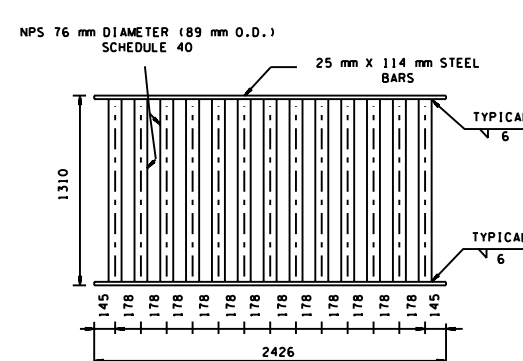
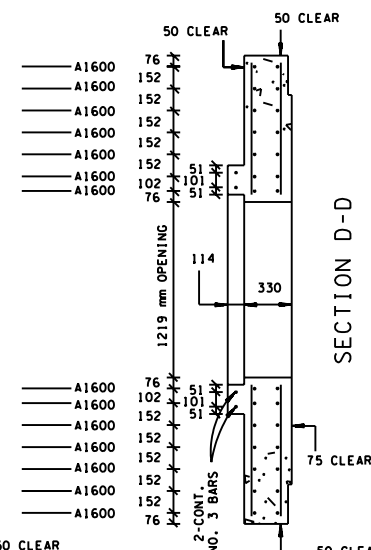
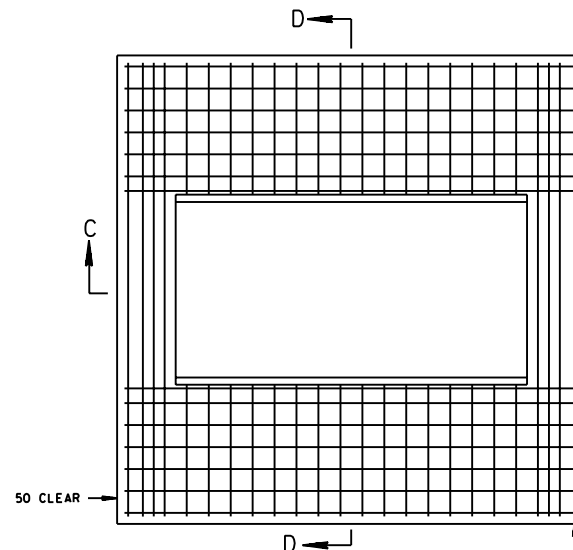
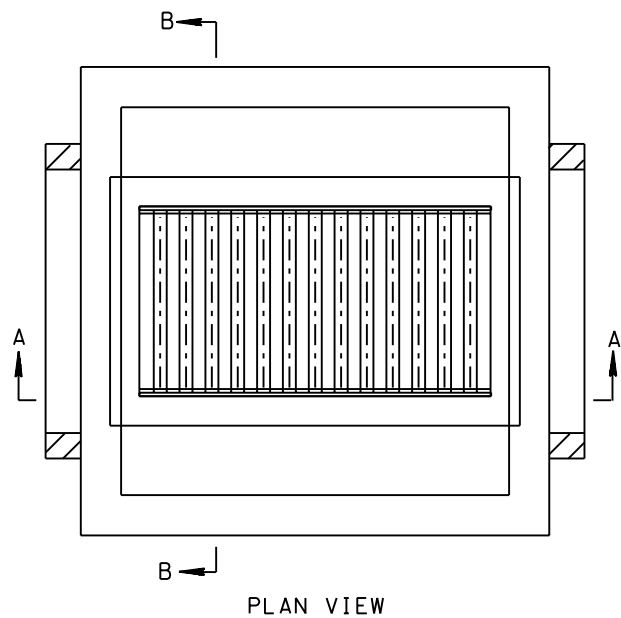




CATCH BASIN MAXIMUM DEPTH NOTE
MAXIMUM DEPTH FOR THIS STRUCTURE IS 8.5 m.
WHEN DEPTH REQUIREMENTS EXCEED THIS DEPTH
THE CONTRACTOR IS TO USE OTHER VERSIONS OF
THE NO.40 CATCH BASIN, WHICH WILL BE SHOWN
AS A DETAIL IN THE PLANS SECOND SHEETS.

NOTE: MATERIAL FOR GRATE
SPECIFICATIONS FOR STEEL BARS SHALL CONFORM TO ASTM A36M.
FOR THE PIPE CROSS MEMBERS, ASTM A53 TYPE E OR S GRADE
A OR B. THE GRATE UNIT SHALL BE PAINTED BLACK, FEDERAL
SPEC. TT-E-489G.

WELDING:
AWS SPECIFICATIONS D1.1-72 AS MODIFIED BY THE CURRENT
AASHTO STD. SPECIFICATIONS FOR WELDING OF HIGHWAY BRIDGES.

GRATE UNIT NO. 40

GRATE UNIT IS STRUCTURALLY DESIGNED TO CARRY
LOW SPEED MAINTENANCE VEHICLES ONLY.

CATCH BASIN DIMENSIONS

INSIDE WIDTH OF CATCH BASIN (mm)	WALL THICKNESS W (mm)	OUTSIDE WIDTH OF CATCH BASIN (mm)	MAX. INLET OR OUTLET CONC. PIPE SIZE - STR. (mm)	MAX. INLET OR OUTLET CONC. PIPE SIZE - 90° (mm)	DIMENSION C (mm)
2743	254	3251	1950	1800	114

CUT-OUT HOLES FOR INLET & OUTLET PIPES

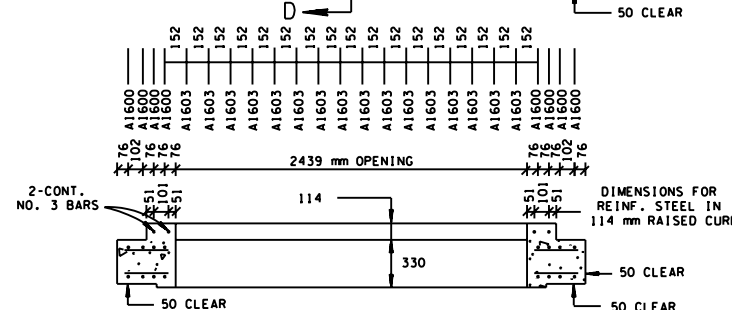
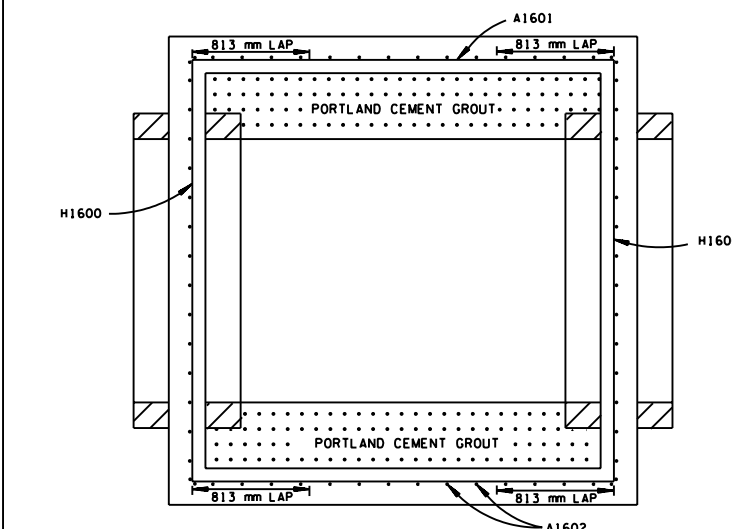
INSIDE DIAMETER (X) OF PIPE (mm)	DIAMETER OF CUT-OUT HOLES F & G - (mm)		
	CONCRETE PIPE	CORRUGATED METAL PIPE	POLYETHYLENE PIPE
450	660	535	610
600	815	685	785
750	1015	840	990
900	1195	1015	1145
1050	1370	1170	1270
1200	1550	1320	1420
1350	1730	1475	—
1500	1905	1625	—
1650	2085	1780	—
1800	2260	1930	—
1950	2440	2085	—

CATCH BASIN MINIMUM DEPTH TABLE

INSIDE DIAMETER (X) OF PIPE (mm)	MINIMUM DEPTH - (m)		
	CONCRETE PIPE	CORRUGATED METAL PIPE	POLYETHYLENE PIPE
450	1.35	1.28	1.32
600	1.50	1.44	1.49
750	1.68	1.59	1.66
900	1.84	1.75	1.82
1050	2.01	1.91	1.96
1200	2.17	2.06	2.11
1350	2.34	2.21	—
1500	2.50	2.36	—
1650	2.67	2.51	—
1800	2.83	2.67	—
1950	3.00	2.82	—

CUT- OUT HOLES FOR PRECAST STRUCTURES TO BE CORED OR FORMED IN
ORDER TO OBTAIN A SMOOTH EGED HOLE. SCORED OR ETCHED HOLES WITH
REINFORCING STEEL LEFT UNCUT WILL NOT BE PERMITTED.

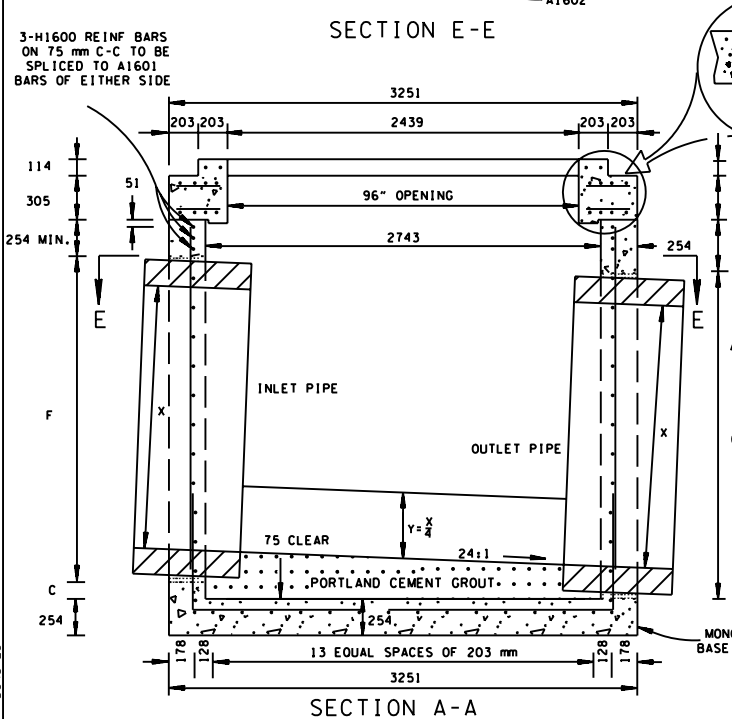
- 1 DEPTH MEASUREMENT MADE FROM TOP OF GRATE TO OUTLET FLOW
ELEVATION BASED ON INLET AND OUTLET PIPES BEING THE SAME
DIAMETER, IF OUTLET PIPE IS GREATER ADJUSTMENT IN DEPTHS
MUST BE MADE TO ACCOMMODATE THIS SITUATION.
- 2 TO DETERMINE FLOOR OF CATCH BASIN ELEVATION, WHEN INLET
AND OUTLET PIPES ARE THE SAME SIZE, ADD PIPE WALL
THICKNESS PLUS 40 mm TO THE ABOVE MINIMUM DEPTHS.



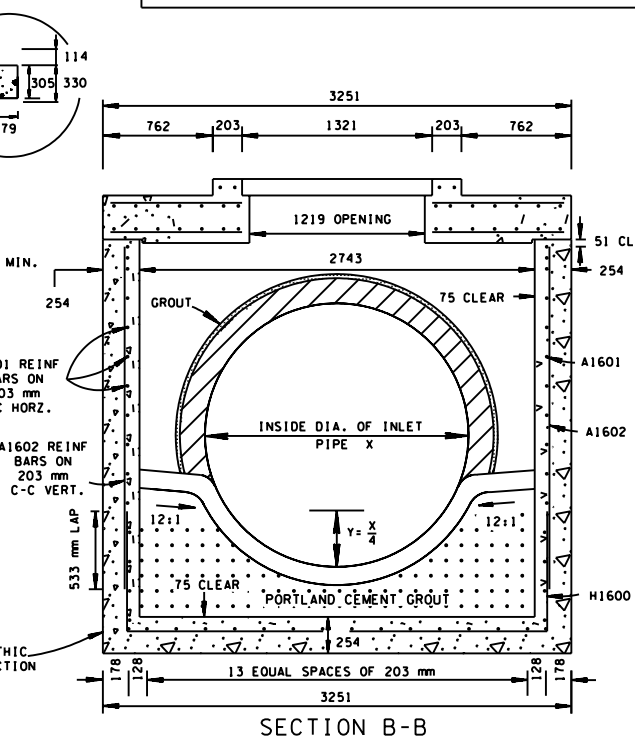
SECTION C-C

REINFORCING STEEL LEGEND

3150	A1600
2945	A1601
VARIABLE	A1602
915	A1603



SECTION A-A



SECTION B-B

GENERAL NOTES

- (A) DRAWING TO BE USED FOR ALL CAST-IN-PLACE NO. 40 CONCRETE CATCH BASINS AND ALL PRECAST NO. 40 CONCRETE CATCH BASINS.
- (B) CAST-IN-PLACE CONCRETE CATCH BASINS SHALL BE CONSTRUCTED IN ACCORDANCE WITH STANDARD SPECIFICATIONS, SECTION 611 AND/OR SPECIAL PROVISIONS.
- (C) THE CONTRACTOR MAY WITH PERMISSION FROM THE ENGINEER SUBSTITUTE PRECAST CATCH BASINS FOR CAST-IN-PLACE CATCH BASINS PROVIDED THAT ALL PRECAST ELEMENTS MEET ASTM M913 (CURRENT EDITION) UNLESS SUPERSEDED BY THIS DRAWING.
CONCRETE: $f'_c = 28 \text{ MPa}$ AT 28 DAYS
REINFORCING STEEL: ASTM A615M, $f_y = 415 \text{ MPa}$
ALL REINFORCING IS TO BE INSTALLED AS DETAILED ON THIS DRAWING.
- (D) 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.
- (E) ADDITIONAL REINFORCING STEEL NECESSARY ABOVE THE CORED OR FORMED CUT-OUT HOLES TO MAINTAIN THE INTEGRITY OF THE STRUCTURE DURING HANDLING AND PLACEMENT SHALL BE THE RESPONSIBILITY OF THE FABRICATOR.
- (F) APPROPRIATE SIZING AND LOCATION OF LIFTING DEVICES SHALL BE THE RESPONSIBILITY OF THE FABRICATOR TO ASSURE BALANCED HANDLING DURING INSTALLATION OF THE CATCH BASIN.
- (G) THE CONTRACTOR IS TO PATCH ALL LIFTING DEVICE HOLES AND PLACE A MINIMUM OF 25 mm OF COVER OVER THE HARDWARE OF THESE DEVICES ON BOTH TOP AND BOTTOM SURFACES.
- (H) INVERT ELEVATIONS ARE TO BE ADJUSTED AS DIRECTED BY THE ENGINEER IN ORDER TO ACCOMMODATE INLET AND OUTLET PIPES.
- (I) PAYMENT FOR CATCH BASIN WILL BE MADE UNDER ITEM NUMBERS 611M40.02 CATCH BASINS, TYPE 40, > 1m-2m DEPTH THROUGH 611M40.09, CATCH BASINS, TYPE 40, > 8m-9m DEPTH PER EACH.



ALL UNITS ARE IN MILLIMETERS
UNLESS NOTED OTHERWISE.

MINOR REVISION -- FHWA
APPROVAL NOT REQUIRED.

STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION

STANDARD
2743 mm X 2743 mm
SQUARE CONCRETE
NO. 40
CATCH BASIN

9-11-04 DM-CB-40SE