

STATEMENT OF ESTIMATED QUANTITIES				ENGINEERS ESTIMATE	AVERAGE 3 LOW BIDDERS	FOREST LAKE CONTRACTING INC.	ASHBACH CONSTRUCTION CO.	C.S. MCCROSSAN INC.	SHAHER CONTRACTING CO. INC.	PROGRESSIVE CONTRACTORS, INC.											
ITEM NO.	ITEM	UNIT	ESTIMATED QUANTITIES	UNIT PRICE		UNIT PRICE	AMOUNT	UNIT PRICE	AMOUNT	UNIT PRICE	AMOUNT	UNIT PRICE	AMOUNT	UNIT PRICE	AMOUNT	UNIT PRICE	AMOUNT	UNIT PRICE	AMOUNT	UNIT PRICE	AMOUNT
2021.501	MOBILIZATION	1	LUMP SUM	7,090.00	10,000.00	6,000.00	6,000.00	20,000.00	20,000.00	4,000.00	4,000.00	10,000.00	10,000.00								
2101.502	CLEARING	9	TREE	100.00	75.00	65.00	585.00	60.00	540.00	100.00	900.00	150.00	1,350.00								
2101.507	GRUBBING	10	TREE	75.00	45.00	40.00	400.00	25.00	250.00	70.00	700.00	150.00	1,500.00								
2104.501	REMOVE CULVERT PIPE	60	L.F.	6.00	3.20	4.00	240.00	0.60	36.00	5.00	300.00	7.50	450.00								
2104.505	REMOVE CONCRETE PAVEMENT	127	S.Y.	5.00	4.22	5.00	635.00	2.65	336.55	5.00	635.00	7.20	889.00								
2104.509	REMOVE CATCH BASINS	1	EACH	200.00	180.00	120.00	120.00	120.00	120.00	300.00	300.00	500.00	500.00								
2104.523	SALVAGE CASTING ASSEMBLIES	5	EACH	40.00	71.67	80.00	400.00	35.00	175.00	100.00	500.00	100.00	500.00								
2104.523	SALVAGE HYDRANT	3	EACH	400.00	306.67	300.00	900.00	120.00	360.00	500.00	1,500.00	350.00	1,050.00								
2105.501	COMMON EXCAVATION	22,162	C.Y.	1.70	2.37	2.25	49,864.50	2.31	51,194.22	2.54	56,291.48	3.50	77,567.00								
2105.522	SELECT GRANULAR BORROW (L.V.)	9,120	C.Y.	2.50	2.93	3.30	30,096.00	2.78	25,353.60	2.72	24,806.40	3.75	34,200.00								
2105.525	TOPSOIL BORROW (L.V.)	602	C.Y.	6.50	6.23	5.50	3,311.00	6.20	3,732.40	7.00	4,214.00	5.00	3,010.00								
2130.501	WATER	75	(M.) GAL.	15.00	12.67	8.00	600.00	15.00	1,125.00	15.00	1,125.00	5.00	375.00								
2211.501	AGGREGATE BASE, CLASS 6	4,187	TON	4.00	4.72	4.90	20,516.30	4.25	17,794.75	5.00	20,935.00	4.25	17,794.75								
2211.501	AGGREGATE BASE, CLASS 4	10,377	TON	3.75	4.12	4.10	42,545.70	3.65	37,876.05	4.60	47,734.20	4.25	44,102.25								
2331.504	BITUMINOUS MATERIAL FOR MIXTURE	119	TON	77.00	94.33	98.00	11,662.00	95.00	11,305.00	90.00	10,710.00	98.00	11,662.00								
2331.508	WEARING COURSE MIXTURE	76	TON	15.00	25.30	19.65	1,493.40	16.25	1,235.00	40.00	3,040.00	19.65	1,493.00								
2331.510	BINDER COURSE MIXTURE	924	TON	7.75	8.87	8.75	8,085.00	8.10	7,484.40	9.75	9,009.00	8.75	8,085.00								
2331.514	BASE COURSE MIXTURE	1,540	TON	7.50	8.58	8.50	13,040.00	8.15	12,551.00	9.10	14,014.00	8.49	13,074.60								
2357.502	BITUMINOUS MATERIAL FOR TACK COAT	1,068	GAL.	0.75	0.77	0.65	694.20	0.66	704.88	1.00	1,068.00	0.65	694.20								
2358.501	BITUMINOUS MATERIAL FOR PRIME COAT	3,884	GAL.	0.75	0.90	0.50	1,942.00	0.46	1,786.64	0.25	971.00	0.48	1,864.32								
2361.504	ASPHALT CEMENT	37	TON	77.00	94.33	98.00	3,626.00	95.00	3,515.00	90.00	3,330.00	98.00	3,626.00								
2361.508	WEARING COURSE MIXTURE	462	TON	14.00	18.08	17.80	8,223.60	14.95	6,906.90	21.50	9,930.00	17.77	8,209.74								
2501.511	12" C.S. PIPE CULVERT, 16" GUAGE	20	L.F.	14.00	18.63	17.00	340.00	18.90	378.00	20.00	400.00	15.00	300.00								
2501.515	12" C.S. PIPE APRON	1	EACH	60.00	95.00	90.00	90.00	120.00	120.00	75.00	75.00	60.00	60.00								
2501.515	15" R.C. PIPE APRON	1	EACH	360.00	215.00	150.00	150.00	270.00	270.00	225.00	225.00	175.00	175.00								
2503.511	12" R.C. PIPE SEWER, CLASS IV	8	L.F.	24.00	29.00	20.00	160.00	27.00	216.00	40.00	320.00	30.00	240.00								
2503.511	15" R.C. PIPE SEWER, CLASS IV	269	L.F.	15.00	23.33	20.00	5,380.00	32.00	8,608.00	18.00	4,842.00	20.00	5,380.00								
2506.508	CONSTRUCT MANHOLE, DESIGN A OR F	1	EACH	800.00	588.33	550.00	550.00	710.00	710.00	800.00	800.00	900.00	900.00								
2506.509	CONSTRUCT CATCH BASINS, DESIGN RC-2	3	EACH	700.00	571.67	500.00	1,500.00	565.00	1,695.00	650.00	1,950.00	875.00	2,625.00								
2506.509	CONSTRUCT CATCH BASINS, DESIGN L.P.4	6	EACH	800.00	1,165.00	870.00	5,220.00	1,425.00	8,550.00	1,200.00	7,200.00	950.00	5,700.00								
2506.516	CASTING ASSEMBLIES	4	EACH	140.00	206.67	180.00	720.00	190.00	760.00	250.00	1,000.00	250.00	1,000.00								
2506.522	ADJUST FRAME AND RING CASTING	14	EACH	100.00	113.33	80.00	1,120.00	135.00	1,890.00	125.00	1,750.00	100.00	1,400.00								
2531.501	CONCRETE CURB AND GUTTER DESIGN, B624	5,227	L.F.	4.70	5.58	5.20	27,180.40	5.55	29,009.85	6.00	31,362.00	6.25	32,668.75								
2531.507	6" CONCRETE DRIVEWAY PAVEMENT	254	S.Y.	14.00	19.17	18.00	4,572.00	20.00	5,080.00	14.50	4,953.00	18.50	4,699.00								
2575.505	SODDING	7,223	S.Y.	1.00	1.12	0.95	6,861.85	1.10	7,945.30	1.30	9,389.90	1.10	7,945.30								
2575.531	COMMERCIAL FERTILIZER, ANALYSIS 10-20-20	05	TON	300.00	321.70	300.00	150.00	350.00	175.00	315.10	157.50	325.00	162.50								
504.602	ADJUST VALVE BOX	15	EACH	65.00	91.67	60.00	900.00	115.00	1,725.00	100.00	1,500.00	100.00	1,500.00								
505.602	INSTALL HYDRANT	3	EACH	400.00	433.33	450.00	1,350.00	350.00	1,050.00	500.00	1,500.00	300.00	900.00								
504.605	WATER MAIN INSULATION	889	S.Y.	10.00	15.32	9.70	8,623.30	18.25	16,224.25	18.00	16,002.00	12.20	10,668.00								
2211.501	AGGREGATE BASE, CLASS 6 (FOR BIT. PATH)	590	TON	4.00	5.67	6.50	3,835.00	4.50	2,655.00	6.00	3,540.00	6.00	3,540.00								
2331.504	BITUMINOUS MATERIAL FOR MIXTURE (FOR BIT. PATH)	22	TON	77.00	96.00	98.00	2,156.00	95.00	2,090.00	95.00	2,090.00	98.00	2,156.00								
2331.508	WEARING COURSE MIXTURE FOR BIT. PATH	312	TON	10.00	13.42	13.80	4,305.60	11.45	3,572.40	15.00	4,680.00	13.80	4,305.60								
2358.501	BITUMINOUS MATERIAL FOR PRIME COAT (FOR BIT. PATH)	680	GAL.	0.75	0.67	0.50	340.00	0.50	340.00	1.00	680.00	0.50	340.00								
TOTALS							280,533.85		297,446.19		310,432.48		328,662.41		382,022.37						

CON. 114

ENGINEER'S

MAY 9, 1978

STATEMENT OF ESTIMATED QUANTITIES

ITEM NO	ITEM	UNIT	ESTIMATED QUANTITIES	UNIT PRICE	AMOUNT
2021.501	MOBILIZATION	1	LUMPSUM	7,090.00	7,090
2101.502	CLEARING	9	TREE	100.00	900
2101.507	GRUBBING	10	TREE	75.00	750
2104.501	REMOVE CULVERT PIPE	60	L.F.	6.00	360
2104.505	REMOVE CONCRETE PAVEMENT	127	S.Y.	5.00	635
2104.509	REMOVE CATCH BASINS	1	EACH	200.00	200
2104.523	SALVAGE CASTING ASSEMBLIES	5	EACH	40.00	200
2104.523	SALVAGE HYDRANT	3	EACH	400.00	1,200
2105.501	COMMON EXCAVATION	22,162	C.Y.	1.70	37,675.40
2105.522	SELECT GRANULAR BORROW (L.V.)	9,120	C.Y.	2.50	22,800
2105.525	TOPSOIL BORROW (L.V.)	602	C.Y.	6.50	3,913
2130.501	WATER	75	(M.) GAL.	15.00	1,125
2211.501	AGGREGATE BASE, CLASS 6	4,187	TON	4.00	16,748
2211.501	AGGREGATE BASE, CLASS 4	10,377	TON	3.75	38,913.75
2331.504	BITUMINOUS MATERIAL FOR MIXTURE	119	TON	77.00	9,163
2331.508	WEARING COURSE MIXTURE	76	TON	15.00	1,140
2331.510	BINDER COURSE MIXTURE	924	TON	7.75	7,161
2331.514	BASE COURSE MIXTURE	1,540	TON	7.50	11,550
2357.502	BITUMINOUS MATERIAL FOR TACK COAT	1,068	GAL.	0.75	801
2358.501	BITUMINOUS MATERIAL FOR PRIME COAT	3,884	GAL.	0.75	2,913
2361.504	ASPHALT CEMENT	37	TON	77.00	2,849
2361.508	WEARING COURSE MIXTURE	462	TON	14.00	6,468
2501.511	12" C.S. PIPE CULVERT, 16" GAUGE	20	L.F.	14.00	280
2501.515	12" C.S. PIPE APRON	1	EACH	60.00	60
2501.515	15" R.C. PIPE APRON	1	EACH	360.00	360
2503.511	12" R.C. PIPE SEWER, CLASS IV	8	L.F.	20.00	160
2503.511	15" R.C. PIPE SEWER, CLASS IV	269	L.F.	15.00	4,035
2506.508	CONSTRUCT MANHOLE, DESIGN A OR F	1	EACH	800.00	800
2506.509	CONSTRUCT CATCH BASINS, DESIGN RC-2	3	EACH	700.00	2,100
2506.509	CONSTRUCT CATCH BASINS, DESIGN L.P.4	6	EACH	800.00	4,800
2506.516	CASTING ASSEMBLIES	4	EACH	140.00	560
2506.522	ADJUST FRAME AND RING CASTING	14	EACH	100.00	1,400
2531.501	CONCRETE CURB AND GUTTER DESIGN, B624	5,227	L.F.	4.70	24,566.90
2531.507	6" CONCRETE DRIVEWAY PAVEMENT	254	S.Y.	14.00	3,556
2575.505	SODDING	7,223	S.Y.	1.00	7,223
2575.531	COMMERCIAL FERTILIZER, ANALYSIS 10-20-20	0.5	TON	300.00	150
504.679	ADJUST VALVE BOX	15	EACH	65.00	975
505.666	INSTALL HYDRANT	3	EACH	400.00	1,200
504.653	WATER MAIN INSULATION	889	S.Y.	10.00	8,890
2211.501	AGGREGATE BASE, CLASS 6 (FOR BIKEWAY)	590	TON	4.00	2,360
2331.504	BITUMINOUS MATERIAL FOR MIXTURE (FOR BIKEWAY)	22	TON	77.00	1,694
2331.508	WEARING COURSE MIXTURE FOR BIKEWAY	312	TON	10.00	3,120
2358.501	BITUMINOUS MATERIAL FOR PRIME COAT (FOR BIKEWAY)	680	GAL.	0.75	510
TOTAL					243,355.05

PLANS SYMBOLS

STATE LINE
COUNTY LINE
TOWNSHIP OR RANGE LINE
SECTION LINE
QUARTER LINE
SIXTEENTH LINE
RIGHT OF WAY LINE
PRESENT RIGHT OF WAY LINE
CONTROL OF ACCESS LINE
PROPERTY LINE (Except Land Lines)
VACATED PLATTED PROPERTY
CORPORATE OR CITY LIMITS
TRUNK HIGHWAY CENTER LINE
RETAINING WALL
RAILROAD
RAILROAD RIGHT OF WAY LINE
RIVER OR CREEK
DRY RUN
DRAINAGE DITCH
DRAIN TILE
CULVERT
DROP INLET
GUARD RAIL
BARBED WIRE FENCE
WOVEN WIRE FENCE
CHAIN LINK FENCE
RAILROAD SNOW FENCE
STONE WALL OR FENCE
HEDGE
RAILROAD CROSSING SIGN
RAILROAD CROSSING BELL
ELECTRIC WARNING SIGN
CROSSING GATE
MEANDER CORNER

SPRINGS
MARSH
TIMBER
ORCHARD
BRUSH
NURSERY
CATCH BASIN
FIRE HYDRANT
CATTLE GUARD
OVERPASS (Highway Over)
UNDERPASS (Highway Under)
BRIDGE
BUILDING (One Story Frame)
F FRAME C CONCRETE
S STONE T TILE
B BRICK ST STUCCO
IRON PIPE OR ROD
MONUMENT (STONE, CONCRETE, OR METAL)
WOODEN HUB
GRAVEL PIT
SAND PIT
BORROW PIT
ROCK QUARRY

GROSS LENGTH 2584 FEET= 0.489 MILES
BRIDGES-LENGTH 0 FEET= 0 MILES
EXCEPTIONS-LENGTH 0 FEET= 0 MILES
NET LENGTH 2584 FEET= 0.489 MILES

PLAN, 1"= 100'
PROFILE, HORZ., 1"= 100'
PROFILE, VERT., 1"= 10'
CROSS SECTIONS, 1"= 10'
LAYOUT, 1"= 5,280'

OFFICE OF COUNTY ENGINEER RAMSEY COUNTY ROSELAWN AVE.

CONSTRUCTION PLAN FOR GRADING AND
BITUMINOUS SURFACING.

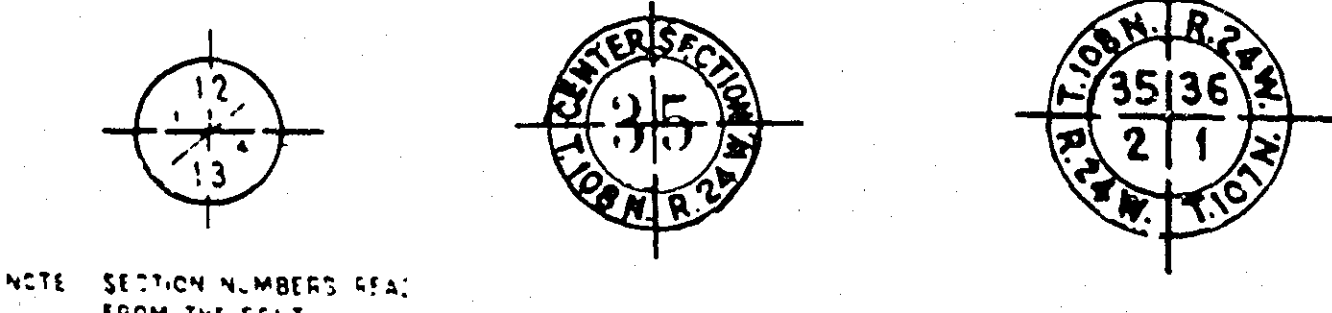
BETWEEN: FAIRVIEW AVE. AND: SNELLING AVE.
FROM: A POINT 24.0 FEET EAST OF THE CENTER OF
SECTION 16, T.29N. R.23W.
TO: A POINT 20.13 FEET WEST OF THE EAST 1/4 CORNER
OF SECTION 16, T.29N., R.23W.

M.S.A.P 160-243-01 ROSEVILLE
M.S.A.P 124-103-01 FALCON HEIGHTS
COUNTY PROJECT NO. 114-01

UTILITIES SYMBOLS

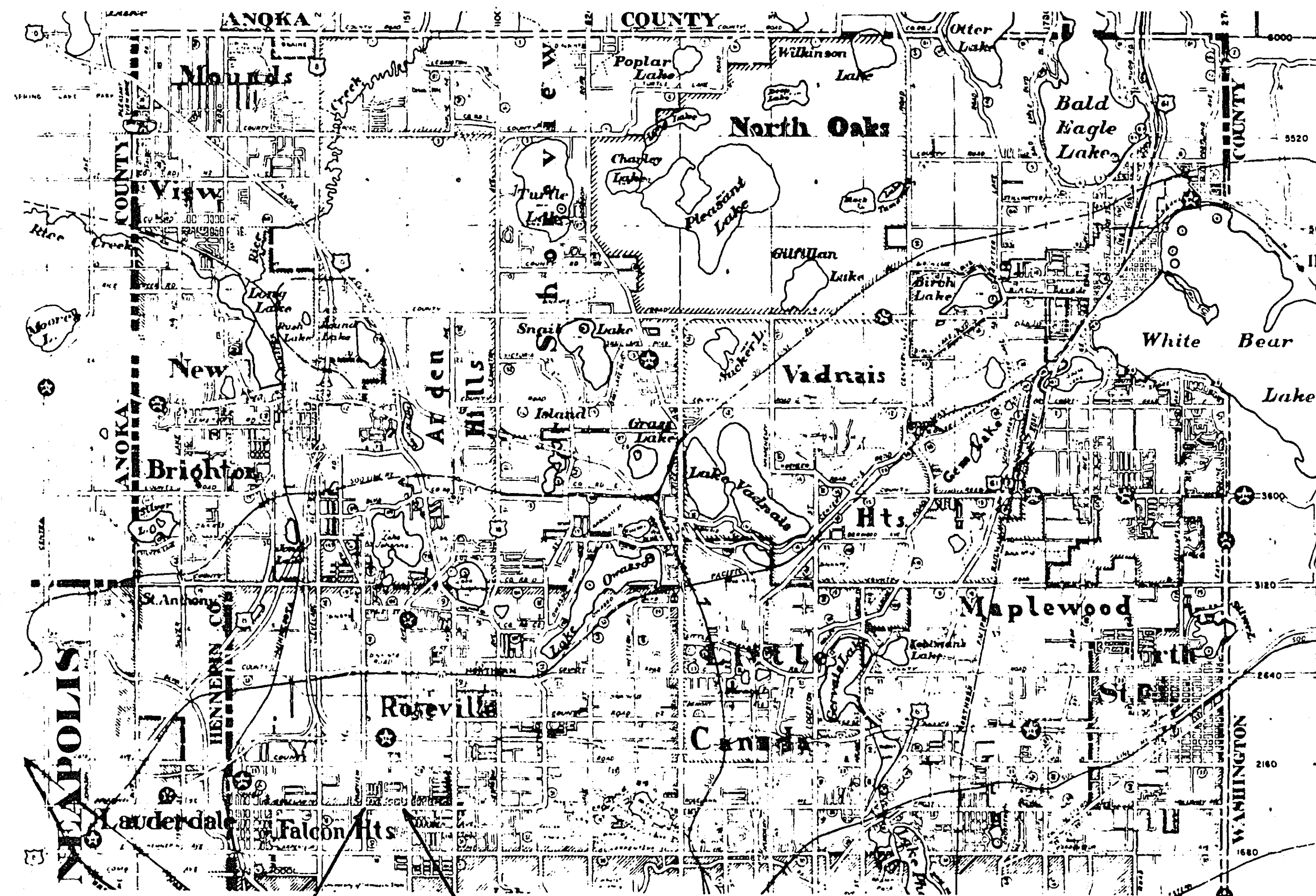
POWER POLE LINE
TELEPHONE OR TELEGRAPH
POLE LINE
JOINT TELEPHONE AND POWER
ON TELEPHONE POLES
ANCHOR
STEEL TOWER
STREET LIGHT
PEDESTAL (TELEPHONE CABLE
TERMINAL)
GAS MAIN
WATER MAIN

CONDUIT
TELEPHONE CABLE IN CONDUIT
ELECTRIC CABLE IN CONDUIT
TELEPHONE MANHOLE
ELECTRIC MANHOLE
BURIED TELEPHONE CABLE
BURIED ELECTRIC CABLE
AERIAL TELEPHONE CABLE
SEWER, ISANITARY OR STORM
SEWER MANHOLE



PIT DATA

PIT NO. Located in
Dead Haul
PIT NO. Located in
Dead Haul



BEGIN PROJECT STA. 0+24
CITY OF ST. PAUL
END PROJECT STA. 26+08
DESIGN DESIGNATION

ADT (CURRENT YEAR) 1977 = 2275
HC ADT = 5%
ADT (FUTURE YEAR) 1998 = 4530
S N18 (20 YEAR) = 835,000
DESIGN LOAD = 9 TON
STABILOMETER "R" VALUE = 10
DESIGN SPEED = 50 M.P.H.

THE 1978 EDITION OF THE MINNESOTA DEPARTMENT OF
TRANSPORTATION "STANDARD SPECIFICATIONS FOR
HIGHWAY CONSTRUCTION SHALL GOVERN.

INDEX

SHEET NO. DESCRIPTION
1 TITLE SHEET
2 ESTIMATED QUANTITIES & DETAILS
3 TYPICAL SECTION & DETAILS
4-6 PLAN & PROFILE SHEETS
7-18 CROSS SECTIONS

I hereby certify that this plan, specification,
or report was prepared by me or under my
direct supervision and that I am a duly
Registered Professional Engineer under
the laws of the State of Minnesota.
Date 5-24-78 Reg. No. 5782

APPROVED [Signature] DATE 4-14-78
CITY ENGINEER, FALCON HEIGHTS
APPROVED [Signature] DATE July 14, 1978
CITY ENGINEER, ROSEVILLE

RECOMMENDED FOR APPROVAL [Signature] DATE 4-11-78
TRAFFIC ENGR.
RECOMMENDED FOR APPROVAL [Signature] DATE 5-3-78
ENV ENGR.
RECOMMENDED FOR APPROVAL [Signature] DATE 5-3-78
MAINT ENGR.
RECOMMENDED FOR APPROVAL [Signature] DATE 5-3-78
CONST ENGR.
RECOMMENDED FOR APPROVAL [Signature] DATE 5-3-78
DESIGN ENGR.
RECOMMENDED FOR APPROVAL [Signature] DATE 5-3-78
ENV ENGR.
APPROVED [Signature] DATE 5-3-78
COORDINATING ENGR.

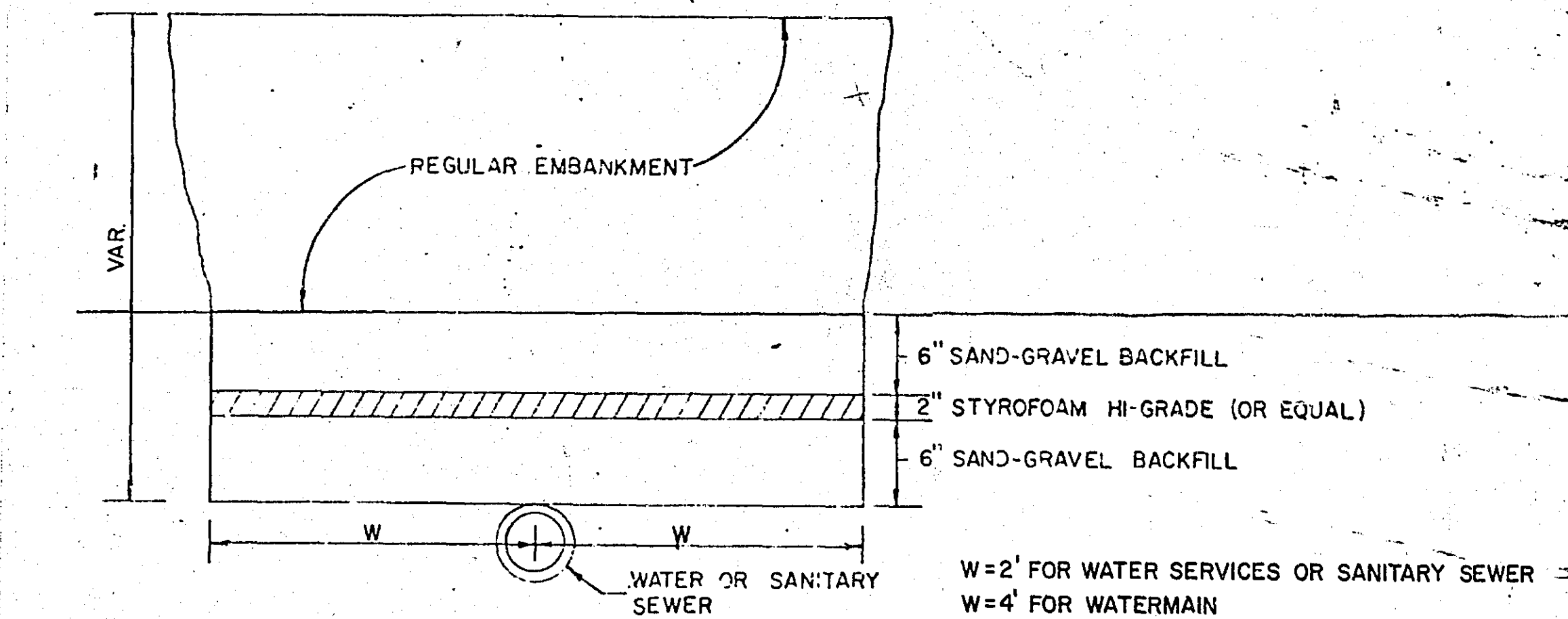
RECOMMENDED FOR APPROVAL [Signature] DATE 5-24-78
COUNTY ENGINEER
APPROVED [Signature] DATE 9-5-78
CHAIRMAN OF THE RAMSEY COUNTY BOARD
APPROVED [Signature] DATE
MAYOR, CITY OF ROSEVILLE
APPROVED [Signature] DATE 6-5-78
MAYOR, CITY OF FALCON HEIGHTS
MINNESOTA STATE HIGHWAY DEPARTMENT
RECOMMENDED FOR APPROVAL [Signature] DATE 2-11-78
DISTRICT STATE AID ENGINEER
RECOMMENDED FOR APPROVAL [Signature] DATE 2/24/78
DISTRICT STATE AID ENGINEER
APPROVAL [Signature] DATE 8/14/78
STATE AID ENGINEER

REVISED	DATE	DESIGNED BY	DRAWN BY	CHECKED BY

ASBUILT PLAN
CONFORMING TO
CONST. RECORDS

DONE BY [Signature]
DATE 11/20/80

STATEMENT OF ESTIMATED QUANTITIES				
ITEM NO.	ITEM	UNIT	ESTIMATED QUANTITIES	FINAL ESTIMATED QUANTITIES
2021.501	MOBILIZATION	1	LUMPSUM	
2101.502	CLEARING	9	TREE	
2101.507	GRUBBING	10	TREE	
2104.501	REMOVE CULVERT PIPE	60	L.F.	
2104.505	REMOVE CONCRETE PAVEMENT	127	S.Y.	
2104.509	REMOVE CATCH BASINS	1	EACH	
2104.523	SALVAGE CASTING ASSEMBLIES	5	EACH	
2104.523	SALVAGE HYDRANT	3	EACH	
2105.501	COMMON EXCAVATION	22,162	C.Y.	
2105.522	SELECT GRANULAR BORROW (L.V.)	9,120	C.Y.	
2105.525	TOPSOIL BORROW (L.V.)	602	C.Y.	
2130.501	WATER	75	(M.) GAL.	
2211.501	AGGREGATE BASE, CLASS 6	4,187	TON	
2211.501	AGGREGATE BASE, CLASS 4	10,377	TON	
2331.504	BITUMINOUS MATERIAL FOR MIXTURE	119	TON	
2331.508	WEARING COURSE MIXTURE	76	TON	
2331.510	BINDER COURSE MIXTURE	924	TON	
2331.514	BASE COURSE MIXTURE	1,540	TON	
2357.502	BITUMINOUS MATERIAL FOR TACK COAT	1,068	GAL.	
2358.501	BITUMINOUS MATERIAL FOR PRIME COAT	3,884	GAL.	
2361.504	ASPHALT CEMENT	37	TON	
2361.508	WEARING COURSE MIXTURE	462	TON	
2501.511	12" C.S. PIPE CULVERT, 16" GAUGE	20	L.F.	
2501.515	12" C.S. PIPE APRON	1	EACH	
2501.515	15" R.C. PIPE APRON	1	EACH	
2503.511	12" R.C. PIPE SEWER, CLASS IV	8	L.F.	
2503.511	15" R.C. PIPE SEWER, CLASS IV	269	L.F.	
2506.508	CONSTRUCT MANHOLE, DESIGN A OR F	1	EACH	
2506.509	CONSTRUCT CATCH BASINS, DESIGN RC-2	3	EACH	
2506.509	CONSTRUCT CATCH BASINS, DESIGN L.P.4	6	EACH	
2506.516	CASTING ASSEMBLIES	4	EACH	
2506.522	ADJUST FRAME AND RING CASTING	14	EACH	
2531.501	CONCRETE CURB AND GUTTER DESIGN, B624	5,227	L.F.	
2531.507	6" CONCRETE DRIVEWAY PAVEMENT	254	S.Y.	
2575.505	SODDING	7,223	S.Y.	
2575.531	COMMERCIAL FERTILIZER, ANALYSIS 10-20-20	05	TON	
504.602	ADJUST VALVE BOX	15	EACH	
505.602	INSTALL HYDRANT	3	EACH	
504.605	WATER MAIN INSULATION	889	S.Y.	
2211.501	AGGREGATE BASE, CLASS 6 (FOR BIT. PATH)	590	TON	
2331.504	BITUMINOUS MATERIAL FOR MIXTURE (FOR BIT. PATH)	22	TON	
2331.508	WEARING COURSE MIXTURE FOR BIT. PATH	312	TON	
2358.501	BITUMINOUS MATERIAL FOR PRIME COAT (FOR BIT. PATH)	680	GAL.	



WATER AND SANITARY SEWER INSULATION DETAIL

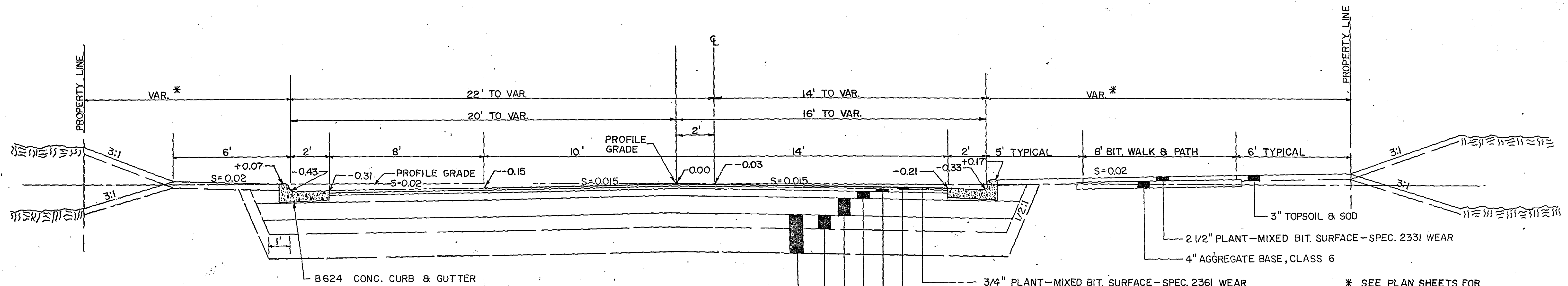
STANDARD DETAIL PLATES	
0002A	SPECIFICATION REFERENCE TO STANDARD PLATES
3000G	REINFORCED CONCRETE PIPE
3040D	CORRUGATED METAL PIPE
3100F	CONCRETE APRON FOR REINFORCED CONCRETE PIPE
3123G	METAL APRON FOR C.M. PIPE
3124A	METAL APRON CONNECTION
3145A	CONCRETE PIPE JOINT TIES
4000G	MANHOLE OR CATCH BASIN
4005J	MANHOLE OR CATCH BASIN
4010E	CONC. SHORT CONE & ADJUSTING RING
4021C	PRECAST CURB OPENING CATCH BASIN
4101B	RING CASTING FOR MANHOLE OR CATCH BASIN
4110D	COVER CASTING FOR MANHOLE
4140D	SPECIAL GRATE CASTING FOR CATCH BASIN
4180F	MANHOLE STEP CASTING
7036B	PEDESTRIAN CURB RAMP
7100E	CONCRETE CURB & GUTTERS
8000F	STANDARD BARRICADES
9102C	SODDING AT PIPE CULVERT ENDS

CLEARING & GRUBBING				
STATION	LOCATION	TYPE	CLEAR	GRUB
STA. 3+73	LT. 29'	15" ELM	1	1
STA. 6+03	LT. 17'	15" PINE	1	1
STA. 9+95	LT. 25'	2-5" OLIVES	2	2
STA. 16+27	LT. 31'	5-12" COTTON	5	5
STA. 24+78	LT. 29'	STUMP		1

REVISED	DATE	DESIGNED BY	
		DRAWN BY	
		CHECKED BY	

ASSUILT PLAN
 CONFORMING TO
 CONST. RECORDS
 DONE BY: *CRB*
 DATE: 11/20/80
 I hereby certify that this plan, specification, or report was prepared by me or under my direct supervision and that I am a duly Registered Professional Engineer under the laws of the State of Minnesota.
Michael J. Leland
 Date: 12-1-78 Reg. No. 5782

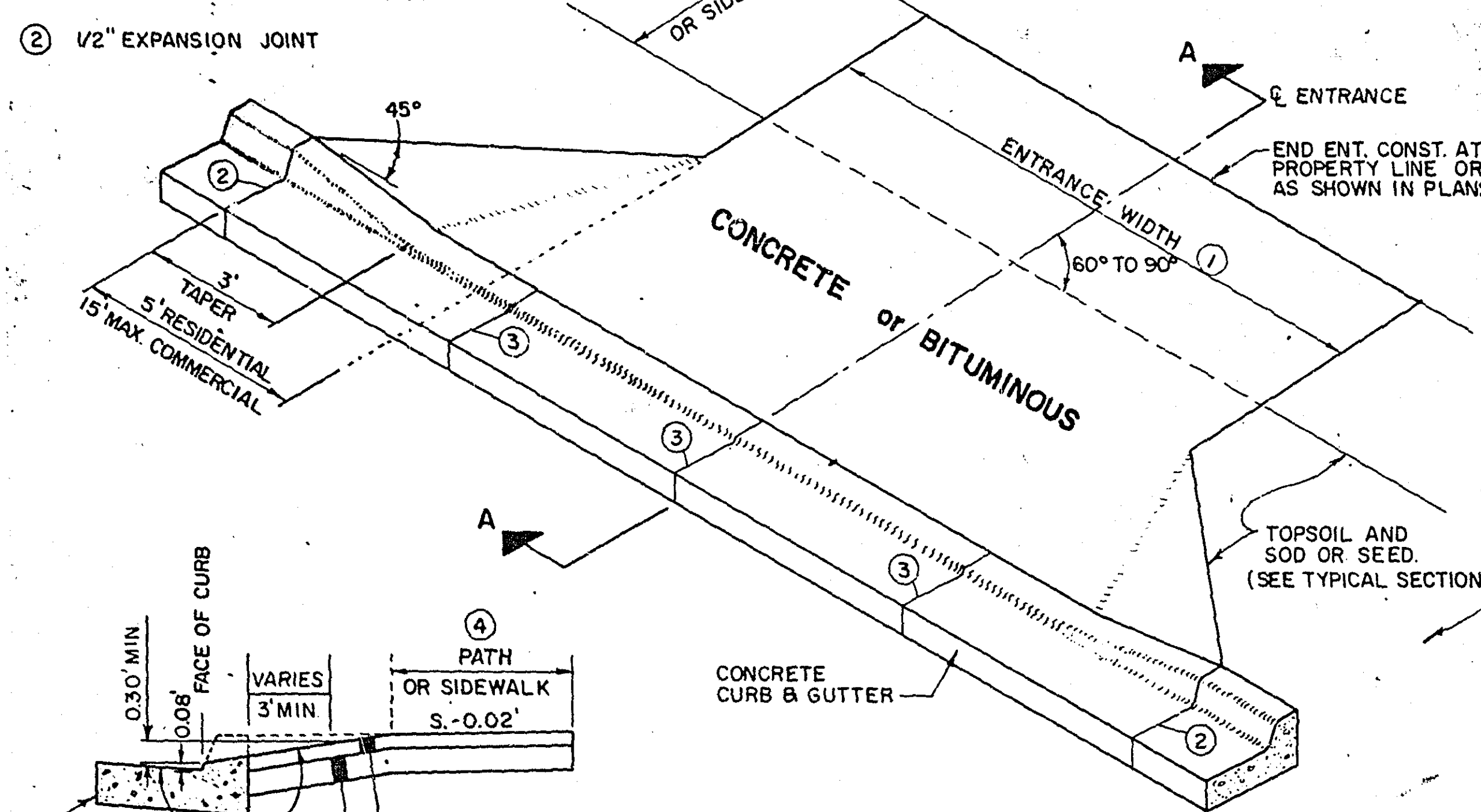
TYPICAL SECTION



* SEE PLAN SHEETS FOR RIGHT OF WAY DIMENSIONS

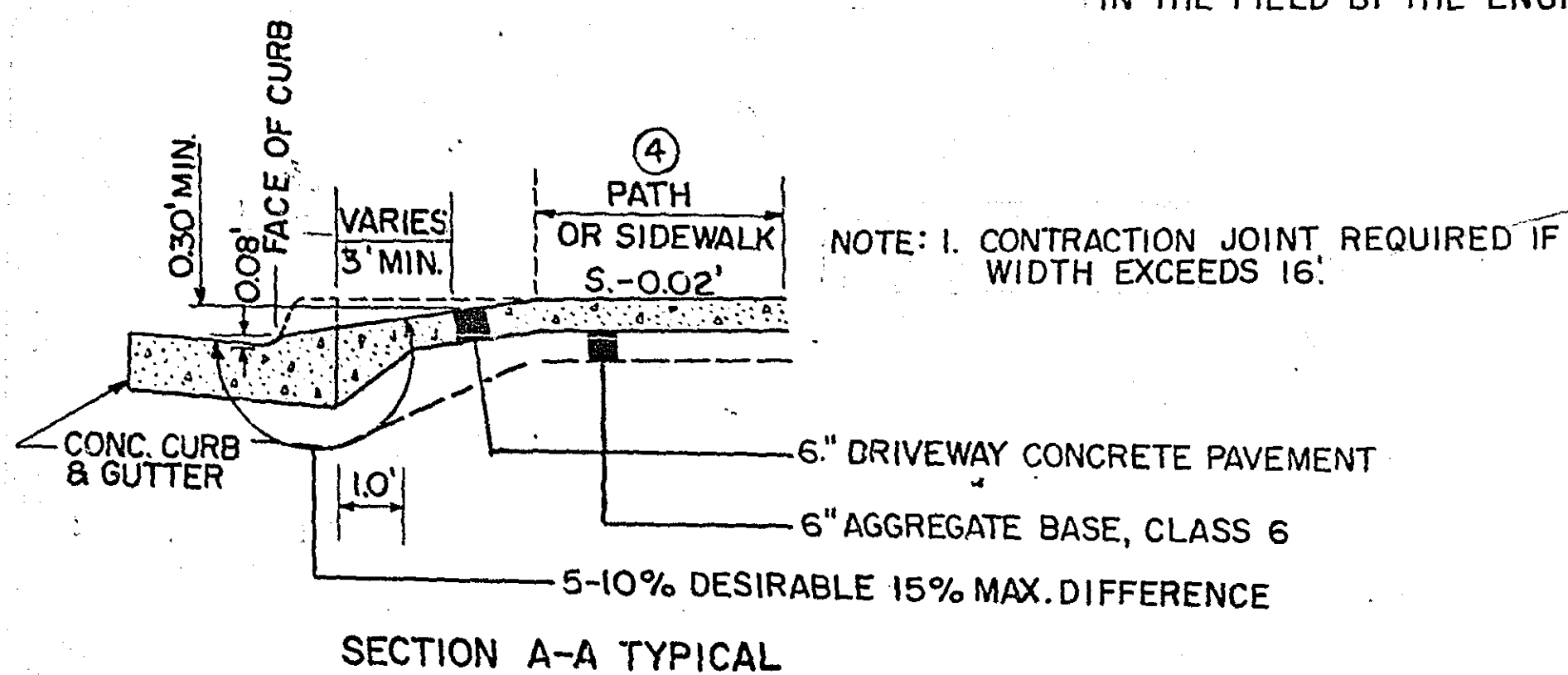
- ① ENTRANCE WIDTHS
RESIDENTIAL - 16' MIN.
22' MAX.
COMMERCIAL - 32' MAX. AT 90°
26' MAX. AT 60°
- ② 1/2" EXPANSION JOINT

- ③ PLACE JOINTS AS REQUIRED FOR CONC. CURB & GUTTER CONST.
- ④ SEE CONST. PLANS FOR PATH OR SIDEWALK

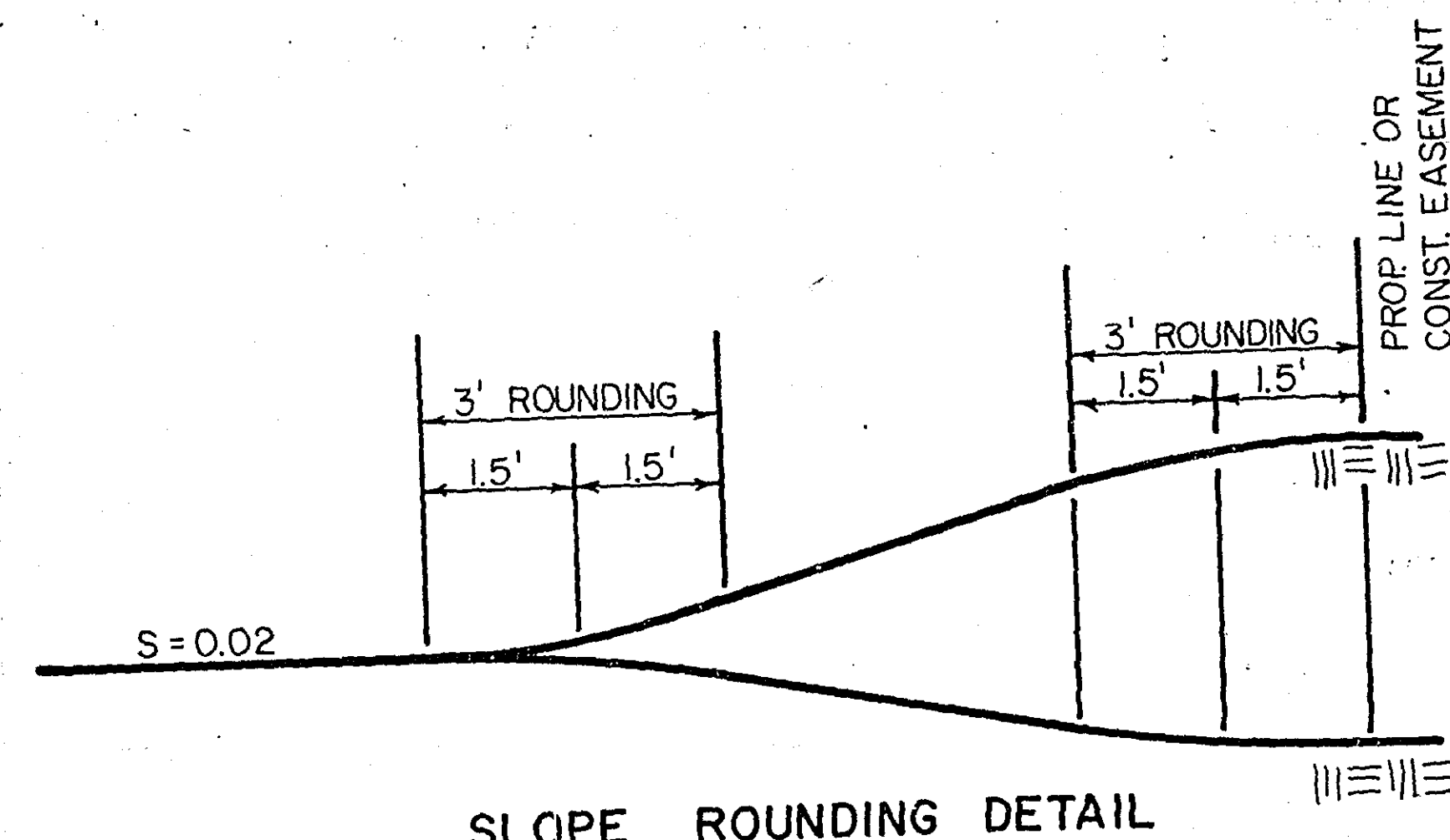
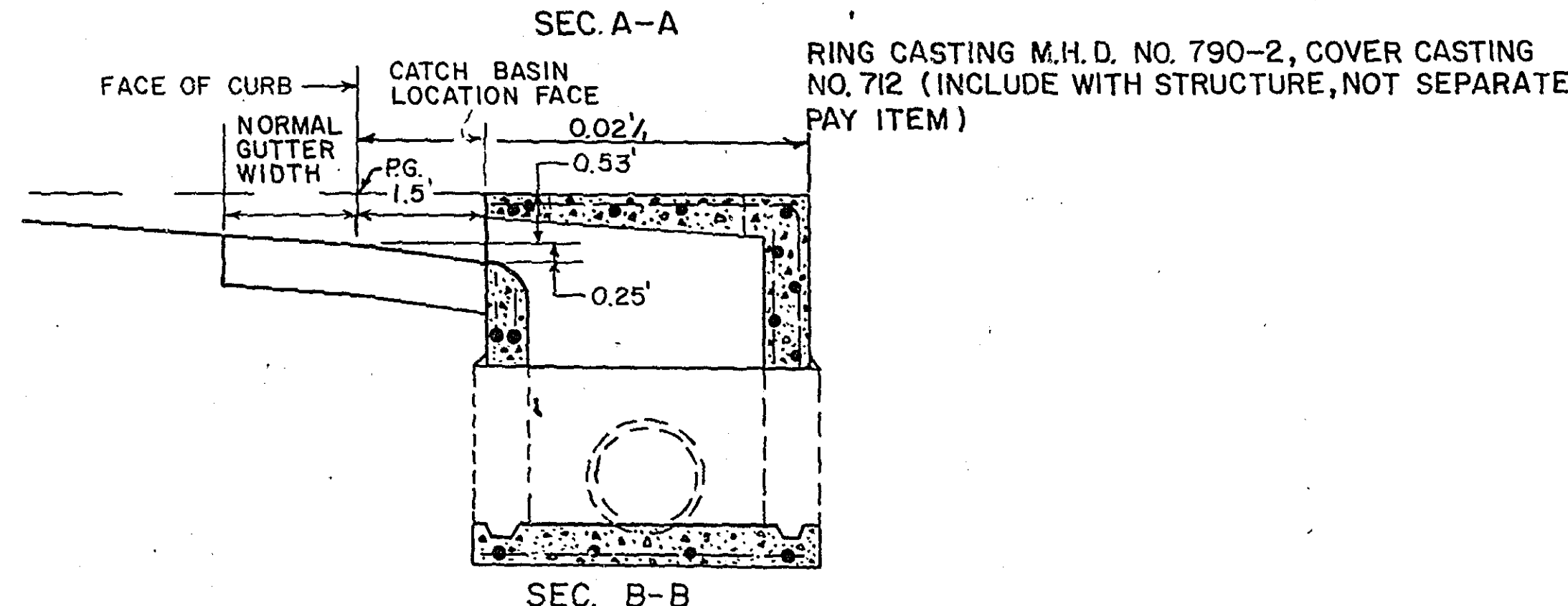
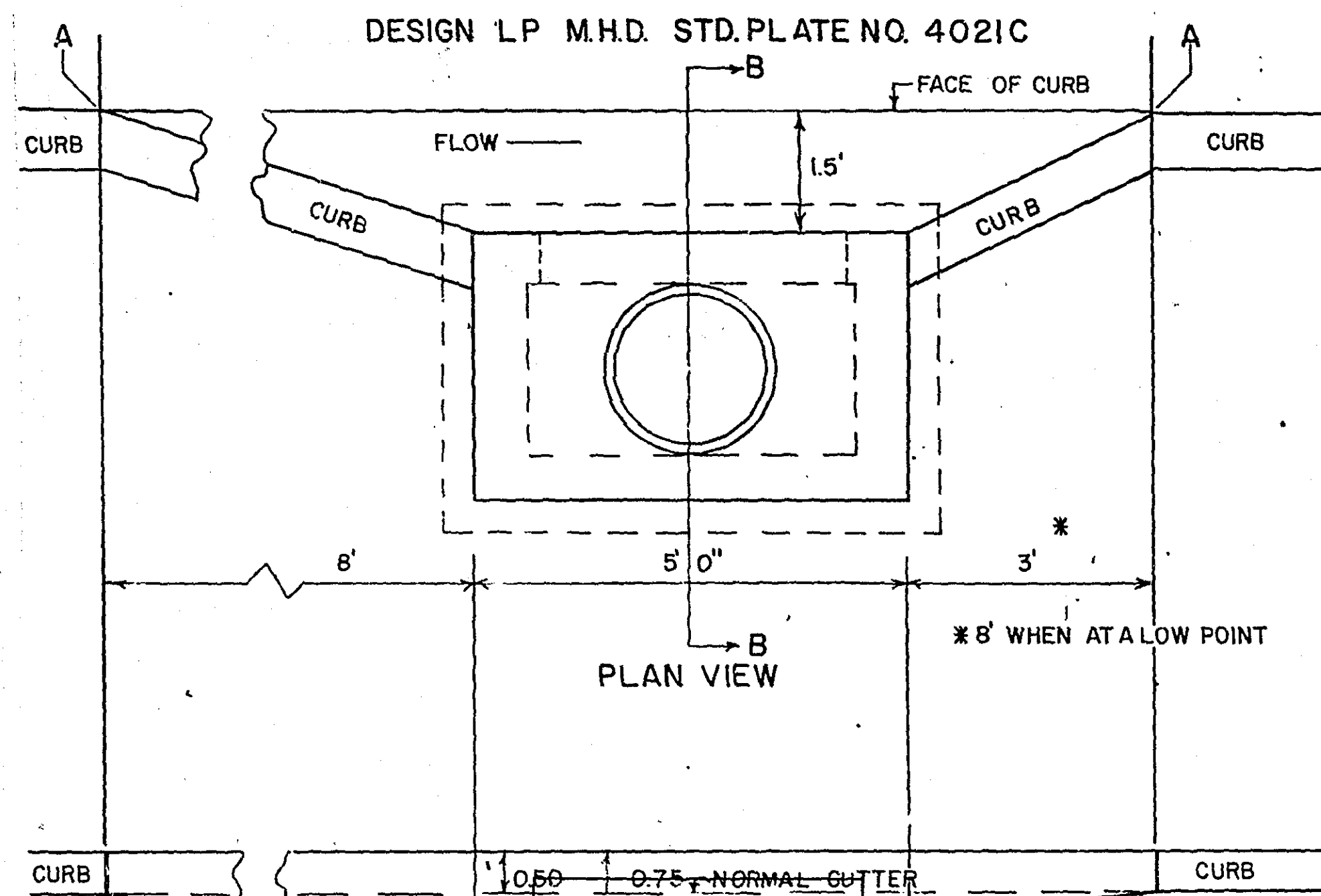


SECTION A-A BITUMINOUS

THE EXACT LOCATION AND WIDTH OF ENTRANCES SHALL BE DETERMINED IN THE FIELD BY THE ENGINEER.

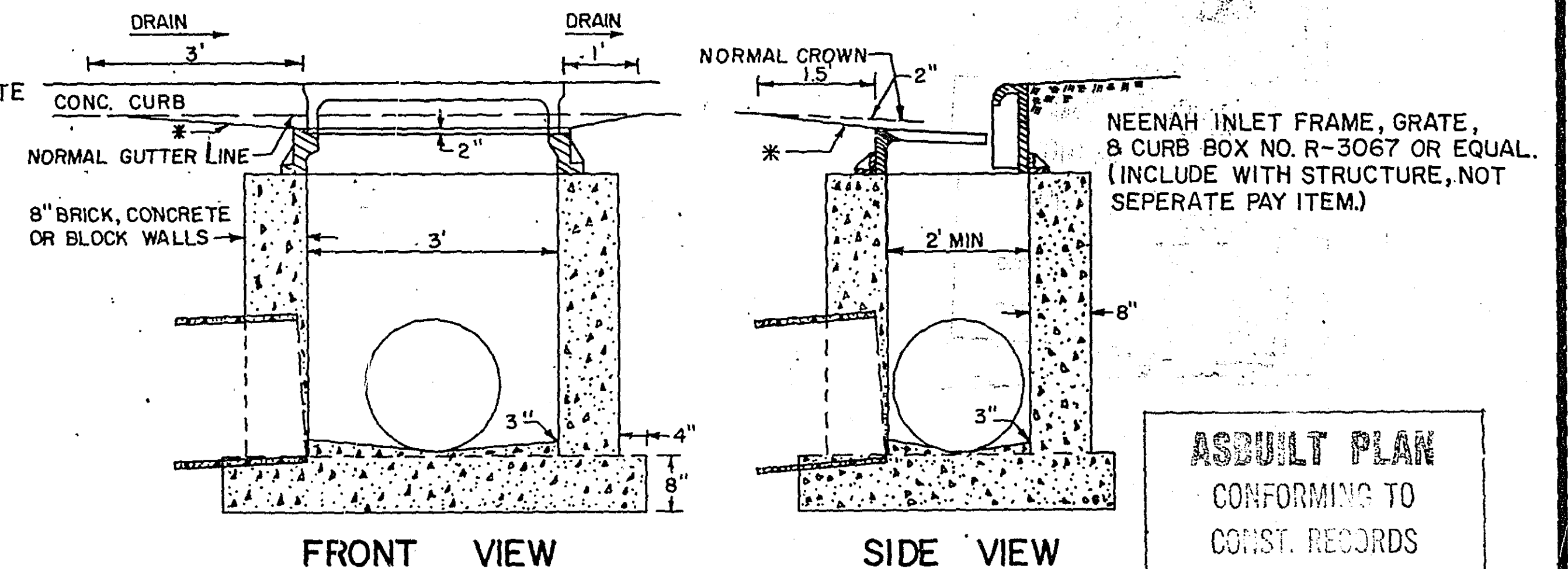


CURB OPENING CATCH BASIN INSTALLATION DETAIL

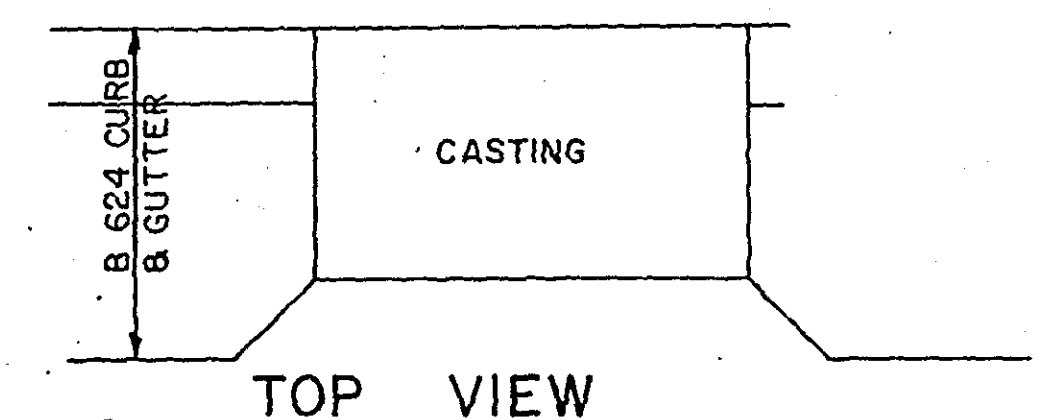


SLOPE ROUNDING DETAIL

CATCH BASIN DESIGN NO. R.C.-2



* WARP GUTTER TO THIS LINE.



TOP VIEW

ASBUILT PLAN
CONFORMING TO
CONST. RECORDS

DONE BY: *GRB*
DATE: 11/20/80

I hereby certify that this plan, specification, or report was prepared by me or under my direct supervision and that I am a duly Registered Professional Engineer under the laws of the State of Minnesota.
William R. Sumner
Date: 6-1-78 Reg. No. 5782

REVISED	DATE	DESIGNED BY	DRAWN BY	CHECKED BY

TOPOGRAPHY	DATE	CHECKED BY	DATE
UTILITIES	DATE	CHECKED BY	DATE
PROFILE	DATE	CHECKED BY	DATE

- DEPRESS CURB M.H.D. SPEC. 7036B
- END 8624 CURB & GUTTER WITH A 5' TAPER
- SALVAGE AND INSTALL HYDRANT AS DIRECTED BY CITY OF ROSEVILLE
- SALVAGE OLD CASTING, F&I M.H.D. RING CASTING NO. 700-7 AND COVER CASTING NO. 712

BEGIN PROJECT 0+24

CITY OF ROSEVILLE

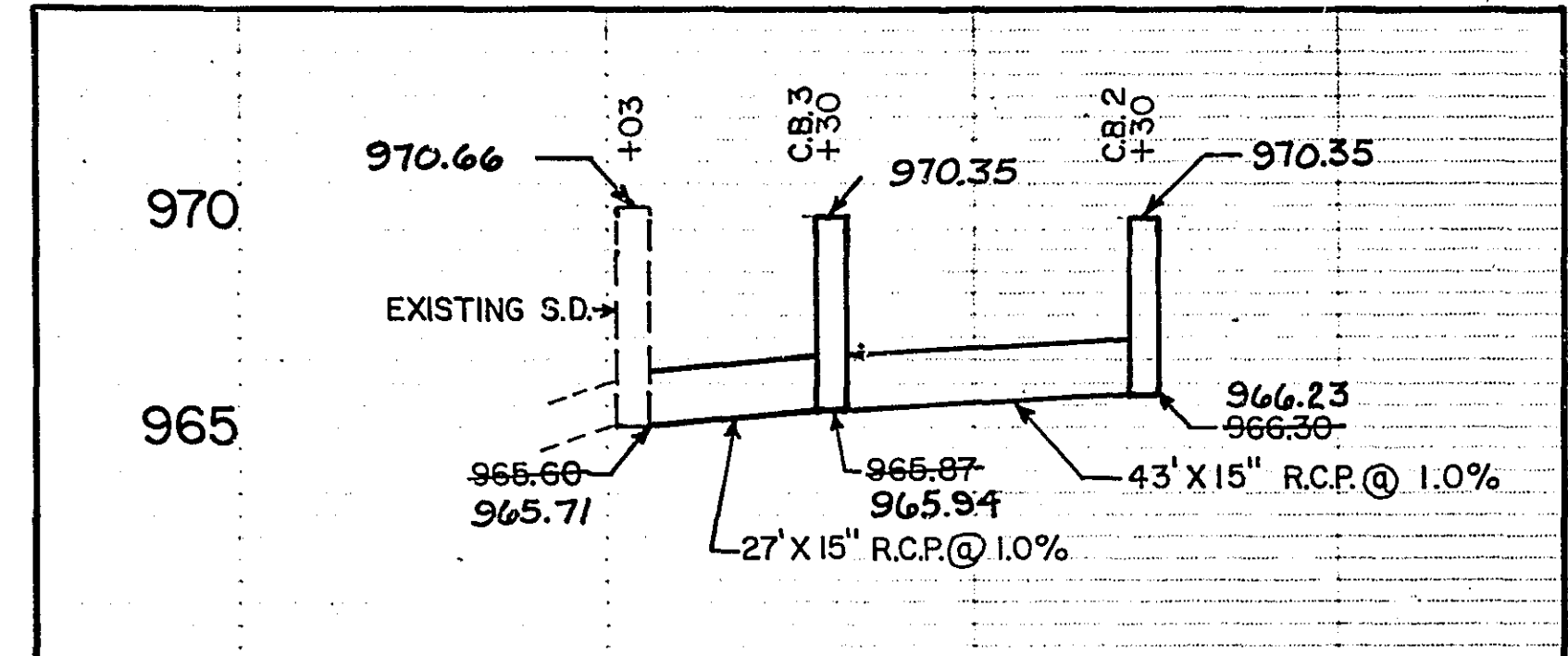
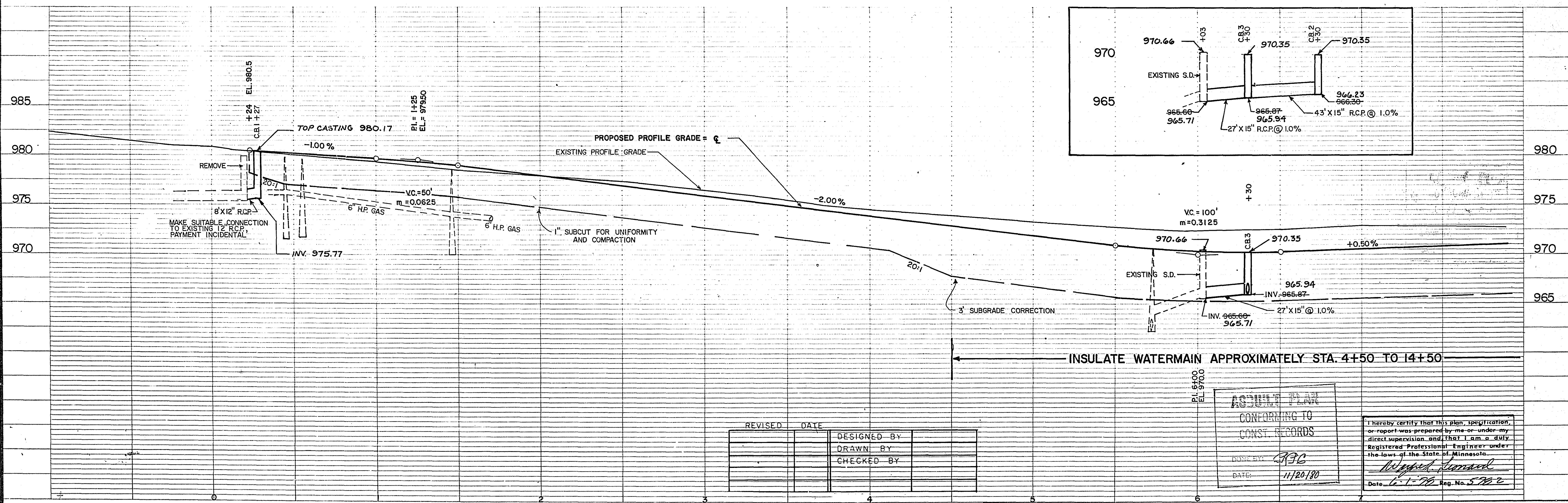
CITY OF FALCON HEIGHTS

CULTIVATED FIELD

SCALE: 1"=30'

B.M. 983.38
TOP HYD. SW. CORNER FAIRVIEW & ROSELAWN

B.M. 973.91
TOP HYD. 5+77 LT. 26

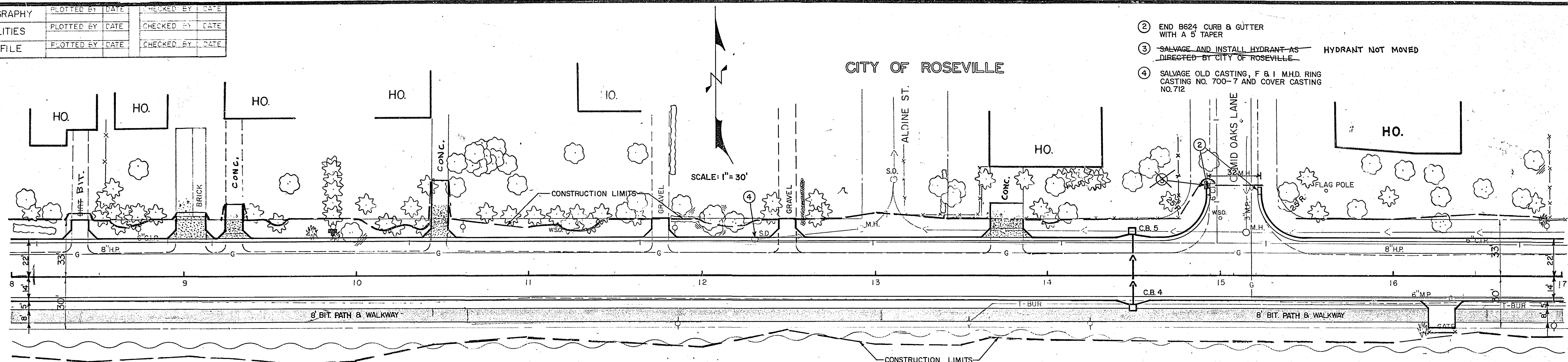


REVISED	DATE	DESIGNED BY	DRAWN BY	CHECKED BY

AGUILA PLAN
CONFORMING TO
CONST. RECORDS
DATE: 11/20/80

I hereby certify that this plan, specification, or report was prepared by me or under my direct supervision and that I am a duly Registered Professional Engineer under the laws of the State of Minnesota.
Date: 6-1-78 Reg. No. 57822

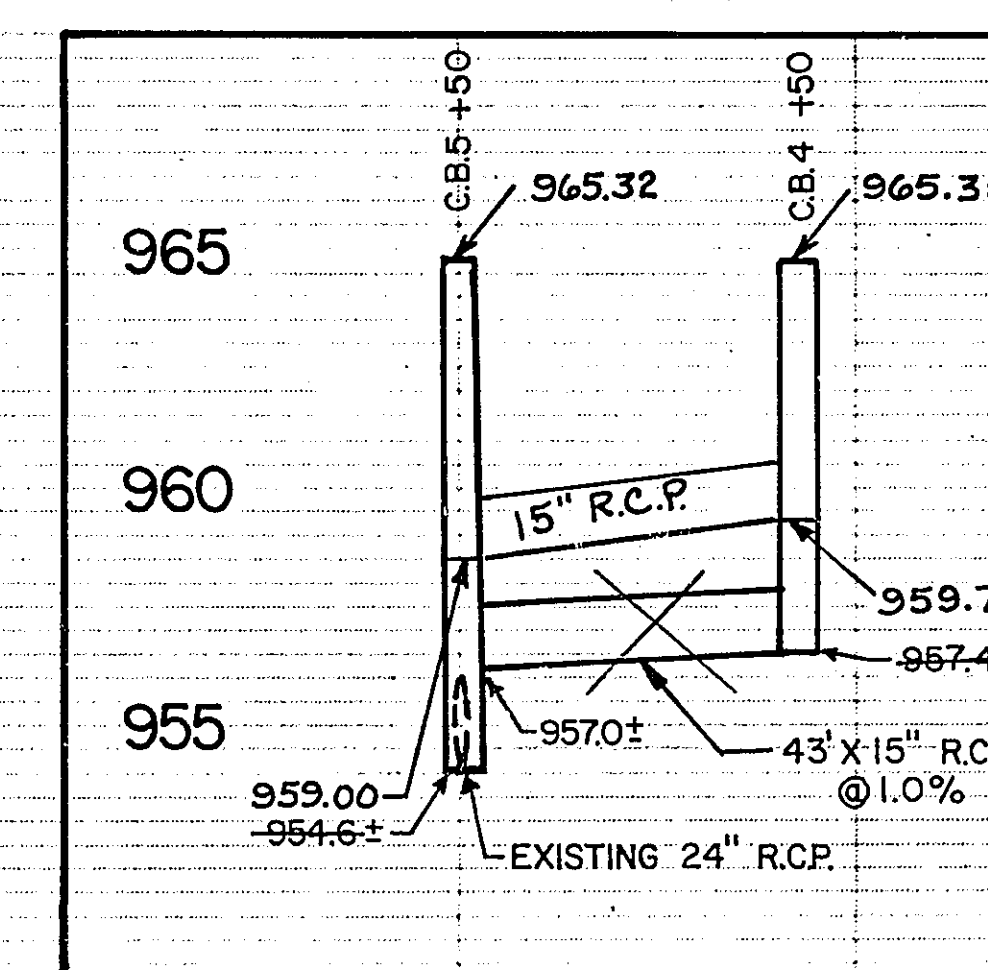
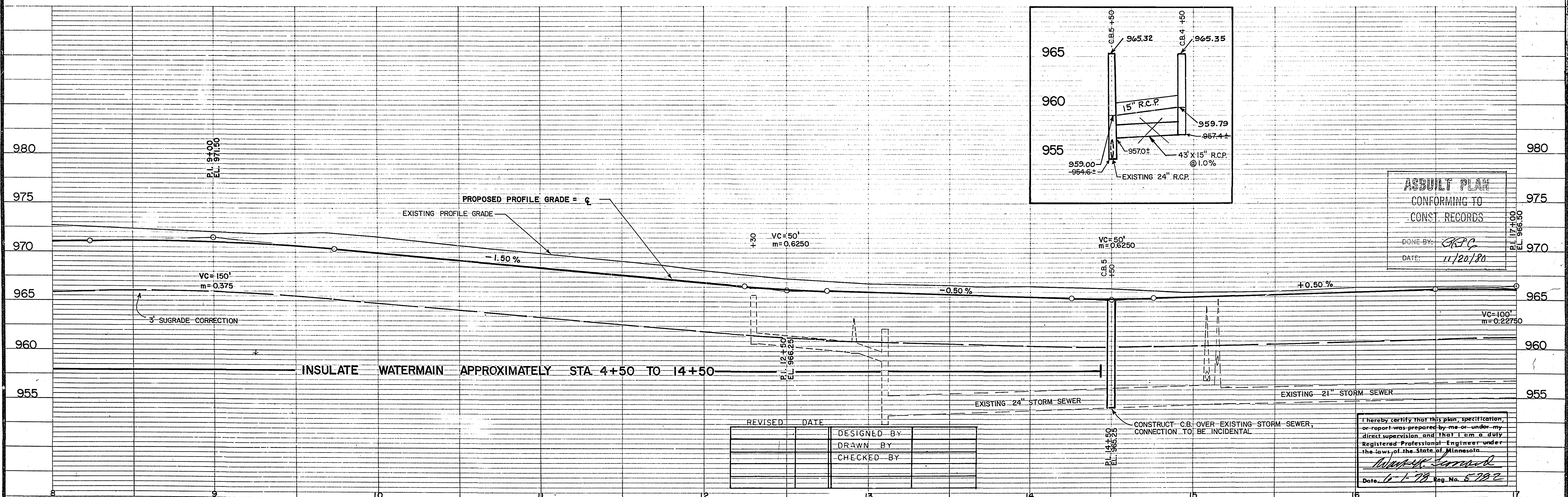
TOPOGRAPHY	PLOTTED BY	DATE	CHECKED BY	DATE
UTILITIES	PLOTTED BY	DATE	CHECKED BY	DATE
PROFILE	PLOTTED BY	DATE	CHECKED BY	DATE



C U L T I V A T E D F I E L D

CITY OF FALCON HEIGHTS

B.M. 968.62
SPIKE IN RR. STA. 11+84 28' LT.



ASBUILT PLAN
CONFORMING TO
CONST. RECORDS
DONE BY: *CRP*
DATE: 11/20/80

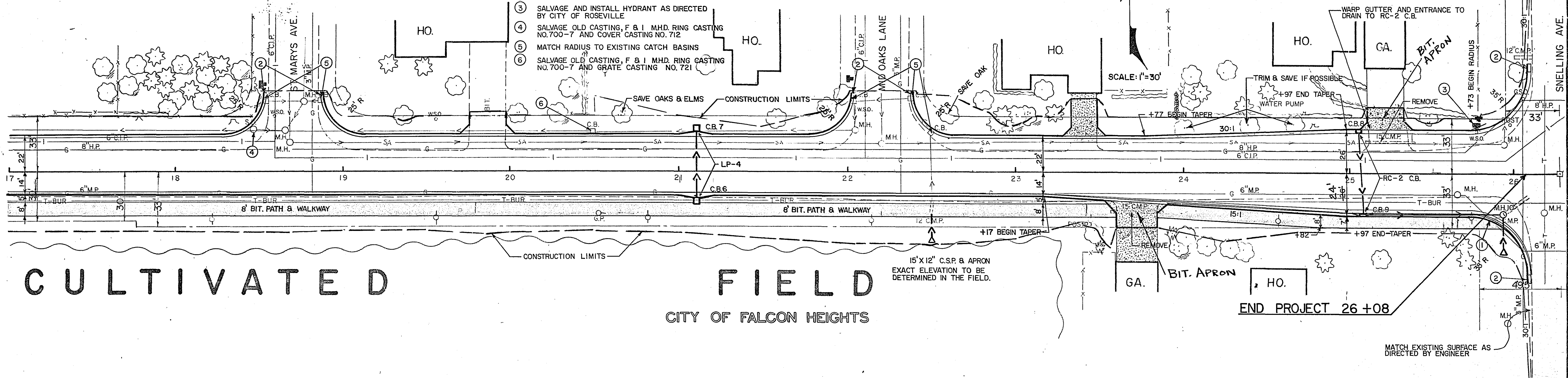
REVISED	DATE	DESIGNED BY	DRAWN BY	CHECKED BY

I hereby certify that this plan, specification, or report was prepared by me or under my direct supervision and that I am a duly Registered Professional Engineer under the laws of the State of Minnesota.
Robert W. Larrard
Date: 6-1-79 Reg. No. 5782

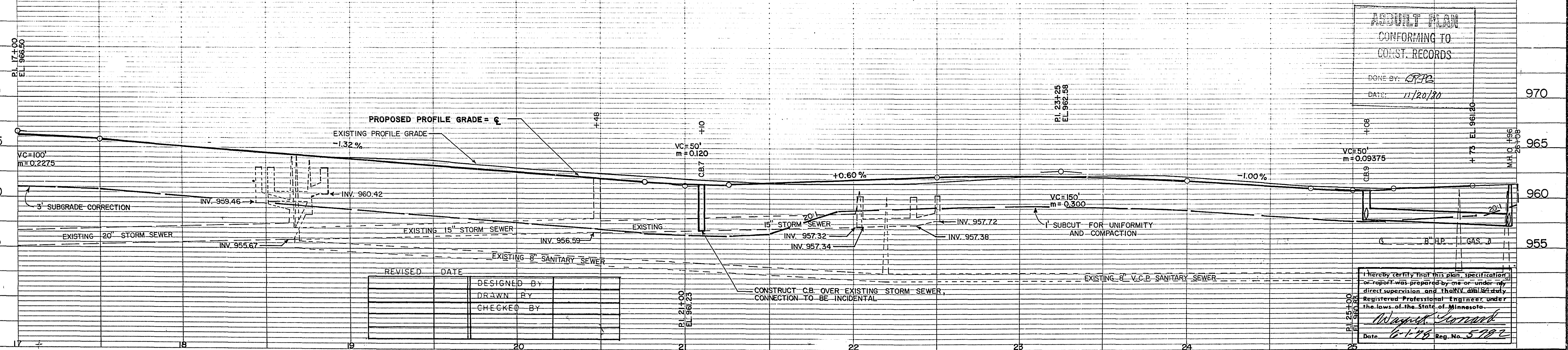
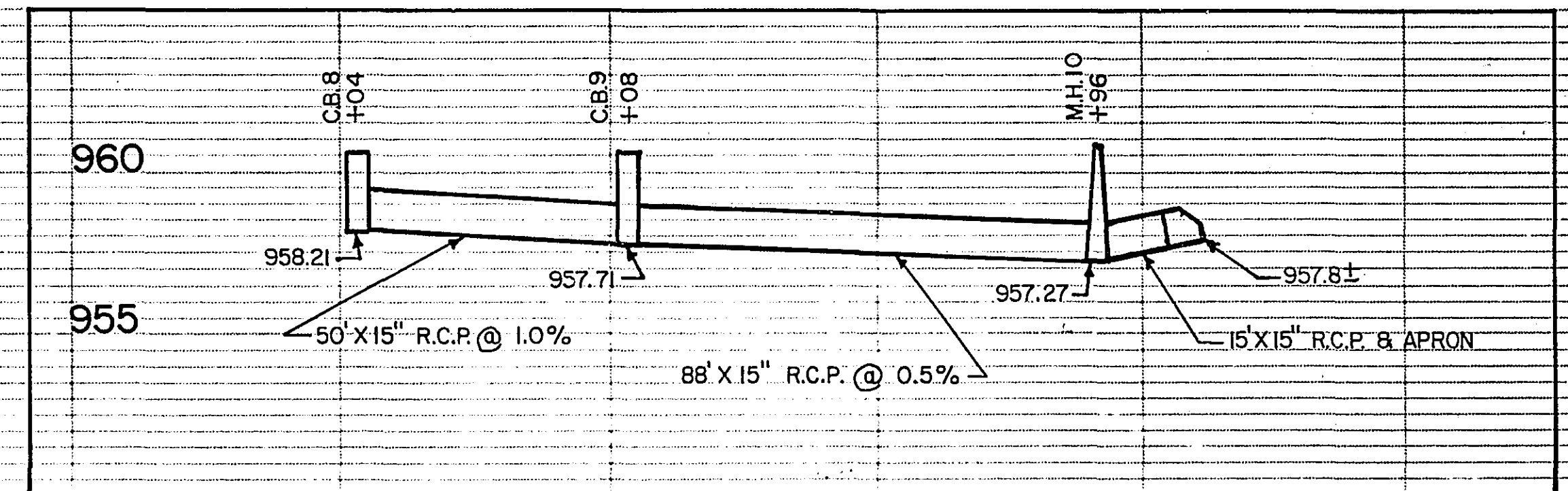
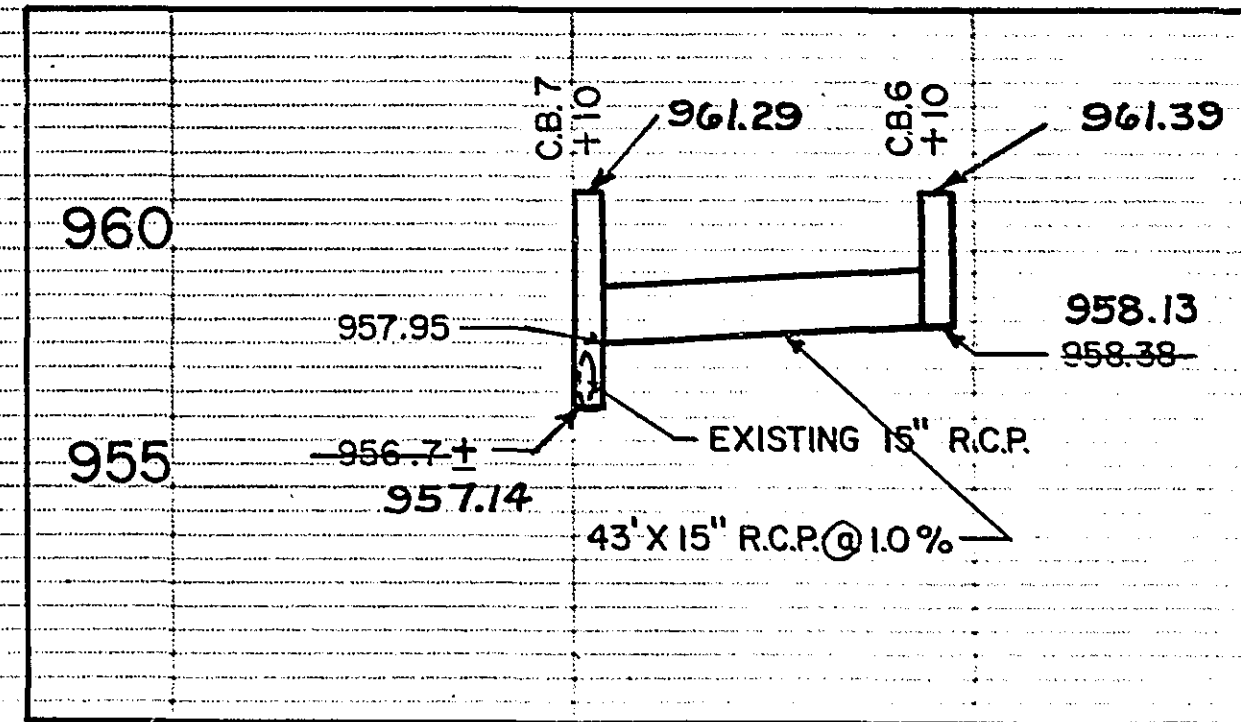
TOPOGRAPHY	PLOTTED BY	DATE	CHECKED BY	DATE
UTILITIES	PLOTTED BY	DATE	CHECKED BY	DATE
PROFILE	PLOTTED BY	DATE	CHECKED BY	DATE

CITY OF ROSEVILLE

- DEPRESS CURB M.H.D. SPEC. NO. 70368
- END B624 CURB & GUTTER WITH A 5' TAPER
- SALVAGE AND INSTALL HYDRANT AS DIRECTED BY CITY OF ROSEVILLE
- SALVAGE OLD CASTING, F & I M.H.D. RING CASTING NO. 700-7 AND COVER CASTING NO. 712
- MATCH RADIUS TO EXISTING CATCH BASINS
- SALVAGE OLD CASTING, F & I M.H.D. RING CASTING NO. 700-7 AND GRATE CASTING NO. 721



B.M. 962.57
TOP HYD. S.W. CORNER
SNELLING & ROSELAW



ASBUILT PLAN
CONFORMING TO
CONST. RECORDS
DONE BY: *RPB*
DATE: *11/20/20*

I hereby certify that this plan, specification, or report was prepared by me or under my direct supervision and that I am a duly Registered Professional Engineer under the laws of the State of Minnesota.
Wayne J. Forward
Date *6-1-16* Reg. No. *5782*

STATION-ELEVATION

Fed. Proj. No.

Exc. Emb. Borrow

2100 978.0

214 82 0

1450 78.5

262 137 0

1400 79.4

281 151 0

ENT

134 79.6

93 48 0

160 79.7

131 10 0

0429 980.3

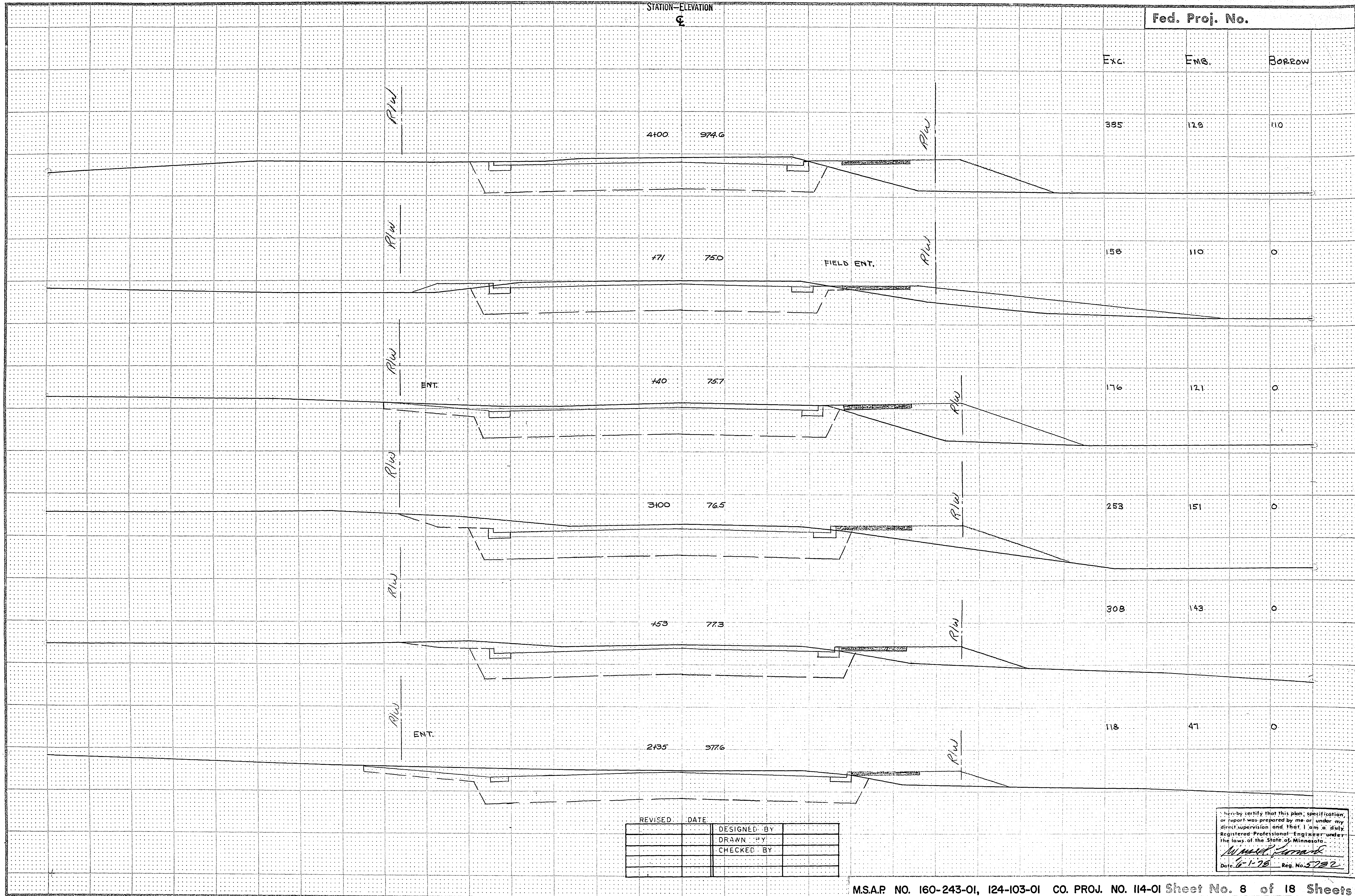
163 53 0

24 5

REVISED	DATE	DESIGNED BY	
		DRAWN BY	
		CHECKED BY	

I hereby certify that this plan, specification, or report was prepared by me or under my direct supervision and that I am a duly Registered Professional Engineer under the laws of the State of Minnesota.
Walter J. Lomax
Date 6-1-78 Reg. No. 5702

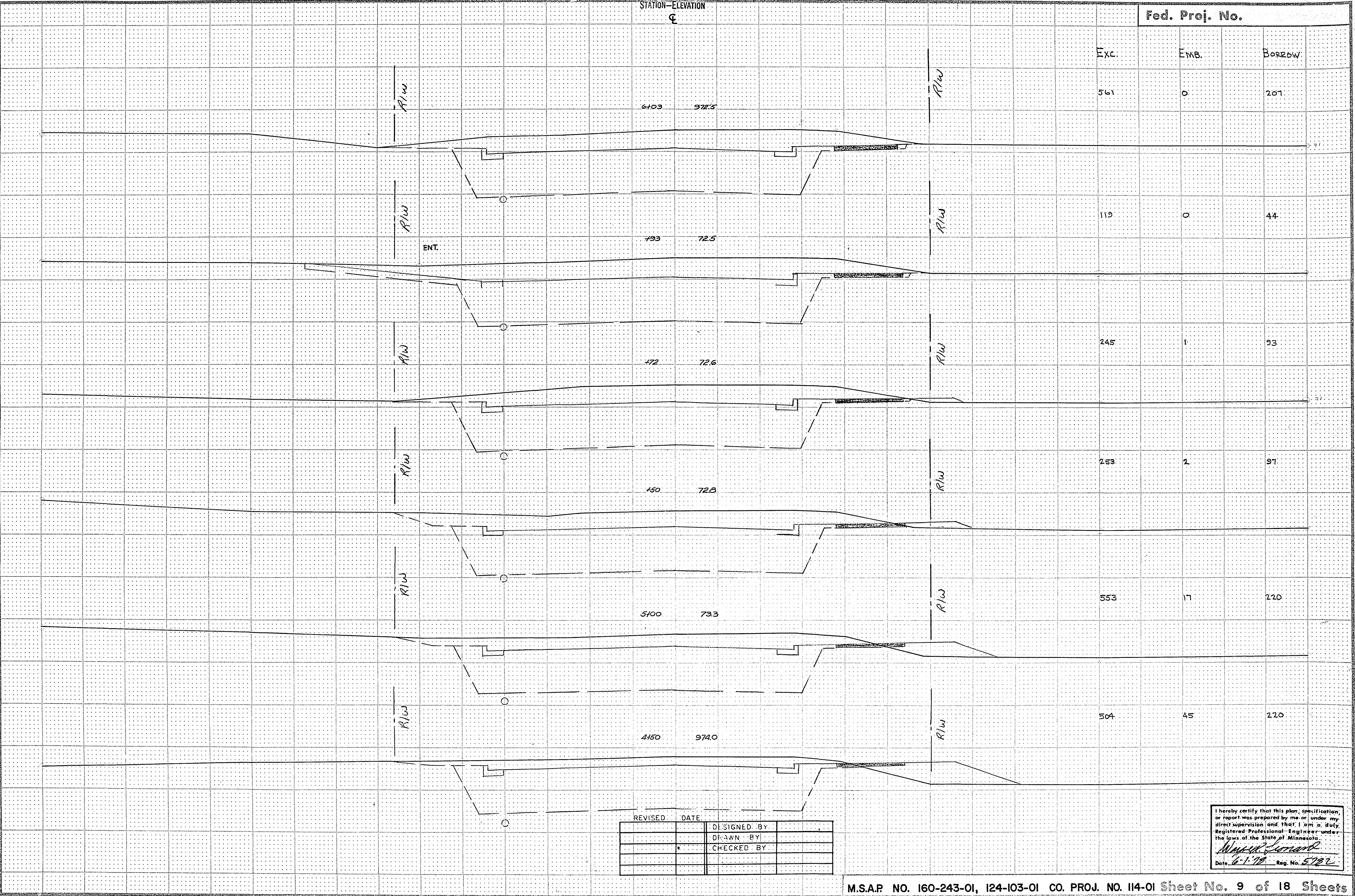
FUNCTIONAL CROSS SECTION - OPEN DOTTED
H. A. ROGERS CO. - MINNEAPOLIS, ST. PAUL



REVISED	DATE	DESIGNED BY	DRAWN BY	CHECKED BY

I hereby certify that this plan, specification, or report was prepared by me or under my direct supervision and that I am a duly Registered Professional Engineer under the laws of the State of Minnesota.
W. H. L. Larned
Date 6-1-78 Reg. No. 5782

FUNCTIONAL CROSS SECTION - OPEN DOTTED
H. A. ROGERS CO. MINNEAPOLIS - ST. PAUL



REVISED	DATE	DESIGNED BY	
		DRAWN BY	
		CHECKED BY	

I hereby certify that this plan, specification, or report was prepared by me or under my direct supervision and that I am a duly Registered Professional Engineer under the laws of the State of Minnesota.
Walter J. Leonard
Date 6-1-78 Reg. No. 5782

STATION - ELEVATION
 &

Fed. Proj. No.

Exc.	Emb.	Borrow
313	0	123
613	0	247
556	0	194
638	0	220
644	0	220
617	0	220

R/W

ENT.

9+00 972.1

R/W

R/W

ENT.

7+44 72.4

R/W

R/W

8+00 72.7

R/W

R/W

ENT.

7+50 72.8

R/W

R/W

7+00 72.9

R/W

R/W

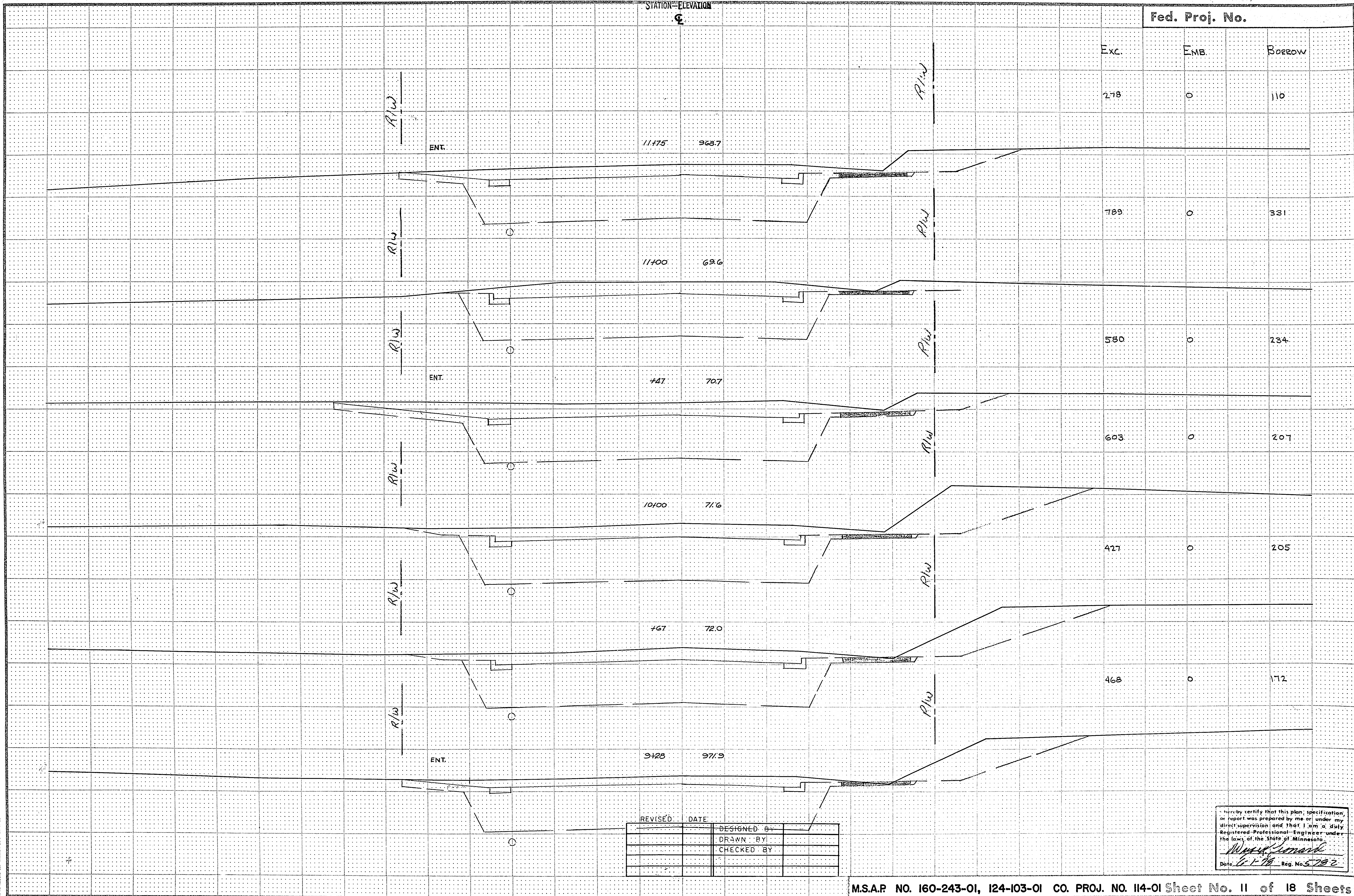
6+50 972.6

R/W

REVISED	DATE	DESIGNED BY	
		DRAWN BY	
		CHECKED BY	

I hereby certify that this plan, specification, or report was prepared by me or under my direct supervision and that I am a duly Registered Professional Engineer under the laws of the State of Minnesota.
W. H. L. Leland
 Date 6-1-78 Reg. No. 5782

FUNCTIONAL CROSS SECTION - OPEN DOTTED
H. A. ROGERS CO. - MINNEAPOLIS, ST. PAUL



STATION-ELEVATION

9

Fed. Proj. No.

Exc.

EMB.

BORROW

14+00

966.6

450

33

220

13+66

66.6

308

20

150

+50

66.7

143

10

71

13+00

66.8

435

61

220

+49

67.3

453

42

225

12+00

968.2

492

1

216

REVISED	DATE	DESIGNED BY	CHECKED BY

I hereby certify that this plan, specification, or report was prepared by me or under my direct supervision and that I am a duly Registered Professional Engineer under the laws of the State of Minnesota.
Walter J. Leonard
 Date 12-1-78 Reg. No. 5782

STATION-ELEVATION

Fed. Proj. No.

Exc.

Emb

Borrow

393

41

220

16+00

96.4

R/W

R/W

309

41

176

160

66.1

R/W

R/W

400

40

233

121

66.0

R/W

R/W

165

12

98

± MID OAKS LANE

15+03

66.0

R/W

R/W

176

12

106

194

66.0

R/W

467

33

263

14+50

96.3

REVISED	DATE	DESIGNED BY
		DRAWN BY
		CHECKED BY

I hereby certify that this plan, specification, or report was prepared by me or under my direct supervision and that I am a duly Registered Professional Engineer under the laws of the State of Minnesota.
Walter J. Brown
 Date 6-1-78 Reg. No. 5782

STATION-ELEVATION
6

Fed. Proj. No.

Exc.	EMB.	Borrow
183	13	113

18+55 964A

R/W

519	54	329
-----	----	-----

18+00 65.1

R/W

363	42	220
-----	----	-----

150 65.8

R/W

381	30	220
-----	----	-----

17+00 66.2

R/W

138	10	79
-----	----	----

182 66.3

R/W

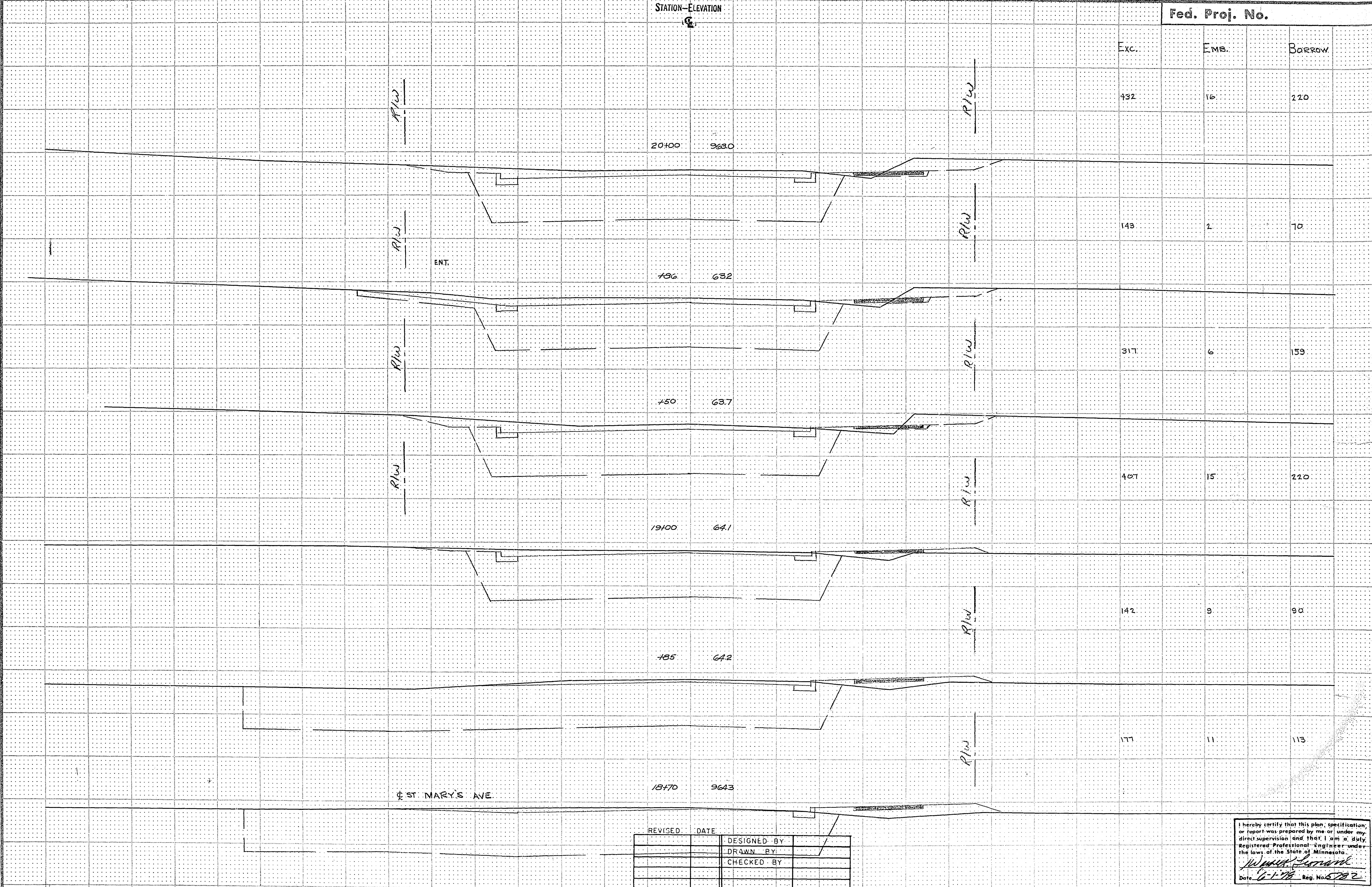
252	19	141
-----	----	-----

16+50 966A

R/W

REVISED	DATE	DESIGNED BY
		DRAWN BY
		CHECKED BY

I hereby certify that this plan, specification, or report was prepared by me or under my direct supervision and that I am a duly Registered Professional Engineer under the laws of the State of Minnesota.
Wm. H. Leonard
Date 6-1-78 Reg. No. 5752



STATION-ELEVATION

Fed. Proj. No.

Exc.	EMB.	BORROW
432	16	220

143	2	70
-----	---	----

317	6	159
-----	---	-----

407	15	220
-----	----	-----

142	9	90
-----	---	----

177	11	113
-----	----	-----

ST MARY'S AVE.

REVISED	DATE	DESIGNED BY	DRAWN BY	CHECKED BY

I hereby certify that this plan, specification, or report was prepared by me or under my direct supervision and that I am a duly Registered Professional Engineer under the laws of the State of Minnesota.
Wm. J. Leonard
Date *6-1-78* Reg. No. *5782*

FUNCTIONAL CROSS SECTION - OPEN DOTTED
M. A. ROGERS CO., MINNEAPOLIS, ST. PAUL

FUNCTIONAL CROSS SECTION - OPEN DOTTED
H. A. ROYER CO., MINNEAPOLIS, ST. PAUL

STATION-ELEVATION
Q

Fed. Proj. No.

Exc. Emb. Borrow

Q MID OAKS LANE

22+20 961.6

22+04 61.6

+71 61.5

+50 61.6

21+00 62.0

20+50 962.4

R/W

R/W

R/W

R/W

R/W

R/W

R/W

R/W

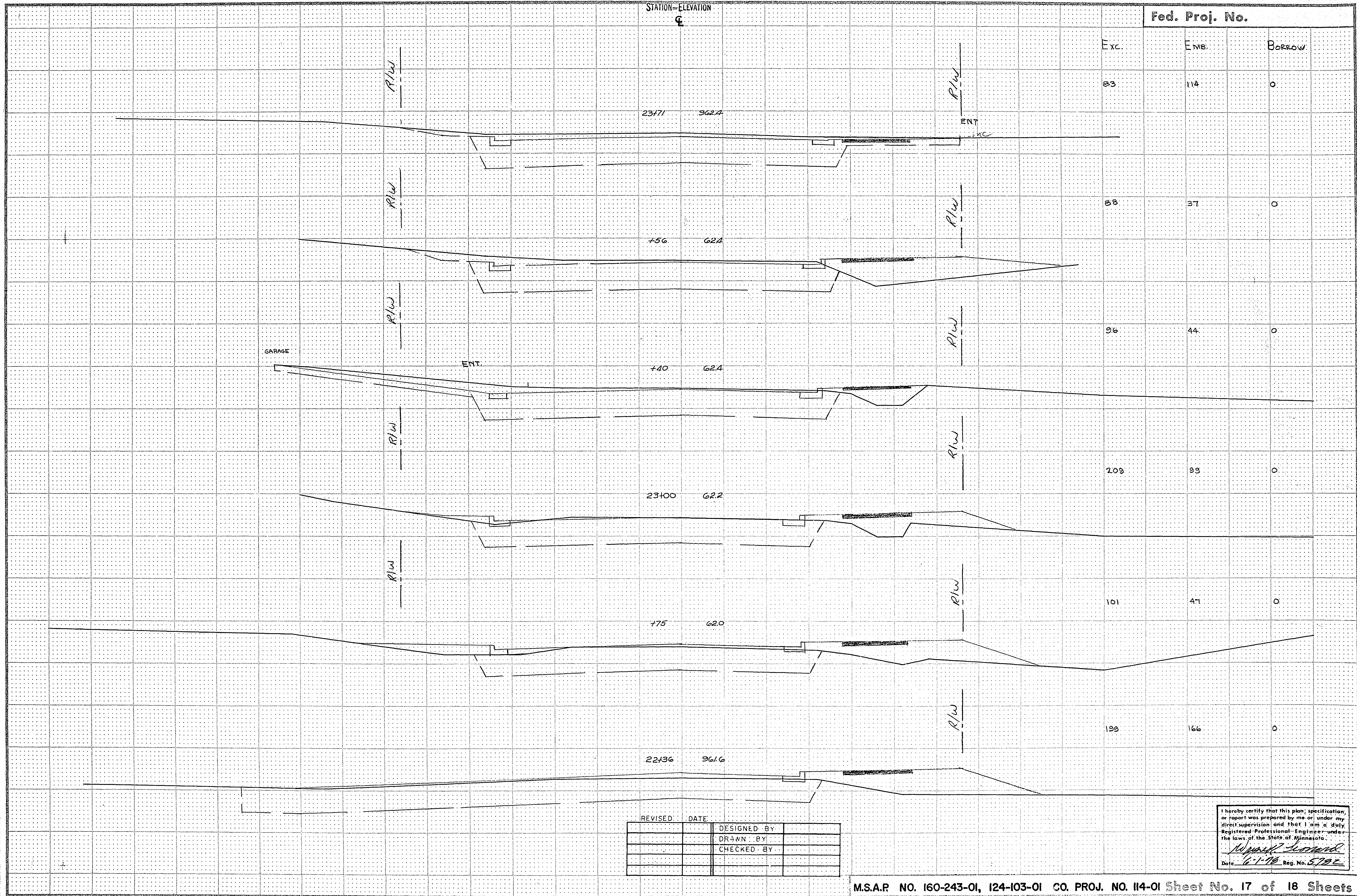
R/W

R/W

REVISED	DATE	DESIGNED BY	DRAWN BY	CHECKED BY

I hereby certify that this plan, specification, or report was prepared by me or under my direct supervision and that I am a duly Registered Professional Engineer under the laws of the State of Minnesota.
W. J. J. J.
Date *11-1-72* Reg. No. *5782*

FUNCTIONAL CROSS SECTION - OPEN DOTTED
H. A. ROGERS CO. - MINNEAPOLIS ST. PAUL



REVISED	DATE	DESIGNED BY
		DRAWN BY
		CHECKED BY

I hereby certify that this plan, specification, or report was prepared by me or under my direct supervision and that I am a duly Registered Professional Engineer under the laws of the State of Minnesota.
W. J. J. J. J.
Date 6-1-78 Reg. No. 5792

STATION-ELEVATION
E

Fed. Proj. No.

Exc. Emb. Borrow

22,162
- 2,773
19,389 C.Y. Excess

2,773 C.Y.

8072
x 1.3
10,494

1,374 POSSIBLE FROM
9,120 C.Y. PROJECT

25+96 96.3

EXISTING 15' C.M.P.

15' X 15' R.C.P.

4+83 61.3

R/W
FINT

25+22 61.0

R/W

306

117

0

R/W

R/W

279

126

0

4+71 61.2

R/W

R/W

224

126

0

4+24 61.8

R/W

R/W

233

114

0

23+86 5 23

REVISED	DATE	DESIGNED BY	DRAWN BY	CHECKED BY

I hereby certify that this plan, specification, or report was prepared by me or under my direct supervision and that I am a duly Registered Professional Engineer under the laws of the State of Minnesota.
Wm. J. Lomax
Date 6-1-78 Reg. No. 5782

OPTIONAL CROSS SECTION - OPEN DOTTED
H. A. ROGERS CO. - MINNEAPOLIS, ST. PAUL