COMMONWEALTH OF KENTUCKY
TRANSPORTATION CABINET
Frankfort, Kentucky 40622
www.transportation.ky.gov/

Matthew G. Bevin
Governor

Greg Thomas
Secretary

July 20, 2018

CALL NO. 106
CONTRACT ID NO. 181222
ADDENDUM # 1

Subject: Laurel County, STP BRZ 5291 (005)
Letting July 27, 2018

(1) Revised – Plan Sheet – S13

Proposal revisions are available at http://transportation.ky.gov/Construction-Procurement/.

If you have any questions, please contact us at 502-564-3500.

Sincerely,

Rachel Mills, P.E.
Director
Division of Construction Procurement

RM:mw
Enclosures

PCI Beam General Notes

CONCRETE: Ensure prestressed girder concrete is in accordance with these plans and the specifications.

MATERIALS DESIGN SPECIFICATIONS: For prestressed beams:
FY = 60,000 psi F'S = 270,000 psi

PRESTRESSING REINFORCEMENT: Ensure that strands are 0.6" (nom. diameter, 0.217 sq. in.), uncoated seven-wire stress relieved, low-relaxation conforming to AASHTO M 203, Grade 270. Billing of the cost for redesign of beam and subsequent plan modifications will be made for any request of alternate strand type or arrangement. The designer of the original plans is responsible for the billing and work.

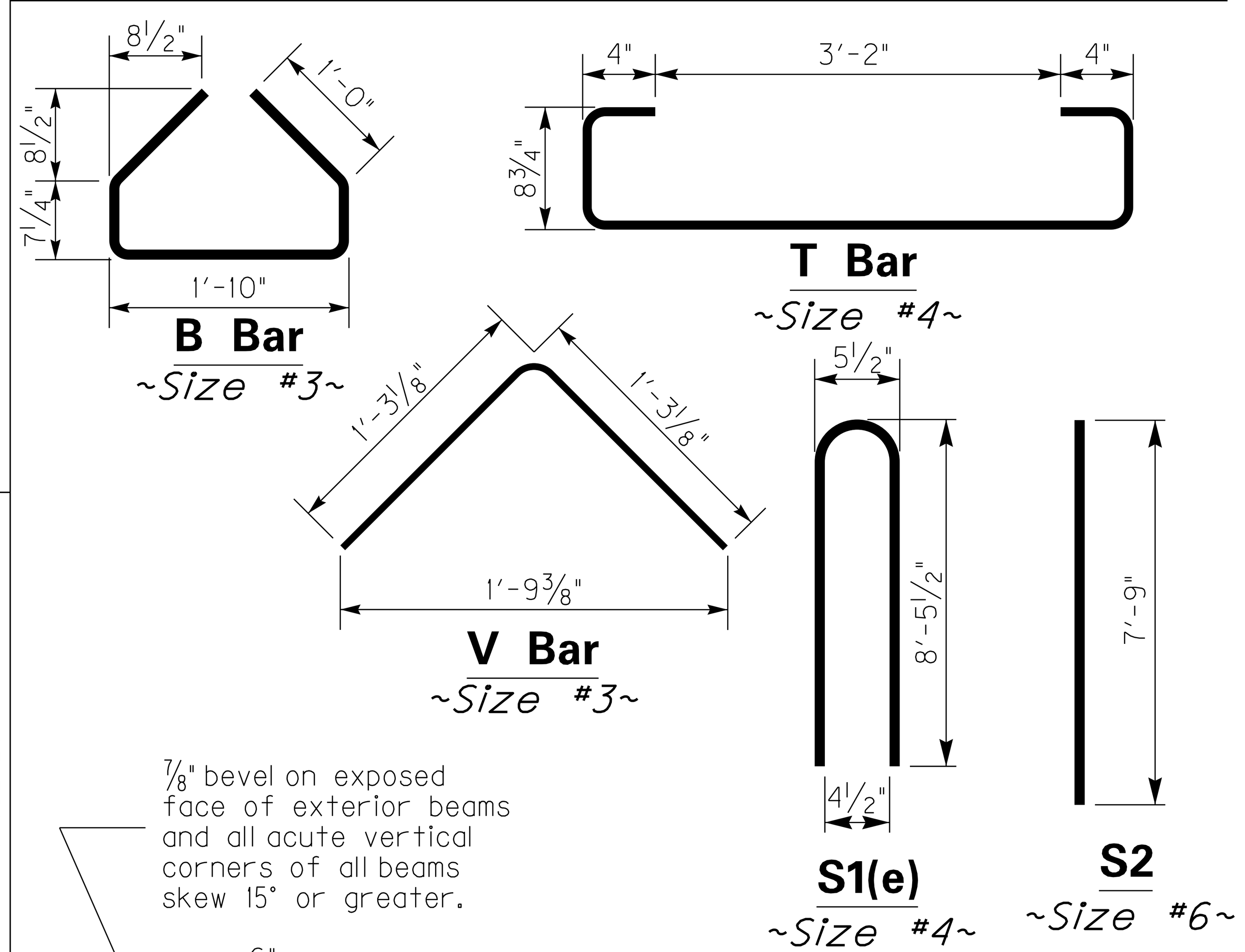
BEVELED EDGES: All exposed edges shall be beveled ¾".

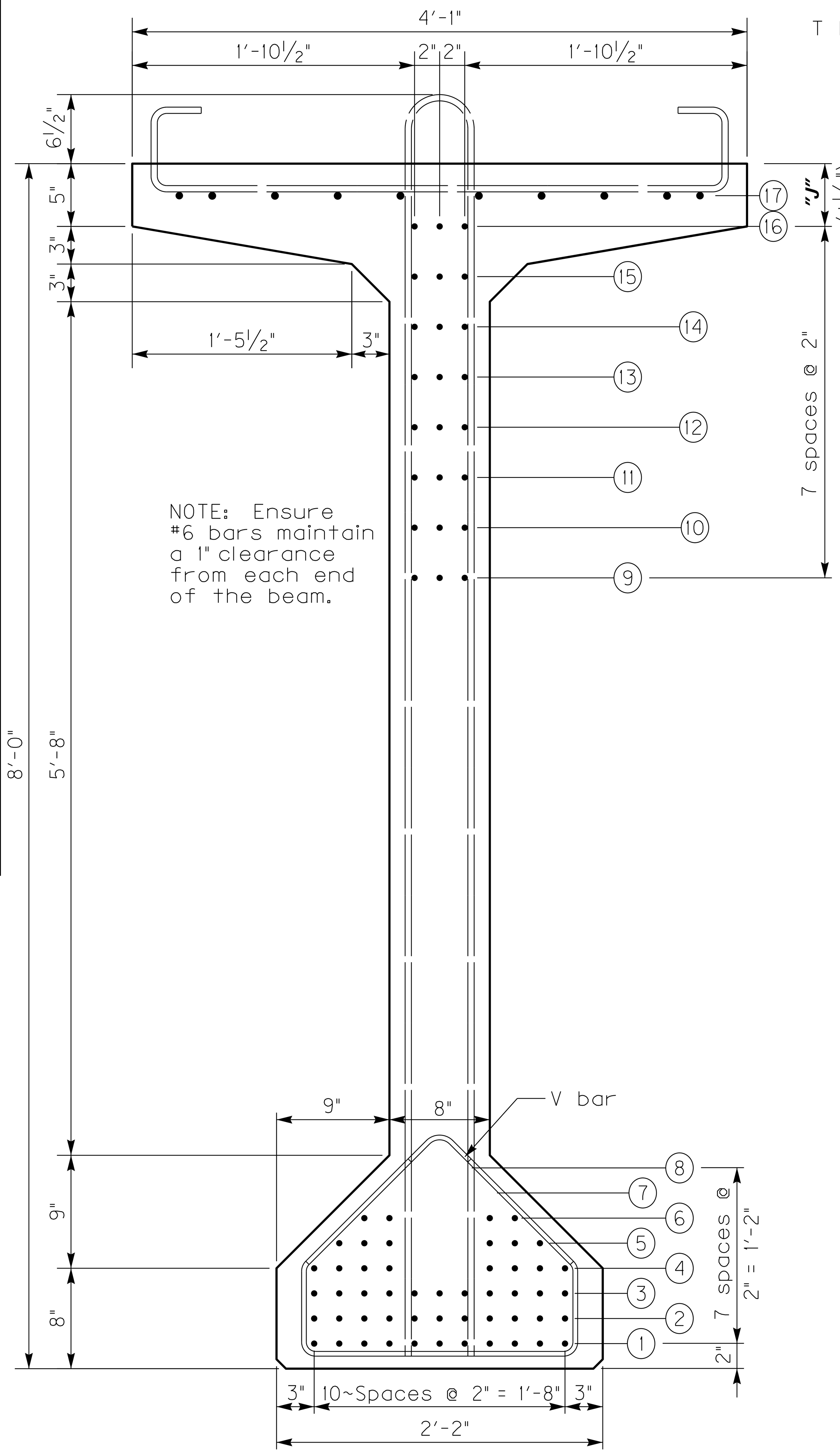
CONSTRUCTION METHOD: Pretension all beams. Ensure concrete has attained f'ci (shown in the table) in standard test cylinders that are made and cured identically with the beams without bond stresses being transferred to the concrete or releasing the end anchors. Attain f'c (shown in the table) at or prior to 28 days. Apply an initial force of 43,943 lbs. per low-relaxation strand to develop a stress of 202,500 psi. No beam will be accepted that is honeycombed to the extent that strength of the beam or resistance to deterioration has been affected. An allowance of 0.0005L is made for shortening of beams due to shrinkage and elastic change. Show a detensioning plan by sequential numbering of the strand pattern on the shop plans.

LIFTING DEVICES: Detail lifting devices on the shop plans. Loads are to be distributed equally to each device.

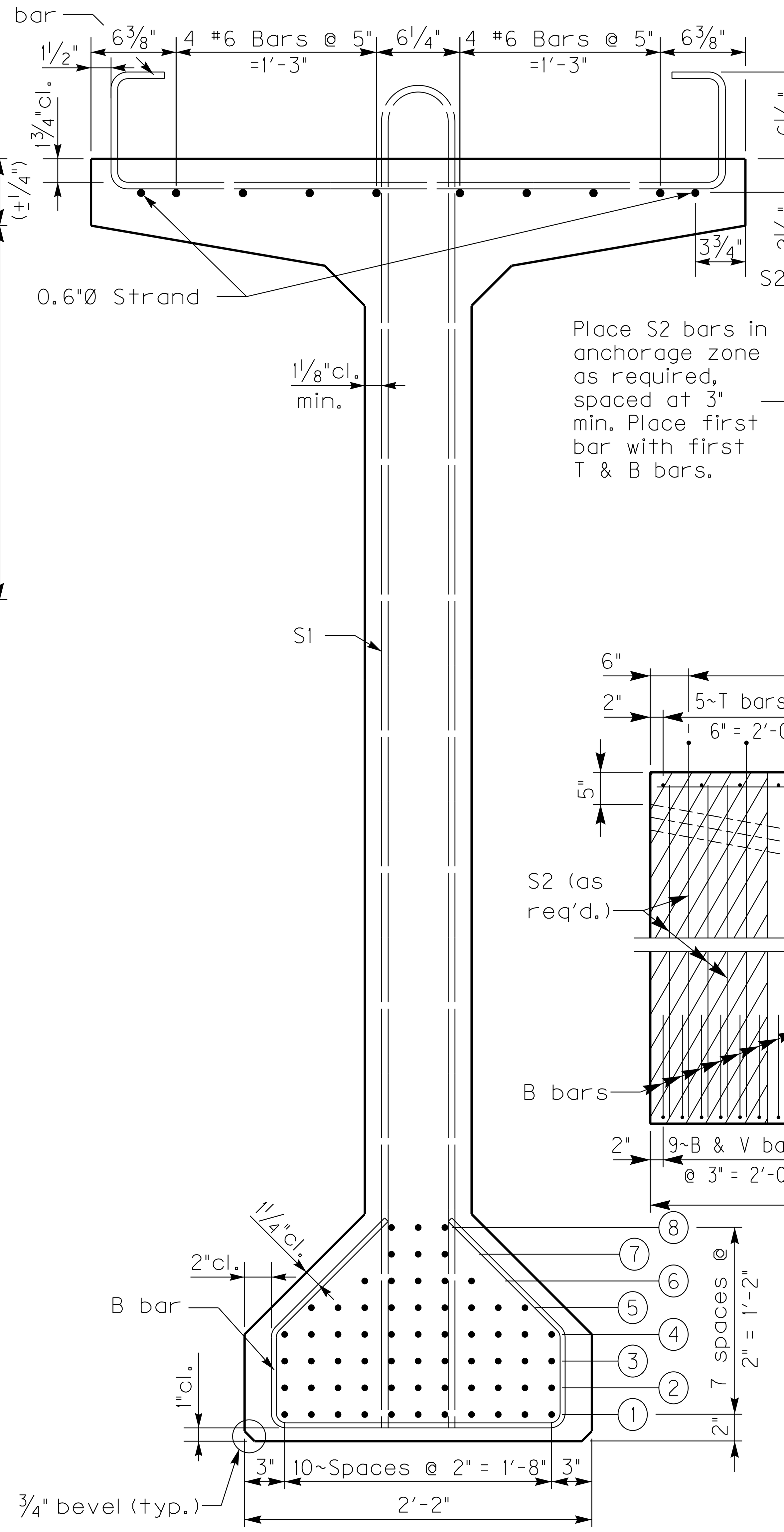
BEARING DEVICES: Include the price for lead plates and/or bearing pads in the bid for precast beams.

FABRICATION: The "Maximum Allowable Camber" shown on the beam sheet is the amount of camber, measured prior to casting the deck, above which the beam will begin to encroach into the slab. If the measured camber is greater than the "Maximum Allowable Camber" the contractor will be responsible for any necessary adjustments to assure a minimum slab thickness as shown in the plans. This work will be considered incidental to the completion of the structure and must have the approval of the Engineer.

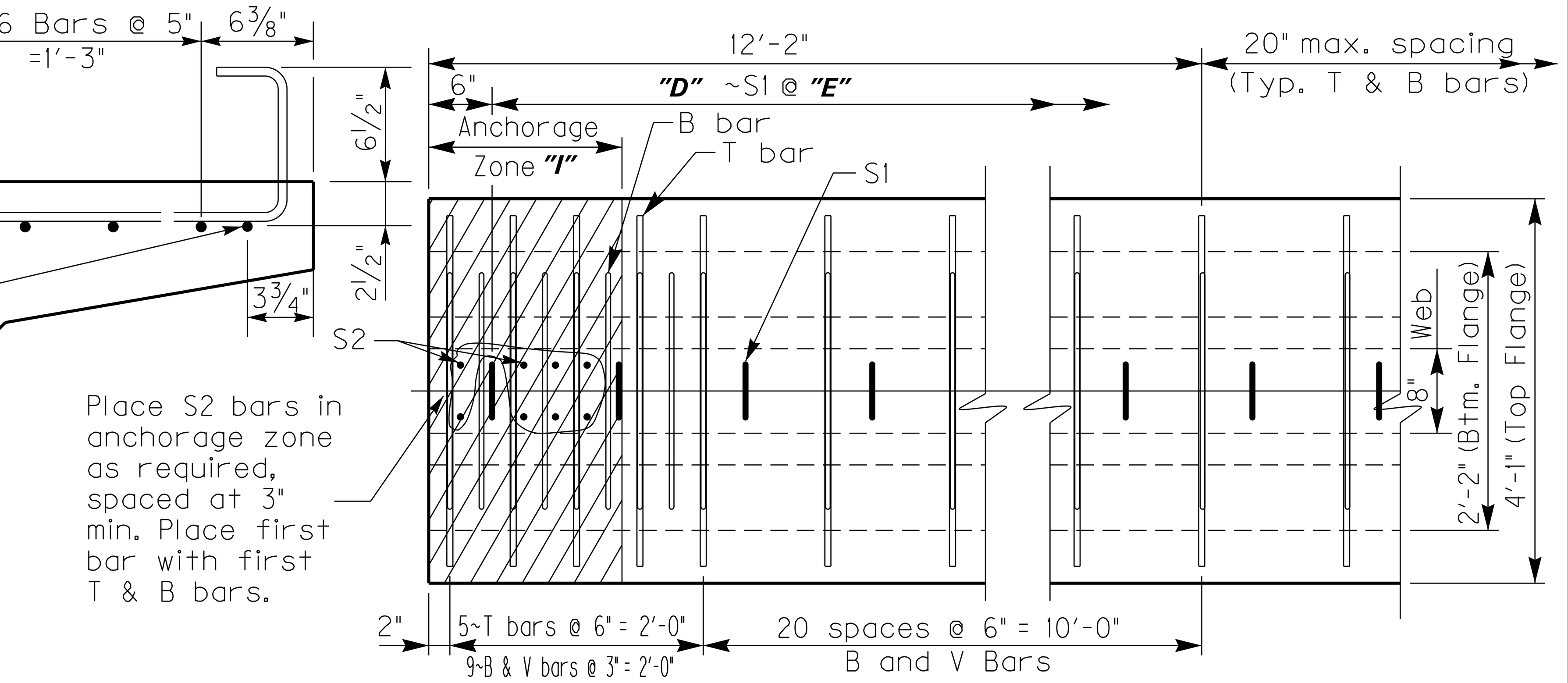




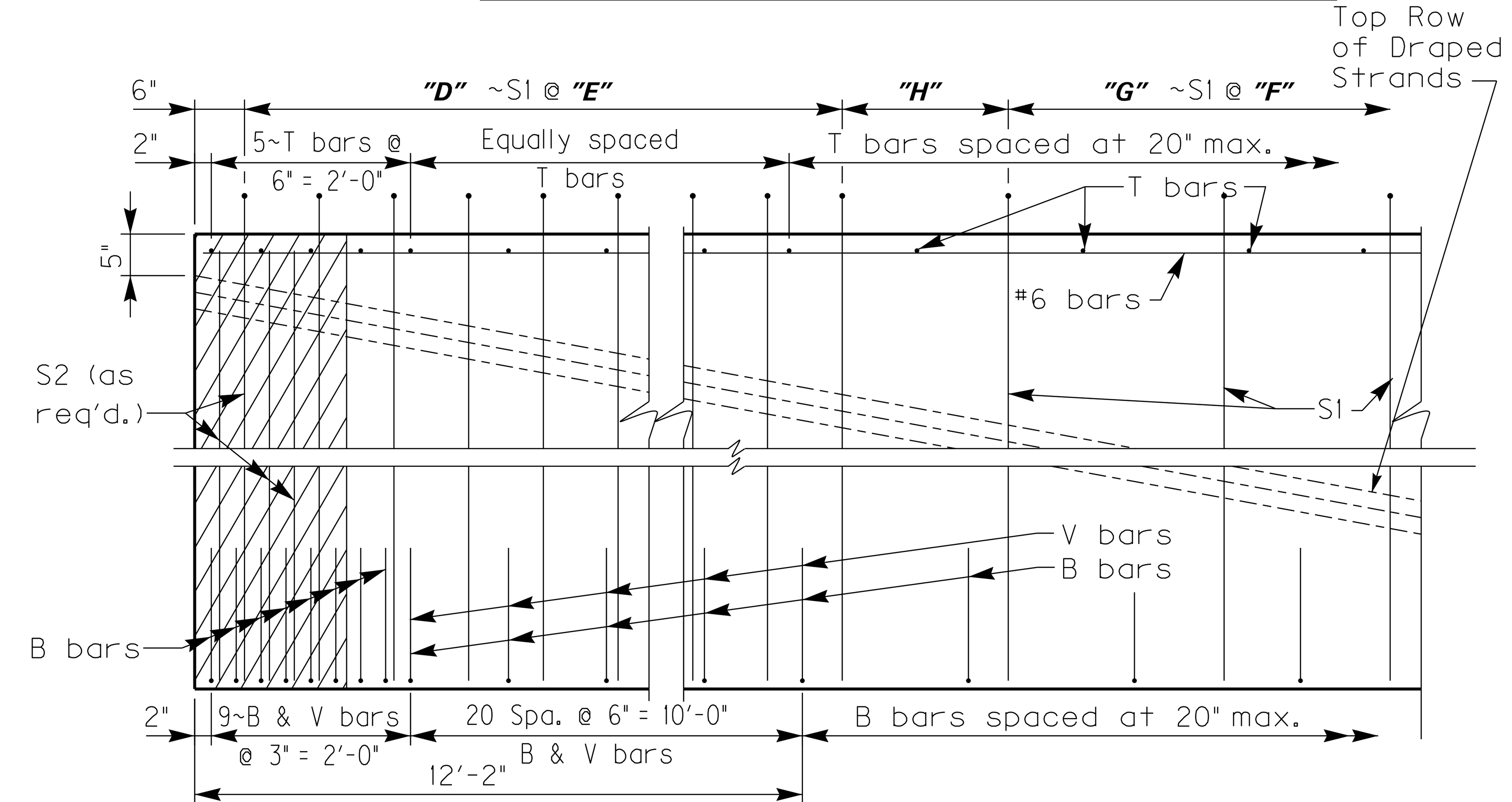
SECTION A–A



SECTION B–B

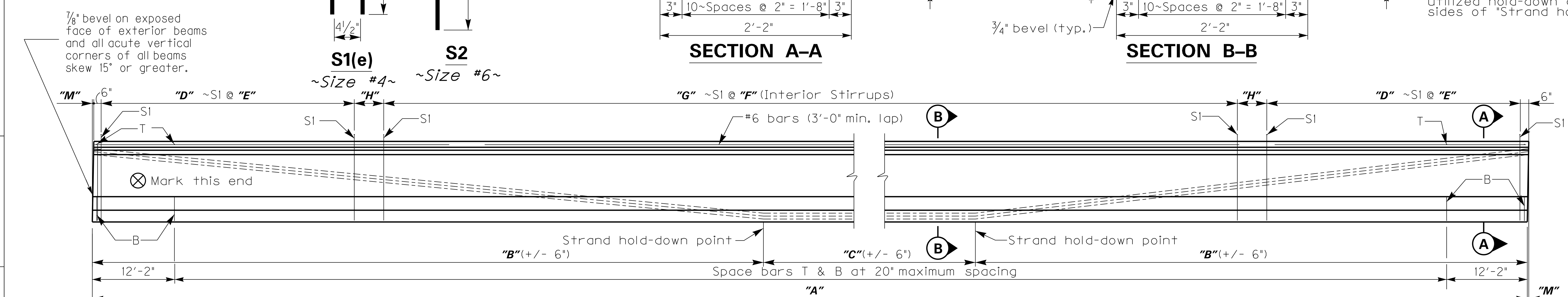


TYPICAL SQUARED END TREATMENT



PARTIAL SECTION ON CENTERLINE

HOLD-DOWN DEVICES: Multiple hold-down devices may be required at each hold-down point to meet allowable capacity of commonly utilized hold-down devices. Locate hold-down devices 3" on both sides of "Strand hold-down point" indicated below.



ELEVATION OF BEAM

Strand Data with number indicated in rows

Mark	Midspan (SECTION B–B) ①	②	③	④	⑤	⑥	⑦	⑧	⑰	End (SECTION A–A) ①	②	③	④	⑤	⑥	⑦	⑧	⑨	⑩	⑪	⑫	⑬	⑭	⑮	⑯	⑰	Total No.
B1	11	11	11	11	9	7	5	2	0	11	11	8	8	6	4	2		3	3	3	3	3	2				67

Mark	Concrete Stress (psi) f'ci	f'c	No. of S Bars S1	S2	Hold-Down Capacity lbs.
B1	7000	9700	149	24	58684

Beam Data (measured along centerline)

Total No.	A	B	C	D	E	F	G	H	I	J	M	Approximate Weight	Maximum Allowable Camber
3	160'-2"	75'-1"	10'-0"	39	10"	16"	71	15"	24"	5"	0"	213106	4⅝"

REVISION	DATE

DATE: April 2017 . — CHECKED BY
DESIGNED BY: Evan Greenwell — K. EE
DETAILED BY: Evan Greenwell — K. EE

Commonwealth of Kentucky
DEPARTMENT OF HIGHWAYS

COUNTY: **LAUREL**
ROUTE: **KY 312** CROSSING: **CRAIG CREEK**

PPC I-BEAM TYPE BT96-49 DETAIL

ITEM NUMBER: **11-1096.0**

PREPARED BY **Division of Structural Design**

SHEET NO. S13
DRAWING NO. **27635**

MicroStation v8.11.7.180 | E-SHEET NAME: 27635-S1 | USER: brian.miller DATE PLOTTED: 19-JUL-2018 | FILE NAME: U:\27635 Laurel KY 312 Bridge Over Craig Creek\27635.dgn

PCI Beam General Notes

CONCRETE: Ensure prestressed girder concrete is in accordance with these plans and the specifications.

MATERIALS DESIGN SPECIFICATIONS: For prestressed beams:
FY = 60,000 psi F'S = 270,000 psi

PRESTRESSING REINFORCEMENT: Ensure that strands are 0.6" (nom. diameter, 0.217 sq. in.), uncoated seven-wire stress relieved, low-relaxation conforming to AASHTO M 203, Grade 270. Billing of the cost for redesign of beam and subsequent plan modifications will be made for any request of alternate strand type or arrangement. The designer of the original plans is responsible for the billing and work.

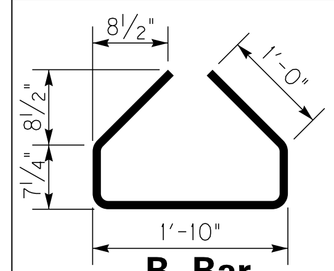
BEVELED EDGES: All exposed edges shall be beveled ¾".

CONSTRUCTION METHOD: Pretension all beams. Ensure concrete has attained f'ci (shown in the table) in standard test cylinders that are made and cured identically with the beams without bond stresses being transferred to the concrete or releasing the end anchors. Attain f'c (shown in the table) at or prior to 28 days. Apply an initial force of 43,943 lbs. per low-relaxation strand to develop a stress of 202,500 psi. No beam will be accepted that is honeycombed to the extent that strength of the beam or resistance to deterioration has been affected. An allowance of 0.0005L is made for shortening of beams due to shrinkage and elastic change. Show a detensioning plan by sequential numbering of the strand pattern on the shop plans.

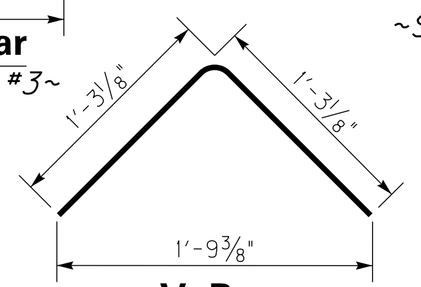
LIFTING DEVICES: Detail lifting devices on the shop plans. Loads are to be distributed equally to each device.

BEARING DEVICES: Include the price for lead plates and/or bearing pads in the bid for precast beams.

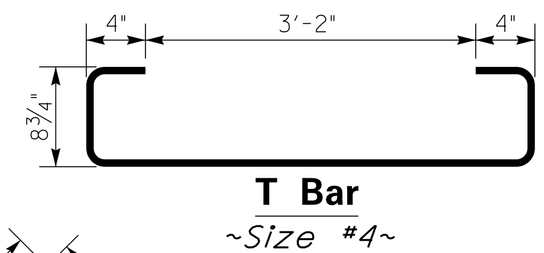
FABRICATION: The "Maximum Allowable Camber" shown on the beam sheet is the amount of camber, measured prior to casting the deck, above which the beam will begin to encroach into the slab. If the measured camber is greater than the "Maximum Allowable Camber" the contractor will be responsible for any necessary adjustments to assure a minimum slab thickness as shown in the plans. This work will be considered incidental to the completion of the structure and must have the approval of the Engineer.



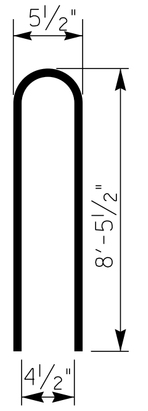
B Bar
~Size #3~



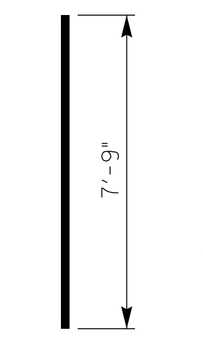
V Bar
~Size #3~



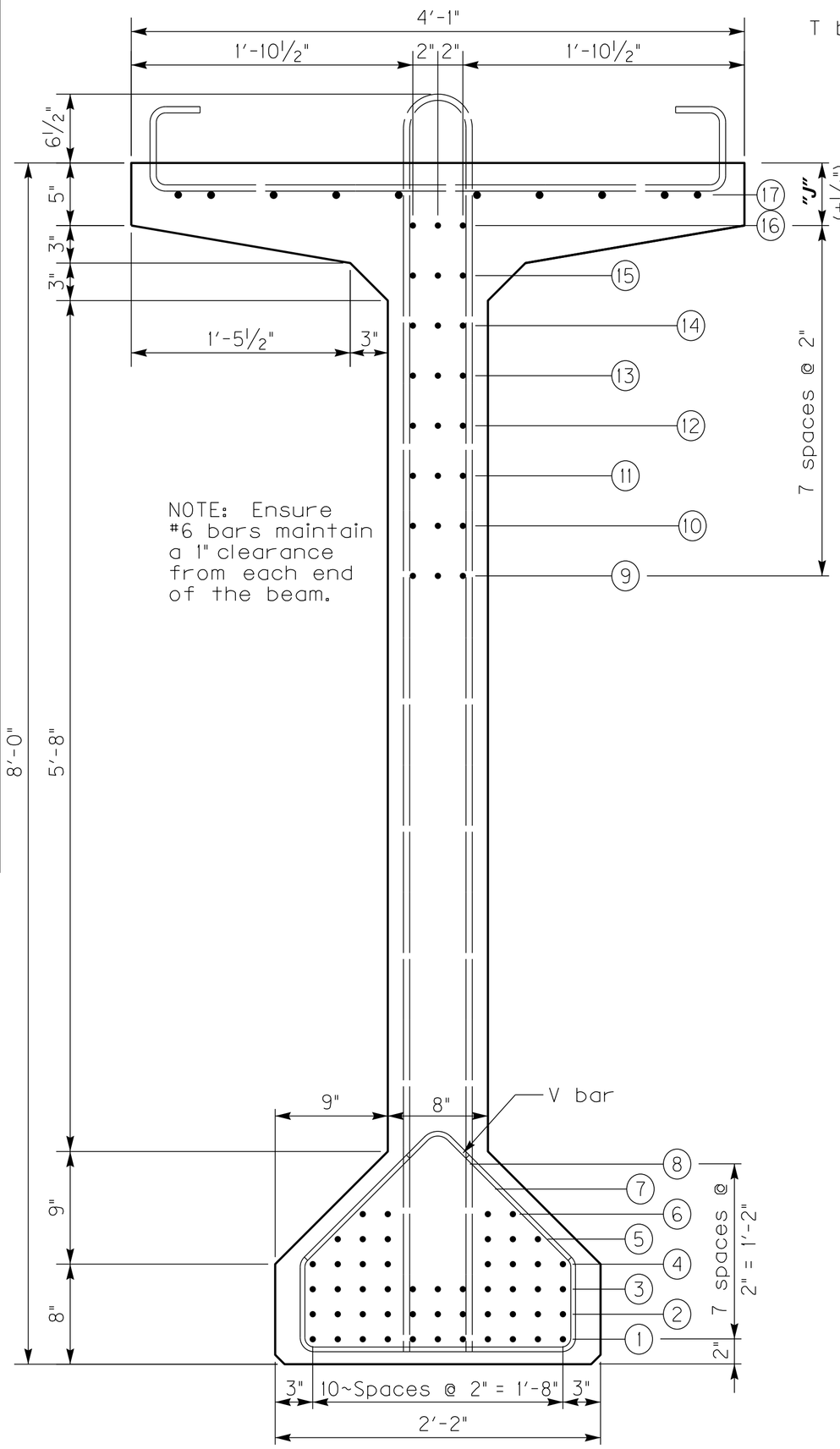
T Bar
~Size #4~



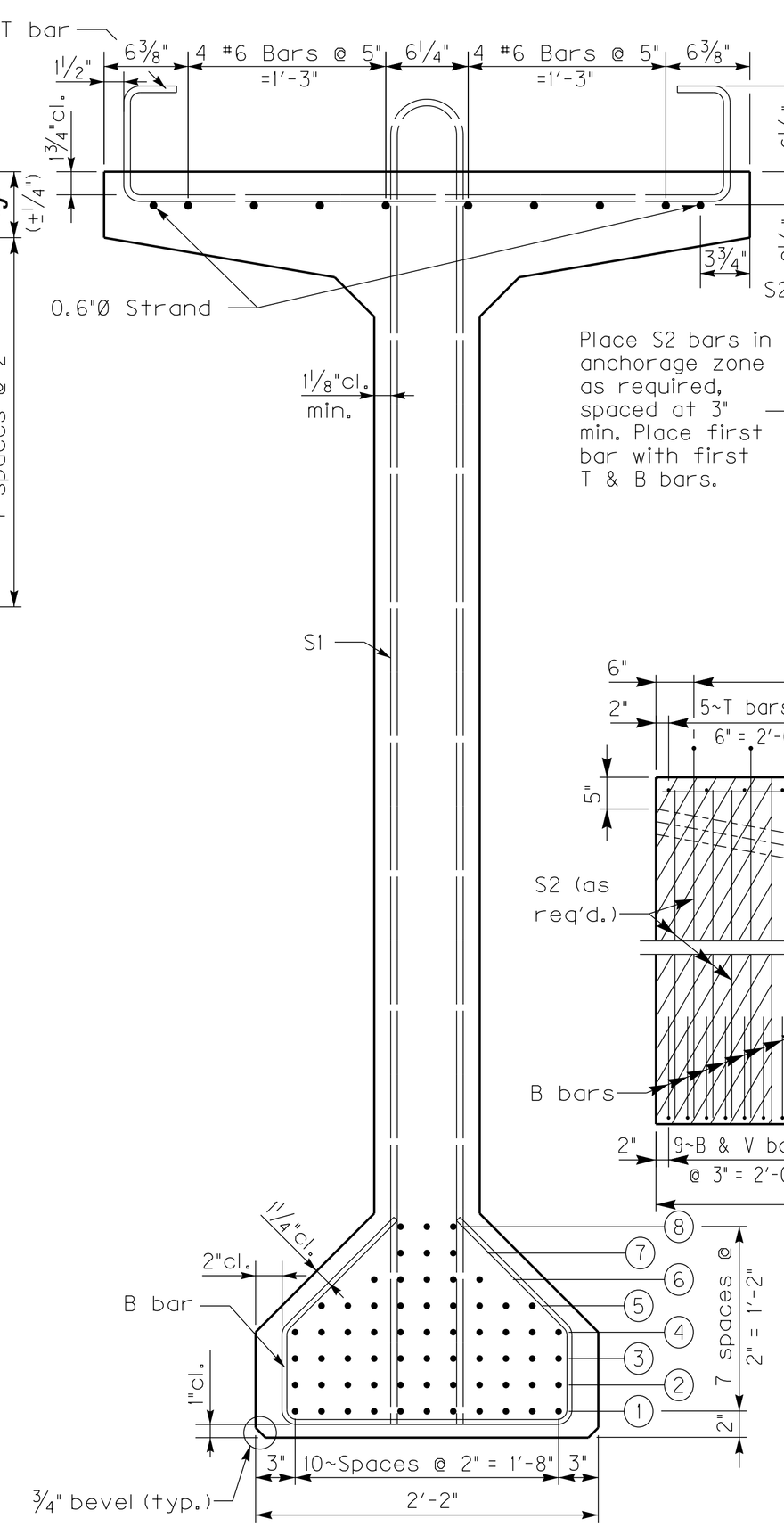
S1(e)
~Size #4~



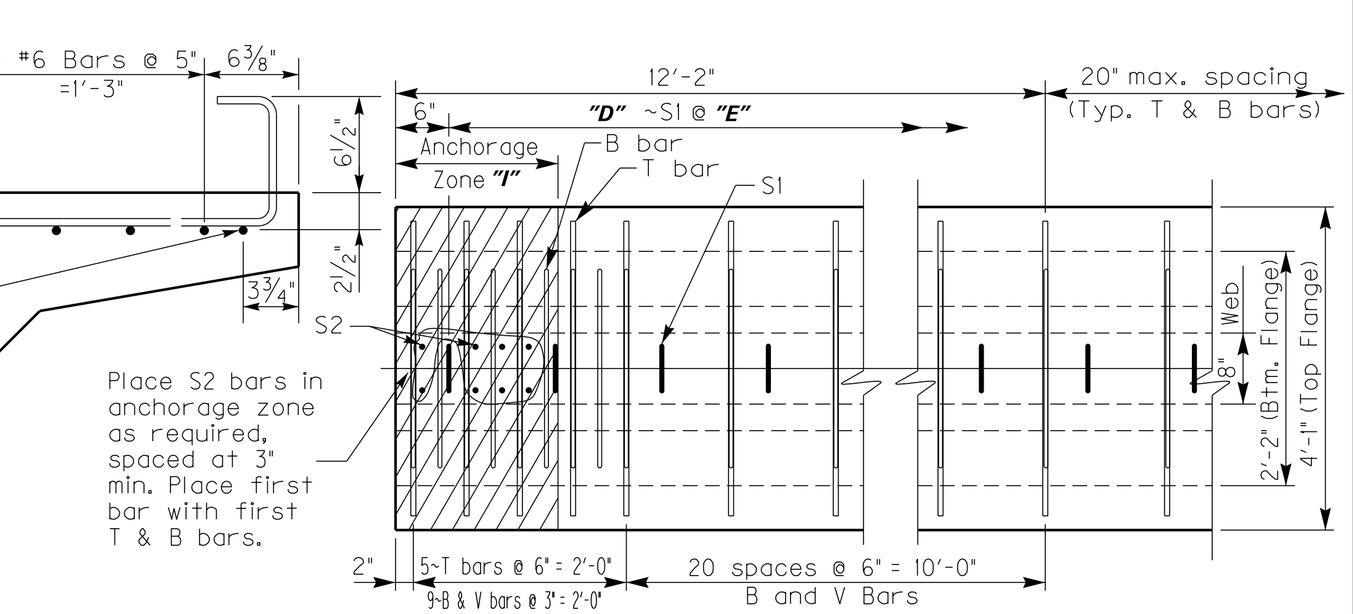
S2
~Size #6~



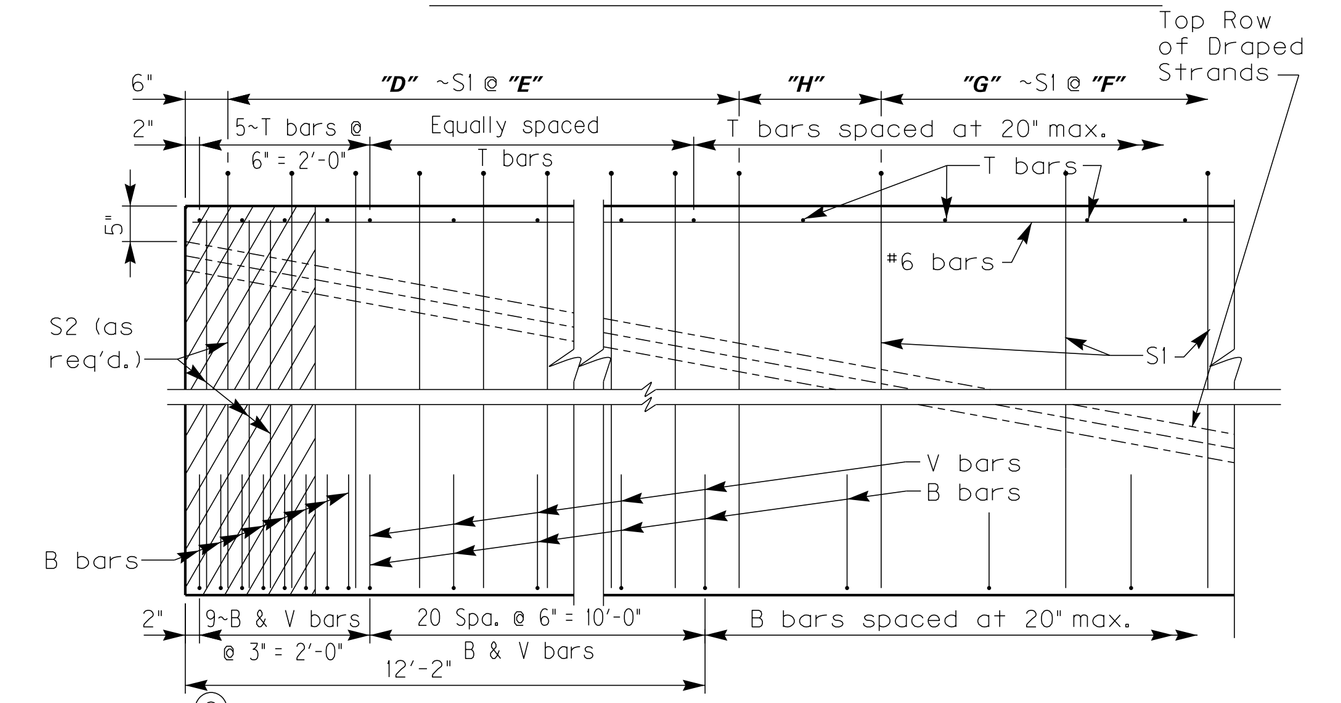
SECTION A–A



SECTION B–B

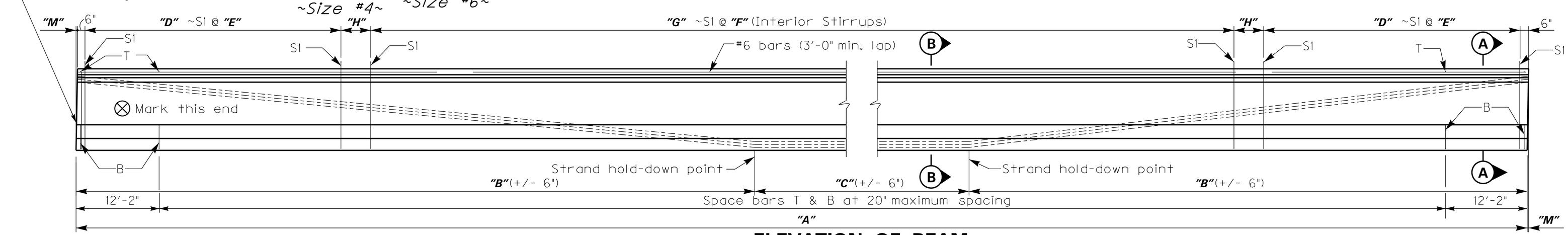


TYPICAL SQUARED END TREATMENT



PARTIAL SECTION ON CENTERLINE

HOLD-DOWN DEVICES: Multiple hold-down devices may be required at each hold-down point to meet allowable capacity of commonly utilized hold-down devices. Locate hold-down devices 3" on both sides of "Strand hold-down point" indicated below.



ELEVATION OF BEAM

Mark	Midspan (SECTION B–B) (1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(17)	End (SECTION A–A) (1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)	(15)	(16)	(17)	Total No.	Concrete Stress (psi) f'ci	f'c	No. of S Bars S1	S2	Hold-Down Capacity lbs.	Total No.	Beam Data (measured along centerline) A	B	C	D	E	F	G	H	I	J	M	Approximate Weight	Maximum Allowable Camber
B1	11	11	11	11	9	7	5	3	0	11	11	8	8	6	4	2		3	3	3	3	3	3				68	7000	8000	149	24	62136	3	160'-2"	75'-1"	10'-0"	39	10"	16"	71	15"	24"	5"	0"	213106	4⅝"

Strand Data with number indicated in rows

Beam Data (measured along centerline)

REVISION	DATE
DATE: April 2017 ·	CHECKED BY
DESIGNED BY: Evan Greenwell	K. EE
DETAILED BY: Evan Greenwell	K. EE

Commonwealth of Kentucky
DEPARTMENT OF HIGHWAYS

COUNTY: LAUREL

ROUTE: KY 312

CROSSING: CRAIG CREEK

PPC I-BEAM TYPE BT96-49 DETAIL

ITEM NUMBER: 11-1096.0

PREPARED BY: Division of Structural Design

SHEET NO. S13

DRAWING NO. 27635