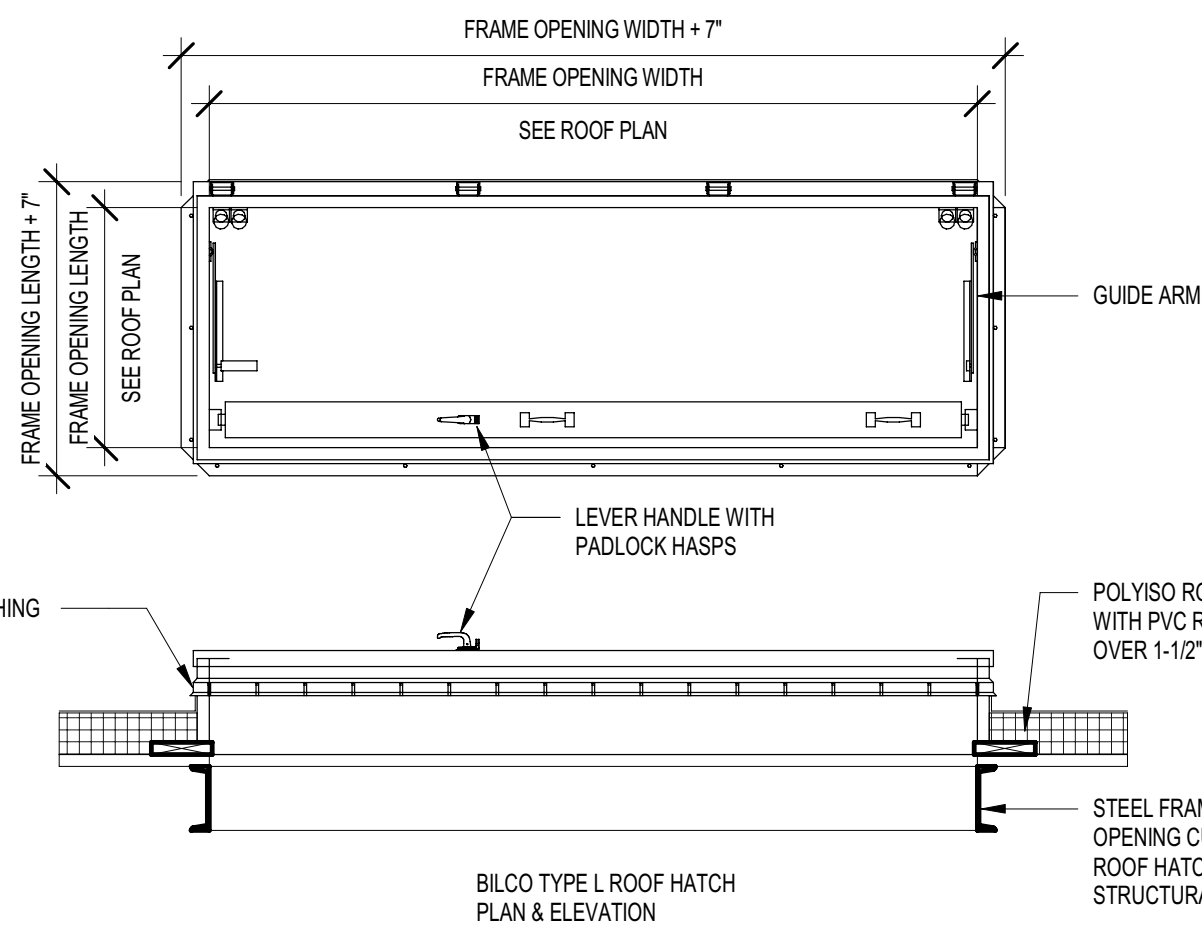
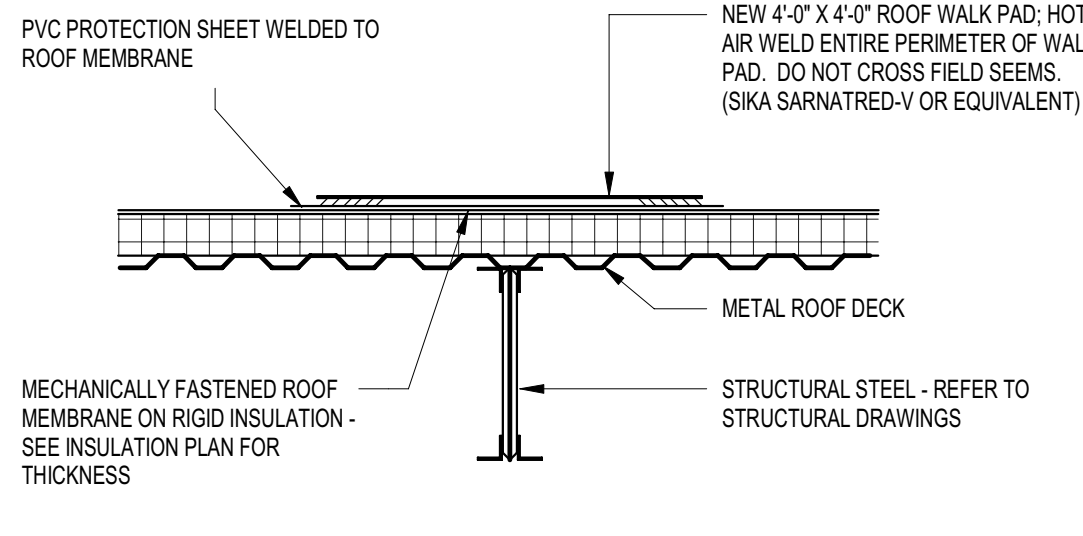
2 ROOF HATCH DETAILS
1/2" = 1'-0"3 WALK PAD DETAIL
1/2" = 1'-0"3 WALK PAD DETAIL
1/2" = 1'-0"

ROOF DRAINAGE CALCULATIONS FOR WAREHOUSE AREA ROOF:

PER 2020 FLORIDA BUILDING CODE PLUMBING FIGURE 1106.1, THE 100 YEAR, 1 HOUR RAINFALL FOR POMPAÑO COUNTY, FLORIDA IS 4.5" PER HOUR. THE ROOF HAS A 1/4" PER FOOT ROOF SLOPE AND DRAINS AS SHOWN ON PLAN TO 26" WIDE X 8" HIGH THROUGH WALL SCUPPERS WITH 13" WIDE X 8" HIGH OVERFLOW SCUPPERS ON EITHER SIDE OF 5" X 8" DOWNSPOUTS. PER 2021 IPC 1106.3 A 6" X 8" DOWNSPOUT IS CAPABLE OF SUSTAINING 360 GPM OF RAINFALL. TO GET THE NUMBER OF DOWNSPOUTS REQUIRED BY CODE WE NEED TO DETERMINE MAX SF ALLOWED PER DOWNSPOUT

FIRST CONVERT GALLONS PER MINUTE TO GALLONS PER HOUR
THEN GALLONS PER HOUR TO CUBIC INCHES PER HOUR
THEN DIVIDE CUBIC INCHES PER HOUR BY RAINFALL RATE PER COUNTY & STATE TO GET SQUARE INCHES
DIVIDE BY 144 TO GET SQUARE FEET

360 GPM X 60 MIN/HR = 21,600 GAHR
21,600 GAHR X 231 CU IN/GA = 4,989,600 CU IN/HR
4,989,600 CU IN/HR / 4.5 IN/HR = 1,108,800 SQ. IN.
1,108,800 SQ. IN. / 144 SQ. IN./SQ.FT. = 7,700 SQ.FT.

THE MAX SQ.FT. ALLOWED PER DOWNSPOUT PER CODE EQUALS 7,700 SQ.FT. THE TOTAL ROOF AREA OF THE WAREHOUSE AREA EQUALS 45,018. IF WE DIVIDE THE TOTAL ROOF AREA BY 7,700 SQ.FT. (MAX ALLOWABLE AREA PER DOWNSPOUT) WE GET A MIN. REQUIREMENT OF 5.85 OR 6 DOWNSPOUTS. WITH A TOTAL OF 8 DOWNSPOUTS THE LARGEST CONTRIBUTING AREA OF ROOF TO A DOWNSPOUT IS 5,627 SQ.FT., THEREFORE WE MEET CODE COMPLIANCE FOR ROOF DRAINS.

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MECHANICAL EQUIPMENT KEY

M1	TYPE: CONDENSING AND COOLER BALANCE UNIT MODEL: NMF160LSA SIZE: (UNWRN): 142" X 97" X 98.75" QUANTITY: 1 OPERATING WEIGHT: 5,327 LBS	RTU-1	TYPE: ROOFTOP PACKAGED UNIT - GAS MODEL: YS120 SIZE: 10 TON QUANTITY: 1 WEIGHT: 1,157 LBS
M2	TYPE: AIR COOLED CONDENSING UNIT MODEL: NMF200H8A SIZE: 284" X 97" X 98.34" QUANTITY: 1 OPERATING WEIGHT: 10,988 LBS	RTU-2	TYPE: ROOFTOP PACKAGED UNIT - GAS MODEL: YZC060 SIZE: 5 TON QUANTITY: 1 WEIGHT: 797 LBS
M3	TYPE: AIR COOLED CONDENSING UNIT MODEL: NMF150H8A SIZE: 284" X 97" X 98.34" QUANTITY: 1 OPERATING WEIGHT: 9,206 LBS	RTU-3	TYPE: ROOFTOP PACKAGED UNIT - GAS MODEL: YS3000 SIZE: 25 TON QUANTITY: 1 WEIGHT: 2,201 LBS

GENERAL NOTES

- ROOFING SYSTEM: 60 MIL TPO ROOFING IN LIEU OF 60 MIL TPO AT ALL BUILDING AREAS. INCREASE RHINO-BOND FASTENING. COLOR: WHITE
- ALL ROOFTOP EQUIPMENT WILL BE SCREENED BY ARCHITECTURAL PRECAST PANELS - REFER TO ELEVATIONS ON SHEET A201
- ALL ROOFTOP PACKAGED UNITS ARE ENERGY STAR QUALIFIED

