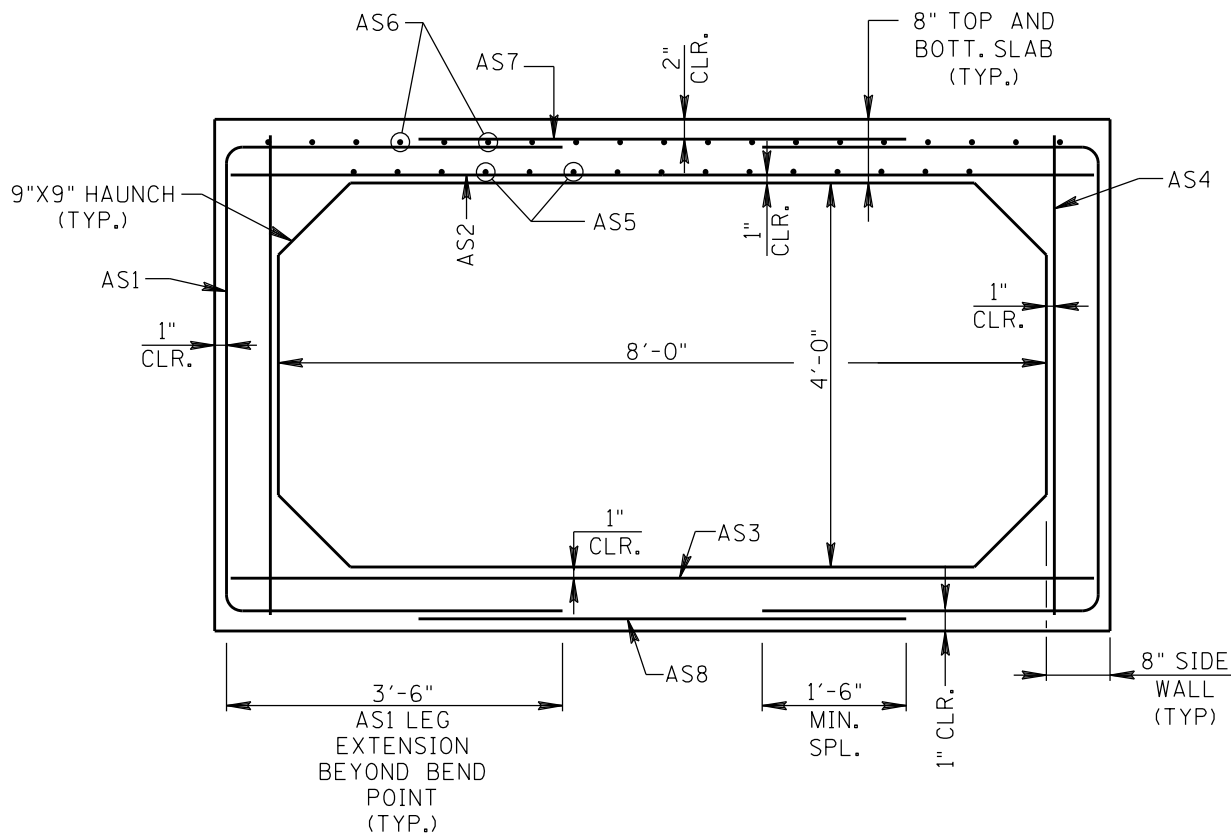


NOTE: SEE "PRECAST CONCRETE JUNCTION BOXES AND PRECAST BOX CULVERTS" SHEET FOR SUMMARY OF BUILDING AND DESIGN CODES, MATERIALS REQUIREMENTS, AND DESIGN LOADS.
 NOTE: ICAST WORKING DRAWINGS FOR ADDITIONAL INFORMATION.



**25-4349 Lunsford St. Drainage Repair
 REINFORCEMENT INFORMATION
 Box Culvert
 SECTIONS P1(A), P2(B), P3(C), AND P4(D)**



8'X4' PRECAST BOX CULVERT SECTION: SECTIONS "A" THRU "D"

NOTE: F'c-min=6,500 P.S.I.

NOT TO SCALE

LOCATION	AREA OF STEEL (IN ²)	
	MAX. REQ'D.	TO BE PROVIDED
AS1	.354	NO. 5'S @ 10", AS=.372
AS2	.518	NO. 5'S @ 5", AS=.744
AS3	.350	NO. 5'S @ 10", AS=.372
AS4	.192	NO. 4'S @ 10", AS=.240
AS5	.192	NO. 4'S @ 10", AS=.240
AS6	.192	NO. 4'S @ 10", AS=.240
AS7	.192	NO. 4'S @ 10", AS=.240
AS8	.192	NO. 4'S @ 10", AS=.240

NOTE: SEE ICAST DRWGS. FOR LOCATIONS OF PRECAST SECTIONS.
 NOTE: A 22"Ø OPENING IN RIGHT SIDE WALL IS TO BE PROVIDED BY THE PRECAST PLANT. SEE DETAIL REGARDING ADDITIONAL REINFORCEMENT FOR PRECAST OPENING.

AREAS REINFORCING STEEL

Fy-min=60 K.S.I.

SK-1/4

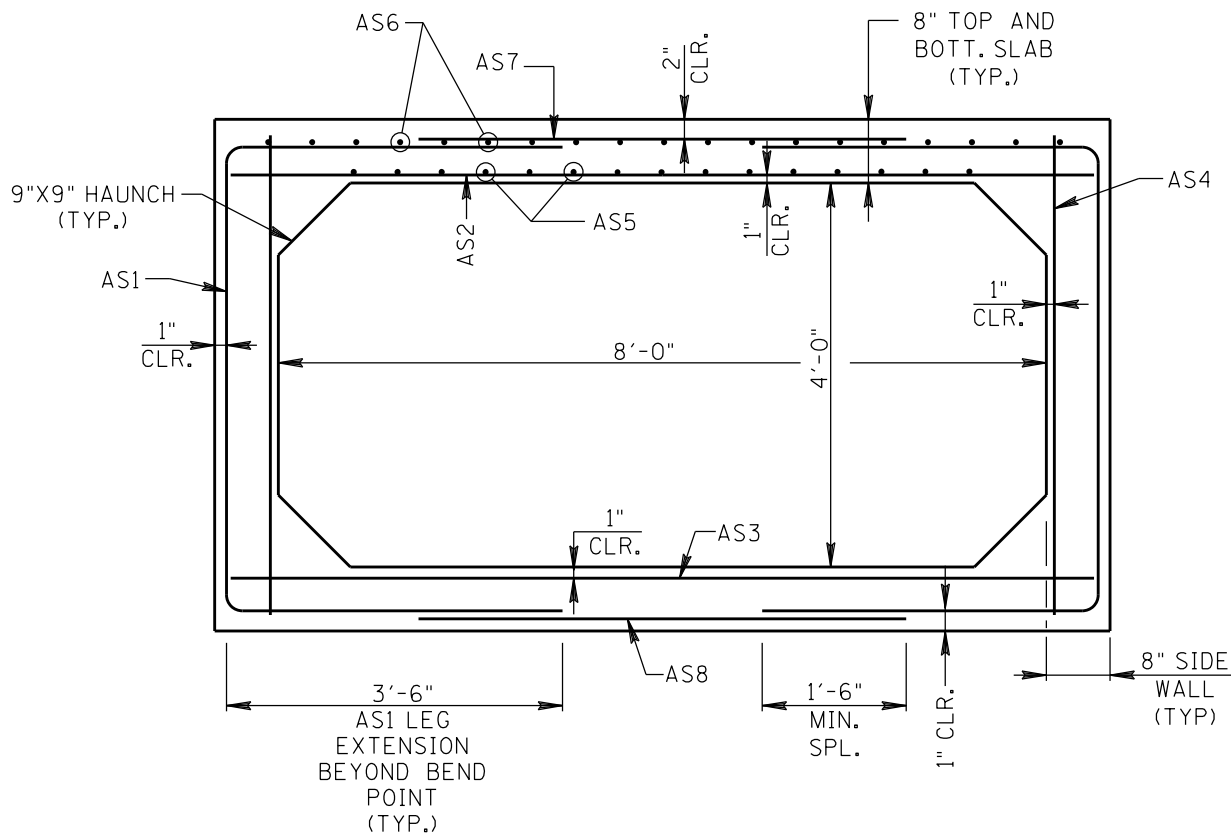
8'X4' PRECAST CONCRETE BOX CULVERT: SECTIONS "A" THRU "D"

LUNSFORD DRAINAGE REPAIRS PROJECT: MADISONVILLE, KENTUCKY

NOTE: SEE "PRECAST CONCRETE JUNCTION BOXES AND PRECAST BOX CULVERTS" SHEET FOR SUMMARY OF BUILDING AND DESIGN CODES, MATERIALS REQUIREMENTS, AND DESIGN LOADS.
 NOTE: ICAST WORKING DRAWINGS FOR ADDITIONAL INFORMATION.



**25-4349 Lunsford St. Drainage Repair
 REINFORCEMENT INFORMATION
 Box Culvert
 SECTION P5 (E)**



8'X4' PRECAST BOX CULVERT SECTION: SECTION "E"

NOTE: F'c-min=6,500 P.S.I.

NOT TO SCALE

LOCATION	AREA OF STEEL (IN ²)	
	MAX. REQ'D.	TO BE PROVIDED
AS1	.511	NO. 5'S @ 7", AS=.531
AS2	.738	NO. 5'S @ 3½", AS=1.062
AS3	.455	NO. 5'S @ 7", AS=.531
AS4	.192	NO. 4'S @ 7", AS=.343
AS5	.261	NO. 5'S @ 7", AS=.531
AS6	.192	NO. 4'S @ 7", AS=.343
AS7	.192	NO. 4'S @ 7", AS=.343
AS8	.192	NO. 4'S @ 7", AS=.343

NOTE: SEE ICAST DRWGS. FOR LOCATIONS OF PRECAST SECTIONS.
 NOTE: OPENINGS FOR A 22"Ø ELLIPTICAL CMP AND APPROX. 36"Ø CMP IN SIDE WALLS ARE TO BE FIELD-CORED, AND A C.I.P. COLLAR IS REQUIRED IN THOSE LOCATIONS.
 SEE COLLAR DETAIL FOR ADDITIONAL INFORMATION.

AREAS REINFORCING STEEL

Fy-min=60 K.S.I.

SK-2 / 4

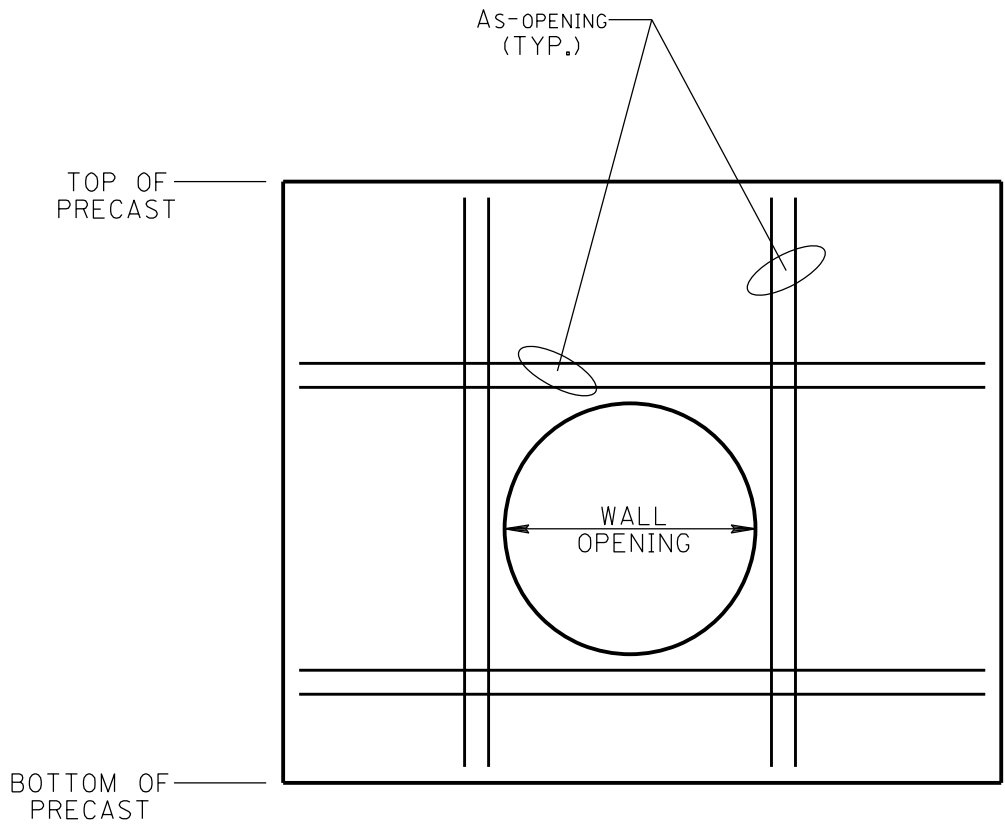
8'X4' PRECAST CONCRETE BOX CULVERT: SECTION "E"

LUNSFORD DRAINAGE REPAIRS PROJECT: MADISONVILLE, KENTUCKY

ADDITIONAL REINFORCEMENT REQUIRED ON EACH FACE
 ALONG EACH SIDE OF OPENING:
 2- #5'S HORIZONTAL TOP AND BOTTOM
 AND 2-#5'S VERTICAL EACH SIDE



25-4349 Lunsford St. Drainage Repair
 REINFORCEMENT INFORMATION
 Box Culvert



ADDITIONAL REINFORCMENT
@ WALL OPENINGS

NOTE: ADDITIONAL OPENING BARS ARE SUPPLEMENTAL TO SCHEDULED WALL REINFORCEMENT FOR EACH WALL OPENING. ADDITIONAL BARS MAY BE TERMINATED AT A DISTANCE OF 1'-6" BEYOND THE LIMITS OF OPENING OR AT 2" FROM THE INTERSECTING EDGE OF CONCRETE WHEN THE 1'-6" DIMENSION INTERSECTS A WALL. BAR SIZES MAY BE UPSIZED TO PROVIDE THE SAME AREA OF STEEL WHEN THE NUMBER OF BARS CANNOT BE ACCOMMODATED.

ADDITIONAL REINFORCEMENT AT PRECAST WALL OPENING
 FOR 22"Ø PRECAST OPENING IN SECTION "A"

SK-3/4

8'X4' PRECAST CONCRETE BOX CULVERT: PRECAST OPENING RE-BAR
 LUNSFORD DRAINAGE REPAIRS PROJECT: MADISONVILLE, KENTUCKY