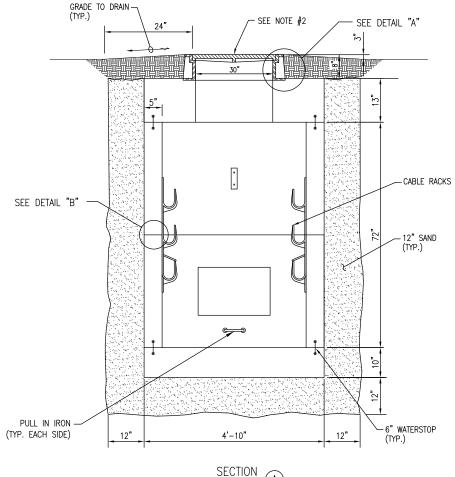


PRECAST 4'x4'x6' AIRPORT MANHOLE





4'x4'x6' AIRPORT MANHOLE DETAILS

N.T.S. (NOT TO SCALE)

PRECAST 4'x4'x6' AIRPORT MANHOLE NOTES

1. 4'x4'x6' AIRPORT MANHOLE SHALL BE CONSTRUCTED TO MEET THE FOLLOWING:

DESIGN CRITERIA:

- 1) DESIGN SPECIFICATIONS: ACI 318, ASTM C857 AND C858, FAA AC 150/5320-6D APPENDIX 3 2) DESIGN LOADING: B727-200, 97,600 LBS. MAIN. GEAR

 - B747-400ER, 213,600 LBS. MAIN GEAR
- 3) LIVE LOAD SURCHARGE: 24.5% OF THE WHEEL LOAD SOIL PRESSURE
- 4) CONCRETE COMPRESSIVE STRENGTH: F'c = 5,000 PSI AT 28 DAYS
- 5) REINFORCING STEEL: ASTM A706, 60,000 PSI

DESIGN ASSUMPTIONS:

- 1) GROUND WATER LEVEL: 3'-6" BELOW GRADE
- 2) EARTH COVER: 0'-8" 2'-0"
- 3) LIVE LOAD IMPACT: I = 20%
- 4) COEFFICIENT OF ACTIVE EARTH PRESSURE: Ka = 0.3
- 5) SPECIFIC WEIGHT OF STD. AGGREGATE CONCRETE: 150 PCF
- 6) SPECIFIC WEIGHT OF DRY EARTH: 100 PCF
- 7) SPECIFIC WEIGHT OF SATURATED EARTH: 120 PCF
- 8) EQUIVALENT FLUID PRESSURE OF DRY EARTH: 30 PSF 9) EQUIVALENT FLUID PRESSURE OF SATURATED EARTH: 80 PSF
- AIRPORT MANHOLE FRAME & LID SHALL BE CAPABLE OF WITHSTANDING MINIMUM 100,000 POUND LOADS AS CALLED FOR IN FAA ADVISORY CIRCULAR AC 150/5320-6D APPENDIX 3 ITEM 2.d. (1). AIRPORT MANHOLE FRAME & LID SHALL BE NEENAH CATALOG NO. R-3492-A OR APPROVED EQUAL. LID FOR HIGH VOLTAGE MANHOLE SHALL BE LABELED "HIGH VOLTAGE". LID FOR LOW VOLTAGE MANHOLE SHALL BE LABELED "LOW VOLTAGE" OR "OV-600V ELECTRIC". LID FOR FAA REILS SHALL BE LABELED "FAA REILS".
- COORDINATE DUCT BANK INTERFACE & OPENINGS WITH THE MANHOLE MFR. CONTRACTOR SHALL SLOPE DUCT BANK TO PRECAST MANHOLE OPENINGS. ALL OPENINGS SHALL BE SEALED WATERTIGHT AFTER DUCT BANK INSTALLATION.
- 4'x4'x6' AIRPORT MANHOLE SHALL BE MANUFACTURED BY A CONCRETE ELECTRICAL MANHOLE PRODUCER ON THE ILLINOIS DEPARTMENT OF TRANSPORTATION APPROVED LIST OF CERTIFIED PRECAST CONCRETE PRODUCERS.
- 4'x4'x6' AIRPORT MANHOLE SHALL BE PAID FOR UNDER ITEM AR110715 ELECTRICAL MANHOLE
- CABLE RACKS SHALL BE HEAVY DUTY CORROSION RESISTANT NYLON MATERIAL WITH CORROSION RESISTANT STAINLESS STEEL MOUNTING HARDWARE; UNDERGROUND DEVICES, INC. CAT. NO. 3SR1N, 3SR2N OR 3SR3N OR EQUAL. PROVIDE AT LEAST TWO TRIPLE HOOK CABLE RACKS ON EACH MANHOLE WALL, SPACED TO SUPPORT RESPECTIVE CABLES.
- COORDINATE INSTALLATION OF MANHOLES WITH RESPECTIVE FINISHED GRADE ELEVATIONS.
- INCLUDE FLOOR SUMP OR DRAINAGE PIPE.
- ALL CORING, INTERFACE, AND LABOR ASSOCIATED WITH CONDUIT, DUCT, CABLE IN UNIT DUCT, AND/OR CABLE ENTRIES WILL BE CONSIDERED INCIDENTAL TO THE INSTALLATION OF THE MANHOLE AND NO ADDITIONAL COMPENSATION WILL BE ALLOWED.

SAINT LOUIS DOWNTOWN AIRPORT

HANSON

GRADE DITCH PARALI TO MAIN RUNWAY

4'X4'X6' AIRPORT MANHOLE DETAIL