

STATE DEPARTMENT OF HIGHWAYS

DIVISION OF HIGHWAYS—STATE OF COLORADO

PE, ROW, & UTILITIES
UNDER IXFU 470-1(2)
& IXFU 470-1(58)

PROJECT NO.	SHEET NO.
IXFU 470-1(45)	1

PLAN AND PROFILE OF PROPOSED ~~AS CONSTRUCTED~~ COMBINED FEDERAL AID PROJECT NOS. IXFU 470-1(45) & DE 0200(302)

COMBINED WITH FEDERAL AID PROJECT NO. IXFU 470-1(55) & DE 0200(301) FOR CONSTRUCTION

STATE HIGHWAY NO. 470 JEFFERSON COUNTY

SCALE AS SHOWN ON INDIVIDUAL SHEETS

TABULATION OF LENGTH AND DESIGN DATA

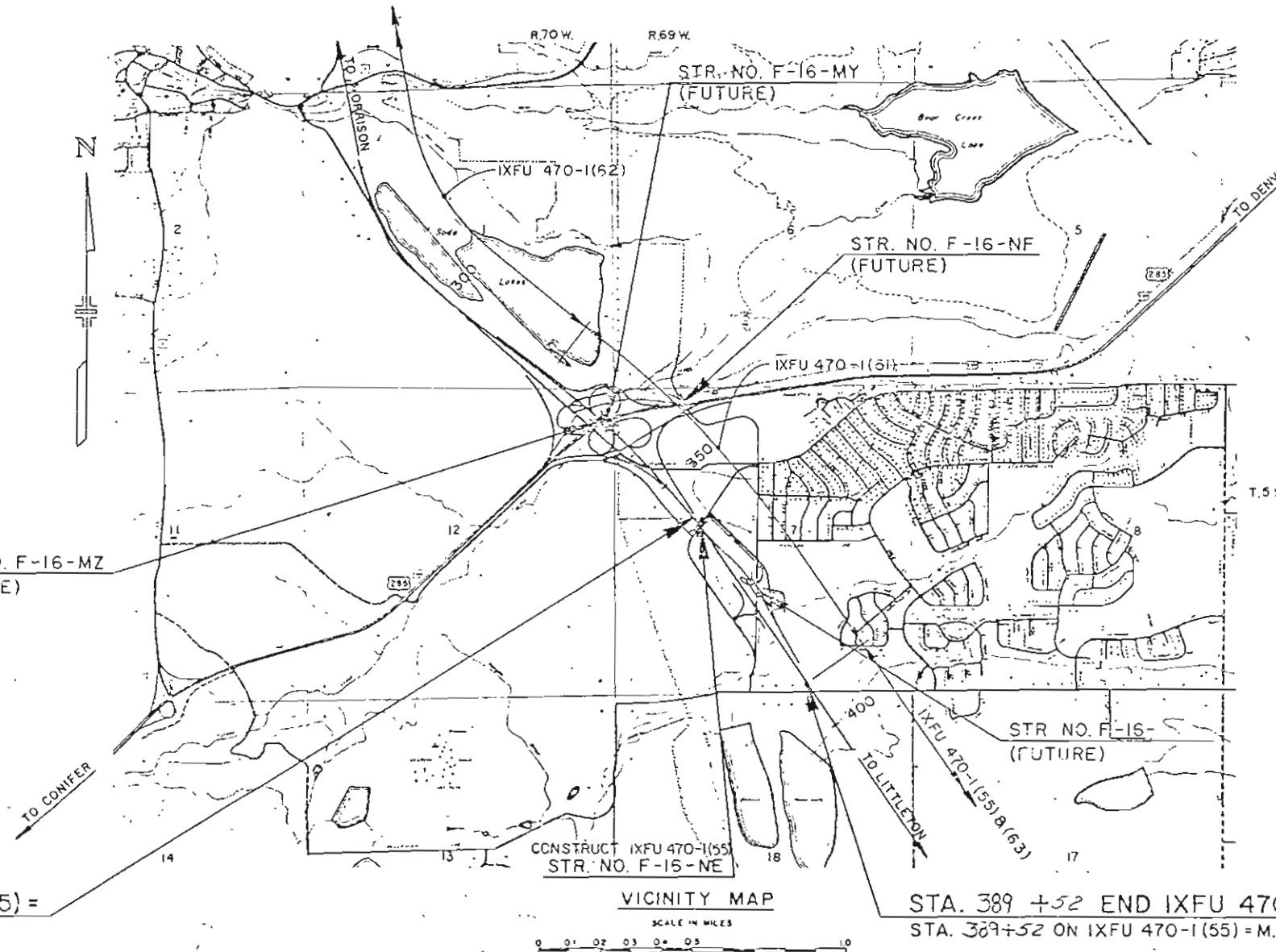
STATION	ROADWAY (LIN FEET)
357+00	BEGIN IXFU 470-1(45) + 357+00 ON IXFU 470-1(51)=M.P. 6.14
389+52	END IXFU 470-1(45) + 389+52 ON IXFU 470-1(55)=M.P. 6.75
100+25.00	BEGIN QUINCY AVE. CONSTRUCTION
142+52.00	END QUINCY AVE. CONSTRUCTION
TOTALS	7477.00

SUMMARY

ROADWAY (NET AND GROSS LENGTH) = 7477.00 LIN. FT.
= 2.412 MILES

DESIGN DATA

	S.H. 470	QUINCY
MAXIMUM DEGREE OF CURVE	90°00'	160°22'13"
MAXIMUM GRADE	1.357%	1.991%
MINIMUM S.S.O. HORIZONTAL	600'	450'
MINIMUM S.S.O. VERTICAL	850'	440'
MAXIMUM DESIGN SPEED	70 MPH	30 MPH
DESIGN TRAFFIC VOLUME (YEAR 2000)	ADT 5,240	29,640



STA. 357+00 BEGIN IXFU 470-1(45) =
STA. 357+00 ON IXFU 470-1(51) = M.P. 6.14

STA. 389+52 END IXFU 470-1(45) =
STA. 389+52 ON IXFU 470-1(55) = M.P.

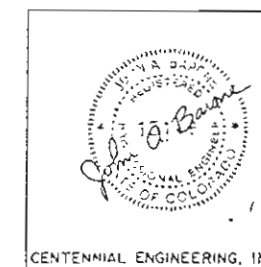
AS CONSTRUCTED	
NO REVISIONS	REVISED 7-15-87 VOID

REVISIONS

SHEET NO INDEX OF SHEETS

- 1 TITLE PAGE.
- 2 STANDARD PLANS LIST.
- 3 PROJECT OVERVIEW.
- 4-8 TYPICAL SECTIONS.
- 9 GENERAL NOTES, EARTHWORK SUMMARY.
- 10-13 SUMMARY OF APPROXIMATE QUANTITIES.
- 14 TABULATION OF REMOVALS, RESETS AND ADJUSTMENTS.
- 15-16 TABULATION OF DRAINAGE ITEMS.
- 17 TABULATIONS OF SURFACING QUANTITIES.
- 18 TABULATION OF FENCE, GATES, GUARD RAIL, CURB RAMP, CURB AND GUTTER, AND MEDIAN COVER MATERIAL.
- 19 TABULATION OF DELINEATORS and Plantings.
- 20 TRAFFIC SIGNAL PLAN QUINCY AVENUE AND RAMP C AND D.
- 21 TRAFFIC SIGNAL PLAN QUINCY AVE AND TURKEY CREEK FRONTAGE ROAD.
- 22 TRAFFIC SIGNAL PLAN QUINCY AVE AND RAMP A AND B.
- 23-24 QUINCY INTERCHANGE DETAILS.
- 25-27 PROJECT CONTROL.
- 28 INTERSECTION DETAILS.
- 29 RAMP TERMINAL DETAILS.
- 30 IMPROVED INLET DETAILS.
- 31 BOX BASE MANHOLE (SPECIAL) DETAILS.
- 32-33 TYPE R INLET (SPECIAL) DETAILS.
- 34-35 WIRE FENCES AND GATES DETAILS.
- 36-37 SURVEY MONUMENTS.
- 38 PULLBOX SPECIAL.
- 39-44 BRIDGE SHEETS.
- 45-51 PLAN SHEET A THROUGH G.
- 52-69 PROFILE SHEETS.
- 70-75 SIGNING AND STRIPING PLANS.
- 76-81 CULVERT PROFILES.
- 82-83 TURKEY CREEK STORM SEWER.
- 84-85 R.O.W. EXCEPTION SHEET

REVISED M & S STANDARDS
M-203-13 SUPERELEVATION OF CLAVES DIVIDED HIGHWAYS -
CENTER PIVOT (1 SHEET) 8-16-84
M620-2 FIELD LABORATORY CLASS 2 (1 SHEET) 5-25-88



DIVISION OF HIGHWAYS	
APPROVED:	
James E. Nichols	5-13-87
Asst. Chief Engineer	DATE

AS CONSTRUCTED INFORMATION	
CONTRACTOR	East-Pace Sub-Pave Co.
ENGINEER	R.L. McHugh
(Project or Resident)	
PROJECT STARTED	8-22-80
PROJECT COMPLETED	7-15-87
S.G. 102 12.0	
Cons. Eng.	2-27-90
TITLE	DATE

AS CONSTRUCTED		
NO. REVISIONS	7 5-59	REVISED
		VOID

FEDERAL ROAD DISTRICT NO.	DIVISION	PROJECT NO.	SHEET NO.	TOTAL SHEETS
VII	COLORADO	IXFU 470-1 (45)	2	25

Plan No	Title	Page
☒ M-100-1	STANDARD SYMBOLS.....	1
☒ M-107-1	TEMPORARY EROSION CONTROL.....	2
☒ M-203-1	APPROACH ROADS, FLARING, CUT SLOPE TREATMENT, BRIDGE & CREST WIDENING.....	3
☒ M-203-2	DITCH TYPES.....	4
☐ M-203-10	SUPERELEVATION OF CURVES - CROWNED HIGHWAYS.....	5
☒ M-203-11	SUPERELEVATION OF CURVES - DIVIDED HIGHWAYS - SHOULDER PIVOT.....	6
☒ M-203-12	SUPERELEVATION OF CURVES - STREETS.....	7
☐ M-203-13	SUPERELEVATION OF CURVES - DIVIDED HIGHWAYS - CENTER PIVOT.....	8
☒ M-206-1	EXCAVATION AND BACKFILL FOR STRUCTURES.....(2 SHEETS)	9
☒ M-206-2	EXCAVATION AND BACKFILL FOR BRIDGES.....	11
☐ M-214-1	PLANTING DETAILS.....	12
☐ M-412-1	CONCRETE PAVEMENT JOINTS.....	13
☐ M-504-1	STEEL CRIBBING.....	14
☐ M-506-1	GABIONS AND SLOPE MATTRESS.....	15
☐ M-510-1	STRUCTURAL PLATE CULVERT PIPE - H-20 LOADING.....(2 SHEETS)	16
☐ M-601-1	SINGLE CONCRETE BOX CULVERT.....	18
☐ M-601-2	DOUBLE CONCRETE BOX CULVERT.....	19
☐ M-601-3	TRIPLE CONCRETE BOX CULVERT.....	20
☒ M-601-10	HEADWALL FOR PIPE CULVERTS.....	21
☐ M-601-11	TYPE "S" SADDLE HEADWALL FOR PIPE CULVERTS.....	22
☒ M-601-12	HEADWALL, INTERCEPTING HEADWALL AND CULVERT OUTLET PAVING.....	23
☒ M-601-20	WINGWALLS FOR PIPE OR BOX CULVERTS.....	24
☐ M-603-1	METAL CULVERT PIPE - H-20 LOADING.....(2 SHEETS)	25
☒ M-603-2	REINFORCED CONCRETE PIPE.....	27
☐ M-603-3	PRECAST CONCRETE BOX CULVERT.....	28
☒ M-603-10	CONCRETE AND METAL END SECTIONS.....	29
☒ M-604-1	PIPE SEWER IN TRENCH.....	30
☒ M-604-10	INLET, TYPE C.....	31
☒ M-604-11	INLET, TYPE D.....	32
☒ M-604-12	CURB INLET, TYPE R.....(2 SHEETS)	33
☒ M-604-13	CONCRETE INLET, TYPE 13.....	35
☒ M-604-20	MANHOLES.....	36
☒ M-604-21	STEPS FOR MANHOLES & INLETS.....	37
☐ M-606-1	GUARD RAIL, TYPE 3, W-BEAM.....(8 SHEETS)	38
☒ M-606-2	GUARD RAIL, TYPE 3, W-BEAM FOR LOCAL ROADS & STREETS.....(4 SHEETS)	46
☐ M-606-10	GUARD RAIL, TYPE 4, CONCRETE BARRIER, CAST-IN-PLACE.....	50
☐ M-606-11	GUARD RAIL, TYPE 4, CONCRETE BARRIER, PRECAST-PORTABLE.....	51

Plan No.	Title	Page
☐ M-607-1	WIRE FENCES AND GATES.....(2 SHEETS)	52
☐ M-607-2	CHAIN LINK FENCE.....(3 SHEETS)	54
☐ M-607-3	BARRIER FENCE.....	57
☐ M-607-4	DEER FENCE AND GATE.....(2 SHEETS)	58
☐ M-607-10	PICKET SNOW FENCE.....	60
☒ M-608-1	CURB RAMPS.....	61
☒ M-609-1	CURBS AND GUTTERS.....	62
☐ M-611-1	CATTLE GUARD - WELDED GRILL UNITS - 10' THRU 42' ROADWAYS.....(2 SHEETS)	63
☐ M-613-1	HIGHWAY LIGHTING.....(2 SHEETS)	65
☐ M-615-1	EMBANKMENT PROTECTOR, TYPES 3 & 4.....	67
☒ M-615-2	EMBANKMENT PROTECTOR, TYPE 5.....	68
☐ M-616-1	INVERTED SIPHON.....(ALSO USE M-603 OR M-604 AS REQUIRED)	69
☐ M-620-1	FIELD LABORATORY - CLASS 1.....	70
☐ M-620-2	FIELD LABORATORY - CLASS 2.....	71
☐ M-620-11	FIELD OFFICE - CLASS 1.....	72
☒ M-620-12	FIELD OFFICE - CLASS 2.....	73

Plan No.	Title	Page
☒ S-612-1	TYPICAL DELINEATOR INSTALLATIONS.....(4 SHEETS)	75
☒ S-614-1	TYPICAL GROUND SIGN PLACEMENT.....	79
☒ S-614-2	CLASS I GROUND SIGN INSTALLATIONS.....	80
☒ S-614-3	CLASS II GROUND SIGN INSTALLATIONS.....	81
☐ S-614-4	CLASS III SIGNS, LAMINATED ALUMINUM PANELS AND POST SPACING TABLE.....(2 SHEETS)	82
☐ S-614-5	BREAK-AWAY SIGN SUPPORT DETAILS FOR GROUND SIGNS.....(2 SHEETS)	84
☐ S-614-6	CONCRETE FOOTINGS AND SIGN ISLANDS FOR CLASS III SIGNS.....(2 SHEETS)	85
☒ S-614-10	TYPICAL MARKER ASSEMBLY INSTALLATIONS.....	88
☐ S-614-11	MILEPOST SIGN AND INSTALLATION.....	89
☐ S-614-12	STRUCTURE NUMBER INSTALLATION (BRIDGE INFORMATION SHEET).....	90
☐ S-614-13	STANDARD RAILROAD CROSSING SIGNS AND MARKINGS.....	91
☐ S-614-20	TYPICAL POLE MOUNT SIGN INSTALLATION.....	92
☐ S-614-21	CONCRETE BARRIER SIGN POST INSTALLATIONS.....	93
☒ S-614-22	TYPICAL MULTI-SIGN INSTALLATIONS.....	94
☐ S-614-30	INTERSTATE ROUTE MARKERS.....	95
☒ S-614-31	U. S. & COLORADO ROUTE MARKERS.....	96
☒ S-614-32	AUXILIARY MARKERS.....	97
☒ S-614-40	TRAFFIC SIGNAL INSTALLATION DETAILS...(3 SHEETS)	98
☒ S-614-50	TRAFFIC CONTROLS FOR HIGHWAY CONSTRUCTION.....(4 SHEETS)	101
☒ S-614-51	BARRICADES, DRUMS, CONCRETE BARRIER (TEMP) & VERTICAL PANELS.....	105
☒ S-627-1	TYPICAL PAVEMENT MARKINGS.....(3 SHEETS)	106

THE STANDARD PLAN SHEETS INDICATED HEREON BY A MARKED BOX ARE TO BE USED TO CONSTRUCT THIS PROJECT.

DEPARTMENT OF HIGHWAYS
STATE OF COLORADO
DIVISION OF HIGHWAYS

STANDARD PLANS LIST

M & S STANDARDS

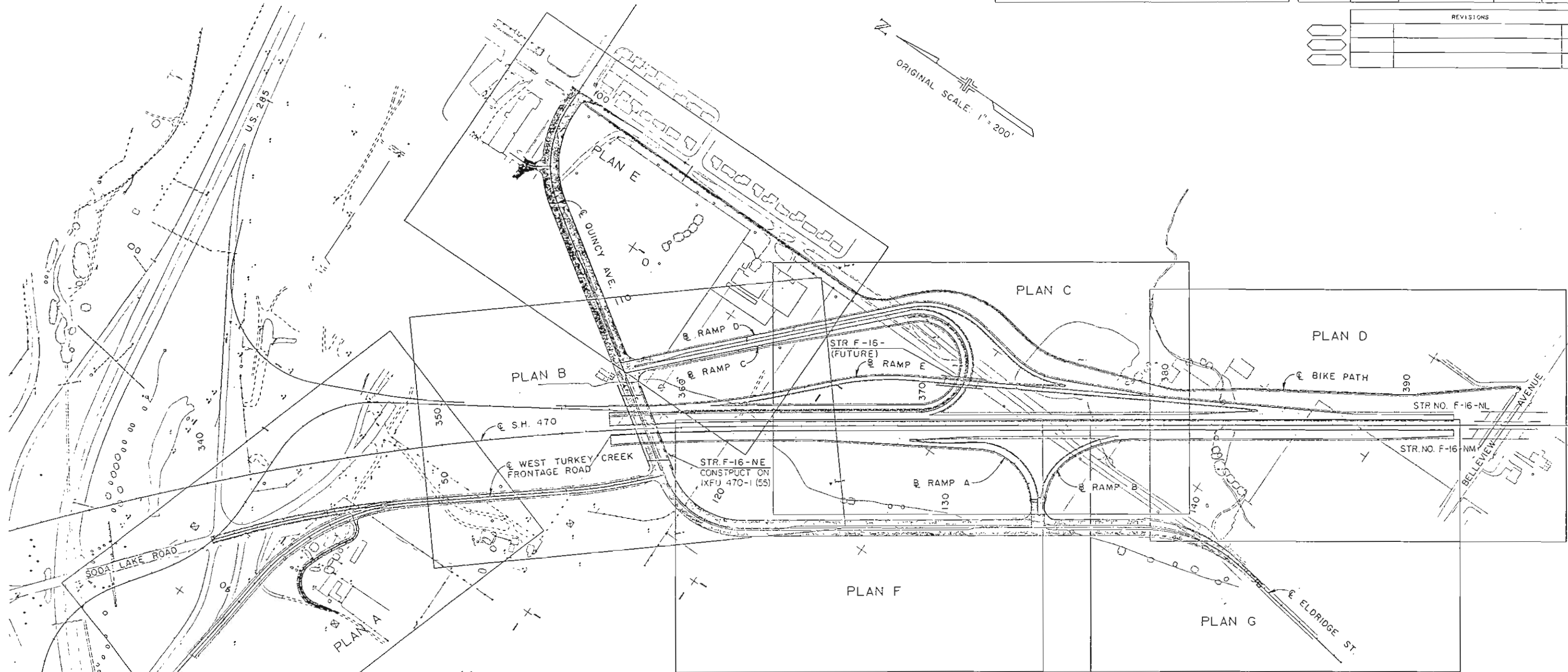
JANUARY, 1982

AS CONSTRUCTED		
NO REVISIONS	7-11-87	REVISED
		VOID

FED. ROAD REGION	DIVISION	PROJ. NO.	SHEET NO.	TOTAL SHEETS
XIII	COLO	1XFU 470-1 (45)	3	35

REVISIONS			

ORIGINAL SCALE: 1" = 200'



LEGEND

- AREAS TO BE PAVED
- AREAS FOR GRADING ONLY

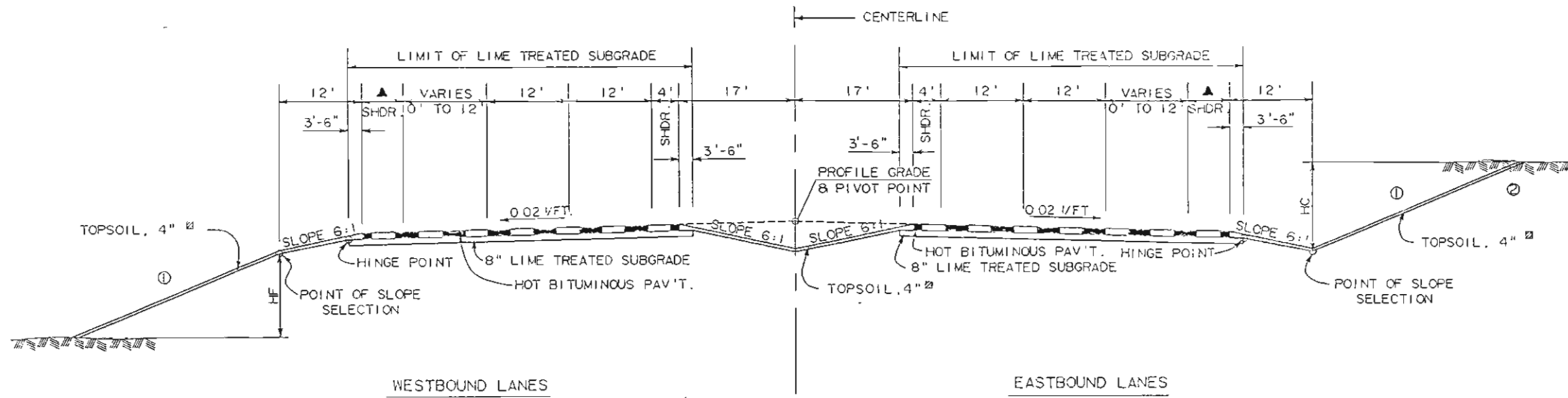
TYPICAL SECTIONS

SHEET NO. 1

AS CONSTRUCTED		
NO REVISIONS	7-15-81	REVISED
		VOID

FED. ROAD REGION	DIVISION	PRO. NO.	CHECK NO.	TOTAL SHEETS
XIII	CO. D	1XU 470-1 (45)	4	85

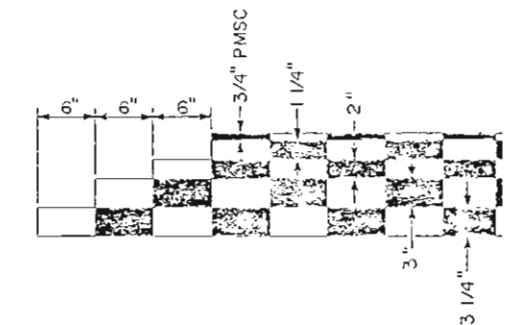
REVISIONS		



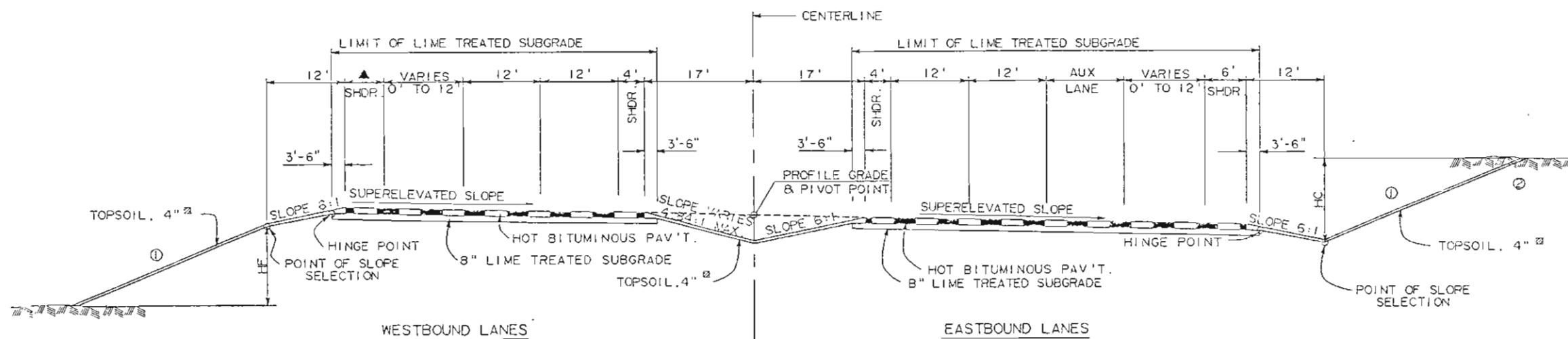
*SECTION ON TANGENT
TYPICAL SECTION S.H. 470
STA. 363+26.25 TO STA. 392+00

FILL SLOPE		CUT SLOPE	
HF	SLOPE	HF	SLOPE
10' OR LESS	6:1	10' OR LESS	6:1
10' TO 25'	4:1	10' TO 15'	4:1
OVER 25'	3:1	OVER 15'	3:1

IN SPECIAL CASES THE SLOPE MAY BE STEEPENED.



DETAIL
(FUTURE PAVING)



*SECTION ON CURVE
TYPICAL SECTION S.H. 470
STA. 357+ TO STA. 363+26.25
*(ALL S.H. 470 PAVING AND LIME TREATMENT TO BE DONE UNDER
FUTURE CONTRACT)

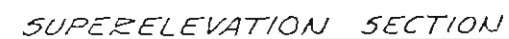
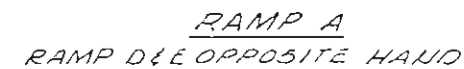
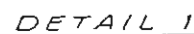
- NOTES:
- FOR CUT & FILL SLOPES SEE TABLES THIS SHEET.
 - SEE STANDARD M-203-1 FOR DETAILS OF CUT SLOPE TREATMENT, FLARING & WIDENING.
- TOPSOIL WILL NOT BE PLACED ON SLOPES ADJACENT TO FUTURE PAVING BETWEEN POINTS OF SLOPE SELECTION
- THE DEPTH & WIDTH OF THE SIDE DITCH SHALL BE VARIED WHERE NECESSARY IN ORDER TO PROVIDE PROPER DRAINAGE.
- BREAK POINTS ON SLOPES & IN BOTTOMS OF DITCHES SHALL BE ROUNDED IN CONSTRUCTION FOR A PLEASING APPEARANCE.
- TOPSOIL TO BE PLACED TO LINE SHOWN (4")

▲ SHOULDER VARIES 10' TO 6'
■ = APPROXIMATE THICKNESS

NO PENALTIES		7-7	REVIS-D		VOID	
UNCLASSIFIED						

REGIONAL	DIVISION	PROJECT	DATE	TIME
VOT	00000	89-117-125	6	10

RECORDING

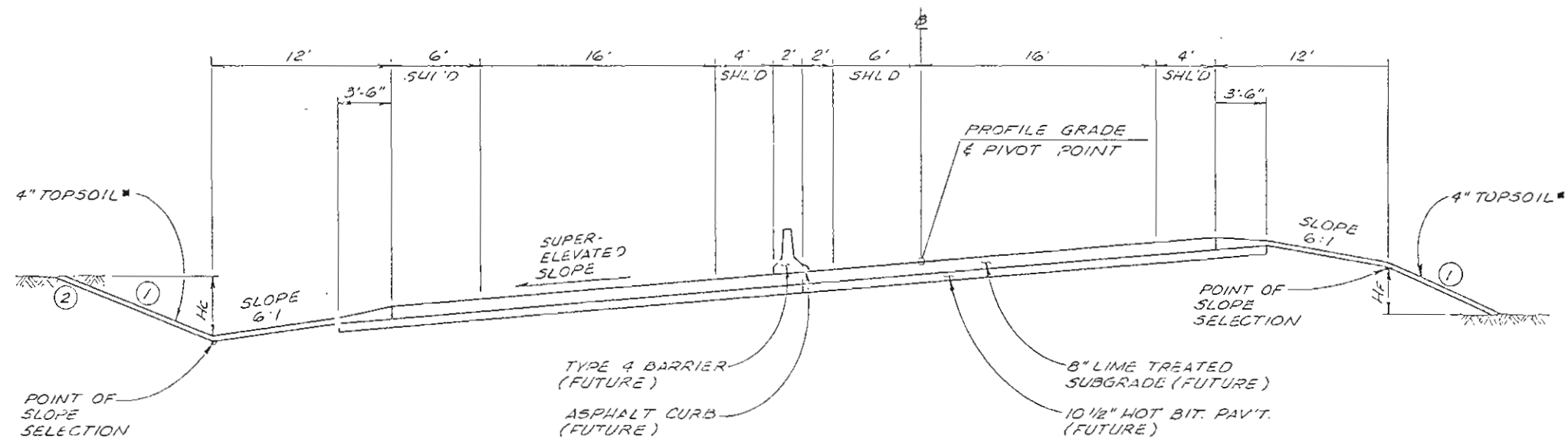
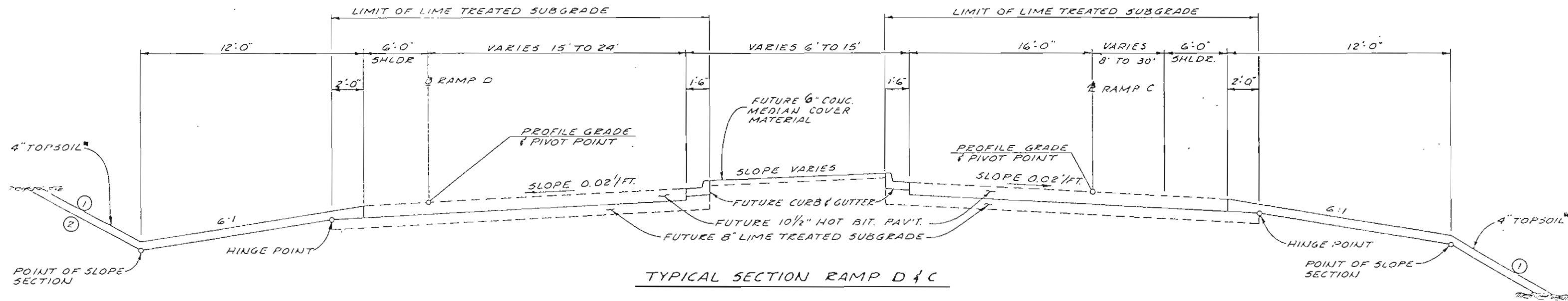


u = APPROXIMATE THICKNESS

TYPICAL SECTION

SHEET NO 4

AS CONSTRUCTED			FEDERAL ROAD DISTRICT NO.	PROJECT NO.	SHEET NO.	TOTAL SHEETS
NO REVISIONS	7-15-84	REVISED	VDI	COLORADO	1X FU-217-1 (45)	7 85
REVISIONS						



TYPICAL SECTION RAMP C

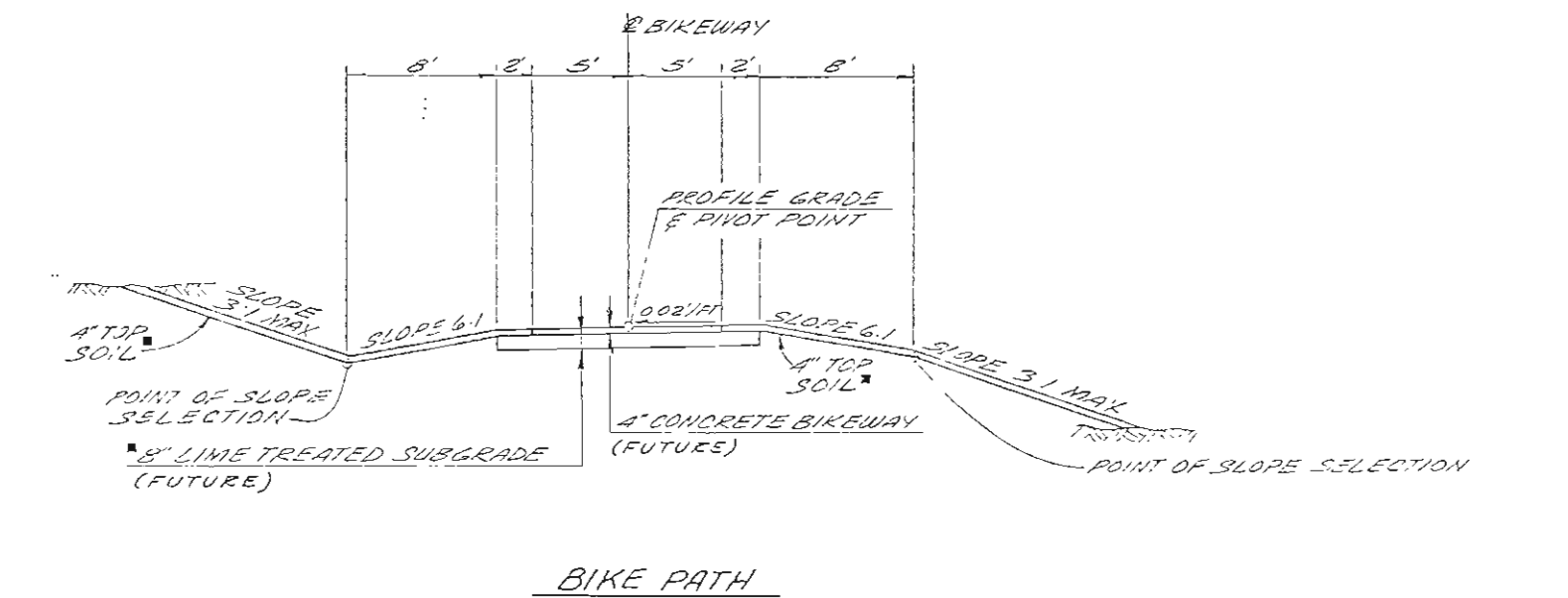
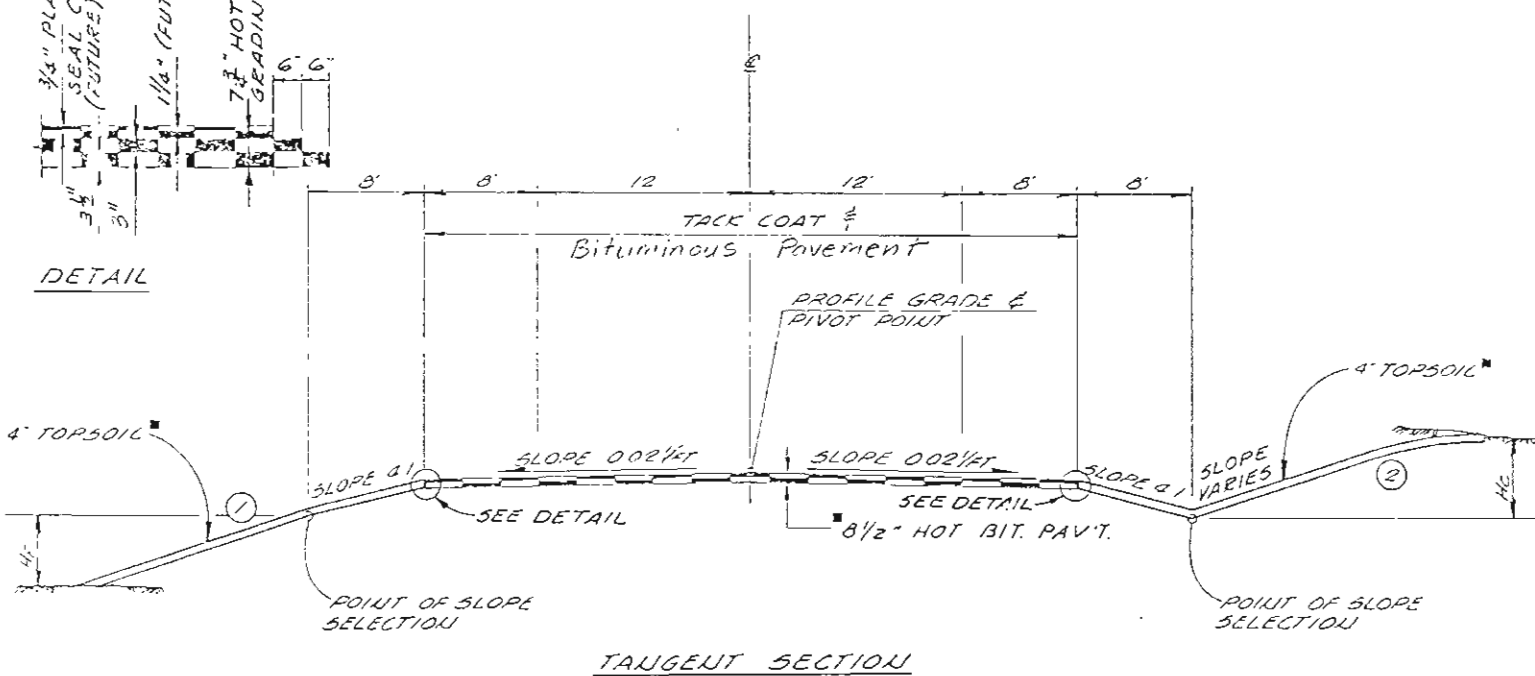
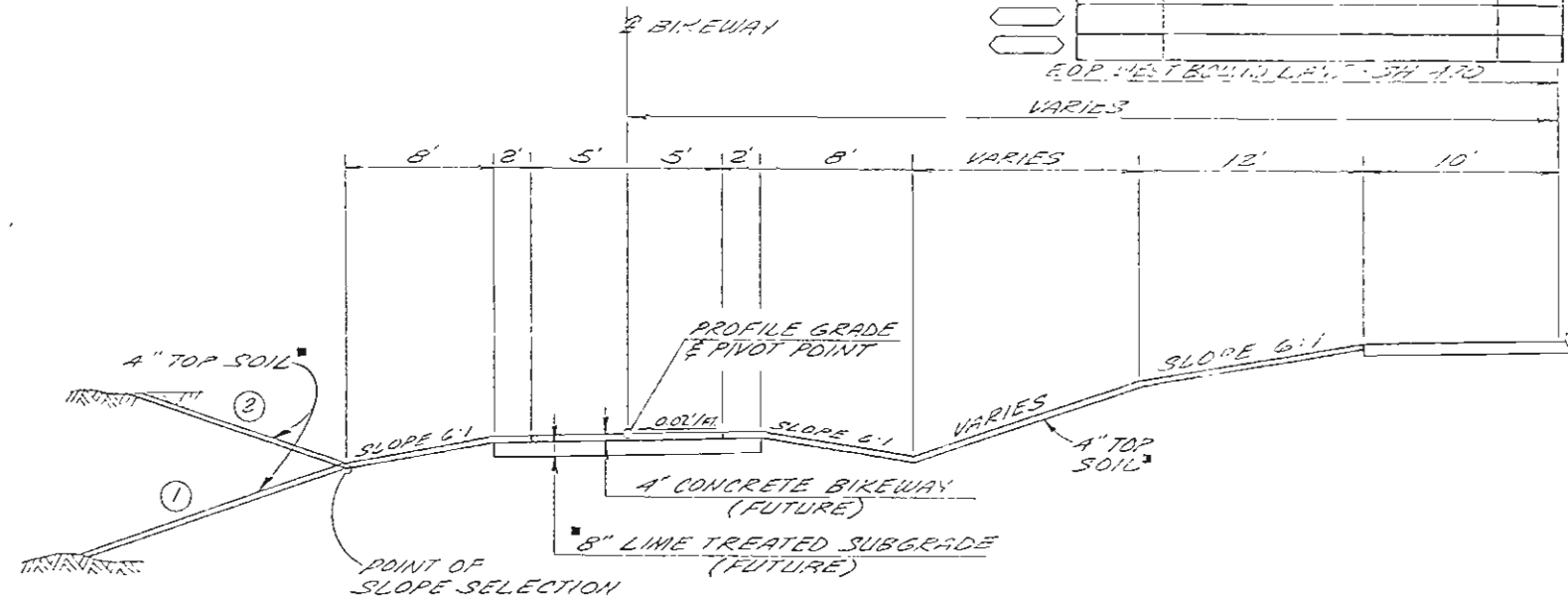
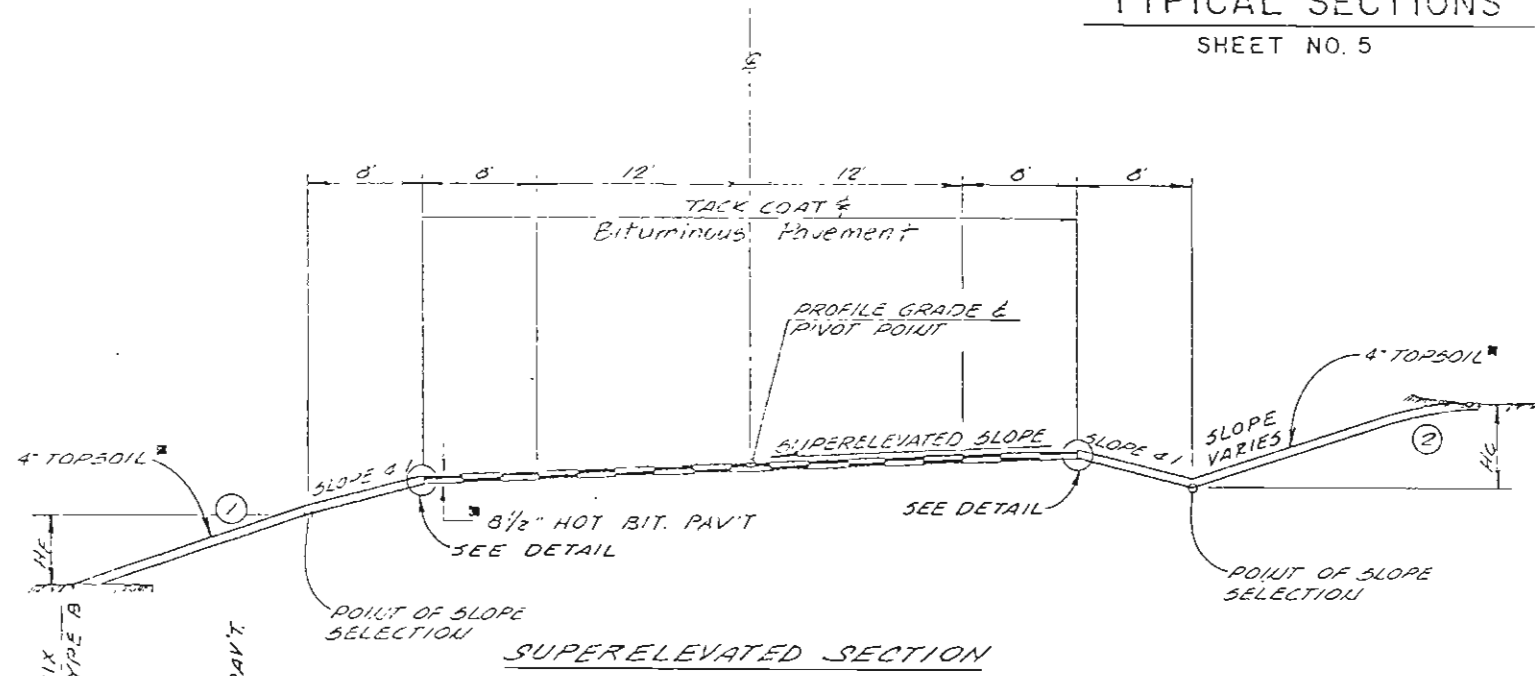
■ = APPROXIMATE THICKNESS
See Typical Section Sheet 1 for Notes

TYPICAL SECTIONS

SHEET NO. 5

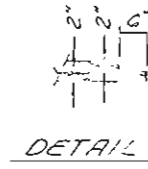
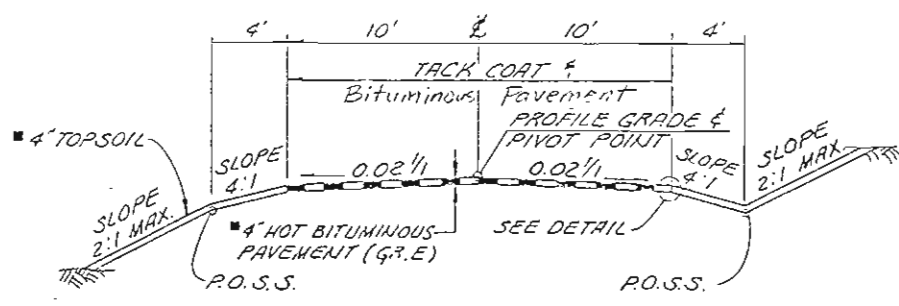
AS COMPLETED		
NO REVISIONS	7-15-82	REVISED
		DATE

PROJECT NO.	1140 870-1 (25)	SHEET NO.	8	TOTAL SHEETS	55
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NOTE STA 37+ TO STA 45+62 PAVING TO BE CONSTRUCTED UNDER FUTURE PROJECT

WEST TURKEY CREEK FRONTAGE ROAD



■ = APPROXIMATE THICKNESS

■ = APPROXIMATE THICKNESS

SEE TYPICAL SECTION SHEET 1 FOR NOTES

FINAL
SUMMARY OF APPROXIMATE QUANTITIES

AS CONSTRUCTED
NO REVISIONS REVISED 7-15-20 VOID

FED. ROAD REGION	DIVISION	PROJ. NO.	SHEET NO.
VIII	000.	IXFU 470-1(33)	10

INDEX			CONTRACT ITEM NO.	CONTRACT ITEM	UNIT	IXFU 470-1(45) PROJECT TOTAL		IXFU 470-1(55) PROJECT TOTAL		PROJECT TOTALS		DIFF. +/-	* PLAN.
BOOK	PAGE	SHEET				PLAN	AS CONST.	PLAN	AS CONST.	PLAN	AS CONST.		
1,3	1,1		201	CLEARING AND GRUBBING	L S	0.5	0.5	0.5	0.5	1.0	1.0	0	100
1,3	2,2		202	REMOVAL OF STRUCTURES AND OBSTRUCTIONS	L S	0.5	0.5	0.5	0.5	1.0	1.0	0	100
1,1	3		202	REMOVAL OF PIPE	LIN FT	122	122			122	122	0	100
1	4		202	REMOVAL OF SIDEWALK	SQ YD	78	78			78	78	0	100
1	5		202	REMOVAL OF CURB AND GUTTER	LIN FT	325	319			325	319	-7	98
2	10		202	REMOVAL OF PAVEMENT MARKINGS MCR 1-7	L S	0	1			0	1	+1	—
1	6		202	REMOVAL OF ASPHALT MAT	SQ YD	3566	1513			3566	1,513	-2053	42
1	7		202	REMOVAL OF GROUND SIGN	EACH	2	2			2	2	0	100
1,3	2,3		202	REMOVAL OF FENCE	LIN FT	12,289	10,711	715	687	13004	11,398	-1606	86
2	105		203	1 1/2 INCH CRUSHED ROCK MCR 1-6	CU YD	0	183			0	183	+183	—
1,3	9,14		203	EMBANKMENT MATERIAL (COMPLETE IN PLACE)	CU YD	547,565	562,110	38,215	38,215	585780	600,325	+14,545	102
2	105		203	BORROW (COMPLETE IN PLACE) CMO #4	CU YD	0	8,010			0	8,010	+8,010	—
1	10		203	MUCK EXCAVATION (HAUL)	CU YD	6082	11,447			6082	11,447	+5365	188
2	110		203	MUCK EXCAVATION MCR 1-7	L S	0	1			0	1	+1	—
1	11		203	DOZING DELETED BY DSH FORM 105	HOUR	50	0			50	0	-50	0
2	100		203	ROCK HAUL MCR 1-4	CU YD	0	3,514			0	3,514	+3,514	—
1,3	12,5		206	STRUCTURE EXCAVATION	CU YD	7245	7,572	1271	1,275	8516	8,847	+331	104
1,3	13,6		206	STRUCTURE BACKFILL (CLASS 1)	CU YD	1740	1,701	317	0	2057	1,709	-348	83
1,3	14,7		206	STRUCTURE BACKFILL (CLASS 2)	CU YD	2140	2,209	330	647	2470	2,856	+386	116
1	15		206	FILTER MATERIAL (CLASS A)	CU YD	31	31			31	31	0	100
3	8		206	FILTER MATERIAL (CLASS B)	CU YD			1037	1,037	1037	1,037	0	100
1	16		206	BED COURSE MATERIAL	CU YD	435	435			435	435	0	100
1	17		207	TOPSOIL (HAUL) CMO #4	CU YD	20,714	27,606			20,714	27,606	+6892	33
1	18		210	ADJUST MANHOLE	EACH	1	1			1	1	0	100
2	112		210	ADJUST INLET MCR 1-11	L S	0	1			0	1	+1	—
1	13		210	ADJUST VALVE BOX	EACH	2	2			2	2	0	100
1	20		212	SEEDING (NATIVE)	ACRE	34.2	16.0			34.2	16.0	-18.2	47
1	21		213	MULCHING	ACRE	32.0	16.0			32.0	16.0	-16.0	50
1	22		213	MULCH NETTING (PLASTIC) DELETED BY DSH FORM 105	SQ YD	6778	0			6778	0	-6778	0
1	23		213	MULCH TACKIFIER	LB	3200	1600			3200	1600	-1600	50
1	24		213	EROSION BALES	EACH	160	12			160	12	-148	8
1	25		214	COTTONLESS PLAINS COTTONWOOD (POPULUS SARGENTI) (2 INCH CALIPER)	EACH	5	5			5	5	0	100
1	26		403	HOT BITUMINOUS PAVEMENT (PATCHING) (HAUL AND ASPHALT)	TON	100	25.72			100	25.72	-74.28	29
1	27		403	HOT BITUMINOUS PAVEMENT (GRADING E) (HAUL AND ASPHALT) CMO #4	TON	13,041	12,319.34			13041	12,319.34	-721.66	94
2	106		403	HOT BITUMINOUS PAVEMENT (GRADING E) (HAUL AND ASPHALT) (GRADE REDUCTION)	L.S.	0	1			0	1	-1	—
1	28		411	EMULSIFIED ASPHALT (SLOW-SETTING) CMO #4	GAL	1760	2,005			1760	2,005	-245	114
3	9		502	DRILLING HOLE TO FACILITATE PILE DRIVING DELETED BY CMO #2	LIN FT			480	0	480	0	-480	0
3	22		502	FACILITATE PILE DRIVING CMO #2	L S			0	1	0	1	-1	—
3	10		502	STEEL PILING (HP 12X74)	LIN FT			1085	1,079	1085	1,079	-6	100
1	29		506	RIPRAP	CU YD	1103	1,229			1103	1,229	-126	111

STATE OF COLORADO
THE DEPARTMENT OF HIGHWAYS
SECTION OF HIGHWAYS
FORM NO. 11
7/1/1983

FINAL
SUMMARY OF APPROXIMATE QUANTITIES

AS CONSTRUCTED		FED. ROAD REGION	DIVISION	PROJ. NO.	SHEET NO.
NO REVISIONS	REVISED 7-1-83	VIII	COLO.	IXFU 470-1(45) IXFU 470-1(35)	11

INDEX BOOK PAGE SHEET	CONTRACT ITEM NO.	CONTRACT ITEM	UNIT	IXFU 470-1(45) PROJECT TOTAL		IXFU 470-1(55) PROJECT TOTAL		PROJECT TOTALS		DIFF. +/-	PLAN
				PLAN	AS CONST.	PLAN	AS CONST.	PLAN	AS CONST.		
3 11	506	IMPERVIOUS PLASTIC LINING	SO YD			446	513	446	513	+67	115
1 30	506	PLASTIC FILTER CLOTH	SO YD	309	286			309	286	-23	93
1.3 31,12	507	CONCRETE SLOPE AND DITCH PAVING (REINFORCED)	CU YD	12	15.53	148	152.36	160	167.89	+7.89	105
1 22	507	GROUTED RUBBLE SLOPE AND DITCH PAVING	CU YD	62	62			62	62	0	100
1 27	507	BITUMINOUS SLOPE AND DITCH PAVING (HAUL AND ASPHALT) CMC #4	TON	23	23.29			23	23.29	+0.29	123
3 13	515	WATERPROOFING (MEMBRANE)	SQ YD			582	581	582	581	-1	100
3 17	518	BRIDGE COMPRESSION JOINT SEALER	LIN FT			72	66	72	66	-6	92
3 15	518	WATERSTOP (6 INCH)	LIN FT			34	34	34	34	0	100
1 34	601	CONCRETE CLASS A (MISCELLANEOUS)	CU YD	11	11.30			11	11.30	+0.30	103
2 101	601	CONCRETE CLASS A (MISCELLANEOUS) (PRICE REDUCTION)	LS	0	1			0	1	+1	100
1 25	601	CONCRETE CLASS A (BOX CULVERT)	CU YD	869	869.00			869	869.00	0	100
3 16	601	CONCRETE CLASS A (BRIDGE)	CU YD			487	517.13	487	517.13	+30.13	100
1.3 36,17	601	CONCRETE CLASS A (WALL)	CU YD	29	29.10	161	161.00	190	190.10	+0.10	100
3 18	601	CONCRETE CLASS S (BRIDGE)	CU YD			2304	2,304.83	2304	2,304.83	+0.83	100
1.3 37,13	602	REINFORCING STEEL	LB	99,251	99,251	10,834	10,834	110,085	110,085	0	100
3 20	602	REINFORCING STEEL (EPOXY COATED)	LB			460,568	460,072	460,568	460,072	-496	104
1 35	603	18 INCH REINFORCED CONCRETE END SECTION	EACH	8	10			8	10	+2	100
1 38	603	24 INCH REINFORCED CONCRETE END SECTION	EACH	2	2			2	2	0	100
1 40	603	30 INCH REINFORCED CONCRETE END SECTION	EACH	6	6			6	6	0	100
1 41	603	23X14 INCH REINFORCED CONCRETE END SECTION ELLIPTICAL	EACH	2	2			2	2	0	100
1 42	603	15 INCH CORRUGATED STEEL PIPE	LIN FT	56	56			56	56	0	100
2 43	604	INLET TYPE C (5 FOOT)	EACH	4	4			4	4	0	100
1 44	604	INLET TYPE C (10 FOOT)	EACH	5	5			5	5	0	100
2 45	604	INLET TYPE C (15 FOOT)	EACH	1	1			1	1	0	100
2 46	604	INLET TYPE D (5 FOOT)	EACH	3	3			3	3	0	100
2 47	604	INLET TYPE D (10 FOOT)	EACH	1	1			1	1	0	100
2 48	604	INLET TYPE 13 (10 FOOT)	EACH	1	1			1	1	0	100
2 49	604	INLET TYPE R L 5 (10 FOOT)	EACH	3	3			3	3	0	100
1 50	604	INLET TYPE R L 10 (5 FOOT)	EACH	2	2			2	2	0	100
1 51	604	INLET TYPE R L 10 (10 FOOT)	EACH	1	1			1	1	0	100
2 52	604	INLET TYPE R L 15 (5 FOOT)	EACH	2	2			2	2	0	100
2 53	604	INLET TYPE R SPECIAL (5 FOOT)	EACH	1	1			1	1	0	100
2 54	604	INLET TYPE R SPECIAL (10 FOOT)	EACH	1	1			1	1	0	100

FINAL
SUMMARY OF APPROXIMATE QUANTITIES

AS CONSTRUCTED		REF. ROAD REGION	DIVISION	PROJ. NO.	SHEET NO.
NO REVISIONS	REVISED	VIII	COLO.	IXFU 470-1(45)	12

INDEX			CONTRACT ITEM NO.	CONTRACT ITEM	UNIT	IXFU 470-1(45) PROJECT TOTAL						IXFU 470-1(55) PROJECT TOTAL		PROJECT TOTALS				DIFF. +/-	% PLAN.
BOOK	PAGE	SHEET				PLAN	AS CONST.					PLAN	AS CONST.			PLAN	AS CONST.		
2	53		604	MANHOLE BOX BASE (10 FOOT)	EACH	2	2									2	2	0	100
2	54		604	MANHOLE SPECIAL (10 FOOT)	EACH	2	2									2	2	0	100
2	55		604	18 INCH REINFORCED CONCRETE PIPE SEWER	LIN FT	801	844									801	844	+43	105
2	58		604	24 INCH REINFORCED CONCRETE PIPE SEWER	LIN FT	106	111									106	111	+5	105
2	59		604	30 INCH REINFORCED CONCRETE PIPE SEWER CMO #4	LIN FT	1607	1624									1607	1624	+17	101
2	60		604	42 INCH REINFORCED CONCRETE PIPE SEWER	LIN FT	1254	1253									1254	1253	-1	100
2	61		604	54 INCH REINFORCED CONCRETE PIPE SEWER	LIN FT	483	483									483	483	0	100
2	62		604	23X14 INCH REINFORCED CONCRETE PIPE SEWER ELLIPTICAL	LIN FT	76	78									76	78	+2	103
3	21		605	6 INCH NON-PERFORATED PIPE UNDERDRAIN	LIN FT									20	76	20	76	+56	380
3	22		605	6 INCH PERFORATED PIPE UNDERDRAIN	LIN FT									180	180	180	180	0	100
1	63		606	GUARD RAIL TYPE 3 (6-3 POST SPACING)	LIN FT	250	250									250	250	0	100
2	64		606	END ANCHORAGE TYPE 3D	EACH	1	1									1	1	0	100
2	65		606	END ANCHORAGE TYPE 3E	EACH	3	3									3	3	0	100
23	66		607	END POST	EACH	26	25							6	0	32	25	-7	78
23	67		607	CORNER AND LINE BRACE POST	EACH	34	49							3	1	37	50	+13	135
3	23		607	FENCE BARBED WIRE WITH METAL POSTS	LIN FT									360	0	360	0	-360	0
3	24		607	FENCE COMBINATION WIRE WITH TREATED WOODEN POSTS	LIN FT									1005	805	1005	805	-200	80
3	25		607	FENCE COMBINATION WIRE WITH TREATED WOODEN POSTS SPECIAL	LIN FT	13,234	14,176									13234	14,176	+942	107
3	26		607	FENCE CHAIN LINK SPECIAL	LIN FT									761	774	761	774	+13	102
2	68		607	12 FOOT GATE	EACH	1	2									1	2	+1	200
2	69		607	20 FOOT GATE	EACH	2	4									2	4	+2	200
2	70		608	CONCRETE CURB RAMP	SQ YD	22	42									22	42	+20	191
2	71		609	CURB AND GUTTER TYPE 2 (SECTION I-B)	LIN FT	5703	5779									5703	5779	+76	101
2	72		609	CURB AND GUTTER TYPE 2 (SECTION II-B)	LIN FT	6908	6967									6908	6967	+59	101
2	73		609	CURB TYPE 4 (SECTION B)	LIN FT	164	168									164	168	+4	103
1	75		610	MEDIAN COVER MATERIAL (PATTERNED CONCRETE)	SQ FT	31,264	31,350									31,264	31,350	+86	100
2	76		612	DELINEATOR (TYPE I)	EACH	55	58									55	58	+3	105
2	77		612	DELINEATOR (TYPE III)	EACH	2	2									2	2	0	100
3	28		613	1-1/2 INCH ELECTRICAL CONDUIT	LIN FT									66	74	66	74	+8	112
2	78		613	2 INCH ELECTRICAL CONDUIT	LIN FT	1077	1,460									1077	1,460	+383	134
2	79		613	3 INCH ELECTRICAL CONDUIT	LIN FT	626	746									626	746	+120	119
3	29		613	2 INCH ELECTRICAL CONDUIT (PLASTIC)	LIN FT									378	408	378	408	+30	106
3	30		613	3 INCH ELECTRICAL CONDUIT (PLASTIC)	LIN FT									378	411	378	411	+33	107

FINAL
SUMMARY OF APPROXIMATE QUANTITIES

AS CONSTRUCTED		FED. ROAD REGION	DIVISION	PROJECT NO.	SHEET NO.	
NO REVISIONS	REVISED 7-12-84	VOID	VIII	CCLO.	IXFU 470-1(55)	13

INDEX			CONTRACT ITEM NO.	CONTRACT ITEM	UNIT	IXFU 470-1(45) PROJECT TOTAL		IXFU 470-1(55) PROJECT TOTAL		PROJECT TOTALS		DIFF. +/-	PLAN
BOOK	PAGE	SHEET				PLAN	AS CONST.	PLAN	AS CONST.	PLAN	AS CONST.		
3	31		613	DIRECT BURIAL CABLE	LIN FT			499		499			
3	31		613	WIRING	L S			1	1	1	1	0	100
3	32		613	LUMINAIRE HIGH PRESSURE SODIUM (WALL TYPE) (16,000 LUMEN)	EACH			2	2	2	2	0	100
3	33		613	LIGHTING SYSTEM	EACH			20	20	20	20	0	100
3	33		613	INTERIOR LIGHTING M&R 1-5	L S			0	1	0	1	-1	100
3	33		614	FLAGGING	HOURL	1000	1278			1000	1278	278	100
2	31		614	TRAFFIC CONTROL SUPERVISOR	DAY	100	85			100	85	-15	85
2	32		614	SIGN PANEL (CLASS I)	SQ FT	137	155			137	155	+18	113
2	33		614	SIGN PANEL (CLASS II)	SQ FT	27	146			27	146	+119	591
2	34		614	TIMBER SIGN POST 4X4 INCH	LIN FT	241	294			241	294	+53	118
2	35		614	TIMBER SIGN POST 6X6 INCH	LIN FT	73	181			73	181	+108	147
2	36		614	STEEL SIGN POST (U-2) DETAIL 11 20- FROM 105	LIN FT	9	0			9	0	-9	0
2	37		614	BARRICADE (TYPE 3 F-B)	EACH	1	1			1	1	0	100
2	38		614	BARRICADE (TYPE 3 M-D)	EACH	2	2			2	2	0	100
2	39		614	BARRICADE (TYPE 3 M-C) (TEMPORARY)	EACH	3	6			3	6	+3	200
2	40		614	CONSTRUCTION TRAFFIC SIGN (PANEL SIZE B)	EACH	28	34			28	34	+6	121
2	41		614	VERTICAL PANEL	EACH	50	91			50	91	+41	162
2	42		614	VERTICAL PANEL (WITH LIGHT) (FLASHING)	EACH	10	12			10	12	+2	130
2	43		614	TRAFFIC CONE	EACH	100	75			100	75	-25	75
2	44		614	TRAFFIC SIGNAL CMO #5	L S	0	1			0	1	+1	100
3	34		618	PRESTRESSING STEEL WIRE OR STRAND	M KFT			7621	7621	7621	7621	0	100
2	45		620	FIELD OFFICE (CLASS 2) DETAIL 11 20- FROM 105	EACH	0.5	0			0.5	0	-0.5	0
2	46		620	SECURITY SYSTEM CMO #3	L S	0	0.5			0	0.5	+0.5	100
2	47		620	FIELD LABORATORY (CLASS 2)	EACH	0.5	0.5			0.5	0.5	0	100
2	48		620	UNDERGROUND UTILITIES CMO #3	L S	0	0.5			0	0.5	+0.5	100
2	49		620	SANITARY FACILITY	EACH	1	1			1	1	0	100
2	50		620	WATER SYSTEM CMO #3	L S	0	0.5			0	0.5	+0.5	100
2	51		625	CONSTRUCTION SURVEYING	L S	0.5	0.5			0.5	0.5	0	100
2	52		625	CONSTRUCTION SURVEYING M&R 1-2 CMO #4	HR	0	37			0	37	+37	100
2	53		626	MOBILIZATION	L S	0.5	0.5			0.5	0.5	0	100
2	54		626	PAVEMENT MARKING PAINT CMO #4	GAL.	93	98			93	98	+5	105
				FORCE ACCOUNT									
			F/A01	MINOR CONTRACT REVISIONS	F.A.	0.5	0.5 (1277.9)			0.5	0.5 (1277.9)		
2	55		F/A02	ON-THE-JOB-TRAINEE M&R 1-1	EACH	3	3 (1607.0)			3	3 (1607.0)		
			F/A03	TEMPORARY EROSION CONTROL	F.A.	0.5	0			0.5	0		
2	56		F/A04	DBE INCENTIVE PAYMENT	F.A.	0.5	0.5 (1277.9)			0.5	0.5 (1277.9)		

AS CONSTRUCTED

NO REVISIONS

REVISED 7-15-27

VOID

FED. ROAD DESIGN

DIVISION

PROJECT NO.

SHEET NO.

TOTAL SHEETS

14

35

REVISIONS

TABULATION OF REMOVALS, RESETS AND ADJUSTMENTS

STATION	SIDE	REMOVAL OF STRUCTURES AND OBSTRUCTIONS		REMOVAL OF SIDEWALK		REMOVAL OF CURB AND GUTTER		REMOVAL OF ASPHALT MAT		REMOVAL OF FENCE		REMOVAL OF PIPE		ADJUST VALVE BOX		ADJUST MANHOLE		RESET FENCE (SPECIAL)		REMOVAL OF PAVEMENT MARKING		ADJUST INLET								REMARKS
		* AS CONST	SO. YD.	AS CONST	LIN. FT.	AS CONST	SO. YD.	AS CONST	LIN. FT.	AS CONST	LIN. FT.	AS CONST	EACH	AS CONST	EACH	AS CONST	LIN. FT.	AS CONST	LS	AS CONST	LS	AS CONST								
1+80 TO 5+40	LT.							1,230	0																					
37+50 TO 47+74	RT.									1616	1,412																			
43+08 TO 44+02	LT.BRT.									260	299																			
43+39 TO 44+02	RT.									67	0																			
43+90 TO 44+70	PT.									140	0																			
44+33 TO 45+25	RT.	1	1																											HOUSE
44+50 TO 45+25	RT.			78	78																									
45+09 TO 46+18	RT.	1	1																											BARN
46+36 TO 52+80	LT.BRT.									933	430																			
52+28	LT.	1	1																											CISTERN
54+50 TO 356+59	LT.BRT.									608	255																			
54+87 TO 55+72	RT.									90	0																			
54+50 TO 381+72	LT.																	0	893											
377+55 TO 377+72	RT.											36	36																	
377+77 TO 380+40	RT.<.									614	355																			
377+81 TO 378+00	RT.											28	28																	
380+46 TO 383+58	LT.									418	0																			
384+30 TO 391+90	RT.<.									890	2697																			
1562+28 TO 1563+28	LT.BRT.									145	0																			
1565+32 TO 143+70	LT.BRT.									2154	2,464																			
1566+00 TO 1567+50	LT.							493	493																					
1567+60 TO 377+77	LT.BRT.									1167	1,177																			
76+50 TO 100+50	RT																	0	1											
100+50	RT													1	1															
100+25 TO 104+10	RT.							1,383	1,020																					
100+36 TO 105+16	LT.BRT.									510	0																			
101+18 TO 103+80	RT.					325	318																							
103+97	RT.													1	1															
103+99	RT.															1	1													
104+16 TO 105+32	LT.BRT.									218	125																			
109+05	LT.BRT.									265	0																			
113+38	LT																			0	1									
118+64 TO 119+02	RT									98	0																			
119+12 TO 120+02	RT.									123	0																			
119+14 TO 1564+64	LT.BRT.									1162	1,037																			
133+62 TO 136+15	RT.<.									451	460																			
139+00 TO 141+10	LT.							460	0																					
140+88 TO 141+38	LT.											58	58																	
141+46 TO 384+24	LT.BRT.									360	0																			
SHEET & PROJECT TOTALS		L.S.	0.5	78	78	325	318	3,566	1,513	12,289	10,711	122	122	2	2	1	1	0	893	0	1	0	1							

* THIS ITEM WILL INCLUDE ALL OTHER VISIBLE OBSTRUCTIONS NOT SPECIFICALLY LISTED IN THIS TABULATION

TABULATION OF DRAINAGE ITEMS

REVISIONS			

[illegible]

▲ ELEVATION APPROXIMATE ONLY,
ACTUAL ELEVATION TO BE DETERMINED DURING CONSTRUCTION

TABULATION OF DRAINAGE ITEMS

REVISIONS			

[illegible]

▲ ELEVATION APPROXIMATE ONLY.
ACTUAL ELEVATION TO BE DETERMINED DURING CONSTRUCTION

AS CONSTRUCTED

NO REVISIONS

REVISED 7/15/87

VOID

FED. ROAD REGION

DIVISION

PROJECT NO

SHEET NO

TOTAL SHEETS

010

1XFU 470-1(45)

17

85

REVISIONS

TABULATION OF SURFACING QUANTITIES

STATION	SIDE	HOT BITUMINOUS PAVEMENT (GRADING E) (HAUL & ASPHALT)	EMULSIFIED ASPHALT (SLOW SETTING)							
		TON		GAL.						
QUINCY										
100+25 TO 110+00	LT. & RT.									
BOTTOM LIFT (3-3/4")		*1,785								
TOP LIFT (3")		1,295		392						
110+00 TO 113+56.49	LT. & RT.									
BOTTOM LIFT (3-3/4")		*686								
TOP LIFT (3")		499		151						
117+07.35 TO 120+00	LT. & RT.									
BOTTOM LIFT (3-3/4")		*512								
TOP LIFT (3")		373		113						
120+00 TO 135+00	LT. & RT.									
BOTTOM LIFT (3-3/4")		*2,114								
TOP LIFT (3")		1,537		465						
135+00 TO 143+37.07	LT. & RT.									
BOTTOM LIFT (3-3/4")		*803								
TOP LIFT (3")		578		175						
140+00 TO 142+50 (OVERLAY)	LT. & RT.									
TOP LIFT		7		10						
TURKEY CREEK FRT. RD.										
45+62 TO 50+00	LT. & RT.									
BOTTOM LIFT (3-1/2")		*433								
TOP LIFT (3")		329		100						
50+00 TO 58+15	LT. & RT.									
BOTTOM LIFT (3-1/2")		*805								
TOP LIFT (3")		613		186						

* QUANTITY INCLUDES ADDITIONAL 10% FOR SUBGRADE IRREGULARITIES.
* CONTRACTOR SOURCE

TABULATION OF SURFACING QUANTITIES

STATION	SIDE	HOT BITUMINOUS PAVEMENT (GRADING E) (HAUL & ASPHALT)	EMULSIFIED ASPHALT (SLOW SETTING)							
		TON	AS CONST.	GAL.	AS CONST.					
TEMP. CONN. (WIDENING)										
1+58 TO 2+00	RT.									
BOTTOM LIFT (2")		*3								
TOP LIFT (2")		3		1						
TEMP. CONN. (OVERLAY)	LT. & RT.									
2+00 TO 2+50										
TOP LIFT (2")		20		9						
TEMPORARY CONNECTION	LT. & RT.									
2+50 TO 7+63.9										
BOTTOM LIFT (2")		*177								
TOP LIFT (2")		157		71						
ENTRANCE ROAD RT.	LT. & RT.									
BOTTOM LIFT (2")		*167								
TOP LIFT (2")		145		68						
SHEET & PROJECT TOTALS		13,041	12,314.34	1,760	2,005					

It is estimated that 28.72 100 tons of H.B.P. (Patching) (H. & A) will be required on this project.

STABILIZATION OF BITUMINOUS PAVEMENT BASED ON FOLLOWING DATA:	
18" ESLS (QUINCY AVE.)	570,900 (4 LANES)
18" ESLS (TURKEY CREEK FRONTAGE ROAD)	435,100 (2 LANES)
REGIONAL FACTOR	1.75
SERVICEABILITY INDEX	2.5
R VALUE	7
MSN (QUINCY AVE.)	3.75
MSN (TURKEY CREEK FRONTAGE ROAD)	3.58
STRENGTH COEFFICIENT-H B P GR. E	0.44

REVISIONS		

TABULATION OF FENCE, GATES AND GUARD RAIL

LOCATION	GUARD RAIL TYPE 3 (6-3 POST SPACING)		END ANCHORAGE TYPE 30		END ANCHORAGE TYPE 3E		FENCE COMBINATION WIRE WITH TREATED WOODEN POSTS (SPECIAL)		12 FOOT GATE		20 FOOT GATE	
	L.F.	AS CONST	EACH	AS CONST	EACH	AS CONST	L.F.	AS CONST	EACH	AS CONST	EACH	AS CONST
37+50 TO 40+59 RT. TURKEY CRK. FRT. RD.							324	400				
40+59 RT. TURKEY CREEK FR. RD.											1	2
40+89 TO 42+03 RT. TURKEY CRK. FRT. RD.							103	63				
42+03 RT. TURKEY CREEK FR. RD.											1	1
42+28 TO 50+46 RT. TURKEY CRK. FRT. RD.							734	757				
50+46 RT. TURKEY CR. FR. RD.									1	1		
50+33 RT. TURKEY CR. TO 118+00 RT. QUINCY AVE.							803	854				
122+00 RT. QUINCY AVE											0	1
118+00 TO 144+00 PT. QUINCY AVE							2705	2705				
144+50 RT. QUINCY AVE.									0	1		
159+55 PT. S.H. 470 TO 1276+00 PT. RAMP A							1560	1586				
1373+58 RT. RAMP B TO 392+18 RT. S.H. 470							745	1247				
382+73 TO 370+72 RT. S.H. 470							824	841				
381+41 RT. TO STA. 384+24 RT. S.H. 470							316	342				
392+28 TO 391+42 RT. S.H. 470							445	486				
349+75 TO 355+59 LT. S.H. 470							710	716				
105+35 RT. QUINCY AVE. TO 109+05 RT.							376	471				
104+25 LT. TO 109+05 LT. QUINCY AVE.							457	475				
112+05 LT. QUINCY AVE. TO 1565+32 LT. RAMP D							675	746				
1567+60 LT. RAMP D TO 391+48 LT. S.H. 470							1425	1520				
382+12 TO 392+28 LT. S.H. 470							1029	1187				
112+52 TO 113+27 RT. QUINCY AVE.	75	75			1	1						
1488+08 LT. RAMP C TO 113+52 LT. QUINCY AVE.	50	50	1	1								
117+33 TO 108+08 LT. QUINCY AVE.	75	75			1	1						
59+04 TO 59+54 LT. TURKEY CR. FR. RD.	50	50			1	1						
SHEET & PROJECT TOTALS	250	250	1	1	3	3	13,239	14,176	1	2	2	4

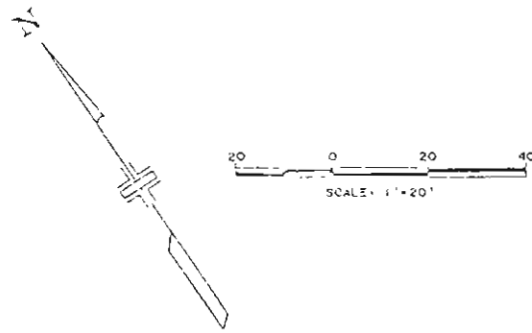
TABULATION OF CURB RAMP, CURB & GUTTER AND MEDIAN COVER MATERIAL

LOCATION	SIDE	CONCRETE CURB RAMP		CURB & GUTTER TYPE 2 (SEC. 1-9)		CURB & GUTTER TYPE 2 (SEC. 11-9)		CURB TYPE 4 (SEC. 9)		MEDIAN COVER MATERIAL (PATTERNED CONCRETE)		REMARKS
		S.Y.	AS CONST	L.F.	AS CONST	L.F.	AS CONST	L.F.	AS CONST	S.F.	AS CONST	
STA 107+04 AND STA 106+58	RT/LT	0	6									
54' RADIUS-QUINCY & ELDRIDGE		22	27									TYPE 2B
STA 121+30 QUINCY	RT	0	9									
STA. 100+45.15 TO STA. 1557+10.34	LT.					1194	1,209					ELDRIDGE TO RAMPS C&D
STA. 101+19 TO STA. 0+69.91	RT.					271	267					ELDRIDGE TO QUINCY ACCESS
STA 103+00 TO 103+45	RT					0	95					
STA. 0+58.17 TO STA. 58+06.59	LT.&RT.					1102	1036					QUINCY ACC. TO FRT. RD.
STA. 107+40.7 TO STA. 112+17.7	MEDIAN			962	962					2,023	1,924	
STA. 1556+57.16 TO STA. 1557+36	MEDIAN			162	162					0	232	MEDIAN BETWEEN RAMPS C&D
RAMP C STA 1487+59.83 TO STA. 1275+69.66	LT.&RT.					1781	1,691					RAMPS C&D TO RAMPS A&B
STA. 112+89.67 TO STA. 113+56.49	MEDIAN							139	140			
STA 112+89.67 TO STA. 117+20.01	MEDIAN									6,175	5,622	
STA 117+07.35 TO STA. 117+20.01	MEDIAN							25	28			
STA 117+50	RT			0	103					0	361	QUINCY AT TURKEY CREEK
STA. 117+78.01 TO STA. 133+54.10	MEDIAN			3,132	3,122					13,988	12,649	
STA. 58+24.75 TO STA 138+00	RT.					2132	2,205					FRT. RD. TO ELDRIDGE
STA 1275+60.74 TO STA. 1276+33.95	MEDIAN			161	160					661	519	MEDIAN BETWEEN RAMPS A&B
RAMP B STA. 1373+88 42 PT TO STA 138+29.19	RT<					428	464					RAMPS B TO ELDRIDGE
STA. 134+09.27 TO STA 140+67.30	MEDIAN			1,286	1,235					8,415	8,073	
SHEET & PROJECT TOTALS		22	42	5,703	5,799	6,908	6,967	164	168	31,264	31,380	

Δ SEE M-607-1 SPECIAL THIS PROJECT - 39 INCH MESH REQUIRED FOR THIS PROJECT.

NOTE: IT IS ESTIMATED THAT 34-TREATED WOODEN CORNER POSTS AND 26-TREATED WOODEN END POSTS WERE REQUIRED FOR THIS PROJECT.

GUARD RAIL TYPE 3 SHALL BE CORROSION RESISTANT STEEL



TRAFFIC SIGNAL PLAN
QUINCY AVENUE AND
RAMPS C AND D

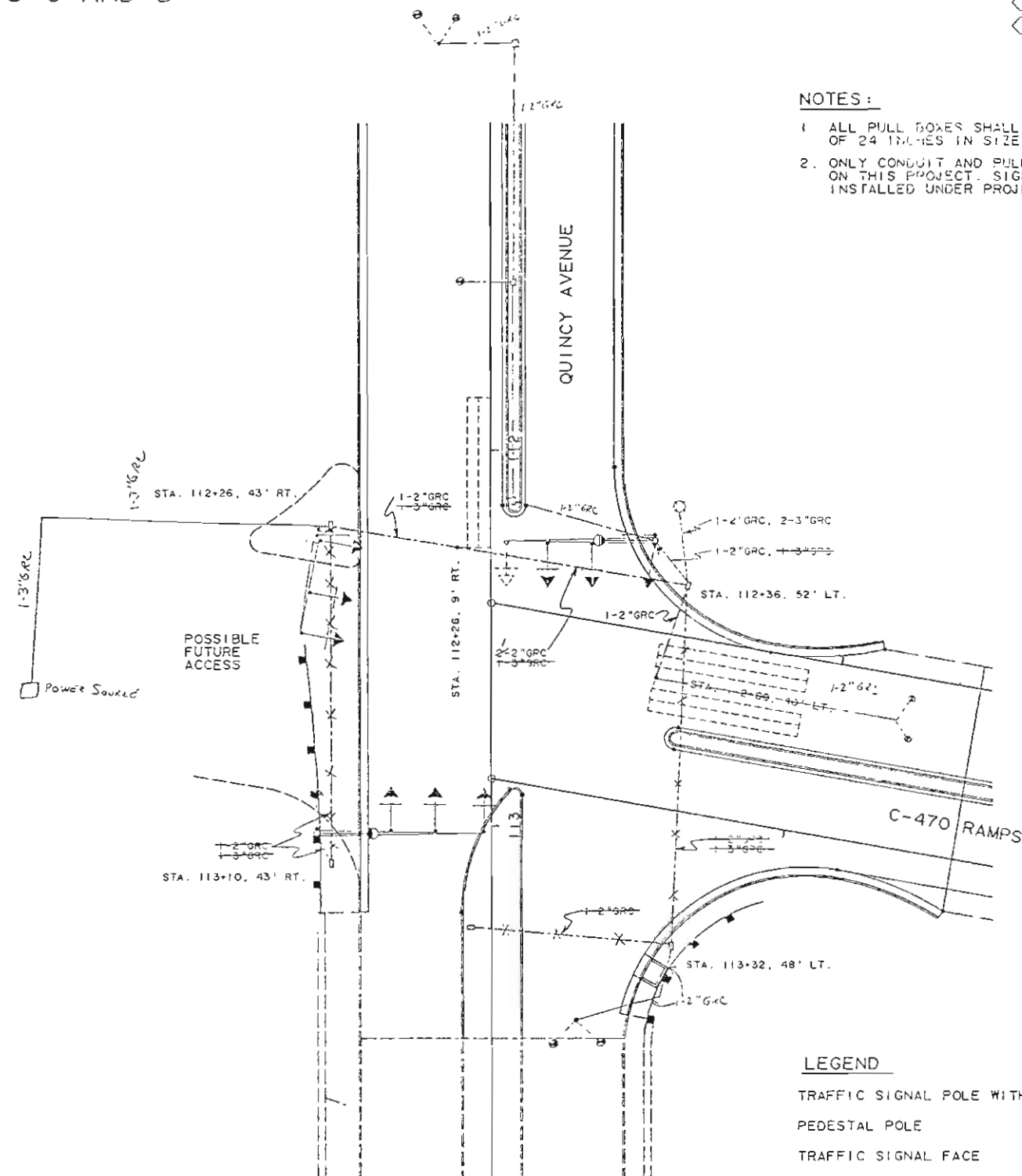
As Constructed		
NO REVISIONS	REVISIONS	DATE
	7-15-94	VJD

FED. ROAD DISTRICT	DIVISION	PROJ. NO.	SHEET NO.	TOTAL SHEETS
VIII	ONE	IXFU 470-1(45)	20	85

REVISIONS	

NOTES:

1. ALL PULL BOXES SHALL BE CONCRETE AND A MINIMUM OF 24 INCHES IN SIZE, UNLESS OTHERWISE NOTED.
2. ONLY CONDUIT AND PULL BOXES ARE TO BE INSTALLED ON THIS PROJECT. SIGNALS AND LIGHTING WILL BE INSTALLED UNDER PROJECT IXFU 470-1(51).

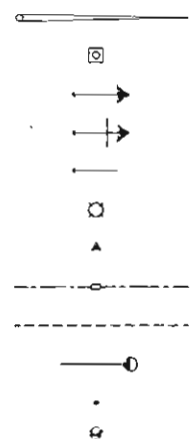


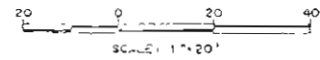
TABULATION OF ELECTRICAL CONDUIT

LOCATION	2"	3"	REMARKS
	LIN. FT.	LIN. FT.	
QUINCY AVENUE			
112+38, 52' LT. TO 112+26, 43' RT.	58		CONDUIT FOR SIGNALS
112+36, 52' LT. TO 112+26, 43' RT.	100		CONDUIT FOR LIGHTING
112+36, 52' LT. TO 112+26, 43' RT.		100	CONDUIT FOR SIGNALS
112+26, 43' RT. TO 113+10, 43' RT.	94		CONDUIT FOR LIGHTING
112+26, 43' RT. TO 113+10, 43' RT.		94	CONDUIT FOR SIGNALS
112+36, 52' LT. TO 112+26, 43' RT.	30		CONDUIT FOR SIGNALS
112+36, 52' LT. TO 113+32, 48' LT.	100		CONDUIT FOR LIGHTING
112+36, 52' LT. TO 113+32, 48' LT.		100	CONDUIT FOR SIGNALS
113+32, 48' LT. TO 113+37, 51' RT.	50		CONDUIT FOR SIGNALS
	407		TRAFFIC LOOPS
		93	POWER SOURCE
TOTALS	527	93	

LEGEND

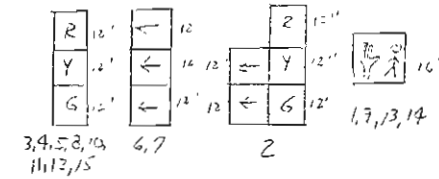
- TRAFFIC SIGNAL POLE WITH MAST ARM
- PEDESTAL POLE
- TRAFFIC SIGNAL FACE
- TRAFFIC SIGNAL FACE WITH BACKPLATE
- PEDESTRIAN SIGNAL FACE
- TRAFFIC SIGNAL CONTROLLER AND CABINET
- PEDESTRIAN PUSH BUTTON
- ELECTRICAL CONDUIT WITH PULL BOX
- LOOP DETECTOR WIRE
- LUMINAIRE
- PULL BOX - SPECIAL
- MINOR LOOP



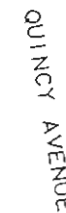


AS CONSTRUCTED

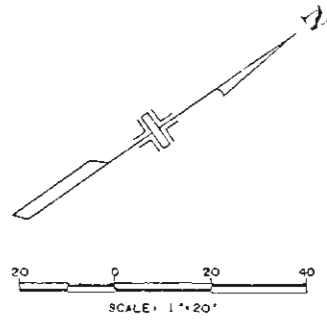
NO REVISIONS REVISED VOID



1. ALL PULL BOXES SHALL BE CONCRETE AND A MINIMUM OF 24 INCHES IN SIZE, UNLESS OTHERWISE NOTED.
2. ~~ONLY CONDUIT AND PULL BOXES ARE TO BE INSTALLED ON THIS PROJECT. SPOKES MAY BE INSTALLED ON A FUTURE PROJECT.~~
3. SEE PAGE #46 FOR NEW INTERSECTION PLAN

[illegible]

ITEM NO	DESCRIPTION	UNIT	QUANTITY
614	PED SIG (16)	EACH	4
614	TRAF SIG (12-12-12)	EACH	10
614	TRAF SIG (12-12-12-12)	EACH	1
614	LOOP DETECTOR WIRE	LIN FT	1080
614	SPAN WIRE POLE (12)	EACH	2
614	SIG & SPAN WIRE POLE (12)	EACH	2
614	TRAF SIG CONTROLLER (TYPE 170)	EACH	1



TRAFFIC SIGNAL PLAN QUINCY AVENUE AND RAMPS A AND B

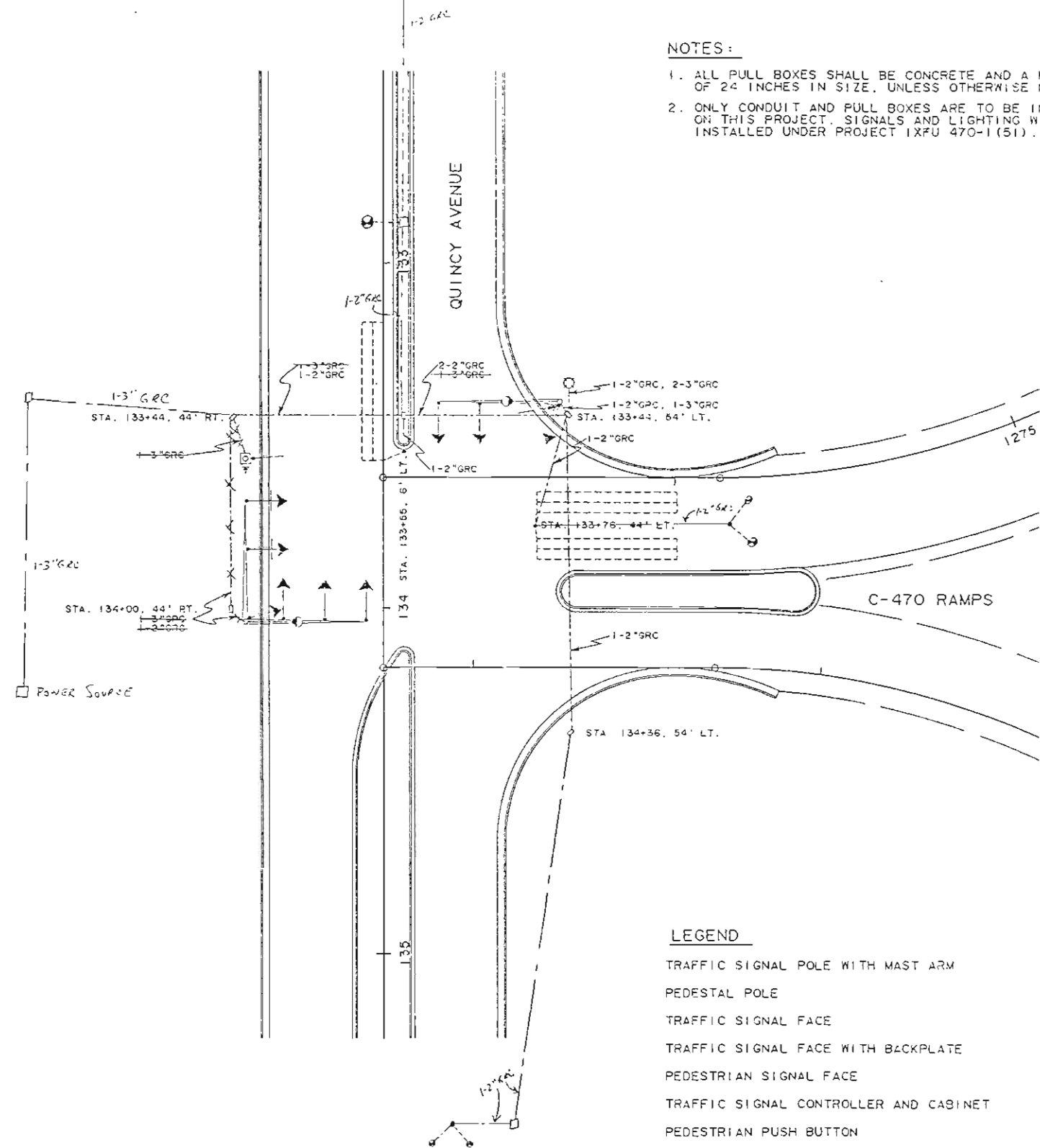
NO. 15151-1		REVISED	7/5/1	VOID
AS CONSTRUCTED				

FED. ROAD DIST. NO.	DIVISION	PROJ. NO.	SHEET NO.	TOTAL SHEETS
XXXX	CALIF.	IXFU 470-1 (35)	22	85

REVISIONS	
1	
2	
3	

NOTES:

1. ALL PULL BOXES SHALL BE CONCRETE AND A MINIMUM OF 24 INCHES IN SIZE, UNLESS OTHERWISE NOTED.
2. ONLY CONDUIT AND PULL BOXES ARE TO BE INSTALLED ON THIS PROJECT. SIGNALS AND LIGHTING WILL BE INSTALLED UNDER PROJECT IXFU 470-1 (51).



TABULATION OF ELECTRICAL CONDUIT

LOCATION	2"	3"	REMARKS
	LIN. FT.	LIN. FT.	
QUINCY AVENUE			
133+44, 54' LT. TO 133+44, 6' LT.	58		CONDUIT FOR SIGNALS
133+44, 54' LT. TO 133+44, 44' RT.	112		CONDUIT FOR LIGHTING
133+44, 54' LT. TO 133+44, 44' RT.		112	CONDUIT FOR SIGNALS
133+44, 6' RT. TO 133+66, 6' LT.	15		CONDUIT FOR SIGNALS
133+44, 44' RT. TO 133+66, 44' RT.	60		CONDUIT FOR LIGHTING
133+44, 44' RT. TO 133+66, 44' RT.		60	CONDUIT FOR SIGNALS
133+44, 54' LT. TO 133+66, 44' LT.	38		CONDUIT FOR SIGNALS
133+44, 54' LT. TO 133+66, 44' LT.		96	CONDUIT FOR LIGHTING
	693		TRAFFIC LAMPS
		208	POWER SOURCE
	693	208	
TOTAL	373	476	

LEGEND

- TRAFFIC SIGNAL POLE WITH MAST ARM
- PEDESTAL POLE
- TRAFFIC SIGNAL FACE
- TRAFFIC SIGNAL FACE WITH BACKPLATE
- PEDESTRIAN SIGNAL FACE
- TRAFFIC SIGNAL CONTROLLER AND CABINET
- PEDESTRIAN PUSH BUTTON
- ELECTRICAL CONDUIT WITH PULL BOX
- LOOP DETECTOR WIRE
- LUMINAIRE
- PULL BOX - SPECIAL
- MICRO LOOP

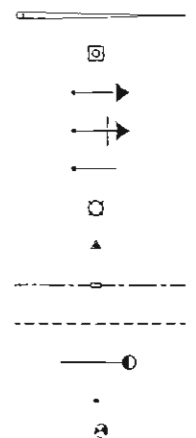
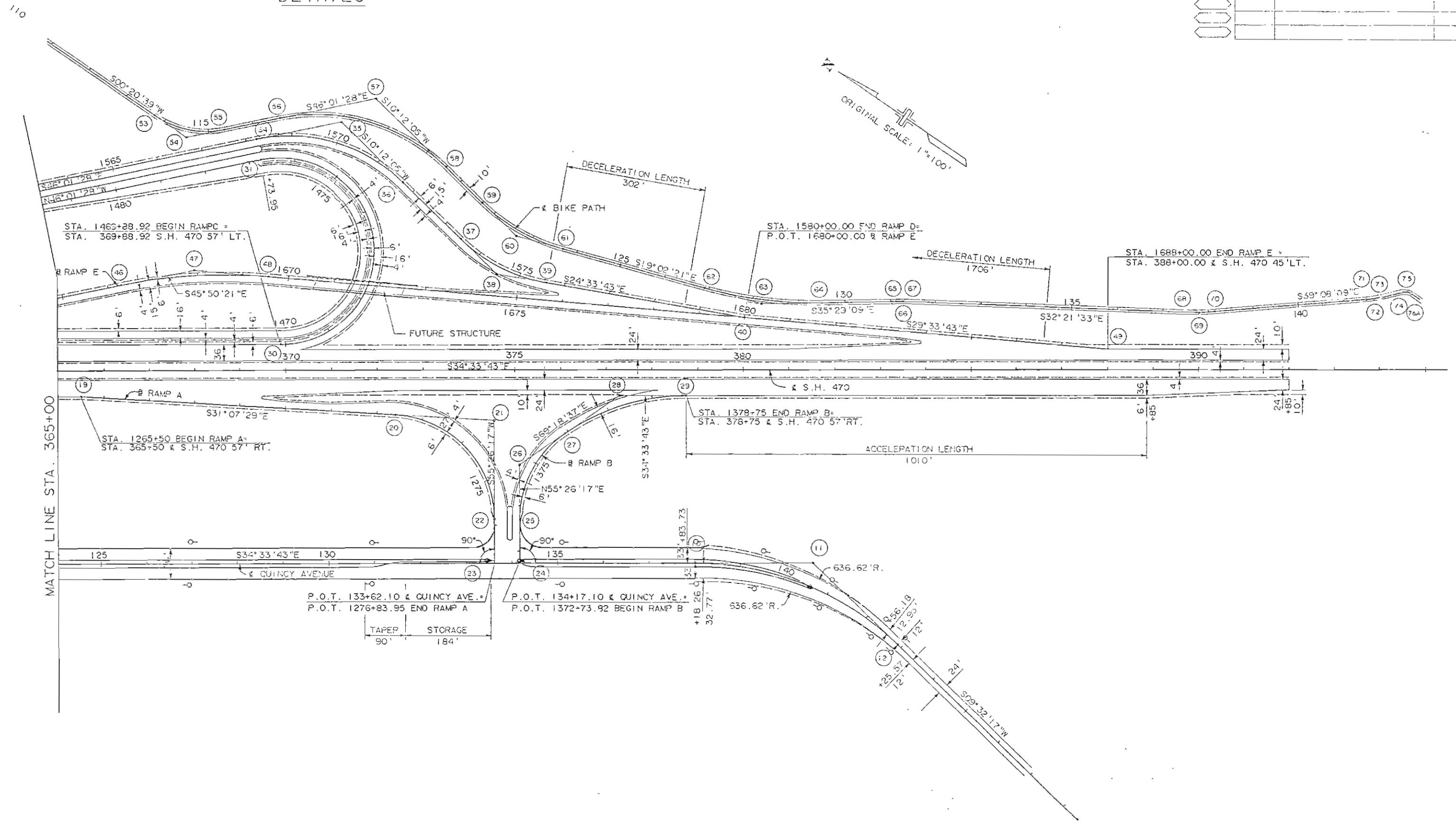


Diagram of the original scale. A horizontal line segment is labeled "ORIGINAL SCALE" and "1" = 100'". A vertical line segment is drawn at the right end of the horizontal segment, labeled "1" = 100'".

[illegible]

QUINCY INTERCHANGE
DETAILS

AS CONSTRUCTED			FILE NO.	DIVISION	PROJECT	SHEET	TOTAL SHEETS
NO REVISIONS	2/2/87	REVISED			1A	24	67
			DATE	COLL.	INSTR.	153	
			REVISIONS				



[illegible]

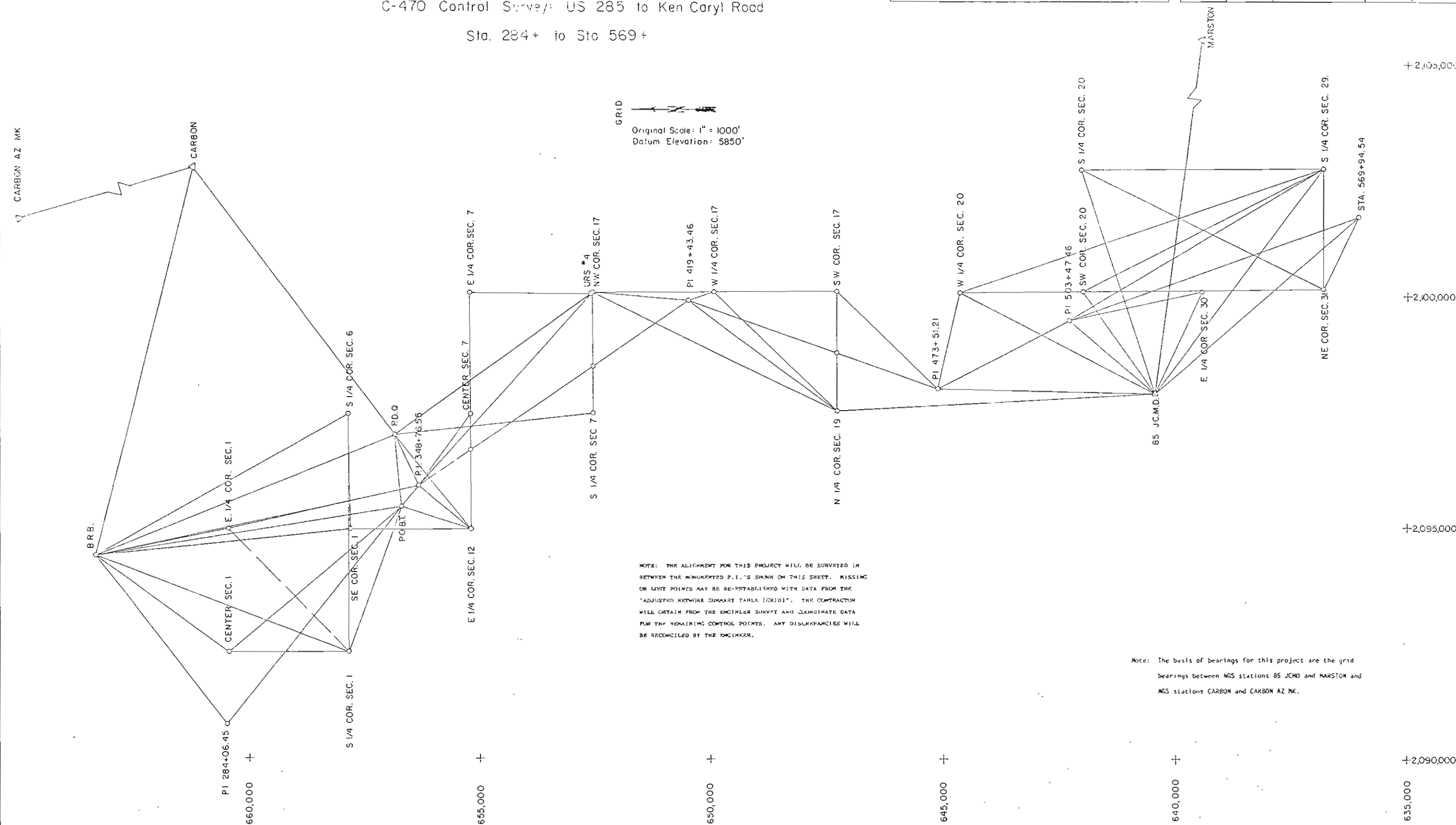
AS CONSTRUCTED			NO. REVISIONS	7/1/2001	REVISED	VOID	PROJ. NO.	IXFU 470-1(45)	SHEET NO.	26	TOTAL SHEETS	85
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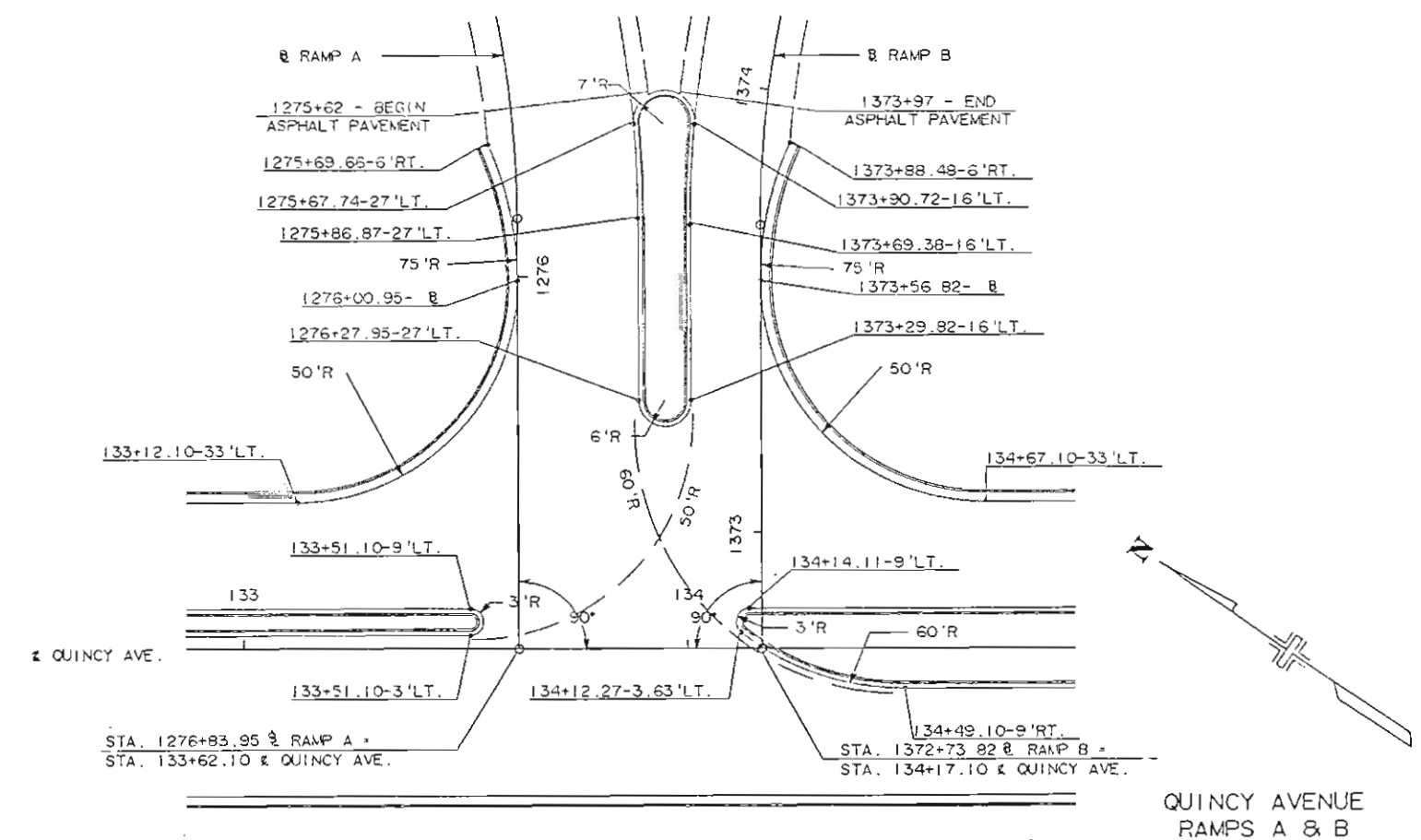
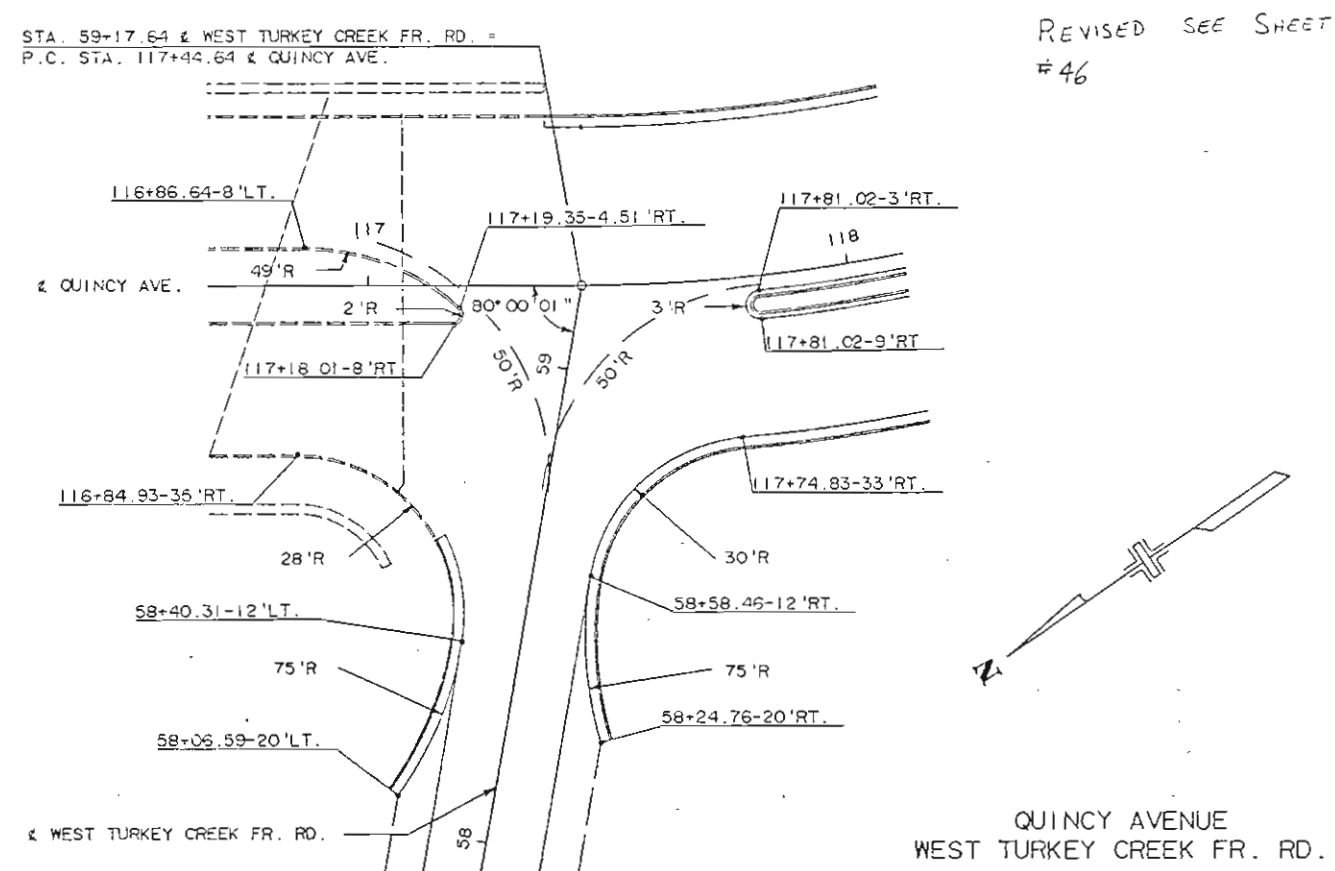
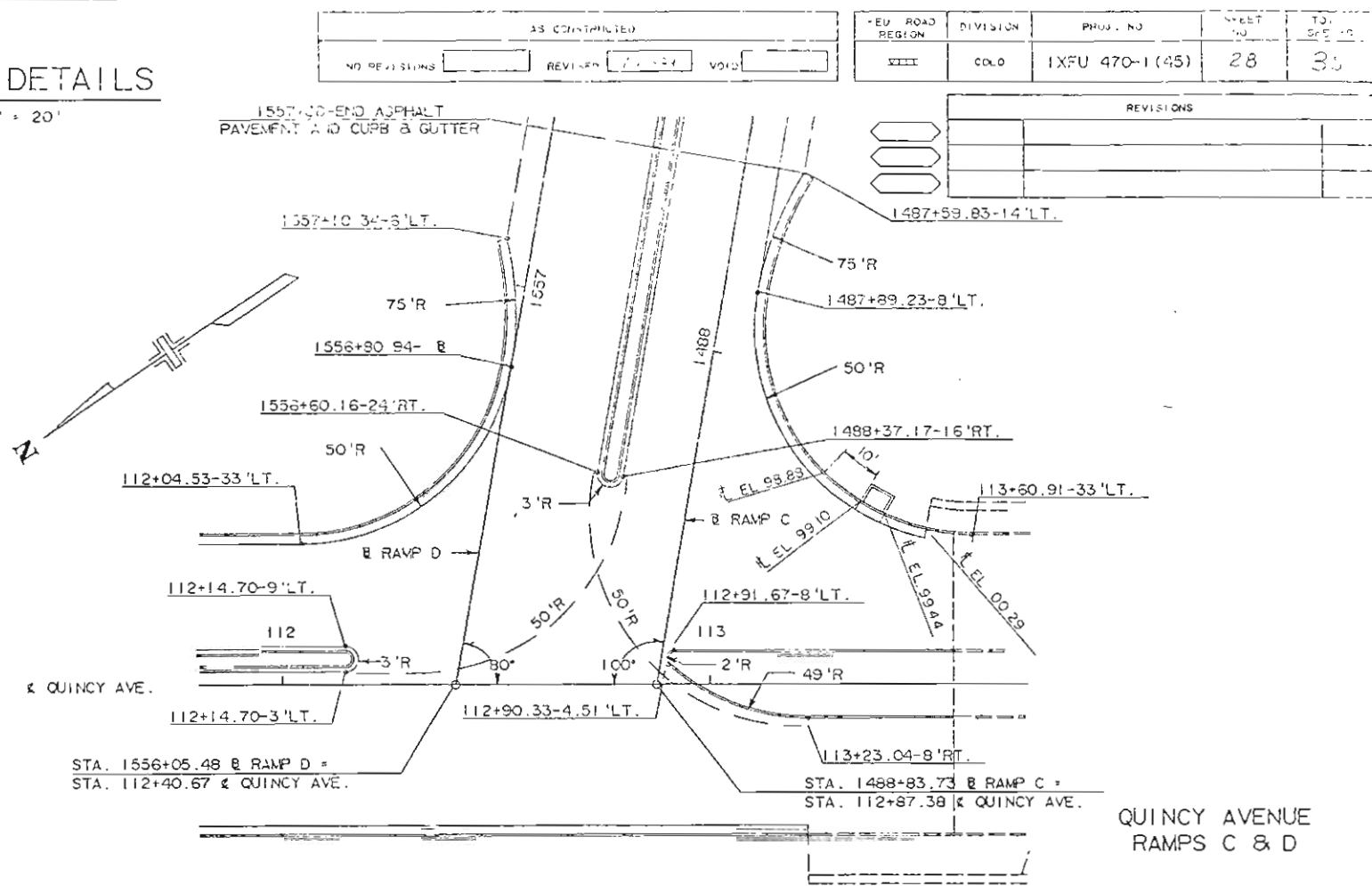
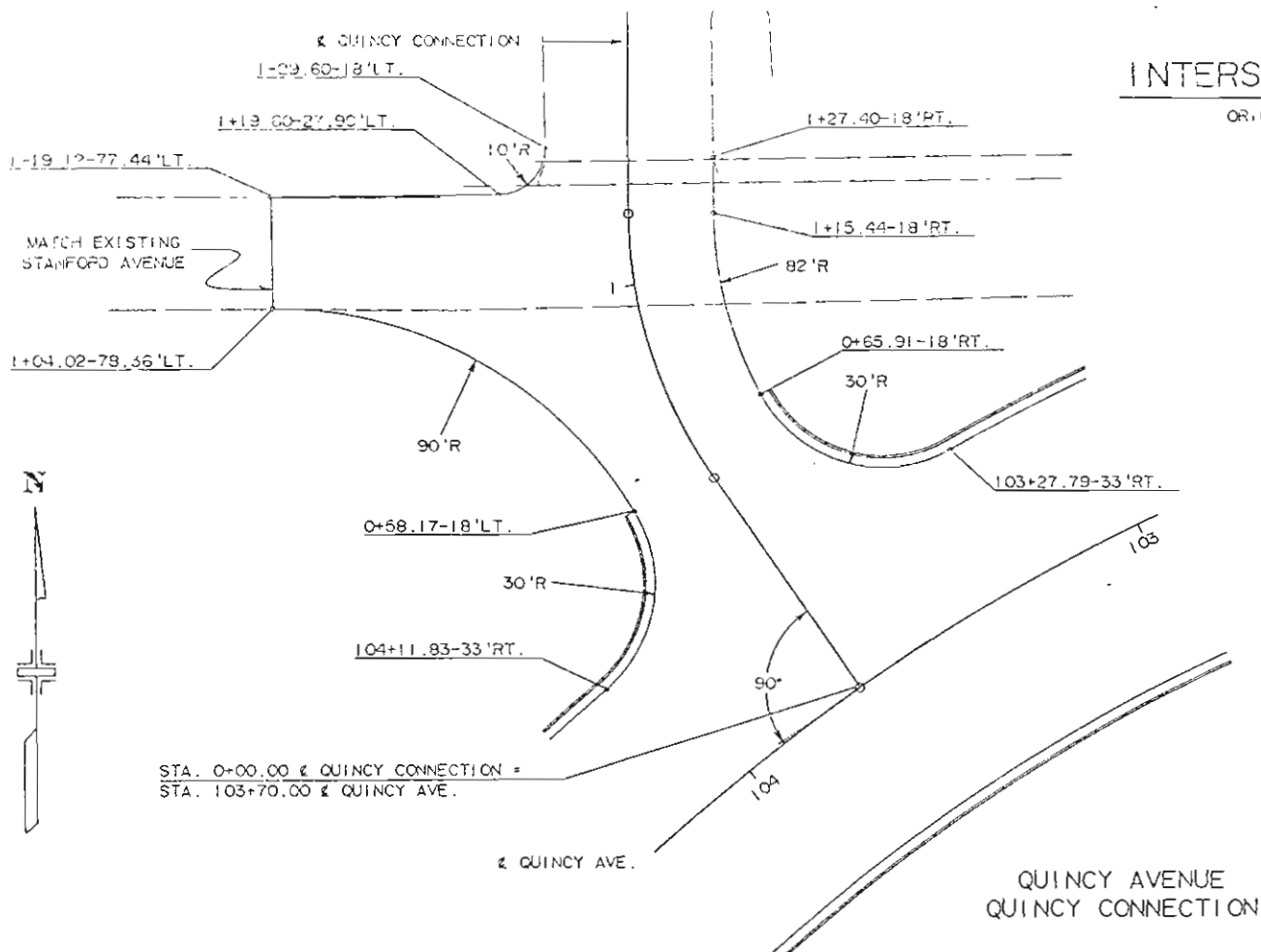
C-470 CONTROL SURVEY: US 285 TO KEN CARYL ROAD
ADJUSTED NETWORK SUMMARY TABLE (GRID)

OCCUPIED POINT	AHEAD POINT	DISTANCE	BEARING
BS JCMD	N 1/4 COR 19-55-63W	6,861.317	N 3 15 34.3 W
N 1/4 COR 19-55-63W	SW COR 17-55-63W	2,590.117	N 89 49 21.0 E
SW COR 17-55-63W	NW COR 17-55-63W	5,296.598	N 0 20 47.6 W
NW COR 17-55-63W	S 1/4 COR 7-55-63W	2,507.960	S 89 39 43.5 W
S 1/4 COR 7-55-63W	P.O.D.	4,304.042	N 6 9 23.2 W
P.O.D.	CAPRON	7,241.761	N 52 45 17.3 E
N 1/4 COR 19-55-63W	N 1/4 COR 17-55-63W	3,700.599	N 4 12 39.1 E
N 1/4 COR 17-55-63W	NW COR 17-55-63W	2,642.952	N 0 29 1.1 W
N 1/4 COR 19-55-63W	NW COR 17-55-63W	5,980.804	N 25 47 5.0 E
CAPRON	P.O.L.	212.210	N 75 3 7.3 W
CAPRON	B.R.B.	8,625.540	N 75 3 6.8 W
B.R.B.	PI 294+05.45 C470	4,620.770	S 51 59 41.7 W
B.R.B.	CENTER 1-55-70W	3,555.883	S 35 50 31.1 W
B.R.B.	E 1/4 COR 1-55-70W	2,911.388	S 11 14 17.1 E
B.R.B.	S 1/4 COR 6-55-63W	5,243.210	S 29 3 33.8 E
B.R.B.	P.O.B.T.	6,710.504	S 8 58 48.9 E
B.R.B.	SE COR 1-55-70W	5,529.689	S 5 51 29.0 E
B.R.B.	S 1/4 COR 1-55-70W	5,856.982	S 20 50 53.2 W
PI 294+05.45 C470	P.O.S.T.	6,024.341	S 51 5 59.2 E
S 1/4 COR 6-55-63W	S 1/4 COR 1-55-70W	5,116.905	S 89 49 6.4 W
SE COR 1-55-70W	E 1/4 COR 12-55-70W	2,628.200	S 0 0 3.7 W
SE COR 1-55-70W	S 1/4 COR 6-55-63W	2,468.539	N 89 0 45.5 E
P.O.D.	PI 345+86.29 C470	1,230.596	S 64 39 24.4 W
S 1/4 COR 1-55-70W	CENTER 1-55-70W	2,591.797	N 0 3 49.5 E
S 1/4 COR 1-55-70W	P.O.B.T.	3,337.960	S 63 45 37.9 E
P.O.D.	URS #4	5,209.737	S 35 35 3.0 E
P.O.D.	B.R.B.	6,967.889	N 21 57 53.0 W
P.O.D.	S 1/4 COR 7-55-63W	4,304.042	S 6 9 23.2 E
P.O.D.	NW COR 17-55-63W	5,253.918	S 35 45 3.0 E
P.O.D.	E 1/4 COR 12-55-70W	2,635.524	S 50 47 34.5 W
P.O.B.T.	P.O.D.	1,567.817	N 93 54 50.7 E
P.O.B.T.	E 1/4 COR 12-55-70W	1,575.679	S 17 51 23.0 W
P.O.B.T.	CENTER 1-55-70W	4,881.299	N 23 52 2.5 W
BS JCMD	PI 473+51.68 C470	4,683.459	N 1 4 53.7 E
BS JCMD	PI 503+47.71 C470	2,432.529	N 40 10 0.9 E
BS JCMD	N 1/4 COR 20-55-63W	4,740.362	N 27 12 58.5 E
BS JCMD	SW COR 20-55-63W	2,694.232	N 54 13 13.7 E
BS JCMD	S 1/4 COR 20-55-63W	5,096.074	N 71 42 43.4 E
BS JCMD	E 1/4 COR 30-55-63W	2,421.208	S 65 16 31.5 E
BS JCMD	S 1/4 COR 29-55-63W	6,082.120	S 53 10 55.7 E
BS JCMD	STA 569+94.92 C470	5,823.903	S 40 57 32.2 E
PI 473+51.68 C470	PI 419+43.77 C470	5,703.312	N 19 34 37.2 E
URS #4	S 1/4 COR 7-55-63W	2,607.880	N 0 39 27.7 E
PI 345+86.29 C470	P.O.B.T.	574.133	N 51 6 8.5 W
PI 345+86.29 C470	CENTER 7-55-63W	1,917.742	S 54 14 1.0 E
PI 345+86.29 C470	URS #4	5,560.987	S 48 9 44.8 E
PI 345+86.29 C470	NW COR 17-55-63W	5,608.283	S 48 12 50.6 E
PI 345+86.29 C470	E 1/4 COR 12-55-70W	1,470.551	S 39 13 35.3 W
PI 345+86.29 C470	S 1/4 COR 1-55-70W	3,886.260	N 57 3 5.2 W
E 1/4 COR 7-55-63W	CENTER 7-55-63W	2,617.215	S 89 34 39.3 W
CENTER 7-55-63W	E 1/4 COR 12-55-70W	2,486.161	S 69 34 37.1 W
STA 569+94.92 C470	NE COR 31-55-63W	1,722.263	N 64 8 55.3 W
S 1/4 COR 29-55-63W	NE COR 31-55-63W	2,601.250	S 89 57 0.0 W
E 1/4 COR 30-55-63W	NE COR 31-55-63W	2,635.325	S 1 29 22.5 E
E 1/4 COR 30-55-63W	PI 503+47.71 C470	2,939.696	N 12 22 43.3 W
S 1/4 COR 20-55-63W	S 1/4 COR 29-55-63W	5,244.050	S 0 19 52.5 E
S 1/4 COR 20-55-63W	NE COR 31-55-63W	5,842.310	S 26 6 25.9 W
SW COR 20-55-63W	S 1/4 COR 29-55-63W	5,963.258	S 27 12 15.0 E
SW COR 20-55-63W	NE COR 31-55-63W	5,222.931	S 0 53 56.7 E
PI 503+47.71 C470	STA 569+94.92 C470	5,648.753	S 19 46 3.5 E
PI 503+47.71 C470	S 1/4 COR 29-55-63W	5,417.226	S 30 56 47.7 E
PI 503+47.71 C470	P.O.L.N.	1,364.161	N 27 40 5.1 W

OCCUPIED POINT	AHEAD POINT	DISTANCE	BEARING
N 1/4 COR 20-55-63W	S 1/4 COR 29-55-63W	8,311.509	S 12 57 49.8 E
N 1/4 COR 20-55-63W	NE COR 31-55-63W	7,863.295	S 0 43 36.7 E
PI 473+51.68 C470	P.O.L.S.	573.407	S 27 40 5.4 E
PI 473+51.68 C470	N 1/4 COR 20-55-63W	2,131.258	S 77 20 26.4 E
SW COR 17-55-63W	PI 473+51.68 C470	3,032.296	S 44 7 56.7 W
STA 569+94.92 C470	POL 561+95.92 C470	793.158	N 19 46 3.4 W
POL 561+95.92 C470	NE COR 31-55-63W	1,279.624	S 23 51 3.6 W
P.O.L.N.	P.O.L.S.	1,350.772	N 27 40 5.2 W
PI 419+43.77 C470	URS #4	2,121.029	N 3 30 31.4 E
PI 419+43.77 C470	NW COR 17-55-63W	2,036.029	N 4 26 30.9 E
PI 419+43.77 C470	N 1/4 COR 17-55-63W	565.443	S 13 0 44.5 E
PI 419+43.77 C470	N 1/4 COR 19-55-63W	3,998.656	S 36 42 0.6 W
URS #4	NW COR 17-55-63W	47.562	S 54 15 40.1 E
NW COR 17-55-63W	S 1/4 COR 7-55-63W	2,607.880	S 89 39 43.5 W
PI 419+43.77 C470	POL 362+36.36 C470	5,705.544	N 34 32 36.8 W
POL 362+36.36 C470	E 1/4 COR 7-55-63W	3,397.126	N 89 34 28.2 E
NW COR 17-55-63W	STA 394+19.46 C470	1,601.093	S 89 39 43.8 W
S 1/4 COR 7-55-63W	BL BELLEVUE (C470)	11.413	N 0 5 29.9 W
NW COR 17-55-63W	STA 394+08.95 C470	1,605.659	S 89 54 46.3 W
N 1/4 COR 19-55-63W	STA 450+46.44 C470	1,251.653	N 33 48 21.2 E
STA 450+46.44 C470	STA 455+55.66 C470	509.039	S 19 34 36.3 W
STA 455+55.66 C470	STA 437+25.43 C470	1,630.103	N 19 34 36.4 E
STA 437+25.43 C470	STA 450+20.70 C470	1,295.105	S 19 34 36.4 W
STA 450+20.70 C470	BL 90WLES (C470)	1,899.921	N 89 42 36.4 E

C-470 Control Survey: US 285 to Ken Caryl Road
Sta. 284+ to Sta 569+



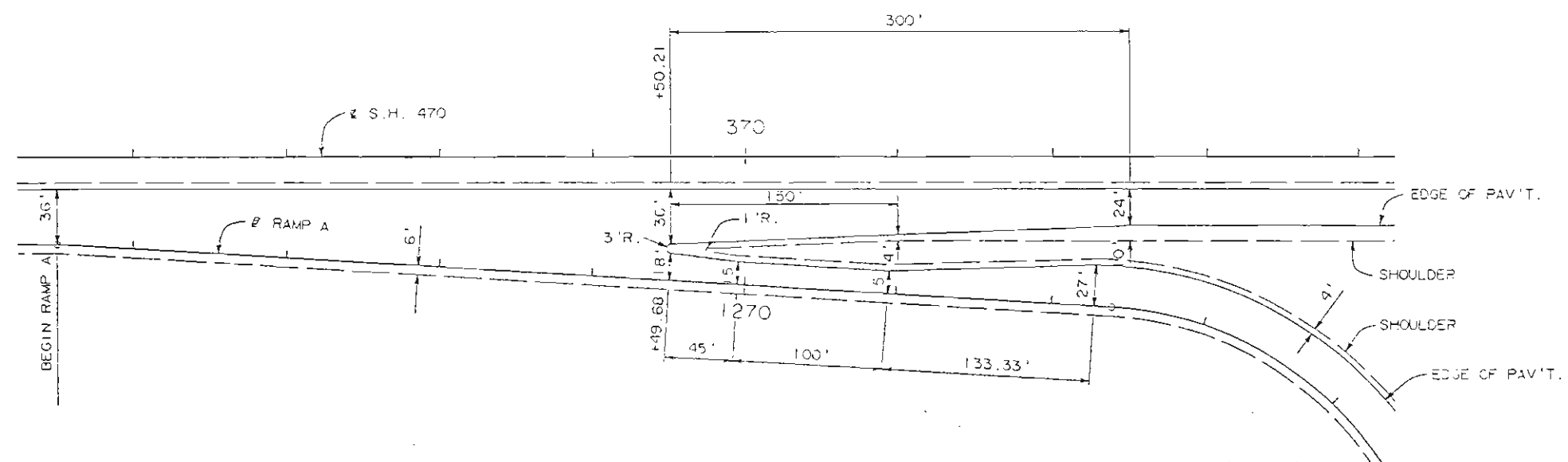
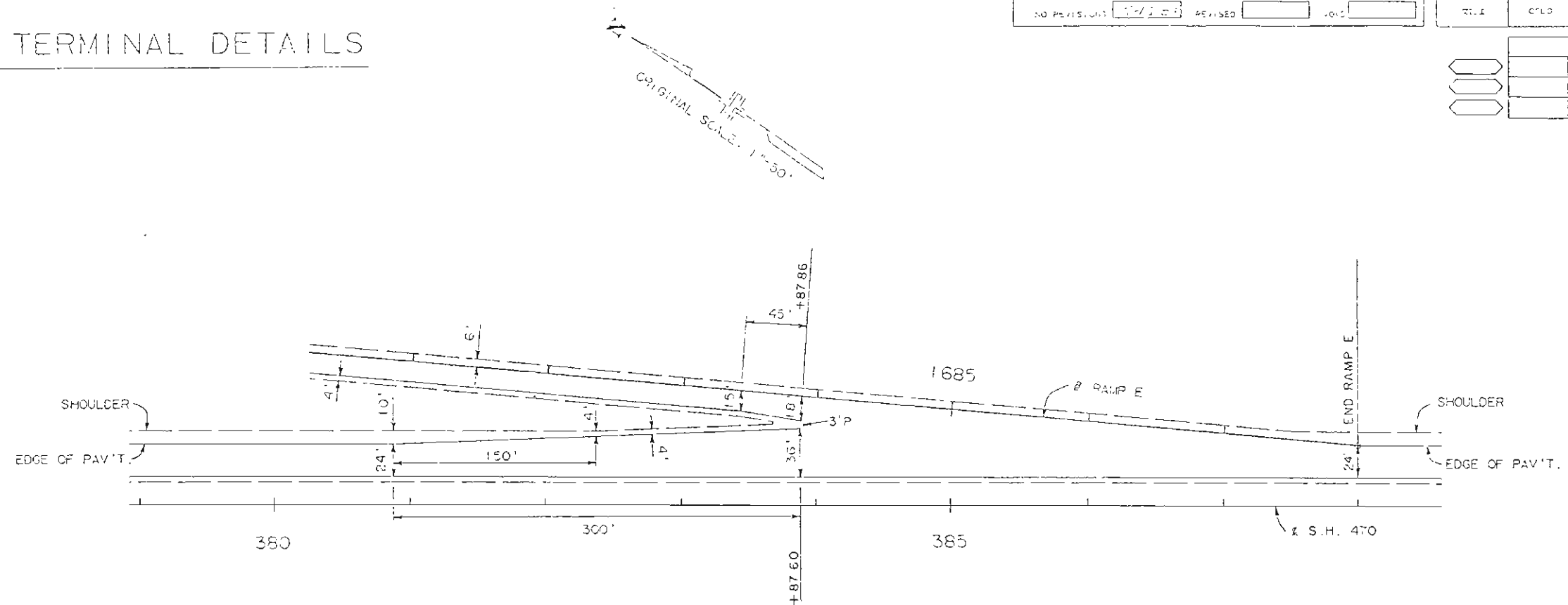


RAMP TERMINAL DETAILS

AS INSTRUCTED

NO PREVIOUS ADVISED

FILE	CLD	1XFD 470-1(48)	23	EAT
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DETAIL SHEET

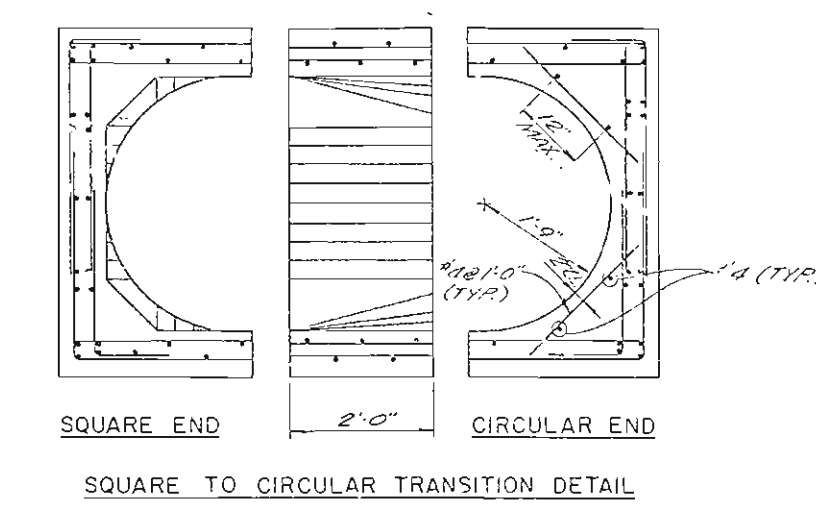
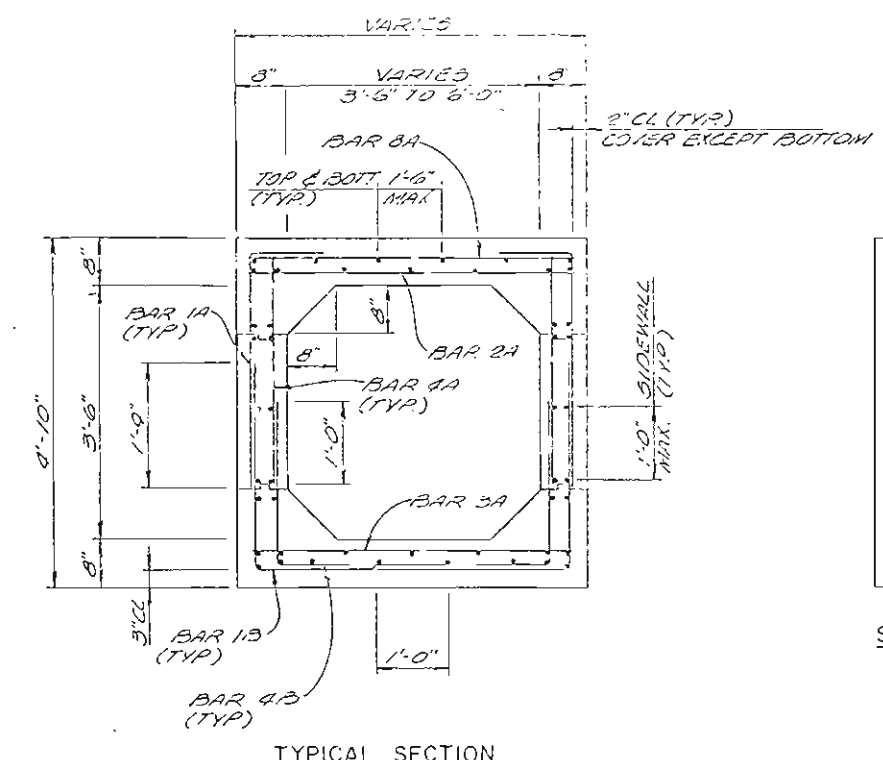
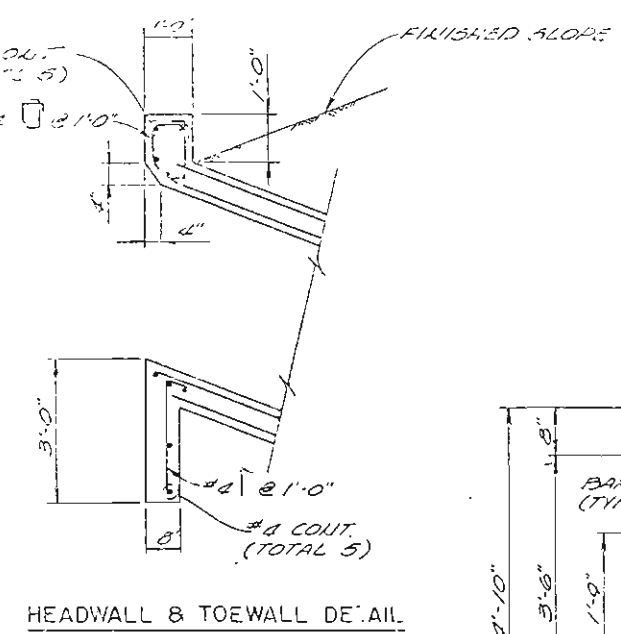
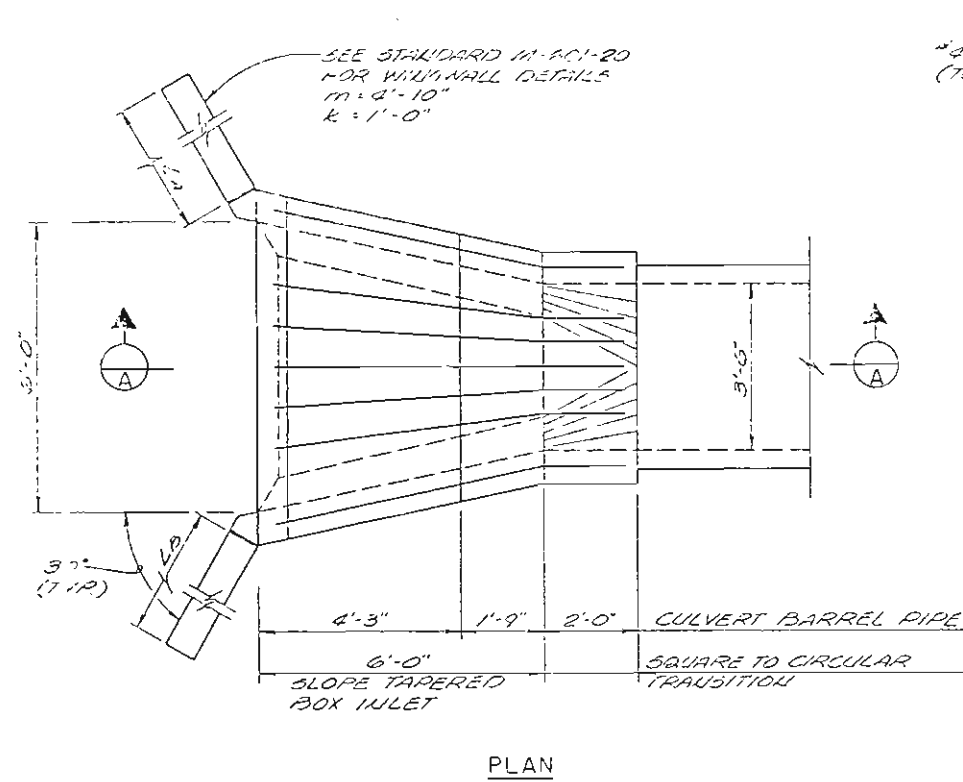


TABLE OF DIMENSIONS AND ELEVATIONS

INLET	Z	S	EL. A	EL. B	EL. C	L _A	L _B
121R2	208	.038	5805.50	5803.88	5803.70	16'-0"	8'-0"
130R	203	.029	5786.00	5784.32	5784.20	14'-0"	9'-0"

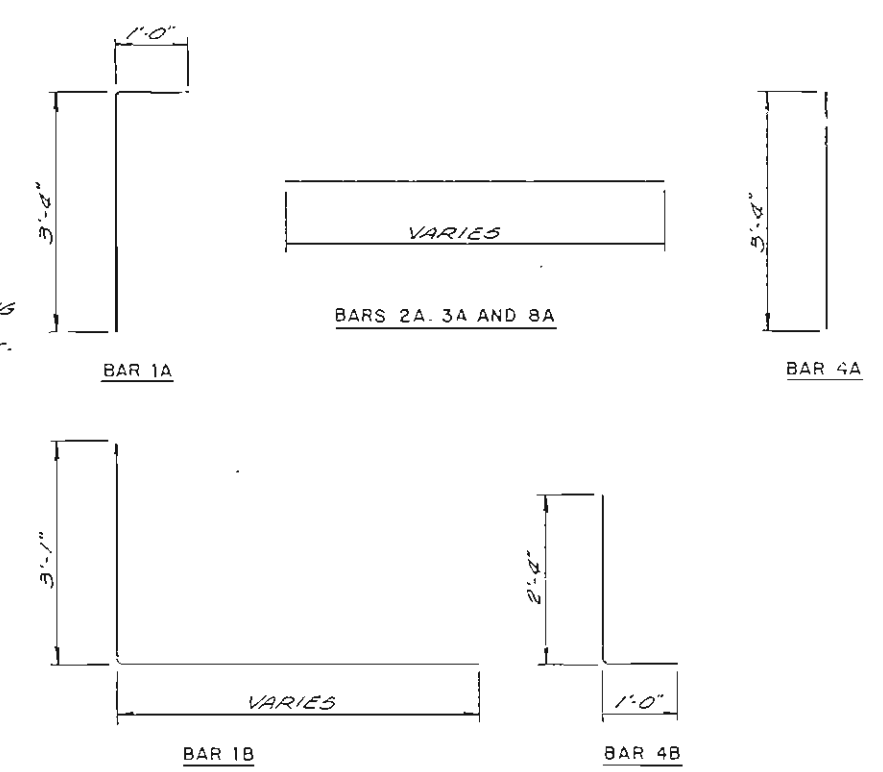
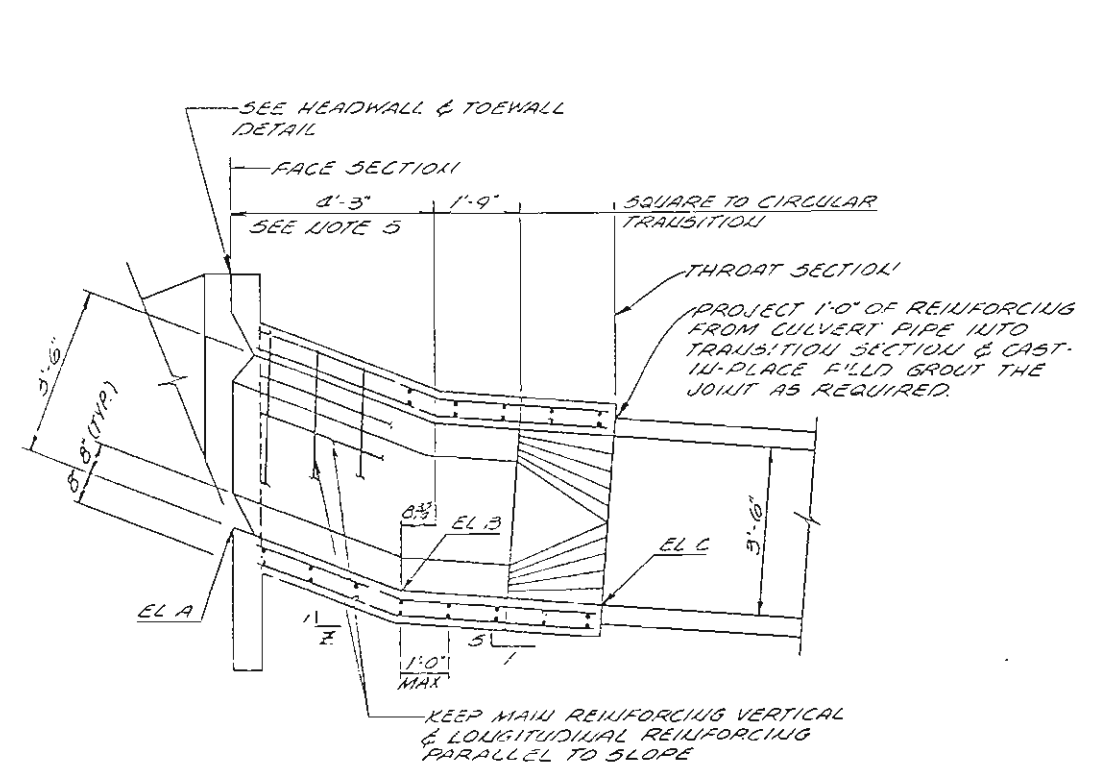
NOTES:

- DESIGN SPECIFICATIONS: AASHTO STANDARD SPECIFICATIONS FOR HIGHWAY BRIDGES, 1977 AND 1978; 1979, 1980 AND 1981 INTERIM SPECIFICATIONS.
- REINFORCING STEEL SHALL BE DEFORMED BARS CONFORMING TO ASTM A615. DIMENSIONS RELATING TO SPACING OF REINFORCING STEEL ARE FROM CENTER TO CENTER OF BARS. BENDING DIMENSIONS ARE FROM OUT TO GUT OF THE BARS. MINIMUM COVER FOR REINFORCING BARS SHALL BE 2 IN. CLEAR UNLESS SHOWN OTHERWISE.
- ALL REINFORCING IN SLOPE TAPERED BOX INLET AND SQUARE TO CIRCULAR TRANSITION SHALL BE NUMBER 4 BARS.
- THE LENGTHS OF VERTICAL LEGS OF BARS IN THIS SECTION MUST BE INCREASED BY 11%.

*SUMMARY OF QUANTITIES

INLET	CONCRETE (CLASS A)	REINFORCING STEEL
121R2	10.9 CU. YDS.	966 LBS.
130R	10.6 CU. YDS.	952 LBS.

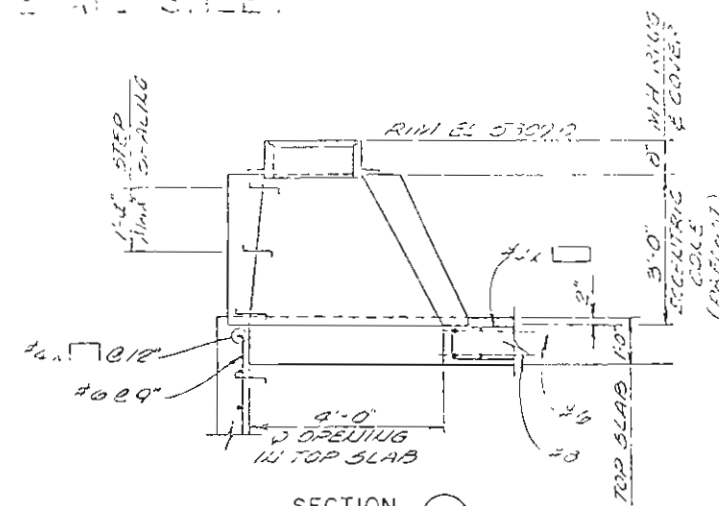
*CARRIED TO TABULATION OF DRAINAGE ITEM SHEET



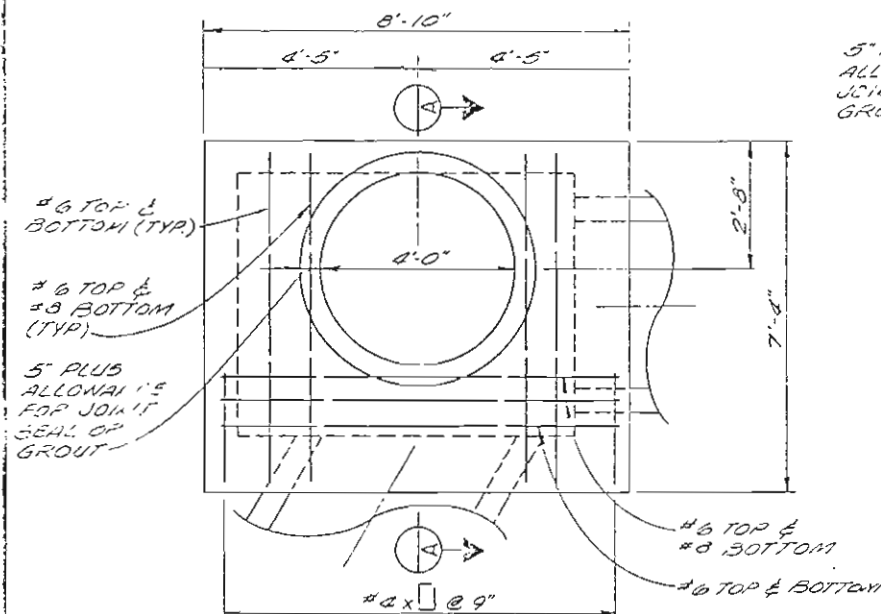
CIRCUMFERENTIAL REINFORCING DIMENSIONS

SECTION A

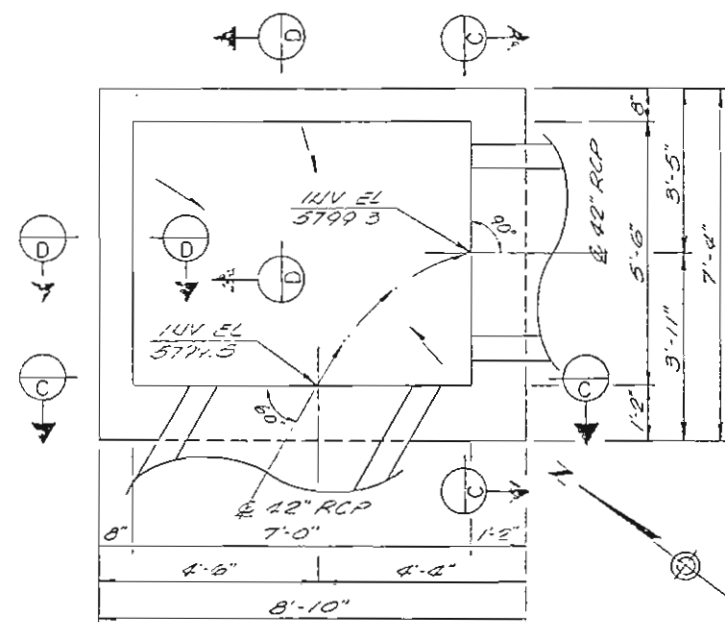
MANHOLE SHEET



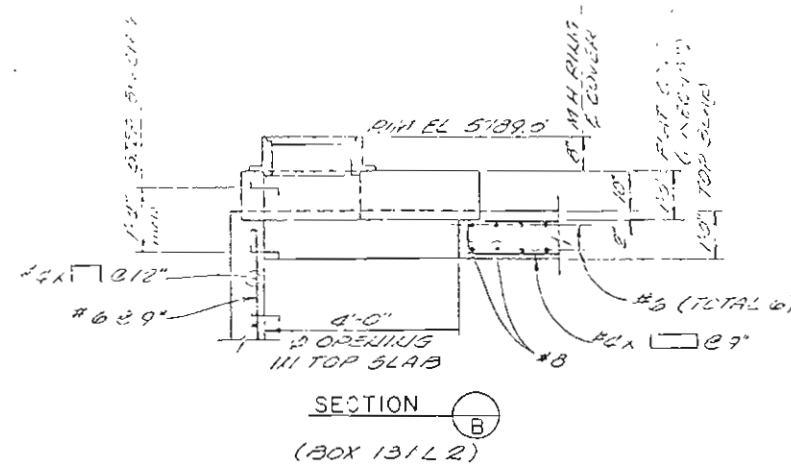
SECTION A
(BOX 122L)



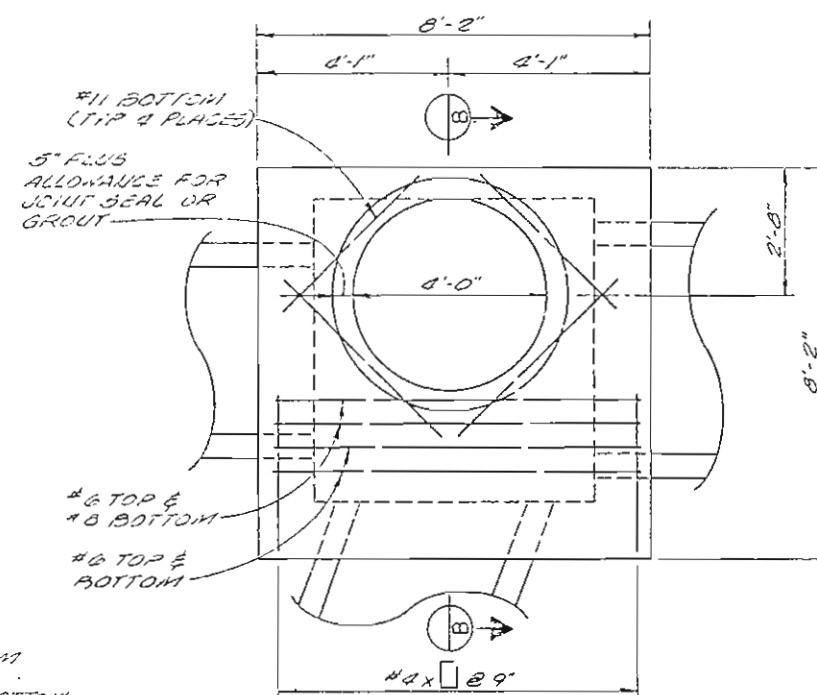
TOP SLAB PLAN - BOX 122L
WALL REINFORCING NOT SHOWN FOR CLARITY



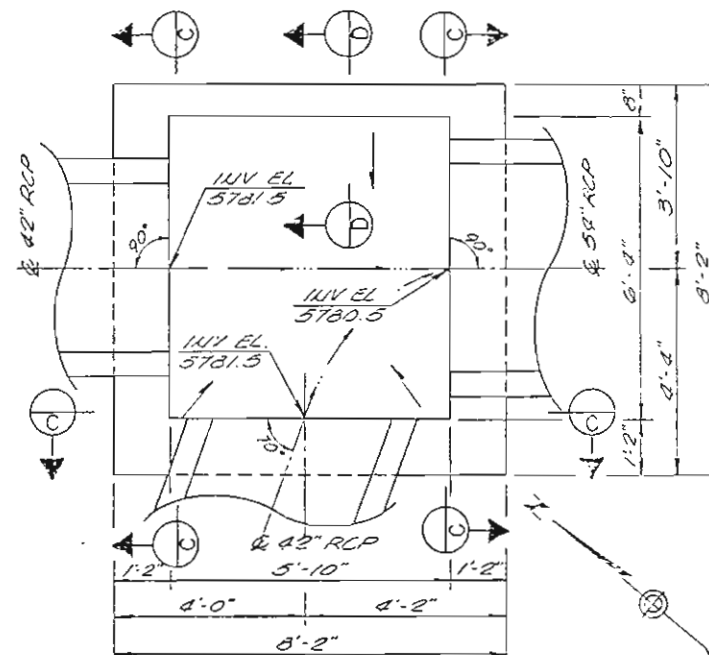
BOX 122L - PLAN



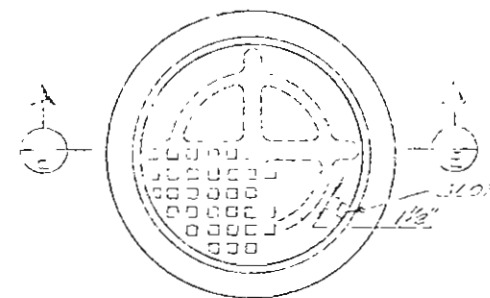
SECTION B
(BOX 131L2)



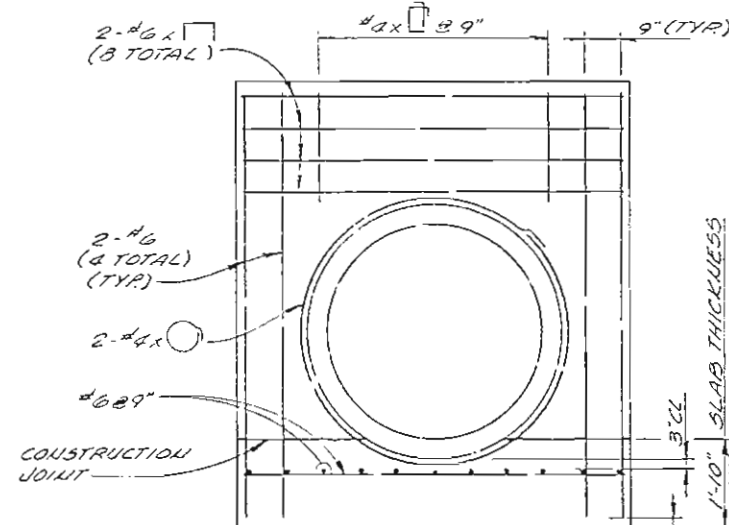
TOP SLAB PLAN - BOX 131L2
WALL REINFORCING NOT SHOWN FOR CLARITY



BOX 131L2 - PLAN

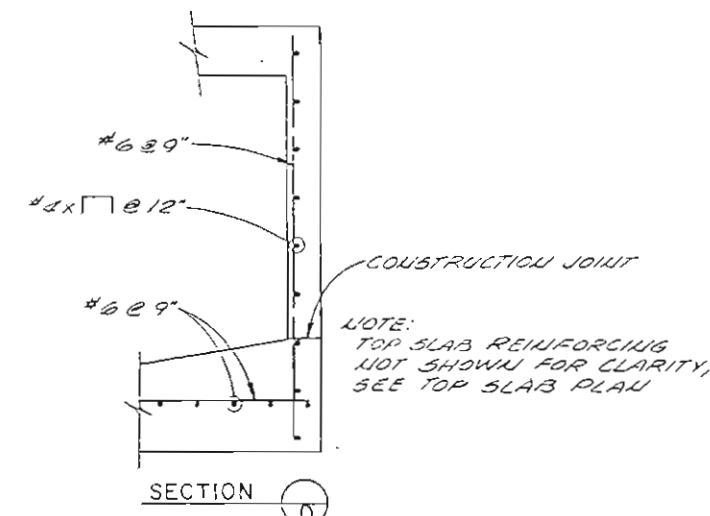


SECTION E
MANHOLE RING AND COVER



SECTION C

NOTE: TOP SLAB REINFORCING NOT SHOWN FOR CLARITY



SECTION D

NOTE: TOP SLAB REINFORCING NOT SHOWN FOR CLARITY, SEE TOP SLAB PLAN

NO.	DESCRIPTION	QUANTITY	UNIT
1	CONCRETE CLASS A OR B	11.0 CU. YD.	CU. YD.
2	REINFORCING STEEL	1455 LBS.	LBS.
3	5' PRECAST ECCENTRIC COLE	1 EA.	EA.
4	12' PRECAST FLAT COVER	1 EA.	EA.
5	MANHOLE RING AND COVER	1 EA.	EA.

TABLE OF APPROXIMATE QUANTITIES
(FOR INFORMATION ONLY)

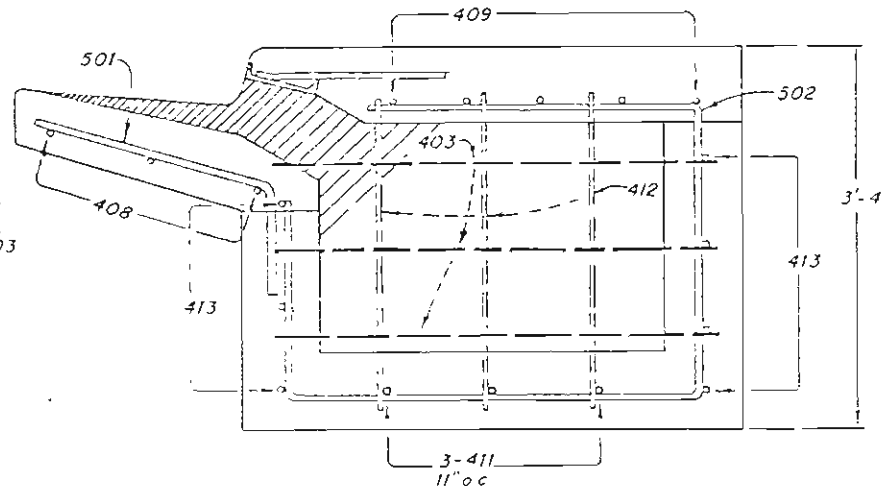
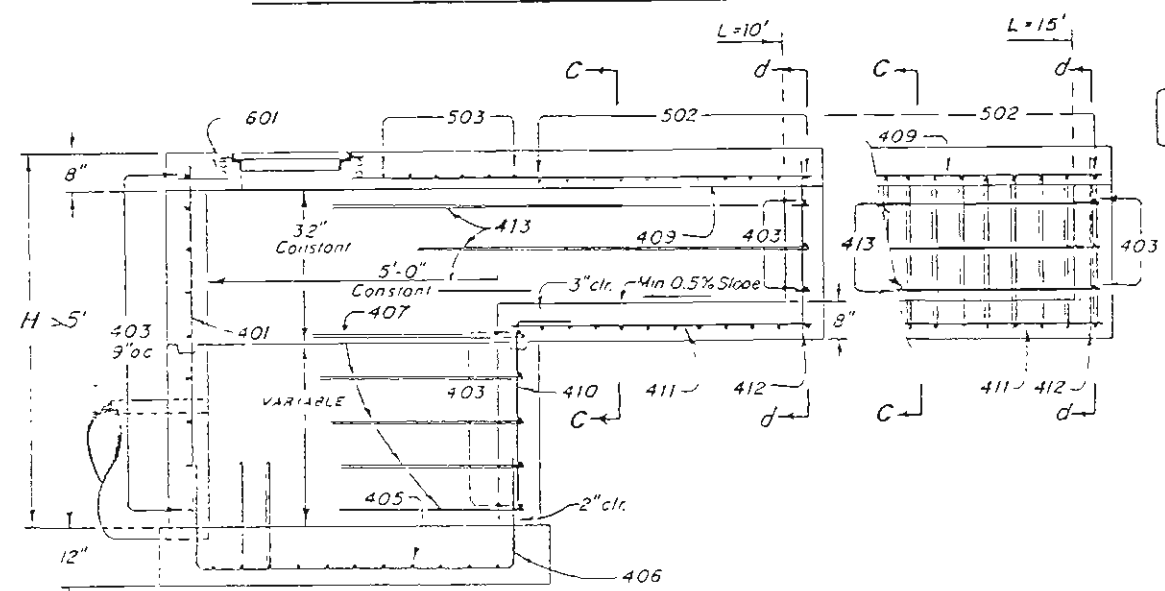
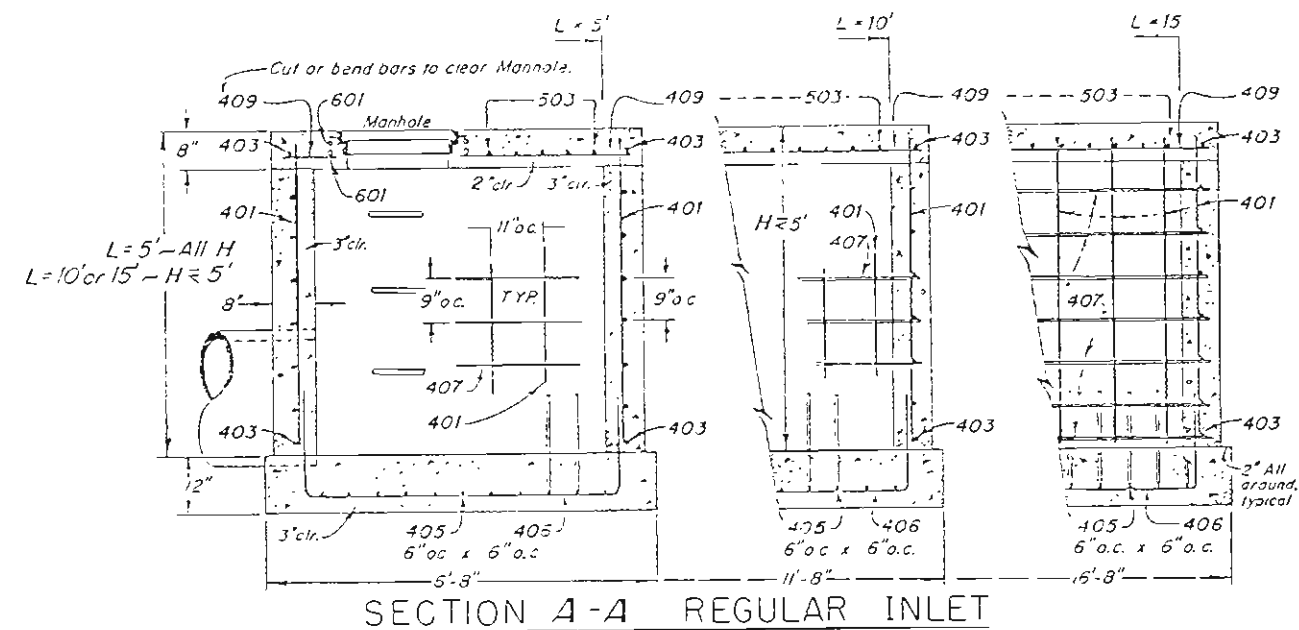
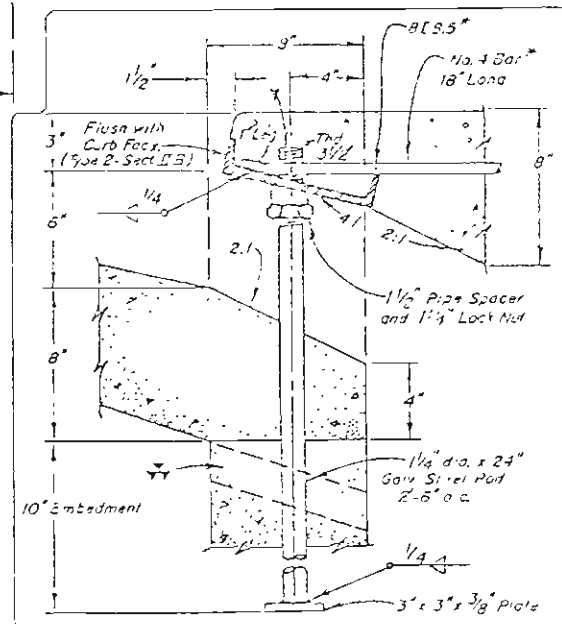
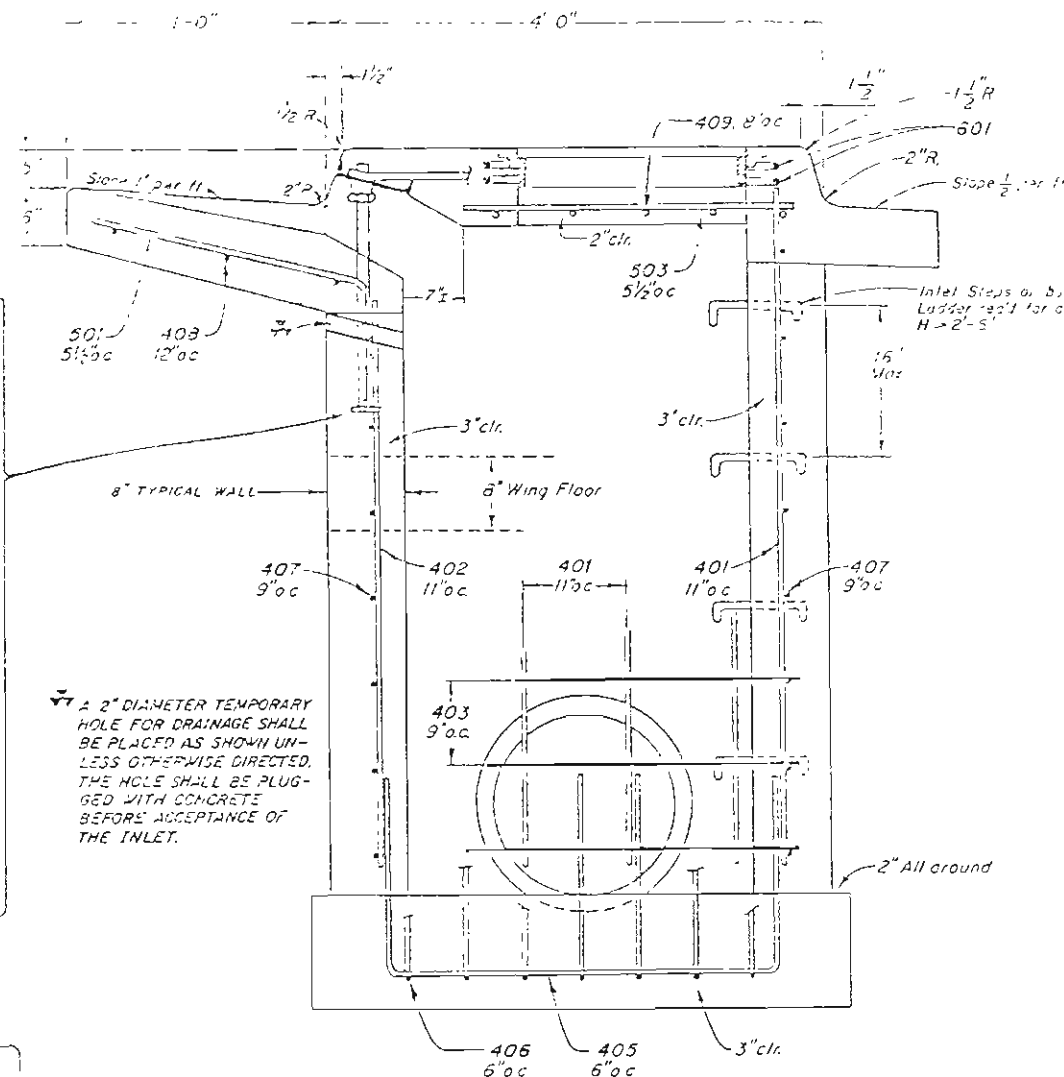
ITEM	MANHOLE	
	122L	131L2
CONCRETE CLASS A OR B	11.0 CU. YD.	13.0 CU. YD.
REINFORCING STEEL	1455 LBS.	1850 LBS.
5' PRECAST ECCENTRIC COLE	1 EA.	
12' PRECAST FLAT COVER		1 EA.
MANHOLE RING AND COVER	1 EA.	1 EA.

NOTE: THE COST OF ALL NECESSARY JOINT SEALING COMPOUND, GROUTS, STEPS OR LADDERS SHALL BE INCLUDED IN THE WORK.

NOTES:

1. ALL BARS SHALL BE A MINIMUM 2" CLEAR.
2. PRECAST MANHOLES SHALL CONFORM TO ASTM DESIGNATION C478.
3. CAST IN PLACE MANHOLES SHALL BE CLASS A OR B CONCRETE.
4. ALL PIPE ENTRIES INTO THE BASE OF MANHOLE SHALL BE CONNECTED BY OPEN GUTTER ADJUSTED FOR PIPE SIZE, SHAPE, SLOPE AND DIRECTION OF FLOW.
5. STEPS WILL BE REQUIRED AND SHALL CONFORM TO CDOH STANDARD M-608-21.
6. THE CLEARANCE BETWEEN THE TOP OF THE REINFORCED CONCRETE PIPE AND THE BOTTOM OF THE TOP SLAB SHALL NOT BE LESS THAN 1'-0".

BOX BASE MANHOLES (SPECIAL)



Designed by	D. B. R.	Approved by	L. L. Vernon
Made by	J. R. S.	Asst. Staff Design Engineer	
Checked by	O. L. S.	Date	June 9, 1972

TABLE ONE - BAR LIST FOR CURB INLETS, TYPE R

MANHOLE DIA. IN	CURB DIA. IN	INLET DIA. IN	INLET TYPE	ALL INLETS		INLETS, H ≥ 5'		INLETS, H < 5'					
				5'	10'	10'	15'	10'	15'				
				No. Req'd	Length	No. Req'd	Length	No. Req'd	Length	No. Req'd	Length		
40"	1"	12"	1'	15	*	21	*	25	*	11	*	11	*
42"	1 1/2"	12"	1'	7	*	13	*	19	*	7	*	7	*
44"	2"	12"	1'	4	3'-5"	4	3'-8"	4	3'-9"	4	3'-4"	4	3'-8"
46"	2 1/2"	12"	1'	1	6'-5"	21	6'-6"	31	6'-6"	11	6'-6"	11	6'-5"
48"	3"	12"	1'	5	9'-10"	6	13'-10"	6	16'-10"	6	8'-10"	6	8'-10"
50"	3 1/2"	12"	1'	9	11'	4	5'-10"	4	10'-10"	4	5'-10"	4	5'-10"
52"	4"	12"	1'	12	11'	2	6'-0"	2	11'-0"	2	11'-0"	2	16'-0"
54"	4 1/2"	12"	1'	3	5'-10"	5	10'-10"	5	15'-10"	5	10'-10"	5	15'-10"
56"	5"	12"	1'							3	*	3	*
58"	5 1/2"	12"	1'							3	5'-2"	3	10'-2"
60"	6"	12"	1'							3	2'-9"	3	2'-9"
62"	6 1/2"	12"	1'							7	10'-10"	7	15'-10"
501	1"	5 1/2"	11'	11	2'-4"	22	2'-4"	33	2'-4"	22	2'-4"	33	2'-4"
502	3/8"	5 1/2"	11'							11	10'-9"	22	10'-9"
503	1"	5 1/2"	11'	5	3'-2"	15	3'-2"	27	3'-2"	5	3'-2"	5	3'-2"
601	3/4"	2 1/2"	Y	2	8'-10"	2	8'-10"	2	8'-10"	2	8'-10"	2	8'-10"
602	—	—	—	1	5'-10"	1	10'-10"	1	15'-10"	1	10'-10"	1	15'-10"
603	—	—	—	2 Bars, 1 Rod	—	4 Bars, 3 Rods	—	8 Bars, 5 Rods	—	4 Bars, 3 Rods	—	8 Bars, 5 Rods	—

* Variables, refer to Table TWO.

† Include 16" No. 4 Bars (See Channel Layout Detail).

‡ See Curb Face Assembly on Sheet I and Channel Layout Details on this sheet.

REGULAR
INLETS

DROP BOX
INLETS

TABLE TWO - BARS AND QUANTITIES VARIABLE WITH H

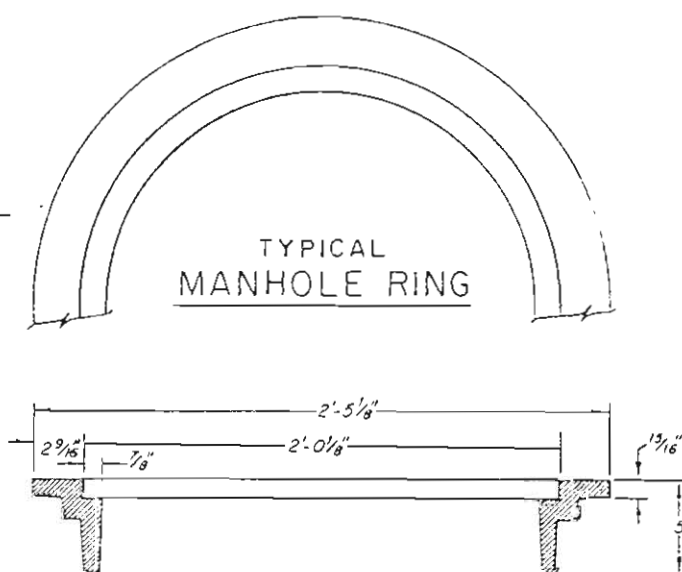
H	Length			No. Req'd		No. Req'd		L = 5'		L = 10'		L = 15'	
	401	402	410	403	407	403	407	Cu Yd Conc.	Lb. Steel	Cu Yd Conc.	Lb. Steel	Cu Yd Conc.	Lb. Steel
3'-0"	2'-8"	1'-8"		10	7			2.9	248	4.9	438	6.8	619
3'-6"	3'-2"	2'-2"		10	7			3.1	268	5.3	469	7.3	660
4'-0"	3'-6"	2'-6"		12	9			3.4	289	5.5	499	7.8	699
4'-6"	4'-2"	3'-2"		12	9			3.6	297	5.9	511	8.2	716
5'-0"	4'-6"	3'-6"		14	11			3.8	316	6.2	542	8.5	756
5'-6"	5'-2"	4'-2"	3'-5"	16	13	15	5	4.1	337	5.5	548	6.8	755
6'-0"	5'-8"	4'-8"	3'-11"	16	13	16	6	4.2	344	5.7	557	7.0	765
6'-6"	6'-2"	5'-2"	4'-5"	18	15	18	8	4.4	363	5.9	577	7.2	785
7'-0"	6'-8"	5'-8"	4'-11"	20	17	19	10	4.6	384	6.0	594	7.4	801
7'-6"	7'-2"	6'-2"	5'-5"	20	17	20	10	4.9	391	6.3	604	7.6	811
8'-0"	7'-8"	6'-8"	5'-11"	22	19	22	12	5.1	411	6.5	623	7.8	831
8'-6"	8'-2"	7'-2"	6'-5"	24	21	23	14	5.3	431	6.7	641	8.0	847
9'-0"	8'-8"	7'-8"	6'-11"	24	21	24	14	5.5	439	7.0	650	8.3	857
9'-6"	9'-2"	8'-2"	7'-5"	26	23	26	16	5.7	459	7.2	671	8.5	877
10'-0"	9'-8"	8'-8"	7'-11"	28	25	27	18	5.9	479	7.3	687	8.7	895
10'-6"	10'-2"	9'-2"	8'-5"	28	25	28	18	6.2	486	7.6	697	9.0	903
11'-0"	10'-8"	9'-8"	8'-11"	30	27	30	20	6.4	506	7.8	717	9.1	924

NOTE: For L=5', L=10' and L=15'.

REGULAR INLETS: Total quantities needed are OUTSIDE of the heavy black line.

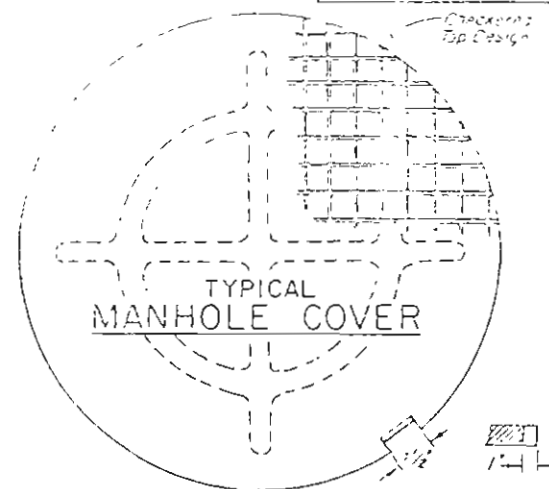
DROP BOX INLETS: Total quantities needed are INSIDE of the heavy black line.

STEEL WEIGHTS DO NOT INCLUDE STRUCTURAL STEEL.



Approximate
Weights:

Cover = 125 lbs.
Ring = 135 lbs.
TOTAL = 260 lbs.



GENERAL NOTES

All work shall be done in accordance with the Standard Specifications applicable to the project.

Concrete shall be Class A or B.

Concrete walls shall be formed on both sides and shall be 8" thick.

Inlet Slopes shall be as shown on the applicable Division "M" Standard Curb Face Assembly shall be galvanized after welding.

Exposed concrete corners shall be beveled to a 1/4" slope. Curb and Gutter corners shall be finished to match the existing curb and gutter beyond the Transition Gutter.

All reinforcing bars shall be tagged with bar designation and station number.

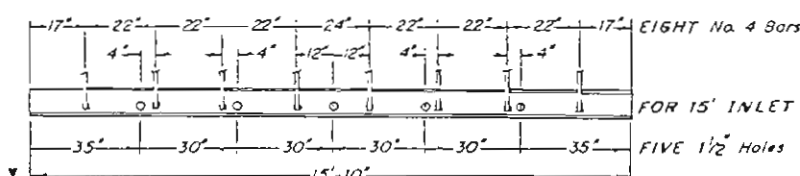
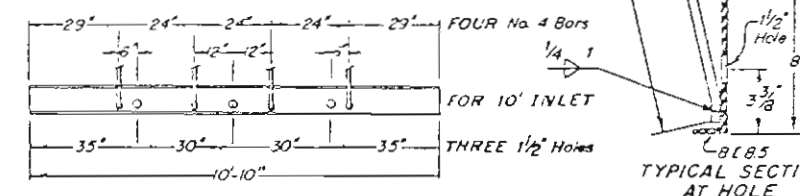
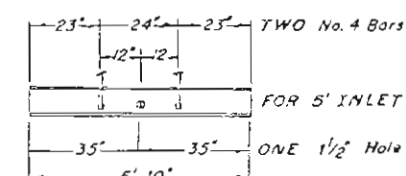
Reinforcing bars shall be deformed and shall be of intermediate grade steel.

Dimensions and weights of Typical Manhole Ring and Cover are nominal.

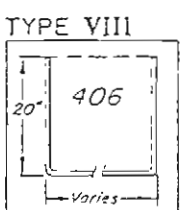
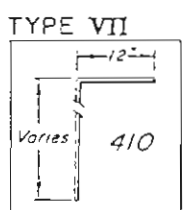
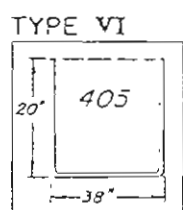
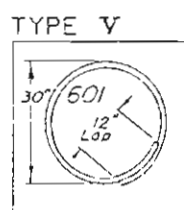
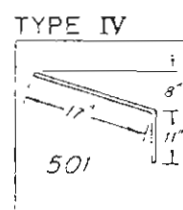
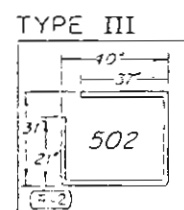
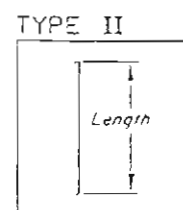
All bars shall be a minimum 2" clear.

Since pipe entries into the inlet are variable, the dimensions shown are typical. Actual dimensions and quantities for concrete and reinforcement shall be as required in the work. Quantities include volumes occupied by pipes.

Structural Steel shall be galvanized and shall conform to the requirements of Section 509.



CHANNEL LAYOUT DETAILS



BAR BENDING DIAGRAMS — (Dimensions are Out-to-Out of Bar)

CURB INLET TYPE R (SPECIAL)

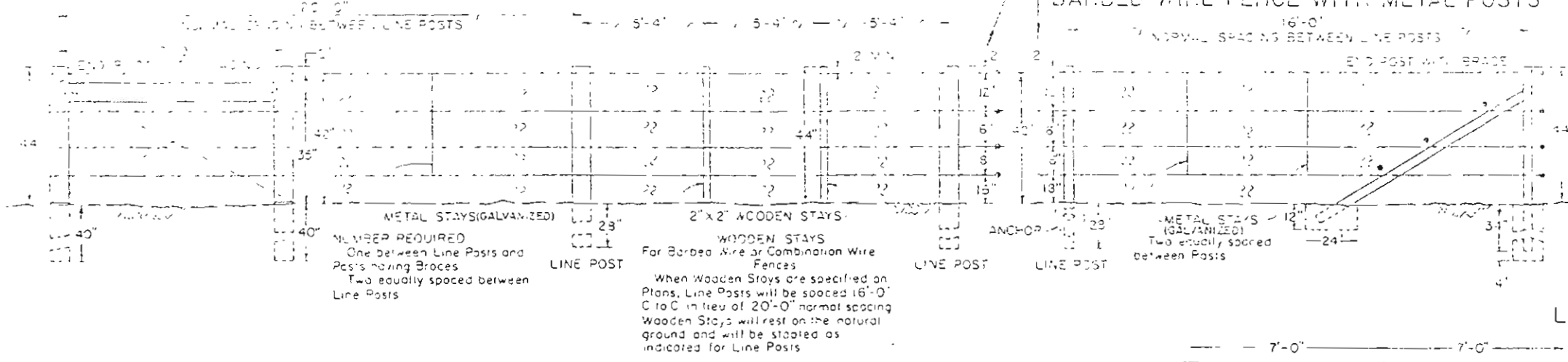
Designed by A. B. R. Approved by J. R. B.
Made by J. R. B. Ass't. Staff Design Engineer
Checked by O. L. S. Date: June 9, 1972

REVISED THIS PROJECT

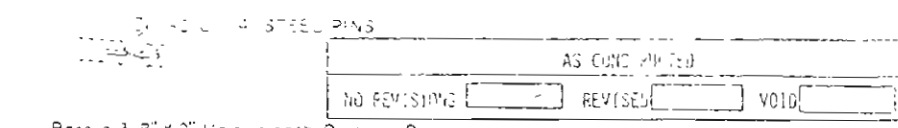
BARBED WIRE FENCE WITH WOODEN POSTS

BARBED WIRE FENCE WITH METAL POSTS

SPECIAL FOR
THIS PROJECT



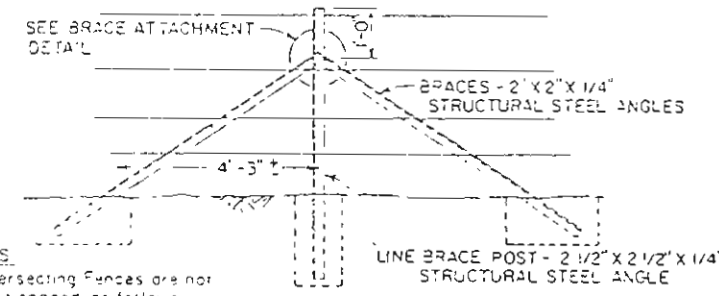
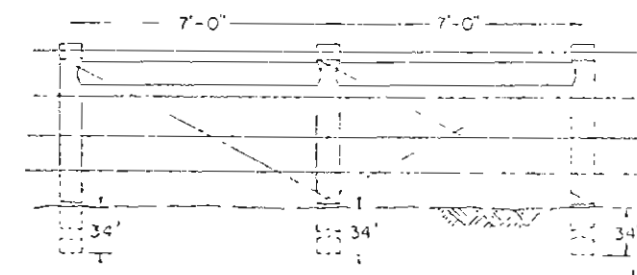
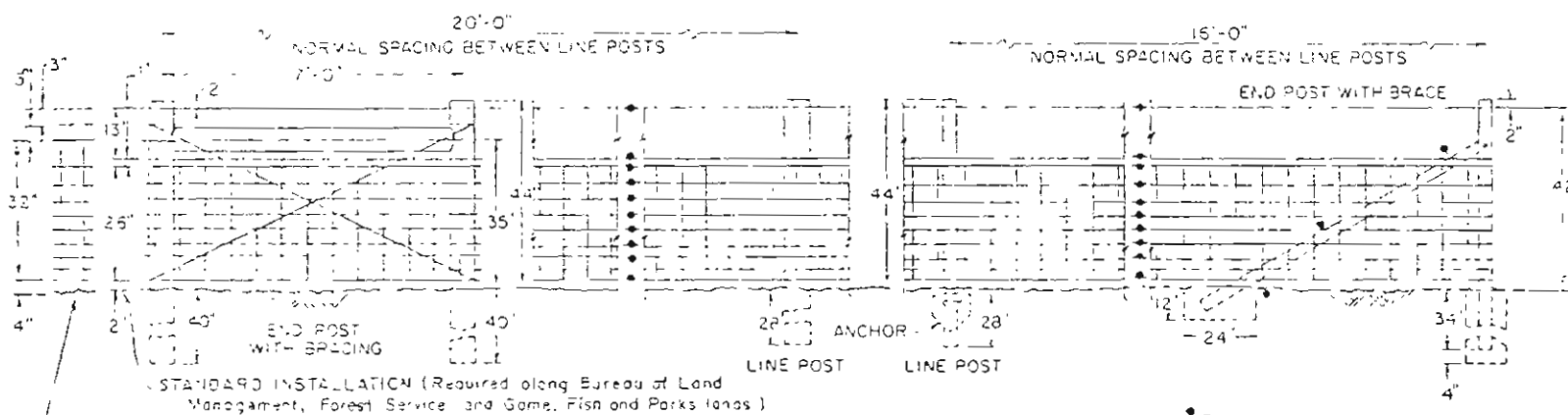
CROSS BRACE JOINING DETAIL



NOTE:
See Sheet 2
for General Notes

COMBINATION WIRE FENCE WITH WOODEN POSTS

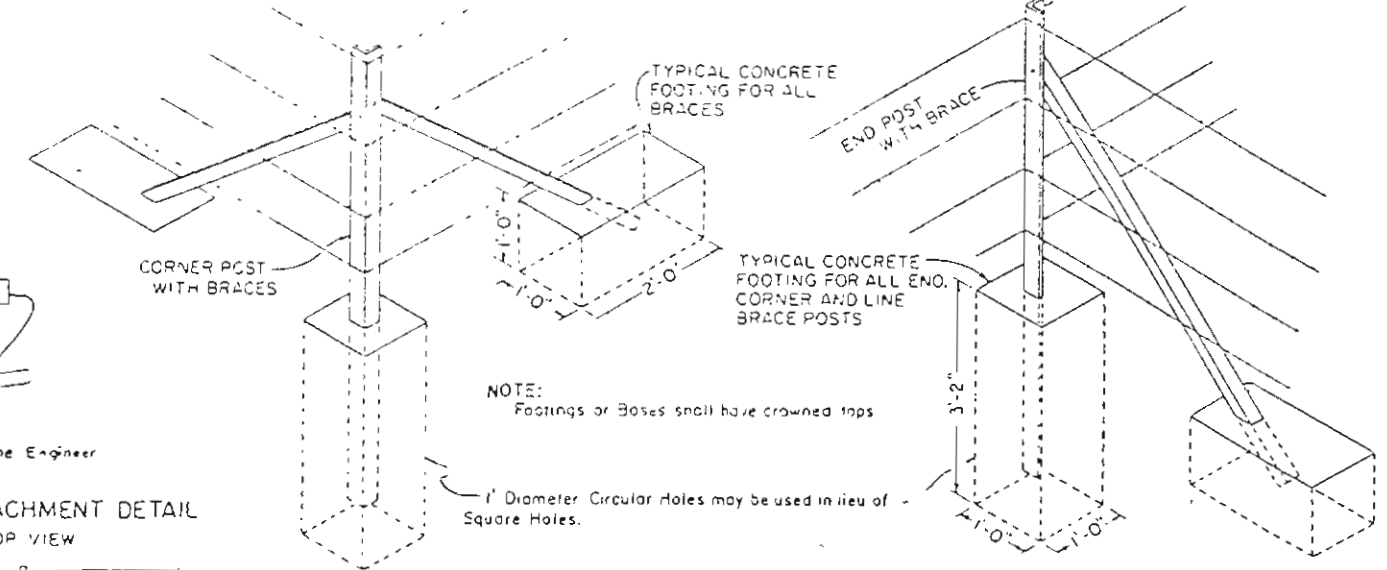
COMBINATION WIRE FENCE WITH METAL POSTS



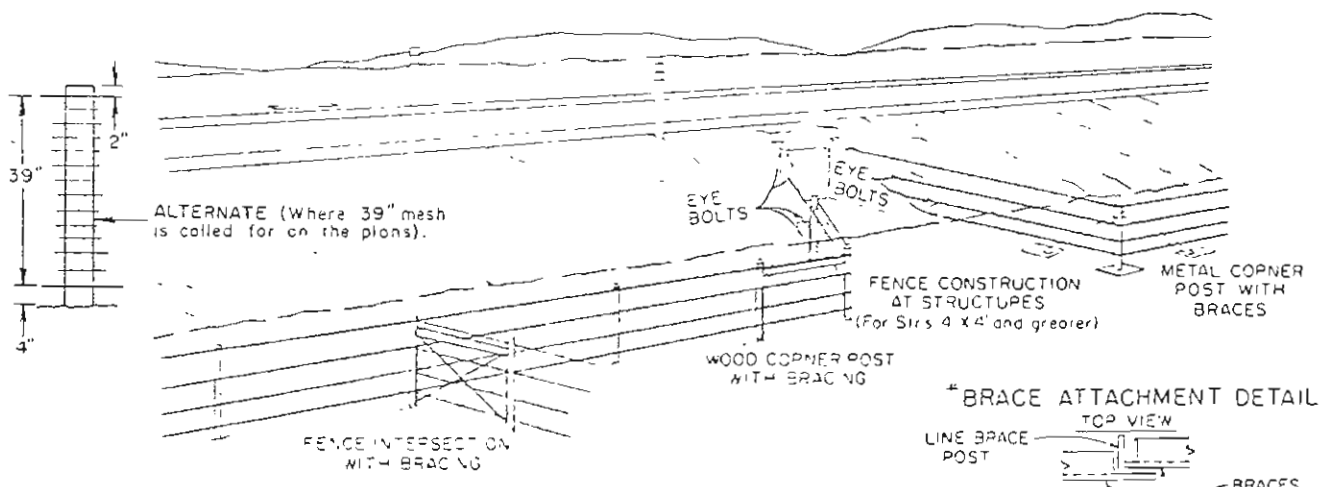
When Gates, Angles, Corners or intersecting Fences are not specified thereon, Line Braces shall be spaced as follows:
Metal Posts - 800 Intervals
Wooden Posts - 400 Intervals

TYPICAL INSTALLATION AT FENCE INTERSECTIONS

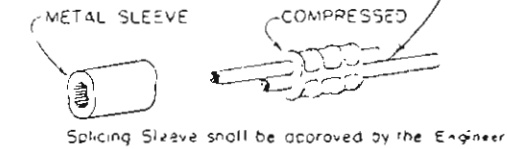
TYPICAL CORNER POST INSTALLATION



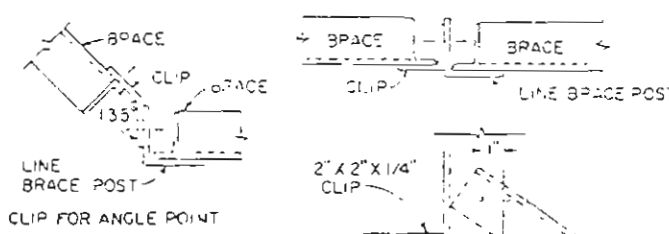
ILLUSTRATIVE SKETCH SHOWING TYPICAL EXAMPLES FOR CONSTRUCTING FENCES



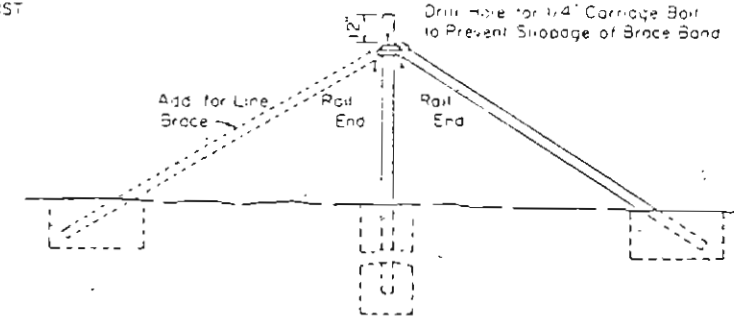
ACCEPTABLE WIRE SPLICE



*ALTERNATE BRACE ATTACHMENT DETAIL TOP VIEW



ALTERNATE POST (FOR END, CORNER OR LINE BRACE POSTS)



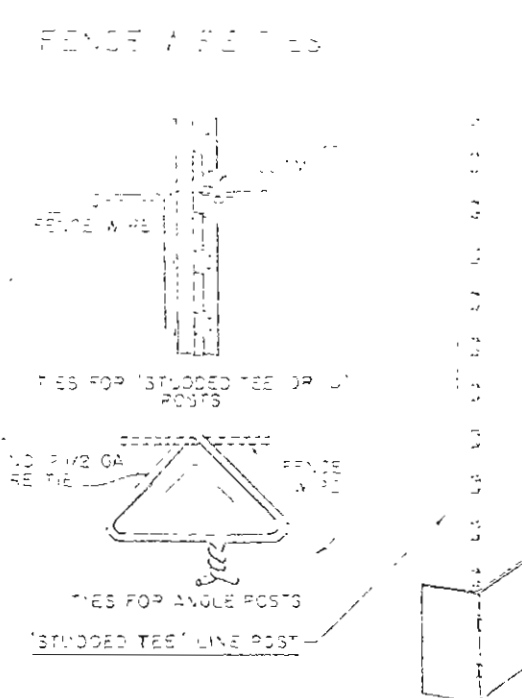
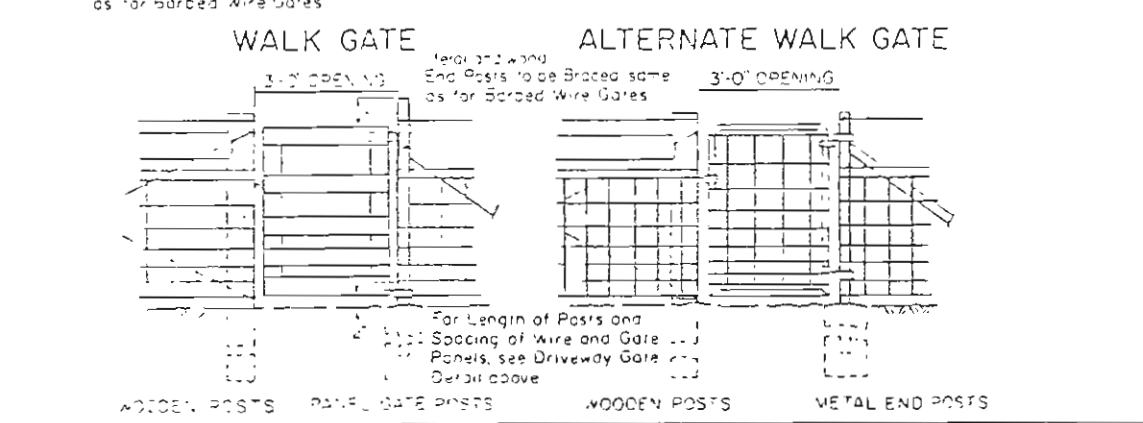
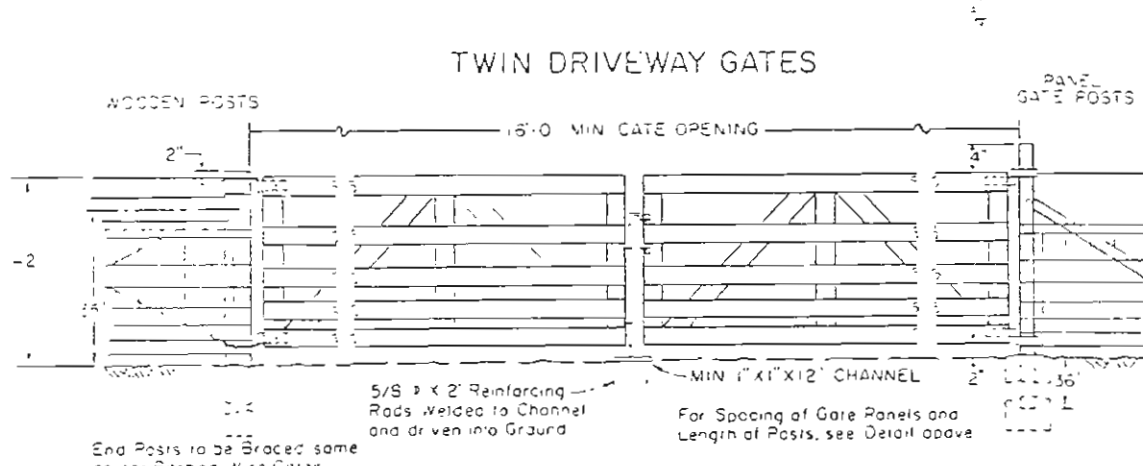
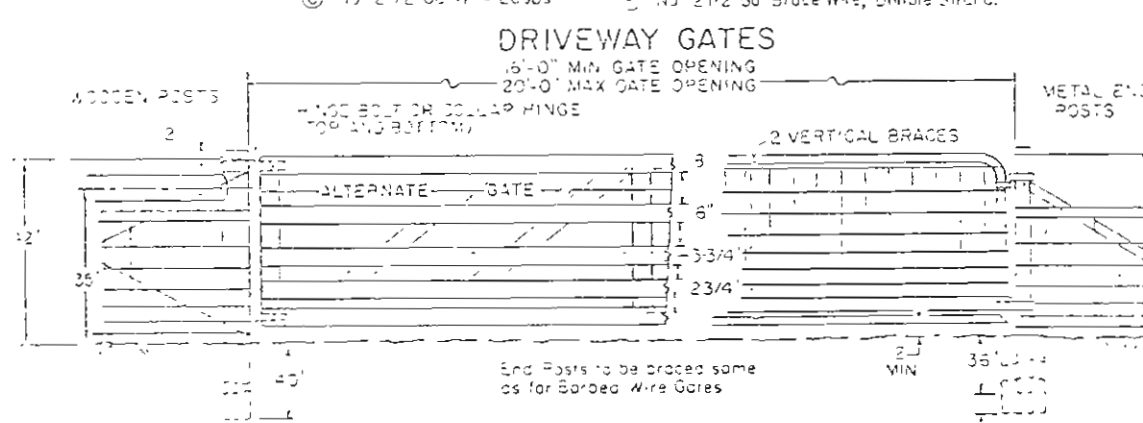
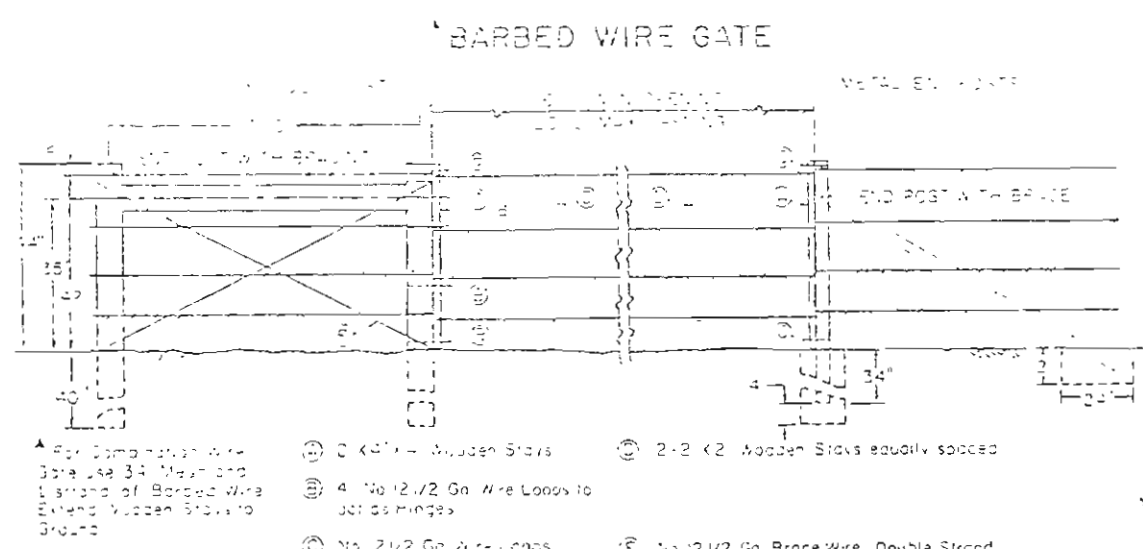
NOTE:
At all structures of 4"x4 and over, the fence shall be ended at eye-bolts in the wings of the structure. Where the type of structure prohibits the use of eye-bolts, an end post with brace shall be used. Eye-bolts shall be made of 1/2" round bars with a minimum of six (6) inches of body length embedded in the concrete (thruout or bent) and a minimum of 1" inside eye diameter. Eye-bolts shall be furnished and installed by the Contractor. Cost of eye-bolts will be included in the contract price for fencing.

*Alternate attachment methods, acceptable to the Engineer, may be used.

DEPARTMENT OF HIGHWAYS
STATE OF COLORADO
DIVISION OF HIGHWAYS

WIRE FENCES AND GATES
"STD. M-607-1 SPECIAL THIS PROJECT"

Designed by LEO Approved by J.E. Olson
Made by TEF Staff Des. Eng'r.
Checked by EEO Date July 1, 1965



GENERAL NOTES

All work shall be done in accordance with the Standard Specifications applicable to the Project. All material dimensions and weights on this standard are nominal unless otherwise indicated.

At each location where an electric transmission, distribution or secondary line crosses a road, the contractor shall furnish and install a ground cable and ground to Detail B, Rule 23 of the National Electrical Safety Code.

Dimensions shown for "Standards" and "Alternates" apply for both wooden and metal post fence.

Fence wire shall be ended, double wrapped and tied off at end posts, angle posts and line brace posts. Fence to be closed shall then be fastened in like manner.

Fence wire to be placed on either side of the post, depending on local conditions. If on curves the wire should be placed on the side of the post which would prevent tension on fence ties. This will also apply where wind driven tumble weeds or other conditions would exert unusual pressure against the wire.

WOOD POSTS

All line posts shall have a min dia of four (4) inches & be 6'-0" long. Min. All end, corner, intersection and brace posts shall have a minimum diameter of five (5) inches and be 7'-0" long.

Fence wire will be stacked to wooden posts until metal posts as shown marked on approved wire or aluminum wire fence details. Braces shall be 1/2" wire min at post - 2 inches and

METAL POSTS

All posts and braces shall be of the types and weights shown or acceptable equivalents.

Holes to be provided in end, corner and gate posts as detailed.

CORNER AND LINE BRACE POSTS

Type - 2 1/2" X 2 1/2" X 1/4" Structural Steel Angles

Weight - 3.8 lbs/lin ft

Length - 6'-6" Min

No of Braces - 2

LINE POSTS

Type - "Studded Tee" or "U"

Weight - 1.23 lbs/lin ft (without Anchor)

Length - 6'-0" Min

Anchor - Securely fastened, with bearing surface sufficient to resist movement of post. Weight - 0.57 lb/lin ft

METAL END POSTS AND GATE POSTS

Type - 2 1/2" X 2 1/2" X 1/4" Structural Steel Angles

Weight - 3.8 lbs/lin ft

Length - End, 6'-6" Min., Panel Gate, 7'-0" Min

No of Braces - 1

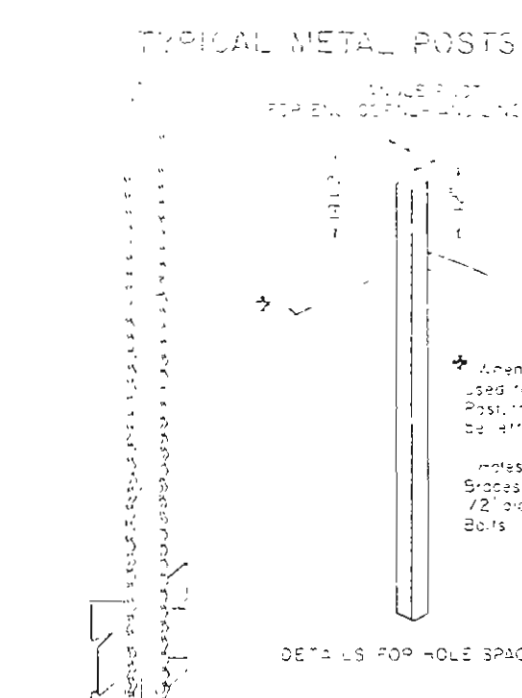
BRACES (For Corner, End or Line Brace Posts)

Type - 2" X 2" X 1/4" Structural Steel Angles

Weight - 3.08 lbs/lin ft

Length - Same as corner and end posts used

Posts shall be hot-rolled steel or re-rolled rail steel.



ALTERNATE LINE POST

PROVIDED OR BASES

Concrete shall be Class A or B. Concrete with light weight aggregates conforming to ASTM C33 will be permitted.

ALTERNATES: END, CORNER AND LINE BRACE POSTS (Contractors)

TYPE	1.0	1.0	0.9	LB/FT	1" WALL THK
1. Std. Galv Pipe	2 1/2"	2.875"	5.79 ± 5%	0.203"	
2. H.S. Cold Rolled Pipe	2 1/2"	2.875"	± 0.16"	4.6 ± 5%	0.160 ± 5%

Lengths shall be 6'-6" Min.

BRACES

Type - 1 3/8" OD Tubular Steel with 2 1/2" Brace Band. Hinge Bolt and 1 3/8" OD Roll End, all Galvanized

Weight - 1.6 lbs/lin ft ± 5%

Length - 6'-6" Min

BARBED WIRE

Steel barbed wire shall conform to ASTM Designation A 121 12 1/2 Gauge with Class 2 coating, 13 1/2 Gauge with Class 2 Coating or 5 1/2 Gauge with Class 3 Coating.

Aluminum barbed wire shall conform to ASTM Designation B 211, with alloy 5052-O for the line wire and alloy 5052-H38 for the posts.

STANDARD	Woven Wire Plain Fence, Style or Design No.	ALTERNATE 4"x4" Wire "V" Mesh
832-6-11 (32" width)	65 lbs/lin ft	34" width - 75 lbs/lin ft
726-6-11 (26" width)	55 lbs/lin ft	26" width - 54 lbs/lin ft
		Cross wires - 1 strand - 14 gauge min
		Horizontal - 2 strand - 12 1/2 gauge

GATES

DRIVEWAY GATES: (PANEL) (ALTERNATE)

Height - approx 42' (5 panels) - min width of gate opening - 16'-0" Min.

Weight - Galvanized Steel, 75 lbs

Gates to be of riveted construction as follows: Min 4 No 10 rivets at each right angle connection and where diagonal braces connect to horizontal panels. Min 3 No 10 rivets where diagonal braces connect to top and bottom panels.

WALKWAY GATES:

Height - 42"

Weight - Not less than 30 lbs complete with latch and hinges

Min of gate opening - 16'-0"

Gate Frame - 1" ID Standard Galvanized Pipe or acceptable equivalent and shall be of all welded construction

Mesh shall enclose the gate frame as shown and shall be the same mesh design as the fence, or as approved by the Engineer.

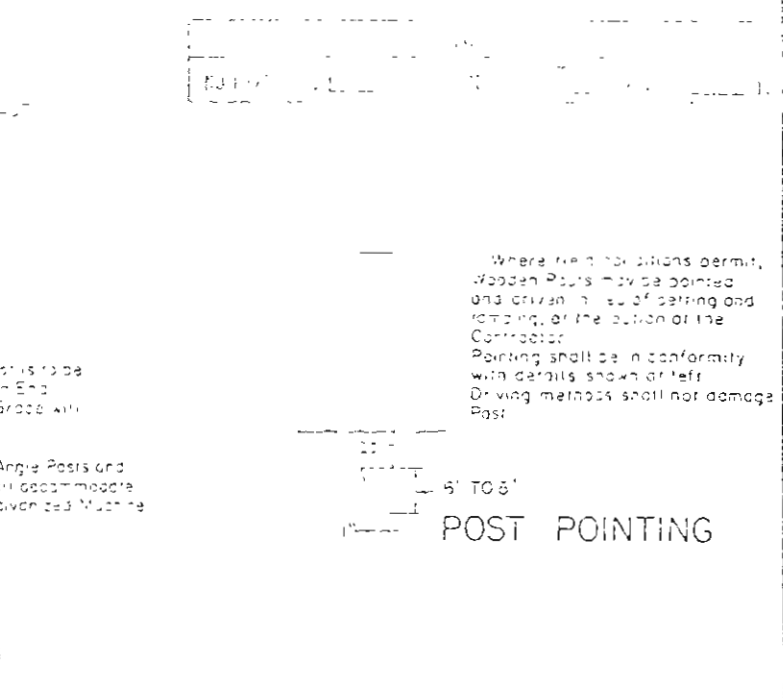
WALK GATES

Height - approx 42' (5 panels)

Weight - Galvanized Steel, 16 lbs

Tempered Aluminum, 10 lbs

Width of gate opening - 3'-0"



Where field conditions permit, wooden posts may be pointed and driven in lieu of setting and rotating, at the option of the Contractor.

Pointing shall be in conformity with details shown at left.

Driving methods shall not damage Post.

All fence wire (end, post, staples, staples and other wire) shall be galvanized in accordance with ASTM Designation A 121, Class 1.

ALTERNATE WALK GATES

Height - 42"

Weight - Not less than 30 lbs complete with latch and hinges

Min of gate opening - 3'-0"

Gate Frame - 1" ID Standard Galvanized Pipe or acceptable equivalent and shall be of all welded construction.

Mesh shall be of the same construction designated for Driveway Gate.

Alternate equivalent standard metal gates other than shown will be acceptable subject to the Engineer's approval.

In lieu of galvanized finish on gate frames, Cadmium Plated pipe or Aluminum painting will be considered to be equivalent Class 3 Coating.

LATCHES AND HINGES

Galvanized steel or Aluminum of standard make.

Hinges shall be placed as shown, to prevent theft.

In lieu of standard make latches it will be permissible to use an electro-galvanized chain, eyebolt and shackle type latch.

Eyebolt, chain and shackle assembly to be secured to latch side of gate. Gate closure effected by wrapping chain around end post and snapping hook into chain.

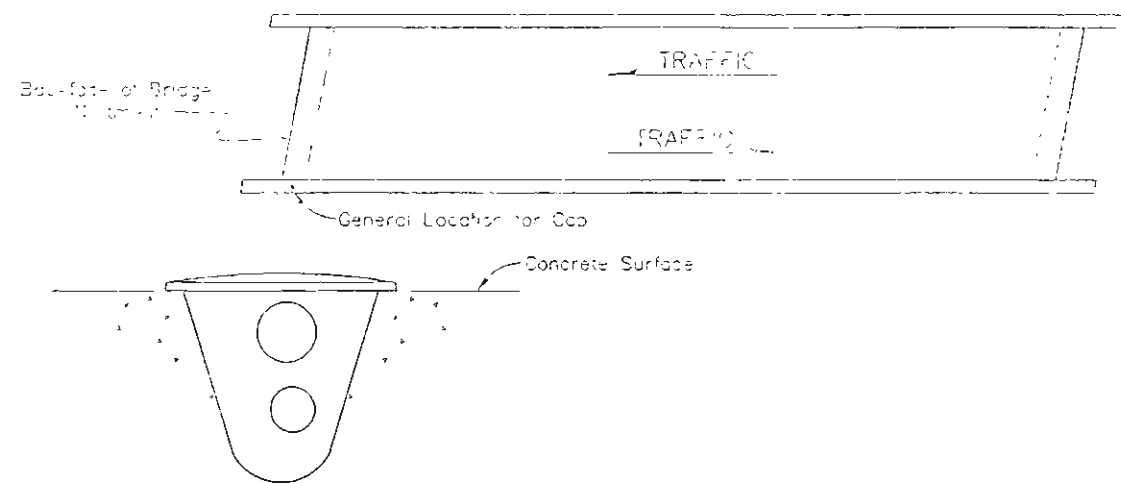
WOODEN STAYS

Wooden stays shall be untreated native timber. Stay dimensions, including length, shall have a tolerance of ± 1/4".

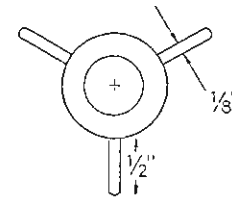
DEPARTMENT OF HIGHWAYS
STATE OF COLORADO
DIVISION OF HIGHWAYS

WIRE FENCES AND GATES

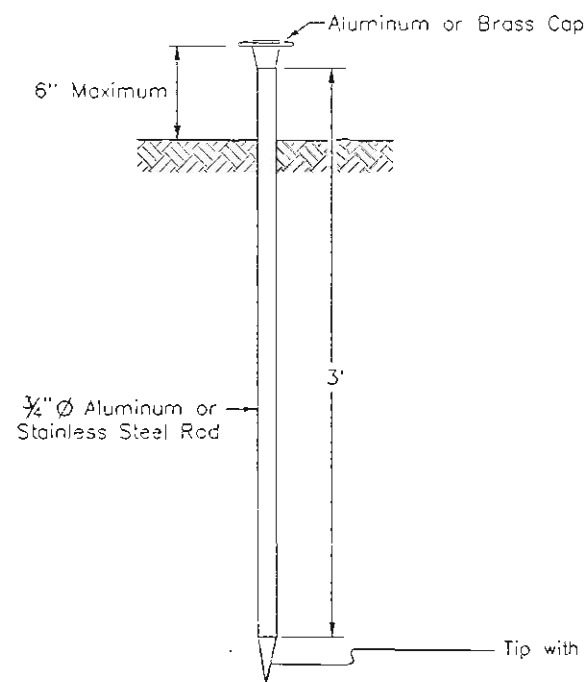
Designed by LEO Approved by J. E. O'Connell
Made by T. E. F. Staff Des. Eng.
Checked by E. E. O. Date July 1, 1965



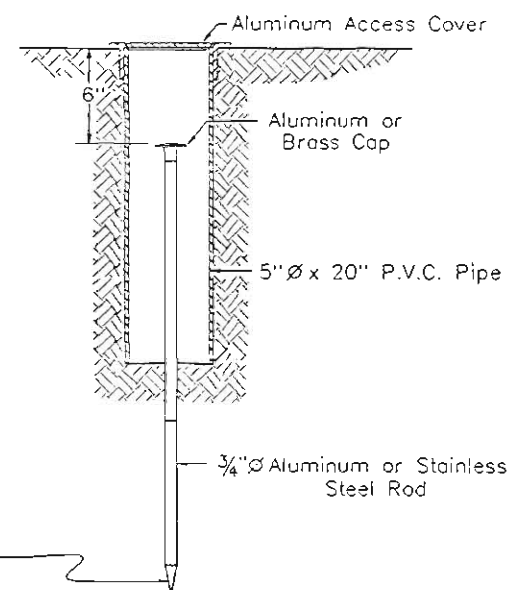
TYPE 4 MONUMENT



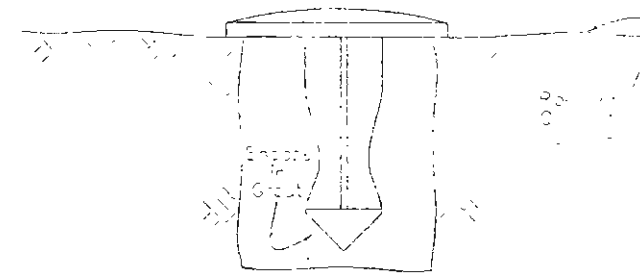
SECTION B-B



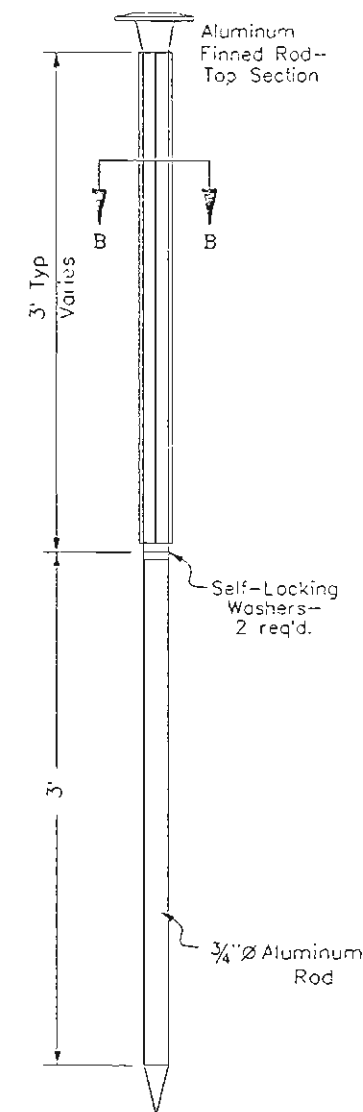
TYPE 1 MONUMENT



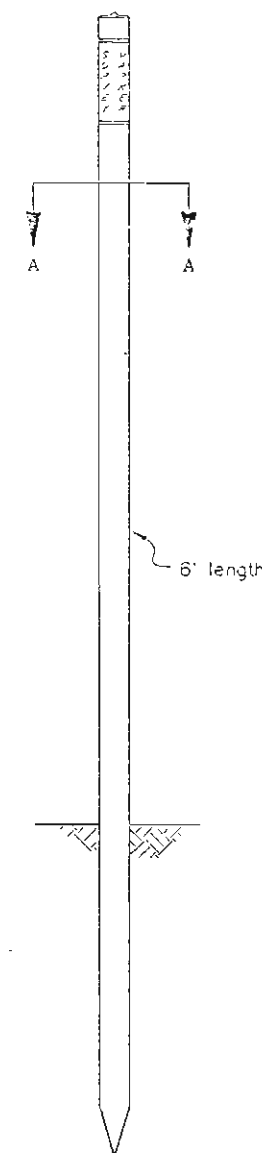
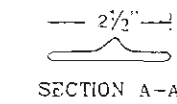
TYPE 1A MONUMENT & TYPE 2A MONUMENT
Includes Monument Box



TYPE 5 MONUMENT

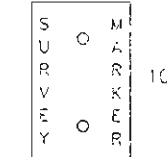


TYPE 2 MONUMENT

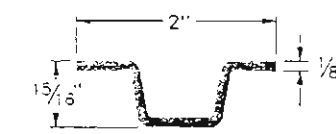


WITNESS POSTS

Metal Sign Panel

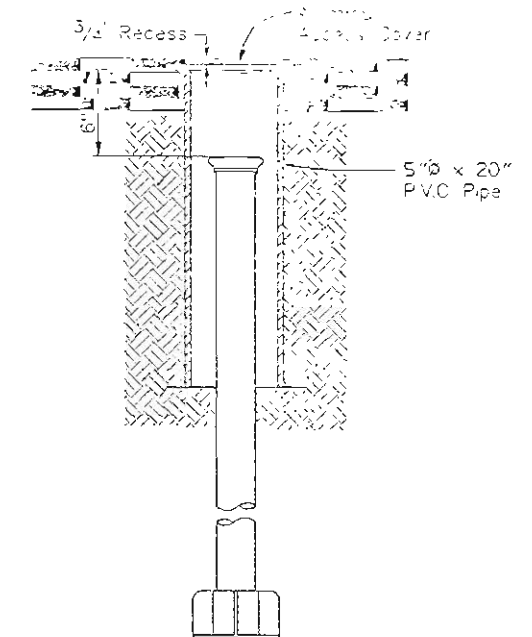


SECTION C-C

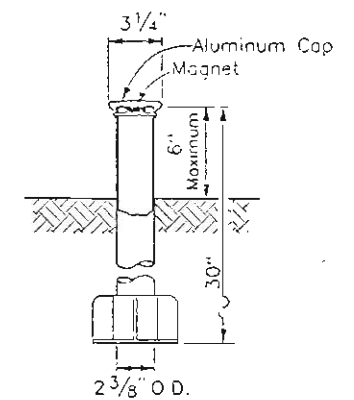


Delineator Post

6" length



TYPE 3A MONUMENT,
Roadway Installation



TYPE 3 MONUMENT

SURVEY
MONUMENTS



REFERENCE MONUMENT CAP



ROW MONUMENT CAP

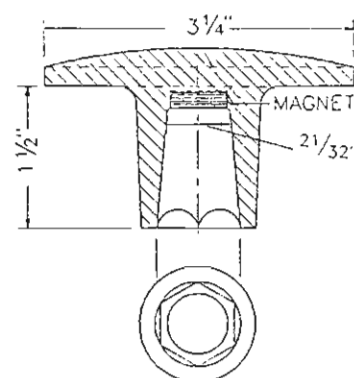


CONTROL MONUMENT CAP



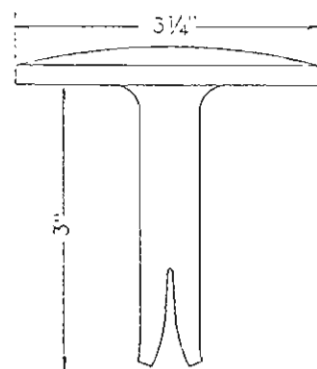
ALIQUOT CORNER CAP

NOTE: (A BLANK CAP MAY BE SUBSTITUTED IF ANY ABOVE CAPS ARE NOT AVAILABLE)



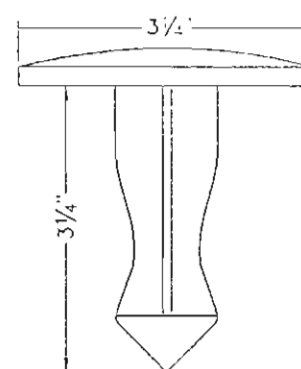
BRASS AND ALUMINUM CAPS

BRASS CAP USED WITH STAINLESS STEEL ROD
ALUMINUM CAP USED WITH ALUMINUM ROD
(Threaded Cap is also available)



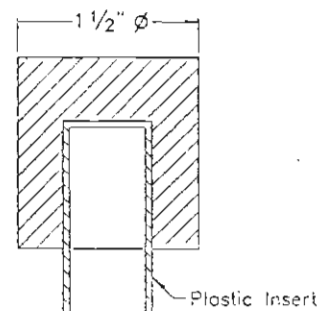
BRASS CAP

FOR PLACING IN EXISTING
CONCRETE OR ROCK

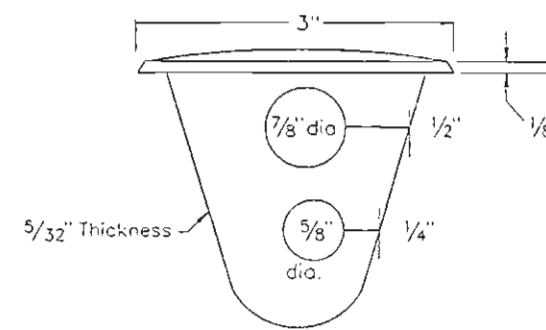


BRASS CAP

FOR PLACING IN EXISTING
CONCRETE OR ROCK



TEMPORARY
ALUMINUM CAP



BRASS CAP

INSTALL DURING PLACEMENT OF CONCRETE.
PLACE A REINFORCING BAR THRU ONE HOLE.

MONUMENT APPLICATION

CAP TYPE	MONUMENT TYPE							
	1	1A	2	2A	3	3A	4	5
REFERENCE	X						X	
ROW	X							X
CONTROL		X	X	X			X	
ALIQUOT CORNER					X	X		
WITNESS POST (WHEN REQUIRED)	X	X	X	X	X			X

TYPE 1 AND TYPE 1A ALUMINUM AND STAINLESS STEEL DRIVEN MONUMENTS

Type 1 monuments are driven by attaching a 3/4 inch diameter rod to the cap and driving it into the ground with a 3/4 inch diameter steel driver. A steel plate is then placed over the stainless steel driver for the hammer to strike. If additional sections of rod are needed, they are to be attached using a set of self-locking washers. Rods are stocked in two foot and three foot sections. One foot sections may be obtained by cutting a two foot section in half. The rod section is driven by using the proper hammer with a soft face. A power adapter is available for use with a gasoline powered driver.

Type 1 monuments typically use a three foot section of rod. When subsurface rock or concrete is encountered less than 3 feet below the ground surface, the rod shall be embedded in the rock or concrete at least 6 inches with a grout material. The rod may be shortened to accommodate the conditions.

Type 1A monuments may be driven to refusal by threading additional sections onto the first section. Added sections require a set of lock washers. Refusal is defined as one inch of movement with four blows of a 12 lb. hammer. A driven cap is necessary (vs. a threaded cap) when a cut rod is used. The soft faced hammer is also required to seat the driven caps onto the rod.

TYPE 2 AND TYPE 2A ALUMINUM FINNED ROD MONUMENTS

A Type 2 monument is used for horizontal control monuments where loose material is encountered. The larger size tip is to be used on one end of the three foot rod and the fins on the opposite end of the three foot rod are to be bent over to accommodate the cap. If more vertical stability is required for use as a vertical control monument, the added sections which are not finned, should be driven first. The number of sections to be added will vary with needs and type of soil.

Type 1A monument note above also applies to Type 2A monument

TYPE 3 AND TYPE 3A ALUMINUM PIPE MONUMENTS

This monument is used to monument an aliquot corner. The installation of this monument and record filing shall be done in accordance with the Colorado Revised Statutes, Title 38, Articles 50 and 51. Also refer to the COOH Survey Manual. The Land Surveyor's license number and the year shall be stamped on the cap.

TYPE 4 BRASS CAP MONUMENT

This monument is placed in concrete, such as bridge super structure concrete. It is placed above a footing support over the abutment or over a pier. An alternate placement is vertically in the abutment wall or pier if only an elevation reference is desired and it is possible to leave access for an elevation rod.

TYPE 5 BRASS CAP MONUMENT

This monument is placed in locations where a Type 1 or Type 1A monument cannot be placed. A common application is in a large boulder where a property corner has been placed. This monument could also be placed in a sidewalk.

WITNESS POSTS

The witness post, when required, will be supplied by the Division and installation shall be included in the work. It shall be driven within 10 feet of the monument, when possible. A delineator post with a 6" x 10" metal sign panel may be used in lieu of the plastic post. This post is to conform to Standard S-612-1.

SELF-LOCKING WASHERS

A set of two washers shall be used at rod joints and threaded cap joints, but not at tip joints.

TEMPORARY MONUMENTS

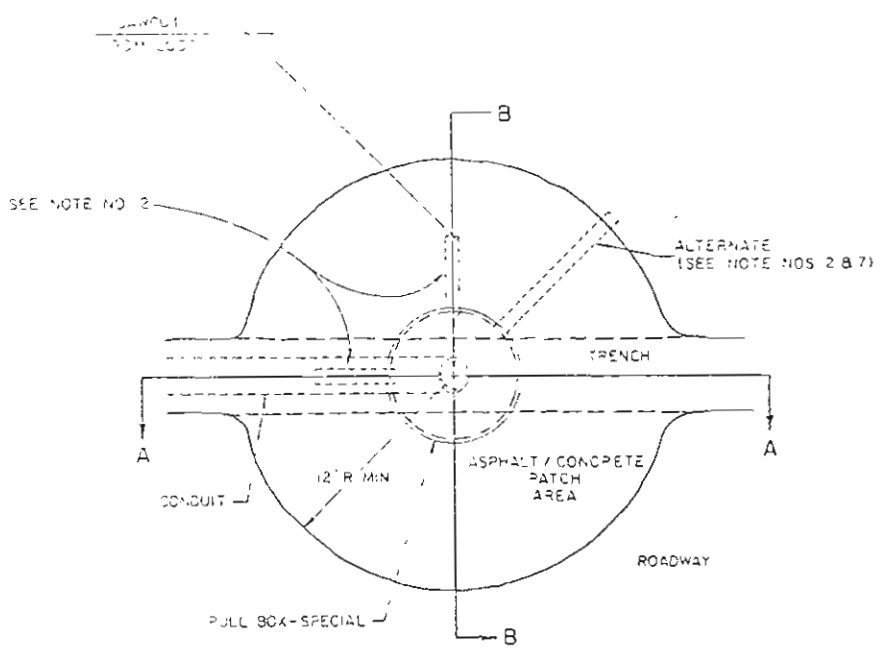
This cap is used on a #5 rebar.

SURVEY MONUMENTS

PULL BOX-SPECIAL

FOR LOOP DETECTOR WIRE

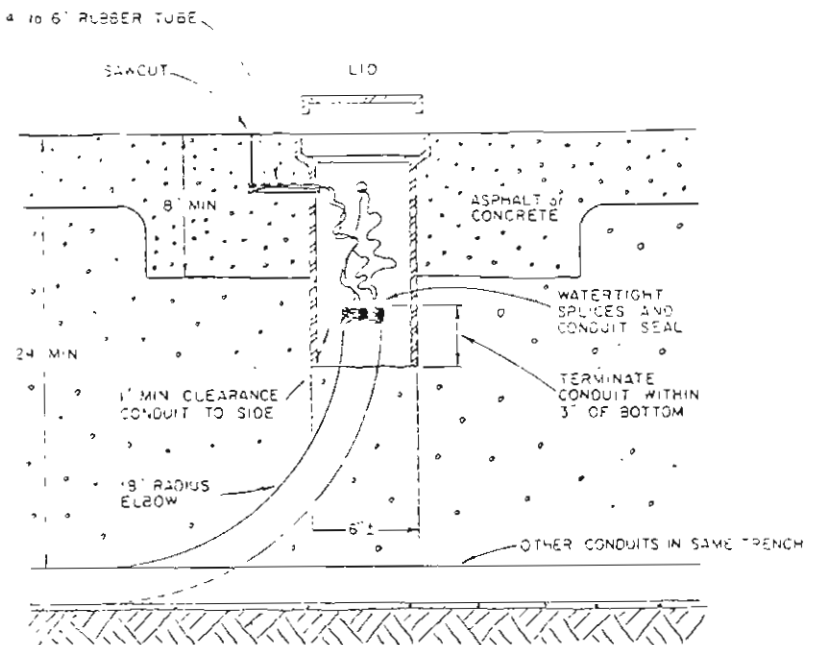
NO. 38	REVISED	1974
NO. 38	REVISED	1974



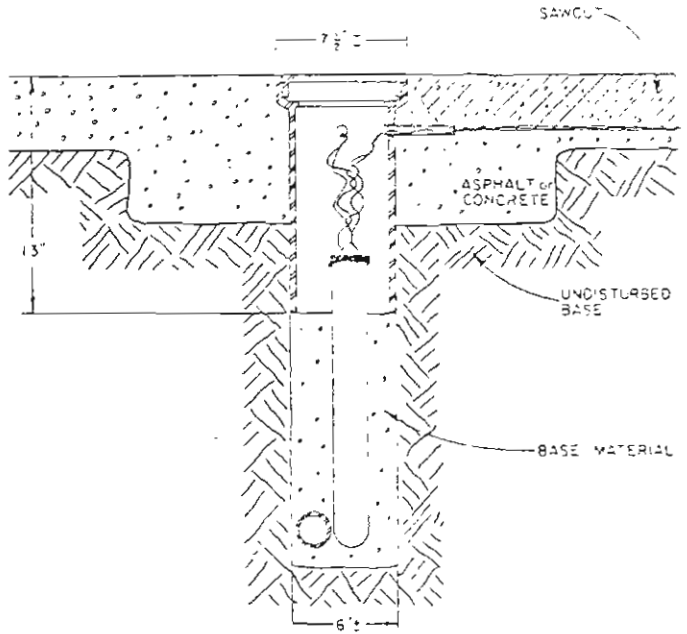
TOP VIEW

GENERAL NOTES:

1. Pull Box-Special shall be a Water Valve Stem Type pull box made of cast iron or steel. The pull box shall have capability of accepting riser rings for future overlays. The lid shall have the word "TRAFFIC" printed on it.
2. Pull boxes shall have $\frac{1}{2}$ to 1" diameter holes drilled or torched 3' from top to accept a 4" to 6" rubber tube (garden hose). The number of holes shall be as per plans or as directed by the engineer.
3. Core shall be taken during backfill compaction to prevent collapse of the tubes.
4. 2" minimum stock of both feed and loop wires is to be provided so that all testing and splicing can be done outside of the pull box.
5. Pull box lid is to be sealed water tight by caulking.
6. Pull box is to be located in an area of the street not heavily traveled if possible and centered a minimum of 12" from the concrete gutter pan.
7. If hot asphalt is not available a concrete ring (12" minimum radius and 8" minimum depth) may be allowed by the engineer. If concrete is allowed the rubber tube must be extended beyond the concrete to asphalt joint.
8. All work listed above for installation of pull boxes shall not be paid for separately, but shall be included in the price of the conduit.



SECTION A-A



SECTION B-B

GENERAL NOTES

ALL WORK SHALL BE DONE ACCORDING TO THE STANDARD SPECIFICATIONS OF THE DIVISION OF HIGHWAYS, SEVENTH EDITION, 1965, APPLICABLE TO THE PROJECT.

STEEL PIPE PILE CAPACITY AND BEARING SHALL BE IN ACCORDANCE WITH CHAPTER 1205-1.

EMBEDMENT JOINT MATERIAL SHALL BE "EPOXY RESIN" TYPE.

GRADE 60 REINFORCING STEEL IS REQUIRED FOR #4 BARS AND LARGER.

THE FOLLOWING TABLE GIVES THE MINIMUM LAP SPICE LENGTH FOR REINFORCING BARS:

BAR SIZE	#4	#5	#6	#7	#8	#9	#10	#11
SPICE LENGTH FOR CLASS A CONCRETE	1'-0"	1'-3"	1'-6"	2'-3"	3'-0"	3'-10"	4'-10"	5'-11"
SPICE LENGTH FOR CLASS D CONCRETE	1'-0"	1'-3"	1'-6"	2'-0"	2'-7"	3'-4"	4'-2"	5'-1"

APPLIED WIND LOADS AND EARTHQUAKE LOADS WERE NOT CONSIDERED IN ANALYZING THE STRUCTURE FOR STABILITY DURING THE CONSTRUCTION STAGES.

E.F. = EACH FACE
F.F. = FAR FACE
N.F. = NEAR FACE

ALL REINFORCERS 3/4" UNLESS OTHERWISE NOTED.

DESIGN DATA

CURRENT AASHTO SPECIFICATIONS:

LIVE LOAD: AASHTO HS-20-44 AND INTERSTATE ALTERNATE

EARTH LOAD:

VERTICAL EARTH PRESSURE = 120 PCF

EQUIVALENT FLUID PRESSURE = 40 PCF MAX. WITH 2 FT SURCHARGE = 27 PCF

MIN. FOR WINGWALL HEEL PRESSURE

REINFORCED CONCRETE:

CLASS A (BOX CULVERT) CONCRETE: $f'_c = 3,000$ psi

REINFORCING STEEL: #4 BARS AND LARGER $f_y = 60,000$ psi

*SUMMARY OF QUANTITIES

ITEM NO.	DESCRIPTION	UNIT	TOTAL
203	STRUCTURE EXCAVATION	CU YD	2150
206	STRUCTURE BACKFILL (CLASS D)	CU YD	1025
206	BED COURSE MATERIAL	CU YD	435
506	RIP RAP	CU YD	865
601	CONCRETE CLASS A (BOX CULVERT)	CU YD	869
602	REINFORCING STEEL	LB.	96,520

*CARRIED TO TABULATION OF DRAINAGE ITEMS SHEET

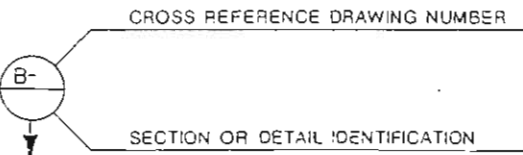
INDEX OF DRAWINGS

DWG. NO.	TITLE
B-1	SUMMARY OF QUANTITIES - GENERAL NOTES
B-2	GENERAL LAYOUT
B-3	CONSTRUCTION LAYOUT
B-4	WINGWALL DETAILS (OUTLET)
B-5	WINGWALL DETAILS
B-6	DETAILS OF SINGLE CELL CULVERT

BRIDGE DESCRIPTION

SINGLE-CELL (16'-0"x5'-0") CONCRETE BOX CULVERT

OVER WEAVER CREEK
106'-0" ROADWAY-EDGE OF TRAVELWAY
TO EDGE OF TRAVELWAY
77'-00'-00"



CENTENNIAL ENGINEERING, INC.

Reviewed: *P. J. Kocier* 11/1/87

DATE

J.F. SATO AND ASSOCIATES
CONSULTING ENGINEERS
LITTLETON, COLORADO

CHICAGO REGIONAL
SEAL
1988

REVIEWED

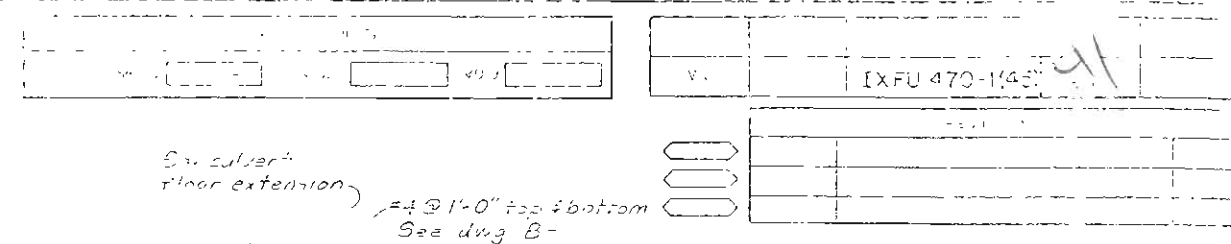
ENGINEER

DATE

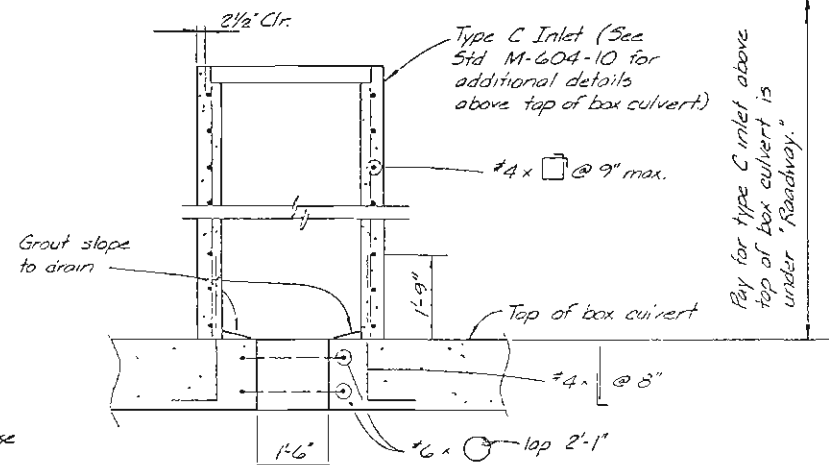
DIVISION OF HIGHWAYS

SUMMARY OF QUANTITIES
GENERAL NOTES

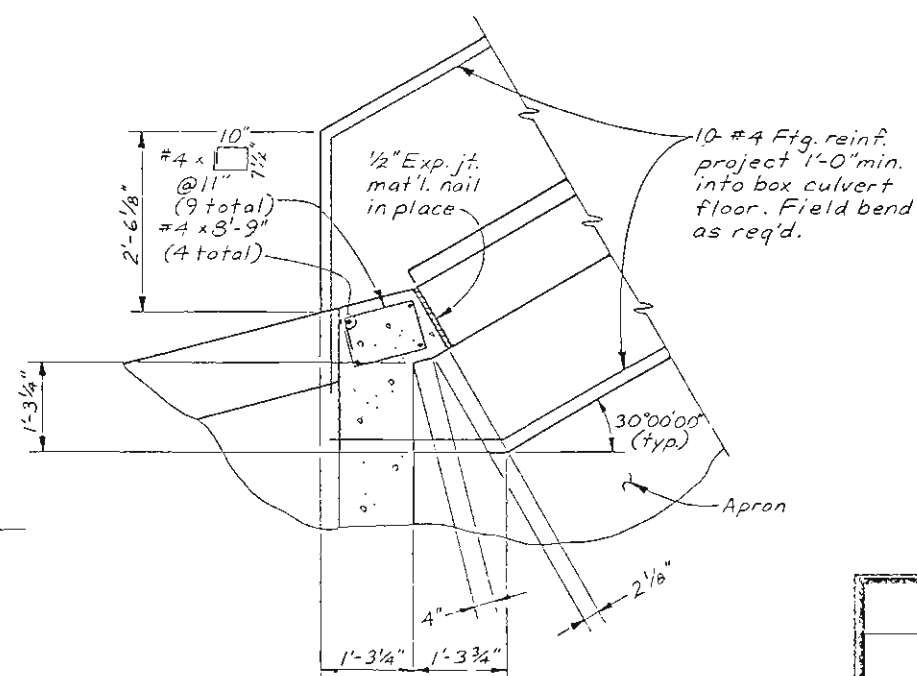
Designer: *S. Kobayashi* Structure: _____
Detailer: *P. J. Kocier* Numbers: _____
Drawing Number: B1 of 5 Drawings



TYPE C INLET DETAIL $\left(\frac{B-3}{3} \right)$



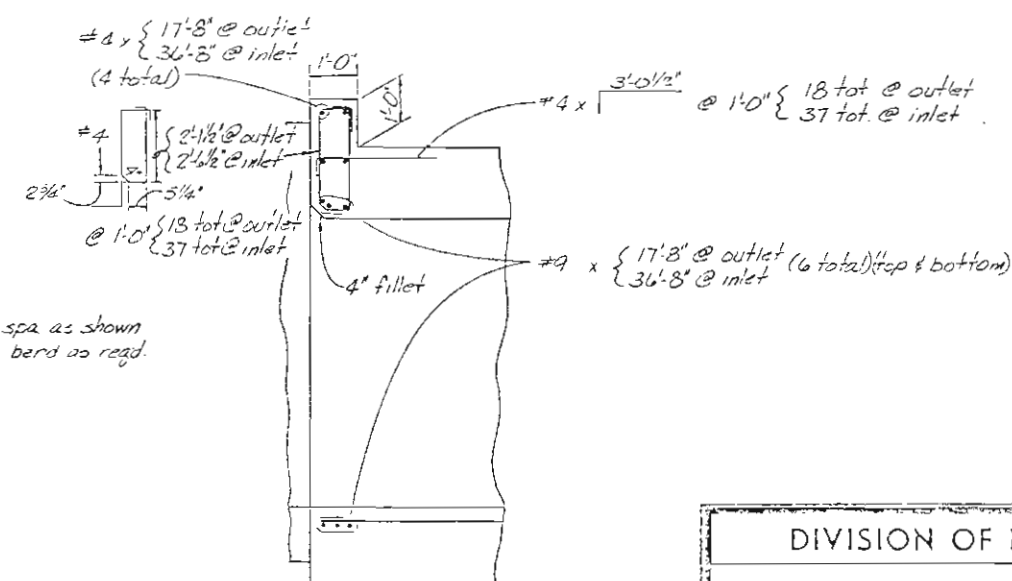
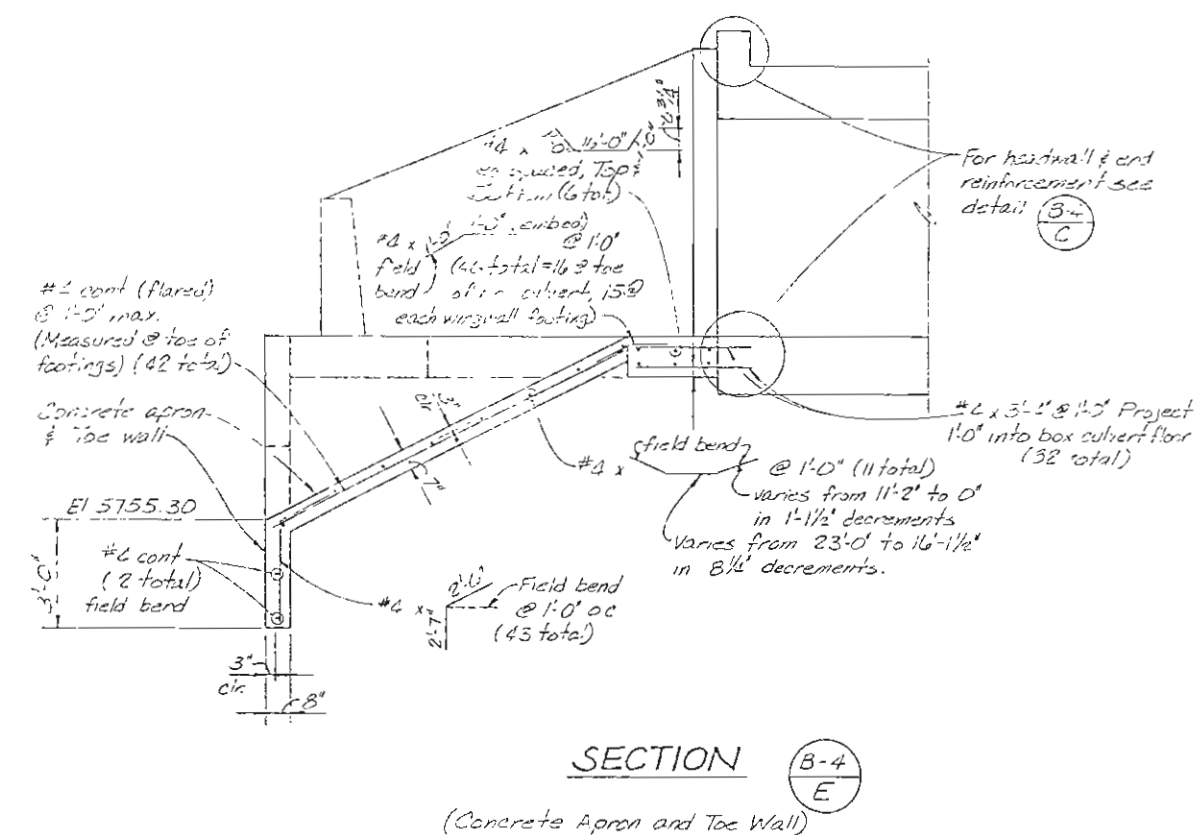
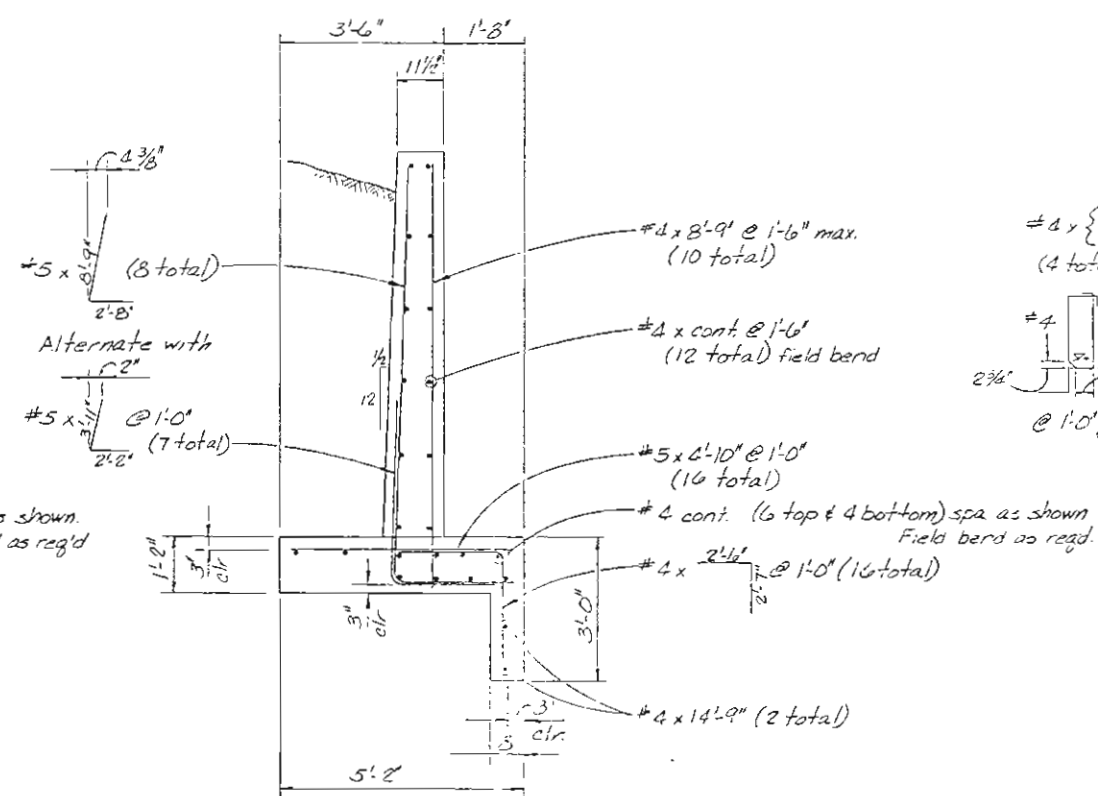
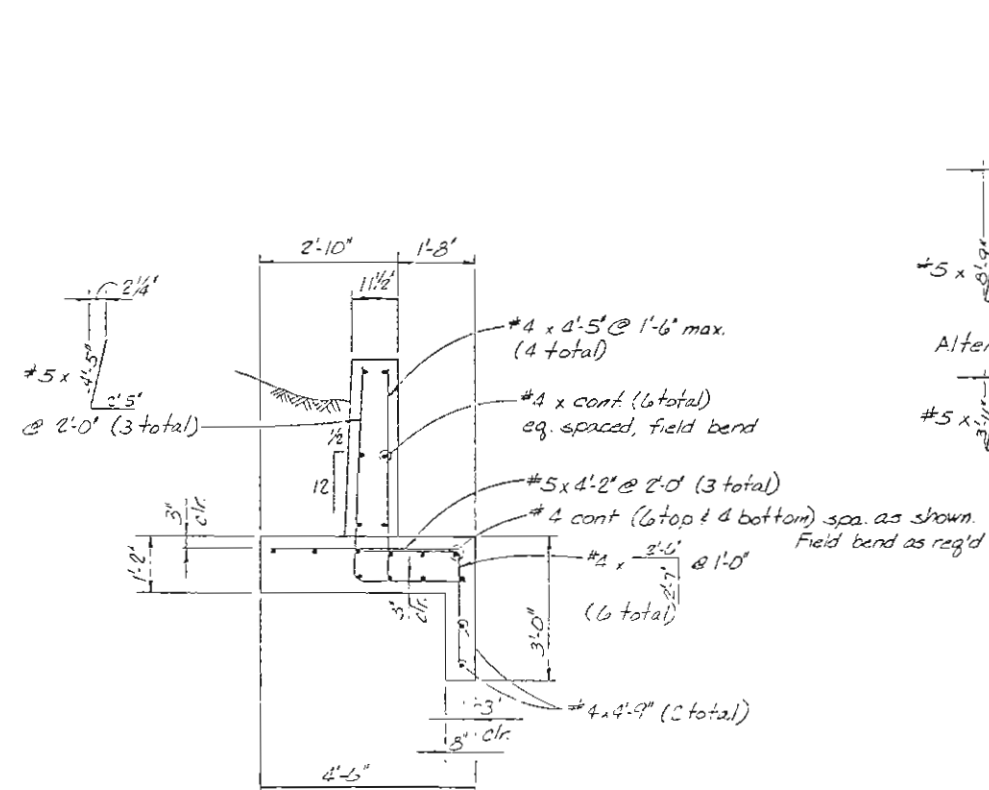
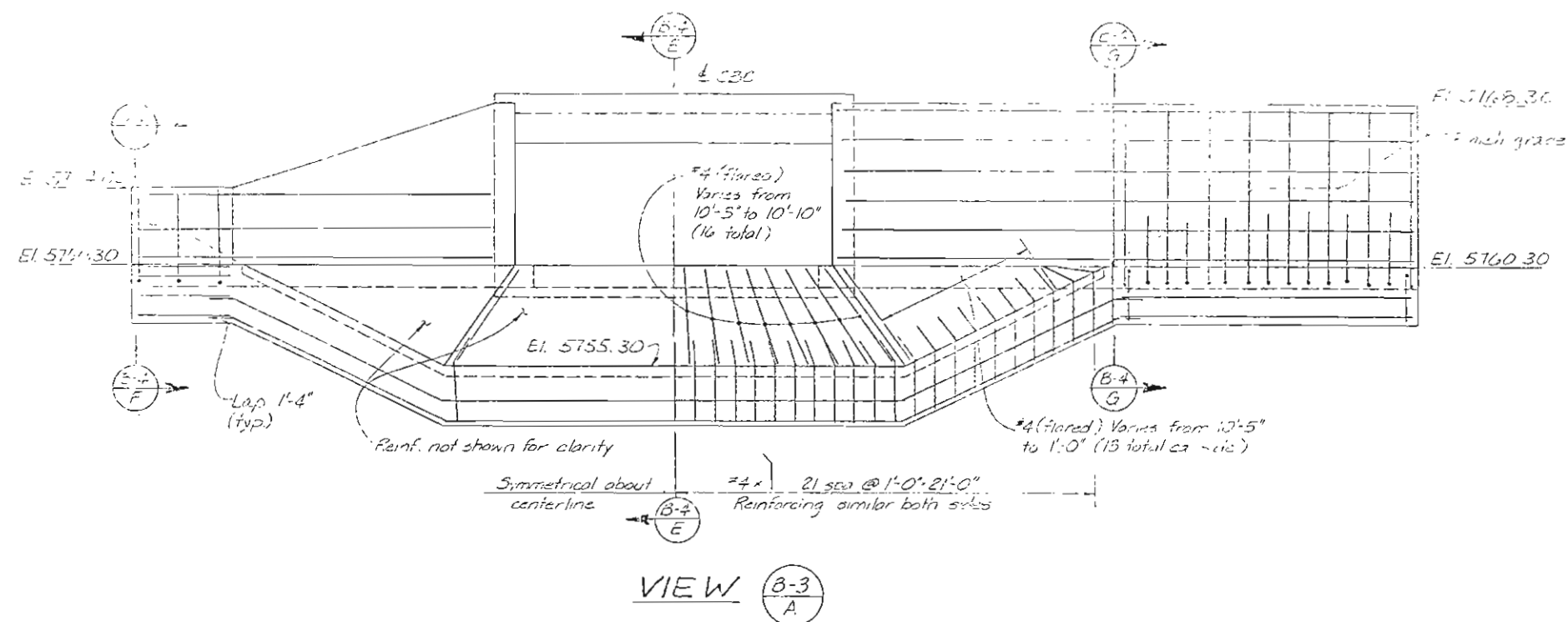
SECTION B-3



DETAIL B-3
2

CONSTRUCTION LAYOUT

Designer <i>S. Kobayashi</i>	Structure	
Detailer <i>M. Welch</i>	Numbers	
Drawing Number 83 of 6 Drawings		



DIVISION OF HIGHWAYS

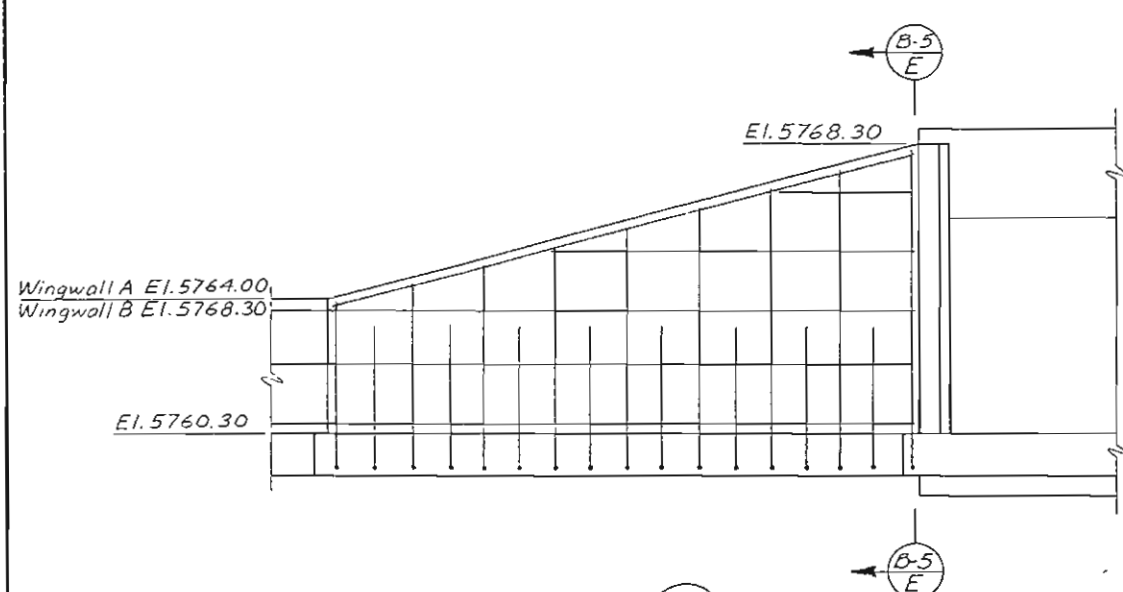
WINGWALL DETAILS
(OUTLET)

Designer <i>S Kobayashi</i>	Structure	
Detailer <i>P J Kocher</i>	Numbers	
Drawing Number <i>34</i>	of	<i>6</i> Drawings

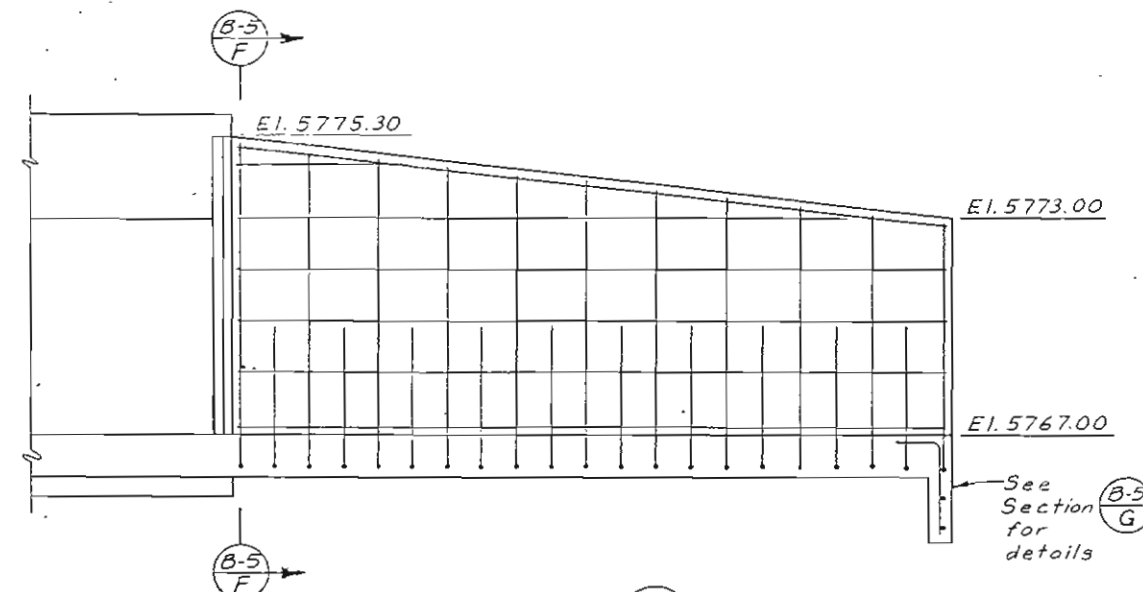
AS CO. STRUCTED		
NO REVISIONS	7-15-47	REVISED
		VOID

FEDERAL ROAD DISTRICT NO.	DIVISION	PROJECT NO.	SHEET NO.	TOTAL SHEETS
5TH	COLORADO	IXFU 470-1(45)	43	85

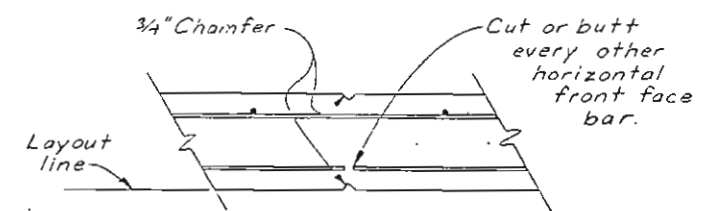
REVISIONS	



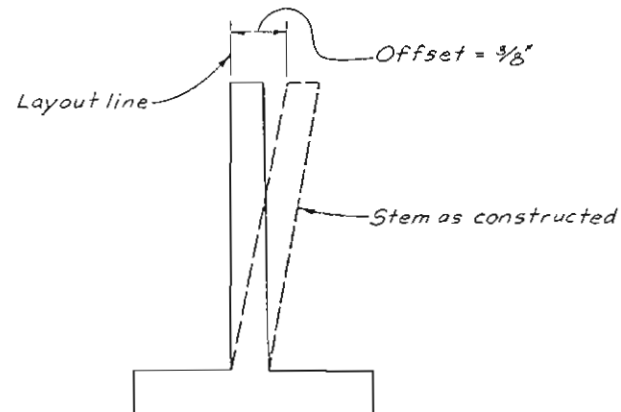
SECTION $\frac{B-3}{B}$
(SECTION $\frac{B-3}{C}$ SIMILAR)



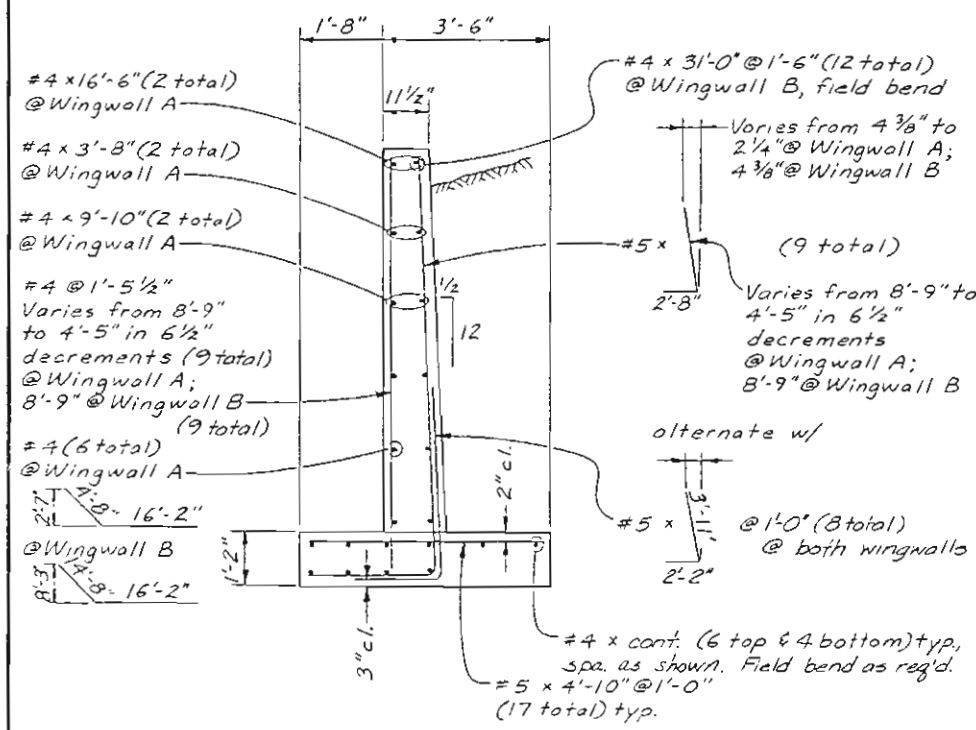
SECTION $\frac{B-3}{D}$
(WINGWALL C SHOWN - WINGWALL D SIMILAR)



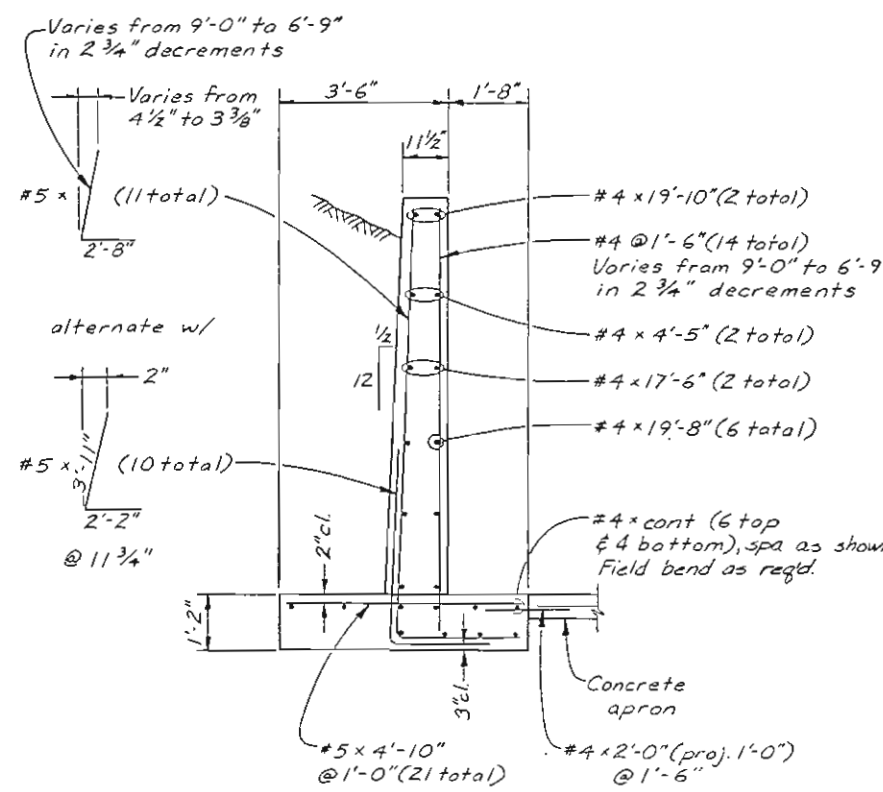
WEAKENED PLANE
(@ 22'-0" max.)



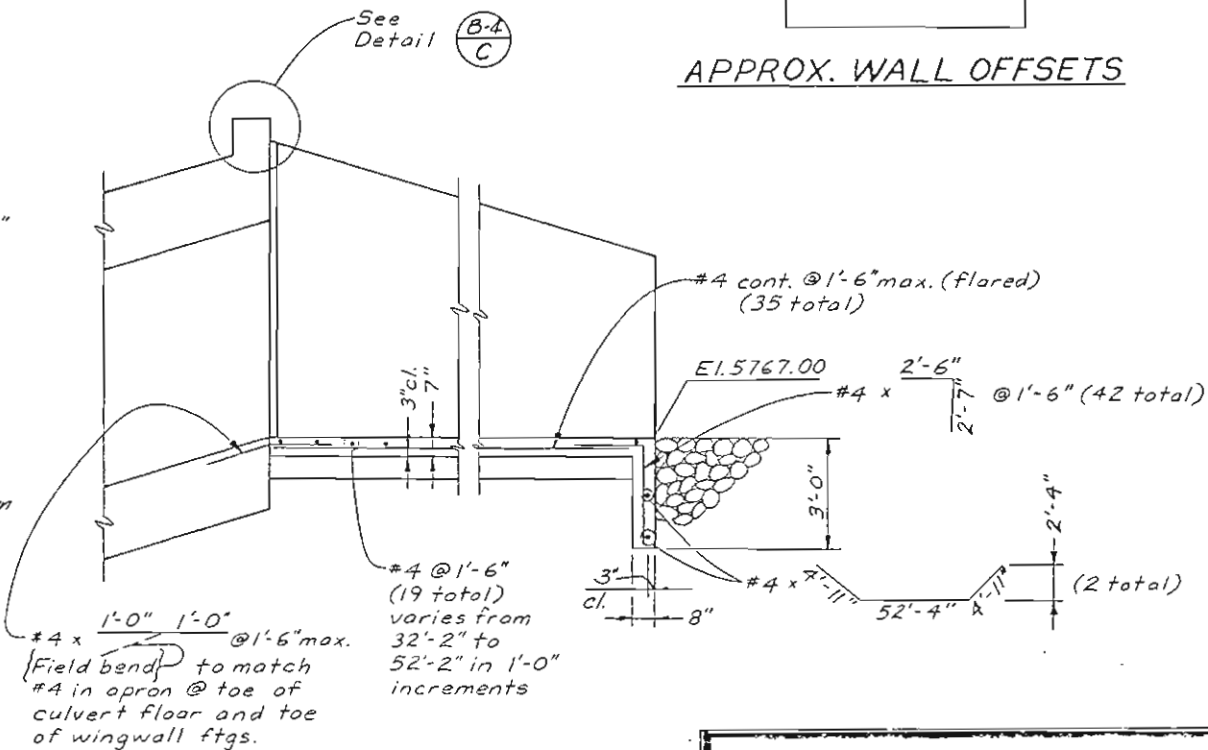
APPROX. WALL OFFSETS



SECTION $\frac{B-5}{E}$
(WINGWALL A SHOWN - WINGWALL B SIMILAR)

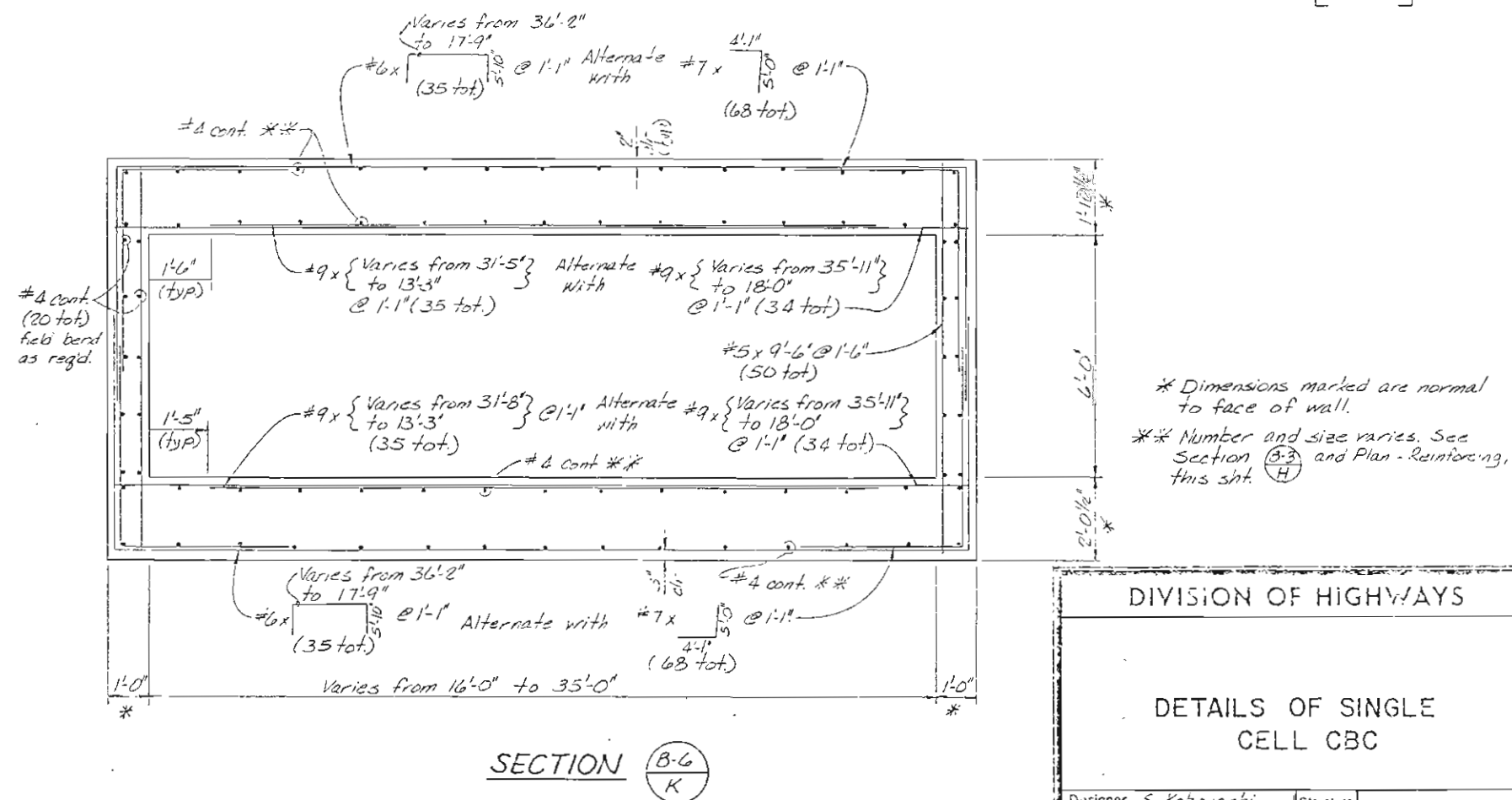
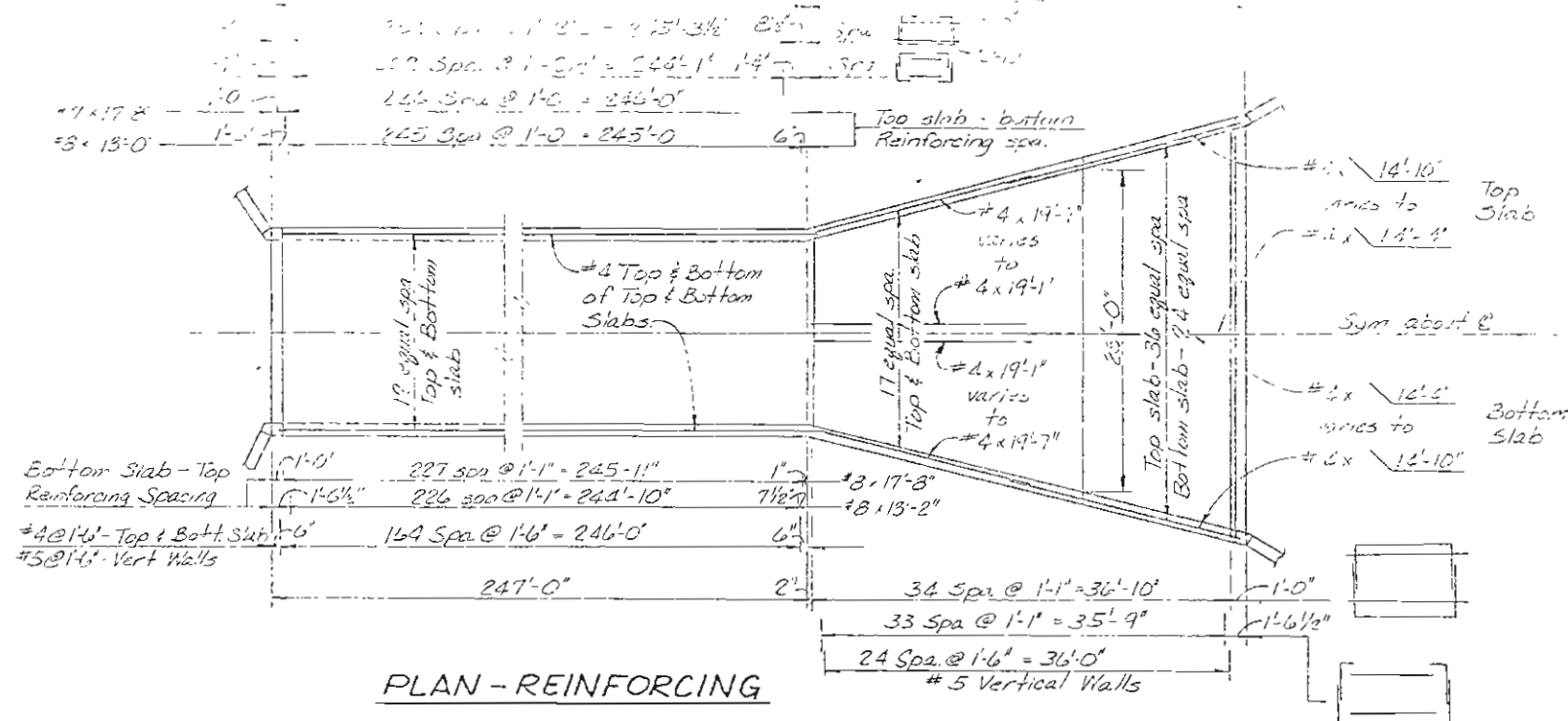
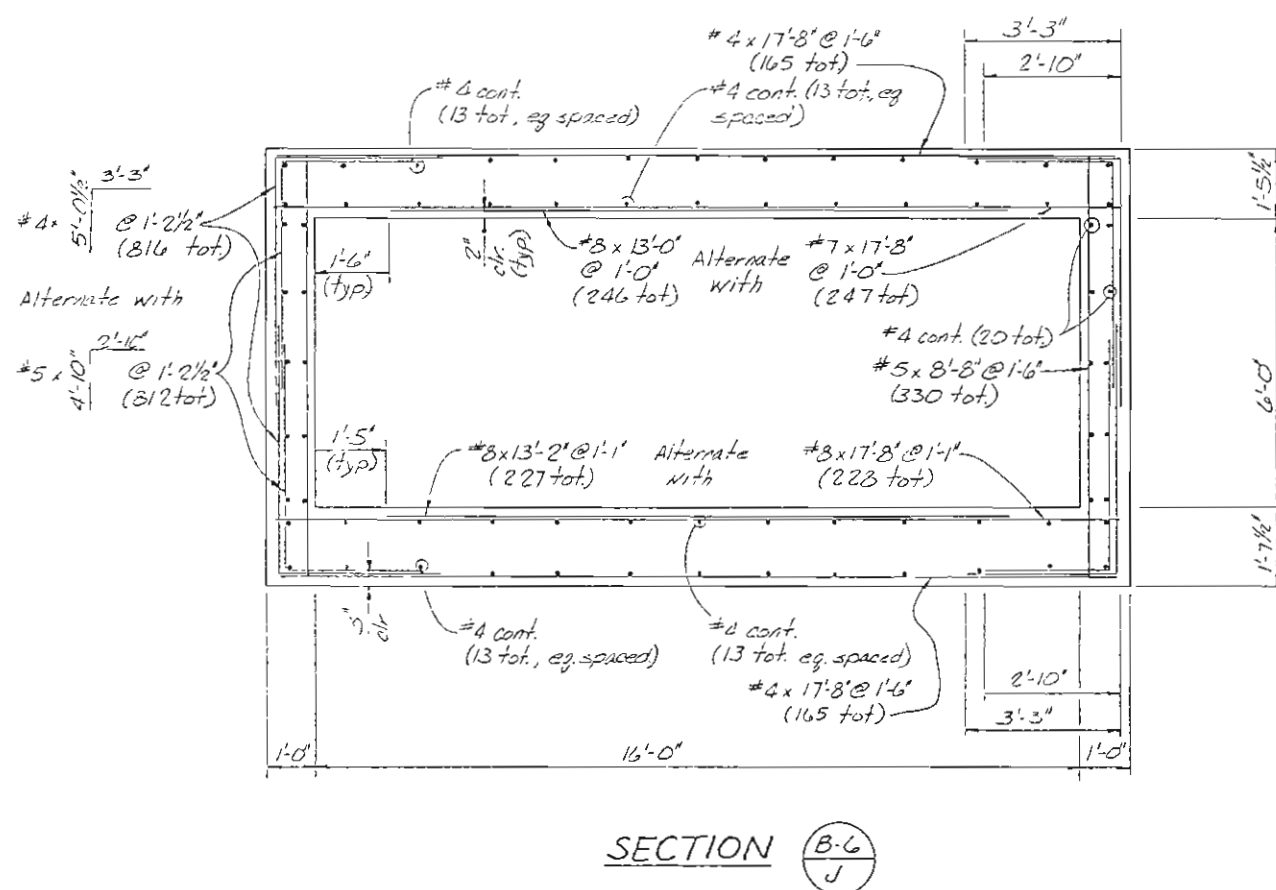
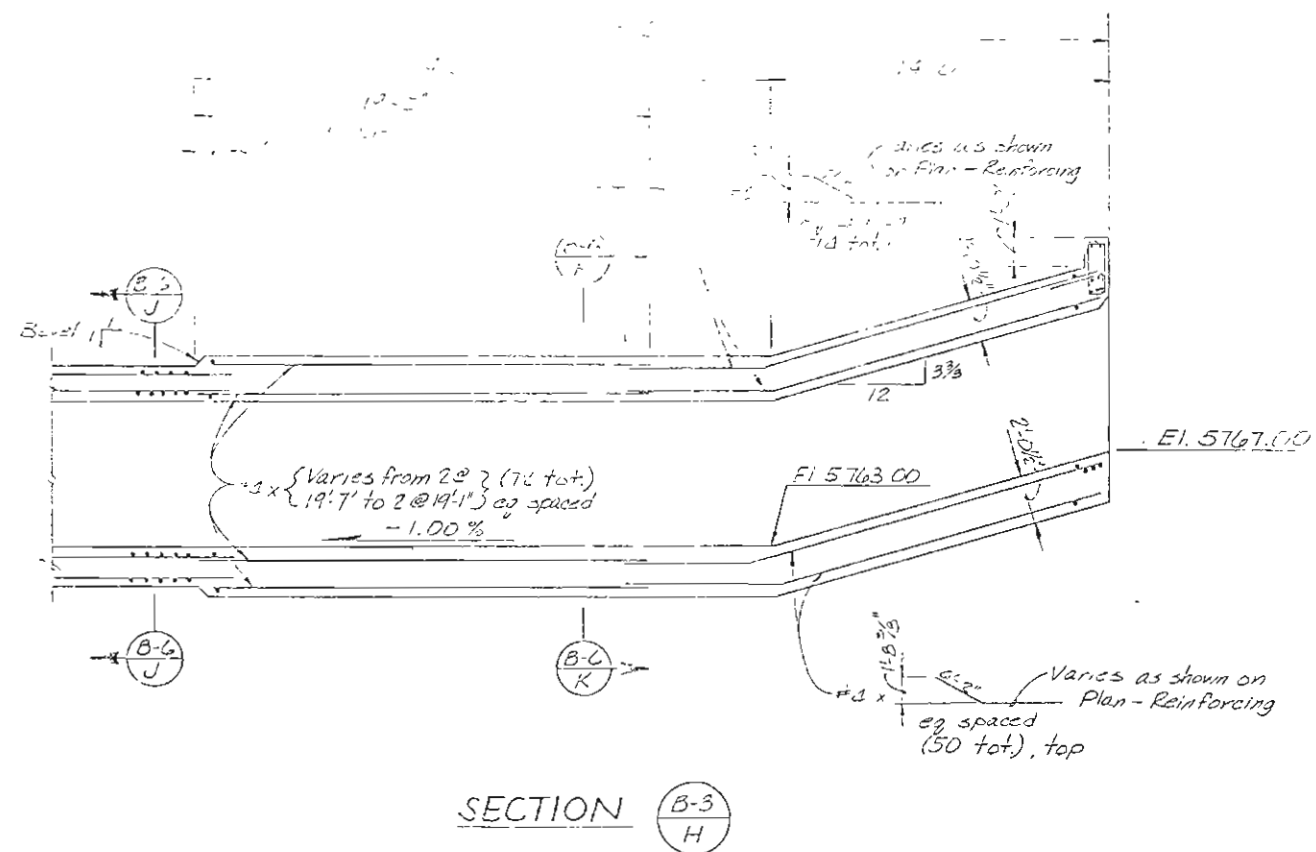


SECTION $\frac{B-5}{F}$



SECTION $\frac{B-3}{G}$

DIVISION OF HIGHWAYS			
WINGWALL DETAILS			
Designer S. Kobayashi	Structure		
Detailer M. Welch	Numbers		
Drawing Number 85	of	6	Drawings

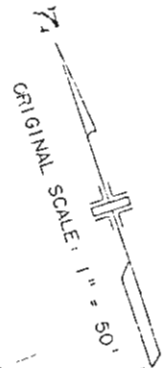


* Dimensions marked are normal to face of wall.

** Number and size varies. See Section (3-3) and Plan - Reinforcing, this sheet.

DETAILS OF SINGLE
CELL CBC

Designer <i>S Kobayashi</i>	Structure	
Detailer <i>P.J Kazer</i>	Numbers	
Drawing Number <i>86</i>	of	<i>6</i> Drawings



NE 1/4 SEC. 12
T-5-S, R-70-W

STA 34+33 - BEGIN
APPROACH TO PROJECT

STA 2+00.00 - BEGIN TEMP CONN.
MATCH EXIST. SCOA LAKES ROAD

TO BE ABANDONED

TEMPORARY CONNECTION

WEST TURKEY CREEK RT. RD.

N70°21'13"W

ENTRANCE RT.

TEMPORARY EASEMENT

PROPOSED R.O.W.

MATCHLINE STA 50+00

UTILITIES

- | | |
|------------------------------|---|
| TELEPHONE | MOUNTAIN BELL |
| GAS, ELECTRIC & TRANSMISSION | PUBLIC SERVICE CO. |
| WATER & SEWER | LAKEHURST WATER & SANITATION DISTRICT |
| CABLE TV | JONES INTERCABLE |
| SEWER | WILLOWBROOK WATER & SANITATION DISTRICT |

38L 38+74.48' LT. - REQ'D
30" RC END SECTION &
RIPRAP & OUTLET-8'X16'X24"

39R 39+15.28' RT. - REQ'D
TYPE C INLET (H=10')
& 30"X79" RCP

STA 40+00 LT. TO STA 5+40 LT.
REQ'D - REMOVE 1,230 S.Y. OF ASPHALT-MAT

STA 37+50 RT. TO STA. 47+74 RT.
REQ'D - REMOVE 616 L.F. OF FENCE

41R 41+65.160' RT. - REQ'D
15' X 56' CSP

41R 41+50.31' RT. REQ'D
TYPE D INLET (H=5')
& 30" X 230" RCP

41+50, RT - REQ'D
RIPRAP RUNDOWN (GROUTED)

STA 37+50 RT. TO STA 40+69 RT.
REQ'D - 324 L.F. OF COMBINATION WIRE FENCE
WITH TREATED WOODEN POSTS

STA 40+89 RT. TO STA 42+03 RT.
REQ'D - 103 L.F. OF COMBINATION WIRE FENCE
WITH TREATED WOODEN POSTS

STA 40+69 RT.
REQ'D - 21' 20" GATE
STA 42+03 RT.
REQ'D - 1-20' GATE

STA 42+28 RT.
REQ'D - 734 L.F. OF
COMBINATION WIRE FENCE
WITH TREATED WOODEN POSTS

44R 44+00.28' RT. - REQ'D
TYPE C INLET (H=5')
& 30"X230" RCP

STA 43+08 LT. TO STA. 44+02 RT.
REQ'D - REMOVE 260 L.F. OF FENCE

STA 43+39 RT. TO STA. 44+02 RT.
REQ'D - REMOVE 67 L.F. OF FENCE

STA 43+90 RT. TO STA. 44+70 RT.
REQ'D - REMOVE 440 L.F. OF FENCE

STA 44+33 RT. TO STA. 45+25 RT.
REQ'D - REMOVE STRUCTURE

STA 44+50 RT. TO STA. 45+25 RT.
REQ'D - REMOVE 78 S.Y. OF CONC. SIDEWALK

46R 46+32.32' RT. - REQ'D
TYPE D INLET (H=5')
& 30"X220" RCP

STA 45+09 RT. TO STA. 46+18 RT.
REQ'D - REMOVE STRUCTURE (HOUSE)

STA 46+36 LT. TO STA. 52+80 RT.
REQ'D - REMOVE 933 L.F. OF FENCE

49R 49+70.28' RT. - REQ'D
18" RC END SECTION
& 18"X34" RCP

48R 48+34.28' RT. - REQ'D
18" RC S + 18'X24" RCP

48R 48+34.28' RT. - REQ'D
18" RC S

NW 1/4 SEC. 7
T-5-S-R-63-W

STA. 349+75 LT. TO STA. 356+59 LT.
REQ'D - 75 L.F. OF COMBINATION
WIRE FENCE W/TREATED WOODEN POSTS

STA. 112+52, 49.5' RT. TO STA. 113+27, 45.5' RT.
REQ'D - END ANCHORAGE TY. 3E AND
75 L.F. OF GUARD RAIL TY. 3

CBG TY2-11B

QUINCY AVE.

PROPOSED R.O.W.

CBG TY2-1B

TIE TO EXISTING FENCE
STR. NO. F-15-NE (EXISTING)
(CONST. UNDER IXFU 470-1(55))

RAMP NE
(FUTURE)

STA. 357+00 BEGIN IXFU 470-1(45) =
STA. 357+00 ON IXFU 470-1(51) = M.P. 6.14

WEST TURKEY CREEK FR. RD.

PROPOSED TIE LINE

PROPOSED R.O.W.

STA. 58+04, 26' LT. TO STA. 58+54, 29.5' LT.
REQ'D - END ANCHORAGE TY. 3E &
50 L.F. GUARD RAIL TY. 3

STA. 54+50 RT. TO STA. 356+59 LT.
REQ'D - REMOVE 600 L.F. OF FENCE

STA. 54+87 RT. TO STA. 55+72 RT.
REQ'D - REMOVE 99 L.F. OF FENCE

STA. 52+28 LT.
REQ'D - REMOVE CISTERN

117R2
117+76.58 RT. - REQ'D
24" RC END SECTION &
24"X44" RCP
117R1
117+88 RT. - REQ'D
TYPE R INLET SPECIAL (L=5')(H=10')
& 24"X62" RCP

STA. 118+64 RT. TO STA. 119+02 RT.
REQ'D - REMOVE 90 L.F. OF FENCE

STA. 119+12 RT. TO STA. 120+02 RT.
REQ'D - REMOVE 123 L.F. OF FENCE

PROPOSED R.O.W.

TIE TO EXIST. FENCE

STA. 112+05 LT. TO STA. 1563+32 LT.
REQ'D - 675 L.F. OF COMBINATION
WIRE FENCE W/TREATED WOODEN POSTS

STA. 112+05, 35' LT. TO STA. 113+52, 41.5' LT.
REQ'D - END ANCHORAGE TY. 3D &
50 L.F. OF GUARD RAIL TY. 3

STA. 1552+33
END ASPHALT PAVEMENT
AND CURB 3' WATER

113L1
113+38.17 LT. - REQ'D
TYPE R INLET (L=5')(H=10')
& 12"X50" RCP

113L2
113+60.94 LT. - REQ'D
12" RC END SECTION &
RIPRAP & OUTLET 4.5'X6'X18"

Note: 12" Waterline
and 20" casing
to be constructed
by others.

20" casing
(at this time)

To be constructed
by others

Plug of
(12" Waterline (at this time))

Extension
of 12" Waterline
(future)

20" casing
(at this time)

117L
117+88.65 LT. - REQ'D
24" RC END SECTION &
RIPRAP & OUTLET 6'X8'X18"

STA. 117+33, 40.5' LT. TO STA. 118+08, 44.5' LT.
REQ'D - 75 L.F. GUARD RAIL TY. 3 & END
ANCHORAGE TY. 3E

STA. 1562+28 LT. TO STA. 1563+28 RT.
REQ'D - REMOVE 145 L.F. OF FENCE

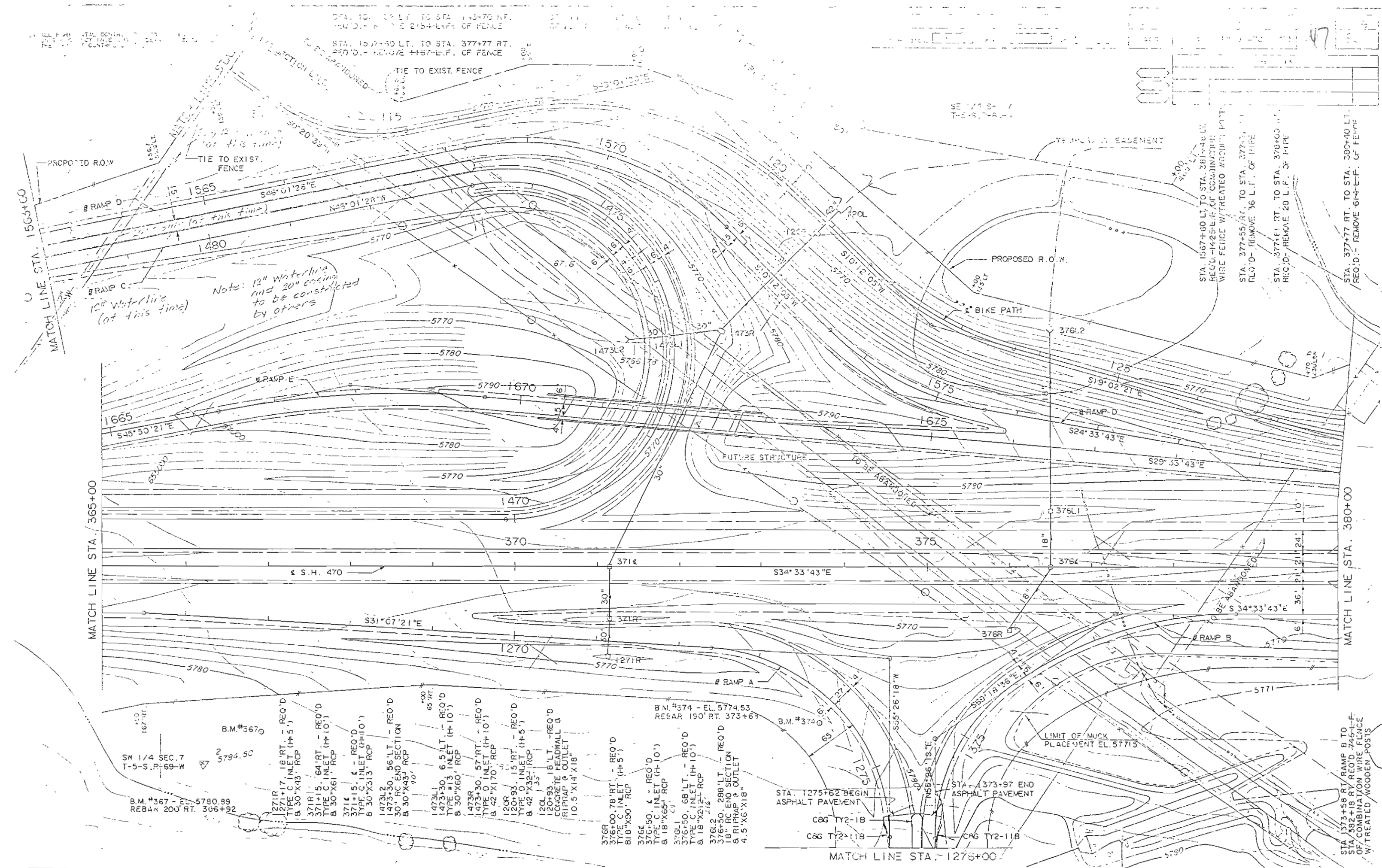
STA. 119+14 RT. TO STA. 1564+64 LT.
REQ'D - REMOVE 1162 L.F. OF FENCE

STA. 359+55 RT. TO STA. 1276+00 RT.
REQ'D - 1560 L.F. OF COMBINATION
WIRE FENCE WITH TREATED WOODEN POSTS.

AREA TO BE GRADED AS PART OF PROJECT IXFU 470-1(55)
FOR CONSTRUCTION OF QUINCY BRIDGE. THE GRADING FOR THE
BRIDGE IS TO BE COMPLETED PRIOR TO GRADING FOR THIS PROJECT.

B.M. #359 - EL. 5785.98
CHISELED "D" SE. FOOTER
POWER TOWER 174 LT. 359+40

B.M. #362 - EL. 5799.33
REBAR 199 RT. 361+75



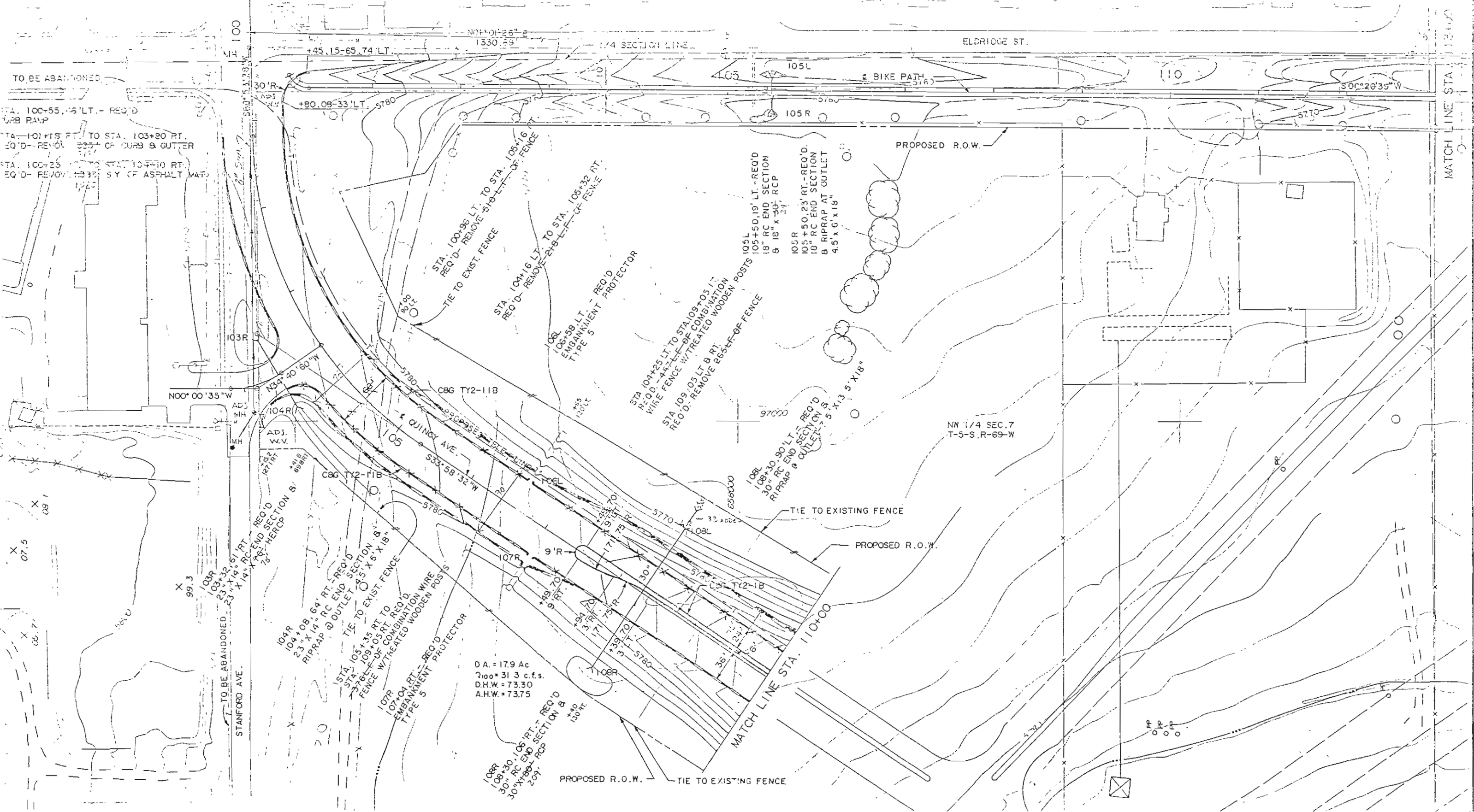


DATE: 10/12/10
BY: [signature]

STA. 100+00 TO 100+50 AVE. 5
NORTH 20° E, A DISTANCE OF 1330.59'
FROM THE CENTER OF SECTION 7,
TOWNSHIP 5 SOUTH, RANGE 5, WEST
OF THE 6TH PRINCIPAL MERIDIAN.

PROJECT	NO.	DATE	BY	CHKD	APP'D
1XFU 470-1 (CJ)	69				
REVISED					

ORIGINAL SCALE 1" = 50'



TO BE ABANDONED
STA. 100+55 TO 101+00 RT. - REQ'D
CURB RAMP
STA. 101+15 RT. TO STA. 103+80 RT.
REQ'D - REMOVE 335' OF CURB & GUTTER
STA. 100+25 TO STA. 104+10 RT.
REQ'D - REMOVE 1335' SY OF ASPHALT PAVT.

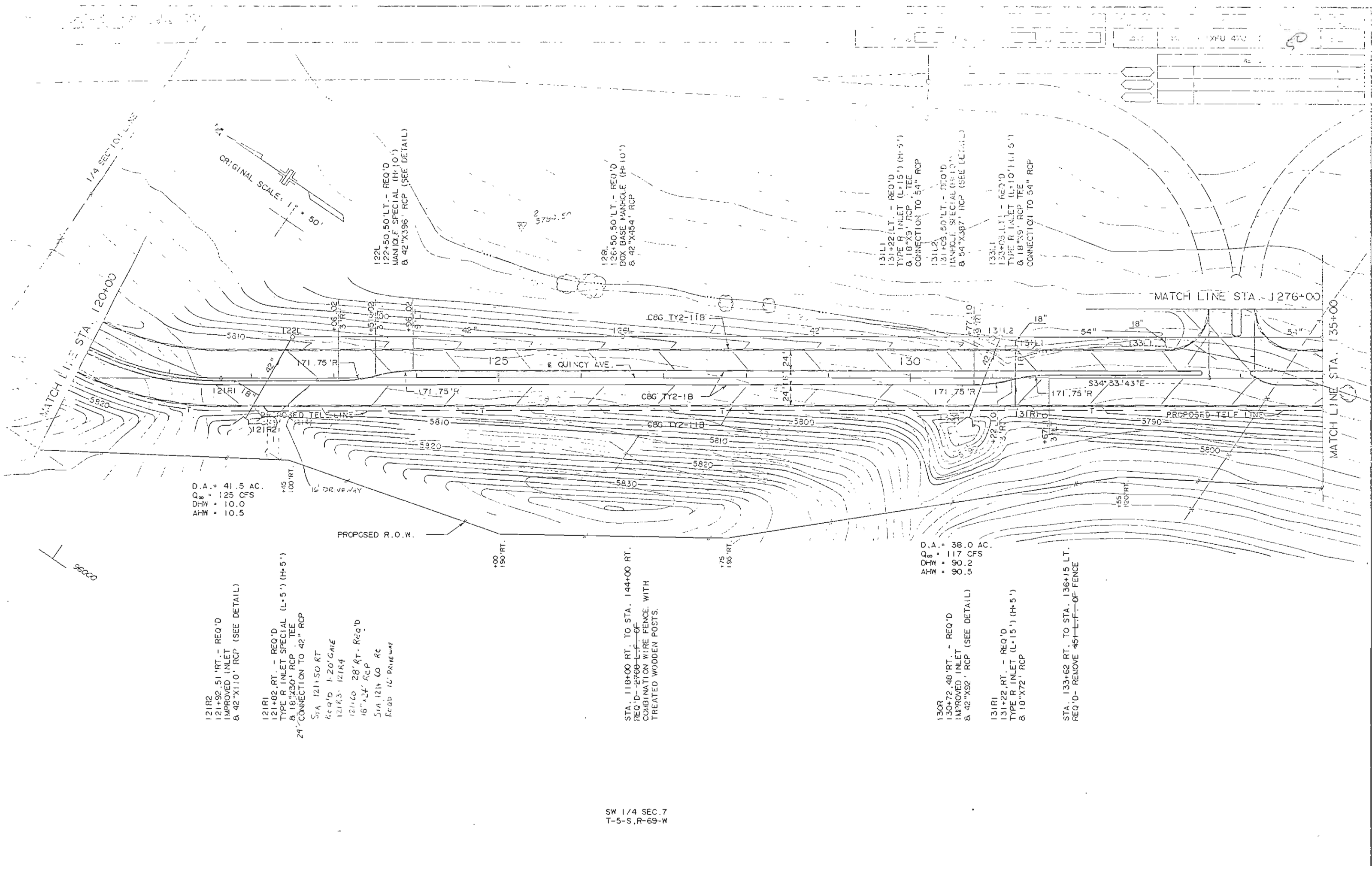
STA. 100+96 LT. TO STA. 105+16 RT.
REQ'D - REMOVE 510' LT. OF FENCE
TIE TO EXIST. FENCE
STA. 104+16 LT. TO STA. 105+32 RT.
REQ'D - REMOVE 216' LT. OF FENCE

105L 105+50, 19' LT. - REQ'D
18" RC END SECTION
& 18" x 30" RCP
105R 105+50, 23' RT. - REQ'D
10" RC END SECTION
& RIPRAP AT OUTLET
4.5' x 6' x 15"
STA 104+25 LT. TO STA 109+05 RT.
REQ'D - 45' LT. OF COMBINATION
WIRE FENCE W/ TREATED WOODEN POSTS
STA 109+05 LT & RT.
REQ'D - REMOVE 255' OF FENCE

108L 108+30, 90' LT. - REQ'D
30" RC END SECTION &
RIPRAP @ OUTLET 5' x 13' 5' x 18"
TIE TO EXISTING FENCE
PROPOSED R.O.W.

DA = 17.9 Ac
7100 ± 31.3 c.f.s.
D.H.W. = 73.30
A.H.W. = 73.75

108R 108+30, 108' RT. - REQ'D
30" RC END SECTION &
209' x 180' RCP
150' RT.
PROPOSED R.O.W. TIE TO EXISTING FENCE



D.A. = 41.5 AC.
Q₁₀₀ = 125 CFS
DHW = 10.0
AHW = 10.5

121R2
121+92.51 RT. - REQ'D
IMPROVED INLET
& 42"X110' RCP (SEE DETAIL)

121R1
121+82 RT. - REQ'D
TYPE R INLET SPECIAL (L=5') (H=5')
& 18"X30' RCP TEE
24' CONNECTION TO 42" RCP

STA 121+50 RT
REQ'D 1-20' GATE
121R3- 121R4
121+60 28' RT- REQ'D
16"X24' RCP
STA 121+60 RT
REQ'D 16' DRIVEWAY

122L
122+50.50 LT. - REQ'D
MANHOLE SPECIAL (H=10')
& 42"X396' RCP (SEE DETAIL)

126L
126+50.50 LT. - REQ'D
BOX BASE MANHOLE (H=10')
& 42"X454' RCP

STA. 118+00 RT. TO STA. 144+00 RT.
REQ'D - 2768 L.F. OF
COMBINATION WIRE FENCE WITH
TREATED WOODEN POSTS.

D.A. = 38.0 AC.
Q₁₀₀ = 117 CFS
DHW = 9.0
AHW = 9.0

130R
130+72.48 RT. - REQ'D
IMPROVED INLET
& 42"X92' RCP (SEE DETAIL)

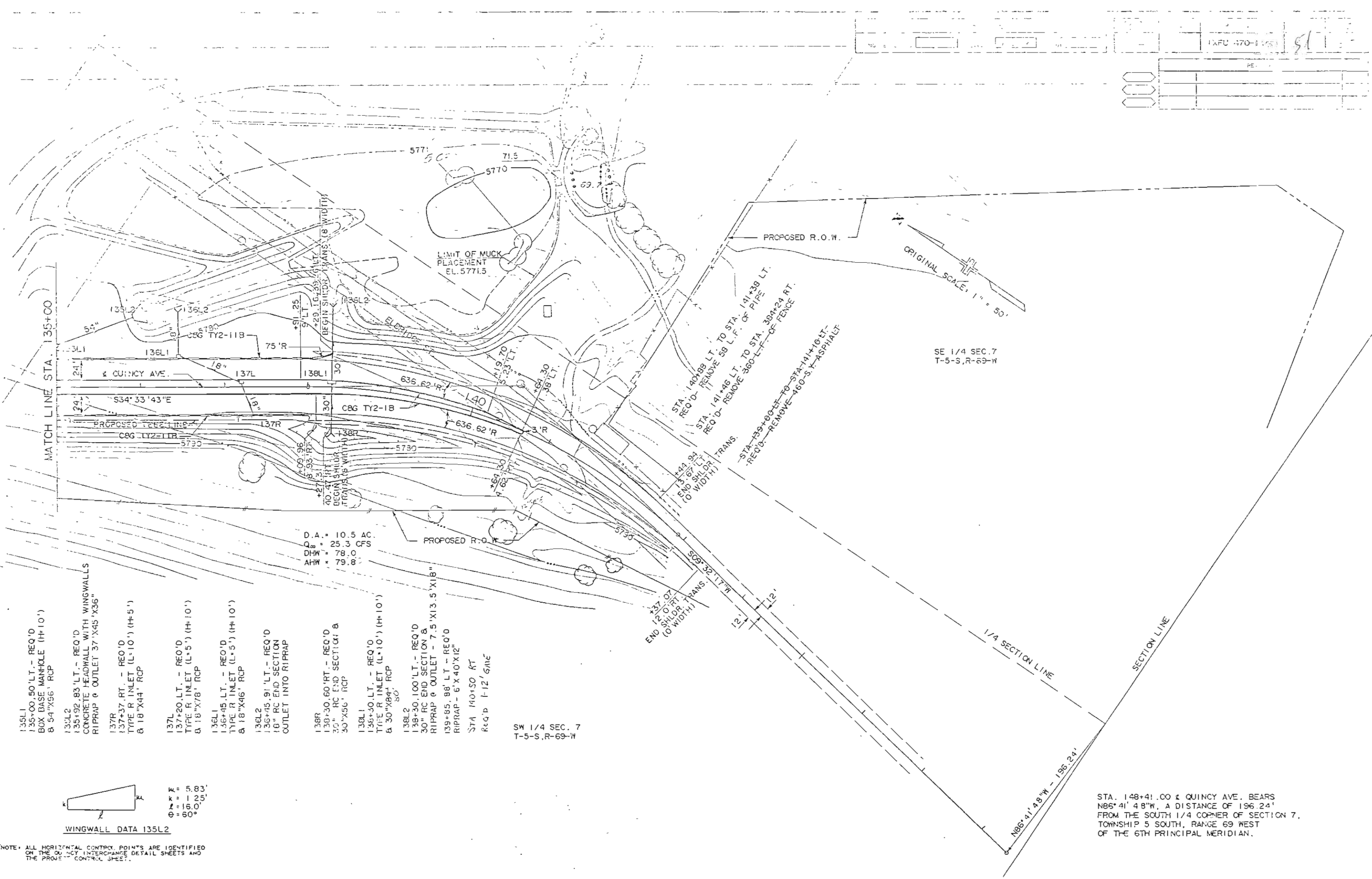
131R1
131+22 RT. - REQ'D
TYPE R INLET (L=15') (H=5')
& 18"X72' RCP

STA. 133+62 RT. TO STA. 136+15 LT.
REQ'D - REMOVE 451 L.F. OF FENCE

131L1
131+22 LT. - REQ'D
TYPE R INLET (L=15') (H=5')
& 18"X9' RCP TEE
CONNECTION TO 54" RCP

131L2
131+03.50 LT. - REQ'D
MANHOLE SPECIAL (H=10')
& 54"X387' RCP (SEE DETAIL)

133L1
133+03 LT. - REQ'D
TYPE R INLET (L=10') (H=5')
& 18"X9' RCP TEE
CONNECTION TO 54" RCP



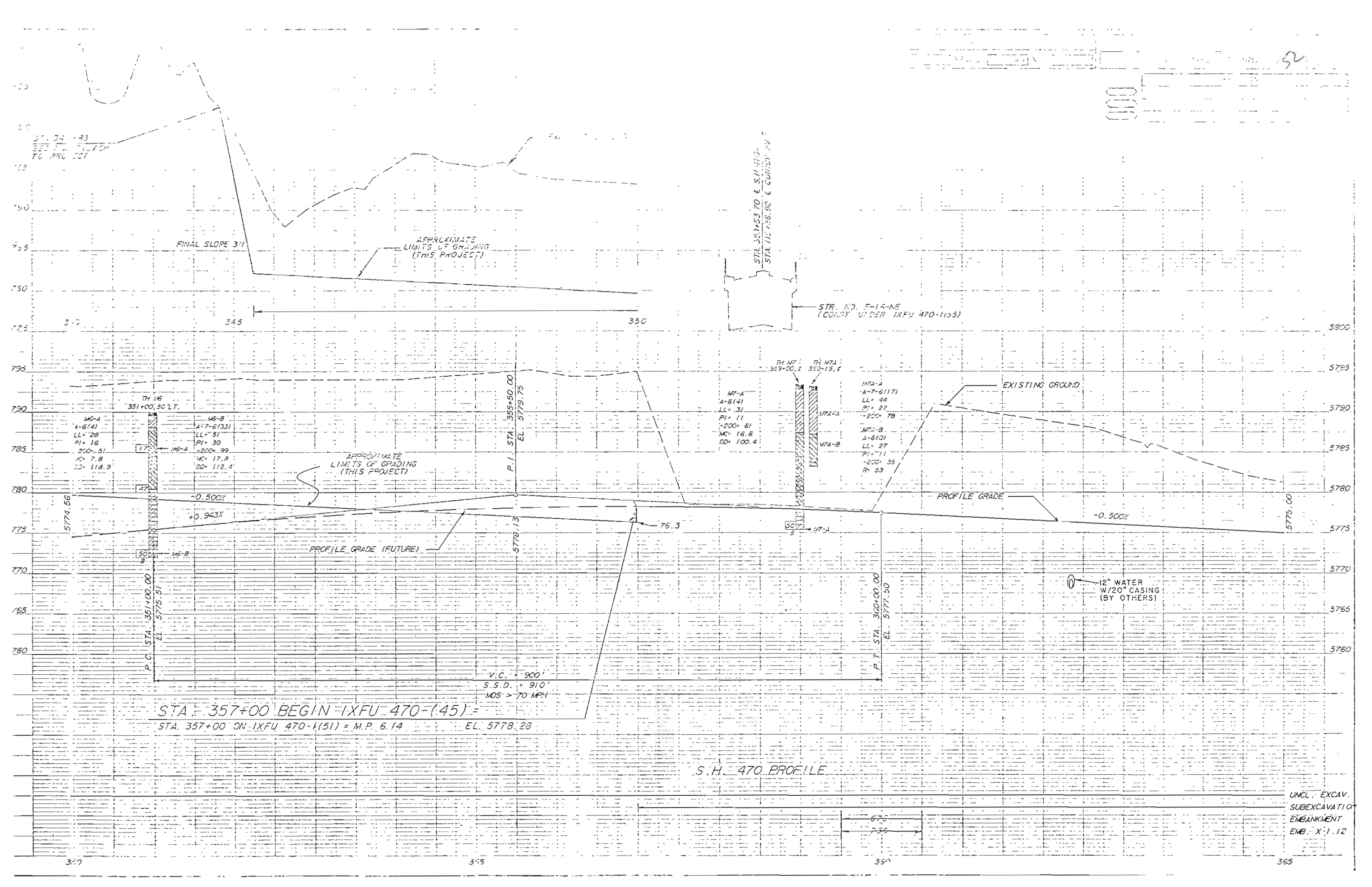
- 135L1 135+00.50' LT. - REQ'D BOX BASE MANHOLE (H=10') & 54"X56" RCP
- 135L2 135+02.83' LT. - REQ'D CONCRETE HEADWALL WITH WINGWALLS RIPRAP & OUTLET 37"X45"X36"
- 137R 137+37' RT. - REQ'D TYPE R INLET (L=10') (H=5') & 18"X44" RCP
- 137L 137+20' LT. - REQ'D TYPE R INLET (L=5') (H=10') & 18"X78" RCP
- 136L1 136+45' LT. - REQ'D TYPE R INLET (L=5') (H=10') & 18"X46" RCP
- 136L2 136+45.91' LT. - REQ'D 16" RC END SECTION OUTLET INTO RIPRAP
- 138R 138+30.60' RT. - REQ'D 30" RC END SECTION & 30"X56" RCP
- 138L1 138+30' LT. - REQ'D TYPE R INLET (L=10') (H=10') & 30"X84" RCP
- 138L2 138+30.100' LT. - REQ'D 30" RC END SECTION & RIPRAP & OUTLET - 7.5'X13.5'X18"
- 139+85.88' LT. - REQ'D RIPRAP - 6'X40'X12"
- STA 140+50 RT REQ'D 1-12' GNE

D.A. = 10.5 AC.
 Q_{80} = 25.3 CFS
 DHW = 78.0
 AHW = 79.8

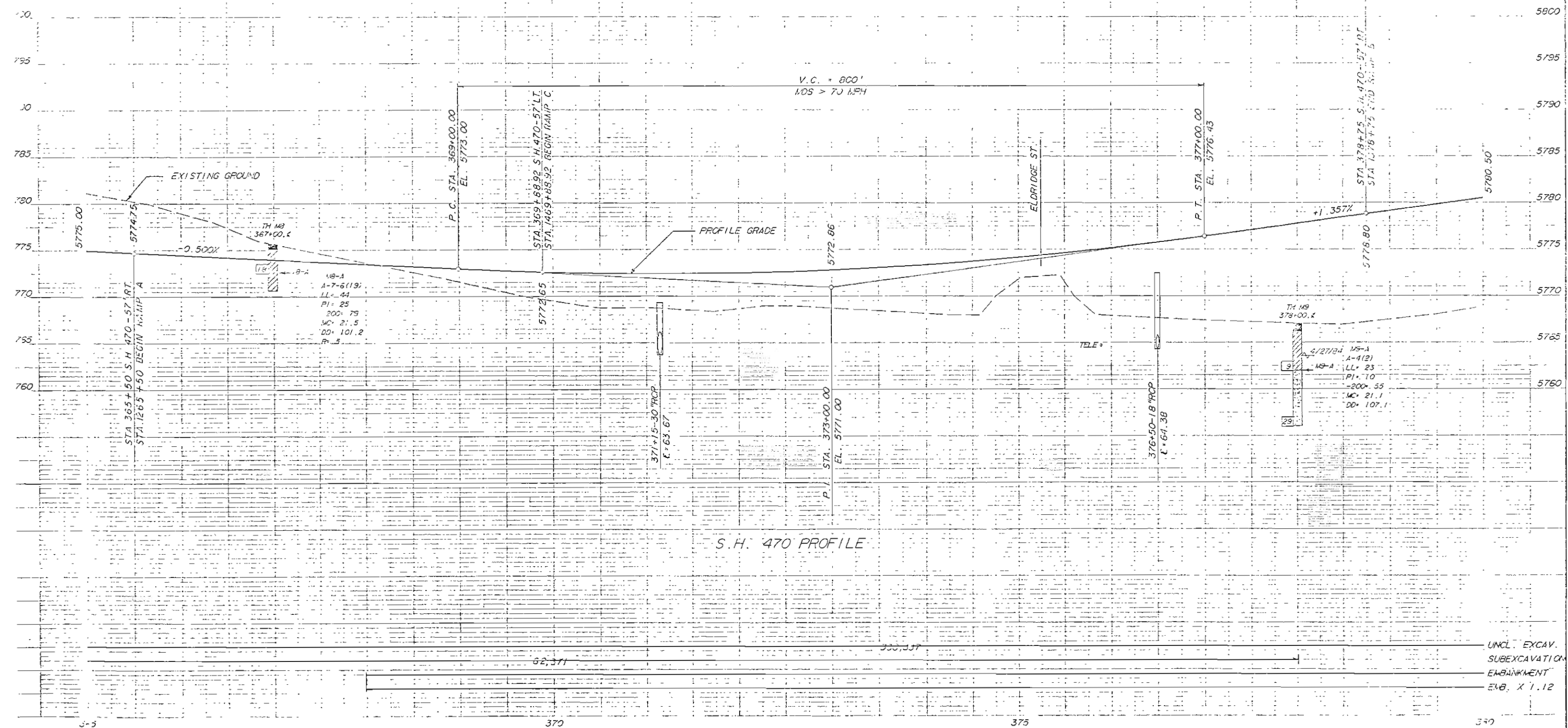
WINGWALL DATA 135L2
 $K = 5.83'$
 $K_2 = 1.25'$
 $L = 16.0'$
 $\theta = 60^\circ$

NOTE: ALL HORIZONTAL CONTROL POINTS ARE IDENTIFIED ON THE QUINCY INTERCHANGE DETAIL SHEETS AND THE PROJECT CONTROL SHEET.

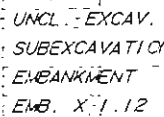
STA. 148+41.00 & QUINCY AVE. BEARS N86°41'48"W, A DISTANCE OF 196.24' FROM THE SOUTH 1/4 CORNER OF SECTION 7, TOWNSHIP 5 SOUTH, RANGE 69 WEST OF THE 6TH PRINCIPAL MERIDIAN.

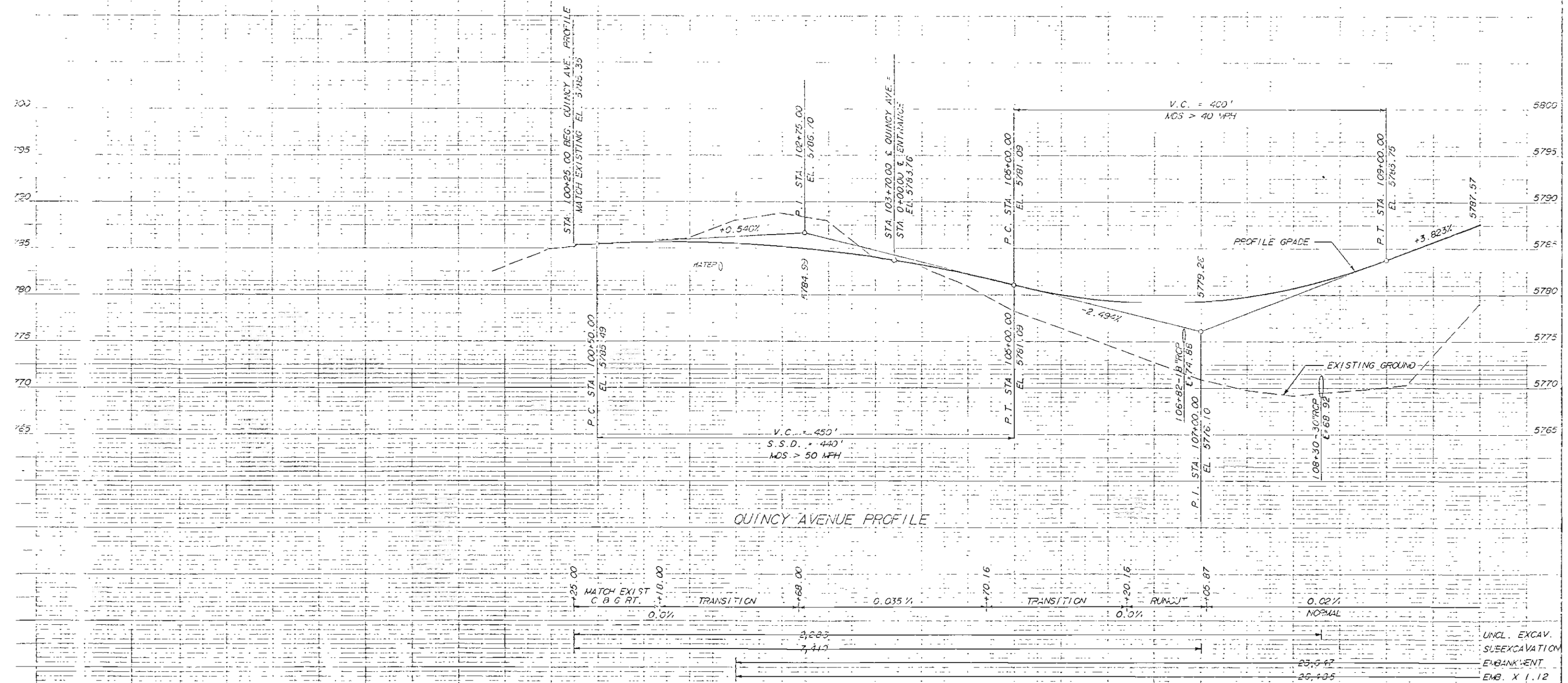


53

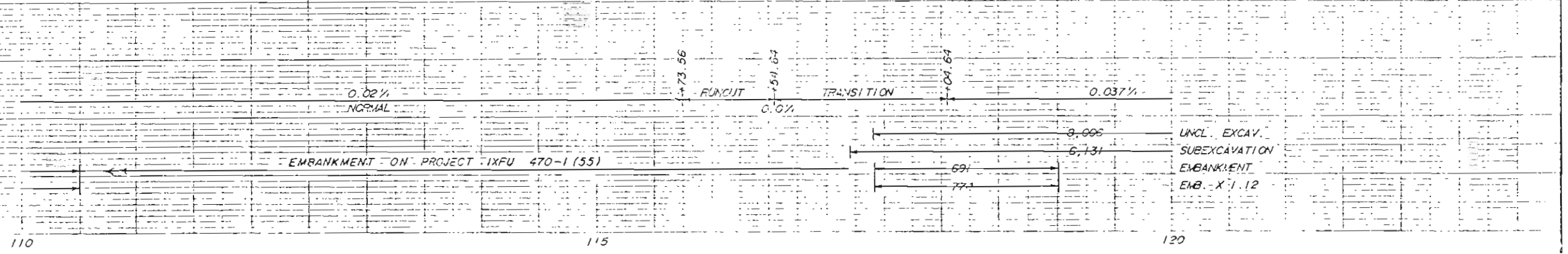
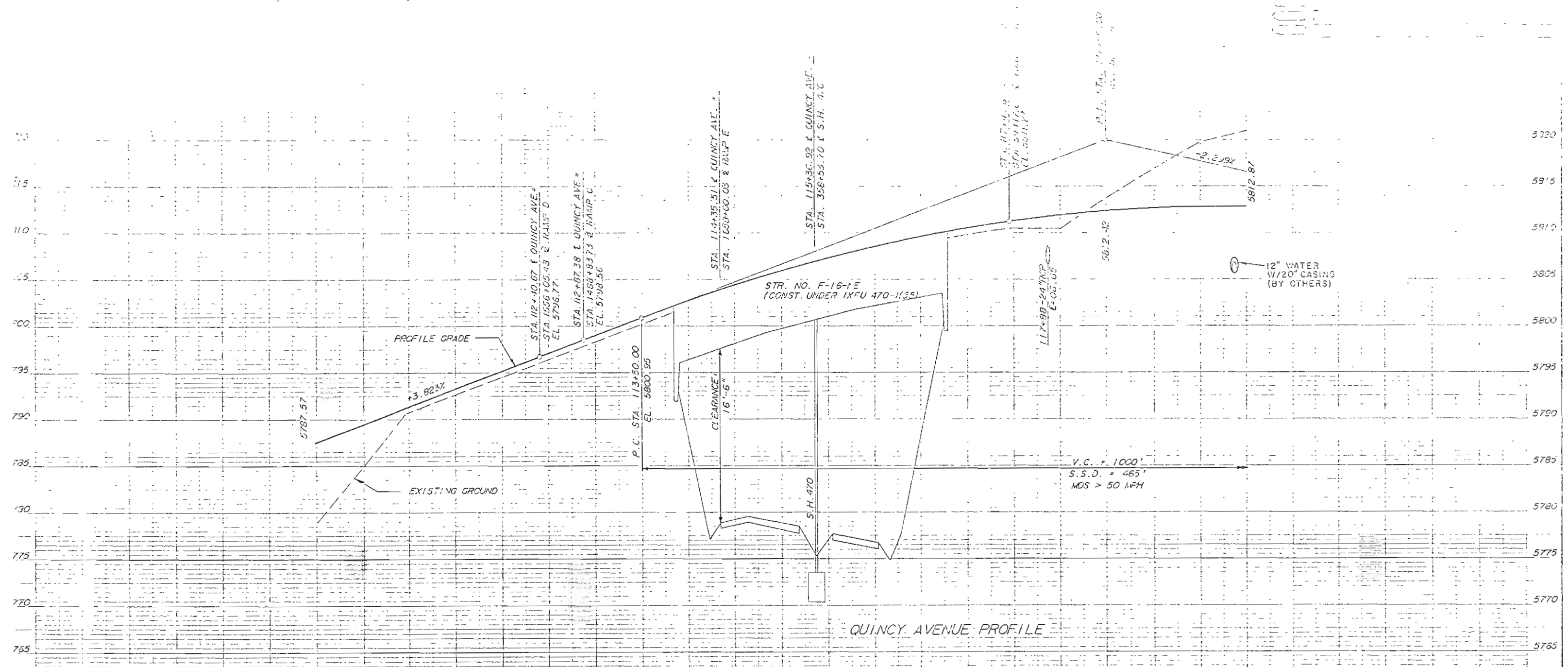


EL. 5795 72,





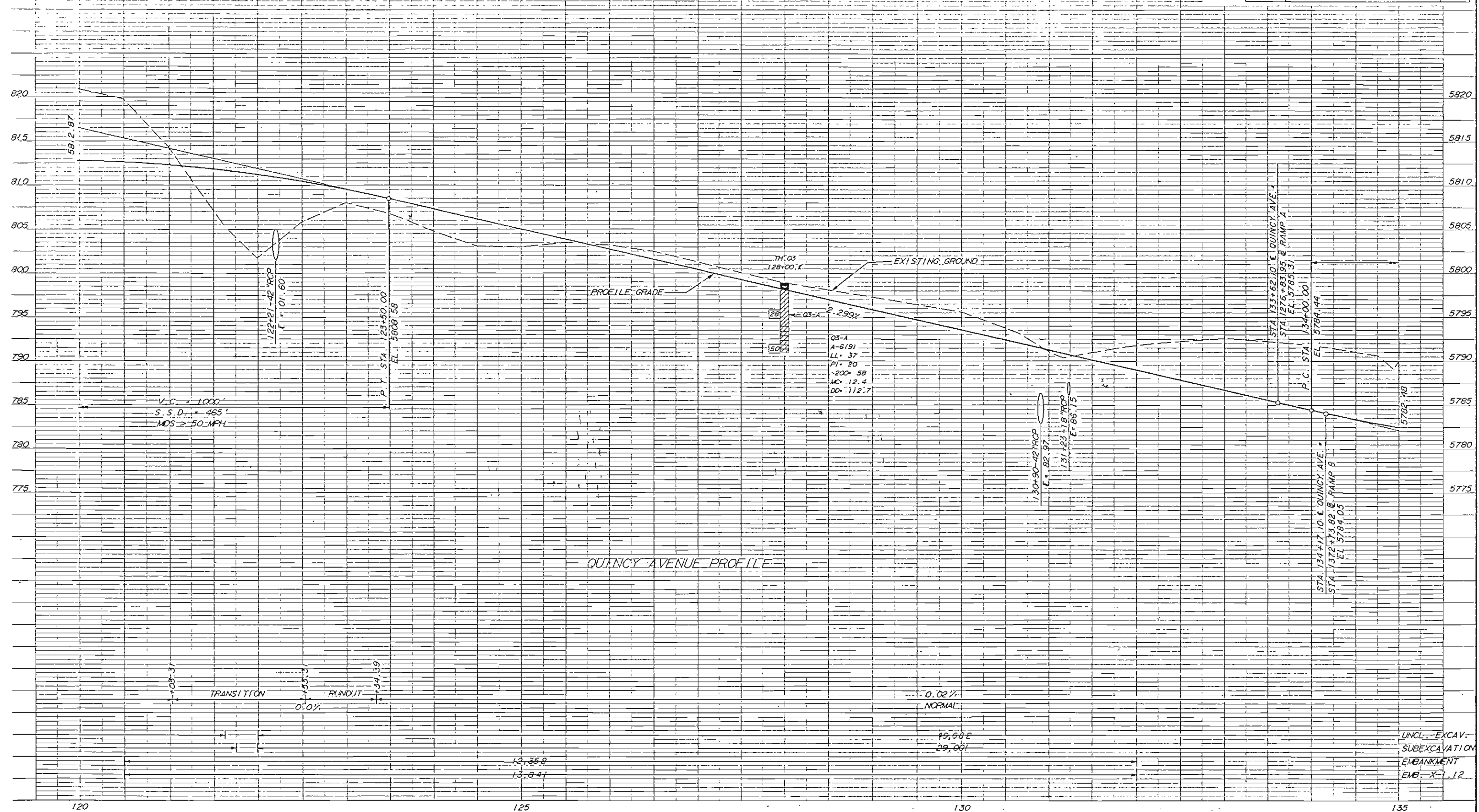
54



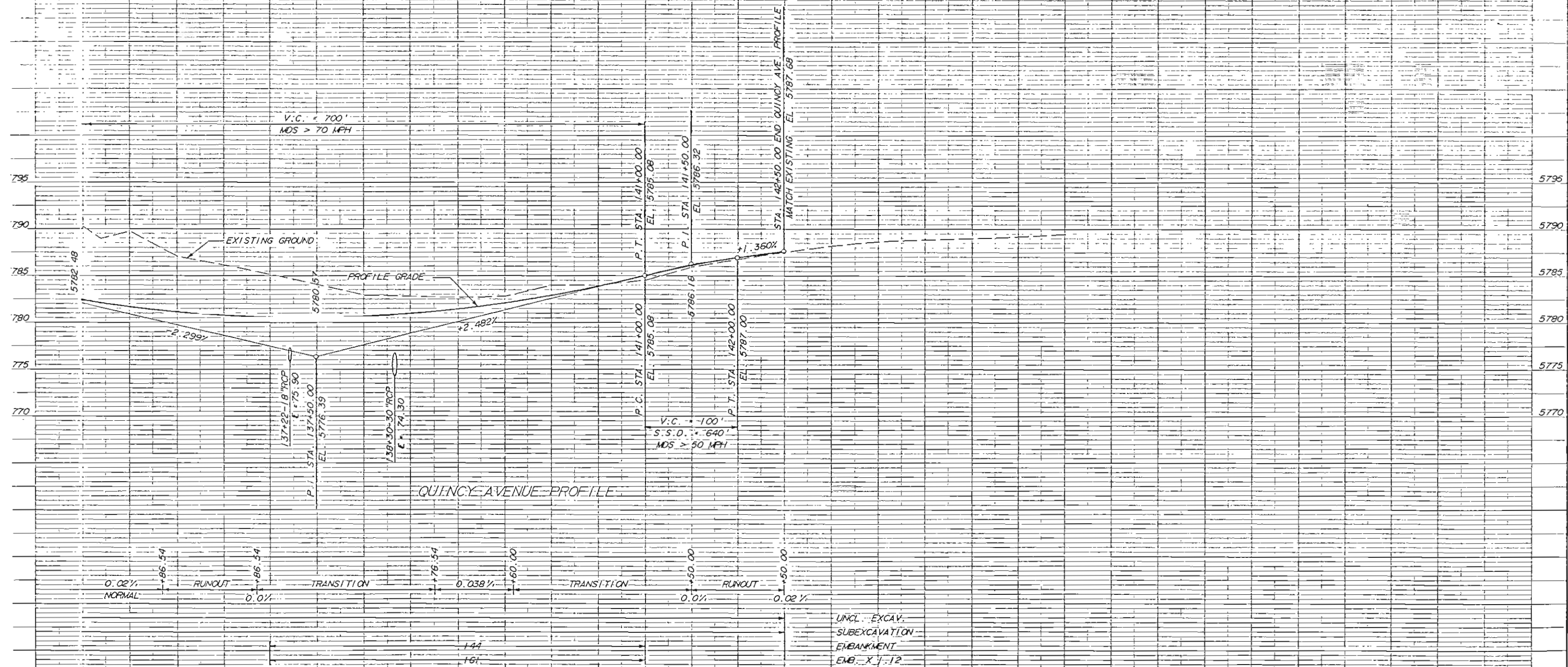
AS CONSTRUCTED		
NO REVISIONS	REVISED 7-7-99	VOID

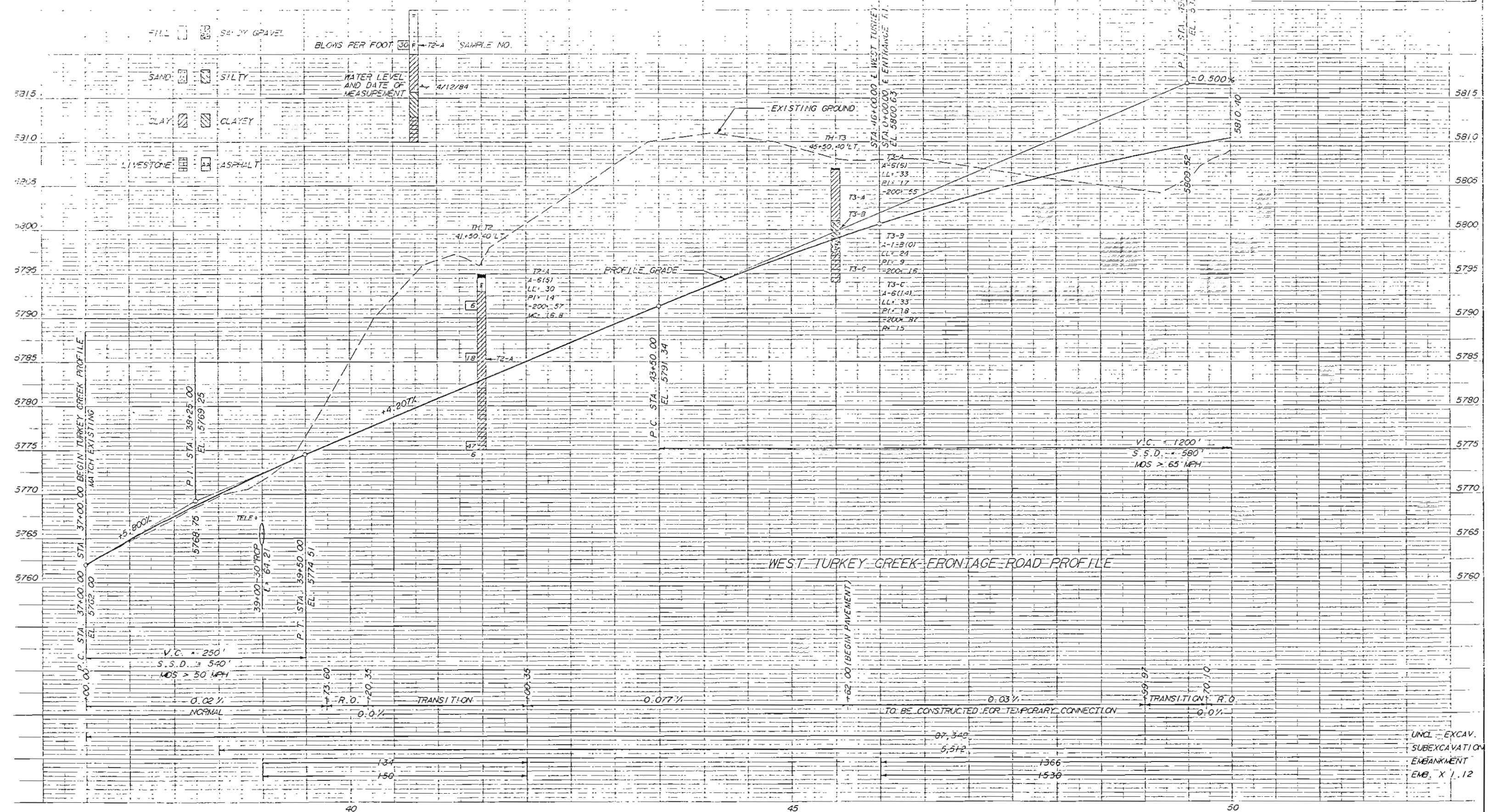
FEDERAL ROAD DISTRICT NO.	DIVISION	PROJECT NO.	SHEET NO.	TOTAL SHEETS
VII	COLORADO	1XFU 470-1 (45)	57	85

REVISIONS	

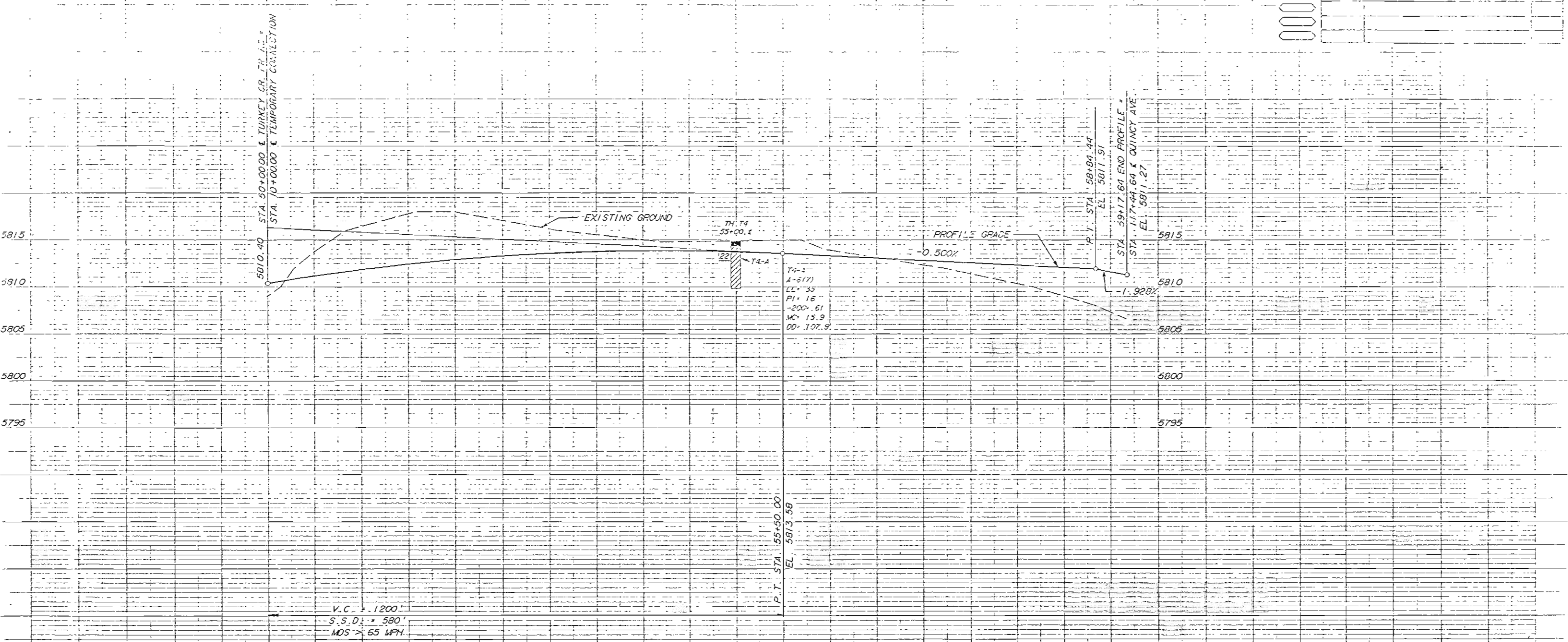


AS CONSTRUCTED		DESIGN NO. 4243	DIST. 111	SHEET NO.	53	OF 53
NO. REVISIONS	REVISED 7/13/89	VOID	PROJECT NO. 1XFU 470-1 (45)			
REVISIONS						

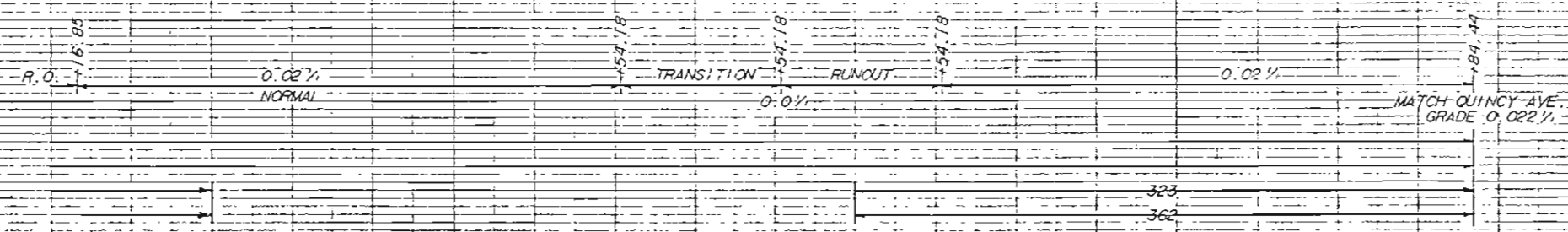




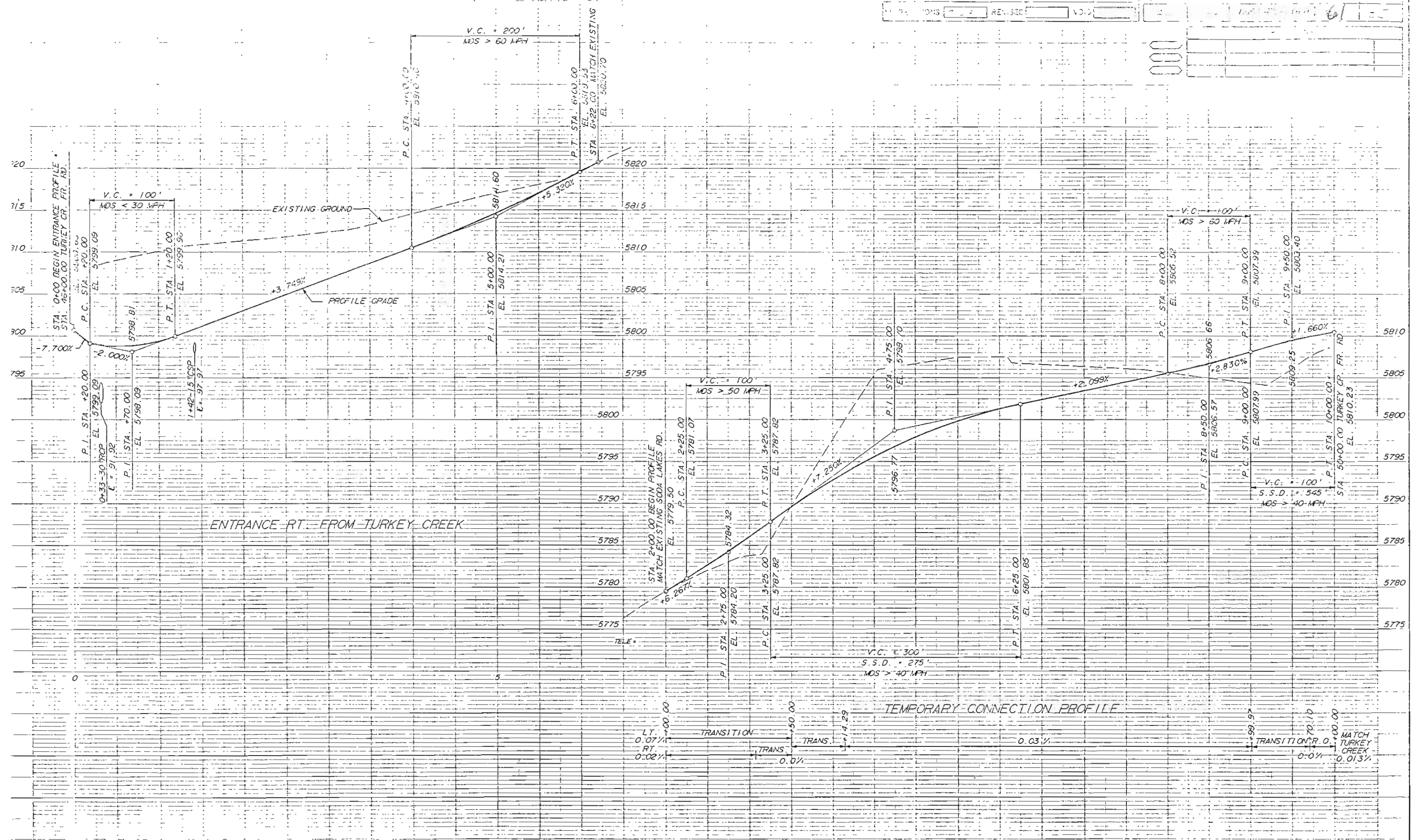
AS CONSTRUCTED		DATE		SHEET	
NO. OF STAKES	PROPOSED	7-17-27	WFO	14-0 470-1 (1-1)	60

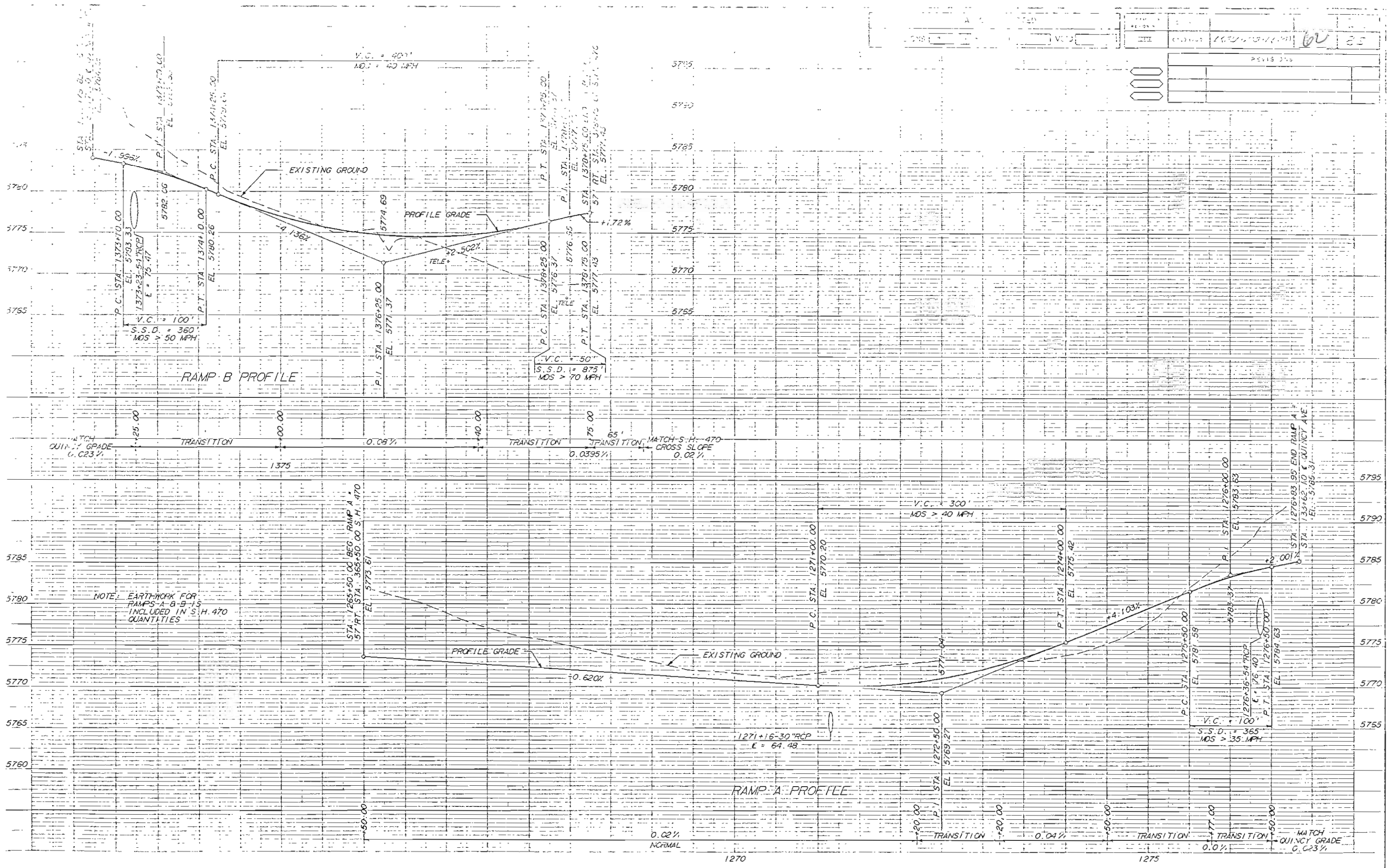


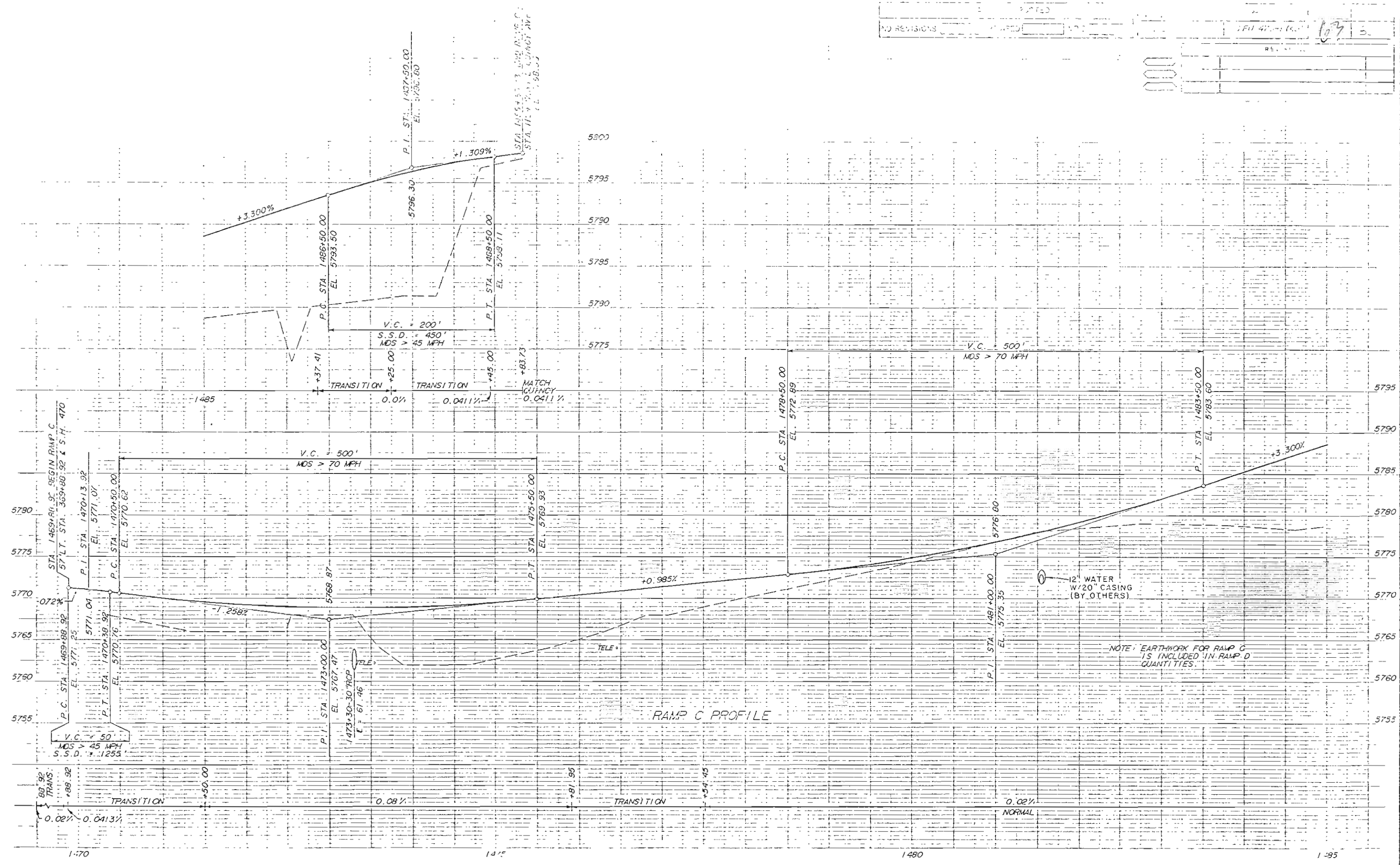
WEST TURKEY CREEK FRONTAGE ROAD PROFILE

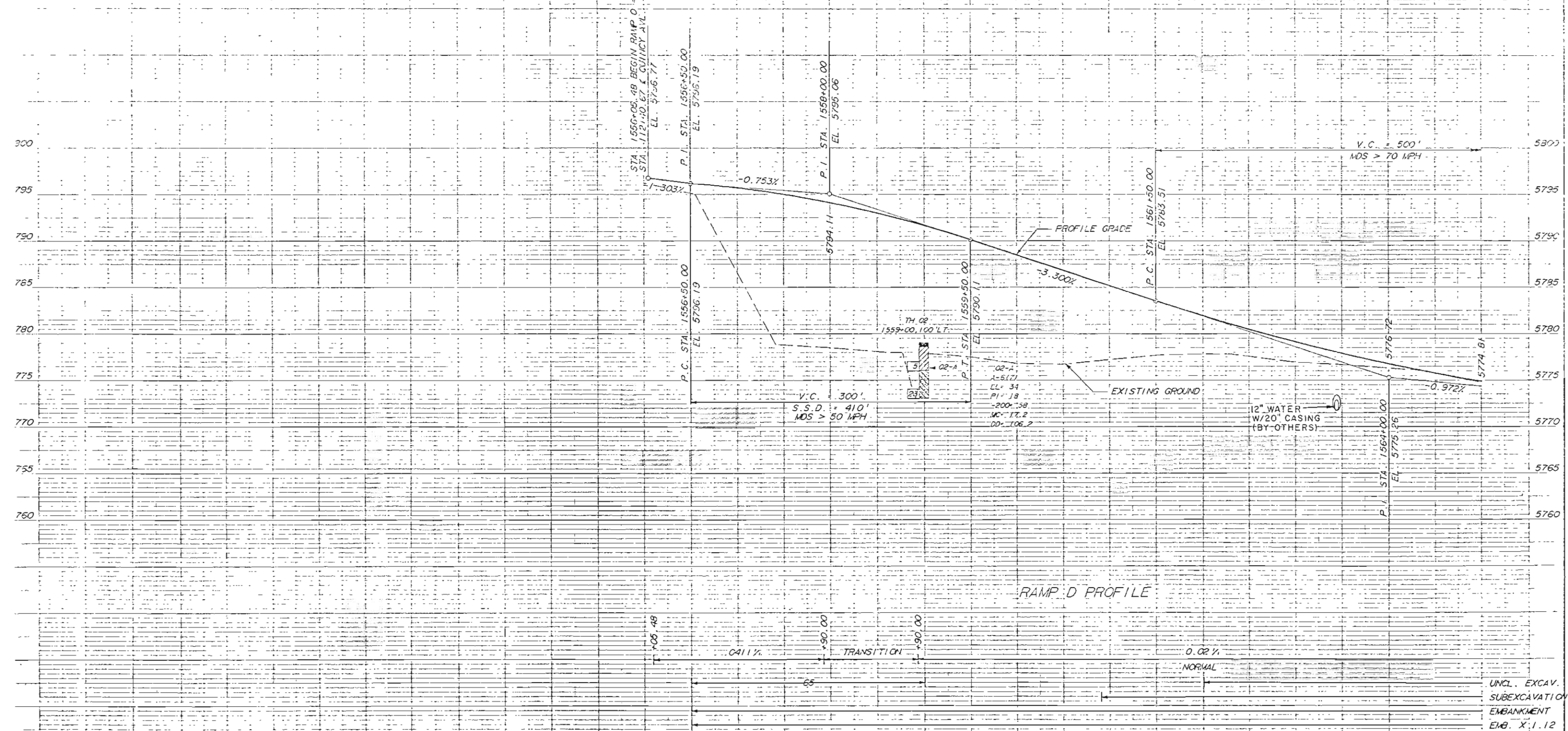


UNCL. EXCAV.
SUBEXCAVATION
EMBANKMENT
EMB. X 1.12









TABULATION OF SIGNING QUANTITIES

ITEM NO.	ITEM	UNIT	PROJECT TOTALS
202	REM. GROUND SIGN	EACH	2
614	SIGN PANEL (CL.I)	SO. FT.	137
614	SIGN PANEL (CL.II)	SO. FT.	27
614	TIMBER SIGN POST (4x4)	LIN. FT.	241
614	TIMBER SIGN POST (6x6)	LIN. FT.	73
614	STEEL SIGN POST (U-2)	LIN. FT.	9
614	BARRICADE (3F-B)	EACH	1
614	BARRICADE (3M-D)	EACH	2
614	BARRICADE (3M-C) (TEMP)	EACH	3
614	CONST. TRAF. SIGN (B)	EACH	28
614	VERTICAL PANEL	EACH	50
614	VERTICAL PANEL (LIGHT) (F)	EACH	10
614	TRAFFIC CONE	EACH	100
627	PAINT 11KG PAINT	GAL	93

SCHEDULE OF CONSTRUCTION TRAFFIC SIGNS

[illegible]

ALL SPECIAL REQUIREMENTS FOR CONSTRUCTION TRAFFIC CONTROL DEVICE WILL NOT BE PAID FOR SEPARATELY, BUT SHALL BE INCLUDED IN THE ITEM.

- (1) NOTE: ALL CONSTRUCTION WARNING SIGNS PROVIDED ON THIS PROJECT SHALL BE PROVIDED WITH HIGH BRIGHTNESS ENCAPSULATED TYPE REFLECTIVE SHEETING. SEE SECTION 713.10 OF THE STANDARD SPECIFICATIONS.
- (2) ALL W20-5 ADVANCE WARNING SIGNS SHALL BE PROVIDED WITH EXCHANGEABLE REFLECTIVE PLAQUES READING "RIGHT", "LEFT", and "CENTER" AT NO ADDITIONAL COST.
- (3) SIGN MUST BE PERMANENTLY MOUNTED UNLESS OTHERWISE APPROVED BY THE ENGINEER. (SEE STANDARD 5-C14-1)
- (4) FLASHING WARNING LIGHT ARE REQUIRED ON THREE SIGNS.

TABULATION OF SIGNS

AS CONSTRUCTED			FED. ROAD REGION	DIVISION	PROJ. NO.	SHEET NO.	TOTAL SHEETS
NO. REVISIONS	REVISED	VOID	VIII	COLO.	IXFU 470-1(45)	71	85

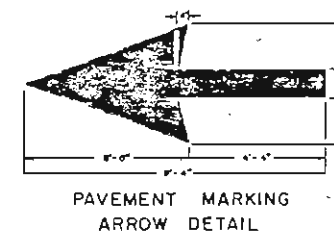
SIGN NO.	SIGN CODE	STATION	SIGN PANEL SIZE	BACK - GROUND COLOR	REMOVE GROUND SIGN (EACH)	RESET GROUND SIGN (EACH)	NO. OF POSTS	LENGTH OF POST	POST TYPE (LIN. FT.)												U-2	CONC. FOOTING TYPE (EACH)								SIGN PANEL (SQ. FT.)		
									4 x 4 TIMBER	6 x 6 TIMBER	W6X12 BEAM	W6X15 BEAM	W8X18 BEAM	W8X21 BEAM	W10X22 BEAM	W10X26 BEAM	W12X35 BEAM	W12X40 BEAM	1	2		3	4	5	6	7	8	CLASS I	CLASS II	CLASS III		
1A	211A2-1	5+00 W.T.C. RD.	21"x15"	WHITE			1	13'-0"	13.0																			2.19				
1B	30M1-4a(285)		30"x24"	WHITE																								5.00				
2	24R2-1(45)	57+00 W.T.C. RD.	24"x30"	WHITE			1	14'-6"	14.5																			5.00				
3	24R4-7	112+10	24"x30"	WHITE			1	12'-6"	12.5																			5.00				
4	24R4-7	113+00	24"x30"	WHITE			1	12'-6"	12.5																			5.00				
5	48R11-2	112+70	48"x30"	WHITE			MOUNT ON BARRICADE (TYPE 3M-D)																				10.00					
6		3+00 W.T.C. RD.			1																											
7		5+30 W.T.C. RD.			1																											
8	36W3-1a	53+70 W.T.C. RD.	36"DIAMOND	YELLOW			1	17'-6"	17.0			DELETED																	9.00			
9	30R1-1	58+70 W.T.C. RD.	30"OCTAGON	RED ▲			1	12'-0"	12.0																			6.25				
10	24R4-7	117+10	24"x30"	WHITE			1	12'-6"	12.5																			5.00				
11	24R4-7	117+80	24"x30"	WHITE			1	12'-6"	12.5																			5.00				
12	24R4-7	107+50	24"x30"	WHITE			1	12'-6"	12.5																			5.00				
13	30R1-1	104+00	30"OCTAGON	RED ▲			1	12'-0"	12.0																			6.25				
14	24R2-1(30)	102+00	24"x30"	WHITE			1	12'-6"	12.5																			5.00				
15	30R1-1	101+00	30"OCTAGON	RED ▲			1	12'-0"	12.0																			6.25				
16	30R1-1	97+80	30"OCTAGON	RED ▲			1	12'-0"	12.0																			6.25				
17	18R1-1	0+30 BIKE PATH	18"OCTAGON	RED ▲			1	9'-0"	9.0											9.0								2.25				
18	30R1-1	ELDRIDGE RD.	30"OCTAGON	RED ▲			1	14'-0"	14.0																			6.25				
19A	24D11-1		24"x18"	GREEN																								3.00				
19B	12M7-1	100+80	12"x9"	GREEN			1	14'-6"	14.5																			0.75				
19C	24D11-1		24"x18"	GREEN																								3.00				
19D	12M7-1		12"x9"	GREEN																								0.75				
20	24R5-3	0+30 BIKE PATH	24"x24"	WHITE			1	10'-0"	10.0																			4.00				
21	DELETED																															
22	DELETED																															
23	48R11-2	134+00	48"x30	WHITE			MOUNT ON BARRICADE (TYPE 3M-D)																				10.00					
24	24R4-7	140+30	24"x30"	WHITE			1	12'-6"	12.5																			5.00				
25	24R2-1(30)	143+00	24"x30"	WHITE			1	14'-6"	14.5																			5.00				
26	24R4-7	133+50	24"x30"	WHITE			1	12'-6"	12.5																			5.00				
27	24R4-7	134+20	24"x30"	WHITE			1	12'-6"	12.5																			5.00				
28	36W4-2(R)	135+50	36"DIAMOND	YELLOW			1	15'-0"	15.0																			9.00				
29	36W4-2(R)	136+00	36"DIAMOND	YELLOW			1	15'-0"	15.0																			9.00				
30	36W1-6	ELDRIDGE ST.	36"x18"	YELLOW			1	13'-0"	13.0																			4.50				
31	36W1-6	ELDRIDGE ST.	36"x18"	YELLOW			1	13'-0"	13.0																			4.50				
32		EXISTING QUINCY					BARRICADE (3F-B)																									
33	W1-9	104+00	18"x24"	YELLOW			1	12'-3"	12.7																			3.00				
34	W1-9	104+00	18"x24"	YELLOW			1	13'-3"	13.0																			3.00				
35	W1-8	104+00	18"x24"	YELLOW			1	13'-0"	13.0																			3.00				
36		124+25	*				1	16'-7"																				25.57				
37	W2-2	122+75	24"x36"	YELLOW			1	16'-6"	16.5																			9.00				
38	R1-2	120+00	36"DIAMOND	WHITE			1	16'-0"	16.0																			3.00				
39	W1-6	117+00	24"x48"	YELLOW			1	13'-0"	13.0																			7.50				
40	R2-5	117+00	24"x36"	WHITE																								7.50				
41	R2-5	117+00	24"x36"	WHITE																								7.50				
42	W2-3	54+00	24"x36"	YELLOW			1	16'-0"	16.0																			9.00				
PROJECT TOTALS					2				241.0	15.0										9.0								136.19	27.92			
43	W2-3	111+00	48"x48"	YELLOW			1	16'-5"	16.4																			16.00				
44		116+50	*				1	16'-3"	16.2																			25.57				
45	R11-2	115+00	48"x36"	WHITE			BARRICADE (3F-B)																				10.00					
46	W2-4	101+00	48"x48"	YELLOW			1	16'-0"	16.0																			16.00				

NOTES:
PROJECT TOTALS 2
1. POST LENGTHS ARE APPROXIMATE ONLY. EXACT LENGTHS TO BE DETERMINED BY THE ENGINEER.
▲ 2. REFLECTIVE SHEETING SHALL BE HIGH BRIGHTNESS ENCAPSULATED TYPE. SEE SECTION 713 OF THE STANDARD SPECIFICATIONS.

294 181 0.0 155 146

TO SIGNED AREA	24x12	2.00
TO SIGNED AREA	24x15	2.19
TO SIGNED AREA	24x18	2.00
TO SIGNED AREA	24x24	4.00
TO SIGNED AREA	24x36	2.19
TO SIGNED AREA	24x48	2.00
TO SIGNED AREA	24x72	4.00
TO SIGNED AREA	24x96	2.19
TO SIGNED AREA	24x120	2.00
TO SIGNED AREA	24x144	2.19
TO SIGNED AREA	24x168	2.00
TO SIGNED AREA	24x192	2.19
TO SIGNED AREA	24x216	2.00
TO SIGNED AREA	24x240	2.19
TO SIGNED AREA	24x264	2.00
TO SIGNED AREA	24x288	2.19
TO SIGNED AREA	24x312	2.00
TO SIGNED AREA	24x336	2.19
TO SIGNED AREA	24x360	2.00
TO SIGNED AREA	24x384	2.19
TO SIGNED AREA	24x408	2.00
TO SIGNED AREA	24x432	2.19
TO SIGNED AREA	24x456	2.00
TO SIGNED AREA	24x480	2.19
TO SIGNED AREA	24x504	2.00
TO SIGNED AREA	24x528	2.19
TO SIGNED AREA	24x552	2.00
TO SIGNED AREA	24x576	2.19
TO SIGNED AREA	24x600	2.00
TO SIGNED AREA	24x624	2.19
TO SIGNED AREA	24x648	2.00
TO SIGNED AREA	24x672	2.19
TO SIGNED AREA	24x696	2.00
TO SIGNED AREA	24x720	2.19
TO SIGNED AREA	24x744	2.00
TO SIGNED AREA	24x768	2.19
TO SIGNED AREA	24x792	2.00
TO SIGNED AREA	24x816	2.19
TO SIGNED AREA	24x840	2.00
TO SIGNED AREA	24x864	2.19
TO SIGNED AREA	24x888	2.00
TO SIGNED AREA	24x912	2.19
TO SIGNED AREA	24x936	2.00
TO SIGNED AREA	24x960	2.19
TO SIGNED AREA	24x984	2.00
TO SIGNED AREA	24x1008	2.19
TO SIGNED AREA	24x1032	2.00
TO SIGNED AREA	24x1056	2.19
TO SIGNED AREA	24x1080	2.00
TO SIGNED AREA	24x1104	2.19
TO SIGNED AREA	24x1128	2.00
TO SIGNED AREA	24x1152	2.19
TO SIGNED AREA	24x1176	2.00
TO SIGNED AREA	24x1200	2.19
TO SIGNED AREA	24x1224	2.00
TO SIGNED AREA	24x1248	2.19
TO SIGNED AREA	24x1272	2.00
TO SIGNED AREA	24x1296	2.19
TO SIGNED AREA	24x1320	2.00
TO SIGNED AREA	24x1344	2.19
TO SIGNED AREA	24x1368	2.00
TO SIGNED AREA	24x1392	2.19
TO SIGNED AREA	24x1416	2.00
TO SIGNED AREA	24x1440	2.19
TO SIGNED AREA	24x1464	2.00
TO SIGNED AREA	24x1488	2.19
TO SIGNED AREA	24x1512	2.00
TO SIGNED AREA	24x1536	2.19
TO SIGNED AREA	24x1560	2.00
TO SIGNED AREA	24x1584	2.19
TO SIGNED AREA	24x1608	2.00
TO SIGNED AREA	24x1632	2.19
TO SIGNED AREA	24x1656	2.00
TO SIGNED AREA	24x1680	2.19
TO SIGNED AREA	24x1704	2.00
TO SIGNED AREA	24x1728	2.19
TO SIGNED AREA	24x1752	2.00
TO SIGNED AREA	24x1776	2.19
TO SIGNED AREA	24x1800	2.00
TO SIGNED AREA	24x1824	2.19
TO SIGNED AREA	24x1848	2.00
TO SIGNED AREA	24x1872	2.19
TO SIGNED AREA	24x1896	2.00
TO SIGNED AREA	24x1920	2.19
TO SIGNED AREA	24x1944	2.00

AS CONSTRUCTED		FEDERAL ROAD REGION NO	DIVISION	PROJ. NO	SHEET NO	TOTAL SHEETS
NOREVISIONS	REVISED 7-15-81	VIII	COLORADO	IXFU 470-1(45)	72.	85

[illegible]

NOTES:
FOR DETAILS OF PAVEMENT MARKING
LINES AND LINE PLACEMENT, SEE
STANDARD S-627-1.

- ▲ ▪ THERMOPLASTIC PAVEMENT MARKING
- ▪ PLASTIC PAVEMENT MARKING (60 MILS)
- ▪ PLASTIC PAVEMENT MARKING (90 MILS)

SUMMARY OF PAVEMENT MARKING QUANTITIES				
COLOR	AS PAINT (GAL)	THERMOPLASTIC (SQ FT)	PLASTIC PMVT MKG (SQ MILS)(SQ YD)	PLASTIC PMVT MKG (SQ MILS)(SQ YD)
YELLOW	47			
WHITE	42.46			
TOTAL	90.46			

AS CONSTRUCTED		FED ROAD SECTION	DIVISION	PROJECT NO.	SHEET NO.	SHEET TOTALS
NO. REVISIONS	REVISED 7-15-29	NO. 0	VIII	COLOR.	IXFU 470-1(45)	73 85



1. FEB. 1984

QUINCY AVE. INTERCHANGE

AS CONSTRUCTED

NO REVISIONS ☐ REVISED ☒ VOID ☐

FED. ROAD REGION	DIVISION	PROJECT NO.	SHEET NO.	SHEET TOTAL
VIII	COLC.	IXFU 470-1(45)	75	85

