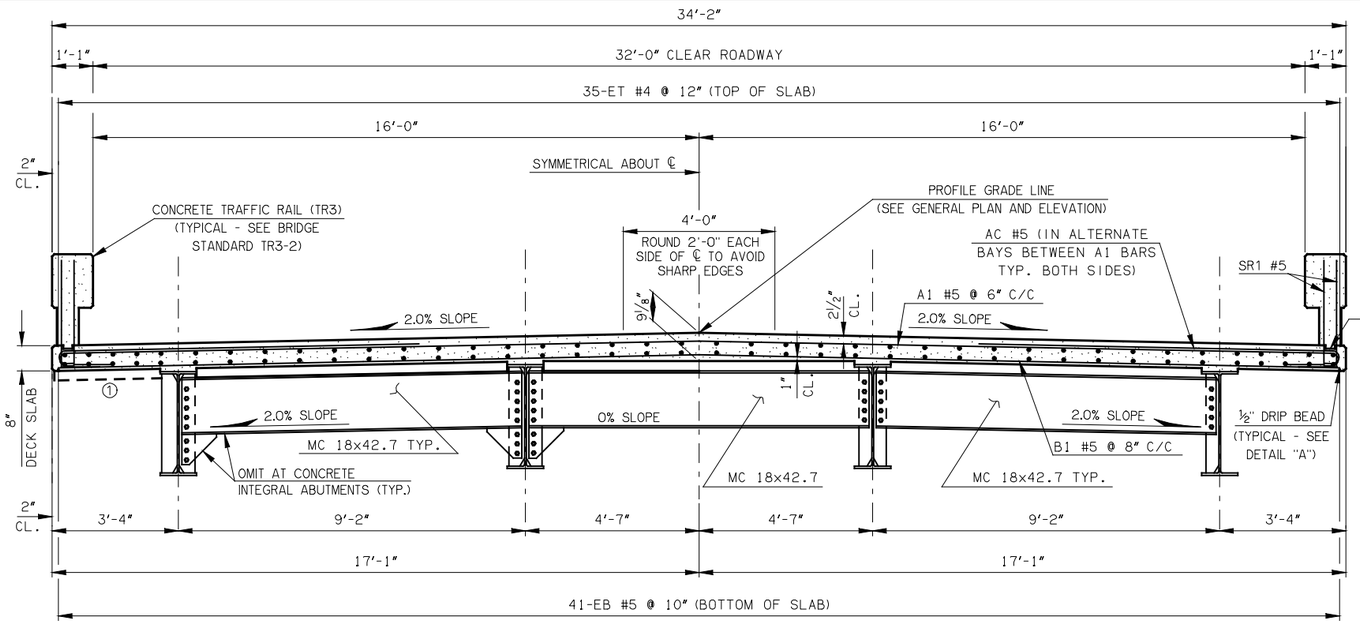


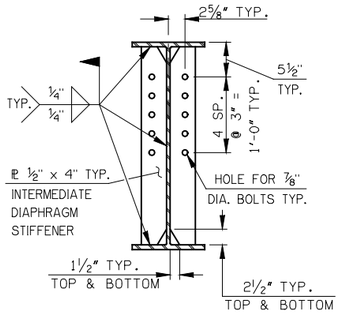
HALF SECTION AT END DIAPHRAGM

① REFER TO APPLICABLE STANDARDS FOR ADDITIONAL DECK REINFORCING AND DIMENSIONS NOT SHOWN HERE.

HALF SECTION AT INTERMEDIATE DIAPHRAGM

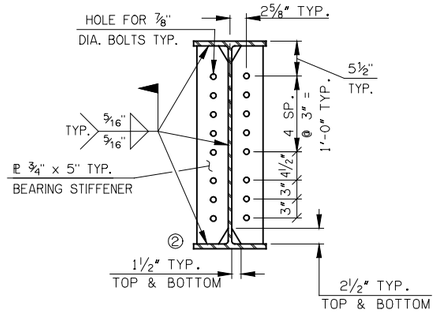
TYPICAL CROSS SECTION

NOTE: W33x141 BEAMS SHOWN, W33x130, W36x135 OR W36x150 SIMILAR



INTERMEDIATE DIAPHRAGM STIFFENER DETAILS

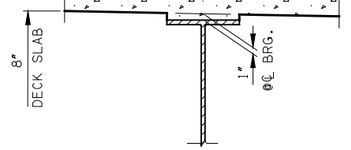
DETAIL SHOWN AT INTERIOR BEAM. OMIT INTERMEDIATE DIAPHRAGM STIFFENERS AT OUTSIDE FACE OF EXTERIOR BEAM.



BEARING STIFFENER DETAILS

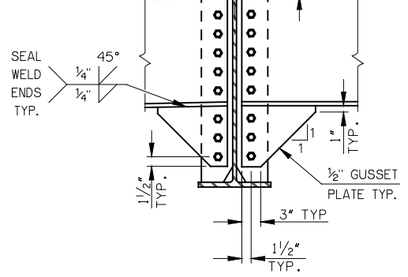
DETAIL SHOWN AT INTERIOR BEAM. OMIT BOLT HOLES IN BEARING STIFFENERS AT OUTSIDE FACE OF EXTERIOR BEAM. OMIT BOLT HOLES IN BEARING STIFFENERS AT ABUTMENT DIAPHRAGMS OF INTEGRAL BRIDGES

② MILL TO BEAR AT BOTTOM FLANGE

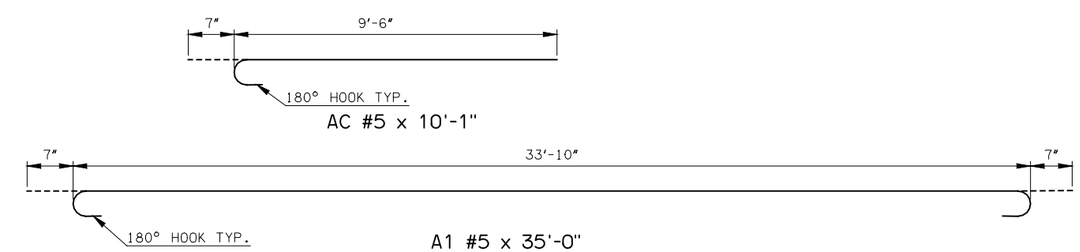


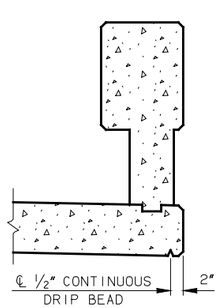
DETAIL OF HAUNCH

HAUNCH HEIGHT SHOWN IS AT CENTERLINE BEARING ONLY, MEASURED FROM BOTTOM OF DECK SLAB TO TOP OF BEAM, AND VARIES ACROSS THE SPAN. HAUNCH HEIGHT TO BE DETERMINED AFTER ERECTION OF BEAMS TO PROVIDE FOR DEAD LOAD DEFLECTION AND GRADE ADJUSTMENT.

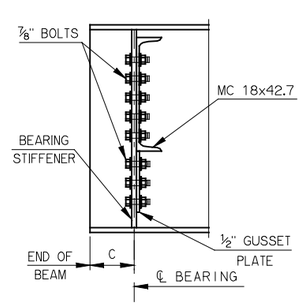


GUSSET DETAILS





DETAIL "A"



END DIAPHRAGM SECTION

(SEE BEAM DETAILS FOR DIMENSION "C")

DESIGN DATA

CLASS AA CONCRETE	fc' = 4 ksi	
REINFORCING STEEL, AASHTO M 31 (GRADE 60)	fy = 60 ksi	
NEW STRUCTURAL STEEL, AASHTO M 270 (GRADE 36 MIN.)	fy = 36 ksi	MIN.
EXISTING STRUCTURAL STEEL, GRADE 36	fy = 36 ksi	

LOADING -

HL-93
20 PSF FUTURE WEARING SURFACE
5 PSF STAY-IN-PLACE FORMS

DESIGN -

AASHTO LRFD BRIDGE DESIGN SPECIFICATIONS, 5TH EDITION WITH 2010 INTERIMS, EXCEPT AS MODIFIED BY CURRENT ODOT BRIDGE DIVISION DESIGN POLICIES.
ANSI/AASHTO/AWS D1.5 BRIDGE WELDING CODE

LFD OPERATING RATING - REFERENCE BEAM DETAIL SHEETS

NOTES

THE DESIGN SHEETS "TYPICAL CROSS SECTION, ROLLED BEAMS, 32' CLEAR ROADWAY, 0° SKEW" AND "ROLLED BEAM DETAILS, 32' CLEAR ROADWAY, 0° SKEW" ARE FOR USE IN CONSTRUCTION OF SINGLE SPAN BRIDGES WITH EITHER CONCRETE INTEGRAL ABUTMENTS OR STEEL CONVENTIONAL ABUTMENTS UTILIZING THE OLD I-40 CROSSTOWN SALVAGED BEAMS SIZES W33X130, W33X141, W36X135 OR W36X150.

1. SINGLE SPAN INTEGRAL CONCRETE ABUTMENT BRIDGES:
THE FOLLOWING 2009 LRFD COUNTY BRIDGE STANDARDS, OR PARTS OF THEM, ARE REQUIRED IN ADDITION TO THE DESIGN SHEETS MENTIONED ABOVE:

CB32-I-SKO-LSECT-RB - LONGITUDINAL SECTION ROLLED BEAMS
CB32-I-SKO-DKSLB-BLIST-RB - DECK SLAB BAR LIST ROLLED BEAMS
CB32-I-SKO-ABUT-RB-55100 - ABUTMENT DETAILS 55' THRU 100' ROLLED BEAMS
CB32-I-SKO-DIA-ABUT-RB-55100 - ABUTMENT DIAPHRAGM DETAILS 55' THRU 100' ROLLED BEAMS
CB32-I-SKO-BRG-RB - BEARING DETAILS ROLLED BEAMS
CB32-I-SKO-AS - APPROACH SLAB DETAILS
CB26..32-I-SKO-WING-RB-55100 - WING DETAILS 55' THRU 100' ROLLED BEAMS
CB26..32-I-SKO-ABUT-MISC - SUBSTRUCTURE EXCAVATION AND PIPE UNDERDRAIN ASSEMBLY DETAILS
CB26..32-C..I-SKO..30-RB-BRACING - ROLLED BEAM BRACING DETAILS FOR PLACEMENT OF DECK SLAB CONCRETE
CB26..32-C..I-SKO..30-GRAU-BC - GUARDRAIL ANCHOR UNIT - BRIDGE CONNECTION

(MODIFY DIMENSIONS IN THESE STANDARDS AS NECESSARY.)

2. SINGLE SPAN CONVENTIONAL STEEL ABUTMENT BRIDGES:
OBSOLETE COUNTY BRIDGE STANDARD IBN-1 AND IBNA-1, OR PARTS OF THEM, ARE REQUIRED IN ADDITION TO THE DESIGN SHEETS "TYPICAL CROSS SECTION, ROLLED BEAMS, 32' CLEAR ROADWAY, 0° SKEW" AND "ROLLED BEAM DETAILS, 32' CLEAR ROADWAY, 0° SKEW".

STANDARD IBNA-1 WILL NEED TO BE MODIFIED AS FOLLOWS:
SUBSTITUTE AN HP 12x63 PILE OF GRADE 50 IN PLACE OF THE HP 10x42 PILE SHOWN FOR THE BENT CAP. VERTICAL HP 10x42 PILES SHALL BE GRADE 50. WELD BEARING PLATES TO THE BENT CAP AT BEAM LOCATIONS AS NEEDED TO ADJUST FOR CROSS-SLOPE. PLATE DIMENSIONS SHALL BE 8" x (FLANGE WIDTH + 2") x (THICKNESS REQUIRED). BEARING PLATE WELDS SHALL BE 5/16" FILLET WELD, ALL SIDES, WITH ⅜" TERMINATIONS.

THE 2009 LRFD COUNTY BRIDGE STANDARDS CB26..32-C..I-SKO..30-RB-BRACING - ROLLED BEAM BRACING DETAILS FOR PLACEMENT OF DECK SLAB CONCRETE, AND CB26..32-C..I-SKO..30-GRAU-BC - GUARD RAIL ANCHOR UNIT - BRIDGE CONNECTION, WILL ALSO BE REQUIRED.

GENERAL NOTES

- STAY-IN-PLACE STEEL DECK FORMS MAY BE USED IF THE MINIMUM DECK SLAB THICKNESS OF 8" IS OBTAINED BY MEASURING FROM THE TOP OF THE DECK SLAB TO THE TOP PORTION OF THE STEEL CORRUGATION. NO ADDITIONAL CONCRETE WEIGHT OF THE DECK SLAB IS PERMITTED. ADDITIONAL STEEL WEIGHT OF THE DECK FORMS SHALL NOT EXCEED 5 PSF. STAY-IN-PLACE PRESTRESSED CONCRETE DECK FORMS MAY BE USED IF THE FOLLOWING CONDITIONS ARE MET:
  1) SHOP DRAWINGS AND STRUCTURAL CALCULATIONS FOR THE FORMS ARE SUBMITTED TO THE BRIDGE ENGINEER FOR APPROVAL.
  2) A NEW STRUCTURAL DESIGN, STRUCTURAL CALCULATIONS, AND A NEW REINFORCING SCHEDULE FOR THE DECK SLAB ARE SUBMITTED TO THE BRIDGE ENGINEER FOR APPROVAL.
  3) SHOP DRAWINGS, NEW DECK SLAB REINFORCING SCHEDULE AND STRUCTURAL DESIGNS AND CALCULATIONS SHALL BE PREPARED BY AND SEALED BY A PROFESSIONAL ENGINEER REGISTERED IN THE STATE OF OKLAHOMA.

  ALL COSTS ASSOCIATED WITH THE USE OF STAY-IN-PLACE FORMS, INCLUDING ALL PROFESSIONAL SERVICES, MATERIAL, LABOR, EQUIPMENT AND INCIDENTALS, SHALL BE AT THE CONTRACTOR'S EXPENSE. FOR ADDITIONAL INFORMATION CONCERNING THE USE OF STAY-IN-PLACE FORMS, SEE SECTION 502 OF THE STANDARD SPECIFICATIONS.
- DO NOT SAW-CUT GROOVE OR TINE THE DECK SLAB WITHIN 6" OF ANY CONSTRUCTION JOINT.

APPROVED BY BRIDGE ENGINEER Robert J. Rusch DATE 4-27-2012

OKLAHOMA DEPARTMENT OF TRANSPORTATION
COUNTY BRIDGE STANDARDS (ENGLISH)

TYPICAL CROSS SECTION
ROLLED BEAMS
32' CLEAR ROADWAY, 0° SKEW

2009 SPECIFICATIONS	CB32-XTBM-SKO-XSECT	OOE
		CB-977E