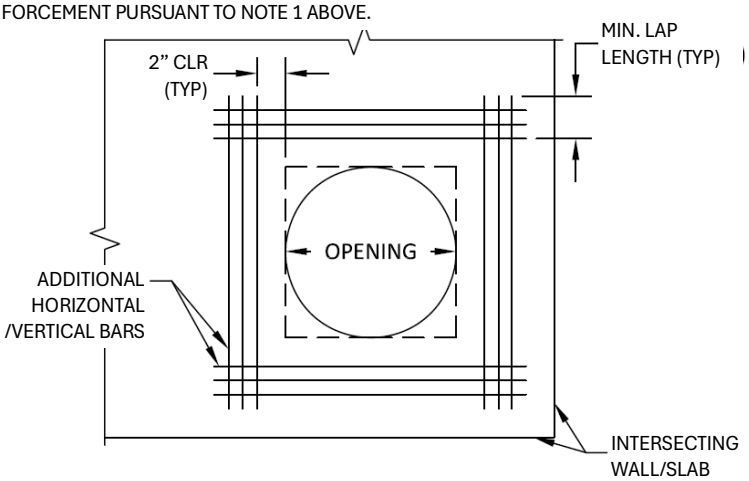
ALL OPENINGS (SQUARE AND CIRCULAR)

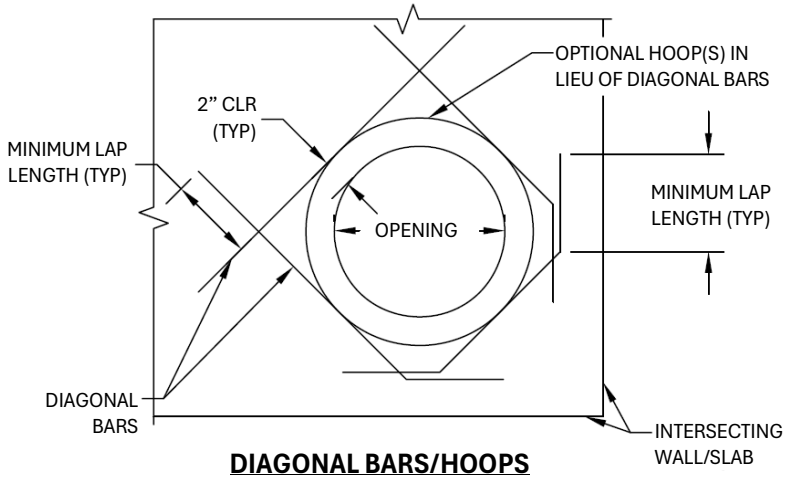
1. ALL STEEL REINFORCEMENT SHALL CONFORM TO APPLICABLE PROVISIONS OF ACI-318.
2. INSTALL ADDITIONAL HORIZONTAL AND VERTICAL REINFORCEMENT ABOVE, BELOW, AND TO EACH SIDE OF THE OPENING. ADDITIONAL STEEL AREA SHALL BE EQUAL TO THE STEEL AREA CUT BY THE OPENING AND SHALL BE DIVIDED EVENLY EACH SIDE OF THE OPENING. ALL CUT BARS SHALL BE CUT TWO INCHES (2") FROM THE OPENING.
3. ADDITIONAL BARS SHALL BE INSTALLED WITHIN TWO (2) WALL THICKNESSES OF THE OPENING (INCREASE BAR SIZE AS REQUIRED). MAINTAIN A MINIMUM CLEARANCE OF TWO INCHES (2") BETWEEN BARS. IF OPENING IS WITHIN ONE (1) WALL THICKNESS OF AN INTERSECTING (PERPENDICULAR) SLAB OR WALL, THE ADDITIONAL REINFORCEMENT ADJACENT TO INTERSECTING SLAB OR WALL MAY BE OMITTED.
4. OPENINGS LESS THAN TWELEVE INCHES (12") IN DIAMETER OR MAXIMUM WIDTH DO NOT REQUIRE ADDITIONAL HORIZONTAL AND VERTIFICAL REINFORCEMENT, BUT ADDITIONAL DIAGONAL BARS OR HOOPS SHALL BE INSTALLED AROUND CIRCULAR OPENING AS SPECIFICED IN NOTE 2 BELOW.
5. FOR MINIMUM LAP LENGTHS, REFER TO AID STANDARDS. EXTEND REBAR INTO ADJACENT WALLS/SLABS AS REQUIRED TO MAINTAIN MINIMUM LAP LENGTHS.

CIRCULAR OPENINGS ONLY

1. INSTALL ADDITIONAL HORIZONTAL AND VERTICAL REINFORCEMENT PURSUANT TO NOTE 1 ABOVE.
2. INSTALL EITHER DIAGONAL BARS OR HOOPS AS FOLLOWS:
   a. DIAGONGAL BARS: INSTALL FOUR (4) DIAGONAL BARS PER MAT OF STEEL. DIAGONAL BAR SIZE SHALL MATCH THE LARGEST BAR SIZE IN THE WALL OR SLAB. DIAGONAL BARS MAY BE BENT AND LAPPED WITH ADJACENT BARS NEAR INTERSECTING SLABS, WALLS, OR OTHER OBSTRUCTIONS.
   b. HOOPS: INSTALL ONE (1) HOOPS PER MAT OF STEEL. HOOP SIZE SHALL BE ONE (1) BAR SIZE GREATER THAN THE LARGEST BAR SIZE IN THE WALL OR SLAB.



ADDITIONAL HORIZONTAL/VERTICAL BARS



DIAGONAL BARS/HOOPS

Alta Irrigation District	STEEL REINFORCEMENT CONT'D		
	SCALE: NOT TO SCALE	DATE: MARCH 25, 2025	STANDARD DWG NO: **RFT -03** SHEET: 3 OF 3