

PLAN 408

Area Constr. Superior

(12) (1064)  
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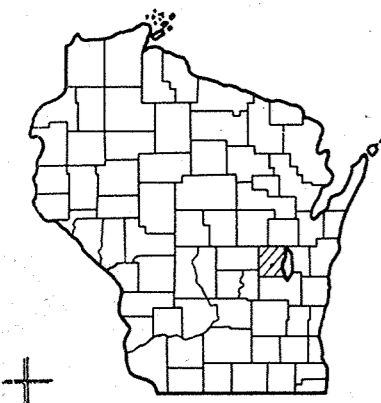
Sheet Number	Total Sheets
1	91

STATE OF WISCONSIN  
DEPARTMENT OF TRANSPORTATION  
DIVISION OF HIGHWAYS  
PLAN AND PROFILE OF PROPOSED  
WEST COUNTY LINE - OSHKOSH  
S.T.H. 116 - C.T.H. "FF" SECTION  
C.T.H. "E"  
WINNEBAGO COUNTY

AS BUILT PLAN  
PLAN #408

PROJECT IDENTIFICATION NUMBER	FEDERAL PROJECT DESIGNATION
6460-2-73	S 1260(3)

Scales  
Plan 1 in. = 100 ft.  
Profile Hor. 1 in. = 100 ft. Vert. 1 in. = 10 ft.  
Cross Sections Hor. 1 in. = 5 ft. Vert. 1 in. = 5 ft.



Design Designation

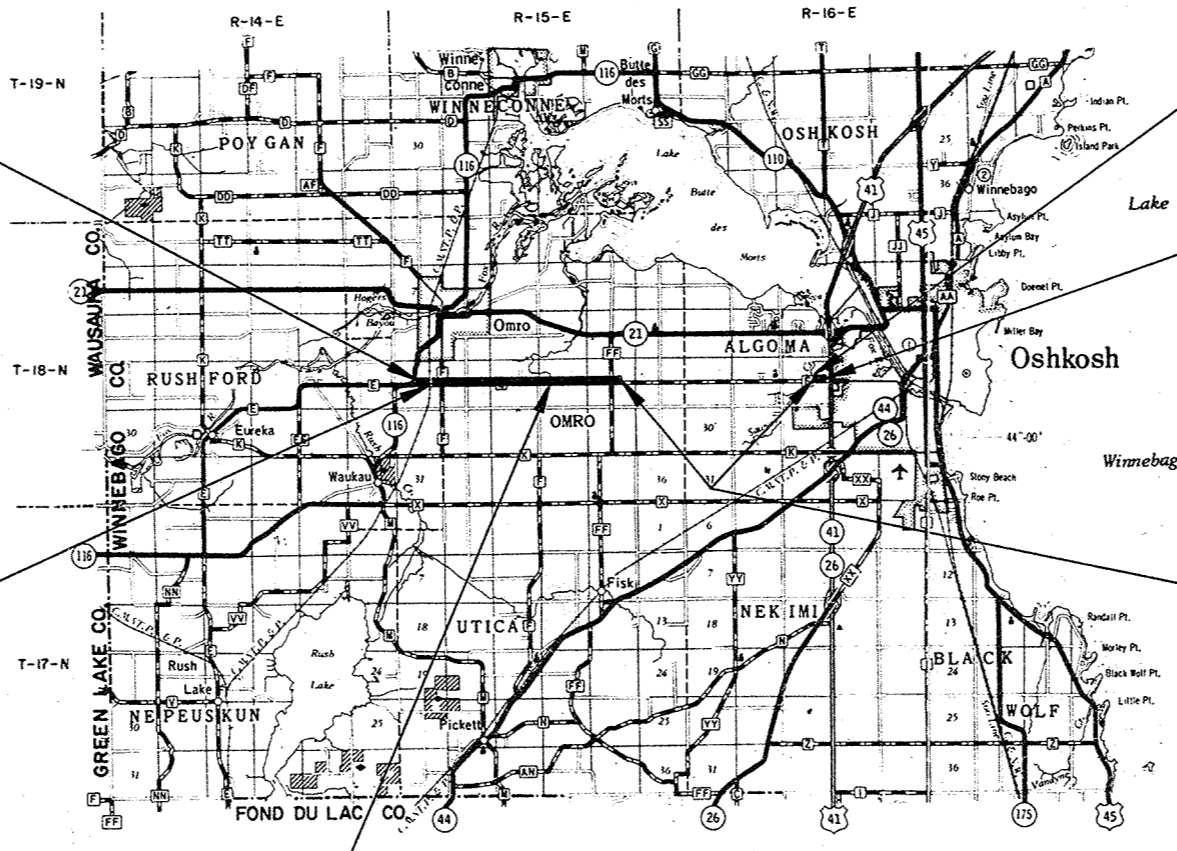
A. D. T. 1973	= 800
A. D. T. 1993	= 1,200
D. H. V.	= 168
D.	= 60%
T.	= 8%
V.	= 60 M.P.H.

BEGINNING OF PROJECT S 1260 (3) / 6460-2-(71.72.73)  
STA. 10 + 00  
365.78' S. 89°-56' W. OF CENTER  
SEC. 19 T. 18 N. R. 15 E.

STA. 26 + 98.60 TO STA. 27 + 11.31  
EXCEPTION TO NET & LENGTH

END OF PROJECT S 1260 (3) / 6460-2-(71.72.73)  
STA. 458 + 42.37  
1,771.94' S. 89°-53' E. OF CENTER OF  
SEC. 21 T. 18 N. R. 16 E.

STA. 235 + 00 TO STA. 447 + 87.17  
EXCEPTION TO NET & LENGTH

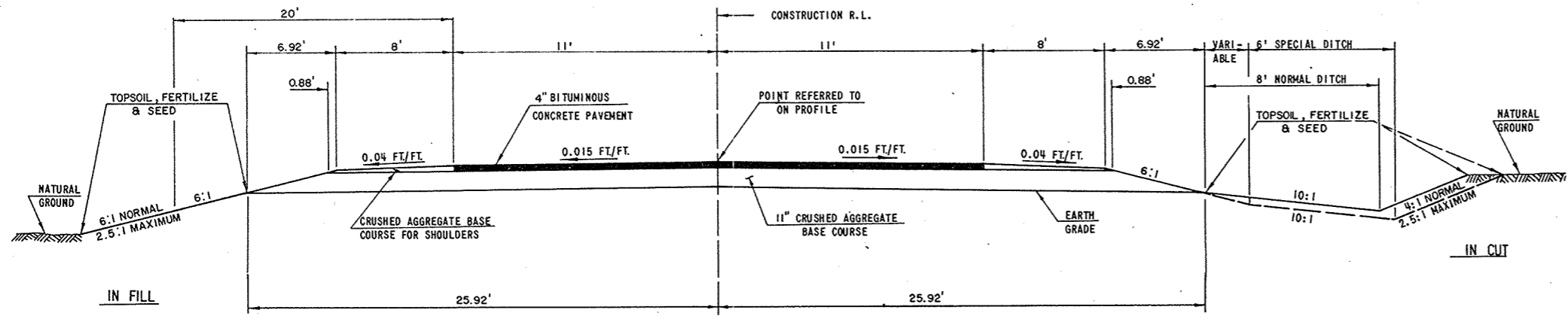


Conventional Signs	
State Line	-----
County Line	-----
Township or Range Line	-----
Section Line	-----
New Right of Way Line	-----
Present Right of Way Line	-----
Wire Fence (Woven)	-----
Wire Fence (Barbed)	-----
Lot Line	-----
Corporate or City Limits	-----
Property Line	-----
Traveled Way or P. E.	-----
Railroads	-----
Base or Survey Line	-----
Culverts in Place	-----
Culverts Required	-----
Drop Inlet	-----
Power Pole	-----
Telephone or Telegraph Pole	-----
Right of Way Markers	-----
Reference Stake for Hubs Only	-----
Marsh	-----
Hedge	-----
Trees	-----
Ground Elevation	Datum Line 73.9
Grade Elevation	Datum Line 76.16

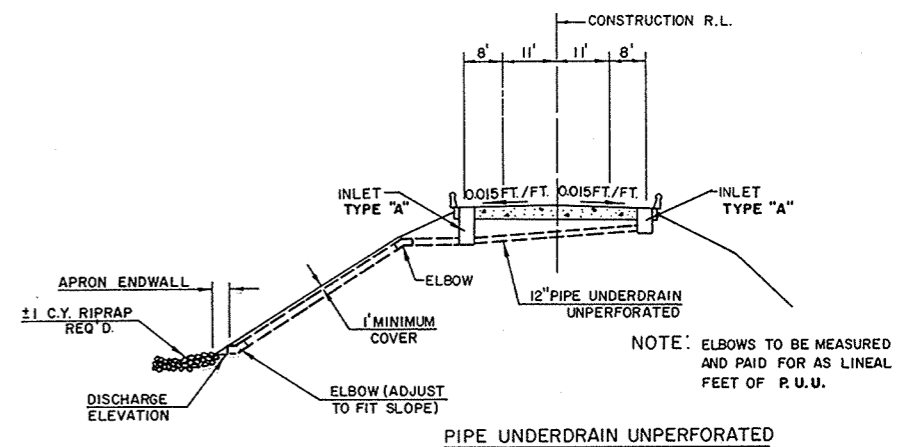
Layout  
Scale 0 2 Mi.  
Total Net Length of Centerline = 4.459 Mi.

STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION DIVISION OF HIGHWAYS	
Surveyor <u>R.D.N.</u>	District Checker <u>M.R.L. D.P.C.</u>
Designer <u>C.W.M. C.M.S.</u>	C.O. Checker <u>L.L.J.</u>
Correct:	
Date <u>4-27-72</u>	<u>F.H. Jindler</u> District Engineer
Recommended for Approval:	
Date <u>5/30/72</u>	<u>C. Harried</u> Chief Design Engineer
Approved:	
Date <u>5/31/72</u>	<u>S. E. Hicks</u> State Highway Engineer
U.S. DEPARTMENT OF TRANSPORTATION FEDERAL HIGHWAY ADMINISTRATION	
REGION 4 WISCONSIN DIVISION	
Approved:	
Date _____ Division Engineer	

PROJECT I.D. 6460 - 2 - 71, 72, 73	SHEET NUMBER <b>2</b>	TOTAL SHEETS <b>91</b>
FEDERAL PROJECT DESIGNATION S 1260(3)	TYPICAL CROSS SECTIONS FOR C.T.H. "E" WINNEBAGO CO.	



TYPICAL FINISHED SECTION C.T.H. "E"



PIPE UNDERDRAIN UNPERFORATED  
STA. 168+46 AND STA. 447+73  
NOT TO SCALE

GENERAL NOTES

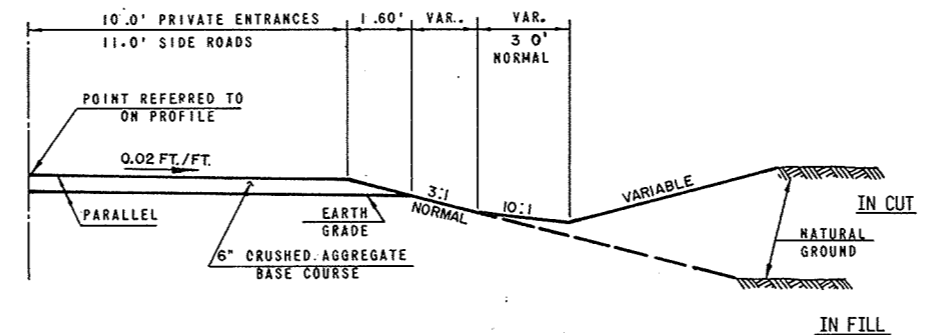
SALVAGED TOPSOIL SHALL BE PLACED TO AN APPROXIMATE DEPTH OF 3 INCHES  
CERTAIN UNDERGROUND UTILITY STRUCTURES HAVE BEEN LOCATED ON THESE PLANS. THESE LOCATIONS SHALL NOT BE TAKEN AS CONCLUSIVE. VERIFICATION AS TO THE LOCATION TO THE SATISFACTION OF THE CONTRACTOR OF ALL UNDERGROUND UTILITY STRUCTURES, WHETHER SHOWN ON THE PLANS OR NOT, SHALL BE ASSUMED AS A CONDITION OF THE CONTRACT.  
THE EXACT LOCATION OF CULVERT PIPE, PRIVATE ENTRANCES AND FIELD ENTRANCES SHALL BE DETERMINED BY THE ENGINEER IN THE FIELD.  
CUBIC YARDS OF FILL AS SHOWN ON THE PLAN SHEETS PERTAINS TO EMBANKMENT CONSTRUCTED FROM UNCLASSIFIED AND BORROW EXCAVATION AND WAS COMPUTED WITH A SHRINKAGE ALLOWANCE OF 25% - 30% FOR UNCLASSIFIED EXCAVATION AND 15% FOR BORROW EXCAVATION BASED ON THE VOLUME OF THE FILL.  
BITUMINOUS SURFACING AND SHOULDERS IS NOT PART OF THESE CONTRACTS.  
WHEN THE QUANTITY OF THE ITEMS OF SUBBASE, AND BASE COURSE ARE MEASURED FOR PAYMENT BY THE TON OR CUBIC YARD, THE DEPTH OR THICKNESS OF THE COURSE SHOWN ON THE PLANS IS APPROXIMATE AND THE ACTUAL THICKNESS WILL DEPEND ON THE DISTRIBUTION OF THE MATERIAL AS DIRECTED BY THE ENGINEER.

UTILITIES LOCATED WITHIN THIS PROJECT

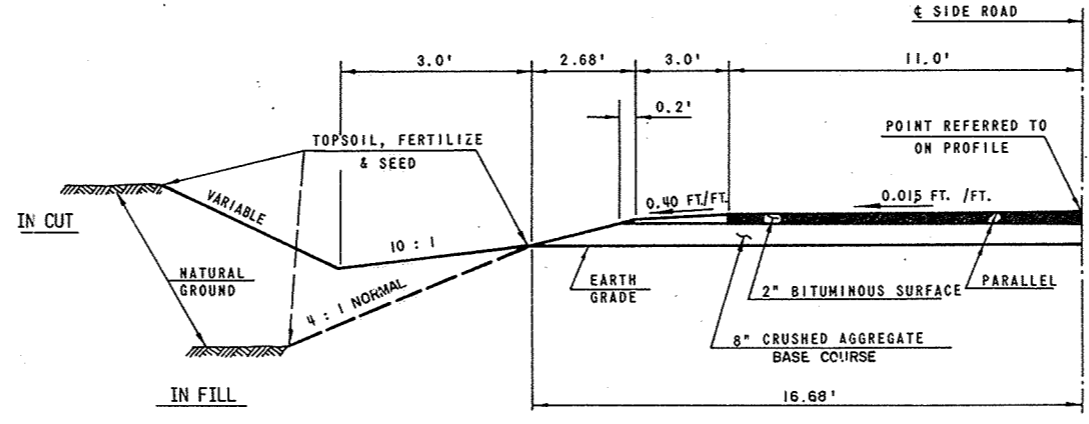
- CHICAGO, MILWAUKEE, ST. PAUL & PACIFIC RAILROAD (MILWAUKEE ROAD)
- WISCONSIN TELEPHONE COMPANY
- WISCONSIN POWER AND LIGHT COMPANY
- WISCONSIN PUBLIC SERVICE CORP.

STANDARD DETAIL DRAWINGS

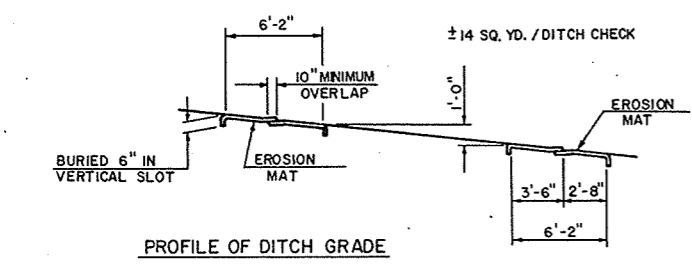
- INLETS TYPE 1 & 2 & INLET COVERS \_\_\_\_\_ 8C1-1
- SURFACE DRAIN DROP INLET TYPE \_\_\_\_\_ 8D3-1
- APRON ENDWALLS \_\_\_\_\_ 8F1-2
- CORRUGATED METAL PIPE ARCH \_\_\_\_\_ 8F2-1
- SIDE ROAD INTERSECTIONS \_\_\_\_\_ 9A1-1
- CONCRETE PAVEMENT REINFORCEMENT \_\_\_\_\_ 13A1-1
- PAVEMENT DETAILS FOR RAILROAD APPROACH \_\_\_\_\_ 13B1-1
- CLASS "A" STEEL PLATE BEAM GUARD \_\_\_\_\_ 14B2-2 A&B
- MARKER POSTS \_\_\_\_\_ 15A1-1
- CONSTRUCTION BARRICADE \_\_\_\_\_ 15C1-1
- LANDMARK REFERENCE MONUMENTS \_\_\_\_\_ 16A1-1



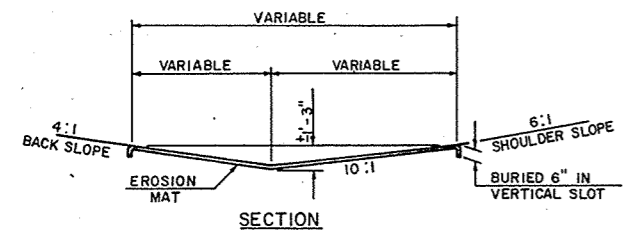
1/2 TYPICAL SECTION GRAVEL SURFACE SIDE ROADS AND PRIVATE ENTRANCES



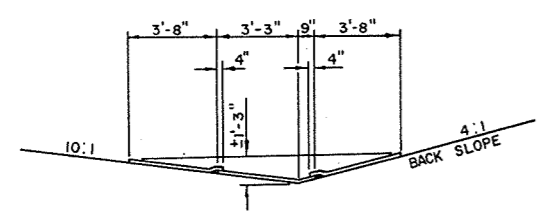
1/2 TYPICAL SECTION BITUMINOUS SURFACE FOR SIDE ROADS



PROFILE OF DITCH GRADE



SECTION  
DETAILS OF EROSION MAT DITCH CHECKS



EROSION MAT DITCH PROTECTION

# ESTIMATE OF QUANTITIES

THIS PROJECT IS TO BE EXECUTED UNDER THE STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION OF THE WISCONSIN DIVISION OF HIGHWAYS - EDITION OF 1969, APPROVED MARCH 3, 1969, FEDERAL AID REQUIRED CONTRACT PROVISIONS APPROVED NOVEMBER 15, 1968, AND SPECIAL PROVISIONS AS ATTACHED TO PROPOSALS.

CONTRACT NO. 1 (6460-2-71)  
 STRUCTURES B-70- 63, 64  
 CONTRACT NO. 2 (6460-2-72)  
 BASE COURSE  
 CONTRACT NO. 3 (6460-2-73)  
 GRADING

PROJECT I.D. 6460 - 2 - 71, 72, 73	SHEET NUMBER	TOTAL SHEETS
FEDERAL PROJECT DESIGNATION S 1260(3)	<b>3</b>	<b>91</b>

CONTRACT NO.	STATION TO STATION	NET LENGTH OF CENTER-LINE	CLEARING	CLEARING	GRUBBING	GRUBBING	UNCLASSIFIED EXCAVATION	BORROW EXCAVATION	FINISHING ROADWAY	CRUSHED AGGREGATE BASE COURSE	CULVERT PIPE CLASS III				APRON ENDWALLS FOR CULVERT PIPE				CORRUGATED METAL PIPE ARCH					
											18 - INCH	24 - INCH	30 - INCH	36 - INCH	18 - INCH	24 - INCH	30 - INCH	36 - INCH	22"X 13"	29"X 18"	36"X 22"	43"X 27"	58"X 36"	65"X 40"
											52003	52005	52007	52009	52061	52063	52065	52067	52136	52138	52139	52140	52142	52143
UNIT	LIN. FT.	STATION	IN. DIA.	STATION	IN. DIA.	CU. YD.	CU. YD.	L.S.	TON	LIN. FT.	LIN. FT.	LIN. FT.	LIN. FT.	EACH	EACH	EACH	EACH	LIN. FT.	LIN. FT.	LIN. FT.	LIN. FT.	LIN. FT.	LIN. FT.	
1	B-70-63, 64	130.78																						
2	STA. 10 + 00 - STA 458 + 42.37	23,411.71								76,300														
3	STA. 10 + 00 - STA. 458 + 42.37	23,411.71	8	2,102	8	2,116	51,860	28,561	1		1,414	556	108	32	94	26	2	2	96	344	178	32	148	74
<b>PROJECT TOTALS</b>		<b>23,542.49</b>	<b>8</b>	<b>2,102</b>	<b>8</b>	<b>2,116</b>	<b>51,860</b>	<b>28,561</b>	<b>1</b>	<b>76,300</b>	<b>1,414</b>	<b>556</b>	<b>108</b>	<b>32</b>	<b>94</b>	<b>26</b>	<b>2</b>	<b>2</b>	<b>96</b>	<b>344</b>	<b>178</b>	<b>32</b>	<b>148</b>	<b>74</b>

## BRIDGES (STRUCTURES OVER 20FT. SPAN)

CONTRACT NO.	REMOVING OLD BRIDGE, STA. 169 + 00	REMOVING OLD BRIDGE, STA. 448 + 18	EXCAVATION FOR STRUCTURES	GRANULAR BACKFILL	CONCRETE SURFACE DRAINS	CONCRETE MASONRY	PRESTRESSED GIRDER, 1 TYPE, 36 - INCH	PRESTRESSED GIRDER, 1 TYPE, 45 - INCH	BAR STEEL REINFORCEMENT	STRUCTURAL CARBON STEEL	BEARING PADS ELASTOMERIC	CAST-IN-PLACE CONCRETE PILING DELIVERED AND DRIVEN 10 3/4 - INCH	STEEL PILING DELIVERED AND DRIVEN 10 - INCH X 42 POUND	TUBULAR RAILING, TYPE "J"	RIPRAP	HEAVY RIPRAP	INLETS, TYPE I	INLET COVERS, TYPE "A"	METAL APRON ENDWALLS FOR CULVERT PIPE, 12 - INCH	PIPE UNDERDRAIN UNPERFORATED 12 - INCH	FIELD OFFICE TYPE "A"
	L.S.	L.S.	CU. YD.	CU. YD.	CU. YD.	CU. YD.	LIN. FT.	LIN. FT.	LBS.	LBS.	SQ. FT.	LIN. FT.	LIN. FT.	LIN. FT.	CU. YD.	CU. YD.	EACH	EACH	EACH	LIN. FT.	L.S.
1	B-70-63	1	20	10	5	170.4	476		23,890	460	14	720		162	1	170	2	2	1	72	
1	B-70-64	1	82	48	5	181		246	27,840	430	10		640	157	1	210	2	2	1	76	
<b>PROJECT TOTALS</b>		<b>1</b>	<b>102</b>	<b>58</b>	<b>10</b>	<b>351.4</b>	<b>476</b>	<b>246</b>	<b>51,730</b>	<b>890</b>	<b>24</b>	<b>720</b>	<b>640</b>	<b>319</b>	<b>2</b>	<b>380</b>	<b>4</b>	<b>4</b>	<b>2</b>	<b>148</b>	<b>1</b>

## METAL APRON ENDWALLS FOR PIPE ARCH

CONTRACT NO.	22"X 13"	29"X 18"	36"X 22"	43"X 27"	58"X 36"	65"X 40"	ANCHORAGES FOR STEEL PLATE BEAM GUARD	STEEL PLATE BEAM GUARD, CLASS "A"	MARKER POSTS	LANDMARK REFERENCE MONUMENTS	CALCIUM CHLORIDE SURFACE TREATMENT	SALVAGED TOPSOIL	EROSION MAT	FERTILIZER	SEEDING	FIELD OFFICE, TYPE "A"	FIELD OFFICE, TYPE "A"	ON THE JOB TRAINING
	EACH	EACH	EACH	EACH	EACH	EACH	EACH	LIN. FT.	EACH	EACH	TON	SQ. YD.	SQ. YD.	C W T	LB.	L.S.	L.S.	HRS.
1																		1,000
2																1		
3	4	10	6	2	4	2	10	993	40	3	44	132,360	3,000	60	1,790		1	
<b>TOT</b>	<b>4</b>	<b>10</b>	<b>6</b>	<b>2</b>	<b>4</b>	<b>2</b>	<b>10</b>	<b>993</b>	<b>40</b>	<b>3</b>	<b>44</b>	<b>132,360</b>	<b>3,000</b>	<b>60</b>	<b>1,790</b>	<b>1</b>	<b>1</b>	<b>1,000</b>

DETAIL SUMMARY SHEET OF MISCELLANEOUS QUANTITIES

PROJECT I.D. 6460-2-(71.72.73)	SHEET NUMBER 3A	TOTAL SHEETS 91
FEDERAL PROJECT DESIGNATION S 1260 (3)		

CLEARING & GRUBBING

CONTRACT	STATION TO STATION	CLEARING		GRUBBING	
		STATION	IN. DIA.	STATION	IN. DIA.
3	STA. 10 + 00 - STA. 161 + 00	-	1.034	-	1.048
3	STA. 161 + 00 - STA. 163 + 00	2	-	2	-
3	STA. 163 + 00 - STA. 209 + 00	-	243	-	243
3	STA. 209 + 00 - STA. 211 + 00	2	-	2	-
3	STA. 211 + 00 - STA. 235 + 00	-	290	-	290
3	STA. 416 + 00 - STA. 420 + 00	4	-	4	-
3	STA. 420 + 00 - STA. 458 + 42	-	535	-	535

EXCAVATION

CONTRACT NO.	LOCATION	UNCLASSIFIED CU. YD.	BORROW CU. YD.
3	STA. 10 + 00 - STA. 235 + 00	42.381	27.621
3	STA. 414 + 00 - STA. 448 + 02	6.270	-
3	STA. 448 + 02 - STA. 458 + 42.37	3.209	940

CRUSHED AGGREGATE BASE COURSE

CONTRACT NO.	STATION TO STATION	TON		
		MAINLINE	SIDE ROADS	P. E. 'S
2	STA. 10 + 00 - STA. 235 + 00	70.000	1.420	575
2	STA. 446 + 00 - STA. 447 + 87	420	-	625
2	STA. 448 + 83 - STA. 458 + 42.37	3.110	-	150

PIPE CULVERTS

CONTRACT NO.	STATION	LOCATION	DIAMETER IN. DIA.	LENGTH LIN. FT.	TYPE	APRON ENDWALLS	MARKER POSTS
3	STA. 26 + 90	€	36"X 22"	62'	C.M.P.A.	2	2
3	STA. 27 + 26	€	36"X 22"	62'	C.M.P.A.	2	2
3	STA. 40 + 00	€	29"X 18"	76'	C.M.P.A.	2	2
3	STA. 40 + 36	SIDE ROAD LEFT	36"X 22"	54'	C.M.P.A.	2	-
3	STA. 53 + 80	F. E. LEFT	18"	32'	CULVERT PIPE CLASS III	2	-
3	STA. 55 + 75	€	65"X 40"	74'	C.M.P.A.	2	2
3	STA. 56 + 70	P. E. RIGHT	18"	30'	CULVERT PIPE CLASS III	2	-
3	STA. 67 + 15	SIDE ROAD LEFT	22"X 13"	58'	C.M.P.A.	2	-
3	STA. 67 + 15	SIDE ROAD RIGHT	18"	58'	CULVERT PIPE CLASS III	2	-
3	STA. 83 + 02	€	24"	68'	CULVERT PIPE CLASS III	2	2
3	STA. 92 + 45	P. E. RIGHT	18"	30'	CULVERT PIPE CLASS III	2	-
3	STA. 95 + 25	F. E. RIGHT	18"	36'	CULVERT PIPE CLASS III	2	-
3	STA. 97 + 05	P. E. LEFT	18"	34'	CULVERT PIPE CLASS III	2	-
3	STA. 120 + 50	€	29"X 18"	66'	C.M.P.A.	2	2
3	STA. 120 + 50	€	29"X 18"	66'	C.M.P.A.	2	-
3	STA. 120 + 80	P. E. RIGHT	43"X 27"	32'	C.M.P.A.	2	-
3	STA. 122 + 95	P. E. RIGHT	36"	32'	CULVERT PIPE CLASS III	2	-
3	STA. 127 + 06	SIDE ROAD LEFT	24"	54'	CULVERT PIPE CLASS III	2	-
3	STA. 137 + 45	€	58"X 36"	74'	C.M.P.A.	2	2
3	STA. 137 + 45	€	58"X 36"	74'	C.M.P.A.	2	-
3	STA. 140 + 30	P. E. LEFT	18"	30'	CULVERT PIPE CLASS III	2	-
3	STA. 147 + 04	SIDE ROAD RIGHT	18"	46'	CULVERT PIPE CLASS III	2	-
3	STA. 147 + 33	€	29"X 18"	72'	C.M.P.A.	2	2
3	STA. 160 + 77	€	24"	68'	CULVERT PIPE CLASS III	2	2
3	STA. 166 + 50	€	30"	108'	CULVERT PIPE CLASS III	2	2
1	STA. 168 + 53	€	12"	38'	C.M.P. UNDERDRAIN UNPERFORATED	-	-
1	STA. 168 + 46	19.5' LEFT	12"	34'	C.M.P. UNDERDRAIN UNPERFORATED	1	1
3	STA. 170 + 00	P. E. LEFT	24"	34'	CULVERT PIPE CLASS III	2	-
3	STA. 173 + 85	P. E. RIGHT	24"	32'	CULVERT PIPE CLASS III	2	-
3	STA. 205 + 27	€	29"X 18"	64'	C.M.P.A.	2	2
3	STA. 222 + 81	€	24"	64'	CULVERT PIPE CLASS III	2	2
3	STA. 226 + 96	SIDE ROAD LEFT	22"X 13"	38'	C.M.P.A.	2	-
3	STA. 417 + 89	SIDE ROAD RIGHT	18"	36'	CULVERT PIPE CLASS III	2	-
3	STA. 422 + 20	P. E. LEFT	24"	36'	CULVERT PIPE CLASS III	2	-
3	STA. 422 + 60	F. E. RIGHT	18"	30'	CULVERT PIPE CLASS III	2	-
3	STA. 424 + 71	SIDE ROAD LEFT	24"	36'	CULVERT PIPE CLASS III	2	-
3	STA. 425 + 67	P. E. LEFT	24"	36'	CULVERT PIPE CLASS III	2	-
3	STA. 426 + 85	P. E. LEFT	24"	36'	CULVERT PIPE CLASS III	2	-
3	STA. 427 + 65	P. E. RIGHT	24"	32'	CULVERT PIPE CLASS III	2	-
3	STA. 429 + 18	P. E. RIGHT	24"	30'	CULVERT PIPE CLASS III	2	-
3	STA. 430 + 15	P. E. LEFT	24"	30'	CULVERT PIPE CLASS III	2	-
3	STA. 446 + 90	F. E. LEFT	18"	44'	CULVERT PIPE CLASS III	2	-
1	STA. 447 + 73	€	12"	35'	C.M.P. UNDERDRAIN UNPERFORATED	-	-
1	STA. 447 + 73	19.5' LEFT	12"	41'	C.M.P. UNDERDRAIN UNPERFORATED	1	1
3		( 36 P.E.'S @ 18"X 28' EACH )			CULVERT PIPE CLASS III	72	-

STEEL PLATE BEAM GUARD

CONTRACT NO.	LOCATION	LIN. FT.	ANCHORAGES
3	B-70-63 WEST END LEFT	128.8	1
3	B-70-63 WEST END RIGHT	128.8	1
3	B-70-63 EAST END LEFT	91.3	1
3	B-70-63 EAST END RIGHT	128.8	1
3	STA. 101 + 53.8 - STA. 102 + 82.6 LEFT	128.8	2
3	STA. 101 + 41.2 - STA. 102 + 70.2 RIGHT	128.8	2
3	B-70-64 EAST END LEFT	128.8	1
3	B-70-64 EAST END RIGHT	128.8	1

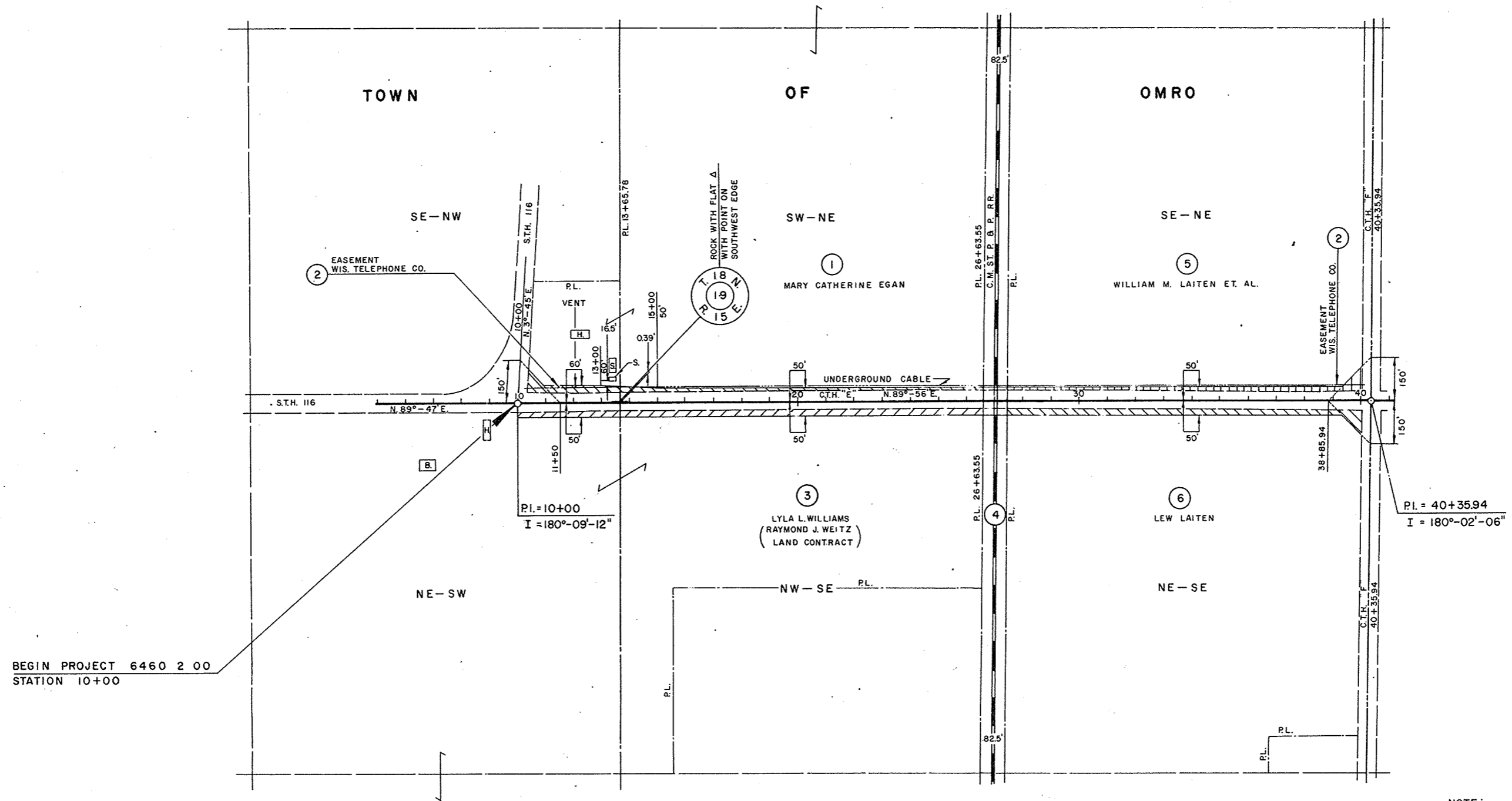
RIPRAP

CONTRACT NO.	LOCATION	CU. YD.
1	STA. 168 + 46 LEFT	1
1	STA. 447 + 73 LEFT	1



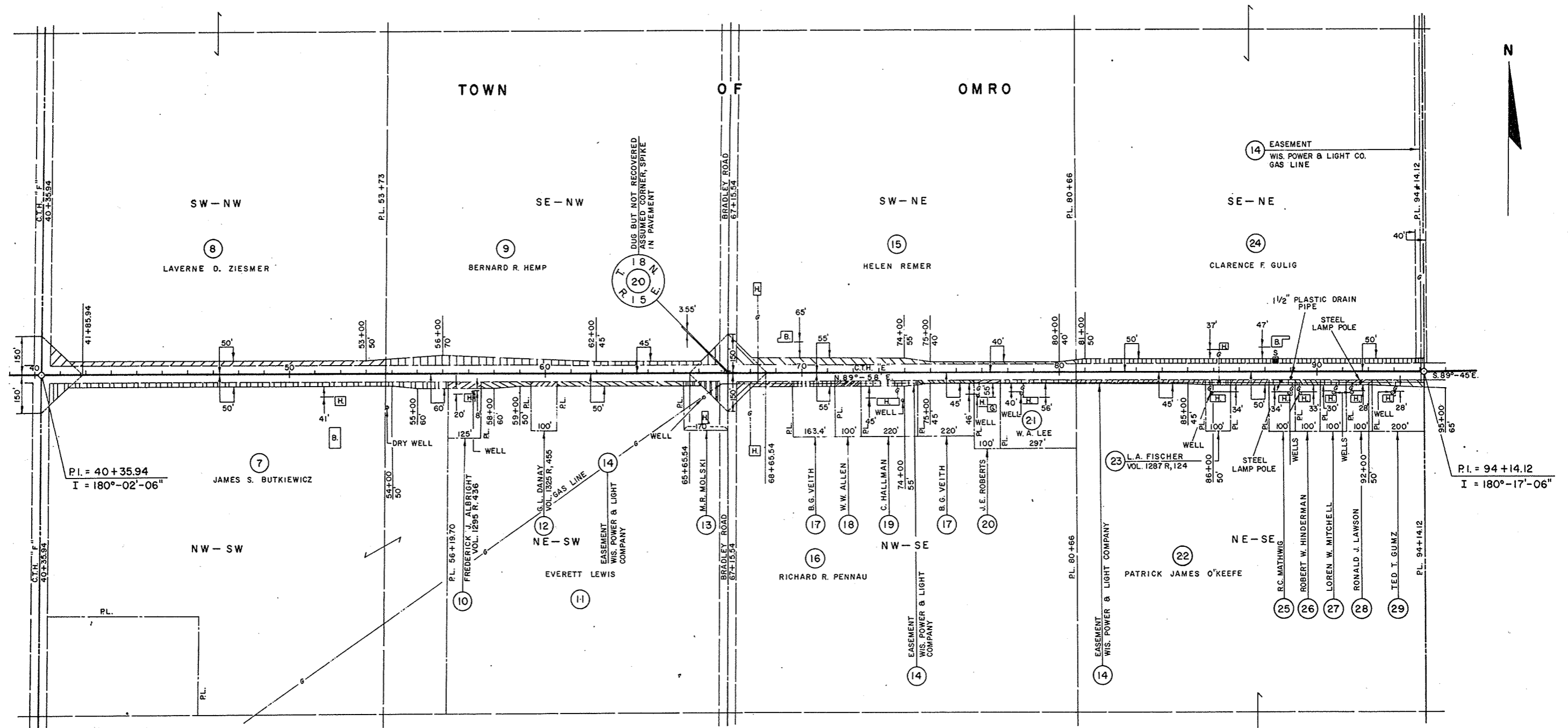
NOTE: FOR REVISED R/W PLAT SEE R/W DEPT.  
FOR EXACT LENGTH & LOCATION OF  
PIPES SEE FIELD BOOK # 12186

REVISION DATE	PROJECT I.D.	SHEET NUMBER	TOTAL SHEETS
4-28-72	6460 2 00	4.2	
	FEDERAL PROJECT DESIGNATION		
	PLAT OF RIGHT OF WAY REQUIRED C.T.H. "E"		
	SCALE		
	DATE 3-28-72		
CONST. PROJECT 6460-2-73 51260(3)		41-91	

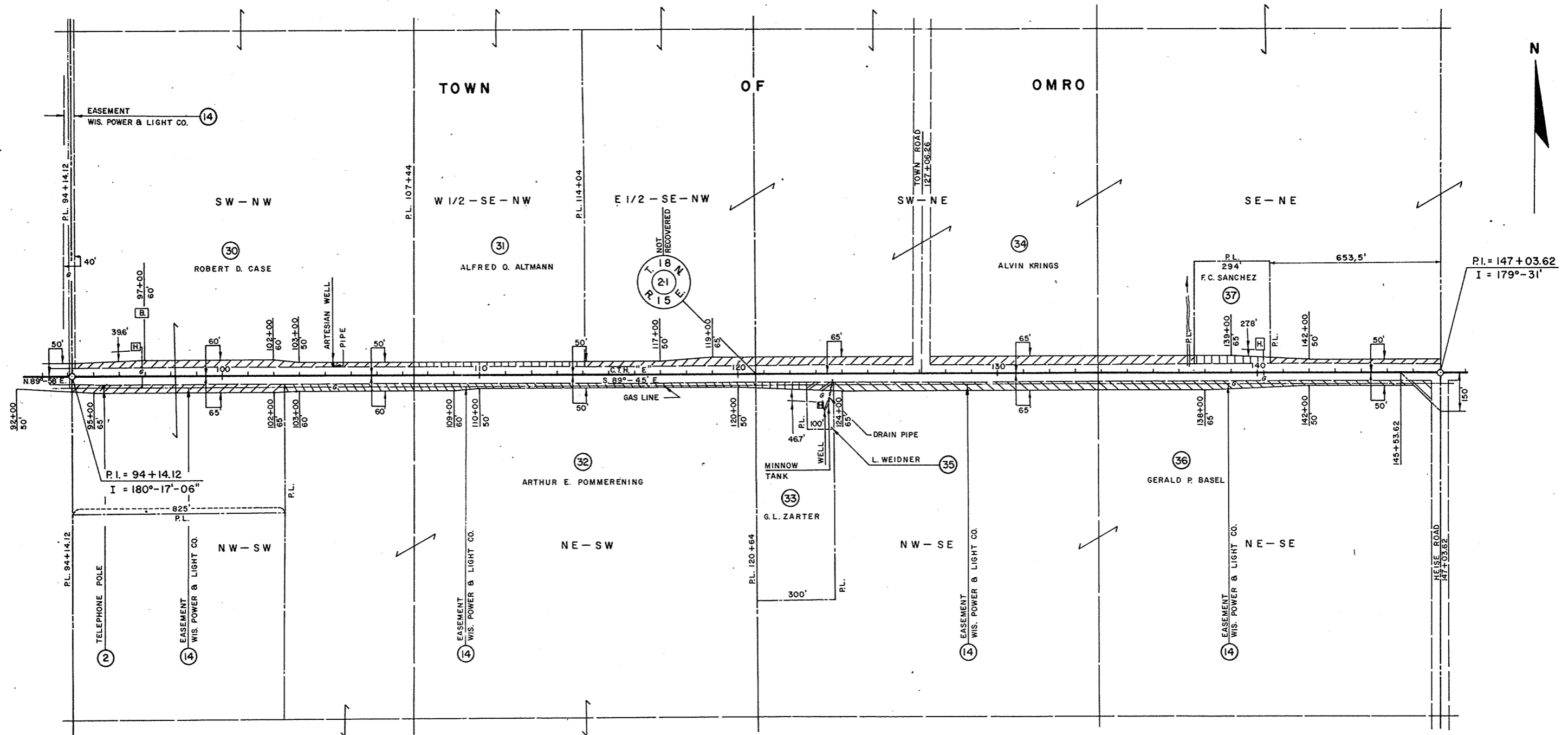


NOTE:  
BEARINGS SHOWN ON THIS PLAT ARE THE TRUE  
BEARINGS OF EACH TANGENT TO THE NEAREST MINUTE.

REVISION DATE	PROJECT I.D.	SHEET NUMBER	TOTAL SHEETS
4-28-72	6460 2 00	4.3	
FEDERAL PROJECT DESIGNATION			
PLAT OF RIGHT OF WAY REQUIRED			
C.T.H. "E"			
SCALE		400 FT.	
DATE		3-28-72	
CONST. PROJECT		6460-2-73 51260(3) 4.2-91	



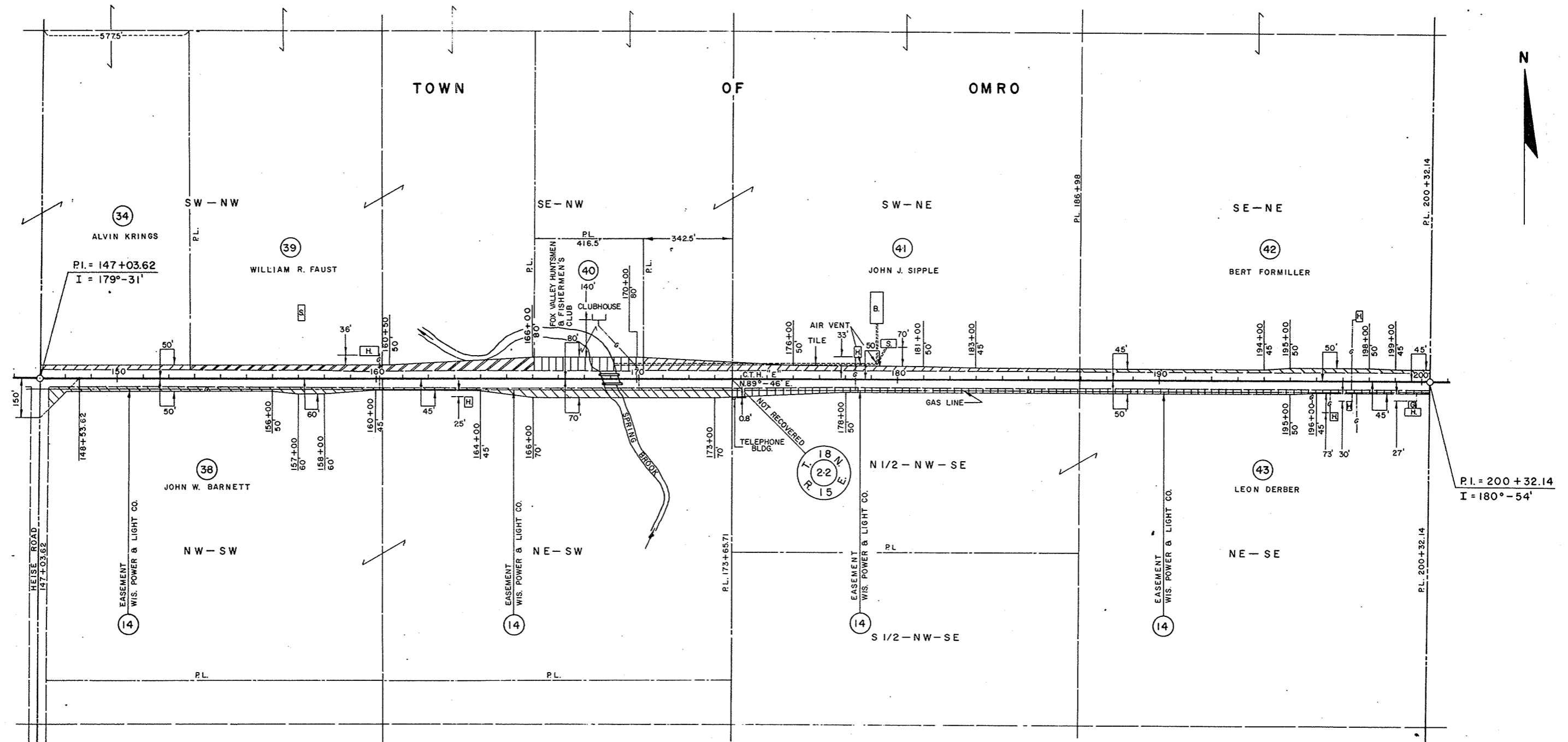
REVISION DATE	PROJECT I.D.	SHEET NUMBER	TOTAL SHEETS
4-28-72	6460 2 00		
	FEDERAL PROJECT DESIGNATION		4.4
PLAT OF RIGHT OF WAY REQUIRED C.T.H. "E" WINNEBAGO COUNTY			
SCALE 400 Ft.			
DATE 3-28-72			
CONST. PROJECT 6460-2-73 5 1260(3)			43-91



NOTE:  
BEARINGS SHOWN ON THIS PLAT ARE THE TRUE  
BEARINGS OF EACH TANGENT TO THE NEAREST MINUTE.



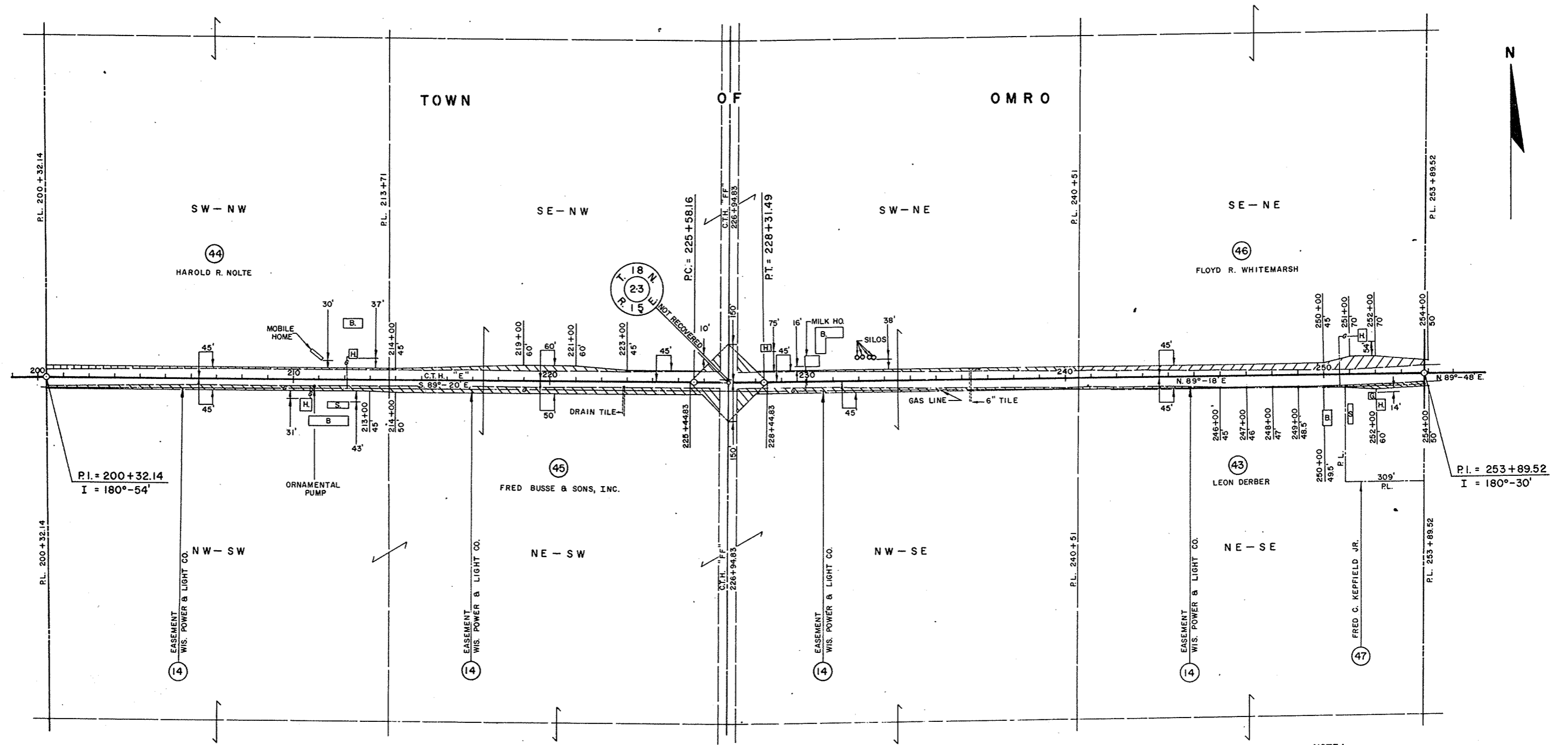
REVISION DATE	PROJECT 4.D.	SHEET NUMBER	TOTAL SHEETS
4-28-72	N.C.	6460 2 00	
	FEDERAL PROJECT DESIGNATION	4.5	
PLAT OF RIGHT OF WAY REQUIRED C.T.H. "E" WINNEBAGO COUNTY			
SCALE 400 Ft.			
DATE 3-28-72			
CONST. PROJECT 6460-2-73 51260(3)		4.9-91	



NOTE:  
BEARINGS SHOWN ON THIS PLAT ARE THE TRUE BEARINGS OF EACH TANGENT TO THE NEAREST MINUTE.

REVISION DATE	PROJECT I.D.	SHEET NUMBER	TOTAL SHEETS
4-28-72	6460 2 00		
	FEDERAL PROJECT DESIGNATION		4.6
PLAT OF RIGHT OF WAY REQUIRED C.T.H. "E" WINNEBAGO COUNTY			
SCALE 400 FT.			
DATE 3-28-72			
CONST. PROJECT 6460-2-73 5 1260(3)			4.5-91

P.I. = 226+94.83  
 I = 178°-38'  
 Δ = 1°-22'  
 D = 0°-30'  
 T = 136.67'  
 L = 273.33'  
 E = 0.82'  
 R = 11,459.16'



NOTE:  
 BEARINGS SHOWN ON THIS PLAT ARE THE TRUE  
 BEARINGS OF EACH TANGENT TO THE NEAREST MINUTE.

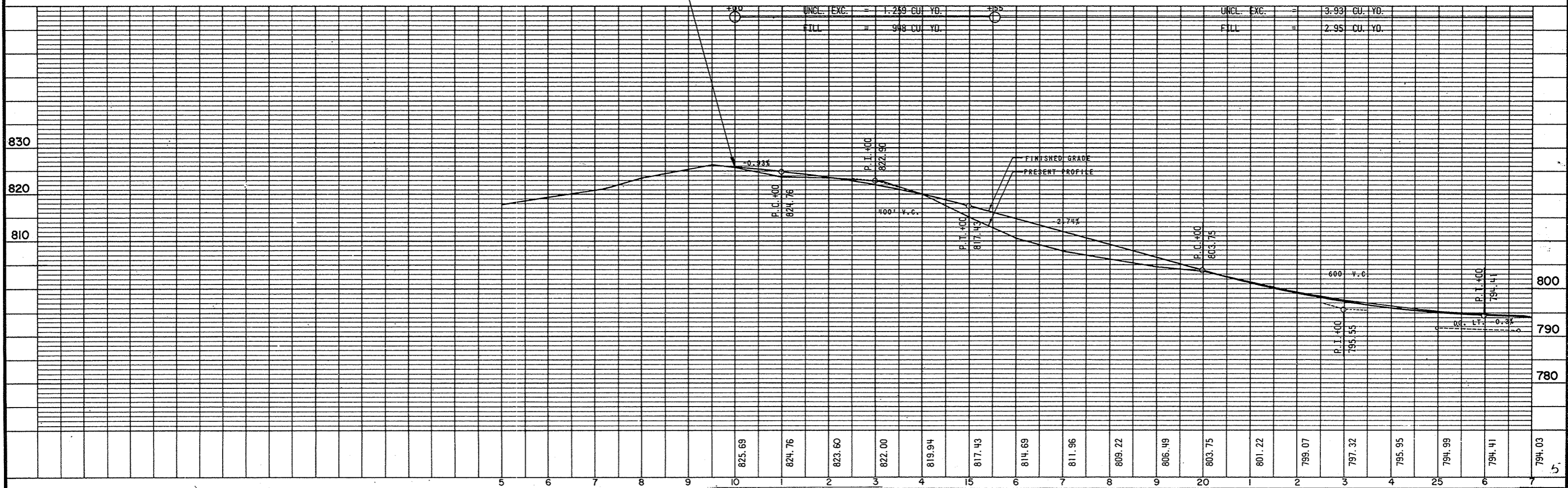
BENCH MARKS			
NO.	STATION	DESCRIPTION	ELEV.
11	13+58	SPIKE IN 18" HICKORY 55' RT.	821.09

PROJECT I.D. 6460-2- 72,73	SHEET NUMBER 5	TOTAL SHEETS 91
FEDERAL PROJECT DESIGNATION S 1260 (3)		

**22" x 13" x 50' C.M.P.A.  
REQUIRED**

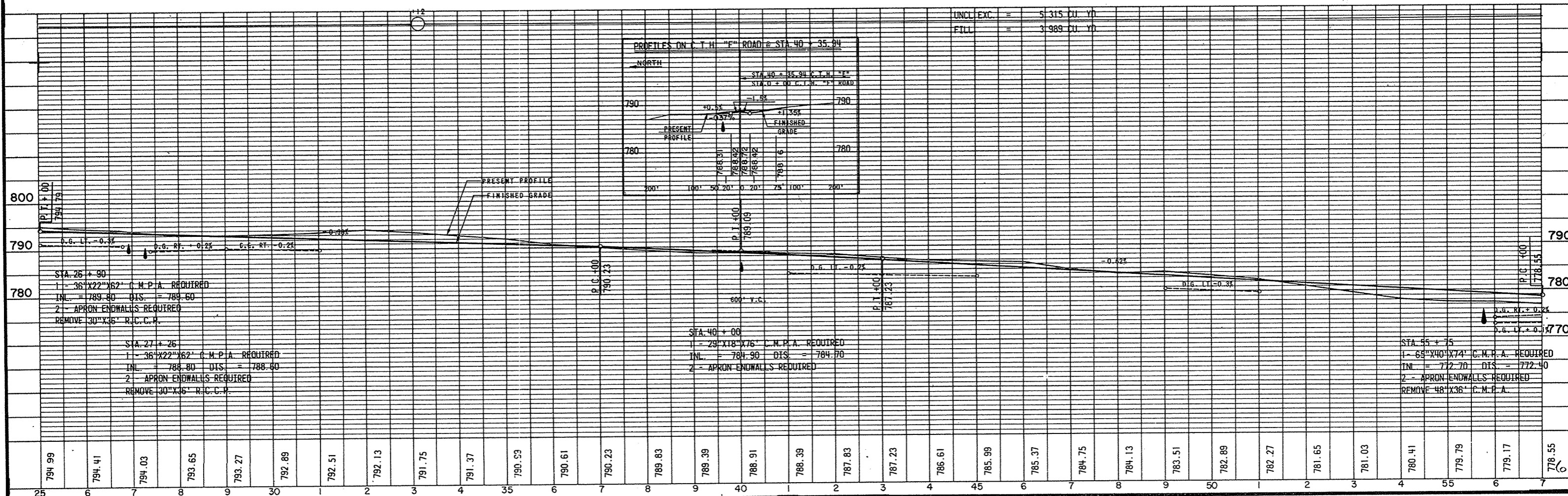
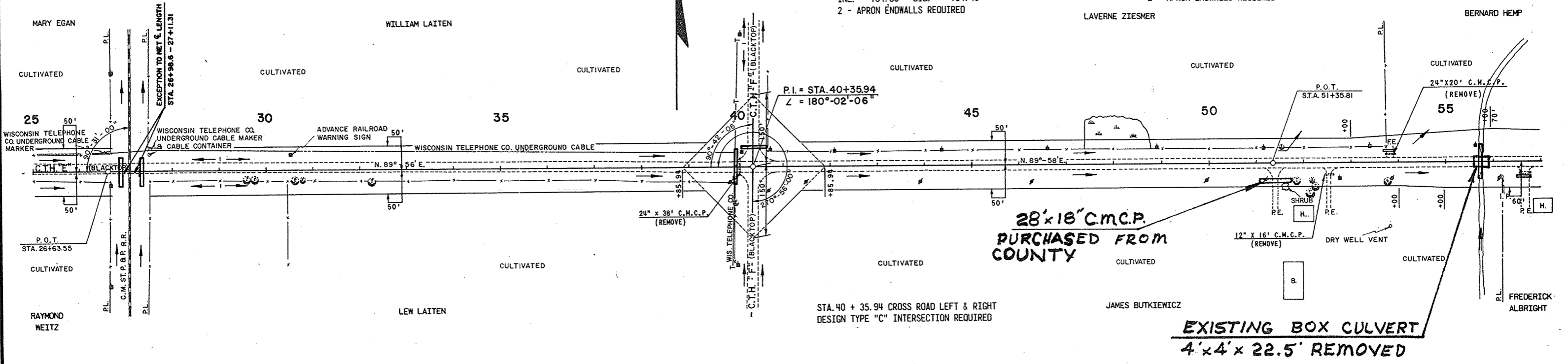
**38" x 18" C.M.C.P.  
REQUIRED**

BEGINNING OF PROJECT S 1260(3) / 6460-2- 72,73  
STA. 10+00



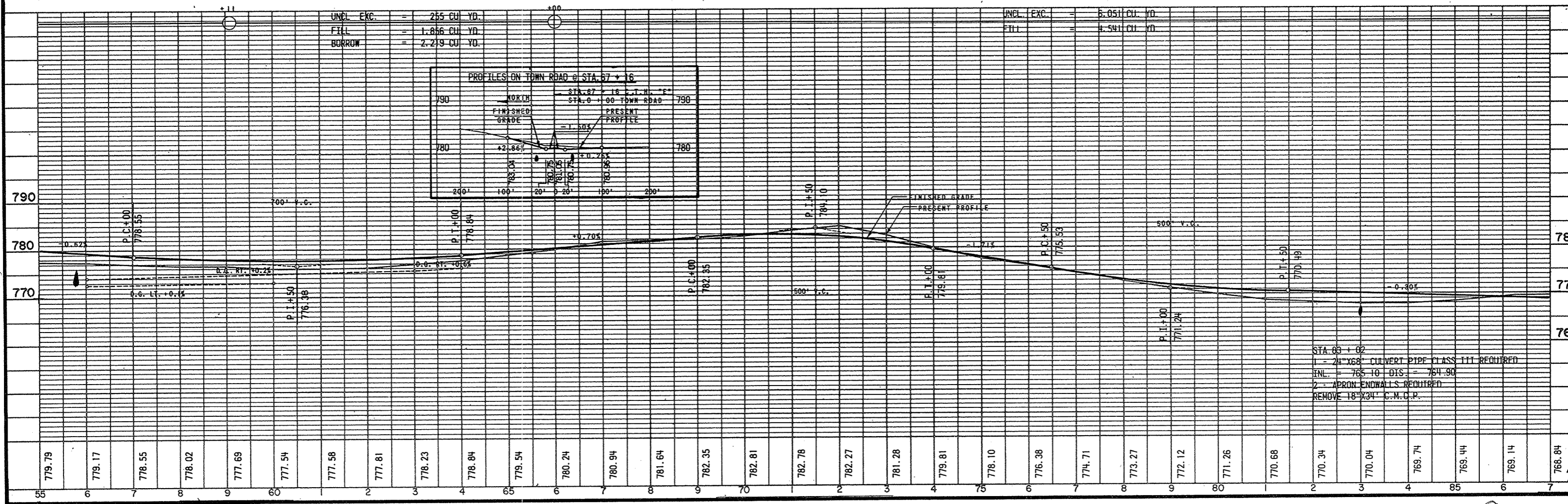
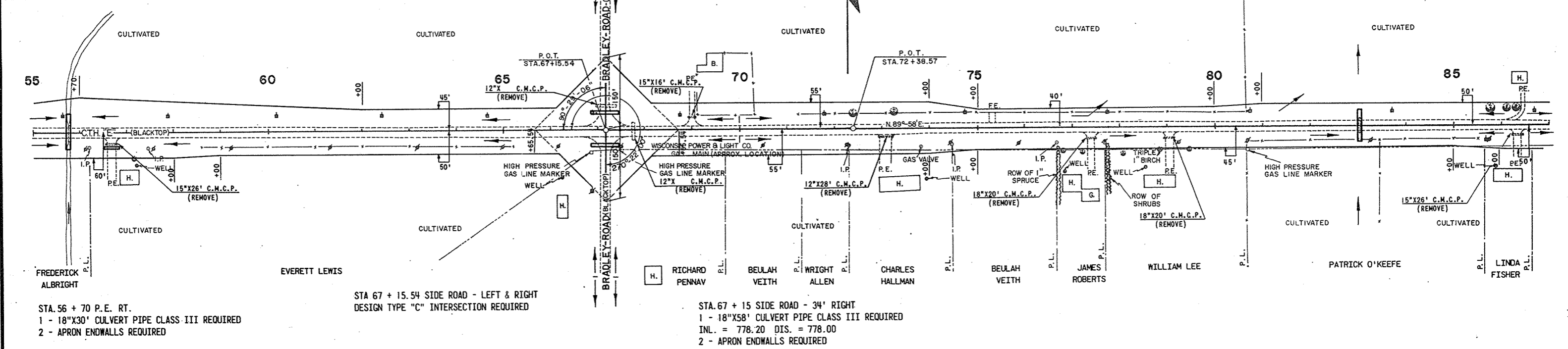
BENCH MARKS			
NO.	STATION	DESCRIPTION	ELEV.
12	27+55	SPIKE IN 14" HICKORY 90' LT.	792.57
13	39+96	SPIKE IN 14" HICKORY 215' RT.	789.52
14	53+85	SPIKE IN 28" BOX ELDER 45' RT.	778.11

PROJECT I.D. 6460-2- 72,73	SHEET NUMBER 6	TOTAL SHEETS 91
FEDERAL PROJECT DESIGNATION S 1260(3)		



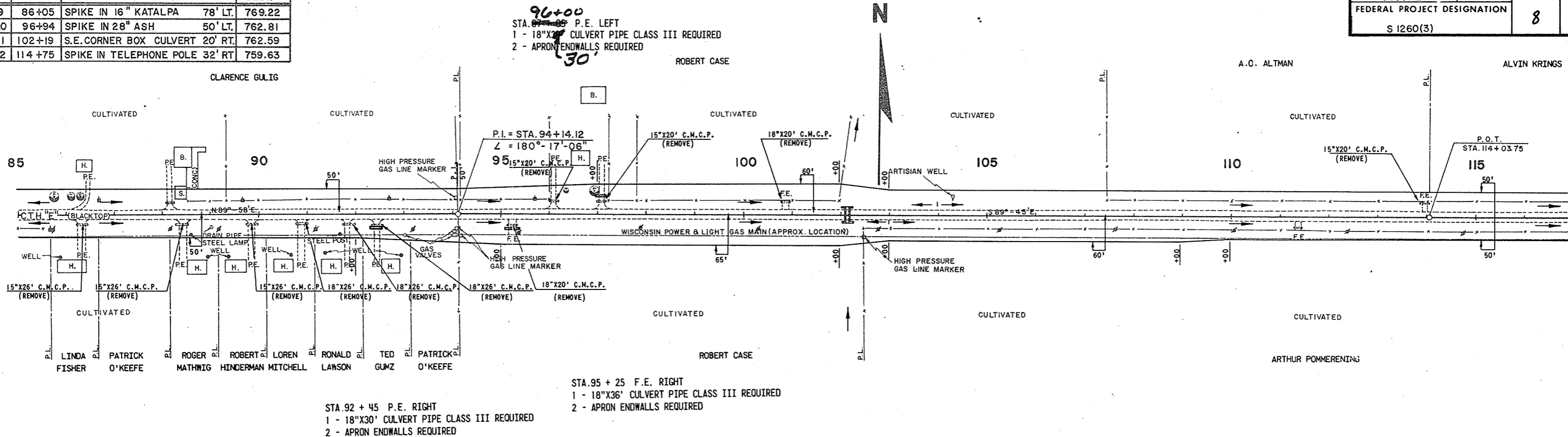
BENCH MARKS			
NO.	STATION	DESCRIPTION	ELEV.
15	59+20	SPIKE IN TELEPHONE POLE 35' RT.	776.50
16	68+58	SPIKE IN 12" ELM 145' LT.	781.75
17	73+30	SPIKE IN 18" HICKORY 36' LT.	782.41
18	78+68	N.E. CORNER OF BOTTOM STEP 100' RT.	774.84
19	86+05	SPIKE IN 16" KATALPA 78' LT.	769.22

PROJECT I.D. 6460-2- 72,73	SHEET NUMBER 7	TOTAL SHEETS 91
FEDERAL PROJECT DESIGNATION S1260(3)		



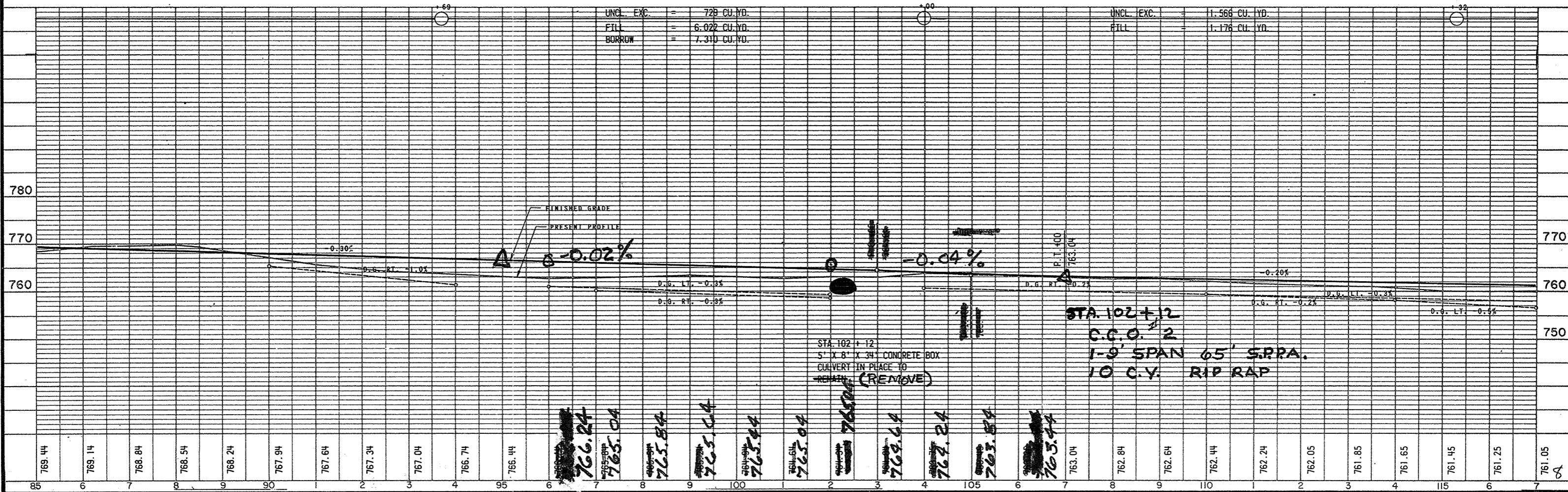
BENCH MARKS			
NO.	STATION	DESCRIPTION	ELEV.
19	86+05	SPIKE IN 16" KATALPA 78' LT.	769.22
20	96+94	SPIKE IN 28" ASH 50' LT.	762.81
21	102+19	S.E. CORNER BOX CULVERT 20' RT.	762.59
22	114+75	SPIKE IN TELEPHONE POLE 32' RT.	759.63

PROJECT I.D. 6460-2- 72,73	SHEET NUMBER 8	TOTAL SHEETS 91
FEDERAL PROJECT DESIGNATION S 1260(3)		



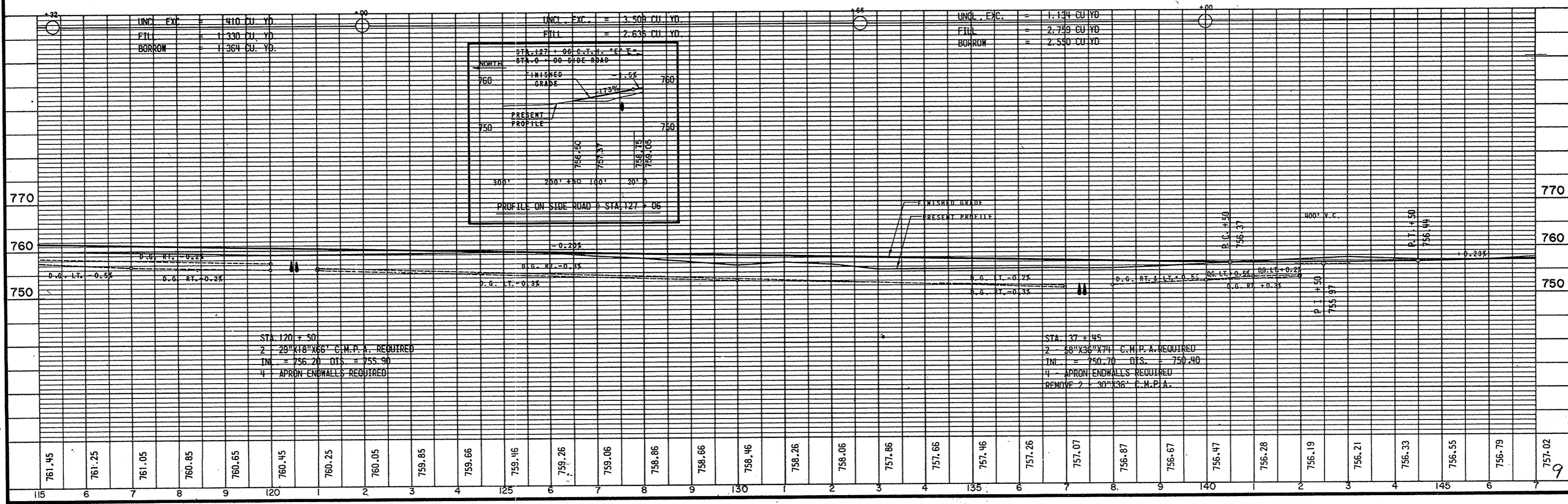
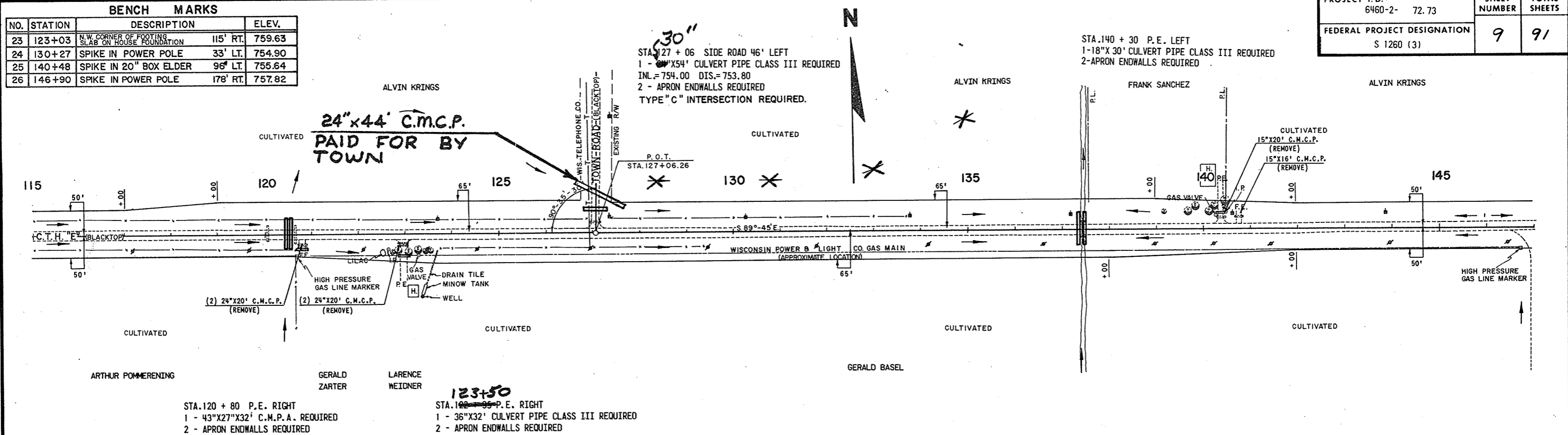
STA. 92 + 45 P.E. RIGHT  
 1 - 18"X30' CULVERT PIPE CLASS III REQUIRED  
 2 - APRON ENDWALLS REQUIRED

STA. 95 + 25 F.E. RIGHT  
 1 - 18"X36' CULVERT PIPE CLASS III REQUIRED  
 2 - APRON ENDWALLS REQUIRED



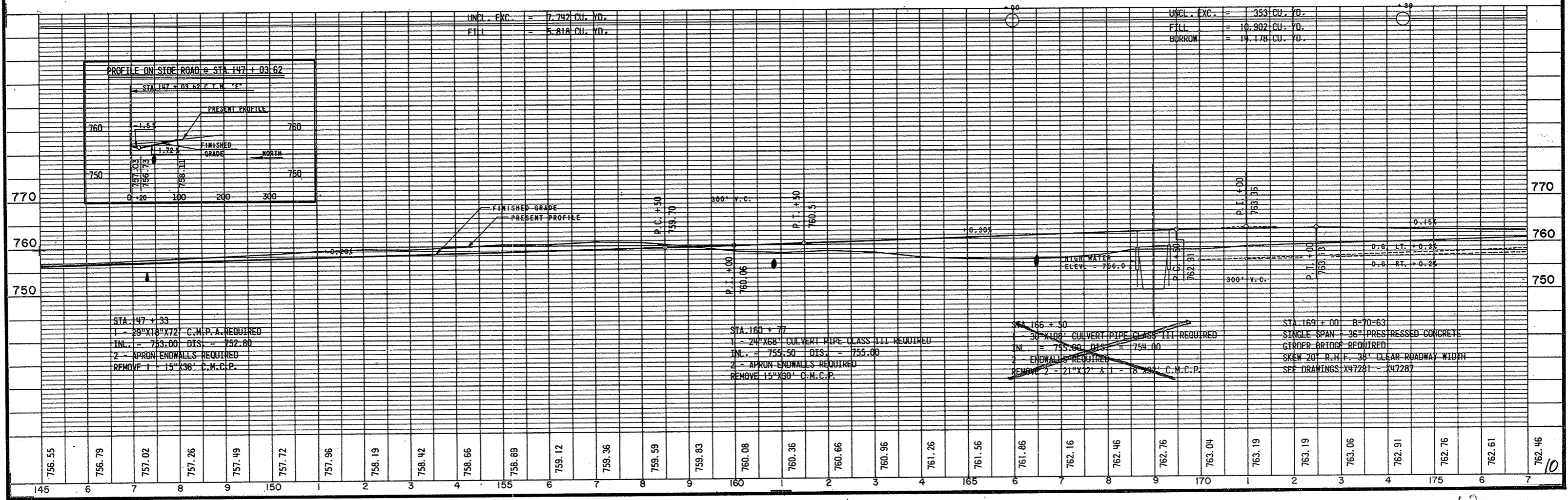
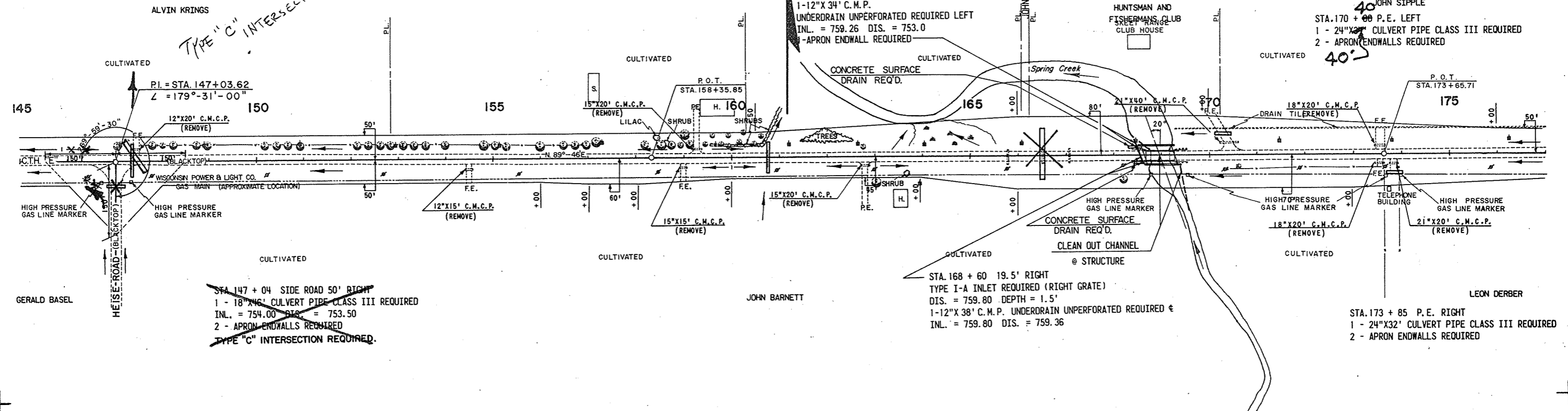
BENCH MARKS			
NO.	STATION	DESCRIPTION	ELEV.
23	123+03	N.W. CORNER OF FOOTING SLAB ON HOUSE FOUNDATION	115' RT. 759.63
24	130+27	SPIKE IN POWER POLE	33' LT. 754.90
25	140+48	SPIKE IN 20" BOX ELDER	96' LT. 755.64
26	146+90	SPIKE IN POWER POLE	178' RT. 757.82

PROJECT I.D. 6460-2- 72.73	SHEET NUMBER 9	TOTAL SHEETS 91
FEDERAL PROJECT DESIGNATION S 1260 (3)		



BENCH MARKS			
NO.	STATION	DESCRIPTION	ELEV.
26	146+90	SPIKE IN POWER POLE 178' RT.	757.82
27	159+04	SPIKE IN 22" MAPLE 50' LT.	759.23
28	167+60	SPIKE IN 24" OAK STUB 225' RT.	757.35

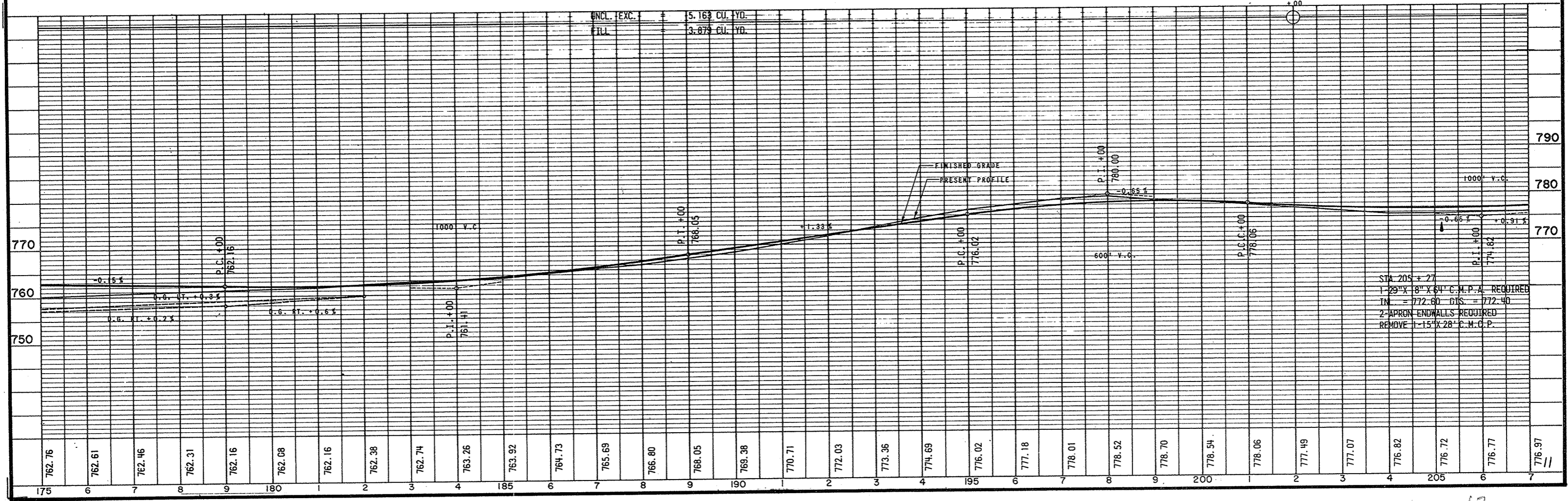
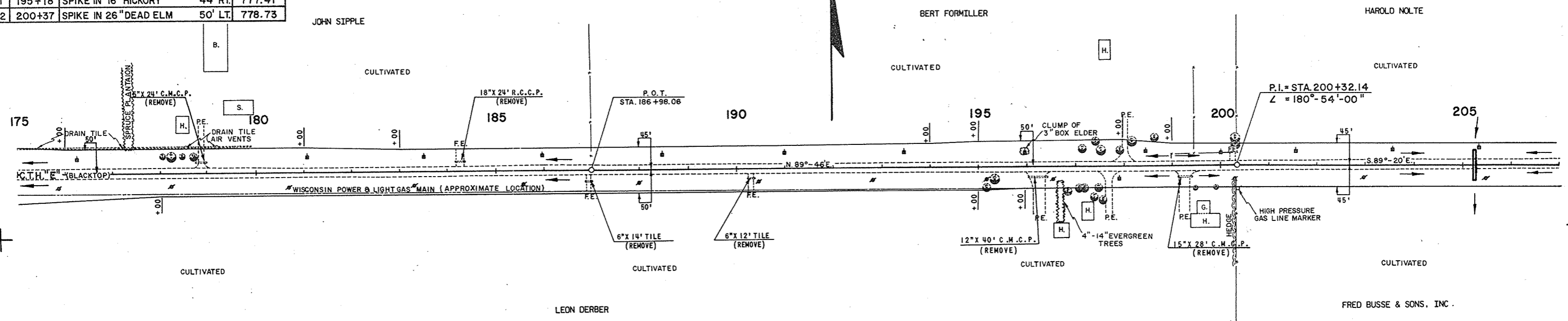
PROJECT I.D. 6460-2-71,72,73	SHEET NUMBER 10	TOTAL SHEETS 91
FEDERAL PROJECT DESIGNATION S 1260 (3)		





BENCH MARKS				
NO.	STATION	DESCRIPTION		ELEV.
29	178+12	SPIKE IN 28" BOX ELDER	72' LT.	761.26
30	186+95	SPIKE IN 32" COTTONWOOD	150' RT.	765.04
31	195+18	SPIKE IN 16" HICKORY	44' RT.	777.41
32	200+37	SPIKE IN 26" DEAD ELM	50' LT.	778.73

PROJECT I.D. 6460-2- 72,73	SHEET NUMBER 11	TOTAL SHEETS 91
FEDERAL PROJECT DESIGNATION S1260(3)		



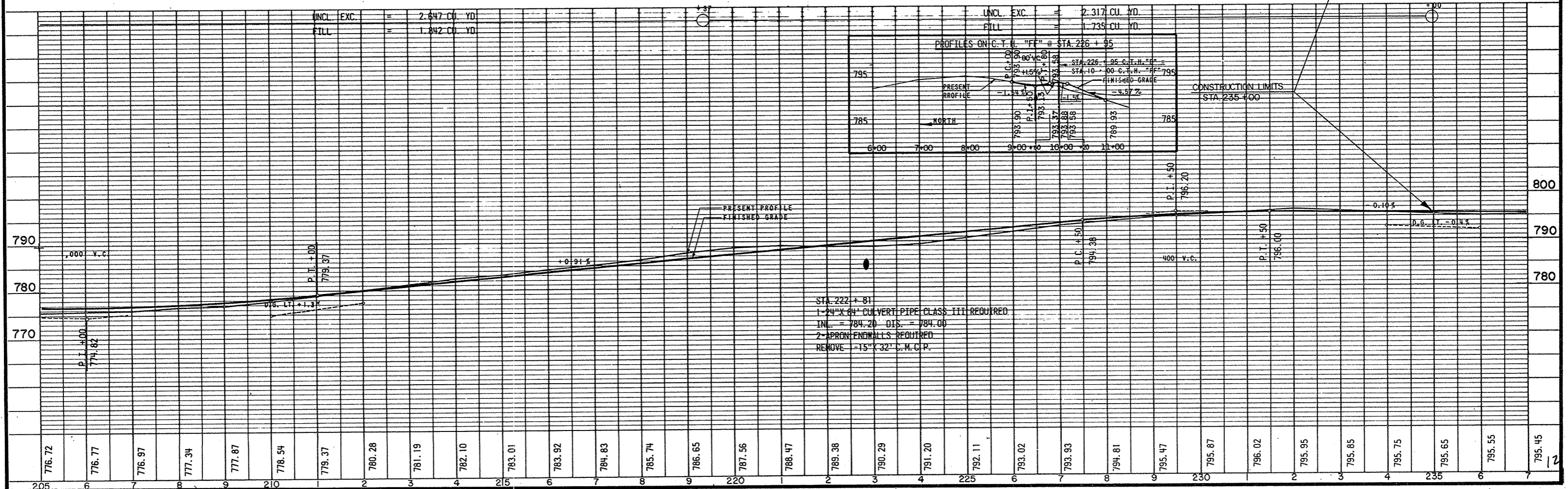
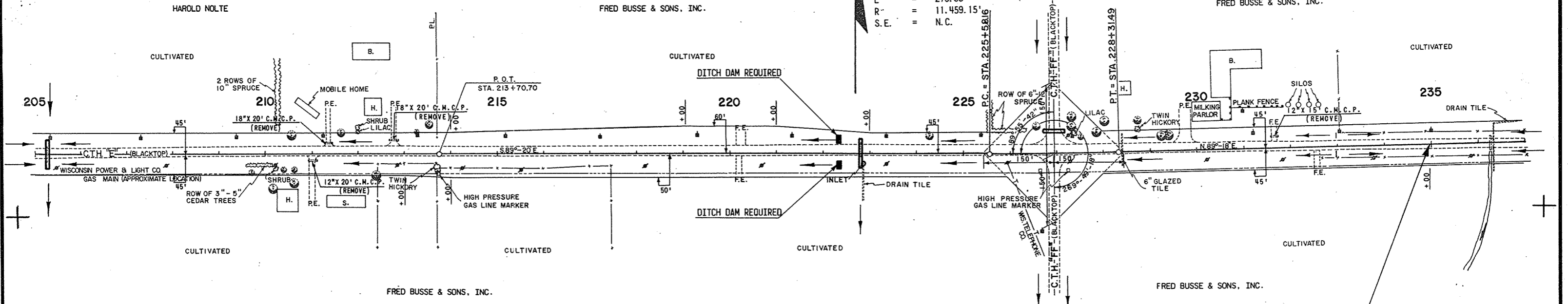
BENCH MARKS			
NO.	STATION	DESCRIPTION	ELEV.
33	210+35	SPIKE IN 12" BALSM	75' LT. 776.27
34	221+34	SPIKE IN POWER POLE	38' LT. 789.33
35	229+18	SPIKE IN 16" SPRUCE	86' LT. 796.13

**CURVE NOTES**

P. I. = 226 + 94.83  
 L = 178 - 38' - 00"  
 A = 1 - 22' - 00"  
 D = 0 - 30'  
 T = 136.67'  
 L = 273.33'  
 R = 11,459.15'  
 S. E. = N. C.

STA. 226 + 96 SIDE ROAD - 50' LEFT  
 1-22" X 13" X 38' C.M.P. A. REQUIRED  
 INL. = 790.00 DIS. = 789.50  
 2-APRON ENDWALLS REQUIRED  
 TYPE "C" INTERSECTION REQUIRED, LEFT & RIGHT.

PROJECT I. D. 6460-2- 72,73	SHEET NUMBER 12	TOTAL SHEETS 91
FEDERAL PROJECT DESIGNATION S 1260 (3)		



PROJECT I.D. 6460-2- 72,73	SHEET NUMBER <b>13</b>	TOTAL SHEETS <b>91</b>
FEDERAL PROJECT DESIGNATION S 1260(3)		

BENCH MARKS			
NO.	STATION	DESCRIPTION	ELEV.
56	419+45	SPIKE IN 12" HICKORY	60' LT. 785.70
57	428+70	SPIKE IN 26" OAK	50' LT. 777.05
58	435+95	SPIKE IN POWER POLE	28' LT. 771.64

STA. 424 + 71 SIDE ROAD 40' LEFT  
1-24"X 36' CULVERT PIPE CLASS III REQUIRED  
INL. = 776.4 DIS. = 776.1  
2-APRON ENDWALLS REQUIRED  
REMOVE 18"X 44' C.M.C.P.  
TYPE "C" INTERSECTION REQUIRED

STA. 425 + 67 P.E. LEFT  
1-24"X 36' CULVERT PIPE CLASS III REQUIRED  
2-APRON ENDWALLS REQUIRED  
REMOVE 18"X 20' C.M.C.P.

STA. 426 + 85 P.E. LEFT  
1-24"X 36' CULVERT PIPE CLASS III REQUIRED  
2-APRON ENDWALLS REQUIRED  
REMOVE 18"X 18' C.M.C.P.

STA. 430 + 15 P.E. LEFT  
1-24"X 30' CULVERT PIPE CLASS III REQUIRED  
2-APRON ENDWALLS REQUIRED  
REMOVE 15"X 24' C.M.C.P.

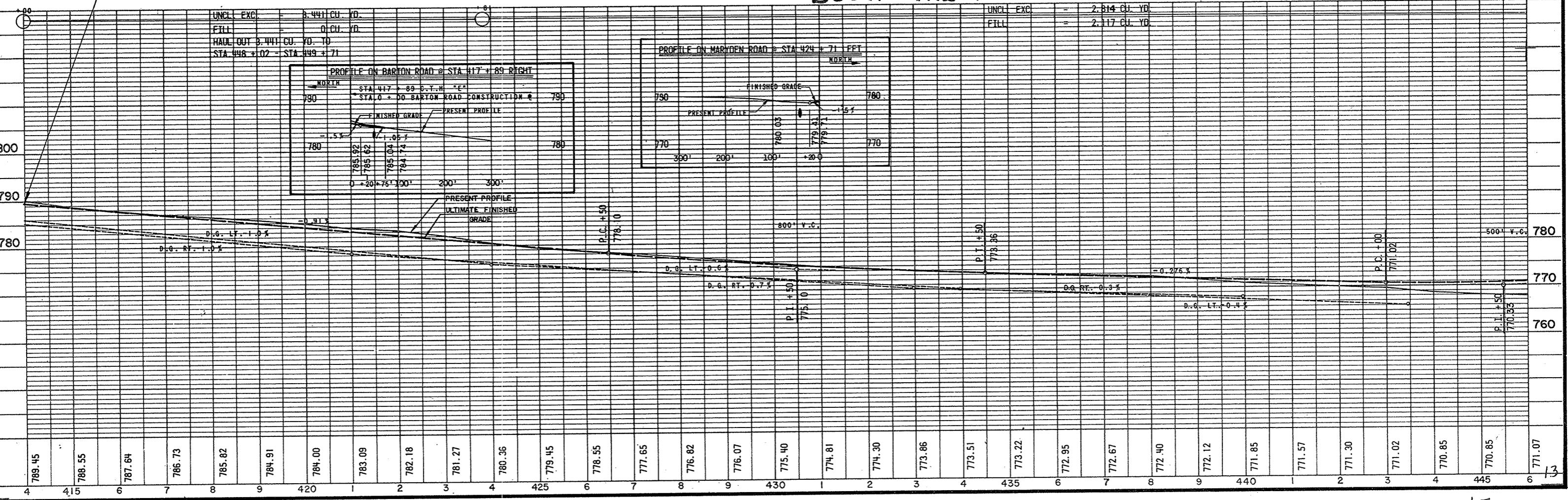
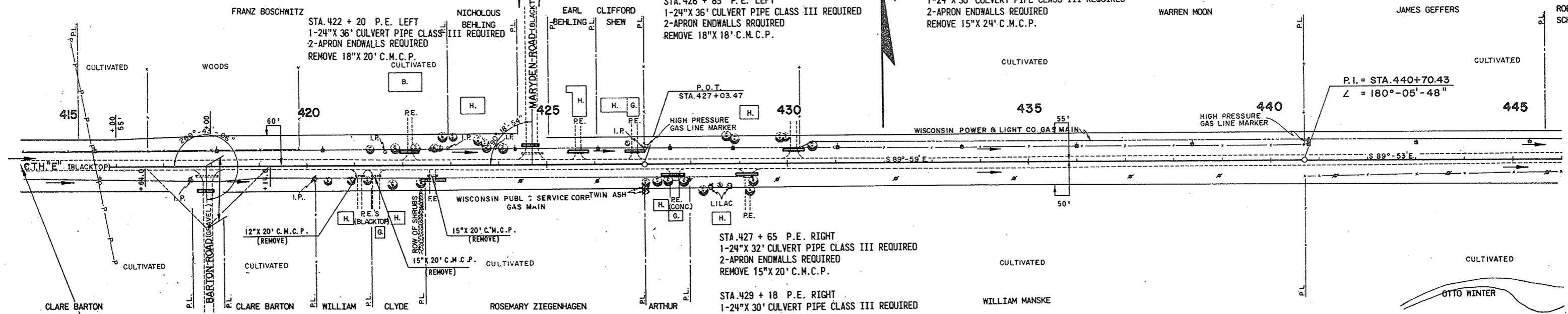
STA. 427 + 65 P.E. RIGHT  
1-24"X 32' CULVERT PIPE CLASS III REQUIRED  
2-APRON ENDWALLS REQUIRED  
REMOVE 15"X 20' C.M.C.P.

STA. 429 + 18 P.E. RIGHT  
1-24"X 30' CULVERT PIPE CLASS III REQUIRED  
2-APRON ENDWALLS REQUIRED  
REMOVE 15"X 20' C.M.C.P.

STA. 417 + 89 SIDE ROAD - 50' RIGHT  
1-18"X 36' CULVERT PIPE CLASS III REQUIRED  
INL. = 782.8 DIS. = 782.5  
2-APRON ENDWALLS REQUIRED  
REMOVE 15"X 46' C.M.C.P.  
TYPE "C" INTERSECTION REQUIRED.

STA. 422 + 60 F.E. RIGHT  
1-18"X 30' CULVERT PIPE CLASS III REQUIRED  
2-APRON ENDWALLS REQUIRED

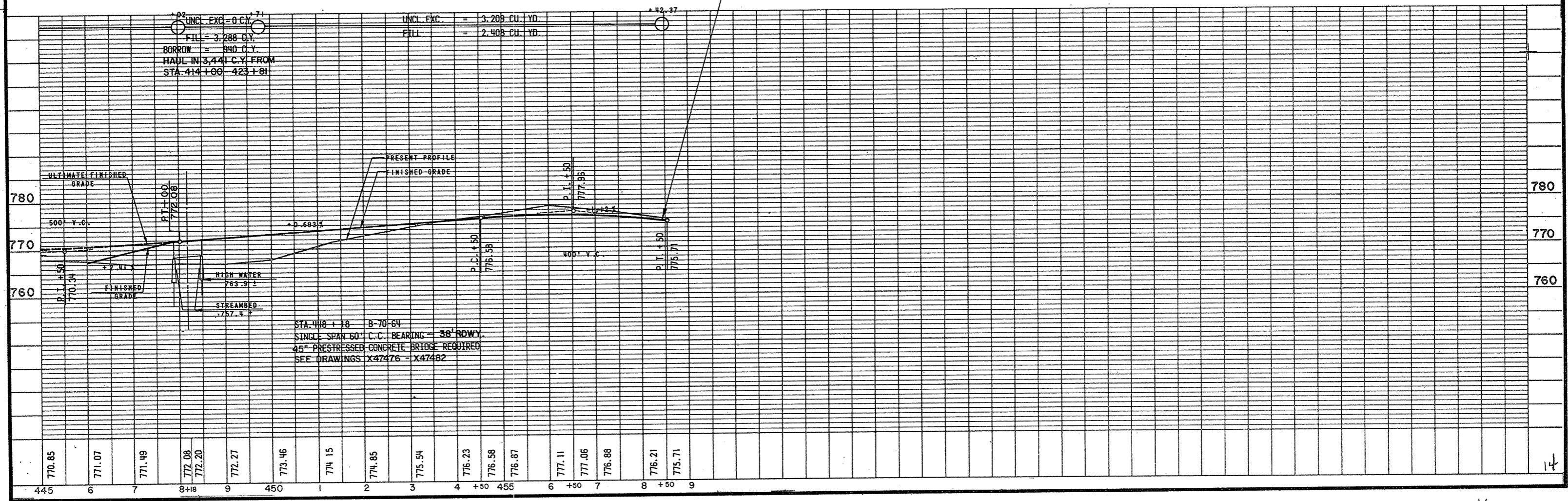
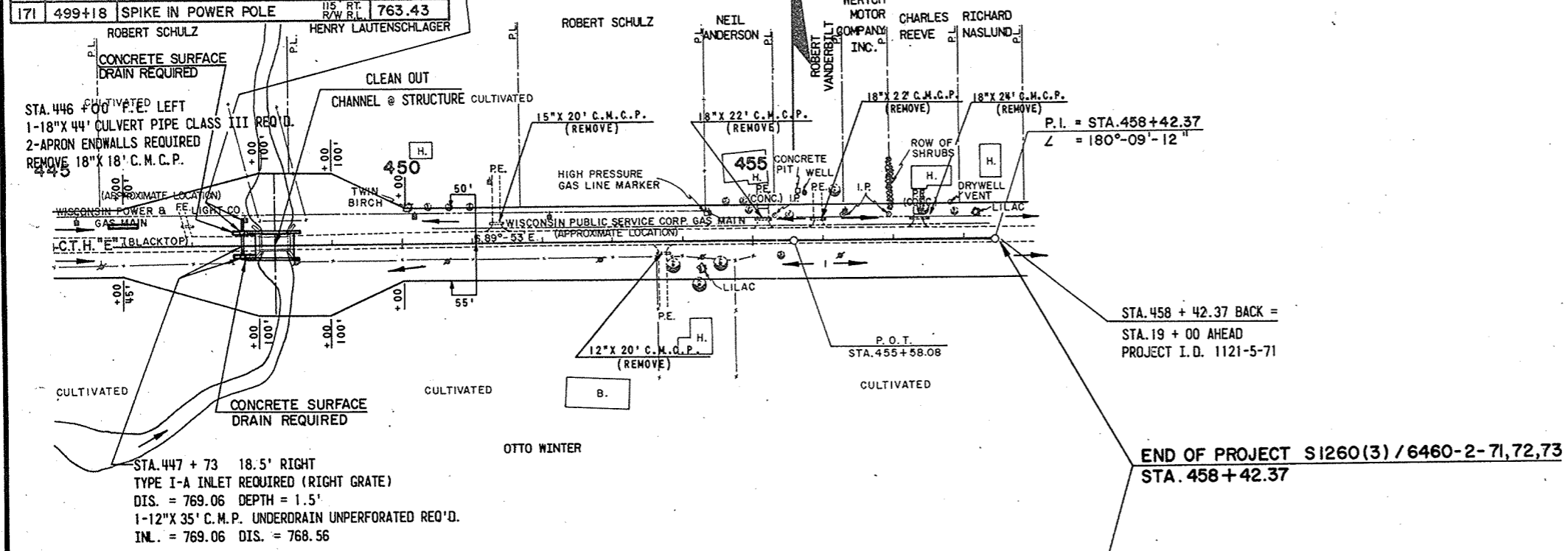
**FOR LENGTHS & LOCATION OF  
PIPE IN THIS AREA (TO BRIDGE)  
SEE PROJECT S1260(S)  
BOOK # 12247**



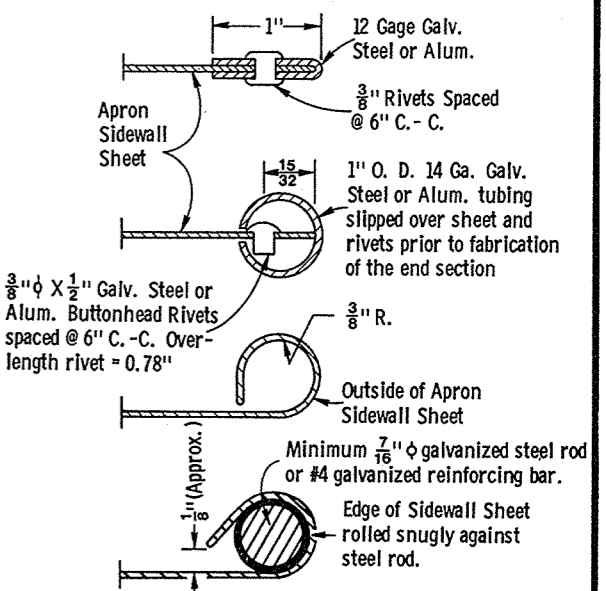
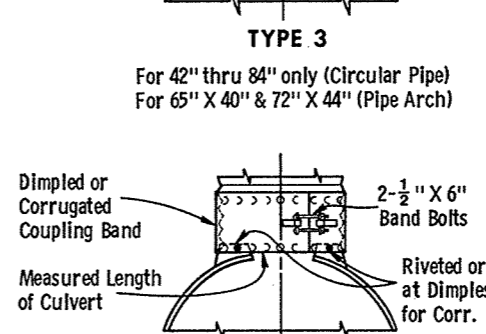
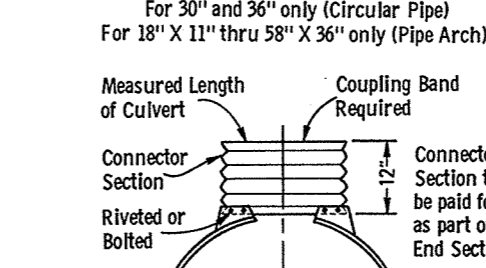
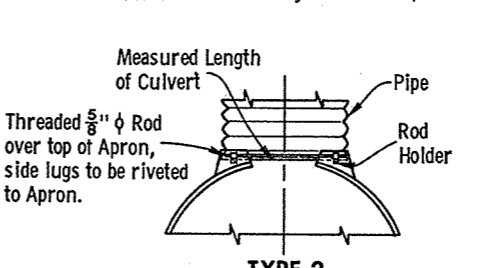
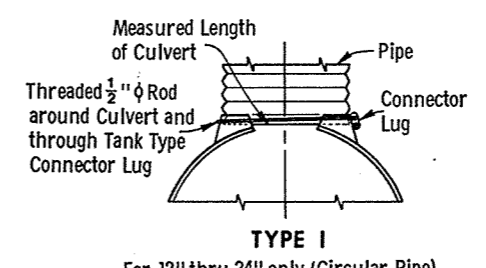
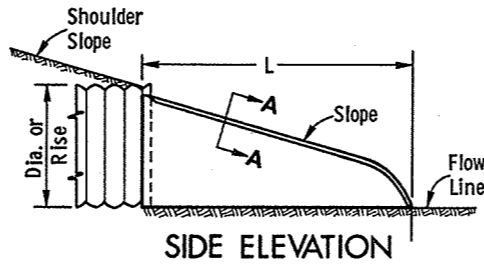
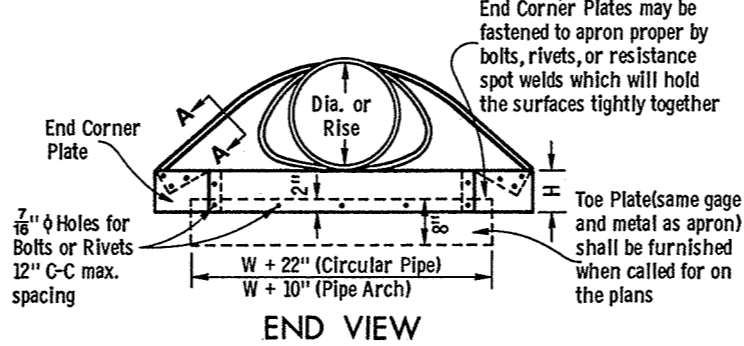
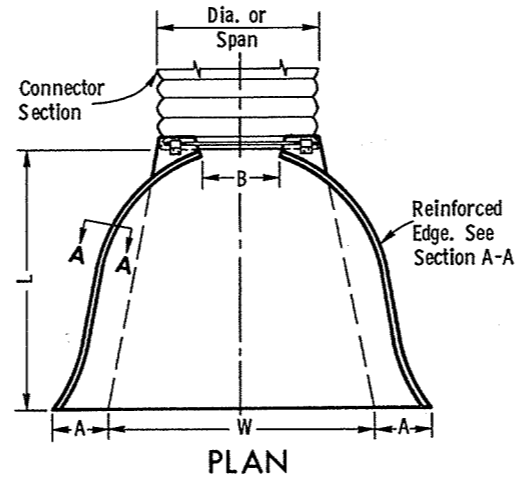
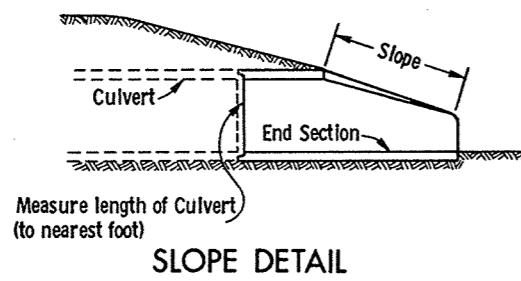
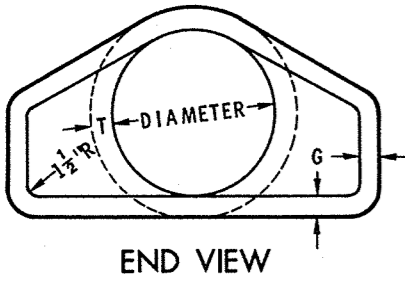
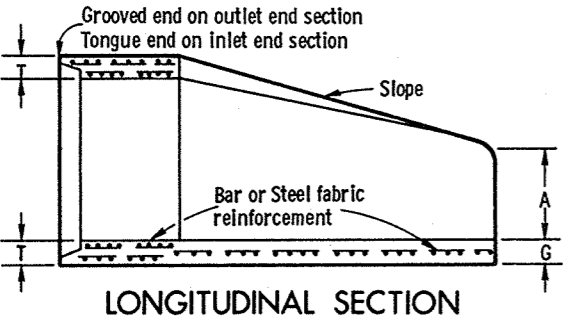
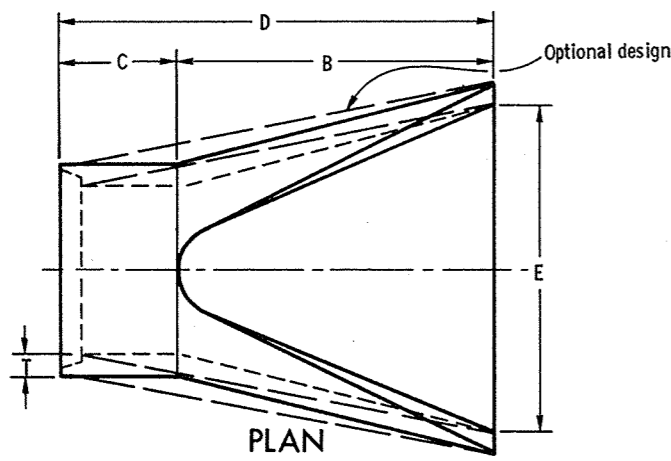
PROJECT I.D. 6460-2-71,72,73	SHEET NUMBER 14	TOTAL SHEETS 91
FEDERAL PROJECT DESIGNATION S 1260(3)		

BENCH MARKS			
NO.	STATION	DESCRIPTION	ELEV.
59	448+40	PT. MK. TOP N.E. WINGWALL	20' LT. 767.20
60	454+22	SPIKE IN 14" OAK	45' RT. 779.17
61	457+58	S.E. CORNER OF ENTRY SLAB OF HOUSE (FRONT DOOR)	82' LT. 779.58
171	499+18	SPIKE IN POWER POLE	1/2 RT. 763.43

STA. 447 + 73 18.5' LEFT  
 TYPE I-A INLET REQUIRED (LEFT GRATE)  
 INL. = 768.56 DIS. = 768.56 DEPTH = 2.0'  
 1-12"X 41' C.M.P. UNDERDRAIN UNPERFORATED REQ'D LT.  
 INL. = 768.56 DIS. = 760.50  
 1-APRON ENDWALL REQUIRED



STA. 448 + 18 B-70-64  
 SINGLE SPAN 60' C.C. BEARING - 38' ROWY.  
 45" PRESTRESSED CONCRETE BRIDGE REQUIRED  
 SEE DRAWINGS X47476 - X47482



SECTION A-A

GENERAL NOTES

Details of construction, materials, and workmanship not shown on this drawing shall conform to the pertinent requirements of the Standard Specifications and the applicable Special Provisions.

Variations of the dimensions and designs shown hereon will be permitted providing equivalent capacity and structural integrity are attained, and prior approval of the Engineer is obtained.

Concrete culvert endwalls may not be used with metal or aluminum culvert pipe, nor may metal or aluminum culvert endwalls be used with concrete culvert pipe.

When two or more pipes or pipe arches with apron endwalls are to be laid adjacent to each other, they shall be separated by the following amount:

Pipes: Total width of apron endwall less the diameter of pipe plus 6 inches.

Pipe Arches: Total width of apron endwall less the span dimension of the pipe arch plus 6 inches.

DIA.	APPROX. WEIGHT/SECTION	APPROX. SLOPE	T	A	B	C	D	E	G
12"	530	3 to 1	2"	4"	24"	48 <sup>7</sup> / <sub>8</sub> "	72 <sup>7</sup> / <sub>8</sub> "	24"	2"
15"	740	3 to 1	2 <sup>1</sup> / <sub>4</sub> "	6"	27"	46"	73"	30"	2 <sup>1</sup> / <sub>4</sub> "
18"	990	3 to 1	2 <sup>1</sup> / <sub>2</sub> "	9"	27"	46"	73"	36"	2 <sup>1</sup> / <sub>2</sub> "
21"	1,280	3 to 1	2 <sup>3</sup> / <sub>4</sub> "	9"	36"	37 <sup>1</sup> / <sub>2</sub> "	73 <sup>1</sup> / <sub>2</sub> "	42"	2 <sup>3</sup> / <sub>4</sub> "
24"	1,520	3 to 1	3"	9 <sup>1</sup> / <sub>2</sub> "	43 <sup>1</sup> / <sub>2</sub> "	30"	73 <sup>1</sup> / <sub>2</sub> "	48"	3"
27"	1,930	3 to 1	3 <sup>1</sup> / <sub>4</sub> "	10 <sup>1</sup> / <sub>2</sub> "	49 <sup>1</sup> / <sub>2</sub> "	24"	73 <sup>1</sup> / <sub>2</sub> "	54"	3 <sup>1</sup> / <sub>4</sub> "
30"	2,190	3 to 1	3 <sup>1</sup> / <sub>2</sub> "	12"	54"	19 <sup>3</sup> / <sub>4</sub> "	73 <sup>3</sup> / <sub>4</sub> "	60"	3 <sup>1</sup> / <sub>2</sub> "
36"	4,100	3 to 1	4"	15"	63"	34 <sup>3</sup> / <sub>4</sub> "	97 <sup>3</sup> / <sub>4</sub> "	72"	4"
42"	5,380	3 to 1	4 <sup>1</sup> / <sub>2</sub> "	21"	63"	35"	98"	78"	4 <sup>1</sup> / <sub>2</sub> "
48"	6,550	3 to 1	5"	24"	72"	26"	98"	84"	5"
54"	8,040	2 <sup>3</sup> / <sub>4</sub> to 1	5 <sup>1</sup> / <sub>2</sub> "	27"	65"	33 <sup>1</sup> / <sub>4</sub> " - 35"	98 <sup>1</sup> / <sub>4</sub> " - 100"	90"	5"
60"	8,730	2 to 1	6"	30"	60"	39"	99"	96"	5"
66"	10,630	2 to 1	6 <sup>1</sup> / <sub>2</sub> "	30"	60"	39"	99"	102"	5 <sup>1</sup> / <sub>2</sub> "
72"	12,520	2 to 1	7"	36"	78"	21"	99"	108"	6"
78"	14,430	2 to 1	7 <sup>1</sup> / <sub>2</sub> "	36"	78"	21"	99"	114"	6 <sup>1</sup> / <sub>2</sub> "
84"	18,160	1 <sup>1</sup> / <sub>2</sub> to 1	8"	36"	90 <sup>1</sup> / <sub>2</sub> "	21"	111 <sup>1</sup> / <sub>2</sub> "	120"	6 <sup>1</sup> / <sub>2</sub> "

\*\* Minimum  
\* Maximum  
REINFORCED CONCRETE APRON ENDWALLS

D PIPE DIAM.	MIN. METAL GAGE	MIN. ALUM. GAGE	DIMENSIONS					APPROX. SLOPE
			A ± 1"	B MAX.	H ± 1"	L ± 1 <sup>1</sup> / <sub>2</sub> "	W ± 2"	
12"	16	16	6"	6"	6"	21"	24"	2 <sup>1</sup> / <sub>2</sub> to 1
15"	16	16	7"	8"	6"	26"	30"	"
18"	16	16	8"	10"	6"	31"	36"	"
21"	16	16	9"	12"	6"	36"	42"	"
24"	16	14	10"	13"	6"	41"	48"	"
30"	14	14	12"	16"	8"	51"	60"	"
36"	14	12	14"	19"	9"	60"	72"	"
42"	12	12	16"	22"	11"	69"	84"	"
48"	12	12	18"	27"	12"	78"	90"	2 <sup>1</sup> / <sub>4</sub> to 1
54"	12	12	18"	30"	12"	84"	102"	2 to 1
60"	10	8	18"	33"	12"	87"	114"	1 <sup>3</sup> / <sub>4</sub> to 1
66"	10	8	18"	36"	12"	87"	120"	1 <sup>1</sup> / <sub>2</sub> to 1
72"	10	8	18"	39"	12"	87"	126"	1 <sup>1</sup> / <sub>3</sub> to 1
78"	8	NA	18"	42"	12"	87"	132"	1 <sup>1</sup> / <sub>4</sub> to 1
84"	8	NA	18"	45"	12"	87"	138"	1 <sup>1</sup> / <sub>6</sub> to 1

NOTE: All splices to be lap riveted or bolted

METAL OR ALUMINUM APRON ENDWALLS FOR CIRCULAR PIPES

PIPE - ARCH DIMENSIONS	GAGE MIN.	DIMENSIONS					APPROX. SLOPE
		A ± 1"	B MAX.	H ± 1"	L ± 1 <sup>1</sup> / <sub>2</sub> "	W ± 2"	
18" x 11"	16	7"	9"	6"	19"	30"	2 <sup>1</sup> / <sub>2</sub> to 1
22" x 13"	16	7"	10"	6"	23"	36"	"
25" x 16"	16	8"	12"	6"	28"	42"	"
29" x 18"	16	9"	14"	6"	32"	48"	"
36" x 22"	14	10"	16"	6"	39"	60"	"
43" x 27"	14	12"	18"	8"	46"	75"	"
50" x 31"	12	13"	21"	9"	53"	85"	"
58" x 36"	12	18"	26"	12"	63"	90"	"
65" x 40"	12	18"	30"	12"	70"	102"	2 <sup>1</sup> / <sub>4</sub> to 1
72" x 44"	12	18"	33"	12"	77"	114"	"

NOTE: All splices to be lap riveted or bolted

METAL APRON ENDWALLS FOR PIPE ARCHES

TYPE 5 Alternate for All sizes Corrugated Circular Pipe and Pipe Arch

NOTE: Dimpled Band fits over Outside of Endwall, and Corr. Band fits Inside Endwall. Dimpled Band may be used with Helically Corrugated Pipe

CONNECTION DETAILS

**CIRCULAR PIPE**  
For Circumferentially Corrugated Pipe use Endwall Connection Details 1, 2, 3, or 5 as applicable.  
For Helically Corrugated Pipe use Endwall Connection Details 1, 2 or 5.  
For Helically Corrugated Pipes with two Circumferential Corrugations at each end use Endwall Connection Details 1, 2, or 3.

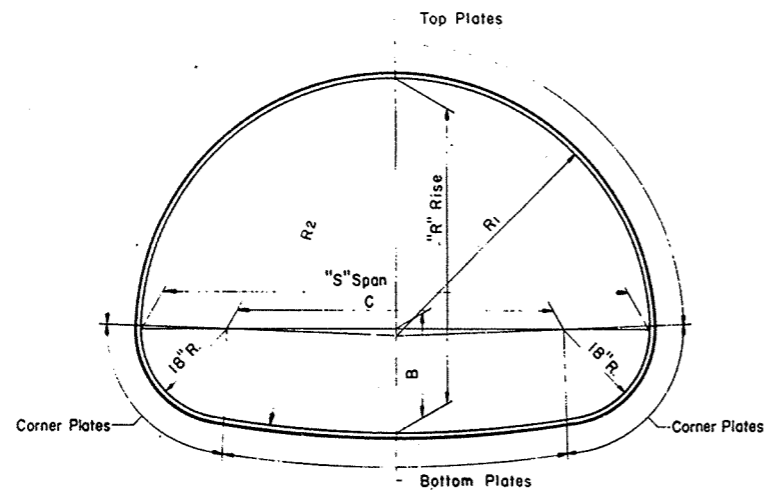
**PIPE ARCH**  
Use Endwall Connection Details 2, 3, or 5 as applicable.

APRON ENDWALLS FOR CULVERT PIPE AND PIPE ARCH

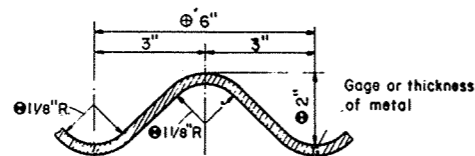
State of Wisconsin  
Department of Transportation  
Division of Highways

RECOMMENDED FOR APPROVAL:  
DATE 4-11-72  
L. C. Horned  
CHIEF DESIGN ENGINEER

APPROVED  
DATE 4-11-72  
S. C. Hicks  
STATE HIGHWAY ENGINEER



STRUCTURAL PLATE PIPE ARCH



DETAIL OF METAL CORRUGATIONS  
CORRUGATION DIMENSION TOLERANCES  
⊕-Tot. 1/4"  
⊕-Tot. ± 1/8"  
⊖-Min. 1/16"

**GENERAL NOTES**

Details of construction not shown on this drawing shall conform to the pertinent requirements of the Standard Specifications, and the applicable Special Provisions.

**TOLERANCES**

Pipe Arch size dimensions are subject to manufacturing tolerances and the ratio of rise (R) to span (S) shall not exceed a tolerance of 5% plus or minus.

Metal corrugation dimension tolerances shall not exceed pertinent dimensions shown elsewhere on this drawing.

**EMBANKMENT—Minimum for C Culverts**

For Flexible Type Pavement, the minimum depth of embankment or cover over top of Pipe Arch (finished construction) shall be "S"/10 or 1'-0" minimum.

For Rigid Type Pavement, the minimum depth of embankment over top of Pipe Arch shall be "S"/14 or a minimum of 6" cushion between pipe and pavement.

**EMBANKMENT—Maximum for C Culverts**

The maximum depth of embankment shall be 15 feet (finished construction).

Adequate cover protection for Pipe Arches shall be provided at all times during construction operations to preclude any damage to structures.

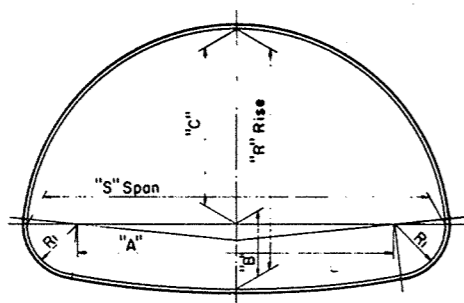
Strutting of Pipe Arches will not be required during construction unless specifically called for on the plans or the applicable Special Provisions.

**TABLE OF PROPERTIES**  
**STRUCTURAL PLATE PIPE ARCH**

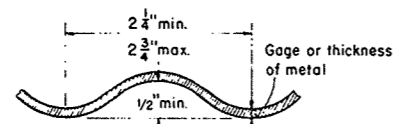
SPAN Nominal Size	Dimensions taken from inside crests of corrugations							Table of Metal Gages—Minimum Acceptable																	
	Fabricators Size Min. Acceptable "S" Span—"R" Rise	R/S Ratio	Area Sq.Ft.	B In.	C In.	R <sub>1</sub> In.	R <sub>2</sub> In.	H-20 LOADING Depth of Embankment in Feet																	
								1	2	3	4	5	6	7	8	9	10	11	12	13	14	15			
6 Feet	6'-1" x 4'-7"	.75	22	21.0	37.0	36.7	76.4	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12
7 "	7'-0" x 5'-1"	.73	28	21.4	48.0	42.3	104.5	10	12	12	12	12	12	12	12	12	12	12	12	12	12	10	10	10	10
8 "	7'-11" x 5'-7"	.70	35	21.7	59.0	47.7	138.4	10	10	10	12	12	12	12	12	12	12	12	12	10	10	10	10	10	10
9 "	8'-10" x 6'-1"	.69	43	21.8	70.0	53.0	179.2	10	10	10	10	10	10	10	10	10	10	10	10	10	10	8	8	8	8
10 "	9'-9" x 6'-7"	.67	52	21.9	81.0	58.3	228.0	8	8	10	10	10	10	10	10	10	10	10	10	8	8	8	7	7	7
11 "	10'-11" x 7'-1"	.65	61	25.1	95.0	65.8	180.8	8	8	8	10	10	10	10	10	10	8	8	8	8	7	7	7	5	5
12 "	11'-10" x 7'-7"	.64	71	25.2	106.0	71.1	217.0	7	8	8	8	8	8	8	8	8	8	8	8	7	5	5	3	3	3
13 "	12'-10" x 8'-4"	.65	85	24.0	118.0	77.2	315.2	5	7	8	8	8	8	8	8	8	7	7	5	5	3	3	1	1	1
14 "	13'-11" x 8'-7"	.62	93	28.9	131.0	84.4	220.8	5	5	7	7	8	8	8	7	7	5	5	3	3	1	1	1	1	1
15 "	14'-10" x 9'-1"	.61	105	28.9	142.0	89.5	254.9	3	5	5	7	7	7	7	7	5	3	3	1	1	1	1	1	1	1
16 "	15'-10" x 9'-10"	.62	122	27.4	154.0	95.4	339.1	1	3	5	5	7	7	7	5	3	3	1	1	1	1	1	1	1	1
16.5 "	16'-7" x 10'-1"	.61	131	28.7	163.0	99.8	333.8	1	3	3	5	5	5	5	3	1	1	1	1	1	1	1	1	1	1

Note: For sizes of Structural Plate Pipe Arch between those shown in the table, the gage shall be interpolated (based on table data) where possible; otherwise the gage of the next larger size shown in the table shall be used.

STRUCTURAL PLATE PIPE ARCH



CORRUGATED METAL PIPE ARCH  
(Riveted)



DETAIL OF METAL CORRUGATIONS

**GENERAL NOTES**

Details of construction not shown on this drawing shall conform to the pertinent requirements of the Standard Specifications, and the applicable Special Provisions.

**TOLERANCES**

Tolerance from the dimensions detailing size and shape will be permissible providing equivalent capacity and strength are attained.

**EMBANKMENT—Minimum for C Culverts**

For Flexible Type Pavement, the minimum depth of embankment or cover over top of Pipe Arch (finished construction) shall be "S"/10 or 9" minimum.

For Rigid Type Pavement, the minimum depth of embankment over top of Pipe Arch shall be "S"/14 or a minimum of 3" cushion between pipe and pavement.

**EMBANKMENT—Maximum for C Culverts**

The maximum depth of embankment shall be 10 feet (finished construction).

Adequate cover protection for Pipe Arches shall be provided at all times during construction operations to preclude any damage to structures.

**TABLE OF DIMENSIONS**  
**CORRUGATED METAL PIPE ARCH**

Gage (Min. Acceptable)	CORRUGATED METAL PIPE ARCH							Round Pipe of Approx. Equal Periphery		
	"S" Span Inches	"R" Rise Inches	"A" Inches	"B" Inches	"C" Inches	R <sub>1</sub> Inches	R/S Ratio	Area Sq.Ft.	Area Sq.Ft.	Diam. Inches
16	18	11	10	4 1/2	6 1/2	3 1/2	.61	1.1	1.23	15
16	22	13	14	4 3/4	8 1/4	4	.59	1.6	1.77	18
16	25	16	17	5 1/4	10 3/4	4	.64	2.2	2.41	21
14	29	18	20	5 1/2	12 1/2	4 1/2	.62	2.8	3.14	24
14	36	22	26	6 1/4	15 3/4	5	.61	4.4	4.91	30
12	43	27	32	7	20	5 1/2	.63	6.4	7.07	36
12	50	31	38	8	23	6	.62	8.7	9.62	42
12	58	36	44	9 1/4	26 3/4	7	.62	11.4	12.57	48
12	65	40	49	10 1/2	29 1/2	8	.62	14.3	15.90	54
10	72	44	54	11 3/4	32 1/4	9	.61	17.6	19.64	60

NOTE: All Dimensions measured from inside crest of corrugations.

CORRUGATED METAL PIPE ARCH

**STRUCTURAL PLATE PIPE ARCH**  
**CORRUGATED METAL PIPE ARCH**

STATE HIGHWAY COMMISSION OF WISCONSIN

RECOMMENDED FOR APPROVAL

DATE 2-5-63

DATE

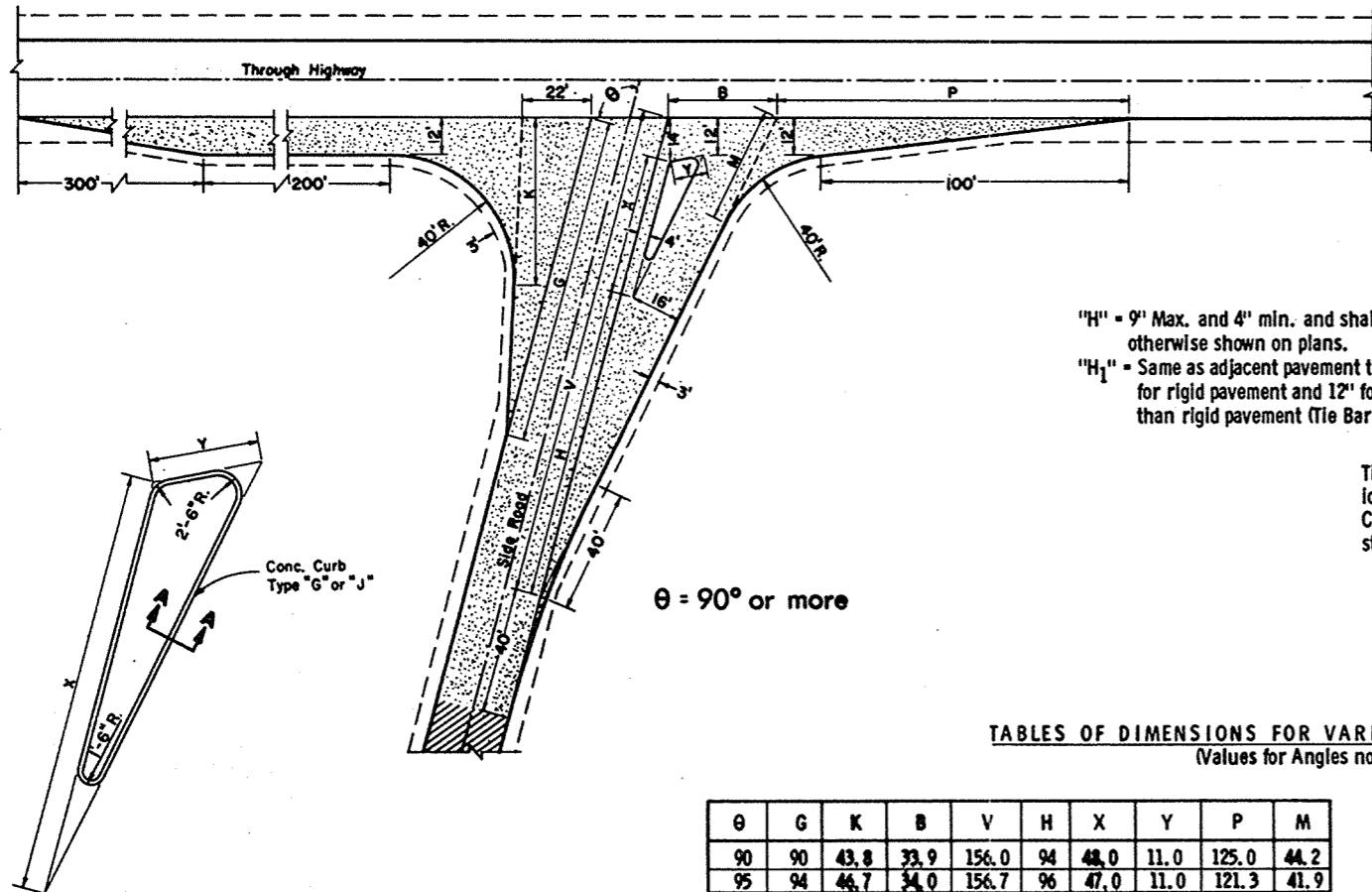
APPROVED:

DATE 2/6/63

DATE

*J. H. Pitt*  
ENGINEER OF DESIGN

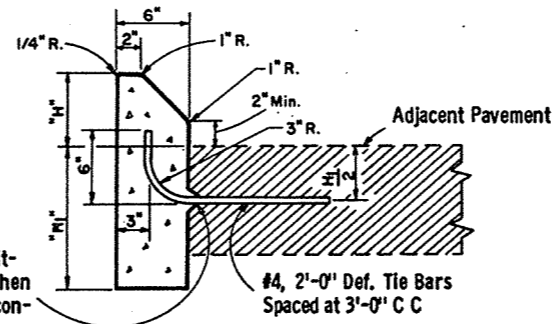
*E. G. Rottiger*  
STATE HIGHWAY ENGINEER



$\theta = 90^\circ$  or more

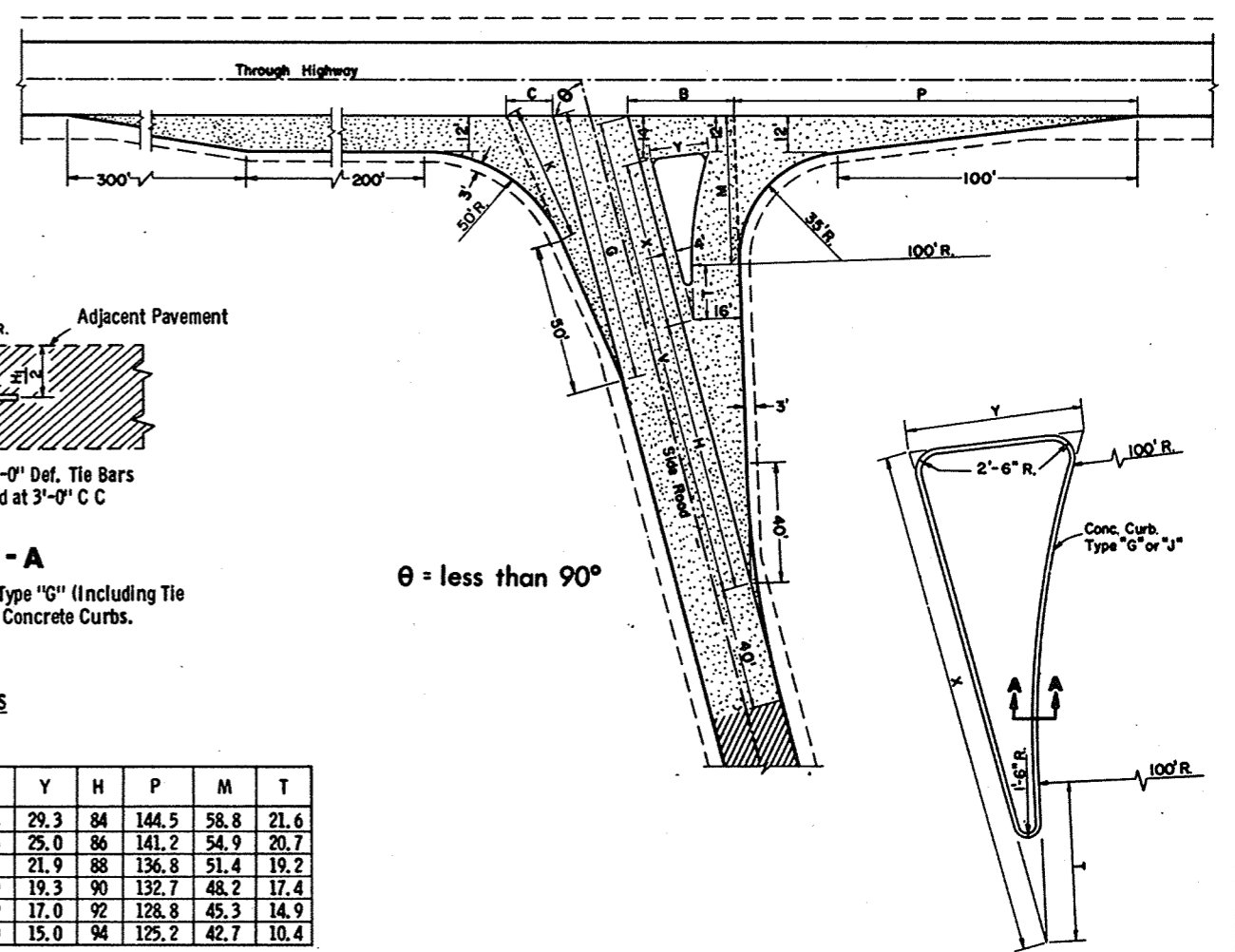
"H" = 9" Max. and 4" min. and shall be 6" unless otherwise shown on plans.  
 "H<sub>1</sub>" = Same as adjacent pavement thickness for rigid pavement and 12" for other than rigid pavement (Tie Bars Omitted).

Tie Bar recess positioned in reverse when Concrete Curb is constructed first



**SECTION A-A**

Note: To be measured and paid for as Type "G" (Including Tie Bars) or Type "J" (Excluding Tie Bars) Concrete Curbs.



$\theta = \text{less than } 90^\circ$

**TABLES OF DIMENSIONS FOR VARIABLE SIDE ROAD INTERSECTION ANGLES**  
 (Values for Angles not shown shall be interpolated)

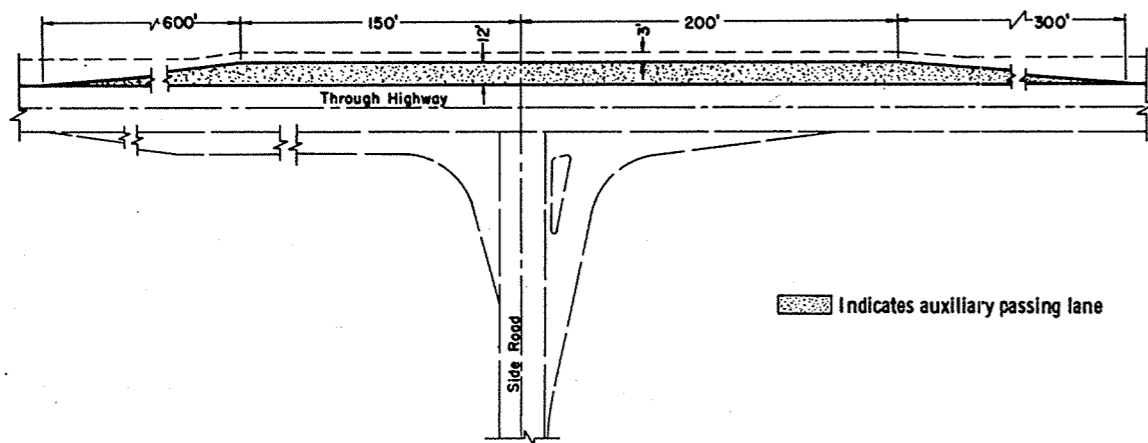
$\theta$	G	K	B	V	H	X	Y	P	M
90	90	43.8	33.9	156.0	94	48.0	11.0	125.0	44.2
95	94	46.7	34.0	156.7	96	47.0	11.0	121.3	41.9
100	98	50.0	34.4	157.4	98	45.9	11.0	117.7	39.7
105	102	53.8	35.2	158.3	100	44.9	11.2	114.2	37.8
110	106	58.2	36.4	159.2	102	43.7	11.4	110.6	36.2
115	110	63.4	38.4	161.8	104	42.6	11.7	107.1	34.8
*120	114	69.4	40.1	161.2	106	41.4	12.2	103.4	33.7

\*Maximum angle of intersection

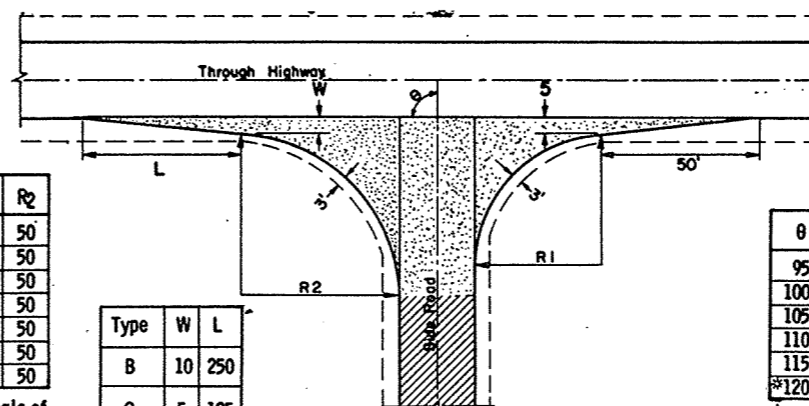
$\theta$	C	G	K	B	V	X	Y	H	P	M	T
*60	19.7	76.3	38.6	41.5	169.9	67.4	29.3	84	144.5	58.8	21.6
65	17.8	82.6	40.6	39.4	166.9	63.6	25.0	86	141.2	54.9	20.7
70	15.8	87.2	43.1	37.4	164.1	59.7	21.9	88	136.8	51.4	19.2
75	15.7	90.9	45.6	35.7	161.4	55.9	19.3	90	132.7	48.2	17.4
80	15.9	94.9	48.3	34.4	158.9	51.9	17.0	92	128.8	45.3	14.9
85	16.2	99.3	51.4	33.4	156.4	48.0	15.0	94	125.2	42.7	10.4

\*Desirable Minimum angle of intersection

**TYPE "A" SIDE ROAD INTERSECTION DETAILS**



**PASSING LANE DETAIL**



$\theta$	R <sub>1</sub>	R <sub>2</sub>
*60	40	50
65	40	50
70	40	50
75	40	50
80	40	50
85	40	50
90	40	50

\*Min. Angle of Intersection

Type	W	L
B	10	250
C	5	125

$\theta$	R <sub>1</sub>	R <sub>2</sub>
95	45	49
100	50	48
105	55	47
110	60	46
115	65	45
*120	70	44

\*Max. Angle of Intersection

**TYPE "B" & "C" SIDE ROAD INTERSECTION DETAILS**

**GENERAL NOTES**

Designs may be used interchangeably in combination or separately for any one complete intersection depending upon intersection angle and surfacing of each approach roadway.

Details on this drawing are for minimum design only, and not applicable to special conditions, as shown elsewhere on the plans.

**SIDE ROAD SURFACING NOTE**

If the side road is not presently paved, pavement shall be placed to the limits shown. In the case where the construction limits are beyond the paving limits, gravel or crushed stone surfacing shall be placed between the paving limits and construction limits.

If the side road is presently paved, new pavement shall be placed to the limits of design as shown and beyond, if necessary, to meet existing pavement.

If side road is the construction project, the intersection surfacing shall be the same as for the project.

- New Pavement
- Existing Surface

**LAYOUT DETAILS FOR AT-GRADE SIDE ROAD INTERSECTIONS**

State Highway Commission of Wisconsin

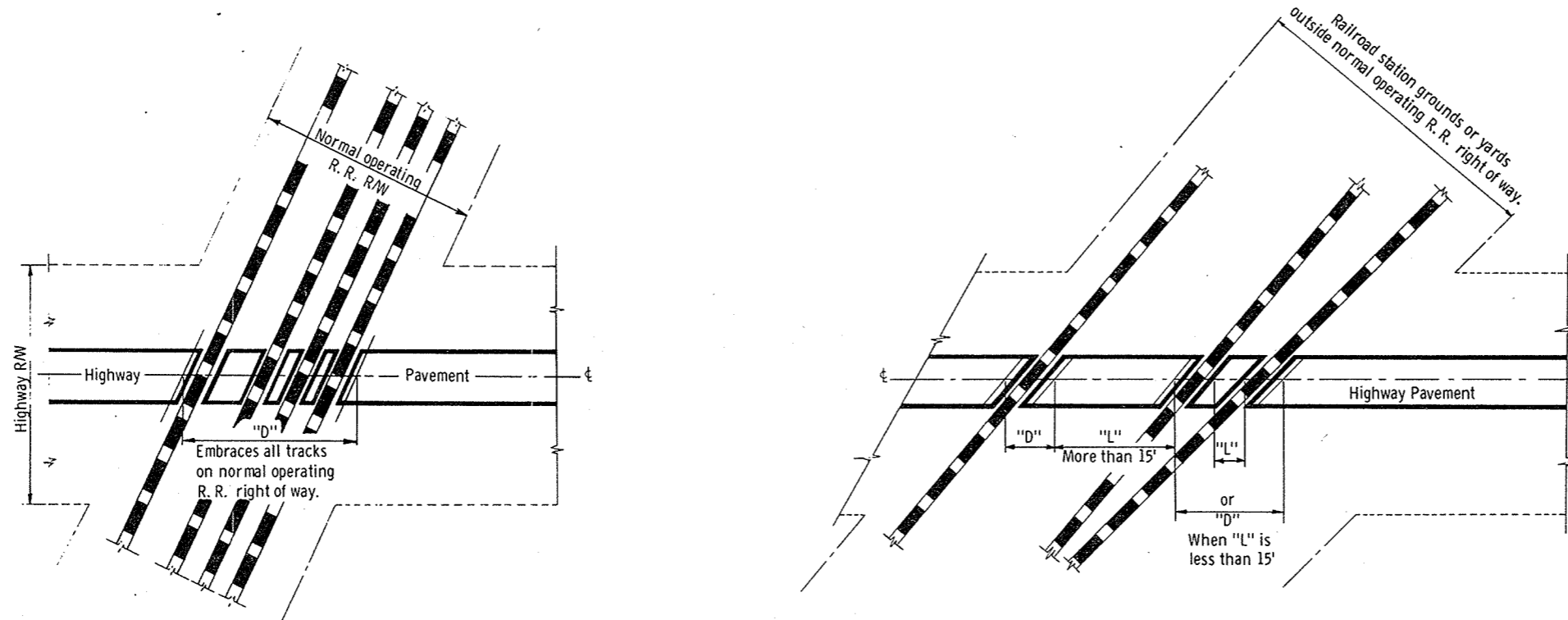
RECOMMENDED FOR APPROVAL:

DATE: 8/9/67

DESIGN ENGINEER: E.J. Rydell

APPROVED: 6/9/67

STATE HIGHWAY ENGINEER: [Signature]

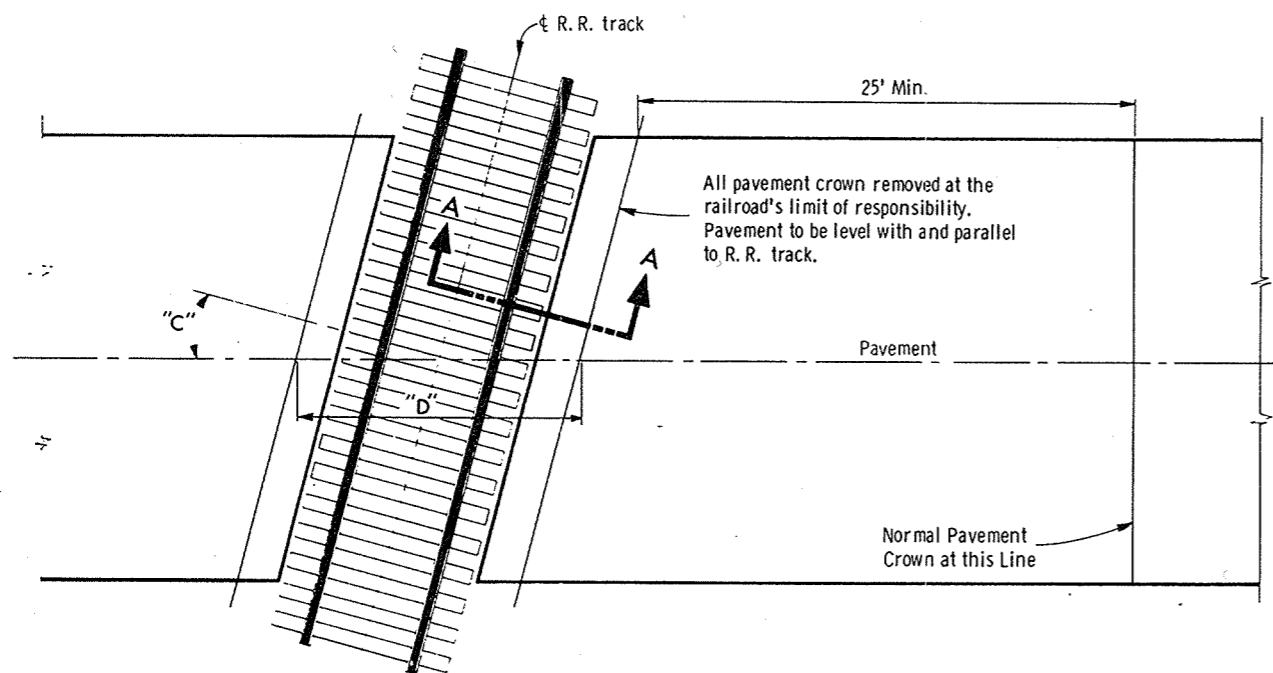


**TYPICAL TYPES OF RAILROAD GRADE CROSSINGS  
SHOWING THE RAILROAD'S LIMIT OF RESPONSIBILITY  
AND MEASUREMENT DETAILS**

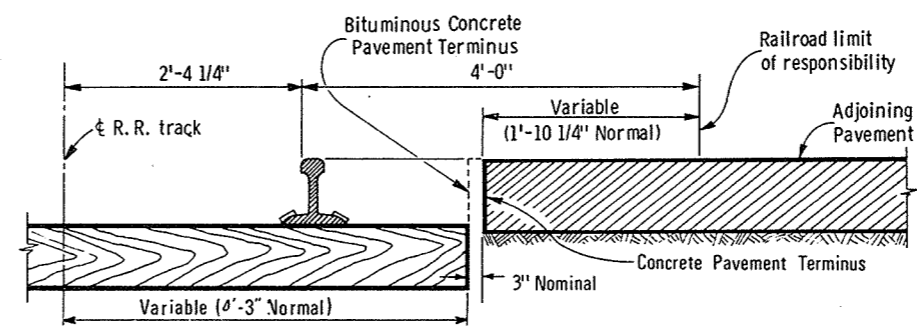
**GENERAL NOTES**

Details of construction, materials, and workmanship not shown on this drawing shall conform to the pertinent requirements of the Standard Specifications and the applicable Special Provisions.

"D" = Exception to net length of  $\xi$ . Paving or surfacing and shoulder material within limits designated by "D" to be at expense of railroad company. Trackage to industrial sites to be treated same as for trackage to R.R. station grounds or yards outside of normal operating R/W.



NOTE:  $D = 12.71$   
Cos. "C"



SECTION 'A-A'

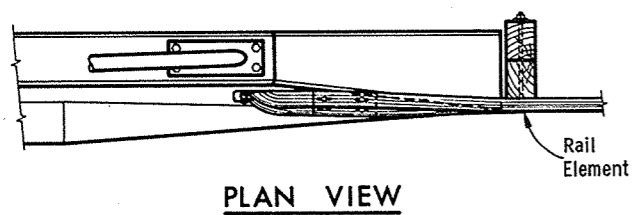
**RAILROAD APPROACH  
CONSTRUCTION DETAILS**

**PAVEMENT DETAILS  
FOR RAILROAD APPROACH**

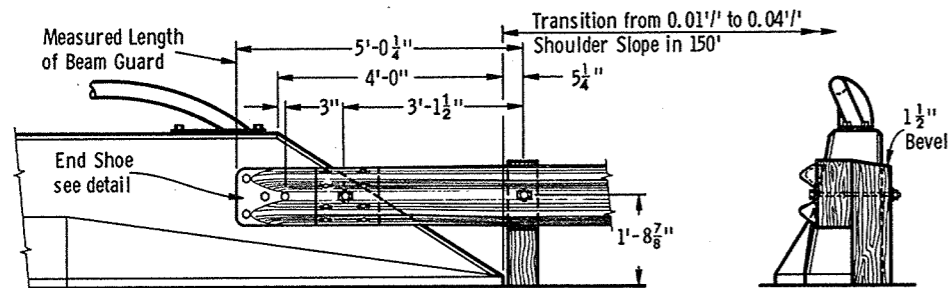
State of Wisconsin  
Department of Transportation  
Division of Highways

RECOMMENDED FOR APPROVAL  
DATE 3/13/69  
APPROVED DATE 3/27/69  
E.J. Pankrat  
CHIEF DESIGN ENGINEER  
H. J. ...  
STATE HIGHWAY ENGINEER





PLAN VIEW

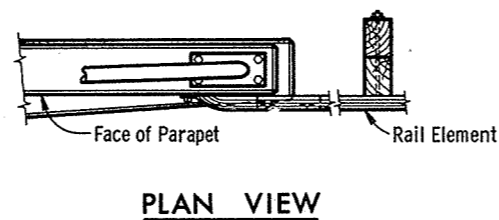


FRONT ELEVATION

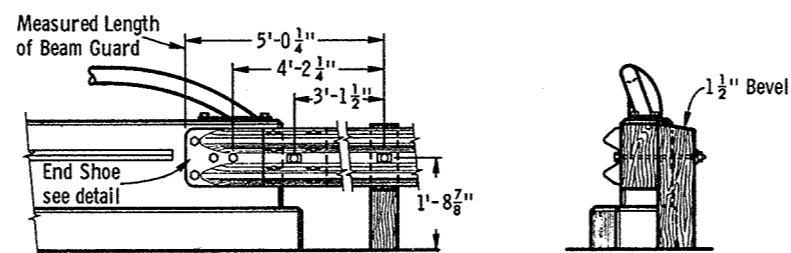
END ELEVATION

STRUCTURE MOUNTING DETAIL

SLOPING TYPE PARAPET WALL



PLAN VIEW

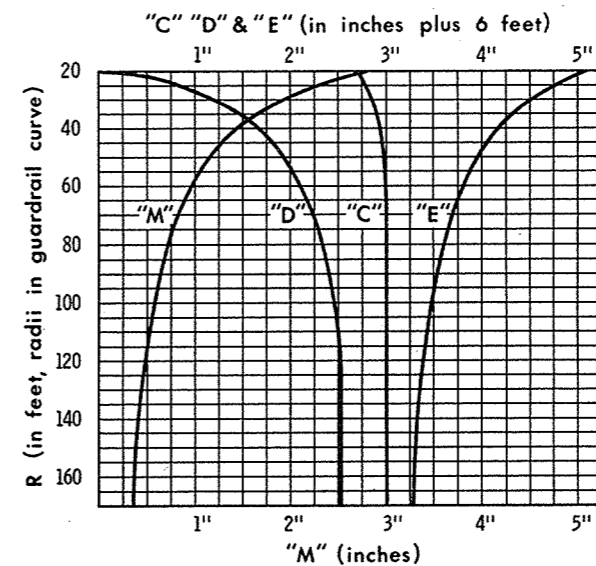


FRONT ELEVATION

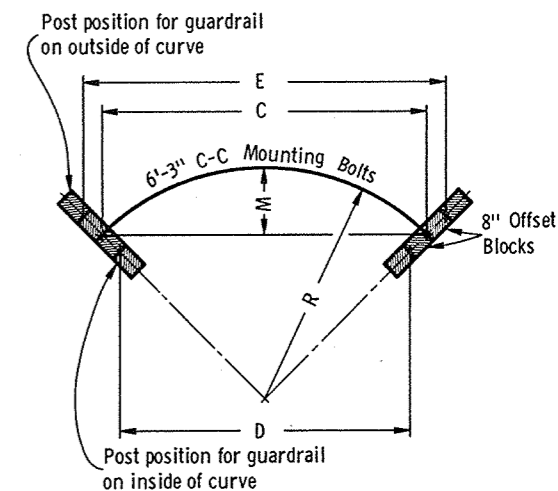
END ELEVATION

STRUCTURE MOUNTING DETAIL

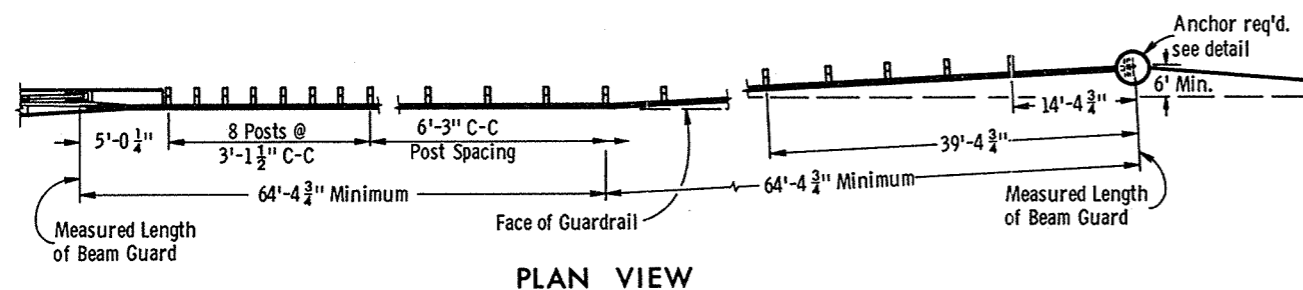
VERTICAL TYPE PARAPET WALL



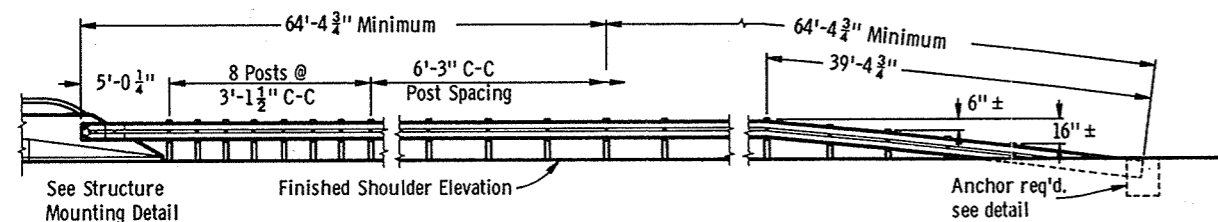
CURVE DATA FOR POST SPACING AND BEAM CURVING



CHORD LENGTHS FOR POST SPACING AND MIDDLE ORDINATES FOR BEAM CURVING

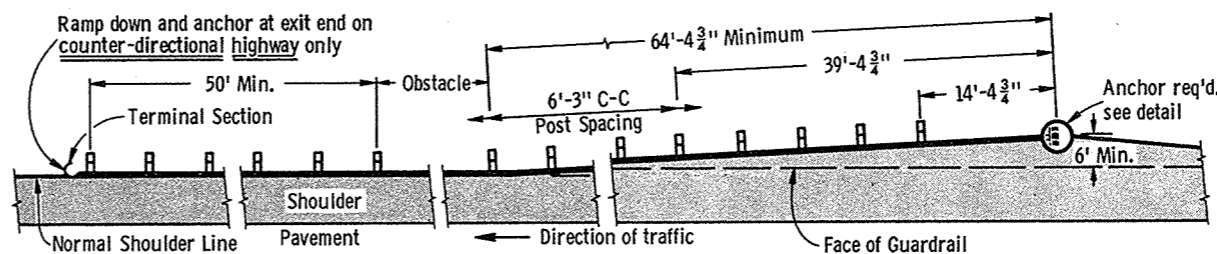


PLAN VIEW



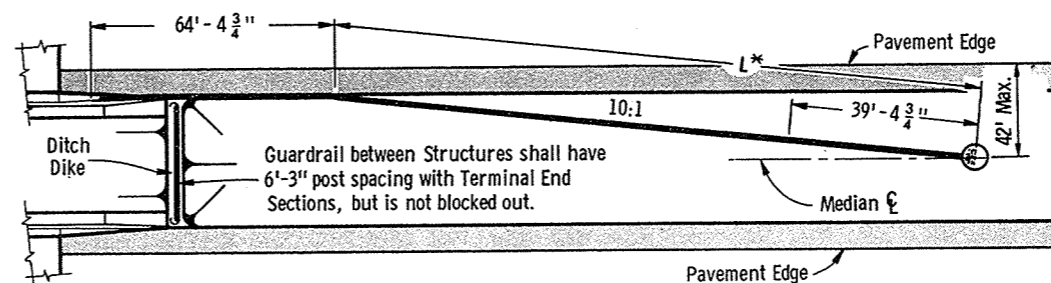
FRONT ELEVATION

TYPICAL OUTSIDE SHOULDER INSTALLATION AT STRUCTURES



PLAN VIEW

TYPICAL INSTALLATION AT LOCATIONS OTHER THAN STRUCTURES



PLAN VIEW

\* Variable based on Median width

MEDIAN PROTECTION

**GENERAL NOTES**

Details of construction, materials and workmanship not shown on this drawing shall conform to the pertinent requirements of the Standard Specifications and the applicable Special Provisions.

The exact location of the beginning and end of each Guardrail installation shall be as shown on the plans or as directed by the Engineer.

Square anchor alternates will be permitted. Square anchors shall be a minimum of 24 inches x 24 inches.

The shoulder widening to accommodate the anchored end of the Guardrail shall be accomplished at a rate of widening not to exceed 50 to 1.

Upon approval of the Engineer, the 6 foot anchor offset may be reduced to nothing for replacement installations where existing conditions will not permit the desirable offset. However, when no offset greater than or equal to 3 feet can be provided, the minimum length of guardrail in advance of an obstacle (obstacle to anchor) shall be 150 feet.

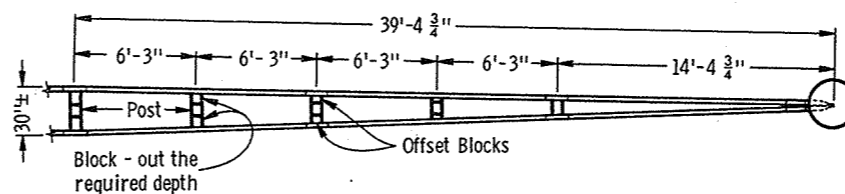
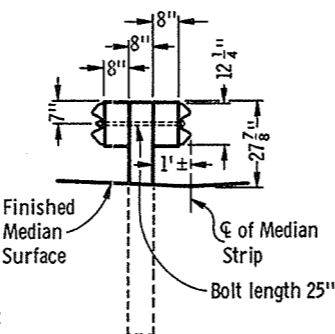
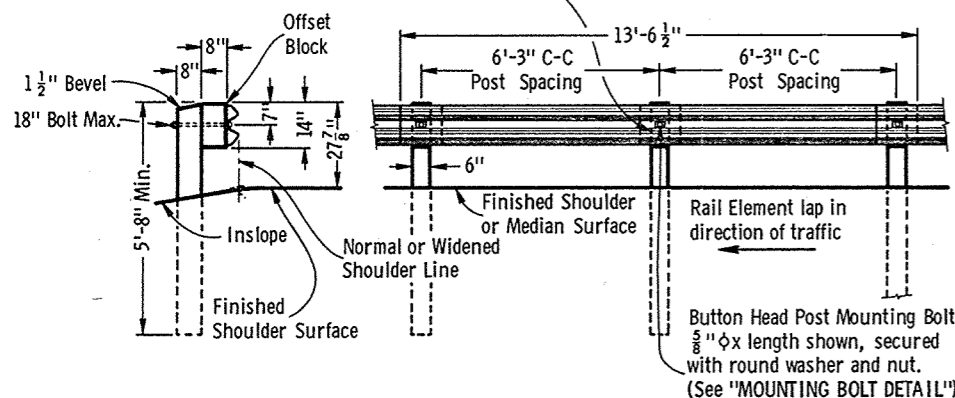
The "Post Footing Details At Piers" shall be used when guardrail posts are over structure footings and less than 3 feet-6 inches of earth is provided over the top of the footing.

*NOTE: This Standard Detail Drawing consists of two plates, and both plates are required when this Standard is called for in the plans.*

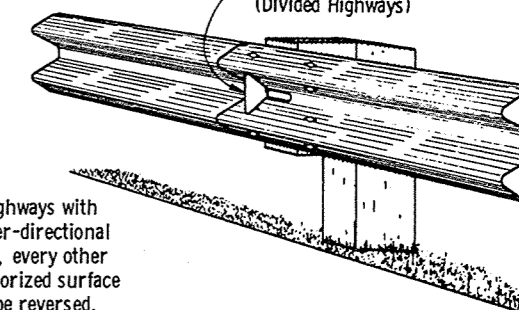
CLASS "A"  
STEEL PLATE BEAM GUARD &  
STEEL PLATE BEAM MEDIAN GUARD  
State of Wisconsin  
Department of Transportation  
Division of Highways

One foot long section of rail element, with a  $\frac{3}{4}$ " slotted hole for mounting, shall be placed behind the continuous rail element at the intermediate posts.

Sawed treated timber posts 6" x 8" x 6'-0" and sawed treated timber offset blocks 6" x 8" x 14" shall be furnished and placed in accordance with Standard Specifications.



Reflector Spacing 12'-6" C-C (Counter-directional Highways)  
Reflector Spacing 25'-0" C-C (Divided Highways)



NOTE: For highways with counter-directional traffic, every other reflectorized surface shall be reversed.

**TYPICAL INSTALLATION**

**END ELEVATION**

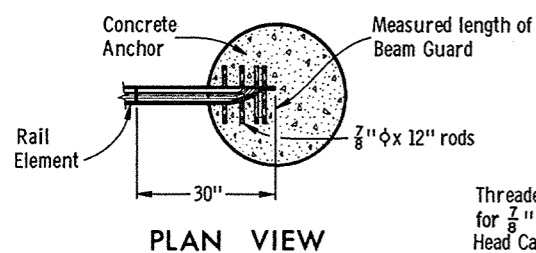
**FRONT ELEVATION**

**END ELEVATION**

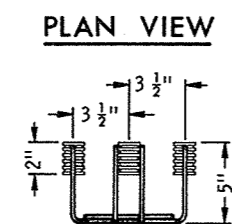
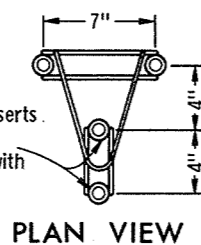
**STEEL PLATE BEAM GUARD**

**STEEL PLATE BEAM MEDIAN GUARD**

**STEEL PLATE BEAM GUARD OR STEEL PLATE BEAM MEDIAN GUARD**

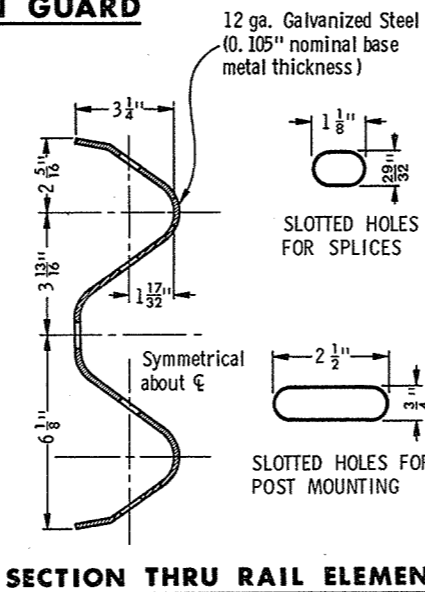


Threaded Steel Inserts for 7/8" phi x 2" Hex Head Cap Screws with round washers.

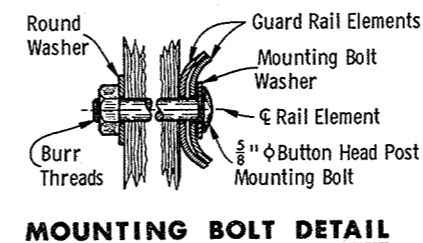


**ELEVATION  
4 BOLT INSERT  
ASSEMBLY**

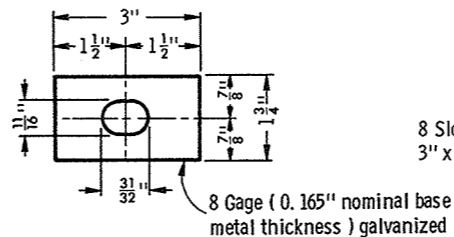
NOTE: Installation of 4 Bolt Insert Assembly (with Cap Screws inserted) to be part of Bridge Contract.



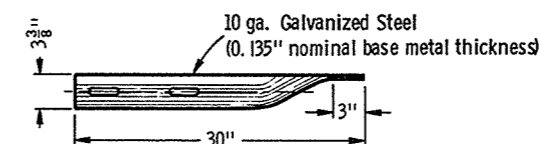
**SECTION THRU RAIL ELEMENT**



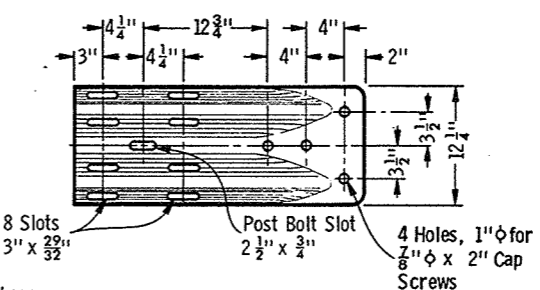
**MOUNTING BOLT DETAIL**



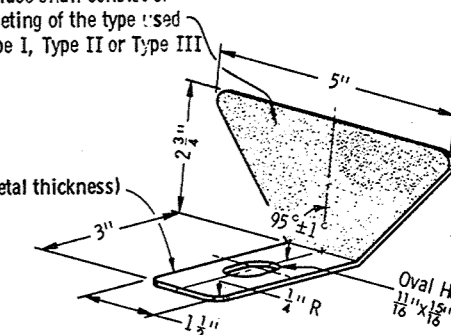
**MOUNTING BOLT WASHER**



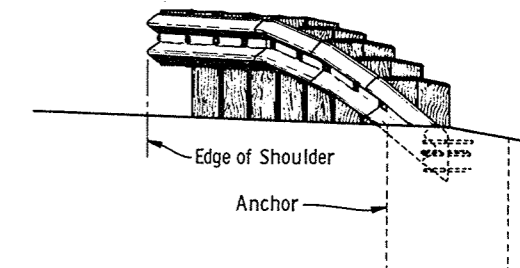
**END SHOE DETAIL**



**END SHOE DETAIL**

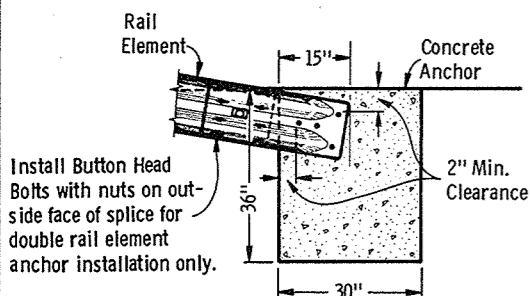


**REFLECTOR DETAIL**



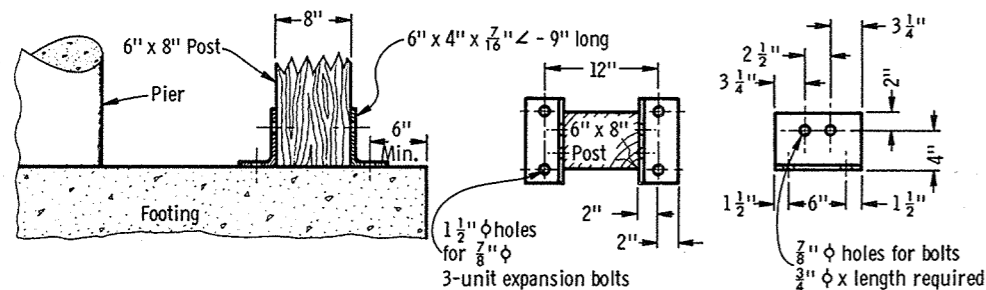
**TYPICAL TERMINAL END ELEVATION**

NOTE: This Standard Detail Drawing consists of two plates, and both plates are required when this Standard is called for in the plans.



**SECTION VIEW  
ANCHOR DETAIL**

**SINGLE RAIL ELEMENT INSTALLATION**

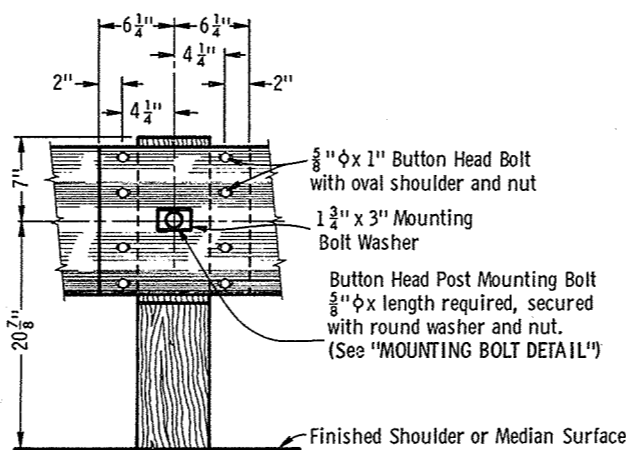


**SECTION VIEW**

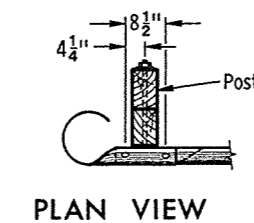
**PLAN VIEW**

**ELEVATION**

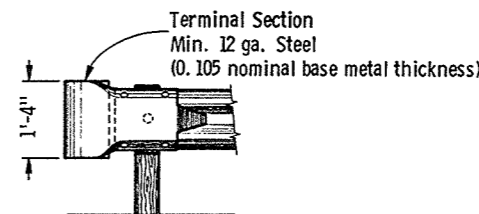
**POST FOOTING DETAIL AT PIERS**



**RAIL ELEMENT SPLICING  
AND POST MOUNTING DETAIL**



**PLAN VIEW**



**FRONT ELEVATION**

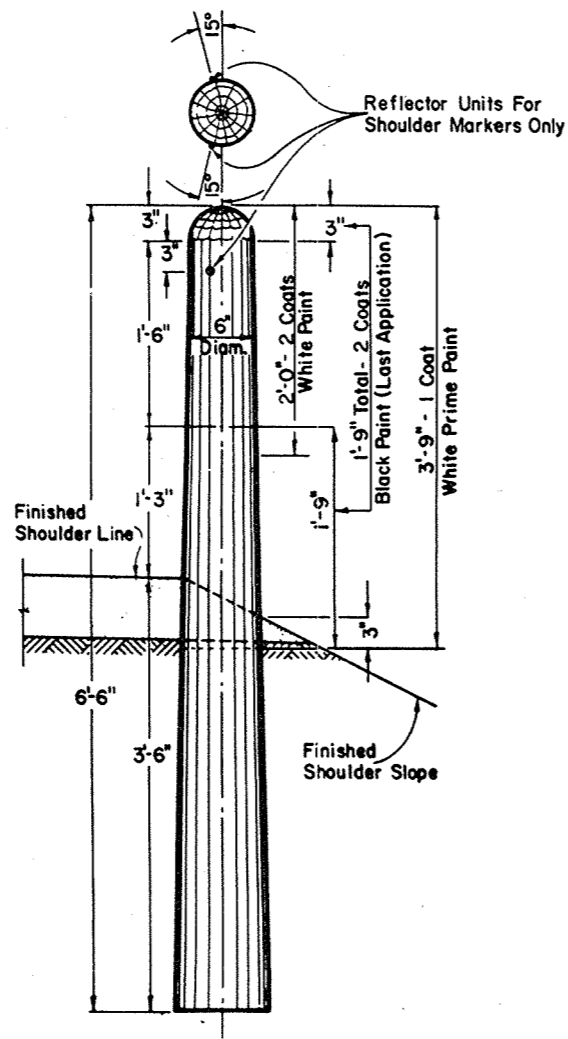
**TERMINAL SECTION DETAILS**

**CLASS "A"  
STEEL PLATE BEAM GUARD &  
STEEL PLATE BEAM MEDIAN GUARD**

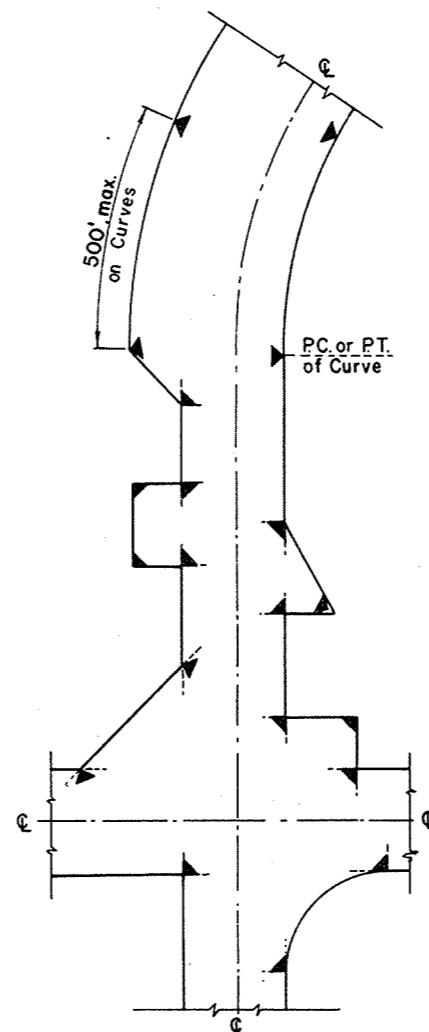
State of Wisconsin  
Department of Transportation  
Division of Highways

RECOMMENDED FOR APPROVAL:  
DATE 3/17/72  
APPROVED: 3/22/72  
DATE

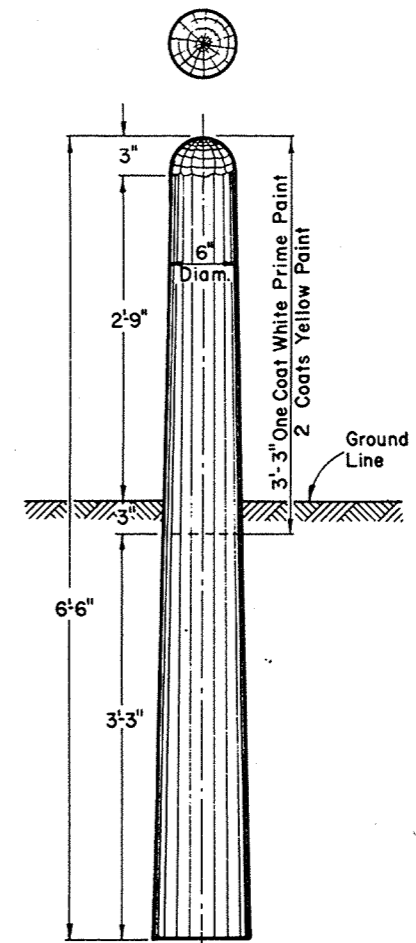
L. C. Henned  
CHIEF DESIGN ENGINEER  
S. C. Hicks  
STATE HIGHWAY ENGINEER



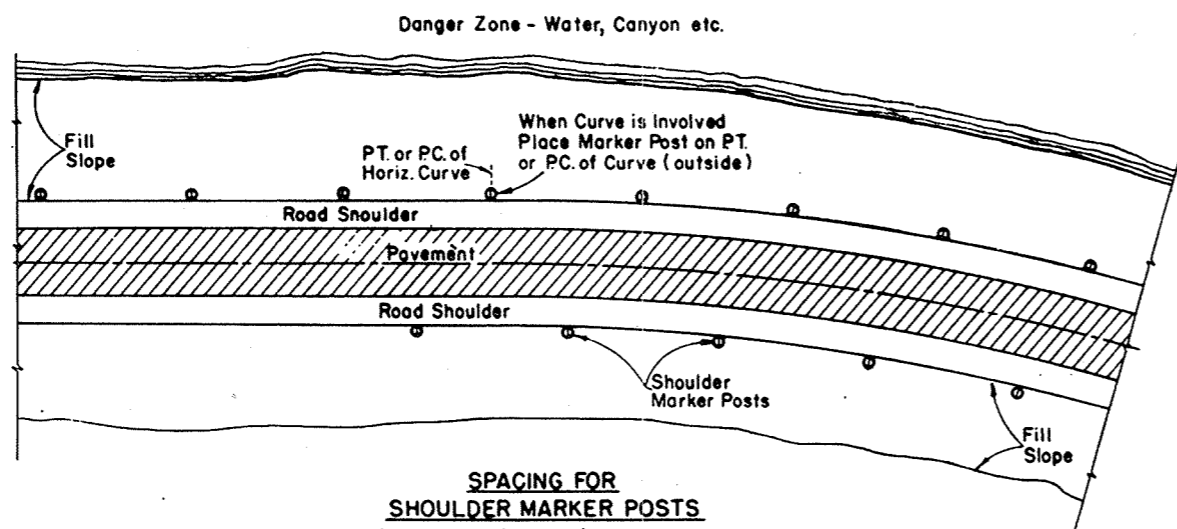
**MARKER POST FOR ROAD SHOULDERS**



**LOCATION DIAGRAM SHOWING TYPICAL LOCATIONS OF MARKER POSTS FOR RIGHT OF WAY**



**MARKER POST FOR RIGHT OF WAY**



**SPACING FOR SHOULDER MARKER POSTS**  
 50' C:C for 100' to 500' Danger Zones  
 100' C:C for Over 500' Danger Zones  
**LOCATION DIAGRAM**  
**SHOWING RELATIVE LOCATIONS OF SHOULDER MARKER POSTS**

**MARKER POSTS FOR ROAD SHOULDERS**

**MARKER POST FOR RIGHT OF WAY**

**GENERAL NOTES**

Details of construction not shown on this drawing shall conform to the pertinent requirements of the Standard Specifications and the applicable Special Provisions.

**MARKER POSTS FOR RIGHT OF WAY**

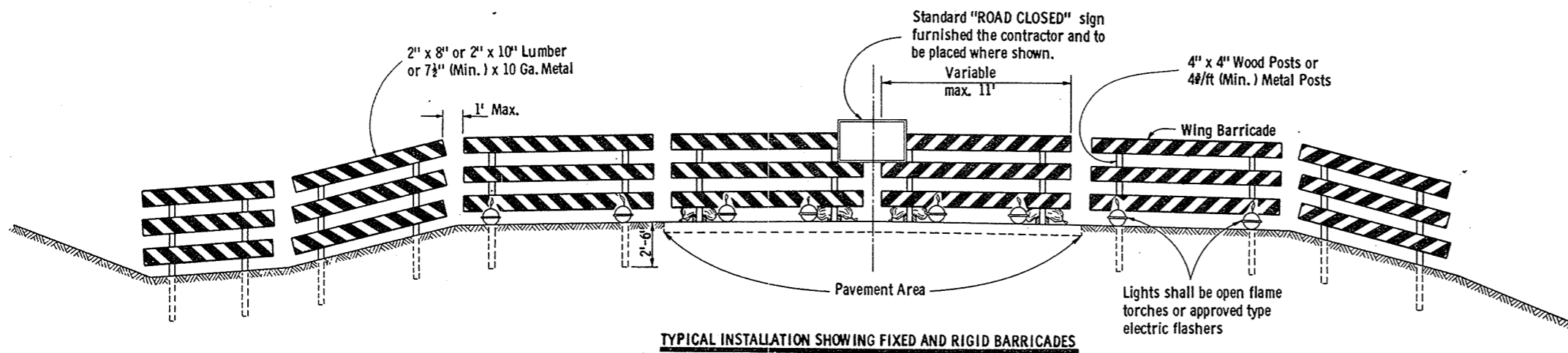
Right of Way Marker Posts shall be erected in advance of grading operations. Posts shall be placed at the outer limits of the highway Right of Way, but entirely within the Right of Way, and shall be so placed that the outer edge of the posts shall be tangent to the Right of Way line or lines extended. The exact location of all Right of Way posts will be staked in the field by the Engineer.

**REFLECTOR UNITS**

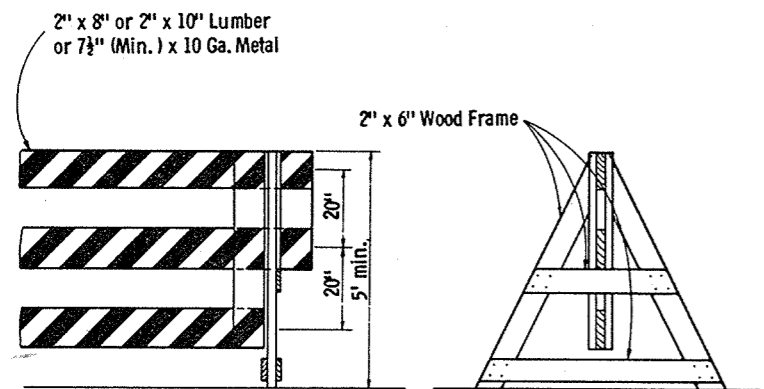
Reflector Units shall be installed in road shoulder marker posts only. Reflector Units shall have plastic crystal lens 7/8" in diameter. Unit assembly shall be a minimum of 7/8" in length. Reflector Units shall be furnished with flared expanding metal clips for wood mounting. Units shall be mounted in tightest fit possible and securely stayed in posts.

MARKER POSTS & MARKER POSTS FOR RIGHT OF WAY	
State Highway Commission of Wisconsin	
RECOMMENDED FOR APPROVAL: DATE 7/6/66	<i>E.J. Rykbit</i> CHIEF DESIGN ENGINEER
APPROVED: DATE 7/9/66	<i>H.K. [Signature]</i> STATE HIGHWAY ENGINEER

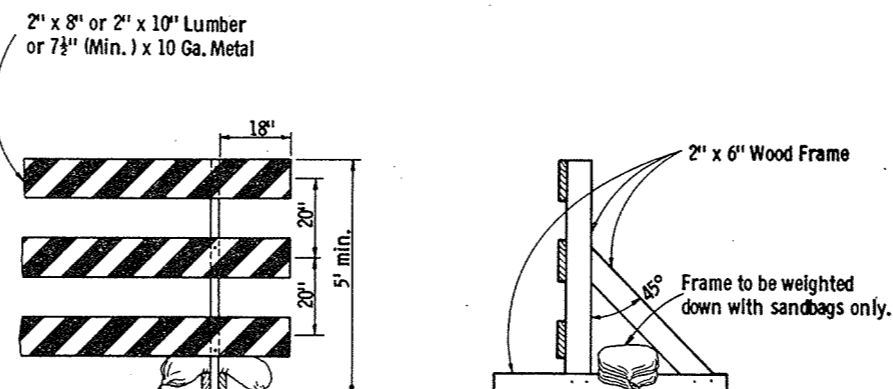
S.D.D. 15A1-1



TYPICAL INSTALLATION SHOWING FIXED AND RIGID BARRICADES

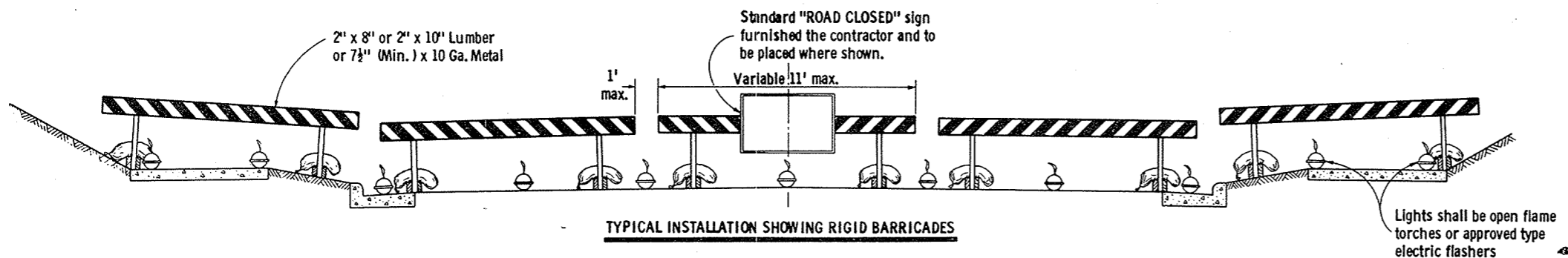


ALTERNATE TYPE INSTALLATION (DEMOUNTABLE)

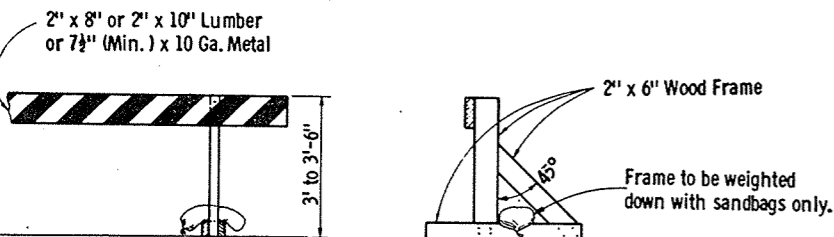


ALTERNATE TYPE INSTALLATION (RIGID)

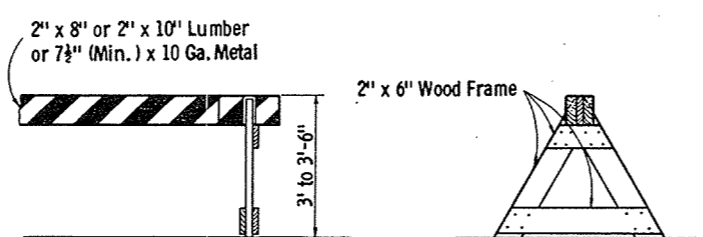
**CLASS I BARRICADES**



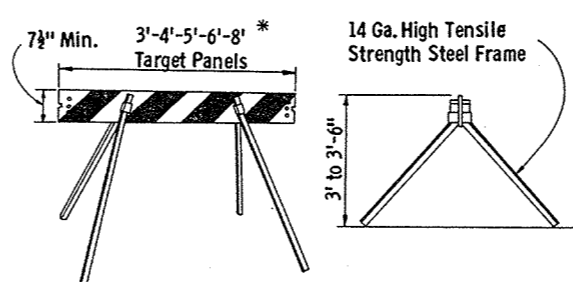
TYPICAL INSTALLATION SHOWING RIGID BARRICADES



ALTERNATE TYPE INSTALLATION (RIGID)



ALTERNATE TYPE INSTALLATION (DEMOUNTABLE)



\* Maximum length of combination panels 16'

ALTERNATE TYPE INSTALLATION (DEMOUNTABLE)

**CLASS II BARRICADES**

**GENERAL NOTES**

The contractor shall construct, place and maintain barricades as shown on the drawing and as required by the Standard Specifications or applicable Special Provisions.

**CLASS I BARRICADE:**

Class I Barricades shall be of variable length as indicated, and long barricades shall be assembled from these units. The Class I Barricade is the type normally required for major operations, where the barricade will remain in place for extended periods. Class I Barricades shall be used at points where the road is closed to traffic. Gates or movable sections of a barricade shall be provided when necessary, for access of equipment or other authorized vehicles.

Wing Barricades are Class I Barricades erected on the shoulder on one or both sides of the pavement to give Traffic the perceptive effect of a narrowing or restricted roadway. The ends closest to traffic of all three members of a wing barricade shall be in a vertical line. If used in a series, they should start at the outer edge of the shoulder and be brought progressively closer to the pavement. Wing Barricades may be used as a mounting for the advance warning or guide signs or for flashers. When used on two-way roadways, the back of the wing barricade shall be painted reflectorized white.

**CLASS II BARRICADE:**

Class II Barricades may be used only where the hazard to traffic is relatively small, and for the more or less continuous delimiting of a restricted roadway, or for temporary daytime use.

**MATERIAL & FABRICATION:**

Lumber shall be of a grade structurally sound and sufficiently rigid to satisfactorily support and maintain the purpose and intent of a barricade facility. Metal shall be sufficiently rigid to satisfactorily support and maintain the purpose and intent of a barricade facility. The fabrication of the barricade shall be in accord with good pertinent woodworking and metalworking practices. All lumber or timber dimensions stated are nominal.

**PAINTING:**

All barricades shall be painted in alternate 4" or 6" black and white stripes at a 45° angle. The width of stripe shall be consistent for each complete barricade installation. Black stripes shall be painted with weather resistant and durable black paint. White stripes shall be primed, followed by two coats of white reflectorized paint or reflective wide angle sheeting.

**DIRECTION OF DIAGONAL STRIPES:**

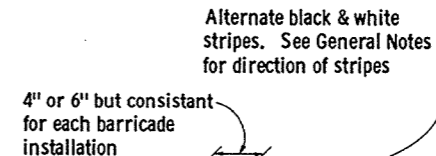
Where a barricade extends entirely across the roadway with no vehicle access provision, the stripes shall slope downward toward the highway centerline. Where vehicle access is permitted, the stripes shall slope downward in the direction toward which vehicles must turn in detouring. Where both right and left turns are provided for, the stripes shall slope downward in both directions from the center. The stripes on wing barricades shall point downward toward the roadway.

**LIGHTING:**

Lighting devices for barricades shall conform to the requirements of the Standard Specifications.

**MEASUREMENT & PAYMENT:**

All barricades, unless otherwise provided for in the plans and/or special provisions shall be furnished, placed, and maintained as noted above, and no additional compensation will be allowed but shall be construed to be included in the price bid for other items.



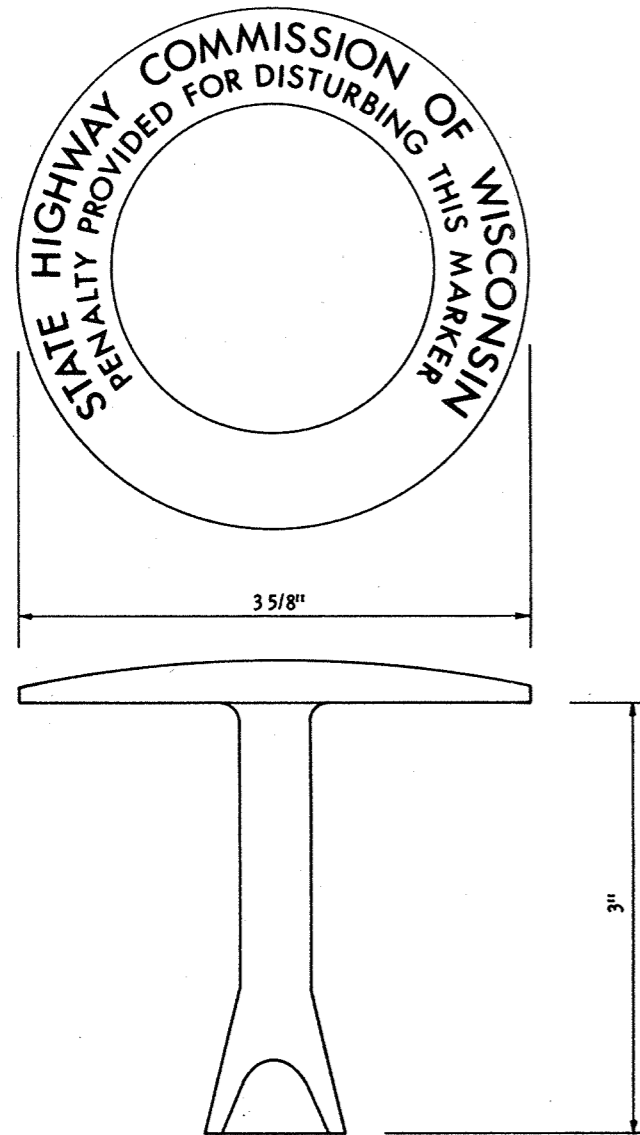
**TYPICAL DIAGONAL STRIPES**

Applies to all Classes & Types of Barricades

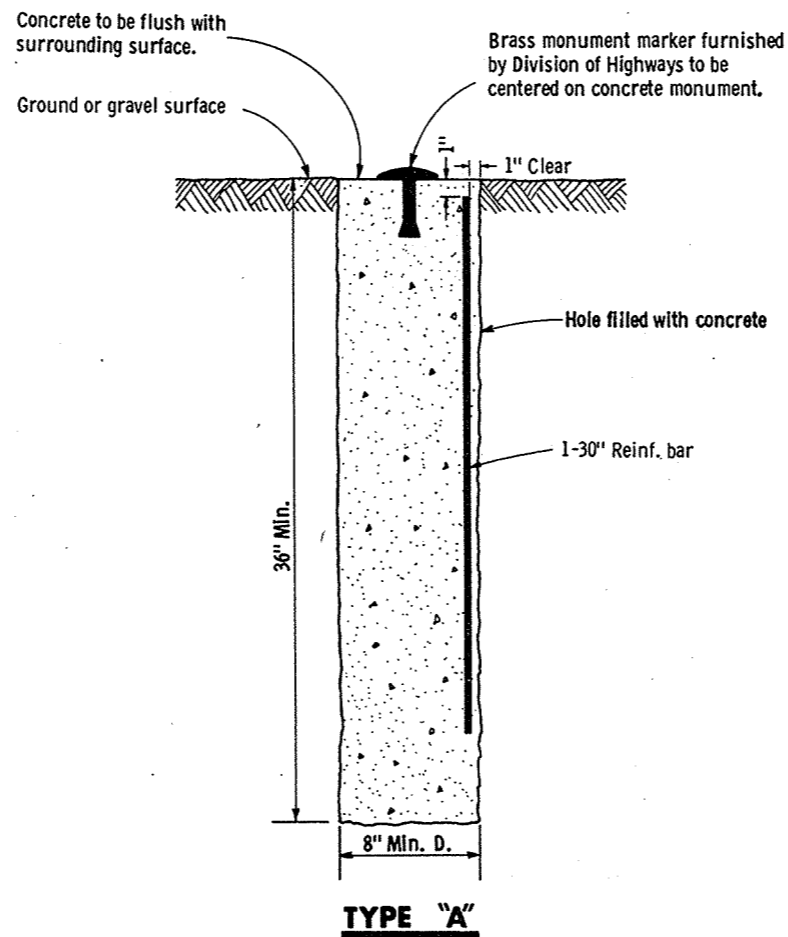
**CONSTRUCTION BARRICADE**

State Highway Commission of Wisconsin

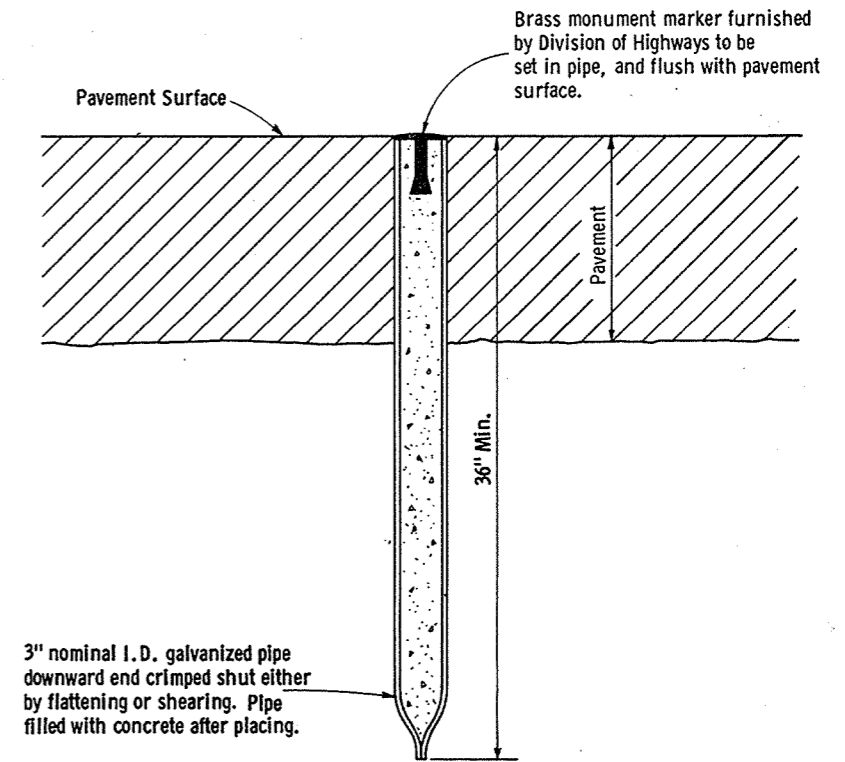
RECOMMENDED FOR APPROVAL:  
 DATE 1/11/67  
 APPROVED: E.J. Bybit  
 DATE 1/13/67  
 APPROVED: J.F. Dummit  
 STATE HIGHWAY ENGINEER



**BRASS  
MONUMENT MARKER**  
To be furnished to contractor by  
Division of Highways



**TYPE "A"**  
To be used only when monument is  
required outside of pavement surface.



**TYPE "B"**

To be used only when monument  
is required to be located within the  
limits of a pavement surface.

**GENERAL NOTES**

Details of construction, materials and workmanship not shown on this drawing shall conform to the Standard Specifications and the applicable Special Provisions.

Monuments conforming to Type "A" or Type "B", as shown hereon, shall be placed at the direction of the engineer.

**LANDMARK REFERENCE  
MONUMENTS**

State of Wisconsin  
Department of Transportation  
Division of Highways

RECOMMENDED FOR APPROVAL:

1/25/68  
DATE

*E. J. Byrd*  
CHIEF DESIGN ENGINEER

APPROVED:

2/8/68  
DATE

*H. J. Turner*  
STATE HIGHWAY ENGINEER

12/16

SURVEY

818.69

14+00

820

820.75

13+00

820

822.35

12+00

825

823.51

11+00

825

824.111

10+00

825

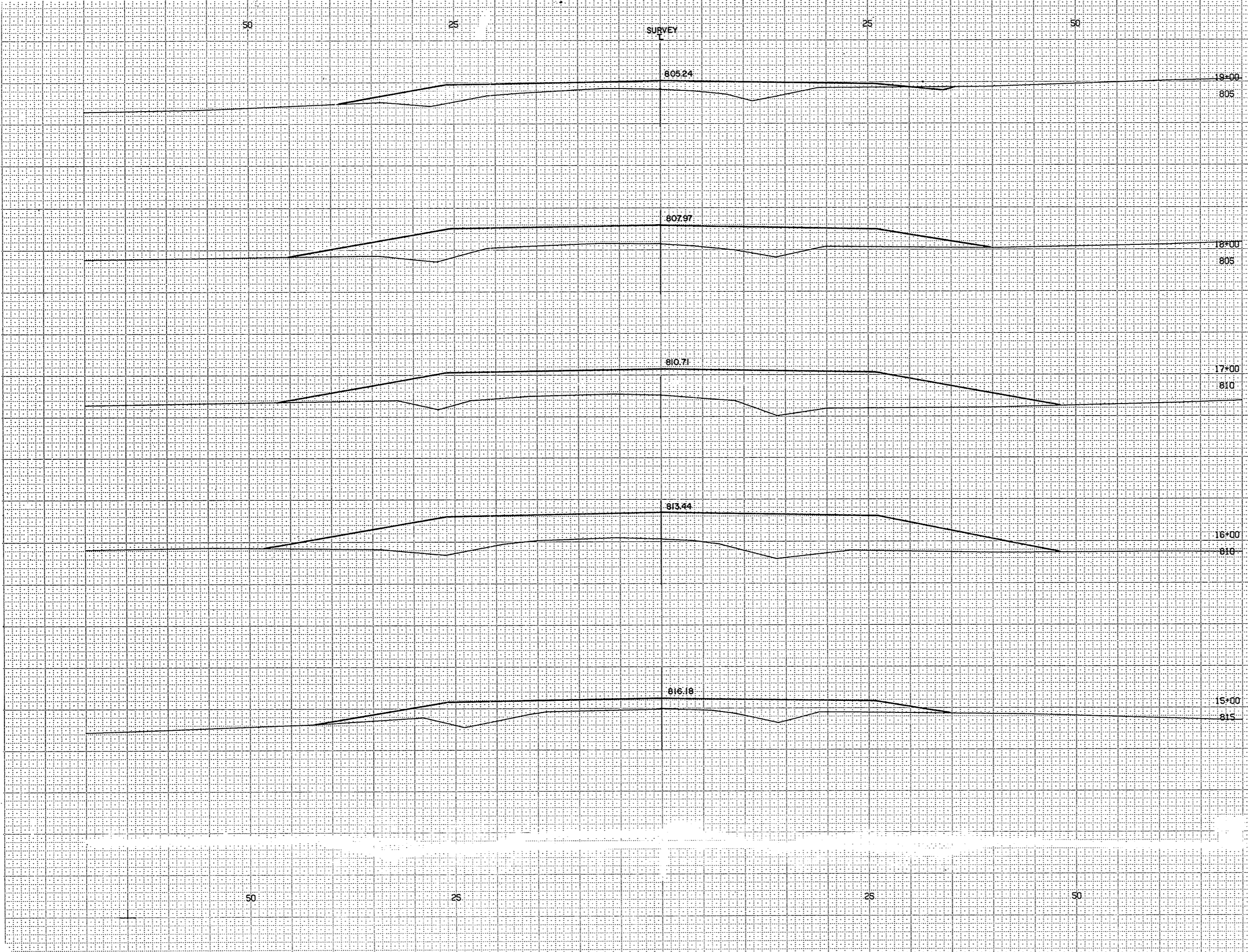
1 5 VER  
1 5 HOR  
3 8460 20013

BPA REGION	PROJECT	SHEET NUMBER	TOTAL SHEETS
WIS	S 1260 (3)	30	91

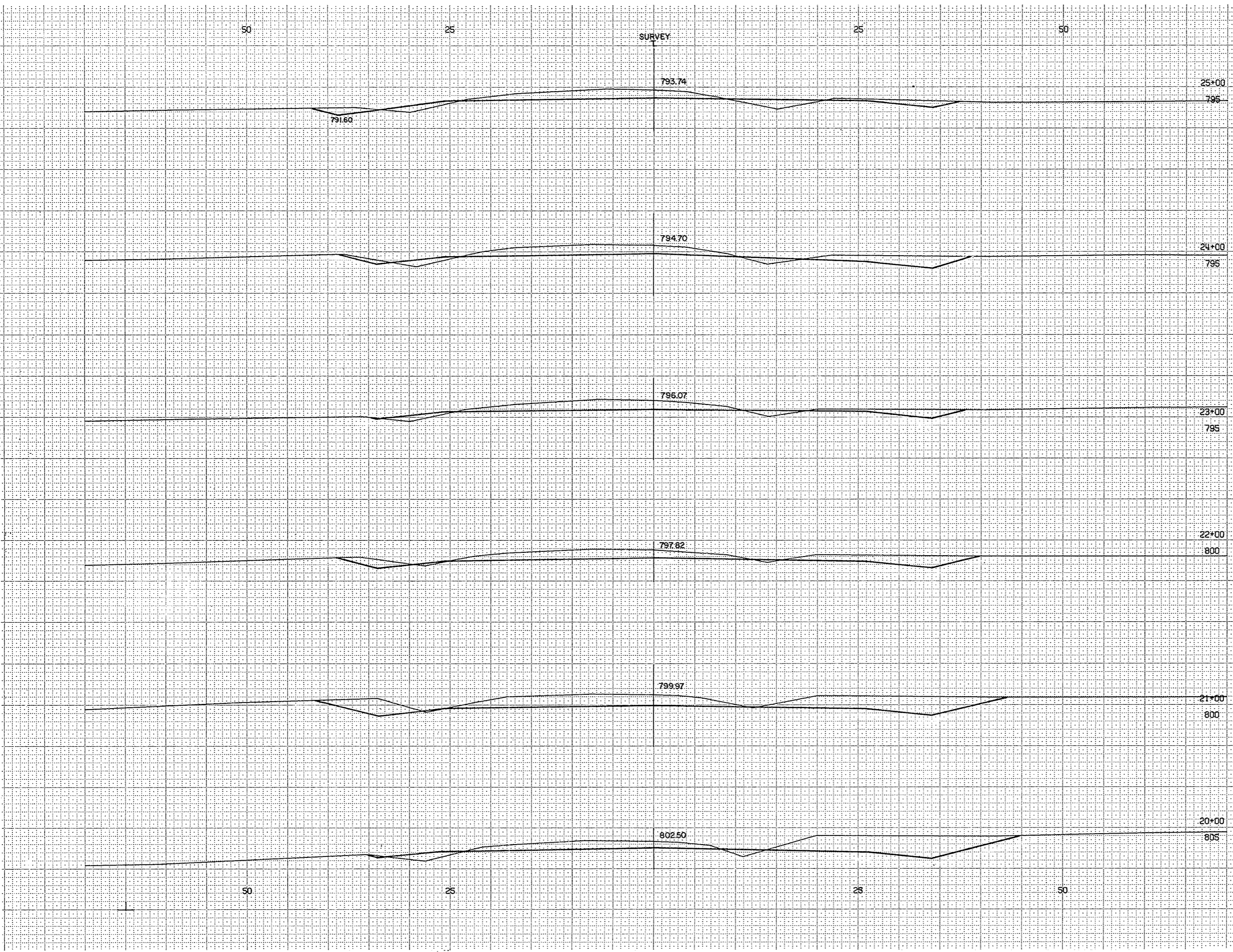
STATION	DISTANCE	TAROAGE	
		EXCAVATION	FILL
10	181		124
11	93		178
12	398		54
13	452		4
14			
TOTALS		1,124	360

141  
74



BPA REGION DIVISION		PROJECT	SHEET NUMBER	TOTAL SHEETS
4 W15		S 1260 (3)	31	91
STATION	DISTANCE	YARDAGE		
		EXCAVATION		FILL
		UNCL		
14				196
15		135		73
16				998
17				767
18		7		393
19				
TOTALS		142		3,067

1" = 05' HOR  
 1" = 05' VER  
 3956 3



STATION	DISTANCE	TARGE	
		UNCL	FILL
19			
20	154		115
21	326		11
22	305		2
23	219		9
24	206		15
25	222		15
TOTALS	1,433		167

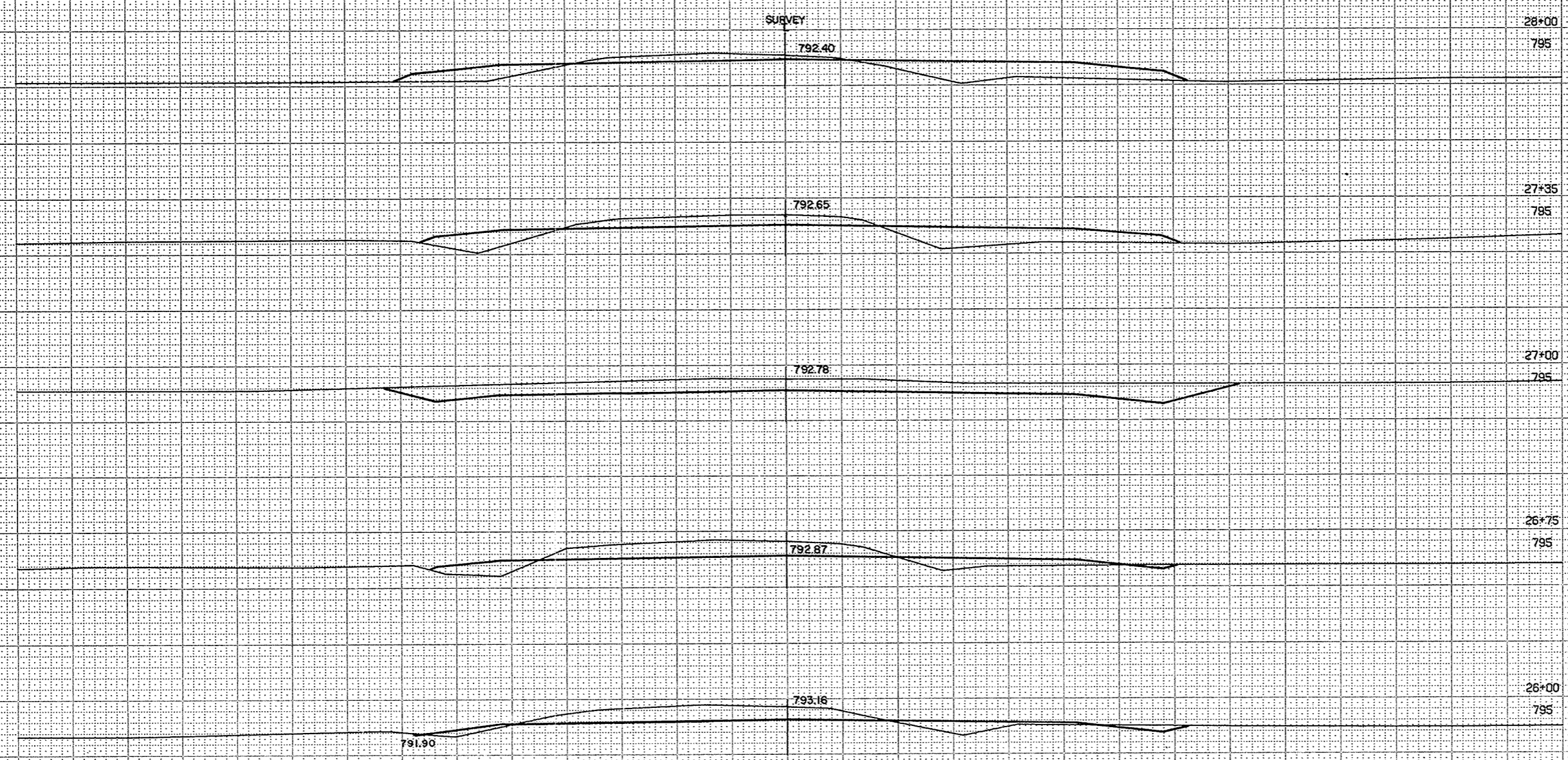
BPA REGION DIVISION	PROJECT	SHEET NUMBER	TOTAL SHEETS
4 WIS	S 1260 (3)	32	91

1" = 05' HOR  
 1" = 05' VER  
 3956 4



19/76

BPA REGION	PROJECT	SHEET NUMBER	TOTAL SHEETS
DIVISION	S 1260 (3)	33	91
HTS			
STATION	DISTANCE	YARDAGE	
		EXCAVATION	FILL
		UNCL.	
25	181		26
26	168		49
27	131		115
28			
TOTALS	480		190



1 = 05 HOR  
 1 = 05 VER  
 3956 5

19/76

BPA REGION	PROJECT	SHEET NUMBER	TOTAL SHEETS
WIS	S 1260 (3)	34	91

STATION	DISTANCE	YARDAGE	
		EXCAVATION	FILL
		UNCL	
28		94	85
29		180	26
30		348	4
31		606	
32		709	
33			
TOTALS		1,937	115

SURVEY  
T

33+00  
795

790.50

32+00  
795

790.88

31+00  
795

791.26

789.93

30+00  
795

791.64

790.13

29+00  
795

792.02

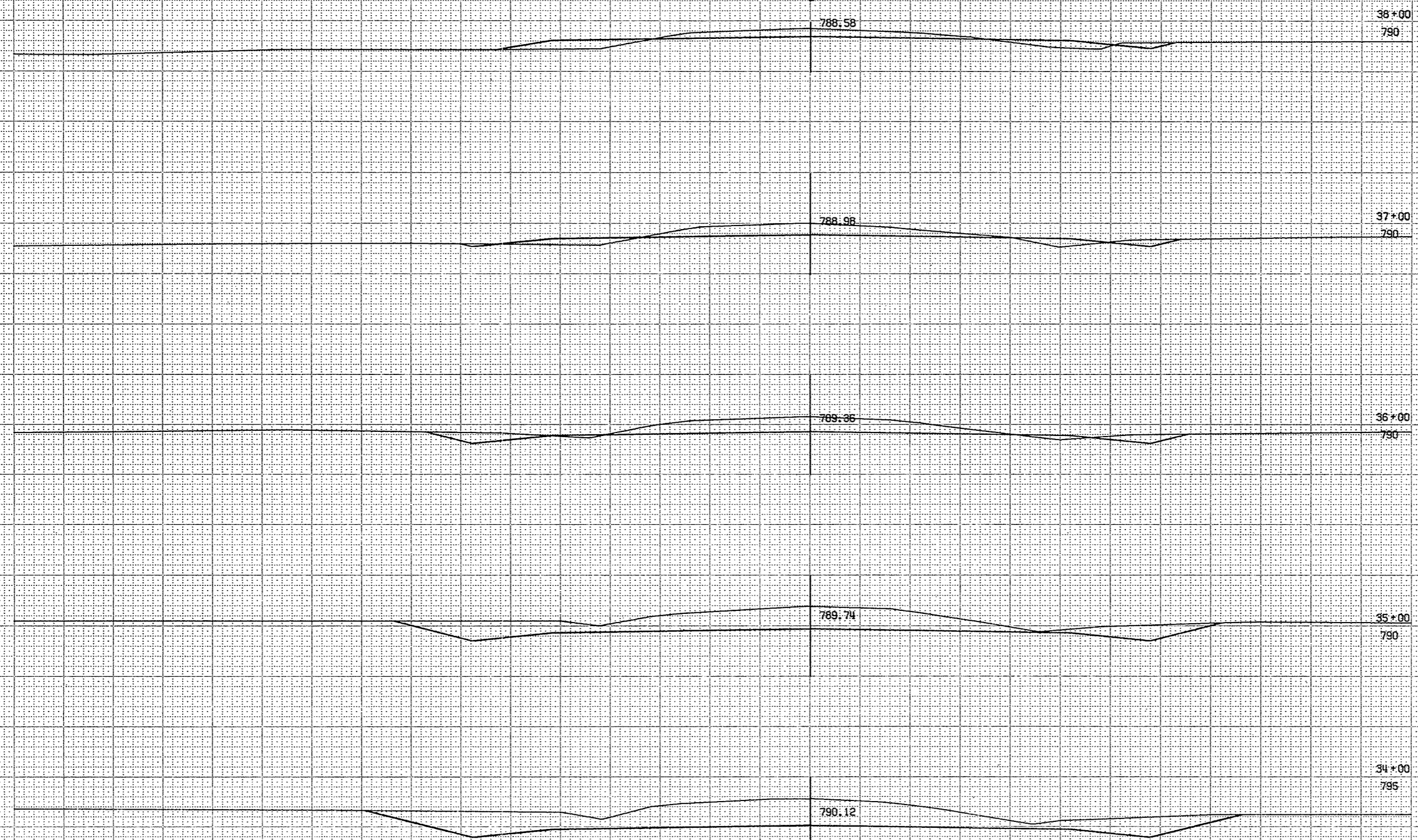
790.33

1" = S. VER.  
1" = S. HOR.

3 6460 20013

20/76

SURVEY  
T



BPA REGION	PROJECT	SHEET NUMBER	TOTAL SHEETS
WIS	S 1260 (3)	35	91

STATION	DISTANCE	YARDAGE	
		EXCAVATION	FILL
33	613		
34	483		
35	302		6
36	157		24
37	94		46
38			
TOTALS	1,649		76

1" = 5' VER  
1" = 5' HOR  
3 6460 20013

21/76

SURVEY  
T

STA. REGION DIVISION	PROJECT	SHEET NUMBER	TOTAL SHEETS
WIS	S 1260 (3)	36	91
STATION	DISTANCE	YARDAGE	
		EXCAVATION	FILL
		UNCL.	
38		74	65
39		107	52
40		181	59
41		281	39
42		272	41
43			
TOTALS		915	236

43+00  
790

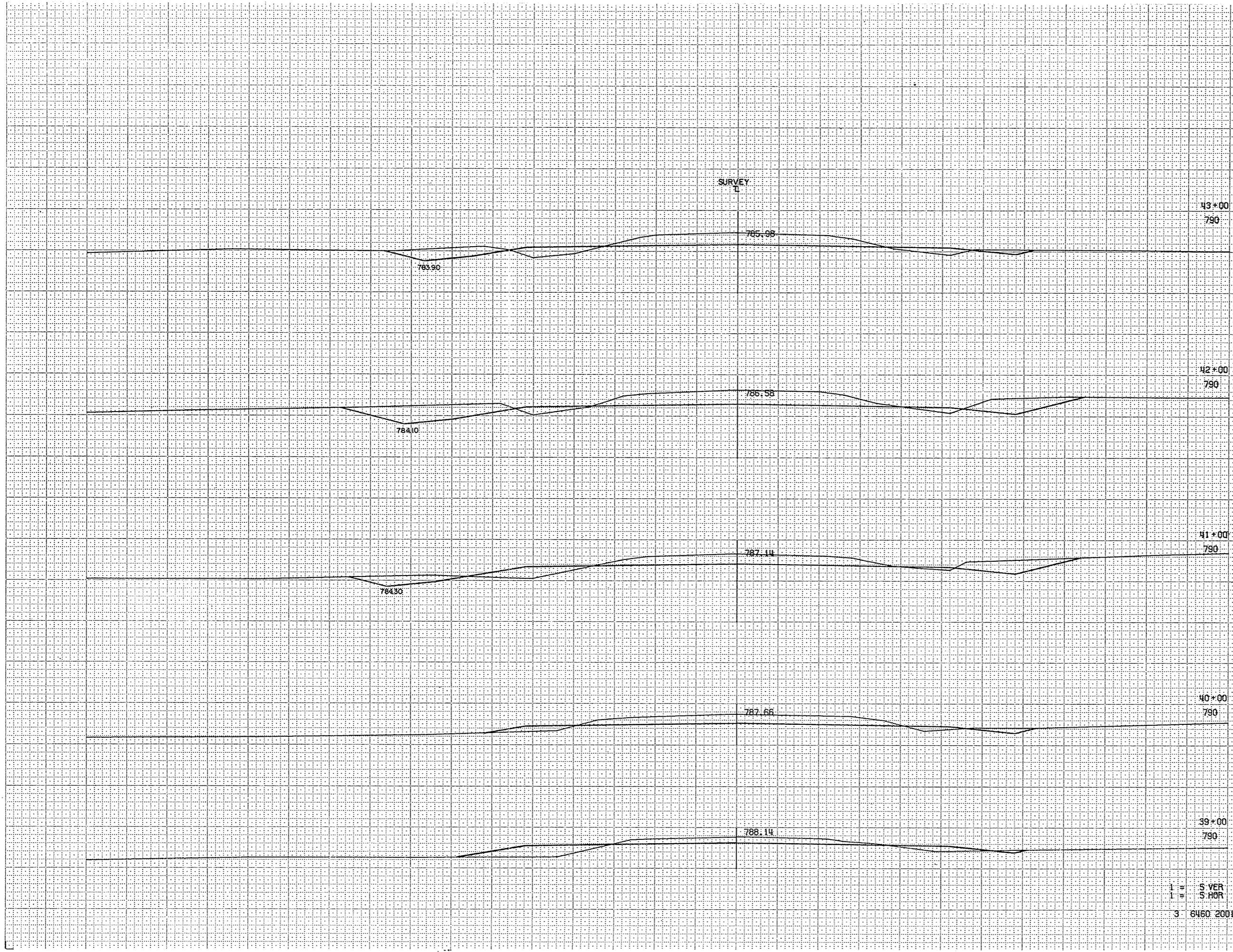
42+00  
790

41+00  
790

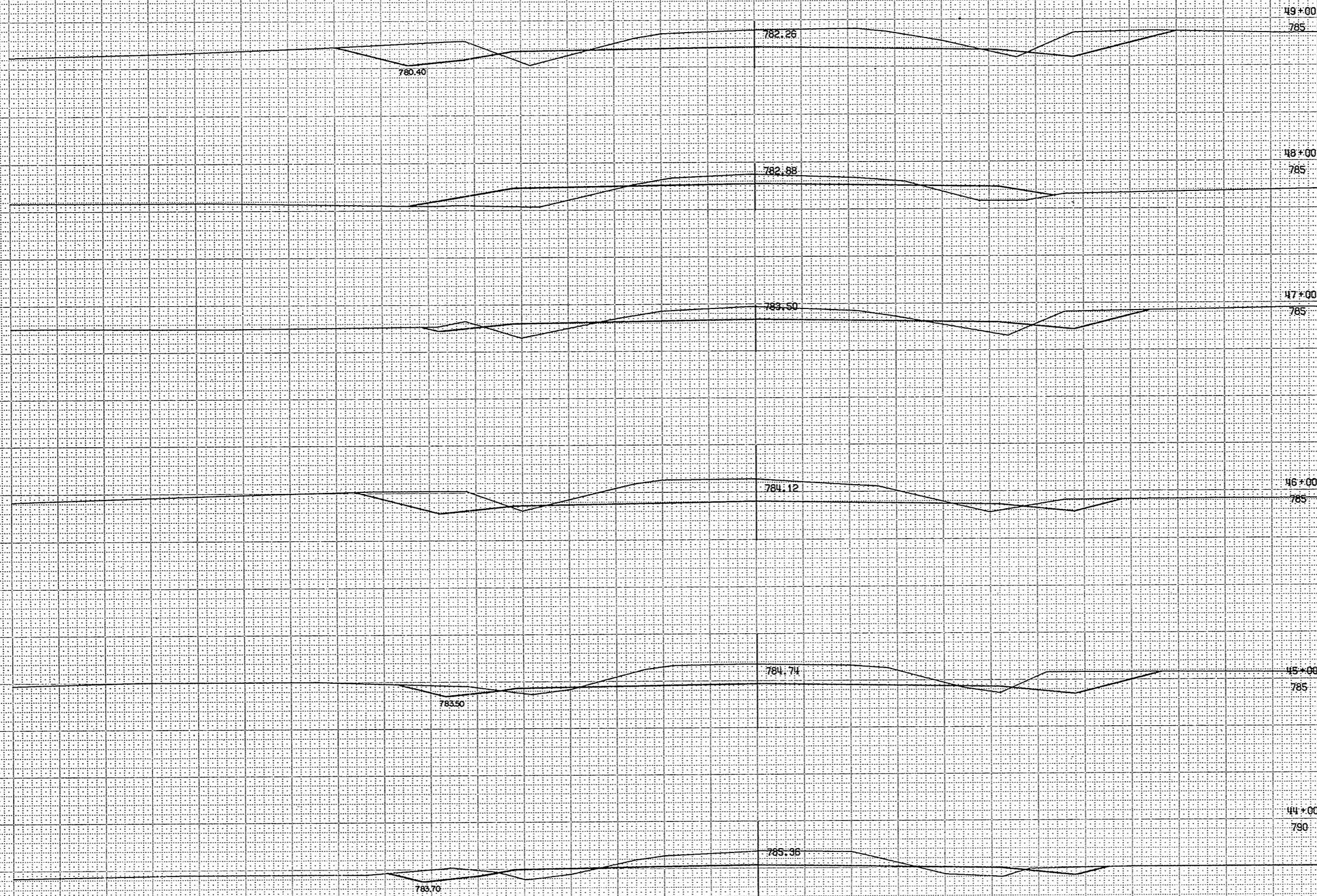
40+00  
790

39+00  
790

1" = 5' VER  
1" = 5' HOR  
3 6460 20013



SURVEY  
T



BPA REGION DIVISION	PROJECT	SHEET NUMBER	TOTAL SHEETS
4 WIS	S 1260 (3)	37	91

STATION	DISTANCE	YARDAGE	
		EXCAVATION	FILL
43		198	52
44		270	37
45		363	20
46		276	43
47		128	107
48		239	91
49			
TOTALS		1,474	350

1" = 5' VER  
1" = 5' HOR  
3 6460 20013

SURVEY



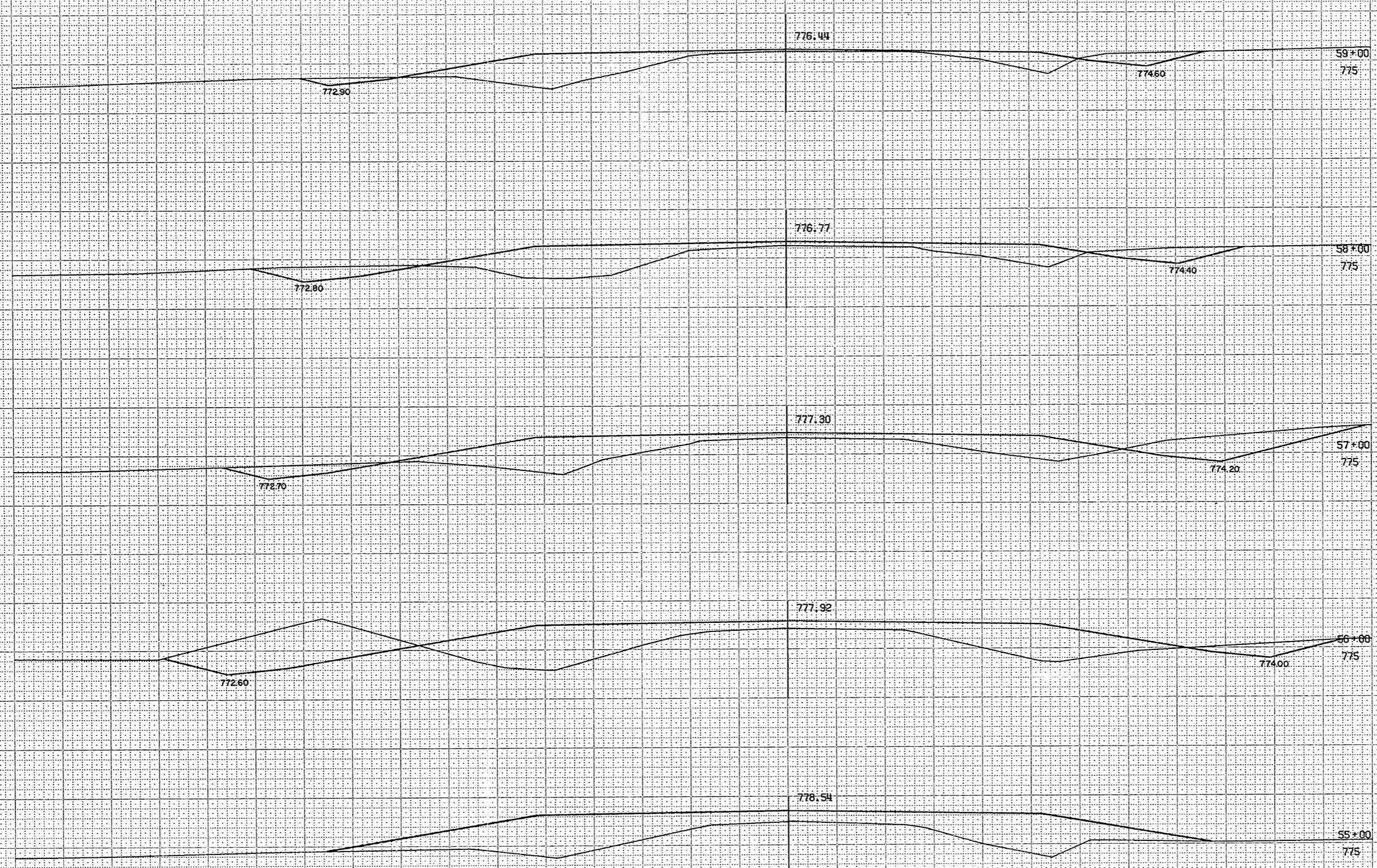
BPA REGION DIVISION	PROJECT	SHEET NUMBER	TOTAL SHEETS
4 WIS	S 1260 (3)	38	91

STATION	DISTANCE	YARDAGE	
		EXCAVATION	FILL
		UNCL.	
49		328	33
50		217	48
51		130	89
52		43	202
53			457
54			
TOTALS		718	629

1" = 5' VER  
 1" = 5' HOR  
 3 8460 20013

24/76

SURVEY  
T



STA. REGION DIVISION	PROJECT	SHEET NUMBER	TOTAL SHEETS
4 WIS	S 1260 (3)	39	91
STATION	DISTANCE	YARDAGE	
		EXCAVATION	FILL
UNCL			
54			657
55	157		637
56	248		493
57	144		369
58	80		309
59			
TOTALS	629		2465

1" = 5' VER  
 1" = 5' HOR  
 3 6460 20013

25/76

SURVEY  
T

STATION	DISTANCE	YARDAGE	
		EXCAVATION	
		UNCL	FILL
59	39		302
60	15		339
61	4		367
62	6		344
63	17		263
64			
TOTALS	81		1,615

777.58

776.00

64+00

775

776.98

775.40

63+00

775

776.58

775.20

62+00

775

776.33

775.00

61+00

775

776.29

774.80

60+00

775

773.00

1" = 5' VER  
1" = 5' HOR  
3 6460 20013



26/16

SURVEY

SPR. REGION	PROJECT	SHEET NUMBER	TOTAL SHEETS
4	S 1260 (3)	41	91

STATION	DISTANCE	YARDAGE	
		EXCAVATION	FILL
64		52	172
65		126	102
66		319	37
67		330	6
68		194	6
69			
TOTALS	1,021		323

781.10

69+00  
785

780.39

68+00  
785

779.00

779.69

67+00  
780

778.99

66+00  
780

778.29

65+00  
780

1" = 5' VERT  
1" = 5' HOR  
3-6460 20013

27

SURVEY

75+00  
780

776.85

BPA REGION DIVISION	PROJECT	SHEET NUMBER	TOTAL SHEETS
WIS	S 1260 (3)	42	91

STATION	DISTANCE	YARDAGE	
		EXCAVATION	
		UNCL	FILL
69			
70	198		2
71	395		2
72	809		
73	891		
74	465		6
75	148		35
TOTALS	2,927		45

74+00  
780

778.56

73+00  
785

780.03

72+00  
785

781.02

71+00  
785

781.53

70+00  
785

781.56

1" = 5' VERT  
1" = 5' HOR

3 6460 20013

SURVEY  
T

769.43

81+00

765

BPA REGION DIVISION	PROJECT	SHEET NUMBER	TOTAL SHEETS
4 RIS	S1280 (3)	43	91

STATION	DISTANCE	YARDAGE	
		EXCAVATION	
		UNCL	FILL
75		93	54
76		141	33
77		154	24
78		100	41
79		33	137
80			295
81			
TOTALS		521	582

770.01

80+00

770

770.87

79+00

775

772.02

78+00

775

773.45

77+00

775

775.13

76+00

780

1 = S VER  
1 = S HOR  
3 6460 20013

29/16

SURVEY  
T

BPA REGION DIVISION	PROJECT	SHEET NUMBER	TOTAL SHEETS
WIS	S1260 (3)	44	91
STATION	DISTANCE	YARDAGE	
		EXCAVATION	
		UNCL	FILL
81			439
82			520
83			456
84	2		280
85	126		94
86	387		7
87			
TOTALS	515		1,796

87+00  
770

757.59

86+00  
770

757.89

85+00  
770

758.19

84+00  
765

758.49

83+00  
765

758.79

82+00  
765

759.09

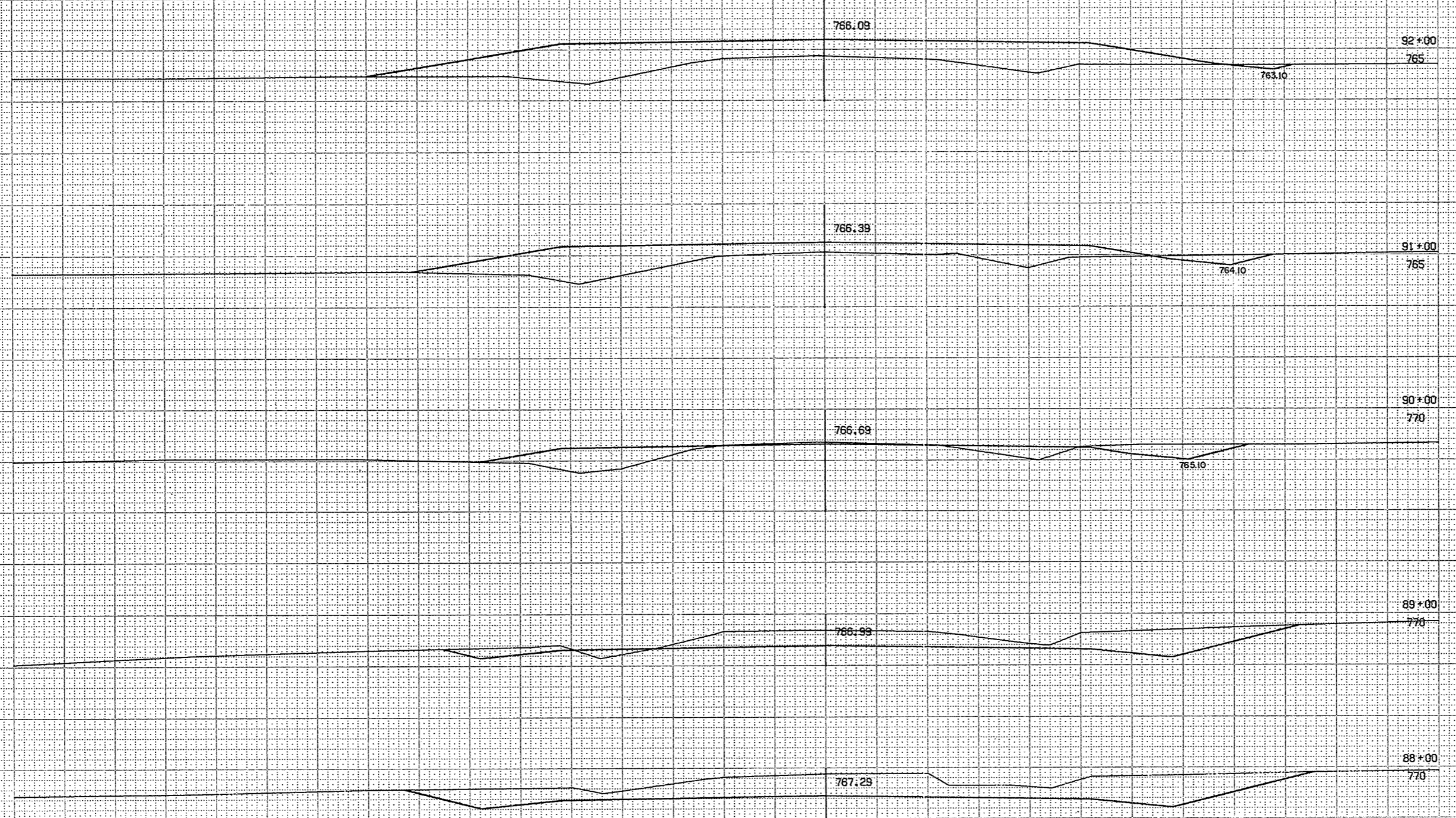
1" = 5' VER  
1" = 5' HOR

3 6460 20013

DISTRICT	REGION	PROJECT	SHEET NUMBER	TOTAL SHEETS
4	WIS	S 1260 (3)	45	91

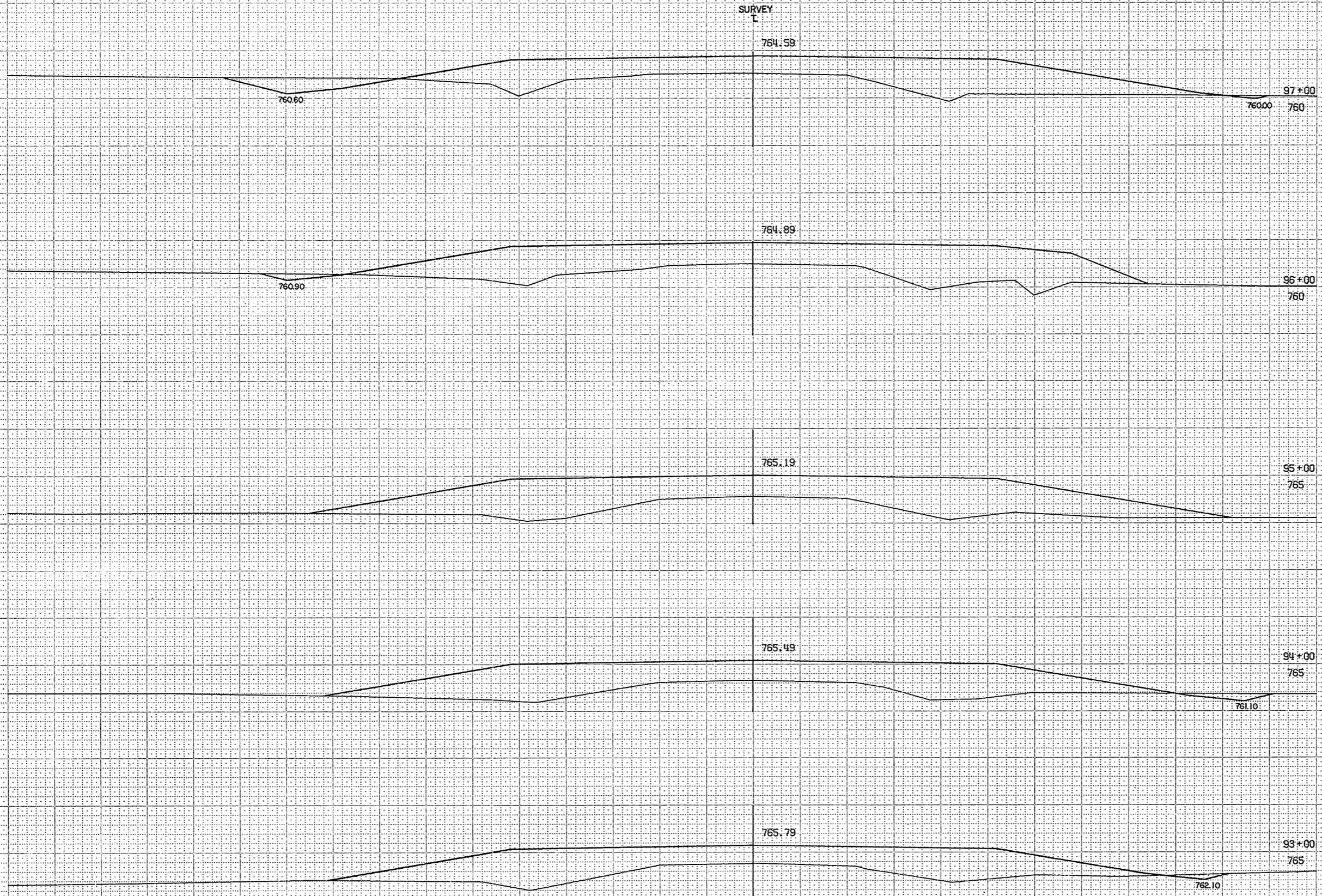
STATION	DISTANCE	YARDAGE	
		EXCAVATION	FILL
87			
88		539	
89		444	7
90		196	78
91		59	272
92		13	508
TOTAL		1,251	863

SURVEY  
L



1" = 5' VER  
1" = 5' HOR  
3 6460 20013

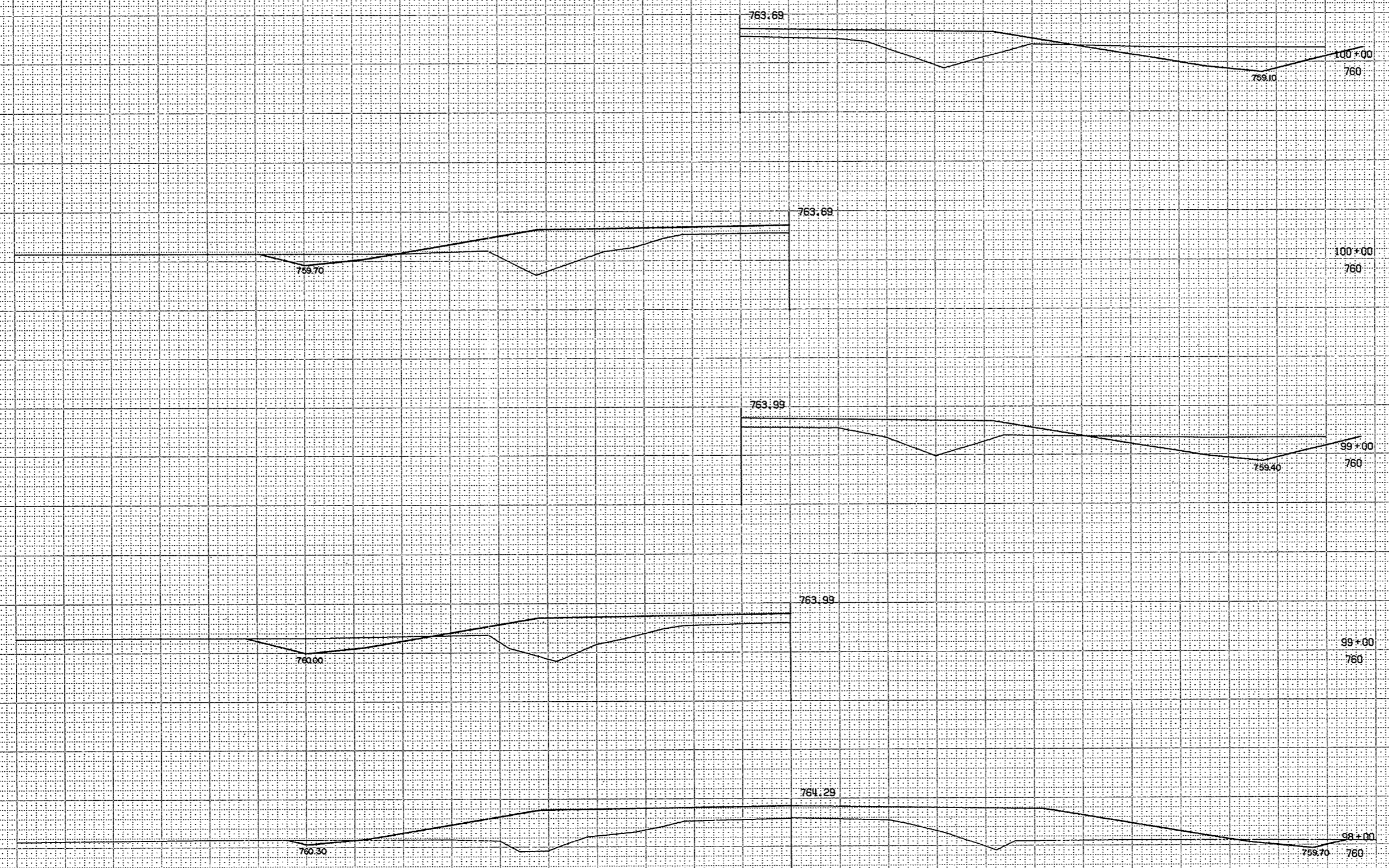
3/76



BPA REGION		PROJECT	SHEET	TOTAL
DIVISION		NUMBER	NUMBER	SHEETS
WIS		S.1260 (3)	46	91
STATION	DISTANCE	TARPOGE		FILL
		EXCAVATION		
		UNCL		
92		6		674
93		13		770
94		9		867
95		6		894
96		41		776
97				
TOTALS		75		3,981

1" = 5' VER  
 1" = 5' HOR  
 3 6460 20013

SURVEY

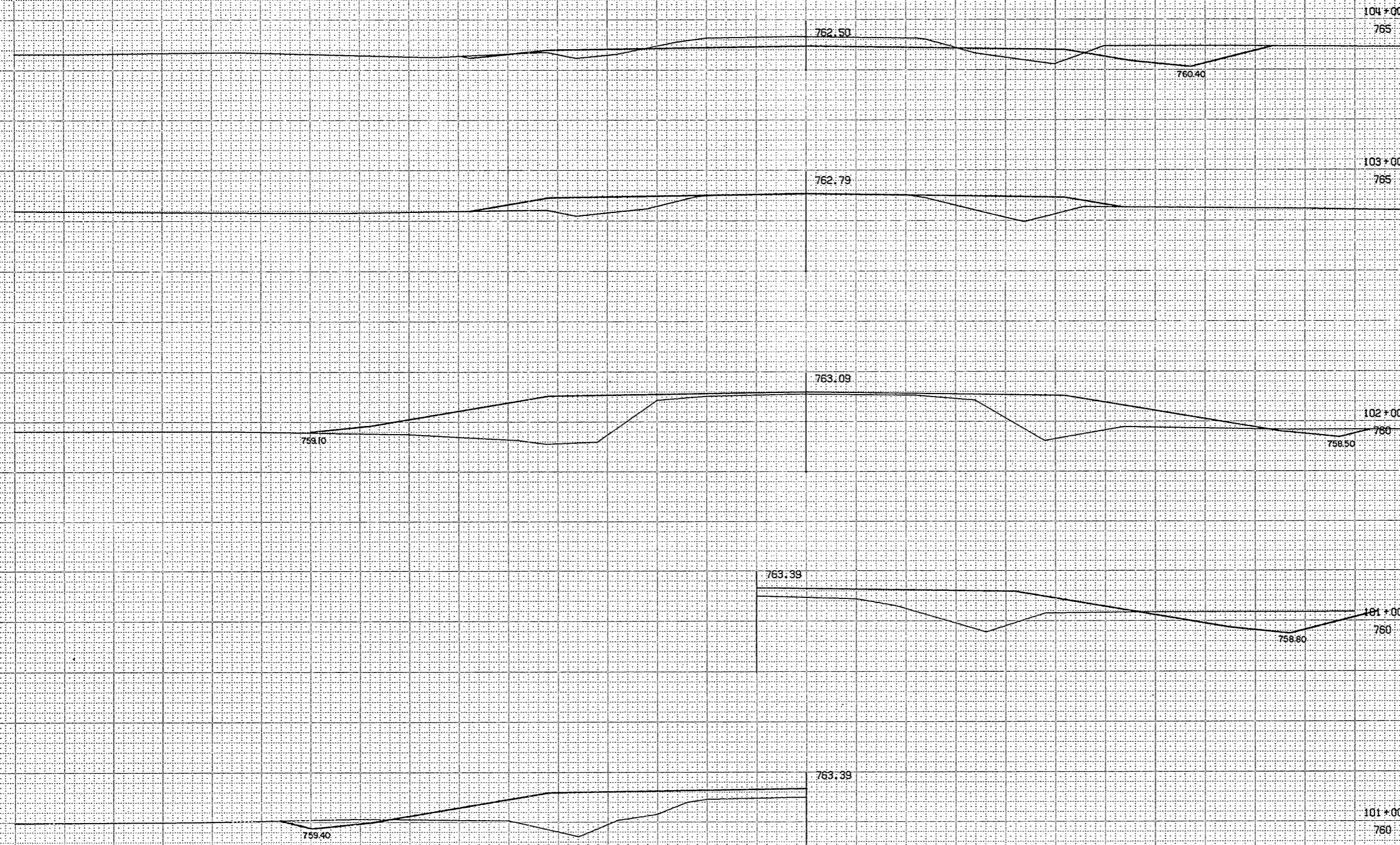


STATION	DISTANCE	YARDAGE	
		EXCAVATION	FILL
97	48		683
98	111		557
99	189		446
100			
TOTALS		348	1,686

BPA REGION DIVISION	PROJECT	SHEET NUMBER	TOTAL SHEETS
4 WIS	S 1260 (3)	47	91

1" = 5' VER  
 1" = 5' HOR  
 3 6460 20013

SURVEY  
T



BPA REGION	PROJECT	SHEET	TOTAL
DIVISION	S. 1260 (3)	NUMBER	SHEETS
WIS		48	91
STATION	DISTANCE	YARDBAGE	
		EXCAVATION	FILL
		UNCL.	
100		152	491
101		69	563
102		7	387
103		93	120
104			
TOTALS	321		1,561

1" = 5' VER  
1" = 5' HOR  
3 6460 20013



SURVEY  
T

BPA REGION DIVISION	PROJECT	SHEET NUMBER	TOTAL SHEETS
4 WIS	S 1260 (S)	49	91

STATION	DISTANCE	YARDAGE	
		EXCAVATION	FILL
		UNCL.	
104			
105			
106			
107			
108			
109			
TOTALS		1036	269

109+00  
765

761.39

759.40

108+00  
765

761.59

759.60

107+00  
765

761.79

759.80

106+00  
765

762.00

760.00

105+00  
765

762.20

760.20

1" = 5' VER  
1" = 5' HOR  
3 6460 20013

SURVEY  
T

114+00

765

760.40

758.00

758.40

113+00

765

760.60

758.30

758.60

112+00

765

760.80

758.60

758.80

111+00

765

760.99

758.90

759.00

110+00

765

761.19

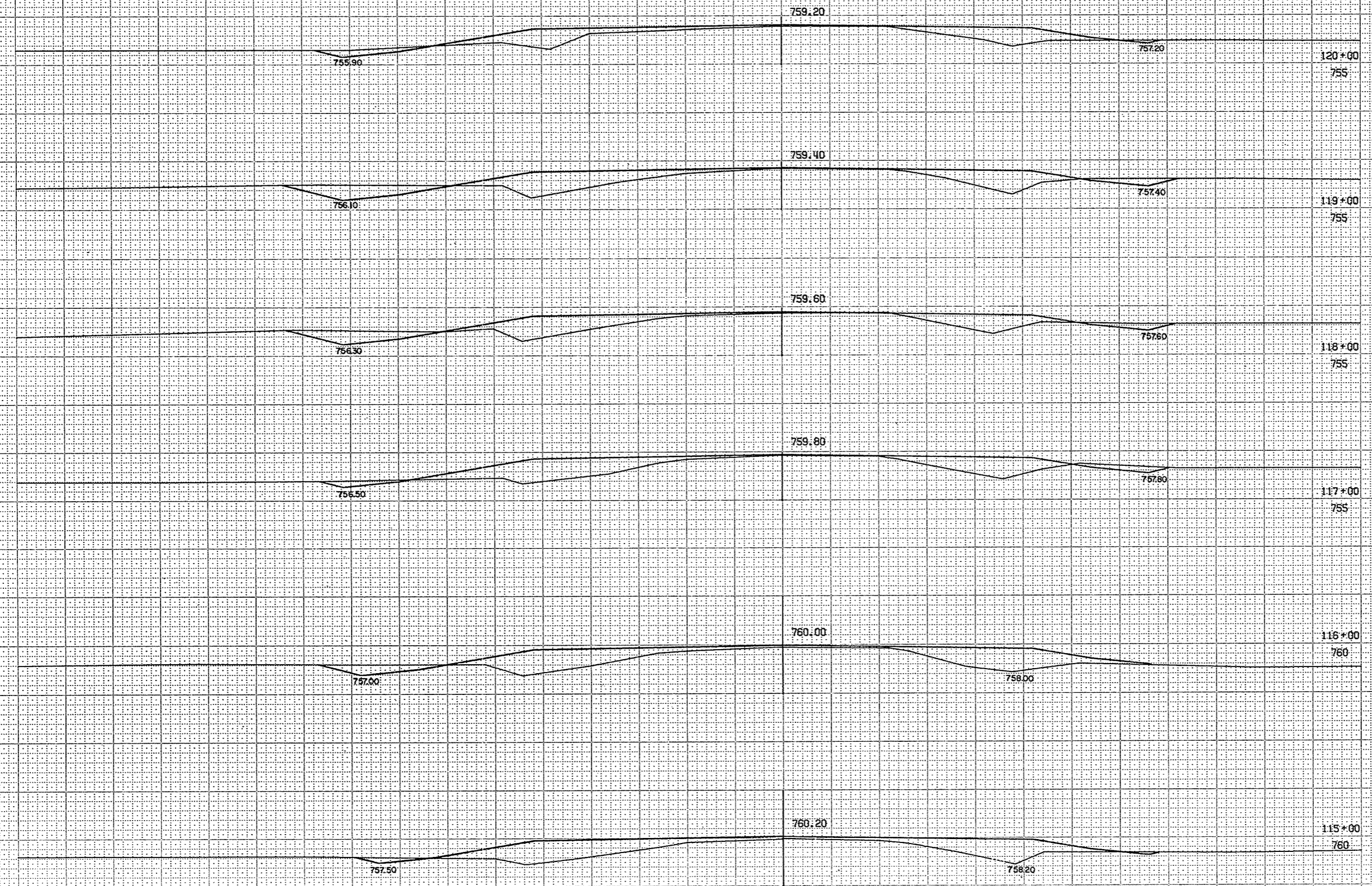
759.20

759.20

BPA REGION	PROJECT	SHEET NUMBER	TOTAL SHEETS
4	S 1260 (3)	50	91
WIS			
STATION	DISTANCE	YARDAGE	
		EXCAVATION	
		UNCL	FILL
109		161	76
110		85	126
111		89	151
112		87	139
113		63	150
114			
TOTALS	485		622

1 = 5 VER  
 1 = 5 HOR  
 3 6460 20013

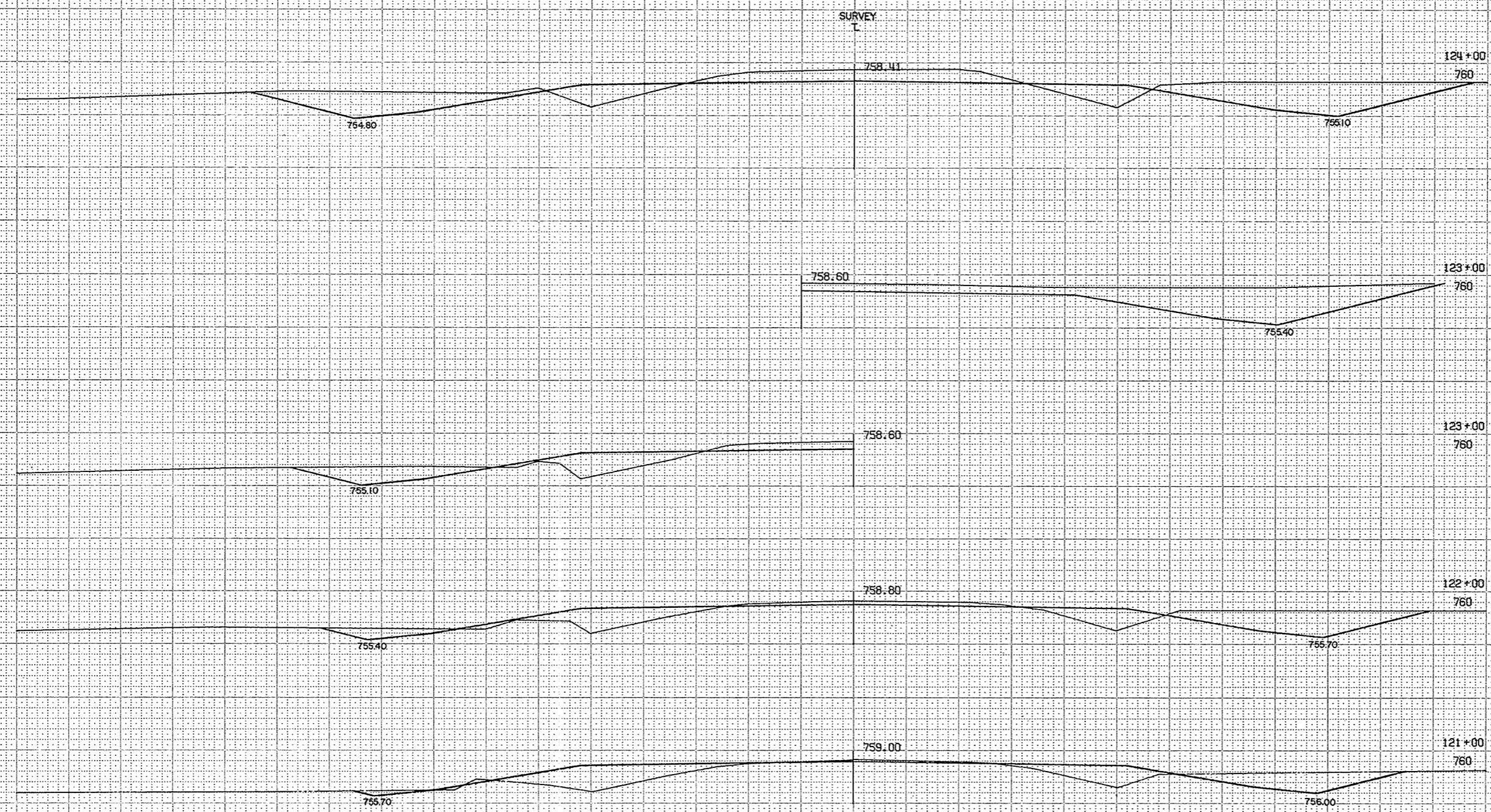
SURVEY  
1



BPA REGION DIVISION		PROJECT	SHEET NUMBER	TOTAL SHEETS
WIS		S 1260 (5)	51	91
STATION	DISTANCE	YARDAGE		
		EXCAVATION		FILL
		UNCL		
114		39		202
115		20		259
116		28		248
117		44		209
118		69		193
119		46		185
120				
TOTALS		246		1296

1 = S-VER  
1 = S-HOR  
3 6460 20013

BPA REGION DIVISION	PROJECT	SHEET NUMBER	TOTAL SHEETS
WIS	3 1260 (3)	52	91
STATION	DISTANCE	YARDAGE	
		EXCAVATION	
		UNCL.	FILL
120		61	167
121		148	152
122		313	107
123		444	89
124			
TOTALS	966		515



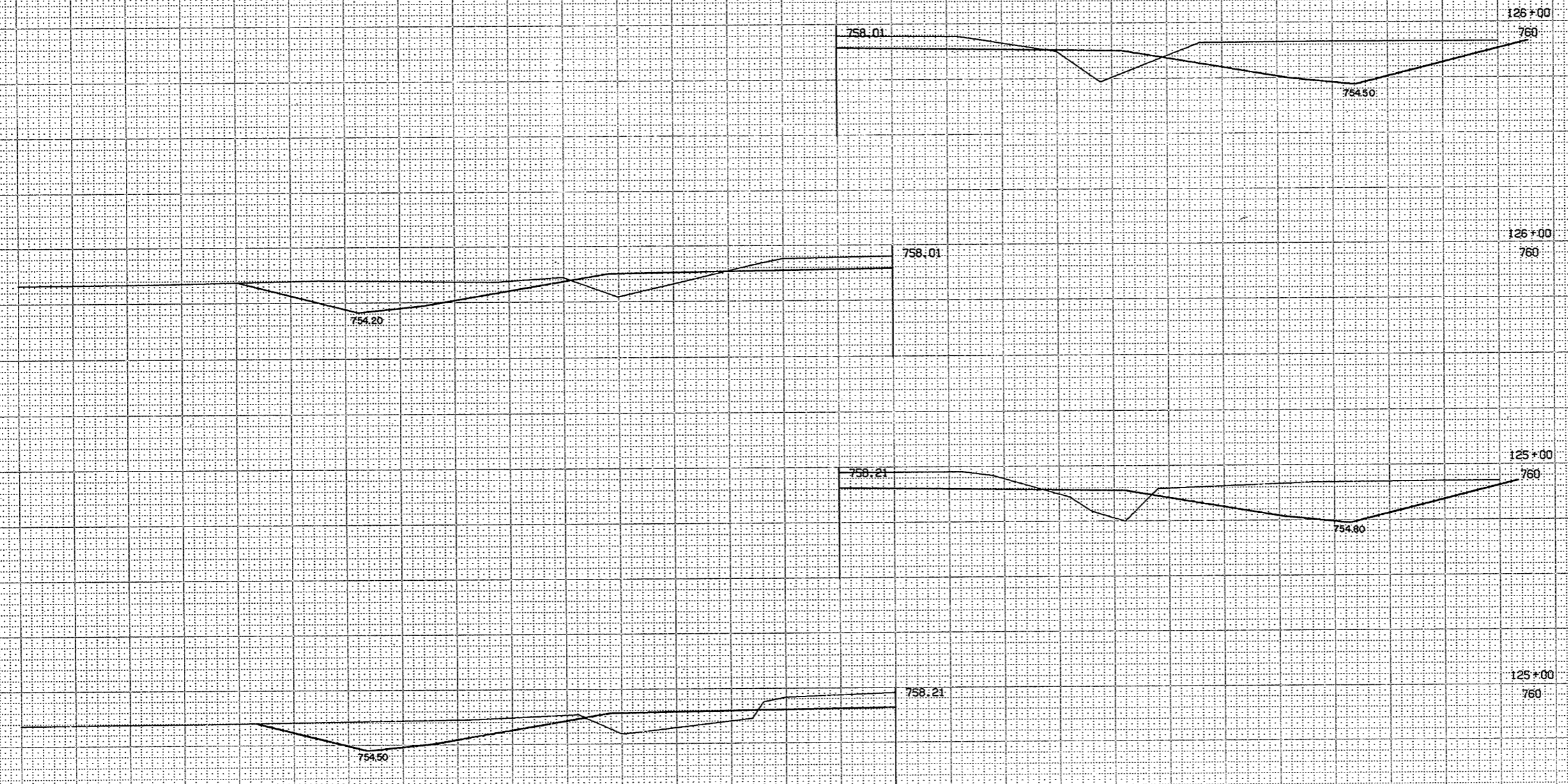
1" = 5' VER  
1" = 5' HOR  
3 6460 20013

BPA REGION DIVISION	PROJECT	SHEET NUMBER	TOTAL SHEETS
WIS	S 1260 (3)	53	91

STATION	DISTANCE	YARDAGE	
		EXCAVATION	FILL
124		513	111
125		569	117
126			
TOTAL		1082	228

SURVEY T

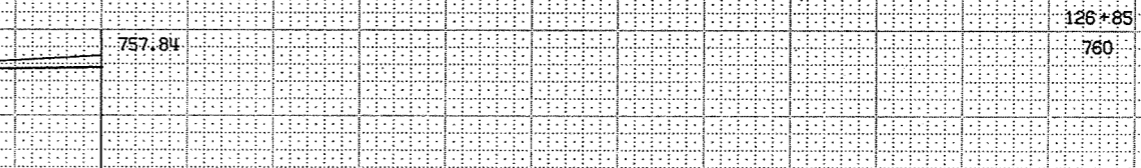
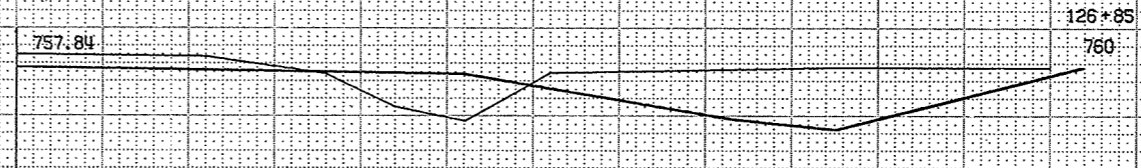
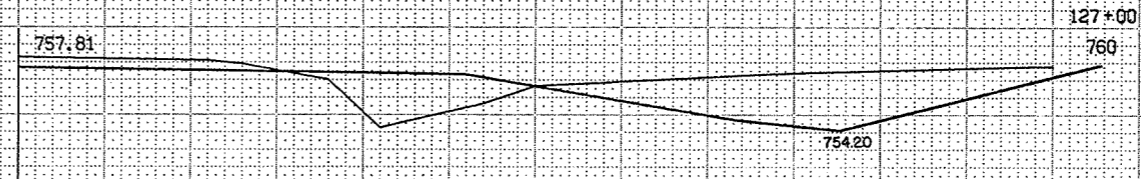


1" = 5' VERT  
 1" = 50' HOR  
 3 - 6460 20013

BPR REGION	PROJECT	SHEET	TOTAL
4	S 1260 (3)	54	91
DIVISION			

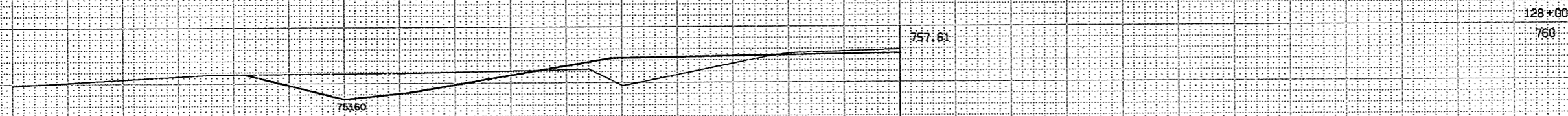
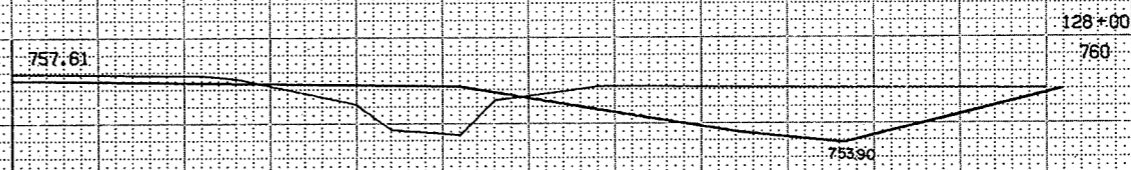
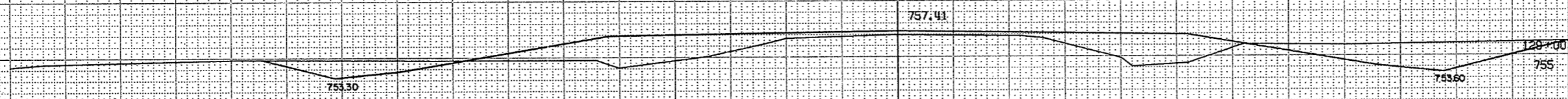
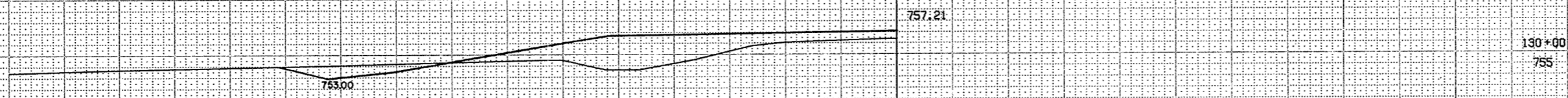
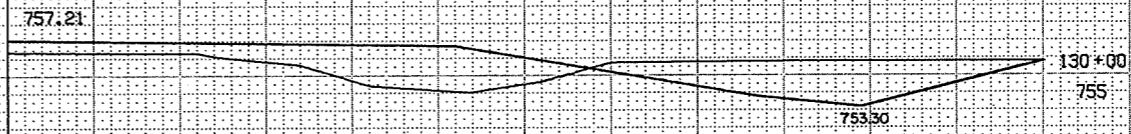
STATION	DISTANCE	YARDAGE	
		EXCAVATION	
		UNCL	FILL
126		401	112
+85		71	20
127			
TOTALS		472	132

SURVEY



1 5 VER  
1 5 HOR  
3 6460 20013

SURVEY  
1

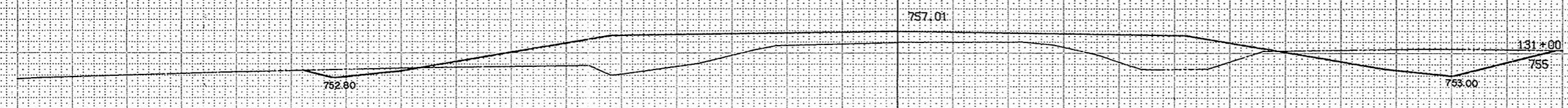
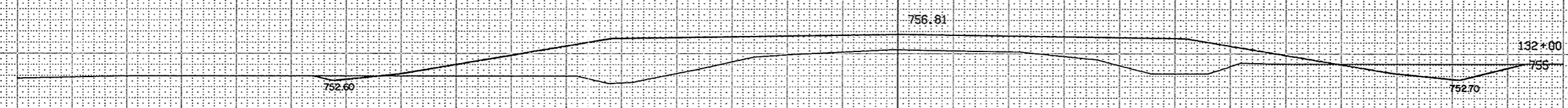
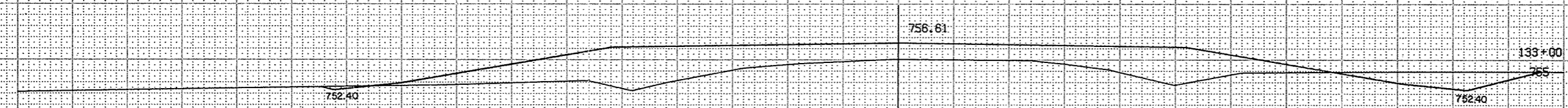
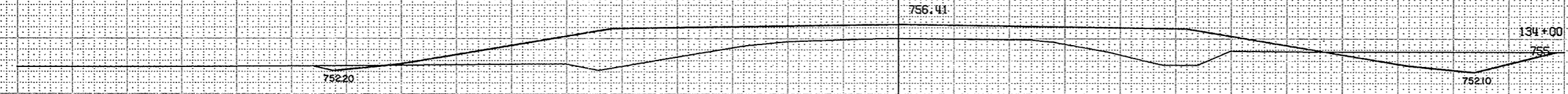


BPA REGION DIVISION	PROJECT	SHEET NUMBER	TOTAL SHEETS
WIS	S 1260 (3)	55	91
STATION	DISTANCE	YARDAGE	
		EXCAVATION	FILL
127			
128	430		124
129	283		243
130	191		350
TOTALS		904	717

1" = 5' VER  
 1" = 5' HOR  
 3 6460 20013

BPA REGION	PROJECT	SHEET NUMBER	TOTAL SHEETS
4	3 1250 (3)	56	91
STATION	DISTANCE	YARDAGE	
		EXCAVATION	
		UNCL.	FILL
130		159	426
131		96	541
132		59	598
133		72	563
134			
TOTALS	386		2,128

SURVEY  
T



1 5 VER  
1 5 HOR  
3 6460 20013

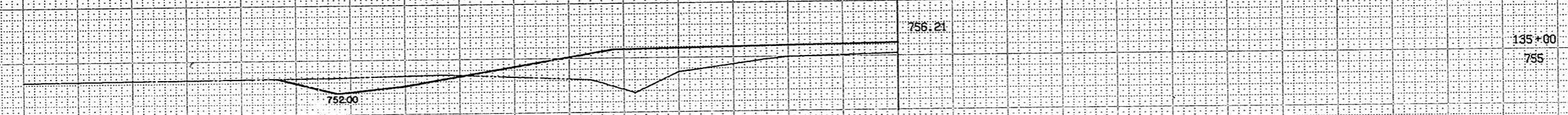
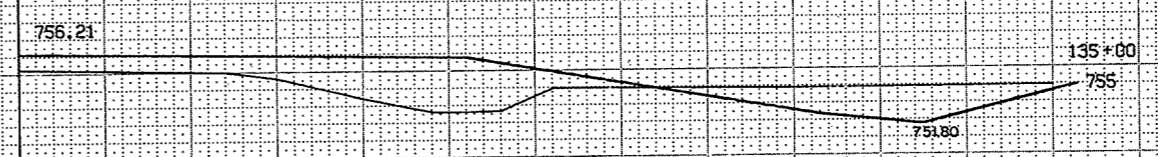
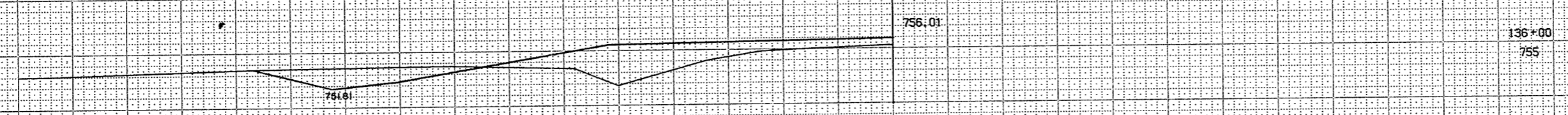
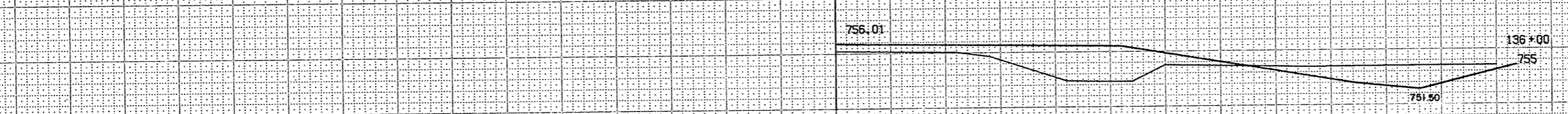


48/76

BPA REGION DIVISION	PROJECT	SHEET NUMBER	TOTAL SHEETS
4 WIS	S 1260 (3)	57	91

STATION	DISTANCE	YARDAGE	
		EXCAVATION	FILL
134	120		494
135	172		424
136			
TOTALS	292		918

SURVEY



1" = 5' VER  
 1" = 5' HOR  
 3 6460 20013

43  
76

SURVEY  
L

140+00  
760

755.22

752.70

752.70

139+00  
760

755.42

752.20

752.20

138+00  
755

755.62

751.70

751.70

137+00  
755

755.82

751.20

137+00  
755

755.82

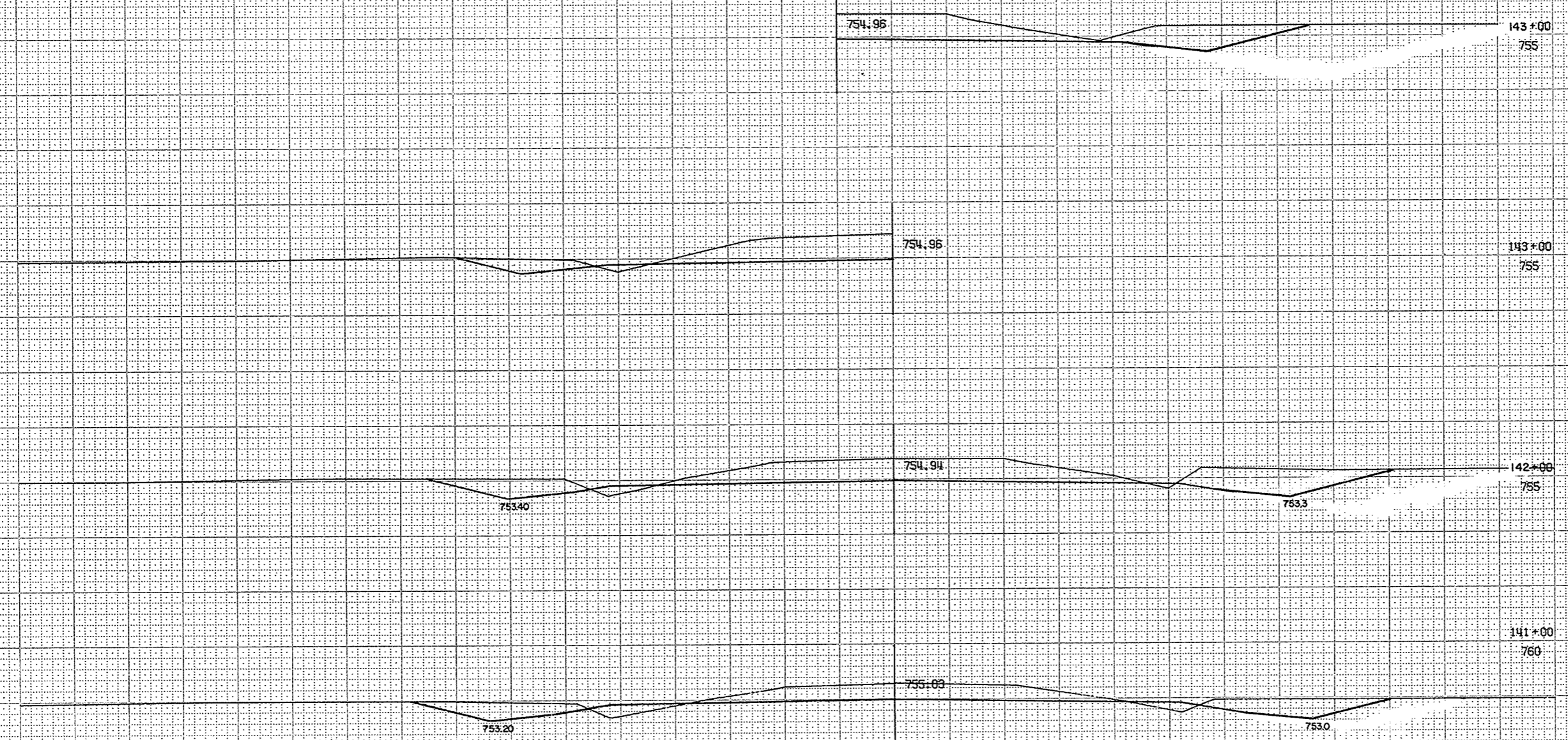
751.60

BPA REGION		PROJECT	SHEET NUMBER	TOTAL SHEETS
WIS		S 1260 (3)	58	91
STATION	DISTANCE	YARDAGE		
		EXCAVATION		FILL
		UNCL		
136				
137		91		406
138		204		337
139		181		215
140		174		117
TOTALS	750			1,075

1" = 5' VER  
1" = 5' HOR  
3- 6460 20013

SHEET		PROJECT	SHEET NUMBER	TOTAL SHEETS
Q		S 1260 (3)	59	91
STATION	DISTANCE	YARDAGE		
		EXCAVATION		FILL
		UNCL		
140		240		50
141		357		24
142		413		11
143				
TOTALS		1,010		86

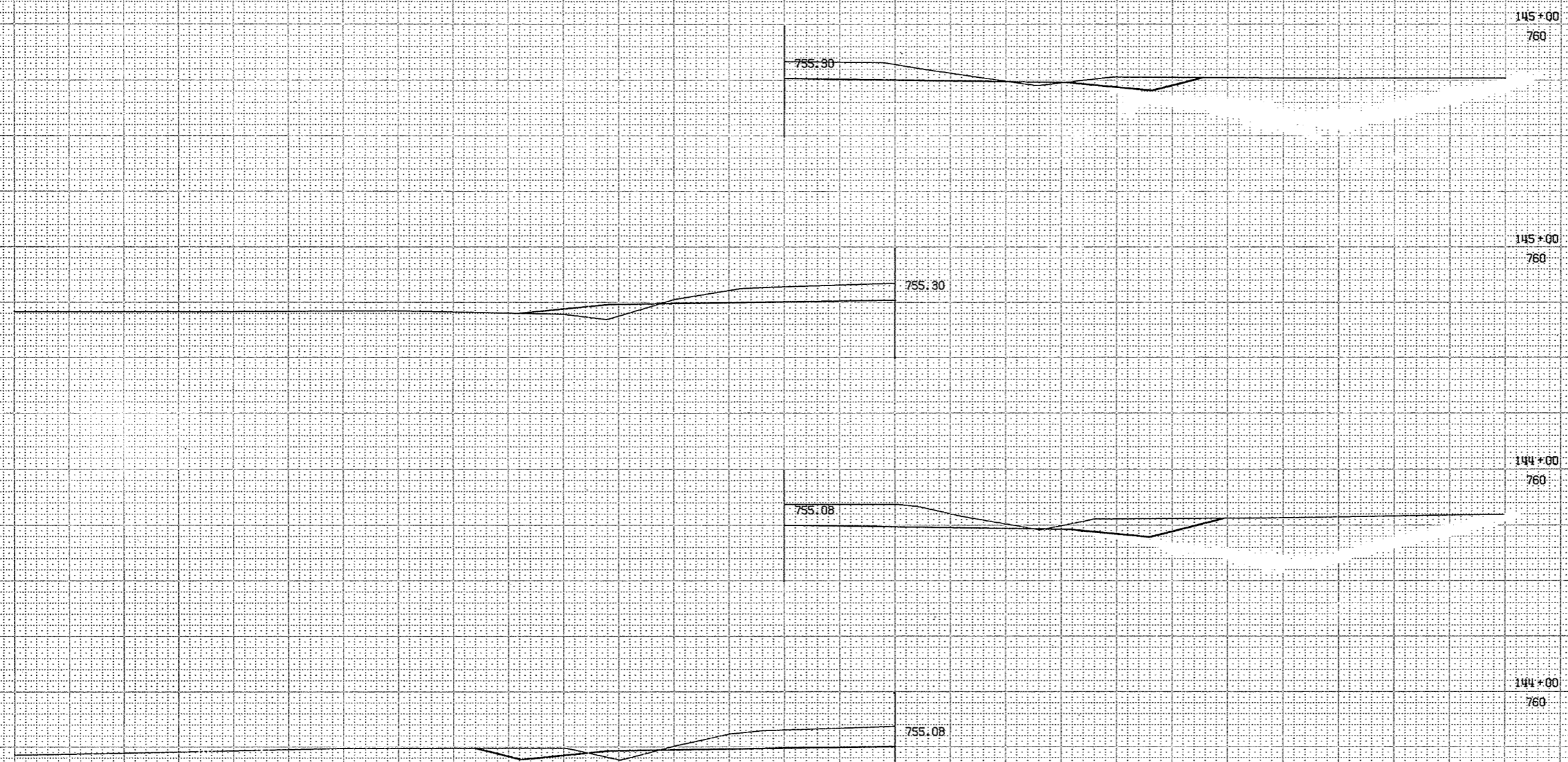
SURVEY  
T



1" = 5' VER  
1" = 5' HOR  
3-6460 20013

BPR REGION	PROJECT	SHEET NUMBER	TOTAL SHEETS
4	S 1260 (3)	60	91
DISTANCE			
STATION	YARDAGE		
	EXCAVATION		FILL
143	UNCL		
144	255		22
145			
TOTALS	609		31

SURVEY  
I.



1" = 5' VER  
 1" = 5' HOR  
 3 6460 20013

SURVEY

148+00  
760

756.01

BPA REGION DIVISION		PROJECT	SHEET NUMBER	TOTAL SHEETS
WIS		S 1260 (3)	61	91
STATION	DISTANCE	YARDAGE		
		EXCAVATION		FILL
		UNCL		
145		190		35
146		269		50
147		321		39
148				
TOTALS		780		124

147+00  
760

755.77

147+00  
760

755.77

146+00  
760

755.51

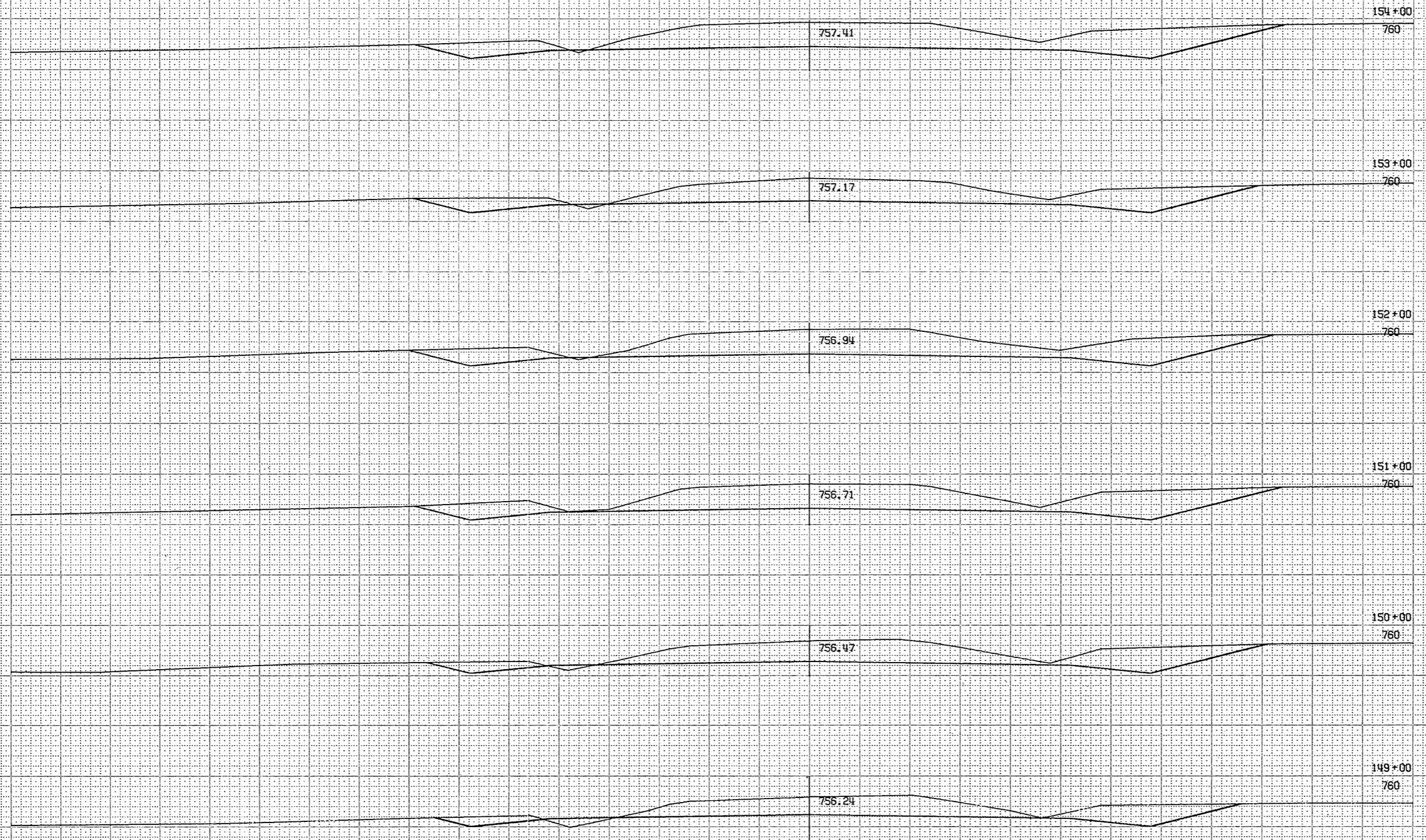
146+00  
760

755.51

1" = S-VER  
1" = S-HOR  
3 6460 20013

47/16

SURVEY  
L



STATION	DISTANCE	YARDAGE		TOTAL SHEETS
		EXCAVATION		
		UNCL	FILL	
148		311		13
149		369		7
150		457		2
151		504		
152		463		2
153		478		2
154				
TOTALS		2,582		26

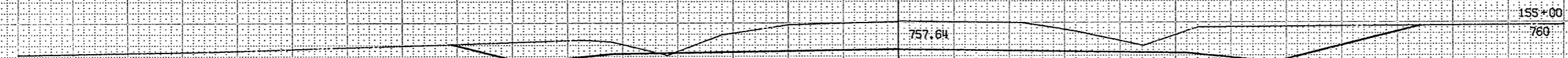
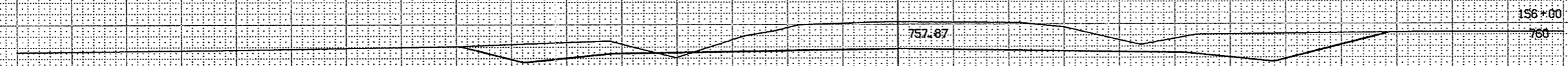
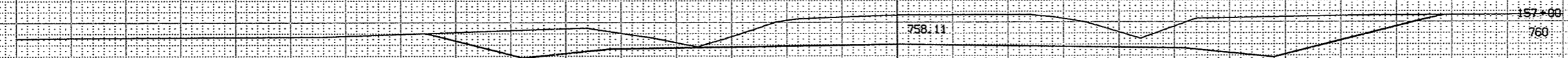
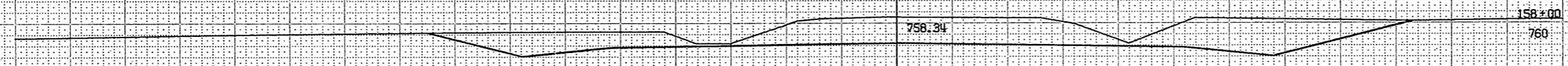
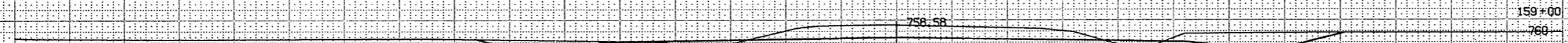
1" = 5' V.E.R.  
 1" = 50' H.O.R.  
 3-6460-20013

SURVEY  
T

DPA REGION DIVISION	PROJECT	SHEET NUMBER	TOTAL SHEETS
4 WIS	S 1260 (3)	63	91

STATION	DISTANCE	YARDAGE	
		EXCAVATION	FILL
154	550		
155	528		2
156	580		2
157	626		
158	380		11
159			
TOTALS	2,664		15



1 = S VER  
1 = S HOR  
3 6460 20013

SURVEY  
T

760.01

164+00  
760

759.71

163+00  
755

759.41

162+00  
755

759.11

161+00  
755

758.83

160+00  
755

1" = S VERT  
1" = S HOR  
3 6460 20013

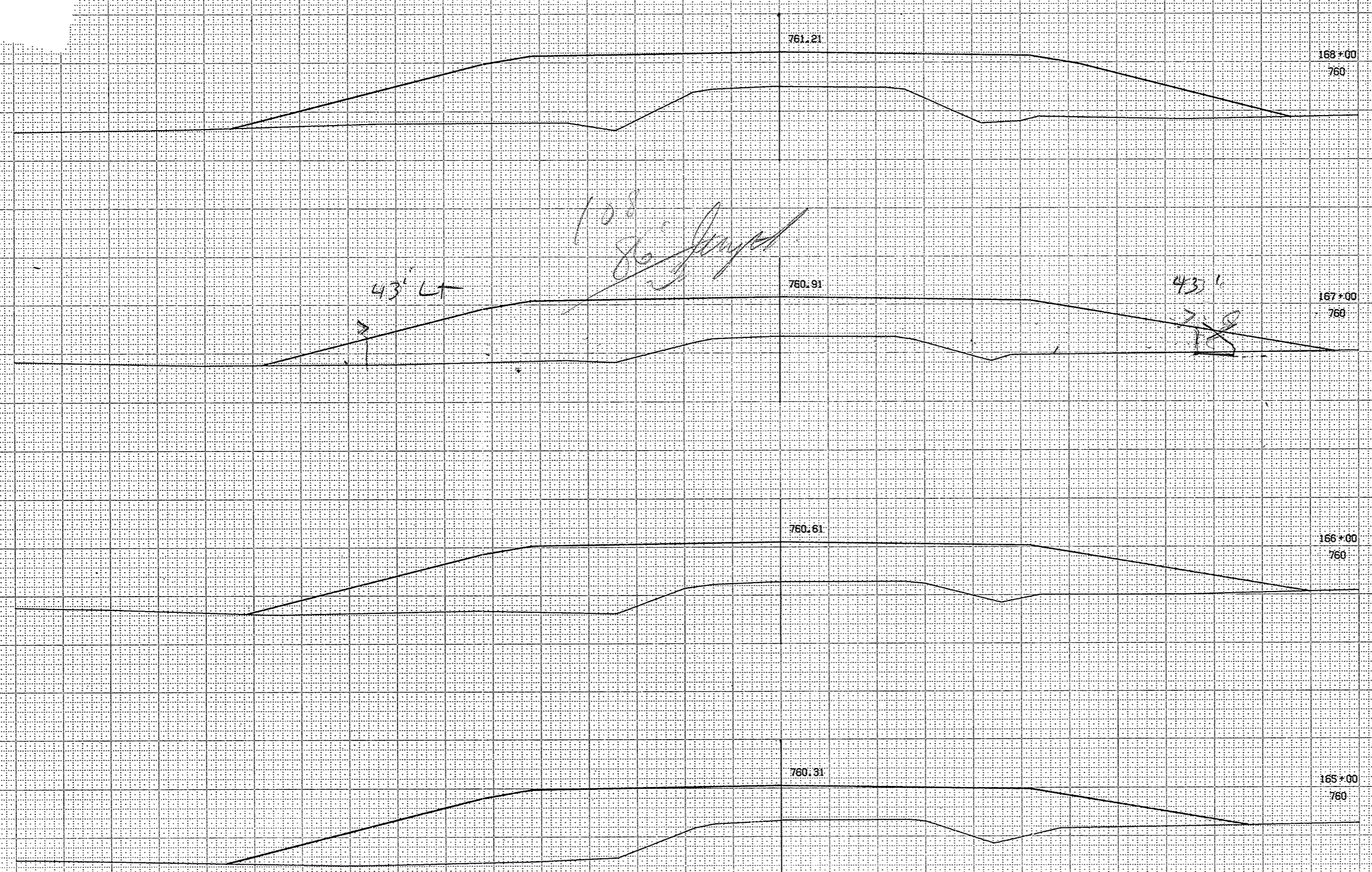
STATION	DISTANCE	YARDAGE	
		EXCAVATION	
		UNCL	FILL
159			
160	93		98
161			356
162			426
162	2		533
163	2		1043
164			
TOTALS	97		2456

BPA REGION DIVISION	PROJECT	SHEET NUMBER	TOTAL SHEETS
4 WIS	S 1260 (3)	64	91



59/76

SURVEY  
T



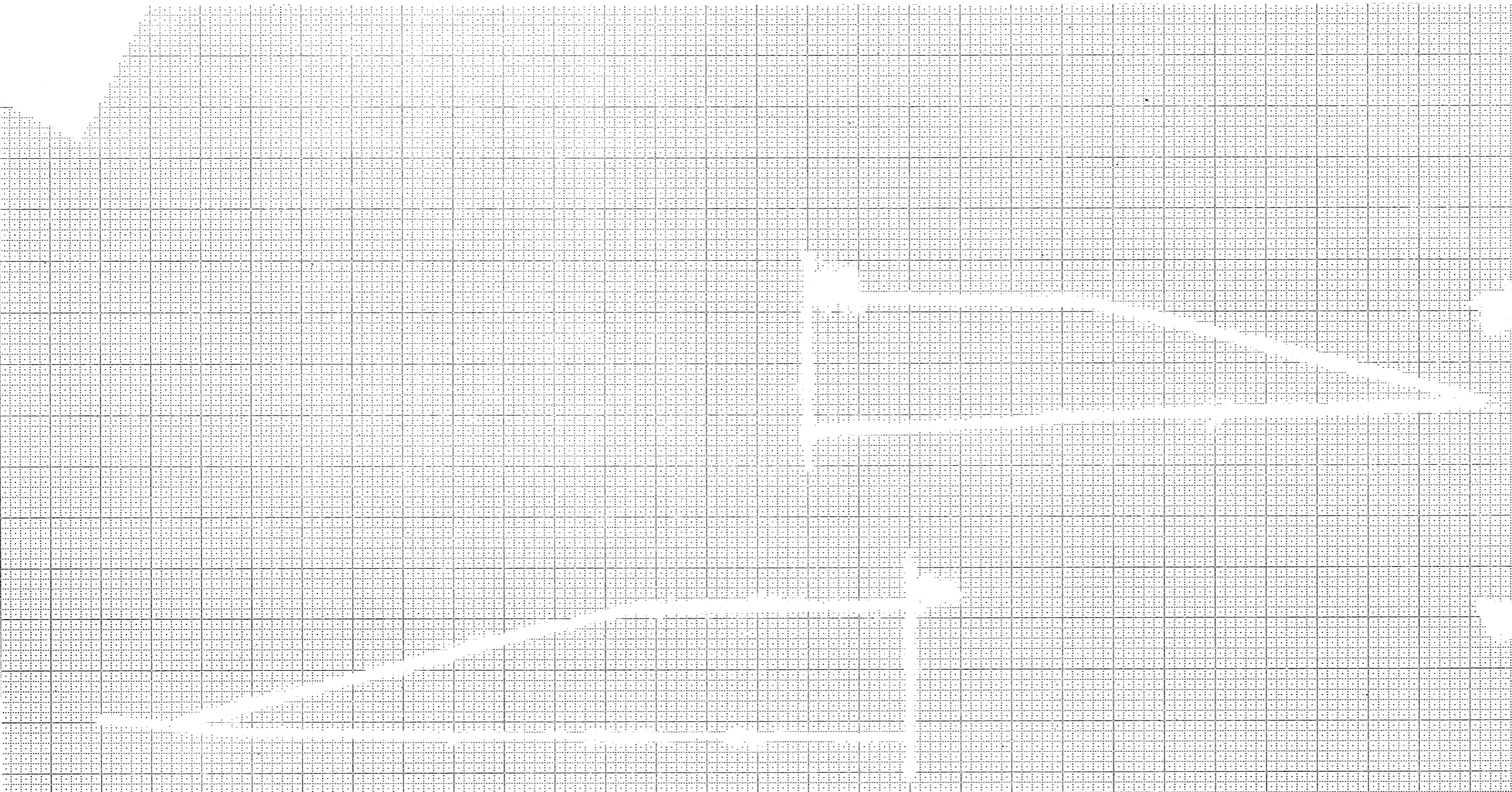
DPA REGION DIVISION	PROJECT	SHEET NUMBER	TOTAL SHEETS
4 WIS	S 1260 (3)	65	91
STATION	DISTANCE	YARDAGE	
		EXCAVATION	FILL
		UNCL.	
164			1,457
165			1,624
166			1,656
167			1,691
168			
TOTALS			6,428

1" = 5' VER  
 1" = 5' HOR  
 3-6460 20013

5/16

BPR REGION	PROJECT	SHEET	TOTAL
DIVISION		NUMBER	SHEETS
4 WIS	S 1260 (3)	66	91

STATION	DISTANCE	YARDAGE	
		EXCAVATION	FILL
UNCL			
168			1485
166			
TOTALS			1485



SURVEY

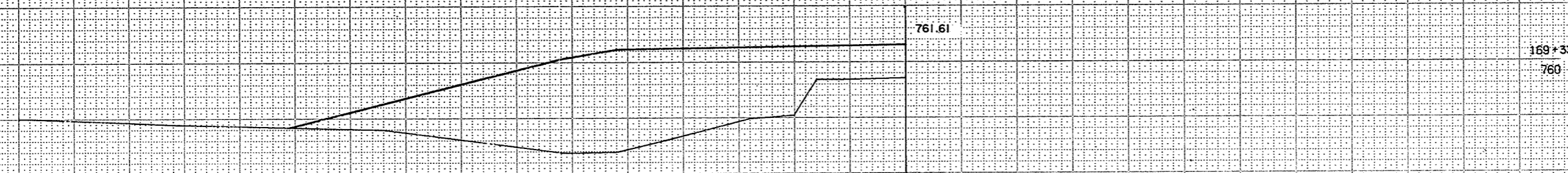
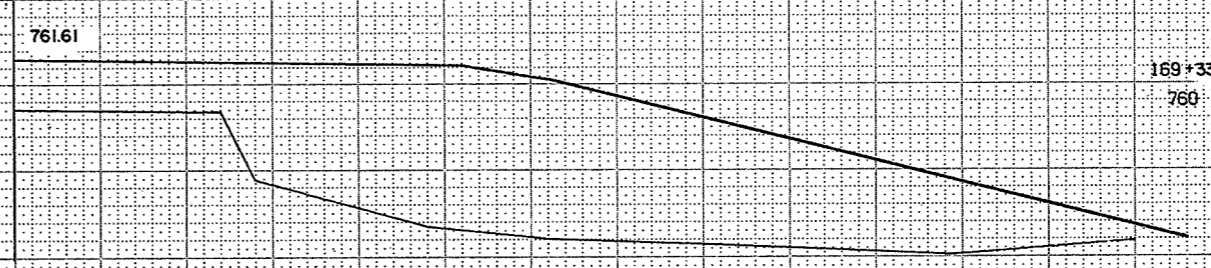
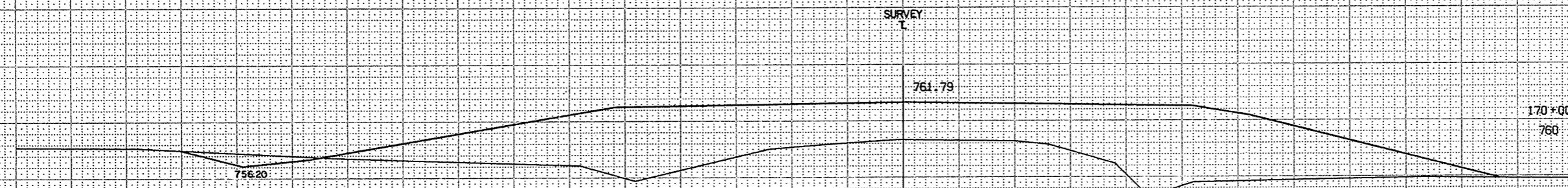
761.41

168+66  
760

1 = S VER  
1 = S HOR  
3 6460 20013

BPA REGION DIVISION	PROJECT	SHEET NUMBER	TOTAL SHEETS
4 WIS	S. 1260 (3)	67	91

STATION	DISTANCE	TARDGE	
		EXCAVATION	FILL
168			
+66			394
+33	10		1,340
170			
TOTALS		10	1,734

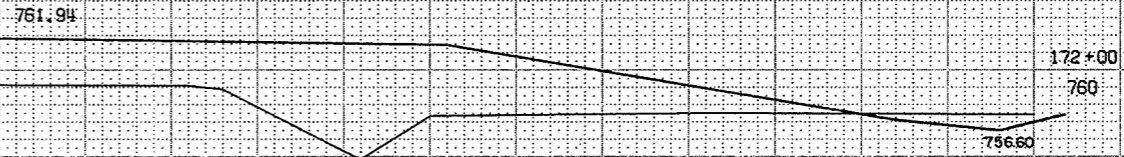


1" = 5' VER  
 1" = 5' HOR  
 3. 6460 20013

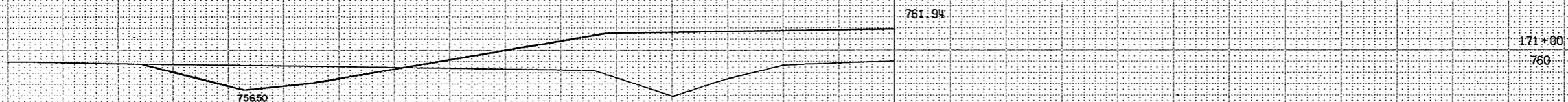
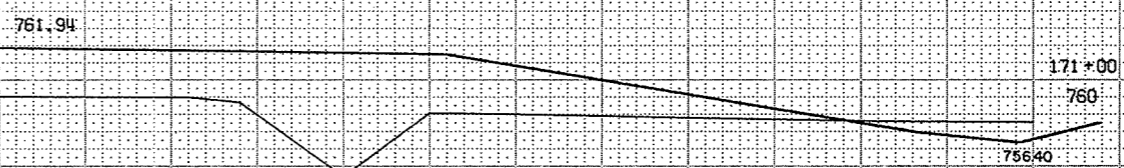
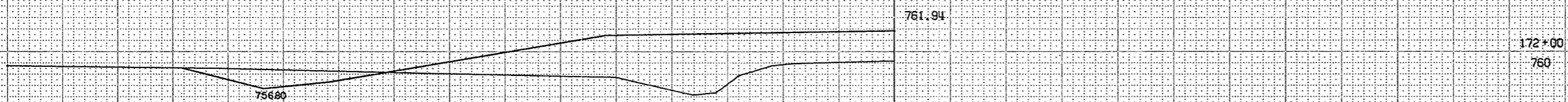
5316

BPA REGION DIVISION	PROJECT	SHEET NUMBER	TOTAL SHEETS
4 WIS	S 1260.31	68	91

SURVEY T



STATION	DISTANCE	YARDAGE	
		EXCAVATION	FILL
		UNCL	
170		83	1266
171		113	1017
172			
TOTALS		196	2273



1" = 5' VERT  
 1" = 5' HOR  
 3-6460 20013

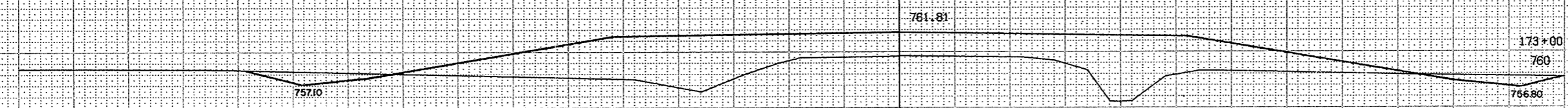
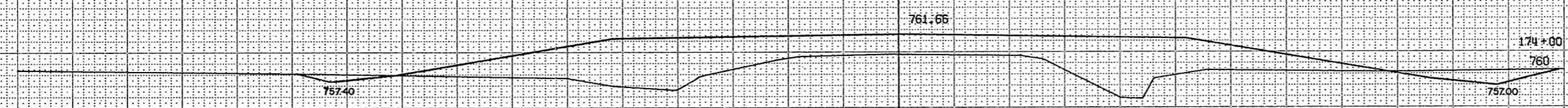
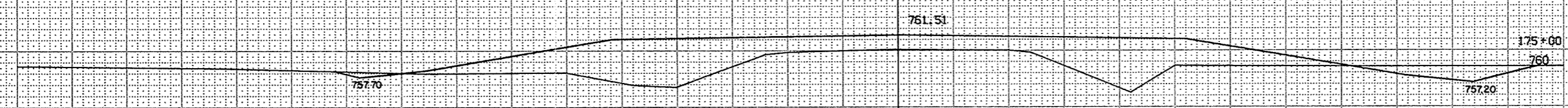
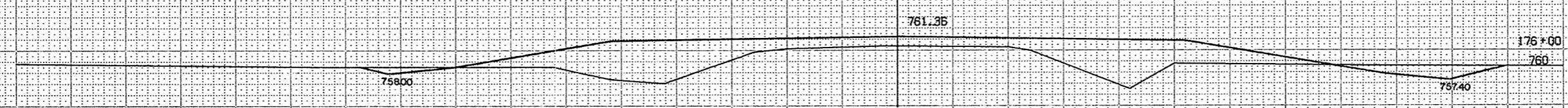
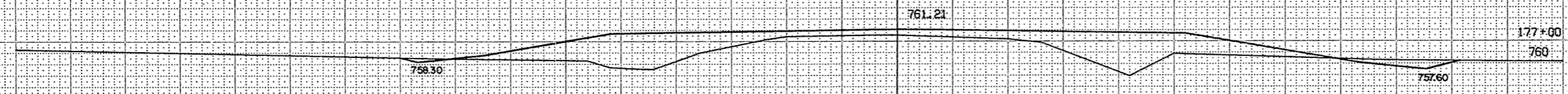
24/16

SURVEY

BPA REGION DIVISION	PROJECT	SHEET NUMBER	TOTAL SHEETS
U WIS	S 1260 (3)	69	91

STATION	DISTANCE	YARDAGE	
		EXCAVATION	FILL
172	72		952
173	54		833
174	54		713
175	54		565
176	37		444
177			
TOTALS	271		3,517



1" = 5' VER  
 1" = 5' HOR  
 3 6460 20013

41

55/16

SURVEY  
T

182+00

765

BPA REGION DIVISION	PROJECT	SHEET NUMBER	TOTAL SHEETS
WIS	S 1250 (3)	70	91

STATION	DISTANCE	YARDAGE	
		EXCAVATION	FILL
		UNCL	
177		37	344
178		48	246
179		35	193
180		74	143
181		117	102
182			
TOTALS		311	1028

181+00

765

180+00

765

179+00

765

178+00

760

1" = 5' VERT  
1" = 5' HOR  
3 6460 20013

761.13

759.80

759.60

760.91

759.50

759.20

760.83

759.20

758.60

760.91

758.90

758.00

761.06

758.60

757.80

SURVEY  
T

188+00  
770

765.55

BPA REGION DIVISION	PROJECT	SHEET NUMBER	TOTAL SHEETS
4 WIS	S. 1260 (3)	71	91

STATION	DISTANCE	YARDAGE	
		EXCAVATION	FILL
182		126	89
183		122	91
184		83	104
185		57	131
186		59	137
187		46	143
188			
TOTALS		493	688

187+00  
765

764.44

186+00  
765

763.48

185+00  
765

762.67

184+00  
765

762.01

183+00  
765

761.49

1" = S. VEP  
1" = S. HOR  
3 6460 20013

57/16

SURVEY  
T

BPA REGION DIVISION	PROJECT	SHEET NUMBER	TOTAL SHEETS
4 WIS	S 1260 (3)	72	91

STATION	DISTANCE	YARDAGE	
		EXCAVATION	
		UNCL.	FILL
188		28	157
189		24	165
190		44	137
191		104	81
192		209	37
193			
TOTALS		409	577

193+00  
775

772.11

192+00  
775

770.76

191+00  
770

769.45

190+00  
770

768.13

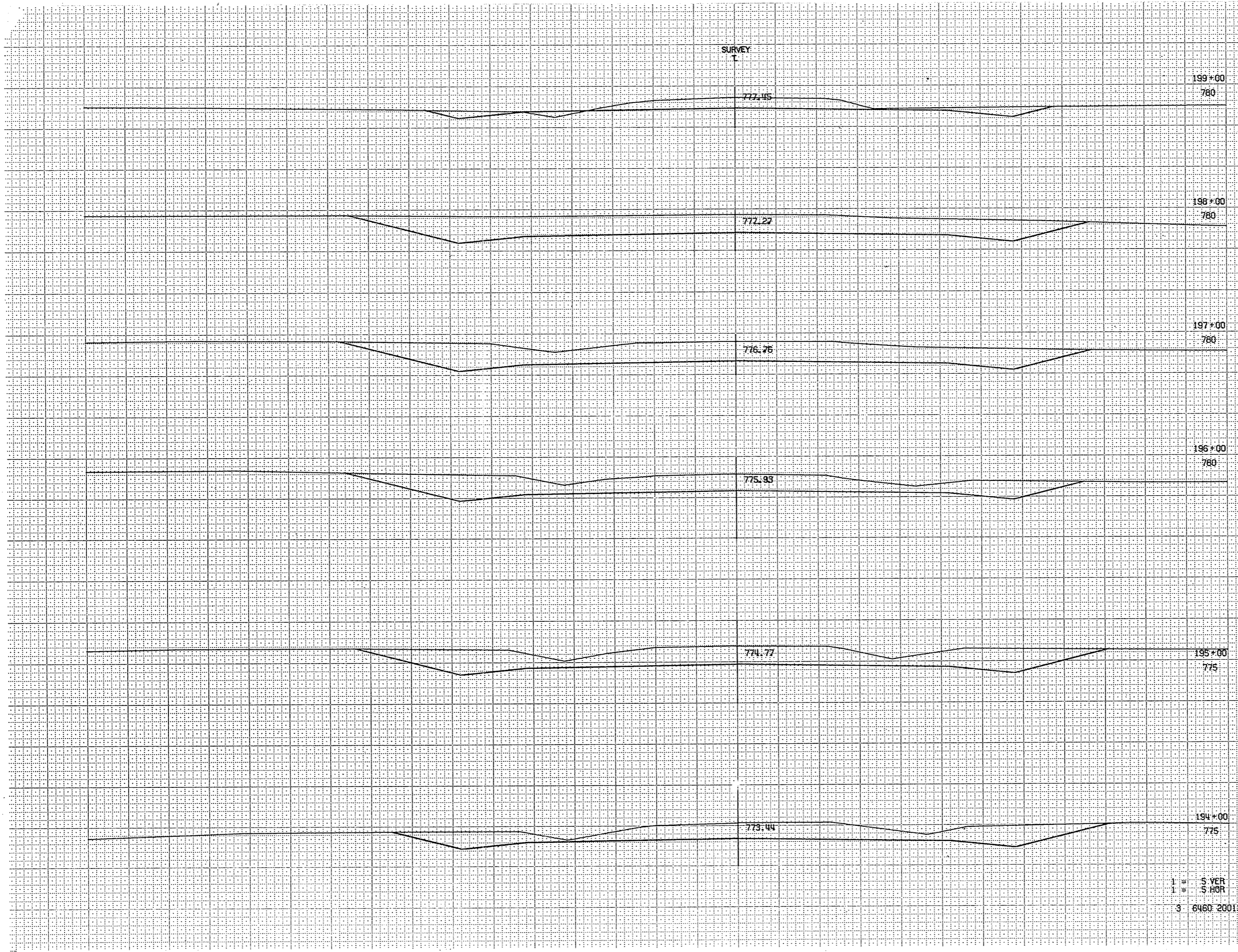
189+00  
770

765.80

1" = 5' VER  
 1" = 5' HOR  
 3 6460 20013



SURVEY  
T



BPA REGION DIVISION	PROJECT	SHEET NUMBER	TOTAL SHEETS
4 WIS	S.1260 (B)	73	91

STATION	DISTANCE	YARDAGE	
		EXCAVATION	FILL
193		385	7
194		561	
195		607	
196		646	
197		707	
198		448	6
199			
TOTALS		3354	13

1" = S. VERT  
1" = S. HOR  
3 6460 20013

SURVEY

59/96

775.47

205+00  
775

775.57

204+00  
775

775.82

203+00  
775

776.24

202+00  
775

776.81

201+00  
780

777.29

200+00  
780

BPA REGION	PROJECT	SHEET	TOTAL
DIVISION	S 1260 (3)	NUMBER	SHEETS
WIS		74	91

STATION	DISTANCE	YARDAGE	
		EXCAVATION	FILL
		UNCL	
199		193	15
200		170	37
201		109	80
202		46	139
203		13	217
204		2	267
205			
TOTALS		533	755

1" = 05' HOR  
 1" = 05' VEA  
 3956 36

50

25

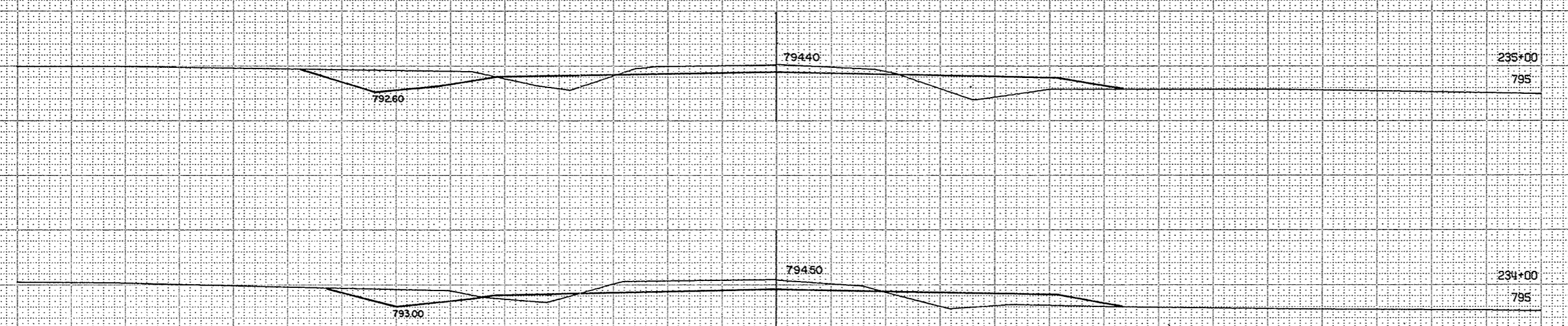
25

50

65%

BPA REGION		PROJECT	SHEET	TOTAL
DIVISION		S.1260 (5)	NUMBER	SHEETS
HIS			80	91
STATION	DISTANCE	YARDAGE		
		EXCAVATION	FILL	
		UNCL.		
233		169	44	
234		150	93	
235				
TOTALS		319	137	

SURVEY  
T



50

25

25

50

1" = 05' HOR  
 1" = 05' VEA  
 3956 42

SURVEY  
T

BPA REGION	PROJECT	SHEET NUMBER	TOTAL SHEETS
DIVISION	S 1260 (3)	79	91
4			
WIS			

STATION	DISTANCE	YARDAGE	
		EXCAVATION	FILL
		UNCL.	
228			
229	74		85
230	106		76
231	154		41
232	198		7
233	209		9
TOTALS	741		218

794.60

233+00

795

794.70

232+00

795

794.77

231+00

795

794.62

230+00

795

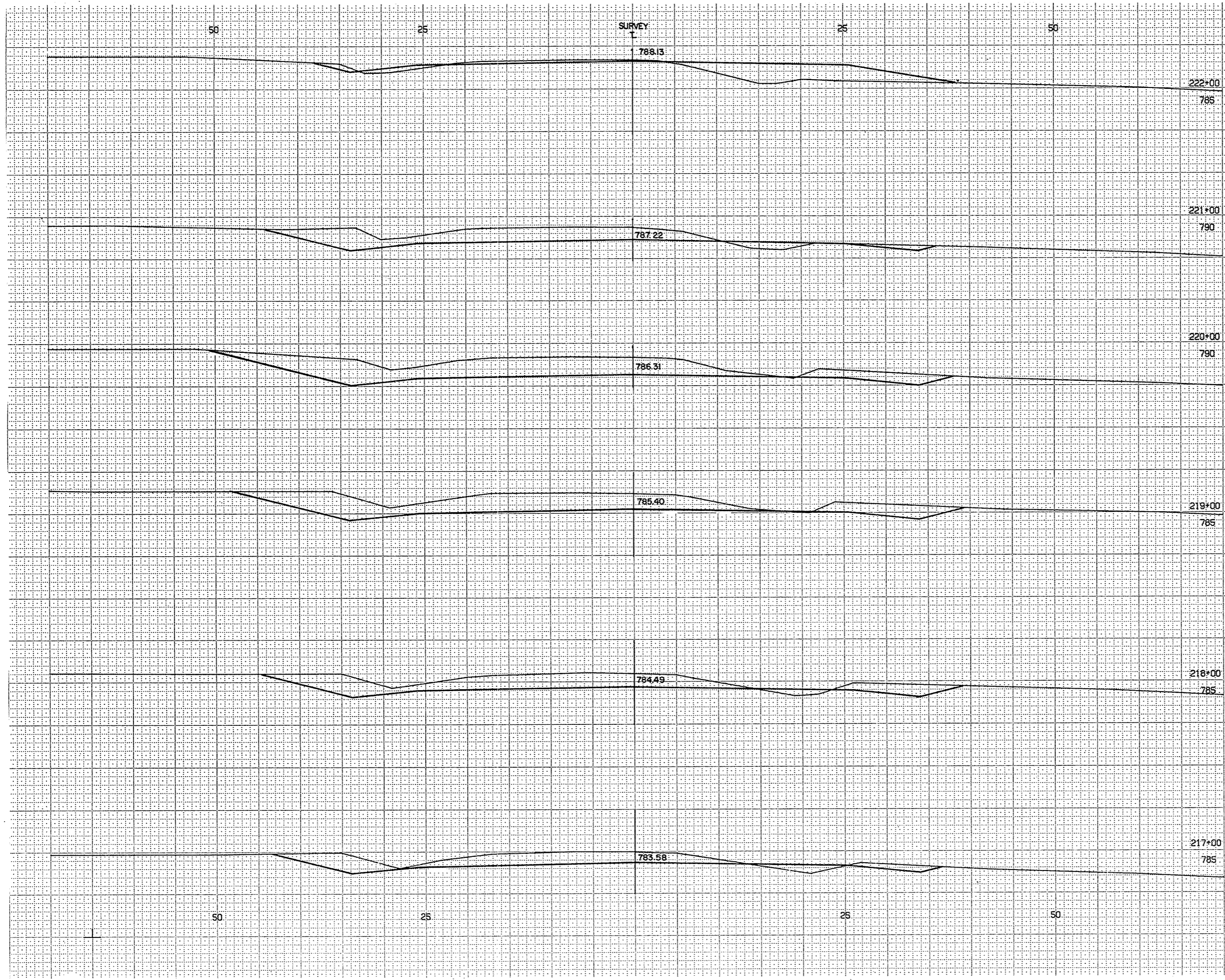
794.22

229+00

795

1" = 05' HOR  
1" = 05' VER  
3956 41

62/76

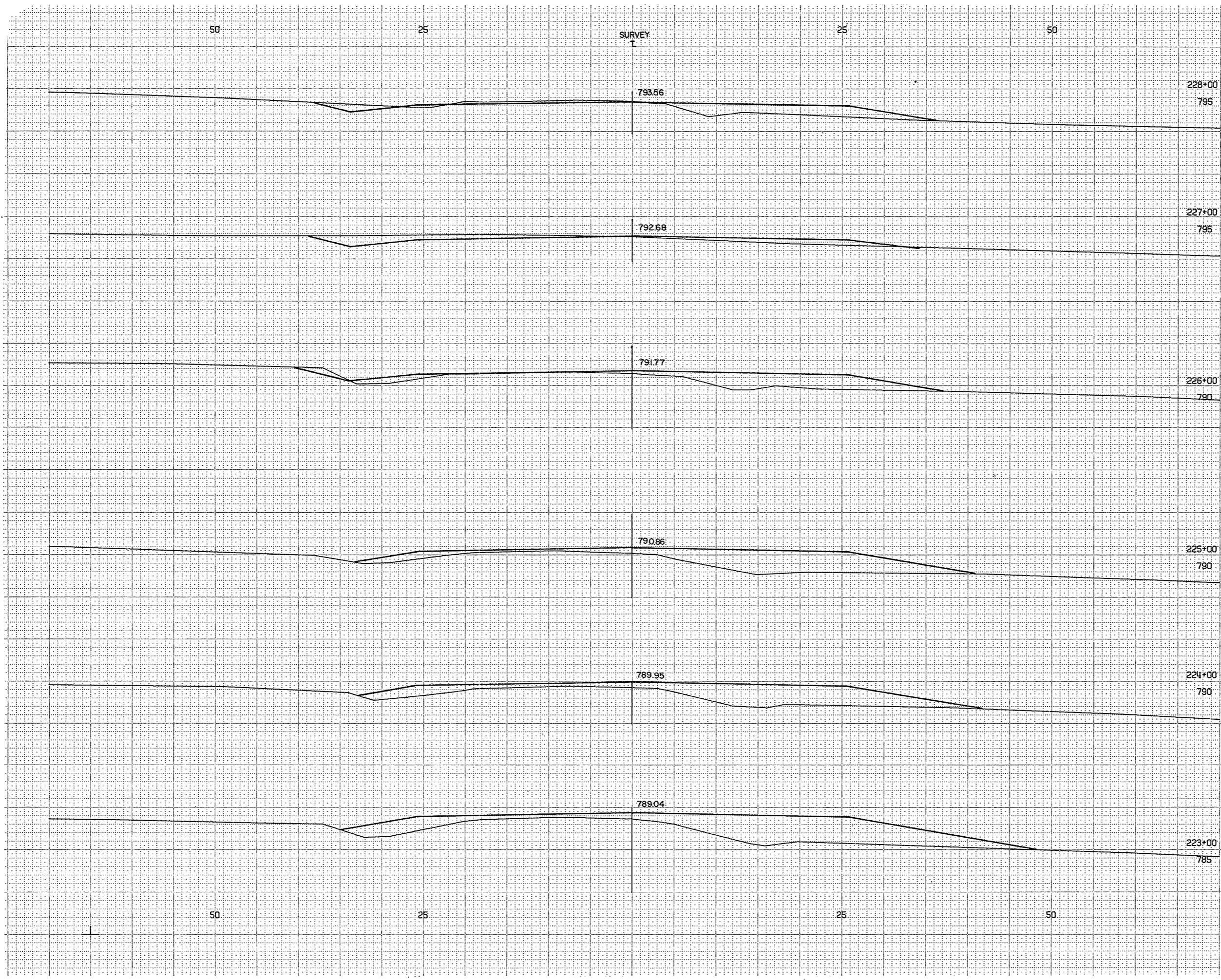


EPA REGION DIVISION		PROJECT	SHEET NUMBER	TOTAL SHEETS
WIS		S 1260 (3)	77	91
STATION	DISTANCE	YARDAGE		
		EXCAVATION		FILL
		UNCL		
216		307		13
217		309		17
218		437		9
219		548		
220		457		7
221		222		72
222				
TOTALS		2,280		118

1" = .05' HOR  
 1" = .05' VER  
 3956 39

45

63-76



STATION	DISTANCE	YARDAGE	
		EXCAVATION	FILL
222	44		256
223			361
224			319
225	15		226
226	76		85
227	98		54
228			
TOTALS		233	1,301

1" = 05' HOR  
 1" = 05' VEA  
 3956 40

60%

SURVEY  
1

BPA REGION DIVISION	PROJECT	SHEET NUMBER	TOTAL SHEETS
4 WIS	S 1260 (3)	75	91

STATION	DISTANCE	YARDAGE	
		EXCAVATION	FILL
205	33		272
206	41		246
207	19		200
208	19		180
209	35		139
210			
TOTALS	147		1037

777.29

210+00

775.10

775

776.62

209+00

775

776.09

208+00

775

775.72

207+00

775

775.52

206+00

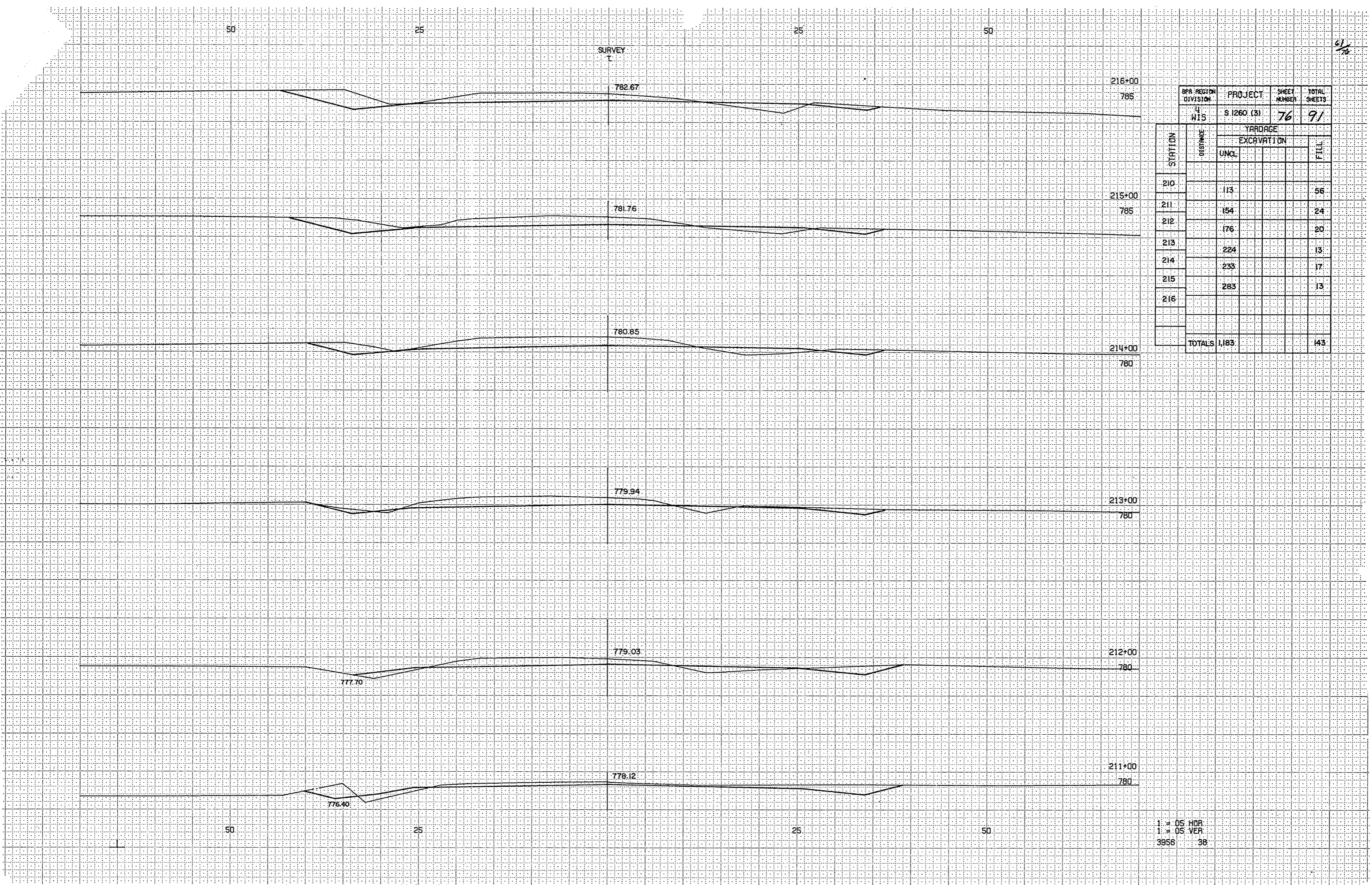
775

1" = 05' HOR  
1" = 05' VER  
3956 37

SURVEY  
T

61/76

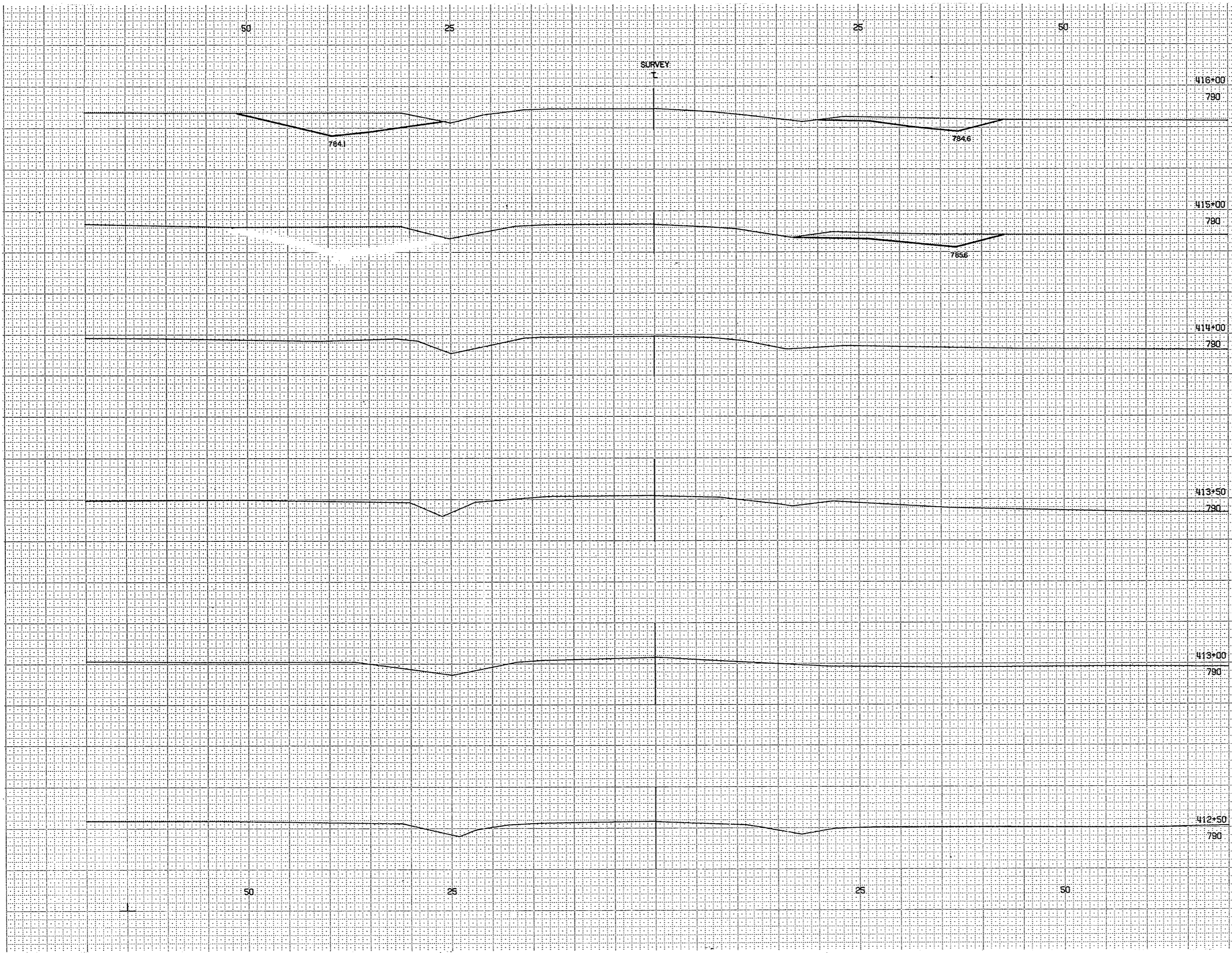
BPA REGION DIVISION		PROJECT	SHEET NUMBER	TOTAL SHEETS
WIS		S 1260 (3)	76	91
STATION	DISTANCE	YARDAGE		
		EXCAVATION	FILL	
		UNCL.		
210		113	56	
211		154	24	
212		176	20	
213		224	13	
214		233	17	
215		283	13	
216				
TOTALS		1,183	143	



1" = 05' HOR  
1" = 05' VEA  
3956 38



6/76



STATION	DISTANCE	YARDAGE	
		EXCAVATION	
		UNCL	FILL
414		48	
415		187	
416			
TOTALS		235	

BPA REGION DIVISION	PROJECT	SHEET NUMBER	TOTAL SHEETS
U WIS	S 1260 (3)	81	91

1" = 05' HOR  
 1" = 05' VER  
 3956 76

67/76

SURVEY  
T

BPR REGION DIVISION	PROJECT	SHEET NUMBER	TOTAL SHEETS
4 WIS	S 1260 (3)	82	91
STATION	DISTANCE	TARDAGE	
		EXCAVATION	FILL
416		278	
417		370	
418		476	
419		428	
420		378	
421		459	
422			
TOTALS		2,389	

422+00  
785

778.1

779.7

421+00  
785

779.1

780.6

420+00  
785

780.1

781.6

419+00  
785

781.1

782.1

418+00  
785

782.1

782.6

417+00  
785

783.1

783.6

50

25

25

50

50

25

25

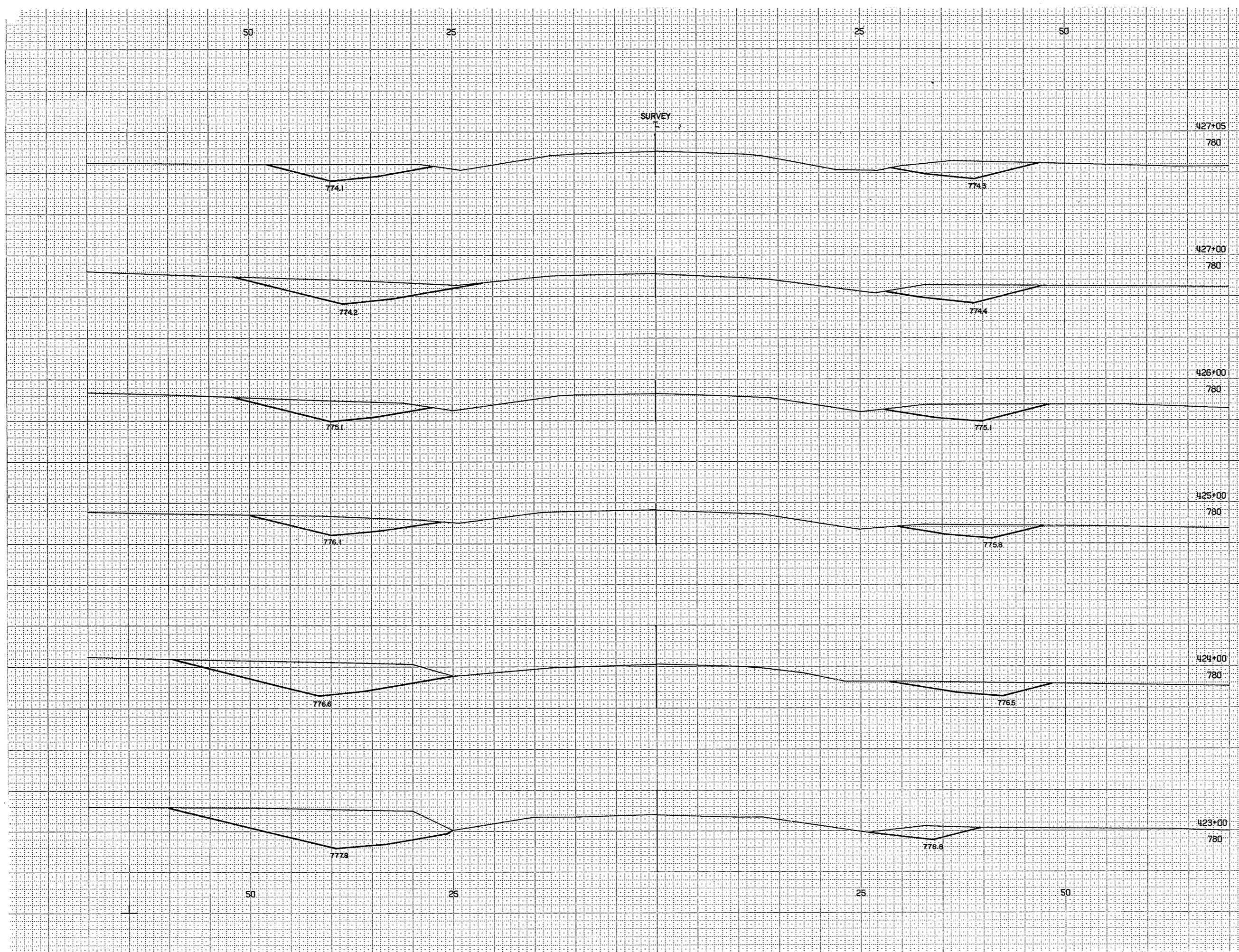
50

1" = 05' HOR  
1" = 05' VER  
3956 77

SURVEY

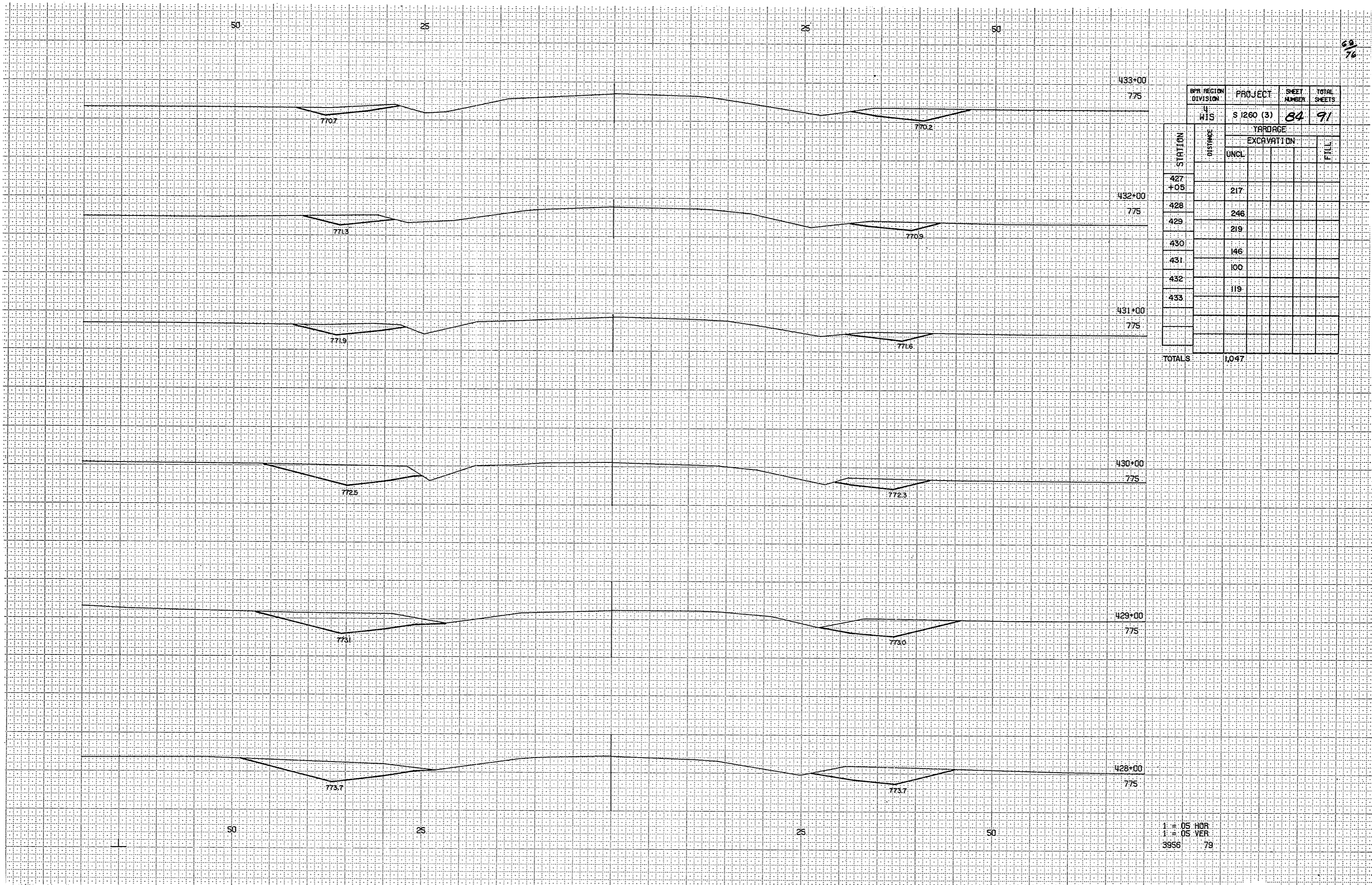
BPA REGION	PROJECT	SHEET NUMBER	TOTAL SHEETS
U WIS	S 1260 (3)	83	91

STATION	DISTANCE	YARDAGE	
		EXCAVATION	FILL
		UNCL	
422		485	
423		411	
424		294	
425		222	
426		256	
427		18	
+05			
TOTALS		1,681	

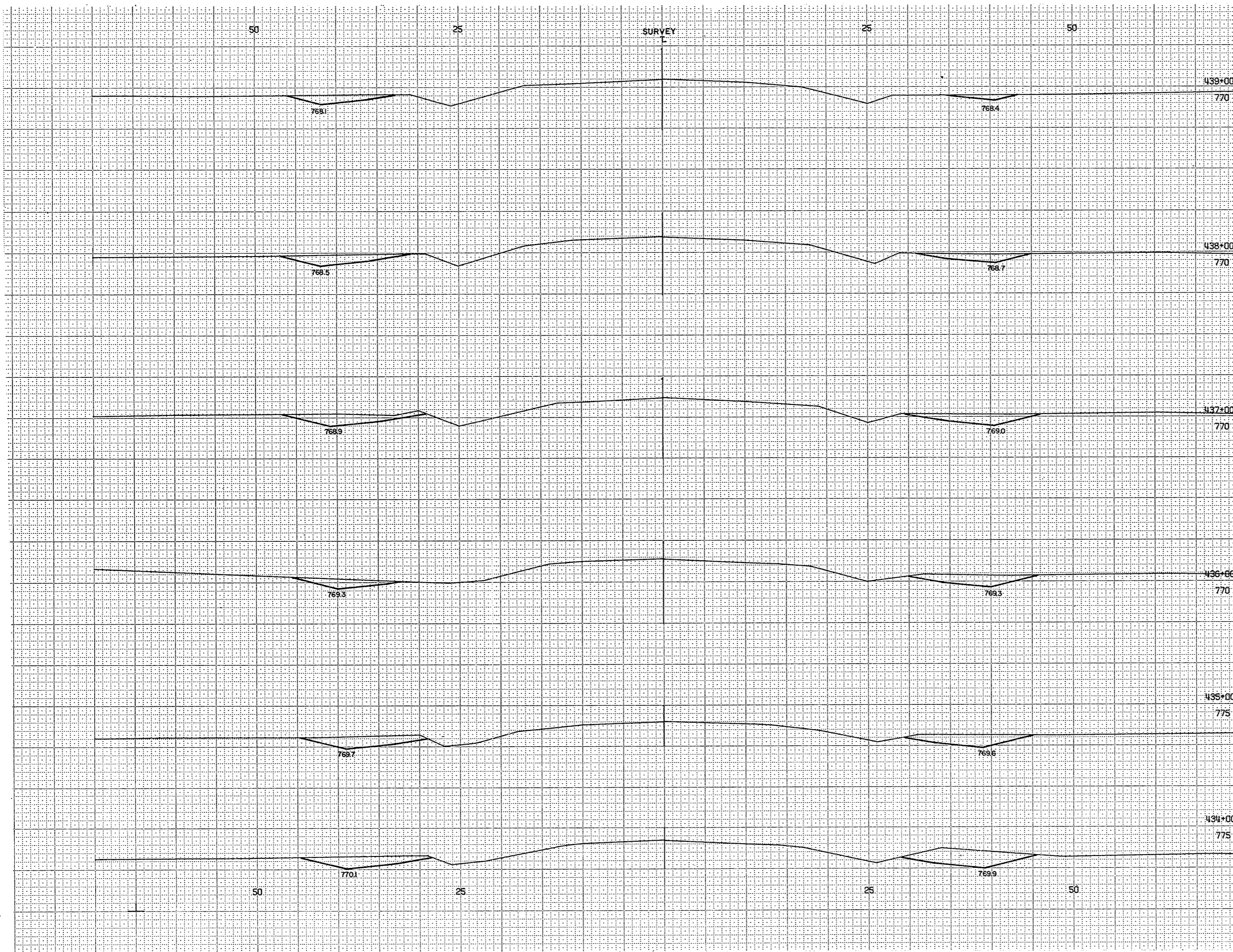


1" = 05' HOR  
1" = 05' VER  
3956 78

63/76



1" = 05' HOR  
 1" = 05' VER  
 3956 79

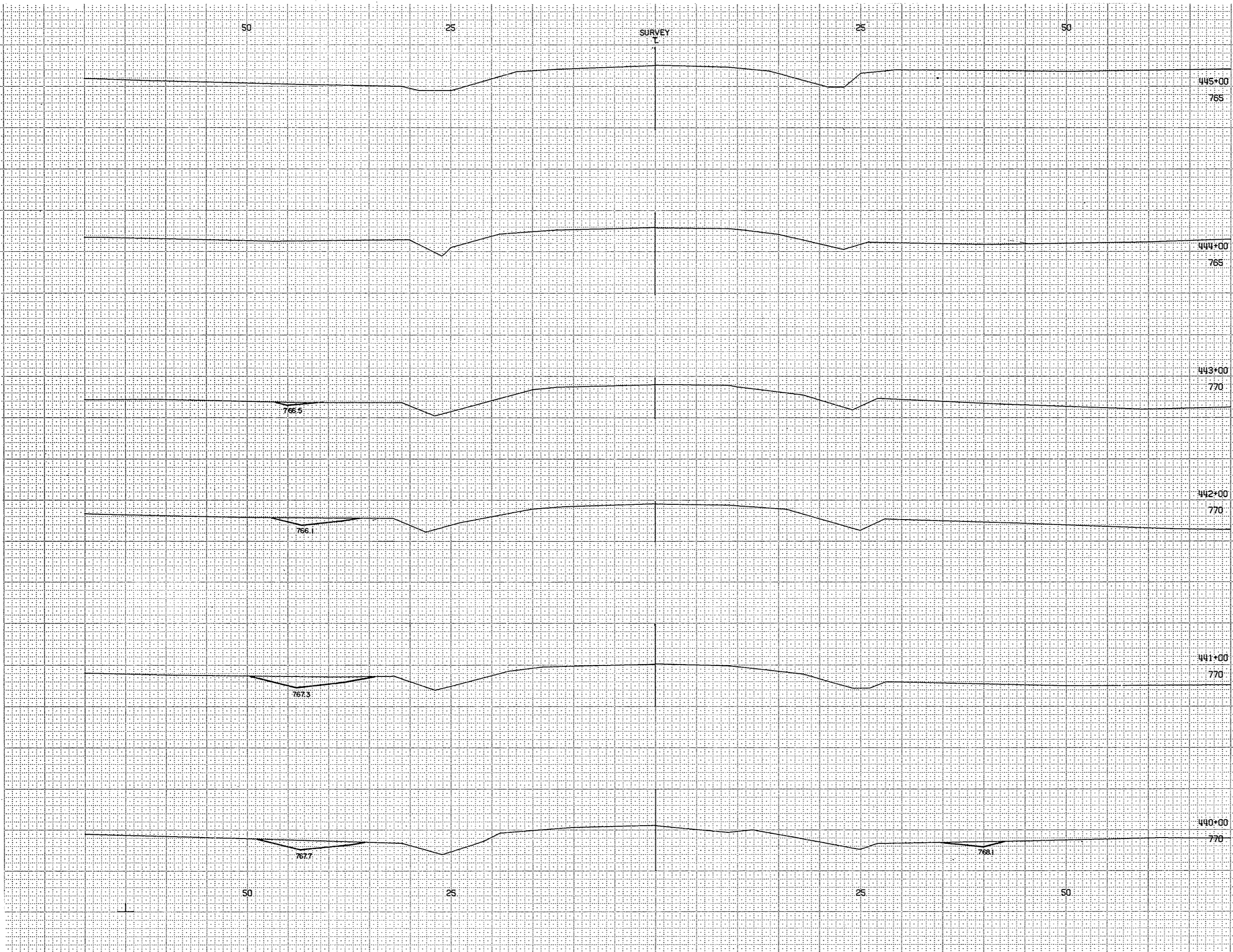


STATION	DISTANCE	YARDAGE	
		UNCL	FILL
433		146	
434		150	
435		126	
436		115	
437		124	
438		98	
439			
TOTALS		759	

BPR REGION DIVISION	PROJECT	SHEET NUMBER	TOTAL SHEETS
4 WIS	S 1260 (3)	85	91

1" = 05' HOR  
 1" = 05' VER  
 3956 80

7/16

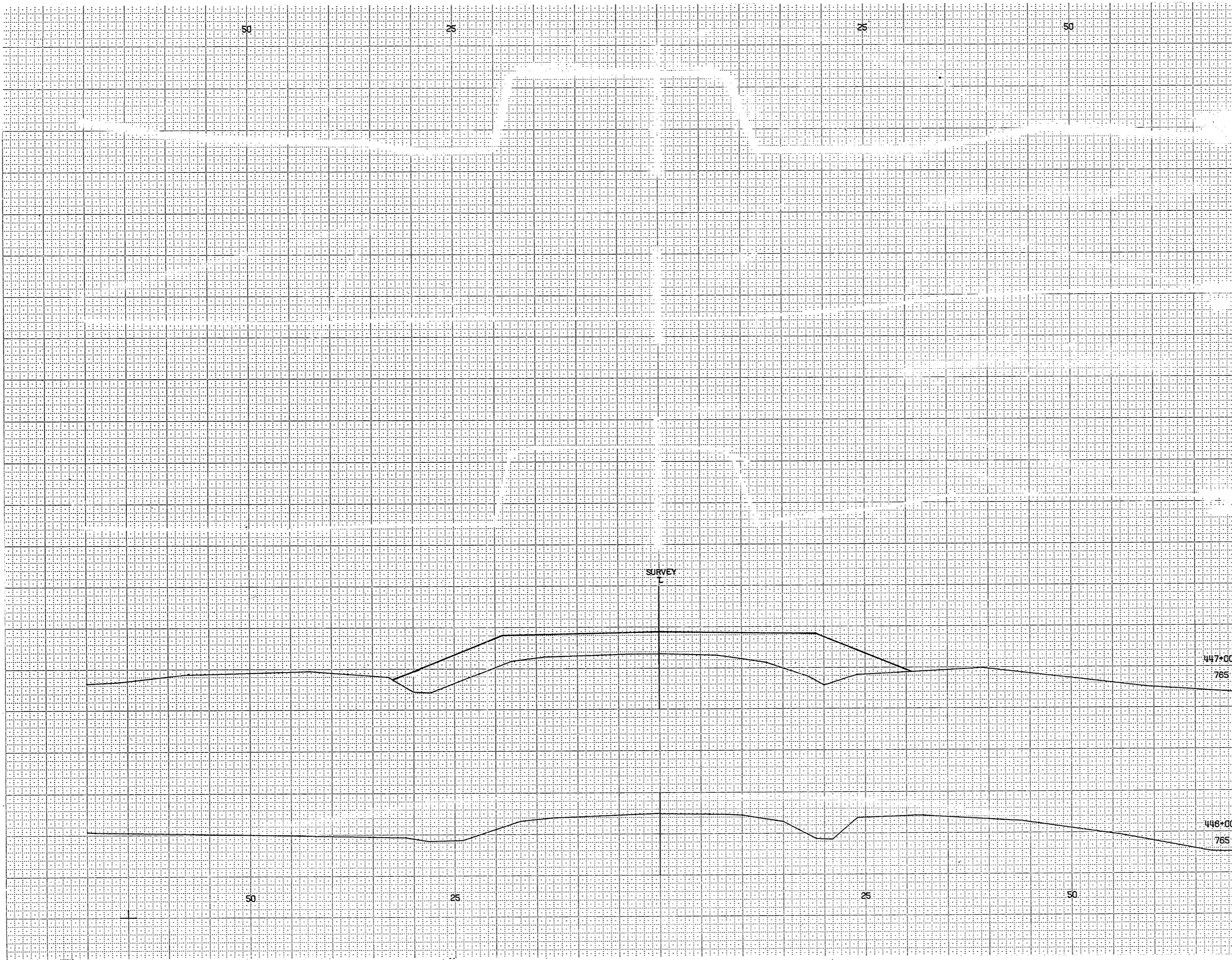


STATION	DISTANCE	YARDAGE	
		EXCAVATION	
		UNCL	FILL
439		50	
440		41	
441		44	
442		22	
443		2	
444			
445			
TOTALS		159	

BPA REGION DIVISION	PROJECT	SHEET NUMBER	TOTAL SHEETS
WIS	S 1260 (3)	86	91

1" = 05' HOR  
 1" = 05' VER  
 3956 81

12  
76



BR. REGION DIVISION	PROJECT	SHEET NUMBER	TOTAL SHEETS
4 WIS	S 1260 (3)	87	91

STATION	DISTANCE	YARDAGE	
		EXCAVATION	FILL
446			
447			361
TOTALS			361

SURVEY  
765

447+00  
765

448+00  
765

1 = 05 HOR  
1 = 05 VER  
3956 82

SURVEY  
L

BPR REGION	PROJECT	SHEET NUMBER	TOTAL SHEETS
4 WIS	S 1260 (3)	88	91

STATION	DISTANCE	YARDAGE		TOTAL F.
		EXCAVATION	EMBANKMENT	
447				1183
+77				301
+87				272
448 +02	448+48 760			287
+33				
+48				
TOTALS				2043

