



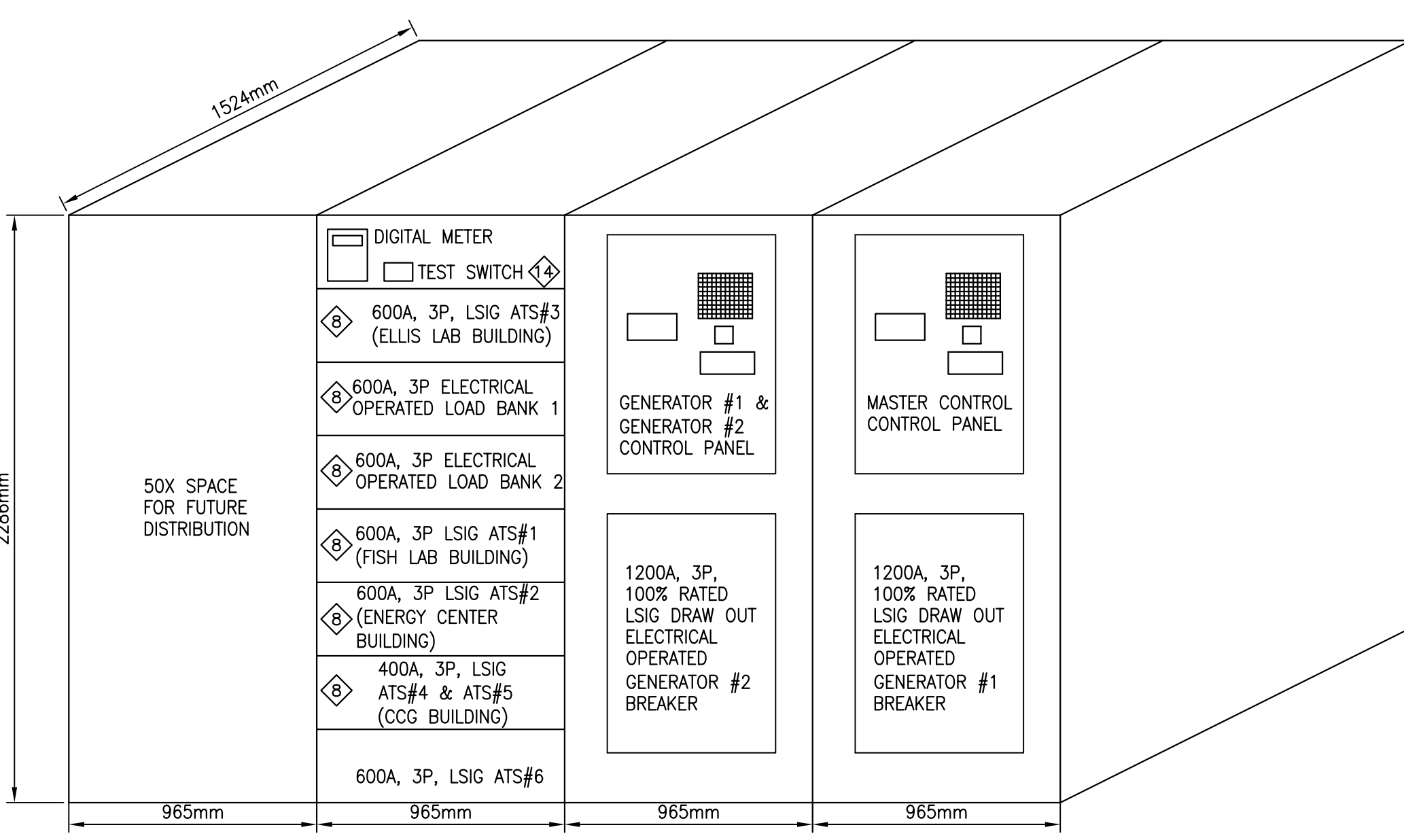
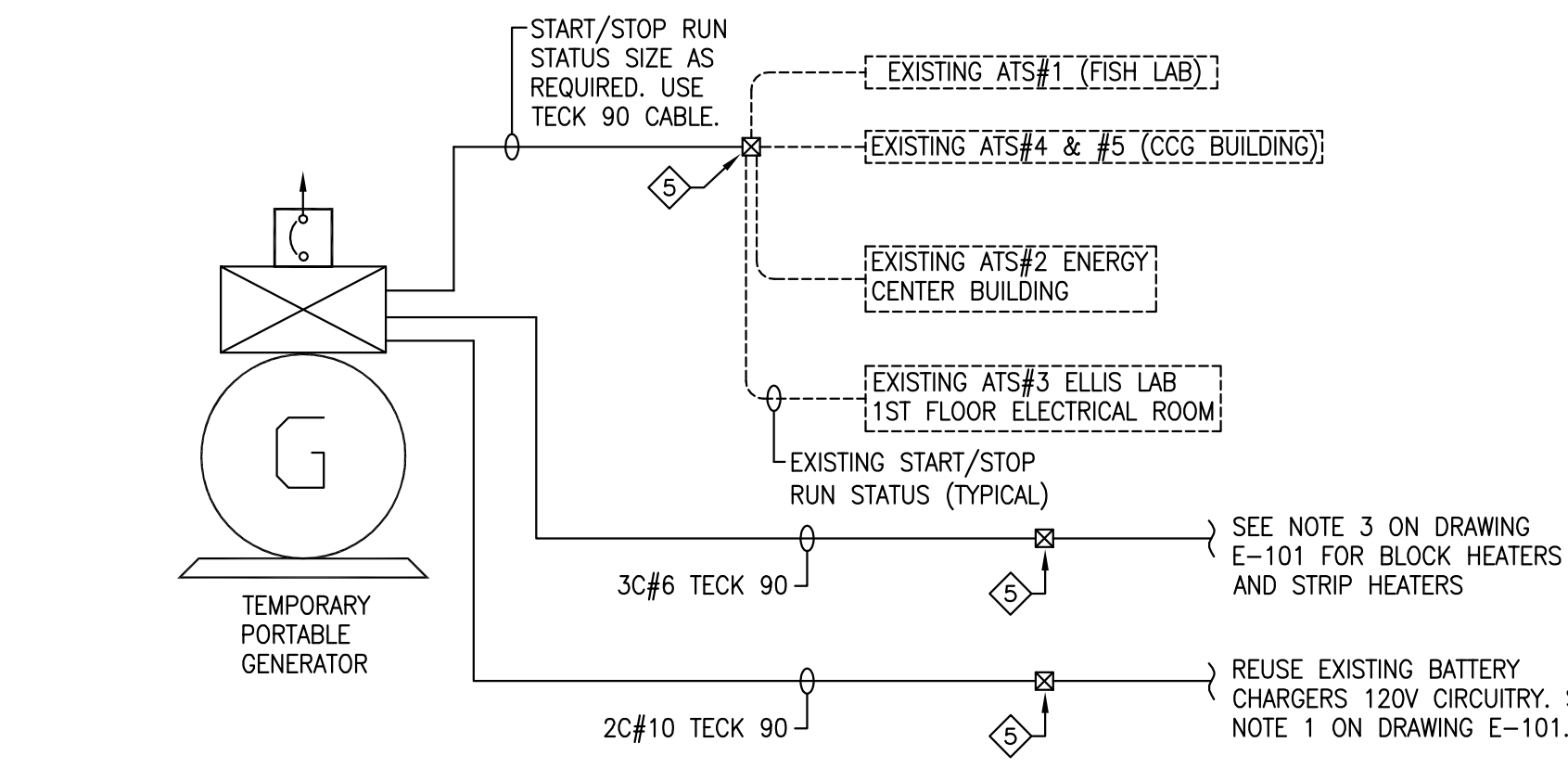


ELECTRICAL NOTES:

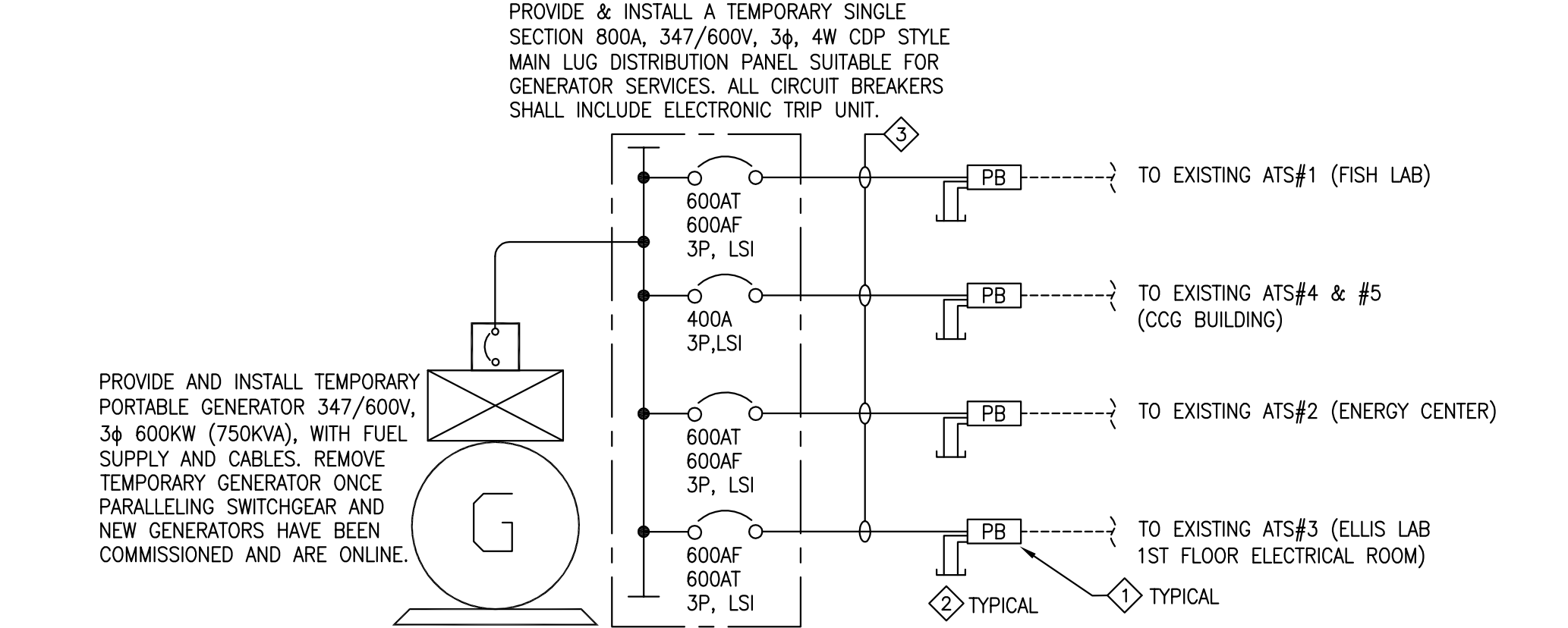
- INDICATED BY THE  SYMBOL ON THE DRAWINGS. (I.E.  INDICATES NOTE 1)
- NOTE 1: COORDINATE LOCATION OF PULL BOX TO ALLOW FOR FUTURE CONNECTION INTO NEW PARALLELING SWITCHGEAR. PULL BOX SIZE TO SUIT.
- NOTE 2: PROVIDE 2 x 100mm EMT CONDUIT. COORDINATE LOCATION OF CONDUIT FOR FUTURE CONNECTION INTO PARALLELING SWITCHGEAR OUTGOING DISTRIBUTION.
- NOTE 3: PROVIDE NEW TEMPORARY CONDUIT AS REQUIRED. DEROUTE EXISTING FEEDERS THROUGH NEW CONDUITS AND RE-TERMINATE ON TEMPORARY CIRCUIT BREAKER. EXISTING FEEDERS SIZE AND NUMBER OF RUNS SHALL BE CONFIRMED ON SITE.
- NOTE 4: CONFIRM ELECTRICAL REQUIREMENT FOR TEMPORARY GENERATOR BLOCK HEATERS, STRIP HEATERS AND BATTERY CHARGERS WITH MANUFACTURER BEFORE INSTALLATION.
- NOTE 5: PROVIDE AND INSTALL A TERMINAL STRIP IN BOX FOR CONNECTION TO PORTABLE GENERATOR. TERMINATE ALL CABLES ON TERMINAL STRIP AND LABEL ACCORDINGLY.
- NOTE 6: ROUTE EXISTING FEEDERS THROUGH NEW EMT CONDUITS AND RE-TERMINATE ON RELOCATED BREAKER.
- NOTE 7: METERS SHALL BE C/W ETHERNET, INTEGRATED DISPLAY, AND BACKNET INTERFACE. CONTRACTOR IS RESPONSIBLE TO CONNECT THE NEW METER TO EXISTING BIO CAMPUS METERING NETWORK.
- NOTE 8: ALL CIRCUIT BREAKERS SHALL BE INSTALLED ON THE SAME ORDER SHOWN TO ALLOW FOR RE-TERMINATING EXISTING CABLES. PROVIDE NEW MOUNTING BRACKETS FOR ALL RELOCATED CIRCUIT BREAKERS.
- NOTE 9: COMBUSTION AIR DAMPER SHALL OPEN ON:
- GENERATOR 1 OR GENERATOR 2 AUTOMATIC START (FROM THE SYNCHRONIZING CONTROL)
 - MANUAL START (FROM THE GENERATOR #1 OR GENERATOR #2 CONTROL PANEL)
- CONFIRM SEQUENCE OF OPERATION WITH MECHANICAL BEFORE INSTALLATION.
- NOTE 10: INSTALL ALL WIRING IN CONDUIT. PROVIDE SEPARATE CONDUITS FOR CLASS 1, CLASS 2 AND COMMUNICATION CABLEING.
- NOTE 11: AS A MINIMUM PROVIDE THE FOLLOWING INPUT TO THE SYNCHRONIZING SWITCHGEAR: ENGINE COOLING TEMPERATURE, ENGINE COOLING LEVEL, BATTERY VOLTAGE, ENGINE OVERSPEED, EMERGENCY STOP SHUTDOWN, ENGINE FAILURE TO START SHUTDOWN, GENERATOR CONTROL IN AUTO, UNEXPECTED ENGINE SHUTDOWN.
- NOTE 12: PROVIDE NEW FIELD MOUNTED 24VAC/DC SHUNT TRIP EATON  SNT4LP03K FOR RELOCATED CIRCUIT BREAKER.
- NOTE 13: PROVIDE NEW TRIP UNIT EATON CAT.  #LES3600LSIG310+ FOR RELOCATED CIRCUIT BREAKER.
- NOTE 14: PROVIDE A METER TEST SWITCH TO BE MOUNTED AT THE SWITCHGEAR UNDERNEATH THE METER DISPLAY TO DISABLE THE METER DURING LOAD BANK TESTING. INSTALL A WARNING SIGN ADJACENT TO THE SWITCH STATING "METER TEST SWITCH - OPEN SWITCH BEFORE STARTING GENERATORS LOAD BANK TESTING AND CLOSE SWITCH WHEN LOAD BANK TESTING IS COMPLETE".
- NOTE 15: A PULL BOX SHALL BE PLACED IN CONDUIT RUNS WHERE THE SUM OF THE BENDS EXCEEDS 180 DEGREES, WHERE THE OVERALL LENGTH OF THE CONDUIT RUN IS MORE THAN 30M, OR IF THERE IS A REVERSE BEND IN THE RUN.



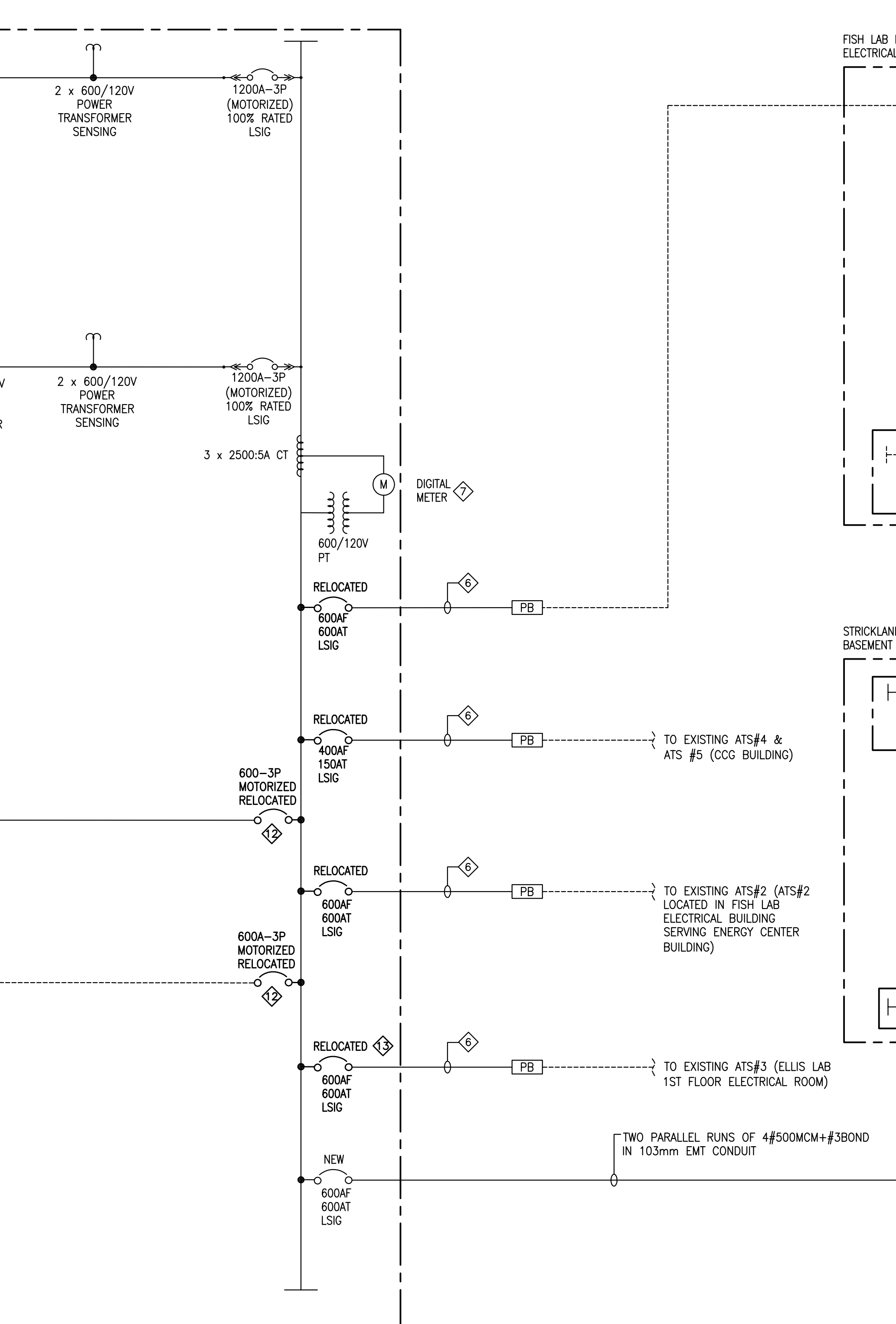
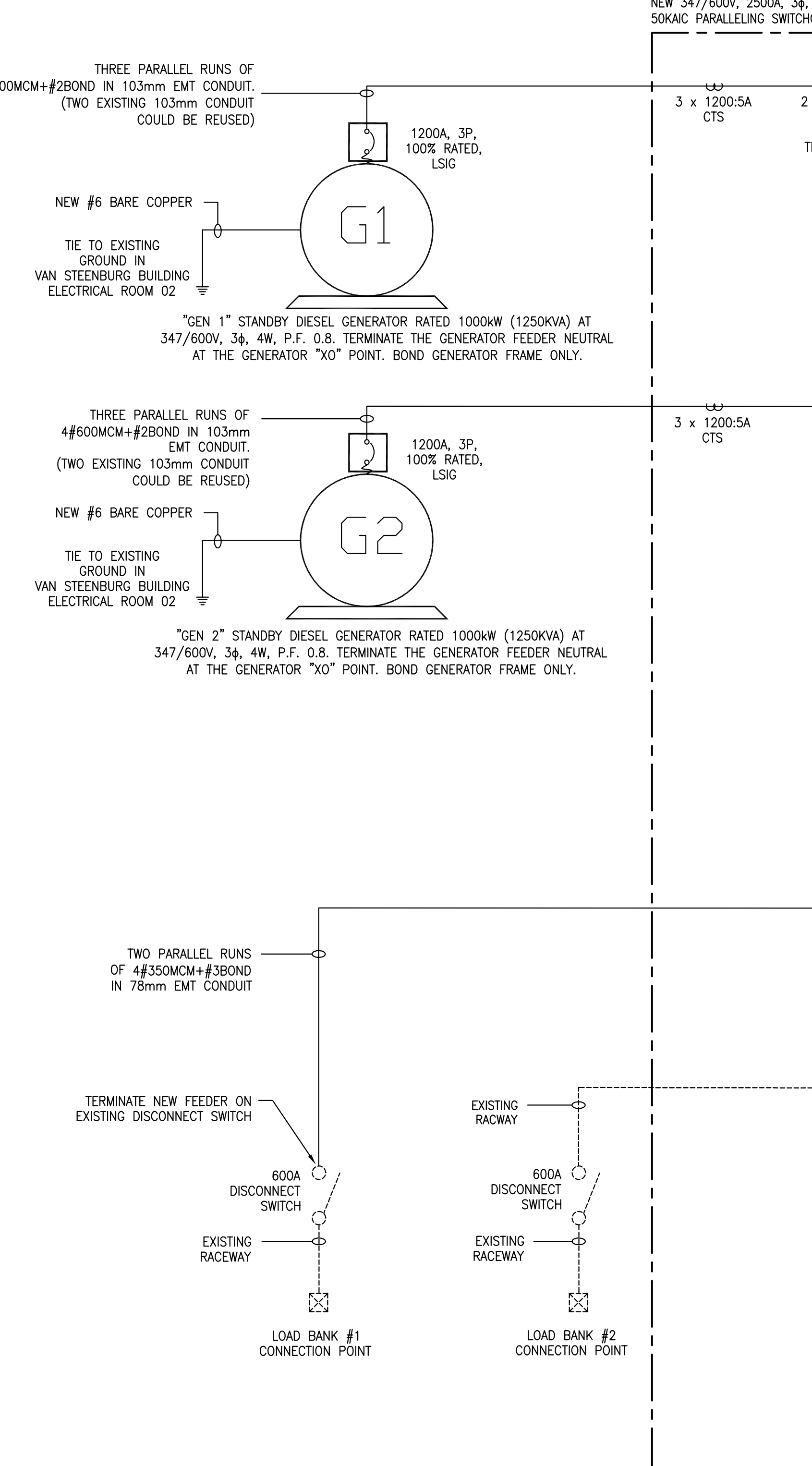
ELEVATION - PARALLELING SWITCHGEAR



TEMPORARY GENERATOR CONTROLS RISER

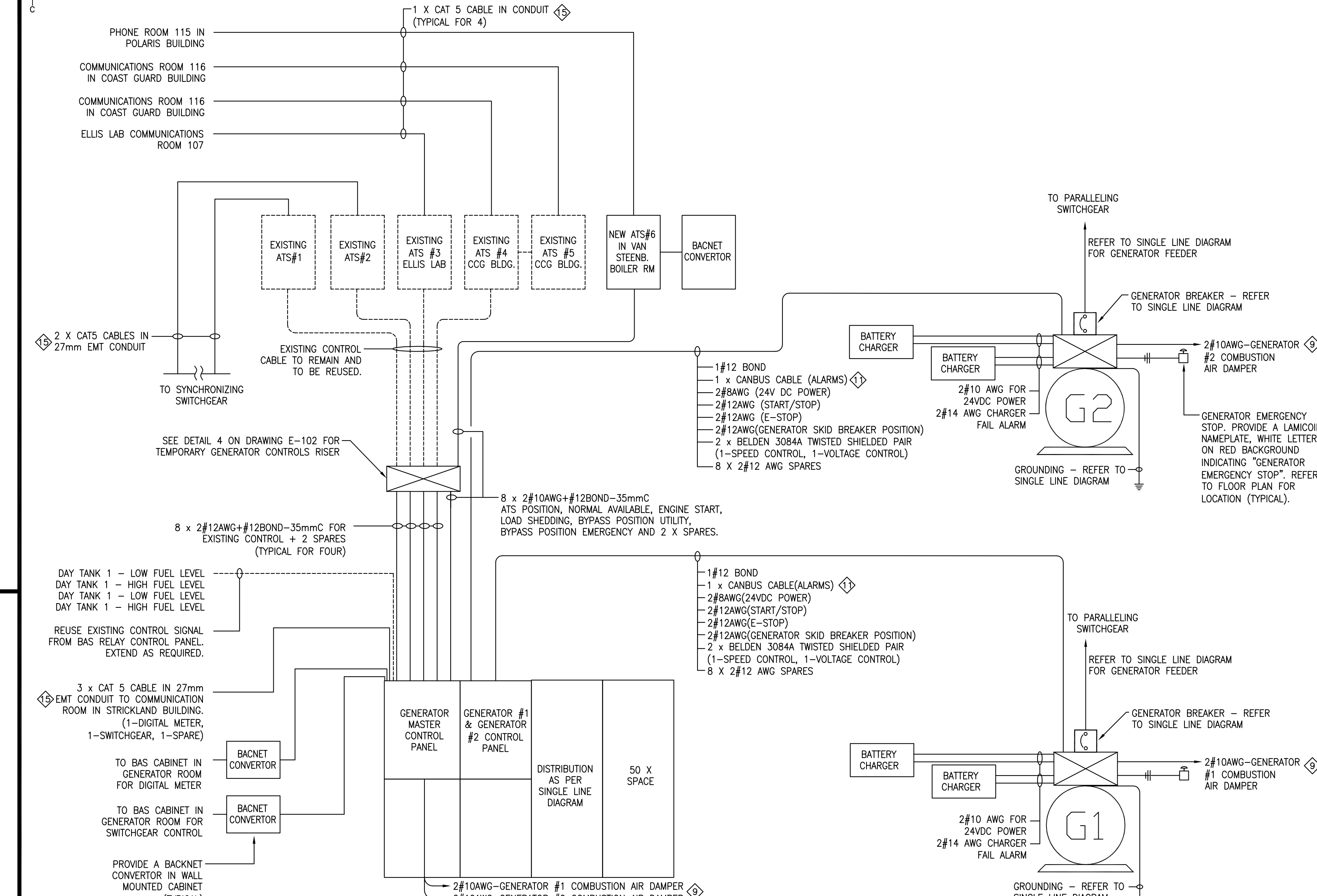


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3	RE-ISSUED FOR 100% REVIEW	07/18/2016
2	ISSUED FOR 100% REVIEW	06/15/2016
1	ISSUED FOR 70% REVIEW	04/08/2016

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client: BEDFORD INSTITUTE OCEANOGRAPHY
location: DARTMOUTH - NS

drawing: ELECTRICAL DETAILS ELEVATION, RISERS & NEW SINGLE LINE DIAGRAM

designed: JHB
date: JULY 2016
drawn: AL
date: JULY 2016
approved: JHB
date: JULY 2016

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