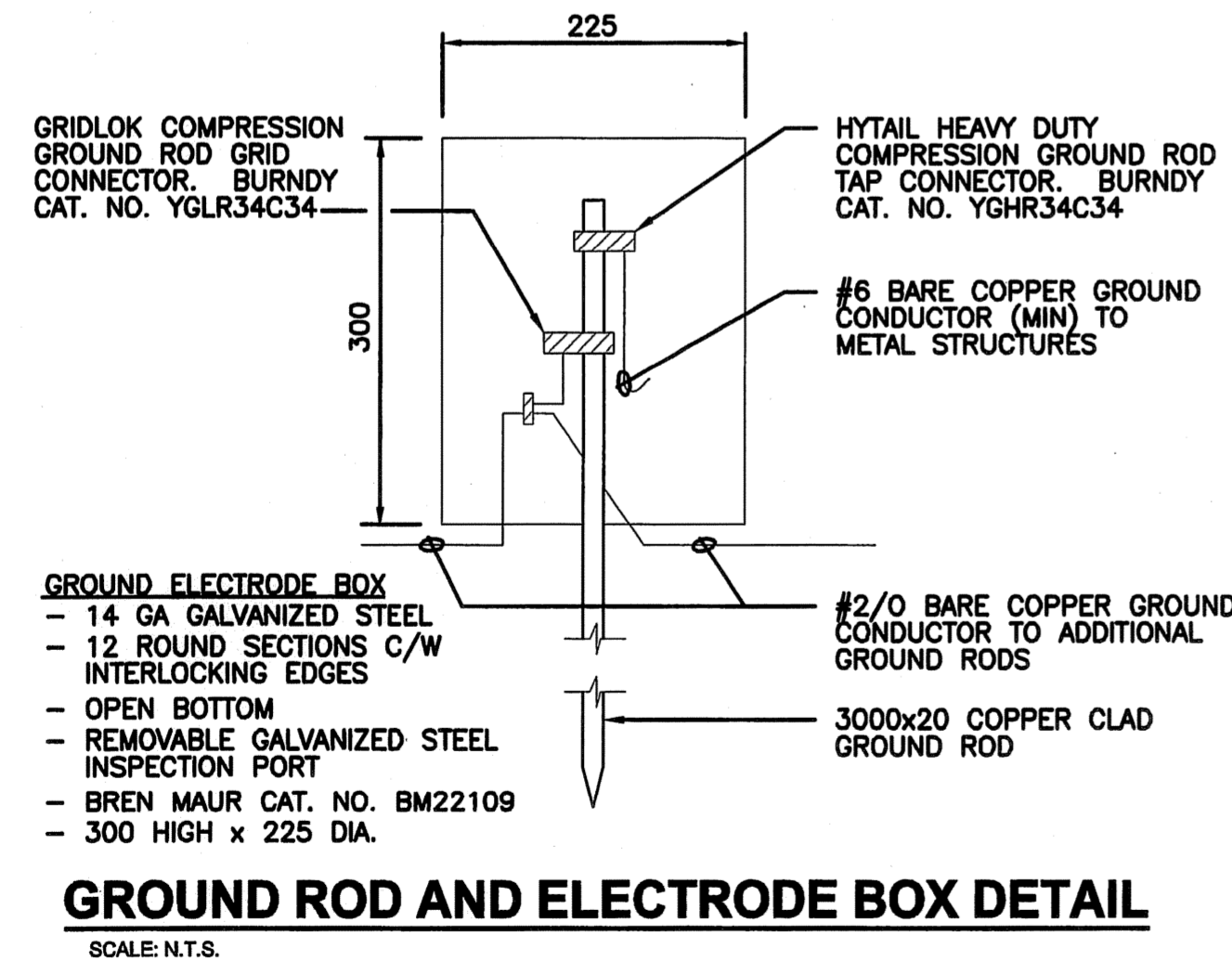
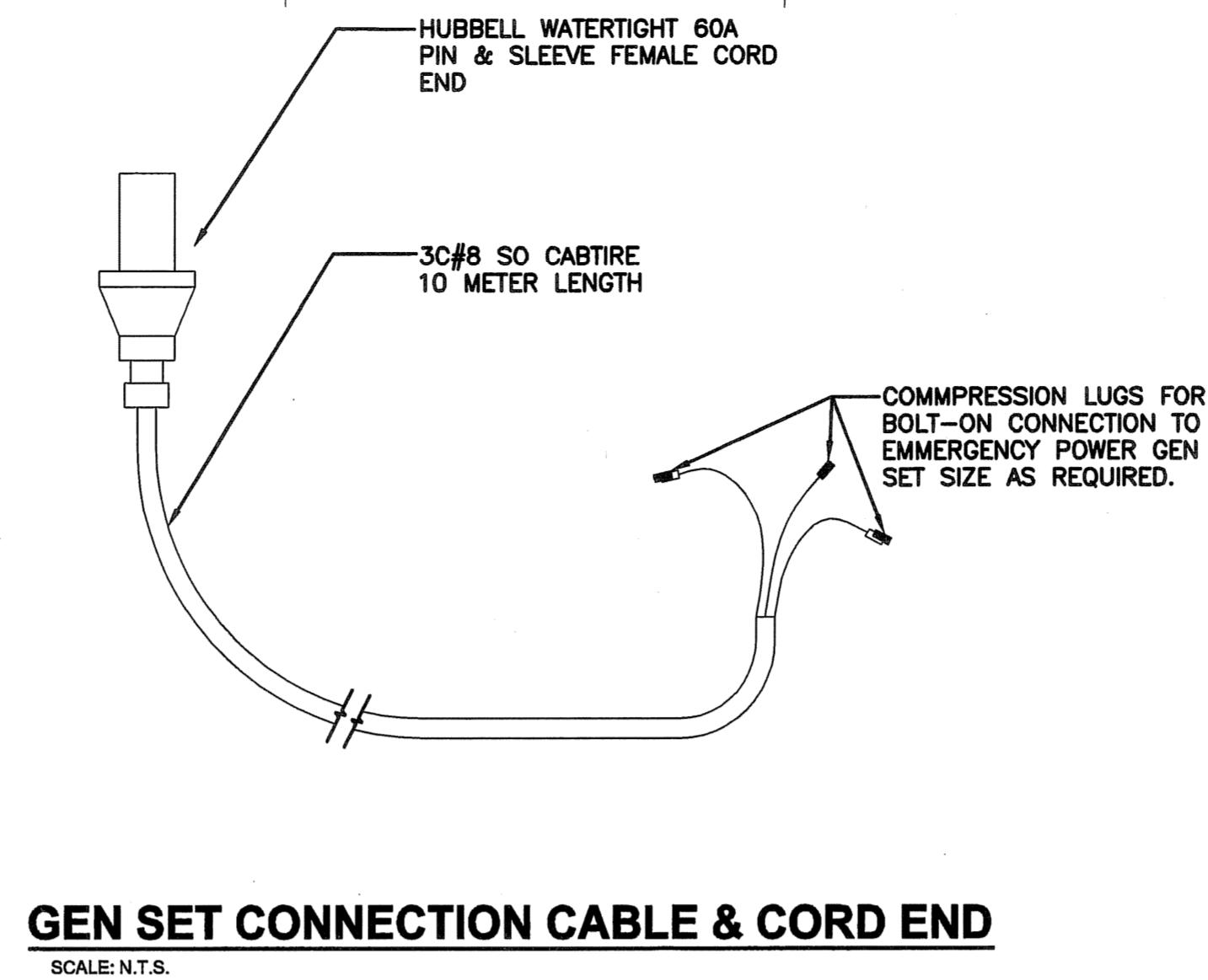


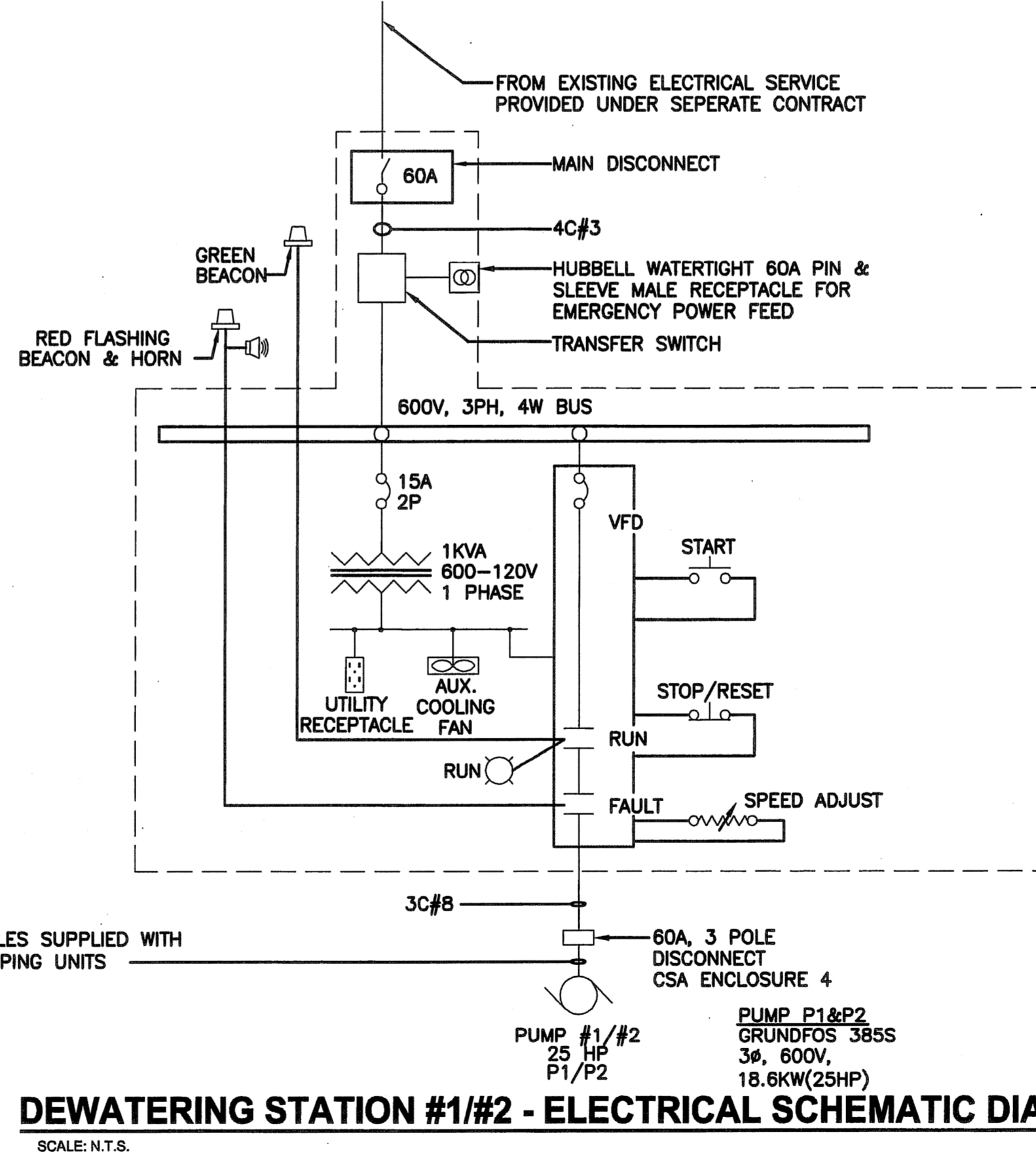
**ELECTRICAL POWER SERVICE DIP POLE DETAIL FOR DWS#1 & DWS#2**  
SCALE: N.T.S.



**GROUND ROD AND ELECTRODE BOX DETAIL**  
SCALE: N.T.S.



**GEN SET CONNECTION CABLE & CORD END**  
SCALE: N.T.S.



**DEWATERING STATION #1/#2 - ELECTRICAL SCHEMATIC DIAGRAM**  
SCALE: N.T.S.

**ELECTRICAL NOTES:**

- COORDINATE WITH CONTRACT ADMINISTRATOR FOR SERVICE CONNECTIONS.
- PROVIDE AN ALARM HORN, FEDERAL SIGNAL 350 SERIES ATOP OF EACH DWS CABINET. CONNECT HORN TO ALARM RELAY IN PUMP CONTROL PANELS WITH 2#12.
- PROVIDE A RED ALARM STROBE LIGHT BEACON, EDWARDS ADAPTABEACON 94 SERIES ATOP OF EACH DWS CABINET. CONNECT BEACON TO ALARM RELAY IN PUMP CONTROL PANEL WITH 2#12.
- PROVIDE A GREEN STATUS BEACON, EDWARDS ADAPTABEACON 48SLED SERIES ATOP OF EACH DWS CABINET. CONNECT BEACON TO STATUS LIGHT RELAY IN PUMP CONTROL PANEL WITH 2#12.
- PROVIDE LINE AND LOAD REACTORS APPROPRIATELY SIZED FOR VFD APPLICATION.
- VFD SHALL UTILIZE PULSE WIDTH MODULATION (PWM) TECHNOLOGY AND SHALL INCLUDE A REMOTE MOUNTABLE KEYPAD ALLOWING FOR DRIVE SPEED ADJUSTMENT, OPERATION CONDITIONS AND ERROR DIAGNOSTICS. SCHNEIDER ATV782D18Y.
- REFER TO SITE PLAN FOR DWS#1 AND DWS#2 LOCATIONS.
- PROVIDE ONE GEN SET CONNECTION CORD. TURN OVER TO OWNER.
- MANUAL TRANSFER SWITCH : SQUARE D 60A DOUBLE THROW NONFUSIBLE, DTU 362
- PROVIDE ALL MATERIALS, LABOUR, PLANT AND EQUIPMENT NECESSARY TO MAKE A COMPLETE INSTALLATION AS DESCRIBED AND SHOWN. THIS INSTALLATION SHALL BE LEFT COMPLETE AND READY FOR OPERATION.
- PROVIDE OPERATIONAL INSTRUCTION TO THE CONTRACT ADMINISTRATOR.
- THE INSTALLATION SHALL CONFORM IN EVERY RESPECT TO THE RULES AND REGULATIONS OF THE LATEST EDITION OF THE CANADIAN ELECTRICAL CODE AND ALL LOCAL CODES. ALL WORK SHALL BE UNIFORM AND HIGH QUALITY. ALL EQUIPMENT SUPPLIED UNDER THIS CONTRACT SHALL BE NEW AND BUILT IN ACCORDANCE WITH EEMAC STANDARDS AND SHALL BE CSA AND LOCALLY APPROVED.
- CAREFULLY EXAMINE ALL PLANS AND SPECIFICATIONS PERTAINING TO THIS CONTRACT AND VISIT SITE TO DETERMINE ALL FACTORS AFFECTING COSTS AND INCLUDE SAME IN TENDER. NOTIFY ENGINEER OF DISCREPANCIES OR CONFLICTIONS WITH ANY REGULATION BEFORE SUBMITTING PRICE. FAILING SUCH NOTIFICATION, THIS CONTRACTOR SHALL MEET SUCH REQUIREMENTS WITHOUT EXTRA COST TO THE OWNER.
- OBTAIN ALL NECESSARY PERMITS, PAY ALL NECESSARY FEES, GIVE ALL NECESSARY NOTICES, AND OBTAIN APPROVAL OF THE ELECTRICAL INSPECTOR HAVING JURISDICTION.
- UNLESS OTHERWISE SHOWN ON THE PLANS, ALL BRANCH WIRING SHALL BE INSTALLED IN EMT CONDUIT WITH WATER TIGHT CONNECTORS. MINIMUM WIRE SIZE SHALL BE #12 RW90 COPPER. ALL WIRING SHALL BE PROPERLY SECURED IN A NEAT WORKMANLIKE MANNER. PANEL FEEDERS SHALL BE INSTALLED IN CONDUIT UNLESS OTHERWISE NOTED ON THE DRAWINGS.
- OUTLET, JUNCTION AND SWITCH BOXES SHALL BE GALVANIZED STEEL AND SIZED ACCORDING TO THE CEC AND TO SUIT EACH APPLICATION.
- MULTI-POLE BREAKERS SHALL BE OF ONE PIECE CONSTRUCTION AND WITH COMMON TRIP. PANEL DIRECTORIES SHALL BE TYPEDWRITTEN.
- THE ENTIRE INSTALLATION SHALL BE GROUNDED IN CONFORMANCE WITH THE CANADIAN ELECTRICAL CODE.

B.M. ELEV.					
A	ISSUED FOR BID	05/07/07			
NO.	REVISIONS	DATE	BY	DATE	2006/06/30

<b>UMA   AECOM</b>	
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DESIGNED BY: JKM	CHECKED BY: [Signature]
DRAWN BY: QL	APPROVED BY: [Signature]
HOR. SCALE: AS SHOWN	RELEASED FOR CONSTRUCTION BY: [Signature]
VERTICAL SCALE:	DATE: July 11, 2005

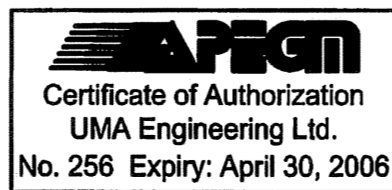
ENGINEER'S SEAL  
  
 B.N. FRUER  
 REGISTERED PROFESSIONAL ENGINEER  
 CONSULTANT DRAWING NO. CM G004

**THE CITY OF WINNIPEG**  
 WATER AND WASTE DEPARTMENT  
 ENGINEERING DIVISION

WATER TREATMENT PLANT

DEWATERING WELLS  
 ELECTRICAL PUMP CONTROL - DETAILS

CITY FILE NUMBER  
 SHEET 1 OF 1  
 CITY DRAWING NUMBER



UMA JOB# D265-193-00