

COUNTY ROAD J, C.S.A.H. 32, 85TH AVENUE N.E.

BLAINE, SPRING LAKE PARK AND MOUNDS VIEW

RAMSEY AND ANOKA COUNTIES

CONSTRUCTION PLAN FOR GRADING, AGGREGATE BASE, BITUMINOUS BASE & SURFACING, AND STORM SEWER

LOCATED ON CO. RD. "J" C.S.A.H. 32 BETWEEN CENTER DRIVE AND GROVELAND RD. (Geographic Description)
 LOCATED ON CO. RD. "J" C.S.A.H. 32 BETWEEN T.H. 10 AND I-35 W (Geographic Description)
 FROM 1500' WEST OF NW COR. SEC. 6 T.30 R.23 TO NW COR., SEC. 6, T.30, R.23 (Legal Description) SAP 02-632-05
 FROM NW COR., SEC. 6, T. 30, R.23 TO 53.5' E OF NE COR. SEC. 4, T. 30, R. 23 (Legal Description) SAP 02-632-06, SAP 62-601-04

STATE PROJ. NO. SAP 183-020-02
 S.A.P. 02-632-05
 BEGIN CITY OF BLAINE S.A.P 106-020-03
 BEGIN CITY OF SPRING LAKE PARK S.A.P 183-020-02
 BEGIN ANOKA COUNTY S.A.P 02-632-05, STA. 984+80
 END ANOKA COUNTY S.A.P 02-632-05
 BEGIN ANOKA COUNTY S.A.P 02-632-06
 BEGIN RAMSEY COUNTY S.A.P 62-601-04
 END CITY OF SPRING LAKE PARK S.A.P 183-020-02
 STA. 999+79
 BEGIN EXCEPTION STA. 1016+00
 END EXCEPTION STA. 1055+00
 END BLAINE S.A.P 106-020-03
 END ANOKA CO. S.A.P 02-632-06
 END RAMSEY CO. S.A.P 62-601-04
 STA. 1099+85

GROSS LENGTH 1499 FEET 0.28 MILES
 BRIDGES-LENGTH 0 FEET 0 MILES
 EXCEPTIONS-LENGTH 0 FEET 0 MILES
 NET LENGTH 1499 FEET 0.28 MILES

GROSS LENGTH 10006 FEET 1.90 MILES
 BRIDGES LENGTH 0 FEET 0 MILES
 EXCEPTIONS LENGTH 3900 FEET 0.74 MILES
 NET LENGTH 6106 FEET 1.16 MILES

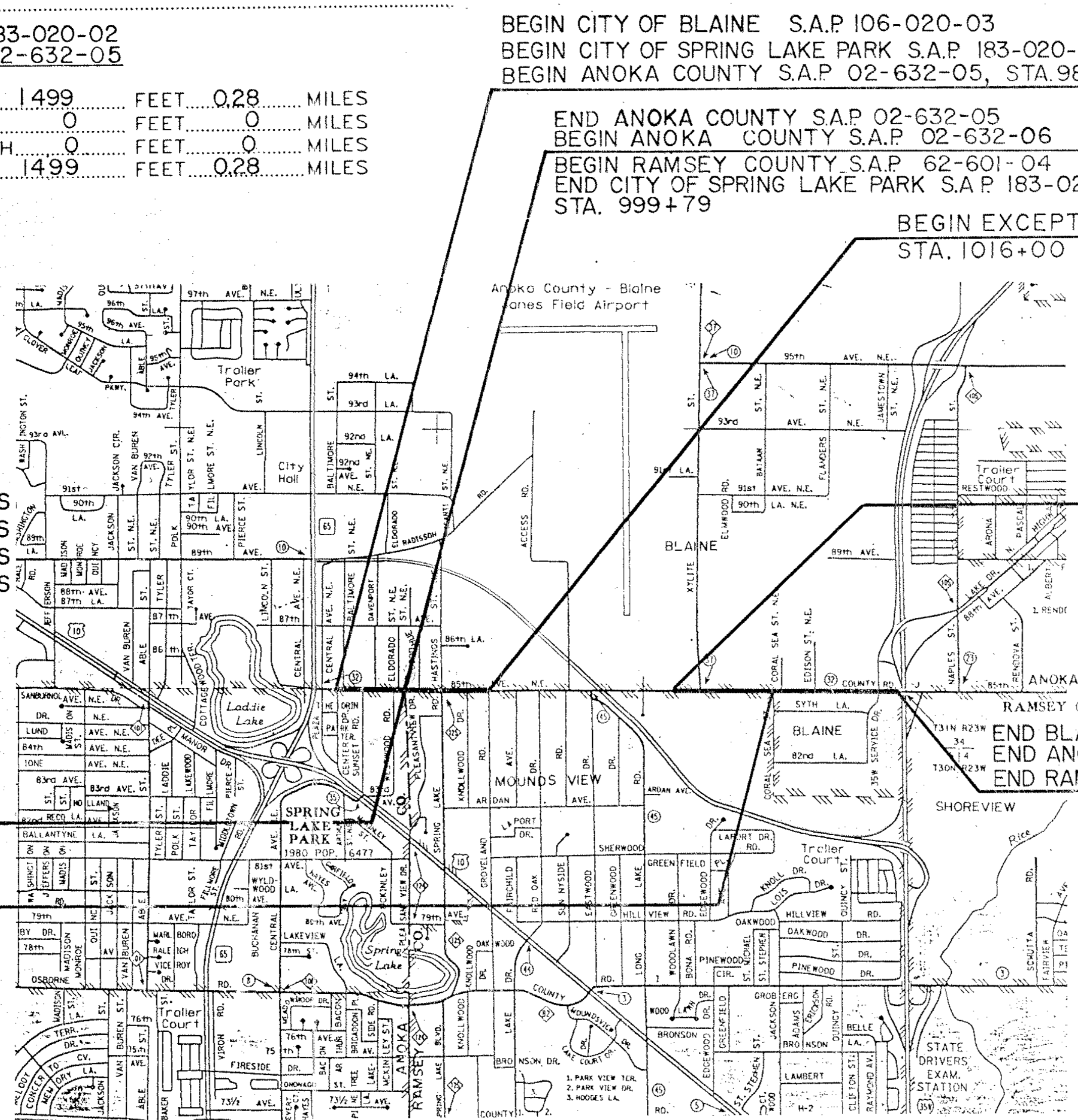
S.A.P. 106-020-03
 GROSS LENGTH 11505 FT 2.18 MILES
 BRIDGES-LENGTH 0 FT 0 MILES
 EXCEPTIONS-LENGTH 3900 FT 0.74 MILES
 NET LENGTH 7605 FT 1.44 MILES

S.A.P. 146-020-04
 GROSS LENGTH 7411.05 FT 1.40 MILES
 BRIDGES-LENGTH 0 FT 0 MILES
 EXCEPTIONS-LENGTH 3900 FT 0.74 MILES
 NET LENGTH 3511.05 FT 0.66 MILES

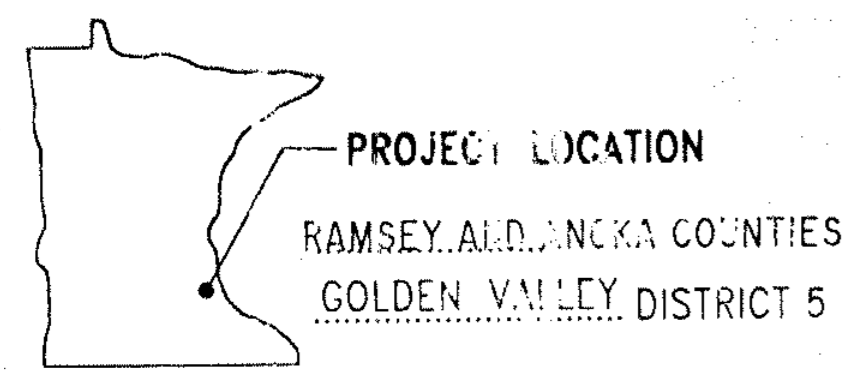
ALL CONTRACTORS
 MUST CONTACT
 GOPHER STATE
 ONE CALL
 TWIN CITY AREA 454-0002
 MN. TOLL FREE 1-800-252-1166
 BEFORE CONSTRUCTION BEGINS

THIS PLAN CONTAINS 38 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.



BEGIN CITY OF MOUNDS VIEW
 S.A.P. 146-020-04 STA 999+79
 END CITY OF MOUNDS VIEW
 S.A.P. 146-020-04 STA. 1073+90.05



SCALES
 PLAN 1" = 50'
 PROFILE 1" = 50'
 INDEX MAP 1" = 1 MILE
 GENERAL LAYOUT 1" = 1.730'

DESIGN DESIGNATION
 CENTER DRIVE TO GROVELAND ROAD T.H. 10 TO I-35 W

Functional Classification: ARTERIAL-HIGH DENSITY
 No. of Traffic Lanes = 4
 ADT (Current Year) 1989 = 9,700
 ADT (Future Year) 2010 = 15,520
 DHV (Design Hr. Vol.) = 1,552
 D (Directional Distr.) = 50%
 T (Heavy Commercial) = 6%
 R-Value = 73
 No. of Parking Lanes = 0
 Design Speed 40 MPH
 Based on STOPPING Sight Distance
 Height of eye 3.5
 Height of Object 0.50
 Design Speed not achieved at: NA
 STA. TO STA. MPH
 Design Load 10 TON

DEPARTMENT OF TRANSPORTATION
 FEDERAL HIGHWAY ADMINISTRATION
 APPROVED
 DIVISION ADMINISTRATOR DATE

Recommended For Approval DES 3-26-1990 TRAFFIC ENGINEER
 Recommended For Approval KMR 3-26-1990 ENVIRONMENTAL ENGINEER
 Recommended For Approval J.S.D. 3-26-90 MAINTENANCE ENGINEER
 Recommended For Approval L.K.F. 3-26-1990 CONSTRUCTION ENGINEER
 Recommended For Approval D.L.R. 3-26-1990 DESIGN ENGINEER
 Recommended For Approval J.M.P. 3-26-1990 RIGHT OF WAY ENGINEER
 Approved 19 Wood 3-26-90 COORDINATING ENGINEER
 Approved 19 Paul 3-26-90 ASSISTANT COUNTY ENGINEER

BRW, INC.
 DATE 2-15-90 REG. NO. 12666 ENGR. Royal Paul
 COUNTY
 Design Squad DANIEL TILSEN
 Recommended For Approval 3/26/1990 RAMSEY COUNTY ENGINEER
 Approved 3/20/1990 J. Harold H. Jorgensen CHAIR OF THE RAMSEY COUNTY BOARD
 Approved 3/23/1990 Anoka County Engineer
 Approved 3/26/1990 Charles Leathen CITY OF BLAINE
 Approved 3/26/1990 Donald B. Busch CITY OF SPRING LAKE PARK
 Approved 3/26/1990 P.D. Dimeter CITY OF MOUNDSVIEW
 Recommended For Approval 3/26/1990 DISTRICT STATE AID ENGINEER
 Recommended For Approval 3/26/1990 STATE AID PLANS AND SPECS ENGINEER
 Approved 5-1-1990 State Aid Engineer

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.

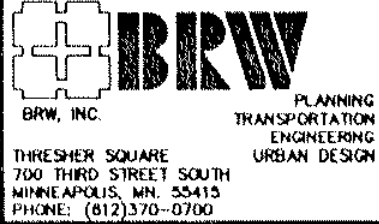
STATE AID PROJ. NO. 02-632-05, 02-632-06, 62-601-04
 STATE PROJ. NO. SHEET NO. 1 OF 38 SHEETS

STATEMENT OF ESTIMATED QUANTITIES

NOTES	ITEM NO.	ITEM	UNIT	TOTAL QUANTITIES	ANOKA COUNTY STATE AID PROJECT 02-632-05						ANOKA COUNTY S.A.P. 02-632-06				RAMSEY COUNTY STATE AID PROJECT 62-601-04							
					106-020-03		183-020-02		PARTICIPATING		106-020-03		PARTICIPATING		106-020-03		146-020-04		PARTICIPATING		STORM SEWER	
					BLAINE		SPRING LAKE PARK		ANOKA COUNTY		BLAINE		ANOKA COUNTY		BLAINE		MOUNDS VIEW		RAMSEY COUNTY			
					EST.	FINAL	EST.	FINAL	EST.	FINAL	EST.	FINAL	EST.	FINAL	EST.	FINAL	EST.	FINAL	EST.	FINAL	EST.	FINAL
	2501.515	15" RC PIPE APRONS	EACH	4															4			
	2501.515	48" RC PIPE APRONS	EACH	1															1			
	2501.573	INSTALL 36" PIPE APRON	EACH	1															1			
(3)	0501.602	TRASH GUARD FOR 36" RC APRON	EACH	1															1			
(3)	0501.602	TRASH GUARD FOR 48" RC APRON	EACH	1															1			
	2503.541	15" RC PIPE SEWER DESIGN 3006 CL III	LIN FT	1461															1461			
	2503.541	18" RC PIPE SEWER DESIGN 3006 CL III	LIN FT	360															360			
	2503.541	24" RC PIPE SEWER DESIGN 3006 CL III	LIN FT	1652															1652			
	2503.541	36" RC PIPE SEWER DESIGN 3006 CL III	LIN FT	26															26			
	2503.541	48" RC PIPE SEWER DESIGN 3006 CL III	LIN FT	95															95			
(3)	0504.602	INSTALL HYDRANTS	EACH	8					5			1.5					1.5					
(3)	0504.602	ADJUST GATE VALVE BOX	EACH	22					11			5.5					5.5					
(3)	0504.602	6" DIP WATERMAIN	LIN FT	37					28			4.5					4.5					
	2506.509	CONST MANHOLE DESIGN A OR F	EACH	1															1			
	2506.509	CONST CATCH BASINS DESIGN A OR F	EACH	8															8			
	2506.509	CONST CATCH BASINS DES SPECIAL LP 4-3	EACH	13															13			
	2506.509	CONST CATCH BASINS DES SPECIAL LP 4-4	EACH	1															1			
	2506.509	CONST CATCH BASINS DES SPECIAL LP 4-5	EACH	2															2			
	2506.509	CONST CATCH BASINS DES SPECIAL LP 5-6	EACH	2															2			
	2506.511	RECONSTRUCT MANHOLES	LIN FT	56					31.8			12.2					12.2		26			
	2506.516	F & T CASTING ASSEMBLIES	EACH	26															26			
(12)	2506.521	INSTALL CASTING ASSEMBLIES	EACH	9					5			2					2		1			
	2506.522	ADJUST FRAME & RING CASTINGS	EACH	19					15			2					2		2			
(3)	0506.602	INLET CONTROL STRUCTURE	EACH	1															1			
	0506.602	CONNECT TO EXISTING MANHOLE	EACH	1															1			
(9)	2511.505	RANDOM RIPRAP CL III	CU YD	33.3															33.3			
(3)	2511.501	3" CONCRETE WALK	SQ FT	1182					808			187					187					
	2531.501	CONCRETE C & G DES B624	LIN FT	14440	780.5		780.5		1561			2829.5			1762		2462.5		1414.5			
(3)	2531.505	CONCRETE MEDIAN	LIN FT	79								39.5							39.5			
(3)	2531.507	6" CONCRETE DRIVEWAY PAVEMENT	SQ YD	454					265			161							28			
(3)	2535.501	BITUMINOUS CURB	LIN FT	702								351							351			
	2545.521	3" RIGID STEEL CONDUIT	LIN FT	200	75		75		50													
	2550.512	HANDHOLE TYPE - CONCRETE W/CONC COVER	EACH	6	2.25		2.25		1.5													
(3)	2554.501	TRAFFIC BARRIER DES B8307	LIN FT	770								385							385			
(3)	2554.523	TWISTED END TREATMENT	EACH	2								1							1			
(3)	0554.602	GUARD RAIL CONNECTION TO BRIDGE	EACH	2								1							1			
	0557.603	INSTALL WOOD FENCE	LIN FT	382								382										
	0557.603	INSTALL CHAIN LINK FENCE	LIN FT	336					191			145										
	0563.601	TRAFFIC CONTROL	LS	1					0.2			0.35							0.35			
(3)	2573.501	BALE CHECK	EACH	30								15							15			
(3)	2573.502	SILT FENCE, HEAVY DUTY	LIN FT	5280								2640							2640			
(3)	2575.501	ROADSIDE SEEDING	ACRE	5.1								2.55							2.55			
(3)	2575.502	SEED MIXTURE 600	POUND	388								194							194			
(3)	2575.505	SODDING TYPE LAWN	SQ YD	19133					6289			6422							6422			
(3)	2575.511	MULCH MATERIAL TYPE 5	TON	3.9								1.95							1.95			
(3)(10)	2575.532	COMMERCIAL FERT ANALYSIS 12-12-12	POUND	3188					454			1367							1367			

QUANTITY NOTES

- (1) INCLUDES TREE TRIMMING AS DIRECTED BY THE ENGINEER.
- (2) DRIVEWAY AND PARKING LOT PAVEMENT REMOVALS ARE INCLUDED IN COMMON EXCAVATION.
- (3) QUANTITY SPLIT FROM STA 999+79 TO STA 1099+85.
(ANOKA COUNTY = 50 % , RAMSEY COUNTY = 50 %).
- (4) FOR DUST CONTROL AS DIRECTED BY THE ENGINEER.
- (5) THE CONTRACTOR IS ADVISED TO USE THE AGGREGATE BASE CLASS 6, OR AS AN ALTERNATE 100 % CRUSHED MATERIAL WHICH MEETS THE REQUIREMENTS OF CLASS 5 IN TABLE 3138-1 OF THE MN/DOT STANDARD SPECIFICATIONS.
- (6) CUTTING DRIVEWAY AND PARKING LOT PAVEMENTS SHALL BE DONE IN A MANNER TO PROVIDE A UNIFORM STRAIGHT EDGE AND SHALL BE INCIDENTAL.
- (7) INCLUDES QUANTITY FOR ADDING 1/4" TO THE DESIGN THICKNESS.
- (8) BASED ON AN APPLICATION RATE OF 0.05 GAL. PER SQ. YD. PER LAYER.
- (9) INCLUDES FILTER BLANKET AND GEOTEXTILE FABRIC WHICH SHALL BE INCIDENTAL TO THE RIPRAP PLACED.
- (10) ESTIMATED AT 350 LBS/ACRE APPLICATION RATE
- (11) INCLUDES INSTALLATION OF 30"- 18" CMP SHOWN ON INPLACE DRAINAGE TABULATION.
- (12) INCLUDES CASTINGS FOR RECONSTRUCT MANHOLES.

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 State of Minn. Statutes Sections 326.02 to 326.16. Date _____ Minn. Reg. No. 12666	 BRW INC PLANNING TRANSPORTATION ENGINEERING URBAN DESIGN THRESHER SQUARE 700 THIRD STREET SOUTH WIRENAPES, MN 55415 PHONE: (612)370-0700	ORIGINAL DATE 1/09/90 REVISIONS 3/20/90 ADDED TRAFFIC CONT. 7/13/90 DELETED G.R. TER. POST CONC. DRIVEWAY 7/25/90	COUNTY ROAD J C.S.A.H. 32 RAMSEY/ANOKA COUNTY ESTIMATED QUANTITIES
		DESIGN BY: DJT DRAWN BY: RSC CHECKED BY: _____ SURVEY BOOK	
S.A.P. NO. 02-632-05 62-601-04		SHEET 3 OF 38	DESIGN FILE ESTQUA2.DWG No. 098902

PRIVATE UTILITIES TABULATION (A)					
STATION	LOCATION	INPLACE ITEM	CONSTRUCTION LIMITS		OWNER
			INSIDE LIN FT	OUTSIDE LIN FT	
COUNTY ROAD "J"					
984+80 TO 998+00	15' LT	T-BUR	1320		US WEST
985+20 TO 989+40	60' RT TO 15' LT	T-BUR	495		US WEST
989+55 TO 991+20	85' LT TO 15' LT	T-BUR	215	50	US WEST
991+30 TO 992+75	15' LT TO 100' LT	T-BUR	186	44	US WEST
991+30 TO 993+80	15' LT TO 100' LT	T-BUR	315	50	US WEST
998+00 TO 1012+00	15' LT	T-BUR	1300	100	US WEST
999+70 TO 1000+50	100' RT TO 100' LT	T-BUR	130	100	US WEST
1004+90 TO 1006+10	100' LT TO 15' LT	T-BUR	155	50	US WEST
1006+20 TO 1012+00	15' LT TO 25' LT	T-BUR	480	100	US WEST
1006+20 TO 1007+00	15' LT TO 65' LT	T-BUR	50	30	US WEST
1011+20 TO 1011+65	70' RT TO 50' LT	T-BUR	80	80	US WEST
1012+00 TO 1016+00	15' LT	T-BUR		400	US WEST
1012+00 TO 1016+00	25' LT	T-BUR		400	US WEST
1055+00 TO 1066+00	15' LT	T-BUR	1100		US WEST
1055+00 TO 1066+00	25' LT	T-BUR	1100		US WEST
1055+00 TO 1060+00	55' RT TO 75' LT	T-BUR	600	60	US WEST
1066+00 TO 1079+00	15' LT	T-BUR	1300		US WEST
1070+00 TO 1071+00	15' LT TO 50' LT	T-BUR	135		US WEST
1075+20 TO 1079+00	65' LT TO 15' LT	T-BUR	400	100	US WEST
1079+00 TO 1092+00	15' LT	T-BUR	1300		US WEST
1079+00 TO 1082+50	50' LT TO 100' LT	T-BUR	400		US WEST
1079+00 TO 1092+00	25' LT	T-BUR	1300		US WEST
1092+00 TO 1099+85	15' LT TO 56' LT	T-BUR	785		US WEST
1092+00 TO 1094+70	60' RT TO 15' LT	T-BUR	345		US WEST
1092+00 TO 1097+00	25' LT TO 70' LT	T-BUR	545		US WEST
984+80 TO 996+90	35' LT	CATV-OH	210		NORTH CENTRAL CABLE
986+90 TO 993+85	35' LT	CATV-BUR	695		NORTH CENTRAL CABLE
993+85 TO 998+00	35' LT	CATV-OH	415		NORTH CENTRAL CABLE
998+00 TO 1012+00	35' LT	CATV-OH	1300	100	NORTH CENTRAL CABLE
1012+00 TO 1016+00	35' LT	CATV-OH		400	NORTH CENTRAL CABLE
1055+00 TO 1066+00	35' LT	CATV-OH	1100		NORTH CENTRAL CABLE
1055+00 TO 1079+00	35' LT	CATV-OH	1400		NORTH CENTRAL CABLE
1079+00 TO 1082+00	35' LT TO 100' LT	CATV-OH	365		NORTH CENTRAL CABLE
1094+50 TO 1097+40	100' RT TO 35' LT	CATV-BUR	430		NORTH CENTRAL CABLE
1097+40 TO 1099+85	35' LT	CATV-OH	245		NORTH CENTRAL CABLE
1055+00 TO 1066+00	25' RT	GAS	1100		WILLIAMS PIPELINE
1066+00 TO 1079+00	25' RT	GAS	1300		WILLIAMS PIPELINE
1079+00 TO 1092+00	25' RT	GAS	1300		WILLIAMS PIPELINE
1092+00 TO 1099+85	25' RT TO 80' RT	GAS	400	385	WILLIAMS PIPELINE
984+80 TO 998+00	29' RT	GAS	1320		MIDWEST GAS
986+47	29' RT TO 100' LT	GAS	129		MIDWEST GAS
989+64	29' RT TO 110' RT	GAS	81		MIDWEST GAS
993+21	29' RT TO 56' LT	GAS	85		MIDWEST GAS
996+70	29' RT TO 56' RT	GAS	27		MIDWEST GAS
997+67	29' RT TO 56' LT	GAS	85		MIDWEST GAS
998+00 TO 1006+50	29' RT	GAS	860		MIDWEST GAS
1002+08	29' RT TO 86' LT	GAS	115		MIDWEST GAS
1006+60 TO 1006+65	29' RT TO 190' LT	GAS	219		MIDWEST GAS
1059+39 TO 1066+00	55' LT TO 24' RT	GAS	741		MIDWEST GAS
1066+00 TO 1078+00	24' RT TO 80' RT	GAS	1250	50	MIDWEST GAS
993+20 TO 998+00	30' LT	OHP	480		ANOKA ELECTRIC COOP
995+20	30' LT TO 50' LT	OHP	20		ANOKA ELECTRIC COOP
998+00 TO 1012+00	30' LT	OHP	1300		ANOKA ELECTRIC COOP
1006+65	30' LT TO 190' LT	OHP	160		ANOKA ELECTRIC COOP
1012+00 TO 1016+00	30' LT	OHP		400	ANOKA ELECTRIC COOP
1055+00 TO 1066+00	30' LT	OHP	1100		ANOKA ELECTRIC COOP
1059+450	30' LT TO 50' LT	OHP	26		ANOKA ELECTRIC COOP
1066+00 TO 1079+00	30' LT	OHP	1300		ANOKA ELECTRIC COOP
1074+95	30' LT TO 56' LT	OHP	26		ANOKA ELECTRIC COOP
1079+00 TO 1082+05	30' LT TO 100' LT	OHP	375		ANOKA ELECTRIC COOP
984+80 TO 998+00		NSP			NSP
998+00 TO 999+80		NSP			NSP
1002+60 TO 1009+80	29' RT	GAS	720		NSP
1006+60	29' RT	GAS	46		NSP
1011+60 TO 1014+70	29' RT	P-BUR	310		NSP
1014+70 TO 1021+01	29' RT	OHP	130	501	NSP
1092+00 TO 1099+85	100' RT TO 70' LT	OHP	800		NSP

INDEX OF TABULATED CHARTS		
SHEET NO.	CHART	DISCRIPTION
4	A	PRIVATE UTILITIES TABULATION
5	B	INPLACE MANHOLE TABULATION
5	C	SALVAGE GUARDRAIL
5	D	CLEARING AND GRUBBING
5	E	SALVAGE FENCE
5	F	CONCRETE REMOVAL
5	G	SAWING BIT. PAV'T
5	H	BIT. PAV'T REMOVAL
6	I	CONCRETE SIDEWALK, C & G, MEDIAN, DRIVEWAY AND BIT. CURB
6	J	PLATE BEAM GUARDRAIL
6	K	WATERMAIN TABULATION
6	L	TURF ESTABLISHMENT
6	M	INSTALL FENCE
6	N	BITUMINOUS SUMMARY
6	O	AGGREGATE BASE SUMMARY
7	P	INPLACE DRAINAGE TABULATION
7	Q	STORM SEWER TABULATION

CONSTRUCTION NOTES

1. THE CONTRACTOR WILL COOPERATE WITH BOTH ANOKA AND RAMSEY COUNTIES AS RELATES TO PERPETUATING MONUMENTATION. INCLUDING ADVANCE NOTICE OF ANY DISTURBANCE OF MONUMENTS.
2. PROVIDE DRAINAGE OUTLETS FOR ALL SUBCUTS DURING CONSTRUCTION DITCHES SHOULD BE DEEPER THAN SUBCUT TO PROVIDE OUTLET DRAINAGE.
3. TAPER ENDS OF SUBCUTS TO A 20:1 SLOPE UNLESS OTHERWISE DIRECTED.
4. WHERE THE PROPOSED SUBCUT IS LOCATED UNDER INPLACE BASE AND BITUMINOUS SURFACING OR CONCRETE PAVEMENT, THE ENDS OF SUBCUT SHALL BE VERTICAL FOR THE DEPTH OF THE BITUMINOUS OR CONCRETE AND 2:1 IN AGGREGATE BASE.
5. STRIP TOPSOIL FROM ALL AREAS TO BE DISTURBED BY CONSTRUCTION AND STOCKPILE (IF PRACTICAL) FOR REPLACEMENT LATER AS SLOPE DRESSING.
6. PROVIDE FOR REMOVAL AND DISPOSAL OF (OUTSIDE THE CONSTRUCTION ZONE) ANY INPLACE SURFACING AND STRUCTURES THAT WILL INTERFERE WITH CONSTRUCTION.
7. FROM A SOILS STANDPOINT, TRAFFIC SHOULD BE MAINTAINED NO CLOSER THAN AN IMAGINARY 2:1 LINE DRAWN FROM THE BOTTOM OF ANY EXCAVATION INTERSECTING THE SURFACE.
8. THE ORDINARY COMPACTION METHOD SHALL BE USED ON THIS PROJECT FOR GRADING AND AGGREGATE BASE.
9. THE CONTRACTOR SHALL OBTAIN FROM THE UTILITY COMPANIES THE EXACT LOCATION OF ANY UNDERGROUND UTILITIES WHICH HE MAY ENCOUNTER IN THE PERFORMANCE OF HIS WORK.
10. TOP OF "GRADING GRADE" IS DEFINED AS THE TOP OF THE EMBANKMENT MATERIAL OR THE BOTTOM OF THE AGGREGATE BASE COURSE.
11. UNSUITABLE GRADING MATERIAL SHALL CONSIST OF TOPSOIL, OTHER ORGANIC SOIL AND DEBRIS.
12. NO PENETRATION PRIME IS REQUIRED ON THIS PROJECT.
13. PROVIDE A TACK COAT, SPEC. 2357.2A, BETWEEN BITUMINOUS COURSES.
14. SILT FENCE AND BALE CHECKS WILL BE INSTALLED AT ALL CATCH BASIN INLETS AND OTHER AREAS AS DIRECTED BY THE ENGINEER.

STANDARD PLATES	
PLATE NO.	DESCRIPTION
0005A	SPECIFICATION REFERENCE TO STANDARD PLATES (1988)
1120S	CONTRACTION JOINTS
1140S	LONGITUDINAL JOINTS
1141C	PAVEMENT KEYWAY FOR KEYS JOINT CONSTRUCTION
3000K	REINFORCED CONCRETE PIPE
3006F	GASKET JOINT FOR R.C. PIPE
3007B	SHEAR REINFORCEMENT FOR PRECAST DRAINAGE STRUCTURES
3100G	CONCRETE APRON FOR REINFORCED CONCRETE PIPE
3128D	SAFETY APRON
3133B	RIPRAP AT RCP OUTLETS
3145E	CONCRETE PIPE TIES
4000I	MANHOLE OR CATCH BASIN (DESIGN A)
4002E	MANHOLE OR CATCH BASIN (DESIGN C)
4005K	MANHOLE OR CATCH BASIN (DESIGN F)
4008E	CATCH BASIN (DESIGN I)
4010G	CONC. SHORT CONE AND ADJUSTING RING (SECTIONAL CONCRETE)
4011D	PRECAST CONCRETE BASE
4014A	PRECAST CONCRETE MEDIAN DRAIN
4020E	MANHOLE OR CATCH BASIN (FOR USE UNDER TRAFFIC LOADS)
4021C	PRECAST CURB OPENING CATCH BASIN
4101C	RING CASTING FOR MANHOLE OR CATCH BASIN
4102C	MANHOLE OR CATCH BASIN RING CASTING
4108E	MANHOLE ADJUSTING RINGS
4110D	COVER CASTING FOR MANHOLE
4126E	CATCH BASIN FRAME CASTING
4149C	GRATE CASTING FOR CATCH BASIN
4180H	MANHOLE OR CATCH BASIN STEP
4161F	CURB BOX CASTING FOR CATCH BASIN
7065C	BITUMINOUS CURB
7100F	CONCRETE CURB AND GUTTERS (DESIGN B & DESIGN V)
7105C	CONCRETE MEDIAN (MOUNTABLE TYPE)
7111G	INSTALLATION AND REINFORCEMENT OF C.B. CASTINGS (CONCRETE CURB AND CURB & GUTTER)
8000I	STANDARD BARRICADES
8117F	PRECAST CONCRETE HANDHOLE (OR PULLBOX)
8307N	STEEL PLATE BEAM GUARDRAIL - DESIGN A & DESIGN B
8318C	GUARDRAIL ANCHORAGE PLATE FOR BRIDGES
8319G	TWISTED END TREATMENT
8333A	TEMPORARY PORTABLE PRECAST CONCRETE BARRIER (CONTACTOR OWNED OR RENTED)
9102C	SODDING AT PIPE CULVERT ENDS

WARNING: PRIOR TO CONSTRUCTION CONTACT

U.S. WEST COMMUNICATIONS
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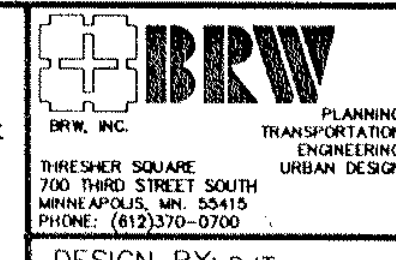
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WHITE BEAR LAKE, MN. 55110

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JOHN ALLISON
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934 WOODHILL DRIVE
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NORTHERN STATES POWER COMPANY
GEORGE KERBER (ANOKA COUNTY)
612-330-5500
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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 State of Minn. Statutes Sections 326.02 to 326.16.



ORIGINAL DATE 1/09/90
REVISIONS 3/20/90
DESIGN BY: DJT
DRAWN BY: RSC
CHECKED BY:
SURVEY BOOK

COUNTY ROAD J
C.S.A.H. 32
RAMSEY/ANOKA COUNTY
STANDARD PLATES AND
PRIVATE UTILITIES

Date _____ Minn. Reg. No. 12666

S.A.P. NO.

SHEET 4 OF 38

DESIGN FILE ST-PU.DWG No. 098902

INPLACE MANHOLE TABULATION (B)								
INPLACE ITEM	STATION	LOCATION	TOP OF CASTING		ADJUST EACH	RECONSTRUCT LIN FT	OWNER	
			EXISTING	PROPOSED				
MH	984+93	80' RT	911.32	911.32		LEAVE AS IS	SPRING LAKE PK	
MH	985+07	28' LT	911.45	911.45		LEAVE AS IS	BLAINE	
MH	986+29	25' LT	910.93	911.59			BLAINE	
MH	986+29	40' LT	910.71	911.29			BLAINE	
MH	987+87	40' LT	910.34	911.57		6.2	BLAINE	
MH	989+72	39' LT	911.10	912.30		6.2	BLAINE	
MH	989+96	15' RT	911.83	912.71		6.9	SPRING LAKE PK	
MH	992+56	13' RT	912.00	912.15			SPRING LAKE PK	
MH	993+00	33' LT	911.56	911.60			BLAINE	
MH	994+25	13' RT	911.90	911.80			SPRING LAKE PK	
MH	995+24	33' LT	910.30	911.76		6.5	BLAINE	
MH	997+52	123' LT	908.36	908.36			LEAVE AS IS	BLAINE
MH	996+45	13' RT	911.00	911.17			SPRING LAKE PK	
MH	999+35	12' RT	910.70	911.69		6.0	SPRING LAKE PK	
MH	1000+25	33' LT	911.30	912.15		5.9	BLAINE	
MH	1000+95	36' RT	911.88	911.88			LEAVE AS IS	MOUNDS VIEW
MH	1001+92	35' LT	910.94	912.16		6.2	BLAINE	
MH	1003+52	28' LT	911.81	912.90		6.1	BLAINE	
MH	1006+50	22' RT	912.42	912.58			MOUNDS VIEW	
MH	1009+38	22' RT	909.80	911.09		6.3	MOUNDS VIEW	
MH	1011+37	86' RT	909.68	909.68			LEAVE AS IS	MOUNDS VIEW
MH	985+87	9' LT	911.14	911.84			US WEST	
MH	985+87	14' LT	911.29	911.75			US WEST	
MH	985+96	9' LT	911.12	911.85			US WEST	
MH	985+96	14' LT	911.28	911.76			US WEST	
MH	986+05	9' LT	911.09	911.86			US WEST	
MH	986+05	14' LT	911.26	911.78			US WEST	
MH	989+47	15' LT	911.73	912.64			US WEST	
MH	989+54	10' LT	911.88	912.75			US WEST	
MH	989+54	15' LT	911.75	912.66			US WEST	
MH	999+00	10' LT	910.67	911.57			US WEST	
MH	1006+13	14' LT	912.62	912.85			US WEST	
MH	1009+95	17' LT	910.00	910.91			US WEST	
MH	1010+08	19' LT	910.00	910.80			US WEST	
MH	1094+22	15' LT	913.41	913.41			LEAVE AS IS	US WEST
TOTALS					19	56.2		

SALVAGE GUARDRAIL (C)			
STATION TO STATION	LOCATION	PLATE BEAM	3 CABLE
		LIN FT	LIN FT
COUNTY ROAD "J"			
1092+00 TO 1099+85	LT & RT	160	610
TOTALS		160	610

SALVAGE FENCE (E)			
STATION TO STATION	LOCATION	CHAIN LINK	WOOD FENCE
		LIN FT	LIN FT
994+75 TO 996+15	33' RT TO 50' RT	170	
999+28 TO 999+79	33' RT TO 50' RT	66	
1006+73 TO 1009+00	33' RT TO 50' RT		242
1058+88	33' LT TO 195' LT	162	
1080+00 TO 1081+55	33' RT TO 50' RT		170
TOTALS		398	412

CLEARING AND GRUBBING (D)						
STATION	LOCATION	CLEAR & GRUB				
		TREE EACH	DESCRIPTION	ACRE		
COUNTY ROAD "J"						
986+57	38' LT	1	*			
986+73	34' LT	1	*			
986+75	38' RT	1	24" ELM			
987+44	38' RT	1	24" ELM			
987+68	38' RT	1	29" ELM			
988+00	40' RT	1	24" ELM			
988+23	44' LT	1	6" *			
988+51	41' LT	1	4" ELM			
988+55	36' LT	1	24" LOCUST			
988+62	36' RT	1	6" OAK			
988+73	38' RT	1	32" OAK			
988+88	35' LT	1	24" LOCUST			
989+10	48' LT	1	6" *			
989+16	40' RT	1	24" OAK			
989+24	44' LT	1	6" *			
989+59	36' LT	1	24" LOCUST			
991+36	47' LT	1	24" ASH			
991+56	46' RT	1	24" OAK			
991+90	44' RT	1	24" OAK			
992+54	46' RT	1	6" ASH			
993+00	45' RT	1	12" SPRUCE			
993+24	38' RT	1	6" MAPLE			
993+33	44' LT	1	11" ASH			
993+56	46' RT	1	6" ASH			
993+89	36' RT	1	5" ELM			
994+76 TO 995+61	38' RT TO 50' RT		WOODS	0.20		
996+64 TO 997+38	32' RT TO 56' RT		WOODS	0.20		
997+89	44' RT	1	12" MAPLE			
998+32	42' RT	1	*			
999+62	45' RT	1	15" ASH			
999+73	38' LT	1	24" MAPLE			
1000+02	39' LT	1	31" OAK			
1000+38	49' LT	1	11" MAPLE			
1000+66	47' LT	1	15" OAK			
1000+98	51' LT	1	32" OAK			
1002+16	44' LT	1	15" OAK			
1002+28	40' LT	1	12" OAK			
1002+86	38' LT	1	3" ELM			
1003+85	48' LT	1	28" OAK			
1004+79	39' LT	1	12" SPRUCE			
1004+79	46' LT	1	12" SPRUCE			
1004+87	40' LT	1	12" SPRUCE			
1004+98	41' LT	1	6" SPRUCE			
1005+07	38' LT	1	15" OAK			
1005+17	43' LT	1	17" SPRUCE			
1005+55	34' LT	1	12" SPRUCE			
1005+62	35' LT	1	12" SPRUCE			
1005+76	39' LT	1	8" SPRUCE			
1005+81	38' LT	1	8" SPRUCE			
1005+92	43' LT	1	8" PINE			
1006+99	46' LT	1	11" POPLAR			
1007+10	43' LT	1	11" POPLAR			
998+00 TO 1008+00			BRUSH	0.20		
1055+00 TO 1057+00	35' LT TO 50' LT		WOODS	0.05		
1066+10 TO 1069+40	35' RT TO 50' RT		WOODS	0.15		
1068+40 TO 1075+50	35' LT TO 56' LT		WOODS	0.25		
1077+30 TO 1078+50	30' LT TO 50' LT		BRUSH	0.05		
1088+70 TO 1092+00	35' LT TO 50' LT		WOODS	0.15		
1092+00 TO 1092+50	35' LT TO 50' LT		WOODS	0.05		
1097+00	42' RT	1	4" *			
1097+02	67' LT	1	9" *			
1097+08	47' LT	1	9" *			
1097+72	34' LT	1	4" *			
TOTALS					54	1.30

CONCRETE REMOVAL (F)				
STATION TO STATION	LOCATION	C & G	MEDIAN	PAVEMENT
		LIN FT	LIN FT	SQ YD
COUNTY ROAD "J"				
985+18 TO 986+27	12' RT TO 55' RT			29
998+81 TO 999+87	32' LT TO 75' LT			71
1001+43 TO 1001+79	27' LT TO 56' LT			75
1059+13	RT	140	85	
1092+00 TO 1099+35	LT & RT	80		
TOTAL		220	85	175

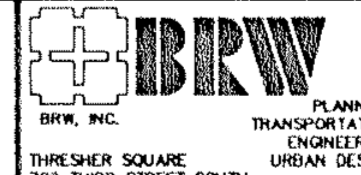
(1) 3" CONCRETE SIDEWALK REMOVAL.

SAWING BIT. PAV'T (G)		
STATION TO STATION	LIN FT	
COUNTY ROAD "J"		
984+80 TO 998+00	300	
998+00 TO 999+79		
999+79 TO 1012+00	202	
1012+00 TO 1016+00		
1055+00 TO 1066+00	96	
1066+00 TO 1073+91	2112	
1073+91 TO 1079+00	53	
1079+00 TO 1092+00	25	
1092+00 TO 1099+80	93	
TOTAL		769

BIT. PAV'T REMOVAL (H)		
STATION TO STATION	SQ YDS	
COUNTY ROAD "J"		
984+80 TO 998+00	4867	
998+00 TO 999+79	477	
999+79 TO 1012+00	4331	
1012+00 TO 1016+00		
1055+00 TO 1066+00	4419	
1066+00 TO 1073+91	2112	
1073+91 TO 1079+00	1780	
1079+00 TO 1092+00	3754	
1092+00 TO 1099+85	2434	
TOTAL		24174

CLEARING AND GRUBBING NOTES

* INDICATES SIZE AND / OR TYPE UNVERIFIED

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 State of Minn. Statutes Sections 326.02 to 326.16.	 BRW, INC. PLANNING TRANSPORTATION ENGINEERING URBAN DESIGN THREE RIVER SQUARE 200 THIRD STREET SOUTH MINNEAPOLIS, MN 55415 PHONE: (612) 376-0700	ORIGINAL DATE 1/09/90	COUNTY ROAD J C.S.A.H. 32 RAMSEY/ANOKA COUNTY TABULATED QUANTITIES
		REVISIONS 3/20/90	
Date _____ Minn. Reg. No. 12666	DESIGN BY: DJT DRAWN BY: RSC CHECKED BY: _____	S.A.P. NO. 02-632-05 62-601-04	SHEET 5 OF 38 DESIGN FILE TABQUA1.DWG No. 098902

CONCRETE SIDEWALK, C & G, MEDIAN, DRIVEWAY AND BIT. CURB (J)						
STATION TO STATION	LOCATION	DSGN B624	3" CONC	6" CONC	CONC	BIT
		C & G	WALK	DRIVE	MEDIAN	CURB
		LIN FT	SQ FT	SQ YD	LIN FT	LIN FT
COUNTY ROAD "J"						
984+80 TO 998+00	LT & RT	2764	807	130		
998+00 TO 999+79	LT & RT	358		130		
999+79 TO 1012+00	LT & RT	2602	101	115		
1012+00 TO 1016+00	LT & RT				79	
1055+00 TO 1066+00	LT & RT	2436	80			
1066+00 TO 1073+91	LT & RT	1581		9		
1073+91 TO 1079+00	LT & RT	1055	68	70		
1079+00 TO 1092+00	LT & RT	2692	34			
1092+00 TO 1099+85	LT & RT	952	92			702
TOTALS		14440	1182	454	79	702

PLATE BEAM GUARDRAIL (J)			
STATION TO STATION	LOCATION	LIN FT	BRIDGE
			CONNECTION
			EACH
1096+00 TO 1099+85	LT & RT	770	2
TOTALS		770	2

WATERMAIN TABULATION (K)							
STATION	LOCATION	HYDRANTS			6" DIP	VALVE BOX ADJUST *	REMARKS
		SALVAGE EACH	INSTALL EACH	ADJUST EACH			
COUNTY ROAD "J"							
985+15	57' RT						LEAVE AS IS
985+18	52' RT					1	
985+25	22' RT					1	
986+17	34' LT					1	
986+53	22' LT					1	
990+09	32' LT					1	
990+15	37' RT	1	1		6		
992+76	43' LT	1	1		3		
992+88	35' LT					1	
993+35	22' LT					1	
996+07	24' RT					1	
996+18	37' RT	1	1		6		
996+83	24' RT					1	
997+24	47' LT	1	1		6		
997+40	40' LT					1	
997+73	23' LT					1	
999+57	32' RT	1	1		7		
1001+77	33' LT					1	
1002+22	23' LT					1	
1006+16	45' LT						LEAVE AS IS
1006+26	32' RT						LEAVE AS IS
1006+27	40' LT					1	
1006+67	28' RT					1	
1006+70	33' RT					1	
1011+18	62' RT						LEAVE AS IS
1011+27	33' RT					1	
1011+49	33' LT						LEAVE AS IS
1015+95	28' RT					1	
1016+00	38' RT					1	
1058+83	34' LT	1	1		3		
1064+00	34' LT	1	1		3		
1070+20	32' LT	1	1		3		
1073+93	25' LT					1	
1074+00	65' RT					1	
1074+00	62' RT						LEAVE AS IS
1094+85	62' RT						LEAVE AS IS
1095+02	70' RT					1	
TOTALS		8	8		37	22	

TURF ESTABLISHMENT (L)					
STATION TO STATION	SOD TYPE LAWN	ROADSIDE SEEDING	SEED MIX 600	FERTILIZER ANALYSIS 12-12-12	MULCH TYPE 5
	SQ YD	ACRE	POUNDS	POUNDS	TONS
COUNTY ROAD "J"					
984+80 TO 998+00	5536			400	
998+00 TO 999+79	753			54	
999+79 TO 1012+00	4429			320	
1012+00 TO 1016+00	133			10	
1055+00 TO 1066+00	1380	0.8	62	390	0.6
1066+00 TO 1073+91	601	0.8	59	316	0.6
1073+91 TO 1079+00	694	0.4	33	204	0.3
1079+00 TO 1092+00	4026	2.5	187	1163	1.9
1092+00 TO 1099+85	1581	0.6	47	331	0.5
TOTALS	19133	5.1	388	3188	3.9

INSTALL FENCE (M)			
STATION TO STATION	LOCATION	CHAIN LINK	WOOD FENCE
		LIN FT	LIN FT
994+75 TO 996+15	50' RT	140	
999+28 TO 999+79	50' RT	51	
1006+73 TO 1009+00	50' RT		227
1058+88	50' LT TO 195' LT	145	
1080+00 TO 1081+55	50' RT		155
TOTALS		336	382

AGGREGATE BASE SUMMARY (O)		
STATION TO STATION	LOCATION	AGGREGATE BASE CLASS 6 SPEC. 2211 TON
		COUNTY ROAD "J"
984+80 TO 998+00	LT & RT	1492
984+80 TO 998+00	LT & RT	73
998+00 TO 999+79	LT & RT	204
998+00 TO 999+79	LT & RT	8
999+79 TO 1012+00	LT & RT	1309
999+79 TO 1012+00	LT & RT	23
1011+50 TO 1012+00	RT	10
1012+00 TO 1016+00	RT	221
1055+00 TO 1066+00	LT & RT	1357
1066+00 TO 1073+91	LT & RT	750
1073+91 TO 1079+00	LT & RT	661
1079+00 TO 1092+00	LT & RT	1231
1092+00 TO 1099+85	LT & RT	671
TOTALS		8010

BITUMINOUS SUMMARY (N)									
STATION TO STATION	LOCATION	BASE 2331		BINDER 2331		WEAR 2331		WEAR 2361	
		DEPTH INCH	TON	DEPTH INCH	TON	DEPTH INCH	TON	DEPTH INCH	TON
COUNTY ROAD "J"									
984+80 TO 998+00	LT & RT	5.0	2352	1.5	731			1.0	517
984+80 TO 998+00	LT & RT			2.0	54			1.0	62
998+00 TO 999+79	LT & RT	5.0	281	1.5	87				
998+00 TO 999+79	LT & RT			2.0	6	2.0	6		
999+79 TO 1012+00	LT & RT	5.0	2039	1.5	634			1.0	449
999+79 TO 1012+00	LT & RT			2.0	17	2.0	17		
1011+50 TO 1012+00	RT			2.0	7	2.0	7		
1012+00 TO 1016+00	RT			2.0	63	2.0	63		
1055+00 TO 1066+00	LT & RT	5.0	2238	1.5	693			1.0	488
1066+00 TO 1073+91	LT & RT	5.0	1242	1.5	386			1.0	273
1073+91 TO 1079+00	LT & RT	5.0	905	1.5	281			1.0	199
1079+00 TO 1092+00	LT & RT	5.0	2122	1.5	660			1.0	467
1092+00 TO 1099+85	LT & RT	5.0	1493	1.5	467	2.0	5	1.0	328
TOTAL MIX			12672		4086		152		2783

WATERMAIN TABULATION NOTES


- * ALL HYDRANT GATE VALVE ADJUSTMENTS ARE CONSIDERED INCIDENTAL WORK AND ARE NOT INCLUDED ON TABULATION.

AGGREGATE SUMMARY NOTES

145 LBS / CU FT USED AS A BASIS FOR AGGERGATE QUANTITY.

BITUMINOUS SUMMARY NOTES

115 LBS / SQ YD / INCH THICKNESS USED FOR 2331 BITUMINOUS MIXTURES
120 LBS / SQ YD / INCH THICKNESS USED FOR 2361 BITUMINOUS MIXTURES

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 State of Minn. Statutes Sections 326.02 to 326.16.	 BRW, INC. PLANNING TRANSPORTATION ENGINEERING URBAN DESIGN THE SHER SQUARE 700 THIRD STREET SOUTH MINNEAPOLIS, MN 55415 PHONE: (612) 701-0700	ORIGINAL DATE 1/09/90 REVISIONS 3/20/90 CONC. DRIVE 7/25/90	COUNTY ROAD J C.S.A.H. 32 RAMSEY/ANOKA COUNTY TABULATED QUANTITIES
		DESIGN BY: DJT DRAWN BY: RSC CHECKED BY:	
Date: _____ Minn. Reg. No. 12666	S.A.P. NO. 02-632-05 62-601-04	SHEET 6 OF 38	DESIGN FILE TABQUA2.DWG No. 098902

INPLACE DRAINAGE TABULATION								(P)
STATION TO STATION	LOCATION	INPLACE ITEM	SALVAGE			REMOVE	REMARKS **	
			CASTING ASSEMBLY EACH	MH OR CB EACH	PIPE CULVERT LIN FT	CONC APRON EACH		PIPE CULVERT LIN FT
COUNTY ROAD "J"								
1001+78 TO 1002+07	50' LT TO 85' LT	12" RCP *	2	2		60		
1009+70	32' RT	12" CMP				30		
1058+60 TO 1059+80	45' LT	12" RCP						
1058+88	185' LT TO 215' LT	18" CMP					INCLUDES INSTALL	
1058+85 TO 1059+48	26' LT TO 29' LT	36" CMP			110	2	68	
1068+65 TO 1069+11	32' LT TO 44' LT	18" CMP			30		48	
1069+20	37' LT TO 33' RT	48" CMP					70	
1079+85	26' LT TO 100' RT	36" RCP				1	***	
1079+92 TO 1080+50	25' LT TO 25' RT	24" CMP					78	
1099+80	16' LT & RT	CB's *					LEAVE AS IS	
TOTALS			2	2	140	3	354	

INPLACE DRAINAGE NOTES

- * INDICATES SIZE AND TYPE UNVERIFIED
- ** SEE DRAINAGE TABULATION FOR PROPOSED CONSTRUCTION
- *** 36" RCP REMAINS INPLACE, CATCHBASIN CONNECTION MAY REQUIRE PIPE TO BE SAWCUT AND SHALL BE INCLUDED IN APRON REMOVAL ITEM


STORM SEWER TABULATION																							(Q)
LINE NO.	STRUCT. NO.	BASE LINE	STATION	LOCATION (1)	REMARKS/NOTES	MH OR CB	CASTING ASSEMBLY	DESIGN TYPE	CONSTRUCTION			FURNISH & INSTALL						CLASS OF PIPE	DRAINS TO				
									TOP OF CASTING ELEV	OUTLET ELEV	CONST. HEIGHT	CAST ASSEM	15" RCP	18" RCP	24" RCP	36" RCP	48" RCP		APRON	STRUCT. NO.	PIPE GRADE	INLET ELEV	
									FT	FT	FT	EACH	LF	LF	LF	LF	LF	EACH	(3)				
1	CB 1	GOODHUE	10+84	14.00 LT		CB	B	A OR F	910.65	907.28	3.37	1	28					III	CB 2	1.00 %	907.00		
2	CB 2	GOODHUE	10+84	14.00 RT	1	CB	B	A OR F	910.65	907.00	3.65	1						III	EXIST				
3	CB 2A	CO RD J	1001+95	25.33 RT		CB	B	A OR F	911.11	908.06	3.05	1	106					III	CB 4	0.20 %	906.92		
4	CB 3	CO RD J	1009+50	25.33 LT		CB	B	A OR F	910.77	907.12	3.6	1	51					III	MH 1	0.20 %	906.50		
5	CB 4	CO RD J	1009+50	25.33 RT		CB	B	A OR F	910.77	906.92	3.9	1	207					III	CB 4	2.00 %	907.86		
6	A 1	CO RD J	1009+50	32.50 RT						908.00			7					III	EXIST				
7	MH 1	CO RD J	1011+57	25.33 RT		MH	A	A OR F	909.80	906.50	3.3	1	290					III	EX MH	0.20 %	905.92		
8	EX MH	KNOLLWOOD	6+84	22.00 RT	2	MH			908.36	905.92								1	III	CB 5A	0.40 %	901.92	
9	A 2	CO RD J	1054+95	31.00 RT	4					901.98			15					III	CB 5	0.40 %	901.69		
10	CB 5A	CO RD J	1055+10	29.33 RT		CB	C	LP 4-3	905.55	901.92	3.6	1	59					III	CB 7	0.41 %	900.23		
11	CB 5	CO RD J	1055+10	29.33 LT		CB	C	LP 4-3	905.55	901.69	3.9	1	354					III	CB 7	0.42 %	900.23		
12	CB 6	CO RD J	1058+48	29.33 RT		CB	C	LP 4-3	904.20	900.50	3.7	1	64					1	III	CB 7	1.00 %	900.23	
13	A 3	CO RD J	1058+64	41.33 LT						900.35			12					III	CB 8	0.134 %	899.38		
14	CB 7	CO RD J	1058+64	29.33 LT		CB	C	LP 4-3	904.13	899.63	4.5	1			186			III	CB 10	0.16 %	898.91		
15	CB 8	CO RD J	1060+50	29.33 LT		CB	C	LP 4-3	903.39	899.38	4.0	1			294			III	CB 10	0.28 %	898.91		
16	CB 9	CO RD J	1063+44	29.33 RT		CB	C	LP 4-3	902.30	899.07	3.2	1	59					III	CB 11	0.20 %	898.40		
17	CB 10	CO RD J	1063+44	29.33 LT		CB	C	LP 4-3	902.30	898.91	3.4	1			256			III	CB 12	0.20 %	897.80		
18	CB 11	CO RD J	1066+20	29.33 LT		CB	C	LP 4-4	903.54	898.40	5.1	1			301			III	CB 12	0.20 %	897.80		
19	CONTROL	CO RD J	1069+21	49.00 LT						904.40	897.84	6.6					20	III	CB 13	0.20 %	897.68		
20	CB 12	CO RD J	1069+21	29.33 LT		CB	C	LP 5-6	905.04	897.80	7.2	1			59			III	A 4	0.20 %	897.65		
21	CB 13	CO RD J	1069+20	29.33 RT		CB	C	LP 5-6	905.04	897.68	7.4	1			16			III					
22	A 4	CO RD J	1069+20	45.00 RT	4					897.65								1					
23	A 5	CO RD J	1079+48	48.00 LT	4					899.12								1					
24	CB 14	CO RD J	1079+80	29.33 LT	3	CB	C	LP 4-5	905.06	899.20	5.9	1			26			III	A 5	0.30 %	899.12		
25	CB 15	CO RD J	1079+87	29.33 RT	1	CB	C	LP 4-5	905.03	899.32	5.7	1						III	CB 14	0.20 %	899.20		
26	CB 16	CO RD J	1081+88	29.33 LT		CB	C	LP 4-3	903.81	900.35	3.5	1	90					III	CB 17	0.40 %	899.99		
27	CB 17	CO RD J	1082+78	29.33 LT		CB	C	LP 4-3	903.56	899.99	3.6	1		60				III	CB 18	0.20 %	899.87		
28	CB 18	CO RD J	1082+60	29.33 RT		CB	C	LP 4-3	903.56	899.87	3.7	1			275			III	CB 15	0.20 %	899.32		
29	CB 19	CO RD J	1086+00	29.33 RT		CB	C	LP 4-3	904.84	900.41	4.4	1			340			III	CB 18	0.16 %	899.87		
30	CB 20	CO RD J	1089+00	29.33 RT		CB	C	LP 4-3	906.04	902.01	4.0	1		300				III	CB 19	0.40 %	900.81		
31	CB 21	CO RD J	1089+00	29.33 LT		CB	C	LP 4-3	906.04	902.44	3.6	1	59					III	CB 20	0.40 %	902.21		
32	CB 22	FRONTAGE	11+66	19.50 RT		CB	B	A OR F	914.80	911.80	3.0	1	30					III	A 6	1.00 %	911.50		
33	A 6	FRONTAGE	10+88	42.00 RT	4					911.50								1					
34	CB 23	FRONTAGE	9+45	19.50 RT		CB	B	A OR F	914.20	911.20	3.0	1	30					III	A 7	1.00 %	910.90		
35	A 7	FRONTAGE	9+45	49.50 RT	4					910.90								1					
TOTALS												26	1461	360	1652	26	95	6					

CASTING ASSEMBLIES

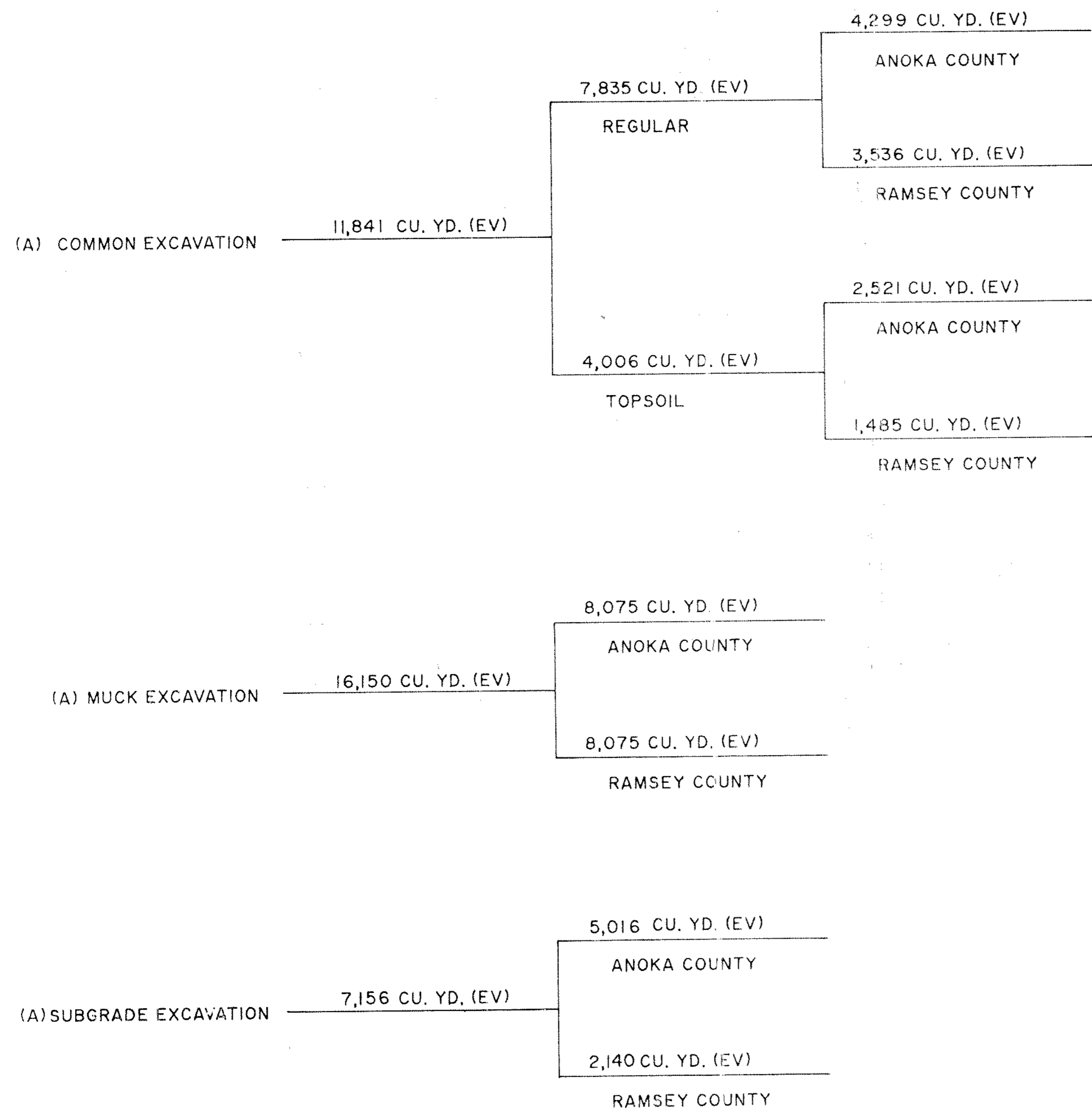
- A= DESIGN A OR F
RING CASTING -MN/DOT NO. 700-7 SEE STD.PLT.NO. 4101C, 4108E
COVER CASTING -MN/DOT NO. 712 SEE STD.PLT.NO. 4110D
- B= DESIGN A OR F
RING CASTING -MN/DOT NO. 801 SEE STD.PLT.NO. 4126E
GRATE CASTING -MN/DOT NO. 810 SEE STD.PLT.NO. 4149C
CURB BOX CAST -MN/DOT NO. 821 SEE STD.PLT.NO. 4161F
- C= DESIGN -LP
RING CASTING -MN/DOT NO. 790-2 MODIFIED SEE STD.PLT.NO. 4014A
COVER CASTING -MN/DOT NO. 712 SEE STD.PLT.NO. 4110D

NOTES:

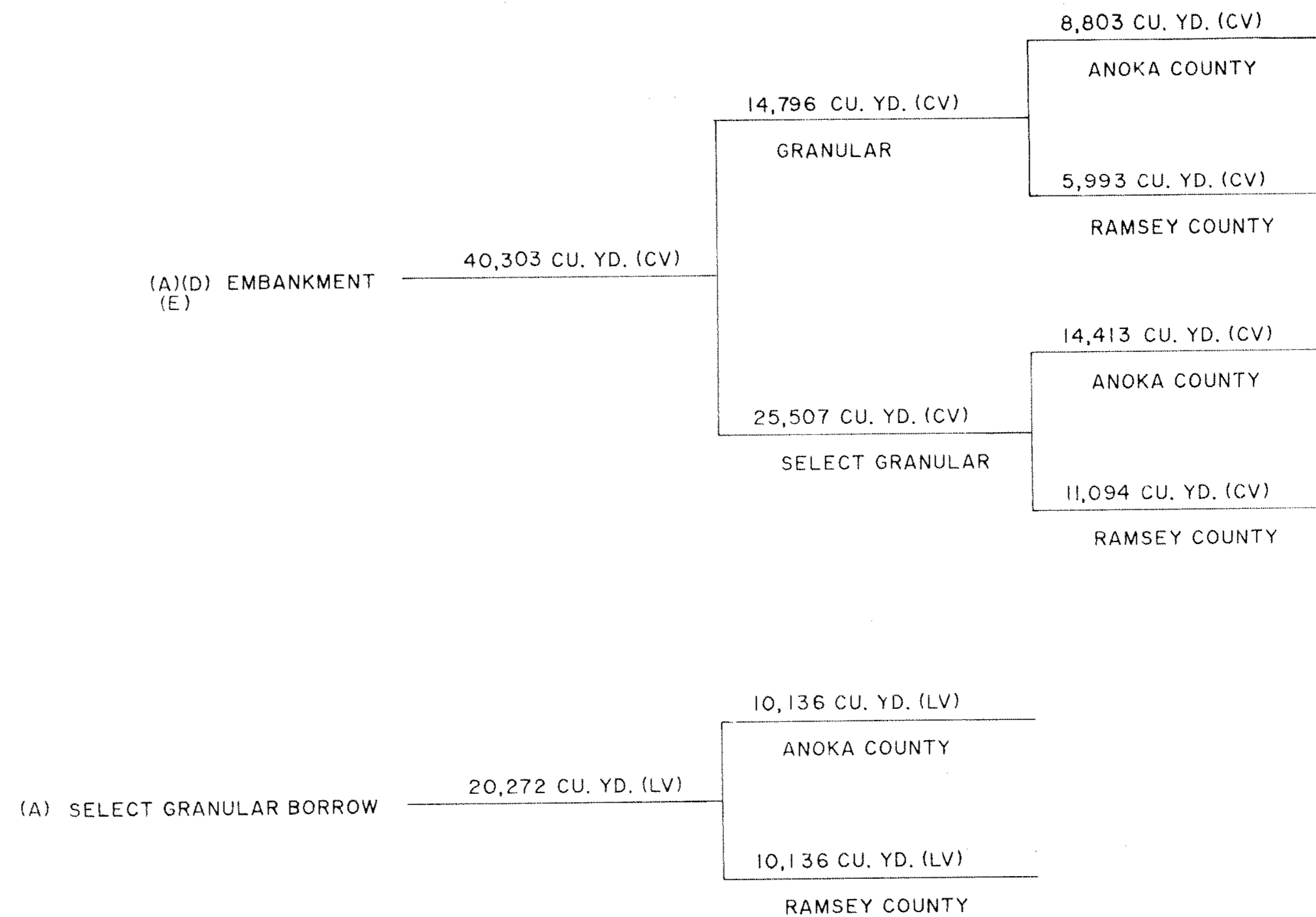
- 1) CONSTRUCT OVER EXISTING PIPE.
- 2) CONNECT TO EXISTING MANHOLE.
- 3) REMOVE CONC. APRON AND CONNECT TO EXISTING PIPE.
- 4) GRADE TO DRAIN.

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 State of Minn. Statutes Sections 326.02 to 326.16.	 BRW INC. PLANNING TRANSPORTATION ENGINEERING URBAN DESIGN	ORIGINAL DATE 1/09/90	COUNTY ROAD J
		REVISIONS 3/21/90	
Date _____ Minn. Reg. No. 12666	S.A.P. NO. 02-632-05 62-601-04	SURVEY BOOK	RAMSEY/ANOKA COUNTY
			DRAINAGE TABULATIONS
			DESIGN FILE DRAINTAB.DWG No. 098902

EXCAVATION



EMBANKMENT

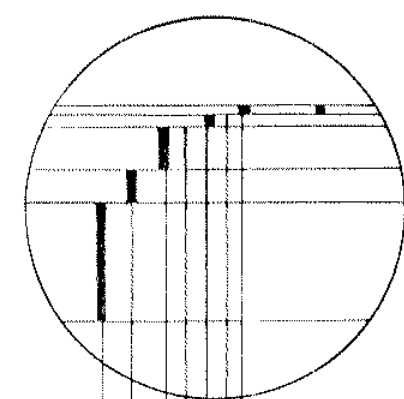


- (A) QUANTITY BASED ON 50%-50% SPLIT FROM STA. 999+79 TO STA. 1099+85.
- (B) SHRINKAGE FACTOR OF 120% USED FOR NORMAL GRADING (EV TO CV).
- (C) ADJUSTMENT FACTOR OF 150% USED FOR BORROW (LV TO CV).
- (D) EMBANKMENT QUANTITY INCLUDES GRADING MATERIAL, SUBGRADE EXCAVATION BACKFILL, MUCK EXCAVATION BACKFILL, AND 3,056 CU. YD. (CV) TOPSOIL PLACED.
- (E) SELECT GRANULAR BORROW INCLUDED IN EMBANKMENT QUANTITY.

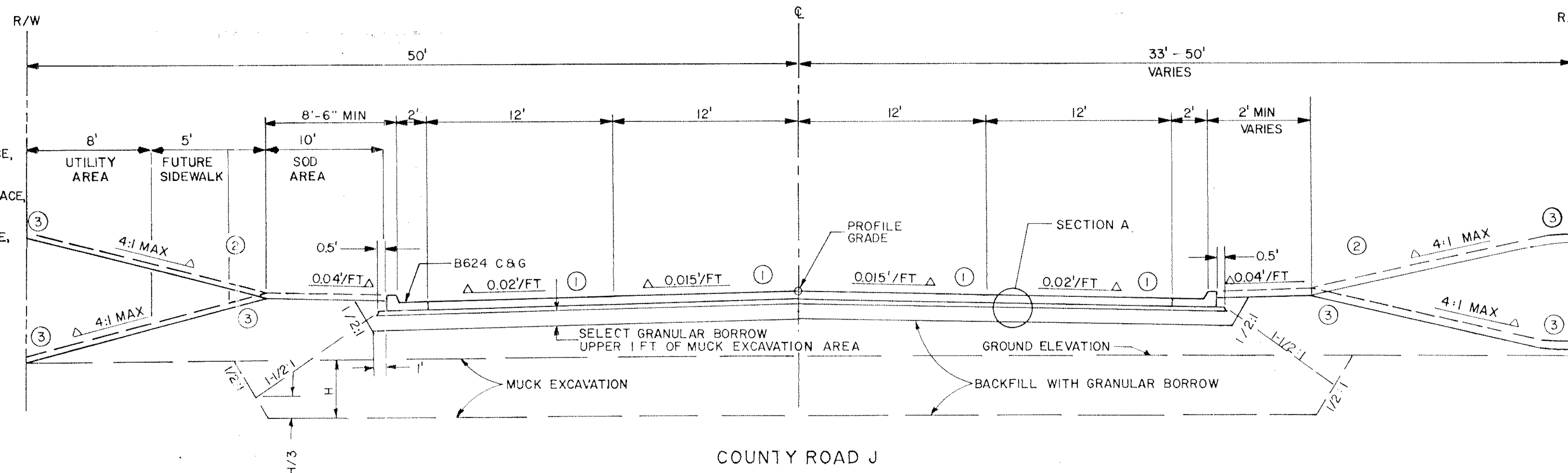
I hereby certify that this plan, specification or report was prepared by me or under my direct supervision and that I am a duly Registered Professional Engineer under the State of Minn. Statutes Sections 326.02 to 326.16.	BRW, INC. PLANNING TRANSPORTATION ENGINEERING URBAN DESIGN THRESHER SQUARE 700 THIRD STREET SOUTH MINNEAPOLIS, MN 55415 PHONE: (612)370-0700	ORIGINAL DATE 1/3/80 REVISIONS: _____ _____ _____ SURVEY BK. NO. _____	COUNTY ROAD J C.S.A.H. 32 RAMSEY/ANOKA COUNTY EARTHWORK SUMMARY
Date _____ Minn. Reg. No. _____	DESIGN BY: DJT DRAWN BY: L.B.	S.A.P. NO. 02 - 632 - 05 62 - 601 - 04	SHEET 8 OF 38 DESIGN FILE No. 09-8902

COUNTY ROAD J
STA. 984+80 TO 1096+00

SECTION A

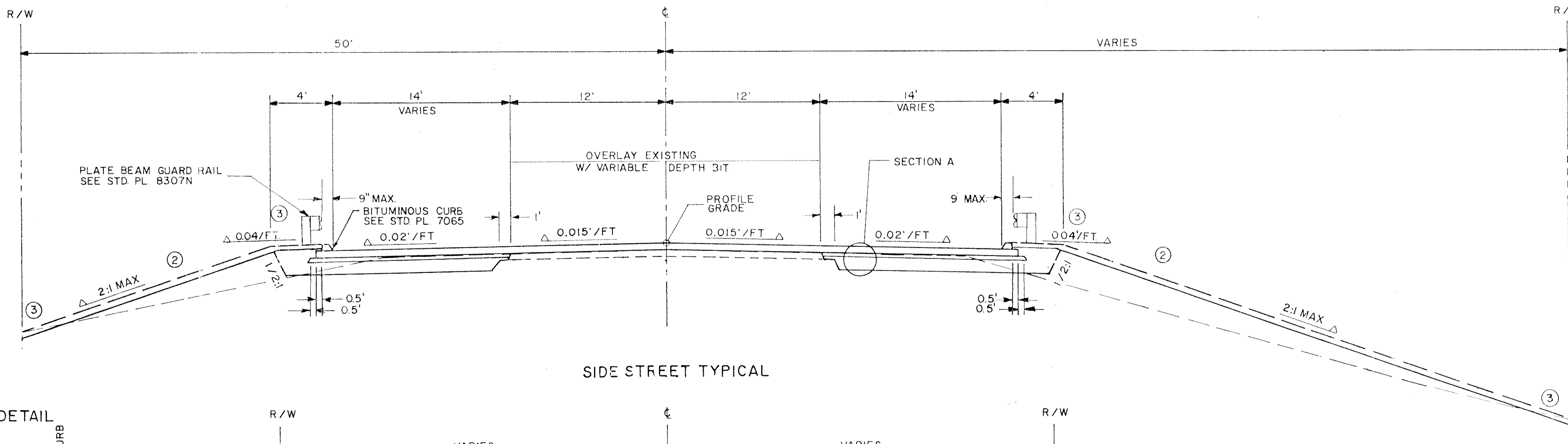
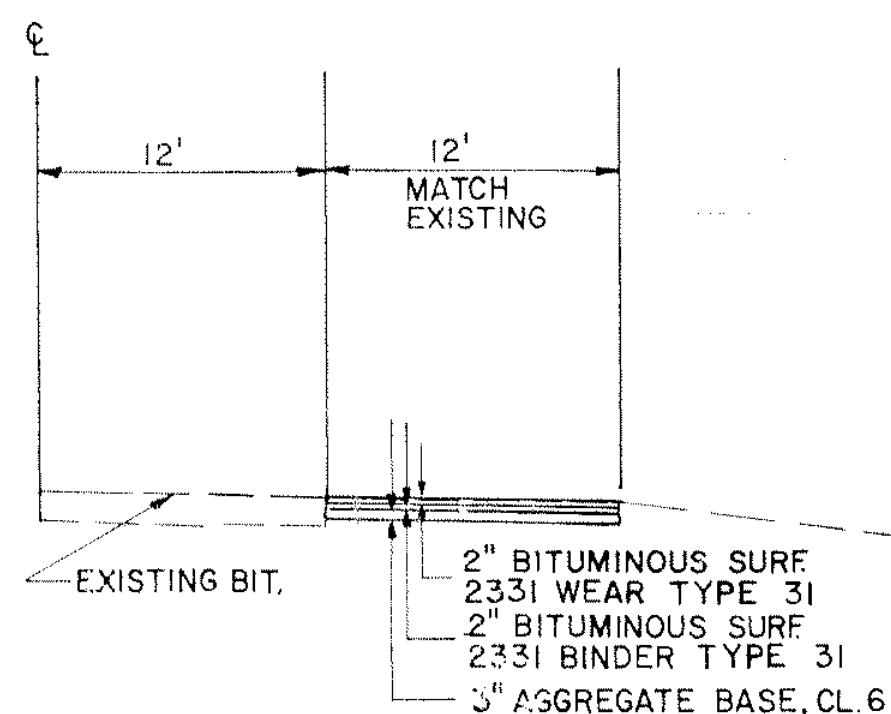


- 1" PLANT MIXED BITUMINOUS SURFACE, SPEC 2331 WEAR TYPE 61 TACK COAT, SPEC 2357
- 1 1/2" PLANT MIXED BITUMINOUS SURFACE, SPEC 2331 BINDER TYPE 31 TACK COAT, SPEC 2357
- 5" PLANT MIXED BITUMINOUS SURFACE, SPEC 2331 BASE TYPE 31
- 3" AGGREGATE BASE, CLASS 6
- 1' SUBCUT



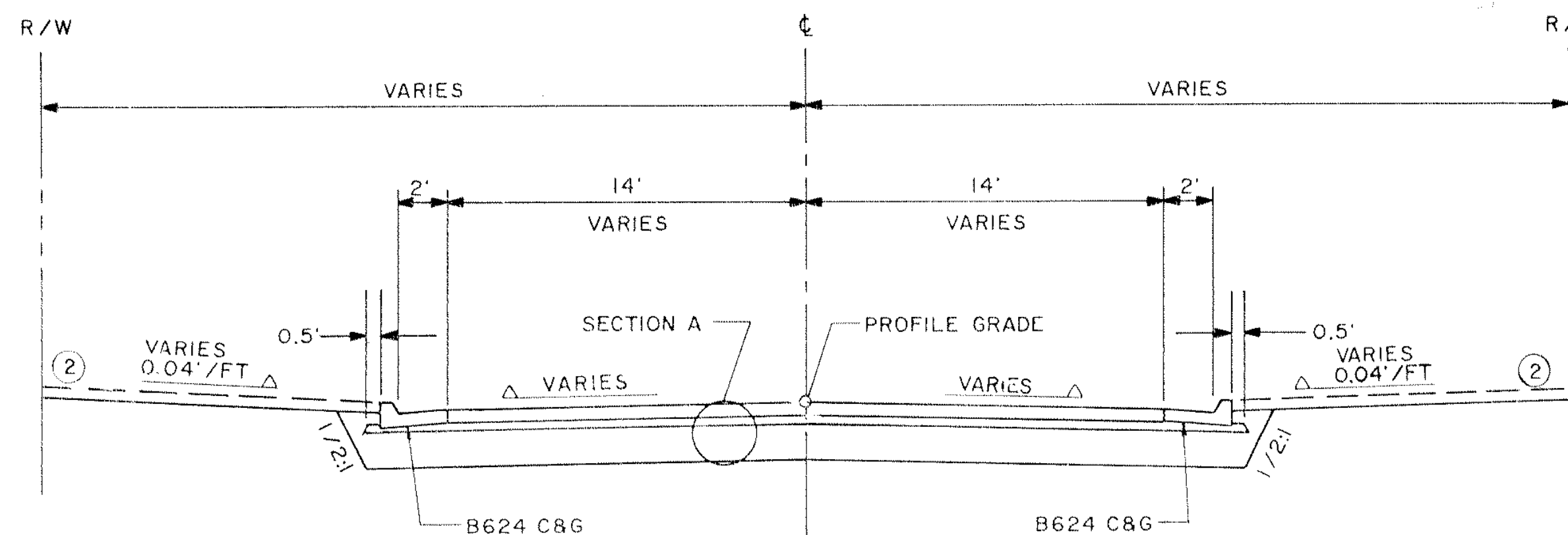
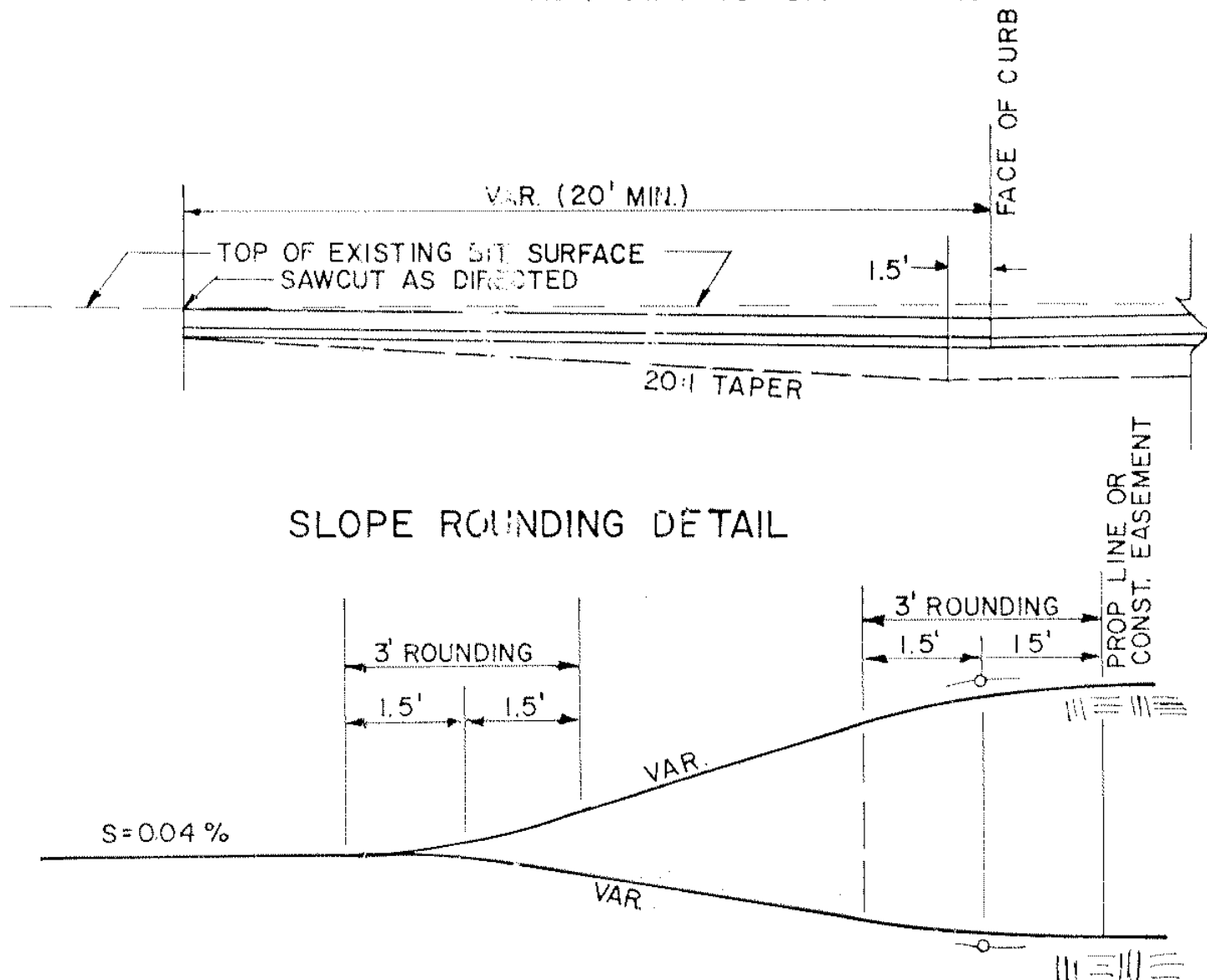
COUNTY ROAD J
STA. 1096+00 TO 1099+50

SHOULDER DETAIL
STA. 1011+23 TO 1016+00



SIDE STREET TYPICAL

TYPICAL SIDE STREET APPROACH DETAIL



NOTES:

- ① SEE PLANNED CONSTRUCTION SHEETS FOR CROSS SLOPE TRANSITIONS.
- ② PLACE 4" TOPSOIL, SOD OR SEED W/MIXTURE 600, TYPE I MULCH DISC ANCHOR, FERTILIZE W/COMMERCIAL FERTILIZER ANALYSIS 12-12-12 DISTURBED AREAS AS DIRECTED BY THE ENGINEER.
- ③ SEE SLOPE ROUNDING DETAIL.

ALL SIDE STREET STATIONING
ASSUMED 10+00 @ CO. RD. J
(STATIONING SOUTH TO NORTH)

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 State of Minn. Statutes Sections 326.02 to 326.16.



ORIGINAL DATE: 11/15/89
REVISIONS:
DESIGN BY: D.J.T.
DRAWN BY: L.B., D.W.

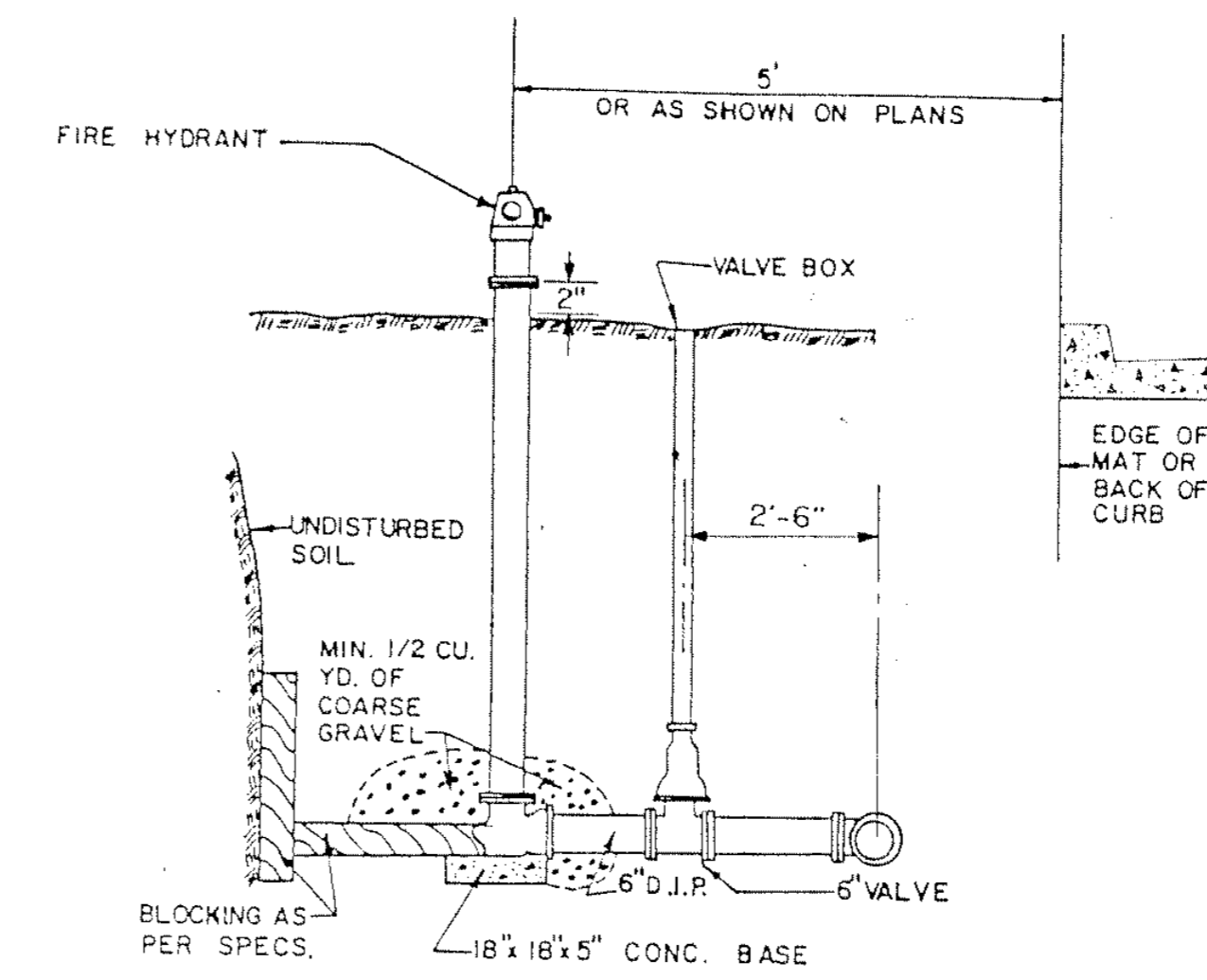
COUNTY ROAD J
C.S.A.H. 32
RAMSEY/ANOKA COUNTY
TYPICAL SECTIONS

Date: _____ Minn. Reg. No. 12666

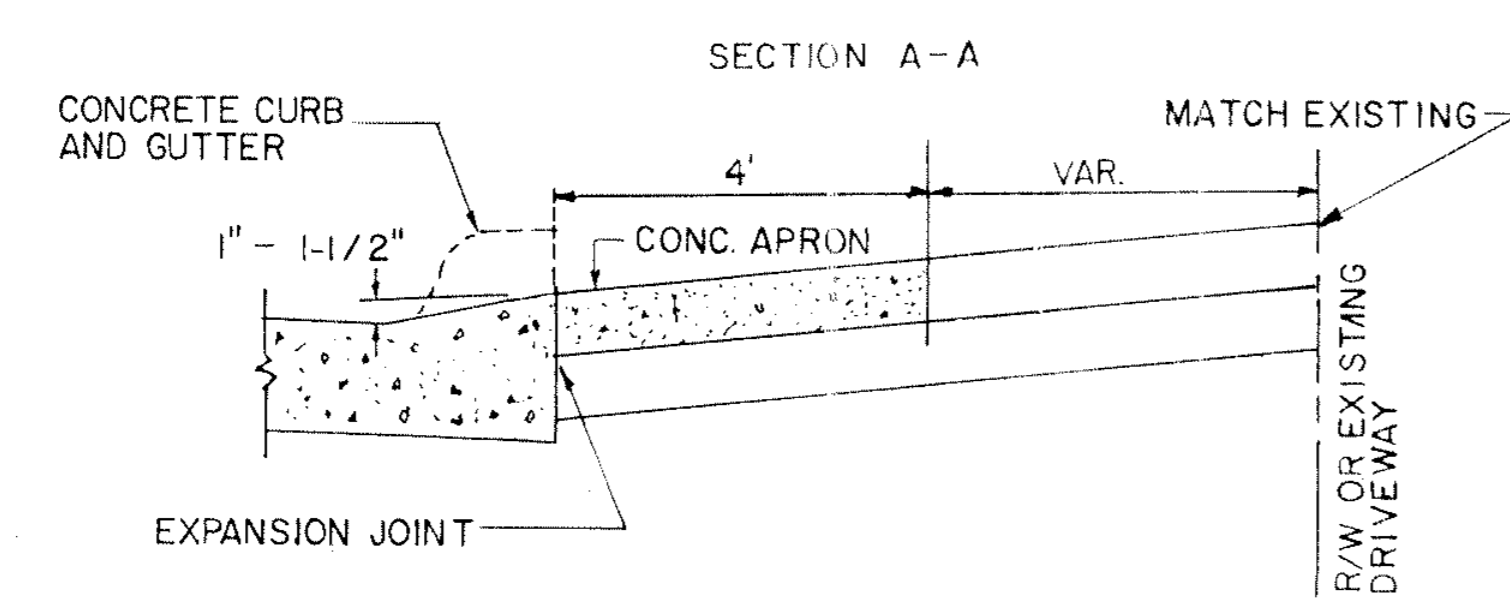
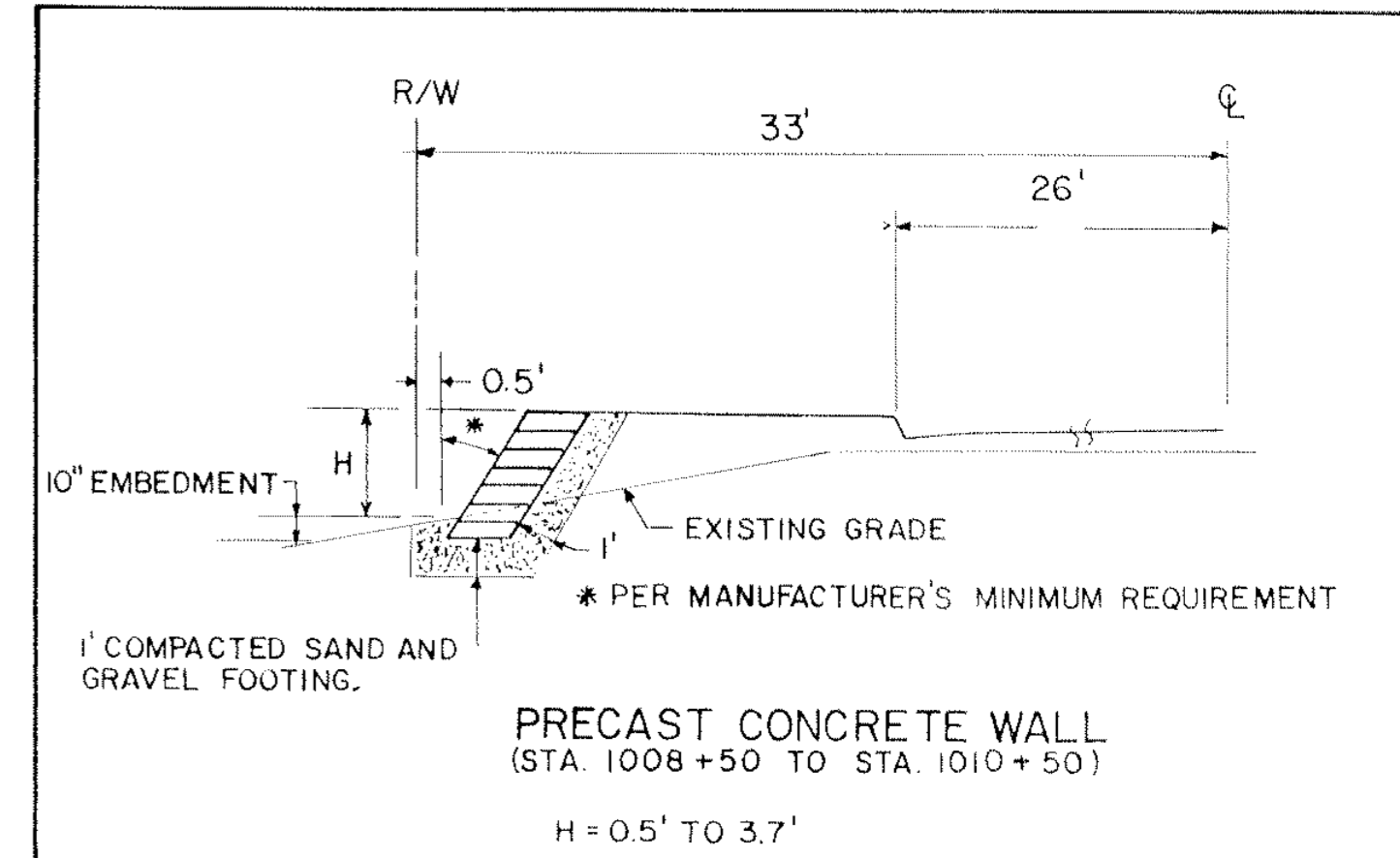
S.A.P. NO. 02 - 632 - 05
62 - 601 - 04

SHEET 9 OF 38

DESIGN FILE
No. 09-8902

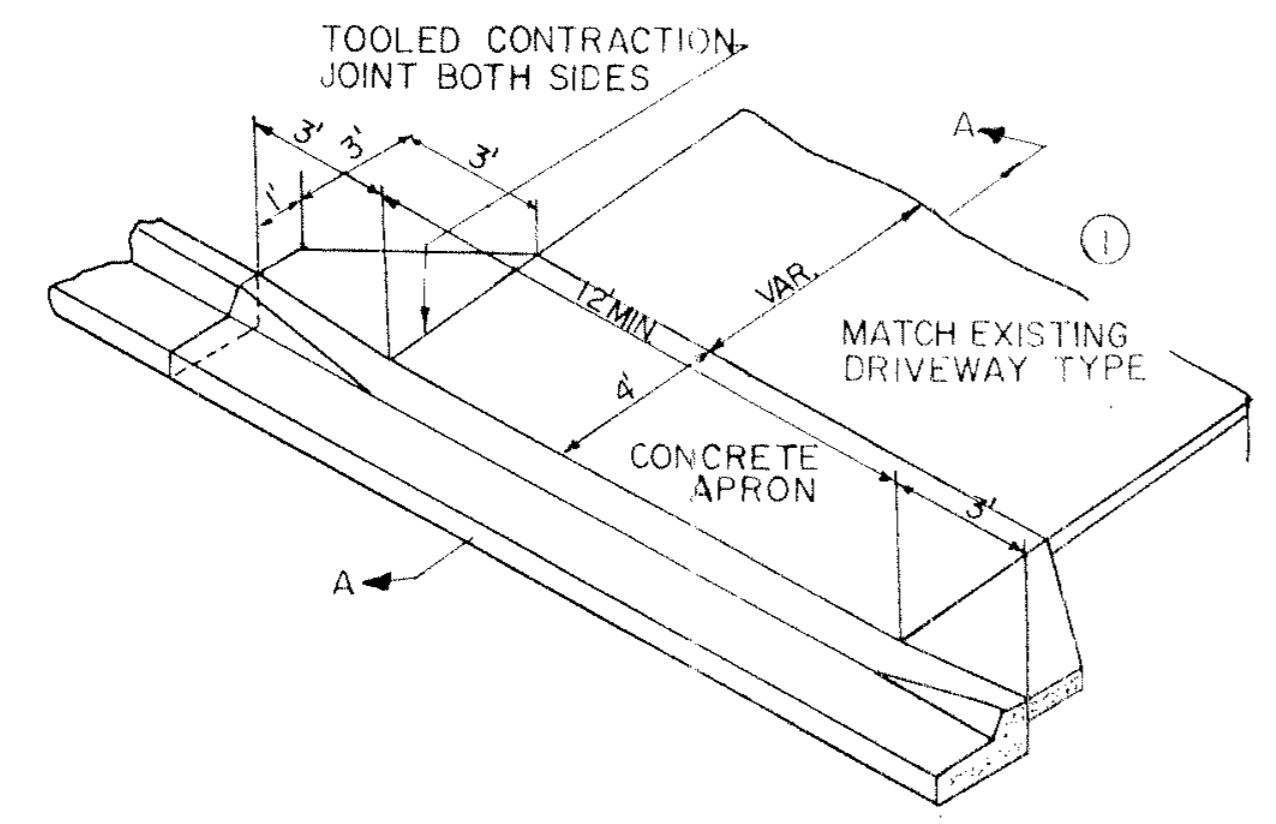


NOTE: HYDRANT SHALL BE BLOCKED OR TIED AND VALVES SHALL BE TIED TO THE TEE AT MAIN WITH 2 - 3/4" ϕ TIE RODS. ALL TIE RODS TO BE COAL TAR COATED AFTER INSTALLATION. RESTRAINED JOINT PIPE AND RETAINER GLANDS MAY BE USED WHERE APPROVED BY THE ENGINEER.



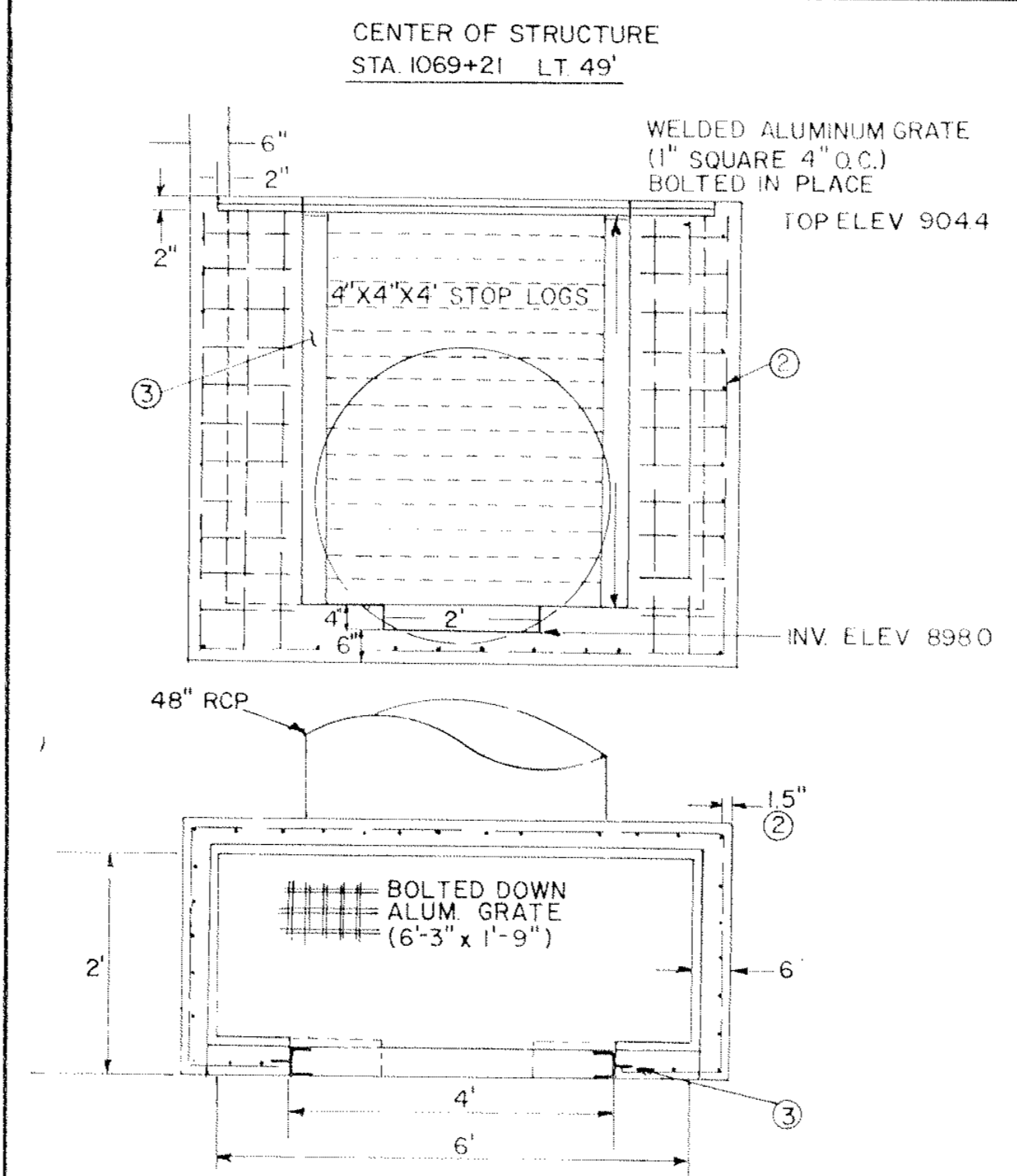
6" CONCRETE OR 2"-2331 BITUMINOUS WEAR
4" AGG BASE, CL. 6 OR 2" CL. 6 FOR BIT.

ENTRANCE WIDTHS
RESIDENTIAL - 12' MIN.
22' MAX.



① IF EXISTING DRIVEWAY IS GRAVEL REPLACE WITH BITUMINOUS TO R/W.

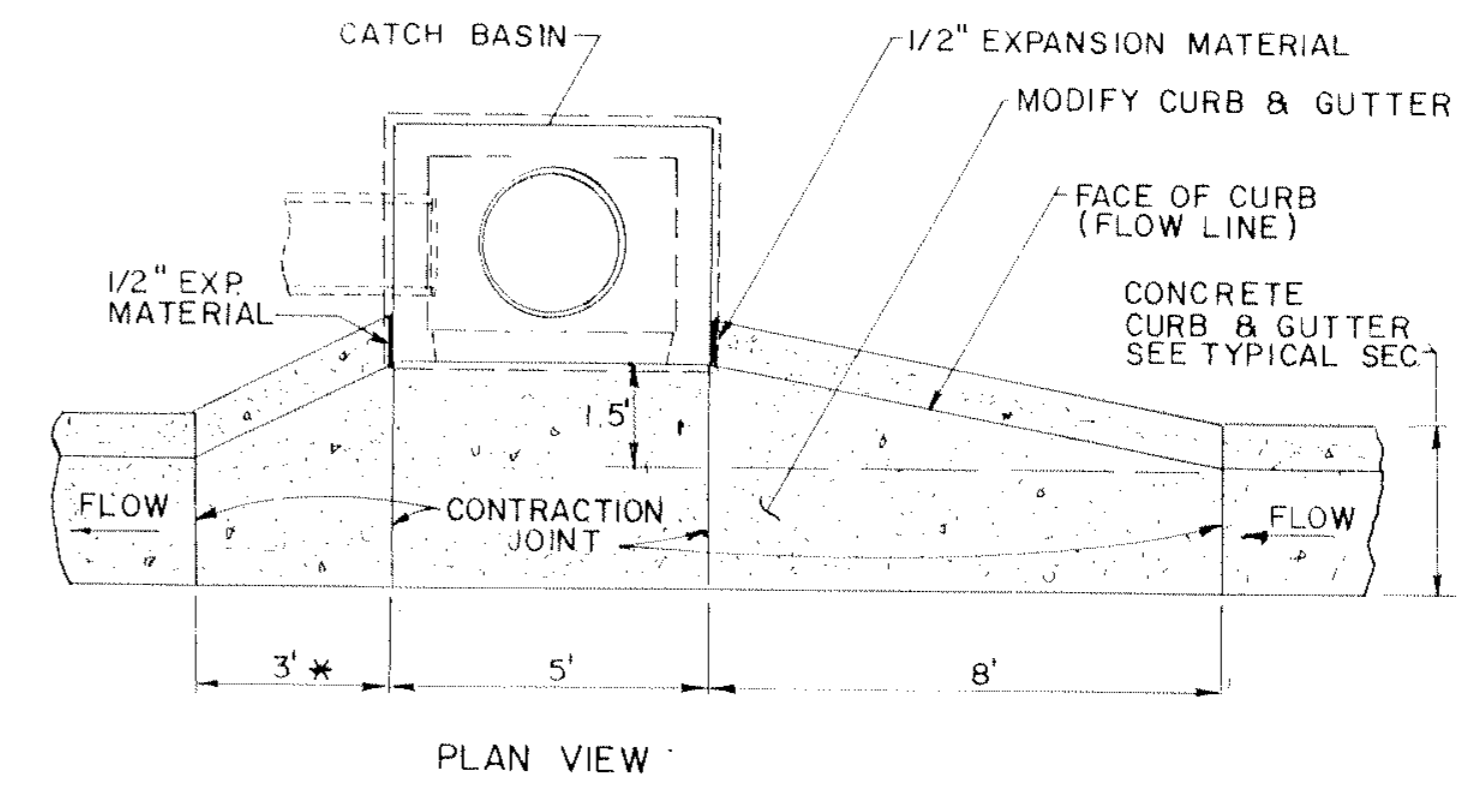
DRIVEWAY DETAIL
SEE STANDARD PLATE NO. 7035J



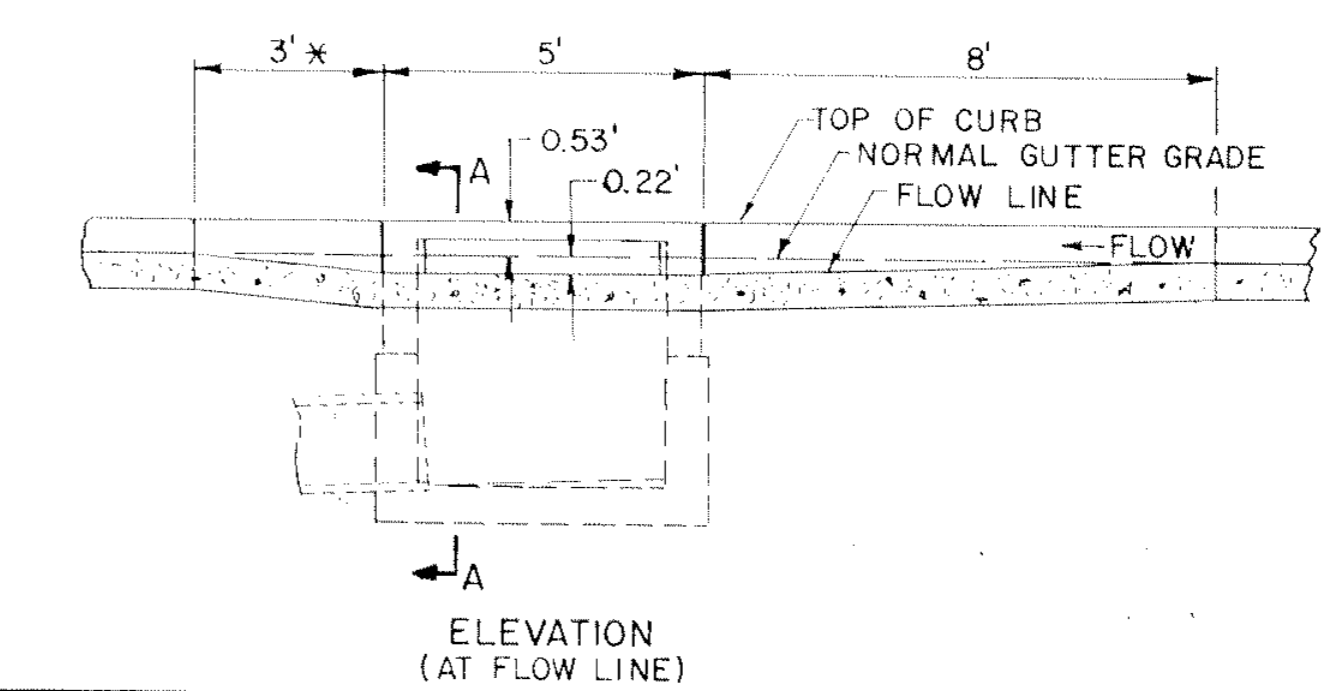
- ① STRUCTURE MAY BE PRECAST OR CAST IN PLACE. IF PRECAST, SPACE AROUND PIPE TO BE FILLED WITH MORTAR
- ② REINFORCING: #4 BARS @ 6" SPACING (BOTH DIRECTIONS). WIRE MESH EQUIVALENT MAY BE USED IN LIEU OF #4 BARS.
- ③ ALUMINUM CHANNEL CAST IN PLACE, WITH SUPPORT BOLTS, TO ACCOMMODATE 4" x 4" STOP LOGS.
- ④ PAYMENT FOR THE ABOVE WORK SHALL BE MADE AS 0506.602 INLET STRUCTURE.

CONTROL INLET
STRUCTURE DETAIL

CURB OPENING CATCH BASIN - DESIGN LP
INSTALLATION DETAIL

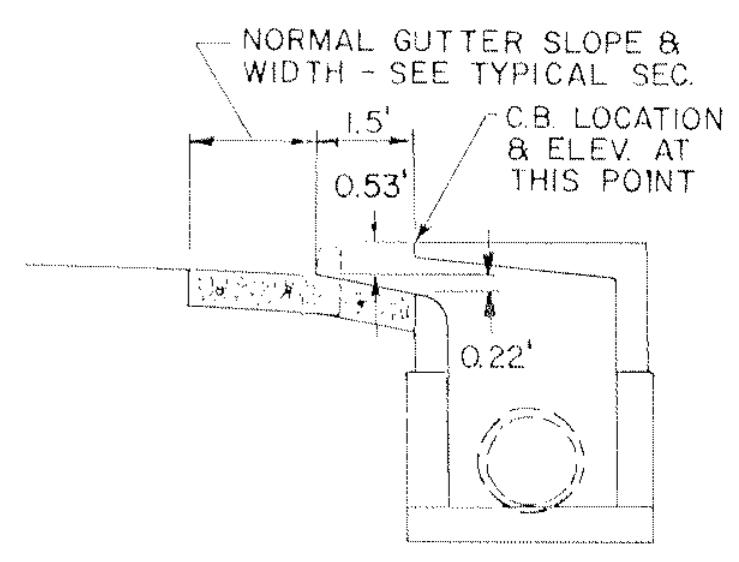


PLAN VIEW



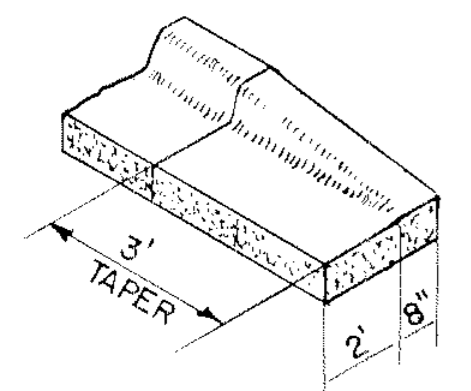
ELEVATION
(AT FLOW LINE)

- NOTES:
- 1. X DIMENSION SHALL BE B' WHEN STRUCTURE INSTALLED AT LOW POINT IN GRADE.
 - 2. CATCH BASIN - DESIGN LP - SEE MN/DOT STD. PL. NO. 402I
 - 3. TOP OF CATCH BASIN SHALL BE INSTALLED AT SAME SLOPE AS BLVD. GRADES AND TOP OF CURB GRADE EACH SIDE OF STRUCTURE
 - 4. ELEVATION OF STRUCTURE IS COMPUTED AT LOCATION SHOWN IN SEC. A-A AT ϕ OF CB OPENING.



SECTION A-A

B624 CURB END TRANSITION



SEE STANDARD PLATE NO. 7100

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 State of Minn. Statutes Sections 326.02 to 326.16.

BRW
PLANNING
TRANSPORTATION
ENGINEERING
URBAN DESIGN
700 THIRD STREET SOUTH
MINNEAPOLIS, MN 55415
PHONE: (612) 279-5700

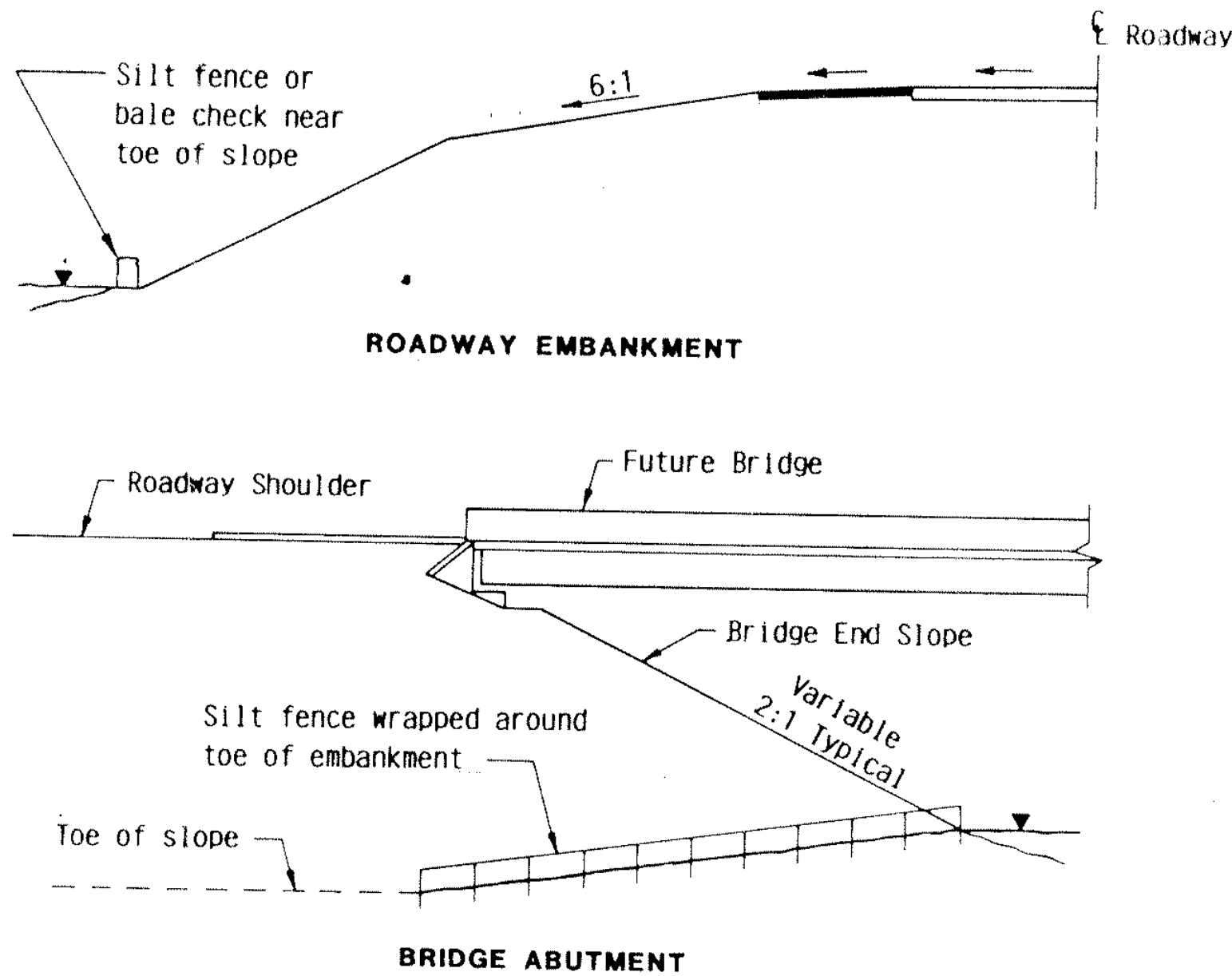
ORIGINAL DATE 11/20/39
REVISIONS
DESIGN BY: D.J.T.
DRAWN BY: D.J.W.
SURVEY BK NO.

COUNTY ROAD J
C.S.A.H. 32
RAMSEY/ANOKA COUNTY
CONSTRUCTION
DETAILS

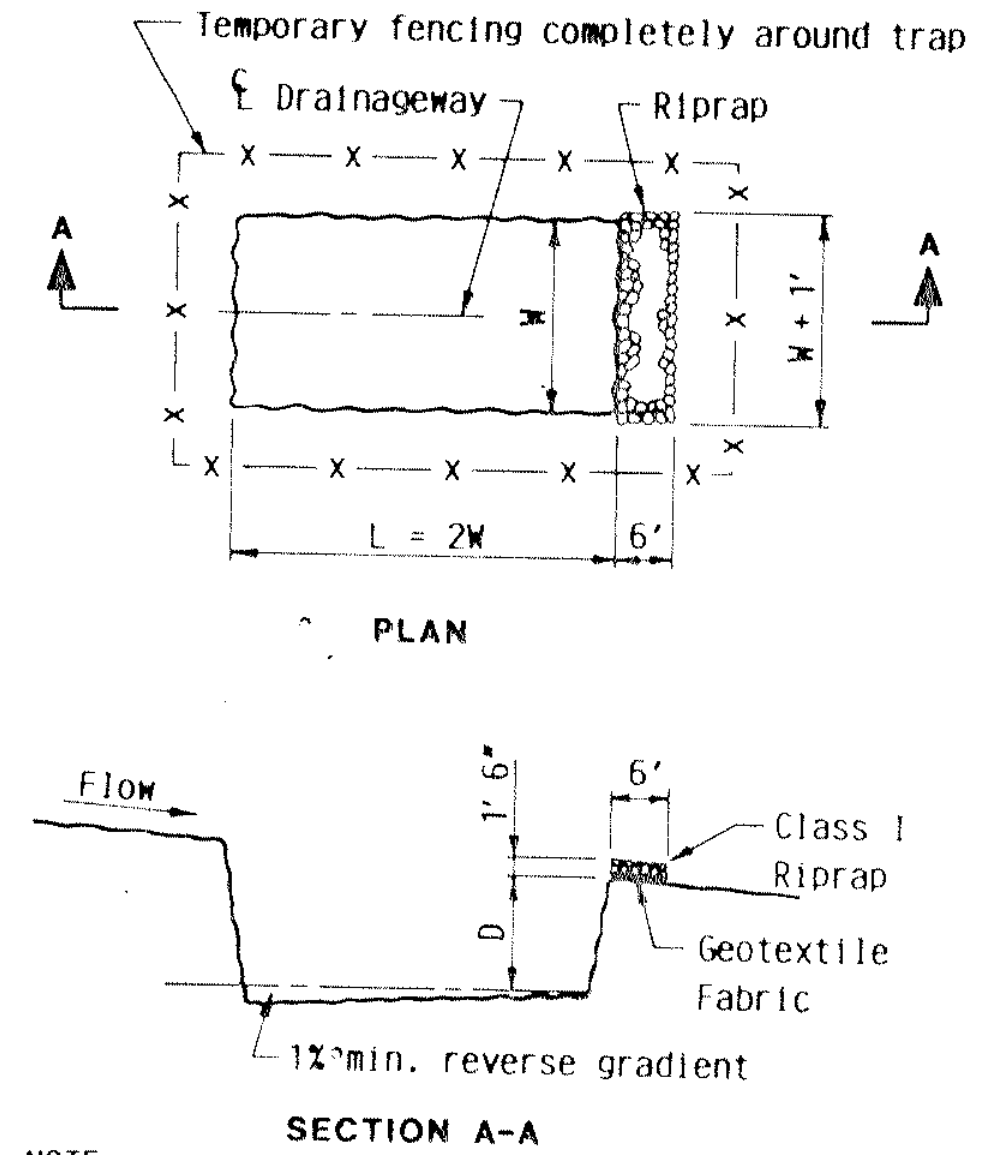
Date _____ Minn. Reg. No. _____

S.A.P. NO. 02 - 632 - 05
62 - 601 - 04

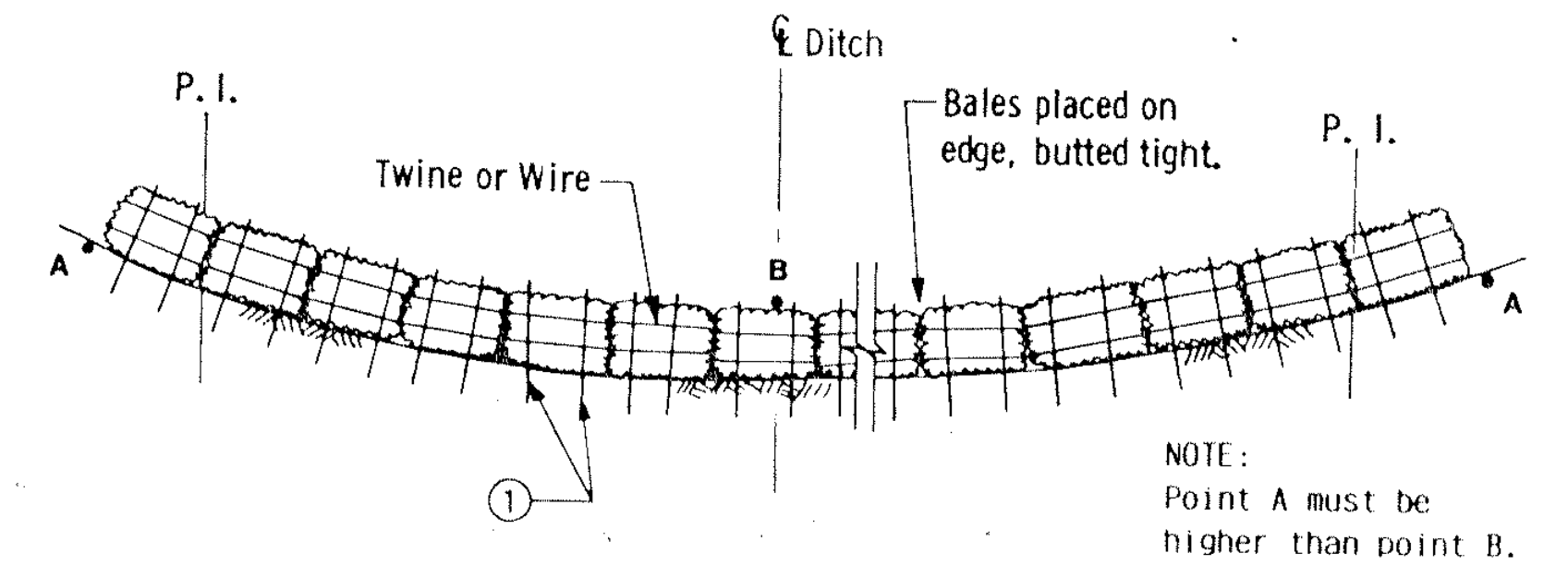
SHEET 10 OF 38
DESIGN FILE No. 6269902



SILT FENCE OR BALE CHECK TO PROTECT ADJACENT CRITICAL AREAS

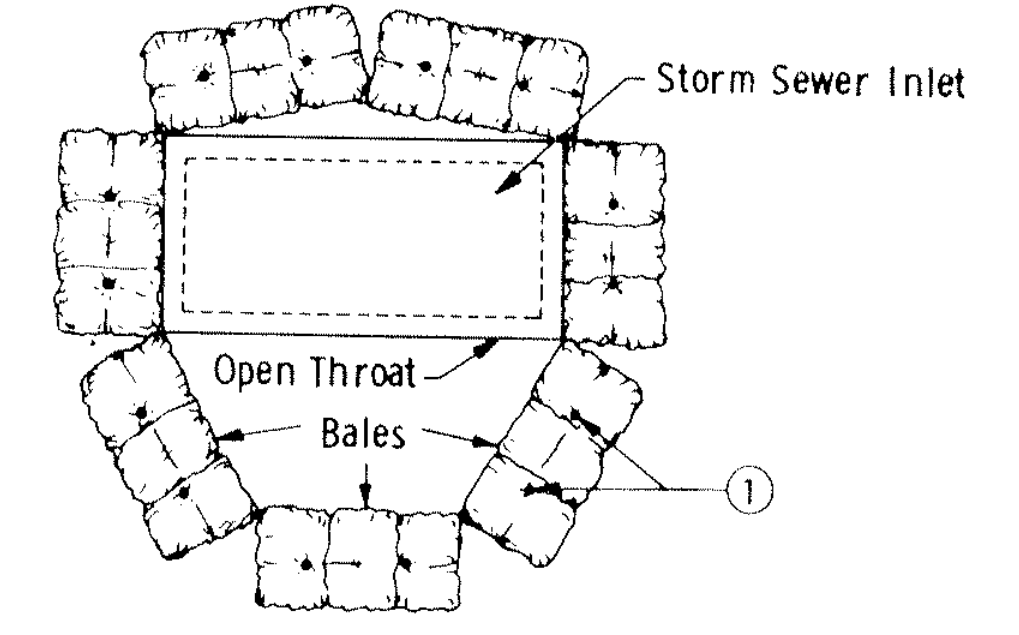


TEMPORARY SEDIMENT TRAP

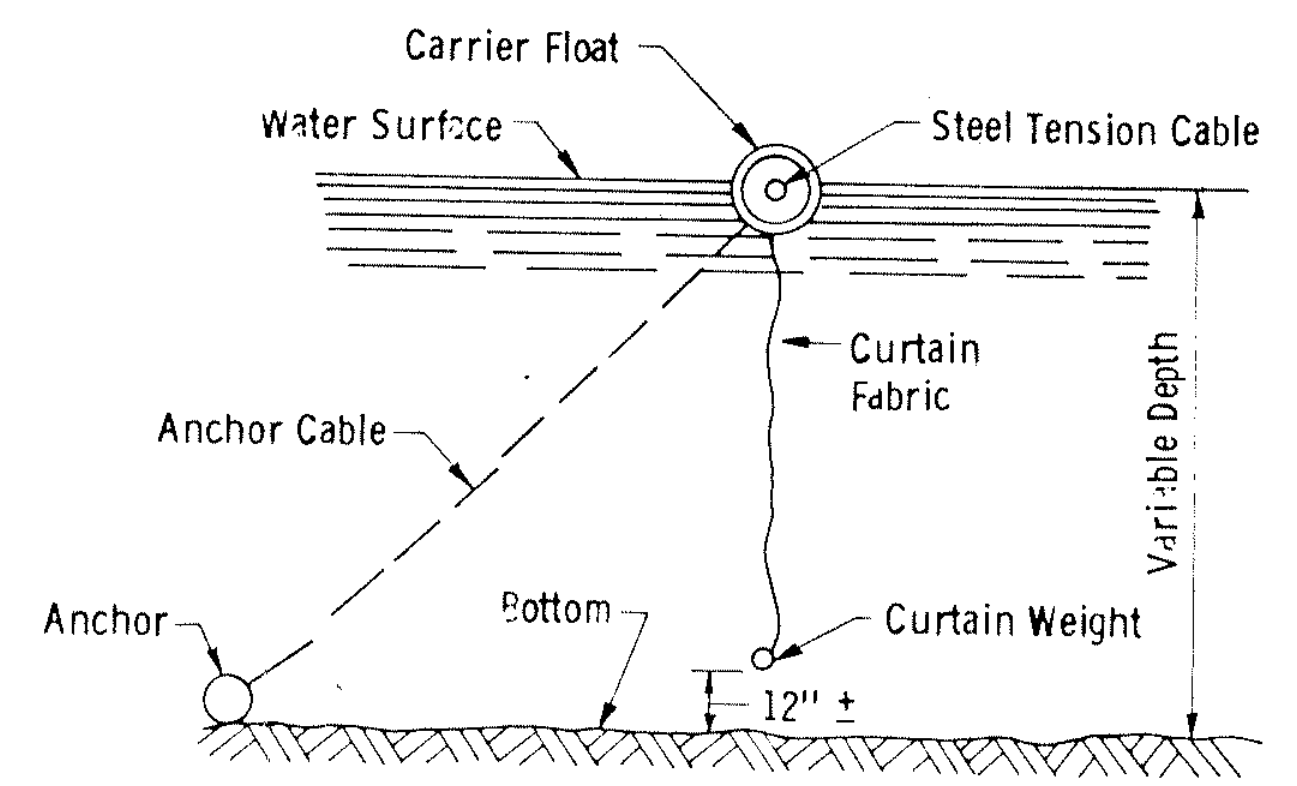


BALE DITCH CHECK

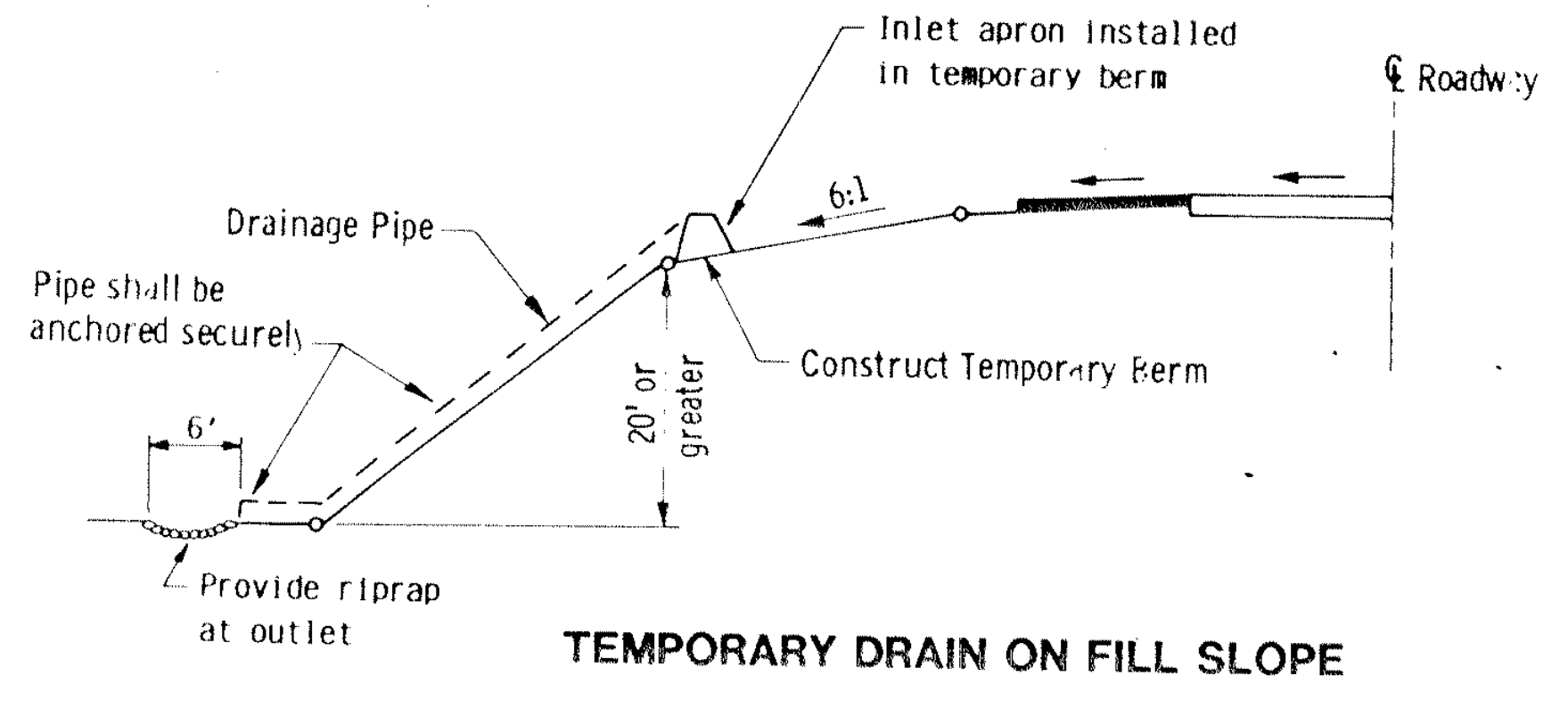
NOTE: Point A must be higher than point B.



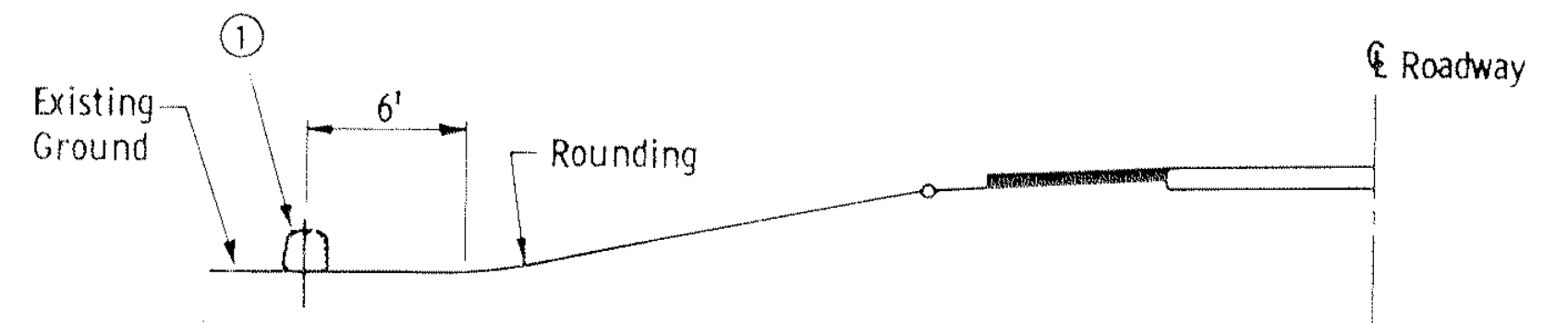
BALE CHECK TO PROTECT STORM SEWER INLETS



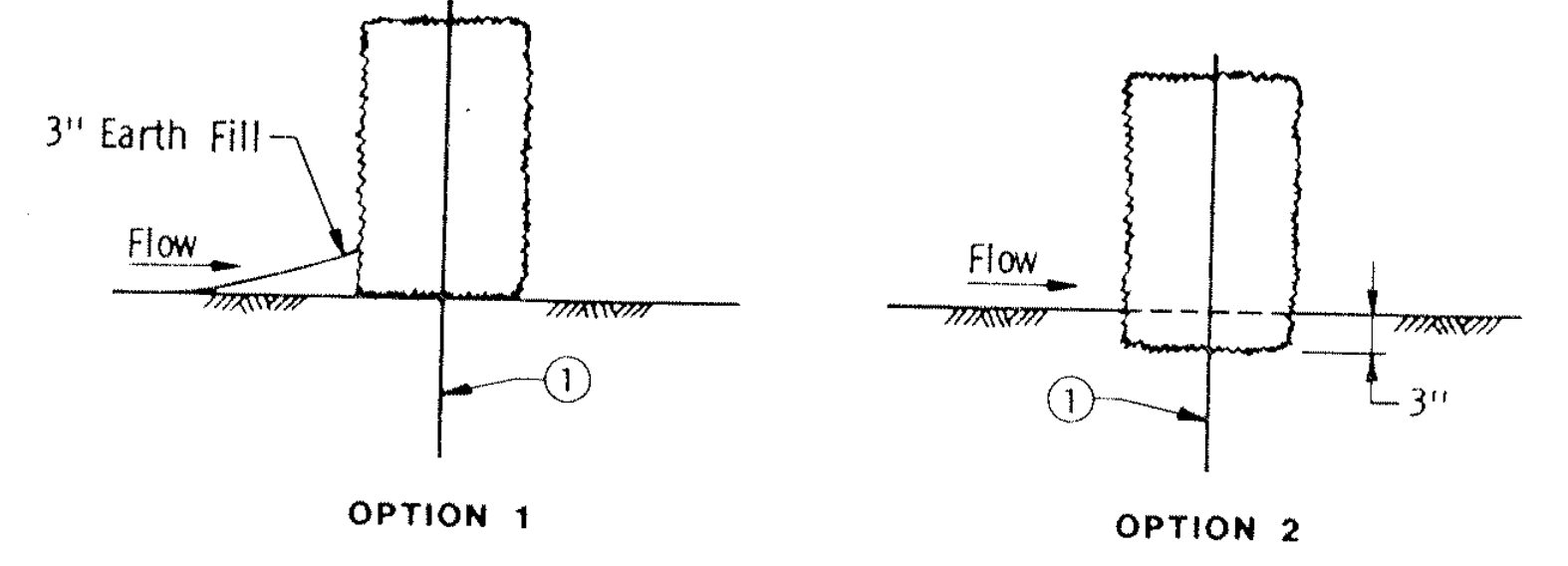
FLOATATION SILT CURTAIN



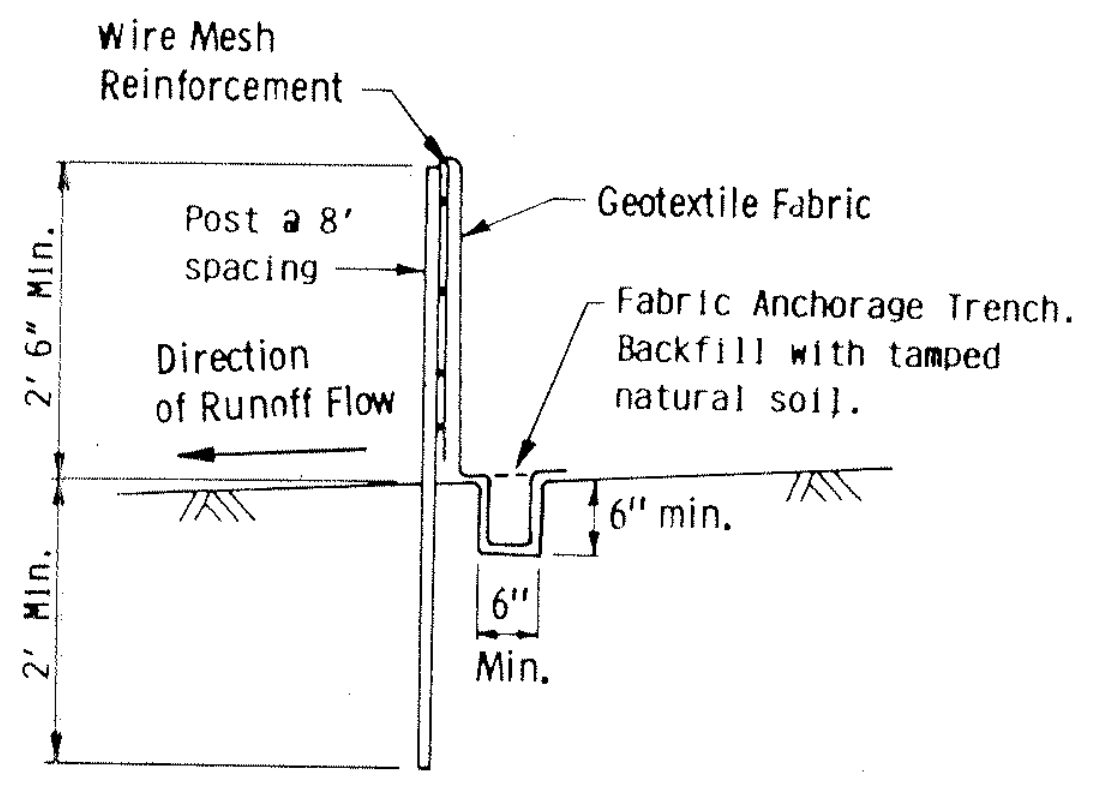
TEMPORARY DRAIN ON FILL SLOPE



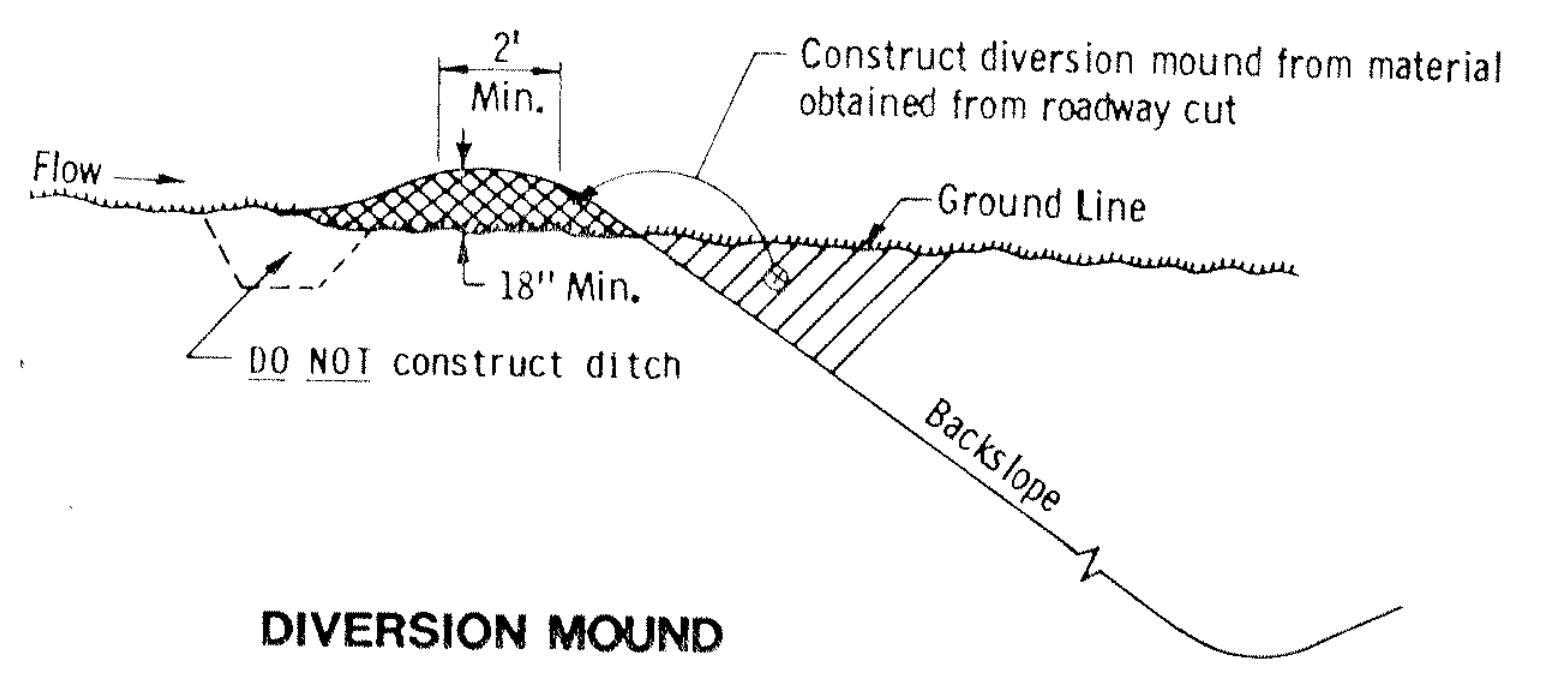
BALE DIVERSION



BALE CHECK DETAILS



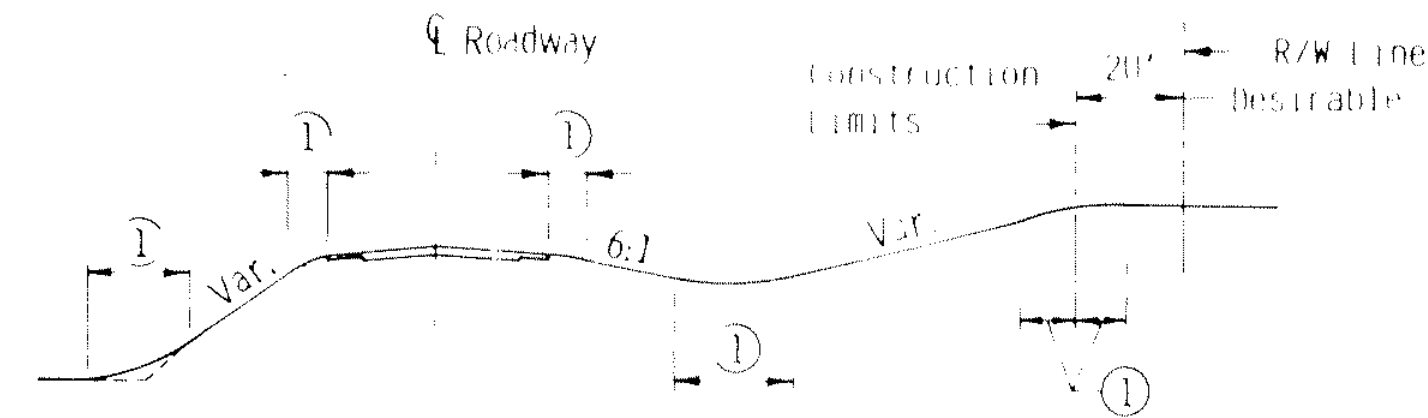
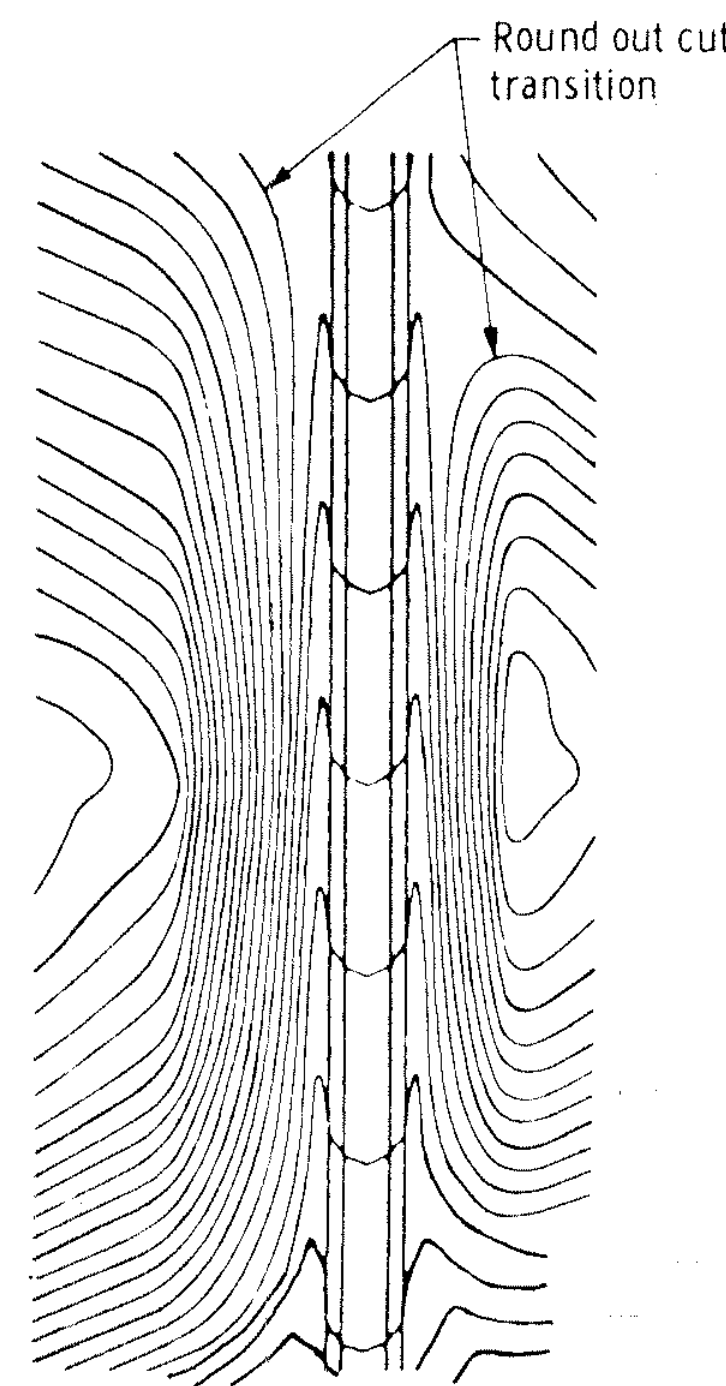
SILT FENCE DETAIL



DIVERSION MOUND

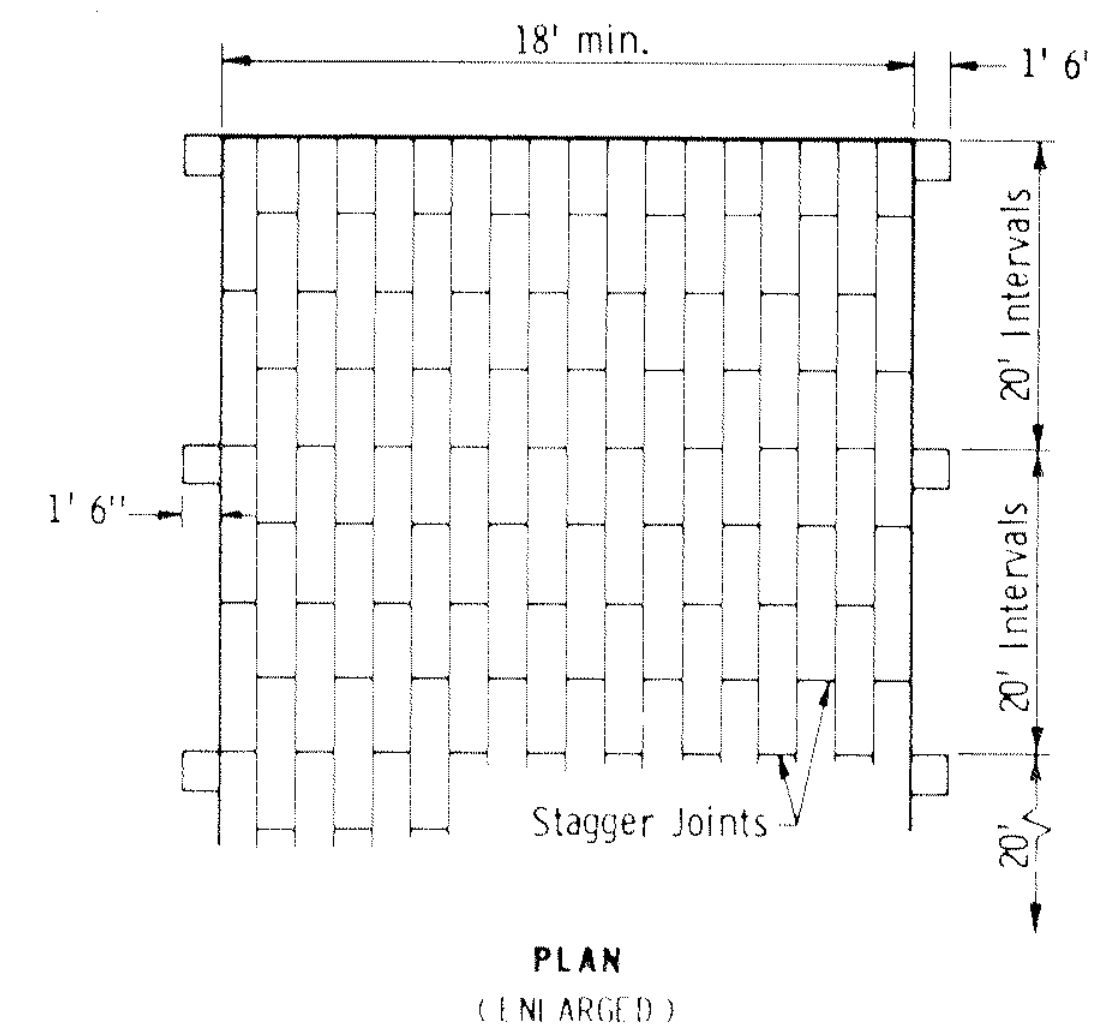
NOTE:
① Two 2" x 2" Wood Stakes or Reinforcing Bars in each bale and embedded in the ground 10" minimum.

APPROVED January 31, 1985
R.D. Kay
Director
OFFICE OF ENGINEERING STANDARDS

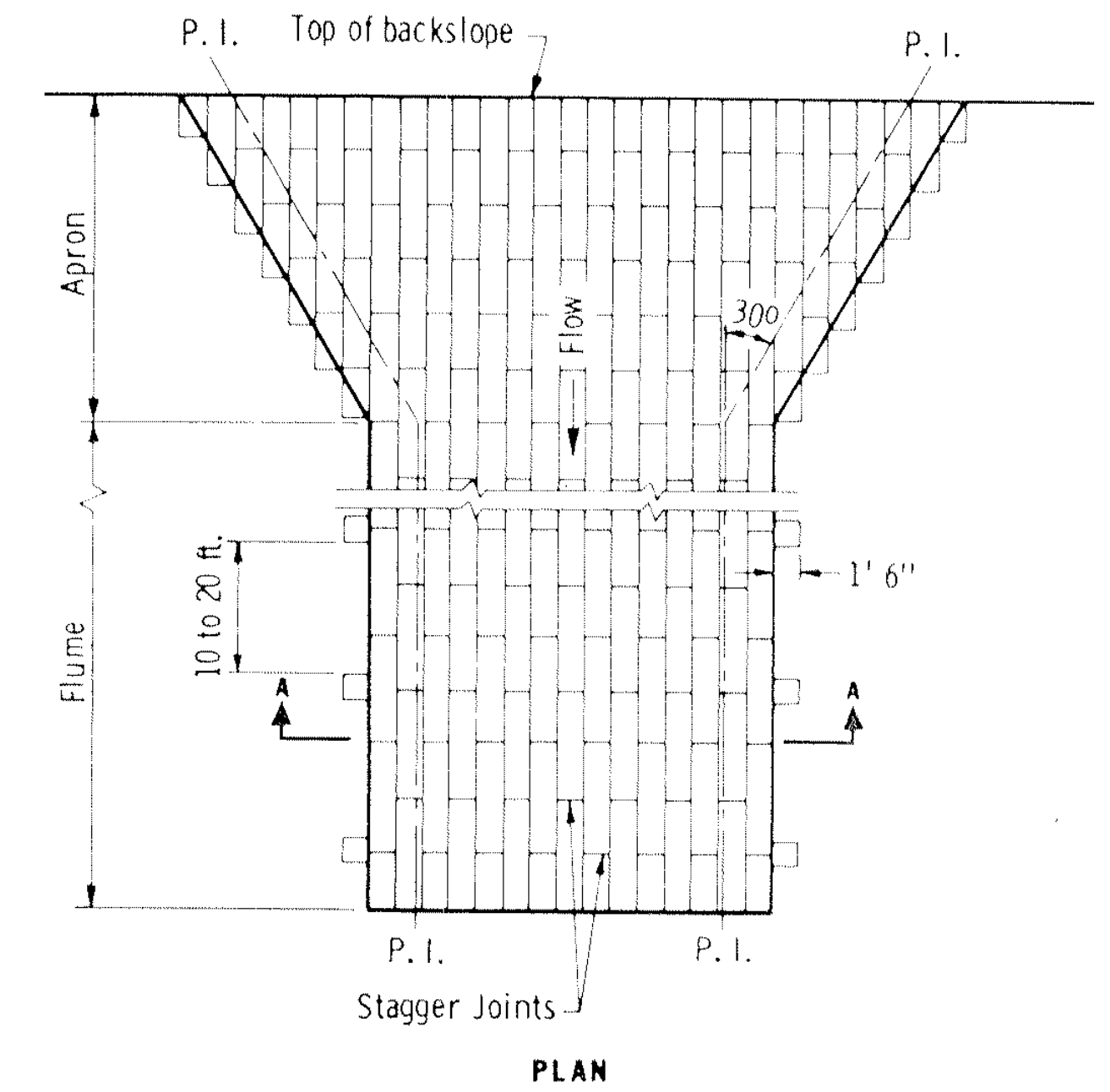


ROUNDING SHOULDERS AND BACKSLOPES

① Rounding per typical sections.

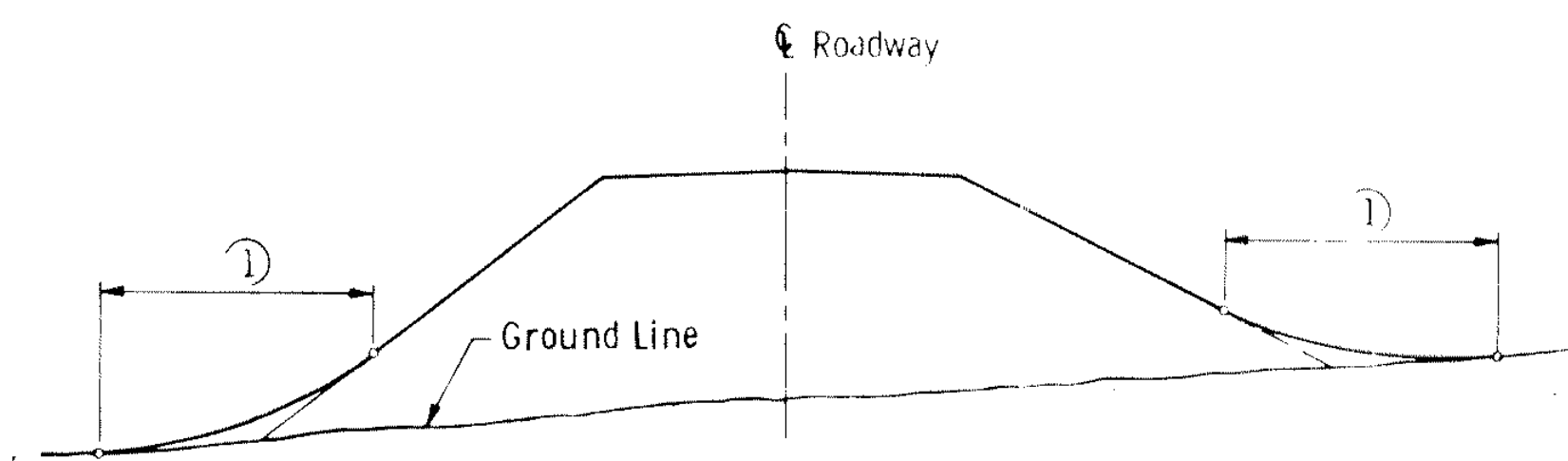


PLAN (ENLARGED)

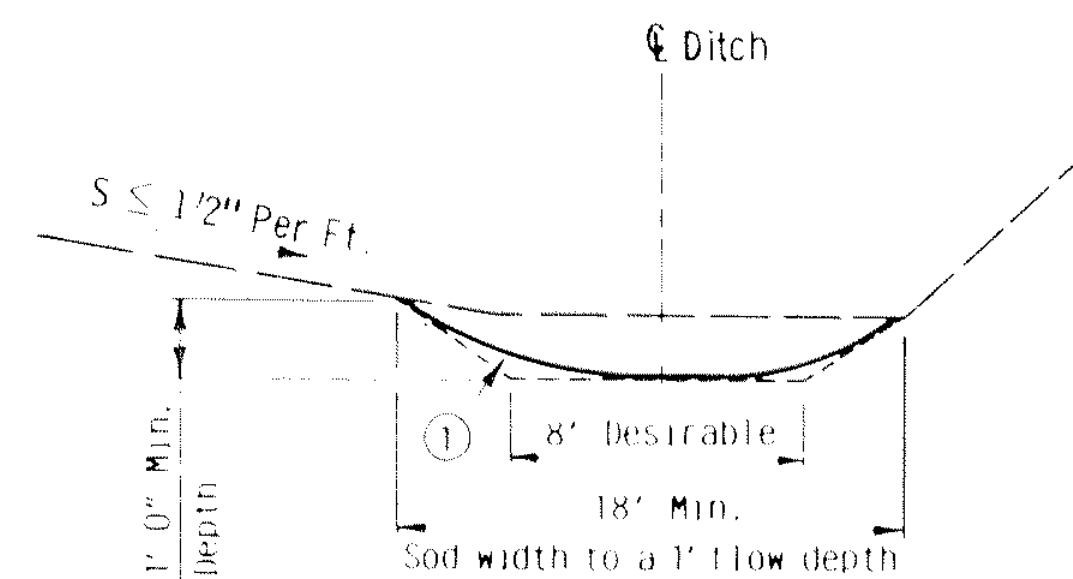


PLAN

CONTOURING ROAD CUTS

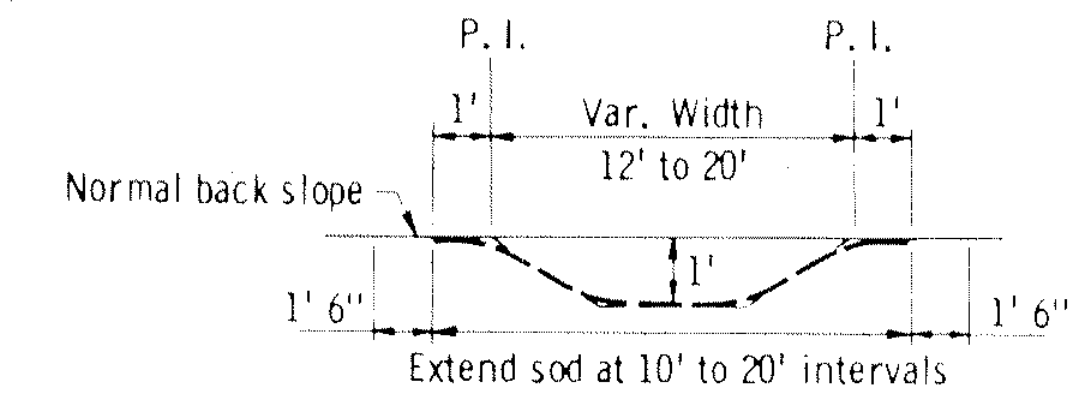


SHAPING FOR DRAINAGE ALONG THE TOE OF FILL SLOPES

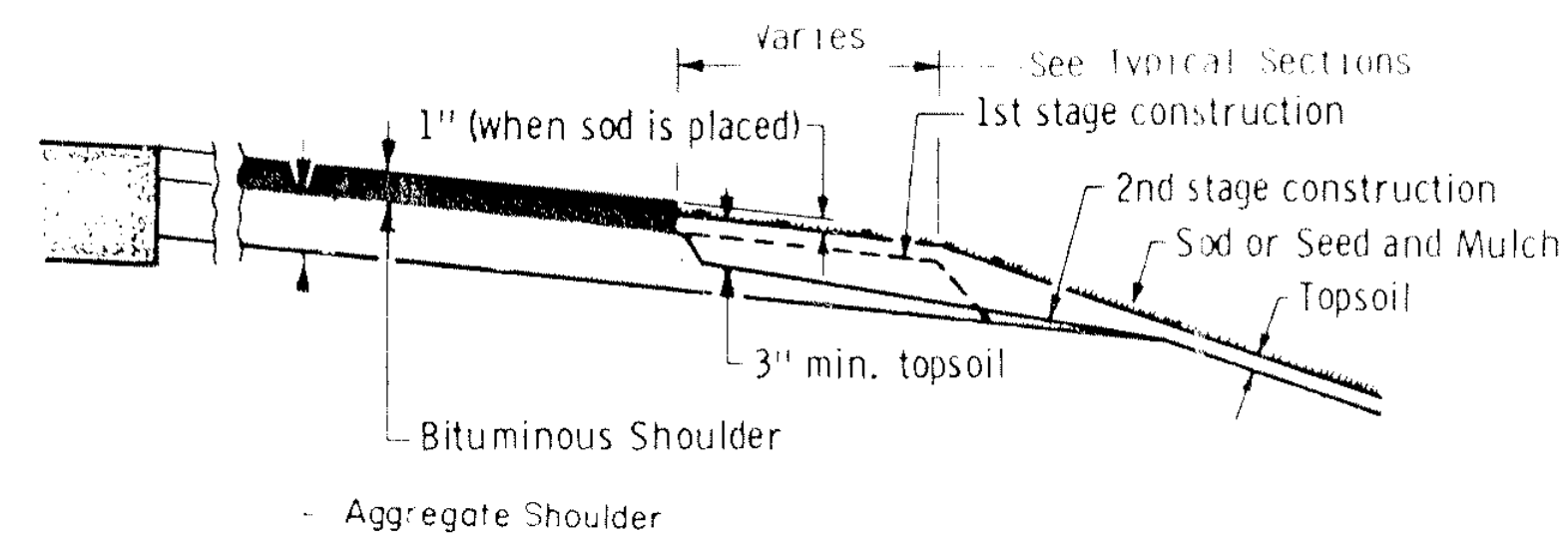


SODDED DITCH CROSS SECTION

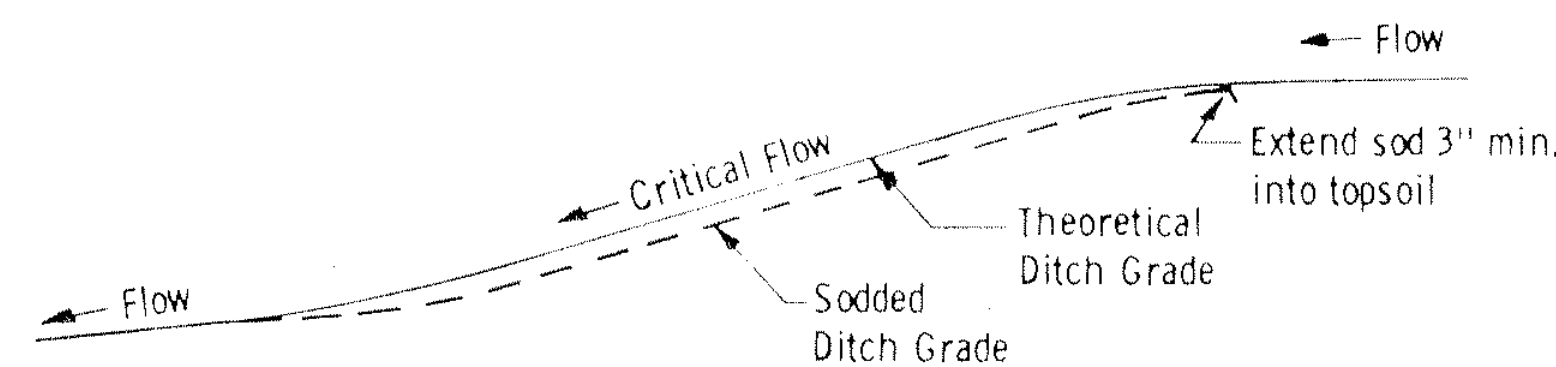
Where front or back slope is flat (less than 1/2"/ft.), first notch ditch and then provide rounding.



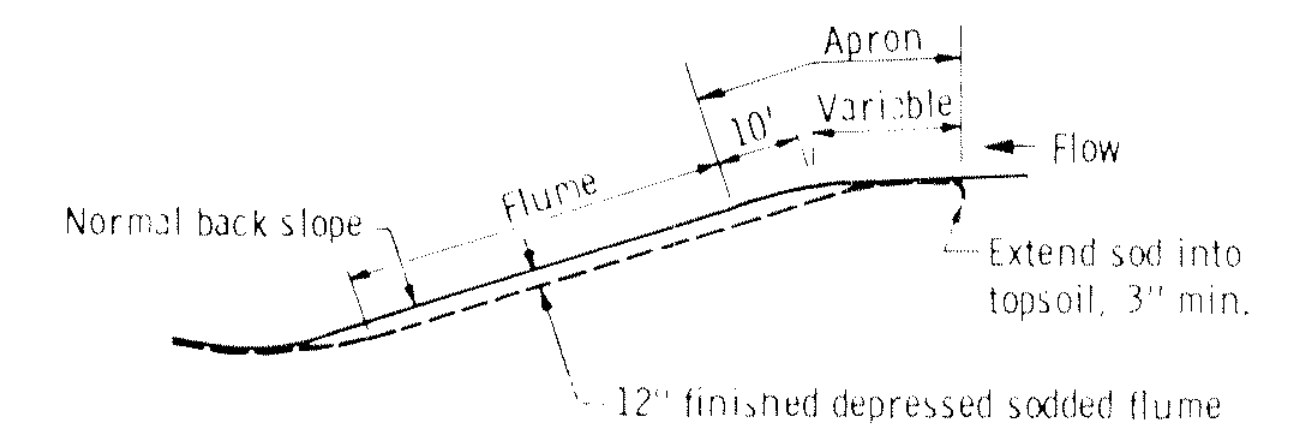
SECTION A-A



SHAPING AND TOPSOILING INSLOPES

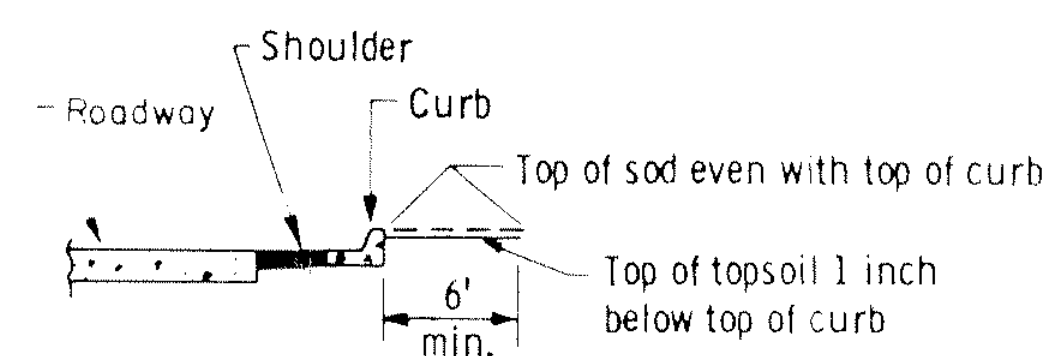


DITCH PROFILE



LONGITUDINAL CROSS SECTION

SODDED FLUME DETAILS



SHAPING ADJACENT TO CURBS WHEN SOD IS PLACED

SODDED DITCH DETAILS

APPROVED January 31, 1985
 R.O. Kipp
 Director
 OFFICE OF ENGINEERING STANDARDS

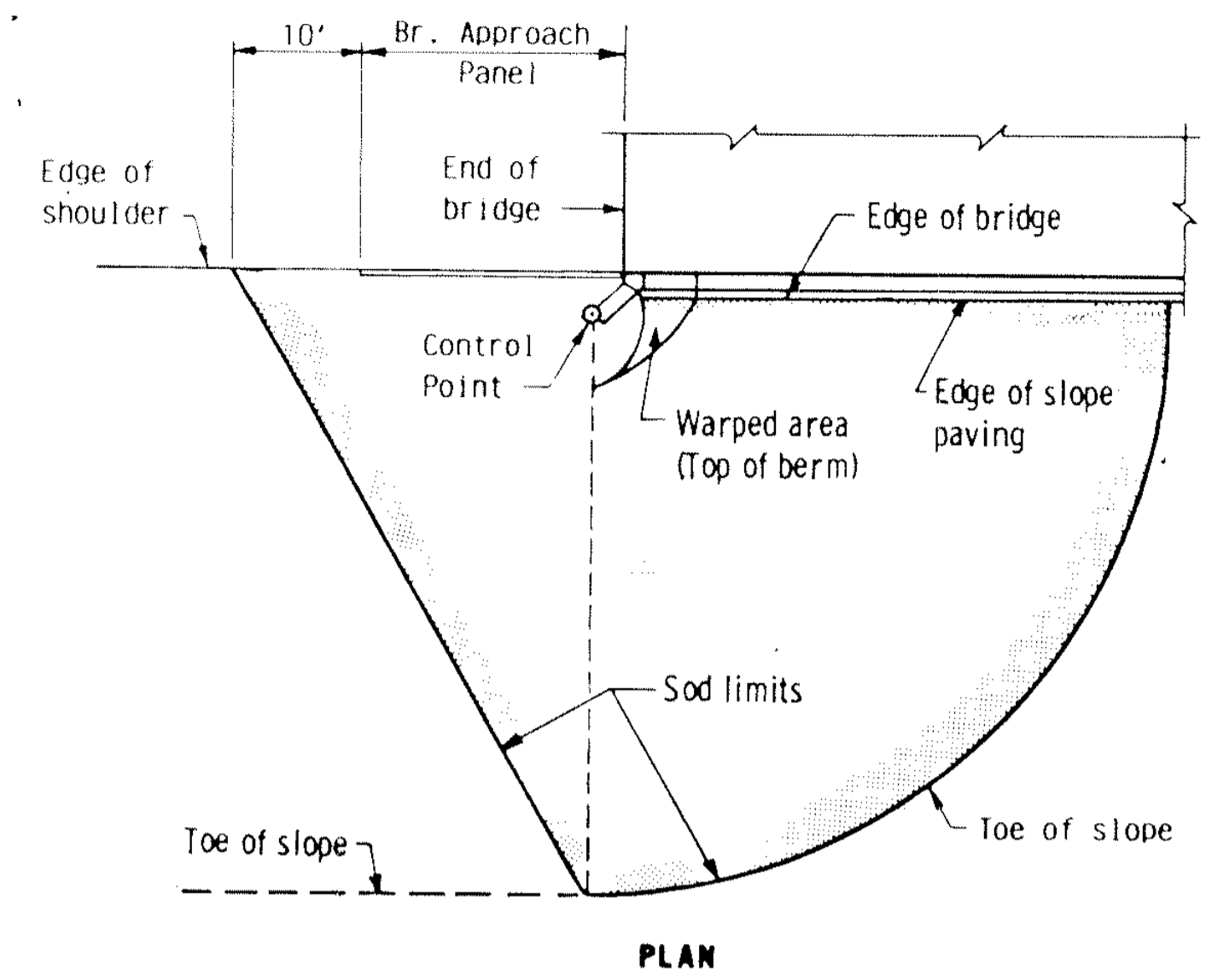
PERMANENT EROSION CONTROL

S.A.P. No.

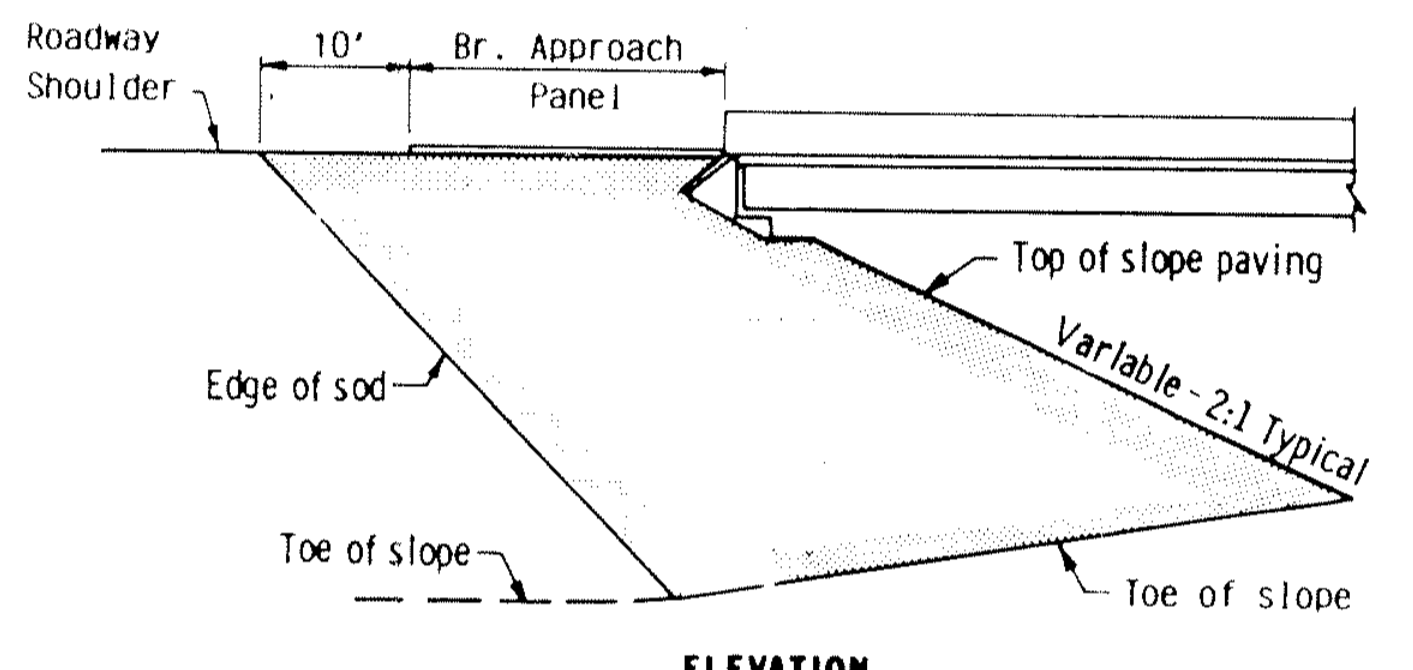
S.A.P. No.

02 - 632 - 05
 62 - 601 - 04

Sheet No. 12 of 38 Sheets

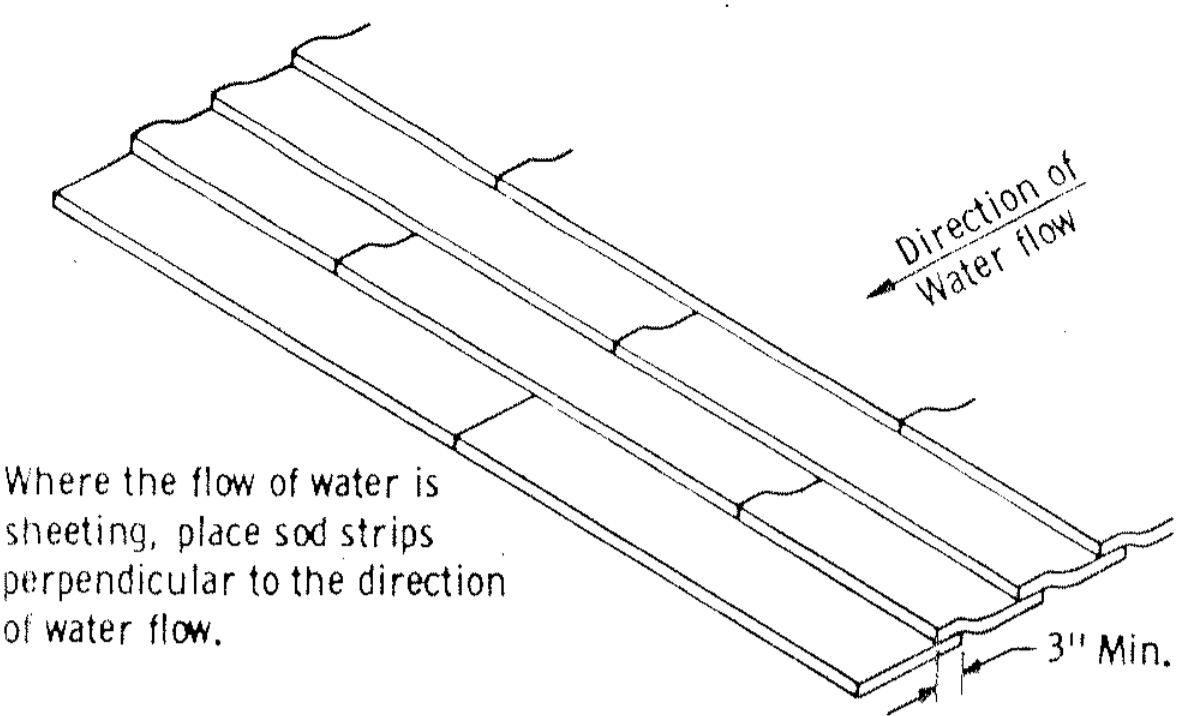


PLAN

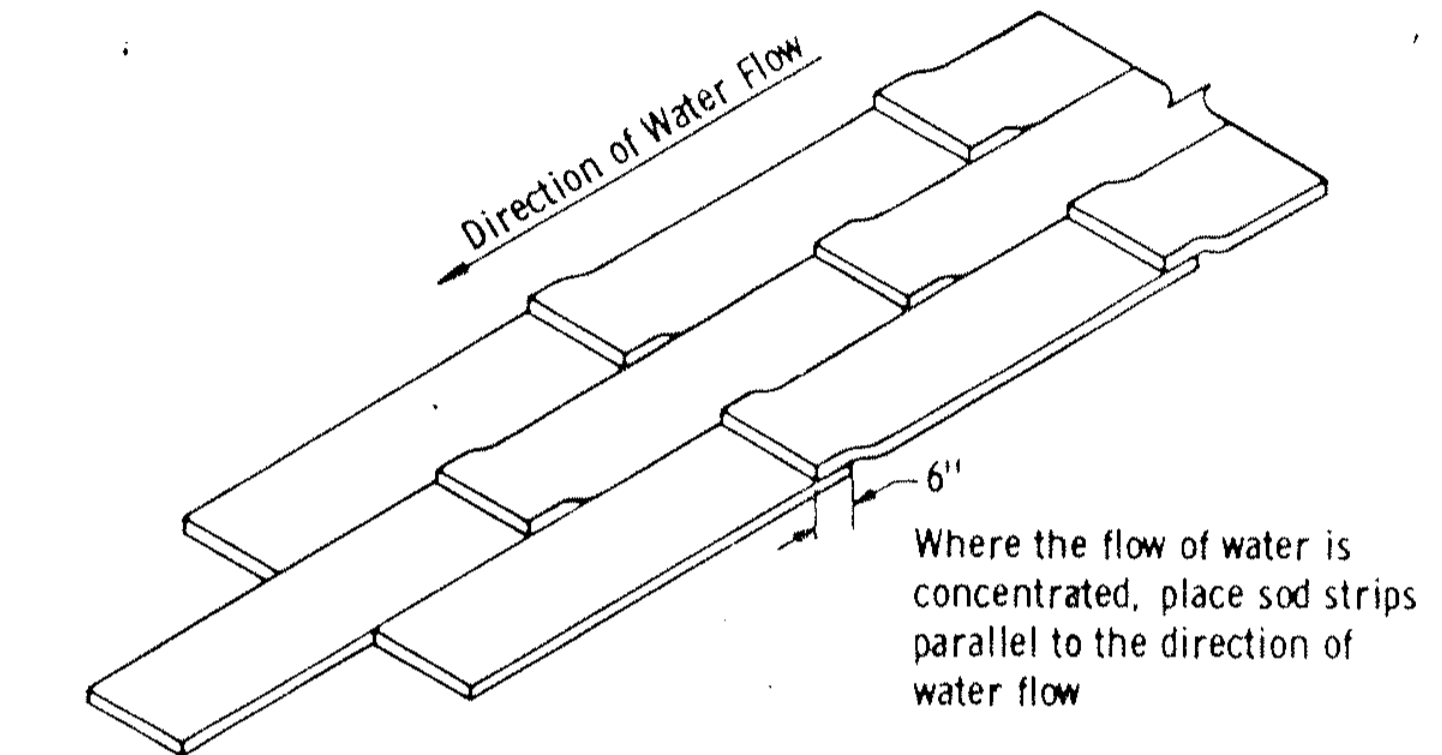


ELEVATION

SODDING LIMITS AT BRIDGE APPROACH FILLS

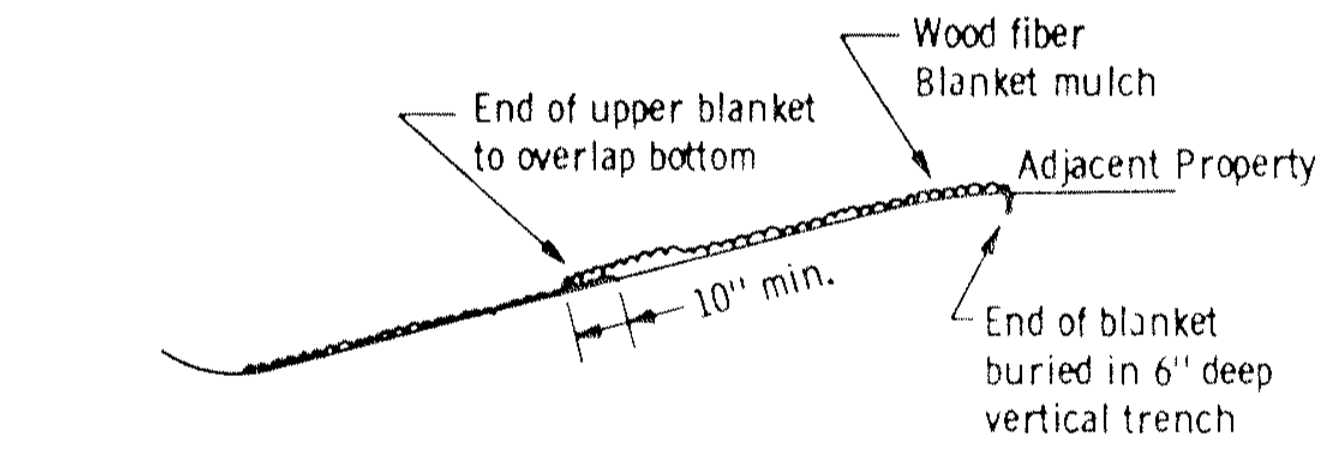


SHINGLING SOD

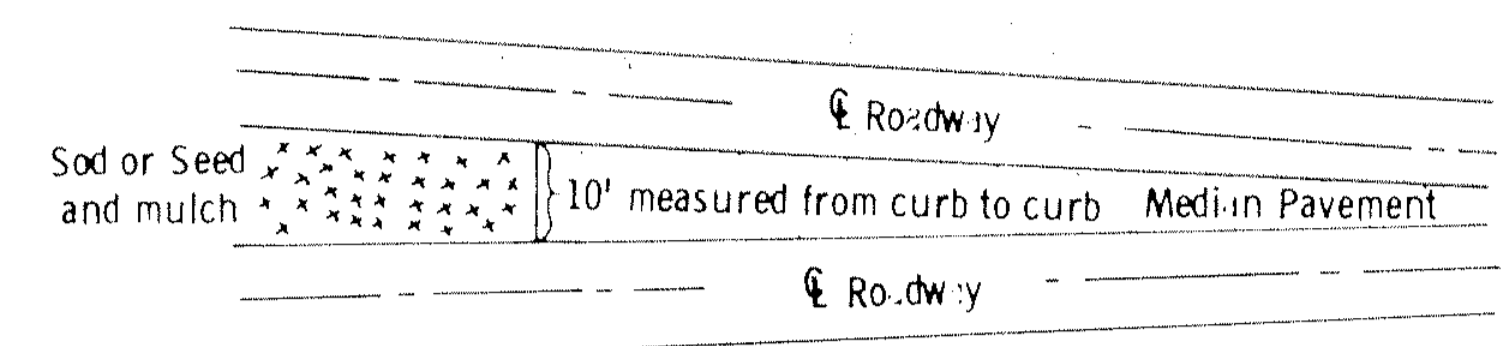


OVERLAPPING SOD

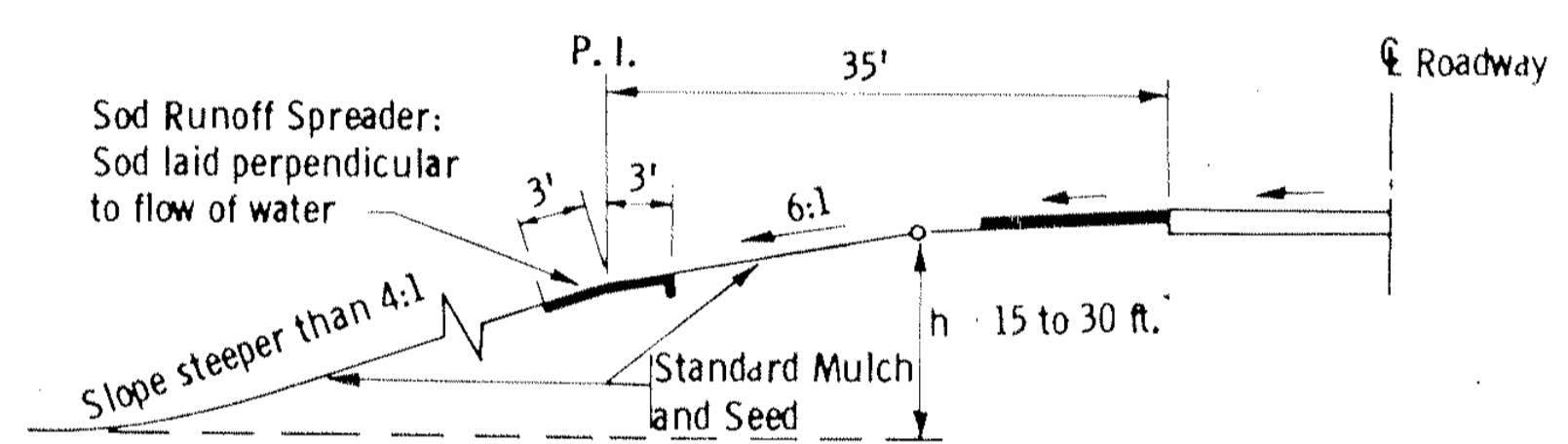
SPECIAL SOD PLACEMENT TECHNIQUES



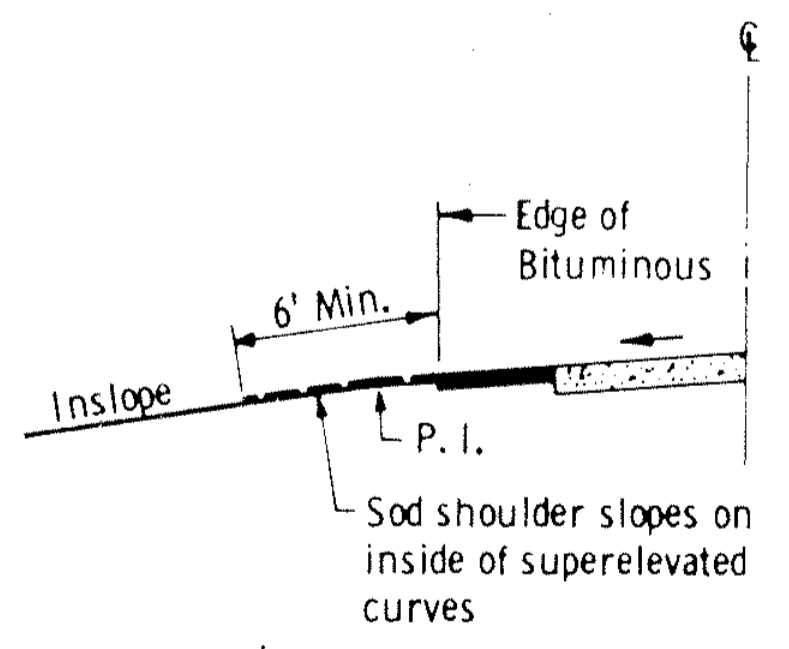
WOOD FIBER BLANKET INSTALLATION ON A CUT SLOPE



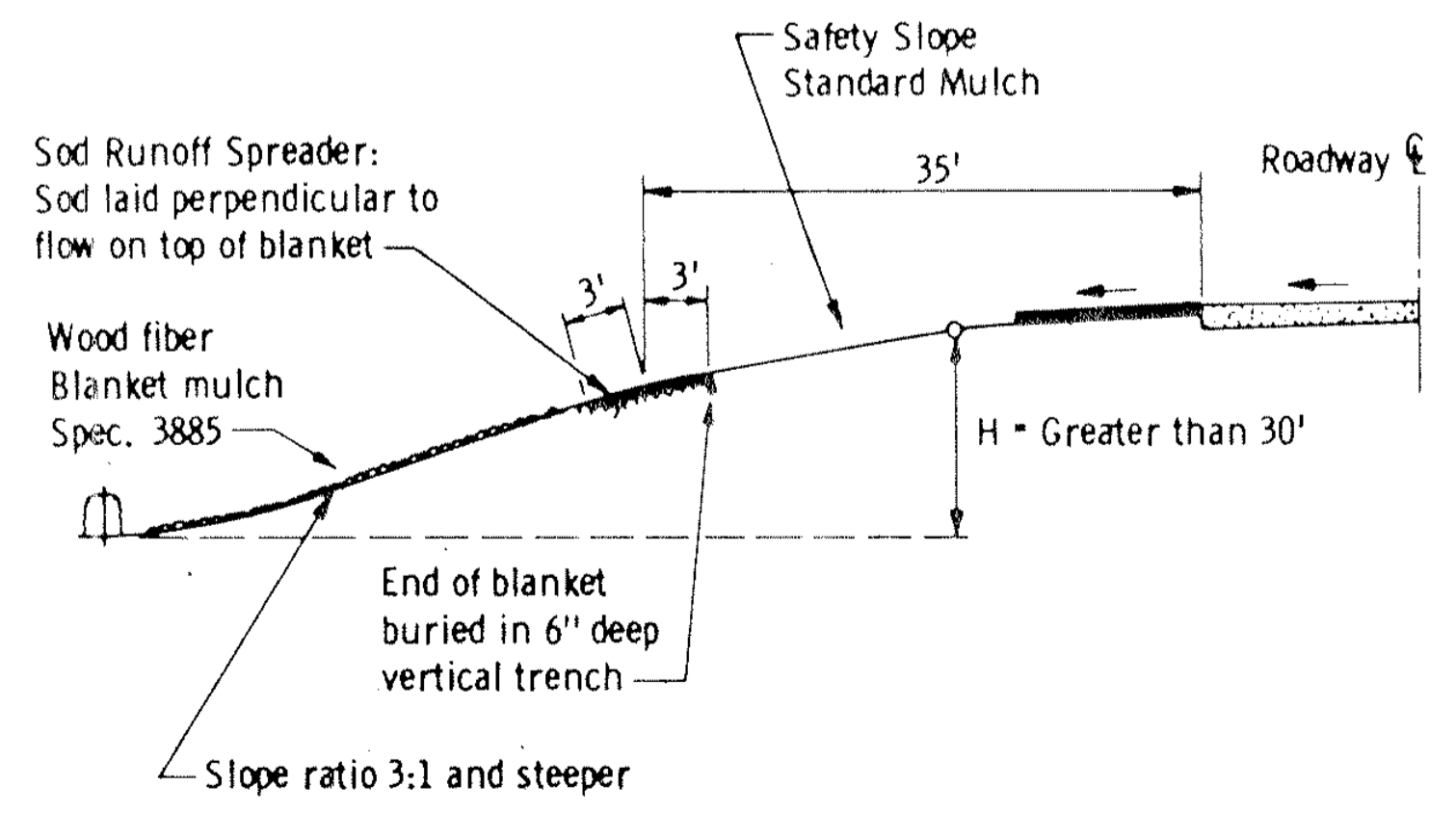
SODDING LIMITS AT GORE AREA



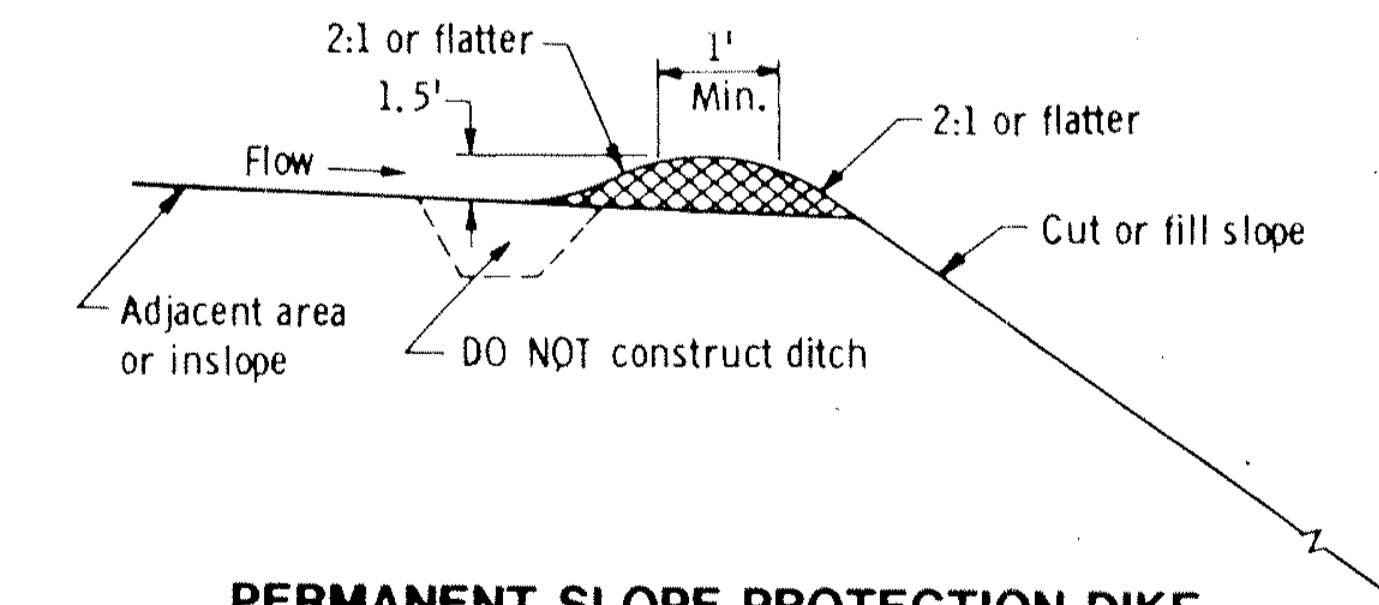
BROKEN - BACK SAFETY FILL SLOPE



SODDING INSLOPES OF SUPERELEVATED CURVES



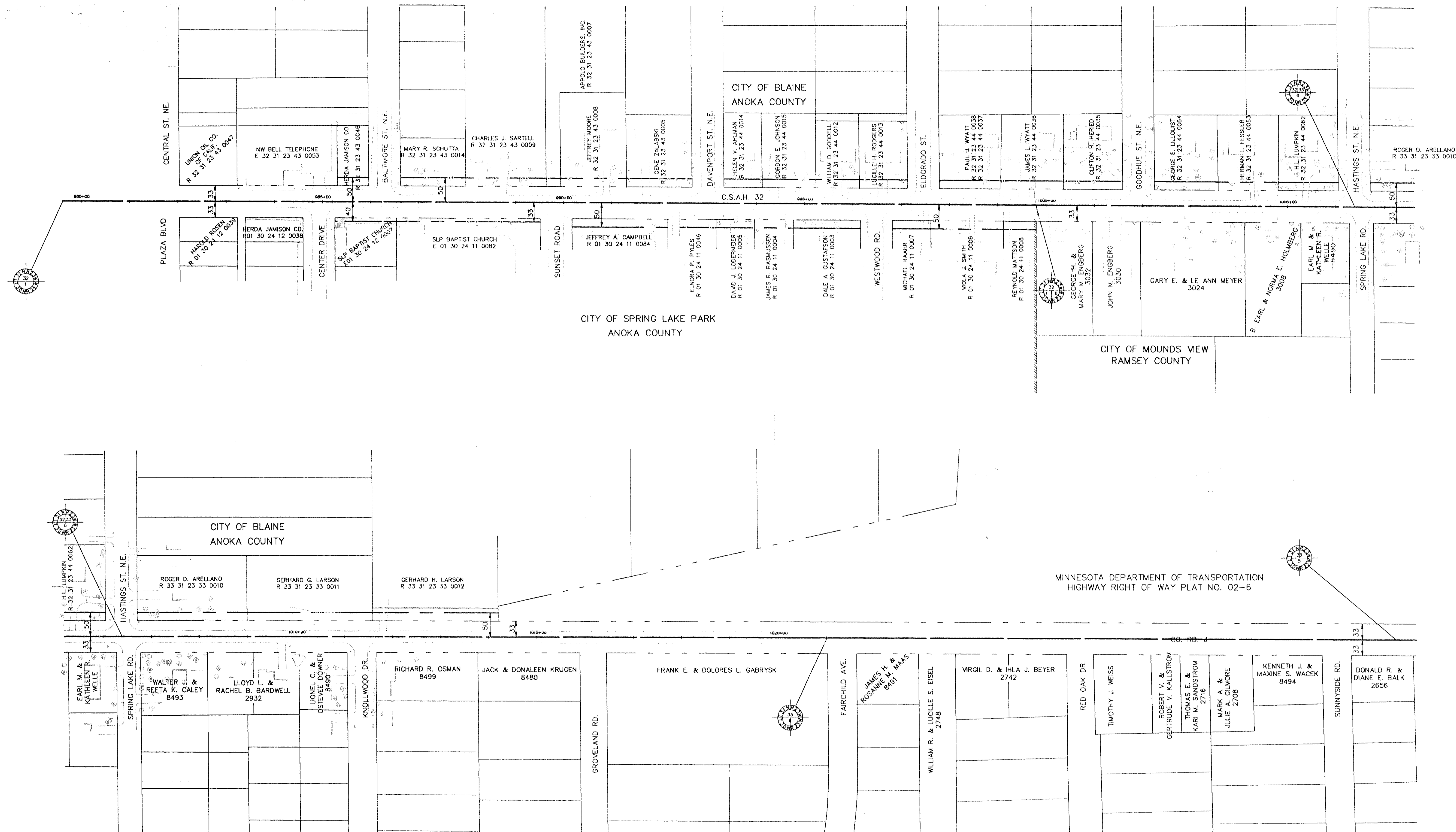
WOOD FIBER BLANKET INSTALLATION ON A BACKSLOPE (WHEN REQUIRED)



PERMANENT SLOPE PROTECTION DIKE

APPROVED January 31, 1985

R.D. [Signature]
Director
OFFICE OF ENGINEERING STANDARDS



CITY OF SPRING LAKE PARK
ANOKA COUNTY

CITY OF BLAINE
ANOKA COUNTY

CITY OF MOUNDS VIEW
RAMSEY COUNTY

CITY OF MOUNDS VIEW
RAMSEY COUNTY

MINNESOTA DEPARTMENT OF TRANSPORTATION
HIGHWAY RIGHT OF WAY PLAT NO. 02-6

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 State of Minn. Statutes Sections 326.02 to 326.16.	BRW, INC. PLANNING TRANSPORTATION ENGINEERING URBAN DESIGN FISHER SQUARE 700 THIRD STREET SOUTH MINNEAPOLIS, MN 55415 PHONE: (612) 338-0700	ORIGINAL DATE 11-17-89 REVISIONS	COUNTY ROAD J C.S.A.H. 32 RAMSEY/ANOKA COUNTY RIGHT OF WAY MAP
		SURVEY BOOK	
Date _____ Minn. Reg. No. _____	DESIGN BY: _____ DRAWN BY: CL CHECKED BY: _____	S.A.P. NO. 02 - 632 - 05 62 - 601 - 04	SHEET 14 OF 38

JANES FIELD
ANOKA COUNTY AIRPORT

CITY OF BLAINE
ANOKA COUNTY

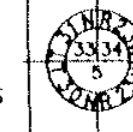
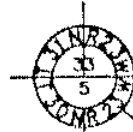
JAMES H. LORENZ
R 33 31 23 44 0004

MINNESOTA DEPARTMENT OF TRANSPORTATION
HIGHWAY RIGHT OF WAY PLAT NO. 02-6.

ELMER F. RIEGER
R 33 31 23 44 0006

HENRY W. & MAVS STAPLES
R 33 31 23 44 0003

XYLITE ST. N.E.



DONALD R. & DIANE E. BALK
2656

HOWARD & RONNA ANNE STAFFORD
8480

EASTWOOD RD.

LONG LAKE RD.

GREENWOOD DR.

SYSCO/CONTINENTAL
FOOD SERVICES

SYSCO/CONTINENTAL
FOOD SERVICES

CITY OF MOUNDS VIEW
RAMSEY COUNTY

CITY OF BLAINE
ANOKA COUNTY

RUDOLPH ROOS
R 34 31 23 33 0004

LAWRENCE HASELIUS
R 34 31 23 33 0003

LAWRENCE HASELIUS
R 34 31 23 33 0003

K. TILLESKJOR
W. LONERGAN
R 34 31 23 34 0025

A. T. GERMAN
R 34 31 23 34 0017

VALERIE R. SPAGENSKI
R 34 31 23 34 0018

RICHARD A. COPELAND
R 34 31 23 34 0015

STANTON OMDAHL
R 34 31 23 34 0008

XYLITE ST. N.E.

EDISON ST. N.E.

85 TH AVE. N.E.

WATSON INVESTMENTS, INC.
R 5 30 23 21 0001

CITY OF MOUNDS VIEW
RAMSEY COUNTY

CORAL SEA ST. N.E.

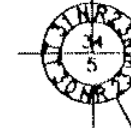
PACKER INVESTMENT CO.
CITY OF BLAINE
RAMSEY COUNTY

JAMES BERNKLAU/
PACKER INVESTMENT CO.

WATSON INVESTMENTS, INC.
HOLDING POND

THREE STAR PARTNERSHIP
2975

DEWEY A. & DONNA M. NOROGEN
3001



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 State of Minn. Statutes Sections 326.02 to 326.16.

BRW
BRW, INC.
PLANNING
TRANSPORTATION
ENGINEERING
URBAN DESIGN
THRESHER SQUARE
700 THIRD STREET SOUTH
MINNEAPOLIS, MN 55415
PHONE: (612) 377-0300

ORIGINAL DATE 11-17-89
REVISIONS
DESIGN BY: []
DRAWN BY: CL
CHECKED BY: []

COUNTY ROAD J
C.S.A.H. 32
RAMSEY/ANOKA COUNTY
RIGHT OF WAY MAP

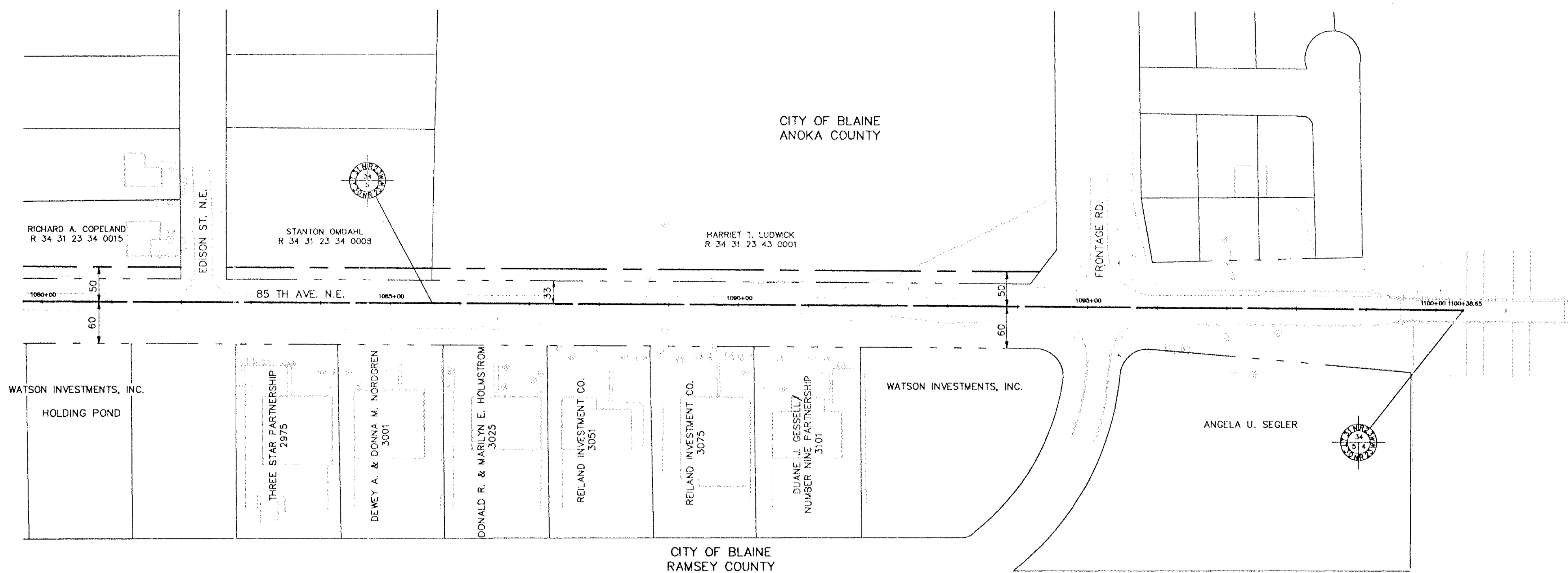
Date: _____ Minn. Reg. No. _____


S.A.P. NO. 02 - 632 - 05
62 - 601 - 04

SHEET 15 OF 38

DESIGN FILE
No. 09-890

CORDJSM2.DWG



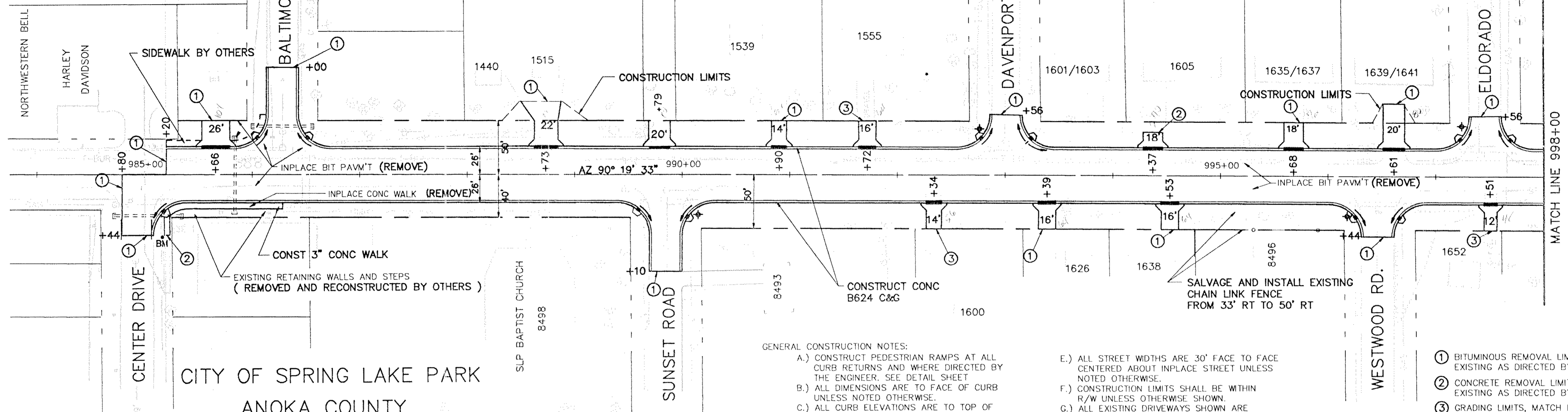
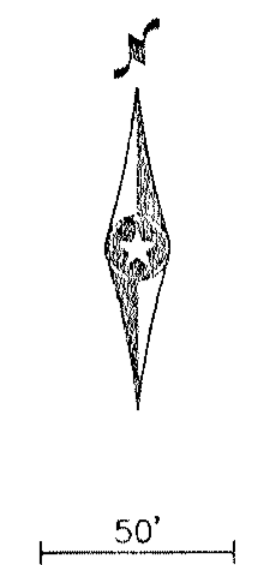
I hereby certify that this plan, specification or report was prepared by me or under my direct supervision and that I am a duly Registered Professional Engineer under the State of Minn. Statutes Sections 326.02 to 326.16.	 BRW INC. PLANNING TRANSPORTATION ENGINEERING URBAN DESIGN <small>THREE SHER SQUARE 700 THIRD STREET SOUTH MINNEAPOLIS, MN 55415 PHONE: (612) 370-0700</small>	ORIGINAL DATE 11-17-89 REVISIONS _____	COUNTY ROAD J C.S.A.H. 32 RAMSEY/ANOKA COUNTY RIGHT OF WAY MAP
		DESIGN BY: _____ DRAWN BY: CI CHECKED BY: _____	
Date _____ Minn. Reg. No. _____	S.A.P. NO. 02 - 632 - 05 62 - 601 - 04	SHEET 16 OF 38	DESIGN FILE No. 09-B902

F & 1 3" RSC W/HANDHOLES FOR SIGNAL SYSTEM
 984+72, 38' RT TO 985+35, 38' RT
 985+84, 35' RT TO 35' LT
 986+00, 45' LT TO 986+56, 45' LT

STA 992+76, 43' LT SALVAGE AND INSTALL HYD F & 1 3" - 6" DIP

STA 997+24, 47' LT SALVAGE AND INSTALL HYD F & 1 6" - 6" DIP

CITY OF BLAINE
 ANOKA COUNTY



CITY OF SPRING LAKE PARK
 ANOKA COUNTY

GENERAL CONSTRUCTION NOTES:

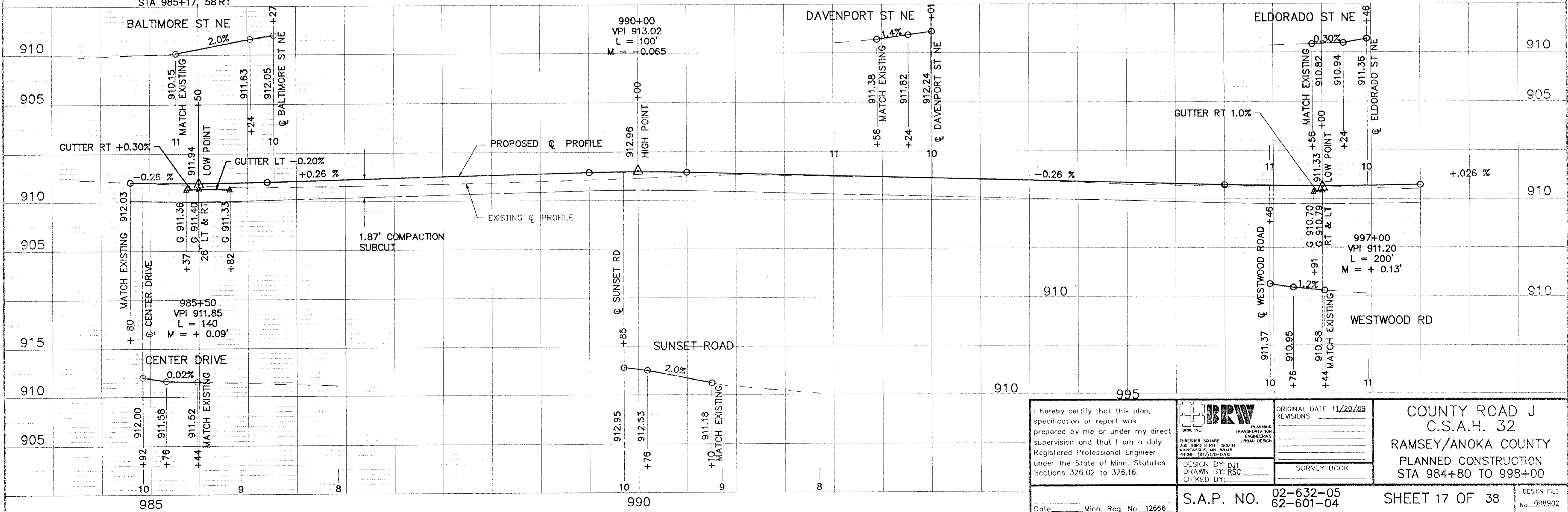
- A.) CONSTRUCT PEDESTRIAN RAMPS AT ALL CURB RETURNS AND WHERE DIRECTED BY THE ENGINEER. SEE DETAIL SHEET
- B.) ALL DIMENSIONS ARE TO FACE OF CURB UNLESS NOTED OTHERWISE.
- C.) ALL CURB ELEVATIONS ARE TO TOP OF CURB UNLESS NOTED OTHERWISE.
- D.) ALL STREET INTERSECTION RADII ARE 30' UNLESS NOTED OTHERWISE.
- E.) ALL STREET WIDTHS ARE 30' FACE TO FACE CENTERED ABOUT INPLACE STREET UNLESS NOTED OTHERWISE.
- F.) CONSTRUCTION LIMITS SHALL BE WITHIN R/W UNLESS OTHERWISE SHOWN.
- G.) ALL EXISTING DRIVEWAYS SHOWN ARE BITUMINOUS UNLESS NOTED OTHERWISE.

- ① BITUMINOUS REMOVAL LIMITS, SAWCUT AND MATCH EXISTING AS DIRECTED BY THE ENGINEER.
- ② CONCRETE REMOVAL LIMITS, SAWCUT AND MATCH EXISTING AS DIRECTED BY THE ENGINEER.
- ③ GRADING LIMITS, MATCH EXISTING AS DIRECTED BY THE ENGINEER.

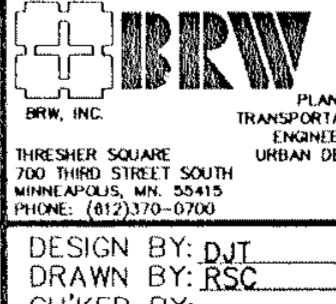
BM ELEV 914.53
 TOP NUT HYDRANT
 SE QUAD CENTER DRIVE
 STA 985+17, 58' RT

STA 990+15, 37' RT SALVAGE AND INSTALL HYD F & 1 6" - 6" DIP

STA 996+18, 37' RT SALVAGE AND INSTALL HYD F & 1 6" - 6" DIP



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ORIGINAL DATE	11/20/89
REVISIONS	
SURVEY BOOK	

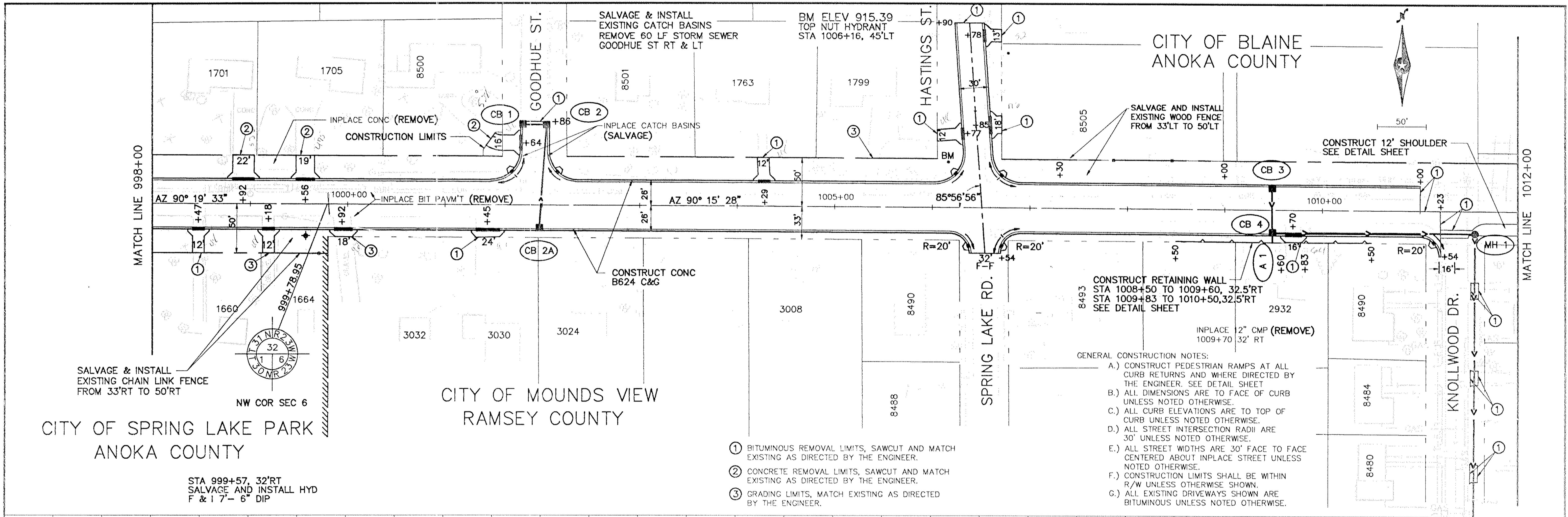
COUNTY ROAD J
 C.S.A.H. 32
 RAMSEY/ANOKA COUNTY
 PLANNED CONSTRUCTION
 STA 984+80 TO 998+00

Date _____ Minn. Reg. No. 12666

S.A.P. NO. 02-632-05
 62-601-04

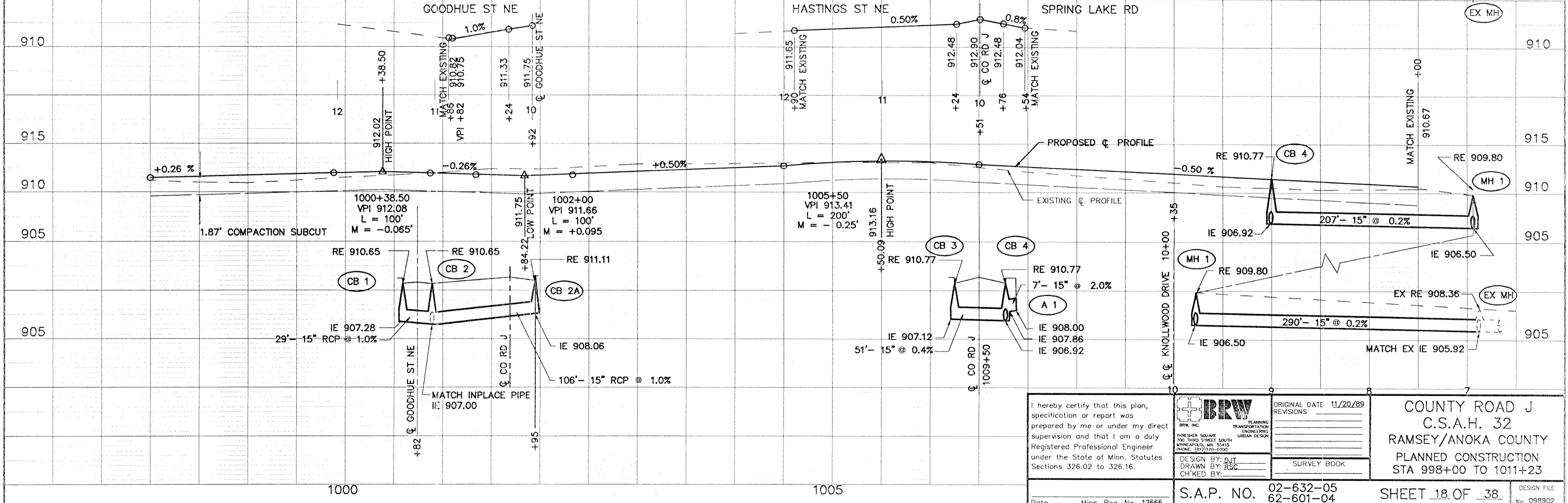
SHEET 17 OF 38

DESIGN FILE No. 098902



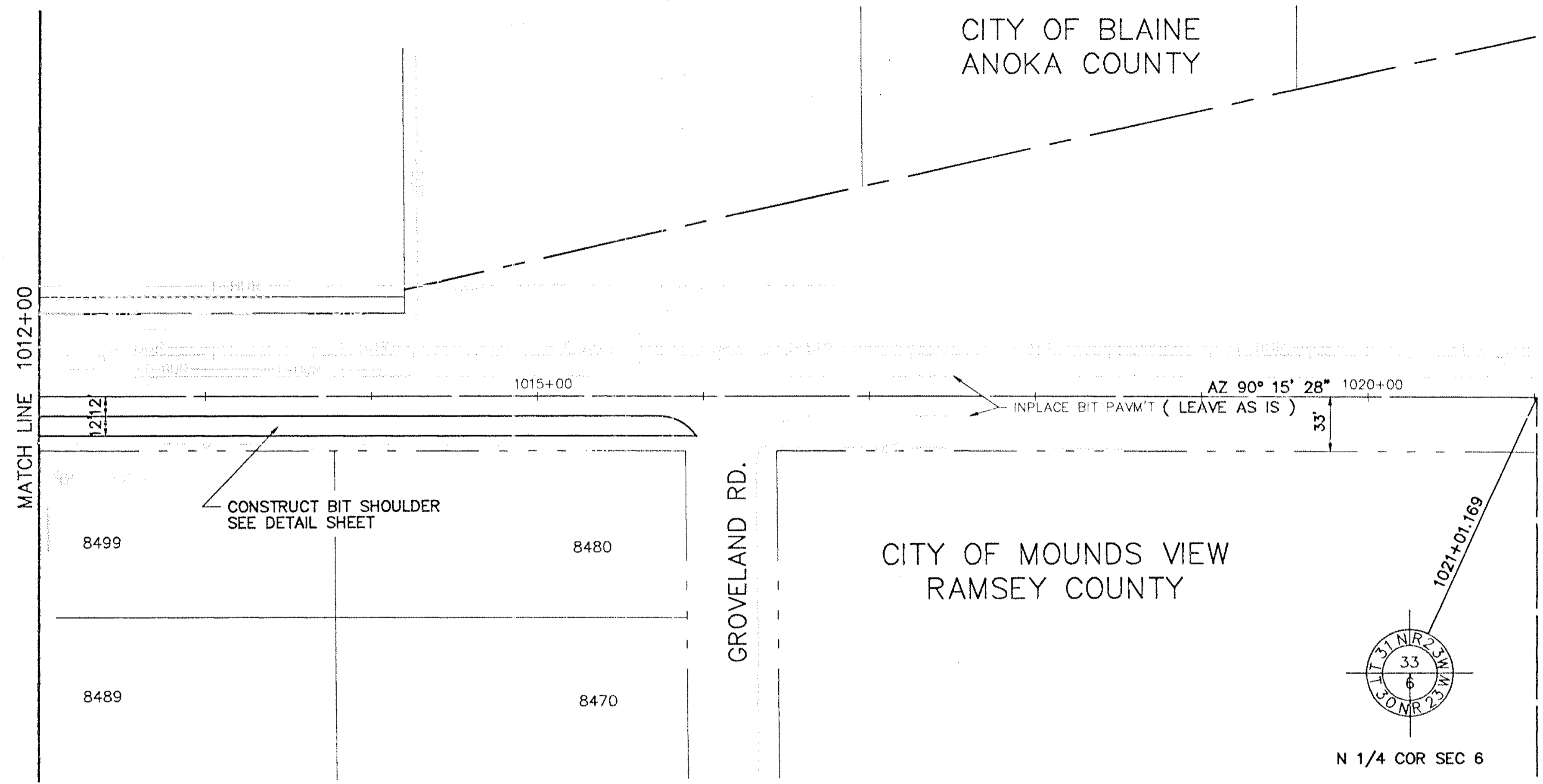
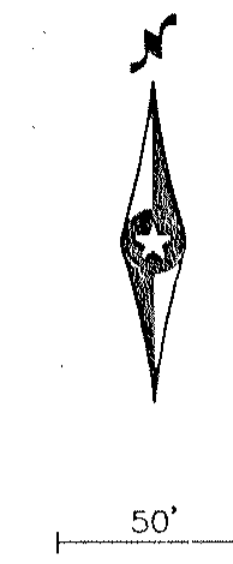
- GENERAL CONSTRUCTION NOTES:
- A.) CONSTRUCT PEDESTRIAN RAMPS AT ALL CURB RETURNS AND WHERE DIRECTED BY THE ENGINEER. SEE DETAIL SHEET
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- ① BITUMINOUS REMOVAL LIMITS, SAWCUT AND MATCH EXISTING AS DIRECTED BY THE ENGINEER.
- ② CONCRETE REMOVAL LIMITS, SAWCUT AND MATCH EXISTING AS DIRECTED BY THE ENGINEER.
- ③ GRADING LIMITS, MATCH EXISTING AS DIRECTED BY THE ENGINEER.

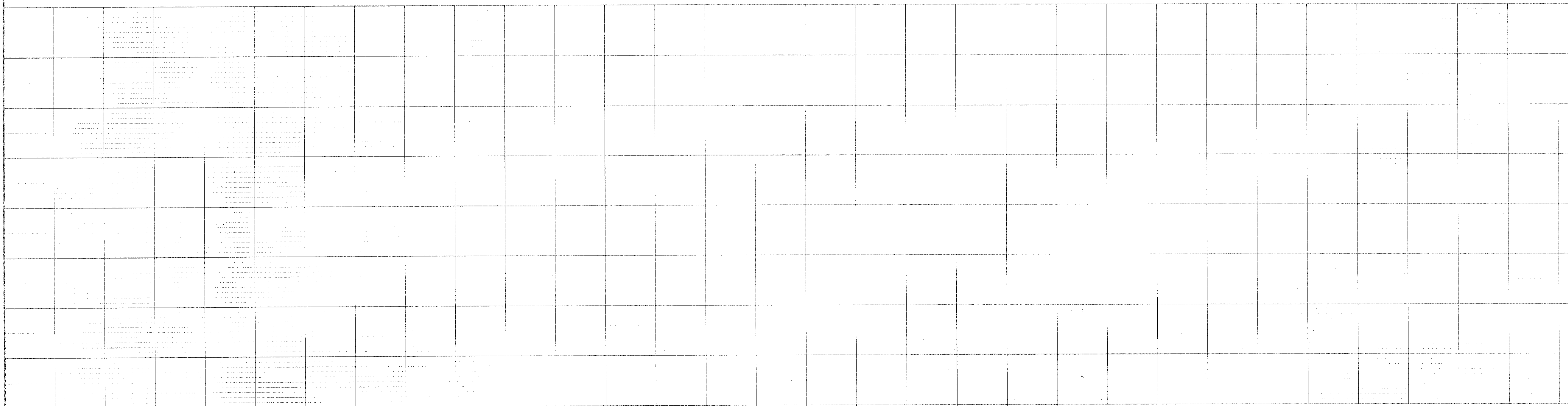


I hereby certify that this plan, specification or report was prepared by me or under my direct supervision and that I am a duly Registered Professional Engineer under the State of Minn. Statutes Sections 326.02 to 326.16. Date _____ Minn. Reg. No. 12666	BRW, INC. PLANNING TRANSPORTATION ENGINEERING URBAN DESIGN 700 THIRD STREET SOUTH WINEAPLES, MN. 55415 PHONE: (612)370-0700	ORIGINAL DATE 11/20/89 REVISIONS	COUNTY ROAD J C.S.A.H. 32 RAMSEY/ANOKA COUNTY PLANNED CONSTRUCTION STA 998+00 TO 1011+23
		DESIGN BY: DJT DRAWN BY: RSC CHECKED BY:	
S.A.P. NO. 02-632-05 62-601-04		SHEET 18 OF 38	DESIGN FILE No. 098902

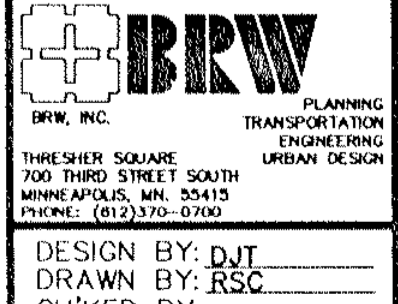
CITY OF BLAINE
ANOKA COUNTY



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ORIGINAL DATE	11/20/89
REVISIONS	
SURVEY BOOK	

COUNTY ROAD J
C.S.A.H. 32
RAMSEY/ANOKA COUNTY
PLANNED CONSTRUCTION
STA 1012+00 TO 1016+00

Date: _____ Minn. Reg. No. 12666

S.A.P. NO. 02-632-05
62-601-04

SHEET 19 OF 38

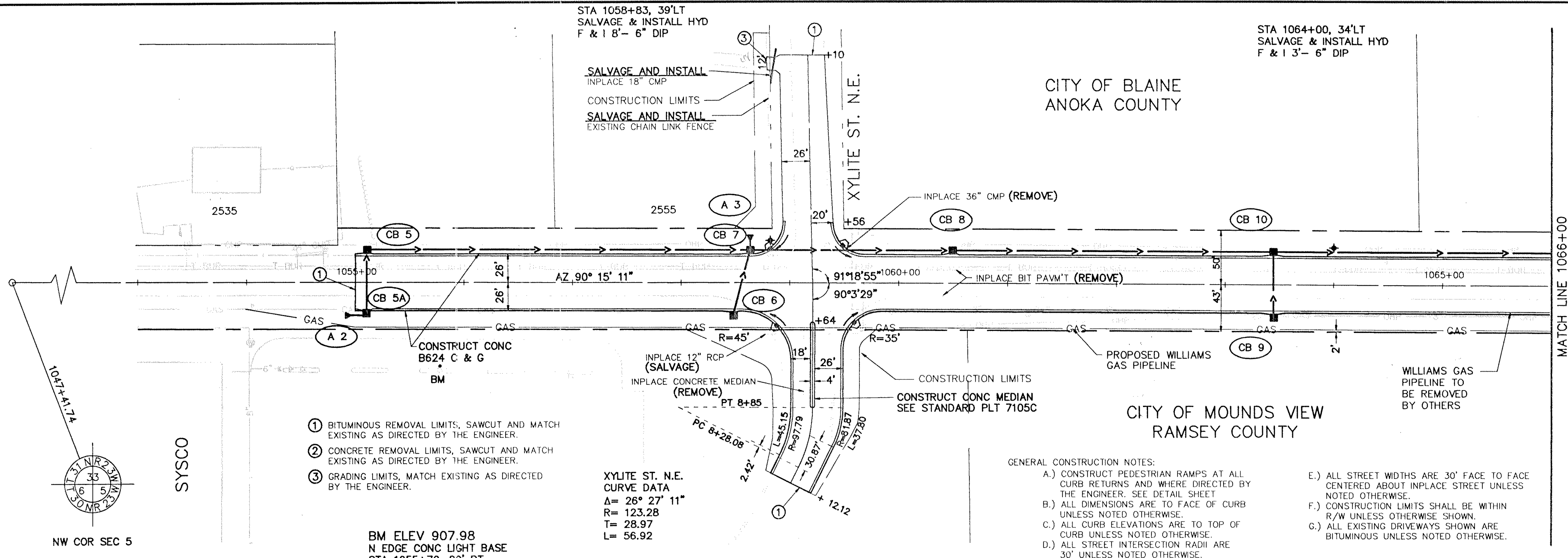
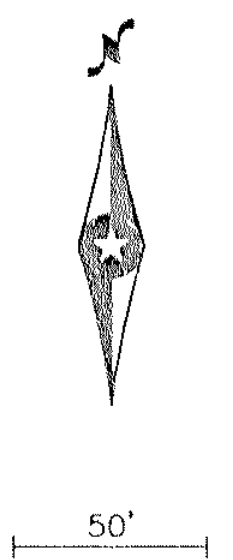
DESIGN FILE No. 098902

STA 1058+83, 39'LT
SALVAGE & INSTALL HYD
F & I 8"- 6" DIP

STA 1064+00, 34'LT
SALVAGE & INSTALL HYD
F & I 3"- 6" DIP

CITY OF BLAINE
ANOKA COUNTY

CITY OF MOUNDS VIEW
RAMSEY COUNTY

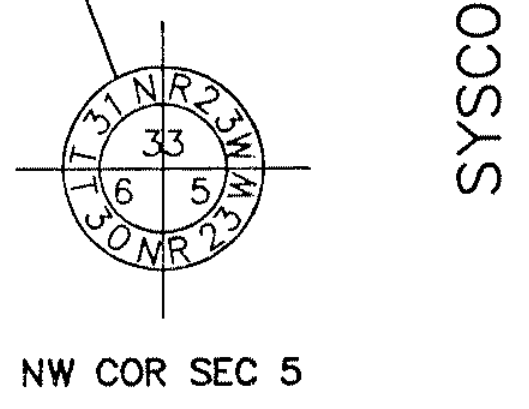


- ① BITUMINOUS REMOVAL LIMITS, SAWCUT AND MATCH EXISTING AS DIRECTED BY THE ENGINEER.
- ② CONCRETE REMOVAL LIMITS, SAWCUT AND MATCH EXISTING AS DIRECTED BY THE ENGINEER.
- ③ GRADING LIMITS, MATCH EXISTING AS DIRECTED BY THE ENGINEER.

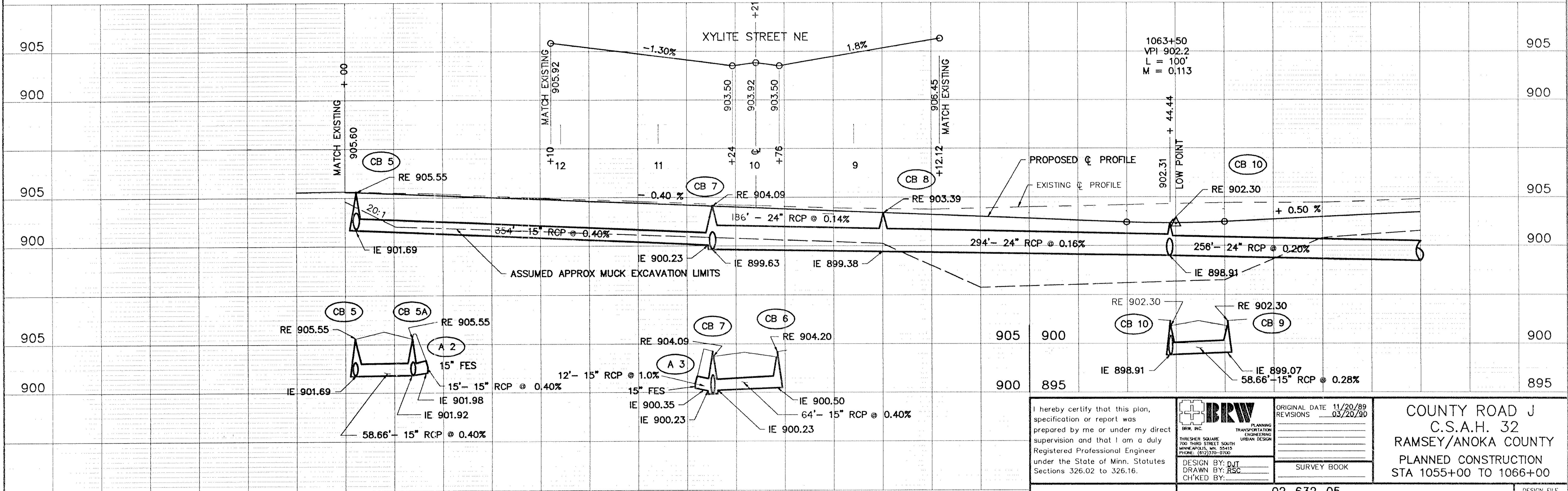
XYLITE ST. N.E.
CURVE DATA
Δ = 26° 27' 11"
R = 123.28
T = 28.97
L = 56.92

GENERAL CONSTRUCTION NOTES:

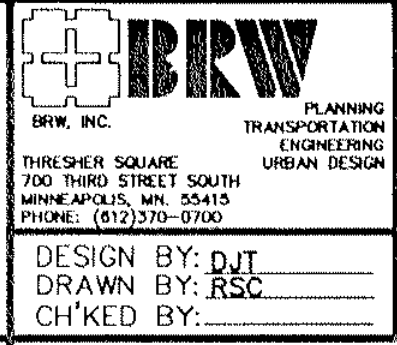
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BM ELEV 907.98
N EDGE CONC LIGHT BASE
STA 1055+70, 80' RT



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ORIGINAL DATE 11/20/89
REVISIONS 03/20/90

COUNTY ROAD J
C.S.A.H. 32
RAMSEY/ANOKA COUNTY
PLANNED CONSTRUCTION
STA 1055+00 TO 1066+00

S.A.P. NO. 02-632-05
62-601-04

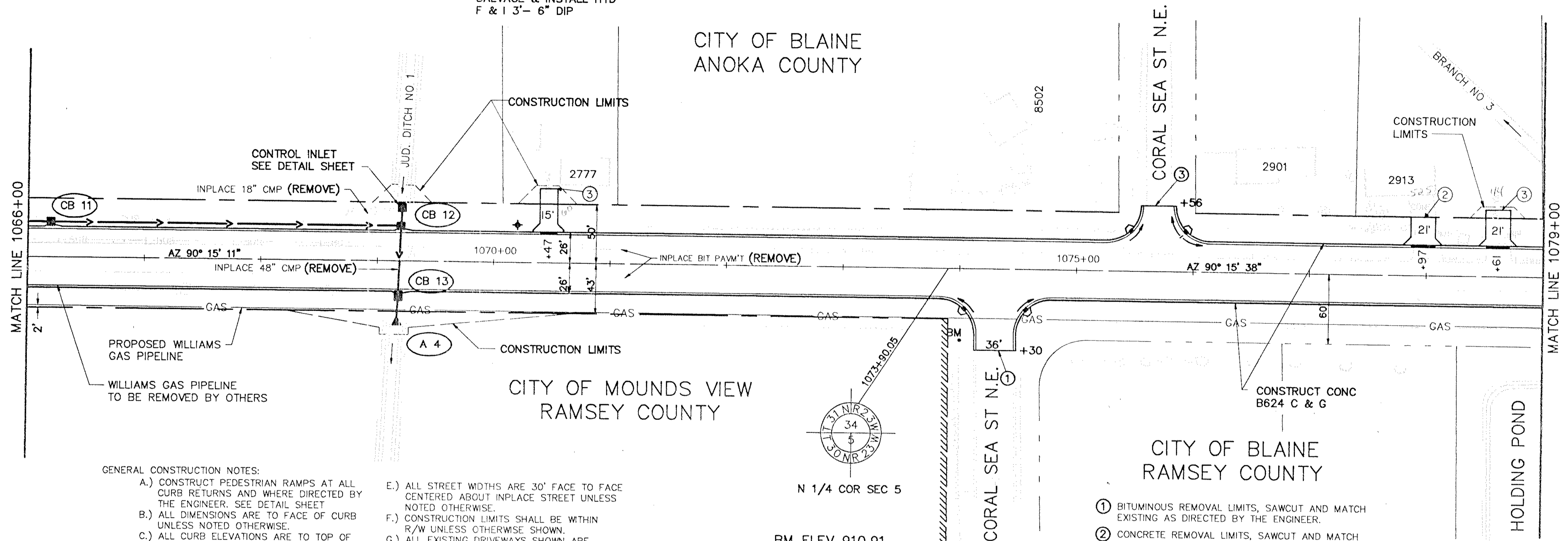
SHEET 20 OF 38

Date _____ Minn. Reg. No. 12666

DESIGN FILE No. 098902

STA 1070+20, 32' LT
SALVAGE & INSTALL HYD
F & I 3'- 6" DIP

CITY OF BLAINE
ANOKA COUNTY

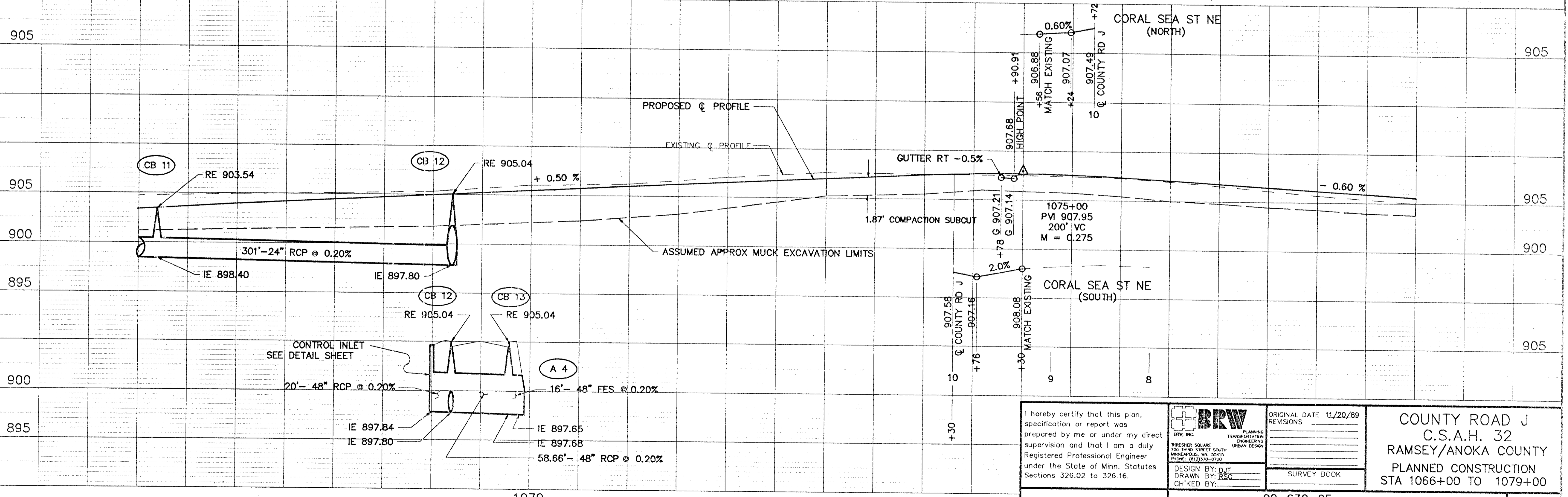


GENERAL CONSTRUCTION NOTES:

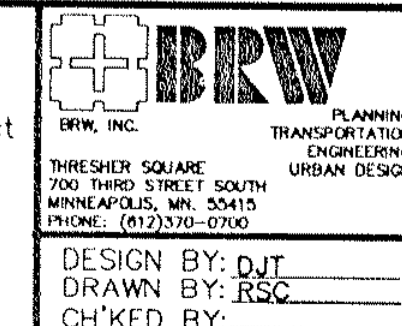
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BM ELEV 910.91
TOP NUT HYDRANT
SW QUAD CORAL SEA ST NE
STA 1074+00, 61' RT

- ① BITUMINOUS REMOVAL LIMITS, SAWCUT AND MATCH EXISTING AS DIRECTED BY THE ENGINEER.
- ② CONCRETE REMOVAL LIMITS, SAWCUT AND MATCH EXISTING AS DIRECTED BY THE ENGINEER.
- ③ GRADING LIMITS, MATCH EXISTING AS DIRECTED BY THE ENGINEER.



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REVISIONS	
SURVEY BOOK	

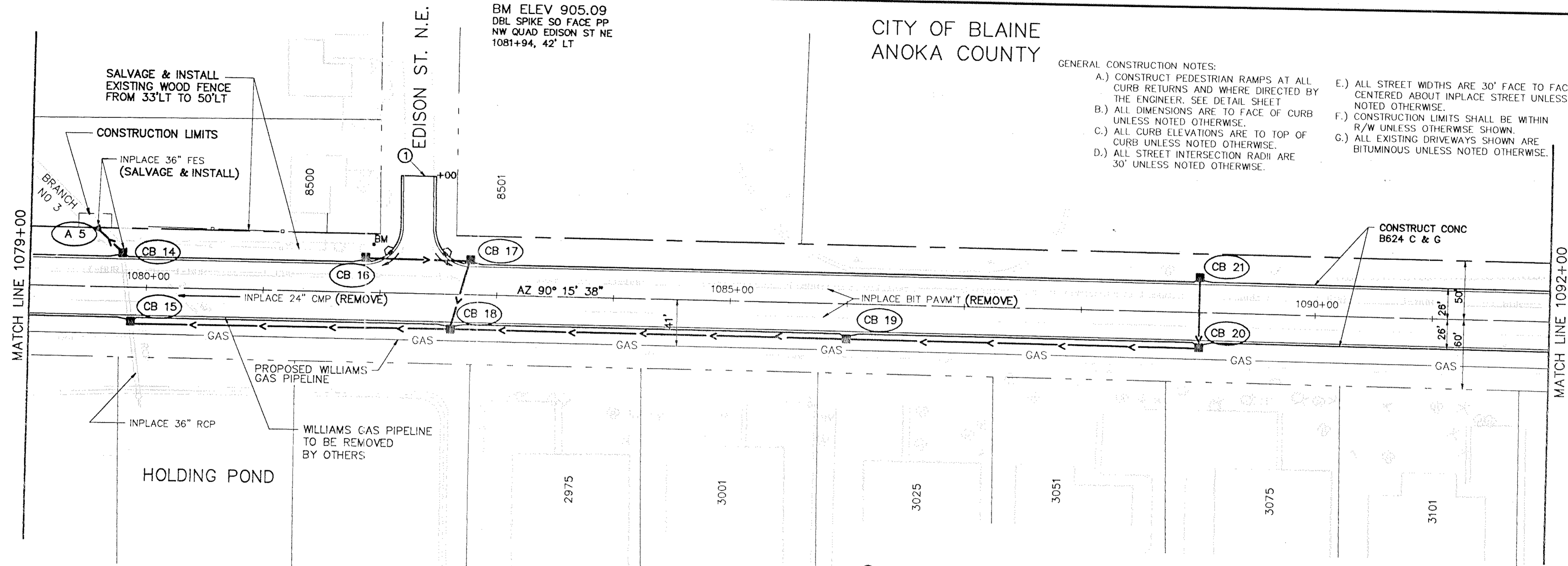
COUNTY ROAD J
C.S.A.H. 32
RAMSEY/ANOKA COUNTY
PLANNED CONSTRUCTION
STA 1066+00 TO 1079+00

CITY OF BLAINE
ANOKA COUNTY

BM ELEV 905.09
DBL SPIKE SO FACE PP
NW QUAD EDISON ST NE
1081+94, 42' LT

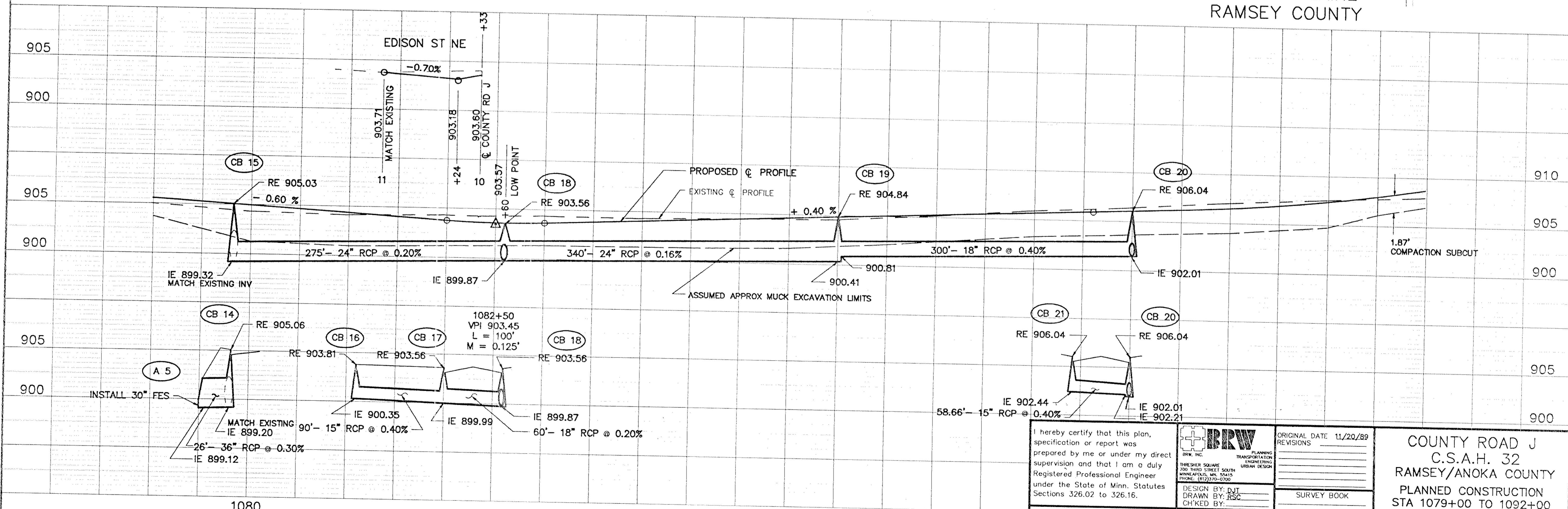
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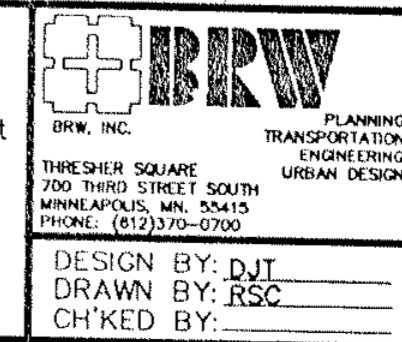


① GRADING LIMITS, MATCH EXISTING AS DIRECTED BY THE ENGINEER.

CITY OF BLAINE
RAMSEY COUNTY



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ORIGINAL DATE	11/20/89
REVISIONS	
DESIGN BY: DJT	
DRAWN BY: RSC	
CHECKED BY:	
SURVEY BOOK	

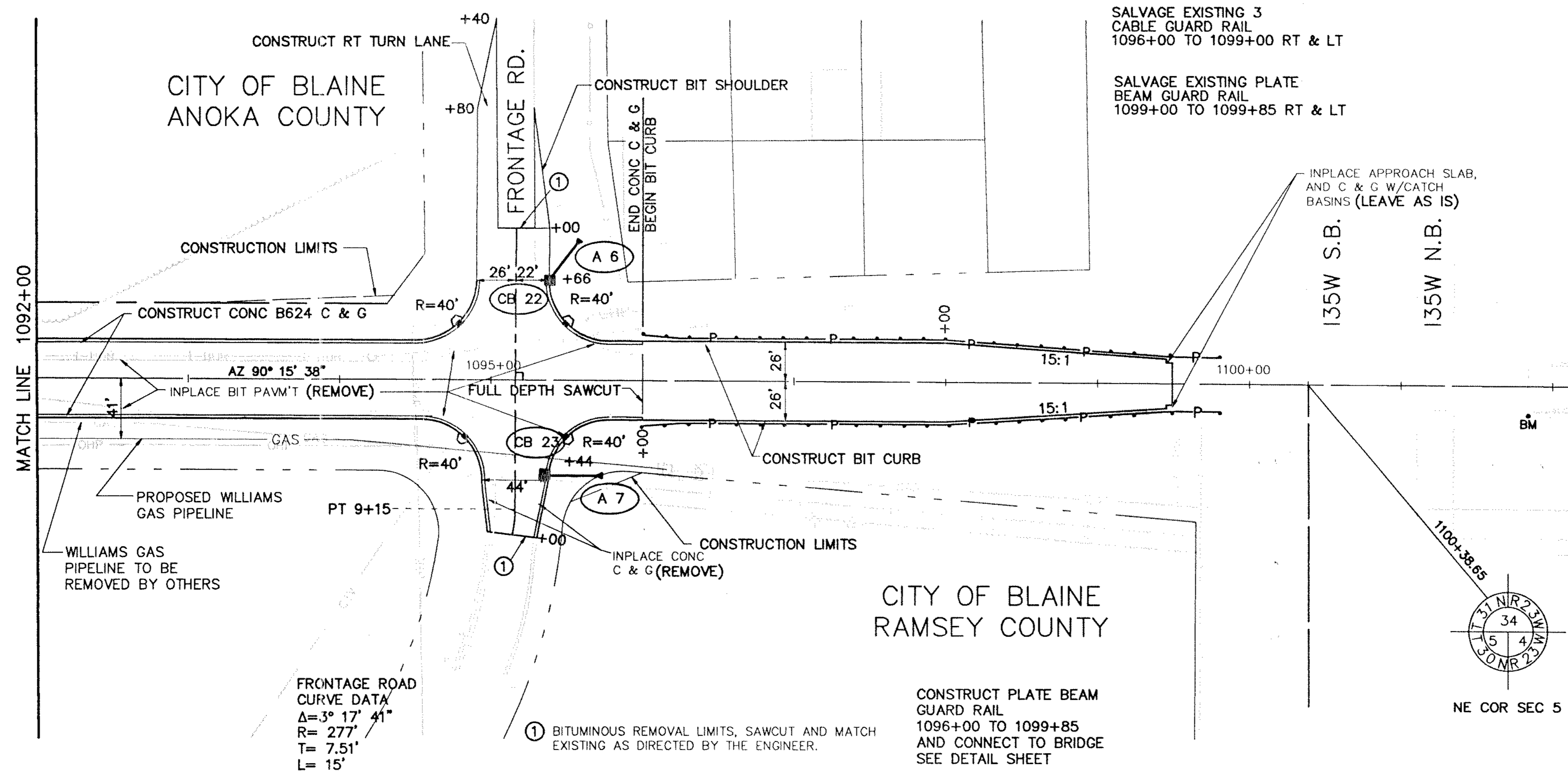
COUNTY ROAD J
C.S.A.H. 32
RAMSEY/ANOKA COUNTY
PLANNED CONSTRUCTION
STA 1079+00 TO 1092+00

Date: _____ Minn. Reg. No. 12666

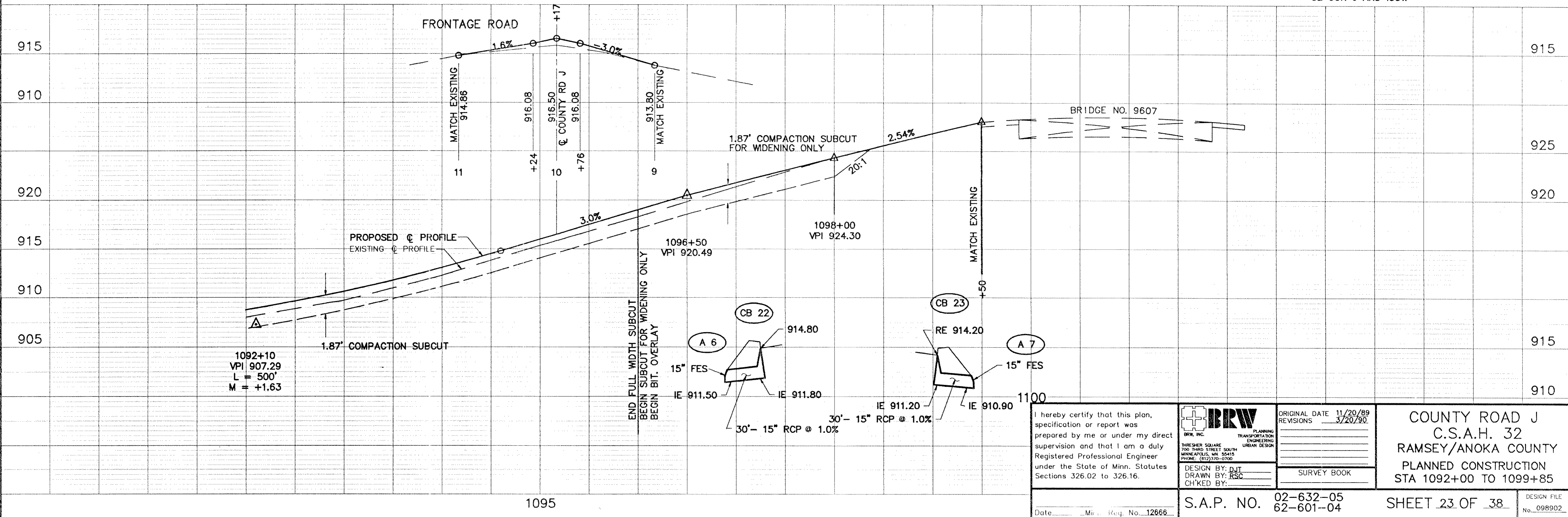
S.A.P. NO. 02-632-05
62-601-04

SHEET 22 OF 38

DESIGN FILE No. 098902



- GENERAL CONSTRUCTION NOTES:
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Date: _____ Mile: _____ Reg. No. 12866

BRW
 BRW, INC.
 PLANNING
 TRANSPORTATION
 ENGINEERING
 URBAN DESIGN

THRESHER SQUARE
 700 THIRD STREET SOUTH
 MINNEAPOLIS, MN 55415
 PHONE: (612) 570-0700

DESIGN BY: DJT
 DRAWN BY: RSC
 CHECKED BY:

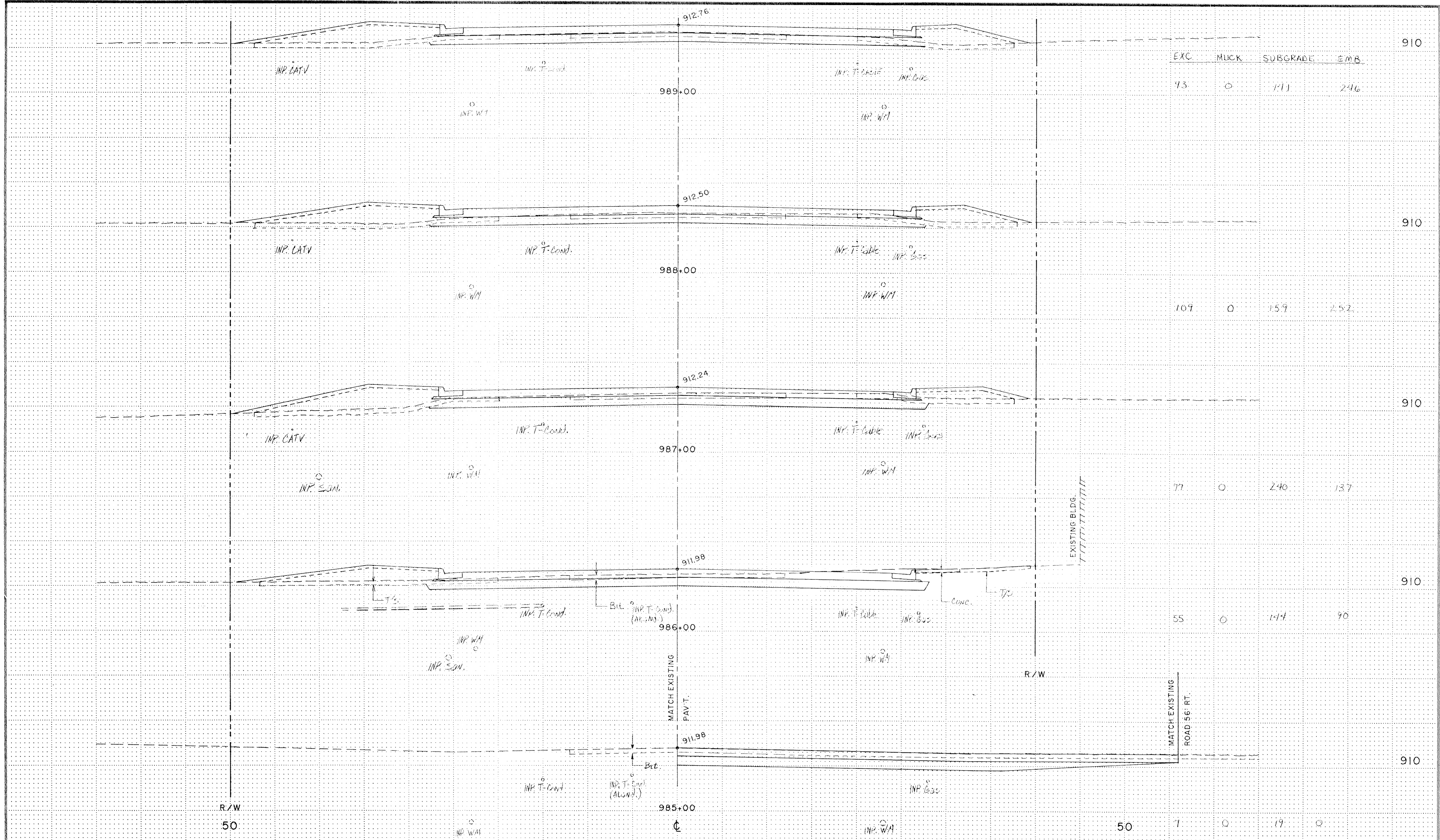
ORIGINAL DATE	11/20/89
REVISIONS	3/20/90
SURVEY BOOK	

COUNTY ROAD J
C.S.A.H. 32
RAMSEY/ANOKA COUNTY
PLANNED CONSTRUCTION
STA 1092+00 TO 1099+85

S.A.P. NO. 02-632-05
 62-601-04

SHEET 23 OF 38

DESIGN FILE
 No. 09B902



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Date _____ Minn. Reg. No. 12666

BRW
 BRW, INC.
 15 ANKING TRANSPORTATION ENGINEERING CONSULTING DESIGN
 1000 W. WASHINGTON STREET, SUITE 100, ANOKA, MN 55420

DESIGN BY: DJT
 DRAWN BY: M/JM

S.A.P. NO. 02 - 632 - 05
 62 - 601 - 04

ORIGINAL DATE: 11/15/89
REVISIONS:
SURVEY BK. NO.

COUNTY ROAD J
C.S.A.H. 32
RAMSEY/ANOKA COUNTY

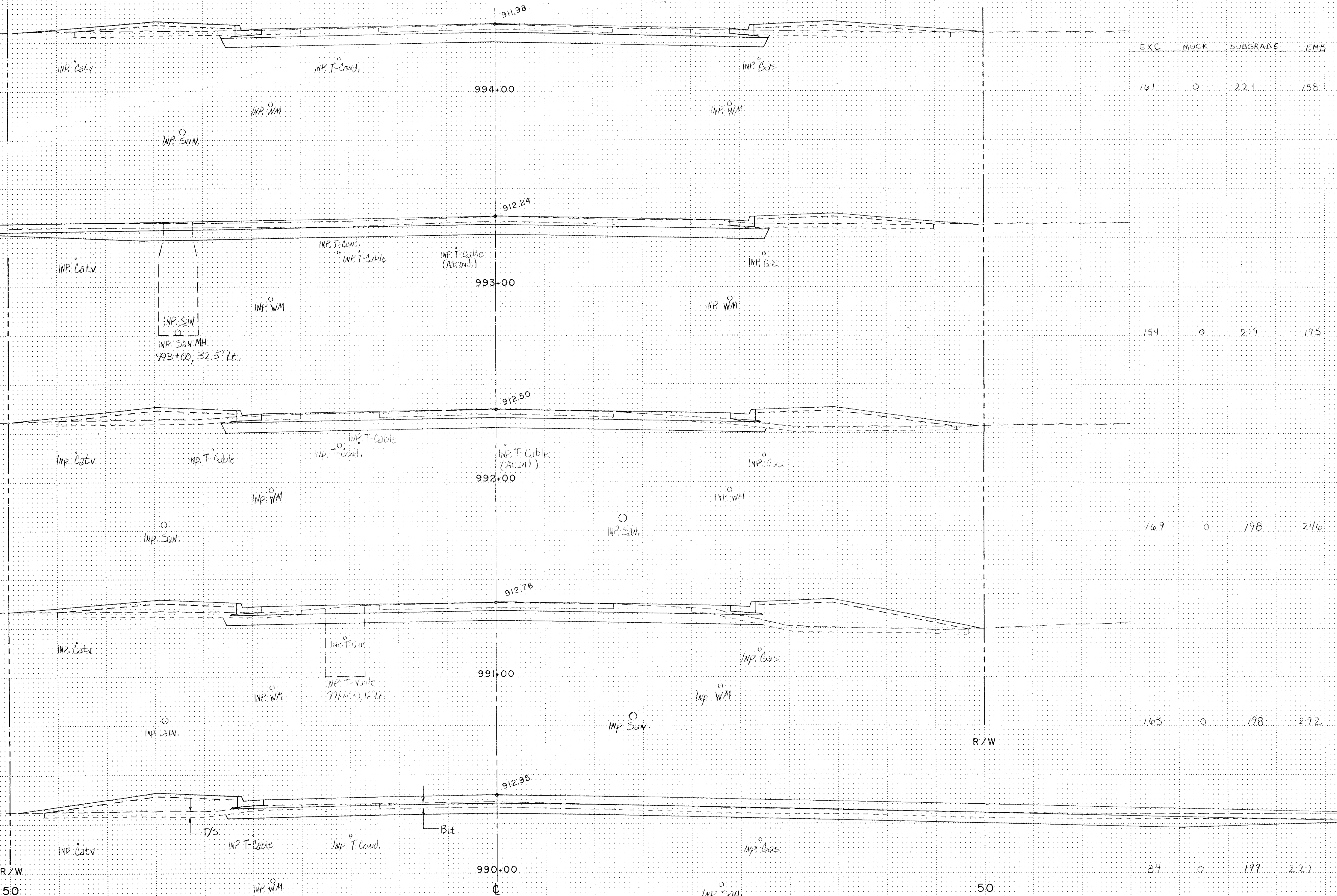
CROSS SECTIONS
STA. 985+00 - 989+00

SHEET 24 OF 38

DESIGN FILE No 09-8902

MATCH EXISTING
ROAD 56 LT.

MATCH EXISTING
ROAD 90 RT.



R/W
50

R/W

50

911.98

994+00

912.24

993+00

912.50

992+00

912.76

991+00

912.95

990+00

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 State of Minn. Statutes Sections 326.02 to 326.16.

Date _____ Minn. Reg. No. 12666



DESIGN BY: DJT
DRAWN BY: MJM

ORIGINAL DATE: 11/15/89
REVISIONS:

SURVEY BK NO.

COUNTY ROAD J
C.S.A.H. 32
RAMSEY/ANOKA COUNTY

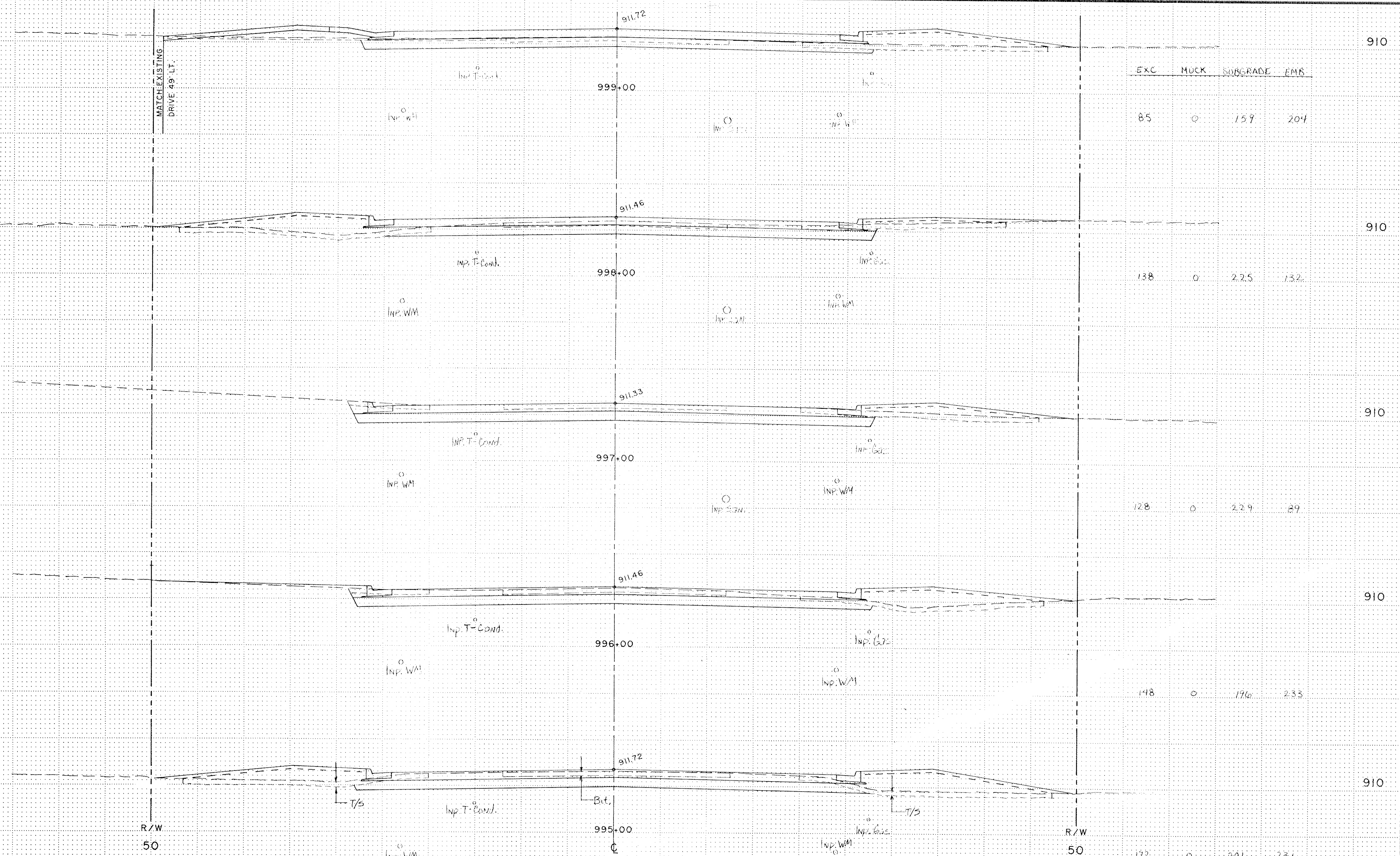
CROSS SECTIONS
STA. 990+00 - 994+00

S.A.P. NO. 02 - 632 - 05
62 - 601 - 04

SHEET 25 OF 38

DESIGN FILE
No. 02-632-05

MATCH EXISTING
DRIVE 49' LT.



STATION	ELEVATION	EXC	MUCK	SUBGRADE	EMB
999+00	911.72	85	0	159	204
998+00	911.46	138	0	225	132
997+00	911.33	128	0	229	89
996+00	911.46	148	0	176	233
995+00	911.72	172	0	201	236

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Date _____ Minn. Reg. No. 12666

BRW
PLANNING
TRANSPORTATION
ENGINEERING
CONSULTANTS

DESIGN BY: DJT
DRAWN BY: MJM

S.A.P. NO. 02 - 632 - 05
62 - 601 - 04

ORIGINAL DATE 11/15/89
REVISIONS
SURVEY BK. NO.

COUNTY ROAD J
C.S.A.H. 32
RAMSEY/ANOKA COUNTY

CROSS SECTIONS
STA. 995+00 - 999+00

SHEET 26 OF 38

DESIGN FILE
No. 09-8902

MATCH EXISTING
ROAD 66 LT.

MATCH EXISTING
DRIVE 33 RT.

EXC MUCK SUBGRADE EMB

R/W
50

R/W
50

912.16

911.76

911.92

911.98

1003+00

1002+00

1001+00

1000+00

176 0 216 79

105 0 235 77

81 0 209 66

63 0 177 109

910

910

910

910

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PLANNING
TRANSPORTATION
ENGINEERING
DRAINAGE DESIGN

ORIGINAL DATE 11/15/89

REVISIONS:

SURVEY BK. NO.

DESIGN BY: DJT
DRAWN BY: MJM

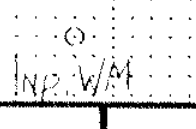
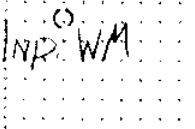
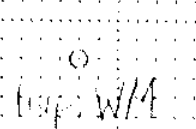
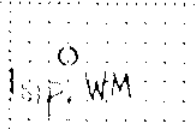
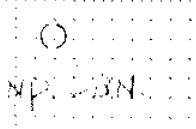
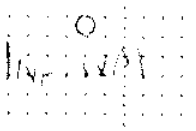
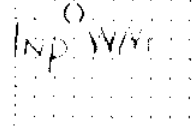
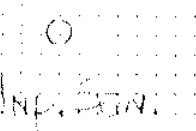
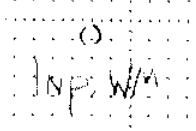
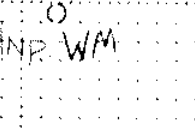
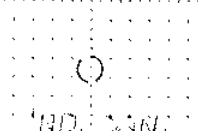
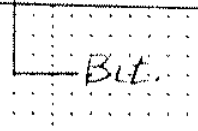
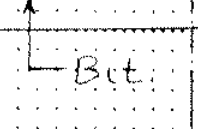
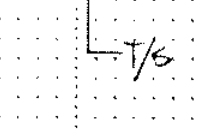
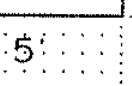
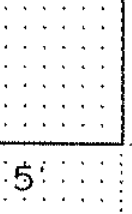
S.A.P. NO. 02 - 632 - 05
62 - 601 - 04

COUNTY ROAD J
C.S.A.H. 32
RAMSEY/ANOKA COUNTY
CROSS SECTIONS
STA. 1000+00 - 1003+00

SHEET 27 OF 38

DESIGN FILE
No. 09-8902

Date _____ Minn. Reg. No. 12666



Inp. T-Cover

Inp. Box

Inp. T-Cover

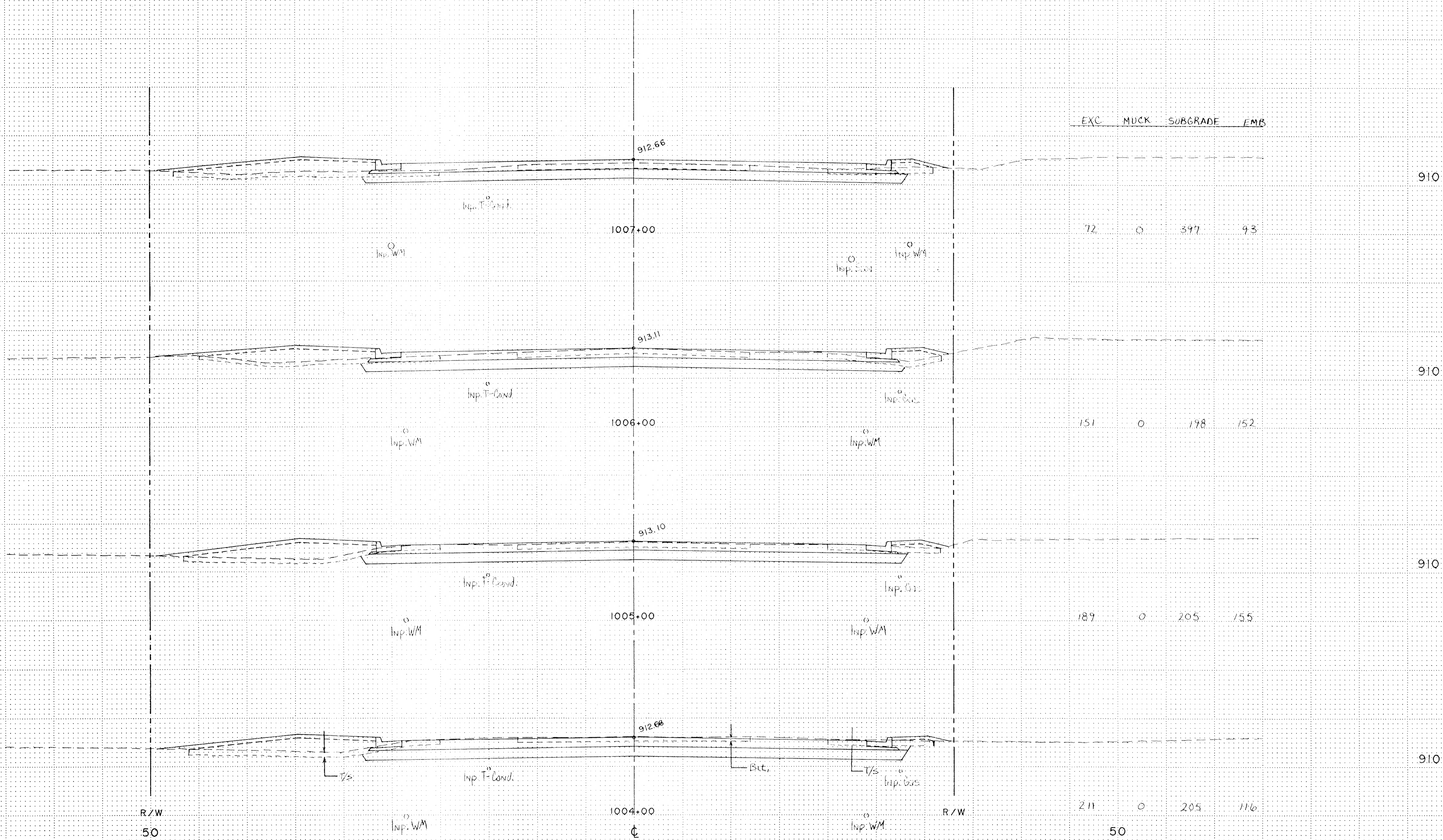
Inp. Box

Inp. T-Cover

Inp. Box

Inp. T-Cover

Inp. Box





Exc. Muck Subgrade Emb

R/W
50

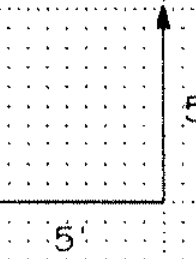
R/W
50

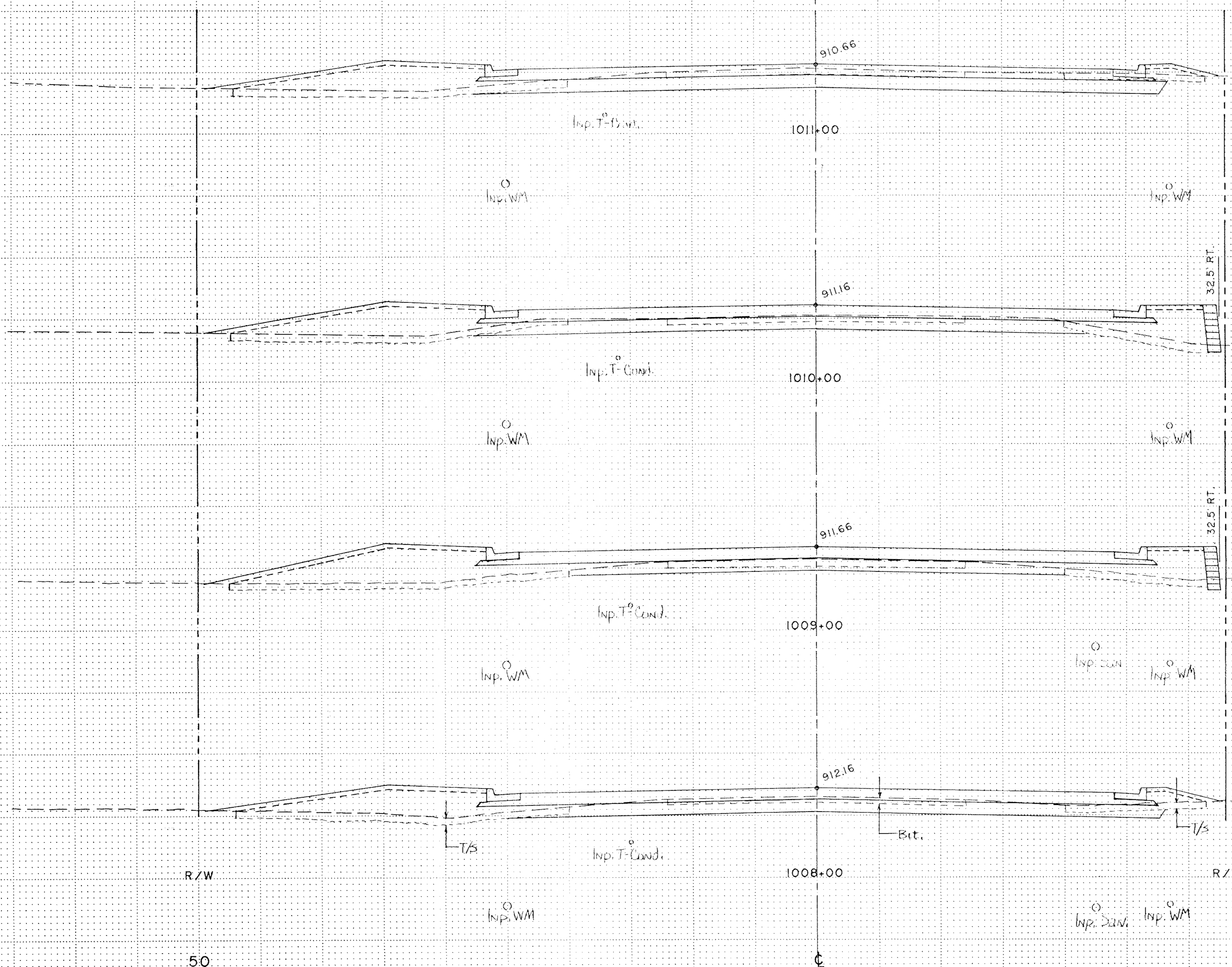
I hereby certify that this plan, specification or report was prepared by me or under my direct supervision and that I am a duly Registered Professional Engineer under the State of Minn. Statutes Sections 326.02 to 326.16.


 DESIGN BY: DJT
 DRAWN BY: M.J.M.L.B.
 Date _____ Minn. Reg. No. 12666


 ORIGINAL DATE: 11/15/89
 REVISIONS:
 SURVEY BK NO.
 S.A.P. NO. 02 - 632 - 05
 62 - 601 - 04

COUNTY ROAD J
 C.S.A.H. 32
 RAMSEY/ANOKA COUNTY
 CROSS SECTIONS
 STA. 1004+00 - 1007+00
 SHEET 28 OF 38
 DESIGN FILE
 No. 09-8902





Exc.	Muck	Subgrade	EMB
9	0	23	4
96	0	165	224
85	0	103	259
81	0	107	231
96	0	161	166

910
910
910
910
910

R/W
50

R/W
50

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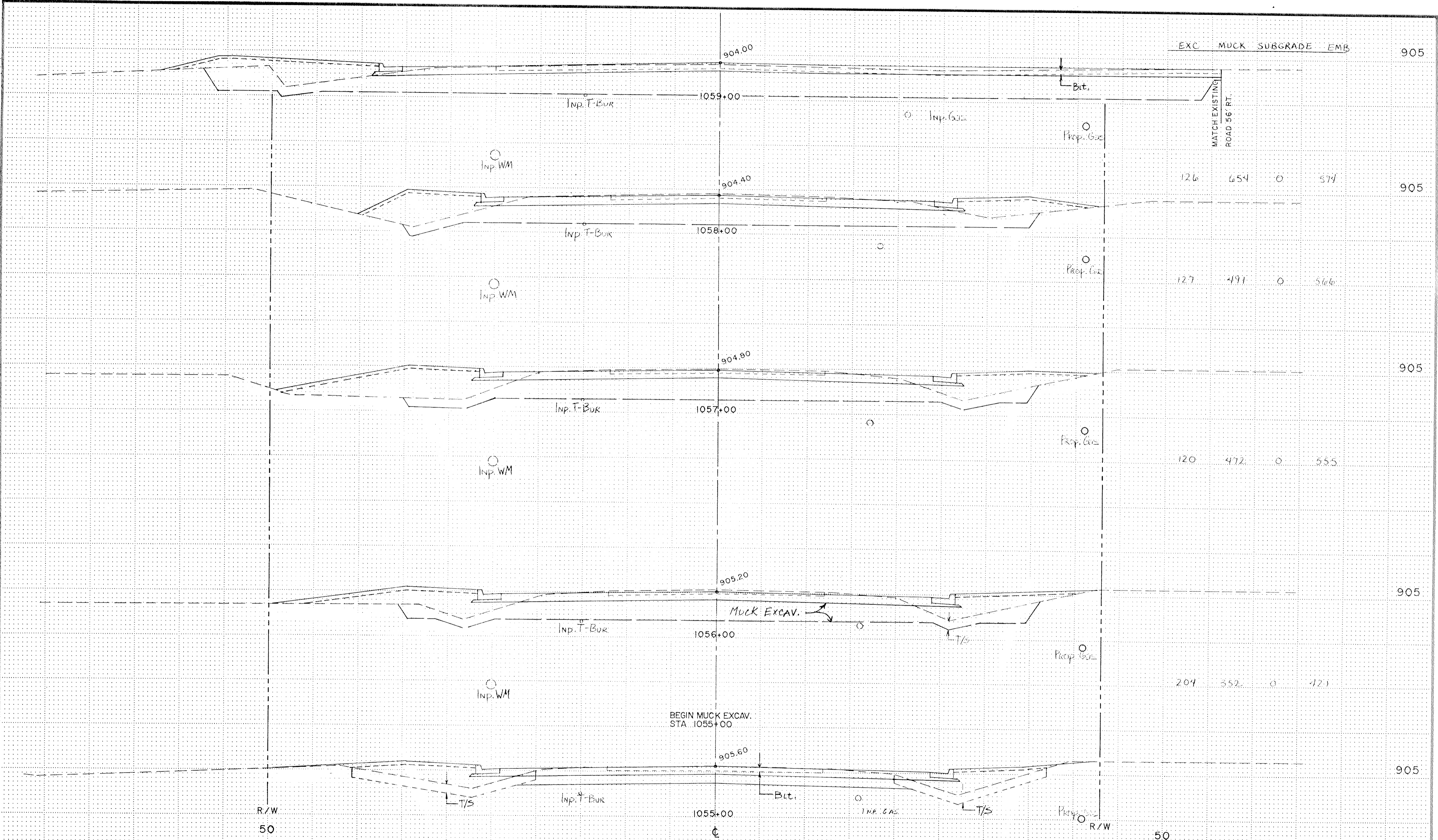
ORIGINAL DATE: 11/15/83
REVISIONS:
SURVEY BK. NO.

COUNTY ROAD J
C.S.A.H. 32
RAMSEY/ANOKA COUNTY
CROSS SECTIONS
STA. 1008+00 - 1011+00

Date _____ Minn. Reg. No. 12666

DESIGN BY: DJT
DRAWN BY: MJM, LB
S.A.P. NO. 02 - 632 - 05
62 - 601 - 04

SHEET 29 OF 38
DESIGN FILE No. 09-B902



EXC MUCK SUBGRADE EMB 905

126 654 0 574 905

127 491 0 566 905

120 472 0 555 905

204 352 0 421 905

R/W 50 905 R/W 50

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BRW
 INCORPORATED
 ENGINEERING
 SURVEYING
 CONSULTING

DESIGN BY: DJT
 DRAWN BY: M.J.M., L.B.

ORIGINAL DATE: 11/15/89
 REVISIONS:

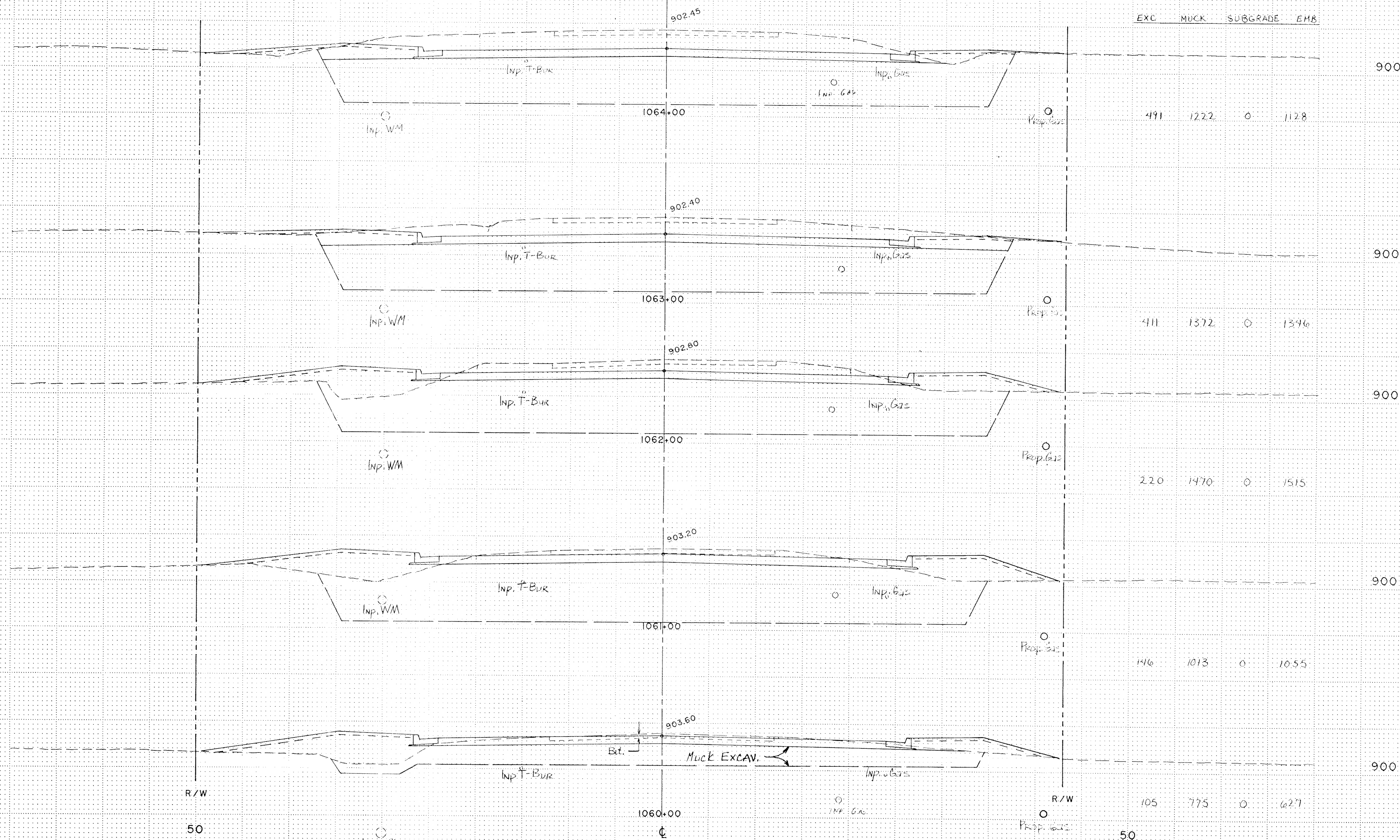
SURVEY BK. NO.

COUNTY ROAD J
C.S.A.H. 32
RAMSEY/ANOKA COUNTY
CROSS SECTIONS
STA. 1055+00 - 1059+00

Date _____ Minn. Reg. No. 126566

S.A.P. NO. 02 - 632 - 05
 62 - 601 - 04

SHEET 30 OF 38 DESIGN FILE No. 09-8902

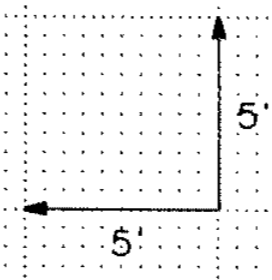


R/W

50

R/W

50



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 State of Minn. Statutes Sections 326.02 to 326.16.



DESIGN BY: DJT
DRAWN BY: MJM

Date _____ Minn. Reg. No. 12666

ORIGINAL DATE: 11/15/89
REVISIONS

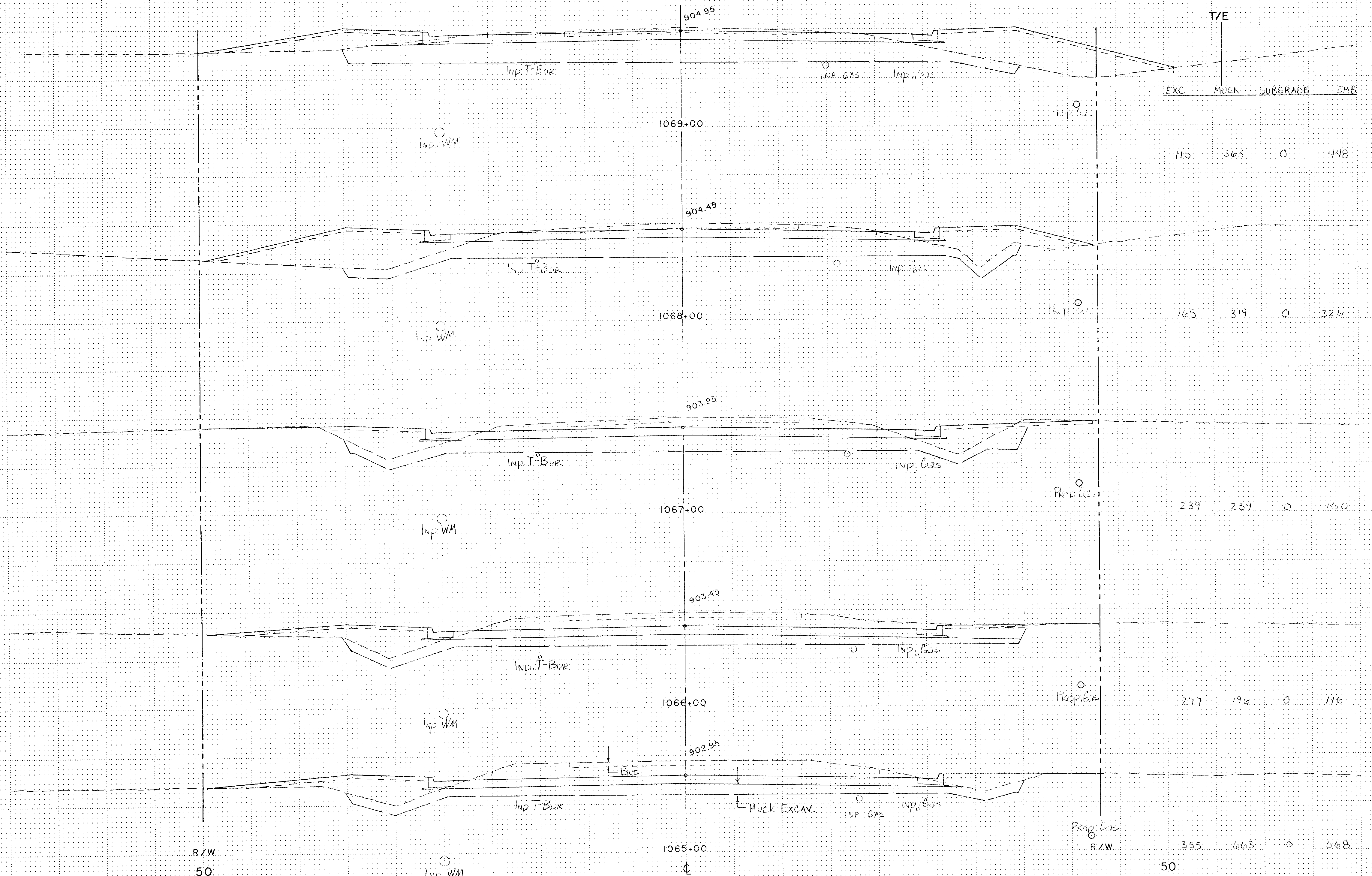
SURVEY BK. NO.

COUNTY ROAD J
C.S.A.H. 32
RAMSEY/ANOKA COUNTY
CROSS SECTIONS
STA. 1060+00 - 1064+00

S.A.P. NO. 02 - 632 - 05
62 - 601 - 04

SHEET 31 OF 38

DESIGN FILE
No. 09-8902



T/E
 EXC MUCK SUBGRADE EMB

115 363 0 448

165 319 0 326

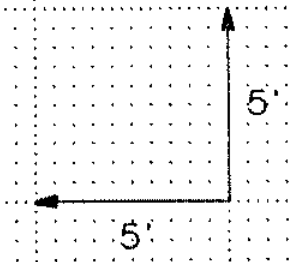
239 239 0 160

277 196 0 116

355 663 0 568

R/W
50

50



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 State of Minn. Statutes Sections 326.02 to 326.16.

Date _____ Minn. Reg. No. 12666

MRW

PLANNING
 TRANSPORTATION
 ENGINEERING
 SURVEYING

DESIGN BY: DJT
 DRAWN BY: MJM

S.A.P. NO. 02 - 632 - 05
 62 - 601 - 04

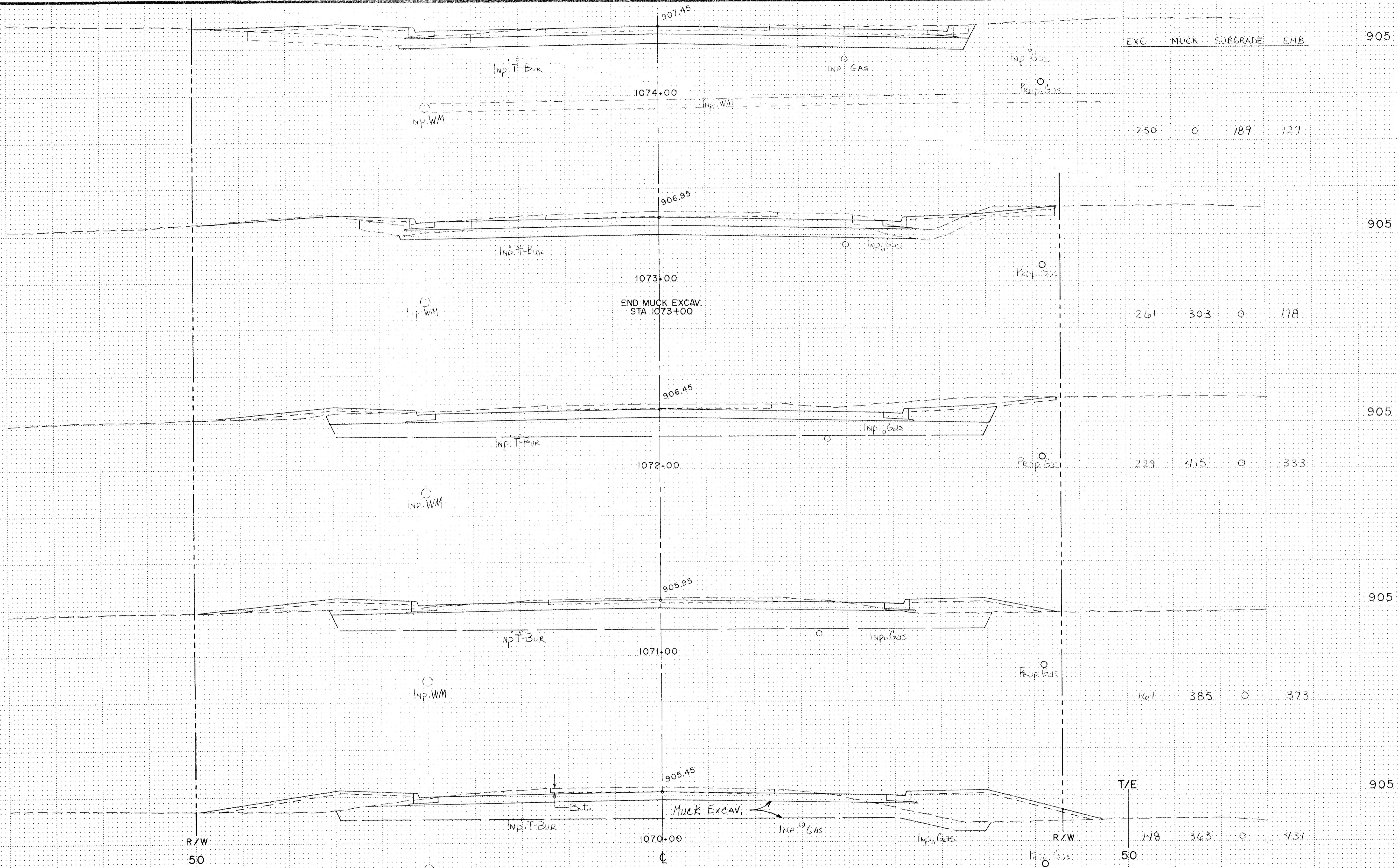
ORIGINAL DATE: 11/15/89
REVISIONS:
SURVEY BK. NO.

COUNTY ROAD J
C.S.A.H. 32
RAMSEY/ANOKA COUNTY

CROSS SECTIONS
STA. 1065+00 - 1069+00

SHEET 32 OF 38

DESIGN FILE
 No. 09-8902



Station	Excavation (EXC)	Muck (MUCK)	Subgrade (SUBGRADE)	Embankment (EMB)
1074+00	250	0	189	127
1073+00	261	303	0	178
1072+00	229	415	0	333
1071+00	161	385	0	373
1070+00	148	363	0	431

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BRW
 ENGINEERING
 15 ANOKA
 TRANSPORTATION
 ENGINEERING
 15 ANOKA, MN 55303

DESIGN BY: DJT
 DRAWN BY: MJM

Date: _____ Minn. Reg. No. 12666

ORIGINAL DATE: 11/15/89
REVISIONS:
SURVEY BK. NO.

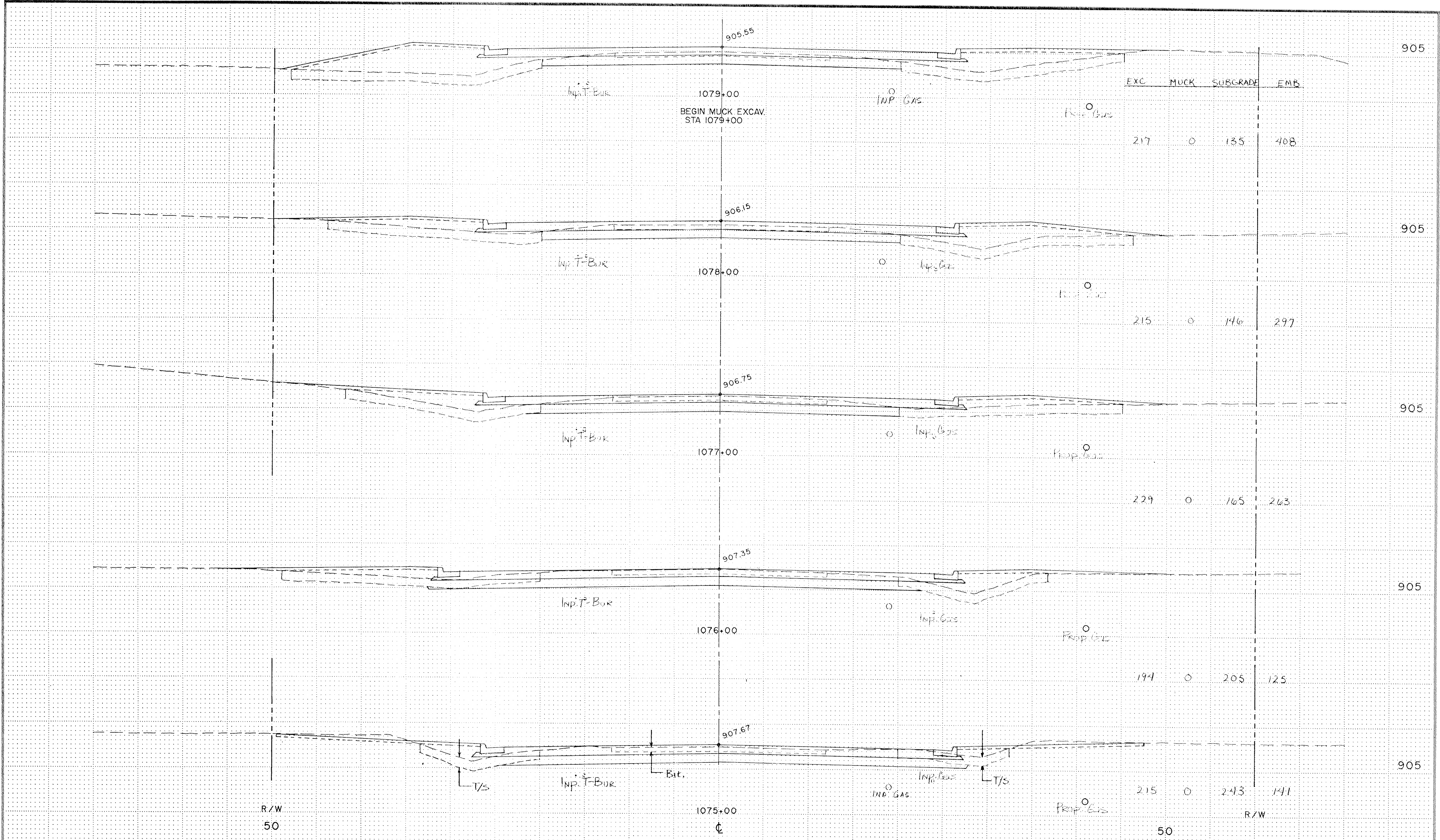
COUNTY ROAD J
C.S.A.H. 32
RAMSEY/ANOKA COUNTY

CROSS SECTIONS
STA. 1070+00 - 1074+00

SHEET 33 OF 38

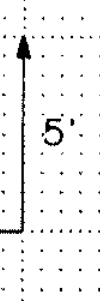
DESIGN FILE No. 09-8902

S.A.P. NO. 02 - 632 - 05
 62 - 601 - 04



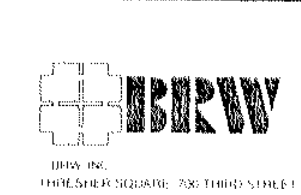
R/W
50

R/W



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 State of Minn. Statutes Sections 326.02 to 326.16.

Date _____ Minn. Reg. No. 12666.



DESIGN BY: DJT
DRAWN BY: MJM

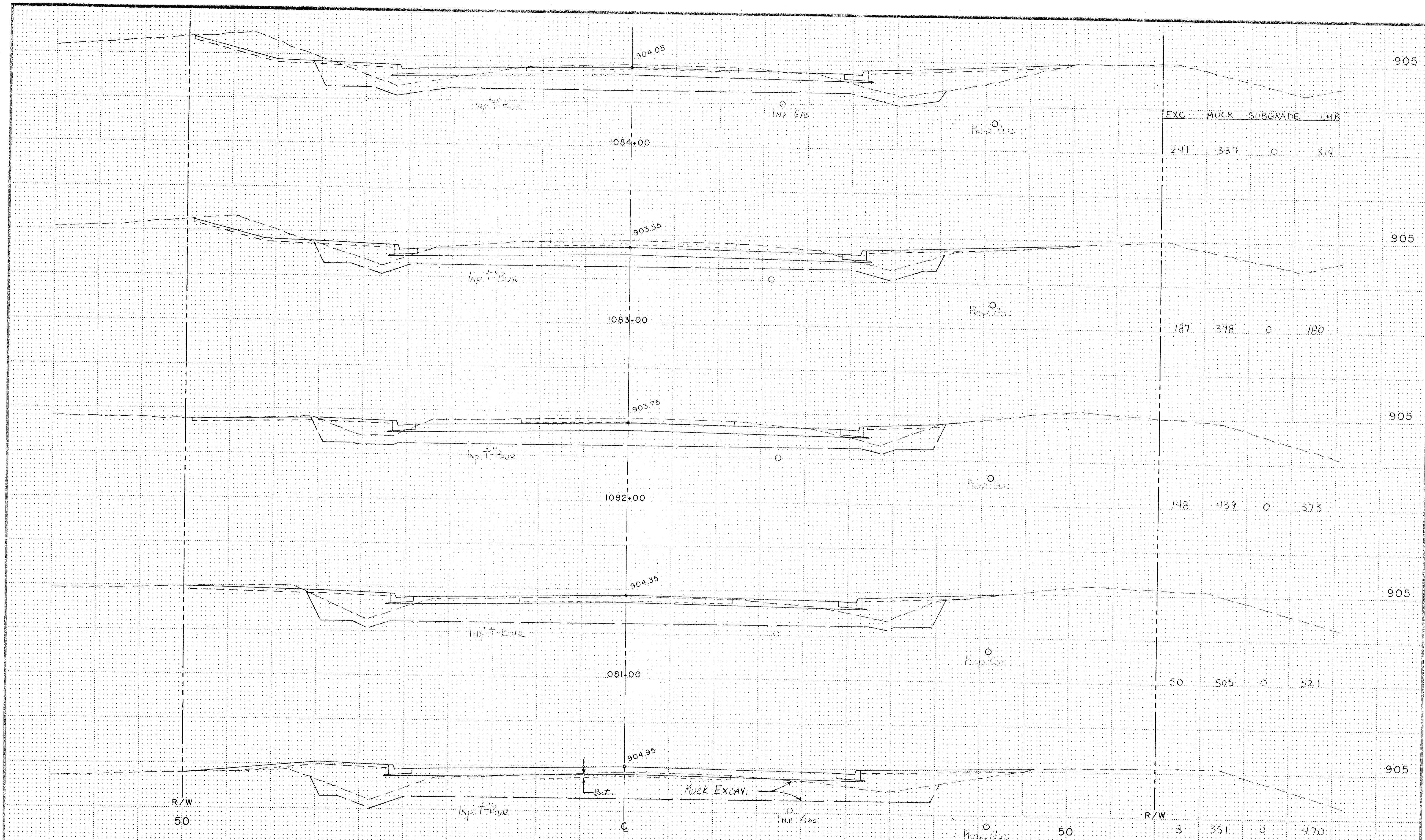
S.A.P. NO. 02 - 632 - 05
62 - 601 - 04

ORIGINAL DATE: 11/15/89
REVISIONS:
SURVEY BK. NO.

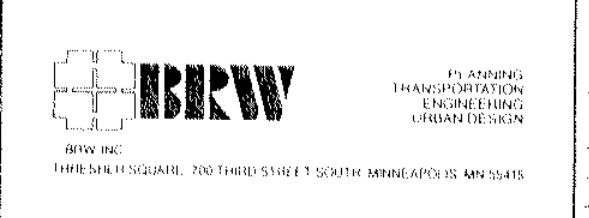
COUNTY ROAD J
C.S.A.H. 32
RAMSEY/ANOKA COUNTY
CROSS SECTIONS
STA. 1075+00 - 1079+00

SHEET 34 OF 38

DESIGN FILE
No. 09-8902



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 State of Minn. Statutes Sections 326.02 to 326.16.



ORIGINAL DATE 11/15/89
REVISIONS:
SURVEY BK. NO.

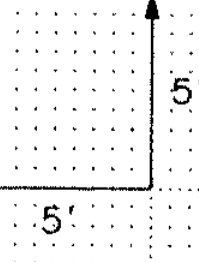
COUNTY ROAD J
C.S.A.H. 32
RAMSEY/ANOKA COUNTY
CROSS SECTIONS
STA. 1080+00 - 1084+00

DESIGN BY: DJT
 DRAWN BY: MJM

S.A.P. NO. 02 - 632 - 05
 62 - 601 - 04

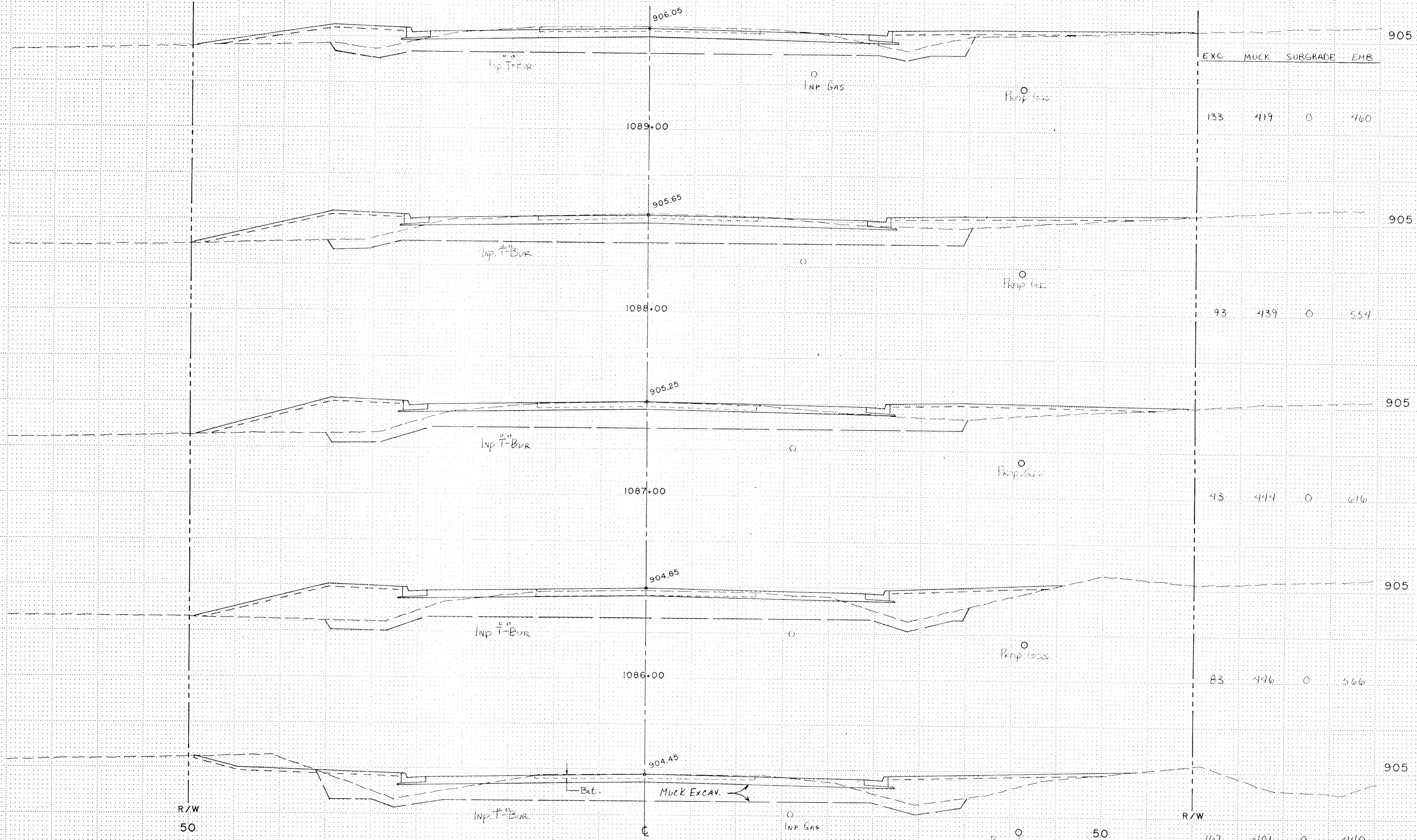
SHEET 35 OF 38

DESIGN FILE No 09-8902



R/W 50

R/W 3



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Date _____ Minn. Reg. No. 12666

BBRW
 CIVIL ENGINEERING
 11111 11111 11111
 11111 11111 11111
 11111 11111 11111

DESIGN BY: DJT
 DRAWN BY: MJM

S.A.P. NO. 02 - 632 - 05
 62 - 601 - 04

ORIGINAL DATE 11/15/89
 REVISIONS

 SURVEY BK. NO. _____

COUNTY ROAD J
C.S.A.H. 32
RAMSEY/ANOKA COUNTY

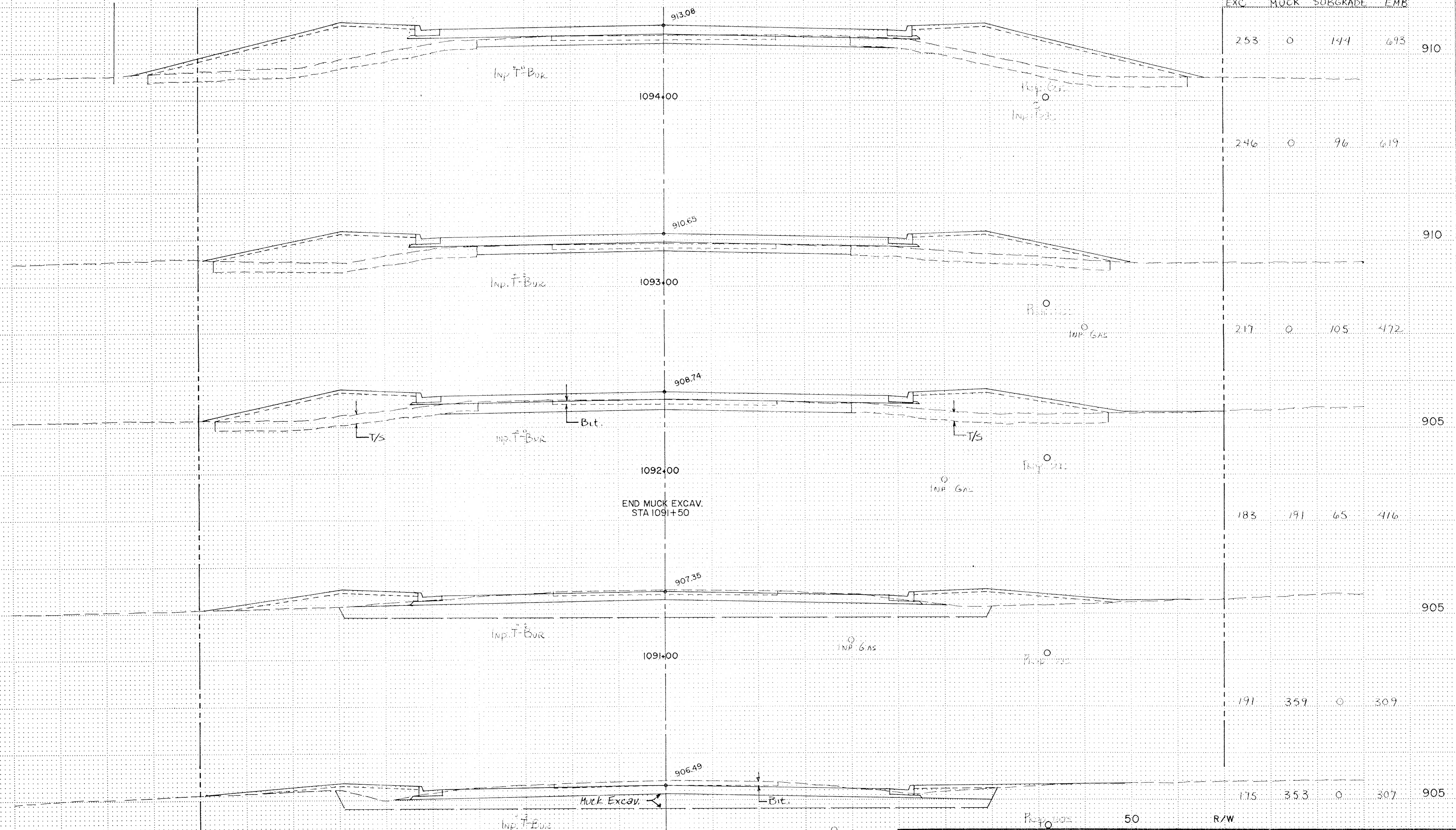
CROSS SECTIONS
STA. 1085+00 - 1089+00

SHEET 36 OF 38

DESIGN FILE
 No 09-8902

T/E

EXC. MUCK SUBGRADE EMB.



END MUCK EXCAV. STA 1091+50

R/W

50

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 State of Minn. Statutes Sections 326.02 to 326.16.



DESIGN BY DJT
DRAWN BY MJM

S.A.P. NO. 02 - 632 - 05
62 - 601 - 04

ORIGINAL DATE: _____
REVISIONS: _____

SURVEY BK NO. _____

COUNTY ROAD J
C.S.A.H. 32
RAMSEY/ANOKA COUNTY

CROSS SECTIONS
STA 1090+00 - 1094+00

SHEET 37 OF 38

DESIGN FILE
No. 09-8302

Date _____ Minn. Reg. No. 12666

EXC MUCK SUBGRADE FMB

15 0 19 13

925

926.97

1099+00

133 0 72 175

920

924.30

1098+00

207 0 63 313

915

921.76

1097+00

175 0 55 270

915

918.99

1096+00

FENCE
1096+10, 52' RT
1096+47, 55' RT

SECTION @ 1096+10

915

915.99

1095+00

99 0 259 120

915

50

MATCH EXISTING ROAD (100' LT)

MATCH EXISTING ROAD (100' RT)

R/W

R/W

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 State of Minn. Statutes Sections 326.02 to 326.16.

BRW

DESIGN BY: DJT
DRAWN BY: MJM

ORIGINAL DATE	_____
REVISIONS	_____
SURVEY BK NO.	_____

COUNTY ROAD J
C.S.A.H. 32
RAMSEY/ANOKA COUNTY
CROSS SECTIONS
STA 1095+00 - 1099+00

Date _____ Minn. Reg. No. _____

S.A.P. NO. 02 - 632 - 05
62 - 601 - 04

SHEET 38 OF 38
DESIGN FILE No. C9-8902

50

