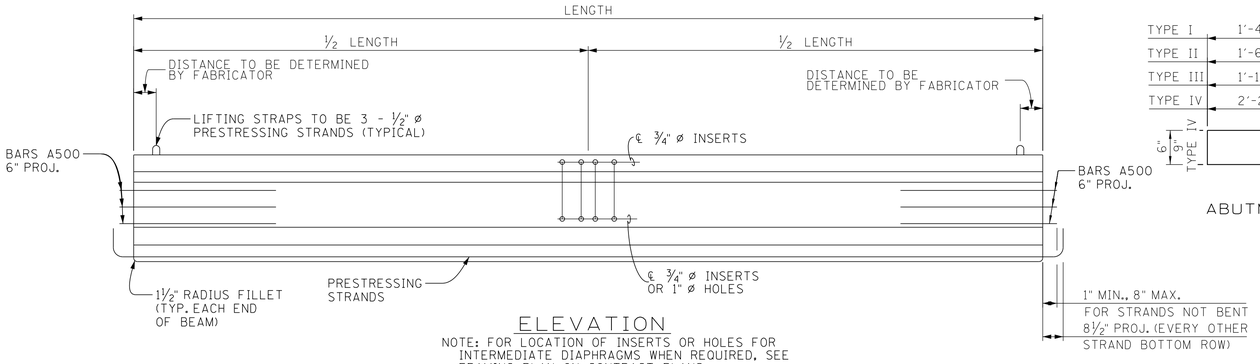
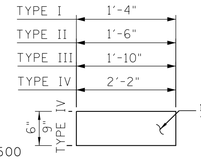
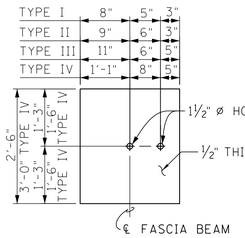


ELEVATION

NOTE: FOR LOCATION OF INSERTS OR HOLES FOR INTERMEDIATE DIAPHRAGMS WHEN REQUIRED, SEE FRAMING PLAN ON CONTRACT PLANS.

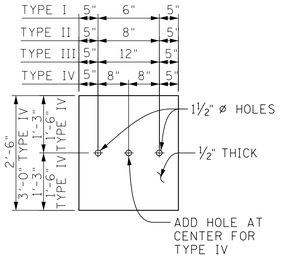


ABUTMENT



BENT FASCIA BEAM

NOTE: DO NOT LOCATE ANCHORS OUTSIDE THE CENTERLINE OF THE FASCIA BEAM.



BENT INTERIOR BEAM

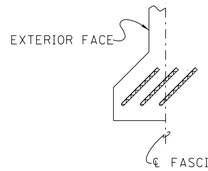
ELASTOMERIC BEARING PAD DETAILS

CONST. NO.:

PROJECT NO.	YEAR	SHEET NO.
	2020	

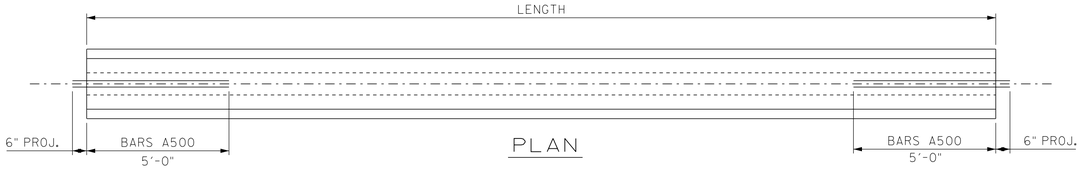
REVISIONS

NO.	DATE	BY	BRIEF DESCRIPTION
1	3-6-24	ALP	GENERAL REVISIONS

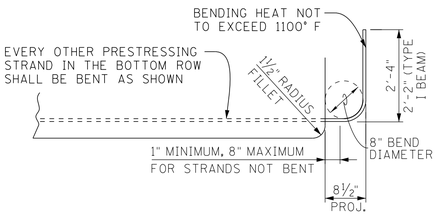


FIELD BEND STRANDS AS NECESSARY FOR OUTSIDE OF FASCIA BEAM ONLY

HALF ELEVATION END OF BEAM

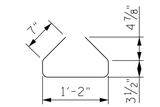


PLAN

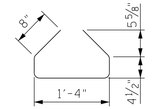


BENDING DETAIL FOR PRESTRESSING STRANDS

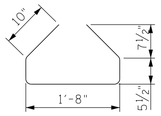
BARS A



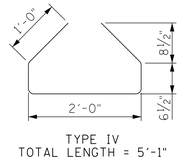
TYPE I
TOTAL LENGTH = 2'-11"



TYPE II
TOTAL LENGTH = 3'-5"



TYPE III
TOTAL LENGTH = 4'-3"

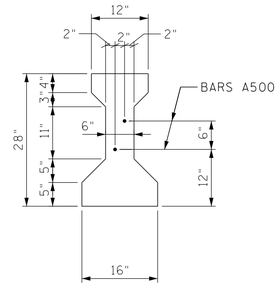


TYPE IV
TOTAL LENGTH = 5'-1"

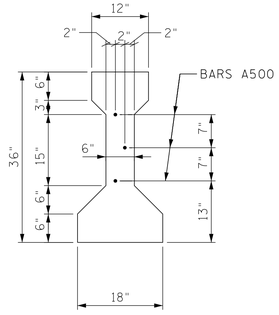
BARS HA300

BEAM NOTES:

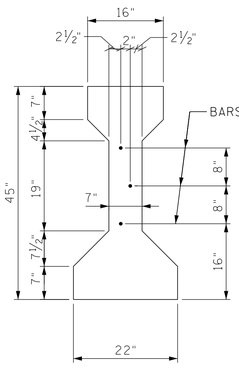
1) THE TOP OF ALL BEAMS IS TO BE ROUGH-FLOATED AT APPROXIMATELY THE TIME OF INITIAL SET. THE TOP OF THE BEAMS SHALL BE CLEAN, FREE OF LAITANCE, AND INTENTIONALLY ROUGHENED IN THE TRANSVERSE DIRECTION TO AN AMPLITUDE OF ¼".
2) MILD STEEL REINFORCEMENT SHALL BE ASTM A615 GRADE 60.
3) ALL PRESTRESSING STRANDS SHALL BE ASTM A416 GRADE 270 7-WIRE UNCOATED LOW RELAXATION PRESTRESSING STRANDS.
4) AN INITIAL FORCE AS SPECIFIED ON THE CONTRACT PLANS SHALL BE APPLIED TO EACH STRAND IN ALL BEAMS.
5) THE PRESTRESSING STRANDS SHALL BE LEFT PROJECTING AS SHOWN IN THE BENDING DETAILS FROM THE ENDS OF THE BEAMS. THE STRANDS SHALL BE CUT WITHOUT HEATING ADJACENT STRANDS. THERE SHALL NOT BE ANY PROTECTIVE COATING PLACED ON THE ENDS OF THE BEAM OR ON THE PROJECTING STRANDS.
6) COST OF ELASTOMERIC BEARING PADS AND RUBBER BONDING CEMENT TO BE INCLUDED IN THE COST OF THE PRESTRESSED BEAMS.
7) THE SEQUENCE FOR TRANSFER OF STRESS OR THE CUTTING OF STRANDS SHALL BE IN ACCORDANCE WITH ARTICLE 615.14 OF THE "STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION" AND SHALL BE SHOWN ON THE APPROVED SHOP DRAWINGS. AT NO TIME SHALL MORE THAN 1/6™ OF THE TOTAL PRESTRESSING FORCE BE ECCENTRIC ABOUT THE CENTERLINE OF THE BEAM.
8) COST OF ALL MATERIALS AND LABOR NECESSARY FOR INSTALLING INTERMEDIATE DIAPHRAGMS SHALL BE INCLUDED IN THE UNIT PRICE BID FOR OTHER ITEMS.
9) AFTER THE BEAM IS REMOVED FROM THE PRESTRESSING BED, BARS PROJECTING FROM THE ENDS OF THE BEAM SHALL BE COLD BENT (DO NOT HEAT). THE MINIMUM DIAMETER OF THE BEND SHALL BE IN ACCORDANCE WITH STANDARD CRSI HOOK DETAILS.
10) THE CONTRACTOR SHALL BE RESPONSIBLE FOR SUPPORTING THE EXTERIOR BEAMS DURING CONSTRUCTION TO PREVENT ROTATION OR OVERTURNING. ADDITIONAL TEMPORARY ERECTION DIAPHRAGMS SHALL BE PROVIDED AS NECESSARY TO PREVENT ROTATION.
11) THE TEMPORARY ERECTION DIAPHRAGM SHOWN BELOW SHALL BE LOCATED IN ACCORDANCE WITH THE STANDARD SPECIFICATIONS AND MUST BE USED AT ENDS OF BEAMS WHERE END DIAPHRAGMS ARE TO BE POURED CONCURRENTLY WITH THE BRIDGE DECK.
12) STEEL CHANNELS MAY BE USED AS AN ALTERNATE TO THE CAST-IN-PLACE CONCRETE INTERMEDIATE DIAPHRAGMS. THE CONTRACTOR SHALL SUBMIT DETAILS OF THE STEEL CHANNELS AND ALL CONNECTIONS TO THE ENGINEER OF STRUCTURES FOR APPROVAL.



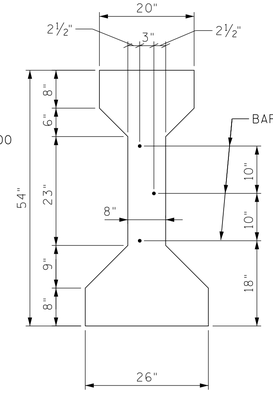
TYPE I



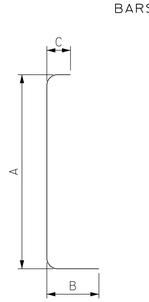
TYPE II



TYPE III



TYPE IV



NON-PROJECTED BARS H

PROJECTED BARS H

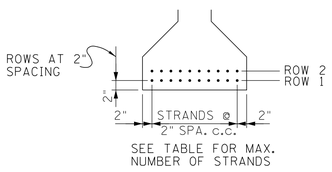
BENDING DIMENSIONS

TYPE	A	B	C	LENGTH
I	2'-0"	7"	5"	3'-0"
II	2'-7"	8"	5"	3'-8"
III	3'-5"	11"	5"	4'-9"
IV	4'-2"	13"	5"	5'-8"

BENDING DIMENSIONS *

TYPE	A	B	C	LENGTH
I	2'-7"	7"	5"	3'-7"
II	3'-3"	8"	5"	4'-4"
III	4'-0"	11"	5"	5'-4"
IV	4'-9"	13"	5"	6'-3"

* DENOTES: DIMENSIONS BASED ON 5" PROJECTION. IF A LARGER PROJECTION IS SPECIFIED ON THE CONTRACT PLANS, ADJUST H BAR DIMENSIONS ACCORDINGLY.

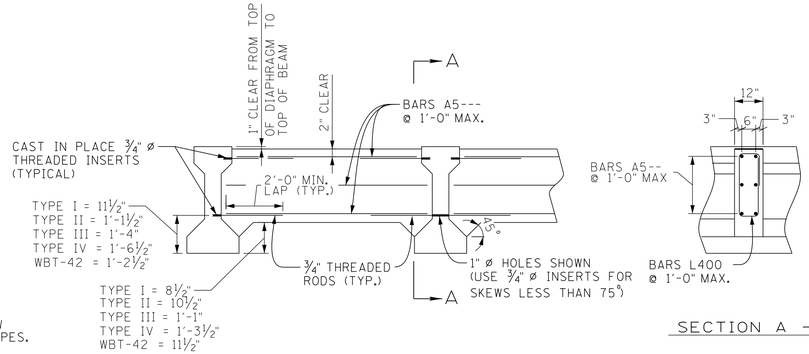


SEE TABLE FOR MAX. NUMBER OF STRANDS

MAXIMUM NUMBER OF STRANDS PER ROW

ROW	1	2	3	4	5	6	7	8
TYPE I	6	6	4	2	2	2	2	2
TYPE II	8	8	6	4	2	2	2	2
TYPE III	10	10	10	8	6	4	2	2
TYPE IV	12	12	12	10	8	6	4	2

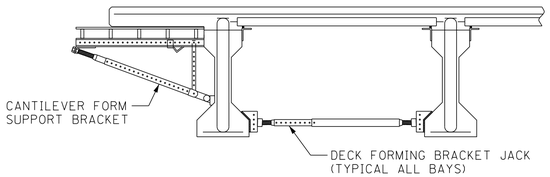
NOTE: USE A MAXIMUM OF 2 STRANDS PER ROW FOR ROW 9 AND HIGHER FOR ALL I-BEAM TYPES.



SECTION A - A

CAST-IN-PLACE INTERMEDIATE DIAPHRAGM

NOTE: AS AN ERECTION AID, THIS CAST-IN-PLACE INTERMEDIATE DIAPHRAGM MAY BE USED IN LIEU OF THE TEMPORARY ERECTION DIAPHRAGM SHOWN ON THIS SHEET. WBT-42 BEAMS SHALL HAVE CAST-IN-PLACE INTERMEDIATE DIAPHRAGMS IN ACCORDANCE WITH THE DETAILS ON THIS SHEET. SEE STANDARD DRAWING STD-14-1 FOR MORE INFORMATION REGARDING WBT-42 BEAMS.



TEMPORARY ERECTION DIAPHRAGM

STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION

STANDARD DETAILS AND INTERMEDIATE DIAPHRAGM DETAILS FOR I-BEAMS 2020

CORRECT

ENGINEER OF STRUCTURES

STD-14-2

PIN NO.:
DESIGN BY: ALP DATE: / /
DRAWN BY: KDM DATE: / /
SUPERVISED BY: TAK DATE: / /
CHECKED BY: TAK DATE: / /

3/6/2024 9:01:13 AM
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