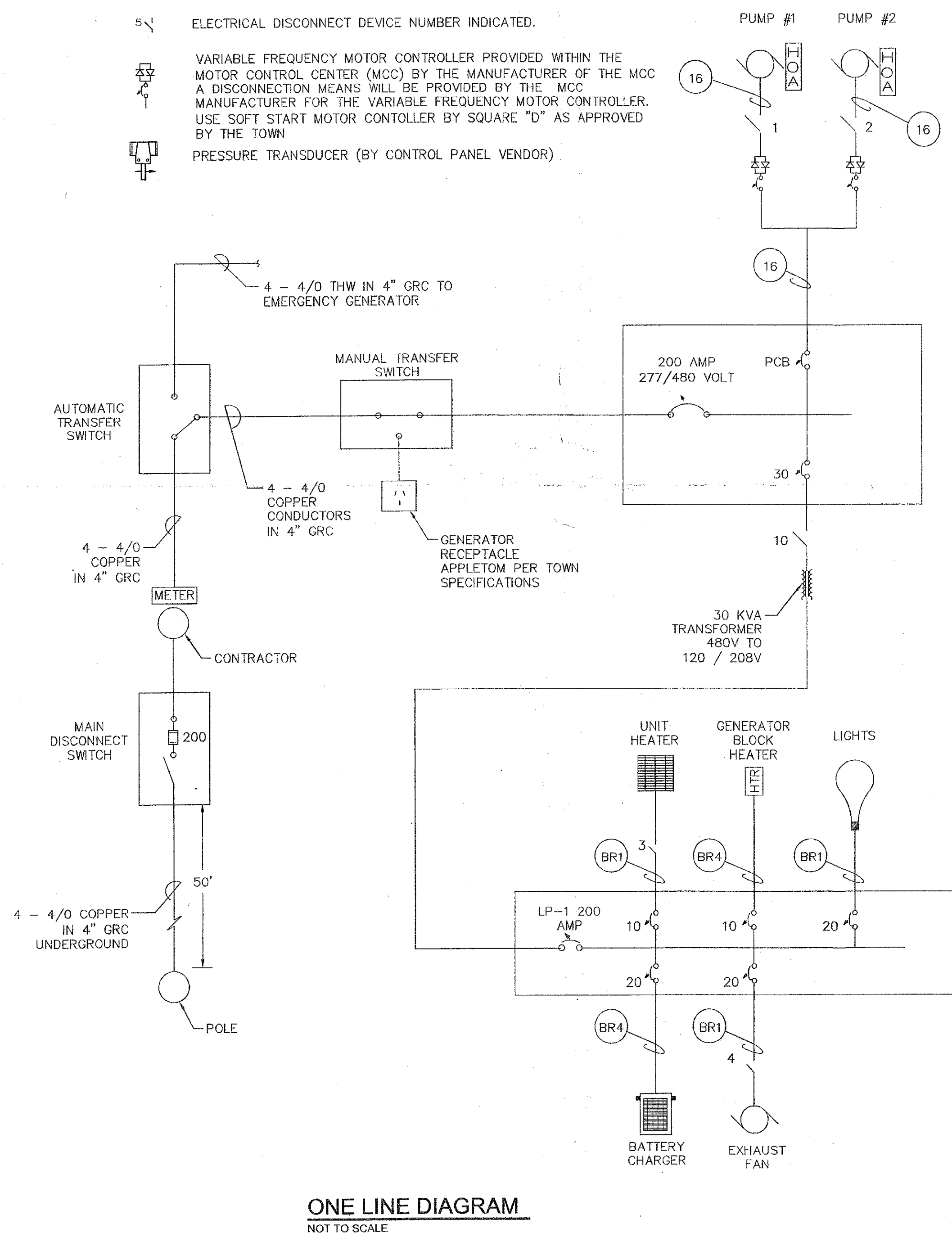


LEGEND:

- PROVIDE A SINGLE POLE 120 VOLT SWITCH
- 1 X 4 X 2 LAMP 120 VOLT HIGH OUTPUT/CEILING/PENDANT MOUNTED FLUORESCENT FIXTURE WITH WIRE GUARD, HUBBELL CROWN SERIES OR APPROVED EQUAL.
- DUPLEX RECEPTACLE WITH GROUND FAULT CIRCUIT INTERRUPTER
- 208 VOLT 70 W METAL HALIDE DOWNWARD FACING WALL PACK FIXTURE P = DUSK TO DAWN PHOTO CELL CONTROL RUUD W0440-M. LITHONIA-MINI WALL PACK "TWAC" 70M METAL HALIDE W/PHOTO CELL DARK BRONZE
- TRANSFORMER
- ELECTRICAL DISCONNECT DEVICE NUMBER INDICATED.
- VARIABLE FREQUENCY MOTOR CONTROLLER PROVIDED WITHIN THE MOTOR CONTROL CENTER (MCC) BY THE MANUFACTURER OF THE MCC. A DISCONNECTION MEANS WILL BE PROVIDED BY THE MCC MANUFACTURER FOR THE VARIABLE FREQUENCY MOTOR CONTROLLER. USE SOFT START MOTOR CONTROLLER BY SQUARE "D" AS APPROVED BY THE TOWN.
- PRESSURE TRANSDUCER (BY CONTROL PANEL VENDOR)



ONE LINE DIAGRAM
NOT TO SCALE

GENERAL ELECTRICAL NOTES:

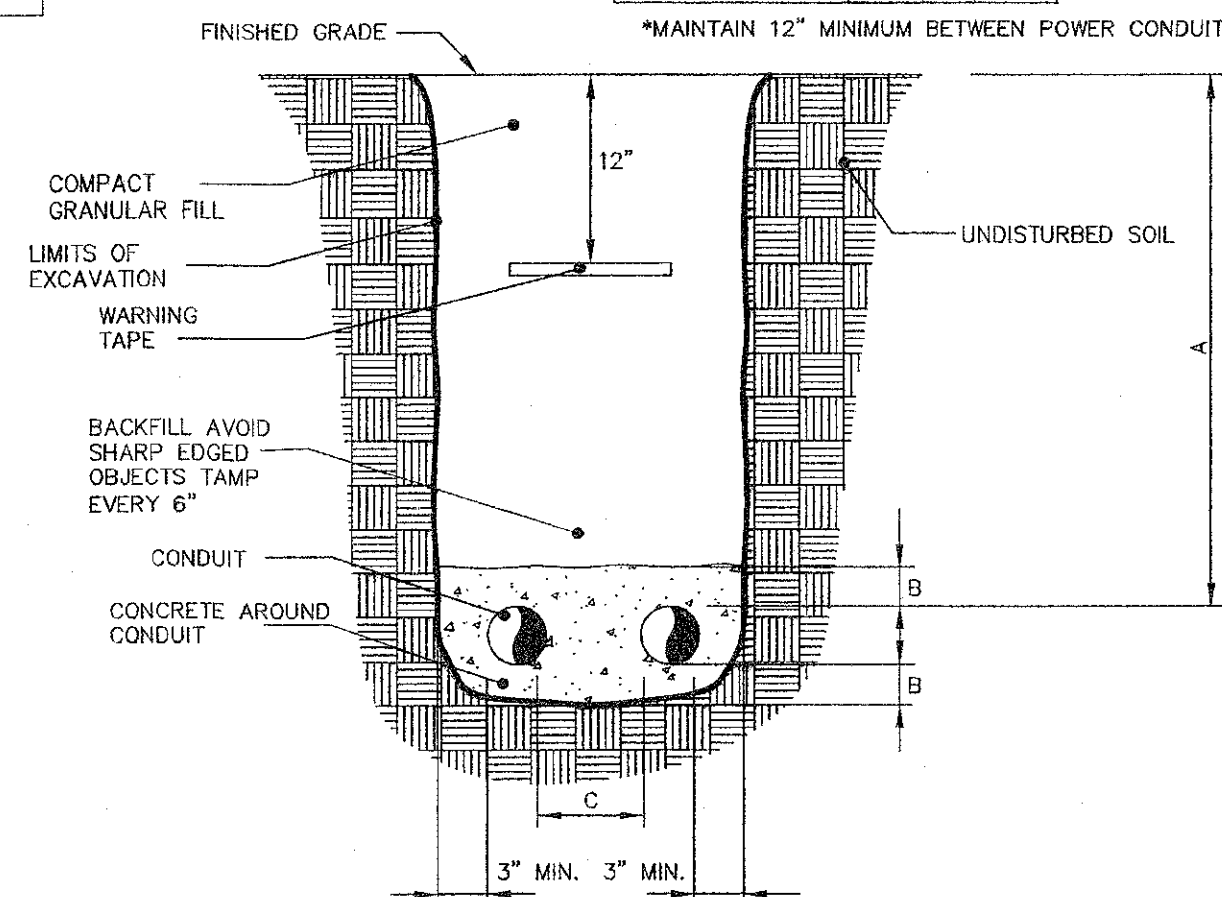
- THE ELECTRICAL CONTRACTOR SHALL BE RESPONSIBLE FOR SUPPLYING, INSTALLING AND CONNECTING ALL LINE AND LOW VOLTAGE CONDUIT, CONDUCTORS, SWITCHES, DISCONNECTS, JUNCTION BOXES, AND FIXTURES FOR POWER, TELECOMMUNICATIONS, AND LIGHTING SYSTEMS.
- THE ELECTRICAL CONTRACTOR SHALL BE RESPONSIBLE SUPPLYING, INSTALLING AND CONNECTING ALL LINE AND LOW VOLTAGE CONDUIT AND CONDUCTORS FOR ALL EQUIPMENT SUPPLIED BY THE GENERAL CONTRACTOR.
- THE GENERAL CONTRACTOR SHALL BE RESPONSIBLE FOR ALL LINE AND LOW VOLTAGE TEMPERATURE CONTROL DEVICES.
- THE ELECTRICAL CONTRACTOR SHALL SUPPLY, RIG AND MOUNT THE ELECTRICAL GENERATOR, TRANSFER SWITCH AND ASSOCIATED COMPONENTS.
- THE ELECTRICAL CONTRACTOR SHALL SUPPLY AND INSTALL CONDUIT, CONDUCTORS, AND ASSOCIATED ITEMS TO CONNECT THE GENERATOR TO THE BUILDING ELECTRICAL SYSTEM.
- THE ELECTRICAL CONTRACTOR SHALL PROVIDE GENERATOR START UP, TESTING, AND OWNER TRAINING PER THE CONSTRUCTION SPECIFICATIONS, AND SHALL ENSURE CORRECT FUNCTIONING OF THE INTERCONNECTION OF THE GENERATOR TO THE BUILDING ELECTRICAL SYSTEM.
- LABEL ALL PANELS, DISCONNECTS, MOTOR STARTERS, AND CONTROLLERS. ALL LABELS ARE TO BE SELF ADHERING PLASTIC LAMINATED WITH 3/8" WHITE LETTERS ON A BLACK BACKGROUND. ALL DEVICES WILL BE IDENTIFIED BY THEIR NUMBER, VOLTAGE AND SOURCE OF POWER.
- PROVIDE A TYPEWRITTEN CIRCUIT DIRECTORY IN ALL NEW PANEL BOXES.
- THE ELECTRICAL CONTRACTOR SHALL BE RESPONSIBLE FOR ARRANGING AND SCHEDULING ALL ELECTRICAL INSPECTIONS, PAY ALL FEES, AND SUBMIT A FINAL INSPECTION REPORT TO THE ENGINEER.
- THE ELECTRICAL CONTRACTOR SHALL INSTALL ALL METERING EQUIPMENT NECESSARY TO MEET THE REQUIREMENTS OF THE POWER COMPANY.
- THE ELECTRICAL CONTRACTOR SHALL INSTALL ALL GROUNDING IN ACCORDANCE WITH THE NEC ARTICLE 250 AND ACCORDING TO THE REQUIREMENTS INDICATED ON THE DRAWINGS. EQUIPMENT GROUNDING CONDUCTORS SHALL BE USED. GROUNDING THROUGH RACEWAY AND CONDUITS IS NOT PERMITTED.
- THE LOCATIONS AND ROUTES OF CONDUITS AND RACEWAYS SHOWN ON THESE DRAWINGS ARE SCHEMATIC. ALL CONDUITS ABOVE THE SLAB SHALL BE INSTALLED PARALLEL OR PERPENDICULAR TO THE BUILDING. CONDUITS ABOVE THE CEILING SHALL BE MOUNTED AS HIGH AS POSSIBLE. ALL BELOW GROUND CONDUITS SHALL BE INSTALLED USING THE MOST DIRECT ROUTE, WITH CONSIDERATION OF PROPER COORDINATION WITH OTHER UTILITIES - UNDERGROUND OR ABOVE GROUND.
- THE ELECTRICAL CONTRACTOR SHALL PROVIDE ALL CONDUIT AND CONDUCTORS FOR THE TELEPHONE AND LAN SYSTEMS. ALL CONDUCTORS SHALL BE COPPER WITH TYPE THHN/THWN OR XHHW INSULATION UNLESS OTHERWISE NOTED. ALL CONDUCTORS SHALL BE SIZED PER NEC.
- THE ELECTRICAL CONTRACTOR SHALL PROVIDE LAMPS FOR ALL LIGHTING FIXTURES.
- ALL DUPLEX RECEPTACLES SHALL BE MOUNTED VERTICALLY AND 18" NOMINALLY AFF TO BOTTOM OF BOX UNLESS OTHERWISE INDICATED.
- ALL BALLASTS SHALL BE WARRANTED BY THE MANUFACTURER FOR 5 YEARS. ALL BALLASTS THAT FAIL WITHIN THE FIRST YEAR OF SUBSTANTIAL COMPLETION SHALL BE REPLACED BY THE ELECTRICAL CONTRACTOR AT NO COST TO THE OWNER.
- FASTENING OF HANGERS TO THE ROOF WILL NOT BE PERMITTED. ANY CONTRACTOR RESPONSIBLE FOR FURNISHING THE ROOF STRUCTURE WILL REPAIR THE ROOF AT THEIR EXPENSE.
- ALL DISCONNECT SWITCHES AND SAFETY SWITCHES ARE TO BE HEAVY DUTY TYPE.
- MC CABLE WILL NOT BE ACCEPTED.
- "GREENFIELD" AND LIQUID TIGHT FLEX CONDUIT MAY BE USED IN LENGTH NOT TO EXCEED 72'.
- THE ELECTRICAL CONTRACTOR SHALL CAULK ALL PENETRATIONS, RELATED TO ELECTRICAL WORK, IN 1 & 2 RATED HR FIRE WALL WITH 3M FIRE CAULK. SEAL LARGER OPENINGS WITH WIREMOLD "FLAMESTOPPER" KIT.
- THE ELECTRICAL CONTRACTOR IS RESPONSIBLE FOR ALL CONDUITS, AND CONDUCTORS REQUIRED TO PROVIDE A COMPLETE AND OPERATING PUMP CONTROL SYSTEM. THE GENERAL CONTRACTOR SHALL BE RESPONSIBLE FOR ALL PUMP CONTROL FINAL TERMINATIONS AND LANDINGS.
- POWER DISCONNECTS SHALL BE PROVIDED AT ALL MOTORS EXCEPT WHERE THE MOTOR IS LOCATED IN A HAZARDOUS AREA (CLASS 1, DIV 1 OR 2) AND WHERE POWERED BY A VFD.
- THE GENERAL CONTRACTOR (SCADA VENDOR) SHALL PROVIDE AND INSTALL ALL PUMP CONTROL DEVICES REQUIRED TO PROVIDE A COMPLETE AND OPERATIONAL PUMP CONTROL SYSTEM.
- THE ELECTRICAL CONTRACTOR SHALL PROVIDE A MANUAL TRANSFER SWITCH AT EACH PUMP STATION WITH A GROUND BINDER GENERATOR RECEPTACLE SIZED ACCORDING TO THE CONTRACT DOCUMENTS.
- CONDUITS SHALL BE CAPPED IN GENERATOR PAD UNTIL GENERATOR HAS BEEN INSTALLED.

HVAC NOTES

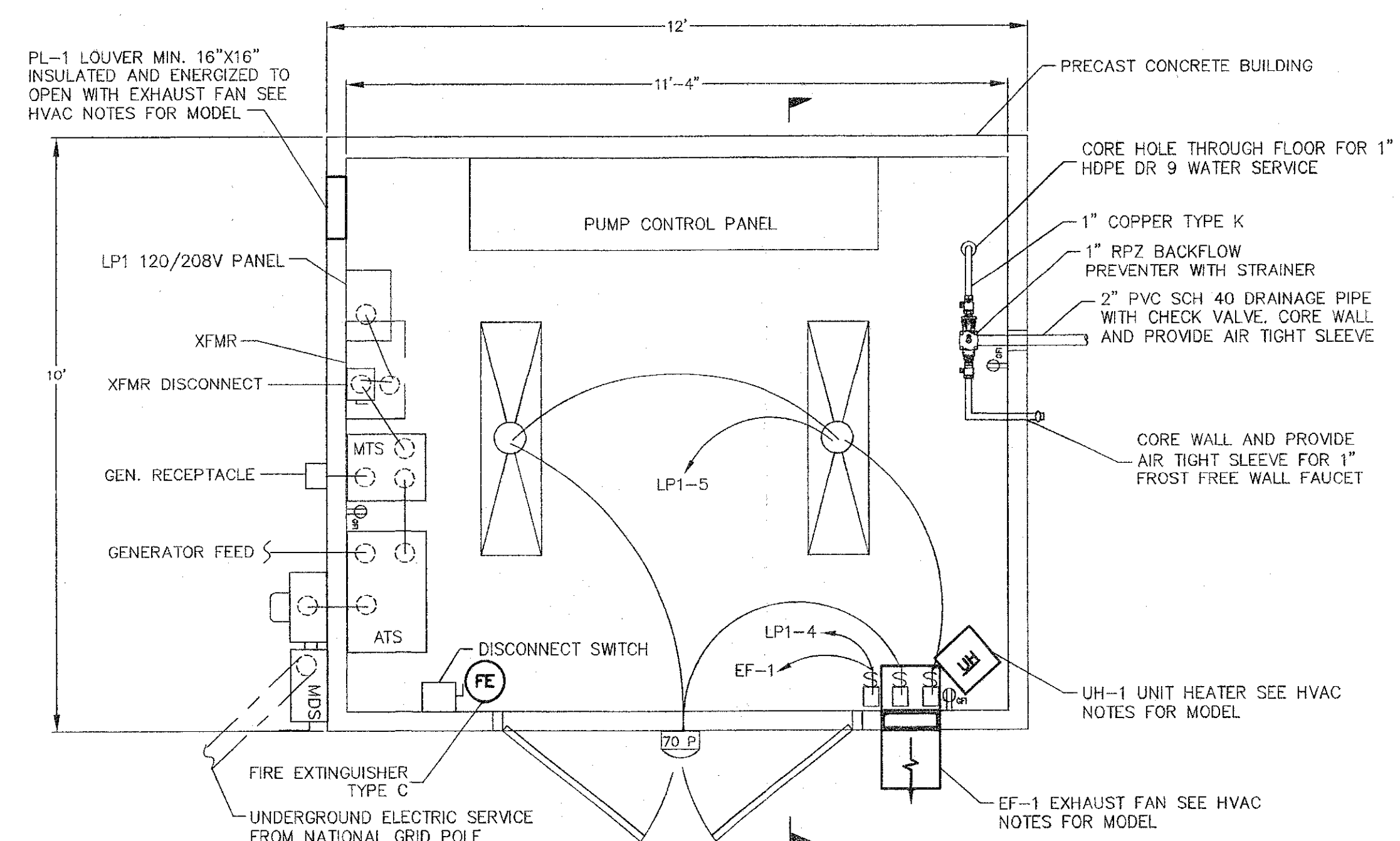
- UH-1: QMARK MUH SERIES 3KW 208 VAC 1 PHASE OR APPROVED EQUAL SUPPLIED AND INSTALLED BY ELECTRICAL CONTRACTOR.
- EF-1: GREENHECK DIRECT DRIVE CENTRIFUGAL SIDEWALL 175 CFM EXHAUST FAN MODEL # CW-075-D WITH EXHAUST DAMPER OR ENGINEER APPROVED EQUAL. SUPPLIED AND INSTALLED BY GENERAL CONTRACTOR.
- PL-1: GREENHECK ESD-435 16X16 175 CFM LOUVER WITH A VCD-40 ULTRA LOW LEAKAGE CONTROL DAMPER AND BELLOWS ELECTRICAL ACTUATOR FSLF-120S OR ENGINEER APPROVED EQUAL. SUPPLIED AND INSTALLED BY GENERAL CONTRACTOR.
- THERMOSTAT SHALL BE QMARK WALL THERMOSTAT OR APPROVED EQUAL. SUPPLIED BY THE GENERAL CONTRACTOR AND INSTALLED BY THE ELECTRICAL CONTRACTOR.

DIMENSIONS (MINIMUM IN INCHES)			
SERVICE TYPE	A	B	C
≤600 VOLTS	24	3	6
>600 VOLTS	30	6	6
TELEPHONE	24	6	6*

*MAINTAIN 12" MINIMUM BETWEEN POWER CONDUIT(S)

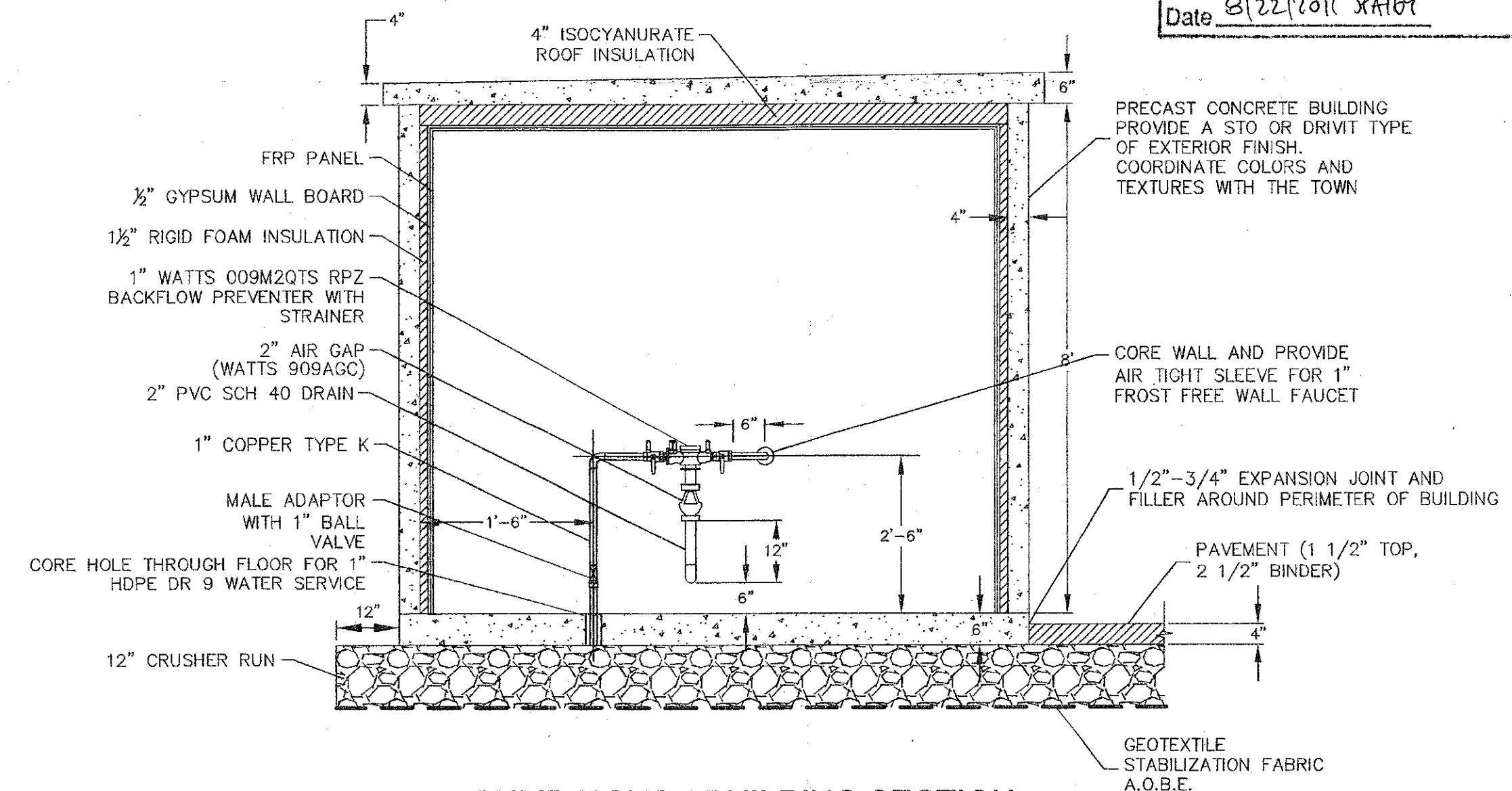


TYPICAL UNDERGROUND CONDUIT DETAIL
NOT TO SCALE

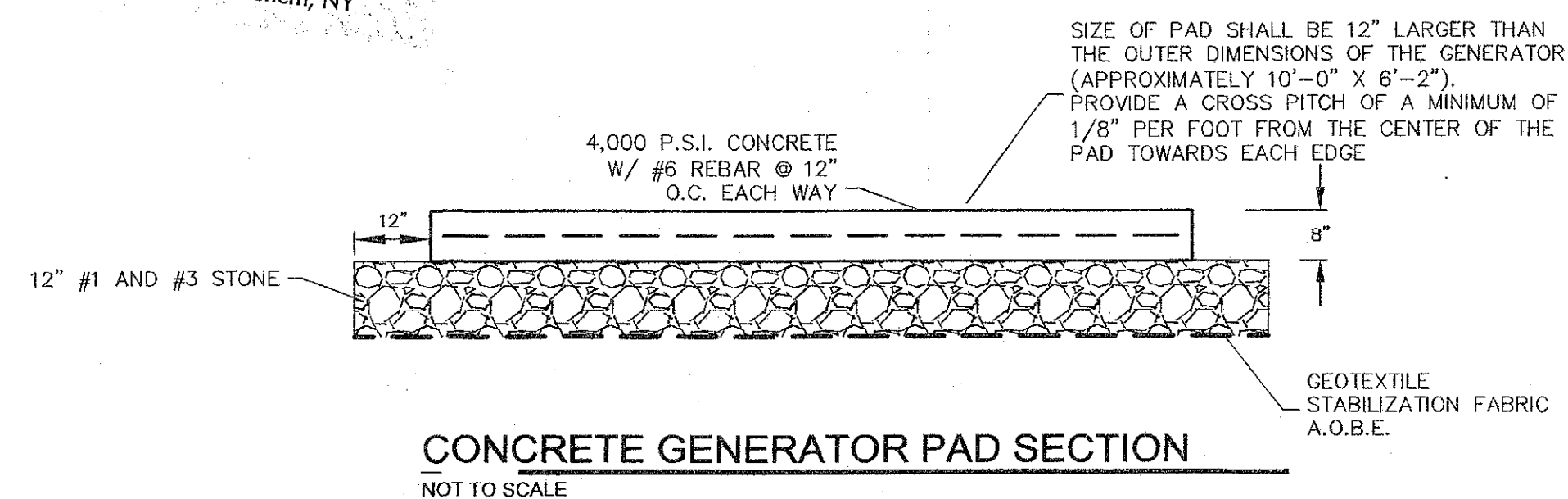
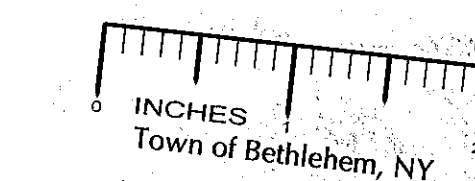


*PANELS, ATS, DISCONNECTS, ETC. SHALL BE LAYED OUT IN THE FIELD WITH THE TOWN PRIOR TO CONSTRUCTION
PUMP HOUSE BUILDING FLOOR PLAN
NOT TO SCALE

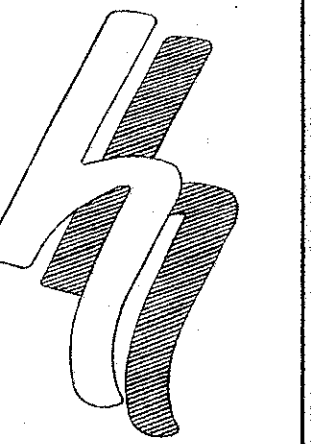
PLANNING BOARD
TOWN OF BETHLEHEM
ALBANY COUNTY, NEW YORK
This Site Plan Approved:
Date: 8/22/2011 RAH/9



PUMP HOUSE BUILDING SECTION
NOT TO SCALE



CONCRETE GENERATOR PAD SECTION
NOT TO SCALE



HERSHBERG
&
HERSHBERG
Consulting Engineers
and Land Surveyors
18 Locust Street
Albany, New York 12203

ALTERATION OF THIS DOCUMENT EXCEPT BY A LICENSED PROFESSIONAL ENGINEER OR LAND SURVEYOR, IS ILLEGAL



REMARKS	DATE
TOWN COMMENTS RE-SUBMISSION	8/19/08
TOWN COMMENTS RE-SUBMISSION	2/8/10
TOWN COMMENTS RE-SUBMISSION	5/5/10
CONDUIT DETAIL "C" DIMENSION	5/19/10
REVISIONS	

INFRASTRUCTURE DETAILS FOR PROPOSED - PHASE 1A
VISTA TECHNOLOGY CAMPUS
TOWN OF BETHLEHEM
ALBANY COUNTY, STATE OF NEW YORK

RECEIVED
AUG 12 2011
Town of Bethlehem
Planning Board

C22