

UNCONSTRUCTED
REVISED DATE

FED. ROAD DIST. NO.	DIVISION	PROJECT NO.	SHEET NO.	TOTAL SHEETS
9	COLO.	U 012-2 (13)	36	

STEEL PILE CUTOFF

Length	Location	Length	Location
2'	Abut. 3 Wings	2'	Abut. 3
6'		6'	Abut. 3

Summary of in Place Piling

Abut.	Wings	Length
# 3	North & South	22'
# 1	North	28'
# 1	South	31'
# 3	North	37'
# 3	South	29'
# 3	North	32'
# 3	South	38'
# 3	North	30'
# 3	South	30'
# 3	North	32'
# 3	South	38'
# 3	North	40'
# 3	South	32'
# 3	North	39'
# 3	South	41'

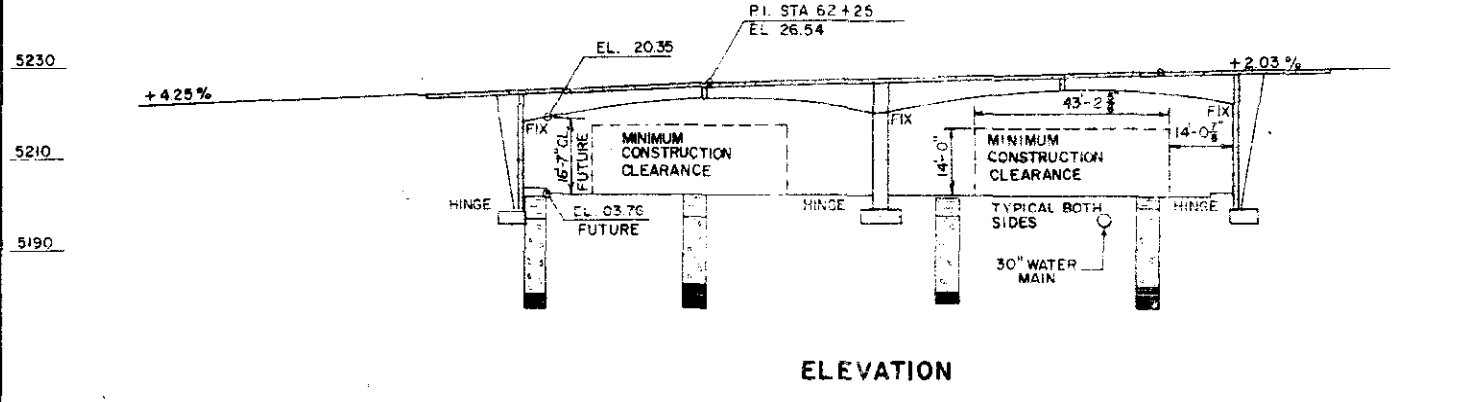
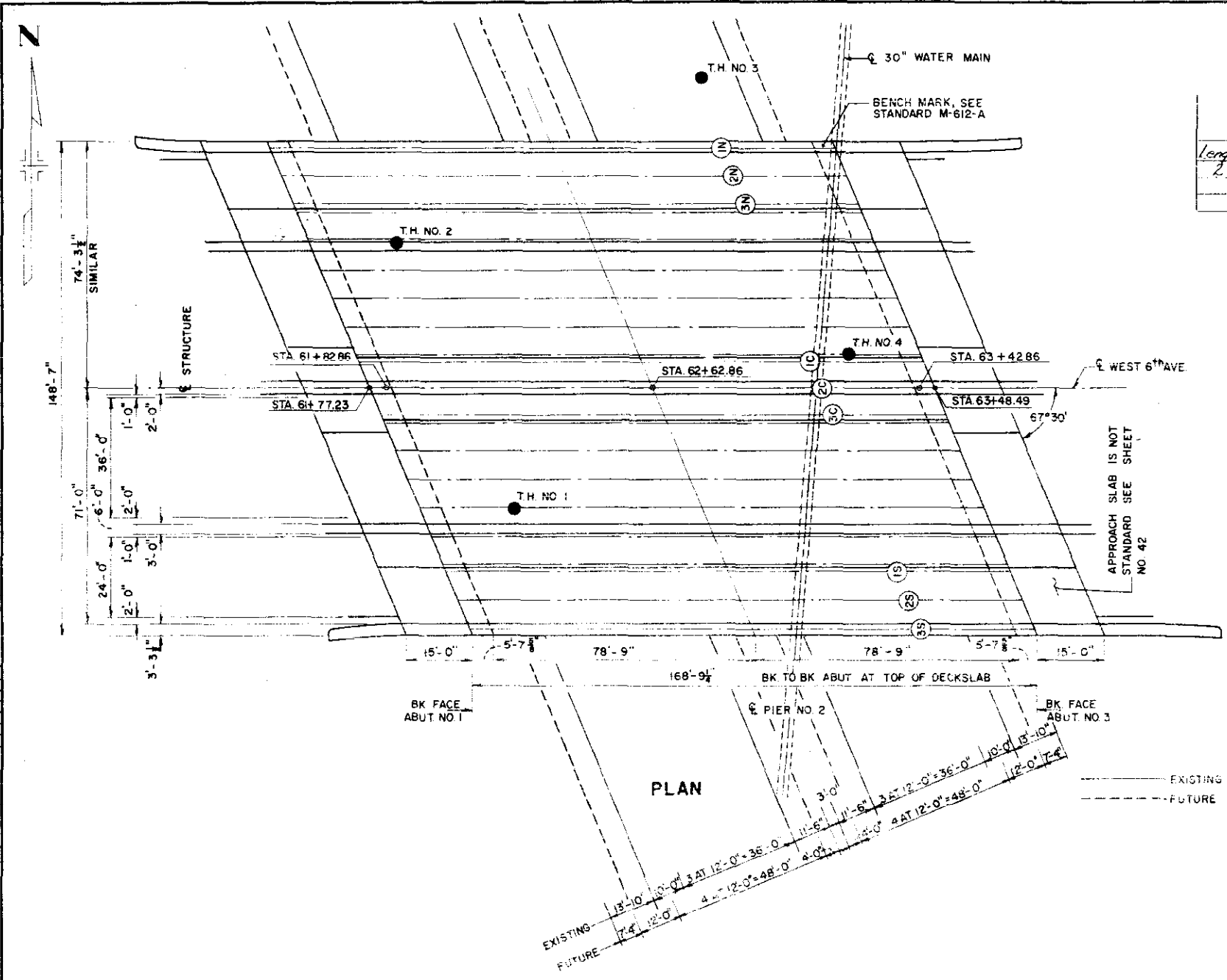
SUMMARY OF QUANTITIES

ITEM	UNIT	DESCRIPTION	ABUTS.	PIER	SUPER STR.	TOTAL
202	EACH	REM PORT PRESENT STR				2
206	CU YD	STR EXCAV	775	202		977
206	CU YD	STR BKFL (CL 3)	2,809	123		2,932
403	TON	HBP (GRE) (HALL & ASPHALT)	48 1/2		145 1/2	193 7/8
411	GAL	LIQ ASPH MATL (RC-800)	23 1/2		149 1/2	172 7/8
502	LIN FT	DRILL HOLE FAC PILE DR	46 0			46 0
502	LIN FT	STEEL PILE (12BP53)	576 578		570	570
502	LIN FT	STEEL PILE (12BP74)	104 110		110	104
509	L.S.	STR STEEL				L.S.
509	L.S.	STR STEEL (GALV)				L.S.
210	LIN FT	RES RAILING	185.6		339.3	524.9
601	CU YD	CONCRETE CL A	452	128 1/2	698 204	1,480
602	LB	REINF STEEL #	63,260	15,170	200,595	267,025
606	LIN FT	GD RAIL TY 3A(DOUBLE)	25		162.5	187.5
613	LIN FT	1/2 IN ELEC COND	106 1/6		373	549 5/6
*	SQ FT	1/4 IN EXP JT MATL	635	336		971
*	SQ FT	1/2 IN EXP JT MATL		72		72
607	LIN FT	FENCE CHAIN LINK (36 INCH)	25		163	188

① INCLUDES QUANTITIES FOR 2 APPROACH SLABS
② DESIGN WEIGHT = 29,270 LB.
③ DESIGN WEIGHT = 3,495 LB.
THERE SHALL BE NO SEPARATE PAYMENT FOR ITEMS MARKED THUS (*) PAYMENT THEREFORE SHALL BE INCLUDED IN THE CONTRACT UNIT PRICE FOR ITEM 601, CONCRETE CL A.
* Paid as Per Suppliers Invoices 299,043 Lbs

INDEX

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LEGEND

- EXISTING
- REMOVE
- NEAR CONST
- LOAM
- SAND
- GRAVEL
- BROWN SHALE
- BLUE SHALE
- EXISTING TEST HOLES

TEST HOLE LEGEND

JEFFERSON ASSOCIATES
CIVIL ENGINEERS

DEPARTMENT OF HIGHWAYS
STATE OF COLORADO

GENERAL PLAN
& ELEVATION

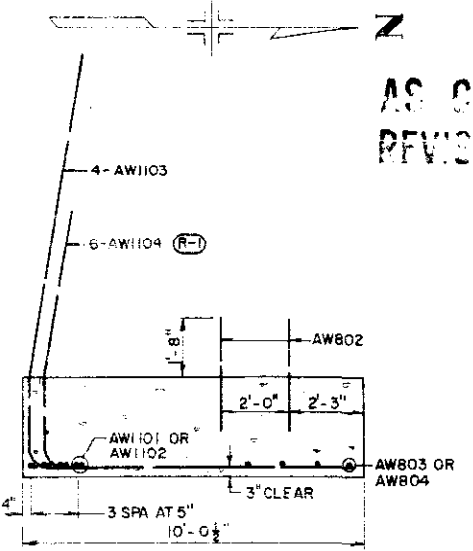
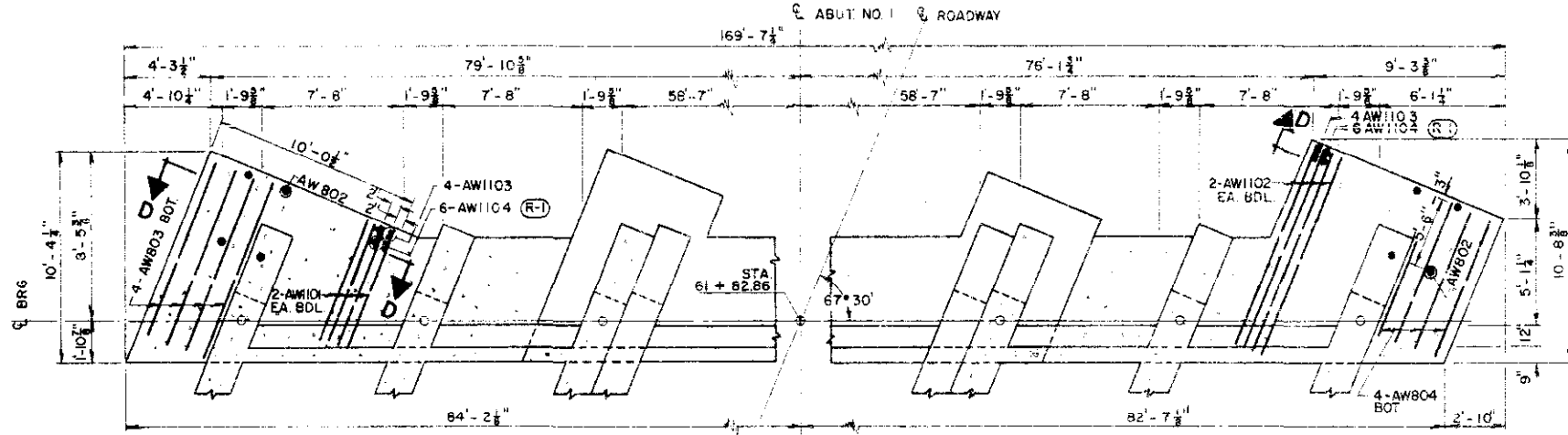
Across VALLEY HIGHWAY ON 6TH AVE.
Sta. 61+77.23 TO 63+48.49
Near DENVER Sec. 9 - T. 4S - R. 50W

Designed by T.V.S. Approved by
Made by F.F.J. Bridge Engineer
Checked by G.D.C. Date: 19

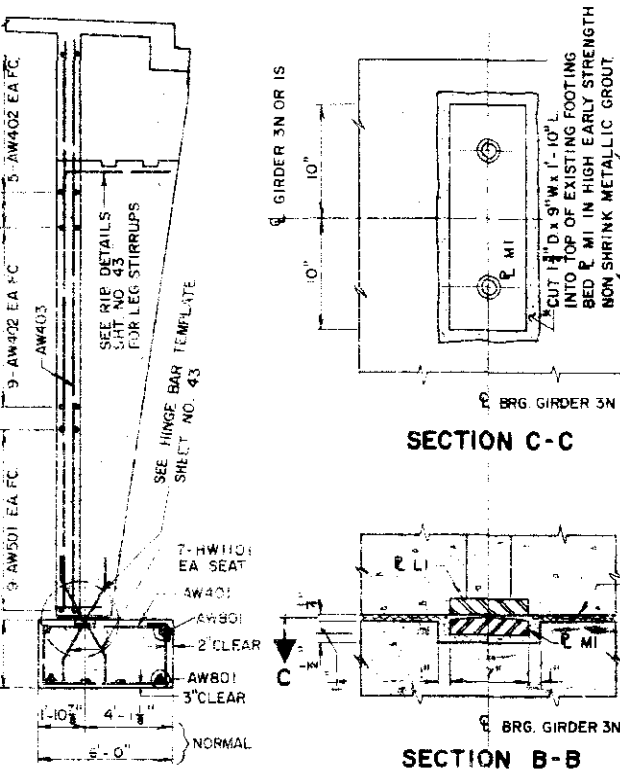
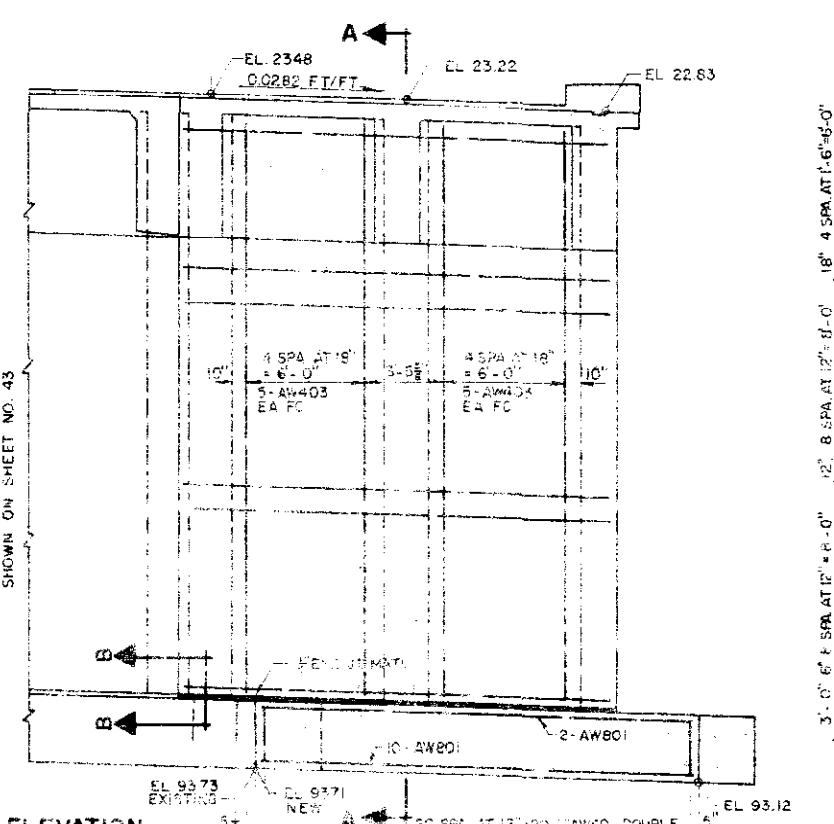
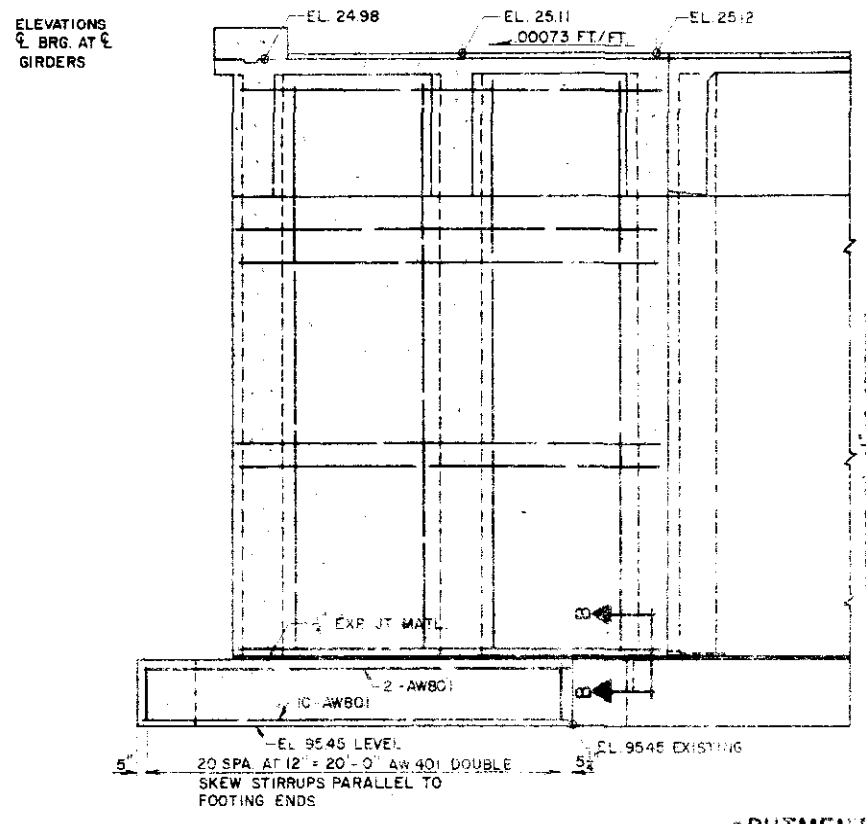
STRUCTURE NO. NORTH F-16-DY
SOUTH F-16-DU

FED. ROAD REG. NO.	DIVISION	PROJECT NO.	SHEET NO.	TOTAL SHEETS
9	COLO.	U 012-2(13)	37	

AS CONSTRUCTED
REVISED DATE



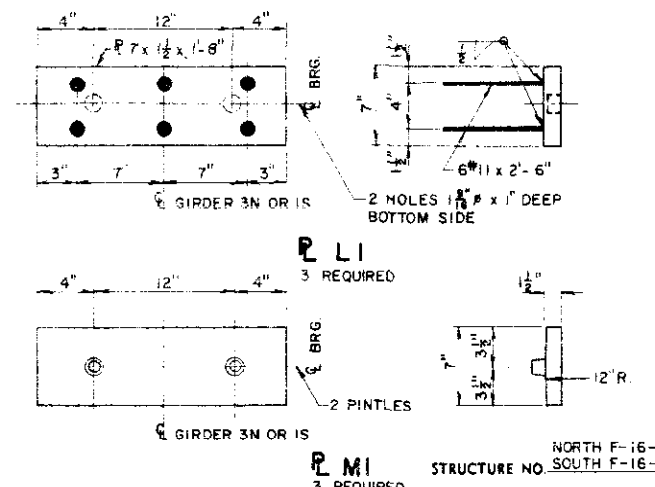
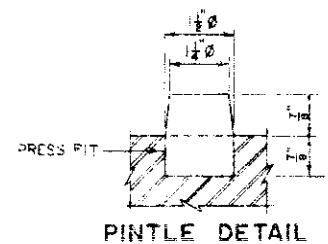
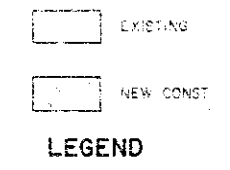
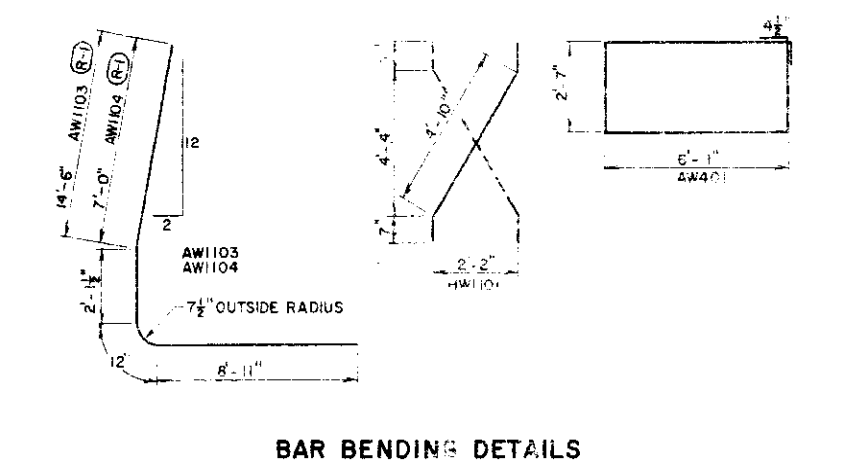
BAR LIST				
MARK	SIZE	SHAPE	REQD.	LENGTH
AW401	4	□	84	18'-0"
AW402	4	—	56	20'-7"
AW403	4	—	40	26'-8"
AW501	5	—	36	20'-7"
AW801	8	—	24	20'-7"
AW802	8	—	8	3'-4"
AW803	8	—	4	9'-0"
AW804	8	—	4	7'-0"
AW1101	11	—	8	6'-0"
AW1102	11	—	8	10'-6"
AW1103	11	—	8	21'-0"
AW1104	11	—	12	17'-6"
HW1101	11	—	28	6'-0"



BAR SUMMARY	
3,740 L. FT. #4 AT 0.668 7/FT.	= 2,500
740 L. FT. #5 AT 1.043 7/FT.	= 770
585 L. FT. #8 AT 2.670 7/FT.	= 1,560
(R-1) 680 L. FT. #11 AT 5.313 7/FT.	= 3,615
(R-1) TOTAL	= 8,445

SUMMARY OF QUANTITIES			
SECTION	UNIT	ITEM	AMOUNT
206	CUYD	STR EXCAV	426
206	CUYD	STR BKFL. (CL. 3)	1173
502	LIN. FT.	STEEL PILING (12BP53)	195.06
509	L.S.	STR STEEL	L.S.
210	LIN. FT.	RES. RAILING	78
601	CUYD	CONCRETE CLA	162
602	LB	REIN. STEEL 23,340	20,370
613	LF	1/2" ELEC. COND	89.78
—	SCFT	EXP. JT. MATL.	285

THERE SHALL BE NO SEPARATE PAYMENT FOR ITEMS MARKED THUS (R-1) PAYMENT THEREFORE SHALL BE INCLUDED IN ITEM 601 CONCRETE, CL. A
 (R-1) INCLUDES QUANTITIES FOR WEST WINGS
 (R-2) DESIGN WEIGHT = 9,665 LB.



JEFFERSON ASSOCIATES
CIVIL ENGINEERS

DEPARTMENT OF HIGHWAYS
STATE OF COLORADO

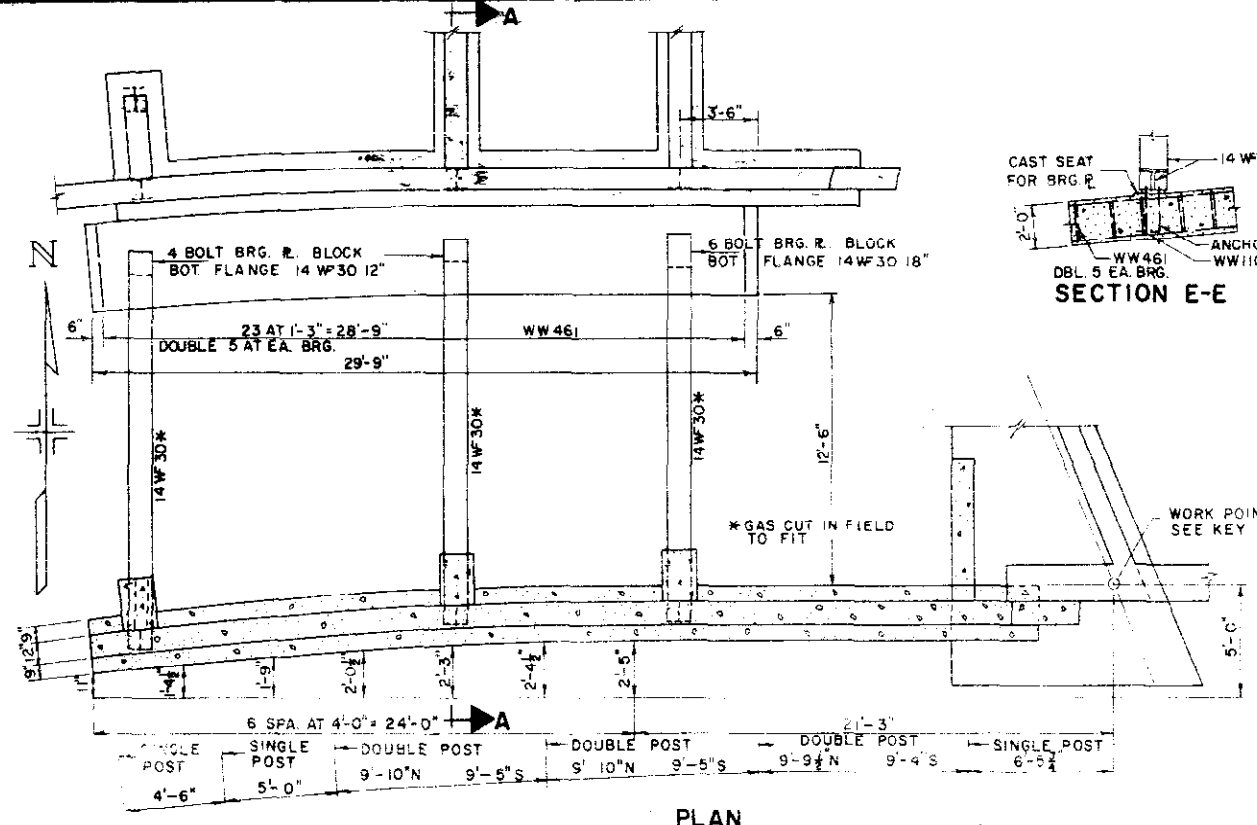
DETAILS
ABUTMENT NO. 1

Across VALLEY HIGHWAY ON 6th AVE
Sta. 61+77.23 TO 63+48.49
Near DENVER Sec. 9 T. 4 R. 66W.

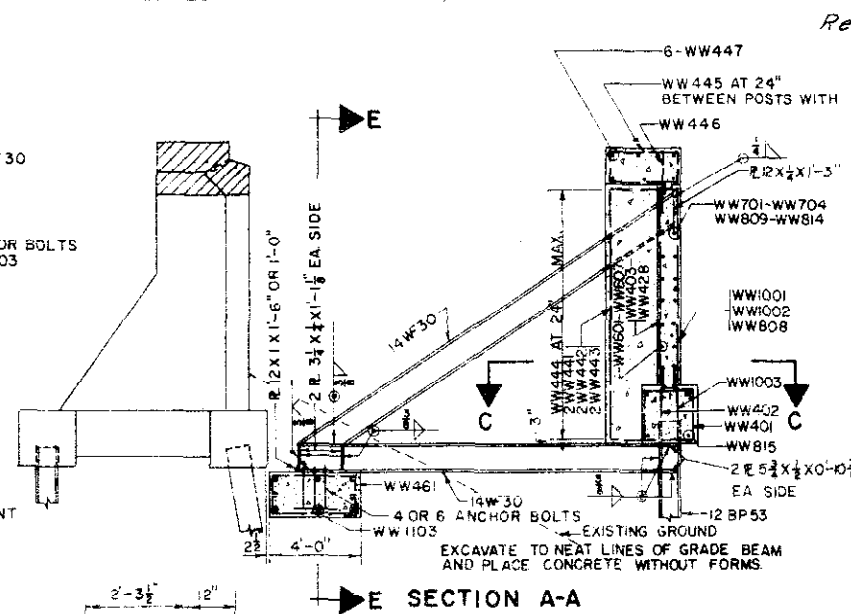
Designed by T.V.S. Approved by
Made by W.P. Bridge Engineer
Checked by G.D.C. Date: 19

NORTH F-16-DY
STRUCTURE NO. SOUTH F-16-DU

FED. ROAD REG. NO.	DIVISION	PROJECT NO.	SHEET NO.	TOTAL SHEETS
9	COLO.	U012-2 (13)	38	

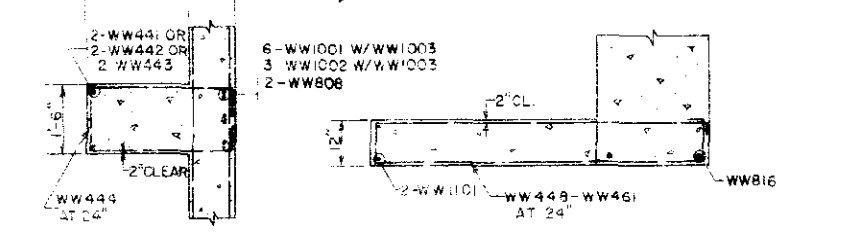


PLAN



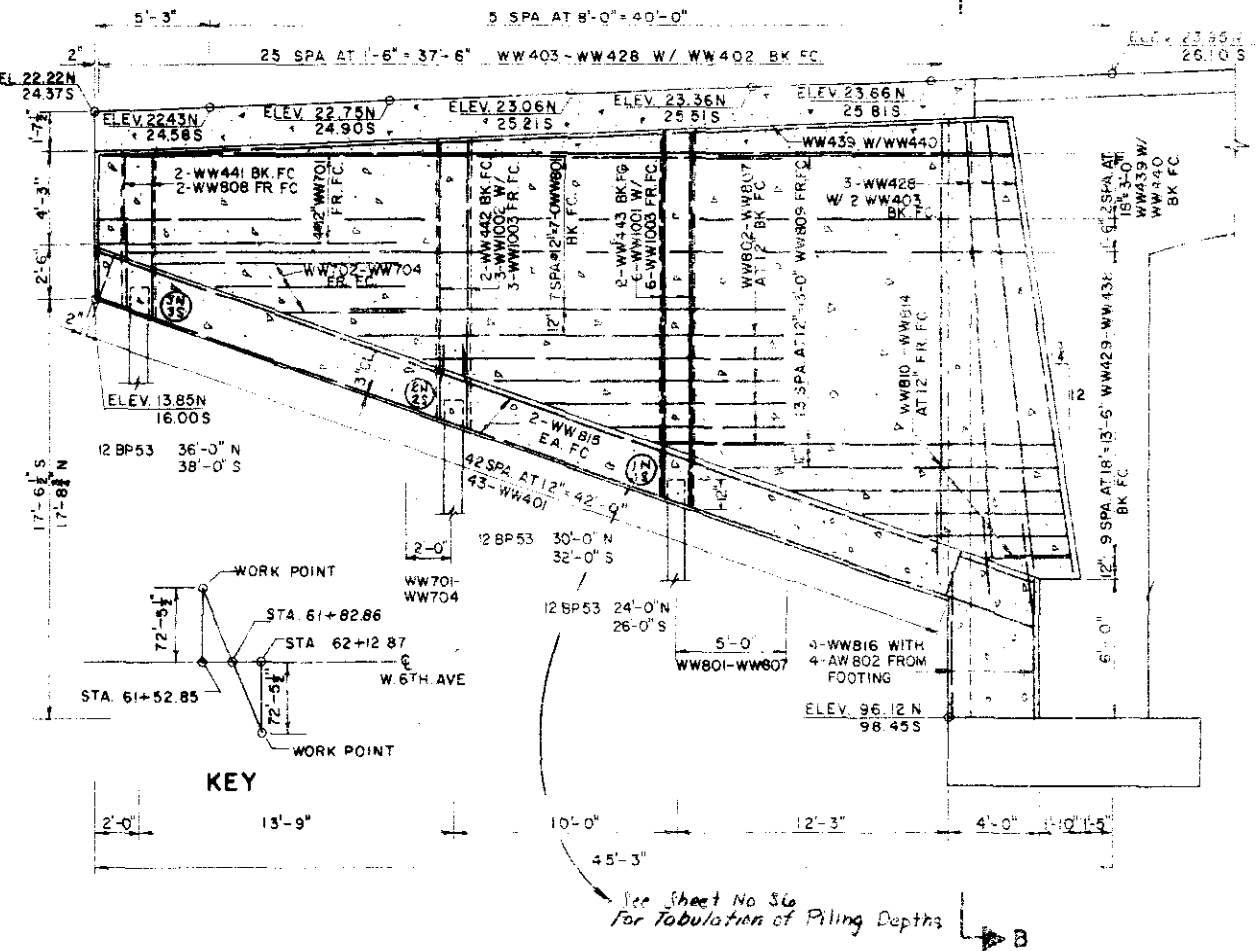
SECTION E-E

SECTION A-A



SECTION C-C

SECTION D-D



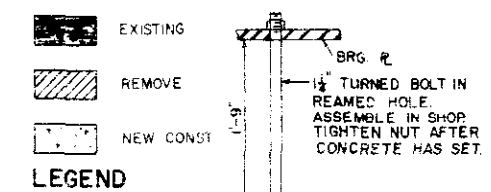
ELEVATION

KEY

See Sheet No 36 for Tabulation of Piling Depths

BAR LIST					BAR LIST					
MARK	SIZE	SHAPE	"D"	NO REQD	LENGTH	MARK	SIZE	SHAPE	NO REQD	LENGTH
WW 448			7'-4"	2	16'-9"	WW 401			86	8'-11"
449			7'-0"		16'-1"	402			52	2'-0"
450			6'-8"		15'-5"	403			6	4'-1"
451			5'-7"	2	13'-3"	404			2	4'-6"
452			5'-3"		12'-7"	405				5'-1"
453			4'-11"		11'-11"	406				5'-7"
454			4'-7"		11'-3"	407				6'-2"
455			4'-3"		10'-7"	408				6'-8"
456			3'-11"		9'-11"	409				7'-3"
457			3'-7"		9'-3"	410				7'-9"
458			3'-3"		8'-7"	411				8'-4"
459			2'-11"		8'-0"	412				8'-10"
WW 460			2'-11"	2	7'-11"	413				9'-5"
WW 461				78	11'-5"	414				9'-11"
						415				10'-6"
WW 801				16	20'-0"	416				11'-0"
802				2	4'-8"	417				11'-7"
803				2	7'-7"	418				12'-1"
804				2	10'-7"	419				12'-8"
805				2	13'-6"	420				13'-2"
806				2	16'-6"	421				13'-9"
807				2	19'-5"	422				14'-3"
WW 808				4	7'-0"	423				14'-10"
						424				15'-4"
WW 701				10	13'-6"	425				15'-1"
702				2	6'-4"	426				16'-5"
703				2	8'-3"	427				17'-0"
704				2	11'-3"	428				17'-8"
809				2	18'-1"	429				2'-4'-6"
810				2	4'-8"	430				8'-9"
811				2	7'-6"	431				13'-1"
812				2	10'-4"	432				17'-4"
813				2	13'-2"	433				21'-6"
WW 814				2	16'-0"	434				25'-11"
						435				30'-3"
WW 815				8	44'-10"	436				34'-6"
WW 816				8	5'-10"	437				38'-10"
						438				40'-0"
WW 1001				12	13'-6"	439				8 20'-0"
WW 1002				6	9'-3"	440				8 22'-6"
WW 1003				18	4'-3"	441				4 7'-0"
						442				4 12'-1"
WW 1101				4	26'-5"	443				4 15'-10"
WW 1102				20	3'-0"	444				40 9'-1"
WW 1103				16	28'-8"	445				52 9'-5"
						446				52 5'-8"
WW 447				12	37'-9"					

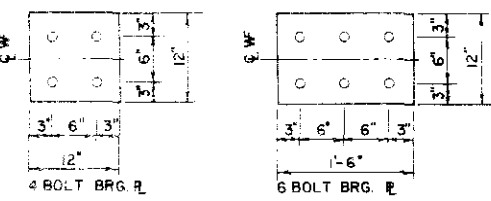
FOR GUARD RAIL POST INSTALLATION SEE DETAIL SHEET NO. 46



LEGEND

ANCHOR BOLT

BAR BENDING DETAILS



BEARING PLATES

NORTH F-16-DY
STRUCTURE NO. SOUTH F-16-DU

BAR SUMMARY	
5,300 L.F.T # 4 AT 0.668 "/FT.	3,540
185 L.F.T # 7 AT 2.044 "/FT.	380
1040 L.F.T # 8 AT 2.670 "/FT.	2,775
295 L.F.T # 10 AT 4.303 "/FT.	1,270
745 L.F.T # 11 AT 5.313 "/FT.	3,960
TOTAL	11,925

JEFFERSON ASSOCIATES
CIVIL ENGINEERS

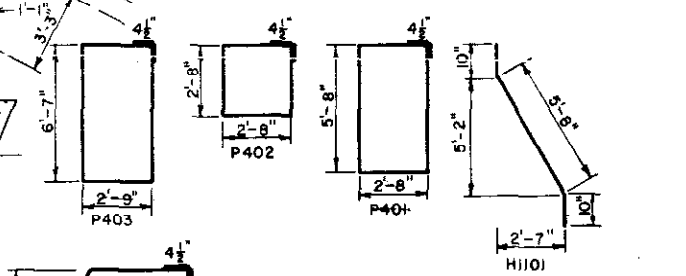
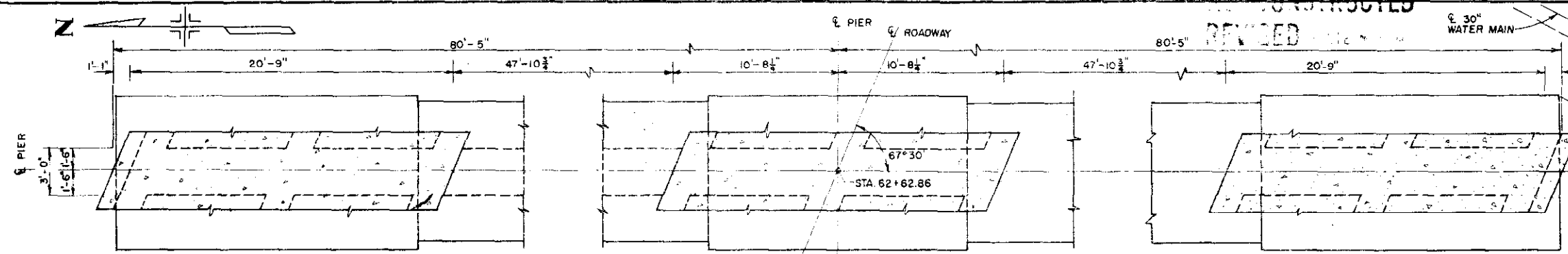
DEPARTMENT OF HIGHWAYS
STATE OF COLORADO

DETAILS
WEST WINGS

Across VALLEY HWY ON 6TH AVE.
Sta. 61+77.23 TO 63+48.49
Near DENVER Sec. 9 T. 4 S. R. 69W

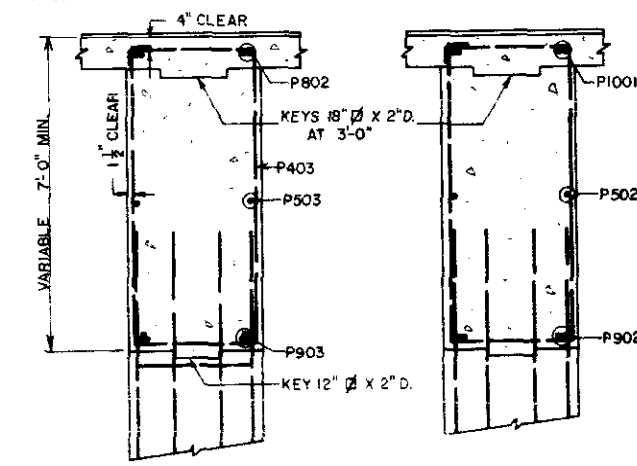
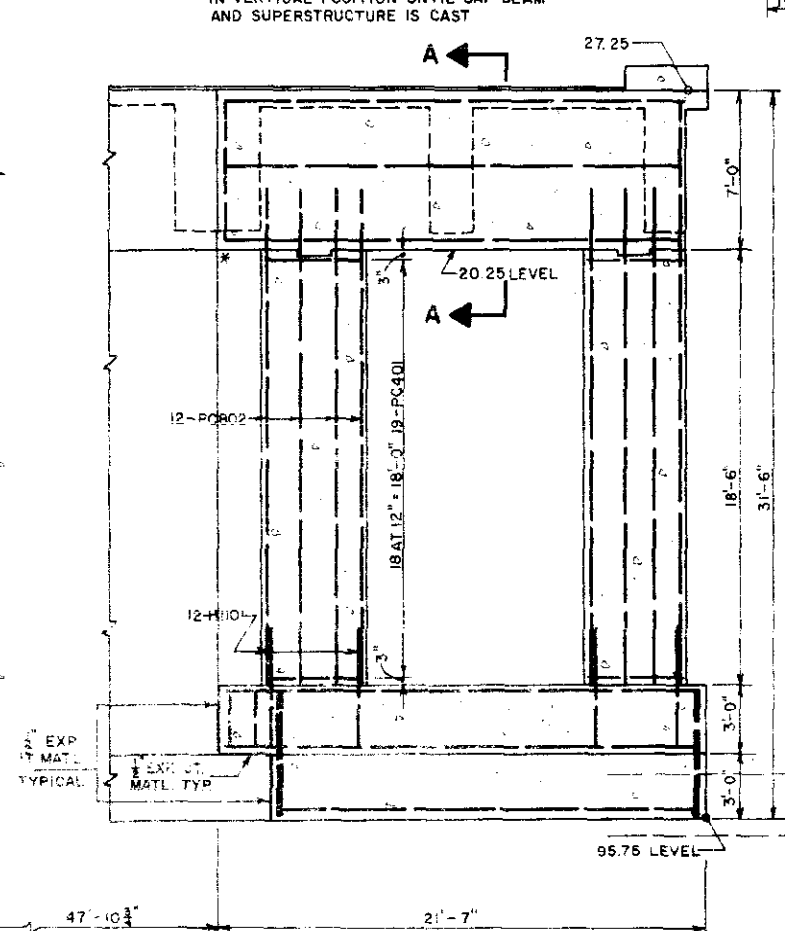
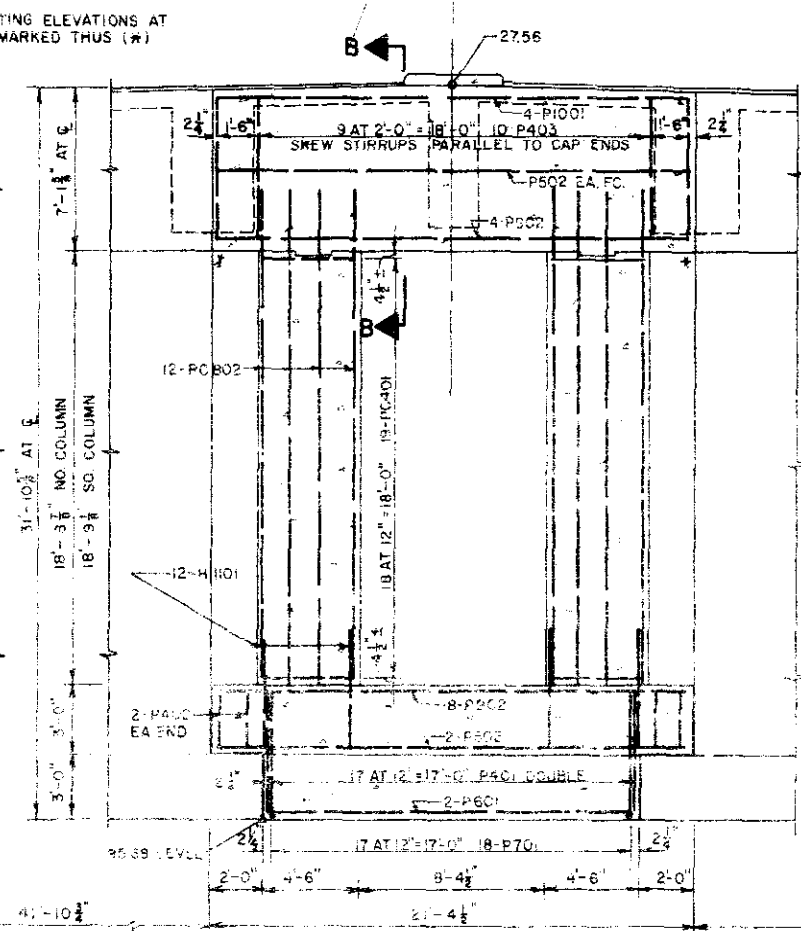
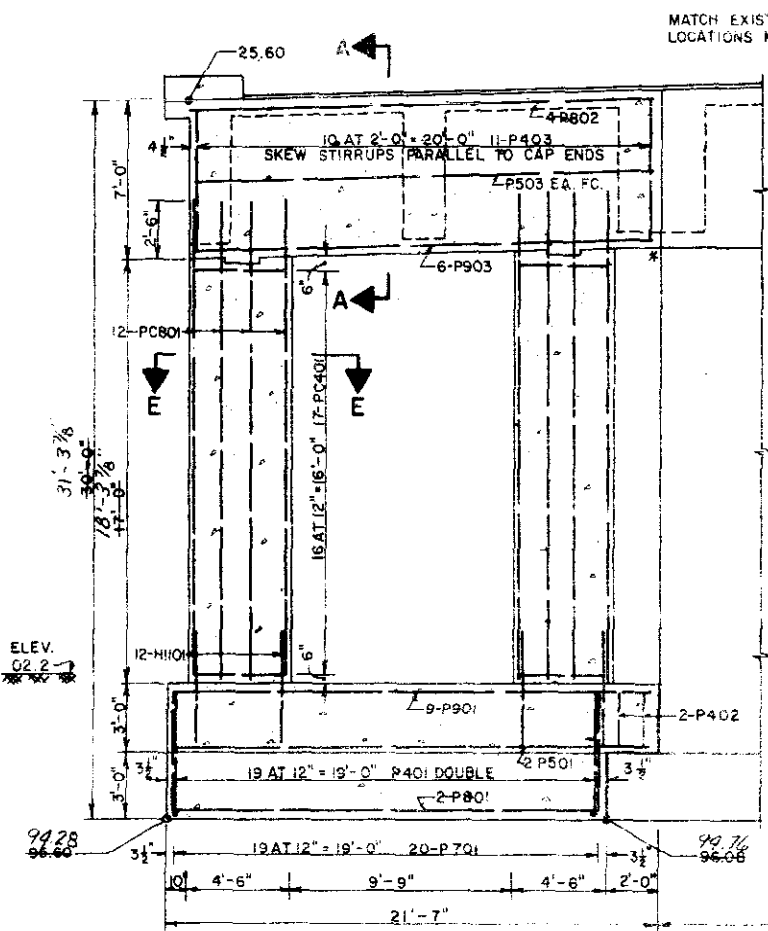
Designed by G.D.C. Approved by G.A.M. Bridge Engineer
Made by G.A.M. Checked by T.V.S. Date: 19

FED. ROAD REG. NO.	DIVISION	PROJECT NO.	SHEET NO.	TOTAL SHEETS
9	COLO.	U 012-2(13)	39	



BAR BENDING DETAILS

PIER COLUMNS MUST BE BRACED IN VERTICAL POSITION UNTIL CAP BEAM AND SUPERSTRUCTURE IS CAST

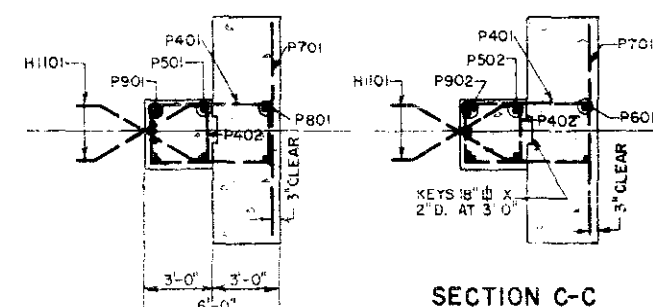
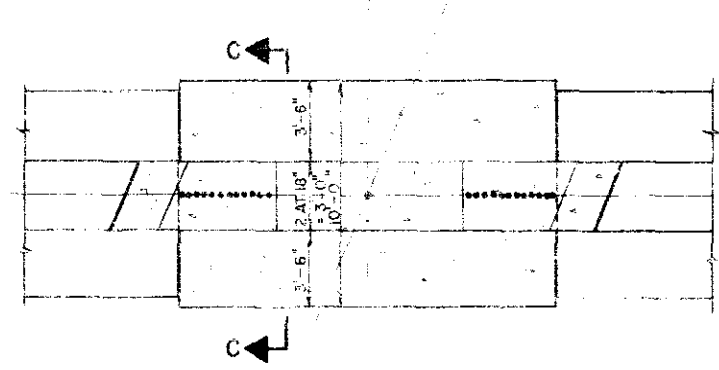
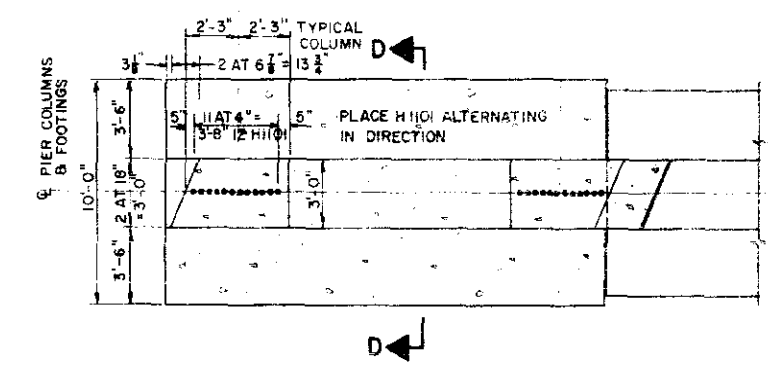


SECTION A-A

SECTION B-B

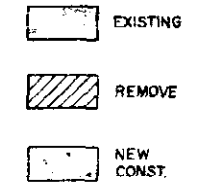
SECTION E-E

SEE BAR DETAILS, LISTS, AND QUANTITIES SHEET NO. 45



SECTION D-D

SECTION C-C



LEGEND

NORTH F-16-DY
STRUCTURE NO. SOUTH F-16-DU

JEFFERSON ASSOCIATES
CIVIL ENGINEERS

DEPARTMENT OF HIGHWAYS
STATE OF COLORADO

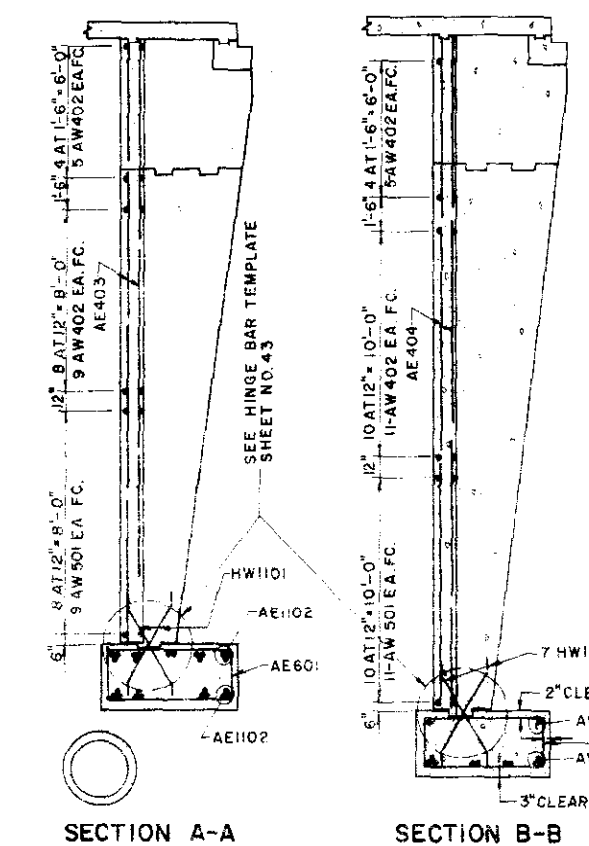
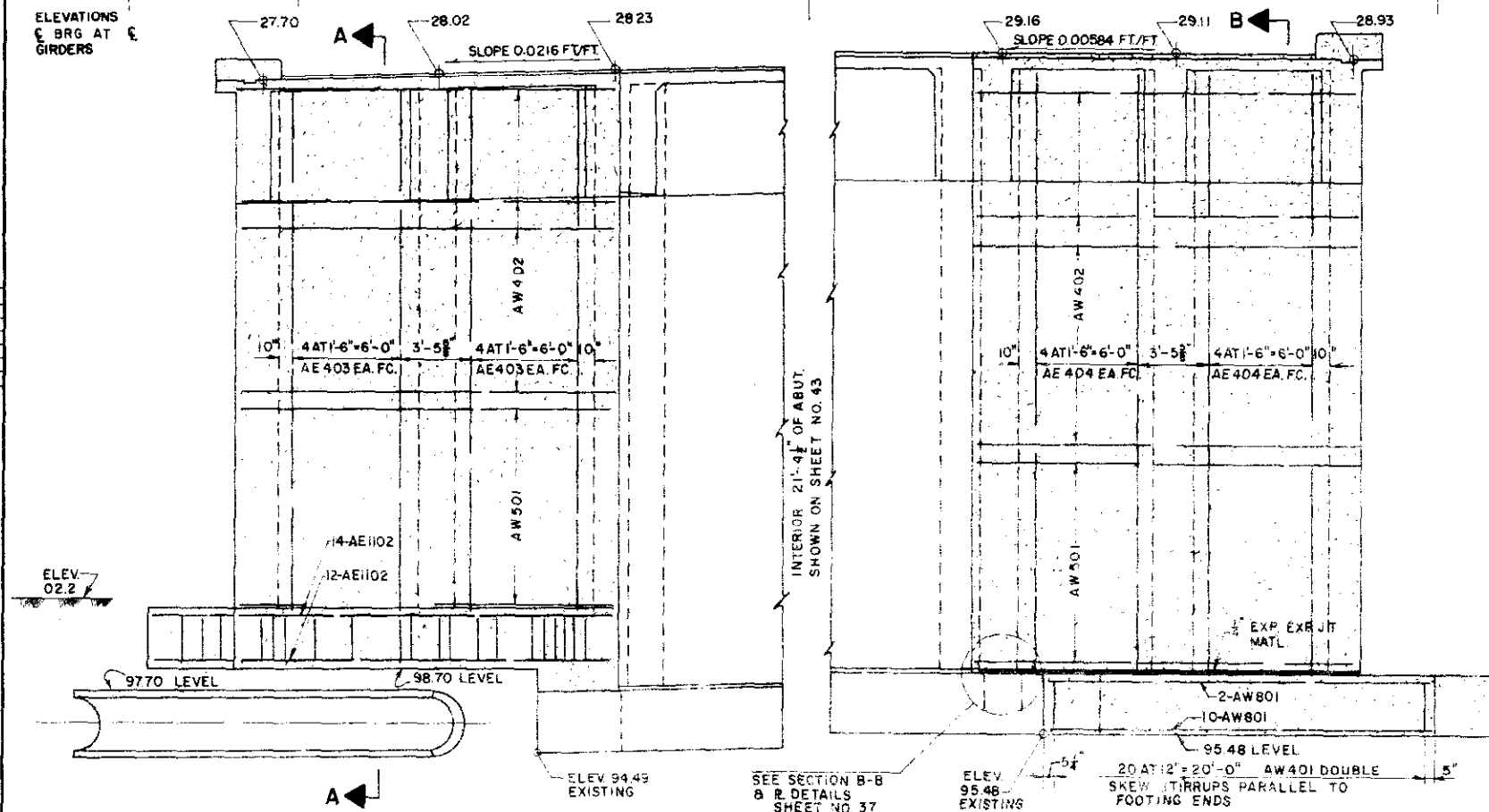
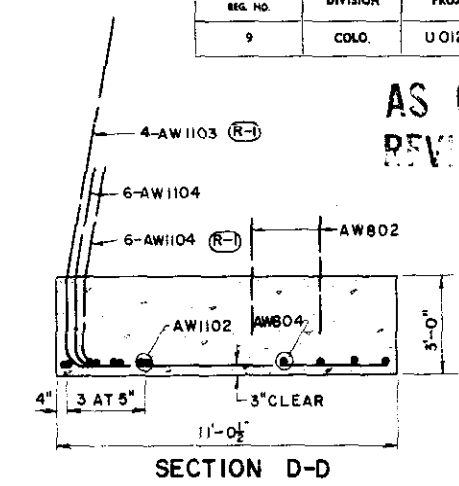
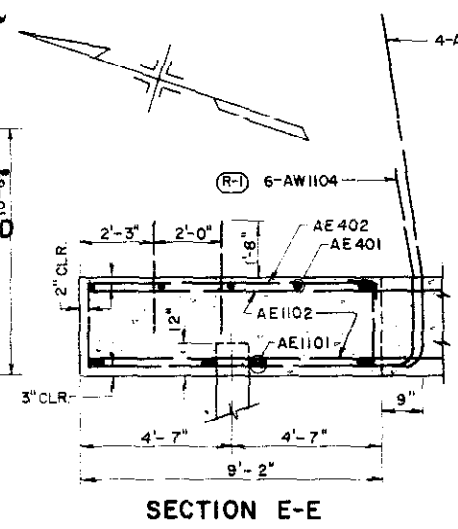
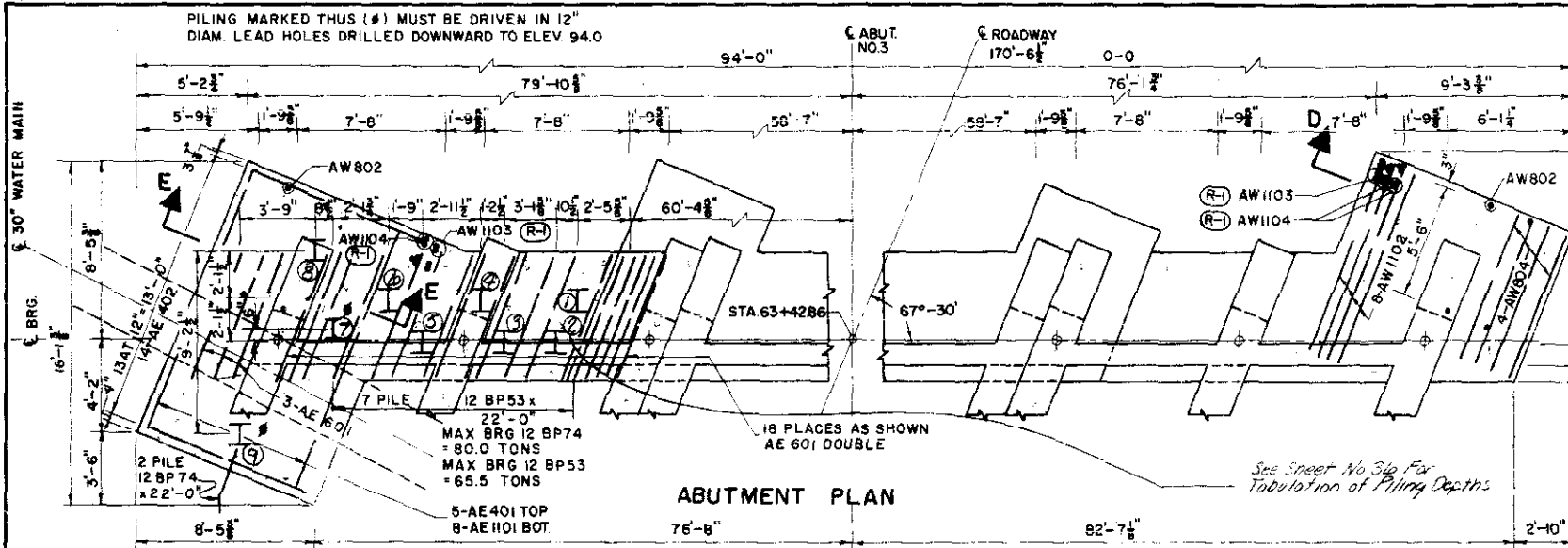
PIER NO. 2
DETAILS

Across VALLEY HIGHWAY ON W 6TH AVE.
Sta. 61+77.23 TO 63+48.49
Near DENVER Sec. 9 T. 4 S. R. 68 W

Designed by T.V.S. Approved by
Made by F.F.J. Bridge Engineer
Checked by G.D.C. Date: 19

FED. ROAD REG. NO.	DIVISION	PROJECT NO.	SHEET NO.	TOTAL SHEETS
9	COLO.	U012-2 (13)	40	

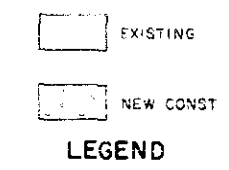
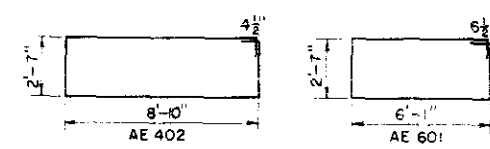
AS CONSTRUCTED
REVISED DATE 12-2-66



BAR LIST				
MARK	SIZE	SHAPE	REQD	LENGTH
AW401			42	18'-11"
AE401			5	13'-0"
AE402			14	23'-7"
AE403			20	25'-0"
AE404			20	30'-0"
AW402			60	20'-7"
AW501	5		40	20'-7"
AE601	6		39	18'-8"
AW801			12	20'-7"
AW802			8	3'-4"
AW804			4	7'-0"
HW1101			35	5'-0"
AW1102			8	10'-6"
AW1103			9	21'-0"
AW1104			18	17'-6"
AE1101			6	13'-0"
AE1102			26	20'-7"

BAR SUMMARY			
1420	L FT #11	AT 5.313 #/FT	2545
300	L FT #8	AT 2.670 #/FT	800
720	L FT #6	AT 1.502 #/FT	1080
825	L FT #5	AT 1.043 #/FT	860
3490	L FT #4	AT 0.668 #/FT	2330
(R-1)	TOTAL		12,515

SUMMARY OF QUANTITIES			
SECTION	UNIT	ITEM	AMOUNT
206	CU YD	STR EXCAV	349
206	CU YD	STR BKFL. (CL 3)	636
502	LIN FT	DRILL HOLE FAC PILE DR	0 +6
502	LIN FT	STEEL PILING (I2BP74)	110 +84
502	LIN FT	STEEL PILING (I2BP53)	383 +96
1509	LS	STR STEEL	LS
210	LIN FT	RES RAILING	107.6
601	CU YD	CONCRETE CL A	208
602	LB	REINF STEEL 39,501	31 +88
613	LIN FT	1/2" ELEC COND	112 +68
*	SQ FT	1/2 EXP JT MATL	290
(R-2) (R-1)		① DESIGN WEIGHT = 18,615	



THERE SHALL BE NO SEPARATE PAYMENT FOR ITEMS MARKED THUS (#). PAYMENT THEREFORE SHALL BE INCLUDED IN THE CONTRACT UNIT PRICE FOR ITEM 601, CONCRETE CL. A.

DEPARTMENT OF HIGHWAYS
STATE OF COLORADO

DETAILS
ABUT. NO. 3

JEFFERSON ASSOCIATES
CIVIL ENGINEERS

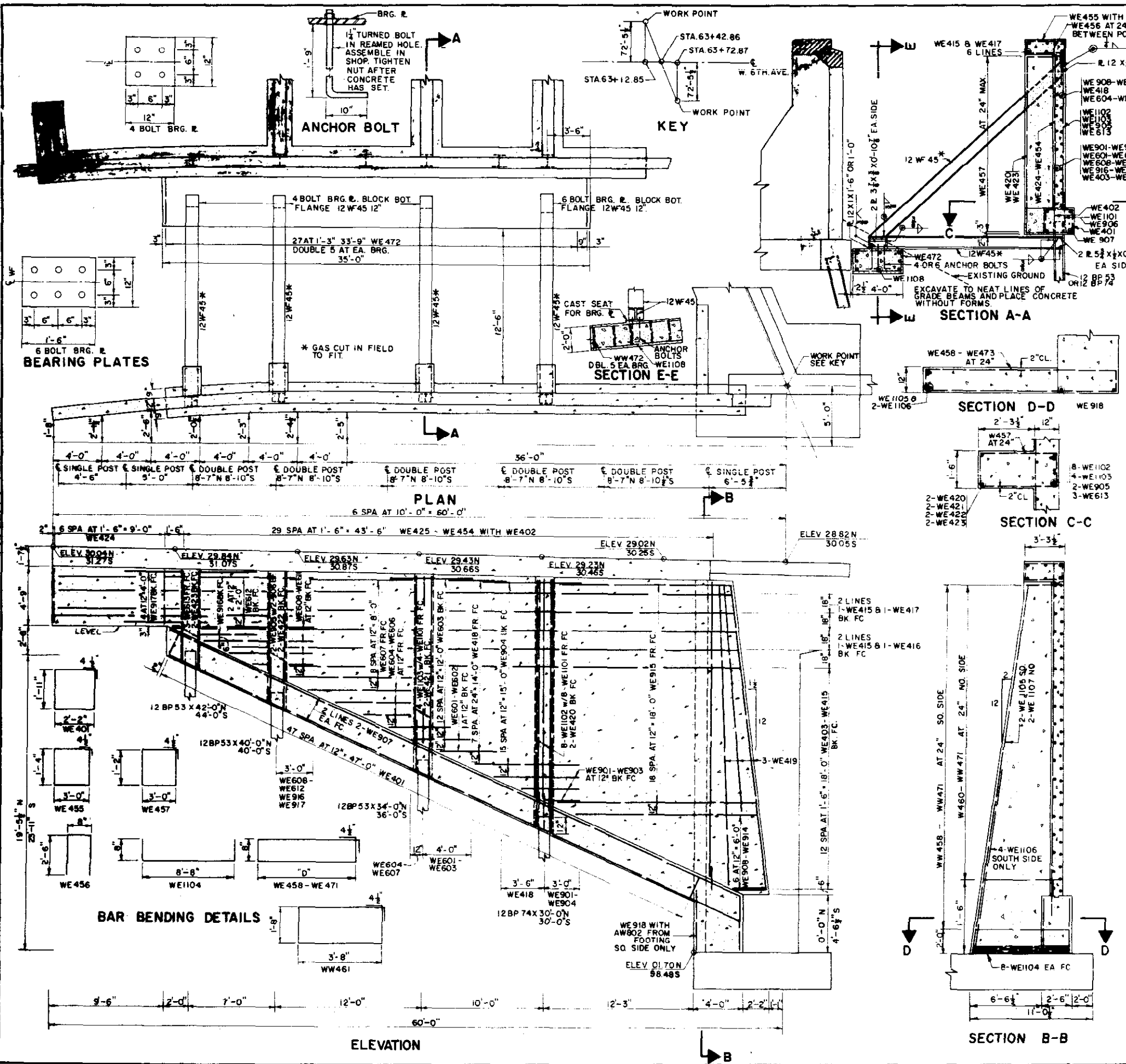
Across VALLEY HWY ON 6TH AVE.
Sta. 61+77.23 TO 63+48.43
Near DENVER, Sec. 9 T. 45 R. 68W.

Designed by T.V.S. Approved by
Made by J.M.S. Bridge Engineer
Checked by G.D.C. Date: 12

NORTH F-16-DY
STRUCTURE NO. SOUTH F-16-DU

Revised NewSheet 4-21-67

FED. ROAD DIST. NO.	DIVISION	PROJECT NO.	SHEET NO.	TOTAL SHEETS
9	COLO.	UO12-2 (13)	41	



BAR LIST					BAR LIST				
MARK	SIZE	SHAPE	NO REQD	LENGTH	MARK	SIZE	SHAPE	NO REQD	LENGTH
WE458	8'-4"		1	18'-9"	WE401	96		8'-11"	
459	8'-0"		1	18'-1"	402	60		3'-0"	
460	6'-11"		2	15'-11"	403	2		3'-0"	
461	6'-7"		1	15'-3"	404			6'-0"	
462	6'-3"			14'-7"	405			9'-1"	
463	5'-11"			13'-11"	406			12'-1"	
464	5'-7"			13'-3"	407			15'-2"	
465	5'-3"			12'-7"	408			18'-2"	
466	4'-11"			11'-11"	409			21'-3"	
467	4'-7"			11'-3"	410			24'-3"	
468	4'-3"			10'-7"	411			27'-4"	
469	3'-11"			9'-11"	412			30'-4"	
470	3'-7"			9'-3"	413			33'-5"	
WE471	3'-0"		2	8'-1"	414	2		36'-5"	
WE472					415	22		40'-0"	
					416	4		4'-0"	
					417	16		17'-6"	
WE601			2	2'-10"	418	16		4'-6"	
602			2	5'-0"	419	6		24'-6"	
603			26	7'-0"	420	4		20'-0"	
604			2	4'-2"	421	4		15'-6"	
605			2	6'-4"	422	4		10'-3"	
606			2	8'-6"	423	4		7'-3"	
607			18	10'-4"	424	14		4'-2"	
608			2	5'-0"	425	2		4'-10"	
609			2	7'-2"	426			5'-6"	
610			2	9'-4"	427			6'-2"	
611			2	11'-6"	428			6'-10"	
612			6	21'-3"	429	4		7'-6"	
WE613			6	7'-3"	430			8'-2"	
					431			8'-10"	
WE901			2	3'-0"	432			9'-6"	
902			2	5'-2"	433			10'-2"	
903			2	7'-4"	434			10'-10"	
904			32	8'-0"	435			11'-6"	
905			4	8'-2"	436			12'-2"	
WE906			4	3'-6"	437			12'-10"	
					438			13'-6"	
WE907			16	27'-3"	439			14'-2"	
908			2	3'-0"	440			14'-10"	
909			2	5'-0"	441			15'-6"	
910			2	7'-1"	442			16'-2"	
911			2	9'-1"	443			16'-10"	
912			2	11'-1"	444			17'-6"	
913			2	13'-2"	445			18'-2"	
914			2	15'-2"	446			18'-10"	
915			38	16'-5"	447			19'-6"	
916			2	5'-6"	448			20'-2"	
917			10	21'-3"	449			20'-10"	
WE918			4	4'-5"	450			21'-6"	
WE1101			24	4'-3"	451			22'-2"	
WE1102			16	17'-9"	452			22'-10"	
WE1103			8	13'-6"	453			23'-6"	
WE1104			16	10'-0"	454			24'-2"	
WE1105			2	30'-0"	455			9'-5"	
WE1106			4	20'-0"	456			5'-8"	
WE1107			2	25'-6"	WE457			9'-1"	
WE1108			16	34'-8"					

BAR SUMMARY	
6,540	LFT #4 AT 0668 W/FT = 4,370
660	LFT #6 AT 1502 W/FT = 990
1,775	LFT #8 AT 3400 W/FT = 6,035
1,400	LFT #11 AT 5313 W/FT = 7,440
TOTAL = 18,835	

FOR GUARD RAIL POST INSTALLATION SEE DETAIL SHEET NO. 46

LEGEND

- EXISTING
- REMOVE
- NEW CONST.

NORTH F-16 DY
SOUTH F-16 DY

JEFFERSON ASSOCIATES
CIVIL ENGINEERS

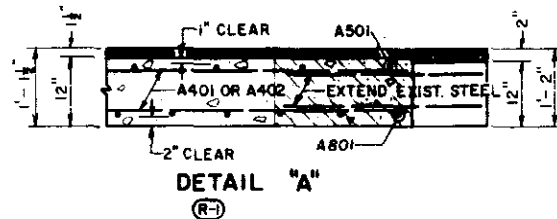
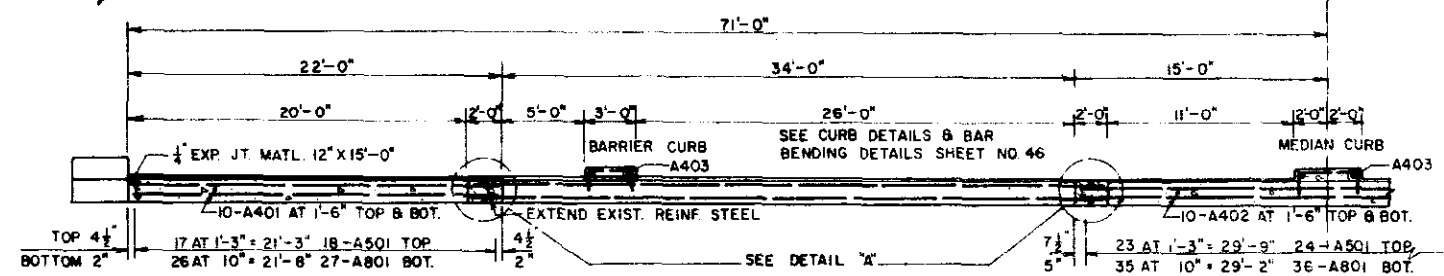
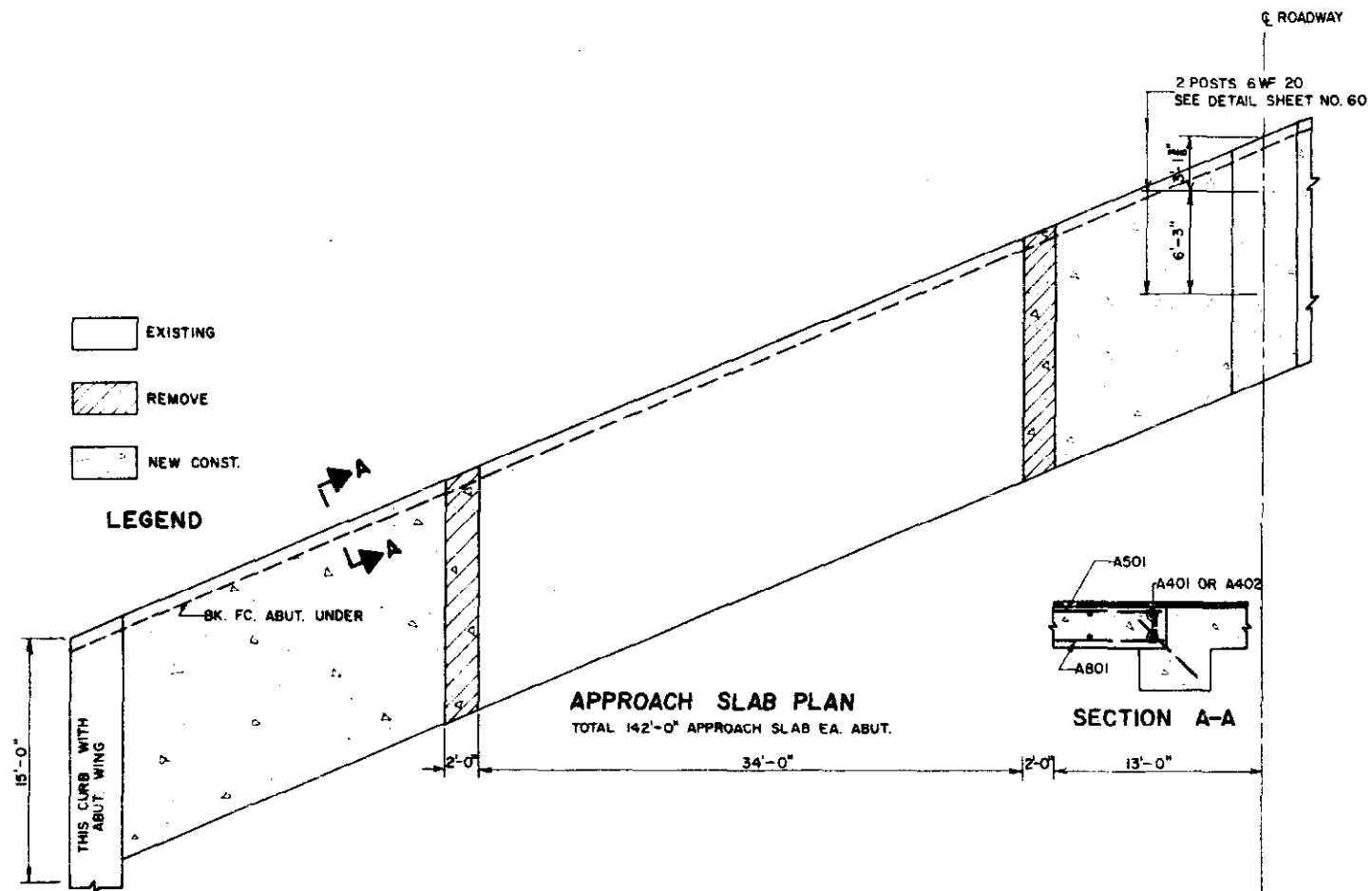
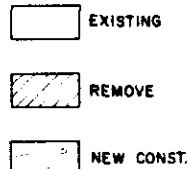
DEPARTMENT OF HIGHWAYS
STATE OF COLORADO

DETAILS
EAST WINGS

Across VALLEY HIGHWAY ON W 5th AVE
Sta. 61+77.25 TO 63+48.49
Near DENVER Sec. 9 T. 4S. R. 68W

Designed by G.D.C. Approved by
Made by F.F.J. Bridge Engineer
Checked by T.V.S. Date: 19

PER. ROAD REG. NO.	DIVISION	PROJECT NO.	SHEET NO.	TOTAL SHEETS
9	COLD.	U 012-2 (13)	42	



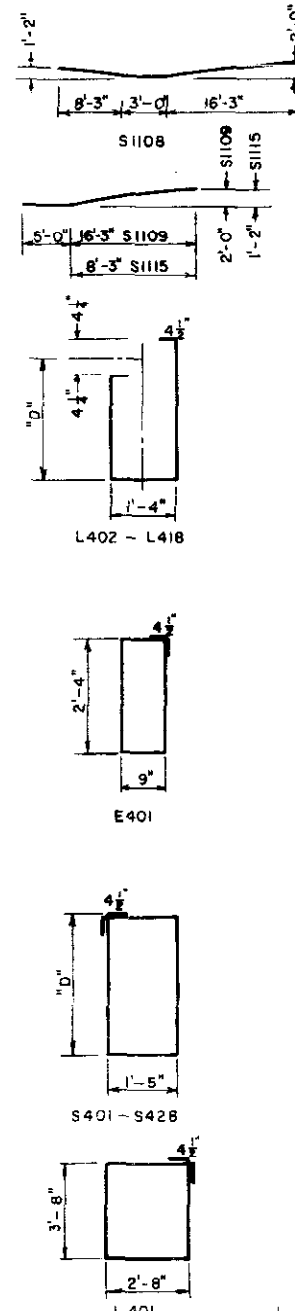
BAR SUMMARY	
3,495 L. FT. #4 AT 0.668 #/FT. = 2,335	
1,930 L. FT. #5 AT 1.043 #/FT. = 2,015	
2,655 L. FT. #8 AT 2.670 #/FT. = 7,090	
TOTAL = 11,440	

BAR DETAILS				
MARK	SIZE	SHAPE	REQD.	LENGTH
C403	4	—	60	2'-9"
C501	5	—	120	1'-4"
C405	4	—	30	6'-6"
A401			80	21'-9"
A402	4	—	40	29'-9"
A403			14	14'-9"
A501	5	—	120	14'-9"
A801	8	—	180	14'-9"

SUMMARY OF QUANTITIES			
SECTION	UNIT	ITEM	AMOUNT
403	TON	H.B.P. (GR. E)	13.48
411	GAL.	LIQ. ASPH. MATL. (RC-800)	16.23
509	L.S.	STR. STEEL (GALV.)	L.S.
601	CU. YD.	CONCRETE CL. A	82
602	L.B.	REINF. STEEL 12,920	11,440
606	LIN. FT.	GD. RAIL TY. 3A DBL.	25
*—	SQ. FT.	1/2" EXP. JT. MATL.	60

THERE SHALL BE NO SEPARATE PAYMENT FOR ITEMS MARKED THUS (*).
PAYMENT THEREFORE SHALL BE INCLUDED IN THE CONTRACT
UNIT PRICE FOR ITEM 601, CONCRETE CL. A.
DESIGN WEIGHT = 400 LB.

APPROACH SLAB DETAILS



BAR LIST				
MARK	SIZE	SHAPE	REQD.	LENGTH
S401	54	2'-9" 9'-1"	W1101	
402	36	2'-9" 9'-2"	02	
403		2'-9" 9'-2 1/2"	03	
404		2'-10" 9'-3"	04	
405		2'-10" 9'-4"	05	
406		2'-11" 9'-5"	W1106	
407		2'-11" 9'-6"		
408		3'-0" 9'-8"	E1101	
409		3'-1" 9'-9"	02	
410		3'-2" 9'-11"	03	
411		3'-3" 10'-1"	04	
412		3'-4" 10'-3"	05	
413		3'-5" 10'-5"	E1106	
414		3'-6" 10'-8"		
415		3'-7" 10'-10"	EX1101	
416		3'-9" 11'-1"	02	
417		3'-10" 11'-4"	03	
418		4'-0" 11'-7"	04	
419		4'-1" 11'-10"	05	
420		4'-3" 12'-1"	EX1106	
421		4'-4" 12'-4"	EX1107	
422		4'-6" 12'-8"	WX1101	
423		4'-9" 13'-1"	02	
424		4'-11" 13'-6"	03	
425		5'-1" 13'-10"	04	
426		5'-3" 14'-2"	05	
427		5'-5" 14'-6"	WX1106	
S428	36	5'-7 1/2" 14'-10"		
L401	30	13'-5"	S1101	
L402	18	2'-2" 6'-5"	I102	
403			I103	
404			I104	
405			I105	
406			I106	
407			I107	
408			I108	
409			I109	
410			I110	
411			I111	
412			I112	
413			I113	
414			S1114	
415			S1115	
416			W801	
417			E801	
L418	18	5'-2" 12'-5"	WX801	
E401	192		EX801	
L419	12	23'-0"	S801	
L420	8	21'-0"	L901	
			S501	
			L501	
			E601	

BAR LIST							
MARK	SIZE	SHAPE	REQD.	"H"	ARC	"V"	LENGTH
6	30'-4"	6'-10"	18'-6"	55'-7"			
30'-4"		13'-3"	50'-4"				
24'-4"		9'-3"	40'-5"				
20'-4"		6'-4"	33'-6"				
15'-4"		5'-2"	27'-4"				
12'-4"		5'-2"	24'-4"				
30'-4"		22'-10"	60'-0"				
30'-4"		16'-10"	54'-0"				
24'-4"		12'-7"	43'-9"				
20'-4"		8'-10"	36'-0"				
15'-4"		5'-2"	27'-4"				
12'-4"		5'-2"	24'-4"				
6	27'-5"	25'-9"	60'-0"				
30'-4"		19'-9"	56'-11"				
24'-4"		15'-6"	46'-8"				
20'-4"		11'-9"	38'-11"				
15'-4"		7'-9"	29'-11"				
12'-4"		5'-9"	24'-11"				
6	27'-5"	25'-4"	59'-7"				
18	30'-4"	21'-9"	56'-11"				
27'-5"		16'-6"	50'-9"				
24'-4"		12'-9"	43'-11"				
20'-4"		9'-7"	36'-9"				
15'-4"		6'-3"	28'-5"				
12'-4"		6'-10"	24'-11"				
18							
18							
18							
18							
72							
36							
36							
36							
12							
24							
36							
6							
6							
6							
18							
6							
54							
12							
54							
4							
8							

BAR SUMMARY			
16,505 L. FT. #4 AT 0.668 #/FT. = 11,025			
3,470 L. FT. #5 AT 1.043 #/FT. = 3,620			
4,195 L. FT. #8 AT 2.670 #/FT. = 11,200			
250 L. FT. #9 AT 3.400 #/FT. = 850			
24,635 L. FT. #11 AT 5.313 #/FT. = 130,885			
TOTAL = 157,580			

DEPARTMENT OF HIGHWAYS
STATE OF COLORADO
FRAME BAR DETAILS

APPROACH SLAB DETAILS

Across VALLEY HIGHWAY ON 6th AVE
Sta. 61+77.23 TO 63+48.49

Near DENVER Sec. 9 T. 4S R. 65W

Designed by T.V.S. Approved by
Made by W.J.P. Bridge Engineer
Checked by G.D.C. Date: 19

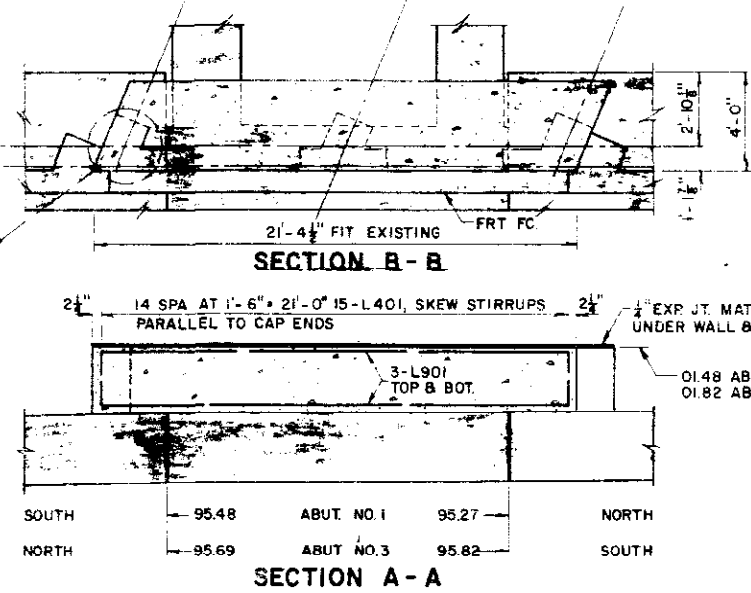
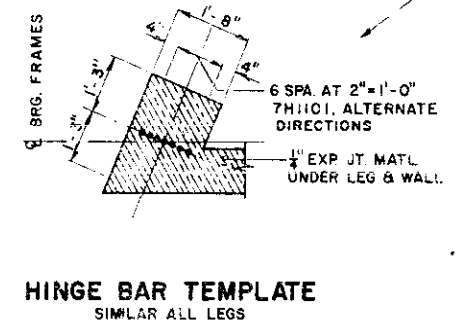
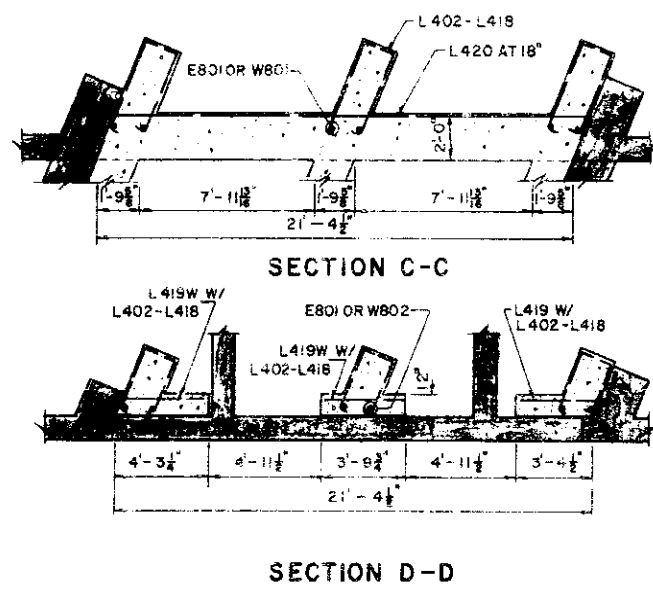
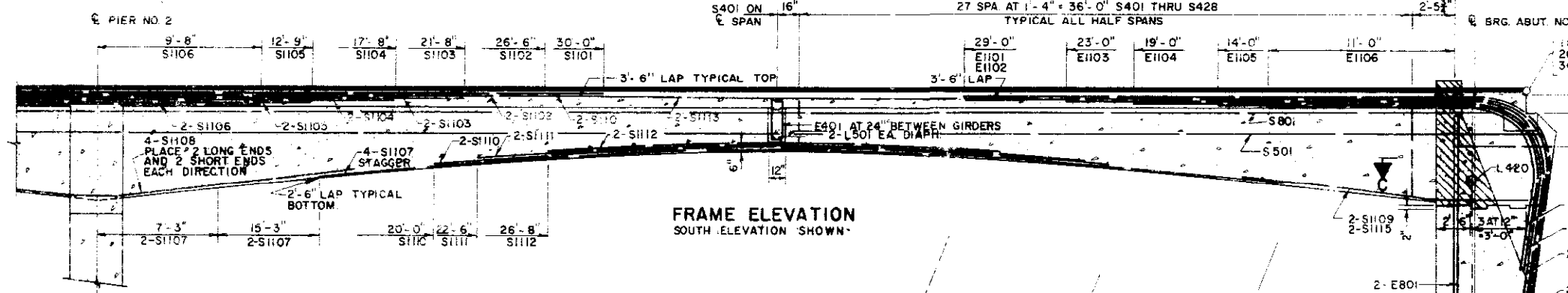
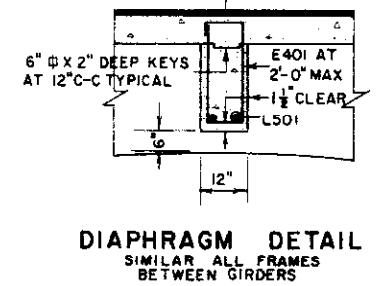
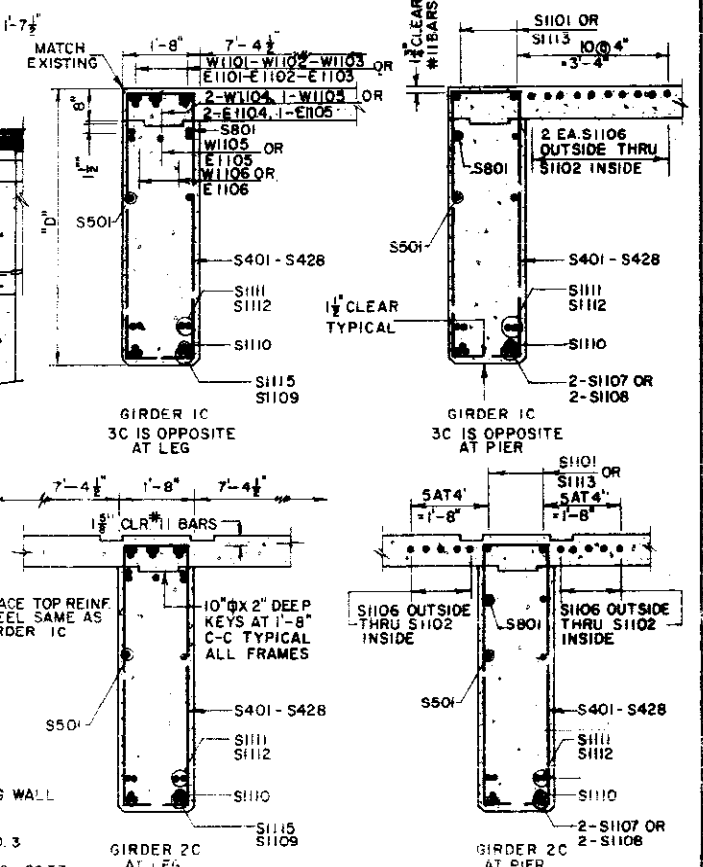
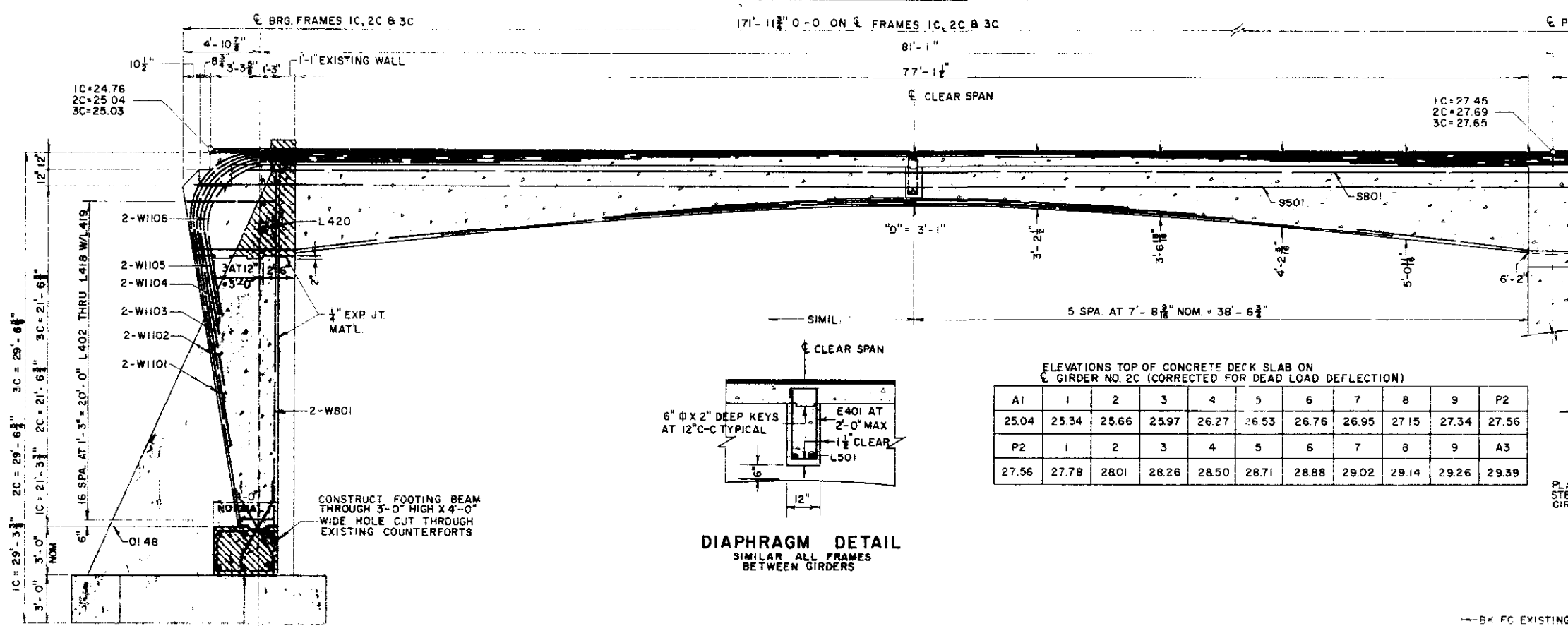
JEFFERSON ASSOCIATES
CIVIL ENGINEERS

NORTH F-16-DY
STRUCTURE NO. SOUTH F-16-DU

REVISIONS

REVISIONS

FED. ROAD DIST. NO.	DIVISION	PROJECT NO.	SHEET NO.	TOTAL SHEETS
9	COLO.	UD12 2 (13)	43	



- LEGEND
- EXISTING
 - REMOVE
 - NEW CONST.

JEFFERSON ASSOCIATES
CIVIL ENGINEERS

DEPARTMENT OF HIGHWAYS
STATE OF COLORADO

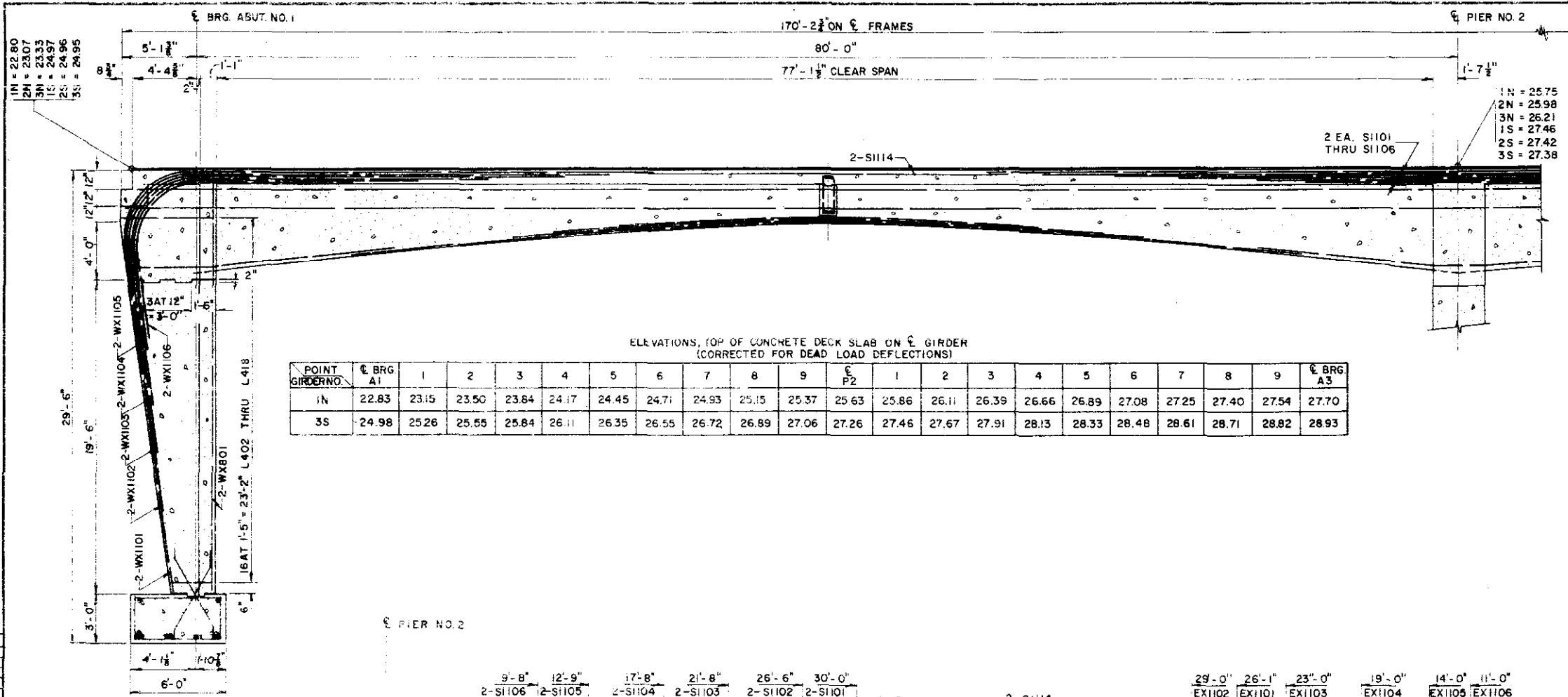
FRAME DETAILS
1C, 2C & 3C

Across VALLEY HIGHWAY ON 6 TH. AVE.
Sta. 61+77.23 TO 63+48.49
Near DENVER Sec. 9 T. 45. R. 66W

Designed by G.D.C. Approved by
Made by F.F.J. Bridge Engineer
Checked by T.V.S. Date: 19

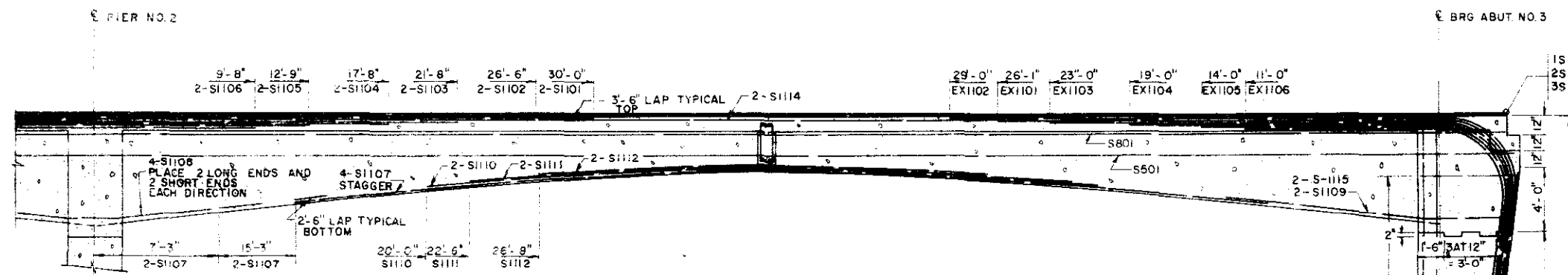
NORTH F-16-DY
STRUCTURE NO. SOUTH F-16-DU

FED. ROAD REG. NO.	DIVISION	PROJECT NO.	SHEET NO.	TOTAL SHEETS
9	COLO.	U 012 - 2 (13)	44	

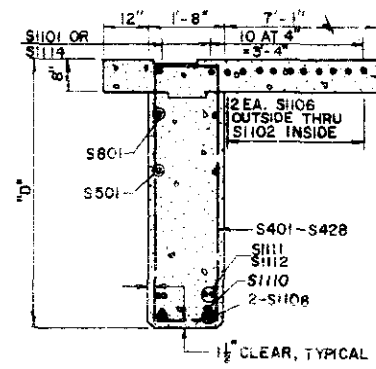


ELEVATIONS, TOP OF CONCRETE DECK SLAB ON G GIRDER
(CORRECTED FOR DEAD LOAD DEFLECTIONS)

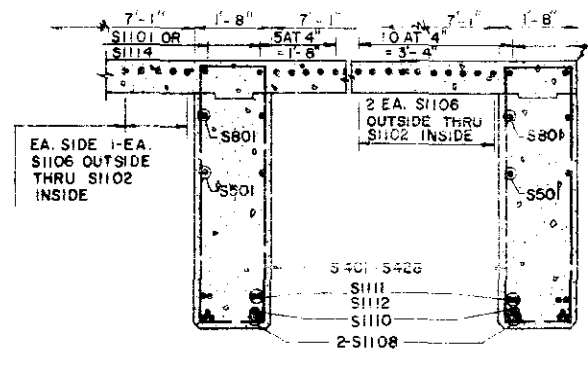
POINT GIRDERS NO.	G BRG A1	1	2	3	4	5	6	7	8	9	P2	1	2	3	4	5	6	7	8	9	G BRG A3
1N	22.83	23.15	23.50	23.84	24.17	24.45	24.71	24.93	25.15	25.37	25.63	25.86	26.11	26.39	26.66	26.89	27.08	27.25	27.40	27.54	27.70
3S	24.98	25.26	25.55	25.84	26.11	26.35	26.55	26.72	26.89	27.06	27.26	27.46	27.67	27.91	28.13	28.33	28.48	28.61	28.71	28.82	28.93



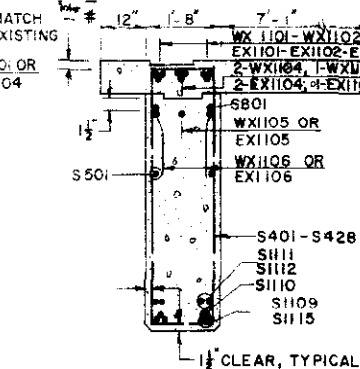
FRAME ELEVATION
SOUTH ELEVATION SHOWN



GIRDER 1N
3S IS OPPOSITE

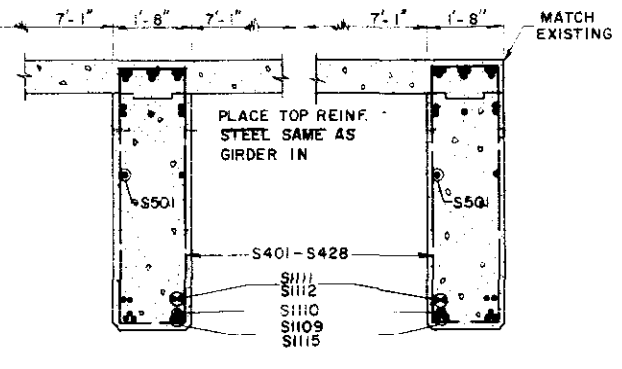


GIRDER 2N OR 2S

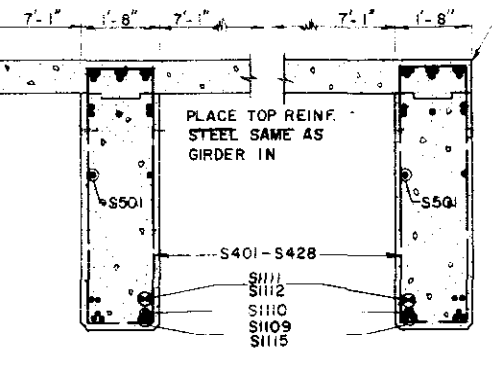


GIRDER 3N
1S IS OPPOSITE

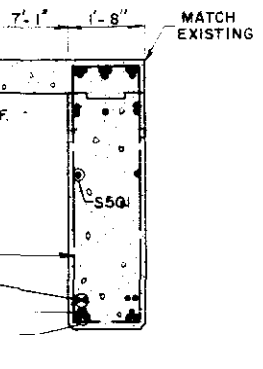
SECTIONS NEAR PIER



GIRDER 1N
3S IS OPPOSITE

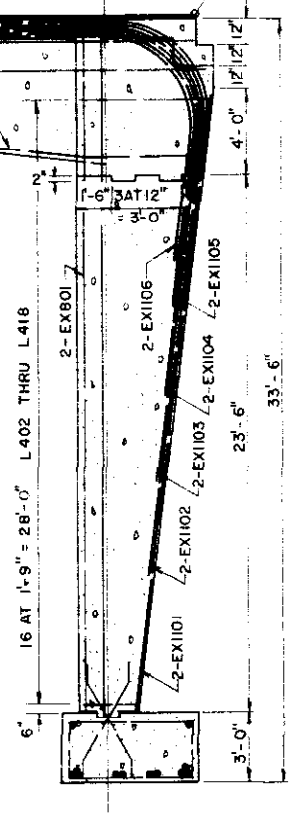


GIRDER 2N OR 2S



GIRDER 3N
1S IS OPPOSITE

SECTIONS NEAR LEG



STRUCTURE NO. NORTH F-16-DY
SOUTH F-16-DU

SEE SHEET NO. 45 FOR
LEG DETAILS IN, 2N, & 3N
AT ABUT. NO. 3

JEFFERSON ASSOCIATES
CIVIL ENGINEERS

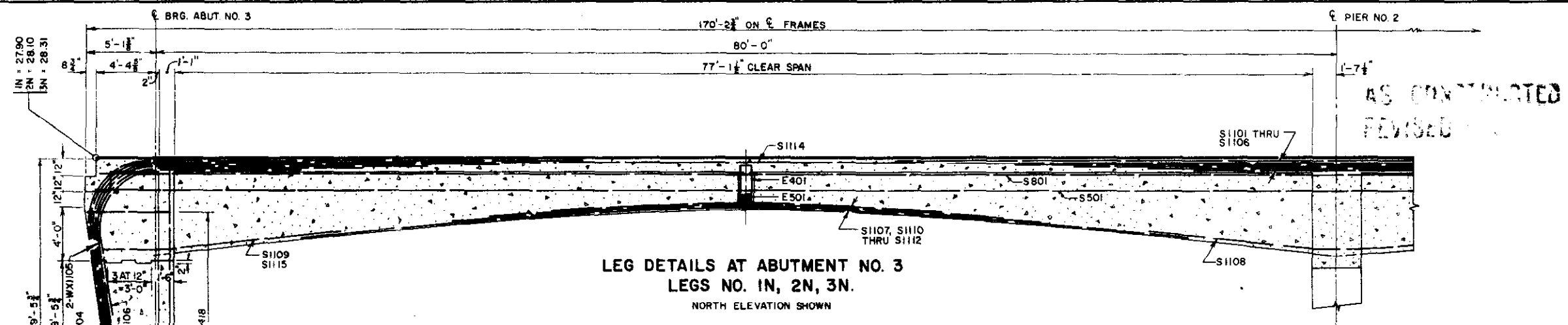
DEPARTMENT OF HIGHWAYS
STATE OF COLORADO

FRAME DETAILS
1N, 2N, 3N
1S, 2S, 3S

Across VALLEY HIGHWAY ON W. 6th AVE.
Sta 61+77.23 TO 63+48.49

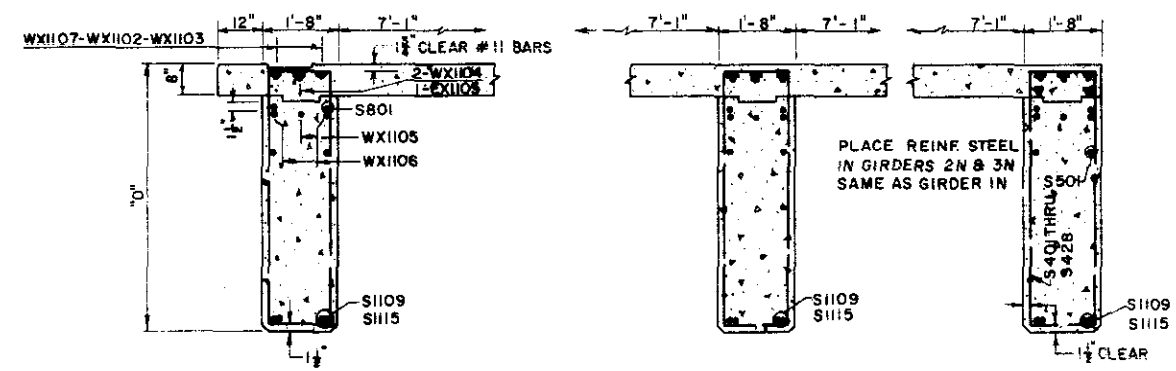
Near DENVER Sec. 9 T. 45 R. 60W

Designed by G.D.C. Approved by
Made by F.F.J. Bridge Engineer
Checked by T.V.S. Date: 19



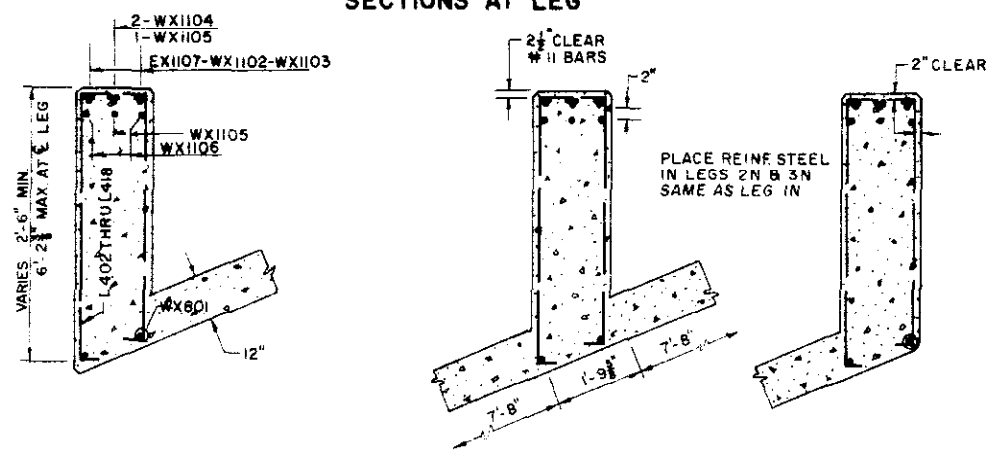
AS CONTRACTED
REVISED

LEG DETAILS AT ABUTMENT NO. 3
LEGS NO. 1N, 2N, 3N.
NORTH ELEVATION SHOWN



GIRDER 1N GIRDER 2N GIRDER 3N

SECTIONS AT LEG



LEG 1N LEG 2N LEG 3N

SECTIONS AT GIRDER

BY	DATE

FED. ROAD DIST. NO.	DIVISION	PROJECT NO.	SHEET NO.	TOTAL SHEETS
9	COLO.	U 012-2(13)	45	

BAR LIST				
MARK	SIZE	SHAPE	NO. REQD.	LENGTH
P401	4		116	17' - 5"
P402	4		8	11' - 5"
P403	4		32	19' - 5"
PC401	4		110	14' - 7 1/2"
P501	5		4	21' - 4"
P502	5		4	21' - 1 1/2"
P503	5		4	20' - 6"
P601	6		2	17' - 1 1/2"
P701	7		58	9' - 8"
P801	8		4	19' - 4"
P802	8		8	20' - 6"
PC801	8		24	19' - 6"
PC802	8		48	21' - 3"
P901	9		18	21' - 4"
P902	9		12	21' - 1 1/2"
P903	9		12	20' - 6"
PI001	10		4	21' - 1 1/2"
HI01	11		72	7' - 4"

BAR SUMMARY			
4,340	L. FT.	#4 AT 0.668 W/FT =	2,900
250	L. FT.	#5 AT 1.043 W/FT =	280
35	L. FT.	#6 AT 1.502 W/FT =	55
560	L. FT.	#7 AT 2.044 W/FT =	1,145
1,730	L. FT.	#8 AT 2.670 W/FT =	4,620
885	L. FT.	#9 AT 3.400 W/FT =	3,010
85	L. FT.	#10 AT 4.303 W/FT =	365
530	L. FT.	#11 AT 5.313 W/FT =	2,815
TOTAL =			15,170

SUMMARY OF QUANTITIES			
SECTION	UNIT	ITEM	AMOUNT
206	CU. YD.	STR. EXCAV.	202
206	CU. YD.	STR. BKFL (CL 3)	123
601	CU. YD.	CONCRETE CL. A	120/139
602	LB	REINF STEEL	15,316 - 18,170
@	SQ. FT.	EXP. JT. MTL.	336
@	SQ. FT.	EXP. JT. MTL.	72

THERE SHALL BE NO SEPARATE PAYMENT FOR ITEMS MARKED THUS & PAYMENT THEREFOR SHALL BE INCLUDED IN THE CONTRACT UNIT PRICE FOR ITEM 601, CONCRETE CL. A.

PIER NO. 2 QUANTITIES
BAR LIST
BAR SUMMARY

JEFFERSON ASSOCIATES
CIVIL ENGINEERS

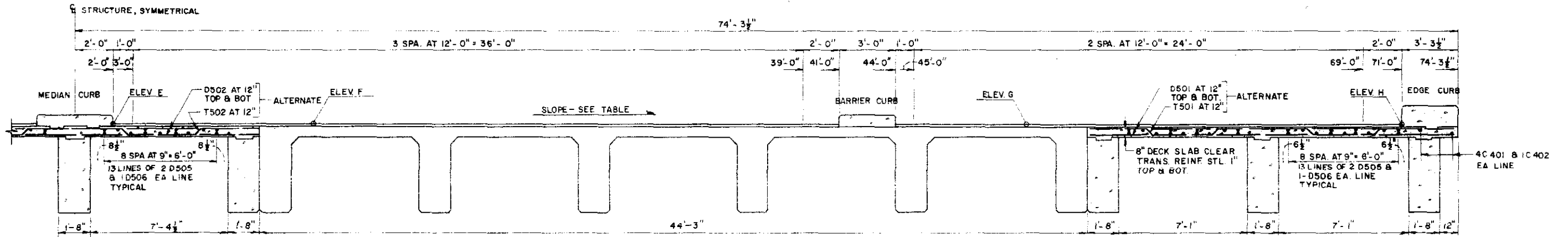
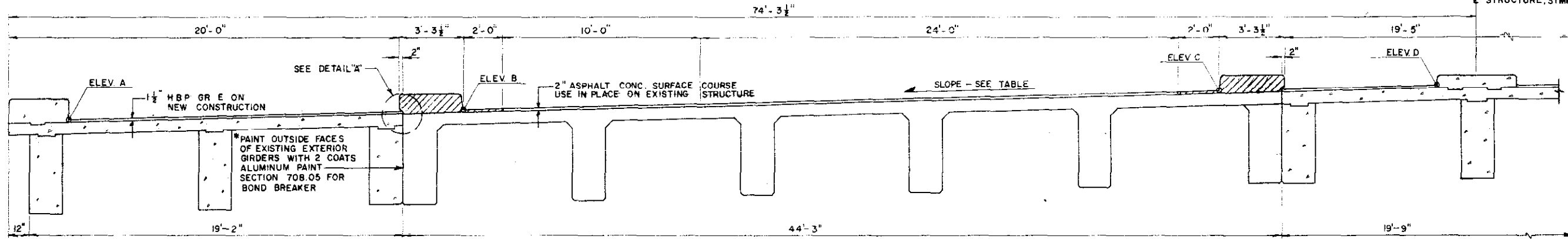
DEPARTMENT OF HIGHWAYS
STATE OF COLORADO
PIER NO. 2 QUANTITIES

LEG DETAILS AT ABUT. NO. 3
LEG NOS. 1N, 2N, 3N

Across VALLEY HIGHWAY ON W. 6th AVE
Sta. 61+77.23 TO 68+48.49
Near DENVER Sec. 9 T. 4 S. R. 68W

Designed by G.D.C. Approved by
Made by W.J.P. Bridge Engineer
Checked by T.V.S. Date: 19

FED. ROAD REG. NO.	DIVISION	PROJECT NO.
9	COLO.	U012-2 (13) 46



REV.	BY	DATE

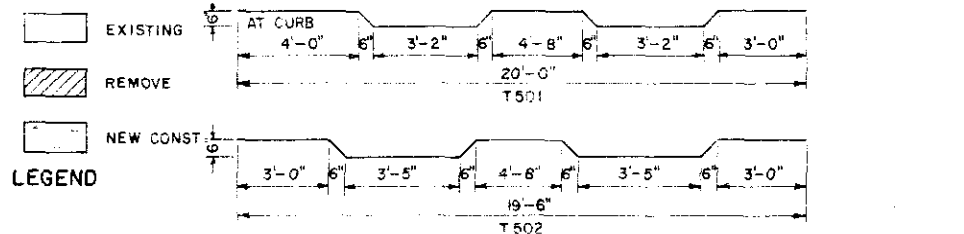
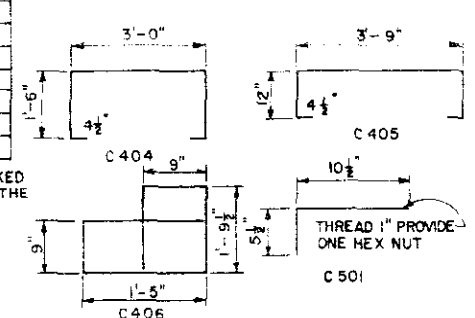
SECTION	UNIT	ITEM	AMOUNT
403	TON	H B P (GR E)	117.446
411	GAL	LIO. ASPH. MATL (RC-800)	159.469
509	L.S.	STR. STEEL	L.S.
509	L.S.	STR. STEEL (GALV)	L.S.
210	LIN. FT.	RES. RAILING	339.3
601	CU. YD.	CONCRETE CL. A	90.898
602	LB	REINF. STEEL	207,960
605	LIN. FT.	GD. RAIL TY 3A. DOUBLE	162.5
613	LIN. FT.	1/2 IN. ELEC. COND.	373

BAR SUMMARY	
6,070	L. FT. #4 AT 0.668 #/FT = 4,055
45,025	L. FT. #5 AT 1.043 #/FT = 46,960
TOTAL = 51,015	

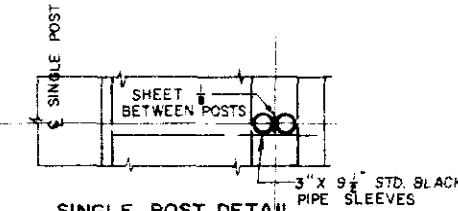
MARK	SIZE	SHAPE	REQD.	LENGTH
C401	4		64	40'-0"
C402			16	14'-0"
C403			172	2'-9"
C404			172	6'-9"
C405			86	6'-6"
C406			136	7'-11"
C501			344	1'-4"
D501			682	20'-0"
D502			322	19'-6"
D503			64	10'-0"
D504			32	9'-9"
D505			156	60'-0"
D506			78	52'-0"
T501			320	20'-10"
T502			160	20'-4"
D507			180	2'-0"

THERE SHALL BE NO SEPARATE PAYMENT FOR ITEMS MARKED THUS (*). PAYMENT THEREFORE SHALL BE INCLUDED IN THE CONTRACT UNIT PRICE FOR ITEM 601, CONCRETE CL. A.

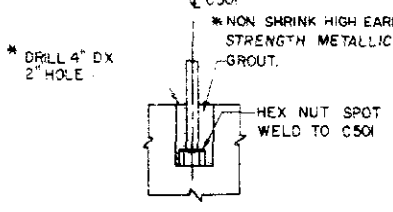
① DESIGN WEIGHT = 990 LB.
② DESIGN WEIGHT = 3095 LB.



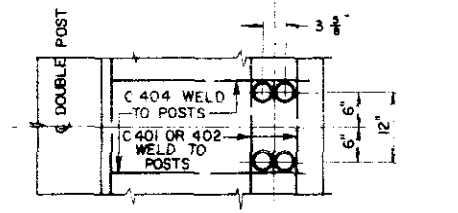
DETAIL A
ROADWAY



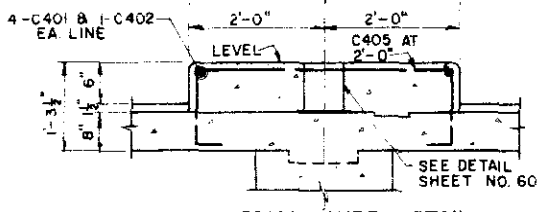
SINGLE POST DETAIL



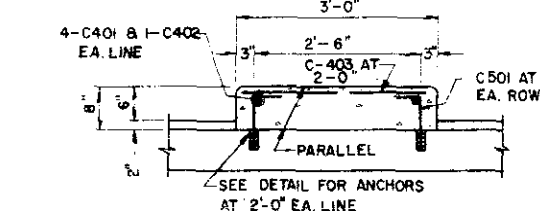
ANCHOR INSTALLATION



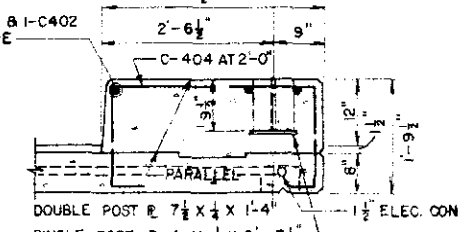
DOUBLE POST DETAIL



MEDIAN CURB DETAIL



BARRIER CURB DETAIL



EDGE CURB DETAIL

	ABUT NO. 1	PIER NO. 2	ABUT NO. 3
NORTH SLOPE	.0282	.0248	.0216
ELEV A	23.00	25.78	27.97
B	23.60	26.32	28.32
C	24.76	27.34	29.21
D	25.10	27.64	29.46

	SOUTH SLOPE	.00073	.00389	.00584
ELEV E	25.16	27.68	29.50	
F	25.15	27.64	29.43	
G	25.12	27.48	29.19	
H	25.10	27.39	29.06	

JEFFERSON ASSOCIATES
CIVIL ENGINEERS

DEPARTMENT OF HIGHWAYS
STATE OF COLORADO

SUPERSTRUCTURE
DETAILS

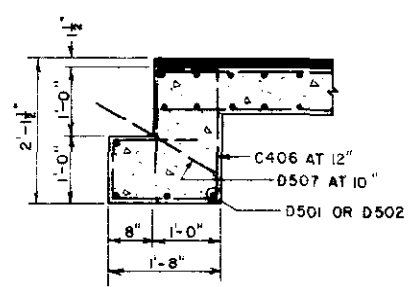
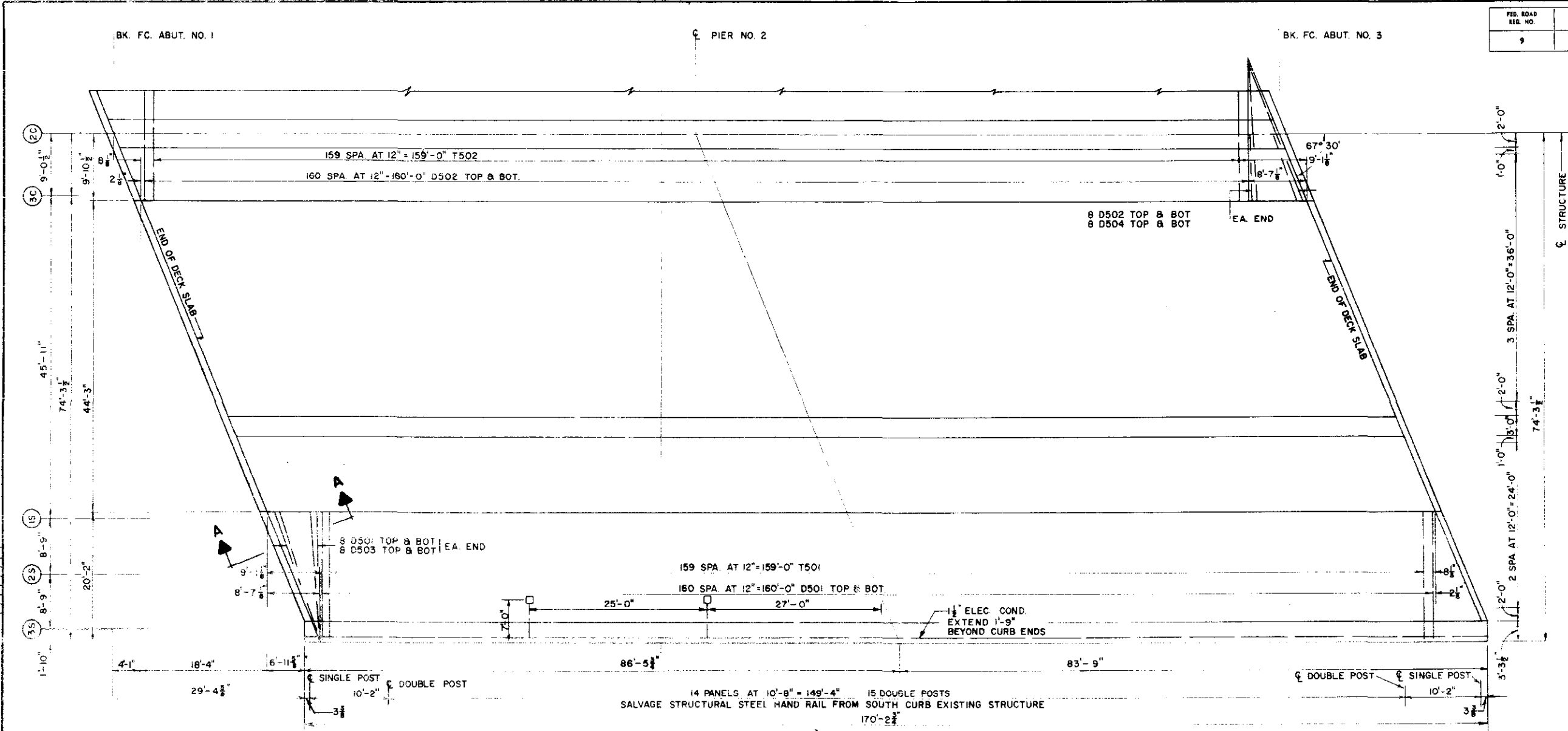
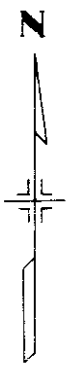
Across VALLEY HIGHWAY ON 6TH AVE.
Sta. 61+77.23 TO 63+48.49
Near DENVER Sec. 9 T.4.S. R.68W
Designed by T.V.S. Approved by
Made by F.F.J. Bridge Engineer
Checked by G.D.C. Date: 19

NORTH F-16-DY
STRUCTURE NO. SOUTH F-16-DU

REVISIONS

REVISIONS

FED. ROAD REG. NO.	DIVISION	PROJECT NO.	SHEET NO.	TOTAL SHEETS
9	COLO.	U 012-2(13)	47	



SECTION A-A



JEFFERSON ASSOCIATES
CIVIL ENGINEERS

**DEPARTMENT OF HIGHWAYS
STATE OF COLORADO**

**DECK PLAN
SOUTH BRIDGE**

Across VALLEY HIGHWAY ON 6 TH. AVE.
Sta. 61+77.23 TO 63+48.49
Near DENVER Sec. 9 T. 4 S. R. 68 W

Designed by GDC Approved by
Made by G.A.M. Bridge Engineer
Checked by T.V.S. Date: 19

NORTH F-16-DY
STRUCTURE NO. SOUTH F-16-DU

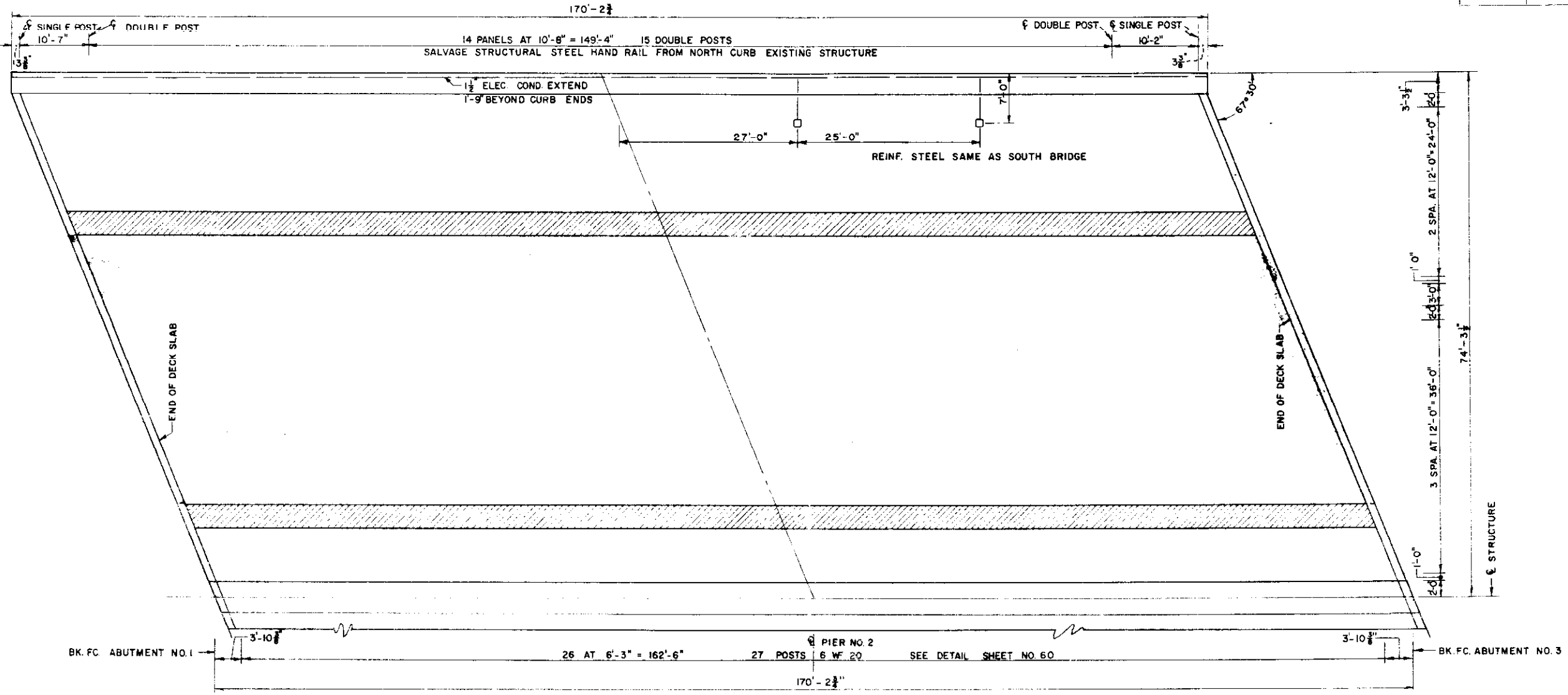
HIGHWAYS
COLORADO
S. H. 17

ED BY	DATE




REVISIONS

REVISIONS

FED. ROAD DIST. NO.	DIVISION	PROJECT NO.	SHEET NO.	TOTAL SHEETS
9	COLO.	U 012-2(13)	48	



BY	DATE

-  EXISTING
 -  REMOVE
 -  NEW CONST.
- LEGEND**

JEFFERSON ASSOCIATES
CIVIL ENGINEERS

**DEPARTMENT OF HIGHWAYS
STATE OF COLORADO**

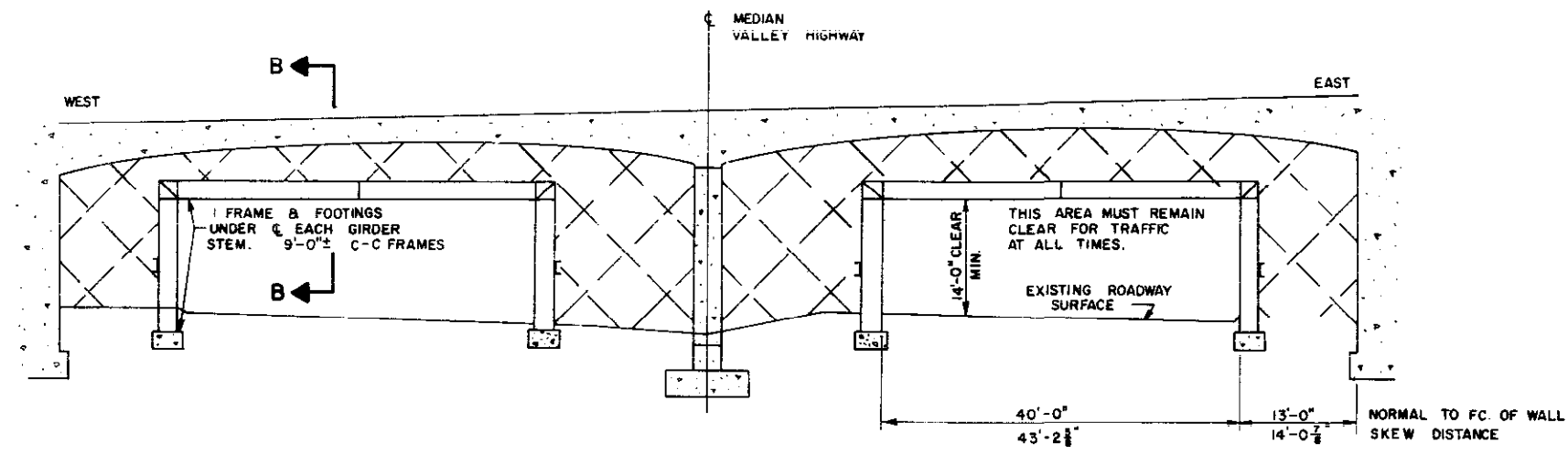
**DECK PLAN
NORTH BRIDGE**

Across VALLEY HIGHWAY ON 6TH. AVE.
Sta. 61+77.23 TO 63+48.49
Near DENVER Sec. 9 T. 4 S. R. 68 W

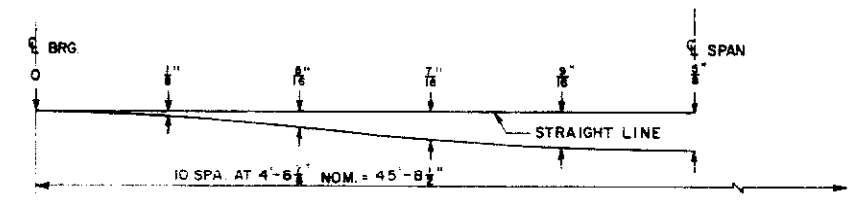
Designed by GDC Approved by
Made by R.L. Bridge Engineer
Checked by TVS Date: 19

NORTH F-16-DY
STRUCTURE NO. SOUTH F-16-DU

FED. ROAD REG. NO.	DIVISION	PROJECT NO.	SHEET NO.	TOTAL SHEETS
9	COLO.	U 012-2 (15)	49	

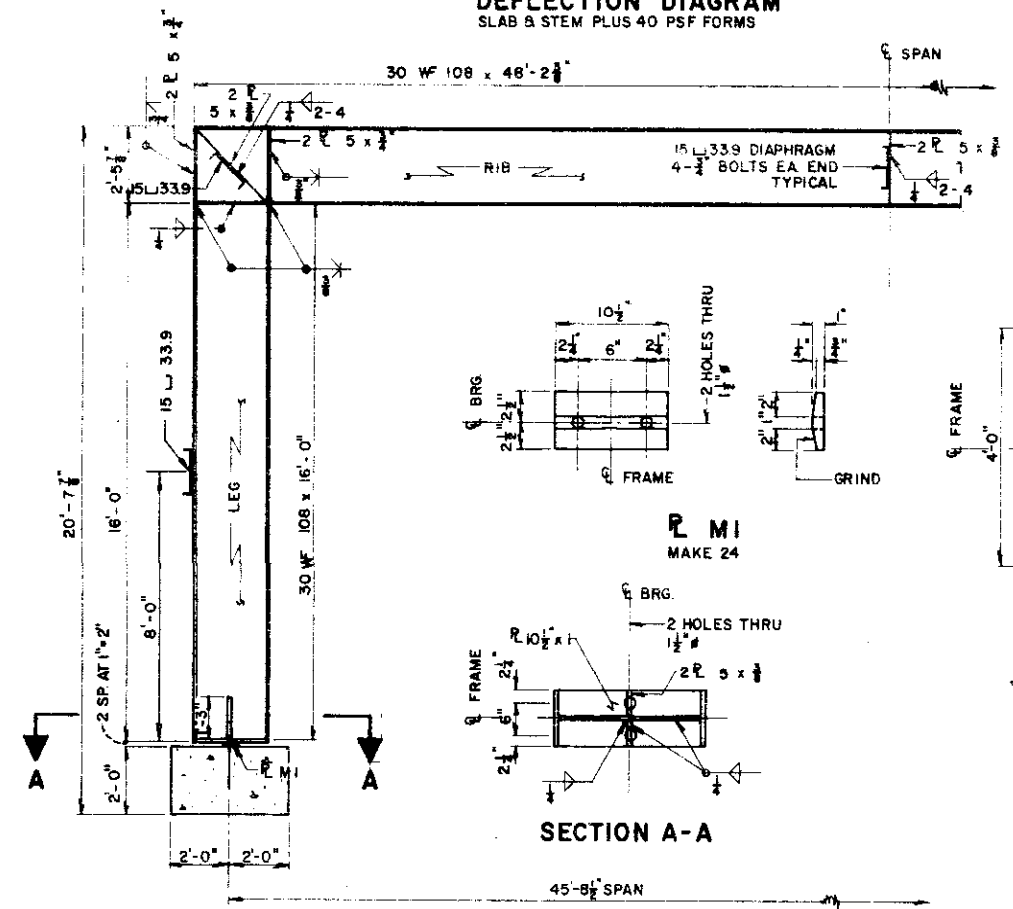


ELEVATION FALSEWORK & STRUCTURE

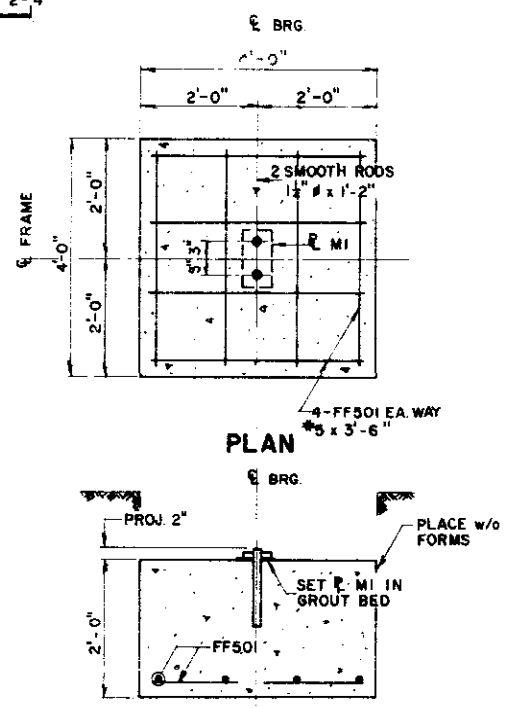


DEFLECTION DIAGRAM SLAB & STEM PLUS 40 PSF FORMS

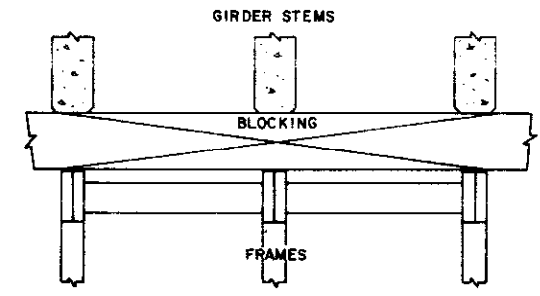
- SPECIAL NOTES**
- STRUCTURAL STEEL FOR FRAMES SHALL BE OF ASTM - A7, ASTM - A373 OR ASTM - A36. FRAMES NEED NOT BE PAINTED.
 - ALL FOOTINGS SHALL BE LEFT IN PLACE.
 - FOOTINGS FALLING WITHIN EXISTING PAVED AREAS SHALL BE OVERFILLED WITH CONCRETE CL A TO WITHIN 2" OF THE EXISTING ROADWAY SURFACE AND PATCHED TO GRADE WITH HBP GR E.
 - FOOTINGS FALLING OUTSIDE THE EXISTING PAVED AREA SHALL BE OVERFILLED WITH STR BKFL CL 3 TO EXISTING GROUND GRADE.
 - THE CONTRACTOR MAY USE A FALSEWORK DESIGN OTHER THAN THAT SHOWN HERE UPON PRIOR APPROVAL BY COLORADO DEPARTMENT OF HIGHWAYS AND SUBJECT TO THE FOLLOWING CONDITIONS:
 - THE 14'-0" HIGH BY 43'-2 1/2" WIDE CLEAR OPENING MUST BE MAINTAINED AT ALL TIMES.
 - FALSEWORK DEFLECTIONS DUE TO WEIGHT OF FORMS AND CAST IN PLACE CONCRETE GIRDERS MUST NOT EXCEED THOSE SHOWN IN THE DEFLECTION DIAGRAM.
 - THERE SHALL BE NO SEPARATE PAYMENT FOR ANY OF THE FALSEWORK DETAILS SHOWN HEREON. PAYMENT THEREFORE SHALL BE INCLUDED IN THE CONTRACT UNIT PRICE FOR ITEM 601, CONCRETE CL A.



FALSEWORK FRAME DETAIL MAKE 12



ELEVATION FOOTING DETAILS 36 REQ'D



SECTION B-B

- INDIVIDUAL QUANTITIES**
- 1 R. MI. 14.5 LB. STR. STEEL
 - 1 FOOTING 24 CU. YD. STR. EXCAV. 1.2 CU. YD. CONCRETE CL. A 39.0 LB. REINF. STEEL
 - 1 FRAME 10,230 LB. STR. STEEL

JEFFERSON ASSOCIATES
CIVIL ENGINEERS

DEPARTMENT OF HIGHWAYS
STATE OF COLORADO

FALSEWORK DETAILS
& CLEARANCE DIAGRAM

Across VALLEY HIGHWAY ON W. 6TH AVE.
S. 61 + 77.25 TO 63 + 49.49
Near DENVER Sec. 9 T. 4S. R. 68W

Designed by T.V.S. Approved by _____
Made by J. Mc Bridge Engineer
Checked by G.D.C. Date: _____ 19__