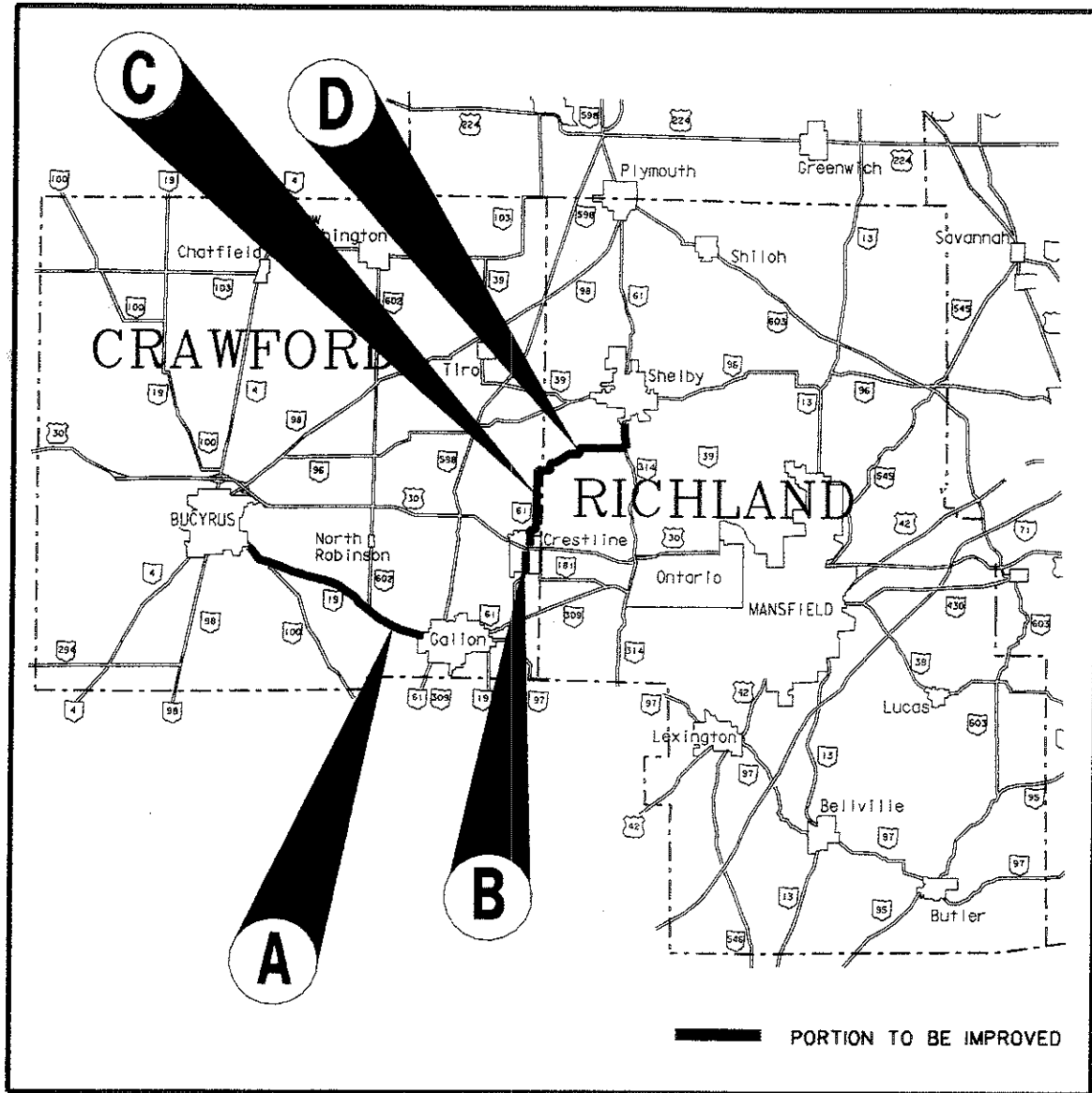


OHIO DEPARTMENT OF TRANSPORTATION

LOCATION MAP



PART	COUNTY	ROUTE	SECTIONS	PROJECT TERMINI		NET LENGTH miles	CITY	VILLAGE
				BEGIN	END			
A	CRAWFORD	SR 19	4.21-6.65	4.21	12.37	7.88		
B	CRAWFORD	SR 61	7.09-8.76	7.09	9.01	1.92	CRESTLINE	
C	CRAWFORD	SR 61	9.01-10.31	9.01	12.05	3.04		
D	RICHLAND	SR 61	0.00-3.89	0.00	4.37	4.37		

INDEX OF SHEETS:

- 1 - TITLE SHEET
- 2-4 - GENERAL SUMMARY
- 5 - STRAIGHT LINE DIAGRAM
- 6 - SCHEMATIC PLAN (SR 61 & SR 314)
- 7 - PAVEMENT DATA
- 8-13 - TYPICAL SECTIONS
- 14 - SHOULDER DATA/ TYPICAL SECTIONS
- 15-19 - GENERAL NOTES
- 20 - MAINTENANCE OF TRAFFIC NOTES/DETOUR
- 21-24 - CALCULATIONS
- 25-26 - ROADWAY SUB-SUMMARY (SR 61 & SR 314)
- 27-28 - PLAN & PROFILE SR 61(WEST APPROACH)
- 29-36 - CROSS SECTIONS SR 61(WEST APPROACH)
- 37-38 - PLAN & PROFILE SR 314 (SOUTH APPROACH)
- 39-45 - CROSS SECTIONS SR 314 (SOUTH APPROACH)
- 46-47 - PLAN & PROFILE SR 61(NORTH APPROACH)
- 48-55 - CROSS SECTIONS SR 61(NORTH APPROACH)
- 56 - INTERSECTION DETAIL - SR 61/SR 314
- 57 - GRADING DETAIL - SR 61/SR314
- 58 - SUPERELEVATION TABLE - SR 61/SR 314
- 59 - DRIVE DETAILS
- 60-61 - STRUCTURE SUMMARY
- 62-63 - STRUCTURE GENERAL NOTES
- 64 - BRIDGE TREATMENT
- 65-82 - STRUCTURE DETAILS
- 83 - GUARDRAIL GENERAL NOTES
- 84 - GUARDRAIL ESTIMATED QUANTITIES
- 85-92 - GUARDRAIL DETAILS
- 93 - MAILBOX FACILITIES
- 94-95 - SIGNING SUB-SUMMARY - SR 61/SR 314
- 96-99 - SIGNING AND PAVEMENT MARKING PLAN - SR 61/SR 314
- 100 - PAVEMENT MARKING INFORMATION
- 101-103 - CURB RAMP PLAN INSERT SHEETS
- 104-III - RIGHT OF WAY PLANS

PROJECT DESCRIPTION: This project will include resurfacing with an intermediate and a surface course of asphalt concrete, pavement repair, pavement planing, adjustment of castings where necessary, pavement markings, guardrail reconstruction, the relocation of Richland County SR 61 and SR 314 intersection including full depth pavement repair and various structure work as detailed in the plans.

1997 SPECIFICATIONS

THE STANDARD SPECIFICATIONS OF THE STATE OF OHIO DEPARTMENT OF TRANSPORTATION, INCLUDING CHANGES AND SUPPLEMENTAL SPECIFICATIONS LISTED IN THE PROPOSAL SHALL GOVERN THIS IMPROVEMENT.

I HEREBY APPROVE THESE PLANS AND DECLARE THAT THE MAKING OF THIS IMPROVEMENT WILL REQUIRE THE CLOSING TO TRAFFIC OF THE HIGHWAY AS PER THE DETOUR NOTE ON SHEET 20, AND THAT PROVISIONS FOR THE MAINTENANCE AND SAFETY OF TRAFFIC WILL BE AS SET FORTH ON THE PLANS AND ESTIMATES.

11-4-02 *Thomas M. Oles*
 APPROVED DATE DISTRICT DEPUTY DIRECTOR OF TRANSPORTATION

11-25-02 *Jordan Proctor*
 APPROVED DATE DIRECTOR, DEPARTMENT OF TRANSPORTATION

CONVERSION OF METRIC STANDARD DRAWINGS

THE METRIC STANDARD DRAWINGS REFERENCED IN THIS PLAN SHALL BE CONVERTED TO ENGLISH UNITS USING THE SI (METRIC) TO ENGLISH CONVERSION FACTORS PROVIDED IN SECTION 109.011 OF THE CWS. THE APPENDIX OF ASTM E 380 SHALL BE UTILIZED FOR ANY ADDITIONAL CONVERSION FACTORS REQUIRED. CONVERSIONS SHALL BE APPROXIMATELY PRECISE AND SHALL REFLECT STANDARD INDUSTRY ENGLISH VALUES WHERE SUITABLE.

NECESSARY RIGHT-OF-WAY ACQUISITION

THIS PROJECT INCLUDES A RELOCATION OF THE SR 61 AND SR 314 INTERSECTION IN RICHLAND COUNTY. THE RIGHT-OF-WAY ACQUISITION FOR THIS INTERSECTION IMPROVEMENT HAS BEEN PURCHASED UNDER PROJECT RIC-61/314-3.74/9.89 ODOT PID 23161.

STANDARD CONSTRUCTION DRAWINGS							SUPPLEMENTAL SPECIFICATIONS				
BP-3.1	7-28-00	CB-1.1	7-20-01	TC-41.20	1-19-01	MT-35.10	4-20-01	802	7-19-02	901	6-14-95
BP-4.1	7-28-00	RM-1.1	4-29-99	TC-41.50	1-19-01	MT-95.31	4-19-02	806	9-9-97	905	4-1-98
				TC-42.10	1-19-01	MT-95.32	4-19-02	814	6-02-98	906	5-5-98
GR-1.1M	10-21-97	DM-1.1	7-20-01	TC-42.20	4-20-01	MT-97.10	4-19-02	844	1-06-99	907	10-18-02
GR-1.2M	1-03-96	DM-1.4	7-19-02	TC-52.10	4-20-01	MT-97.12	4-19-02	863	10-12-99	908	11-7-00
GR-1.3M	11-30-94	DM-4.3	7-20-01	TC-52.20	4-20-01	MT-99.10M	1-30-95	864	7-11-01	911	7-10-97
GR-2.1M	4-14-98	DM-4.4	7-20-01	TC-65.10	10-19-01	MT-99.20M	1-30-95	870	3-27-01	932	10-2-96
GR-3.4M	10-21-97			TC-65.11	10-19-01	MT-101.60M	4-25-94	877	4-13-99		
GR-4.1M	10-21-97	HW-2.1	7-20-01	TC-65.12	10-19-01	MT-102.20M	1-30-95				
GR-4.2M	10-21-97	HW-2.2	7-20-01	TC-71.10	4-19-02	MT-105.10M	4-25-94				
GR-5.3M	11-30-94			TC-73.10	1-19-01	MT-105.11M	4-25-94				
		DS-1-92	7-19-02								
		TST-1-99	7-19-02								

CRA - SR 19 - 4.21
 030106 PID - 16923
 Dist 3 2/12/2003

TWO WORKING DAYS BEFORE YOU DIG
 Call- 800-362-2764 TOLL FREE
 OHIO UTILITIES PROTECTION SERVICE
 NON-MEMBERS MUST BE CALLED DIRECTLY



ROADWAY ENGINEER'S SEAL	STRUCTURAL ENGINEER'S SEAL
SIGNED: <i>Michael J. Schaftrath</i> DATE: 11-4-02	SIGNED: <i>David C. Mollenshott</i> DATE: 11-01-02

FEDERAL PROJECT NO. TE21 G010(164)
 PID NO. 16923
 CONSTRUCTION PROJECT NO.
 RAILROAD INVOLVEMENT NONE
 CRA - 19 - 4.21
 1/11

GENERAL SUMMARY

CALC BY: CVH
CHKD BY: MJS

SHEET NUMBER																	ITEM	ITEM EXT.	TOTAL	UNIT	DESCRIPTION	REF. SHEET
7	14	15	16	19	21	24	25	26	83	84	93	100	104									
																	ROADWAY					
		LUMP															201	11000	LUMP		CLEARING AND GRUBBING	
							3										201	21780	3	EACH	TREE REMOVED, 15" SIZE	
							3										201	23000	3	EACH	TREE REMOVED, 30" SIZE	
							1										201	24800	1	EACH	TREE REMOVED, 48" SIZE	
				672													202	30000	672	SQUARE FOOT	WALK REMOVED	
				168													202	32000	168	LINEAR FOOT	CURB REMOVED	
							1273										202	35100	1273	LINEAR FOOT	PIPE REMOVED, 24" AND UNDER	
							325		125	688							202	38000	1138.00	LINEAR FOOT	GUARDRAIL REMOVED	
							3		1	6							202	42000	10	EACH	ANCHOR ASSEMBLY REMOVED, TYPE A	
												1377					202	54100	1377	EACH	RAISED PAVEMENT MARKER REMOVED FOR STORAGE	
							3										202	58100	3	EACH	CATCH BASIN REMOVED	
							340										202	75000	340	LINEAR FOOT	FENCE REMOVED	
							1										202	98100	1	EACH	REMOVAL MISC.: DRAINAGE STRUCTURE	
					3344												203	12000	3344	CUBIC YARD	EXCAVATION NOT INCLUDING EMBANKMENT CONSTRUCTION	
					600												203	20000	600	CUBIC YARD	EMBANKMENT	
										115							203	20001	115	CUBIC YARD	EMBANKMENT, AS PER PLAN	83
		2															203	45000	2	HOUR	PROOF ROLLING	
					4773												203	50000	4773	SQUARE YARD	SUBGRADE COMPACTION	
	1717																203	60000	1717	STATION	LINEAR GRADING	
												165					203	60700	165	EACH	GRADING MAILBOX APPROACHES	
							0.34										602	20000	0.34	CUBIC YARD	CONCRETE MASONRY	
							0.45										602	20001	0.45	CUBIC YARD	CONCRETE MASONRY, AS PER PLAN	17
													8				604	38500	8	EACH	MONUMENT ASSEMBLY	
5																	604	39500	5	EACH	MONUMENT BOX ADJUSTED TO GRADE	
							318.75	125	763								606	13000	1206.75	LINEAR FOOT	GUARDRAIL, TYPE 5	
								20									606	18000	20	EACH	GUARDRAIL POST	
									2								606	22010	2	EACH	ANCHOR ASSEMBLY, TYPE E-98	
							3	1	6								606	25000	10	EACH	ANCHOR ASSEMBLY, TYPE A	
							1		2								606	26500	3	EACH	ANCHOR ASSEMBLY, TYPE T	
							4		4								606	35124	8	EACH	BRIDGE TERMINAL ASSEMBLY, TYPE 3 (MODIFIED)	
									8								606	35140	8	EACH	BRIDGE TERMINAL ASSEMBLY, TYPE 4	
								125	1162								special	60650000	1287	LINEAR FOOT	RESHAPING BERM	83
									1450								606	98000	1450	LINEAR FOOT	GUARDRAIL, MISC.: ADJUST HEIGHT, EXISTING TYPE 5 GUARDRAIL	83
								10									606	98100	10	EACH	GUARDRAIL, MISC.: GUARDRAIL RAIL ELEMENT	83
				1092													608	52000	1092	SQUARE FOOT	CURB RAMP	
												15					special	69050100	15	EACH	MAILBOX SUPPORT SYSTEM, SINGLE	93
												2					special	69050200	2	EACH	MAILBOX SUPPORT SYSTEM, DOUBLE	93
EROSION CONTROL																						
		12															601	34200	12	CUBIC YARD	ROCK CHANNEL PROTECTION, TYPE C WITHOUT FILTER	
		2															870	00100	2	EACH	SOIL ANALYSIS TEST	
		595															870	00200	595	CUBIC YARD	PLACING TOPSOIL	
						13282											870	10000	13282	SQUARE YARD	SEEDING AND MULCHING	
		535															870	15000	535	SQUARE YARD	INTER-SEEDING	
						1.80											870	20000	1.8	TON	COMMERCIAL FERTILIZER	
		4.43															870	30000	4.43	TON	AGRICULTURAL LIME	
						72											870	35000	72	M. GALLON	WATER	

GENERAL SUMMARY

CRA-19-4.21

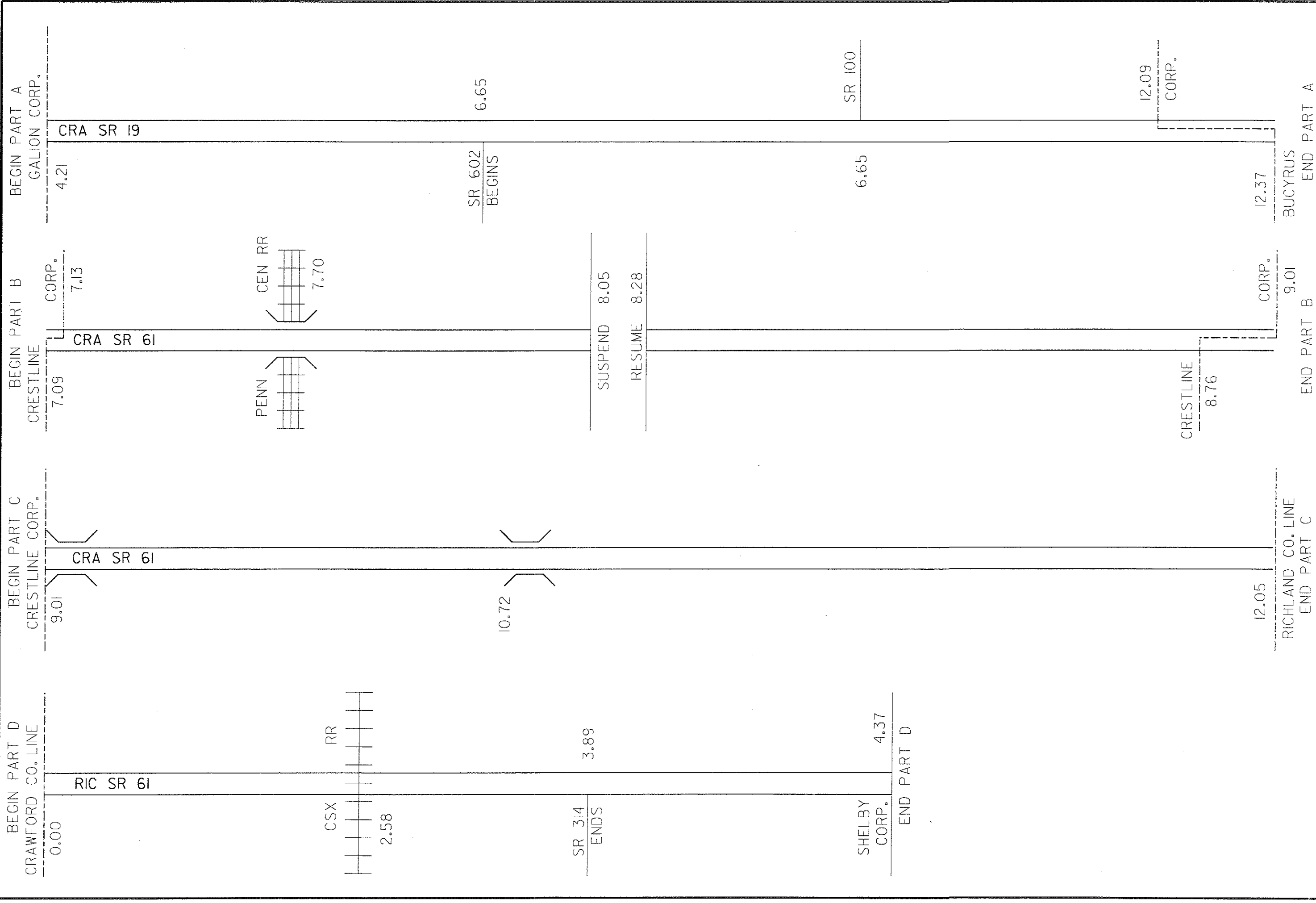
GENERAL SUMMARY

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CHK'D BY: MJS

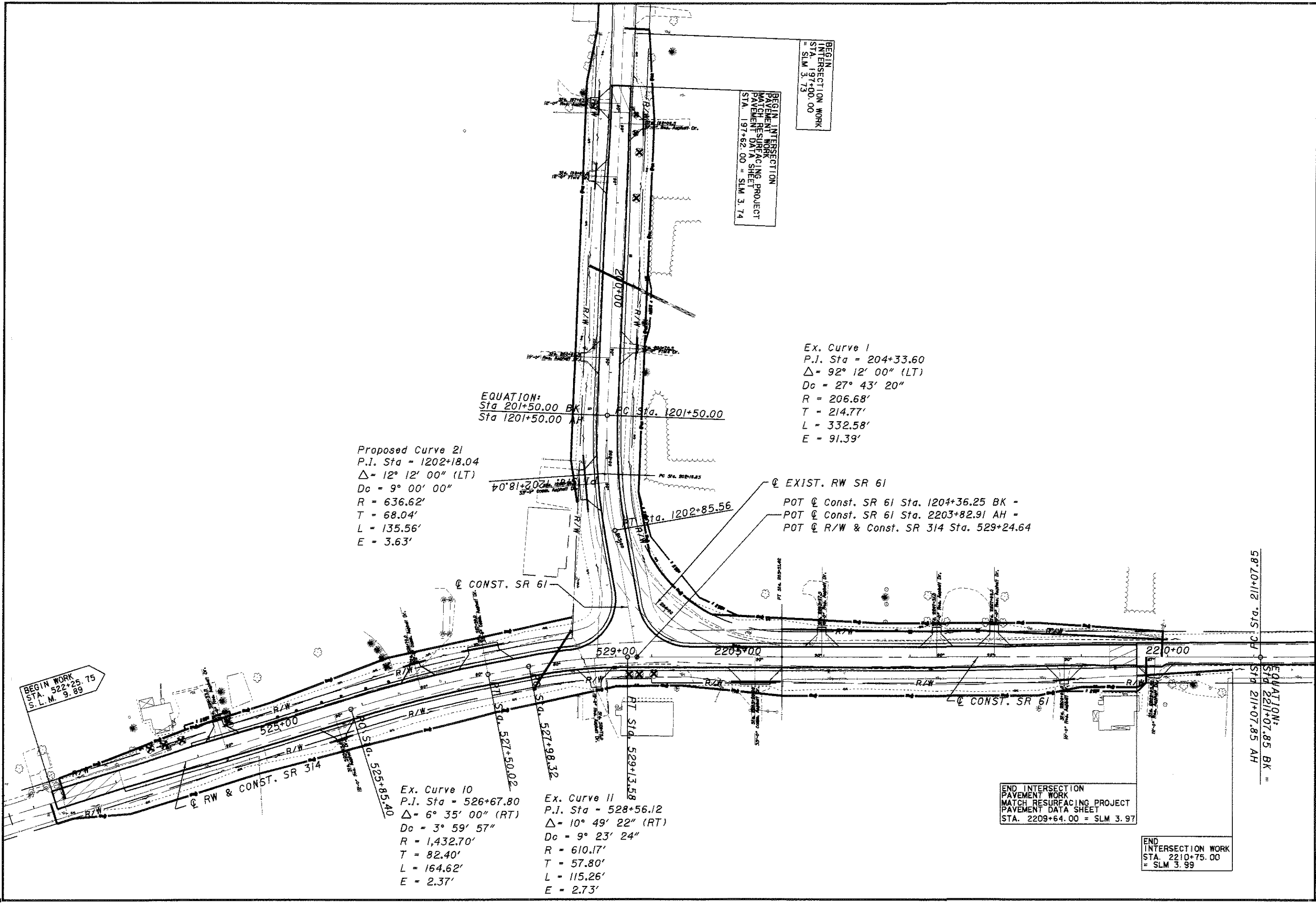
SHEET NUMBER														ITEM	ITEM EXT.	TOTAL	UNIT	DESCRIPTION	REF. SHEET		
	16		18			26			84		94	95	100								
																			TRAFFIC CONTROL		
														1409	621	00200	1409	EACH	RAISED PAVEMENT MARKER, INSTALLATION ONLY		
						7			60						626	00100	67	EACH	BARRIER REFLECTOR, TYPE A		
			53							150	74				630	02100	277	LINEAR FOOT	GROUND MOUNTED SUPPORT, NO. 2 POST		
	40									50	50				630	03100	140	LINEAR FOOT	GROUND MOUNTED SUPPORT, NO. 3 POST		
										112	69				630	80102	181	SQUARE FEET	SIGN, FLAT SHEET, TYPE G		
										3					630	82000	3	EACH	SIGN BACKING ASSEMBLY		
										10	17				630	84900	27	EACH	REMOVAL OF GROUND MOUNTED SIGN AND DISPOSAL		
										1					630	85100	8	EACH	REMOVAL OF GROUND MOUNTED SIGN AND REERECTION		
			7							6	13				630	86002	22	EACH	REMOVAL OF GROUND MOUNTED POST SUPPORT AND DISPOSAL		
	3									2					630	86010	2	EACH	REMOVAL OF GROUND MOUNTED POST SUPPORT AND REERECTION		
										25	16				630	97700	41	EACH	SIGNING, MISC. : SIGN DATA COLLECTION	17	
														33.14	642	00102	33.14	MILE	EDGE LINE, TYPE 2		
														0.84	642	00202	0.84	MILE	LANE LINE, TYPE 2		
														17.62	642	00302	17.62	MILE	CENTER LINE, TYPE 2		
															746	644	00500	746	LINEAR FOOT	STOP LINE	
															360	644	00600	360	LINEAR FOOT	CROSSWALK LINE	
															2	644	01000	2	EACH	RAILROAD SYMBOL MARKING	
															2	644	01400	2	EACH	SCHOOL SYMBO_ MARKING, 72"	
															2	644	01410	2	EACH	SCHOOL SYMBO_ MARKING, 96"	
															1	special	64440000	1	EACH	AIR SPEED ZONE MARKING	18
																				BRIDGE NO. CRA-19-0845 SFN 1700529 SEE STRUCTURE SUMMARY ON SHEET 60	
																				BRIDGE NO. CRA-19-1080 SFN 1700553 SEE STRUCTURE SUMMARY ON SHEET 60	
																				BRIDGE NO. CRA-61-0769 SFN 1702092 SEE STRUCTURE SUMMARY ON SHEET 60	
																				BRIDGE NO. CRA-61-0893 SFN 1702114 SEE STRUCTURE SUMMARY ON SHEET 61	
																				BRIDGE NO. CRA-61-1064 SFN 1702130 SEE STRUCTURE SUMMARY ON SHEET 61	
																				BRIDGE NO. RIC-61-0346 SFN 7003129 SEE STRUCTURE SUMMARY ON SHEET 61	
															614	11000	LUMP			MAINTAINING TRAFFIC	
															623	10000	LUMP			CONSTRUCTION LAYOUT STAKES	
															624	10000	LUMP			MOBILIZATION	
															806	16000	7	MONTH		FIELD OFFICE, TYPE A	

GENERAL SUMMARY

CRA-19-4.21



DESIGN FILE: I:\projects\61-314\schematic.dgn
DATE: 23-OCT-2002



EQUATION:
Sta 201+50.00 BK = PC Sta. 1201+50.00
Sta 1201+50.00 AH

Proposed Curve 21
P.I. Sta = 1202+18.04
Δ = 12° 12' 00" (LT)
Dc = 9° 00' 00"
R = 636.62'
T = 68.04'
L = 135.56'
E = 3.63'

Ex. Curve 1
P.I. Sta = 204+33.60
Δ = 92° 12' 00" (LT)
Dc = 27° 43' 20"
R = 206.68'
T = 214.77'
L = 332.58'
E = 91.39'

Q EXIST. RW SR 61
POT Q Const. SR 61 Sta. 1204+36.25 BK -
POT Q Const. SR 61 Sta. 2203+82.91 AH -
POT Q R/W & Const. SR 314 Sta. 529+24.64

BEGIN WORK
STA. 522+25.75
S. L. M. 9.89

Ex. Curve 10
P.I. Sta = 526+67.80
Δ = 6° 35' 00" (RT)
Dc = 3° 59' 57"
R = 1,432.70'
T = 82.40'
L = 164.62'
E = 2.37'

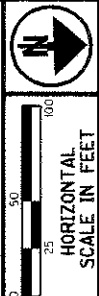
Ex. Curve 11
P.I. Sta = 528+56.12
Δ = 10° 49' 22" (RT)
Dc = 9° 23' 24"
R = 610.17'
T = 57.80'
L = 115.26'
E = 2.73'

END INTERSECTION
PAVEMENT WORK
MATCH RESURFACING PROJECT
PAVEMENT DATA SHEET
STA. 2209+64.00 = SLM 3.97

END
INTERSECTION WORK
STA. 2210+75.00
= SLM 3.99

BEGIN INTERSECTION
PAVEMENT WORK
MATCH RESURFACING PROJECT
PAVEMENT DATA SHEET
STA. 197+62.00 = SLM 3.74

BEGIN
INTERSECTION WORK
STA. 197+00.00
= SLM 3.73



SCHEMATIC PLAN
SR 61 AND SR 314 INTERSECTION

CRA-19-4.21

PAVEMENT DATA

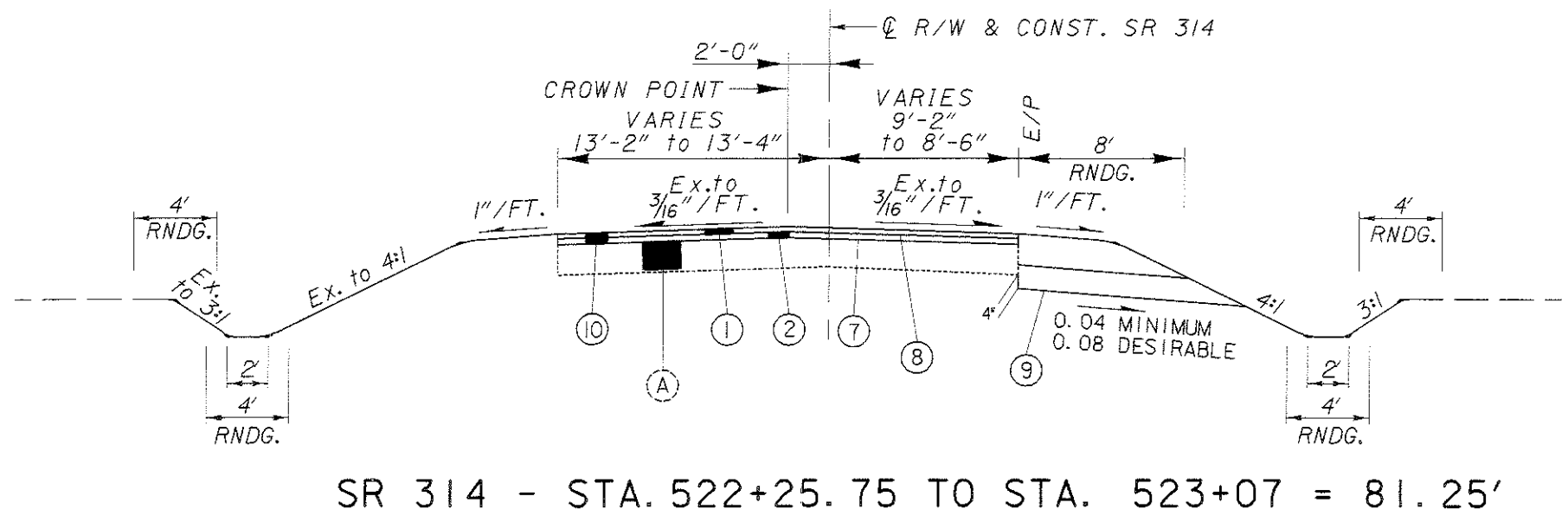
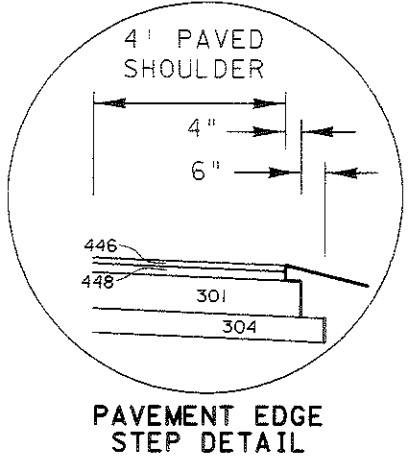
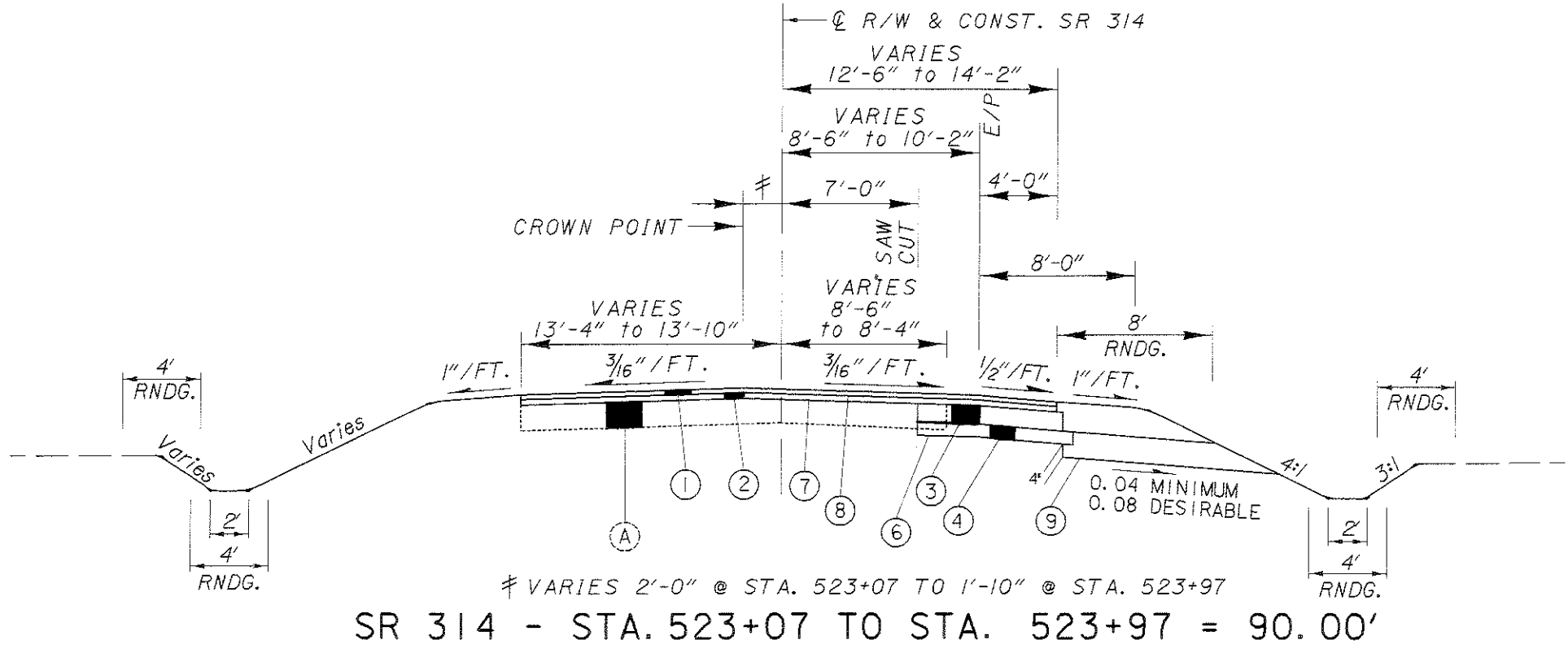
PART	ROUTE	LOG POINT TO LOG POINT Straight Line mileage	LENGTH		WIDTH FEET AVG.	TYPICAL	EXISTING TYPE PAVEMENT	PAVEMENT AREA square yards	407	448		407	446		254		604	604	
			mile	feet					TACK COAT @ 0.08 gal/sy gallon	ASPHALT CONCRETE INTERM. COURSE, TYPE I, PG64-22		TACK COAT INTERM. @ 0.03 gal/sy gallon	ASPHALT CONCRETE SURFACE COURSE, TYPE I, PG64-22		PAVEMENT PLANING, BITUMINOUS sq. yd.	PATCHING PLANED SURFACE sq. yd.	MANHOLE ADJUSTED TO GRADE each	MONUMENT BOX ADJUSTED TO GRADE each	
										THICK AVG. inch	cu. yd.		THICK AVG. Inch	cu. yd.					
A	SR 19	4.21 - 12.09	7.88	41606	27	1	404	124818	9985	0.75	2600	3745	1.25	4334					
		** 12.09 - 12.37	0.28	1478	27	1	404	4434	355	0.75	92	133	1.25	154					
								EXTRA AREA FOR INTERS., DRIVES & MB	3344	268		70	100		116	1100			2
B	SR 61	7.09 - 7.13	0.04	211	25	1	404	586	47	0.75	12	18	1.25	20					
		7.13 - 7.41	0.28	1478	25	1	404	4106	328	0.75	86	123	1.25	143					
		7.41 - 7.48	0.07	370	32	2	404	1316	105	0.75	27	39	1.25	46					
		7.48 - 7.54	0.06	317	42	4	404	1479	118				1.50	62	1479	15			
		7.54 - 7.56	0.02	106	41	4	404	483	39				1.50	20	483	5			
		7.56 - 7.69	0.13	686	45	4	404	3430	274				1.50	143	3430	34			
		7.69 - 7.78	STRUCTURE, DO NOT PAVE OVER																
		7.78 - 7.87	0.09	475	48	4	404	2533	203				1.50	106	2533	25			
		7.87 - 7.88	0.01	53	52	4	404	306	24				1.50	13	306	3			
		7.88 - 7.92	0.04	211	56	4	404	1313	105				1.50	55	1313	13			
		7.92 - 8.05	0.13	686	48	4	404	3659	293				1.50	152	3659	37			
		8.28 - 8.56	0.28	1478	30	4	404	4927	394				1.50	205	4927	49			
		8.56 - 8.70	0.14	739	27	2	404	2217	177	0.75	46	67	1.25	77					
		8.70 - 8.76	0.06	317	24	2	404	845	68	0.75	18	25	1.25	29					
		8.76 - 9.00	0.24	1267	24	2	404	3379	270	0.75	70	101	1.25	117					
9.00 - 9.01	0.01	53	62	2	404	730	58	0.75	15	22	1.25	25							
						EXTRA AREA FOR INTERS., DRIVES & MB	1288	103		27	39		45			3	1		
		9.01	STRUCTURE, DO NOT PAVE OVER																
C	SR 61	9.01 - 12.05	3.04	16051	27	1	404	48153	3852	0.75	1003	1445	1.25	1672					
								EXTRA AREA FOR INTERS., DRIVES & MB	894	72	19	27		31				1	
D	SR 61	0.00 - 3.74	3.74	19747	25	1	404	54853	4388	0.75	1143	1646	1.25	1905					
		3.97 - 4.37	0.40	2112	25	1	404	5867	469	0.75	122	176	1.25	204					
								EXTRA AREA FOR INTERS., DRIVES & MB	1186	95		25	36		41				
							276146	22090			5375	7742		9715	19230	181	3	5	

PAVEMENT DATA

CRA - 19 - 4.21

DESIGN FILE: i:\projects\16923\pvmtdat.dgn
WORKSTATION: evanborn DATE: 10/21/02

CORRECTED
CVH
checked
MJS

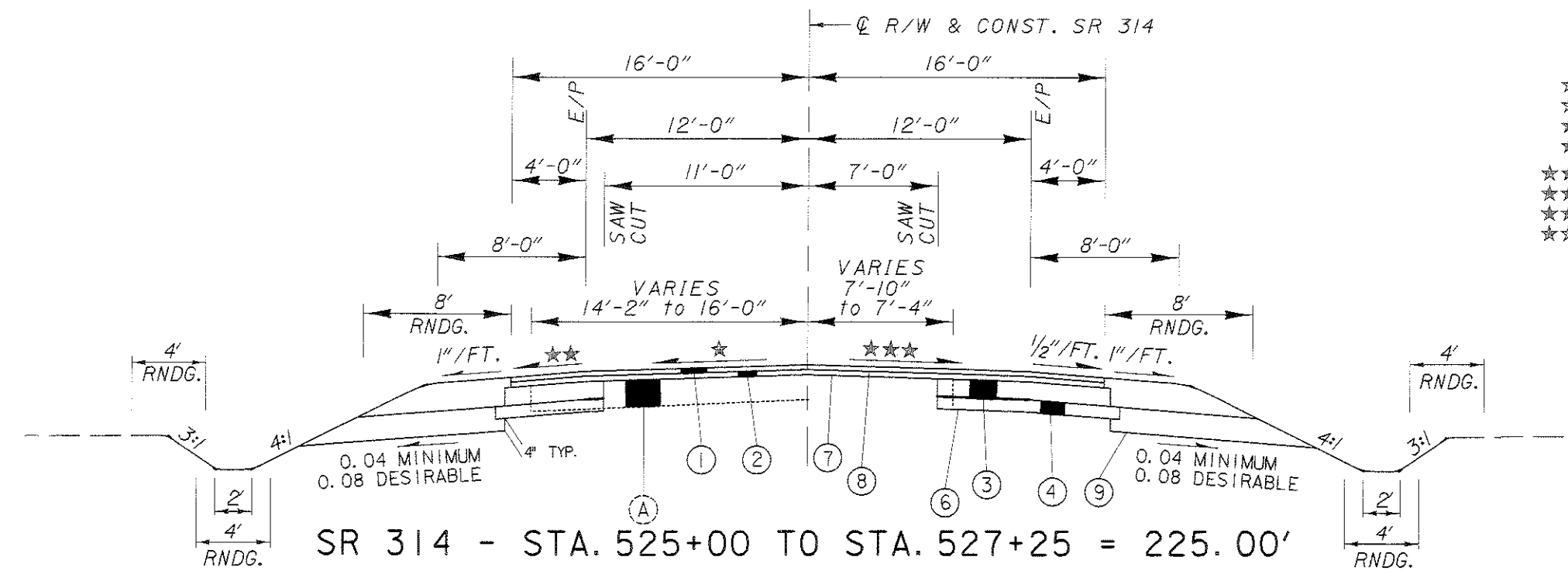


- | | | | |
|---|---|---|---|
| Ⓐ | EXISTING ASPHALT CONCRETE | ⑤ | OMITTED |
| ① | ITEM 446 - 1 1/2" ASPHALT CONCRETE SURFACE COURSE, TYPE 1H, PG 76-22 | ⑥ | ITEM 203 - SUBGRADE COMPACTION |
| ② | ITEM 448 - 1 3/4" ASPHALT CONCRETE INTERMEDIATE COURSE, TYPE 2, PG64-28 | ⑦ | ITEM 407 - TACK COAT (SEE GENERAL NOTE) |
| ③ | ITEM 301 - 6" BITUMINOUS AGGREGATE BASE, PG64-22, AS PER PLAN | ⑧ | ITEM 407 - TACK COAT FOR INTERMEDIATE COURSE (SEE GENERAL NOTE) |
| ④ | ITEM 304 - 4" AGGREGATE BASE | ⑨ | ITEM 605 - AGGREGATE DRAINS |
| | | ⑩ | ITEM 254 - PAVEMENT PLANING, BITUMINOUS (VARIABLE DEPTH, 0" - 3/4") |

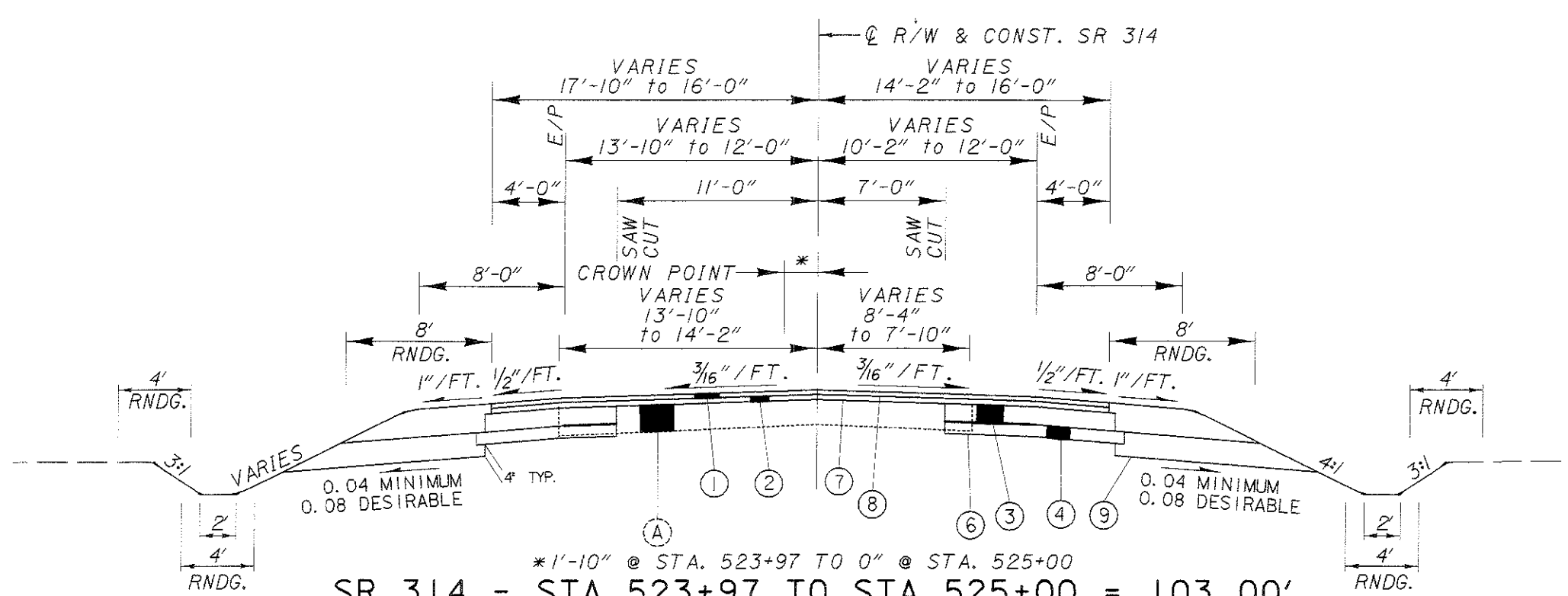
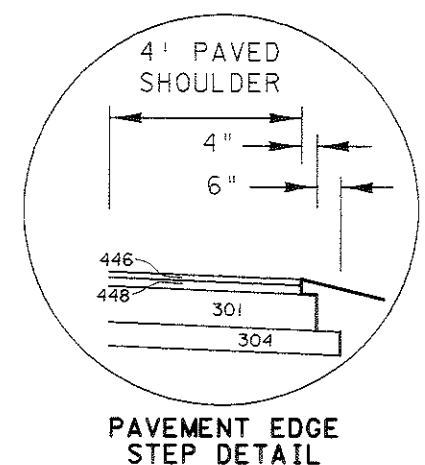
DESIGN FILE: I:\Projects\16923\61-314\Typicals.dgn
DATE: 10/31/02

SEE SUPERELEVATION TABLE SHEET 58.

- ★ VARIES - STA. 525+00 to STA. 526+31.54
- ★ 0.0366 - STA. 526+31.54 to STA. 527+03.88
- ★ VARIES - STA. 527+03.88 to STA. 527+25
- ★★ -1/2" /FT. - STA. 525+00 to STA. 526+10.63
- ★★ VARIES - STA. 526+10.63 to STA. 526+31.54
- ★★ -0.0334 - STA. 526+31.54 to STA. 527+03.88
- ★★ VARIES - STA. 527+03.88 to STA. 527+25
- ★★★ -3/16" /FT. - STA. 525+00 to STA. 525+78.62
- ★★★ VARIES - STA. 525+78.62 to STA. 526+31.54
- ★★★ -0.0366 - STA. 526+31.54 to STA. 527+03.88
- ★★★ VARIES - STA. 527+03.88 to STA. 527+25



SR 314 - STA. 525+00 TO STA. 527+25 = 225.00'



SR 314 - STA. 523+97 TO STA. 525+00 = 103.00'

- | | |
|---|---|
| (A) EXISTING ASPHALT CONCRETE | (5) OMITTED |
| (1) ITEM 446 - 1 1/2" ASPHALT CONCRETE SURFACE COURSE, TYPE 1H, PG 76-22 | (6) ITEM 203 - SUBGRADE COMPACTION |
| (2) ITEM 448 - 1 3/4" ASPHALT CONCRETE INTERMEDIATE COURSE, TYPE 2, PG64-28 | (7) ITEM 407 - TACK COAT (SEE GENERAL NOTE) |
| (3) ITEM 301 - 6" BITUMINOUS AGGREGATE BASE, PG64-22, AS PER PLAN | (8) ITEM 407 - TACK COAT FOR INTERMEDIATE COURSE (SEE GENERAL NOTE) |
| (4) ITEM 304 - 4" AGGREGATE BASE | (9) ITEM 605 - AGGREGATE DRAINS |

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TYPICAL SECTIONS FOR SR 61 - SR 314 INTERSECTION

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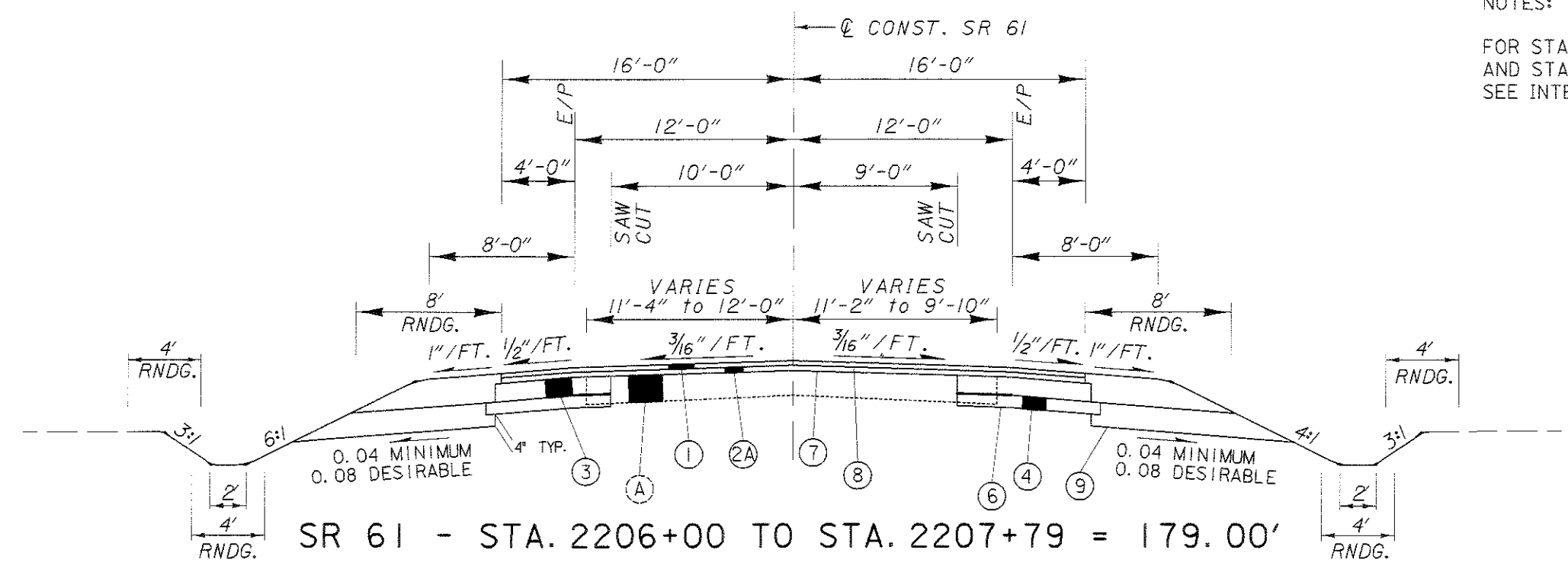
TYPICAL SECTIONS FOR SR 61 - SR 314 INTERSECTION

CRA-19-4.21

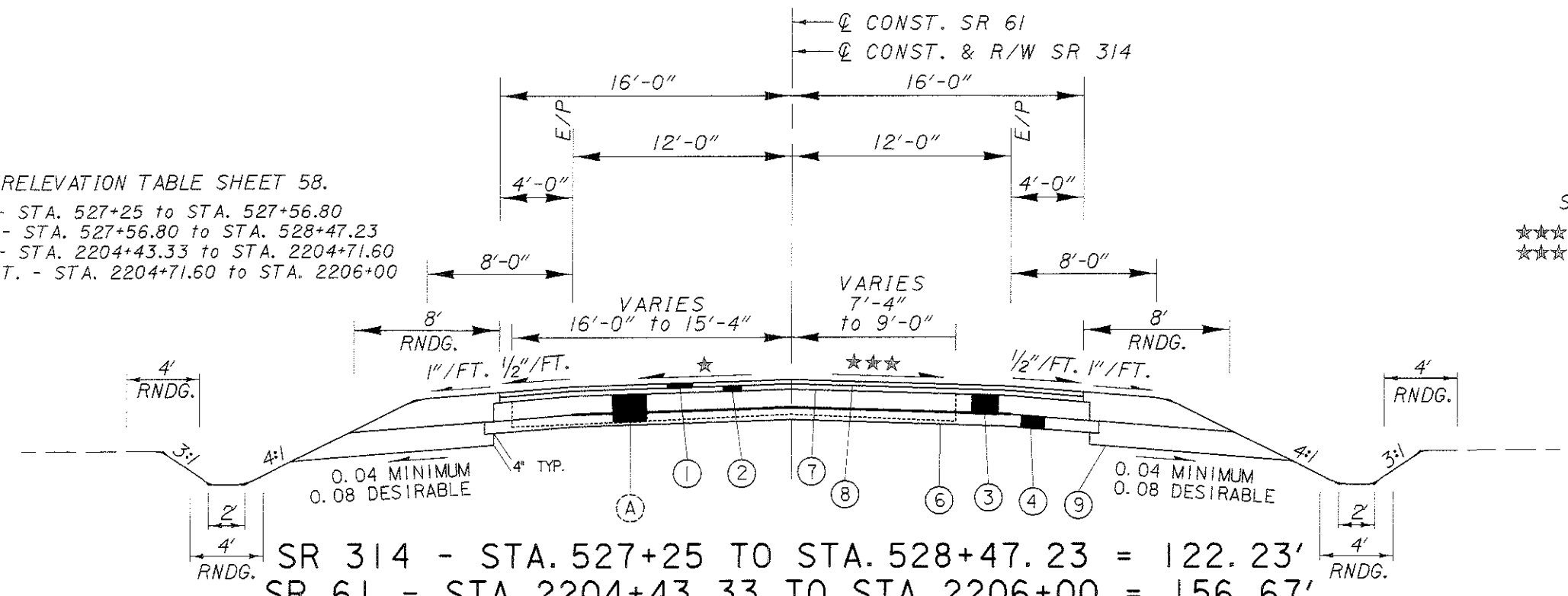
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NOTES:

FOR STA. 528+47.23 TO STA. 529+24.64 ON SR 314,
AND STA. 2203+82.91 TO STA. 2204+43.33 ON S.R. 61,
SEE INTERSECTION DETAIL SHEET 56.



SR 61 - STA. 2206+00 TO STA. 2207+79 = 179.00'



SR 314 - STA. 527+25 TO STA. 528+47.23 = 122.23'
SR 61 - STA. 2204+43.33 TO STA. 2206+00 = 156.67'

SEE SUPERELEVATION TABLE SHEET 58.

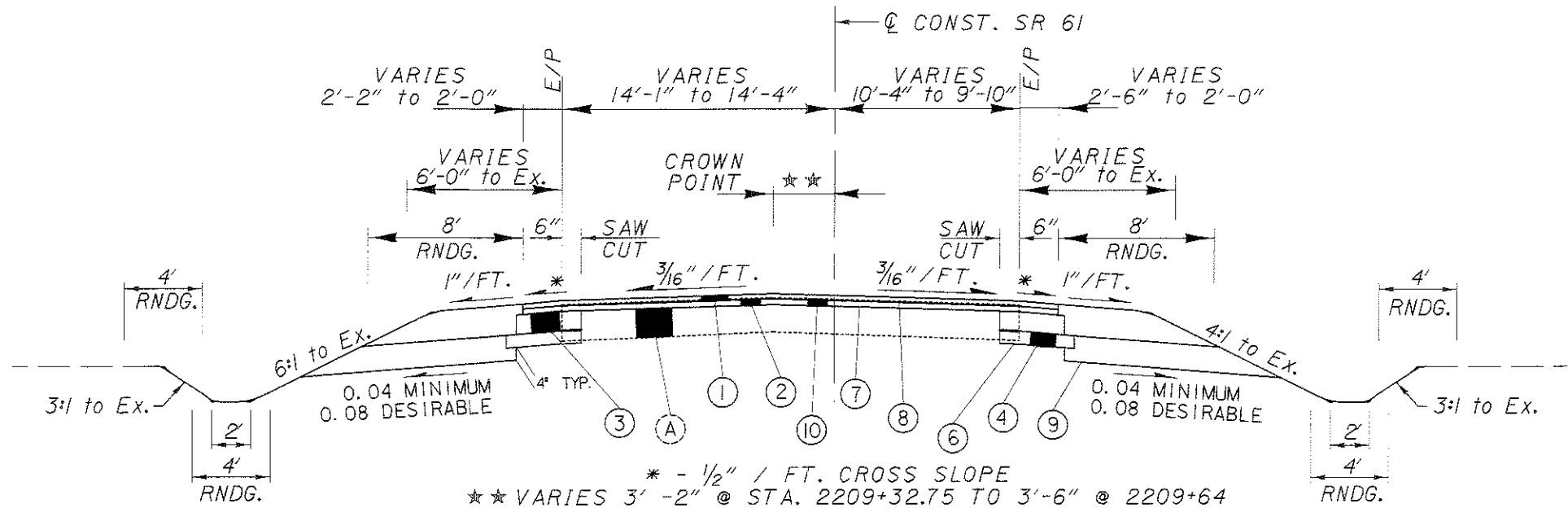
- ★ VARIES - STA. 527+25 to STA. 527+56.80
- ★ $\frac{3}{16}$ " / FT. - STA. 527+56.80 to STA. 528+47.23
- ★ VARIES - STA. 2204+43.33 to STA. 2204+71.60
- ★ $-\frac{3}{16}$ " / FT. - STA. 2204+71.60 to STA. 2206+00

SEE SUPERELEVATION TABLE SHEET 58.

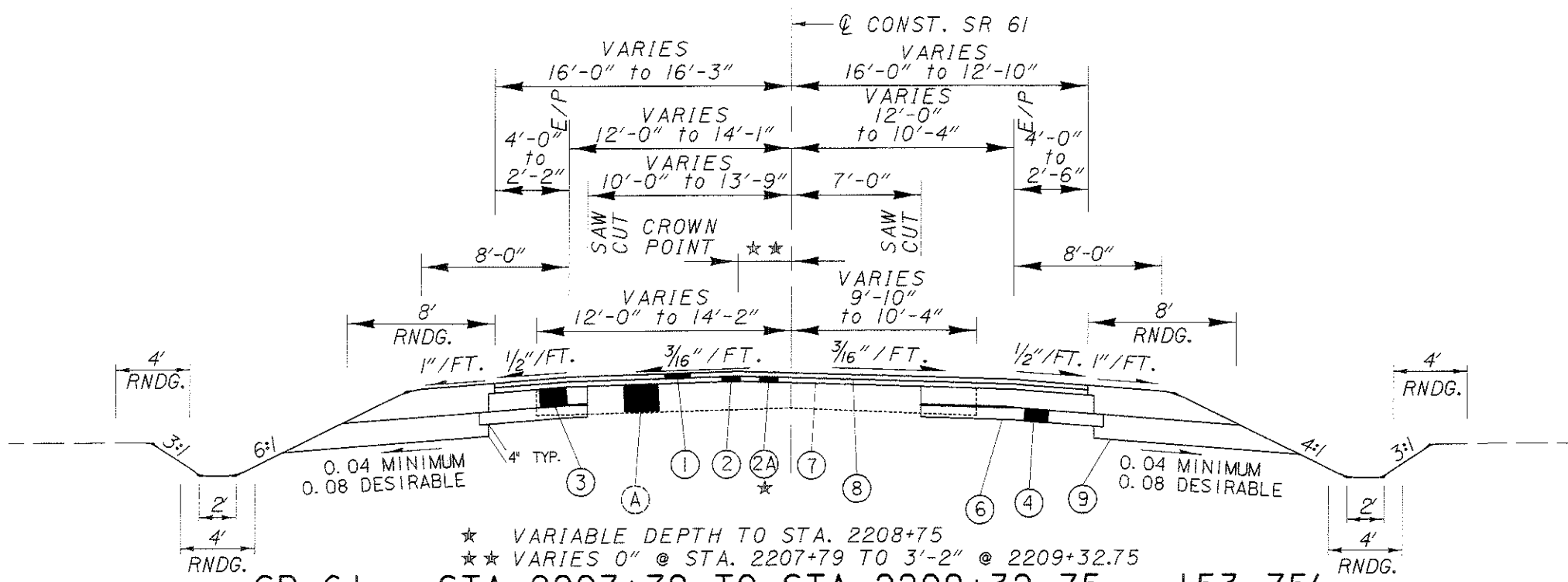
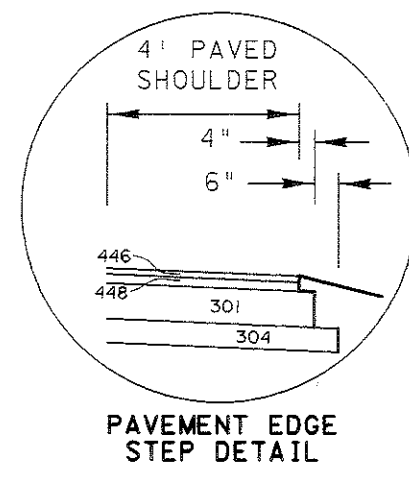
- ★★★ VARIES - STA. 527+25 to STA. 527+56.80
- ★★★ $-\frac{3}{16}$ " / FT. - 527+56.80 to STA. 528+47.23
- AND STA. 2204+43.33 TO STA. 2206+00

- | | |
|--|---|
| (A) EXISTING ASPHALT CONCRETE | (5) OMITTED |
| (1) ITEM 446 - $\frac{1}{2}$ " ASPHALT CONCRETE SURFACE COURSE, TYPE 1H, PG 76-22 | (6) ITEM 203 - SUBGRADE COMPACTION |
| (2A) ITEM 448 - VARIABLE DEPTH ASPHALT CONCRETE INTERMEDIATE COURSE, TYPE 2, PG64-28 | (7) ITEM 407 - TACK COAT (SEE GENERAL NOTE) |
| (2) ITEM 448 - $\frac{3}{4}$ " ASPHALT CONCRETE INTERMEDIATE COURSE, TYPE 2, PG64-28 | (8) ITEM 407 - TACK COAT FOR INTERMEDIATE COURSE (SEE GENERAL NOTE) |
| (3) ITEM 301 - 6" BITUMINOUS AGGREGATE BASE, PG64-22, AS PER PLAN | (9) ITEM 605 - AGGREGATE DRAINS |
| (4) ITEM 304 - 4" AGGREGATE BASE | |

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DATE: 10/31/02

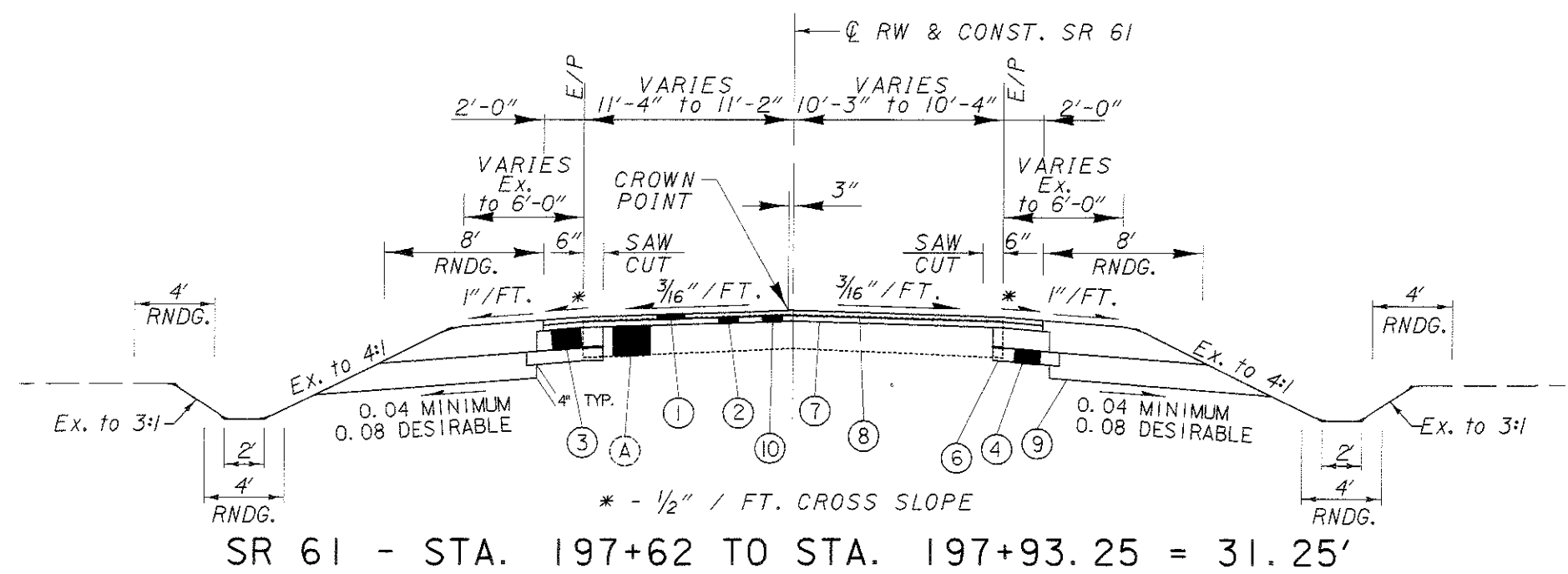
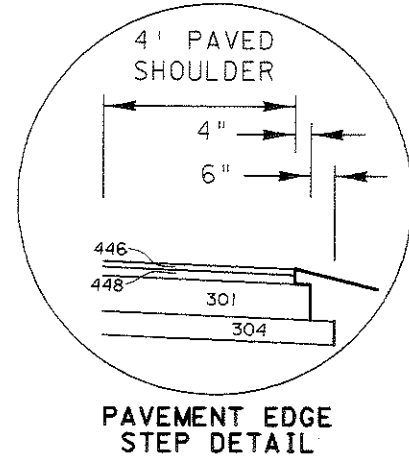
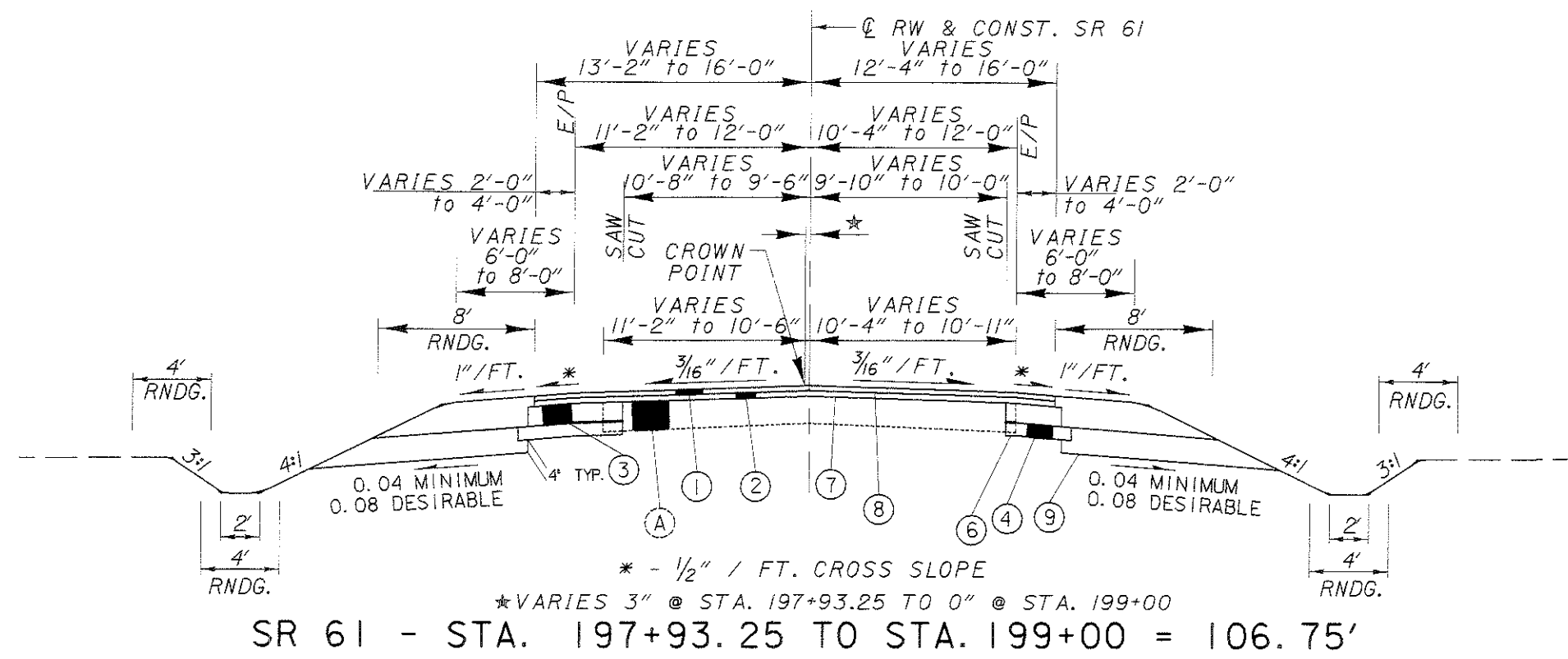


SR 61 - STA. 2209+32.75 TO STA. 2209+64 = 31.25'



SR 61 - STA. 2207+79 TO STA. 2209+32.75 = 153.75'

- | | |
|--|--|
| (A) EXISTING ASPHALT CONCRETE | (5) OMITTED |
| (1) ITEM 446 - 1 1/2" ASPHALT CONCRETE SURFACE COURSE, TYPE 1H, PG 76-22 | (6) ITEM 203 - SUBGRADE COMPACTION |
| (2A) ITEM 448 - VARIABLE DEPTH ASPHALT CONCRETE INTERMEDIATE COURSE, TYPE 2, PG64-28 | (7) ITEM 407 - TACK COAT (SEE GENERAL NOTE) |
| (2) ITEM 448 - 1 3/4" ASPHALT CONCRETE INTERMEDIATE COURSE, TYPE 2, PG64-28 | (8) ITEM 407 - TACK COAT FOR INTERMEDIATE COURSE (SEE GENERAL NOTE) |
| (3) ITEM 301 - 6" BITUMINOUS AGGREGATE BASE, PG64-22, AS PER PLAN | (9) ITEM 605 - AGGREGATE DRAINS |
| (4) ITEM 304 - 4" AGGREGATE BASE | (10) ITEM 254 - PAVEMENT PLANING, BITUMINOUS (VARIABLE DEPTH 0 - 3/4") |

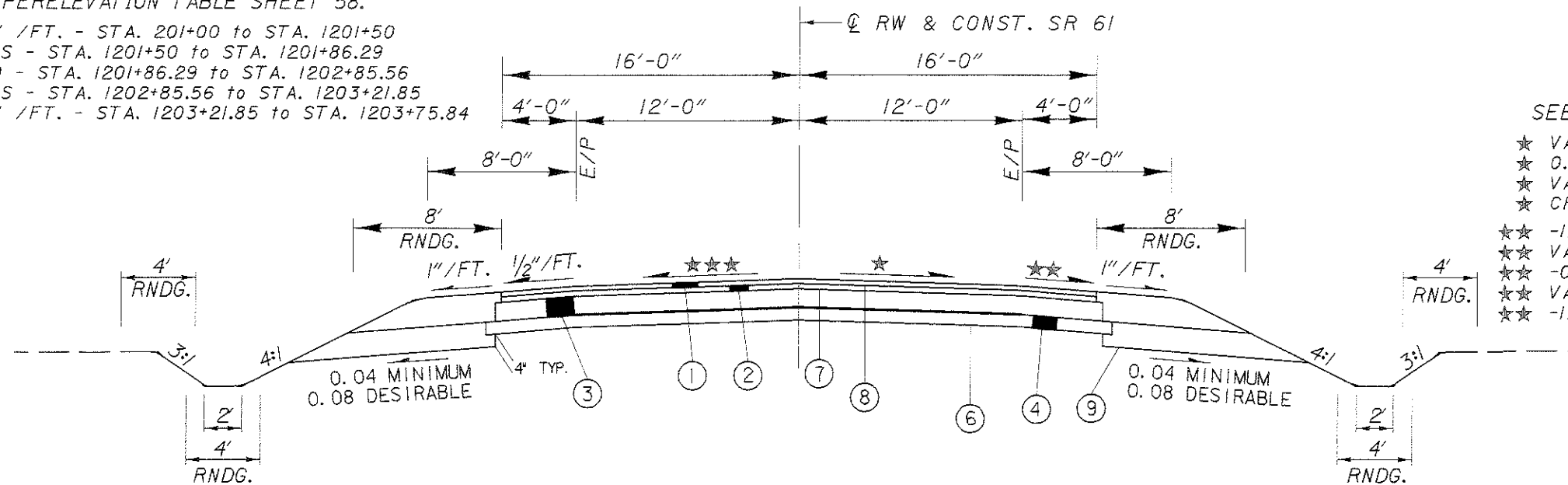


- | | |
|---|--|
| <ul style="list-style-type: none"> (A) EXISTING ASPHALT CONCRETE (1) ITEM 446 - 1 1/2" ASPHALT CONCRETE SURFACE COURSE, TYPE 1H, PG 76-22 (2) ITEM 448 - 1 3/4" ASPHALT CONCRETE INTERMEDIATE COURSE, TYPE 2, PG64-28 (3) ITEM 301 - 6" BITUMINOUS AGGREGATE BASE, PG64-22, AS PER PLAN (4) ITEM 304 - 4" AGGREGATE BASE | <ul style="list-style-type: none"> (5) OMITTED (6) ITEM 203 - SUBGRADE COMPACTION (7) ITEM 407 - TACK COAT (SEE GENERAL NOTE) (8) ITEM 407 - TACK COAT FOR INTERMEDIATE COURSE (SEE GENERAL NOTE) (9) ITEM 605 - AGGREGATE DRAINS (10) ITEM 254 - PAVEMENT PLANING, BITUMINOUS (VARIABLE DEPTH 0 - 3 1/4") |
|---|--|

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DATE: 10/31/02

SEE SUPERELEVATION TABLE SHEET 58.

- ☆☆☆ -3/16" /FT. - STA. 201+00 to STA. 1201+50
- ☆☆☆ VARIES - STA. 1201+50 to STA. 1201+86.29
- ☆☆☆ -0.030 - STA. 1201+86.29 to STA. 1202+85.56
- ☆☆☆ VARIES - STA. 1202+85.56 to STA. 1203+21.85
- ☆☆☆ -3/16" /FT. - STA. 1203+21.85 to STA. 1203+75.84

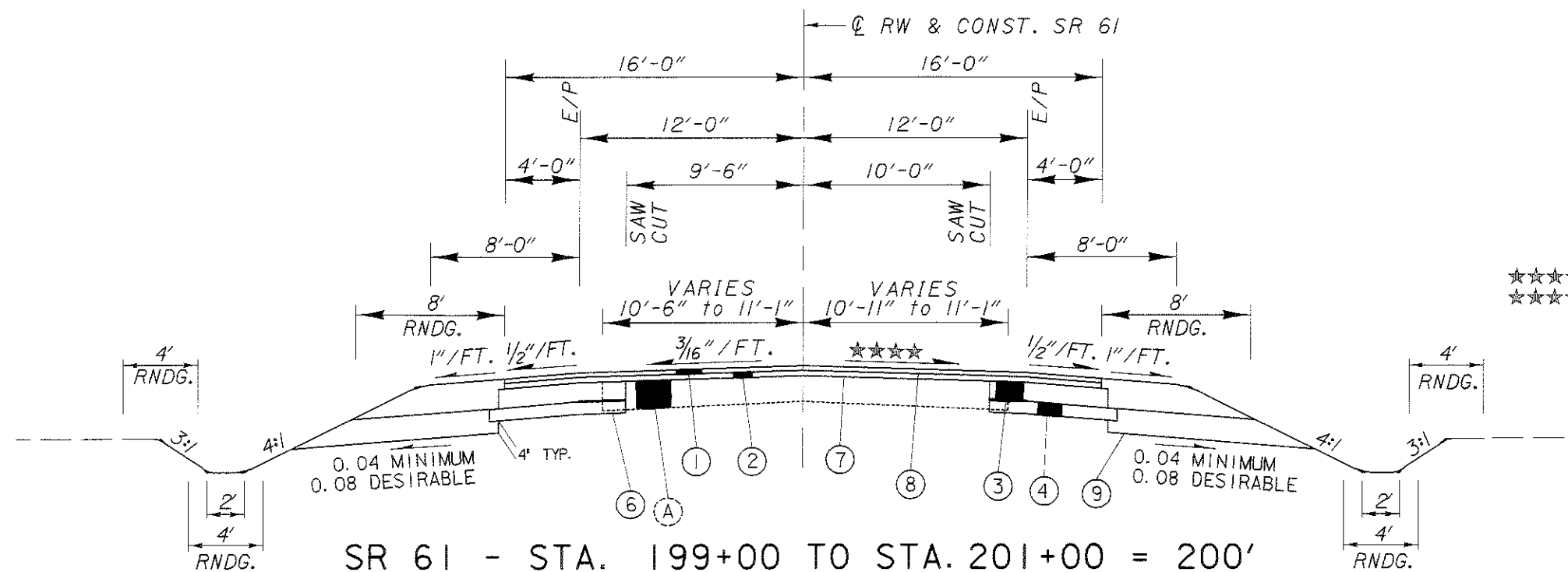
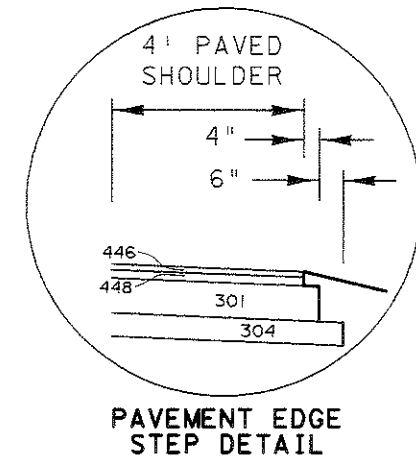


SR 61 - STA. 201+00 TO STA. 1203+54.54 = 204.54' (RIGHT)
 SR 61 - STA. 201+00 TO STA. 1203+75.84 = 225.84' (LEFT)

NOTES:
 FOR STA. 1203+54.54 & 1203+75.84 TO
 STA. 1204+36.25 ON SR 61 SEE
 INTERSECTION DETAIL SHEET 56.

SEE SUPERELEVATION TABLE SHEET 58.

- ★ VARIES - STA. 201+00 to STA. 1201+86.29
- ★ 0.030 - STA. 1201+86.29 to STA. 1202+85.56
- ★ VARIES - STA. 1202+85.56 to STA. 1203+21.85
- ★ CROWN REM'D. - STA. 1203+21.85 to STA. 1203+54.54
- ★★ -1/2" /FT. - STA. 201+00 to STA. 1201+82.01
- ★★ VARIES - STA. 1201+82.01 to STA. 1201+86.29
- ★★ -0.040 - STA. 1201+86.29 to STA. 1202+85.56
- ★★ VARIES - STA. 1202+85.56 to STA. 1202+89.84
- ★★ -1/2" /FT. - STA. 1202+89.84 to STA. 1203+54.54



SR 61 - STA. 199+00 TO STA. 201+00 = 200'

- ☆☆☆☆ 3/16" /FT. - STA. 199+00 to STA. 200+71.38
- ☆☆☆☆ VARIES - STA. 200+71.38 to STA. 201+00

- | | |
|---|---|
| (A) EXISTING ASPHALT CONCRETE | (5) OMITTED |
| (1) ITEM 446 - 1 1/2" ASPHALT CONCRETE SURFACE COURSE, TYPE 1H, PG 76-22 | (6) ITEM 203 - SUBGRADE COMPACTION |
| (2) ITEM 448 - 1 3/4" ASPHALT CONCRETE INTERMEDIATE COURSE, TYPE 2, PG64-28 | (7) ITEM 407 - TACK COAT (SEE GENERAL NOTE) |
| (3) ITEM 301 - 6" BITUMINOUS AGGREGATE BASE, PG64-22, AS PER PLAN | (8) ITEM 407 - TACK COAT FOR INTERMEDIATE COURSE (SEE GENERAL NOTE) |
| (4) ITEM 304 - 4" AGGREGATE BASE | (9) ITEM 605 - AGGREGATE DRAINS |

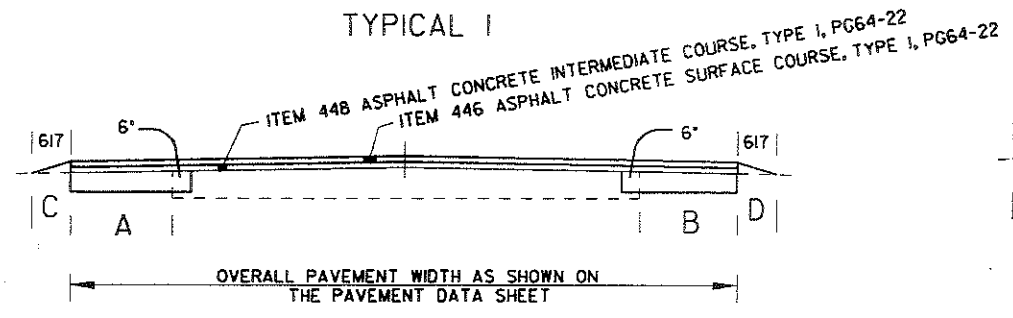
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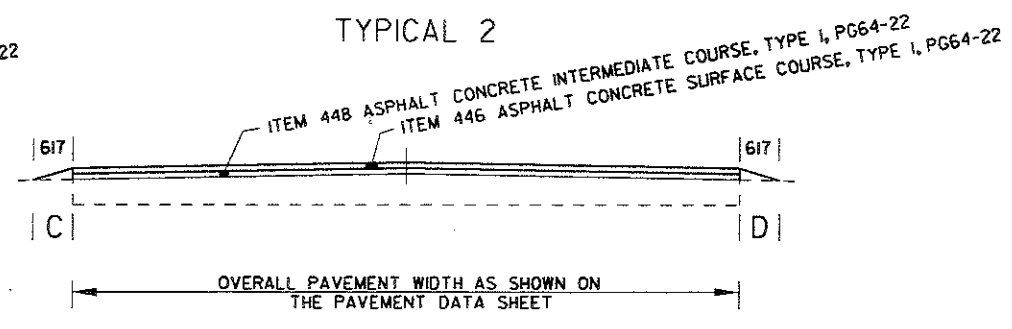
TYPICAL SECTIONS FOR SR 61 - SR 314 INTERSECTION

CRA-19-4.21

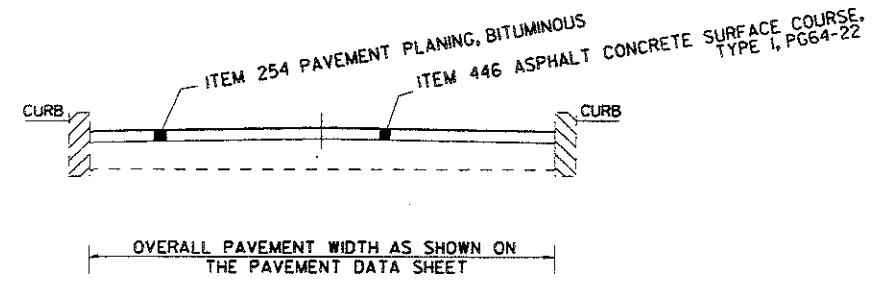
TYPICAL 1



TYPICAL 2



TYPICAL 4



•• SPLIT CORP.

• Cut 6' into existing pavement

PART	ROUTE	LOG POINT TO LOG POINT (straight line mileage)	LENGTH		TYPICAL	PAVED SHOULDER PROPOSED WIDTH feet (avg.)		PAVED SHOULDER AREA square yard	203 LINEAR GRADING		301 BITUMINOUS AGGREGATE BASE, PG 64-22		AGGREGATE SHOULDER PROPOSED WIDTH feet (avg.)		AGGR. SHOULDER AREA sq. yd.	617 SHOULDER PREPARATION		617 SHOULDER RECONDITIONING, MISC.: COMPACTED AGGREGATE 1.50 ton/cu. yd. 2.0 in. AVG. THICKNESS		408 BITUMINOUS PRIME COAT @ 0.40 gal/sy	
			mile	feet		A	B		DEPTH inch	station	AVG. THICK inch	cu. yd.	C	D		sq. yd.	sq. yd.	ton	gallon		
A	SR 19	4.21 - 12.09	7.88	41606	1	2	2	18492	5	832	5	2568	2.5	2.5	23114	23114	1926	9246			
		•• 12.09 - 12.37	0.28	1478	1	2	2	657	5	30	5	821	2.5	2.5	821	821	68	328			
		UNPAVED DRIVES													546	546	46	218			
B	SR 61	7.09 - 7.13	0.04	211	1	2	2	94	5	4	5	13	2	2	94	94	8	38			
		7.13 - 7.41	0.28	1478	1	2	2	5912	5	30	5	821	2	2	657	657	55	263			
		7.41 - 7.48	0.07	370	2								2	2	164	164	14	66			
		8.56 - 8.70	0.14	739	2								2	2	328	328	27	131			
		8.70 - 8.76	0.06	317	2								2	2	141	141	12	56			
		8.76 - 9.00	0.24	1267	2								2	2	563	563	47	225			
		9.00 - 9.01	0.01	53	2								2	2	24	24	2	10			
		UNPAVED DRIVES													42	42	4	17			
C	SR 61	9.01 - 12.05	3.04	16051	1	2	2	7134	5	321	5	991	1	1	3567	3567	297	1427			
		UNPAVED DRIVES													138	138	12	55			
D	SR 61	0.00 - 3.74	3.74	19747	1	2	2	8776	5	395	5	1219	1.5	1.5	6582	6582	549	2633			
		3.97 - 4.37	0.40	2112	1	2	2	8448	5	42	5	1173	1.5	1.5	704	704	59	282			
		UNPAVED DRIVES													342	342	28	137			
E	SR 61	•• 4.37 - 4.97	0.60	3168	1	2	2	1408	5	63	5	196	1.5	1.5	1056	1056	88	422			
		UNPAVED DRIVES													120	120	10	48			
		TOTAL						50921		1717		7802			39003	39003	3252	15602			

SHOULDER DATA

CRA-19-4.21

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WORKSTATION: cvanhorn DATE: 11/01/02

ROUTINE MAINTENANCE

BETWEEN THE TIME THAT BIDS ARE TAKEN AND THE START OF CONSTRUCTION, THE MAINTAINING AGENCY MAY ENTER UPON THE PROJECT AND PERFORM ROUTINE MAINTENANCE SUCH AS CRACK SEALING, PATCHING, AND BERM AND SHOULDER REPAIR. THE EFFECTS, IF ANY, OF THE PERFORMANCE OF ROUTINE MAINTENANCE SHALL BE CONSIDERED AS INHERENT IN WORK OF THE CHARACTER PROVIDED FOR IN THE PLAN AND THE RESULTING CONDITIONS SHALL NOT BE CONSIDERED AS DIFFERING MATERIALLY FROM THOSE EXISTING AT THE TIME BIDS WERE TAKEN.

ROUNDING

THE ROUNDING AT SLOPE BREAKPOINTS SHOWN ON THE TYPICAL SECTIONS APPLY TO ALL CROSS-SECTIONS EVEN THOUGH OTHERWISE SHOWN.

CONTINGENCY QUANTITIES

THE CONTRACTOR SHALL NOT ORDER MATERIALS OR PERFORM WORK FOR ITEMS DESIGNATED BY PLAN NOTE TO BE USED "AS DIRECTED BY THE ENGINEER" UNLESS AUTHORIZED BY THE ENGINEER. THE ACTUAL WORK LOCATIONS AND QUANTITIES USED FOR SUCH ITEMS SHALL BE INCORPORATED INTO THE FINAL CHANGE ORDER GOVERNING COMPLETION OF THIS PROJECT.

ELEVATION DATUM

ALL ELEVATIONS ARE BASED ON U.S.G.S. DATUM.

UTILITIES

EXTREME CAUTION SHOULD BE EXERCISED IN AREAS WITH UTILITIES. THE CONTRACTOR IS FULLY RESPONSIBLE FOR ALL DAMAGE INFLICTED ON UTILITIES IN THE EXECUTION OF THIS CONTRACT.

LISTED BELOW ARE ALL UTILITIES LOCATED WITHIN THE PROJECT CONSTRUCTION LIMITS TOGETHER WITH THEIR RESPECTIVE OWNERS. THE OHIO DEPARTMENT OF TRANSPORTATION DOES NOT GUARANTEE THE COMPLETENESS OF THIS LIST.

THE LOCATION OF THE UNDERGROUND UTILITIES SHOWN ON THE PLANS ARE AS OBTAINED FROM THE OWNERS AS REQUIRED BY SECTION 153.64 O.R.C.

TELEPHONE: QUEST/LCI INTERNATIONAL.
2770 LEXINGTON AVENUE
P.O. BOX 3168
MANSFIELD, OHIO 44904
(440) 329-4247

SPRINT LOCAL
3801 ELM ROAD N.E.
WARREN, OHIO 44483
(216) 476-6134

GAS: COLUMBIA GAS OF OHIO INC.
1120 W. FOURTH ST.
MANSFIELD, OHIO 44901
(440) 240-6146

COLUMBIA GAS TRANSMISSION CORP.
3151 LINCOLN WAY WEST
WOOSTER, OHIO 44691
(440) 240-6146

ELECTRIC: OHIO POWER CO. (AEP).
P.O. BOX 944.
FINDLAY, OHIO 44839-0944
(440) 326-3207

COMMUNICATION: JAYTEL INC. (QUEST)
2770 LEXINGTON AVE.
P.O. BOX 3168
MANSFIELD, OHIO 44904
(419) 884-0400

WORK LIMITS

THE WORK LIMITS SHOWN ON THESE PLANS ARE FOR PHYSICAL CONSTRUCTION ONLY. THE INSTALLATION AND OPERATION OF ALL TEMPORARY TRAFFIC CONTROL AND TEMPORARY TRAFFIC CONTROL DEVICES REQUIRED BY THESE PLANS SHALL BE PROVIDED BY THE CONTRACTOR WHETHER INSIDE OR OUTSIDE THESE WORK LIMITS.

CLEARING AND GRUBBING

WITHIN THE LIMITS OF THIS PROJECT, A LUMP SUM QUANTITY HAS BEEN INCLUDED IN THE GENERAL SUMMARY FOR ITEM 201 - CLEARING AND GRUBBING.

MONUMENT ASSEMBLY

MONUMENTS SHALL BE CONSTRUCTED IN ACCORDANCE WITH DETAILS AS SHOWN ON THE STANDARD CONSTRUCTION DRAWINGS AND AT THE LOCATIONS SHOWN ON SHEET NUMBER 104.

DESIGN REQUIREMENTS FOR PLANT MIX PAVEMENTS

ON THIS PROJECT, ALL 301 MATERIALS SHALL BE DESIGNED FOR MEDIUM TRAFFIC VOLUMES.

ON THIS PROJECT, THE 448 INTERMEDIATE COURSE SHALL BE MEDIUM TRAFFIC VOLUMES FOR EVERYTHING EXCEPT THE SR 61/SR 314 INTERSECTION AREA, AND THAT WILL BE HEAVY TRAFFIC VOLUMES.

ON THIS PROJECT, ALL 446 SURFACE COURSE MATERIALS SHALL BE DESIGNED FOR MEDIUM TRAFFIC VOLUMES EXCEPT THE SR 61/SR 314 INTERSECTION AREA, AND THAT WILL BE HEAVY TRAFFIC VOLUMES.

DUST CONTROL

THE CONTRACTOR SHALL FURNISH AND APPLY WATER FOR DUST CONTROL AS DIRECTED BY THE ENGINEER. THE FOLLOWING CONTINGENCY QUANTITY HAS BEEN INCLUDED FOR DUST CONTROL PURPOSES:

ITEM 616 WATER 5 M. GAL.
ITEM 616 CALCIUM CHLORIDE 1 TON

CROSSINGS AND CONNECTIONS TO EXISTING PIPES AND UTILITIES:

WHERE PLANS PROVIDE FOR A PROPOSED CONDUIT TO BE CONNECTED TO, OR CROSS OVER OR UNDER AN EXISTING SEWER OR UNDERGROUND UTILITY, THE CONTRACTOR SHALL LOCATE THE EXISTING PIPES OR UTILITIES BOTH AS TO LINE AND GRADE BEFORE STARTING TO LAY THE PROPOSED CONDUIT. IF IT IS DETERMINED THAT THE ELEVATION OF THE EXISTING CONDUIT, OR EXISTING APPURTENANCE TO BE CONNECTED, DIFFERS FROM THE PLAN ELEVATION OR RESULTS IN A CHANGE IN THE PLAN CONDUIT SLOPE, THE ENGINEER SHALL BE NOTIFIED BEFORE STARTING CONSTRUCTION OF ANY PORTION OF THE PROPOSED CONDUIT WHICH WILL BE AFFECTED BY THE VARIANCE IN THE EXISTING ELEVATIONS.

IF IT IS DETERMINED THAT THE PROPOSED CONDUIT WILL INTERSECT AN EXISTING SEWER OR UNDERGROUND UTILITY IF CONSTRUCTED AS SHOWN ON THE PLAN, THE ENGINEER SHALL BE NOTIFIED BEFORE STARTING CONSTRUCTION OF ANY PORTION OF THE PROPOSED CONDUIT WHICH WOULD BE AFFECTED BY THE INTERFERENCE WITH AN EXISTING FACILITY.

PAYMENT FOR ALL THE OPERATIONS DESCRIBED ABOVE SHALL BE INCLUDED IN THE CONTRACT PRICE FOR THE PERTINENT 603 CONDUIT ITEM.

TREE REMOVAL RESTRICTIONS:

THIS PROJECT IS WITHIN THE KNOWN SUMMER BREEDING RANGE OF THE FEDERAL ENDANGERED INDIANA BROWN BAT AND MAY IMPACT THAT SPECIES HABITAT. THE SUMMER ROOSTING AND BROOD REARING HABITAT OF THIS SPECIES IS IN LIVING OR STANDING DEAD TREES OR SNAGS WITH EXFOLIATING, PEELING, OR LOOSE BARK, SPLIT TRUNKS AND/OR BRANCHES, OR CAVITIES. ANY UNAVOIDABLE CUTTING OF SUCH TREES SHALL BE PERFORMED ONLY BEFORE APRIL 15 OR AFTER SEPTEMBER 15 WHEN THIS SPECIES WOULD NOT BE USING SUCH HABITAT.

ITEM 203 - PROOF ROLLING (SR 61 & SR 314 INTERSECTION)

AN ESTIMATED QUANTITY FOR THIS ITEM HAS BEEN PROVIDED IN THE GENERAL SUMMARY FOR USE AS DIRECTED BY THE ENGINEER.

ITEM 203 PROOF ROLLING 2 HOURS

BUTT JOINTS

BUTT JOINTS SHALL NOT BE CUT AND LEFT OPEN TO TRAFFIC. THEY SHALL BE FILLED IN WITH A TEMPORARY ASPHALT CONCRETE WEDGE, OF SUFFICIENT LENGTH, AS DIRECTED IN THE PLANS.

CONSTRUCTION "BUMP" (OW-62) AND "ADVISORY SPEED" (OW-143) SIGNS SHALL BE ERECTED AND MAINTAINED DURING THE PERIOD THE BUTT JOINT IS LEFT OPEN. THESE SIGNS SHALL BE PAID FOR UNDER THE LUMP SUM ITEM FOR 614 MAINTAINING TRAFFIC.

PAVEMENT CONTROL

AN AUTOMATIC SCREED CONTROL, HAVING A 20 FT. MINIMUM SKI-ARM, SHALL BE USED FOR PLACING THE INTERMEDIATE COURSE AND SURFACE COURSE ON EXISTING PAVEMENT WIDTHS OF 20 FT. AND OVER.

SPECIAL ATTENTION SHALL BE GIVEN TO SUPER-ELEVATED CURVES. THE SUPER-ELEVATION SHALL BE MAINTAINED AND/OR RESTORED, IF NECESSARY, AS DIRECTED BY THE ENGINEER.

THE CONTRACTOR SHALL MAINTAIN POSITIVE DRAINAGE INTO ALL CATCH BASINS AND INLETS.

ITEM 407. TACK COAT

ITEM 407. TACK COAT FOR INTERMEDIATE COURSE

THE RATE OF APPLICATION OF ITEM 407 TACK COAT SHALL BE SUBJECT TO ADJUSTMENT AS DIRECTED BY THE ENGINEER. AREAS OF TACK COAT STRIPPED BY CONSTRUCTION EQUIPMENT SHALL BE RECOATED PRIOR TO PLACING ASPHALT CONCRETE. PLAN AREAS INDICATE AN APPLICATION RATE OF 2.08 GAL. PER SQUARE YARD OF ITEM 407 TACK COAT FOR ESTIMATING PURPOSES ONLY. SEE THE FOLLOWING PARAGRAPH FOR AN ADDITIONAL REQUIREMENT.

THE INTERSECTION OF SR 61/SR 314 WIDENING AREAS WILL RECEIVE AN APPLICATION RATE OF 0.03 GAL. PER SQUARE YARD, UNDER ITEM 407 TACK COAT.

PRIOR TO PLACING THE SURFACE COURSE ON THE PROPOSED INTERMEDIATE COURSE, AN ADDITIONAL APPLICATION OF ITEM 407 TACK COAT FOR INTERMEDIATE COURSE IS REQUIRED AT AN AVERAGE RATE OF APPLICATION OF 0.03 GAL. PER SQUARE YARD FOR ESTIMATING PURPOSES ONLY.

ITEM 448. ASPHALT CONCRETE INTERMEDIATE COURSE, TYPE 2, PG 64-28

THIS ITEM SHALL BE USED FOR CORRECTION OF CROWN, PROFILE AND ANY OTHER IRREGULARITIES. THE AVERAGE THICKNESS SHALL BE 1.75".

BEFORE THE JOINT IS EXPOSED TO TRAFFIC, THE CONTRACTOR SHALL ERECT OWP-171 (UNEVEN PAVEMENT) SIGN. THIS SIGN SHALL ONLY REMAIN WHILE THE CONDITION EXISTS.

ALL OPEN TRANSVERSE JOINTS SHALL BE TAPERED TO MEET EXISTING PAVEMENT BEFORE INTRODUCING TRAFFIC.

PLACEMENT OF SIGNS SHALL BE INCLUDED IN THE UNIT PRICE BID FOR THIS ITEM.

ITEM 448. ASPHALT CONCRETE SURFACE COURSE, TYPE 1, PG64-22 (DRIVEWAYS)

THIS ITEM OF WORK SHALL BE USED AT THE LOCATIONS OF PAVED DRIVEWAYS. ALL LABOR, MATERIAL, AND EQUIPMENT NEEDED TO PLACE AN ASPHALT SURFACE COURSE FOR THE ASPHALT DRIVEWAYS SHALL BE INCLUDED IN THE CONTRACT UNIT BID PRICE PER CUBIC YARD FOR ITEM 448 - ASPHALT CONCRETE SURFACE COURSE, TYPE 1, PG64-22: (DRIVEWAYS)

ITEM 446. ASPHALT CONCRETE SURFACE COURSE, TYPE III, PG 76-22

ALL LONGITUDINAL PAVEMENT JOINTS SHALL BE CLOSED BEFORE THE END OF EACH WORK DAY. BEFORE THE JOINT IS EXPOSED TO TRAFFIC, THE CONTRACTOR SHALL ERECT OWP-171 (UNEVEN PAVEMENT) SIGNS. THESE SIGNS SHALL ONLY REMAIN WHILE THE CONDITION EXISTS. ALL OPEN TRANSVERSE JOINTS SHALL BE TAPERED TO MEET EXISTING PAVEMENT BEFORE INTRODUCING TRAFFIC.

IN ADDITION TO SECTION 401.12 AND STANDARD DRAWING BP-3.1, TRANSVERSE, FEATHERED, OR BUTT JOINTS SHALL BE SEALED WITH A 6 INCH WIDE BAND OF ASPHALT CEMENT ACROSS THE TOP SURFACE. THE COST OF THIS WORK AND THE PLACEMENT OF THE "UNEVEN PAVEMENT" SIGNS SHALL BE INCLUDED IN THE UNIT PRICE BID FOR THIS ITEM.

DESIGN FILE: I:\projects\16923\61-314\gennotes.dgn
WORKSTATION: c:\ahorn DATE: 11/01/02

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JPF
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RPT

GENERAL NOTES

CRA-19-4.21

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III

ITEM 254. PAVEMENT PLANING, BITUMINOUS

THIS ITEM OF WORK SHALL BE COMPLETED AT THE LOCATIONS SHOWN IN THE PLANS AND IN AREAS DESIGNATED BY THE ENGINEER. PLANING IS TO BE PERFORMED AS DIRECTED. REMOVAL OF EXISTING PAVEMENT SURFACE MAY BE REQUIRED TO ELIMINATE ADVERSE SURFACE DISTORTION, WHICH IN THE JUDGEMENT OF THE ENGINEER, CANNOT BE SATISFACTORILY CORRECTED IN THE PAVING COURSES.

THESE AREAS MAY VARY IN DEPTH, AS DIRECTED BY THE ENGINEER. THESE AREAS MAY INCLUDE MATERIAL DISPLACED BY RUTTING OR SHOIVING, ASPHALT SURFACE PATCHES, CONCRETE PATCHES, TRANSVERSE BUMPS, JOINTS AT STRUCTURES, ADJOINING PAVEMENTS, RAILROADS, ETC.

AN AUTOMATIC MILLING HEAD PROFILE CONTROL HAVING A MINIMUM 30 FOOT SKI-ARM SHALL BE USED DURING PLANING OPERATION.

THE PROGRESSION OF THE PLANING SHALL PROCEED IN SUCH A MANNER THAT NORMAL TRAFFIC WILL NOT BE REQUIRED TO RUN OVER THE PLANED ROADWAY SURFACE MORE THAN TWENTY-ONE (21) CALENDAR DAYS. THE 21 CALENDAR DAYS SHALL BE CONSIDERED AN INTERIM COMPLETION DATE (SECTION 108) AND FOR EACH CALENDAR DAY BEYOND THE 21 DAYS THAT THE ROADWAY REMAINS EXPOSED TO THE PLANED SURFACE, THE CONTRACTOR WILL BE ASSESSED LIQUIDATED DAMAGES AS PER 108.07. PLANED AREAS WHICH CREATE A LONGITUDINAL JOINT BETWEEN TRAVELED LANES SHALL BE COMPLETED IN SUCH A MANNER SO AS TO REMOVE THE JOINT BEFORE THE END OF EACH DAY'S WORK. BEFORE THIS JOINT IS EXPOSED TO TRAFFIC, THE CONTRACTOR SHALL ERECT OW-171 SIGNS (UNEVEN PAVEMENT). THESE SIGNS SHALL REMAIN ONLY WHEN THE CONDITION EXISTS.

ITEM 253. PAVEMENT REPAIR

THIS ITEM OF WORK SHALL CONSIST OF THE REMOVAL OF THE EXISTING PAVEMENT OR PAVED BERM WHICH MAY BE ASPHALT, BRICK, CONCRETE, OR A COMBINATION OF EACH, IN AREAS OF EXISTING PAVEMENT FAILURE.

THE ENGINEER SHALL DESIGNATE THE LOCATIONS AND LIMITS OF THE AREAS TO BE REPAIRED. PAVEMENT REPAIR SHALL BE PERFORMED AFTER PAVEMENT PLANING. THE REPAIR AREAS SHALL BE ROUGHLY RECTANGULAR IN SHAPE AND CUT OR SAWED TO A NEAT LINE. THE PAVEMENT SHALL BE REMOVED WITHIN THE DESIGNATED AREAS BY METHODS WHICH WILL NOT DAMAGE THE ADJACENT PAVEMENT. THE DEPTH OF REMOVAL, AS DIRECTED BY THE ENGINEER, SHALL BE SUFFICIENT TO REMOVE ALL DETERIORATED PAVEMENT (ESTIMATED DEPTH MAY VARY FROM 2" TO 12"). THE MATERIALS SO REMOVED SHALL BE DISPOSED OF IN ACCORDANCE WITH 203.05.

REPLACEMENT MATERIAL SHALL BE ITEM 301 OR ITEM 44B, TYPE 2 MATERIAL AND SHALL BE PLACED AND COMPACTED TO FINISH FLUSH WITH THE ADJACENT PAVEMENT SURFACE. THE REPAIR AREAS SHALL BE PAINTED WITH BITUMINOUS MATERIAL (SIDES AND BOTTOM) AT AN APPLICATION RATE OF 0.25 GAL/SO YDS. ALL COMPACTION SHALL BE ACHIEVED BY MECHANICAL METHODS TO THE SATISFACTION OF THE ENGINEER. MAXIMUM LIFT THICKNESS SHALL BE 3".

PAYMENT SHALL INCLUDE ALL LABOR, EQUIPMENT AND MATERIALS NECESSARY TO COMPLETE THE PAVEMENT REPAIR. THE FOLLOWING ESTIMATED QUANTITY IS PROVIDED IN THE GENERAL SUMMARY TO BE USED AS DIRECTED BY THE ENGINEER. PAYMENT WILL BE MADE AT THE UNIT BID PRICE PER cubic yards, (BY TICKET WEIGHT CONVERSION), OF ITEM 253, PAVEMENT REPAIR.

- 100 CY - PART A
- 125 CY - PART B
- 100 CY - PART C
- 125 CY - PART D

301 BITUMINOUS AGGREGATE BASE, PG64-22, AS PER PLAN

WHERE 301 BITUMINOUS AGGREGATE BASE, PG64-22, AS PER PLAN MATERIAL MEETS EXISTING ASPHALT OR CONCRETE PAVEMENT, PG GRADE LIQUID ASPHALT SHALL BE USED TO COAT THE VERTICAL FACE INSTEAD OF TACK COAT MATERIAL. ALL COSTS TO BE INCLUDED IN ITEM 301 BITUMINOUS AGGREGATE BASE, PG64-22, AS PER PLAN.

FARM DRAINS

ALL FARM DRAINS, WHICH ARE ENCOUNTERED DURING CONSTRUCTION, SHALL BE PROVIDED WITH UNOBSTRUCTED OUTLETS. EXISTING COLLECTORS WHICH ARE LOCATED BELOW THE ROADWAY DITCH ELEVATIONS, AND WHICH CROSS THE ROADWAY, SHALL BE REPLACED WITHIN THE (RIGHT OF WAY) CONSTRUCTION LIMITS BY ITEM 603 CONDUIT, TYPE B, ONE COMMERCIAL SIZE LARGER THAN THE EXISTING CONDUIT.

EXISTING COLLECTORS AND ISOLATED FARM DRAINS, WHICH ARE ENCOUNTERED ABOVE THE ELEVATION OF ROADWAY DITCHES, SHALL BE OUTLETTED INTO THE ROADWAY DITCH BY 603 TYPE F CONDUIT. THE OPTIMUM OUTLET ELEVATION SHALL BE 1 FOOT ABOVE THE FLOWLINE ELEVATION OF THE DITCH. LATERAL FIELD TILES WHICH CROSS THE ROADWAY SHALL BE INTERCEPTED BY ITEM 603, TYPE E CONDUIT, AND CARRIED IN A LONGITUDINAL DIRECTION TO AN ADEQUATE OUTLET OR ROADWAY CROSSING.

THE LOCATION, TYPE, SIZE AND GRADE OF REPLACEMENTS SHALL BE DETERMINED BY THE ENGINEER AND PAYMENT SHALL BE MADE ON FINAL MEASUREMENTS.

EROSION CONTROL PADS AND ANIMAL GUARDS SHALL BE PROVIDED AT THE OUTLET END OF ALL FARM DRAINS AS PER STANDARD CONSTRUCTION DRAWING DM-IJM, EXCEPT WHEN THEY OUTLET INTO A DRAINAGE STRUCTURE. PAYMENT FOR THE EROSION CONTROL PADS AND ANIMAL GUARDS AND ANY NECESSARY BENDS OR BRANCHES SHALL BE INCLUDED FOR PAYMENT IN THE PERTINENT CONDUIT ITEMS.

THE FOLLOWING ESTIMATED QUANTITIES HAVE BEEN INCLUDED IN THE GENERAL SUMMARY FOR THE WORK NOTED ABOVE:

- ITEM 603 12" CONDUIT, TYPE B - 20 LIN. FT.
- ITEM 603 12" CONDUIT, TYPE E - 20 LIN. FT.
- ITEM 603 12" CONDUIT, TYPE F - 20 LIN. FT.

MANHOLES, CATCH BASINS AND INLETS, REMOVED OR ABANDONED

ALL CASTINGS SHALL BE CAREFULLY REMOVED AND STORED WITHIN THE RIGHT OF WAY FOR SALVAGE BY STATE FORCES.

PAYMENT FOR ALL OF THE ABOVE SHALL BE INCLUDED IN THE CONTRACT PRICE FOR THE PERTINENT 202 ITEM.

RESIDENTIAL AND COMMERCIAL DRAINAGE CONNECTIONS

EXISTING ROOF DRAINS, FOOTER DRAINS, OR YARD DRAINS, DISTURBED BY THE WORK, SHALL BE PROVIDED WITH UNOBSTRUCTED OUTLETS BY CONNECTING A CONDUIT THROUGH THE CURB OR INTO A DRAINAGE STRUCTURE. THE LOCATION, TYPE, SIZE AND GRADE OF THE NEW CONDUIT REQUIRED TO REPLACE OR EXTEND THE EXISTING DRAIN WILL BE DETERMINED BY THE ENGINEER.

THE FOLLOWING CONDUIT TYPES MAY BE USED: 707.33, 707.41 NON-PERFORATED, 707.42, 707.43, 707.45, 707.46, 707.47, 707.51, 707.52 PS46 MIN.

THE FOLLOWING ESTIMATED QUANTITIES HAVE BEEN INCLUDED IN THE GENERAL SUMMARY FOR USE AS DIRECTED BY THE ENGINEER FOR THE WORK NOTED ABOVE:

- PART D - ITEM 603 - 6" CONDUIT, TYPE E, FOR DRAINAGE CONNECTION 40 LIN. FT.

ITEM 630. REMOVAL OF GROUND MOUNTED POST SUPPORT AND DISPOSAL:

ITEM 630. GROUND MOUNTED SUPPORT, NO. 3 POST:

THE FOLLOWING QUANTITIES HAVE BEEN CARRIED TO THE GENERAL SUMMARY TO BE USED AS DIRECTED BY THE ENGINEER.

- PART D - ITEM 630, REMOVAL OF GROUND MOUNTED POST SUPPORT AND DISPOSAL: 3 EACH
- PART D - ITEM 630, GROUND MOUNTED SUPPORT, NO. 3 POST: 40 LIN. FT.

WATERING PERMANENT SEEDED AREAS

WATER AS PER SS870 IS TO BE USED AS DIRECTED BY THE ENGINEER TO PROMOTE GROWTH AND TO CARE FOR PERMANENT SEEDED AREAS.

ITEM 870. SEEDING AND MULCHING

THE FOLLOWING QUANTITIES ARE PROVIDED TO PROMOTE GROWTH AND CARE OF PERMANENT SEEDED AREAS:

- PART D - ITEM 870, SOIL ANALYSIS TEST 2 EACH
 - PART D - ITEM 870, AGRICULTURAL LIME 4.43 TON
 - PART D - ITEM 870, PLACING TOPSOIL 595 CU. YDS.
 - PART D - ITEM 870, INTER-SEEDING 535 SQ. YDS.
- (SEE ALSO CALCULATIONS SHEET)

SEEDING AND MULCHING SHALL BE APPLIED TO ALL AREAS OF EXPOSED SOIL BETWEEN THE RIGHT-OF-WAY LINES, AND WITHIN THE CONSTRUCTION LIMITS FOR AREAS OUTSIDE THE RIGHT-OF-WAY LINES COVERED BY WORK AGREEMENT OR SLOPE EASEMENT. QUANTITY CALCULATIONS FOR ITEM 870, SEEDING AND MULCHING, ARE BASED ON THESE LIMITS.

SEEDING AND MULCHING OF LAWNS

IN ADDITION TO SEED BED AREAS IN FRONT OF RESIDENCES REFERRED TO IN 870.13, THE SPECIAL PREPARATION SHALL BE EXTENDED TO ENCOMPASS ALL LAWNS AND/OR LAWN-LIKE AREAS AS DETERMINED BY THE ENGINEER.

TEMPORARY SOIL EROSION AND SEDIMENT CONTROL

THE FOLLOWING ESTIMATED QUANTITIES ARE TO BE PLACED BY THE CONTRACTOR WITH THE ENGINEER'S CONCURRENCE FOR TEMPORARY EROSION AND SEDIMENT CONTROL MEASURES:

- PART D - ITEM 877, TEMPORARY PERIMETER FILTER FABRIC FENCE 200 LIN. FT.
- PART D - ITEM 877, TEMPORARY DITCH CHECK FILTER FABRIC FENCE 100 LIN. FT.
- PART D - ITEM 877, TEMPORARY INLET PROTECTION FILTER FABRIC FENCE 120 LIN. FT.
- PART D - ITEM 877, SEDIMENT REMOVAL 50 CU. YDS.
- PART D - ITEM 601, ROCK CHANNEL PROTECTION, TYPE C WITHOUT FILTER 12 CU. YDS.

AS DIRECTED BY THE ENGINEER, OR IF WATER TIPS OVER THE FILTER FABRIC FENCE, ITEM 601, ROCK CHANNEL PROTECTION, TYPE C, (WITHOUT FILTER), SHALL BE PLACED TO SUPPORT THE FILTER FABRIC FENCE. 1 (ONE) CUBIC YARD OF ROCK CHANNEL PROTECTION (WITHOUT FILTER) SHALL SUPPORT 25 LIN. FT. OF FILTER FABRIC FENCE.

ITEM 614. BITUMINOUS CONCRETE FOR MAINTAINING TRAFFIC:

THE FOLLOWING ESTIMATED QUANTITY HAS BEEN CARRIED TO THE GENERAL SUMMARY TO CONSTRUCT A TEMPORARY ASPHALT WEDGE FROM THE EXISTING PAVEMENT TO THE PLANED SURFACE AT BUTT JOINTS AND OTHER LOCATIONS THAT RESULT IN A DROP-OFF IN EXCESS OF 1/2in, AS DIRECTED BY THE ENGINEER. THIS QUANTITY SHALL ALSO BE USED AT PLANED SURFACES WHERE A TEMPORARY ASPHALT WEDGE IS NEEDED AROUND CASTINGS, AS DIRECTED BY THE ENGINEER.

- 100 cu. yd. ITEM 614, BITUMINOUS CONCRETE FOR MAINTAINING TRAFFIC

RPM GENERAL NOTES

Materials Supplied by The Department

ALL MATERIALS ARE TO BE CONTRACTOR FURNISHED, EXCEPT THAT THE DEPARTMENT SHALL SUPPLY RPM MATERIALS IN THE QUANTITIES SHOWN HEREIN TO THE CONTRACTOR. PAY ITEMS FOR THE DEPARTMENT SUPPLIED MATERIALS SHALL BE INDICATED AS "INSTALLATION ONLY".

AT THE PRE-CONSTRUCTION CONFERENCE AN AUTHORIZATION FOR PICK UP FORM WILL BE FURNISHED BY THE DISTRICT CONSTRUCTION ADMINISTRATOR AND THE CONTRACTOR WILL BE INFORMED OF THE LOCATION OF THE DEPARTMENT SUPPLIED MATERIALS TO BE PICKED UP. FOR SOME PROJECTS HAVING QUANTITIES OF LESS THAN 20 RPMS, THE CONTRACTOR MAY PICK UP RPM MATERIALS AT THE DISTRICT OFFICES. QUANTITIES OVER 20 RPMS WILL BE PICKED UP AT THE RECYCLER'S WAREHOUSE OR AS ARRANGED WITH THE DISTRICT. THE CONTRACTOR SHALL PICK UP DEPARTMENT SUPPLIED RPM MATERIALS AT THE SPECIFIED LOCATION(S) FOR TRANSPORT TO THE WORK SITE OR TO THE CONTRACTOR'S STORAGE FACILITY. THE RECYCLED RAISED PAVEMENT MARKER (RPM) AUTHORIZATION FORM IS TO BE SIGNED BY THE DISTRICT CONSTRUCTION ENGINEER PRIOR TO PICK UP OF THE RPMS. THE CONTRACTOR SHALL NOTIFY THE DISTRICT AND / OR THE PARTIES LISTED ON THE AUTHORIZATION FORM IN WRITING AT LEAST FIVE (5) CALENDAR DAYS PRIOR TO PICK UP OF THE DEPARTMENT SUPPLIED MATERIALS. THE CONTRACTOR SHALL STORE THE RPMS WITHOUT DAMAGE OR CONTAMINATION WITH FOREIGN MATTER. A DEDUCTION IN THE AMOUNT OF THE ACTUAL COST TO THE DEPARTMENT SHALL BE MADE FOR MATERIALS DAMAGED BY THE CONTRACTOR OR FOR CASTINGS RECEIVED BY THE CONTRACTOR WHICH WERE NOT INSTALLED AND WERE NOT RETURNED TO THE DEPARTMENT.

Return of Non-performed Raised Pavement Marker Materials Supplied by the Department

RAISED PAVEMENT MARKER MATERIALS SUPPLIED BY THE DEPARTMENT, THAT ARE NON-PERFORMED SHALL BE CAREFULLY REPACKED OR PACKED IN THE BOXES IN THE SAME STYLE AND QUANTITY AS ORIGINALLY RECEIVED FROM THE DEPARTMENT. CASTING STYLES SHALL NOT BE MIXED WITHIN ANY ONE CONTAINER. THE CONTRACTOR SHALL CLEARLY MARK ON THE OUTSIDE OF EACH CONTAINER, THE COLOR OF THE PRISMATIC RETRO-REFLECTOR, AND THE STYLE OF CASTING. BOXES SHALL BE PLACED ON SKIDS OR PALLETS IN THE SAME STYLE (LOW PROFILE OR CONVENTIONAL, REFLECTORISED OR NON REFLECTORISED) AND NO MORE THAN 420 RPMS (OR 21 BOXES) ON ONE SKID.

ONLY USE THE BOXES SUPPLIED BY THE RAISED PAVEMENT MARKER RECYCLER. BOXES MUST BE MARKED WITH THE RECYCLER'S PART OR CATALOG NUMBER AND THE PROJECT NUMBER. THE RECYCLER'S CATALOG OR PART NUMBERS MAY BE OBTAINED FROM THE OFFICE OF TRAFFIC ENGINEERING IN COLUMBUS, OHIO OR FROM THE RECYCLER. BOXES NOT MARKED WITH THE PROPER RECYCLER'S CATALOG OR PART NUMBERS, AND THE DEPARTMENT'S PROJECT NUMBER WILL NOT BE ACCEPTED AT THE RECYCLER'S WAREHOUSE.

NON PERFORMED MATERIALS WILL BE RETURNED TO THE LOCATION AS SPECIFIED BY THE DISTRICT CONSTRUCTION ENGINEER WITHIN 30 DAYS OF THE COMPLETION OF THE PROJECT.

THE ABOVE WORK INCLUDING ALL LABOR, EQUIPMENT AND MATERIAL NEEDED TO PERFORM THE WORK, SHALL BE CONSIDERED INCIDENTAL TO THE RESPECTIVE PAY ITEM.

IF THE DEPARTMENT HAS TO REPACKAGE THE RPMS CORRECTLY, THE CONTRACTOR WILL BE ASSESSED THE ACTUAL COST FOR REPACKAGING THE MATERIALS BY THE DEPARTMENT'S FORCES.

Loading of Materials Supplied by the Department at the Recycler's Warehouse

TRUCKS SHALL HAVE A LOADING HEIGHT OF 48 INCHES AND BE ABLE TO BACK UP FLUSH TO THE LOADING DOCK.

TRUCKS SHALL NOT HAVE ANY OBSTRUCTIONS OR PROTRUSIONS THAT PREVENT THE LOADING BY A STANDARD FORKLIFT OR LIFT TRUCK. SEMI TRUCKS OR 20 FOOT COMMERCIAL TRUCKS ARE THE MOST APPROPRIATE TRUCKS FOR LOADS IN EXCESS OF 4 PALLETS (ONE PALLET - 21 BOXES - 2100 LBS).

STAKE BODY TRUCKS ARE APPROPRIATE TO LOAD LESS LOAD AND THE LOAD CAN BE SAFELY SECURED FOR TRANSPORT BY CHAINING OR STRAPPING DOWN AS NEEDED.

PICKUP TRUCKS ARE APPROPRIATE FOR LOADS OF APPROXIMATELY ONE PALLET, PROVIDED THE PICKUP TRUCK IS RATED FOR THE LOAD AND THE LOAD CAN BE SAFELY SECURED FOR TRANSPORT.

DUMP TRUCKS, TILT BED TRUCKS, AND NON COMMERCIAL MOVING VANS WILL NOT BE LOADED.

THE WAREHOUSE SUPERVISOR WILL REFUSE TO LOAD ANY TRUCK THAT IS UNSAFE TO LOAD OR UNSUITABLE FOR THE LOAD BEING PLACED ON THE TRUCK.

ITEM 410, TRAFFIC COMPACTED SURFACE, TYPE A OR B:

THE FOLLOWING QUANTITIES HAVE BEEN CARRIED TO THE GENERAL SUMMARY TO BE USED AS DIRECTED BY THE ENGINEER.

ITEM 410, TRAFFIC COMPACTED SURFACE, TYPE A OR B 10 CUBIC YARD

ITEM 630 - SIGNING, MISC.: SIGN DATA COLLECTION:

THIS ITEM OF WORK SHALL CONSIST OF COLLECTING AND RECORDING INFORMATION FOR ANY WORK INVOLVING PERMANENT SIGNING INCLUDING SIGN REMOVAL, SIGN RELOCATION OR NEW SIGN INSTALLATION ON THIS PROJECT. DISTRICT THREE HAS A SIGN INVENTORY SYSTEM IN OPERATION. WORK PERFORMED ON EXISTING SIGNS AND INSTALLATION OF NEW SIGNS WILL AFFECT THE ACCURACY OF THE INVENTORY. ALL EXISTING SIGNS HAVE A BAR CODE STICKER. THE BAR CODE STICKER NUMBER FOR ANY SIGNS REMOVED ON THE PROJECT SHALL BE RECORDED COMPLETELY AND ACCURATELY SO THEY CAN BE REMOVED FROM THE INVENTORY. THE BAR CODE STICKER NUMBER FOR ANY SIGNS THAT ARE NEW OR RELOCATED SHALL ALSO BE RECORDED COMPLETELY AND ACCURATELY. NEW SIGNS REQUIRE NEW BAR CODE STICKERS WHICH WILL BE SUPPLIED TO THE CONTRACTOR AT THE PRECONSTRUCTION MEETING. ANY STICKERS NOT USED ARE TO BE RETURNED TO ODOT D03 TRAFFIC DEPARTMENT.

THE INFORMATION SHALL BE COLLECTED FROM ALL SIGNS REMOVED, RELOCATED OR INSTALLED ON THE PROJECT AND RECORDED COMPLETELY AND ACCURATELY BY A PERSON FAMILIAR WITH SIGNING TERMINOLOGY. THE INFORMATION REQUIRED APPEARS ON A FORM WHICH WILL BE SUPPLIED TO THE CONTRACTOR AT THE PRECONSTRUCTION MEETING. ALL SECTIONS OF THE FORM SHALL BE COMPLETED FROM THE INFORMATION COLLECTED FOR EACH SIGN. NOTE THAT THE STRAIGHT LINE MILEAGE LOG POINT OF THE SIGN REMOVAL, RELOCATION OR INSTALLATION IS TO BE PROVIDED. PROJECT STATIONING IS NOT ACCEPTABLE. AFTER THE FORM IS COMPLETED, IT SHALL BE RETURNED TO ODOT DISTRICT 03 TRAFFIC DEPARTMENT. A COPY OF THIS FORM IS AVAILABLE UPON REQUEST FOR THE CONTRACTOR TO REVIEW FOR BIDDING PURPOSES. FOR A COPY OF THIS FORM PLEASE CALL 1-800-276-4188, EXTENSION 227 - ROADWAY SERVICES MANAGER.

PAYMENT FOR THE LABOR, MATERIALS AND EQUIPMENT NECESSARY TO PERFORM THE ABOVE WORK WHICH INCLUDES COLLECTION OF INFORMATION, COMPLETION OF THE FORMS SUPPLIED TO THE CONTRACTOR, INSTALLATION OF BAR CODE STICKERS, MEASURING OF THE SIGNS AND ANY OTHER WORK IN ORDER TO COMPLETE THE FORM SHALL BE INCLUDED IN THE COST OF ITEM 630 - SIGNING, MISC.: SIGN DATA COLLECTION PER EACH.

SEE SHEET 95 FOR TOTALS

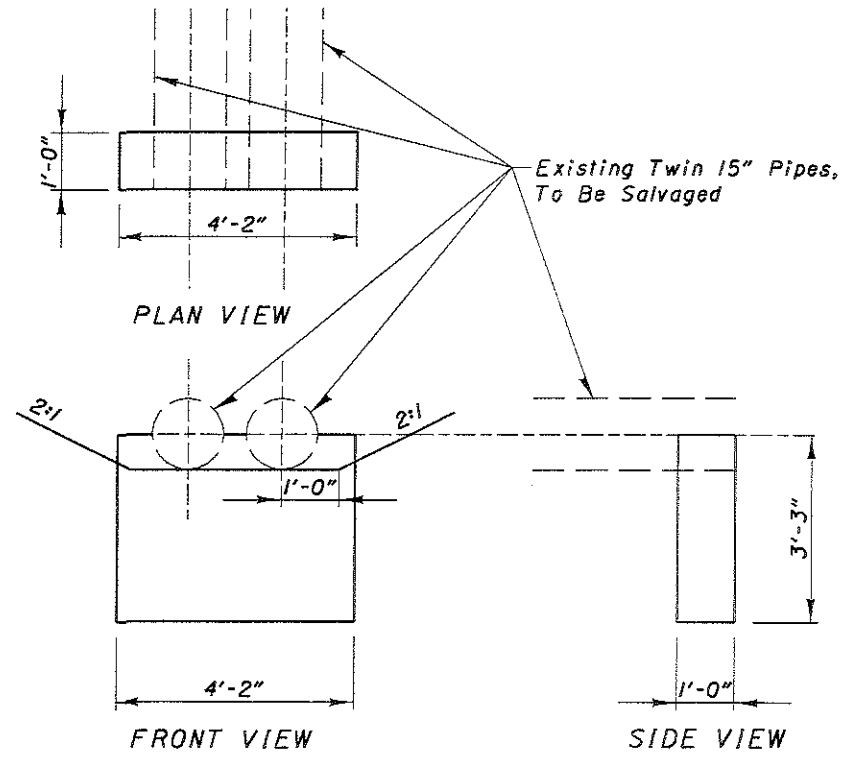
ITEM 605 - AGGREGATE DRAIN:

AGGREGATE DRAINS SHALL BE PLACED AT 50 FOOT INTERVALS ON EACH SIDE OF NORMAL CROWNED SECTIONS, STAGGERED SO THAT EACH DRAIN IS 25 FEET FROM THE ADJACENT DRAIN ON THE OPPOSITE SIDE OF THE ROAD, AND AT 25 FOOT INTERVALS ON THE LOW SIDE ONLY OF SUPERELEVATED SECTIONS. AN AGGREGATE DRAIN SHALL ALSO BE PLACED AT THE LOW POINT OF EACH SAG VERTICAL CURVE.

SR 61 LEFT		SR 61 RIGHT	
STA. 197+87	10.4 FEET	STA. 197+62	10.4 FEET
STA. 198+37	11.7 FEET	STA. 198+12	10.4 FEET
STA. 199+50	10.7 FEET	STA. 199+25	8.3 FEET
STA. 200+50	10.7 FEET	STA. 2205+75	10.7 FEET
STA. 200+85	10.7 FEET	STA. 2206+25	10.7 FEET
STA. 1203+50	10.7 FEET	STA. 2206+75	10.7 FEET
STA. 2204+50	10.7 FEET	STA. 2207+25	10.7 FEET
STA. 2205+00	10.7 FEET	STA. 2207+75	10.7 FEET
STA. 2205+50	10.7 FEET	STA. 2208+25	10.7 FEET
SUB-TOTAL 139.8 FEET		SUB-TOTAL 136.1 FEET	
TOTAL QUANTITY CARRIED TO GENERAL SUMMARY 276 FEET			

602. CONCRETE MASONRY, AS PER PLAN

THIS ITEM OF WORK SHALL BE PERFORMED AT THE LOCATIONS SPECIFIED IN THE PLANS.



FOR DETAILS NOT SHOWN, SEE STANDARD DRAWINGS HW-2.1 AND HW-2.2. PAYMENT SHALL INCLUDE ALL LABOR, EQUIPMENT AND MATERIALS NECESSARY TO COMPLETE THE ABOVE WORK. PAYMENT SHALL BE MADE AT THE UNIT BID PRICE PER cubic yard, FOR ITEM 602, CONCRETE MASONRY, AS PER PLAN

SEE SHEET 25 FOR TOTALS

DESIGN FILE: I:\projects\16923\61-314\gennotes.dgn
WORKSTATION: cvanhorn DATE: 10/22/02

PROGRESSION OF WORK:

GUARDRAIL WORK SHALL BE DONE AFTER RESURFACING, EMBANKMENT AND BERM WORK SO AS TO ESTABLISH PROPER GRADES FROM WHICH TO CONSTRUCT THE GUARDRAIL.

INTERSECTIONS AND DRIVES:

RURAL-INTERSECTIONS SHALL BE PAVED TO THE END OF THE RADII OR AS DIRECTED BY THE ENGINEER. (TO PROVIDE A SMOOTH TRANSITION BETWEEN THE TWO HIGHWAYS, AND TO ELIMINATE WATER POCKETS)

URBAN-INTERSECTIONS SHALL BE PAVED TO THE BACK OF CROSSWALKS OR AS DIRECTED BY THE ENGINEER. (TO PROVIDE A SMOOTH TRANSITION BETWEEN THE TWO HIGHWAYS, AND TO ELIMINATE WATER POCKETS)

EXISTING PAVED DRIVES SHALL BE PAVED SO AS TO PROVIDE A SMOOTH TRANSITION BETWEEN THE HIGHWAY AND THE DRIVE, (DISTANCE FROM EDGE OF ROADWAY MAY VARY - AT EACH DRIVE) AS DIRECTED BY THE ENGINEER.

EXISTING AGGREGATE DRIVES SHALL BE PAVED WITH AN APRON THE WIDTH OF THE 617 BERM OR 2.0 FT. MINIMUM. THE SLOPE OF THIS APRON SHALL BE THE SAME AS THE ADJACENT PAVEMENT SLOPE OR AS DIRECTED BY THE ENGINEER. ITEM 617 AGGREGATE SHALL BE PLACED ADJACENT TO THIS APRON TO PROVIDE A SMOOTH TRANSITION FROM THE APRON TO THE EXISTING DRIVE, (WIDTH OF THIS 617 APPLICATION MAY VARY.) AS DIRECTED BY THE ENGINEER. AN ADDITIONAL QUANTITY HAS BEEN ESTIMATED TO COMPLETE THIS WORK AND IS SHOWN ON THE "SHOULDER DATA" SHEET.

ANY HAZARD OR UNSAFE CONDITION RESULTING FROM THE ABOVE WORK MUST BE CORRECTED IMMEDIATELY, AS DIRECTED BY THE ENGINEER. THE CONTRACTOR IS REMINDED OF SECTIONS 104.04, 107.07 & 614.02 (a): PUBLIC CONVENIENCE AND SAFETY.

PLACEMENT OF ASPHALT CONCRETE

TWO-WAY TRAFFIC SHALL BE MAINTAINED AT ALL TIMES EXCEPT THAT ONE-WAY TRAFFIC WILL BE PERMITTED IN THE TWO LANE SECTION FOR MINIMUM PERIODS OF TIME CONSISTENT WITH THE REQUIREMENTS OF THE SPECIFICATIONS FOR PROTECTION OF COMPLETED ASPHALT CONCRETE COURSES.

DRIVEWAY ACCESS

INGRESS AND EGRESS FOR ALL PROPERTIES SHALL BE MAINTAINED AT ALL TIMES THROUGHOUT THE CONSTRUCTION OF THE VARIOUS PHASES. THE FOLLOWING ESTIMATED QUANTITY HAS BEEN INCLUDED IN THE GENERAL SUMMARY FOR USE AS DIRECTED BY THE ENGINEER FOR DRIVEWAY ACCESS:

ITEM 411 STABILIZED CRUSHED AGGREGATE LIMESTONE 100 CU. YDS.

ITEM 254 PATCHING PLANED SURFACE

AN ESTIMATED QUANTITY OF ITEM 254, PATCHING PLANED SURFACE HAS BEEN SET UP TO BE USED AS DIRECTED BY THE ENGINEER AS DESCRIBED IN THE CONSTRUCTION AND MATERIALS SPECIFICATIONS MANUAL 254.05. PATCHING DEPTH IS 0 TO 2 IN.

ITEM 304 AGGREGATE BASE

AN ESTIMATED QUANTITY OF ITEM 304, AGGREGATE BASE HAS BEEN SET UP TO BE USED AS DIRECTED BY THE ENGINEER, AS A CONTINGENCY QUANTITY FOR THE FULL DEPTH PAVEMENT REPLACEMENT, AND THE SHOULDER WIDENING AREA.

ITEM 304 AGGREGATE BASE.....200 CUBIC YARDS

PAVED BERM AND/OR BASE WIDENING

PAVEMENT AND BERM QUANTITIES ARE CALCULATED THROUGH ALL INTERSECTIONS AND DRIVES. ANY PORTION MAY BE NON-PERFORMED IF SO DIRECTED BY THE ENGINEER.

ITEM 448. ASPHALT CONCRETE INTERMEDIATE COURSE, TYPE I, PG 64-22

THIS ITEM SHALL BE USED FOR CORRECTION OF CROWN, PROFILE AND ANY OTHER IRREGULARITIES. THE AVERAGE THICKNESS SHALL BE 3/4 IN.

BEFORE THE LONGITUDINAL JOINT IS EXPOSED TO TRAFFIC, THE CONTRACTOR SHALL ERECT OWP-171 (UNEVEN PAVEMENT) SIGNS. THESE SIGNS SHALL ONLY REMAIN WHILE THE CONDITION EXISTS.

ALL OPEN TRANSVERSE JOINTS SHALL BE TAPERED TO MEET EXISTING PAVEMENT BEFORE INTRODUCING TRAFFIC. A "BUMP" SIGN (OW-62) SHALL BE ERECTED ON EACH SIDE OF TRANSVERSE JOINTS LEFT OPEN OVER NIGHT, INCLUDING A SPEED ADVISORY SIGN, AS DIRECTED BY THE ENGINEER. THESE SIGNS SHALL BE REMOVED IMMEDIATELY AFTER JOINT HAS BEEN CLOSED. PLACEMENT OF SIGNS SHALL BE INCLUDED IN THE UNIT PRICE BID FOR THIS ITEM.

ITEM 446. ASPHALT CONCRETE SURFACE COURSE, TYPE I, PG 64-22

IN ADDITION TO ITEM 401J4 AND STANDARD DRAWING BP-3J, TRANSVERSE, FEATHERED OR BUTT JOINTS SHALL BE SEALED WITH A 6 INCH WIDE BAND OF ASPHALT CEMENT ACROSS THE TOP SURFACE. THE COST OF THIS WORK SHALL BE INCLUDED IN THE UNIT PRICE BID FOR THIS ITEM.

ITEM 614. WORK ZONE MARKING SIGN:

THE FOLLOWING ESTIMATED QUANTITY HAS BEEN CARRIED TO THE GENERAL SUMMARY FOR USE AS DIRECTED BY THE ENGINEER FOR TEMPORARY WORK ZONE MARKING SIGNS PER THE REQUIREMENTS OF THE CONSTRUCTION AND MATERIALS SPECIFICATIONS, 614.04.

PART A

- WORK ZONE MARKING SIGN: (OW-167-36) NO EDGE LINE - 9 each
- WORK ZONE MARKING SIGN: (R-33-24) DO NOT PASS - 21 each
- WORK ZONE MARKING SIGN: (R-34-24) PASS WITH CARE - 27 each
- TOTAL ITEM 614 - 57 each

PART B

- WORK ZONE MARKING SIGN: (OW-167-36) NO EDGE LINE - 7 each
- WORK ZONE MARKING SIGN: (R-33-24) DO NOT PASS - 6 each
- WORK ZONE MARKING SIGN: (R-34-24) PASS WITH CARE - 0 each
- TOTAL ITEM 614 - 13 each

PART C

- WORK ZONE MARKING SIGN: (OW-167-36) NO EDGE LINE - 6 each
- WORK ZONE MARKING SIGN: (R-33-24) DO NOT PASS - 5 each
- WORK ZONE MARKING SIGN: (R-34-24) PASS WITH CARE - 7 each
- TOTAL ITEM 614 - 18 each

PART D

- WORK ZONE MARKING SIGN: (OW-167-36) NO EDGE LINE - 2 each
- WORK ZONE MARKING SIGN: (R-33-24) DO NOT PASS - 12 each
- WORK ZONE MARKING SIGN: (R-34-24) PASS WITH CARE - 9 each
- TOTAL ITEM 614 - 23 each

RAILROAD CROSSINGS

PRIOR TO ANY WORK AT RAILROAD CROSSINGS THE CONTRACTOR SHALL CONTACT THE AFFECTED RAILROAD AUTHORITY AS TO MAKE THEM AWARE OF THE PROGRESS AND SCHEDULE OF WORK. THE CONTRACTOR SHALL COOPERATE WITH THE RAILROAD SO AS TO ADDRESS ANY SAFETY CONCERNS. FLAGGING MAY BE REQUIRED BY THE RAILROAD. THE CONTRACTOR IS RESPONSIBLE FOR PAYING THE RAILROAD FOR ALL FLAGGING COSTS. REFER TO THE RAILROAD LIABILITY INSURANCE PROPOSAL NOTE.

THE CROWN SHALL BE WORKED OUT OF THE RESURFACED PAVEMENT ON EACH SIDE OF THE RAILROAD CROSSING, BEGINNING 50 FEET FROM THE NEAREST RAIL, BY RAISING THE EDGES OF THE RESURFACED PAVEMENT TO MEET THE PLATFORM ELEVATION.

OMIT AND RESUME RESURFACING AT THE HEADER TIE, AS DIRECTED BY THE ENGINEER.

RAILROAD LIABILITY INSURANCE INFORMATION

OWNER OF RAILROAD: CSX TRANSPORTATION, INC.

TYPE OF LINE: MAINLINE (SR 61)

THE NUMBER OF TRAINS OPERATING PER DAY THROUGH THE IMPROVEMENT IS ESTIMATED TO BE: 1

CROSSING: AT GRADE
PASSENGER TRAINS/DAY: NONE
FREIGHT TRAINS/WEEK: 15 @ 60 MILES PER HOUR
HAZARDOUS MATERIAL: YES

THE IDENTIFICATION OF THE CROSSING IS KNOWN AS:
RR MILEPOST: 01 70.57
AARDOT NO.: 518452V

LOCAL CONTACT PERSON FOR FLAGGING:
BOB PHELPS, ROADMASTER (440) 926-0022

BRIDGE LOCATION MARKER SIGN

THE BRIDGE LOCATION MARKER SIGN INDICATES THE COUNTY, THE ROUTE, AND THE STRAIGHT LINE MILEAGE OF THE STRUCTURE. THE CONTRACTOR SHALL REMOVE THE EXISTING BRIDGE LOCATION MARKER SIGNS AND REERECT THE SIGNS IN KIND. IF THERE ARE ANY QUESTIONS ON THE LOCATION, PLEASE CONTACT THE DISTRICT BRIDGE ENGINEER.

ALL COSTS, INCLUDING THE SIGN REMOVAL, SIGN REERECTION, AND POST INSTALLATION SHALL BE INCLUDED IN THE FOLLOWING PAY ITEMS:

ITEM 630 GROUND MOUNTED SUPPORT, NO. 2. POST 52.5 LIN. FT.
ITEM 630 REMOVAL OF GROUND MOUNTED SIGN AND REERECTION 7 EACH

ITEM SPECIAL. AIR SPEED ZONE MARKING

SPEED MEASUREMENT MARKINGS SHALL BE WHITE AND 2 FEET WIDE. THE MARKINGS SHALL BE 4 FEET IN LENGTH AND BE PLACED AT THE CENTER LINE OF THE PAVEMENT AT 0.25 MILE INTERVALS OVER A 1 MILE LENGTH OF ROADWAY. THE ZONE SHALL START IN PART A AT SLM 10.00. IT IS THE CONTRACTOR'S RESPONSIBILITY TO HAVE THE MARKINGS LAID OUT BY A REGISTERED SURVEYOR. A RECORD SHALL BE KEPT AND COPIES MADE AVAILABLE TO LAW ENFORCEMENT OFFICERS.

CVH checked MJS

GENERAL NOTES

CRA-19-4.21

WORKSTATION: cyanhorn

DATE: 10/31/02

DESIGN FILE: i:\projects\16923\genotes.dgn

ITEM 617, SHOULDER RECONDITIONING, MISC.:

COMPACTED AGGREGATE

THIS ITEM OF WORK SHALL CONFORM TO ITEM 617 IN THE CONSTRUCTION AND MATERIALS SPECIFICATIONS BOOK WITH EXCEPTION OF 617.03 (MATERIALS) AND 617.06 (METHOD OF MEASUREMENT).

THE MATERIAL ON THIS PROJECT SHALL BE THE BITUMINOUS ASPHALT GRINDINGS RESULTING FROM ITEM 254. THE GRINDINGS USED FOR THIS ITEM SHALL BE PLACED AND COMPACTED AS DESCRIBED IN 617.05 WITH SPECIAL CARE TO CREATE PROPER COMPACTION. 100% OF THIS MATERIAL SHALL PASS A #40 SIEVE AS JUDGED BY THE ENGINEER. THE CONTRACTOR SHALL TAKE SPECIAL CARE TO MEET THE TYPICAL SECTIONS SHOWN IN THE PLANS AND AS DIRECTED BY THE ENGINEER.

SINCE THE BITUMINOUS ASPHALT GRINDINGS FROM THIS JOB WILL NOT BE A LARGE ENOUGH QUANTITY TO RECONDITION THE AGGREGATE SHOULDERS, THE CONTRACTOR WILL NEED TO SUPPLY THE ADDITIONAL QUANTITY FROM AN APPROVED RAP (RECYCLED ASPHALT PAVEMENT) PILE OR SUPPLY ITEM 617 COMPACTED AGGREGATE, TYPE A AS SPECIFIED IN THE SPECIFICATIONS BOOK.

THE MATERIAL ON THIS PROJECT WILL BE PAID FOR BY THE TON. THE CONTRACTOR SHALL BE RESPONSIBLE FOR RECORDING THE GROSS, TARE, AND NET WEIGHT OF EACH TRUCK LOAD OF MATERIAL TO THE NEAREST 100 LBS. IN TRIPPLICATE ON PLANT TICKET FORMS APPROVED BY THE DIRECTOR. THE CONTRACTOR SHALL PROVIDE A TARE WEIGHT FOR EACH TRUCK AT THE BEGINNING OF EACH DAY'S OPERATION. ONE COPY OF THE WEIGHT TICKET SHALL ACCOMPANY EACH LOAD DELIVERED TO THE PROJECT AND SHALL BE PRESENTED TO THE ENGINEER.

PAYMENT FOR ALL THE ABOVE SHALL BE INCLUDED IN THE PRICE BID PER TON OF 617 SHOULDER RECONDITIONING, MISC.: COMPACTED AGGREGATE.

ITEM 604, CASTINGS ADJUSTED TO GRADE:

ANY UNIT OF THIS ITEM MAY BE NONPERFORMED IF SO DIRECTED BY THE ENGINEER AND THE SURFACE SHALL BE FEATHERED TO MEET THE EXISTING CASTING OR INLET IN A MANNER ACCEPTABLE TO THE ENGINEER. ALL ADJUSTING RINGS SHALL HAVE THE ENGINEERS APPROVAL BEFORE USING.

UNDER ITEM 604.03, ADJUSTING TO GRADE, PARAGRAPH (A), THE CASTING TO BE ADJUSTED MAY OR MAY NOT HAVE AN EXISTING FRAME. THE WORK SHALL CONSIST OF ADJUSTING THE EXISTING CASTING OR GRATE TO THE SATISFACTION OF THE ENGINEER. THE CONTRACTOR IS REMINDED TO FIELD CHECK ALL ADJUSTMENT TO GRADE ITEMS PRIOR TO BIDDING, AS NO ADDITIONAL COMPENSATION WILL BE GRANTED FOR LABOR AND MATERIAL REQUIRED TO SATISFACTORILY ADJUST CASTINGS WITHOUT FRAMES.

TRENCH FOR WIDENING

TRENCH EXCAVATION FOR BASE AND BERM WIDENING SHALL BE PERFORMED ONLY ON ONE SIDE OF THE PAVEMENT AT A TIME. THE OPEN TRENCH SHALL BE ADEQUATELY MAINTAINED AND PROTECTED AT ALL TIMES WITH DRUMS OR BARRICADES.

PLACEMENT OF THE PROPOSED BASE MATERIAL SHALL FOLLOW AS CLOSELY AS POSSIBLE BEHIND THE EXCAVATION. THE LENGTH OF WIDENING TRENCH WHICH IS OPEN AT ANY ONE TIME SHALL BE HELD TO A MINIMUM AND SHALL AT ALL TIMES BE SUBJECT TO APPROVAL BY THE ENGINEER.

ITEM 203 LINEAR GRADING

THIS WORK SHALL CONSIST OF PREPARING A SUBGRADE FOR THE SHOULDER PAVING BY EXCAVATING THE EXISTING SHOULDER MATERIAL, AS DESCRIBED IN THE "TRENCH FOR WIDENING" NOTE, TO THE DEPTH SHOWN IN THE PLANS OR AS DIRECTED BY THE ENGINEER. THIS OPERATION SHALL INCORPORATE TRIMMING 6" FROM THE EDGE OF THE EXISTING PAVEMENT TO FACILITATE THE WIDENING WITHIN THE OVERALL PAVEMENT WIDTHS SHOWN. COMPACTION SHALL BE CARRIED OUT BY MEANS OF A TRENCH ROLLER, 401.II. AREAS GRADED IN EXCESS OF THE DEPTHS REQUIRED SHALL BE BACKFILLED TO THE DESIRED GRADE USING 617 AGGREGATE AT THE CONTRACTORS EXPENSE. THE EXCAVATED MATERIAL SHALL BE USED TO BACKUP THE SHOULDER WHERE NECESSARY AS DIRECTED BY THE ENGINEER (THIS MATERIAL SHALL BE GRADED AND COMPACTED). THE EXCAVATED MATERIAL NOT REQUIRED FOR BACKUP SHALL BE DISPOSED OF WITHIN FIVE WORK DAYS, OR THE ENGINEER SHALL STOP WORK.

ITEM 202 CURB REMOVED

AT THE FOLLOWING LOCATIONS, CURB SHALL BE REMOVED IN ORDER TO INSTALL CURB RAMPS.

N.W. CORNER OF SR61 AND NORTH ST.	12 LIN.FT.
S.W. CORNER OF SR61 AND NORTH ST.	12 LIN.FT.
N.E. CORNER OF SR61 AND NORTH ST.	12 LIN.FT.
S.E. CORNER OF SR61 AND NORTH ST.	12 LIN.FT.
N.W. CORNER OF SR61 AND WILLIAMS ST.	12 LIN.FT.
S.W. CORNER OF SR61 AND WILLIAMS ST.	12 LIN.FT.
N.E. CORNER OF SR61 AND WILLIAMS ST.	12 LIN.FT.
S.E. CORNER OF SR61 AND WILLIAMS ST.	12 LIN.FT.
N.W. CORNER OF SR61 AND DIAMOND ST.	12 LIN.FT.
S.W. CORNER OF SR61 AND DIAMOND ST.	12 LIN.FT.
N.E. CORNER OF SR61 AND DIAMOND ST.	12 LIN.FT.
S.E. CORNER OF SR61 AND DIAMOND ST.	12 LIN.FT.
N.W. CORNER OF SR61 AND McMAHON ST.	6 LIN.FT.
S.W. CORNER OF SR61 AND McMAHON ST.	6 LIN.FT.
N.E. CORNER OF SR61 AND McMAHON ST.	6 LIN.FT.
S.E. CORNER OF SR61 AND McMAHON ST.	6 LIN.FT.
TOTAL	168 LIN.FT.

THE REMOVAL OF THE EXISTING CURB SHALL BE PAID FOR UNDER THE UNIT BID PRICE PER LIN. FT. OF ITEM 202 CURB REMOVED.

ITEM 202 WALK REMOVED

AT THE FOLLOWING LOCATIONS, WALK SHALL BE REMOVED IN ORDER TO INSTALL CURB RAMPS.

N.W. CORNER OF SR61 AND NORTH ST.	48 SQ.FT.
S.W. CORNER OF SR61 AND NORTH ST.	48 SQ.FT.
N.E. CORNER OF SR61 AND NORTH ST.	48 SQ.FT.
S.E. CORNER OF SR61 AND NORTH ST.	48 SQ.FT.
N.W. CORNER OF SR61 AND WILLIAMS ST.	48 SQ.FT.
S.W. CORNER OF SR61 AND WILLIAMS ST.	48 SQ.FT.
N.E. CORNER OF SR61 AND WILLIAMS ST.	48 SQ.FT.
S.E. CORNER OF SR61 AND WILLIAMS ST.	48 SQ.FT.
N.W. CORNER OF SR61 AND DIAMOND ST.	48 SQ.FT.
S.W. CORNER OF SR61 AND DIAMOND ST.	48 SQ.FT.
N.E. CORNER OF SR61 AND DIAMOND ST.	48 SQ.FT.
S.E. CORNER OF SR61 AND DIAMOND ST.	48 SQ.FT.
N.W. CORNER OF SR61 AND McMAHON ST.	24 SQ.FT.
S.W. CORNER OF SR61 AND McMAHON ST.	24 SQ.FT.
N.E. CORNER OF SR61 AND McMAHON ST.	24 SQ.FT.
S.E. CORNER OF SR61 AND McMAHON ST.	24 SQ.FT.
TOTAL	672 SQ.FT.

THE REMOVAL OF THE EXISTING WALK SHALL BE PAID FOR UNDER THE UNIT BID PRICE PER SQUARE FOOT OF ITEM 202 WALK REMOVED.

ITEM 608 CURB RAMP

AT THE FOLLOWING LOCATIONS, THE CURB RAMP SHALL BE INSTALLED.

N.W. CORNER OF SR61 AND NORTH ST.	78 SQ.FT.
S.W. CORNER OF SR61 AND NORTH ST.	78 SQ.FT.
N.E. CORNER OF SR61 AND NORTH ST.	78 SQ.FT.
S.E. CORNER OF SR61 AND NORTH ST.	78 SQ.FT.
N.W. CORNER OF SR61 AND WILLIAMS ST.	78 SQ.FT.
S.W. CORNER OF SR61 AND WILLIAMS ST.	78 SQ.FT.
N.E. CORNER OF SR61 AND WILLIAMS ST.	78 SQ.FT.
S.E. CORNER OF SR61 AND WILLIAMS ST.	78 SQ.FT.
N.W. CORNER OF SR61 AND DIAMOND ST.	78 SQ.FT.
S.W. CORNER OF SR61 AND DIAMOND ST.	78 SQ.FT.
N.E. CORNER OF SR61 AND DIAMOND ST.	78 SQ.FT.
S.E. CORNER OF SR61 AND DIAMOND ST.	78 SQ.FT.
N.W. CORNER OF SR61 AND McMAHON ST.	39 SQ.FT.
S.W. CORNER OF SR61 AND McMAHON ST.	39 SQ.FT.
N.E. CORNER OF SR61 AND McMAHON ST.	39 SQ.FT.
S.E. CORNER OF SR61 AND McMAHON ST.	39 SQ.FT.
TOTAL	1092 SQ.FT.

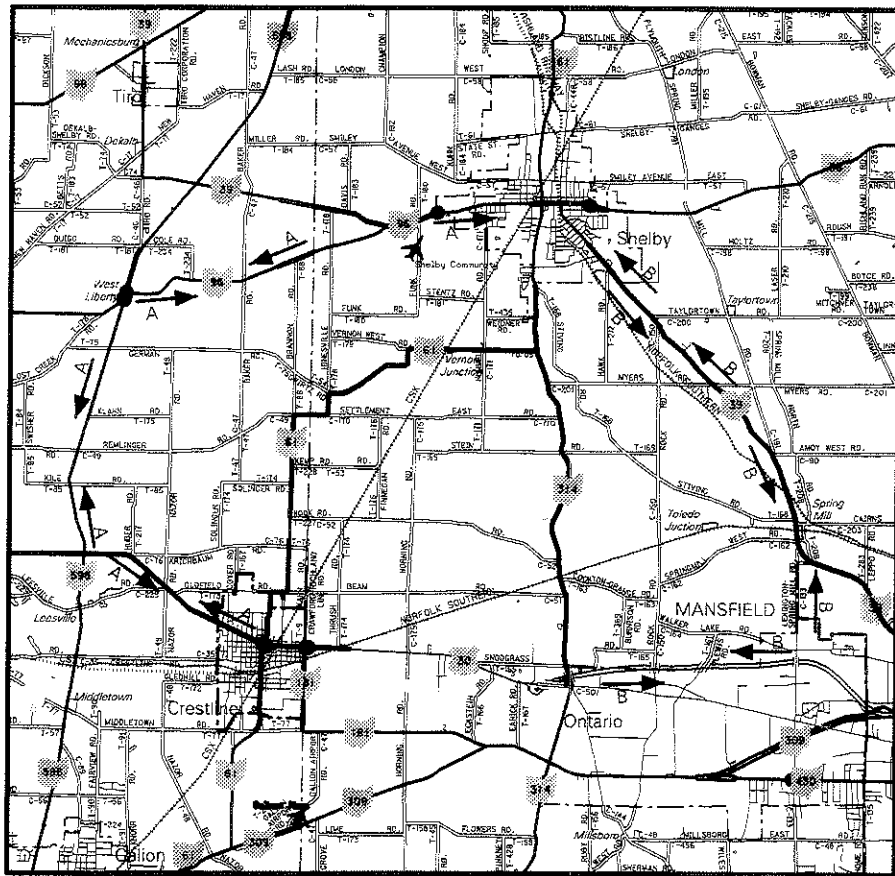
ALL MATERIAL, EQUIPMENT, AND LABOR REQUIRED FOR THE INSTALLATION OF THESE CURB RAMPS WITH TRUNCATED DOMES SHALL BE PAID FOR UNDER THE UNIT BID PRICE PER SQUARE FOOT OF ITEM 608 CURB RAMP.

SEE CURB RAMP PLAN INSERT SHEETS 101-103 FOR DETAILS

ITEM 614. MAINTAINING TRAFFIC

TWO-WAY TRAFFIC SHALL BE MAINTAINED AT ALL TIMES, EXCEPT FOR A PERIOD NOT TO EXCEED 40 CONSECUTIVE CALENDAR DAYS. THE WORK FOR THE SR 61 AND SR 314 INTERSECTION AND THE CRA-61-1064 STRUCTURE SHALL BE COMPLETED DURING THE SAME 40 CALENDAR DAYS. THROUGH TRAFFIC SHALL BE DETOURED AS SHOWN BELOW. THE 40 CONSECUTIVE CALENDAR DAYS SHALL BE CONSIDERED AS INTERIM COMPLETION DATE (SECTION 108) AND FOR EACH CALENDAR DAY BEYOND THE 40 CONSECUTIVE CALENDAR DAYS THAT THE ROAD REMAINS CLOSED TO TRAFFIC, THE CONTRACTOR SHALL BE ASSESSED LIQUIDATED DAMAGES IN ACCORDANCE WITH 108.07.

THE CONTRACTOR SHALL NOTIFY THE DISTRICT 3 WORK ZONE TRAFFIC MANAGER, LARRY STORMER, 419-281-0513 x341, IN WRITING A MINIMUM OF FOURTEEN (14) DAYS IN ADVANCE OF THE DATE THE DETOUR IS NEEDED. THE STATE OF OHIO WILL INSTALL, MAINTAIN AND SUBSEQUENTLY REMOVE THE DETOUR SIGNING. THE CONTRACTOR SHALL BE RESPONSIBLE FOR FURNISHING, INSTALLING, MAINTAINING AND REMOVING THE GATES AND BARRICADES AND ADVANCED WARNING SIGNS AS SHOWN ON STANDARD CONSTRUCTION DRAWING MT-101.60M.



← A → S.R. 61 DETOUR

← B → S.R. 314 DETOUR

DETOUR - 30 DAYS

DESIGNATED LOCAL MAINTENANCE ROUTE

A LOCAL MAINTENANCE ROUTE, OTHER THAN THE OFFICIAL SIGNED ODOT DETOUR ROUTE, WILL BE DESIGNATED BY AGREEMENT BETWEEN ODOT AND LOCAL GOVERNMENTAL AGENCIES PRIOR TO THE HIGHWAY CLOSURE.

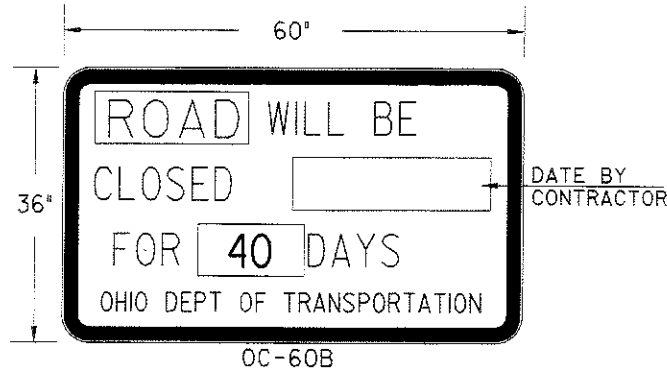
DURING THE TIME THAT TRAFFIC IS DETOURED, THE CONTRACTOR SHALL MAINTAIN THIS ROUTE IN A CONDITION WHICH IS REASONABLY SMOOTH AND FREE FROM HOLES, RUTS, RIDGES, BUMPS, DUST AND STANDING WATER. ONCE THE DETOUR IS REMOVED AND TRAFFIC RETURNED TO ITS NORMAL PATTERN, THE DESIGNATED LOCAL MAINTENANCE ROUTE SHALL BE RESTORED TO A CONDITION THAT IS EQUIVALENT TO THAT WHICH EXISTED PRIOR TO ITS USE FOR THIS PURPOSE. ALL SUCH WORK SHALL BE PERFORMED WHEN AND AS DIRECTED BY THE ENGINEER.

THE FOLLOWING ESTIMATED QUANTITIES ARE PROVIDED FOR USE AS DIRECTED BY THE ENGINEER TO MAINTAIN AND SUBSEQUENTLY RESTORE THE DESIGNATED LOCAL MAINTENANCE ROUTE.

ITEM 253 PAVEMENT REPAIR	50 CU. YARDS
ITEM 407 TACK COAT	75 GAL.
ITEM 614 BITUMINOUS CONCRETE FOR MAINTAINING TRAFFIC	50 CU. YARDS
ITEM 617 COMPACTED AGGREGATE, TYPE A	30 CU. YARDS

NOTICE OF CLOSURE SIGNS

NOTICE OF CLOSURE SIGNS, AS DETAILED IN THESE PLANS, SHALL BE ERECTED BY THE CONTRACTOR AT LEAST ONE WEEK IN ADVANCE OF THE SCHEDULED ROAD CLOSURE. THE SIGNS SHALL BE ERECTED ON THE RIGHT HAND SIDE OF THE ROAD FACING TRAFFIC. THEY SHALL BE PLACED SO AS NOT TO INTERFERE WITH THE VISIBILITY OF ANY OTHER TRAFFIC CONTROL SIGNS. ON ROADWAYS, THEY SHOULD BE ERECTED AT THE POINT OF CLOSURE.



CONDUIT MATERIALS

THE ROADWAY SHALL NOT BE CLOSED TO TRAFFIC FOR REMOVAL OR MODIFICATION OF THE EXISTING CONDUITS UNTIL ALL NEW CONDUITS NECESSARY TO PLACE THE ROADWAY BACK IN SERVICE HAVE BEEN TESTED, APPROVED AND ARE READY FOR DELIVERY TO THE SITE.

TRENCH FOR WIDENING

TRENCH EXCAVATION FOR BASE WIDENING SHALL BE ONLY ON ONE SIDE OF THE PAVEMENT AT A TIME. THE OPEN TRENCH SHALL BE ADEQUATELY MAINTAINED AND PROTECTED WITH DRUMS OR BARRICADES AT ALL TIMES. PLACEMENT OF PROPOSED SUBBASE AND BASE MATERIAL SHALL FOLLOW AS CLOSELY AS POSSIBLE BEHIND EXCAVATION OPERATIONS. THE LENGTH OF WIDENING TRENCH WHICH IS OPEN AT ANY ONE TIME SHALL BE HELD TO A MINIMUM AND SHALL AT ALL TIMES BE SUBJECT TO APPROVAL OF THE ENGINEER.

OVERNIGHT TRENCH CLOSING

THE BASE WIDENING SHALL BE COMPLETED TO A DEPTH OF NO MORE THAN 5" INCHES BELOW THE EXISTING PAVEMENT BY THE END OF EACH WORK DAY. NO TRENCH SHALL BE LEFT OPEN OVERNIGHT EXCEPT FOR A SHORT LENGTH (25 FEET OR LESS) OF A WORK SECTION AT THE END OF THE TRENCH. IN CASE WORK MUST BE SUSPENDED BECAUSE OF INCLEMENT WEATHER OR OTHER REASONS, THE TRENCH FOR THE UNCOMPLETED BASE WIDENING SHALL BE BACKFILLED AT THE DIRECTION OF THE ENGINEER.

THE COST OF BACKFILLING AND AT THE DIRECTION OF THE ENGINEER SHALL BE INCLUDED WITH ITEM 614, MAINTAINING TRAFFIC.

ITEM 614 - MAINTAINING TRAFFIC

ALL WORK AND TRAFFIC CONTROL DEVICES SHALL BE IN ACCORDANCE WITH 614 AND OTHER APPLICABLE PORTIONS OF THE SPECIFICATIONS, AS WELL AS THE OHIO MANUAL OF UNIFORM TRAFFIC CONTROL DEVICES. PAYMENT FOR ALL LABOR, EQUIPMENT AND MATERIALS SHALL BE INCLUDED IN THE LUMP SUM CONTRACT PRICE FOR 614, MAINTAINING TRAFFIC, UNLESS SEPARATELY ITEMIZED IN THE PLAN.

DESIGN FILE: I:\projects\6923\61-314\detour.dgn
WORKSTATION: rtrivoli
DATE: 10/31/02

CALCULATED
LS
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RPT

MAINTENANCE OF TRAFFIC NOTES

CRA-19-4.21

ITEM 203 - EXCAVATION NOT INCLUDING EMBANKMENT CONSTRUCTION

SR 6IW CROSS SECTIONS

Sta. 196+50 to Sta. 197+50 Volume = 14 CU. YDS.
 Sta. 197+62 to Sta. 197+93.25 Volume = 59 CU. YDS.
 Sta. 198+06.50 to Sta. 198+69 Volume = 73 CU. YDS.
 Sta. 199+00 to Sta. 199+75 Volume = 94 CU. YDS.
 Sta. 200+00 to Sta. 200+70.5 Volume = 95 CU. YDS.
 Sta. 200+82.5 to Sta. 201+00 Volume = 33 CU. YDS.
 Sta. 201+50 to Sta. 1202+28.5 Volume = 187 CU. YDS.
 Sta. 1202+50 to Sta. 1203+54.54 Volume = 315 CU. YDS.

SR 314S CROSS SECTIONS

Sta. 521+50 to Sta. 522+25.75 Volume = 0 CU. YDS.
 Sta. 523+07 to Sta. 523+97 Volume = 102 CU. YDS.
 Sta. 524+33.5 to Sta. 525+00 Volume = 129 CU. YDS.
 Sta. 525+50 to Sta. 526+00 Volume = 116 CU. YDS.
 Sta. 526+50 to Sta. 527+00 Volume = 130 CU. YDS.
 Sta. 527+24.9 to Sta. 528+00 Volume = 192 CU. YDS.
 Sta. 528+47.23 to Sta. 528+75 Volume = 204 CU. YDS.

SR 6IN CROSS SECTIONS

Sta. 2204+43.33 to Sta. 2205+00 Volume = 268 CU. YDS.
 Sta. 2205+20 to Sta. 2206+00B Volume = 317 CU. YDS.
 Sta. 2206+00A to Sta. 2207+00 Volume = 74 CU. YDS.
 Sta. 2207+31 to Sta. 2207+50 Volume = 36 CU. YDS.
 Sta. 2207+80 to Sta. 2208+50 Volume = 103 CU. YDS.
 Sta. 2208+80 to Sta. 2209+64 Volume = 119 CU. YDS.
 Sta. 2209+85.50 to Sta. 2210+50 Volume = 31 CU. YDS.
 Sta. 2210+75 to Sta. 2211+00 Volume = 0 CU. YDS.

INTERSECTION GRADING DETAIL

Southwest Corner of Intersection Volume = 149 CU. YDS.
 Northwest Corner of Intersection Volume = 168 CU. YDS.
 East Side of Intersection Volume = 247 CU. YDS.

STR. CRA-6I-1064 CROSS SECTIONS

Sta. 558+50 to Sta. 560+00 Volume = 9 CU. YDS.
 Sta. 560+25 to Sta. 561+00 Volume = 9 CU. YDS.
 Sta. 561+25 to Sta. 562+20 Volume = 37 CU. YDS.
 Sta. 562+53 to Sta. 563+00 Volume = 21 CU. YDS.
 Sta. 563+25 to Sta. 564+50 Volume = 13 CU. YDS.

TOTAL ITEM 203 - EXCAVATION NOT ENCLUDING EMBANKMENT CONSTRUCTION = 3344 CU. YDS.

ITEM 203 - EMBANKMENT

SR 6IW CROSS SECTIONS

Sta. 196+50 to Sta. 197+50 Volume = 8 CU. YDS.
 Sta. 197+62 to Sta. 197+93.25 Volume = 3 CU. YDS.
 Sta. 198+06.50 to Sta. 198+69 Volume = 21 CU. YDS.
 Sta. 199+00 to Sta. 199+75 Volume = 33 CU. YDS.
 Sta. 200+00 to Sta. 200+70.5 Volume = 24 CU. YDS.
 Sta. 200+82.5 to Sta. 201+00 Volume = 1 CU. YDS.
 Sta. 201+50 to Sta. 1202+28.5 Volume = 19 CU. YDS.
 Sta. 1202+50 to Sta. 1203+54.54 Volume = 36 CU. YDS.

SR 314S CROSS SECTIONS

Sta. 521+50 to Sta. 522+25.75 Volume = 0 CU. YDS.
 Sta. 523+07 to Sta. 523+97 Volume = 37 CU. YDS.
 Sta. 524+33.5 to Sta. 525+00 Volume = 1 CU. YDS.
 Sta. 525+50 to Sta. 526+00 Volume = 12 CU. YDS.
 Sta. 526+50 to Sta. 527+00 Volume = 19 CU. YDS.
 Sta. 527+24.9 to Sta. 528+00 Volume = 4 CU. YDS.
 Sta. 528+47.23 to Sta. 528+75 Volume = 1 CU. YDS.

SR 6IN CROSS SECTIONS

Sta. 2204+43.33 to Sta. 2205+00 Volume = 16 CU. YDS.
 Sta. 2205+20 to Sta. 2206+00B Volume = 20 CU. YDS.
 Sta. 2206+00A to Sta. 2207+00 Volume = 55 CU. YDS.
 Sta. 2207+31 to Sta. 2207+50 Volume = 33 CU. YDS.
 Sta. 2207+80 to Sta. 2208+50 Volume = 71 CU. YDS.
 Sta. 2208+80 to Sta. 2209+64 Volume = 52 CU. YDS.
 Sta. 2209+85.50 to Sta. 2210+50 Volume = 3 CU. YDS.
 Sta. 2210+75 to Sta. 2211+00 Volume = 0 CU. YDS.

INTERSECTION GRADING DETAIL

Southwest Corner of Intersection Volume = 0 CU. YDS.
 Northwest Corner of Intersection Volume = 26 CU. YDS.
 East Side of Intersection Volume = 0 CU. YDS.

STR. CRA-6I-1064 CROSS SECTIONS

Sta. 558+50 to Sta. 560+00 Volume = 21 CU. YDS.
 Sta. 560+25 to Sta. 561+00 Volume = 31 CU. YDS.
 Sta. 561+25 to Sta. 562+20 Volume = 16 CU. YDS.
 Sta. 562+53 to Sta. 563+00 Volume = 20 CU. YDS.
 Sta. 563+25 to Sta. 564+50 Volume = 17 CU. YDS.

TOTAL ITEM 203 - EMBANKMENT = 600 CU. YDS.

ITEM 203 - SUBGRADE COMPACTION

MAINLINE PAVEMENT

Sta. 197+62 to Sta. 201+00 (SR 6IW) Lt.
 Cadd Measured Area = 2328.02 SQ. FT.
 (2328.02 SQ. FT.) / 9 = 258.7 SQ. YDS.

Sta. 197+62 to Sta. 201+00 (SR 6IW) Rt.
 Cadd Measured Area = 2207.67 SQ. FT.
 (2207.67 SQ. FT.) / 9 = 245.3 SQ. YDS

Sta. 523+07 to Sta. 527+25 (SR 314S) Rt.
 Cadd Measured Area = 4037.89 SQ. FT.
 (4037.89 SQ. FT.) / 9 = 448.7 SQ. YDS.

Sta. 523+97 to Sta. 527+25 (SR 314S) Lt.
 Cadd Measured Area = 2237.50 SQ. FT.
 (2237.50 SQ. FT.) / 9 = 248.6 SQ. YDS.

Sta. 2206+00 to Sta. 2209+64 (SR 6IN) Lt.
 Cadd Measured Area = 2150.52 SQ. FT.
 (2150.52 SQ. FT.) / 9 = 238.9 SQ. YDS.

Sta. 2206+00 to Sta. 2209+64 (SR 6IN) Rt.
 Cadd Measured Area = 3050.26 SQ. FT.
 (3050.26 SQ. FT.) / 9 = 338.9 SQ. YDS.

SUB-TOTAL ITEM 203 = 1779.1 SQ. YDS.

FULL DEPTH INTERSECTION AREA

Sta. 201+00 to Sta. 1204+36.25 (SR 6IW)
 Sta. 527+25 to Sta. 529+24.64 (SR 314S)
 Sta. 2203+82.91 to Sta. 2209+64 (SR 6IN)
 Cadd Measured Area = 26946.08 SQ. FT.
 (26946.08) / 9 = 2994.0 SQ. YDS.

TOTAL ITEM 203 = 4773.1 SQ. YDS.

ITEM 254 - PAVEMENT PLANING, BITUMINOUS

Sta. 197+62 to Sta. 197+93.25
Cadd Measured Area = 672.36 SQ. FT.
672.36 SQ. FT. /9 = 74.7 SQ. YDS.

Sta. 522+25.75 to Sta. 523+07
Cadd Measured Area = 1779.65 SQ. FT.
1779.65 SQ. FT. /9 = 197.7 SQ. YDS.

Sta. 2209+32.75 to Sta. 2209+64
Cadd Measured Area = 761.53 SQ. FT.
761.53 SQ. FT. /9 = 84.6 SQ. YDS.

Wedge Course
Sta. 523+97 to Sta. 525+00 = 103.00'
Area = (103.0') x (18') /9 = 206 SQ. YDS.
Average Depth = 2"
* For Estimating Purposes Only

Wedge Course
Sta. 526+00 to Sta. 527+25 = 125.00'
Area = (125.0') x (8') /9 = 111.1 SQ. YDS.
Average Depth = 2"
* For Estimating Purposes Only

TOTAL ITEM 254 = 674.1 SQ. YDS.

**ITEM 301 - BITUMINOUS
AGGREGATE BASE, PG64-22**

FULL DEPTH INTERSECTION AREA
Sta. 201+00 to Sta. 1204+36.25 (SR 61W)
Sta. 527+25 to Sta. 529+24.64 (SR 314S)
Sta. 2203+82.91 to Sta. 2209+64 (SR 61N)
Cadd Measured Area = 25318.32 SQ. FT.
(25318.32) (0.50) /27 = 468.9 CU. YDS.

DRIVEWAYS

Sta. 197+83 Rt. (Residential)
Cadd Measured Area = 444.24 SQ. FT.
(444.24) (0.313) /27 = 5.1 CU. YDS.

Sta. 198+06.5 Lt. (Residential)
Cadd Measured Area = 358.58 SQ. FT.
(358.58) (0.313) /27 = 4.2 CU. YDS.

Sta. 200+82.5 Rt. (Residential)
Cadd Measured Area = 298.20 SQ. FT.
(298.20) (0.313) /27 = 3.5 CU. YDS.

Sta. 1202+28.5 Rt. (Commercial)
Cadd Measured Area = 750.21 SQ. FT.
(750.21) (0.396) /27 = 11.0 CU. YDS.

Sta. 524+33.5 Lt. (Residential)
Cadd Measured Area = 301.97 SQ. FT.
(301.97) (0.313) /27 = 3.5 CU. YDS.

Sta. 525+65 Rt. (Residential)
Cadd Measured Area = 314.63 SQ. FT.
(314.63) (0.313) /27 = 3.6 CU. YDS.

Sta. 526+70 Lt. (Commercial)
Cadd Measured Area = 462.56 SQ. FT.
(462.56) (0.396) /27 = 6.8 CU. YDS.

Sta. 527+50 Lt. (Commercial)
Cadd Measured Area = 1033.66 SQ. FT.
(1033.66) (0.396) /27 = 15.2 CU. YDS.

Sta. 528+75 Rt. (Residential)
Cadd Measured Area = 482.23 SQ. FT.
(482.23) (0.313) /27 = 5.6 CU. YDS.

Sta. 2205+20 Rt. (Commercial)
Cadd Measured Area = 670.30 SQ. FT.
(670.30) (0.396) /27 = 9.8 CU. YDS.

Sta. 2205+97.5 Lt. (Residential)
Cadd Measured Area = 311.98 SQ. FT.
(311.98) (0.313) /27 = 3.6 CU. YDS.

Sta. 2207+31 Lt. (Residential)
Cadd Measured Area = 311.76 SQ. FT.
(311.76) (0.313) /27 = 3.6 CU. YDS.

Sta. 2207+99 Lt. (Residential)
Cadd Measured Area = 367.86 SQ. FT.
(367.86) (0.313) /27 = 4.3 CU. YDS.

Sta. 2208+80 Rt. (Residential)
Cadd Measured Area = 337.65 SQ. FT.
(337.65) (0.313) /27 = 3.9 CU. YDS.

Sta. 2209+85.5 Rt. (Residential)
Cadd Measured Area = 436.02 SQ. FT.
(436.02) (0.313) /27 = 5.1 CU. YDS.

TOTAL ITEM 301 = 557.7 CU. YDS.

**ITEM 301 - BITUMINOUS AGGREGATE
BASE, PG64-22, AS PER PLAN**

MAINLINE PAVEMENT

Sta. 197+62 to Sta. 201+00 (SR 61W) Lt.
Cadd Measured Area = 1932.51 SQ. FT.
(1932.51 SQ. FT.) (0.50') /27 = 35.8 CU. YDS.

Sta. 197+62 to Sta. 201+00 (SR 61W) Rt.
Cadd Measured Area = 1812.08 SQ. FT.
(1812.08 SQ. FT.) (0.50') /27 = 33.6 CU. YDS.

Sta. 523+07 to Sta. 527+25 (SR 314S) Rt.
Cadd Measured Area = 3550.72 SQ. FT.
(3550.72 SQ. FT.) (0.50') /27 = 65.8 CU. YDS.

Sta. 523+97 to Sta. 527+25 (SR 314S) Lt.
Cadd Measured Area = 1851.79 SQ. FT.
(1851.79 SQ. FT.) (0.50') /27 = 34.3 CU. YDS.

Sta. 2206+00 to Sta. 2209+64 (SR 61N) Lt.
Cadd Measured Area = 1724.56 SQ. FT.
(1724.56 SQ. FT.) (0.50') /27 = 31.9 CU. YDS.

Sta. 2206+00 to Sta. 2209+64 (SR 61N) Rt.
Cadd Measured Area = 2624.32 SQ. FT.
(2624.32 SQ. FT.) (0.50') /27 = 48.6 CU. YDS.

TOTAL ITEM 301, AS PER PLAN = 250.0 CU. YDS.

ITEM 304 - AGGREGATE BASE

MAINLINE PAVEMENT

Sta. 197+62 to Sta. 201+00 (SR 61W) Lt.
Cadd Measured Area = 2101.53 SQ. FT.
(2101.53 SQ. FT.) (0.333') /27 = 25.9 CU. YDS.

Sta. 197+62 to Sta. 201+00 (SR 61W) Rt.
Cadd Measured Area = 1981.14 SQ. FT.
(1981.14 SQ. FT.) (0.333') /27 = 24.4 CU. YDS.

Sta. 523+07 to Sta. 527+25 (SR 314S) Rt.
Cadd Measured Area = 3758.93 SQ. FT.
(3758.93 SQ. FT.) (0.333') /27 = 46.4 CU. YDS.

Sta. 523+97 to Sta. 527+25 (SR 314S) Lt.
Cadd Measured Area = 2016.60 SQ. FT.
(2016.60 SQ. FT.) (0.333') /27 = 24.9 CU. YDS.

Sta. 2206+00 to Sta. 2209+64 (SR 61N) Lt.
Cadd Measured Area = 1906.59 SQ. FT.
(1906.59 SQ. FT.) (0.333') /27 = 23.5 CU. YDS.

Sta. 2206+00 to Sta. 2209+64 (SR 61N) Rt.
Cadd Measured Area = 2806.35 SQ. FT.
(2806.35 SQ. FT.) (0.333') /27 = 34.6 CU. YDS.

SUB-TOTAL ITEM 304 = 179.7 CU. YDS.

FULL DEPTH INTERSECTION AREA

Sta. 201+00 to Sta. 1204+36.25 (SR 61W)
Sta. 527+25 to Sta. 529+24.64 (SR 314S)
Sta. 2203+82.91 to Sta. 2209+64 (SR 61N)
Cadd Measured Area = 26014.47 SQ. FT.
(26014.47) (0.333') /27 = 320.8 CU. YDS.

DRIVEWAYS

Sta. 198+69 Rt. (Field)
Cadd Measured Area = 359.46 SQ. FT.
(359.46) (0.50') /27 = 6.7 CU. YDS.

Sta. 200+70.5 Lt. (Field)
Cadd Measured Area = 286.2 SQ. FT.
(286.2) (0.50') /27 = 5.3 CU. YDS.

Str. Cra-61-1064
Sta. 562+53 Rt. (Field)
Cadd Measured Area = 588.18 SQ. FT.
(588.18) (0.50') /27 = 10.9 CU. YDS.

TOTAL ITEM 304 = 523.4 CU. YDS.

DESIGN FILE: I:\projects\16923\61-314\calc.dgn
WORKSTATION: rtrivoli DATE: 10/31/02

CALCULATIONS

CRA-19-4.21

CHECKED
JPF
RPT

ITEM 407 - TACK COAT

TACK APPLIED @ 0.08 GAL/SY FOR EXISTING PVM'T. AREA

Sta. 197+62 to Sta. 201+00 (SR 61W)
 Cadd Measured Area = 6679.66 SQ. FT.
 (6679.66 SQ. FT.) / 9 (0.08 Gal/SY) = 59.4 GAL.

Sta. 522+25.75 to Sta. 527+25 (SR 314S)
 Cadd Measured Area = 9542.38 SQ. FT.
 (9542.38 SQ. FT.) / 9 (0.08 Gal/SY) = 84.8 GAL.

Sta. 2206+00 to Sta. 2209+64 (SR 61N)
 Cadd Measured Area = 7104.30 SQ. FT.
 (7104.30 SQ. FT.) / 9 (0.08 Gal/SY) = 63.1 GAL.

SUB-TOTAL ITEM 407 = 207.3 GAL.

TACK APPLIED @ 0.03 GAL/SY FOR WIDENING AREAS

Sta. 197+62 (SR 61W) to Sta. 201+00 (SR 61W) Lt.
 Cadd Measured Area = 1820.96 SQ. FT.
 (1820.96 SQ. FT.) / 9 (0.03 Gal/SY) = 6.07 Gal.

Sta. 197+62 (SR 61W) to Sta. 201+00 (SR 61W) Rt.
 Cadd Measured Area = 1700.51 SQ. FT.
 (1700.51 SQ. FT.) / 9 (0.03 Gal/SY) = 5.67 Gal.

Sta. 523+07 (SR 314S) to Sta. 527+25 (SR 314S) Rt.
 Cadd Measured Area = 3413.29 SQ. FT.
 (3413.29 SQ. FT.) / 9 (0.03 Gal/SY) = 11.38 Gal.

Sta. 523+97 (SR 314S) to Sta. 527+25 (SR 314S) Lt.
 Cadd Measured Area = 1743.02 SQ. FT.
 (1743.02 SQ. FT.) / 9 (0.03 Gal/SY) = 5.81 Gal.

Sta. 2206+00 (SR 61N) to Sta. 2209+64 (SR 61N) Lt.
 Cadd Measured Area = 1604.41 SQ. FT.
 (1604.41 SQ. FT.) / 9 (0.03 Gal/SY) = 5.35 Gal.

Sta. 2206+00 (SR 61N) to Sta. 2209+64 (SR 61N) Rt.
 Cadd Measured Area = 2504.19 SQ. FT.
 (2504.19 SQ. FT.) / 9 (0.03 Gal/SY) = 8.35 Gal.

SUB-TOTAL ITEM 407 = 42.6 Gal.

FULL DEPTH INTERSECTION AREA

Sta. 201+00 to Sta. 1204+36.25 (SR 61W)
 Sta. 527+25 to Sta. 529+24.64 (SR 314S)
 Sta. 2203+82.91 to Sta. 2209+64 (SR 61N)
 Cadd Measured Area = 24858.36 SQ. FT.
 (24858.36) / 9 (0.03 Gal/SY) = 82.86 Gal.

TOTAL ITEM 407 - TACK COAT = 332.76 GAL.

ITEM 407 - TACK COAT FOR INTERMEDIATE COURSE

Sta. 197+62 to Sta. 1204+36.25 (SR 61W)
 Sta. 522+25.75 to Sta. 529+24.64 (SR 314S)
 Sta. 2203+82.91 to Sta. 2209+64 (SR 61N)
 Cadd Measured Area = 60971.50 SQ. FT.
 (60971.50) / 9 (0.03 Gal/SY) = 203.2 Gal.

TOTAL ITEM 407 = TACK COAT
 FOR INTERMEDIATE COURSE = 203.2 GAL.

ITEM 446 - ASPHALT CONCRETE SURFACE COURSE, TYPE IH, PG 76-22

Sta. 197+62 to Sta. 1204+36.25 (SR 61W)
 Sta. 522+25.75 to Sta. 529+24.64 (SR 314S)
 Sta. 2203+82.91 to Sta. 2209+64 (SR 61N)
 Cadd Measured Area = 60971.50 SQ. FT.
 (60971.50) (0.125) / 27 = 282.3 CU. YDS.

TOTAL ITEM 446 = 282.3 CU. YDS.

ITEM 448 - ASPHALT CONCRETE INTERMEDIATE COURSE, TYPE 2, PG64-28

Sta. 197+62 to Sta. 1204+36.25 (SR 61W)
 Sta. 522+25.75 to Sta. 529+24.64 (SR 314S)
 Sta. 2203+82.91 to Sta. 2209+64 (SR 61N)
 Cadd Measured Area = 60971.50 SQ. FT.
 (60971.50) (0.1458) / 27 = 329.2 CU. YDS.

Wedge Course

Sta. 525+00 to Sta. 527+25 = 225.0'
 Area = (225.0') x (9') = 2025.0 SQ. FT.
 Volume = 2025.0 SQ. FT. (0.333') / 27 = 25.0 CU. YDS
 * For Estimating Purposes Only

Wedge Course

Sta. 2206+00 to Sta. 2208+00 = 200.0'
 Area = (200.0') x (17') = 3400.0 SQ. FT.
 Volume = 3400.0 SQ. FT. (0.333') / 27 = 41.9 CU. YDS
 * For Estimating Purposes Only

TOTAL ITEM 448 = 396.1 CU. YDS.

ITEM 448 - ASPHALT CONCRETE SURFACE COURSE, TYPE 1, PG64-22 (DRIVEWAYS)

Sta. 197+83 Rt. (Residential)
 Cadd Measured Area = 444.24 SQ. FT.
 (444.24) (0.125) / 27 = 2.1 CU. YDS.

Sta. 198+06.5 Lt. (Residential)
 Cadd Measured Area = 358.58 SQ. FT.
 (358.58) (0.125) / 27 = 1.7 CU. YDS.

Sta. 200+82.5 Rt. (Residential)
 Cadd Measured Area = 298.20 SQ. FT.
 (298.20) (0.125) / 27 = 1.4 CU. YDS.

Sta. 1202+28.5 Rt. (Commercial)
 Cadd Measured Area = 750.21 SQ. FT.
 (750.21) (0.104) / 27 = 2.9 CU. YDS.

Sta. 524+33.5 Lt. (Residential)
 Cadd Measured Area = 301.97 SQ. FT.
 (301.97) (0.125) / 27 = 1.4 CU. YDS.

Sta. 525+65 Rt. (Residential)
 Cadd Measured Area = 314.63 SQ. FT.
 (314.63) (0.125) / 27 = 1.5 CU. YDS.

Sta. 526+70 Lt. (Commercial)
 Cadd Measured Area = 462.56 SQ. FT.
 (462.56) (0.104) / 27 = 1.8 CU. YDS.

Sta. 527+50 Lt. (Commercial)
 Cadd Measured Area = 1033.66 SQ. FT.
 (1033.66) (0.104) / 27 = 4.0 CU. YDS.

Sta. 528+75 Rt. (Residential)
 Cadd Measured Area = 482.23 SQ. FT.
 (482.23) (0.125) / 27 = 2.2 CU. YDS.

Sta. 2205+20 Rt. (Commercial)
 Cadd Measured Area = 670.30 SQ. FT.
 (670.30) (0.104) / 27 = 2.6 CU. YDS.

Sta. 2205+97.5 Lt. (Residential)
 Cadd Measured Area = 311.98 SQ. FT.
 (311.98) (0.125) / 27 = 1.4 CU. YDS.

Sta. 2207+31 Lt. (Residential)
 Cadd Measured Area = 311.76 SQ. FT.
 (311.76) (0.125) / 27 = 1.4 CU. YDS.

Sta. 2207+99 Lt. (Residential)
 Cadd Measured Area = 367.86 SQ. FT.
 (367.86) (0.125) / 27 = 1.7 CU. YDS.

Sta. 2208+80 Rt. (Residential)
 Cadd Measured Area = 337.65 SQ. FT.
 (337.65) (0.125) / 27 = 1.6 CU. YDS.

Sta. 2209+85.5 Rt. (Residential)
 Cadd Measured Area = 436.02 SQ. FT.
 (436.02) (0.125) / 27 = 2.0 CU. YDS.

TOTAL ITEM 448 = 29.7 CU. YDS.

ITEM 870 - SEEDING AND MULCHING

SR 61W CROSS SECTIONS

Sta. 196+50 to Sta. 197+50 Area =	239 SQ. YDS.
Sta. 197+62 to Sta. 197+93.25 Area =	223 SQ. YDS.
Sta. 198+06.50 to Sta. 198+69 Area =	395 SQ. YDS.
Sta. 199+00 to Sta. 199+75 Area =	578 SQ. YDS.
Sta. 200+00 to Sta. 200+70.5 Area =	563 SQ. YDS.
Sta. 200+82.5 to Sta. 201+00 Area =	114 SQ. YDS.
Sta. 201+50 to Sta. 202+28.5 Area =	681 SQ. YDS.
Sta. 202+50 to Sta. 203+54.54 Area =	767 SQ. YDS.

SR 314S CROSS SECTIONS

Sta. 521+50 to Sta. 522+25.75 Area =	0 SQ. YDS.
Sta. 523+07 to Sta. 523+97 Area =	724 SQ. YDS.
Sta. 524+33.5 to Sta. 525+00 Area =	471 SQ. YDS.
Sta. 525+50 to Sta. 526+00 Area =	522 SQ. YDS.
Sta. 526+50 to Sta. 527+00 Area =	569 SQ. YDS.
Sta. 527+24.9 to Sta. 528+00 Area =	550 SQ. YDS.
Sta. 528+47.23 to Sta. 528+75 Area =	459 SQ. YDS.

SR 61N CROSS SECTIONS

Sta. 2204+43.33 to Sta. 2205+00 Area =	427 SQ. YDS.
Sta. 2205+20 to Sta. 2206+00B Area =	587 SQ. YDS.
Sta. 2206+00A to Sta. 2207+00 Area =	571 SQ. YDS.
Sta. 2207+31 to Sta. 2207+50 Area =	267 SQ. YDS.
Sta. 2207+80 to Sta. 2208+50 Area =	566 SQ. YDS.
Sta. 2208+80 to Sta. 2209+64 Area =	615 SQ. YDS.
Sta. 2209+85.50 to Sta. 2210+50 Area =	60 SQ. YDS.
Sta. 2210+75 to Sta. 2211+00 Area =	0 SQ. YDS.

INTERSECTION GRADING DETAIL

Southwest Corner of Intersection Area =	233 SQ. YDS.
Northwest Corner of Intersection Area =	364 SQ. YDS.
East Side of Intersection Area =	351 SQ. YDS.

STR. CRA-6I-1064 CROSS SECTIONS

Sta. 558+50 to Sta. 560+00 Area =	476 SQ. YDS.
Sta. 560+25 to Sta. 561+00 Area =	473 SQ. YDS.
Sta. 561+25 to Sta. 562+20 Area =	569 SQ. YDS.
Sta. 562+53 to Sta. 563+00 Area =	389 SQ. YDS.
Sta. 563+25 to Sta. 564+50 Area =	479 SQ. YDS.

TOTAL ITEM 870 - SEEDING AND MULCHING = 13282 SQ. YDS.

ITEM 870 - COMMERCIAL FERTILIZER

Area to be fertilized = 13282 SQ. YDS.

First application rate 20 Lbs. / 1000 Sq. Ft.
Mass of Fert. = 13282 SQ. YDS. (9) (20 Lbs. / 1000 Sq. Ft.) / 2000
M = 1.20 Ton

Second application rate 10 Lbs. / 1000 Sq. Ft.
Mass of Fert. = 13282 SQ. YDS. (9) (10 Lbs. / 1000 Sq. Ft.) / 2000
M = 0.60 Ton

TOTAL ITEM 870 - COMMERCIAL FERTILIZER = 1.80 Ton

ITEM 870 - WATER

Area to be watered = 13282 SQ. YDS.
Application rate 300 Gal. / 1000 Sq. Ft.

Volume of water = 13282 SQ. YDS. (9) (0.30 M Gal/Sq. Ft.) (2) / 1000
V = 71.7 M Gal.

TOTAL ITEM 870 - WATER = 72 M Gal.

REFERENCE NO.	PLAN AND PROFILE SHEET	STATION		SIDE	ITEM															
					201	201	201	202	202	202	202	202	202	202	602	602				
					TREE REMOVED, 15" SIZE	TREE REMOVED, 30" SIZE	TREE REMOVED, 48" SIZE	PIPE REMOVED, 24" AND UNDER	GUARDRAIL REMOVED	ANCHOR ASSEMBLY REMOVED, TYPE A	FENCE REMOVED	CATCH BASIN REMOVED	REMOVAL MISC. DRAINAGE STRUCTURE		CONCRETE MASONRY	CONCRETE MASONRY, AS PER PLAN				
			linear foot	linear foot	each	linear foot	each	each	each		cubic yard	cubic yard								
R-1	27	198+39.31		LT		1														
R-2	27	198+93.10		LT		1														
R-3	27	198+60.00	198+78.2	RT				18.2												
R-4	27	199+97.80		LT									1							
R-5	27	199+97.80	200+03.92	LT				15.2												
R-6	27	199+97.80	200+03.92	LT				14.6												
R-7	27	199+97.80	1202+35.21	LT				234.0												
R-8	27	199+77.50	201+27.57	RT				150.0												
R-9	28	1201+94.63	1203+93.06	RT				205.6												
R-10	28	1203+93.06		RT								1								
R-15	37	523+66.33		LT	1															
R-16	37	523+87.07		LT			1													
R-19	38	526+47.34	528+50.39	LT				207.8												
R-20	38	529+15.63		RT		1														
R-21	46	2203+85.61		RT	1															
R-22	46	2204+02.45		RT	1															
R-23	46	2205+52.45	2208+71.60	RT						340										
R-24	46	2205+65.23	2206+61.65	LT				96.4												
R-25	46	2206+62.14		LT							1									
R-26	46	2206+62.73	2208+32.95	LT				170.2												
R-27	47	2208+33.59		LT							1									
R-28	47	2208+34.14	2209+95.28	LT				161.1												
R-29	70	560+25.00	560+50.00	LT						1										
R-30	70	560+50.00	561+50.00	LT				100.0												
R-31	70	562+06.25	563+12.50	LT				106.25												
R-32	70	563+12.50	563+37.50	LT						1										
R-33	70	560+18.75	560+43.75	RT						1										
R-34	70	560+43.75	561+50.00	RT				106.25												
R-35	70	562+06.25	562+17.50	RT				12.5												
HW-1	27	199+75.00		RT										0.17						
HW-2	27	200+01.00		LT										0.17						
HW-3	27	200+03.92		LT											0.45					
TOTALS CARRIED TO GENERAL SUMMARY					3	3	1	1273.1	325	3	340	3	1	0.34	0.45					

CALC BY _JPF_
CHKD BY _JMS_

ROADWAY SUB-SUMMARY

CRA-19-4.21

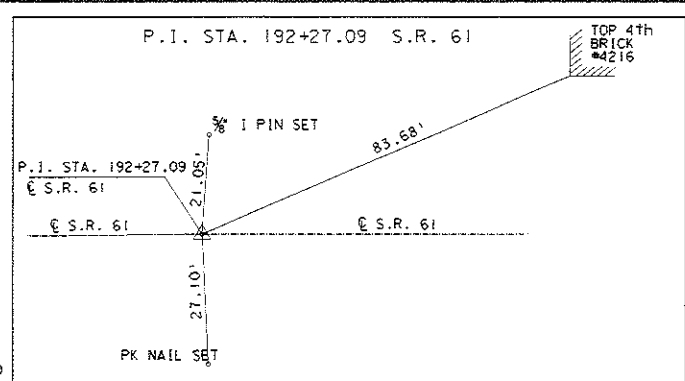
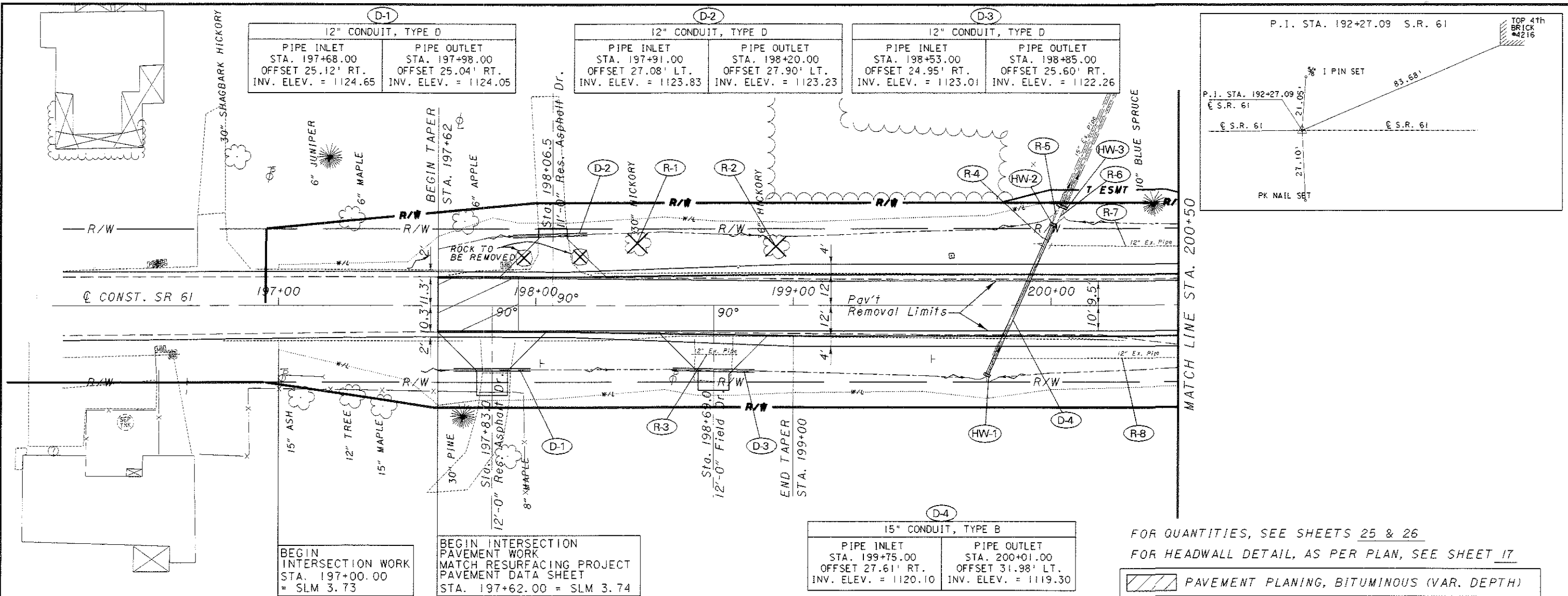
REFERENCE NO.	PLAN AND PROFILE SHEET	STATION		SIDE	ITEM													
					603	603	603	604	606	606	606	606	626					
					12" CONDUIT, TYPE C	12" CONDUIT, TYPE D	15" CONDUIT, TYPE B	CATCH BASIN, No. 2-2B	GUARDRAIL, TYPE 5	ANCHOR ASSEMBLY, TYPE A	ANCHOR ASSEMBLY, TYPE T	BRIDGE TERMINAL ASSEMBLY, TYPE 3 (MODIFIED)	BARRIER REFLECTOR, TYPE A					
		FROM	TO		linear foot	linear foot	linear foot	each	lin. ft.	each	each	each	each					
CB-1	28	1203+93.06		RT					1									
CB-2	38	528+00		RT					1									
CB-3	46	2207+00		LT					1									
CB-4	46	2207+80		LT					1									
D-1	27	197+68.00	197+98.00	RT														
D-2	27	197+91.00	198+20.00	LT			30.0											
D-3	27	198+53.00	198+85.00	RT			29.0											
D-4	27	199+75.00	200+01.00	RT/LT			32.0											
D-5	28	200+57.00	200+84.00	LT			65.0											
D-6	28	1201+95.00	1202+60.00	RT			27.0											
D-7	NOT USED IN THIS PLAN						67.8											
D-8	NOT USED IN THIS PLAN																	
D-9	38	526+56.29	526+83.70	LT			28.0											
D-10	38	525+50.00	525+79.00	RT			29.0											
D-11	38	527+25.05	527+75.50	LT			51.0											
D-12	38	528+00.00	528+50.9	RT/LT			77.8											
D-20	46	2205+50.00	2207+00.00	LT		150.0												
D-21	46	2207+00.00	2207+80.00	LT		80.0												
D-22	46	2204+92.00	2205+50.00	RT			58.0											
D-23	47	2207+80.00	2210+00.00	LT		220.3												
D-24	47	2208+67.00	2208+93.00	RT			26.1											
D-25	47	2209+64.00	2210+75.00	RT			111.2											
D-26	70	562+03.00	562+80.00	RT			77.0											
GR-1	70	560+27.05	560+52.05	LT							1							
GR-2	70	560+52.05	561+27.05	LT					75.0									
GR-3	70	561+27.05	561+52.05	LT					25.0			1						
GR-4	70	562+04.76	562+29.76	LT					25.0			1						
GR-5	70	562+29.76	563+04.76	LT					75.0									
GR-6	70	563+04.76	563+29.76	LT						1								
GR-7	70	560+27.05	560+52.05	RT						1								
GR-8	70	560+52.05	561+27.05	RT					75.0									
GR-9	70	561+27.05	561+52.05	RT					25.0			1						
GR-10	70	562+04.76	562+23.51	RT					18.75			1						
GR-11	70	562+23.51	562+39.54	RT							1							
	70	560+52.05	563+04.76	RT/LT												7		
TOTALS CARRIED TO GENERAL SUMMARY						450	566	143	4	318.75	3	1	4	7				

CALC BY _JPF_
CHKD BY _MJS_

ROADWAY SUB-SUMMARY

CRA-19-4.21

DESIGN FILE: I:\projects\16923\61_314\pp061w-1.dgn
 DATE: 23-OCT-2002



BEGIN INTERSECTION WORK
 STA. 197+00.00
 = SLM 3.73

BEGIN INTERSECTION
 PAVEMENT WORK
 MATCH RESURFACING PROJECT
 PAVEMENT DATA SHEET
 STA. 197+62.00 = SLM 3.74

D-4
 15" CONDUIT, TYPE B
 PIPE INLET
 STA. 199+75.00
 OFFSET 27.61' RT.
 INV. ELEV. = 1120.10

PIPE OUTLET
 STA. 200+01.00
 OFFSET 31.98' LT.
 INV. ELEV. = 1119.30

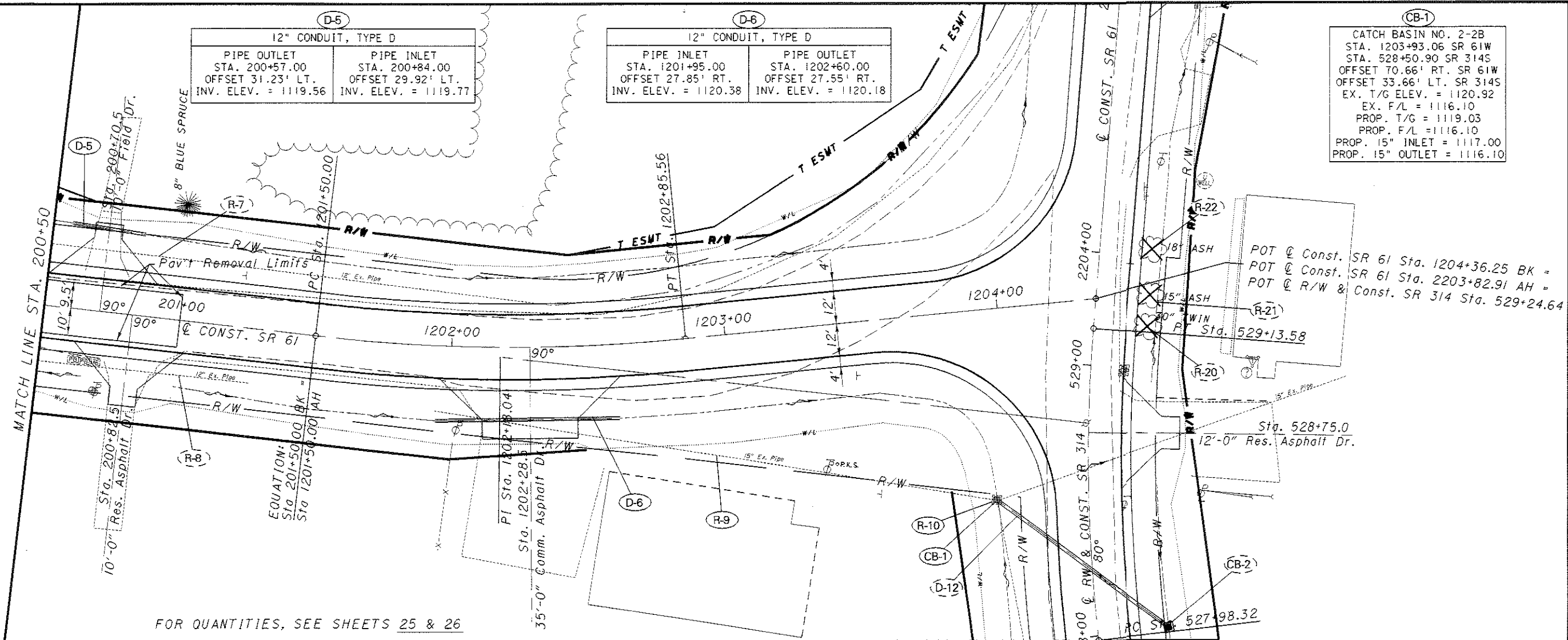
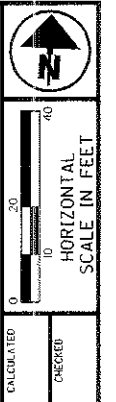
FOR QUANTITIES, SEE SHEETS 25 & 26
 FOR HEADWALL DETAIL, AS PER PLAN, SEE SHEET 17

PAVEMENT PLANING, BITUMINOUS (VAR. DEPTH)

	1129.24	1129.04	1128.83	1128.34	1127.75	1127.16	1126.64	1126.06	1125.40	1124.75	1124.23	1123.95	1123.63	1123.31	1122.99	1122.93	1122.83
1145																	
1140																	
1135																	
1130																	
1125																	
1120																	
1115																	
	1129.07		1128.67		1127.58		1126.41		1125.24		1124.06		1123.36		1122.72		1122.56
			197				198				199				200		

PLAN AND PROFILE SR 61 (WEST APPROACH)
 STA. 197+62 TO STA. 200+50

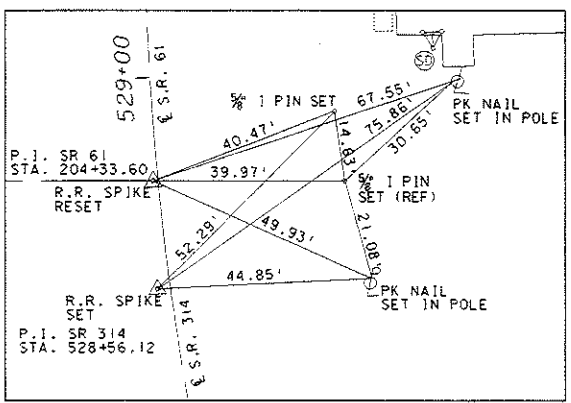
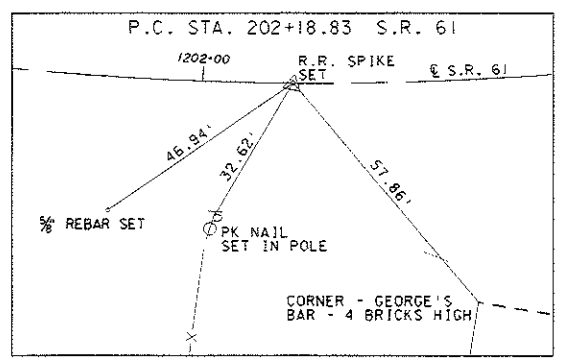
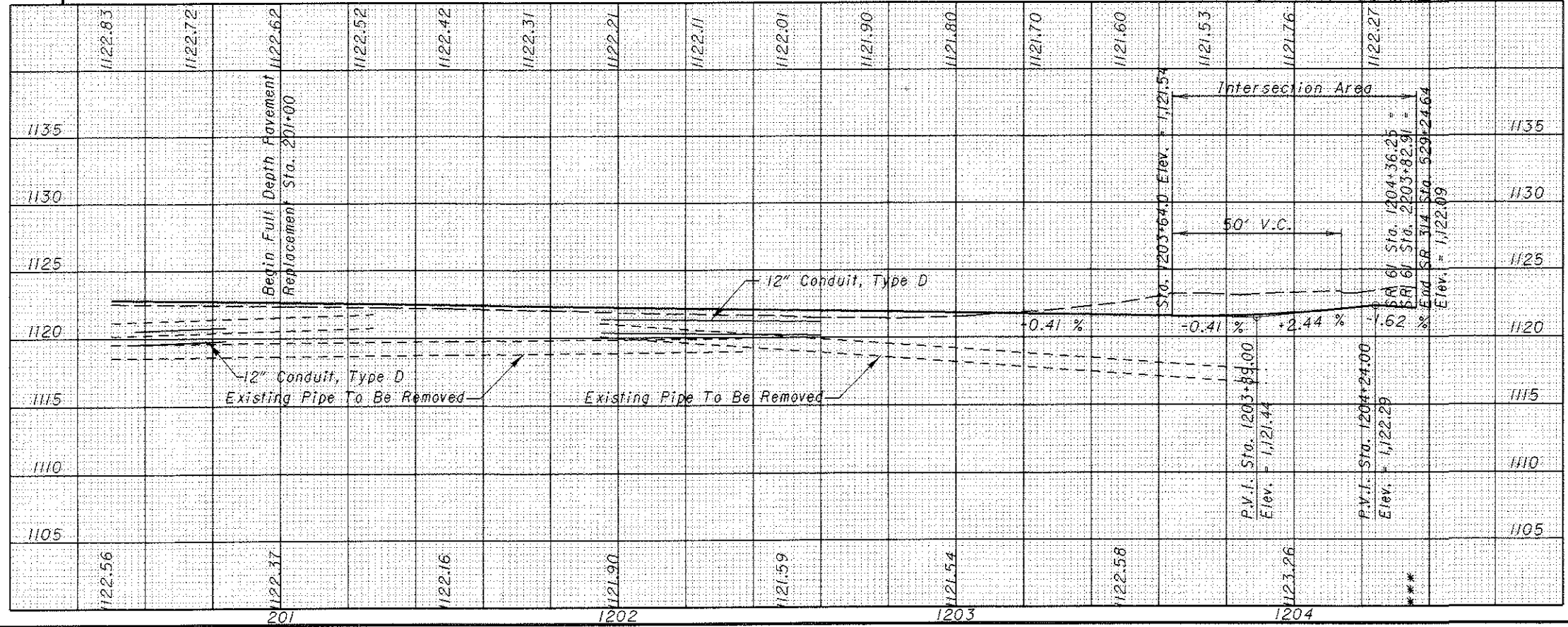
CRA-19-4.21



CB-1

CATCH BASIN NO. 2-2B	
STA. 1203+93.06 SR 61W	
STA. 528+50.90 SR 314S	
OFFSET 70.66' RT. SR 61W	
OFFSET 33.66' LT. SR 314S	
EX. T/G ELEV. = 1120.92	
EX. F/L = 1116.10	
PROP. T/G = 1119.03	
PROP. F/L = 1116.10	
PROP. 15" INLET = 1117.00	
PROP. 15" OUTLET = 1116.10	

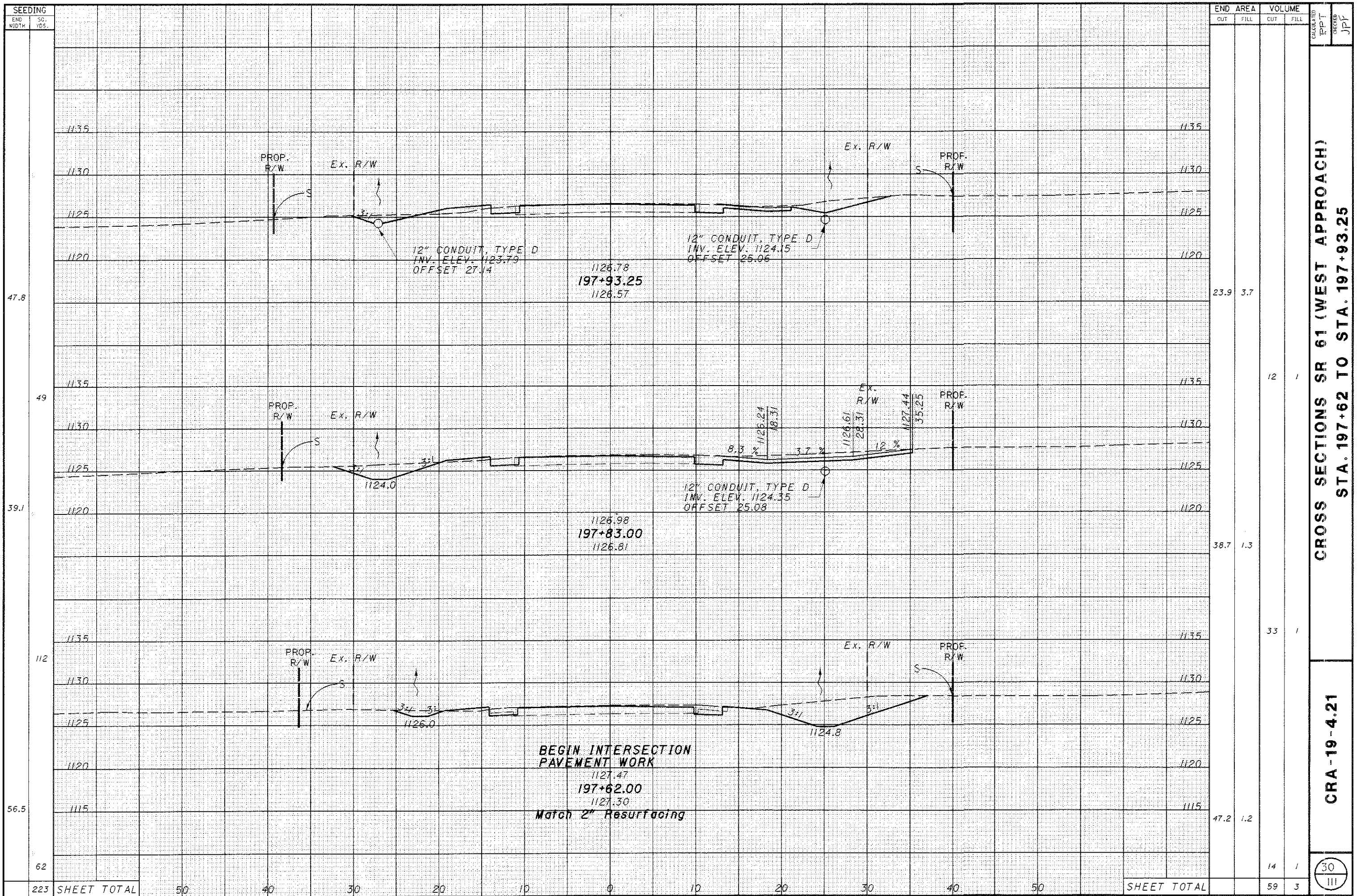
FOR QUANTITIES, SEE SHEETS 25 & 26



PLAN AND PROFILE SR 61 (WEST APPROACH)
 STA. 200+50 TO STA. 1204+36.25

CRA-19-4.21

DESIGN FILE: I:\projects\16923\61-314\xs061wsht.dgn
 WORKSTATION: rtrivoli DATE: 23-OCT-2002



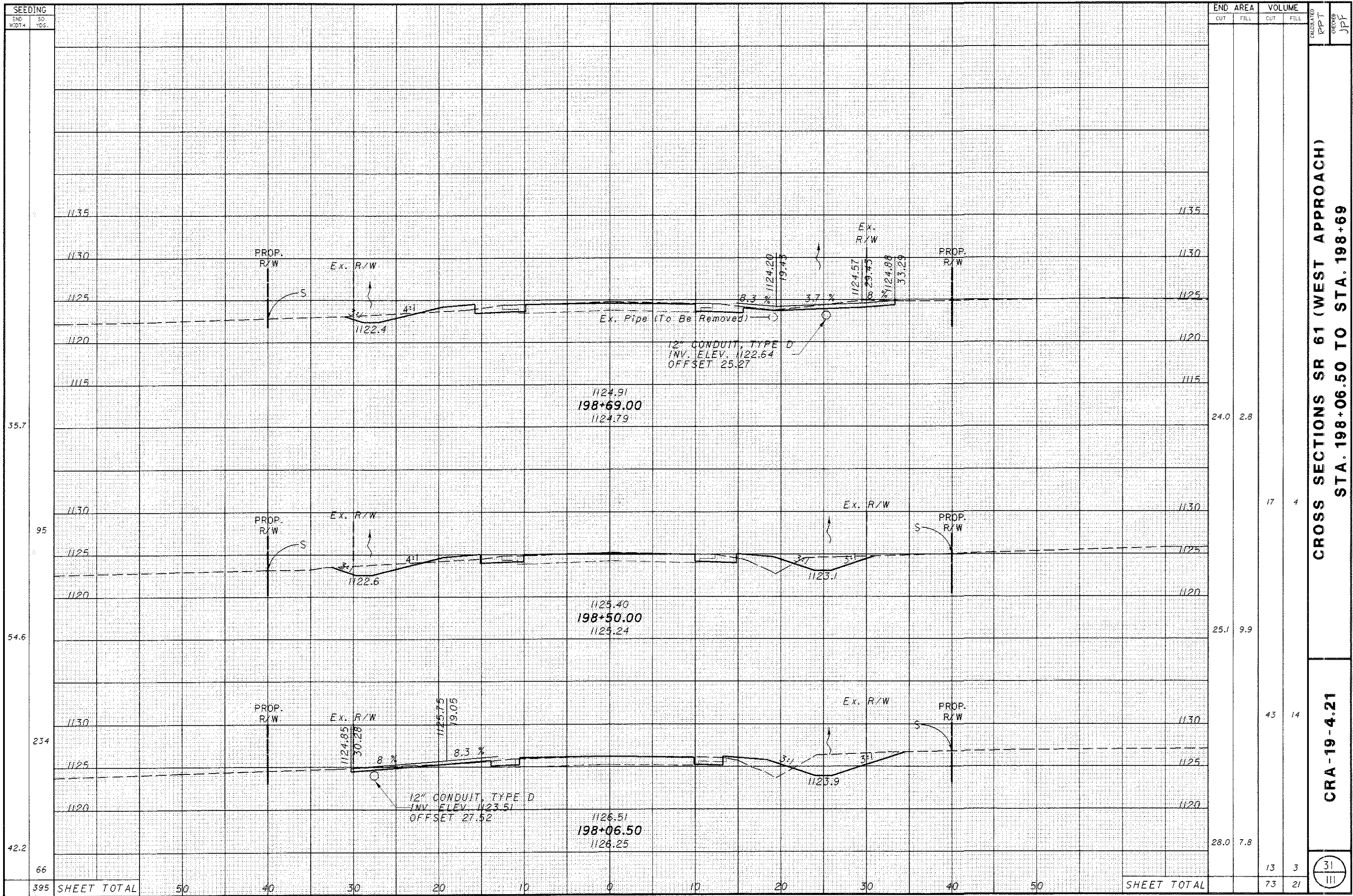
SEEDING												END AREA		VOLUME			
END WIDTH	SC. YDS.											CUT	FILL	CUT	FILL		
47.8														23.9	3.7		
49														12	1		
39.1														38.7	1.3		
112														33	1		
56.5														47.2	1.2		
62														14	1		
223	SHEET TOTAL	50	40	30	20	10	0	10	20	30	40	50			SHEET TOTAL	59	3

CROSS SECTIONS SR 61 (WEST APPROACH)
 STA. 197+62 TO STA. 197+93.25

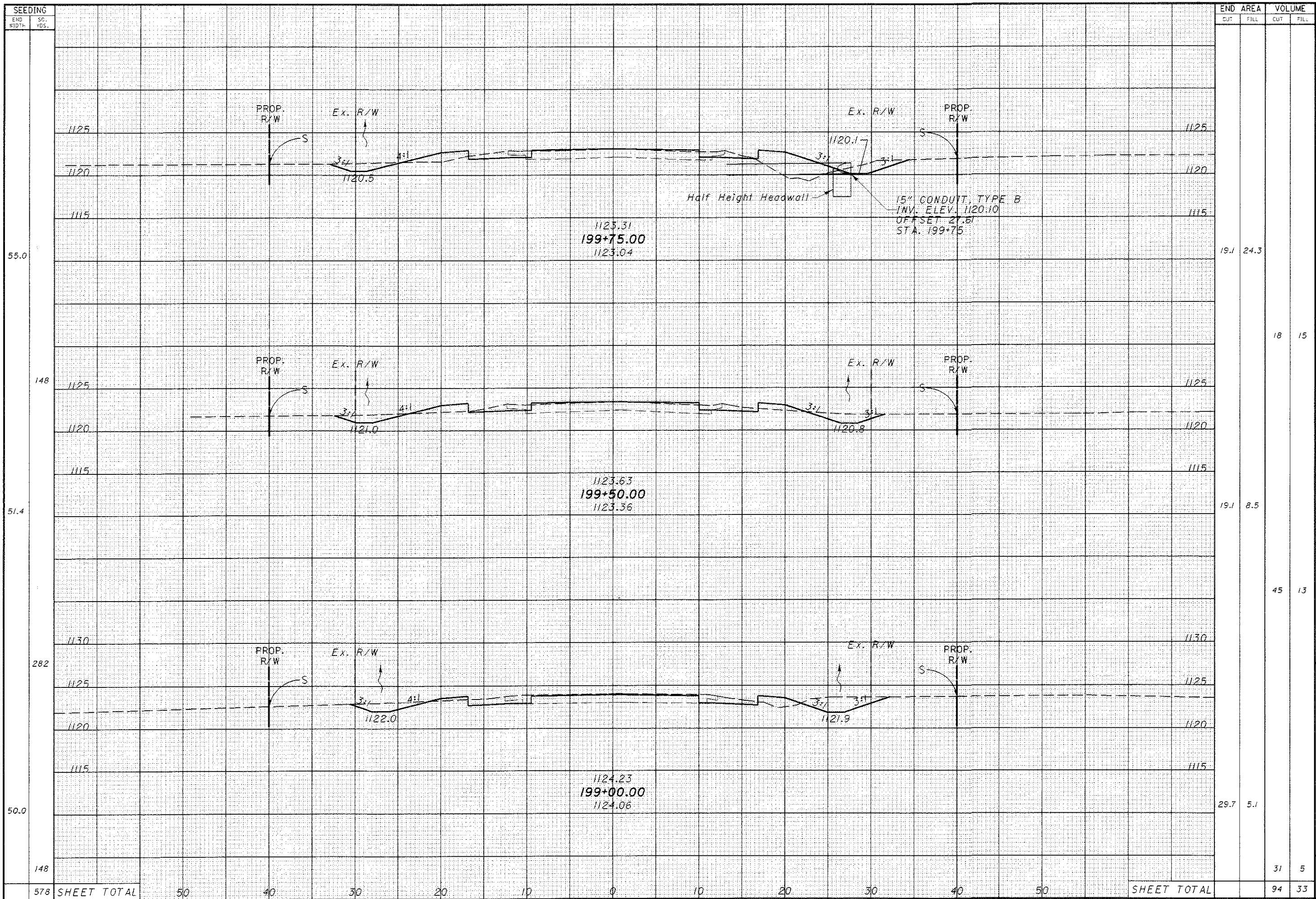
CRA-19-4.21

30
 III

CALCULATED
 PPT
 CHECKED
 JPF



DESIGN FILE: I:\projects\16923\61-314\16923\16923.dgn
 WORKSTATION: rtrivoli DATE: 23-OCT-2002



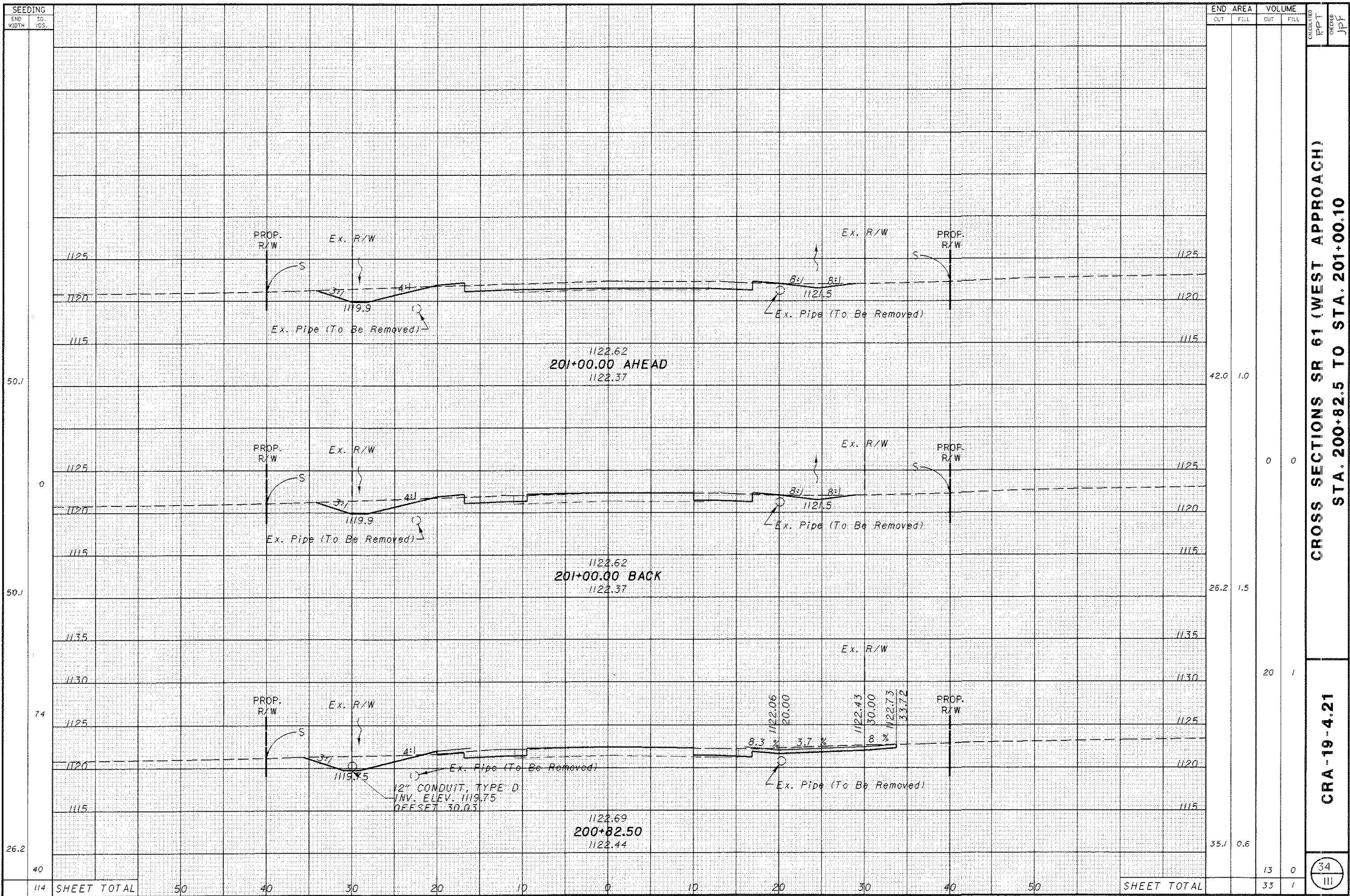
END STA.	AREA		VOLUME	
	CUT	FILL	CUT	FILL
199+75.00	19.1	24.3		
199+50.00	19.1	8.5	18	15
199+00.00	29.7	5.1	45	13
SHEET TOTAL	57.9	37.9	62	28

CROSS SECTIONS SR 61 (WEST APPROACH)
 STA. 199+00 TO STA. 199+75

CRA-19-4.21

CALCULATED
 RPT
 CHECKED
 JPF

DESIGN FILE: I:\projects\16923\61-314\xs06lwsht1.dgn
 WORKSTATION: rfr/voli DATE: 23-OCT-2002



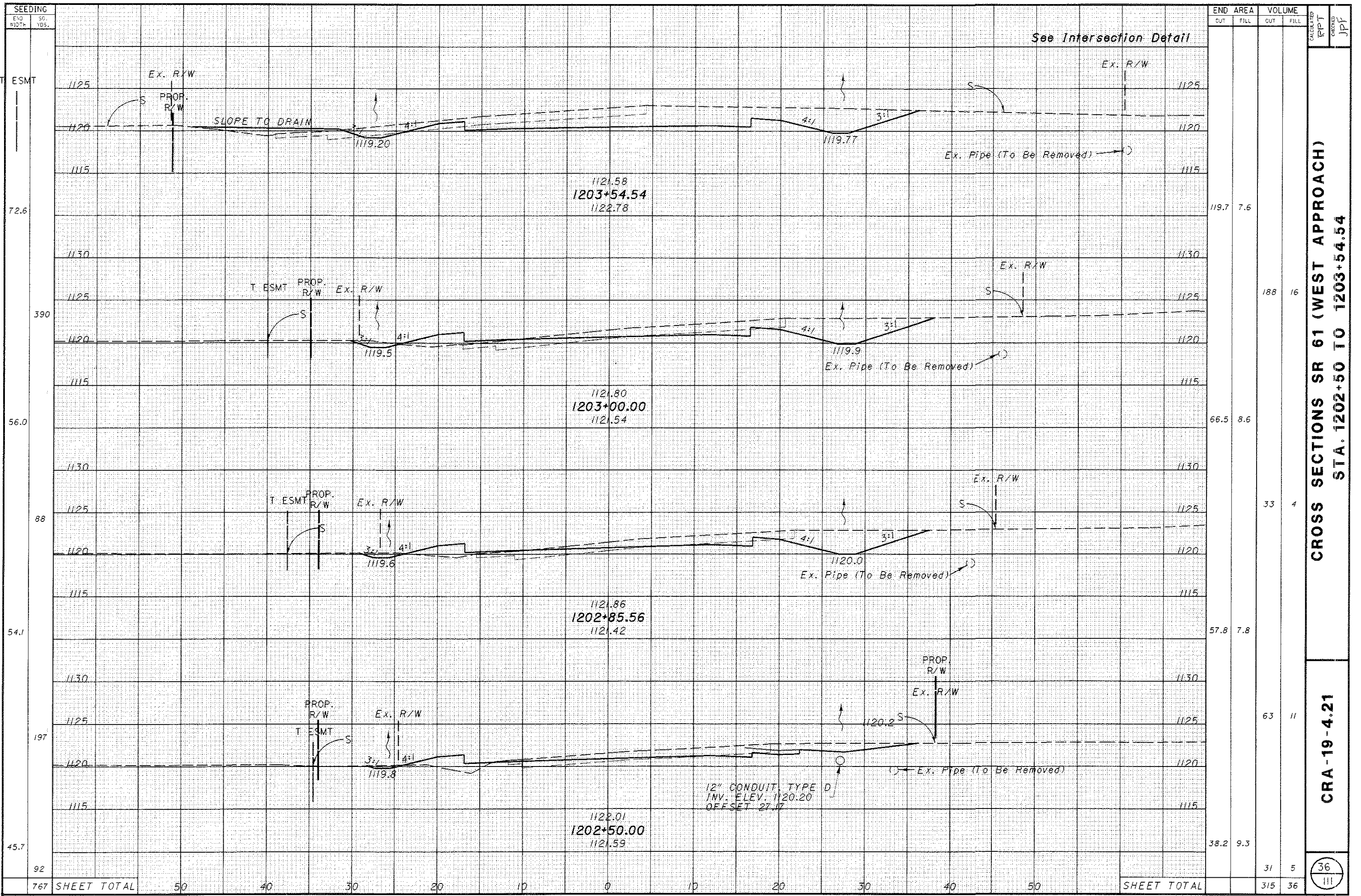
CROSS SECTIONS SR 61 (WEST APPROACH)
 STA. 200+82.5 TO STA. 201+00.10

CRA-19-4.21

CALCULATED
 RPT
 CHECKED
 JPF

34
 III

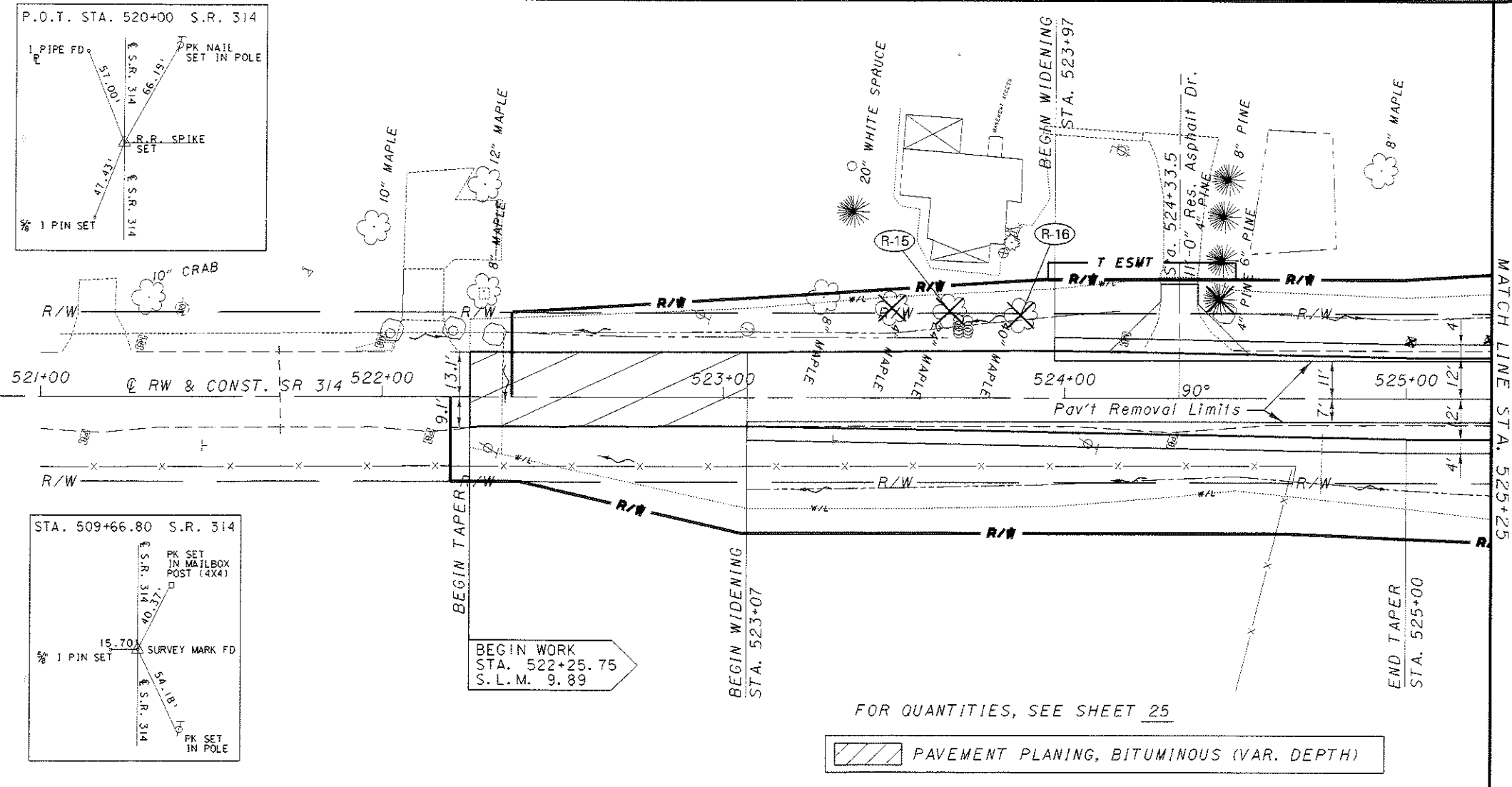
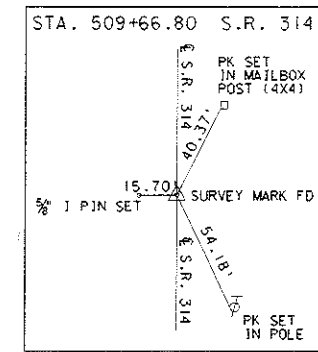
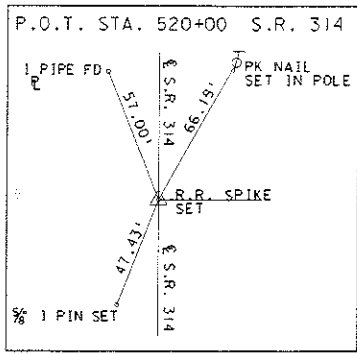
DESIGN FILE: I:\projects\16923\61-314\Xs061wsht.dg
 WORKSTATION: rtrivoli DATE: 23-OCT-2002



CROSS SECTIONS SR 61 (WEST APPROACH)
 STA. 1202+50 TO 1203+54.54

CRA-19-4.21

36
111



FOR QUANTITIES, SEE SHEET 25

PAVEMENT PLANING, BITUMINOUS (VAR. DEPTH)

1140	*	*	*	*	1122.81	1123.03	1123.29	1123.59	1123.84	1124.08	1124.37	1124.39	1124.44	1124.45	1124.41	1124.24	1124.08	1140	
1135					8' - 3" Planing for Buff Joint														1135
1130					Sta. 522+25.75 Elev. = 1122.81				Sta. 523+07 Elev. = 1123.67										1130
1125					Match Existing									3 1/4" Resurfacing					1125
1120																			1120
1115																			1115
1110																			1110
1105																			1105
	1122.56				1122.68	1122.93		1123.34	1123.81	1124.12			1124.18		1123.97	1123.81			
	522				523			524					525						



CALCULATED
 CHECKED

PLAN AND PROFILE SR 314 (SOUTH APPROACH)
 STA. 522+25.75 TO STA. 525+25

D-9
12" CONDUIT, TYPE D

PIPE INLET STA. 526+56.29 OFFSET 30.00' LT. INV. ELEV. = 1121.08	PIPE OUTLET STA. 526+83.70 OFFSET 31.15' LT. INV. ELEV. = 1120.69
---	--

D-11
12" CONDUIT, TYPE D

PIPE INLET STA. 527+25.05 OFFSET 31.58' LT. INV. ELEV. = 1120.10	PIPE OUTLET STA. 527+75.50 OFFSET 31.67' LT. INV. ELEV. = 1119.69
---	--

D-10
12" CONDUIT, TYPE D

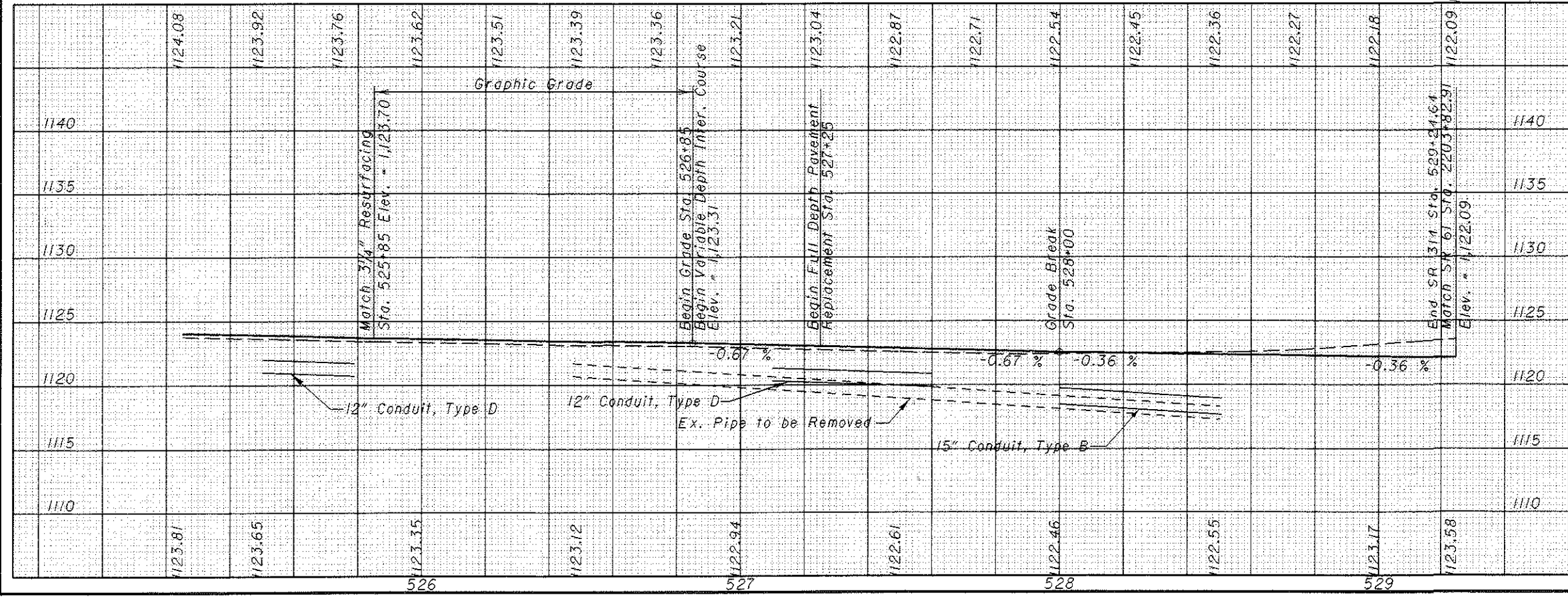
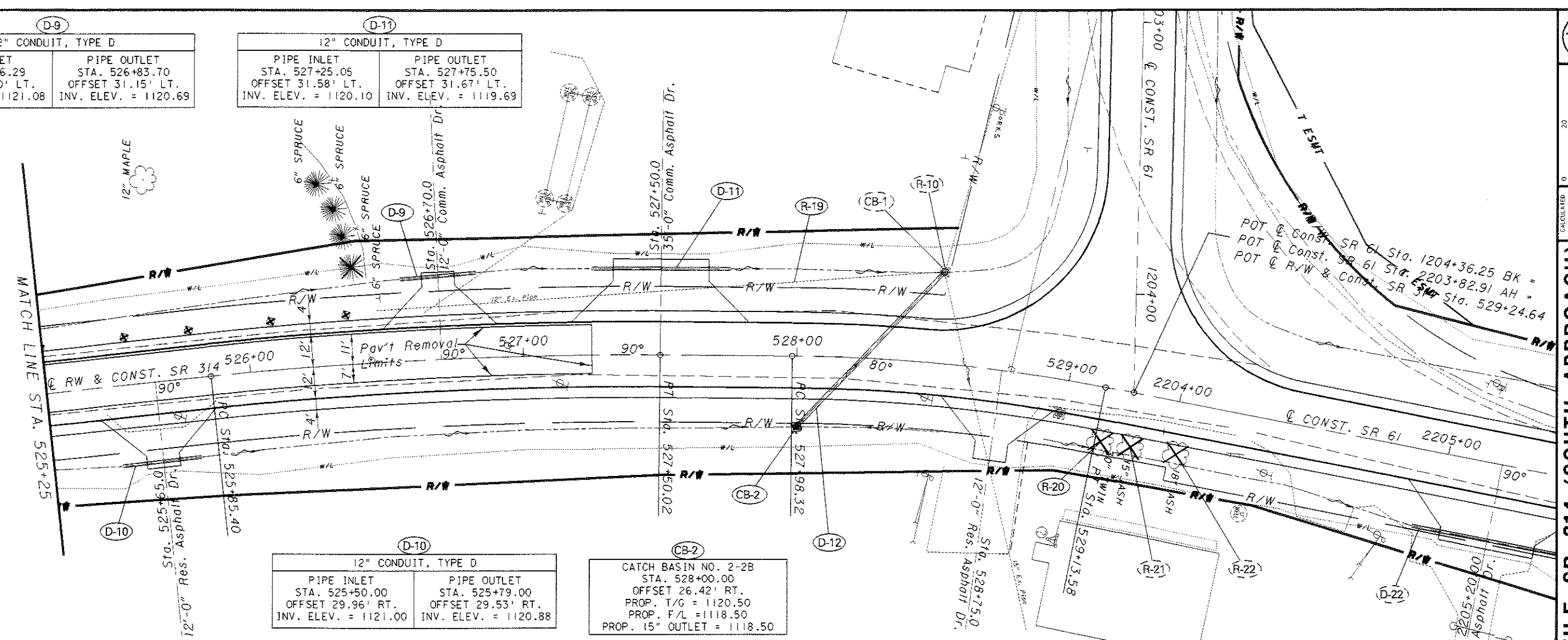
PIPE INLET STA. 525+50.00 OFFSET 29.96' RT. INV. ELEV. = 1121.00	PIPE OUTLET STA. 525+79.00 OFFSET 29.53' RT. INV. ELEV. = 1120.88
---	--

CB-2
CATCH BASIN NO. 2-2B

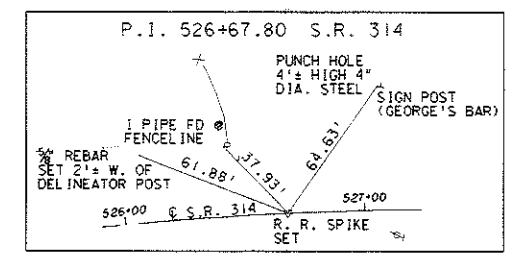
STA. 528+00.00 OFFSET 26.42' RT. PROP. T/G = 1120.50 PROP. F/L = 1118.50 PROP. 15" OUTLET = 1118.50

D-12
15" CONDUIT, TYPE B

PIPE INLET STA. 528+00.00 OFFSET 26.42' RT. INV. ELEV. = 1118.50	PIPE OUTLET STA. 528+50.90 OFFSET 33.66' LT. INV. ELEV. = 1117.70
---	--



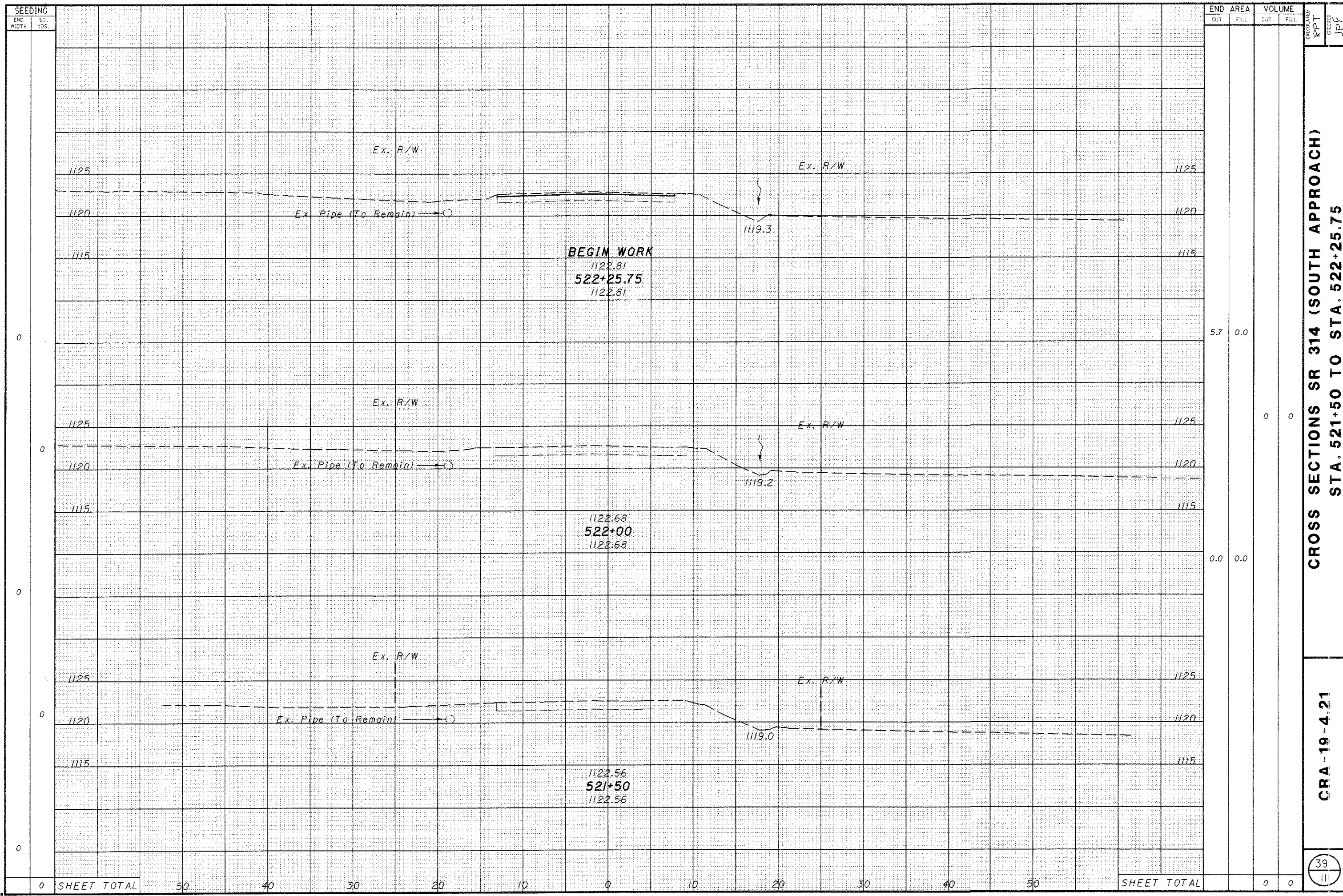
FOR QUANTITIES, SEE SHEETS 25 & 26



PLAN AND PROFILE SR 314 (SOUTH APPROACH)
STA. 525+25 TO STA. 529+24.64 (END SR 314)

CRA-19-4.21

DESIGN FILE: I:\projects\16923\61-314\SS314ssht.dgn
 DATE: 23-OCT-2002

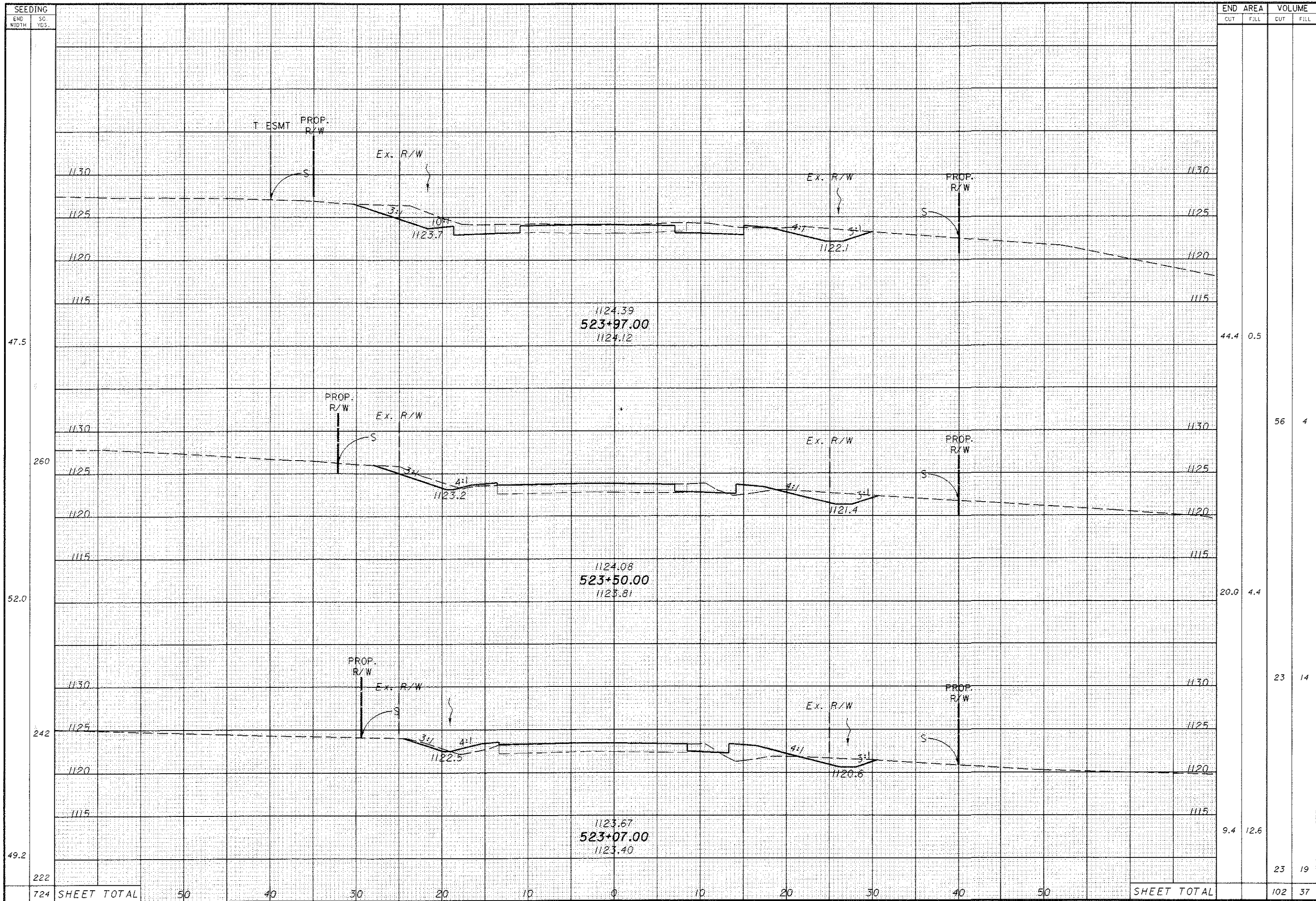


END STA.	AREA		VOLUME	
	CUT	FILL	CUT	FILL
522+81				
522+25.75				
522+00	5.7	0.0		
521+50	0.0	0.0		
SHEET TOTAL			0	0

CALCULATED RPT JPF
 CHECKED JPF
CROSS SECTIONS SR 314 (SOUTH APPROACH)
STA. 521+50 TO STA. 522+25.75

CRA-19-4.21

DESIGN FILE: I:\projects\61-314\61-314\ssht.dgn
 DATE: 23-OCT-2002

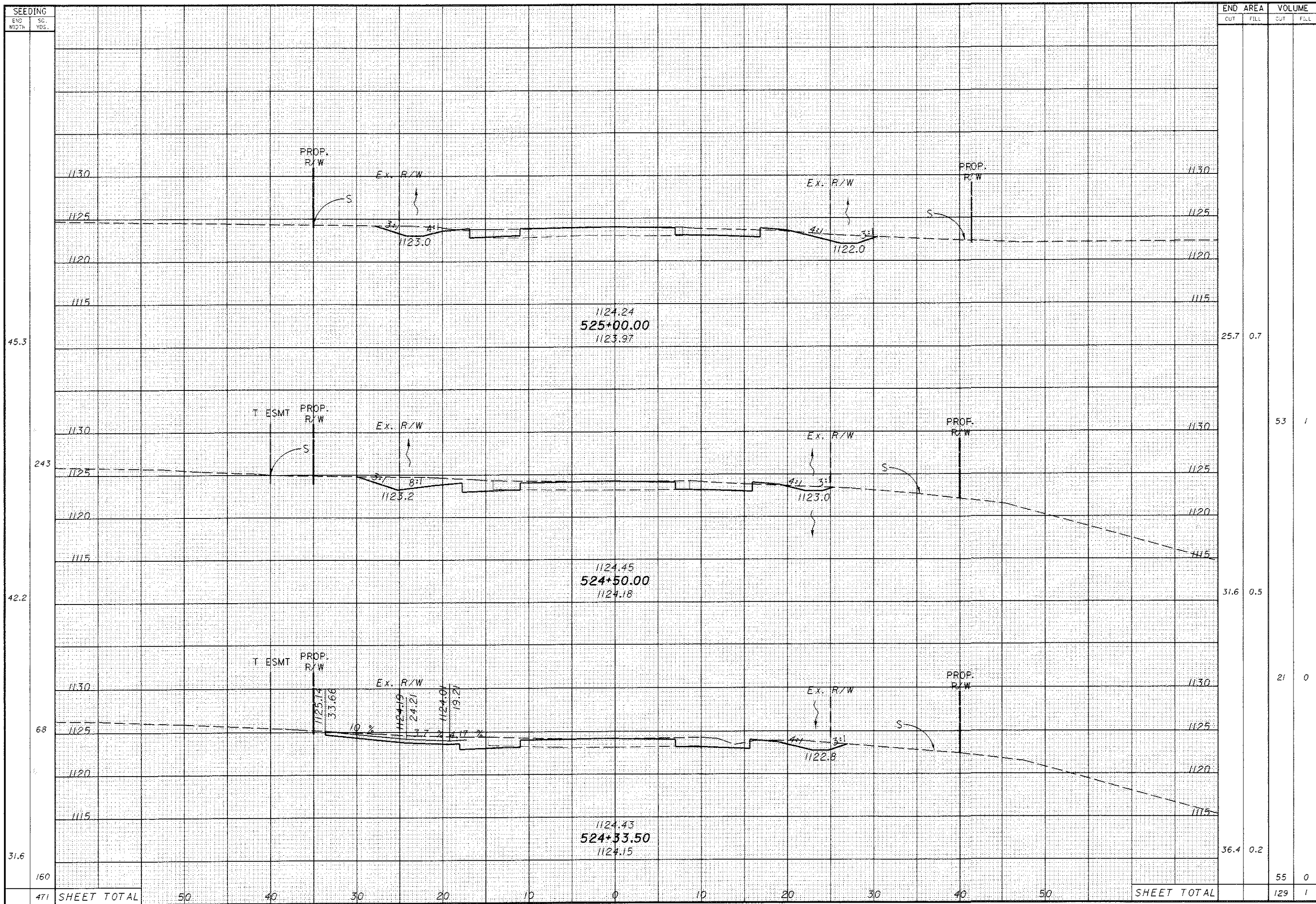


CROSS SECTIONS SR 314 (SOUTH APPROACH)
 STA. 523+07 TO STA. 523+97

CRA-19-4.21

40
 III

DESIGN FILE: I:\projects\16923\61-314\xs314ssht.dgn
 DATE: 23-OCT-2002



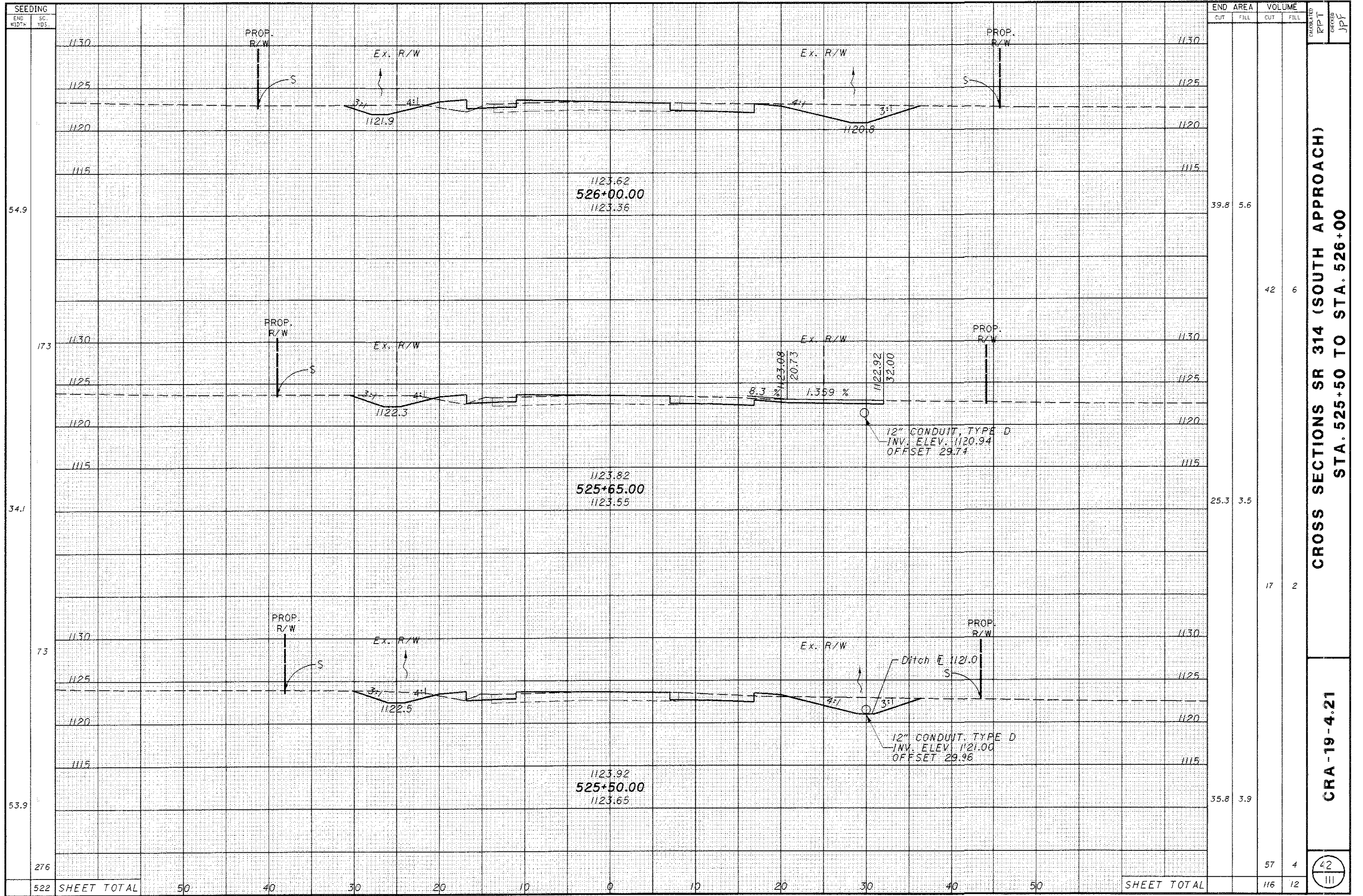
CROSS SECTIONS SR 314 (SOUTH APPROACH)
 STA. 524+33.5 TO STA. 525+00

CRA-19-4.21

CHECKED
 JPF

41
 III

DESIGN FILE: I:\projects\16923\61-314\ss314ssht.dgn
 DATE: 23-OCT-2002



END STA.	END AREA		VOLUME	
	CUT	FILL	CUT	FILL
1130				
1125				
1120				
1115				
54.9	39.8	5.6		
1130				
1125				
1120				
1115				
34.1	25.3	3.5	42	6
1130				
1125				
1120				
1115				
73			17	2
1130				
1125				
1120				
1115				
55.9	35.8	3.9		
276			57	4
522	SHEET TOTAL		116	12

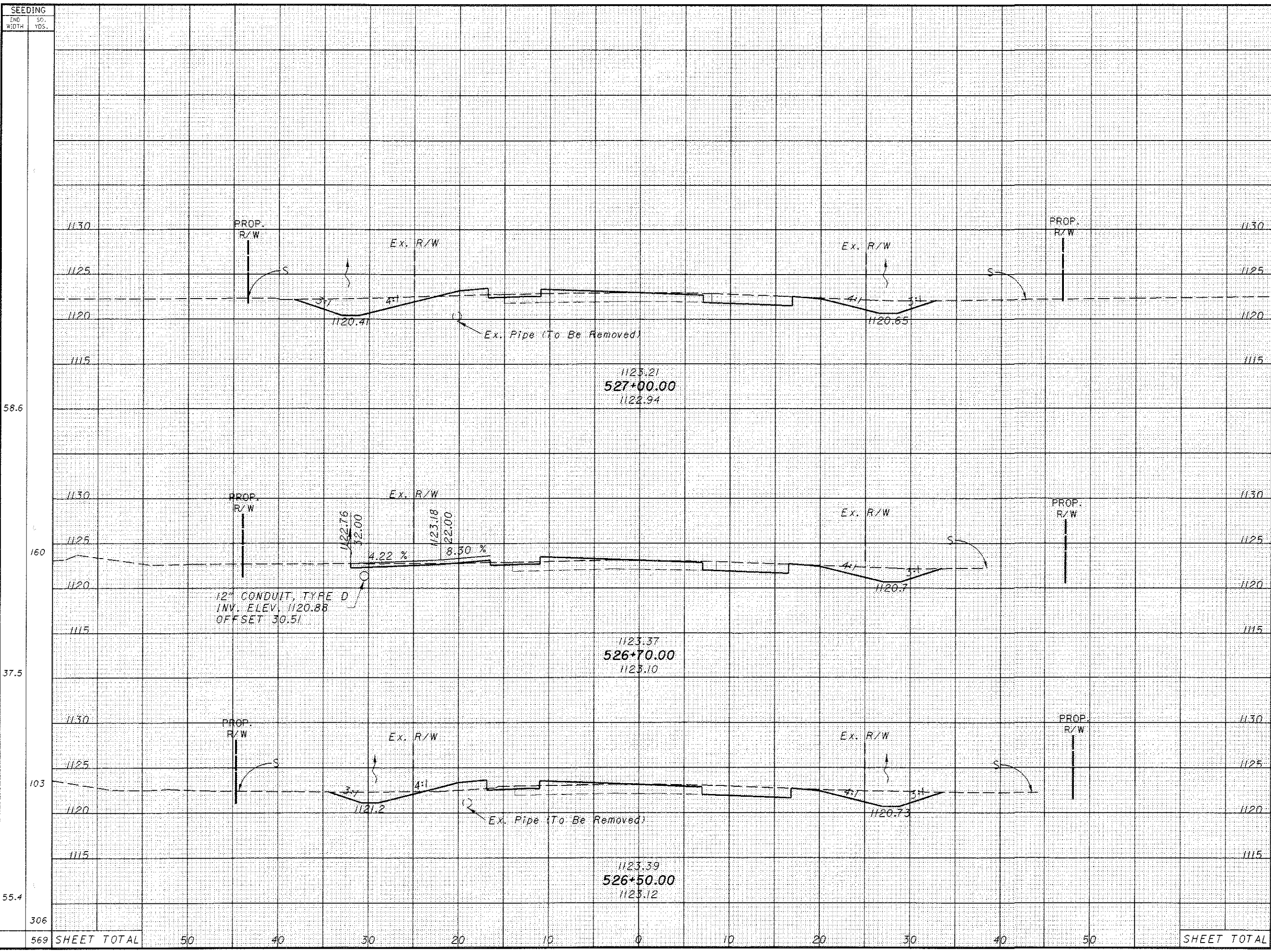
CROSS SECTIONS SR 314 (SOUTH APPROACH)
 STA. 525+50 TO STA. 526+00

CRA-19-4.21

42
 III

CALCULATED
 RPT
 CHECKED
 JPF

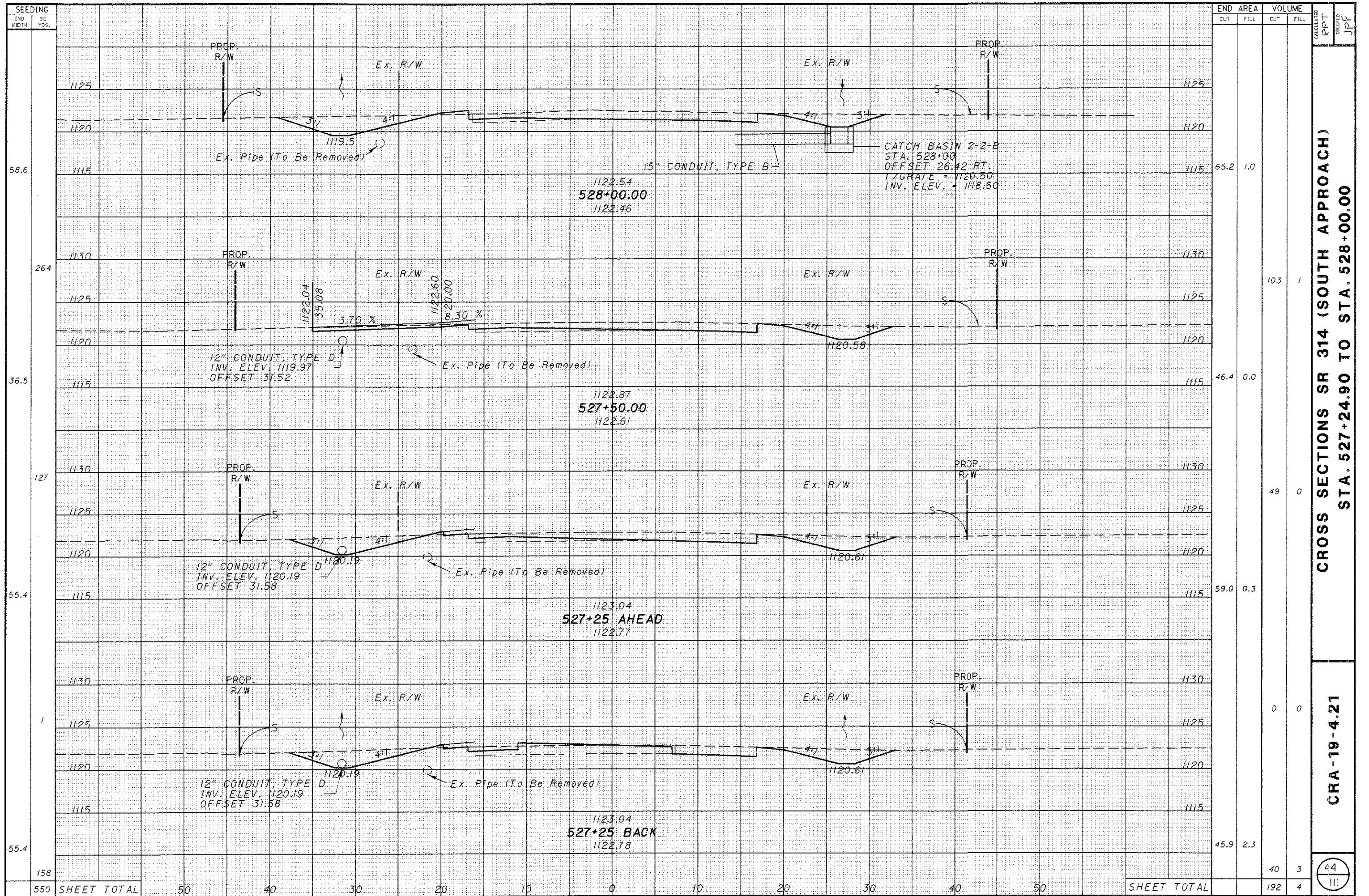
DESIGN FILE: I:\projects\16923\61-314\xs314\ssht1.dgn
 DATE: 23 OCT 2002



SEEDING	END AREA		VOLUME	
	CUT	FILL	CUT	FILL
58.6	41.0	5.1		
160	27.3	3.0	38	4
37.5	23	4		
103	34.5	6.7		
55.4	69	11		
306			69	11
569 SHEET TOTAL	130	19		

CALCULATED
 CHECKED
 JPF
CROSS SECTIONS SR 314 (SOUTH APPROACH)
STA. 526+50 TO STA. 527+00
CRA-19-4.21
 43

DESIGN FILE: I:\projects\16923\61-314\ss314ssht.dgn
 DATE: 23 OCT-2002

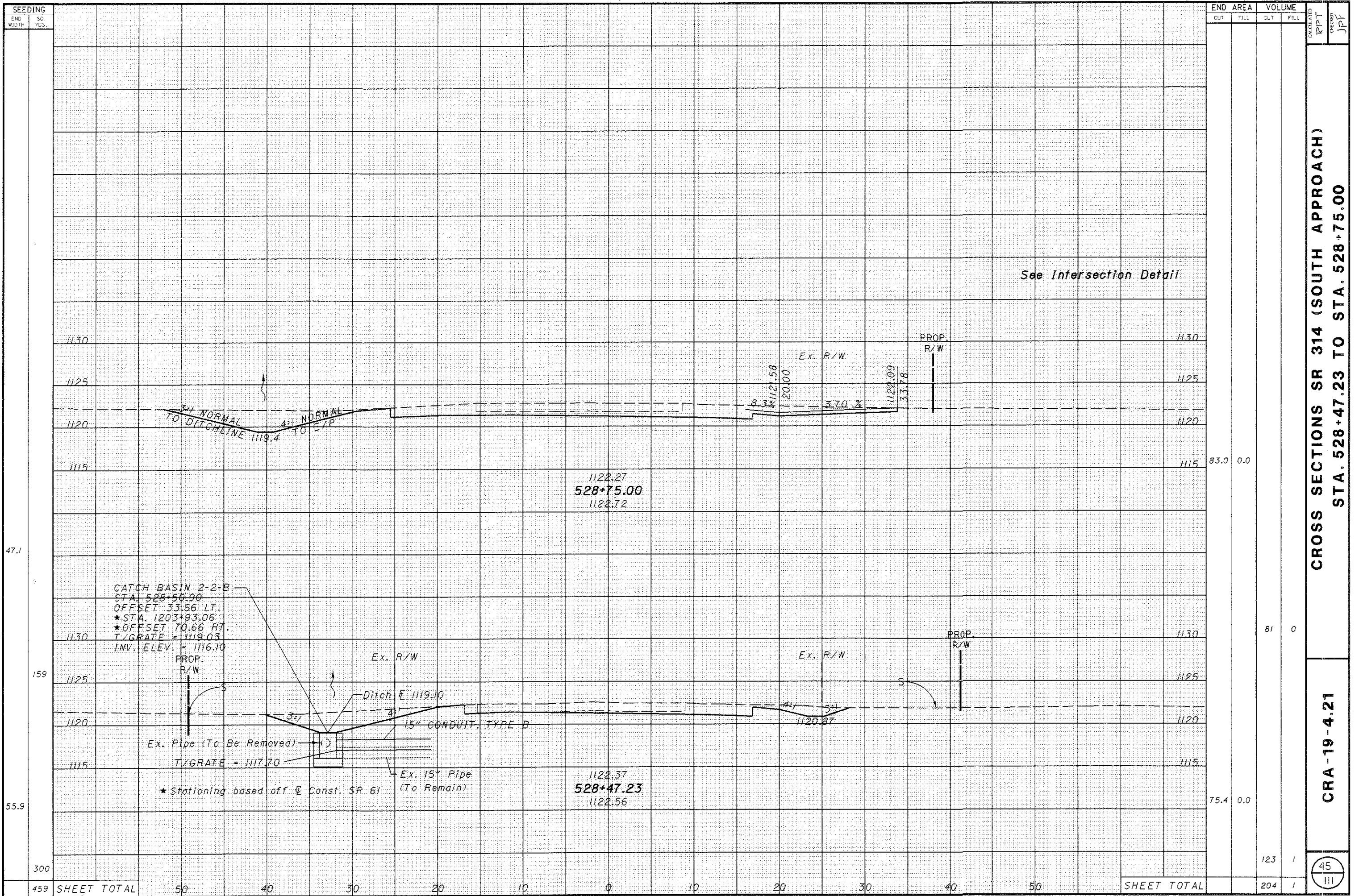


CROSS SECTIONS SR 314 (SOUTH APPROACH)
 STA. 527+24.90 TO STA. 528+00.00

CRA-19-4.21

CALCULATED
 RPT
 CHECKED
 JPF

DESIGN FILE: I:\projects\16923\61-314\ss34sht.dgn
DATE: 23-01-2002

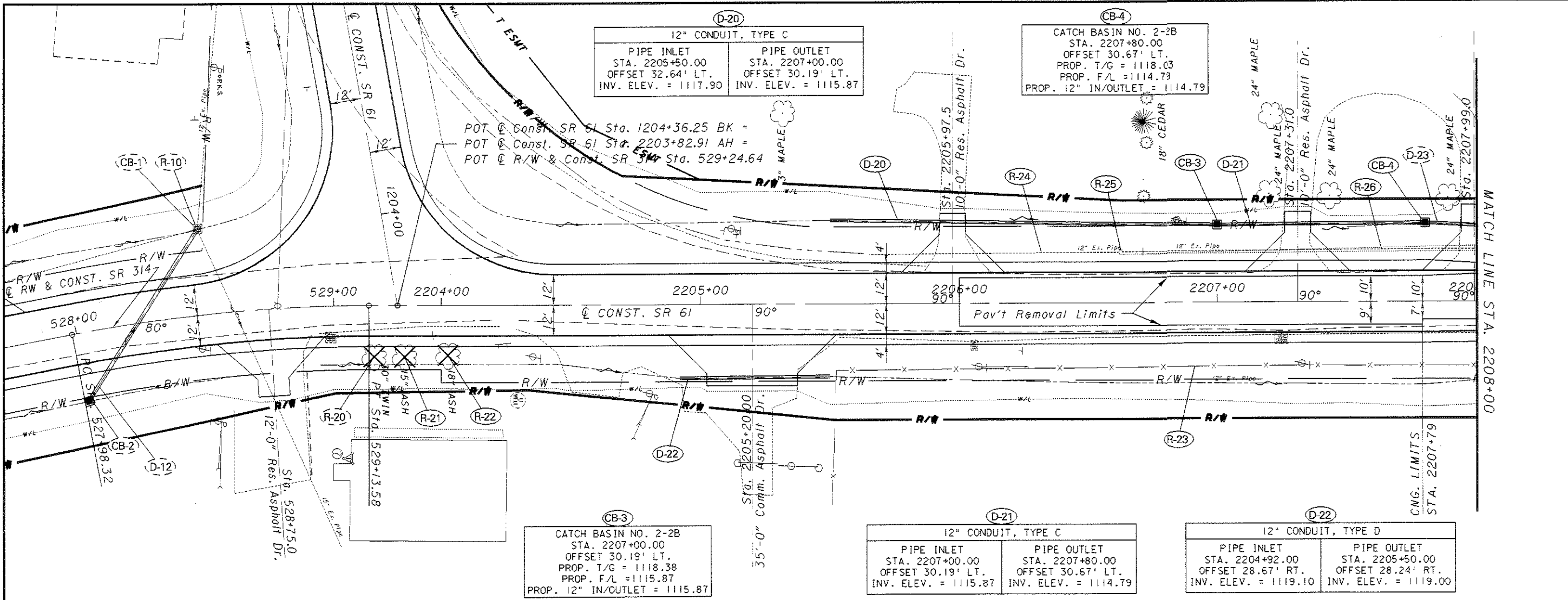


SEEDING		END WIDTH	SQ. YDS.
CUT	FILL		
47.1			
159			
55.9			
300			
459	SHEET TOTAL	50	40

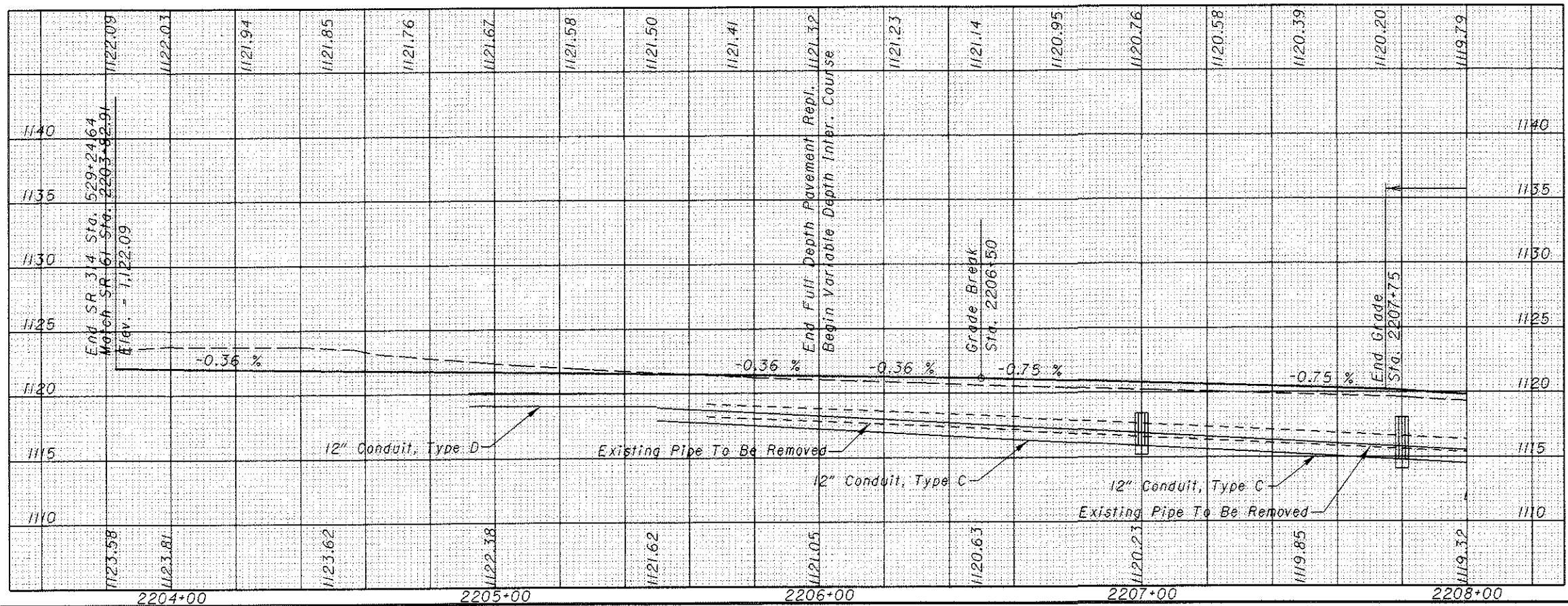
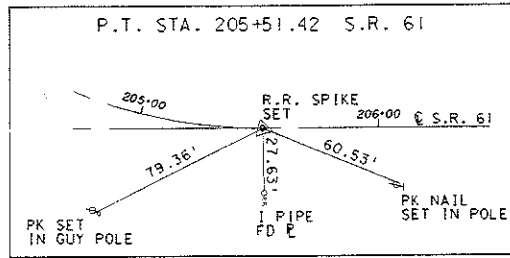
END AREA		VOLUME		CALCULATED RPT	CHECKED JPF
CUT	FILL	CUT	FILL		
		83.0	0.0		
		81	0		
		75.4	0.0		
		123	1		
	SHEET TOTAL	204	1		

CROSS SECTIONS SR 314 (SOUTH APPROACH)
STA. 528+47.23 TO STA. 528+75.00

CRA-19-4.21



FOR QUANTITIES, SEE SHEETS 25 & 26



END INTERSECTION
PAVEMENT WORK
MATCH RESURFACING PROJECT
PAVEMENT DATA SHEET
STA. 2209+64.00 = SLM 3.97

END
INTERSECTION WORK
STA. 2210+75.00
= SLM 3.99

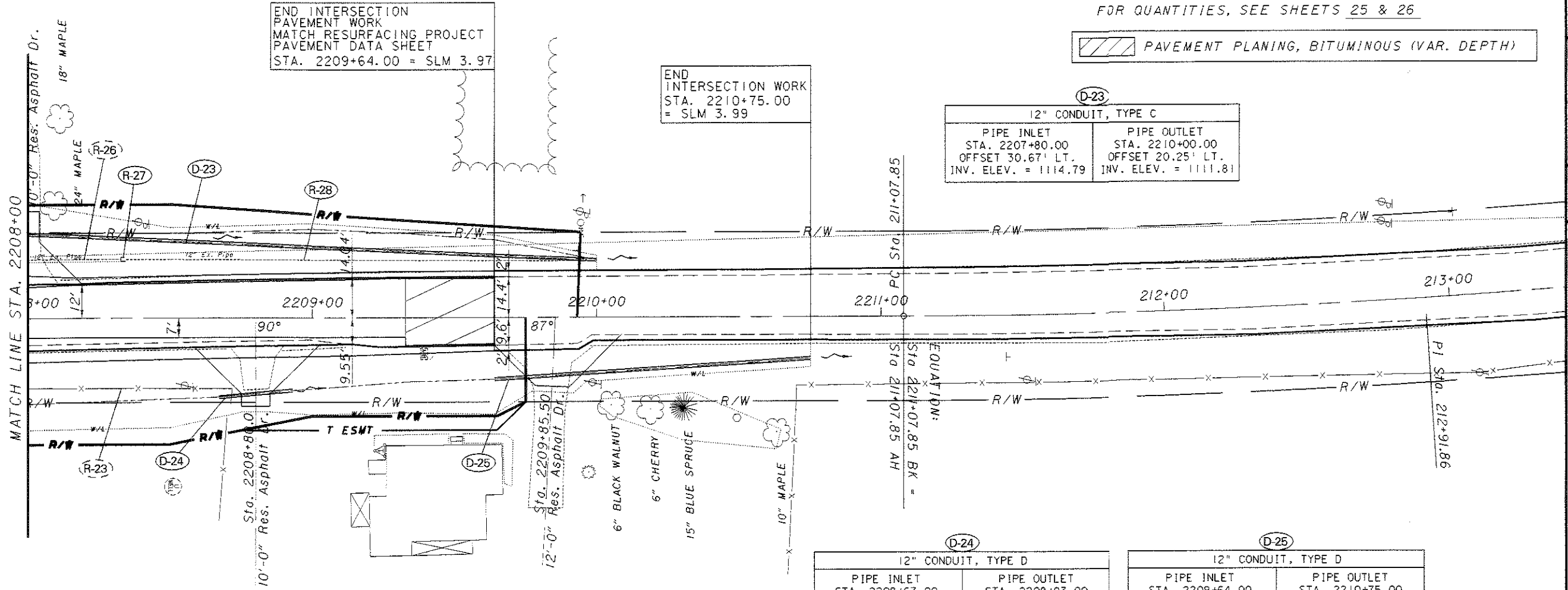
FOR QUANTITIES, SEE SHEETS 25 & 26

PAVEMENT PLANING, BITUMINOUS (VAR. DEPTH)

D-23
12" CONDUIT, TYPE C
PIPE INLET
STA. 2207+80.00
OFFSET 30.67' LT.
INV. ELEV. = 1114.79
PIPE OUTLET
STA. 2210+00.00
OFFSET 20.25' LT.
INV. ELEV. = 1111.81

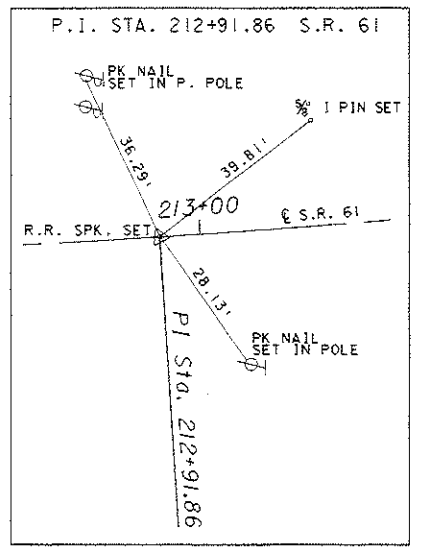
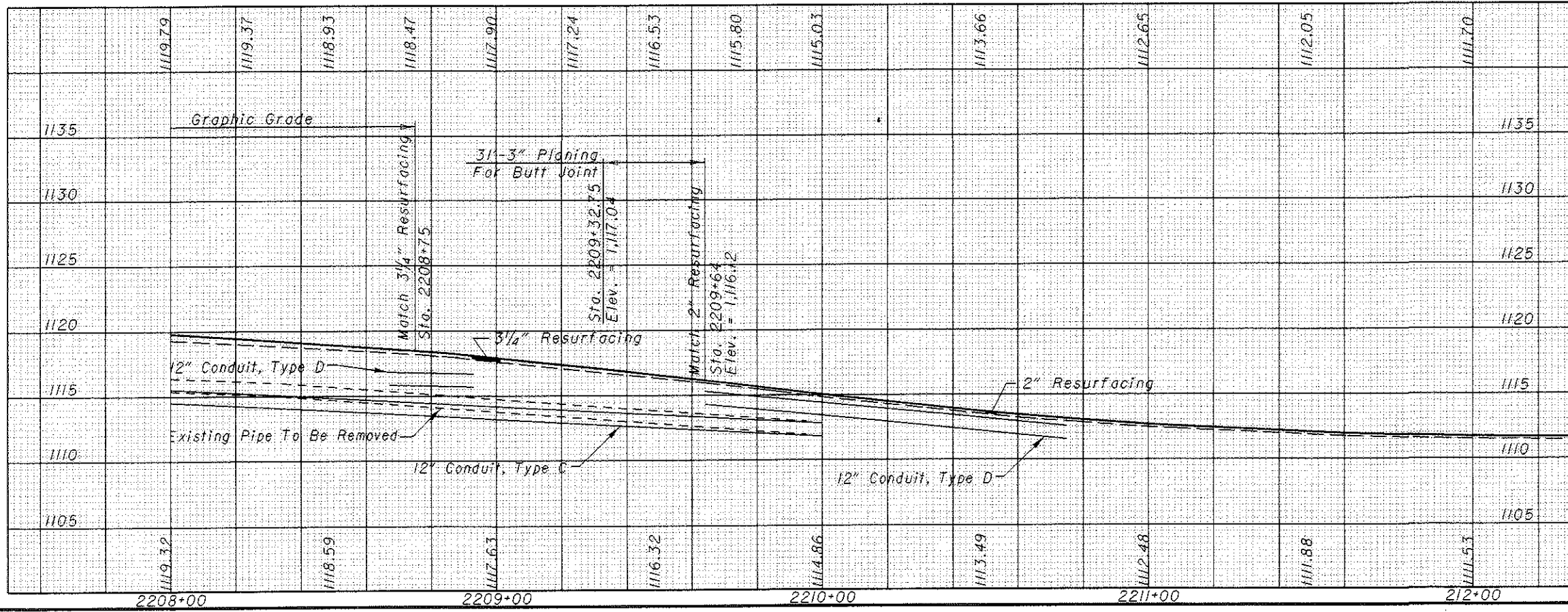
D-24
12" CONDUIT, TYPE D
PIPE INLET
STA. 2208+67.00
OFFSET 28.15' RT.
INV. ELEV. = 1115.85
PIPE OUTLET
STA. 2208+93.00
OFFSET 25.81' RT.
INV. ELEV. = 1115.69

D-25
12" CONDUIT, TYPE D
PIPE INLET
STA. 2209+64.00
OFFSET 21.86' RT.
INV. ELEV. = 1114.30
PIPE OUTLET
STA. 2210+75.00
OFFSET 14.82' RT.
INV. ELEV. = 1111.55



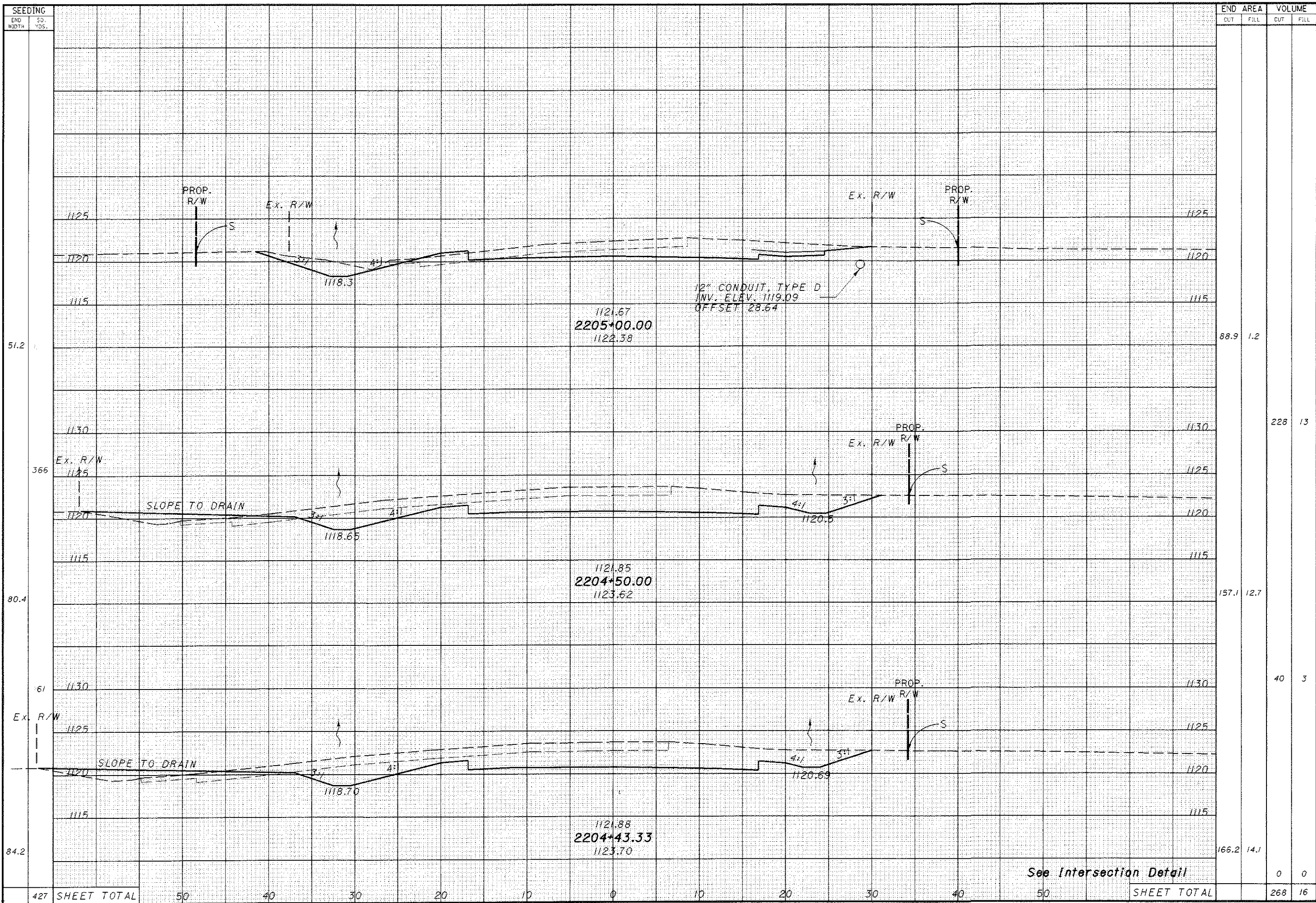
PLAN AND PROFILE SR 61 (NORTH APPROACH)
STA. 2208+00 TO STA. 2209+64

CRA-19-4.21



DESIGN FILE: I:\projects\16923\61_314\pp06in-2.dgn
DATE: 23-OCT-2002

DESIGN FILE: I:\projects\16923\61-314\xs06insht.dgn
 WORKSTATION: rtrivoli DATE: 23-OCT-2002



See Intersection Detail

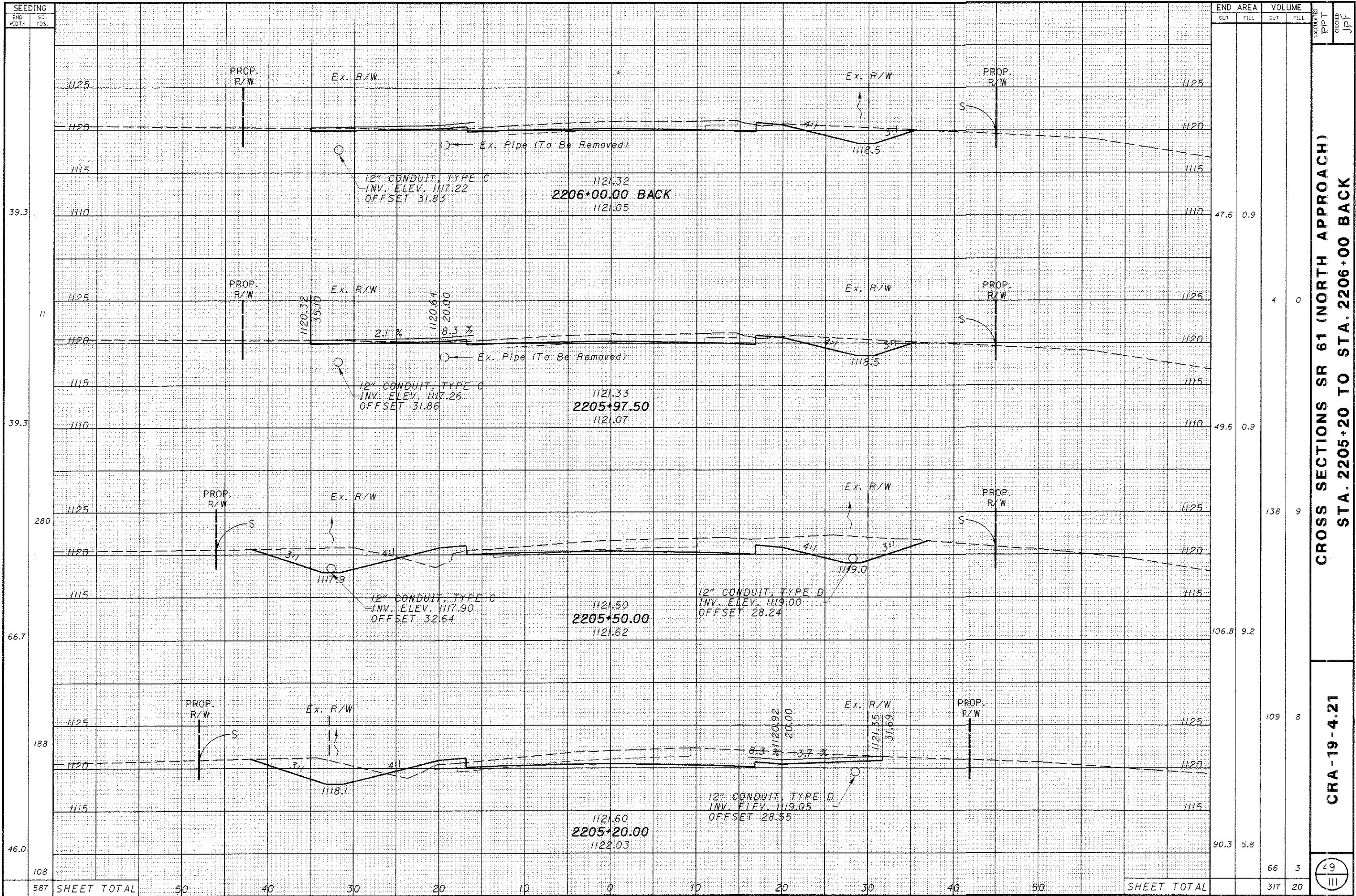
CROSS SECTIONS SR 61 (NORTH APPROACH)
 STA. 2204+43.33 TO STA. 2205+00

CRA-19-4.21

48

CALCULATED RPT
 CHECKED JPF

DESIGN FILE: i:\projects\16923\61-314\xs06\insht.dgn
 WORKSTATION: rtrivolt DATE: 23-OCT-2002

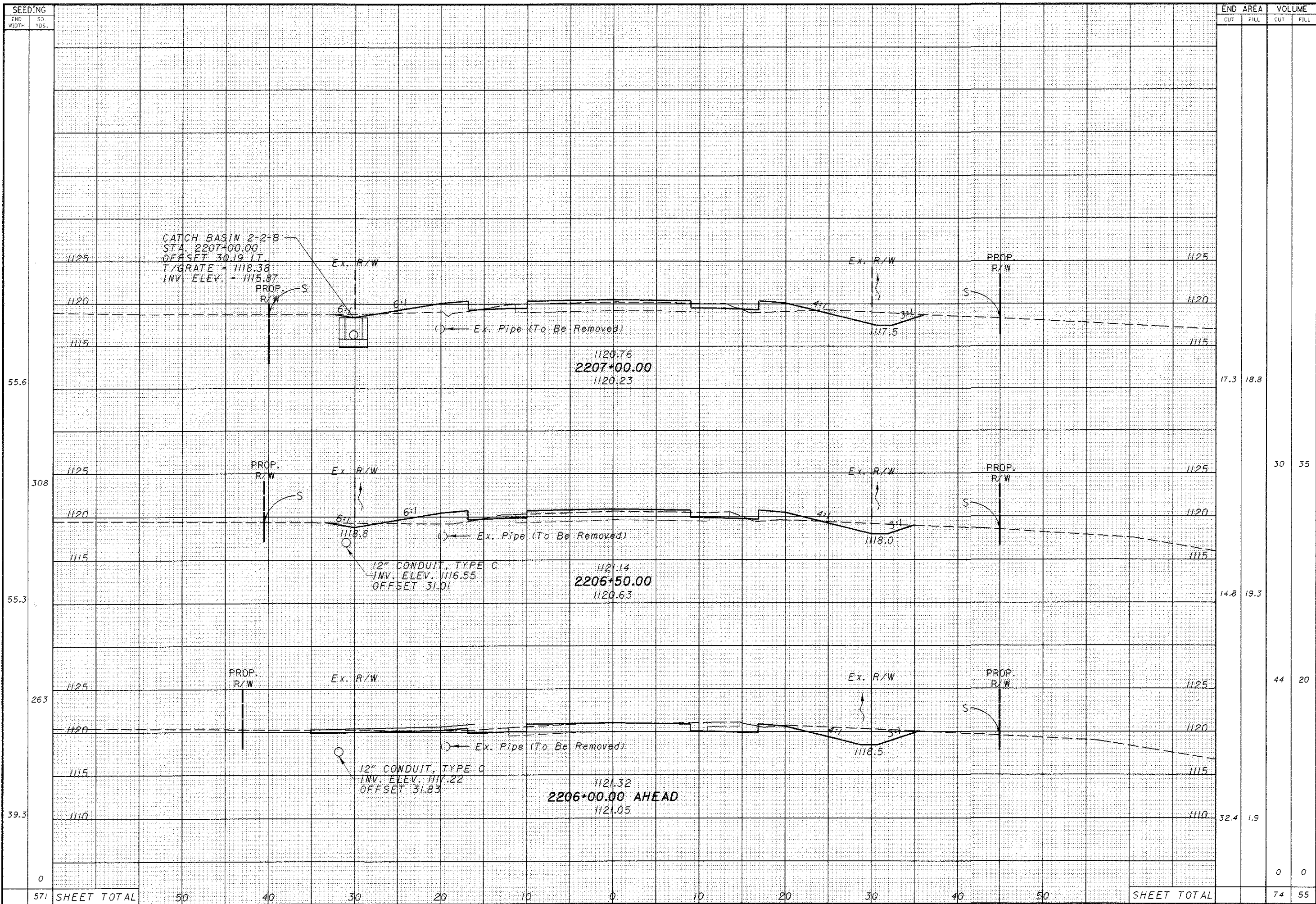


CROSS SECTIONS SR 61 (NORTH APPROACH)
 STA. 2205+20 TO STA. 2206+00 BACK

CRA-19-4.21

49
11

DESIGN FILE: I:\projects\16923\61-314\xs06\insht.dgn
 WORKSTATION: rtrivoli DATE: 23-OCT-2002



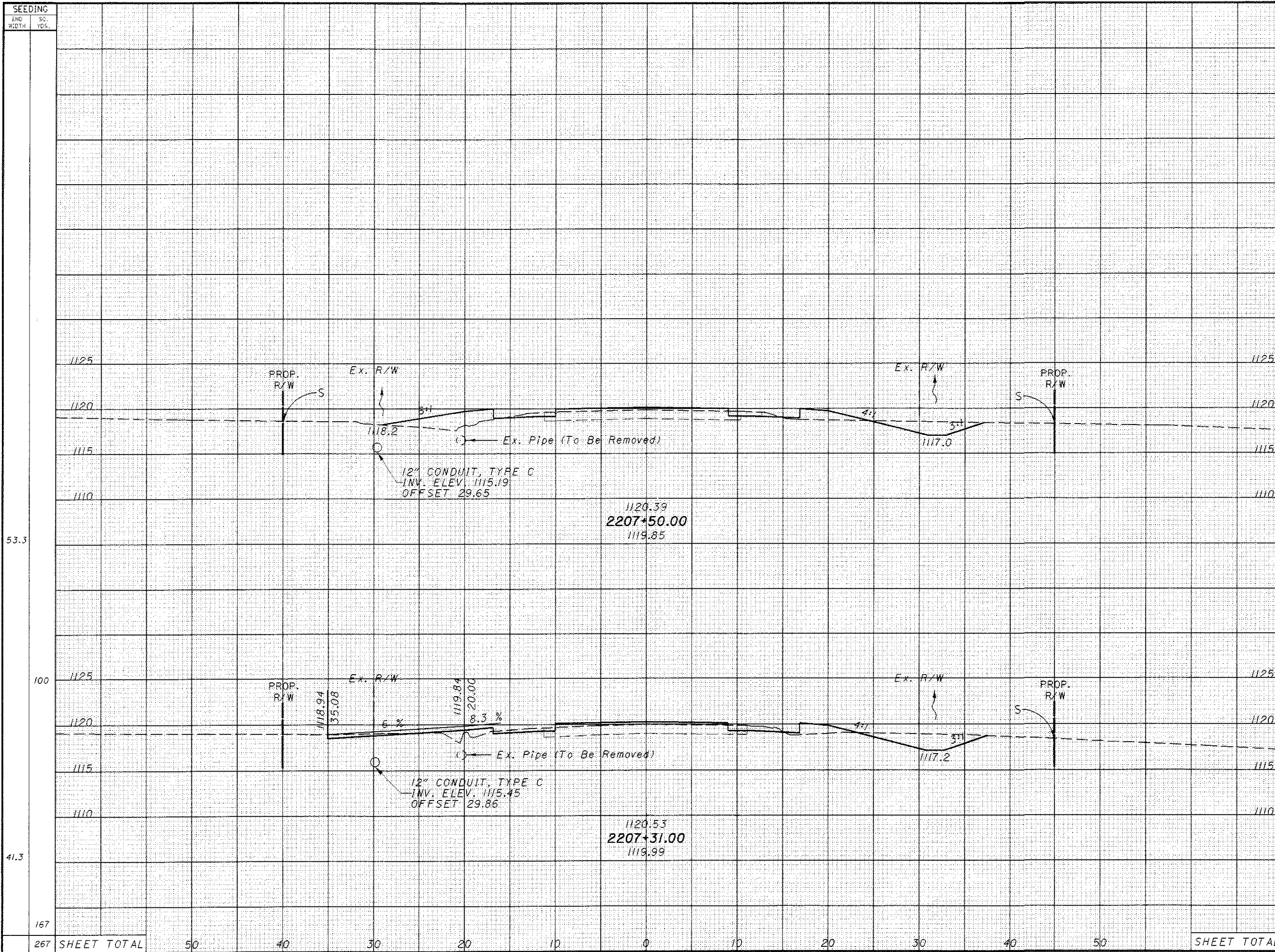
SEEDING		END AREA		VOLUME		CALCULATED	RPT	CHECKED	JPF										
END WIDTH	SO. YDS.	CUT	FILL	CUT	FILL														
55.6		17.3	18.8																
308				30	35														
55.3		14.8	19.3																
263				44	20														
39.3		32.4	1.9																
0				0	0														
571	SHEET TOTAL	50	40	30	20	10	0	10	20	30	40	50	SHEET TOTAL	74	55				

CROSS SECTIONS SR 61 (NORTH APPROACH)
 STA. 2206+00 AHEAD TO STA. 2207+00

CRA-19-4.21



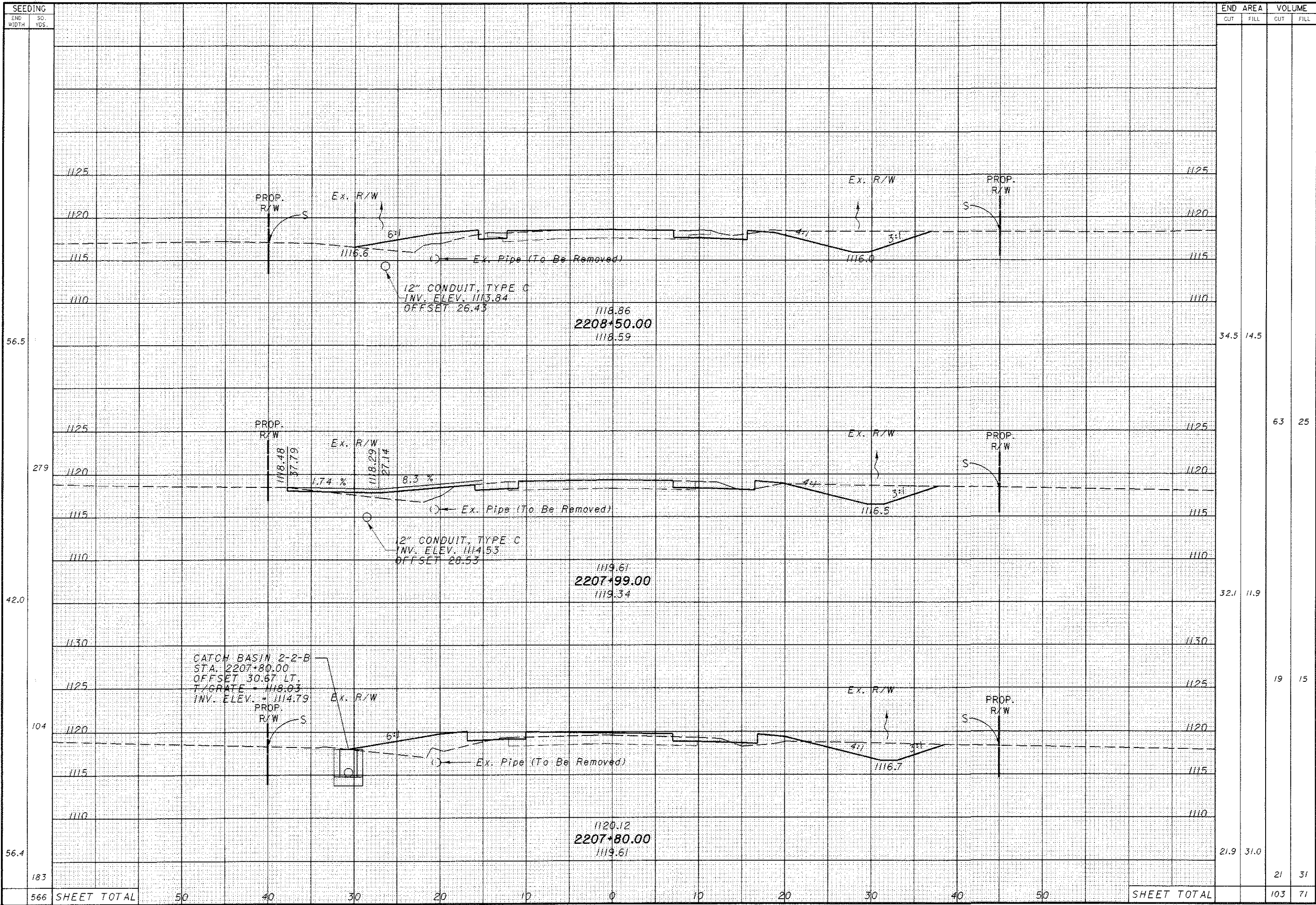
DESIGN FILE: I:\projects\61-314\61314.dgn
 WORKSTATION: r1rvol1 DATE: 23-OCT-2002



END STA.	AREA		VOLUME	
	CUT	FILL	CUT	FILL
2207+50.00	15.9	25.0		
2207+31.00			13	14
2207+31.00	22.3	14.1		
SHEET TOTAL			23	19
SHEET TOTAL			36	33

CALCULATED BY: RPT
 CHECKED BY: JPF
CRA-19-4.21
CROSS SECTIONS SR 61 (NORTH APPROACH)
STA. 2207+31 TO STA. 2207+50

DESIGN FILE: I:\projects\16923\61-314\ss06\insht.dgn
 WORKSTATION: rtrivoli DATE: 23 OCT 2002



SEEDING	END WIDTH	SQ. YDS.	END AREA		VOLUME	
			CUT	FILL	CUT	FILL
	56.5		34.5	14.5		
	279		32.1	11.9	63	25
	42.0		21.9	31.0	19	15
183	566	SHEET TOTAL	50	40	30	20
			103	71	21	31

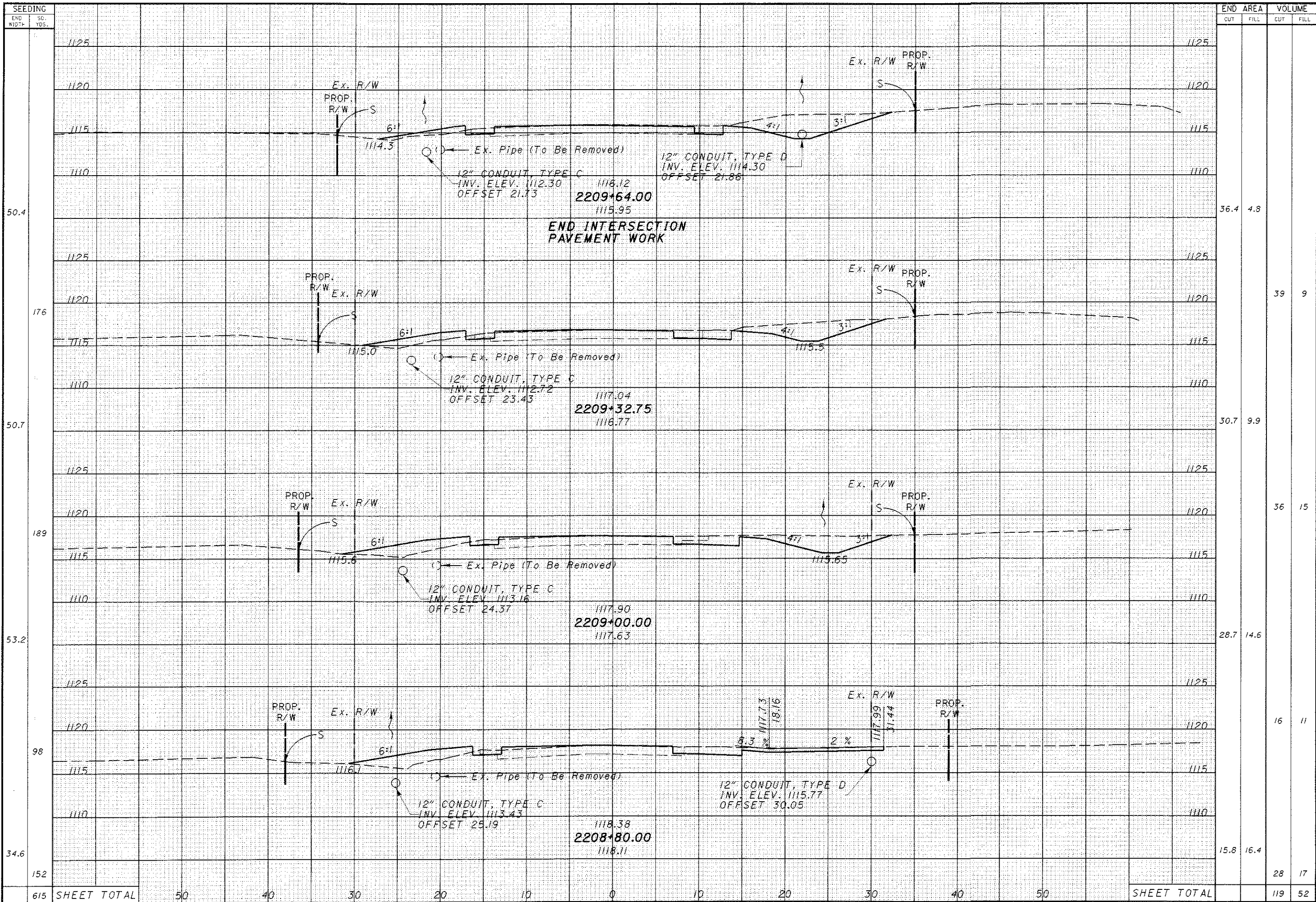
CROSS SECTIONS SR 61 (NORTH APPROACH)
 STA. 2207+80 TO STA. 2208+50

CRA-19-4.21

52
 III

CALCULATED
 RPT JPF
 CHECKED JPF

DESIGN FILE: I:\projects\16923\61-314\xs06\insht.dgn
 WORKSTATION: rtrivoli DATE: 23-OCT-2002



SEEDING	END WIDTH	SQ. YDS.	END AREA		VOLUME										
			CUT	FILL	CUT	FILL									
1125															
1120															
1115															
1110															
50.4			36.4	4.8											
1125															
1120															
1115															
1110															
50.7			30.7	9.9											
1125															
1120															
1115															
1110															
189			36	15											
1125															
1120															
1115															
1110															
53.2			28.7	14.6											
1125															
1120															
1115															
1110															
98															
1125															
1120															
1115															
1110															
34.6			15.8	16.4											
152					28	17									
615	SHEET TOTAL	50	40	30	20	10	0	10	20	30	40	50	SHEET TOTAL	119	52

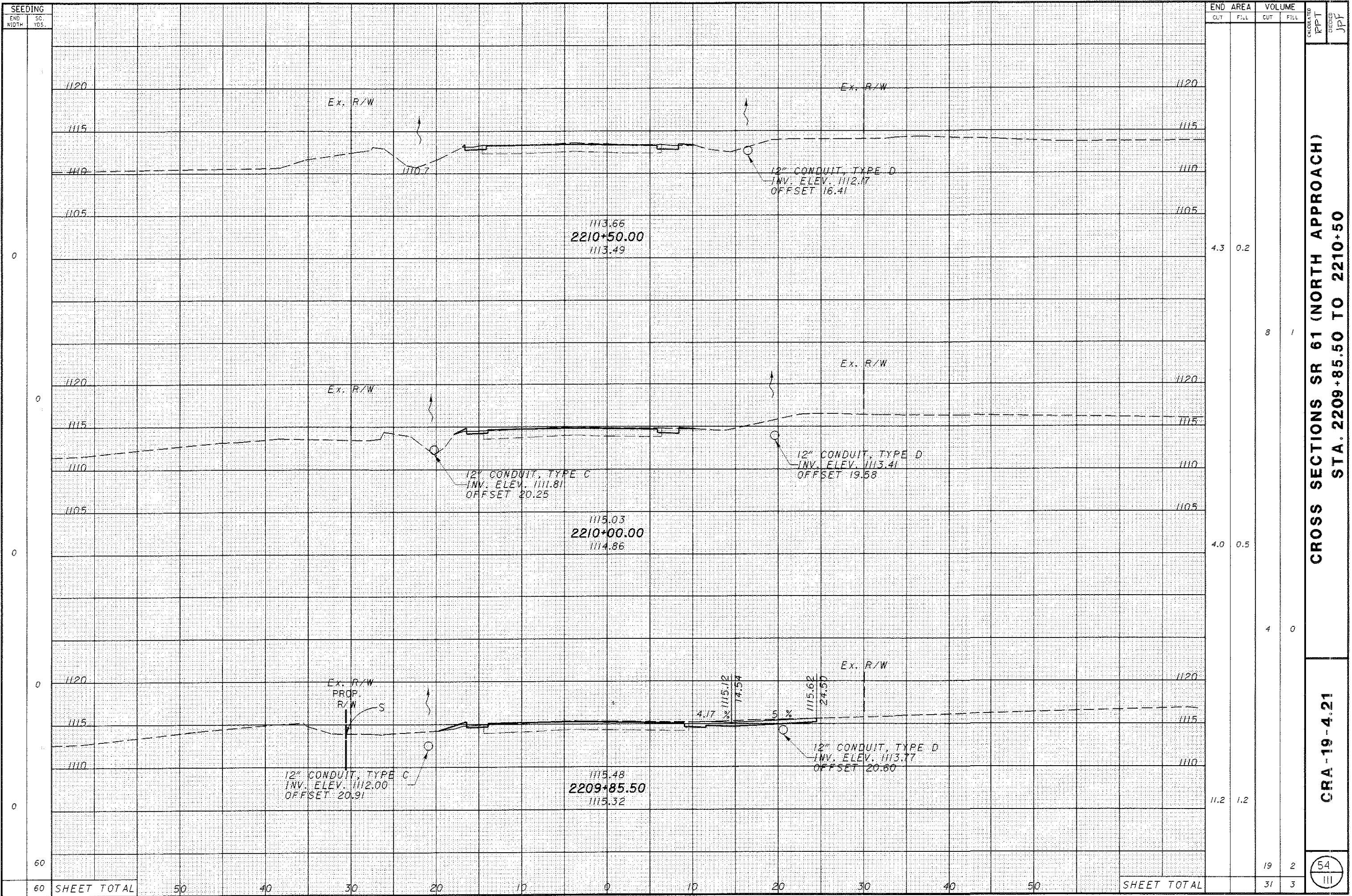
CROSS SECTIONS SR 61 (NORTH APPROACH)
 STA. 2208+80 TO STA. 2209+64

CRA-19-4.21

53
111

CALCULATED
 RPT
 CHECKED
 JPF

DESIGN FILE: I:\projects\16923\61-314\xs06\insht.dg
 WORKSTATION: rtrivoli DATE: 23-OCT-2002



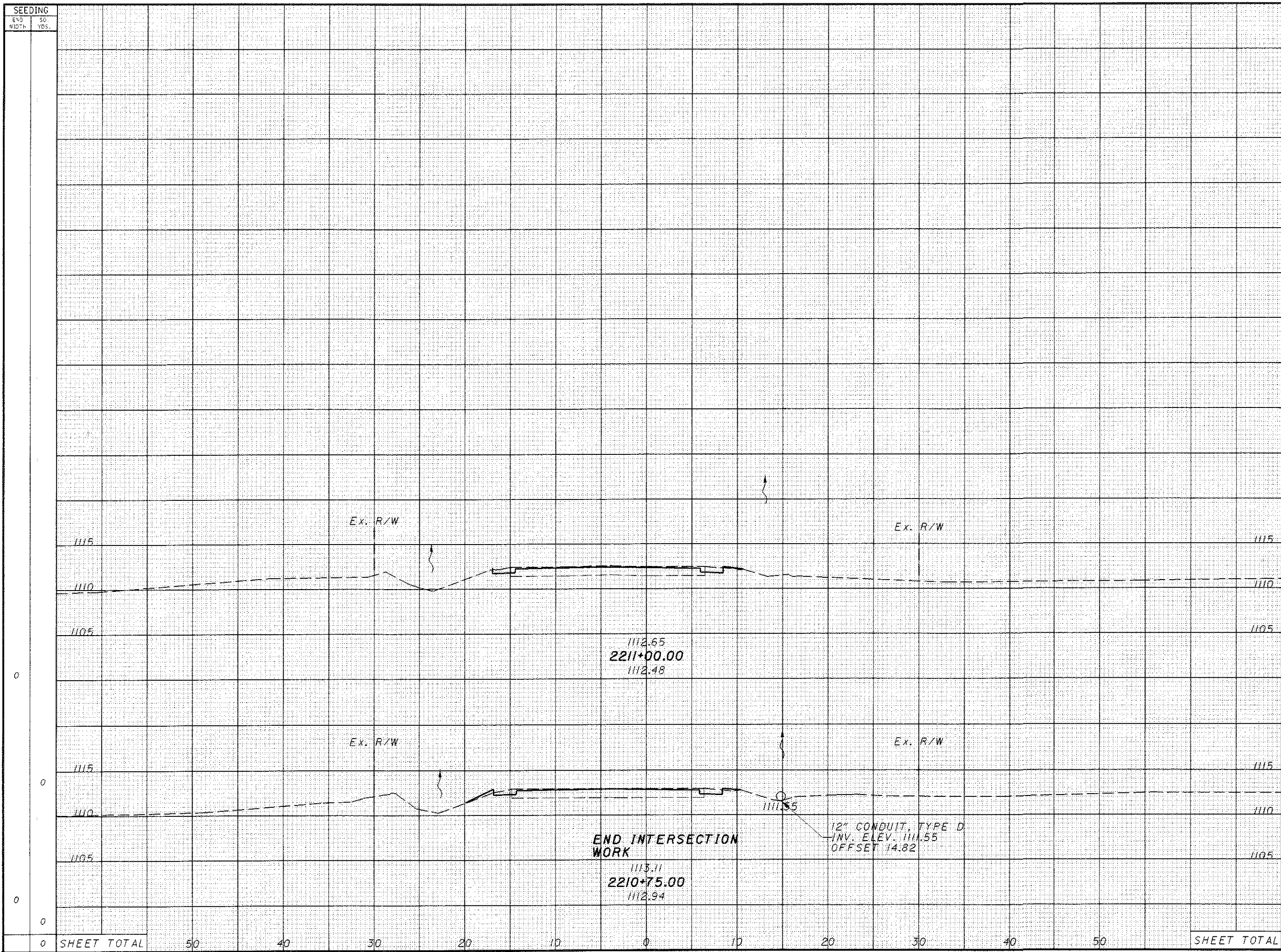
END AREA	VOLUME	CALCULATED		RPT	CRED	JPF
		CUT	FILL			
4.3	0.2					
8	1					
4.0	0.5					
4	0					
11.2	1.2					
SHEET TOTAL		19	2			
		31	3			

CROSS SECTIONS SR 61 (NORTH APPROACH)
 STA. 2209+85.50 TO 2210+50

CRA-19-4.21

54
 III

DESIGN FILE: I:\projects\16923\61-314\xs06insht.dgn
 WORKSTATION: r1r1v011 DATE: 23-OCT-2002



SEEDING												END AREA		VOLUME		CALCULATED RPT JPF	CHECKED JPF	
END WIDTH	SO. YDS.	0	10	20	30	40	50	0	10	20	30	40	50	CUT	FILL			CUT
0		50	40	30	20	10	0	10	20	30	40	50			0	0		
SHEET TOTAL												SHEET TOTAL		0	0			

CROSS SECTIONS SR 61 (NORTH APPROACH)
 STA. 2210+75 TO STA. 2211+00

CRA-19-4.21

55
 III

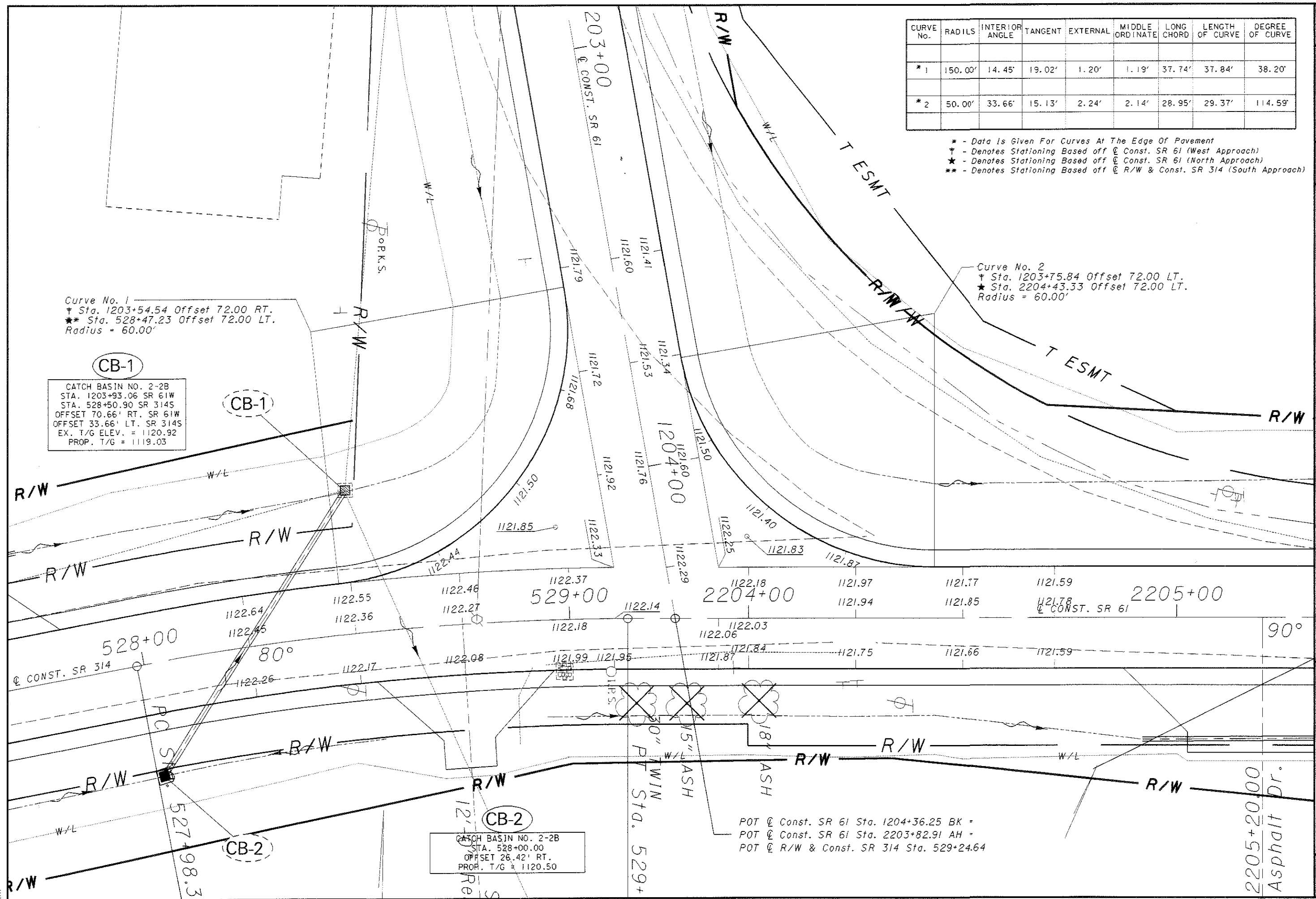


HORIZONTAL SCALE IN FEET
0 10 20

CALCULATED
CHECKED

CURVE No.	RADIALS	INTERIOR ANGLE	TANGENT	EXTERNAL	MIDDLE ORDINATE	LONG CHORD	LENGTH OF CURVE	DEGREE OF CURVE
* 1	150.00'	14.45'	19.02'	1.20'	1.19'	37.74'	37.84'	38.20'
* 2	50.00'	33.66'	15.13'	2.24'	2.14'	28.95'	29.37'	114.59'

- * - Data is Given For Curves At The Edge Of Pavement
- † - Denotes Stationing Based off @ Const. SR 61 (West Approach)
- ★ - Denotes Stationing Based off @ Const. SR 61 (North Approach)
- ** - Denotes Stationing Based off @ R/W & Const. SR 314 (South Approach)



Curve No. 1
 † Sta. 1203+54.54 Offset 72.00 RT.
 ★ Sta. 528+47.23 Offset 72.00 LT.
 Radius = 60.00'

CB-1
 CATCH BASIN NO. 2-2B
 STA. 1203+93.06 SR 61W
 STA. 528+50.90 SR 314S
 OFFSET 70.66' RT. SR 61W
 OFFSET 33.66' LT. SR 314S
 EX. T/G ELEV. = 1120.92
 PROP. T/G = 1119.03

Curve No. 2
 † Sta. 1203+75.84 Offset 72.00 LT.
 ★ Sta. 2204+43.33 Offset 72.00 LT.
 Radius = 60.00'

CB-2
 CATCH BASIN NO. 2-2B
 STA. 528+00.00
 OFFSET 26.42' RT.
 PROP. T/G = 1120.50

POT @ Const. SR 61 Sta. 1204+36.25 BK =
 POT @ Const. SR 61 Sta. 2203+82.91 AH =
 POT @ R/W & Const. SR 314 Sta. 529+24.64

INTERSECTION DETAIL
SR 61 AND SR 314

CRA-19-4.21

56
III

DESIGN FILE: I:\projects\16923\91-314\interdet.dgn
DATE: 23-OCT-2002



HORIZONTAL SCALE IN FEET
0 5 10 20

CHECKED
CALCULATED

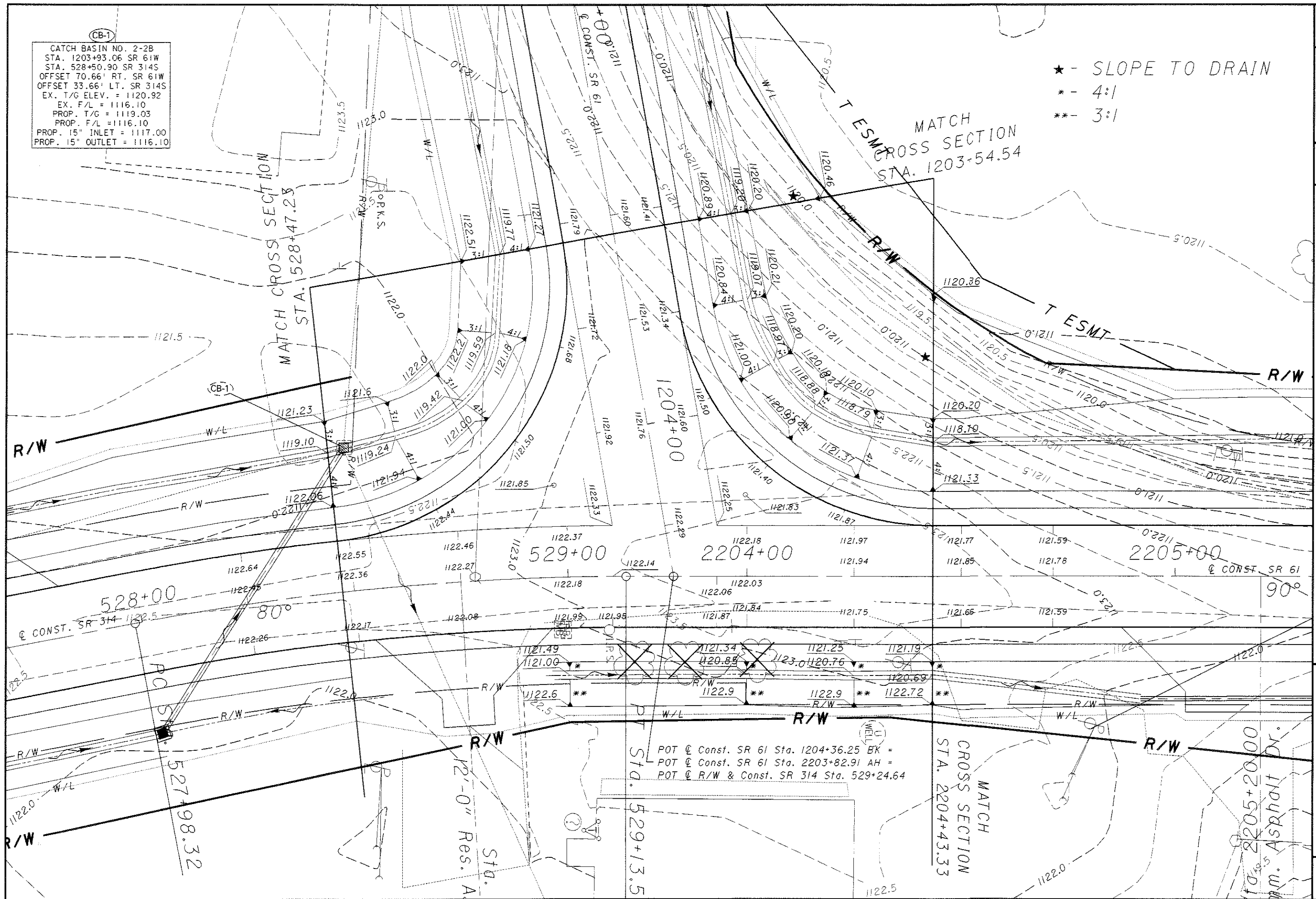
GRADING DETAIL
SR 61 AND SR 314

CRA-19-4.21

57

CB-1
CATCH BASIN NO. 2-2B
STA. 1203+93.06 SR 61W
STA. 528+50.90 SR 314S
OFFSET 70.66' RT. SR 61W
OFFSET 33.66' LT. SR 314S
EX. T/G ELEV. = 1120.92
EX. F/L = 1116.10
PROP. T/G = 1119.03
PROP. F/L = 1116.10
PROP. 15" INLET = 1117.00
PROP. 15" OUTLET = 1116.10

★ - SLOPE TO DRAIN
* - 4:1
** - 3:1



DESIGN FILE: I:\projects\16923\61-314\gradetail.dgn
DATE: 23-OCT-2002

POT @ Const. SR 61 Sta. 1204+36.25 BK =
POT @ Const. SR 61 Sta. 2203+82.91 AH =
POT @ R/W & Const. SR 314 Sta. 529+24.64

CROSS SECTION
STA. 2204+43.33
MATCH

2205+20.00
Asphalt Dr.

MATCH CROSS SECTION
STA. 528+47.23

MATCH
CROSS SECTION
STA. 1203-54.54

1204+00

529+00

2204+00

2205+00

528+00

527+98.32

529+13.5

1204+00 Res. A

2205+20.00

SUPERELEVATION TABLE - SR 314 (South Approach) & 61(North Approach)

For Curve Data, See Schematic Plan

LEFT SIDE					PROFILE CONTROL		RIGHT SIDE					REMARKS
EDGE ELEVATION	TRANSITION RATE	ELEVATION CORRECTIO N	CROSS SLOPE	WIDTH	STATION	PROFILE GRADE	WIDTH	CROSS SLOPE	ELEVATION CORRECTIO N	TRANSITION RATE	EDGE ELEVATION	
1124.05	210	-0.19	-0.0156	12	525+00.00	1124.24	12	-0.0156	-0.19		1124.05	Normal Crown
1124.01		-0.07	-0.0057		525+25.00	1124.08		-0.0156	-0.19		1123.89	
1123.99		0.00	0.0000		525+39.31	1123.99		-0.0156	-0.19		1123.80	1/2 Level
1123.97		0.05	0.0042		525+50.00	1123.92		-0.0156	-0.19		1123.73	
1123.93		0.17	0.0142		525+75.00	1123.76		-0.0156	-0.19		1123.57	
1123.92		0.19	0.0156		525+78.62	1123.73		-0.0156	-0.19	-210	1123.54	Crown Removed
1123.91		0.22	0.0183		525+85.40	1123.69		-0.0183	-0.22		1123.47	P.C. Ex. Curve 10
1123.91		0.29	0.0241		526+00.00	1123.62		-0.0241	-0.29		1123.33	
1123.92		0.41	0.0340		526+25.00	1123.51		-0.0340	-0.41		1123.10	
1123.92	210	0.44	0.0366		526+31.54	1123.48		-0.0366	-0.44	-210	1123.04	Maximum Super.
3.00		0.44	0.0366		526+50.00	1123.39		-0.0366	-0.44		1122.95	
1123.80		0.44	0.0366		526+75.00	1123.36		-0.0366	-0.44		1122.92	
1123.62	-210	0.44	0.0366		527+03.88	1123.18		-0.0366	-0.44	210	1122.74	
1123.38		0.34	0.0282		527+25.00	1123.04		-0.0282	-0.34		1122.70	
1123.09		0.22	0.0183		527+50.00	1122.87		-0.0183	-0.22		1122.65	
1123.09		0.22	0.0183		527+50.02	1122.87		-0.0183	-0.22		1122.65	P.T. Ex. Curve 10
1123.02	-210	0.19	0.0156		527+56.80	1122.83		-0.0156	-0.19	210	1122.64	Crown Removed
1122.90		0.19	0.0156		527+75.00	1122.71		-0.0156	-0.19		1122.52	
1122.74		0.19	0.0156		527+98.32	1122.55		-0.0156	-0.19		1122.36	P.C. Ex. Curve 11
1122.73		0.19	0.0156		528+00.00	1122.54		-0.0156	-0.19		1122.35	
1122.64		0.19	0.0156		528+25.00	1122.45		-0.0156	-0.19		1122.26	
1122.55		0.19	0.0156		528+50.00	1122.36		-0.0156	-0.19		1122.17	
1122.46		0.19	0.0156		528+75.00	1122.27		-0.0156	-0.19		1122.08	
1122.37		0.19	0.0156		529+00.00	1122.18		-0.0156	-0.19		1121.99	
1122.33		0.19	0.0156		529+10.41	1122.14		-0.0156	-0.19		1121.95	See Intersection Detail
1122.32		0.19	0.0156		529+13.58	1122.13		-0.0156	-0.19		1121.94	P.T. Ex. Curve 11
1122.28		0.19	0.0156		529+24.64	1122.09		-0.0156	-0.19		1121.90	End S.R. 314
1122.28		0.19	0.0156		2203+82.91	1122.09		-0.0156	-0.19		1121.90	Begin Sr. 61
1122.25	-210	0.19	0.0156		2203+92.98	1122.06		-0.0156	-0.19		1121.87	C.R. See Inter. Detail
1122.18		0.15	0.0128		2204+00.00	1122.03		-0.0156	-0.19		1121.84	
1121.97		0.03	0.0029		2204+25.00	1121.94		-0.0156	-0.19		1121.75	
1121.92		0.00	0.0000		2204+32.29	1121.92		-0.0156	-0.19		1121.73	1/2 Level
1121.77		-0.08	-0.0070		2204+50.00	1121.85		-0.0156	-0.19		1121.66	
1121.59	-210	-0.19	-0.0156	12	2204+71.60	1121.78	12	-0.0156	-0.19		1121.59	Normal Crown

SUPERELEVATION TABLE - 61(West Approach)

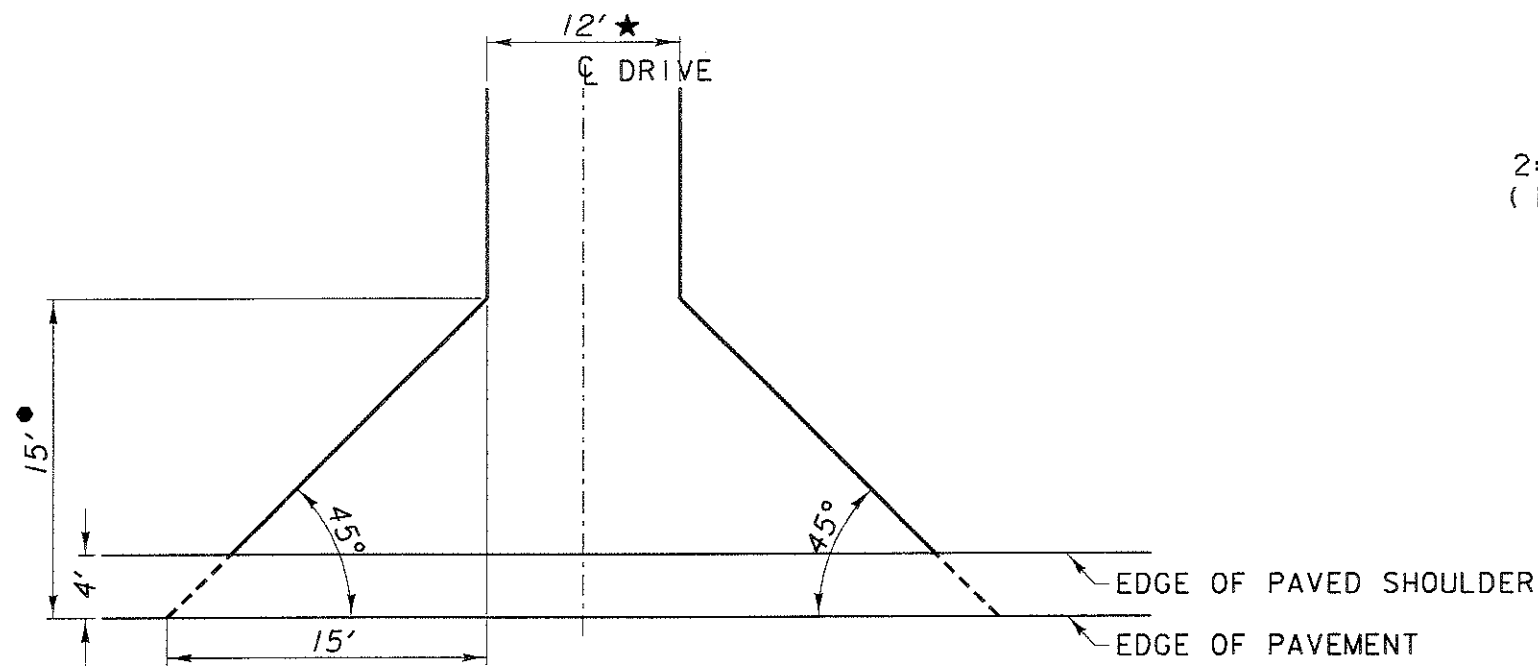
For Curve Data, See Schematic Plan

LEFT SIDE					PROFILE CONTROL		RIGHT SIDE					REMARKS
EDGE ELEVATION	TRANSITION RATE	ELEVATION CORRECTIO N	CROSS SLOPE	WIDTH	STATION	PROFILE GRADE	WIDTH	CROSS SLOPE	ELEVATION CORRECTIO N	TRANSITION RATE	EDGE ELEVATION	
1122.55		-0.19	-0.0156	12	200+71.38	1122.74	12	-0.0156	-0.19	210	1122.55	Normal Crown
1122.53		-0.19	-0.0156		200+75.00	1122.72		-0.0142	-0.17		1122.55	
1122.43		-0.19	-0.0156		201+00.00	1122.62		-0.0042	-0.05		1122.57	
1122.39		-0.19	-0.0156		201+10.69	1122.58		0.0000	0.00		1122.58	1/2 Level
1122.33		-0.19	-0.0156		201+25.00	1122.52		0.0057	0.07		1122.59	
1122.23		-0.19	-0.0156		201+50.00	1122.42		0.0156	0.19		1122.61	P.C. Curve 21
1122.23		-0.19	-0.0156		1201+50.00	1122.42		0.0156	0.19		1122.61	P.C. Curve 21
1122.00	-210	-0.31	-0.0255		1201+75.00	1122.31		0.0255	0.31		1122.62	
1121.91	-210	-0.36	-0.0300		1201+86.29	1122.27		0.0300	0.36	210	1122.63	Maximum Super.
1121.85		-0.36	-0.0300		1202+00.00	1122.21		0.0300	0.36		1122.57	
1121.75		-0.36	-0.0300		1202+25.00	1122.11		0.0300	0.36		1122.47	
1121.65		-0.36	-0.0300		1202+50.00	1122.01		0.0300	0.36		1122.37	
1121.54		-0.36	-0.0300		1202+75.00	1121.90		0.0300	0.36		1122.26	
1121.50	210	-0.36	-0.0300		1202+85.56	1121.86		0.0300	0.36	-210	1122.22	P.T. Curve 21
1121.51	210	-0.29	-0.0243		1203+00.00	1121.80		0.0243	0.29	-210	1122.09	
1121.52		-0.19	-0.0156		1203+21.85	1121.71		0.0156	0.19		1121.90	
1121.51		-0.19	-0.0156		1203+25.00	1121.70		0.0156	0.19		1121.89	
1121.41		-0.19	-0.0156		1203+50.00	1121.60		0.0156	0.19		1121.79	
1121.34		-0.19	-0.0156		1203+75.00	1121.53		0.0156	0.19		1121.72	
1121.48	210	-0.19	-0.0156		1203+93.75	1121.67		0.0156	0.19	-210	1121.86	Crown Removed
1121.60		-0.16	-0.0131		1204+00.00	1121.76		0.0131	0.16	-210	1121.92	
1121.97		-0.09	-0.0073		1204+14.66	1122.06		0.0073	0.09		1122.15	Match Cross Slope
1122.13		-0.06	-0.0052		1204+20.00	1122.19		0.0073	0.09		1122.28	
1122.19		-0.05	-0.0044		1204+21.96	1122.24	12	0.0073	0.09		1122.33	
1122.25	210	-0.04	-0.0036	12	1204+24.07	1122.29						
1122.25					1204+26.18	1122.26						

CALC BY: RPT
CHKD BY: MJS

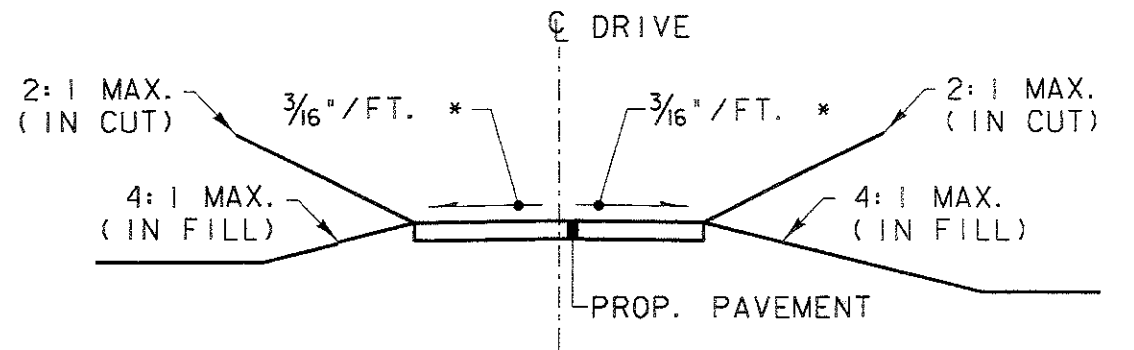
SUPERELEVATION TABLE

CRA-19-4.21



- FOR DETAILS NOT SHOWN, SEE STD. DRAWING BP-4.1
- ★ ACTUAL DIMENSIONS SHOWN ON THE PLANS
- UNLESS NOTED OTHERWISE ON THE PLANS

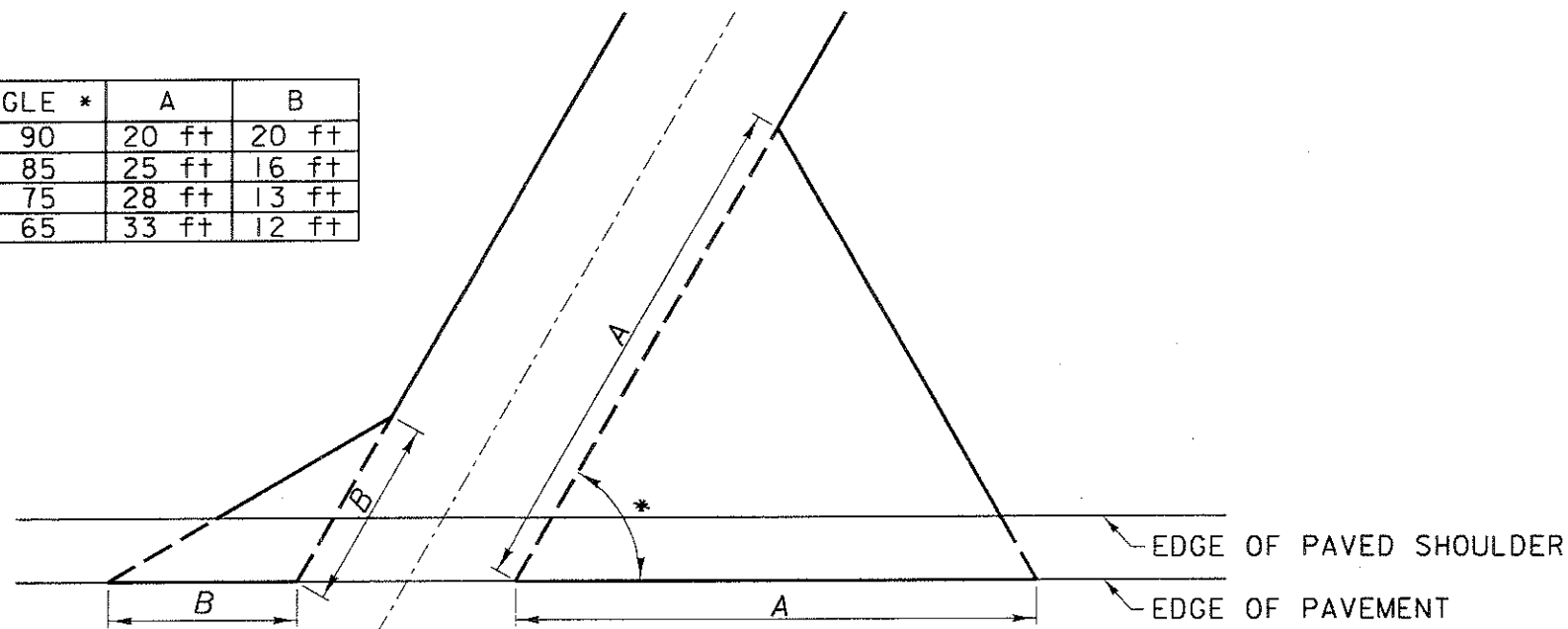
PLAN VIEW



* $\frac{3}{8}$ " / FT. CROSS SLOPE FOR AGGREGATE DRIVES

TYPICAL SECTION

SKEW ANGLE *	A	B
85 to 90	20 ft	20 ft
75 to 85	25 ft	16 ft
65 to 75	28 ft	13 ft
55 to 65	33 ft	12 ft



FOR DETAILS NOT SHOWN, SEE STD. DRAWING BP-4.1

SKEWED DRIVEWAY

COMMERCIAL DRIVE BUILDUP

- Ⓐ 8" - ITEM 452, PLAIN CONCRETE PAVEMENT
- OR
- Ⓑ $1\frac{1}{2}$ " - ITEM 448, ASPHALT CONCRETE SURFACE COURSE, TYPE 1, PG 64-22 (DRIVEWAYS)
- $4\frac{3}{4}$ " - ITEM 301, BITUMINOUS AGGREGATE BASE, PG 64-22

RESIDENTIAL DRIVE BUILDUP

- Ⓐ 6" - ITEM 452, PLAIN CONCRETE PAVEMENT
- OR
- Ⓑ $1\frac{1}{2}$ " - ITEM 448, ASPHALT CONCRETE SURFACE COURSE, TYPE 1, PG 64-22 (DRIVEWAYS)
- $3\frac{3}{4}$ " - ITEM 301, BITUMINOUS AGGREGATE BASE, PG 64-22

FIELD DRIVE BUILDUP

- Ⓐ 6" - ITEM 304, AGGREGATE BASE

DESIGN FILE: I:\projects\16923\61-314\drivedet.dgn
DATE: 10/22/02

CALCULATED
CHECKED

DRIVE DETAILS

CRA-19-4.21

DESIGN FILE: I:\projects\16923\Structure\equon.dgn
 WORKSTATION: dmcllens DATE: 10/29/02

BRIDGE NUMBER CRA-19-0845 SFN 1700529

ITEM	EXTENSION	QUANTITY	UNIT	DESCRIPTION
SPECIAL	51631300	80	LIN. FT.	POLYMER MODIFIED ASPHALT EXPANSION JOINT SYSTEM (4 IN. THICK)
864	10100	40	SO. YD.	SEALING OF CONCRETE SURFACES (EPOXY-URETHANE)

BRIDGE NUMBER CRA-19-1080 SFN 1700553

ITEM	EXTENSION	QUANTITY	UNIT	DESCRIPTION
864	10100	23	SO. YD.	SEALING OF CONCRETE SURFACES (EPOXY-URETHANE)

BRIDGE NUMBER CRA-61-0769 SFN 1702092

ITEM	EXTENSION	QUANTITY	UNIT	DESCRIPTION
SPECIAL	51273500	2856	SO. YD.	TREATING CONCRETE BRIDGE DECKS WITH GRAVITY FED RESIN

DESIGN AGENCY: DISTRICT THREE
 DATE: 10-25-02
 REVIEWED: DCM
 OWNER: KAW
 DESIGNED: KAW
 CHECKED: RDN
 STRUCTURE SUMMARY
 CRA-19-4.21
 60

BRIDGE NUMBER CRA-61-0893 SFN 1702114

ITEM	EXTENSION	QUANTITY	UNIT	DESCRIPTION
SPECIAL	51273500	352	SO. YD.	TREATING CONCRETE BRIDGE DECKS WITH GRAVITY FED RESIN
864	10100	54	SO. YD.	SEALING OF CONCRETE SURFACES (EPOXY-URETHANE)

BRIDGE NUMBER CRA-61-1064 SFN 1702130

ITEM	EXTENSION	QUANTITY	UNIT	DESCRIPTION
202	11300	5	CU. YD.	PORTIONS OF STRUCTURE REMOVED (ABUTMENT BACKWALL)
202	11304	175	SO. YD.	PORTIONS OF STRUCTURE REMOVED (TIMBER DECK)
202	38501	112.50	LIN. FT.	BRIDGE RAILING REMOVED, AS PER PLAN
301	46001	9	CU. YD.	BITUMINOUS AGGREGATE BASE, PG 64-22, AS PER PLAN
304	20000	9	CU. YD.	AGGREGATE BASE
503	21100	28	CU. YD.	UNCLASSIFIED EXCAVATION
517	70000	105.42	LIN. FT.	RAILING (TWIN STEEL TUBE)
518	21100	11	CU. YD.	POROUS BACKFILL
SPECIAL	51822300	109	LIN. FT.	STEEL DRIP STRIP
844	48001	69	CU. YD.	HIGH PERFORMANCE CONCRETE SUPERSTRUCTURE (DECK), AS PER PLAN
844	49000	LUMP		HIGH PERFORMANCE CONCRETE TRIAL MIX
864	10100	44	SO. YD.	SEALING OF CONCRETE SURFACES (EPOXY-URETHANE)

BRIDGE NUMBER RIC-61-0346 SFN 7003129

ITEM	EXTENSION	QUANTITY	UNIT	DESCRIPTION
SPECIAL	51631300	70	LIN. FT.	POLYMER MODIFIED ASPHALT EXPANSION JOINT SYSTEM (4 IN. THICK)
864	10100	58	SO. YD.	SEALING OF CONCRETE SURFACES (EPOXY-URETHANE)

DESIGN FILE: I:\projects\16923\struct\equan.dgn
 WORKSTATION: dmilfens DATE: 11/12/02

DESIGN AGENCY
 DISTRICT THREE

DATE
 10-25-02
 DCN

OWNER
 KAW
 CHECKED
 RDN

STRUCTURE SUMMARY

CRA-19-4.2I

61
 III

REFERENCES SHALL BE MADE TO STANDARD DRAWINGS:

BP-3.1	DATED	7/28/00
DS-1-92	DATED	7/19/02
TST-1-99	DATED	7/19/02
MT-97.10	DATED	4/19/02
MT-101.60M	DATED	4/25/94

AND TO SUPPLEMENTAL SPECIFICATIONS:

842	DATED	1/6/99	899	DATED	10/21/98
844	DATED	1/6/99	911	DATED	7/10/97
863	DATED	10/12/99	954	DATED	9/9/97
864	DATED	7/11/00			

EXISTING STRUCTURE VERIFICATION:

DETAILS AND DIMENSIONS SHOWN ON THESE PLANS PERTAINING TO THE EXISTING STRUCTURES HAVE BEEN OBTAINED FROM PLANS OF THE EXISTING STRUCTURES AND FROM FIELD OBSERVATION AND MEASUREMENTS. CONSEQUENTLY, THEY ARE INDICATIVE OF THE EXISTING STRUCTURES AND THE PROPOSED WORK BUT THEY SHALL BE CONSIDERED TENTATIVE AND APPROXIMATE. THE CONTRACTOR IS REFERRED TO CMS SECTIONS 102.05, 105.02 AND 513.02. THE ORIGINAL CONSTRUCTION PLANS OF THE EXISTING BRIDGES (EXCEPT CRA-61-1064) ARE AVAILABLE UPON REQUEST AT THE DISTRICT 3 OFFICE OF THE OHIO DEPARTMENT OF TRANSPORTATION, ASHLAND, OHIO.

CONTRACT BID PRICES SHALL BE BASED UPON A RECOGNITION OF THE UNCERTAINTIES DESCRIBED ABOVE AND UPON A PRE-BID EXAMINATION OF THE EXISTING STRUCTURES BY THE CONTRACTOR. HOWEVER, ALL PROJECT WORK SHALL BE BASED ON ACTUAL DETAILS AND DIMENSIONS WHICH HAVE BEEN VERIFIED BY THE CONTRACTOR IN THE FIELD.

DESIGN DATA:

HIGH PERFORMANCE CONCRETE COMPRESSIVE STRENGTH - 4500 PSI
 STRUCTURAL STEEL TUBING: ASTM A 500 GRADE B - YIELD STRENGTH 46 ksi
 STRUCTURAL STEEL PLATES SHAPES: ASTM A 572 YIELD STRENGTH 50 ksi
 REINFORCING STEEL - ASTM A615, A616, A617 - GRADE 60 MINIMUM
 YIELD STRENGTH 60,000 PSI

MONOLITHIC WEARING SURFACE IS ASSUMED, FOR DESIGN PURPOSES, TO BE 1 INCH THICK

DECK PROTECTION METHOD: EPOXY COATED REINFORCING STEEL
 2 1/2" CONCRETE COVER

DESIGN SPECIFICATIONS:

THIS STRUCTURE CONFORMS TO "STANDARD SPECIFICATIONS FOR HIGHWAY BRIDGES" ADOPTED BY THE AMERICAN ASSOCIATION OF STATE HIGHWAY AND TRANSPORTATION OFFICIALS, 1996 INCLUDING THE 1997, 1998, 1999, AND 2000 INTERIM SPECIFICATIONS, AND THE ODOT BRIDGE DESIGN MANUAL.

PLACING ASPHALT CONCRETE FEATHERING ON APPROACHES TO BRIDGES:

SPECIAL CARE SHALL BE TAKEN, WHEN PLACING THE ASPHALT CONCRETE FEATHERING TO EFFECT A SMOOTH TRANSITION FROM THE EXISTING APPROACH PAVEMENT TO THE BRIDGE DECK OR APPROACH SLAB. THE CONTRACTOR'S ATTENTION IS CALLED TO SECTION 404.16 OF THE CMS AND TO STANDARD DRAWING BP-3.1 FOR REQUIRED TOLERANCES.

STRUCTURE PROTECTION:

THE EXISTING EXPANSION JOINTS SHALL BE PROTECTED. NO EPOXY-URETHANE SEALER OR GRAVITY FED RESIN SHALL BE ALLOWED TO COME INTO CONTACT WITH THE EXPANSION JOINT SEALS. IF ANY OF THE ABOVE COMES INTO CONTACT WITH THE EXPANSION JOINT SEALS, THE CONTRACTOR SHALL REPLACE THE EXPANSION JOINT SEALS TO THE SATISFACTION OF THE STATE, AT NO COST TO THE STATE.

ITEM 202 - PORTIONS OF STRUCTURE REMOVED (TIMBER DECK)

THIS ITEM SHALL BE USED AT LOCATIONS INDICATED IN THE PLAN TO REMOVE THE EXISTING TIMBER BRIDGE DECK. THE REMOVAL SHALL INCLUDE REMOVAL OF THE TIMBER DECK, THE ASPHALT WEARING SURFACE AND THE ABUTMENT BACKWALL. REMOVAL OF THE EXISTING BEAM CONNECTIONS IS INCIDENTAL TO THIS ITEM.

CARE SHALL BE TAKEN NOT TO DAMAGE THE PORTIONS OF EXISTING STRUCTURE TO REMAIN IN PLACE DURING THE REMOVAL OPERATIONS.

PAYMENT FOR ALL THE ABOVE SHALL BE AT THE UNIT PRICE BID PER SQUARE YARD FOR ITEM 202 - PORTIONS OF STRUCTURE REMOVED WHICH SHALL INCLUDE ALL LABOR, EQUIPMENT, MATERIALS, AND INCIDENTALS NECESSARY TO COMPLETE THE ABOVE WORK.

ITEM 202 - BRIDGE RAILING REMOVED, AS PER PLAN:

THIS ITEM SHALL BE USED AT LOCATIONS INDICATED IN THE PLAN.

THIS ITEM SHALL BE USED TO REMOVE THE EXISTING TYPE I STEEL POSTS, POST CONNECTIONS, AND DEEP BEAM RAIL, AS SHOWN IN THE PLAN. THESE ITEMS SHALL BECOME THE PROPERTY OF THE CONTRACTOR.

CARE SHALL BE TAKEN NOT TO DAMAGE THE PORTIONS OF EXISTING STRUCTURE TO REMAIN IN PLACE DURING THE REMOVAL OPERATIONS.

PAYMENT FOR ALL OF THE ABOVE SHALL BE AT THE UNIT PRICE BID PER LIN.FT. FOR ITEM 202 - BRIDGE RAILING REMOVED, AS PER PLAN WHICH SHALL INCLUDE ALL LABOR, EQUIPMENT, MATERIALS AND INCIDENTALS NECESSARY TO COMPLETE THE ABOVE WORK.

(CONTINUED)

DESIGN FILE: i:\projects\16923\struct\gnote.dgn
 WORKSTATION: dmiller DATE: 10/29/02

DESIGN AGENCY
 DISTRICT THREE

DATE
 10-25-02
 REVIEWED
 DCN

DRAWN
 KAW
 REVIEWED

CHECKED
 KAW
 RDN

STRUCTURE GENERAL NOTES

CRA-19-4.21

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 III

(CONTINUED)

ITEM SPECIAL - TREATING CONCRETE BRIDGE DECKS WITH GRAVITY FED RESIN

THIS ITEM SHALL BE USED AT LOCATIONS INDICATED IN THE PLAN.

THIS ITEM SHALL CONSIST OF FURNISHING THE NECESSARY LABOR, MATERIALS, AND EQUIPMENT NEEDED FOR SURFACE PREPARATION, MIXING, AND PLACING THE SEAL ON THE ENTIRE DECK. THE SEAL SHALL BE AS PER PROPOSAL NOTE "TREATING CONCRETE BRIDGE DECKS WITH GRAVITY FED RESIN".

PAYMENT FOR ALL OF THE ABOVE SHALL BE AT THE UNIT PRICE BID PER SQUARE YARD FOR ITEM SPECIAL - TREATING CONCRETE BRIDGE DECKS WITH GRAVITY FED RESIN WHICH SHALL INCLUDE ALL LABOR, EQUIPMENT, MATERIALS, AND INCIDENTALS NECESSARY TO COMPLETE THE ABOVE WORK.

ITEM 844 - HIGH PERFORMANCE CONCRETE, AS PER PLAN:

THIS ITEM SHALL BE USED AT LOCATIONS INDICATED IN THE PLAN.

THE DESIGN MIX SHALL BE MIX NO. 4. COARSE AGGREGATE SHALL BE LIMESTONE. CURING SHALL BE PER METHOD (A) WATER CURE ONLY.

THE TWO INCH (2") DIAMETER HOLES IN THE ENDS OF THE EXISTING STEEL BEAMS, SHALL BE DRILLED AT THE LOCATIONS SHOWN. BURNING OR CUTTING, HOLES IN THE EXISTING BEAMS SHALL NOT BE ALLOWED.

PAYMENT FOR ALL OF THE ABOVE SHALL BE AT THE UNIT PRICE BID PER CU.YD. FOR ITEM 844 - HIGH PERFORMANCE CONCRETE, AS PER PLAN WHICH SHALL INCLUDE ALL LABOR, EQUIPMENT, MATERIALS AND INCIDENTALS NECESSARY TO COMPLETE THE ABOVE WORK.

DESIGN FILE: i:\projects\6923\Struct\gnote.dgn
WORKSTATION: dmollens DATE: 10/29/02

DESIGNED KAW	CHECKED KAW	REVIEWED	DATE
		DCM	10-25-02
DESIGNED KAW	CHECKED KAW	REVIEWED	DATE
		DCM	10-25-02
STRUCTURE GENERAL NOTES			
CRA-19-4.2I			
63 ///			
DESIGN AGENCY DISTRICT THREE			

BRIDGE DECK DATA								ROADWAY DATA		
PART	COUNTY, ROUTE, BRIDGE NO.	STRUCTURE TYPE	LENGTH (BRIDGE LIMITS)	WIDTH	BRIDGE DECK AREA	SKEW	EXISTING WEARING SURFACE	EXISTING PAVEMENT WIDTH	EXISTING APPROACH SLAB WIDTH	EXISTING APPROACH SLAB LENGTH
			LIN.FT.	LIN.FT.	SO.YD.			LIN.FT.	LIN.FT.	LIN.FT.
A	+ CRA-19-0613	3 - SIDED CONCRETE CULVERT				0°	ASPHALT	24		
A	+ CRA-19-0622	3 - SIDED CONCRETE CULVERT				5° R.F.	ASPHALT	24		
A	++ CRA-19-0845	SINGLE-SPAN PRESTRESSED BEAM	43.2	40	192.0	0°	ASPHALT	24	40	15
A	+++ CRA-19-1080	SINGLE-SPAN PRESTRESSED BEAM	41.2	40	183.1	0°	ASPHALT	24	40	15
B	* CRA-61-0769	4- SPAN STEEL BEAM	434.2	52	2508.7	8° 45' L.F.	CONCRETE	52	52	30
B	** CRA-61-0893	SINGLE- SPAN CONCRETE SLAB	39.9	40.7	180.4	28° R.F.	CONCRETE	24	38.6	20
C	*** CRA-61-1064	SINGLE- SPAN STEEL BEAM	46.3	36.3	186.7	0°	ASPHALT	24		
D	++ RIC-61-0346	2-SPAN PRESTRESSED BEAM	78.9	32	280.5	23° 30' L.F.	ASPHALT	22	32	20
D	**** RIC-61-0481	2-SPAN PRESTRESSED BEAM	57	40	253.3	15° R.F.	CONCRETE	23	40	20

+ PAVE OVER (NO STRUCTURE WORK. SEE ROADWAY PLANS FOR GUARDRAIL WORK.)

++ PLANE THE ASPHALT ON THE BRIDGE AND APPROACH SLABS FULL WIDTH 1.25 IN. DEEP AND PLANE 80 FT. ON BOTH APPROACHES. PAVE OVER WITH SURFACE COURSE ONLY (1.25 IN. THICK). (SEE DETAILS IN THE PLAN FOR STRUCTURE WORK. SEE ROADWAY PLANS FOR GUARDRAIL WORK.)

CRA-19-0845 ITEM 254 - PAVEMENT PLANING, BITUMINOUS: 752 SQUARE YARDS (CARRIED TO GENERAL SUMMARY, SHEET NO. 3)

RIC-61-0346 ITEM 254 - PAVEMENT PLANING, BITUMINOUS: 814 SQUARE YARDS (CARRIED TO GENERAL SUMMARY, SHEET NO. 3)

+++ PAVE OVER STRUCTURE WITH TOP COURSE ONLY AND FEATHER INTERMEDIATE COURSE AT APPROACH SLABS. (SEE DETAILS IN THE PLAN FOR STRUCTURE WORK. SEE ROADWAY PLANS FOR GUARDRAIL WORK.)

* PLANING IS INCLUDED WITH THE ROADWAY QUANTITIES. OMIT RESURFACING ON THE BRIDGE DECK, BUTT JOINT AT THE APPROACH SLABS (SEE DETAILS IN THE PLAN FOR STRUCTURE WORK.)

** PLANE 100 FT. ON BOTH APPROACHES. OMIT RESURFACING ON THE BRIDGE DECK, BUTT JOINT AT THE APPROACH SLABS. (SEE DETAILS IN THE PLAN FOR STRUCTURE WORK. SEE ROADWAY PLANS FOR GUARDRAIL WORK)

ITEM 254 - PAVEMENT PLANING, BITUMINOUS: 534 SQUARE YARDS (CARRIED TO GENERAL SUMMARY, SHEET NO. 3)

*** THE EXISTING DECK WILL BE REPLACED. (SEE DETAILS IN THE PLAN FOR STRUCTURE WORK. SEE ROADWAY PLANS FOR ADDITIONAL WORK.)

**** PLANE 100 FT. ON BOTH APPROACHES. OMIT RESURFACING ON THE BRIDGE DECK, BUTT JOINT AT THE APPROACH SLABS (NO STRUCTURE WORK. SEE ROADWAY PLANS FOR GUARDRAIL WORK.)

ITEM 254 - PAVEMENT PLANING, BITUMINOUS: 512 SQUARE YARDS (CARRIED TO GENERAL SUMMARY, SHEET NO. 3)

GENERAL NOTES AND DETAILS FOR POLYMER MODIFIED ASPHALT EXPANSION JOINT SYSTEM

ITEM SPECIAL - POLYMER-MODIFIED ASPHALT EXPANSION JOINT SYSTEM

THIS ITEM WILL BE USED TO SEAL THE EXPANSION/CONTRACTION JOINTS AS PER THESE DETAILS AND THE MANUFACTURER'S REQUIREMENTS USING A POLYMER-MODIFIED ASPHALT SYSTEM. THE PRIME CONTRACTOR WILL OBTAIN THE SERVICES OF ONE OF THE FOLLOWING APPROVED APPLICATORS WHO WILL FURNISH AND INSTALL THE NEW BRIDGE EXPANSION JOINT SYSTEM AFTER ALL PAVING ON THE AFFECTED BRIDGE(S) HAS BEEN COMPLETED.

D.S. BROWN COMPANY P.O. BOX 158 300 E. CHERRY STREET N. BALTIMORE, OH 45872-0158 TEL: (419) 257-3561	LINEAR DYNAMICS, INC. RD #2 BOX 311 MUNCY, PA 17756 TEL: (717) 546-6041	INFRASTRUCTURE SYSTEMS, INC. 830 E. HIGGINS ROAD SUITE 111M CHICAGO, IL 60713-4792 TEL: (708) 706-9230
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HARRIS SPECIALTY CHEMICALS, INC.
10245 CENTURION PARKWAY, N.
JACKSONVILLE, FL 32256
TEL: (904) 996-6000

MATERIALS:

BRIDGING PLATE:

MILD STEEL $\frac{1}{8}$ " OR $\frac{1}{4}$ " THICK PLATE, 8" WIDE OR 18 GAUGE ALUMINUM, 8" WIDE.

BINDER:

TYPE: POLYMER MODIFIED ASPHALT
SOFTENING POINT: 180 DEGREES F. MIN.
FLOW: 3 mm. MAX. AT 140 DEGREES F.
PENETRATION: 9 mm. MAX. AT 77 DEGREES F.
1 mm. MIN AT 0 DEGREES F.
ASTM D 3407
DUCTILITY: 40 cm. MIN. ASTM D 113
RESILIENCE: 60% MIN. AT 77 DEGREES F.
TENSILE ADHESION: 700% MIN.
SPECIFIC GRAVITY: 1.10 ± 0.05
POURING TEMP: 350 - 390 DEGREES F.

AGGREGATE:

TYPE: CRUSHED, DOUBLE WASHED, AND DRIED GRANITE OR BASALT

GRADATION

THE GRADATION OF THE AGGREGATE VARIES BY MANUFACTURER AND WILL BE AS PER THE MANUFACTURER'S RECOMMENDATIONS FOR THE SYSTEM BEING USED ON THIS PROJECT.

BACKER ROD:

THE BACKER SHALL BE A CLOSED CELL FOAM EXPANSION JOINT FILLER CAPABLE OF WITHSTANDING THE PLACEMENT TEMPERATURE OF THE POLYMER MODIFIED ASPHALT.

NOTE: PRIOR TO PLACEMENT OF ANY PORTION OF THE JOINT SYSTEM, THE PROJECT ENGINEER MUST HAVE CERTIFIED TEST DATA MEETING ALL THE MINIMUM REQUIREMENTS OF ALL THE MATERIALS OF THE JOINT SYSTEM.

INSTALLATION PROCEDURES:

SAWING AND SURFACE PREPARATION:

AFTER ALL PAVING OPERATIONS ARE COMPLETE, THE OVERLAY IS TO BE TRANSVERSELY SAW CUT FULL DEPTH NO LESS THAN TWO INCHES DEEP (20" CENTERED OVER JOINT OPENING, UNLESS OTHERWISE NOTED). REMOVE ALL MATERIAL, INCLUDING WATER-PROOFING MATERIAL, BETWEEN SAW CUTS. THOROUGHLY CLEAN AND DRY EXPOSED CONCRETE, STEEL, AND CUT SURFACES USING COMPRESSED AIR AND A HOT COMPRESSED AIR (HCA) LANCE. THE LANCE MUST PRODUCE A FLAME RETARDED AIR STREAM TEMPERATURE OF 3000 DEGREES F. AT A VELOCITY OF 3,000 FEET PER

SECOND WITH 15 PSIG CHAMBER PRESSURE. IF THERE IS AN INTERRUPTION DUE TO WEATHER OR OTHER CAUSES, THE OPERATION WILL BE REPEATED WITH THE HCA LANCE IMMEDIATELY BEFORE THE BINDER COAT OPERATION. ALSO, 6 INCHES OF THE ROAD SURFACE ON EITHER SIDE OF THE JOINT WILL BE DRIED SO THAT A SUITABLE SURFACE FOR BITUMEN ADHESION IS OBTAINED.

SEALING OF EXPANSION JOINT: (PRE-STRESSED BOX OR CONCRETE SLAB)

THE EXPANSION JOINT GAP IS TO BE SEALED AND A BRIDGING PLATE CENTERED ALONG IT. A VERY NARROW GAP WILL BE SEALED BY POURING HOT BINDER INTO THE GAP. GAPS OF $\frac{1}{8}$ " OR MORE WILL FIRST BE FILLED WITH AN APPROPRIATELY SIZED BACKER ROD. THE BACKER ROD WILL BE INSTALLED SO THAT IT IS BETWEEN $\frac{1}{8}$ " AND 1-1/8" BELOW THE TOP OF THE EXISTING GAP. THE GAP WILL THEN BE FILLED WITH BINDER.

BOND BREAKER:

SPREAD BINDER OVER SURFACE AREA WHERE THE METAL BRIDGING PLATE WILL BE PLACED. CENTER THE BRIDGING PLATE OVER THE EXISTING JOINT AND BED INTO THE HOT BINDER. BUTT JOINT THE BRIDGING PLATES TO ACCOMMODATE THE ENTIRE JOINT LENGTH. SPIKE HOLES WILL BE DRILLED AT 1 FOOT INTERVALS ALONG THE LONGITUDINAL CENTERLINE OF THE PLATES. SECURE BRIDGING PLATE WITH NAILS OR SPIKES. SEAL BUTT JOINTS WITH HOT BINDER AND ALLOW BINDER TO SETUP BEFORE NEXT OPERATION. WHEN ALUMINUM BRIDGING PLATES ARE USED, ONLY THE BINDER IS REQUIRED TO SECURE THE INDIVIDUAL PLATES.

BINDER COAT:

SEAL ALL PREPARED, EXPOSED SURFACES OF THE JOINT WITH BINDER. POUR THE HOT BINDER OVER THE FLOOR AREA OF THE JOINT AND SPREAD TO COAT ALL EXPOSED SURFACES. THE BINDER WILL BE A MINIMUM OF $\frac{1}{2}$ " THICK ON THE BOTTOM OF THE JOINT CAVITY, WITH POOLS OF GREATER THICKNESS WHERE SURFACE IRREGULARITIES EXIST. THE BINDER APPLICATION TEMPERATURE WILL BE BETWEEN 350 AND 390 DEGREES F. THE BINDER WILL NOT BE ALLOWED TO BE HEATED ABOVE 410 DEGREES F. NOR ALLOWED TO EXCEED 390 DEGREES F. FOR MORE THAN 1 HOUR. A DOUBLE JACKETED OIL MELTER WILL BE USED TO HEAT THE BINDER. THE MELTER WILL BE EQUIPPED WITH A CONTINUOUS AGITATION SYSTEM, TEMPERATURE CONTROLS, AND A CALIBRATED THERMOMETER. ALSO A SYSTEM FOR ACCURATELY MEASURING THE WEIGHTS OF THE BINDER AND THE AGGREGATE WILL BE REQUIRED.

BUILD-UP OF JOINT LAYERS:

AGGREGATE PREPARATION:

HEAT THE AGGREGATE TO A TEMPERATURE OF 275 TO 325 DEGREES F., WITH A SUITABLE ROTATING DRUM WITH ATTACHED HEAT SOURCE OR A HOT COMPRESSED AIR LANCE, TO REMOVE DUST AND MOISTURE.

AGGREGATE PROPORTION AND LAYER THICKNESS:

MIX THE AGGREGATE WITH THE BINDER SUCH THAT THE MINIMUM AGGREGATE CONTENT BY WEIGHT WILL BE 68%. THE HEATED AGGREGATE AND BINDER WILL BE COMBINED IN LAYERS, UNLESS PATENTED INSTALLATION REQUIRES DIFFERENTLY, NOT LESS THAN $\frac{3}{4}$ OF AN INCH NOR EXCEEDING 2-1/2 INCHES. THE THICKNESS OF EACH LAYER CAN BE VARIED WITHIN THESE LIMITS, TO ACHIEVE THE REQUIRED JOINT THICKNESS (MIN. 2 INCHES). THE OBJECTIVE IS TO COAT EACH STONE AND FILL THE VOIDS WHILE AVOIDING AN EXCESS OF BINDER. THIS WILL ACHIEVE THE MAXIMUM CONTENT OF STONE CONSISTENT WITH ALL STONES BEING COATED WITH BINDER. RAKE THE MIXTURE TO MIX AND LEVEL.

THE TOP LAYER THICKNESS WILL VARY BETWEEN $\frac{1}{2}$ INCH AND ONE (1) INCH. IN PREPARING THE TOP LAYER, THE RATIO OF AGGREGATE TO BINDER WILL BE APPROXIMATELY 6:1 BY WEIGHT. OVERFILL THE TOP LAYER AND COMPACT TO THE LEVEL OF THE ADJACENT SURFACES USING A ROLLER OR VIBRATORY PLATE COMPACTOR. IMMEDIATELY AFTER COMPLETION OF THE COMPACTION, POUR SUFFICIENT BINDER OVER THE JOINT TO FILL THE SURFACE VOIDS AND COAT THE SURFACE STONE. DUST THE FINISHED JOINT WITH A FINE, DRY AGGREGATE TO PREVENT TACKINESS.

MAINTENANCE OF TRAFFIC:

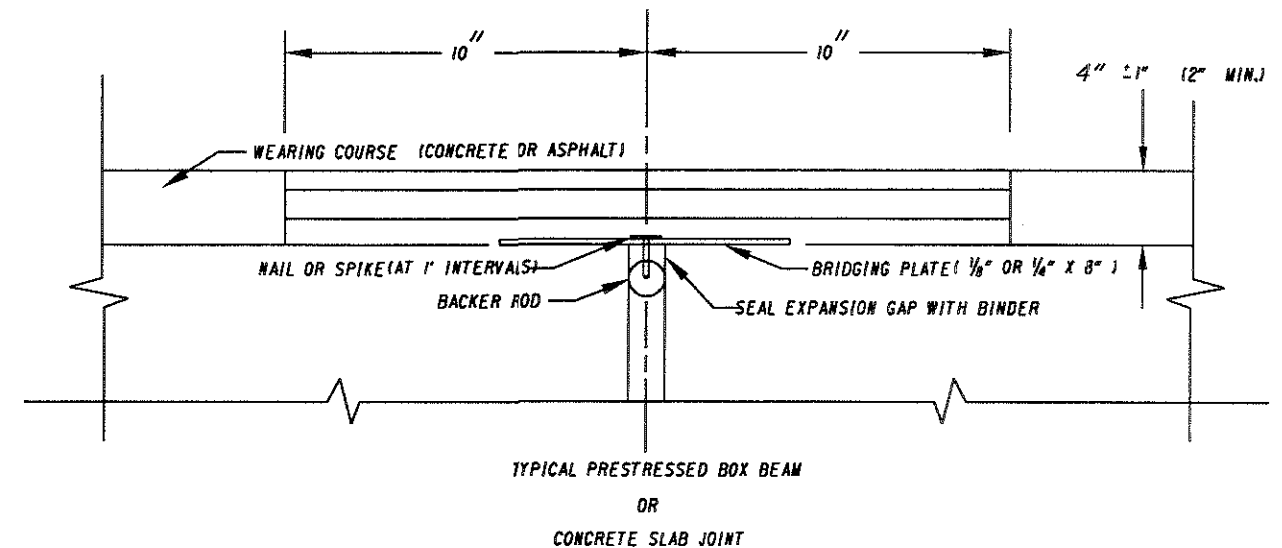
IF NECESSARY TO FACILITATE TRAFFIC MAINTENANCE, THE JOINT WILL BE INSTALLED IN TWO (2) HALF-WIDTH PHASES. DURING PHASE 1 APPROXIMATELY HALF OF THE TOTAL JOINT WILL BE INSTALLED. DURING PHASE 2, A MINIMUM OF TWO (2) INCHES OF THE PHASE 1 JOINT WILL BE REMOVED, AT OR NEAR THE CENTERLINE, WITH THE REMAINDER OF THE JOINT INSTALLED. IN ALL CASES, OPERATIONS WILL BE SCHEDULED SO THAT ALL LANES CAN BE OPEN TO TRAFFIC DURING ALL NON-WORKING HOURS.

TESTING:

CERTIFICATION WILL BE SUPPLIED FOR EACH PROJECT SHOWING BINDER COMPLIANCE WITH REQUIRED PROPERTIES. A ONE QUART SAMPLE OF BINDER WILL BE RETRIEVED FROM EACH BRIDGE FOR FURTHER TESTING BY THE O.D.O.T TESTING LABORATORY.

PAYMENT:

PAYMENT FOR ALL THE ABOVE WILL BE AT THE UNIT PRICE BID PER LINEAR FOOT OF SEALED JOINT IN PLACE FOR ITEM SPECIAL 516 31300, POLYMER MODIFIED ASPHALT EXPANSION JOINT SYSTEM (4 INCHES THICK). THIS WILL INCLUDE ALL LABOR, EQUIPMENT, MATERIALS, AND INCIDENTALS NECESSARY TO COMPLETE THE ABOVE WORK.



CRA-19-0845 SFN 1700529			
ITEM	DESCRIPTION	UNIT	QUANTITY
SPECIAL	POLYMER MODIFIED ASPHALT EXPANSION JOINT SYSTEM (4" THICK)	LIN. FT.	80

QUANTITY CARRIED TO SHEET NO. 66

RIC-61-0346 SFN 7003129			
ITEM	DESCRIPTION	UNIT	QUANTITY
SPECIAL	POLYMER MODIFIED ASPHALT EXPANSION JOINT SYSTEM (4" THICK)	LIN. FT.	70

QUANTITY CARRIED TO SHEET NO. 82

CALCULATED
KAW

DATE REVISION
10-28-96

DESIGNED
MAM

POLYMER MODIFIED ASPHALT EXPANSION JOINT SYSTEM

CRA-19-0845

RIC-61-0346

POLYMER MODIFIED ASPHALT EXPANSION JOINT SYSTEM

CRA-19-0845

RIC-61-0346

POLYMER MODIFIED ASPHALT EXPANSION JOINT SYSTEM

CRA-19-0845

RIC-61-0346

POLYMER MODIFIED ASPHALT EXPANSION JOINT SYSTEM

CRA-19-0845

RIC-61-0346

POLYMER MODIFIED ASPHALT EXPANSION JOINT SYSTEM

CRA-19-0845

RIC-61-0346

POLYMER MODIFIED ASPHALT EXPANSION JOINT SYSTEM

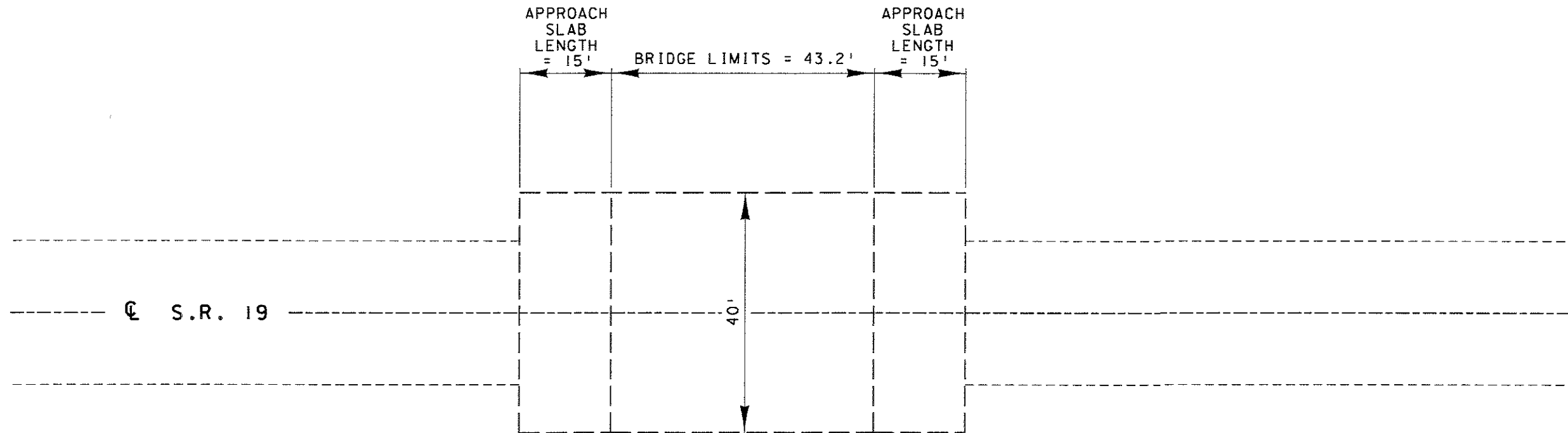
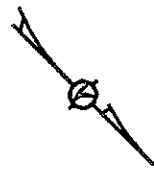
CRA-19-0845

RIC-61-0346

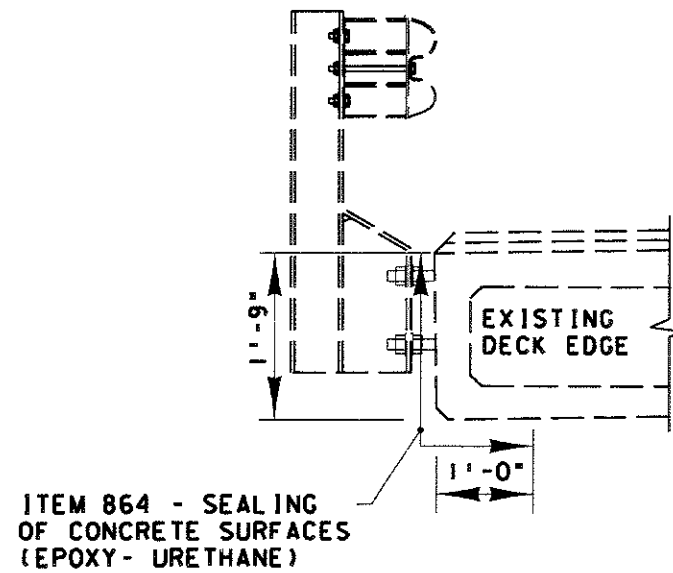
POLYMER MODIFIED ASPHALT EXPANSION JOINT SYSTEM

CRA-19-0845

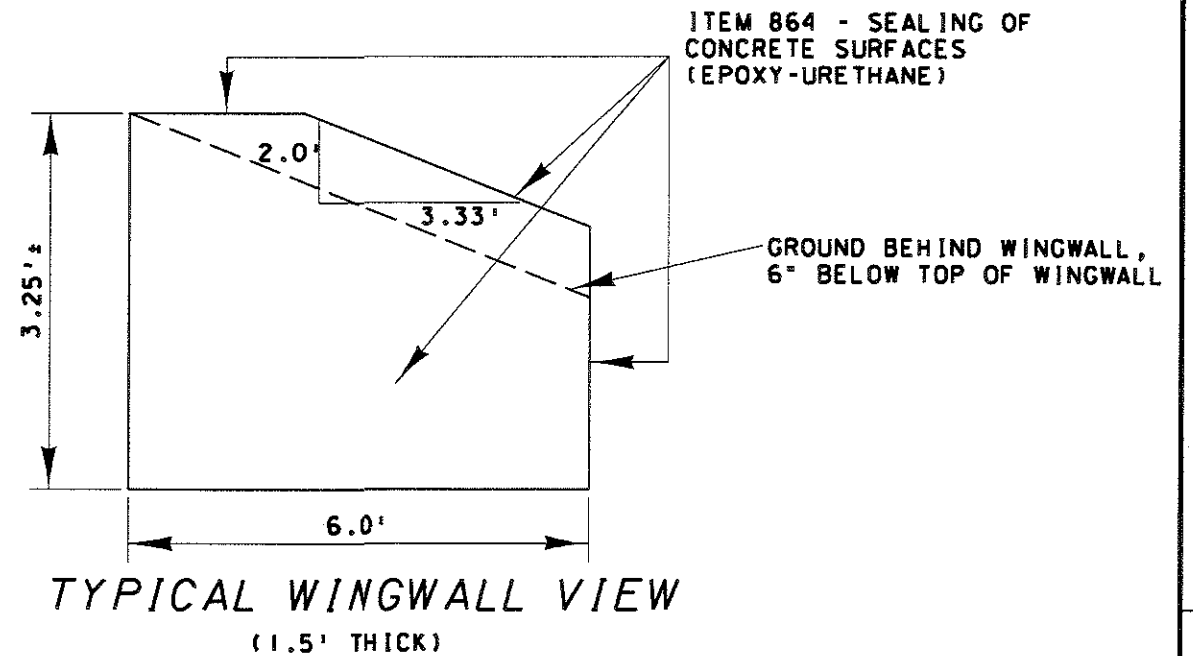
RIC-61-0346



PLAN VIEW



TYPICAL BEAM VIEW



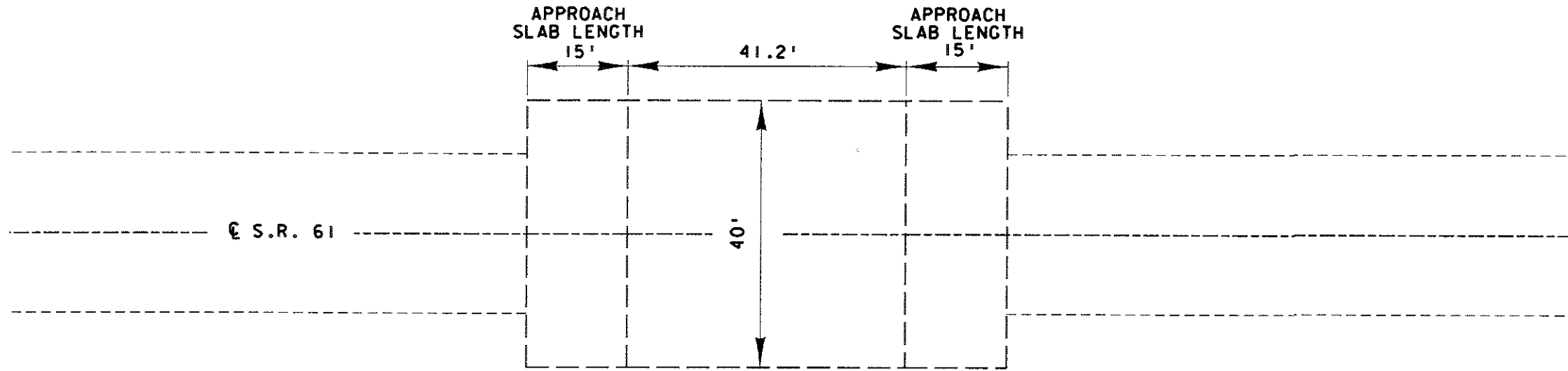
TYPICAL WINGWALL VIEW
(1.5' THICK)

NOTES:

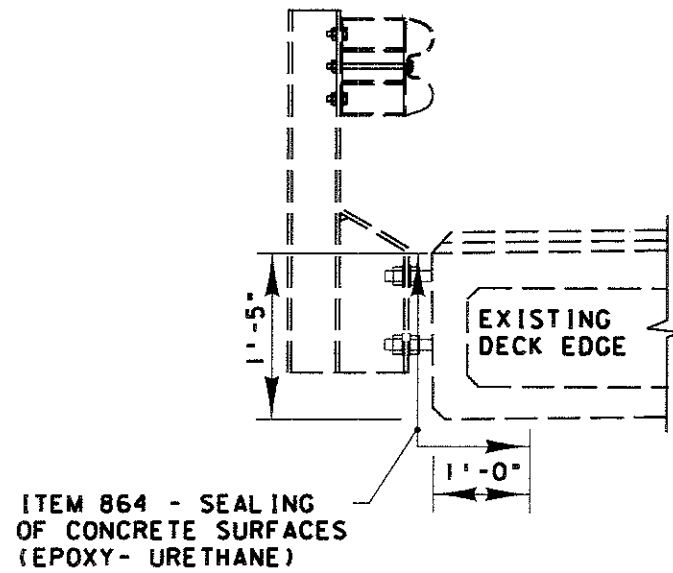
- 1) THE EXISTING BRIDGE RAIL AND GUARDRAIL ARE NOT SHOWN. SEE SHEET NO. 88 FOR DETAILS
- 2) POLYMER MODIFIED ASPHALT EXPANSION JOINTS SHALL BE INSTALLED AT BOTH ENDS OF THE STRUCTURE. FOR DETAILS SEE SHEET NO. 65
- 3) THE WINGWALLS AND FASCIA BEAM SHALL BE SEALED USING ITEM 864 - SEALING OF CONCRETE SURFACES (EPOXY-URETHANE)

ITEM	QUANTITY	UNIT	DESCRIPTION
864	40	SO. YD.	SEALING OF CONCRETE SURFACES (EPOXY-URETHANE)
SPECIAL	80	LIN. FT.	POLYMER MODIFIED ASPHALT EXPANSION JOINT SYSTEM (4 IN. THICK)

ALL QUANTITIES CARRIED TO STRUCTURE SUMMARY SHEET, SHEET NO. 60



PLAN VIEW



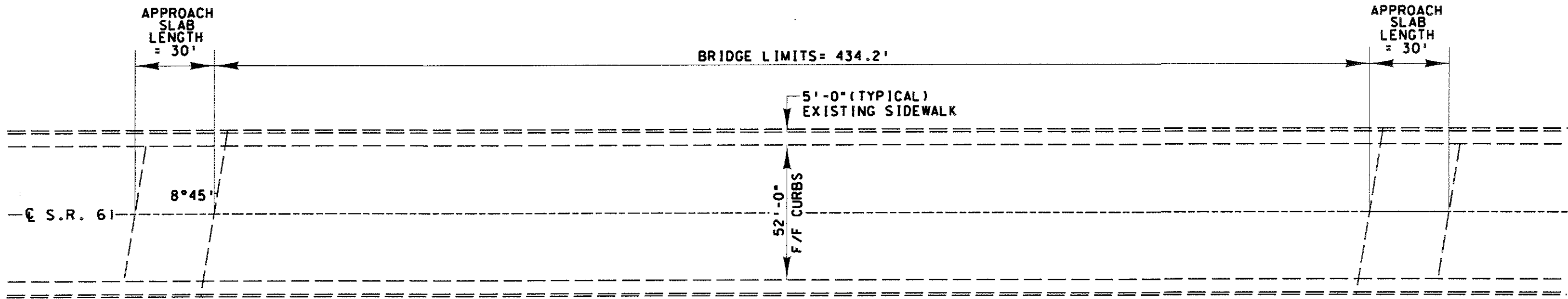
TYPICAL BEAM VIEW

ITEM	QUANTITY	UNIT	DESCRIPTION
864	23	SO. YD.	SEALING OF CONCRETE SURFACES (EPOXY-URETHANE)

ALL QUANTITIES CARRIED TO STRUCTURE SUMMARY SHEET, SHEET NO. 60

NOTES:

- 1) THE EXISTING BRIDGE RAIL AND GUARDRAIL ARE NOT SHOWN. SEE SHEET NO. 89 FOR DETAILS
- 3) THE FASCIA BEAM SHALL BE SEALED USING ITEM 864 - SEALING OF CONCRETE SURFACES (EPOXY-URETHANE)



PLAN VIEW

NOTES:

- 1) THE ENTIRE BRIDGE DECK (BETWEEN THE CURBS) AND THE APPROACH SLABS SHALL BE SEALED USING ITEM SPECIAL - TREATING CONCRETE BRIDGE DECKS WITH GRAVITY FED RESIN.

ITEM	QUANTITY	UNIT	DESCRIPTION
SPECIAL	2856	SO. YD.	TREATING CONCRETE BRIDGE DECKS WITH GRAVITY FED RESIN

ALL QUANTITIES CARRIED TO STRUCTURE SUMMARY SHEET, SHEET NO. 60

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WORKSTATION: dmollens DATE: 10/29/02

DESIGN AGENCY
DISTRICT THREE

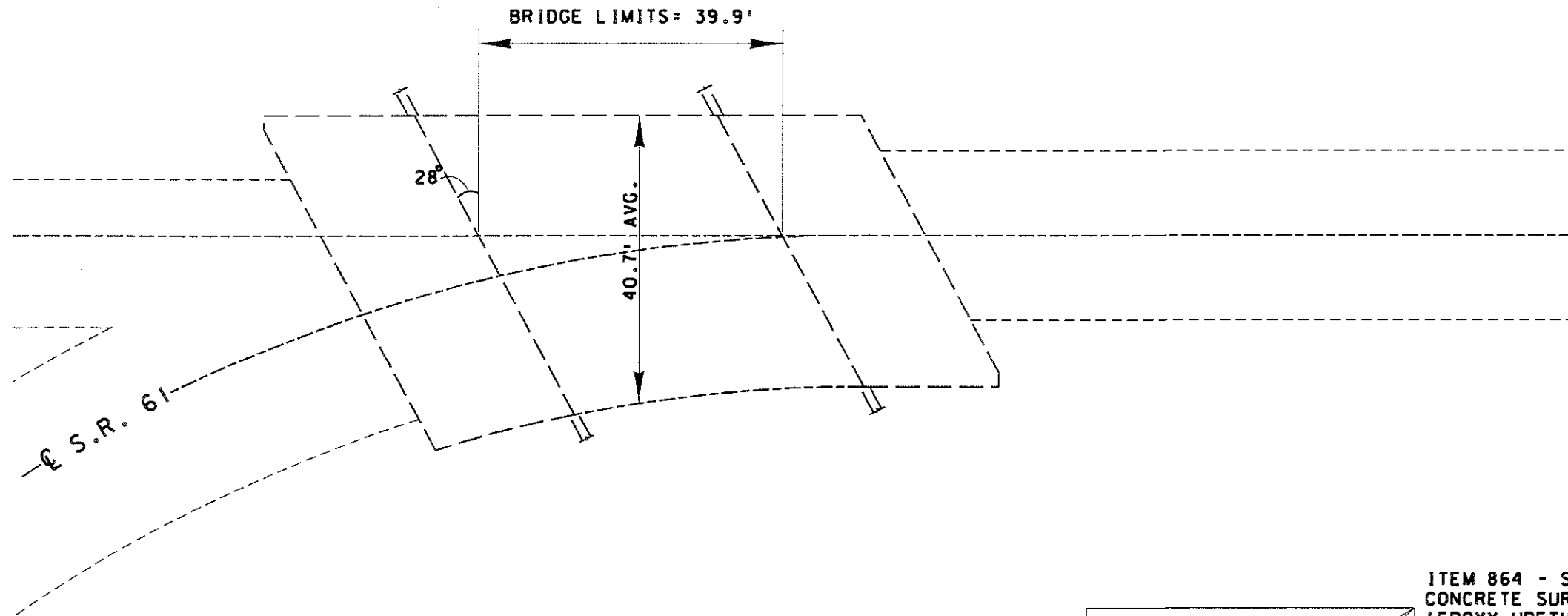
DATE
10-25-02
REVIEWED
DCM
STRUCTURAL FILE NUMBER
1702092

DESIGNED
KAW
CHECKED
KAW
DRAWN
KAW
REVISOR

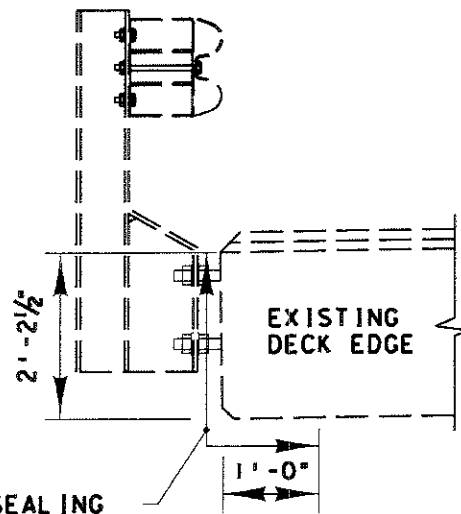
PLAN VIEW
CRA-61-0769

CRA-19-4.21

68
111

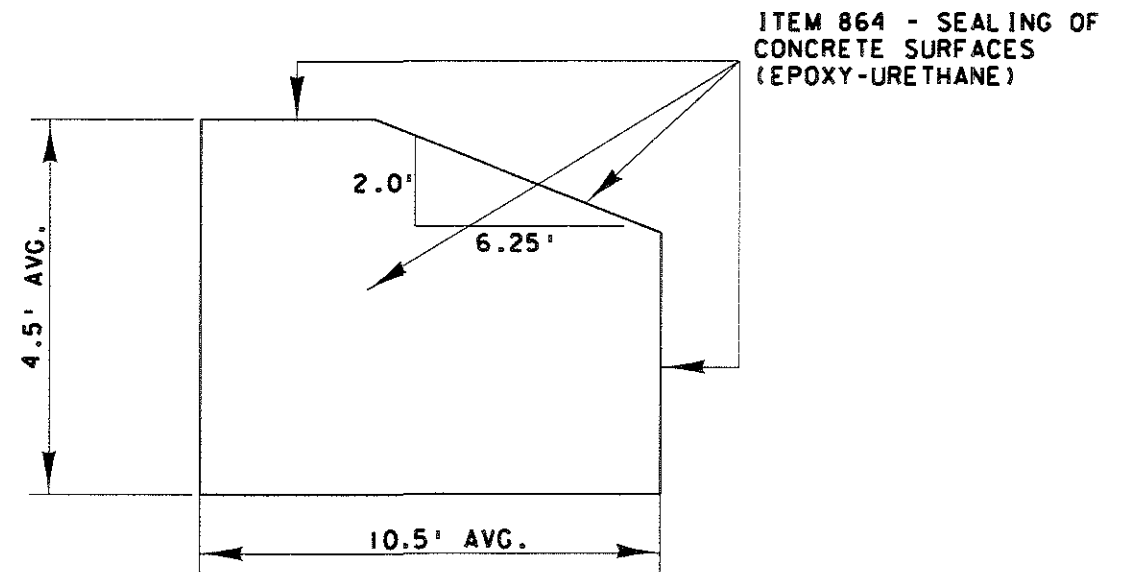


PLAN VIEW



ITEM 864 - SEALING OF CONCRETE SURFACES (EPOXY-URETHANE)

TYPICAL SLAB VIEW



TYPICAL WINGWALL VIEW

(1.25' THICK)

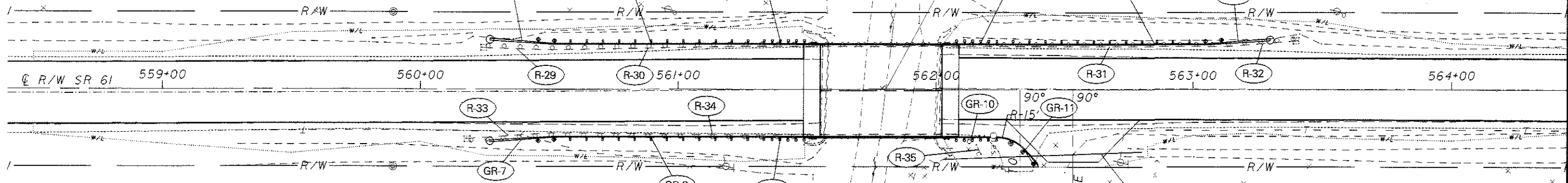
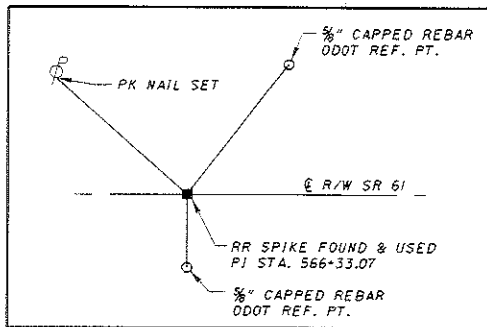
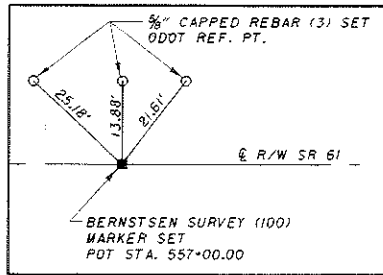
NOTES:

- 1) THE EXISTING BRIDGE RAIL AND GUARDRAIL ARE NOT SHOWN. SEE SHEET NO. 91 FOR DETAILS
- 2) THE ENTIRE BRIDGE DECK AND APPROACH SLABS SHALL BE SEALED USING ITEM SPECIAL - TREATING CONCRETE BRIDGE DECKS WITH GRAVITY FED RESIN
- 3) THE WINGWALLS AND DECK EDGE SHALL BE SEALED USING ITEM 864 - SEALING OF CONCRETE SURFACES (EPOXY-URETHANE)

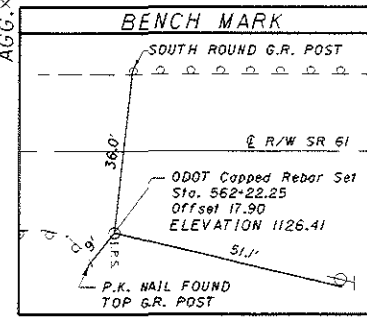
ITEM	QUANTITY	UNIT	DESCRIPTION
864	54	SO. YD.	SEALING OF CONCRETE SURFACES (EPOXY-URETHANE)
SPECIAL	352	SO. YD.	TREATING CONCRETE BRIDGE DECKS WITH GRAVITY FED RESIN

ALL QUANTITIES CARRIED TO STRUCTURE SUMMARY SHEET, SHEET NO. 61

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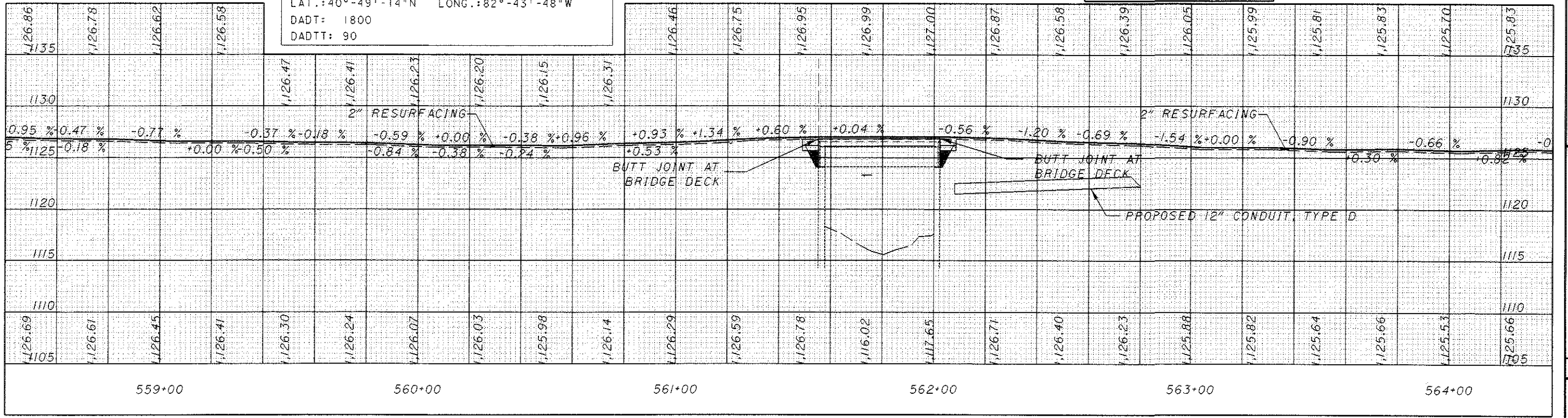


EXISTING STRUCTURE	PROPOSED STRUCTURE
TYPE: SINGLE SPAN STEEL BEAM WITH TIMBER DECK	TYPE: REUSED SINGLE SPAN STEEL BEAM WITH NEW REINFORCED CONCRETE DECK
SPAN: 45'-10"± O/O DECK	SPAN: 47'-2" O/O DECK
ROADWAY: 34'-4"± F/F GUARDRAIL	ROADWAY: 36'-0" F/F GUARDRAIL
SKEW: NONE	SKEW: NONE
WEARING SURFACE: ASPHALT	LOADING: HS25 - DECK HS17 - BEAMS (100% OHIO LEGAL)
APPROACH SLABS: NONE	WEARING SURFACE: 1" MONOLITHIC WEARING SURFACE
ALIGNMENT: TANGENT	APPROACH SLAB: NONE
CONDITION: POOR	CROWN: 3/16" /ft.
DATE BUILT: UNKNOWN	ALIGNMENT: TANGENT
STRUCTURE FILE NO.: 1702130	STRUCTURE FILE NO.: 1702130
	LAT.: 40°-49'-14"N LONG.: 82°-43'-48"W
	DADT: 1800
	DADTT: 90



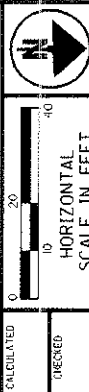
FOR QUANTITIES, SEE SHEET 25 & 26

12" CONDUIT, TYPE D	
MITERED PIPE INLET STA. 562+80.00 OFFSET 24.22' RT. INV. ELEV. = 1122.26	PIPE OUTLET STA. 562+03.00 OFFSET 27.13' RT. INV. ELEV. = 1121.50

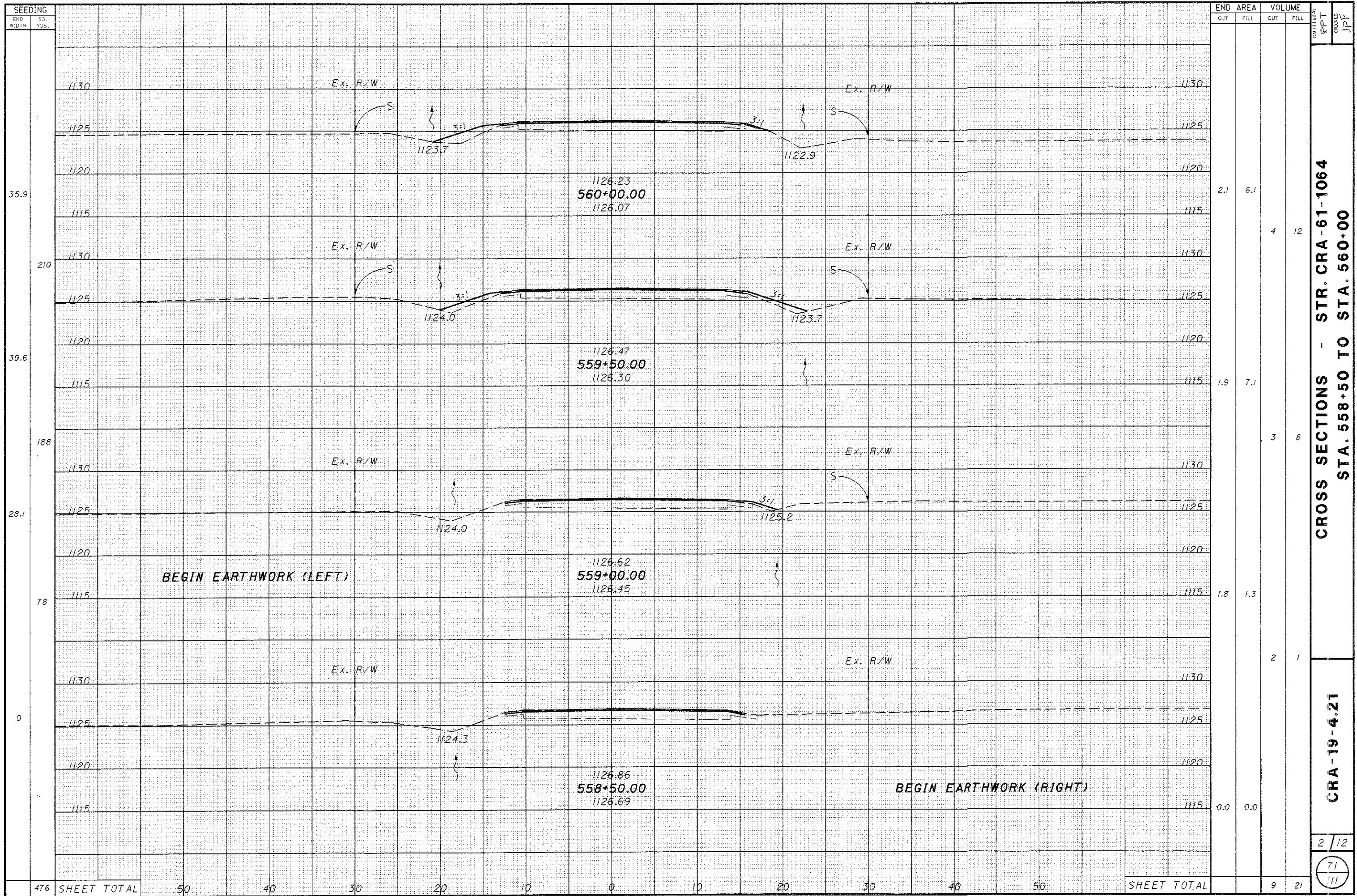


PLAN AND PROFILE - STR. CRA-61-1064
 STA. 559+00 TO STA. 564+00

CRA-19-4.21



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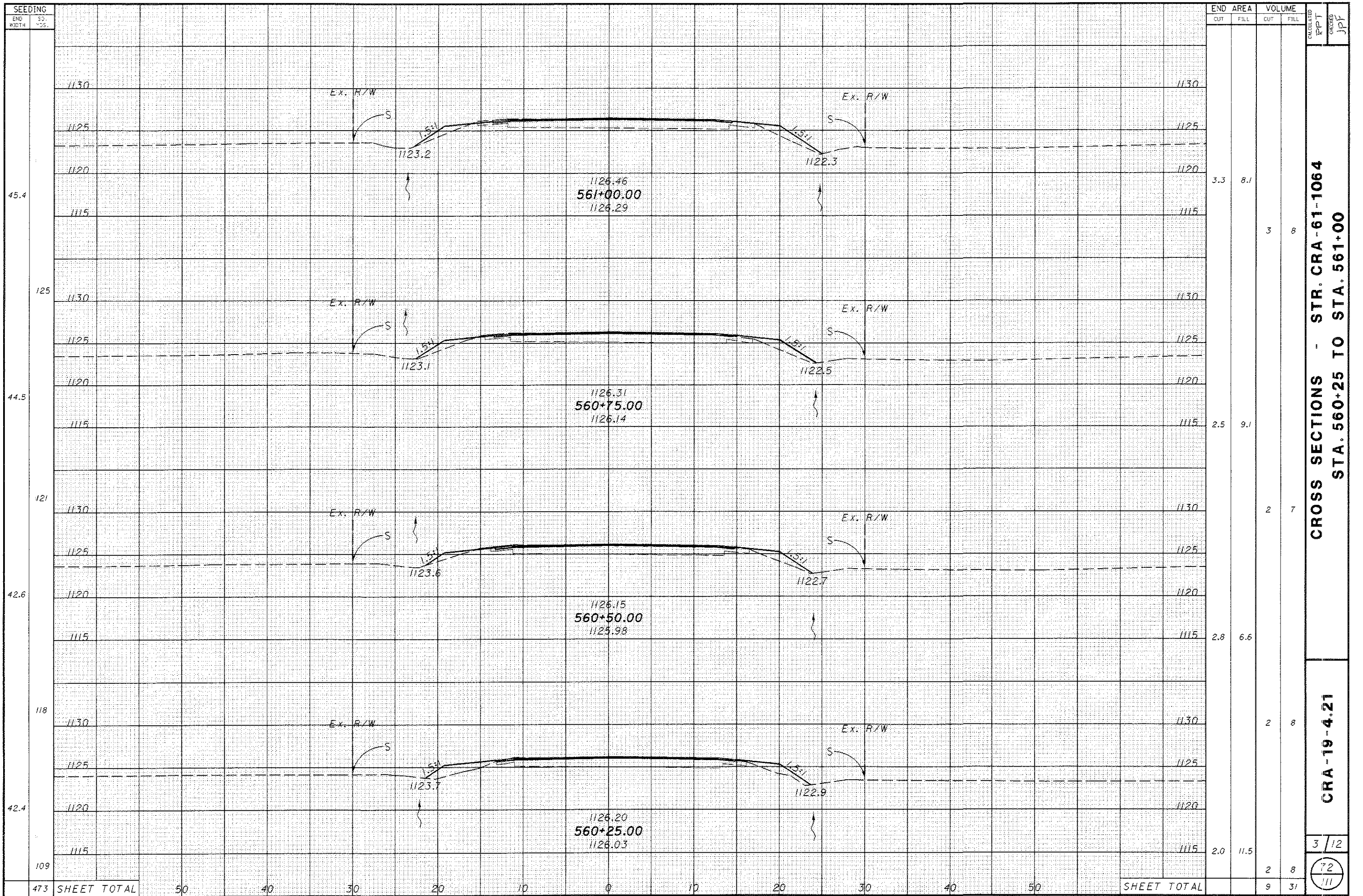
CROSS SECTIONS - STR. CRA-61-1064
 STA. 558+50 TO STA. 560+00

CRA-19-4.21

2 / 12

71 / 11

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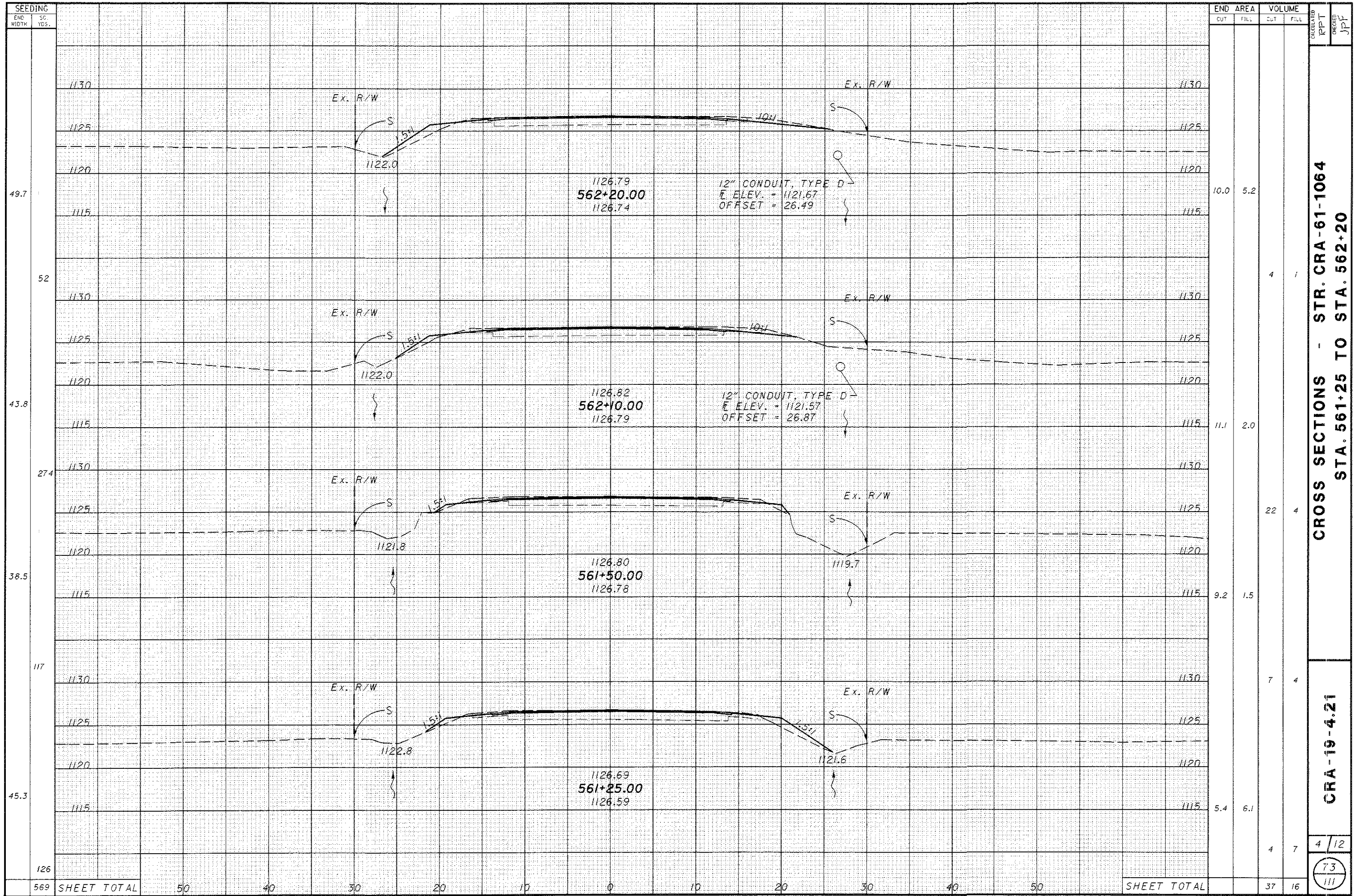


CROSS SECTIONS - STR. CRA-61-1064
 STA. 560+25 TO STA. 561+00

CRA-19-4.21

3/12
 72
 111

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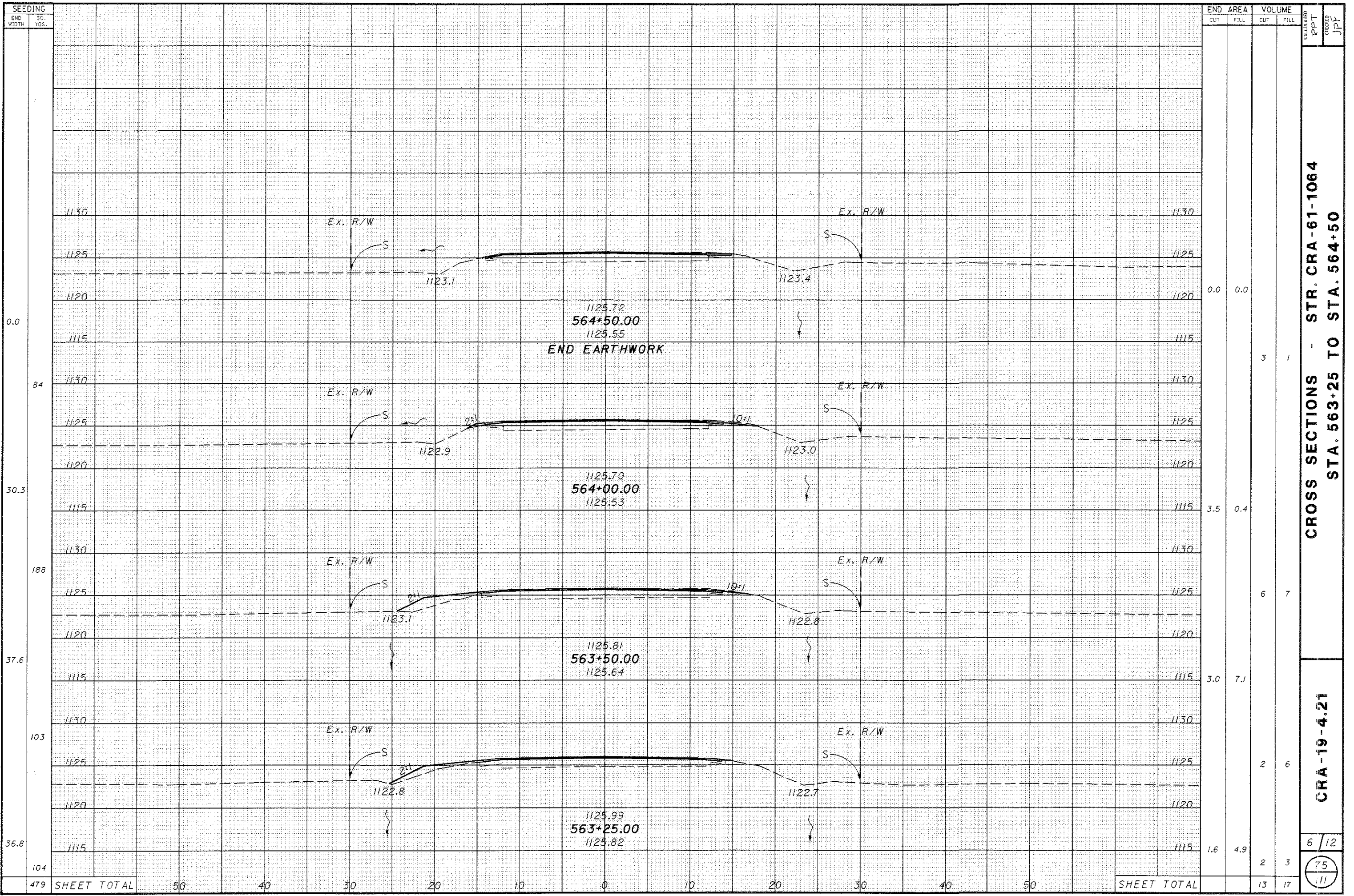


END STA	END AREA		VOLUME		CALCULATED	CHECKED
	CUT	FILL	CUT	FILL		
1130						
1125						
1120						
1115						
562+20.00	10.0	5.2				
562+10.00			4	1		
1130						
1125						
1120						
1115						
561+50.00	11.1	2.0				
561+50.00			22	4		
1130						
1125						
1120						
1115						
561+25.00	9.2	1.5				
561+25.00			7	4		
1130						
1125						
1120						
1115						
SHEET TOTAL	4	7	4	7		
126						
569						

CROSS SECTIONS - STR. CRA-61-1064
 STA. 561+25 TO STA. 562+20

CRA-19-4.21
 4/12
 73
 111

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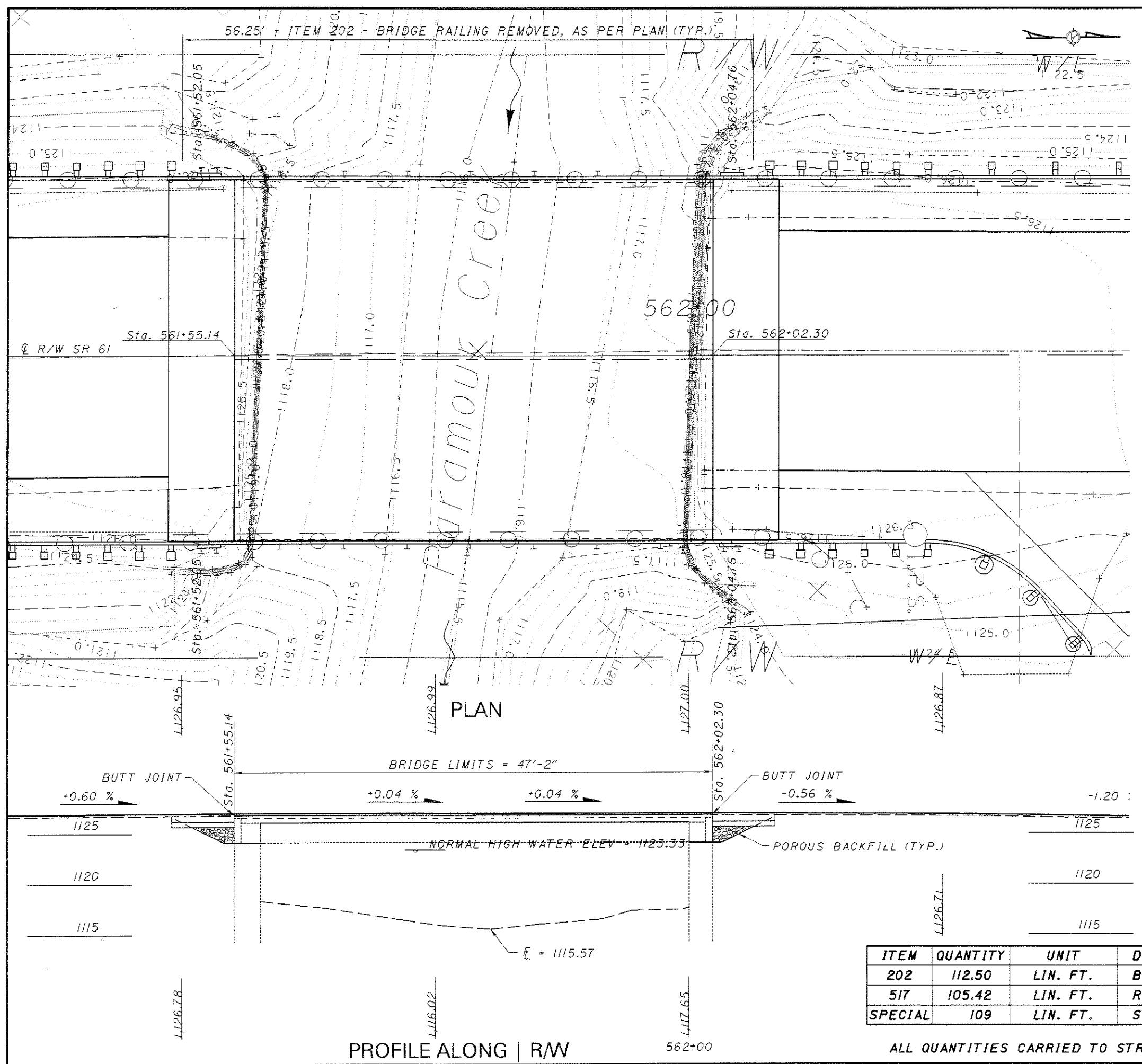


CROSS SECTIONS - STR. CRA-61-1064
 STA. 563+25 TO STA. 564+50

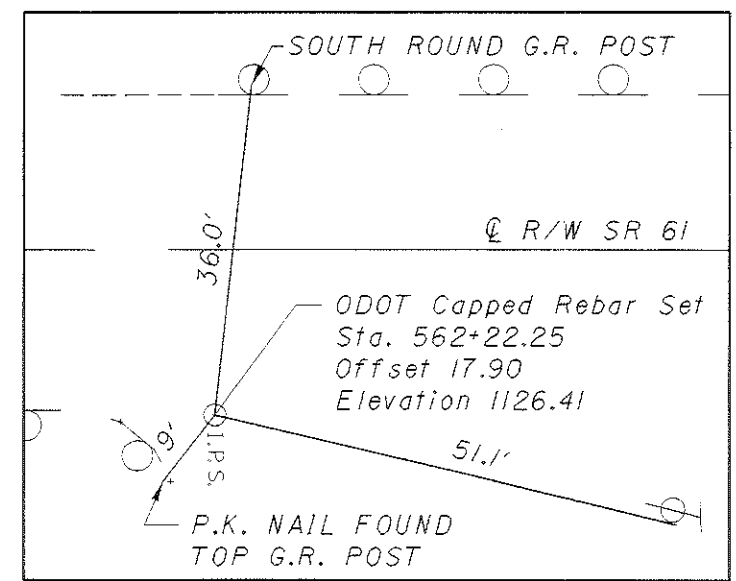
CRA-19-4.21

6/12
 75
 11

DESIGN FILE: I:\projects\16923\Structure\CO61064\st1 .dgn
 WORKSTATION: rtr\vol1 DATE: 24-OCT-2002



EXISTING STRUCTURE	
TYPE:	SINGLE SPAN STEEL BEAM WITH TIMBER DECK
SPAN:	45'-10" ± 0/0 DECK
ROADWAY:	34'-4" ± F/F GUARDRAIL
SKEW:	NONE
WEARING SURFACE:	ASPHALT
APPROACH SLABS:	NONE
ALIGNMENT:	TANGENT
CONDITION:	POOR
DATE BUILT:	UNKNOWN
STRUCTURE FILE NO.:	1702130
PROPOSED STRUCTURE	
TYPE:	REUSED SINGLE SPAN STEEL BEAM WITH NEW REINFORCED CONCRETE DECK
SIZE:	47'-2" 0/0 DECK
ROADWAY:	36'-0" F/F GUARDRAIL
SKEW:	NONE
LOADING:	HS25 - DECK HS17 - BEAMS (100% OHIO LEGAL)
WEARING SURFACE:	1" MONOLITHIC WEARING SURFACE
CROWN:	3/16" /ft.
ALIGNMENT:	TANGENT
STRUCTURE FILE NO.:	1702130
LAT.:	40°-49'-14"N
LONG.:	82°-43'-48"W
DADT:	1800
DADTT:	90

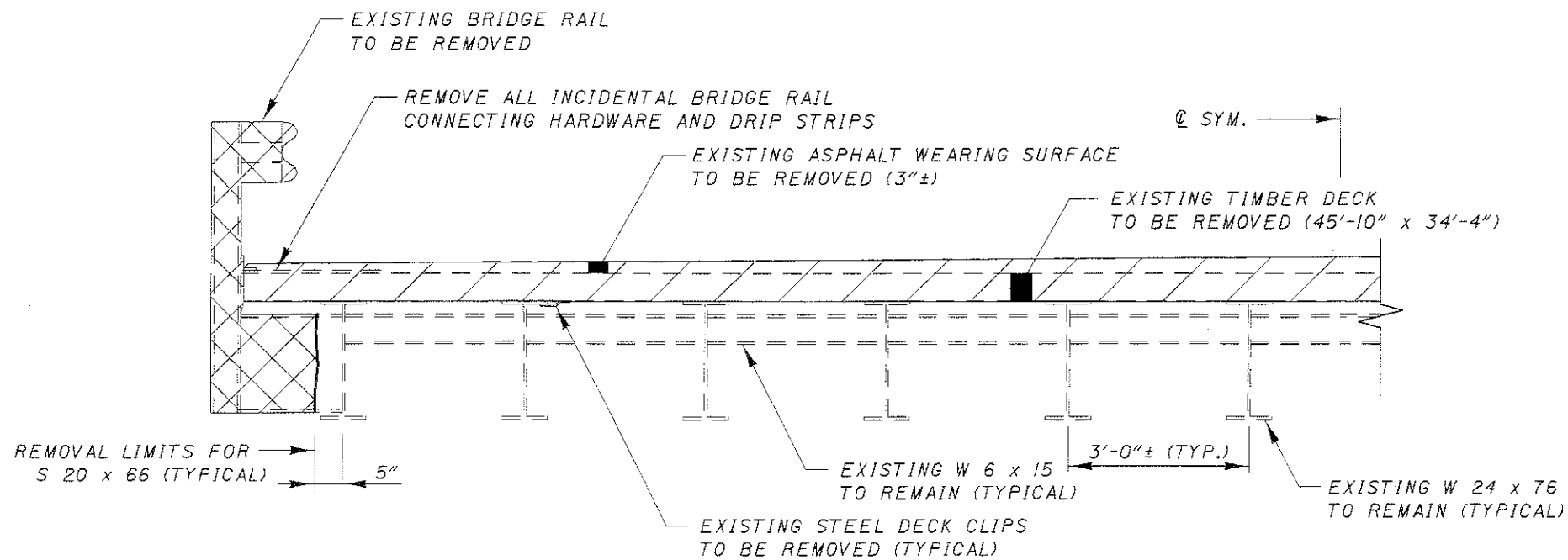


ITEM	QUANTITY	UNIT	DESCRIPTION
202	112.50	LIN. FT.	BRIDGE RAILING REMOVED, AS PER PLAN
517	105.42	LIN. FT.	RAILING (TWIN STEEL TUBE)
SPECIAL	109	LIN. FT.	STEEL DRIP STRIP

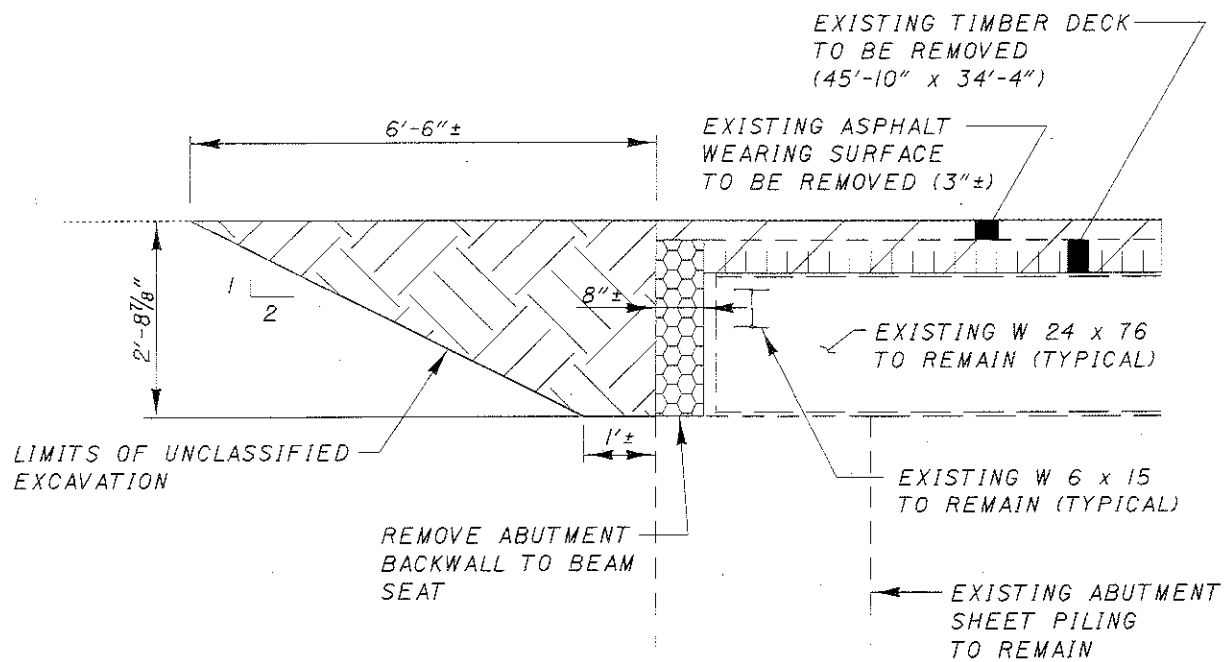
ALL QUANTITIES CARRIED TO STRUCTURE SUMMARY SHEET, SHEET NO. 61

DESIGN AGENCY: DISTRICT THREE
 PRODUCTION DEPARTMENT
 DATE: 1702130
 STRUCTURE FILE NUMBER: 1702130
 DRAWN: RPT
 REVISED: RPT
 DESIGNED: RPT
 CHECKED: RPT
 CRAWFORD CO. STA. 560+50 STA. 563+00
 SITE PLAN: CRA-61-1064 OVER PARAMOUR CREEK
 CRA-19-4.21
 7/12
 76/111

DESIGN FILE: I:\projects\16923\Struct\C0611064\details.dgn
 WORKSTATION: rtrivoli DATE: 11/01/02



EXISTING TRANSVERSE SECTION



EXISTING ABUTMENT SECTION

- AREA FOR ITEM 503 - UNCLASSIFIED EXCAVATION
- AREA FOR ITEM 202 - PORTIONS OF STRUCTURE REMOVED (TIMBER DECK)
- AREA FOR ITEM 202 - PORTIONS OF STRUCTURE REMOVED (ABUTMENT BACKWALL)
- AREA FOR ITEM 202 - BRIDGE RAILING REMOVED, AS PER PLAN

DEMOLITION DEBRIS

THE CONTRACTOR SHALL TAKE PRECAUTIONS TO AVOID AND/OR LIMIT DEMOLITION DEBRIS FROM ENTERING THE STREAM. ANY MATERIAL THAT DOES FALL INTO THE STREAM SHALL BE REMOVED AS SOON AS POSSIBLE.

ITEM	QUANTITY	UNIT	DESCRIPTION
202	175	SQ. YD.	PORTIONS OF STRUCTURE REMOVED (TIMBER DECK)
202	5	CU. YD.	PORTIONS OF STRUCTURE REMOVED (ABUTMENT BACKWALL)
503	28	CU. YD.	UNCLASSIFIED EXCAVATION

ALL QUANTITIES CARRIED TO STRUCTURE SUMMARY SHEET, SHEET NO. 61

DESIGN AGENCY
 DISTRICT THREE
 PRODUCTION DEPARTMENT

DATE
 REVISED
 STRUCTURE FILE NUMBER
 1702130

DESIGNED
 RPT
 CHECKED

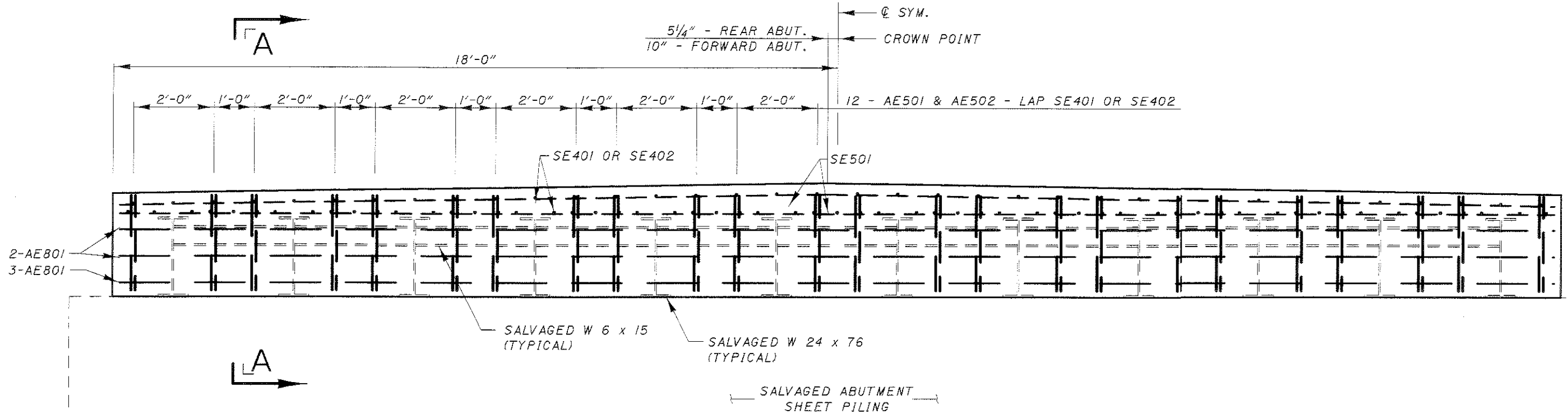
DEMOLITION PLAN
 CRA-61-1064
 OVER PARAMOUR CREEK

CRA-19-4.21

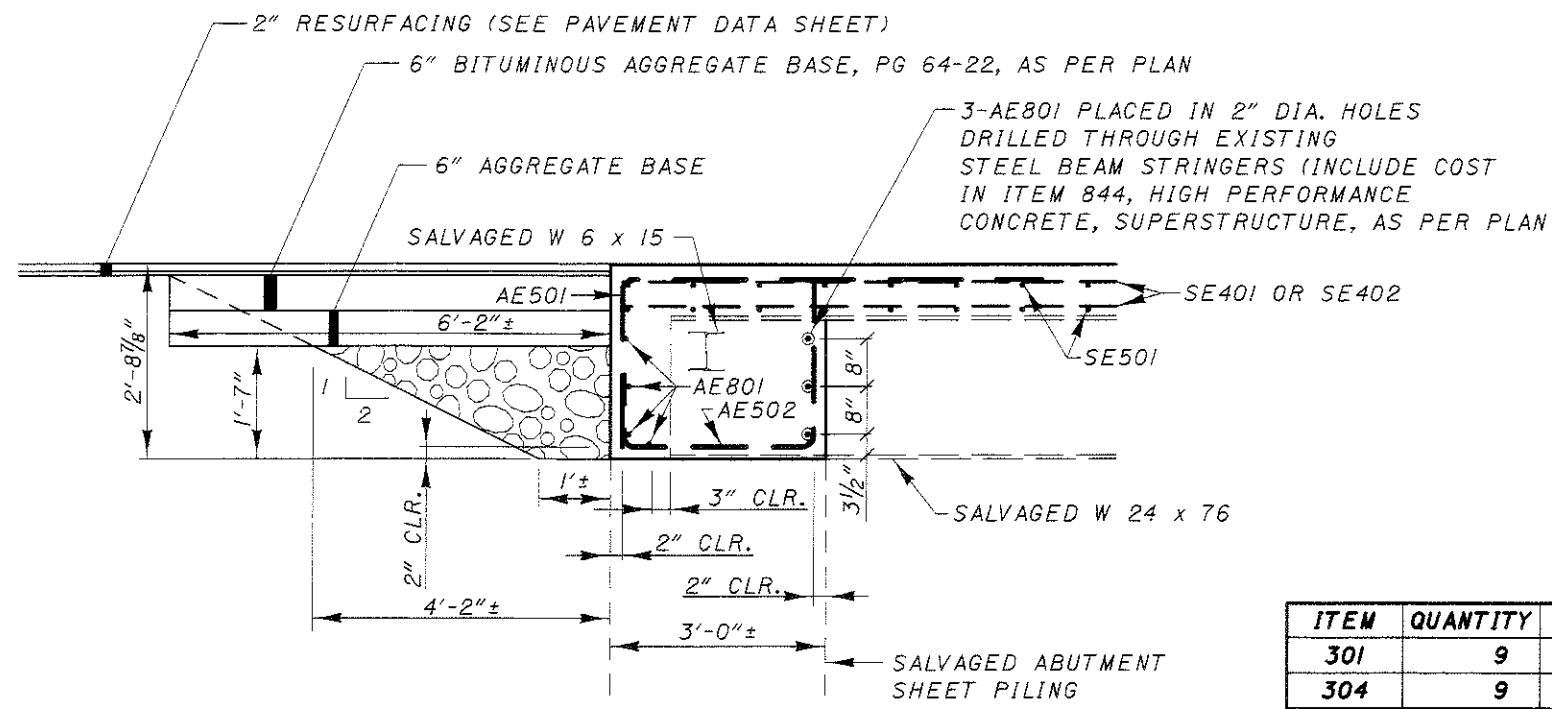
8/12

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DESIGN FILE: I:\projects\16923\Struct\C061064\details.dgn
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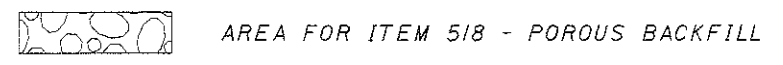
PROPOSED ABUTMENT VIEW



SECTION A-A

FOR REINFORCING DETAILS, SEE SHEET 80.

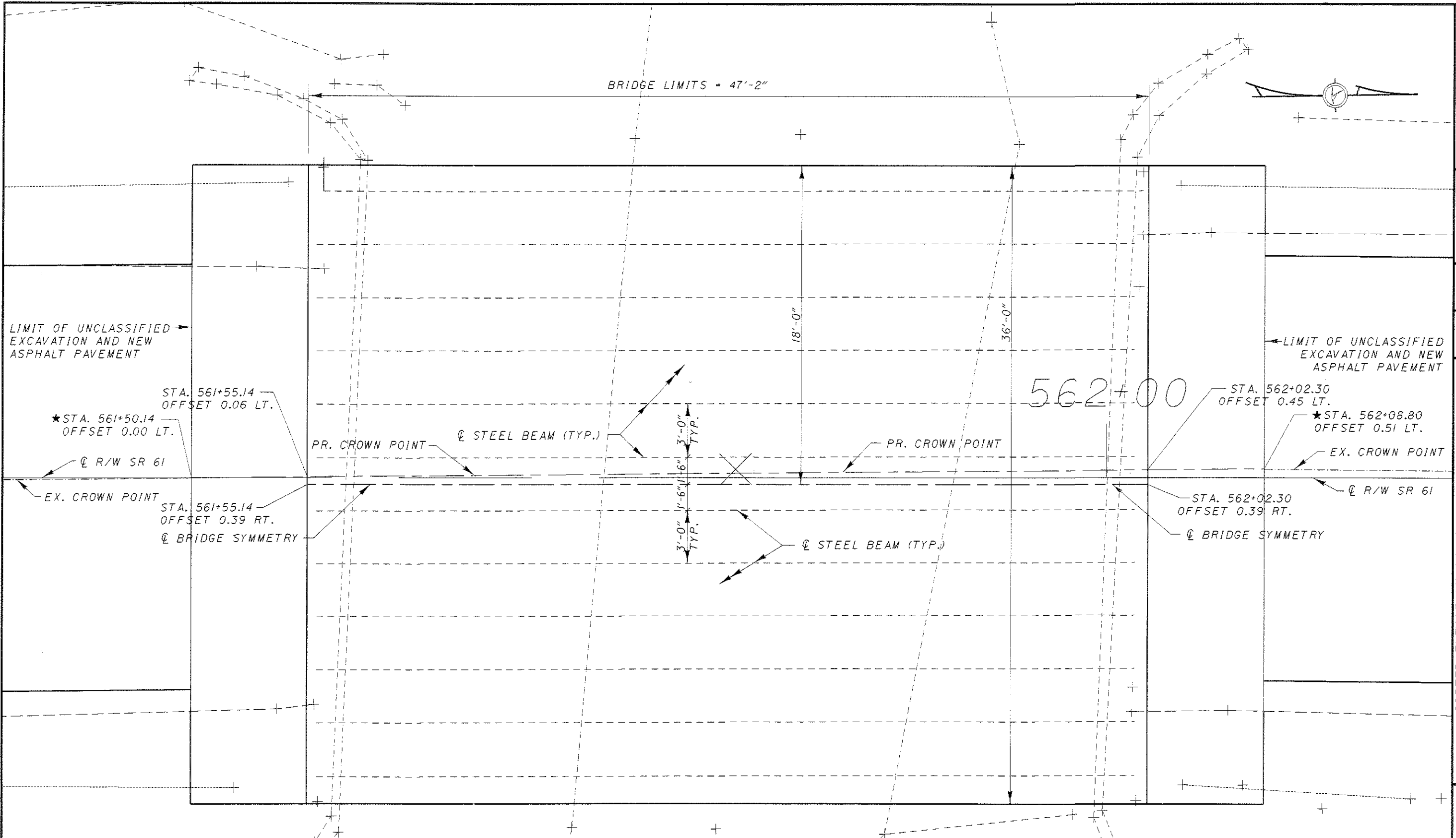
ITEM	QUANTITY	UNIT	DESCRIPTION
301	9	CU. YD.	BITUMINOUS AGGREGATE BASE, PG64-22, AS PER PLAN
304	9	CU. YD.	AGGREGATE BASE
518	11	CU. YD.	POROUS BACKFILL



ALL QUANTITIES CARRIED TO STRUCTURE SUMMARY SHEET, SHEET NO. 61

DISTRICT THREE
 PRODUCTION DEPARTMENT
 STRUCTURE FILE NUMBER
 1702130
 ABUTMENT DETAILS
 CRA-61-1064
 OVER PARAMOUR CREEK
 CRA-19-4.21
 9/12
 78
 111

DESIGN FILE: I:\projects\16923\Struct\0610C layout.dgn
 WORKSTATION: rtrivoli DATE: 23-OCT-2002



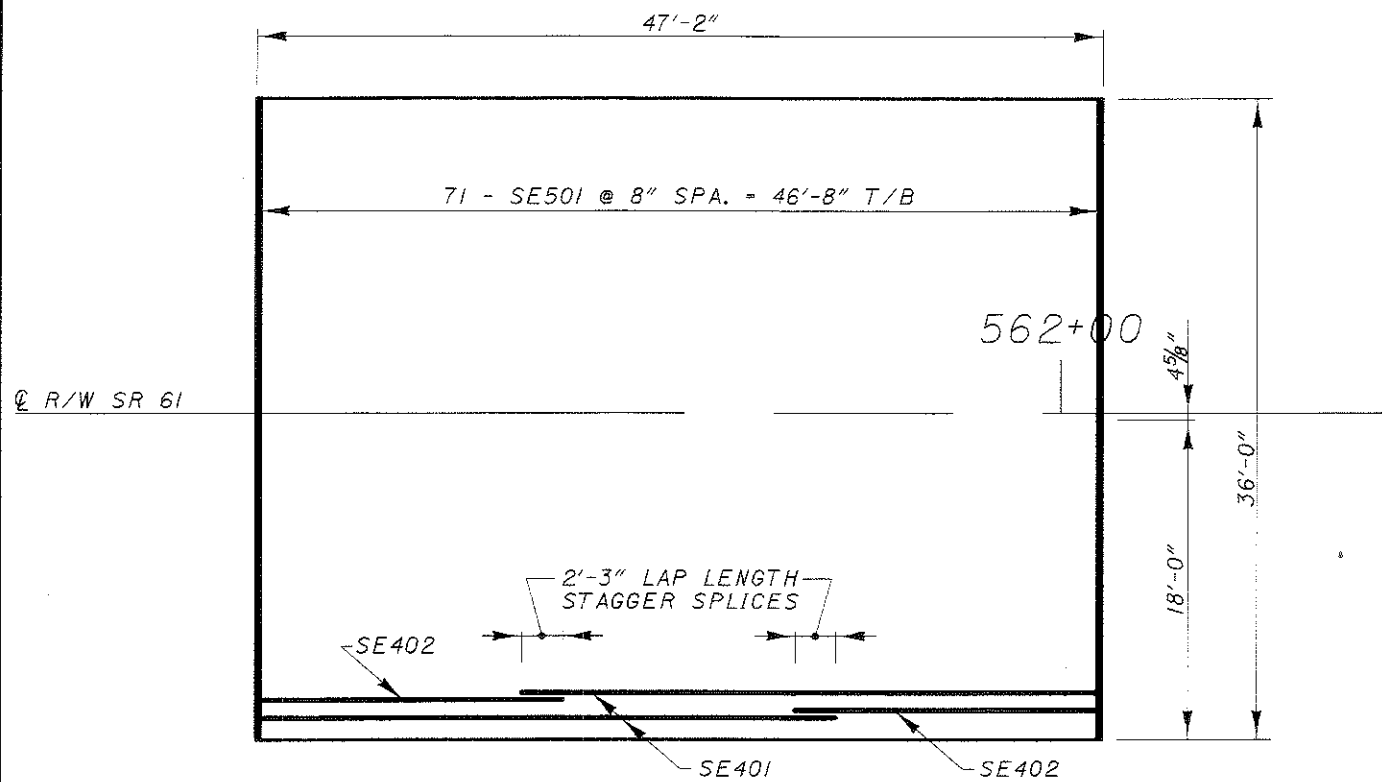
SCREED ELEVATION TABLE

Location	Station	Left Deck Edge	Crown Point	Right Deck Edge
End Approach	561+55.14	1126.71	1126.98	1126.69
1/4 Point Along Span	561+66.93	1126.72	1127.03	1126.70
1/2 Point Along Span	561+78.72	1126.72	1127.05	1126.70
3/4 Point Along Span	561+90.51	1126.74	1127.04	1126.71
Begin Approach	562+02.30	1126.74	1127.01	1126.71

ALL STATIONING BASED OFF Q R/W SR 61
 ★ INTERSECTION OF EX. CROWN POINT, PR. CROWN POINT AND UNCLASSIFIED EXCAVATION LIMITS
 SCREED ELEVATIONS SHOWN ARE FOR THE DECK SLAB SURFACE PRIOR TO CONCRETE PLACEMENT. ALLOWANCE HAS BEEN MADE FOR ANTICIPATED CALCULATED DEAD LOAD DEFLECTIONS.

DESIGN AGENCY: DISTRICT THREE
 PRODUCTION DEPARTMENT
 DATE: 1702130
 STRUCTURE FILE NUMBER: 1702130
 DRAWN: RPT
 REVISIONS:
 DESIGNED: RPT
 CHECKED:
 SCREEN ELEVATION AND LAYOUT DETAIL
 C:HA-6-1-1064
 OVER PARAMOUR CREEK
 CRA-19-4.21
 10/12
 79
 111

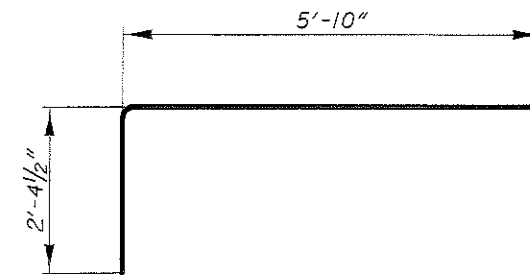
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 WORKSTATION: r1r1v01 DATE: 10/31/02



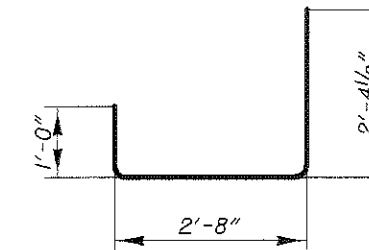
BRIDGE DECK PLAN

REBAR DATA			QUANTITIES
MARK	LENGTH	SHAPE	NUMBER
AE501	8'-1"	A	48
AE502	5'-9 1/2"	B	48
AE801	35'-8"	STR.	14
SE401	32'-2"	STR.	95
SE402	16'-11"	STR.	95
SE501	35'-8"	STR.	142

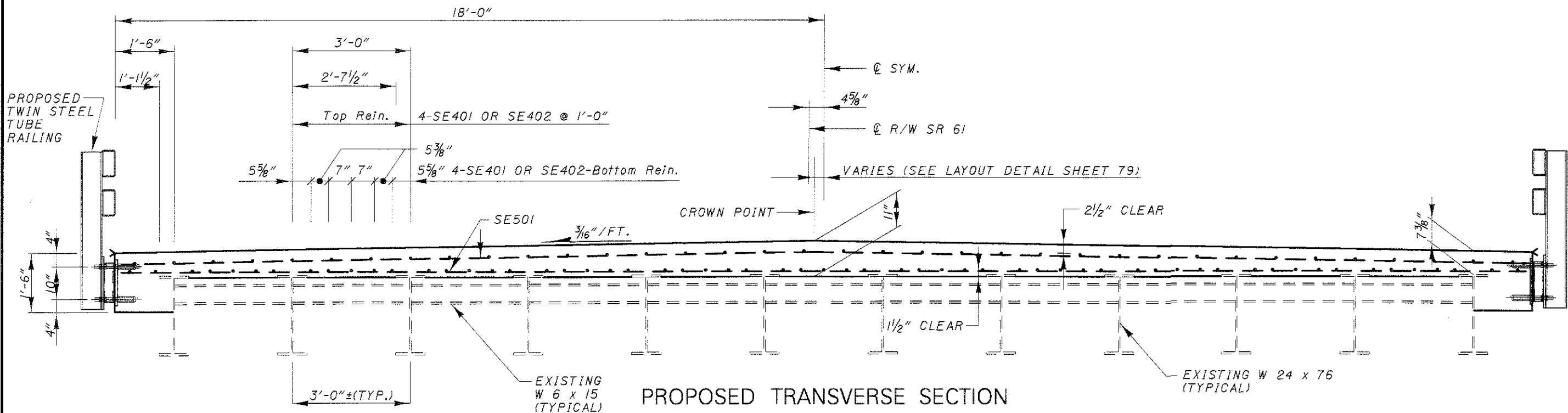
FOR INFORMATIONAL PURPOSES ONLY



SHAPE A



SHAPE B



PROPOSED TRANSVERSE SECTION

ITEM	QUANTITY	UNIT	DESCRIPTION
844	69	CU. YD.	HIGH PERFORMANCE CONCRETE SUPERSTRUCTURE, AS PER PLAN
844	LUMP	LUMP	HIGH PERFORMANCE CONCRETE TRIAL MIX

ALL QUANTITIES CARRIED TO STRUCTURE SUMMARY SHEET, SHEET NO. 61

DISTRICT THREE
 PRODUCTION DEPARTMENT

STRUCTURE FILE NUMBER
 1702130

REVISION RPT
 CHECKED

SUPERSTRUCTURE DETAILS
 CRA-61-1064
 OVER PARAMOUR CREEK

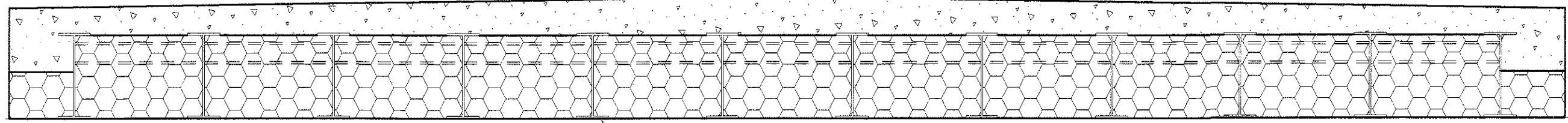
CRA-19-4.21

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80

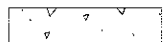
DESIGN FILE: I:\projects\16923\Struct\C0611064\details.dgn
 WORKSTATION: rtrivall DATE: 10/31/02

A

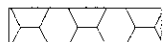


SALVAGED W 24 x 76
(TYPICAL)

A

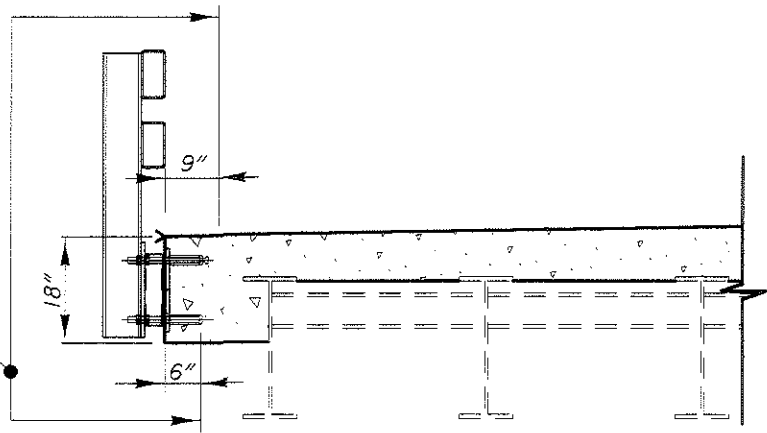


AREA FOR ITEM 844 - HIGH PERFORMANCE CONCRETE, SUPERSTRUCTURE

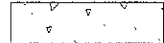


AREA TO BE SEALED

PROPOSED ABUTMENT VIEW

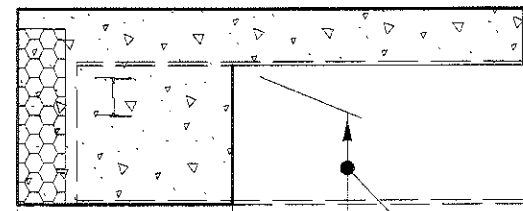


SEAL ENTIRE
SURFACE AREA



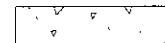
AREA FOR ITEM 844 - HIGH PERFORMANCE CONCRETE, SUPERSTRUCTURE

PROPOSED TRANSVERSE SECTION



SEAL ENTIRE
SURFACE AREA

SALVAGED ABUTMENT
SHEET PILING



AREA FOR ITEM 844 - HIGH PERFORMANCE CONCRETE, SUPERSTRUCTURE

SECTION A-A

ITEM	QUANTITY	UNIT	DESCRIPTION
864	44	SQ. YD.	SEALING OF CONCRETE SURFACES (EPOXY-URETHANE)

ALL QUANTITIES CARRIED TO STRUCTURE SUMMARY SHEET, SHEET NO. 61

DESIGN AGENCY
DISTRICT THREE
PRODUCTION DEPARTMENT

REVISIONS
DATE
STRUCTURE FILE NUMBER
1702130

DESIGNED
RPT
CHECKED

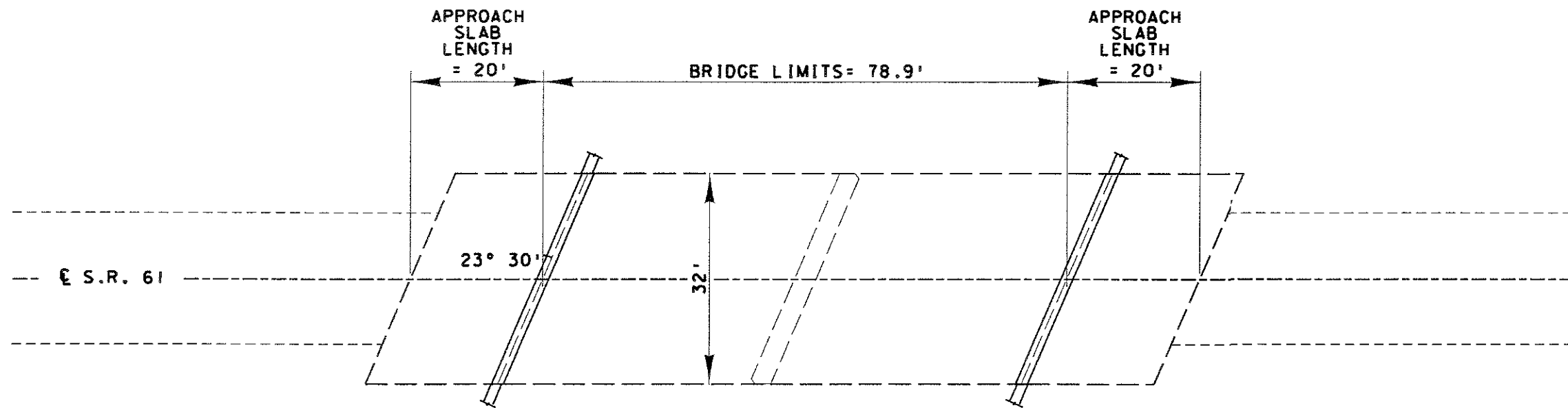
DRAWN
RPT
REVISED

CONCRETE SEALING DETAILS
CRA-61-1064
OVER PARAMOUR CREEK

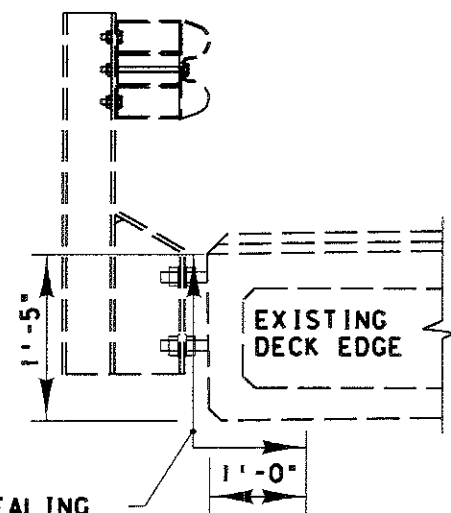
CRA-19-4.21

12/12

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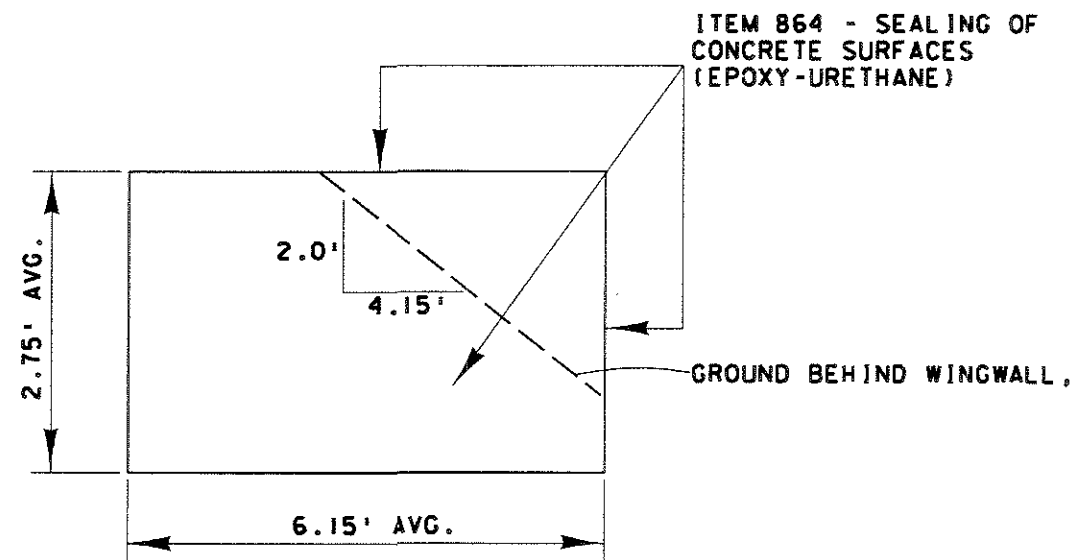


PLAN VIEW



ITEM 864 - SEALING OF CONCRETE SURFACES (EPOXY-URETHANE)

TYPICAL BEAM VIEW



TYPICAL WINGWALL VIEW

(1.5' THICK)

NOTES:

- 1) THE EXISTING BRIDGE RAIL AND GUARDRAIL ARE NOT SHOWN. SEE SHEET NO. 93 FOR DETAILS
- 2) POLYMER MODIFIED ASPHALT EXPANSION JOINTS SHALL BE INSTALLED AT BOTH ENDS OF THE STRUCTURE. FOR DETAILS SEE SHEET NO. 65
- 3) THE WINGWALLS AND FASCIA BEAM SHALL BE SEALED USING ITEM 864 - SEALING OF CONCRETE SURFACES (EPOXY-URETHANE)

ITEM	QUANTITY	UNIT	DESCRIPTION
864	58	SQ. YD.	SEALING OF CONCRETE SURFACES (EPOXY-URETHANE)
SPECIAL	70	LIN. FT.	POLYMER MODIFIED ASPHALT EXPANSION JOINT SYSTEM (4" THICK)

ALL QUANTITIES CARRIED TO STRUCTURE SUMMARY SHEET, SHEET NO. 61

CONNECTION BETWEEN EXISTING AND PROPOSED GUARDRAIL

WHEN IT IS NECESSARY TO SPLICE PROPOSED GUARDRAIL TO EXISTING GUARDRAIL, ONLY THE EXISTING GUARDRAIL SHALL BE CUT, DRILLED, OR PUNCHED. THE CONNECTION SHALL BE MADE USING A "W-BEAM RAIL SPLICE" AS SHOWN ON STANDARD CONSTRUCTION DRAWING GR-1.2M. PAYMENT SHALL BE INCLUDED IN THE CONTRACT PRICE FOR THE RESPECTIVE GUARDRAIL ITEMS.

GUARDRAIL REPLACEMENT

NO HAZARD SHALL BE LEFT UNPROTECTED EXCEPT FOR THE ACTUAL TIME NECESSARY TO REMOVE GUARDRAIL, INSTALL EMBANKMENT, GRADE AND REINSTALL GUARDRAIL IN A CONTINUOUS OPERATION. THE REMOVAL OF ALL GUARDRAIL SHALL AT ALL TIMES BE AS DIRECTED BY THE ENGINEER. NO GUARDRAIL SHALL BE REMOVED UNTIL THE REPLACEMENT MATERIAL IS ON SITE, READY FOR INSTALLATION. FAILURE TO COMPLY WITH THIS REQUIREMENT SHALL BE DEEMED SUFFICIENT CAUSE TO ORDER WORK SUSPENDED ON THIS PROJECT UNTIL SUCH TIME THAT THE ENGINEER IS ASSURED OF SAID COMPLIANCE.

ITEM 202 ANCHOR ASSEMBLY REMOVED, TYPE A

THIS ITEM SHALL INCLUDE THE REMOVAL OF THE EXISTING TYPE A, ANCHOR ASSEMBLY INCLUDING ALL POSTS, HARDWARE, RAIL ELEMENTS, AND CONCRETE ANCHORS. ALL ITEMS REMOVED SHALL BECOME THE PROPERTY OF THE CONTRACTOR AND SHALL BE PROPERLY DISPOSED OF.

THE EXISTING CONCRETE ANCHOR AND CONCRETE AT POSTS SHALL BE REMOVED ENTIRELY. ALL HOLES REMAINING AFTER REMOVAL SHALL BE FILLED WITH GRANULAR MATERIAL OR EXCESS MATERIAL RESULTING FROM GUARDRAIL CONSTRUCTION. ALL FILL MATERIAL SHALL BE THOROUGHLY COMPACTED AND LEVELED, AS DIRECTED BY THE ENGINEER.

PAYMENT FOR ALL OF THE ABOVE SHALL BE INCLUDED IN THE UNIT BID PRICE FOR ITEM 202, ANCHOR ASSEMBLY REMOVED, TYPE A.

ITEM 606 GUARDRAIL MISC.: ADJUST HEIGHT, EXISTING TYPE 5 GUARDRAIL

WHERE DESIGNATED ON THE PLAN, THE EXISTING TYPE 5 GUARDRAIL SHALL BE RAISED OR LOWERED ON THE EXISTING WOOD POSTS AS PER STANDARD DRAWING GR-2.1M SO AS TO OBTAIN THE STANDARD 27 3/4 IN. HEIGHT. THE RAIL SHALL BE REATTACHED TO THE POSTS USING NEW POST BOLTS. FOR RAIL THAT REQUIRES BEING LOWERED THE POSTS SHALL BE CUT OR TRIMMED AND THE TOPS SHALL BE TREATED.

THE RAIL SHALL BE DISMANTLED ONLY TO THE EXTENT NECESSARY TO FIELD BORE NEW BOLT HOLES IN THE WOOD POSTS, AND TO RECONNECT THE RAIL AND BLOCK TO EXISTING POSTS.

THE EXISTING ANCHOR ASSEMBLIES THAT ARE TO REMAIN SHALL NOT BE ADJUSTED. THE LAST RAIL ELEMENT SHALL BE TRANSITIONED TO MEET THESE ASSEMBLIES.

PAYMENT FOR ALL OF THE ABOVE SHALL BE AT THE UNIT PRICE BID ITEM 606, GUARDRAIL MISC.: ADJUST HEIGHT, EXISTING TYPE 5 GUARDRAIL, WHICH SHALL INCLUDE ALL LABOR, EQUIPMENT, MATERIALS AND INCIDENTALS NECESSARY TO COMPLETE THE ABOVE WORK.

ITEM 606 - GUARDRAIL MISC. GUARDRAIL RAIL ELEMENT

THIS ITEM SHALL BE USED IN CONJUNCTION WITH ITEMS 606 - GUARDRAIL, MISC.: ADJUST HEIGHT, EXISTING TYPE 5 GUARDRAIL AS DIRECTED BY THE ENGINEER. IT SHALL CONSIST OF REPLACING EXISTING GUARDRAIL RAIL ELEMENTS DEEMED BY THE ENGINEER TO BE INSUFFICIENT. THE RAIL ELEMENTS SHALL BE OF THE SAME TYPE, AND SIZE OF THE EXISTING GUARDRAIL RUN. THEY SHALL BE PLACED IN ACCORDANCE WITH STANDARD CONSTRUCTION DRAWING GR-1.2M.

A QUANTITY OF 10 GUARDRAIL RAIL ELEMENTS HAVE BEEN INCLUDED IN THE TOTAL ON THE GENERAL SUMMARY SHEET AS A CONTINGENCY.

LOCATIONS OF GUARDRAIL

THE GUARDRAIL PROTECTION PROVIDED IN THIS PLAN SHALL BE LOCATED IN THE FIELD TO ASSURE THAT THE INSTALLATION WILL AFFORD THE MAXIMUM PROTECTION FOR TRAFFIC. THIS LOCATION SHALL BE POSITIONED AS FAR AS POSSIBLE FROM THE EDGE OF PAVEMENT WHILE MAINTAINING PROPER GRADE IN FRONT OF GUARDRAIL AS PER STANDARD DRAWINGS AND PLAN DETAILS.

ITEM 606 - ANCHOR ASSEMBLY, TYPE E-98

THIS ITEM SHALL CONSIST OF FURNISHING AND INSTALLING EITHER OF THE FOLLOWING GUARDRAIL END TERMINALS.

- 1) THE ET-2000 (1997) MANUFACTURED BY TRINITY INDUSTRY, 1170 N. STATE STREET, GIRARD, OHIO 44420 (TELEPHONE: 330-545-4373).

THE LENGTH OF THE ET-2000 (1997) SYSTEM IS CONSIDERED TO BE 50 FEET (15.24 m), INCLUSIVE OF TWO 25 FOOT (7.62 m) LONG RAIL ELEMENTS. INSTALLATION SHALL BE AT THE LOCATIONS SPECIFIED IN THE PLANS, IN ACCORDANCE WITH THE MANUFACTURER'S SPECIFICATIONS AS DETAILED ON THE FOLLOWING PRE-APPROVED SHOP DRAWINGS:

Dwg. #	Drawing Name	Dwg./Rev. Date	ODOT Approval Date
SS265M	ET-2000 (1997) PLAN, ELEVATION & SECTIONS	6/20/97	3/6/98
SS142	ET-2000 PLUS 50'-0" PLAN, ELEVATION & SECTION 25'-0" RAIL, SLEEVE W/PL POSTS 1-4	4/12/00	7/31/00
SS141	ET-2000 PLUS PLAN, ELEVATION & SECTION 25'-0" RAIL, HBA POSTS 1-4	2/29/00	7/31/00
SS158	ET-2000 PLUS 50'-0" WITH 12'-6" PANELS & HBA POSTS 1-4 PLAN, ELEVATION & SECTION	5/22/00	7/31/00

- 2) THE SKT-350 MANUFACTURED BY ROAD SYSTEMS, INC., 2516 MALLORY LANE, STOW, OHIO 44224 (TELEPHONE: 330-346-0721)

THE LENGTH OF THE SKT-350 SYSTEM IS CONSIDERED TO BE 50'-0" (15.24 m), INCLUSIVE OF FOUR 12'-6" (3.81m) LONG RAIL ELEMENTS. INSTALLATION SHALL BE AT THE LOCATIONS SPECIFIED IN THE PLANS, IN ACCORDANCE WITH THE MANUFACTURER'S SPECIFICATIONS AS DETAILED ON THE FOLLOWING PRE-APPROVED SHOP DRAWINGS:

Dwg. #	Drawing Name	Dwg./Rev. Date	ODOT Approval Date
SKT-4M	SEQUENTIAL KINKING TERMINAL (SKT-350) ASSEMBLY WITH 4 FOUNDATION TUBES	12/11/97	3/6/98

THE FACE OF THE TYPE E-98 IMPACT HEAD SHALL BE COVERED WITH A SHEET OF TYPE G REFLECTIVE SHEETING, PER CMS 730.19, APPROXIMATELY 18' x 18' (450mm x 450mm).

THE CONTRACTOR MAY USE A SALVAGED EXTRUDER WHEN ASSEMBLING THE ITEM 606 ANCHOR ASSEMBLY, TYPE E-98. ALL WELDS ON THE EXTERIOR OF THE SALVAGED EXTRUDER SHALL NOT BE DAMAGED AND THE FEEDER SHUTE SHALL NOT BE BENT.

REFER TO THE MANUFACTURER'S INSTRUCTION REGARDING THE INSTALLATION OF, AND THE GRADING AROUND, THE FOUNDATION TUBES AND GROUND STRUT. THE TOP OF ANY FOUNDATION TUBE SHOULD BE LESS THAN 4 INCHES (100mm) ABOVE THE GROUND. THE PLACEMENT OF THE FOUNDATION TUBES SHOULD BE AN APPROPRIATE DEPTH BELOW THE LEVEL LINE IN ORDER TO MAINTAIN THE FINISHED GUARDRAIL HEIGHT OF 27 3/4 INCHES (706mm) FROM THE EDGE OF THE SHOULDER.

ON SITE GRADING IS REQUIRED IF THE TOP OF THE FOUNDATION TUBES OR TOP OF THE GROUND STRUT DOES NOT PROJECT MORE THAN 4 INCHES (100mm) ABOVE THE GROUND LINE.

PAYMENT FOR THE ABOVE WORK SHALL BE MADE AT THE UNIT PRICE BID FOR ITEM 606, ANCHOR ASSEMBLY, TYPE E-98, EACH, AND SHALL INCLUDE ALL LABOR, TOOLS, EQUIPMENT AND MATERIALS NECESSARY TO CONSTRUCT A COMPLETE AND FUNCTIONAL ANCHOR ASSEMBLY SYSTEM, INCLUDING ALL RELATED TRANSITIONS, REFLECTIVE SHEETING, HARDWARE, GRADING, EMBANKMENT AND EXCAVATION NOT SEPARATELY SPECIFIED, AS REQUIRED BY THE MANUFACTURER.

ITEM 203. EMBANKMENT, AS PER PLAN

AT SPECIFIED LOCATIONS AND LOCATIONS AS DIRECTED BY THE ENGINEER, EMBANKMENT SHALL BE PLACED AS TO PROVIDE A SUITABLE AREA TO CONSTRUCT GUARDRAIL AND TO PROVIDE FOR THE STRUCTURAL INTEGRITY OF THE ROADWAY SHOULDER.

AREAS WHERE EMBANKMENT MATERIALS ARE TO BE PLACED SHALL BE SCALPED. THE REQUIREMENTS FOR BENCHING SHALL BE WAIVED. THE DEPTH OF LAYERS IN WHICH THE EMBANKMENTS ARE PLACED AND THE METHOD OF COMPACTION SHALL BE DETERMINED BY THE ENGINEER. AFTER THE EMBANKMENT HAS BEEN PLACED, THE AREAS SHALL BE FERTILIZED, SEED, MULCHED, AND WATERED AS PER ITEM 870. THE COST SHALL BE INCLUDED IN THIS ITEM FOR PAYMENT. THE METHOD OF MEASUREMENT FOR EMBANKMENT MATERIAL SHALL BE THE NUMBER OF CUBIC YARDS MEASURED BY LOOSE VOLUME IN THE CARRIER AT THE WORK SITE, IN LIEU OF THE REQUIREMENTS OF 203.15, AND PAYMENT FOR ACCEPTED QUANTITIES WILL BE MADE AT THE CONTRACT UNIT BID PRICE PER CUBIC YARD FOR ITEM 203 - EMBANKMENT, AS PER PLAN AND SHALL INCLUDE ALL WORK DESCRIBED ABOVE AND AT ALL TIMES BE AS DIRECTED BY THE ENGINEER.

ITEM SPECIAL - RESHAPING BERM

BERMS AND SHOULDERS AT LOCATIONS WHERE EXISTING GUARDRAIL IS REMOVED OR WHERE GUARDRAIL IS TO BE BUILT, SHALL BE RESHAPED AS DIRECTED BY THE ENGINEER TO INSURE A SMOOTH SURFACE FREE OF IRREGULARITIES. EXCESS MATERIAL RESULTING SHALL BE USED ELSEWHERE FOR THIS ITEM IF SO DIRECTED OR DISPOSED OF. IF EXTRA MATERIAL IS REQUIRED IT SHALL BE PAID FOR WITH ITEM 203 - EMBANKMENT, AS PER PLAN. THIS WORK SHALL NOT BE STARTED UNTIL AFTER THE RESURFACING AND BERM WORK HAS BEEN COMPLETED.

THE AREA IN FRONT OF THE GUARDRAIL SHALL BE GRADED AND RESHAPED TO PROVIDE AN AREA THAT HAS A SLOPE OF 10:1 MAX.

THE ABOVE WORK SHALL BE PAID FOR WITH ITEM SPECIAL, RESHAPING BERM WITH THE EXCEPTION OF ANY EXTRA MATERIAL REQUIRED TO MEET THE SLOPE REQUIREMENTS WHICH SHALL BE PAID BY ITEM 203 - EMBANKMENT, AS PER PLAN.

ITEM 606 - GUARDRAIL POST

THIS ITEM SHALL BE USED IN CONJUNCTION WITH ITEM 606 - GUARDRAIL, MISC.: ADJUST HEIGHT, EXISTING TYPE 5 GUARDRAIL, AND AS DIRECTED BY THE ENGINEER. IT SHALL CONSIST OF REPLACING EXISTING GUARDRAIL POSTS DEEMED BY THE ENGINEER TO BE INSUFFICIENT. THE POSTS SHALL BE OF THE SAME TYPE, SIZE, AND SPACING OF THE EXISTING GUARDRAIL RUN. THEY SHALL BE PLACED IN ACCORDANCE WITH STANDARD CONSTRUCTION DRAWING GR-1.2M.

A QUANTITY OF 20 POSTS IS INCLUDED IN THE TOTAL ON THE GENERAL SUMMARY SHEET AS A CONTINGENCY.

GUARDRAIL REPAIR AND/OR REPLACEMENT

THE FOLLOWING CONTINGENCY QUANTITIES ARE CARRIED TO THE GENERAL SUMMARY AND SHALL BE USED FOR THE REPAIR AND/OR REPLACEMENT OF DAMAGED GUARDRAIL NOTICED DURING THE COMPLETION OF OTHER WORK INCLUDED ON THIS PLAN. THE ABOVE WORK SHALL BE COMPLETED AS DIRECTED BY THE ENGINEER.

- 125 LIN.FT. ITEM 202, GUARDRAIL REMOVED
- 125 LIN.FT. ITEM 606, GUARDRAIL, TYPE 5
- 1 EACH ITEM 606, ANCHOR ASSEMBLY, TYPE A
- 125 LIN.FT. ITEM SPECIAL RESHAPING BERM
- 1 EACH ITEM 202, ANCHOR ASSEMBLY REMOVED, TYPE A

DESIGNED CVH
CHECKED MJS

GUARDRAIL GENERAL NOTES

CRA-19-4.21

PART	LOCATION	202	202	203	606	606	606	606	606	606	606	SPECIAL	626					
		GUARDRAIL REMOVED	ANCHOR ASSEMBLY REMOVED, TYPE A	EMBANKMENT, AS PER PLAN	GUARDRAIL, TYPE 5	ANCHOR ASSEMBLY, TYPE A	ANCHOR ASSEMBLY, TYPE T	BRIDGE TERMINAL ASSEMBLY, TYPE 3, (MODIFIED)	BRIDGE TERMINAL ASSEMBLY, TYPE 4	GUARDRAIL MISC.: ADJUST HEIGHT, EXISTING TYPE 5 GUARDRAIL	ANCHOR ASSEMBLY, TYPE E-98	RESHAPING BERM	BARRIER REFLECTOR, TYPE A					
		lin. ft.	each	cubic yard	lin. ft.	each	each	each	each	lin. ft.	each	lin. ft.	each					
A	CRA-19-4.29 S.L.M.	87.5	2	16	112.5		2				2	287.5	5					
A	CRA-19-0613 (S.L.M.)									425			11					
A	CRA-19-0622 (S.L.M.)									437.5			10					
A	CRA-19-0845 (S.L.M.)	300		30	300			4				300	8					
A	CRA-19-1080 (S.L.M.)			28						287.5		50	8					
B	CRA-61-8.75 S.L.M.			5	50	2						100	2					
C	CRA-61-0893 (S.L.M.)			6						300		24	8					
C	CRA-61-1064 (S.L.M.)				SEE ROADWAY SUB-SUMMARY													
D	RIC-61-0346 (S.L.M.)	300	4	30	300	4		4				400	8					
TOTAL		688	6	115	763	6	2	8	1450	2	1162	60						

CALC BY: CVH
CHK'D BY:

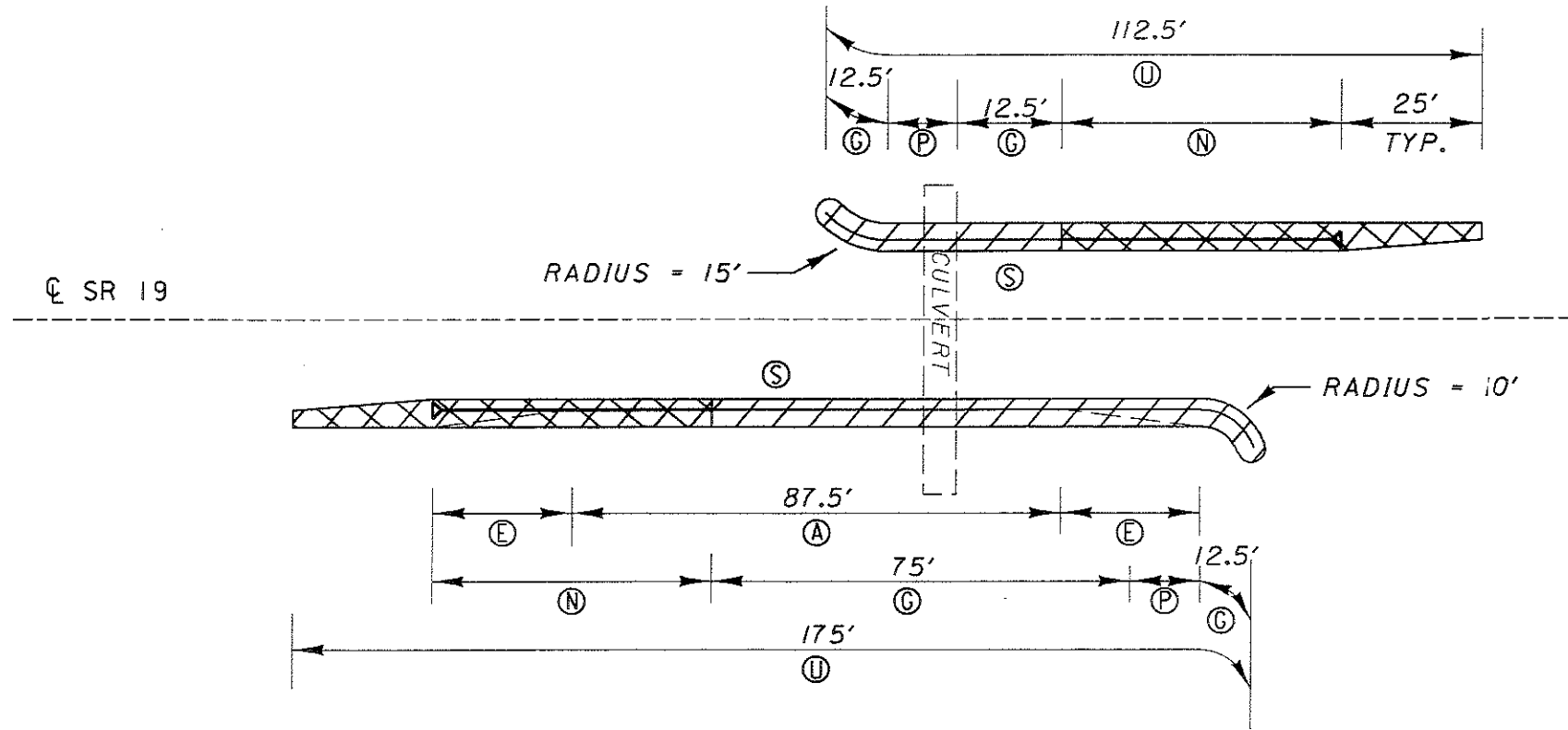
GUARDRAIL ESTIMATED QUANTITIES

CRA-19-4.21

DATE: 10/31/02

WORKSTATION: cvanhorn

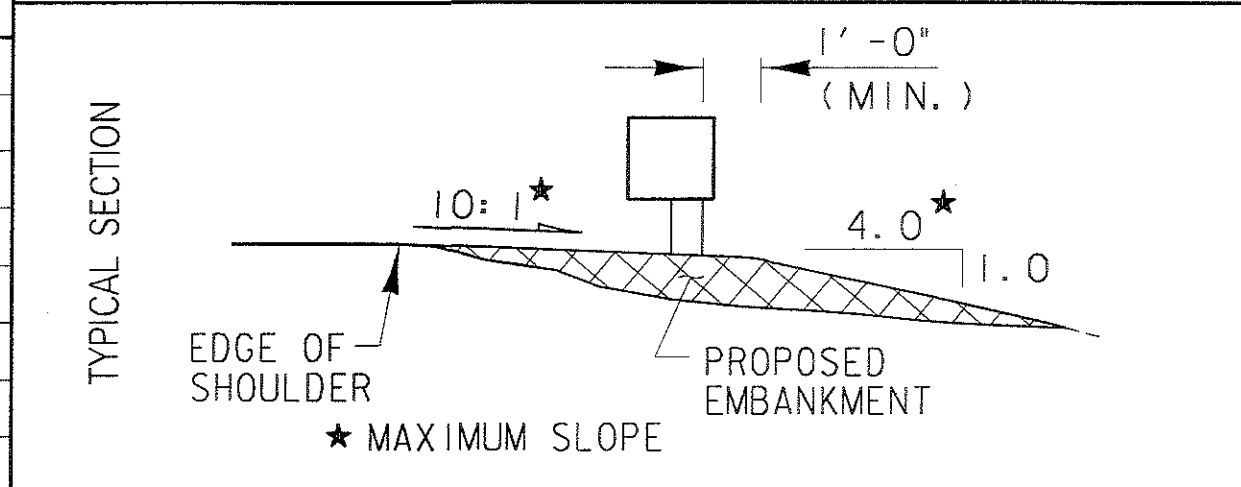
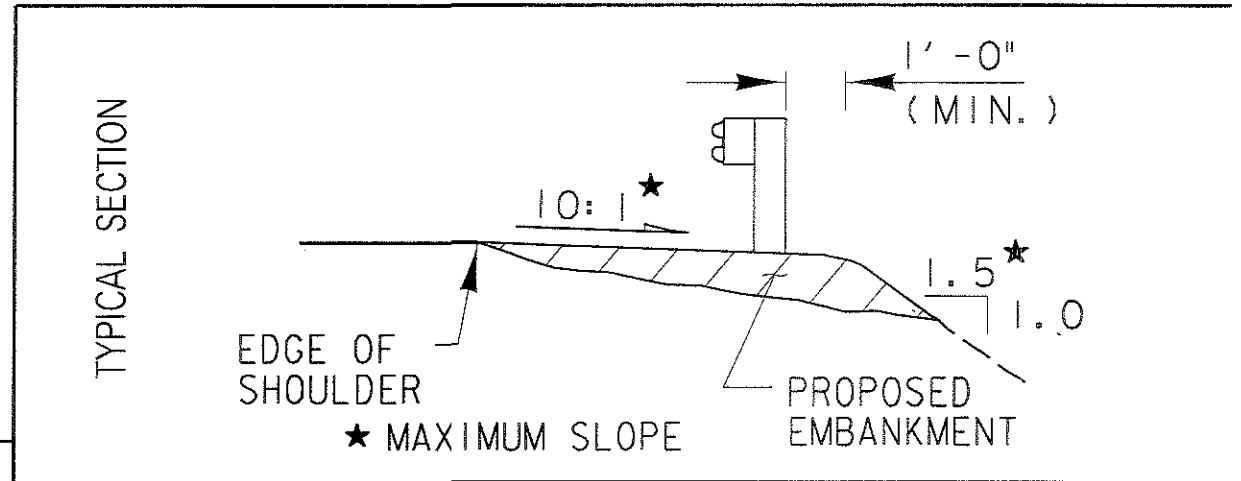
DESIGN FILE: i:\projects\16923\grd\drail.dgn



NOTES:

1. ALL QUANTITIES CARRIED TO ESTIMATED QUANTITIES, SHEET 84

LOCATION	ITEM	DESCRIPTION	UNIT	QUANTITY		TOTAL QUANTITY
				LEFT	RIGHT	
Ⓐ	202	GUARDRAIL REMOVED	lin. ft.	87.5		87.5
Ⓔ	202	ANCHOR ASSEMBLY REMOVED, TYPE A	each	2		2
▨ ▩	203	EMBANKMENT, AS PER PLAN	cubic yard	10	6	16
Ⓒ	606	GUARDRAIL, TYPE 5	lin. ft.	87.5	25	112.5
Ⓖ	606	ANCHOR ASSEMBLY, TYPE E-98	each	1	1	2
Ⓟ	606	ANCHOR ASSEMBLY, TYPE T	each	1	1	2
Ⓤ	SPECIAL	RESHAPING BERM	lin. ft.	175	112.5	287.5
Ⓢ	626	BARRIER REFLECTOR, TYPE A	each	3	2	5



DESIGN AGENCY
DISTRICT THREE
PRODUCTION DEPARTMENT

DATE
REVIEWED
DRAWN
DESIGNED
MJS
MJS
CVH
CVH
MJS
MJS

STRUCTURAL FILE NUMBER
10-02
10-02
REVISER
REVISER
CHECKED
CHECKED

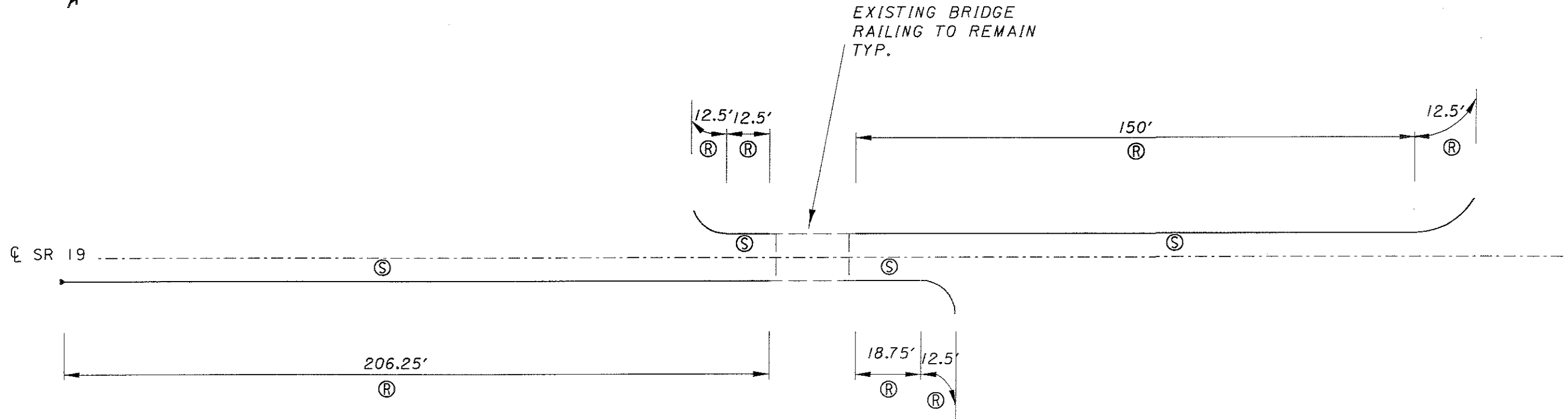
GUARDRAIL DETAIL
CRA-19-4.29 S.L.M.

CRA-19-4.21
85
101

DATE: 10/31/02

WORKSTATION: cvanhorn

DESIGN FILE: i:\projects\16923\grd\rail.dgn



NOTES:

- 1. ALL QUANTITIES CARRIED TO ESTIMATED QUANTITIES, SHEET 84

LOCATION	ITEM	DESCRIPTION	UNIT	QUANTITY		TOTAL QUANTITY
				LEFT	RIGHT	
Ⓜ	606	GUARDRAIL, MISC.: ADJUST HEIGHT, EXISTING TYPE 5 GUARDRAIL	lin. ft.	237.5	187.5	425
Ⓢ	626	BARRIER REFLECTOR, TYPE A	each	6	5	11

DESIGN AGENCY
DISTRICT THREE
PRODUCTION DEPARTMENT

DATE
10-02
REVIEWED
MJS
DRAWN
CVH
DESIGNED
MJS
CHECKED

GUARDRAIL DETAIL
CRA-19-0613 (S.L.M.)

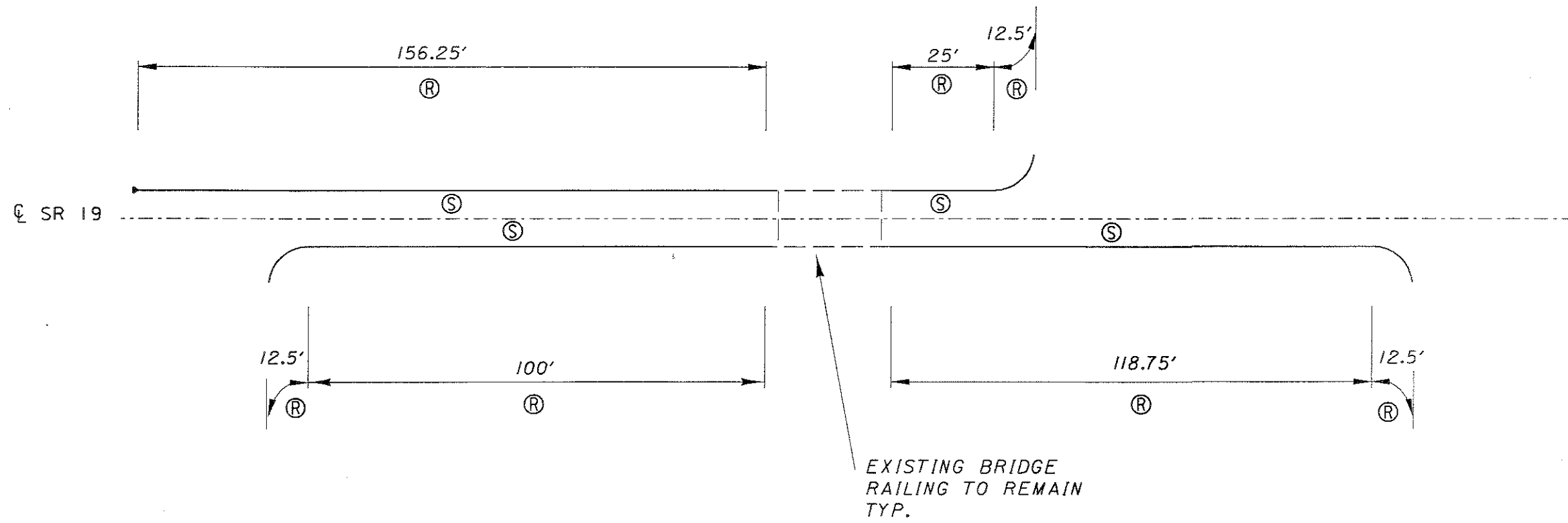
CRA-19-4.21

86
111

DATE: 10/31/02

WORKSTATION: cvanhorn

DESIGN FILE: i:\projects\16923\grd\rail.dgn



NOTES:

1. ALL QUANTITIES CARRIED TO ESTIMATED QUANTITIES, SHEET 84

LOCATION	ITEM	DESCRIPTION	UNIT	QUANTITY		TOTAL QUANTITY
				LEFT	RIGHT	
Ⓜ	606	GUARDRAIL, MISC.: ADJUST HEIGHT, EXISTING TYPE 5 GUARDRAIL	lin. ft.	243.75	193.75	437.5
Ⓢ	626	BARRIER REFLECTOR, TYPE A	each	5	5	10

DESIGN AGENCY
DISTRICT THREE
PRODUCTION DEPARTMENT

DATE
10-02
REVIEWED
MJS
STRUCTURAL FILE NUMBER

DRAWN
CVH
REVISED

DESIGNED
MJS
CHECKED

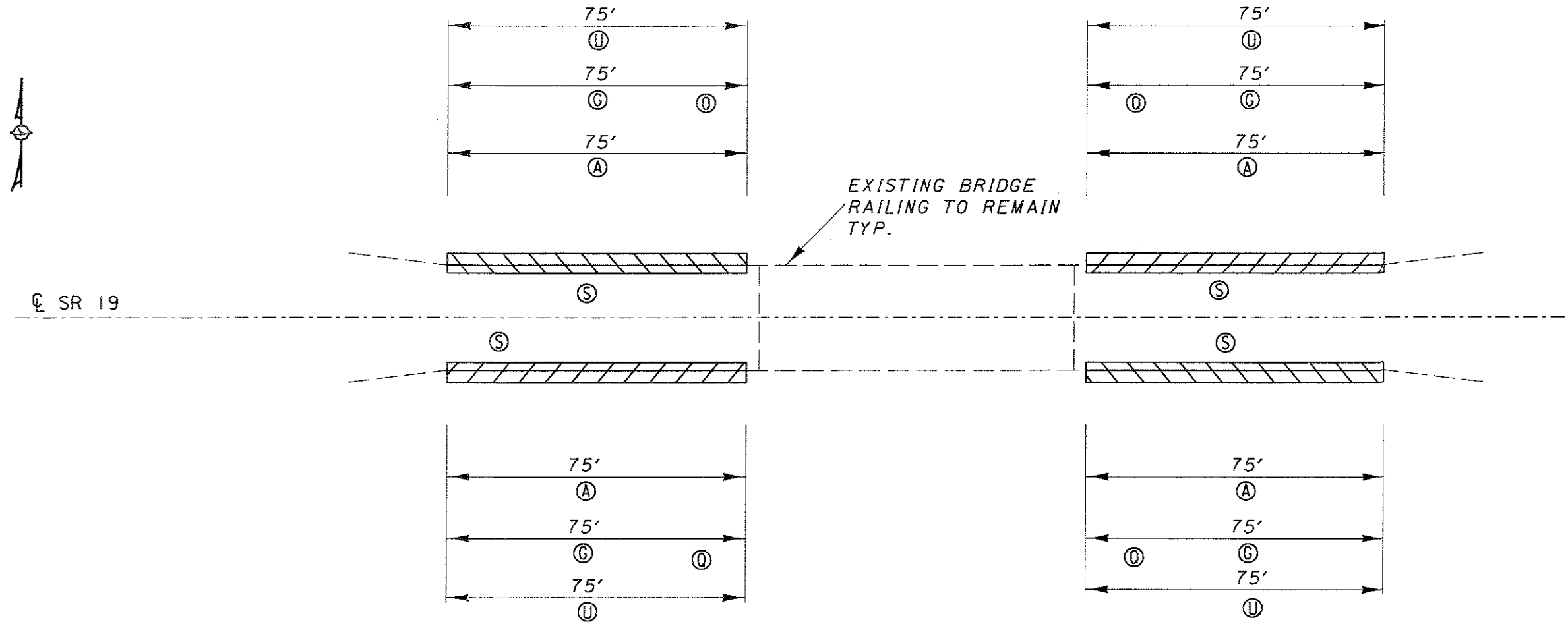
GUARDRAIL DETAIL
CRA-19-0622 (S.L.M.)

CRA-19-4.21

DATE: 10/23/02

WORKSTATION: cvanhorn

DESIGN FILE: i:\projects\16923\grd\rail.dgn

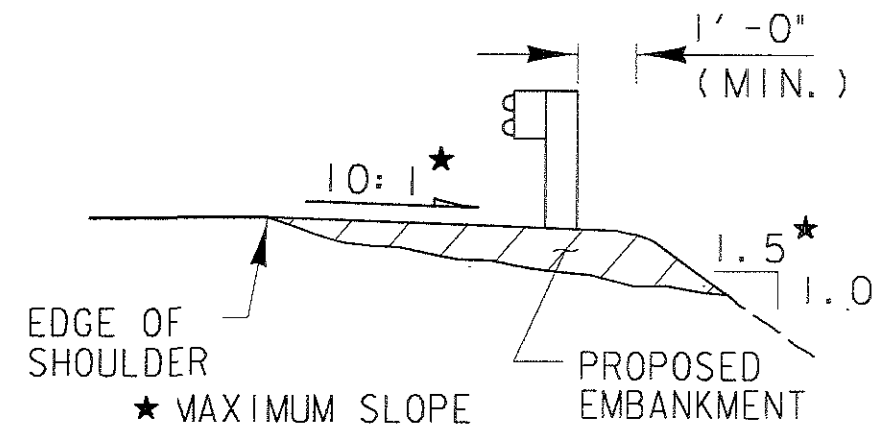


NOTES:

1. ALL QUANTITIES CARRIED TO ESTIMATED QUANTITIES, SHEET 84

LOCATION	ITEM	DESCRIPTION	UNIT	QUANTITY		TOTAL QUANTITY
				LEFT	RIGHT	
Ⓐ	202	GUARDRAIL REMOVED	lin. ft.	150	150	300
	203	EMBANKMENT, AS PER PLAN	cubic yard	15	15	30
Ⓒ	606	GUARDRAIL, TYPE 5	lin. ft.	150	150	300
Ⓓ	606	BRIDGE TERMINAL ASSEMBLY, TYPE 4	each	2	2	4
Ⓤ	SPECIAL	RESHAPING BERM	lin. ft.	150	150	300
Ⓢ	626	BARRIER REFLECTOR, TYPE A	each	4	4	8

TYPICAL SECTION

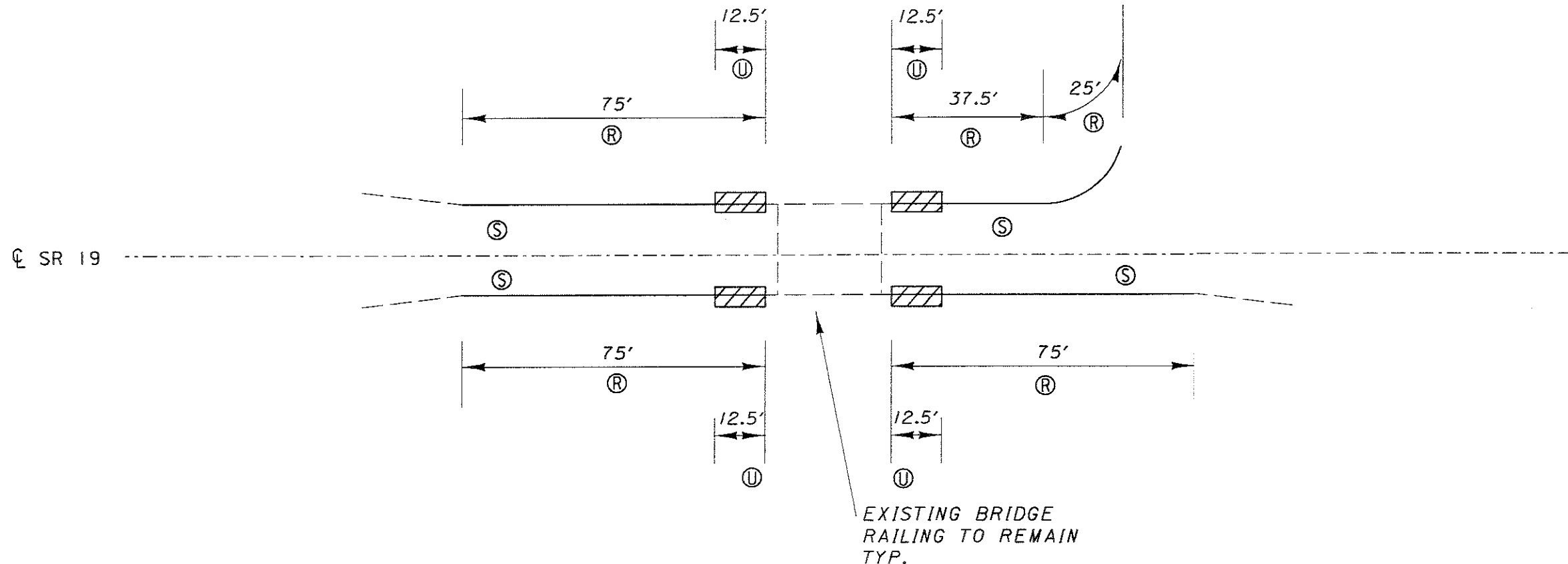


DESIGN AGENCY: DISTRICT THREE PRODUCTION DEPARTMENT
 DATE: 10-02
 REVIEWED: MJS
 DRAWN: CVH
 DESIGNED: MJS
 CHECKED: []
 GUARDRAIL DETAIL
 CRA-19-0845 (S.L.M.)
 CRA-19-4.21
 88
 III

DATE: 10/31/02

WORKSTATION: cvanhorn

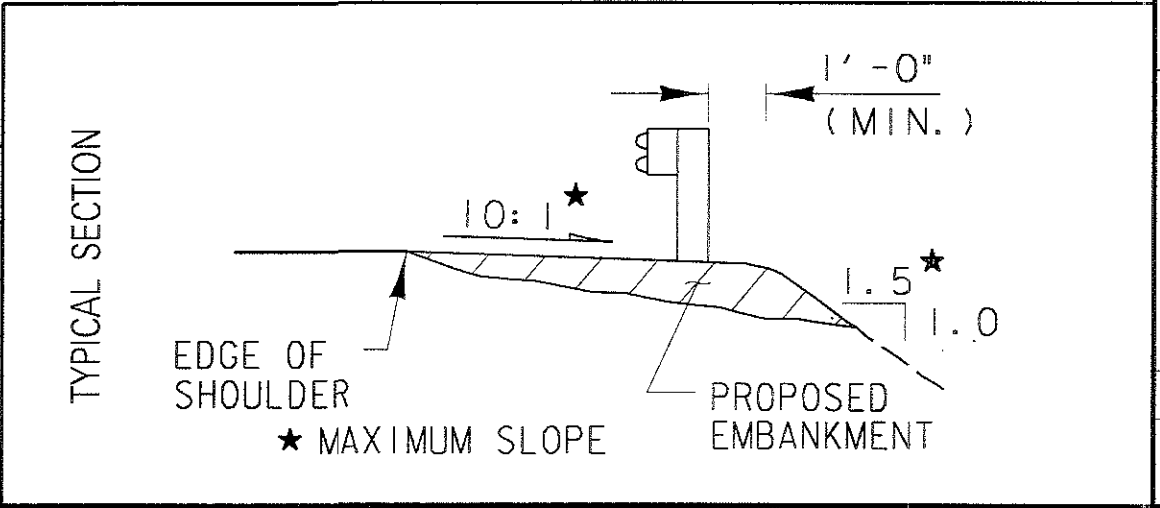
DESIGN FILE: i:\projects\16923\grd\rail.dgn



NOTES:

1. ALL QUANTITIES CARRIED TO ESTIMATED QUANTITIES, SHEET 84

LOCATION	ITEM	DESCRIPTION	UNIT	QUANTITY		TOTAL QUANTITY
				LEFT	RIGHT	
	203	EMBANKMENT, AS PER PLAN	cubic yard	10	18	28
Ⓜ	606	GUARDRAIL, MISC.: ADJUST HEIGHT, EXISTING TYPE 5 GUARDRAIL	lin. ft.	150	137.5	287.5
Ⓢ	SPECIAL	RESHAPING BERM	lin. ft.	25	25	50
Ⓢ	626	BARRIER REFLECTOR, TYPE A	each	4	4	8



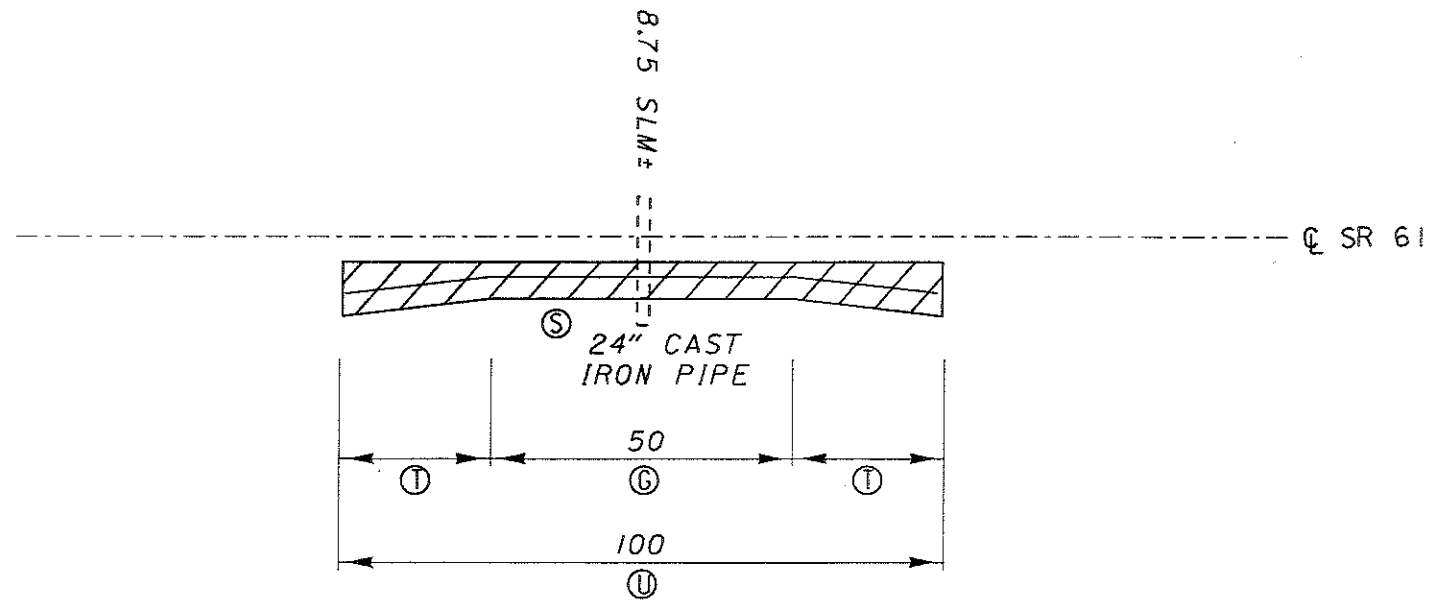
DESIGN AGENCY
DISTRICT THREE
PRODUCTION DEPARTMENT

DATE
10-02
REVIEWED
MJS
DRAWN
CVH
DESIGNED
MJS

GUARDRAIL DETAIL
CRA-19-1080 (S.L.M.)

CRA-19-4.21

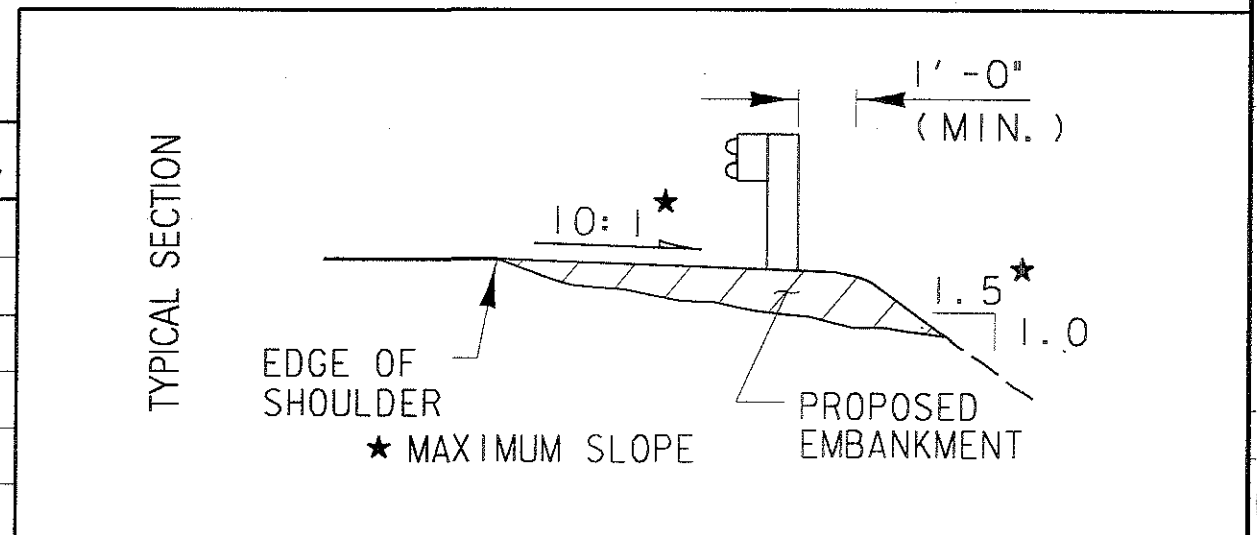
NOTE: NEW GUARDRAIL LOCATION



NOTES:

1. ALL QUANTITIES CARRIED TO ESTIMATED QUANTITIES, SHEET 84

LOCATION	ITEM	DESCRIPTION	UNIT	QUANTITY		TOTAL QUANTITY
				LEFT	RIGHT	
	203	EMBANKMENT, AS PER PLAN	cubic yard		8	8
ⓐ	606	GUARDRAIL, TYPE 5	lin. ft.		50	50
Ⓣ	606	ANCHOR ASSEMBLY, TYPE A	each		2	2
Ⓤ	SPECIAL	RESHAPING BERM	lin. ft.		100	100
Ⓢ	626	BARRIER REFLECTOR, TYPE A	each		2	2

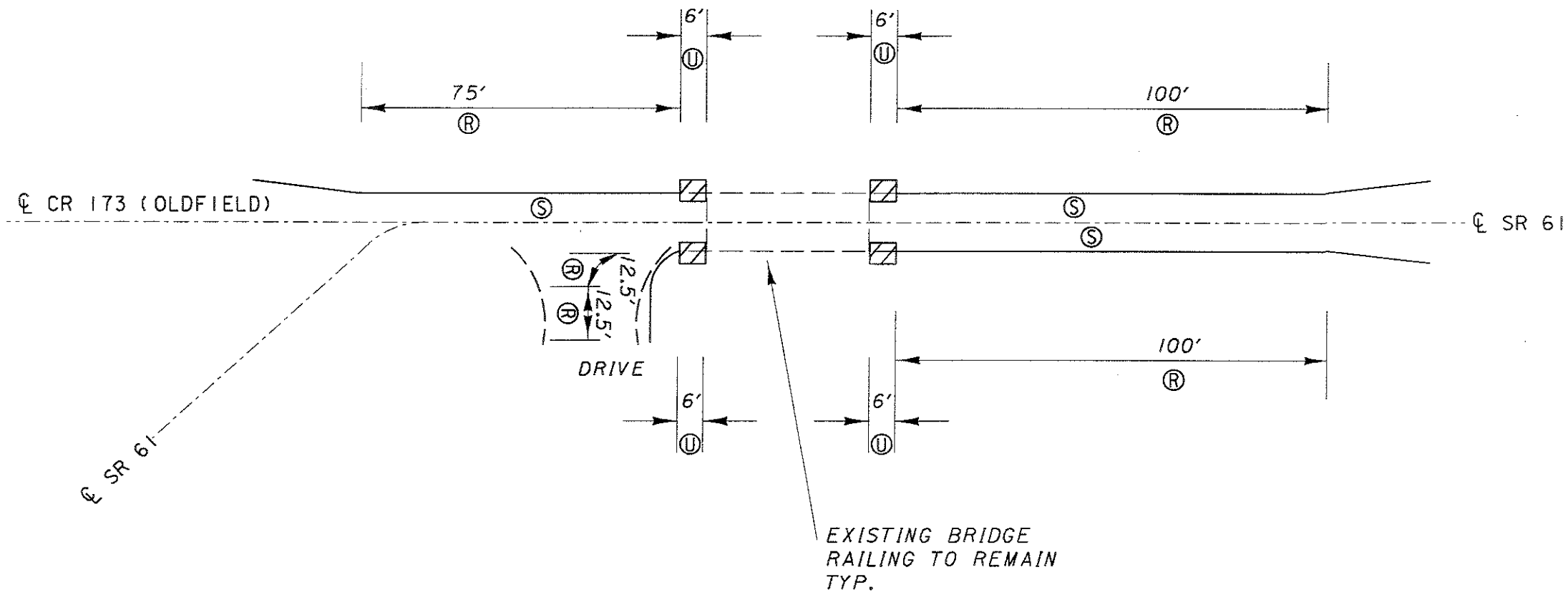


DESIGN AGENCY: DISTRICT THREE PRODUCTION DEPARTMENT
 DATE: 10-02
 REVIEWED: MJS
 STRUCTURAL FILE NUMBER:
 DRAWN: CVH
 CHECKED: MJS
 GUARDRAIL DETAIL
 CRA-61-8.75 S.L.M.
 CRA-19-4.21
 90
 III

DATE: 10/31/02

WORKSTATION: cvanhorn

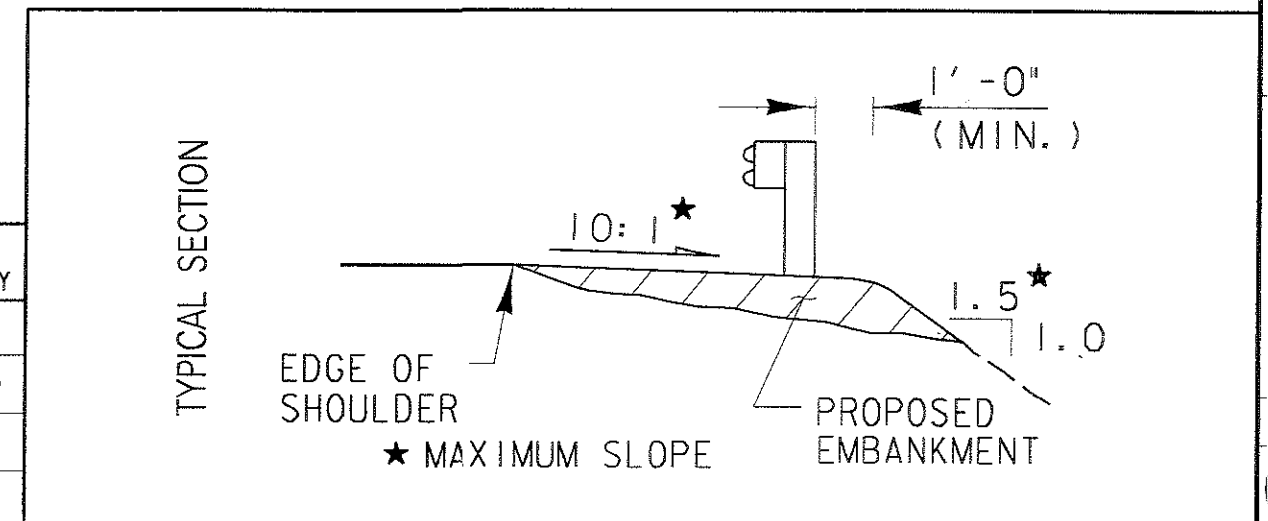
DESIGN FILE: i:\projects\16923\grd\rail.dgn



NOTES:

1. ALL QUANTITIES CARRIED TO ESTIMATED QUANTITIES, SHEET 84

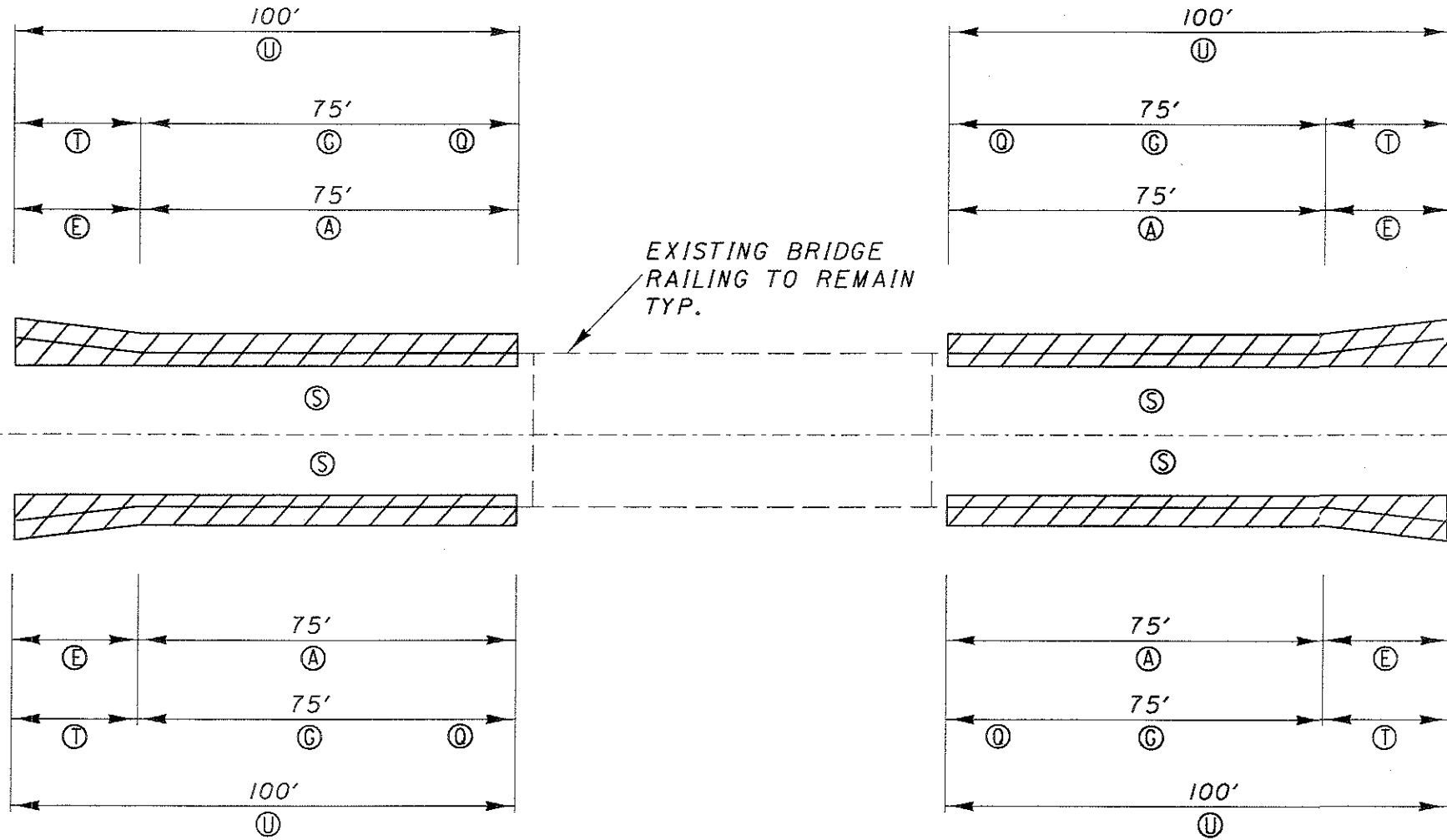
LOCATION	ITEM	DESCRIPTION	UNIT	QUANTITY		TOTAL QUANTITY
				LEFT	RIGHT	
	203	EMBANKMENT, AS PER PLAN	cubic yard	3	3	6
Ⓜ	606	GUARDRAIL, MISC.: ADJUST HEIGHT, EXISTING TYPE 5 GUARDRAIL	lin. ft.	175	125	300
Ⓢ	SPECIAL	RESHAPING BERM	lin. ft.	12	12	24
Ⓢ	626	BARRIER REFLECTOR, TYPE A	each	4	4	8



DATE: 10/31/02

WORKSTATION: cvanhorn

DESIGN FILE: i:\projects\16923\grd\rail.dgn

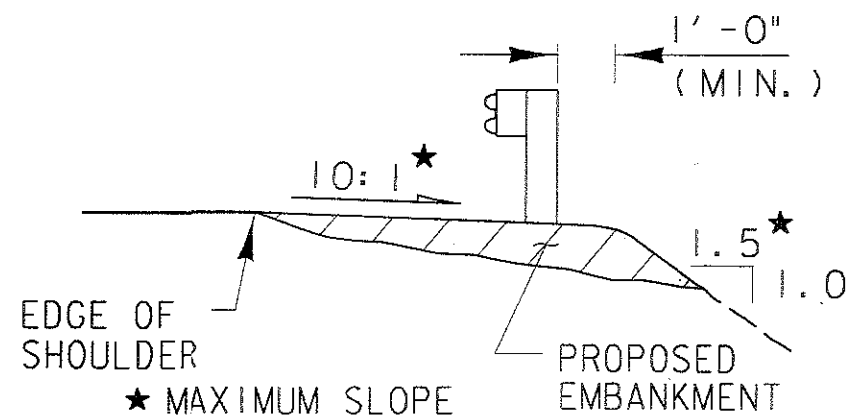


NOTES:

1. ALL QUANTITIES CARRIED TO ESTIMATED QUANTITIES, SHEET 84

LOCATION	ITEM	DESCRIPTION	UNIT	QUANTITY		TOTAL QUANTITY
				LEFT	RIGHT	
Ⓐ	202	GUARDRAIL REMOVED	lin. ft.	150	150	300
Ⓔ	202	ANCHOR ASSEMBLY REMOVED, TYPE A	each	2	2	4
	203	EMBANKMENT, AS PER PLAN	cubic yard	15	15	30
Ⓒ	606	GUARDRAIL, TYPE 5	lin. ft.	150	150	300
Ⓓ	606	BRIDGE TERMINAL ASSEMBLY, TYPE 4	each	2	2	4
Ⓙ	606	ANCHOR ASSEMBLY, TYPE A	each	2	2	4
Ⓚ	SPECIAL	RESHAPING BERM	lin. ft.	200	200	400
Ⓜ	626	BARRIER REFLECTOR, TYPE A	each	4	4	8

TYPICAL SECTION



DESIGN AGENCY: DISTRICT THREE PRODUCTION DEPARTMENT
 DATE: 10-02
 REVIEWED: MJS
 DRAWN: CVH
 DESIGNED: MJS
 CHECKED: MJS
 STRUCTURAL FILE NUMBER: SR 61
 GUARDRAIL DETAIL
 RIC-61-0346 S.L.M.
 CRA-19-4.21
 92
 III

ITEM SPECIAL, MAILBOX SUPPORT

THIS ITEM OF WORK SHALL CONSIST OF THE REMOVAL OF EXISTING NON-STANDARD MAILBOX SUPPORTS AND FURNISHING AND ERECTING MAILBOX SUPPORTS AND ANY ASSOCIATED HARDWARE IN ACCORDANCE WITH THE DETAILS SHOWN, AND ATTACHING AN OWNER SUPPLIED MAILBOX, AT LOCATIONS DETERMINED BY THE ENGINEER.

IN ABSENCE OF A NEW BOX SUPPLIED BY THE OWNER THE CONTRACTOR SHALL SALVAGE THE EXISTING BOX AND PLACE IT ON THE NEW SUPPORT. DUE CARE SHALL BE EXERCISED IN SUCH AN OPERATION, THE CONTRACTOR SHALL BE RESPONSIBLE FOR REPAIRING OR REPLACING ANY BOX DAMAGED BY IMPROPER HANDLING, AS JUDGED AND DIRECTED BY THE ENGINEER.

THE BOX SHALL BE SECURELY AND NEATLY ATTACHED BY THE CONTRACTOR TO THE NEW SUPPORT. THE CONTRACTOR SHALL SUPPLY ALL NECESSARY ATTACHMENT HARDWARE (NUTS, BOLTS, PLATES, SPACERS AND WASHERS) AS NECESSARY TO ACCOMMODATE THE COMPLETE INSTALLATION. SUPPORT HARDWARE SHALL ACCOMMODATE EITHER A SINGLE OR A DOUBLE MAILBOX INSTALLATION, AND NO MORE THAN TWO MAILBOXES MAY BE MOUNTED ON A SINGLE POST. [HARDWARE SHALL BE COMMERCIAL GRADE GALVANIZED STEEL]

WOOD POSTS SHALL BE NOMINAL 4 IN. x 4 IN. (S4S) OR 4 1/2 IN. DIAMETER ROUND, AND CONFORM TO 710.14. STEEL POSTS SHALL BE NOMINAL PIPE SIZE 2 IN. I. D., AND CONFORM TO AASHTO M 181.

POSTS SHALL BE SET AS PER THE FIRST PARAGRAPH OF 606.03, AND SHALL IN NO INSTANCE BE ENCASED IN CONCRETE.

THE CONTRACTOR SHALL BE RESPONSIBLE FOR COORDINATING WORK WITH THE LOCAL POST MASTER AND NOTIFYING THE PROPERTY OWNERS PRIOR TO WORK.

GROUP MAILBOX SUPPORTS SHALL BE PLACED ON 3 FT. CENTERS AND THE TURNOUT LENGTHENED TO ACCOMMODATE THE GROUPING.

WHERE GUARDRAIL EXISTS, MAILBOXES AND THEIR SUPPORTS SHALL BE PLACED BEHIND THE GUARDRAIL. SUPPORTS MUST STILL MEET THE BREAKAWAY REQUIREMENTS LISTED ABOVE.

THE FOLLOWING ESTIMATED QUANTITIES HAVE BEEN CARRIED TO THE GENERAL SUMMARY TO BE USED AS DESCRIBED ABOVE.

ITEM SPECIAL-MAILBOX SUPPORT SYSTEM, SINGLE

- PART A = 6 EACH
- PART B = 1 EACH
- PART C = 4 EACH
- PART D = 4 EACH

ITEM SPECIAL-MAILBOX SUPPORT SYSTEM, DOUBLE

- PART A = 0 EACH
- PART B = 0 EACH
- PART C = 1 EACH
- PART D = 1 EACH

MAILBOXES

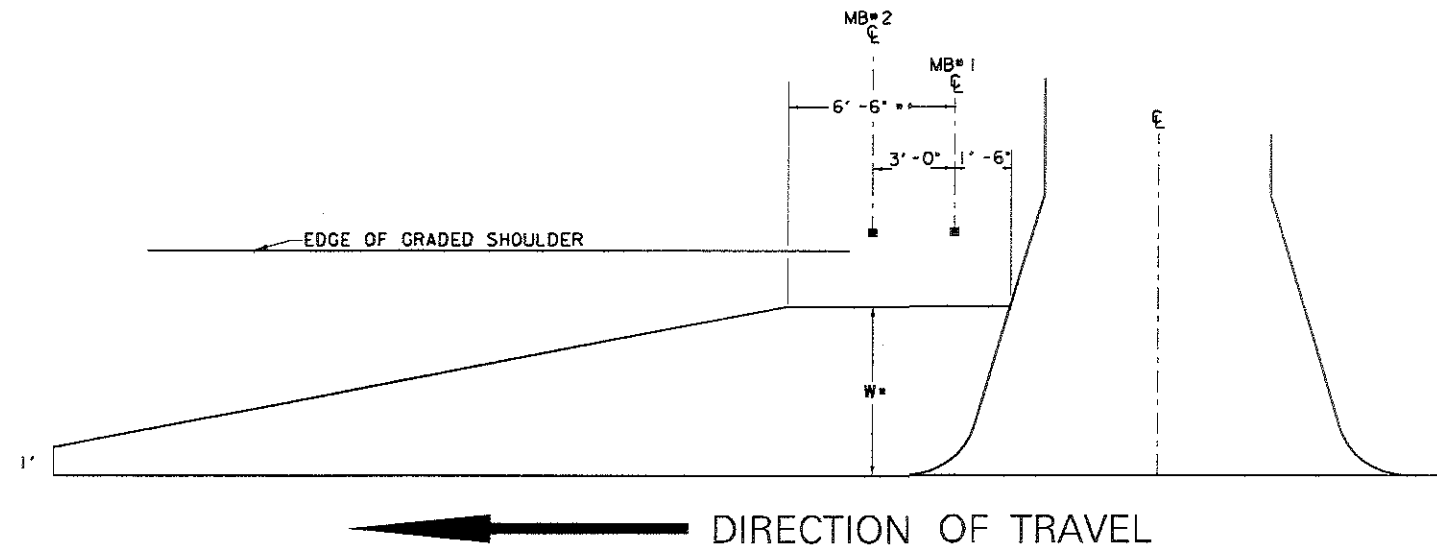
EXISTING AGGREGATE MAILBOX APPROACHES SHALL BE PAVED WITH 3/4 IN. OF 448 INTERMEDIATE COURSE AND 1-1/4 IN. OF 446 SURFACE COURSE. THEY SHALL CONFORM AS MUCH AS PRACTICAL TO STANDARD DRAWING BP 4.1 OR AS DIRECTED BY THE ENGINEER.

GRADING SHALL BE PERFORMED IN THESE AREAS TO OBTAIN A BASE WHICH WILL ALLOW THE FINISHED GRADE TO BE FLUSH WITH ADJACENT PAVEMENT. A QUANTITY OF ITEM 617 SHOULDER RECONDITIONING, MISC.: COMPACTED AGGREGATE HAS BEEN PROVIDED FOR AREAS WHERE THE SHOULDER IS LOW PRIOR TO GRADING AND/OR LOW AREAS CAUSED BY THE REMOVAL OF UNSUITABLE MATERIAL. QUANTITIES TO PERFORM THIS WORK HAVE BEEN INCLUDED IN THE GENERAL SUMMARY AND ARE ESTIMATED AS FOLLOWS.

ITEM 203, GRADING MAILBOX APPROACHES:

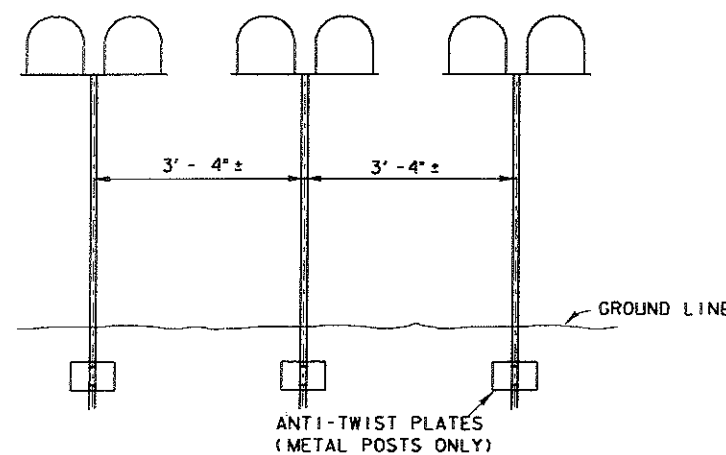
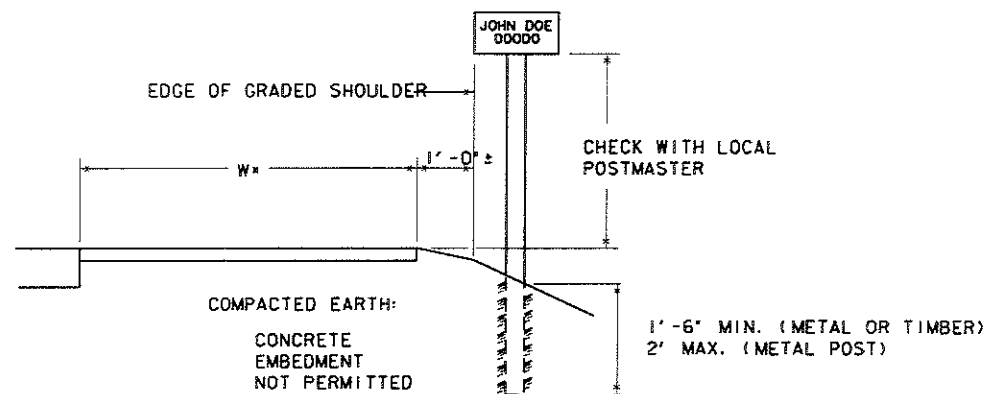
- PART A = 119 EACH
- PART B = 7 EACH
- PART C = 11 EACH
- PART D = 28 EACH

ITEM 617, SHOULDER RECONDITIONING, MISC.: COMPACTED AGGREGATE 248 TONS

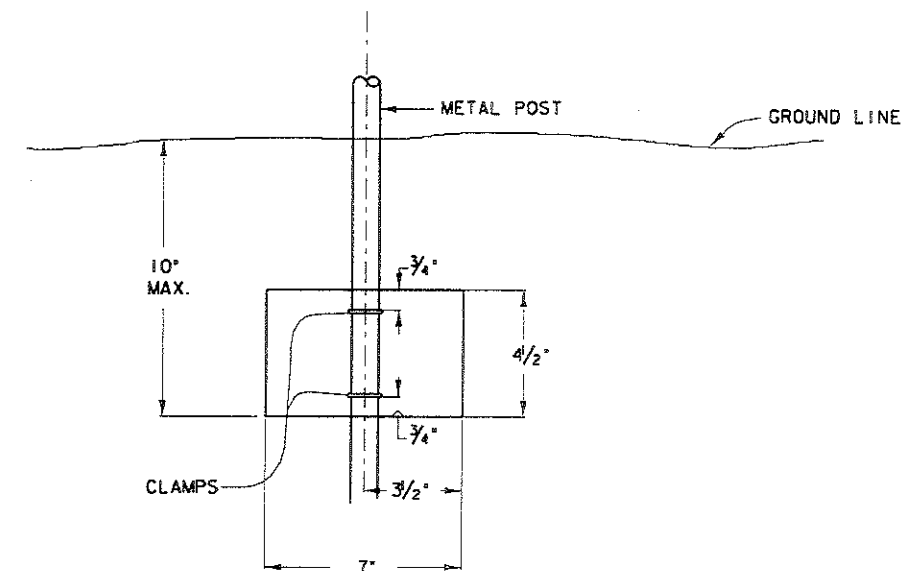


• WHERE MAILBOX POSTS ARE BEHIND GUARDRAIL, TURNOUT SHALL EXTEND TO FACE OF GUARDRAIL. WHERE NO GUARDRAIL IS REQUIRED, TURNOUT WIDTH SHALL BE 6 FT. MINIMUM, EXCEPT WHERE FIELD CONDITIONS WILL NOT PERMIT.

** ADD 3 FT. FOR EACH ADDITIONAL MAILBOX



GROUP MAILBOX INSTALLATION



ANTI-TWIST PLATE

DATE: 1/22/02

WORKSTATION: cvanhnorn

DESIGN FILE: i:\projects\16923\mailbox.dgn

CVH
MJS

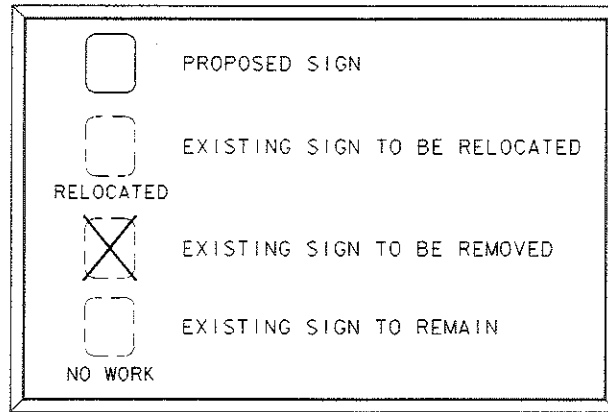
MAILBOX FACILITIES

CRA-19-4.21

93
111

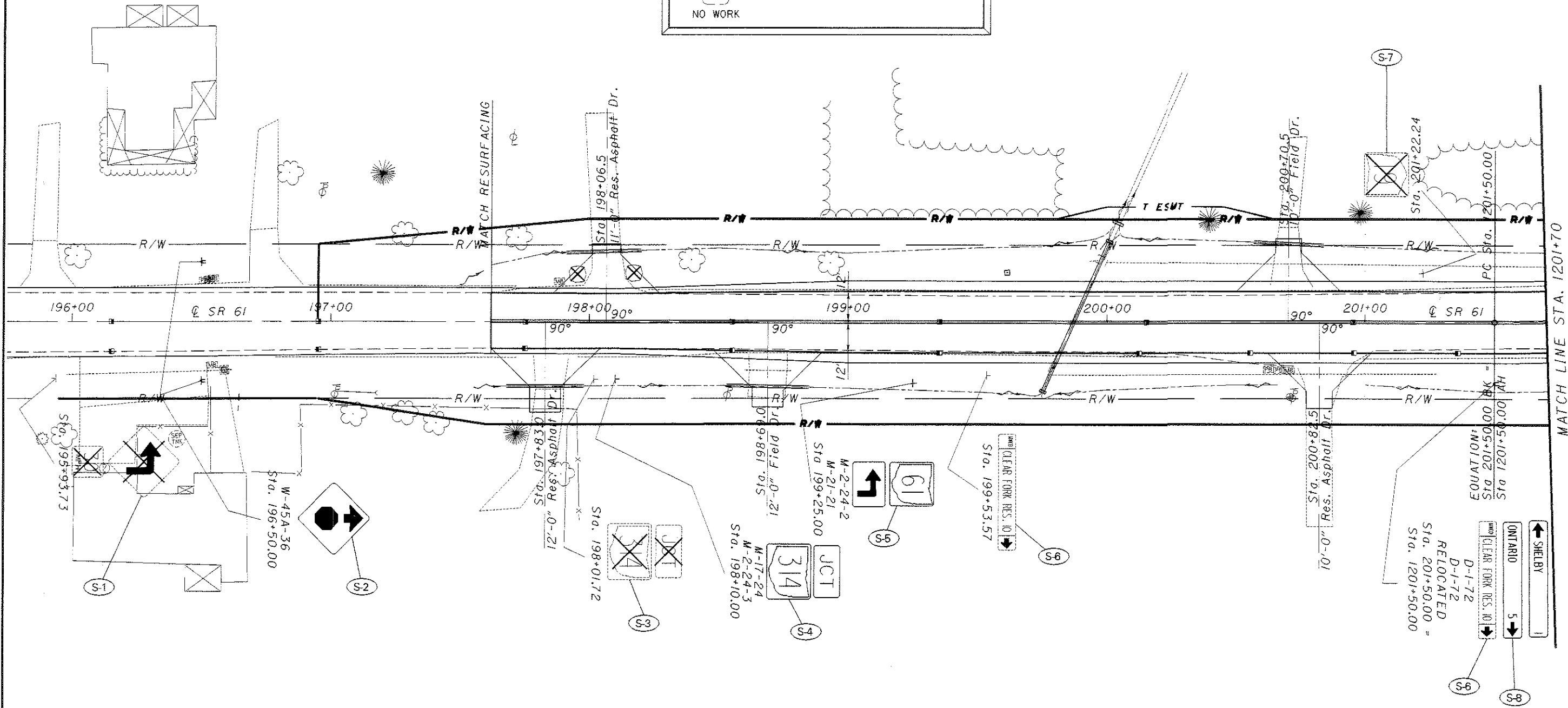
SIGNING AND PAVEMENT MARKING SHEET	REFERENCE NO.	STATION	S.L.M.	SIDE	CODE	SIZE (INCHES)	ITEM													
							630		630		630		630		630		630			
							GROUND MOUNTED SUPPORT, NO. 2 POST	GROUND MOUNTED SUPPORT, NO. 3 POST	SIGN, FLAT SHEET, TYPE G	REMOVAL OF GROUND MOUNTED SIGN AND DISPOSAL	REMOVAL OF GROUND MOUNTED SIGN AND REERECTION	REMOVAL OF GROUND MOUNTED POST SUPPORT AND DISPOSAL	REMOVAL OF GROUND MOUNTED POST SUPPORT AND REERECTION	SIGN BACKING ASSEMBLY	SIGNING, MISC.: SIGN DATA COLLECTION					
linear foot	linear foot	square feet	each	each	each	each	each	each	each											
98	S-17	2203+96.49		RT																
98	S-18	2204+22.01		RT																
98	S-19	2204+25.29		RT																
98	S-20	2204+77.00		RT	M-37-24	24" x 12"														
					M-2-24-2	24" x 24"	12.5			2.00										2
98	S-21	2206+24.26		RT																
98	S-22	528+65.00		LT	M-2-24-2	24" x 24"														
					M-24R-24	21" x 15"	12.8			4.00										
										2.19										
98	S-23	1203+75		RT	R-1-36	36" x 36"														
				LT	R-1-36	36" x 36"			12.5											
98	S-24	1203+46.44		RT																
98	S-25	1203+50.00		LT	M-38-24	24" x 12"														
					M-2-24-2	24" x 24"	12.5			2.00										
98	S-26	2205+09.27		LT																
98	S-27	2205+14.07		LT																
98	S-28	2206+70.84		LT																
98	S-29	2206+75.00		LT	D-1-72	72" x 12"														
					D-1-72	72" x 12"	11.3	11.8		6.00										
										6.00										
99	S-30	2209+00.00		LT	M-2-24-2	24" x 24"														
					M-19-21	21" x 15"	12.8			4.00										
										2.19										
99	S-31	2209+00.00		LT	M-2-24-3	30" x 24"														
					M-26-21	21" x 15"				5.00										
										2.19										
99	S-32	2209+93.54		LT																
99	S-33	2210+22.00		LT	M-17-24	24" x 12"														
					M-2-24-3	30" x 24"				2.00										
										5.00										
99	S-34	213+03.04		LT																
TOTALS CARRIED TO GENERAL SUMMARY										73.7	50.3		68.57		17		13			16

LEGEND



NOTES:

1. QUANTITIES SHOWN ON SHEET 94.
2. SIGNS ARE OFFSET 12' FROM THE EDGE OF PAVEMENT, UNLESS OTHERWISE NOTED



SIGNING AND PAVEMENT MARKING PLAN
 STA. 195+75 TO STA. 1201+70

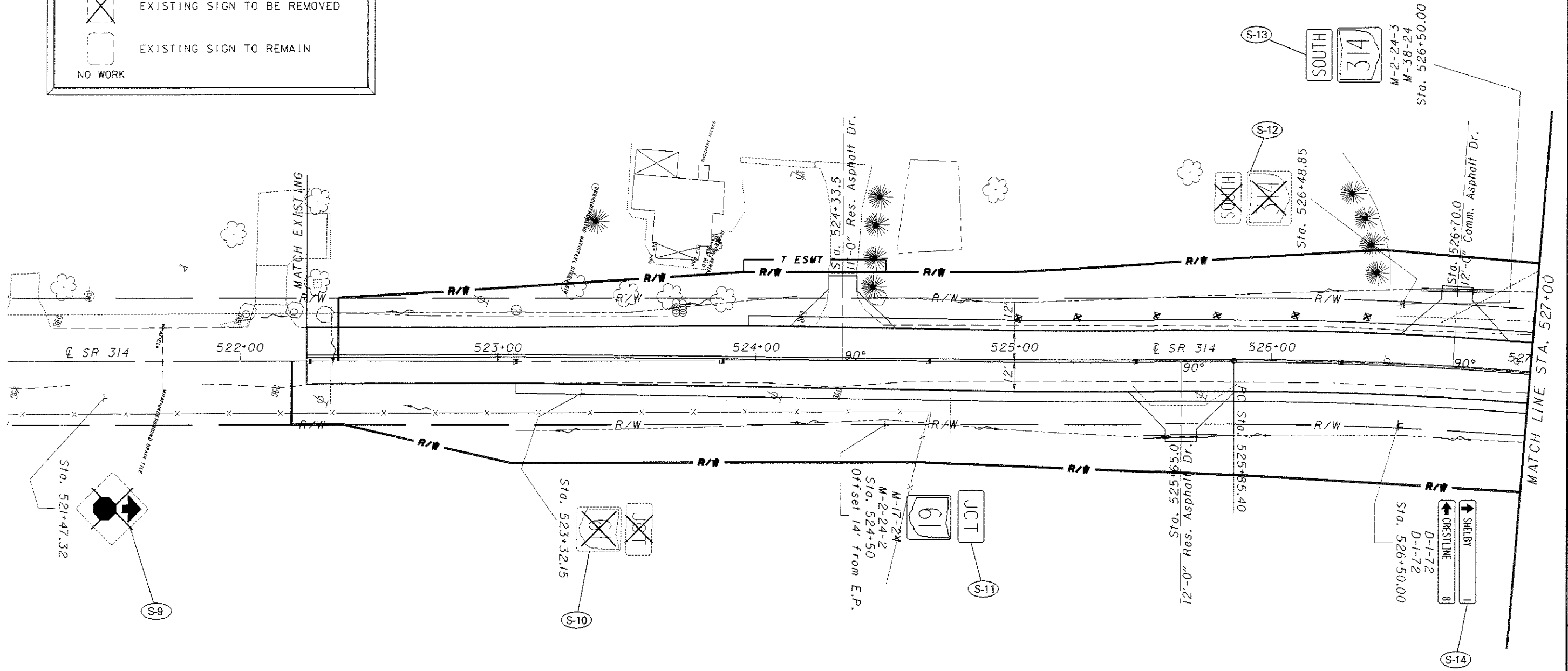
CRA-19-4.21

LEGEND

	PROPOSED SIGN
	EXISTING SIGN TO BE RELOCATED
	RELOCATED
	EXISTING SIGN TO BE REMOVED
	EXISTING SIGN TO REMAIN
	NO WORK

NOTES:

1. QUANTITIES SHOWN ON SHEET 94
2. SIGNS ARE OFFSET 12' FROM THE EDGE OF PAVEMENT, UNLESS OTHERWISE NOTED



CALCULATED
 CHECKED

0 20 40
 HORIZONTAL SCALE IN FEET

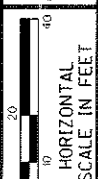
SIGNING AND PAVEMENT MARKING PLAN
 STA 521+10 TO STA. 527+00

CRA-19-4.21

MATCH LINE STA. 1201+70

LEGEND

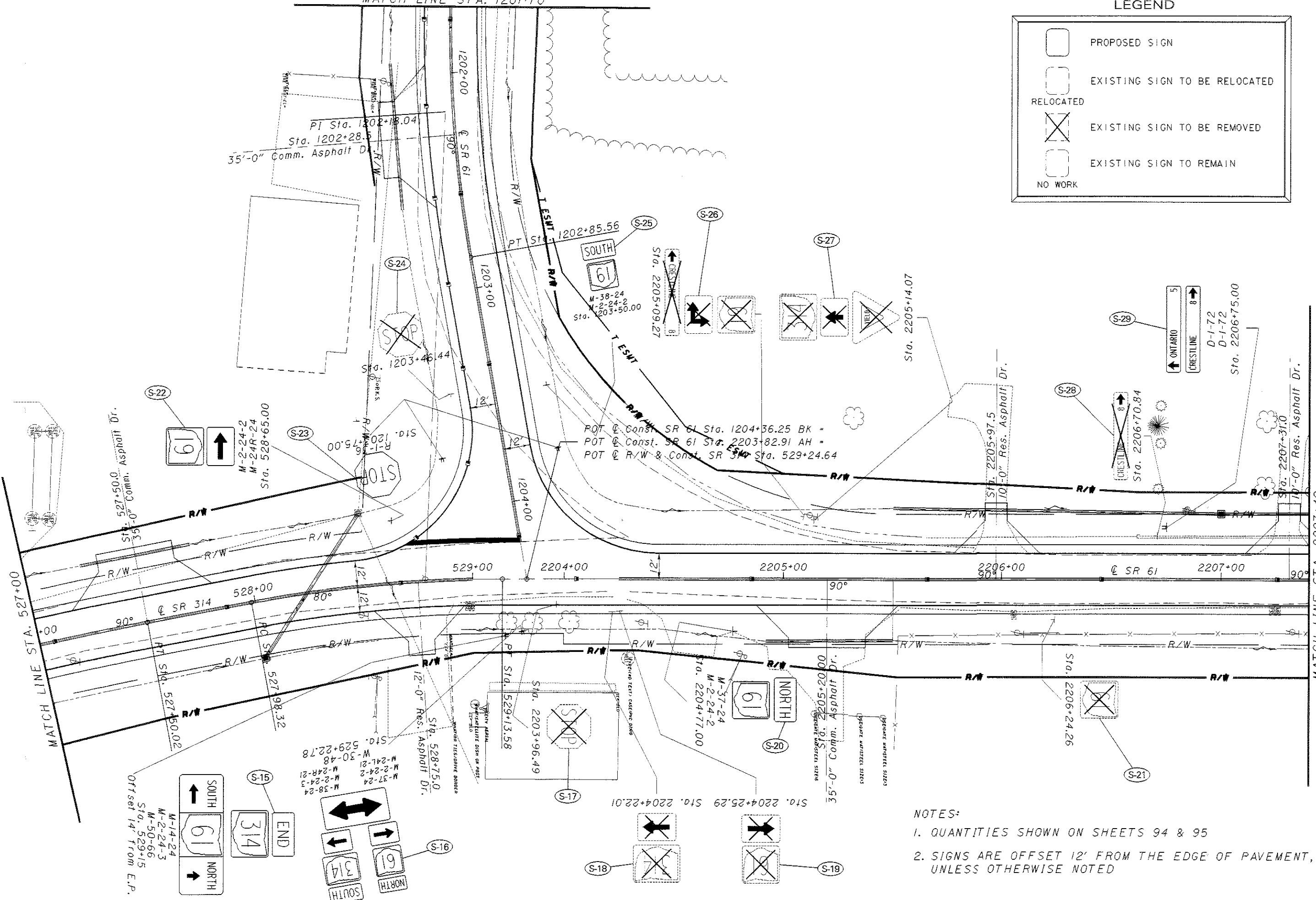
	PROPOSED SIGN
	EXISTING SIGN TO BE RELOCATED
	RELOCATED
	EXISTING SIGN TO BE REMOVED
	EXISTING SIGN TO REMAIN
	NO WORK



CALCULATED
 CHECKED

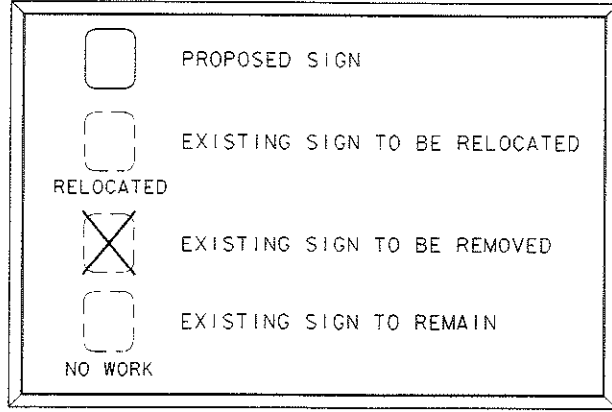
SIGNING AND PAVEMENT MARKING PLAN
 STA. 527+00 TO STA. 2207+40

CRA-19-4.21



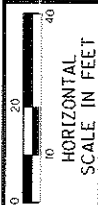
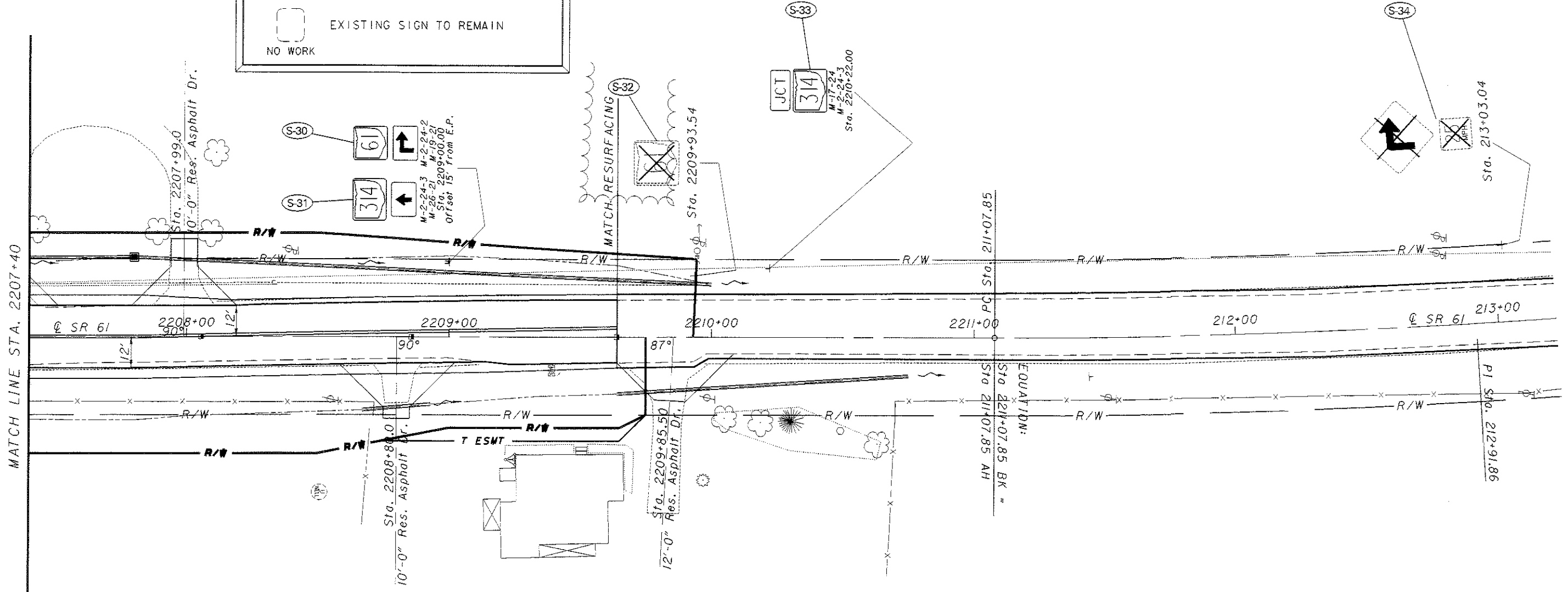
- NOTES:
1. QUANTITIES SHOWN ON SHEETS 94 & 95
 2. SIGNS ARE OFFSET 12' FROM THE EDGE OF PAVEMENT, UNLESS OTHERWISE NOTED

LEGEND



NOTES:

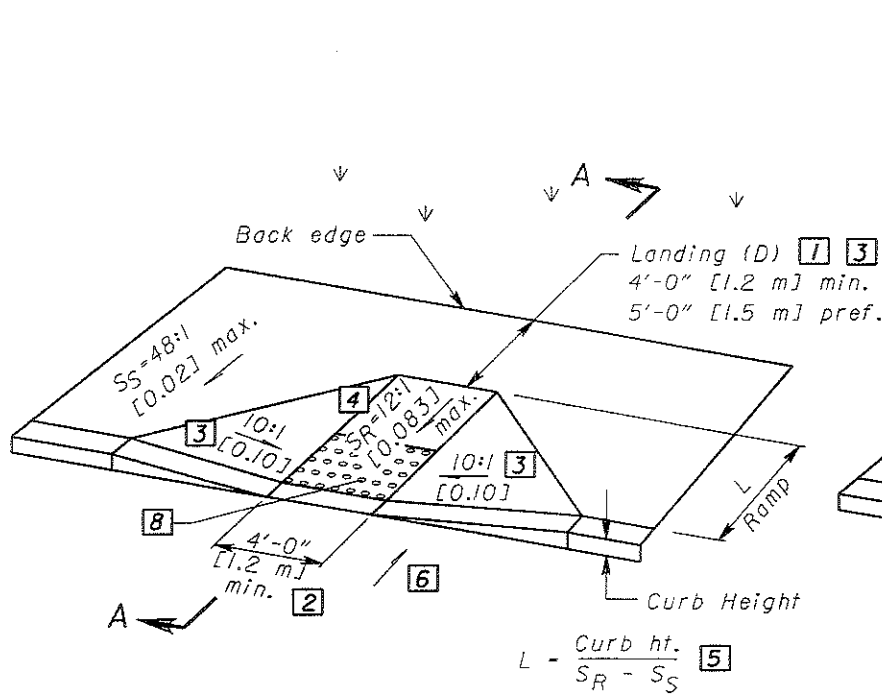
1. QUANTITIES SHOWN ON SHEET 95
2. SIGNS ARE OFFSET 12' FROM THE EDGE OF PAVEMENT, UNLESS OTHERWISE NOTED



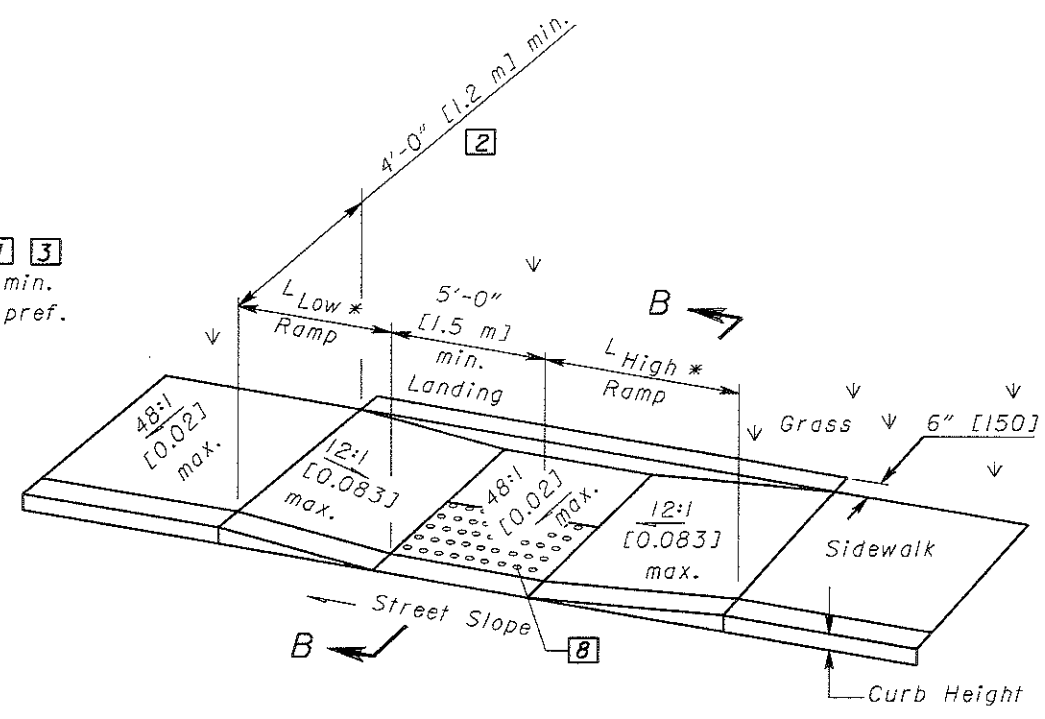
CHECKED
 CALCULATED

SIGNING AND PAVEMENT MARKING PLAN
 STA. 2207+40 TO STA. 213+20

CRA-19-4.21



See Sht. 3/3 for SECTION A-A
PERPENDICULAR CURB RAMP DETAIL



See Sht. 3/3 for SECTION B-B
PARALLEL CURB RAMP DETAIL (DOUBLE)

Street Slope	Ramp Length @ 1"/ft [0.083]	
	L LOW SIDE*	L HIGH SIDE*
0.01	5'-5" [1.6 m]	6'-10" [2.1 m]
0.02	4'-10" [1.5 m]	7'-11" [2.4 m]
0.03	4'-5" [1.3 m]	9'-5" [2.9 m]
0.04	4'-1" [1.2 m]	11'-8" [3.6 m]
0.05	3'-9" [1.1 m]	15'-2" [4.6 m]

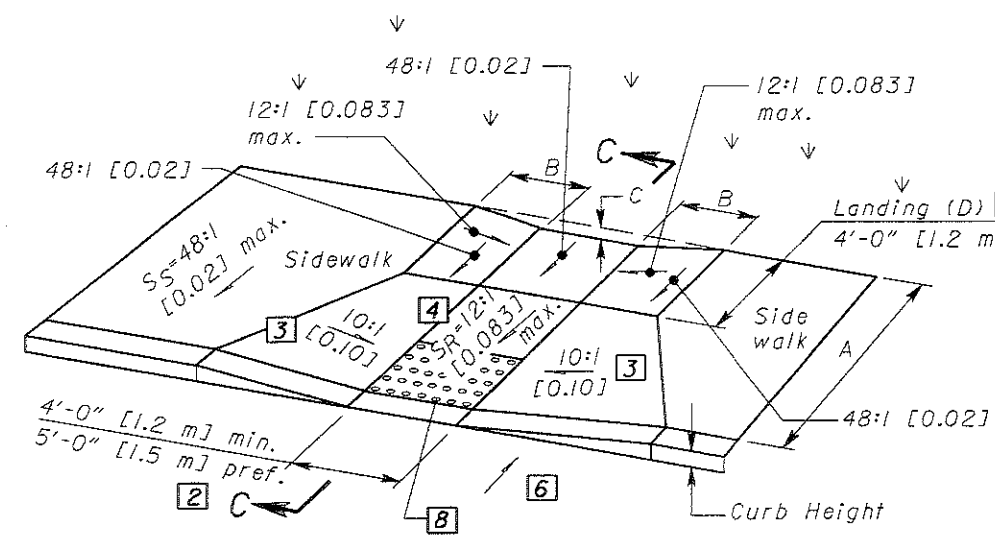
* Measured along the back of a 6" [150] high curb.

$$L_{HIGH} = \frac{\text{Curb ht.}}{0.083 - \text{Street Slope}} \quad [7]$$

$$L_{LOW} = \frac{\text{Curb ht.}}{0.083 + \text{Street Slope}} \quad [7]$$

LEGEND

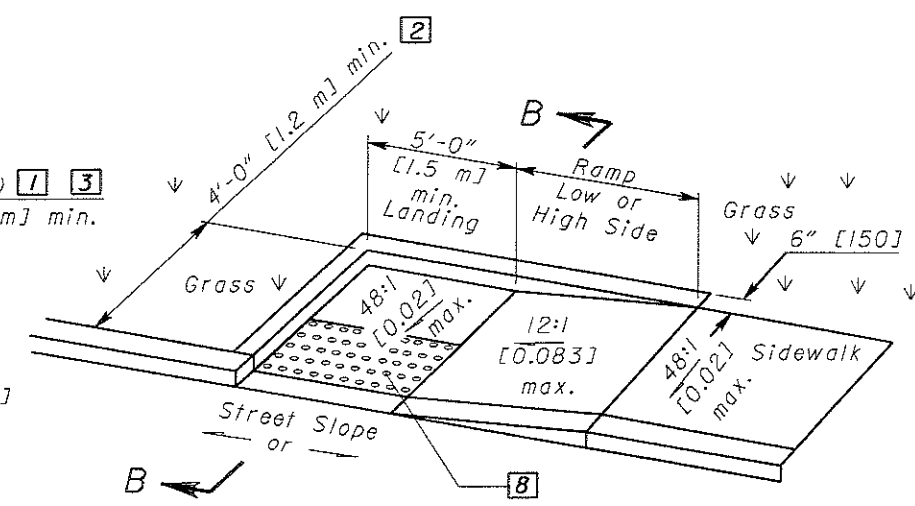
- [1] May be reduced to 3'-0" [915] in existing sidewalks if the landing is unconstrained along the back edge.
- [2] May be reduced to 3'-4" [1.02 m] in existing sidewalks to better fit the walk configuration or where site conditions are restricted by narrow walks, pole foundations, drainage inlets, etc. The width may be tapered.
- [3] Where landing width (D) has been reduced to 3'-0" [915] the flared sides shall have a maximum slope of 12:1 [0.083].
 Flared sides are not required where the edges of a curb ramp are protected by landscaping or other barriers to travel by wheel chair users or pedestrians across the edge of the curb ramp. However, if the flared sides are used in these areas, they may be of any slope.
- [4] The slope of the ramp toward the curb is preferred to be 12:1 [0.083] or flatter related to the horizontal, but the maximum slope shall be 12:1 [0.083] relative to the existing or proposed walk slope.
 In existing sidewalks, where the maximum ramp slope (SR) is not feasible, it may be reduced as follows:
 A) 10:1 [0.10] for a max. rise of 6" [150],
 B) 8:1 [0.125] for a max. rise of 3" [75],
 C) 6:1 [0.167] over a max. run of 2'-0" [610] for historic areas where a flatter slope is not feasible.
- [5] The minimum length of a perpendicular ramp is 6' [2.0 m] from the back of a 6" [150] curb and may be increased where feasible to obtain a flatter ramp slope or to better blend with the walk configuration.
- [6] Gutter counter slopes at the foot of perpendicular curb ramps should not exceed 20:1 [0.05] over a distance of 2'-0" [610] from the curb.
- [7] Dimensions derived by equation are nominal. Construct ramps to meet required slopes and existing conditions.
- [8] Detectable Warnings (truncated domes) are to be installed in the location shown. Dimensions of the domes are 24" [610] from the back of the curb by the width of the ramp. See NOTES on sheet 3.



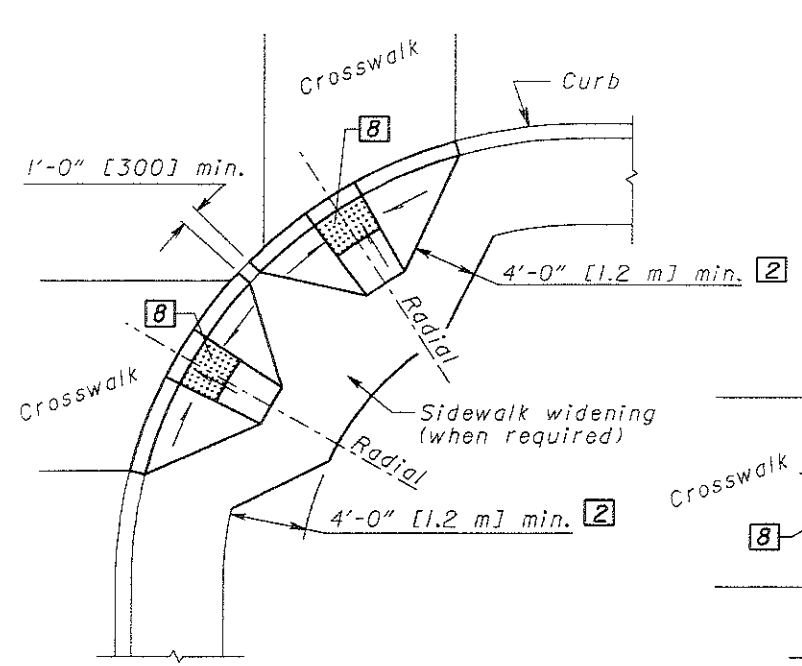
See Sht. 3/3 for SECTION C-C
COMBINED CURB RAMP DETAIL

$$B = C / 0.083$$

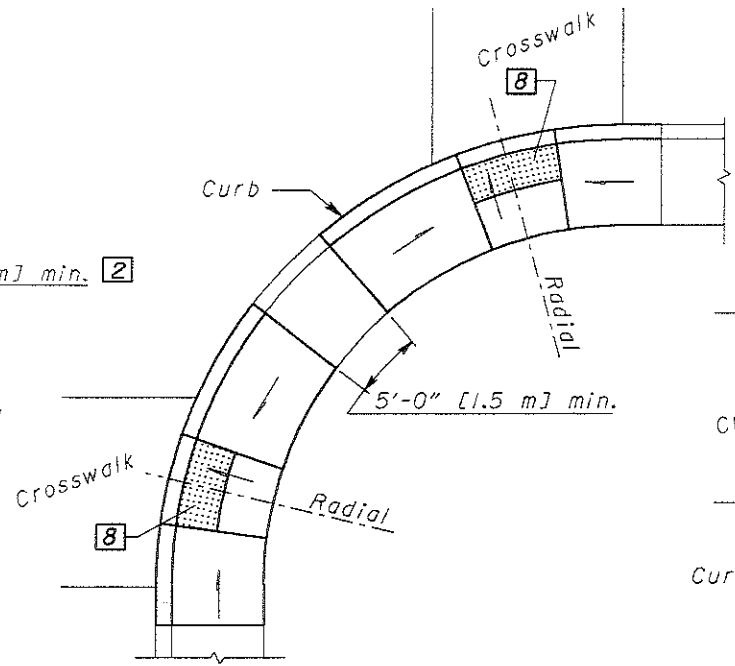
$$C = [\text{Curb ht.} + A(SS)] - [(A-D)SR + D(0.02)]$$



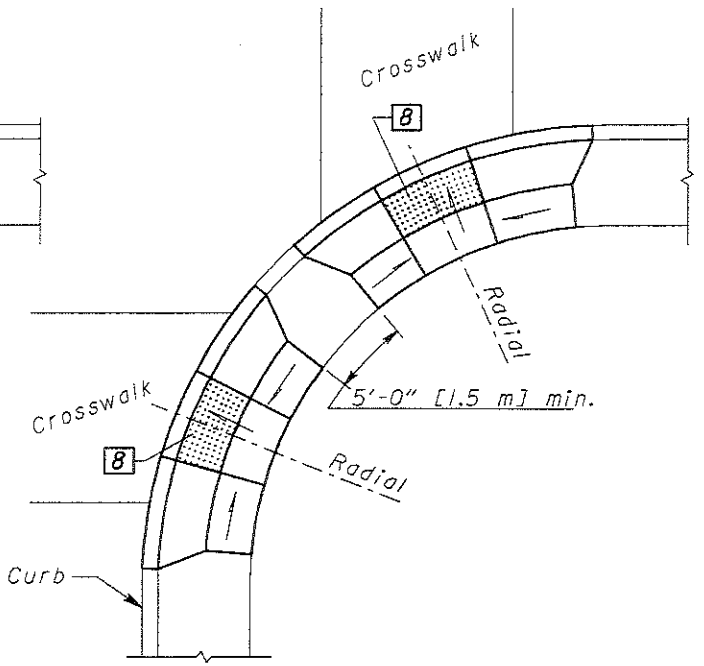
See Sht. 3/3 for SECTION B-B
PARALLEL CURB RAMP DETAIL (SINGLE)



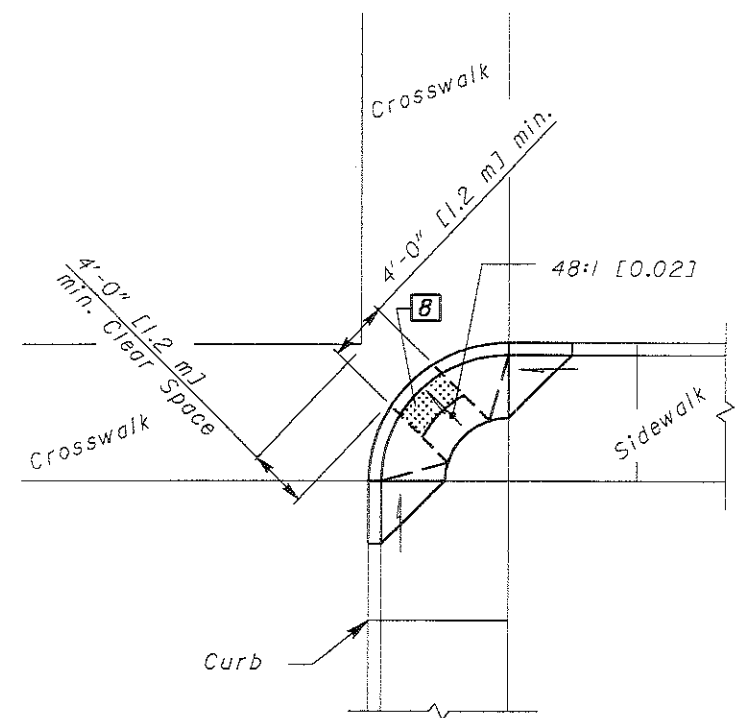
DESIGN A
PERPENDICULAR RAMP



DESIGN B
PARALLEL RAMP



DESIGN C
COMBINATION RAMP



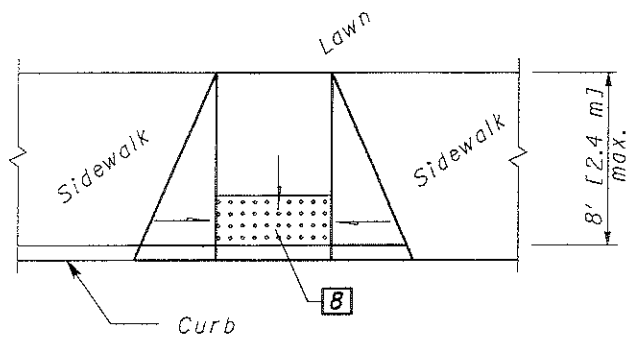
DESIGN D
DIAGONAL RAMP

CORNER CURB RAMP DESIGNS

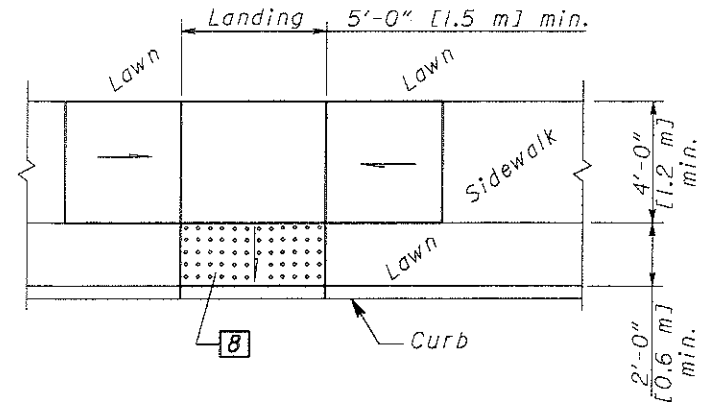
(See Curb Ramp Details on Sht. 1/3 for additional requirements.)

For LEGEND, See sheet 1.

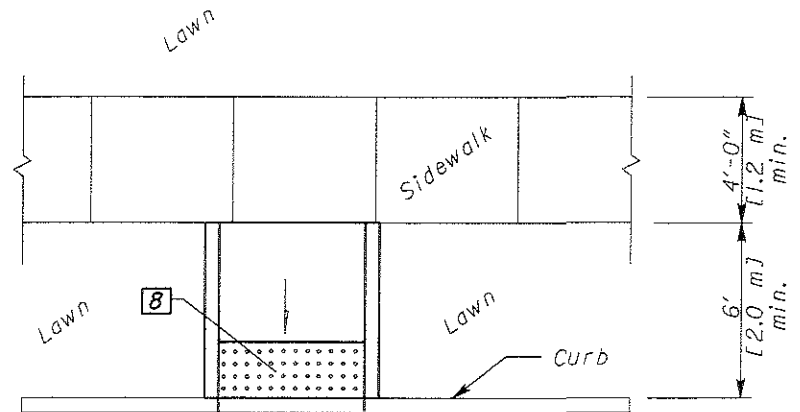
Use in existing walks only and when site constraints prohibit other designs. The diagonal ramp may be perpendicular, parallel or combination. Avoid using where curb radii are less than 20'-0" [6.0 m].



DESIGN E
PERPENDICULAR RAMP



DESIGN F
PARALLEL RAMP



DESIGN G
PERPENDICULAR RAMPS
w/o FLARES

MID BLOCK CURB RAMP DESIGNS

(See Curb Ramp Details on Sht. 1/3 for additional requirements.)

NOTES

SURFACE TEXTURE: Texture of concrete surfaces shall be obtained by coarse brooming transverse to the ramp slopes and shall be rougher than adjacent walk.

TRUNCATED DOMES: Install detectable warnings (truncated domes) for a distance of 24" [610] from the back of the curb for the entire width of the ramp opening as shown on details on Sheet 1.

Pavers will meet ASTM C 902 Class SX, Type I, or C 936, or C 1272 Type R.

Acceptable manufacturers and products are:

- Whitacre-Greer Fireproofing Company, 1400 S. Mahoning Ave, Alliance, OH, 44601, (800) WG PAVER ADA Paver, 4"x8"x2-1/4", Clear Red (Rustic) #30.

- Hanover Architectural Products, 240 Bender Rd., Hanover, PA. 17331, (717) 637-0500 Detectable Warning Paver, 12"x12"x2", or 24"x24"x2", Red or Quarry Red.

- Endicott Clay Products, PO Box 17, Fairbury, NE, 68352, (402) 729-5804 Handicap Detectable Warning Paver, 4"x8"x2-1/4", Red Blend.

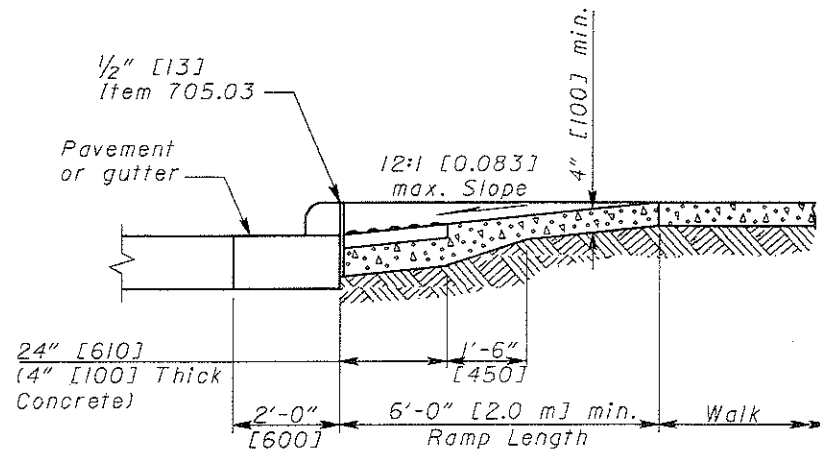
Pavers will be laid on top of a 4" [100] unreinforced concrete base. Setting bed and joints to be mortared in accordance with manufacturer's instruction, or with a maximum 1/2" [13] thick bed of latex modified cement mortar. Mortar joints to a width not greater than 1/32" [4] and not less than 1/16" [1.5]. Pavers shall not be directly touching each other unless they have spacing bars.

Mortared joints are to be flush with top surface and struck so as to give a smooth surface. Pavers shall be laid such that joints are level with adjoining joints so as to provide a smooth transition from brick to brick and brick to concrete surface.

The surface of any two adjacent units should not differ by more than 1/8" [3] in height. Bricks shall be placed in a running bond pattern. Face of all brick shall be clean of cement and protected so as to avoid chipping during construction.

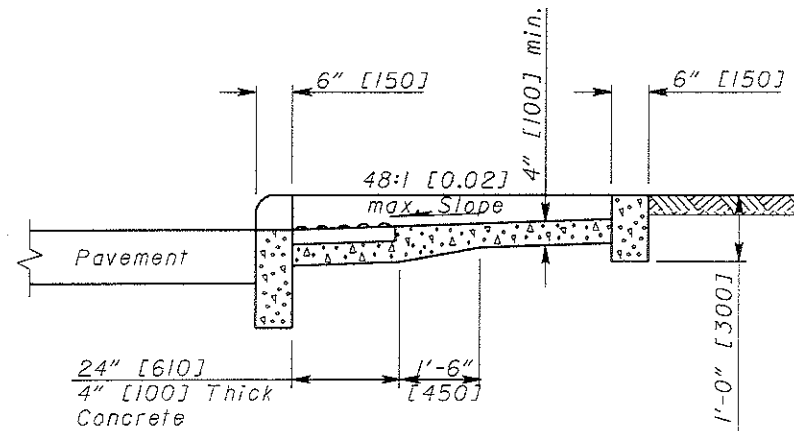
EXPANSION JOINTS: shall be provided in the curb ramp as extensions of walk joints and consistent with Item 608.03 requirements for a new concrete walk. A 1/2" [13] Item 705.03 expansion joint filler shall be provided around the edge of ramps built in existing concrete walk. Lines shown on this drawing indicate the ramp edge and slope changes and are not necessarily joint lines.

PAYMENT: Walk and curb, Items 608 and 609, shall be measured through the curb ramp area paid for under their respective items. **Item 608 - Curb Ramp, As Per Plan, Each** constructed in new curb and walk shall include the cost of any additional materials and installation (including truncated domes), grading, forming and finishing. **Item 608 - Curb Ramp, As Per Plan, Square Foot [Meter],** constructed in existing curb and walk shall include the cost of furnishing and installing all materials (including truncated domes), grading, forming, and finishing of the curb and walk of the curb ramp. Removal of existing curb and walk shall be paid for under Item 202.



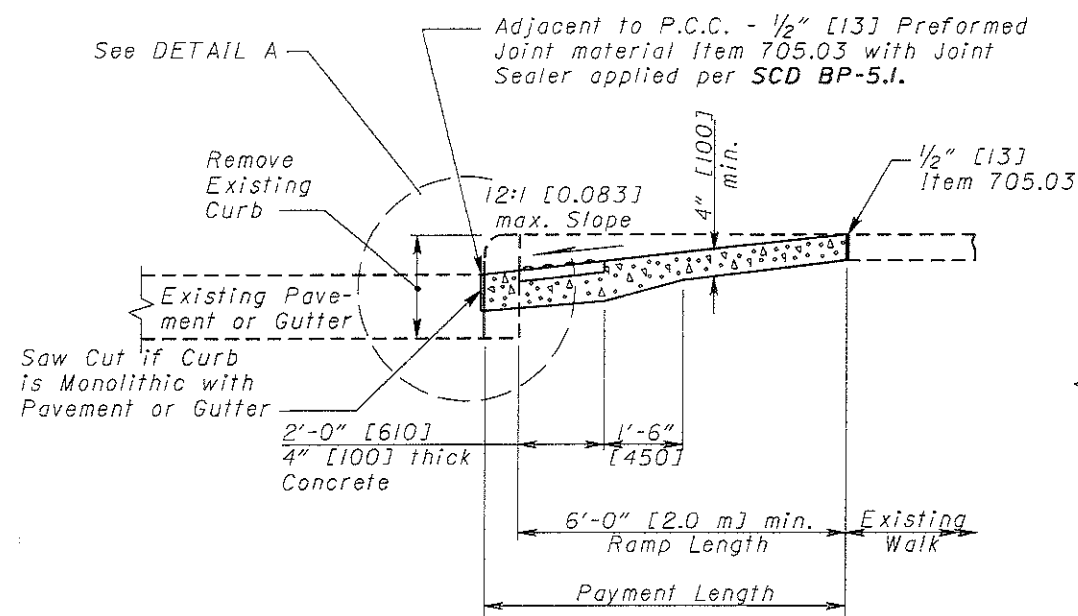
**SECTION A-A
NORMAL DETAIL**

See Sheet 1 of 3.
(Gutter shown)



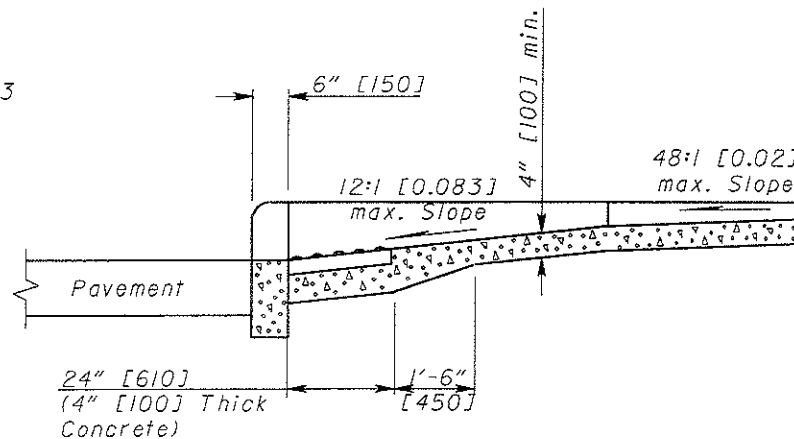
SECTION B-B

See Sheet 1 of 3.



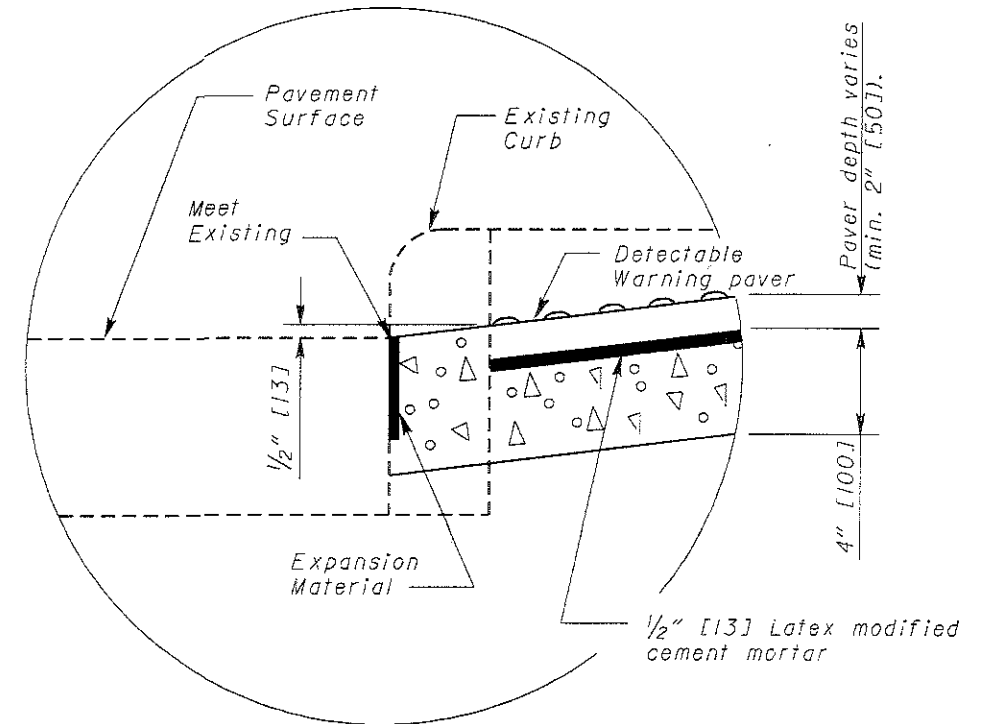
**SECTION A-A
EXISTING WALK DETAIL**

See Sheet 1 of 3.



SECTION C-C

See Sheet 1 of 3.



DETAIL A

PLAN INSERT SHEET

CONVENTIONAL SIGNS

- County Line _____
- Township Line _____
- Section Line _____
- Corporation Line _____ or _____
- Fence Line (existing) -x-x-x- (proposed) -x-x-x-
- Center Line _____
- Trees, Stumps (to be removed)
- Utility Poles: Telephone , Power , Light
- Limited Access (only) **LA** _____
- Right of Way (only) **R/W** _____
- Limited Access & Right of Way **LA-R/W** _____
- Exist. Right of Way **R/W EXIST. R/W** _____
- Temp. Right of Way **T ESMT** _____
- Slope Easement **SL ESMT** _____
- Utility Easement **U ESMT** _____
- Property Line (in existing fence) -x-x-x-
- Railroad or _____
- Guardrail (existing) (proposed)
- Construction Limits

STRUCTURE KEY

- RESIDENTIAL
- COMMERCIAL
- OUT-BUILDING

UTILITY NAMES

TELEPHONE: QUEST/LCI INTERNATIONAL.
2770 LEXINGTON AVENUE
P.O. BOX 3168
MANSFIELD, OHIO 44904
(440) 329-4247

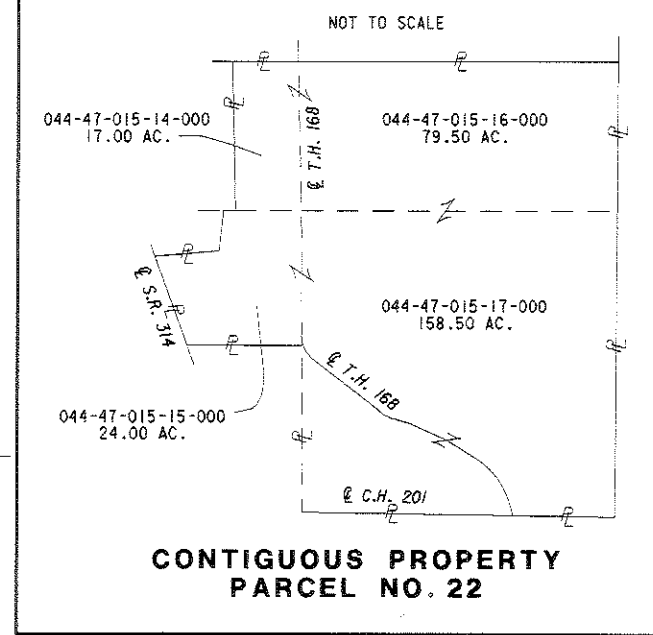
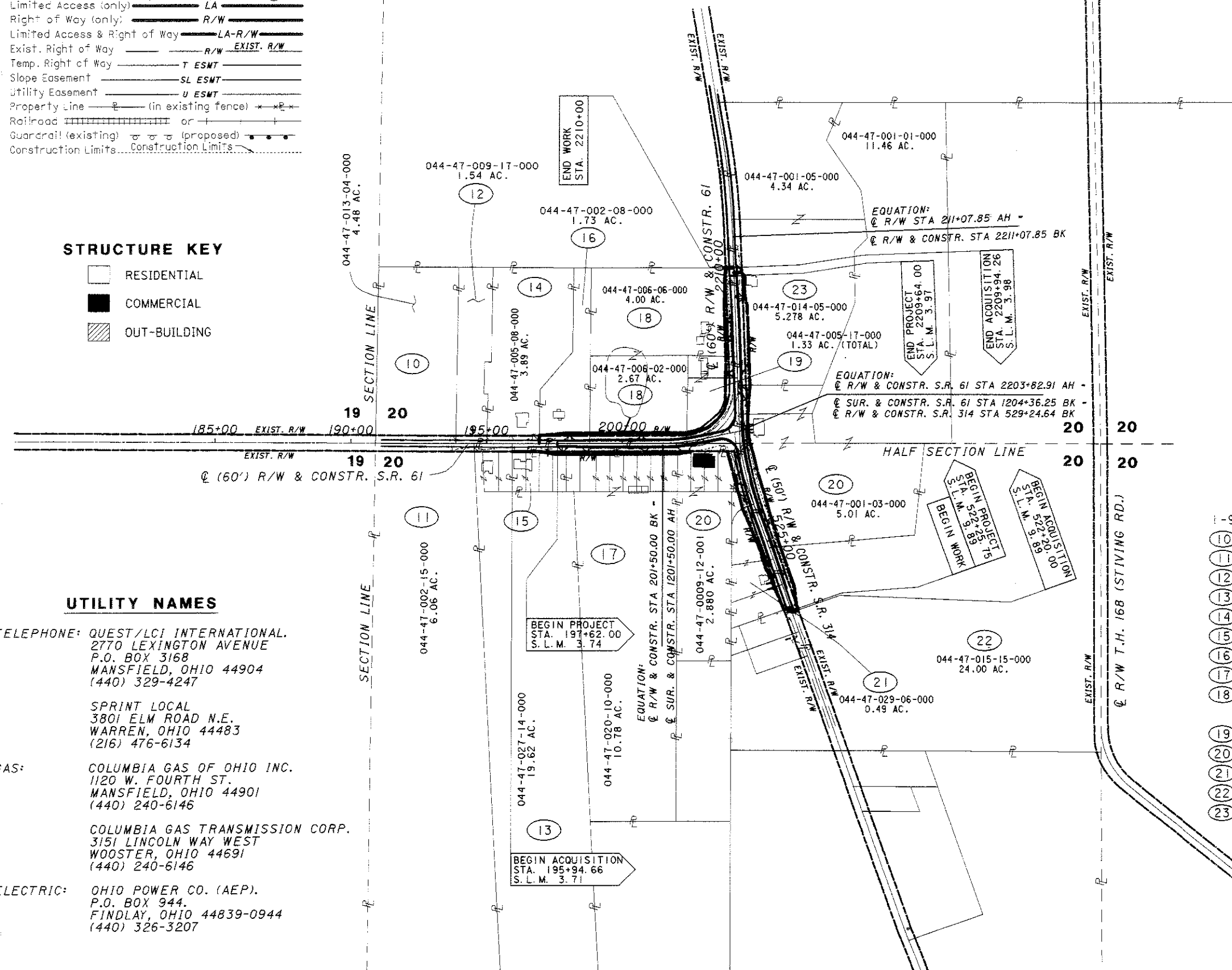
SPRINT LOCAL
3801 ELM ROAD N.E.
WARREN, OHIO 44483
(216) 476-6134

GAS: COLUMBIA GAS OF OHIO INC.
1120 W. FOURTH ST.
MANSFIELD, OHIO 44901
(440) 240-6146

COLUMBIA GAS TRANSMISSION CORP.
3151 LINCOLN WAY WEST
WOOSTER, OHIO 44691
(440) 240-6146

ELECTRIC: OHIO POWER CO. (AEP).
P.O. BOX 944.
FINDLAY, OHIO 44839-0944
(440) 326-3207

RIC-61/ 314-3.74/ 9.89
RICHLAND COUNTY
SHARON TOWNSHIP
SECTION 20
T-22-N, R-19-W



PROPERTY OWNERS

- 1-9 NOT USED
- 10 GEORGE M. BARNES & KIMBERLY M. BARNES
- 11 JOHN FEUSSNER & LINDA FEUSSNER
- 12 MARGARET M. PHILLIPS
- 13 MARK A. STOCKMASTER & MARGARET STOCKMASTER
- 14 CHARLES L. LEICY
- 15 GARY D. GREGORY AND MARY JO GREGORY
- 16 TROY A. ARGO
- 17 DEREK W. DEGRAY
- 18 JANA KAY SAMPSON, LOLA LEE CLINE & VIKI ANN DERUY
- 19 MARILYN CORNETTE
- 20 GEORGE W. RANK
- 21 ELEANOR L. TAYLOR
- 22 JIM HUMMEL FARMS, LTD
- 23 SCOTT N. HARTMAN & LOIS M. HARTMAN

REV. BY	DATE	DESCRIPTION

DATE COMPLETED: 03-30-01

SCALE IN FEET

PID NO. **23161**

PROPERTY MAP

TO BE SOLD AS: CRA-19-4.21

RIC-61/ 314-3.74/ 9.89

2 / 8

105

DESIGN FILE: h:\projects\16923\rv\p\01\map.dgn
WORKSTATION: aszyder DATE: 10/15/02

TOTAL NUMBER OF :

11 OWNERSHIPS 0 OWNERSHIPS WITH STRUCTURES INVOLVED
 21 PARCELS 0 OWNERSHIPS WITH "P" ITEMS
 0 TOTAL TAKES

NET RESIDUE = RECORD AREA - TOTAL PRO - NET TAKE

GRANTEE:

ALL RIGHT OF WAY ACQUIRED IN THE NAME OF THE STATE OF OHIO UNLESS OTHERWISE SHOWN.

ALL AREAS IN ACRES

PARCEL NO.	OWNER	SHEET NO.	OWNERS RECORD		AUDITOR'S RECORD PARCEL	RECORD AREA	TOTAL P.R.O.	GROSS TAKE	P.R.O. IN TAKE	NET TAKE	STRUC-TURE	NET RESIDUE		TYPE FUND	REMARKS AND PERSONALTY	AS ACQUIRED	
			BOOK	PAGE								LEFT	RIGHT			BOOK	PAGE
1-9	NOT USED																
10WD	GEORGE M. BARNES & KIMBERLY M. BARNES		OR 311	790	044-47-013-04-000	4.48	0.198	NO	R/W REQUIRED		NONE	4.282	---	STATE			
11WD	JOHN FEUSSNER & LINDA FEUSSNER		OR 274	514	044-47-002-15-000	6.06	0.258	NO	R/W REQUIRED			---	5.802				
12WD	MARGARET M. PHILLIPS		OR 558	265	044-47-009-17-000	1.54	0.077	NO	R/W REQUIRED			1.463	---				
13WD	MARK A. STOCKMASTER & MARGARET STOCKMASTER		OR 343	753	044-47-027-14-000	19.62	0.100	NO	R/W REQUIRED			---	19.520				
14WD	CHARLES L. LEICY		844	717	044-47-005-08-000	3.89	0.129	NO	R/W REQUIRED			3.761	---				
15WD	GARY D. GREGORY AND MARY JO GREGORY		754	117	044-47-037-01-000	* 0.172	---	0.012	---	0.012		---	0.160				LOT 13
					044-47-037-02-000	* 0.172	---	0.004	---	0.004		---	0.168				LOT 14
					044-47-037-03-000	* 0.172	---	0.000	---	0.000		---	0.172				LOT 15
					044-47-037-04-000	* 0.172	---	0.000	---	0.000		---	0.172				LOT 16
	TOTAL					* 0.688	---	0.016	---	0.016		---	0.672				
16WD	TROY A. ARGO		OR 511	326	044-47-002-08-000	1.73	0.124	0.154	0.124	0.030		0.019	---				
17WD	DEREK W. DEGRAY		OR 783	379	044-47-037-05-000	* 0.207	---	0.014	---	0.014		---	0.193				LOT 11
					044-47-037-06-000	* 0.172	---	0.011	---	0.011		---	0.161				LOT 12
					044-47-037-07-000	* 0.172	---	0.011	---	0.011		---	0.161				LOT 5
					044-47-037-08-000	* 0.172	---	0.011	---	0.011		---	0.161				LOT 6
					044-47-037-09-000	* 0.344	---	0.022	---	0.022		---	0.322				LOTS 7 & 8
					044-47-037-10-000	* 0.172	---	0.011	---	0.011		---	0.161				LOT 9
					044-47-037-11-000	* 0.172	---	0.011	---	0.011		---	0.161				LOT 10
					044-47-020-10-000	10.78	---	NO	R/W REQUIRED			---	10.78				9.83 ACRES = DEED AREA
	TOTAL					* 12.191	---	0.091	0.000	0.091		---	12.100				
18WD	JANA KAY SAMPSON, LOLA LEE CLINE &		OR 727	895	044-47-006-02-000	2.67	0.241	0.323	0.241	0.082		2.347	---				
18T	VIKI ANN DERUY							0.005	---	0.005							FOR GRADING
18WD-1					044-47-006-06-000	4.00	0.230	0.290	0.230	0.060		3.710	---				
	TOTAL					6.67	0.471	0.613	0.471	0.142		6.057	---				
19WD	MARILYN CORNETTE		759	475	044-47-005-17-000	1.33	0.501	0.568	0.501	0.067		0.762	---				0.492 AC. FROM 1.00 AC. PAR.; 0.076 AC. FROM 0.33 AC. PAR.
19T								0.042	---	0.042							FOR GRADING
20	GEORGE W. RANK		799	760	044-47-037-12-000	* 0.172	---	NO	R/W REQUIRED			---	0.172				LOT 3
20WD					044-47-037-13-000	* 0.172	---	0.005	---	0.005		---	0.167				LOT 4
20WD-1					044-47-037-14-000	* 0.158	---	0.024	---	0.024		---	0.134				LOT 1
20WD-1					044-47-020-15-000	* 0.172	---	NO	R/W REQUIRED			---	0.172				LOT 2
20WD-1			799	760	044-47-023-07-000	0.12	0.043	0.092	0.043	0.049			0.028				
20WD-1			834	296	**	0.119	0.028	0.054	0.028	0.026		0.065	---				NET RESIDUE - LT. S.R. 314
			834	294	044-47-009-12-001	2.880	---	NO	R/W REQUIRED			2.880	---				NET RESIDUE - LT. S.R. 314
20WD-2			264	277	044-47-001-03-000	5.01	0.266	0.443	0.266	0.177		---	4.567				
20WD-2					044-47-001-02-000	1.00	0.068	0.086	0.068	0.018		---	0.914				
20WD-2			264	277	044-47-001-04-000	0.722	0.074	0.097	0.074	0.023		---	0.625				
			264	278	044-47-001-01-000	11.46	---	NO	R/W REQUIRED			---	11.46				
	TOTAL					21.985	0.479	0.801	0.479	0.322		2.945	18.239				
21WD	ELEANOR L. TAYLOR		OR 476	993	044-47-029-05-000	0.44	0.052	0.058	0.052	0.006		0.382	---				
					044-47-029-06-000	0.49	0.059	0.080	0.059	0.021		0.410	---				
21T								0.006	---	0.006							FOR DRIVE REPLACEMENT AND GRADING
					044-47-029-07-000	0.53	0.120	0.186	0.120	0.066		0.344	---				
	TOTAL					1.46	0.231	0.324	0.231	0.093		1.136	---				
22WD	JIM HUMMEL FARMS, LTD		OR 867	657	044-47-015-15-000	24.00	1.106	0.211	0.144	0.067		---	22.827				
					044-47-015-17-000	158.50	4.820	NO	R/W REQUIRED			---	153.680				
			OR 867	655	044-47-015-16-000	79.50	0.729	NO	R/W REQUIRED			---	78.771				
					044-47-015-14-000	17.00	0.729	NO	R/W REQUIRED			---	16.271				
	TOTAL					279.00	7.384	0.211	0.144	0.067		---	271.549				
23WD	SCOTT N. HARTMAN & LOIS M. HARTMAN		727	444	044-47-014-05-000	5.28	0.427	0.413	0.291	0.122		---	4.731				5.278 ACRES = DEED AREA
23T								0.009	---	0.009							FOR GRADING
			770	537	044-47-001-05-000	4.34	0.301	NO	R/W REQUIRED			---	4.039				
	TOTAL					9.62	0.728	0.413	0.291	0.122	NONE	---	8.770	STATE			

* = CALCULATED AREA
 ** = NO PERMANENT PARCEL NO. ASSIGNED AS OF 3-15-01.

NOTE: ALL TEMPORARY PARCELS TO BE OF 12 MONTH DURATION AND UNDER NO CIRCUMSTANCES TO BE USED FOR STORAGE OF MATERIALS BY THE CONTRACTOR, UNLESS NOTED OTHERWISE.

FEDERAL PROJECT NO.

PID NO. 23161

STATE JOB NO.

R/W DESIGNER PMS R/W REVIEWER

SUMMARY OF ADDITIONAL RIGHT OF WAY

RIC-61/314-3.74/9.89

3/8

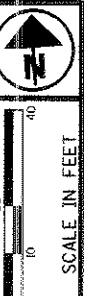
106

REV. BY	DATE	DESCRIPTION

DATE COMPLETED: 03-30-01

DESIGN FILE: I:\projects\16923\RW\wsum.dgn
 WORKSTATION: p291wr DATE: 03/15/02

RIC-61/ 314-3.74/ 9.89
 RICHLAND COUNTY
 SHARON TOWNSHIP
 SECTION 20
 T-22-N, R-19-W



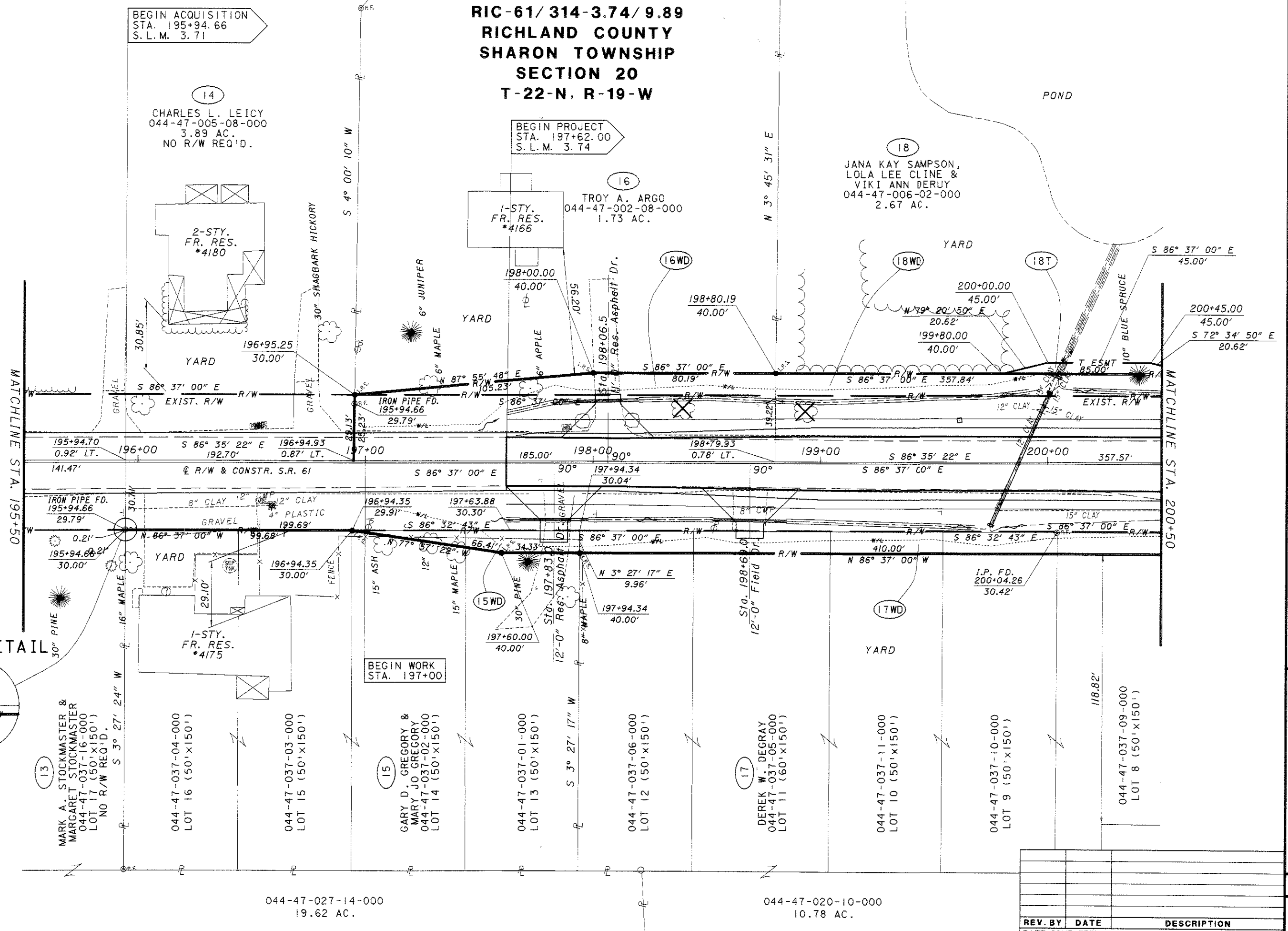
BEGIN ACQUISITION
 STA. 195+94.66
 S.L.M. 3.71

BEGIN PROJECT
 STA. 197+62.00
 S.L.M. 3.74

14
 CHARLES L. LEICY
 044-47-005-08-000
 3.89 AC.
 NO R/W REQ'D.

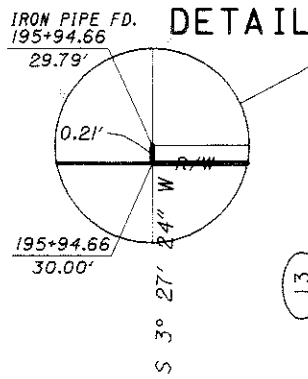
16
 TROY A. ARGO
 044-47-002-08-000
 1.73 AC.

18
 JANA KAY SAMPSON,
 LOLA LEE CLINE &
 VIKI ANN DERUY
 044-47-006-02-000
 2.67 AC.



MATCHLINE STA. 195+50

MATCHLINE STA. 200+50



13
 MARK A. STOCKMASTER &
 MARGARET STOCKMASTER
 044-47-037-16-000
 LOT 17 (50' X 150')
 NO R/W REQ'D.

044-47-037-04-000
 LOT 16 (50' X 150')

044-47-037-03-000
 LOT 15 (50' X 150')

15
 GARY D. GREGORY &
 MARY JO GREGORY
 044-47-037-02-000
 LOT 14 (50' X 150')

044-47-037-01-000
 LOT 13 (50' X 150')

044-47-037-06-000
 LOT 12 (50' X 150')

17
 DEREK W. DEGRAY
 044-47-037-05-000
 LOT 11 (60' X 150')

044-47-037-11-000
 LOT 10 (50' X 150')

044-47-037-10-000
 LOT 9 (50' X 150')

044-47-037-09-000
 LOT 8 (50' X 150')

044-47-027-14-000
 19.62 AC.

044-47-020-10-000
 10.78 AC.

PID NO.
 23161

RIGHT OF WAY PLAN
 STA. 195+50 TO STA. 200+50

RIC-61/ 314-3.74/ 9.89

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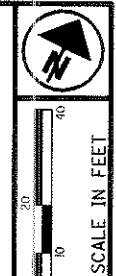
REV. BY	DATE	DESCRIPTION
DATE COMPLETED:		03-30-01

@ SUR. & CONSTR. S.R. 61
 P.I. Sta = 1202+18.04
 $\Delta = 12^\circ 12' 00''$ (LT)
 $D_c = 9^\circ 00' 00''$
 $R = 636.62'$
 $T = 68.04'$
 $L = 135.56'$
 $E = 91.39'$

RIC-61/314-3.74/9.89
RICHLAND COUNTY
SHARON TOWNSHIP
SECTION 20
T-22-N, R-19-W

CURVE DATA
 CURVE C 20
 $\Delta = 33^\circ 15' 55''$ (LT)
 $R = 176.68'$
 $T = 52.78'$
 $L = 102.58'$
 $CH = N 45^\circ 20' 30'' E, 101.14'$

EXIST. @ R/W S.R. 314
 P.I. Sta = 204+33.60
 $\Delta = 92^\circ 12' 00''$ (LT)
 $D_c = 27^\circ 43' 20''$
 $R = 206.68'$
 $T = 214.77'$
 $L = 332.58'$
 $E = 91.39'$



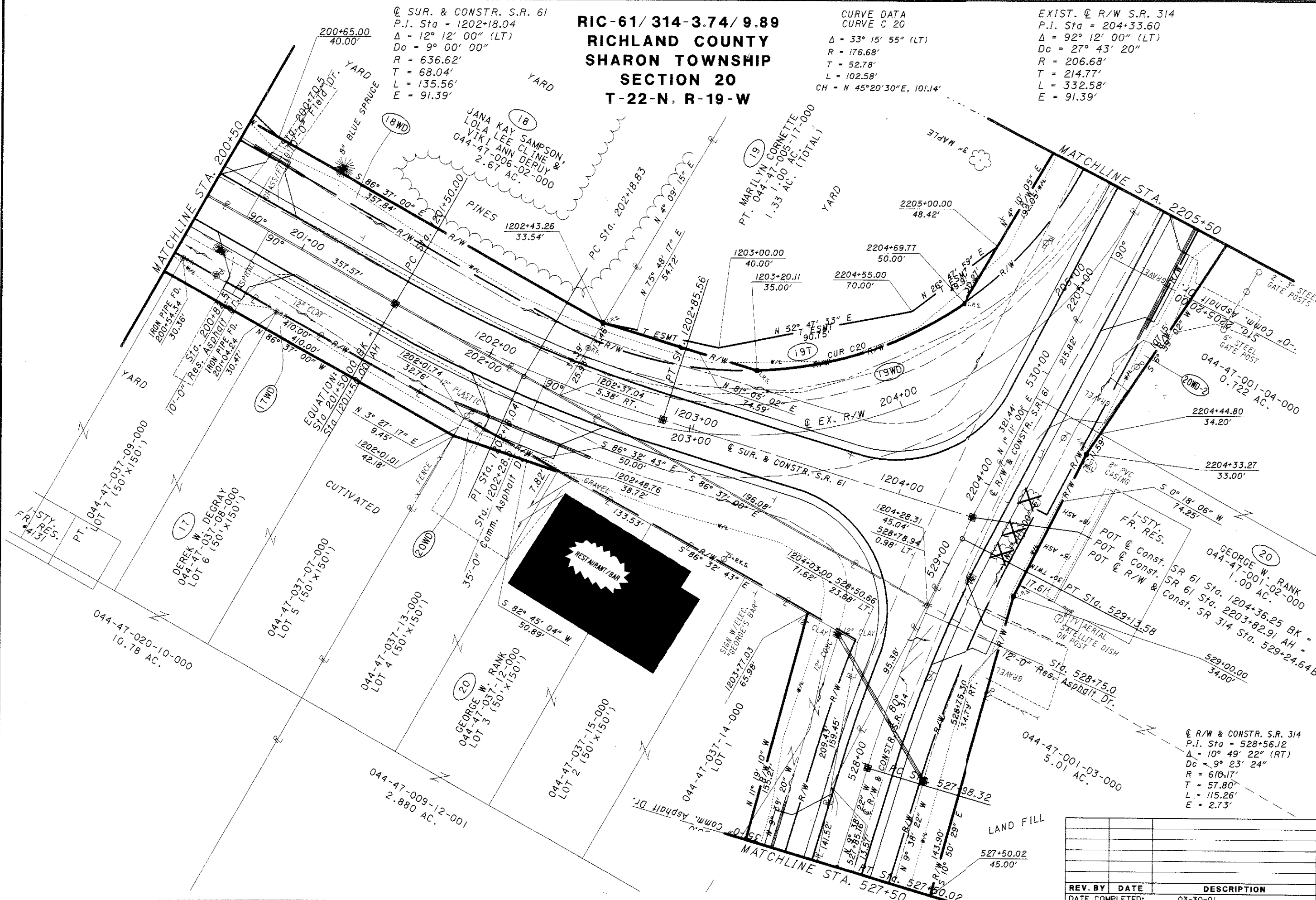
PID NO.
23161

RIGHT OF WAY PLAN
 STA. 200+50 TO STA. 2205+50

RIC- 61/314-3.74/9.89
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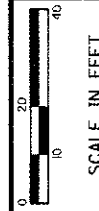
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 WORKSTATION: p221evr DATE: 10/15/12



REV. BY	DATE	DESCRIPTION

DATE COMPLETED: 03-30-01

RIC-61/314-3.74/9.89
 RICHLAND COUNTY
 SHARON TOWNSHIP
 SECTION 20
 T-20-N, R-19-W



PID NO.
23161

R/W DESIGNER
 PMS
 R/W REVIEWER

RIGHT OF WAY PLAN
STA. 2205+50 TO STA. 2211+07.85

RIC-61/314-3.74/9.89

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 III

044-47-006-02-000
 2.67 AC.

PT. 044-47-005-17-000
 1.00 AC.
 1.33 AC. (TOTAL)

(19)
 MARILYN CORNETTE
 PT. 044-47-005-17-000
 0.33 AC.
 1.33 AC. (TOTAL)

1-STY.
 BR. RES.
 *4072

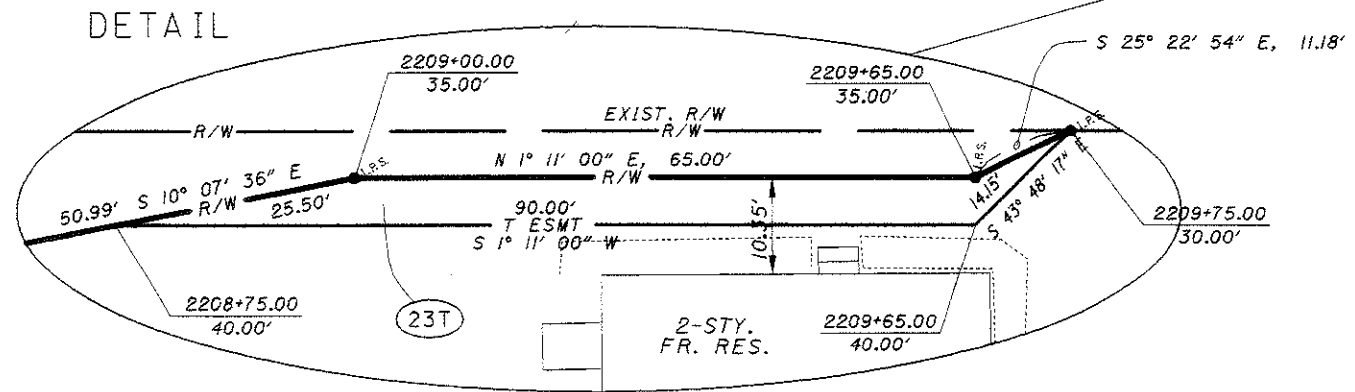
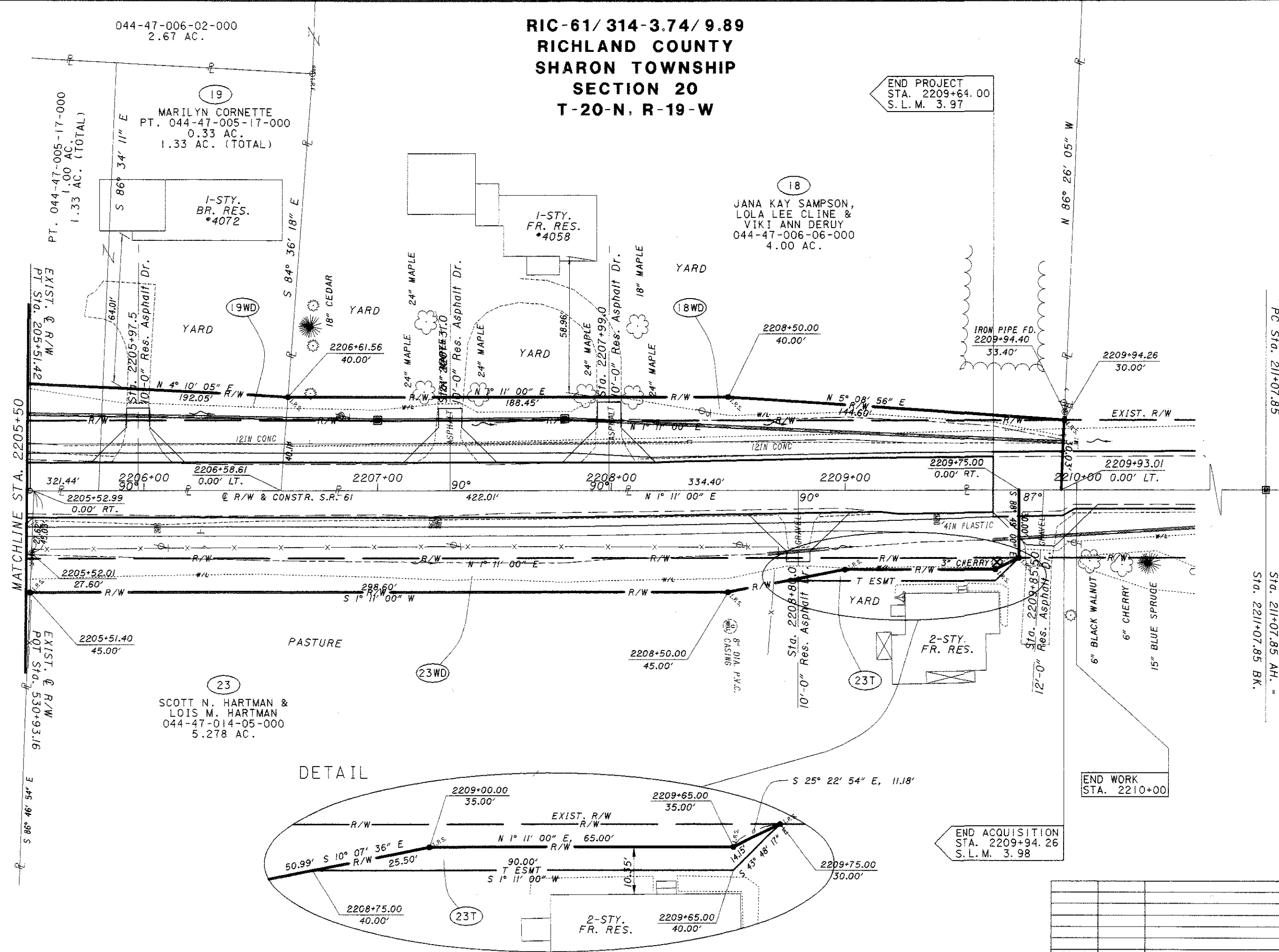
(18)
 JANA KAY SAMPSON,
 LOLA LEE CLINE &
 VIKI ANN DERUY
 044-47-006-06-000
 4.00 AC.

1-STY.
 FR. RES.
 *4058

(23)
 SCOTT N. HARTMAN &
 LOIS M. HARTMAN
 044-47-014-05-000
 5.278 AC.

END PROJECT
 STA. 2209+64.00
 S.L.M. 3.97

END ACQUISITION
 STA. 2209+94.26
 S.L.M. 3.98



PC Sta. 211+07.85

EQUATION:
 Sta. 211+07.85 AH. =
 Sta. 2211+07.85 BK.

REV. BY	DATE	DESCRIPTION

DATE COMPLETED: 03-30-01

