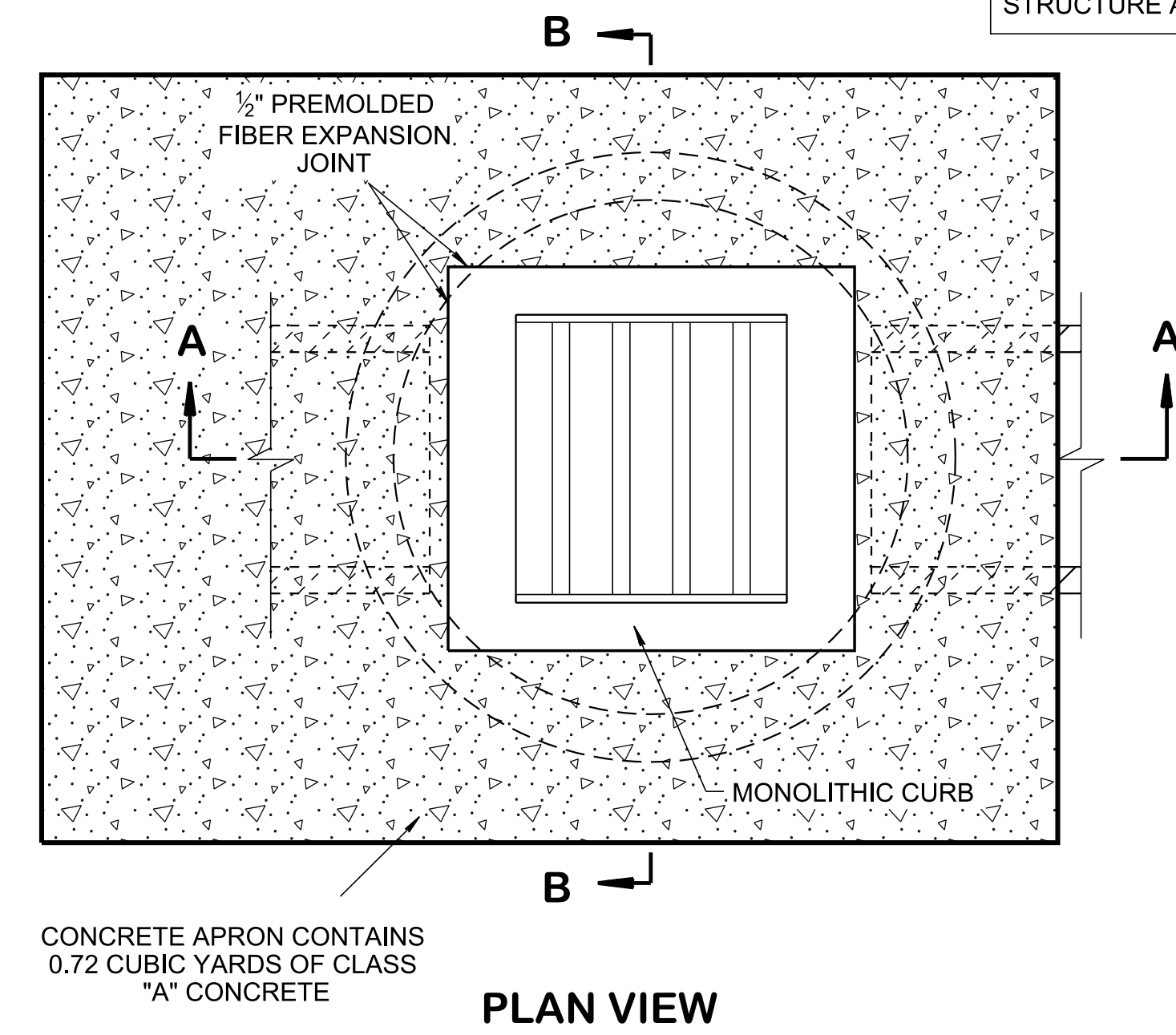
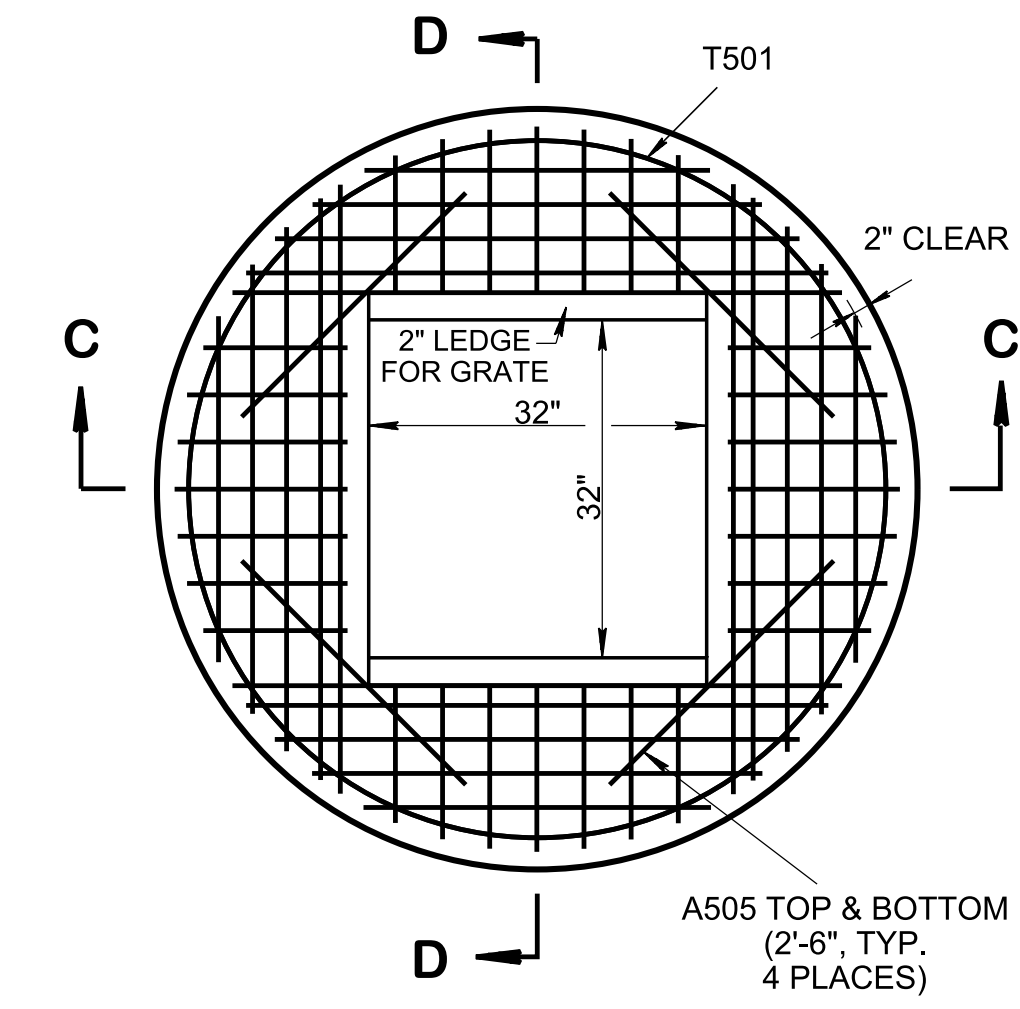


3/18/2021 10:12:38 AM P:\StandDraw\DESIGN STANDARDS\Standards Drawings Library\Standard Roadway Drawings - CURRENT\In Progress\10-102.00 Catch Basins and Manholes IP\102.01 Catch Basins IP\DCB38RB-20210304.DGN

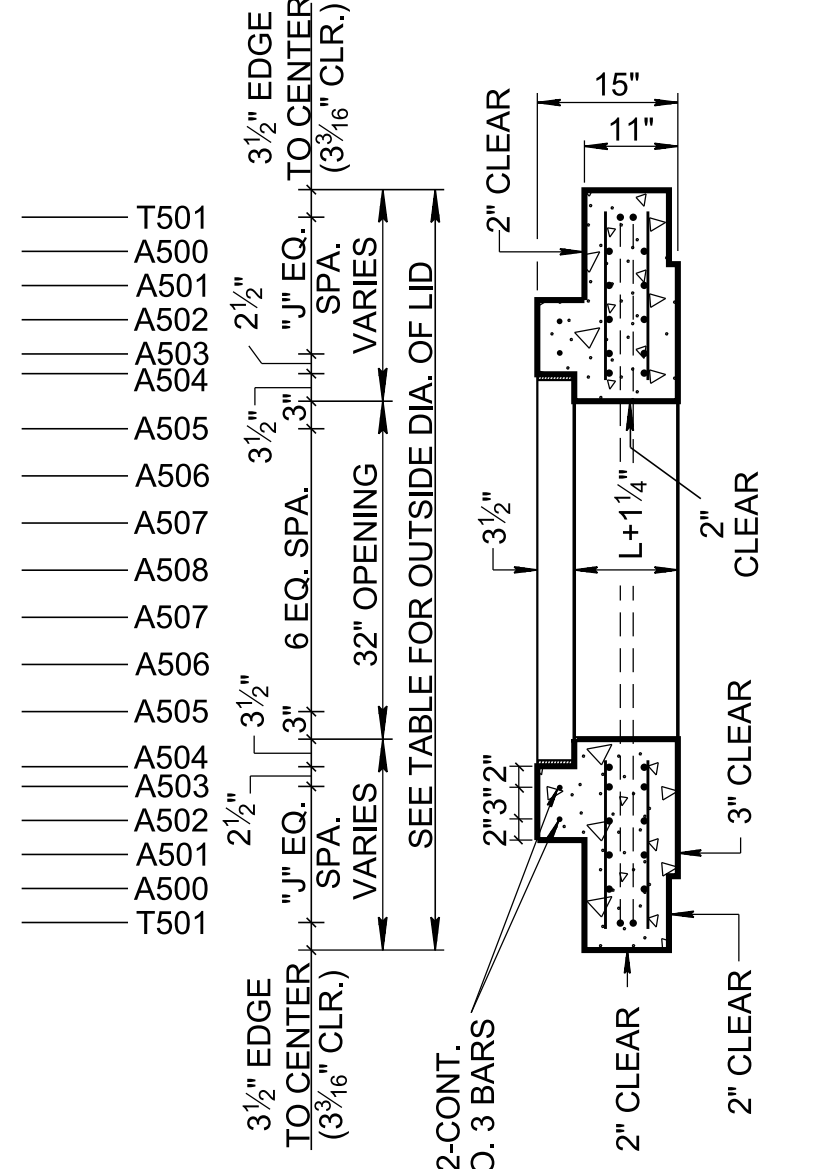
OUT-TO-OUT DIAMETER FOR T501 REINFORCING BARS EQUALS OUTSIDE DIAMETER OF LID MINUS 6 3/8 INCHES. ADDITIONAL A-BARS ARE REQUIRED FOR THE LARGER STRUCTURE AS INDICATED BY "NO. OF EQ. SPACES 'J'"



PLAN VIEW



LID REINFORCING



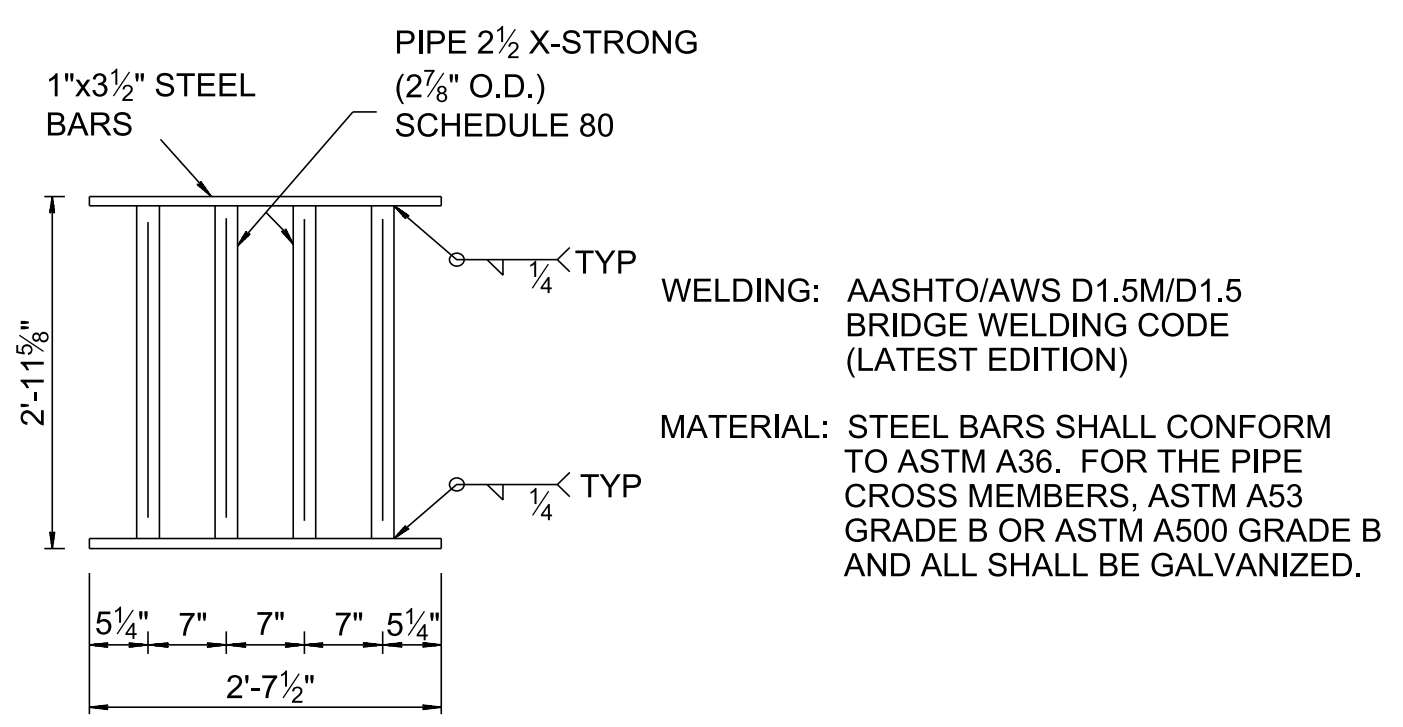
SECTION D-D

INSIDE DIA. OF CATCH BASIN (INCHES)	OUTSIDE DIA. OF LID (INCHES)	NO. OF EQUAL SPACES "J"
60	72	3
72	86	4
84	100	5
96	114	6

CATCH BASIN MAXIMUM DEPTH NOTE
MAXIMUM DEPTH FOR PRECAST CONCRETE CIRCULAR CATCH BASINS IS 40.00'

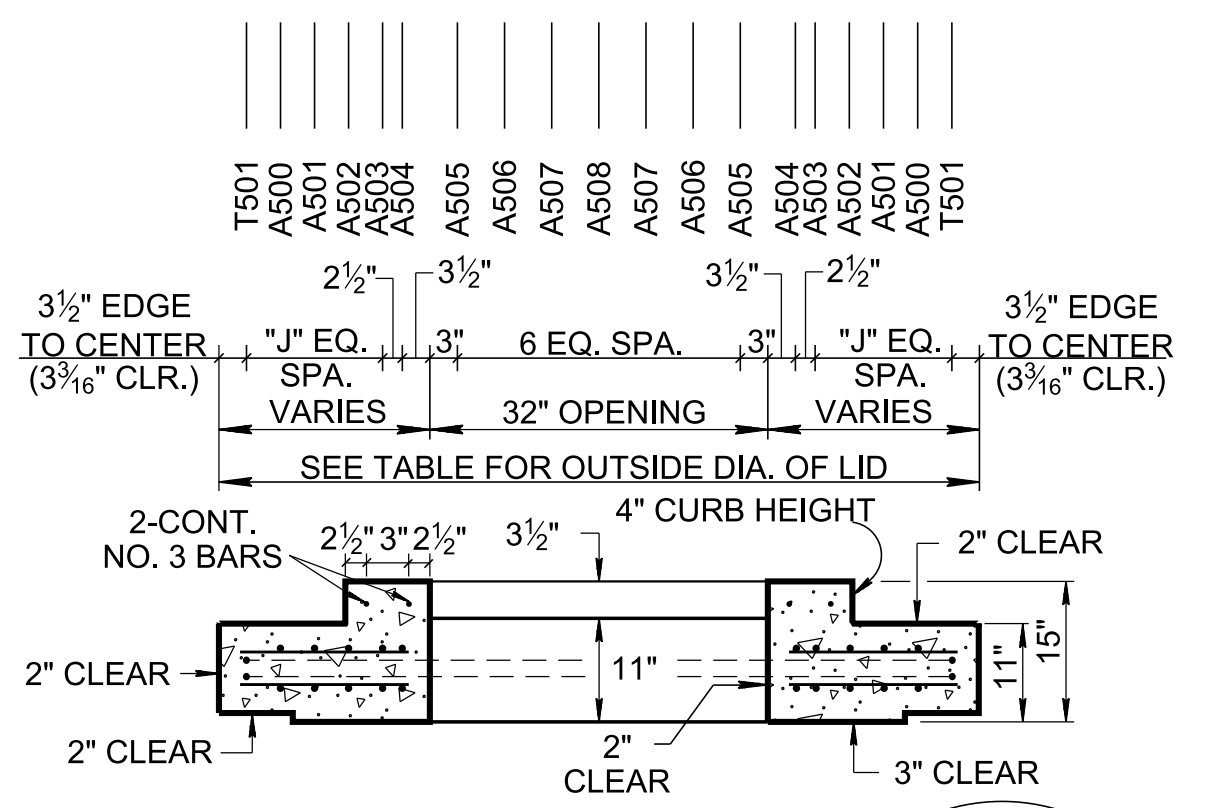
INSIDE DIAMETER (D) OF PIPE (INCHES)	PIPE WALL THICKNESS (INCHES)	DIAMETER OF CUT-OUT HOLES (INCHES)	PRECAST SECTION MIN. HEIGHTS (INCHES)				FOR DESIGN USE ONLY CATCH BASIN MINIMUM DESIGN DEPTH (FEET)			
			60"	72"	84"	96"	60"	72"	84"	96"
18	2 1/2	25	57 1/2	58	62 1/2	63	3.52	3.57	3.95	3.99
24	3	32	64 1/2	65	69 1/2	70	4.06	4.11	4.49	4.53
30	3 1/2	39	71 1/2	72	76 1/2	77	4.61	4.65	5.03	5.07
36	4	46	78 1/2	79	83 1/2	84	5.15	5.19	5.57	5.62
42	4 1/2	53	85 1/2	86	90 1/2	91	5.69	5.73	6.11	6.16
48	5	60	92 1/2	93	97 1/2	98	6.23	6.28	6.65	6.70
54	5 1/2	67	99 1/2	100	104 1/2	105	6.77	6.82	7.20	7.24
60	6	74	106 1/2	107	111 1/2	112	7.31	7.36	7.74	7.78
66	6 1/2	81	113 1/2	114	118 1/2	119	7.86	7.90	8.28	8.33

- ① CUT-OUT HOLES BASED ON REINFORCED CONCRETE PIPE WITH WALL TYPE "B".
- ② ALL FLEXIBLE PIPE MATERIALS REQUIRE GASKET. SEE STANDARD DRAWING D-PB-2.
- ③ CUT-OUT HOLES FOR PRECAST STRUCTURES TO BE FORMED IN ORDER TO OBTAIN A SMOOTH EDGED HOLE. SCORED OR ETCHED HOLES WITH REINFORCING STEEL LEFT UNCUT WILL NOT BE PERMITTED.

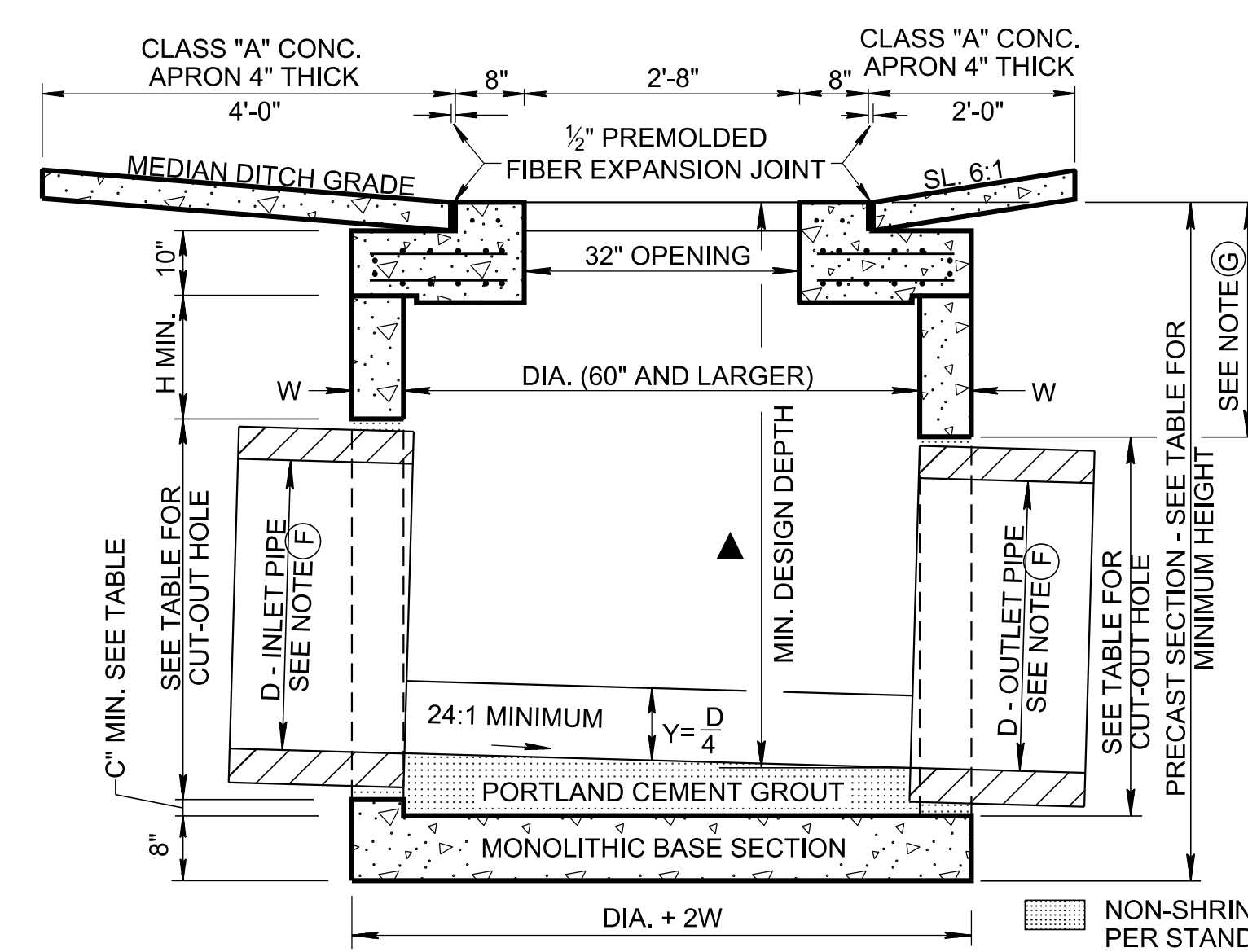
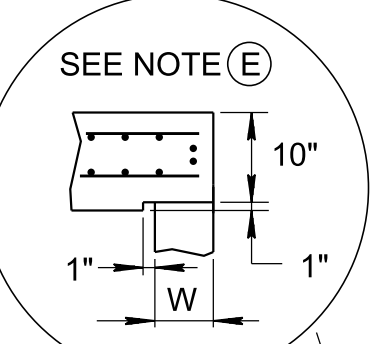


GRATE UNIT NO. 38

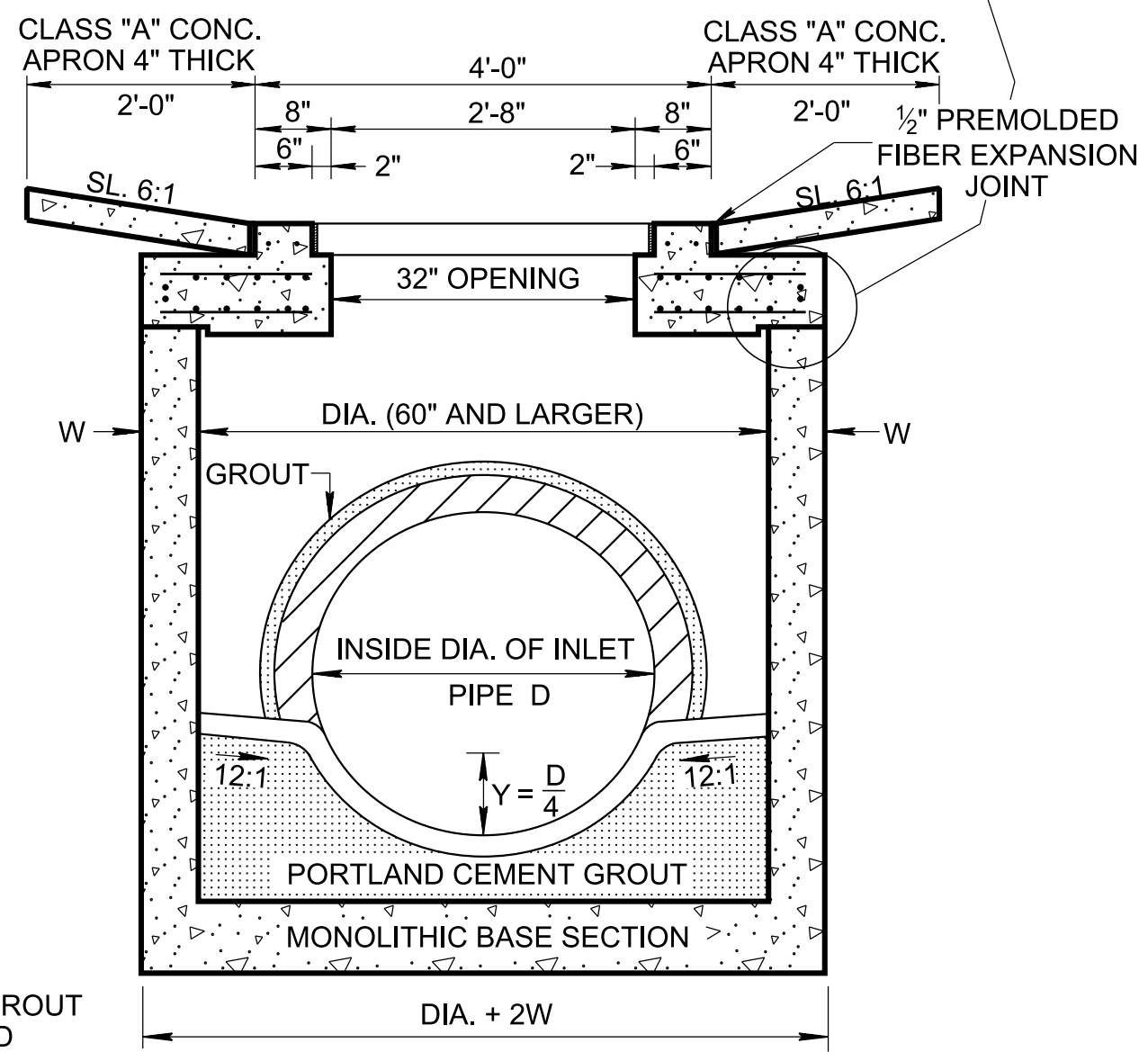
GRATE UNIT IS STRUCTURALLY DESIGNED BASED ON HS20 LOADING.



SECTION C-C



SECTION A-A



SECTION B-B

INSIDE DIA. OF CATCH BASIN DIA. (INCHES)	WALL THICKNESS W (INCHES)	LID THICKNESS L (INCHES)	OUTSIDE DIA. OF CATCH BASIN DIA. + 2W (INCHES)	MAX. INLET OR OUTLET CONC. PIPE SIZE - STR. (INCHES)	MAX. INLET OR OUTLET CONC. PIPE SIZE - 90° (INCHES)	DIMENSION	
						C (INCHES)	H (INCHES)
60	6	10	72	36	24	2.5	8
72	7	10	86	48	30	3.0	8
84	8	10	100	60	36	3.5	12
96	9	10	114	66	42	4.0	12

- GENERAL NOTES**
- (A) ALL PRECAST ELEMENTS TO MEET ASTM C478 (CURRENT EDITION) AND AASHTO M199 (CURRENT EDITION) UNLESS SUPERSEDED BY THIS DRAWING.
CONCRETE: $f_c = 4,000$ POUNDS PER SQUARE INCH AT 28 DAYS
REINFORCING STEEL: ASTM A615. $F_y = 60,000$ POUNDS PER SQUARE INCH
ALL REINFORCING IS TO BE INSTALLED AS DETAILED ON THIS DRAWING.
 - (B) PRECAST CATCH BASIN UNITS WHICH ARE DAMAGED DURING SHIPMENT OR INSTALLATION WILL BE REJECTED. IT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR TO REPLACE DAMAGED CATCH BASIN UNITS AT THEIR OWN EXPENSE.
 - (C) APPROPRIATE SIZING AND LOCATION OF LIFTING DEVICES SHALL BE THE RESPONSIBILITY OF THE FABRICATOR.
 - (D) THE CONTRACTOR IS TO PATCH ALL LIFTING DEVICE HOLES WITH GROUT AND PLACE A MINIMUM OF ONE (1) INCH OF COVER OVER THE HARDWARE OF THESE DEVICES ON BOTH TOP AND BOTTOM SURFACES.
 - (E) ALTERNATIVE JOINT DETAILS MAY BE ACCEPTABLE. SEE STANDARD DRAWING D-CB-99R FOR ADDITIONAL DETAILS.
 - (F) SEE ROADWAY PLANS DRAINAGE TABULATION FOR PIPE INLET AND OUTLET ELEVATIONS. IF NEEDED, INVERT ELEVATIONS MAY BE ADJUSTED AS DIRECTED BY THE ENGINEER IN ORDER TO ACCOMMODATE INLET AND OUTLET PIPES.
 - (G) FOR CASES WHERE THE OUTLET PIPE DIAMETER IS LARGER THAN THE INLET PIPE DIAMETER, A MINIMUM 23 INCH DEPTH (FOR 60 OR 72 INCH INSIDE DIAMETER CATCH BASIN) OR 27 INCH DEPTH (FOR 84 OR 96 INCH INSIDE DIAMETER CATCH BASIN) SHALL BE MAINTAINED ABOVE THE OUTLET PIPE.
 - (H) CONCRETE JOINT MATERIAL TO BE 1/2" PREMOLDED FIBER IN ACCORDANCE WITH SECTION 905 OF STANDARD SPECIFICATIONS.
 - (I) PAY DEPTH MEASUREMENT MADE FROM TOP OF GRATE TO OUTLET FLOW ELEVATION. PAYMENT INCLUDES GRATE. PAYMENT FOR CATCH BASIN WILL BE MADE UNDER ITEM NUMBERS:
611-38.01, CATCH BASINS, TYPE 38, 0'-4' DEPTH, EACH (THROUGH)
611-38.07, CATCH BASINS, TYPE 38, > 24'-28' DEPTH, EACH.
PAYMENT FOR CATCH BASINS DEEPER THAN 28' WILL BE MADE UNDER ITEM NUMBER:
611-38.08, CATCH BASINS, TYPE 38, ' - ' DEPTH, EACH.
WHEN CLASS "A" CONCRETE APRON IS USED, IT IS TO BE INCLUDED IN THE PRICE BID PER CATCH BASIN.

- REV. 1-19-99: ADDED CURB HEIGHT.
- REV. 5-27-01: CHANGED PAY ITEMS IN GENERAL NOTE (I). ADDED CATCH BASIN MAXIMUM DEPTH NOTE.
- REV. 9-5-04: CHANGED GROOVE DEPTH IN LID.
- REV. 8-01-12: REVISED CATCH BASIN LID FOR COMPLIANCE WITH AASHTO LRFD BRIDGE DESIGN SPECIFICATIONS, 4TH EDITION WITH INTERIMS. REVISED REINFORCING, GENERAL NOTES AND ADDITIONAL MISC. DRAFTING EDITS.
- REV. 9-24-12: MODIFIED TOP SLAB AND MINIMUM DEPTH.
- REV. 3-11-14: ELIMINATED STIRRUPS.
- REV. 05-15-18: REVISED CATCH BASIN MINIMUM DESIGN DEPTH VALUES. CORRECTED STANDARD SPECIFICATIONS SECTION NUMBER TO 921 FOR NON-SHRINK GROUT. UPDATED CATCH BASIN DIMENSION TABLE. ADDED DIMENSION IN SECTION VIEW A-A FOR MINIMUM DESIGN DEPTH. CORRECTED REBAR PLACEMENT IN LIDS.
- REV. 02-20-2020: REDREW SHEET.
- REV. 03-04-2021: REVISED GRATE UNIT NOTES.

APPROVED BY FHWA (ALL OTHERS APPROVED BY TDOT)

STATE OF TENNESSEE
STANDARD DRAWING
DEPARTMENT OF TRANSPORTATION

STANDARD PRECAST CIRCULAR NO. 38 CATCH BASIN