THROUGH THE INPLACE SIGN PANEL AND ATTACH OVERLAY PANEL WITH 3/16" POP RIVETS MEETING THE REQUIREMENTS ON Mn/DOT 3352.A7a
5. DRILL THE INNER HOLES THROUGH THE INPLACE SIGN PANEL AND ATTACH WITH RIVETS AS SPECIFIED IN STEP 4.
6. ABUT THE NEXT OVERLAY PANEL TO THE FIRST ATTACHED OVERLAY PANEL AND PERFORM THE SAME WORK AS SPECIFIED IN STEPS 4 AND 5.
7. INSTALL EACH ADDITIONAL OVERLAY PANEL AS SPECIFIED IN STEP 6.

NOTES:

1. IF TOP PANEL IS 6" HIGH, THIS VERTICAL SPACE IS 6"; IF TOP PANEL IS 12" HIGH, THIS VERTICAL SPACE IS 12".
2. SHEET ALUMINUM PANEL RIVET SPACING SHALL BE 1/2 THE PANEL'S WIDTH.



TEMPORARY CONSTRUCTION SIGN PANEL OVERLAY COVERING A PORTION OF A SIGN PANEL

OVERLAY ASSEMBLY STEPS:

1. DRILL 13/64" HOLES ON THE SHEET ALUMINUM OVERLAYS IN ACCORDANCE WITH HOLE SPACING ON DIAGRAM. OUTSIDE HOLES SHALL NOT BE SPACED MORE THAN 12" APART.
2. ATTACH ONE PLASTIC WASHER (1/8" THICK, 3/8" I.D. AND 7/8" O.D.), WITH DOUBLE FACED TAPE, CENTERED BEHIND EACH DRILLED HOLE.
3. POSITION THE OVERLAY PANEL, ON THE INPLACE SIGN PANEL, MAKING SURE THE MOUNTING HOLES ON THE OVERLAY PANEL DO NOT LINE UP WITH ANY HORIZONTAL ALUMINUM PANEL JOINTS.
4. DRILL ALL OUTSIDE HOLES THROUGH THE INPLACE SIGN PANEL AND ATTACH OVERLAY PANEL WITH 3/16" POP RIVETS MEETING THE REQUIREMENTS ON Mn/DOT 3352.A7a.
5. DRILL THE INNER HOLES THROUGH THE INPLACE SIGN PANEL AND ATTACH WITH THE SAME RIVETS AS SPECIFIED IN STEP 4.

NOTES:

1. VERTICAL SPACING FOR INNER MOUNTING HOLES IS 1/2 THE PANEL HEIGHT. IF THE PANEL IS LESS THAN 24" HIGH, THERE SHALL BE NO INNER HOLES.
2. HORIZONTAL SPACING FOR INNER MOUNTING HOLES SHALL NOT BE LESS THAN 15", NOR MORE THAN 24".

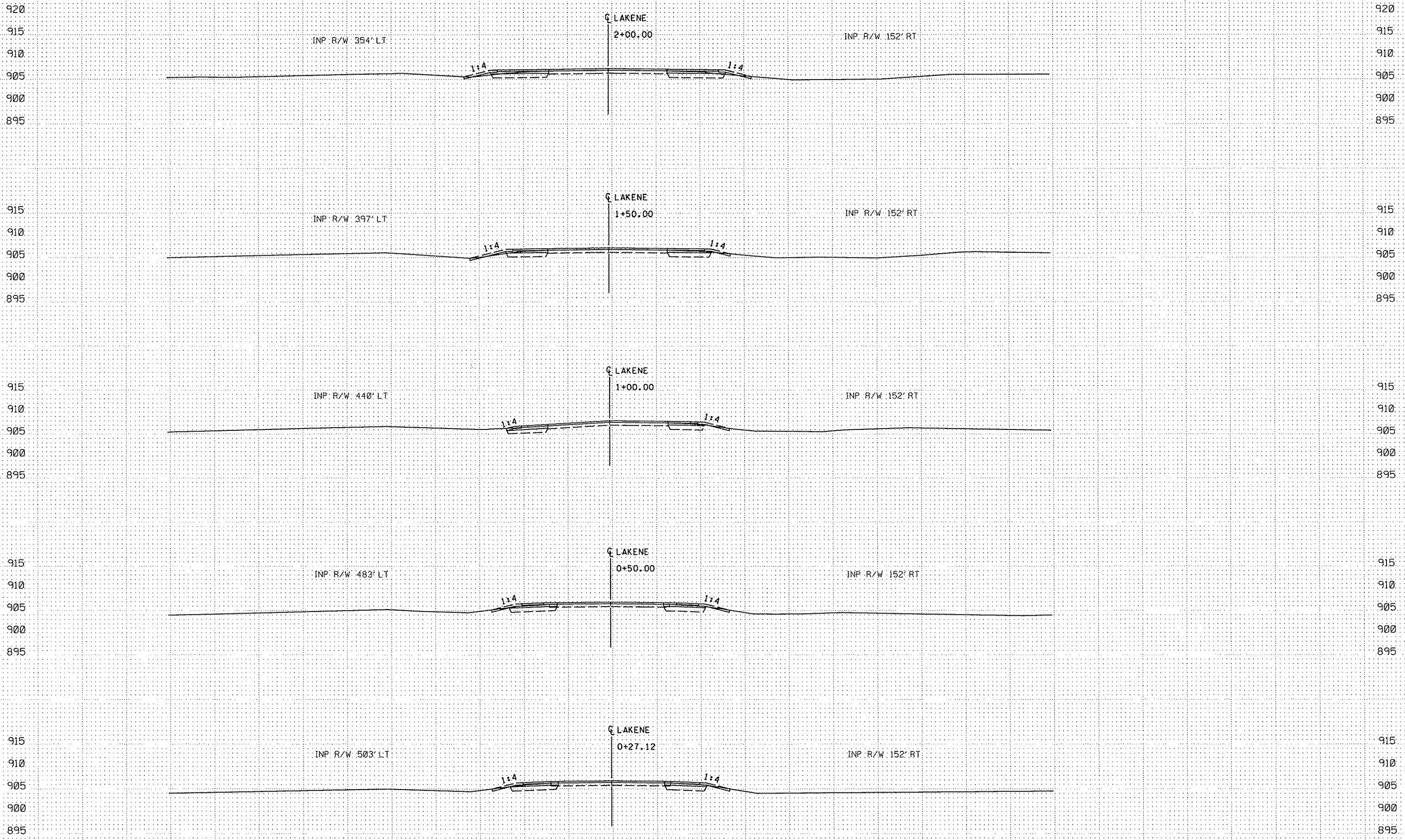
TRAFFIC CONTROL SHEET NO. 1	TITLE: TEMPORARY CONSTRUCTION SIGN PANEL OVERLAY COVERING OF A SIGN PANEL TYPICAL
--------------------------------	--

09/23/48 AM

03/09/2006

EXIST BY: HLR
PROPOSED BY: HLR
CHK BY: HLR
CHK BY: HLR

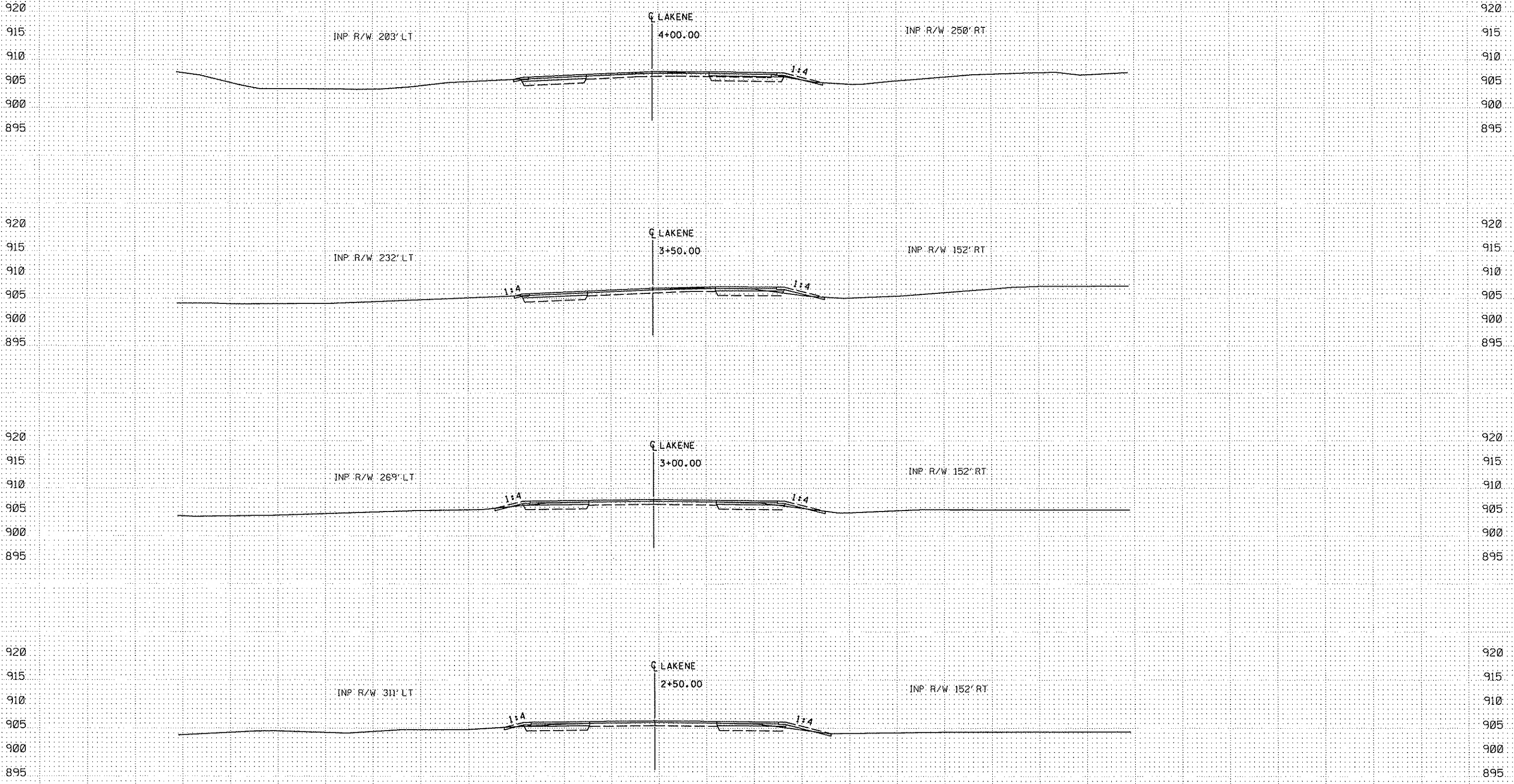
W:\AE\Anokc\010601\sect\sheet\lakene_xss.dgn



09/23/56 AM

03/09/2006

EXIST BY: HLR
PROPOSED BY: HLR
CHK BY: HLR
#:\AF\Anokc\010601\1x-sect\sheet\lakene_xss.dgn

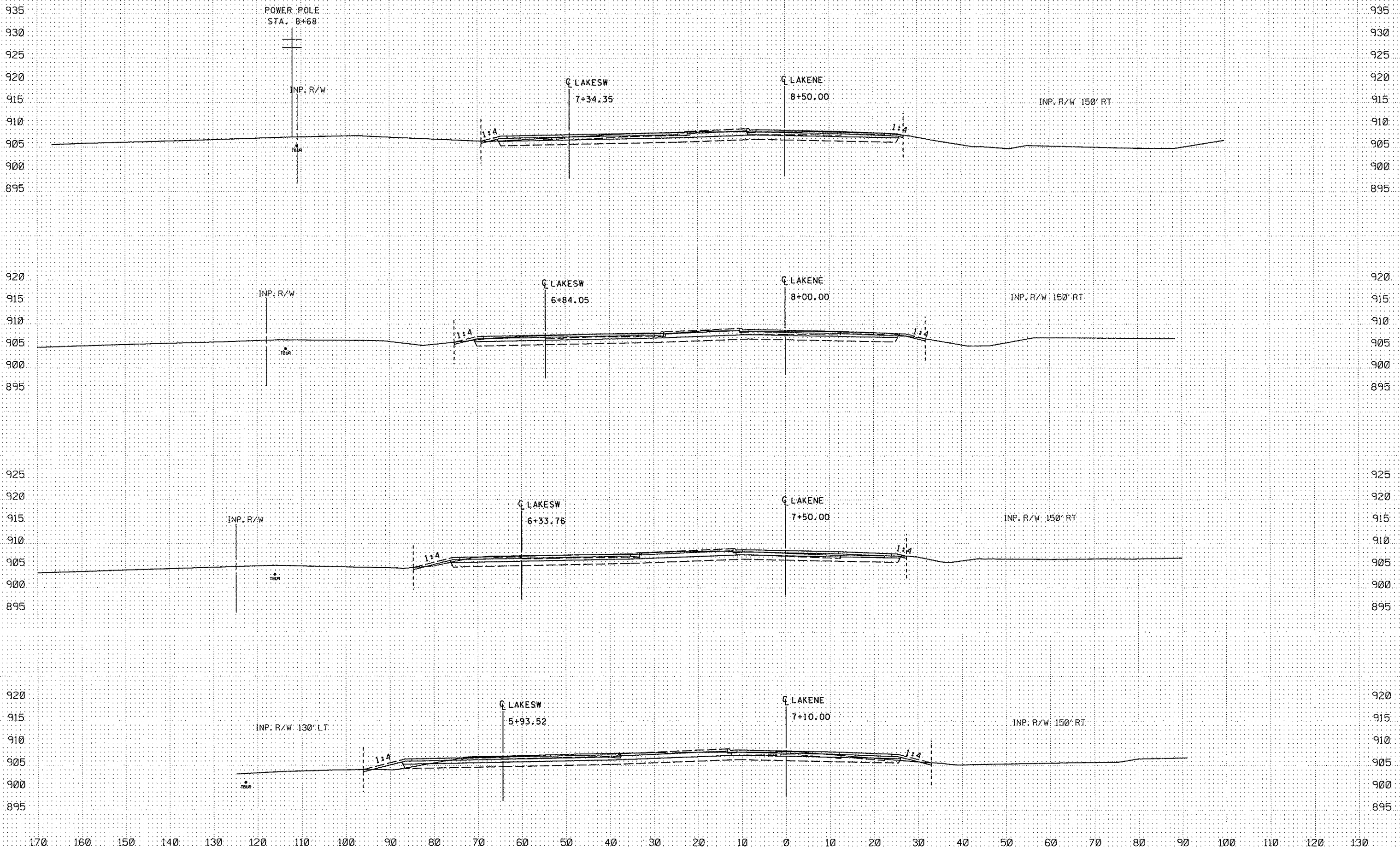


09/24/13 AM

03/09/2006

W:\AE\Anokc\010601\1x-sect\sheet\lakesw_xss.dgn

EXIST BY: SRH
PROPOSED BY: SRH
CHK BY: SRH

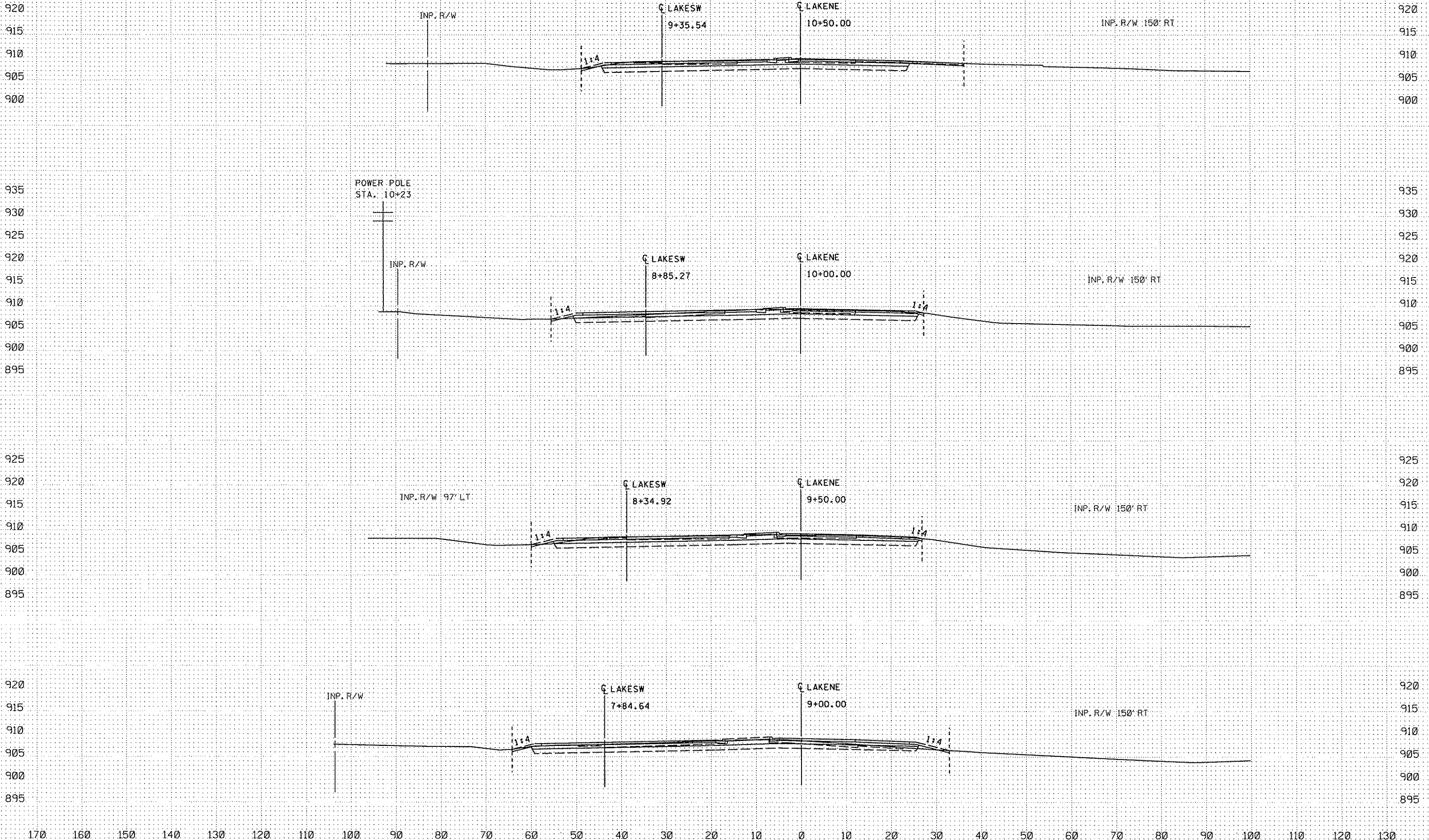


09/24/20 AM

03/09/2006

#:\AE\Anokc\010601\sect\sheet\lakesw_xss.dgn

EXIST. BY: SRH
PROPOSED BY: SRH
CHK. BY: SRH



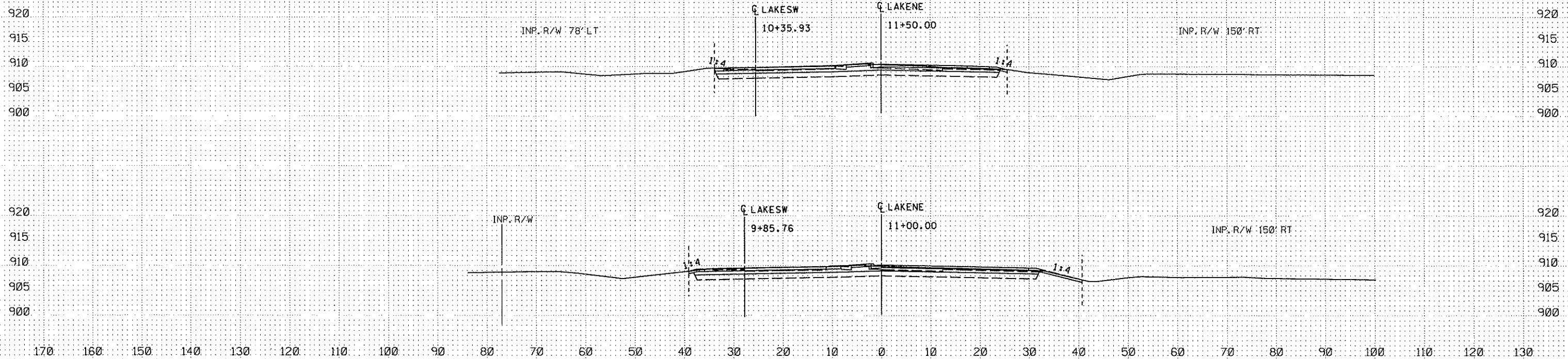
09:24:23 AM

03/09/2006

W:\AE\Anokc\010601\1-sect\sheet\lakesw_xss.dgn

EXIST BY: SRH
PROPOSED BY: SRH

CHK BY: SRH
CHK BY: SRH

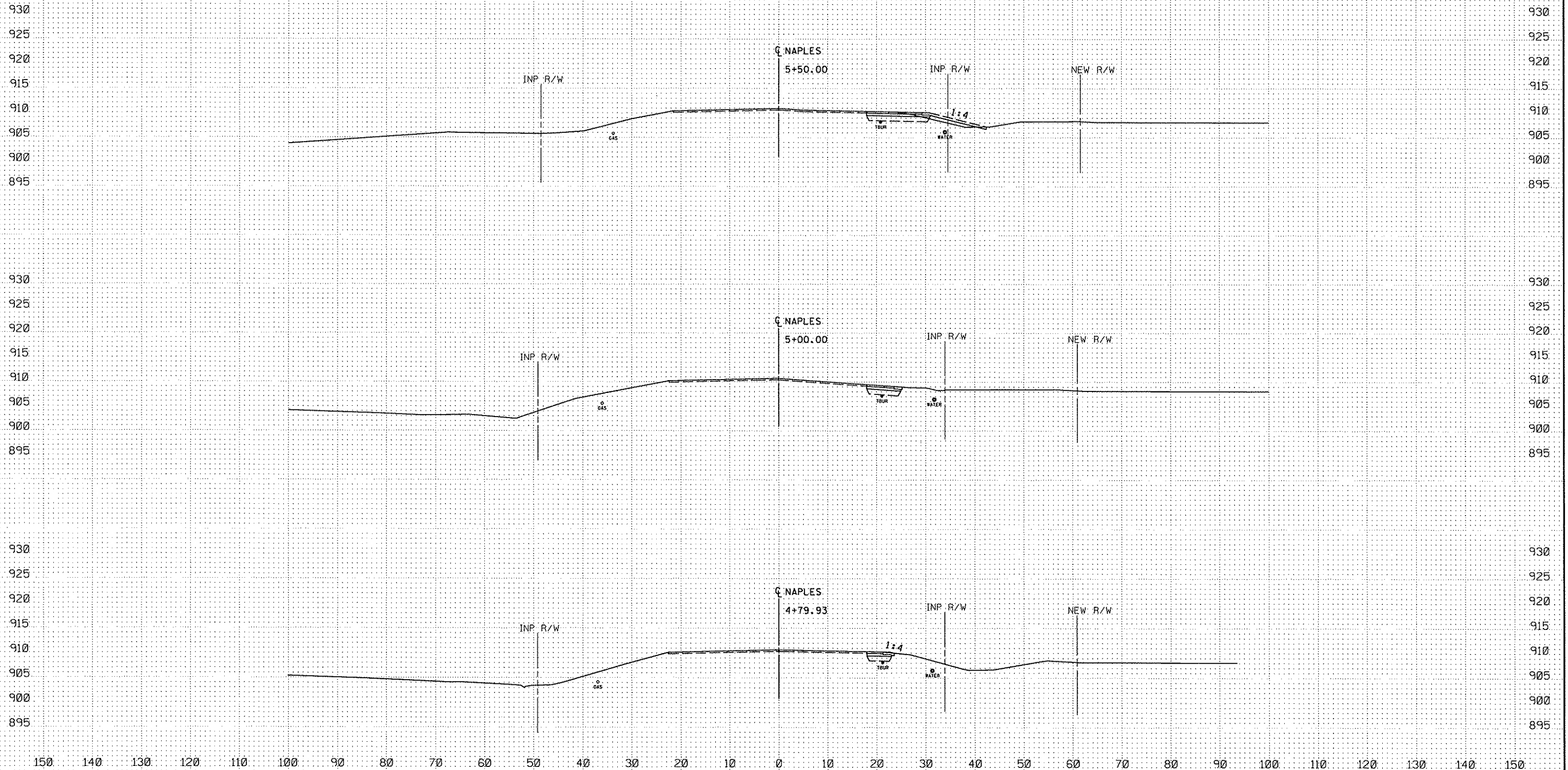


09:24:35 AM

03/09/2006

EXIST BY: SRH
PROPOSED BY: SRH
CHK BY: SRH

W:\AE\Annotc\010601\1-x-sect\sheet\ncples_xss.dgn



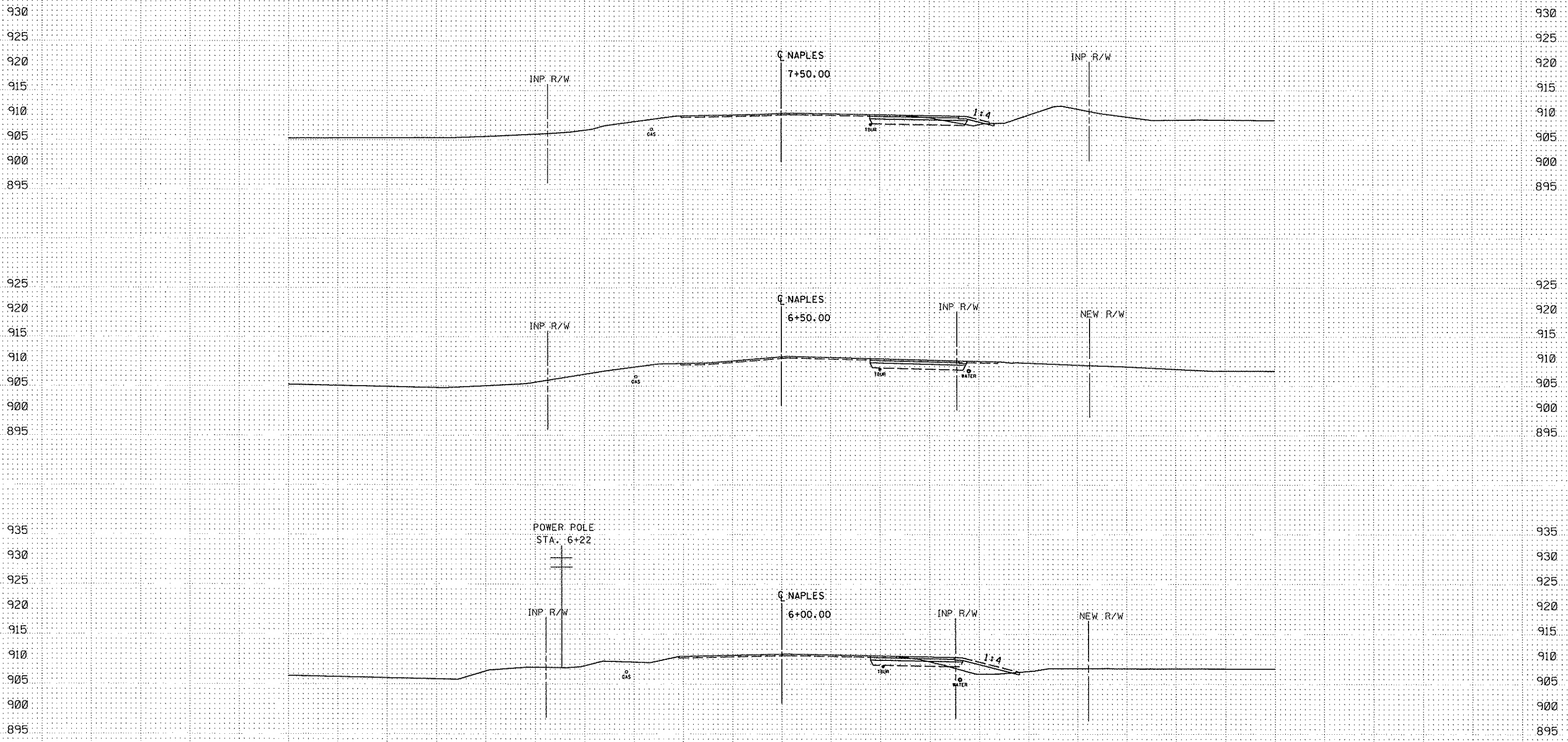
09:24:46 AM

03/09/2006

#:\AF\Anokc\010601\1-x-sect\sheet\naples_xss.dgn

EXIST BY: SRH
PROPOSED BY: SRH

CHK BY: SRH
CHK BY: SRH



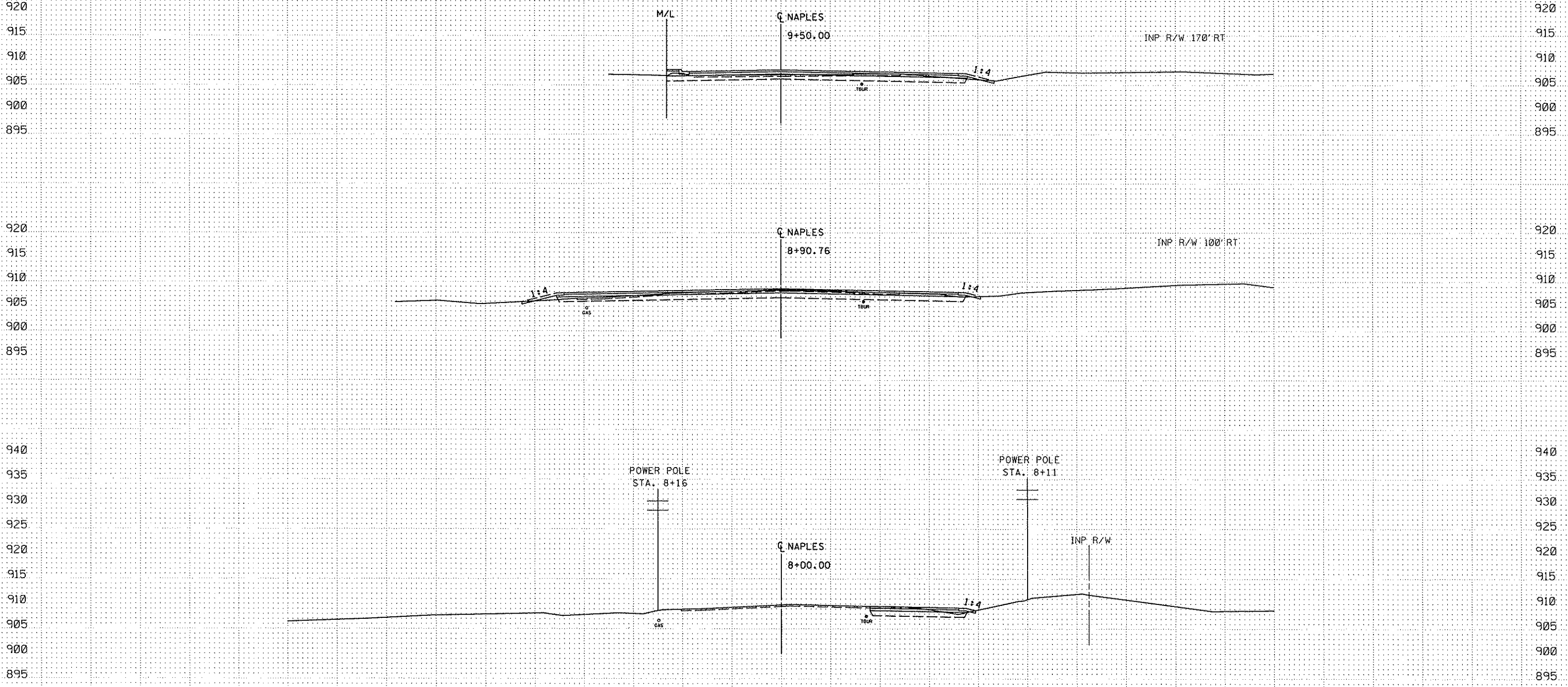
09:24:48 AM

03/09/2006

W:\E:\proj\010601\1x-sect\sheet\inaples_xss.dgn

EXIST BY: SRH
PROPOSED BY: SRH

CHK BY: SRH
CHK BY: SRH

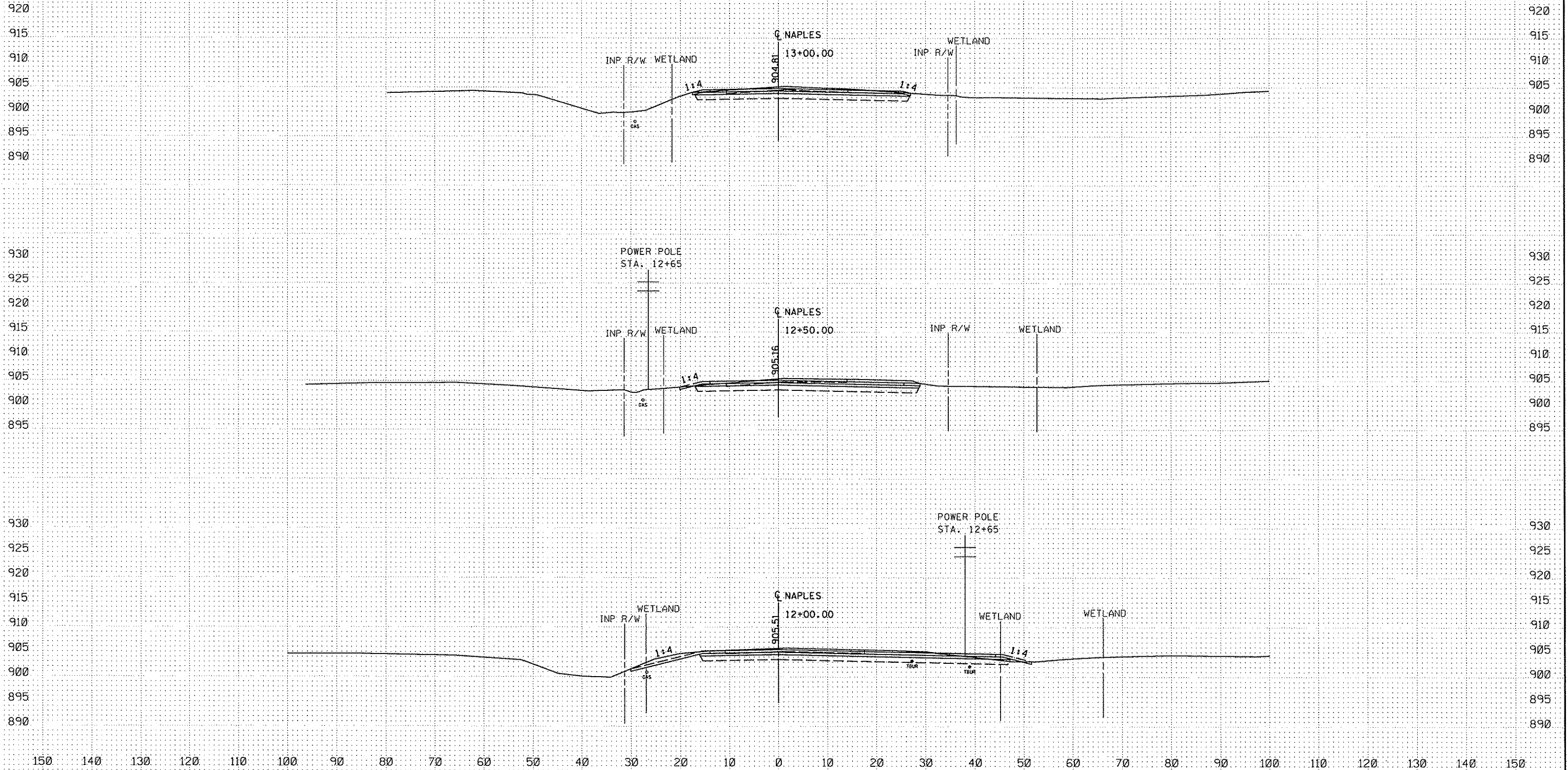


09/25/02 AM

03/09/2006

EXIST. BY: SRH
PROPOSED BY: SRH
CHK. BY: SRH

W:\AE\Anokc\010601\X-sect\sheet\Naples2.xss.dgn



09:25:10 AM

03/09/2006

W:\AE\Anokc\010601\1-x-sect\sheet\Naples2.xss.dgn

EXIST BY: SRH
PROPOSED BY: SRH
CHK BY: SRH

