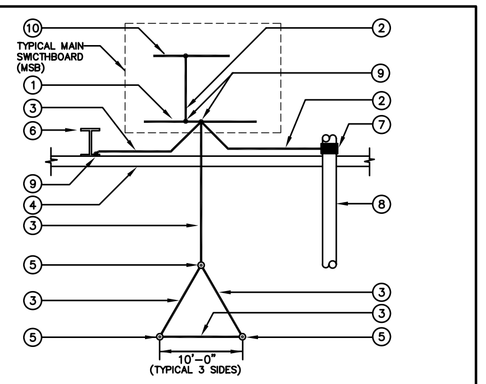
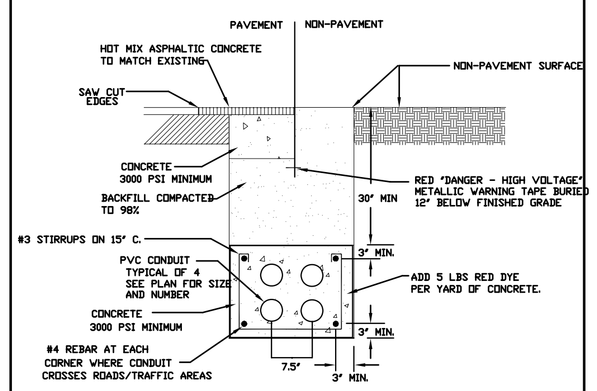
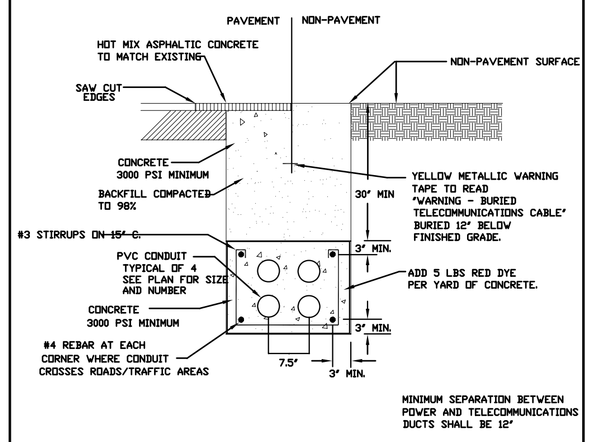


1. MAIN SWITCHBOARD GROUNDING BUS
2. NEUTRAL DISCONNECT LINK.
3. #4/0 BARE COPPER GROUNDING CONDUCTOR
4. BUILDING EXTERIOR WALL
5. 10'-0" X 3/4" COPPERWELD GROUND ROD DRIVEN WITH TOP 1'-0" BELOW GRADE
6. STRUCTURAL STEEL
7. GROUNDING CLAMP ON METALLIC PIPE
8. WATER SERVICE PIPE
9. UTILIZE EXOTHERMAL WELDING ON GROUND ROD CONNECTIONS
10. NEUTRAL BUS

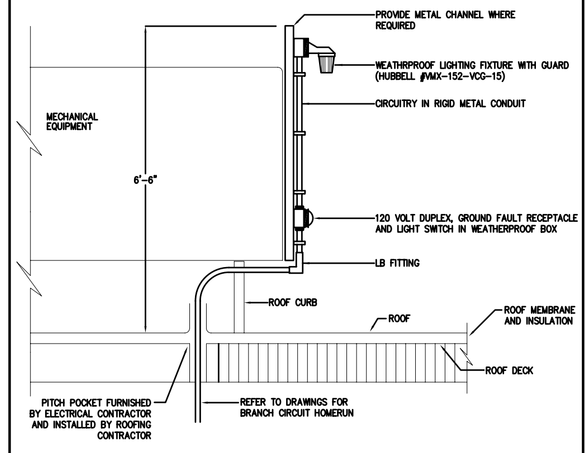
GROUND COUNTERPOISE DETAIL | N.T.S.



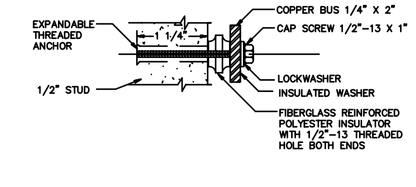
ELECTRICAL FEEDER DUCT CROSS SECTION DETAIL | N.T.S.



TELECOMMUNICATIONS DUCT CROSS SECTION DETAIL | N.T.S.

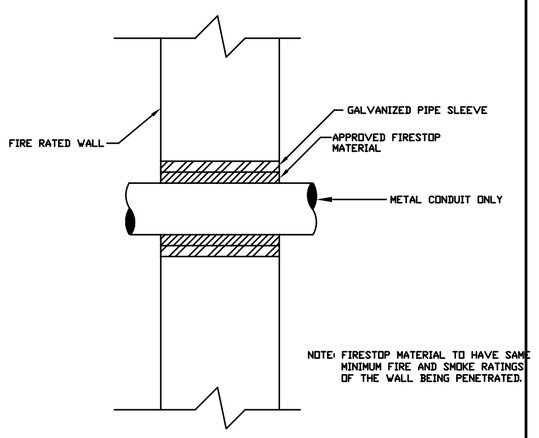


ROOF TOP MECHANICAL EQUIP. LIGHTING & RECEPTACLE DETAIL (MOUNTED TO HVAC EQUIPMENT) | N.T.S.

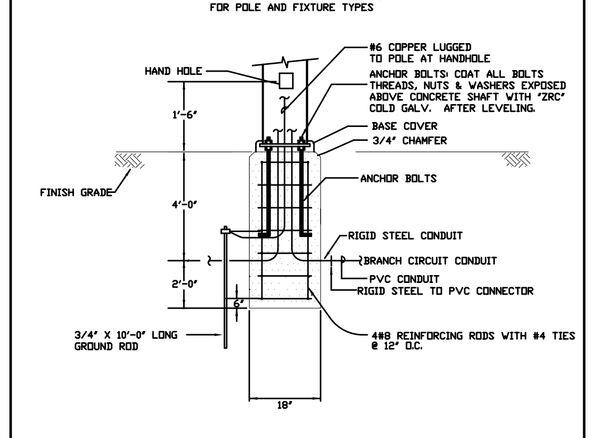


NOTE: GROUND BUS BARS SHALL HAVE ANCHORS INSTALLED AT 2'-0" INTERVALS MAXIMUM AND AT ENDS OF BUS BAR.

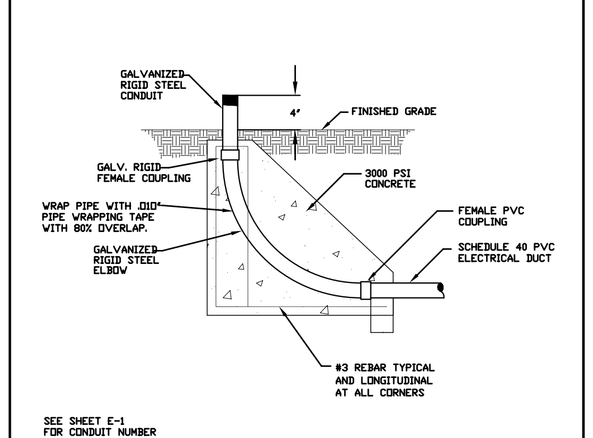
GROUNDING BUS INSTALLATION | N.T.S.



CONDUIT THRU FIREWALL DETAIL | N.T.S.

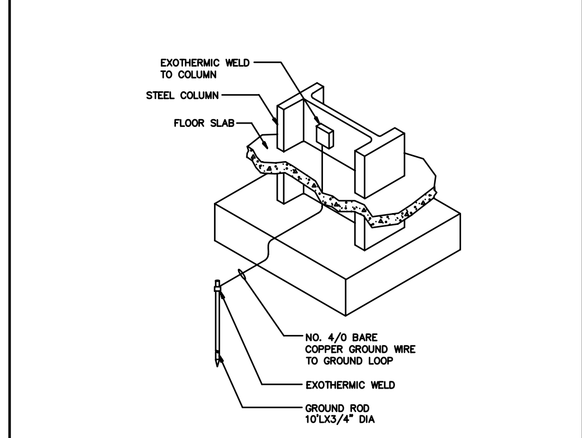


POLE BASE DETAIL | N.T.S.

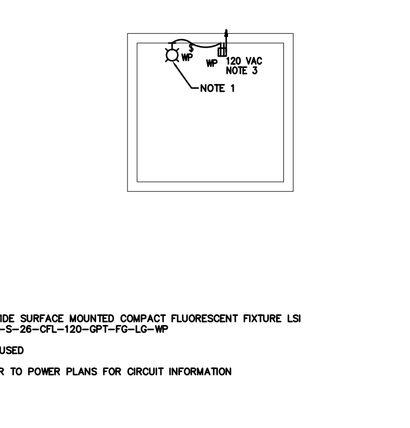


SEE SHEET E-1 FOR CONDUIT NUMBER AND SIZES.

ELECTRICAL SERVICE RISER CONDUIT DETAIL | N.T.S.

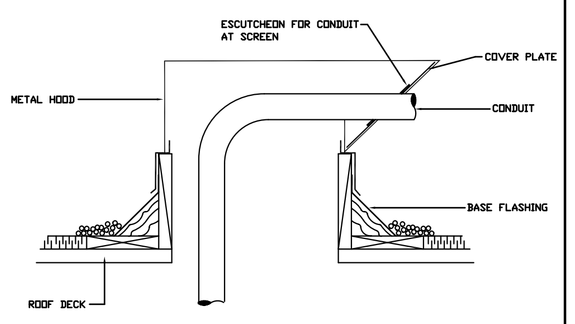


GROUNDING FOR STEEL COLUMN DETAIL | N.T.S.



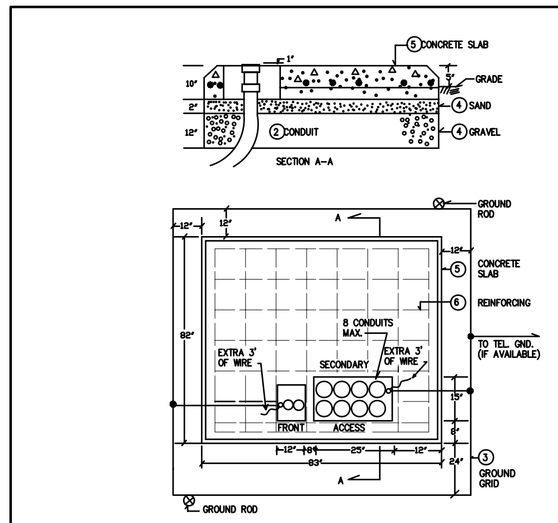
NOTES:
1. PROVIDE SURFACE MOUNTED COMPACT FLUORESCENT FIXTURE LSI #FET-S-26-CFL-120-QPT-FO-LG-MP
2. NOT USED
3. REFER TO POWER PLANS FOR CIRCUIT INFORMATION

TYPICAL ELEVATOR PIT DETAIL | N.T.S.



NOTE: ALL ROOF PENETRATIONS TO BE ACCOMPLISHED BY ROOFING CONTRACTOR.

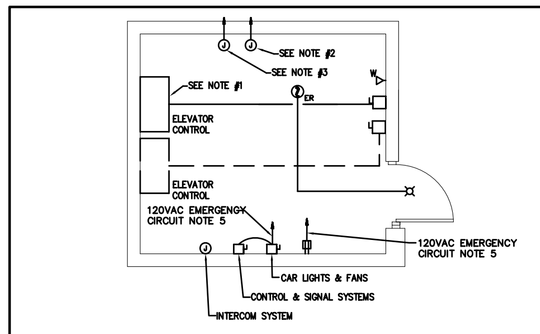
CONDUIT THRU ROOF DETAIL | N.T.S.



FOUNDATION - PAD MOUNT TRANSFORMER

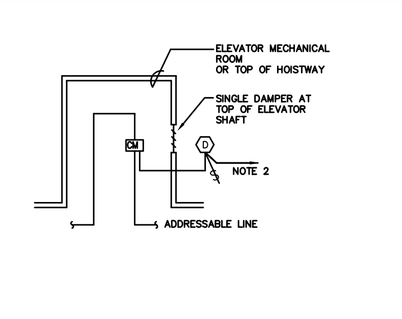
1. SCOPE
THIS STANDARD COVERS SPECIFICATIONS FOR THE CONSTRUCTION OF PAD MOUNT TRANSFORMER FOUNDATION AND GROUNDING.
NOTE: GROUNDING BY ELECTRICAL CONTRACTOR
2. CONDUIT
INSTALL AS SHOWN BEFORE SLAB IS POURED. USE 36" RADIUS BENDS, WITH COUPLINGS, NIPPLES AND BUSHINGS AS REQUIRED (MATERIAL MAY BE GALVANIZED STEEL OR PVC). TERMINATIONS OF CONDUITS SHALL BE LOCATED EXACTLY AS SHOWN. THE NIPPLE AND BUSHING SHOULD BE INSTALLED AFTER THE TRANSFORMER IS PLACED AND BEFORE THE CABLES ARE PULLED.
3. GROUND GRID
INSTALL #1/0 7 STRAND BARE COPPER WIRE LOOP 1'-0" BELOW GRADE. BOND TO ALL EXPOSED METALLIC CONDUIT AND LEAVE 1'-0" OF WIRE ABOVE PAD FOR GROUNDING TRANSFORMER AT TWO OPPOSITE POINTS. THE CABLE CONDUIT OR TRANSFORMER. INSTALL TWO 8' (3/4") GROUND RODS AND TWO APPROVED GALVANIZED CONNECTORS BELOW GROUND. LEAVE GRID EXPOSED UNTIL INSPECTED BY THE UTILITY COMPANY.
4. GRAVEL AND SAND
GRAVEL AND SAND SHALL BE PLACED AS SHOWN. THE GRAVEL BEING COMPACTED AND THE SAND THOROUGHLY WETTED JUST BEFORE PLACING THE CONCRETE.
5. CONCRETE SLAB
INSTALL CONCRETE IN ACCORDANCE WITH UTILITY COMPANY STANDARDS UNLESS OTHERWISE SPECIFIED. ALL EXPOSED EDGES TO HAVE 3/4" CHAMFER.
6. REINFORCING
REINFORCING TO BE #4 - GRADE 60 BARS AND SHALL CONFORM TO ASTM STD. A-615 OF LATEST DATE. REINFORCING RODS TO BE LOCATED IN CENTER OF THE SLAB, WITH A MINIMUM OF 2" CLEARANCE FROM FACE OF CONCRETE.

PAD MOUNTED TRANSFORMER DETAIL NOTE: PAD SIZE WILL VARY WITH KVA, REFER TO UTILITY COMPANY STANDARDS | N.T.S.



NOTES:
1. FOR EXACT QUANTITIES OF ELEVATOR CONTROLS AND EQUIPMENT LAYOUT REFER TO ELEVATOR CONSULTANT'S DRAWINGS.
2. PROVIDE 1" EMPTY CONDUIT WITH PULL STRING TO THE TELECOM CLOSET.
3. PROVIDE 1" EMPTY CONDUIT WITH PULL STRING TO THE FIRE PANEL FOR REMOTE ELEVATOR MONITORING OF ELEVATOR RECALL.
4. DEVICES AND LAYOUT SHOWN FOR TWO ELEVATORS IN ONE MACHINERY ROOM, ADJUST TO SUIT NUMBER OF ELEVATORS SHOWN ON PLAN.
5. REFER TO POWER PLANS FOR CIRCUIT INFORMATION.
6. REFER TO ELEVATOR MANUFACTURES INSTALLATION SHOP DRAWINGS FOR MORE INFORMATION.

TYPICAL ELEVATOR MACHINE ROOM LAYOUT | N.T.S.



NOTES:
1. DEVICES SHOWN ARE TYPICAL AT EACH ELEVATOR.
2. POWER FROM NEAREST AVAILABLE HOUSE PANEL, REFER TO PLANS FOR MORE INFORMATION.

SEQUENCE OF OPERATION

DAMPERS SHALL BE SET IN THE CLOSED POSITION AND SHALL AUTOMATICALLY OPEN UPON:

A. THE ACTIVATION OF ANY FIRE ALARM INITIATING DEVICE OF THE BUILDINGS FIRE ALARM SYSTEM.
B. THE INTERRUPTION OF POWER TO THE DAMPER.
C. ROOM TEMPERATURE RISING ABOVE 90°F.

ELEVATOR SMOKE DAMPER FIRE ALARM INTERFACE | N.T.S.

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The Village Shoppes of North Reading

303 Main Street
North Reading, MA

Permit

No.	ISSUE	DATE
1	PERMIT SET	5/30/08

PROJECT #: 28112

DRAWING TITLE: ELECTRICAL DETAILS

E5.0