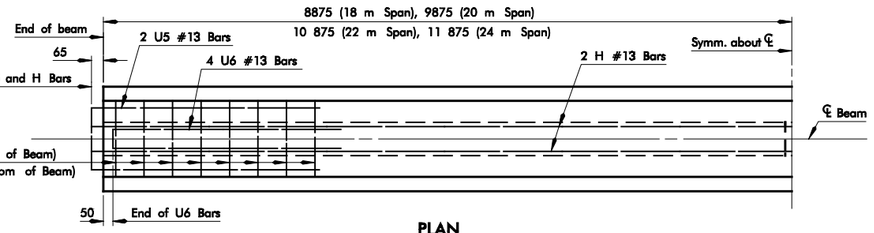
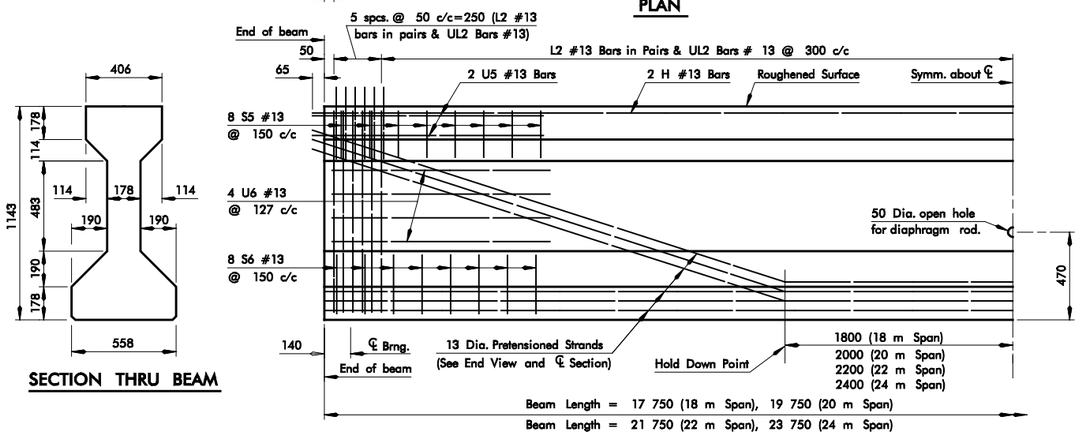
REVISIONS		
REV. NO.	DESCRIPTION	DATE
1		

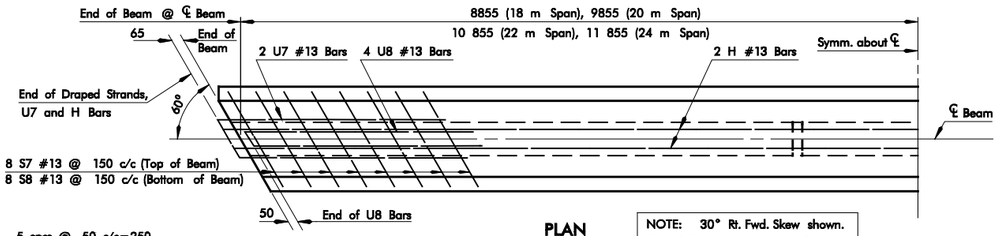


PLAN



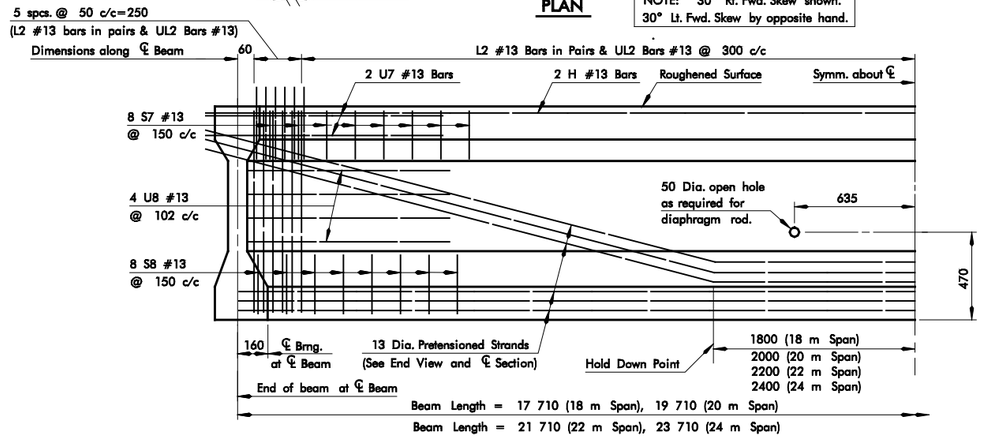
ELEVATION – 0° SKEW

SECTION THRU BEAM



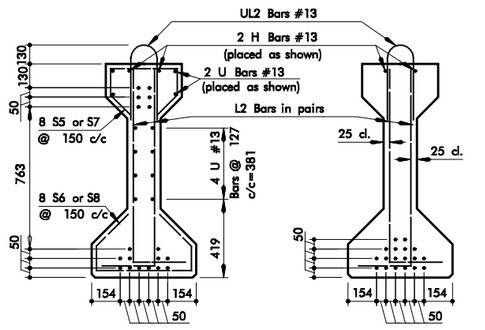
PLAN

NOTE: 30° Rt. Fwd. Skew shown.
30° Lt. Fwd. Skew by opposite hand.



ELEVATION – 30° SKEW

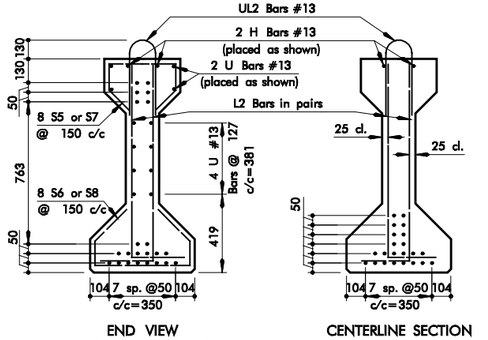
NOTE: Draped strands, U5, U7, and H bars shall extend 65mm beyond ends of beam. Straight strands shall be cut flush with ends of beam. U6 and U8 bars shall be set 50 clear from ends of beam.



END VIEW WITH REINFORCING

CENTERLINE SECTION (18 – 13 Dia. Strands)

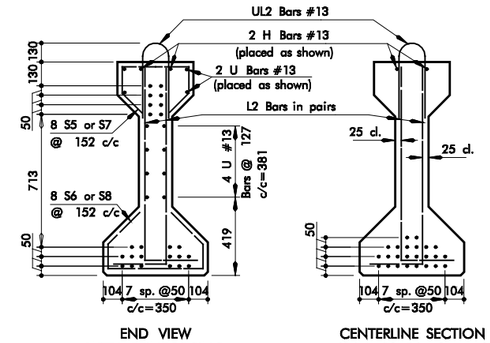
18 m SPAN



END VIEW WITH REINFORCING

CENTERLINE SECTION (22 – 13 Dia. Strands)

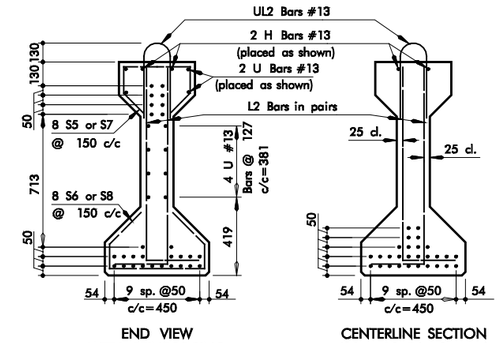
20 m SPAN



END VIEW WITH REINFORCING

CENTERLINE SECTION (24 – 13 Dia. Strands)

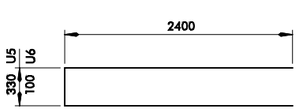
22 m SPAN



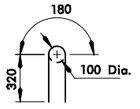
END VIEW WITH REINFORCING

CENTERLINE SECTION (28 – 13 Dia. Strands)

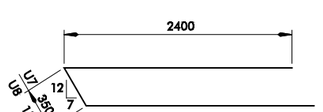
24 m SPAN



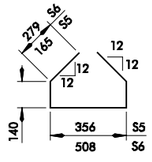
U5 BARS #13 x 5130
U6 BARS #13 x 4900



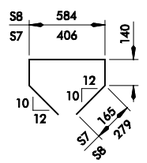
UL2 BARS #13 x 820



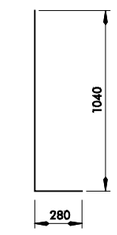
U7 BARS #13 x 5150
U8 BARS #13 x 4915



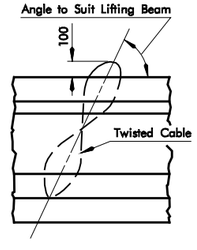
S5 BARS #13 x 966
S6 BARS #13 x 1346



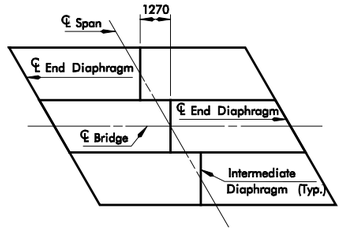
S7 BARS #13 x 1016
S8 BARS #13 x 1422



L2 BARS #13 x 1320



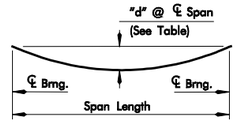
DETAIL OF LIFTING EYE



TYPICAL DIAPHRAGM SPACING – 30° SKEW

DESIGN DATA

LOADING: MS 18+1 kPa Future Wearing Surface
CONCRETE: f'c = 41 MPa
f'ci = 31 MPa
FABRICATOR SHALL PROVIDE REQUIRED DESIGN STRENGTH



DEAD LOAD DEFLECTION DIAGRAM

SPAN (m)	DEAD LOAD DEFLECTION "d"	OPERATING RATING
18	8	HS 46
20	13	HS 46
22	19	HS 49
24	27	HS 46

GENERAL NOTES

PRESTRESSED CONCRETE BEAMS:

CHAMFER REQUIREMENT: Chamfer all exposed edges of P.C. Beams 19mm unless otherwise noted.
FORMS & PALLETS: All beams shall be cast in concrete floored pallets and metal forms.
FINISH: Top of beams to be rough floated. At approximately the time of initial set, entire top of beam shall be scrubbed transversely with coarse wire brush to remove all laitance and to produce a roughened surface for bonding slab.
CEMENT: Type I or III Portland Cement may be used for the Prestressed Concrete Beams.
HANDLING: In the handling of the beams, they must be maintained in an upright position at all times and must be picked up from the lifting eye provided at the beam ends. Disregard of this requirement may lead to collapse of the member.
SPECIFICATIONS FOR STEEL STRANDS: Grade 270, 7–wire, uncoated, low relaxation steel strand shall conform to the requirements of AASHTO M203 (ASTM A–416) and Supplement I.
STRAND: All strands shall be the size and type as shown on the Plans. Initial load per strand shall be 75% of the breaking strength of the strand for low relaxation strand.
TREATMENT OF CUT STRANDS: All cut off strands that will be exposed are to be coated with two coats of an approved zinc rich paint (minimum 80 μm). Painting to be done by fabricator.
SHOP DRAWINGS: The Contractor shall have his Prestressed Concrete Beam Fabricator furnish the Bridge Engineer, for his approval, two sets of checked shop drawings. Shop drawings shall show the casting length center to center of bearings, and the calculated prestress shortening. One copy shall be returned to the fabricator with any desired corrections indicated. The fabricator shall then furnish the Bridge Engineer with as many, generally seven, corrected copies of the shop drawings as may be required for approval and distribution. The approval of the shop drawings in no way relieves the Contractor or his fabricator of the responsibility for mistakes on the shop drawings.

The Prestressed Concrete Beams may be redesigned to use "Debonded" and or 15 mm strands rather than the "Draped" strands shown. The New Design and Structural Calculations for "Debonded" and or 15 mm strands must be prepared by and sealed by a Professional Engineer registered in the State of Oklahoma and submitted to the Bridge Engineer for approval.

If "Debonded" Strands are used the "U" bars shall extend an additional 1200 mm, toward the middle of the span, just past the point of debonding.

APPROVED BY BRIDGE ENGINEER DATE

OKLAHOMA DEPT. OF TRANSPORTATION
COUNTY BRIDGE STANDARD (METRIC)

P.C. BEAM ELEVATIONS AND SECTIONS
TYPE III – 7.8 m RDY.

1999 SPECIFICATIONS	PCB5–1	00M
ALL DIMENSIONS ON THIS SHEET IN MILLIMETERS UNLESS OTHERWISE NOTED.		CB–34M