

**SUPERSTRUCTURE REINFORCING STEEL LENGTHS ARE BASED ON THE FOLLOWING MINIMUM SPLICE LENGTHS**

BAR SIZE	SUPERSTRUCTURE EXCEPT APPROACH SLABS, PARAPET, AND BARRIER RAIL		APPROACH SLABS		PARAPET AND BARRIER RAIL
	EPOXY COATED	UNCOATED	EPOXY COATED	UNCOATED	
#4	1'-11"	1'-7"	1'-11"	1'-7"	2'-6"
#5	2'-5"	2'-0"	2'-5"	2'-0"	3'-1"
#6	2'-10"	2'-5"	3'-7"	2'-5"	3'-8"
#7	4'-2"	2'-9"			
#8	4'-9"	3'-2"			

**CLASS AA CONC. BREAKDOWN**

POUR #1	188.9 C.Y.
POUR #2	167.7 C.Y.
POUR #3	188.9 C.Y.
POUR #4	73.5 C.Y.
POUR #5	31.4 C.Y.
<b>TOTAL CLASS AA CONC.</b>	<b>650.4 C.Y.</b>

**GROOVING BRIDGE FLOORS**

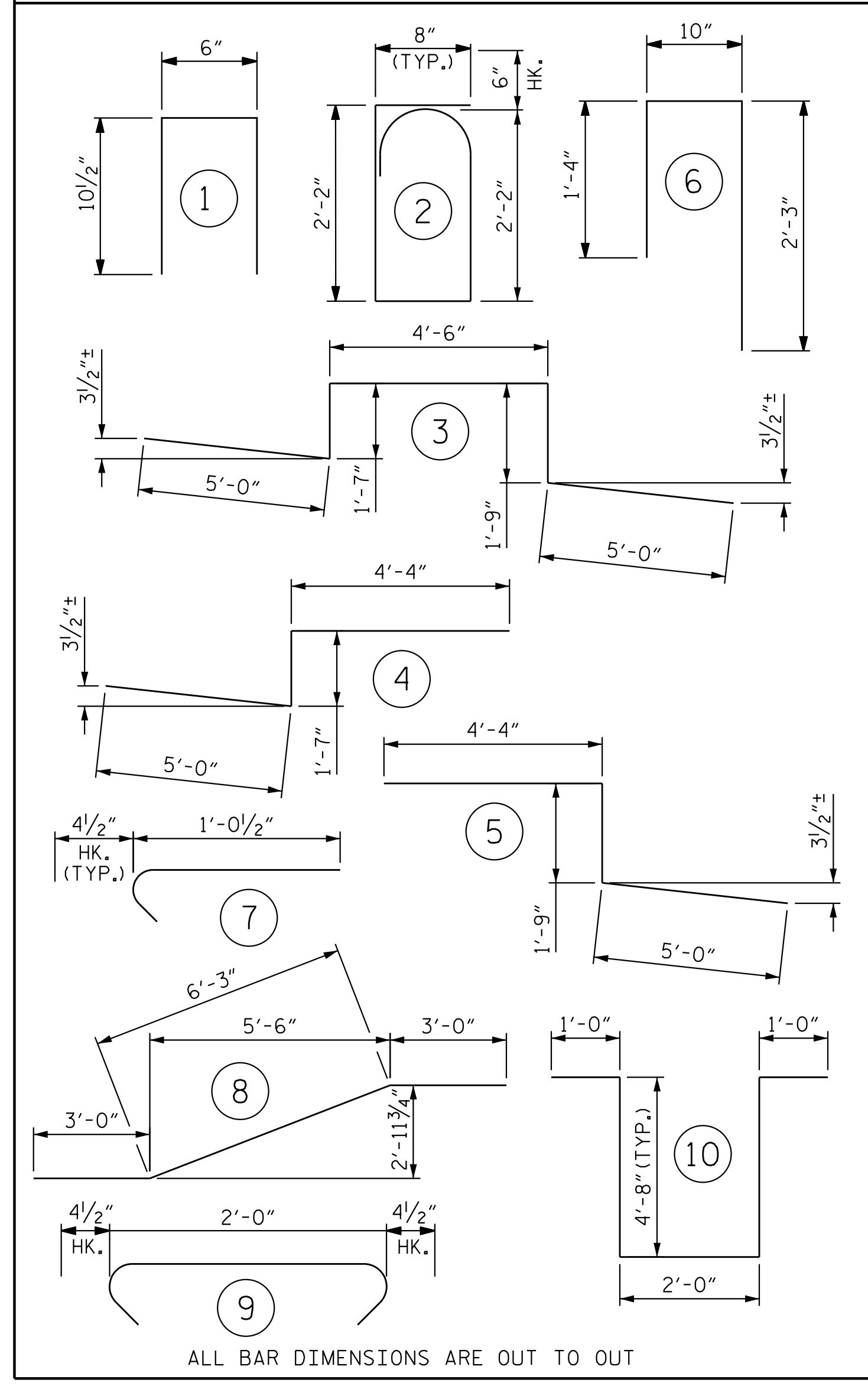
APPROACH SLABS	3,337 SQ.FT.
BRIDGE DECK	16,058 SQ.FT.
<b>TOTAL</b>	<b>19,395 SQ.FT.</b>

**SUPERSTRUCTURE BILL OF MATERIAL**

	CLASS AA CONCRETE (CU. YDS.)	REINF. STEEL (LBS.)	EPOXY COATED REINF. STEEL (LBS.)
<b>* TOTALS **</b>	<b>650.4</b>	<b>53,427</b>	<b>56,318</b>

\* QUANTITIES FOR BARRIER RAIL ARE NOT INCLUDED

**BAR TYPES**



**REINFORCING BAR SCHEDULE (DECK & DIAPHRAGM)**

BAR	NO.	SIZE	TYPE	LENGTH	WEIGHT
* A1	650	#5	STR	42'-1"	28,530
* A101	4	#5	STR	40'-6"	169
* A102	4	#5	STR	38'-8"	161
* A103	4	#5	STR	36'-10"	154
* A104	4	#5	STR	35'-0"	146
* A105	4	#5	STR	33'-2"	138
* A106	4	#5	STR	31'-3"	130
* A107	2	#5	STR	56'-4"	118
* A108	2	#5	STR	52'-8"	110
* A109	2	#5	STR	49'-0"	102
* A110	2	#5	STR	45'-4"	95
* A111	2	#5	STR	41'-8"	87
* A112	2	#5	STR	38'-0"	79
* A113	2	#5	STR	34'-4"	72
* A114	2	#5	STR	30'-8"	64
* A115	2	#5	STR	27'-0"	56
* A116	2	#5	STR	23'-4"	49
* A117	2	#5	STR	19'-8"	41
* A118	2	#5	STR	16'-1"	34
* A119	2	#5	STR	12'-5"	26
* A120	2	#5	STR	8'-9"	18
* A121	2	#5	STR	5'-1"	11
* A122	2	#5	STR	3'-3"	7
* A123	4	#5	STR	40'-4"	168
* A124	4	#5	STR	38'-3"	160
* A125	4	#5	STR	36'-3"	151
* A126	4	#5	STR	34'-3"	143
* A127	4	#5	STR	32'-3"	135
* A128	2	#5	STR	58'-0"	121
* A129	2	#5	STR	54'-0"	113
* A130	2	#5	STR	50'-0"	104
* A131	2	#5	STR	46'-0"	96
* A132	2	#5	STR	41'-11"	87
* A133	2	#5	STR	37'-11"	79
* A134	2	#5	STR	33'-11"	71
* A135	2	#5	STR	29'-11"	62
* A136	2	#5	STR	25'-10"	54
* A137	2	#5	STR	21'-10"	46

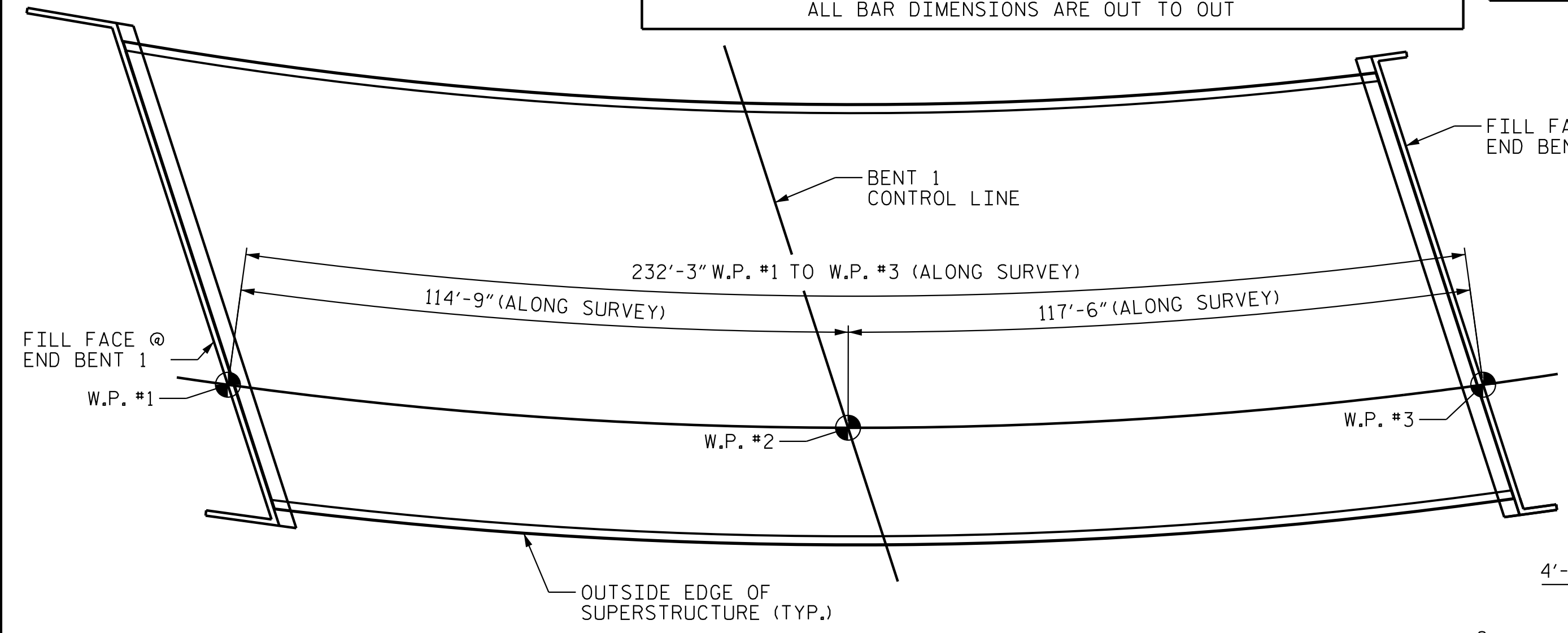
BAR	NO.	SIZE	TYPE	LENGTH	WEIGHT
* A138	2	#5	STR	17'-10"	37
* A139	2	#5	STR	13'-9"	29
* A140	2	#5	STR	9'-9"	20
* A141	2	#5	STR	5'-9"	12
* A142	2	#5	STR	3'-8"	8
A2	650	#5	STR	41'-11"	28,417
A201	4	#5	STR	40'-3"	168
A202	4	#5	STR	38'-5"	160
A203	4	#5	STR	36'-7"	153
A204	4	#5	STR	34'-9"	145
A205	4	#5	STR	32'-11"	137
A206	4	#5	STR	31'-1"	130
A207	2	#5	STR	56'-4"	118
A208	2	#5	STR	52'-8"	110
A209	2	#5	STR	49'-0"	102
A210	2	#5	STR	45'-4"	95
A211	2	#5	STR	41'-8"	87
A212	2	#5	STR	38'-0"	79
A213	2	#5	STR	34'-4"	72
A214	2	#5	STR	30'-8"	64
A215	2	#5	STR	27'-0"	56
A216	2	#5	STR	23'-4"	49
A217	2	#5	STR	19'-8"	41
A218	2	#5	STR	16'-1"	34
A219	2	#5	STR	12'-5"	26
A220	2	#5	STR	8'-9"	18
A221	2	#5	STR	5'-1"	11
A222	2	#5	STR	3'-3"	7
A223	4	#5	STR	40'-1"	167
A224	4	#5	STR	38'-1"	159
A225	4	#5	STR	36'-1"	151
A226	4	#5	STR	34'-1"	142
A227	4	#5	STR	32'-1"	134
A228	2	#5	STR	58'-0"	121
A229	2	#5	STR	54'-0"	113
A230	2	#5	STR	50'-0"	104
A231	2	#5	STR	46'-0"	96

BAR	NO.	SIZE	TYPE	LENGTH	WEIGHT
A232	2	#5	STR	41'-11"	87
A233	2	#5	STR	37'-11"	79
A234	2	#5	STR	33'-11"	71
A235	2	#5	STR	29'-11"	62
A236	2	#5	STR	25'-10"	54
A237	2	#5	STR	21'-10"	46
A238	2	#5	STR	17'-10"	37
A239	2	#5	STR	13'-9"	29
A240	2	#5	STR	9'-9"	20
A241	2	#5	STR	5'-9"	12
A242	2	#5	STR	3'-8"	8
* B1	112	#4	STR	39'-9"	2,974
* B2	168	#4	STR	27'-7"	3,096
* B3	321	#5	STR	28'-1"	9,402
* B4	108	#5	STR	44'-8"	5,031
B5	390	#5	STR	48'-0"	19,525
* G1	2	#5	STR	46'-6"	97
* G2	2	#5	STR	42'-6"	89
* J1	162	#4	7	1'-5"	153
* K1	24	#8	3	17'-10"	1,143
* K2	4	#8	4	10'-11"	117
* K3	4	#8	5	11'-1"	118
* K4	48	#6	STR	5'-9"	415
K5	128	#4	STR	4'-9"	406
K6	40	#4	8	12'-3"	327
K7	16	#4	STR	5'-1"	54
K8	48	#4	STR	8'-5"	270
K9	16	#4	STR	4'-10"	52
* S1	176	#5	2	5'-10"	1,071
S2	32	#4	1	1'-11"	41
* S3	176	#4	6	4'-5"	519
S4	192	#4	9	2'-9"	353
U1	48	#4	10	13'-4"	428

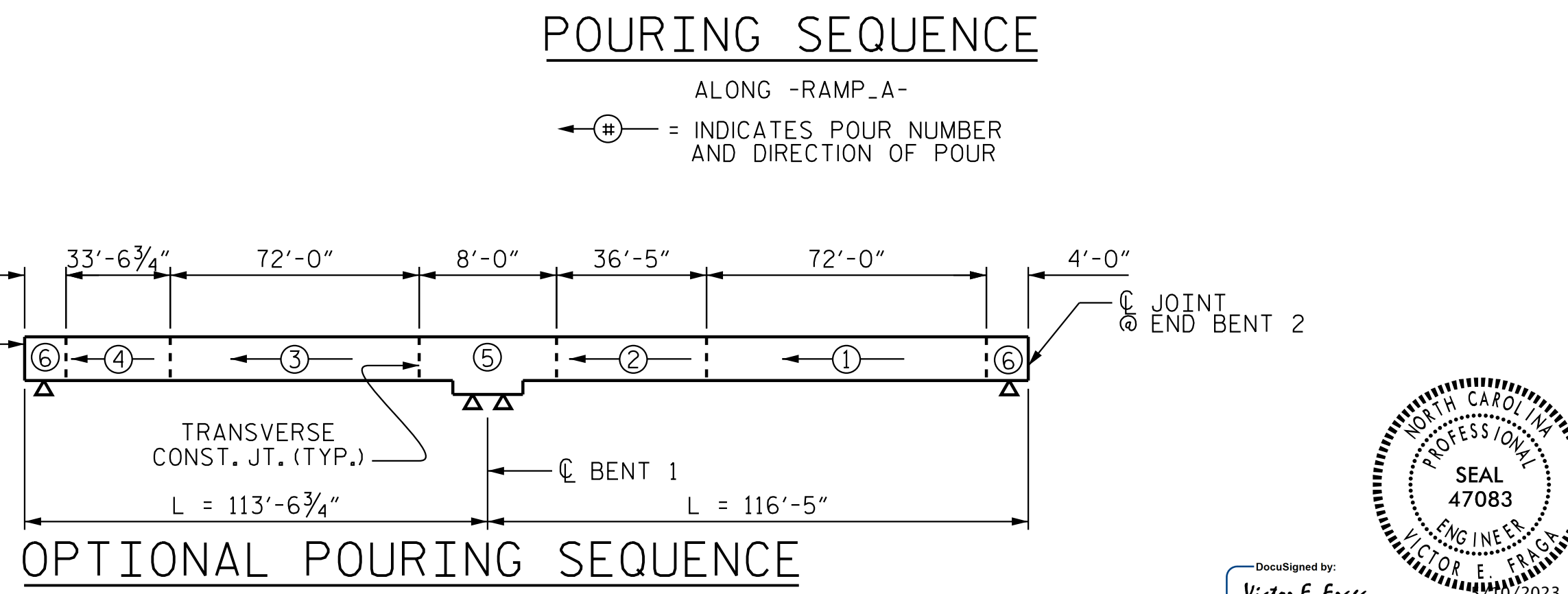
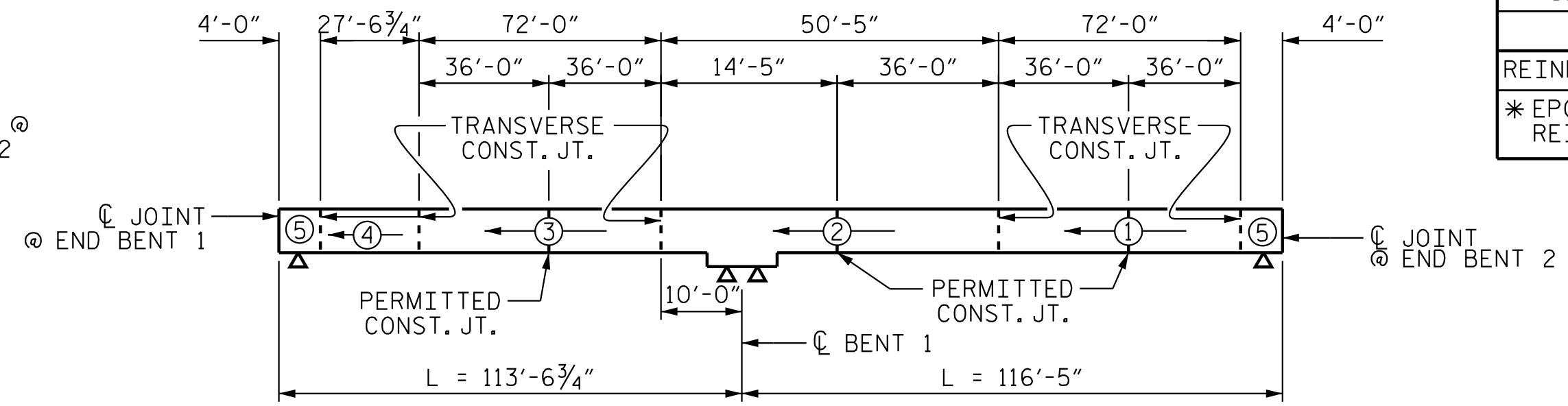
REINFORCING STEEL 53,427 LBS.  
 \* EPOXY COATED REINFORCING STEEL 56,318 LBS.

**PRELIMINARY PLANS  
DO NOT USE FOR CONSTRUCTION**

PROJECT NO. R-2707D  
 CLEVELAND COUNTY  
 STATION: 36+78.38 -RAMP A-



LAYOUT FOR COMPUTING AREA REINFORCED CONCRETE DECK SLAB (SQ. FT. = 18,727)



STATE OF NORTH CAROLINA  
 DEPARTMENT OF TRANSPORTATION  
 RALEIGH

**SUPERSTRUCTURE BILL OF MATERIAL**

REVISIONS						SHEET NO.
NO.	BY:	DATE:	NO.	BY:	DATE:	S4-27
1			3			TOTAL SHEETS 43
2			4			

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 CHECKED BY: V. E. FRAGA DATE: 03/23/23  
 DESIGN ENGINEER OF RECORD: V. E. FRAGA DATE: 05/09/23

DocuSigned by:  
 Victor E. Fraga  
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