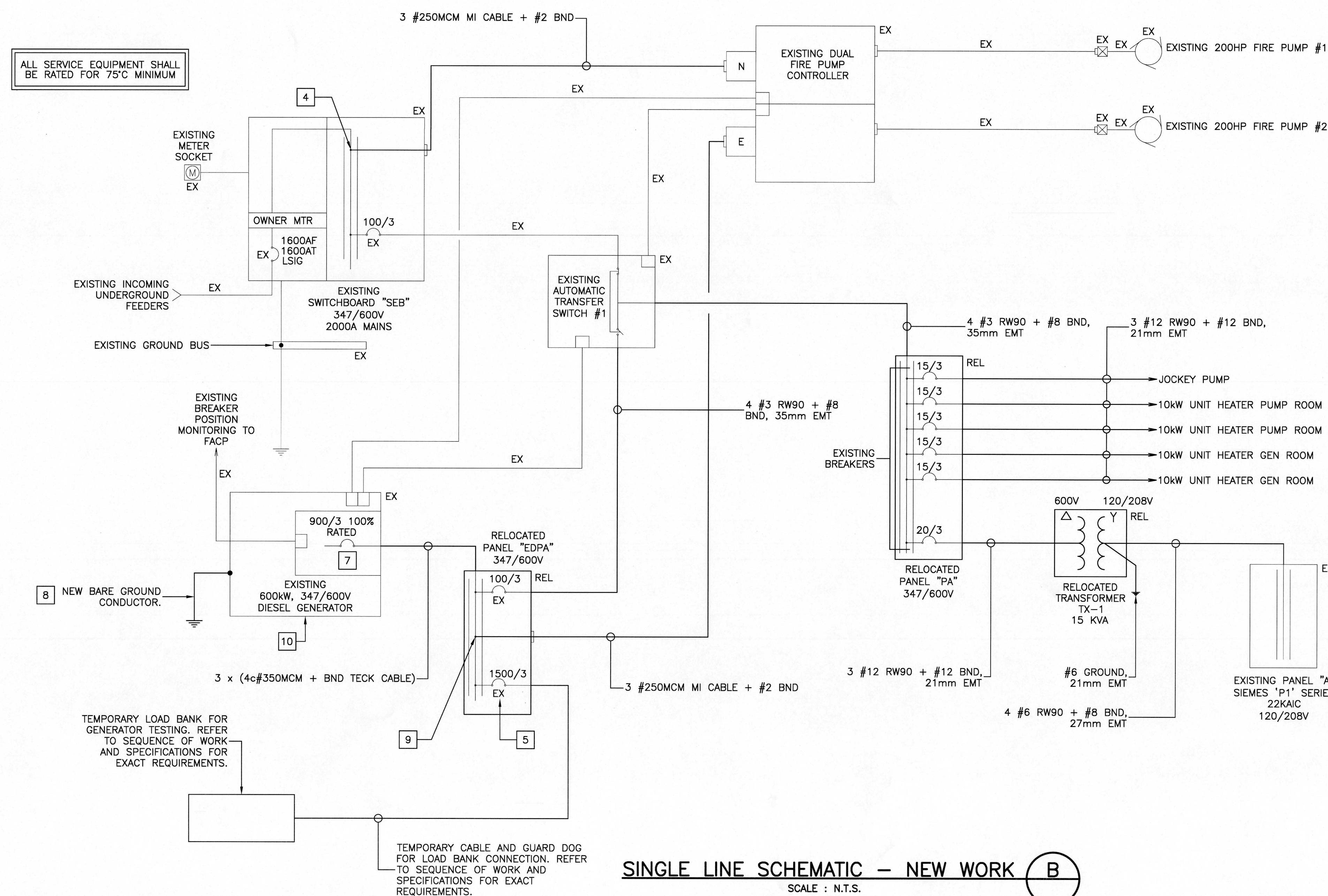


SINGLE LINE SCHEMATIC – EXISTING CONDITION/REMOVALS (A)
SCALE : N.T.S.



SINGLE LINE SCHEMATIC – NEW WORK (B)
SCALE : N.T.S.

SPECIFIC NOTES:

1. RELOCATE PANEL "PA" TO LOCATION AS SHOWN ON FLOOR PLANS. DISCONNECT AND REMOVE ALL WIRING UP TO EQUIPMENT BEING FED. ABANDON ALL IN-SLAB PVC CONDUITS AND CUT PVC CONDUIT 35mm BELOW TOP OF SLAB. GENERAL CONTRACTOR TO IN-FILL ALL CONDUIT HOLES, REFER TO STRUCTURAL DRAWINGS FOR ADDITIONAL REQUIREMENTS.
2. DISCONNECT FIRE PUMP FEED FROM 1500A-3P BREAKER IN SWITCHBOARD "SEB". REMOVE BREAKER FROM SWITCHBOARD AND PROVIDE NEW SIEMENS BLANK COVER. ACQUIRE EQUIPMENT REQUIRED FOR BREAKER REMOVAL. SPARE BREAKER TO BE TURNED OVER TO DEPARTMENTAL REPRESENTATIVE. COORDINATE STORAGE LOCATION WITH DEPARTMENTAL REPRESENTATIVE.
3. EXISTING 3 #250MCM MI CABLE + #3 BND TO BE REMOVED
4. TERMINATE FIRE PUMP CONTROLLER FEED DIRECTLY INTO SWITCHBOARD "SEB" BUS. ENGAGE MANUFACTURER'S TECHNICIAN FOR ALL REQUIRED MODIFICATION INSIDE SWITCHBOARD. PROVIDE MANUFACTURER SPECIFIC HARDWARE AS REQUIRED TO TERMINATE CONDUCTORS. CONTRACTOR SHALL BE RESPONSIBLE TO ENGAGE AND COORDINATE THIRD PARTY CSA RE-CERTIFICATION UPON COMPLETION OF WORK PRIOR TO COMMISSIONING SYSTEM.
5. PROVIDE LAMICOID LABEL FOR SPARE/LOAD BANK CONNECTION WITH THE FOLLOWING WORDING "LOAD BANK CONNECTION"
6. EXISTING SIEMENS SWITCHBOARD "FCI" SERIES, PANEL "EDPA" 347/600V, 3PH, 4W, 2000A MAIN BUS. RELOCATE PANEL TO NEW LOCATION AS SHOWN ON FLOOR PLANS. DISCONNECT FEEDERS AND EXTEND/RE-FEED AS REQUIRED TO NEW PANEL LOCATION.
7. REFER TO SPECIFICATIONS FOR BREAKER TRIP SETTING ADJUSTMENTS REQUIRED.
8. RUN NEW #6 GROUND CONDUCTOR IN 21mm EMT CONDUIT FROM GENERATOR SKID TO MAIN BUILDING GROUND BUS BAR.
9. TERMINATE FIRE PUMP CONTROLLER FEED DIRECTLY INTO SWITCHBOARD "EDPA" BUS. ENGAGE MANUFACTURER'S TECHNICIAN FOR ALL REQUIRED MODIFICATION INSIDE SWITCHBOARD. PROVIDE MANUFACTURER SPECIFIC HARDWARE AS REQUIRED TO TERMINATE CONDUCTORS. CONTRACTOR SHALL BE RESPONSIBLE TO ENGAGE AND COORDINATE THIRD PARTY CSA RE-CERTIFICATION UPON COMPLETION OF WORK PRIOR TO COMMISSIONING SYSTEM.
10. PERFORM GENERATOR TESTING AS OUTLINED IN SEQUENCE OF WORK AND SPECIFICATIONS, ONCE ALL WORK IS COMPLETE.

LEGEND

- 15A, 120V DUPLEX RECEPTACLE
- 20A, 120V DUPLEX RECEPTACLE
- DISCONNECT SWITCH
- DIRECT CONNECT
- BACKBOX
- RELAY
- 15A, 120V TOGGLE SWITCH
- 15A, 120V 3-WAY TOGGLE SWITCH
- WALL MOUNT LED LUMINAIRE
- LED 1X4 LUMINAIRE
- WALL MOUNT EXIT SIGN
- BATTERY PACK W/DOUBLE HEAD
- REMOTE EMERGENCY LIGHT W/DOUBLE HEAD
- FIRE ALARM CONTROL PANEL
- FIRE ALARM MANUAL PULL STATION
- FIRE ALARM HORN/STROBE WP DENOTES WEATHERPROOF
- FIRE ALARM SMOKE DETECTOR
- FIRE ALARM HEAT DETECTOR
- FIRE ALARM INPUT MODULE
- END OF LINE RESISTOR
- UNIT HEATER
- 600V HEATER RELAY c/w 24V CONTROL COIL. COORDINATE WITH CONTROLS CONTRACTOR.
- DATA / VOICE OUTLET
- DOOR CONTACT
- KEYPAD
- EMERGENCY POWER OFF
- EX INDICATES EXISTING DEVICE TO REMAIN
- MV INDICATES EXISTING DEVICE TO BE RELOCATED
- DEL INDICATES EXISTING DEVICE TO BE REMOVED
- REL INDICATES EXISTING DEVICE IN IT'S RELOCATED POSITION

SEQUENCE OF OPERATION:

- ANY DISCREPANCIES OR OMISSIONS SHALL BE BROUGHT TO THE ENGINEERS AND DEPARTMENTAL REPRESENTATIVES ATTENTION BEFORE COMMENCING ANY WORK. TO REDUCE THE DOWNTIME, THE CONTRACTOR SHALL PLAN OUT THEIR OWN SEQUENCE OF WORK AND PROVIDE TO THE ENGINEER AND DEPARTMENTAL REPRESENTATIVE FOR FINAL REVIEW PRIOR TO COMMENCING ANY WORK. THE BELOW SEQUENCE OF WORK SHALL BE USED AS GUIDANCE.
- I. NOTE THAT THE FACILITY SHALL AND REQUIRES TO MAINTAIN EITHER NORMAL OR EMERGENCY POWER AT THE FIRE PUMP AT ALL TIMES DURING CONSTRUCTION. ALL POWER OUTAGES TO OTHER EQUIPMENT SHALL BE COORDINATED WITH THE DEPARTMENTAL REPRESENTATIVE 5 DAYS PRIOR TO SHUTDOWN.
 - II. CONTRACTOR SHALL ENGAGE THIRD PARTY CSA RE-CERTIFICATION AGENCY AND SWITCHBOARD SUPPLIER TO COORDINATE AND CONFIRM ACCEPTANCE OF WORK AS OUTLINED. NO EXTRAS SHALL BE GRANTED FOR CHANGES REQUESTED UPON COMMENCING OF WORK.
 - III. PRIOR TO COMMENCING ANY WORK, PANEL "EDPA" AND ALL ASSOCIATED ANCILLARIES SHALL BE RELOCATED TO NEW LOCATION. DISCONNECT ALL FEEDERS WITHIN PANEL "EDPA" AND RELOCATE PANEL TO NEW LOCATION. REMOVE TECK CABLE FEED FROM GENERATOR AND 100A FEED SUPPLYING ATS #1. PARTIALLY REMOVE THE MINERAL INSULATED CABLE FEEDING THE FIRE PUMP CONTROLLER UP TO CEILING SPACE AND TERMINATE INTO JUNCTION BOX. RUN NEW CABLES/CONDUCTORS IN CONDUIT AS SHOWN ON SINGLE LINE DIAGRAM AND RE-CONNECT TO PANEL "EDPA" IN THEIR RESPECTIVE BREAKERS/LUGS.
 - IV. PRIOR TO PERFORMING ANY WORK ON THE MAIN SWITCHBOARD "SEB", CONTRACTOR SHALL ENSURE FACILITY IS FULLY OPERATIONAL ON GENERATOR POWER AND STABLE.
 - V. CONTRACTOR IS TO REVIEW EXISTING SWITCHBOARD "SEB" AND UNDERSTAND INTERNAL CONFIGURATION PRIOR TO COMMENCING ANY WORK, TO FULLY UNDERSTAND WHETHER UTILITY COORDINATION IS REQUIRED TO DE-ENERGIZE BUILDING NORMAL FEEDERS AT POLE TOP LOCATION. CONTRACTOR SHALL ALLOW AND CARRY ALL COSTS FOR THIS WORK IN THEIR TENDER DOCUMENTS, UTILITY ALLOWANCE COSTS SHALL BE AS OUTLINED IN THE SPECIFICATIONS.
 - VI. DISCONNECT FIRE PUMP FEEDER AND REMOVE 1500A-3P BREAKER FROM SWITCHBOARD "SEB" AND CONNECT FIRE PUMP CONTROLLER DIRECTLY TO SWITCHBOARD BUSSING. RE-CERTIFY SWITCHBOARD PRIOR TO ENERGIZING.
 - VII. UPON RE-CERTIFYING AND ENERGIZING SWITCHBOARD "SEB" TO ALLOW FACILITY TO OPERATE ON NORMAL POWER, ENSURE POWER SOURCE IS STABLE AND FULLY OPERATIONAL.
 - VIII. CONTRACTOR SHALL DISCONNECT FIRE PUMP FEEDER FROM 1500A-3P BREAKER AT SWITCHBOARD "EDPA" AND CONNECT FIRE PUMP CONTROLLER DIRECTLY TO SWITCHBOARD BUSSING. RE-CERTIFY SWITCHBOARD PRIOR TO ENERGIZING.
 - IX. SWITCHBOARD "EDPA" 1500A-3P BREAKER SHALL REMAIN IN SWITCHBOARD, LABEL AS "LOAD BANK CONNECTION".
 - X. SWITCHBOARD "SEB" 1500A-3P BREAKER SHALL BE TURNED OVER TO DEPARTMENTAL REPRESENTATIVE AND TRANSPORTED BY THE CONTRACTOR WITHIN THE AIRPORT SITE TO A LOCATION AS DIRECTED BY DEPARTMENTAL REPRESENTATIVE DURING CONSTRUCTION.
 - XI. RUN CONDUITS TO DEVICES BEING FED BY PANEL "PA" PRIOR TO RELOCATING PANEL, IN ORDER TO REDUCE THE DURATION OF THE POWER INTERRUPTION. DISCONNECT ALL WIRING WITHIN PANEL "PA" AND RELOCATE TO NEW LOCATION. DISCONNECT WIRING FROM TRANSFORMER AND RELOCATE TO NEW LOCATION. CONNECT ALL CONDUITS TO PANEL AND TRANSFORMER AND RUN NEW WIRING.
 - XII. ONCE RELOCATIONS ARE COMPLETE, REMOVE ALL REDUNDANT WIRING FROM SITE.
 - XIII. CONTRACTOR SHALL TEST GENERATOR AND PROVIDE ALL CABLING, LOAD BANK, GUARD DOG AND ANCILLARIES AS REQUIRED TO CARRY OUT THE TESTING REQUIREMENTS AS OUTLINED IN THE ELECTRICAL SPECIFICATIONS. 1500A-3P BREAKER IN SWITCHBOARD "EDPA" SHALL BE UTILIZED AS A CONNECTION POINT FOR THE LOAD BANK CONNECTION FOR THE DURATION OF THE TESTING WORK.
 - XIV. CONTRACTOR SHALL FOLLOW ALL LOCKOUT AND TAG OUT PROCEDURES WHILE PERFORMING THE ABOVE NOTED WORK.
 - XV. WHILE PERFORMING THIS WORK, THE CONTRACTOR SHALL BE RESPONSIBLE TO PROVIDE ADEQUATE FUEL FOR THE GENERATOR FOR THE ENTIRE DURATION REQUIRED. UPON COMPLETION OF WORK, GENERATOR SHALL BE RE-FUELED TO THE 'FULL' MARK.