

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) S.A.P. 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) S.A.P. 02-632-06, S.A.P. 62-601-04

STATE PROJ. NO.

S.A.P. 183-020-02
S.A.P. 02-632-05

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

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

S.A.P. 02-632-06
S.A.P. 62-601-04

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

BEGIN EXCEPTION
STA. 1016+00

END EXCEPTION
STA. 1055+00

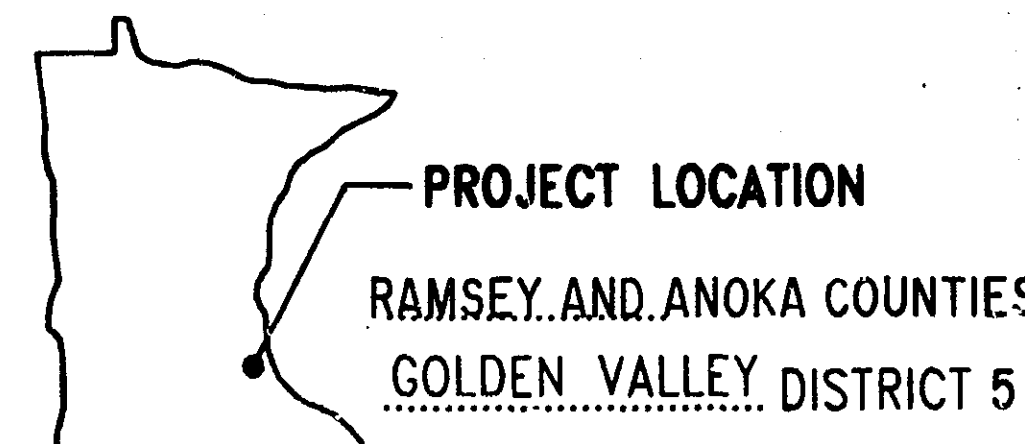
ALL CONTRACTORS
MUST CONTACT
GOPHER STATE
ONE CALL
TWIN CITY AREA 454-0002
MN. TOLL FREE 1-800-252-1166
BEFORE CONSTRUCTION BEGINS

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

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



PROJECT LOCATION
RAMSEY AND ANOKA COUNTIES
GOLDEN VALLEY DISTRICT 5

SCALES

PLAN 1" = 50'
PROFILE 1" = 50'
INDEX MAP 1" = 1 MILE
GENERAL LAYOUT 1" = 1,760'

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 N20 Factor 1.634910 To

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

PLAN REVISIONS		
DATE	SHEET NO.	APPROVED BY

DEPARTMENT OF TRANSPORTATION FEDERAL HIGHWAY ADMINISTRATION	
APPROVED	DATE
DIVISION ADMINISTRATOR	

Recommended For Approval DES 3-26-1990
TRAFFIC ENGINEER
Recommended For Approval KMR 3-26-1990
ENVIRONMENTAL ENGINEER
Recommended For Approval D.J.D. 3-26-1990
MAINTENANCE ENGINEER
Recommended For Approval L.K.F. 3-26-1990
CONSTRUCTION ENGINEER
Recommended For Approval DLR 3-26-1990
DESIGN ENGINEER
Recommended For Approval J.A.P. 3-26-1990
RIGHT OF WAY ENGINEER
Approved 19 W. W. W. 3-26-1990
COORDINATING ENGINEER
Approved 19 P. K. K. 3-26-1990
ASSISTANT COUNTY ENGINEER
STATE PROJECT NO. AREA JOB

STATE AID PROJ. NO. 02-632-05, 02-632-06, 62-601-04
STATE PROJ. NO.

MINN. PROJ. NO.
MINN. PROJ. NO.

GOVERNING SPECIFICATIONS

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

INDEX

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1	TITLE SHEET
2 - 3	ESTIMATED QUANTITIES
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8	EARTHWORK SUMMARY
9	TYPICAL SECTIONS
10	CONSTRUCTION DETAILS
11	TEMPORARY EROSION CONTROL
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ASBUILT PLAN
CONFORMING TO
CONST. RECORDS

DONE BY: B. K. K.
DATE: 28 FEB 92

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.

BRW, INC.
DATE 2-15-90 REG. NO. 12666 ENGR. B. K. K.
COUNTY

Design Squad DANIEL TILSEN
Recommended For Approval B. K. K. 3/26/90
RAMSEY COUNTY ENGINEER
Approved 3/20/1990 B. K. K.
CHAIR OF THE RAMSEY COUNTY BOARD
Approved 3/22/1990 B. K. K.
ANOKA COUNTY ENGINEER
Approved 3/26/1990 B. K. K.
CITY OF BLAINE
Approved 3/26/1990 B. K. K.
CITY OF SPRING LAKE PARK
Approved 3/26/1990 B. K. K.
CITY OF MOUNDSVIEW
Recommended For Approval B. K. K. 4/9/1990
DISTRICT STATE AID ENGINEER
Recommended For Approval B. K. K. 5/1/1990
STATE AID PLANS AND SPECS ENGINEER
Approved 5-1-1990 B. K. K.
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.

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
	2021.501	MOBILIZATION	LUMP SUM	1					0.2				0.35						0.35		0.10	
(1)(3)	2101.501	CLEARING	ACRE	1.3					0.40				0.45						0.45			
(1)(3)	2101.502	CLEARING	TREE	54					30				12						12			
(3)	2101.506	GRUBBING	ACRE	1.3					0.40				0.45						0.45			
(3)	2101.507	GRUBBING	TREE	54					30				12						12			
	2104.501	REMOVE PIPE CULVERTS & SEWERS	LIN FT	354																	354	
(3)	2104.501	REMOVE CURB AND GUTTER	LIN FT	220									110						110			
(3)	2104.501	REMOVE CONCRETE MEDIAN	LIN FT	85									42.5						42.5			
(3)(2)(6)(13)	2104.505	REMOVE CONCRETE PAVEMENT	SQ YD	175					101				37						37			
(3)(2)(6)	2104.505	REMOVE BITUMINOUS PAVEMENT	SQ YD	24174					5344				9415						9415			
(11)	2104.521	SALVAGE PIPE CULVERTS AND SEWERS	LIN FT	140																	140	
(3)	2104.521	SALVAGE GUARD RAIL - PLATE BEAM	LIN FT	160									80						80			
(3)	2104.521	SALVAGE GUARD RAIL - 3 CABLE	LIN FT	610									305						305			
	2104.521	SALVAGE CHAIN LINK FENCE	LIN FT	398					236				162									
	2104.521	SALVAGE WOOD FENCE	LIN FT	412									412									
	2104.523	SALVAGE CONCRETE APRONS	EACH	3																	3	
	2104.523	SALVAGE MANHOLES OR CATCH BASINS	EACH	2																	2	
(3)	2104.523	SALVAGE HYDRANT	EACH	8					5.0				1.5						1.5			
(12)	2104.523	SALVAGE CASTING	EACH	11					5.0				2.0						2.0			2
(3)	2104.523	SALVAGE SIGNS TYPE C	EACH	54									27						27			
(2)(3)	2105.501	COMMON EXCAVATION	CU YD	11841					1799				5021						5021			
(3)	2105.505	MUCK EXCAVATION	CU YD	16150									8075						8075			
(3)	2105.507	SUBGRADE EXCAVATION	CU YD	7156					2876				2140						2140			
(3)	2105.522	SELECT GRANULAR BORROW (LV)	CU YD	20272									10136						10136			
(3)(4)	2130.501	WATER	M GAL	26					5.2				10.4						10.4			
(3)(4)	2131.502	CALCIUM CHLORIDE SOLUTION	GAL	2000					400				800						800			
(3)(5)	2211.501	AGG BASE CL 6 (OR CL 5 100% CRUSHED)	TON	8010					1777				3116.5						3116.5			
(3)(7)	2331.508	TYPE 31 WEARING COURSE MIXTURE	TON	152					60				46						46			
(3)(7)	2331.508	TYPE 61 WEARING COURSE MIXTURE	TON	2783					579				1102						1102			
(3)(7)	2331.510	TYPE 31 BINDER COURSE MIXTURE	TON	4086					880				1603						1603			
(3)(7)	2331.514	TYPE 31 BASE COURSE MIXTURE	TON	12672					2634				5019						5019			
(3)(8)	2357.502	BITUMINOUS MATERIAL FOR TACK COAT	GAL	6717					1529				2594						2594			
	0411.603	PRECAST RETAINING WALL	SQ FT	555													416.25		138.75			

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.
- (13) QUANTITY INCLUDES 3" CONCRETE WALK REMOVAL.

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.
THUNDER SQUARE
700 THIRD STREET SOUTH
MINNEAPOLIS, MN 55415
PHONE: (612)377-0700

ORIGINAL DATE 1/09/90
REVISIONS 3/20/90
RET. WALL QUANT-6/01/90

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

ESTIMATED QUANTITIES

28-108

Date _____ Minn. Reg. No. 12666

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

SHEET 2 OF 38

DESIGN FILE
ESTQUA1.DWG
No. 098902

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								STORM SEWER	
					106-020-03		183-020-02		PARTICIPATING		106-020-03		PARTICIPATING		106-020-03		146-020-04		PARTICIPATING					
					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					
	2506.516	F & I CASTING ASSEMBLIES	EACH	26																		26		
(12)	2506.521	INSTALL CASTING ASSEMBLIES	EACH	9					5				2						2					
	2506.522	ADJUST FRAME & RING CASTINGS	EACH	19					15				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)	2521.501	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		2829.5		1762		2482.5		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			0.10		
(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

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- (3) QUANTITY SPLIT FROM STA 999+79 TO STA 1099+85.
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- (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.

BRW
BRW, INC.
PLANNING
TRANSPORTATION
ENGINEERING
URBAN DESIGN
THRESHER SQUARE
700 THIRD STREET SOUTH
MINNEAPOLIS, MN 55415
PHONE: (612) 370-0700

ORIGINAL DATE 1/09/90
REVISIONS 3/20/90
ADDED TRAFFIC CONT. 7/13/90
DELETED G.R. TEB. POST
CONC. DRIVEWAY 7/25/90

SURVEY BOOK

COUNTY ROAD J
C.S.A.H. 32
RAMSEY/ANOKA COUNTY
ESTIMATED QUANTITIES
28-108

Date _____ Minn. Reg. No. 12666

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

SHEET 3 OF 38

DESIGN FILE
ESTQJ2.DWG
No. 098902

PRIVATE UTILITIES TABULATION							(A)
STATION	LOCATION	INPLACE ITEM	CONSTRUCTION LIMITS		OWNER		
			INSIDE	OUTSIDE			
			LIN FT	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	56' 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		
998+00 TO 999+80					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		

WARNING: PRIOR TO CONSTRUCTION CONTACT

U.S. WEST COMMUNICATIONS
JIM SHIELDS
612-569-2439
5910 SHINGLE CREEK PKWY.
BROOKLYN CENTER, MN. 55430

NORTH CENTRAL CABLE TV
JOHN ALLISON
612-483-3233
934 WOODHILL DRIVE
ROSEVILLE, MN. 55113

WILLIAMS PIPE LINE COMPANY
JOE STREIF-ROW COORDINATOR
612-633-1555 FAX 788-1997
APACHE OFFICE PARK
SUITE 246
2500 39TH AVE. N.E.
MPLS., MN. 55421

MIDWEST GAS
STEVE GUHANICK
612-755-3800
1930 COON RAPIDS BLVD.
COON RAPIDS, MN. 55433

ANOKA ELECTRIC COOPERATIVE
CARY TRACEY
612-421-3761
P.O. BOX 279
ANOKA, MN. 55303-0279

NORTHERN STATES POWER COMPANY
GEORGE KERBER (ANOKA COUNTY)
612-330-5500
4501 68TH AVE. N.
BROOKLYN CENTER, MN. 55430

NORTHERN STATES POWER COMPANY
ERV WESTPHAL (RAMSEY COUNTY)
612-779-3114
1700 COUNTY ROAD E
WHITE BEAR LAKE, MN. 55110

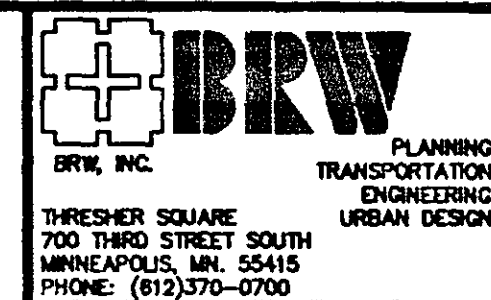
INDEX OF TABULATED CHARTS		
SHEET NO.	CHART	DISCRIPTION
4	A	PRIVATE UTILITIES TABULATION
5	B	INPLACE MANHOLE TABULATION
5	C	SALVAGE GUARDRAIL
5	D	CLEARING AND GRUBBING
5	E	SALVAGE FENCE
5	F	CONCRETE REMOVAL
5	G	SAWING BIT. PAV'T
5	H	BIT. PAV'T REMOVAL
6	I	CONCRETE SIDEWALK, C & G, MEDIAN, DRIVEWAY AND BIT. CURB
6	J	PLATE BEAM GUARDRAIL
6	K	WATERMAIN TABULATION
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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 KEYED 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

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

SURVEY BOOK

S.A.P. NO.

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

SHEET 4 OF 38

DESIGN FILE
ST-PU.DWG
No. 098902

28-108

INPLACE MANHOLE TABULATION (B)						
INPLACE ITEM	STATION	LOCATION	TOP OF CASTING		ADJUST EACH	RECONSTRUCT LIN FT
			EXISTING	PROPOSED		
MH	984+93	80' RT	911.32	911.32		LEAVE AS IS
MH	985+07	28' LT	911.45	911.45		LEAVE AS IS
MH	986+29	25' LT	910.93	911.59	1	BLAINE
MH	986+29	40' LT	910.71	911.29	1	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+86	15' RT	911.83	912.71		6.9 SPRING LAKE PK
MH	992+56	13' RT	912.00	912.15	1	SPRING LAKE PK
MH	993+00	33' LT	911.56	911.60		LEAVE AS IS
MH	994+25	13' RT	911.90	911.80	1	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
MH	996+45	13' RT	911.00	911.17	1	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
MH	1001+92	35' LT	910.94	912.16		6.2 MOUNDS VIEW
MH	1003+52	28' RT	911.81	912.90		6.1 BLAINE
MH	1006+50	22' RT	912.42	912.58	1	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
MH	985+87	9' LT	911.14	911.84	1	US WEST
MH	985+87	14' LT	911.29	911.75	1	US WEST
MH	985+96	9' LT	911.12	911.85	1	US WEST
MH	985+96	14' LT	911.28	911.76	1	US WEST
MH	986+05	9' LT	911.09	911.86	1	US WEST
MH	986+05	14' LT	911.26	911.78	1	US WEST
MH	989+47	15' LT	911.73	912.64	1	US WEST
MH	989+54	10' LT	911.88	912.75	1	US WEST
MH	989+54	15' LT	911.75	912.66	1	US WEST
MH	999+00	10' LT	910.67	911.57	1	US WEST
MH	1006+13	14' LT	912.62	912.85	1	US WEST
MH	1009+95	17' LT	910.00	910.91	1	US WEST
MH	1010+08	19' LT	910.00	910.80	1	US WEST
MH	1094+22	15' LT	913.41	913.41		LEAVE AS IS
		TOTALS			19	56.2

SALVAGE GUARDRAIL				©
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+67	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+85	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	
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
DESIGN
THRESHER SQUARE
700 THIRD STREET SOUTH
MINNEAPOLIS, MN 55415
PHONE: (612) 370-0700

ORIGINAL DATE 1/09/90
REVISIONS 3/20/90

SURVEY BOOK

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

Date _____ Minn. Reg. No. 12666

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

SHEET 5 OF 38

DESIGN FILE
TABQUA1.DWG
No. 028902

CONCRETE SIDEWALK, C & G, MEDIAN, DRIVEWAY AND BIT. CURB ①							
STATION TO STATION	LOCATION	DSGN B624 C & G	3" CONC WALK	6" CONC DRIVE	CONC MEDIAN	BIT 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						
1055+00 TO 1066+00	LT & RT	2436	80		79		
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

TURF ESTABLISHMENT ②					
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

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	2.0	54			
998+00 TO 999+79	LT & RT	5.0	281	1.5	87			1.0	62	
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	

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

PLATE BEAM GUARDRAIL ④			
STATION TO STATION	LOCATION	LIN FT	BRIDGE CONNECTION EACH
1096+00 TO 1099+85	LT & RT	770	2
TOTALS		770	2

INSTALL FENCE ⑤			
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 ⑥		
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

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

WATERMAIN TABULATION (K)							
STATION	LOCATION	SALVAGE	HYDRANTS	ADJUST	6" DIP	VALVE BOX	REMARKS
		EACH	INSTALL	EACH		ADJUST *	
		EACH	EACH	EACH	LF	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	

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

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 1/09/90 REVISIONS 3/20/90 CONC. DRIVE 7/25/90 DESIGN BY: DJT DRAWN BY: RSC CHK'D BY: SURVEY BOOK	COUNTY ROAD J C.S.A.H. 32 RAMSEY/ANOKA COUNTY TABULATED QUANTITIES 28-108
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	MH OR CB	PIPE CULVERT	CONC APRON	PIPE CULVERT	
			EACH	EACH	LIN FT	EACH	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			110	2		
1058+88	185' LT TO 215' LT	18" CMP			30			INCLUDES INSTALL
1058+85 TO 1059+48	26' LT TO 29' LT	36" CMP					68	
1068+65 TO 1069+11	32' LT TO 44' LT	18" CMP					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
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 2	1.00 %	907.00	
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	CB 4	0.20 %	906.92	
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	MH 1	0.20 %	906.50	
6	A 1	CO RD J	1009+50	32.50 RT						908.00			7						III	CB 4	2.00 %	907.86	
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									III	EXIST			
9	A 2	CO RD J	1054+95	31.00 RT	4					901.98			15					1	III	CB 5A	0.40 %	901.92	
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 5	0.40 %	901.69	
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	0.41 %	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						III	CB 7	0.42 %	900.23	
13	A 3	CO RD J	1058+64	41.33 LT						900.35			12					1	III	CB 7	1.00 %	900.23	
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 8	0.134 %	899.38	
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	0.16 %	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 10	0.28 %	898.91	
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 11	0.20 %	898.40	
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				LP 4-3	904.40	897.84	6.6						20		III	CB 12	0.20 %	897.80	
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	CB 13	0.20 %	897.68	
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	A 4	0.20 %	897.65	
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

NOTES:

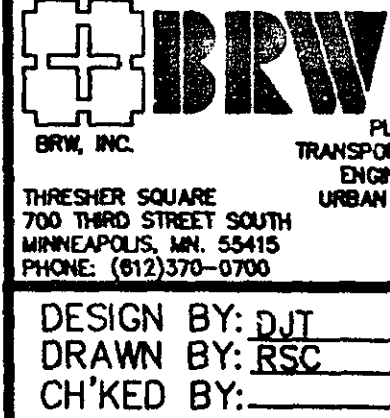
- 1) CONSTRUCT OVER EXISTING PIPE.
2) CONNECT TO EXISTING MANHOLE.
3) REMOVE CONC. APRON AND CONNECT TO EXISTING PIPE.
4) GRADE TO DRAIN.

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

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 3/21/90

SURVEY BOOK

COUNTY ROAD J
C.S.A.H. 32
RAMSEY/ANOKA COUNTY
DRAINAGE TABULATIONS
28-108

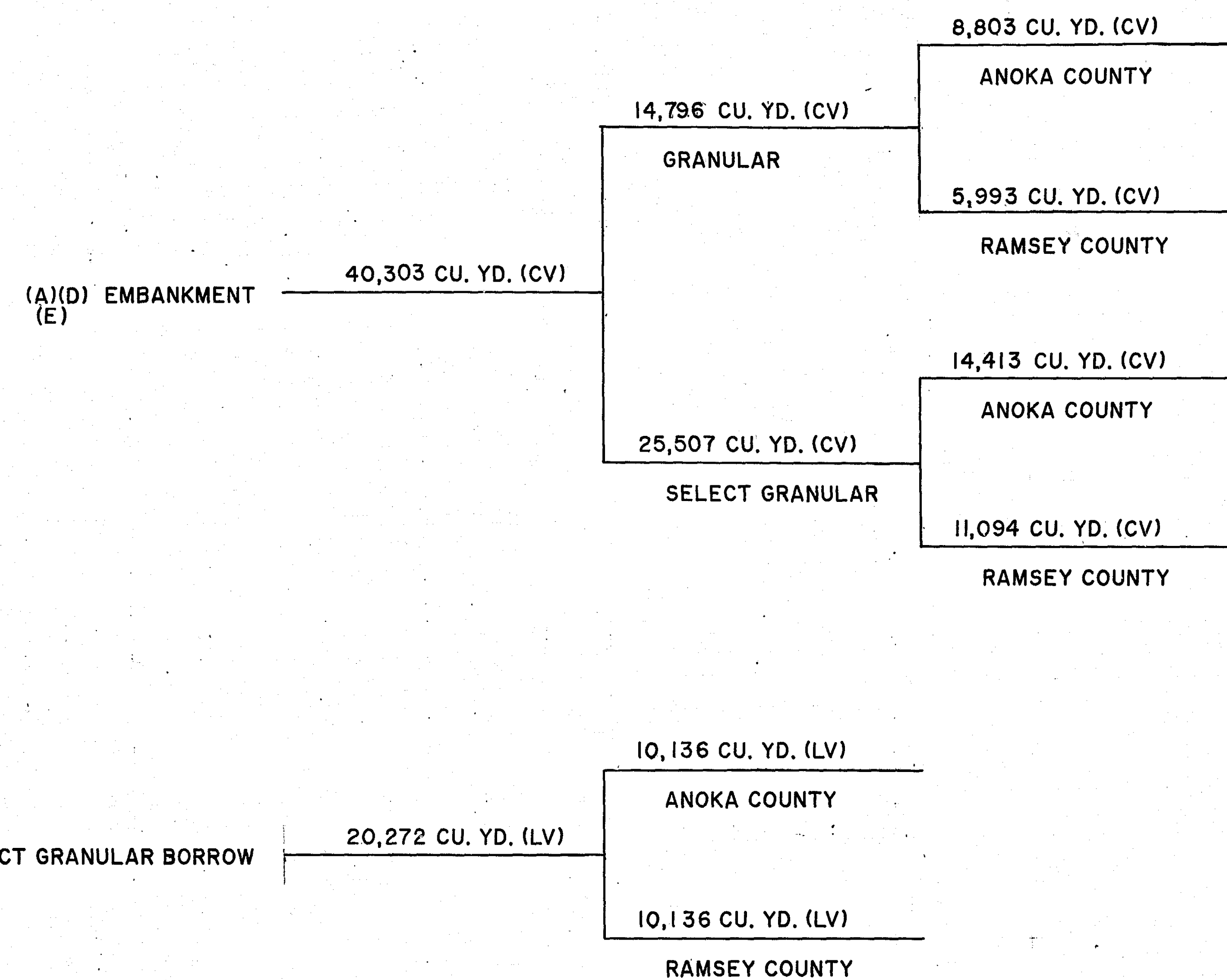
Date Minn. Reg. No. 12666

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

SHEET 7 OF 38

DESIGN FILE
DRAINAB.DWG
No. 098902

EMBANKMENT

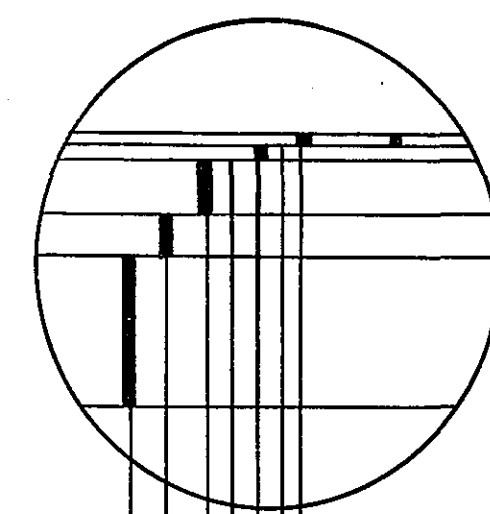


- (A) QUANTITY BASED ON 50%-50% SPLIT FROM STA. 999+79 TO STA. 1099+85.
- (B) SHRINKAGE FACTOR OF 120% USED FOR NORMAL GRADING (EV TO CV).
- (C) ADJUSTMENT FACTOR OF 150% USED FOR BORROW (LV TO CV).
- (D) EMBANKMENT QUANTITY INCLUDES GRADING MATERIAL, SUBGRADE EXCAVATION BACKFILL, MUCK EXCAVATION BACKFILL,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

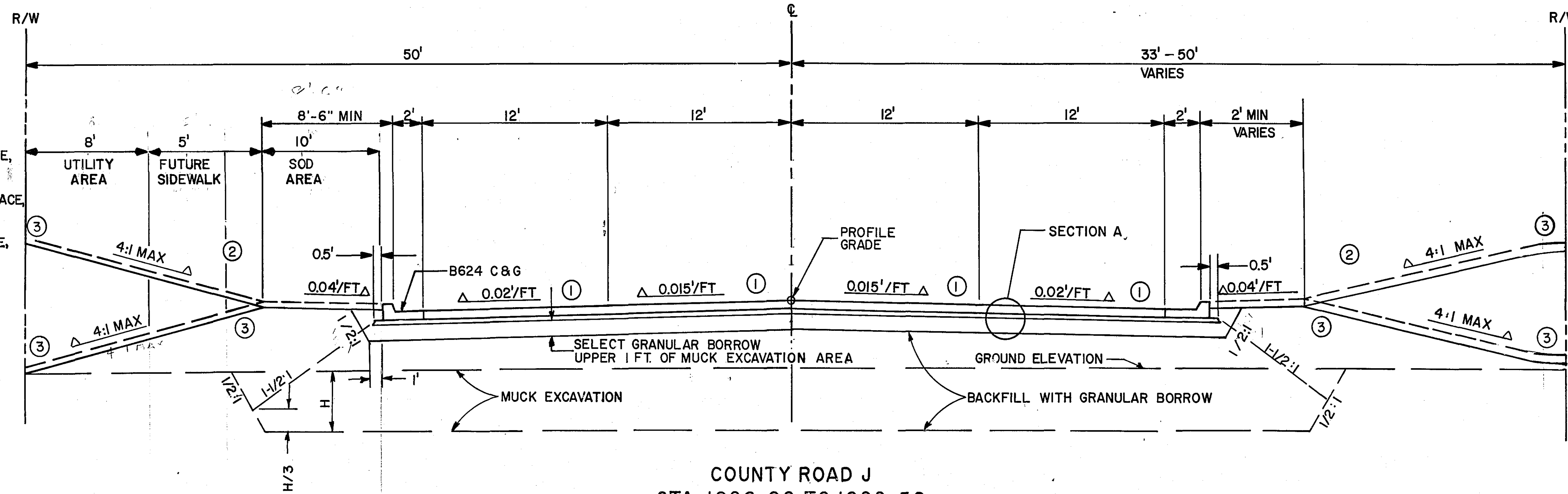
I hereby certify that this plan, specification or report was prepared by me or under my direct supervision and that I am a duly Registered Professional Engineer under the State of Minn. Statutes Sections 326.02 to 326.16.	 BRW, INC. PLANNING TRANSPORTATION ENGINEERING URBAN DESIGN THRESHER SQUARE 700 THIRD STREET SOUTH MINNEAPOLIS, MN 55415 PHONE: (612)370-0700	ORIGINAL DATE: 1/3/90 REVISIONS:	COUNTY ROAD J C.S.A.H. 32 RAMSEY/ANOKA COUNTY EARTHWORK SUMMARY 28-108
		DESIGN BY: DJT DRAWN BY: LB	
Date _____ Minn. Reg. No. _____	S.A.P. NO. 02-632-05 62-601-04	SHEET 8 OF 38	DESIGN FILE No. 09-8902

SECTION A

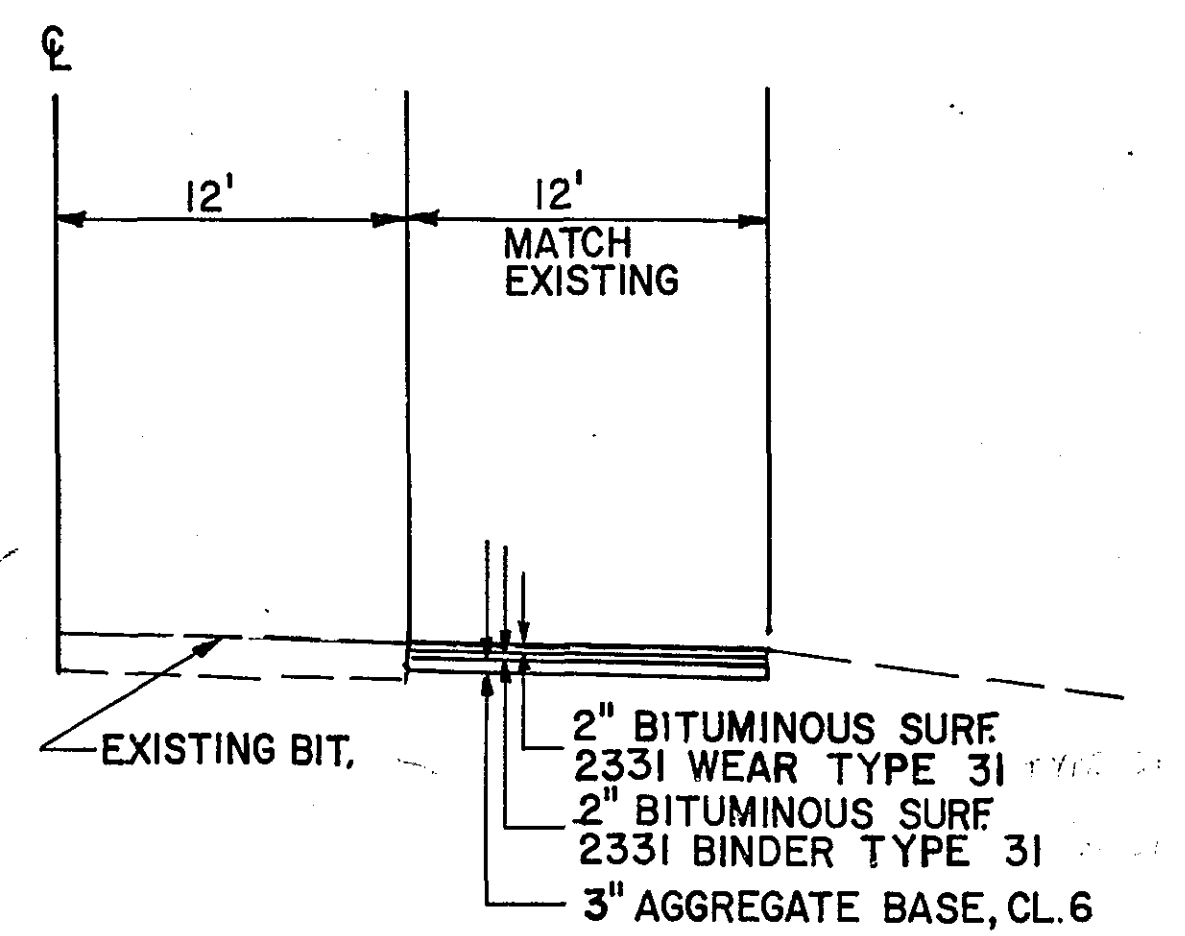
COUNTY ROAD J STA. 984+80 TO 1096+00



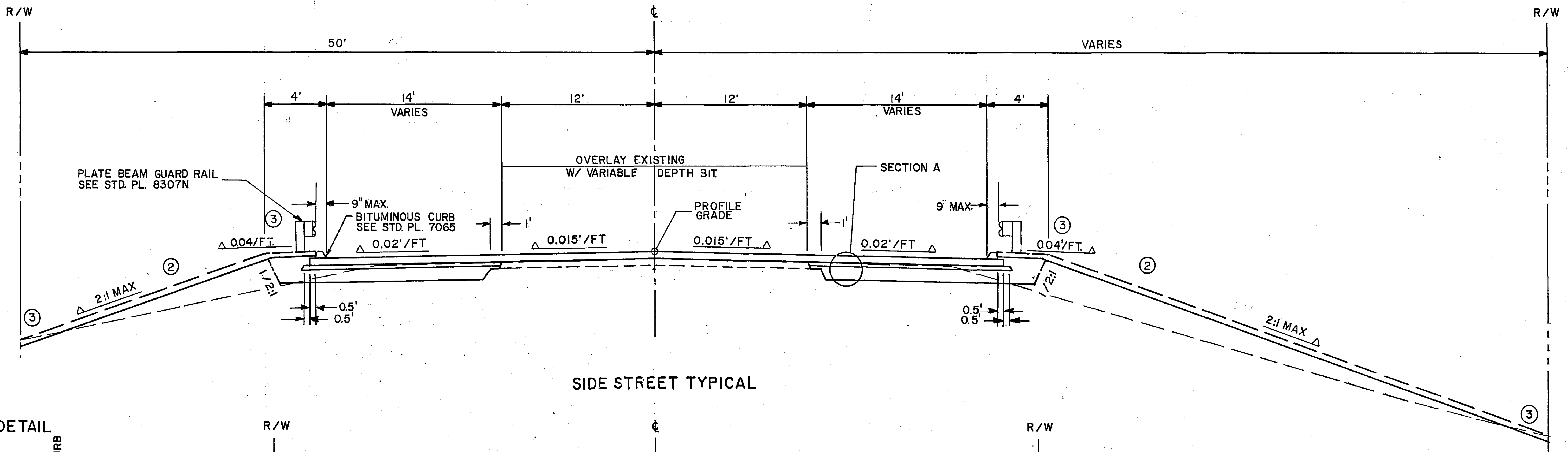
1" PLANT MIXED BITUMINOUS SURFACE,
SPEC. 2331 WEAR TYPE 61
TACK COAT, SPEC. 2357
1 1/2" PLANT MIXED BITUMINOUS SURFACE,
SPEC. 2331 BINDER TYPE 31
TACK COAT, SPEC. 2357
5" PLANT MIXED BITUMINOUS SURFACE,
SPEC. 2331 BASE TYPE 31
3" AGGREGATE BASE, CLASS 6
1' SUBCUT



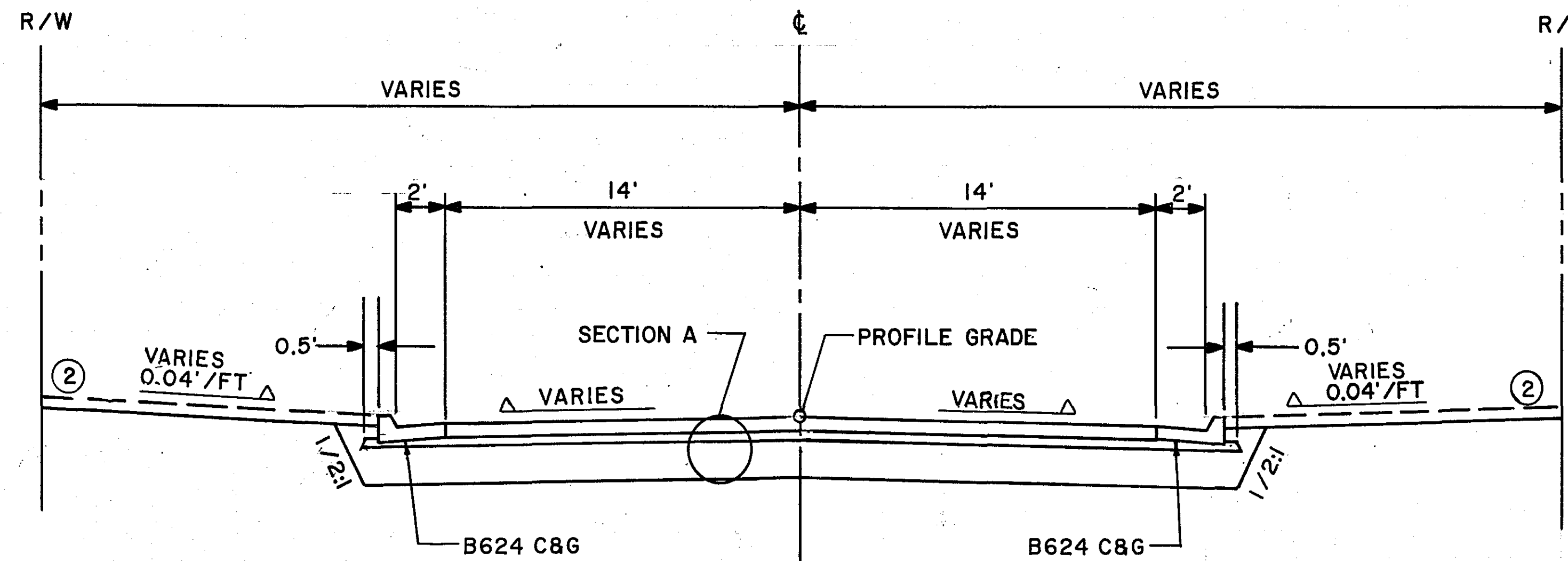
SHOULDER DETAIL STA. 1011+23 TO 1016+00



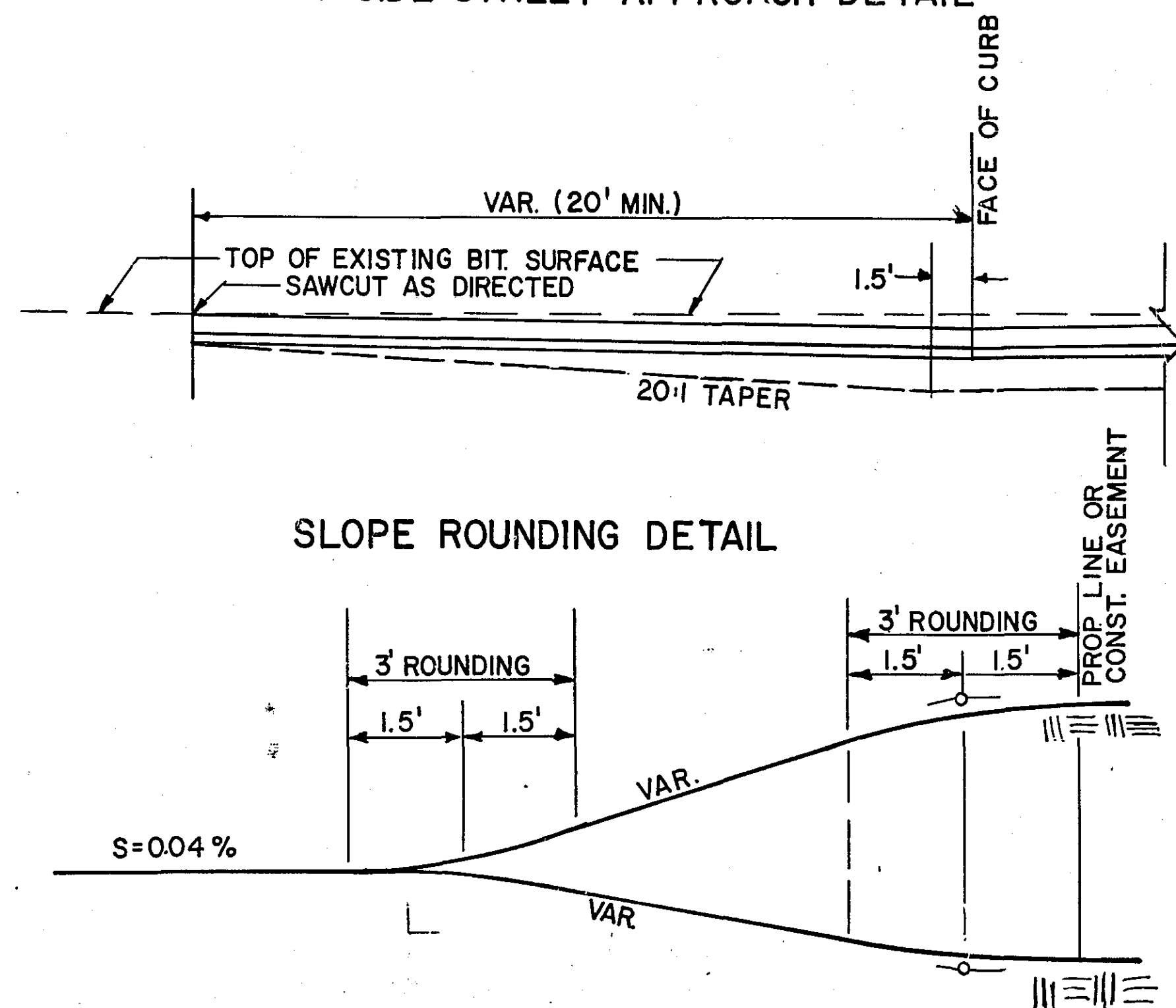
COUNTY ROAD J STA. 1096+00 TO 1099+50



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: DJT
DRAWN BY: LB, DW

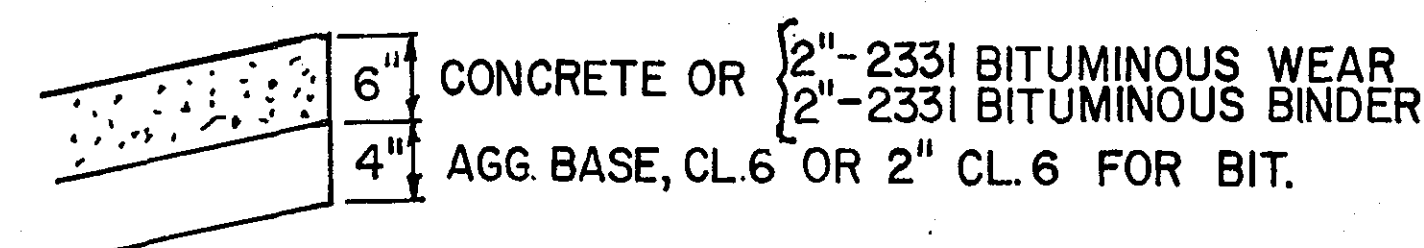
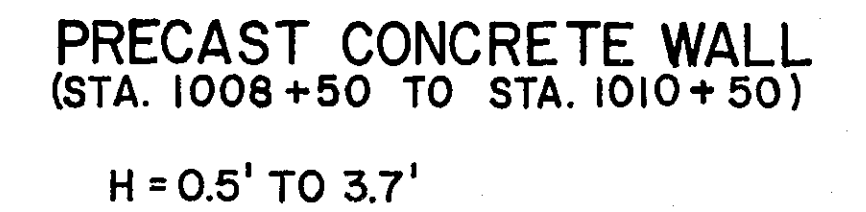
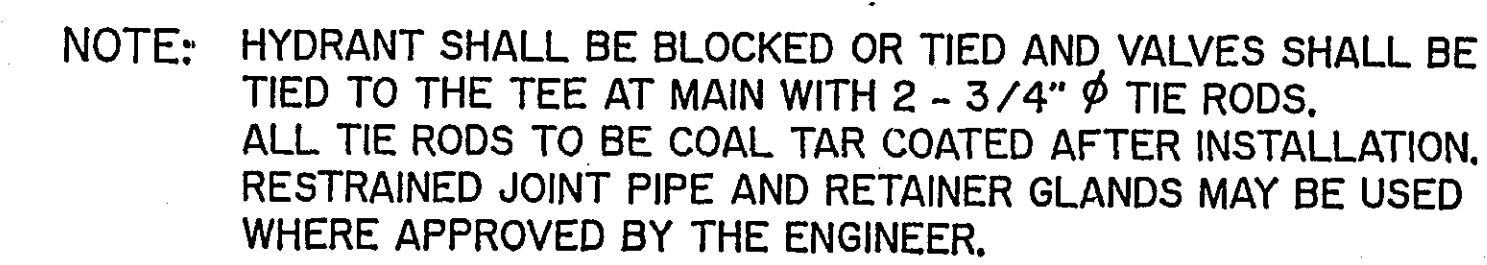
SURVEY BK. NO.

Date: Minn. Reg. No. 12666

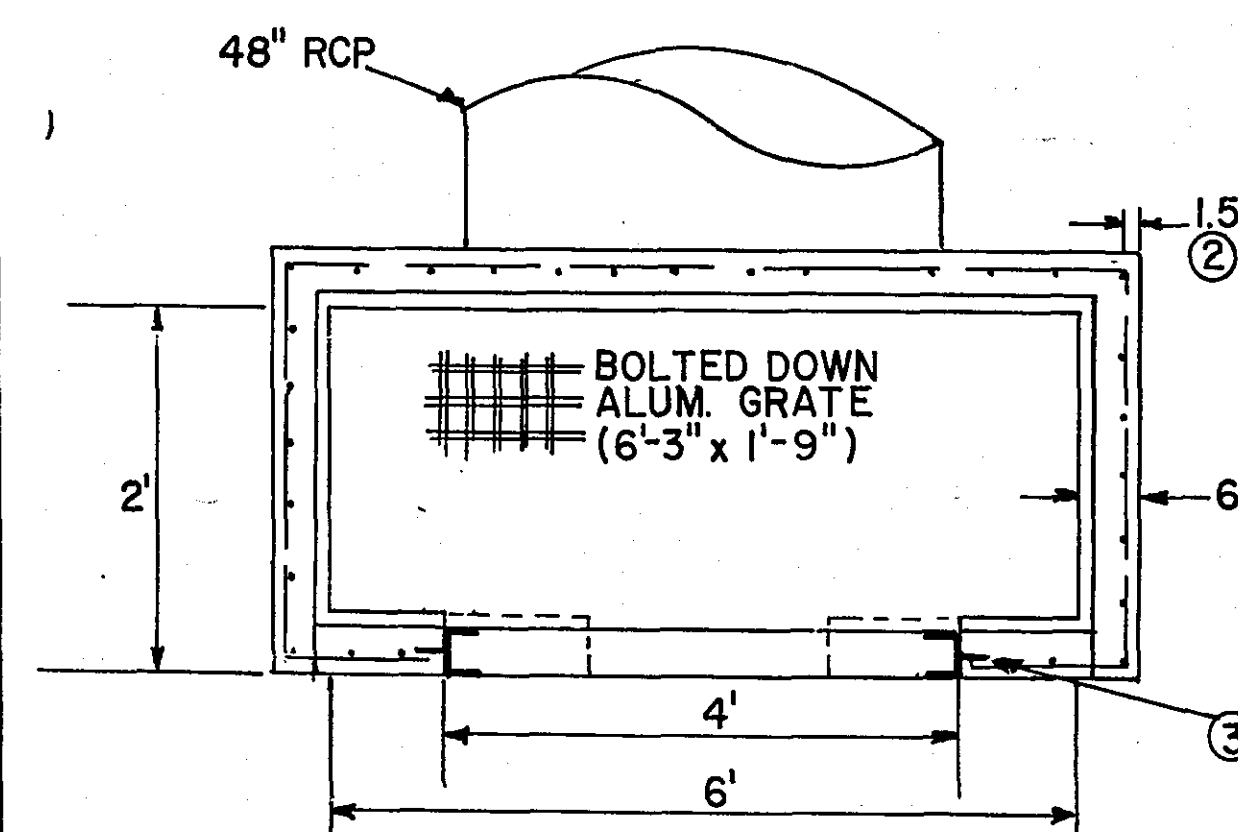
S.A.P. NO. 02 - 632 - 05
62 - 601 - 04

COUNTY ROAD J
C.S.A.H. 32
RAMSEY/ANOKA COUNTY
TYPICAL SECTIONS
28-108

SHEET 9 OF 38
DESIGN FILE
No. 09-8902



SEE STANDARD PLATE NO. 7035J



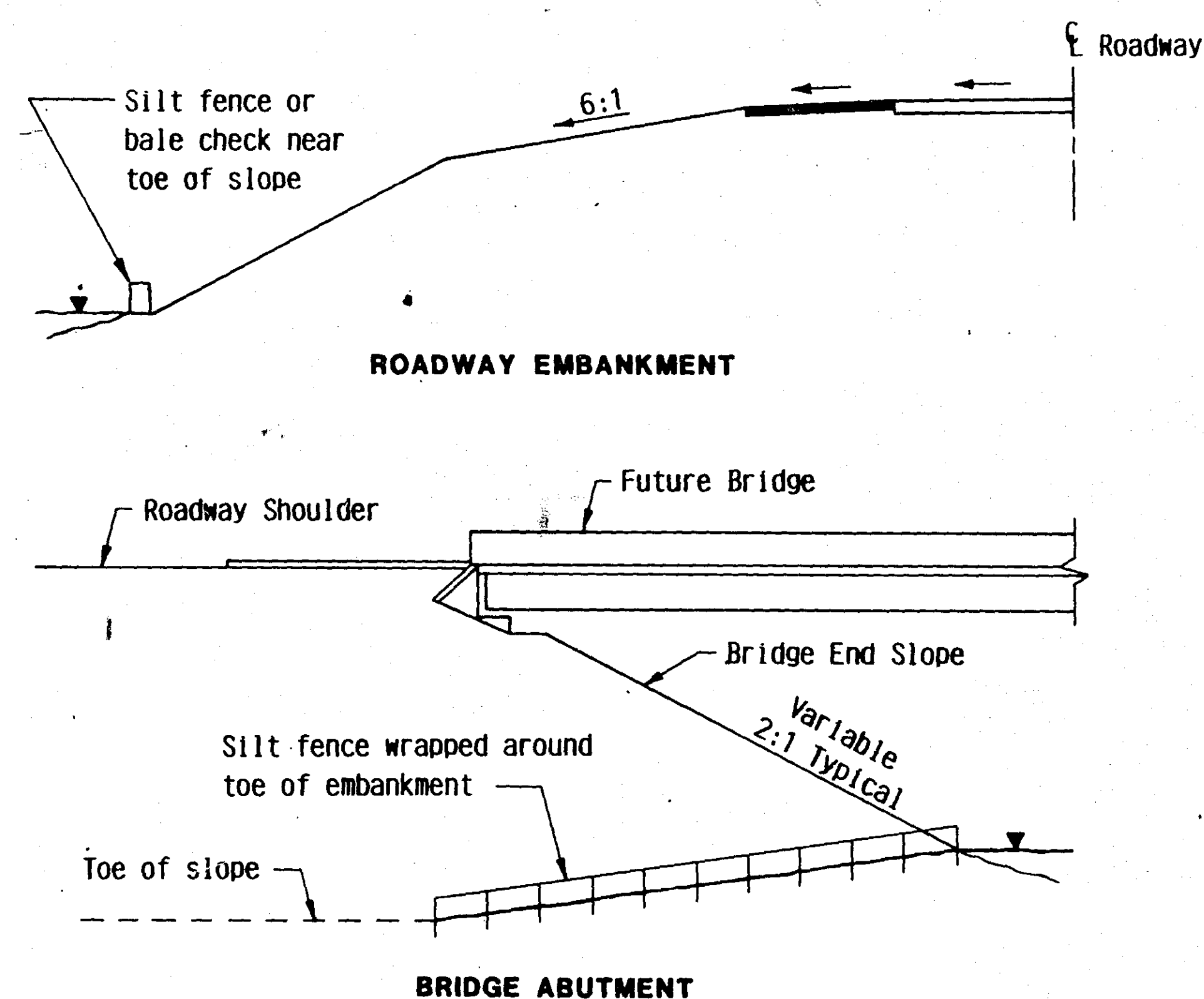
- CONTROL INLET
STRUCTURE DETAIL

[illegible]

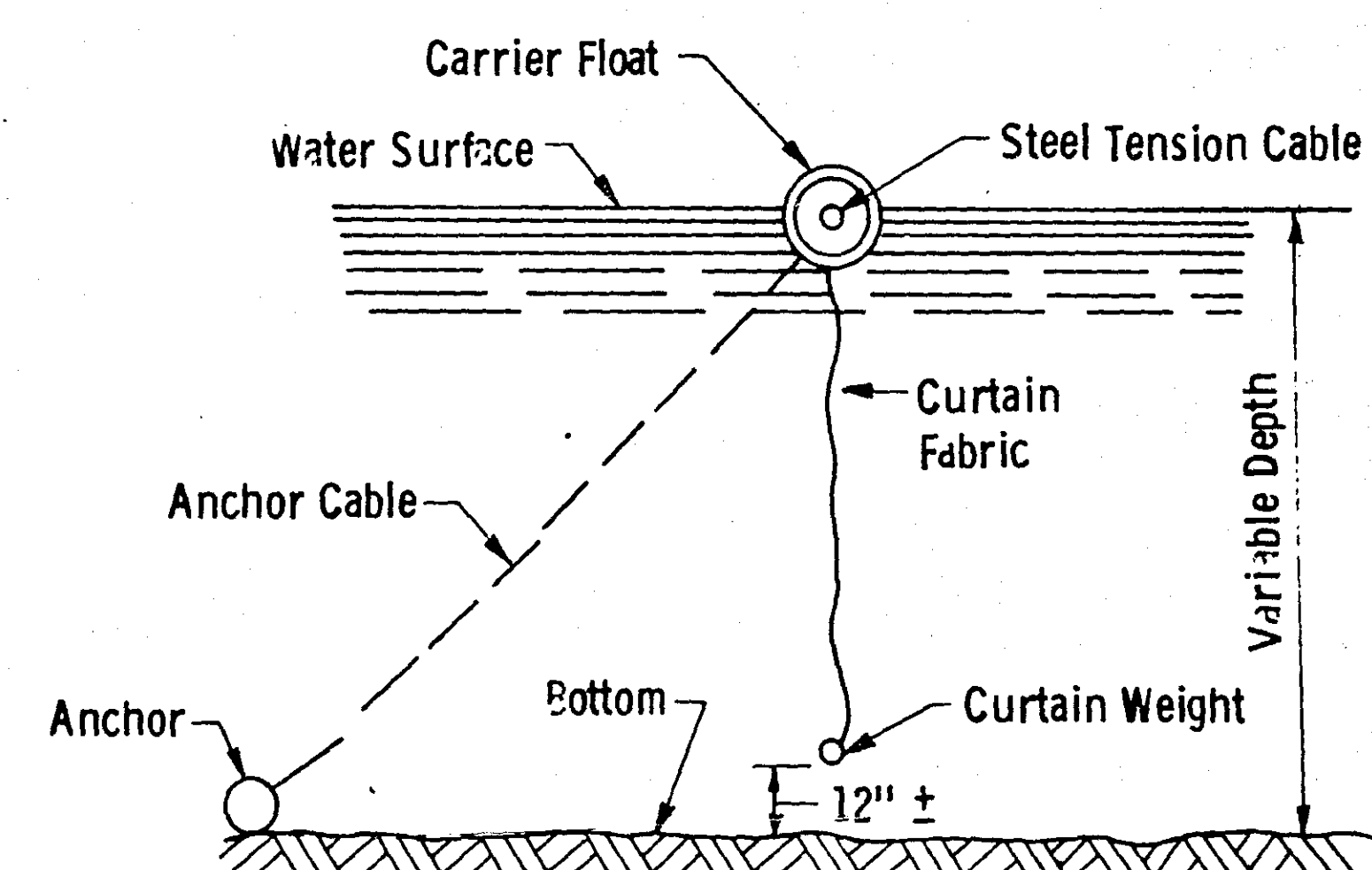
-
- Diagram illustrating the gutter installation details:
- NORMAL GUTTER SLOPE & WIDTH - SEE TYPICAL SEC.**
 - 1.5'** (Gutter width)
 - 0.53'** (Gutter slope)
 - C.B. LOCATION & ELEV. AT THIS POINT**
 - 0.22'** (Gutter height)

Date _____ Minn. Reg. No. _____

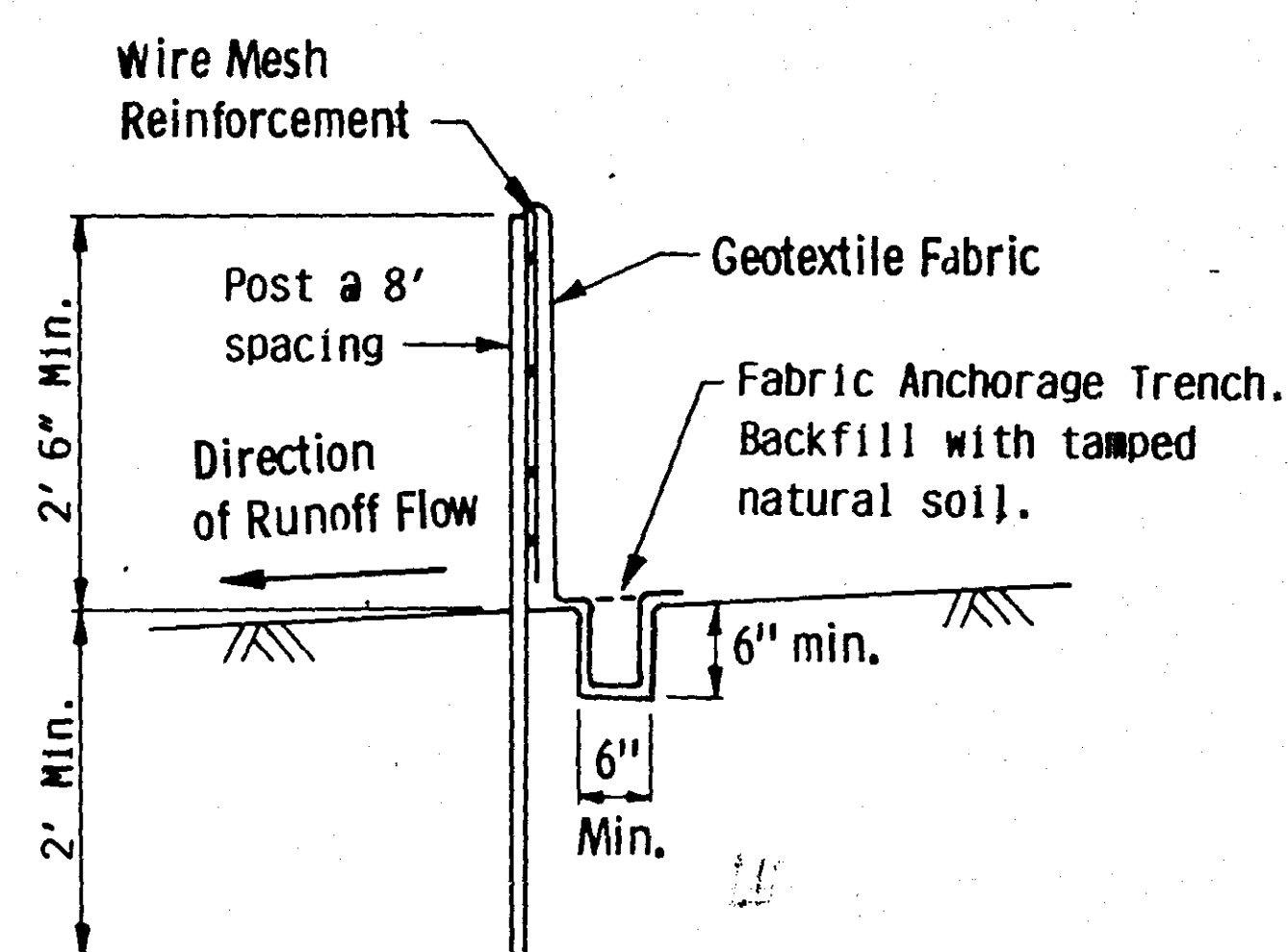
DESIGN FILE
No. 098902



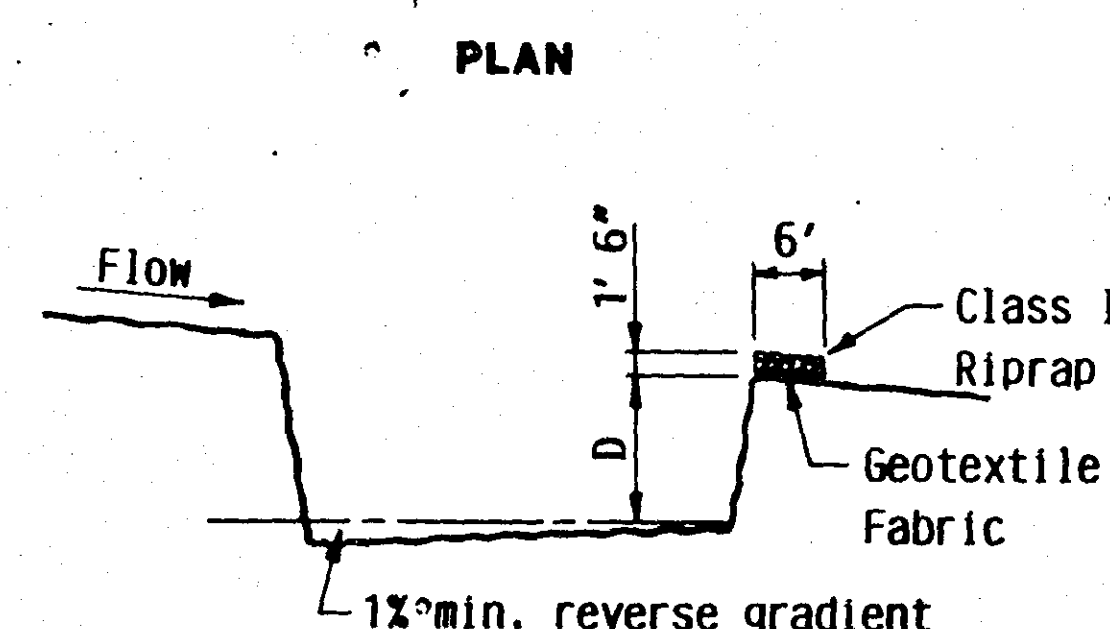
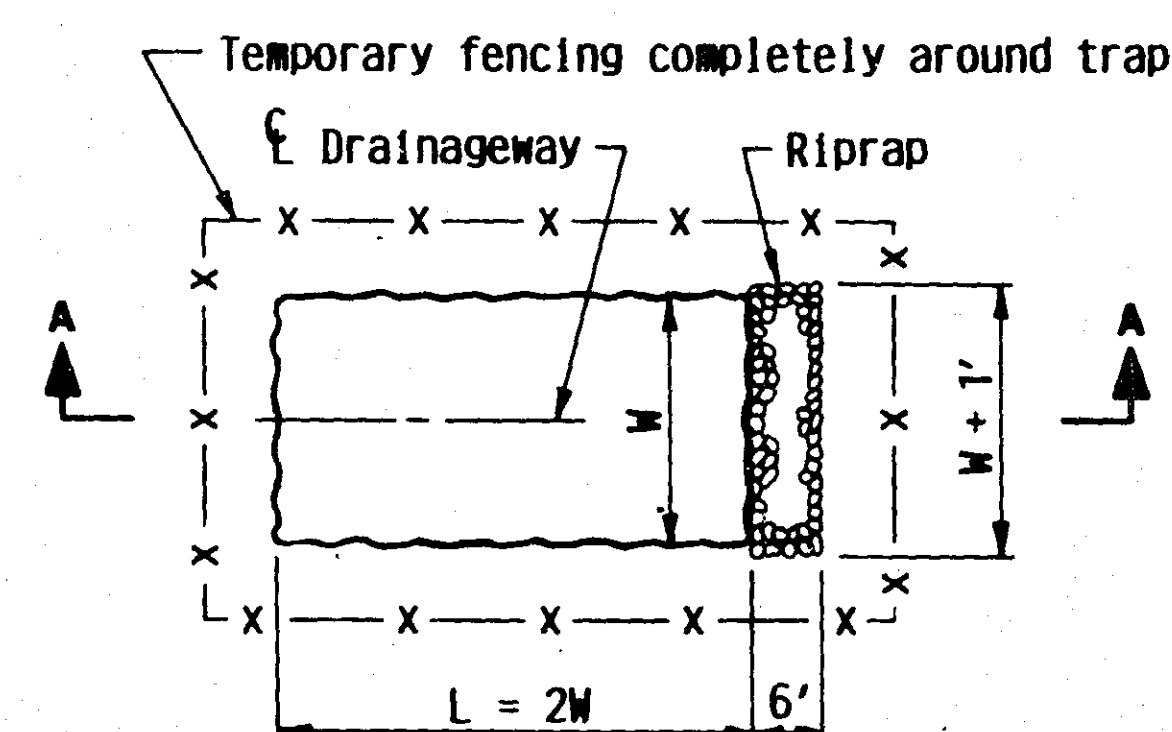
**SILT FENCE OR BALE CHECK
TO PROTECT ADJACENT CRITICAL AREAS**



FLOATATION SILT CURTAIN

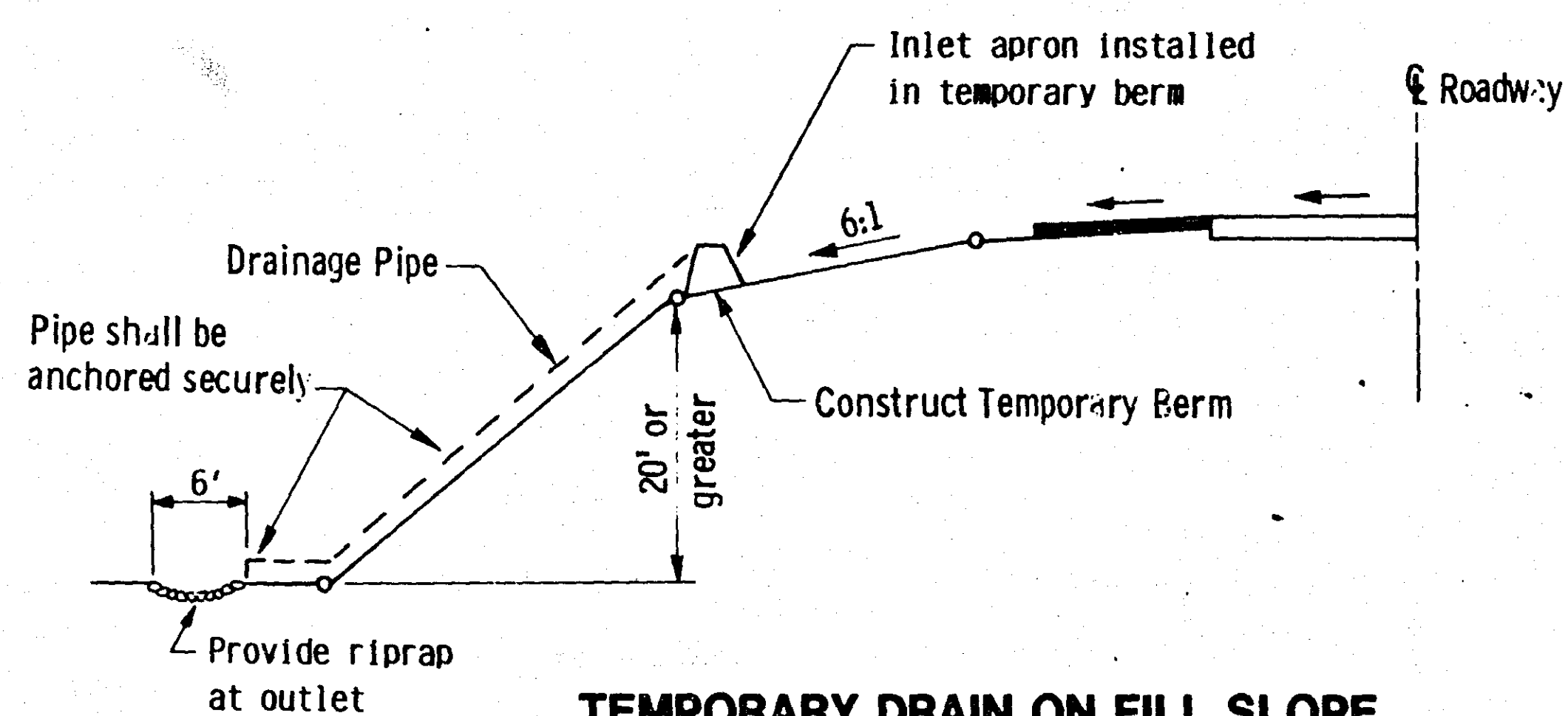


SILT FENCE DETAIL

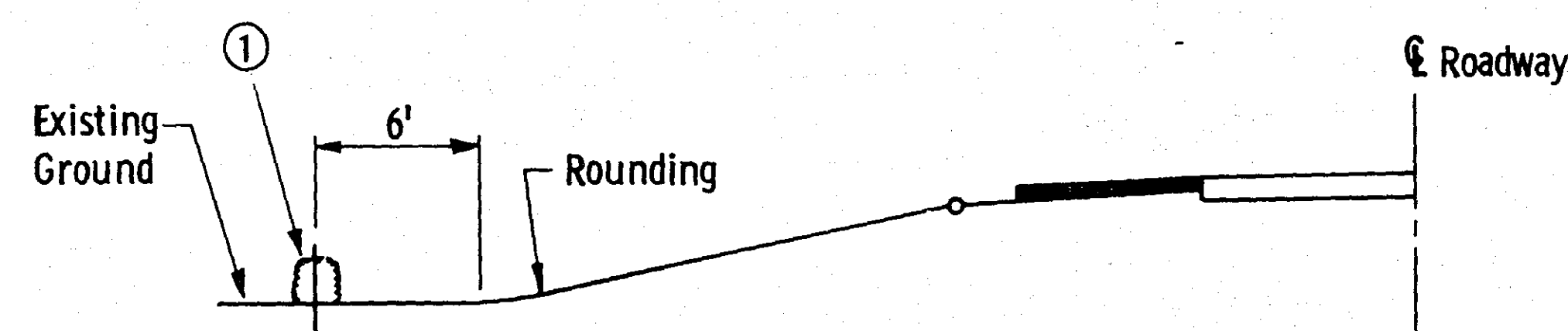


NOTE:
D = 3' min., 6' max.
W = 10' min., 20' max.

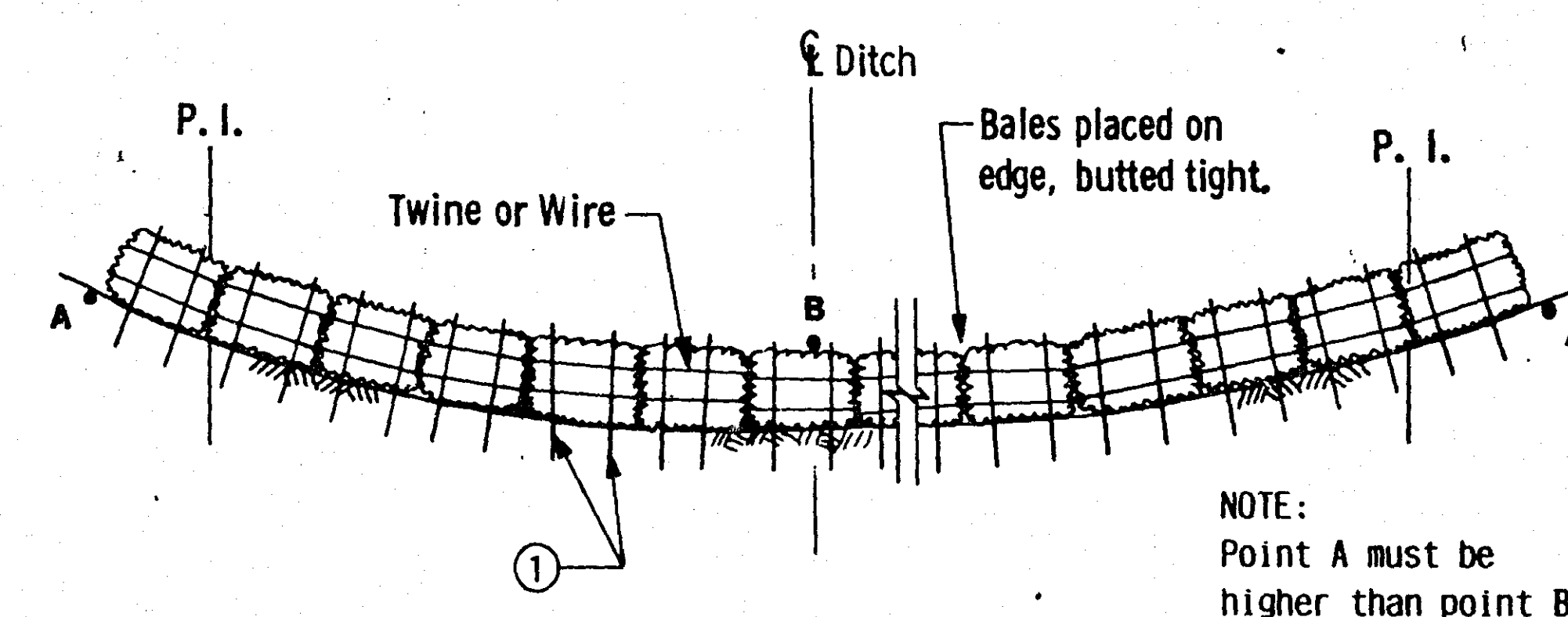
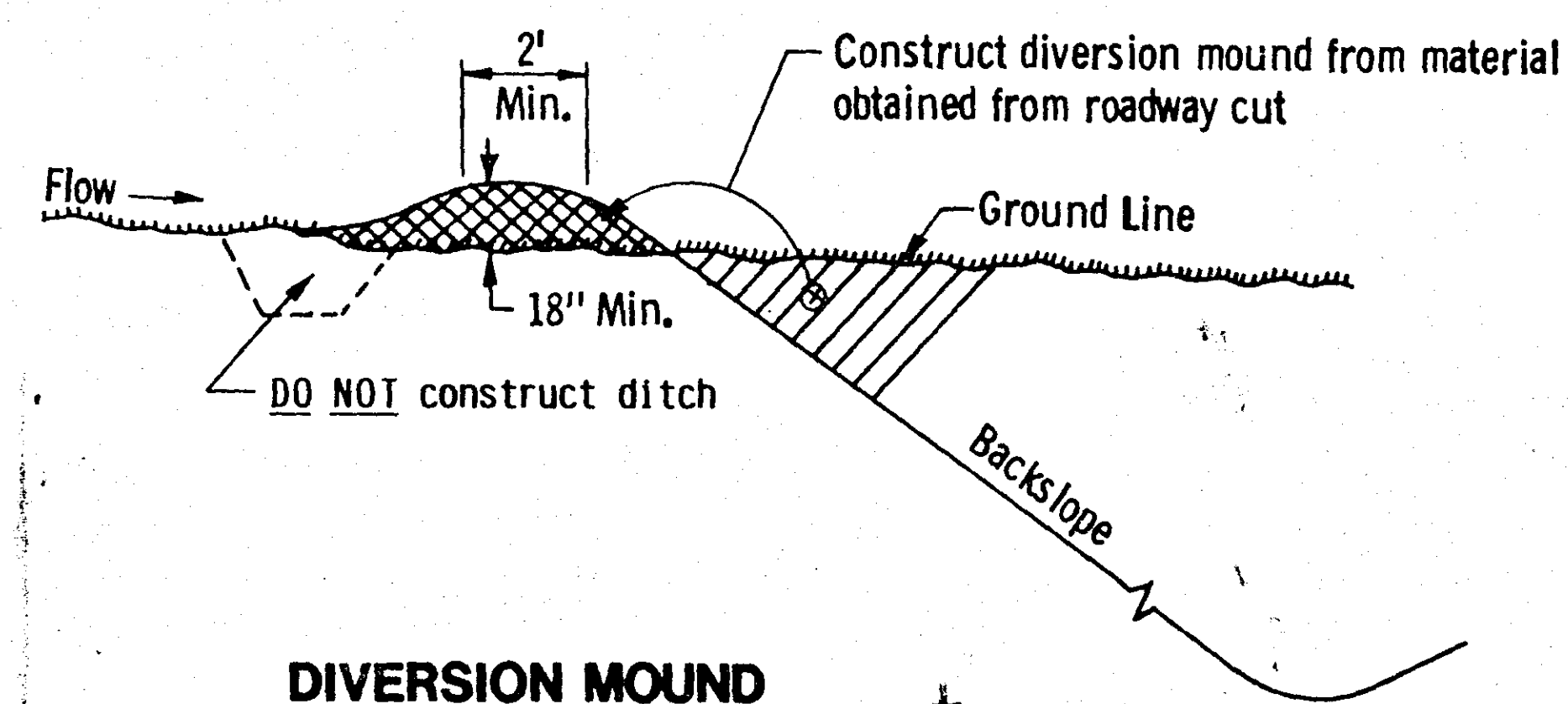
TEMPORARY SEDIMENT TRAP



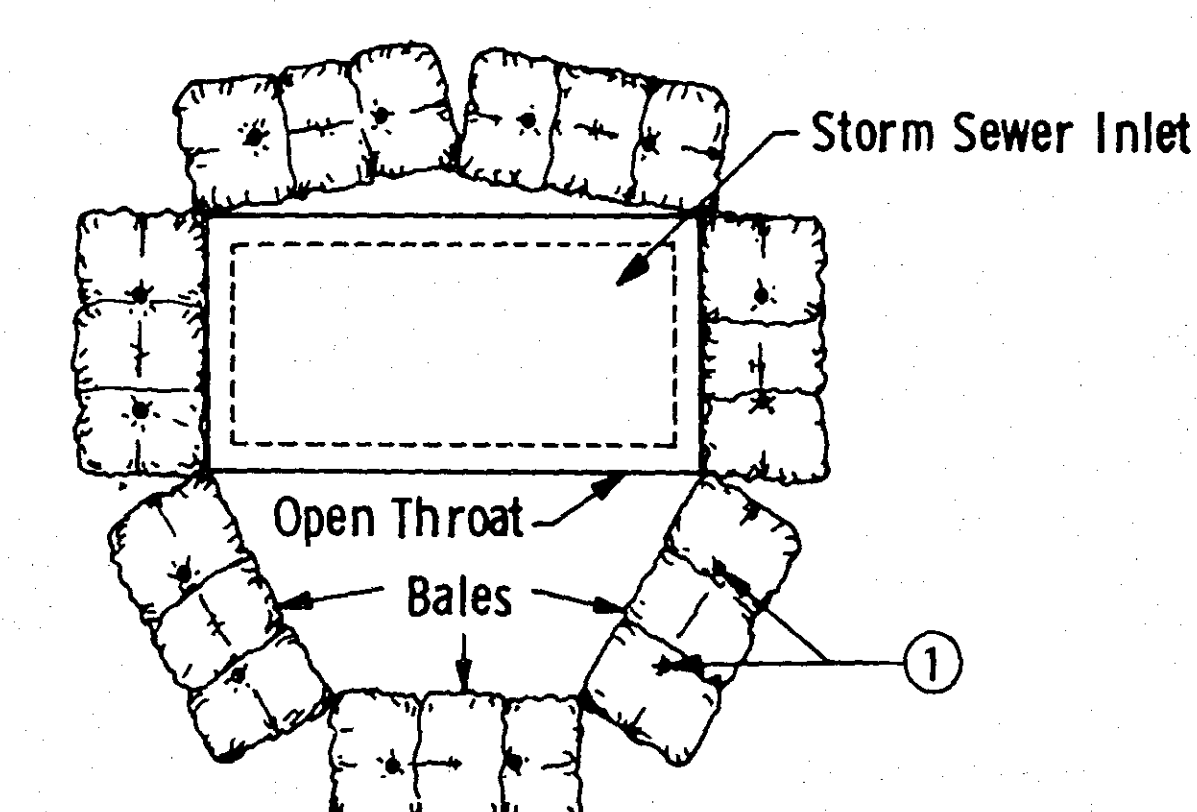
TEMPORARY DRAIN ON FILL SLOPE



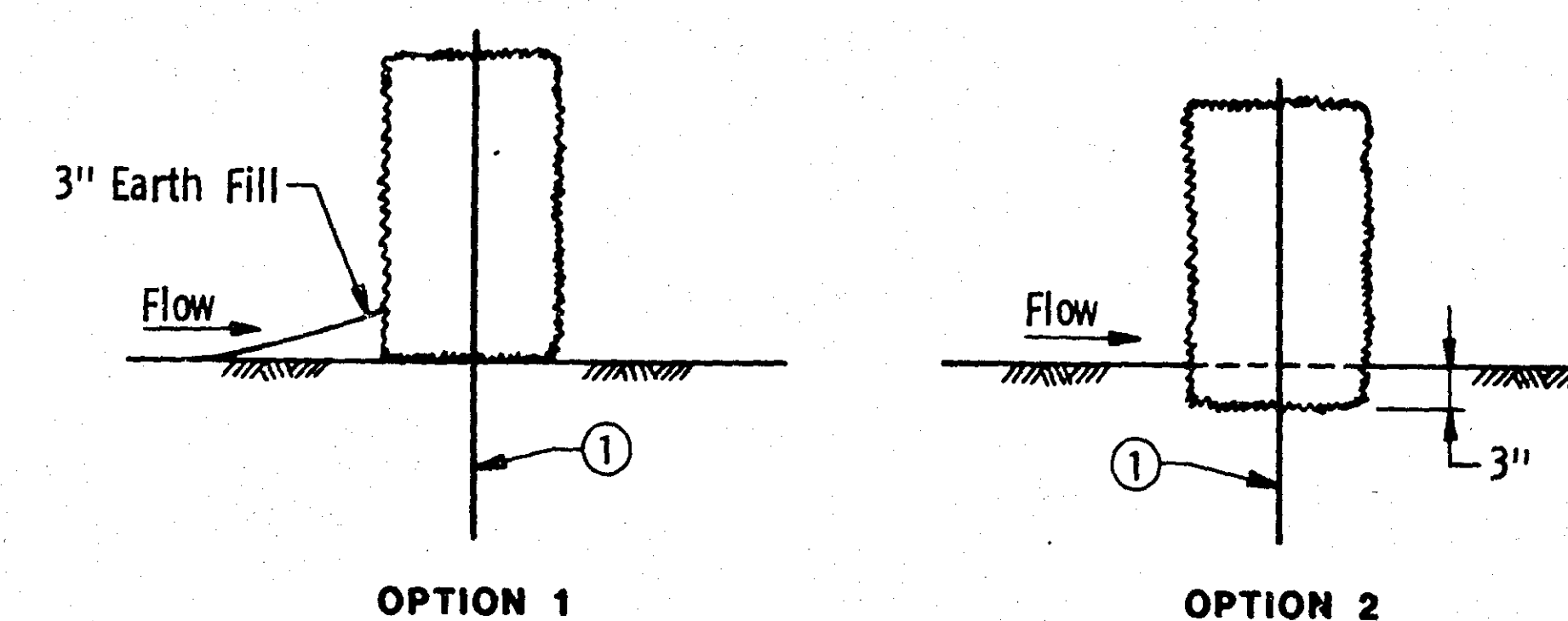
BALE DIVERSION



BALE DITCH CHECK



**BALE CHECK
TO PROTECT STORM SEWER INLETS**



BALE CHECK DETAILS

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

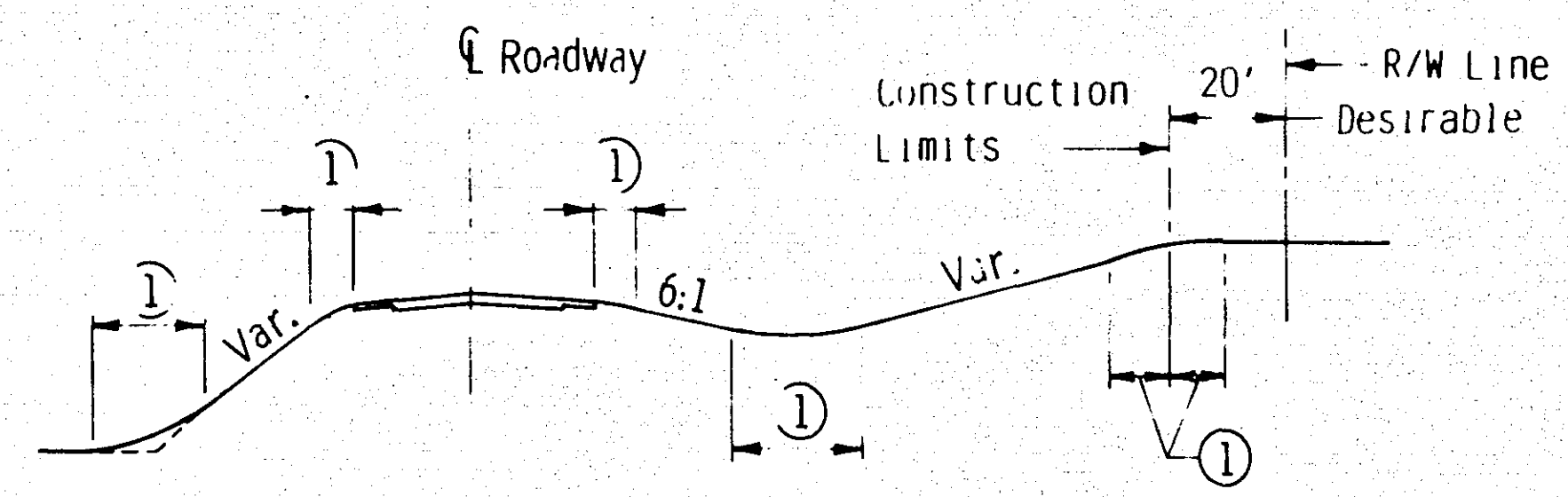
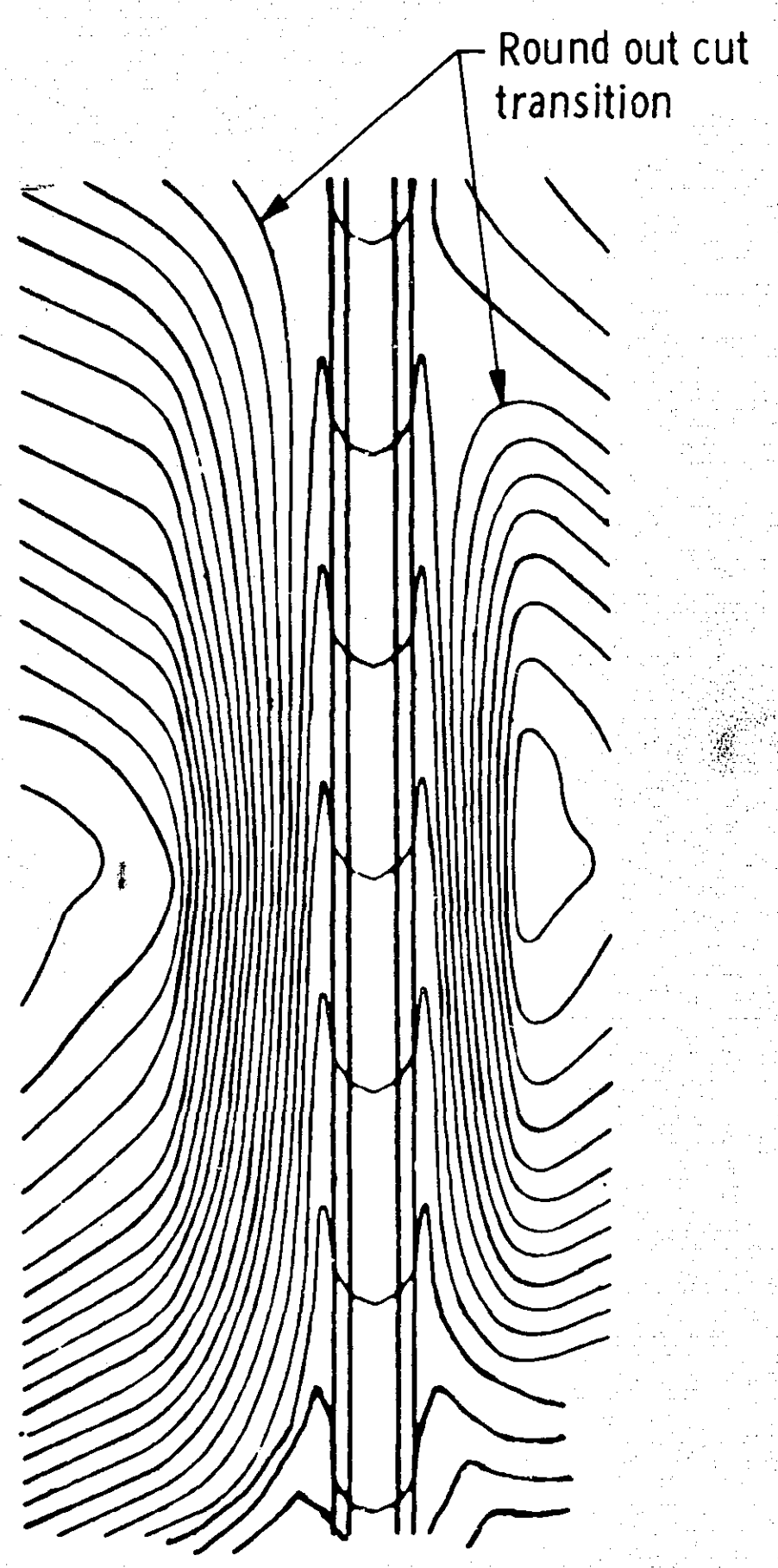
Director
OFFICE OF ENGINEERING STANDARDS

S.A.P. No.

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

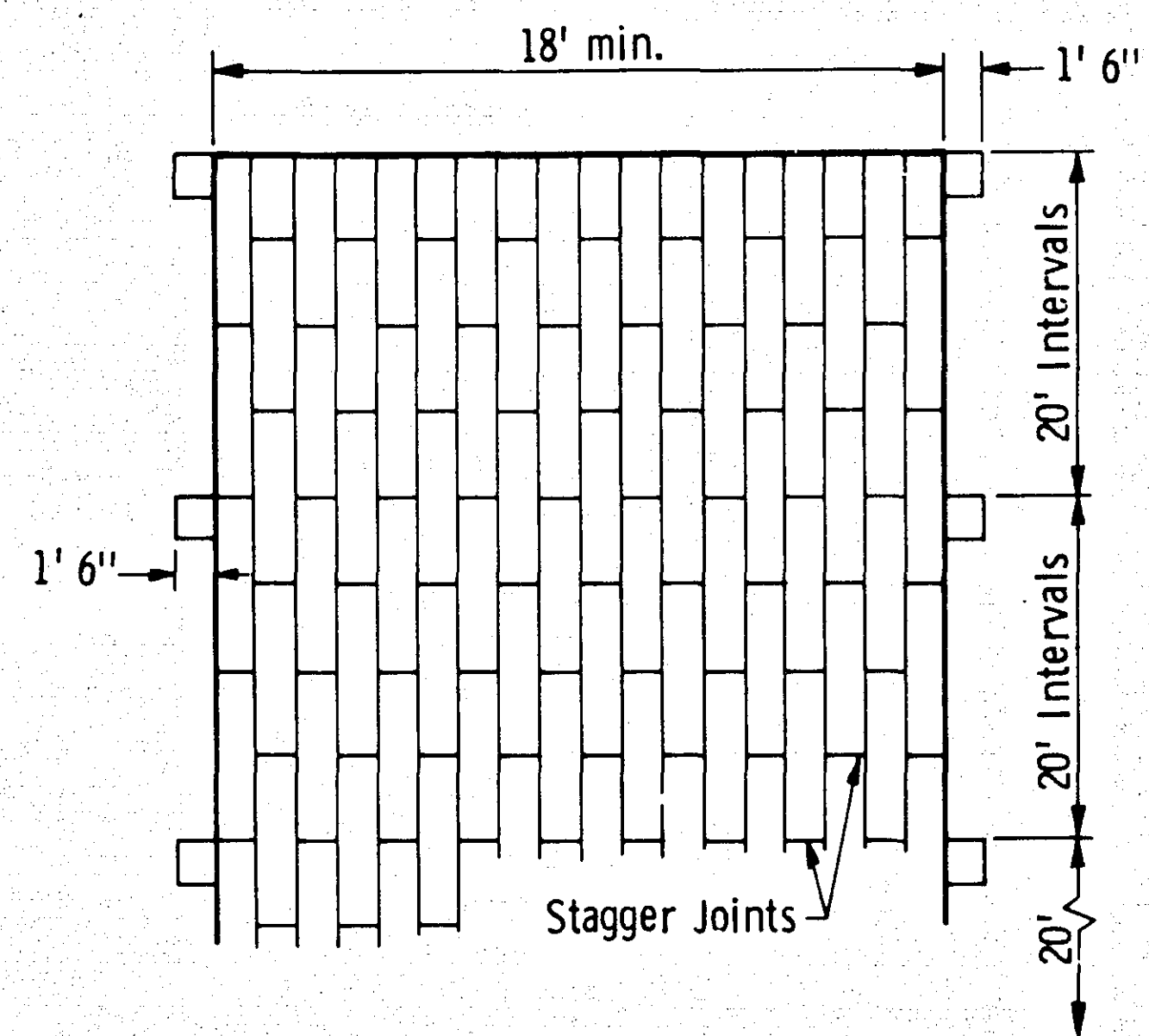
Sheet No. 11 of 38 Sheets

28-108
TEMPORARY EROSION CONTROL

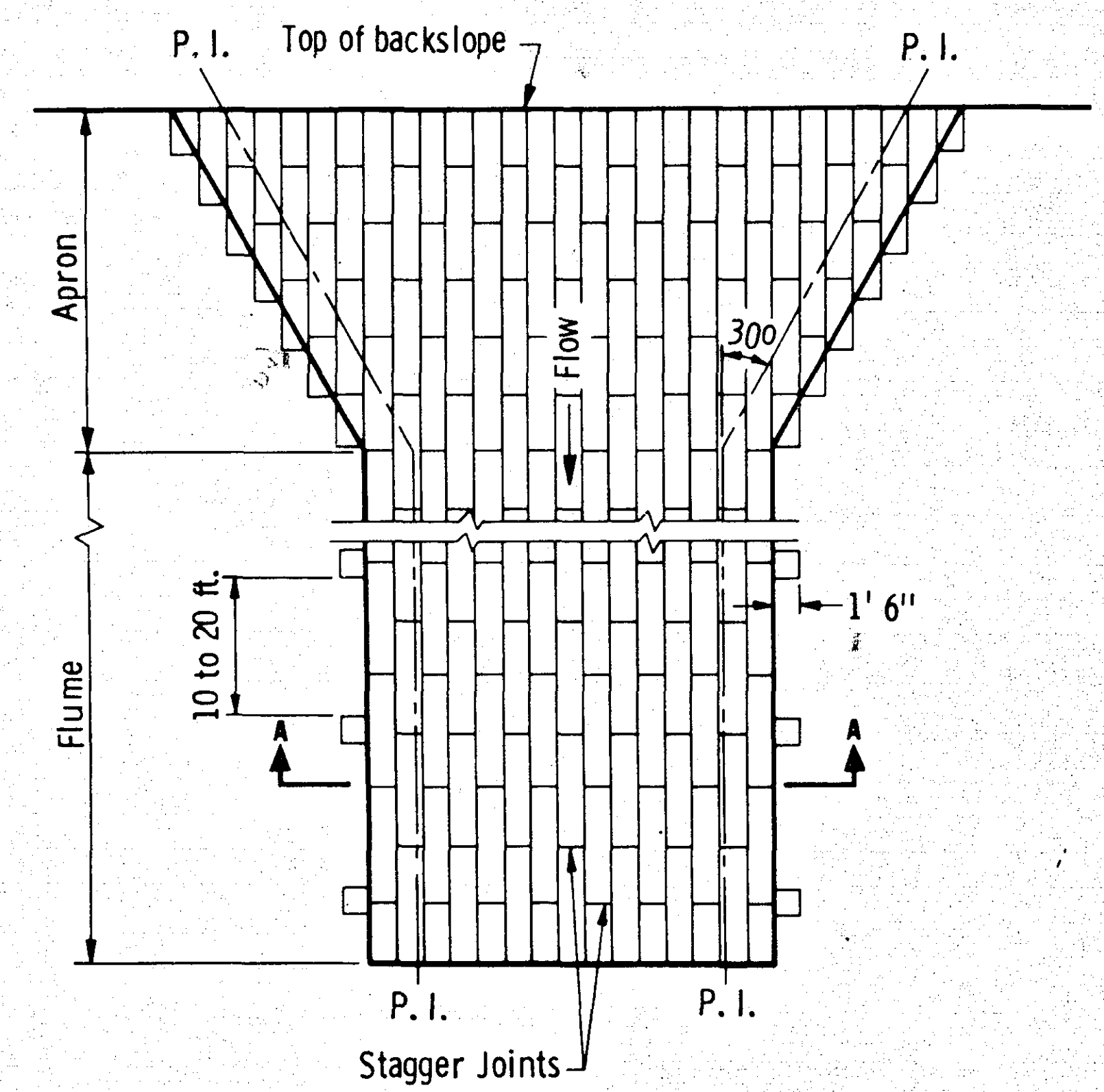


ROUNDING SHOULDERS AND BACKSLOPES

① Rounding per typical sections.

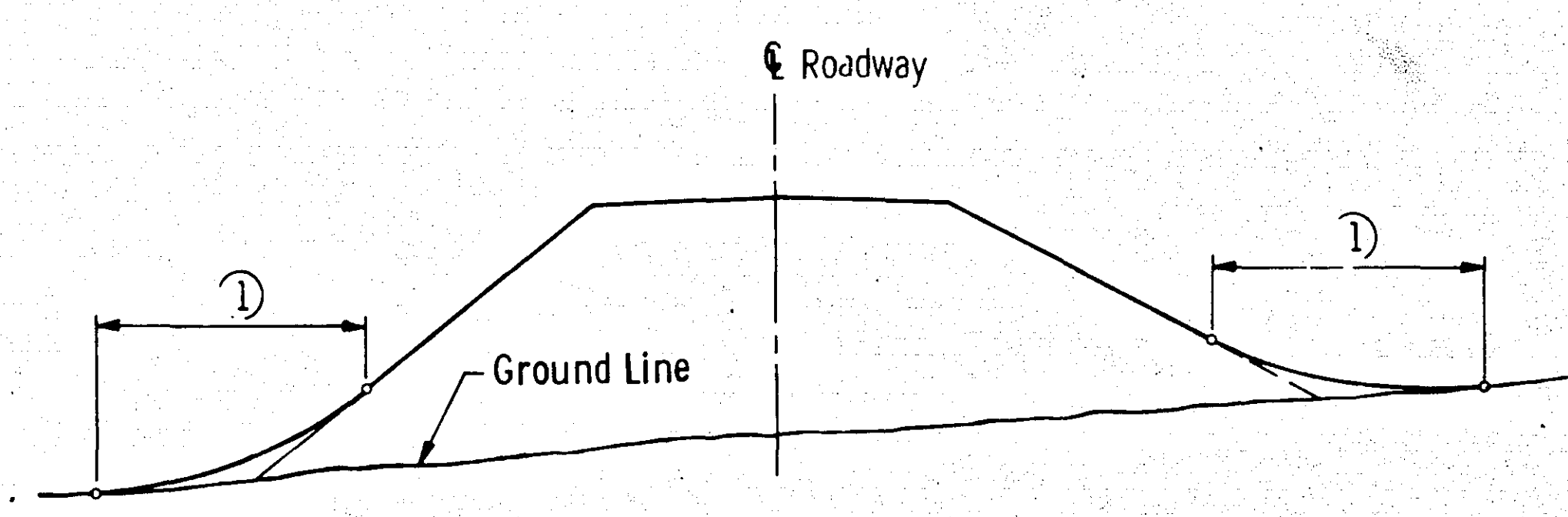


PLAN
(ENLARGED)

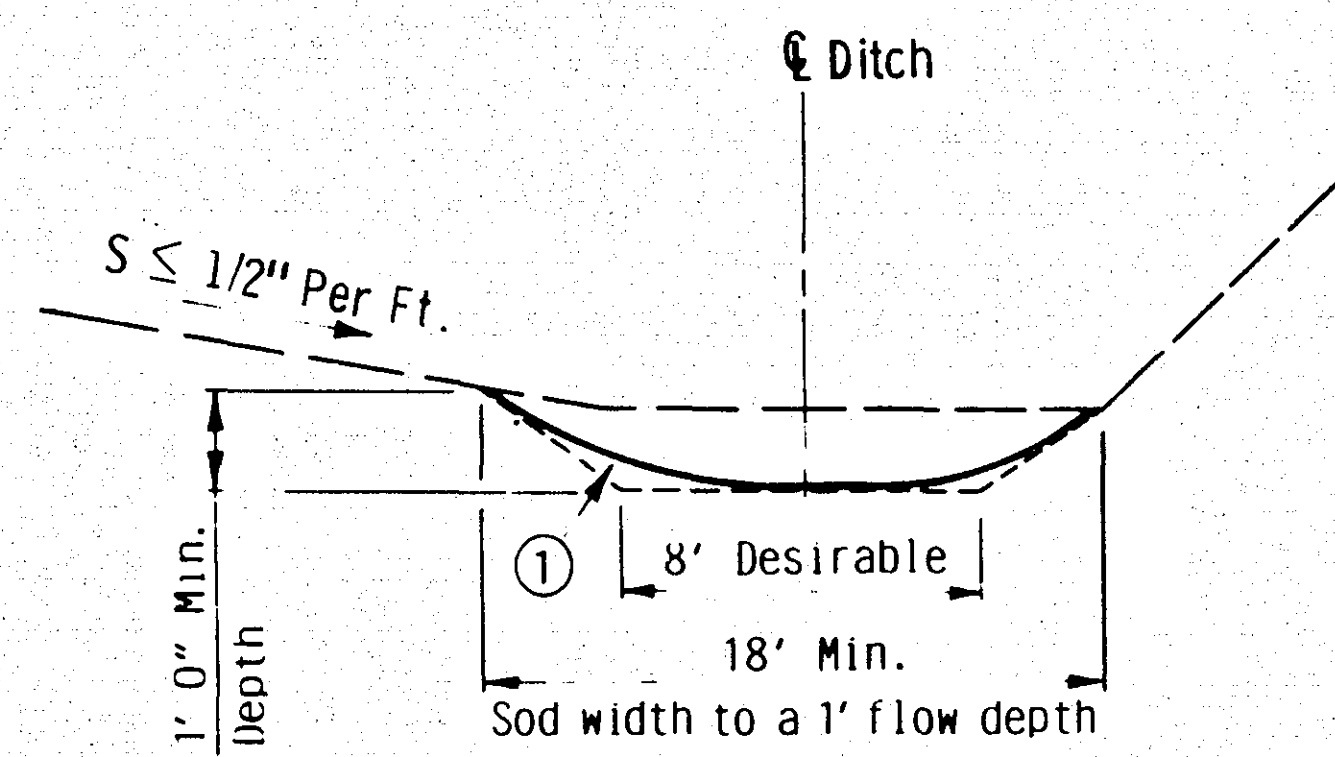


PLAN

CONTOURING ROAD CUTS

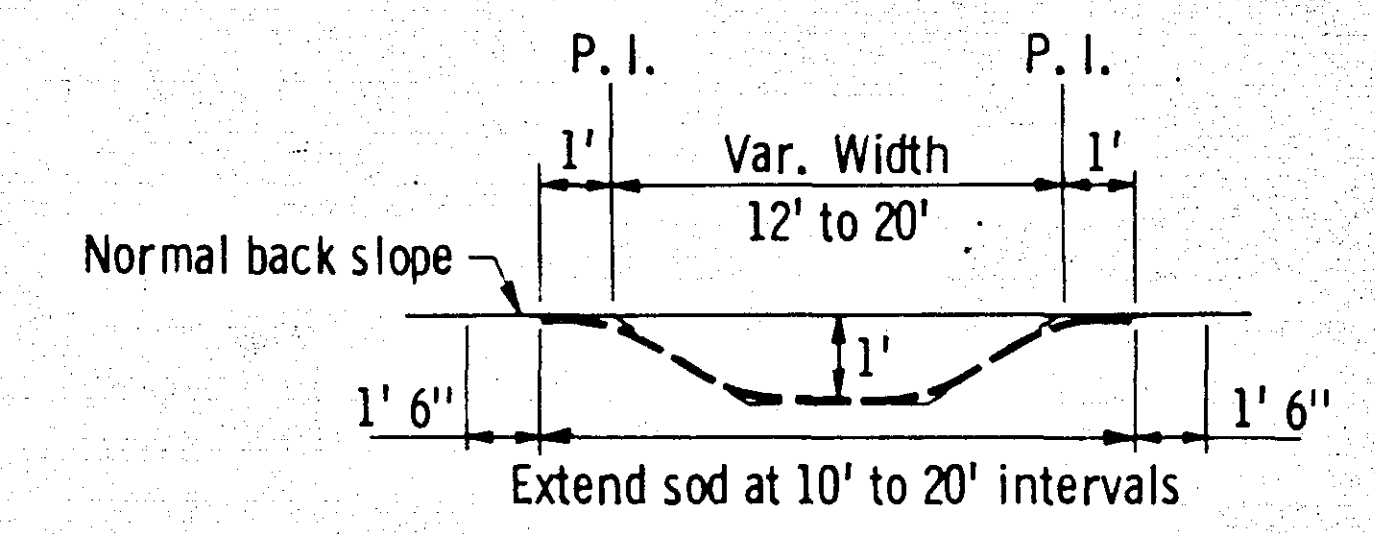


SHAPING FOR DRAINAGE ALONG THE TOE OF FILL SLOPES

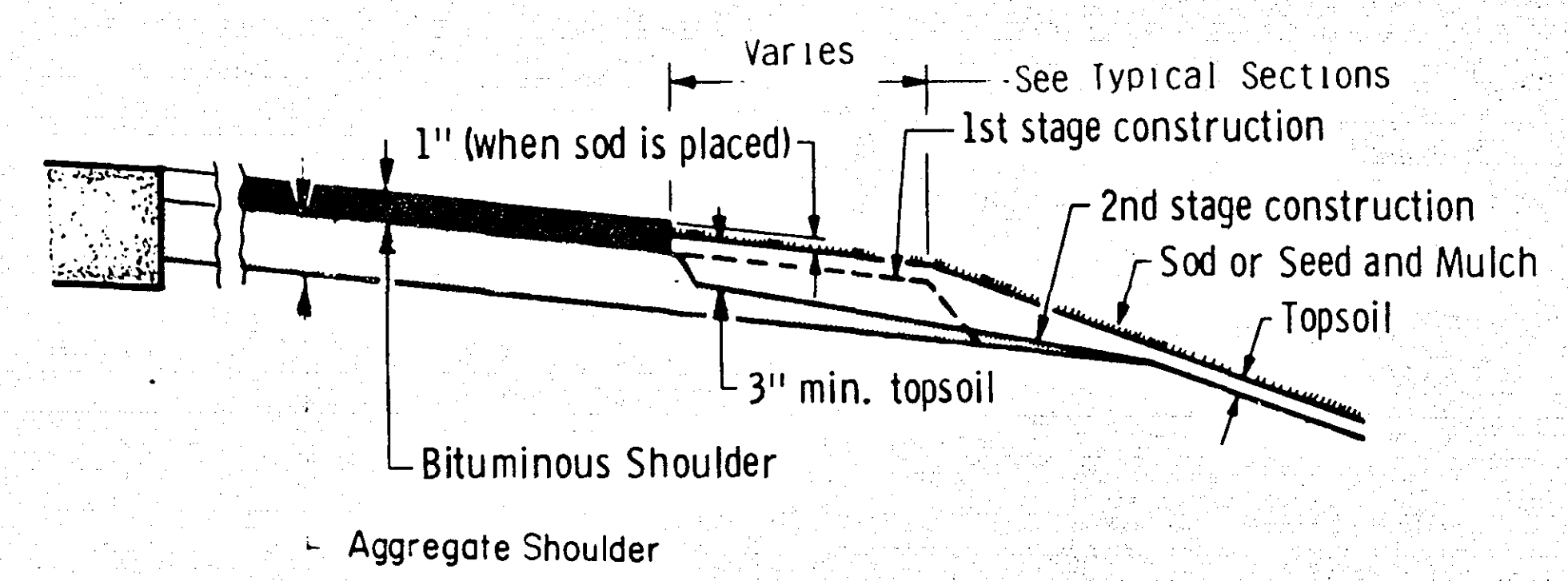


SODDED DITCH CROSS SECTION

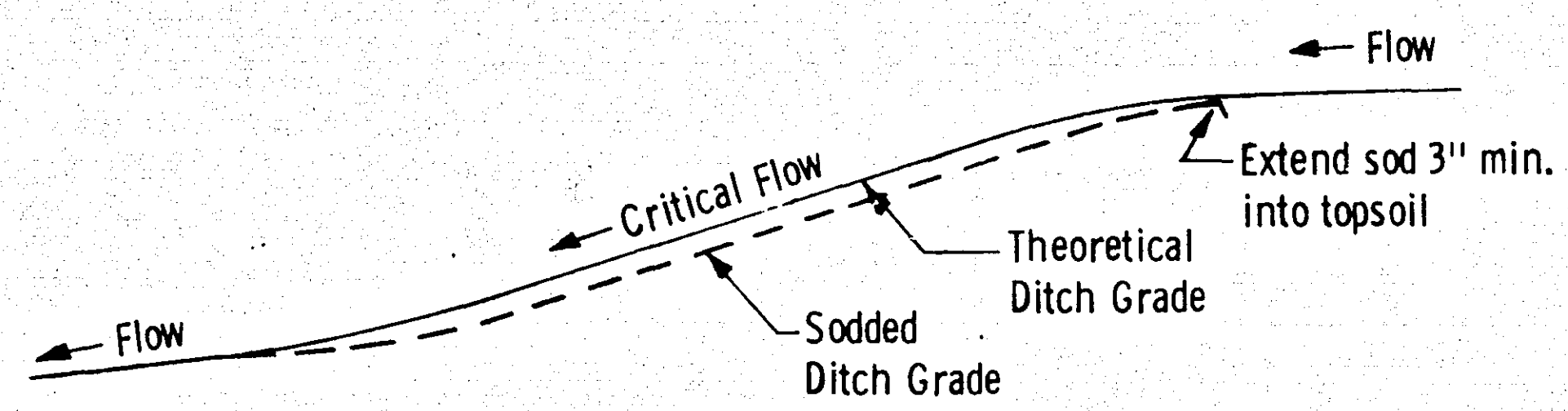
Where front or back slope is flat (less than 1/2"/ft.), first notch ditch and then provide rounding.



SECTION A-A

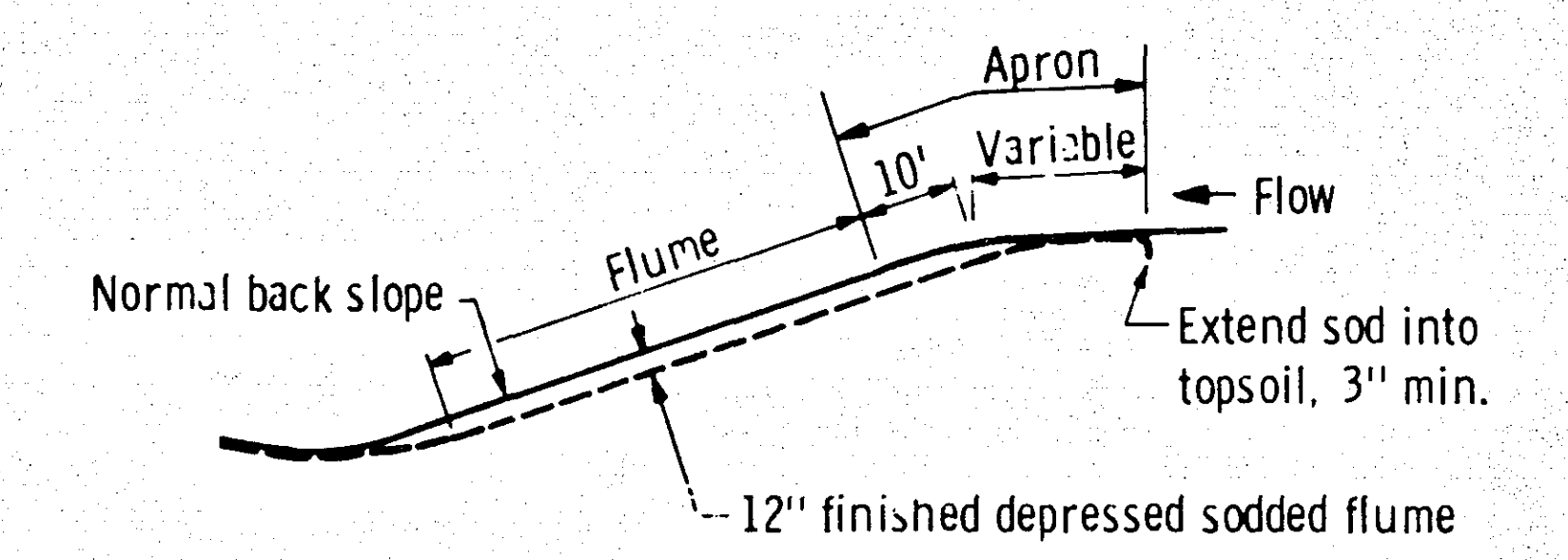


SHAPING AND TOPSOILING INSLOPES



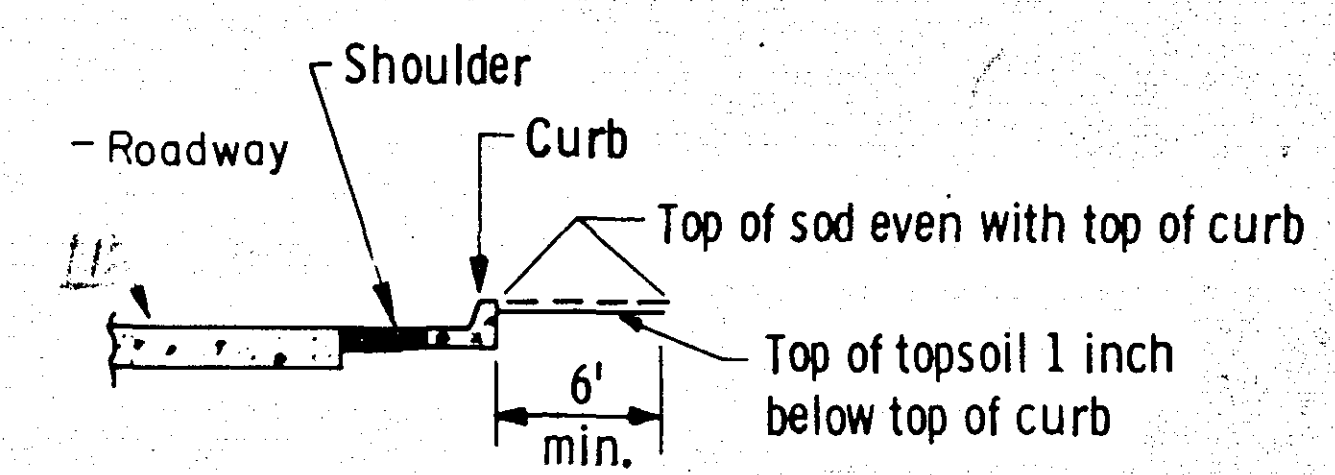
DITCH PROFILE

SODDED DITCH DETAILS

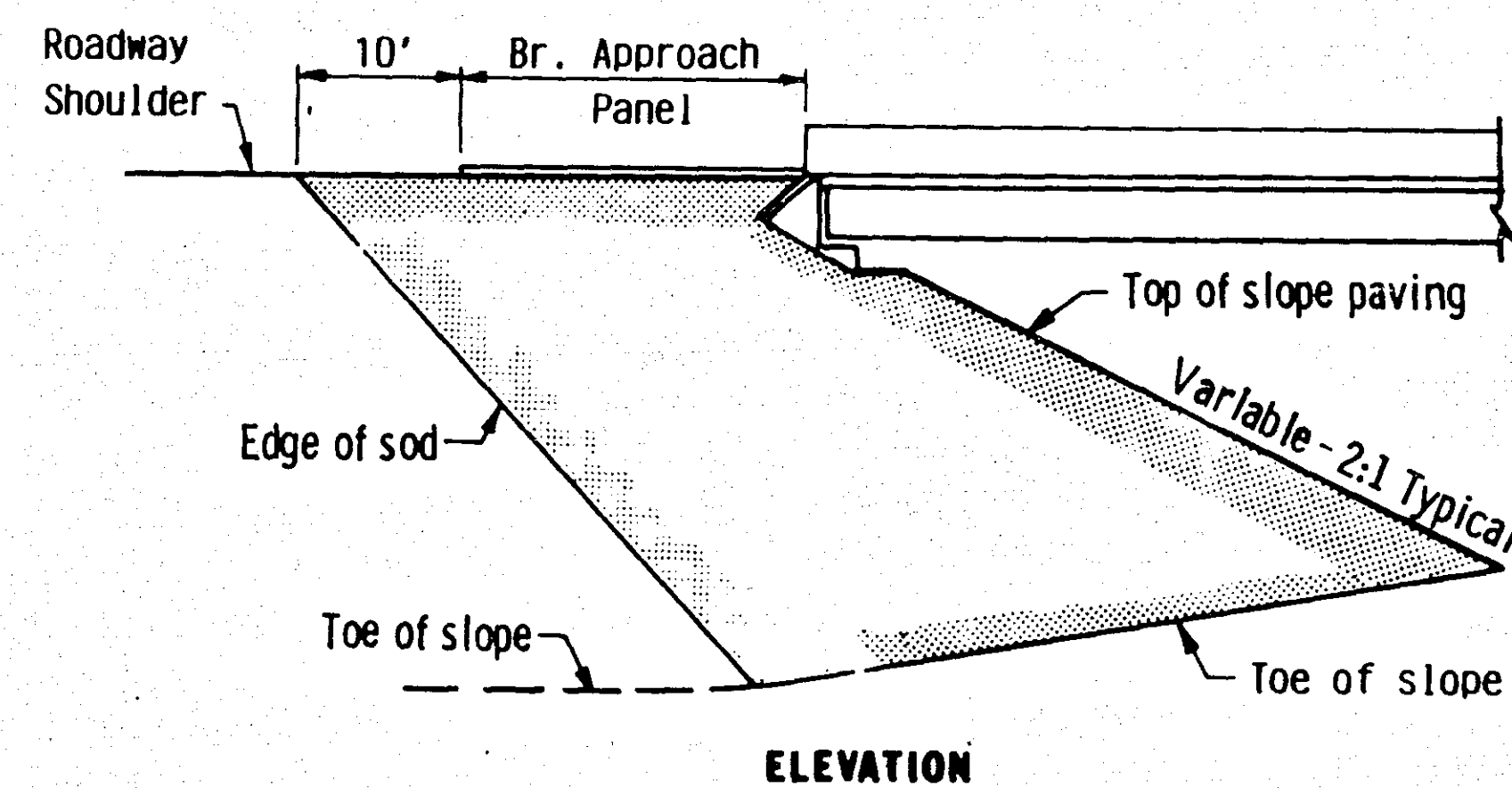
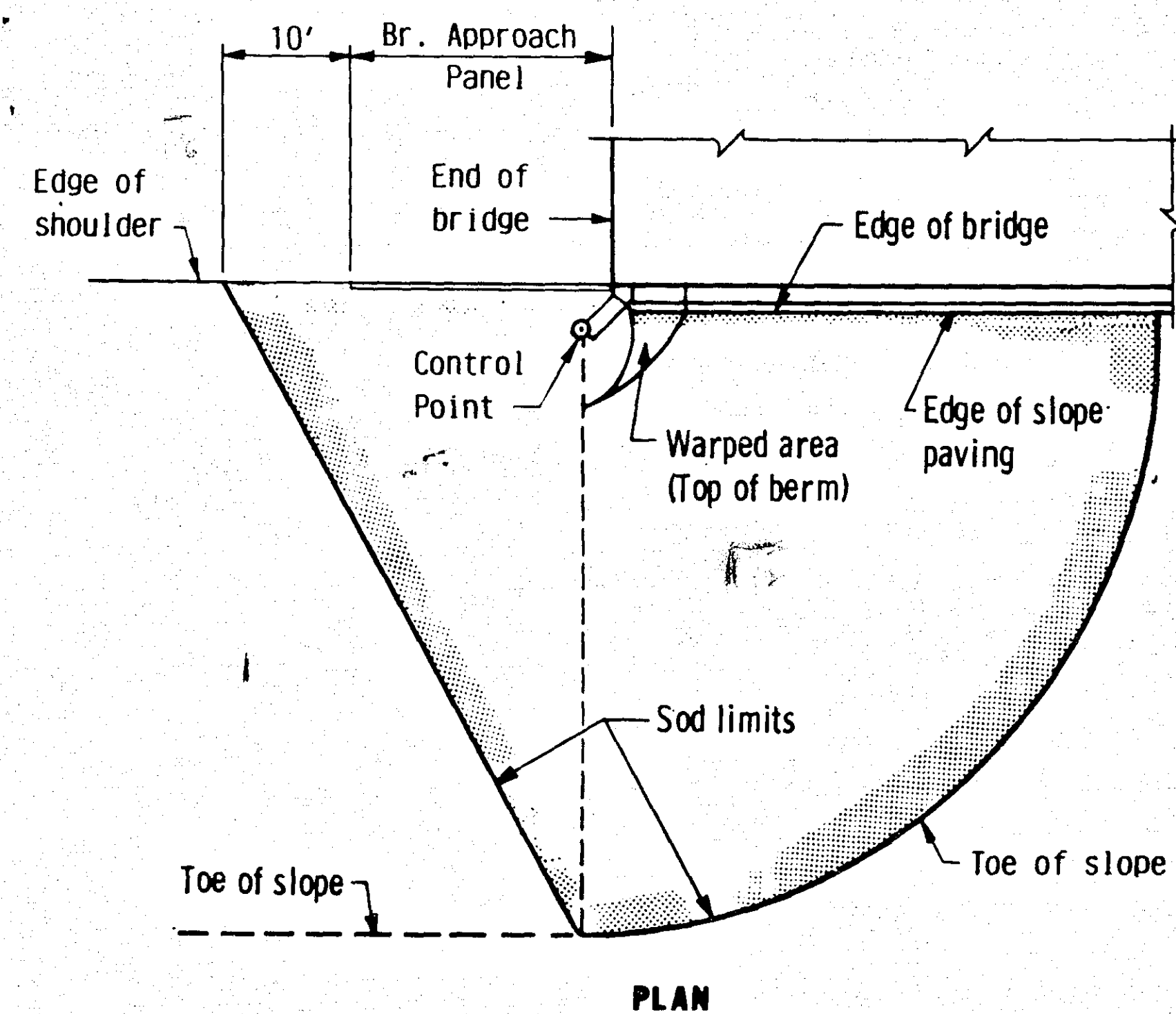


LONGITUDINAL CROSS SECTION

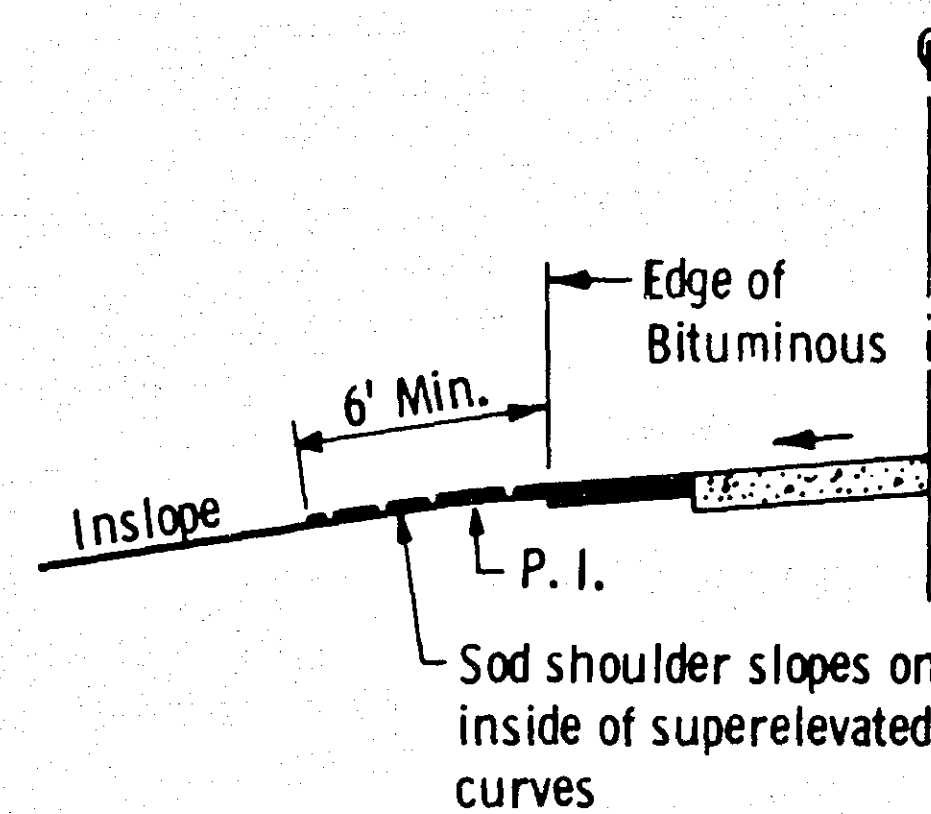
SODDED FLUME DETAILS



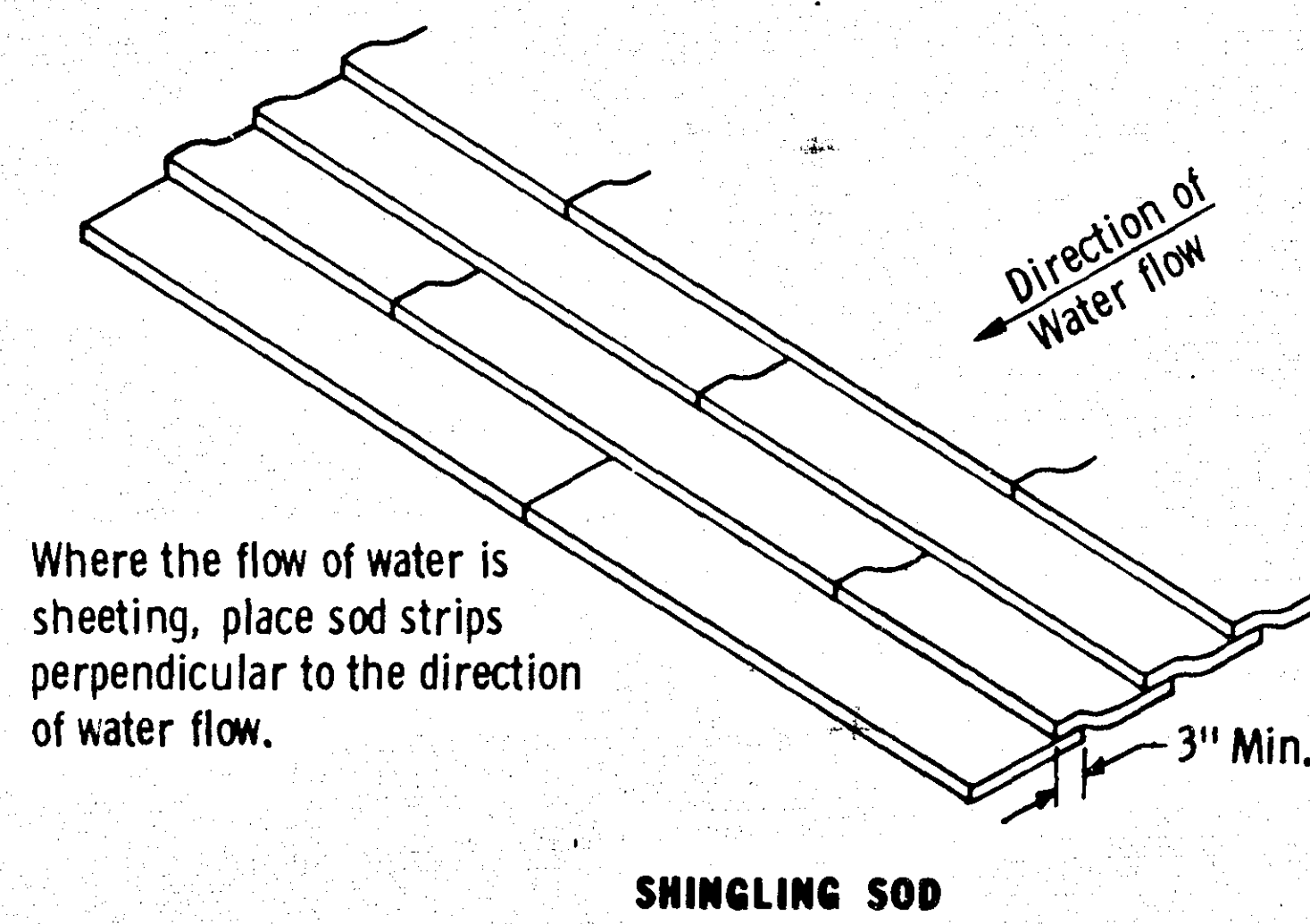
SHAPING ADJACENT TO CURBS WHEN SOD IS PLACED



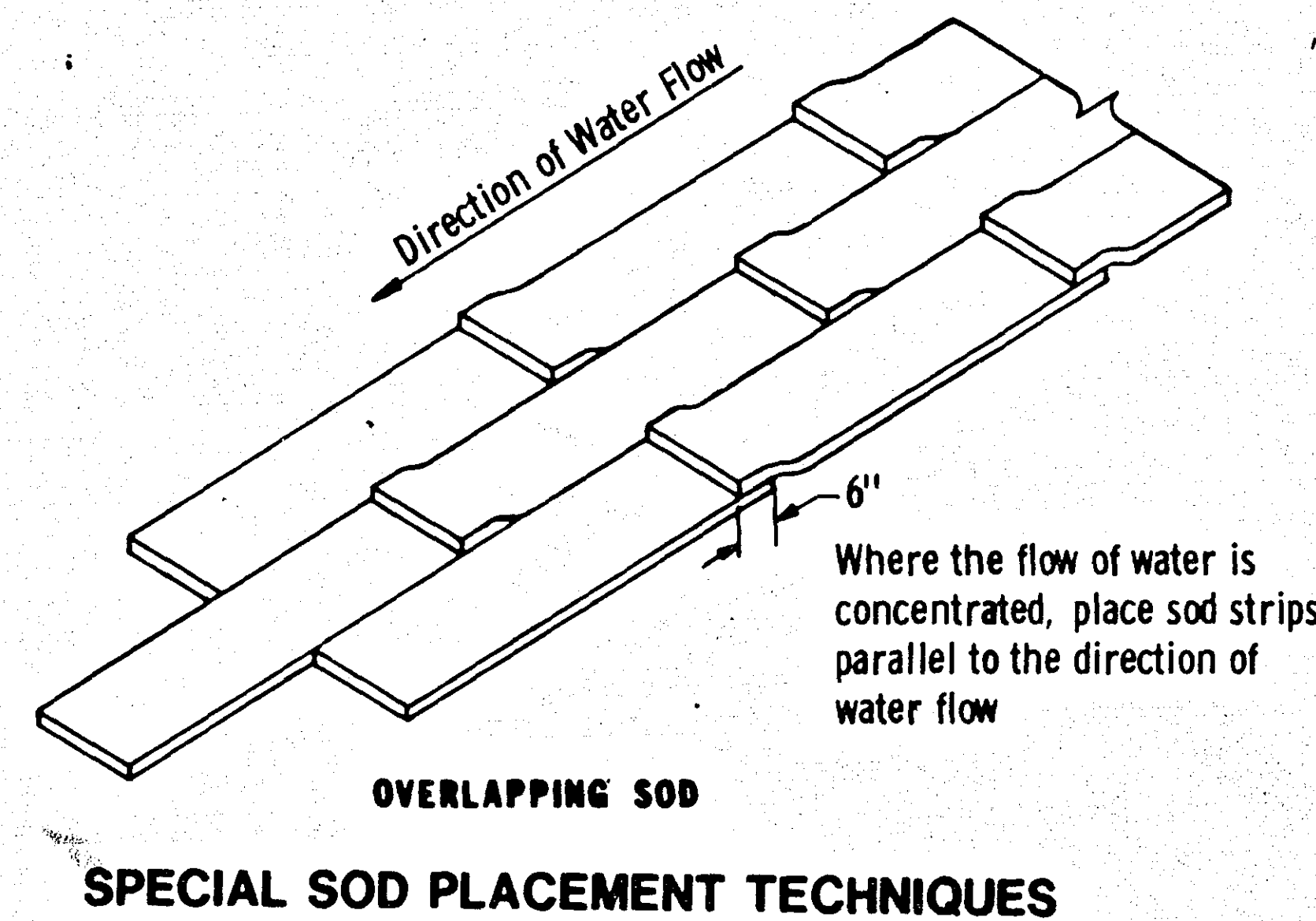
SODDING LIMITS AT BRIDGE APPROACH FILLS



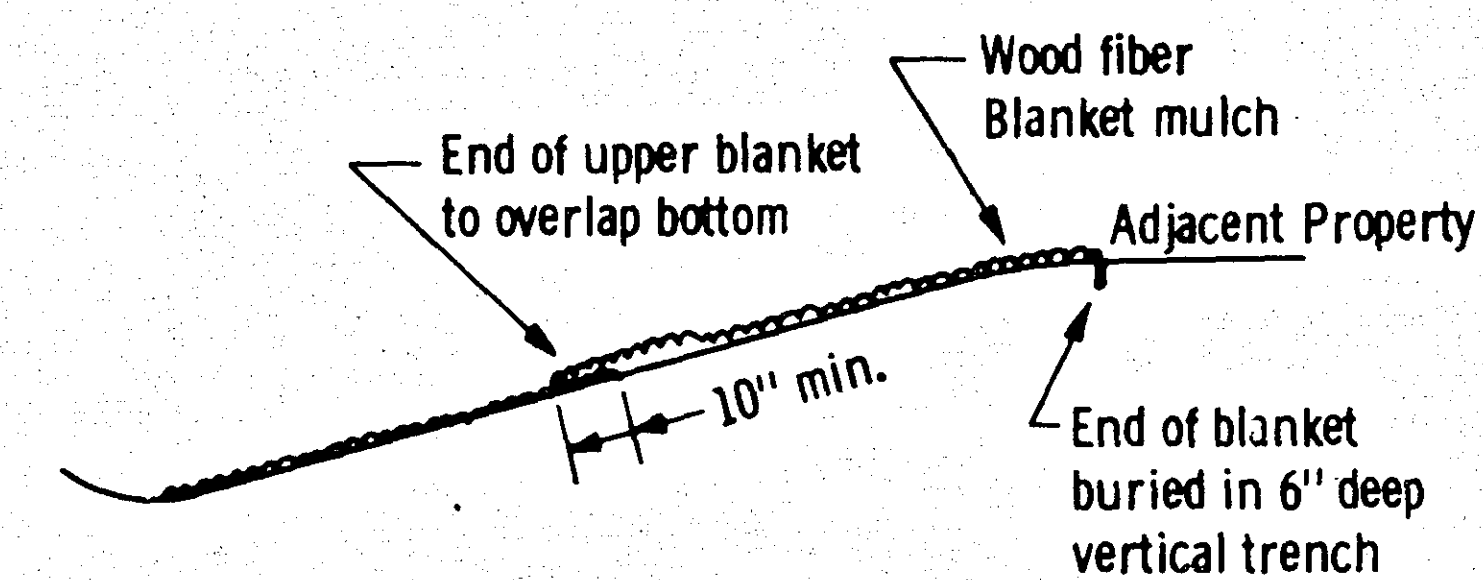
SODDING INSLOPES OF SUPERELEVATED CURVES



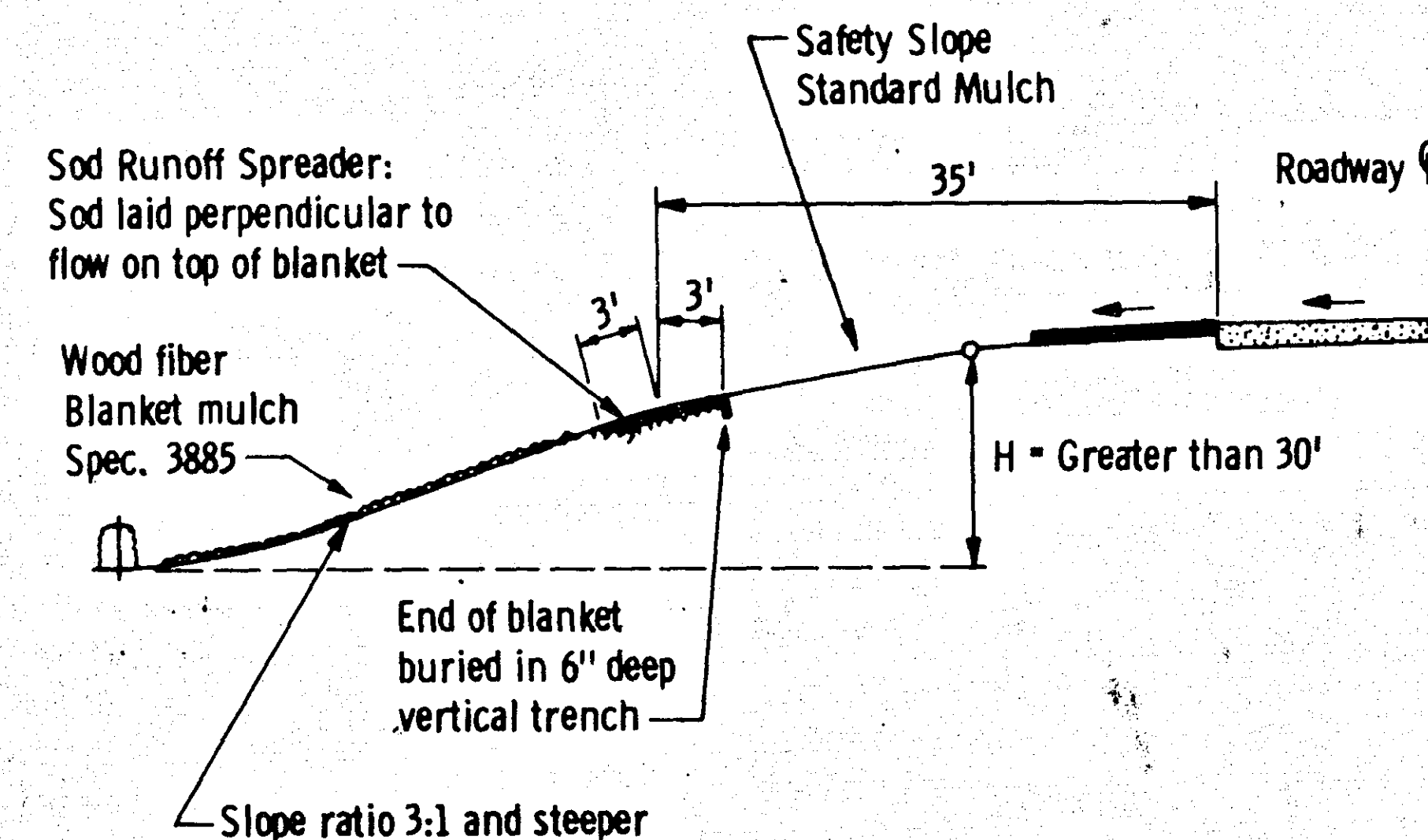
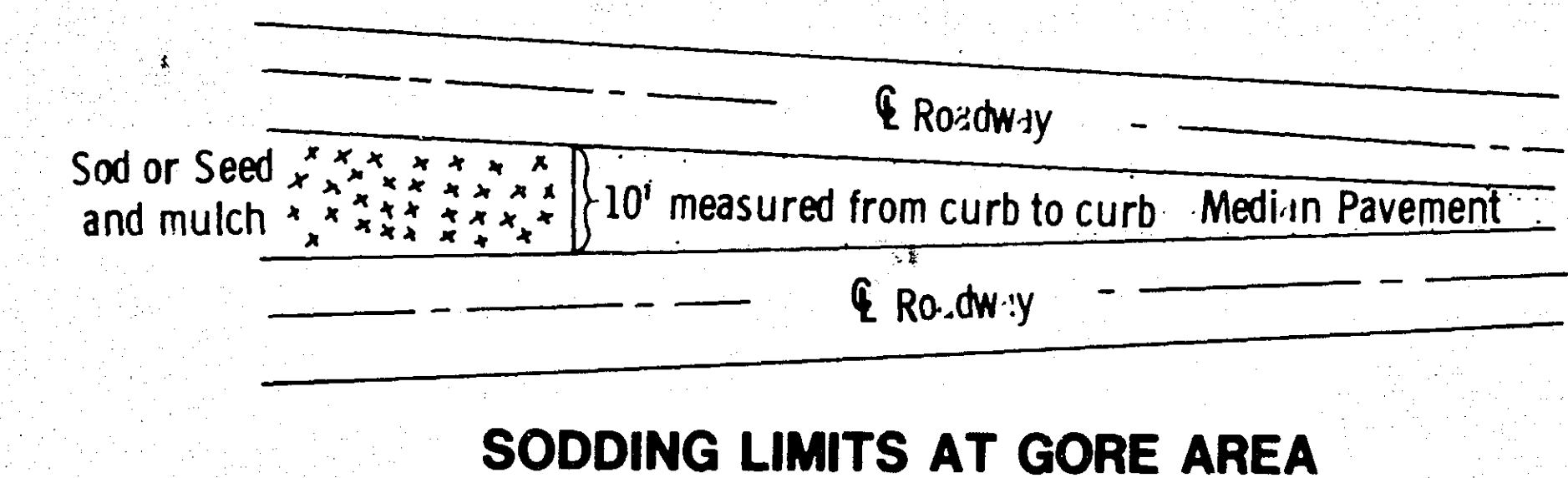
Where the flow of water is sheeting, place sod strips perpendicular to the direction of water flow.



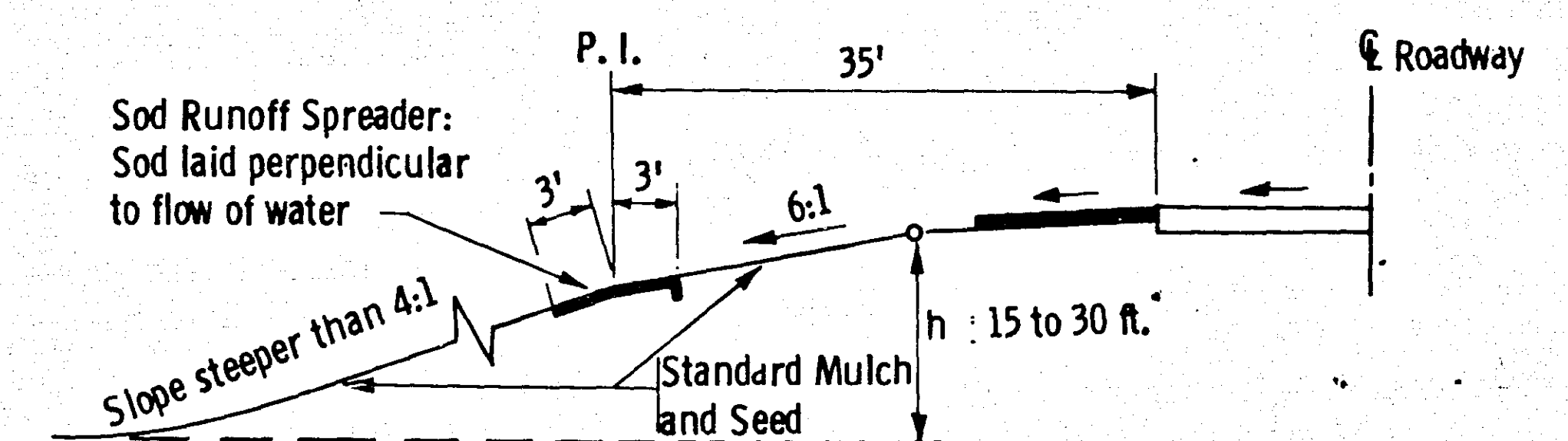
SPECIAL SOD PLACEMENT TECHNIQUES



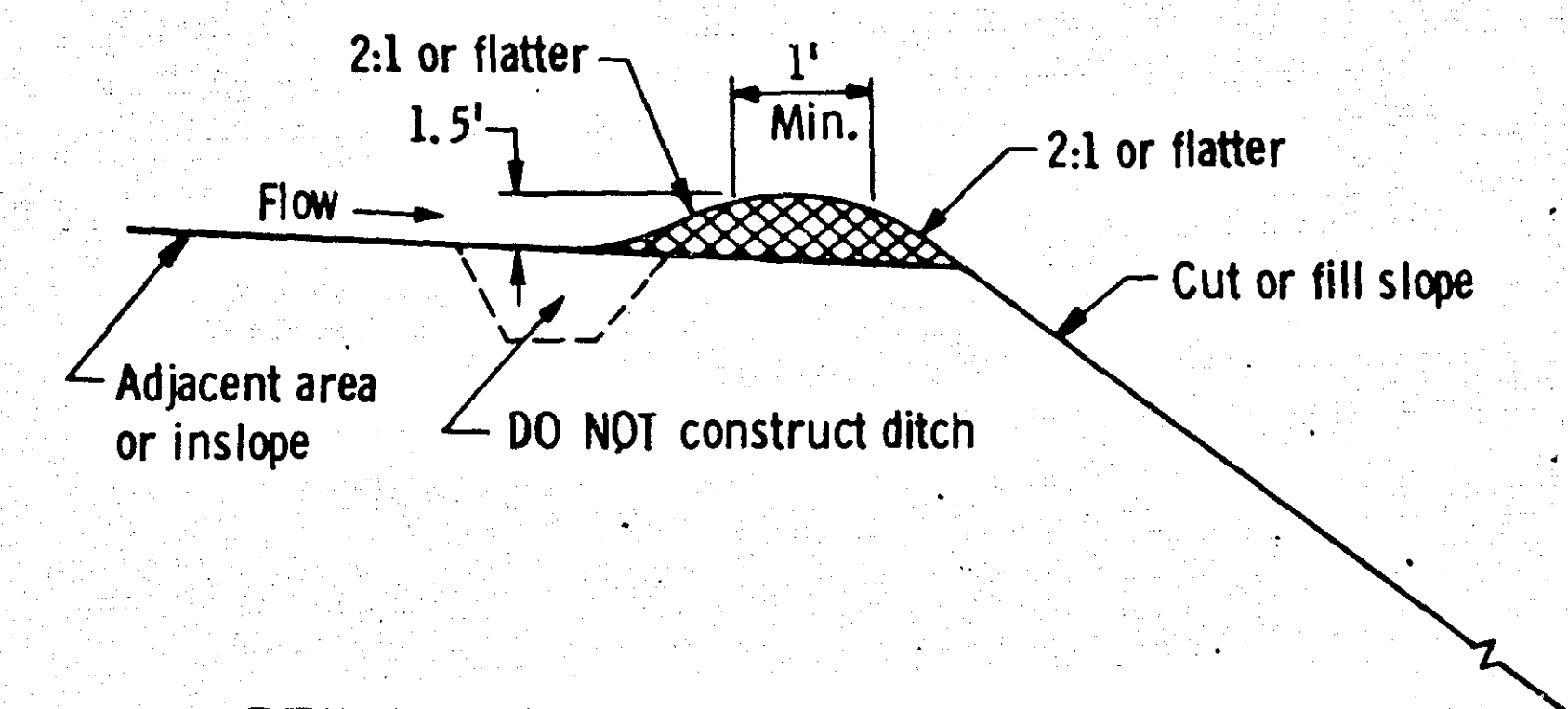
WOOD FIBER BLANKET INSTALLATION ON A CUT SLOPE

WOOD FIBER BLANKET INSTALLATION ON A BACKSLOPE
(WHEN REQUIRED)

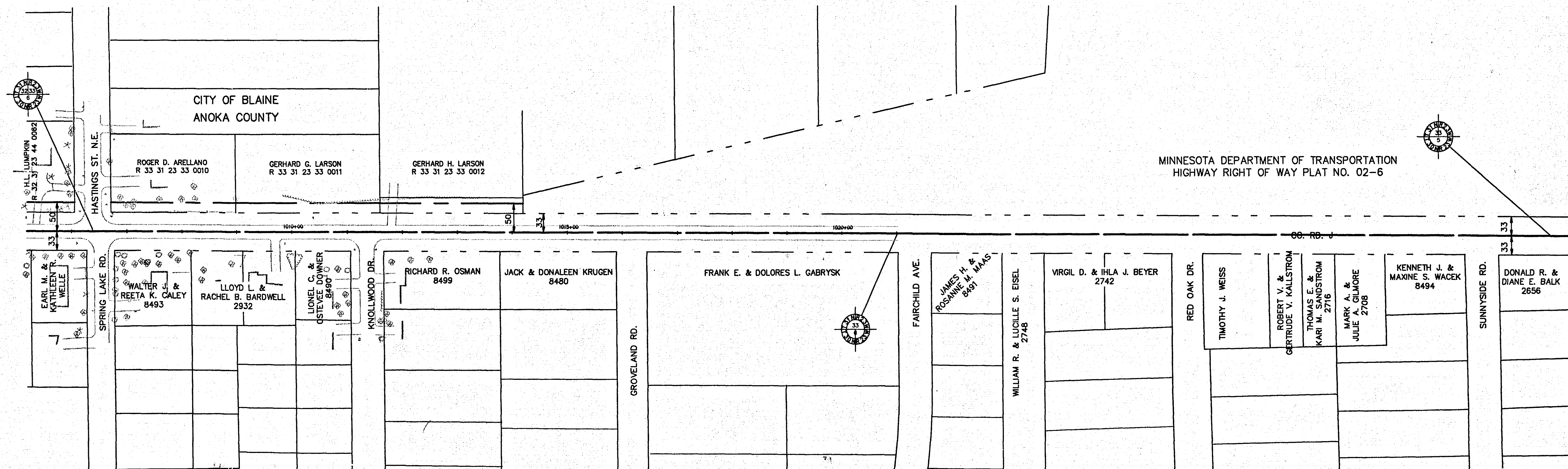
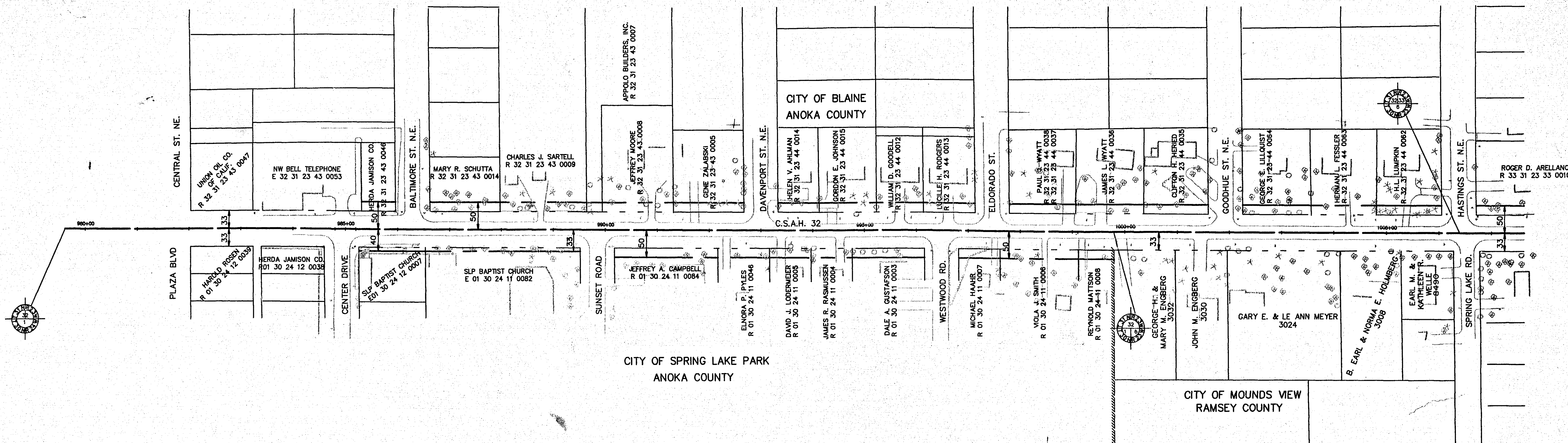
SODDING LIMITS AT GORE AREA



BROKEN - BACK SAFETY FILL SLOPE



PERMANENT SLOPE PROTECTION DIKE



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

CITY OF MOUNDS VIEW
RAMSEY COUNTY

I hereby certify that this plan, specification or report was prepared by me or under my direct supervision and that I am a duly 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
750 THIRD STREET SOUTH
MINNEAPOLIS, MN 55415
PHONE: (612) 330-0790
DESIGN BY: _____
DRAWN BY: CL
CHKD BY: _____

ORIGINAL DATE 11-17-89
REVISIONS _____
SURVEY BOOK _____

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

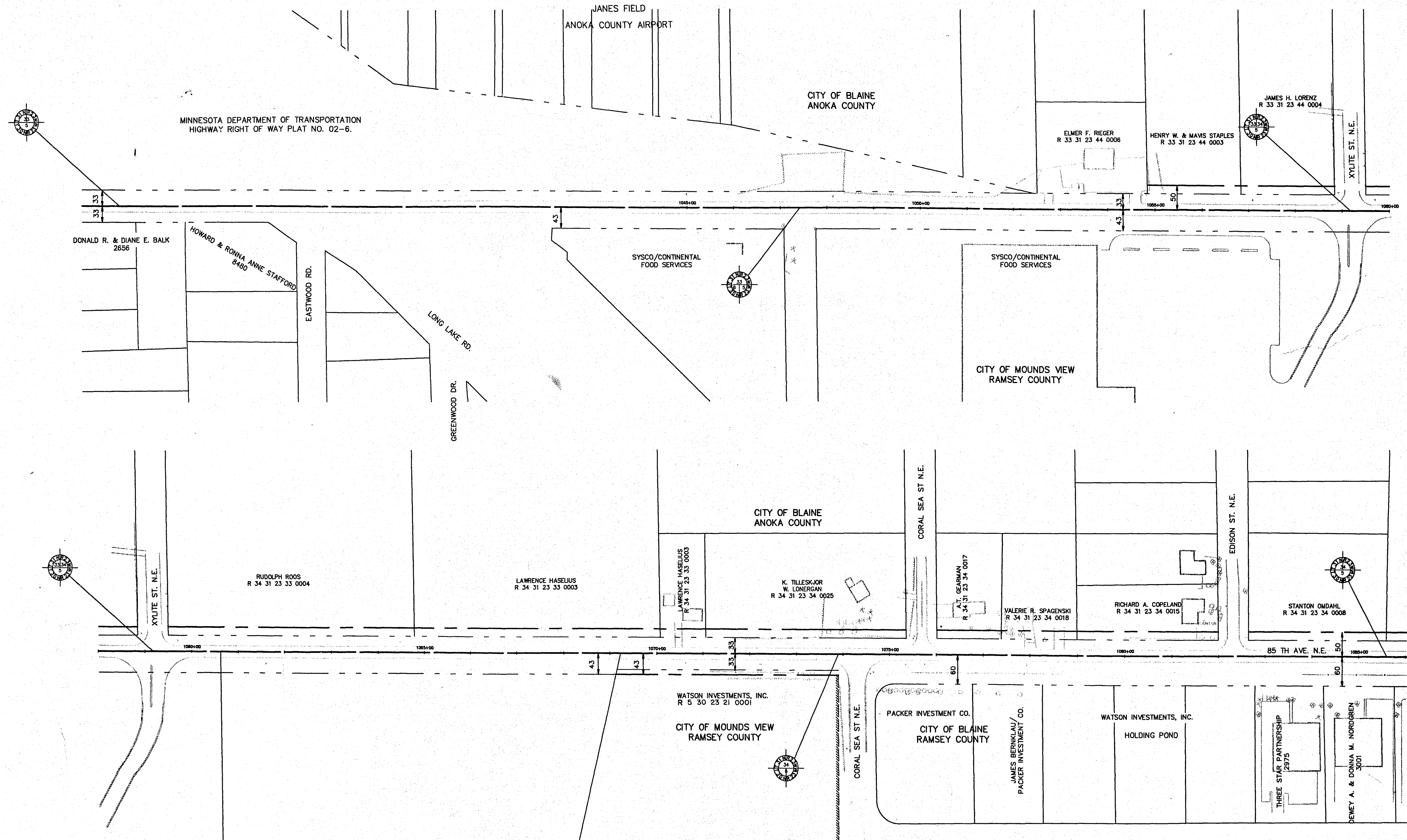
28-108

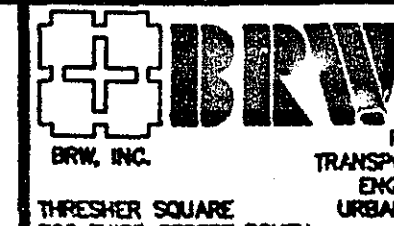
Date _____ Minn. Reg. No. _____

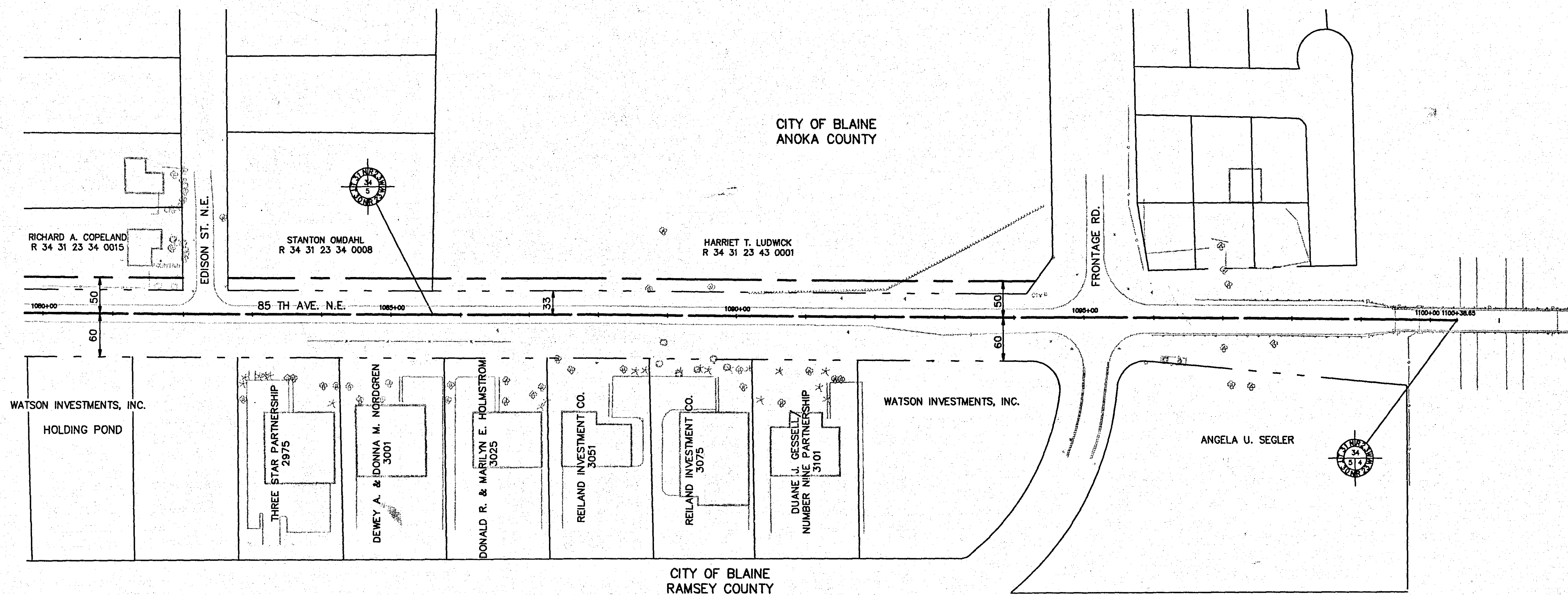
S.A.P. NO. 02 - 632+ 05
62 - 601 - 04

SHEET 14 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. Date _____ Minn. Reg. No. _____	 DRW, INC. THRESHOLD SQUARE 700 THIRD STREET SOUTH MINNEAPOLIS, MN 55415 PHONE: (612) 375-0710	ORIGINAL DATE 11-17-89	COUNTY ROAD J C.S.A.H. 32 RAMSEY/ANOKA COUNTY RIGHT OF WAY MAP 28-108
		REVISIONS	
		SURVEY BOOK	
		DESIGN BY: DRAWN BY: CL CHECKED BY:	
S.A.P. NO. 02 - 632 - 05 62 - 601 - 04	SHEET 15 OF 38		DESIGN FILE No. 09-890



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. _____	 BRW, INC. PLANNING TRANSPORTATION ENGINEERING URBAN DESIGN THRESHER SQUARE 700 THIRD STREET SOUTH MINNEAPOLIS, MN 55415 PHONE: (612) 370-0700	ORIGINAL DATE 11-17-89 REVISIONS _____	COUNTY ROAD J C.S.A.H. 32 RAMSEY/ANOKA COUNTY RIGHT OF WAY MAP 28-108
		DESIGN BY: _____ DRAWN BY: CI _____ CHECKED BY: _____	
S.A.P. NO. 02-632-05 62-601-04	SHEET 16 OF 38		DESIGN FILE No. 09-8902

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



CITY OF SPRING LAKE PARK
ANOKA COUNTY

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

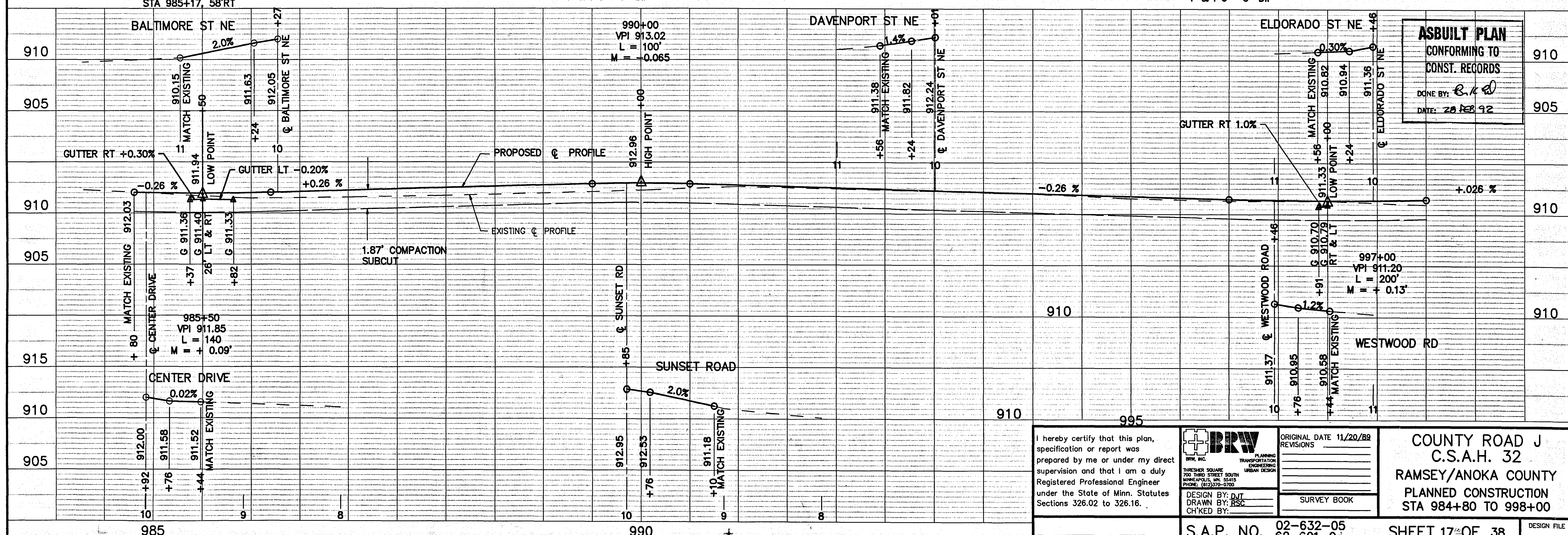
GENERAL CONSTRUCTION NOTES:

- 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.

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

- 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.



BRW, INC.

PLANNING
TRANSPORTATION
ENGINEERING
URBAN DESIGN

THRASHER SQUARE
700 THIRD STREET SOUTH
MINNEAPOLIS, MN. 55415
PHONE: (612)370-0700

DESIGN BY: DJT
DRAWN BY: RSC
CHECKED BY:

ORIGINAL DATE 11/20/8
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

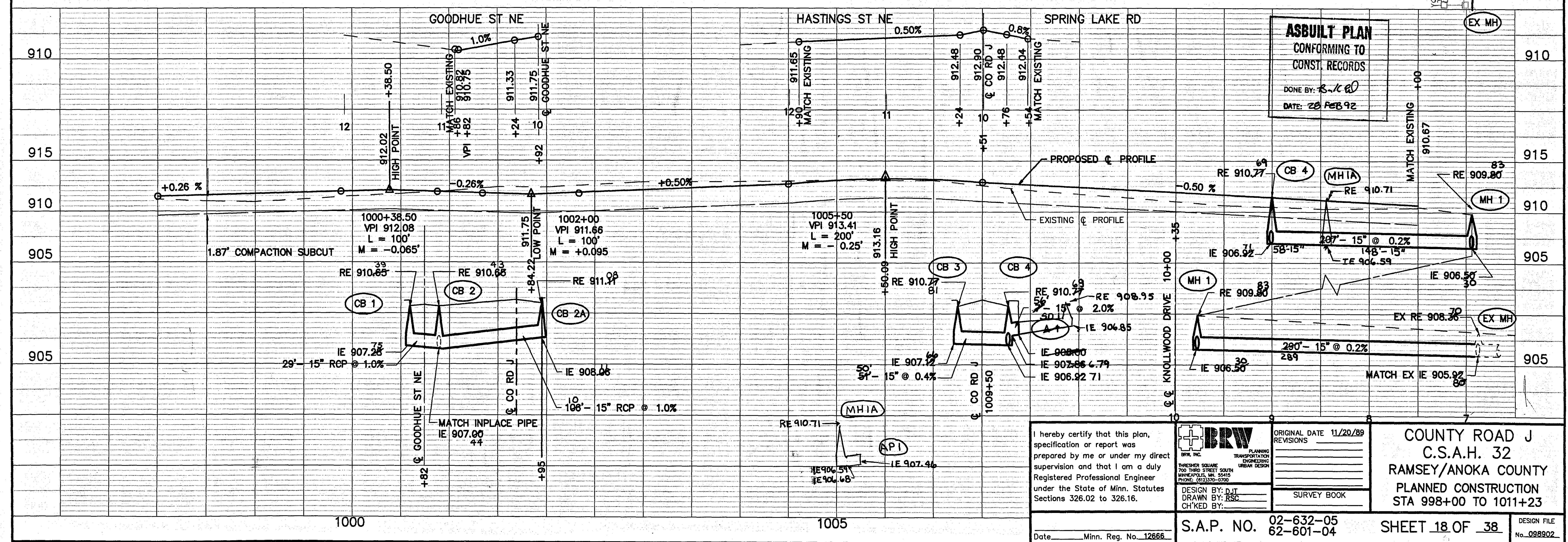
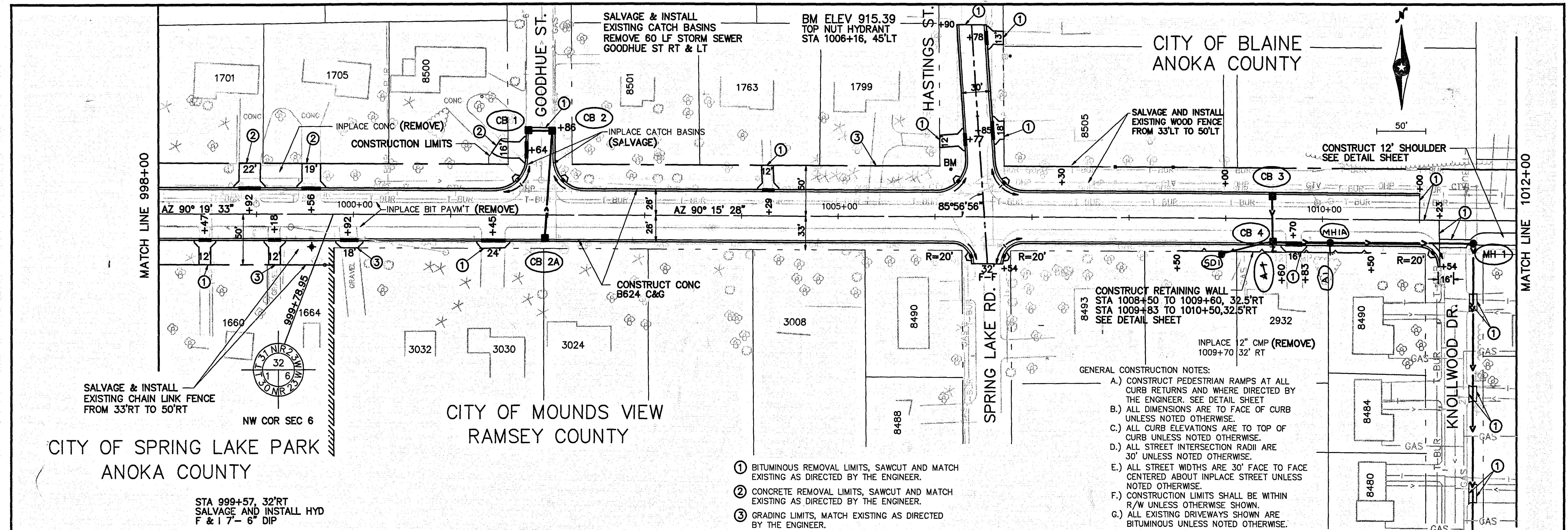
S.A.P. NO. 02-632-05
62-601-04

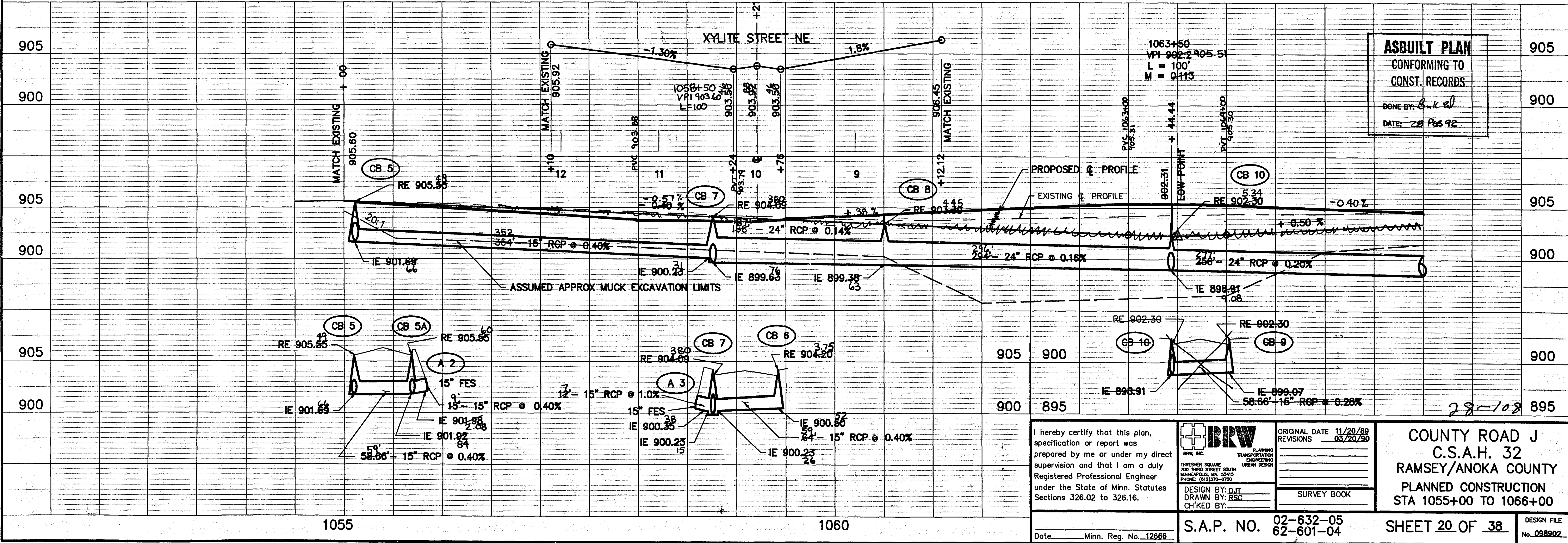
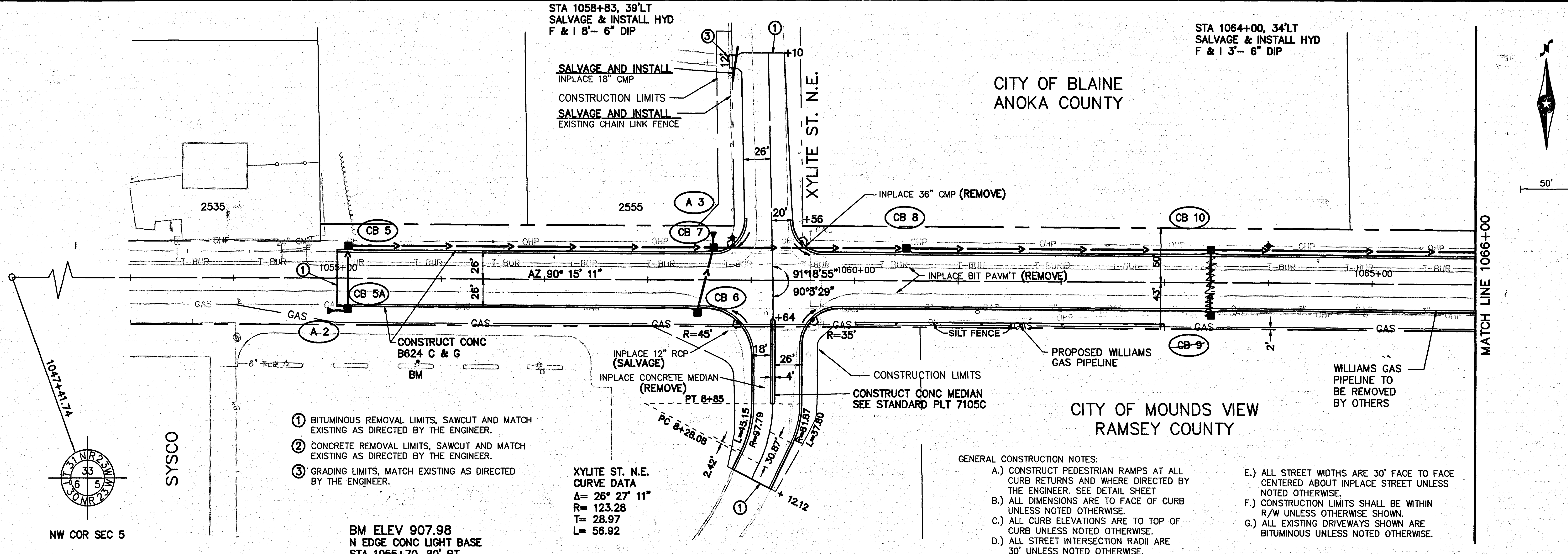
SHEET 17 OF 38

DESIGN FILE
No. 098902

28-108

WB1 DWK





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.
THRESHOLD SQUARE
700 THIRD STREET SOUTH
MINNEAPOLIS, MN 55415
PHONE: (612) 370-0700

DESIGN BY: DJT
DRAWN BY: BSC
CHECKED BY:

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

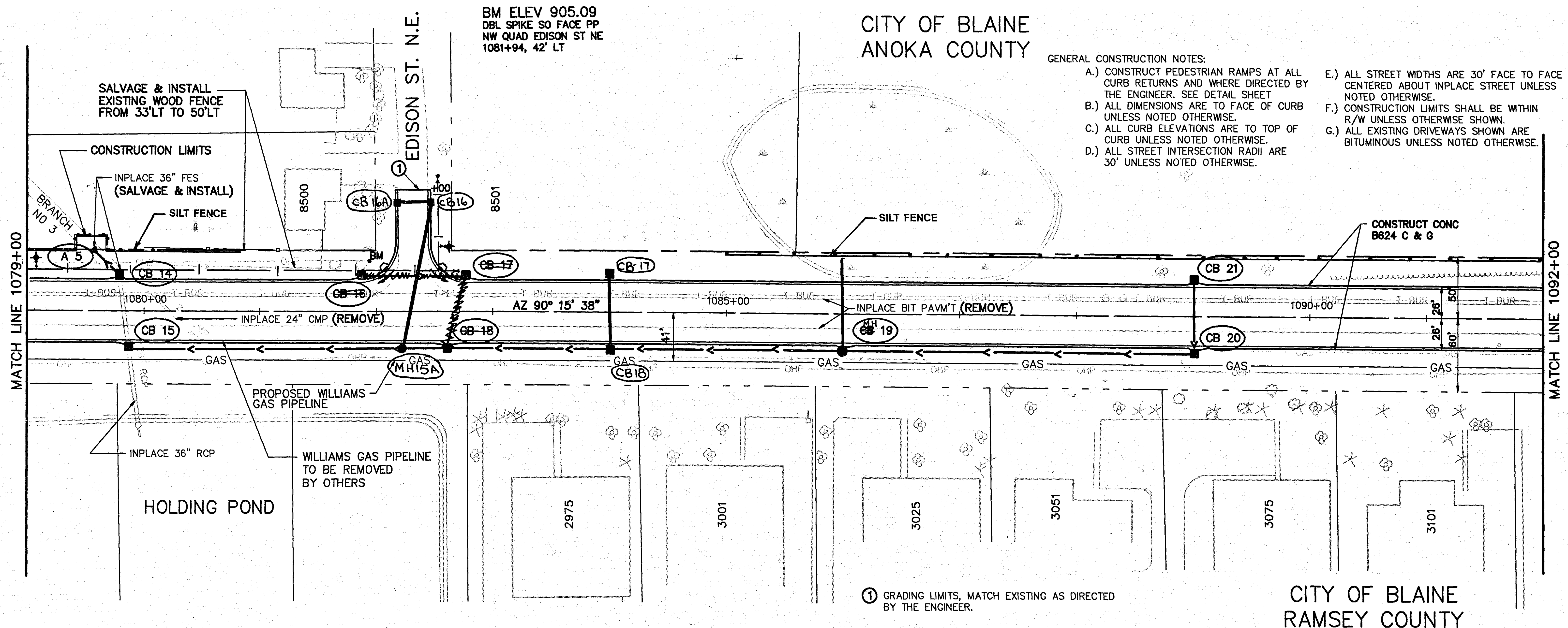
SURVEY BOOK

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

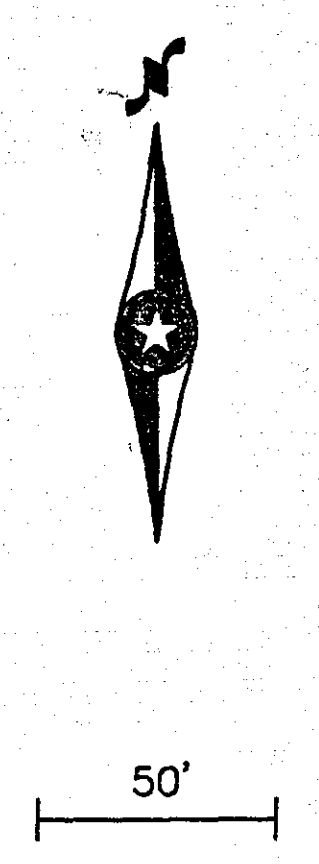
S.A.P. NO. 02-632-05
62-601-04

SHEET 20 OF 38

DESIGN FILE No. 098902

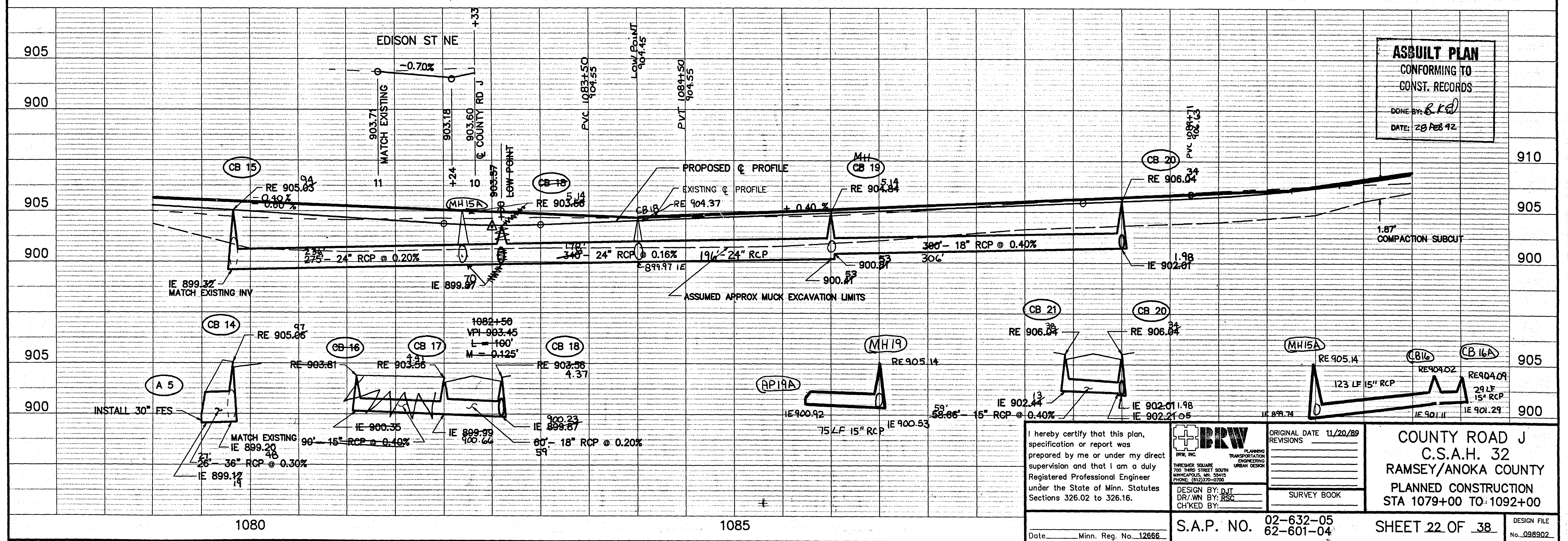


- GENERAL CONSTRUCTION NOTES:
- A.) CONSTRUCT PEDESTRIAN RAMPS AT ALL CURB RETURNS AND WHERE DIRECTED BY THE ENGINEER. SEE DETAIL SHEET
 - B.) ALL DIMENSIONS ARE TO FACE OF CURB UNLESS NOTED OTHERWISE.
 - C.) ALL CURB ELEVATIONS ARE TO TOP OF CURB UNLESS NOTED OTHERWISE.
 - D.) ALL STREET INTERSECTION 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 GRADING LIMITS, MATCH EXISTING AS DIRECTED BY THE ENGINEER.

CITY OF BLAINE
RAMSEY COUNTY



ASBUILT PLAN
CONFORMING TO
CONST. RECORDS
DONE BY: *B.K.D.*
DATE: 28 Feb 92

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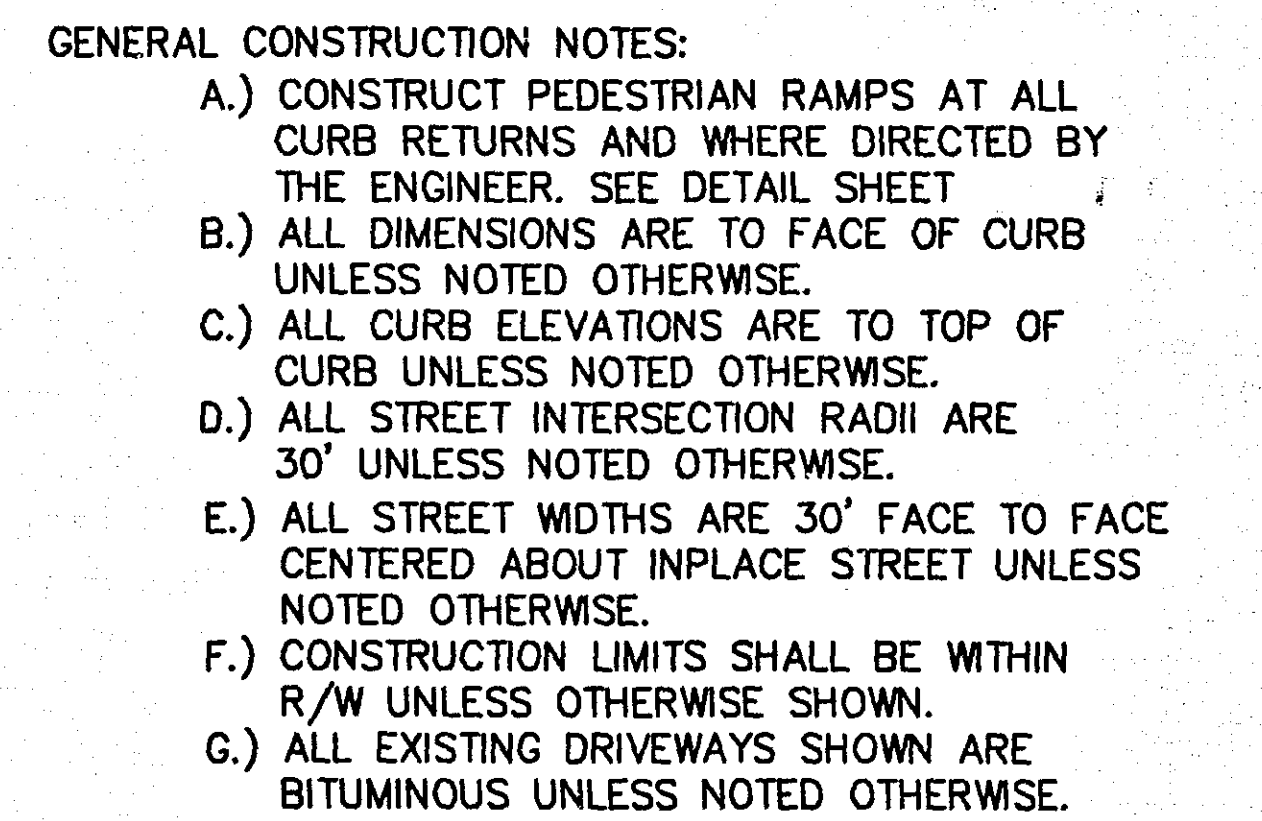
PRW
PLANNING
TRANSPORTATION
ENGINEERING
DESIGN
THRESHER SQUARE
720 THIRD STREET SOUTH
MINNEAPOLIS, MN 55415
PHONE: (612) 705-0700
DESIGN BY: D.J.T.
DR./WN BY: B.S.C.
CHECKED BY:

ORIGINAL DATE 11/20/89
REVISIONS
SURVEY BOOK

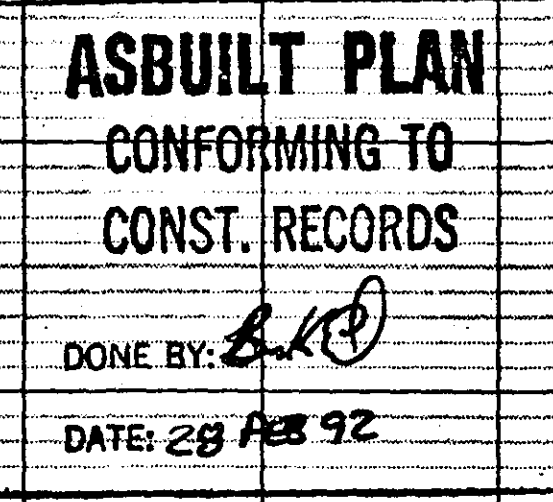
COUNTY ROAD J
C.S.A.H. 32
RAMSEY/ANOKA COUNTY
PLANNED CONSTRUCTION
STA 1079+00 TO 1092+00

Date: _____ Minn. Reg. No. 12666
S.A.P. NO. 02-632-05
62-601-04
SHEET 22 OF 38
DESIGN FILE No. 098902

28-108



BM ELEV 928.59
STANDARD DISC IN
BRIDGE NO 9607
SE COR J AND 135W



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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
BRYN, INC. TRANSF. ENG. URBAN

THRESHER SQUARE
700 THIRD STREET SOUTH
MINNEAPOLIS, MN 55415
PHONE: (612) 370-0700

DESIGN BY: DJT
DRAWN BY: RSC
CH'K'D BY:

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

SURVEY BOOK

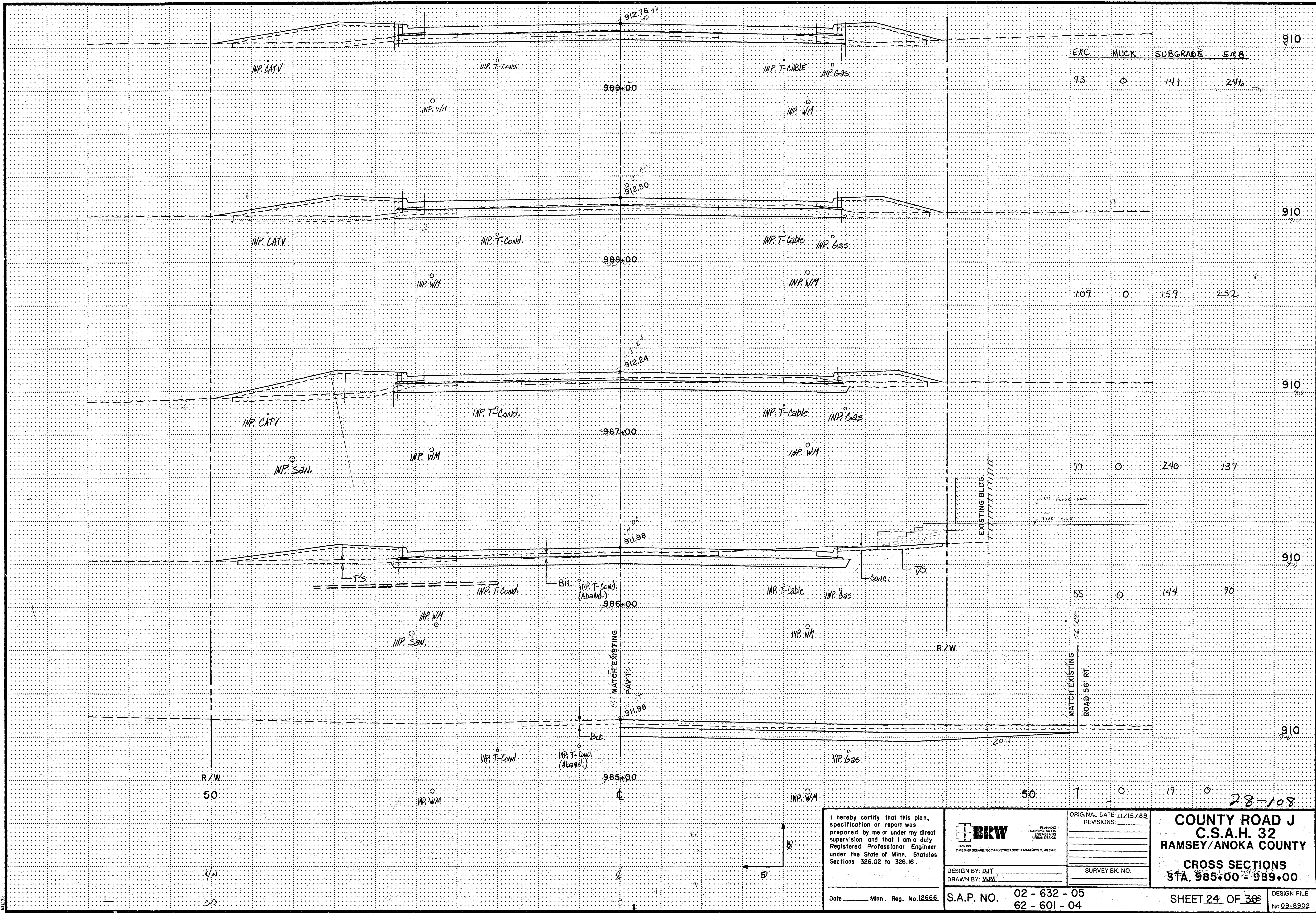
COUNTY ROAD J
C.S.A.H. 32
RAMSEY/ANOKA COUNTY
PLANNED CONSTRUCTION
STA 1092+00 TO 1099+85

Date _____ Min. Reg. No. 12666

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

SHEET 23 OF 38

DESIGN FILE
098902



EXC.	MUCK	SUBGRADE	EMB.
93	0	141	246

109	0	159	252
-----	---	-----	-----

77	0	240	137
----	---	-----	-----

55	0	144	90
----	---	-----	----

50	7	0	19	0
----	---	---	----	---

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Date _____ Minn. Reg. No. 12666

BRW
BRW, INC.
THRESHOLD SQUARE, 700 THIRD STREET SOUTH, MINNEAPOLIS, MN 55415

DESIGN BY: DJT
DRAWN BY: MJM

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

ORIGINAL DATE: 11/15/89
REVISIONS:

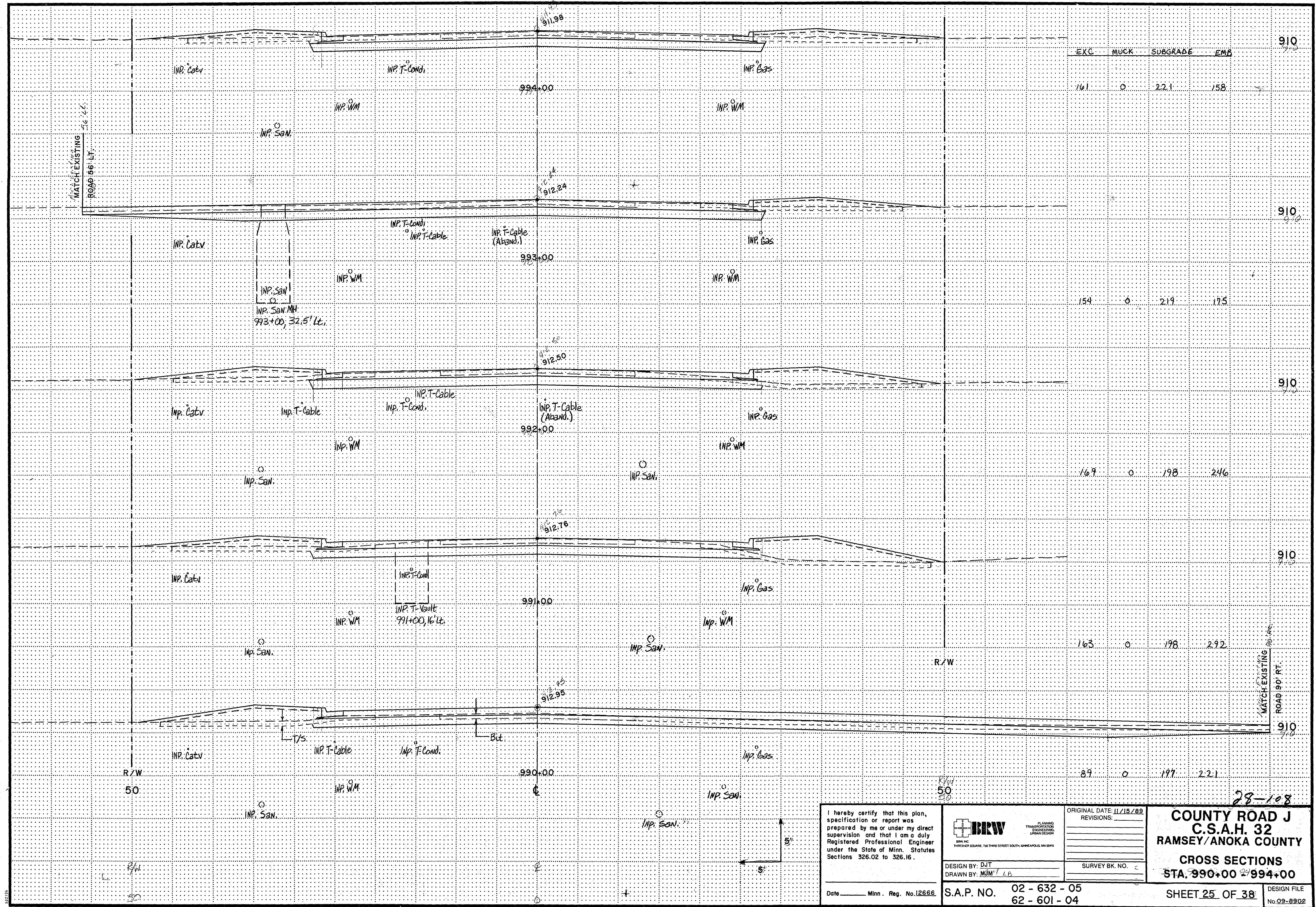
SURVEY BK. NO.

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

CROSS SECTIONS
STA. 985+00 - 989+00

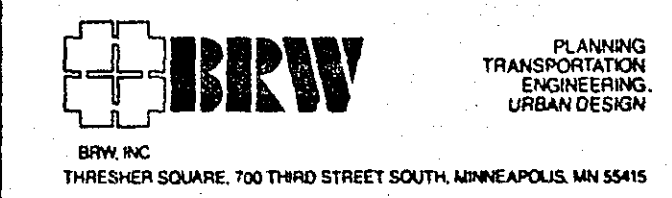
SHEET 24 OF 38

DESIGN FILE
No. 09-8902



Exc	Muck	Subgrade	EMB
141	0	22.1	158
154	0	21.9	175
169	0	198	246
163	0	198	292
89	0	197	22.1

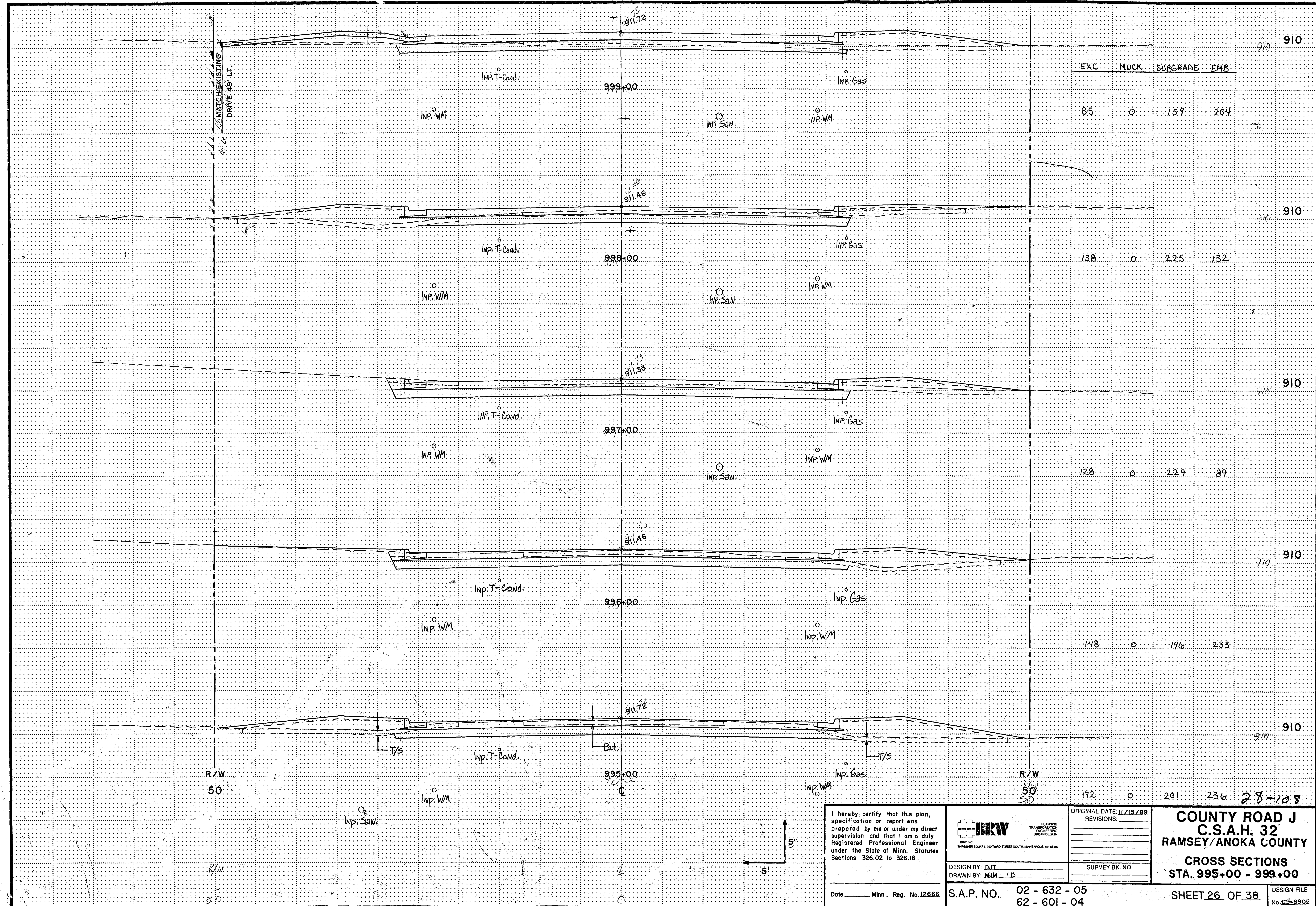
I hereby certify that this plan, specification or report was prepared by me or under my direct supervision and that I am a duly Registered Professional Engineer under the State of Minn. Statutes Sections 326.02 to 326.16.



ORIGINAL DATE: 11/15/89
 REVISIONS:

 SURVEY BK. NO. C

COUNTY ROAD J
C.S.A.H. 32
RAMSEY/ANOKA COUNTY
CROSS SECTIONS
STA. 990+00 TO 994+00



EXC. MUCK SUBGRADE FMS

85 0 159 204

138 0 225 132

128 0 229 89

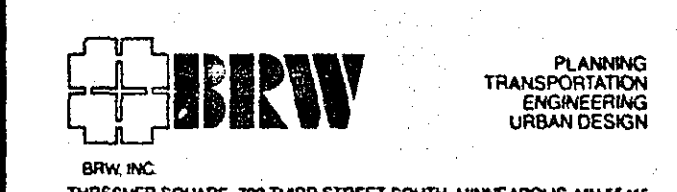
148 0 196 233

172 0 201 236

910
910
910
910
910
910
910

28-108

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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

Date _____ Minn. Reg. No. 12566

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

SHEET 26 OF 38

DESIGN FILE
No. 09-8902

MATCH EXISTING
ROAD 96 LT.

EXC MUCK SUBGRADE EMB

910
7.0

1003+00

176 0 216 79

Inp. T-Cond.

Inp. Gas

Inp. San.

Inp. WM

Inp. WM

911.76

910
7.0

1002+00

105 0 235 77

Inp. T-Cond.

Inp. Gas

Inp. San.

Inp. WM

Inp. WM

911.92

910
7.0

1001+00

81 0 209 66

Inp. T-Cond.

Inp. Gas

Inp. San.

Inp. WM

Inp. WM

911.98

910
7.0

1000+00

63 0 177 109

Inp. T-Cond.

Inp. Gas

Inp. San.

Inp. WM

Inp. WM

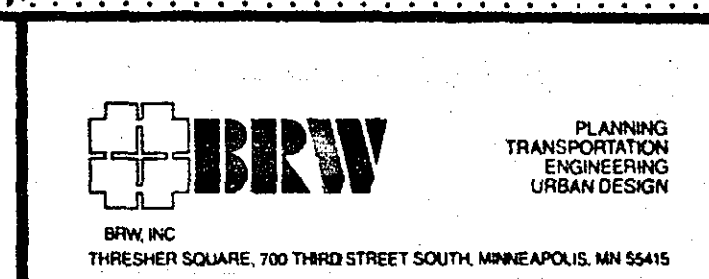
R/W
50

R/W
50

28-108

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

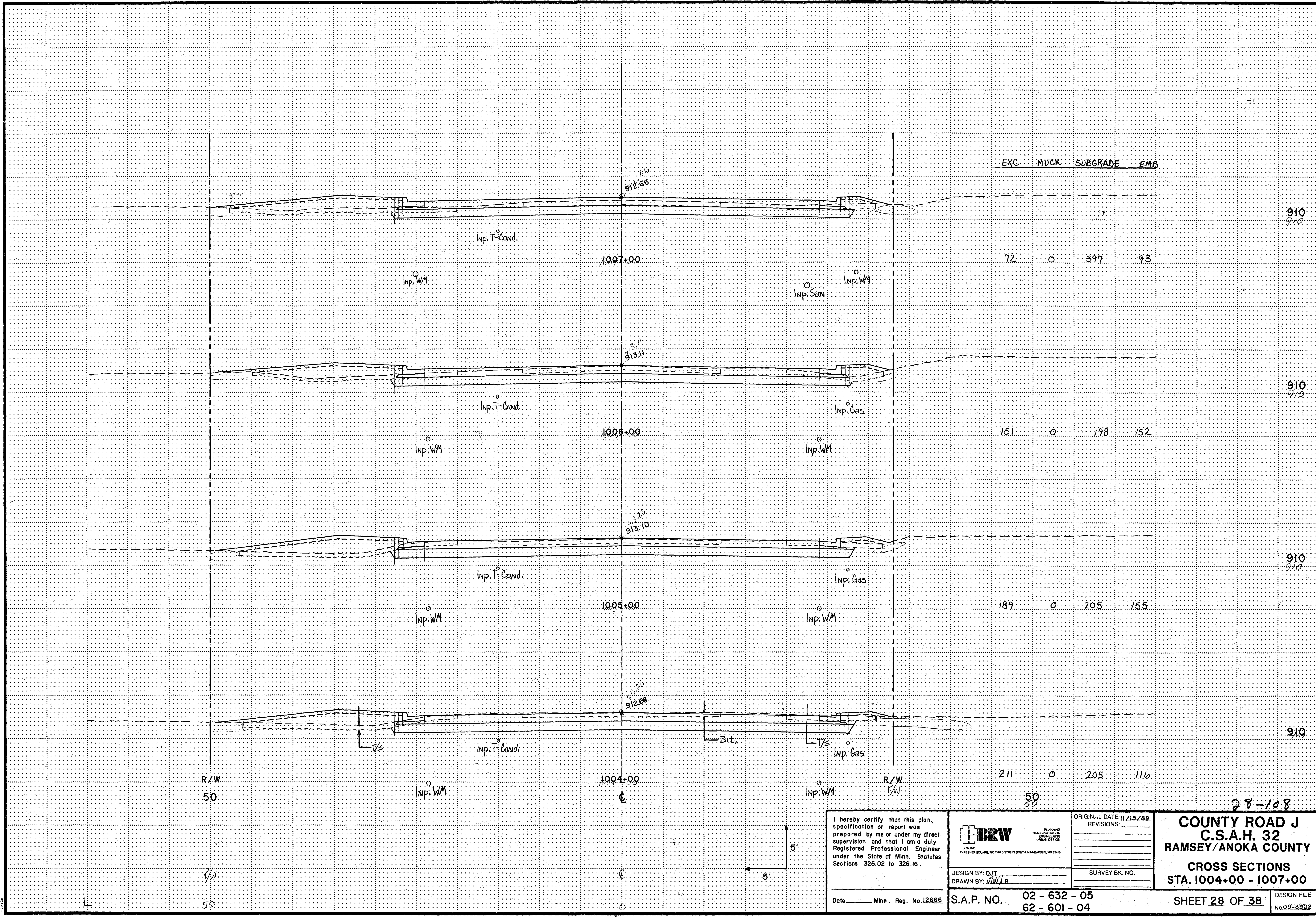
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REVISIONS:

SURVEY BK. NO.

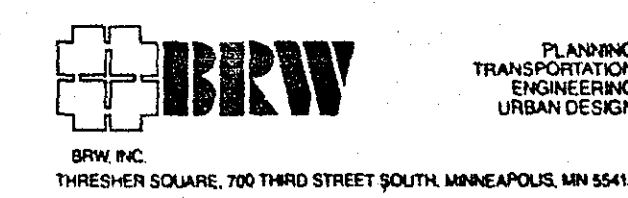
COUNTY ROAD J
C.S.A.H. 32
RAMSEY/ANOKA COUNTY

CROSS SECTIONS
STA. 1000+00 - 1003+00

SHEET 27 OF 38
DESIGN FILE No. 09-8902



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: MAM/LB

Date: _____ Minn. Reg. No. 12666

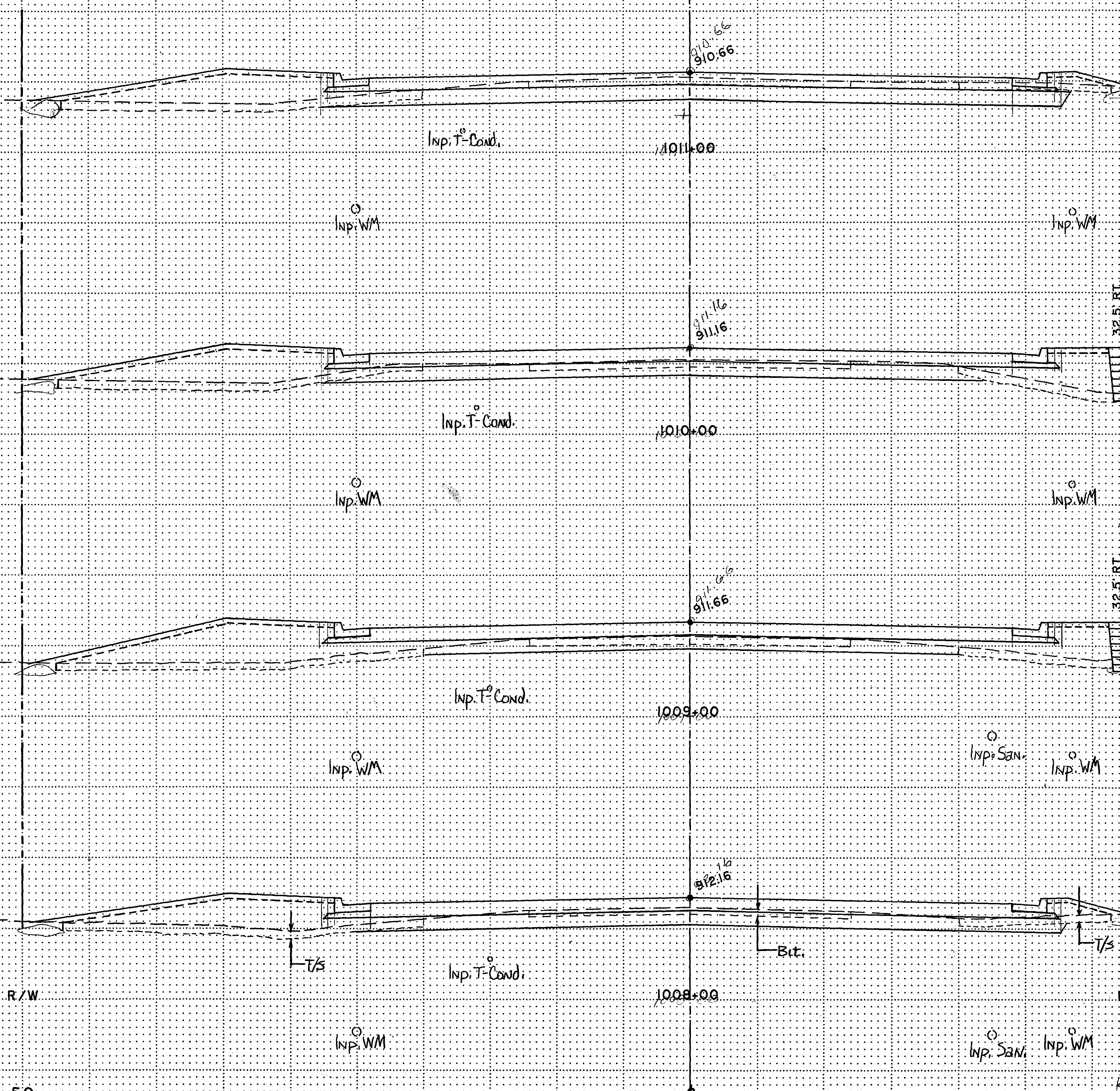
S.A.P. NO. 02 - 632 - 05
62 - 601 - 04

ORIGIN: L DATE: 11/15/89
REVISIONS:

SURVEY BK. NO. _____

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

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.
THRESHOLD SQUARE, 700 THIRD STREET SOUTH, MINNEAPOLIS, MN 55415

DESIGN BY: DJT
DRAWN BY: MDM/LB

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

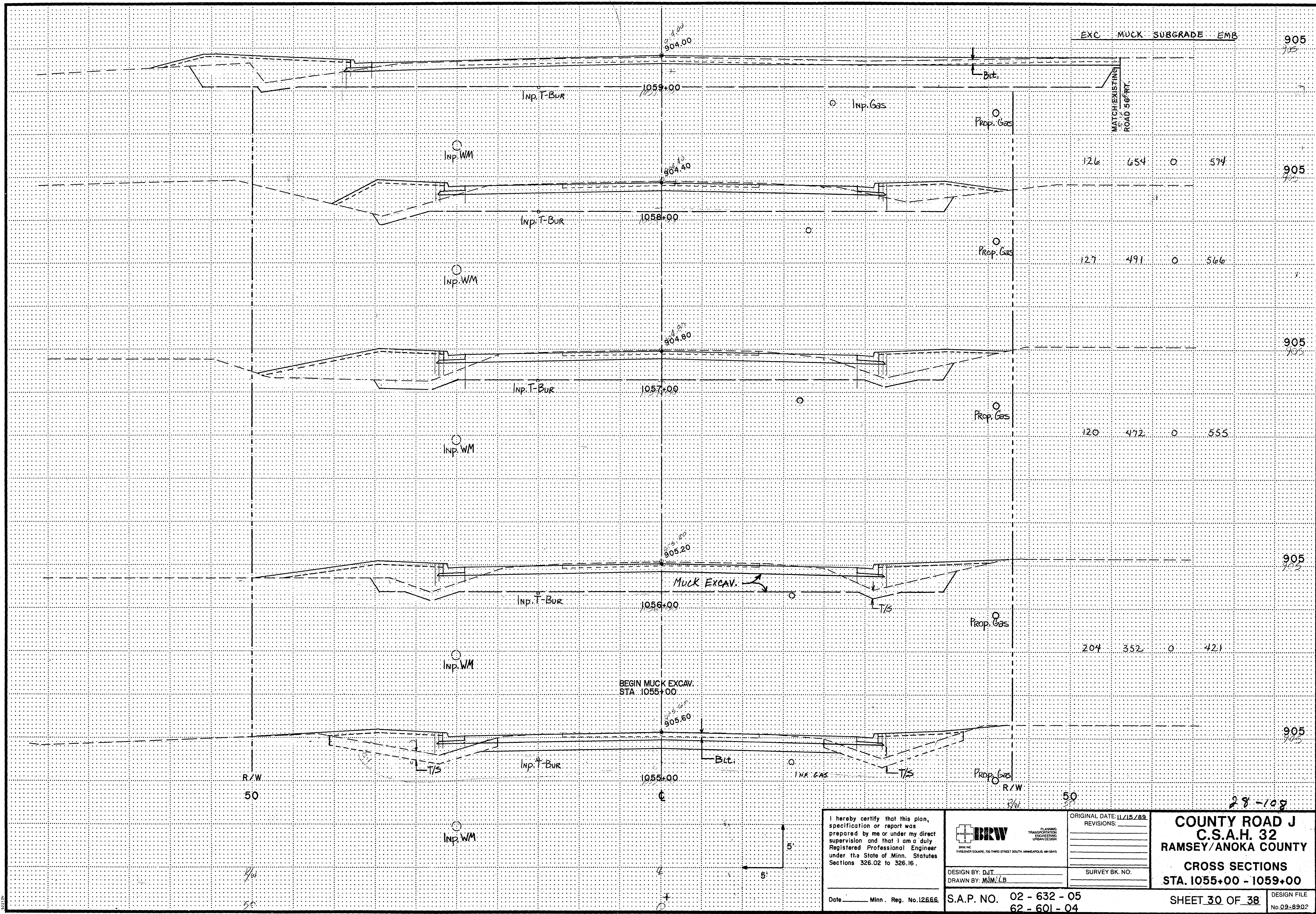
COUNTY ROAD J
C.S.A.H. 32
RAMSEY/ANOKA COUNTY

CROSS SECTIONS
STA. 1008+00 - 1011+00

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

SHEET 29 OF 38

DESIGN FILE
No. 09-B902



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
BRW INC.
THREEMILE SQUARE, 700 THIRD STREET SOUTH, MINNEAPOLIS, MN 55415

PLANNING
TRANSPORTATION
ENGINEERING
URBAN DESIGN

DESIGN BY: DJT
DRAWN BY: MAM/LB

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

ORIGINAL DATE: 11/15/89
REVISIONS:

SURVEY BK. NO. _____

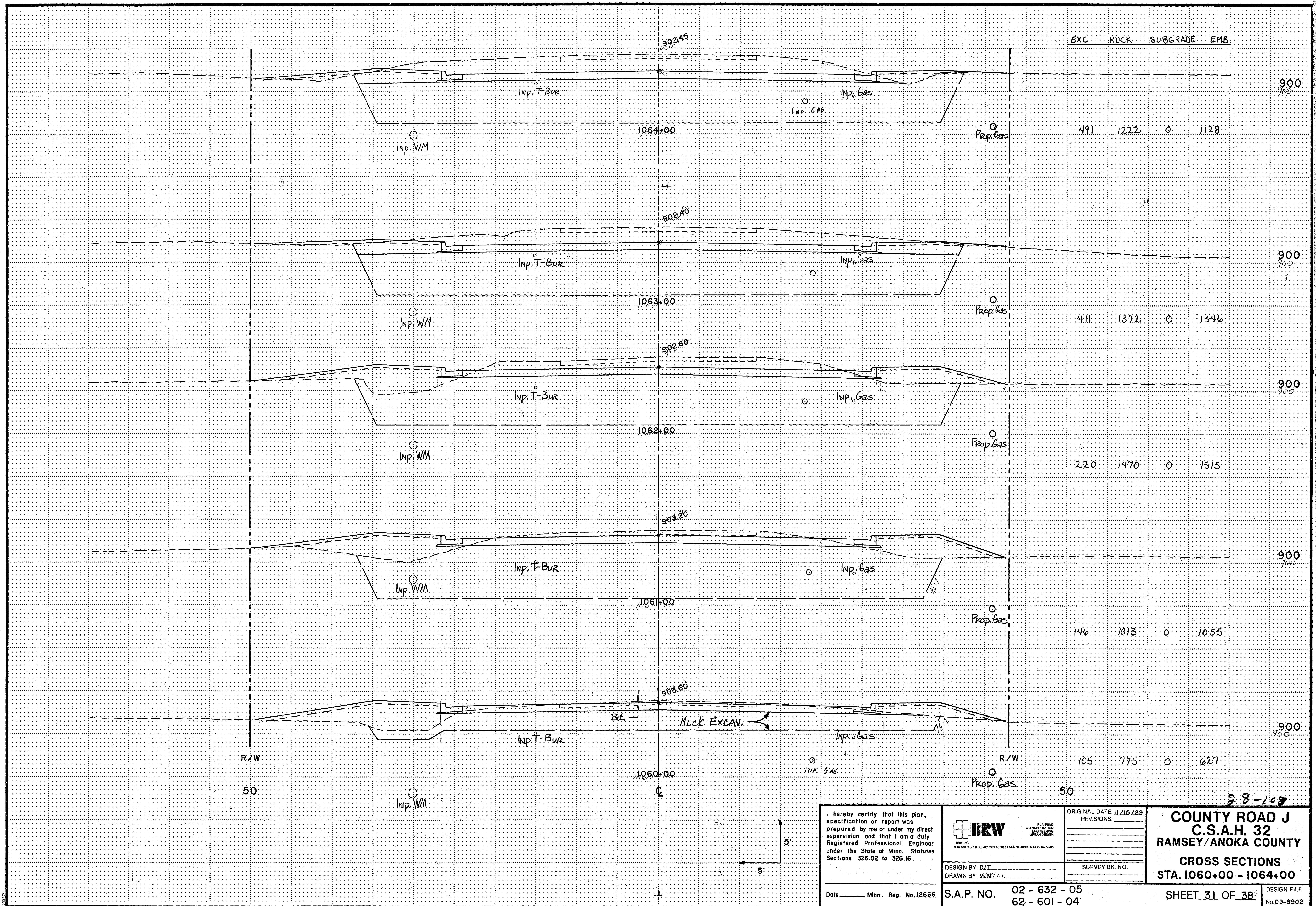
COUNTY ROAD J
C.S.A.H. 32
RAMSEY/ANOKA COUNTY

CROSS SECTIONS
STA. 1055+00 - 1059+00

SHEET 30 OF 38

DESIGN FILE
No. 09-8902

551236



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. 12566

BRW
BRW INC.
THRESHOLD SQUARE, 700 THIRD STREET SOUTH, MINNEAPOLIS, MN 55415

DESIGN BY: DJT
DRAWN BY: MUM/LLB

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

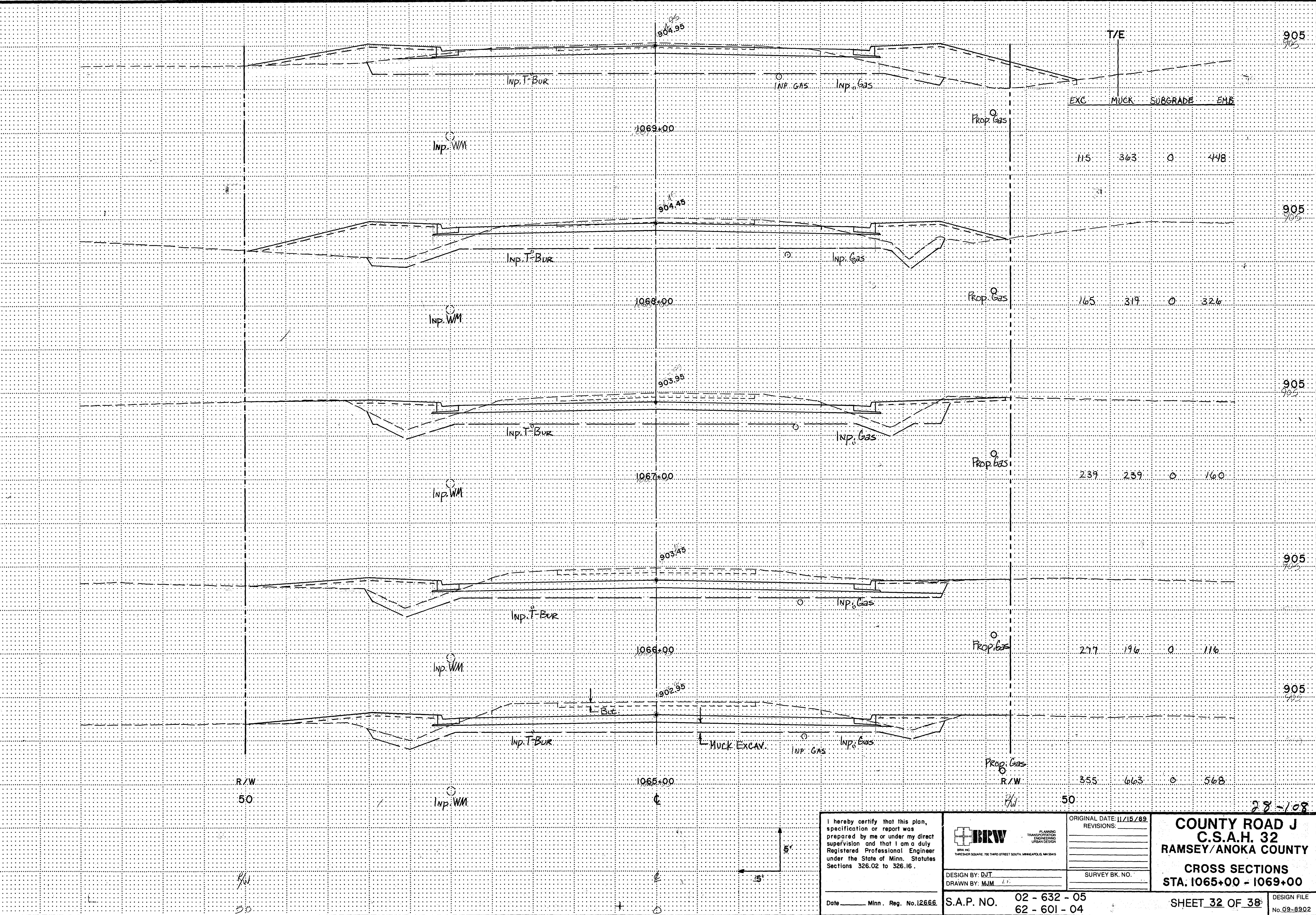
ORIGINAL DATE: 11/15/89
REVISIONS: _____
SURVEY BK. NO. _____

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

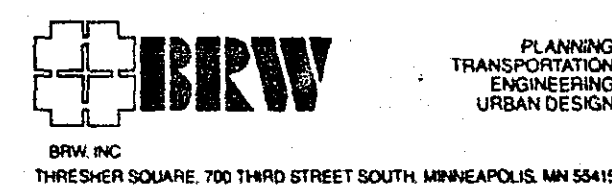
CROSS SECTIONS
STA. 1060+00 - 1064+00

SHEET 31 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.



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

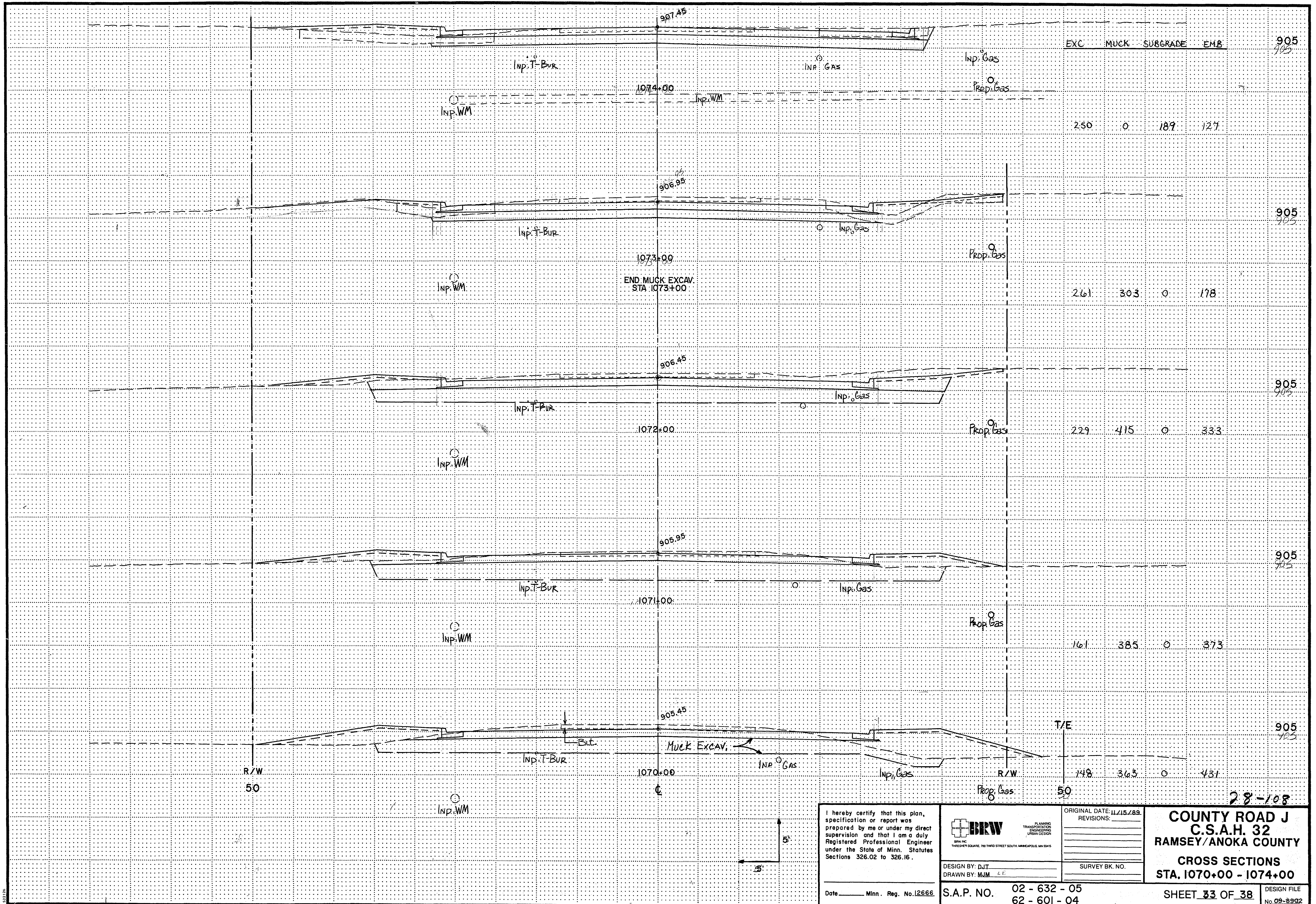
CROSS SECTIONS
STA. 1065+00 - 1069+00

Date _____ Minn. Reg. No. 12666

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

SHEET 32 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.

Date _____ Minn. Reg. No. 12666

BRW
 BRW, INC.
 THRESHEN SQUARE, 700 THIRD STREET SOUTH, MINNEAPOLIS, MN 55415

DESIGN BY: DJT
 DRAWN BY: MJM

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

ORIGINAL DATE: 11/15/89
 REVISIONS:

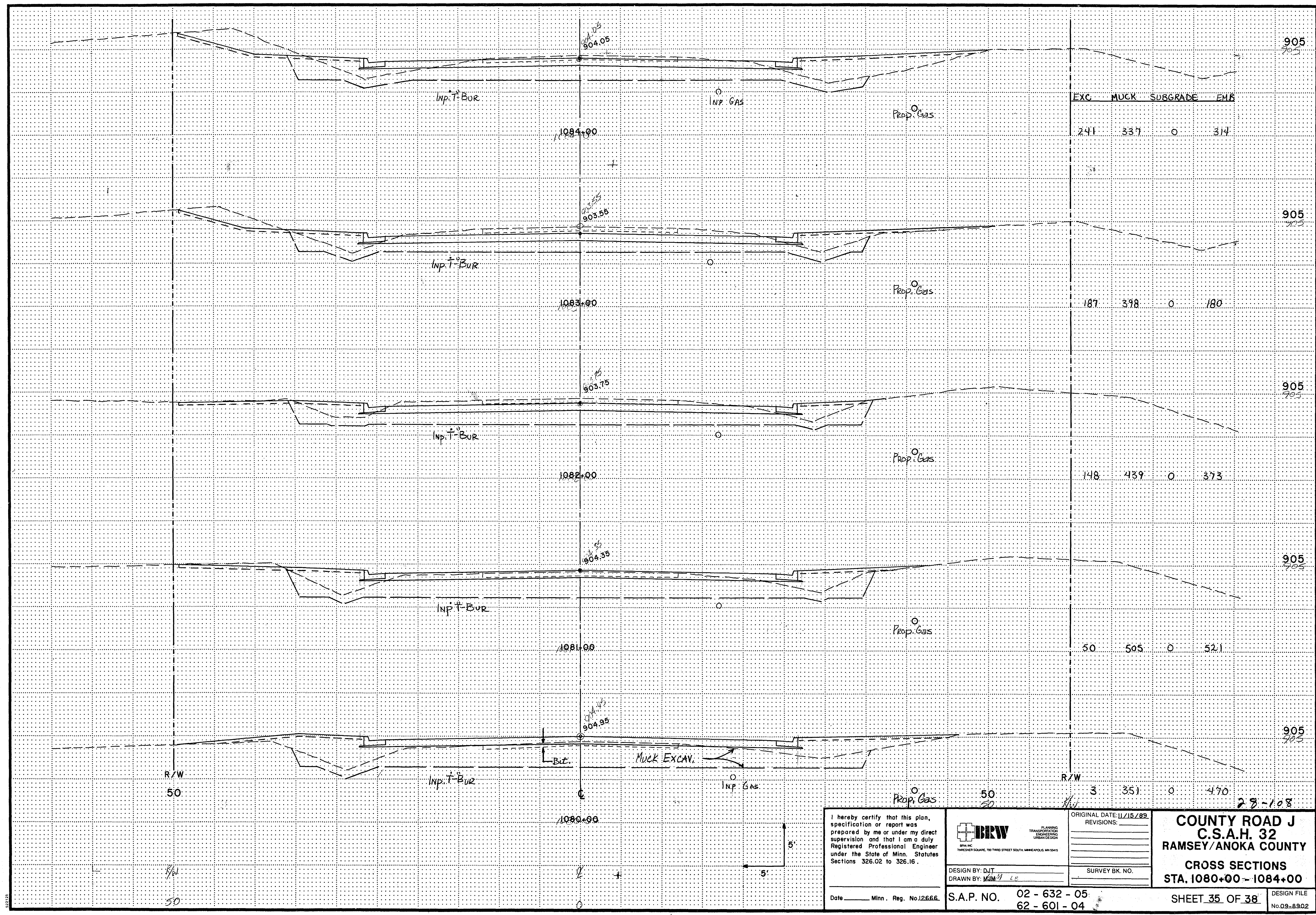
 SURVEY BK. NO. _____

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

CROSS SECTIONS
STA. 1070+00 - 1074+00

SHEET 33 OF 38

DESIGN FILE
 No. 09-8902



EXC. MUCK SUBGRADE EMB

241 337 0 314

187 398 0 180

148 439 0 373

50 505 0 521

3 351 0 470

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Date _____ Minn. Reg. No. 12666

BRW
BRW, INC.
THRESHOLD SQUARE, 700 THIRD STREET SOUTH, MINNEAPOLIS, MN 55415

PLANNING
TRANSPORTATION
ENGINEERING
URBAN DESIGN

DESIGN BY: DJT
DRAWN BY: MDM/LL

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

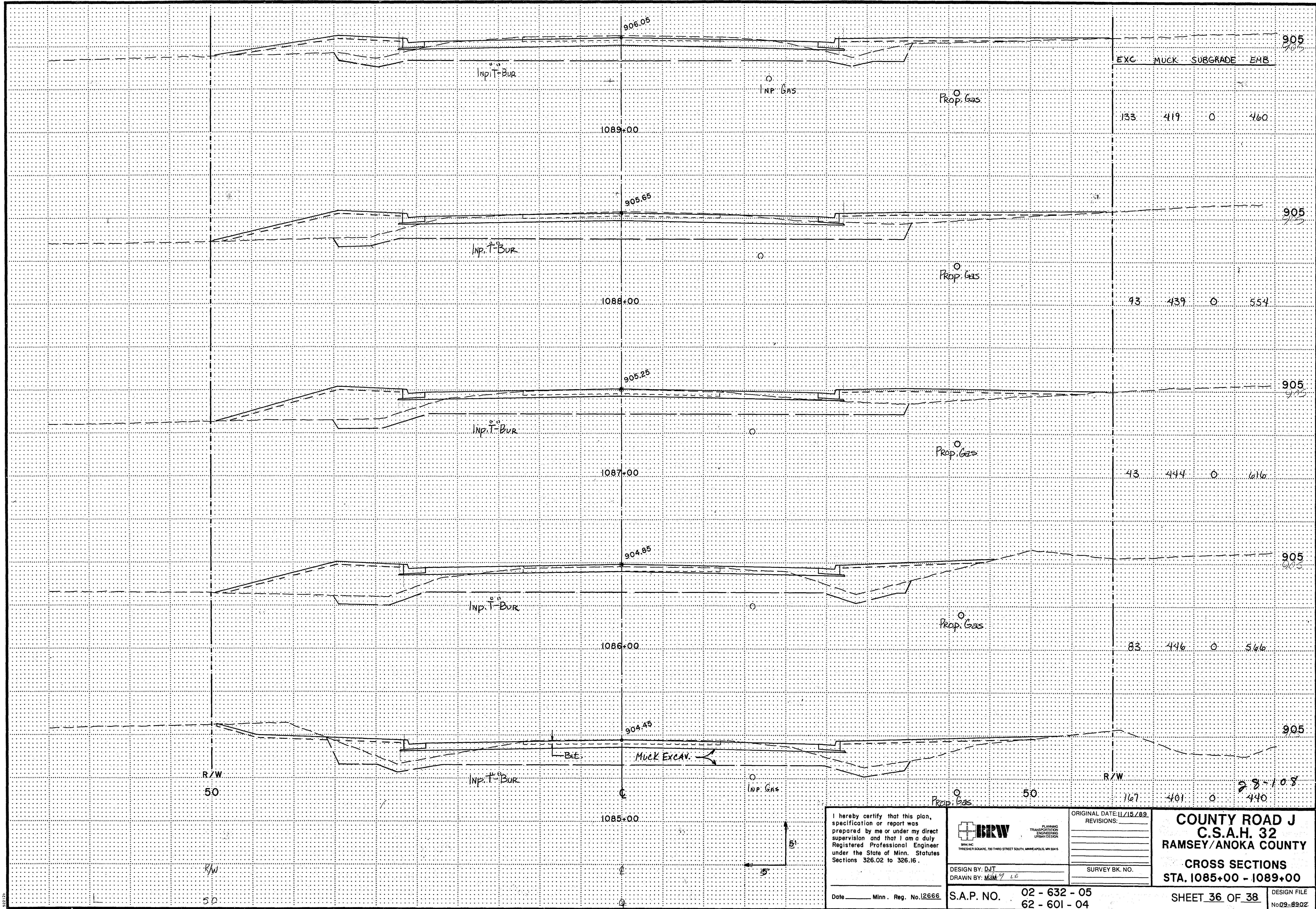
ORIGINAL DATE: 11/15/89
REVISIONS:

SURVEY BK. NO. _____

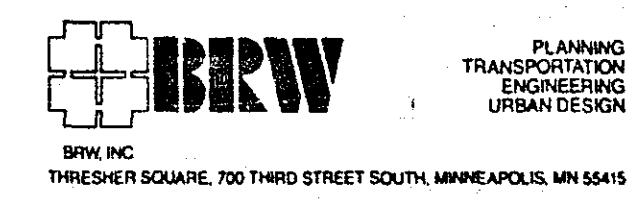
COUNTY ROAD J
C.S.A.H. 32
RAMSEY/ANOKA COUNTY
CROSS SECTIONS
STA. 1080+00 - 1084+00

SHEET 35 OF 38

DESIGN FILE
No. 09-8902



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DESIGN BY: DJT
DRAWN BY: MDM, LE

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

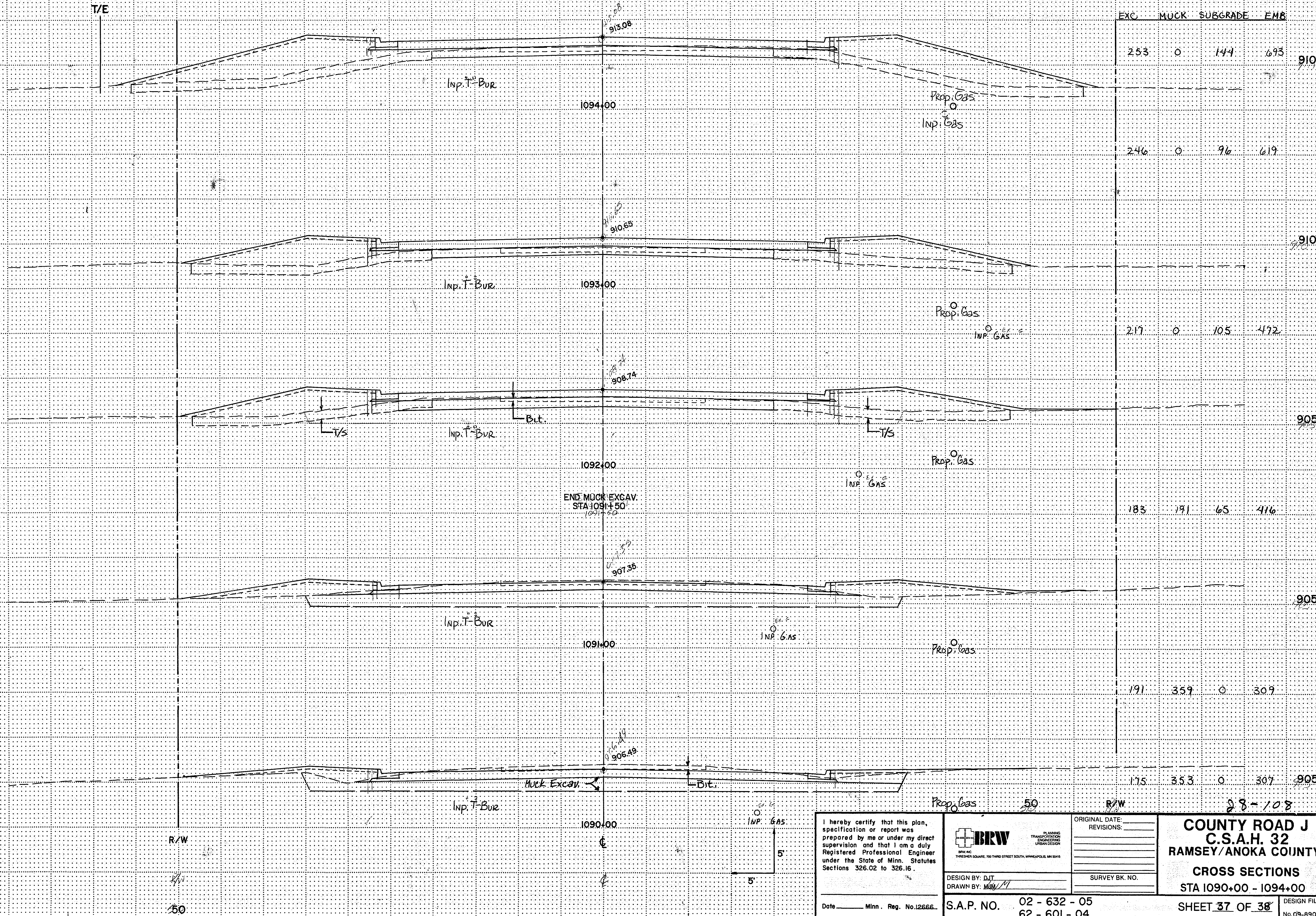
Date: Minn. Reg. No. 12666

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

SHEET 36 OF 38
DESIGN FILE No 09-8902

T/E

EXC MUCK SUBGRADE EMB

END MUCK EXCAV.
STA 1091+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



PLANNING
TRANSPORTATION
ENGINEERING
URBAN DESIGN

DESIGN BY: DJT
DRAWN BY: MUM/MT

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. 09-8902

