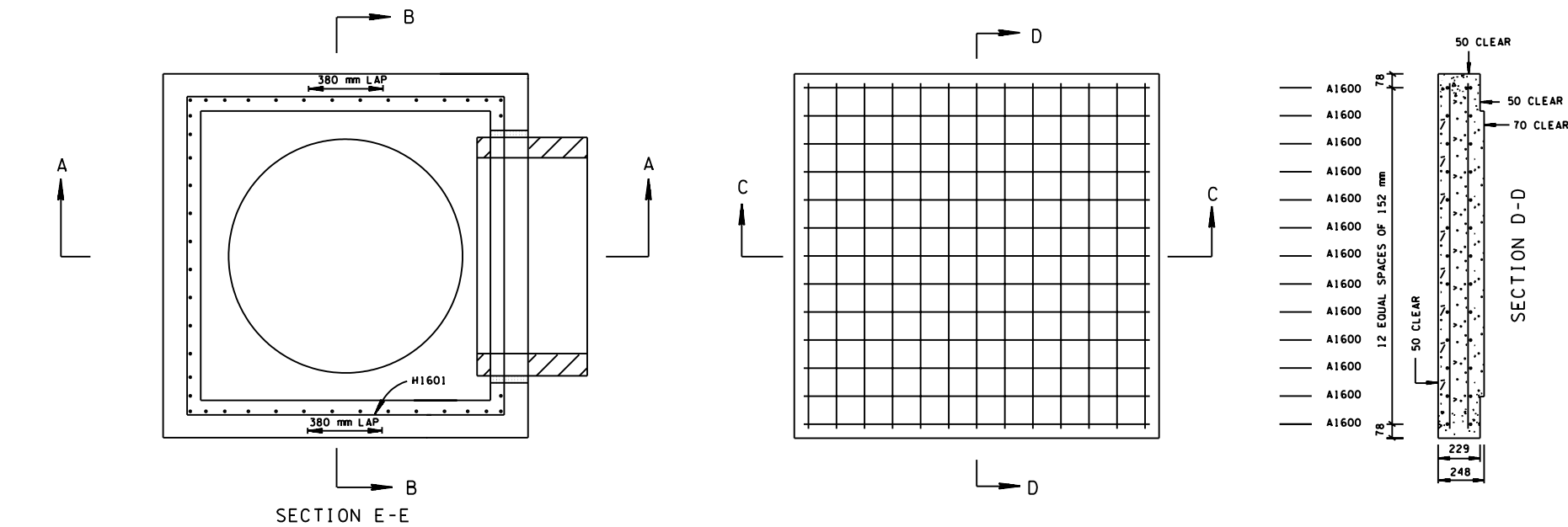


REV. 5-27-01: CHANGED PAY ITEM IN GENERAL NOTE ①
REV. 7-29-02: CHANGED ASTM SPECIFICATION IN GENERAL NOTE ①

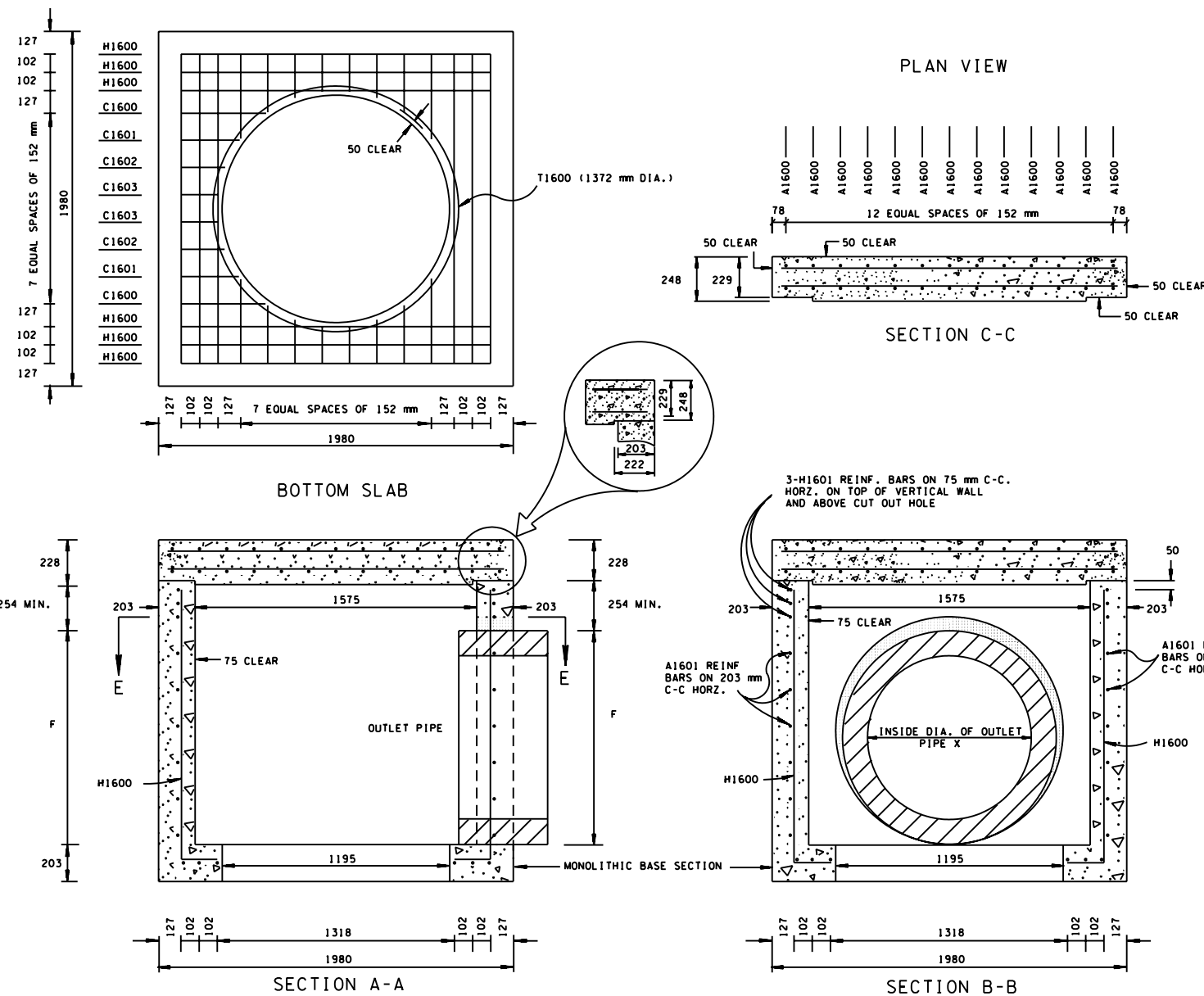


SPRING DRAIN BOX HEIGHT TABLE			
INSIDE DIAMETER (X) OF PIPE (mm)	MINIMUM HEIGHT - (m)		
	CONCRETE PIPE	CORRUGATED METAL PIPE	POLYETHYLENE PIPE
900	1.54	1.45	1.51

- ① DEPTH MEASUREMENT MADE FROM TOP OF SLAB TO OUTLET FLOW ELEVATION.
② TO DETERMINE FLOOR OF SPRING DRAIN BOX ELEVATION, ADD PIPE WALL THICKNESS PLUS 40 mm TO THE ABOVE HEIGHT TABLE.

CUT-OUT HOLES FOR PIPES			
INSIDE DIAMETER (X) OF PIPE (mm)	DIAMETER OF CUT-OUT HOLES F - (mm)		
	CONCRETE PIPE	CORRUGATED METAL PIPE	POLYETHYLENE PIPE
900	1195	1015	1145

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



- GENERAL NOTES
- (A) DRAWING TO BE USED FOR ALL CAST-IN-PLACE NO. 3A CONCRETE SPRING DRAIN BOXES AND ALL PRECAST NO. 3A CONCRETE SPRING DRAIN BOXES.
- (B) EMBANKMENT OVER THIS STRUCTURE MAY BE PLACED AT A DEPTH UP TO 15 METERS.
- (C) CAST-IN-PLACE CONCRETE SPRING DRAIN BOXES SHALL BE CONSTRUCTED IN ACCORDANCE WITH STANDARD SPECIFICATIONS, SECTION 611 AND/OR SPECIAL PROVISIONS.
- (D) 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CATCH BASINS FOR CAST-IN-PLACE CATCH BASINS PROVIDED THAT ALL PRECAST ELEMENTS MEET ASTM M913 (CURRENT EDITION) UNLESS SUPERSEDED BY THIS DRAWING.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.
- (E) PRECAST SPRING DRAIN BOX UNITS WHICH ARE DAMAGED DURING SHIPMENT OR INSTALLATION WILL BE REJECTED. IT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR TO REPLACE DAMAGED SPRING DRAIN BOX UNITS AT HIS OWN EXPENSE.
- (F) 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.
- (G) APPROPRIATE SIZING AND LOCATION OF LIFTING DEVICES SHALL BE THE RESPONSIBILITY OF THE FABRICATOR TO ASSURE BALANCED HANDLING DURING INSTALLATION OF THE SPRING DRAIN BOX.
- (H) 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.
- (I) INVERT ELEVATIONS ARE TO BE ADJUSTED AS DIRECTED BY THE ENGINEER IN ORDER TO ACCOMMODATE INLET AND OUTLET PIPES.
- (J) PAYMENT FOR SPRING DRAIN BOX WILL BE MADE UNDER ITEM NUMBER 611M02.04 SPRING DRAIN BOX, TYPE 3A PER EACH.

REINFORCING STEEL LEGEND			
1880	A1600	1500	1500
1448	A1601	890	890
1755	H1600	1500	1500
1780	H1601	1500	1500
395	C1600	1500	1500
240	C1602	1500	1500
330	C1601	1500	1500
203	C1603	1500	1500



ALL UNITS ARE IN MILLIMETERS UNLESS NOTED OTHERWISE.

MINOR REVISION -- FHWA APPROVAL NOT REQUIRED.

STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION

STANDARD
1575 mm x 1575 mm
SQUARE
CONCRETE NO. 3A
SPRING DRAIN BOX
5-27-98 DM-SDS-3A