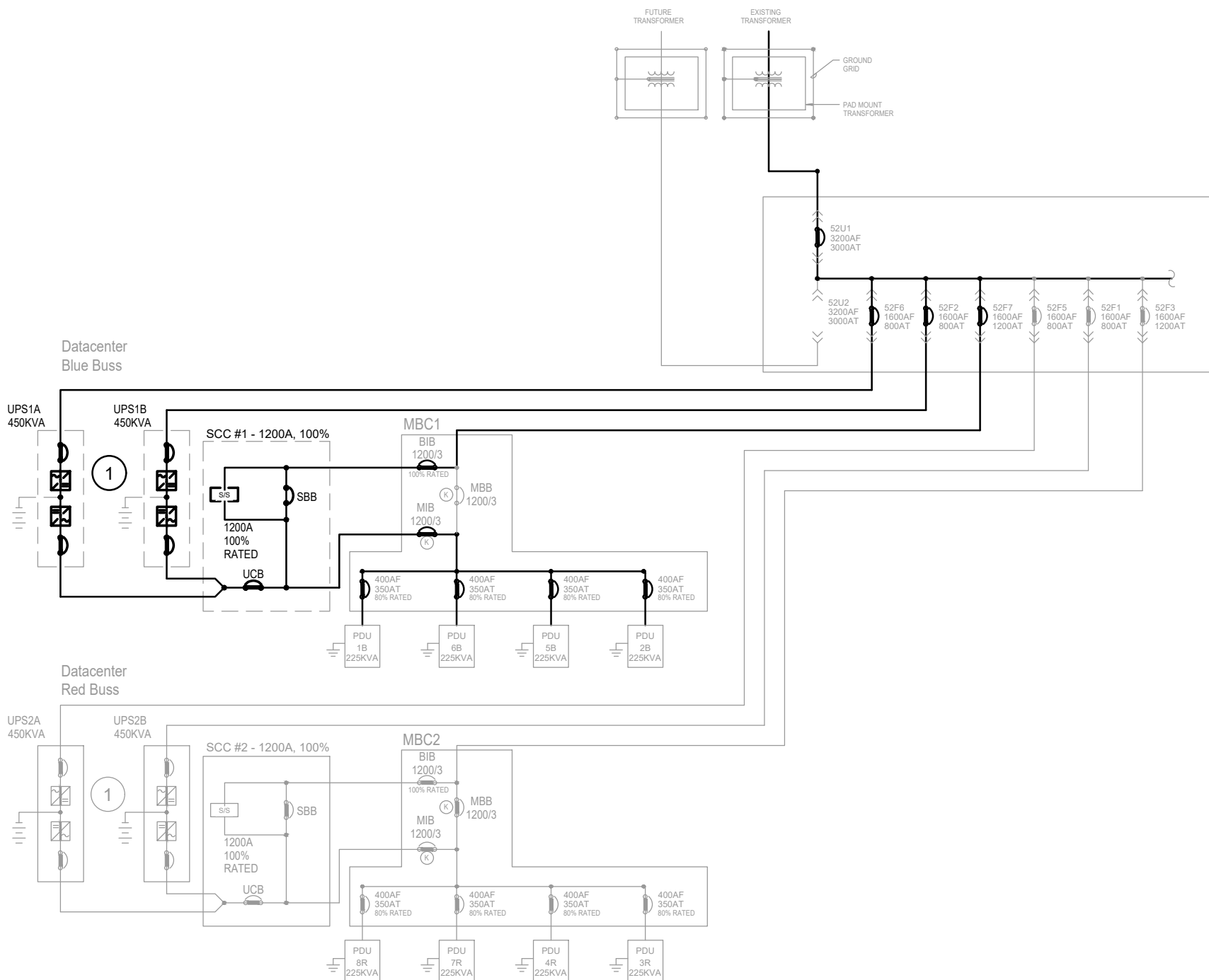
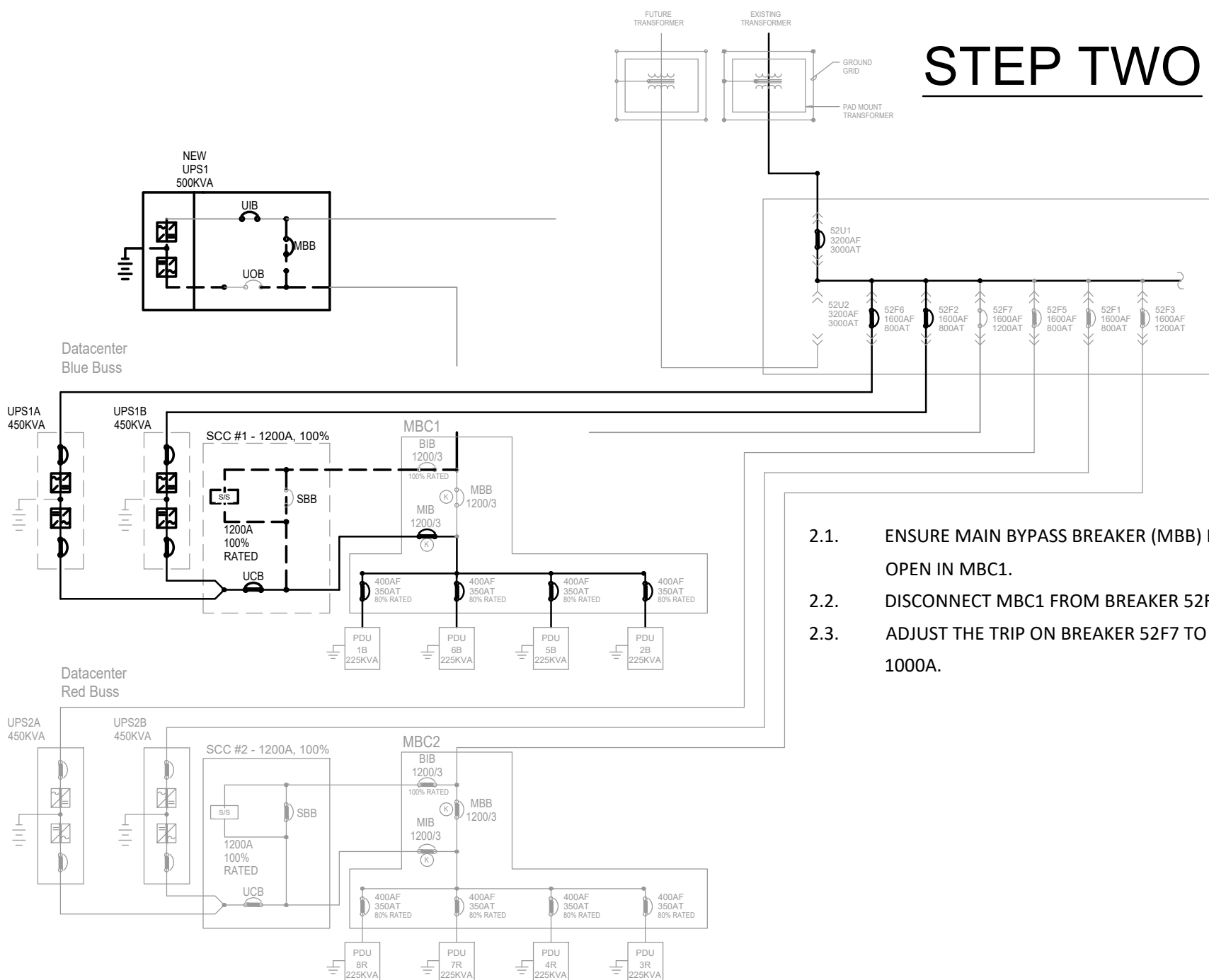


NORMAL RUNNING SYSTEM

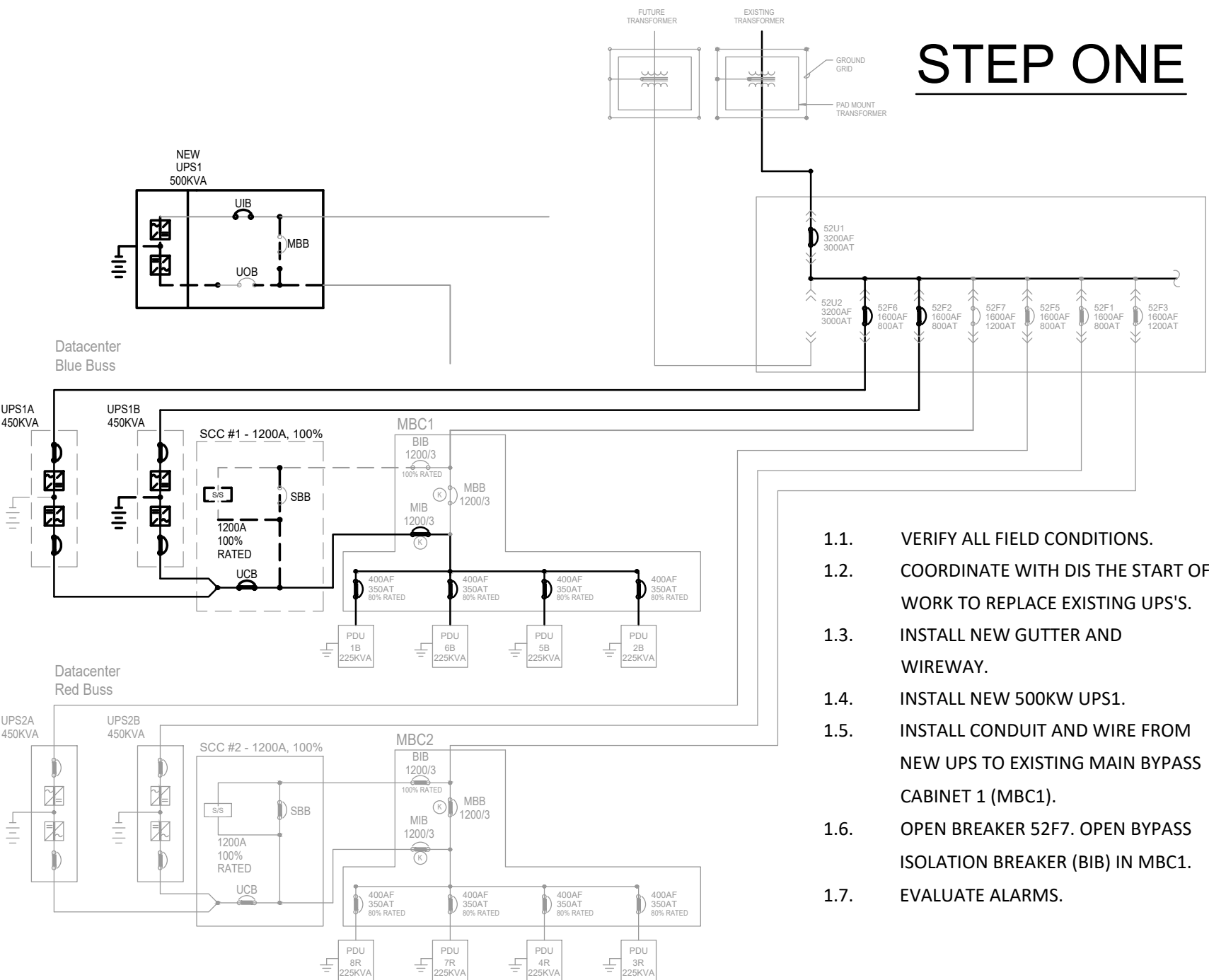


STEP TWO



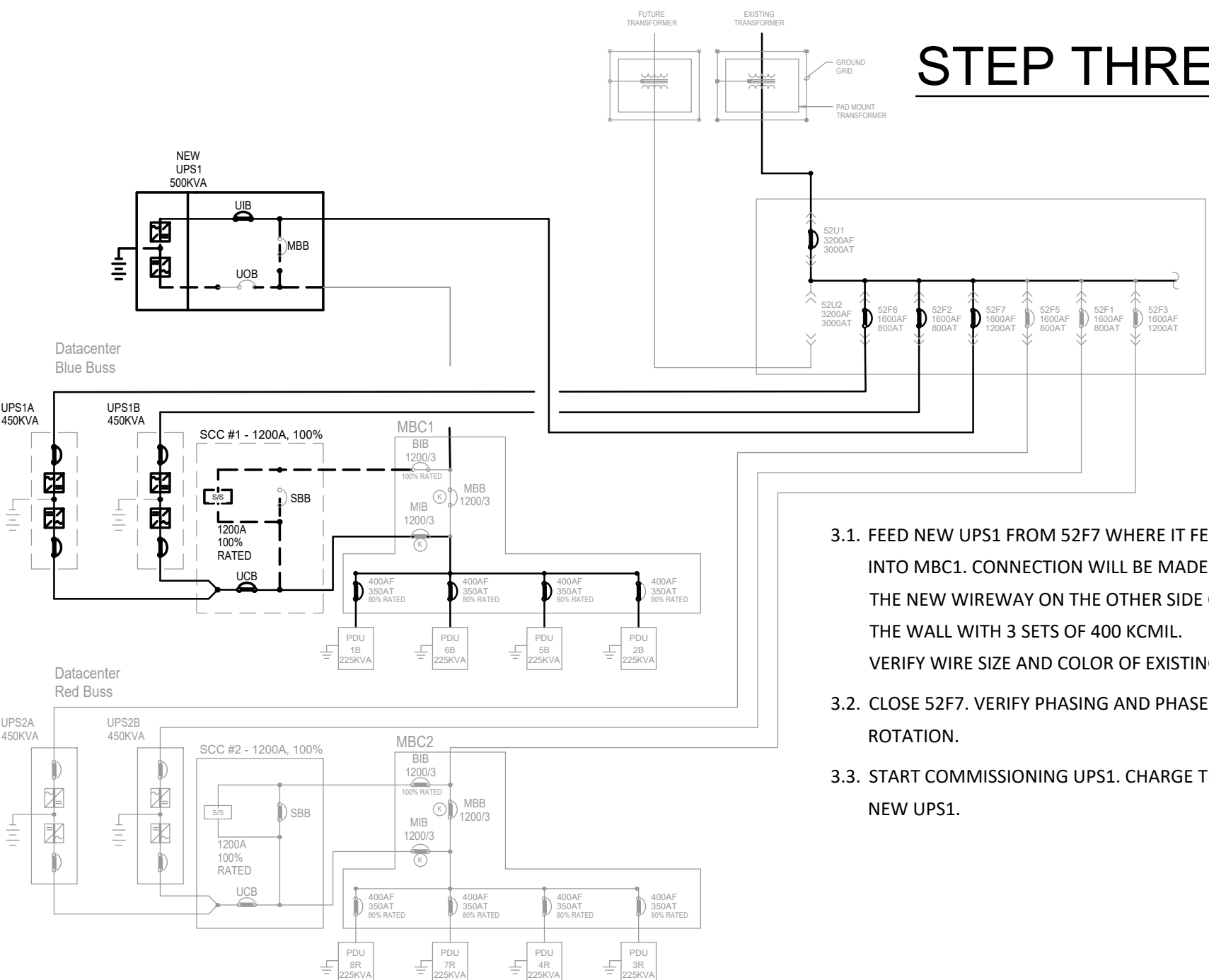
- 2.1. ENSURE MAIN BYPASS BREAKER (MBB) IS OPEN IN MBC1.
- 2.2. DISCONNECT MBC1 FROM BREAKER 52F7.
- 2.3. ADJUST THE TRIP ON BREAKER 52F7 TO 1000A.

STEP ONE



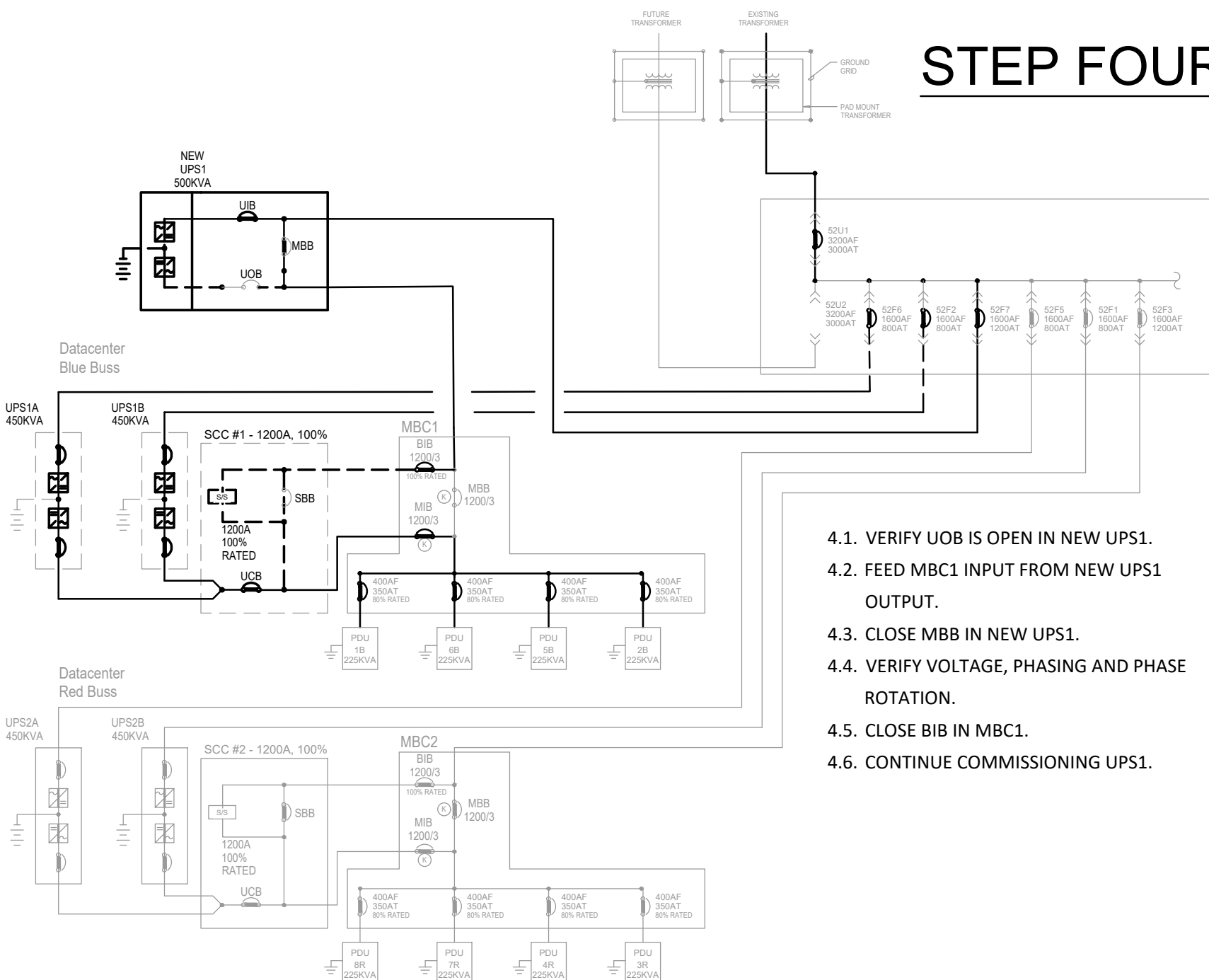
- 1.1. VERIFY ALL FIELD CONDITIONS.
- 1.2. COORDINATE WITH DIS THE START OF WORK TO REPLACE EXISTING UPS'S.
- 1.3. INSTALL NEW GUTTER AND WIREWAY.
- 1.4. INSTALL NEW 500KW UPS1.
- 1.5. INSTALL CONDUIT AND WIRE FROM NEW UPS TO EXISTING MAIN BYPASS CABINET 1 (MBC1).
- 1.6. OPEN BREAKER 52F7. OPEN BYPASS ISOLATION BREAKER (BIB) IN MBC1.
- 1.7. EVALUATE ALARMS.

STEP THREE



- 3.1. FEED NEW UPS1 FROM 52F7 WHERE IT FED INTO MBC1. CONNECTION WILL BE MADE IN THE NEW WIREWAY ON THE OTHER SIDE OF THE WALL WITH 3 SETS OF 400 KCMIL. VERIFY WIRE SIZE AND COLOR OF EXISTING.
- 3.2. CLOSE 52F7. VERIFY PHASING AND PHASE ROTATION.
- 3.3. START COMMISSIONING UPS1. CHARGE THE NEW UPS1.

STEP FOUR



- 4.1. VERIFY UOB IS OPEN IN NEW UPS1.
- 4.2. FEED MBC1 INPUT FROM NEW UPS1 OUTPUT.
- 4.3. CLOSE MBB IN NEW UPS1.
- 4.4. VERIFY VOLTAGE, PHASING AND PHASE ROTATION.
- 4.5. CLOSE BIB IN MBC1.
- 4.6. CONTINUE COMMISSIONING UPS1.

SYSTEM OF OPERATIONS

DURING EACH STEP OF THE PROCESS, THE DIS TEAM SHALL APPROVE BEFORE THE NEXT STEP WILL BEGIN.
ALL NEW WIRE SHALL BE COLOR MATCH TO EXISTING WIRE COLOR ON SITE.

FOR BLUE BUSS

- 1.1. VERIFY ALL FIELD CONDITIONS.
- 1.2. COORDINATE WITH DIS THE START OF WORK TO REPLACE EXISTING UPS'S.
- 1.3. INSTALL NEW GUTTER AND WIREWAY.
- 1.4. INSTALL NEW 500KW UPS1.
- 1.5. INSTALL CONDUIT AND WIRE FROM NEW UPS TO EXISTING MAIN BYPASS CABINET 1 (MBC1).
- 1.6. OPEN BREAKER 52F7. OPEN BYPASS ISOLATION BREAKER (BIB) IN MBC1.
- 1.7. EVALUATE ALARMS.

- 2.1. ENSURE MAIN BYPASS BREAKER (MBB) IS OPEN IN MBC1.
- 2.2. DISCONNECT MBC1 FROM BREAKER 52F7.
- 2.3. ADJUST THE TRIP ON BREAKER 52F7 TO 1000A.

- 3.1. FEED NEW UPS1 FROM 52F7 WHERE IT FED INTO MBC1. CONNECTION WILL BE MADE IN THE NEW WIREWAY ON THE OTHER SIDE OF THE WALL WITH 4 SETS OF 250 KCMIL. VERIFY WIRE SIZE AND COLOR OF EXISTING.
- 3.2. CLOSE 52F7. VERIFY PHASING AND PHASE ROTATION.
- 3.3. START COMMISSIONING UPS1. CHARGE THE NEW UPS1.

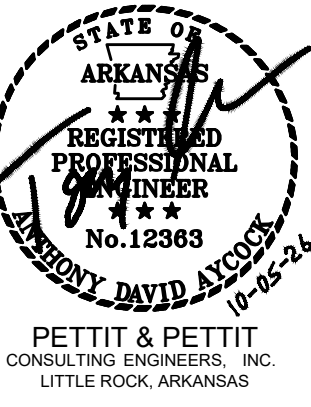
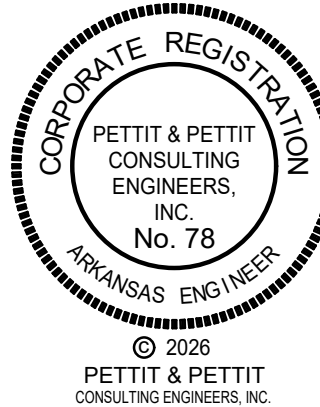
- 4.1. VERIFY UOB IS OPEN IN NEW UPS1.
- 4.2. FEED MBC1 INPUT FROM NEW UPS1 OUTPUT.
- 4.3. CLOSE MBB IN NEW UPS1.
- 4.4. VERIFY VOLTAGE, PHASING AND PHASE ROTATION.
- 4.5. CLOSE BIB IN MBC1.
- 4.6. CONTINUE COMMISSIONING UPS1.

- 5.1. VERIFY VOLTAGE, PHASING AND PHASE ROTATION.
- 5.2. PUT EXISTING UPS SCC#1 INTO BYPASS USING THE TRANSFER SEQUENCE INSTRUCTION.
- 5.3. CLOSE MBB IN MBC1.
- 5.4. OPEN MIB IN MBC1.
- 5.5. OPEN BIB IN MBC1.

- 6.1. NEW UPS1 IS PUT INTO NORMAL INVERTOR OPERATION.
- 6.2. OPEN 52F2 AND 52F6.
- 6.3. CONNECT KIRK KEY INTERLOCKS TO NEW UPS1. REWORK AS REQUIRED.
- 6.4. COMPLETE COMMISSIONING OF NEW UPS1.
- 6.5. DEMOLISH THE EXISTING UPS1A, UPS1B AND SCC#1.
- 7.1. ADJUST TRIP ON BREAKER 52F2.
- 7.2. PROVIDE AND INSTALL A JUNCTION BOX WHERE THE CONDUITS FED THE EXISTING UPS THROUGH THE GROUND. CONNECT THE MAINTENANCE ISOLATION BREAKER (MIB) IN MBC1 FROM BREAKER 52F2. FEED WITH 3 SETS OF 400 KCMIL. NOTE, ALL CONNECTIONS SHALL BE IN RIGID CONDUIT.
- 7.3. PROVIDE AND INSTALL A NEW JUNCTION BOX ON THE CONDUIT FEED FROM 52F6 COMING THROUGH THE FLOOR FOR THE OTHER PART OF THE OLD UPS1. LABEL WITH EXTREME CAUTION.
- 7.4. PROVIDE AND INSTALL NEW LAMINATED LABELS ON MBC1 AND NEW UPS1.
- 7.5. PROVIDE AND INSTALL NEW LAMINATED LABEL FOR THE TRANSFER PROCEDURE TO REFLECT CHANGES.

STEPS REPEAT FOR THE RED BUSS UPS.

ANY PRIME CONTRACTOR BIDDING THIS PROJECT MUST BE ABLE TO PRESENT PREVIOUS EXPERIENCE WITH DATA CENTERS, CRITICAL FACILITY INFRASTRUCTURE PROJECTS INVOLVING 480V/3PH OR GREATER BUILDING PROJECTS WHERE MAINTAINING BOTH POWER AND DATA STABILITY IS CRITICAL TO THE SUCCESS OF THE PROJECT, DEMONSTRATING EXPERTISE IN CONTROL SYSTEMS, INCLUDING KEY INTERLOCK SCHEMES THAT FACILITATE SAFE BREAKER MANIPULATION, AS WELL AS DEMONSTRATING THEIR ABILITY TO ACCOMPLISH THE PROJECT SCOPE WHILE ENSURING SMOOTH TRANSITION OF POWER AND DATA WITHOUT OUTAGE.



UPS REPLACEMENT
STATE DATA CENTER WEST
SAS / OFFICE OF STATE TECHNOLOGY
LITTLE ROCK, ARKANSAS

DBA PROJ# 4702501RLF

P & P JOB NO. 26-006

DESIGN TDA/BBJ

DATE 10/05/2026

SHEET NO.

E2.01

Pettit
CONSULTING ENGINEERS, INC.
201 EAST MARKHAM STREET, SUITE 400 | LITTLE ROCK, AR 72201-1431 | 501.374.3731 | WWW.PETTITINC.COM