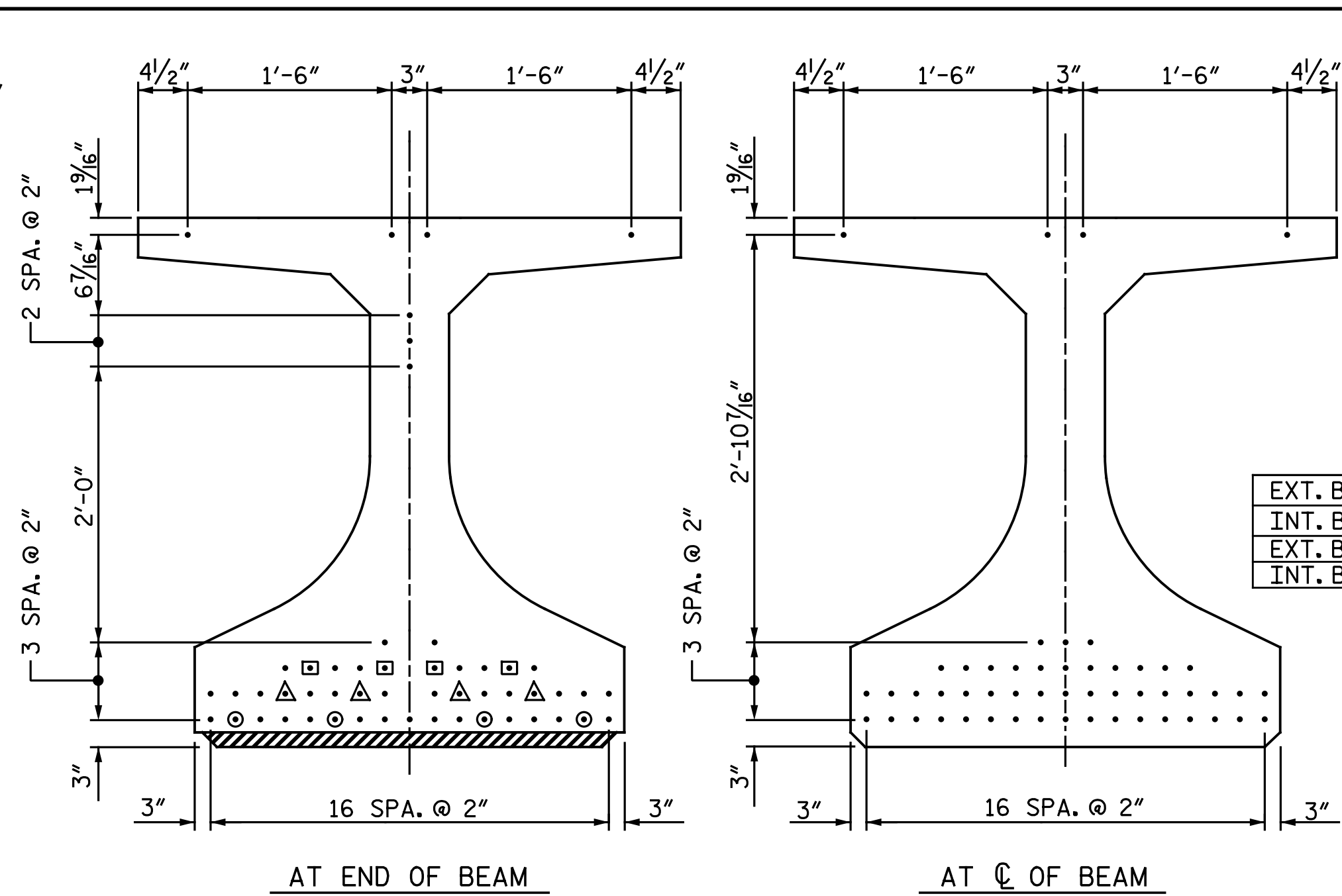


** FOR LOCATION OF SECTION B-B, SEE "PARTIAL ELEVATION" DETAILS ON "45" PRESTRESSED CONCRETE FLORIDA I-BEAM DETAILS" SHEET.

© 1/2" Ø FORMED HOLE. SEE "BEAM LAYOUT" SHEET FOR LOCATION. FOR DIM. "A" & "B" SEE "INTERMEDIATE STEEL DIAPHRAGMS FOR 45" FLORIDA I-BEAMS" SHEET.

DEBONDING LEGEND

- FULLY BONDED STRANDS
- ◻ STRANDS DEBONDED FOR 8'-0" FROM END OF BEAM
- ▲ STRANDS DEBONDED FOR 10'-0" FROM END OF BEAM
- STRANDS DEBONDED FOR 12'-0" FROM END OF BEAM



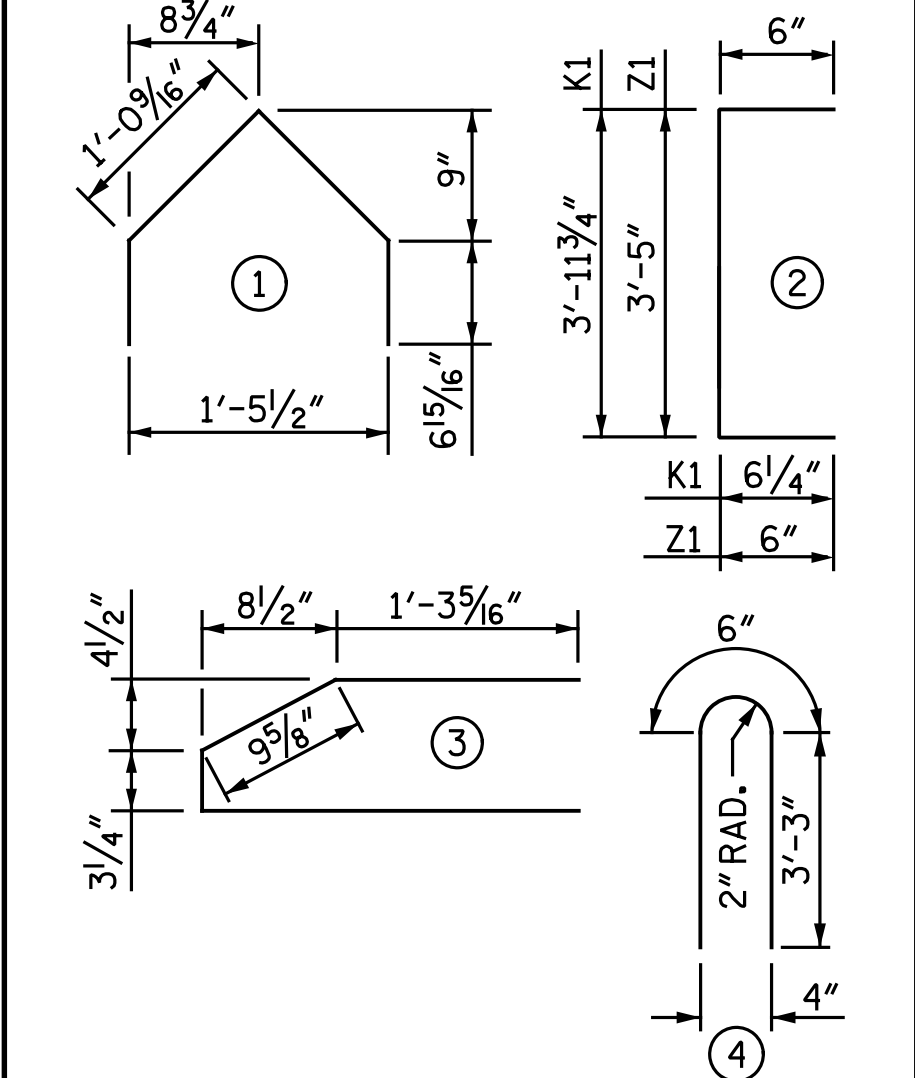
0.6" Ø LOW RELAXATION STRAND LAYOUT

0.6" Ø L. R. GRADE 270 STRANDS		
AREA (SQUARE INCHES)	ULTIMATE STRENGTH (LBS. PER STRAND)	APPLIED PRESTRESS (LBS. PER STRAND)
0.217	58,600	43,950 *

REINFORCING STEEL FOR ONE BEAM						
BAR	NUMBER	SIZE	TYPE	LENGTH	WEIGHT	
A1	8	#5	STR.	19'-0"	159	
C1	36	#3	1	3'-3"	44	
D1	214	#3	3	4'-4"	349	
K1	157	#5	2	5'-0"	819	
M1	114	#4	STR.	3'-8"	279	
S11	4	#5	4	7'-0"	29	
INT. BM.	S11	8	#5	4	7'-0"	58
EXT. BM.	S12	5	#4	STR.	8'-0"	27
INT. BM.	S13	5	#4	STR.	13'-6"	45
	Y1	12	#5	STR.	3'-3"	41
	Z1	18	#5	2	4'-5"	83

* NOTE: THE (4) STRANDS ALONG THE TOP FLANGE TO BE STRESSED TO 10,000 LBS. EACH.

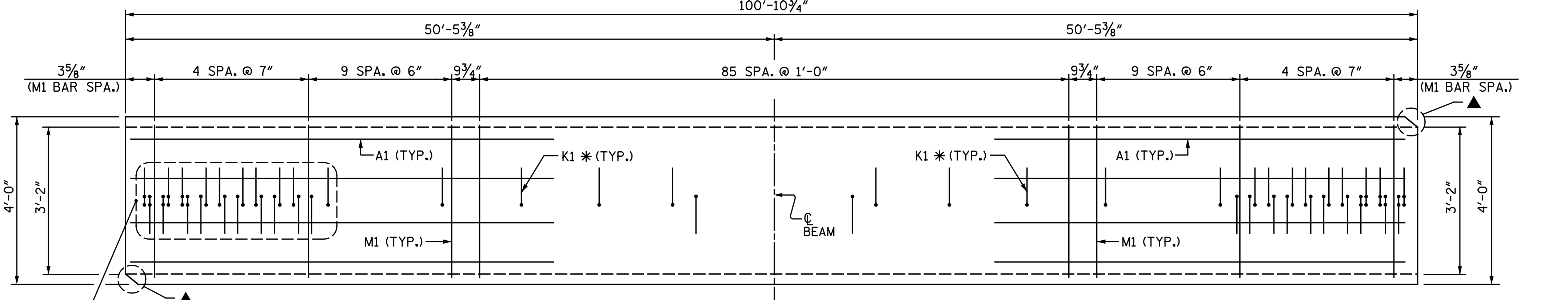
BAR TYPES



ALL BAR DIMENSIONS ARE OUT-TO-OUT

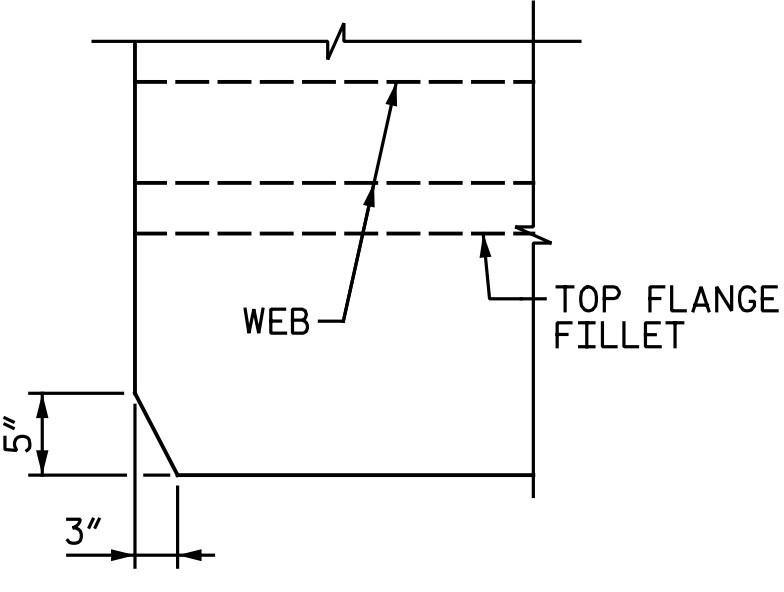
QUANTITIES FOR ONE BEAM			
	REINFORCING STEEL	7,500 PSI CONCRETE	0.6" Ø L.R. STRANDS
	LB.	C.Y.	No.
EXT. BEAM	1,830	22.6	52
INT. BEAM	1,877	22.6	52

BEAMS REQUIRED		
NUMBER	LENGTH	TOTAL LENGTH
16	100'-10 3/4"	1,614.33'

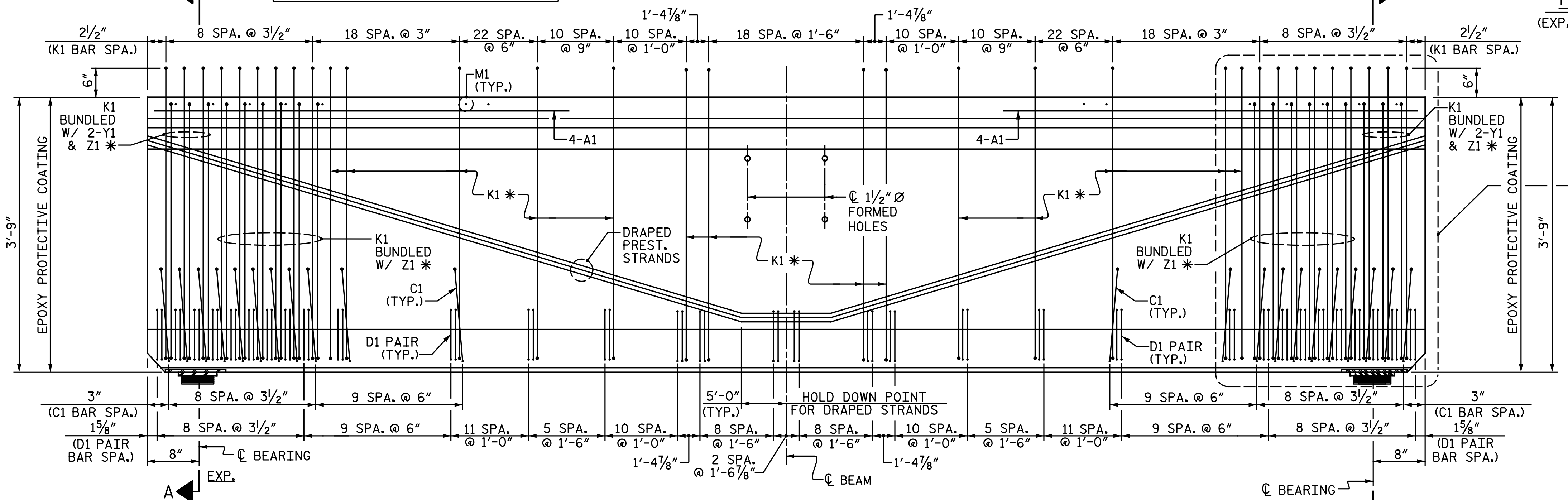


PLAN OF BEAM

▲ SEE "TOP FLANGE CLIP DETAIL"



TOP FLANGE CLIP DETAIL
(EXPANSION END SHOWN, FIXED END SIMILAR)



ELEVATION OF BEAM

SEE DETAIL "B" ON "45" PRESTRESSED CONCRETE FLORIDA I-BEAM DETAILS" SHEET



DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED

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PROJECT NO. I-5986B
JOHNSTON COUNTY
STATION: 1391+19.65 -L-

STATE OF NORTH CAROLINA
DEPARTMENT OF TRANSPORTATION
RALEIGH
SUPERSTRUCTURE
45" PRESTRESSED CONCRETE FLORIDA I-BEAM

REVISIONS						SHEET NO. S3-16
NO.	BY:	DATE:	NO.	BY:	DATE:	
1			3			TOTAL SHEETS 44
2			4			

DRAWN BY: N. B. SPEAKS DATE: 7-18-19
CHECKED BY: J. M. GARRISON DATE: 4-17-20