MINNESOTA DEPARTMENT OF TRANSPORTATION
ANOKA COUNTY
C.S.A.H. 11 (FOLEY BLVD.)

CONSTRUCTION PLAN FOR GRADING, PAVING, CONCRETE CURB ANG GUTTER, DRAINAGE, AND SIGNAL SYSTEM

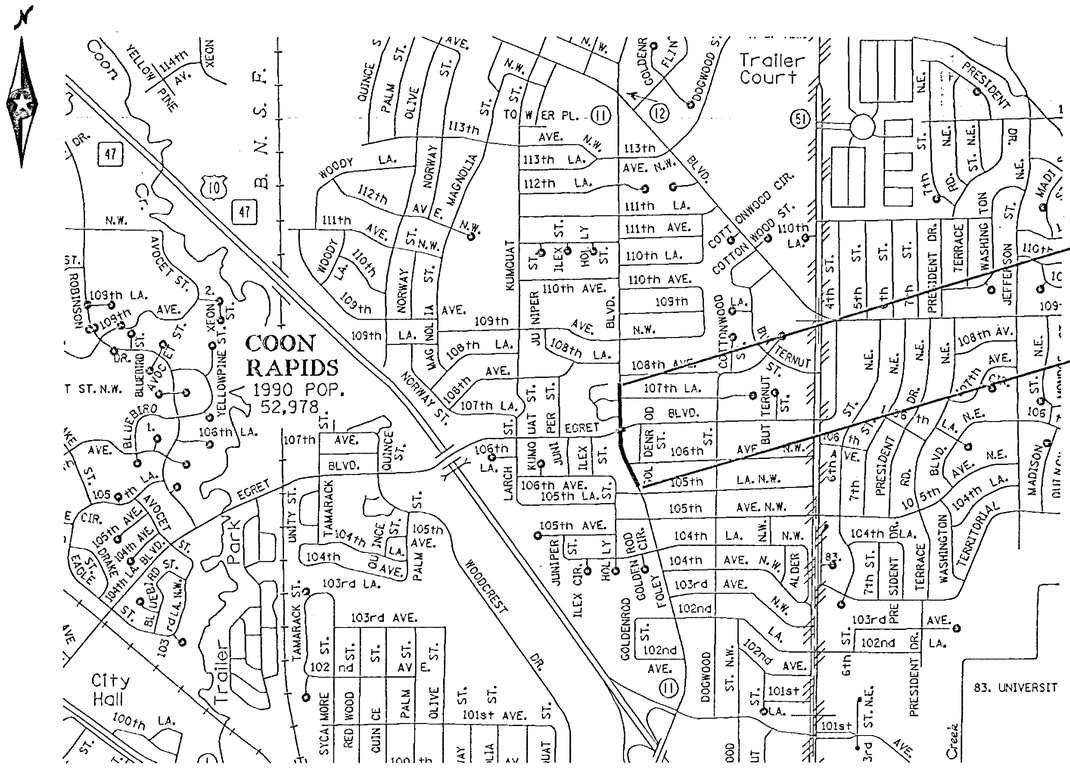
LOCATED ON C.S.A.H. 11 (FOLEY BLVD.) FROM 730 FT. S. OF EGRET BLVD. TO 685 FT. N. OF EGRET BLVD. IN COON RAPIDS

C.S.A.H. 11 (FOLEY BLVD.)

BETWEEN A PT. 730 FT. SOUTH OF EGRET BLVD.
AND A PT. 685 FT. NORTH OF EGRET BLVD.

GROSS LENGTH	1414.00	FEET	0.268 MILES
BRIDGES-LENGTH		FEET	MILES
EXCEPTIONS-LENGTH		FEET	MILES
NET LENGTH	1414.00	FEET	0.268 MILES
REF. POINT		TO REF. POINT	

STATIONING BASED ON N.B. C.S.A.H. 11



PROJECT LOCATION
COUNTY : ANOKA
DISTRICT : METRO

SCALES = FEET

PLAN	30'	
PROFILE	50' HORIZ.	5' VERT.
INDEX MAP	1000'	
GENERAL LAYOUT	100'	
CROSS SECTION	10' HORIZ.	10' VERT.

DESIGN DESIGNATION FOR: C.S.A.H. 11 (FOLEY BLVD.)

R-VALUE	70
ADT (Current Year) 2002 =	18,016
ADT (Future Year) 2022 =	27,024
PAVEMENT DESIGN	10 TON
FUNCTIONAL CLASSIFICATION	MINOR ARTERIAL
NO. OF TRAFFIC LANES	4
NO. OF PARKING LANES	0
ESALS (20)	2,406,300
Design Speed	40 MPH
Based on Sight Distance	STOPPING
Height of eye / Height of Object	3.5' / 0.5'
Design Speed not achieved at:	N/A

STATION EQUATIONS

S.B. C.S.A.H. 11 STA. 114+60.63 BACK =
STA. 114+50.28 AHEAD

I HEREBY CERTIFY THAT THE FINAL FIELD REVISIONS, IF ANY, OF THIS PLAN WERE MADE BY ME OR UNDER MY DIRECT SUPERVISION AND THAT I AM A DULY LICENSED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF MINNESOTA.

DATE ..... REG. NO. .....

STATE PROJ. NO. 02-611-28

MINN. PROJ. NO. STPX 0202(148)

GOVERNING SPECIFICATIONS

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

INDEX

THIS PLAN CONTAINS 58 SHEETS

SRF CONSULTING GROUP, INC.

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

PRINTED NAME MATTHEW D. HANSEN

DATE 10-4-2001 LIC. NO. 21364 ENGR. Matthew D Hansen

APPROVED ..... DIRECTOR/DEPARTMENT OF PUBLIC WORKS, CITY OF COON RAPIDS ..... DATE 10/15/01

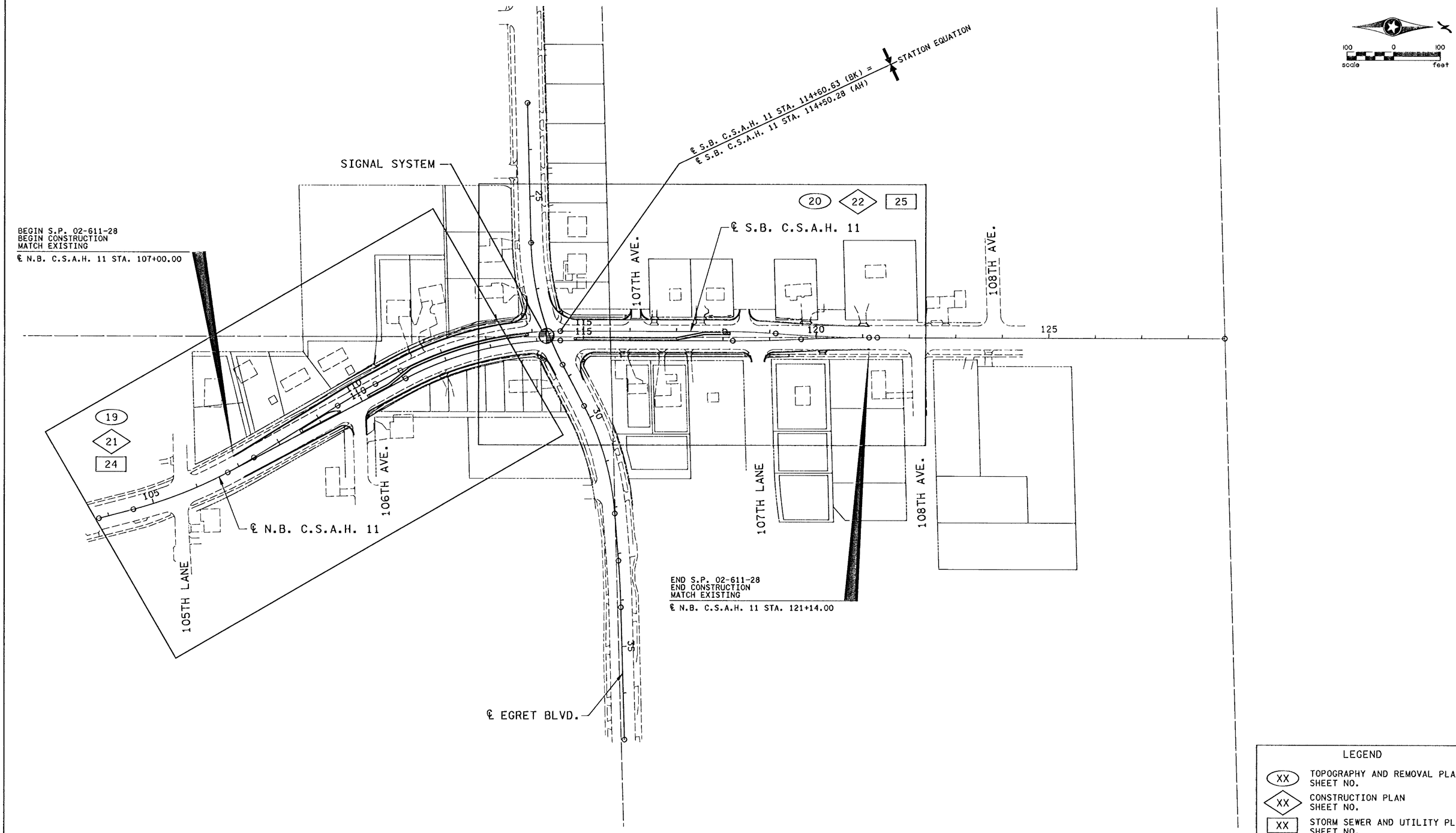
APPROVED ..... ANOKA COUNTY ENGINEER ..... DATE 10/11/01

..... METRO-ASSISTANT DIVISION ENGINEER-STATE AID: REVIEWED FOR COMPLIANCE WITH STATE & FEDERAL AID RULES/POLICY ..... DATE 5/23/02

..... APPROVED FOR STATE & FEDERAL AID FUNDING: STATE AID ENGINEER ..... DATE 5/23/02

SHEET NO. 1 OF 58 SHEETS

DESIGN FILE: n:\civil\1047\3212\plan\3212.cov
PLOT DATE/TIME: 09/17/2001 13:24:23



NO	DATE	BY	CKD	APPR	REVISION

I hereby certify that this plan, specification, or report was prepared by me or under my direct supervision and that I am a duly Licensed Professional Engineer under the laws of the State of Minnesota.

Print Name: MATTHEW D. HANSEN

Date 10-4-2001 License # 21364

STATE AID PROJECT NO. S.P. 02-611-28

CITY PROJECT NO.

		DATE
DRAWN BY	D. SYMANIETZ	05-01
DESIGNED BY	D. SYMANIETZ	05-01
CHECKED BY	M. HANSEN	05-01
COMM. NO.	0983212	

SRF CONSULTING GROUP, INC.

ANOKA COUNTY

GENERAL LAYOUT

C.S.A.H. 11 (FOLEY BLVD.)

SHEET 2 OF 58

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07/08/2002

STATEMENT OF ESTIMATED QUANTITIES

TAB	NOTES	ITEM NO.	ITEM DESCRIPTION		UNIT	TOTAL QUANTITY	ANOKA COUNTY S.P. 02-611-28 ROADWAY QUANTITIES	ANOKA COUNTY S.P. 02-611-28 STORM SEWER QUANTITIES	ANOKA COUNTY NON-PARTICIPATING QUANTITIES	S.P. NO. 114-020-24 CITY OF COON RAPIDS QUANTITIES
		2013.601	CELLULAR MOBILE TELEPHONE		EACH	2	2			
		2021.501	MOBILIZATION		LUMP SUM	1	1			
		2031.501	FIELD OFFICE TYPE D		EACH	1	1			
A		2101.502	CLEARING		TREE	20	20			
A	(16)	2101.507	GRUBBING		TREE	20	20			
A		2101.603	ROOT CUTTING		LIN FT	300	300			
F		2102.502	PAVEMENT MARKING REMOVAL		LIN FT	5750	5750			
B		2104.501	REMOVE CURB AND GUTTER		LIN FT	3057	3057			
B		2104.501	REMOVE SEWER PIPE (STORM)		LIN FT	432	432			
L		2104.501	REMOVE WOODEN FENCE		LIN FT	219	219			
		2104.501	REMOVE RETAINING WALL		LIN FT	70	70			
B		2104.505	REMOVE CONCRETE WALK		SQ YD	885	885			
B		2104.505	REMOVE BITUMINOUS PAVEMENT		SQ YD	10111	10111			
B		2104.505	REMOVE CONCRETE DRIVEWAY PAVEMENT		SQ YD	145	145			
		2104.509	REMOVE CATCH BASIN		EACH	5	5			
		2104.509	REMOVE HANDHOLE		EACH	10	10			
		2104.509	REMOVE SIGNAL BASE		EACH	4	4			
		2104.509	REMOVE CURB BOX		EACH	10				10
B	(17)	2104.513	SAWING BIT PAVEMENT (FULL DEPTH)		LIN FT	452	452			
L		2104.521	SALVAGE CHAIN LINK FENCE		LIN FT	63	63			
	(2)	2104.523	SALVAGE SIGN TYPE C		EACH	15	15			
	(1) (8)	2104.523	SALVAGE SIGN		EACH	5	5			
	(2)	2104.523	SALVAGE SIGNAL SYSTEM		EACH	1	1			
	(2)	2104.601	HAUL SALVAGED MATERIAL		LUMP SUM	1			1	
K	(3)	2105.501	COMMON EXCAVATION	(P)	CU YD	6209	6209			
C		2211.503	AGGREGATE BASE (CV) CLASS 5	(P)	CU YD	2184	2184			
B		2232.501	MILLING BITUMINOUS SURFACE (1.5")		SQ YD	416	416			
C		2350.501	TYPE MV 4 WEARING COURSE MIXTURE (C)		TON	1021	1021			
C		2350.502	TYPE MV 3 NON WEARING COURSE MIXTURE (C)		TON	3268	3268			
C	(9)	2350.503	TYPE LV 4 WEAR CRS MIX (B) 2.0" THICK (FOR DRIVEWAYS)		SQ YD	65	65			
C	(11)	2350.503	TYPE LV 4 WEAR CRS MIX(B) 2.0" THICK (FOR TEMP. PAVEMENT)		SQ YD	1125	1125			
C		2357.502	BITUMINOUS MATERIAL FOR TACK COAT		GALLON	1095	1095			
		2411.618	MODULAR BLOCK RETAINING WALL		SQ FT	115				115
G		2502.541	4" PERF TP PIPE DRAIN		LIN FT	650	650			
G		2503.541	15" RC PIPE SEWER DESIGN 3006 CL III		LIN FT	559		559		
		2503.601	4" INSULATION		SQ YD	20		20		
		2504.602	ADJUST VALVE BOX		EACH	7				7
		2504.602	RELOCATE HYDRANT AND VALVE		EACH	2				2
		2504.602	F&I CURB STOP & BOX		EACH	10				10
G		2506.501	CONST DRAINAGE STRUCTURE DESIGN H		LIN FT	9.8		9.8		
G		2506.501	CONST DRAINAGE STRUCTURE DES 48-4020		LIN FT	27.7		27.7		
G		2506.501	CONST DRAINAGE STRUCTURE DES 60-4020		LIN FT	5.1		5.1		
	(14)	2506.511	RECONSTRUCT MANHOLES		LIN FT	11.9				11.9
H		2506.516	CASTING ASSEMBLY		EACH	11		11		
		2506.521	INSTALL CASTING		EACH	3		1		2
		2506.522	ADJUST FRAME & RING CASTING		EACH	4		1		3
		2506.602	CONNECT INTO EXISTING STORM SEWER		EACH	1		1		
G		2506.602	RECONSTRUCT DRAINAGE STRUCTURE		EACH	1		1		
D	(5)	2521.501	4" CONCRETE WALK		SQ FT	12465	10922			1543
D	(6)	2521.501	6" CONCRETE WALK		SQ FT	100	100			
D		2531.501	CONCRETE CURB & GUTTER B612		LIN FT	1600	1600			
D		2531.501	CONCRETE CURB & GUTTER B618		LIN FT	2895	1448			1447
	(4)	2531.507	6" CONCRETE DRIVEWAY PAVEMENT		SQ YD	108				108
	(13)	2531.602	PEDESTRIAN CURB RAMP		EACH	10	10			
		2531.604	8" CONCRETE VALLEY GUTTER		SQ YD	46	23			23

STATEMENT OF ESTIMATED QUANTITIES

TAB	NOTES	ITEM NO.	ITEM DESCRIPTION	UNIT	TOTAL QUANTITY	ANOKA COUNTY S.P. 02-611-28 ROADWAY QUANTITIES	ANOKA COUNTY S.P. 02-611-28 STORM SEWER QUANTITIES	ANOKA COUNTY NON-PARTICIPATING QUANTITIES	S.P. NO. 114-020-24 CITY OF COON RAPIDS QUANTITIES
	(15)	2540.602	INSTALL MAILBOX SUPPORT	EACH	10	10			
L		2557.603	WOODEN FENCE	LIN FT	165	165			
L		2557.603	INSTALL CHAIN LINK FENCE	LIN FT	58	58			
F		2563.601	TRAFFIC CONTROL STAGE 1	LUMP SUM	1	1			
F		2563.601	TRAFFIC CONTROL STAGE 2	LUMP SUM	1	1			
F		2563.601	TRAFFIC CONTROL STAGE 3	LUMP SUM	1	1			
F		2563.602	RAISED PAVEMENT MARKER TEMPORARY	EACH	710	710			
	(12)	2563.610	POLICE OFFICER	HOUR	150	150			
I		2564.531	SIGN PANELS TYPE C	SQ FT	226.75	226.75			
	(8)	2564.537	INSTALL SIGN TYPE C	EACH	1	1			
I		2564.552	HAZARD MARKER X4-2	EACH	6	6			
	(1)	2564.602	INSTALL SIGN	EACH	4	4			
J	(18)	2564.602	PAVEMENT MESSAGE (LT ARROW) POLY PREFORM	EACH	8	8			
J	(18)	2564.602	PAVEMENT MESSAGE (RT-THRU ARROW) POLY PREFORM	EACH	4	4			
J	(18)	2564.603	24" SOLID LINE YELLOW-PAINT	LIN FT	360	360			
J	(18)	2564.603	24" STOP LINE WHITE-POLY PREFORMED	LIN FT	150	150			
J	(18)	2564.603	4" SOLID LINE WHITE-PAINT	LIN FT	2180	2180			
J	(18)	2564.603	4" BROKEN LINE WHITE-PAINT	LIN FT	920	920			
J	(18)	2564.603	4" DOUBLE SOLID LINE YELLOW-PAINT	LIN FT	4080	4080			
J	(18)	2564.604	ZEBRA CROSSWALK-WHITE POLY PREFORMED	SQ FT	1200	1200			
		2565.511	FULL T ACT T CONTROL SIGNAL SYSTEM	SIG SYS	1	1			
		2565.601	EMERGENCY VEHICLE PREEMPTION SYSTEM	LUMP SUM	1				1
	(7)	2573.502	SILT FENCE TYPE MACHINE SLICED	LIN FT	100	100			
		2575.505	SODDING TYPE SALT RESISTANT	SQ YD	1870	1870			
		2575.532	COMMERCIAL FERT ANALYSIS 22-5-10	POUND	176	176			
F		2581.501	REMOVABLE PREFORMED PLASTIC MARKING	LIN FT	6400	6400			

NOTES:
(1) STREET NAME SIGNS.
(2) SALVAGED MATERIAL (SIGNS AND SIGNAL SYSTEM) TO BE DELIVERED TO ANOKA COUNTY.
(3) INCLUDES QUANTITY FOR COMPACTION SUBCUT.
(4) CONCRETE DRIVEWAY APRONS SEE CONSTRUCTION PLANS AND MNDOT STD. PL. 7035.
(5) NEW WALK FROM S.B. C.S.A.H. 11 STA. 114+71 TO STA. 116+00 IS CITY FUNDED.
(6) SEE MNDOT STD. PL. 7113 (CONCRETE APPROACH NOSE DETAIL).
(7) FOR USE AS DIRECTED BY THE ENGINEER TO CONTROL EROSION.
(8) SEE SIGNING AND STRIPING PLAN "ADOPT A HIGHWAY SIGN."
(9) QUANTITY FOR DRIVEWAY PAVEMENT. 4" CLASS 5 AGGREGATE BASE CONSIDERED INCIDENTAL.
(11) QUANTITY FOR TEMPORARY PAVEMENT. 4" CLASS 5 AGGREGATE BASE CONSIDERED INCIDENTAL.
(12) QUANTITY FOR STAGE ONE AND TWO CONSTRUCTION ONLY.
(13) SEE MNDOT STD. PL. 7036 (CONCRETE PEDESTRIAN CURB RAMP).
(14) QUANTITY FOR SANITARY MANHOLES.
(15) MAILBOX SUPPORTS WILL BE FURNISHED BY ANOKA COUNTY HIGHWAY DEPARTMENT.
(16) NO GRINDING WILL BE ALLOWED.
(17) MILLING SHALL BE USED IN LIEU OF SAWING AT THE REQUEST OF THE ENGINEER AT NO ADDITIONAL COST.
(18) QUANTITY DOUBLED TO STRIPE PROJECT TWICE.
(P) INDICATES PLAN QUANTITY.

INDEX OF TABULATIONS

NO	DATE	BY	CKD	APPR	REVISION
3	7-8-02	ST	MDH	MDH	MISCELLANEOUS QUANTITY REVISIONS PER ADDENDUM 1.
2	6-6-02		MDH	MDH	MISCELLANEOUS QUANTITY REVISIONS PER ANOKA COUNTY.
1	10-25-01	SLL	MDH	MDH	MISCELLANEOUS QUANTITY REVISIONS PER ANOKA COUNTY.

I hereby certify that this plan, specification, or report was prepared by me or under my direct supervision and that I am a duly Licensed Professional Engineer under the laws of the State of Minnesota.
Print Name: MATTHEW D. HANSEN
Date 10-4-2001 License # 21364

STATE AID PROJECT NO.
S.P. 02-611-28
CITY PROJECT NO.

DRAWN BY D. SYMANIETZ DATE 05-01
DESIGNED BY D. SYMANIETZ 05-01
CHECKED BY M. HANSEN 05-01
CCMM. NO. 0983212

SRF CONSULTING GROUP, INC.

ANOKA COUNTY
STATEMENT OF ESTIMATED QUANTITIES
C.S.A.H. 11 (FOLEY BLVD.)

SHEET 3 OF 58

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CONSTRUCTION /SOILS NOTES

GRADING, BASE AND SURFACE

1 "GRADING GRADE" IS DEFINED AS THE BOTTOM OF THE AGGREGATE BASE AND THE TOP OF THE SELECTED SUBGRADE 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 GRANULAR MATERIAL IS DEFINED AS MATERIAL MEETING THE REQUIREMENTS OF SPEC. 3149.2B1.
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 4 INCHES DEEP.

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 4 FEET OF THE "GRADING GRADE" BENEATH THE ROADWAY, WITHIN THE LIMITS SHOWN ON THE TYPICAL SECTIONS.

8 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.

9 COMPACTION OF THE GRADING AND GRANULAR MATERIAL SHALL BE BY THE "SPECIFIED DENSITY" METHOD; COMPACTION OF THE AGGREGATE BASE AND AGGREGATE SHOULDERING LAYER SHALL BE BY THE "PENETRATION INDEX" METHOD (WHEN USING RECYCLED CLASS 5).

10 TEST ROLLING SHALL NOT BE REQUIRED ON THIS PROJECT.

11 THE BOTTOM OF ALL SUBCUTS SHALL BE SHAPED AND COMPACTED BY THE "QUALITY COMPACTION METHOD". THE CONTRACTOR SHALL USE A MINIMUM OF 4 PASSES OF AN APPROVED COMPACTION DEVICE.

12 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.

13 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 EXCAVATION.

14 PROVIDE 1V:20H LONGITUDINAL TAPERS BETWEEN CHANGES IN SUBGRADE AND SUBCUT DEPTHS.

15 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 OR TYPICAL SECTIONS.

16 COMPACTION OF THE BITUMINOUS ITEMS OF THIS PROJECT SHALL BE BY THE "MAXIMUM DENSITY" METHOD, IN ACCORDANCE WITH THE PROVISIONS OF SPEC. 2350.

17 PROVIDE FOR A UNIFORM BITUMINOUS TACK COAT BETWEEN ALL BITUMINOUS COURSES. THE TACK COAT SHALL BE IN ACCORDANCE WITH MN/DOT SPECIFICATION 2357 WITH THE FOLLOWING MODIFICATIONS:

1. THE TACK COAT SHALL CONSIST OF EMULSIFIED ASPHALT (CSS-1 OR CSS-1H) AND SHALL BE APPLIED BETWEEN ALL BITUMINOUS COURSES.
2. THE TACK COAT SHALL BE APPLIED AT A UNIFORM RATE OF 0.03 TO 0.05 GAL/SY BETWEEN BITUMINOUS LAYERS AND 0.07 TO 0.10 GAL/SY ON MILLED BITUMINOUS SURFACES PRIOR TO BEING OVERLAID.

18

CONSTRUCTION /SOILS NOTES

REMOVALS

19 PROVIDE FOR THE REMOVAL AND DISPOSAL OF ANY INPLACE SURFACING OR DEBRIS THAT WOULD INTERFERE WITH CONSTRUCTION. ALL SUCH MATERIALS SHALL BECOME THE PROPERTY OF THE CONTRACTOR AND SHALL EITHER BE RECYCLED TO THE EXTENT ALLOWED OR DISPOSED OF OFF THE PROJECT RIGHT OF WAY IN ACCORDANCE WITH SPEC. 2104.3C. PROVIDE FOR SAW CUTTING AS DEEMED NECESSARY BY THE ENGINEER.

20 THE EXISTING PAVEMENT THICKNESSES ARE ASSUMED TO BE AS FOLLOWS:
C.S.A.H. 11 (FOLEY BLVD.) - 6" BITUMINOUS
BITUMINOUS DRIVEWAYS - 3" DRIVEWAY PAVEMENT REMOVAL INCLUDED IN COMMON EXCAVATION.
THE CONTRACTOR SHALL INVESTIGATE AND MAKE OWN DETERMINATION OF ACTUAL PAVEMENT DEPTHS AND TYPES.

TURF ESTABLISHMENT

21 PLACE A MINIMUM OF 4 INCHES OF TOPSOIL ON ALL AREAS SCHEDULED FOR PERMANENT TURF ESTABLISHMENT.

22 SEEDING REQUIREMENTS ON THIS PROJECT ARE AS FOLLOWS:

A. ALL AREAS DISTURBED BY CONSTRUCTION SHALL BE SODDED WITH SOD TYPE SALT RESISTANT.

B. PROVIDE COMMERCIAL GRADE OF SLOW RELEASE FERTILIZER, ANALYSIS 22-5-10, OR EQUIVALENT ON ALL AREAS TO BE SODDED AT A RATE OF 450 LBS/ACRE.

MISCELLANEOUS

23 WHERE SEDIMENT DEPOSITS IN WATERS OF THE STATE THE MATERIAL MUST BE REMOVED IN 7 DAYS.

24 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 2001.

25 THE CONTRACTOR IS HEREBY REMINDED OF HIS RESPONSIBILITY UNDER STATE LAW TO CONTACT ALL UTILITIES THAT MAY HAVE FACILITIES IN THE AREA. CONTACT MUST BE MADE THROUGH GOPHER STATE ONE-CALL.

26 WHENEVER THE WORD "INCIDENTAL" IS USED IN THIS PLAN, IT SHALL MEAN THIS WORK WILL BE INCIDENTAL FOR WHICH NO DIRECT COMPENSATION WILL BE MADE.

THE FOLLOWING STANDARD PLATES APPROVED BY THE DEPARTMENT OF TRANSPORTATION FEDERAL HIGHWAY ADMINISTRATION SHALL APPLY ON THIS PROJECT.

STANDARD PLATES

PLATE NO.	DESCRIPTION
3000 L	REINFORCED CONCRETE PIPE
3006 G	GASKET JOINT FOR R.C. PIPE
3007 C	SHEAR REINFORCEMENT FOR PRECAST DRAINAGE STRUCTURES
4010 H	CONC. SHORT CONE & ADJUSTING RING
4011 E	PRECAST CONCRETE BASE
4020 I	MANHOLE OR CATCH BASIN COVER
4022 A	3FT X 2FT OPENING MANHOLE OR CATCH BASIN COVER
4026 A	CONCRETE ENCASED CONCRETE ADJUSTING RINGS
4180 J	MANHOLE OR CATCH BASIN STEP
7035 K	CONCRETE WALK AND CURB RETURNS AT ENTRANCES
7036 D	PEDESTRIAN CURB RAMP
7100 G	CONCRETE CURB & GUTTER
7111 J	INSTALLATION & REINFORCEMENT OF CATCH BASIN CASTINGS
7113 A	CONCRETE APPROACH NOSE DETAIL
8000 I	STANDARD BARRICADES
8110 D	TRAFFIC SIGNAL BRACKETING
8114 A	P.V.C. HANDHOLE / PULL BOX
8115 D	PEDESTRIAN PUSH BUTTON INSTALLATION
8118 C	SERVICE EQUIPMENT & POLE TRAFFIC CONTROL SIGNALS
8119 C	GROUND MOUNTED CABINET FOUNDATION
8121 D	TRANSFORMER BASE AND POLE BASE PLATE
8123 E	POLE AND MAST ARM
8124 E	MAST ARM SIGNAL HEAD MOUNTS
8126 F	PA90 AND PA100 POLE FOUNDATION

stdplate.xls

NOTE:
CITY OF COON RAPIDS STANDARD DETAILS ARE INCLUDED IN THE SPECIAL PROVISIONS.

NO	DATE	BY	CKD	APPR	REVISION
1	6-6-02	GEH	MDH	MDH	REVISED NOTE NO. 9. DELETED NOTE 18.

I hereby certify that this plan, specification, or report was prepared by me or under my direct supervision and that I am a duly Licensed Professional Engineer under the laws of the State of Minnesota.
Print Name: MATTHEW D. HANSEN
Date 10-4-2001 License # 21364

STATE AID PROJECT NO. S.P. 02-68-28
CITY PROJECT NO.

DRAWN BY D. SYMANIETZ DATE 05-01
DESIGNED BY D. SYMANIETZ 05-01
CHECKED BY M. HANSEN 05-01
COMM. NO. 0583212

SRF CONSULTING GROUP, INC.

ANOKA COUNTY
CONSTRUCTION/SOILS NOTES, STANDARD PLATES
C.S.A.H. 11 (FOLEY BLVD.)

SHEET 4 OF 58

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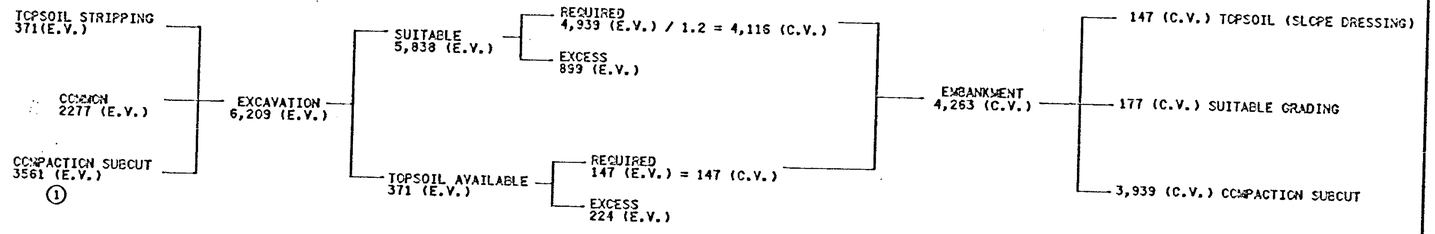
(K) EARTHWORK TABULATION

STATION	EXCAVATION TOTALS (EV)		EMBANKMENT TOTALS (CV)		
	COMMON	COMPACTION SUBCUT	SELECTED GRADING	SLOPE DRESSING	COMPACTION SUBCUT
	(CU YD)	(CU YD)	(CU YD)	(CU YD)	(CU YD)
107+50.00	72	55	6	8	55
108+00.00	65	112	6	7	112
108+50.00	53	118	6	6	119
109+00.00	48	111	5	5	125
109+50.00	44	92	21	6	131
109+69.00	18	35	7	2	56
110+00.00	37	62	10	4	92
110+50.00	86	113	17	8	140
111+00.00	107	129	2	4	140
111+50.00	110	135	2	1	140
111+83.55	78	92	1	1	94
112+00.00	40	45	1	1	46
112+50.00	123	139	2	3	140
113+00.00	112	135	2	2	140
113+50.00	88	121	4	4	140
114+00.00	58	133	4	3	182
114+50.00	37	157	3	2	241
115+00.00	73	151	15	10	208
115+50.00	136	141	16	13	149
115+88.37	123	109	3	5	109
116+12.33	67	72	1	2	72
116+51.96	90	118	2	3	118
116+68.75	45	47	1	1	47
117+00.00	94	88	3	5	88
117+27.00	75	76	3	4	76
117+50.00	53	65	1	1	65
118+00.00	126	140	5	6	140
118+50.00	91	147	4	5	150
118+74.00	31	73	1	1	74
119+00.00	50	74	2	3	74
119+50.00	105	129	6	6	129
119+80.53	62	73	4	3	73
120+12.66	67	73	3	2	73
120+50.00	73	82	3	4	82
121+00.00	85	105	4	5	105
121+13.80	21	14	1	1	14
TOTAL C.S.A.H. 11	2648	3561	177	147	3939

EARTHWORK BALANCE



SPECIFIC NOTES:

(1) COMPACTION SUBCUT AND TOPSOIL STRIPPING TO BE PAID FOR AS COMMON EXCAVATION.

GENERAL NOTES:

SEE CONSTRUCTION/SOILS NOTES FOR MATERIAL DEFINITIONS AND ADDITIONAL INFORMATION.

120% SHRINKAGE FACTOR USED FROM EXCAVATED VOLUME (E.V.) TO COMPACTED VOLUME (C.V.)
145% SHRINKAGE FACTOR USED FROM LOOSE VOLUME (L.V.) TO COMPACTED VOLUME (C.V.).
SHRINKAGE FACTORS ARE ASSUMED VALUES, USED ONLY FOR THE PURPOSE OF ESTIMATED QUANTITIES. IT SHALL BE UNDERSTOOD THAT NO WARRANTY IS MADE OR IMPLIED AS TO THE ACCURACY, SUFFICIENCY, OR RELIABILITY OF THE SHRINKAGE FACTOR. SHRINKAGE FACTORS DO NOT APPLY TO TOPSOIL.

EXCESS MATERIAL SHALL BECOME THE PROPERTY OF THE CONTRACTOR AND SHALL BE REMOVED FROM THE PROJECT LIMITS WITH NO DIRECT PAYMENT THEREFOR. THE EXCESS MATERIAL QUANTITY IS BASED ON ESTIMATED QUANTITIES. IT SHALL BE UNDERSTOOD THAT NO WARRANTY IS MADE OR IMPLIED AS TO THE ACCURACY, SUFFICIENCY, OR RELIABILITY OF THESE FIGURES. DISPOSAL SHALL BE IN ACCORDANCE WITH SPEC. 2105.

NO	DATE	BY	CKD	APPR	REVISION
1	6-6-02	GEH	MDH	MDH	E.W. BALANCE REVISED TO SHOW COMMON EX. AS "E.V.".

I hereby certify that this plan, specification, or report was prepared by me or under my direct supervision and that I am a duly Licensed Professional Engineer under the laws of the State of Minnesota.
Print Name: MATTHEW D. HANSEN
Date 10-4-2001 License # 21364

STATE AID PROJECT NO. S.P. 02-611-28
CITY PROJECT NO.

DRAWN BY D. SYMANIETZ DATE 05-01
DESIGNED BY D. SYMANIETZ 05-01
CHECKED BY M. HANSEN 05-01
COMM. NO. 0983212

SRF CONSULTING GROUP, INC.

ANOKA COUNTY
EARTHWORK SUMMARY, BALANCE, TABULATIONS
C.S.A.H. 11 (FOLEY BLVD.)

SHEET 5 OF 58

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(A) CLEARING AND GRUBBING AND ROOT CUTTING

ALIGNMENT	CLEARING (tree)	GRUBBING (tree)	ROOT CUTTING (lin ft)
S.B. C.S.A.H. 11 (STA 107+00 TO 109+20)			30
S.B. C.S.A.H. 11 (STA 109+20 TO 113+50)	6	6	60
S.B. C.S.A.H. 11 (STA 113+50 TO 117+90)	9	9	150
S.B. C.S.A.H. 11 (STA 117+90 TO 121+14)	5	5	60
PROJECT TOTALS:	20	20	300

(B) MISCELLANEOUS REMOVAL AND SAWING

ALIGNMENT	REMOVE					SAWING	MILLING
	BITUMINOUS PAVEMENT (sq yd)	CURB AND GUTTER (lin ft)	SEWER PIPE (STORM) (lin ft)	CONCRETE WALK (sq yd)	CONCRETE D/W PAVEMENT (sq yd)	BITUMINOUS PAVEMENT (lin ft)	BITUMINOUS SURFACE (1.5") (sq yd)
S.B. C.S.A.H. 11 (STA 107+00 TO 109+20)	670	220	0	41	0	0	0
S.B. C.S.A.H. 11 (STA 109+20 TO 113+50)	1300	440	0	223	65	27	0
S.B. C.S.A.H. 11 (STA 113+50 TO 117+90)	1893	542	0	93	20	106	73
S.B. C.S.A.H. 11 (STA 117+90 TO 121+14)	1080	353	0	0	17	103	5
N.B. C.S.A.H. 11 (STA 107+00 TO 109+20)	675	220	0	8	0	52	132
N.B. C.S.A.H. 11 (STA 109+20 TO 113+50)	1455	442	0	212	8	27	6
N.B. C.S.A.H. 11 (STA 113+50 TO 117+90)	1925	515	252	240	28	98	66
N.B. C.S.A.H. 11 (STA 117+90 TO 121+14)	1113	325	180	68	8	38	134
PROJECT TOTALS:	10111	3057	432	885	145	452	416

(C) AGGREGATE AND BITUMINOUS SUMMARY

ALIGNMENT	AGGREGATE CLASS 5 BASE (cu yd)	BITUMINOUS BASE TYPE MV 3 NON-WEAR (ton)	BITUMINOUS BINDER TYPE MV 3 NON-WEAR (ton)	BITUMINOUS WEAR TYPE MV 4 WEAR (ton)	BITUMINOUS TYPE LV 4 WEAR (SQ YD)	BITUMINOUS TYPE LV 4 WEAR (SQ YD)	BITUMINOUS TACK (gal)
S.B. C.S.A.H. 11 (STA 107+00 TO 109+20)	136	130	67	63			67
S.B. C.S.A.H. 11 (STA 109+20 TO 113+50)	309	287	148	140			150
S.B. C.S.A.H. 11 (STA 113+50 TO 117+90)	448	520	224	211			226
S.B. C.S.A.H. 11 (STA 117+90 TO 121+14)	200	196	101	95			102
N.B. C.S.A.H. 11 (STA 107+00 TO 109+20)	133	127	66	62			66
N.B. C.S.A.H. 11 (STA 109+20 TO 113+50)	328	313	161	152			164
N.B. C.S.A.H. 11 (STA 113+50 TO 117+90)	387	372	192	181			194
N.B. C.S.A.H. 11 (STA 117+90 TO 121+14)	243	240	124	117			126
DRIVEWAYS					65		
TEMPORARY PAVEMENT						1125	
PROJECT TOTALS:	2184	2185	1083	1021	65	1125	1095

NOTES:

1. CONCRETE MEDIAN AND NOSE QUANTITIES ARE INCLUDED WITHIN THE SOUTHBOUND STATIONS
2. SIX PERCENT ADDED TO BITUMINOUS BASE AND BINDER QUANTITIES.

(D) CURB & GUTTER AND WALK

ALIGNMENT	C&G DESIGN B612 (lin ft)	C&G DESIGN B618 (lin ft)	4 in CONCRETE WALK (sq ft)	4 in CONCRETE MEDIAN (sq ft)	6 in CONCRETE MEDIAN NOSE (sq ft)
S.B. C.S.A.H. 11 (STA 107+00 TO 109+20)	70	223.0	441.0	512.0	23.0
S.B. C.S.A.H. 11 (STA 109+20 TO 113+50)	340	436.0	2644.0	1239.0	23.0
*S.B. C.S.A.H. 11 (STA 113+50 TO 117+90)	350	494.0	1430.0	1119.0	41.0
S.B. C.S.A.H. 11 (STA 117+90 TO 121+14)	31	330.0	0.0	87.0	13.0
N.B. C.S.A.H. 11 (STA 107+00 TO 109+20)	70	224.0	91.0	0.0	0.0
N.B. C.S.A.H. 11 (STA 109+20 TO 113+50)	360	422.0	2248.0	0.0	0.0
N.B. C.S.A.H. 11 (STA 113+50 TO 117+90)	348	449.0	2049.0	0.0	0.0
N.B. C.S.A.H. 11 (STA 117+90 TO 121+14)	31	317.0	605.0	0.0	0.0
PROJECT TOTALS:	1600.0	2895.0	9508.0	2957.0	100.0

QUANTITIES FOR CONCRETE MEDIAN AND NOSE ARE INCLUDED IN THE SOUTHBOUND STATIONS ONLY.
*WALK FROM S.B. C.S.A.H. 11 STA. 114+71 TO STA. 116+00 IS CITY NON-PARTICIPATING.

(L) FENCE CONSTRUCTION

ALIGNMENT	REMOVE (FT)	SALVAGE (FT)	FURNISH AND INSTALL (FT)	NOTE
S.B. C.S.A.H. 11 (STA 109+70 TO 110+60)	90		90	WOODEN FENCE
S.B. C.S.A.H. 11 (STA 112+55 TO 113+30)	75		75	WOODEN FENCE
S.B. C.S.A.H. 11 (STA 117+60 TO 118+23)		63	58	CHAIN LINK FENCE
S.B. C.S.A.H. 11 (STA 119+11 TO 119+65)	54		54	WOODEN FENCE
PROJECT TOTALS:	219	63	277	

NO	DATE	BY	CKD	APPR	REVISION
1	6-6-02	GEH	MDH	MDH	REVISED TAB C AND D.

I hereby certify that this plan, specification, or report was prepared by me or under my direct supervision and that I am a duly Licensed Professional Engineer under the laws of the State of Minnesota.
Print Name: MATTHEW D. HANSEN
Date 10-4-2001 License # 21364

STATE AID PROJECT NO. S.P. 02-611-28
CITY PROJECT NO.

DRAWN BY D. SYMANIETZ DATE 05-01
DESIGNED BY D. SYMANIETZ 05-01
CHECKED BY M. HANSEN 05-01
COMM. NO. 0983212

SRF CONSULTING GROUP, INC.

ANOKA COUNTY
TABULATIONS
C.S.A.H. 11 (FOLEY BLVD.)

SHEET 6 OF 58

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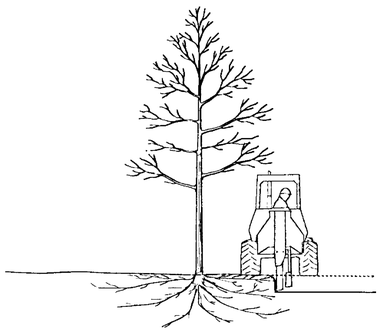
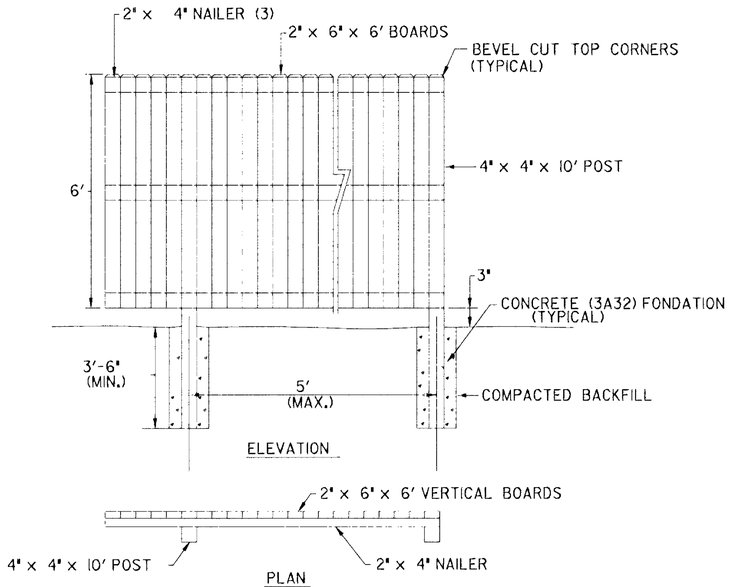


NOTE:

WATERING OF ROOT DAMAGED TREES WILL BE REQUIRED TO MAINTAIN ADEQUATE BUT NOT EXCESSIVE SOIL MOISTURE TO A DEPTH OF 18 INCHES WITHIN THE UNDISTURBED PORTION OF THE IMPACTED TREE DRIPLINE.

WHEN DESIGNATED IN THE PLAN OR WHEN DIRECTED BY THE ENGINEER, ALL TREE ROOTS AT THE CONSTRUCTION LIMITS SHALL BE CUT CLEANLY (TO THE MAXIMUM DEPTH NECESSARY FOR CONSTRUCTION) WITH A VIBRATORY PLOW OR OTHER APPROVED ROOT CUTTER PRIOR TO ANY EXCAVATION. ROOT ENDS EXPOSED BY EXCAVATION ACTIVITIES SHALL BE IMMEDIATELY COVERED WITH A 6 INCH LAYER OF ADJACENT SOIL. BACKFILL, REGRADE OR INSTALL RETAINING WALL AS DESIGNATED IN THE PLAN OR WHEN DIRECTED BY THE ENGINEER.

ROOT CUTTING DETAIL



WOOD FENCE 6' HIGH

(CEDAR BOARD FENCE)

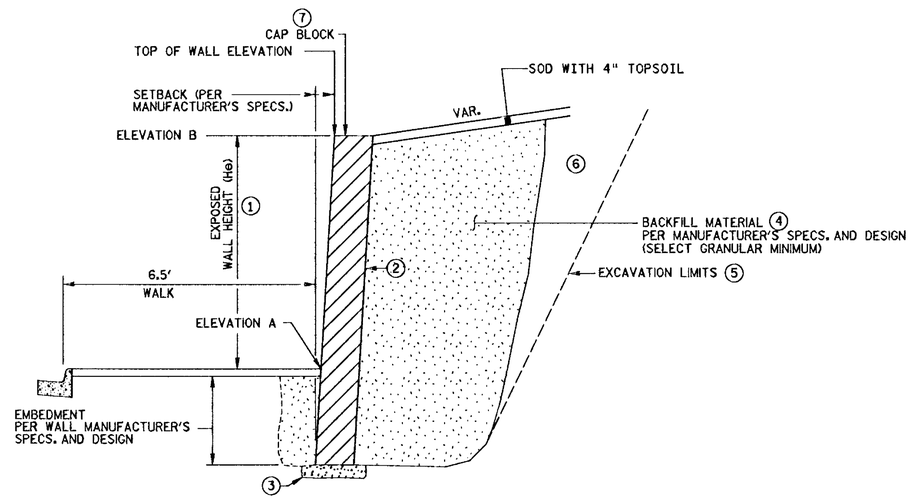
WOOD FENCE NOTES:

1. LUMBER DIMENSIONS SHOWN ARE NOMINAL SIZE.
2. CONTRACTOR'S PROPOSED METHOD OF FASTENING VARIOUS FENCE COMPONENTS SHALL BE APPROVED BY THE ENGINEER PRIOR TO BEGINNING FENCE CONSTRUCTION.
3. ALL FASTENERS AND OTHER HARDWARE SHALL BE GALVANIZED PER SPEC. 3391 OR 3392, AS APPROPRIATE.
4. SEE SPECIAL PROVISIONS FOR TIMBER AND FASTENER REQUIREMENTS.
5. MINOR MODIFICATIONS AS DIRECTED BY THE ENGINEER IN THE FIELD SHALL BE MADE AS NECESSARY TO MATCH THE EXISTING FENCE.

RETAINING WALL PROFILE				
ALIGNMENT	STATION	ELEV. A	ELEV. B	
S.B. C.S.A.H. 11	110+60.00	906.69	909.00	END WALL
S.B. C.S.A.H. 11	110+65.00	906.78	909.00	5' RADIUS PT.
S.B. C.S.A.H. 11	110+75.00	906.95	909.00	
S.B. C.S.A.H. 11	111+00.00	907.28	908.50	
S.B. C.S.A.H. 11	111+25.00	907.54	908.50	
S.B. C.S.A.H. 11	111+39.00	907.64	908.50	END WALL/DRIVEWAY
S.B. C.S.A.H. 11	111+66.00	907.76	908.50	END WALL/DRIVEWAY
S.B. C.S.A.H. 11	111+70.00	907.77	908.50	5' RADIUS PT.
S.B. C.S.A.H. 11	111+75.00	907.78	908.50	END WALL

NOTES:

1. FOR WALLS WITH (He) LESS THAN OR EQUAL TO 6.0 FT., MINIMUM EMBEDMENT SHALL BE MANUFACTURERS RECOMMENDATION.
2. TYPE 1 GEOTEXTILE FABRIC TO BE PLACED ON BACKSIDE OF WALL (INCIDENTAL).
3. AGGREGATE BASE OR OPTIONAL NON-REINFORCED CONCRETE LEVELING PAD AS APPROVED BY THE ENGINEER, 6" MIN. (INCIDENTAL).
4. SELECT BACKFILL TO MEET MN/DOT 3149.2B MODIFIED TO 10% OR LESS PASSING THE #200 SIEVE. 100% MUST PASS THE 4" SIEVE. (INCIDENTAL TO MODULAR BLOCK RETAINING WALL)
5. SLOPE IS DETERMINED BY OSHA REGULATIONS AND IN-SITU SOILS; ALL EXCAVATION NECESSARY FOR CONSTRUCTION OF MODULAR BLOCK RETAINING WALLS IS INCIDENTAL TO THE CONSTRUCTION OF RETAINING WALLS.
6. EXCAVATION AND BACKFILLING WITH SELECT GRADING MATERIAL IS INCIDENTAL TO RETAINING WALL CONSTRUCTION.
7. FASTEN CAP BLOCK TO UPPER BLOCK COURSE AND UPPER BLOCK COURSE TO SECOND BLOCK COURSE WITH AN OUTDOOR CONSTRUCTION ADHESIVE SUCH AS PL 400 (OR EQUIVALENT).



CONCRETE MODULAR BLOCK RETAINING WALL

(SEE SPECIAL PROVISIONS)

THE MAXIMUM EXPOSED HEIGHT IS ESTIMATED TO BE 2.5 FEET

SEE CONSTRUCTION PLANS FOR LOCATION

NO	DATE	BY	CKD	APPR	REVISION

I hereby certify that this plan, specification, or report was prepared by me or under my direct supervision and that I am a duly Licensed Professional Engineer under the laws of the State of Minnesota.

Print Name: MATTHEW D. HANSEN

Date 10-4-2001 License # 21364

STATE AID PROJECT NO. S.P. 02-611-28

CITY PROJECT NO.

DRAWN BY	DATE
D. SYMANIETZ	05-01
DESIGNED BY	
D. SYMANIETZ	05-01
CHECKED BY	
M. HANSEN	05-01

COMM. NO. 0983212

SRF CONSULTING GROUP, INC.

ANOKA COUNTY

MISCELLANOUS DETAILS

C.S.A.H. 11 (FOLEY BLVD.)

SHEET 7 OF 58

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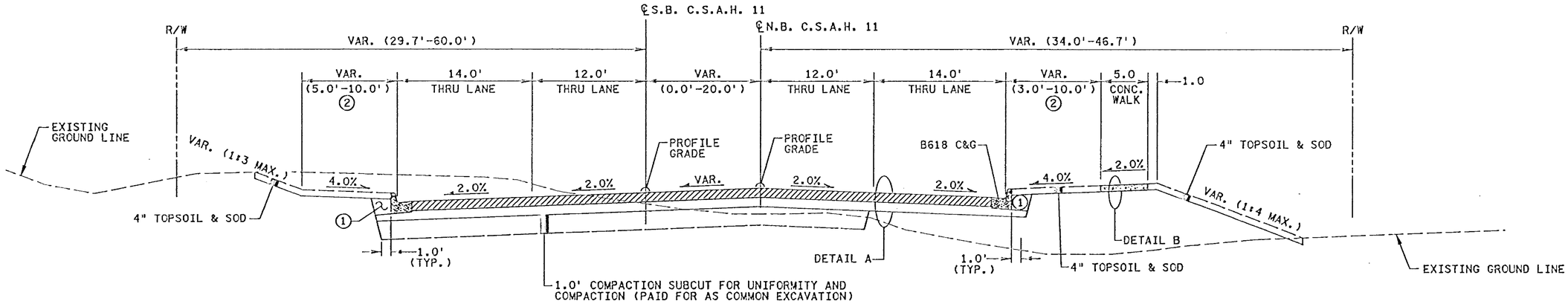
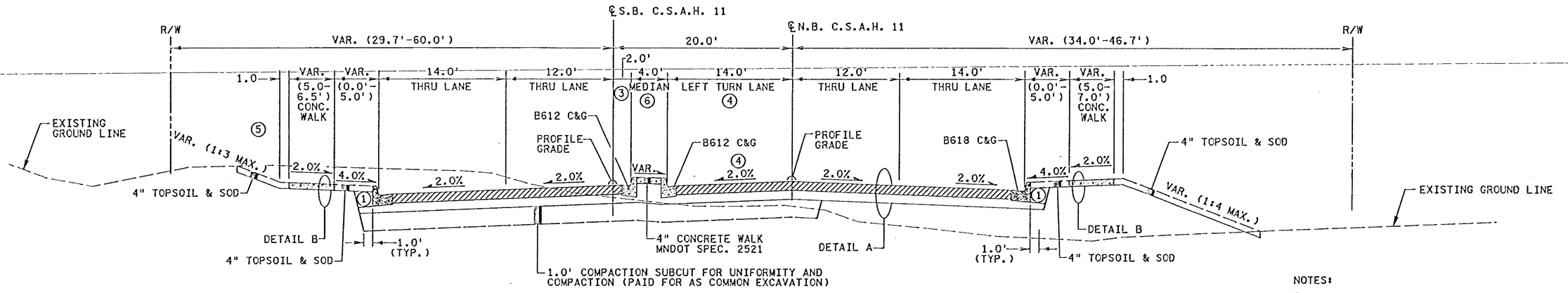


C.S.A.H. 11

N.B. C.S.A.H. 11 STA. 107+00.0 TO STA. 108+52.0
N.B. C.S.A.H. 11 STA. 118+15.0 TO STA. 121+14.0

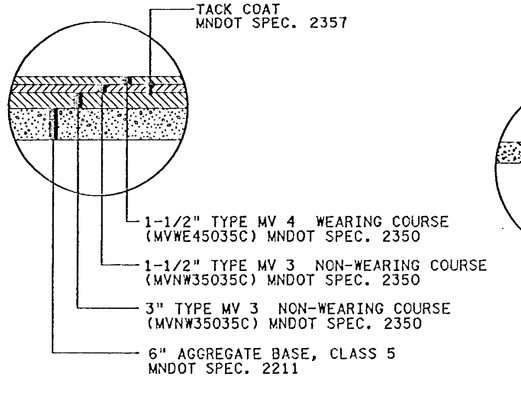


C.S.A.H. 11

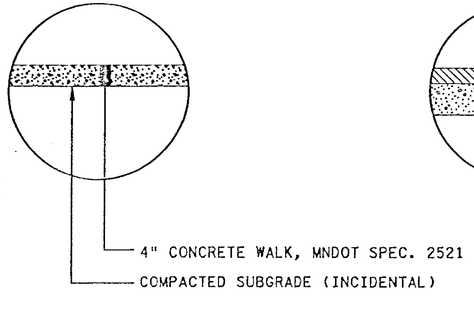
N.B. C.S.A.H. 11 STA. 108+52.0 TO STA. 118+15.0

NOTES:

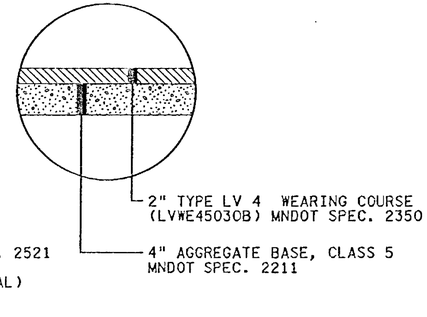
1. BACKFILL WITH SUITABLE GRADING MATERIAL.
2. MODIFY BERM CROSS SLOPE TO MATCH EXISTING CONC. WALK
   N.B. C.S.A.H. 11 STA. 107+00.0 TO STA. 109+05.0
   N.B. C.S.A.H. 11 STA. 119+40.0 TO STA. 121+14.0
   S.B. C.S.A.H. 11 STA. 107+00.0 TO STA. 108+50.0
3. MATCH THRU LANE CROSS SLOPE WHEN MEDIAN IS PRESENT
4. TURN LANE PAVEMENT SLOPE VARIES - SEE CONSTRUCTION PLANS.
   S.B. C.S.A.H. 11 STA 109+15.5 TO STA. 111+25.0X
   N.B. C.S.A.H. 11 STA. 117+00.0 TO STA. 118+15.0
5. CONSTRUCT MODULAR BLOCK WALL
   S.B. C.S.A.H. 11 STA. 110+60.0 TO STA. 111+75.0
   MAX. WALL HEIGHT 2.5'. SEE DETAILS.
6. MEDIAN WIDTH VARIES
   S.B. C.S.A.H. 11 STA. 108+52.2 TO STA. 109+47.6
7. SEE TRAFFIC CONTROL AND STAGING PLANS FOR PAVING LIMITS



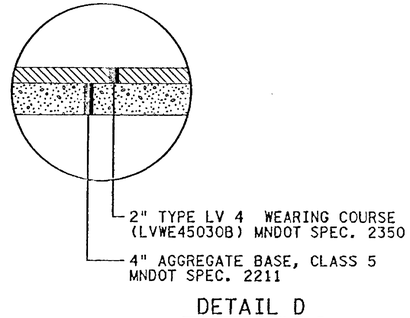
DETAIL A
C.S.A.H. 11



DETAIL B



DETAIL C
DRIVEWAY PAVMENT



DETAIL D
TEMPORARY PAVMENT ⑦

NO	DATE	BY	CKD	APPR	REVISION
2	7-8-02	ST	MDH	MDH	REVISED BIT. MIX TYPE PER ADDENDUM 1.
1	6-6-02	GEH	MDH	MDH	REVISED BIT. MIX TYPES, MEDIAN THICKNESS.

I hereby certify that this plan, specification, or report was prepared by me or under my direct supervision and that I am a duly Licensed Professional Engineer under the laws of the State of Minnesota.
Print Name: MATTHEW D. HANSEN
Date 10-4-2001 License # 21364

STATE AID PROJECT NO. S.P. 02-611-28
CITY PROJECT NO.

DRAWN BY D. SYMANIETZ 05-01
DESIGNED BY D. SYMANIETZ 05-01
CHECKED BY M. HANSEN 05-01
COMM. NO. 0983212

SRF CONSULTING GROUP, INC.

ANOKA COUNTY
TYPICAL SECTIONS
C.S.A.H. 11 (FOLEY BLVD.)

SHEET 8 OF 58

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GENERAL TRAFFIC CONTROL NOTES:

1 ALL TRAFFIC CONTROL DEVICES, TEMPORARY LANE CLOSURE ARRANGEMENTS AND PROCEDURES, ETC. SHALL CONFORM TO REQUIREMENTS OF THE MINNESOTA MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES INCLUDING THE FIELD MANUAL FOR TEMPORARY TRAFFIC CONTROL ZONE LAYOUTS DATED JANUARY 2001.

2 PAVEMENT MARKINGS SHALL BE PAINT. THE CONTRACTOR SHALL FURNISH, INSTALL, MAINTAIN, AND REMOVE ALL TEMPORARY PAVEMENT MARKINGS TO THE SATISFACTION OF THE ENGINEER. PAVEMENT MARKINGS SHALL BE PAID FOR SEPARATELY FROM THE LUMP SUM FOR TRAFFIC CONTROL UNDER THE APPROPRIATE CONTRACT ITEMS INDICATED ON THE PROPOSAL.

3 ALL TRAFFIC THRU LANES SHALL BE A MINIMUM OF 11 FOOT IN WIDTH UNLESS NOTED OTHERWISE.

4 REFLECTORIZED DRUMS USED FOR CHANNELIZATION SHALL HAVE SPACING AS NOTED IN THE PLANS. DRUM LOCATIONS AND SPACINGS SHOWN ON THIS PLAN ARE APPROXIMATE AND ARE SUBJECT TO REVISION BY THE ENGINEER.

5 THE LOCATIONS AND QUANTITIES OF TRAFFIC CONTROL DEVICES SHOWN ON THESE PLANS ARE APPROXIMATE AND ARE SUBJECT TO REVISION BY THE ENGINEER.

6 THE CONTRACTOR SHALL MAINTAIN A 1 FOOT MINIMUM CLEAR DISTANCE BETWEEN THE EDGE OF THE TRAVEL LANE AND THE NEAREST EDGE OF ANY ADJACENT TRAFFIC CONTROL DEVICES (DRUMS, BARRICADES, BARRIERS, ETC.) UNLESS OTHERWISE NOTED.

7 CONTRACTOR SHALL MAINTAIN ACCESS TO ALL DRIVEWAYS AT ALL TIMES TO THE SATISFACTION OF THE ENGINEER.

8 THE CONTRACTOR SHALL PROVIDE CHANNELIZING DEVICES (AND SIGNING IF NECESSARY) AT ALL PRIVATE ENTRANCE LOCATIONS WHERE NEEDED TO SAFELY GUIDE TRAFFIC TO AND FROM THE TRAVEL CORRIDOR TO THE SATISFACTION OF THE ENGINEER.

9 THE CONTRACTOR SHALL REMOVE, SALVAGE, OR COVER , AS APPROPRIATE, ALL EXISTING SIGNING WHICH CONFLICTS WITH THIS TRAFFIC CONTROL PLAN TO THE SATISFACTION OF THE ENGINEER. THE CONTRACTOR SHALL RESTORE ALL APPROPRIATE ORIGINAL SIGNING AFTER APPROVAL TO DO SO BY THE ENGINEER. REMOVAL AND SALVAGE OF SIGNS SHALL BE PAID FOR UNDER THE APPROPRIATE BID ITEM. COVERING AND UNCOVERING OF SIGNS SHALL BE INCIDENTAL TO TRAFFIC CONTROL.

10 THE CONTRACTOR SHALL REMOVE ALL EXISTING PAVEMENT MARKINGS WHICH CONFLICT WITH THESE TRAFFIC CONTROL PLANS TO THE SATISFACTION OF THE ENGINEER. THE CONTRACTOR SHALL RESTORE ALL APPROPRIATE ORIGINAL PAVEMENT MARKINGS AFTER APPROVAL TO DO SO BY THE ENGINEER.

11 THESE TRAFFIC CONTROL LAYOUTS DO NOT SHOW ALL INPLACE SIGNING. THE CONTRACTOR SHALL RELOCATE ALL APPROPRIATE INPLACE SIGNING TO MAINTAIN PROPER SIGN VISIBILITY DURING CONSTRUCTION AS DEEMED NECESSARY BY THE ENGINEER.

12 THE CONTRACTOR SHALL PROVIDE QUALIFIED FLAGGERS WITH TWO-WAY RADIOS AT ALL TIMES WHEN CONTRACTOR OPERATIONS REQUIRE ONE-LANE-TWO-WAY OPERATION OR WHEN, IN THE OPINION OF THE ENGINEER, ONE-LANE-TWO-WAY OPERATIONS ARE APPROPRIATE DUE TO SAFETY CONCERNS FROM OPEN EXCAVATIONS, ADJACENT EQUIPMENT, ETC.

13 THE CONTRACTOR SHALL NOT PLACE PAINTED TEMPORARY PAVEMENT MARKINGS ON PERMANENT FINAL SURFACING (OR ON OTHER SURFACING WHICH WILL NOT ULTIMATELY BE REPLACED OR COVERED BY PLANNED CONSTRUCTION) UNLESS THE TEMPORARY MARKINGS ARE IN THE SAME LOCATION AS THE PERMANENT MARKINGS.

14 1:3 MAXIMUM TEMPORARY CONSTRUCTION EDGE SLOPES SHALL BE MAINTAINED AT ALL TIMES EXCEPT WHEN EXCAVATION WORK TEMPORARILY MANDATES STEEPER EDGE SLOPES, AS APPROVED BY THE ENGINEER. THE CONTRACTOR SHALL MINIMIZE WORK LENGTHS TO FACILITATE IMMEDIATE REESTABLISHMENT OF 1:3 MAXIMUM TEMPORARY EDGE SLOPES FOLLOWING THE EXCAVATION WORK TO THE SATISFACTION OF THE ENGINEER. 1:1 MAXIMUM TEMPORARY CONSTRUCTION EDGE SLOPES MAY BE USED IF PROTECTED BY PORTABLE CONCRETE MEDIAN BARRIER.

15 THE CONTRACTOR SHALL FURNISH, INSTALL, MAINTAIN, AND REMOVE, AS APPROPRIATE, ALL SIGNS, PAVEMENT MARKINGS, AND DEVICES SHOWN ON THESE PLANS TO THE SATISFACTION OF THE ENGINEER.

16 IN ALL WORK AREAS THAT REQUIRE "CONSTRUCTION UNDER TRAFFIC" THE CONTRACTOR SHALL PROTECT WORK AREAS AT ALL TIMES TO PROVIDE FOR SAFE TRAFFIC MOVEMENT TO THE SATISFACTION OF THE ENGINEER.

17 ALL TEMPORARY LANE CLOSURES SHALL BE DONE DURING THE OFF PEAK HOURS TO MINIMIZE INCONVENIENCE TO THE TRAVELING PUBLIC.

18 FIELD CONDITIONS MAY REQUIRE MODIFICATION OF THE TRAFFIC CONTROL PLAN. ANY MODIFICATION SHALL BE APPROVED BY THE ENGINEER IN THE FIELD.

19 ADVANCE WARNING SIGNS SHALL BE MOUNTED ON STANDARD TYPE III BARRICADES OR POST MOUNTED OR AS APPROVED BY THE ENGINEER.

20 POSTS SHALL BE PLUMB, WITH SIGNS INSTALLED LEVEL AND AT PROPER MOUNTING HEIGHT IN ACCORDANCE WITH M.M.U.T.C.D.

21 ALL SIGNS AND TRAFFIC CONTROL ITEMS SHALL BE LIKE NEW AND REFLECT UNIFORMLY AT NIGHT.

22 SPACING OF SIGNS AND TRAFFIC CONTROL DEVICES MAY BE ADJUSTED AS APPROVED BY THE ENGINEER.

23 THE CONTRACTOR SHALL PLACE PERMANENT PAVEMENT MARKINGS AND INSTALL PERMANENT SIGNING DURING EACH STAGE OF CONSTRUCTION AS APPROPRIATE AND CONSISTENT WITH THE REQUIREMENTS OF THE TEMPORARY TRAFFIC CONTROL.

24 TEMPORARY RAISED PAVEMENT MARKERS (TRPM'S) SPACED AT 10-FT INTERVALS SHALL BE USED ON YELLOW AND WHITE LONGITUDINAL LANE MARKINGS THROUGH ALL TRANSITION AND CURVE AREAS.

STAGING NARRATIVE

PRE-STAGE 1

- REMOVE CSAH 11 CURB ON WEST SIDE.
- RELOCATE WATER SERVICES.

STAGE 1

- MAINTAIN TRAFFIC IN EXISTING LANES .
- CONSTRUCT NEW SIGNAL.
- REMOVE EXISTING SIGNAL.
- UTILITY RELOCATIONS.
- PLACE TEMPORARY PAVEMENT.
- SHIFT TRAFFIC TO TEMPORARY PAVEMENT (WEST SIDE).
- TRAFFIC CONTROL BY FOUR-WAY STOP INCLUDING A POLICE OFFICER DURING MORNING AND AFTERNOON PEAK HOURS, WHICH ARE ESTIMATED TO BE 6:30 A.M. TO 8:30 A.M. AND 3:30 P.M. TO 6:30 P.M.
- TEMPORARY LANE CLOSURES WILL BE PERMITTED FOR CONSTRUCTION OF LATERAL STORM SEWER, UTILITIES, ,TEMPORARY PAVEMENT AND THE INTERSECTION OF EGRET BLVD. AND C.S.A.H. 11 (FOLEY BLVD.) DURING OFF PEAK HOURS ONLY. CONTRACTOR TO PROVIDE NECESSARY TRAFFIC CONTROL FOR LANE CLOSURES.
- MAINTAIN ACCESS TO DRIVEWAYS AT ALL TIMES
- CONSTRUCT EAST SIDE OF ROADWAY (EXCEPT FOR FINAL WEARING COURSE). SEE STAGING PLANS
- CONSTRUCT THE INTERSECTION OF EGRET BLVD. AND C.S.A.H. 11 (FOLEY BLVD.) UNDER TRAFFIC FROM STA. 113+00 TO STA. 115+25
- PLACE PAVEMENT IN MEDIAN AREA TO ALLOW ROOM FOR STAGE 2 TRAFFIC CONTROL.
- MAINTAIN EXISTING DRAINAGE WITH EXISTING STORM SEWER. SEE STAGING PLANS
- CONSTRUCT PROPOSED STORM SEWER

STAGE 2

- SHIFT TRAFFIC TO EAST SIDE OF ROADWAY.
- CONSTRUCT WEST SIDE OF ROADWAY (EXCEPT FOR FINAL WEARING COURSE). SEE STAGING PLANS
- TRAFFIC CONTROL BY FOUR-WAY STOP INCLUDING A POLICE OFFICER DURING MORNING AND AFTERNOON PEAK HOURS.
- PREPARE SIGNAL SYSTEM FOR ACTIVATION.
- CONSTRUCT THE INTERSECTION OF 107TH LANE AND C.S.A.H. 11 (FOLEY BLVD.) UNDER TRAFFIC.

STAGE 3

- SHIFT TRAFFIC TO OUTSIDE EDGES OF PAVEMENT.
- ACTIVATE SIGNAL SYSTEM.
- CONSTRUCT MEDIAN AREAS OF ROADWAY.
- COMPLETE PAVEMENT CONSTRUCTION.

NO	DATE	BY	CKD	APPR	REVISION
2	6-6-02	GEH	MDH	MDH	REVISED PRE-STAGE 1.
1	10-25-01	SLL	MDH	MDH	ADDED PRE-STAGE 1 PER ANOKA COUNTY.

I hereby certify that this plan, specification, or report was prepared by me or under my direct supervision and that I am a duly Licensed Professional Engineer under the laws of the State of Minnesota.
Print Name: MATTHEW D. HANSEN
Date 10-4-2001 License # 21364

STATE AID PROJECT NO. S.P. 02-611-28
CITY PROJECT NO.

DRAWN BY D. SYMANIETZ DATE 05-01
DESIGNED BY D. SYMANIETZ 05-01
CHECKED BY M. HANSEN 05-01
COMM. NO. 0983212

SRF CONSULTING GROUP, INC.

ANOKA COUNTY
TRAFFIC CONTROL GENERAL NOTES AND STAGING NARRATIVE
C.S.A.H. 11 (FOLEY BLVD.)

SHEET 9 OF 58

(E) TRAFFIC CONTROL SIGN TABULATION						
SIGN LEGEND	SIGN DESIGNATION	SIGN	SIGN COLOR	STAGE 1 QUANTITY	STAGE 2 QUANTITY	STAGE 3 QUANTITY
END ROAD WORK	G20-2A	48"X24"	BLACK ON ORANGE	4	4	4
STOP	R1-1	36"X36"	WHITE ON RED	6	7	6
	R1-1	30"X30"	WHITE ON RED	2	2	
ALL WAY	R1-4	18"X6"	WHITE ON RED	6	6	
	R3-1	24"X24"	BLACK AND RED ON WHITE	3	3	1
	R3-2	24"X24"	BLACK AND RED ON WHITE	3	3	3
ONLY	R3-30AD	36"X30"	BLACK ON WHITE	2	2	2
	R4-7	24"X30"	BLACK ON WHITE	2	2	10
SIDEWALK CLOSED	R11-X1	30"X18"	BLACK ON WHITE	6	6	
ROAD CLOSED	R11-2	48"X30"	BLACK ON WHITE	6	5	1
	W1-6	48"X24"	BLACK ON ORANGE	4	3	2
	W3-1a	48"X48"	BLACK RED, WHITE ON ORANGE	4	4	
ROAD WORK AHEAD	W20-1	48"X48"	BLACK ON ORANGE	9	9	11
ROAD CLOSED AHEAD	W20-3	48"X48"	BLACK ON ORANGE	3	3	1
LANES NARROW	W20-X17	48"X48"	BLACK ON ORANGE	4	4	2
NO SHOULDER	W21-X1	48"X48"	BLACK ON ORANGE	4	4	2
	PSD			214	168	215
	TYPE 3			21	21	9

(E) TRAFFIC CONTROL SIGN TABULATION						
SIGN LEGEND	SIGN DESIGNATION	SIGN	SIGN COLOR	STAGE 1 QUANTITY	STAGE 2 QUANTITY	STAGE 3 QUANTITY
	X4-2	18"X18"	YELLOW ON BLACK	2	2	10
ONEWAY	R6-1R	36"X12"	BLACK ON WHITE			7
ONEWAY	R6-1L	36"X12"	BLACK ON WHITE			5
DO NOT ENTER	R5-1	30"X30"	WHITE ON RED			8
RIGHT LANE CLOSED	W21-X5R	48"X48"	BLACK ON ORANGE	1	1	1
MERGE	W20-X3L	48"48"	BLACK ON ORANGE	1	1	1

(F) TEMPORARY PAVEMENT MARKING TABULATION

C.S.A.H. 11 (FOLEY BLVD.)	PAVEMENT MARKING REMOVAL	PAINT			TAPE			TEMPORARY RAISED PAVEMENT MARKERS
		4" DOUBLE SOLID LINE YELLOW	4" SOLID LINE WHITE	4" SOLID LINE YELLOW	4" DOUBLE SOLID LINE YELLOW	4" SOLID LINE WHITE	4" SOLID LINE YELLOW	
	(SQ FT)	(LIN FT)	(LIN FT)	(LIN FT)	(LIN FT)	(LIN FT)	(LIN FT)	(EACH)
STAGE 1	2400	1800	3000		800	1550		440
STAGE 2	1900	1650	1550		850	1400		190
STAGE 3	1450		450	2650		300	1500	80
TOTAL	5750	3450	5000	2650	1650	3250	1500	710

ALL TRAFFIC CONTROL DEVICES, TEMPORARY LANE CLOSURE ARRANGEMENTS AND PROCEDURES, ETC. SHALL CONFORM TO REQUIREMENTS OF THE MINNESOTA MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES INCLUDING THE FIELD MANUAL FOR TEMPORARY TRAFFIC CONTROL ZONE LAYOUTS DATED JANUARY 2001.

NO	DATE	BY	CKD	APPR	REVISION
1	6-6-02	GEH	MDH	MDH	REVISED TAB E.

I hereby certify that this plan, specification, or report was prepared by me or under my direct supervision and that I am a duly Licensed Professional Engineer under the laws of the State of Minnesota.
Print Name: MATTHEW D. HANSEN
Date 10-4-2001 License # 21364

STATE AID PROJECT NO. S.P. 02-611-28
CITY PROJECT NO.

DRAWN BY D. SYMANIETZ DATE 05-01
DESIGNED BY D. SYMANIETZ 05-01
CHECKED BY M. HANSEN 05-01
COMM. NO. 0983212

SRF CONSULTING GROUP, INC.

ANOKA COUNTY
TRAFFIC CONTROL TABULATIONS
C.S.A.H. 11 (FOLEY BLVD.)

SHEET 10 OF 58

LEGEND

- PERMANENT CONSTRUCTION AREA
- TEMPORARY PAVEMENT PLACEMENT
- REFLECTORIZED PLASTIC DRUMS, 25' SPACING.
- TYPE "C" SIGN.
- DIRECTION OF TRAFFIC LANE.
- TYPE III BARRICADE
- TEMPORARY RAISED PAVEMENT MARKERS (TRPM'S)

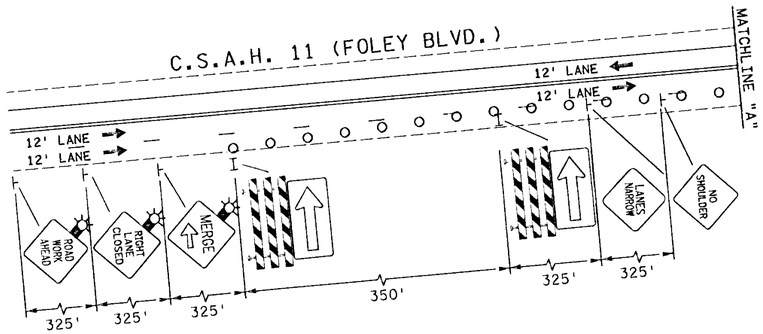
50 0 50
scale feet

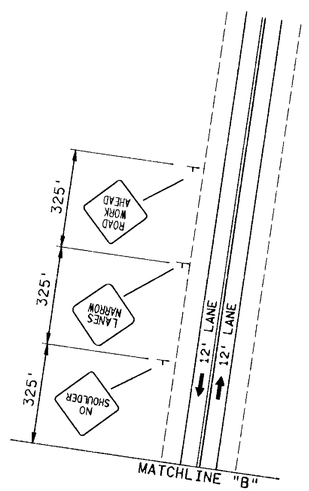
GENERAL NOTES:

1. 4" SOLID LINE WHITE (PAINT).
2. 4" DOUBLE SOLID LINE YELLOW (PAINT).
3. MAINTAIN DRAINAGE BY REMOVING CURB BOX ON EXISTING CATCH BASIN LEAVE EXISTING CASTING INPLACE. (INC.)
5. 4" SOLID LINE WHITE (TAPE).
6. 4" DOUBLE SOLID LINE YELLOW (TAPE).
7. DIMENSION TO EDGE OF TEMPORARY WIDENING.

NOTE:

TEMPORARY WIDENING TO BE CONSTRUCTED UNDER TRAFFIC USING THE FIELD MANUAL. COST INCIDENTAL TO STAGE 1.





NO	DATE	BY	CKD	APPR	REVISION
1	6-6-02	GEH	MDH	MDH	REVISED SIGNS.

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SRF CONSULTING GROUP, INC.

ANOKA COUNTY
STAGING AND TRAFFIC CONTROL
C.S.A.H. 11 (FOLEY BLVD.)
STAGE 1

SHEET 11 OF 58

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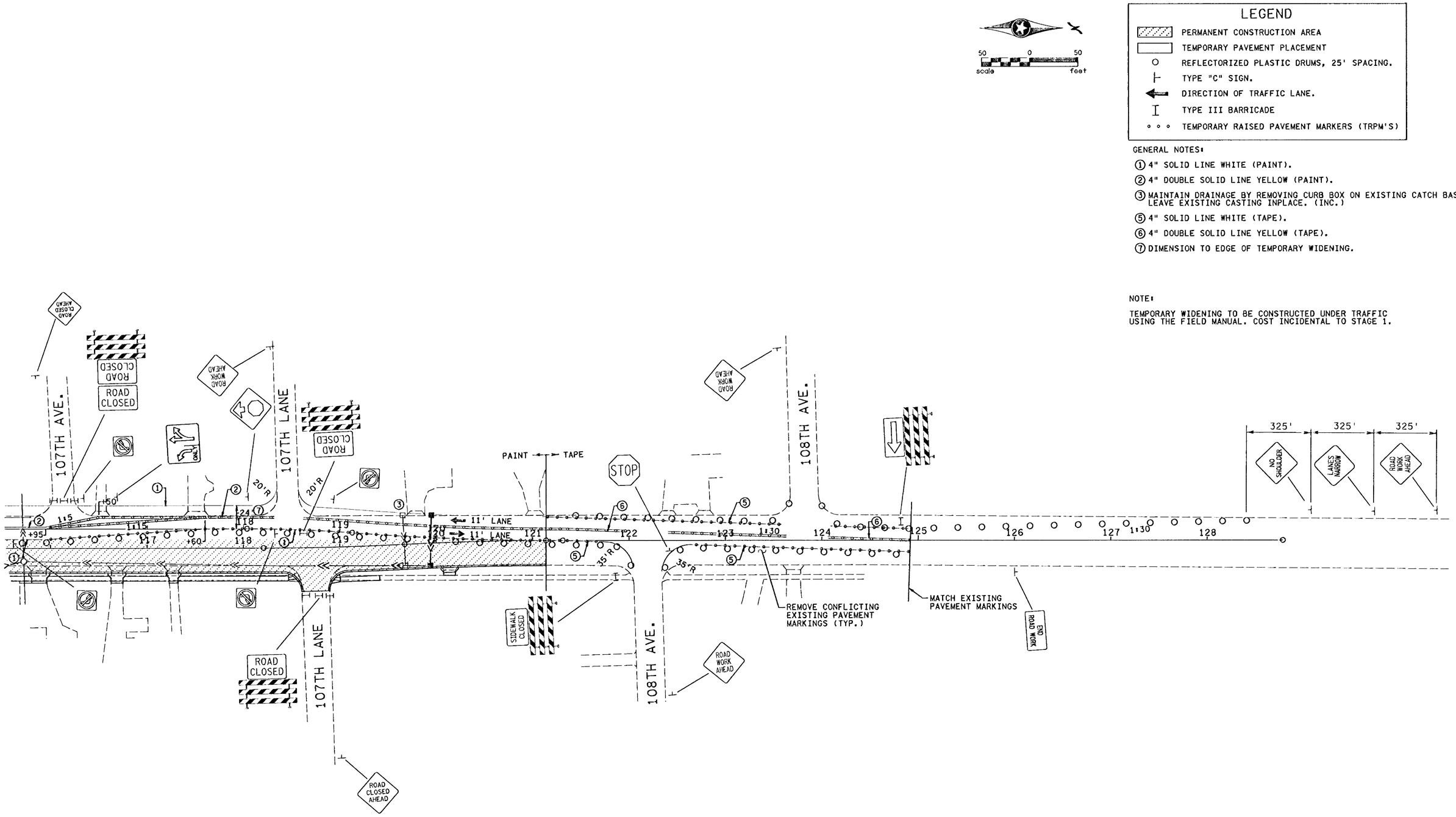

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1	6-6-02	GEH	MDH	MDH	REVISED SIGNS.

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SRF CONSULTING GROUP, INC.

ANOKA COUNTY
STAGING AND TRAFFIC CONTROL
C.S.A.H. 11 (FOLEY BLVD.)
STAGE 1

SHEET 12 OF 58

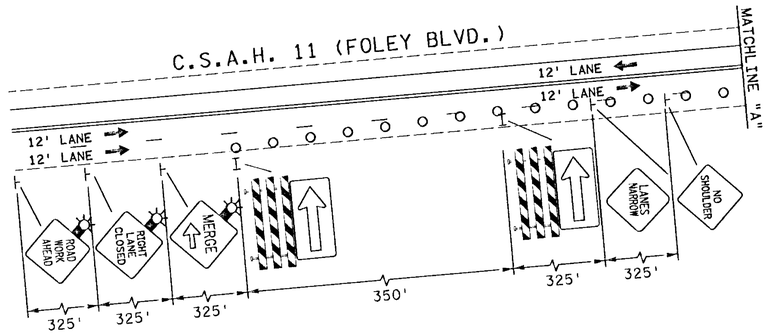
LEGEND

- PERMANENT CONSTRUCTION AREA
- TEMPORARY PAVEMENT PLACEMENT
- REFLECTORIZED PLASTIC DRUMS, 25' SPACING.
- TYPE "C" SIGN.
- DIRECTION OF TRAFFIC LANE.
- TYPE III BARRICADE
- TEMPORARY RAISED PAVEMENT MARKERS (TRPM'S)

50 0 50
scale feet

GENERAL NOTES:

① 4" SOLID LINE WHITE (PAINT).
② 4" DOUBLE SOLID LINE YELLOW (PAINT).
⑤ 4" SOLID LINE WHITE (TAPE).
⑥ 4" DOUBLE SOLID LINE YELLOW (TAPE).



NO	DATE	BY	CKD	APPR	REVISION
1	6-6-02	GEH	MDH	MDH	REVISED SIGNS.

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Date 10-4-2001 License # 21364

STATE AID PROJECT NO. S.P. 02-611-28
CITY PROJECT NO.

		DATE
DRAWN BY	D. SYMANIETZ	05-01
DESIGNED BY	D. SYMANIETZ	05-01
CHECKED BY	M. HANSEN	05-01
COMM. NO.	0983212	

SRF CONSULTING GROUP, INC.

ANOKA COUNTY
STAGING AND TRAFFIC CONTROL
C.S.A.H. 11 (FOLEY BLVD.)
STAGE 2

SHEET 13 OF 58

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scale feet

LEGEND

- PERMANENT CONSTRUCTION AREA
- TEMPORARY PAVEMENT PLACEMENT
- REFLECTORIZED PLASTIC DRUMS, 25' SPACING.
- TYPE "C" SIGN.
- DIRECTION OF TRAFFIC LANE.
- TYPE III BARRICADE
- TEMPORARY RAISED PAVEMENT MARKERS (TRPM'S)

GENERAL NOTES:

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⑤ 4" SOLID LINE WHITE (TAPE).
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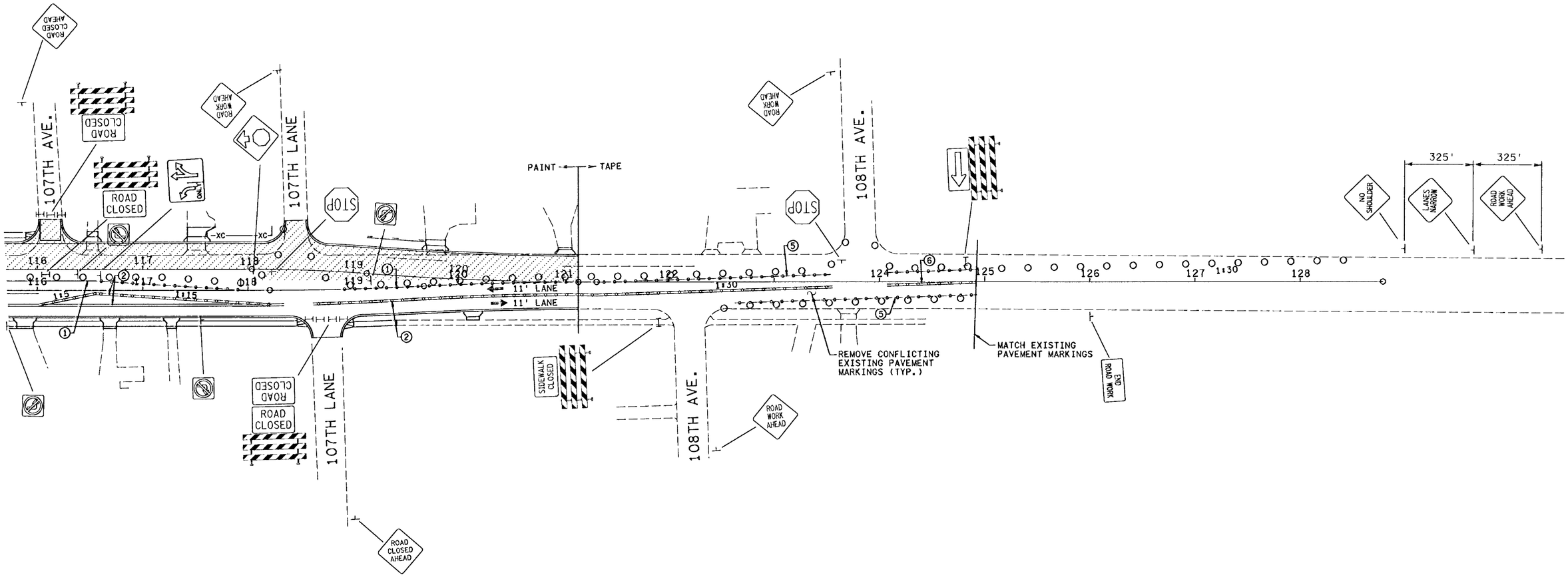

NO	DATE	BY	CKD	APPR	REVISION
1	6-6-02	GEH	MDH	MDH	REVISED SIGNS.

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SRF CONSULTING GROUP, INC.

ANOKA COUNTY
STAGING AND TRAFFIC CONTROL
C.S.A.H. 11 (FOLEY BLVD.)
STAGE 2

SHEET 14 OF 58

LEGEND

- PERMANENT CONSTRUCTION AREA
- TEMPORARY PAVEMENT PLACEMENT
- REFLECTORIZED PLASTIC DRUMS, 25' SPACING.
- TYPE "C" SIGN.
- DIRECTION OF TRAFFIC LANE.
- TYPE III BARRICADE
- TEMPORARY RAISED PAVEMENT MARKERS (TRPM'S)

50 0 50
scale feet

GENERAL NOTES:

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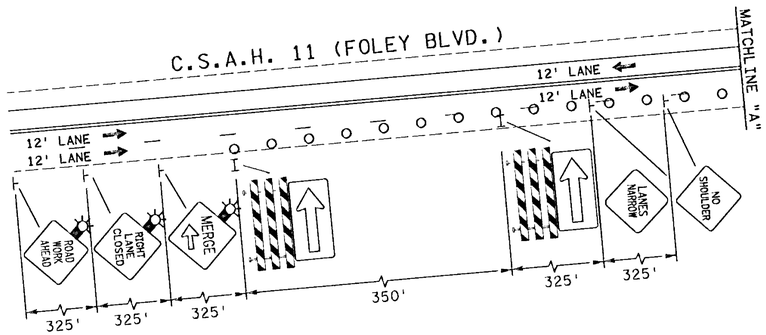
④ 4" SOLID LINE YELLOW (PAINT).
⑤ 4" SOLID LINE WHITE (TAPE).
⑦ 4" SOLID LINE YELLOW (TAPE).



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COMM. NO. 0983212

SRF CONSULTING GROUP, INC.

ANOKA COUNTY
STAGING AND TRAFFIC CONTROL
C.S.A.H. 11 (FOLEY BLVD.)
STAGE 3

SHEET 15 OF 58

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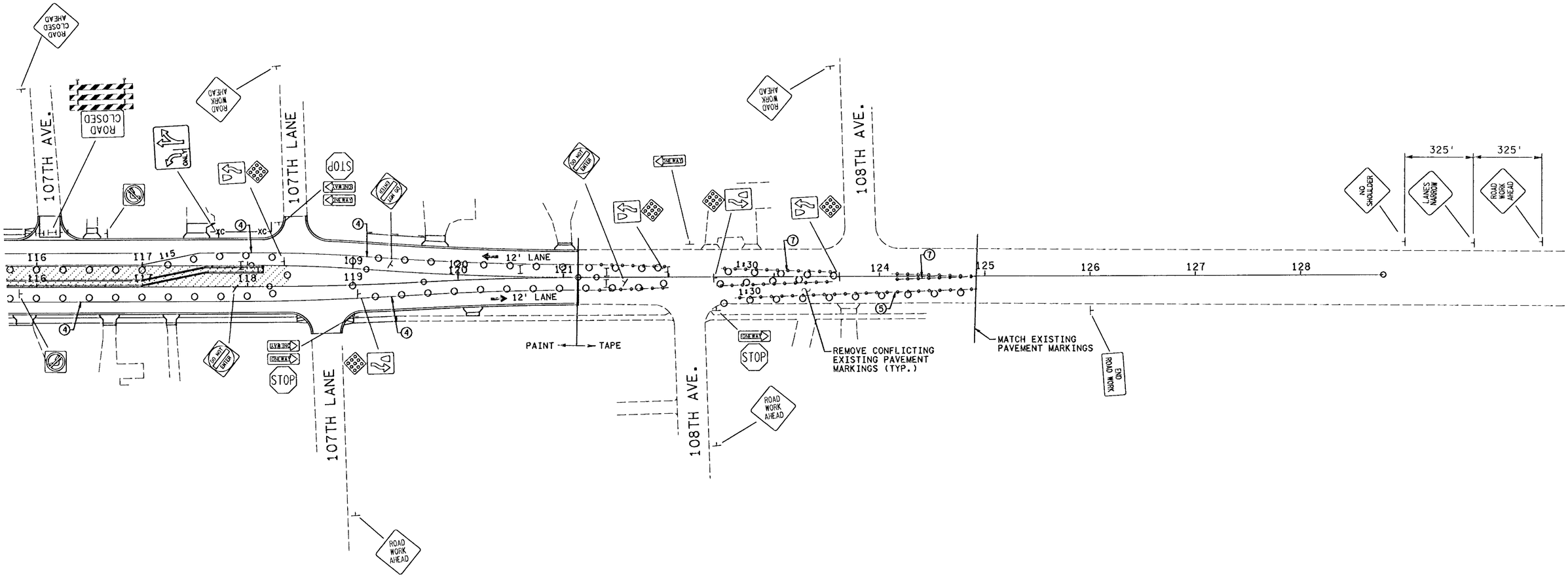
scale feet

LEGEND

- PERMANENT CONSTRUCTION AREA
- TEMPORARY PAVEMENT PLACEMENT
- REFLECTORIZED PLASTIC DRUMS, 25' SPACING.
- TYPE "C" SIGN.
- DIRECTION OF TRAFFIC LANE.
- TYPE III BARRICADE
- TEMPORARY RAISED PAVEMENT MARKERS (TRPM'S)

GENERAL NOTES:

1. 4" SOLID LINE WHITE (PAINT).
4. 4" SOLID LINE YELLOW (PAINT).
5. 4" SOLID LINE WHITE (TAPE).
7. 4" SOLID LINE YELLOW (TAPE).



NO	DATE	BY	CKD	APPR	REVISION
1	6-6-02	GEH	MDH	MDH	REVISED SIGNS.

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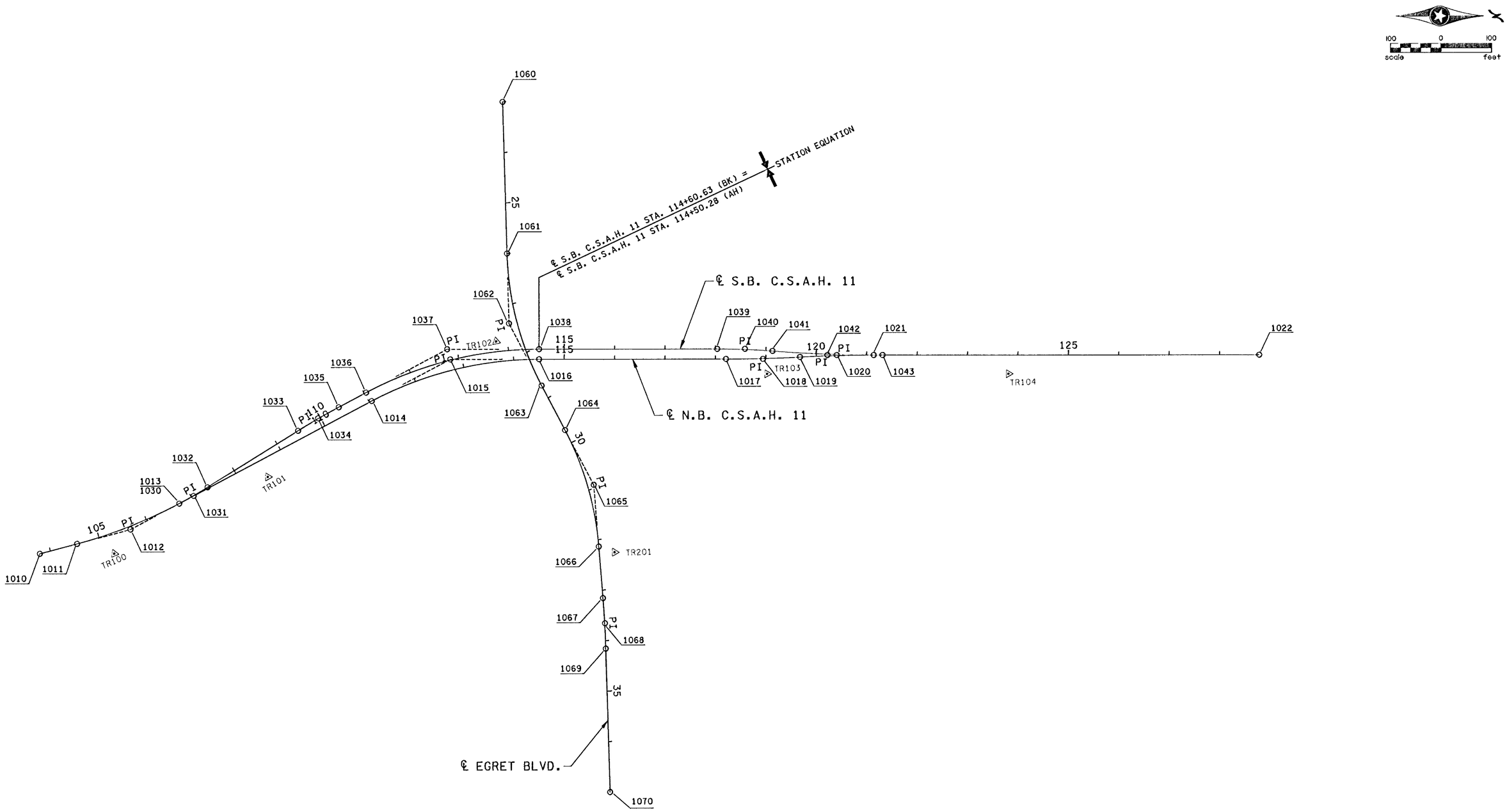
SRF CONSULTING GROUP, INC.

ANOKA COUNTY
STAGING AND TRAFFIC CONTROL
C.S.A.H. 11 (FOLEY BLVD.)
STAGE 3

SHEET 16 OF 58



LEGEND

XXXX — ALIGNMENT POINT NO. (SEE ALIGNMENT TABULATION)

△ XXXX — HORIZONTAL CONTROL POINT NO. (SEE ALIGNMENT TABULATION)

HORIZONTAL CONTROL IS BASED ON ANOKA COUNTY COORDINATES

NO	DATE	BY	CKD	APPR	REVISION

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STATE AID PROJECT NO. S.P. 02-611-28

CITY PROJECT NO.

		DATE
DRAWN BY	D. SYMANIETZ	05-01
DESIGNED BY	D. SYMANIETZ	05-01
CHECKED BY	M. HANSEN	05-01

COMM. NO. 0983212

SRF CONSULTING GROUP, INC.

ANOKA COUNTY

ALIGNMENT PLAN

C.S.A.H. 11 (FOLEY BLVD.)

SHEET 17 OF 58

PT. NO.	POINT	STATION	CURVE DATA Δ	D	R	T	L	COORDINATES X	Y	AZIMUTH
HORIZONTAL CONTROL POINTS										
TR100								27,653.7048	27,723.0066	
TR101								27,958.7383	27,572.7413	
TR102								28,411.5505	27,305.4588	
TR103								28,948.4201	27,370.5357	
TR104								29,427.3110	27,307.8836	
TR200								28,454.8681	26,645.0092	
TR201								28,645.4589	27,722.5966	

PT. NO.	POINT	STATION	CURVE DATA Δ	D	R	T	L	COORDINATES X	Y	AZIMUTH
℄ N.B. C.S.A.H. 11										
1010	POT	℄ N.B. C.S.A.H. 11 103+78.63						27,723.596	27,506.370	345° 12′ 11.42″
1011	PC	104+54.97						27,704.099	27,580.180	
1012	PI	105+64.33	13° 03′ 59.26″ LT	6° 00′ 00.00″	954.930′	109.362′	217.774′	27,676.169	27,685.915	PI
	CC							26,780.837	27,336.299	
1013	PT	106+72.75						27,625.057	27,782.598	332° 08′ 12.16″
1014	PC	111+05.27						27,422.910	28,164.980	
1015	PI	112+81.27	27° 53′ 33.27″ RT	8° 05′ 04.67″	708.700′	175.993′	345.007′	27,340.657	28,320.569	PI
	CC							28,049.447	28,496.200	
1016	PT	114+50.28						27,340.747	28,496.563	0° 01′ 45.43″
1017	PC	118+20.78						27,340.936	28,867.061	
1018	PI	118+94.09	2° 55′ 54.97″ LT	2° 00′ 00.00″	2,864.789′	73.314′	146.597′	27,340.974	28,940.375	PI
	CC							24,476.148	28,868.525	
1019	PRC	119+67.38						27,337.261	29,013.595	357° 05′ 50.46″
1020	PI	120+40.69	2° 55′ 54.97″ RT	2° 00′ 00.00″	2,864.789′	73.314′	146.597′	27,333.549	29,086.816	PI
	CC							30,198.375	29,158.666	
1021	PT	121+13.97						27,333.586	29,160.130	0° 01′ 45.43″
1022	POT	℄ N.B. C.S.A.H. 11 128+78.50						27,333.977	29,924.656	
℄ S.B. C.S.A.H. 11										
1030	PC	℄ S.B. C.S.A.H. 11 106+72.75 =						27,625.057	27,782.598	332° 08′ 12.16″
		A PT. ON ℄ N.B. C.S.A.H. 11 P.O.C. 106+72.75								
1031	PI	107+05.15	3° 53′ 11.17″ LT	6° 00′ 00.00″	954.930′	32.399′	64.774′	27,609.915	27,811.241	PI
	CC							26,780.837	27,336.299	
1032	PT	107+37.52						27,592.866	27,838.792	328° 15′ 00.99″
1033	PC	109+49.15						27,481.505	28,018.752	
1034	PI	109+95.78	3° 43′ 45.68″ RT	4° 00′ 00.00″	1,432.395′	46.633′	93.234′	27,456.966	28,058.407	PI
	CC							28,699.548	28,772.492	
1035	PT	110+42.38						27,435.058	28,099.574	331° 58′ 46.67″
1036	PC	111+03.89						27,406.165	28,153.868	
1037	PI	112+85.91	28° 02′ 58.76″ RT	7° 51′ 45.86″	728.700′	182.021′	356.742′	27,320.654	28,314.552	PI
	CC							28,049.447	28,496.200	
1038	PT	↓ STATION EQUATION 114+60.63 (BK) =						27,320.747	28,496.573	0° 01′ 45.43″
		↑ STATION EQUATION 114+50.28 (AH)								
1039	PC	118+03.68						27,320.928	28,849.977	
1040	PI	118+58.35	4° 22′ 16.51″ RT	4° 00′ 00.00″	1,432.395′	54.667′	109.281′	27,320.956	28,904.644	PI
	CC							28,753.322	28,849.244	
1041	PRC	119+12.97						27,325.150	28,959.150	4° 24′ 01.94″
								27,325.150	28,959.150	
1042	PI	120+22.30	4° 22′ 16.51″ LT	2° 00′ 00.00″	2,864.789′	109.334′	218.563′	27,333.539	29,068.162	PI
	CC							24,468.806	29,178.961	
1043	PT	℄ S.B. C.S.A.H. 11 121+31.53 =						27,333.595	29,177.496	0° 01′ 45.43″
		A PT. ON ℄ N.B. C.S.A.H. 11 P.O.T. 121+31.34								
℄ EGRET BLVD.										
1060	POT	℄ EGRET BLVD. 23+00.00						26,831.346	28,425.179	
1061	PC	26+00.14						27,131.368	28,433.425	
1062	PI	27+38.81	26° 01′ 39.46″ LT	9° 32′ 57.47″	600.000′	138.673′	272.561′	27,269.989	28,437.236	PI
	CC							27,114.882	29,033.199	
1063	PT	28+72.70						27,392.879	28,501.487	62° 23′ 52.36″
1064	PC	29+72.43						27,481.259	28,547.695	
1065	PI	30+94.78	23° 05′ 05.00″ RT	9° 33′ 49.11″	599.100′	122.350′	241.380′	27,589.684	28,604.383	PI
	CC							27,758.840	28,016.781	
1066	PT	32+13.81						27,711.653	28,614.020	85° 28′ 57.36″
1067	PC	33+15.92						27,813.446	28,622.062	
1068	PI	33+65.92	2° 53′ 36.00″ RT	2° 53′ 38.15″	1,979.860′	50.000′	99.979′	27,863.291	28,626.000	PI
	CC							27,969.384	26,648.353	
1069	PT	34+15.90						27,913.271	28,627.417	88° 22′ 33.36″
1070	POT	℄ EGRET BLVD. 37+00.00						28,197.261	28,635.469	

NO	DATE	BY	CKD	APPR	REVISION

I hereby certify that this plan, specification, or report was prepared by me or under my direct supervision and that I am a duly Licensed Professional Engineer under the laws of the State of Minnesota.
Print Name: MATTHEW D. HANSEN
Date 10-4-2001 License # 21364

STATE AID PROJECT NO. S.P. 02-611-28
CITY PROJECT NO.

DRAWN BY D. SYMANIETZ DATE 05-01
DESIGNED BY D. SYMANIETZ 05-01
CHECKED BY M. HANSEN 05-01
COMM. NO. 0983212

SRF CONSULTING GROUP, INC.

ANOKA COUNTY
ALIGNMENT TABULATION
C.S.A.H. 11 (FOLEY BLVD.)

SHEET 18 OF 58

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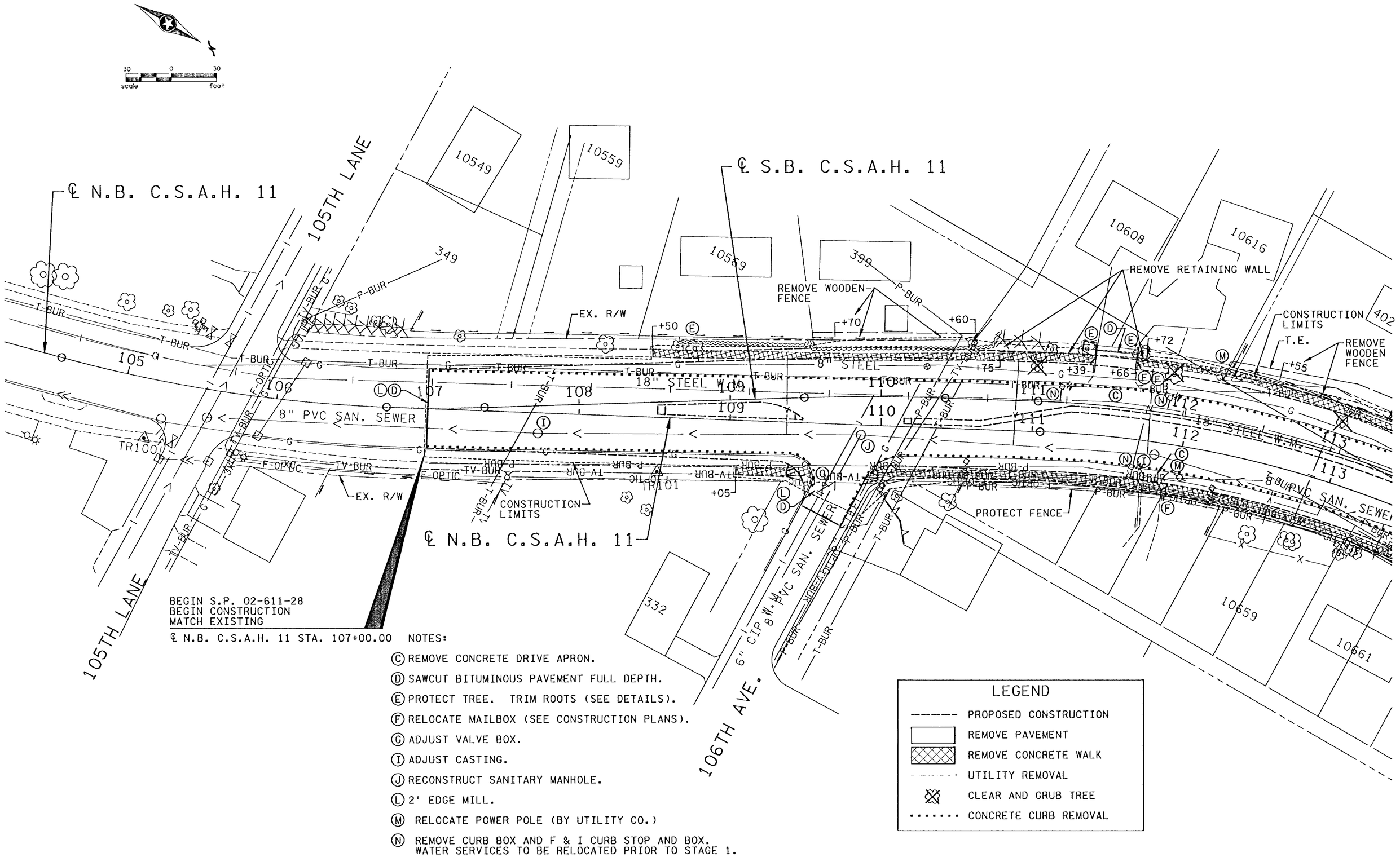

NOTES:

Ⓒ REMOVE CONCRETE DRIVE APRON.

Ⓓ SAWCUT BITUMINOUS PAVEMENT FULL DEPTH.

Ⓔ PROTECT TREE. TRIM ROOTS (SEE DETAILS).

Ⓕ RELOCATE MAILBOX (SEE CONSTRUCTION PLANS).

Ⓖ ADJUST VALVE BOX.

Ⓘ ADJUST CASTING.

Ⓙ RECONSTRUCT SANITARY MANHOLE.

Ⓛ 2' EDGE MILL.

Ⓜ RELOCATE POWER POLE (BY UTILITY CO.)

Ⓝ REMOVE CURB BOX AND F & I CURB STOP AND BOX. WATER SERVICES TO BE RELOCATED PRIOR TO STAGE 1.

LEGEND

- PROPOSED CONSTRUCTION
- REMOVE PAVEMENT
- REMOVE CONCRETE WALK
- UTILITY REMOVAL
- CLEAR AND GRUB TREE
- CONCRETE CURB REMOVAL

NO	DATE	BY	CKD	APPR	REVISION
2	6-6-02	GEH	MDH	MDH	ADDED STATIONING.
1	11-15-01	SLL	MDH	MDH	REVISED 8" STEEL GAS LINE LOCATION.

I hereby certify that this plan, specification, or report was prepared by me or under my direct supervision and that I am a duly Licensed Professional Engineer under the laws of the State of Minnesota.
Print Name: MATTHEW D. HANSEN
Date 10-4-2001 License # 21364

STATE AID PROJECT NO. S.P. 02-611-28
CITY PROJECT NO.

DRAWN BY D. SYMANIETZ DATE 05-01
DESIGNED BY D. SYMANIETZ 05-01
CHECKED BY M. HANSEN 05-01
COMM. NO. 0983212

SRF CONSULTING GROUP, INC.

ANOKA COUNTY
TOPOGRAPHY AND REMOVAL PLAN
C.S.A.H. 11 (FOLEY BLVD.)
N.B. STA. 107+00.0 TO STA. 113+00.0

SHEET 19 OF 58

NOTES:

Ⓐ REMOVE DRAINAGE STRUCTURE.
Ⓑ REMOVE PIPE SEWER.
Ⓒ REMOVE CONCRETE DRIVE APRON.
Ⓓ SAWCUT BITUMINOUS PAVEMENT FULL DEPTH.
Ⓔ PROTECT TREE. TRIM ROOTS (SEE DETAILS).
Ⓕ RELOCATE MAILBOX (SEE CONSTRUCTION PLANS)
Ⓖ ADJUST VALVE BOX.
Ⓗ RELOCATE HYDRANT AND GATE VALVE. (SEE STORM SEWER/UTILITY PLANS.)
Ⓘ ADJUST CASTING.
Ⓙ RECONSTRUCT SANITARY MANHOLE.
Ⓚ RECONSTRUCT DRAINAGE STRUCTURE.
Ⓛ 2' EDGE MILL
Ⓜ RELOCATE POWER POLE (BY UTILITY CO.).
Ⓝ REMOVE CURB BOX AND F & I CURB STOP AND BOX. WATER SERVICES TO BE RELOCATED PRIOR TO STAGE 1.

30 0 30
scale feet

LEGEND

- PROPOSED CONSTRUCTION
- REMOVE PAVEMENT
- REMOVE CONCRETE WALK
- UTILITY REMOVAL
- CLEAR AND GRUB TREE
- CONCRETE CURB REMOVAL

℄ EGRET BLVD.
℄ S.B. C.S.A.H. 11 STA. 114+60.63 (BK) = ℄ S.B. C.S.A.H. 11 STA. 114+50.28 (AH) STATION EQUATION
℄ S.B. C.S.A.H. 11
℄ N.B. C.S.A.H. 11
107TH AVE.
107TH LANE
CONSTRUCTION LIMITS
EX. R/W
PROP. R/W
REMOVE WOODEN FENCE
SALVAGE CHAIN LINK FENCE
14" CIP W.M.
8" PVC SAN. SEWER
6" CIP W.M.
12" RCP
15" RCP
36" RCP
18" STEEL W.M.
END S.P. 02-611-28
END CONSTRUCTION
MATCH EXISTING
℄ N.B. C.S.A.H. 11 STA. 121+14.00

NO	DATE	BY	CKD	APPR	REVISION
2	6-6-02	GEH	MDH	MDH	REVISED NOTE N.
1	11-15-01	SLL	MDH	MDH	REVISED 8" STEEL GAS LINE LOCATION.

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Print Name: MATTHEW D. HANSEN
Date 10-4-2001 License # 21364

STATE AID PROJECT NO. S.P. 02-611-28
CITY PROJECT NO.

DRAWN BY D. SYMANIETZ 05-01
DESIGNED BY D. SYMANIETZ 05-01
CHECKED BY M. HANSEN 05-01
COMM. NO. 0983212

SRF CONSULTING GROUP, INC.

ANOKA COUNTY
TOPOGRAPHY AND REMOVAL PLAN
C.S.A.H. 11 (FOLEY BLVD.)
N.B. STA. 113+00.0 TO STA. 121+14.0

SHEET 20 OF 58

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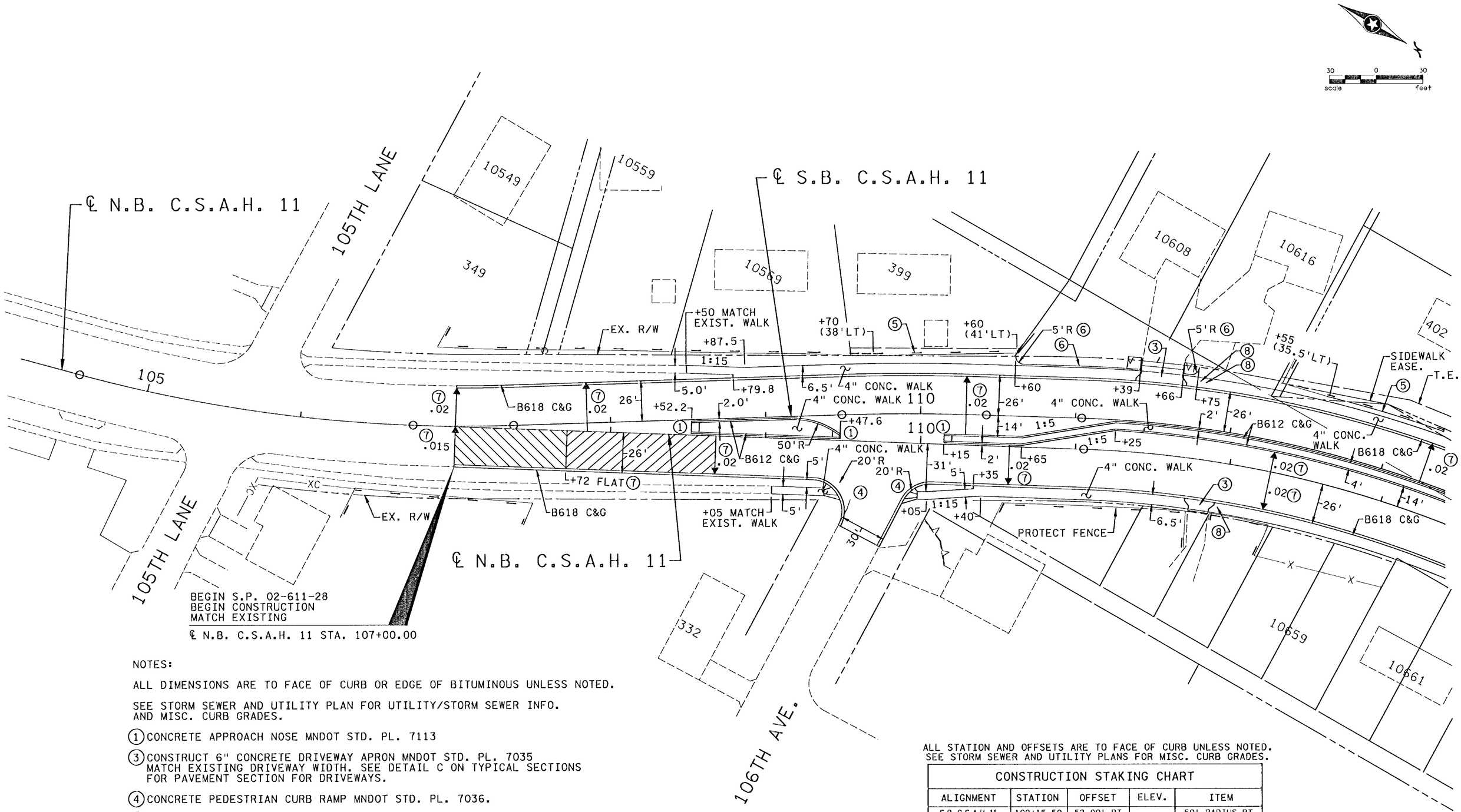


NOTES:

ALL DIMENSIONS ARE TO FACE OF CURB OR EDGE OF BITUMINOUS UNLESS NOTED.

SEE STORM SEWER AND UTILITY PLAN FOR UTILITY/STORM SEWER INFO. AND MISC. CURB GRADES.

(1) CONCRETE APPROACH NOSE MNDOT STD. PL. 7113

(3) CONSTRUCT 6" CONCRETE DRIVEWAY APRON MNDOT STD. PL. 7035 MATCH EXISTING DRIVEWAY WIDTH. SEE DETAIL C ON TYPICAL SECTIONS FOR PAVEMENT SECTION FOR DRIVEWAYS.

(4) CONCRETE PEDESTRIAN CURB RAMP MNDOT STD. PL. 7036.

(5) CONSTRUCT WOODEN FENCE (SEE MISC. DETAILS).

(6) CONSTRUCT RETAINING WALL (SEE MISC. DETAILS).

(7) PAVEMENT CROSS SLOPE IN FT./FT.

(8) RELOCATE MAILBOX (SEE SPECIAL PROVISIONS).

ALL STATION AND OFFSETS ARE TO FACE OF CURB UNLESS NOTED.
SEE STORM SEWER AND UTILITY PLANS FOR MISC. CURB GRADES.

CONSTRUCTION STAKING CHART

ALIGNMENT	STATION	OFFSET	ELEV.	ITEM
S.B. C.S.A.H. 11	109+15.50	52.00' RT		50' RADIUS PT
N.B. C.S.A.H. 11	109+30.88	46.00' RT		20' RADIUS PT
N.B. C.S.A.H. 11	110+08.07	46.00' RT		20' RADIUS PT

NO	DATE	BY	CKD	APPR	REVISION
1	6-6-02	GEH	MDH	MDH	REVISED CURB RADIUS, SE COR. FOLEY/106TH, MEDIAN.

I hereby certify that this plan, specification, or report was prepared by me or under my direct supervision and that I am a duly Licensed Professional Engineer under the laws of the State of Minnesota.
Print Name: MATTHEW D. HANSEN
Date 10-4-2001 License # 21364

STATE AID PROJECT NO.
S.P. 02-611-28
CITY PROJECT NO.

DRAWN BY D. SYMANIETZ DATE 05-01
DESIGNED BY D. SYMANIETZ 05-01
CHECKED BY M. HANSEN 05-01
COMM. NO. 0983212

SRF CONSULTING GROUP, INC.

ANOKA COUNTY
CONSTRUCTION PLAN
C.S.A.H. 11 (FOLEY BLVD.)
N.B. STA. 107+00.0 TO STA. 113+00.0

SHEET 21 OF 58

ALL STATION AND OFFSETS ARE TO FACE OF CURB UNLESS NOTED.
SEE STORM SEWER AND UTILITY PLANS FOR MISC. CURB GRADES.

CONSTRUCTION STAKING CHART

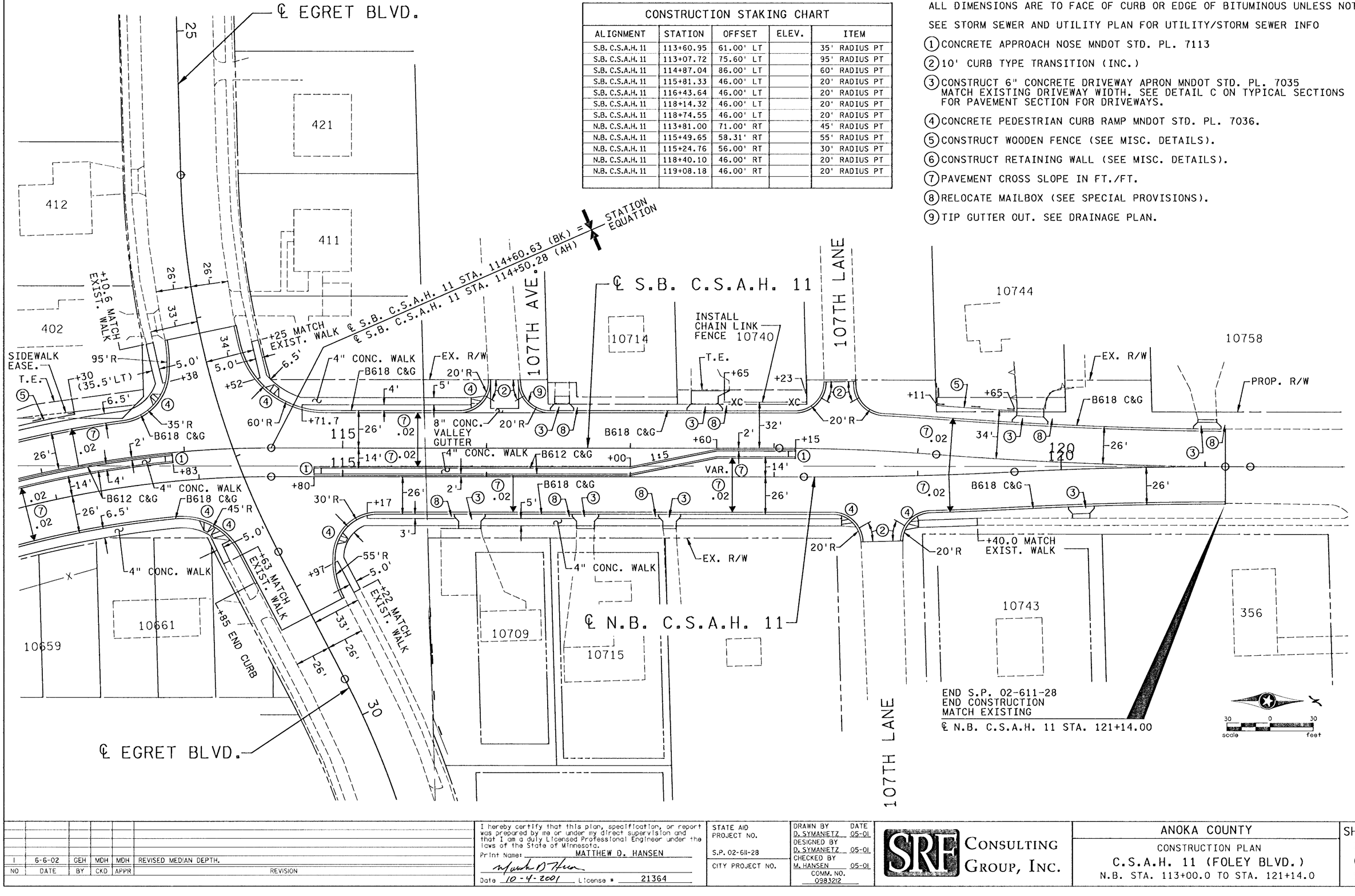
ALIGNMENT	STATION	OFFSET	ELEV.	ITEM
S.B. C.S.A.H. 11	113+60.95	61.00' LT		35' RADIUS PT
S.B. C.S.A.H. 11	113+07.72	75.60' LT		95' RADIUS PT
S.B. C.S.A.H. 11	114+87.04	86.00' LT		60' RADIUS PT
S.B. C.S.A.H. 11	115+81.33	46.00' LT		20' RADIUS PT
S.B. C.S.A.H. 11	116+43.64	46.00' LT		20' RADIUS PT
S.B. C.S.A.H. 11	118+14.32	46.00' LT		20' RADIUS PT
S.B. C.S.A.H. 11	118+74.55	46.00' LT		20' RADIUS PT
N.B. C.S.A.H. 11	113+81.00	71.00' RT		45' RADIUS PT
N.B. C.S.A.H. 11	115+49.65	58.31' RT		55' RADIUS PT
N.B. C.S.A.H. 11	115+24.76	56.00' RT		30' RADIUS PT
N.B. C.S.A.H. 11	118+40.10	46.00' RT		20' RADIUS PT
N.B. C.S.A.H. 11	119+08.18	46.00' RT		20' RADIUS PT

NOTES:

ALL DIMENSIONS ARE TO FACE OF CURB OR EDGE OF BITUMINOUS UNLESS NOTED.

SEE STORM SEWER AND UTILITY PLAN FOR UTILITY/STORM SEWER INFO

1. CONCRETE APPROACH NOSE MNDOT STD. PL. 7113
2. 10' CURB TYPE TRANSITION (INC.)
3. CONSTRUCT 6" CONCRETE DRIVEWAY APRON MNDOT STD. PL. 7035 MATCH EXISTING DRIVEWAY WIDTH. SEE DETAIL C ON TYPICAL SECTIONS FOR PAVEMENT SECTION FOR DRIVEWAYS.
4. CONCRETE PEDESTRIAN CURB RAMP MNDOT STD. PL. 7036.
5. CONSTRUCT WOODEN FENCE (SEE MISC. DETAILS).
6. CONSTRUCT RETAINING WALL (SEE MISC. DETAILS).
7. PAVEMENT CROSS SLOPE IN FT./FT.
8. RELOCATE MAILBOX (SEE SPECIAL PROVISIONS).
9. TIP GUTTER OUT. SEE DRAINAGE PLAN.



NO	DATE	BY	CKD	APPR	REVISION
1	6-6-02	GEH	MDH	MDH	REVISED MEDIAN DEPTH.

I hereby certify that this plan, specification, or report was prepared by me or under my direct supervision and that I am a duly Licensed Professional Engineer under the laws of the State of Minnesota.
Print Name: MATTHEW D. HANSEN
Date 10-4-2001 License # 21364

STATE AID PROJECT NO. S.P. 02-611-28
CITY PROJECT NO.

DRAWN BY D. SYMANIETZ DATE 05-01
DESIGNED BY D. SYMANIETZ 05-01
CHECKED BY M. HANSEN 05-01
COMM. NO. 0983212

SRF CONSULTING GROUP, INC.

ANOKA COUNTY
CONSTRUCTION PLAN
C.S.A.H. 11 (FOLEY BLVD.)
N.B. STA. 113+00.0 TO STA. 121+14.0

SHEET 22 OF 58

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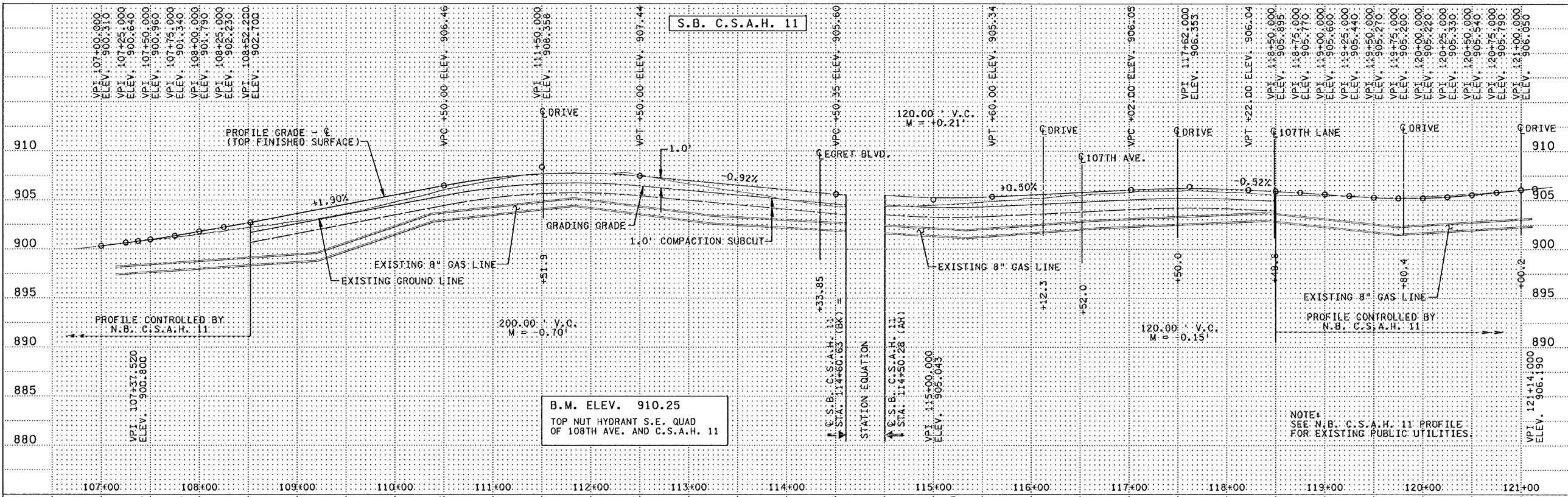
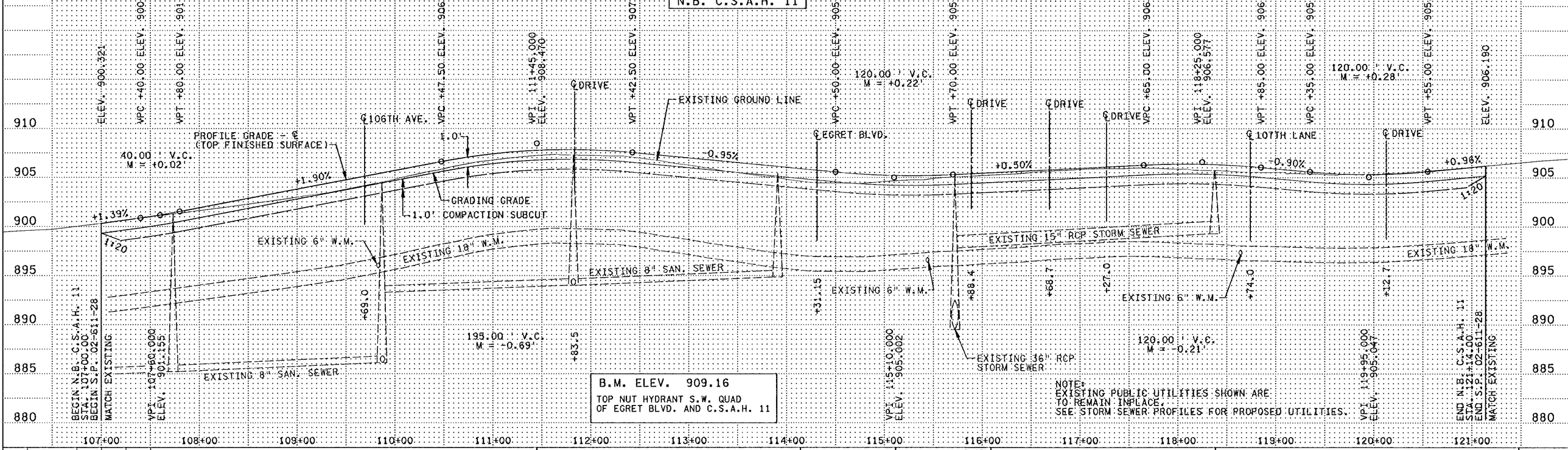




NO	DATE	BY	CKD	APPR	REVISION
1	11-15-01	SLL	MDH	MDH	ADDED 8" STEEL GAS LINE.

I hereby certify that this plan, specification, or report was prepared by me or under my direct supervision and that I am a duly Licensed Professional Engineer under the laws of the State of Minnesota.

Print Name: MATTHEW D. HANSEN

Date 10-4-2001 License # 21364

STATE AID PROJECT NO. S.P. 02-611-28

CITY PROJECT NO.

		DATE
DRAWN BY	D. SYMANIETZ	05-01
DESIGNED BY	D. SYMANIETZ	05-01
CHECKED BY	M. HANSEN	05-01

COMM. NO. 0983212

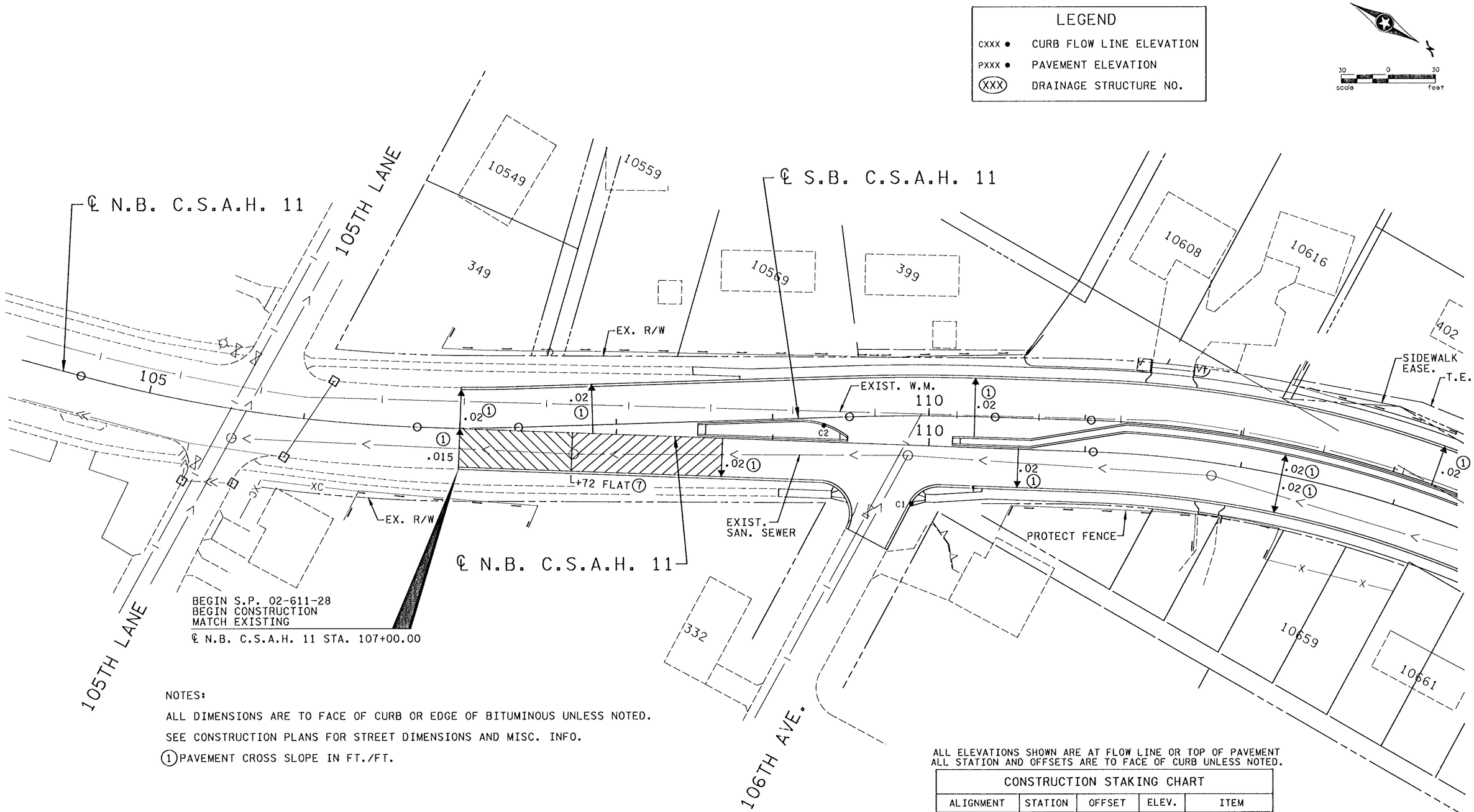
SRF CONSULTING GROUP, INC.

ANOKA COUNTY

PROFILES

C.S.A.H. 11 (FOLEY BLVD.)

SHEET 23 OF 58



NOTES:

ALL DIMENSIONS ARE TO FACE OF CURB OR EDGE OF BITUMINOUS UNLESS NOTED.

SEE CONSTRUCTION PLANS FOR STREET DIMENSIONS AND MISC. INFO.

(1) PAVEMENT CROSS SLOPE IN FT./FT.

ALL ELEVATIONS SHOWN ARE AT FLOW LINE OR TOP OF PAVEMENT
ALL STATION AND OFFSETS ARE TO FACE OF CURB UNLESS NOTED.

CONSTRUCTION STAKING CHART

ALIGNMENT	STATION	OFFSET	ELEV.	ITEM
N.B. C.S.A.H. 11	109+90.04	37.35' RT	903.80	C1-END RADIUS
S.B. C.S.A.H. 11	109+32.58	5.00' RT	904.22	C2-MID PT

NO	DATE	BY	CKD	APPR	REVISION

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Print Name: MATTHEW D. HANSEN
Signature
Date 10-4-2001 License # 21364

STATE AID PROJECT NO.
S.P. 02-611-28
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		DATE
DRAWN BY	D. SYMANIETZ	05-01
DESIGNED BY	D. SYMANIETZ	05-01
CHECKED BY	M. HANSEN	05-01

COMM. NO. 0983212

SRF CONSULTING GROUP, INC.

ANOKA COUNTY
STORM SEWER AND UTILITY PLAN
C.S.A.H. 11 (FOLEY BLVD.)
N.B. STA. 107+00.0 TO STA. 113+00.0

SHEET 24 OF 58

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ALL ELEVATIONS SHOWN ARE AT FLOW LINE OR TOP OF PAVEMENT
ALL STATION AND OFFSETS ARE TO FACE OF CURB UNLESS NOTED.

CONSTRUCTION STAKING CHART

ALIGNMENT	STATION	OFFSET	ELEV.	ITEM
EGRET BLVD.	27+25.00	0.00' LT	904.06	P1-TOP OF BIT.
EGRET BLVD.	27+50.00	0.00' LT	904.81	P2-TOP OF BIT.
EGRET BLVD.	27+66.00	0.00' LT	905.30	P3-TOP OF BIT.
EGRET BLVD.	27+85.00	0.00' LT	905.51	P4-TOP OF BIT.
EGRET BLVD.	28+06.00	0.00' LT	905.72	P5-TOP OF BIT.
EGRET BLVD.	28+25.00	0.00' LT	905.42	P6-TOP OF BIT.
EGRET BLVD.	28+43.00	0.00' LT	905.13	P7-TOP OF BIT.
EGRET BLVD.	28+75.00	0.00' LT	903.64	P8-TOP OF BIT.
EGRET BLVD.	29+00.00	0.00' LT	903.00	P9-TOP OF BIT.
S.B. C.S.A.H. 11	116+12.30	26.00' LT	905.11	P10-TOP OF BIT.

ALL ELEVATIONS SHOWN ARE AT FLOW LINE OR TOP OF PAVEMENT
ALL STATION AND OFFSETS ARE TO FACE OF CURB UNLESS NOTED.

CONSTRUCTION STAKING CHART

ALIGNMENT	STATION	OFFSET	ELEV.	ITEM
S.B. C.S.A.H. 11	113+82.00	34.12' LT	905.36	C3-MID PT
S.B. C.S.A.H. 11	113+92.81	54.48' LT	904.92	C4-END RADIUS
S.B. C.S.A.H. 11	114+40.99	72.27' LT	902.67	C5-END RADIUS
S.B. C.S.A.H. 11	114+47.81	53.76' LT	903.18	C6-1/4 PT
S.B. C.S.A.H. 11	114+60.27	38.89' LT	903.69	C7-MID PT
S.B. C.S.A.H. 11	114+67.39	29.30' LT	904.21	C8-1/4 PT
N.B. C.S.A.H. 11	114+07.39	33.22' RT	904.68	C9-MID PT
N.B. C.S.A.H. 11	114+26.10	52.79' RT	903.71	C10-END RADIUS
N.B. C.S.A.H. 11	114+95.70	69.00' RT	902.77	C11-MID PT
N.B. C.S.A.H. 11	114+94.89	53.22' RT	903.26	C12-END RADIUS
N.B. C.S.A.H. 11	115+04.55	33.83' RT	903.94	C13-MID PT
S.B. C.S.A.H. 11	116+30.24	31.15' LT	905.41	C14-MID PT
S.B. C.S.A.H. 11	116+43.64	26.00' LT	905.27	C15-END RADIUS
N.B. C.S.A.H. 11	118+94.54	31.54' RT	905.40	C16-MID PT
N.B. C.S.A.H. 11	117+25.00	33.83' RT	906.07	C17-TURN LANE
N.B. C.S.A.H. 11	117+50.00	33.83' LT	906.23	C18-TURN LANE
N.B. C.S.A.H. 11	117+60.00	14.00' LT	906.29	C19-TURN LANE
N.B. C.S.A.H. 11	117+75.00	14.00' LT	905.98	C20-TURN LANE
N.B. C.S.A.H. 11	118+00.00	14.00' LT	906.09	C21-TURN LANE
N.B. C.S.A.H. 11	118+15.00	14.00' LT	906.03	C22-TURN LANE

℄ EGRET BLVD.

℄ S.B. C.S.A.H. 11 STA. 114+60.63 (BK) = ℄ S.B. C.S.A.H. 11 STA. 114+50.28 (AH) — STATION EQUATION

℄ S.B. C.S.A.H. 11

℄ N.B. C.S.A.H. 11

107TH AVE.

107TH LANE

EXIST. STORM SEWER

EXIST. W.M.

EXIST. M.H.

EXIST. STORM SEWER

PROPOSED STORM SEWER

PROPOSED STORM SEWER

EX. R/W

EX. R/W

EX. R/W

PROP. R/W

SIDEWALK EASE.

T.E.

I BUR

VAR.

421 412 411 402 10714 10740 10744 10758 10743 356 10661 10659 10709 10715

END S.P. 02-611-28
END CONSTRUCTION
MATCH EXISTING
℄ N.B. C.S.A.H. 11 STA. 121+14.00

NOTES:

ALL DIMENSIONS ARE TO FACE OF CURB OR EDGE OF BITUMINOUS UNLESS NOTED.

SEE CONSTRUCTION PLANS FOR STREET DIMENSIONS AND MISC. INFO.

(1) PAVEMENT CROSS SLOPE IN FT./FT.

(2) TIP GUTTER OUT.

(3) RELOCATE HYDRANT & GATE VALVE N.B. C.S.A.H. 11 STA. 118+43 - 36' RT

(4) RELOCATE HYDRANT & GATE VALVE S.B. C.S.A.H. 11 STA. 113+61 - 35.5' LT

(5) RECONSTRUCT CATCH BASIN INTO STORM MANHOLE

LEGEND

CXXX ●	CURB FLOW LINE ELEVATION
PXXX ●	PAVEMENT ELEVATION
(XXX)	DRAINAGE STRUCTURE NO.

NO	DATE	BY	CKD	APPR	REVISION
2	6-6-02	GEH	MDH	MDH	ADDED CB 111 AND 112.
1	11-15-01	SLL	MDH	MDH	REVISED EXISITNG 8" STEEL GAS LINE LOCATION.

I hereby certify that this plan, specification, or report was prepared by me or under my direct supervision and that I am a duly Licensed Professional Engineer under the laws of the State of Minnesota.
Print Name: MATTHEW D. HANSEN
Date 10-4-2001 License # 21364

STATE AID PROJECT NO. S.P. 02-611-28
CITY PROJECT NO.

DRAWN BY D. SYMANIETZ 05-01
DESIGNED BY D. SYMANIETZ 05-01
CHECKED BY M. HANSEN 05-01
COMM. NO. 0983212

SRF CONSULTING GROUP, INC.

ANOKA COUNTY
STORM SEWER AND UTILITY PLAN
C.S.A.H. 11 (FOLEY BLVD.)
N.B. STA. 113+00.0 TO STA. 121+14.0

SHEET 25 OF 58

07/08/2002

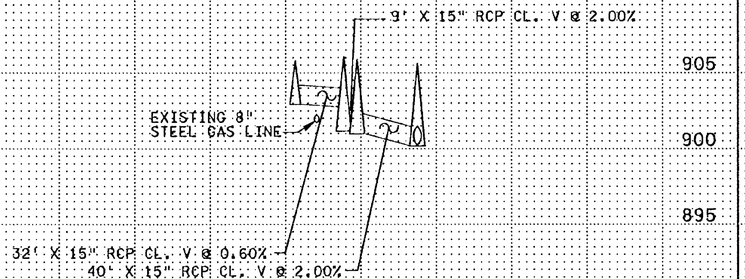
B.M. ELEV. 910.25
TOP NUT HYDRANT S.E. QUAD
OF 108TH AVE. AND C.S.A.H. 11

CB 103
S.B. C.S.A.H. 11
113+60.0
25.0' LT.
T.C. 905.77
OUT. 902.90 (E)

CB 111
S.B. C.S.A.H. 11
113+83.0
1.0' RT.
T.C. 906.05
INL. 902.71 (W)
OUT. 901.17 (E)

CB 104
N.B. C.S.A.H. 11
113+75.0
13.0' LT.
T.C. 905.86
INL. 900.99 (W)
OUT. 900.99 (E)

CB 105

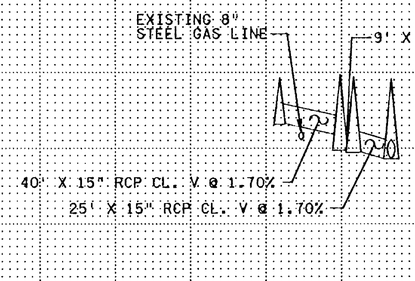


CB 108
S.B. C.S.A.H. 11
115+18.0
25.0' LT.
T.C. 904.58
OUT. 901.60 (E)

CB 109
S.B. C.S.A.H. 11
115+18.0
13.0' RT.
T.C. 904.81
INL. 900.92 (W)
OUT. 899.88 (E)

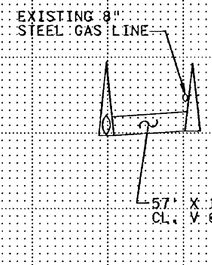
CB 112
N.B. C.S.A.H. 11
115+18.0
1.0' LT.
T.C. 905.04
INL. 899.73 (W)
OUT. 899.73 (E)

CB 110



CB 120

CB 119
S.B. C.S.A.H. 11
119+94.0
25.0' LT.
T.C. 904.56
OUT. 900.13 (E)

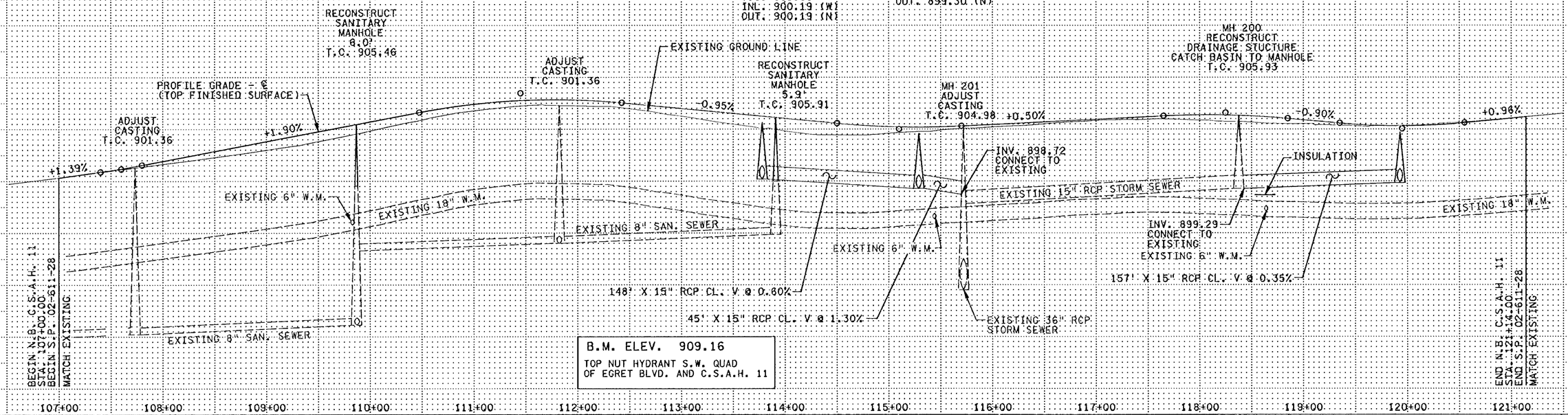


N.B. C.S.A.H. 11

CB 105
N.B. C.S.A.H. 11
113+78.0
25.0' RT.
T.C. 905.60
INL. 900.19 (W)
OUT. 900.19 (N)

CB 110
N.B. C.S.A.H. 11
115+29.0
25.0' RT.
T.C. 904.55
INL. 899.30 (W)
INL. 899.30 (S)
OUT. 899.30 (N)

CB 120
N.B. C.S.A.H. 11
119+93.0
25.0' RT.
T.C. 904.67
INL. 899.84 (W)
OUT. 899.84 (S)



B.M. ELEV. 909.16
TOP NUT HYDRANT S.W. QUAD
OF EGRET BLVD. AND C.S.A.H. 11

NO	DATE	BY	CKD	APPR	REVISION
3	6-6-02	GEH	MDH	MDH	ADDED CB 111 AND 112.
2	11-29-01	SLL	MDH	MDH	REVISED CB INVERTS 119 AND 120.
1	11-15-01	SLL	MDH	MDH	ADDED 8" STEEL GAS LINE.

I hereby certify that this plan, specification, or report was prepared by me or under my direct supervision and that I am a duly Licensed Professional Engineer under the laws of the State of Minnesota.
Print Name: MATTHEW D. HANSEN
Date 10-4-2001 License # 21364

STATE AID PROJECT NO. S.P. 02-611-28
CITY PROJECT NO.

		DATE
DRAWN BY	D. SYMANIETZ	05-01
DESIGNED BY	D. SYMANIETZ	05-01
CHECKED BY	M. HANSEN	05-01
COMM. NO.	0983212	

SRF CONSULTING GROUP, INC.

ANOKA COUNTY
STORM SEWER / UTILITY PROFILES
C.S.A.H. 11 (FOLEY BLVD.)

SHEET 26 OF 58

m:\civil\0947\3212\plan\3212.PB
07/08/2002 02:00:19 PM

(G) DRAINAGE TABULATION

FLOWS FROM: STR. OR APRON INLET POINT NO.	LOCATION	STA	OFFSET	L/R	TOP OF CASTING	PIPE SIZE	TOTAL PIPE LENGTH INC. APRON	INV ELEV FROM	PIPE SLOPE	INV ELEV TO	FLOWS TO: STR. OR APRON OUTLET POINT NO.	NEW STRUCTURE CONSTRUCTION (G) (J) DESIGN	NEW STRUCTURE CONSTRUCTION PAY HEIGHT	NEW STRUCTURE CONSTRUCTION CASTING ASSEMBLY	EXISTING STRUCTURE ADJUST CASTING	EXISTING STRUCTURE RE-CONST. (A)	F&I CAST-ING AND COVER SLAB	DRAINAGE PIPE (E) RCP (DESIGN 3006) 15" CL V	(F) 4" PERF. TP PIPE DRAIN	FOOTNOTES
			FT		FT	INCH	FT	FT	FT/FT	FT			L.F.	TYPE	EACH	L.F.	EACH	L.F.	EACH	
103	SB11	113+60.0	25.0	L	905.77	15	32	902.90	0.0060	902.71	111	H	2.7	B-1				32	50	
111	**SB11**	**113+83.0**	**1.0**	**R**	906.65	**15**	**9**	**902.71**	**0.0200**	**901.17**	**104**	**48"-4020**	**3.2**	**B-1**				9	50	
111	**SB11**	**113+83.0**	**1.8**	**R**																
104	NB11	113+75.0	13.0	L	905.86	15	40	900.99	0.0200	900.19	105	48"-4020	4.7	B-1				40	50	
1104	NB11	113+75.0	14.8	L																
105	NB11	113+78.0	25.0	R	905.60	15	148	900.19	0.0060	899.30	110	48"-4020	5.2	B-1				148	50	
1105	NB11	113+78.0	26.3	R																
108	SB11	115+18.0	25.0	L	904.58	15	40	901.60	0.0170	900.92	109	H	2.8	B-1				40	100	
109	SB11	115+18.0	13.0	R	904.81	15	9	899.83	0.0170	899.73	112	48"-4020	4.8	B-1				9	100	
1109	SB11	115+18.0	14.8	R																
112	**NB11**	**115+18.0**	**1.0**	**L**	905.04	**15**	25	899.73	**0.0170**	899.30	**110**	**48"-4020**	**5.1**	**B-1**				25	100	
112	**NB11**	**115+18.0**	**1.8**	**L**																
110	NB11	115+29.0	25.0	R	904.55	15	45	899.30	0.0130	898.72	201	60"-4020	5.1	B-1				45	100	
1110	NB11	115+29.0	26.8	R																
119	SB11	119+94.0	25.0	L	904.56	15	57	900.13	0.0050	899.84	120	H	4.3	B-1				57	100	
120	NB11	119+93.0	25.0	R	904.67	15	157	899.84	0.0035	899.29	200	48"-4020	4.7	B-1				157	100	
1120	NB11	119+93.0	26.3	R																
200	NB11	118+86.7	18.4	R	905.93						201			A7-D	1	1	1			(G) (H)
201	NB11	115+72.4	13.8	R	905.00															
TOTALS													42.5		1	1	1	562	800	

NOTES:

(A) STATIONS, OFFSETS, AND TOP OF CASTING ELEVATIONS ARE GIVEN TO CENTER OF CASTING. DESIGN 4020 STRUCTURES FURNISHED WITH TWO STATIONS AND OFFSETS. THE FIRST SET INDENTIFIES CASTING LOCATION, THE SECOND SET IDENTIFIES THE BASE. SUMP DEPTH IS 0.10' FOR CATCH BASINS.

(B) ALL POTENTIAL CONFLICTS WITH PUBLIC AND PRIVATE UTILITIES SHALL BE FIELD VERIFIED PRIOR TO INSTALLATION OF STORM SEWER.

(C) FURNISHING AND INSTALLING STEPS CONSIDERED INCIDENTAL.

(D) CONNECT TO EXISTING CB/MH. ALL CONNECTIONS TO EXISTING STORM SEWERS SHALL BE FIELD VERIFIED FOR THEIR LOCATION AND ELEVATION. CONNECTION TO EXISTING STORM SEWER SHALL BE SAWED AS NEEDED AND CONSIDERED INCIDENTAL.

(E) USE CLASS B BEDDING ON ALL STORM SEWER (INCIDENTAL).

(F) INSTALL 50' OF 4" PERF TP PIPE DRAIN UPSLOPE FROM STRUCTURE. CONNECTION INTO STRUCTURE WILL BE COREDRILLED AND COVERED WITH APPROVED SCREEN (BOTH CONSIDERED INCIDENTAL TO PERF TP PIPE DRAIN). FINE FILTER AGGREGATE SHALL BE USED TO BACKFILL DRAIN PIPE (CONSIDERED INCIDENTAL TO PERF TP PIPE DRAIN). SEE STANDARD PLAN SHEET FOR SUBSURFACE DRAINS.

(G) F & I CASTING.

(H) RECONSTRUCT STRUCTURE CONSISTS OF REMOVING EXISTING COVER SLAB AND F&I COVER SLAB WITH 27" DIAMETER HOLE.

(J) SILT FENCE BOXES AND SILT FENCE SHALL BE USED ON ALL CB'S BEFORE THE ROAD IS PAVED. SEE STANDARD EROSION CONTROL PLAN SHEETS. (CONSIDERED INCIDENTAL TO STORM SEWER STRUCTURE)

(H) CASTING ASSEMBLIES SUMMARY

ASSEMBLY	RING OR FRAME CASTING	COVER OR GRATE CASTING	CURB BOX	STANDARD PLATE NO.	QUANTITY	REMARKS
B-1	801			4126	10	CATCHBASIN
		810		4149		
A7-D	700-7		821B	4161		
		715		4101	1	MANHOLE
				4110		
PROJECT TOTALS:					11	

NO	DATE	BY	CKD	APPR	REVISION
2	6-6-02	GEH	MDH	MDH	ADDED CB 111 AND 112.
1	11-29-01	SLL	MDH	MDH	REVISED CB INVERTS 119 AND 120.

I hereby certify that this plan, specification, or report was prepared by me or under my direct supervision and that I am a duly Licensed Professional Engineer under the laws of the State of Minnesota.
Print Name: MATTHEW D. HANSEN
Date 10-4-2001 License # 21364

STATE AID PROJECT NO. S.P. 02-611-28
CITY PROJECT NO.

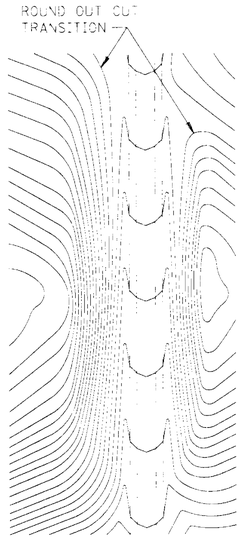
DRAWN BY D. SYMANIETZ DATE 05-01
DESIGNED BY D. SYMANIETZ 05-01
CHECKED BY M. HANSEN 05-01
COMM. NO. 0983212

SRF CONSULTING GROUP, INC.

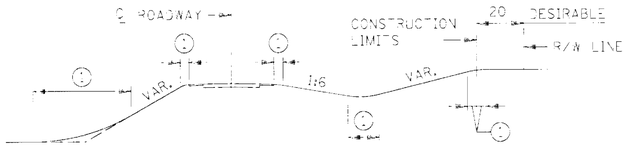
ANOKA COUNTY
STORM SEWER TABULATIONS
C.S.A.H. 11 (FOLEY BLVD.)

SHEET 27 OF 58

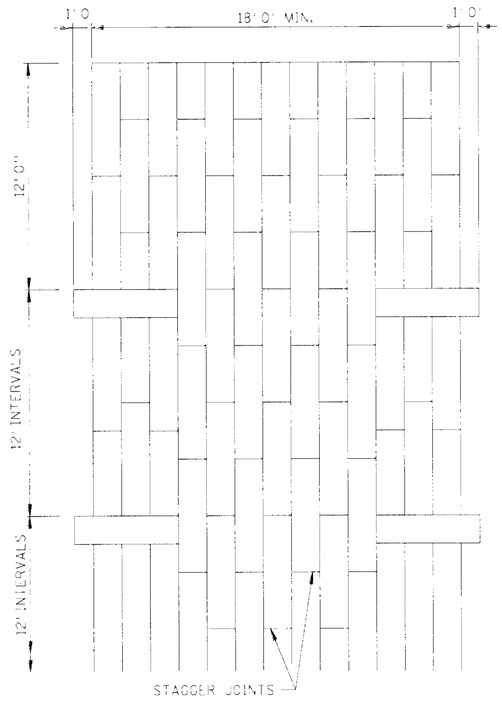
06/10/2002



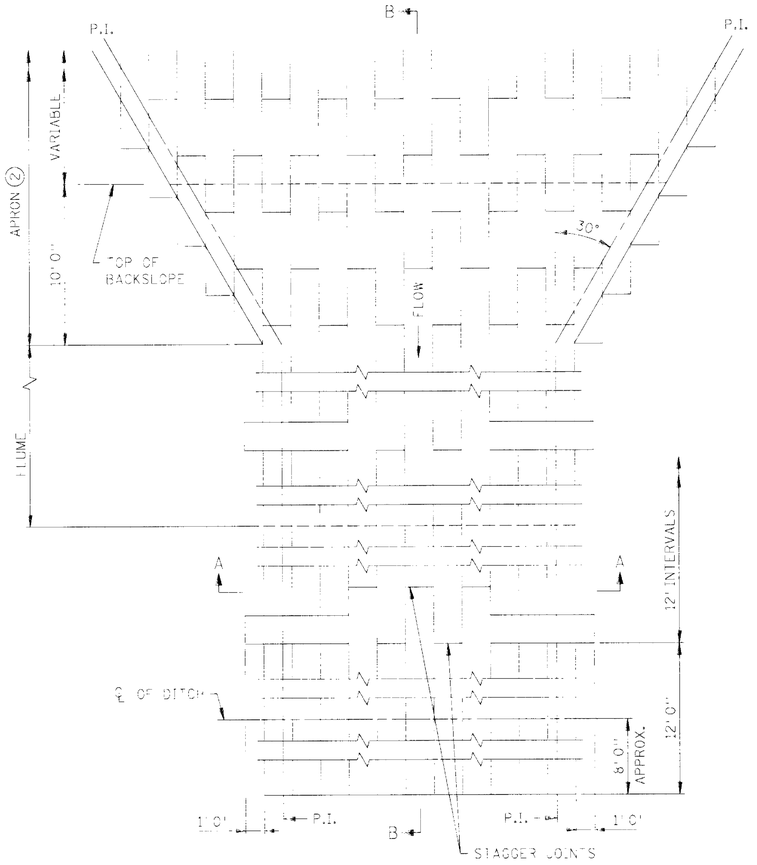
CONTOURING ROAD CUTS



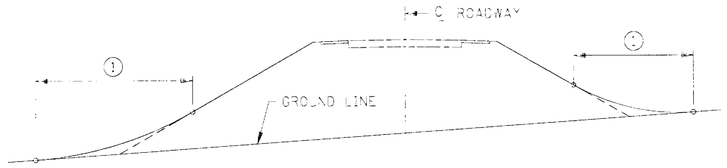
ROUNDING SHOULDERS AND BACKSLOPES



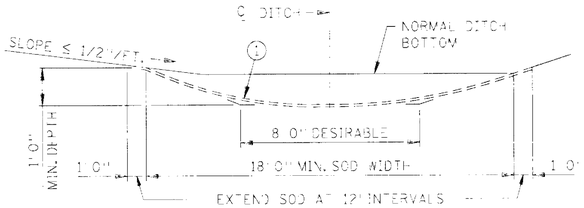
PLAN VIEW



PLAN VIEW

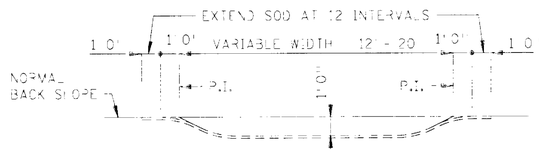


SHAPING FOR DRAINAGE ALONG THE TOE OF FILL SLOPES

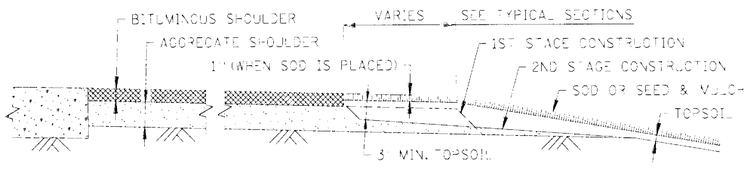


SODDED DITCH CROSS SECTION

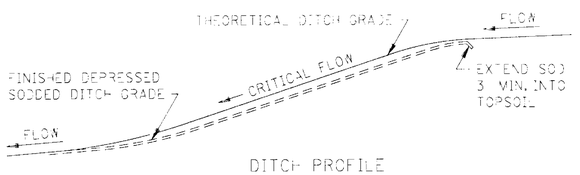
WHERE FRONT OR BACK SLOPE IS FLAT (LESS THAN 1/2"/FT.), FIRST NOTCH DITCH AND THEN PROVIDE ROUNDING.



SECTION A-A

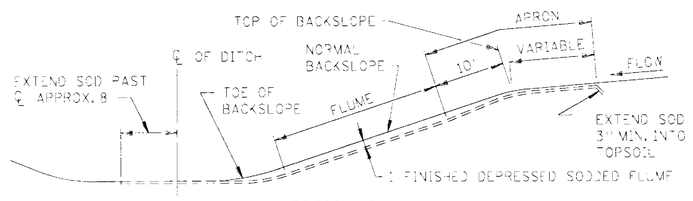


SHAPING AND TOPSOILING INSLOPES



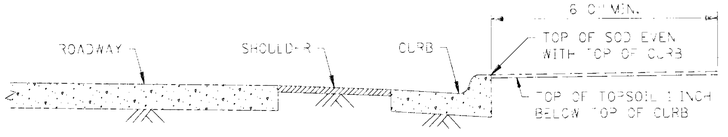
DITCH PROFILE

SODDED DITCH DETAILS



SECTION B-B

SODDED FLUME DETAILS



SHAPING ADJACENT TO CURBS WHEN SOD IS PLACED

NOTES:

SEE SPEC. 2575.3 FOR ADDITIONAL INFORMATION.

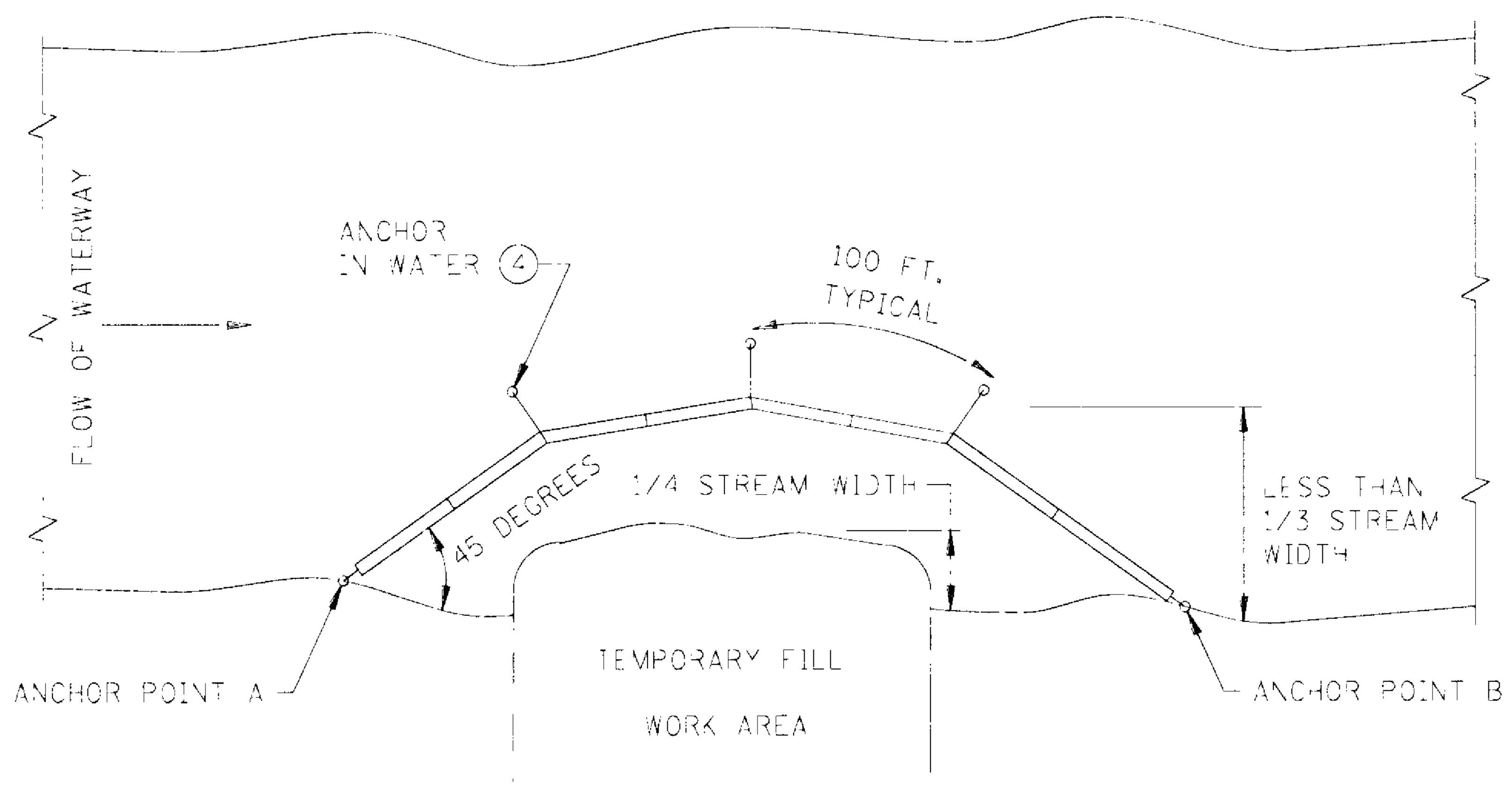
① FOR ROUNDING, SEE ROAD DESIGN MANUAL.

② CONSTRUCT TAPER AS DIRECTED BY THE ENGINEER.

REVISION DATE
10-26-2000

STANDARD SHEET NO. 5-297.404	TITLE: PERMANENT EROSION CONTROL ALONG ROADWAYS, DITCHES AND FLUMES
STANDARD APPROVED: DECEMBER 19, 1990	
STATE PROJ. NO. 02-611-28	SHEET NO. 28 OF 58 SHEETS

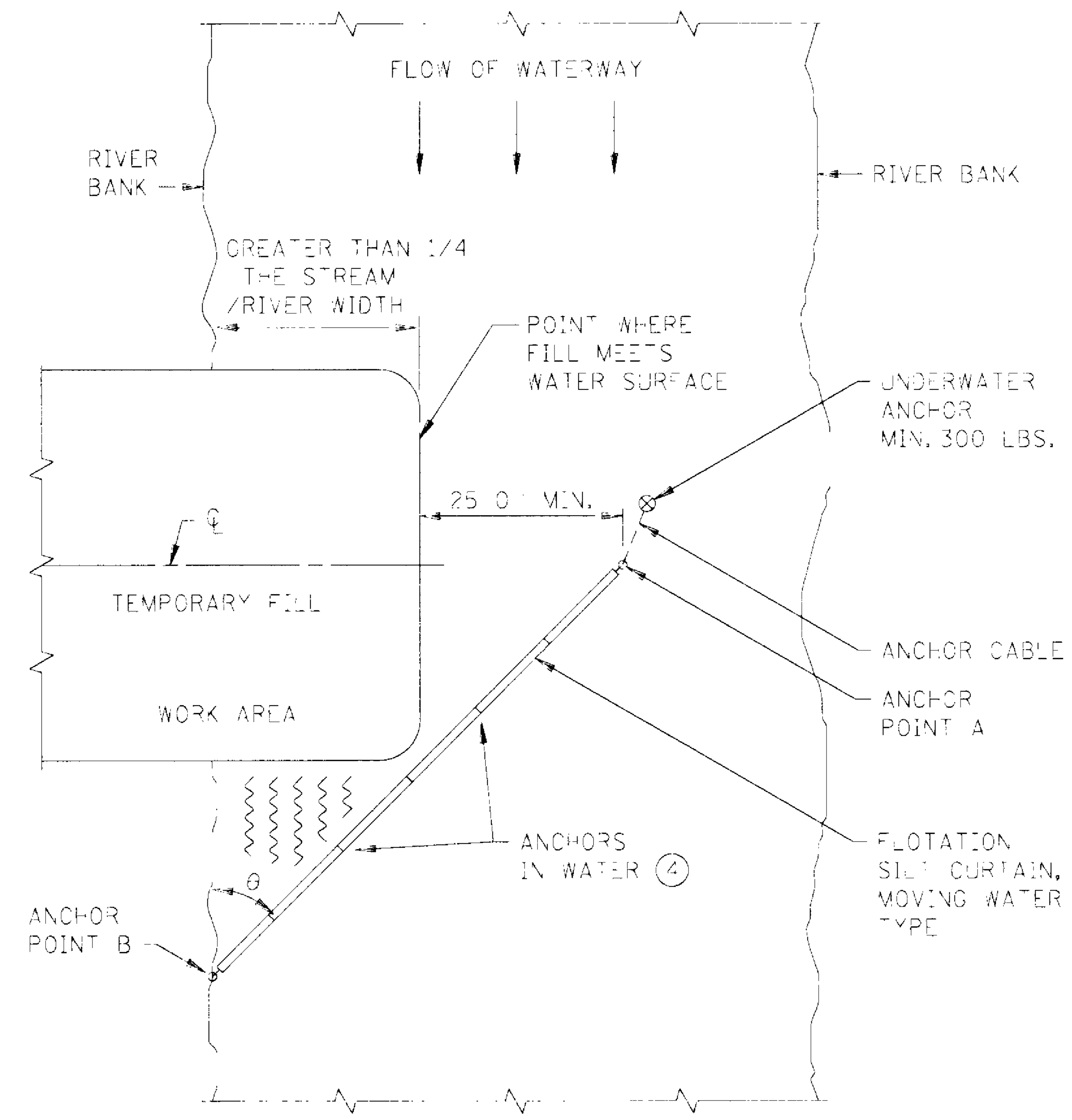
FILE NAME = SA0490.SPR
07/08/2002



PLAN VIEW OF SILT CURTAIN ENCLOSING A WORK AREA

FOR CONTAINING OVERFLOWS FROM WEIRS, STANDPIPES, SETTLING PONDS

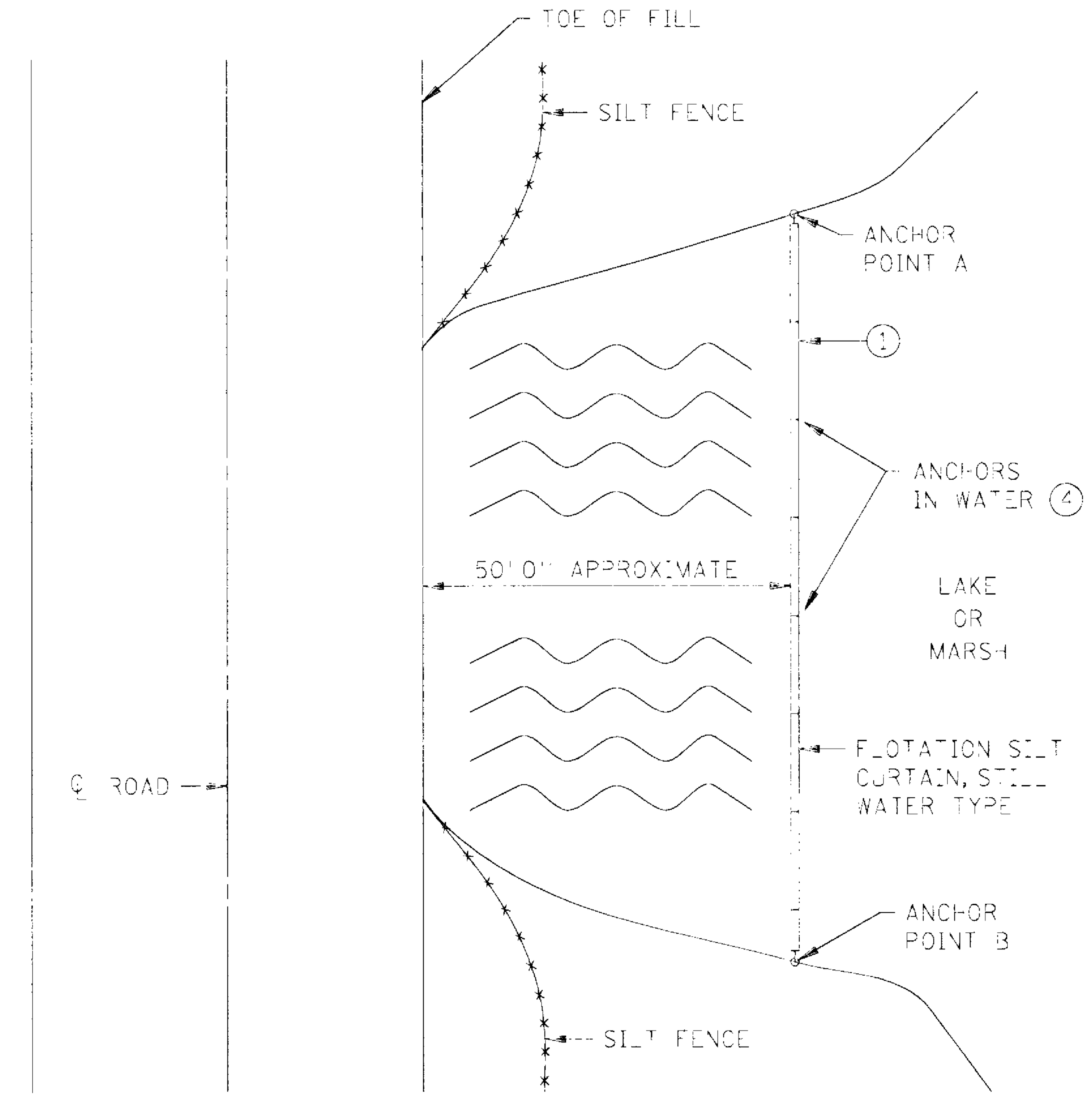
DESIGN GUIDELINES:
WHEN TEMPORARY FILL ENCROACHES LESS THAN 1/4 OF THE WIDTH OF STREAM.
MAXIMUM FLOW VELOCITY: 5 FT./SEC.
MAXIMUM FLOW DEPTH: 4 FT.



∠ θ	RIVER VELOCITY
45°	SLOW, LESS THAN 5 FT./SEC.
35°	MODERATE, 5 - 7 FT./SEC.

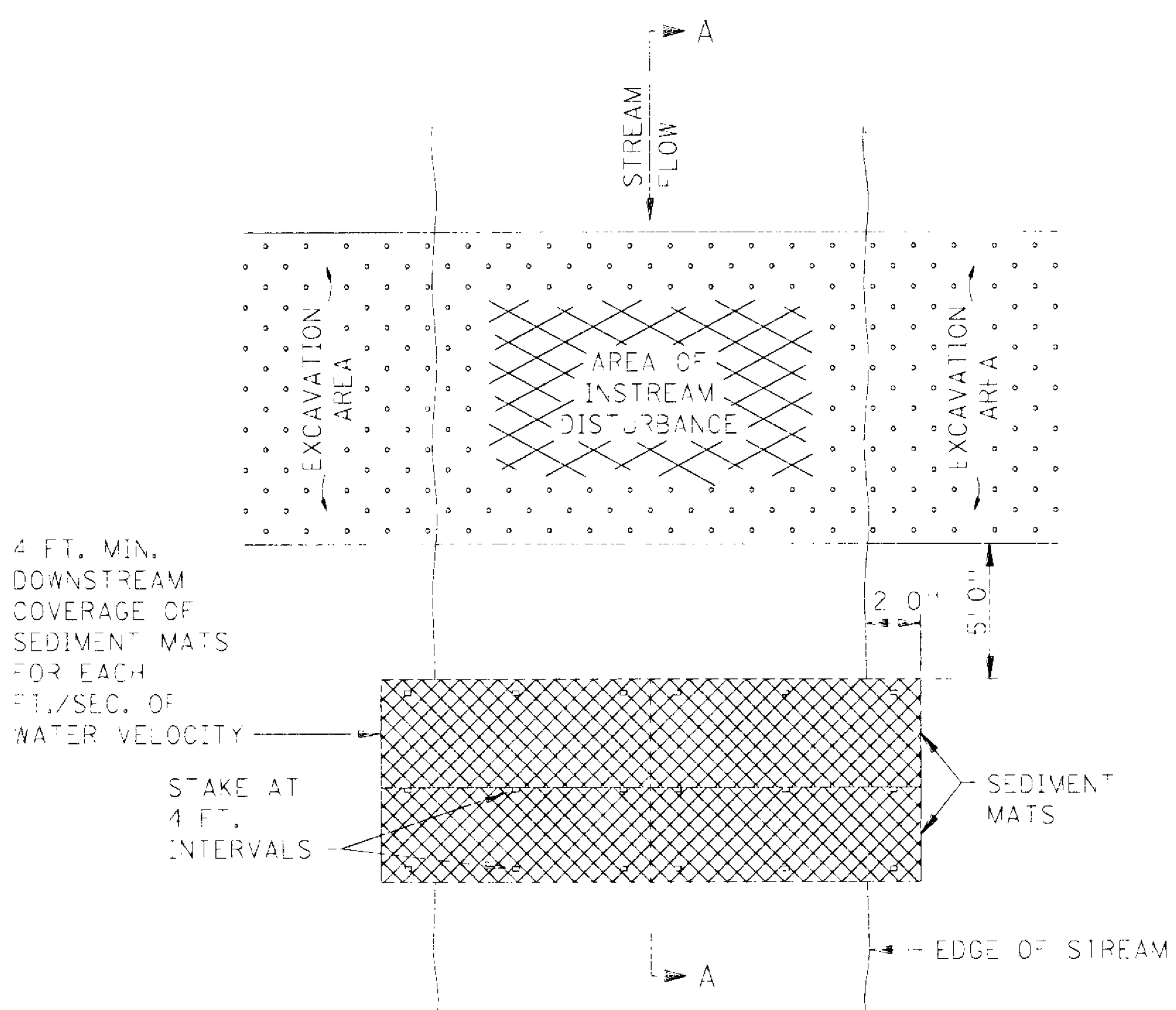
PLAN VIEW OF SILT CURTAIN - MOVING WATER

DESIGN GUIDELINES:
WHEN TEMPORARY FILL ENCROACHES MORE THAN 1/4 BUT LESS THAN 1/3 WIDTH OF THE STREAM.
MAXIMUM WATER DEPTH: 12 FT.
MINIMUM WATER DEPTH: 3 FT.
MAXIMUM WATER VELOCITY: 7 FT./SEC.

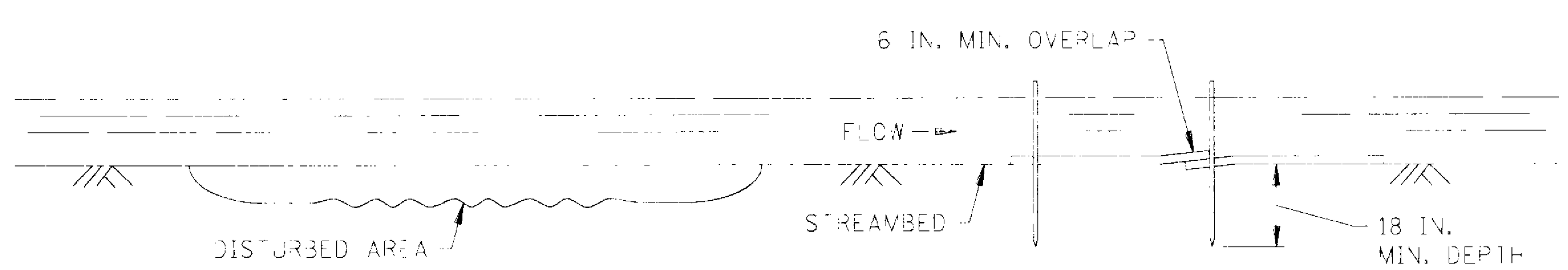


PLAN VIEW OF SILT CURTAIN - STILL WATER

DESIGN GUIDELINES:
MAXIMUM WATER DEPTH: 12 FT.
MINIMUM WATER DEPTH: 3 FT.



PLAN VIEW

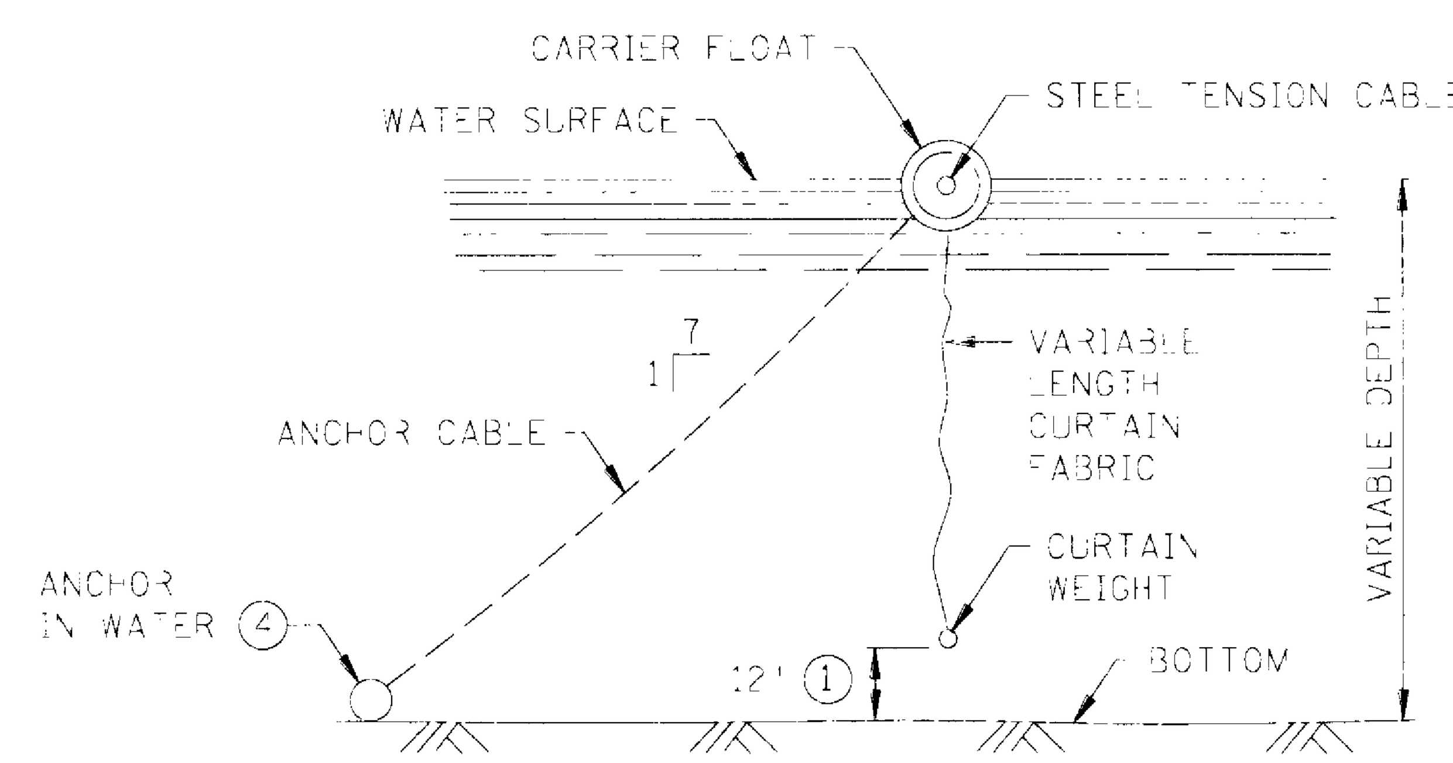


SECTION A-A

SEDIMENT MAT

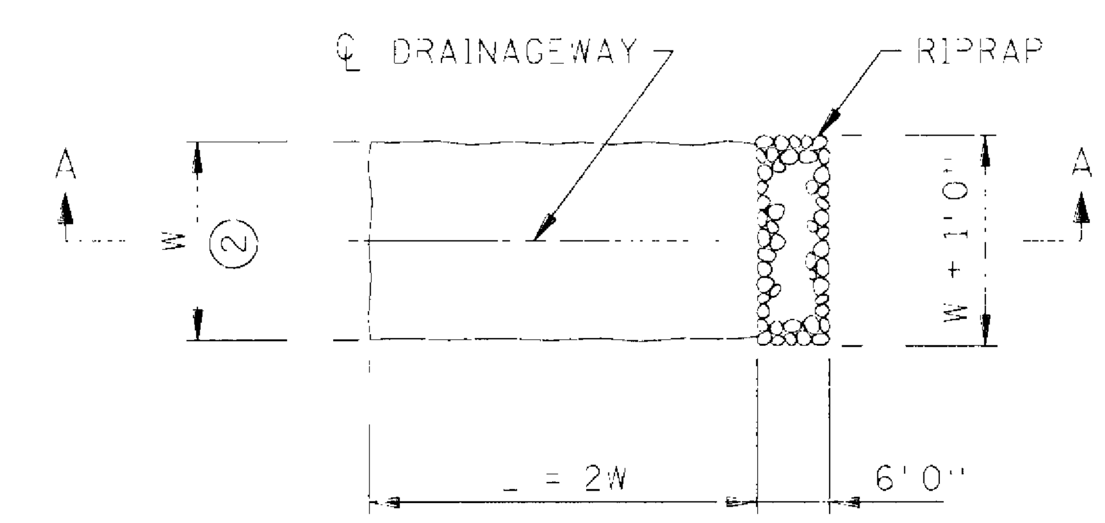
TYPICAL STREAMBED INSTALLATION

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

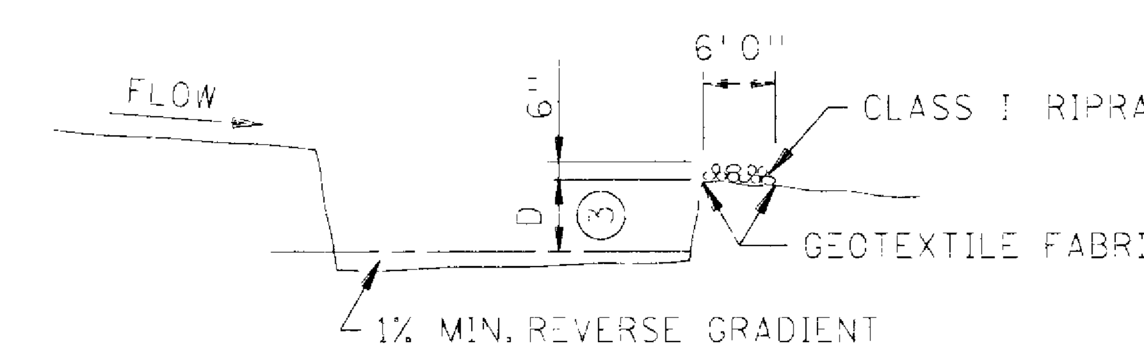


FLOTATION SILT CURTAIN DETAIL

(SEE SPEC. 3887)



PLAN



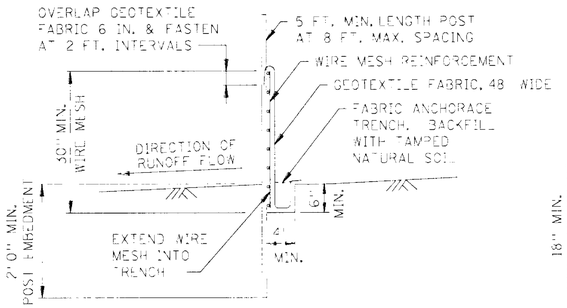
SECTION A-A

TEMPORARY SEDIMENT TRAP DETAIL

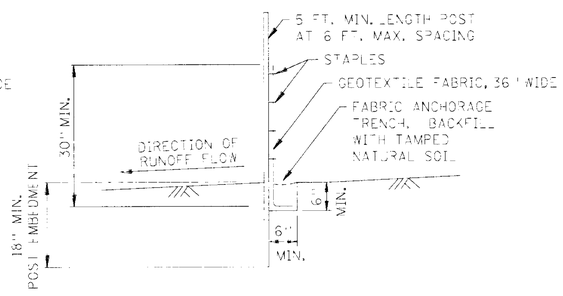
NOTES:
SEE SPECS. 2573, 3887 & 3894.
(1) CURTAIN 1 FT. FROM BOTTOM
(2) W = 10 FT. MIN., 20 FT. MAX.
(3) D = 2 FT.
(4) 100 FT. MAXIMUM SPACING BETWEEN ANCHORS, MINIMUM 40 LBS.

STANDARD SHEET NO. 5-297.405 (1 OF 4)	TITLE: TEMPORARY EROSION CONTROL
STANDARD APPROVED: SEPTEMBER 19, 2000	
STATE PROJ. NO. 02-611-28	SHEET NO. 29 OF 58 SHEETS

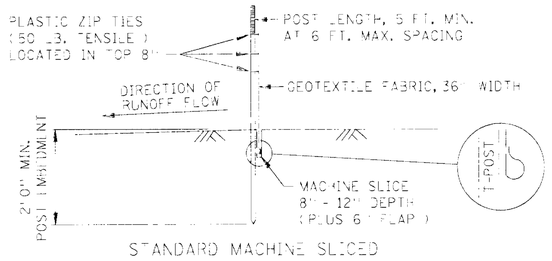
FILE NAME S405100.SPN
07/08/2002



HEAVY DUTY



PREASSEMBLED



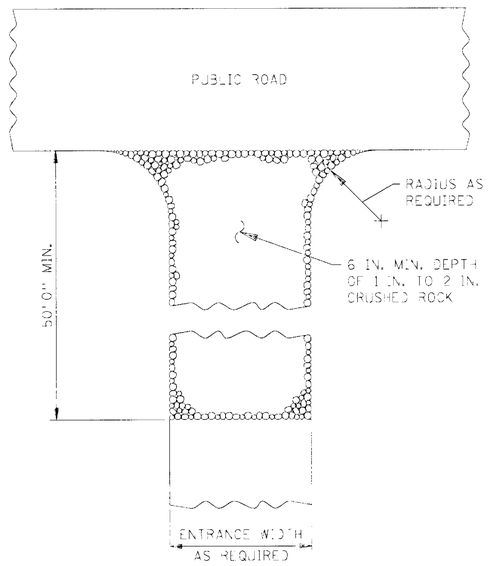
STANDARD MACHINE SLICED

SILT FENCE DETAILS

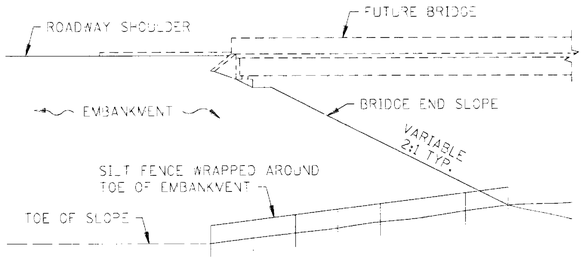
TO PROTECT AREAS FROM SHEET FLOW

(SEE SPEC. 3886)

DESIGN GUIDELINES:
MAXIMUM CONTRIBUTING AREA: 3 ACRES

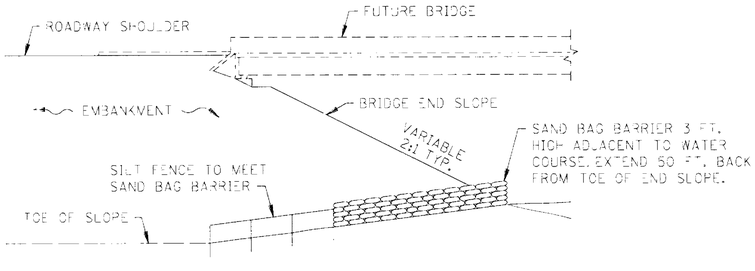


ROCK CONSTRUCTION ENTRANCE ⓘ



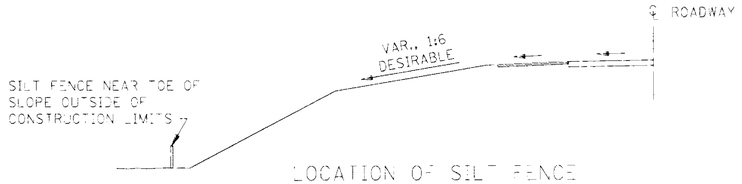
BRIDGE FILL

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

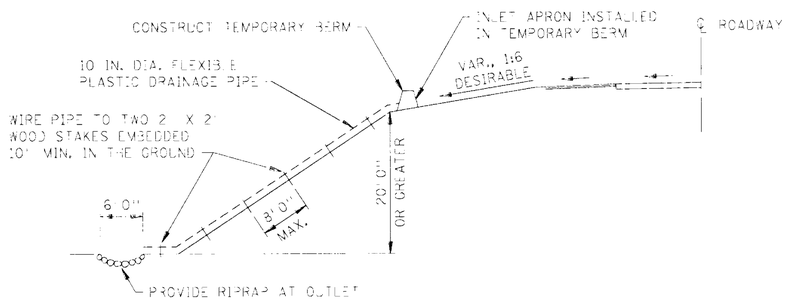


BRIDGE FILL

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

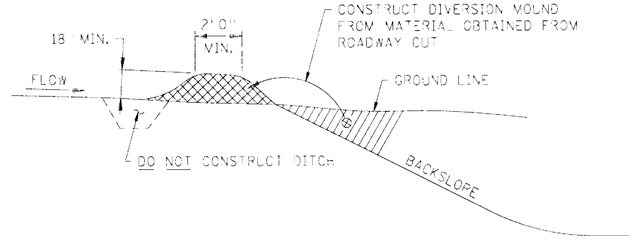


LOCATION OF SILT FENCE
AT TOE OF ROADWAY EMBANKMENT



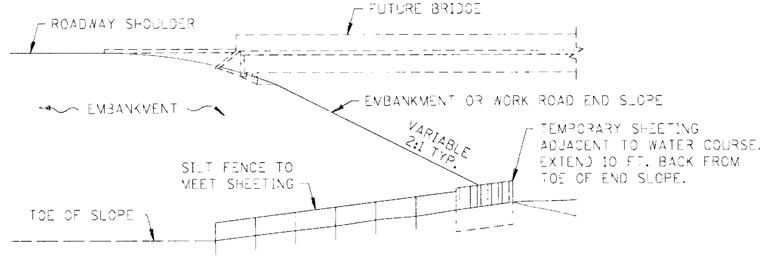
TEMPORARY DRAIN ON FILL SLOPE

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%



EMBANKMENT OR WORK ROAD FILL

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

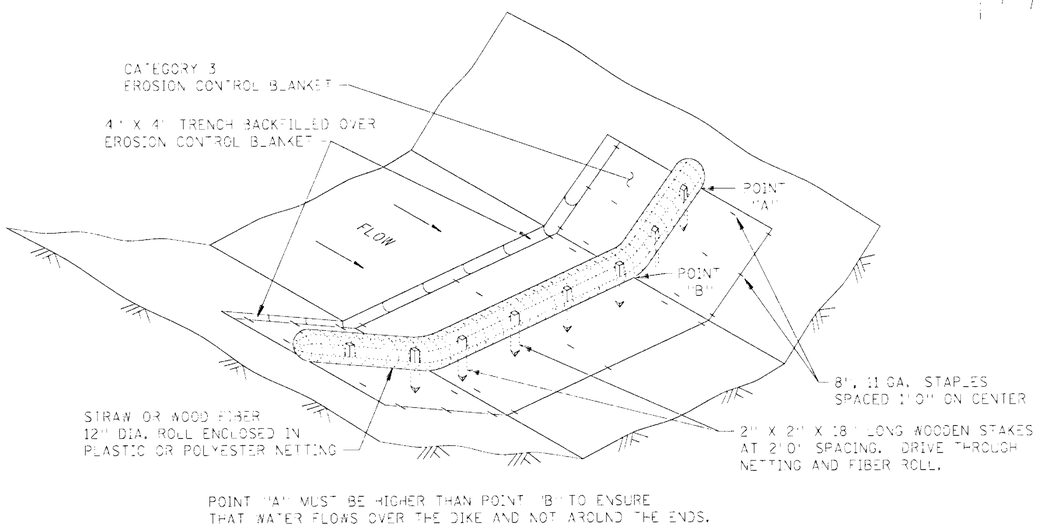
SILT FENCE AT BRIDGE EMBANKMENT

NOTES:
SEE SPECS. 2573 & 3886.

ⓘ 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.

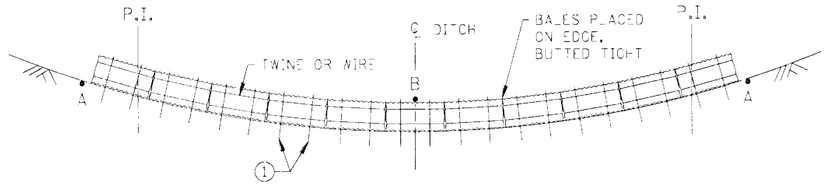
STANDARD SHEET NO. 5-297.405 (2 OF 4)	TITLE: TEMPORARY EROSION CONTROL
STANDARD APPROVED: SEPTEMBER 19, 2000	
STATE PROJ. NO. 02-611-28	SHEET NO. 30 OF 58 SHEETS

REVIEW DATE/USER: 07/08/2002
FILE NAME: S405x2100.SPN



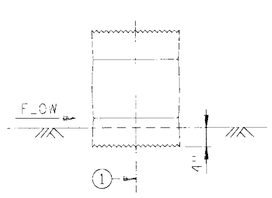
POINT "A" MUST BE HIGHER THAN POINT "B" TO ENSURE
THAT WATER FLOWS OVER THE DIKE AND NOT AROUND THE ENDS.

BIOROLL BLANKET SYSTEM DITCH CHECK

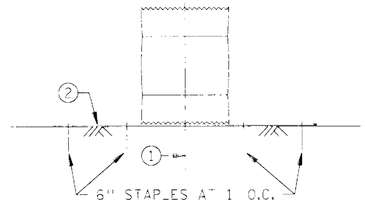


NOTE:
POINT A MUST BE HIGHER THAN POINT B

BALE DITCH SEDIMENT CHECK



EMBEDMENT METHOD

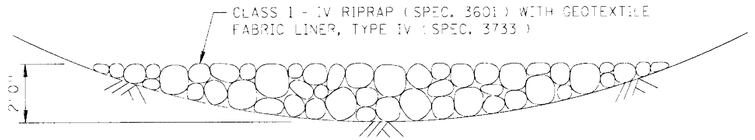


BLANKET METHOD

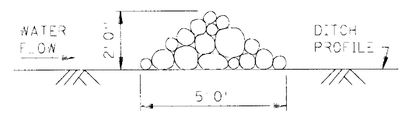
BALE CHECK DETAIL

DESIGN GUIDELINES:

	BALE	ROCK
STORM FREQUENCY:	2 YR. - 24 HR.	10 YR. - 24 HR.
MAX. FLOW VELOCITY:	5 FT./SEC.	12 FT./SEC.
MAX. DITCH GRADE:	5%	—
MAX. DRAINAGE AREA:	2 ACRES	5 ACRES

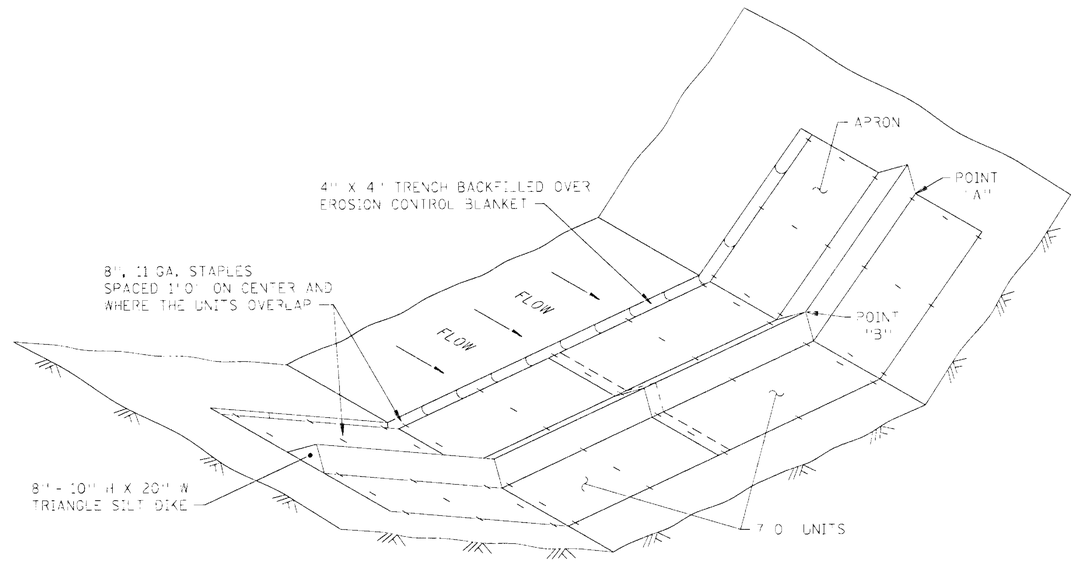


CROSS SECTION



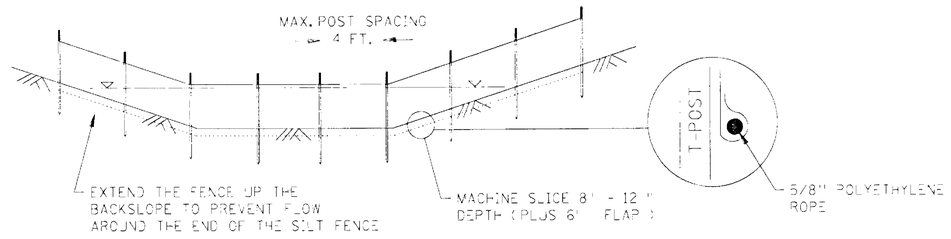
PROFILE VIEW

ROCK DITCH CHECK



POINT "A" MUST BE HIGHER THAN POINT "B" TO ENSURE
THAT WATER FLOWS OVER THE DIKE AND NOT AROUND THE ENDS.

GEOTEXTILE TRIANGULAR DIKE DITCH CHECK



SPACING DISTANCE = SILT FENCE HEIGHT / % CHANNEL SLOPE

DESIGN GUIDELINES	
STORM FREQUENCY	2 YR. - 24 HR.
MAX. DITCH GRADE	5%
MAX. DRAINAGE AREA	1 ACRE

NOTE:
WHEN SEDIMENT BUILD UP REACHES 1.5 FT.,
THE SILT SHOULD BE REMOVED OR A SECOND
SILT FENCE BUILT UPSTREAM FROM THE
EXISTING ONE AT A SUITABLE DISTANCE.

SILT FENCE DITCH CHECK, TYPE MACHINE SLICED

NOTES:

SEE SPECS. 2573, 3885, 3886 & 3889.

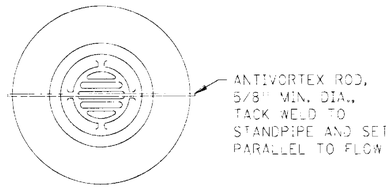
SPACING OF DITCH CHECKS IS DEPENDENT ON DRAINAGE AREA AND GRADES. SEE DISTRICT HYDRAULICS ENGINEER FOR RECOMMENDATIONS.

(1) TWO 2 IN. X 2 IN. WOOD STAKES OR REINFORCING BARS IN EACH BALE AND EMBEDDED IN THE GROUND 10 IN. MINIMUM.

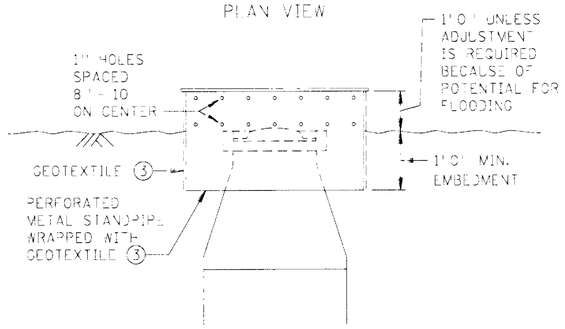
(2) PLACE A CATEGORY 3 EROSION CONTROL BLANKET, 6 FT. WIDE MINIMUM, UNDER THE BALE DITCH CHECK INSTEAD OF TRENCHING.

STANDARD SHEET NO.	TITLE:
5-297.405 (3 OF 4)	TEMPORARY EROSION CONTROL DITCH CHECKS
STANDARD APPROVED: SEPTEMBER 19, 2000	

STATE PROJ. NO. 02-611-28 SHEET NO. 31 OF 58 SHEETS



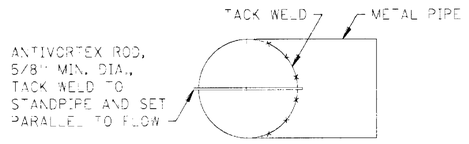
PLAN VIEW



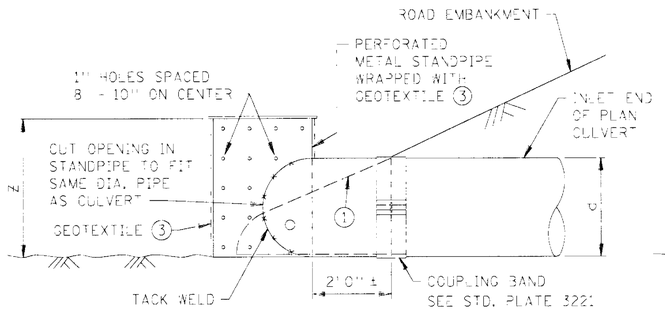
ELEVATION

TEMPORARY STANDPIPE
TO PROTECT DROP INLET
TYPE A SPEC. 3891

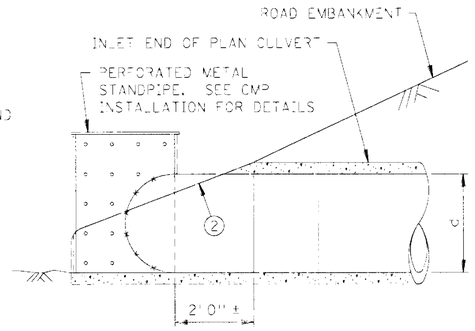
DESIGN GUIDELINES:
STORM FREQUENCY: 10 YEAR. - 24 HOUR.



PLAN VIEW



ELEVATION OF CMP INSTALLATION

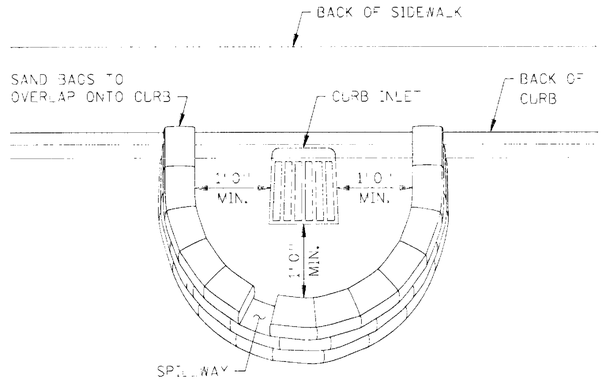


ELEVATION OF RCP INSTALLATION

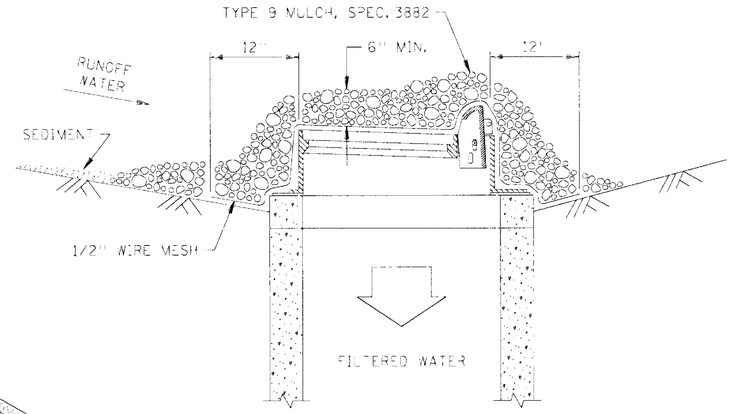
TEMPORARY STANDPIPE
FOR SEDIMENT CONTROL ON CULVERT INLET
TYPE D SPEC. 3891

d = DIA. OF STANDPIPE EQUAL TO DIA. OF PLAN CULVERT
Z = LENGTH OF PERFORATED STANDPIPE (d + 12")

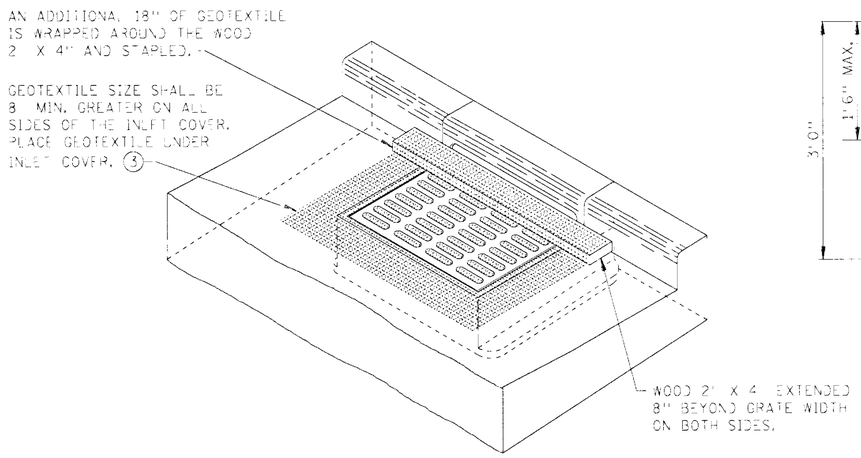
DESIGN GUIDELINES:
CULVERT SIZE: 12" - 36"
STORM FREQUENCY: 10 YR. - 24 HR.



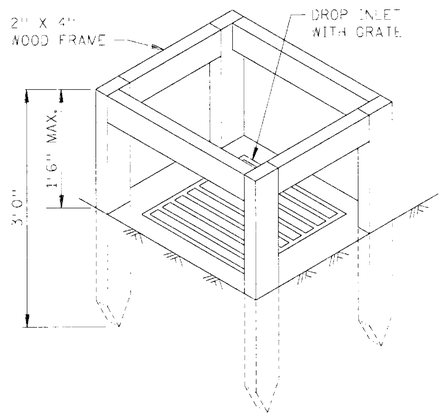
CURB INLET SAND BAG BARRIER
THIS INLET PROTECTION IS USED BEFORE THE ROAD IS PAVED
TYPE B OR C SPEC. 3891

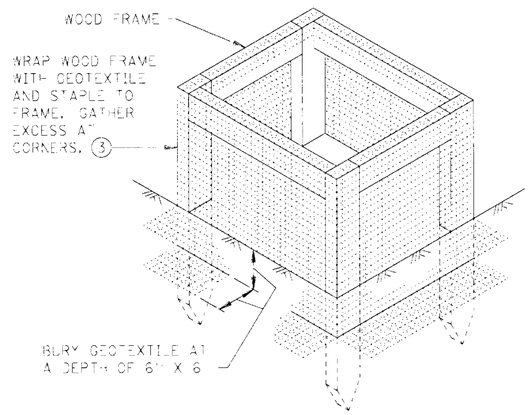


AGGREGATE FILTER AT CURB INLET
TYPE B OR C SPEC. 3891



SILT FENCE BOX TO PROTECT DROP INLETS
TYPE A 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.

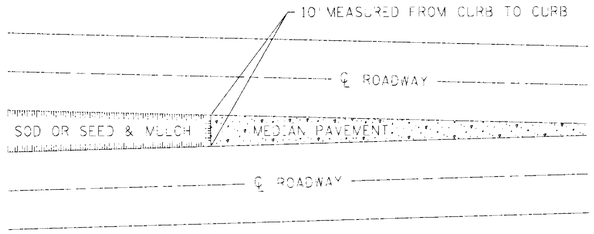
MANUFACTURED ALTERNATIVES LISTED ON MoDOT'S APPROVED PRODUCTS LIST MAY BE SUBSTITUTED.

(1) FOR CMP, REMOVE TEMPORARY STANDPIPE AND INSTALL CULVERT APRON AFTER VEGETATION IS ESTABLISHED.

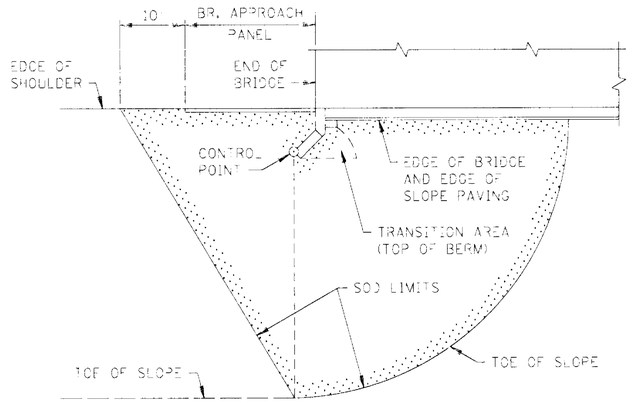
(2) FOR RCP, INSTALL CULVERT APRON AND SLIDE TEMPORARY STANDPIPE INTO RCP. AFTER VEGETATION IS ESTABLISHED REMOVE TEMPORARY STANDPIPE.

(3) ALL GEOTEXTILE USED FOR INLET PROTECTION SHALL BE MONO/MONO, MEETING SPEC. 3886 FOR MACHINE SLICED.

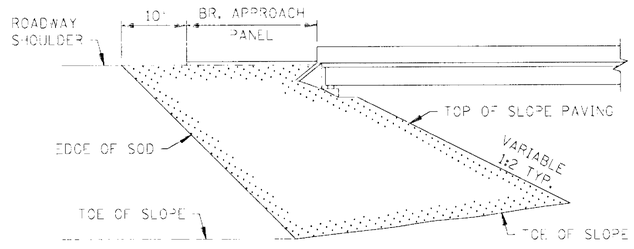
STANDARD SHEET NO. 5-297.405 (4 OF 4)	TITLE: TEMPORARY EROSION CONTROL TEMPORARY INLET PROTECTION
STANDARD APPROVED: SEPTEMBER 19, 2000	
STATE PROJ. NO. 02-611-28	SHEET NO. 32 OF 58 SHEETS



SODDING LIMITS AT GORE AREA

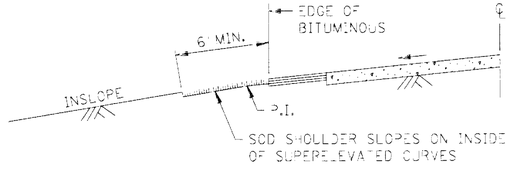


PLAN

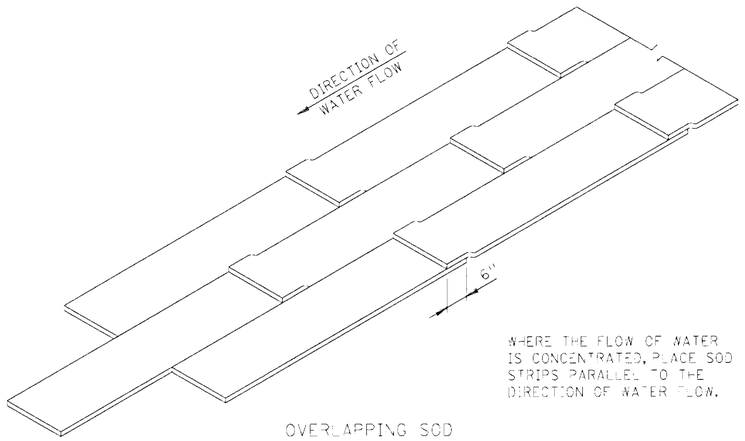


ELEVATION

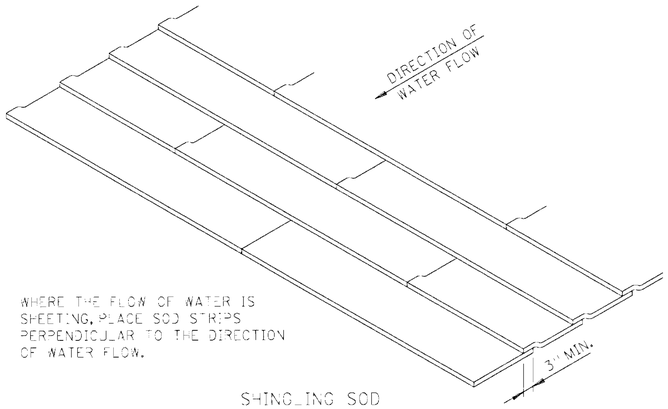
SODDING LIMITS AT BRIDGE APPROACH FILLS



SODDING INSLOPES OF SUPERELEVATED CURVES

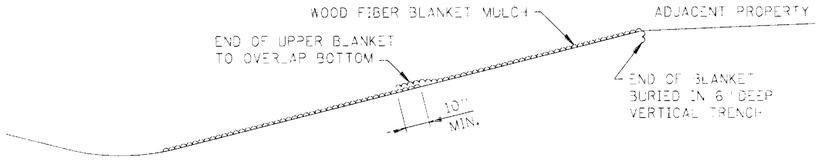


OVERLAPPING SOD



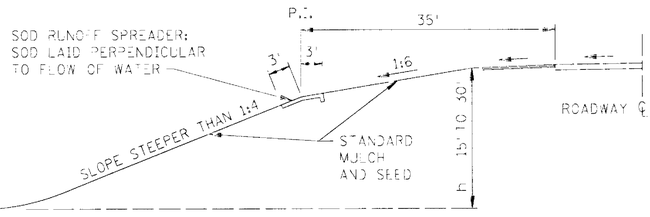
SHINGLING SOD

SPECIAL SOD PLACEMENT TECHNIQUES

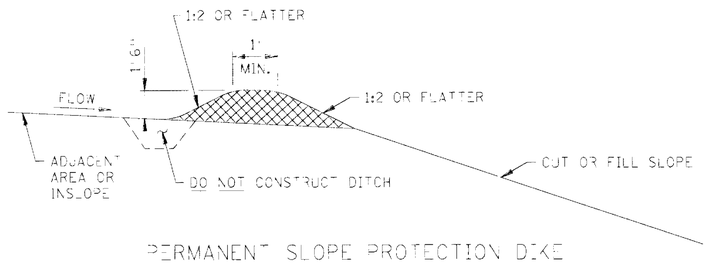


WOOD FIBER BLANKET INSTALLATION ON A CUT SLOPE

WOOD FIBER BLANKET INSTALLATION ON AN INSLOPE
(WHEN REQUIRED)

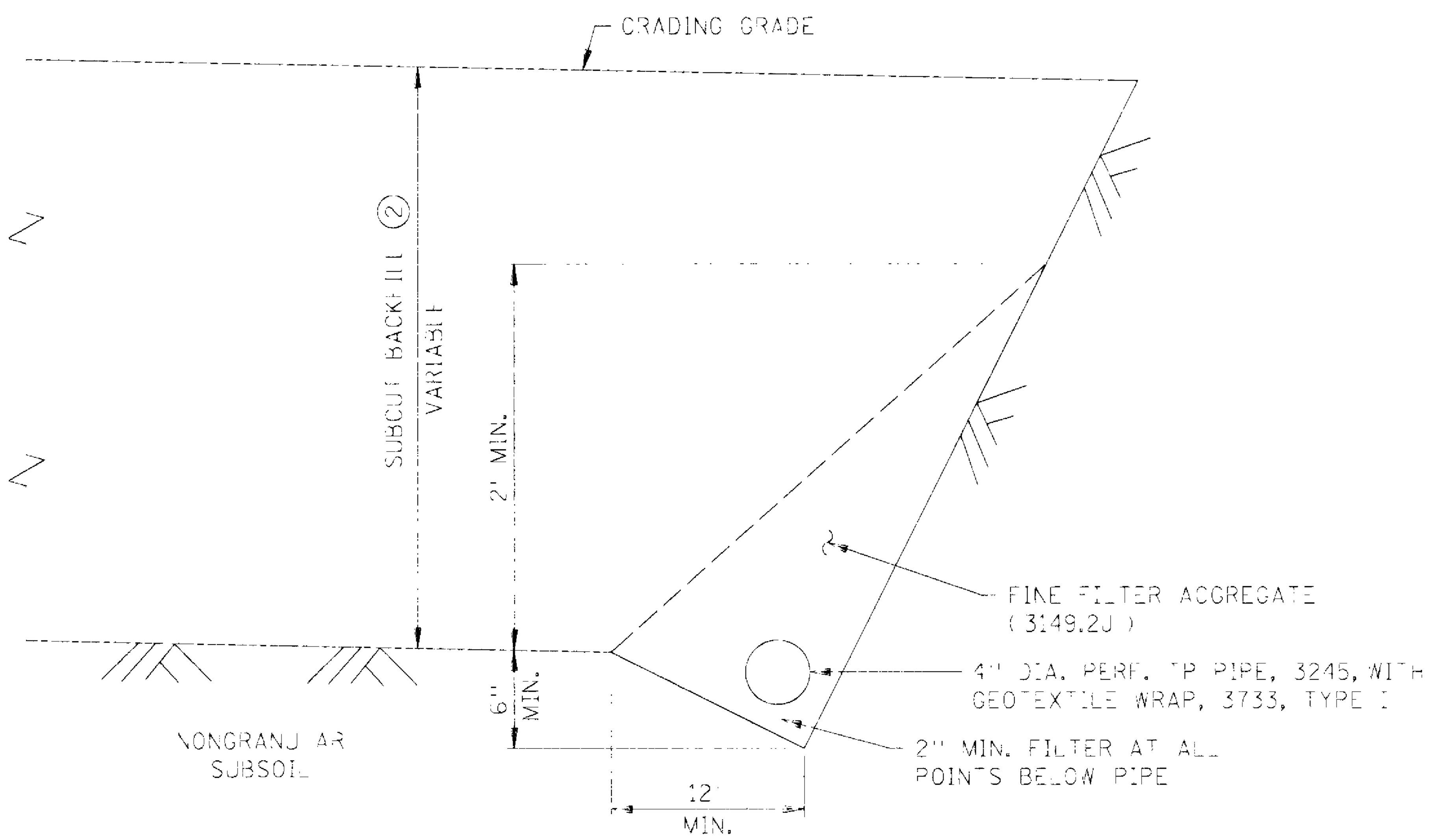


BROKEN-BACK SAFETY FILL SLOPE

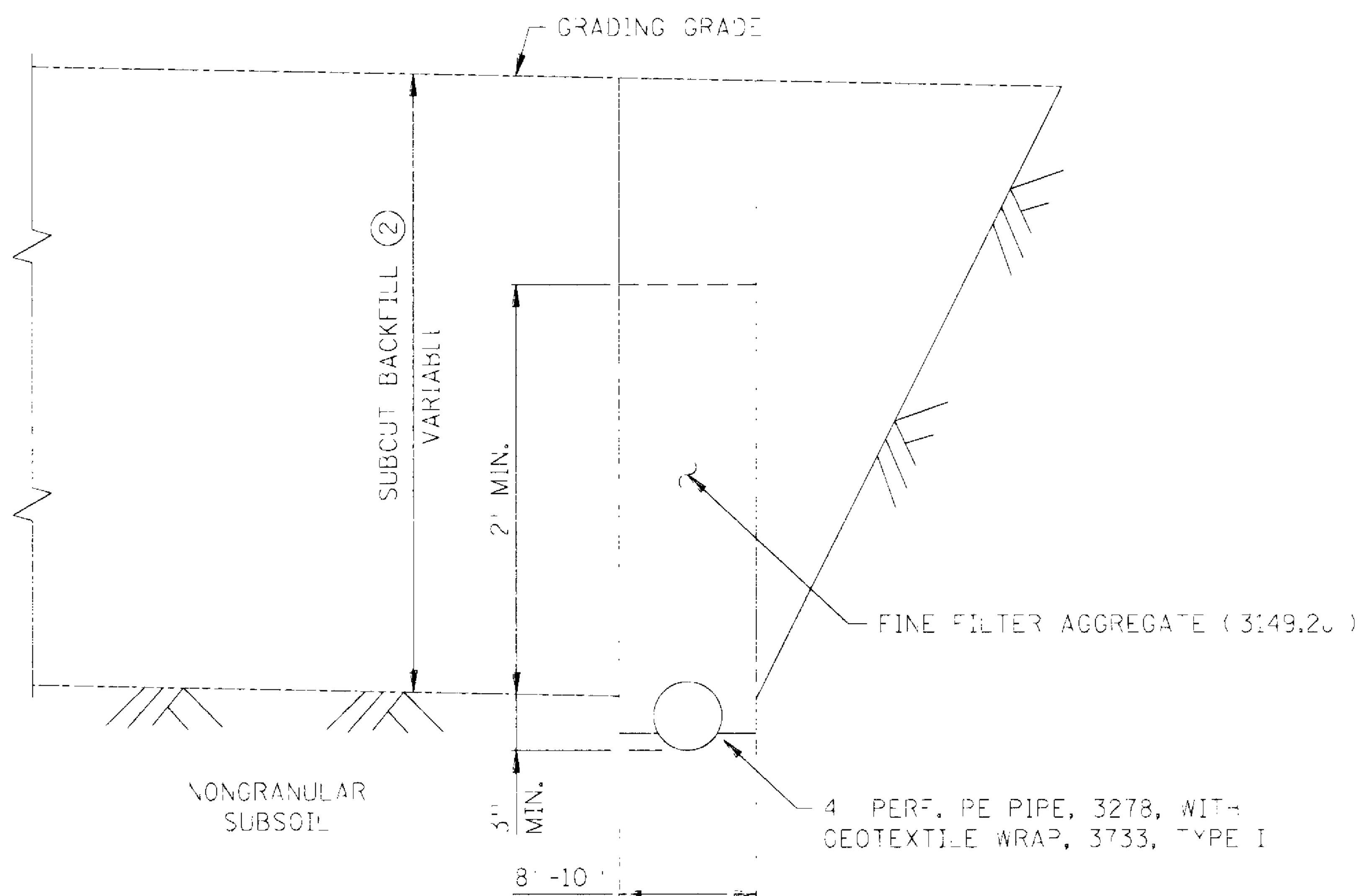


PERMANENT SLOPE PROTECTION DIKE

STANDARD SHEET NO. 5-297.406	TITLE: PERMANENT EROSION CONTROL ALONG ROADWAYS AND AT GORE AREAS & BRIDGE APPROACH FILLS
STANDARD APPROVED: JANUARY 31, 1985	
REVISION DATE 10-26-2000	STATE PROJ. NO. 02-611-28 SHEET NO. 33 OF 58 SHEETS



TYPICAL SECTION (OPTION NO. 1) ①



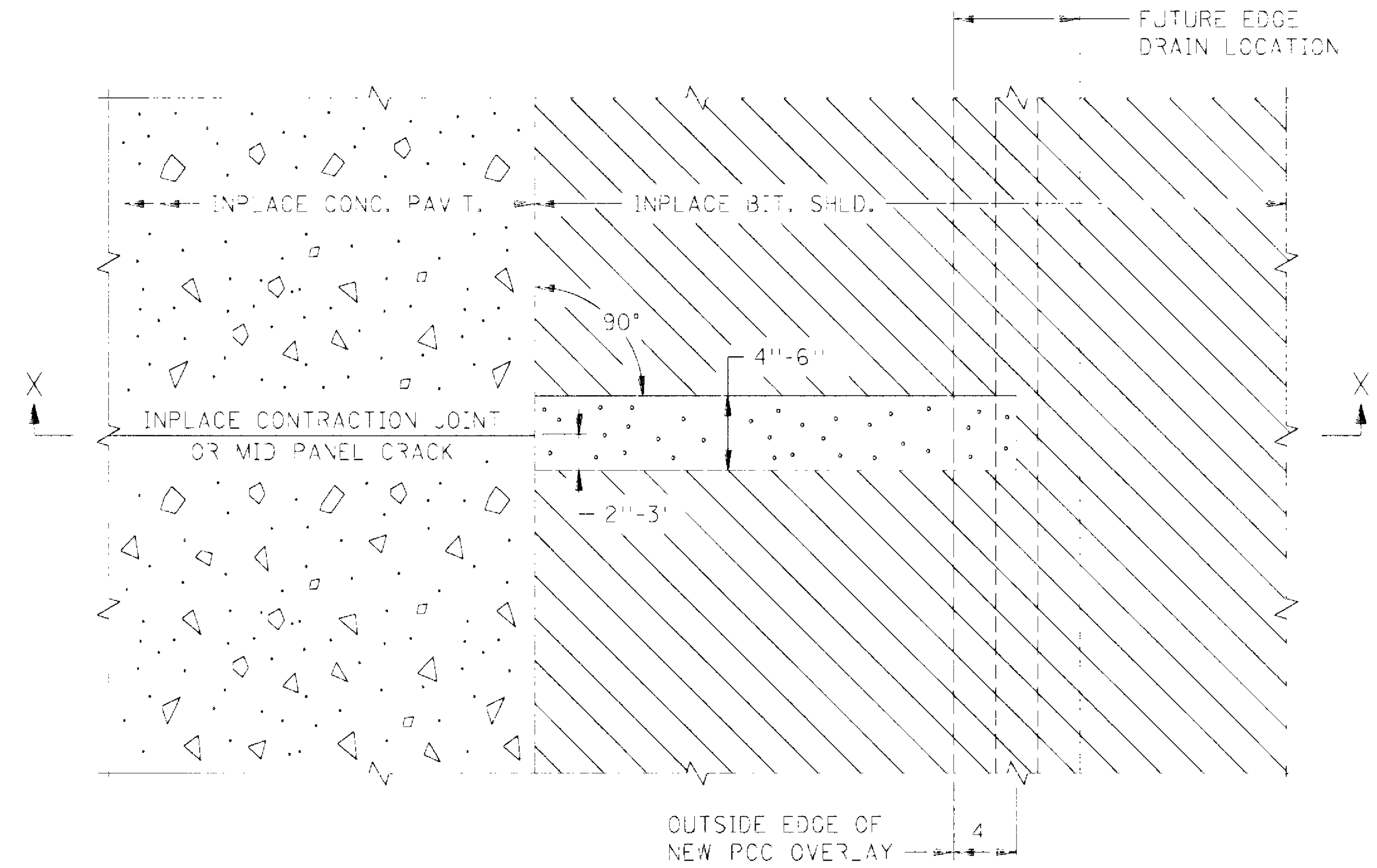
TYPICAL SECTION (OPTION NO. 2) ①

SUBSURFACE DRAIN, SUBCUT DRAIN TYPE

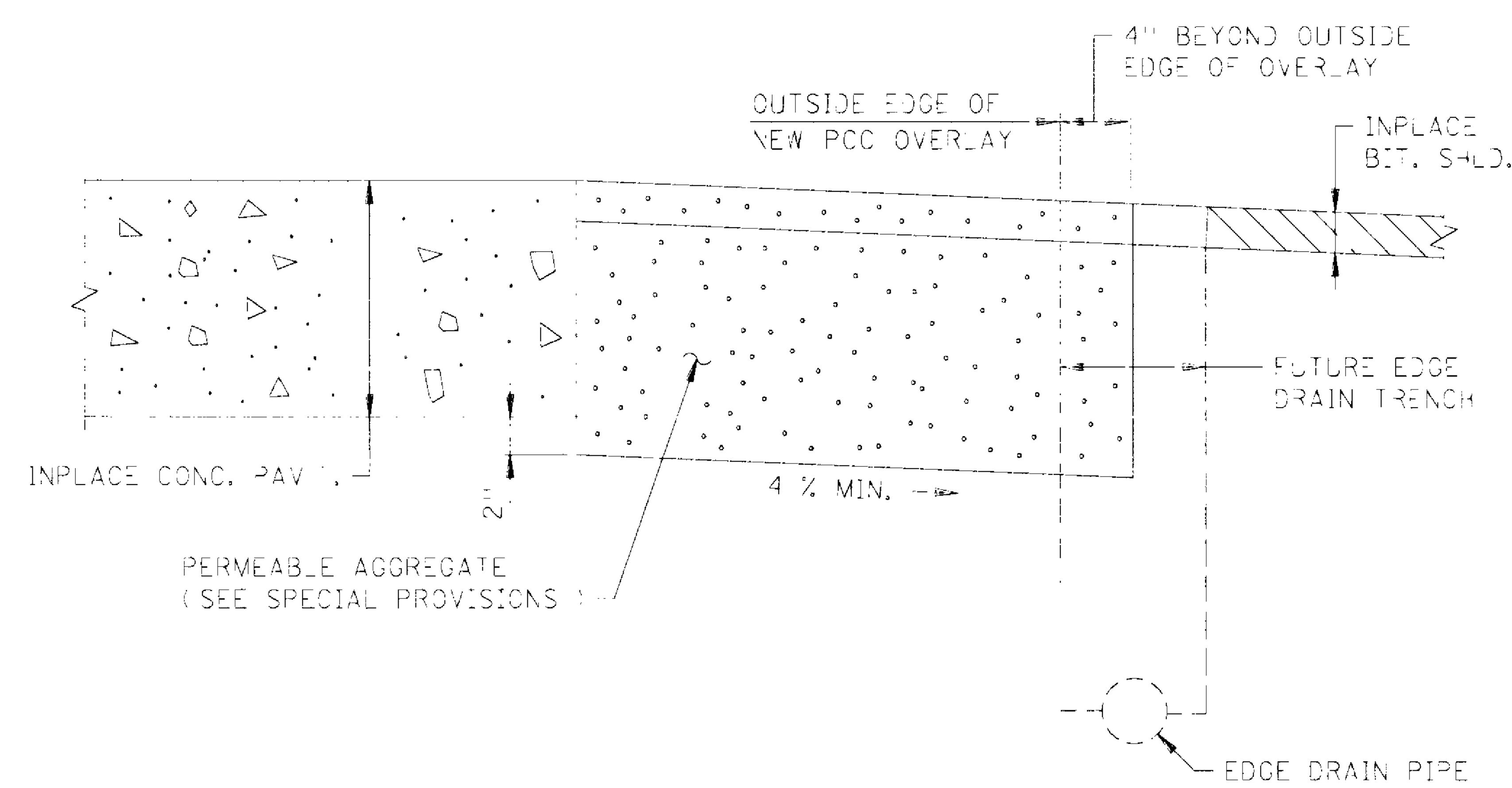
NOTES:

① MAY NEED TO BE MODIFIED FOR SPECIFIC PROJECTS. SEE SPECIAL PROVISIONS FOR MATERIAL AND CONSTRUCTION DETAILS. OPTION NO. 2 MAY ONLY BE USED WHEN PIPE IS TO BE PLACED BY MACHINE TRENCHER.

② GRANULAR, SELECT GRANULAR OR SELECT GRANULAR MODIFIED. (AS SHOWN IN DESIGN RECOMMENDATION LETTER).



PLAN VIEW



SECTION X-X

INTERCEPTOR DRAIN DETAIL ①

NOTE:

① SEE SPECIAL PROVISIONS FOR MATERIAL AND CONSTRUCTION DETAILS.

STANDARD SHEET NO. 5-297.430	TITLE: SUBSURFACE DRAINS
STANDARD APPROVED: FEBRUARY 25, 1997	

SPECIFIC NOTES:

(1) PAVEMENT MESSAGE (LEFT TURN ARROW) 8'-0" POLY-PREFORMED.

(2) CROSSWALKS SHALL BE ZEBRA STYLE POLY-PREFORMED.(SEE DETAIL)

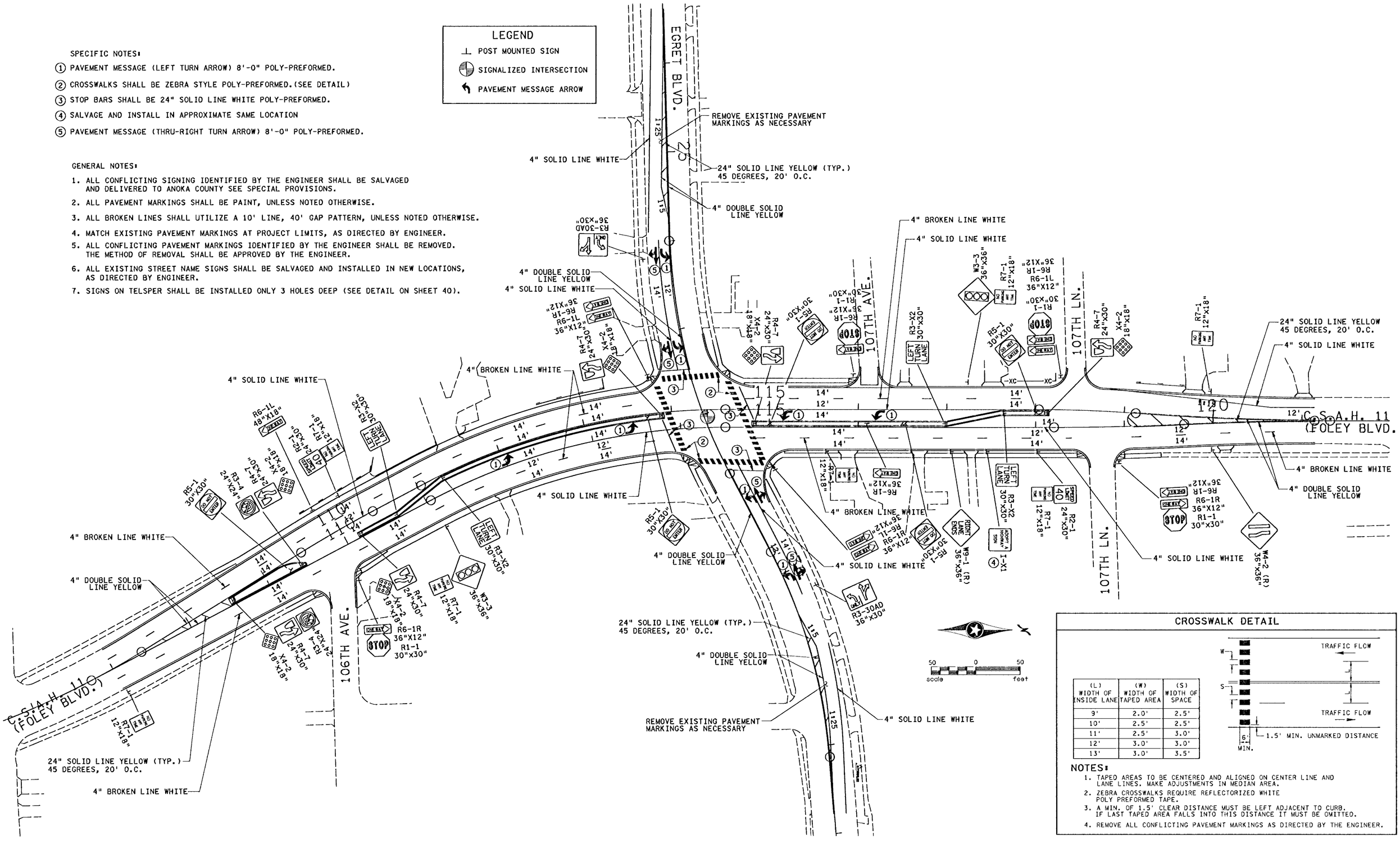
(3) STOP BARS SHALL BE 24" SOLID LINE WHITE POLY-PREFORMED.

(4) SALVAGE AND INSTALL IN APPROXIMATE SAME LOCATION

(5) PAVEMENT MESSAGE (THRU-RIGHT TURN ARROW) 8'-0" POLY-PREFORMED.

GENERAL NOTES:

1. ALL CONFLICTING SIGNING IDENTIFIED BY THE ENGINEER SHALL BE SALVAGED AND DELIVERED TO ANOKA COUNTY SEE SPECIAL PROVISIONS.
2. ALL PAVEMENT MARKINGS SHALL BE PAINT, UNLESS NOTED OTHERWISE.
3. ALL BROKEN LINES SHALL UTILIZE A 10' LINE, 40' GAP PATTERN, UNLESS NOTED OTHERWISE.
4. MATCH EXISTING PAVEMENT MARKINGS AT PROJECT LIMITS, AS DIRECTED BY ENGINEER.
5. ALL CONFLICTING PAVEMENT MARKINGS IDENTIFIED BY THE ENGINEER SHALL BE REMOVED. THE METHOD OF REMOVAL SHALL BE APPROVED BY THE ENGINEER.
6. ALL EXISTING STREET NAME SIGNS SHALL BE SALVAGED AND INSTALLED IN NEW LOCATIONS, AS DIRECTED BY ENGINEER.
7. SIGNS ON TELSPER SHALL BE INSTALLED ONLY 3 HOLES DEEP (SEE DETAIL ON SHEET 40).



CROSSWALK DETAIL

(L) WIDTH OF INSIDE LANE	(W) WIDTH OF TAPED 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. TAPED AREAS TO BE CENTERED AND ALIGNED ON CENTER LINE AND LANE LINES. MAKE ADJUSTMENTS IN MEDIAN AREA.
2. ZEBRA CROSSWALKS REQUIRE REFLECTORIZED WHITE POLY PREFORMED TAPE.
3. A MIN. OF 1.5' CLEAR DISTANCE MUST BE LEFT ADJACENT TO CURB. IF LAST TAPED AREA FALLS INTO THIS DISTANCE IT MUST BE OMITTED.
4. REMOVE ALL CONFLICTING PAVEMENT MARKINGS AS DIRECTED BY THE ENGINEER.

NO	DATE	BY	CKD	APPR	REVISION
1	6-6-02	MAB	MDH	MDH	ADDED SIGNS AND PAVEMENT MARKINGS

NAME: 3212.SPA DATE: Jun. 10, 2002 TIME: 14:43:13

I hereby certify that this plan, specification, or report was prepared by me or under my direct supervision and that I am a duly Licensed Professional Engineer under the laws of the State of Minnesota.

Print Name: JONATHAN J. KRIEG

Jonathan J. Krieg

Date 6-10-02 License # 40780

STATE AID PROJECT NO. S.P. 02-611-28

CITY PROJECT NO.

		DATE
DRAWN BY	M.BRESSLER	05-01
DESIGNED BY	M.BRESSLER	05-01
CHECKED BY	G.STUEMPFIG	05-01
COMM. NO.	0983212	

SRF CONSULTING GROUP, INC.

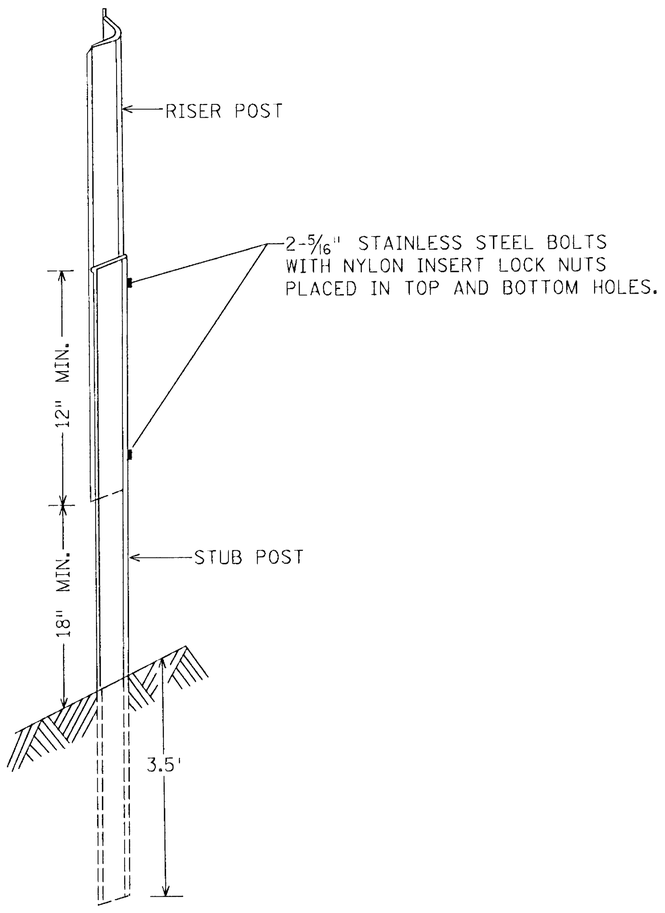
ANOKA COUNTY

SIGNING & STRIPING PLAN

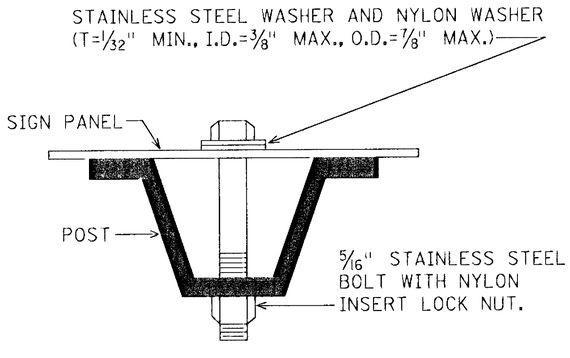
C.S.A.H. 11 (FOLEY BLVD.)

SHEET 35 OF 58

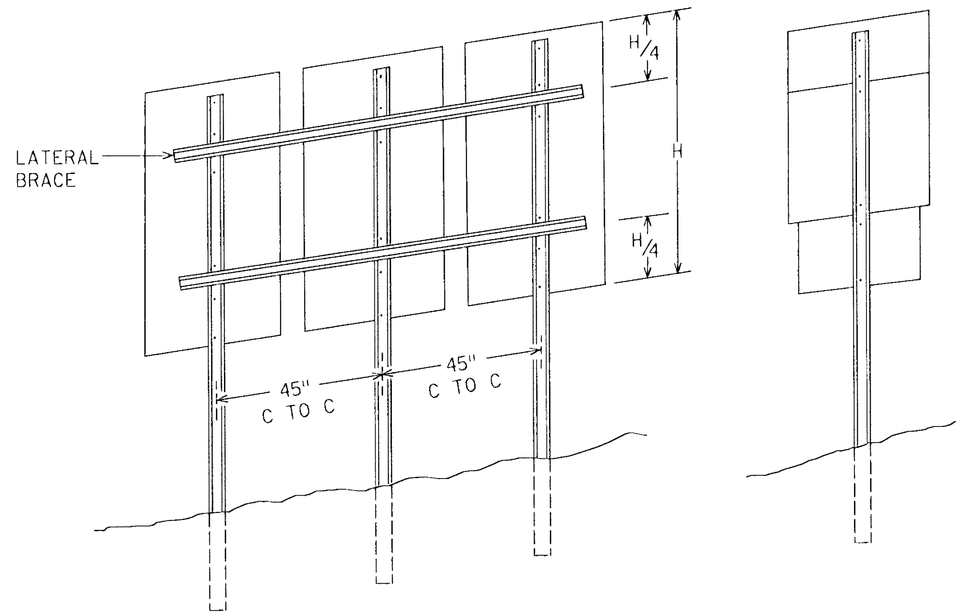
TYPE "C" & "D" POST



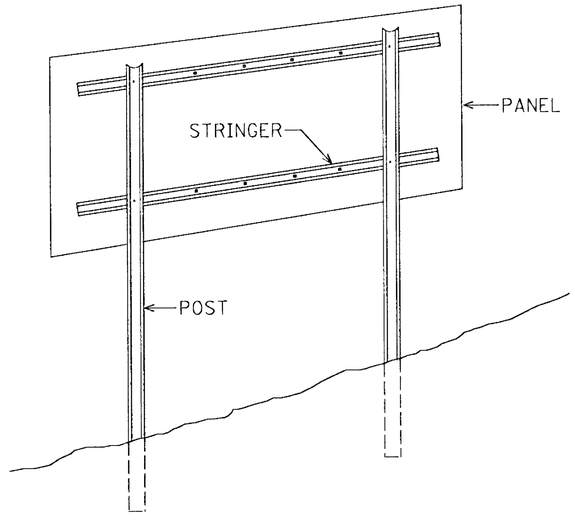
"U POST" SPLICE



"U POST" MOUNTING
TYPE "C" SIGNS



TYPICAL TYPE "C" INSTALLATIONS



TYPICAL TYPE "D" INSTALLATION

NOTES:

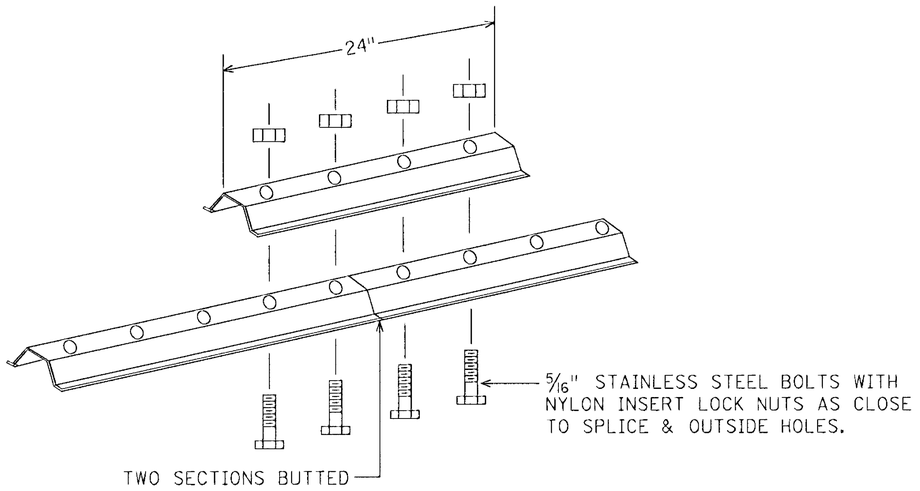
1. USE 3# STUB POSTS, RISER POSTS, STRINGERS, KNEE BRACES, LATERAL BRACES AND KNEE BRACE STUB POSTS. ALL SHALL CONFORM TO MN/DOT 3401.
2. FOR TYPE "D" SIGN POSTS LENGTHS AND SPACINGS, SEE SIGN DATA SHEET.
3. TYPE "D" SIGN PANELS SHALL BE BOLTED TO STRINGERS AT 24" MAXIMUM INTERVALS IN ACCORDANCE WITH 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 3352.2A7.
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

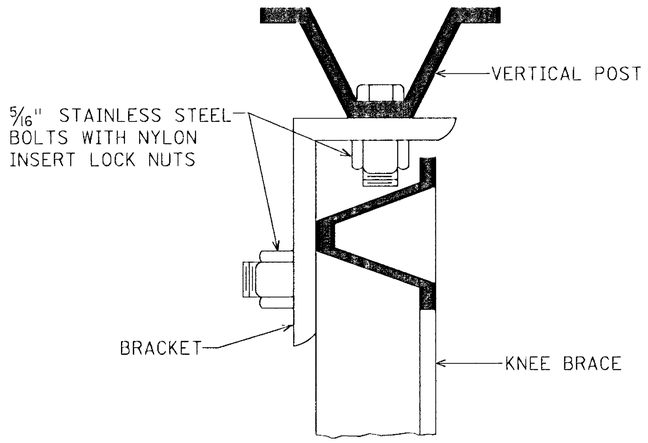
Sheet 1 of 3

Revised 6-18-99

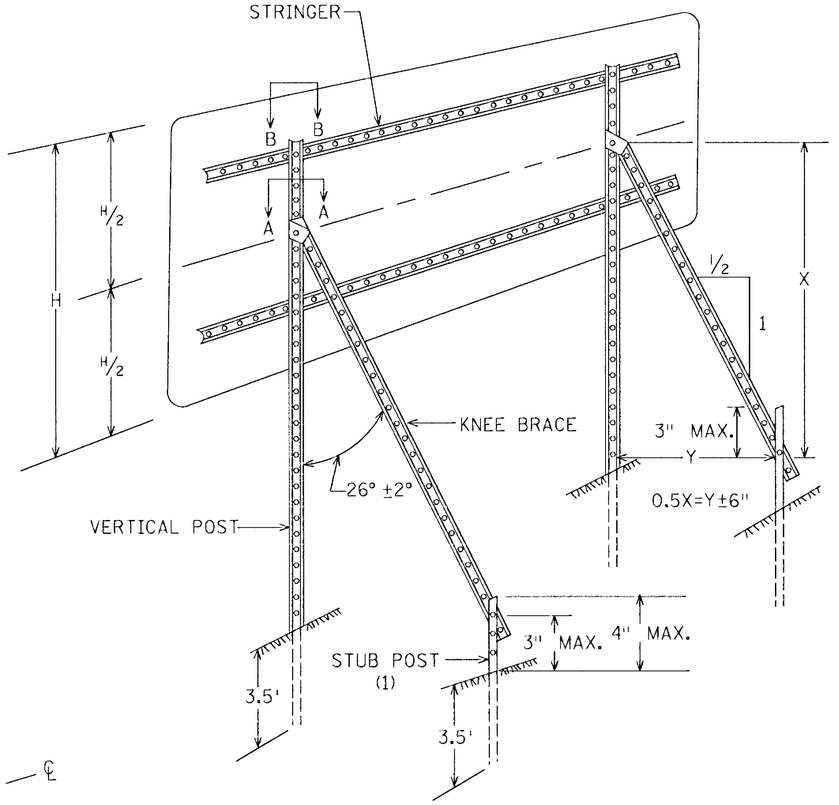
State Proj. No. S.P. 02-611-28 Sheet No. 36 of 58 Sheets



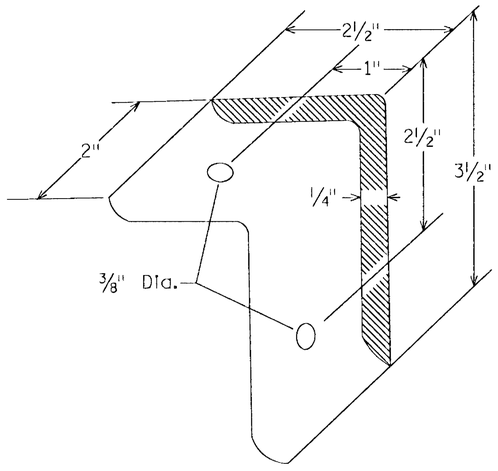
LATERAL BRACE OR STRINGER SPLICE DETAIL (EXPLODED VIEW)



SECTION A-A

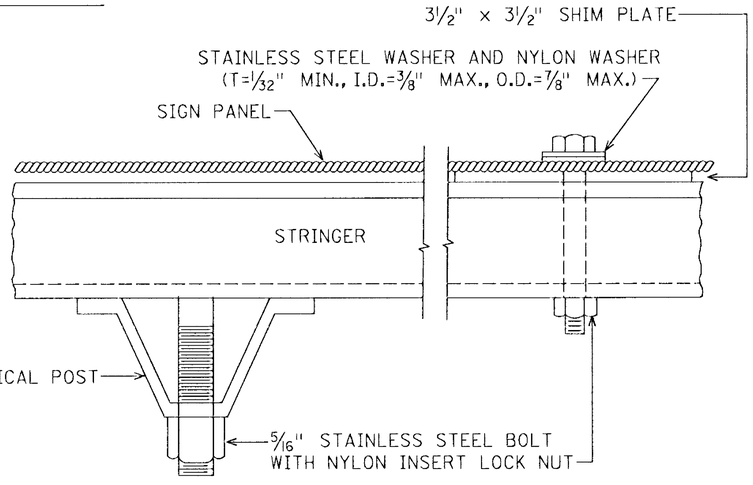


TYPICAL "A-FRAME" INSTALLATION TYPE "D" SIGNS

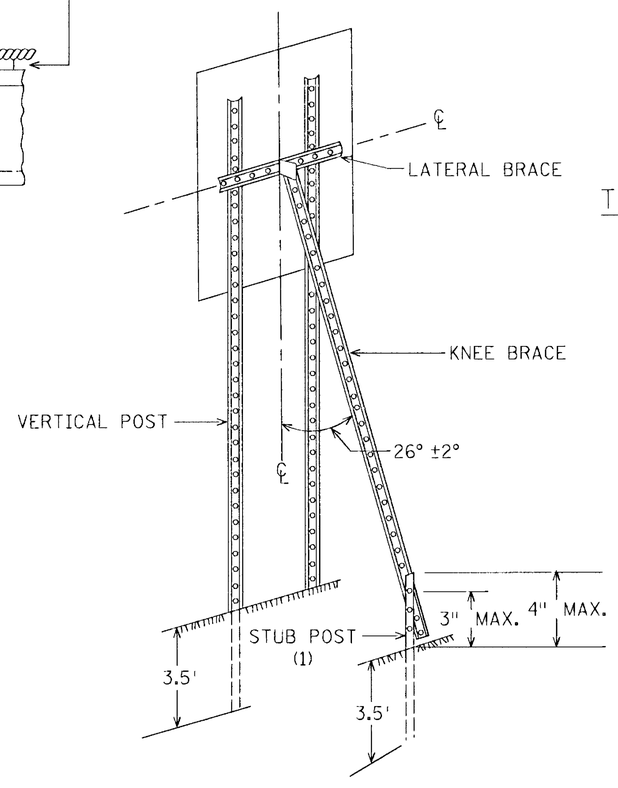


A-FRAME BRACKET

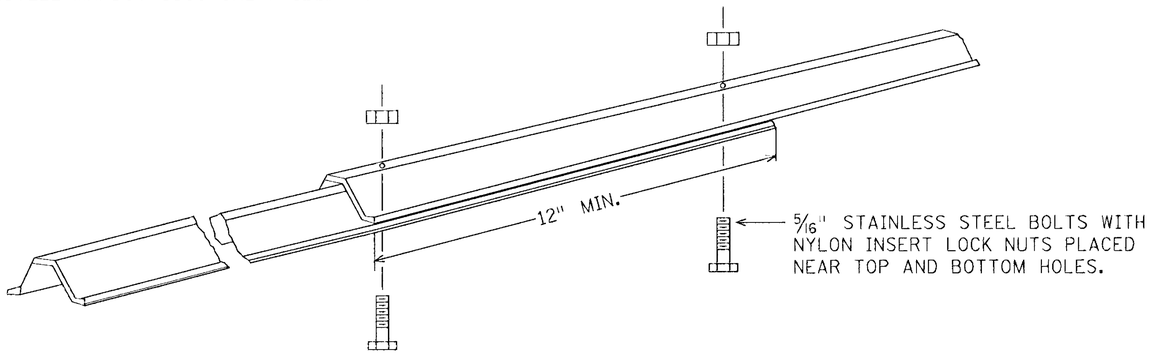
(STEEL MN/DOT 3306 GALVANIZED PER MN/DOT 3394)



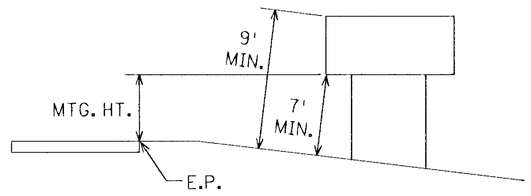
SECTION B-B



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



KNEE BRACE SPLICE



TYPICAL MOUNTING

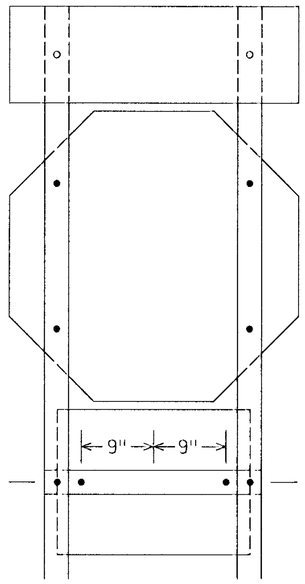
(1) OFFSET STUB POST 1' TOWARD ROADWAY RELATIVE TO VERTICAL POST.

TYPE C & D SIGN STRUCTURAL DETAILS

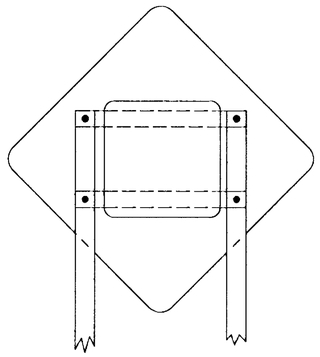
Sheet 2 of 3

CDDSIGNSTR C02 6-1646

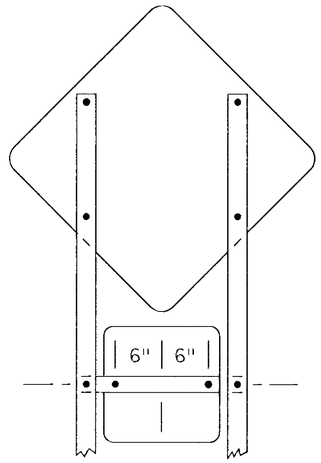
Revised 6-18-99



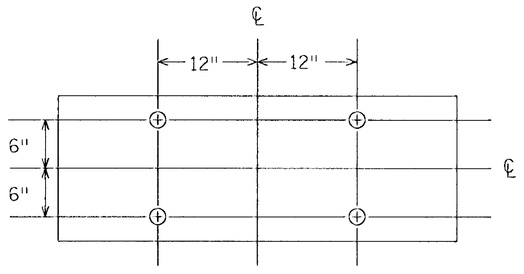
R6-1, R1-1 & (R6-3 OR R6-3a)
MOUNTING



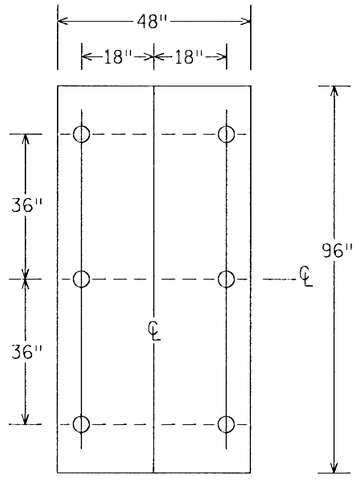
BACK TO BACK MOUNTING
OF R4-7 AND W9-2



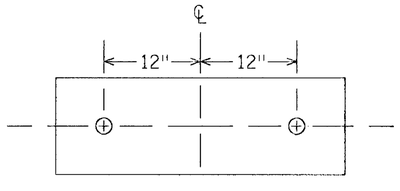
(W1-1, W1-2, W1-3, W1-4 OR W1-5) & W13-1
MOUNTING



PUNCHING FOR R6-1(48"x18")



PUNCHING FOR R2-4a
SPEED LIMIT



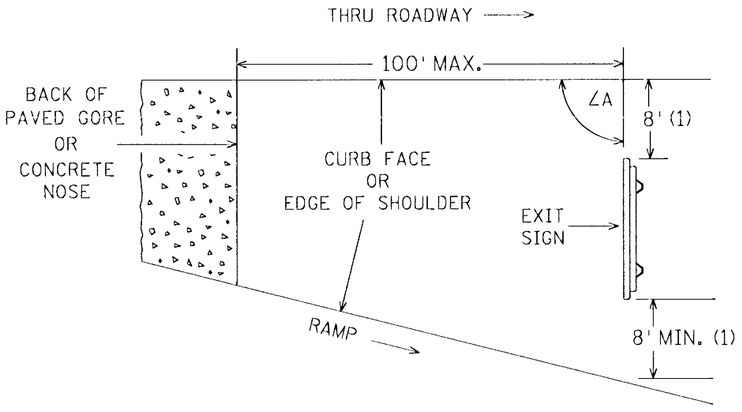
PUNCHING FOR R6-1(36"x12")

TYPE C & D SIGN
STRUCTURAL DETAILS

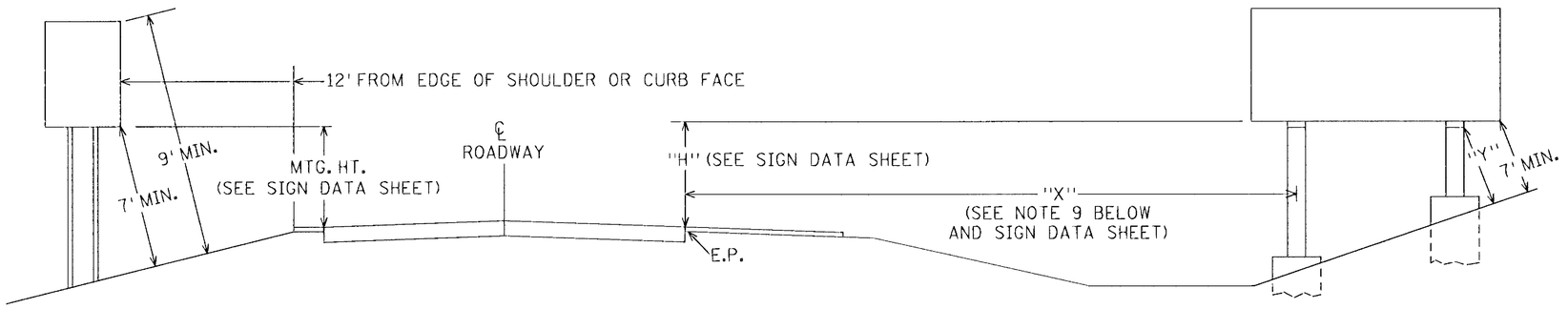
Sheet 3 of 3

Revised 6-18-99

GORE PLACEMENT

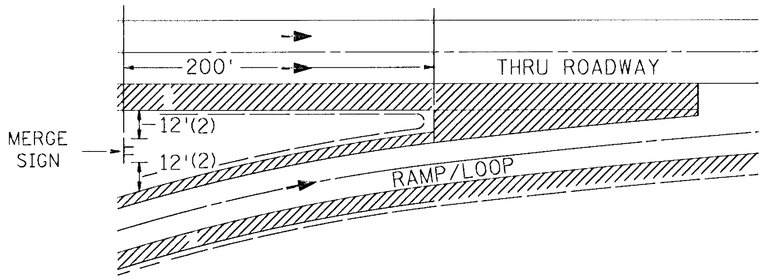


ROADSIDE PLACEMENT



MAJOR GUIDE SIGN - TYPE "A"

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



SPECIFIC NOTES:

(1) EXIT SIGNS

IF THESE OFFSETS CANNOT BE ATTAINED WITHIN 100 FEET OF THE PAVED GORE, A 4 FOOT OFFSET IS ACCEPTABLE. IF THE 4 FOOT OFFSETS CANNOT BE ATTAINED WITHIN 100 FEET OF THE PAVED GORE, CONTACT THE OTE SIGNING UNIT.

IF THE GORE NEEDS TO BE DELINEATED, INSTALL A HAZARD MARKER PLATE X4-2 JUST BEYOND THE PAVED GORE. IN ADDITION, INSTALL RAMP DELINEATORS ON SEPARATE POSTS TO MAINTAIN THEIR PROPER LOCATIONS AND SPACINGS.

(2) MERGE SIGNS

IF THESE OFFSETS CANNOT BE ATTAINED WITHIN 200 FEET OF THE PAVED GORE, A 4 FOOT OFFSET IS ACCEPTABLE, UNLESS THE SIGN IS TO BE MOUNTED ON A LIGHT POLE STANDARD (MINIMUM 2 FOOT OFFSET) LOCATED WITHIN 200 FEET OF THE PAVED GORE. IF THE 4 FOOT OFFSETS CANNOT BE ATTAINED WITHIN 200 FEET OF THE PAVED GORE, CONTACT THE OTE SIGNING UNIT.

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, ∠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.
6. "Y" IS THE PERPENDICULAR DISTANCE FROM THE GROUND LINE TO THE FRICTION FUSE ON THE POST. THIS DISTANCE SHALL BE AT LEAST 7'.
7. WHERE "X" IS LESS THAN 30', "H" SHALL, BE 7' ±6". WHERE "X" IS 30' OR GREATER, MINIMUM AND PREFERRED "H" IS 5'.
8. LATERAL CLEARANCES GIVEN APPLY TO RIGHT AND OR LEFT SIDE INSTALLATION.
9. WHEN A TYPE A SIGN IS INSTALLED DIRECTLY BEHIND TRAFFIC BARRIER, THE LEFT EDGE OF THE SIGN PANEL SHALL BE LOCATED A MINIMUM OF 4 FEET BEHIND THE FACE OF THE TRAFFIC BARRIER.

SIGN PLACEMENT

POSTSIK.STD SP 8-25-98

Revised 8-25-98

(I) TYPE "C" SIGNS

QUANTITY	POSTS NO. & TYPE	POSTS KNEE BRACES QUANT.	POSTS LENGTH	MOUNTING HEIGHT. (LF)	PANEL SIZE (IN)	PANEL AREA (SF)	PANEL TOTAL AREA (SF)	CODE NO.	PANEL LEGEND
4	2 - U	1	17	7	30 X 30	6.25	25.00	R1 - 1	STOP
1	2 - U			10	36 X 12	3.00	3.00	R6-1L	ONE WAY
5	2 - U			10	36 X 12	3.00	15.00	R6-1R	ONE WAY
2	2 - U	-	13	7	24 X 30	5.00	10.00	R2 - 1	SPEED LIMIT
2		-		4	12 X 18	1.50	3.00	R7 - 1	NO PARKING ANY TIME
4	2 - U	-	13	7	30 X 30	6.25	25.00	R3 - X2	LEFT TURN LANE
6	2 - U	-	13	7	24 X 30	5.00	30.00	R4 - 7	KEEP RIGHT
6				4	18 X 18		(A)	X4-2	HAZARD MARKER
5	2 - U	-	13	7	30 X 30	6.25	31.25	R5-1	DO NOT ENTER
1	2 - U	1	12	7	48 X 18	6.00	6.00	R6-1L	ONE WAY
2	2 - U	1	12	7	36 X 12	3.00	6.00	R6-1L	ONE WAY
3	2 - U	1	12	7	36 X 12	3.00	9.00	R6-1R	ONE WAY
3	1 - U	-	13	7	12 X 18	1.50	4.50	R7 - 1	NO PARKING ANY TIME
2	2 - U	1	13	7	48 X 30	10.00	20.00	R3 - 30AD	LANE-USE CONTROL
2	2 - U	1	16	7	36 X 36	9.00	18.00	W3 - 3	SIGNAL
2		-		4	12 X 18	1.50	3.00	R7 - 1	NO PARKING ANY TIME
1	2 - U	1	14	7	36 X 36	9.00	9.00	W4 - 2R	LANE REDUCTION TRANSITION
1	2 - U	1	14	7	36 X 36	9.00	9.00	W9 - 1R	RIGHT LANE ENDS
2	2 - U			7	24 X 24	4.00	8.00	R3-4	U-TURN PROHIBITION SIGN
PROJECT TOTAL:							226.75		

typcsign.xls

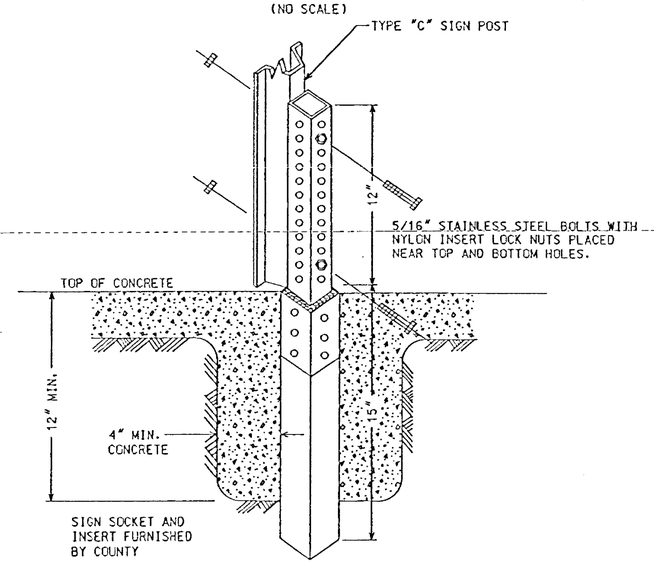
NOTES:
POST LENGTHS ARE APPROXIMATE AND INCLUDE EMBEDMENT, BUT DO NOT INCLUDE ADDITIONAL LENGTH REQUIRED FOR SPLICES.
SEE STANDARD PLAN SHEETS FOR STRUCTURAL DETAILS.
SEE STANDARD SIGNS MANUAL FOR PUNCHING CODE AND DETAILED DRAWINGS OF TYPE "C" SIGN PANELS.
MOUNTING HEIGHT IS MINIMUM, SEE STANDARD PLAN SHEETS FOR TYPICAL MOUNTING.
FOR PUNCHING AND MOUNTING DETAILS, SEE STANDARD PLAN SHEETS.
(A) PAID FOR UNDER SEPARATE ITEM.

(J) PAVEMENT MARKINGS

ALIGNMENT	POLY PREFORMED TAPE PAVEMENT MESSAGE LEFT ONLY (EACH)	POLY PREFORMED TAPE PAVEMENT MESSAGE THRU / RIGHT (EACH)	POLY PREFORMED TAPE STOP LINE 24 INCH WHITE (LF)	POLY PREFORMED TAPE CROSS WALK MARKING (SF)	PAINT SOLID LINE 4 INCH WHITE (LF)	PAINT SOLID LINE 24 INCH YELLOW (LF)	PAINT BROKEN LINE 4 INCH WHITE (LF)	PAINT DOUBLE SOLID LINE 4 INCH YELLOW (LF)
S.B. C.S.A.H. 11 (STA 107+00 TO 109+20)							100	350
S.B. C.S.A.H. 11 (STA 109+20 TO 113+50)					100		180	
S.B. C.S.A.H. 11 (STA 113+50 TO 117+90)	2		40	300	440		100	
S.B. C.S.A.H. 11 (STA 117+90 TO 121+14)					440		40	420
N.B. C.S.A.H. 11 (STA 107+00 TO 109+20)						80	100	350
N.B. C.S.A.H. 11 (STA 109+20 TO 113+50)	2				460		160	
N.B. C.S.A.H. 11 (STA 113+50 TO 117+90)			40	300	100		100	
N.B. C.S.A.H. 11 (STA 117+90 TO 121+14)						140	140	420
EGRET BLVD. (WEST)	2	2	30	300	340	70		1280
EGRET BLVD. (EAST)	2	2	40	300	300	70		1260
PROJECT TOTALS:	8	4	150	1200	2180	360	920	4080

TYPICAL SIGN SOCKET DETAIL FOR SIGNS MOUNTED IN CONCRETE ISLANDS

(NO SCALE)



NOTES:
1. DRILLING OF INPLACE CONCRETE PAVEMENT MAY BE REQUIRED AT MONOLITHIC CENTER ISLANDS. AS DIRECTED BY THE ENGINEER.

NO	DATE	BY	CKD	APPR	REVISION
2	7-8-02	ST	MDH	MDH	REVISED TAB J PER ADDENDUM 1.
1	6-6-02		MDH	MDH	REV TAB I, J

I hereby certify that this plan, specification, or report was prepared by me or under my direct supervision and that I am a duly Licensed Professional Engineer under the laws of the State of Minnesota.
Print Name: MATTHEW D. HANSEN
Date 10-4-2001 License # 21364

STATE AID PROJECT NO. S.P. 02-611-28
CITY PROJECT NO.

DRAWN BY D. SYMANIETZ 05-01
DESIGNED BY D. SYMANIETZ 05-01
CHECKED BY M. HANSEN 05-01
COMM. NO. 0983212

SRF CONSULTING GROUP, INC.

ANOKA COUNTY
SIGNING AND STRIPING TABULATIONS AND DETAIL
C.S.A.H. 11 (FOLEY BLVD.)

SHEET 40 OF 58

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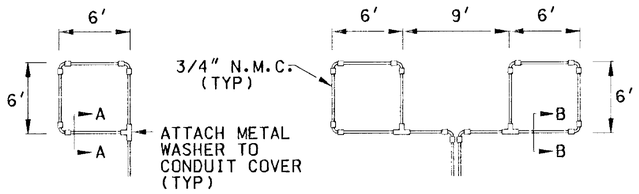
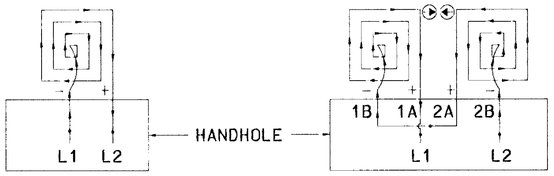
02:06:15 PM
07/08/2002



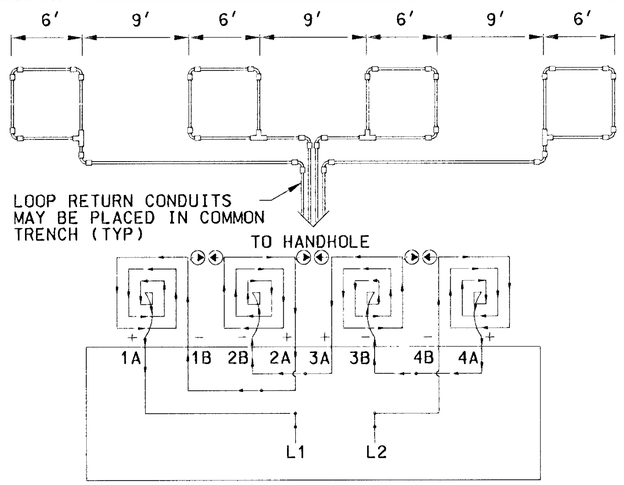


LOOP CONNECTIONS SHALL BE LABELED AND SPLICED IN THE HANDHOLE AS FOLLOWS:

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

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

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

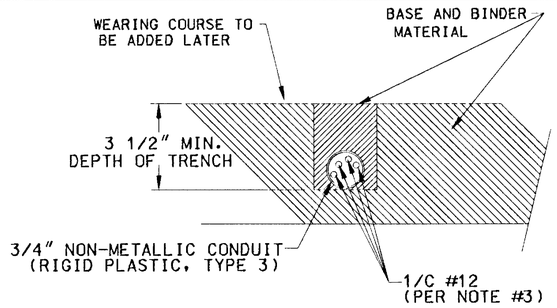


LOOP CONNECTIONS SHALL BE LABELED AND SPLICED IN THE HANDHOLE AS FOLLOWS:

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

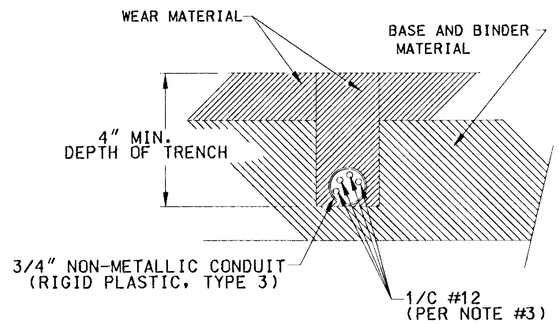
SPLICE CONTROL CABLE TO L1 & L2 IN HANDHOLE. ALL CONDUCTORS SHALL BE TAGGED IN HANDHOLE (1A, 1B, ECT)

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



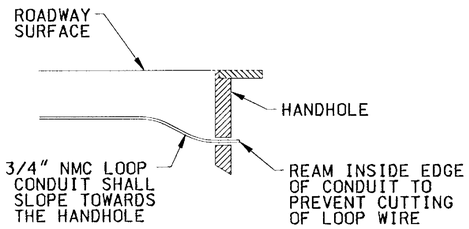
SECTION A-A

DETAIL FOR LOOP INSTALLATION IN NEW ROADWAY



SECTION B-B

DETAIL FOR LOOP INSTALLATION IN EXISTING ROADWAY



DRAINAGE DETAIL

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.

STANDARD PLATES

THESE STANDARD PLATES AS APPROVED BY FHWA SHALL APPLY:

	PLATE NO.	DESCRIPTION
	7035 K	CONCRETE WALK AND CURB RETURNS AT ENTRANCES
*	8110 D	TRAFFIC SIGNAL BRACKETING - POLE MOUNTED
	8111 C	TRAFFIC SIGNAL BRACKETING - PEDESTAL MOUNTED
	8112 C	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 K	PA85 POLE FOUNDATION
*	8121 D	TRANSFORMER BASE AND POLE BASE PLATE
	8122 C	PEDESTAL AND PEDESTAL BASE
*	8123 E	POLE AND MAST ARM
*	8124 E	MAST ARM SIGNAL HEAD MOUNTS
*	8126 F	PA90 AND PA100 POLE FOUNDATION

* - APPLIES TO THIS PROJECT

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

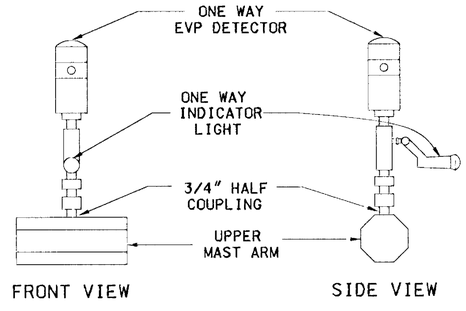
LEGEND OF SYMBOLS

CONTROLLER AND SERVICE EQUIP. NO's
SIGNAL BASE NO.
SIGNAL FACE NO.
LUMINAIRE NO.
CONTROLLER AND CABINET
CONTROLLER AND CABINET - IN PLACE
HANDHOLE
HANDHOLE - IN PLACE
RIGID STEEL CONDUIT (RSC)
RIGID STEEL CONDUIT (RSC) - IN PLACE
SIGNAL FACE WITH BACKGROUND SHIELD
SIGNAL FACE W/O BACKGROUND SHIELD
SIGNAL FACE - IN PLACE
PEDESTRIAN INDICATORS
PEDESTRIAN INDICATORS - IN PLACE
PEDESTRIAN PUSH BUTTONS ON PEDESTAL OR POLE
PEDESTRIAN PUSH BUTTON STATION
TRAFFIC SIGNAL PEDESTAL
TRAFFIC SIGNAL PEDESTAL - INPLACE
TRAFFIC SIGNAL POLE AND MAST ARM
TRAFFIC SIGNAL POLE AND MAST ARM - IN PLACE
STREET LIGHT POLE AND LUMINAIRE
STREET LIGHT POLE AND LUMINAIRE - IN PLACE
MAST ARM AND LUMINAIRE
MAST ARM AND LUMINAIRE - INPLACE
WOOD POLE
WOOD POLE - IN PLACE
SOURCE OF POWER
RAILROAD SIGNAL - IN PLACE
RIGHT OF WAY LINE
CENTERLINE
EDGE OF ROADWAY
SHOULDERLINE
CURB LINE
STOP BAR
EMERGENCY VEHICLE PREEMPTION DETECTOR

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

EVP DETECTOR AND LIGHT MOUNTING DETAIL ON MAST ARM



NO	DATE	BY	CKD	APPR	REVISION

NAME: 3212.DSA DATE: Sep. 17, 2001 TIME: 10:26:33

I hereby certify that this plan, specification, or report was prepared by me or under my direct supervision and that I am a duly Licensed Professional Engineer under the laws of the State of Minnesota.
Print Name: JONATHAN J. KRIEG
Jonathan J. Krieg
Date 6-10-02 License # 40780

STATE AID PROJECT NO. S.P. 02-611-28
CITY PROJECT NO.

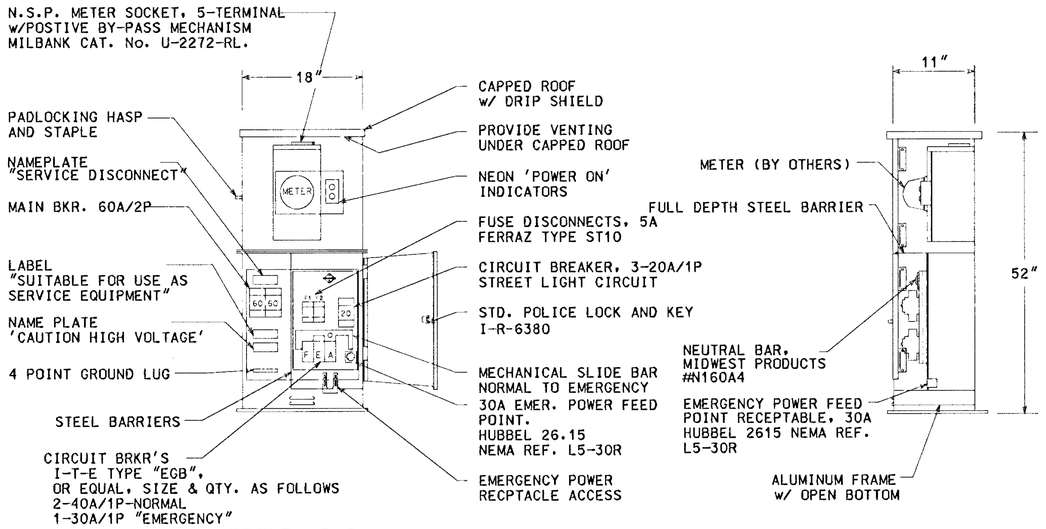
DRAWN BY M.BRESSLER	DATE 5-01
DESIGNED BY J.KRIEG	5-01
CHECKED BY G.STUEMPFIG	5-01
COMM. NO. 0983212	

SRF CONSULTING GROUP, INC.

ANOKA COUNTY
LOOP DETECTOR AND MISCELLANEOUS DETAILS
C.S.A.H. 11 (FOLEY BLVD.)

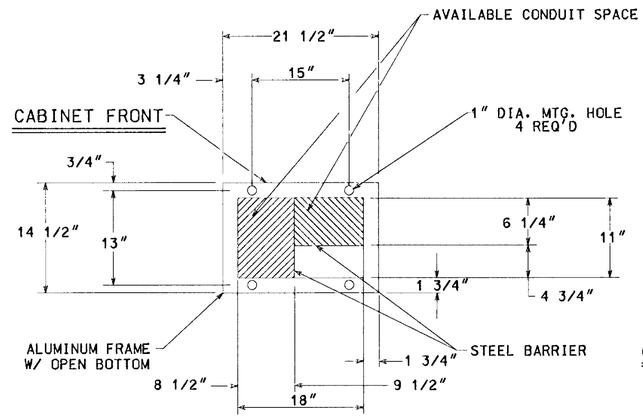
SHEET 41 OF 58

SIGNAL SERVICE CABINET

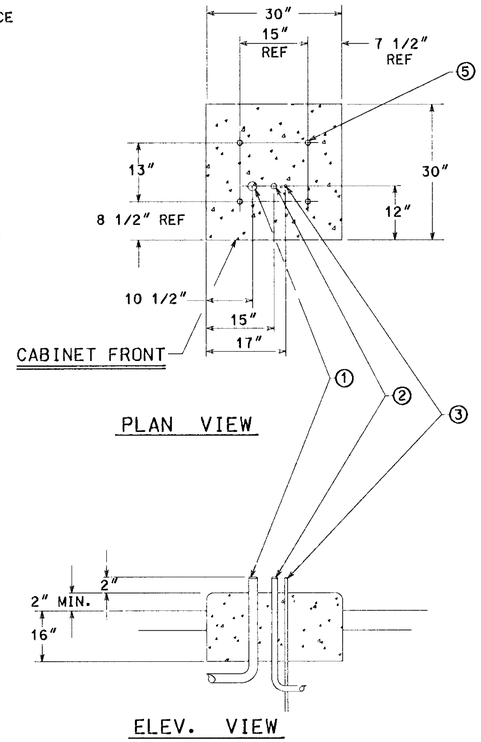


FRONT ELEV.

RIGHT SIDE ELEV.



BASE VIEW



PLAN VIEW

ELEV. VIEW

SERVICE CABINET FOUNDATION

CONSTRUCTION NOTES

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

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

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

ENCLOSURE SHALL BE 'UL' APPROVED

BASE GASKETS SHALL BE PROVIDED FOR THE SERVICE CABINET

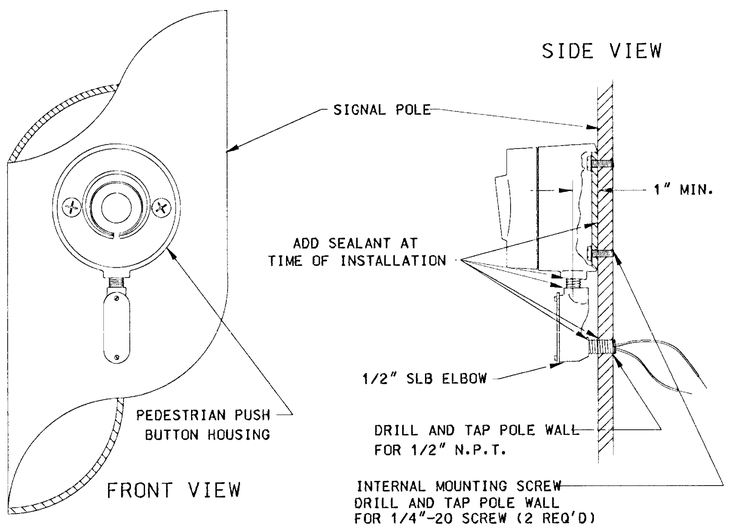
① 2" RSC STUB OUT (FOR SOP)

② 2" RSC TO CONTROLLER CABINET (VIA HH 16)

③ GROUNDING ROD

⑤ ANCHOR BOLT LOCATIONS (4 REQUIRED)

MAST ARM POLE
PEDESTRIAN PUSH BUTTON DETAIL



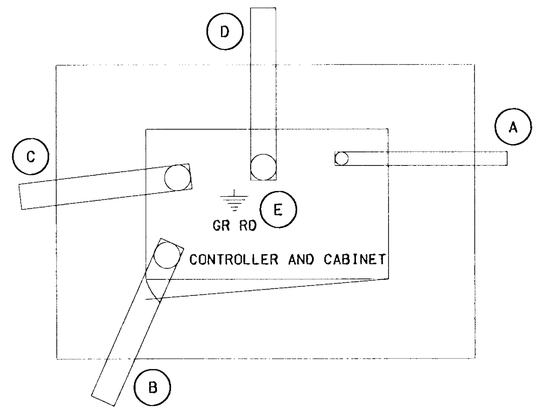
Ⓐ 2" R.S.C. FOR SERVICE CONNECTION (VIA HH 16)

Ⓑ 4" R.S.C. TO HH 1

Ⓒ 4" R.S.C. TO HH 15

Ⓓ 3" R.S.C. STUBOUT, THREAD & CAP BOTH ENDS (FOR FUTURE USE).

Ⓔ 5/8" DIA X 15' GROUND ROD



CONCRETE FOUNDATION
SEE MN/DOT STANDARD PLATE NO. 8119C FOR DIMENSIONS.

SEE INTERSECTION LAYOUT FOR CONDUIT & CABLE INFORMATION

TYPICAL CONTROLLER CABINET PAD LAYOUT
NO SCALE

ELECTRICAL ENGINEER

I hereby certify that this plan, specification, or report was prepared by me or under my direct supervision and that I am a duly Licensed Professional Electrical Engineer under the laws of the State of Minnesota.

Print Name: BRIAN D. HOLT

Brian D Holt

Date 6-12-02 License # 21428

NO	DATE	BY	CKD	APPR	REVISION
1	6-11-02	MAB		JJK	REVISED PER ANOKA CO. COMMENTS

NAME: 3212.DSB DATE: Jun. 11, 2002 TIME: 08:56:29

I hereby certify that this plan, specification, or report was prepared by me or under my direct supervision and that I am a duly Licensed Professional Engineer under the laws of the State of Minnesota.

Print Name: JONATHAN J. KRIEG

Jonathan J. Krieg

Date 6-10-02 License # 40780

STATE AID PROJECT NO. S.P. 02-611-28

CITY PROJECT NO.

DRAWN BY M.BRESSLER DATE 5-01
DESIGNED BY J.KRIEG 5-01
CHECKED BY G.STUEMPFIG 5-01
COMM. NO. 0983212

SRF CONSULTING GROUP, INC.

ANOKA COUNTY

CONTROLLER AND SERVICE CABINET DETAILS
C.S.A.H. 11 (FOLEY BLVD.)

SHEET 42 OF 58

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07/08/2002
02:21:33 PM

LOOP DETECTOR CHART			
DESIGNATION	SIZE/FT.	FUNCTION	DISTANCE TO STOP BAR
D1-1	2-6'X6'	(1)	9',39'
D1-2	2-6'X6'	(1)	-6',24'
D2-1,D2-2	1-6'X6'	(1)	250'
D4-1,D4-2	1-6'X6'	(3)	INPLACE
D4-3	1-6'XI0' 1-6'X6'	(7)	-8',7'
D4-4	2-6'X6'	(1)	-8',7'
D5-1	2-6'X6'	(1)	9,39'
D5-2	2-6'X6'	(1)	-6',24'
D6-1,D6-2	1-6'X6'	(1)	250'
D8-1,D8-2	1-6'X6'	(3)	INPLACE
D8-3	1-6'XI0' 1-6'X6'	(7)	-6',9'
D8-4	2-6'X6'	(1)	-6',9'

FUNCTIONS:
(1) CALL AND EXTEND
(3) EXTEND ONLY
(7) DELAY CALL/IMMEDIATE EXTEND

ELECTRICAL ENGINEER

I hereby certify that this plan, specification, or report was prepared by me or under my direct supervision and that I am a duly Licensed Professional Electrical Engineer under the laws of the State of Minnesota.

Print Name: BRIAN D. HOLT

Brian D Holt

Date 6-10-02 License # 21428

3 PA100 POLE FOUNDATION
TYPE PA100-A-40-D40-9 (DAVIT AT 350°)
2 - ONE WAY SIGNALS OVERHEAD
(0' AND 12' FROM END OF MAST ARM)
TYPE 10B POLE MOUNTED AT 0°
TYPE 10B POLE MOUNTED AT 270°
LUMINAIRE - 200 WATT H.P.S. WITH P.E.C.
AND TEST SWITCH
ONE WAY EVP DETECTOR AND
CONFIRMATORY LIGHT (PHASE 1+6)
ONE WAY EVP DETECTOR (PHASE 2+5)
(6' FROM END OF MAST ARM) 3/4" HUB
⚹-2 - PEDESTRIAN PUSHBUTTONS
1 - R10-12 (24"x30") SIGN
TYPE D SIGN - SEE SIGNING SHEET
EXTEND INTO HH-8:
3" RSC
2 - 12/C #12
3 - 3/C #12
1 - 3/C #12 (LUM.)
2 - 3/C #20

4" RSC
2 - 12/C #12
3 - 3/C #12
1 - 3/C #12 (LUM.)
4 - 2/C #14
2 - 3/C #20

INP.-1 1/4" RSC
REMOVE-1 - 2/C #14
2 - 2/C #14

4 PA90 POLE FOUNDATION
TYPE PA90-A-30-D40-9 (DAVIT AT 350°)
1 - ONE WAY SIGNAL OVERHEAD
(0' FROM END OF MAST ARM)
TYPE 10B POLE MOUNTED AT 0°
TYPE 10B POLE MOUNTED AT 270°
LUMINAIRE - 200 WATT H.P.S. WITH P.E.C.
AND TEST SWITCH
ONE WAY EVP DETECTOR AND
CONFIRMATORY LIGHT (PHASE 8)
(6' FROM END OF MAST ARM) 3/4" HUB
⚹-2 - PEDESTRIAN PUSHBUTTONS
TYPE D SIGN - SEE SIGNING SHEET
EXTEND INTO HH-10:
3" RSC
2 - 12/C #12
2 - 3/C #12
1 - 3/C #12 (LUM.)
1 - 3/C #20

4" RSC
2 - 12/C #12
2 - 3/C #12
1 - 3/C #12 (LUM.)
2 - 2/C #14
1 - 3/C #20

2" RSC
2 - 2/C #14

3" RSC
2 - 2/C #14

2" RSC
2 - 2/C #14

SIGNAL HEAD PHASING	
FACE	PHASE
2-3, 2-4	2 & 6
6-3, 6-4	5 & 1

SIGNAL INDICATION CHART ALL SIGNAL INDICATIONS SHALL BE 12 INCH ALL CIRCULAR & ARROW INDICATIONS SHALL BE LED						
SIGNAL FACE	R	Y	G	RLTA	YLTA	GLTA
2-1,2-2	●	●	●			
2-3,2-4	●	●	●		←	←
4-1,4-2,4-3	●	●	●			
6-1,6-2	●	●	●			
6-3,6-4	●	●	●		←	←
8-1,8-2,8-3	●	●	●			

scale 20 0 20 feet

MATCH LINE "B" (SEE SHEET 44)

EGRET BLVD. (30 M.P.H.)

C.S.A.H. 11 (40 M.P.H.)

MATCH LINE "A" (SEE SHEET 44)

MATCH LINE "C" (SEE SHEET 44)

MATCH LINE "D" (SEE SHEET 44)

Ø8 EVP

Ø1+Ø6 EVP

Ø2+Ø5 EVP DETECTOR

Ø2+Ø5 EVP LIGHT

Ø4 EVP

D1-1 D1-2 D5-1 D5-2 D4-3 D4-4 D8-3 D8-4

2" RSC
4 - 3/C #12 (LUM.)

2" RSC
2 - 3/C #12 (LUM.)

2" RSC
REMOVE-1 - 2/C #14
2 - 2/C #14

4" RSC
2 - 12/C #12
3 - 3/C #12
1 - 3/C #12 (LUM.)
6 - 2/C #14
2 - 3/C #20

4" RSC
2 - 12/C #12
3 - 3/C #12
1 - 3/C #12 (LUM.)
8 - 2/C #14
2 - 3/C #20

2" RSC
2 - 2/C #14

4" RSC
4 - 12/C #12
5 - 3/C #12
2 - 3/C #12 (LUM.)
8 - 2/C #14
3 - 3/C #12

INP.-1 1/4" RSC
REMOVE-1 - 2/C #14
2 - 2/C #14

(INP.)

C SOURCE OF POWER
~~WOOD POLE WITH~~
RISER AND WEATHERHEAD
EXTEND 2" RSC
INTO HH-17 WITH:
3 - 1/C #6

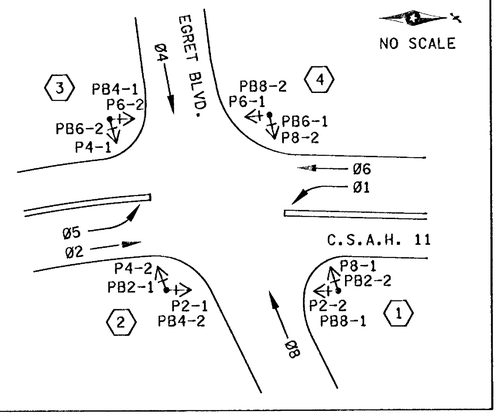
B SERVICE CABINET FOUNDATION
SIGNAL SERVICE CABINET
EXTEND 2" RSC INTO HH-16 WITH:
3 - 1/C #6 AND 1 - 3/C #12 (LUM.)
EXTEND 2" RSC INTO HH-17 WITH:
3 - 1/C #6

1 PA100 POLE FOUNDATION
TYPE PA100-A-45-D40-9 (DAVIT AT 350°)
2 - ONE WAY SIGNALS OVERHEAD
(0' AND 12' FROM END OF MAST ARM)
TYPE 10B POLE MOUNTED AT 0°
TYPE 10B POLE MOUNTED AT 270°
LUMINAIRE - 200 WATT H.P.S. WITH P.E.C.
AND TEST SWITCH
ONE WAY EVP CONFIRMATORY LIGHT (PHASE 2+5)
(6' FROM END OF MAST ARM) 3/4" HUB
⚹-2 - PEDESTRIAN PUSHBUTTONS
1 - R10-12 (24"x30") SIGN
TYPE D SIGN - SEE SIGNING SHEET
EXTEND INTO HH-15:
3" RSC
2 - 12/C #12
3 - 3/C #12
1 - 3/C #12 (LUM.)

2 PA90 POLE FOUNDATION
TYPE PA90-A-25-D40-9 (DAVIT AT 350°)
1 - ONE WAY SIGNAL OVERHEAD
(0' FROM END OF MAST ARM)
TYPE 10B POLE MOUNTED AT 0°
TYPE 10B POLE MOUNTED AT 270°
LUMINAIRE - 200 WATT H.P.S. WITH P.E.C.
AND TEST SWITCH
ONE WAY EVP DETECTOR AND
CONFIRMATORY LIGHT (PHASE 4)
(6' FROM END OF MAST ARM) 3/4" HUB
⚹-2 - PEDESTRIAN PUSHBUTTONS
TYPE D SIGN - SEE SIGNING SHEET
EXTEND INTO HH-3:
3" RSC
2 - 12/C #12
2 - 3/C #12
1 - 3/C #12 (LUM.)
1 - 3/C #20

A ⚹-CONTROLLER FOUNDATION - SEE DETAIL
CONTROLLER & CABINET
EXTEND 4" RSC INTO HH-1 WITH:
4 - 12/C #12, 5 - 3/C #12,
12 - 2/C #14 AND 3 - 3/C #20
EXTEND 4" RSC INTO HH-15 WITH:
4 - 12/C #12, 5 - 3/C #12,
4 - 2/C #14 AND 1 - 3/C #20
EXTEND 2" RSC INTO HH-16 WITH:
3 - 1/C #6
1 - 3" RSC STUB OUT OF CABINET
(THREAD AND CAP BOTH ENDS)

CONTROLLER PHASING, PEDESTRIAN INDICATIONS & PUSHBUTTON LAYOUT



SIGNAL OPERATION NOTES
- NORMAL OPERATION IS 4 PHASE
- FLASH MODE SHALL BE ALL RED
- Ø1 & Ø5 SHALL BE PROTECTED/PERMISSIVE LEFT TURNS
- Ø2 & Ø6 SHALL BE ON VEHICLE RECALL

NOTES:
1) SEE SPECIAL PROVISIONS FOR COUNTY FURNISHED MATERIALS.
2) EACH SIGNAL FACE SHALL HAVE A BACKGROUND SHIELD.
3) INTERNATIONAL SYMBOLS SHALL BE USED FOR ALL PEDESTRIAN INDICATIONS (HAND AND WALKING PERSON). THE HAND AND WALKING PERSON INDICATION SHALL USE LED UNITS (SEE SPECIAL PROVISIONS).
4) EXACT LOCATION OF HANDHOLES, POLES, LOOP DETECTORS, AND CABINET SHALL BE DETERMINED BY TRAFFIC OFFICE PERSONNEL.
5) ALL LOOP DETECTORS SHALL BE INSTALLED IN NMC CONDUIT (SEE DETAIL SHEET).
6) SEE SPECIAL PROVISIONS FOR REMOVALS EXISTING SIGNAL SYSTEM.
7) SEE SIGNING AND STRIPING PLAN FOR CROSSWALK AND STOP BAR INFORMATION.
8) HANDHOLES SHALL BE PVC TYPE WITH METAL FRAMES AND COVERS.

ALL ITEMS SHALL BE FURNISHED AND INSTALLED BY THE CONTRACTOR UNLESS NOTED OTHERWISE.
⚹-ITEMS FURNISHED BY ANOKA CO. AND INSTALLED BY THE CONTRACTOR.

NO	DATE	BY	CKD	APPR	REVISION
1	6-11-02	MAB		JJK	REVISED PER ANOKA CO. COMMENTS

NAME: 3212.ILA DATE: Jun. 11, 2002 TIME: 08:56:40

I hereby certify that this plan, specification, or report was prepared by me or under my direct supervision and that I am a duly Licensed Professional Engineer under the laws of the State of Minnesota.

Print Name: JONATHAN J. KRIEG

Jonathan J. Krieg

Date 6-11-02 License # 40780

STATE AID PROJECT NO. S.P. 02-611-28

CITY PROJECT NO.

DRAWN BY M.BRESSLER DATE 5-01
DESIGNED BY J.KRIEG 5-01
CHECKED BY G.STUEMPFIG 5-01
COMM. NO. 0983212

SRF CONSULTING GROUP, INC.

ANOKA COUNTY
INTERSECTION LAYOUT
C.S.A.H. 11 (FOLEY BLVD.)

SHEET 43 OF 58

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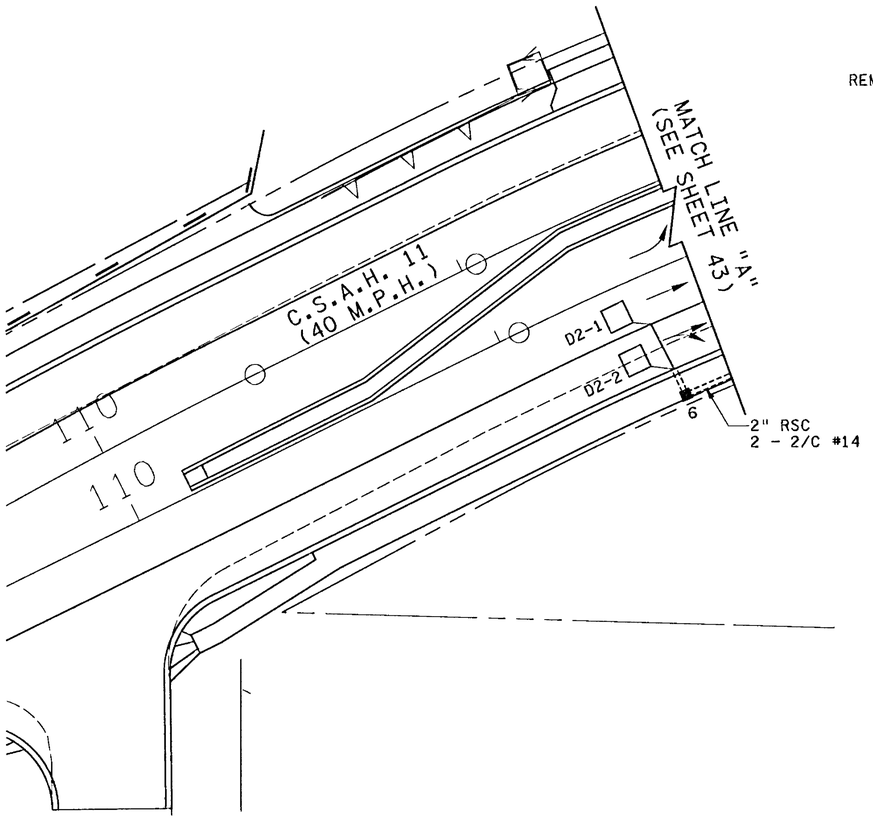
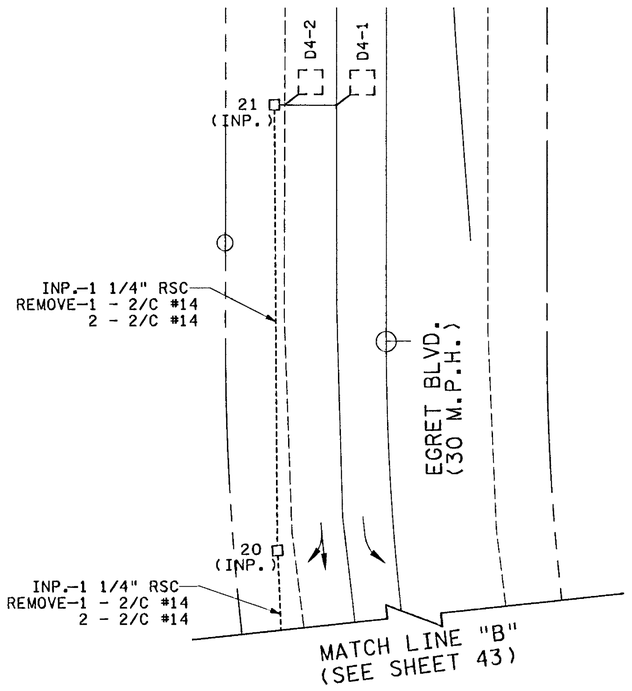
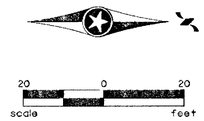
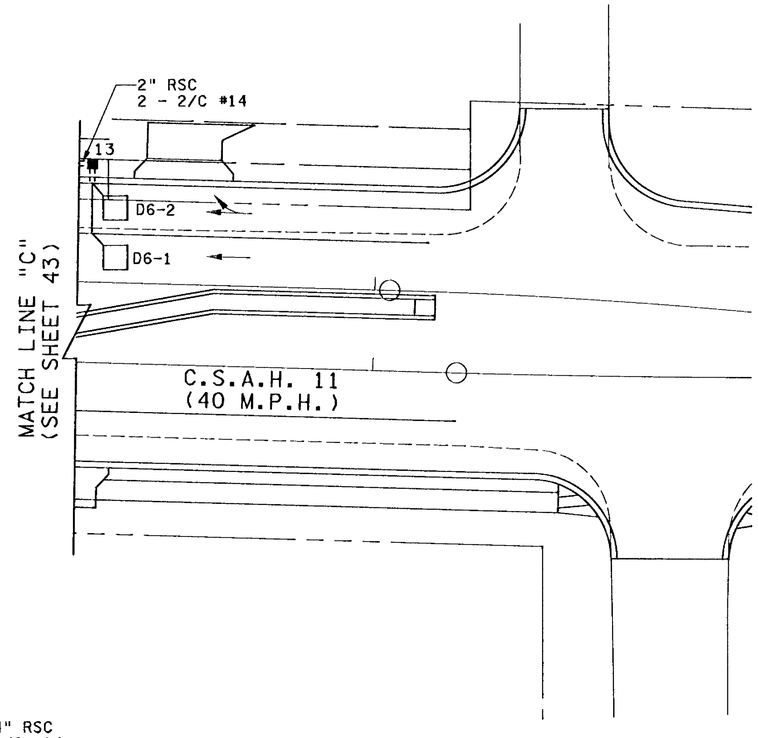
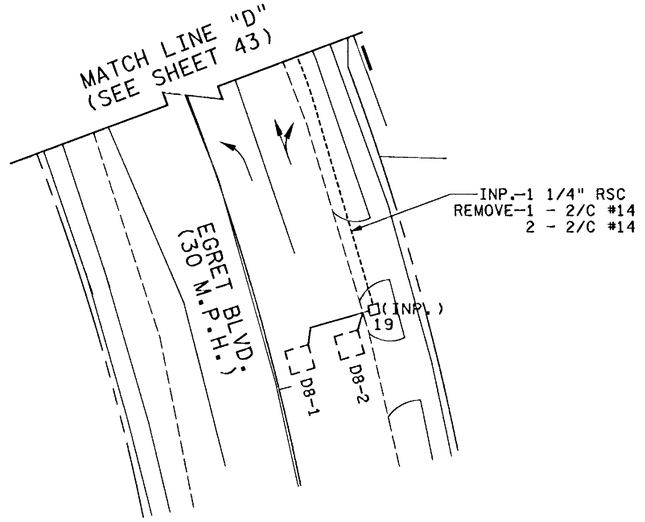










ALL ITEMS SHALL BE FURNISHED AND INSTALLED BY THE CONTRACTOR UNLESS NOTED OTHERWISE.

✳-ITEMS FURNISHED BY ANOKA CO. AND INSTALLED BY THE CONTRACTOR.

NO	DATE	BY	CKD	APPR	REVISION
1	6-11-02	MAB		JJK	REVISED PER ANOKA CO. COMMENTS

NAME: 3212.MLA DATE: Jun. 11, 2002 TIME: 08:57:08

I hereby certify that this plan, specification, or report was prepared by me or under my direct supervision and that I am a duly Licensed Professional Engineer under the laws of the State of Minnesota.

Print Name: JONATHAN J. KRIEG

Jonathan J. Krieg

Date 6-11-02 License # 40780

STATE AID PROJECT NO.

S.P. 02-611-28

CITY PROJECT NO.

		DATE
DRAWN BY	M.BRESSLER	5-01
DESIGNED BY	J.KRIEG	5-01
CHECKED BY	G.STUEMPFIG	5-01
COMM. NO.	0983212	

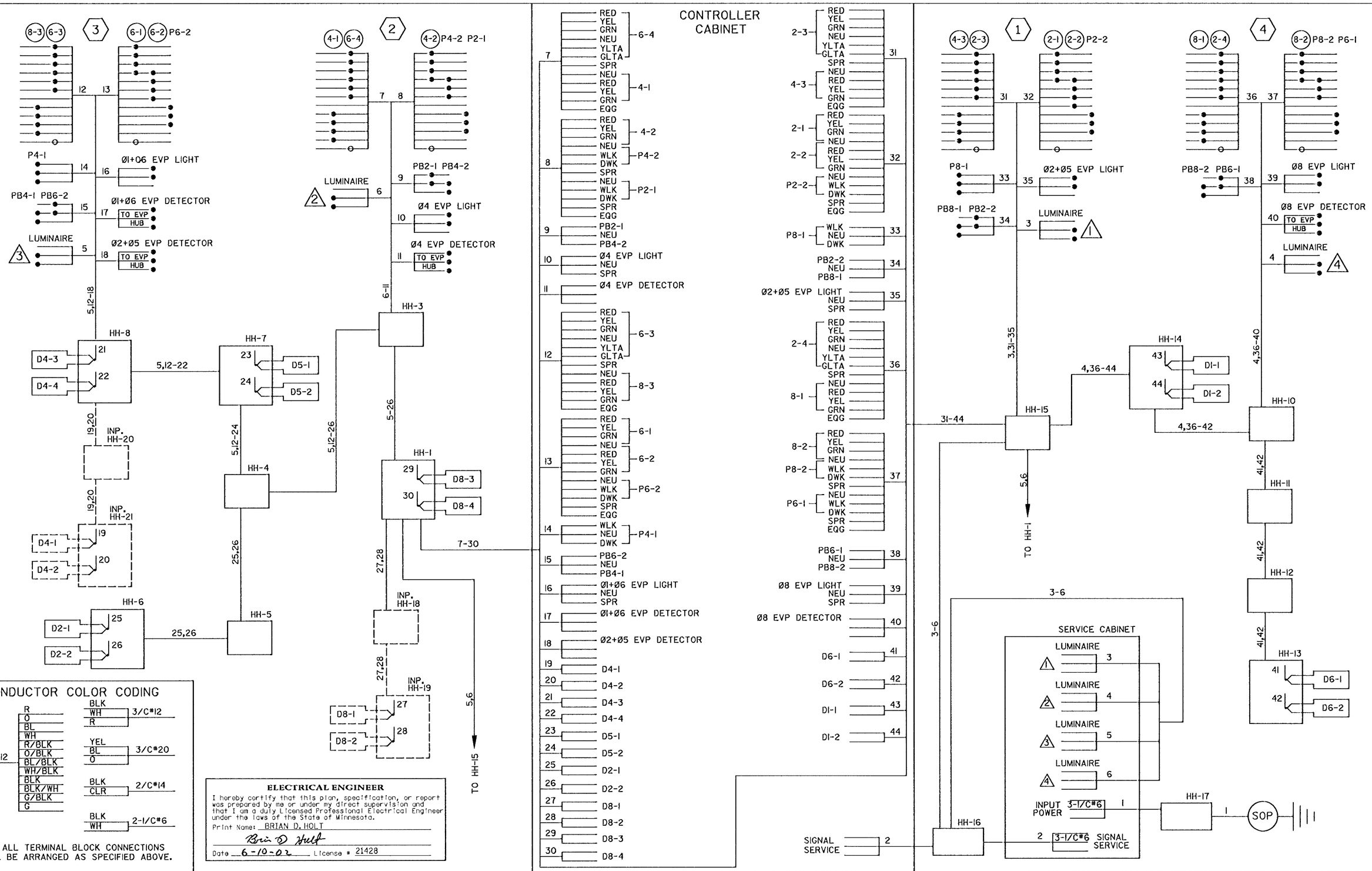
SRF CONSULTING GROUP, INC.

ANOKA COUNTY

MATCH LINE LAYOUT

C.S.A.H. 11 (FOLEY BLVD.)

SHEET 44 OF 58



CONDUCTOR COLOR CODING

12/C*12: R, O, BL, WH, R/BLK, O/BLK, BL/BLK, WH/BLK, BLK, BLK/WH, G/BLK, G

- BLK, WH, R — 3/C*12
- YEL, BL, O — 3/C*20
- BLK, CLR — 2/C*14
- BLK, WH — 2-1/C*6

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

ELECTRICAL ENGINEER

I hereby certify that this plan, specification, or report was prepared by me or under my direct supervision and that I am a duly Licensed Professional Electrical Engineer under the laws of the State of Minnesota.

Print Name: BRIAN D. HOLT

Brian D Holt

Date 6-10-02 License # 21428

NO	DATE	BY	CKD	APPR	REVISION
1	6-11-02	MAB		JJK	REVISED PER ANOKA CO. COMMENTS

NAME: 3212.WDA DATE: Jun. 11, 2002 TIME: 08:57:39

I hereby certify that this plan, specification, or report was prepared by me or under my direct supervision and that I am a duly Licensed Professional Engineer under the laws of the State of Minnesota.

Print Name: JONATHAN J. KRIEG

Jonathan J. Krieg

Date 6-11-02 License # 40780

STATE AID PROJECT NO.

S.P. 02-611-28

CITY PROJECT NO.

		DATE
DRAWN BY	M.BRESSLER	5-01
DESIGNED BY	J.KRIEG	5-01
CHECKED BY	G.STUEMPFIG	5-01
COMM. NO.	0983212	

SRF CONSULTING GROUP, INC.

ANOKA COUNTY

FIELD WIRING DIAGRAM

C.S.A.H. 11 (FOLEY BLVD.)

SHEET 45 OF 58

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07/08/2002

NOTES:

1) SEE SPECIAL PROVISIONS FOR CONTRACTORS RESPONSIBILITY FOR THE LOCATION OF UTILITIES.

2) ALL SIGNAL FACES SHALL HAVE BACKGROUND SHIELDS.

3) LUMINAIRE (1) WITH P.E.C. AND CHECK SWITCH.

4) SEE SPECIAL PROVISIONS FOR ANOKA COUNTY SERVICE CABINET DETAILS.

5) DIRECTIONAL SIGNS TO BE INSTALLED ON MAST ARMS AT (1) (2) (3) AND (4). SEE SPECIAL PROVISIONS.

6) ALL HANDHOLES WITH TYPE "C" COVERS.

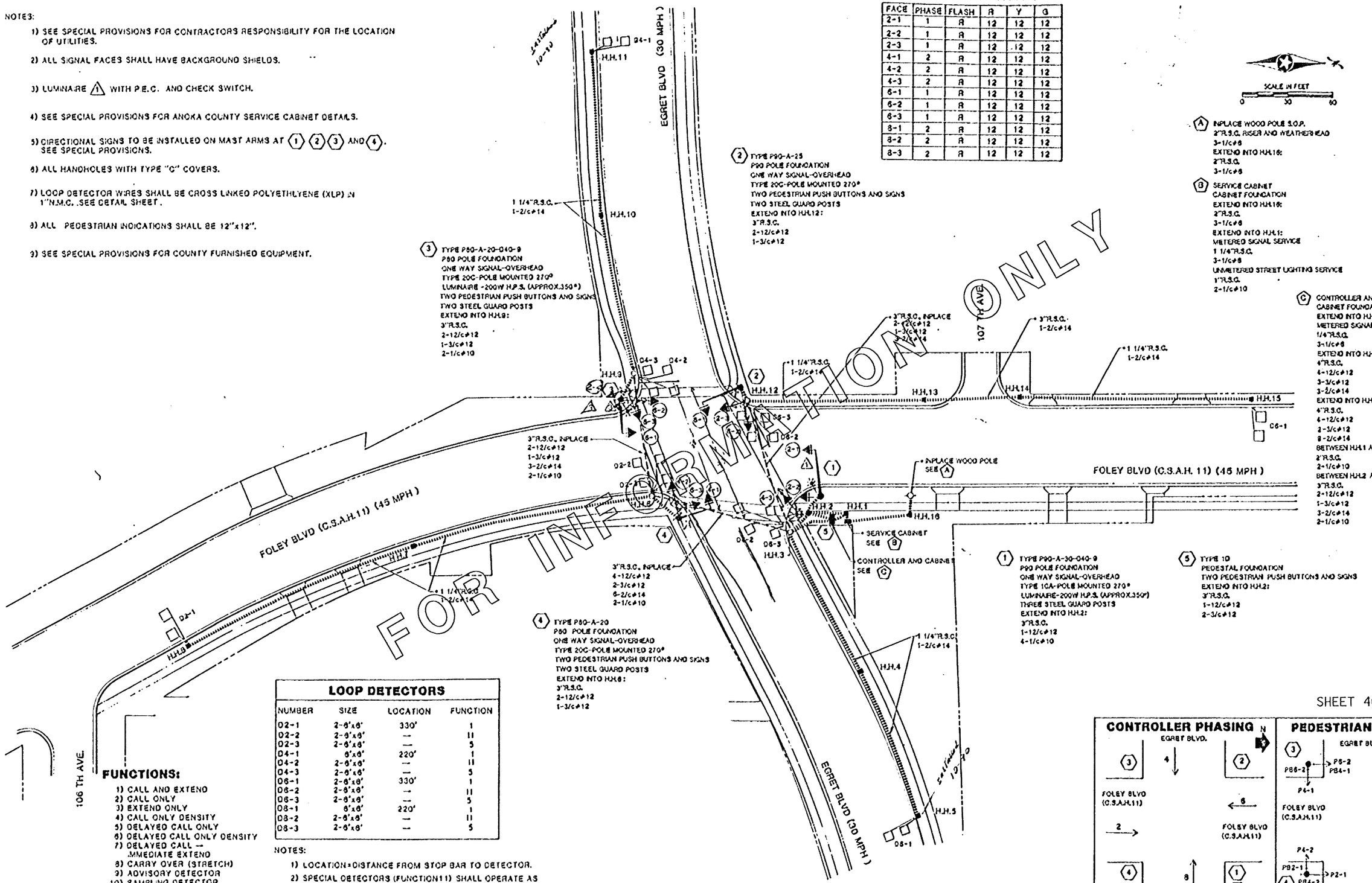
7) LOOP DETECTOR WIRES SHALL BE CROSS LINKED POLYETHLYENE (XLP) IN 1"N.M.C. .SEE DETAIL SHEET.

8) ALL PEDESTRIAN INDICATIONS SHALL BE 12"x12".

9) SEE SPECIAL PROVISIONS FOR COUNTY FURNISHED EQUIPMENT.

SIGNAL INDICATIONS

FACE	PHASE	FLASH	R	Y	G
2-1	1	R	12	12	12
2-2	1	R	12	12	12
2-3	1	R	12	12	12
4-1	2	R	12	12	12
4-2	2	R	12	12	12
4-3	2	R	12	12	12
6-1	1	R	12	12	12
6-2	1	R	12	12	12
6-3	1	R	12	12	12
8-1	2	R	12	12	12
8-2	2	R	12	12	12
8-3	2	R	12	12	12



LOOP DETECTORS

NUMBER	SIZE	LOCATION	FUNCTION
D2-1	2-6'x6'	330'	I
D2-2	2-6'x6'	—	II
D2-3	2-6'x6'	—	5
D4-1	6'x6'	220'	I
D4-2	2-6'x6'	—	II
D4-3	2-6'x6'	—	5
D6-1	2-6'x6'	330'	I
D6-2	2-6'x6'	—	II
D6-3	2-6'x6'	—	5
D8-1	6'x6'	220'	I
D8-2	2-6'x6'	—	II
D8-3	2-6'x6'	—	5

NOTES:

1) LOCATION=DISTANCE FROM STOP BAR TO DETECTOR.

2) SPECIAL DETECTORS (FUNCTION11) SHALL OPERATE AS DELAYED CALL AND DELAYED EXTEND

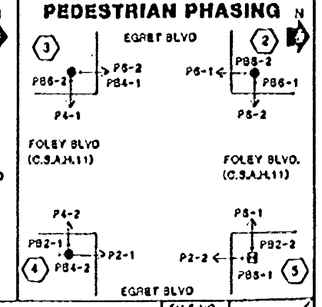
FUNCTIONS:

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

SHEET 46 OF 58

CONTROLLER PHASING

PEDESTRIAN PHASING



DESIGNED BY M.K.	CHECKED BY G.V.W.		
DRAWN BY G.N.			

I hereby certify that this plan was prepared by me or under my direct supervision and that I am a duly Registered Professional Engineer under the laws of the State of Minnesota.
Date 5/10/07 Reg. No. 9089

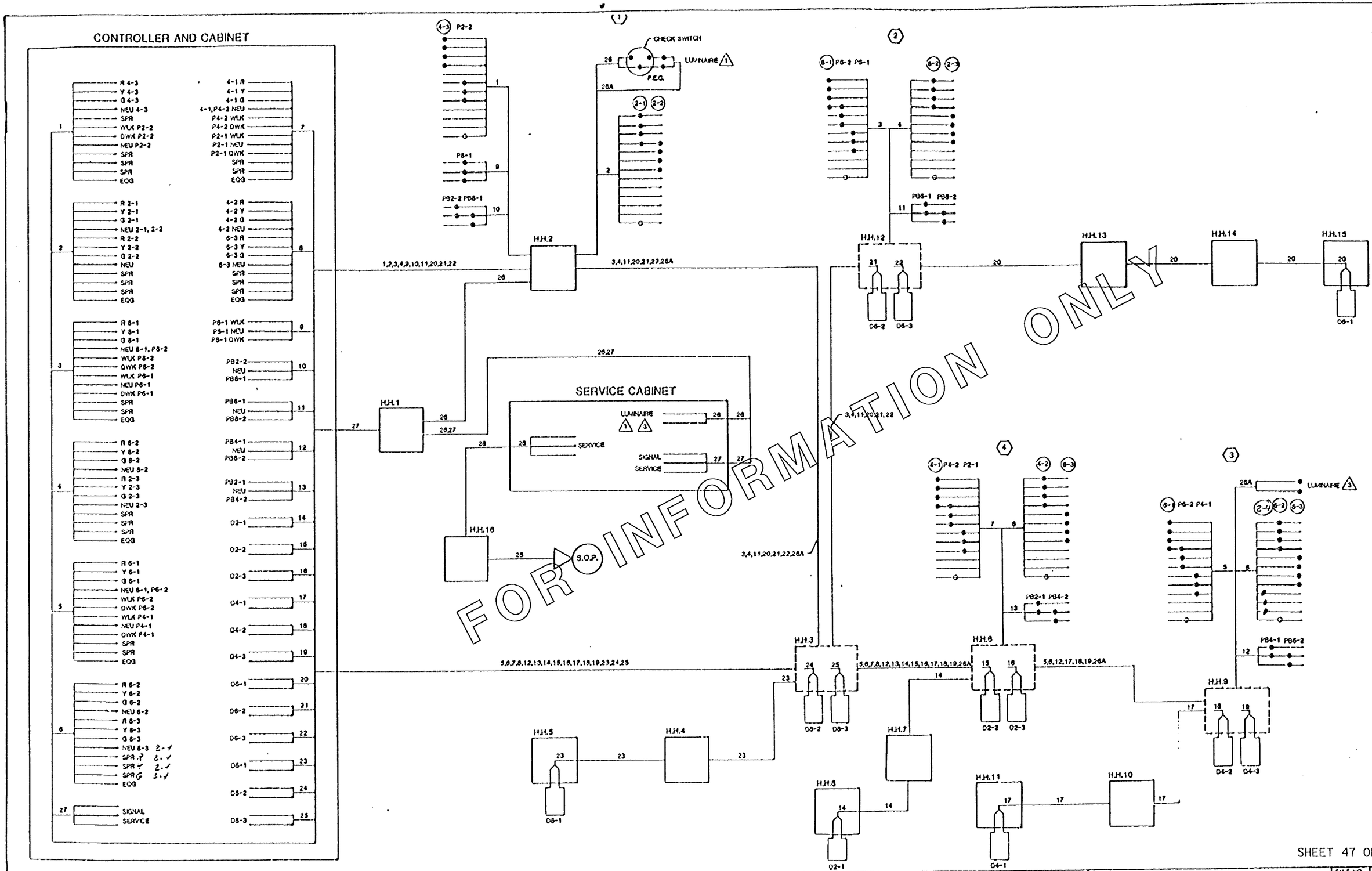
SHORT - ELLIOTT - HENDRICKSON, INC.
Saint Paul, Minnesota • Chippewa Falls, Wisconsin

SIGNAL SYSTEM
INTERSECTION LAYOUT
C.S.A.H. 11 (FOLEY BOULEVARD) AT EGRET BOULEVARD

~~C.A.P. H 4-104-10~~

FILE NO 87144
DATE 7/31/07
2/5

NAME: 3212.F0A DATE: Apr. 25, 2001 TIME: 09:28:12



SHEET 47 OF 58

SURVEY	CHECKED BY:	NO	DATE	REVISIONS
DESIGN: M.K	G.V.W.			
DRAWN: G.N.				

I hereby certify that this plan was prepared by me or under my direct supervision and that I am a duly Registered Professional Engineer under the laws of the State of Minnesota
Date 10/31/87 Reg No 9088

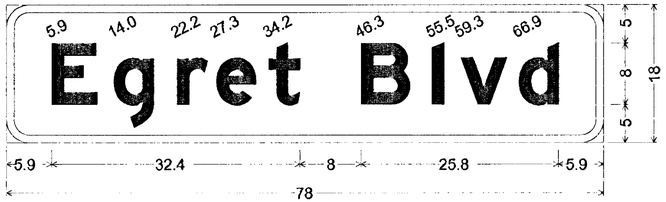
SHORT – ELLIOTT – HENDRICKSON, INC.
Saint Paul, Minnesota • Chippewa Falls, Wisconsin

SIGNAL SYSTEM
FIELD WIRING DIAGRAM
C.S.A.H. 11 (FOLEY BOULEVARD) AT EGRET BOULEVARD

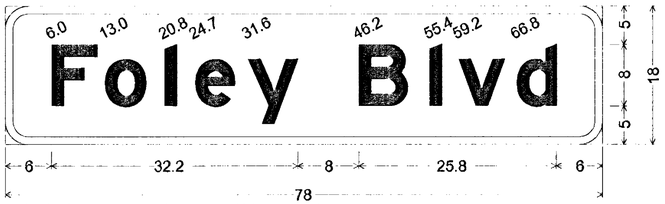
~~S.A.P. 114-104-10~~

FILE NO.: 87144
DATE: 7/31/87
~~8~~ / ~~5~~

NAME: 3212.FOR DATE: Apr 25 2001 TIME: 09:27:19

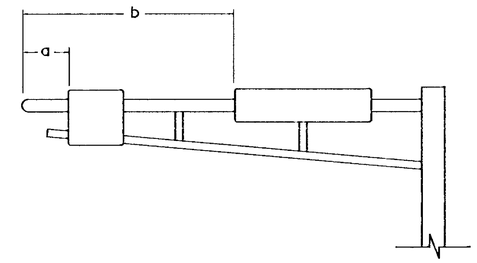


D-1; 3.0" Radius, 1.0" Border, White on Green;
[Egret Blvd] E Mod;

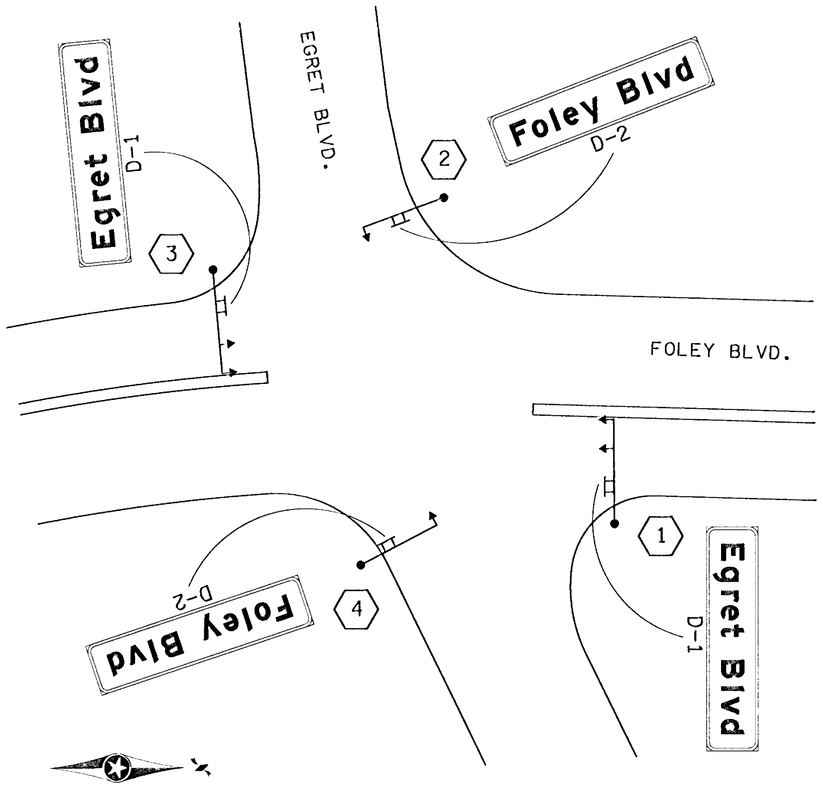


D-2; 3.0" Radius, 1.0" Border, White on Green;
[Foley Blvd] E Mod;

TYPE "D" SIGNS								
SIGN PANEL	SIZE	NUMBER REQUIRED	BRACKETS PER SIGN	BRACKET SPACING	SQUARE FT. PER SIGN	MOUNTING DIMENSIONS		POLE NUMBER
						a	b	
D-1	78" x 18"	2	3	30"	9.75		16',22'	⟨1⟩⟨3⟩
D-2	78" x 18"	2	3	30"	9.75		14',12'	⟨2⟩⟨4⟩



MAST ARM SIGN DIMENSIONING DETAIL



NO SCALE

C.S.A.H. 11 & EGRET BLVD.
SIGN LAYOUT

NOTES:

1) COLOR - VIP WHITE LEGEND AND BORDER ON GREEN BACKGROUND.
2) CORNERS EXTENDING BEYOND THE BORDER SHALL NOT BE TRIMMED.
3) BORDERS SHALL BE AS SHOWN ON PLANS.
4) FOR STRUCTURAL DETAILS, TYPE "D" SIGNS, SEE STANDARD SIGNS MANUAL, PAGE 105B.
5) FOR TYPE "D" STRINGER AND PANEL - JOINT DETAIL, SEE STANDARD SIGNS MANUAL, PAGE 105.
6) LETTERING STYLE SHALL BE HIGHWAY GOTHIC CONFORMING TO MN/DOT STANDARDS.

NO	DATE	BY	CKD	APPR	REVISION

NAME: 3212.DSC DATE: Sep. 17, 2001 TIME: 10:32:38

I hereby certify that this plan, specification, or report was prepared by me or under my direct supervision and that I am a duly Licensed Professional Engineer under the laws of the State of Minnesota.
Print Name: JONATHAN J. KRIEG
Jonathan J. Krieg
Date 6-11-02 License # 40780

STATE AID PROJECT NO. S.P. 02-611-28
CITY PROJECT NO.

DRAWN BY M.BRESSLER DATE 5-01
DESIGNED BY M.BRESSLER 5-01
CHECKED BY G.STUEMPFIG 5-01
COMM. NO. 0983212

SRF CONSULTING GROUP, INC.

ANOKA COUNTY
MAST ARM SIGN DETAILS
C.S.A.H. 11 (FOLEY BLVD.)

SHEET 48 OF 58

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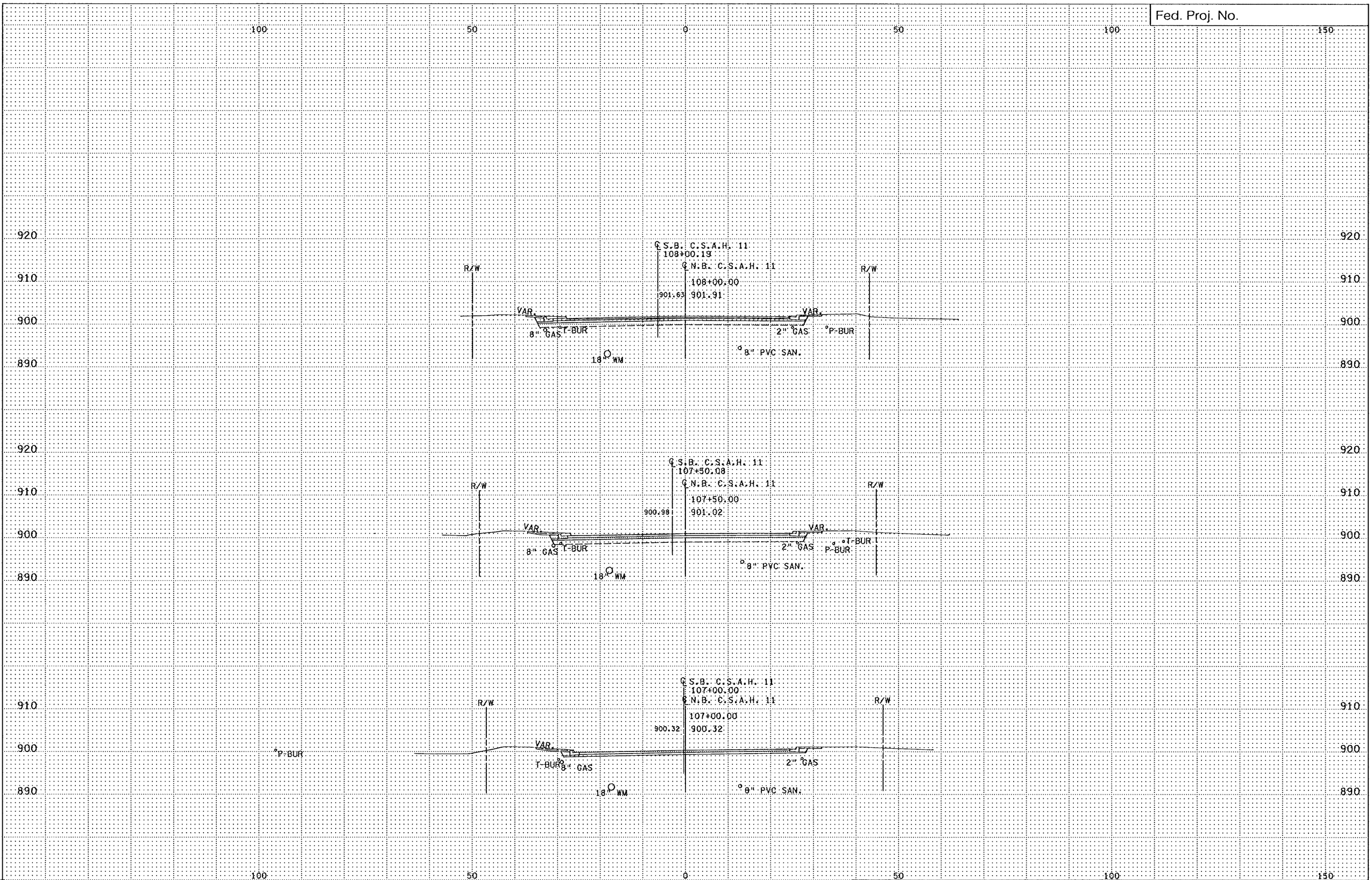
Fed. Proj. No.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50
0
50
100
150
920
910
900
890
℄ S.B. C.S.A.H. 11
108+00.19
℄ N.B. C.S.A.H. 11
108+00.00
901.63
901.91
R/W
R/W
VAR.
VAR.
8" GAS
T-BUR
2" GAS
P-BUR
18" WM
8" PVC SAN.
℄ S.B. C.S.A.H. 11
107+50.08
℄ N.B. C.S.A.H. 11
107+50.00
900.98
901.02
R/W
R/W
VAR.
VAR.
8" GAS
T-BUR
2" GAS
T-BUR
P-BUR
18" WM
8" PVC SAN.
℄ S.B. C.S.A.H. 11
107+00.00
℄ N.B. C.S.A.H. 11
107+00.00
900.32
900.32
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P-BUR
VAR.
T-BUR
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2" GAS
18" WM
8" PVC SAN.

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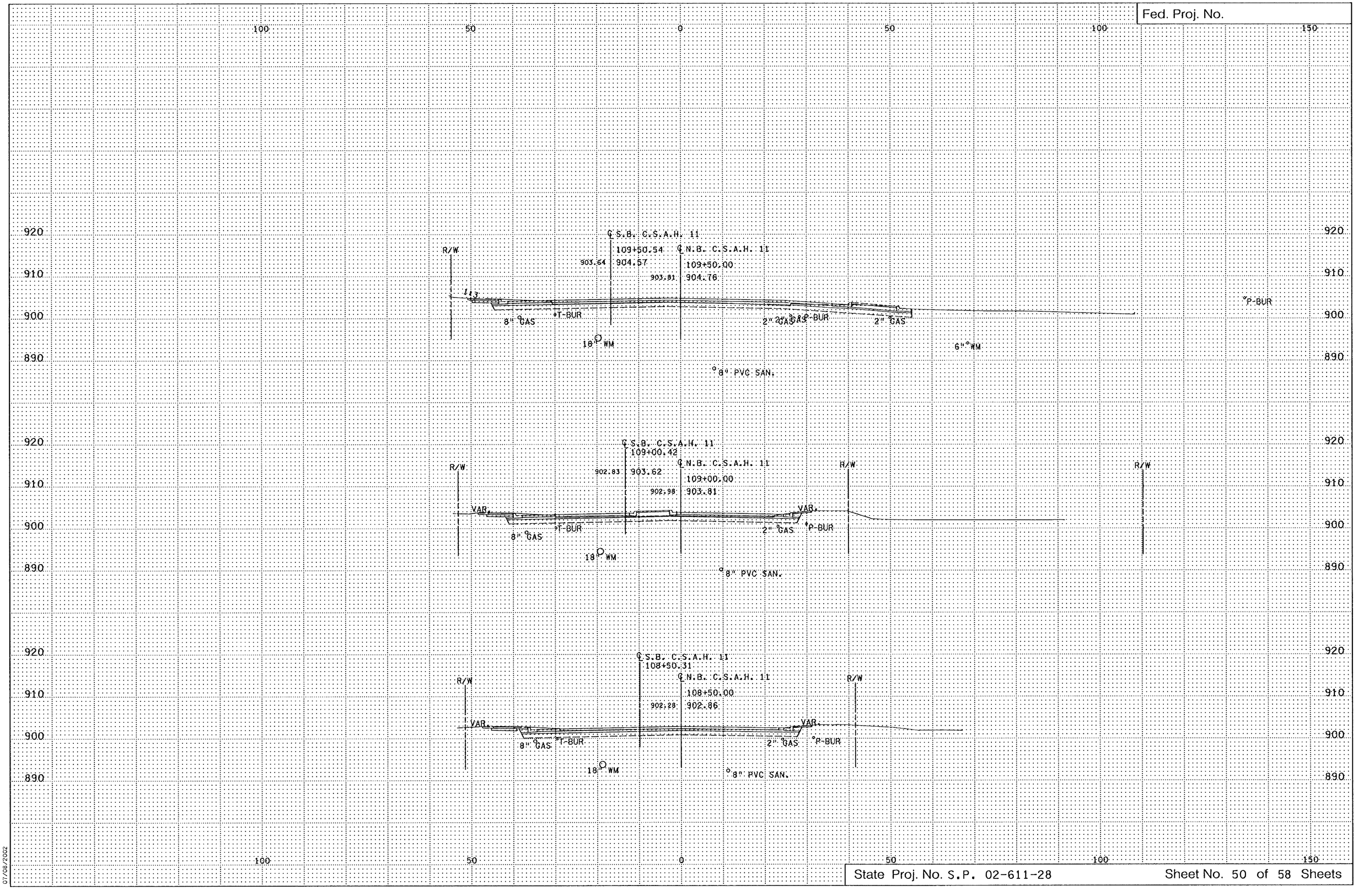

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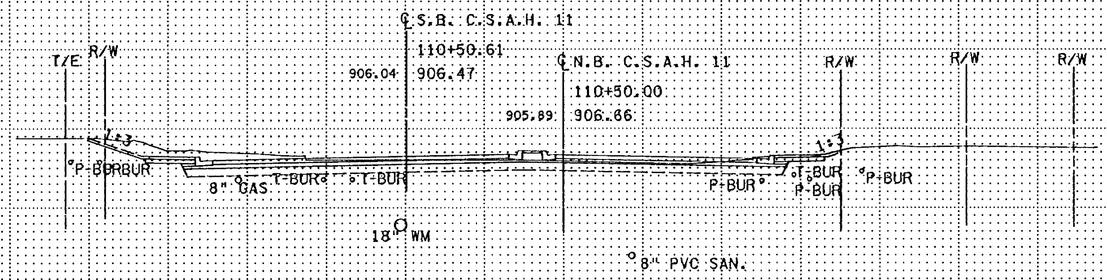
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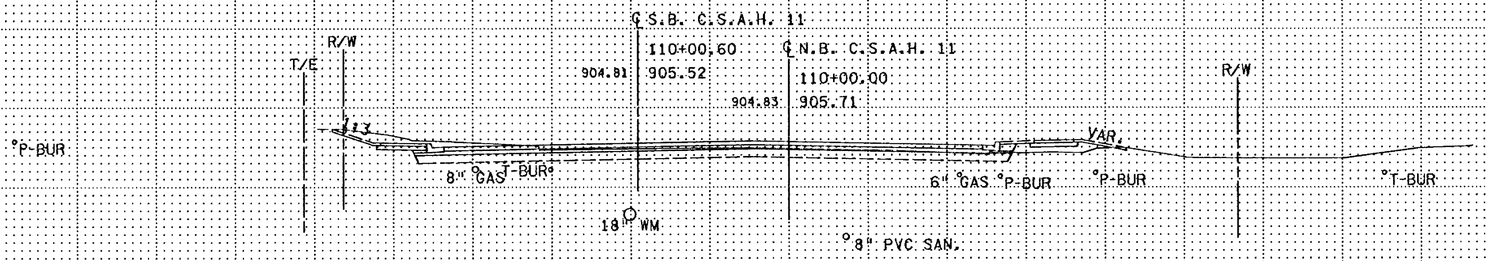
110+50.61
906.04
906.47
℄ N.B. C.S.A.H. 11
110+50.00
905.89
906.66
T/E
R/W
R/W
R/W
R/W
1:3
1:3
P-BUR
8" GAS
T-BUR
ST-BUR
P-BUR
T-BUR
P-BUR
P-BUR
18" WM
8" PVC SAN.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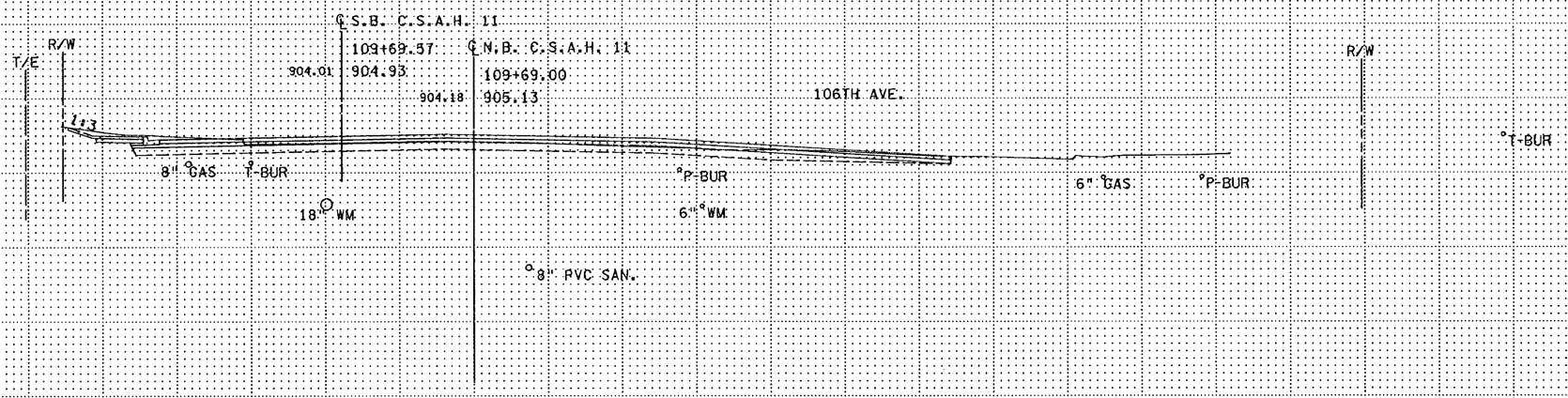
904.81
905.52
℄ N.B. C.S.A.H. 11
110+00.00
904.83
905.71
T/E
R/W
R/W
R/W
1:3
VAR.
P-BUR
8" GAS
T-BUR
6" GAS
P-BUR
P-BUR
T-BUR
18" WM
8" PVC SAN.


℄ S.B. C.S.A.H. 11
109+69.57
904.01
904.93
℄ N.B. C.S.A.H. 11
109+69.00
904.18
905.13
T/E
R/W
R/W
106TH AVE.
1:3
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T-BUR
P-BUR
6" GAS
P-BUR
T-BUR
18" WM
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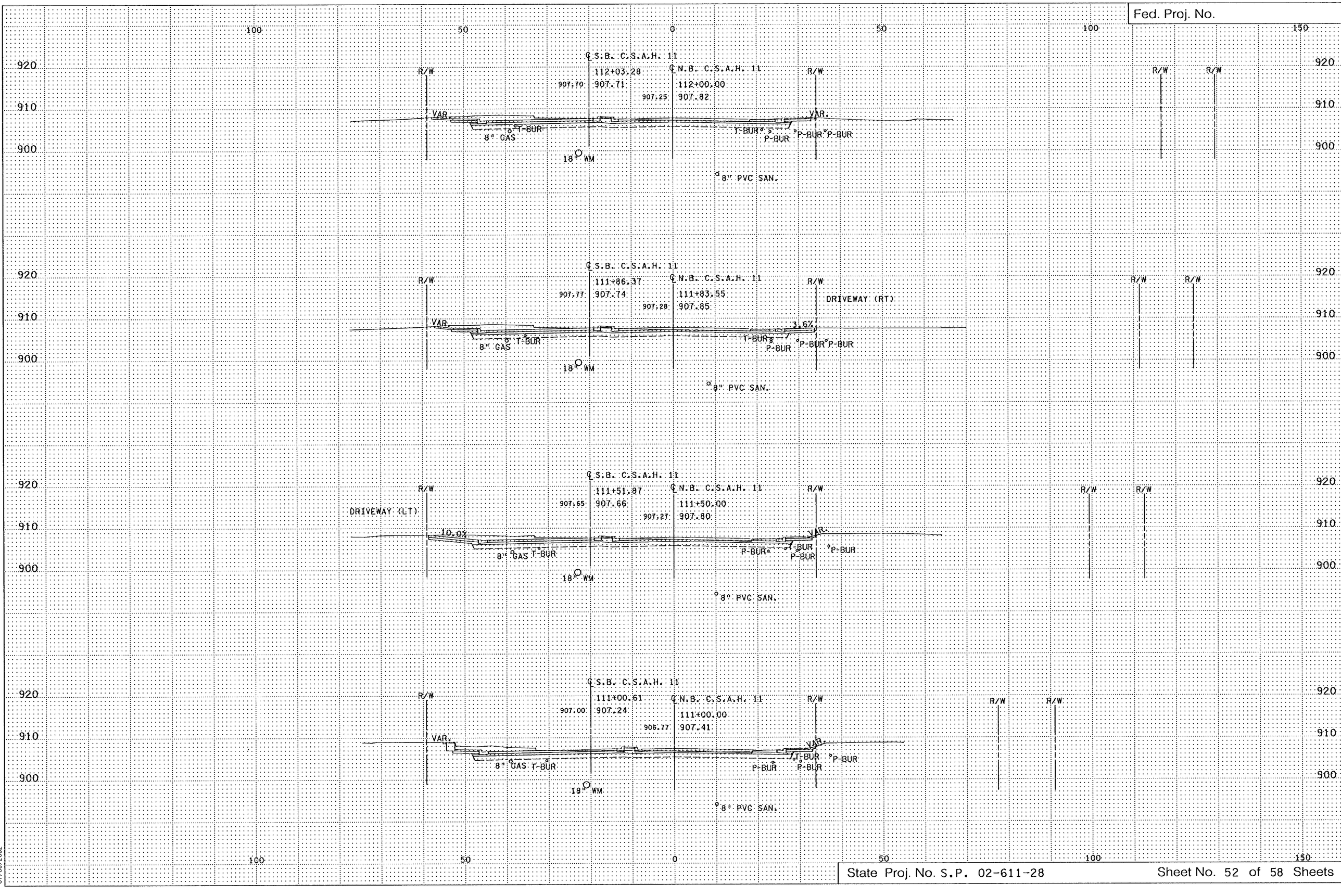
8" PVC SAN.

Fed. Proj. No.


100
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0
50
100
150
920
910
900
℄ S.B. C.S.A.H. 11
112+03.28
907.70
907.71
℄ N.B. C.S.A.H. 11
112+00.00
907.25
907.82
R/W
VAR.
T-BUR
8" GAS
18" WM
P-BUR
8" PVC SAN.
℄ S.B. C.S.A.H. 11
111+86.37
907.77
907.74
℄ N.B. C.S.A.H. 11
111+83.55
907.28
907.85
DRIVEWAY (RT)
3.6%
℄ S.B. C.S.A.H. 11
111+51.87
907.65
907.66
℄ N.B. C.S.A.H. 11
111+50.00
907.27
907.80
DRIVEWAY (LT)
10.0%
℄ S.B. C.S.A.H. 11
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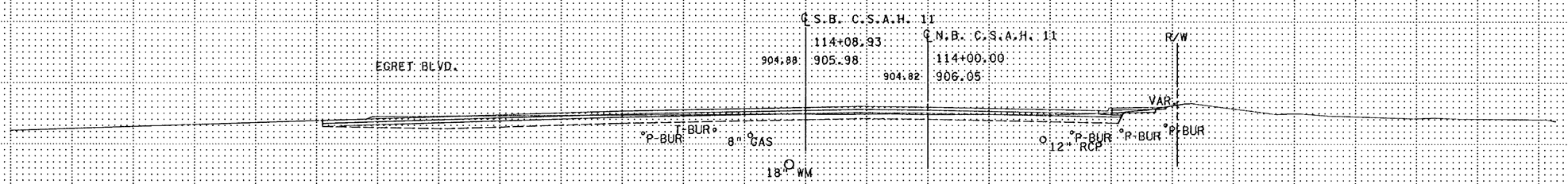

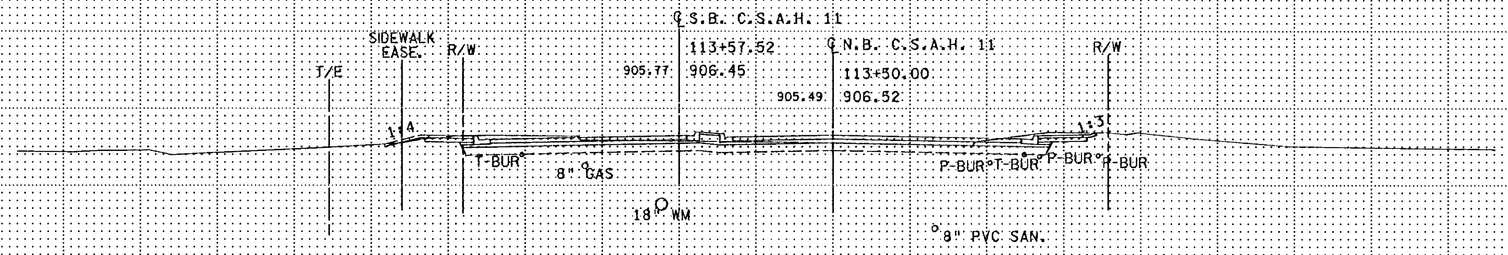

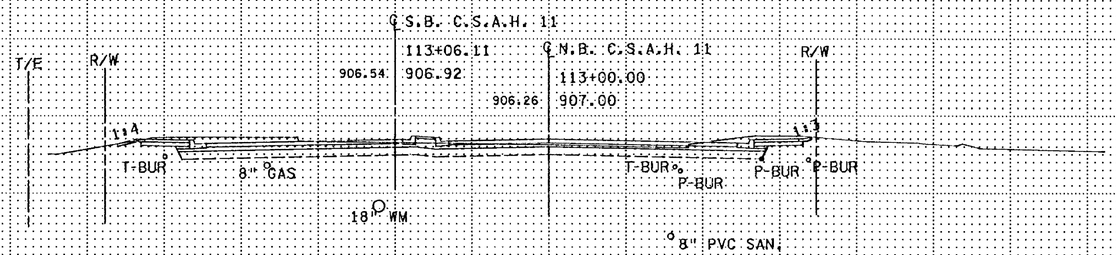

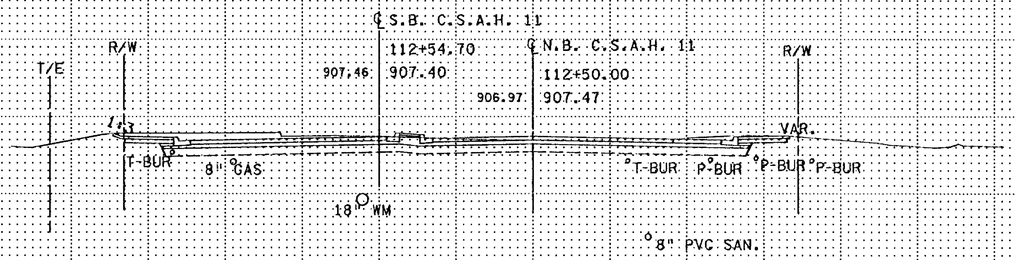

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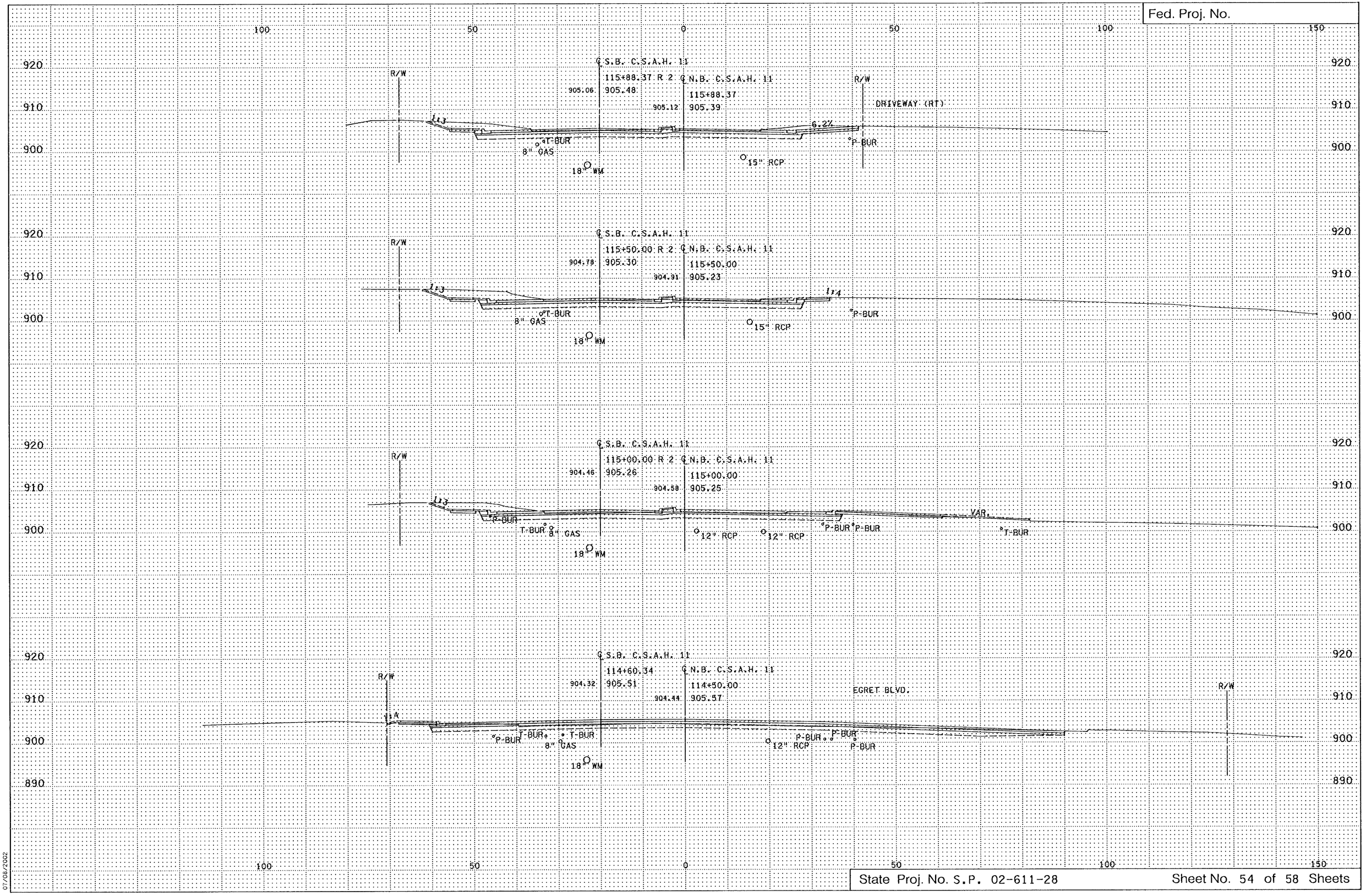

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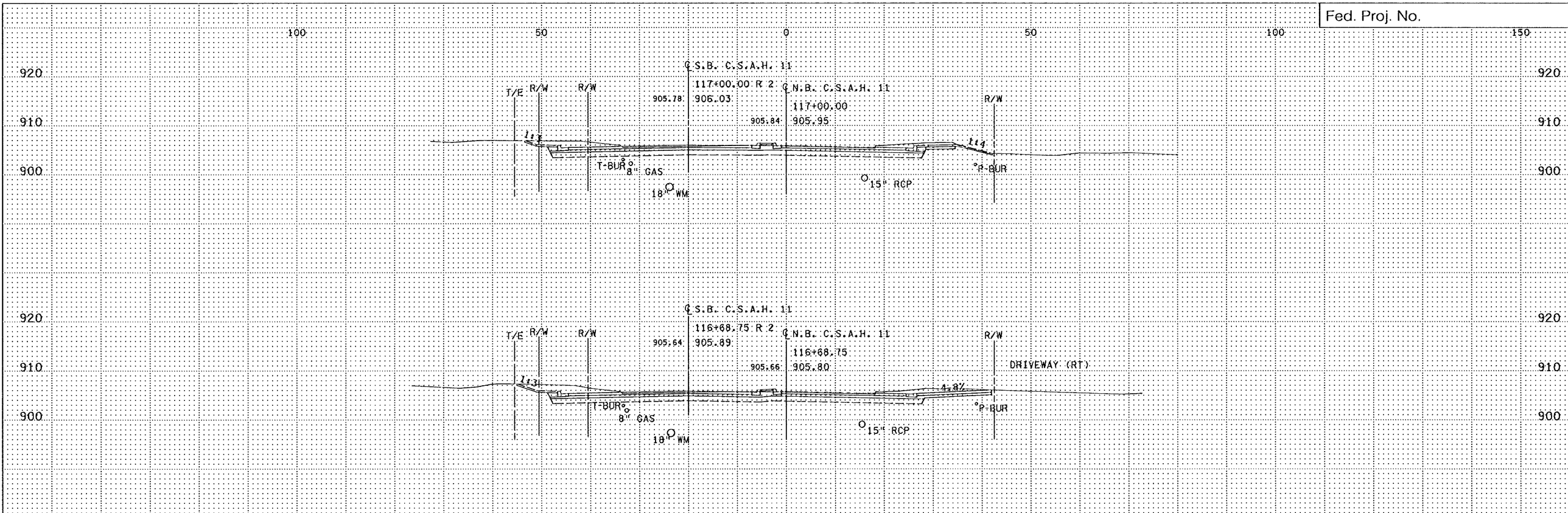

State Proj. No. S.P. 02-611-28

Sheet No. 55 of 58 Sheets

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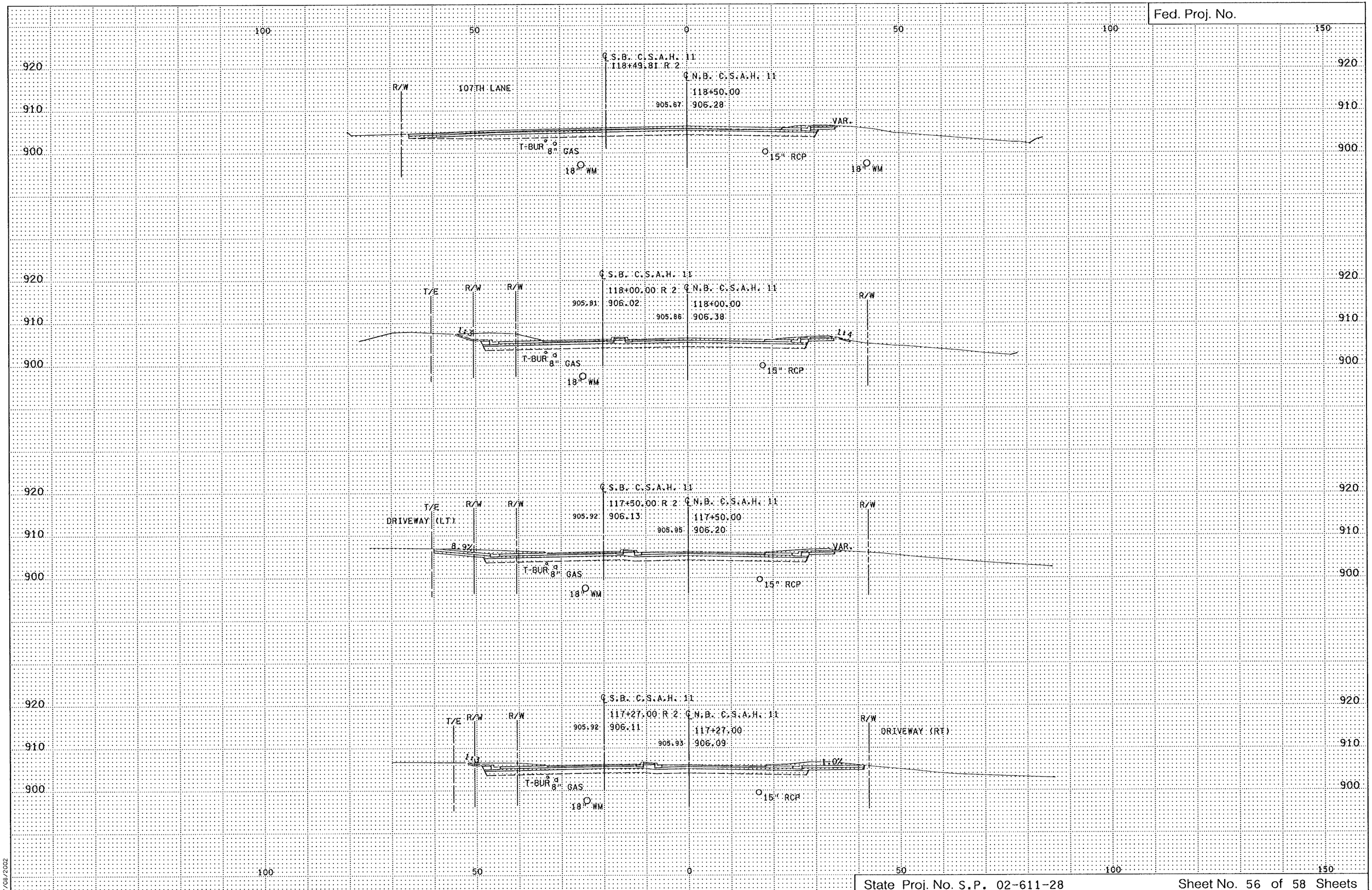

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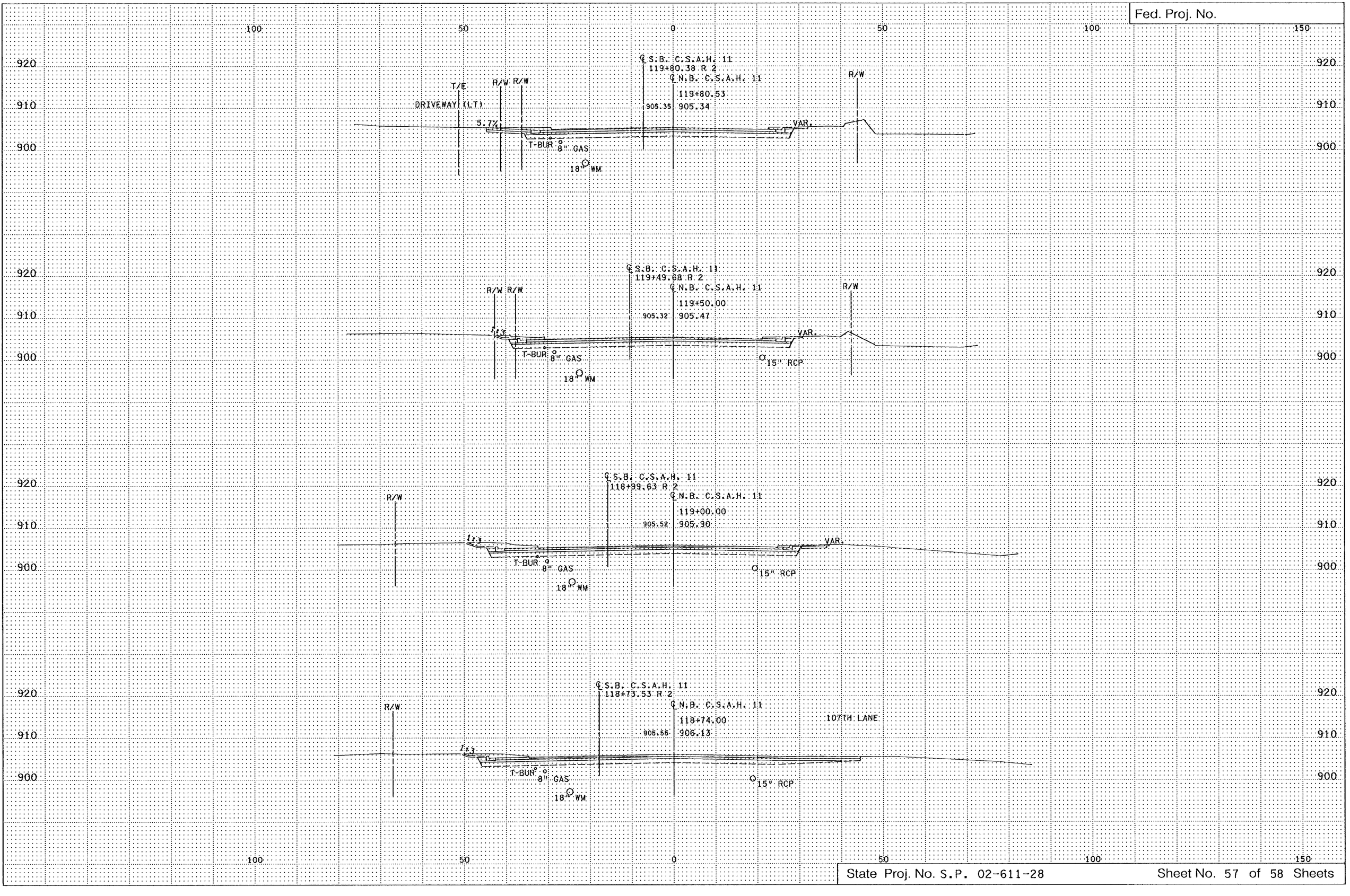

State Proj. No. S.P. 02-611-28 Sheet No. 57 of 58 Sheets

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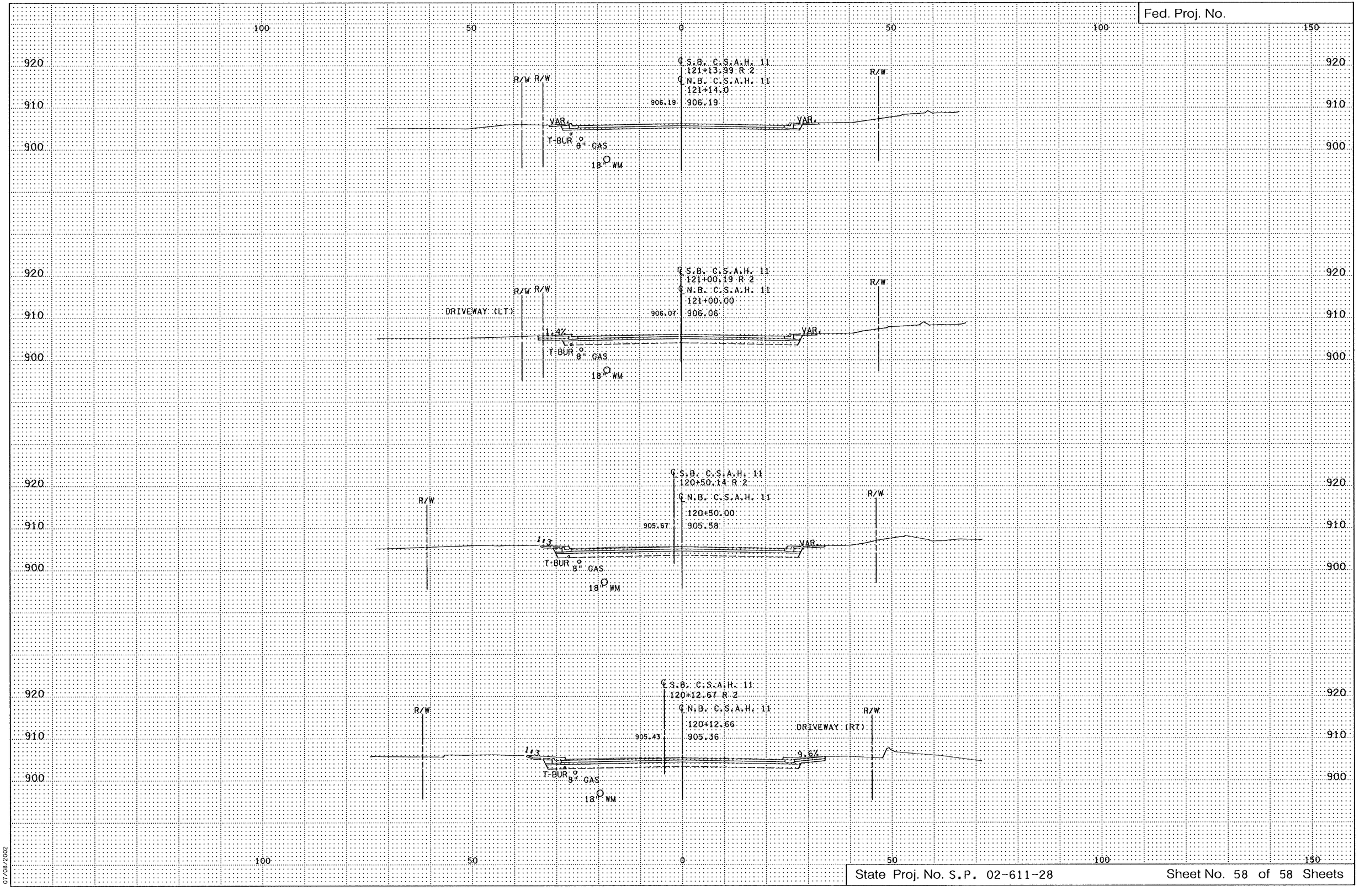

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State Proj. No. S.P. 02-611-28

Sheet No. 58 of 58 Sheets