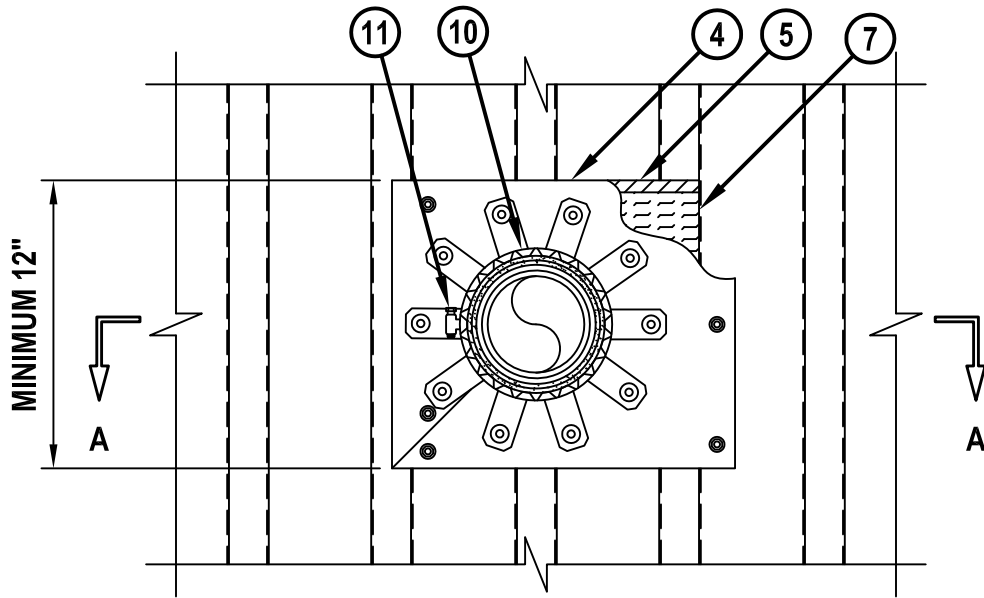


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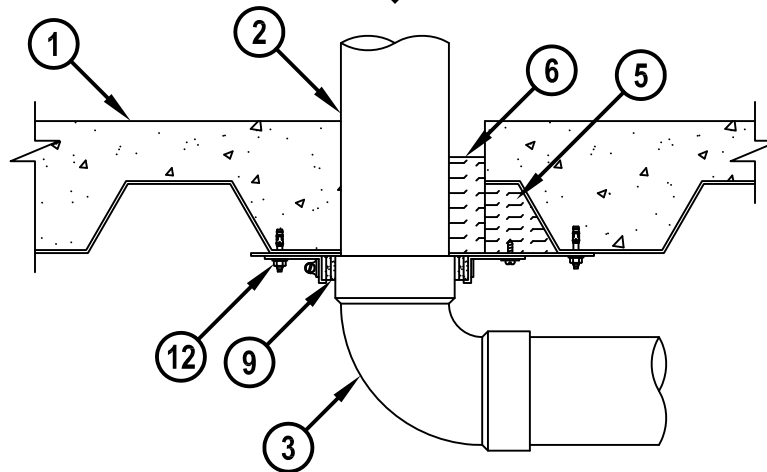
PLASTIC PIPE THROUGH CONCRETE OVER METAL DECKING ASSEMBLY

F-RATING = 2-HR.
T-RATING = 3/4-HR.

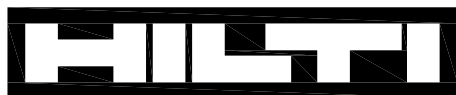
BOTTOM VIEW



SECTION A-A



1. NORMAL WEIGHT CONCRETE FLOOR (MINIMUM 2-1/2" THICK) OVER METAL DECKING (2-HR. FIRE-RATING).
2. PENETRATING ITEM TO BE ANY OF THE FOLLOWING (ALSO SEE NOTE NO. 3 BELOW) :
 - A. MAXIMUM 4" NOMINAL DIAMETER PVC PLASTIC PIPE (CELLULAR OR SOLID CORE).
 - B. MAXIMUM 4" NOMINAL DIAMETER ABS PLASTIC PIPE (CELLULAR OR SOLID CORE).
 - C. MAXIMUM 4" NOMINAL DIAMETER CPVC PLASTIC PIPE (CLOSED PIPING SYSTEM ONLY).



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Scale 1/8" = 1"

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PLASTIC PIPE THROUGH CONCRETE OVER METAL DECKING ASSEMBLY

F-RATING = 2-HR.

T-RATING = 3/4-HR.

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3. MAXIMUM 4" NOMINAL DIAMETER PIPE COUPLING BUTTED AGAINST BOTTOM SURFACE OF FLOOR.
4. SHEET METAL PLATE (MIN. 18 GA.) FASTENED TO VALLEYS OF DECKING WITH 1/4" x 1-3/4" LONG STEEL EXPANSION BOLTS WITH STEEL NUTS AND MINIMUM 3/4" STEEL WASHERS OR 0.145 x 1-1/4" LONG POWDER ACTUATED FASTENERS WITH 1-7/16" DIAMETER STEEL WASHER, HILTI 1/4" x 1-1/4" LONG KWIK-CON II CONCRETE SCREW ANCHOR, 1/4" x 1-3/4" KWIK-BOLT 3 STEEL EXPANSION ANCHOR, OR HILTI X-DNI 27 P8 S15 POWDER ACTUATED FASTENER WITH INTEGRATED WASHER AT EACH CORNER, AT EACH PLATE/VALLEY INTERSECTION AND AT BOTH SIDES OF SLIT MADE TO PERMIT INSTALLATION AROUND PIPE. FASTENERS NOT TO EXCEED 10" SPACING.
5. MINERAL WOOL (MIN. 4 PCF DENSITY) TIGHTLY PACKED TO FILL METAL DECK FLUTES ABOVE METAL PLATE AND RECESSED TO ACCOMMODATE SEALANT.
6. MINIMUM 4" THICKNESS MINERAL WOOL (MIN. 4 PCF DENSITY) TIGHTLY PACKED BETWEEN PIPE AND OPENING.
7. MINIMUM 1/4" DEPTH HILTI FS-ONE MAX OR FS-ONE INTUMESCENT FIRESTOP SEALANT TO COMPLETELY COVER MINERAL WOOL WITHIN FLUTES.
8. [NOT SHOWN] MINIMUM 1/2" BEAD HILTI FS-ONE MAX OR FS-ONE INTUMESCENT FIRESTOP SEALANT APPLIED AROUND PERIMETER OF METAL PLATE.
9. HILTI CP 648E WRAP STRIP CONTINUOUSLY WRAPPED AROUND THE OUTER CIRCUMFERENCE OF THE PIPE, AS SPECIFIED IN TABLE BELOW, WITH ENDS BUTTED AND HELD IN PLACE WITH TAPE. BUTTED ENDS IN SUCCESSIVE LAYER SHALL BE OFFSET.
10. HILTI RETAINING COLLAR WRAPPED OVER WRAP STRIPS, OVERLAPPING MINIMUM 1".
11. NOMINAL 1/2" WIDE STAINLESS STEEL HOSE CLAMP(S) FASTENED AT MID-HEIGHT OR HILTI RETAINING COLLAR.
12. ANCHOR TABS SECURED TO VALLEY OF DECKING WITH 1/4" x 1-1/2" LONG STEEL EXPANSION BOLTS WITH STEEL NUTS AND MINIMUM 3/4" STEEL WASHERS. WHERE ANCHOR TABS ARE BENEATH THE CREST OF DECKING, SECURE EVERY OTHER TAB WITH NO. 10 x 1/2" LONG SELF-DRILLING SELF TAPPING STEEL SCREWS AND WASHERS.

MAXIMUM PIPE DIAMETER	PRODUCT DESCRIPTION	NO. OF LAYERS OF CP 648E
3"	CP 648E W25/1"	2
3"	CP 648E W45/1-3/4"	1
4"	CP 648E W25/1"	3
4"	CP 648E W45/1-3/4"	2

- NOTES :**
1. MAXIMUM DIAMETER OF OPENING = 6".
 2. ANNULAR SPACE = MINIMUM 0", MAXIMUM 1-1/2".
 3. CLOSED OR VENTED PIPING SYSTEM (PVC, ABS = SCHEDULE 40; CPVC = SDR 13.5).
 4. SHEET METAL PLATE TO EXTEND MINIMUM 1-1/2" ON THE FLOOR UNIT VALLEY ON EACH END.

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Sheet 2 of 2

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