

ESTIMATED QUANTITIES (SFN 1813374)

ITEM	EXTENSION	TOTAL	UNIT	DESCRIPTION	ABUT.	PIERS	SUPER.	GEN.	SEE SHEET
202	11203	LS		PORTIONS OF STRUCTURE REMOVED, OVER 20 FOOT SPAN, AS PER PLAN				LS	1/19
509	10000	24318	LB	EPOXY COATED REINFORCING STEEL	1579		22739		
509	20001	200	LB	REINFORCING STEEL, REPLACEMENT OF EXISTING REINFORCING STEEL, AS PER PLAN				200	1/19
509	30020	11382	FT	NO. 4 GFRP DEFORMED BARS			11382		
510	10000	2567	EACH	DOWEL HOLES WITH NONSHRINK, NONMETALLIC GROUT (EPOXY)			2567		
511	34410	18	CY	CLASS QC2 CONCRETE, SUPERSTRUCTURE			18		
511	34448	138	CY	CLASS QC2 CONCRETE, BRIDGE DECK (PARAPET)			138		
511	44110	13	CY	CLASS QC1 CONCRETE, ABUTMENT NOT INCLUDING FOOTING	13				
512	10100	839	SY	SEALING OF CONCRETE SURFACES (EPOXY-URETHANE)			839		
513	21501	3528	LB	REPLACEMENT OF DETERIORATED END CROSSFRAMES, AS PER PLAN			3528		1/19
516	11211	160	FT	STRUCTURAL EXPANSION JOINT INCLUDING ELASTOMERIC STRIP SEAL, AS PER PLAN	160				1/19, 9/19
625	29941	2	EACH	BARRIER JUNCTION BOX, AS PER PLAN				2	1/19
848	10200	3891	SY	SUPERPLASTICIZED DENSE CONCRETE OVERLAY USING HYDRODEMOLITION: 1/2 INCHES			3891		
848	20000	3891	SY	SURFACE PREPARATION USING HYDRODEMOLITION			3891		
848	30201	357	CY	SUPERPLASTICIZED DENSE CONCRETE OVERLAY (VARIABLE THICKNESS), MATERIAL ONLY, AS PER PLAN			357		1/19, 4/19
848	50000	394	SY	HAND CHIPPING			394		
848	50300	292	SY	WEARING COURSE REMOVED, ASPHALT: 2.5 INCHES				292	
848	50320	3944	SY	EXISTING CONCRETE OVERLAY REMOVED: 2.5 INCHES			3944		

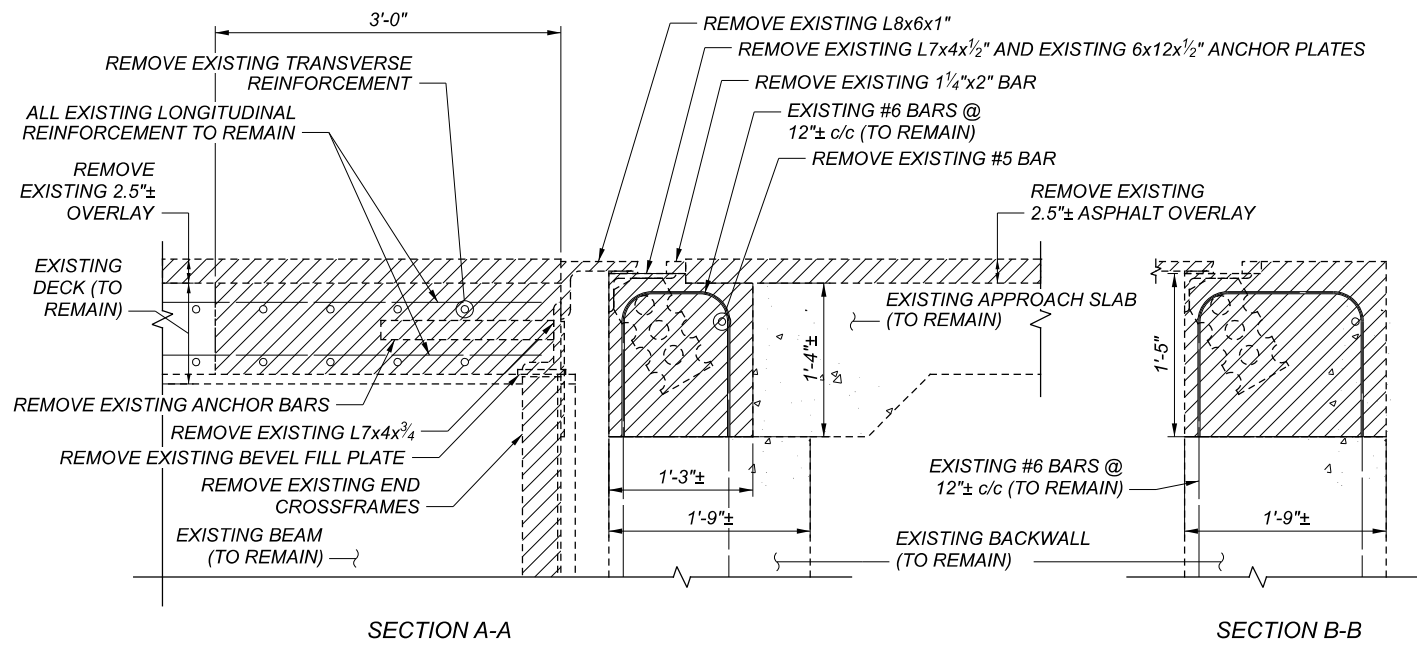
ESTIMATED QUANTITIES (SFN 1813382)

ITEM	EXTENSION	TOTAL	UNIT	DESCRIPTION	ABUT.	PIERS	SUPER.	GEN.	SEE SHEET
202	11203	LS		PORTIONS OF STRUCTURE REMOVED, OVER 20 FOOT SPAN, AS PER PLAN				LS	1/19
509	10000	11146	LB	EPOXY COATED REINFORCING STEEL	2093		9053		
509	20001	200	LB	REINFORCING STEEL, REPLACEMENT OF EXISTING REINFORCING STEEL, AS PER PLAN				200	1/19
509	30020	4282	FT	NO. 4 GFRP DEFORMED BARS			4282		
510	10000	990	EACH	DOWEL HOLES WITH NONSHRINK, NONMETALLIC GROUT (EPOXY)			990		
511	34410	22	CY	CLASS QC2 CONCRETE, SUPERSTRUCTURE			22		
511	34448	52	CY	CLASS QC2 CONCRETE, BRIDGE DECK (PARAPET)			52		
511	44110	17	CY	CLASS QC1 CONCRETE, ABUTMENT NOT INCLUDING FOOTING	17				
512	10100	311	SY	SEALING OF CONCRETE SURFACES (EPOXY-URETHANE)			311		
513	21501	4410	LB	REPLACEMENT OF DETERIORATED END CROSSFRAMES, AS PER PLAN			4410		1/19
516	11211	200	FT	STRUCTURAL EXPANSION JOINT INCLUDING ELASTOMERIC STRIP SEAL, AS PER PLAN	200				1/19, 17/19
625	29941	3	EACH	BARRIER JUNCTION BOX, AS PER PLAN				3	1/19
848	10200	1686	SY	SUPERPLASTICIZED DENSE CONCRETE OVERLAY USING HYDRODEMOLITION: 1/2 INCHES			1686		
848	20000	1686	SY	SURFACE PREPARATION USING HYDRODEMOLITION			1686		
848	30201	166	CY	SUPERPLASTICIZED DENSE CONCRETE OVERLAY (VARIABLE THICKNESS), MATERIAL ONLY, AS PER PLAN			166		1/19, 13/19
848	50000	175	SY	HAND CHIPPING			175		
848	50300	298	SY	WEARING COURSE REMOVED, ASPHALT: 2.5 INCHES				298	
848	50320	1753	SY	EXISTING CONCRETE OVERLAY REMOVED: 2.5 INCHES			1753		

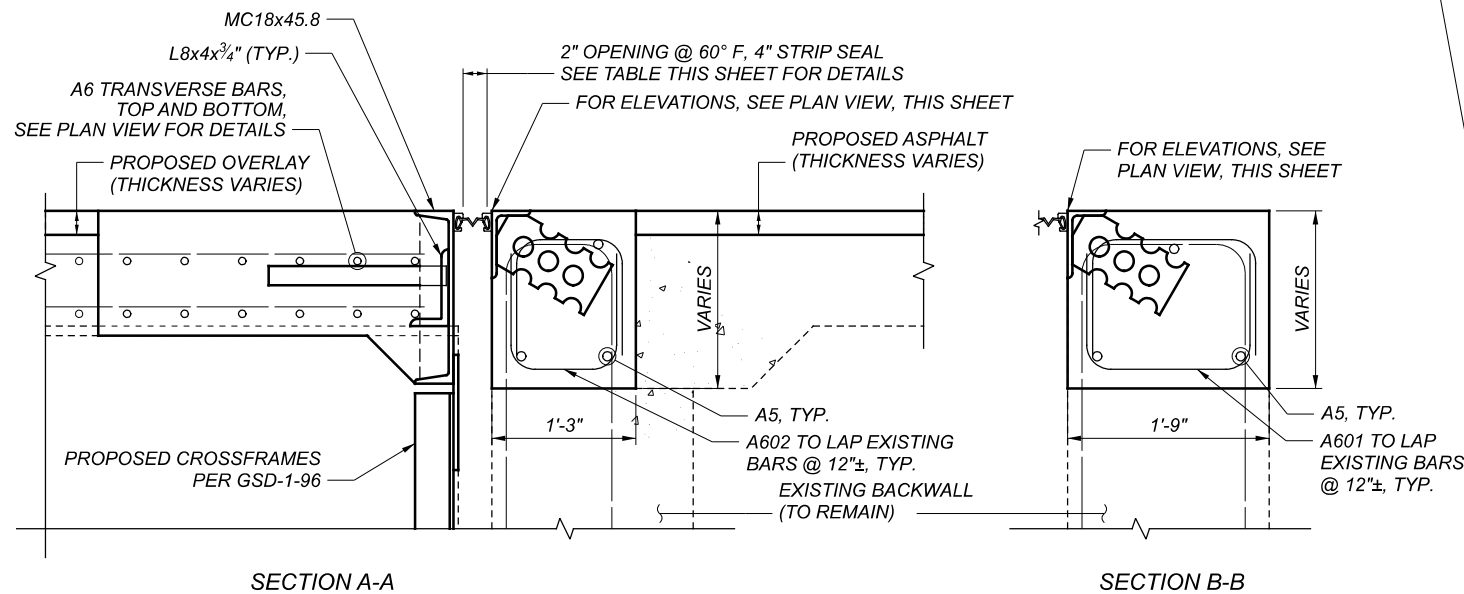
STRUCTURE ESTIMATED QUANTITIES
 BRIDGE NO. CUY-480-2139
 BRIDGE NO. CUY-480-2154

SFN 1813374/82
 DESIGN AGENCY

 KS Associates Inc.
 260 Burns Road
 Elyria, Ohio 44035
 DESIGNER CHECKER
 RAP RY
 REVIEWER
 HVH 12-11-20
 PROJECT ID
 107657
 SUBSET TOTAL
 2 19
 SHEET TOTAL
 81 98



REMOVAL DETAILS



PROPOSED JOINT DETAILS

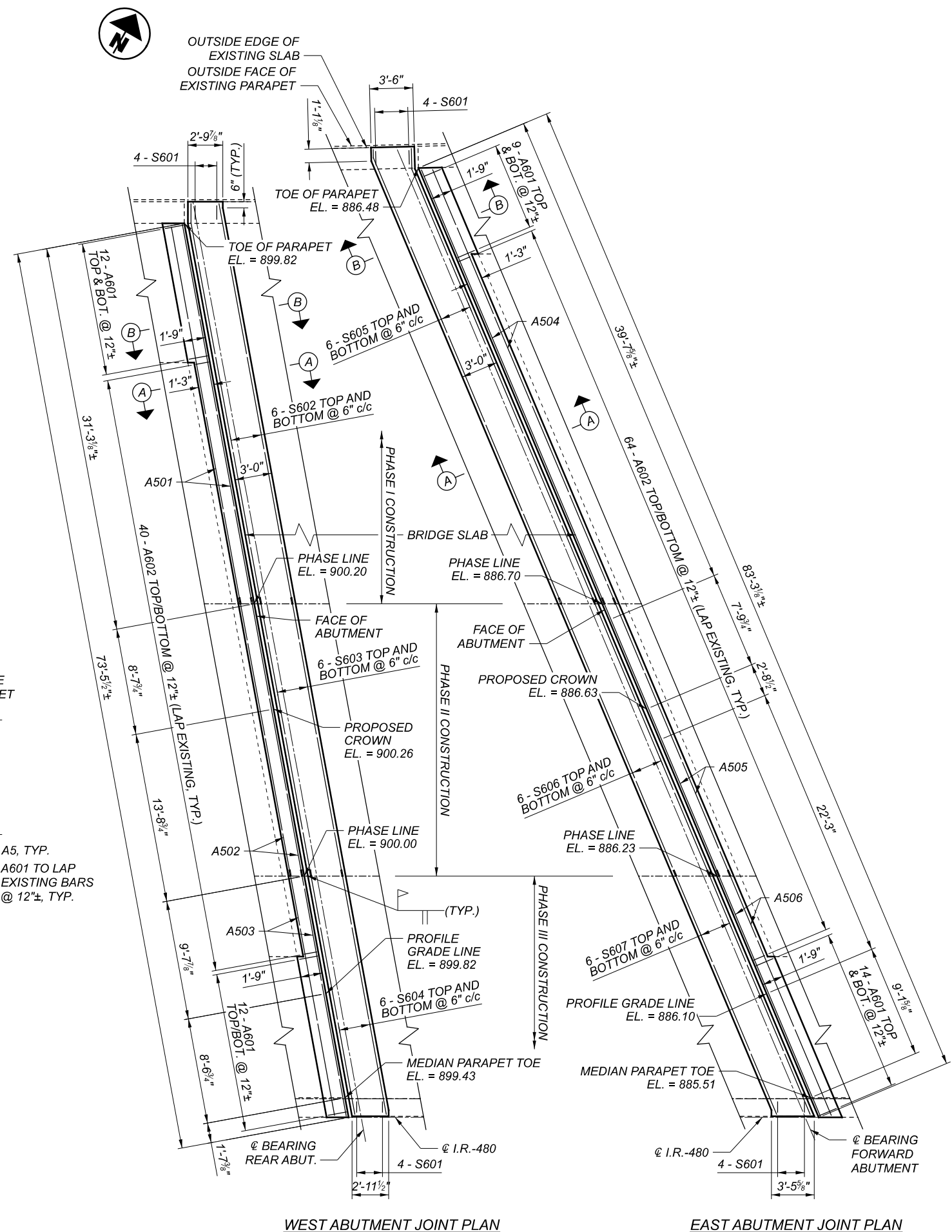
LEGEND

DENOTES ITEM 202 - PORTIONS OF STRUCTURE REMOVED

NOTES

- FOR ADDITIONAL DETAILS, SEE ODOT SCD EXJ-4-87 AND GSD-1-96
- FOR SHOULDER DETAILS, SEE ROADWAY TYPICAL SECTIONS
- MECHANICAL CONNECTORS TO BE PROVIDED AT PHASE LINES FOR TRANSVERSE BARS AS SHOWN. COST IS INCIDENTAL TO REINFORCEMENT.
- NEW CROSSFRAMES SHALL BE FRABICATED FROM A709 GRADE 50W WEATHERING STEEL

JOINT OPENING 4" STRIP SEAL (TYP.)		
TEMP. (°F)	REAR	FWD.
30	2 ⁷ / ₁₆ "	2 ³ / ₄ "
40	2 ⁵ / ₁₆ "	2 ¹ / ₂ "
50	2 ¹ / ₈ "	2 ¹ / ₄ "
60	2"	2"
70	1 ⁷ / ₈ "	1 ³ / ₄ "
80	1 ¹¹ / ₁₆ "	1 ¹ / ₂ "
90	1 ⁹ / ₁₆ "	1 ¹ / ₄ "



WEST ABUTMENT JOINT PLAN

EAST ABUTMENT JOINT PLAN

SFN	1813374
DESIGN AGENCY	
DESIGNER/CHECKER	RAP RY
REVIEWER	HVH 12-11-20
PROJECT ID	107657
SUBSET	9 TOTAL 19
SHEET	88 TOTAL 98

MARK	NUMBER			LENGTH	WEIGHT	TYPE	DIMENSIONS						
	OUTSIDE	MEDIAN	TOTAL				A	B	C	D	E	R	INC
PARAPETS													
P401 Δ	96	187	283	30'-0"		STR							
P402 Δ	6		6	25'-0"		STR							
P403 Δ	34	45	79	14'-0"		STR							
P404 Δ	58	58	116	7'-4"		STR							
P405 Δ	8		8	14'-8"		STR							
P406 Δ		10	10	12'-9"		STR							
P601	668	618	1286	2'-10"	5473	19	2'-1"	0'-9"	0'-2"				
P602		618	618	3'-0"	2785	STR							
P603		607	607	7'-7"	6914	24	1'-0"	3'-0"			0'-3"		
P604	543		543	4'-7"	3738	10	0'-7"	3'-3"	0'-6"	1'-1"			
P605	8	8	16	7'-0"	168	23	0'-6"	3'-3"	3'-3"		0'-2"		
SUB-TOTAL					19,078								

MARK	NUMBER			LENGTH	WEIGHT	TYPE	DIMENSIONS						
	WEST	EAST	TOTAL				A	B	C	D	E	R	INC
PARAPET TRANSITIONS													
T401 Δ	12	12	24	10'-0"		STR							
T402 Δ	6	6	12	6'-4"		STR	2'-6"	2'-5"	1'-4"	0'-2"	0'-5"		
T403 Δ	6	6	12	5'-1"		STR							
T404 Δ	11	11	22	6'-6"		STR							
T405 Δ	2	2	4	5'-0"		STR							
T601	4	4	8	4'-3"	51	STR							
T602	10	10	20	3'-3"	98	STR							
T603	1 SR	1 SR	2 SR	4'-3"									
T603	OF	OF	OF	TO	154	STR						0'-1"	
T603	11	11	11	5'-1"									
T603	1 SR	1 SR	2 SR	3'-3"									
T604	OF	OF	OF	TO	121	STR						0'-1"	
T604	11	11	11	4'-1"									
T605	6	6	12	3'-10"	69	19	2'-2"	1'-8"	0'-4"				
T606	6	6	12	8'-1"	146	24	1'-0"	3'-3"			0'-3"		
SUB-TOTAL					639								

NOTES

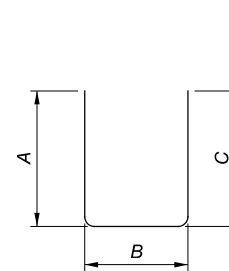
THE BAR SIZE NUMBER IS SPECIFIED ON THE PLANS IN THE BAR MARK COLUMN. THE FIRST DIGIT WHERE THREE DIGITS ARE USED, AND THE FIRST TWO DIGITS WHERE FOUR ARE USED, INDICATES THE BAR SIZE NUMBER. FOR EXAMPLE, P601 IS A NO. 6 BAR. BAR DIMENSIONS SHOWN ARE OUT TO OUT UNLESS OTHERWISE INDICATED. R INDICATES INSIDE RADIUS UNLESS OTHERWISE NOTED. "STD." WRITTEN IN PLACE OF A DIMENSION INDICATES A STANDARD BEND AT THE END OF THE BAR.

ALL REINFORCING STEEL TO BE EPOXY COATED.

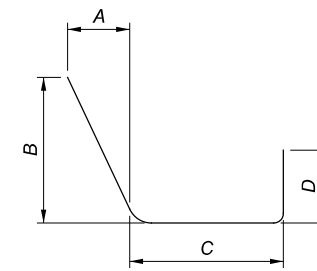
Δ - INDICATES GFRP BARS. A TOTAL OF 11,382 LINEAR FEET ITEM 509 - NO. 4 GFRP DEFORMED BARS HAS BEEN CARRIED TO STRUCTURE ESTIMATED QUANTITIES. SEE ODOT SCD SBR-1-20 FOR ADDITIONAL DETAILS.

MARK	NUMBER			LENGTH	WEIGHT	TYPE	DIMENSIONS						
	WEST	EAST	TOTAL				A	B	C	D	E	R	INC
DECK ENDS													
S601	8	8	16	7'-1"	170	29	0'-9"	1'-2"	2'-2"				
S602	12		12	32'-10"	592	STR							
S603	12		12	22'-4"	403	STR							
S604	12		12	19'-8"	354	STR							
S605		12	12	38'-8"	697	STR							
S606		12	12	23'-10"	430	STR							
S607		12	12	20'-10"	376	STR							
SUB-TOTAL					3,022								

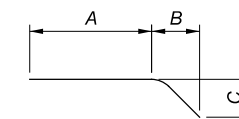
MARK	NUMBER			LENGTH	WEIGHT	TYPE	DIMENSIONS						
	WEST	EAST	TOTAL				A	B	C	D	E	R	INC
ABUTMENT BACKWALLS													
A501	3		3	31'-1"	97	STR							
A502	3		3	22'-4"	70	STR							
A503	3		3	19'-6"	61	STR							
A504		3	3	38'-0"	119	STR							
A505		3	3	23'-10"	75	STR							
A506		3	3	21'-0"	66	STR							
A601	48	46	94	2'-9"	388	2	0'-10"	1'-5"	0'-10"				
A602	80	128	208	2'-3"	703	2	0'-10"	0'-11"	0'-10"				
SUB-TOTAL					1,579								
SHEET TOTAL					24,318								



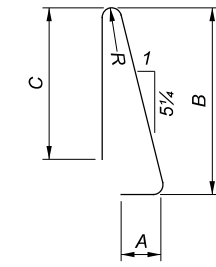
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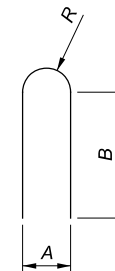
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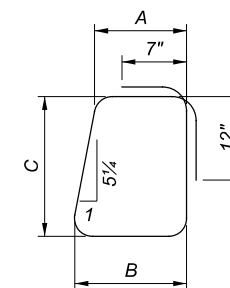
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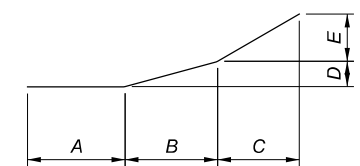
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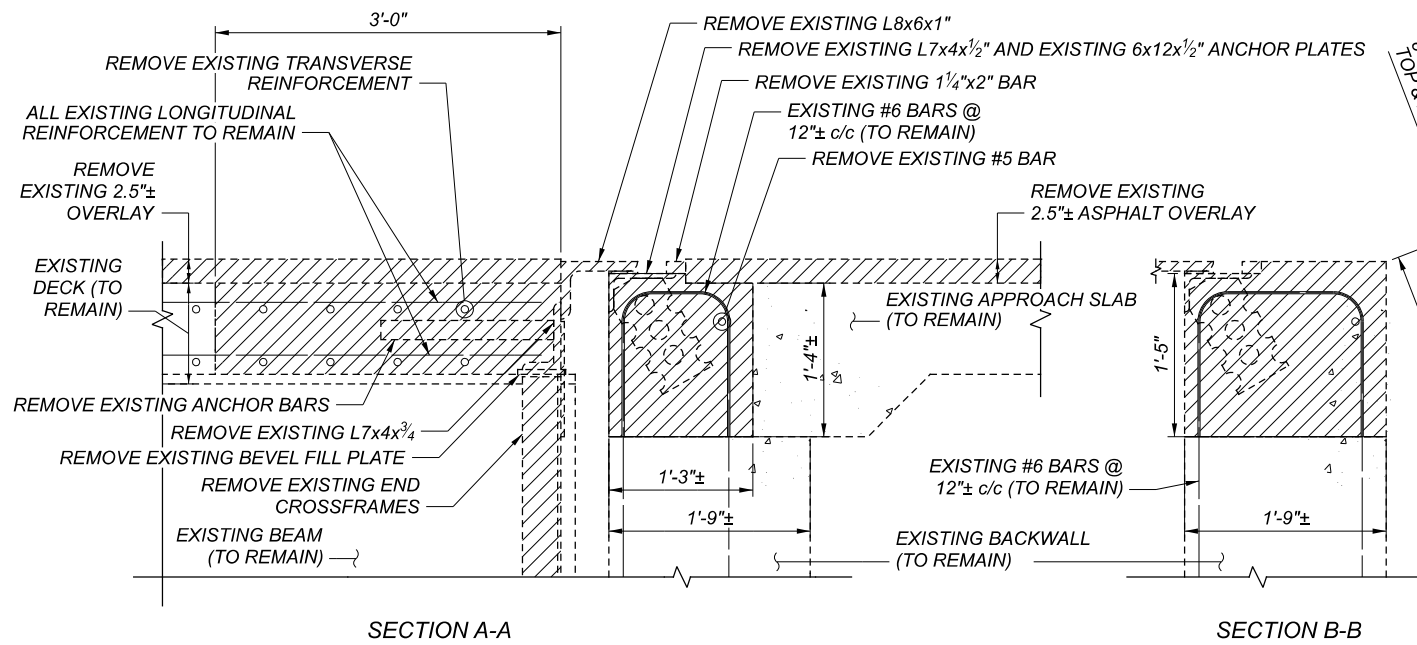
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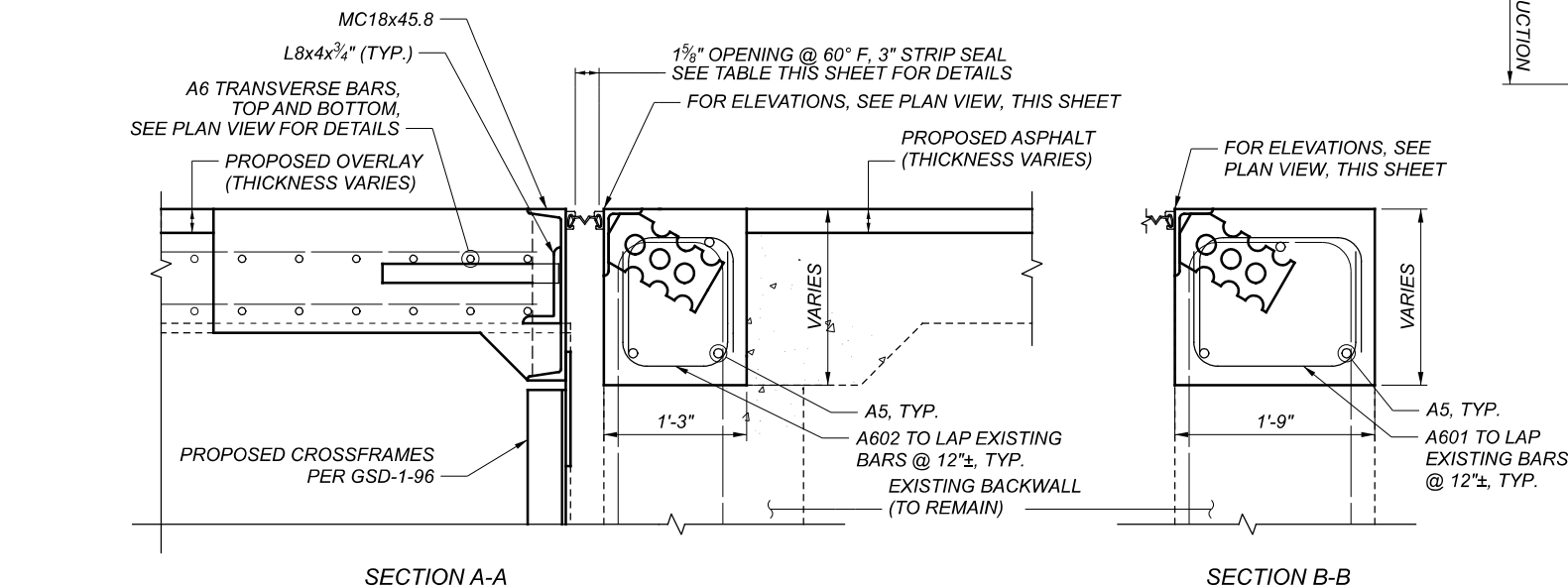
TYPE-29



TYPE-25



REMOVAL DETAILS



PROPOSED JOINT DETAILS

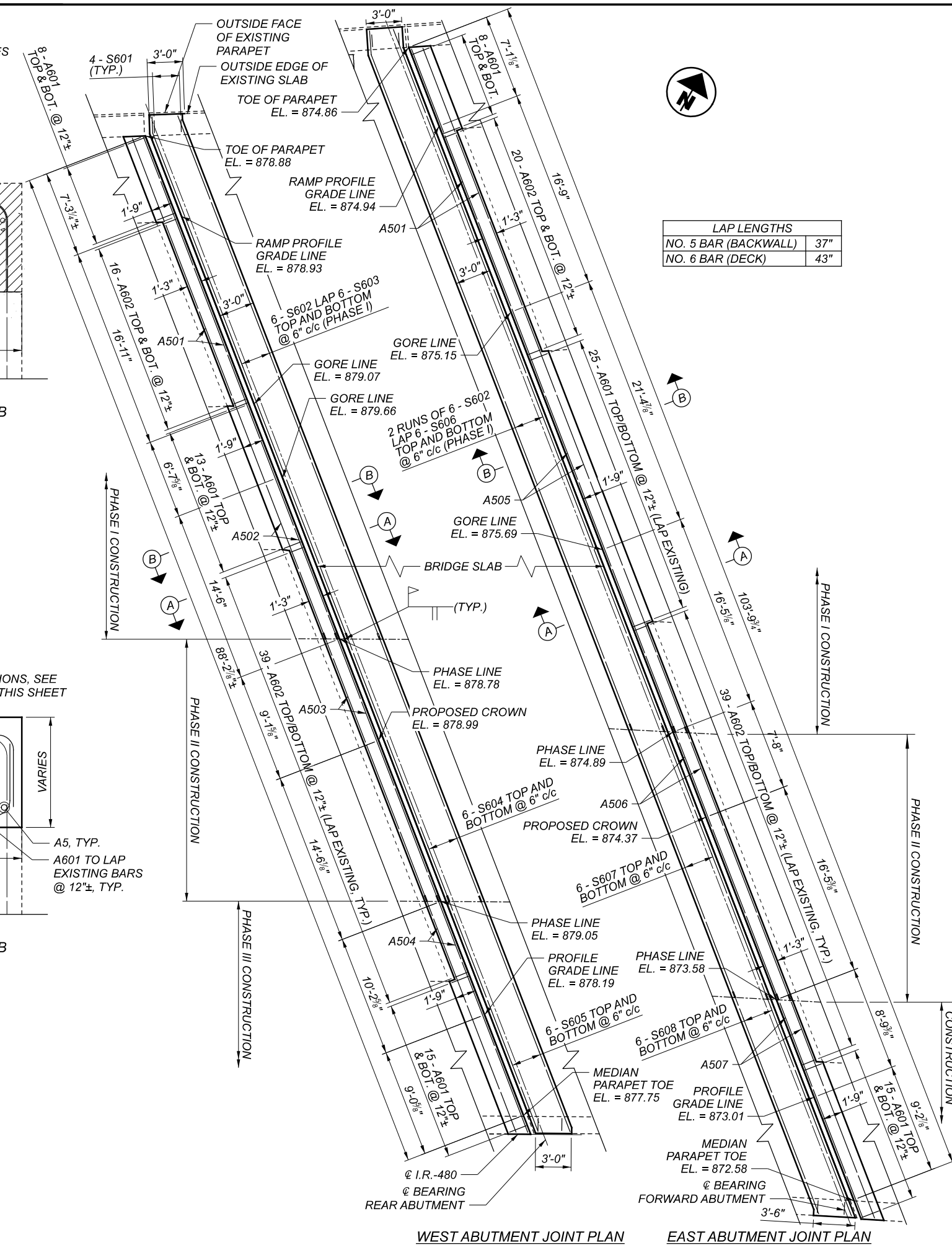
LEGEND

DENOTES ITEM 202 - PORTIONS OF STRUCTURE REMOVED

NOTES

- FOR ADDITIONAL DETAILS, SEE ODOT SCD EXJ-4-87 AND GSD-1-96
- FOR SHOULDER DETAILS, SEE ROADWAY TYPICAL SECTIONS
- MECHANICAL CONNECTORS TO BE PROVIDED AT PHASE LINES FOR TRANSVERSE BARS AS SHOWN. COST IS INCIDENTAL TO REINFORCEMENT.
- NEW CROSSFRAMES SHALL BE FRABICATED FROM A709 GRADE 50W WEATHERING STEEL

JOINT OPENING 3" STRIP SEAL (TYP.)		
TEMP. (°F)	REAR	FWD.
30	2 ¹⁵ / ₁₆ "	2 ³ / ₄ "
40	1 ¹³ / ₁₆ "	2 ¹ / ₁₆ "
50	1 ³ / ₄ "	2 ²¹ / ₃₂ "
60	1 ⁵ / ₈ "	1 ⁹ / ₈ "
70	1 ¹ / ₂ "	2 ¹⁹ / ₃₂ "
80	1 ⁷ / ₁₆ "	2 ⁹ / ₁₆ "
90	2 ⁵ / ₁₆ "	2 ¹ / ₂ "



WEST ABUTMENT JOINT PLAN

EAST ABUTMENT JOINT PLAN

LAP LENGTHS	
NO. 5 BAR (BACKWALL)	37"
NO. 6 BAR (DECK)	43"

EXPANSION JOINT DETAILS
 BRIDGE NO. CUY-480-2154
 IR-480 OVER S.R. 14 (BROADWAY AVENUE)

SFN	1813382
DESIGN AGENCY	
DESIGNER/CHECKER	RAP RY
REVIEWER	HVH 12-11-20
PROJECT ID	107657
SUBSET	17
TOTAL	19
SHEET	96
TOTAL	98

MARK	NUMBER			LENGTH	WEIGHT	TYPE	DIMENSIONS						
	OUTSIDE	MEDIAN	TOTAL				A	B	C	D	E	R	INC
PARAPETS													
P401 Δ	30	66	96	30'-0"		STR							
P402 Δ	6		6	32'-0"		STR							
P403 Δ		11	11	8'-0"		STR							
P404 Δ	8	8	16	5'-6"		STR							
P405 Δ	20	12	32	15'-6"		STR							
P406 Δ		10	10	13'-1"		STR							
P601	228	234	462	2'-10"	1966	19	2'-1"	0'-9"	0'-2"				
P602		234	234	3'-0"	1054	STR							
P603		188	188	7'-7"	2141	24	1'-0"	3'-0"			0'-3"		
P604	186		186	4'-7"	1280	10	0'-7"	3'-3"	0'-6"	1'-1"			
P605	8	8	16	7'-0"	168	23	0'-6"	3'-3"	3'-3"		0'-2"		
SUB-TOTAL					6,609								

MARK	NUMBER			LENGTH	WEIGHT	TYPE	DIMENSIONS						
	WEST	EAST	TOTAL				A	B	C	D	E	R	INC
PARAPET TRANSITIONS													
T401 Δ	12	12	24	10'-0"		STR							
T402 Δ	6	6	12	6'-4"		STR	2'-6"	2'-5"	1'-4"	0'-2"	0'-5"		
T403 Δ	6	6	12	5'-1"		STR							
T404 Δ	11		11	2'-8"		STR							
T601	4	4	8	4'-3"	51	STR							
T602	6		6	3'-3"	29	STR							
T603	1 SR	1 SR	2 SR	4'-3"									
T603	OF	OF	OF	TO	154	STR						0'-1"	
T603	11	11	11	5'-1"									
T604	1 SR	1 SR	2 SR	3'-3"									
T604	OF	OF	OF	TO	121	STR						0'-1"	
T604	11	11	11	4'-1"									
T605	2		2	3'-10"	12	19	2'-2"	1'-8"	0'-4"				
T606	2		2	8'-1"	24	24	1'-0"	3'-3"			0'-3"		
SUB-TOTAL					391								

NOTES

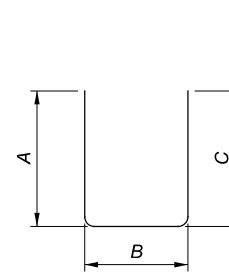
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ALL REINFORCING STEEL TO BE EPOXY COATED.

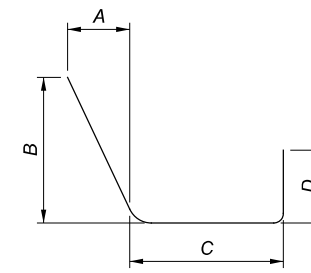
Δ - INDICATES GFRP BARS. A TOTAL OF 4,282 LINEAR FEET ITEM 509 - NO. 4 GFRP DEFORMED BARS HAS BEEN CARRIED TO STRUCTURE ESTIMATED QUANTITIES. SEE ODOT SCD SBR-1-20 FOR ADDITIONAL DETAILS.

MARK	NUMBER			LENGTH	WEIGHT	TYPE	DIMENSIONS						
	WEST	EAST	TOTAL				A	B	C	D	E	R	INC
DECK ENDS													
S601	8	8	16	7'-1"	170	29	0'-9"	1'-2"	2'-2"				
S602	6	12	18	30'-0"	811	STR							
S603	6		6	20'-9"	187	STR							
S604	6		6	23'-8"	213	STR							
S605	6		6	20'-8"	186	STR							
S606		6	6	10'-5"	94	STR							
S607		6	6	24'-1"	217	STR							
S608		6	6	19'-5"	175	STR							
SUB-TOTAL					2,053								

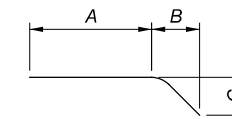
MARK	NUMBER			LENGTH	WEIGHT	TYPE	DIMENSIONS						
	WEST	EAST	TOTAL				A	B	C	D	E	R	INC
ABUTMENT BACKWALLS													
A501	3	3	6	30'-0"	188	STR							
A502	3		3	18'-3"	57	STR							
A503	3		3	23'-8"	74	STR							
A504	3		3	20'-9"	65	STR							
A505		3	3	34'-8"	108	STR							
A506		3	3	24'-1"	75	STR							
A507		3	3	19'-6"	61	STR							
A601	72	96	168	2'-9"	694	2	0'-10"	1'-5"	0'-10"				
A602	110	118	228	2'-3"	771	2	0'-10"	0'-11"	0'-10"				
SUB-TOTAL					2,093								
SHEET TOTAL					11,146								



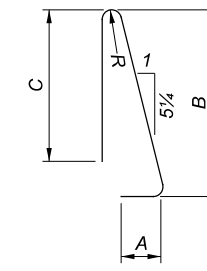
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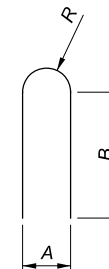
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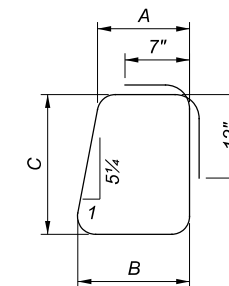
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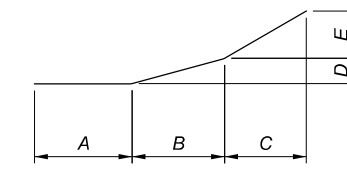
TYPE-23



TYPE-24



TYPE-29



TYPE-25

SFN	1813382
DESIGN AGENCY	
DESIGNER	RAP
CHECKER	RY
REVIEWER	HVH
PROJECT ID	107657
SUBSET	19
TOTAL	19
SHEET	98
TOTAL	98