

**GENERAL NOTES**

- CONSTRUCTION SPECIFICATIONS: STANDARD ROAD AND BRIDGE SPECIFICATIONS OF THE TENNESSEE DEPARTMENT OF HIGHWAYS (CURRENT EDITION).
- PORTIONS OF THE CONCRETE DECK FOR BRIDGES MAY BE CONSTRUCTED OF PRESTRESSED BRIDGE DECK PANELS PROVIDED THEY ARE FABRICATED AND USED IN ACCORDANCE WITH THESE DRAWINGS AND STANDARD SPEC. ART. 604.05, SHOP DRAWINGS AND PROPOSED CONSTRUCTION DETAILS SHALL BE SUBMITTED TO THE ENGINEERING DIRECTOR OF STRUCTURES FOR APPROVAL.

**MANUFACTURE**

- REINFORCEMENT AND STRANDS IN THE PANEL SHALL HAVE A MINIMUM OF ONE (1) INCH CONCRETE COVER ON THE BOTTOM OF THE PANEL. THE CONTRACTOR MAY SUBSTITUTE 6 x 6 - D6 x D6 WELDED WIRE FABRIC, ASTM A497, FOR NO. 3 BARS, EXCEPT THAT THE NO. 3 BARS AT THE PANEL ENDS LOCATED AT 1/2" AND 4 1/2" SPACING MUST BE MAINTAINED BOTH ABOVE AND BELOW THE STRANDS AS SHOWN ON THIS DRAWING. BARS IN WIRE FABRIC WHICH ARE PARALLEL TO THE STRANDS MUST BE A MINIMUM OF 1" CLEAR FROM THE STRANDS.
- THE TOP OF PANELS SHALL HAVE A ROUGHENED SURFACE WITH APPROXIMATELY ONE-EIGHTH (1/8) INCH DEEP DEPRESSION AT 1" CENTERS RUNNING TRANSVERSE TO THE STRANDS. CARE SHALL BE TAKEN SO AS NOT TO DISPLACE THE COARSE AGGREGATES WHEN PREPARING THE ROUGHENED SURFACE.
- MATING SURFACES OF THE PRESTRESSED PANELS SHALL NOT DEVIATE FROM A STRAIGHT LINE BY MORE THAN 1/4 INCH IN TEN (10) FEET. ALL OTHER DIMENSIONS SHALL BE FABRICATED TO +1/4 INCH, -1/8 INCH EXCEPT ALL STRANDS SHALL BE LOCATED TO +1/8 INCH, -1/4 INCH VERTICALLY. PANELS SHALL BE SUPPORTED SO AS TO PRESENT A UNIFORM BOTTOM SURFACE. THE DIAGONAL DIMENSION OF RECTANGULAR PANELS SHALL NOT DIFFER BY MORE THAN 1/2 INCH.
- WHERE UTILITIES ARE SUPPORTED FROM THE BOTTOM OF THE BRIDGE DECK, HOLES SHALL BE CAST THROUGH DECK PANELS. INSERTS SHALL BE PLACED ABOVE THESE HOLES IN THE CAST-IN-PLACE PORTION OF THE DECK TO SUPPORT THE UTILITY HANGERS. THE HOLES SHALL BE 1/8 INCH LARGER THAN THE DIAMETER OF THE HANGER.
- THE DESIGN OF THE EPOXY COATED LIFTING STRAPS AND PRESTRESSED PANEL SUPPORT BRACKETS SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR. SHOP DRAWINGS WILL NOT BE REQUIRED FOR SUPPORT BRACKETS. HOWEVER, THE PANEL SHOP DRAWINGS SHALL CLEARLY INDICATE THE METHOD OF ATTACHMENT OF SUPPORT BRACKETS TO THE BRIDGE GIRDERS. STEEL SUPPORT BRACKETS SHALL MEET THE REQUIREMENTS OF STANDARD SPECIFICATIONS ART. 908.03. THE CONTRACTOR MAY SUBMIT AN ALTERNATE PANEL SUPPORT SYSTEM TO THE ENGINEERING DIRECTOR OF STRUCTURES FOR APPROVAL. THE ALTERNATE SUPPORT SYSTEM MUST PROVIDE FOR THE REQUIRED ADJUSTMENT DUE TO THE PROFILE GRADE AND BEAM CAMBER SUCH THAT THE DECK THICKNESS AS SHOWN ON THE CONTRACT PLANS IS MAINTAINED.

**REINFORCING IN CAST-IN-PLACE PORTION OF SLAB**

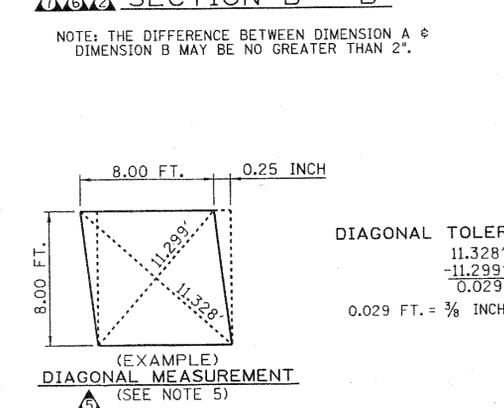
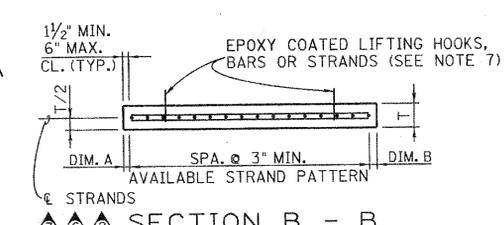
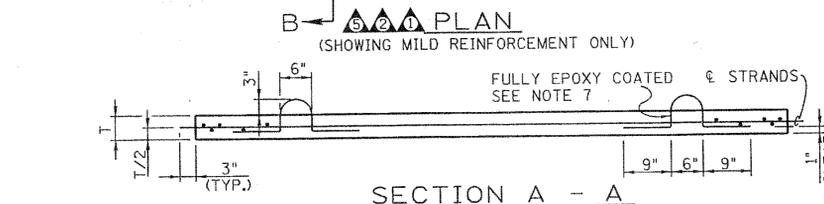
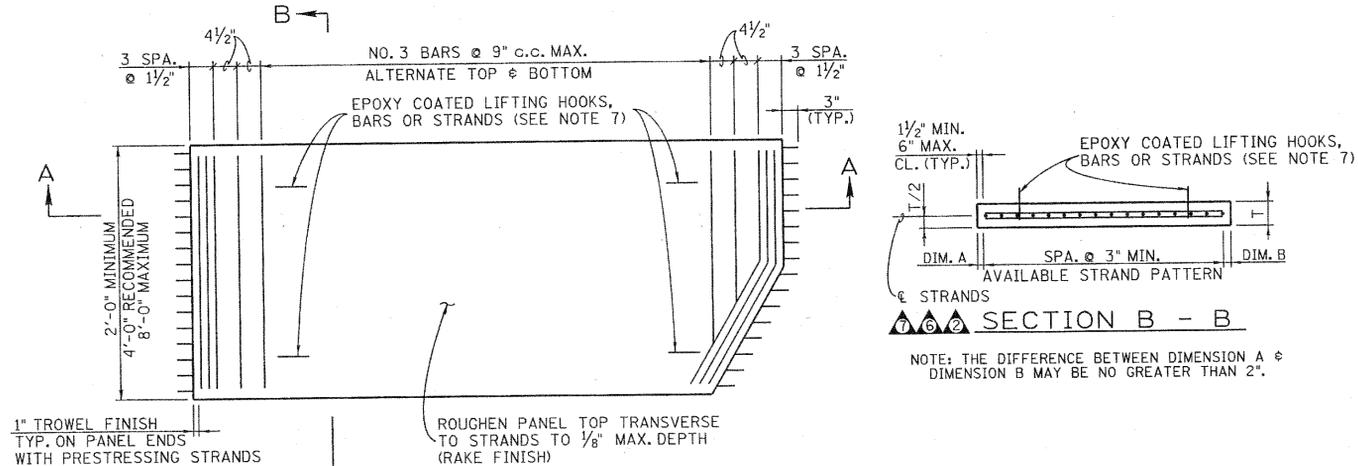
- IF PANELS ARE USED, THE BOTTOM MATS OF TRANSVERSE AND LONGITUDINAL SLAB REINFORCEMENT MAY BE OMITTED BETWEEN EXTERIOR BEAMS. BARS A4-- AND ANY OTHER SUPPLEMENTAL BARS REQUIRED TO BE PLACED IN CAST-IN-PLACE PORTIONS OF THE SLAB SHALL BE ASTM A615 GRADE 60. THE MINIMUM AMOUNT OF NON-PRESTRESSED LONGITUDINAL REINFORCEMENT IN THE CAST-IN-PLACE PORTION OF SLABS UTILIZING PRESTRESSED DECK PANELS SHALL BE 0.25 SQ. INCH PER FOOT OF SLAB WIDTH. THIS SUPPLEMENTAL STEEL SHALL BE INCLUDED AS PART OF THE SHOP DRAWING DETAILS AND BILL OF STEEL. IN AREAS OF THE BRIDGE DECK WHERE PANELS ARE OMITTED, THE BOTTOM MAT REINFORCING REQUIRED SHALL ALSO BE FULLY DETAILED ON THE SHOP DRAWING DETAILS AND BILL OF STEEL. REINFORCEMENT IN THE CAST-IN-PLACE CONCRETE SHALL HAVE ONE-HALF (1/2) INCH MINIMUM CLEARANCE BETWEEN THE PANEL AND SLAB REINFORCEMENT. SEE TABLE OF MINIMUM BRIDGE DECK THICKNESS REQUIRED FOR BAR CLEARANCE, THIS SHEET.

**POURING OF DECK CONCRETE**

- CONCRETE SHALL BE PLACED IN ACCORDANCE WITH THE CONTRACT SPECIFICATIONS. PARTICULAR EMPHASIS SHOULD BE GIVEN TO PROPER VIBRATION OF THE CONCRETE TO AVOID HONEYCOMBS AND VOIDS, ESPECIALLY AT CONSTRUCTION JOINTS, EXPANSION JOINTS AND ENDS OF PANELS. ALL PANEL JOINTS MUST BE MORTAR TIGHT. IMMEDIATELY PRIOR TO PLACING THE CAST-IN-PLACE PORTION OF THE DECK SLAB, THE PRESTRESSED DECK SLABS SHALL BE WETTED UNTIL FREE MOISTURE APPEARS AND REMAINS.
- PRESTRESSED CONCRETE PANELS SHALL NOT BE CONSIDERED AS LATERAL BRACING FOR FLANGES OF SUPPORTING STRUCTURAL MEMBERS.

**PAYMENT**

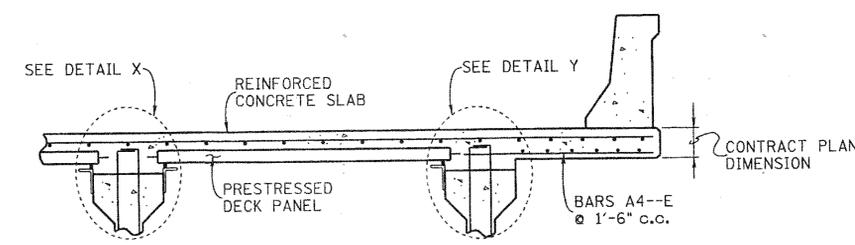
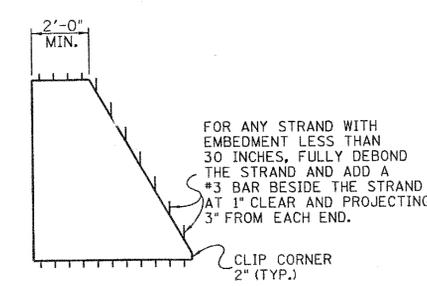
- PAYMENT WILL BE BASED ON PLANS DIMENSIONS AND DETAILS FOR THE REGULAR REINFORCED CONCRETE SLAB. NO ADDITIONAL COMPENSATION SHALL BE MADE TO ACCOMMODATE THE PRESTRESSED PANELS.
- ANY INCREASE IN QUANTITIES OF CONCRETE, MILD REINFORCING, PRESTRESSING STRAND OR OTHER ITEMS OF LABOR AND EQUIPMENT DUE TO THE USE OF PRESTRESSED BRIDGE DECK PANELS, SHALL BE AT THE CONTRACTORS EXPENSE. THIS ALSO APPLIES TO INCREASES REQUIRED TO ACCOMMODATE PRESTRESSED BEAM CAMBER AND VERTICAL CURVES.



PROJECT NO.	YEAR	SHEET NO.
	1992	

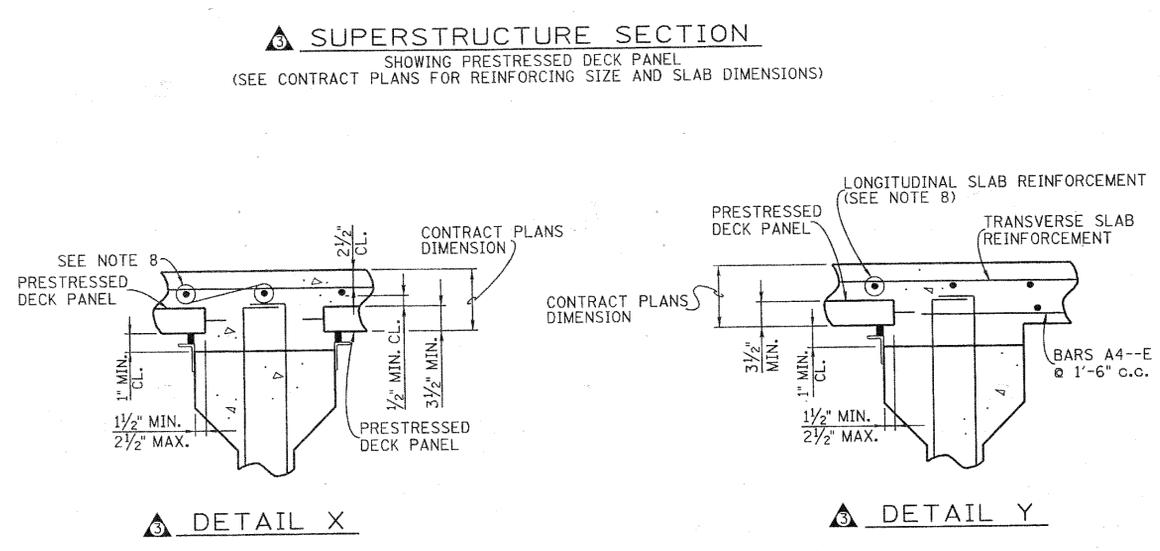
  

REVISIONS			
NO.	DATE	BY	BRIEF DESCRIPTION
1	10-26-92	M.A.H.	REARRANGED DETAILS AND NOTES ON STD-4-SERIES, ADDED NOTE 6, REVISED NOTE 3 AND PANEL PLAN TO SHOW SKEWED END.
2	10-25-93	M.A.H.	STOPPED INTERFERENCE OF TRANSVERSE BARS WITH 3 BARS AT PANEL EDGE ON SKEWED PANELS & MISPELLED WORD.
3	11-7-94	M.A.H.	REVISED NOTE 7 & 8, ADDED SUPPORT BRACKET FOR ALL GIRDERS, MOVED SUPPORT MAT DESIGN CHART TO STD-4-2
4	2-6-95	M.A.H.	DELETED NOTES 11 & 12 AND ADDED ALTERNATE SUPPORT SYSTEM TO NOTE 7
5	5-1-95	M.A.H.	REV. ART. NO. 6 CORRECTED DIMENSIONS
6	6-10-96	M.A.H.	REVISED STRAND CLEARANCE AND NOTE AND ADDED SKEWED PANEL DETAIL
7	4-28-97	M.A.H.	REVISED MAX. CLEARANCE
8	5-21-99	M.A.H.	ADDED PAYMENT NOTES
9	4-8-05	JHW	DELETED USE ON CULVERTS



**MINIMUM BRIDGE DECK THICKNESS REQUIRED FOR BAR CLEARANCE**

TRANSVERSE BAR	LARGEST LONGITUDINAL BAR										
	#5	#6	#7	#8	#9	#10	#11	#11	#10	#9	#8
MIN. DECK REQ'D. FOR 3 1/2" PANEL	8"	8 1/4"	8 1/2"	8 1/2"	8 1/2"	8 3/4"	9"	9"	9 1/4"	9 1/2"	9 1/2"
MIN. DECK REQ'D. FOR 4" PANEL	8 1/2"	8 3/4"	8 3/4"	9"	9"	9 1/4"	9 1/2"	9 1/2"	9 3/4"	10"	10"
MIN. DECK REQ'D. FOR 4 1/2" PANEL	9"	9 1/4"	9 1/4"	9 1/2"	9 1/2"	9 3/4"	10"	10"			



DESIGNED BY M.A.H. DATE 10-92  
 DRAWN BY K.D.F. DATE 10-92  
 SUPERVISED BY M.A.H. DATE 10-92  
 CHECKED BY DATE

MINOR REVISION - FHWA APPROVAL NOT REQUIRED  
 STATE OF TENNESSEE  
 DEPARTMENT OF TRANSPORTATION  
 STANDARD PRECAST PRESTRESSED BRIDGE DECK PANELS GENERAL DETAILS 1992