



OUT-TO-OUT DIAMETER FOR T501 REINFORCING BARS  
EQUALS OUTSIDE DIAMETER OF LID MINUS 6 $\frac{3}{8}$  INCHES.

The diagram illustrates a cross-section of a circular manhole. Key components and dimensions include:

- Top Structure:** A concrete curb with a 34" opening, topped with a grate frame. The curb is labeled "CONC. CURB" and "CURB IRON CURB OPENING".
- Manhole Body:** A circular structure with a diameter labeled "DIA. (84" THRU 120")". The walls are labeled "W".
- Base Section:** A "MONOLITHIC BASE SECTION" made of "PORTLAND CEMENT GROUT". The base has a minimum slope of "24:1 MINIMUM" and a depth labeled "Y =  $\frac{D}{4}$ ".
- Pipes:** An "INLET PIPE" and an "OUTLET PIPE" are shown, both labeled "D - INLET PIPE" and "D - OUTLET PIPE".
- Dimensions:**
  - Vertical dimensions on the left: "C" MIN.", "U", "12" MIN.", "10", "5" 6", and "SEE NOTE (I)".
  - Vertical dimensions on the right: "SEE NOTE (H)" and "CIRCULAR SECTION - SEE TABLE FOR MINIMUM HEIGHT".
  - Horizontal dimensions: "34" OPENING" and "DIA. (84" THRU 120")".
- Notes:**
  - "SEE NOTE (I)" is associated with the top vertical dimensions.
  - "SEE NOTE (H)" is associated with the right vertical dimension.
  - "SEE NOTE (G)" is associated with the inlet and outlet pipes.
  - "SEE TABLE FOR CUT-OUT HOLE" is associated with the inlet and outlet pipes.
  - "SEE TABLE FOR MINIMUM HEIGHT" is associated with the circular section.

**SECTION A-A**



### CATCH BASIN DIMENSIONS

☒ MINOR REVISION -- FHWA  
APPROVAL NOT REQUIRED.

STATE OF TENNESSEE  
DEPARTMENT OF TRANSPORTATION

STANDARD PRECAST  
84" THRU 120"  
CIRCULAR NO.13  
CATCH BASIN  
(FOR USE WITH 6"  
NONMOUNTABLE CURB)

NOT TO SCALE

4-15-00

D-CB-13RC

### CATCH BASIN DIMENSIONS

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- REV. 9-24-12:  
MODIFIED TOP SLAB  
AND MINIMUM DEPTH.
- REV. 3-11-14:  
ELIMINATED STIRRUP

REV. 5-27-01: CHANGED PAY ITEMS IN  
GENERAL NOTE (J) ADDED CATCH BASIN  
MAXIMUM DEPTH NOTE.

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.

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.

Ⓐ 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.

THIS DIMENSION MAY VARY FROM A MINIMUM OF 0 INCHES TO A MAXIMUM OF 24 INCHES AS LONG AS 27 INCHES IS SATISFIED. THE CONTRACTOR HAS THE OPTION OF USING BRICK OR STANDARD PRECAST CONCRETE RISER FRAMES. THE USE OF BRICK SHALL BE LIMITED TO 6 INCHES. IF THIS DIMENSION EXCEEDS 6 INCHES, PRECAST CONCRETE RISER FRAMES SHALL BE USED AS SHOWN ON STANDARD DRAWING D-RF-1.

① 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 HIS OWN EXPENSE.

(D) APPROPRIATE SIZING AND LOCATION OF LIFTING DEVICES SHALL BE THE RESPONSIBILITY OF THE FABRICATOR.

(E) 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.

(F) ALTERNATIVE JOINT DETAILS MAY BE ACCEPTABLE. SEE STANDARD DRAWING D-CB-99R FOR ADDITIONAL DETAILS.

⑨ SEE ROADWAY PLANS DRAINAGE TABULATION FOR PIPE INLET AND OUTLET ELEVATIONS. INVERT ELEVATIONS ARE TO BE ADJUSTED AS DIRECTED BY THE ENGINEER IN ORDER TO ACCOMMODATE INLET AND OUTLET PIPES.

(H) FOR CASES WHERE THE OUTLET PIPE DIAMETER IS LARGER THAN THE INLET PIPE DIAMETER, A MINIMUM 27 INCH DEPTH SHALL BE MAINTAINED ABOVE THE OUTLET PIPE.

(1) SEE STANDARD DRAWING D-CBB-13 FOR DETAILS REGARDING CAST IRON GRATES, FRAMES AND CURB INLETS.

① SEE STANDARD DRAWING D-CB-13RA FOR DETAILS REGARDING 48" CIRCULAR NO. 13 CATCH BASIN (FOR USE WITH 6" NONMOUNTABLE CURB).

(K) SEE STANDARD DRAWING D-CB-13RB FOR DETAILS REGARDING 60" AND 72" CIRCULAR NO. 13 CATCH BASIN (FOR USE WITH 6" NONMOUNTABLE CURB).

(L) PAY DEPTH MEASUREMENT MADE FROM TOP OF GRATE TO OUTLET FLOW ELEVATION. PAYMENT FOR CATCH BASIN WILL BE MADE UNDER ITEM NUMBERS 611-13.02 CATCH BASINS, TYPE 13, > 4'-8' DEPTH THROUGH 611-13.07, CATCH BASINS, TYPE 13, > 24'-28' DEPTH PER EACH. PAYMENT FOR CATCH BASINS DEEPER THAN 28' WILL BE MADE UNDER ITEM NUMBER 611-13.08, CATCH BASINS, TYPE 13, \_\_\_\_'-\_\_\_\_' DEPTH PER EACH. PAYMENT INCLUDES RISER SECTION AND GRATE.