

H.P. GROUNDING

GRADIENT CONTROL MAT

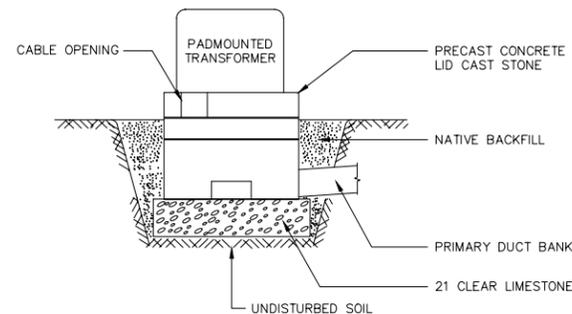
NOTES:

- GRADIENT CONTROL MAT TO BE APPROXIMATELY 1800mm x 1200mm (x 50mm) THICK AND TO BE GALVANIZED. MAT IS TO BE PLACED ON TOP OF CRUSHED STONE.
- PROVIDE A MINIMUM OF 150mm CRUSHED STONE AS SHOWN.
- CONNECT THE OPERATING HANDLE OF THE LOAD BREAK SWITCH TO PAD MOUNTED TRANSFORMER GROUNDING GRID USING 2/0 AWG Cu.
- CONNECT GRADIENT CONTROL MAT TO THE OPERATING HANDLE GROUNDING CONDUCTOR USING 2/0 AWG Cu.
- ALL GROUNDING CONDUCTORS TO BE CONNECTED WITH COMPRESSION TYPE CONNECTORS.

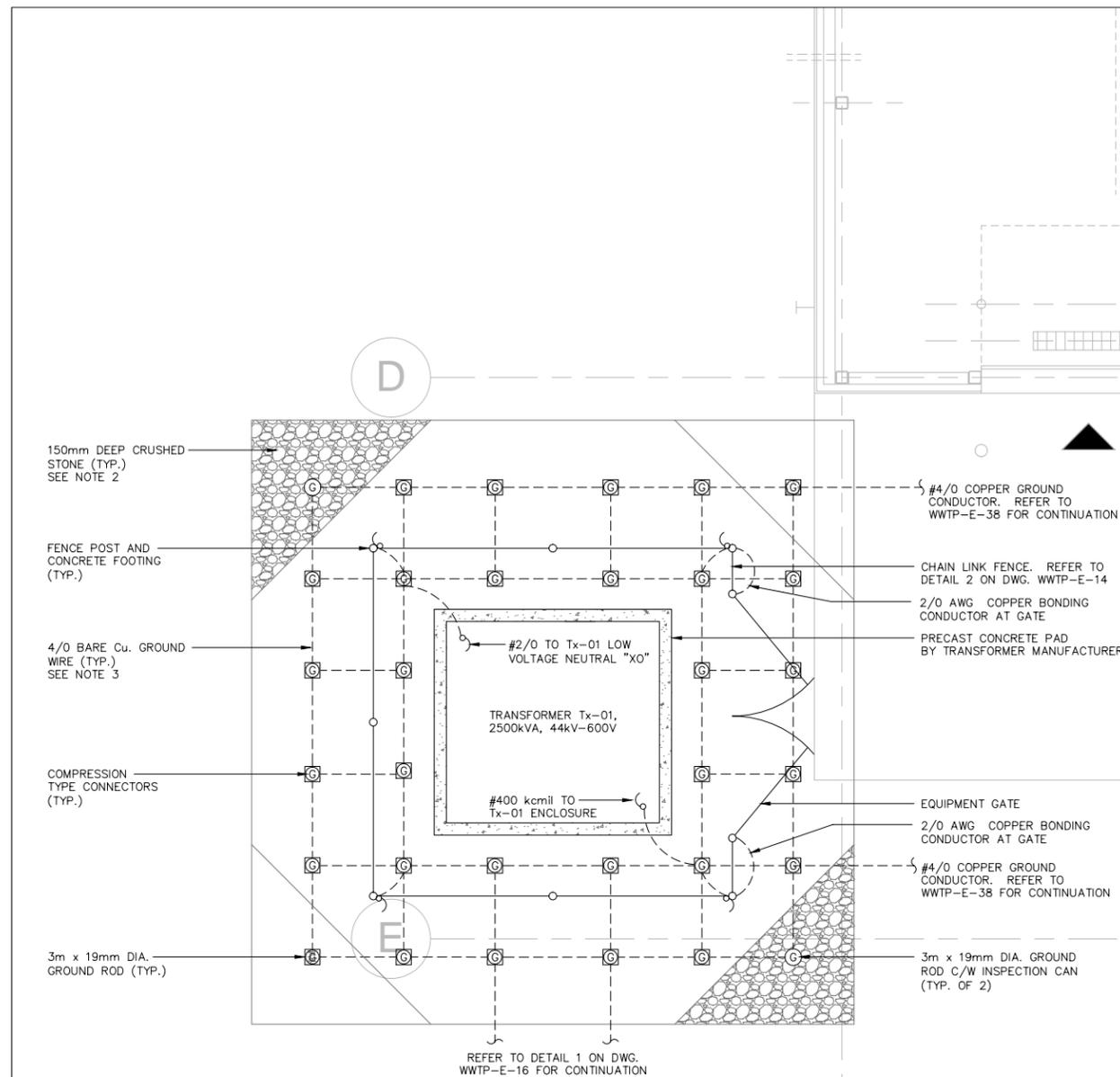
1 HIGH VOLTAGE POLE GROUNDING  
E-16 SCALE: 1:50

NOTES:

- CONTRACTOR TO COORDINATE AND CONFIRM WITH HYDRO ONE FOR PAD MOUNTED TRANSFORMER REQUIREMENTS AND SUBMIT SHOP DRAWINGS OF PRECAST FOUNDATION TO LOCAL HYDRO AND DEPARTMENTAL REPRESENTATIVE FOR REVIEW AND APPROVAL PRIOR TO INSTALLATION.
- FOUNDATION MUST BE PRECAST.
- 228mm PRECAST LID REQUIRED - LIDS MUST HAVE 4-508mm LIFTING HOLES.
- INSTALL 1.6mm PLOY (BLACK) OVER ALL 4 - CABLE OPENINGS.
- CONCRETE TO BE 4000 P.S.I. AIR ENTRAINED, LOW SLUMP.
- REINFORCED WITH No. 6 (21mm) HI-BOND REINFORCING STEEL BARS AT 305mm.
- ALL PRIMARY CABLE, CONNECTIONS AND PAD MOUNTED TRANSFORMER.
- ALL SECONDARY BUSDUCT AND CONNECTIONS BY CONTRACTOR. PROVIDE ALL NECESSARY LUGS FOR CONNECTION TO SUIT TRANSFORMER'S REQUIREMENT.
- ORIENTATION OF TOP SLAB OPENING TO SUIT L.V. & H.V. TRANSFORMER UNDERGROUND COMPARTMENT OPENINGS.



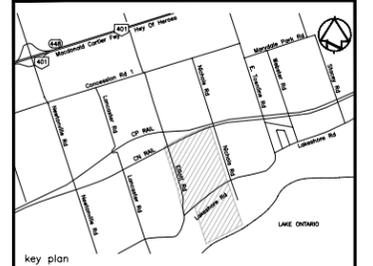
2 PAD MOUNTED TRANSFORMER FRONT ELEVATION  
E-16 N.T.S.



3 PAD MOUNTED TRANSFORMER DETAIL PLAN  
E-38 SCALE: 1:50

NOTES:

- GROUND GRID CONDUCTORS TO BE #4/0 COPPER AND TAP CONDUCTORS TO BE #2/0 COPPER.
- PROVIDE A MINIMUM OF 150mm CRUSHED STONE COVERING AROUND TRANSFORMER PAD AS SHOWN.
- GROUND GRID CONDUCTORS TO BE BURIED AT Min. 450mm BELOW TOP OF SOIL. THIS IS IN ADDITION TO DEPTH OF CRUSHED STONE COVERING.
- CONSTRUCT STATION GROUND GRID AS PER ONTARIO ELECTRICAL SAFETY CODE.
- EXACT LOCATION FOR TERMINATION OF INCOMING DUCTS AND BUSDUCT IS TO BE COORDINATED WITH APPROVED TRANSFORMER SHOP DWGS.
- DISTANCE BETWEEN GROUND RODS SHALL BE 300mm MIN.
- THE MINIMUM CLEARANCE BETWEEN THE FENCE AND ENCLOSURES CONTAINING LIVE PARTS SHALL BE 1.1M.
- THE MINIMUM CLEARANCE BETWEEN THE FENCE AND UNDERGROUND LIVE PARTS SHALL BE 3M.
- THE FENCE, EXCLUDING BARBED WIRE, SHALL BE NOT LESS THAN 1.8M HIGH. GATES SHALL BE ADEQUATELY BRACED AS NECESSARY AND DOUBLE GATES SHALL BE USED WHERE THE WIDTH OF OPENING EXCEEDS 1.5M. NED, GAME, AND CORNER POSTS SHALL BE ADEQUATELY BRACED AGAINST STRAIN.
- CONTRACTOR TO CONFIRM THAT THE INSTALLED GROUNDING GRID RESISTANCE SHALL BE LESS THAN THE DESIGN RESISTANCE OF 4.546 OHMS.



ADDENDUM NO.3	2012/11/30
01 ISSUED FOR TENDER	2012/09/07
revision	date

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project title  
titre du projet  
PORT GRANBY, ONTARIO  
PORT HOPE AREA INITIATIVE

PORT GRANBY PROJECT  
WASTE WATER TREATMENT PLANT

drawing title  
titre du dessin  
ELECTRICAL  
DETAILS SHEET 4

drawn by  
dessiné par J.S.

designed by  
conc par E.M.

approved by  
approuvé par E.M.

bid offer  
offre J.A., P.ENG project manager  
administrateur de projets

project date  
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