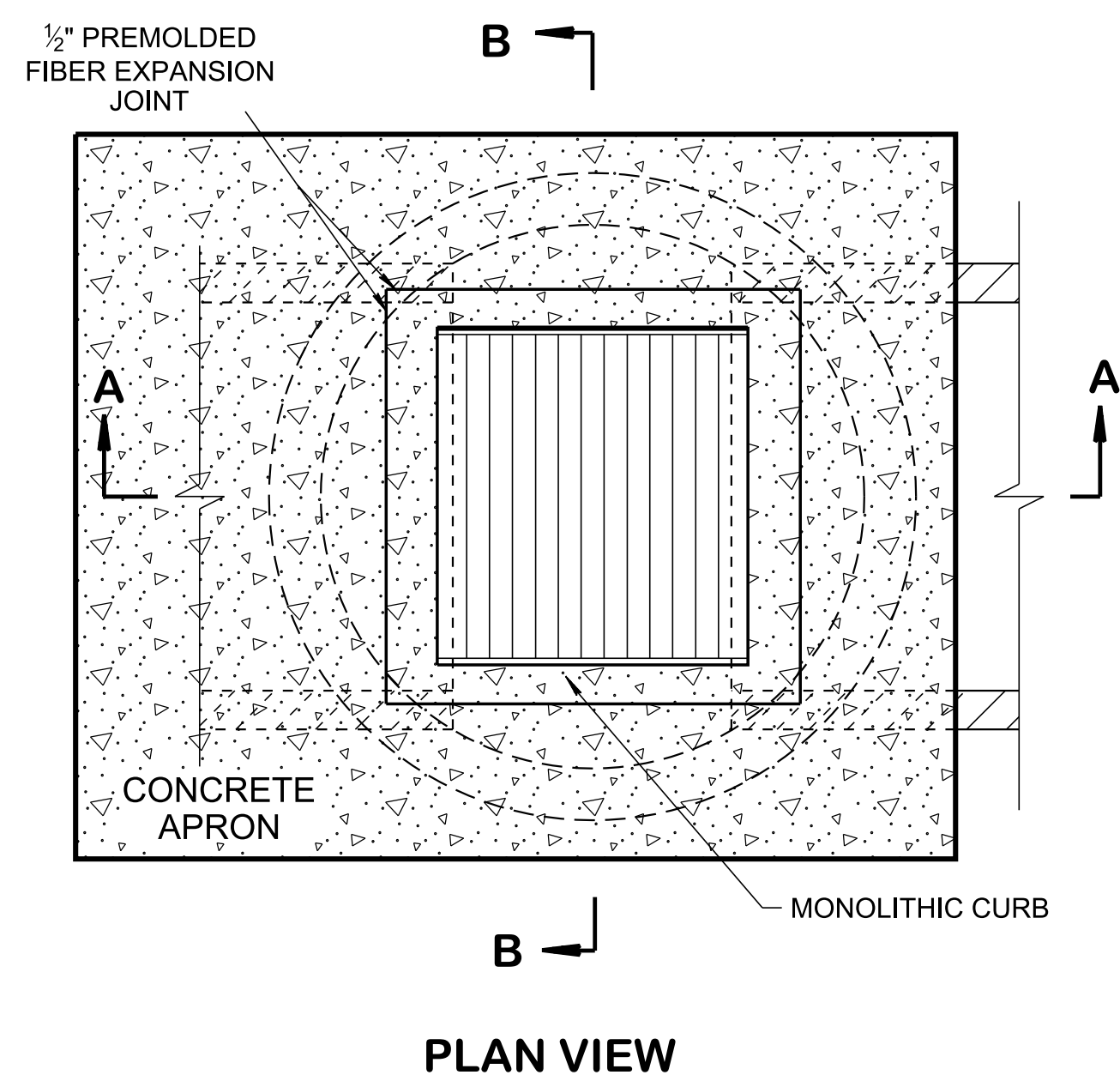
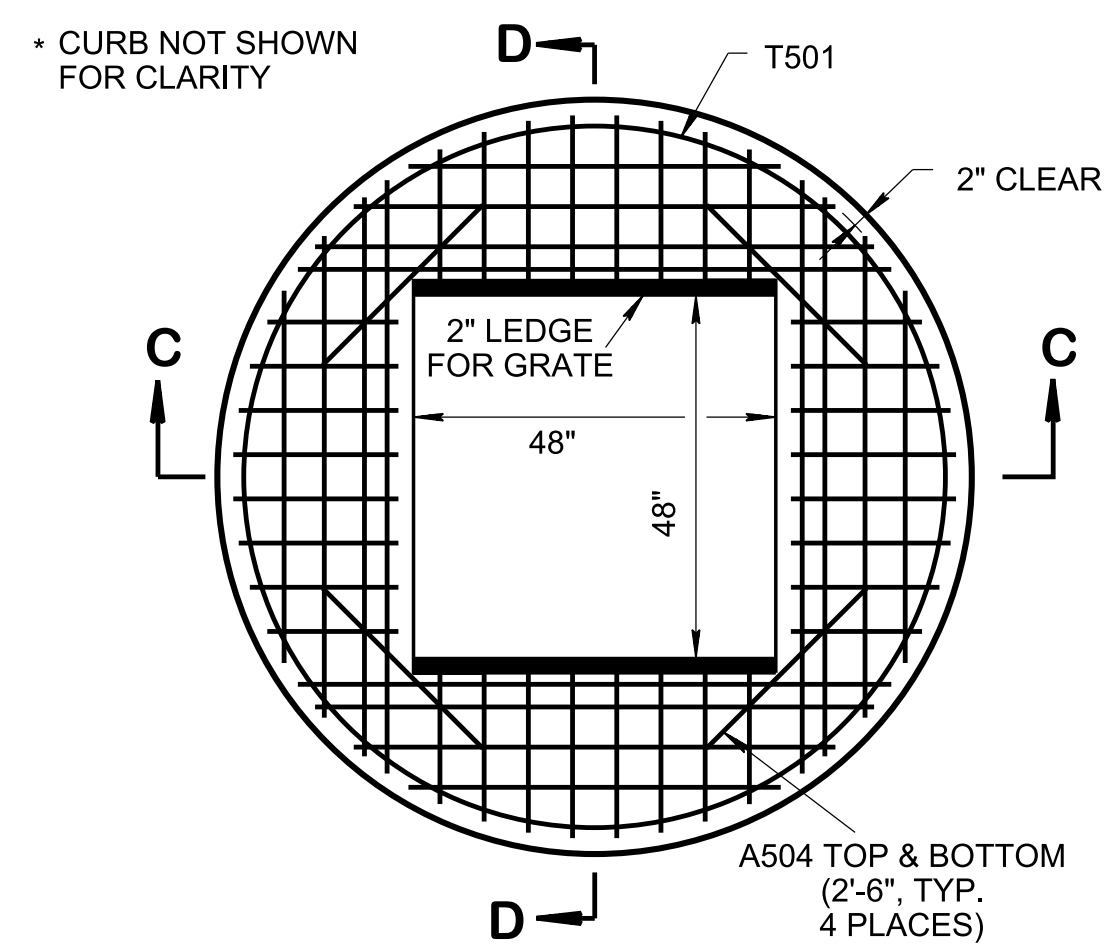


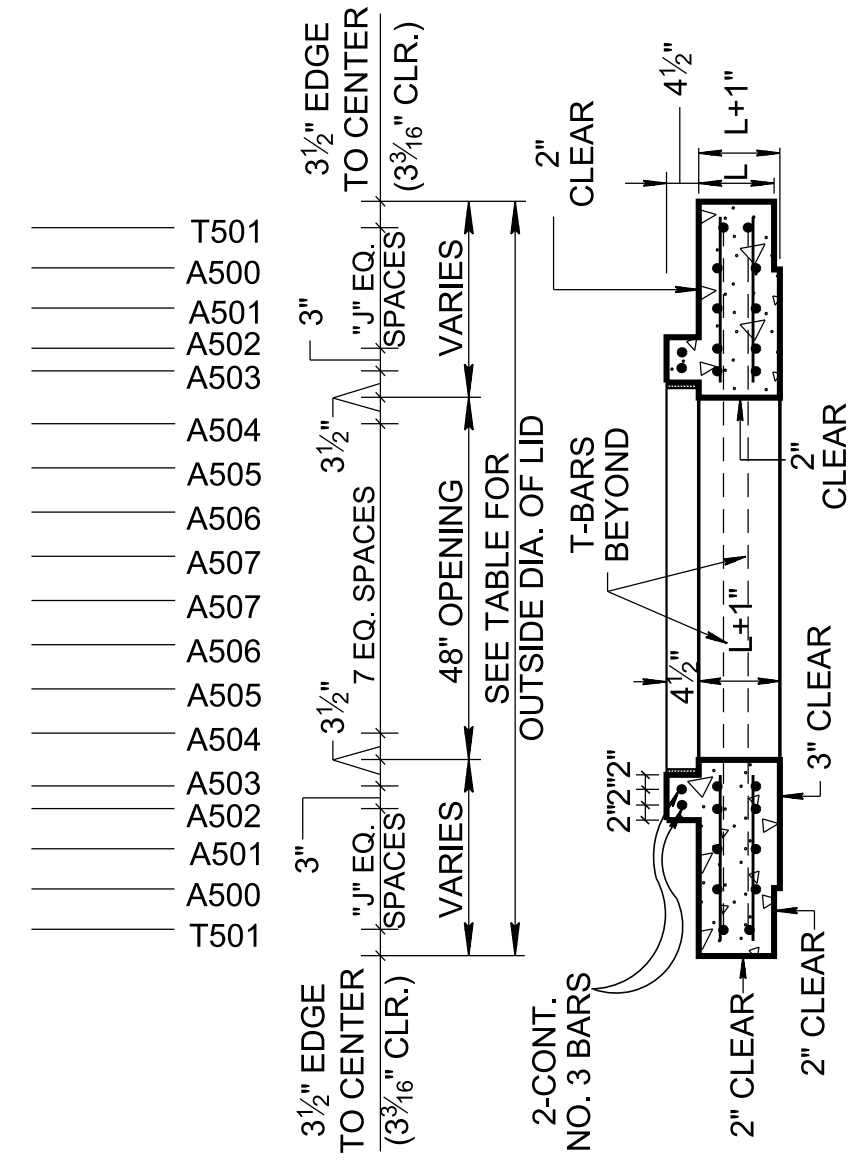
3/18/2021 10:21:37 AM P:\StandDraw\DESIGN STANDARDS\Standards Drawings\Standard Roadway Drawings - CURRENT\In Progress\10-102.00 Catch Basins and Manholes\10-102.00 Catch Basins\IP\DCB39RB-20210304.DGN



PLAN VIEW



LID REINFORCING



SECTION D-D

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

OUT-TO-OUT DIAMETER FOR T501 REINFORCING BARS EQUAL 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'"

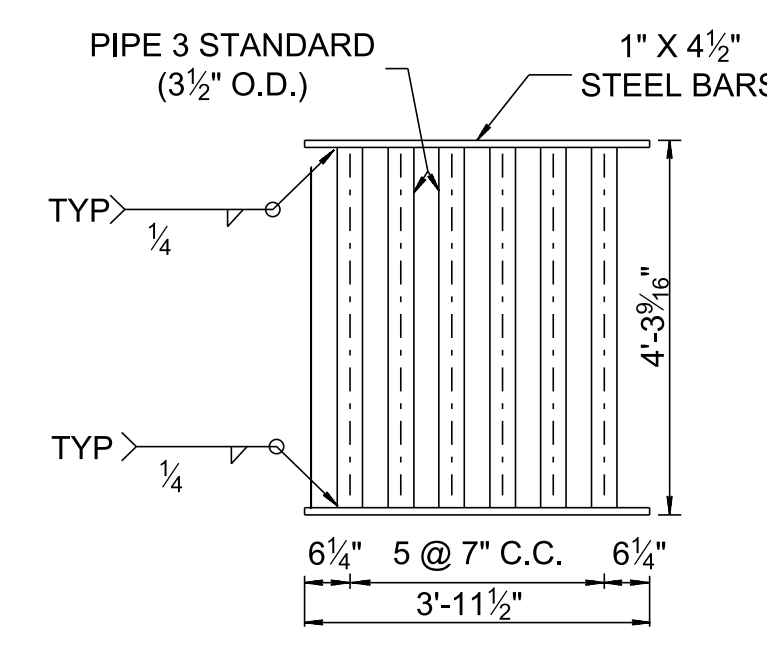
CATCH BASIN MAXIMUM DEPTH NOTE
MAXIMUM DEPTH FOR THIS STRUCTURE IS 40.00'.

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)	
			84"	96"	84"	96"
18	2 1/2	25	63	64 1/2	4.32	4.45
24	3	32	70	71 1/2	4.86	4.99
30	3 1/2	39	77	78 1/2	5.40	5.53
36	4	46	84	85 1/2	5.95	6.07
42	4 1/2	53	91	92 1/2	6.49	6.62
48	5	60	98	99 1/2	7.03	7.16
54	5 1/2	67	105	106 1/2	7.57	7.70
60	6	74	112	113 1/2	8.11	8.24
66	6 1/2	81	119	120 1/2	8.66	8.78

- CUT-OUT HOLES BASED ON REINFORCED CONCRETE PIPE WITH WALL TYPE "B".
- ALL FLEXIBLE PIPE MATERIALS REQUIRE GASKET. SEE STANDARD DRAWING D-PB-2.
- 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 UN CUT WILL NOT BE PERMITTED.

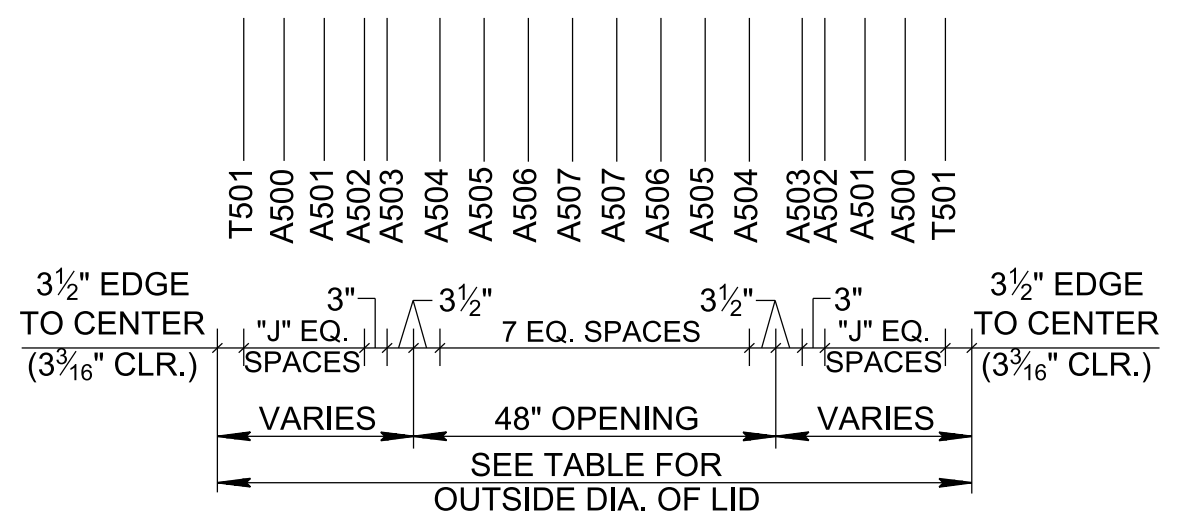
MATERIAL: STEEL BARS SHALL CONFORM TO ASTM A36. FOR THE PIPE CROSS MEMBERS, ASTM A53 GRADE B OR ASTM A500 GRADE B AND ALL SHALL BE GALVANIZED.

WELDING: AASHTO/AWS D1.5M/D1.5 BRIDGE WELDING CODE (LATEST EDITION)

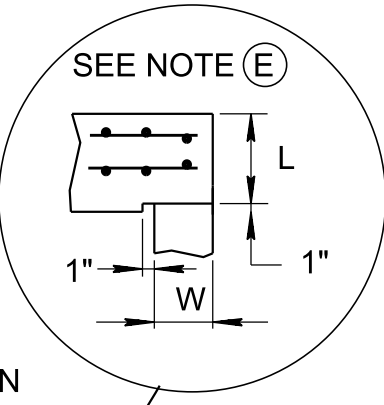


GRATE UNIT NO. 39

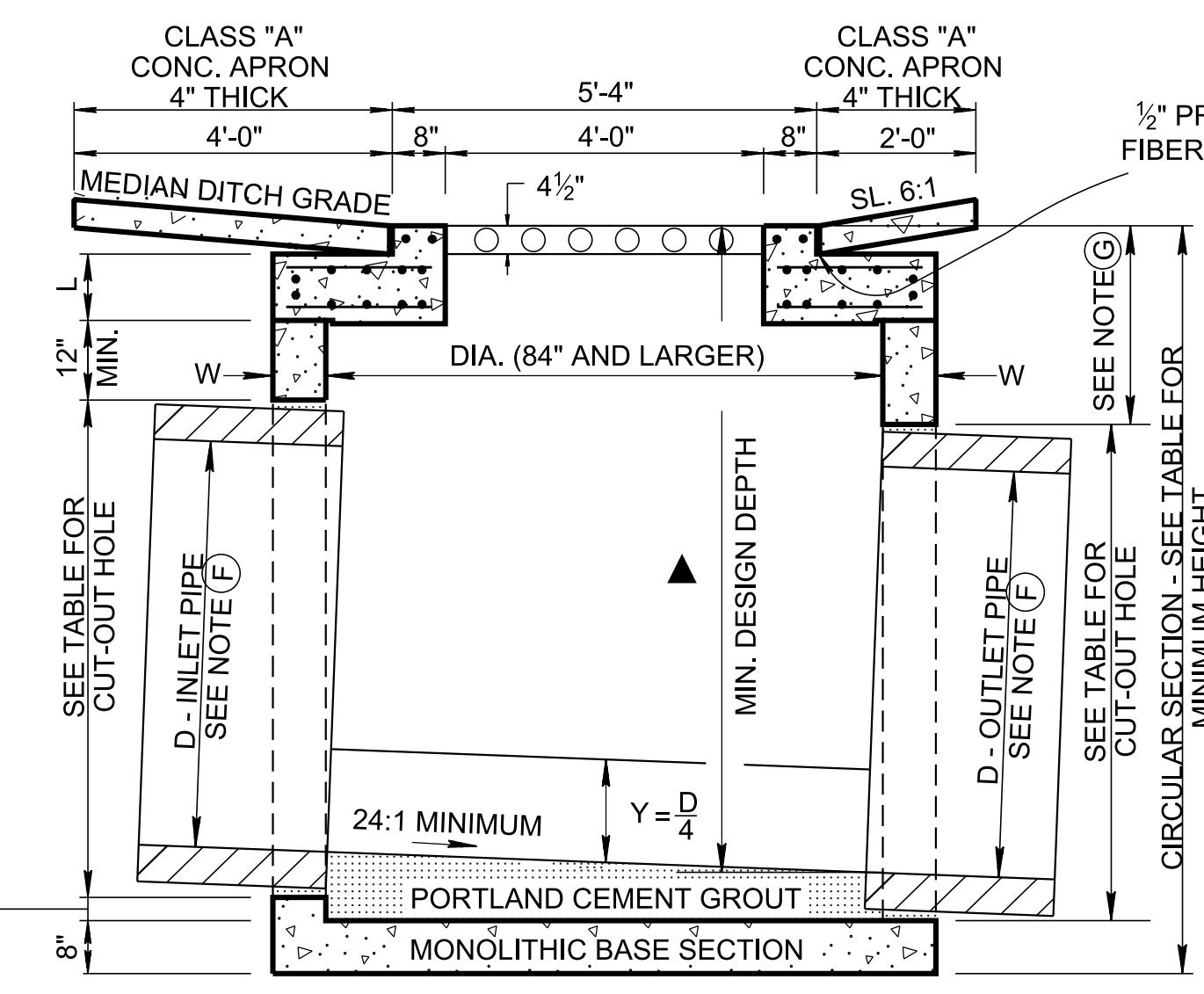
GRATE UNIT IS STRUCTURALLY DESIGNED BASED ON HS20 LOADING.



SECTION C-C

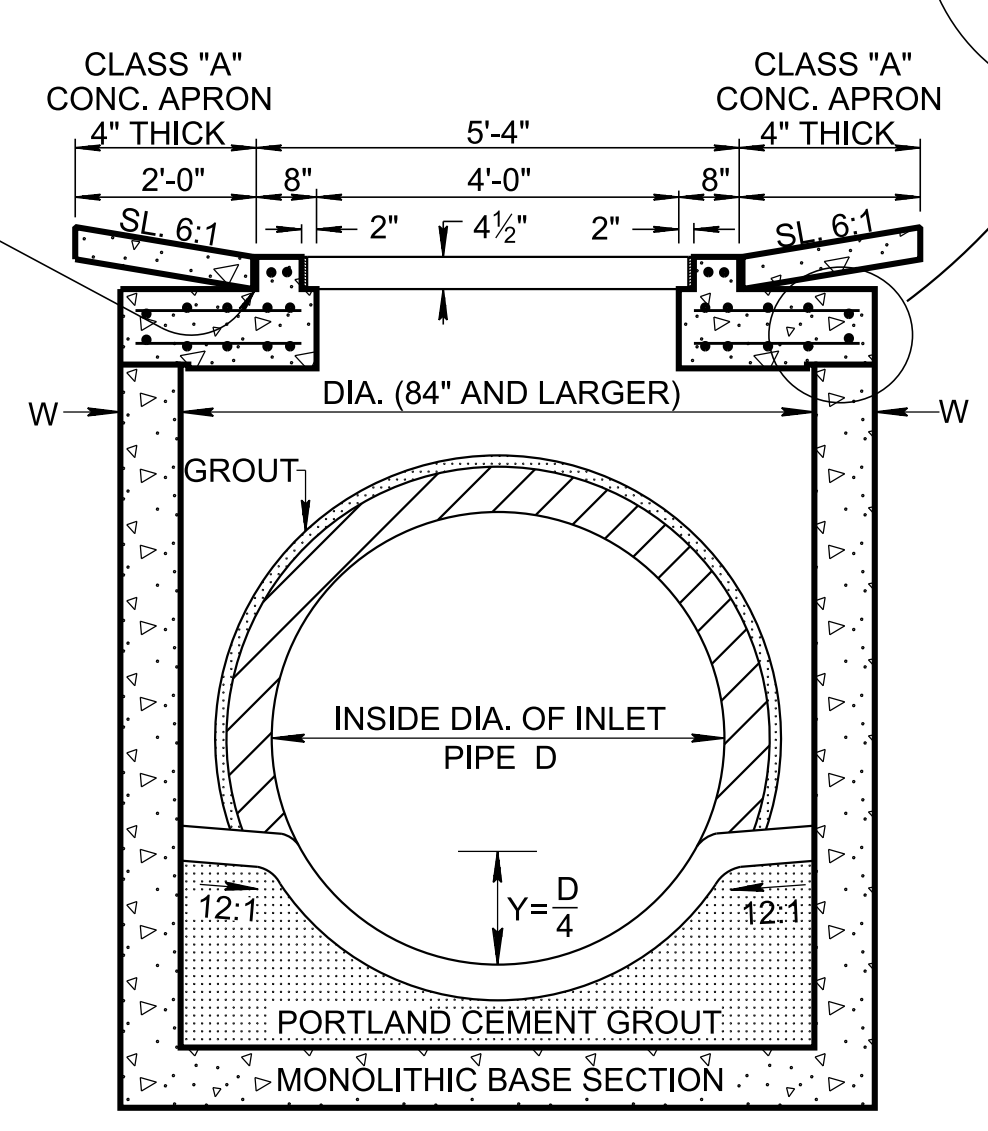


SEE NOTE (E)



SECTION A-A

NON-SHRINK GROUT PER STANDARD SPECIFICATIONS SECTION 921 REQUIRED AROUND PIPE OPENINGS ONLY



SECTION B-B

INSIDE DIA. OF CATCH BASIN DIA. (INCHES)	WALL THICKNESS W (INCHES)	LID THICKNESS L (INCHES)	OUTSIDE DIA. OF CATCH BASIN INSIDE DIA. + 2W (INCHES)	MAX. INLET OR OUTLET CONC. PIPE SIZE - STR. (INCHES)	MAX. INLET OR OUTLET CONC. PIPE SIZE - 90° (INCHES)	DIMENSION C (INCHES)
84	8	10	100	60	36	3.5
96	9	11	114	66	42	4.0

GENERAL NOTES

- 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.
- 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.
- APPROPRIATE SIZING AND LOCATION OF LIFTING DEVICES SHALL BE THE RESPONSIBILITY OF THE FABRICATOR.
- 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.
- ALTERNATIVE JOINT DETAILS MAY BE ACCEPTABLE. SEE STANDARD DRAWING D-CB-99R FOR ADDITIONAL DETAILS.
- 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.
- FOR CASES WHERE THE OUTLET PIPE DIAMETER IS LARGER THAN THE INLET PIPE DIAMETER, A MINIMUM 26 1/2 INCH (FOR 84 INCH INSIDE DIAMETER CATCH BASIN) OR 27 1/2 INCH (FOR 96 INCH INSIDE DIAMETER CATCH BASIN) DEPTH SHALL BE MAINTAINED ABOVE THE OUTLET PIPE.
- CONCRETE JOINT MATERIAL TO BE 1/2" PREMOLDED FIBER IN ACCORDANCE WITH SECTION 905 OF STANDARD SPECIFICATIONS.
- 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:
611-39.02, CATCH BASINS, TYPE 39, > 4'-8" DEPTH, EACH (THROUGH)
611-39.07, CATCH BASINS, TYPE 39, > 24'-28" DEPTH, EACH.
PAYMENT FOR CATCH BASINS DEEPER THAN 28' WILL BE MADE UNDER ITEM NUMBER:
611-39.08, CATCH BASINS, TYPE 39, _'-_' DEPTH, EACH.
WHEN CLASS "A" CONCRETE APRON IS USED, IT IS TO BE INCLUDED IN THE PRICE BID PER CATCH BASIN.

- REV. 11-25-98: CHANGED LABELING ON PLAN VIEW OF GRATE UNIT AND SIZE OF STEEL BARS IN GRATE UNIT.
- REV. 1-19-99: MODIFIED CATCH BASIN MINIMUM DEPTH TABLE.
- REV. 5-27-01: CHANGED PAY ITEMS IN GENERAL NOTE (H). ADDED CATCH BASIN MAXIMUM DEPTH NOTE.
- REV. 8-01-12: REVISED CATCH BASIN LID FOR COMPLIANCE WITH LRFD BRIDGE DESIGN SPECIFICATIONS, 4TH EDITION WITH INTERIMS. REVISED REINFORCING, GENERAL NOTES AND ADDITIONAL MISC. DRAFTING EDITS.
- REV. 9-24-12: ADDED BAR DESIGNATION FOR CONTINUOUS #3 BARS AROUND GRATE AND MODIFIED TOP SLAB.
- 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. 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. 39 CATCH BASIN