

STATE OF TENNESSEE
DEPARTMENT OF HIGHWAYS

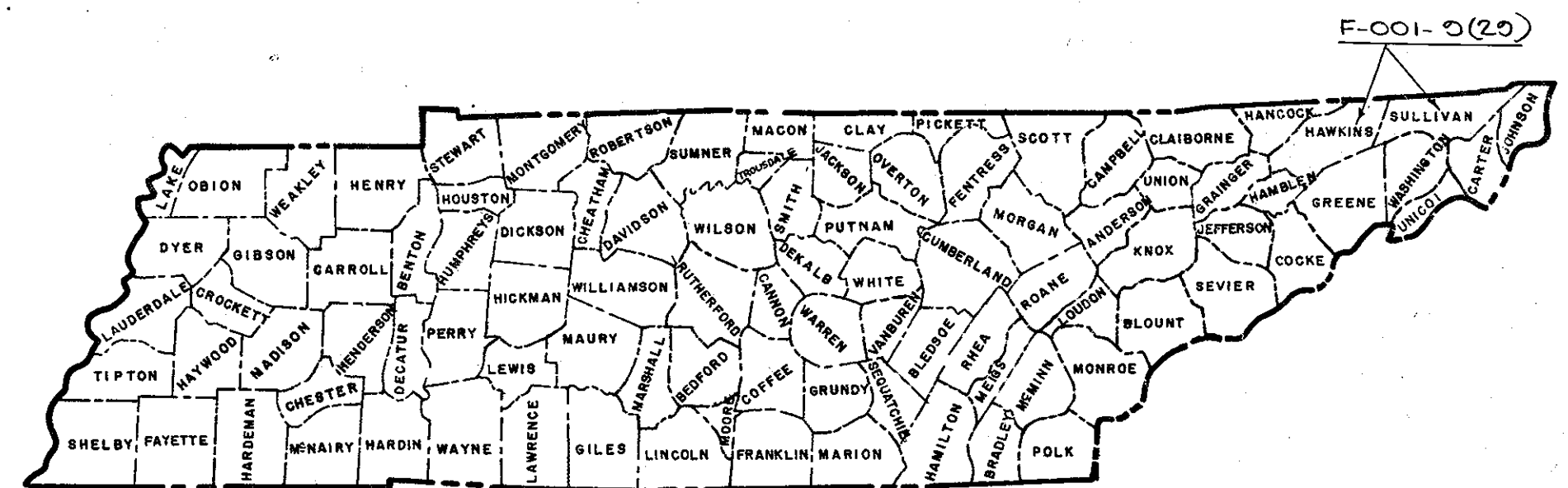
PLAN AND PROFILE OF PROPOSED
STATE HIGHWAY

FEDERAL AID PROJECT NO.
F-001-9(29)

HAWKINS - SULLIVAN COUNTIES

BRIDGE ACROSS N. FORK OF HOLSTON RIVER AND
UNDERPASS @ CLINCHFIELD R.R. WEST OF
KINGSFORD.

STATE HIGHWAY NO. 1 F.A.H.S. NO. 1
SCALES { PLAN, 1 IN.=100 FT.
PROFILE, HOR. 1 IN.=100 FT., VERT. 1 IN.=10 FT.



LM 41.30
BEG. OF PROJECT
F-001-9(29)
STA. 36+50

END OF PROJECT
F-001-9(29)
STA. 60+45.4

NO EQUATIONS
NO EXCLUSIONS

SHEET NO. 25 VOID

* SHEET NOS. 3&4 FILED IN S-70 UNDER F-001-9(15)

THIS PROJECT TO BE CONSTRUCTED UNDER THE STANDARD SPECIFICATIONS
OF THE TENNESSEE DEPARTMENT OF HIGHWAYS AND ~~TRAFFIC DESIGN DATA~~, DATED
JULY 1, 1951, AND ADDITIONAL SPECIFICATIONS AND SPECIAL PROVISIONS
CONTAINED IN THE PLANS AND IN THE PROPOSAL CONTRACT

THE CONTRACTOR WILL BE REQUIRED TO MAINTAIN TRAFFIC
ON ALL PUBLIC CROSS ROADS DURING CONSTRUCTION
OF THIS PROJECT.

TRAFFIC DESIGN DATA

1960 ADT = 3838
1980 ADT = 6292
DHV = 630
D = 60 %
T = 13 %
V = 60 M.P.H.

CONVENTIONAL SIGNS

COUNTY LINE
CITY VILLAGE OR BOROUGH
CULVERTS
POWER POLE
TELEPHONE OR TELEGRAPH POLE
FENCE LINE
GUARD RAIL
UNFENCED PROPERTY
RIGHT OF WAY LINE
TRAVELED WAY
RAILROAD
RETAINING WALL
BASE OR SURVEY LINE
DROP INLET
BRIDGE OVER 20 FT. SPAN

LENGTHS (MILES)			
	HAWKINS CO.	SULLIVAN CO.	TOTALS
ROADWAY LENGTH	0.021	0.320	0.341
BRIDGE LENGTH	0.056	0.056	0.112
PROJECT LENGTH	0.077	0.376	0.453

LAYOUT APPROX. SCALE
1-IN. = 2000 FT.

APPROVED

P. B. Patton
ENGINEER OF SURVEYS AND DESIGN

DATE

APPROVED

Ed. J. Long
STATE HIGHWAY ENGINEER

DATE

APPROVED

D. W. Moulton
COMMISSIONER

F.A. RT. NO. 1
STATE RT. NO. 1
TO BRISTOL, VA.

DEPARTMENT OF COMMERCE
BUREAU OF PUBLIC ROADS

APPROVED:

DIVISION ENGINEER

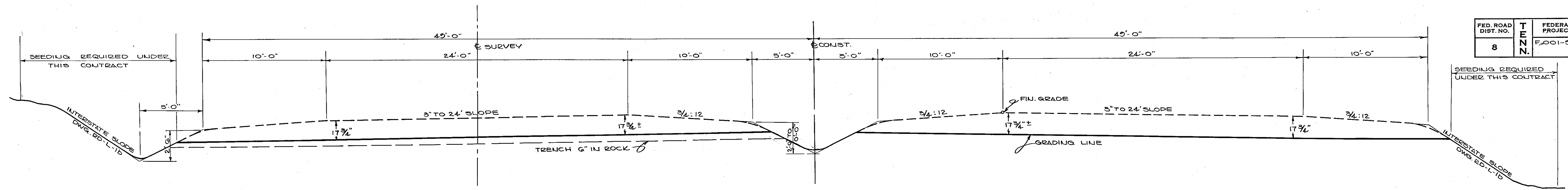
DATE

SCANNED

DESIGNED:
CHECKED:
SURVEY NO.

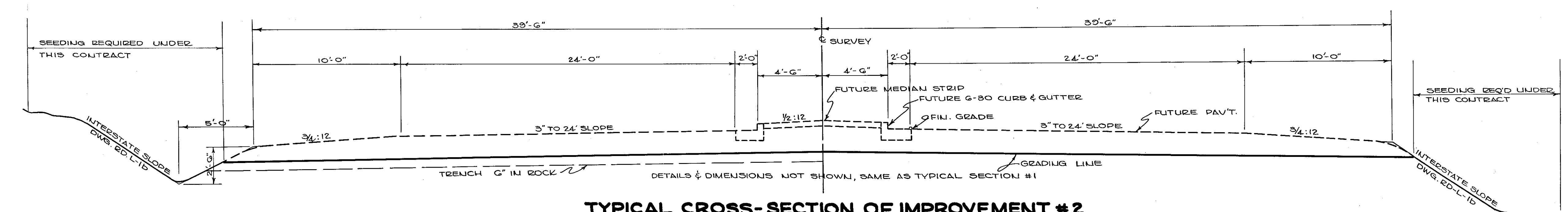
Plans
File
X
5

FED. ROAD DIST. NO.	TENN.	FEDERAL AID PROJECT NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
8		F-001-5 (25)	1950	2	78



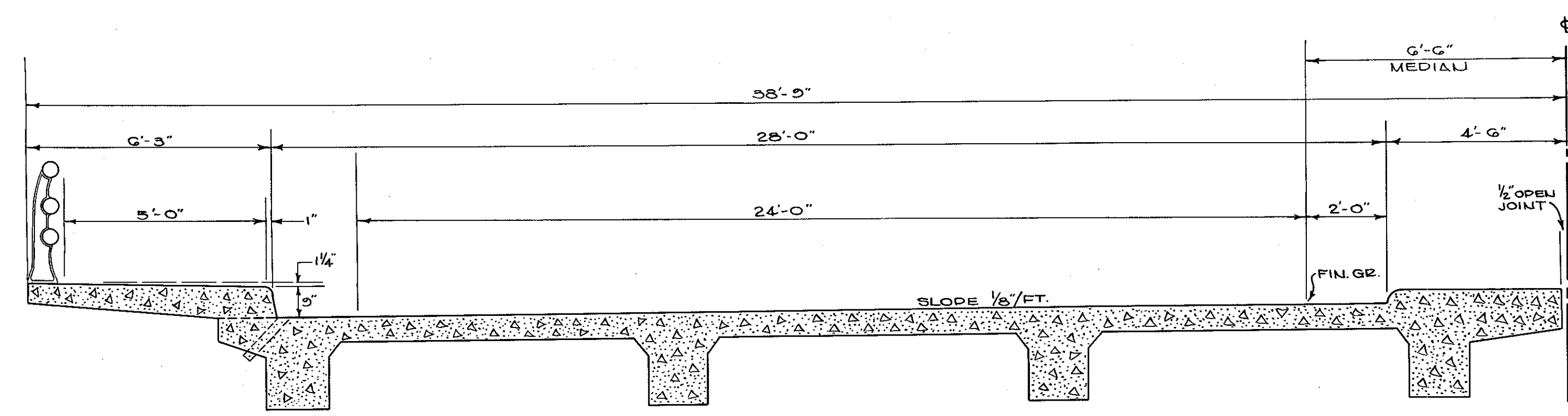
TYPICAL CROSS-SECTION OF IMPROVEMENT #1

STA. 57+65.49 TO END OF PROJECT SEE PLAN & PROFILE SHEET FOR MEDIAN TRANSITIONS BETWEEN THIS AND TYPICAL SECTION #2.

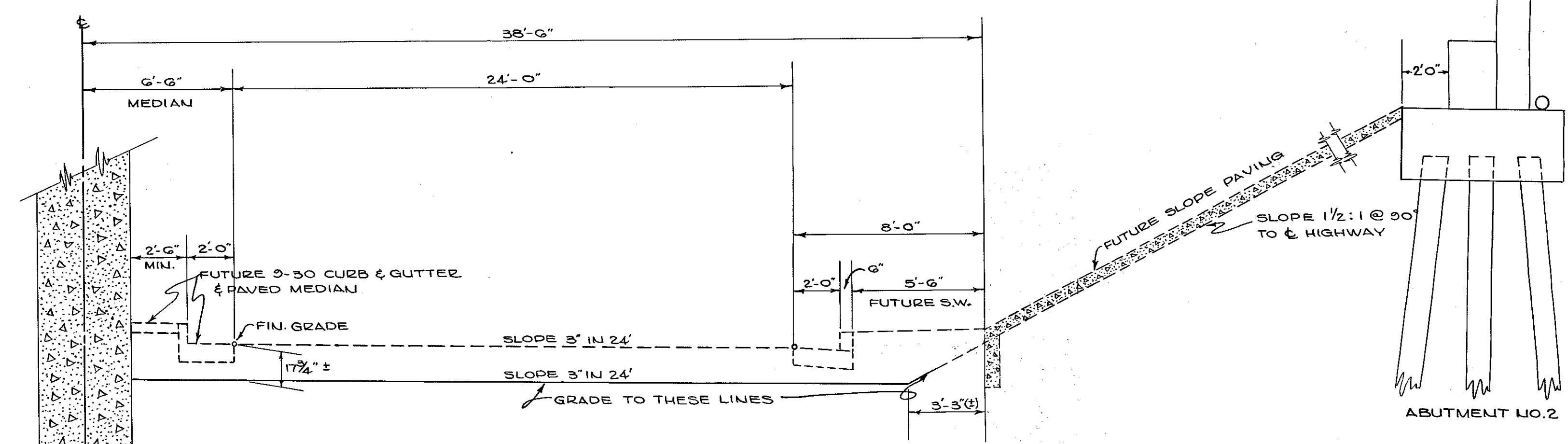


TYPICAL CROSS-SECTION OF IMPROVEMENT #2

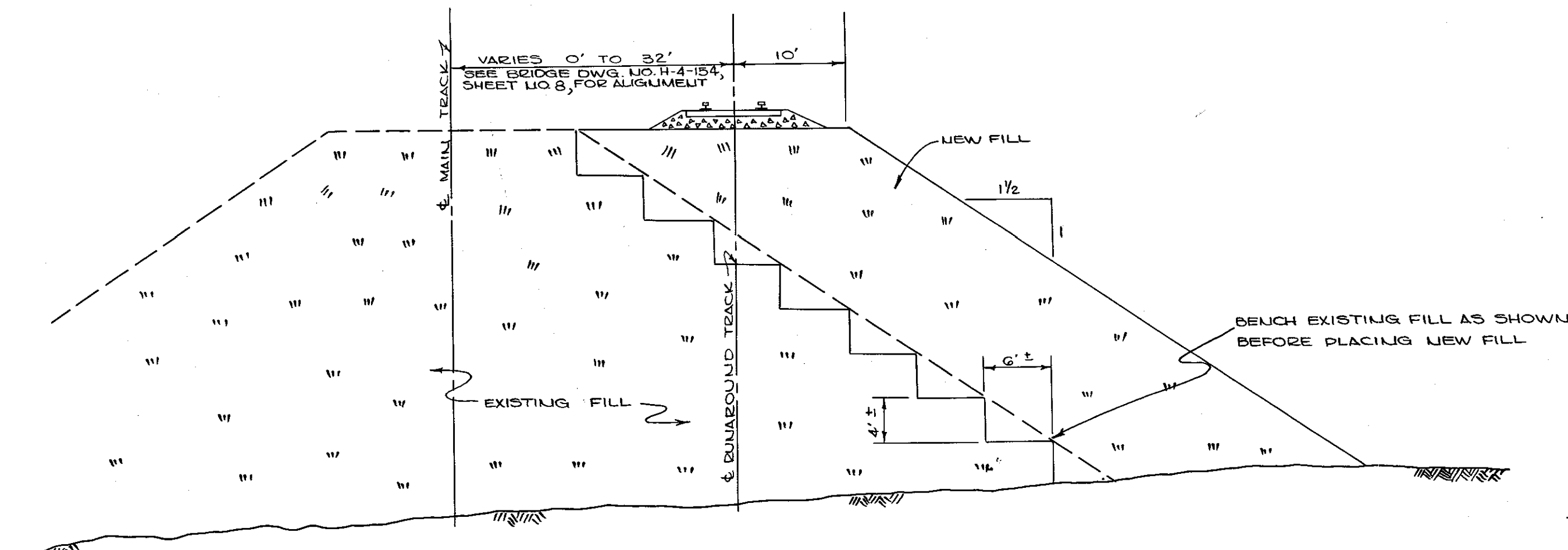
STA. 36+50 TO BEGINNING OF HOLSTON RIVER BRIDGE, AND FROM END OF BRIDGE TO STA. 47+35.63



TYPICAL HALF-SECTION OF PROPOSED BRIDGE OVER NORTH FORK HOLSTON RIVER

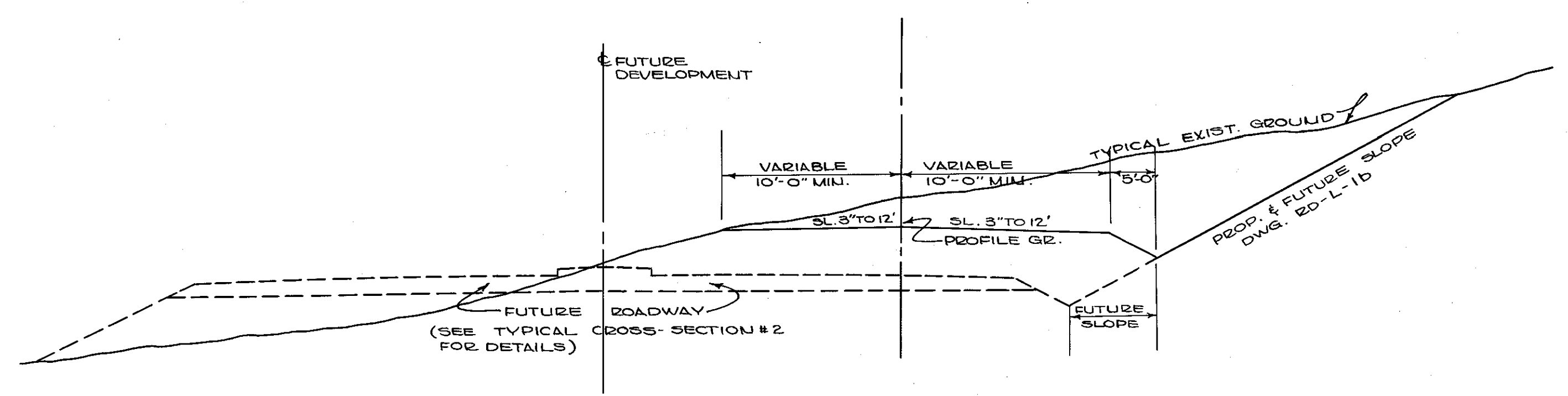


TYPICAL HALF-SECTION OF ROUTE 1-A AT RAILROAD UNDERPASS STA. 45 (+)



TYPICAL FILL SECTION OF TEMPORARY RUNAROUND OF CLINCHFIELD R.R.

(FOR USE DURING CONSTRUCTION OF R.R. UNDERPASS AT STA. 45+45.61)



TYPICAL CROSS-SECTION OF TEMPORARY RAMP

WEST APPROACH TO CLINCH RIVER BRIDGE

PLAN
SECTION
ELEVATION
DETAIL
AS SHOWN
ON SHEET NO. 1

FED. ROAD DIST. NO.	TENN.	FEDERAL AID PROJECT NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
3		F-00H9 (29)	1960	2A	78

ESTIMATED ROADWAY QUANTITIES					
ITEM NO.	DESCRIPTION	HAWKINS COUNTY	SULLIVAN COUNTY	TOTAL QUANTITY	UNIT
11-1	CLEARING AND GRUBBING	6%	84%	1	LUMP SUM
13-3	ROAD AND DRAINAGE EXCAVATION (UNCL.)	3,077	63,541	72,618	CU. YD.
13-5	WATER (EMBAUKMENT)	41	208	249	M. GAL.
15-3	BORROW EXCAVATION (UNCLASSIFIED)		7,550	7,550	CU. YDS.
33C-1	CRUSHED STONE (TRAFFIC BOUND RDWY)	256		256	TON
33C-10	GRANULAR BACKFILLING FOR PIPE & PIPE-ARCH CULVS.		320	320	CU. YD.
43-1	BITUMINOUS MATERIAL (PRIME COAT)	1		1	TON
55-1	BITUMINOUS MATERIAL (H.B.S.C.)	1		1	TON
55-2	MINERAL AGGREGATE (H.B.S.C.)	11		11	TON
57-1	BITUMINOUS MATERIAL (S.B.S.T.)	1		1	TON
57-2	MINERAL AGGREGATE (S.B.S.T.)	10		10	TON
132-4a	GREY IRON CASTINGS CL. 30		290	290	LBS.
135-4	CLASS "A" CONCRETE		41	41	CU. YDS.
135-12	STEEL BAR REINFORCEMENT		1,432	1,432	LBS.
144-	6G" CORR. METAL PIPE CULV. BIT. COATED (STUTTED)		286	286	LIN. FT.
144-	30" CORR. METAL PIPE CULV. BIT. COATED		222	222	LIN. FT.
144-	15" CORR. METAL PIPE CULV. BIT. COATED		80	80	LIN. FT.
144-	8" CORR. METAL PIPE CULV. BIT. COATED		120	120	LIN. FT.
148-	58" X 36" CORR. METAL PIPE CULV. BIT. COATED		110	110	LIN. FT.
144-	15" CORR. METAL PIPE CULV. BIT. COATED (S.D.)	25	75	100	LIN. FT.
150-	METAL END SECTION, PIPE CULVERT SIZE 15"		1	1	EACH
150-	METAL END SECTION, PIPE CULVERT SIZE 30"		3	3	EACH
150-	METAL END SECTION, PIPE ARCH CULVERT SIZE 58" X 36"		2	2	EACH
174-2	MARKERS (RIGHT-OF-WAY)	2	10	12	EACH
500	SEEDING	20	130	150	UNIT

- ① INCLUDES 451 CU. YDS. SOLID ROCK EXCAVATION IN HAWKINS CO. & 16,103 CU. YDS IN SULLIVAN CO. (ESTIMATED).
- ② CONDITIONAL ITEM, TO BE USED IF DIRECTED BY THE ENGINEER. SEE SPECIAL NOTE REGARDING CONSTRUCTION OF TEMPORARY R.R. RUN-AROUND EMBANKMENT.
- ③ FOR PAVING CO. 2D. UNDER BRIDGE, STA. 38+57. SEE DETAIL SHEET NO. 2-b.
- ④ SEE GENERAL NOTES FOR AREAS ON WHICH SEEDING IS REQUIRED.
- ⑤ SEE SPECIAL NOTES THIS SHEET, REGARDING CONSTRUCTION OF TEMPORARY R.R. RUN-AROUND.
- ⑥ TAR, CUT-BACK OR EMULSIFIED ASPHALT.

GENERAL NOTES

GRADING: GRADES SHOWN ON PROFILE ARE THE SAME AS FINISHED GRADE ON TYPICAL CROSS-SECTIONS, EXCEPT PROFILE GRADE IS SHOWN ON BOTH TYPICAL CROSS-SECTION AND PROFILE OF THE TEMPORARY RAMP, STA. 33+02-36+50. GRADE LINE ON CROSS-SECTIONS ARE SAME AS GRADE LINE ON TYPICAL CROSS-SECTIONS & IS PLOTTED 1.5' BELOW FINISHED GRADE. THE CONTRACTORS WILL BE REQUIRED TO STRIP A MINIMUM OF 3" OF TOPSOIL FROM BETWEEN SLOPE STAKES BOTH CUT AND FILL AND RESERVE SAME FOR APPLICATION TO FRESHLY GRADED AREAS PRIOR TO SEEDING, AS DIRECTED BY THE ENGINEER. THE COST OF STRIPPING, STOCK PILING AND FINAL APPLICATION SHALL BE INCLUDED IN THE UNIT PRICE BID FOR ITEM 13-3 ROAD AND DRAINAGE EXCAVATION (UNCLASSIFIED). TOPSOIL FROM BOTH CUT AND FILL AREAS WILL BE MEASURED AND PAID FOR AT THE UNIT PRICE BID FOR ITEM #13-3. UNDER ITEM 15-3, IF DIRECTED BY THE ENGINEER (SEE SPECIAL NOTE), THE CONTRACTOR SHALL FURNISH SUITABLE BORROW MATERIAL FROM A SITE APPROVED BY THE ENGINEER. THE BORROW AREA SHALL BE WORKED IN SUCH A MANNER THAT THE MATERIAL TAKEN MAY BE READILY MEASURED. TOPSOIL WILL NOT BE REQUIRED ON CUT SLOPES STEEPER THAN 2:1.

DRAINAGE: THE COST OF PIPE CULVERT, ENDWALL, CATCH BASIN, AND ALL OTHER EXCAVATION NECESSITATED BY SMALL DRAINAGE STRUCTURES, IS TO BE INCLUDED IN UNIT PRICE BID PER LINEAR FOOT OF PIPE.

SURFACING: UNDER THIS CONTRACT, SURFACING SHALL BE PERFORMED ONLY ON THE CO. ROAD AT STA. 38+57. SEE SKETCH, SHEET #2-b.

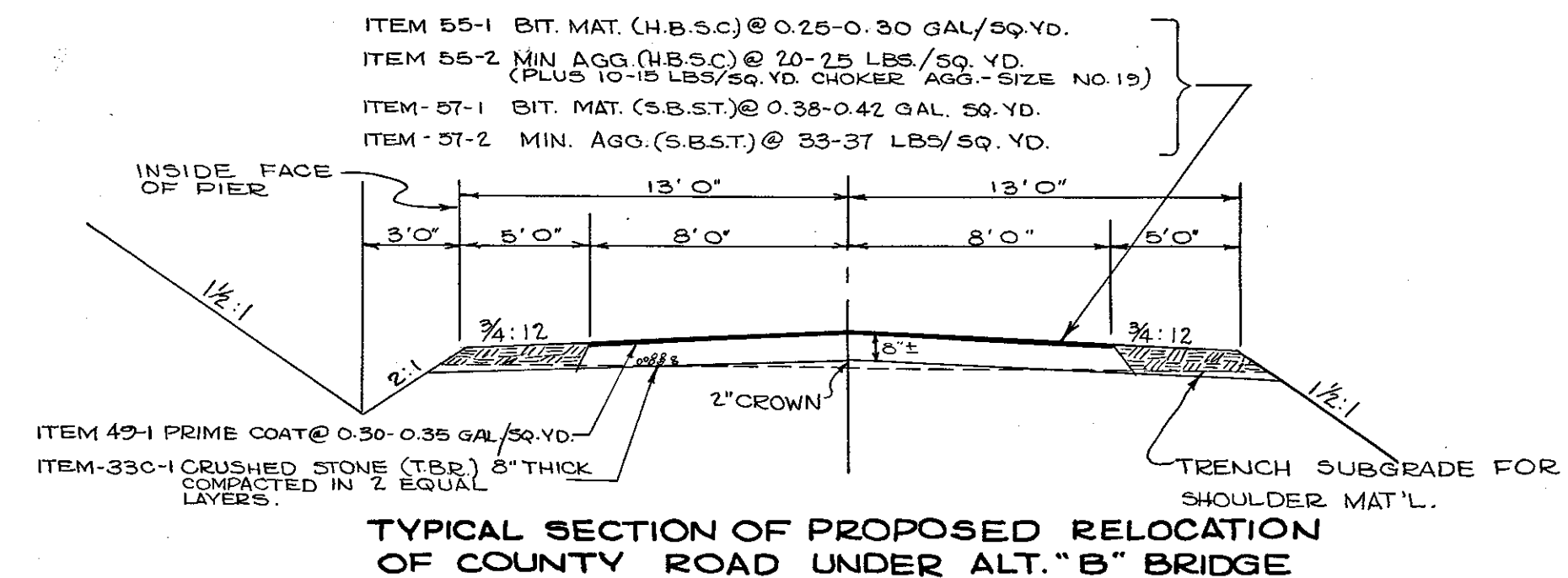
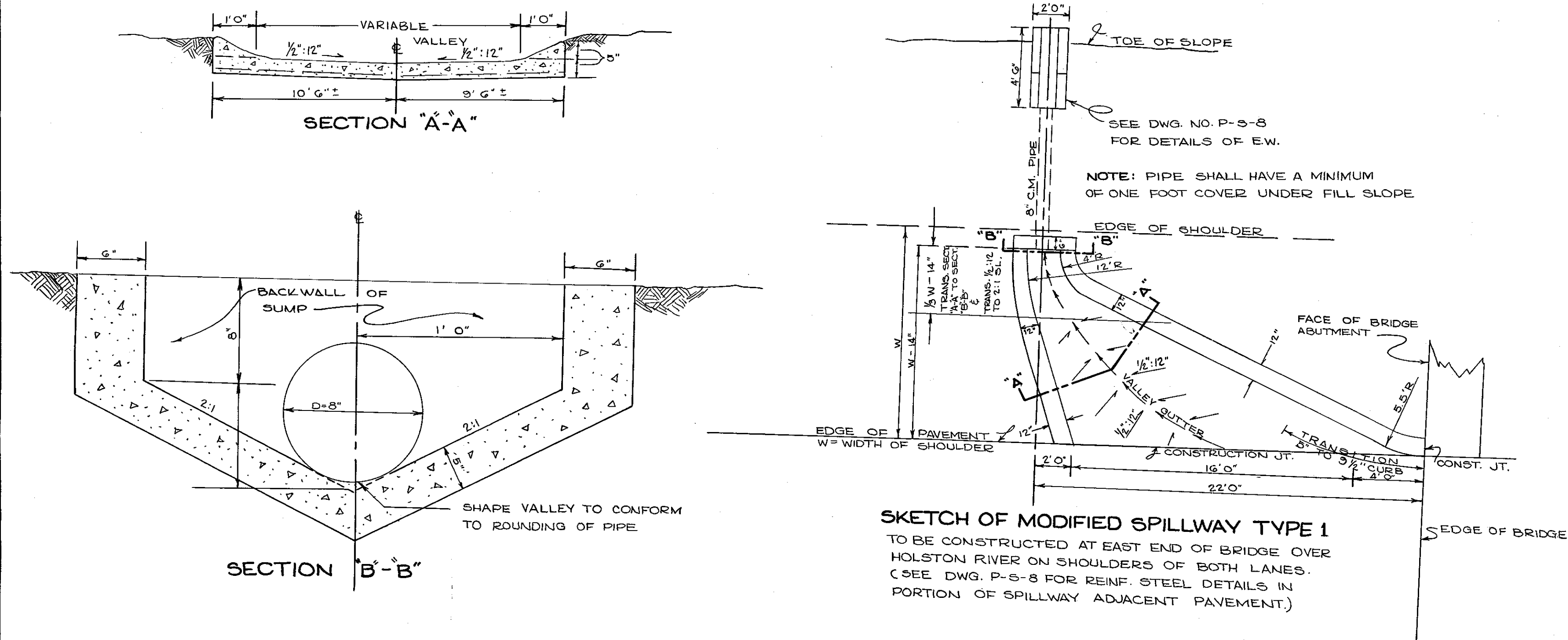
SEEDING: ALL NEWLY GRADED AREAS ARE TO BE SEEDDED IN ACCORDANCE WITH SPECIAL PROVISION REGARDING SECTION 500 EXCEPT THAT NO SEEDING SHALL BE DONE UNDER THIS CONTRACT ON THE FUTURE MEDIAN, TRAFFIC LANES AND SHOULDERS.

UTILITIES: OWNERS TO RESET, RELAY OR ADJUST POWER AND TELEPHONE LINES AND POLES, AND ALL OTHER PUBLIC UTILITIES CONFLICTING WITH THE PROPOSED IMPROVEMENT.

BRIDGE #1 (OVER N. FORK OF HOLSTON RIVER)				BRIDGE #2 (CLINCHFIELD R.R. OVER F-001)										
ALTERNATE "A"		ALTERNATE "B"		ALTERNATE "A"		ALTERNATE "B"								
STA. 37+00 TO 37+60 CONC. DECK GIRDER BRIDGE W/ CONTIGUOUS DECK AND BEAM UNIT - 35'0" LENGTH INCL. 2-SPANS @ 20'0" AND 2-SPANS @ 27'0" 6-GIRDER SPANS @ 28'0" 2-GIRDER SPANS @ 53'0" TOTAL LENGTH 520' DWG. H-4-138		STA. 37+00 TO 37+60 CONC. DECK W/ STEEL BEAMS 2 CONTINUOUS UNITS @ 115' 0" 2 @ 45' 0" 4 @ 45' 0" TOTAL LENGTH 505' - 9" DWG. H-7-150		STA. 45+45.61 CONC. DECK W/ STEEL BEAMS 2-SPANS @ 60'0" TOTAL LENGTH 125' 16" DWG. H-4-145										
2-28' RDWYS. W/ 5' MEDIAN @ 250' SWA														
ITEM NO.	DESCRIPTION	QUANTITY		QUANTITY		QUANTITY		TOTAL QUANTITY INCL. ALT. "A"		TOTAL QUANTITY INCL. ALT. "B"		GRAND TOTAL INCL. ALT. "A"	GRAND TOTAL INCL. ALT. "B"	UNIT
		HAWKINS CO.	SULLIVAN CO.	HAWKINS CO.	SULLIVAN CO.	SULLIVAN CO.		HAWKINS CO.	SULLIVAN CO.	HAWKINS CO.	SULLIVAN CO.			
17-2	DRY EXCAVATION (BRIDGES)	250	250	165	165	225		250	475	165	350	725	555	CU. YDS.
17-3	WET EXCAVATION (BRIDGES)	106	106	37	38			106	106	87	38	212	75	CU. YDS.
17-4	ROCK EXCAVATION (BRIDGES)	123	123	69	69	25		123	148	69	94	271	163	CU. YDS.
17-5	ROCK DRILLING (BRIDGES)	66	66	39	39			66	66	39	39	132	78	LIN. FT.
132-1	STRUCTURAL STEEL	11,304	11,304					11,304	11,304			22,608		LBS.
132-8	PHOSPHOR BRONZE	1,328	1,328					1,328	1,328			2,656		LBS.
132-51	STEEL STRUCTURES			*	*	1				*	*	1	**	LUMP SUM
132-51a	STEEL STRUCTURES					1			1		1	1	1	LUMP SUM
135-4	CLASS "A" CONCRETE	1800.2	1800.2	1066.1	1066.1	271.0		1800.2	2071.2	1066.1	1337.1	3871.4	2,403.2	CU. YDS.
135-12	STEEL BAR REINFORCEMENT	404,765	404,765	177,781	177,780	33,439		404,765	444,204	177,781	217,215	843,369	595,000	LBS.
137-3	STEEL PILES 10" BP 42*	455	455	275	275	44.0		455	1,895	275	1,715	2,350	1,590	LIN. FT.
137-4	STEEL PILES 12" BP 53*					360			360		360	360	360	LIN. FT.
144-	8" CORRUGATED METAL PIPE					125			125		125	125	125	LIN. FT.
176-	RIP- RAP	138	138	138	138			138	138	138	138	276	276	CU. YD.
178-32a	8" PERFORATED CORRUGATED METAL PIPE UNDERDRAINS					73			73		73	73	73	LIN. FT.
703	STEEL HANDRAIL (3-BAR)	583	583	585	585			583	583	585	585	1,168	1,170	LIN. FT.
501	ALUMINUM HANDRAIL (3-BAR)					250			250		250	250	250	LIN. FT.
503-	CONSTRUCTION & REMOVAL OF TEMPORARY TIMBER TRESTLE					1			1		1	1	1	LUMP SUM
504-	8" PERFORATED ALL AROUND C.M. PIPE					34			34		34	34	34	LIN. FT.
505-	8" PERFORATED HALF CIRCLE DECK DRAIN W/ BASE PLATE (GALVANIZED)					243			243		243	243	243	LIN. FT.
136-2	TYPE "B" WATERPROOFING					121			121		121	121	121	SQ. YDS.
136-4	TYPE "D" WATERPROOFING					228			228		228	228	228	SQ. YDS.

FED. ROAD DIST. NO.	TENN.	FEDERAL AID PROJECT NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
8		F-001-5 (25)	1960	2-b	

REV. 7-1-60: CHANGED LAYOUT OF Co. ROAD RELOCATION UNDER HOLSTON RIVER BRIDGE IN ACCORDANCE WITH NEW INFORMATION RECEIVED THIS DATE; OMITTED NOTE REGARDING PAYMENT FOR CLASS "A" CONC. AND REINF. STEEL IN CONC. JUNCTION BOXES UNDER ITEM 144, C.M. PIPE.



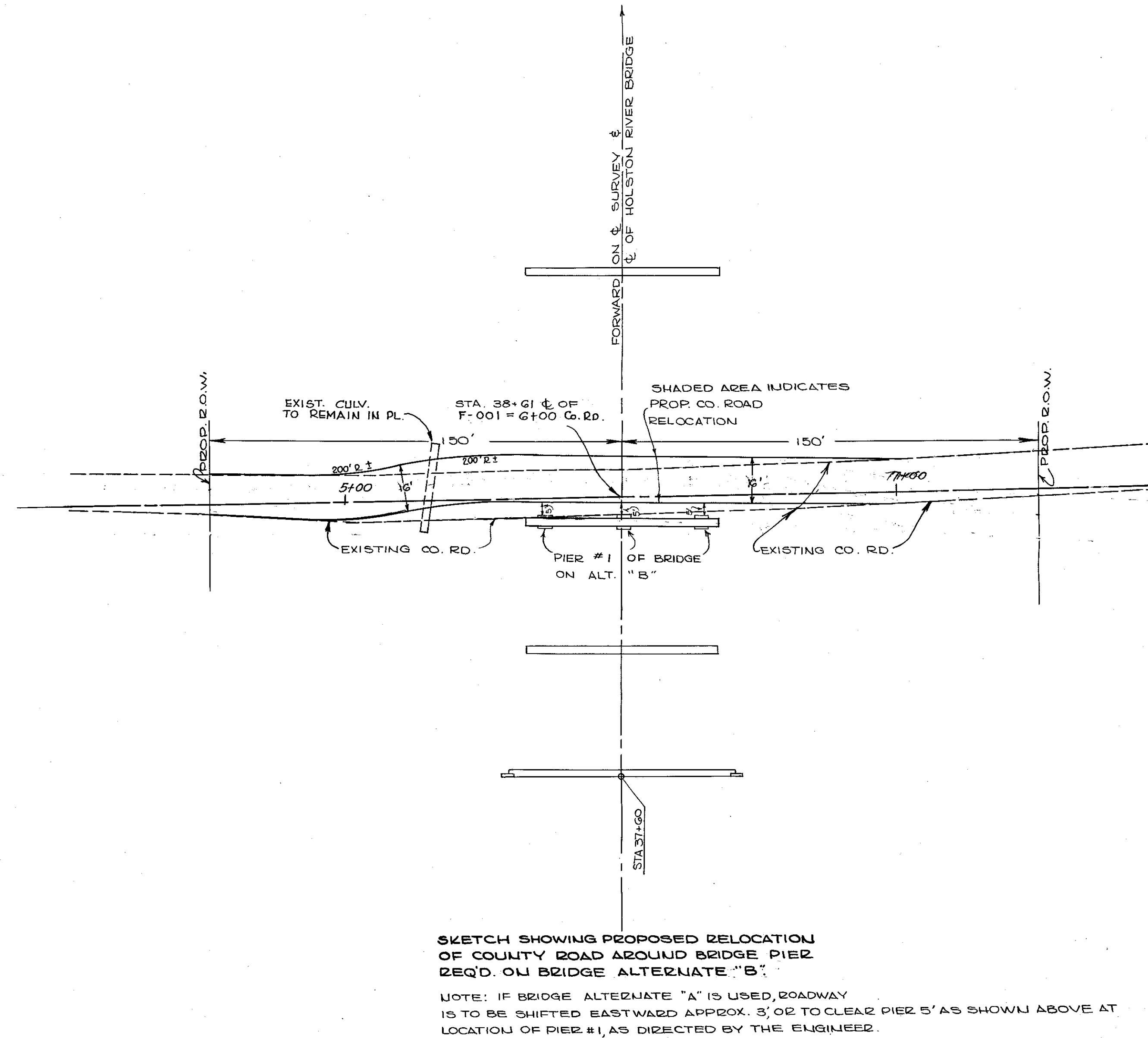
GRADING QUANTITIES					
STATION	STATION	COMMON	SOLID ROCK	S.R. TRENCHING	
33+62	37+60	* 8,626	451		HAWKINS CO.
37+60	43+52**	HOLSTON RIVER BR. (ALT. A.)			
43+52	60+43.4	39,883	14,868	1,235	SULLIVAN CO.
TOTALS:		**56,064	15,319	1,235	

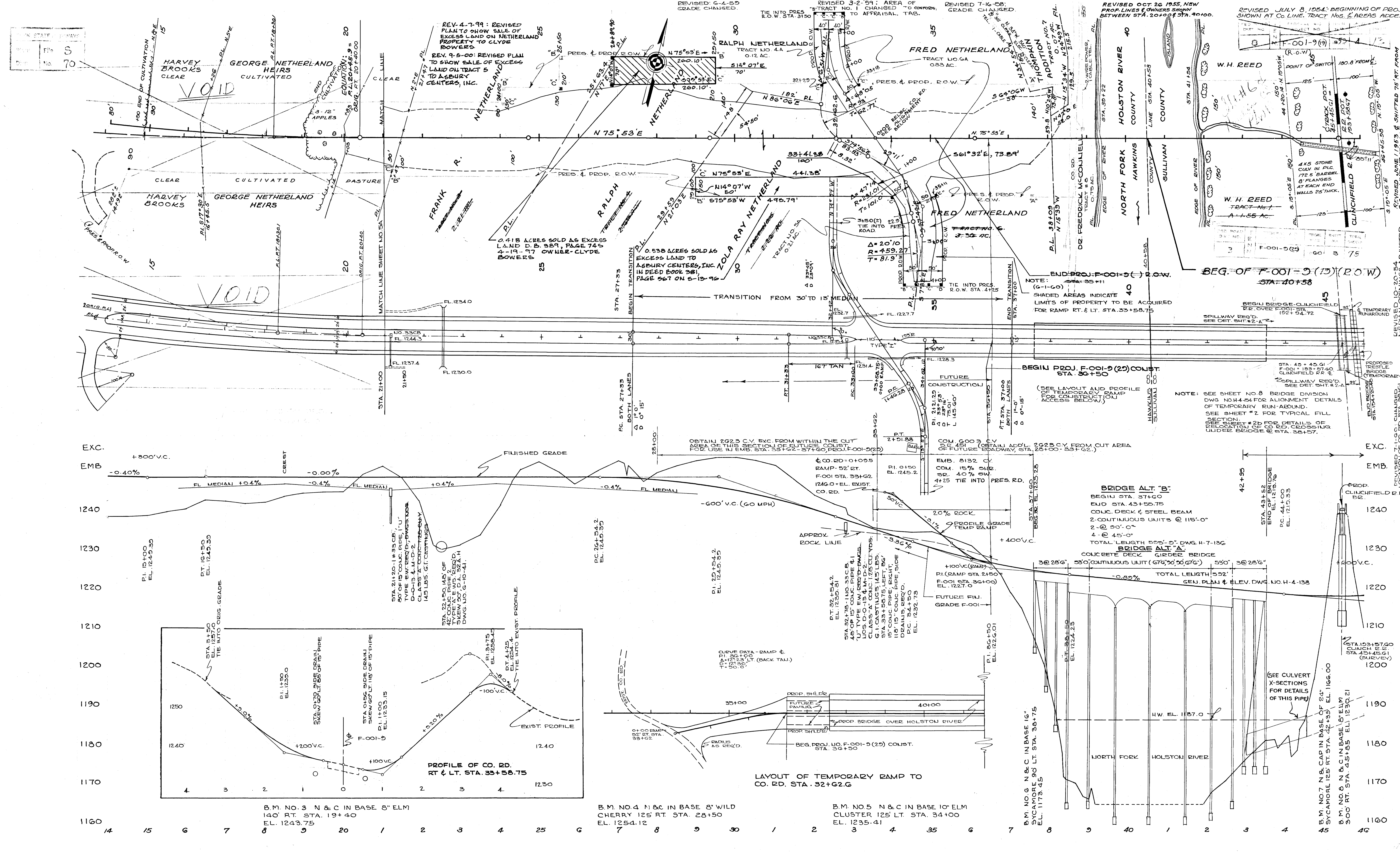
- * OBTAIN 2623 CU. FROM FUTURE PROJECT LOCATION, ABOVE FUTURE GRADE SHOWN, BETWEEN STA'S. 28+00 & 33+62
- ** BRIDGE ALT. "B" ENDS STA. 43+55.75
- ① INCLUDES 4,399 CU. YD. FOR CONSTRUCTION OF TEMPORARY RUN-AROUND FOR CLINCHFIELD R.R. SEE SPECIAL NOTES ON SHEET NO. 2-A AND SHEET NO. 4
- *** INCLUDES 7,550 CU. YD. FOR REMOVING TEMPORARY RUN-AROUND EMBANKMENT.

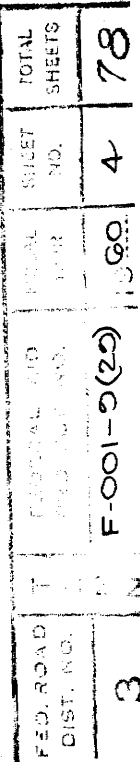
PIPE CULVERT AND DRAINAGE STRUCTURES										
LOCATION	C.G.M. PIPE SIZE (INCHES) & LENGTH (LIN. FT.)				TYPE OF END TREATMENT		DRAWING NO.	CLASS "A" CONC. (CU. YDS.)	REINF. STL. (LBS.)	REMARKS
RT. STA. 43+05 TO 44+25	66"	30"	15'	8"	56X86	INLET	CM-1-46G	11.41	153	#10 GA. STRUTTED
RT. STA. 44+25 TO 47+32	120"					CONCRETE JCT. TYPE "A" E.W.	CM-1-5 CM-1-7	12.82	165	#10 GA. STRUTTED
46+32	32"					METAL END SECT. CONCRETE JCT.	CM-1-46G		25	1
43+72 LT. RT.			120"			SPILLWAY	CM-1-46G	8.14	220	
50+75			64"			#33 C.B.	M-D-24 CM-1-7	1.28	145	12
52+07				110'		METAL END SECT. METAL END SECT.	CM-1-G		25	2
53+75			16"			#33 C.B.	M-D-2	1.28	145	5
59+50	130"					METAL END SECT. METAL END SECT.	CM-1-G		42	2
TOTALS	286'	222	80'	120'	110'			① 40.77	② 1,432	250 320 56X86 28X36 X90 16 15

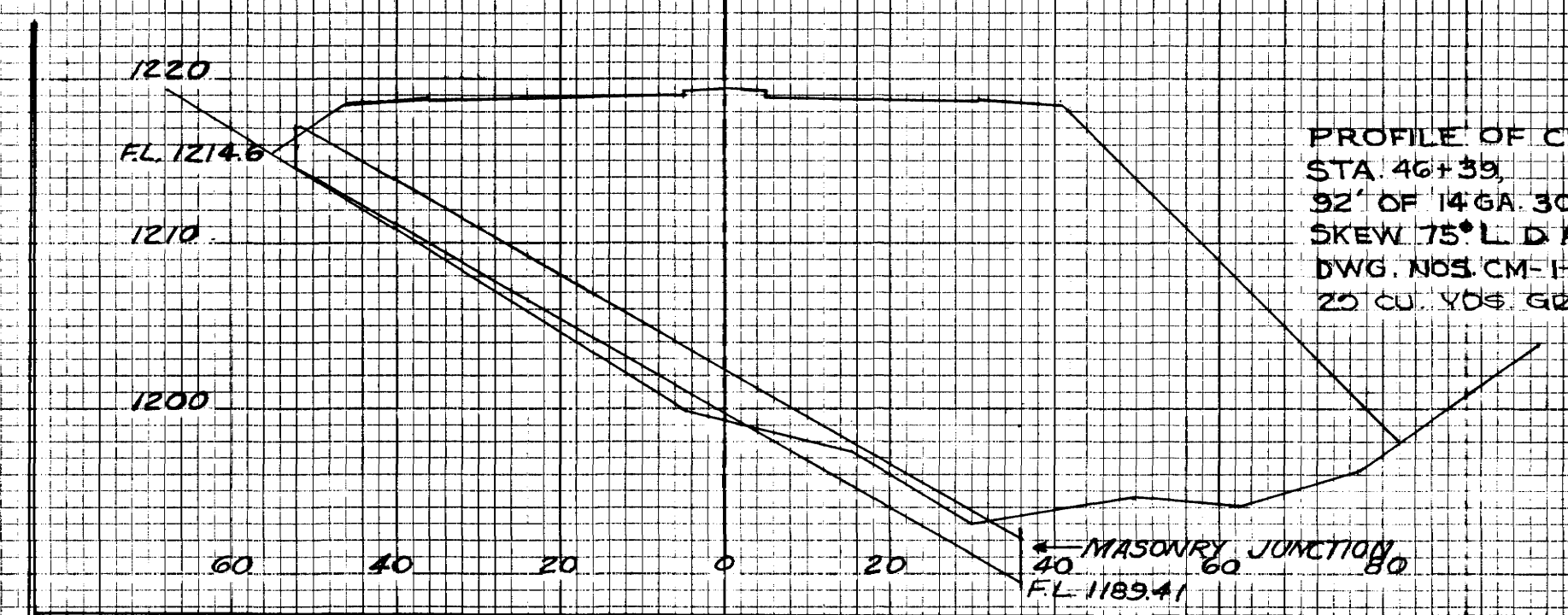
- ** DWG. NO. C-B-2
- ① INCLUDES 10 CU. YD. FOR CONCRETE JUNCTION BOXES RT. STA. 44+ AND STA. 46+.
- ② INCLUDES 1000 LB FOR CONCRETE JUNCTION BOXES RT. STA. 44+ AND 46+.

RIGHT OF WAY MARKERS			
	HAWKINS CO.	SULLIVAN CO.	TOTALS
"A"	2	6	8
"B"		2	2
"C"		2	2
GRAND TOTAL			12



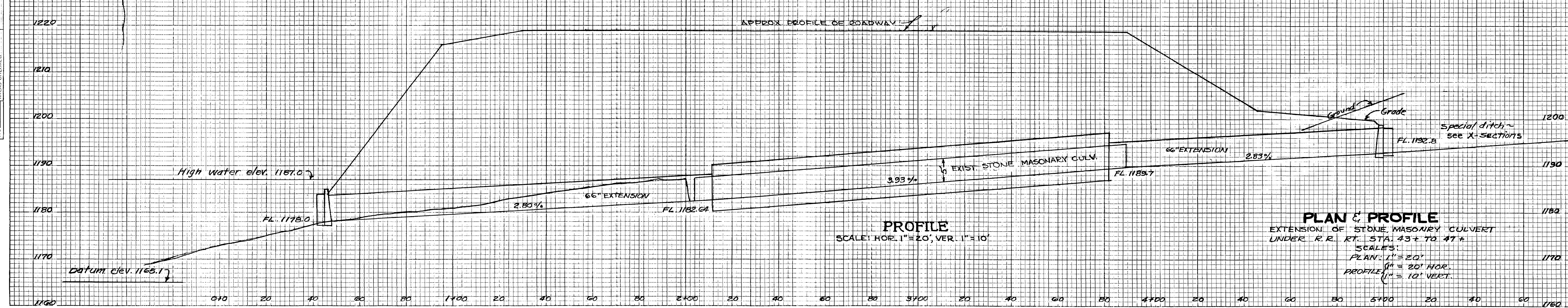
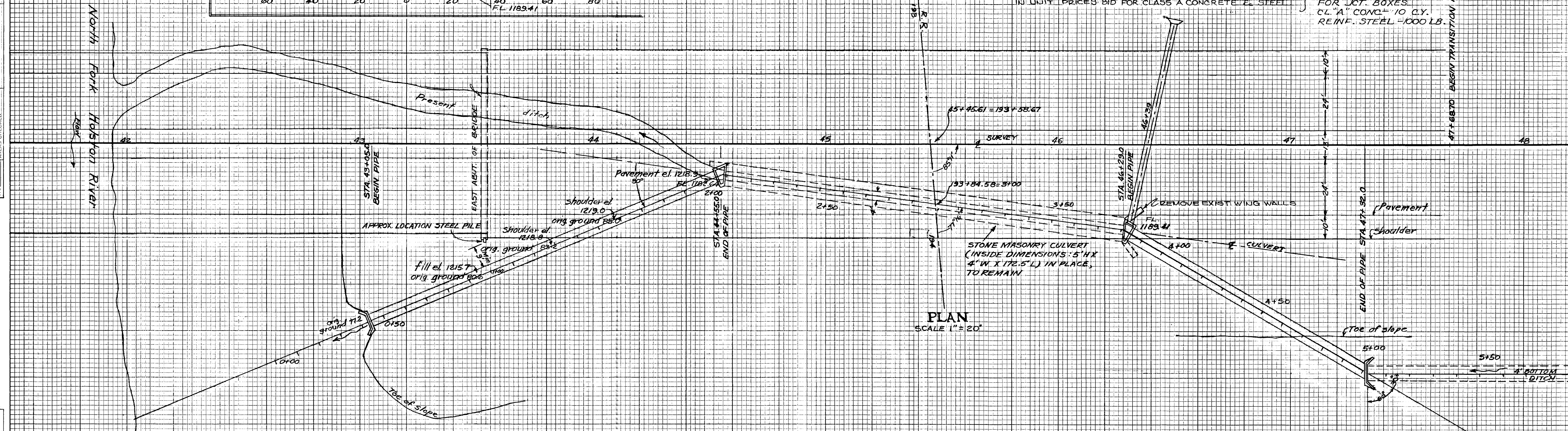






STA. 43+05 TO STA. 44+55
166' OF 10 GA. 66" STRUTTED C.M. PIPE, TYPE "A" E.W. &
1 CONCRETE JUNCTION REQ'D. SKEW 50° 110 CU. YDS. GRANULAR BACKFILL REQ'D.
CL "A" CONC. 10 C.Y., REINF. STEEL 155 LB.
STA. 46+29.0 TO STA. 47+32.0
120' OF 10 GA. 66" STRUTTED C.M. PIPE, TYPE "A" H.W. &
1 CONCRETE JUNCTION REQ'D. SKEW 60° R
D.A. 176 AC.R
12.8 CU. YDS. CLASS "A" CONCRETE
135 LBS. REINF. STEEL
95 CU. YDS. GRANULAR BACKFILL REQ'D
DWGS. NOS. C-B-55, G-10-41, CM-1-4, C-B-22, C-117
NOTE: COST OF CONCRETE, JUNCTIONS TO BE INCLUDED
IN UNIT PRICES BID FOR CLASS "A" CONCRETE & STEEL

EST. QUANTITIES
FOR JCT. BOXES
CL "A" CONC. 10 C.Y.
REINF. STEEL 1000 LB.



FINAL SURVEY NO.	SURVEYED PLOTTED	BY	DATE

ORIGINAL SURVEY NO.	SURVEYED PLOTTED	BY	DATE

SCALE: 1"=10' HOR. AND VERT.

