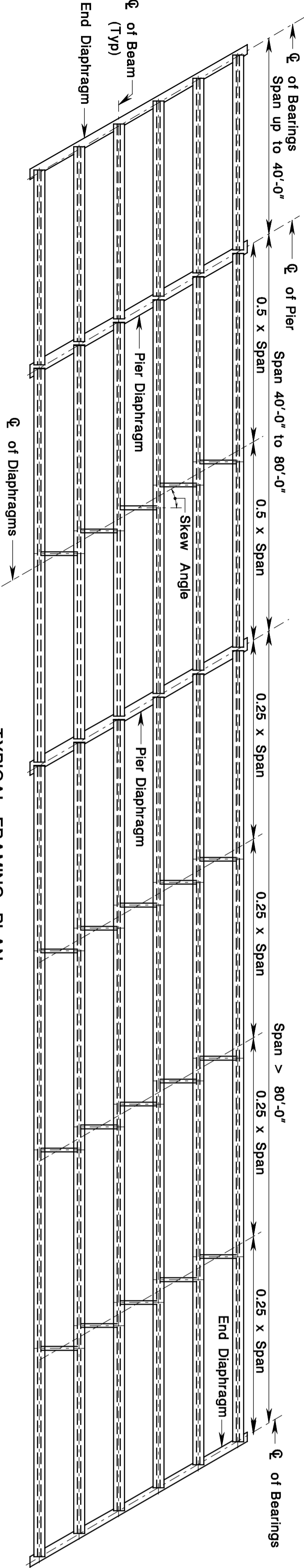


STATE	FEDERAL PROJECT NO.	SHEET	TOTAL SHEETS
N. J.			
(D)			
STRUCTURE NO.			
STRUCTURE NAME			

GENERAL NOTES

- This standard drawing provides steel diaphragm details for prestressed concrete I-Beam bridges. The details in this standard are applicable to structures with beam spacings less than 14'-0" and skew angles less than 45°.
  - End and pier diaphragms shall be cast-in-place, the design plans shall show the centerline location of each intermediate diaphragm. All intermediate diaphragm details and associated prestressed beam details shall be included on the fabricator's shop drawings. Only one type of intermediate diaphragm may be used per structure.
  - The sizes of steel diaphragm and accessories provided are for information purpose only. Actual sizes shall be based on design requirements as determined in accordance with the AASHTO LRFD Bridge Design Specifications, with current interim, as modified by Section 3 of the NBDOT Design Manual for Bridges and Structures.
  - All structural steel, including bolts, nuts and washers shall be in accordance with the NBDOT Standard Specifications for Road and Bridge Construction with current Supplemental Specifications, as modified by the Special Provisions.
  - All structural steel shall be AASHTO M270 Grade 36 or 50, galvanized as per ASTM A553, Class C.
  - All bolts are 1/2" dia. ASTM A325, Type 1. All bolts, nuts and washers shall be galvanized as per ASTM A553, Class C.
  - Bolt holes in the I-beam webs shall be located to avoid prestressing strands.
  - The placement of deck concrete shall not proceed until all intermediate diaphragms have been properly installed.
- \* The note should be modified to reflect applicable year and updated Specifications**

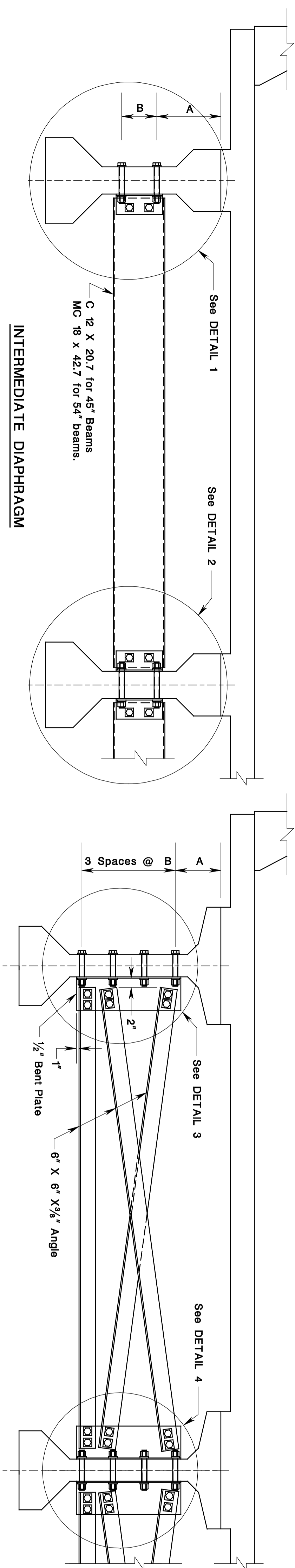


TYPICAL FRAMING PLAN

DIAPHRAGM SUPPORT DIMENSIONS					
BEAM HEIGHT	A	B	C	D	
45"	1'-2 1/2"	1'-1"	1'-5"	10"	
54"	1'-5"	1'-5"	1'-9"	1'-2"	
63"	1'-1 1/2"	1"	3'-2"	-	
72"	1'-1 1/2"	1'-1"	3'-8"	-	

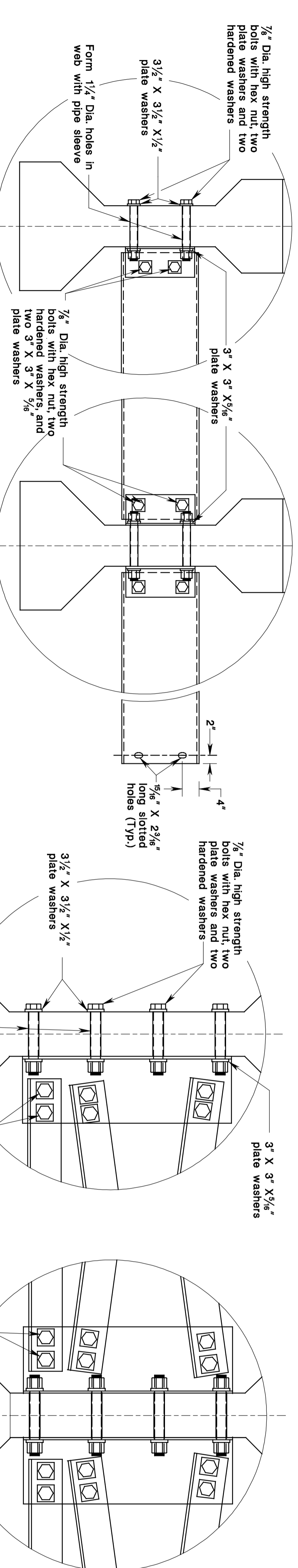
PLAN FOR SKEW ANGLES  $\leq 10^\circ$

PLAN FOR SKEW ANGLES  $> 10^\circ$



INTERMEDIATE DIAPHRAGM (FOR 45" AND 54" PRETENSIONED BEAMS)

INTERMEDIATE DIAPHRAGM (FOR 63" AND 72" PRETENSIONED BEAMS)



DETAIL 1

DETAIL 2

DETAIL 3

DETAIL 4

Detail 1 shall be used at the fascia beam and all interior beams when the skew angle exceeds  $10^\circ$

Detail 2 shall be used at interior beams when the skew angle is less than  $10^\circ$

Detail 3 shall be used at the fascia beam and all interior beams when the skew angle exceeds  $10^\circ$

Detail 4 shall be used at interior beams when the skew angle is less than  $10^\circ$

CONTROL SECTION		JOB NO.	
DES.	CHK.		
BY	BY		
DWN.	CHK.		
BY	BY		
EST.	CHK.		
BY	BY		
SPCS.	BY		

IN CHARGE OF

REVISION	BY	CHKD	DATE

SCALE : NONE	
BRIDGE	
SHEET NO. B OF B	

STANDARD DRAWING PLATE 2.1-6  
NEW JERSEY DEPARTMENT OF TRANSPORTATION  
BUREAU OF STRUCTURAL ENGINEERING

DETAILS OF  
INTERMEDIATE STEEL DIAPHRAGMS  
FOR PRESTRESSED CONCRETE BEAMS

ROUTE      SECTION

THIS SHEET IS FOR DESIGN INFORMATION ONLY. DO NOT INCLUDE IN CONTRACT PLANS.