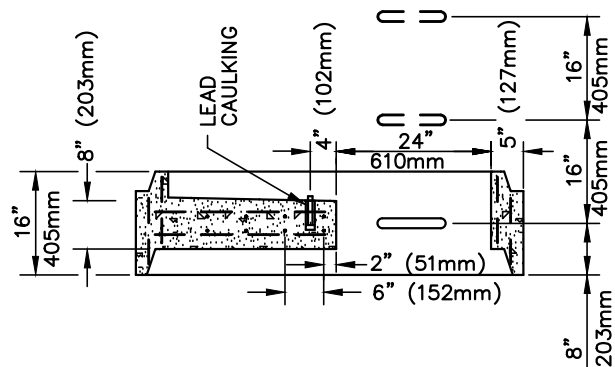


SECTION "A-A"

1-1/2" (38mm) DIA. SOLID STEEL BAR HAND RAIL
 2-1/4" (57mm) DIA. STEEL PLATE 3/4" (19mm) THICK WELDED TO BOTH ENDS OF 1-1/2" (38mm) DIA. STEEL BAR WITH TWO PASSES OF 1/4" (6mm) FILLET WELD.



SECTION "B-B"

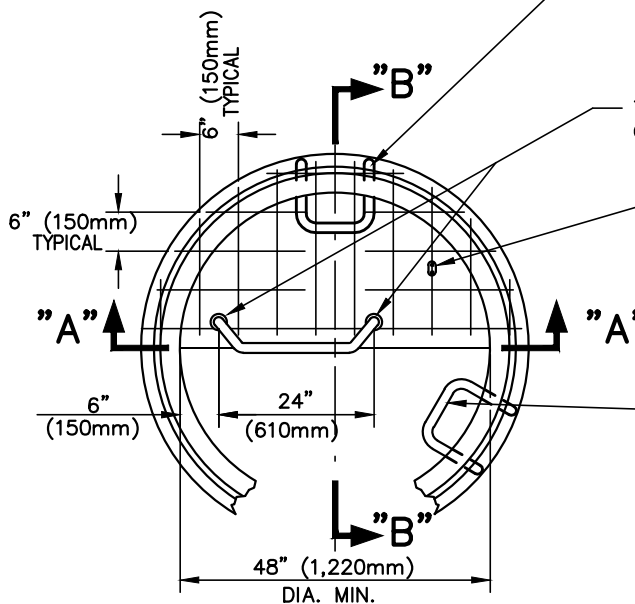
NOTE:
 LANDING PLATFORMS AS SHOWN ON THE LANDING DETAILS SHALL BE INSTALLED IN MANHOLES THAT ARE OVER TWENTY-EIGHT (28) FEET (8.5m) DEEP TO THE INVERT WITH A MAXIMUM VERTICAL SPACING OF TWENTY (20) FEET (6m).

MANHOLE STEPS START 12" (300mm) TO 16" (400mm) ABOVE LANDING PLATFORM FLOOR AND CONTINUE VERTICALLY ABOVE TO THE NEXT LANDING PLATFORM OR TOP OUTLET.

TWO 2-1/2" (64mm) DIA. PRECAST OPENINGS 5" (127mm) DEEP.

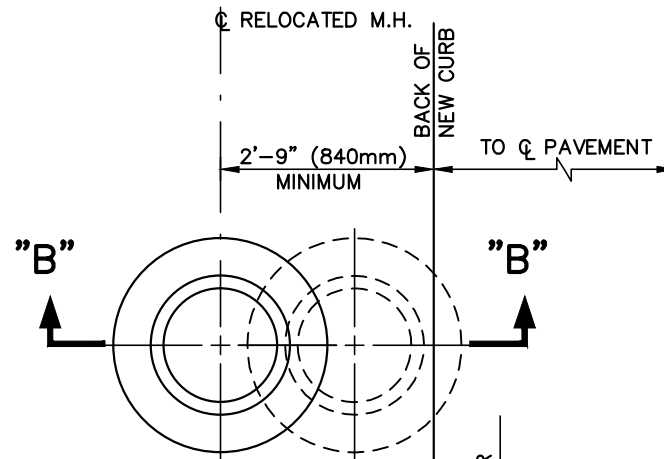
TYPICAL BAR PLACEMENT IN LANDING RISER—#4 (13mm DIA.) REBAR. IF MULTIPLE LANDINGS ARE REQUIRED, ROTATE ADJACENT LANDINGS 90 DEGREES. A 90 DEGREE CLEAR OPENING MUST BE SEEN FROM TOP TO BOTTOM OF MANHOLE.

MANHOLE STEPS STOP 4'-0" (1.2m) ABOVE TOP OF LANDING PLATFORM.

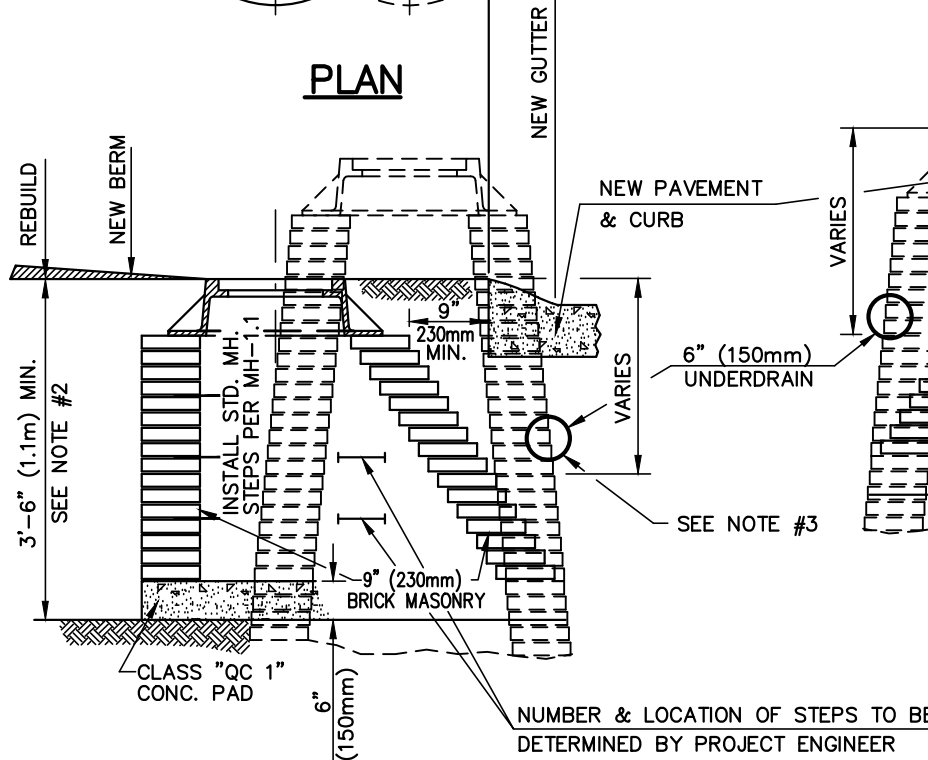


PLAN VIEW

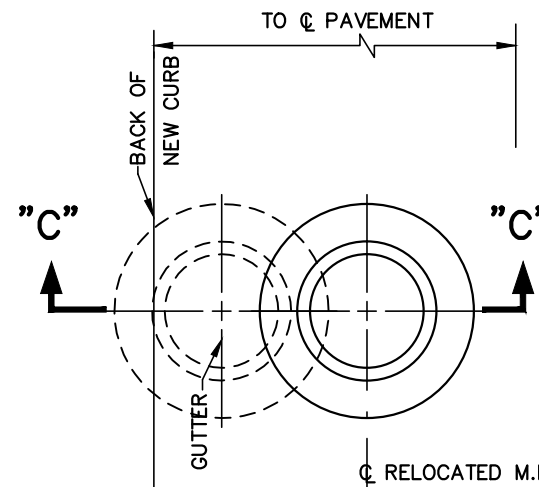
**16" (405mm) LANDING RISER
 DETAIL FOR PRECAST MANHOLE**



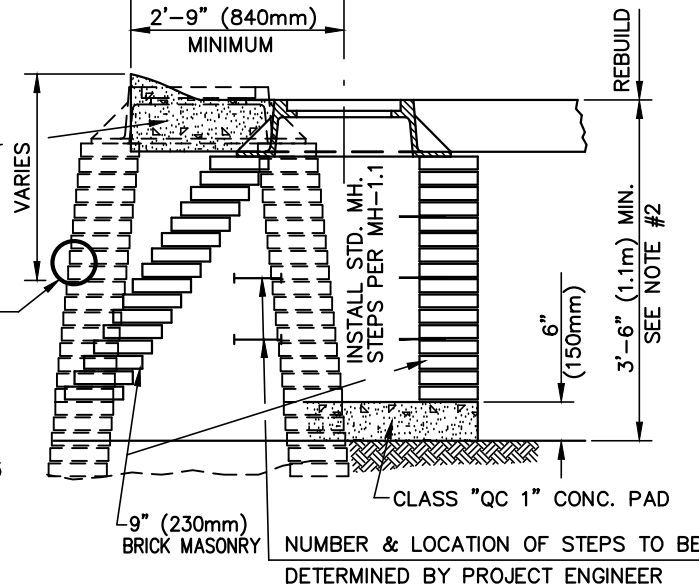
PLAN



**SECTION "B-B"
 METHOD-1
 IN BERM**



PLAN



**SECTION "C-C"
 METHOD-2
 IN PAVEMENT**

NOTES:

1. THE ENGINEER SHALL INVESTIGATE THE FIELD CONDITIONS GOVERNING THE EXISTING MANHOLE WITH RESPECT TO THE NEW LINE AND ELEVATION OF PAVEMENT AND CURB.
2. FIELD CONDITIONS WILL GOVERN THE AMOUNT OF STRUCTURE TO BE DEMOLISHED AND REBUILT. CORBELLING OF THE BRICK SHALL NOT EXCEED ONE AND ONE-HALF (1-1/2) INCHES (38mm) FOR EACH COURSE.
3. THE BY-PASSING SIX (6) INCH (150mm) UNDERDRAINS SHALL BE BUILT IN PLACE AROUND THE REBUILT (CORBELLED) WALL BEFORE THE CONSTRUCTION OF PAVEMENT IS STARTED.
4. ALTHOUGH SHOWN AS EXISTING BRICK, THIS METHOD OF RECONSTRUCTION MAY BE UTILIZED FOR ALL TYPES OF EXISTING MANHOLE WALLS.
5. THIS DRAWING IS USED IN CONJUNCTION WITH O.D.O.T. S.C.D. MH-1.1.
6. THESE METHODS OF RECONSTRUCTION ARE SUBJECT TO THE APPROVAL OF THE MAINTAINING AGENCY.
7. PAYMENT FOR THESE METHODS OF RECONSTRUCTION SHALL BE MADE AT THE CONTRACT UNIT PRICE BID PER EACH FOR "ITEM 611-MANHOLE RECONSTRUCTED TO GRADE, AS PER PLAN".

**RECONSTRUCTION OF EXISTING
 MANHOLE WHICH OBSTRUCTS
 NEW CURB LOCATION**

CUYAHOGA COUNTY ENGINEER	
MISCELLANEOUS DRAINAGE DETAILS	DATE 05-05-97 12-07-99 10-29-01 10-31-13
CONSTRUCTION DRAWING	MD-2C