

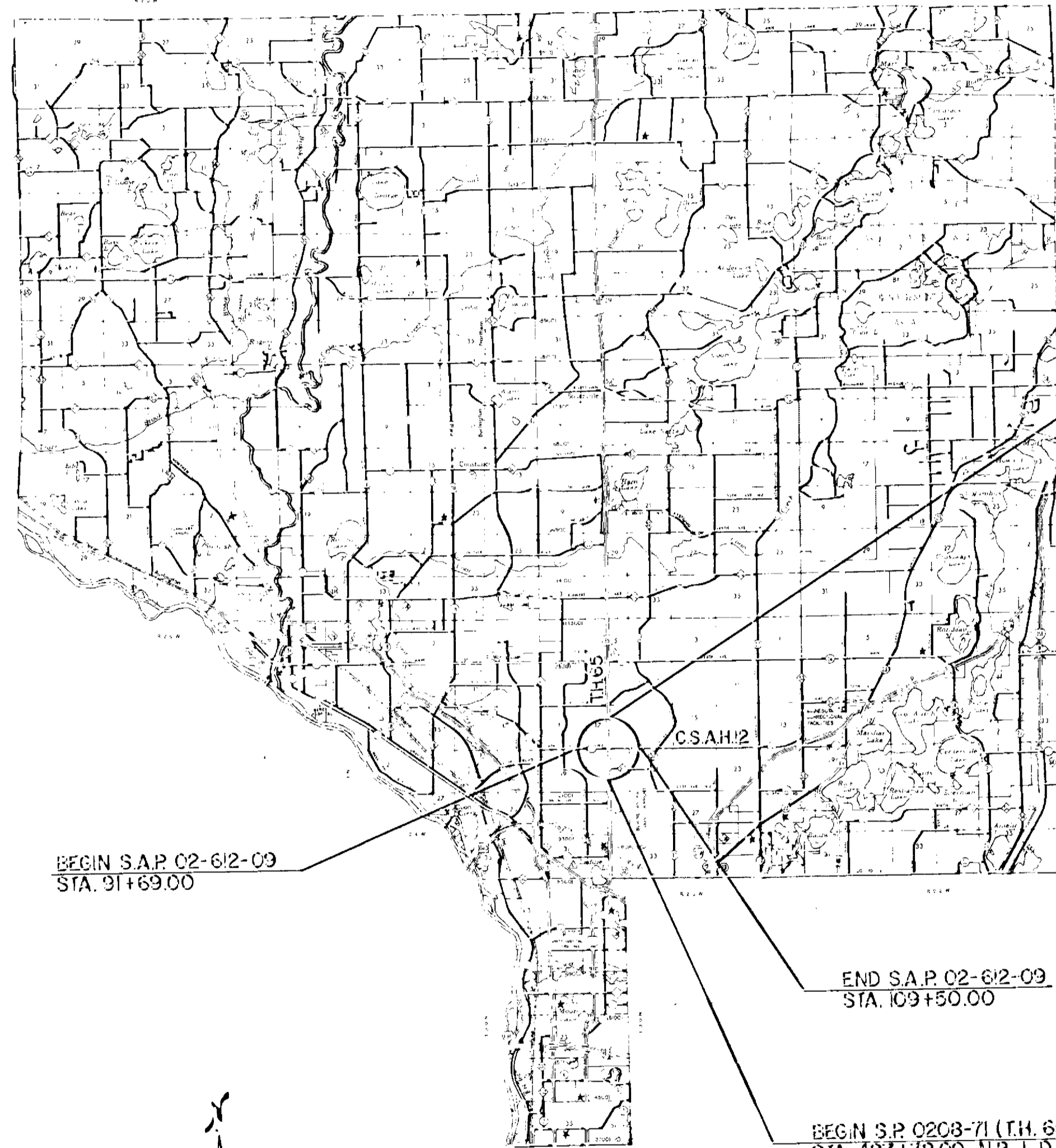
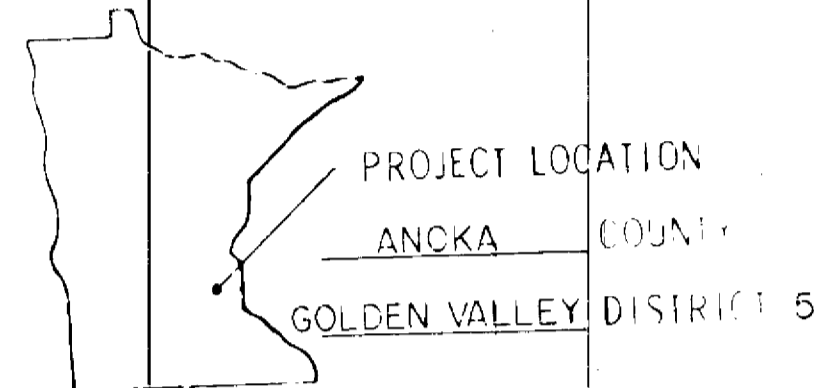
MINNESOTA DEPARTMENT OF TRANSPORTATION

CONSTRUCTION PLAN FOR GRADING, SURFACING, UTILITIES, AND TRAFFIC SIGNAL REVISIONS

ANOKA C.S.A.H. 12
 LOCATED ON MINN. TH. 65 FROM 686' SOUTH OF C.S.A.H. 12 TO 732' NORTH OF C.S.A.H. 12

STATE PROJ. NO. SP 0208-71 (TH. 65)
 MINN. PROJ. NO.
 GROSS LENGTH 1418.00 FEET 0.27 MILES
 BRIDGES-LENGTH 0.00 FEET 0.000 MILES
 EXCEPTIONS-LENGTH 0.00 FEET 0.000 MILES
 NET LENGTH 1418.00 FEET 0.27 MILES
 MILE POINT TO MILE POINT

S.A.P. 02-612-09 (C.S.A.H. 12)
 MINN. PROJ. NO.
 GROSS LENGTH 1732.00 FEET 0.31 MILES
 BRIDGES-LENGTH 0.00 FEET 0.000 MILES
 EXCEPTIONS-LENGTH 250.00 FEET 0.05 MILES
 NET LENGTH 1532.00 FEET 0.29 MILES
 MILE POINT TO MILE POINT



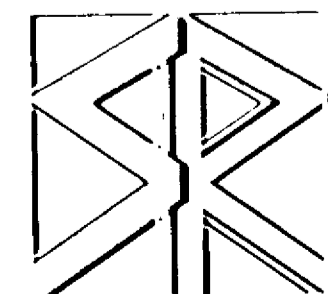
DESIGN DESIGNATION - C.S.A.H. 12

ADT (Current Year) 1988 = 9,863
 ADT (Future Year) 2008 = 19,625
 DMV (Design Hr. Vol.) =
 D (Directional Distr.) =
 T (Heavy Commercial) = 5.9 %
 Design Speed 55 MPH
 Based on STOPPING Sight Distance
 Height of eye 3.5' Height of object 0.5'
 Design Speed not achieved at:
 STA. TO STA. MPH
 STA. TO STA. MPH

SCALES

PLAN 50'
 PROFILE 50'
 INDEX MAP 13000'
 X-SECTION 10'

PLAN REVISIONS		
DATE	SHEET NO.	APPROVED BY



STRGAR-ROSCOE-FAUSCH, INC.

CONSULTING ENGINEERS - LAND SURVEYORS

MINNEAPOLIS

MINNESOTA

FOR PLANS AND UTILITIES SYMBOLS SEE TECHNICAL MANUAL

STATE PROJ. NO. AREA JOB

BLAINE CITY
 PROJ. NO.
 37-03

S.A.P. 02-612-09 (C.S.A.H. 12)
 STATE PROJ. NO. SP 0208-71 (TH. 65)

DEPARTMENT OF TRANSPORTATION
 FEDERAL HIGHWAY ADMINISTRATION

APPROVED

DIVISION ADMINISTRATOR DATE

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 REGISTERED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF MINNESOTA.

DATE REG. NO.

FED. PROJ. NO.

GOVERNING SPECIFICATIONS

THE 1988 EDITION OF THE MINNESOTA DEPARTMENT OF TRANSPORTATION "STANDARD SPECIFICATIONS FOR HIGHWAY CONSTRUCTION" SHALL GOVERN.

INDEX

- 1 TITLE SHEET
- 2 EST. QUANTITIES, STANDARD PLATES & CONSTRUCTION NOTES
- 3 STORM SEWER TABULATION & PROFILES
- 4 MISC. TABULATION & DETAILS
- 5-7 TYPICAL SECTIONS
- 8-10 PLAN & PROFILE
- 11 SIGNING & STRIPING
- 12-14 CONSTRUCTION STAGING AND TRAFFIC CONTROL
- 15-20 SIGNAL PLANS
- 21-27 CROSS SECTIONS

THIS PLAN CONTAINS 27 SHEETS

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 11/21/83 REG. NO. 14440 ENGR. *Robert J. [Signature]*

Recommended for Approval	_____	19
	Anoka County	
Recommended for Approval	_____	19
	City of Blaine	
Recommended for Approval	_____	19
	District State Aid Engineer	
Recommended for Approval	_____	19
	Director, Office of Technical Support	
Recommended for Approval	_____	19
	Design Services	
Recommended for Approval	_____	19
	Director Right-of-Way	
APPROVED	_____	19
	Deputy Division Director	

NOV 28 1983
 DATE PLOTTED

STATEMENT OF ESTIMATED QUANTITIES

	ITEM NO.	ITEM	UNIT	S.P. 0203-71	S.A.P.	BLAINE NO.	TOTAL	ITEM NO.	ITEM	UNIT	S.P. 0203-71	S.A.P.	BLAINE NO.	TOTAL
				T.H. 65	02-612-03	87-03					T.H. 65	02-612-03	87-03	
GRADING	2091.501	FIELD OFFICE, TYPE D	EACH	0.4	0.6		1.0	2211.503	AGGREGATE BASE PLACED CLASS 5	CU. YD.	325.0	1750.0		2105.0
	2104.501	REMOVE CONCRETE CURB	LIN. FT.	0.0	180.0		180.0	2211.501	AGG. BASE PLACED CLASS 5 100% CRUSHED	CU. YD.	0.0	55.0		55.0
	2104.505	REMOVE BITUMINOUS PAVEMENT	SQ. YD.	1350.0	6505.0		7855.0	2231.501	BITUMINOUS PATCHING MIXTURE	TON	50	100		150
	2104.513	SAWING BIT. PAVEMENT (FULL DEPTH)	LIN. FT.	2026.0	1803.0		3829.0	2331.504	BITUMINOUS MATERIAL FOR MIXTURE	TON	83.0	119.0		207.0
	2104.521	SALVAGE R.C. CULVERT PIPE	LIN. FT.	80.0	110.0		190.0	2331.510	BINDER COURSE MIXTURE (MODIFIED)	TON	350.0	630.0		980.0
	2104.521	SALVAGE R.C. CULVERT PIPE	LIN. FT.	0.0	134.0		134.0	2331.512	LEVELING COURSE MIXTURE (MODIFIED)	TON	250.0	500.0		750.0
	2104.523	SALVAGE R.C. PIPE APRON	EACH	3.0	2.0		5.0	2331.514	BASE COURSE MIXTURE (MODIFIED)	TON	1100.0	1168.0		2268.0
	2230.501	MILL BITUMINOUS SURFACE	SQ. YD.	300.0	528.0		828.0	2341.504	BITUMINOUS MATERIAL FOR MIXTURE	TON	28.0	64.0		92.0
	2105.501	COMMON EXCAVATION (EV)	CU. YD.	608.0	1444.0		2052.0	2341.508	WEARING COURSE MIXTURE (MODIFIED)	TON	415.0	900.0		1315.0
	2105.505	MUCK EXCAVATION (EV)	CU. YD.	357.0	7738.0		8095.0	2341.518	BITUMINOUS MIXTURE FOR DRIVEWAYS	TON	0.0	40.0		40.0
	2105.507	SUBGRADE EXCAVATION (EV)	CU. YD.	1234.0	685.0		1919.0	2357.502	BITUMINOUS MATERIAL FOR TACK COAT	GAL.	495.0	1250.0		1745.0
	2105.521	GRANULAR BORROW (EV)	CU. YD.	0.0	13080.0		13080.0	2521.501	4" CONCRETE WALK	SQ. FT.	2916.0	0.0	14700.0	17616.0
	2105.522	SELECT GRANULAR BORROW (EV)	CU. YD.	1692.0	0.0		1692.0	2531.501	CONCRETE CURB AND GUTTER DESIGN B612	LIN. FT.	200.0	745.0	745.0	1690.0
	2105.523	COMMON BORROW (LV)	CU. YD.	1198.0	434.0		1632.0	2531.501	CONCRETE CURB AND GUTTER DESIGN B618	LIN. FT.	715.0	1543.0	1542.0	3800.0
	2130.501	WATER	M GAL.	10.0	100.0		110.0	2531.502	CONCRETE CURB DESIGN VE	LIN. FT.	0.0	40.0		40.0
2501.511	15" R.C. PIPE CULVERT CLASS III	LIN. FT.	138.0	0.0		138.0	2531.507	7" CONCRETE DRIVEWAY PAVEMENT	SQ. YD.	0.0	70.2		70.2	
2501.511	18" R.C. PIPE CULVERT CLASS III	LIN. FT.	34.0	0.0		34.0	2535.501	BITUMINOUS CURB	LIN. FT.	0.0	35.0		35.0	
2501.515	12" R.C. PIPE APRON	EACH	1.0	0.0		1.0	563.601	TRAFFIC CONTROL	LUMP SUM	0.2	0.8		1.0	
2501.515	15" R.C. PIPE APRON WITH TRASH GUARD	EACH	2.0	1.0		3.0	564.602	PAVEMENT MESSAGE (ARROW)	EACH	4.0	0.0		4.0	
2501.515	30" R.C. PIPE APRON WITH TRASH GUARD	EACH	1.0	0.0		1.0	564.602	PAVEMENT MESSAGE (ONLY)	EACH	4.0	0.0		4.0	
2501.525	22" SPAN R.C. PIPE ARCH APRON WITH TRASH GUARD	EACH	0.0	3.0		3.0	564.631	F & I SIGN PANELS TYPE D	SQ. FT.	44.6	101.9		146.5	
2501.525	28" SPAN R.C. PIPE ARCH APRON WITH TRASH GUARD	EACH	0.0	1.0		1.0	564.631	F & I SIGN PANELS TYPE D - SIGNALS	SQ. FT.	24.0	0.0		24.0	
2501.573	INSTALL SALVAGED R.C. PIPE APRON	EACH	3.0	0.0		3.0	564.606	4" WIDE PAVEMENT STRIPING	RD. STA.	13.5	34.0		53.5	
2503.511	12" R.C. PIPE SEWER CLASS III	LIN. FT.	27.0	0.0		27.0	564.606	6" WIDE PAVEMENT STRIPING	RD. STA.	11.0	6.2		17.2	
2503.511	15" R.C. PIPE SEWER CLASS III	LIN. FT.	0.0	0.0	2.0	2.0	564.606	12" WIDE PAVEMENT STRIPING	RD. STA.	3.1	1.4		4.5	
2503.511	24" R.C. PIPE SEWER CLASS III	LIN. FT.	0.0	81.0		81.0	565.604	REVISE TRAFFIC SIGNAL SYSTEM	SIG. SYS.	1.0	0.0		1.0	
2503.511	30" R.C. PIPE SEWER CLASS III	LIN. FT.	33.0	252.0		291.0	504.502	RELOCATE HYDRANT AND GATE VALVE	LUMP SUM	0.0	0.0	2.0	2.0	
2503.521	22" SPAN R.C. PIPE ARCH SEWER CLASS III	LIN. FT.	0.0	31.0	302.0	333.0	504.502	ADJUST HYDRANT	EACH	0.0	0.0	1.0	1.0	
2503.521	28" SPAN R.C. PIPE ARCH SEWER CLASS III	LIN. FT.	0.0	14.0	368.0	382.0	504.502	ADJUST GATE VALVE	EACH	1.0	0.0	5.0	6.0	
2506.508	CONSTRUCT MANHOLE DESIGN C OR G	EACH	0.0	0.0	1.0	1.0	2575.501	SEEDING WITH 6" TOPSOIL	ACRE	1.4	1.4		2.8	
2506.508	CONSTRUCT MANHOLE DESIGN 4020 (54" DIA)	EACH	1.0	0.0	3.0	4.0	2575.502	SEED MIXTURE 500	POUND	70.0	71.0		141.0	
2506.508	CONSTRUCT MANHOLE DESIGN 4020 (60" DIA)	EACH	0.0	0.0	1.0	1.0	2575.505	SODDING W/ 6" TOPSOIL	SQ. YD.	1400.0	5100.0		6500.0	
2506.508	CONSTRUCT MANHOLE DESIGN 4020 (72" DIA)	EACH	0.0	0.0	1.0	1.0	2575.511	MULCH MATERIAL TYPE I DISC ANCHORED	TON	2.8	2.8		5.6	
2506.509	CONSTRUCT CATCHBASIN DESIGN C OR G	EACH	0.0	0.0	3.0	3.0	2575.532	COMMERCIAL FERTILIZER ANALYSIS 10-20-20	POUND	845.0	1245.0		2090.0	
2506.509	CONSTRUCT CATCHBASIN DESIGN H	EACH	1.0	0.0	5.0	6.0								
2506.511	RECONSTRUCT MANHOLE	LIN. FT.	11.9	6.7		18.6								
2506.521	INSTALL MH CASTING	EACH	2.0	1.0		3.0								
2506.522	ADJUST FRAME AND RING CASTING	EACH	1.0	5.0		6.0								

STANDARD PLATES			
PLATE NO.	DESCRIPTION	PLATE NO.	DESCRIPTION
6004	SPECIFICATION REFERENCE TO STANDARD PLATES	7036	PEDESTRIAN CURB RAMP
3000	REINFORCED CONCRETE PIPE	7065	BITUMINOUS CURB
3006	GASKET JOINT FOR REINFORCED CONCRETE PIPE	7100	CONCRETE CURB AND GUTTER (DESIGN B AND DESIGN V)
3014	REINFORCED CONCRETE PIPE ARCH DETAIL	7110	CURB AND GUTTER CONSTRUCTION AT CATCH BASINS
3100	CONCRETE APRON FOR REINFORCED CONCRETE PIPE	7111	INSTALLATION OF CATCH BASIN CASTINGS
3110	CONCRETE APRON FOR REINFORCED CONCRETE PIPE-ARCH	8110	TRAFFIC SIGNAL BRACKETING
3145	CONCRETE PIPE TIES	8111	TRAFFIC SIGNAL BRACKETING (PEDESTAL MOUNTED)
4002	MANHOLE OR CATCH BASIN - DESIGN C	8112	PEDESTAL FOUNDATION
4026	MANHOLE OR CATCH BASIN - DESIGN G AND DESIGN H	8115	PEDESTRIAN PUSHBUTTON INSTALLATION
4010	CONCRETE SHORT CONE AND ADJUSTING RING	8115	STEEL GUARD POST
4011	PRECAST CONCRETE BASE	8118	SERVICE EQPT. & POLE, TRAFFIC CONTROL SIGNALS
4020	MANHOLE OR CATCH BASIN	8119	GROUND MOUNTED CABINET FOUNDATION
4101	RING CASTING FOR M.H. OR C.B. - CASTING NO. 700-7	8121	TRANSFORMER BASE WITH POLE BASE PLATE
4110	COVER CASTING FOR MANHOLE - CASTING NO. 711	8122	PEDESTAL AND PEDESTAL BASE
4129	CATCH BASIN FRAME CASTING - CASTING NO. 802A	8123	POLE AND MAST ARM
4151	CATCH BASIN GRATE CASTING - CASTING NO. 811	8124	MAST ARM SIGNAL HEAD MOUNTS
4150	CURB BOX FOR CATCH BASIN - CASTING NO. 823A	8125	SWING-AWAY HINGE (FOR TRAFFIC SIGNAL ARM MAST)
4190	MANHOLE OR CATCH BASIN STEP	8125	P-100 POLE FOUNDATION
		8130	SAW OUT LOOP DETECTORS

CONSTRUCTION / SOILS NOTES	
1.	THE SOILS WITHIN THE PROJECT LIMITS GENERALLY CONSIST OF FINE SAND AND LOAMY FINE SAND.
2.	PEAT WAS ENCOUNTERED UNDER THE EXISTING SOUTHBOUND LEFT TURN LANE IN AN APPROXIMATE ONE FOOT THICK LAYER LOCATED 5 TO 6 FEET BELOW THE EXISTING ROADWAY SURFACE. THE THIN LAYER, OR LAYERS, OF PEAT ALSO EXIST IN THE AREA OF THE PROPOSED WIDENING.
3.	SATURATED SOILS WERE ENCOUNTERED APPROXIMATELY 4.5 FEET BELOW THE EXISTING ROADWAY SURFACE IN THE AREA OF THE SOUTHBOUND LEFT TURN LANE, AND APPROXIMATELY 80 FEET BELOW THE EXISTING ROADWAY SURFACE IN THE AREA OF THE NORTHBOUND LEFT TURN LANE.
4.	SELECTED GRADING MATERIALS ON THIS PROJECT SHALL CONSIST OF MATERIALS REMOVED FROM THE EXCAVATION WITH THE EXCEPTION OF ORGANIC SOILS, TOPSOIL AND OTHER UNSUITABLE MATERIAL.
5.	ALL TOPSOIL PRESENT IN AREAS TO BE DISTURBED BY CONSTRUCTION SHALL BE SALVAGED AND REUSED AS SLOPE DRESSING.
6.	COMPACTION ON THE GRADING PORTION OF ALL PERMANENT CONSTRUCTION SHALL BE OBTAINED IN ACCORDANCE WITH THE 'ORDINARY COMPACTION METHOD' REQUIREMENTS.
7.	GRANULAR MATERIAL OBTAINED AS SUBGRADE EXCAVATION AND MEETING THE REQUIREMENTS OF SPEC. 3149.2 SHALL BE USED AS SUBCUT BACKFILL AS DIRECTED BY THE ENGINEER.
8.	STABILIZING AGGREGATE SHALL BE INCORPORATED INTO THE SUBGRADE TO ACHIEVE SATISFACTORY SURFACE STABILITY FOR PAVEMENT OF THE CLASS 5 AGGREGATE BASE, AT LOCATIONS DEEMED NECESSARY BY THE ENGINEER, IN ACCORDANCE WITH SPEC 2105.3G. SELECT GRANULAR MATERIAL WHICH IS FURNISHED BY THE CONTRACTOR SHALL BE STABILIZED IF NECESSARY, AT THE CONTRACTOR'S EXPENSE. WHERE STABILIZING AGGREGATE IS DEEMED NECESSARY, IT SHOULD BE APPLIED AT A RATE OF APPROXIMATELY 200 POUNDS PER SQUARE YARD.
9.	STABILIZING AGGREGATE SHALL MEET THE REQUIREMENTS OF SPEC. 3149.2C, EXCEPT THAT WHEN CRUSHED CONCRETE IS USED, THE GRADATION REQUIREMENT SHALL BE MODIFIED SO THAT AT LEAST 3 PERCENT BUT NOT MORE THAN 15 PERCENT WILL PASS A NO. 200 SIEVE.
10.	USE 20:1 TAPERS WHERE CHANGING SUBCUT DEPTHS.
11.	BITUMINOUS SURFACING, CONCRETE ITEMS, ANY ABANDONED UTILITY ITEMS AND OTHER UNSUITABLE MATERIAL ENCOUNTERED DURING CONSTRUCTION SHALL BE DISPOSED OF BY THE CONTRACTOR OFF THE RIGHT OF WAY, OR RECYCLED IN THE PROJECT IF APPROPRIATE.
12.	SAWCUT EXISTING PAVEMENT WHEREVER NEW PAVEMENT ABUTS OLD PAVEMENT.
13.	WHERE PLACING NEW SURFACING ADJACENT TO AN INPLACE PAVEMENT, THE EXCAVATION SHALL BE BACKFILLED PROMPTLY TO AVOID UNDERMINING THE INPLACE PAVEMENT. SEE ALSO SHEET NO 14.
14.	USE TACK COAT BETWEEN ALL BITUMINOUS MIXTURES AND PRIOR TO PLACING ANY BITUMINOUS MIXTURES ON EXISTING CONCRETE OR BITUMINOUS SURFACES. THE BITUMINOUS TACK COAT MATERIAL SHALL BE APPLIED AT A UNIFORM RATE OF .03 TO .05 GAL/SQ. YD. BETWEEN BITUMINOUS LAYERS AND 07 TO .10 GAL/SQ. YD. ON CONCRETE OR MILLED BITUMINOUS SURFACES PRIOR TO BEING OVERLAID. THE APPLICATION RATES ARE FOR UNDILUTED EMULSIONS (AS SUPPLIED FROM THE REFINERY); ASPHALT EMULSION MAY BE FURTHER DILUTED IN THE FIELD IN ACCORDANCE WITH SPECIFICATION 2357.
15.	PRIOR TO PLACING THE OVERLAY, AIR BLAST ANY DETEIORATED CRACKS TO REMOVE LOOSE OR DETEIORATED SURFACING. THE AIR BLASTING SHALL BE DONE WITH HIGH PRESSURE (100+ PSI) EQUIPMENT.
16.	DEPRESSIONS RESULTING FROM AIR BLASTING OR REMOVAL OPERATIONS, WHICH ARE GREATER THAN 1 INCH IN DEPTH AND 1 INCH IN WIDTH, SHALL BE FILLED WITH BITUMINOUS PATCHING MIXTURE. BITUMINOUS PATCHING MIXTURE SHALL MEET THE REQUIREMENTS OF THE SPEC. 2331 MOD. LEVEL COURSE MIXTURE, AND SHALL BE USED AT THE DIRECTION OF THE ENGINEER. REMOVAL OF BADLY DETEIORATED AREAS MAY REQUIRE THE USE OF A SMALL MILLING MACHINE.
17.	COMPACTION OF ALL BITUMINOUS ITEMS SHALL BE OBTAINED IN ACCORDANCE WITH THE 'ORDINARY COMPACTION METHOD' REQUIREMENTS.
18.	USE SELECTED GRADING MATERIALS BEHIND ALL CURB UNLESS OTHERWISE NOTED.
19.	ALL SEEDED OR SODDED AREAS SHALL BE FERTILIZED AT 450# PER ACRE USING FERTILIZER ANALYSIS 10-20-20.

NO.	DATE	BY	CHKD	APPR	REVISION

STRGAR-ROSCOE-FAUSCH, INC.
CONSULTING ENGINEERS • LAND SURVEYORS

MINNEAPOLIS MINNESOTA

I hereby certify that this plan, specification or report 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.

Michael D. Brown
Date: 11/1/08 Reg. No. 12210

ANOKA COUNTY

C.S.A.H. 12 @ T.H. 65

ESTIMATED QUANTITIES, STANDARD PLATES AND CONSTRUCTION NOTES

STATE AID PROJ. NO.	02-612-09
DRAWN BY	S. KOSKELA
DESIGNED BY	S.R. BROWN
CHECKED BY	
APPROVED BY	

DATE 11-88
SHEET 2 OF 27
COMM. NO. 0870951

STORM SEWER

STRUCTURE NO.	LOCATION	STATION	OFF SET ①		DESIGN		TOP OF CASTING ②	OUTLET ②	CASTING ASSEMBLY TYPE	12" RCP	15" RCP	18" RCP	22" ④	28" ④	24" RCP	30" RCP	④ APRON	MISC.	FLOWS TO	INLET INVERT ②	% GRADE	③ CL	
			LT.	RT.	M.H.	C.B.	ELEV.	ELEV.		(LIN FT)	(LIN FT)	(LIN FT)	(LIN FT)	(LIN FT)	(LIN FT)								
1	W.B. C.S.A.H. 12	94+57.8	48.4'			H	900.59	898.53	B				46						2	898.48	0.10		
2	W.B. C.S.A.H. 12	95+02.3	38.4'			H	900.54	898.48	B				33						3	898.45	0.10		
3	W.B. C.S.A.H. 12	95+32	22'		C OR G		902.10	898.45	A					149					5	898.30	0.10		
4	W.B. C.S.A.H. 12	96+65	48'				898.33						26						5	898.30	0.10		
5	W.B. C.S.A.H. 12	96+80	19'		4020 (72")		903.05	898.30	A							182			6	898.12	0.10	III	
6	W.B. C.S.A.H. 12	98+60	21'		4020 (60")		902.36	898.12	A							70			7	898.05	0.10	III	
7	W.B. C.S.A.H. 12	99+28	30'		4020 (54")		902.40	898.05	A							39			8		0.10	III	
8	W.B. C.S.A.H. 12	99+44	73'					898.00											DITCH				
9	W.B. C.S.A.H. 12	98+60	14.3'			C OR G	901.45	898.16	B				7						6	898.12	0.50		
10	E.B. C.S.A.H. 12	98+60		13'		C OR G	901.48	898.53	B				74						9	898.16	0.50		
11	E.B. C.S.A.H. 12	96+76		19'	4020 (54")		903.05	898.42	A						81				5	898.30	0.15	III	
12	E.B. C.S.A.H. 12	95+50		16.5'	4020 (54")		902.40	898.61	A					129					11	898.42	0.15		
13	E.B. C.S.A.H. 12	95+50		32'			900.40				9								12	898.61	12.00	III	
14	E.B. C.S.A.H. 12	94+56		13'		H	901.27	898.75	B				92						12	898.61	0.15		
15	W.B. C.S.A.H. 12	104+78	69'				896.06						19						16	895.56	2.00		
16	W.B. C.S.A.H. 12	104+97.1	55.9'			H	898.17	895.56	B				36						17	895.47	0.25		
17	W.B. C.S.A.H. 12	105+26.6	36.6'			H	898.07	895.47	B				18						19	895.42	0.25		
18	W.B. C.S.A.H. 12	105+38	69'				896.01						32						19	895.42	1.55		
19	W.B. C.S.A.H. 12	105+45	38'		4020 (54")		899.20	895.42	A					90					20	895.10	0.35		
20	E.B. C.S.A.H. 12	105+49		13'		C OR G	898.23	895.10	B					14					21		0.50		
21	E.B. C.S.A.H. 12	105+49		33'				895.00											DITCH				
22	S.B. T.H. 65	493+86	39'				898.53				198								23		0.25	III	
23	S.B. T.H. 65	496+04	46'					898.00											15" RCP	CULVERT	DITCH		
24	N.B. T.H. 65	495+35.2	35.6'			H	901.25	899.48	B	27									25		0.25	III	
25	N.B. T.H. 65	495+68	35.6'					899.40											12" RCP		DITCH		
26	N.B. T.H. 65	493+98		48'			898.6				26'								⑤	CULVERT	EXIST.	0.35	III
27	N.B. T.H. 65	495+82		42'				897.9			55'								⑤	CULVERT	DITCH	0.35	III
28	N.B. T.H. 65	493+02	51'				898.26				13'								⑤	CULVERT	EXIST.	0.26	III

STORM SEWER NOTES:

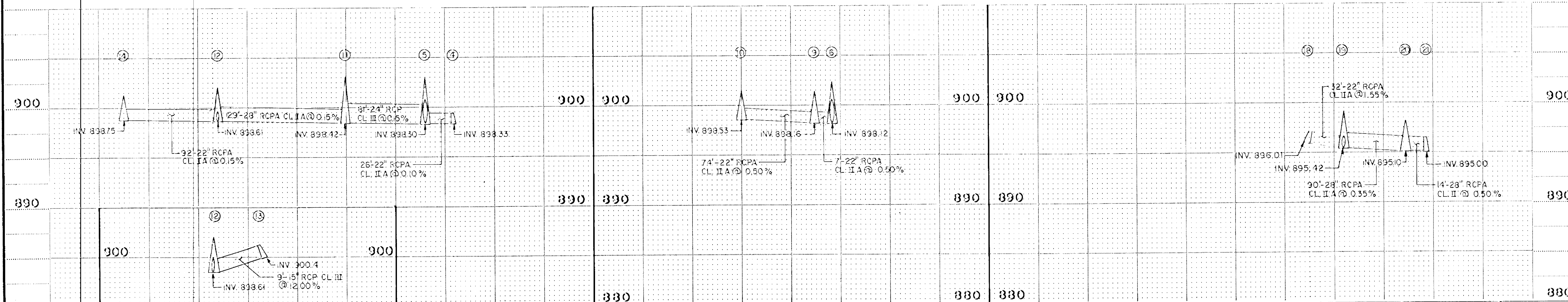
- ① ALL STRUCTURE LOCATIONS AND ALL PIPE LENGTHS ARE TO THE CENTER OF THE GRATE WHICH MAY OR MAY NOT BE THE CENTER OF THE STRUCTURE.
- ② TOP OF CASTING ELEVATIONS ARE GIVEN AS FOLLOWS:
C.B. CASTING IN CURB AND GUTTER - ELEV. GIVEN AT CENTER OF GRATE
STOOL GRATE AT DROP INLET - ELEV. GIVEN AT CASTING LIP
PIPE APRON - ELEV. GIVEN AT APRON TOE INVERT
M.H. CASTING - ELEV. GIVEN AT TOP RIM OF FRAME CASTING
- ③ ALL R.C. PIPE-ARCH CLASS IIA UNLESS OTHERWISE NOTED.
- ④ 22" RCPA REFERS TO 13.5" RISE X 22" SPAN R.C. PIPE-ARCH.
28" RCPA REFERS TO 18" RISE X 28.5" SPAN R.C. PIPE-ARCH.
- ⑤ SALVAGE AND REINSTALL EXISTING APRON. EXTEND EXISTING CULVERT.

CASTING ASSEMBLIES		
KEY	APP.	MNDOT STANDARD PLATE NO. *
A	M.H.	4101C CASTING NO. 700-7 4110D CASTING NO. 711
B	C.B.	4129F CASTING NO. 802-A 4151B CASTING NO. 811 4160D CASTING NO. 823A

* OR APPROVED EQUAL

SALVAGE PIPE AND PIPE APRONS						
FROM		TO		SALVAGE LIN. FT.	SALVAGE EACH	DESCRIPTION
STATION	OFFSET	STATION	OFFSET			
94+42	49' LT	95+06	46' LT	64		15" R.C.P.
95+50	28' LT	95+50	32' RT	60		18" C.M.P.
96+84	45' LT	97+34	45' LT	50		15" C.M.P.
99+62	40' LT	99+62	40' RT	80		15" C.M.P.
105+78	45' LT	105+78	35' RT	70	2	15" R.C.P. & APRONS
493+02	51' LT				1	18" R.C. PIPE APRON
493+98	48' RT				1	18" R.C. PIPE APRON
495+82	42' RT				1	18" R.C. PIPE APRON

NOTES: C.M.P. END SECTIONS, IF ANY, ARE INCLUDED IN LIN. FT. QUANTITIES.
C.S.A.H. 12 STATIONING GIVEN FROM E.B. ALIGNMENT.
T.H. 65 STATIONING GIVEN FROM N.B. ALIGNMENT.



NO	DATE	BY	CHKD	APPD	REVISION		STRGAR-ROSCOE-FAUSCH, INC. CONSULTING ENGINEERS ■ LAND SURVEYORS MINNEAPOLIS	I hereby certify that this plan, specification or report 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. <i>[Signature]</i> Date 11/21/201 Reg. No. 14220	ANOKA COUNTY C.S.A.H. 12 (M) T.H. 65 STORM SEWER TABULATIONS AND PROFILES			STATE AID PROJ. NO. 02-612-02 ANOKA CO. PROJ. NO.	DRAWN BY D. MICHALKO DATE 2-88 DESIGNED BY S.R. BROWN 2-88 CHECKED BY APPROVED BY	SHEET 3 OF 27 COMM NO. 0870351
									APPROVED BY	SHEET 3 OF 27 COMM NO. 0870351				

ALIGNMENT TABULATION									
DESCRIPTION	POINT	STATION	NORTHING	EASTING	D	Δ	T	R	L
EASTBOUND C.S.A.H. 12									
	P.O.T.	90+00.00	82363.994	896452.266					
CURVE NO. 1	P.I.	94+26.69	82366.433	896878.948	02° 00' 00"	02° 04' 02"	51.689	2864.789	103.367
CL JOHNSON ST.	P.O.C.	94+71.49	82368.314	896923.724					
CURVE NO. 2	P.I.	96+48.44	82375.700	897100.520	02° 00' 00"	02° 04' 02"	51.689	2864.789	103.367
L.D. S.B. T.H. 65	P.O.F.	100+00.68	82377.713	897452.765					
	P.I.	100+48.43	82377.986	897500.512		00° 35' 34"			
L.D. N.B. T.H. 65	P.O.T.	101+00.68	82377.744	897552.766					
CURVE NO. 3	P.I.	104+51.07	82376.122	897903.149	02° 00' 00"	01° 19' 10"	32.989	2864.789	65.976
CL BALTIMORE ST.	P.O.T.	105+13.10	82374.407	897965.156					
CURVE NO. 4	P.I.	108+20.19	82365.913	898272.127	02° 00' 00"	01° 19' 10"	32.989	2864.789	65.976
	P.O.T.	110+00.18	82365.080	898452.115					
WESTBOUND C.S.A.H. 12									
	P.O.T.	90+00.00	82387.994	896452.129					
CURVE NO. 5	P.I.	93+59.54	82390.049	896811.668	02° 00' 00"	04° 51' 32"	121.545	2864.789	242.945
CL JOHNSON ST.	P.O.C.	94+72.04	82400.245	896923.852					
CURVE NO. 6	P.I.	97+13.58	82422.066	897164.400	02° 00' 00"	04° 51' 32"	121.545	2864.789	242.945
CURVE NO. 6 (STATION EQN.)	P.T.	98+34.98= 98+34.12	82422.760	897285.944					
L.D. S.B. T.H. 65	P.O.T.	100+01.10	82423.715	897452.921					
	P.I.	100+48.67	82423.987	897500.487		00° 35' 34"			
(STATION EQN.)	P.O.T.	100+48.91= 100+48.43	82423.986	897500.725					
L.D. N.B. T.H. 65	P.O.T.	101+00.63	82423.744	897552.922					
CURVE NO. 7	P.I.	104+70.69	82422.030	897922.979	02° 00' 00"	04° 56' 28"	123.606	2864.789	247.059
CL BALTIMORE ST.	P.O.C.	105+13.15	82417.022	897965.326					
CURVE NO. 8	P.I.	108+24.64	82389.897	898275.622	02° 00' 00"	04° 56' 28"	123.606	2864.789	247.059
CURVE NO. 8 (STATION EQN.)	P.T.	109+48.09= 109+47.18	82389.325	898399.226					
	P.O.T.	110+00.18	82389.080	898452.226					
CONTROL									
S. 1/4 CORNER	SEC. 17, T.31, R.23		82381.710	897452.181					
S.W. CORNER	SEC. 17, T.31, R.23		82366.670	894820.878					

NOTE: COORDINATES ARE BASED ON MN/DOT T.H. 65 R/W MONUMENTATION PROJECT COORDINATES. COORDINATES ARE RELATED TO MINNESOTA STATE PLANE COORDINATE SYSTEM, SOUTH ZONE, BY THE FOLLOWING RELATIONSHIP:

$$X \text{ STATE PLANE} = (\text{PROJECT} + X_c) * (\text{C.F.}) \quad X_c = 1,300,000$$

$$Y \text{ STATE PLANE} = (\text{PROJECT} + Y_c) * (\text{C.F.}) \quad Y_c = 709,000$$

$$\text{C.F.} = 0.9999357$$

EARTHWORK SUMMARY ①								
LOCATION	COMMON EXC. ⑥	SUBGRADE EXC.	MUCK EXC.	REGULAR EMBANKMENT		GRAN. BORROW C.Y. (EV)	SELECT GRAN. BORROW C.Y. (EV)	COMMON BORROW C.Y. (LV)
				SELECTED MATL. ⑥	ORGANIC MATL.			
C.S.A.H. 12 (W OF T.H. 65)	351	0	7736	371	504	13080	0	113
C.S.A.H. 12 (E. OF T.H. 65)	1093	685	0	1131	1666	0	0	321
T.H. 65	609	1294	957	1152	0	0	1692	1195
TOTALS	2053	1979	8693	2654	2170	13080	1692	1629

NOTES:

- ALL FIGURES ARE CUBIC YARDS INPLACE VOLUME EXCEPT AS NOTED
- 120% SHRINKAGE FACTOR FROM EXCAVATED VOLUME (EV) TO COMPACTED VOLUME (CV) ASSUMED.
- 145% SHRINKAGE FACTOR FROM LOOSE VOLUME (LV) TO COMPACTED VOLUME (CV) ASSUMED.
- EXCESS MATERIAL SHALL BE DISPOSED OFF THE PROJECT SITE IN ACCORDANCE WITH MN/DOT SPEC. 2105. SUCH DISPOSAL SHALL BE INCIDENTAL TO THE CONTRACT.
- 1512 CY (EV) OF MATERIAL TO BE REMOVED IN T.H. 65 EXCAVATION ASSUMED TO MEET SPEC. 3149.2B FOR SELECT GRANULAR MATERIAL AND BE SUITABLE FOR RE-USE IN T.H. 65 EMBANKMENT.
- QUANTITIES SHOWN INCLUDE TOPSOIL.

ADJUSTMENT/RECONSTRUCTION OF EXISTING MANHOLES								
STRUCTURE NO.	STATION	OFFSET		TYPE	EXISTING TOP OF CASTING ELEV.	PROPOSED TOP OF CASTING ELEV.	ADJUST	RECONSTRUCT
		LT.	RT.					
100	93+06	26.8		SAN. M.H.	902.53	902.46	-0.07'	
101	94+72	25.1		SAN. M.H.	901.24	901.84	+0.60'	
102	96+27	19.8		SAN. M.H.	901.68	903.34		6.7'
103	99+07		18.5	VALVE M.H.	902.10	902.38	+0.28'	
104	99+55	19.0		SAN. M.H.	901.99	902.76		6.1'
105	99+55	52.1		SAN. M.H.	901.27	902.26		5.8'
106	101+51	55.5		SAN. M.H.	901.24	901.40	+0.16'	
107	101+79	2.9		SAN. M.H.	901.38	901.43	+0.05'	
108	105+13	4.9		SAN. M.H.	898.40	898.84	+0.44'	
109	108+63	10.6		SAN. M.H.	900.20	900.21	N/A	

NOTE: ALL LOCATIONS GIVEN FROM E.B. C.S.A.H. 12

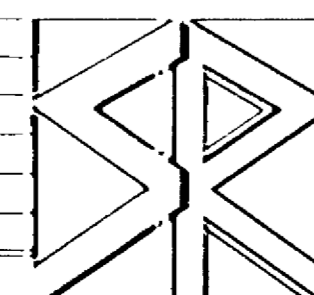
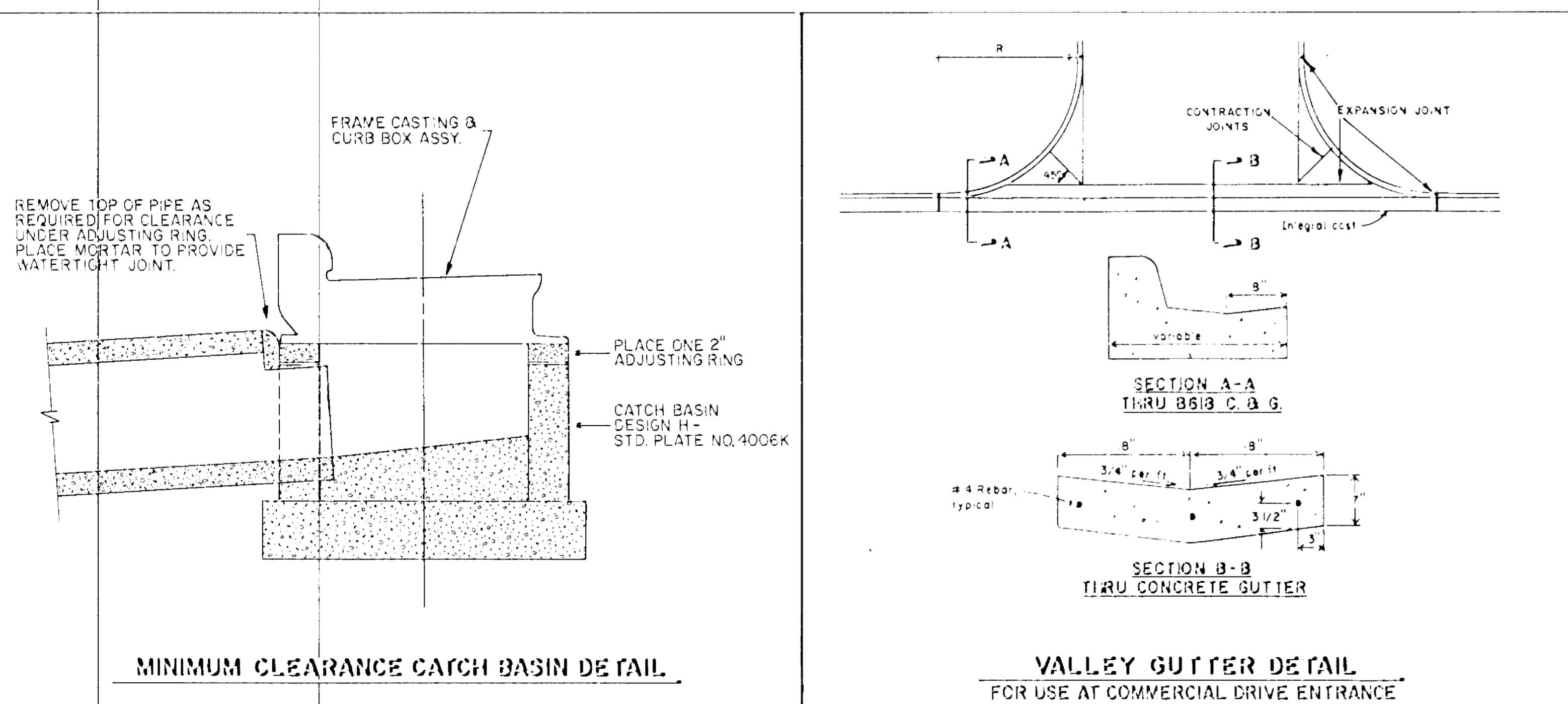
ADJUST GATE VALVES		
STATION	OFFSET	
	LT.	RT.
94+62		9
97+27		19
99+55	65	
105+02	40	
105+46	17	

HYDRANT RELOCATION / ADJUSTMENT		
EXISTING LOCATION	RELOCATE	ADJUST
93+44 - 17' RT.		+18"
98+85 - 24' RT.	4' NCRTH	
104+89 - 74' LT.	6' WEST	

NOTES: ALL LOCATIONS GIVEN FROM E.B. C.S.A.H. 12

NOTE: ALL LOCATIONS GIVEN FROM E.B. C.S.A.H. 12

ALL EQUIPMENT, WORK AND MATERIALS REQUIRED TO COMPLETE THE JOB AS SPECIFIED INCLUDING RELOCATING THE HYDRANT GATE VALVE SHALL BE CONSIDERED INCIDENTAL TO RELOCATING HYDRANTS.



STRGAR-ROSCOE-FAUSCH, INC.
CONSULTING ENGINEERS & LAND SURVEYORS

MINNEAPOLIS

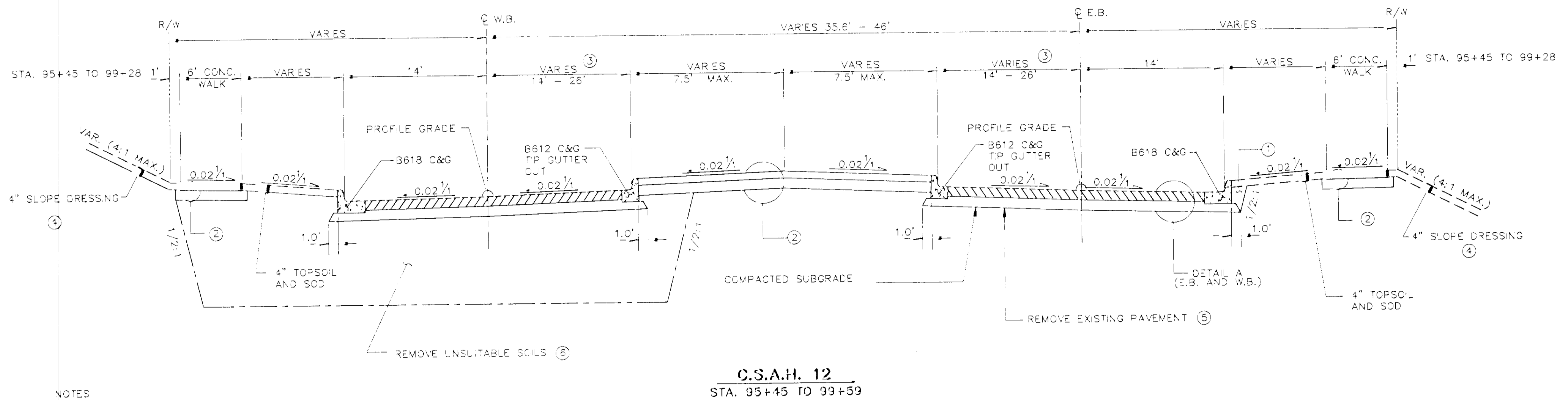
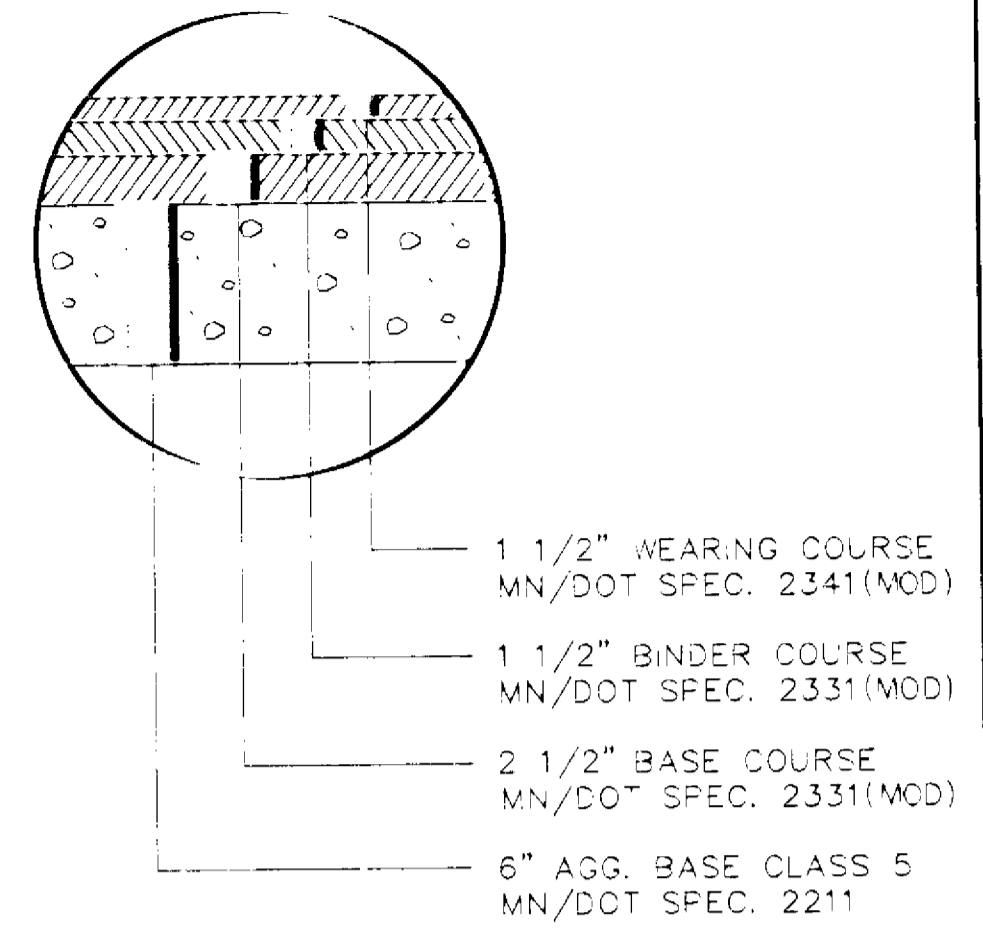
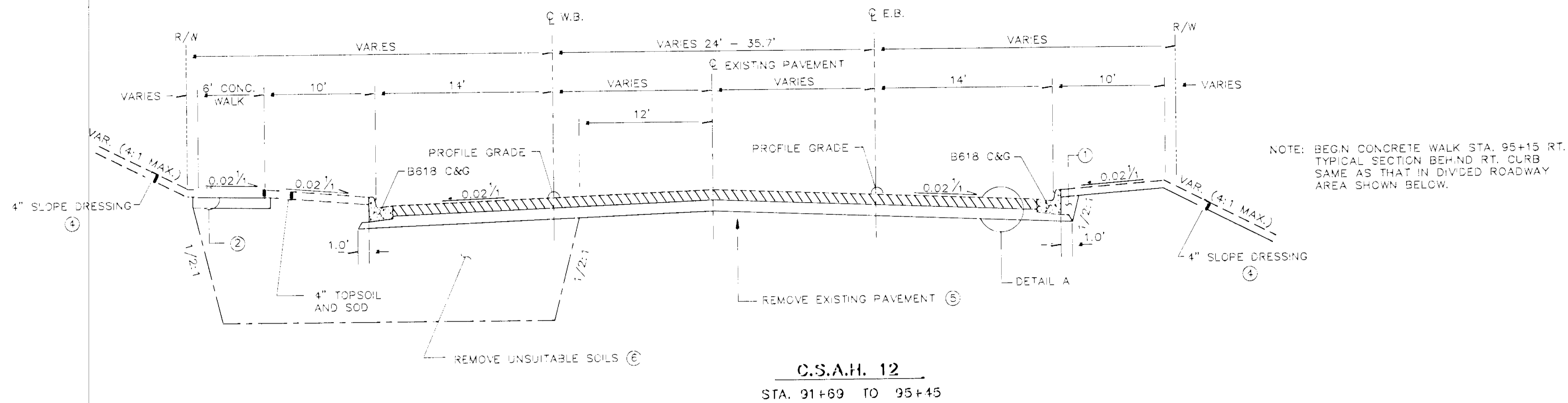
MINNESOTA

I hereby certify that this plan, specification or report 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.
Strgar-Roscoe-Fausch, Inc.
Date 11/21/82, Reg. No. 41110

ANOKA COUNTY
C.S.A.H. 12 @ T.H. 65
MISCELLANEOUS TABULATIONS
AND DETAILS

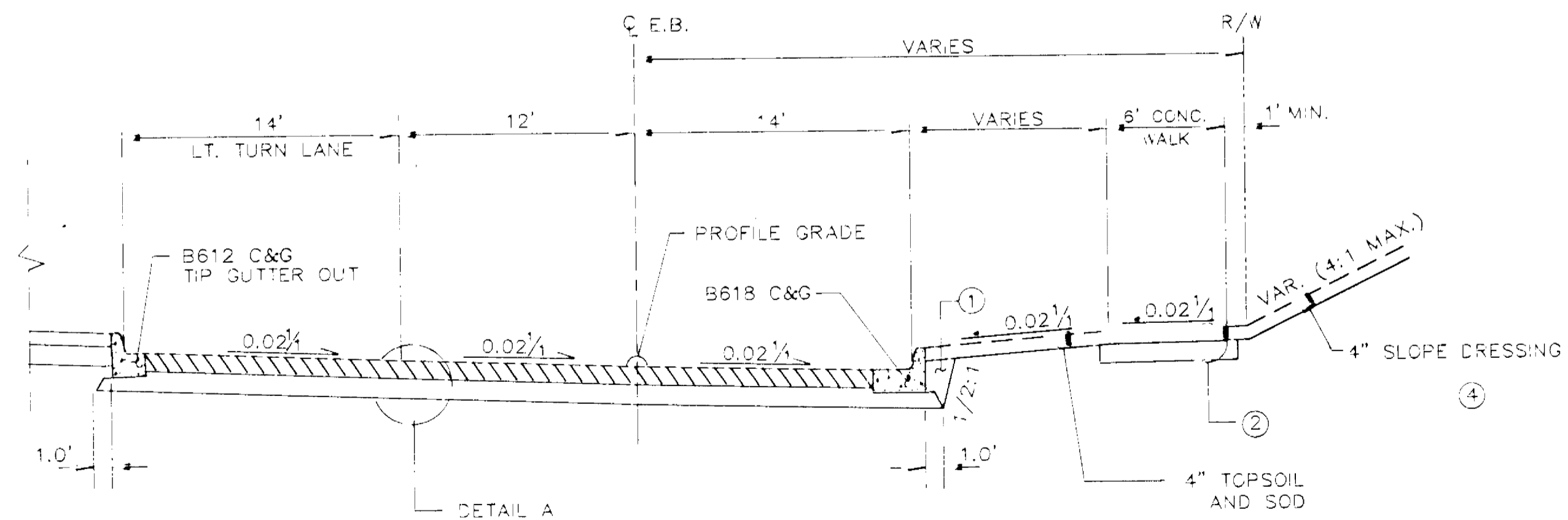
STATE AID PROJ. NO. 02-612-09	DRAWN BY B. DOYLE	DATE 2-88	SHEET 4
ANOKA CO. PROJ. NO.	DESIGNED BY S.R. BROWN	DATE 2-88	OF 27
	CHECKED BY		COMM. NO. 0870951
	APPROVED BY		

NO DATE BY CKD APPR REVISION



NOTES

- ① BACKFILL WITH SELECT GRADING MATERIAL
- ② 4" CONC. WALK - MN/DOT SPEC. 2521
6" AGGREGATE BASE CLASS 5 - MN/DOT SPEC. 2211
- ③ 14' WITHOUT LEFT TURN LANE
26' WITH LEFT TURN LANE
SEE "PARTIAL SECTION WITH LEFT TURN LANE"
- ④ PLACE 4" TOPSOIL AND SOD, MIN. 4' BEHIND WALK/CURB OR TO MATCH EXISTING LAWNS AS DIRECTED BY THE ENGINEER.
PLACE 4" TOPSOIL, SEED, AND MULCH IN ALL OTHER DISTURBED AREAS.
- ⑤ REMOVE EXISTING BITUMINOUS PAVEMENT AND BITUMINOUS STABILIZED SAND BASE. GRADE EXISTING SUBGRADE TO PROPER ELEVATION TO RECEIVE PROPOSED SURFACING (NO SUBCUT). BORROW MATERIAL AND PLACEMENT THEREOF SHALL CONFORM TO MN/DOT SPEC. 2105 FOR GRANULAR BORROW EMBANKMENT. CONSOLIDATED ORGANIC SOIL LAYER LOCATED APPROX. 3' BENEATH EXISTING SURFACE IS TO REMAIN INPLACE UNDISTURBED.
- ⑥ REMOVE UNSUITABLE SOILS AND CONSTRUCT GRANULAR BORROW EMBANKMENT PER MN/DOT SPEC. 2105. SEE CROSS SECTIONS FOR APPROXIMATE LIMITS OF REMOVAL AND EMBANKMENT. FINAL LIMITS OF REMOVAL TO BE DETERMINED BY THE ENGINEER IN THE FIELD.



PARTIAL SECTION WITH LEFT TURN LANE

NO.	DATE	BY	CHKD	APPR	REVISION

STRGAR-ROSCOE-FAUSCH, INC.
CONSULTING ENGINEERS - LAND SURVEYORS
MINNEAPOLIS MINNESOTA

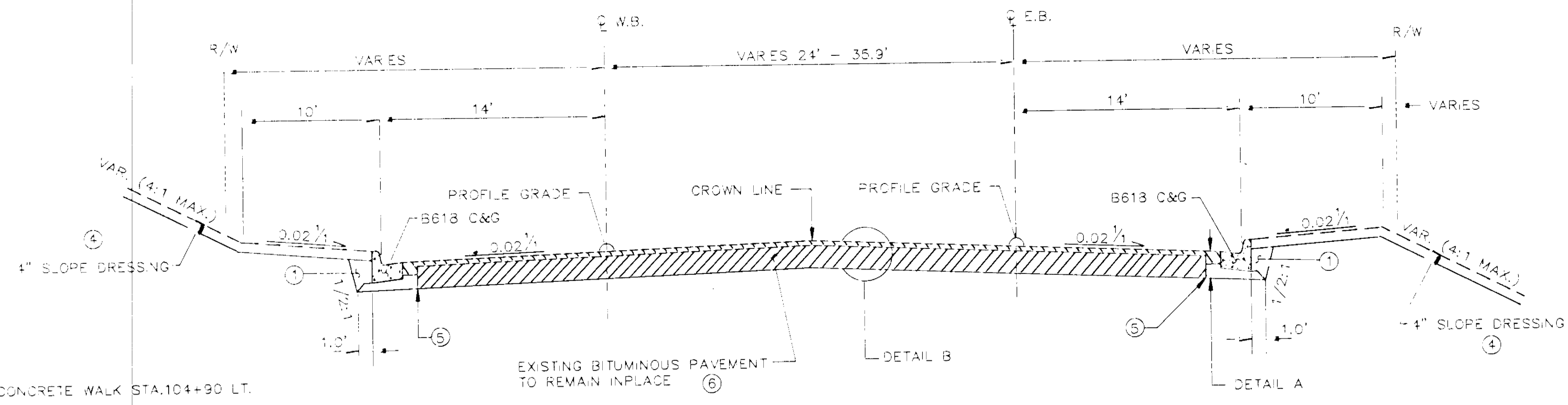
I hereby certify that this plan, specification or report was prepared by me or under my direct supervision and that I am a duly Registered Professional Engineer under the laws of the State of Minnesota.
[Signature]
Date 11/21/88 Reg. No. 14110

ANOKA COUNTY
C.S.A.H. 12 @ R.H. 65
TYPICAL SECTIONS

STATE AID PROJ. NO. 02-612-09	DRAWN BY M. LISAKKA	DATE 4/88	SHEET 5
ANOKA CO. PROJ. NO.	DESIGNED BY S.R. BROWN	DATE 2/88	OF 27
	CHECKED BY	APPROVED BY	COMM. NO. 0870951

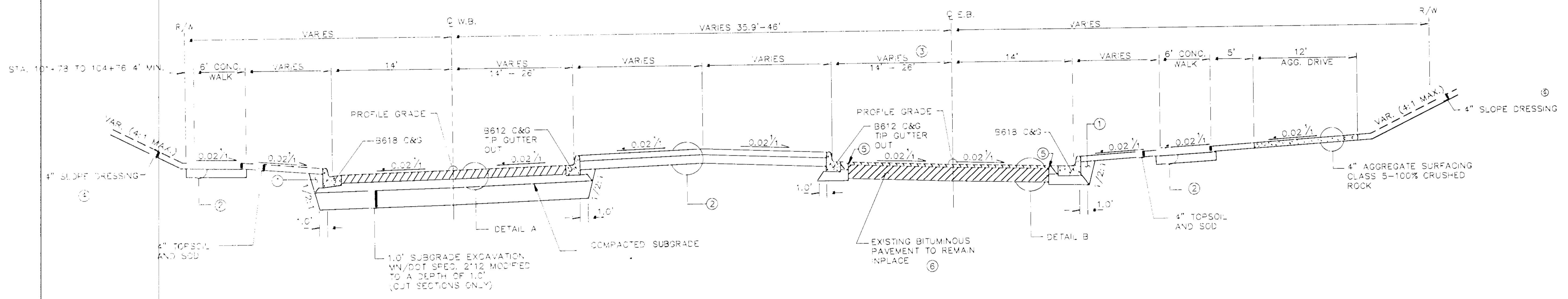
NOTES

- ① BACKFILL WITH SELECT GRADING MATERIAL
- ② 4" CONC. WALK - MN/DOT SPEC. 2521
6" AGGREGATE BASE CLASS 5 - MN/DOT SPEC. 2211
- ③ 14' WITHOUT LEFT TURN LANE
26' WITH LEFT TURN LANE
SEE "PARTIAL SECTION WITH LEFT TURN LANE"
- ④ PLACE 4" TOPSOIL AND SOD, MIN. 4' BEHIND WALK/CURB OR TO MATCH EXISTING LAWNS AS DIRECTED BY THE ENGINEER.
PLACE 4" TOPSOIL, SEED, AND MULCH IN ALL OTHER DISTURBED AREAS.
- ⑤ SAW EXISTING BITUMINOUS PAVEMENT FULL DEPTH AND REMOVE AS FOLLOWS:
 - WHERE ADJACENT TO PROPOSED C&G, SAW LINE SHALL BE 1' FROM GUTTER TOE TO PROVIDE CLEARANCE FOR C&G PLACEMENT
 - IN OTHER AREAS SAW @ EDGE OF EXISTING MAT TO PROVIDE NEAT VERTICAL SURFACE TO MATCH.
- ⑥ MILL EXISTING MAT TO MAINTAIN MINIMUM 3/4" OVERLAY CLEARANCE. SEE PLAN AND PROFILE SHEETS FOR MILLING AREAS.

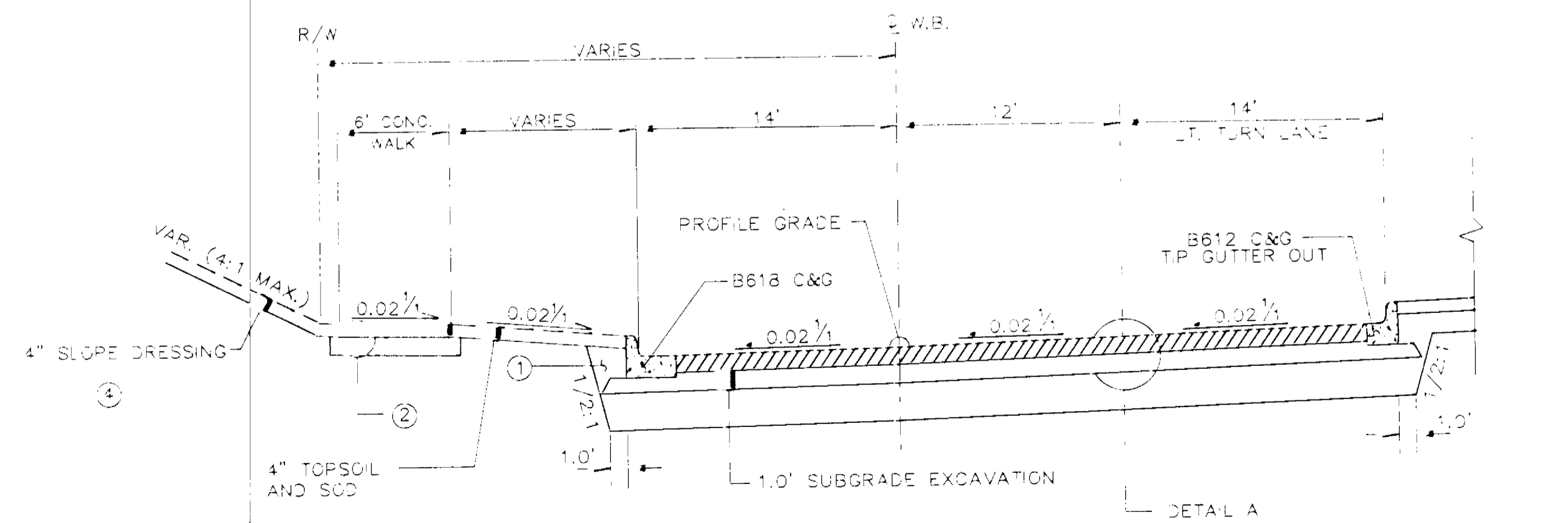


NOTE: END CONCRETE WALK STA. 104+90 LT.

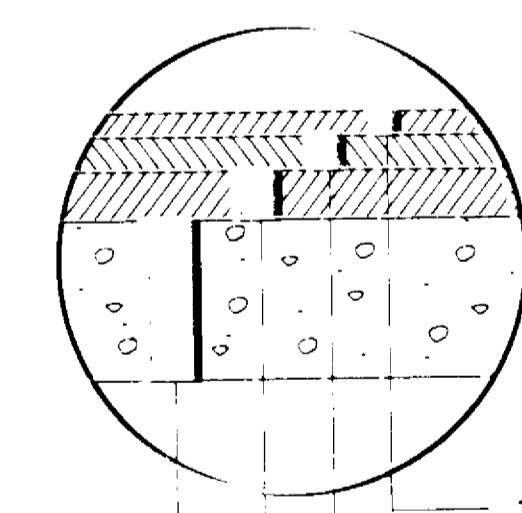
C.S.A.H. 12
STA. 106+36 TO 109+50



C.S.A.H. 12
STA. 101+44 TO 106+36

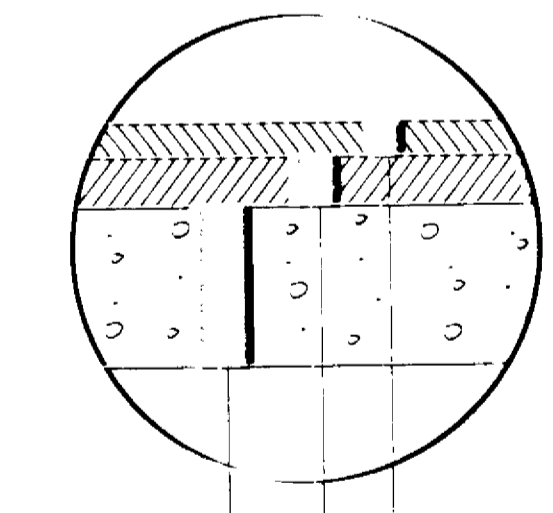


PARTIAL SECTION WITH LEFT TURN LANE (WESTBOUND SHOWN - EASTBOUND SIMILAR)



- 1 1/2" WEARING COURSE
MN/DOT SPEC. 2341 (MOD)
- 1 1/2" BINDER COURSE
MN/DOT SPEC. 2331 (MOD)
- 2 1/2" BASE COURSE
MN/DOT SPEC. 2331 (MOD)
- 6" AGG. BASE CLASS 5
MN/DOT SPEC. 2211

DETAIL A



- VAR. THICKNESS WEARING COURSE/OVERLAY
3/4" MIN - 1-1/2" MAX
MN/DOT SPEC 2341 (MOD)
- VAR. THICKNESS LEVELING COURSE
MN/DOT SPEC 2331 (MOD)
- EXISTING BIT. PAVEMENT

DETAIL B

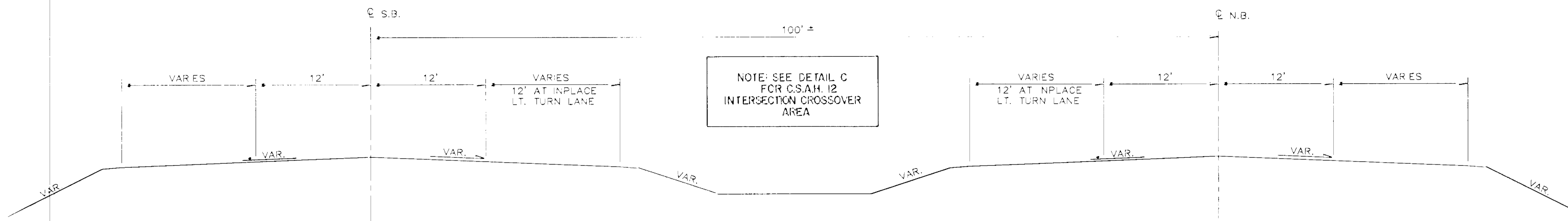
NO	DATE	BY	CHK	APPR	REVISION

STRGAR-ROSCOE-FAUSCH, INC.
CONSULTING ENGINEERS - LAND SURVEYORS
MINNEAPOLIS MINNESOTA

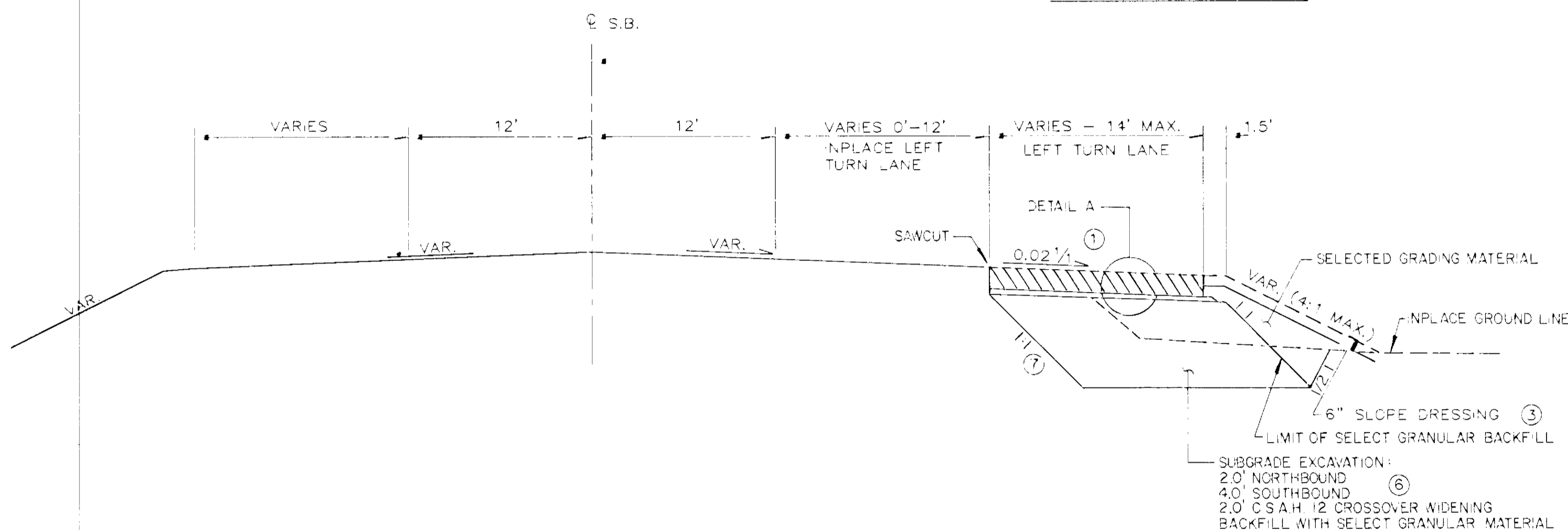
I hereby certify that this plan, specification or report was prepared by me or under my direct supervision and that I am a duly Registered Professional Engineer under the laws of the State of Minnesota.
Signature
Date 11/21/08 Reg. No. 14410

ANOKA COUNTY
C.S.A.H. 12 @ I.H. 65
TYPICAL SECTIONS

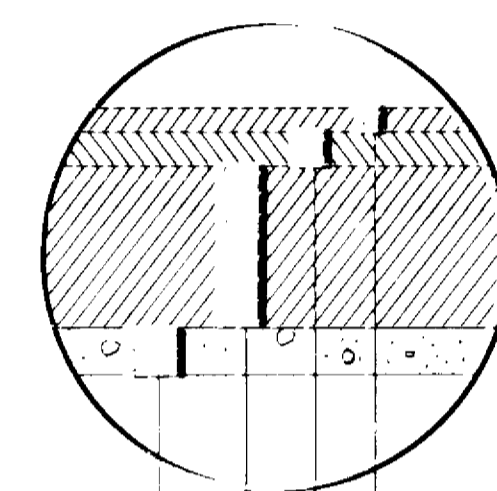
STATE AID PROJ. NO. 02-612-09	DRAWN BY M. IISAKKA	DATE 4/88	SHEET 6
ANOKA CO. PROJ. NO.	DESIGNED BY S.R. BROWN	CHECKED BY S.R. BROWN	OF 27
	APPROVED BY		COMM. NO. 0870951



INPLACE T.H. 65



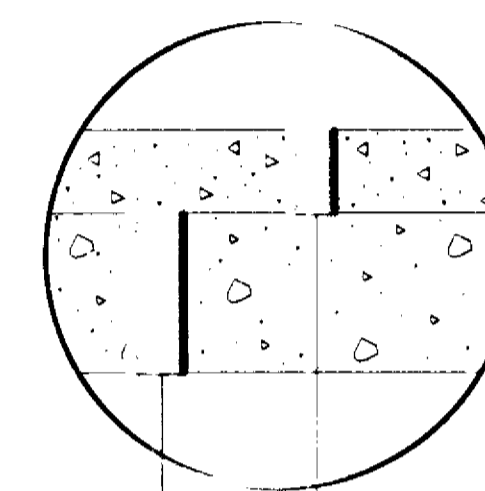
S.B. T.H. 65 - DOUBLE LEFT TURN LANE W/O CURB AND GUTTER
N.B. T.H. 65 IS MIRROR IMAGE



- 1 1/2" WEARING COURSE
MN/DOT SPEC. 2341(MOD)
- 1 1/2" BINDER COURSE
MN/DOT SPEC. 2331(MOD)
- 5" BASE COURSE
MN/DOT SPEC. 2331(MOD)
- 2" AGG. BASE CLASS 5
MN/DOT SPEC. 2211

DETAIL A

WIDENED LEFT TURN LANES AND WIDENED C.S.A.H. 12 CROSSOVER AREA



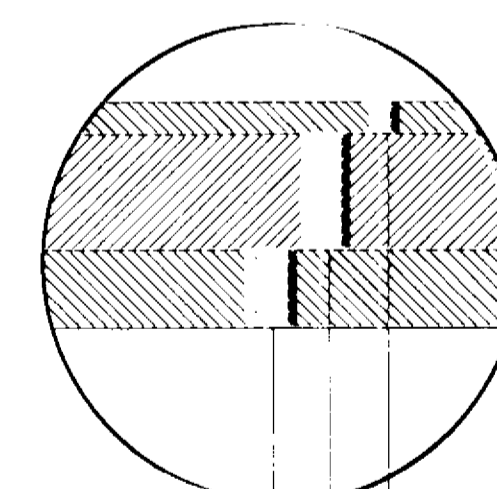
- 4" CONCRETE WALK
MN/DOT SPEC. 2521
- 6" AGG. BASE CLASS 5
MN/DOT SPEC. 2211

NOTE: SEE PLAN AND PROFILE SHEETS FOR MEDIAN AREAS WITH CONCRETE WALK. SEE DETAIL 'B' FOR CONCRETE WALK SECTION.

DETAIL B

NOTES

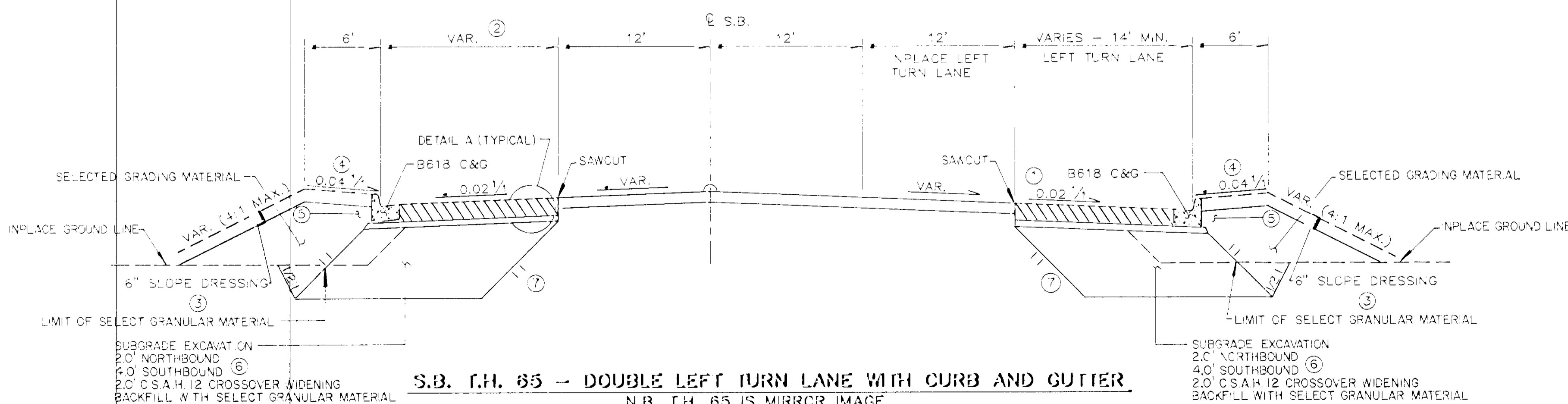
- ① MIN. 50' TRANSITION TO 0.03 1/4 STA. 493+77 (N.B. ONLY).
- ② S.B. VARIES IN APPROACH TAPER
- ③ PLACE 6" TOPSOIL AND SOD 4' BEHIND CURB OR AS DIRECTED BY THE ENGINEER. PLACE 6" TOPSOIL, SEED, AND MULCH IN ALL OTHER DISTURBED AREAS.
- ④ 0.02 1/4 ON CONCRETE WALK
- ⑤ BACKFILL WITH SELECT GRADING MATERIAL
- ⑥ SUBCUTS SHOWN MAY NOT RESULT IN FULL-DEPTH REMOVAL OF ORGANIC SOILS. SUBCUT ONLY TO DEPTH SHOWN APPROXIMATELY 50% OF MATERIAL EXCAVATED FROM SOUTHBOUND LEFT TURN LANE WILL BE PEAT. SEE EARTHWORK SUMMARY NOTE 4 ON SHEET NO. 4.
- ⑦ WHERE WIDENING ADJACENT TO BITUMINOUS SURFACING WHICH WILL REMAIN INPLACE, CUT VERTICALLY TO THE TOP OF GRADING SUBGRADE, OR BOTTOM OF EXISTING BITUMINOUS SURFACING (WHICHEVER IS DEEPER), AND THEN AT A 1:1 TAPER TO THE BOTTOM OF THE RECOMMENDED SUBGRADE EXCAVATION.



- 1 1/2" WEARING COURSE
MN/DOT SPEC 2341 (MOD)
- VAR LEVELING COURSE
MN/DOT SPEC 2331 (MOD)
- INPLACE BITUMINOUS PAVEMENT

DETAIL C

INPLACE C.S.A.H. 12 CROSSOVER AREA



S.B. T.H. 65 - DOUBLE LEFT TURN LANE WITH CURB AND GUTTER
N.B. T.H. 65 IS MIRROR IMAGE

NO.	DATE	BY	CKD	APPR	REVISION

STRGAR-ROSCOE-FAUSCH, INC.
CONSULTING ENGINEERS • LAND SURVEYORS

MINNEAPOLIS

MINNESOTA

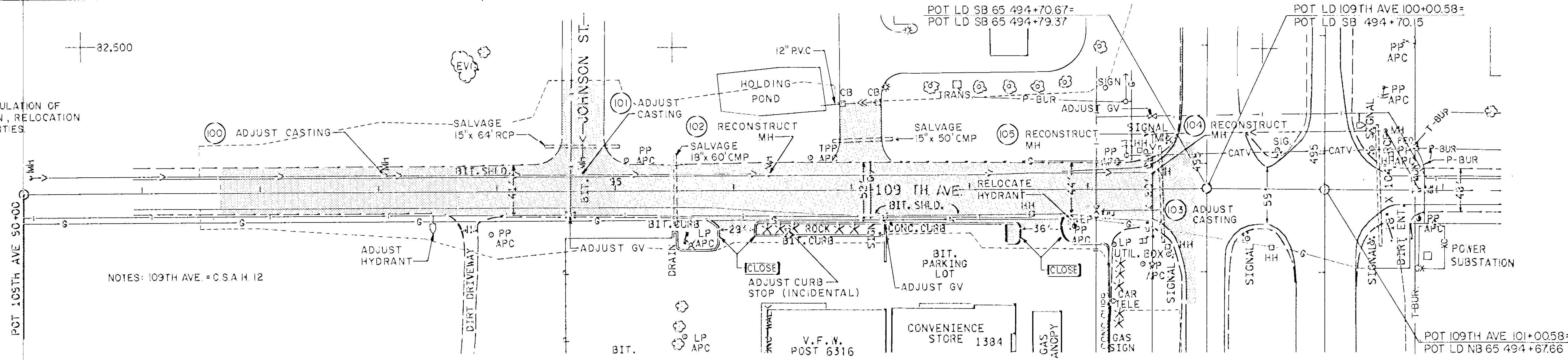
I hereby certify that this plan, specification or report was prepared by me or under my direct supervision and that I am a duly Registered Professional Engineer under the laws of the State of Minnesota.
Signature
Date 4/24/88 Reg No 14840

ANOKA COUNTY
C.S.A.H. 12 @ T.H. 65
TYPICAL SECTIONS
T.H. 65

STATE A.D. PROJ. NO. 02-612-03	DRAWN BY M. IISAKKA	DATE 4/88	SHEET 7
ANOKA CO. PROJ. NO.	DESIGNED BY S.R. BROWN	2/88	OF 27
	CHECKED BY		COMM. NO.
	APPROVED BY		CB70951

NOTE:
SEE SHEET NO. 3 & 4 FOR TABULATION OF
ADJUSTMENT, RECONSTRUCTION, RELOCATION
AND SALVAGE OF EXISTING UTILITIES.

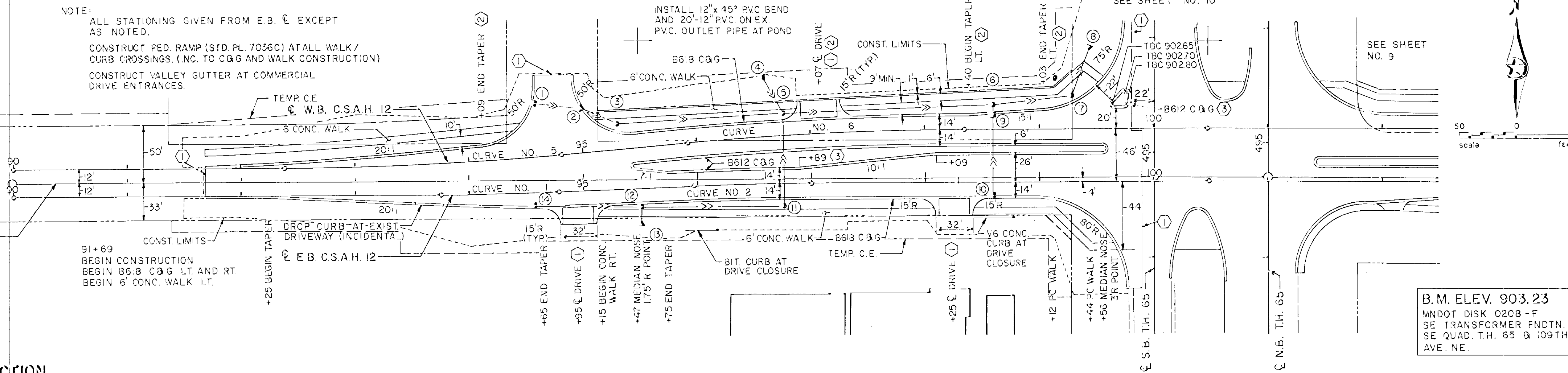
- LEGEND
- BITUMINOUS PAVEMENT TO BE REMOVED
 - EXISTING MH



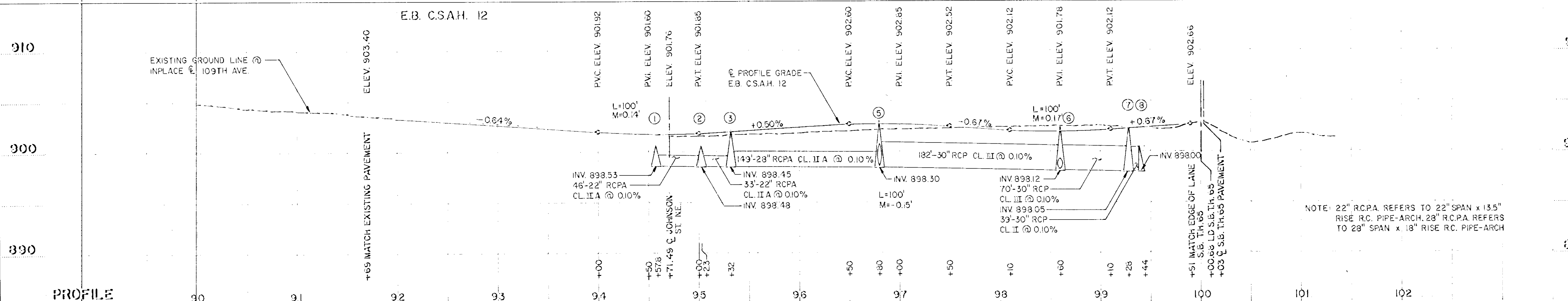
EXISTING TOPOGRAPHY

- ① MATCH EXISTING BITUMINOUS PAVEMENT - SAWCUT FULL DEPTH AND MILL AS PER SPECIAL PROVISIONS.
- ② STATIONING GIVEN FROM W.B. C.
- ③ PLACE CONCRETE WALK INSIDE C&G SEE NOTE ② ON SHEET NO. 6.
- ④ CONSTRUCT PED. RAMP (STD. PLATE 7036C) AT EACH SIDE OF ISLAND TO MATCH CROSSWALK STRIPING. (INC. TO C&G AND WALK CONSTRUCTION)

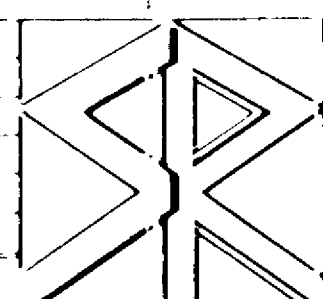
NOTE:
ALL STATIONING GIVEN FROM E.B. C. EXCEPT AS NOTED.
CONSTRUCT PED. RAMP (STD. PL. 7036C) AT ALL WALK/CURB CROSSINGS. (INC. TO C&G AND WALK CONSTRUCTION)
CONSTRUCT VALLEY GUTTER AT COMMERCIAL DRIVE ENTRANCES.



PROPOSED CONSTRUCTION



NOTE: 22" R.C.P.A. REFERS TO 22" SPAN x 13.5" RISE R.C. PIPE-ARCH. 28" R.C.P.A. REFERS TO 28" SPAN x 18" RISE R.C. PIPE-ARCH



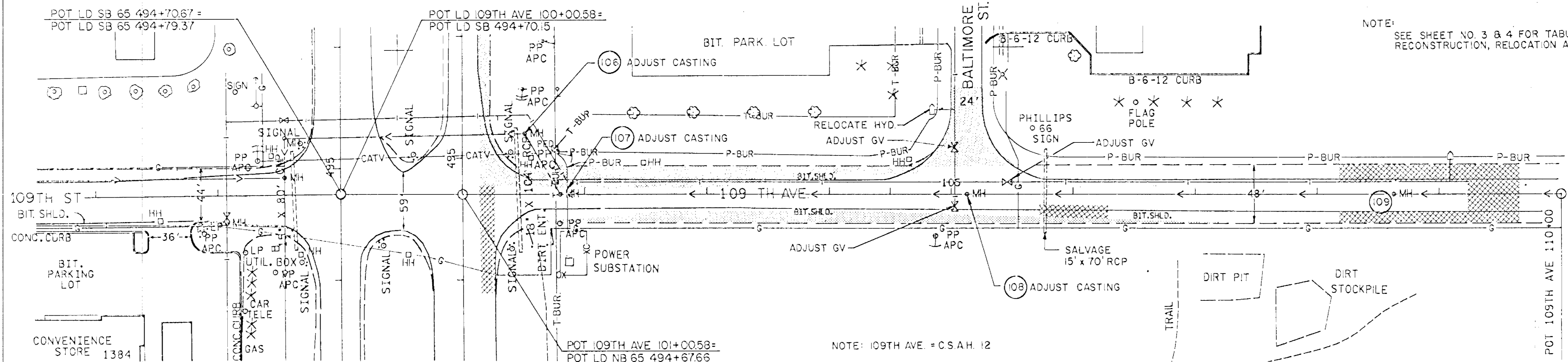
STRGAR-ROSCOE-FAUSCH, INC.
CONSULTING ENGINEERS - LAND SURVEYORS
MINNEAPOLIS MINNESOTA

I hereby certify that this plan, specification or report 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.
Signature
Date: 1/11/28 Fig. No. 1-2-10

ANKA COUNTY
C.S.A.H. 12 @ T.H. 65
PLAN AND PROFILE
STA. 91+69 TO 99+91

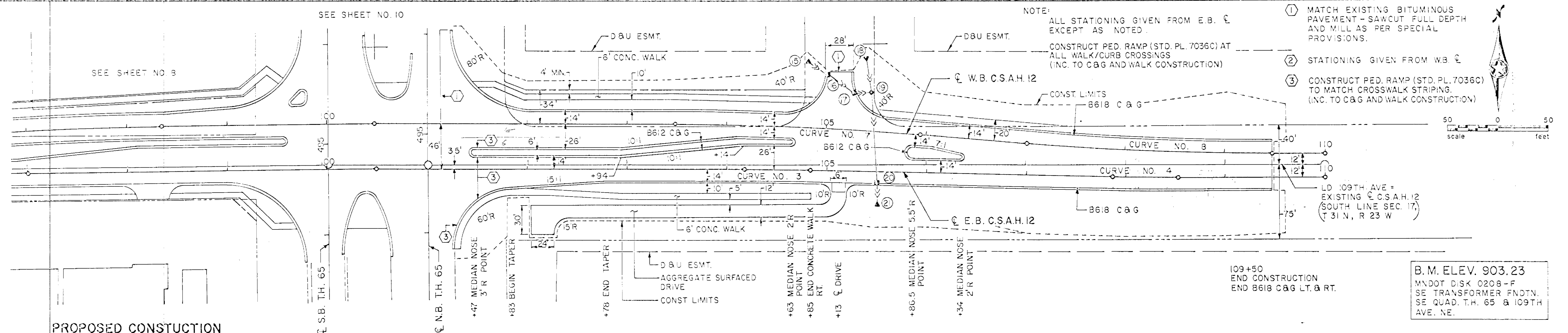
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ANKA CO. PROJ. NO.	DESIGNED BY S.R. BROWN 1/28	CHECKED BY	OF 27
	APPROVED BY		COMM. NO. 0870951

NO.	DATE	BY	CHKD APPR	REVISION

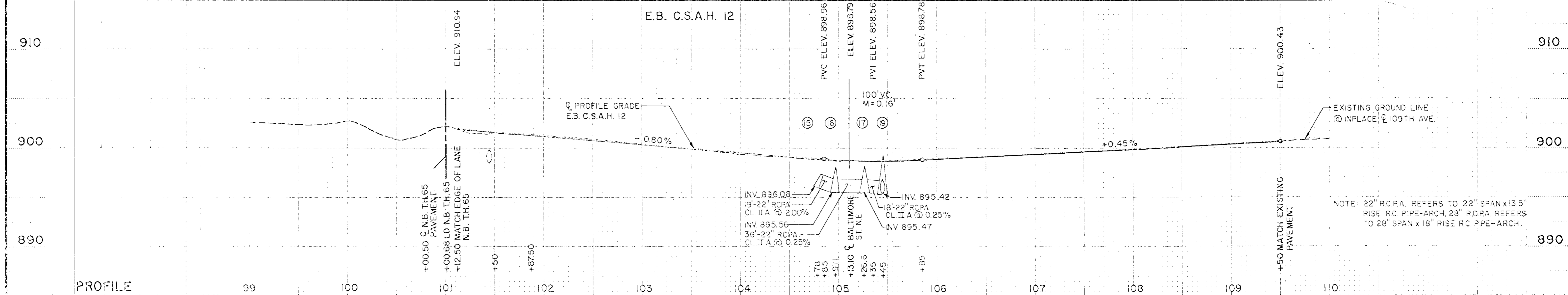


- LEGEND**
- BIT PAVEMENT REMOVAL (NOTE: MINOR REMOVAL AREAS ASSOCIATED WITH EDGE SAWING NOT SHOWN)
 - MILL BIT PAVEMENT FOR OVERLAY CLEARANCE (APPROX. LIMITS)
 - EXISTING MH

EXISTING TOPOGRAPHY

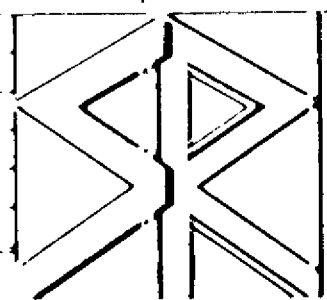
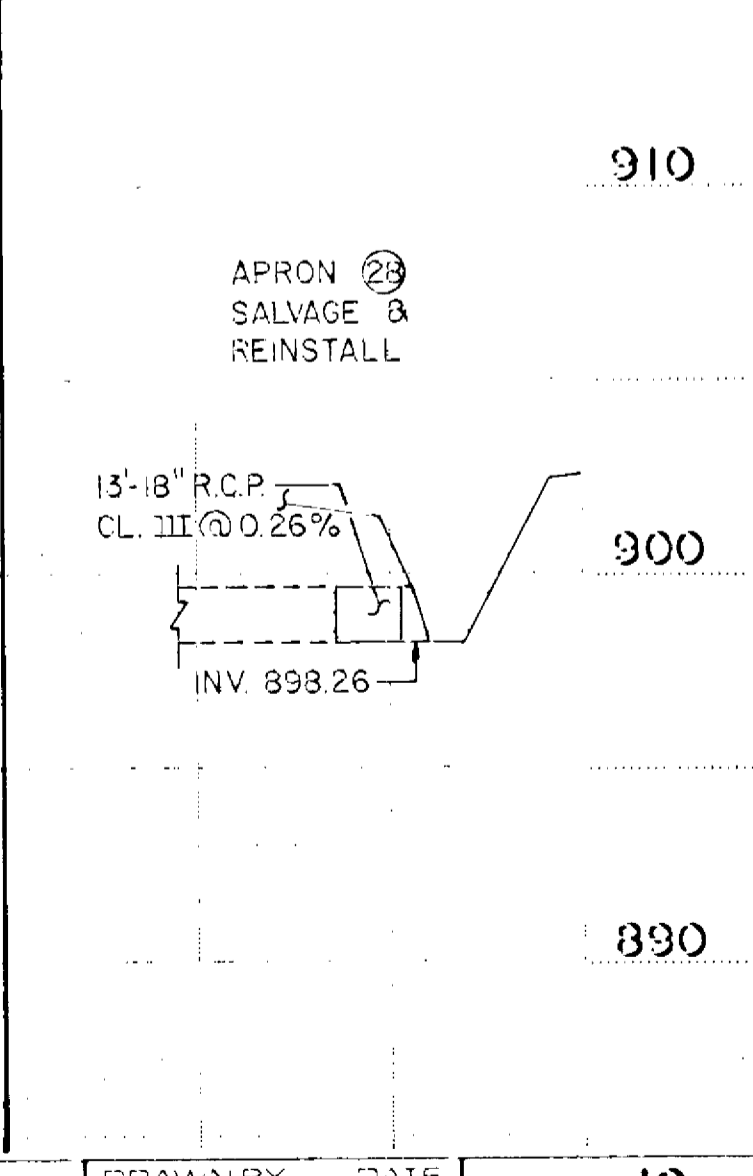
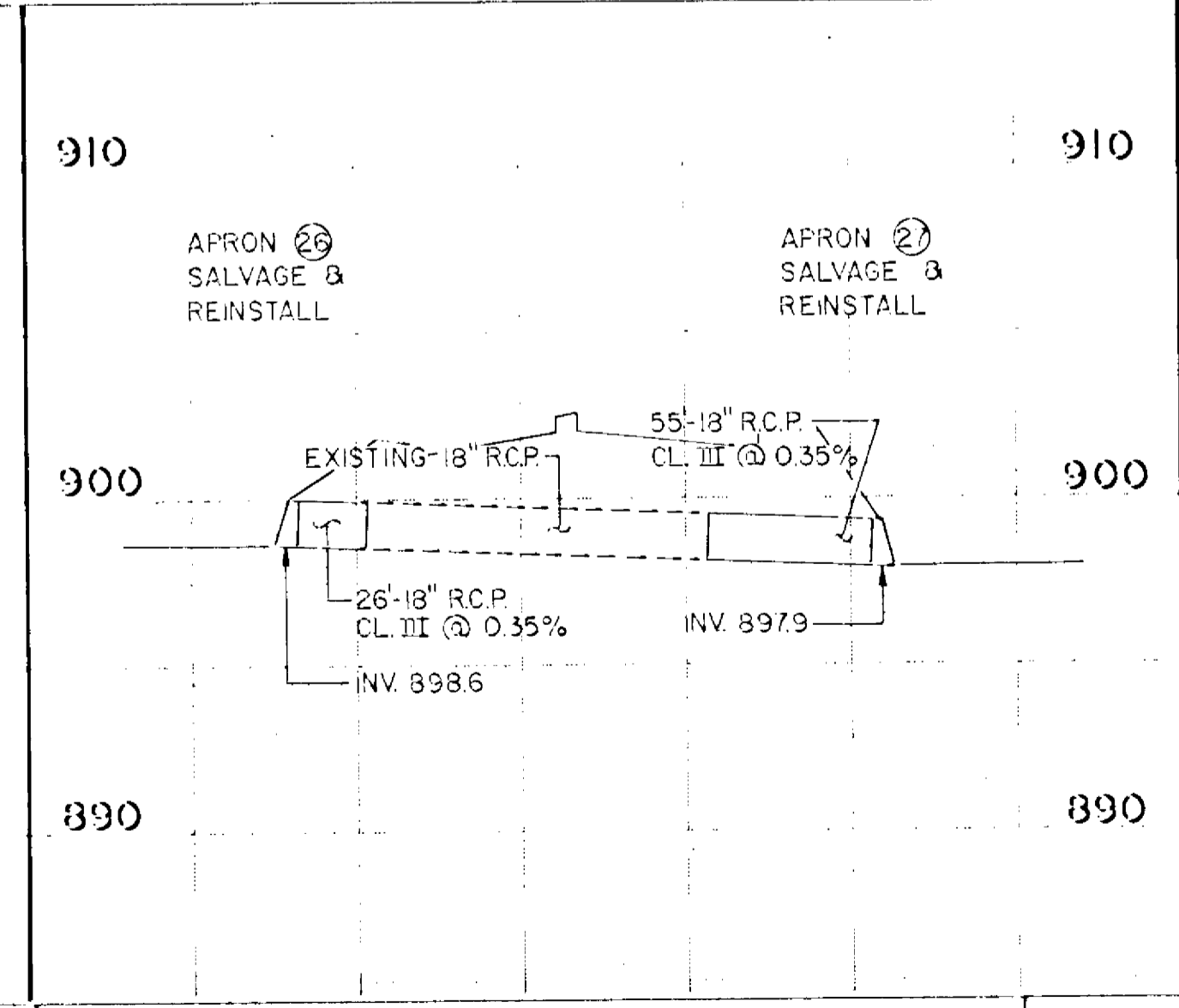
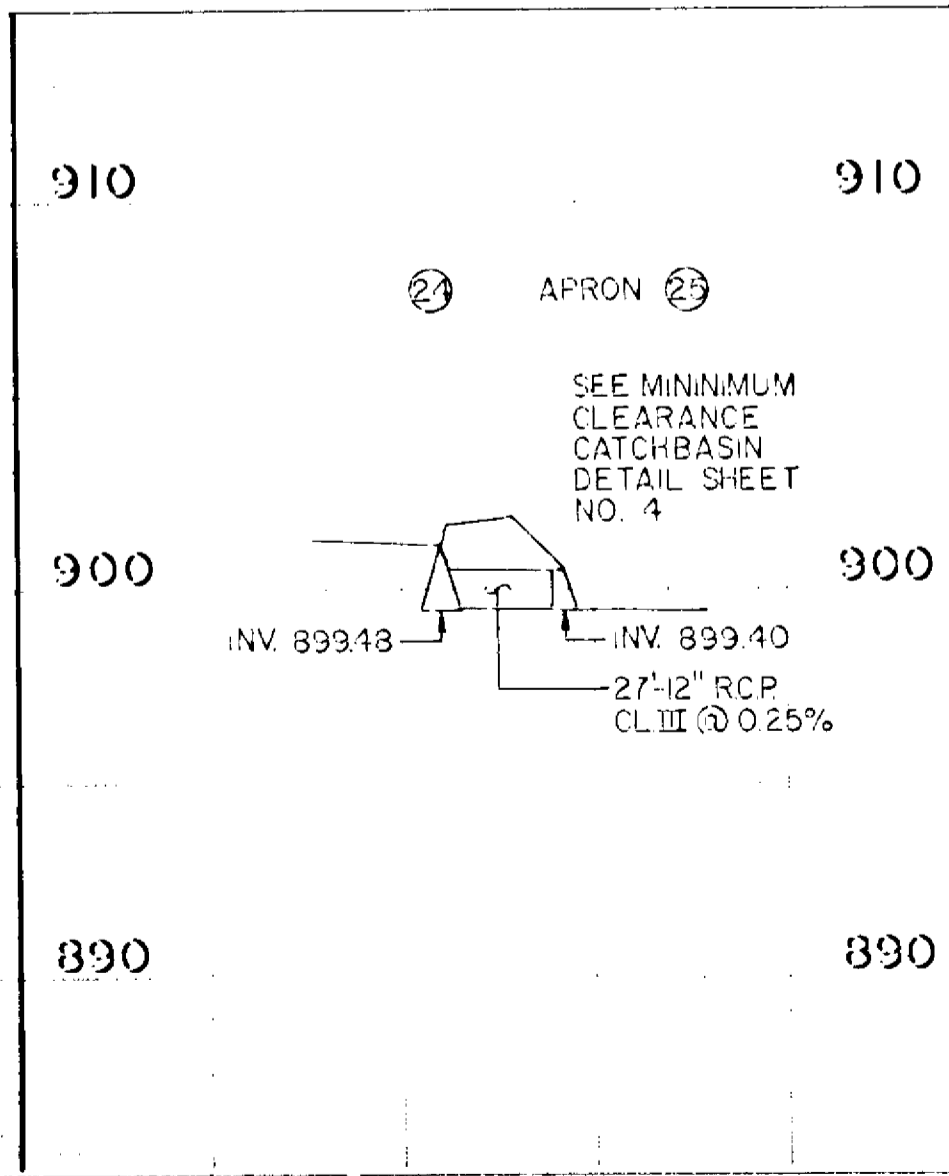
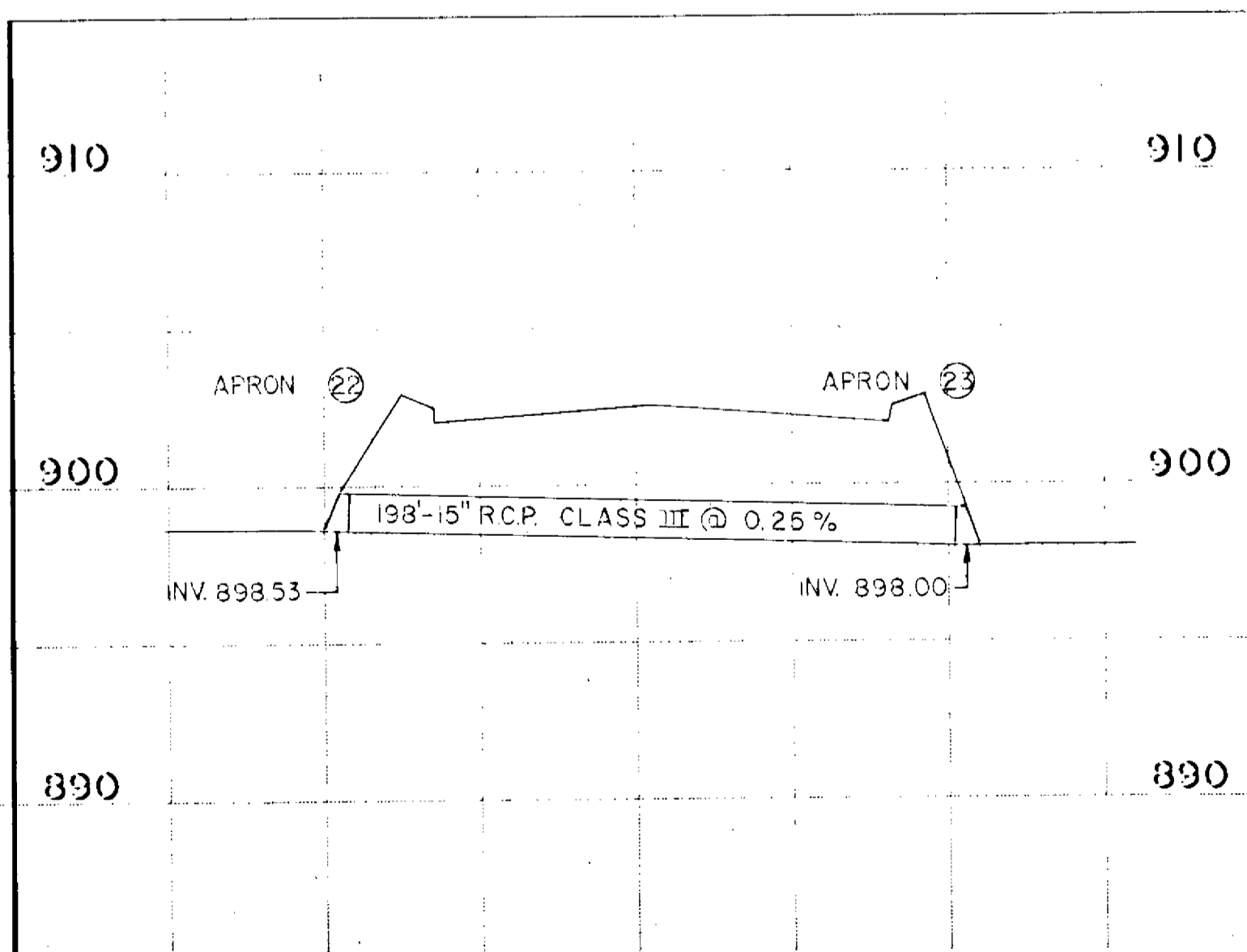
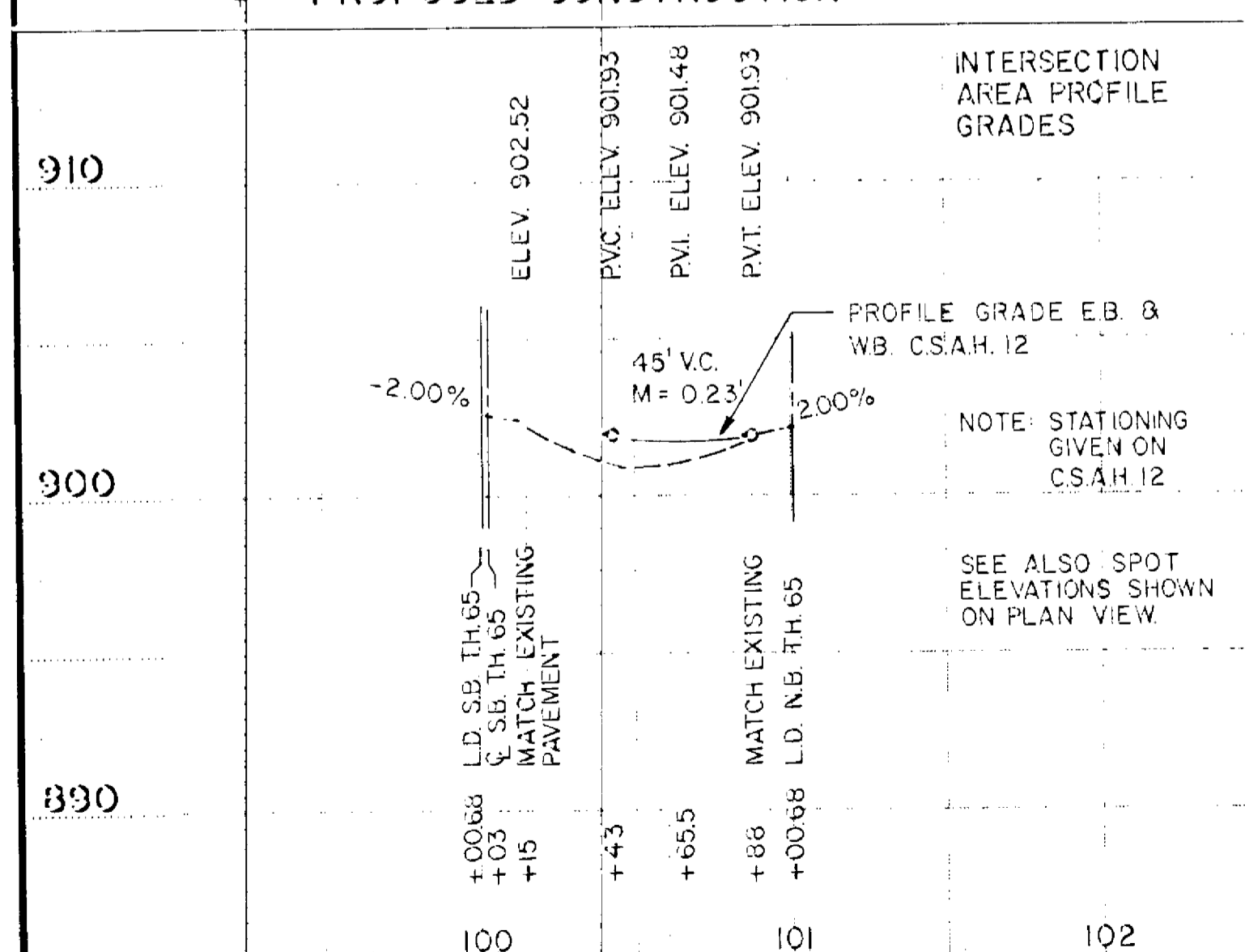
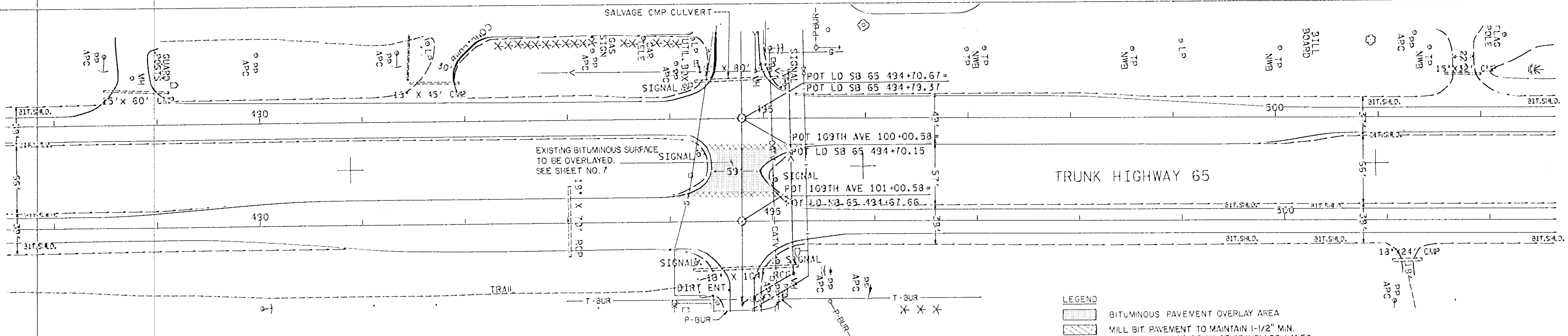


PROPOSED CONSTRUCTION



PROFILE

<p>STRGAR-ROSCOE-FAUSCH, INC. CONSULTING ENGINEERS & LAND SURVEYORS MINNEAPOLIS MINNESOTA</p>		<p>ANOKA COUNTY C.S.A.H. 12 @ T.H. 65 PLAN AND PROFILE STA. 101+00 TO 109+50</p>		<p>STATE AID PROJ. NO. 02-612-09 ANOKA CO. PROJ. NO.</p>		<p>DRAWN BY M. VANDERLINDEN 1/88 DESIGNED BY S.R. BROWN 1/88 CHECKED BY APPROVED BY</p>		<p>SHEET 9 OF 27 CONV. NO. 08/0361</p>	
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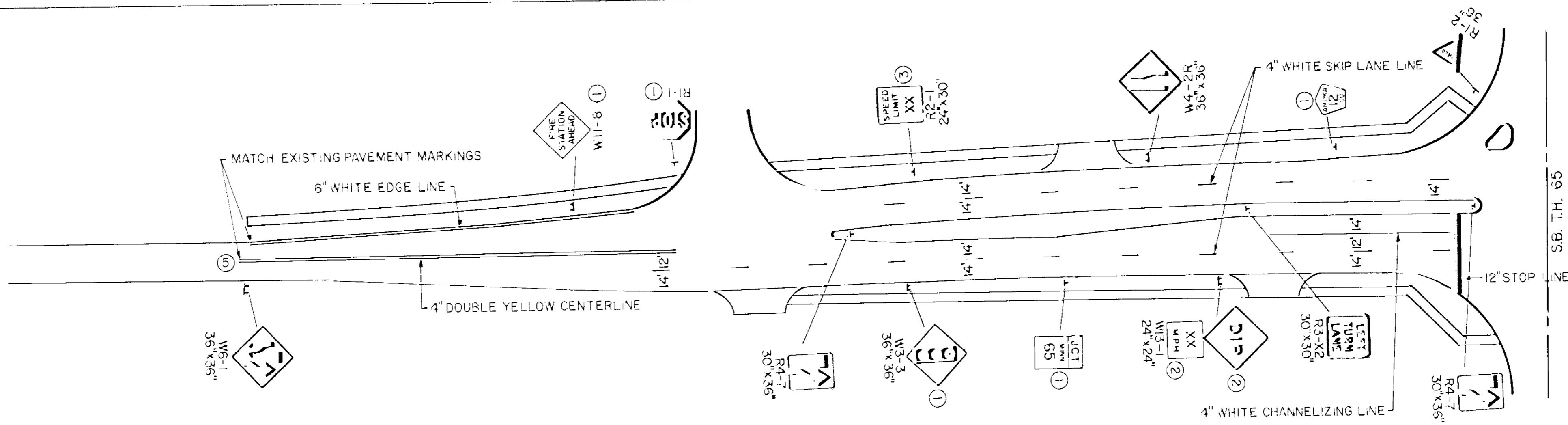
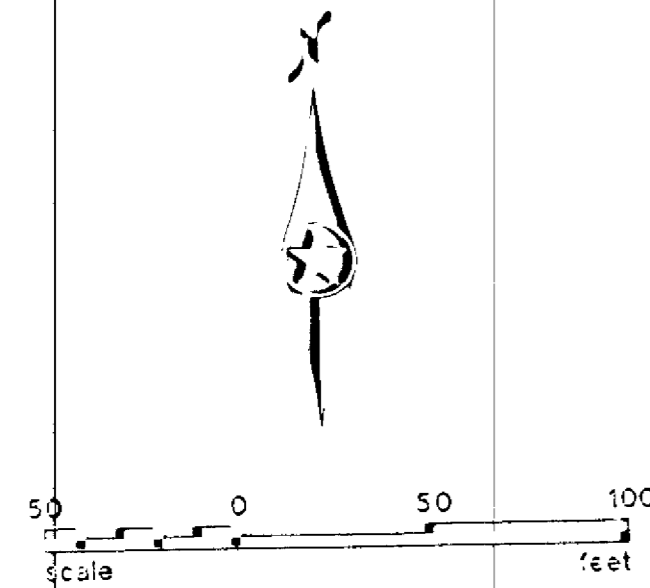


STRGAR-ROSCOE-FAUSCH, INC.
CONSULTING ENGINEERS & LAND SURVEYORS
MINNEAPOLIS MINNESOTA

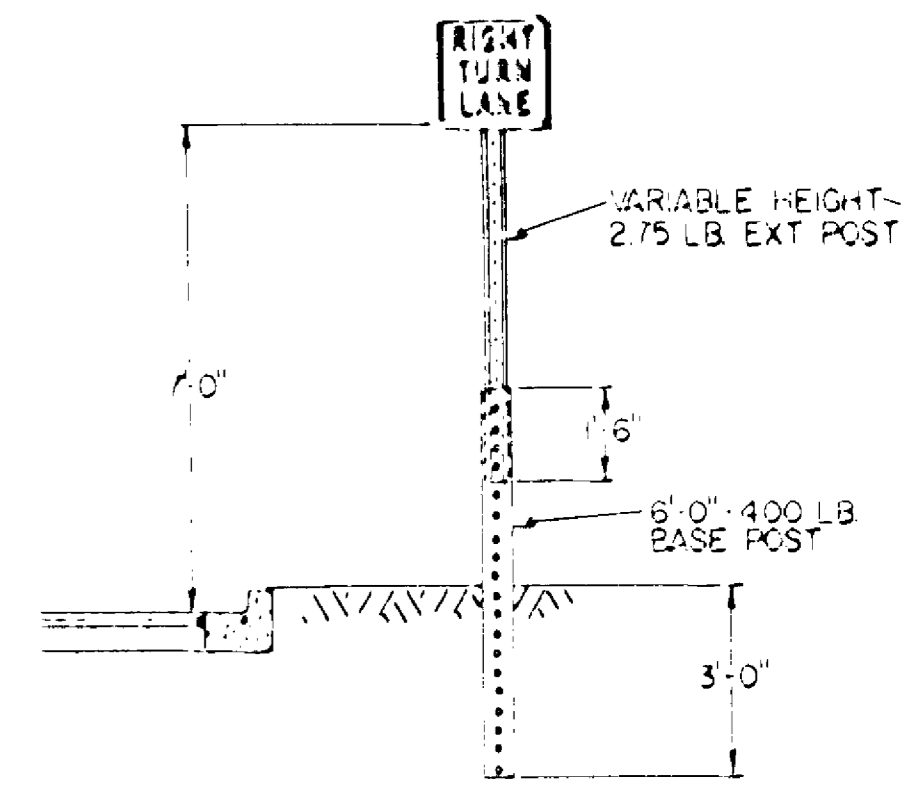
I hereby certify that the plan, specification or report was prepared by me or under my direct supervision and that I am a duly Registered Professional Engineer under the laws of the State of Minnesota.
Charles J. Fausch
Date: 11/21/88, Exp. No. 14440

ANOKA COUNTY
C.S.A.H. 12 @ T.H. 65
PLAN AND PROFILES
STA. 487+73 TO 502+07

STATE AID PROJ. NO. 02-612-09
ANOKA CO. PROJ. NO. _____
DRAWN BY M. VANDERLINDEN 1/88
DESIGNED BY S.R. BROWN 1/88
CHECKED BY _____
APPROVED BY _____
SHEET 10 OF 27
COMM. NO. 0870251

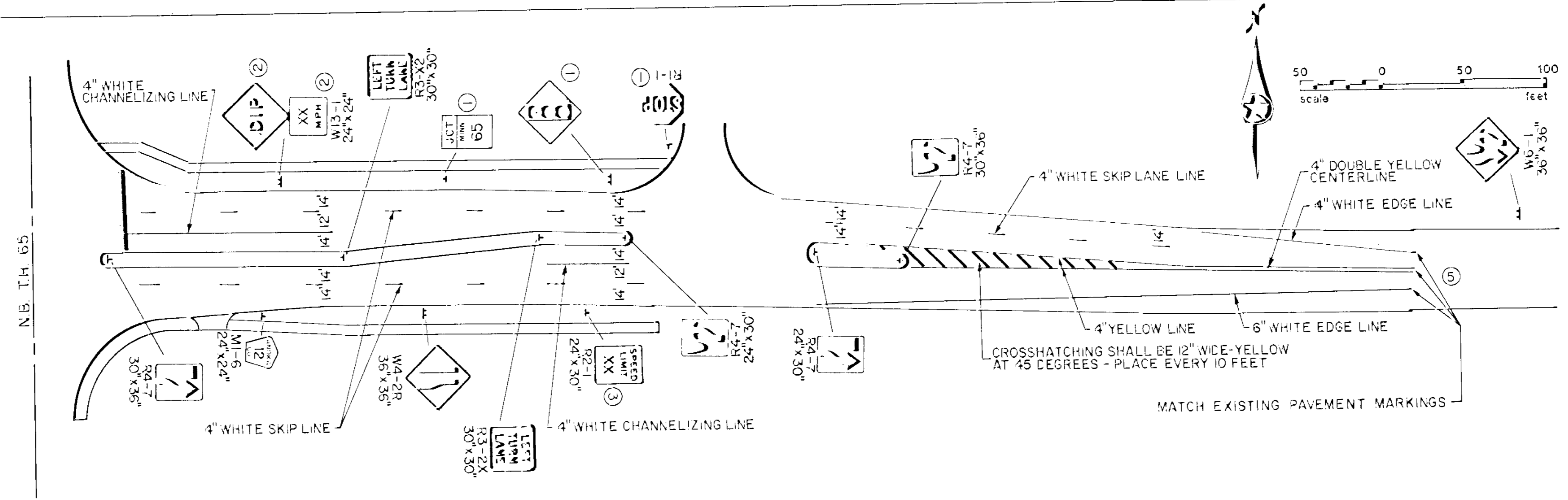


C.S.A.H. 12

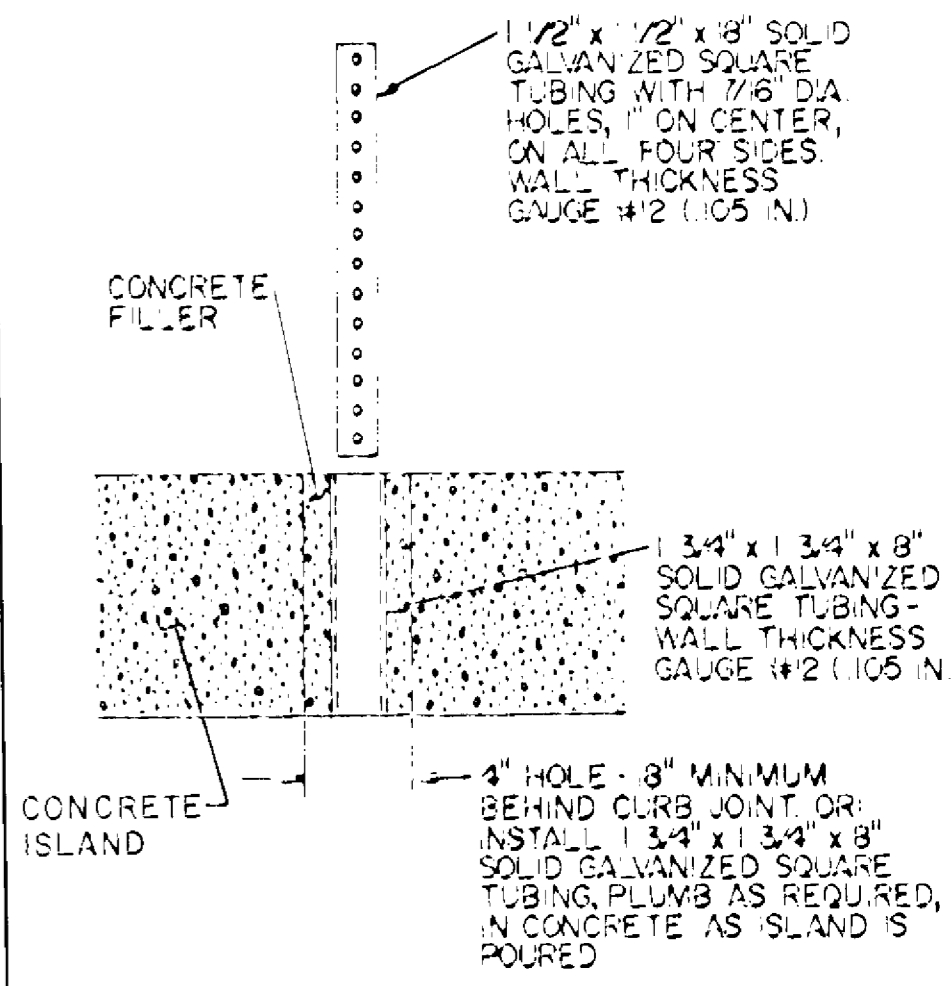


GROUND POST MOUNT SIGN INSTALLATION TYPICAL

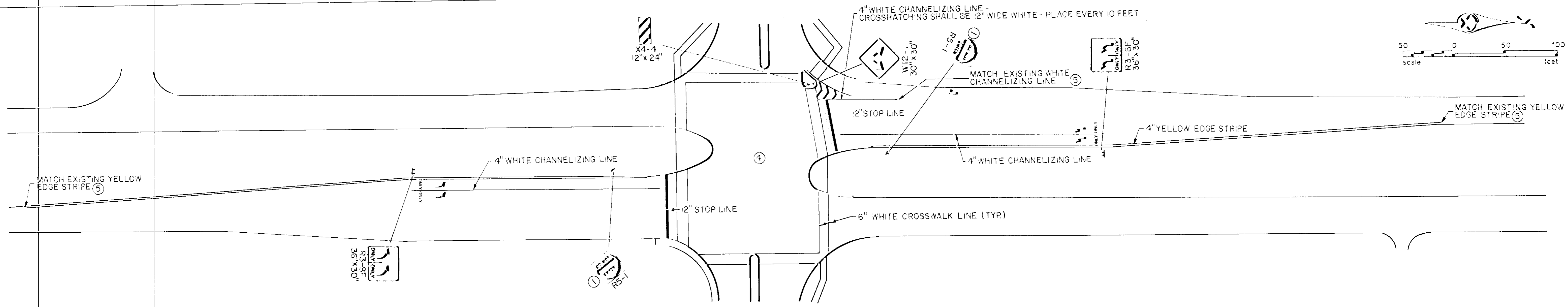
- NOTES:
- ① SALVAGE EXISTING SIGN AND RE-INSTALL WHERE SHOWN. (INCIDENTAL)
 - ② SALVAGE EXISTING "DIP" SIGN AND RE-INSTALL WHERE SHOWN. SPEED TO BE SHOWN ON ADVISORY PLATE UNDER "DIP" SIGN. SPEED TO BE DETERMINED BY COUNTY AFTER RECONSTRUCTION.
 - ③ SPEED LIMIT TO BE DETERMINED BY MN/DOT. AFTER RECONSTRUCTION.
 - ④ SIGNS TO BE MOUNTED ON TRAFFIC SIGNAL POLES ARE NOT SHOWN ON THIS SHEET.
 - ⑤ REMOVE CONFLICTING PAVEMENT MARKINGS AS DIRECTED BY THE ENGINEER. (INCIDENTAL)
- ALL SIGNS LOCATED ON COUNTY HIGHWAY RIGHT-OF-WAY SHALL BE MOUNTED ON BLACK POSTS.



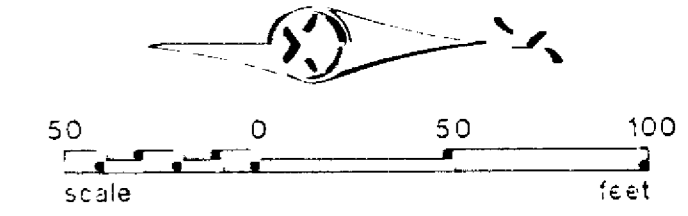
C.S.A.H. 12



ISLAND MOUNT SIGN DETAIL



T.H. 65



NO	DATE	BY	CHKD	APPR	REVISION

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 CONSULTING ENGINEERS & LAND SURVEYORS
 MINNEAPOLIS, MINNESOTA

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S. R. Brown
 Date 11-21-88 Reg No. 12657

ANOKA COUNTY
 C.S.A.H. 12 @ T.H. 65
 SIGNING AND STRIPING

STATE A/D PROJ. NO. 02-612-09	DRAWN BY M. IISAKKA	DATE 2-88	SHEET 11
ANOKA CO PROJ. NO.	DESIGNED BY G. RYLANDER	DATE 2-88	OF 27
	CHECKED BY S. R. BROWN	DATE 3-88	COMM. NO. 0870951
	APPROVED BY		

NOTE: MAINTAIN ACCESS TO SERVICE STATION AT ALL TIMES. JOHNSON STREET SHALL NOT BE CLOSED UNTIL SUCH TIME AS A SUITABLE TEMPORARY OR PERMANENT DRIVE ACCESS TO THE SERVICE STATION PROPERTY IS IN PLACE. DELINEATE DRIVE WITH BARRELS IF OPENED DURING STAGE 1.

NOTE: T.H. 65 TURN LANE CONSTRUCTION NOT SHOWN ON THIS SHEET.

DURING DEEP EXCAVATION IN AND NEAR THE SHADED AREA, CONCRETE JERSEY BARRIER SHALL BE PLACED ADJACENT TO TRAFFIC LANES, AS DIRECTED BY THE ENGINEER. (INCIDENTAL)

PROPOSED CURB- TO BE CONSTRUCTED AT END OF STAGE 2

12" TEMPORARY BYPASS LANE 2 1/2" 2331 BASE

MATCH EXISTING CENTERLINE AND EDGELINES

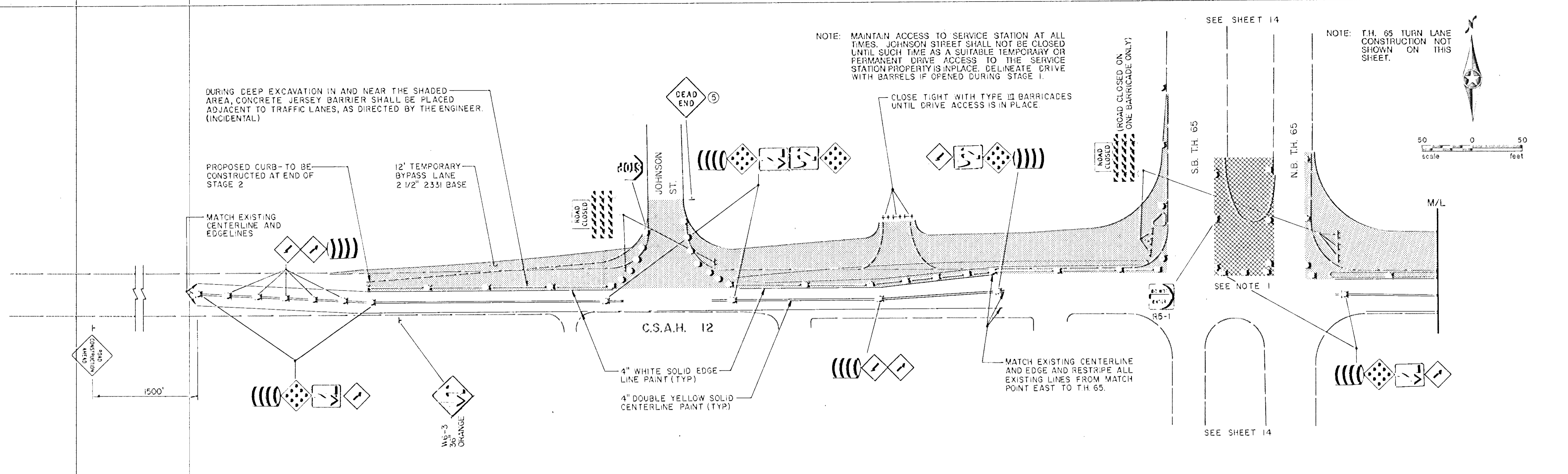
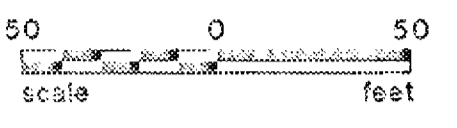
CLOSE TIGHT WITH TYPE III BARRICADES UNTIL DRIVE ACCESS IS IN PLACE.

ROAD CLOSED (ROAD CLOSED ON ONE BARRICADE ONLY)

SEE SHEET 14

SEE NOTE 1

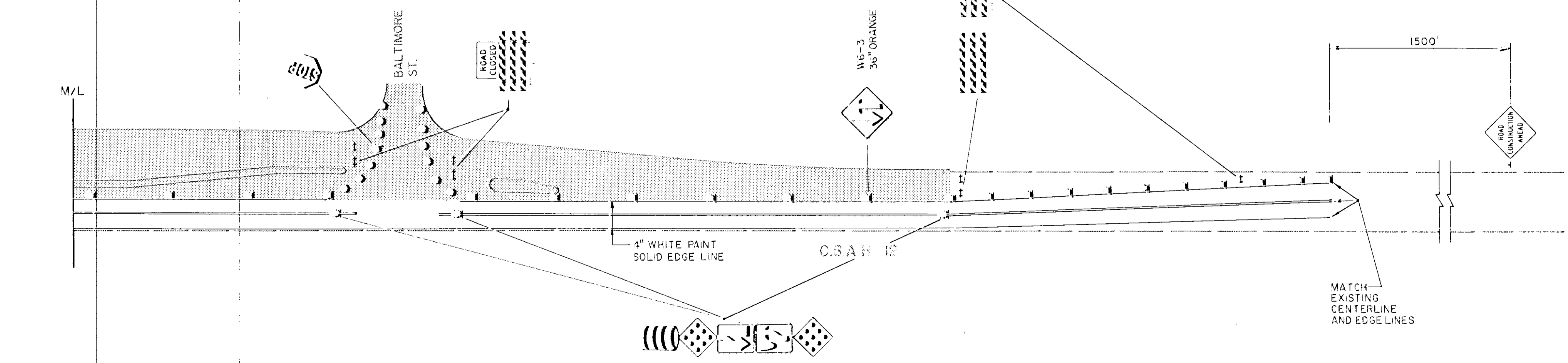
SEE SHEET 14



NOTE: MAINTAIN ACCESS TO ALL BUSINESSES AT ALL TIMES.

- NOTES**
1. WORK UNDER STAGE 1B IN THE IMMEDIATE VICINITY OF T.H. 65 SHALL NOT BEGIN UNTIL STAGE 1A IS COMPLETE.
 2. REMOVE EXISTING CONFLICTING PAINT MARKINGS AND SIGNING AS DIRECTED BY THE ENGINEER. (INC.)
 3. BARREL SPACING ALONG EDGE OF CONSTRUCTION AREA IS APPROXIMATE AND SUBJECT TO REVISION BY THE ENGINEER.
 4. KEEP RIGHT SIGNS WITH 9-BUTTON DELINEATORS SHOULD BE INSTALLED ON SIGN STRUTS PLACED BEHIND THE BARREL IF THE WIND LOAD/WEIGHT IS TOO GREAT FOR THE BARREL.
 5. RELOCATE EXISTING "DEAD END" SIGN AS DIRECTED BY THE ENGINEER.
 6. TEMPORARY STRIPING AND REMOVAL SHALL BE INCIDENTAL TO TRAFFIC CONTROL ITEM.

- SYMBOLS**
- 1 TYPE III BARRICADE (ALL 8' UNLESS NOTED OTHERWISE)
 - 2 BARREL
 - 3 BARREL WITH SIGN (SEE NOTE 4)
W14-X7 (BLACK ON ORANGE) 24" UNLESS SPECIFIED OTHERWISE
 - 4 ROADWAY UNDER CONSTRUCTION (STAGE 1A)
 - 5 ROADWAY UNDER CONSTRUCTION (STAGE 1B)



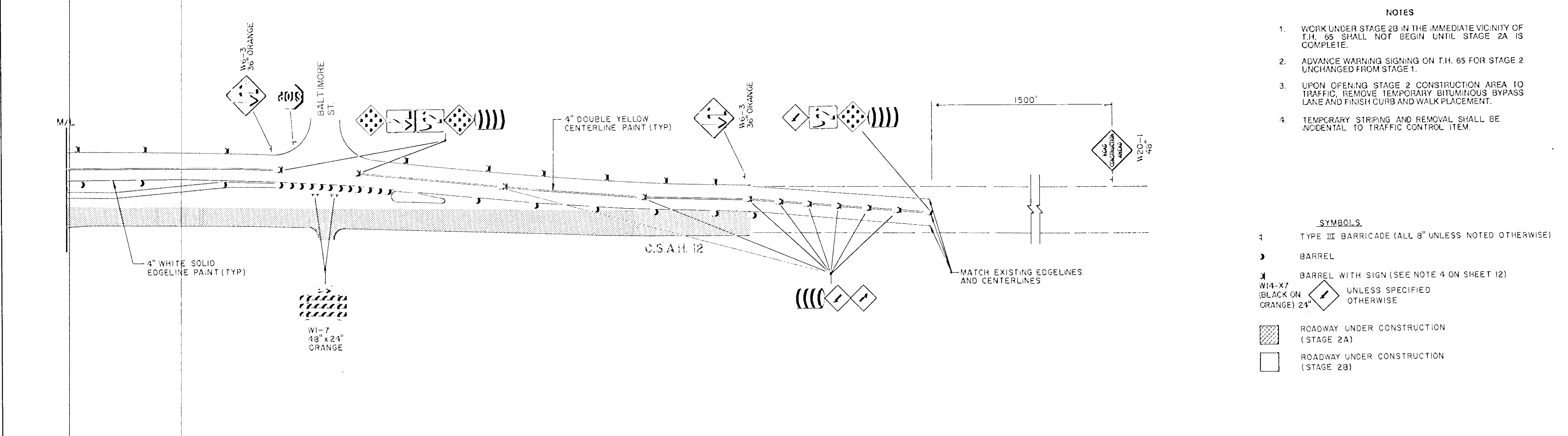
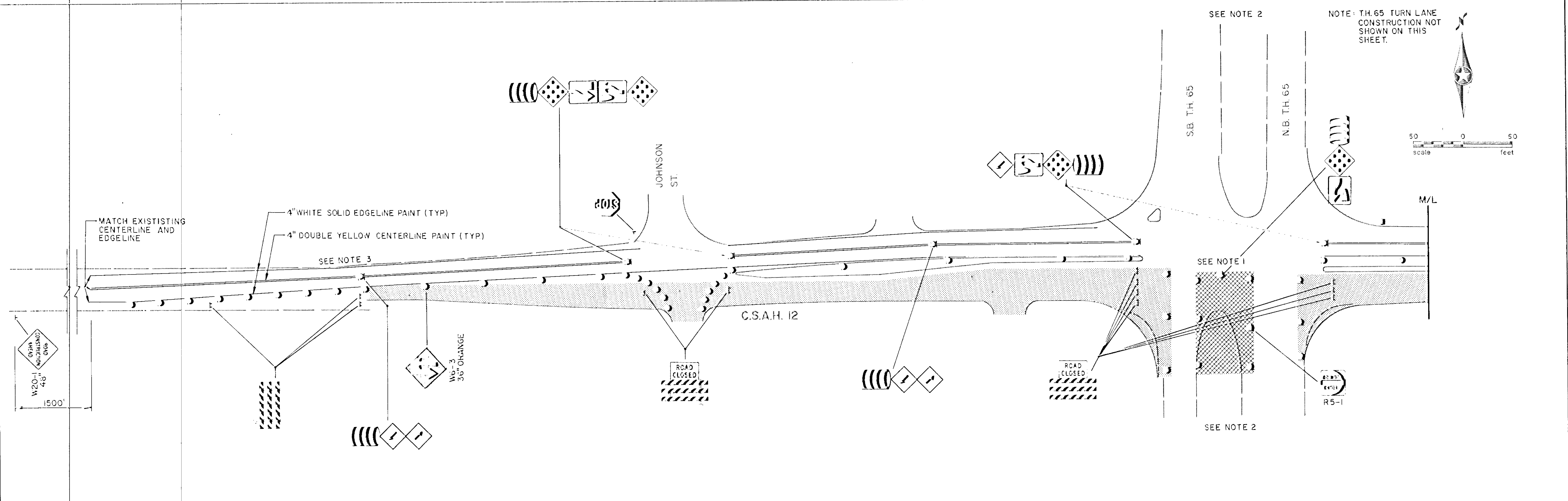
NO	DATE	BY	CHKD	APPR	REVISION

STRGAR-ROSCOE-FAUSCH, INC.
CONSULTING ENGINEERS - LAND SURVEYORS
MINNEAPOLIS MINNESOTA

I hereby certify that this plan, specification or report 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.
S. R. Brown
Date 11-21-88 Reg. No. 12654

ANOKA COUNTY
C.S.A.H. 12 @ T.H. 65
TRAFFIC CONTROL AND CONSTRUCTION
STAGING PLAN-STAGE 1

STATE AID PROJ. NO. 02-612-09	DRAWN BY D. MICHALKO	DATE 3/88	SHEET 12
ANOKA CO. PROJ. NO.	DESIGNED BY S. RYLANDER	3/88	OF 27
	CHECKED BY S. R. BROWN	3/88	COMM. NO. 0870951
	APPROVED BY		



- NOTES**
1. WORK UNDER STAGE 2B IN THE IMMEDIATE VICINITY OF T.H. 65 SHALL NOT BEGIN UNTIL STAGE 2A IS COMPLETE.
 2. ADVANCE WARNING SIGNING ON T.H. 65 FOR STAGE 2 UNCHANGED FROM STAGE 1.
 3. UPON OPENING STAGE 2 CONSTRUCTION AREA TO TRAFFIC, REMOVE TEMPORARY BITUMINOUS BYPASS LANE AND FINISH CURB AND WALK PLACEMENT.
 4. TEMPORARY STRIPING AND REMOVAL SHALL BE INCIDENTAL TO TRAFFIC CONTROL ITEM.
- SYMBOLS**
- 1 TYPE III BARRICADE (ALL 8" UNLESS NOTED OTHERWISE)
 - BARREL
 - BARREL WITH SIGN (SEE NOTE 4 ON SHEET 12)
 - W14-X7 (BLACK ON ORANGE) 24" UNLESS SPECIFIED OTHERWISE
 - ROADWAY UNDER CONSTRUCTION (STAGE 2A)
 - ROADWAY UNDER CONSTRUCTION (STAGE 2B)

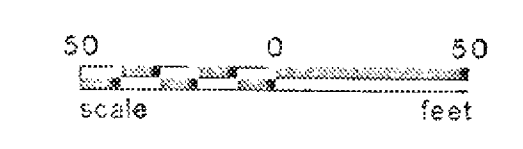
NO.	DATE	BY	CHKD	APPR	REVISION

STRGAR-ROSCOE-FAUSCH, INC.
CONSULTING ENGINEERS • LAND SURVEYORS
MINNEAPOLIS MINNESOTA

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[Signature]
Date 11-21-88 Reg. No. 16654

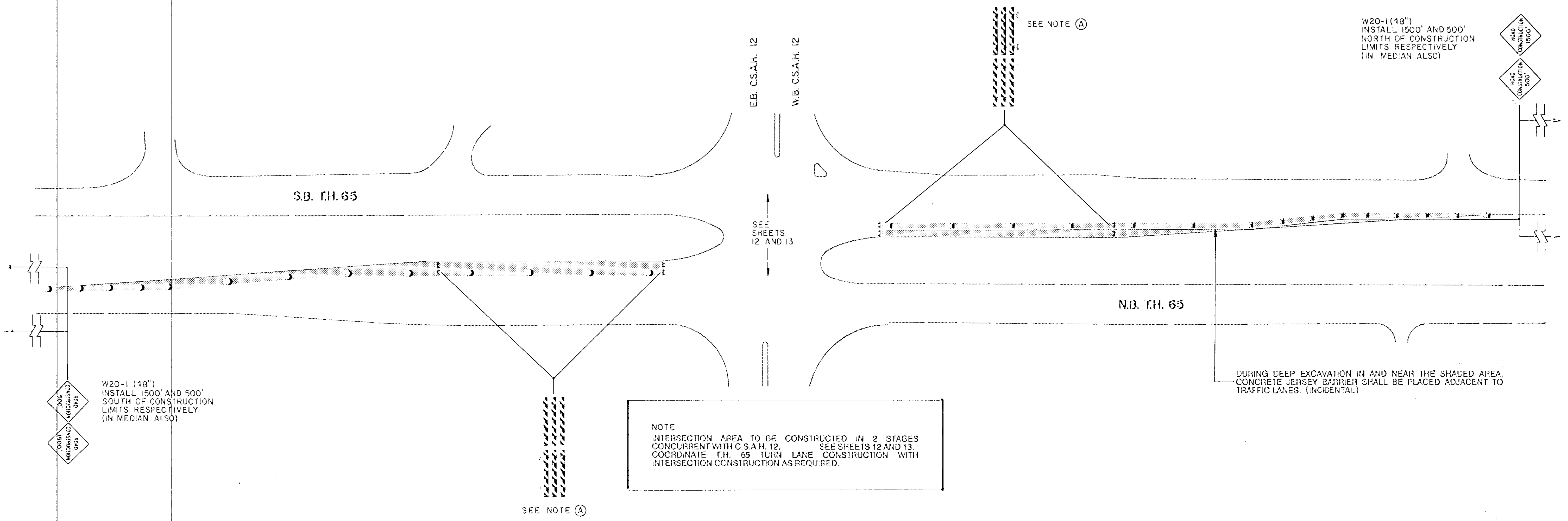
ANOKA COUNTY
C.S.A.H. 12 @ T.H. 65
TRAFFIC CONTROL AND CONSTRUCTION
STAGING PLAN-STAGE 2

STATE AID PROJ. NO. <u>02-612-09</u>	DRAWN BY <u>D. MICHALKO</u>	DATE <u>3/88</u>	SHEET 13
ANOKA CO. PROJ. NO.	DESIGNED BY <u>G. RYLANDER</u>	DATE <u>3/88</u>	OF 27
	CHECKED BY <u>S. R. BROWN</u>	DATE <u>3/88</u>	COMM. NO. <u>0870951</u>
	APPROVED BY		



(A) NEWLY CONSTRUCTED LEFT TURN LANES SHALL BE CLOSED TIGHT TO EXCLUDE ALL TRAFFIC UNTIL C.S.A.H. 12 CONSTRUCTION IS COMPLETE AND FULLY OPEN TO TRAFFIC. EXISTING LEFT TURN LANES TO REMAIN OPEN AT ALL TIMES.

TRAFFIC LANES TO BE USED DURING CONSTRUCTION MUST BE DELINEATED TO KEEP VEHICLES A SAFE DISTANCE AWAY FROM THE ADJACENT EXCAVATION. THE DELINEATION SHOULD COINCIDE WITH POINTS ESTABLISHED BY PROJECTING 2:1 OR FLATTER SLOPE BETWEEN THE EDGE OF THE TRAFFIC SURFACE AND THE BOTTOM OF THE EXCAVATION. IF IT BECOMES NECESSARY TO EXCAVATE WITHIN A 2:1 SLOPE FROM TRAFFIC, THE EXCAVATION SHALL BE BACKFILLED TO THE TOP OF GRADING SUBGRADE ELEVATION BEFORE THE END OF THAT DAY'S WORK SHIFT. NO EXCAVATION WITHIN A 2:1 SLOPE OF TRAFFIC SHALL BE ALLOWED OVERNIGHT, AND IN NO CASE SHALL THE SLOPE BETWEEN THE EDGE OF TRAFFIC AND BOTTOM OF THE EXCAVATION BE STEEPER THAN A 1:1 SLOPE.



NOTE:
INTERSECTION AREA TO BE CONSTRUCTED IN 2 STAGES
CONCURRENT WITH C.S.A.H. 12. SEE SHEETS 12 AND 13.
COORDINATE T.H. 65 TURN LAKE CONSTRUCTION WITH
INTERSECTION CONSTRUCTION AS REQUIRED.

- SYMBOLS**
- 1 TYPE III BARRICADE (ALL 8' UNLESS NOTED OTHERWISE)
 - BARREL
 - BARREL WITH SIGN (SEE NOTE 4 ON SHEET 12)
 - W14-X7 (BLACK ON ORANGE) 24" UNLESS SPECIFIED OTHERWISE.
 - ▨ ROADWAY UNDER CONSTRUCTION

NO.	DATE	BY	CHKD	APPX	REVISION

STRGAR-ROSCOE-FAUSCH, INC.
CONSULTING ENGINEERS ■ LAND SURVEYORS
MINNEAPOLIS MINNESOTA

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S. R. Brown
Date 11-21-88 Reg. No. 16654

ANOKA COUNTY
C.S.A.H. 12 @ T.H. 65
TRAFFIC CONTROL AND CONSTRUCTION
STAGING PLAN - T.H. 65 APPROACHES

STATE AID PROJ. NO. <u>02-612-09</u>	DRAWN BY <u>D. MICHALKO</u>	DATE <u>3/88</u>	SHEET <u>14</u>
ANOKA CO. PROJ. NO.	DESIGNED BY <u>G. RYLANDER</u>	DATE <u>3/88</u>	OF <u>27</u>
	CHECKED BY <u>S. R. BROWN</u>	DATE <u>3/88</u>	COMM. NO. <u>0870951</u>
	APPROVED BY		

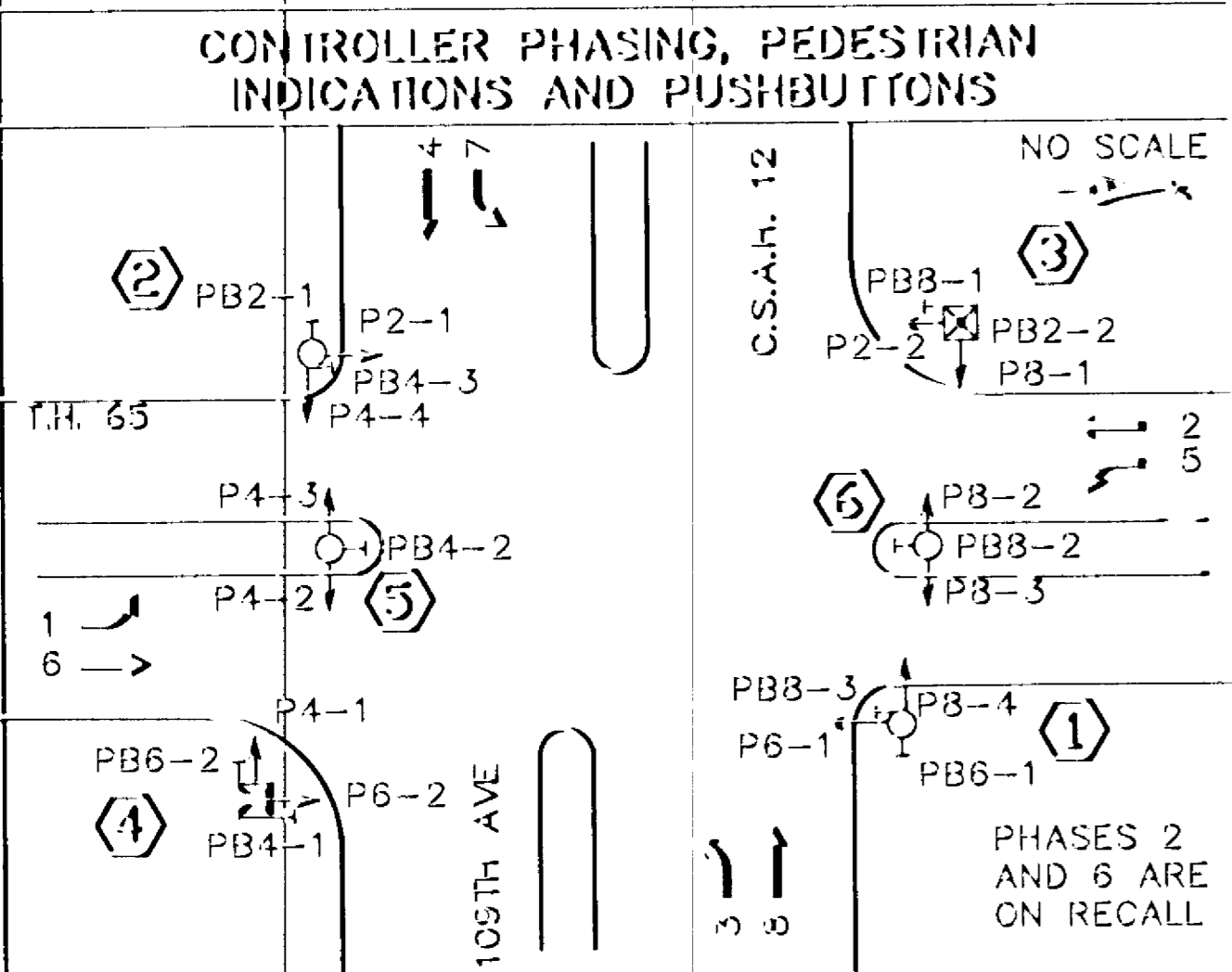
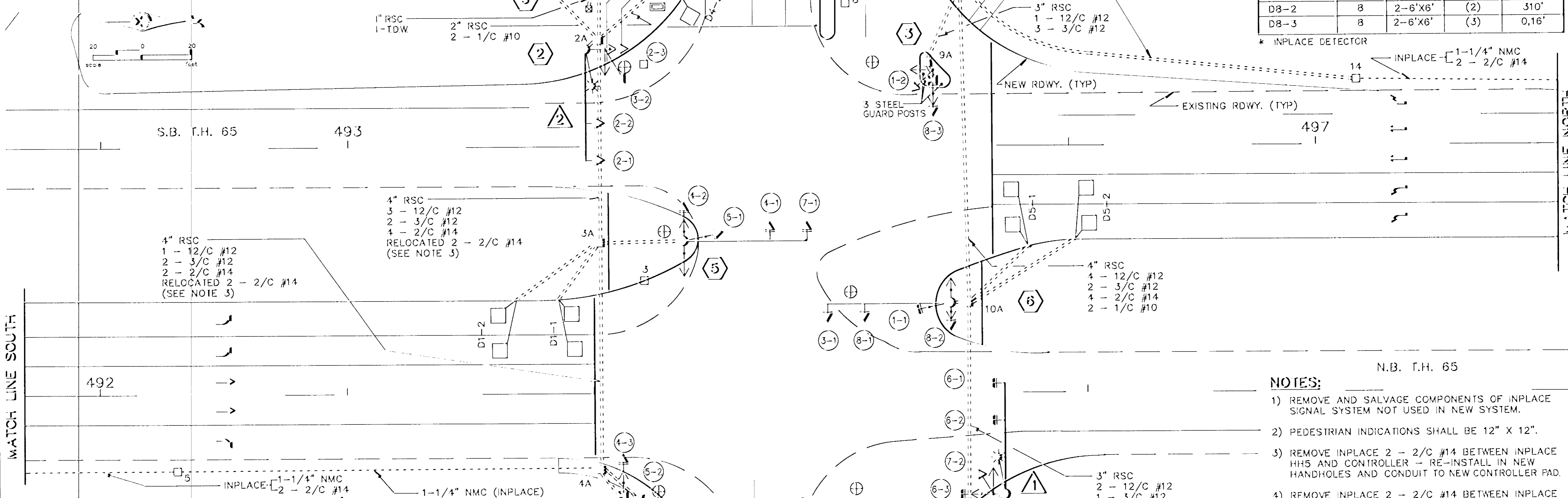
SIGNAL INDICATION CHART								
DESIGNATION	PHASE	FLASH	INDICATION TYPE (SIZE)					
			R	Y	G	R	Y	G
1-1,1-2	1	R				12"	12"	12"
2-1,2-2,2-3	2	R	12"	12"	12"			
3-1,3-2	3	R				12"	12"	12"
4-1,4-2,4-3	4	R	12"	12"	12"			
5-1,5-2	5	R				12"	12"	12"
6-1,6-2,6-3	6	R	12"	12"	12"			
7-1,7-2	7	R				12"	12"	12"
8-1,8-2,8-3	8	R	12"	12"	12"			

(C) PAD WITH CONTROLLER AND CABINET
 1" RSC WITH DRAIN TEE INTO TELEPHONE BOX WITH TDW
 4" RSC INTO HH2A WITH:
 5 - 12/C #12, 3 - 3/C #12, 4 - 2/C #14
 INSTALL RELOCATED EXISTING 2 - 2/C #14
 4" RSC INTO HH1A WITH:
 5 - 12/C #12, 3 - 3/C #12, 8 - 2/C #14
 INSTALL RELOCATED EXISTING 2 - 2/C #14
 (S) 25' WOOD POLE - CLASS 2 MEIER, DISCONNECT SWITCH AND SERVICE EQUIPMENT
 2" RSC WITH DRAIN TEE TO CONTROLLER WITH:
 2 - 1/C #6, 1 - 1/C #6 BRGR
 2" RSC TO HH2A WITH:
 4 - 1/C #10

DETECTOR FUNCTION NOTES:
 1) CALL AND EXTEND
 2) EXTEND ONLY
 3) CALL AFTER DELAY - EXTEND IMMEDIATELY

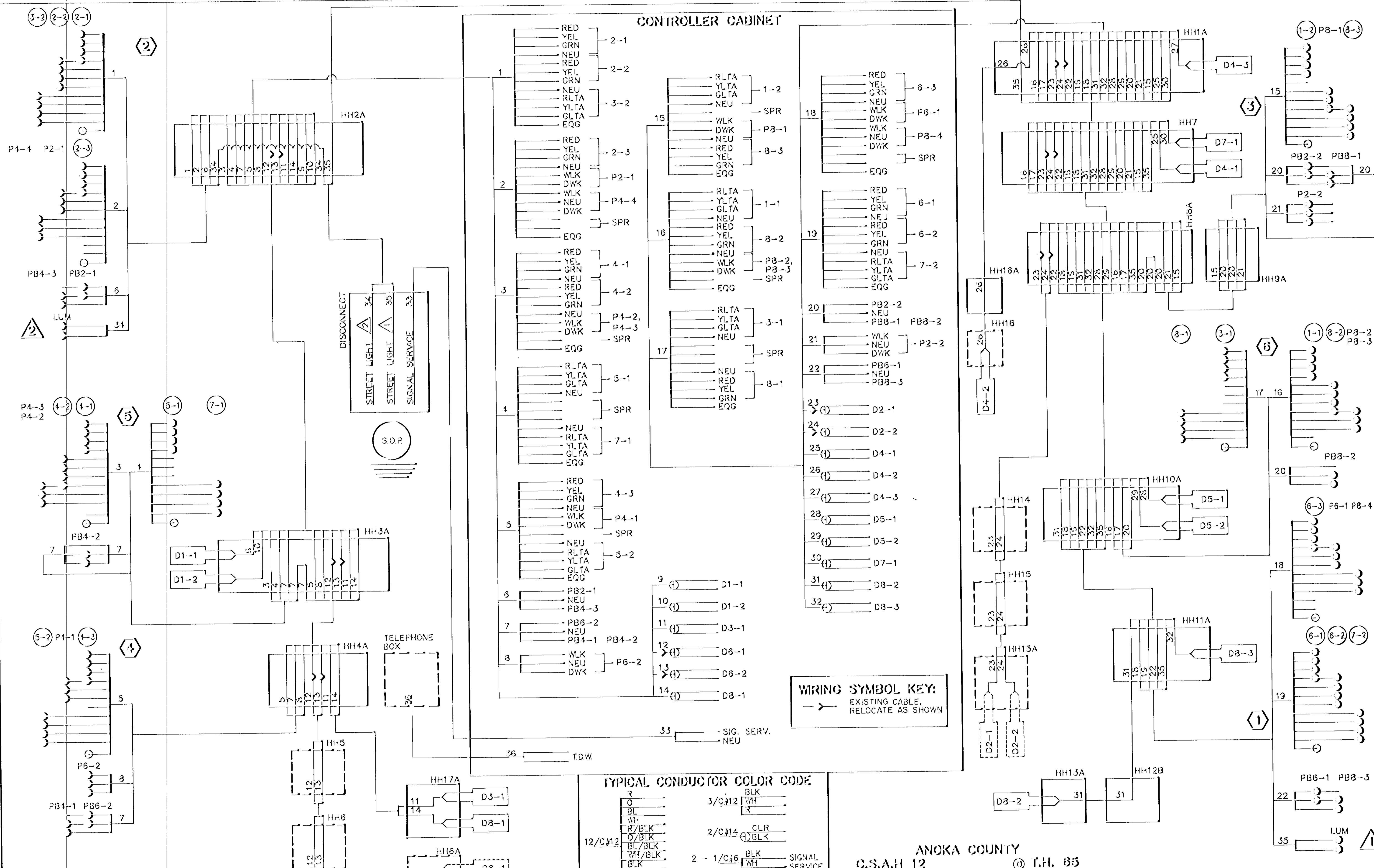
DETECTOR CHART				DISTANCE TO STOP BAR
DESIGNATION	PHASE	SIZE/FT.	FUNCTION	
D1-1, D1-2	1	2-6'X6'	(1)	5', 36'
D2-1, D2-2*	2	1-6'X6'	(1)	375'
D3-1	3	2-6'X6'	(1)	12', 43'
D4-1	4	2-6'X6'	(1)	20'
D4-2	4	2-6'X6'	(2)	325'
D4-3	4	2-6'X6'	(3)	0, 16'
D5-1, D5-2	5	2-6'X6'	(1)	5', 36'
D6-1, D6-2*	6	1-6'X6'	(1)	375'
D7-1	7	2-6'X6'	(1)	12', 43'
D8-1	8	2-6'X6'	(1)	20'
D8-2	8	2-6'X6'	(2)	310'
D8-3	8	2-6'X6'	(3)	0, 16'

* INPLACE DETECTOR



(3) TWO WAY SIGNAL (TYPE 2C)
 2 - PEDESTRIAN PUSHBUTTONS AND SIGNS
 (4) 1 - R6-1(L) AND 1 - R6-1(R) SIGN PEDESTAL 3 TO HH9A 3" RSC WITH:
 1 - 12/C #12, 3 - 3/C #12
 PEDESTAL 4 TO HH4A 3" RSC WITH:
 1 - 12/C #12, 2 - 3/C #12
 (5) TYPE A100-A50
 2 - ONE WAY SIGNALS (OVERHEAD)
 TYPE 10A AT 0 DEGREES
 TYPE 30A AT 90 DEGREES
 TYPE 10B AT 270 DEGREES
 1 - PEDESTRIAN PUSHBUTTON
 MA5 TO HH3A 3" RSC WITH:
 2 - 12/C #12, 2 - 3/C #12
 MA6 TO HH10A 3" RSC WITH:
 2 - 12/C #12, 1 - 3/C #12
 MID ARM SIGNAL MOUNT TO BE 15 FEET FROM END OF MAST ARM

- NOTES:**
- REMOVE AND SALVAGE COMPONENTS OF INPLACE SIGNAL SYSTEM NOT USED IN NEW SYSTEM.
 - PEDESTRIAN INDICATIONS SHALL BE 12" X 12".
 - REMOVE INPLACE 2 - 2/C #14 BETWEEN INPLACE HH5 AND CONTROLLER - RE-INSTALL IN NEW HANDHOLES AND CONDUIT TO NEW CONTROLLER PAD.
 - REMOVE INPLACE 2 - 2/C #14 BETWEEN INPLACE HH14 AND CONTROLLER - RE-INSTALL IN NEW HANDHOLES AND CONDUIT TO NEW CONTROLLER PAD.
 - REMOVE AND SALVAGE FOUR (4) TYPE "D" SIGNS AND FOUR (4) R6-1(L AND R) SIGNS FROM INPLACE POLES AND MAST ARMS 1 AND 2. RE-INSTALL ON NEW POLES AND MAST ARMS 1 AND 2. ALSO SEE NOTE 8 ON SHEET NO. 17.
 - POLES 5 AND 6 SHALL EACH HAVE 1 - 24" X 30" R4-7 SIGN.
 - NEW HH'S 4A, 7, 9A, 10A, 11A, 16A AND 17 SHALL BE PVC TYPE WITH LD COVERS. ALL OTHER NEW HANDHOLES SHALL BE PVC TYPE WITH CONCRETE COVERS.
 - SEE CONSTRUCTION PLANS FOR LOCATIONS OF INPLACE UTILITIES.
 - SEE SHEET 18 FOR LOCATIONS OF INPLACE TRAFFIC SIGNAL CONTROL COMPONENTS.
 - SEE SPECIAL PROVISIONS FOR DEPARTMENT FURNISHED EQUIPMENT.



CONTROLLER CABINET

- 1 RED YEL GRN NEU RED YEL GRN NEU RLTA YLTA GLTA EQG
- 2 YEL GRN NEU WLK DWK NEU WLK DWK NEU EQG
- 3 RED YEL GRN NEU WLK DWK NEU EQG
- 4 RLTA YLTA GLTA NEU NEU RLTA YLTA GLTA EQG
- 5 RED YEL GRN NEU WLK DWK NEU RLTA YLTA GLTA EQG
- 6 PB2-1 NEU PB4-3
- 7 PB6-2 NEU PB4-1
- 8 WLK NEU DWK
- 9 (1) D1-1
- 10 (1) D1-2
- 11 (1) D3-1
- 12 (1) D6-1
- 13 (1) D6-2
- 14 (1) D8-1
- 15 WLK DWK NEU RED YEL GRN NEU EQG
- 16 RLTA YLTA GLTA NEU RED YEL GRN NEU WLK DWK EQG
- 17 NEU RLTA YLTA GLTA EQG
- 18 RED YEL GRN NEU WLK DWK NEU WLK DWK NEU EQG
- 19 RED YEL GRN NEU WLK DWK NEU EQG
- 20 PB2-2 NEU PB8-1
- 21 WLK NEU DWK
- 22 PB6-1 NEU PB8-3
- 23 (1) D2-1
- 24 (1) D2-2
- 25 (1) D4-1
- 26 (1) D4-2
- 27 (1) D4-3
- 28 (1) D5-1
- 29 (1) D5-2
- 30 (1) D7-1
- 31 (1) D8-2
- 32 (1) D8-3
- 33 SIG. SERV. NEU

WIRING SYMBOL KEY:
 -> EXISTING CABLE, RELOCATE AS SHOWN

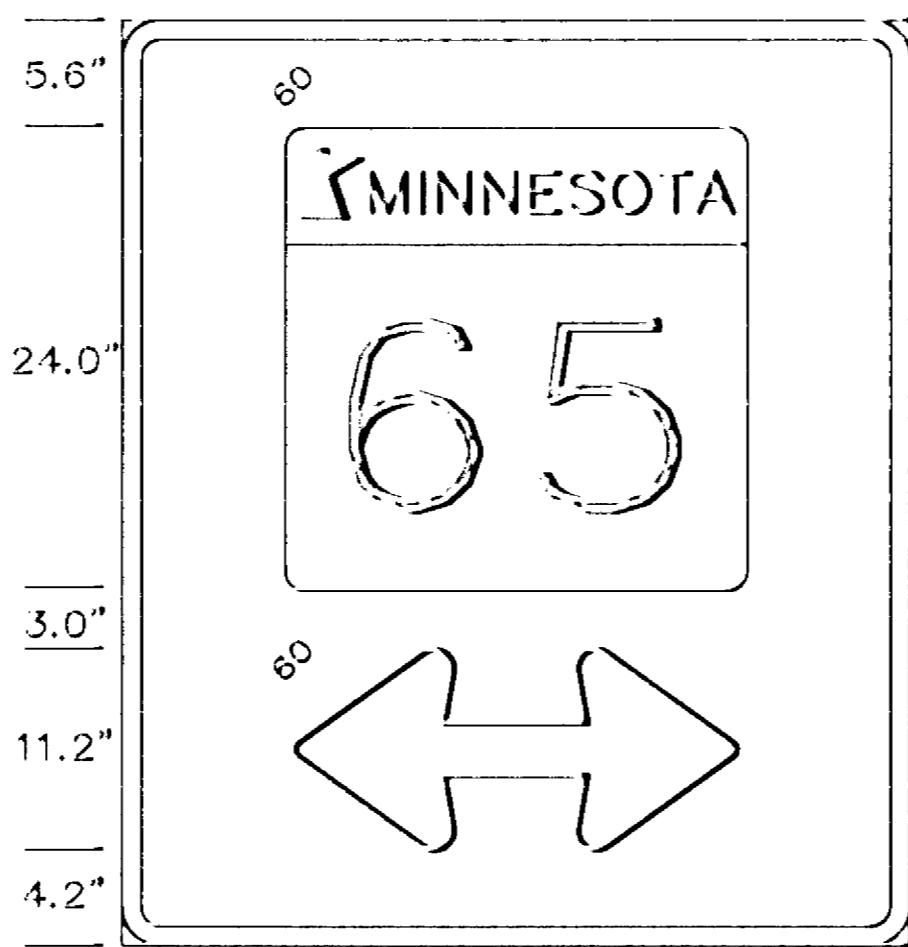
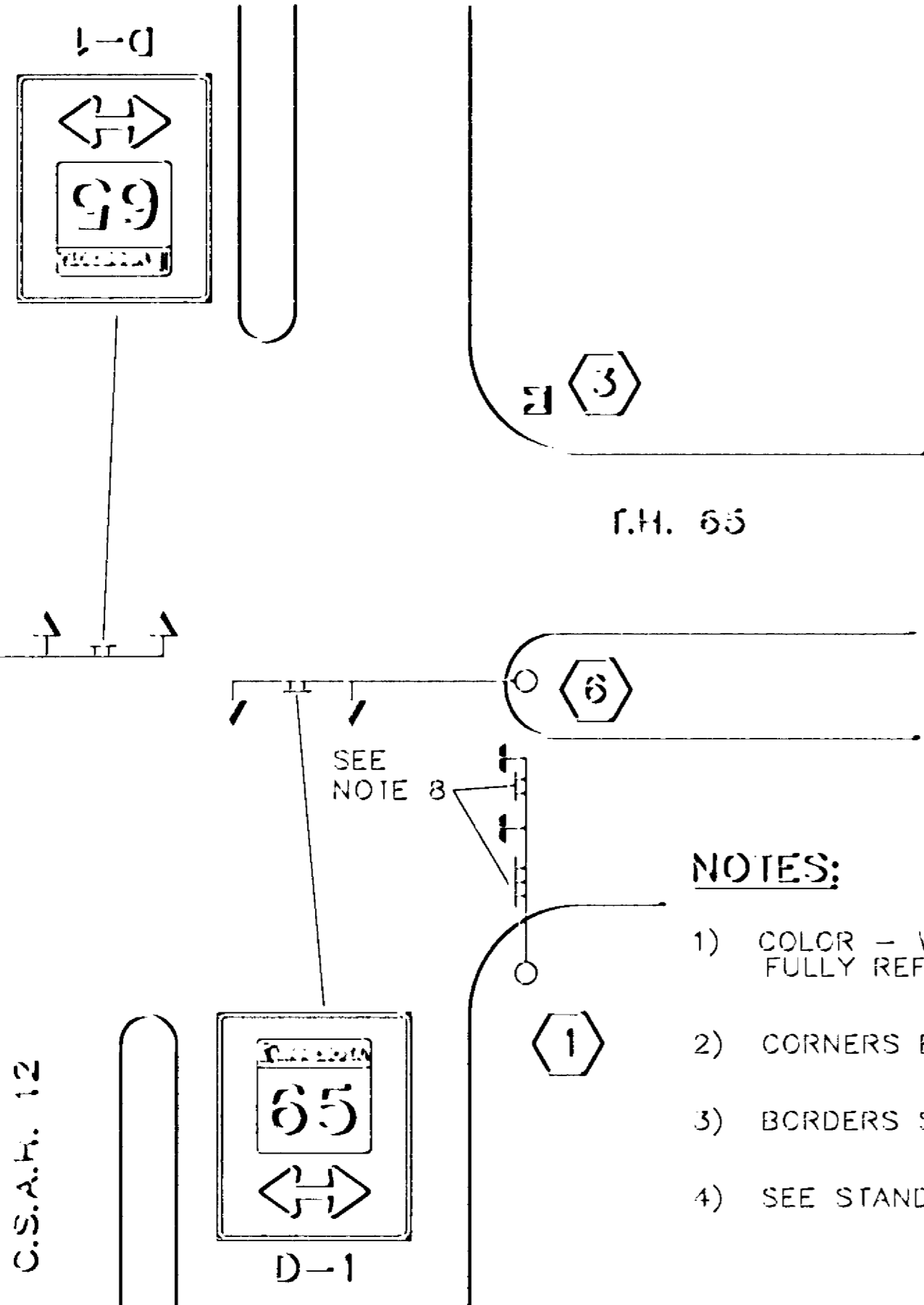
TYPICAL CONDUCTOR COLOR CODE

R	BLK
O	3/C#12 WH
BL	R
WH	2/C#14 CLR
R/BLK	(1) BLK
O/BLK	2 - 1/C#6 BLK
BL/BLK	WH
WH/BLK	SIGNAL SERVICE
BLK	2 - 1/C#10 BLK
BLK/WH	WH
G/BLK	SIGNAL SERVICE
G	WH

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

ANOKA COUNTY
C.S.A.H 12 @ T.H. 65
FIELD WIRING DIAGRAM

NO SCALE



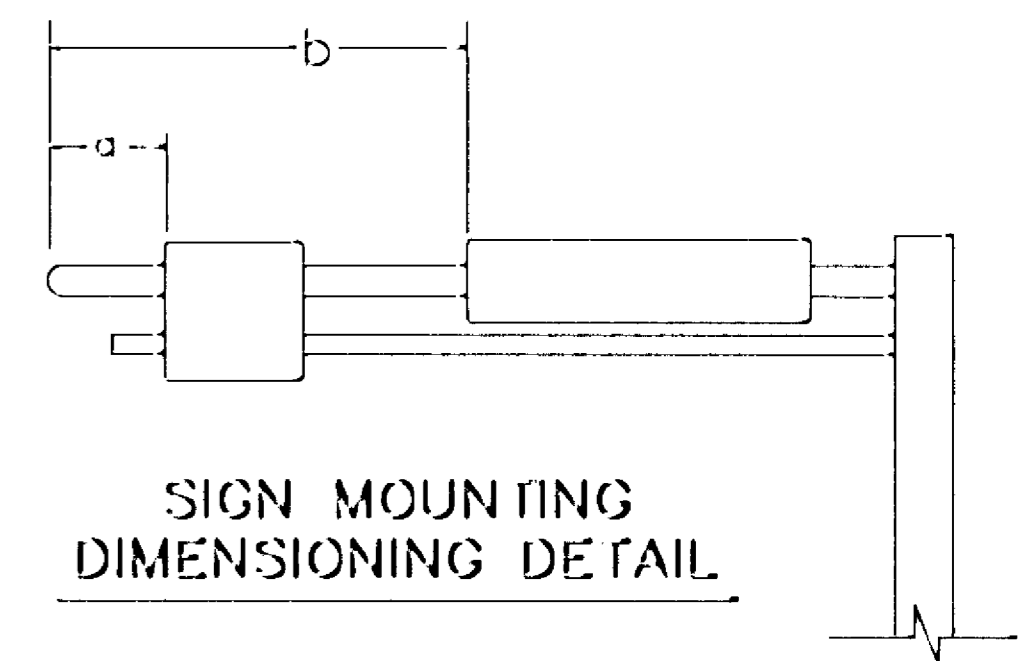
D-1 36" x 48", 3" R.
 LINE 1 = 24.0 : 24" x 24" --- 10" NUM.
 LINE 2 = 24.0 : 5--24 DBL. ARROW

NOTES:

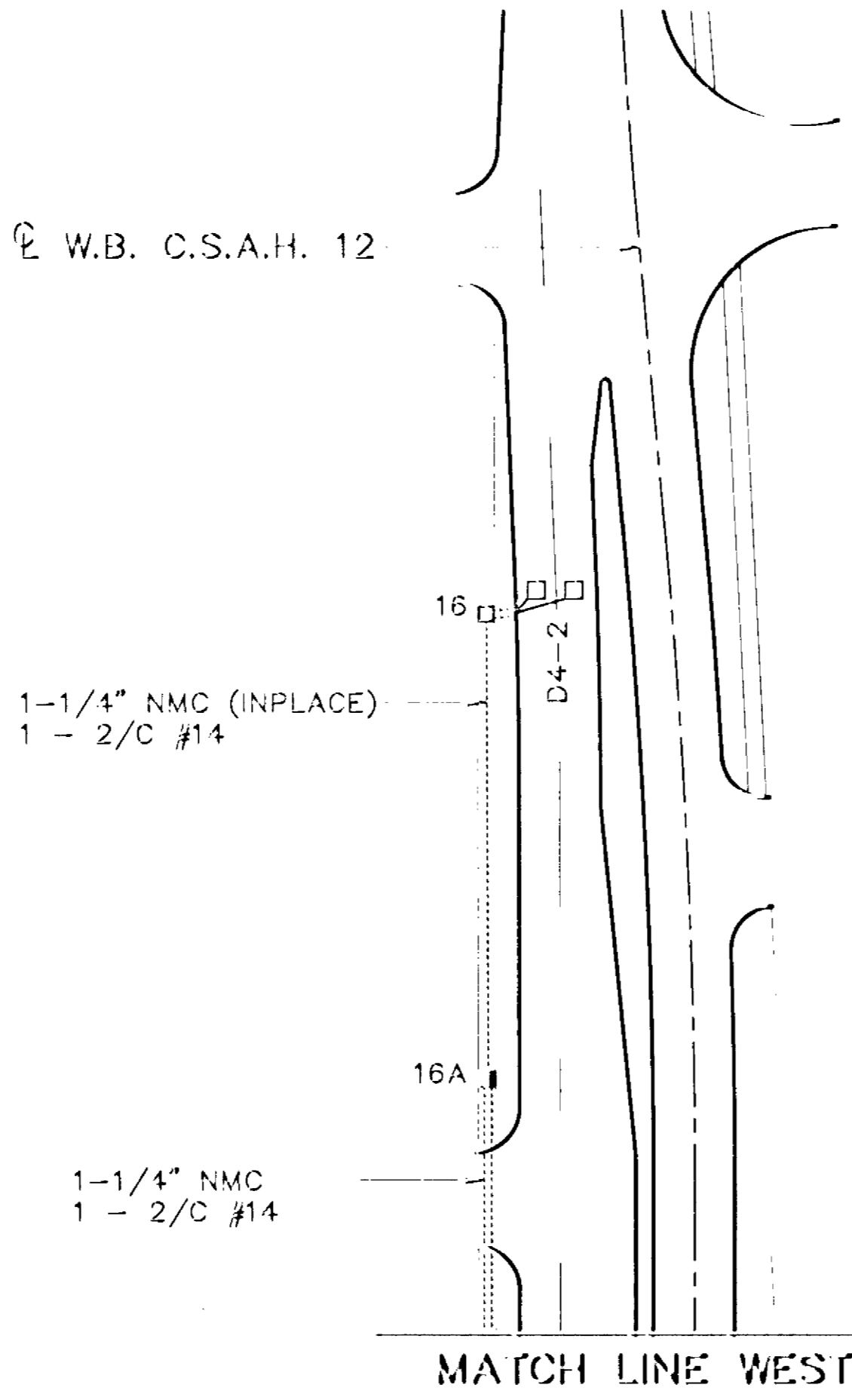
- 1) COLOR - WHITE LEGEND AND BORDER ON GREEN BACKGROUND, FULLY REFLECTORIZED.
- 2) CORNERS EXTENDING BEYOND THE BORDER SHALL NOT BE TRIMMED.
- 3) BORDERS SHALL BE 1.0".
- 4) SEE STANDARD SIGNS MANUAL FOR ARROW AND OVERLAY DETAILS.

TYPE "D" SIGNS							
SIGN PANEL	SIZE	NUMBER REQUIRED	NO. POSTS PER SIGN	POST SPACING	SQUARE FT. PER SIGN	a	b
D-1	36" x 48"	2	2	24"	12.0	5.0'	

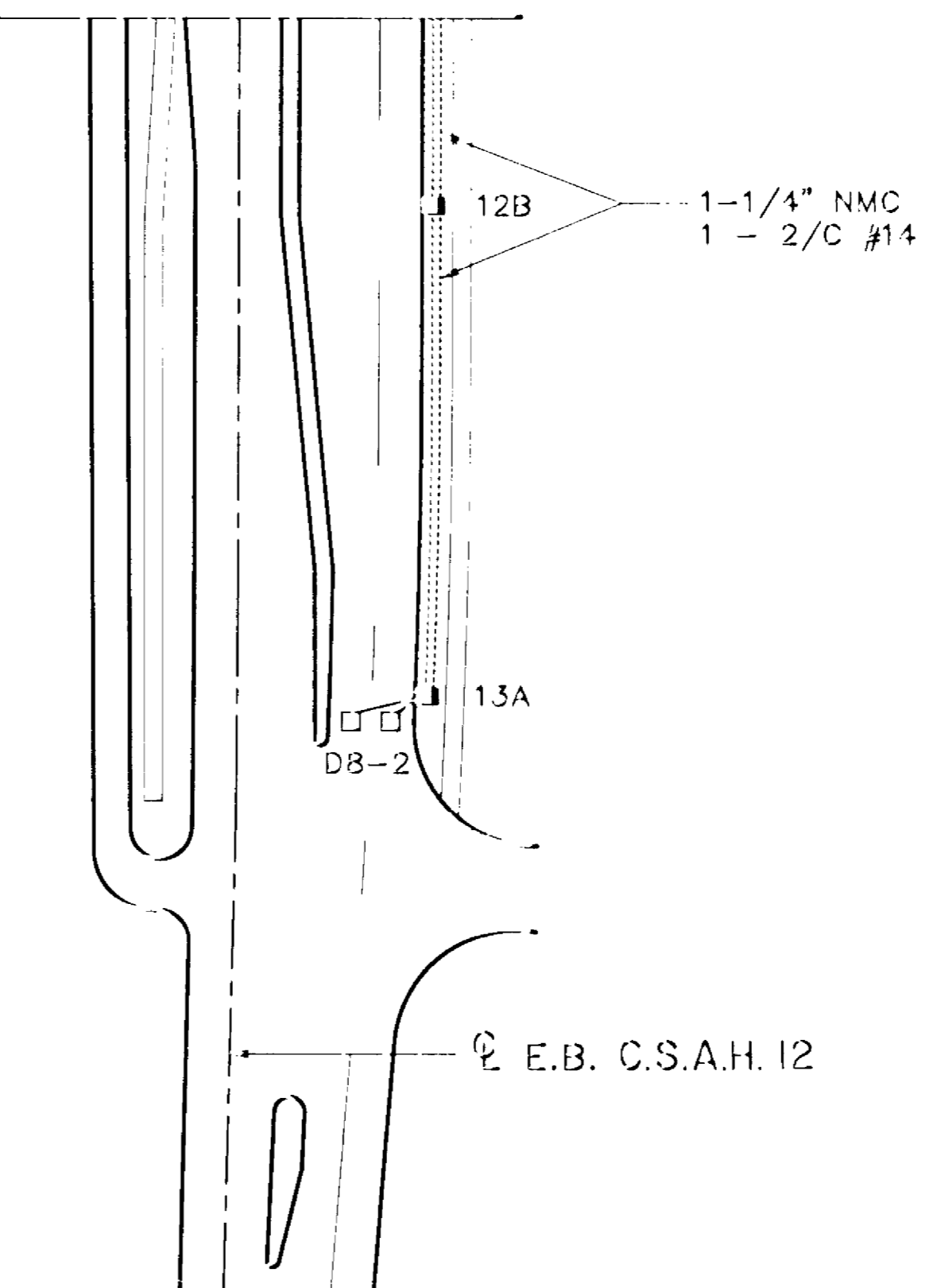
OVERLAYS				
CODE NO.	QUANTITY	SIZE	LEGEND	SQUARE FT. PER OVERLAY
M1-5B	2	24" x 24"	65	4.0



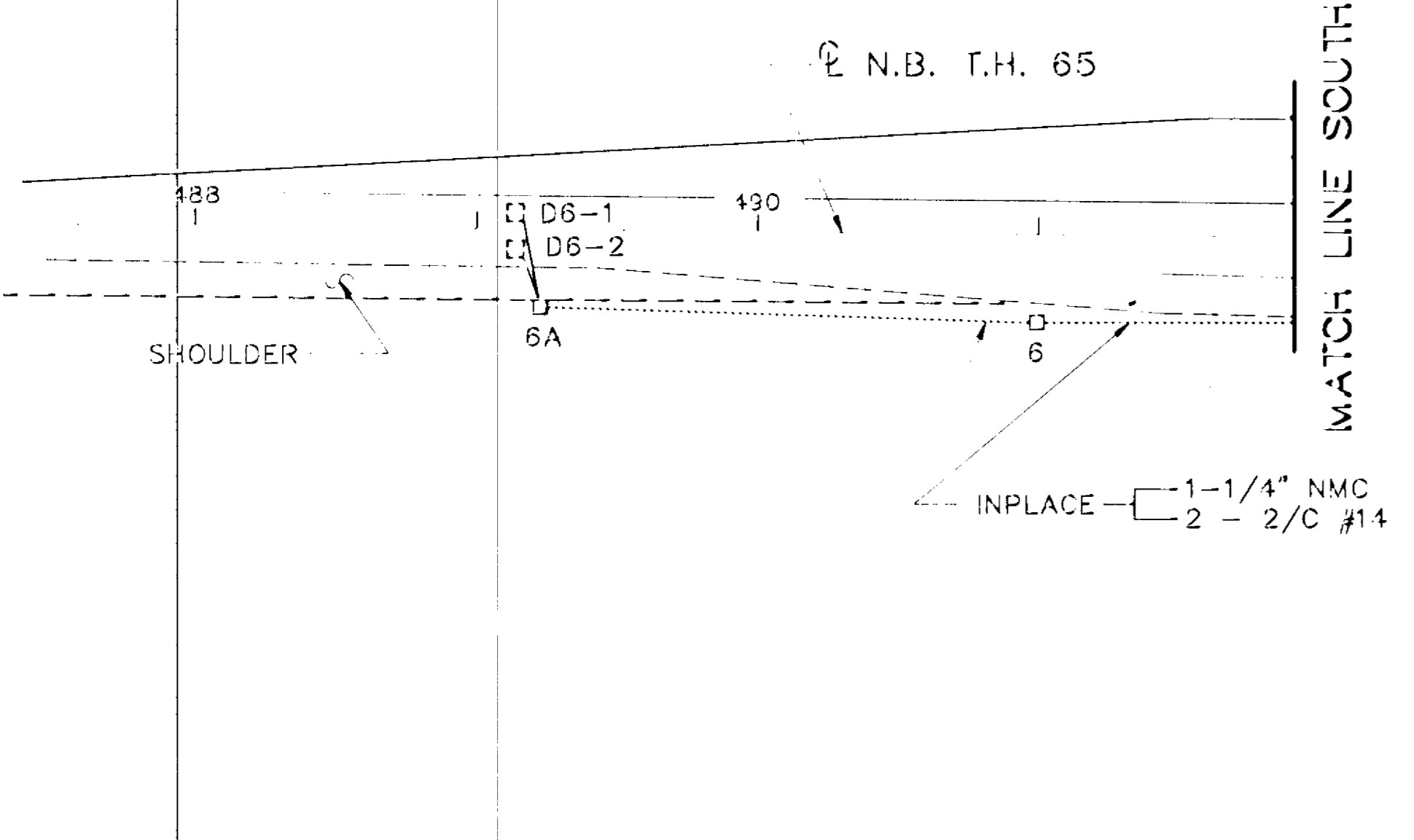
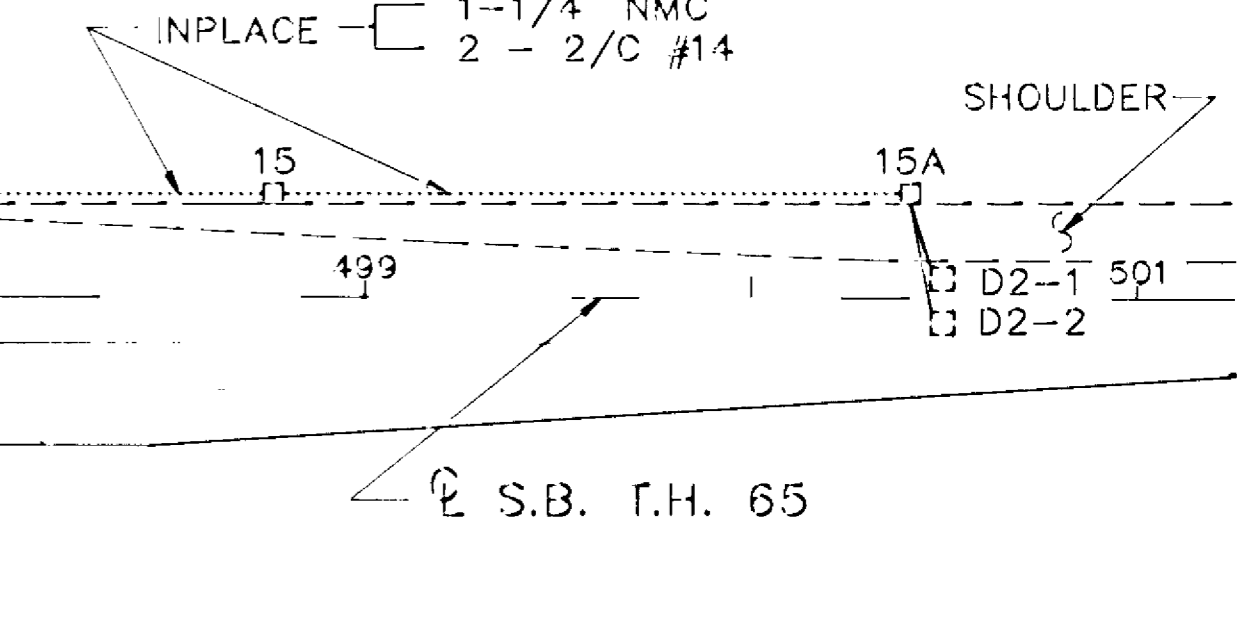
- 5) FOR STRUCTURAL DETAILS, TYPE "D" SIGNS, SEE STANDARD SIGNS MANUAL, PAGES 105A AND 105B.
- 6) FOR TYPE "D" STRINGER AND PANEL - JOINT DETAIL, SEE STANDARD SIGNS MANUAL, PAGE 105.
- 7) LETTERING STYLE SHALL BE HIGHWAY GOTHIC CONFORMING TO MN/DOT STANDARDS.
- 8) REMOVE AND SALVAGE TYPE "D" SIGNS FROM INPLACE MAST ARMS ON POLES 1 AND 2. RE-INSTALL ON NEW MAST ARMS AT POLES 1 AND 2. THE TWO SIGNS WITH THE COUNTY ROAD 12 OVERLAY SHALL BE CHANGED TO SHOW A DOUBLE-HEADED ARROW IN ACCORDANCE WITH SECTION SS-2 OF THE SPECIAL PROVISIONS. (ARROW MODIFICATION SHALL BE INCIDENTAL TO ITEM NO. 2564531, "F&I SIGN PANELS, TYPE D-SIGNALS")



MATCH LINE EAST



MATCH LINE NORTH



SIGNAL INDICATION CHART

FACE	PHASE	FLASH	INDICATION SIZE (INCHES)			SHIELDS
			R	Y	G	
2-3	2	Y	* 8	* 3	* 3	X
6-3	6	Y	8	3	3	X
1-1	1	R	12	12	12	X
5-1	5	R	12	12	12	X
4-1						X
4-2						X
4-3						X
4-4	4	R	12	12	12	X
4-5						X
4-6						X
2-1	2	Y	12	12	12	X
2-2						X
6-1	6	Y	12	12	12	X
6-2						X

X=SHALL HAVE BACKGROUND SHIELDS
 *=DIRECTIONAL LOUVERS

DETECTOR CHART				DISTANCE FROM STOP BAR
DESIGNATION	PHASE	SIZE (L.F.)	FUNCTION	
D1-1	1	MULTIPLE		
D2-1	2	1-6X6	1	475'
D4-1	4	1-6X6	2	330'
D4-2		2-6X6	3	
D4-3		2-6X6	3	
D4-4	4	2-6X6	3	330'
D5-1	5	MULTIPLE		
D6-1	6	1-6X6	1	475'
D4-5	4	2-6X6		
D4-6	4	2-6X6		

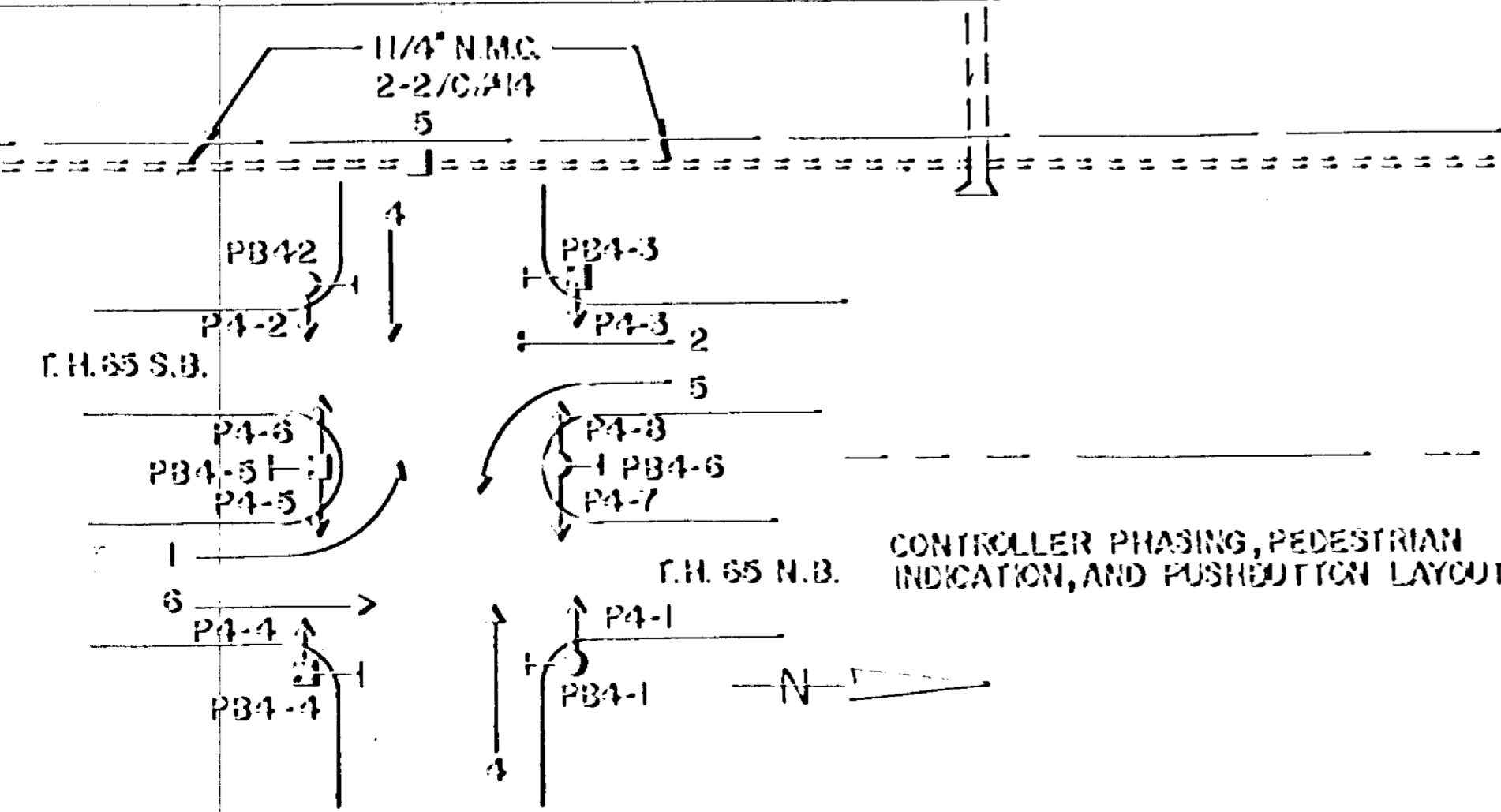
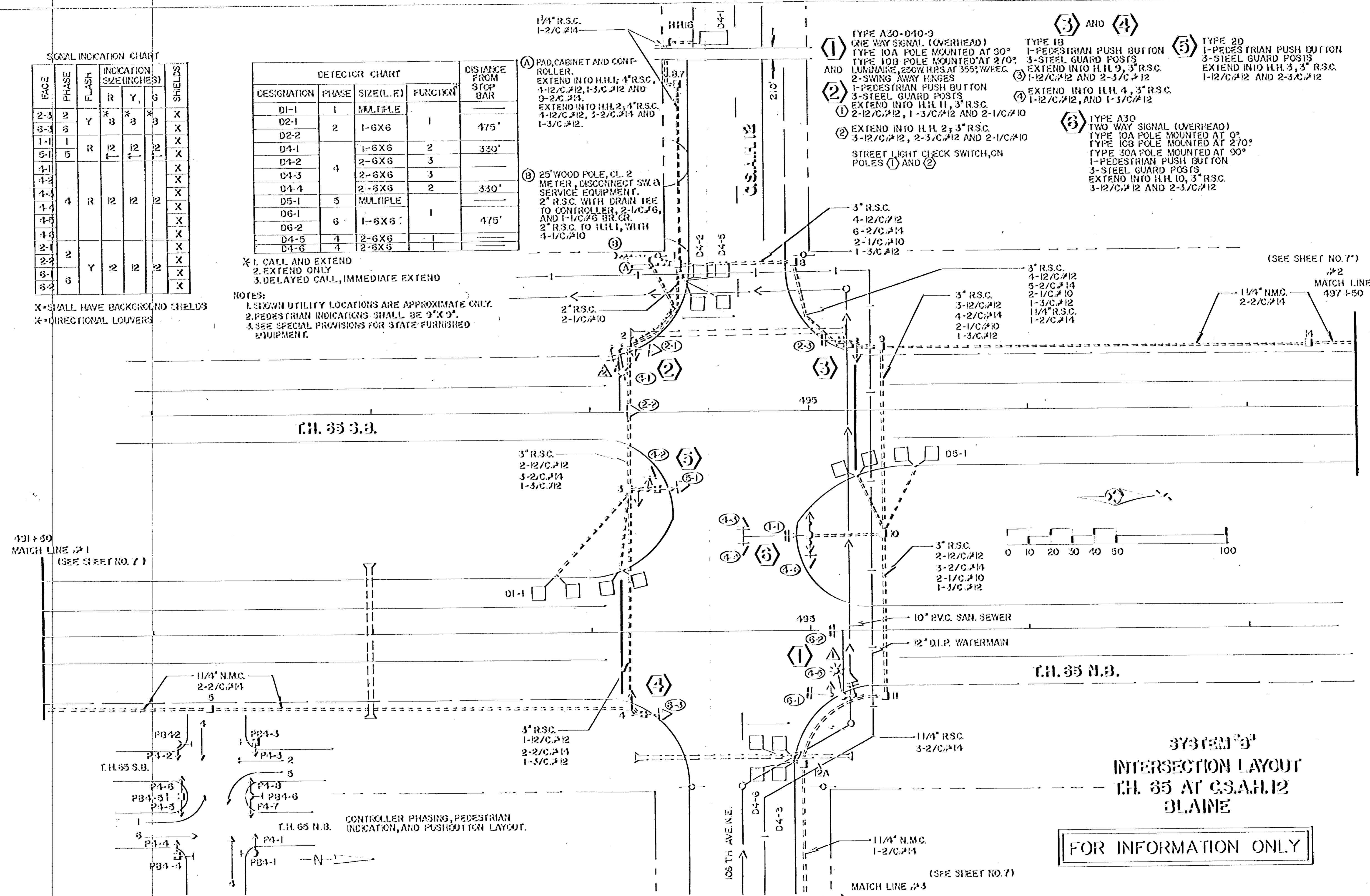
* 1. CALL AND EXTEND
 2. EXTEND ONLY
 3. DELAYED CALL, IMMEDIATE EXTEND

NOTES:
 1. SHOWN UTILITY LOCATIONS ARE APPROXIMATE ONLY.
 2. PEDESTRIAN INDICATIONS SHALL BE 9" X 9".
 3. SEE SPECIAL PROVISIONS FOR STATE FURNISHED EQUIPMENT.

(A) PAD, CABINET AND CONTROLLER. EXTEND INTO H.H. 1, 4" R.S.C., 4-12/C.#12, 1-3/C.#12 AND 9-2/C.#14. EXTEND INTO H.H. 2, 4" R.S.C., 4-12/C.#12, 3-2/C.#14 AND 1-3/C.#12.

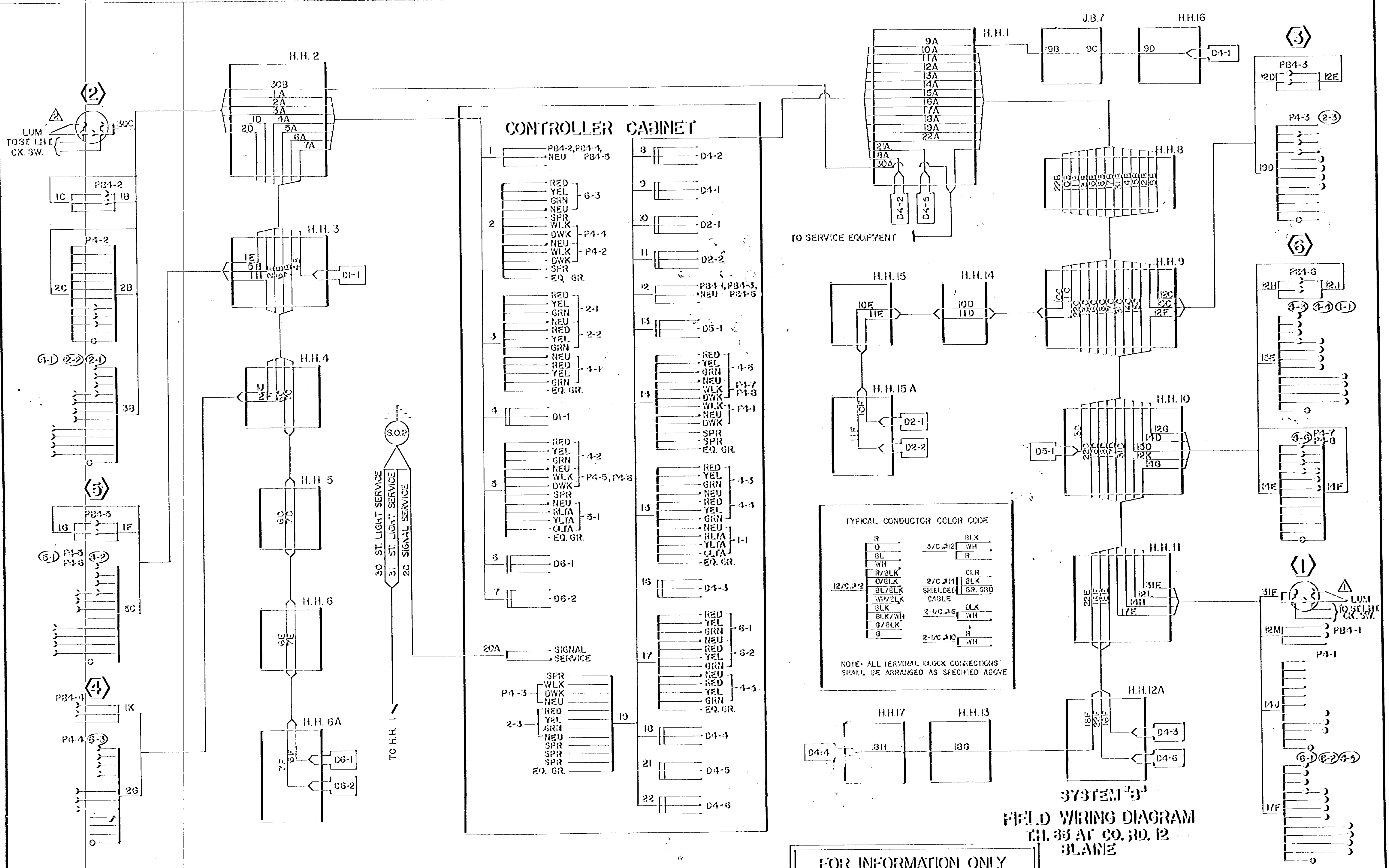
(B) 25' WOOD POLE, CL. 2 METER, DISCONNECT SW. & SERVICE EQUIPMENT. 2" R.S.C. WITH DRAIN TEE TO CONTROLLER, 2-1/C.#6, AND 1-1/C.#6 BR. CR. 2" R.S.C. TO H.H. 1, WITH 4-1/C.#10

- (1) TYPE A30-D40-9 ONE WAY SIGNAL (OVERHEAD) TYPE 10A POLE MOUNTED AT 30° LUMINAIRE, 250W HPS AT 355° W/E.C. 2-SWING AWAY HINGES
- (2) 1-PEDESTRIAN PUSH BUTTON 3-STEEL GUARD POSTS EXTEND INTO H.H. 11, 3" R.S.C. 2-12/C.#12, 1-3/C.#12 AND 2-1/C.#10
- (3) TYPE A30-D40-9 TWO WAY SIGNAL (OVERHEAD) TYPE 10A POLE MOUNTED AT 30° TYPE 10B POLE MOUNTED AT 270° TYPE 30A POLE MOUNTED AT 90° 1-PEDESTRIAN PUSH BUTTON 3-STEEL GUARD POSTS EXTEND INTO H.H. 10, 3" R.S.C. 3-12/C.#12 AND 2-3/C.#12
- (4) TYPE 1B 1-PEDESTRIAN PUSH BUTTON 3-STEEL GUARD POSTS EXTEND INTO H.H. 9, 3" R.S.C. 1-12/C.#12 AND 2-3/C.#12
- (5) TYPE 2D 1-PEDESTRIAN PUSH BUTTON 3-STEEL GUARD POSTS EXTEND INTO H.H. 3, 3" R.S.C. 1-12/C.#12 AND 2-3/C.#12
- (6) TYPE A30 TWO WAY SIGNAL (OVERHEAD) TYPE 10A POLE MOUNTED AT 0° TYPE 10B POLE MOUNTED AT 270° TYPE 30A POLE MOUNTED AT 90° 1-PEDESTRIAN PUSH BUTTON 3-STEEL GUARD POSTS EXTEND INTO H.H. 10, 3" R.S.C. 3-12/C.#12 AND 2-3/C.#12



SYSTEM "B"
 INTERSECTION LAYOUT
 CH. 65 AT C.S.A.H. 12
 BLAINE

FOR INFORMATION ONLY



CONTROLLER CABINET

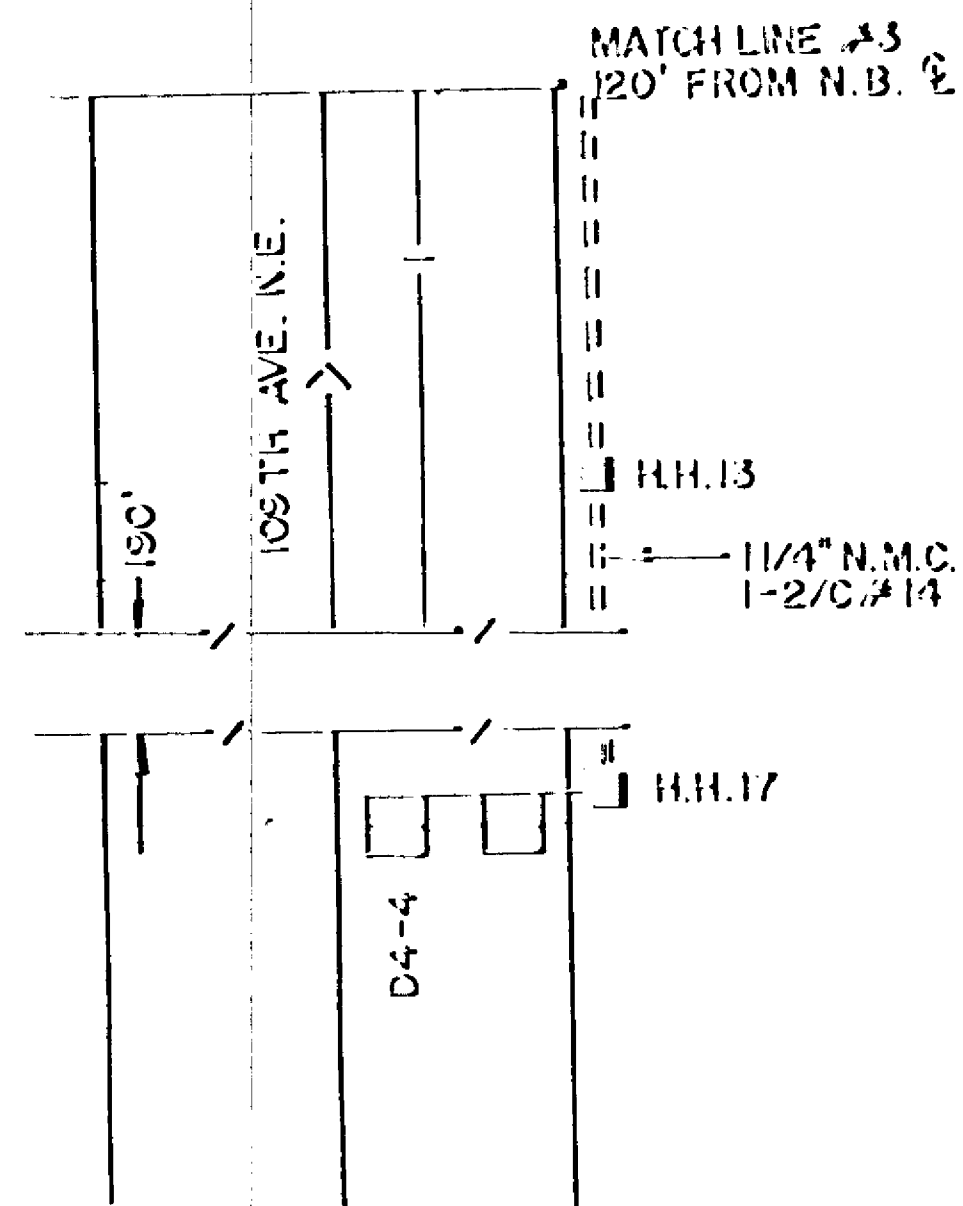
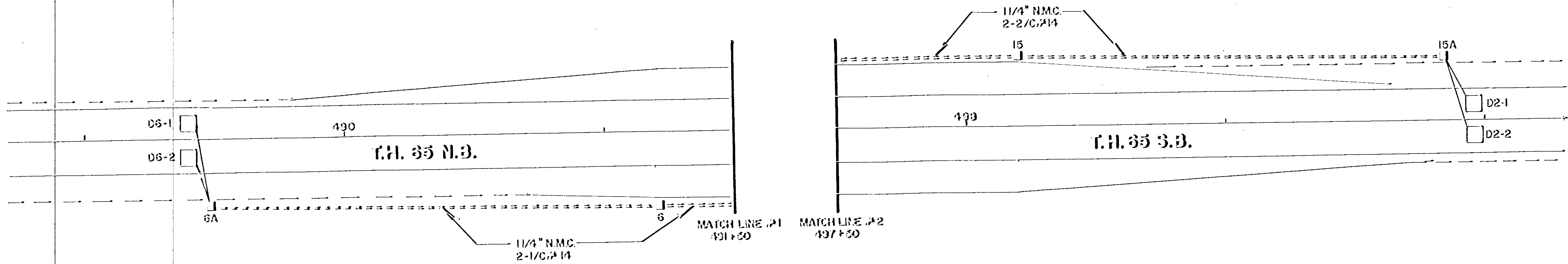
TYPICAL CONDUCTOR COLOR CODE

R	3/C #12	BLK
0		WH
BL		R
WH		CLR
R/BLK	2/C #14	BLK
O/BLK	SHELD CABLE	BR. GRD
BL/BLK		
WH/BLK		
BLK	2-1/C #6	BLK
BLK/WH		WH
G/BLK		
G	2-1/C #10	R
		WH

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

FOR INFORMATION ONLY

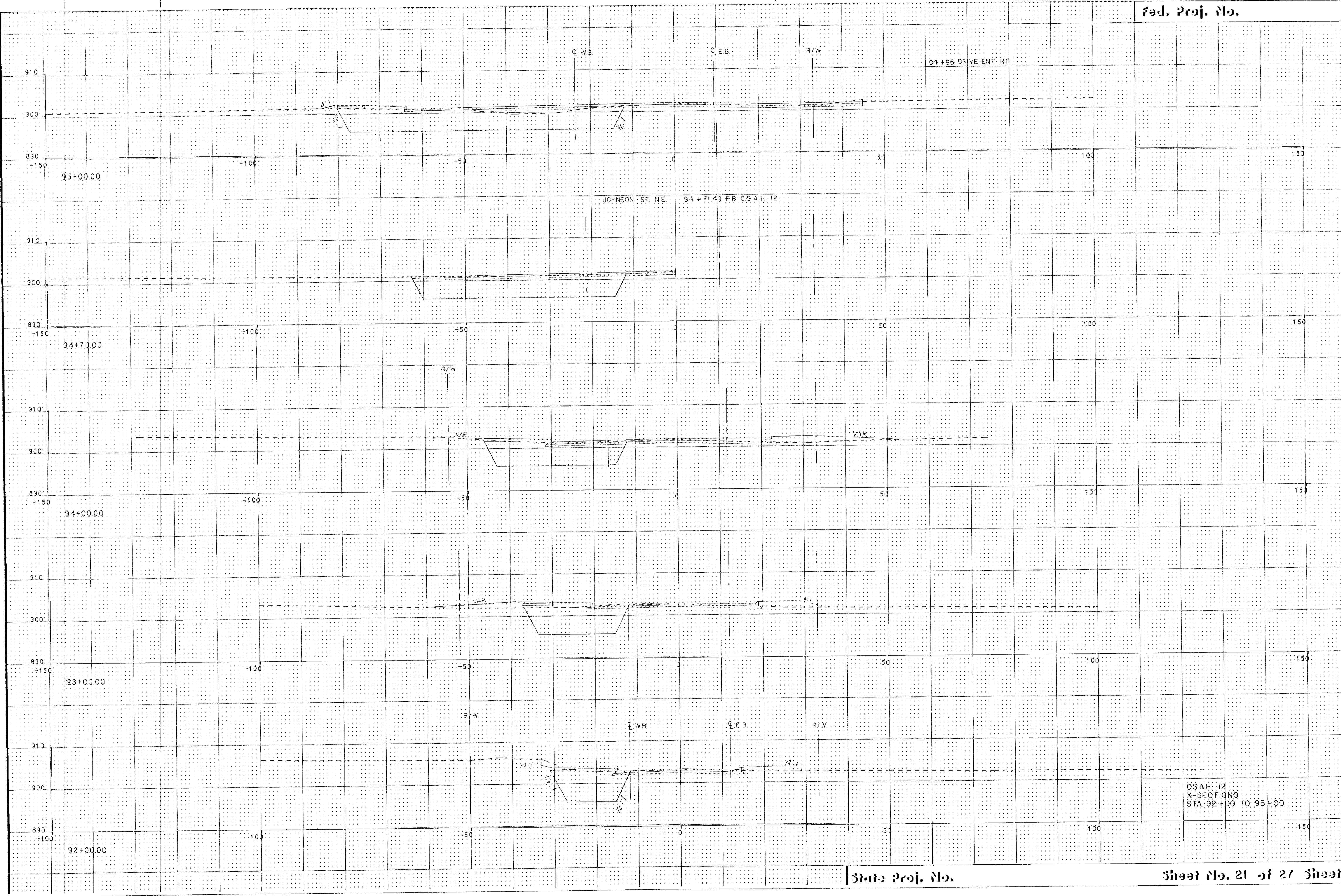
SYSTEM 'B'
FIELD WIRING DIAGRAM
 CH. 33 AT CO. RD. 12
 BLAINE



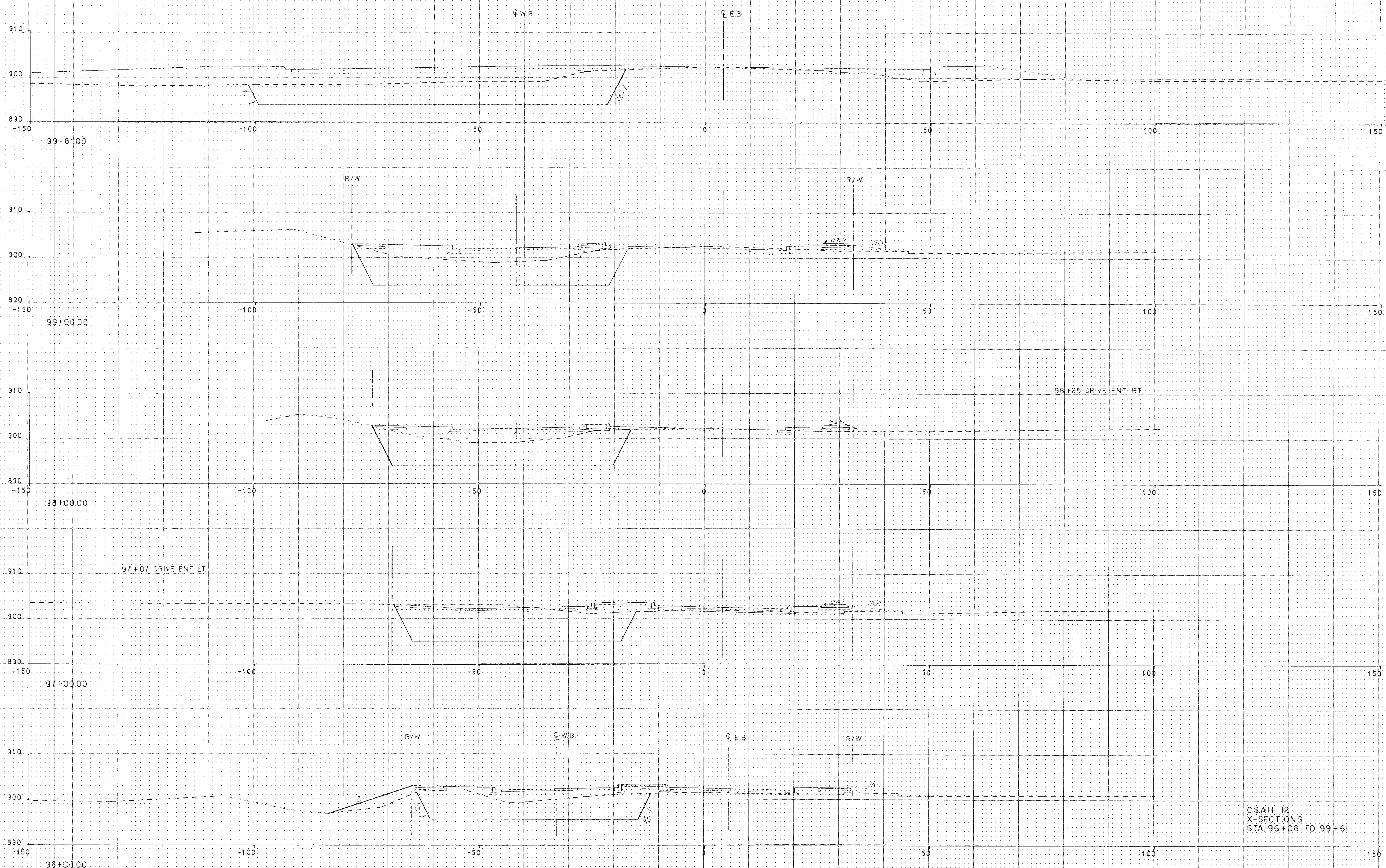
SEE SHEET NO. 6 FOR MATCH LINES

FOR INFORMATION ONLY

SYSTEM "D"
INTERSECTION LAYOUT



CSAH. 12
X-SECTIONS
STA. 92+00 TO 95+00



CSAH 12
X-SECTIONS
STA. 96+06 TO 99+61

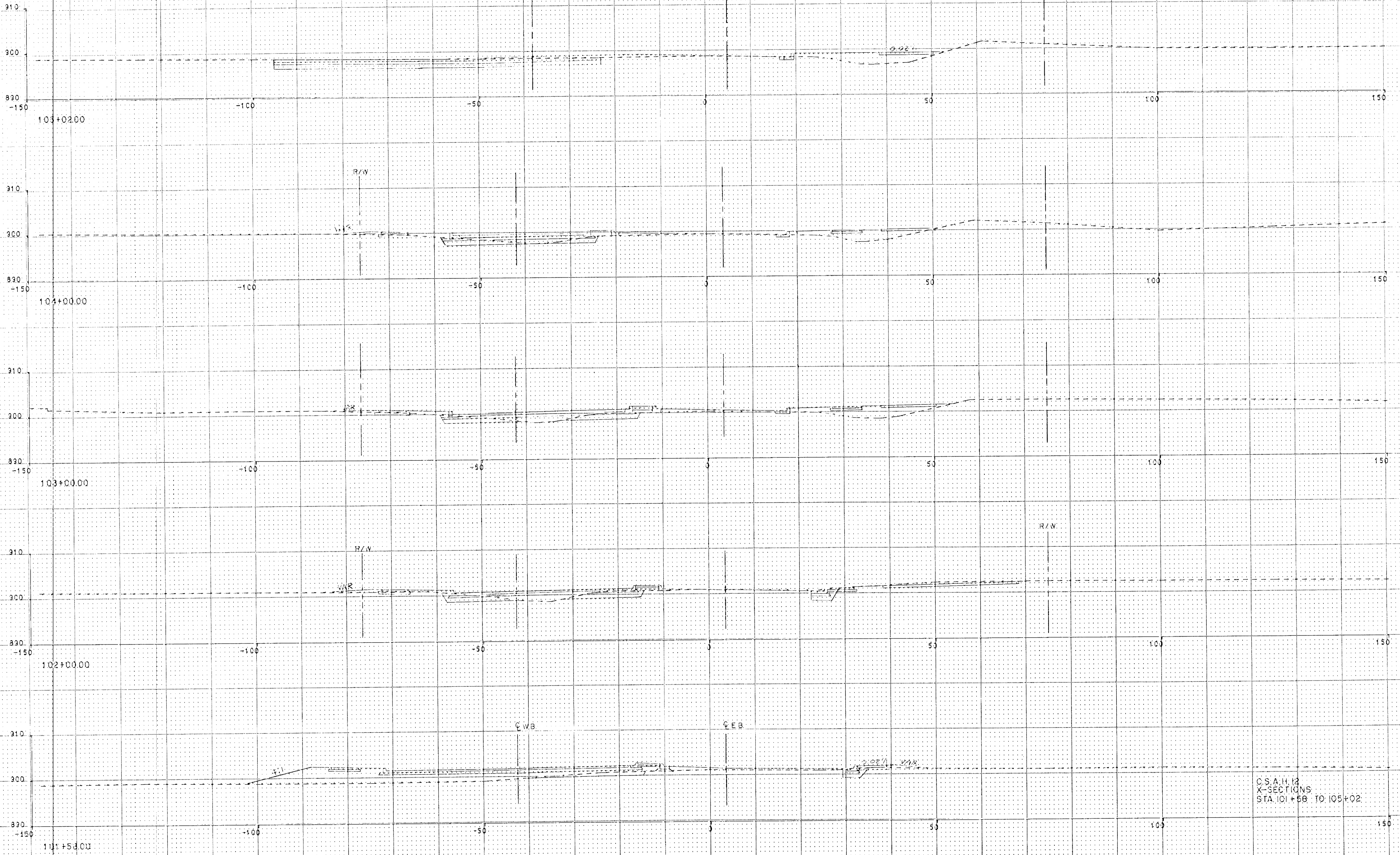
BALTIMORE ST. NE 105+13.10 E.B. C.R. 112

105+13 DRIVE ENT RT

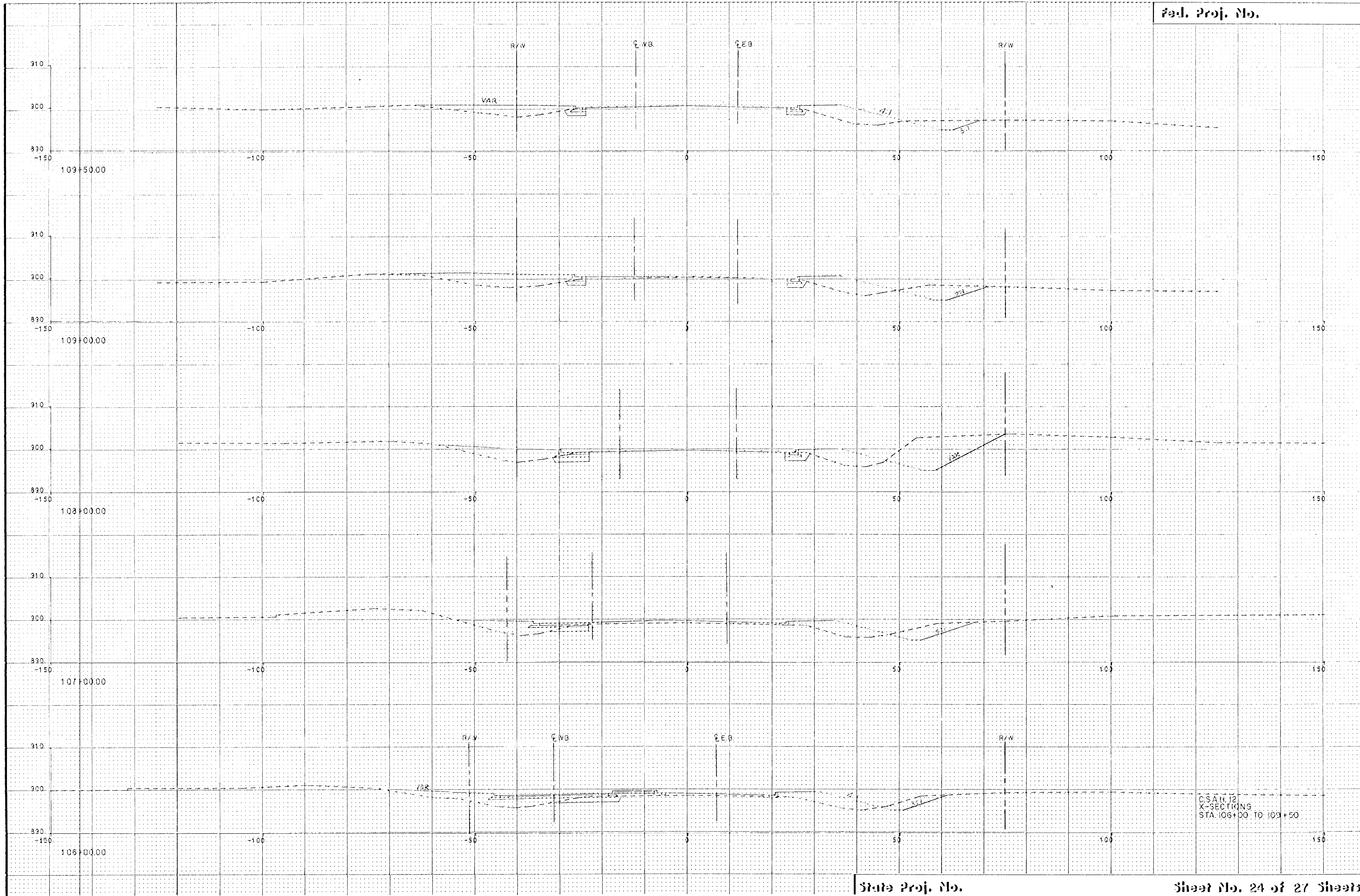
☉WB

☉EB

R/W



C.S.A. 112
X-SECTIONS
STA. 101+58 TO 105+02



109+50.00

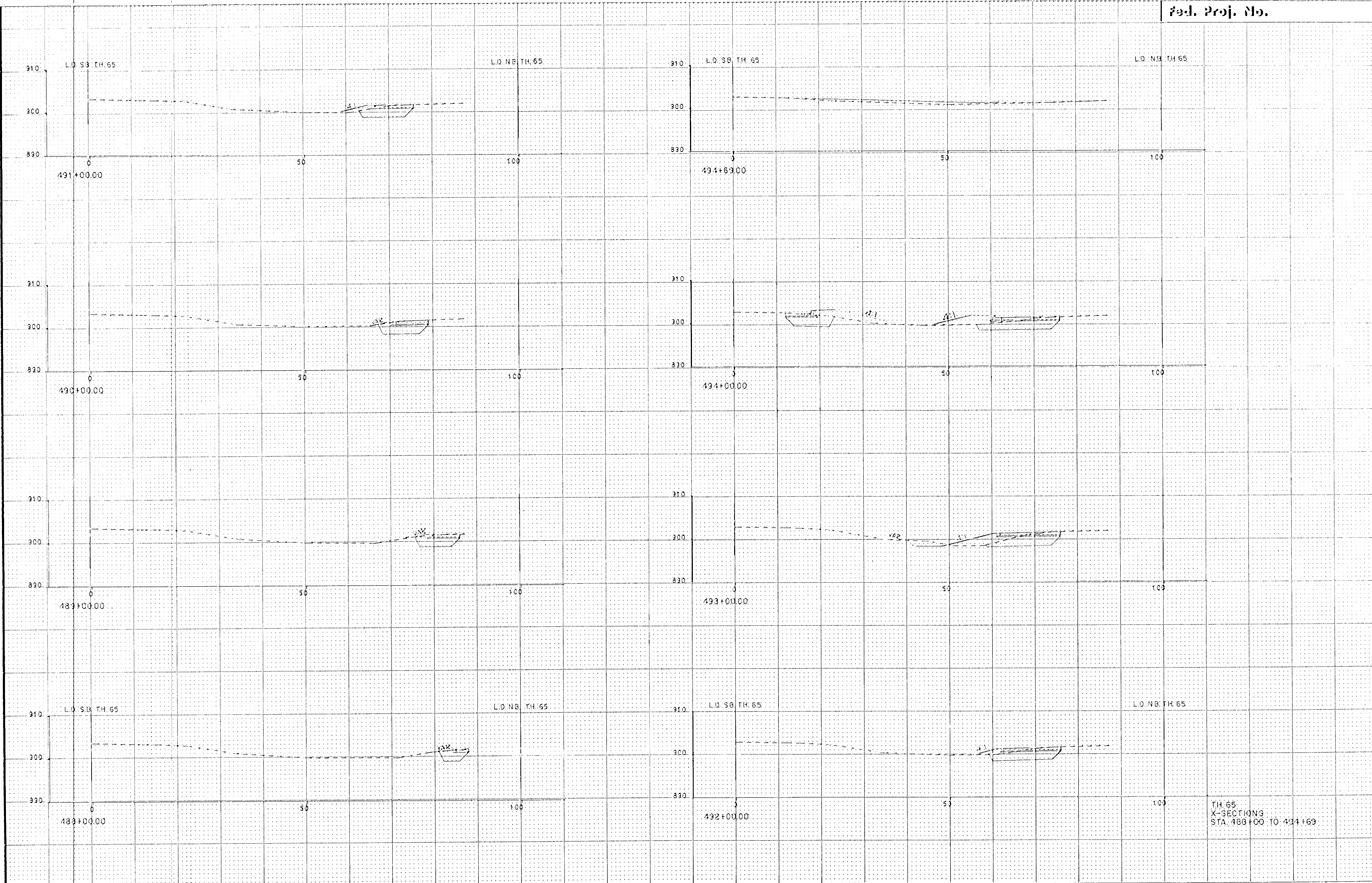
109+00.00

108+00.00

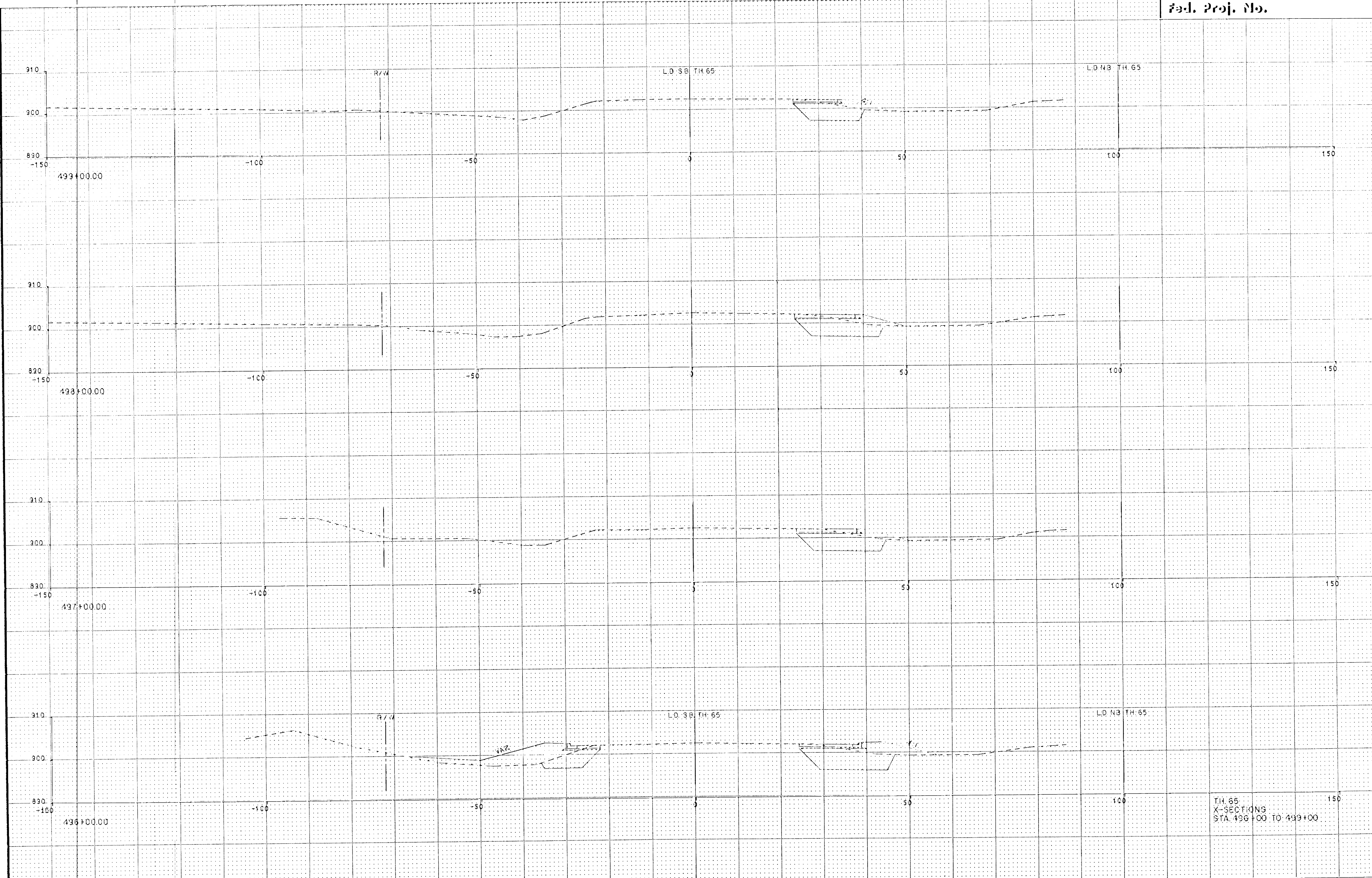
107+00.00

106+00.00

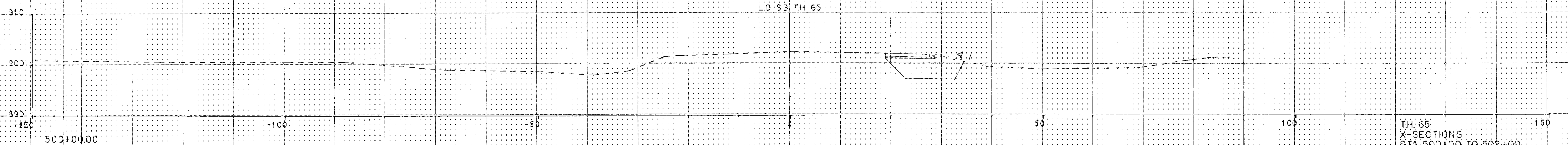
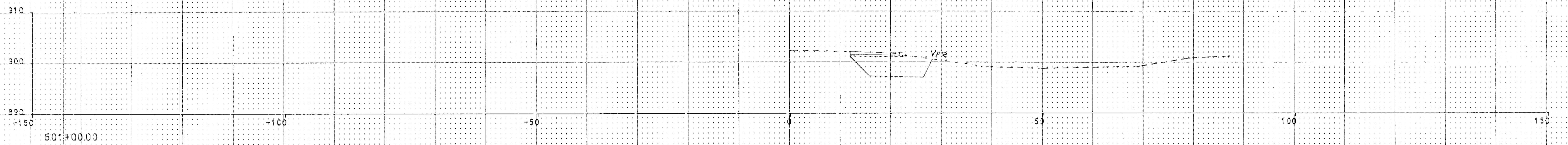
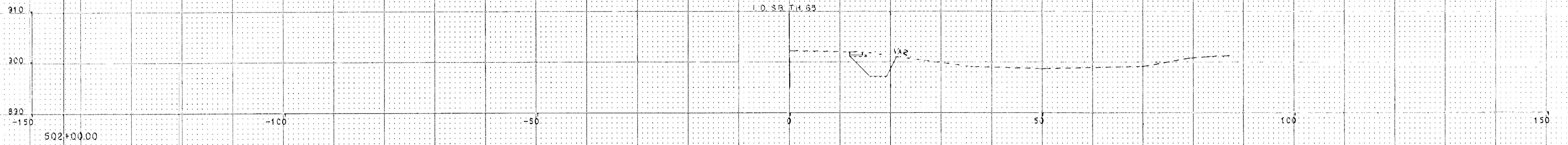
C.S.A.H. 12
X-SECTIONS
STA. 106+00 TO 109+50



TH. 65
X-SECTIONS
STA. 488+00 TO 494+69



TH. 65
X-SECTIONS
STA. 496+00 TO 499+00



TH 65
X-SECTION'S
STA. 500+00 TO 502+00



82,500
896,500

82,000

82,000

82,000

POT. 109TH AVE 90-00

TRUNK HIGHWAY 65

BALTIMORE ST.

109 TH ST

LION COMM. CENTER
1-S-BLK

APPLIANCE & TV
SALES OUTLET
1-S-BL
1380 109TH AVE. N.E.

V.F.W.
POST 6316
1-S-BLK

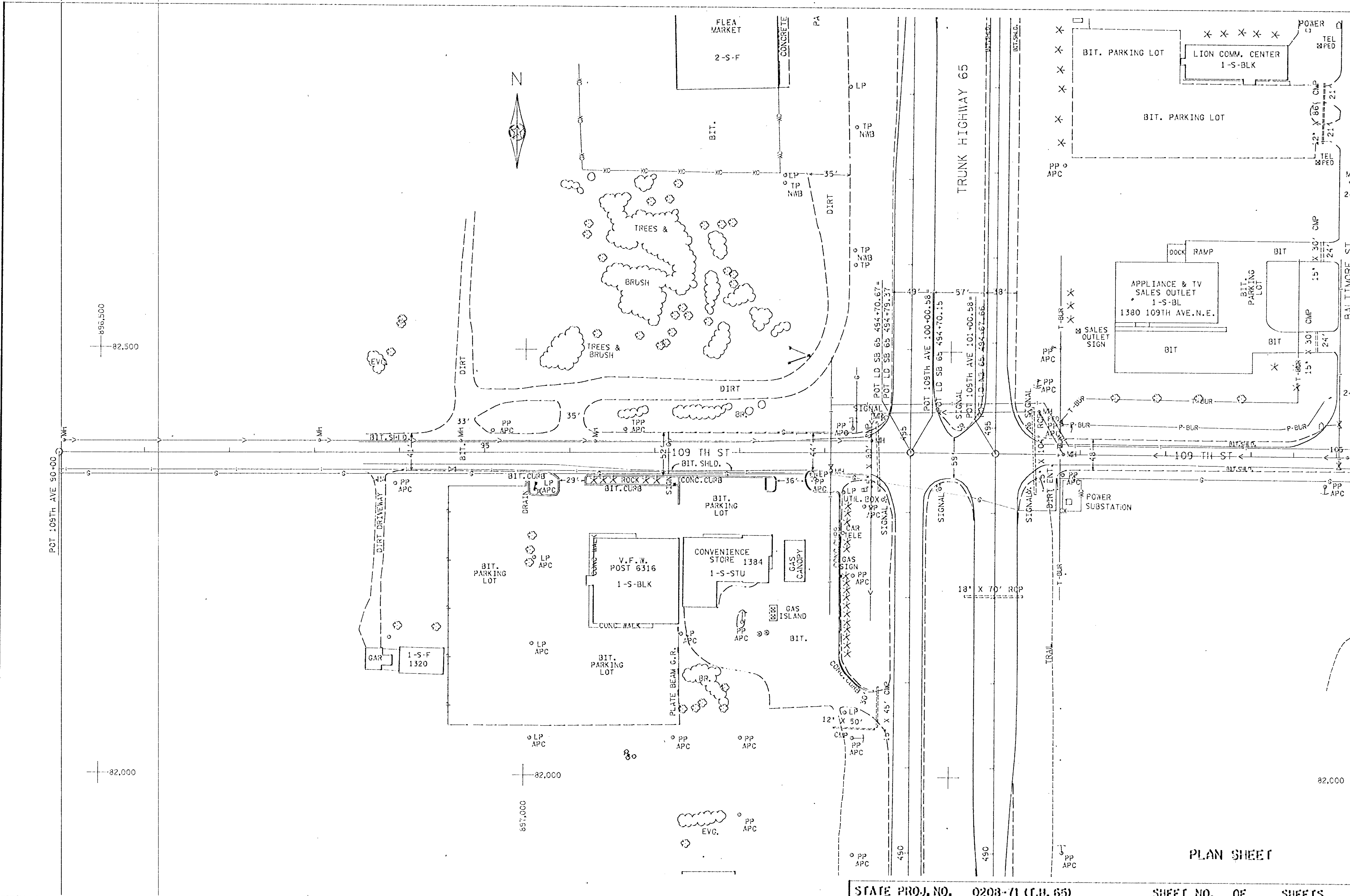
CONVENIENCE
STORE 1384
1-S-STU

GAR
1-S-F
1320

PLAN SHEET

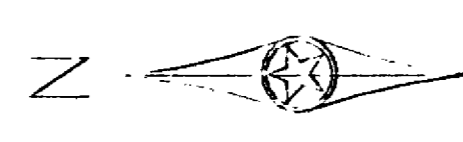
STATE PROJ. NO. 0203-71 (T.H. 65)

SHEET NO. OF SHEETS

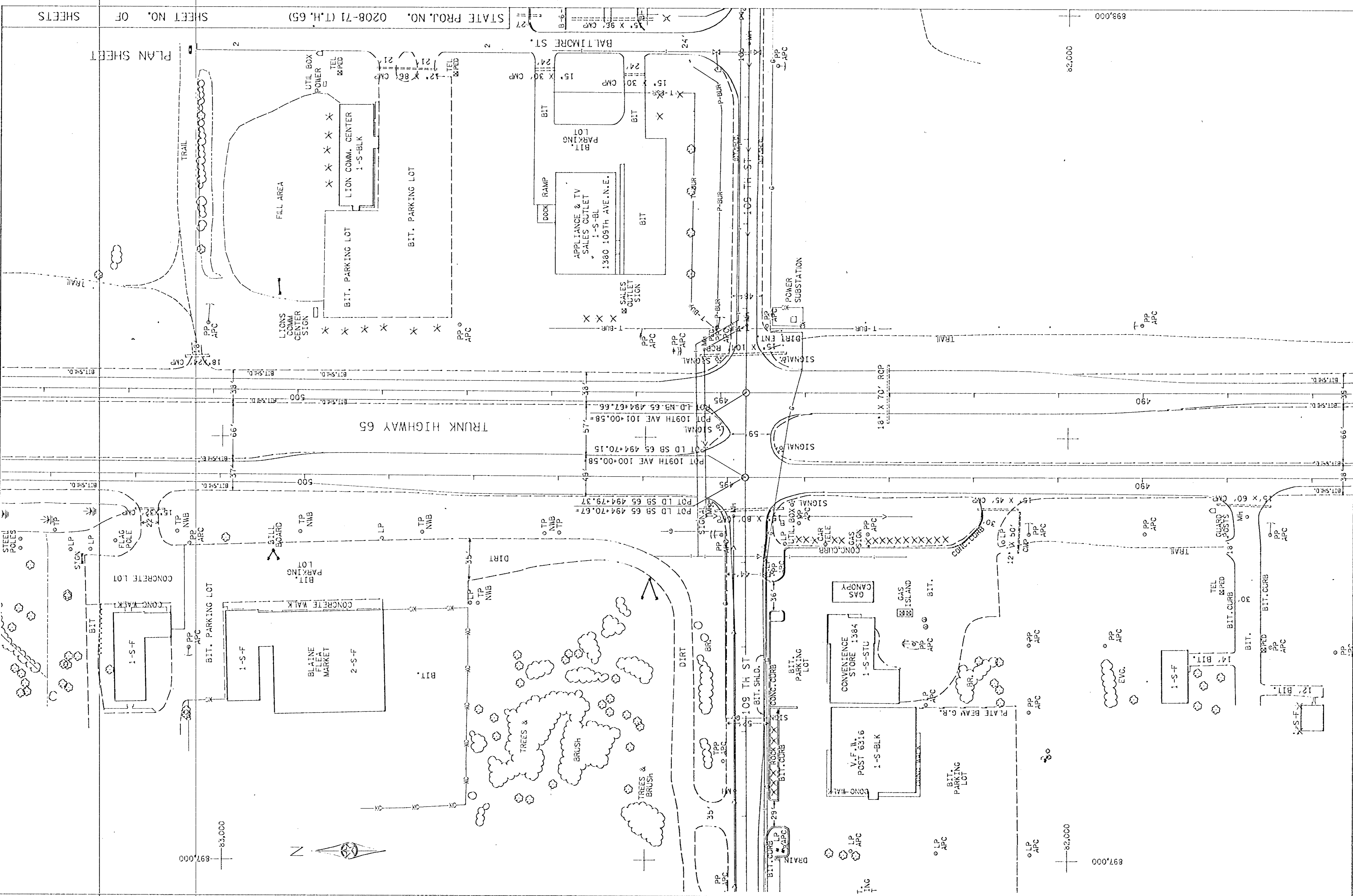


PLAN SHEET

897,000
85,000



897,000
82,000



897,000
500

897,000
500

897,000
2

897,000
2

897,000
2

897,000
2