PROJECT NOTE: 1. Frame and cover dimensions may vary slightly to allow manufacturer's standards. 2. MASS: (Approximate, cast iron) Frame -  $86 \pm 4$  lb. Frame and cover Cover -  $83 \pm 4$  lb. Collar (Precast) Pavement 3. All reinforcing bars are #5 placed a minimum  $1\frac{1}{2}$ -inch clear from face of concrete. In floors, place bars on 6-inch centers each way. In walls, place horizontal bars on 6-inch centers and vertical bars on 12-inch centers. 2'-4" #5 Bar (2'-0" dia.) -1'-10" Machine Machine Concrete Pipe Culvert 13/4" Machine 1'-8¾" 1'-10" 11/4" 1'-9¾" 6" 1'-8¾" 2'-8¾" SECTION B-B SECTION C-C SECTION A-A Frame Pavement (Cover not shown) **↓**C B A  $\frac{3}{4}$ " x  $1\frac{1}{2}$ " slot (typ.) **COVER** FRAME Collar

**PLAN** 

U.S. DEPARTMENT OF TRANSPORTATION, FHWA OFFICE OF FEDERAL LANDS HIGHWAY

MANHOLE

NO SCALE

U.S. DEPARTMENT OF TRANSPORTATION, FHWA 604-9

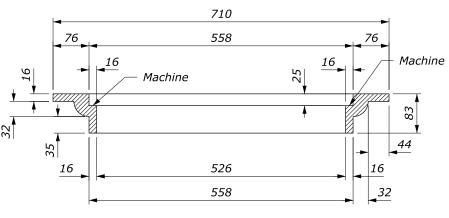
SPECIFICATION FP-24, FP-14

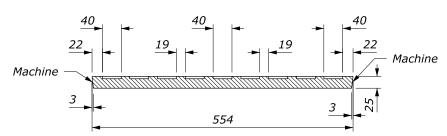
APPROVED FOR USE 1/2024

PROJECT

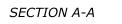
## NOTE:

- 1. Frame and cover dimensions may vary slightly to allow manufacturer's standards.
- 2. MASS: (Approximate, cast iron) Frame -  $39 \pm 2 \text{ kg}$ Cover -  $38 \pm 2 \text{ kg}$
- 3. All reinforcing bars are #16 placed a minimum 40 mm clear from face of concrete. In floors, place bars on 150 mm centers each way. In walls, place horizontal bars on 150 mm centers and vertical bars on 300 mm centers.





SECTION C-C



Pipe Culvert

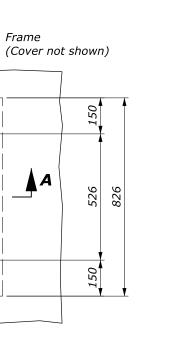
526

826

150

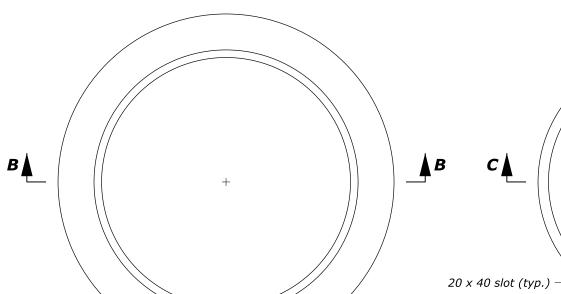
150

Frame

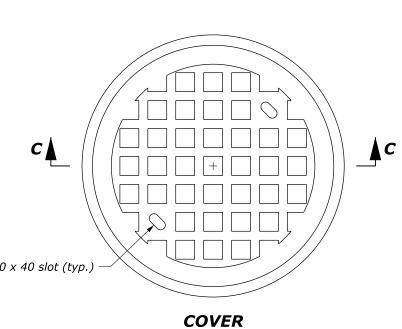


Frame and cover Collar (Precast)

006



SECTION B-B



NO SCALE

FRAME

This drawing contains **Metric** units of measure. Dimensions without units are millimeters.

U.S. DEPARTMENT OF TRANSPORTATION, FHWA OFFICE OF FEDERAL LANDS HIGHWAY	FLH STANDARD M604-9
MANHOLE	1100+ 3
	SPECIFICATION
	FP-24, FP-14
	APPROVED FOR USE
	1/2024

**PLAN** 

Pavement

#16 Bar (600 dia.)

Pavement

A

Collar

Concrete