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City of Oxnard

Public Works Integrated Master Plan

WASTEWATER

PROJECT MEMORANDUM 3.8
ARC FLASH ASSESSMENT

REVISED FINAL DRAFT
September 2017

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PREFACE

The analysis and evaluations contained in these Project Memorandum (PM) are based on data and information available at the time of the original date of publication, December 2015. After development of the December 2015 Final Draft PMs, the City continued to move forward on two concurrent aspects: 1) advancing the facilities planning for the water, wastewater, recycled water, and stormwater facilities; and 2) developing Updated Cost of Service (COS) Studies (Carollo, 2017) for the wastewater/collection system and the water/distribution system. The updated 2017 COS studies contain the most recent near-term Capital Improvement Projects (CIP). **The complete updated CIP based on the near-term and long-term projects is contained in the Brief History and Overview of the City of Oxnard Public Works Department's Integrated Planning Efforts: May 2014 – August 2017 section.**

At the time of this Revised PWIMP, minor edits were also incorporated into the PMs. Minor edits included items such as table title changes and updating reports that were completed after the December 2015 original publication date.

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Public Works Integrated Master Plan

WASTEWATER

PROJECT MEMORANDUM 3.8
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1.0 INTRODUCTION

The short circuit, coordination, and arc flash hazard studies contained in this report provide information necessary for the safe and reliable operation and maintenance of the City of Oxnard (City) wastewater treatment facilities' electrical distribution system, and to help them meet the safety requirements of NFPA 70E and OSHA 1910.132(d). The facilities with dedicated utilities power that were included in this electrical study are:

- Main Electrical Building.
- Headworks Facilities.
- Gym.
- Sampling Station/Eastern Trunk Pump Station.

The studies in this report were performed using ETAP power system analysis software. The data required to build the electrical system model was obtained from a combination of field investigation and as-built project documentation.

1.1 Project Memorandums (PMs) Used for Reference

The recommendations outlined in this PM include background from the following other PMs:

- PM 2.6 - Water System - Arc Flash Assessment.
- PM 3.1 - Wastewater System - Background Summary.
- PM 4.4 - Recycled Water System - Arc Flash Assessment.

1.2 Other Reports Used for Reference

The following codes and standards are referenced in this PM:

- NFPA 70 National Electric Code (NEC).
- NFPA 70E Standard for Electrical Safety in the Workplace.
- IEEE Standard 242 (IEEE Buff Book) - Recommended Practice for Protection and Coordination of Industrial and Commercial Power Systems.
- IEEE 1584 - Guide for Performing Arc Flash Hazard Calculations.

1.3 Short Circuit Study

The objective of the Short Circuit Study is to verify that the electrical distribution equipment in the plant is rated to withstand and interrupt the short circuit currents that could result from a fault in the electrical distribution system.

Section 2.0 identifies equipment that is not properly rated for the available short circuit current.

1.4 Protective Device Coordination Study

The Protective Device Coordination Study has been performed to achieve four objectives – sensitivity, security, selectivity, and safety. Sensitivity refers to the degree of certainty that a device will operate correctly under a fault. Security is the degree of certainty that a device will not operate when there is no fault condition. Selectivity means that the protective device closest to a fault trips before any upstream devices to clear the fault, isolating the resulting outage to the smallest amount of equipment possible. Safety primarily applies to the arc flash hazard and requires that protective devices operate as quickly as possible to reduce incident energy.

The results of the study show that certain protective devices are not properly coordinated and require adjustment**.** Section 3.0 identifies the protective devices, which are not properly coordinated.

1.5 Arc Flash Study

The objective of the Arc Flash Study is to provide information that allows plant staff to take appropriate precautions when working on energized electrical equipment to reduce the potential risk of injury from an arc flash event. The results of the Short Circuit and the Protective Device Coordination Studies are used to calculate the incident energy and hazard boundaries based upon NFPA 70E 2015 Edition and IEEE 1584 for equipment in the electrical distribution system. OSHA regulations require that employers perform an assessment of the workplace to identify arc flash hazards.

Specifically, "The employer shall assess the workplace to determine if hazards are present, or are likely to be present, which necessitate the use of personal protective equipment (PPE). If such hazards are present, or likely to be present, the employer shall: Select, and have each affected employee use, the types of PPE that will protect the affected employee from the hazards identified in the hazard assessment; communicate selection decisions to each affected employee; and select PPE that properly fits each affected employee." [OSHA 1910.132(d)(1)].

The arc-flash labels provided with this study will help the plant to comply with these regulations by identifying the PPE level and arc flash boundary at each piece of equipment.

2.0 SHORT CIRCUIT STUDY

The objective of the Short Circuit Study is to verify that the electrical distribution equipment in the facility is rated to withstand and interrupt the available short circuit currents that could result from a fault in the electrical distribution system in accordance with NFPA 70 National Electric Code (NEC), Article 110 Paragraph's 110.9 and 110.10. The study results show that the existing electrical distribution equipment is sufficiently rated for the worst-case short circuit current with the exceptions of the following below:

- Main Electrical Building:
  - The main breaker for PNL DP4 is not properly rated for the available fault current.
  - The main bus for PNL DP4 is not properly rated for the available fault current.
  - The fuse for B20100.00 for Blower No. 1 is not properly rated for the available fault current.
  - The fuse for B20200.00 for Blower No. 2 is not properly rated for the available fault current.
  - The fuse for B20400.00 for Blower No. 4 is not properly rated for the available fault current.
- Headworks Facility:
  - The feeder Breaker for ATS-L BUS A is not properly rated for the available fault current.
  - The feeder Breaker for ATS-L BUS B is not properly rated for the available fault current.

2.1 Source Data

The results of the Short Circuit Study are completely dependent on the information in the electrical system model. As such, every effort has been made to obtain the most up-to-date information available for all equipment covered under the scope of the study. In the future, when changes are made to the electrical distribution system, the system model must be updated and a new short circuit study performed based on the updated model.

2.1.1 Utility Contribution

The following values are the available fault current at the utility service entrance, as provided by the utility in March 2015. Both the maximum and minimum fault current levels are incorporated into the electrical system model in order to capture the worst case arc flash event. It is important to note that utility fault current levels can change due to numerous variables in the utility distribution and transmission system. This is why it is undesirable to have equipment's short circuit rating too close to the calculated short circuit values.

Main Electrical Building Bus A (Filter):

- Available 3-Phase Fault Current: 3,700A, X/R Ratio: 334.22.
- Available Single Line-Ground Fault: 4,000A, X/R Ratio: 145.30.
- Nominal Voltage: 16340V.

Main Electrical Building Bus B (Sludge):

- Available 3-Phase Fault Current: 3,700A, X/R Ratio: 182.34.
- Available Single Line-Ground Fault: 4,000A, X/R Ratio: 79.20.
- Nominal Voltage: 16340V.

Headworks facility Bus A:

- Available 3-Phase Fault Current: 24,900A, X/R Ratio: 5.05.
- Available Single Line-Ground Fault: 27,400A, X/R Ratio: 5.64.
- Nominal Voltage: 480V.

Headworks facility Bus B:

- Available 3-Phase Fault Current: 24,900A, X/R Ratio: 5.03.
- Available Single Line-Ground Fault: 27,400A, X/R Ratio: 5.63.
- Nominal Voltage: 480V.

Gym Switchgear Bus A:

- Available 3-Phase Fault Current: 17,600A, X/R Ratio: 6.54.
- Available Single Line-Ground Fault: 18,600A, X/R Ratio: 6.63.
- Nominal Voltage: 480V.

Gym Switchgear Bus B:

- Available 3-Phase Fault Current: 17,600A, X/R Ratio: 6.61.
- Available Single Line-Ground Fault: 18,600A, X/R Ratio: 6.68.
- Nominal Voltage: 480V.

Gym Switchgear Bus A:

- Available 3-Phase Fault Current: 17,600A, X/R Ratio: 6.54.
- Available Single Line-Ground Fault: 18,600A, X/R Ratio: 6.63.
- Nominal Voltage: 480V.

Sampling Station/Eastern Trunk Pump Station:

- Available 3-Phase Fault Current: 10,300A, X/R Ratio: 2.12.
- Available Single Line-Ground Fault: 10,000A, X/R Ratio: 2.19.
- Nominal Voltage: 480V.

2.2 Assumptions

The following assumptions were used in performing the study:

- All motors and other continuous or intermittent loads (actuators, heaters, etc.) are running.
- Purely electronic loads do not contribute to a fault. This includes variable frequency drives without bypass capability, uninterruptible power supplies, UV ballasts, and other rectified loads.
- Loads 240V and below were not included in the arc flash calculations for systems fed from a 112.5 kilovolt-ampere (kVA) transformer or smaller, in accordance with IEEE 1584.
- Multipliers are applied to the reactance values of rotating machinery based on the recommendations in IEEE 141 (Red Book), as identified in Table 1.

Table 1 Motor and Generator Reactance Multipliers
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Machine Type	First Cycle Network	Interrupting Network
Turbine generators; all hydrogenerators with amortissuer windings; all condensers	1.0 Xd"	1.0 Xd"
Synchronous Motors	1.0 Xd"	1.5 Xd"
Induction Motors > 1,000 hp at ≤ 1,800 RPM	1.0 Xd"	1.5 Xd"
Induction Motors > 250 hp at 3,600 RPM	1.0 Xd"	1.5 Xd"
Induction Motors ≥ 50 hp not covered above	1.2 Xd"	3.0 Xd"
Induction Motors < 50 hp	1.67 Xd"	Neglect

Notes:
Xd = direct axis sub-transient reactance.

The direct axis sub-transient reactance value is inversely proportional to and has a significant impact on the sub-transient fault current magnitude, and, therefore affects the short circuit contribution from rotating machines operating in the system.

2.3 One-line Diagrams

One-line diagrams of the plant's electrical distribution system are shown in Appendix A. These diagrams are generated by ETAP as part of the model construction. Each element (breaker, cable, fuse, etc.) is uniquely named. Medium voltage breakers, loads, busses, and transformers are named in accordance with the record drawings. Cables, fuses, equipment terminals are named after their associated equipment. (For example, F-TRF-T2 is the fuse that protects the transformer TRF-T2.) Low voltage breakers in panelboards and switchboards are named according to their location. Similarly, low voltage breakers in MCCs are named as shown in Figure 1:

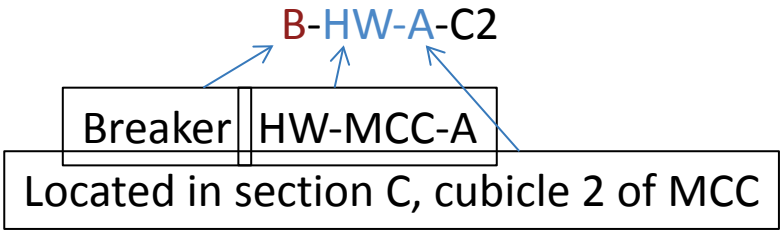


Figure 1 Naming Low Voltage Breakers in MCCs

Figure 2 is an example one-line diagram that identifies the locations in this report where information corresponding to the equipment is located.

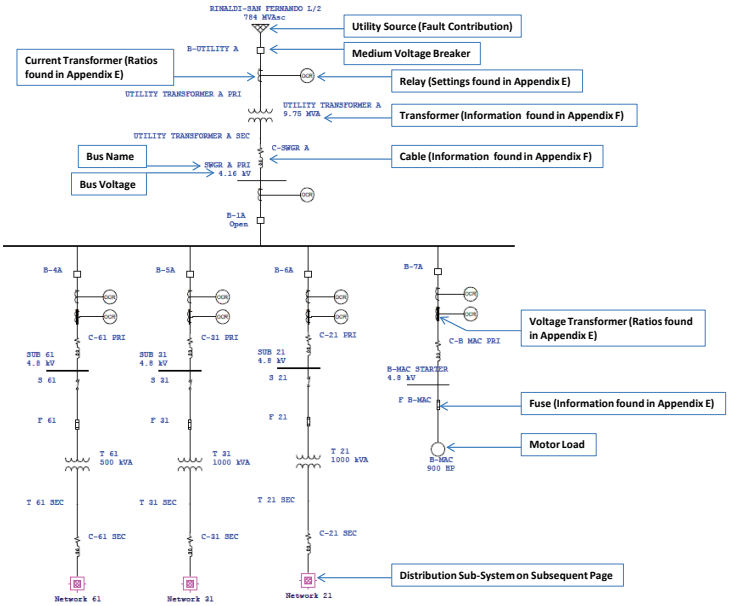


Figure 2 Example One-Line Diagrams

2.4 Short Circuit Reports

Appendix B presents a set of three reports used to verify that the ratings of the overcurrent protective devices, in the electrical distribution system, are sufficient to interrupt the available fault current. Three-phase bolted, line-to-ground, line-to-line-to-ground, and line-to-line faults are calculated and tabulated in the attached reports. Three-phase bolted faults are usually the highest magnitude type of fault. Line-to-ground faults can be larger than three-phase bolted fault values if they occur near generators. Line-to-line fault current magnitudes are important for medium voltage circuit breakers and low voltage power circuit breakers (30-cycle rated breakers) because they can also be worst-case after the first cycle. Line-line-ground fault data is provided only for completeness. Short circuit results are provided as symmetrical current.

2.4.1 Momentary Duty Summary Report – Appendix B1

The momentary duty summary report evaluates the short circuit bracing of each bus by comparing it to the calculated 1/2-cycle (momentary) current:

- Low-voltage bus bracing is evaluated based on its rating in symmetrical root mean square (rms) fault current.
- Medium-voltage bus bracing is evaluated based on its rating in asymmetrical rms fault current and asymmetrical crest (peak) fault current.

The calculated values shown in the report are based on the worst-case scenario with the highest available fault current. Any inadequately rated busses are flagged by an asterisk and are colored red. The report shows that all the busses in the facilities are adequately rated for the available fault current.

2.4.2 Interrupting Duty Summary Report – Appendix B2

The interrupting duty summary report evaluates whether each circuit breaker or fuse can safely interrupt the available fault current by comparing its interrupting capabilities to the calculated fault current. The calculated fault current is determined as follows:

- Low-voltage molded case or insulated case circuit breakers:
  - The 1/2 cycle (momentary) symmetrical rms current is used in accordance with UL 489 – Molded-Case Circuit Breakers, Molded-Case Switches, and Circuit Breaker Enclosures.
  - Where the calculated X/R ratio at the breaker location exceeds the test X/R ratio specified in the standard, the program adjusts the required interrupting current proportionally.

- Low-voltage power circuit breakers (30-cycle rated breakers):
  - The 1/2 cycle (momentary) symmetrical rms current is used in accordance with ANSI C37.13 – Standard for Low-Voltage Power Circuit Breakers Used in Enclosures.
  - Where the calculated X/R ratio at the breaker location exceeds the test X/R ratio specified in the standard, the program adjusts the required interrupting current proportionally.

- Low-voltage fuses:
  - The procedures for calculating the low-voltage fuse interrupting short circuit current is the same as those for the low-voltage molded case or insulated case circuit breaker interrupting duty calculation.

- Medium-voltage circuit breakers:
  - The 1/2-4 cycle current is used to calculate the interrupting current in accordance with ANSI C37.010 – Application Guide for AC High-Voltage Circuit Breakers Rated on a Symmetrical Current Basis.

- Medium-voltage fuses:
  - The 1/2 cycle (momentary) symmetrical and asymmetrical rms current are used in accordance with ANSI C37.41 – Standard Design Tests for High-Voltage Fuses.

The calculated values shown in the report are based on the worst-case scenario with the highest available fault current. Any inadequately rated protective devices are flagged with an asterisk and colored red. The report shows that all of the protective devices at the plant are adequately rated to interrupt the worst-case fault current.

2.4.3 1/2 Cycle Short-Circuit Current Summary Report– Appendix B3

The 1/2 Cycle Short-Circuit Current Summary Report shows the current at each bus during the first 1/2 cycle after a fault. These values are used to evaluate the bus bracing and interrupting ratings of equipment in the facilities as indicated above, and to evaluate the closing and latching (momentary) ratings of medium voltage circuit breakers in accordance with IEEE C37.010.

The report includes calculations for both three phase and unbalanced faults (line-to-ground, line-to-line, and line-to-line-to-ground). The calculated current for each type of fault is different because fault current passes through a different set of impedances depending on the fault type.

2.4.4 1/2-4 Cycle Short-Circuit Summary Report – Appendix B4

The 1/2-4 Cycle Short-Circuit Summary Report shows the current at each bus from 1/2 to 4 cycles after a fault. These values are used to evaluate the interrupting ratings of medium voltage circuit breakers in accordance with IEEE C37.010.

The report includes calculations for both three phase and unbalanced faults (line-to-ground, line-to-line, and line-to-line-to-ground). The calculated current for each type of fault is different because fault current passes through a different set of impedances depending on the fault type.

2.4.5 30 Cycle Short-Circuit Summary Report – Appendix B5

The 30 Cycle Short-Circuit Summary Report shows the current at each bus during the first 30 cycles after a fault. These values are used for setting back-up time delay relays for medium-voltage breakers.

The report includes calculations for both three phase and unbalanced faults (line-to-ground, line-to-line, and line-to-line-to-ground). The calculated current for each type of fault is different because fault current passes through a different set of impedances depending on the fault type.

3.0 PROTECTIVE DEVICE COORDINATION STUDY

The protective device coordination study has four objectives – sensitivity, security, selectivity, and safety. Coordination between different types of protective devices is shown by plotting their individual time-current characteristics. A set of time-current curves (TCCs) showing the coordination between various protective devices in the City of Oxnard Wastewater Treatment Plant has been produced as part of this report.

The coordination study has been performed using the guidelines in IEEE Standard 242 (IEEE Buff Book) - Recommended Practice for Protection and Coordination of Industrial and Commercial Power Systems.

3.1 Source Data

3.1.1 Utility Protective Devices

The model did not include protective device setting from the utility.

3.2 Time-Current Curves

Time-current curves are provided for the entire electrical distribution system, from the main breakers in switchgear/switchboards through the largest feeder breaker of each 480V motor control center (MCC), switchboard, or panelboard. Time-current curves are a visual representation representing coordination of protective devices. Current (in Amperes based

upon a reference Voltage) is plotted on the X axis and tripping time (in seconds) is plotted on the Y axis, both on a logarithmic scale. Protective devices each have their own time-current tripping characteristics, which are identified by colored bands on the plot. When analyzing the curves the devices are expected to trip at the top-most edge of their band for a given current.

To determine the tripping time of a given device the protective device curves are used by identifying a short circuit current and finding the curve (for a protective device through which the short circuit is travelling) with the lowest time to trip. If a protective device operates during this short circuit, the protective devices have adequate sensitivity. If the first protective device that operates is the one closest to the fault, the system is said to have selectivity. Identifying a normal operating current (with a given duration) on a TCC plot and showing that no protective device operates is security. Safety primarily applies to the arc flash hazard and requires that protective devices operate as quickly as possible to reduce incident energy.

To ensure proper selectivity, the TCC for the protective devices closest to the fault should be located to the left of the TCC for the upstream protective devices as displayed on the TCC plot. This orientation is referred to as proper coordination. When portions of the TCC for the protective device closest to the fault overlap the TCC for the upstream devices, coordination is not achieved. From a coordination perspective, there are instances when the breaker closest to the fault does not need to clear the fault before the upstream protective device. Some of these possible scenarios occur when two devices are in series and no other branch circuits exist between the two devices, i.e. the same equipment will be affected by an outage no matter which series protective device trips first. Note that coordination cannot always be achieved between protective devices due to inherent limitations of each protective device, but it is important to coordinate as much as possible to deliver the highest level of security and selectivity for the electrical system. Additionally instantaneous regions of the TCCs cannot be coordinated due to inherent limitations of the protective devices.

The TCCs for the facilities not only include the protective device settings needed for coordination, but also equipment characteristics such as:

- Transformer damage curves – used to verify proper transformer protection. Curves are shifted to the conservative “frequent fault” curves per ANSI C57.

  Motor starting curves – used to ensure protective devices will not experience nuisance trips on motor inrush currents. Motors on full voltage starters are assumed to have 6 per-unit current for 5 seconds and motors on reduced voltage starters started in 10 seconds.

- Generator decrement curves-used to analyze short circuit contribution from the generator.

- Generator thermal damage curves-used to verify proper generator protection. Generator thermal capability curve $I^2 {}^*t$ is calculated based on the negative sequence current, where the negative sequence current is expressed in multiples of machine rated stator current or FLA. For synchronous generators with a rotor type defined as round rotor, this factor is typically equal to 30, whereas for salient pole, this factor is typically equal to 40. For the engine-driven generators at the facilities an $I^2 {}^*t$ value of 40 was used as recommended by ETAP.

3.3 Coordination Results

Refer to Appendix C for the results of the Protective Device Coordination Study for the "As-found" condition. The results of the Protective Device Coordination Study are described in the following bullets:

- ATS 8 TCC – Coordination is achieved from SWGR breaker through largest feeder breaker of panel EDP1.
- EFF Pump No. 2 VFD Tie TCC – Coordination is achieved from EFF PS SWGR down through the largest feeder breakers (feeder and tie breaker) down to Pump No. 2 VFD. Note that there is some overlap between the feeder breaker and TIE breaker. This is not a concern, as these devices are in series and the opening of either device will clear a fault at EFF PS SWGR.
- EFF Pump No. 2 VFD Tie TCCG – Ground fault coordination is achieved from EFF PS SWGR main breaker and feeder breaker as well as the tie breaker.
- EFF Pump No. 4 VFD Tie TCC – Coordination is achieved from EFF PS SWGR down through the largest feeder breakers (feeder and tie breaker) down to Pump No. 4 VFD. Note that there is some overlap between the feeder breaker and TIE breaker. This is not a concern, as these devices are in series and the opening of either device will clear a fault at EFF PS SWGR.
- EFF Pump No. 4 VFD Tie TCCG – Ground fault coordination is achieved from EFF PS SWGR main breaker and feeder breaker as well as the tie breaker.
- EFF Pump No. 2 VFD TCC – Coordination is achieved from EFF PS SWGR down through the largest feeder breaker down to Pump No. 2 VFD.
- EFF Pump No. 2 VFD Tie TCCG – Ground fault coordination is achieved from EFF PS SWGR main breaker and feeder breaker.
- EFF Pump No. 4 VFD TCC – Coordination is achieved from EFF PS SWGR down through the largest feeder breaker down to Pump No. 4 VFD.

- EFF Pump No. 4 VFD Tie TCCG – Ground fault coordination is achieved from EFF PS SWGR main breaker and feeder breaker.
- MAIN SWGR A1 FILTER TCC – Coordination is achieved from MAIN SWGR down through the largest feeder breaker of MCC-NA.
- MAIN SWGR A1 FILTER TCCG – Ground fault coordination is achieved from MAIN SWGR main breaker and feeder breaker.
- MAIN SWGR B1 SLUDGE TCC – Coordination is achieved from MAIN SWGR down through the largest feeder breaker of MCC-NA.
- MAIN SWGR B1 SLUDGE TCCG – Ground fault coordination is not achieved from MAIN SWGR main breaker and feeder breaker.
- MCC-DP2B TCC – Coordination is achieved from MCC-DP2B down through the largest feeder breaker.
- MCC-DP3D TCC – Coordination is achieved from MCC-DP3D down through the largest feeder breaker.
- MCC-GB TCC – Coordination is not achieved from MCC-GB down through the largest motor.
- MCC-GB TCCG – Ground fault coordination is achieved from MAIN SWGR main breaker and feeder breaker MCC-GB.
- MCC-GC TCC – Coordination is not achieved from MCC-GC down through the largest motor.
- MCC-GD TCC – Coordination is not achieved from MCC-GD down through the largest feeder breaker.
- MCC-GE TCC – Coordination is not achieved from MCC-GE down through the largest motor.
- MCC-GF TCC – Coordination is achieved from MCC-GF down through the largest motor.
- MCC-GF TCC – Coordination is achieved from MCC-GF down through the largest motor.
- MCC-HW BUS A TCC – Coordination is achieved from MCC-HW BUS A down through the largest motor.

- MCC-HW BUS A TCCG – Ground fault coordination is achieved from MS-HW main breaker and feeder breaker MCC-HW BUS A.
- MCC-HW BUS B TCC – Coordination is achieved from MCC-HW BUS B down through the largest motor.
- MCC-HW BUS B TCCG – Ground fault coordination is achieved from MS-HW main breaker and feeder breaker MCC-HW BUS B.
- MCC-NA BUS A TCC – Coordination is achieved from MCC-NA BUS A down through the largest motor.
- MCC-NA BUS B TCC – Coordination is achieved from MCC-NA BUS B down through the largest motor.
- MCC-NC TCC – Coordination is achieved from MCC-NC down through the largest motor.
- MCC-ND TCC – Coordination is achieved from MCC-ND down through the largest motor.
- MCC-NE TCC – Coordination is not achieved from MCC-NE down through the largest feeder breaker.
- MCC-NF TCC – Coordination is not achieved from MCC-NF down through the largest feeder breaker.
- MCC-NG BUS A TCC – Coordination is not achieved from MCC-NG BUS A down through the largest feeder breaker.
- MCC-NG BUS B TCC – Coordination is achieved from MCC-NG BUS B down through the largest feeder breaker.
- MCC-PD3B TCC – Coordination is not achieved from MCC- PD3B down through the largest feeder breaker.
- MCC-SH BUS A TCC – Coordination is not achieved from MCC- SH BUS A down through the largest feeder breaker.
- MCC-SH BUS B TCC – Coordination is not achieved from MCC- SH BUS B down through the largest feeder breaker.
- MS-HW BUS A TIE TCC – Coordination is achieved from MS-HW main BUS A down through the largest feeder breaker (MS-HW BUS TIE).

- MS-HW BUS A TIE TCCG – Ground fault coordination is achieved from MS-HW main breaker and feeder breaker MS-HW BUS TIE.
- MS-HW BUS A GEN TCC – Coordination is achieved from MS-HW main Bus A down through the generator breaker.
- MS-HW BUS A GEN TCCG – Ground fault coordination is achieved from MS-HW main breaker and generator breaker.
- MS-HW BUS A PUMP TCC – Coordination is not achieved from MS-HW main Bus A down through pump feeder breaker.
- MS-HW BUS A PUMP TCCG – Ground fault coordination is achieved from MS-HW main A breaker and pump feeder breaker.
- MS-HW BUS B TIE TCC – Coordination is achieved from MS-HW main bus B down through the largest feeder breaker (MS-HW BUS TIE).
- MS-HW BUS B TIE TCCG – Ground fault coordination is achieved from MS-HW main BUS B breaker and feeder breaker MS-HW BUS TIE.
- MS-HW BUS B GEN TCC – Coordination is achieved from MS-HW main BUS B down through the generator breaker.
- MS-HW BUS B GEN TCCG – Ground fault coordination is achieved from MS-HW main breaker and generator breaker.
- MS-HW BUS B PUMP TCC – Coordination is achieved from MS-HW main Bus B down through pump feeder breaker.
- MS-HW BUS B PUMP TCCG – Ground fault coordination is achieved from MS-HW main B breaker and pump feeder breaker.
- Panel DB TCC – Coordination is achieved from Panel DB down through the largest feeder breaker.
- Panel DB GEN TCC – Coordination is not achieved from Panel DB upstream through generator breaker.
- PNL DP1 TCC – Coordination is not achieved from PNL DP1 upstream through Main SWGR feeder breaker.
- PNL DP2 TCC – Coordination is achieved from PNL DP2 upstream through Main SWGR feeder breaker.

- PNL DP3 TCC – Coordination is not achieved from PNL DP3 upstream through Main SWGR feeder breaker.
- PNL DP3 TCCG – Ground fault coordination is achieved from Main SWGR breaker through the main breaker PNL DP3.
- PNL DP4 TCC – Coordination is not achieved from PNL DP4 upstream through Main SWGR feeder breaker.
- PNL DP4 TCCG – Ground fault coordination is not achieved from Main SWGR breaker through the main breaker PNL DP4.
- PNL DPMB TCC – Coordination is achieved from PNL DP3 down through the largest feeder breaker.
- PNL DPP8 TCC – Coordination is not achieved from PNL DPP8 upstream through PNL DP3 feeder breaker.
- SWBD GDP TCC – Coordination is achieved from SWBD GDP upstream through Main SWGR breaker.
- SWBD GDP TCCG – Ground fault coordination is not achieved from Main SWGR breaker through the main breaker SWBD GDP.
- SWBD-NB BUS A TCC – Coordination is achieved from SWBD-NB BUS A down through the largest feeder breaker.
- SWBD-NB BUS A TCCG – Ground fault coordination is achieved from SWBD-NB breaker and feeder breaker MCC-NC.
- SWBD-NB BUS B TCC – Coordination is achieved from SWBD-NB BUS A down through the largest feeder breaker.
- SWBD-NB BUS B TCCG – Ground fault coordination is achieved from SWBD-NB breaker and feeder breaker MCC-ND.

4.0 ARC FLASH STUDY

The Arc Flash Study builds upon the results of the Short Circuit and Protective Device Coordination Studies to calculate the incident energy, PPE Level, and arc flash boundary for each piece of equipment in the electrical distribution system. Results of this study are printed on labels and attached to electrical equipment to inform plant staff of shock hazards and arc flash hazards associated with working on energized equipment. These calculations have been performed in accordance with IEEE 1584 - Guide for Performing Arc Flash Hazard Calculations.

The incident energy varies with changes in the arcing fault current and the resulting protective device clearing time that occur during different operational conditions within the facility. In order to determine the worst-case incident energy, a number of different operational scenarios have been evaluated. The operational scenarios evaluated for this report are identified in Table 2:

Table 2 Operational Scenarios
Public Works Integrated Master Plan
City of Oxnard

Scenario	Configuration	Description
Utility Power	Utility	Normal Running Condition With Cogen in Operation
Standby	Standby	Running on Generator Power With All Generators in Operation

The incident energy calculations allow electrical equipment to be flagged with a PPE level A through D. The personal protective equipment (PPE) recommended by NFPA 70E for each of the categories is shown in Table 3. Where the calculations determine that the incident energy is above a Category 4, the equipment is identified as “DANGEROUS.” There is no PPE available that is suitable for use when working on energized equipment identified as “DANGEROUS.” “DANGEROUS” labels are printed with a red border.

Table 3 Personal Protective Equipment (PPE)
Public Works Integrated Master Plan
City of Oxnard

Level	Clothing Description	Required Minimum Arc Rating of PPE (cal/cm^2)
A	Non-melting, non-flammable materials (i.e., untreated cotton, wool, rayon, or silk, or blends of these materials), safety glasses or safety goggles, hearing protection, leather gloves, hard hat, face shield (as needed), hearing protection, leather work shoes.	<1.2
B	Arc-rated (AR) clothing system appropriately rated for the incident energy, arc rated or nonmelting untreated fibers for underlayers, face shield or arc flash suit hood, arc-rated jacket (as needed), hard hat, arc-rated hard hat liner, safety glasses or goggles, hearing protection, leather gloves, leather work shoes.	≥1.2 and <12

Table 3	Personal Protective Equipment (PPE) Public Works Integrated Master Plan City of Oxnard	
Level	**Clothing Description**	**Required Minimum Arc Rating of PPE (cal/cm^2)**
C	Arc-rated (AR) clothing system appropriately rated for the incident energy, arc rated or nonmelting untreated fibers for underlayers, arc-rated arc flash suit hood, arc-rated jacket (as needed), hard hat, arc-rated hard hat liner, safety glasses or goggles, hearing protection, leather gloves, leather work shoes.	≥12 and ≤40
D	PPE Not Available.	≥40
Note: Based on Annex H Table H.3(b) of NFPA 70E - 2015 Edition.		

Note that wearing the recommended PPE does not guarantee safety - it is intended to reduce risk to personnel and limit burns to second degree. Whenever possible, equipment should be de-energized before work is performed.

4.1 Source Data

The Arc Flash Study builds upon the results of the Short Circuit Study and the Protective Device Coordination Study in order to calculate the incident energy. Consequently, the Arc Flash Study is completely dependent on the results of these two studies. When the Short Circuit Study or Protective Device Coordination Study is updated due to changes in the electrical distribution system, a revised Arc Flash Study must be performed to ensure that the incident energy, PPE level, and arc flash boundary at each piece of equipment are correctly calculated. The standard IEEE arcing current variation of 15% was incorporated to these scenarios representing utility fault current variation as well as other factors that affect arcing fault current. Reduced fault current levels result in long clearing times for protective devices. The arc flash incident energy is the result of both fault current and clearing time; therefore, reduced fault current can result in higher incident energy.

Note that the Arc Flash Study was performed without any information from the utility on the upstream overcurrent protective devices. Obtaining the primary overcurrent protective device information protecting the service transformer and conductor data from the protective device to the service transformer is also critical when performing an Arc Flash Hazard Analysis. The reason for obtaining this additional Utility information is to analyze the effects of the primary service transformer protection on the calculated arc flash incident energy at the service equipment. At low voltages, this incident energy normally exceeds 40 cal/cm2 – rendering this panel unable to be maintained while energized. However, there exists a possibility of reducing this incident energy to a manageable level when including the effects of the primary protection.

4.2 Arc Flash Summary

The Arc Flash Summary Table, found in Appendix D, uses the Arc Flash Evaluation Module of ETAP. Appendix D contains the worst-case results from all of the operating scenarios as defined in Table 2. This summary shows both the inputs to and results of the incident energy calculations. The results found in Appendix D are based on the protective device settings and parameters of the electrical system. Refer to Appendix E for all the protective device settings and parameters for the "As-found" condition. Equipment data for transformers and cables used in modeling the electrical system can be found in Appendix F. Columns in the arc flash summary are as follows:

Bus - The location of the arcing fault.

kV - Bus voltage in kV.

Configuration - The name of the scenario which resulted in the worst case incident energy results.

Energy (cal/cm^2) - The energy produced by the arcing fault experienced at the working distance of 18 inches.

Arc Flash Boundary (ft) - The distance from the arcing fault that results in an incident energy of 1.2 cal/cm^2.

Hazard Category - The category of personal protective equipment (PPE) required based on the calculated incident energy.

Final FCT (sec) - The amount of time it takes for a breaker to open once the trip has been initiated. Note that protective devices with an opening time of zero are those devices whose opening time is included in their characteristic curves on the TCC (e.g., thermal-magnetic molded-case circuit breakers).

Ia at FCT (kA) - Total symmetrical arcing fault current at the fault location for an arcing fault.

Source Protective Device Name - The name of the first protective device to clear the arcing fault.

% Ia Variation - Whether or not the worst case was caused when 15% IEEE 1584 current variation was used.

4.3 Arc Flash Hazard Mitigation Techniques

There is a variety of methods available to reduce arc flash hazards at specific pieces of equipment. Some potential mitigation methods are outlined below.

4.3.1 Zone Selective Interlocking

Zone Selective Interlocking (ZSI) is a coordination and protection strategy typically employed in low voltage switchgear. The goal of a well-coordinated electrical system is for the breaker closest to the fault, to clear the fault, minimizing interruption to other parts of the facility. In a ZSI system, the circuit breaker closest to a fault restrains or inhibits upstream breakers for a preset time delay before the upstream breaker is allowed to trip clearing the fault.

The goal of using ZSI is to allow for closer coordination between switchgear feeder, tie, and main circuit breakers. Reductions in the LSG settings of switchgear main and tie breaker minimize equipment damage due to electrical faults. Use of ZSI also allows for activation of the instantaneous settings on the main breakers, which may reduce arc flash hazards in the switchgear itself.

4.3.2 Maintenance Mode

Some breakers and relays have the ability to store multiple settings for the same breaker. This functionality can be used for implementing a “maintenance mode” that can enable instantaneous and altering other settings to allow breakers to trip faster, reducing incident energy levels in equipment for personnel. Use of this “maintenance mode” may help to reduce Arc Flash hazards by up to 75 percent in some cases.

4.3.3 Differential Relay

A differential relay is a protection device used to monitor for fault scenarios within a defined zone of protection, often a switchgear bus or a transformer. The relay uses current transformers to monitor the current entering the zone of protection and exiting the zone of protection. When the amount of current entering and exiting the zone of protection is not equal, the relay will then trip the associated circuit interrupter to clear the fault. This relay provides the ability to detect and clear a fault extremely quickly and reduces the incident energy level.

4.3.4 Arc Flash Rated Equipment

Arc flash rated equipment provides a more robust enclosure that is designed to withstand the forces of an arc flash event and divert the pressure and gasses of the explosion out the top of the equipment using ducts. While the equipment does provide protection in the normal operating state of the equipment, it does not provide this additional protection when circuit breaker covers are open or removed.

4.3.5 Arc Flash Detection Relays

A relatively new technology is available for retrofitting or equipping on new equipment that utilizes light and current sensors to detect an arc flash event. When the event is detected,

the upstream protective device is actuated to interrupt and limit the incident energy at the associated equipment.

4.3.6 Arc Vault

Another relatively new technology available for retrofitting or equipping new equipment is the Arc Vault. When a current spike is detected (indicating the fault or arc flash event), the upstream protective device is called to trip while intentionally and simultaneously creating a separate arc flash event inside a containment dome (the vault). The arc flash event in the dome takes all the energy from the unintentional fault until the upstream protective device is able to clear the fault. Because almost all the energy is diverted and maintained within the vault, the equipment should only sustain minor, but repairable damage.

4.4 Arc Flash Hazard Labels

A sample arc flash label for review is shown in Figure 3. A complete set of labels suitable for direct application to equipment is provided as part of the final study for installation on the appropriate electrical equipment.

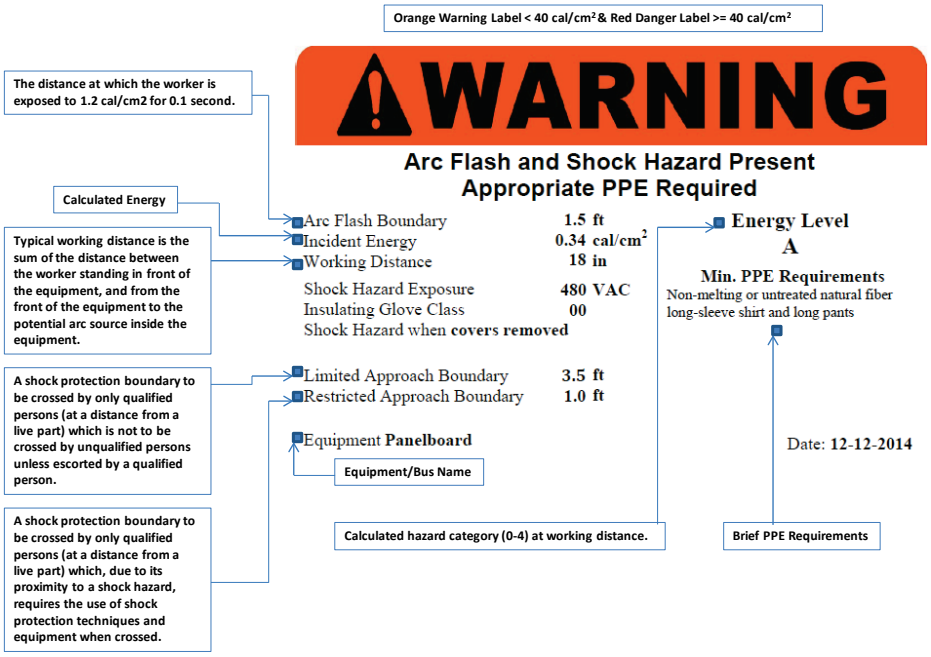


Figure 3 Sample Arc Flash Label

5.0 MISCELLANEOUS FIELD INVESTIGATION FINDINGS

During the field investigation, most equipment in the electrical distribution system was opened for data collection. Appendix G contains a summary of the electrical equipment condition assessment based on field investigation, for equipment rated 480V, and above. In

addition to the protective devices identified in Section 2.0 of the report, the following concerns and code violations are listed as follows.

5.1 General

The majority of electrical equipment in the OWTP was found to be old, obsolete, dirty, and rusty. Much of the electrical equipment is located in unconditioned spaces, and the physical condition is deteriorated. Equipment was found throughout the facility from a variety of installation years and manufacturers: 1978 (Federal Pacific Electric/FPE), 1989 (Westinghouse), 1997 (Cutler-Hammer Westinghouse), 1999 (Cutler-Hammer), 2007 (Allen-Bradley and Siemens), and 2011 (Allen-Bradley) with the majority of the equipment being from 1978 and 1989.

The equipment from 1978 is obsolete and replacement parts are often difficult to obtain. The condition ranges from dirty with cobwebs to very dirty and rusted. Recommend replacing all equipment from 1978.

The equipment from 1989 is obsolete, though replacement parts can generally be obtained from Eaton Cutler-Hammer. However, replacement parts are costly and may take time to procure. Equipment from this time that is located in the North Area Electrical Room and the Solids Processing Building is in conditioned spaces and in adequate physical condition. The condition ranges from somewhat dirty to scratched, dirty, and rusty with cobwebs. Recommend replacing all other equipment from 1989.

The equipment from 1997 is in a conditioned space and in adequate physical condition.

The equipment from 1999 is scratched and somewhat rusty. Recommend painting to prevent further degradation.

The equipment from 2007 is located in the Headworks Electrical Building. It is in a conditioned space and in good physical condition.

The equipment from 2011 is in excellent condition, however it is in the Eastern Trunk Pump Station/Sampling Station, which is an unconditioned space and the electrical equipment may degrade over time. Other electrical equipment in this building is in very poor condition.

HVAC is non-existent or inadequate for most of the electrical equipment, which shortens the useful life of the equipment. Adequate HVAC should be provided for all spaces containing electrical equipment to maintain the equipment in better condition, and to avoid shortening the equipment life.

Many motor control centers, switchboards, and switchgear have burned out or broken bulbs. Recommend replacing bulbs and lenses as necessary.

5.2 Administration Building

Access to MCC-EDP1E is partially blocked due to stacked items in front of the equipment. Recommend ensuring that the NEC required working space is maintained about electrical equipment.

5.3 DAF Building

- MCC-EDP1A has open openings in the equipment. The openings should be covered for safety.

5.4 Digester Control Building

- The circuit breaker for the Sludge Circ Pump Digester 1 in MCC-GF was found to have wires on the line side which are undersized and cracked. Recommend replacing the wires in accordance with the NEC.
- The cubicle for Sludge Gas Circ Blower 2 in MCC-GH: wires going between the circuit breaker and the capacitors are undersized. Recommend replacing the wires in accordance with the NEC.
- MCC-EDP1C has uncovered openings in the equipment. The openings should be covered for safety.

5.5 Headworks Building

- MCC-HW is located below what appear to be drainage pipes from the roof of the building. Drip protection is required by code. Recommend installing protection to avoid damage to the MCC from condensation, leaks, or breaks in the drainage pipes in accordance with the NEC.
- A Lockout Tagout Station in located behind SWGR MS-HW in the NEC required working space. Recommend re-locating the Lockout Tagout Station in order to maintain the REC required working space.

5.6 Main Electrical Building

- The Main Electrical Building has had issues with water leaking in when it rains. Recommend replacing the roofing.
- The circuit breaker in MCC-GD for Biofilter Pump (Circ) 4 was observed to jump from the OFF position to the TRIPPED Position. Recommend investigating the operation of this circuit breaker.

- Main SWGR circuit breaker to DP1 will not charge electrically anymore and must be manually recharged in order to close. Recommend investigating the charging motor.
- Main SWGR Tie breaker cannot be manually recharged due to a broken charging handle. Recommend replacing the charging handle.
- MCC-DP4B and MCC-GD have broken lights. Recommend replacing bulbs and lenses as necessary.

5.7 North Area Electrical Building

- Netting on the floor next to the MCCs is a tripping hazard. Recommend removing the netting from the room.

5.8 Old Blower Building

- MCC-DP2B has exposed bus within the motor control center. Recommend covering openings in accordance with the NEC.

5.9 Old Effluent Building

- MCC-EDP1B has uncovered openings and exposed bus within the motor control center. Recommend covering openings in accordance with the NEC.

5.10 PCC Building

- MCC-DP2D has uncovered openings in the equipment. The openings should be covered for safety.

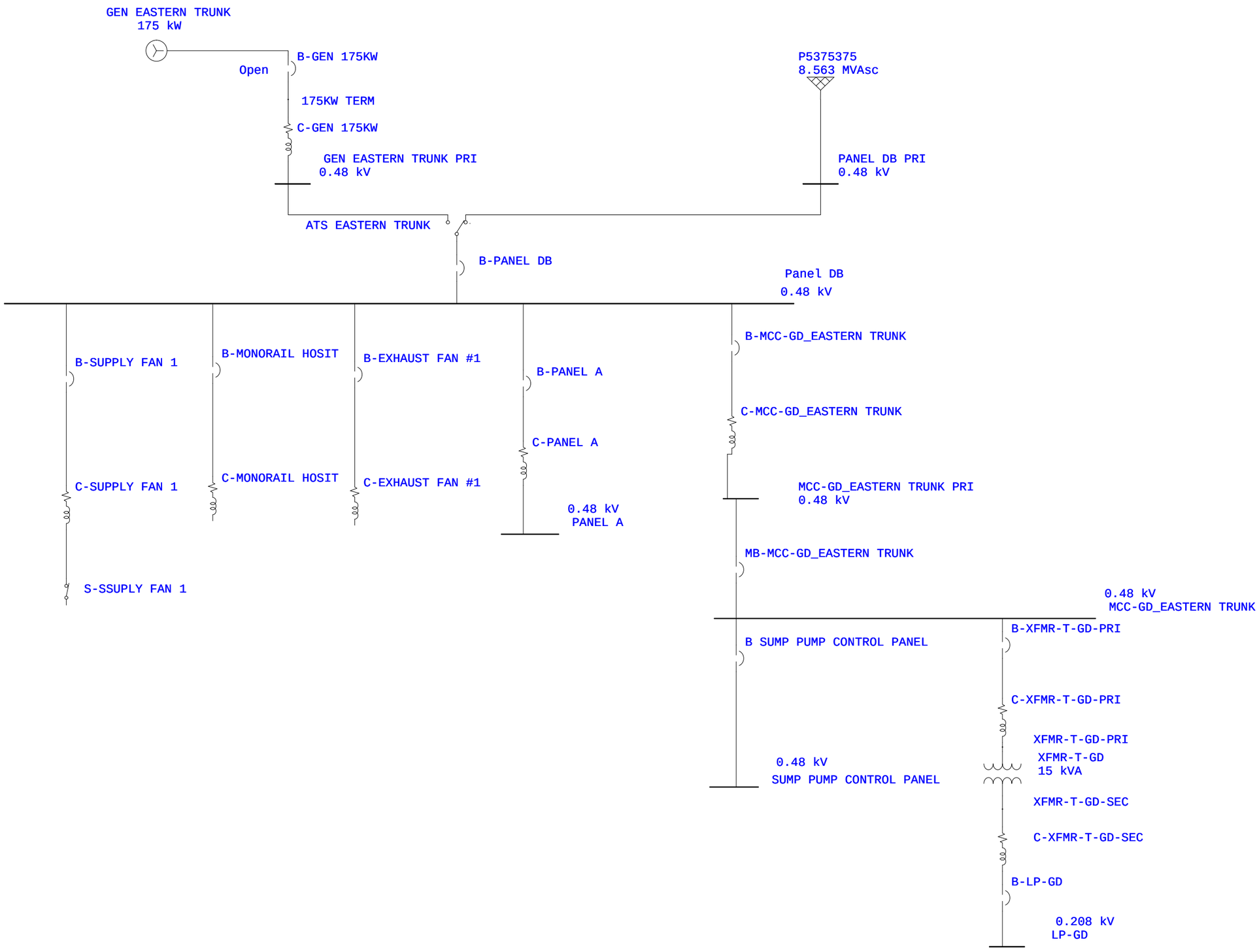
5.11 Primary Building

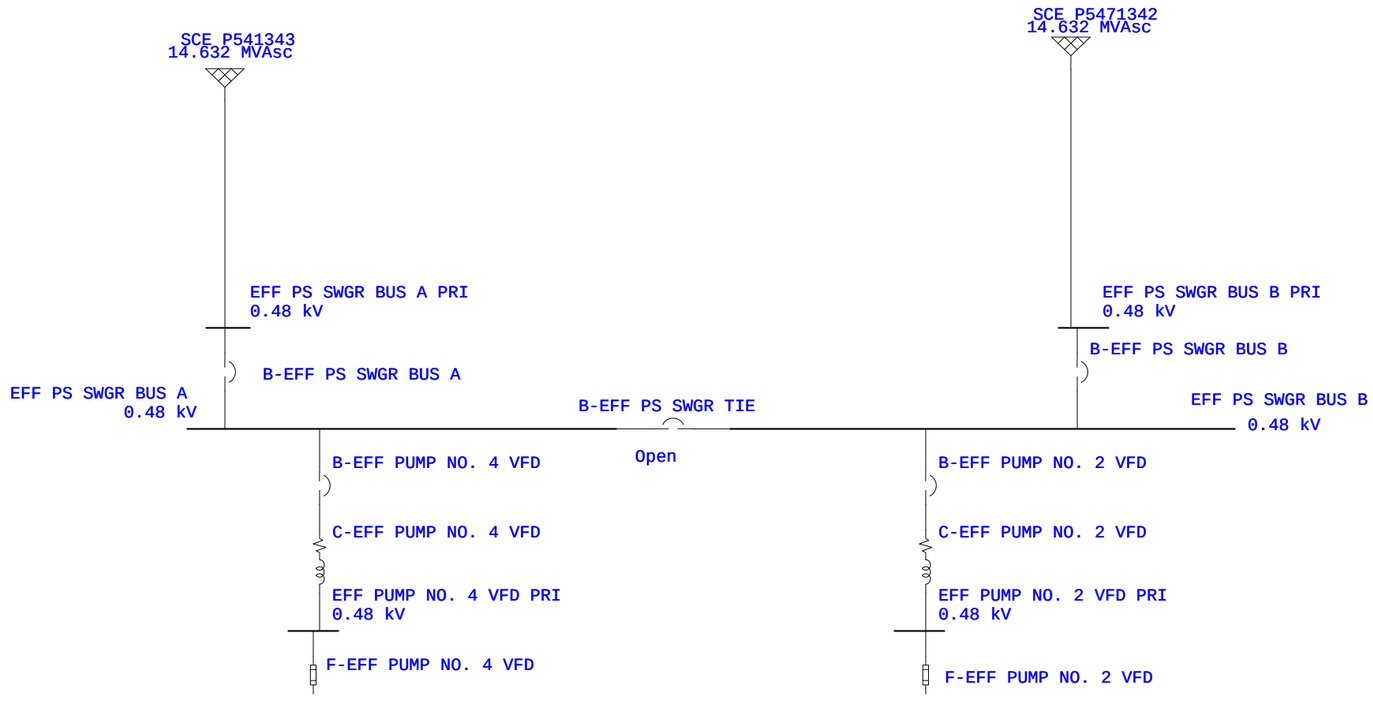
- MCC-DP1B has uncovered openings in the equipment. The openings should be covered for safety.

5.12 Solid Processing Building - Electrical Room

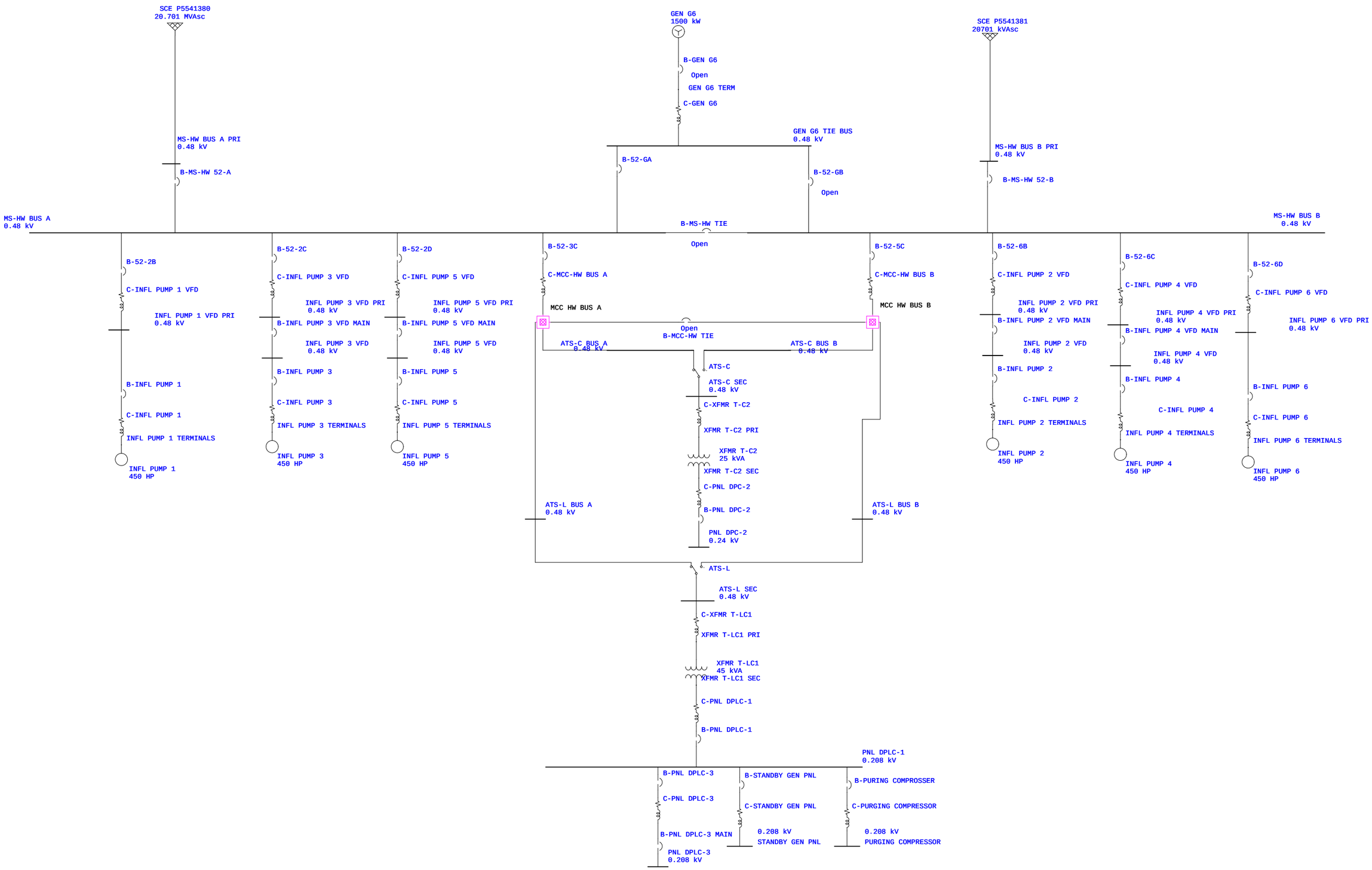
- Air compressor is located in front of MCC-SH within 3'-6", which is within the NEC working space. Recommend to re-locate the air compressor away from the MCC-SH.

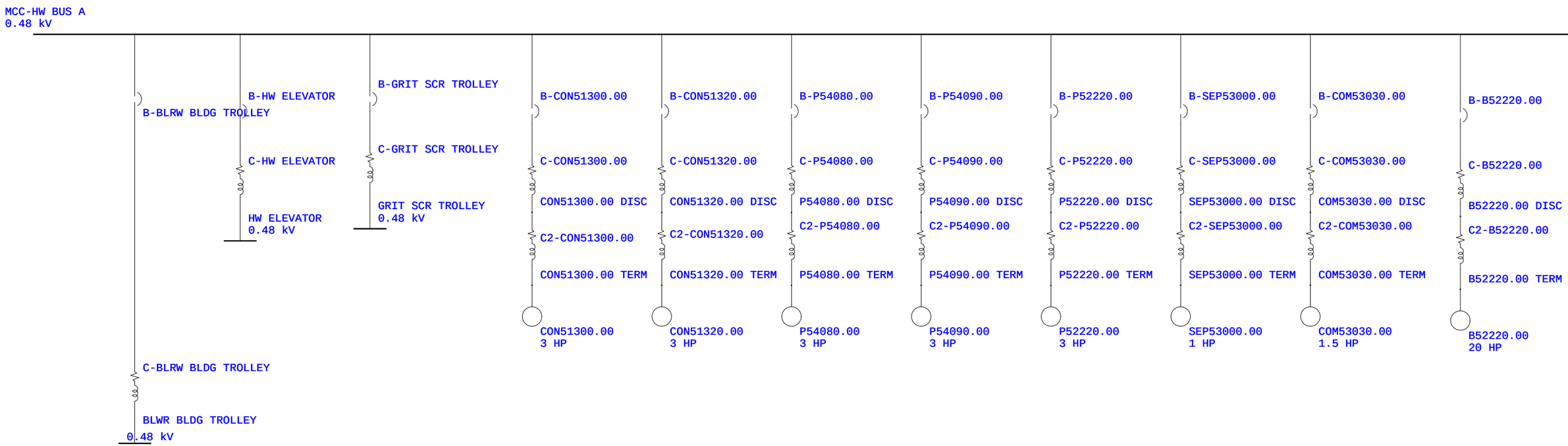
APPENDIX A – ONE-LINES

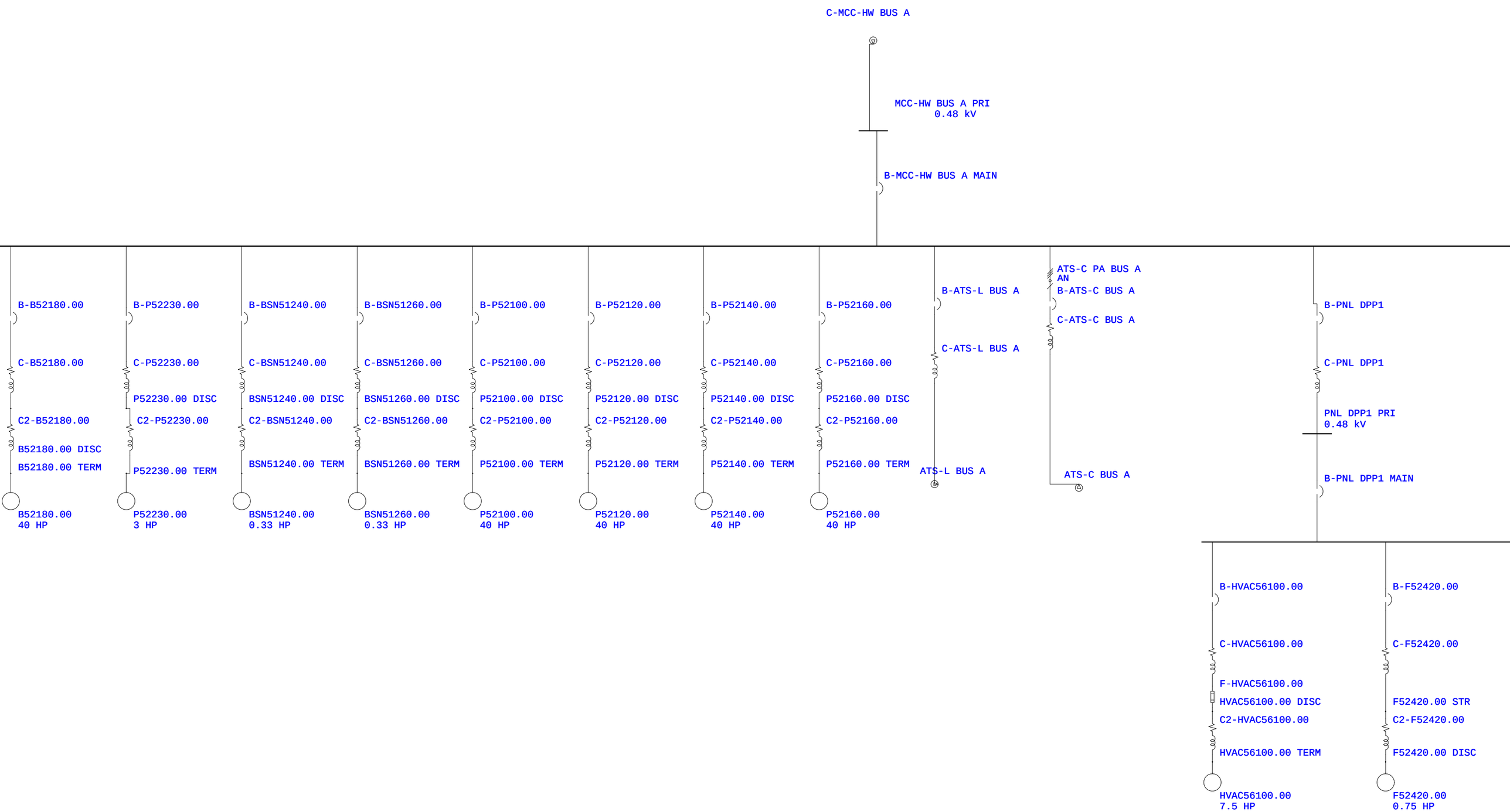

GEN EASTERN TRUNK
175 kW
B-GEN 175KW
Open
175KW TERM
C-GEN 175KW
GEN EASTERN TRUNK PRI
0.48 kV
P5375375
8.563 MVAsc
PANEL DB PRI
0.48 kV
ATS EASTERN TRUNK
B-PANEL DB
Panel DB
0.48 kV
B-SUPPLY FAN 1
B-MONORAIL HOSIT
B-EXHAUST FAN #1
B-PANEL A
B-MCC-GD_EASTERN TRUNK
C-MCC-GD_EASTERN TRUNK
C-PANEL A
C-SUPPLY FAN 1
C-MONORAIL HOSIT
C-EXHAUST FAN #1
0.48 kV
PANEL A
MCC-GD_EASTERN TRUNK PRI
0.48 kV
MB-MCC-GD_EASTERN TRUNK
S-SSUPLY FAN 1
0.48 kV
MCC-GD_EASTERN TRUNK
B-XFMR-T-GD-PRI
B SUMP PUMP CONTROL PANEL
C-XFMR-T-GD-PRI
XFMR-T-GD-PRI
XFMR-T-GD
15 kVA
0.48 kV
SUMP PUMP CONTROL PANEL
XFMR-T-GD-SEC
C-XFMR-T-GD-SEC
B-LP-GD
0.208 kV
LP-GD

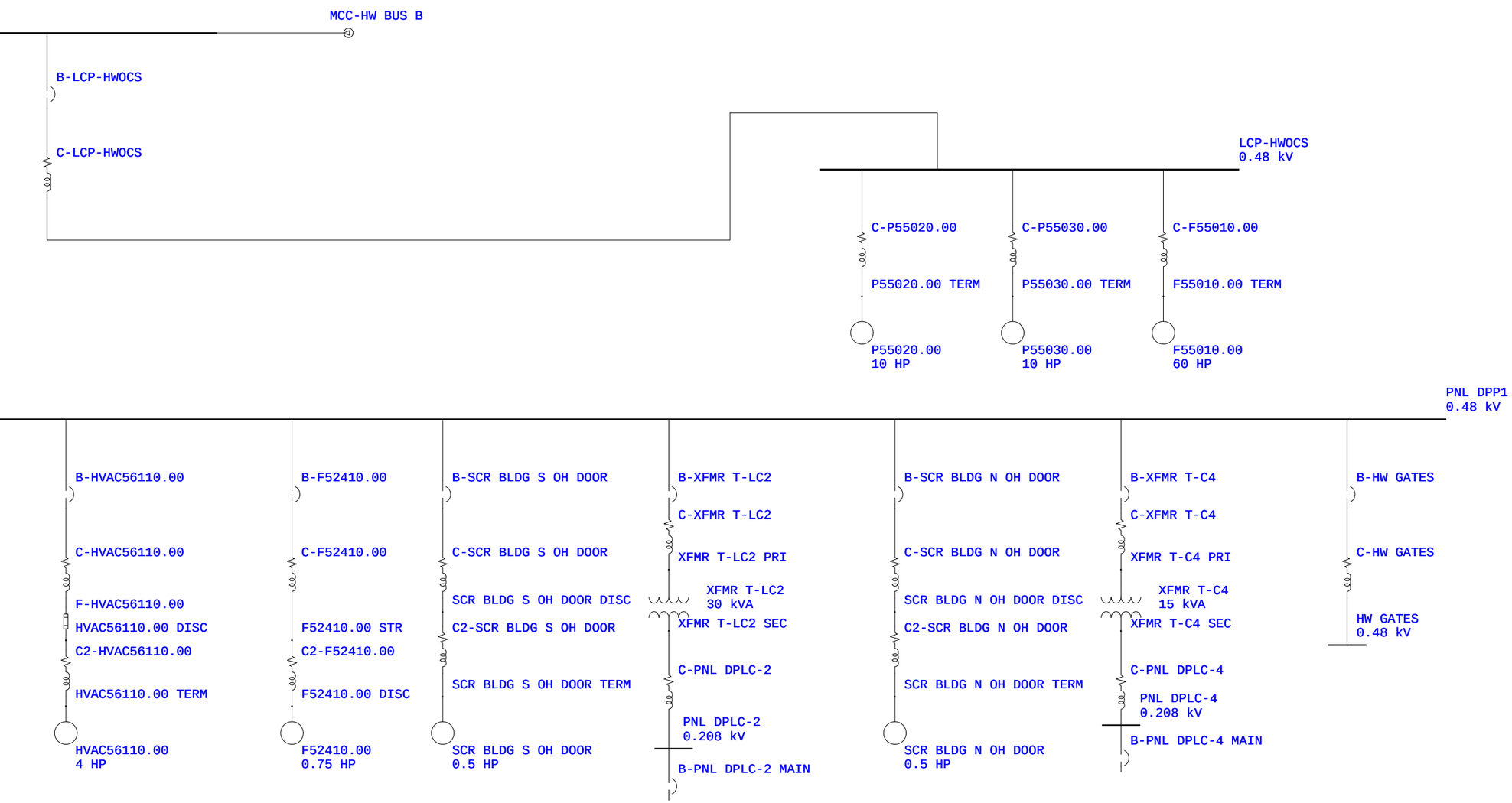

SCE P541343
14.632 MVAsc
SCE P5471342
14.632 MVAsc
EFF PS SWGR BUS A PRI
0.48 kV
EFF PS SWGR BUS B PRI
0.48 kV
B-EFF PS SWGR BUS A
B-EFF PS SWGR BUS B
EFF PS SWGR BUS A
0.48 kV
B-EFF PS SWGR TIE
Open
EFF PS SWGR BUS B
0.48 kV
B-EFF PUMP NO. 4 VFD
B-EFF PUMP NO. 2 VFD
C-EFF PUMP NO. 4 VFD
C-EFF PUMP NO. 2 VFD
EFF PUMP NO. 4 VFD PRI
0.48 kV
EFF PUMP NO. 2 VFD PRI
0.48 kV
F-EFF PUMP NO. 4 VFD
F-EFF PUMP NO. 2 VFD

One-Line Diagram - OLV1 (Edit Mode)

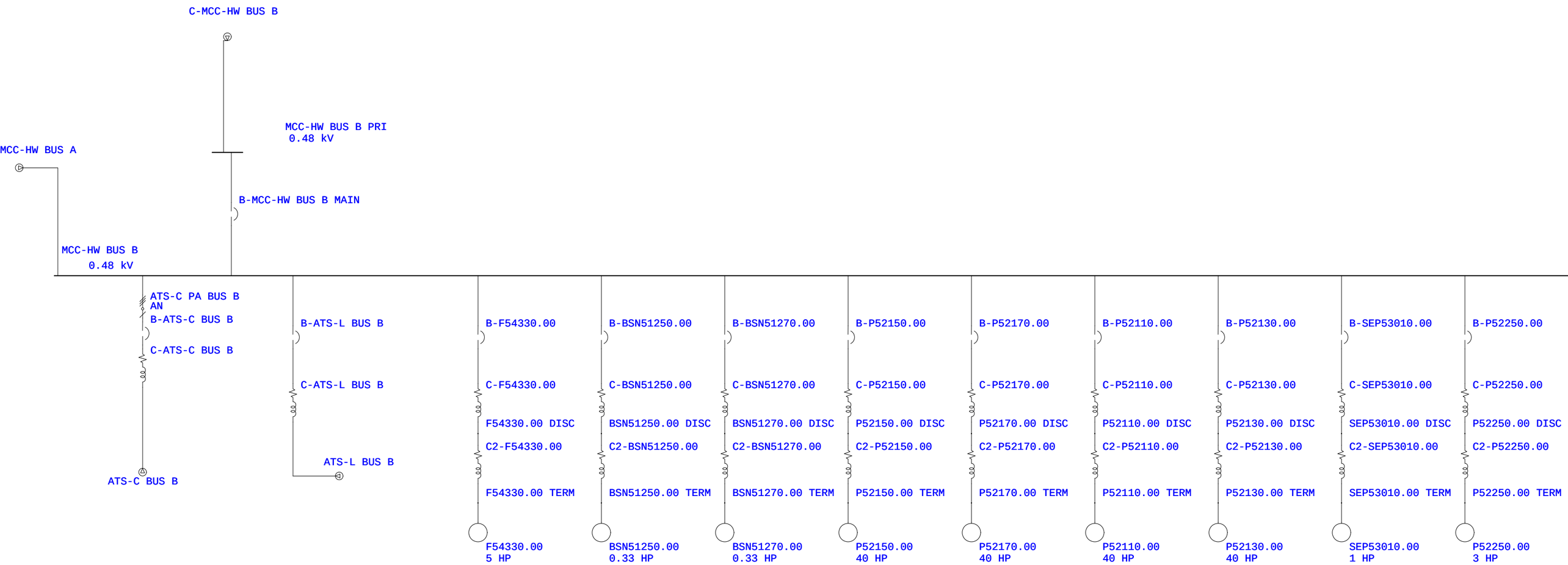


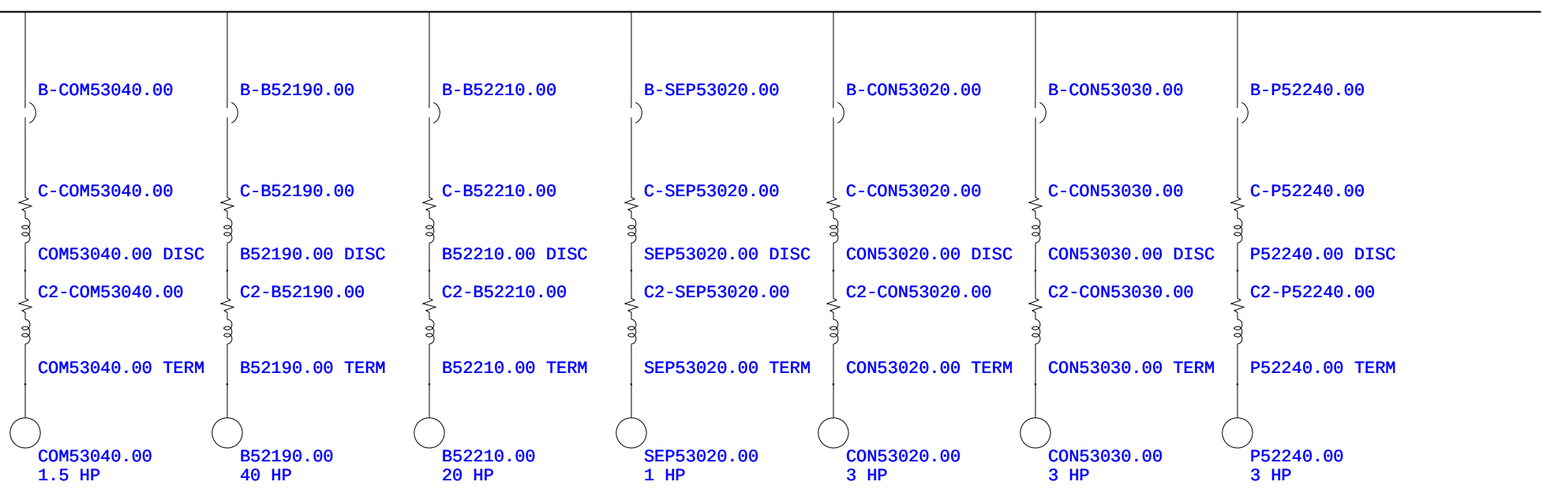

MCC-HW BUS A
0.48 kV
B-BLRW BLDG TROLLEY
B-HW ELEVATOR
C-HW ELEVATOR
HW ELEVATOR
0.48 kV
B-GRIT SCR TROLLEY
C-GRIT SCR TROLLEY
GRIT SCR TROLLEY
0.48 kV
B-CON51300.00
C-CON51300.00
CON51300.00 DISC
C2-CON51300.00
CON51300.00 TERM
CON51300.00
3 HP
B-CON51320.00
C-CON51320.00
CON51320.00 DISC
C2-CON51320.00
CON51320.00 TERM
CON51320.00
3 HP
B-P54080.00
C-P54080.00
P54080.00 DISC
C2-P54080.00
P54080.00 TERM
P54080.00
3 HP
B-P54090.00
C-P54090.00
P54090.00 DISC
C2-P54090.00
P54090.00 TERM
P54090.00
3 HP
B-P52220.00
C-P52220.00
P52220.00 DISC
C2-P52220.00
P52220.00 TERM
P52220.00
3 HP
B-SEP53000.00
C-SEP53000.00
SEP53000.00 DISC
C2-SEP53000.00
SEP53000.00 TERM
SEP53000.00
1 HP
B-COM53030.00
C-COM53030.00
COM53030.00 DISC
C2-COM53030.00
COM53030.00 TERM
COM53030.00
1.5 HP
B-B52220.00
C-B52220.00
B52220.00 DISC
C2-B52220.00
B52220.00 TERM
B52220.00
20 HP
C-BLRW BLDG TROLLEY
BLWR BLDG TROLLEY
0.48 kV


C-MCC-HW BUS A
MCC-HW BUS A PRI
0.48 kV
B-MCC-HW BUS A MAIN
B-B52180.00
C-B52180.00
C2-B52180.00
B52180.00 DISC
B52180.00 TERM
B52180.00
40 HP
B-P52230.00
C-P52230.00
P52230.00 DISC
C2-P52230.00
P52230.00 TERM
P52230.00
3 HP
B-BSN51240.00
C-BSN51240.00
BSN51240.00 DISC
C2-BSN51240.00
BSN51240.00 TERM
BSN51240.00
0.33 HP
B-BSN51260.00
C-BSN51260.00
BSN51260.00 DISC
C2-BSN51260.00
BSN51260.00 TERM
BSN51260.00
0.33 HP
B-P52100.00
C-P52100.00
P52100.00 DISC
C2-P52100.00
P52100.00 TERM
P52100.00
40 HP
B-P52120.00
C-P52120.00
P52120.00 DISC
C2-P52120.00
P52120.00 TERM
P52120.00
40 HP
B-P52140.00
C-P52140.00
P52140.00 DISC
C2-P52140.00
P52140.00 TERM
P52140.00
40 HP
B-P52160.00
C-P52160.00
P52160.00 DISC
C2-P52160.00
P52160.00 TERM
P52160.00
40 HP
B-ATS-L BUS A
C-ATS-L BUS A
ATS-L BUS A
ATS-C PA BUS A
AN
B-ATS-C BUS A
C-ATS-C BUS A
ATS-C BUS A
B-PNL DPP1
C-PNL DPP1
PNL DPP1 PRI
0.48 kV
B-PNL DPP1 MAIN
B-HVAC56100.00
C-HVAC56100.00
F-HVAC56100.00
HVAC56100.00 DISC
C2-HVAC56100.00
HVAC56100.00 TERM
HVAC56100.00
7.5 HP
B-F52420.00
C-F52420.00
F52420.00 STR
C2-F52420.00
F52420.00 DISC
F52420.00
0.75 HP


MCC-HW BUS B
B-LCP-HWOCS
C-LCP-HWOCS
LCP-HWOCS
0.48 kV
C-P55020.00
P55020.00 TERM
P55020.00
10 HP
C-P55030.00
P55030.00 TERM
P55030.00
10 HP
C-F55010.00
F55010.00 TERM
F55010.00
60 HP
PNL DPP1
0.48 kV
B-HVAC56110.00
C-HVAC56110.00
F-HVAC56110.00
HVAC56110.00 DISC
C2-HVAC56110.00
HVAC56110.00 TERM
HVAC56110.00
4 HP
B-F52410.00
C-F52410.00
F52410.00 STR
C2-F52410.00
F52410.00 DISC
F52410.00
0.75 HP
B-SCR BLDG S OH DOOR
C-SCR BLDG S OH DOOR
SCR BLDG S OH DOOR DISC
C2-SCR BLDG S OH DOOR
SCR BLDG S OH DOOR TERM
SCR BLDG S OH DOOR
0.5 HP
B-XFMR T-LC2
C-XFMR T-LC2
XFMR T-LC2 PRI
XFMR T-LC2
30 kVA
XFMR T-LC2 SEC
C-PNL DPLC-2
PNL DPLC-2
0.208 kV
B-PNL DPLC-2 MAIN
B-SCR BLDG N OH DOOR
C-SCR BLDG N OH DOOR
SCR BLDG N OH DOOR DISC
C2-SCR BLDG N OH DOOR
SCR BLDG N OH DOOR TERM
SCR BLDG N OH DOOR
0.5 HP
B-XFMR T-C4
C-XFMR T-C4
XFMR T-C4 PRI
XFMR T-C4
15 kVA
XFMR T-C4 SEC
C-PNL DPLC-4
PNL DPLC-4
0.208 kV
B-PNL DPLC-4 MAIN
B-HW GATES
C-HW GATES
HW GATES
0.48 kV

One-Line Diagram - OLV1=>MCC HW BUS B (Edit Mode)

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C-COM53040.00
COM53040.00 DISC
C2-COM53040.00
COM53040.00 TERM
COM53040.00
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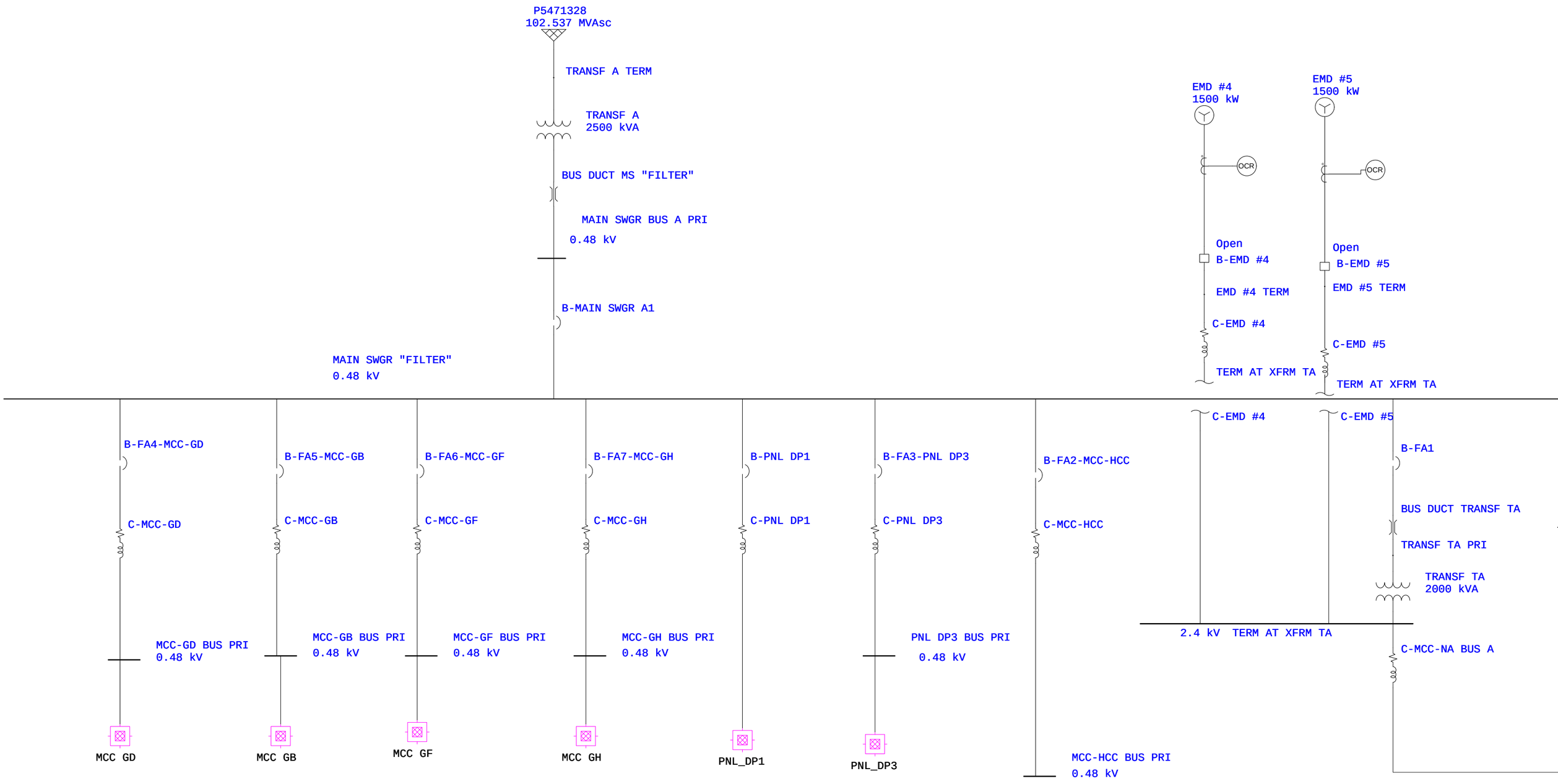
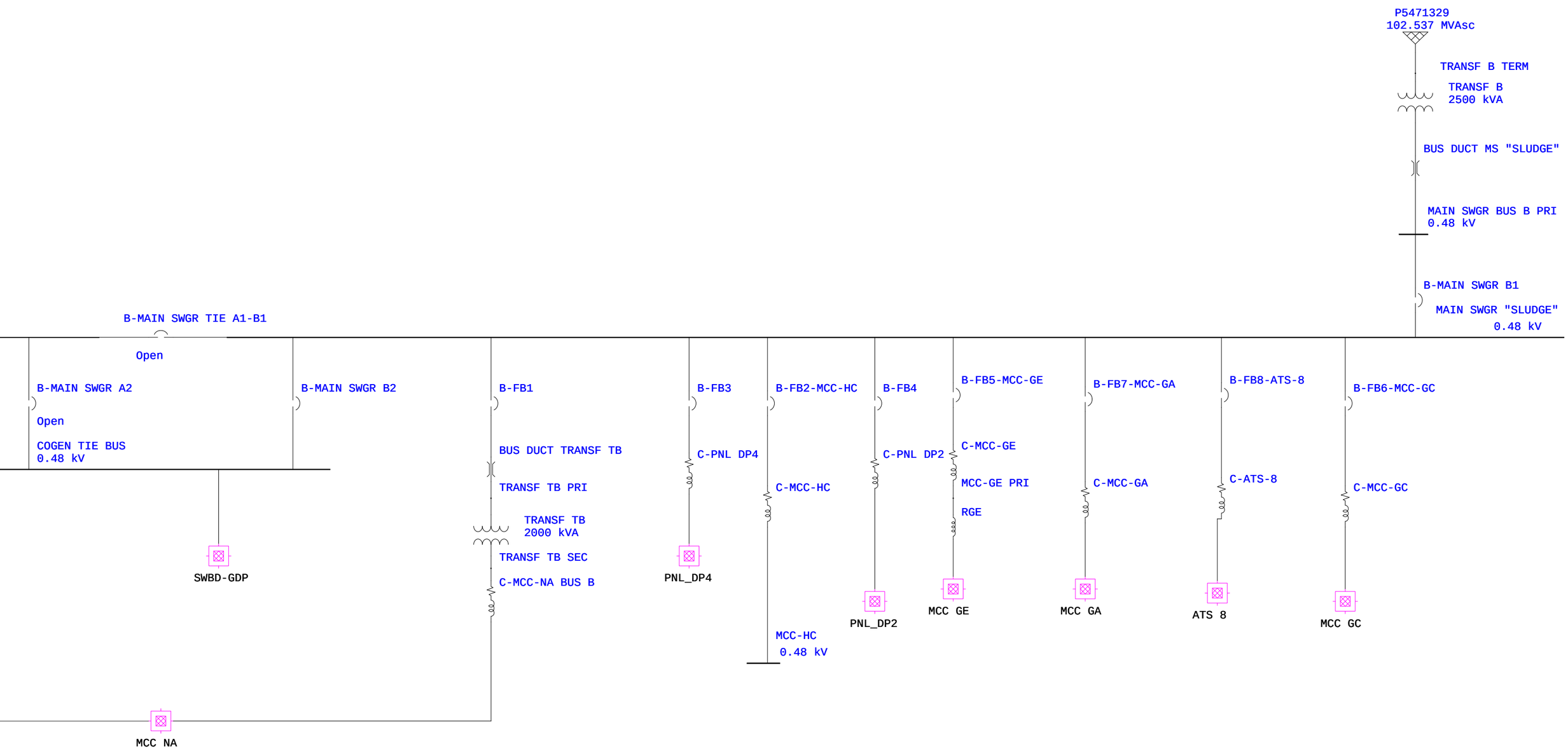
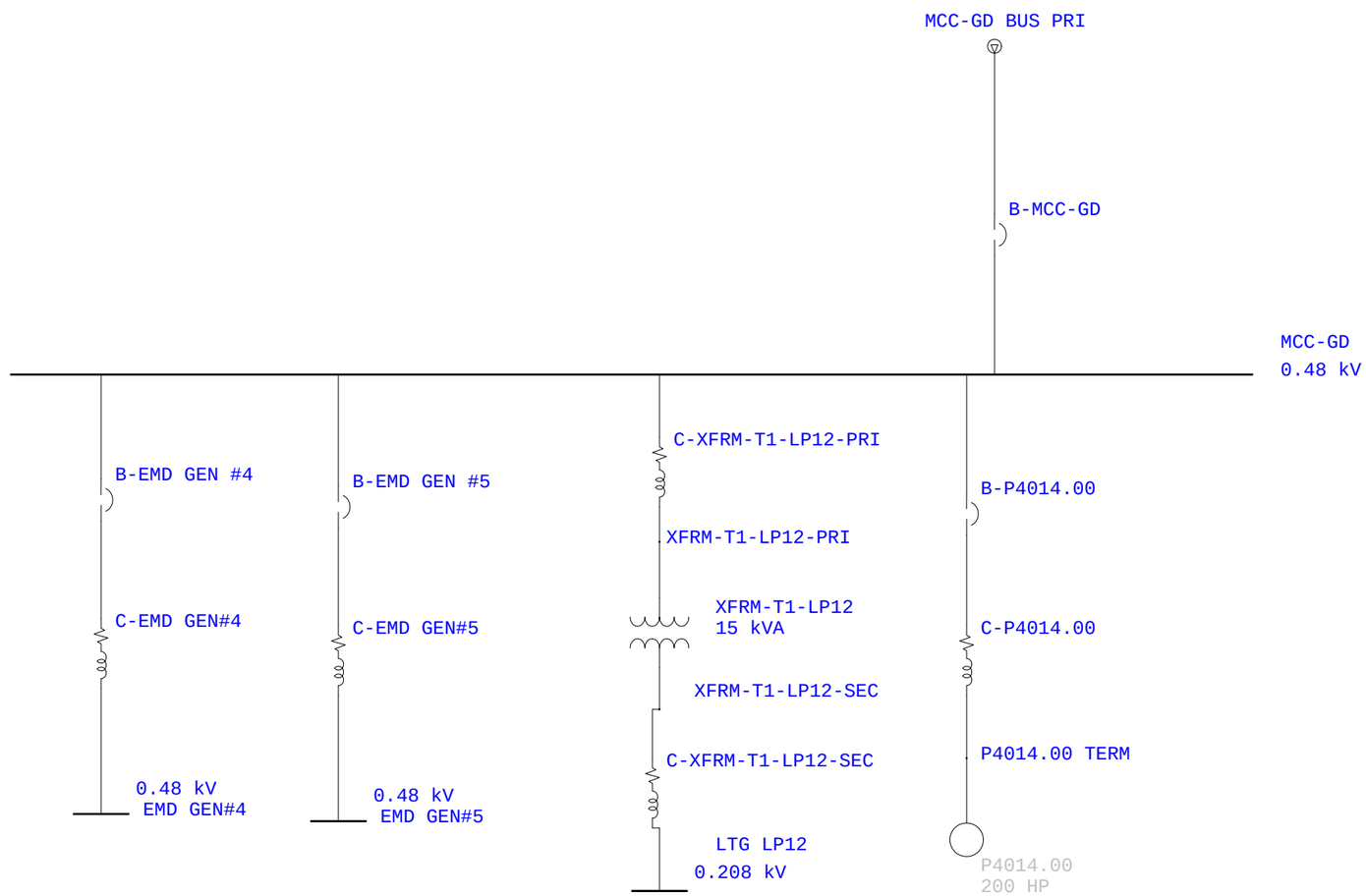
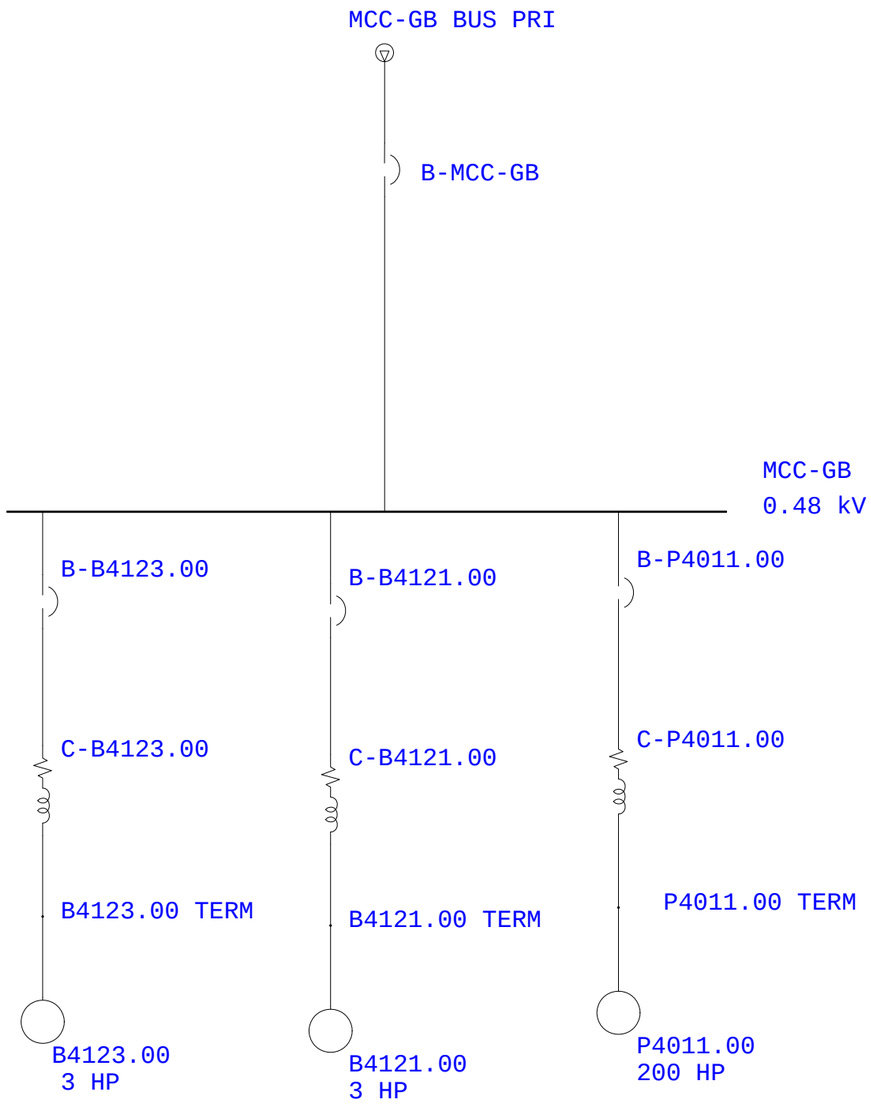
B-B52190.00
C-B52190.00
B52190.00 DISC
C2-B52190.00
B52190.00 TERM
B52190.00
40 HP
B-B52210.00
C-B52210.00
B52210.00 DISC
C2-B52210.00
B52210.00 TERM
B52210.00
20 HP
B-SEP53020.00
C-SEP53020.00
SEP53020.00 DISC
C2-SEP53020.00
SEP53020.00 TERM
SEP53020.00
1 HP
B-CON53020.00
C-CON53020.00
CON53020.00 DISC
C2-CON53020.00
CON53020.00 TERM
CON53020.00
3 HP
B-CON53030.00
C-CON53030.00
CON53030.00 DISC
C2-CON53030.00
CON53030.00 TERM
CON53030.00
3 HP
B-P52240.00
C-P52240.00
P52240.00 DISC
C2-P52240.00
P52240.00 TERM
P52240.00
3 HP

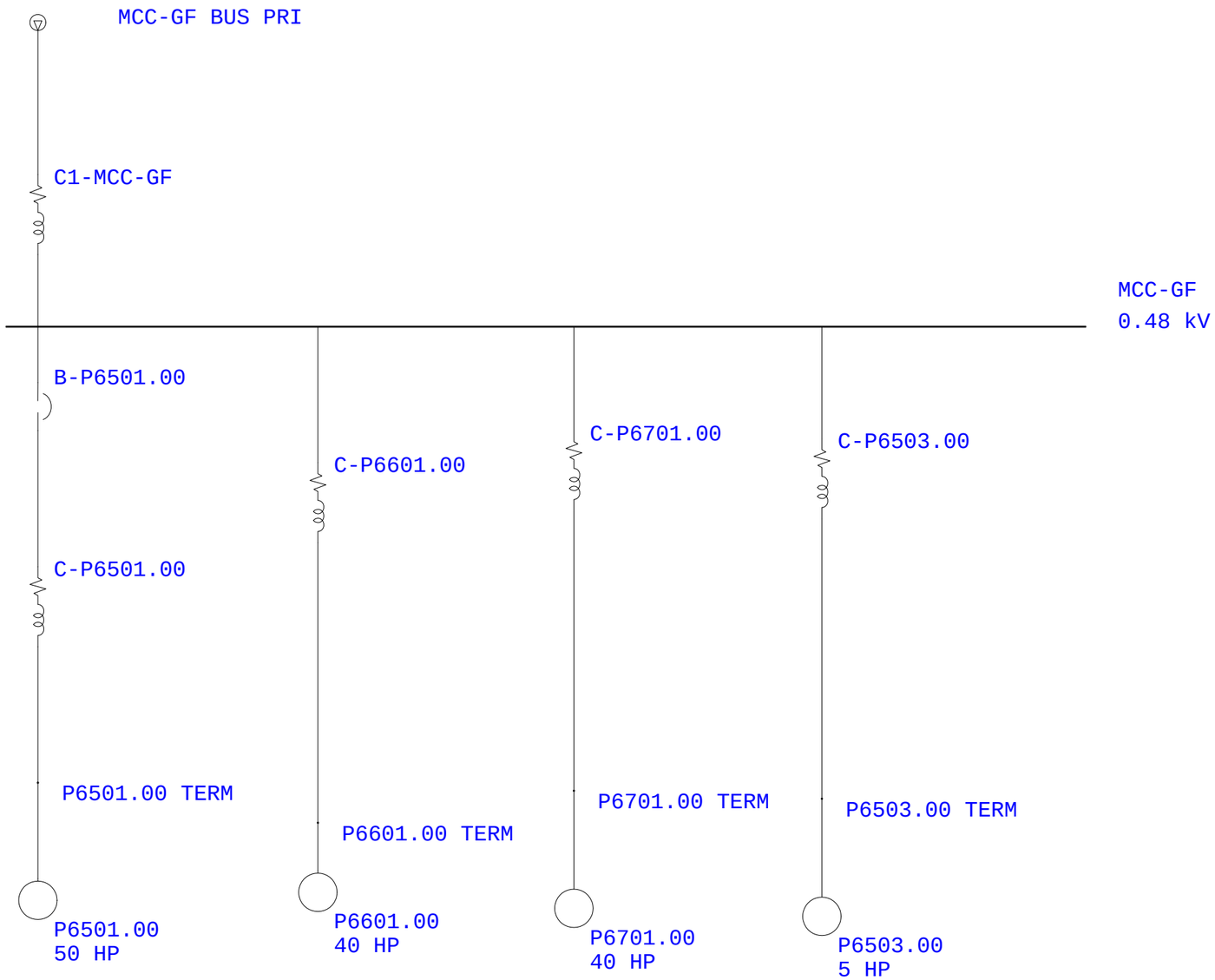
One-Line Diagram - OLV1 (Edit Mode)

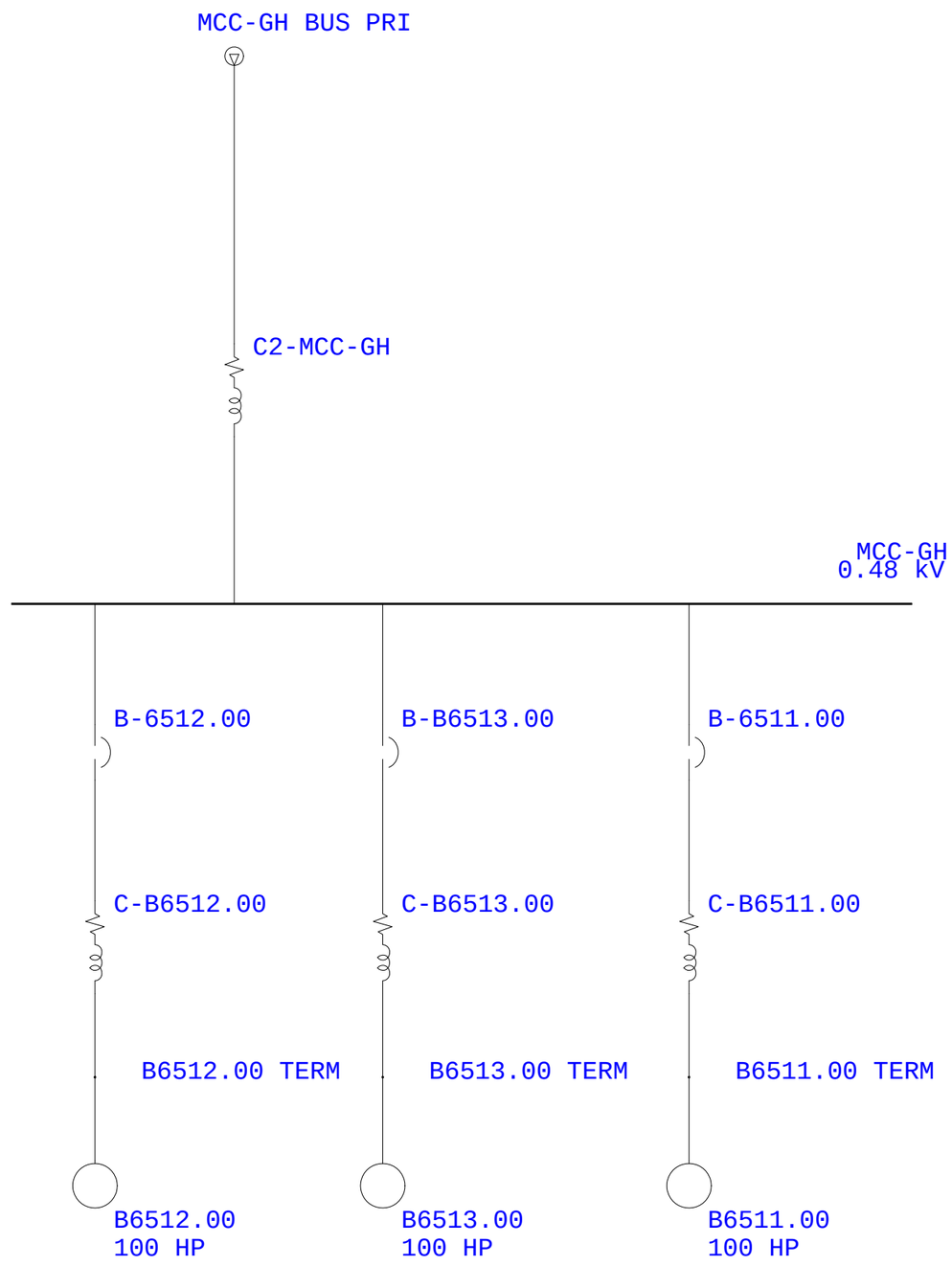


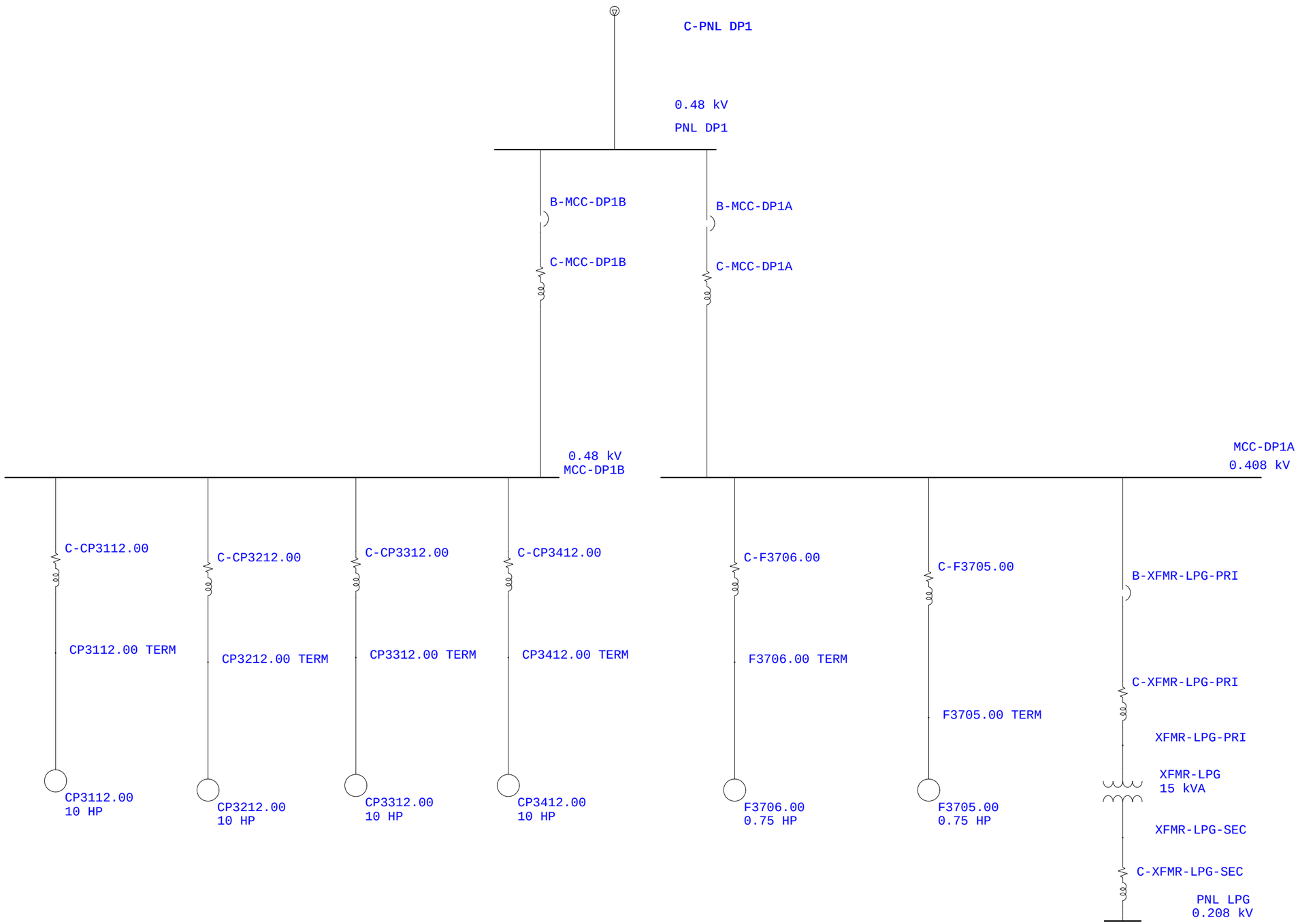

P5471329
102.537 MVAsc
TRANSF B TERM
TRANSF B
2500 kVA
BUS DUCT MS "SLUDGE"
MAIN SWGR BUS B PRI
0.48 kV
B-MAIN SWGR B1
MAIN SWGR "SLUDGE"
0.48 kV
B-MAIN SWGR TIE A1-B1
Open
B-MAIN SWGR A2
Open
COGEN TIE BUS
0.48 kV
B-MAIN SWGR B2
SWBD-GDP
B-FB1
BUS DUCT TRANSF TB
TRANSF TB PRI
TRANSF TB
2000 kVA
TRANSF TB SEC
C-MCC-NA BUS B
MCC NA
B-FB3
C-PNL DP4
PNL_DP4
B-FB2-MCC-HC
C-MCC-HC
MCC-HC
0.48 kV
B-FB4
C-PNL DP2
PNL_DP2
B-FB5-MCC-GE
C-MCC-GE
MCC-GE PRI
RGE
MCC GE
B-FB7-MCC-GA
C-MCC-GA
MCC GA
B-FB8-ATS-8
C-ATS-8
ATS 8
B-FB6-MCC-GC
C-MCC-GC
MCC GC

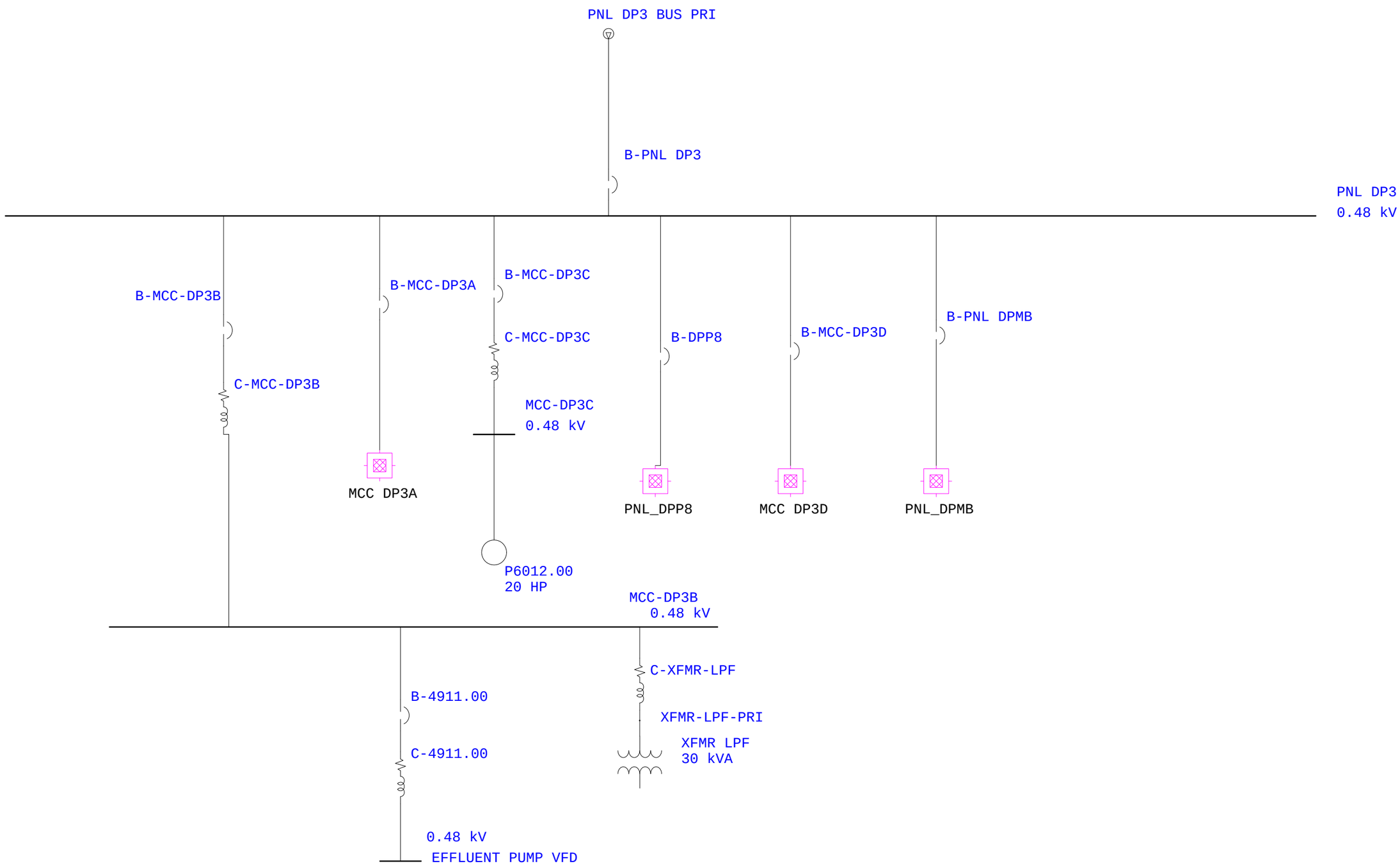

MCC-GD BUS PRI
B-MCC-GD
MCC-GD
0.48 kV
B-EMD GEN #4
B-EMD GEN #5
C-XFRM-T1-LP12-PRI
B-P4014.00
XFRM-T1-LP12-PRI
XFRM-T1-LP12
15 kVA
C-EMD GEN#4
C-EMD GEN#5
C-P4014.00
XFRM-T1-LP12-SEC
C-XFRM-T1-LP12-SEC
P4014.00 TERM
0.48 kV
EMD GEN#4
0.48 kV
EMD GEN#5
LTG LP12
0.208 kV
P4014.00
200 HP

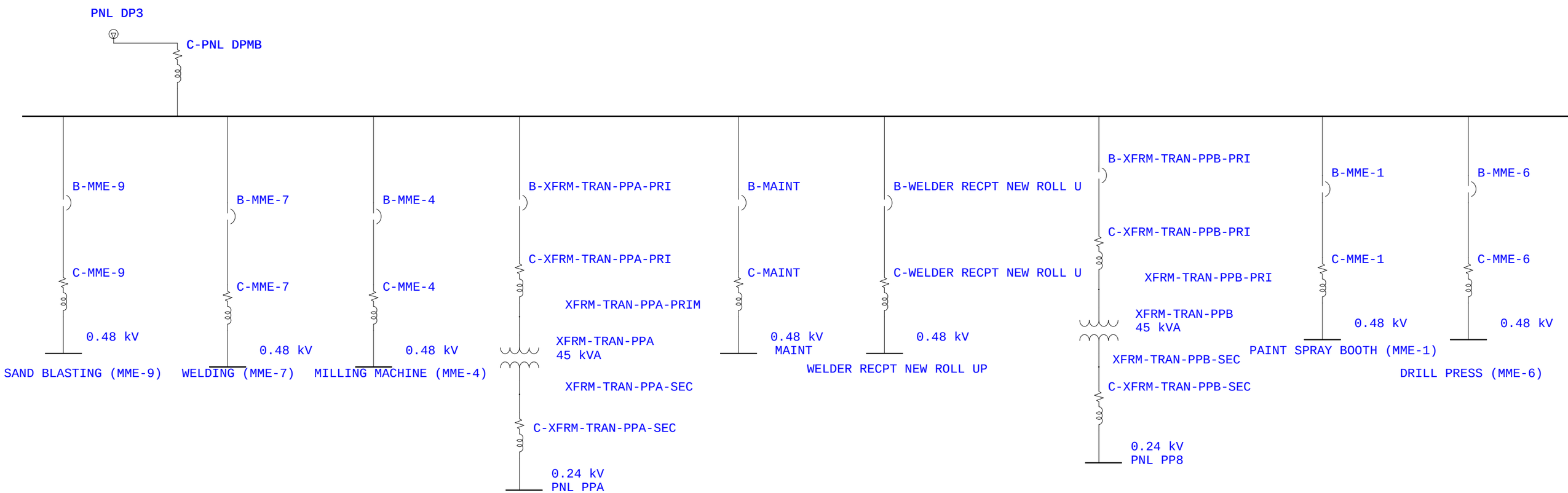

MCC-GB BUS PRI
B-MCC-GB
MCC-GB
0.48 kV
B-B4123.00
B-B4121.00
B-P4011.00
C-B4123.00
C-B4121.00
C-P4011.00
B4123.00 TERM
B4121.00 TERM
P4011.00 TERM
B4123.00
3 HP
B4121.00
3 HP
P4011.00
200 HP

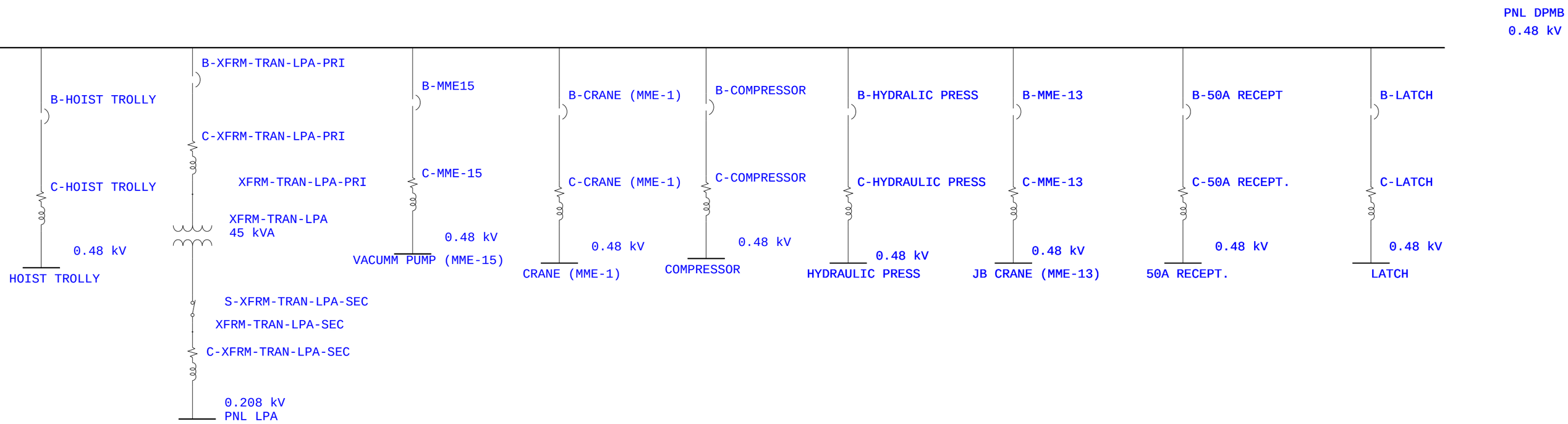

MCC-GF BUS PRI
C1-MCC-GF
MCC-GF
0.48 kV
B-P6501.00
C-P6601.00
C-P6701.00
C-P6503.00
C-P6501.00
P6501.00 TERM
P6601.00 TERM
P6701.00 TERM
P6503.00 TERM
P6501.00
50 HP
P6601.00
40 HP
P6701.00
40 HP
P6503.00
5 HP

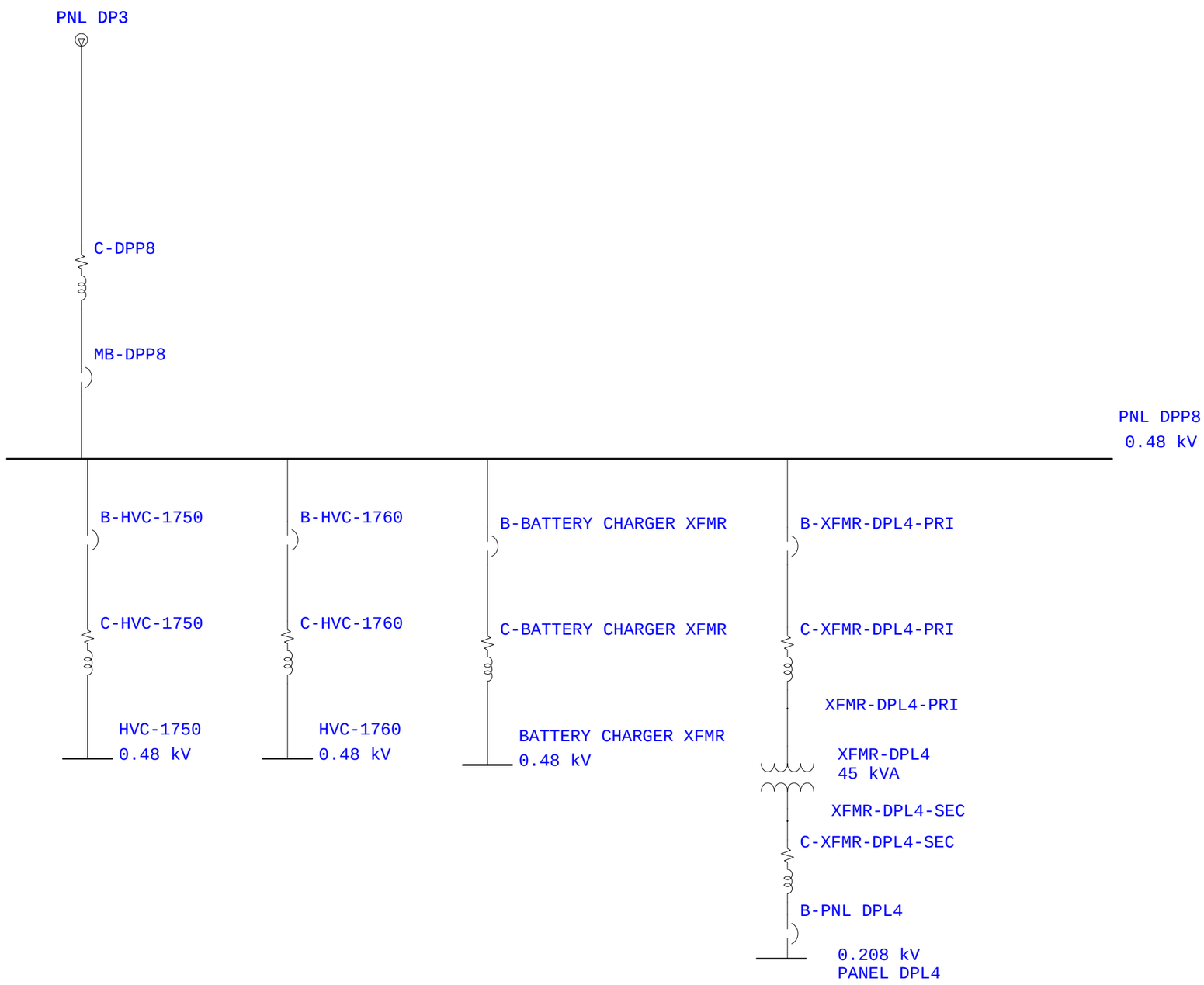

MCC-GH BUS PRI
C2-MCC-GH
MCC-GH
0.48 kV
B-6512.00
B-B6513.00
B-6511.00
C-B6512.00
C-B6513.00
C-B6511.00
B6512.00 TERM
B6513.00 TERM
B6511.00 TERM
B6512.00
100 HP
B6513.00
100 HP
B6511.00
100 HP

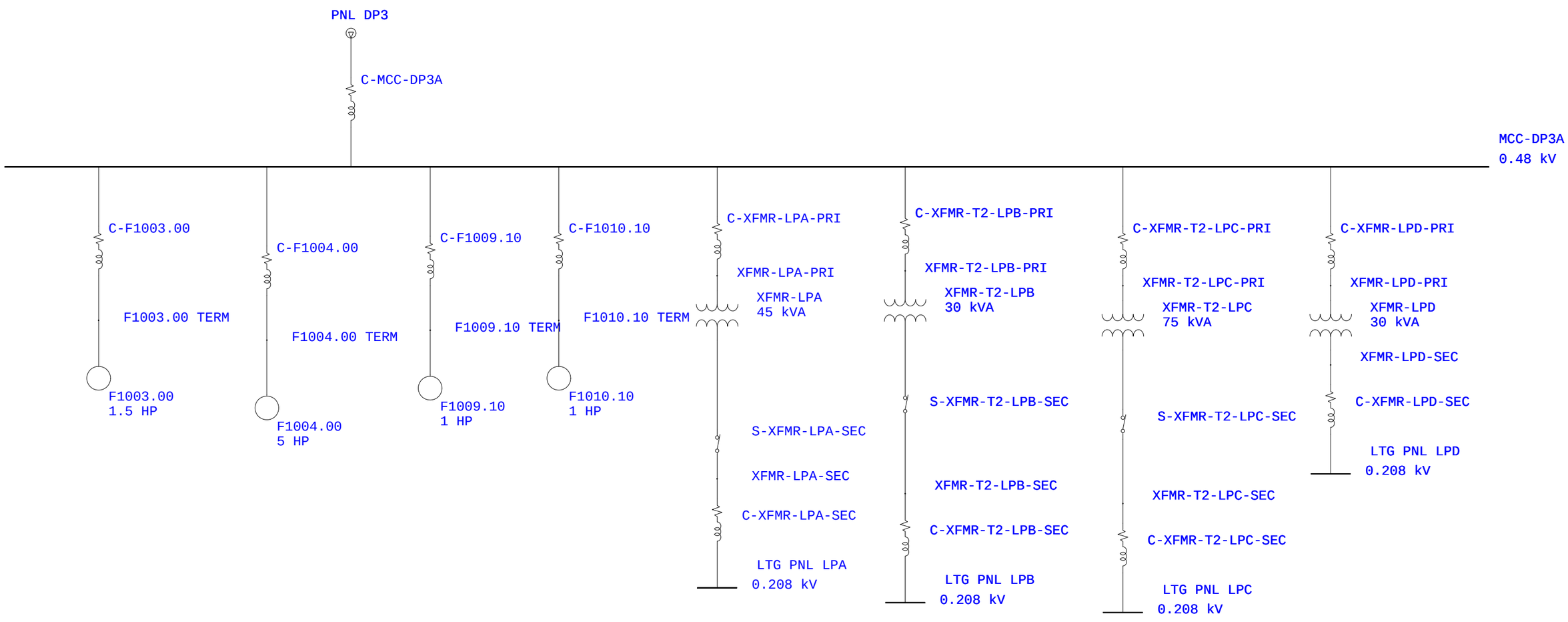

C-PNL DP1
0.48 kV
PNL DP1
B-MCC-DP1B
C-MCC-DP1B
B-MCC-DP1A
C-MCC-DP1A
0.48 kV
MCC-DP1B
MCC-DP1A
0.408 kV
C-CP3112.00
C-CP3212.00
C-CP3312.00
C-CP3412.00
C-F3706.00
C-F3705.00
B-XFMR-LPG-PRI
CP3112.00 TERM
CP3212.00 TERM
CP3312.00 TERM
CP3412.00 TERM
F3706.00 TERM
F3705.00 TERM
C-XFMR-LPG-PRI
XFMR-LPG-PRI
XFMR-LPG
15 kVA
CP3112.00
10 HP
CP3212.00
10 HP
CP3312.00
10 HP
CP3412.00
10 HP
F3706.00
0.75 HP
F3705.00
0.75 HP
XFMR-LPG-SEC
C-XFMR-LPG-SEC
PNL LPG
0.208 kV

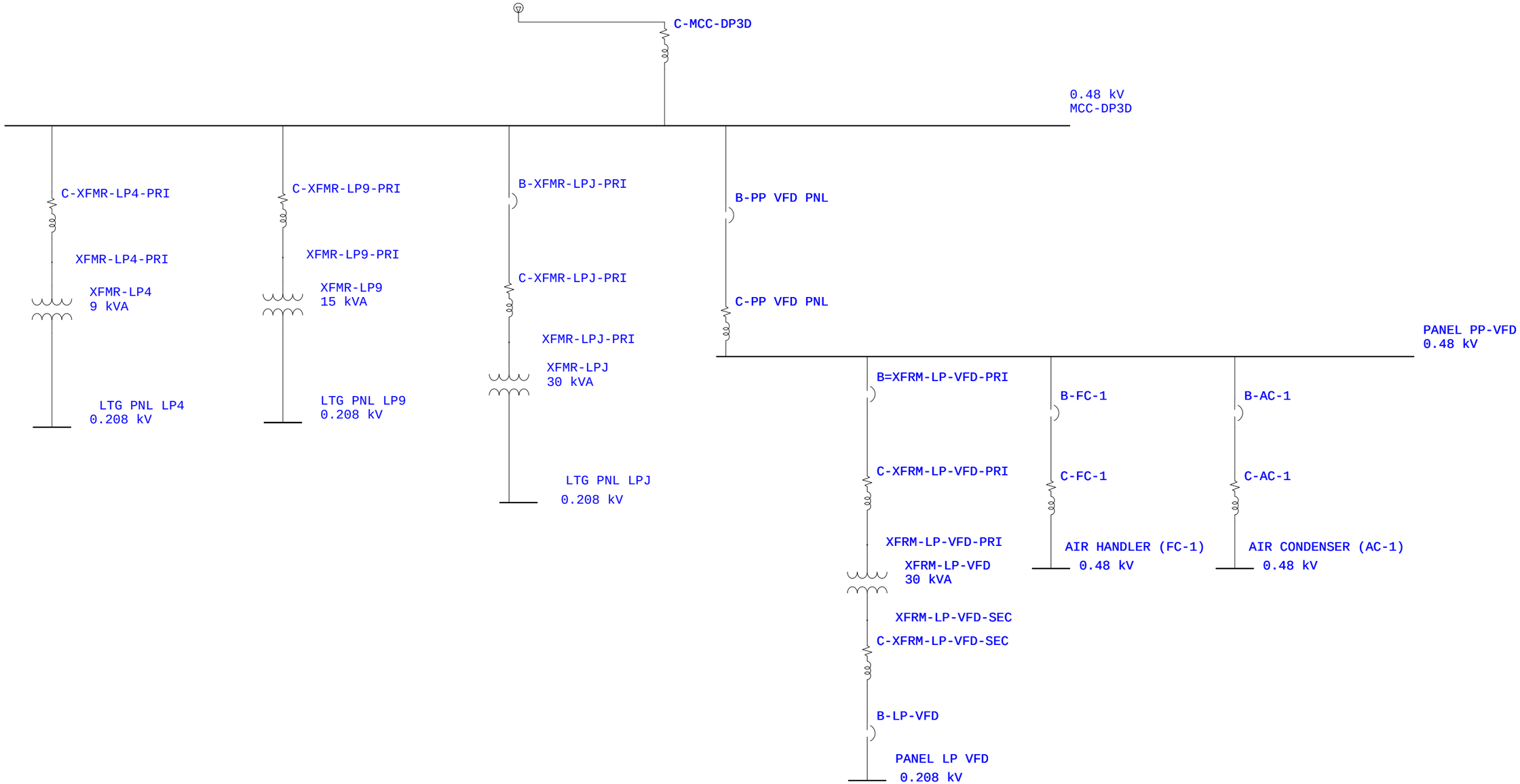

PNL DP3 BUS PRI
B-PNL DP3
PNL DP3
0.48 kV
B-MCC-DP3B
B-MCC-DP3A
B-MCC-DP3C
C-MCC-DP3C
B-DPP8
B-MCC-DP3D
B-PNL DPMB
C-MCC-DP3B
MCC-DP3C
0.48 kV
MCC DP3A
PNL_DPP8
MCC DP3D
PNL_DPMB
P6012.00
20 HP
MCC-DP3B
0.48 kV
C-XFMR-LPF
B-4911.00
XFMR-LPF-PRI
XFMR LPF
30 kVA
C-4911.00
0.48 kV
EFFLUENT PUMP VFD

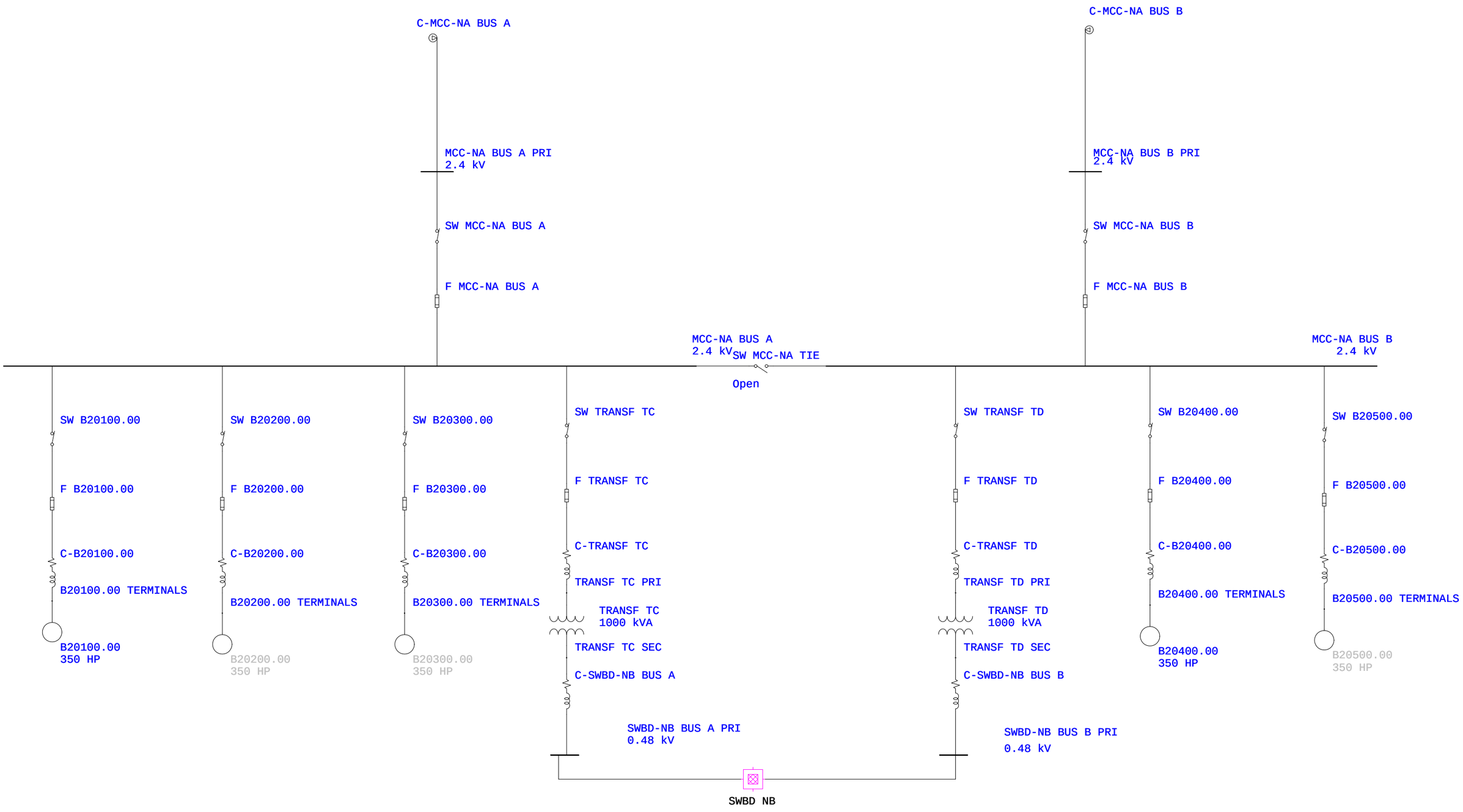

PNL DP3
C-PNL DPMB
B-MME-9
C-MME-9
0.48 kV
SAND BLASTING (MME-9)
B-MME-7
C-MME-7
0.48 kV
WELDING (MME-7)
B-MME-4
C-MME-4
0.48 kV
MILLING MACHINE (MME-4)
B-XFRM-TRAN-PPA-PRI
C-XFRM-TRAN-PPA-PRI
XFRM-TRAN-PPA-PRIM
XFRM-TRAN-PPA
45 kVA
XFRM-TRAN-PPA-SEC
C-XFRM-TRAN-PPA-SEC
0.24 kV
PNL PPA
B-MAINT
C-MAINT
0.48 kV
MAINT
B-WELDER RECPT NEW ROLL U
C-WELDER RECPT NEW ROLL U
0.48 kV
WELDER RECPT NEW ROLL UP
B-XFRM-TRAN-PPB-PRI
C-XFRM-TRAN-PPB-PRI
XFRM-TRAN-PPB-PRI
XFRM-TRAN-PPB
45 kVA
XFRM-TRAN-PPB-SEC
C-XFRM-TRAN-PPB-SEC
0.24 kV
PNL PP8
B-MME-1
C-MME-1
0.48 kV
PAINT SPRAY BOOTH (MME-1)
B-MME-6
C-MME-6
0.48 kV
DRILL PRESS (MME-6)

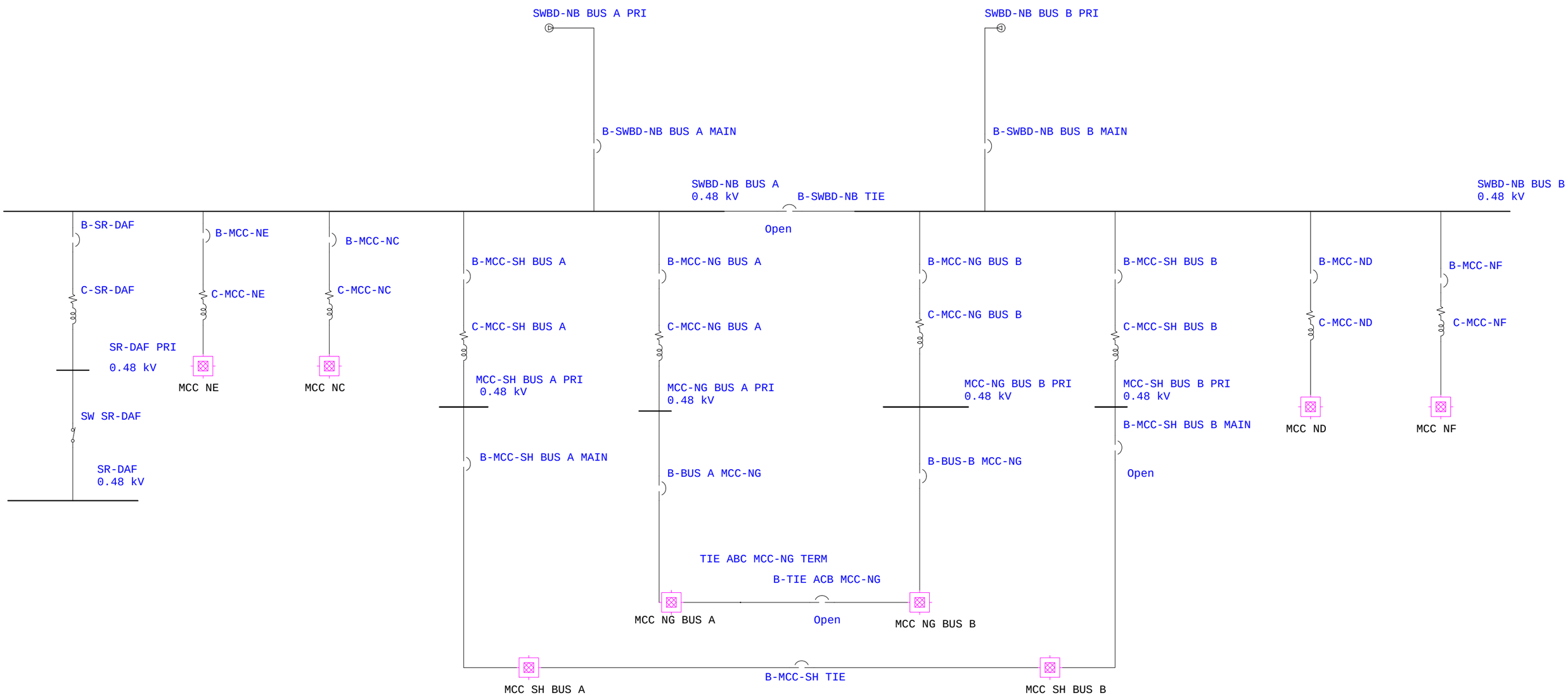

PNL DPMB
0.48 kV
B-HOIST TROLLY
C-HOIST TROLLY
0.48 kV
HOIST TROLLY
B-XFRM-TRAN-LPA-PRI
C-XFRM-TRAN-LPA-PRI
XFRM-TRAN-LPA-PRI
XFRM-TRAN-LPA
45 kVA
S-XFRM-TRAN-LPA-SEC
XFRM-TRAN-LPA-SEC
C-XFRM-TRAN-LPA-SEC
0.208 kV
PNL LPA
B-MME15
C-MME-15
0.48 kV
VACUMM PUMP (MME-15)
B-CRANE (MME-1)
C-CRANE (MME-1)
0.48 kV
CRANE (MME-1)
B-COMPRESSOR
C-COMPRESSOR
0.48 kV
COMPRESSOR
B-HYDRALIC PRESS
C-HYDRAULIC PRESS
0.48 kV
HYDRAULIC PRESS
B-MME-13
C-MME-13
0.48 kV
JB CRANE (MME-13)
B-50A RECEPT
C-50A RECEPT.
0.48 kV
50A RECEPT.
B-LATCH
C-LATCH
0.48 kV
LATCH

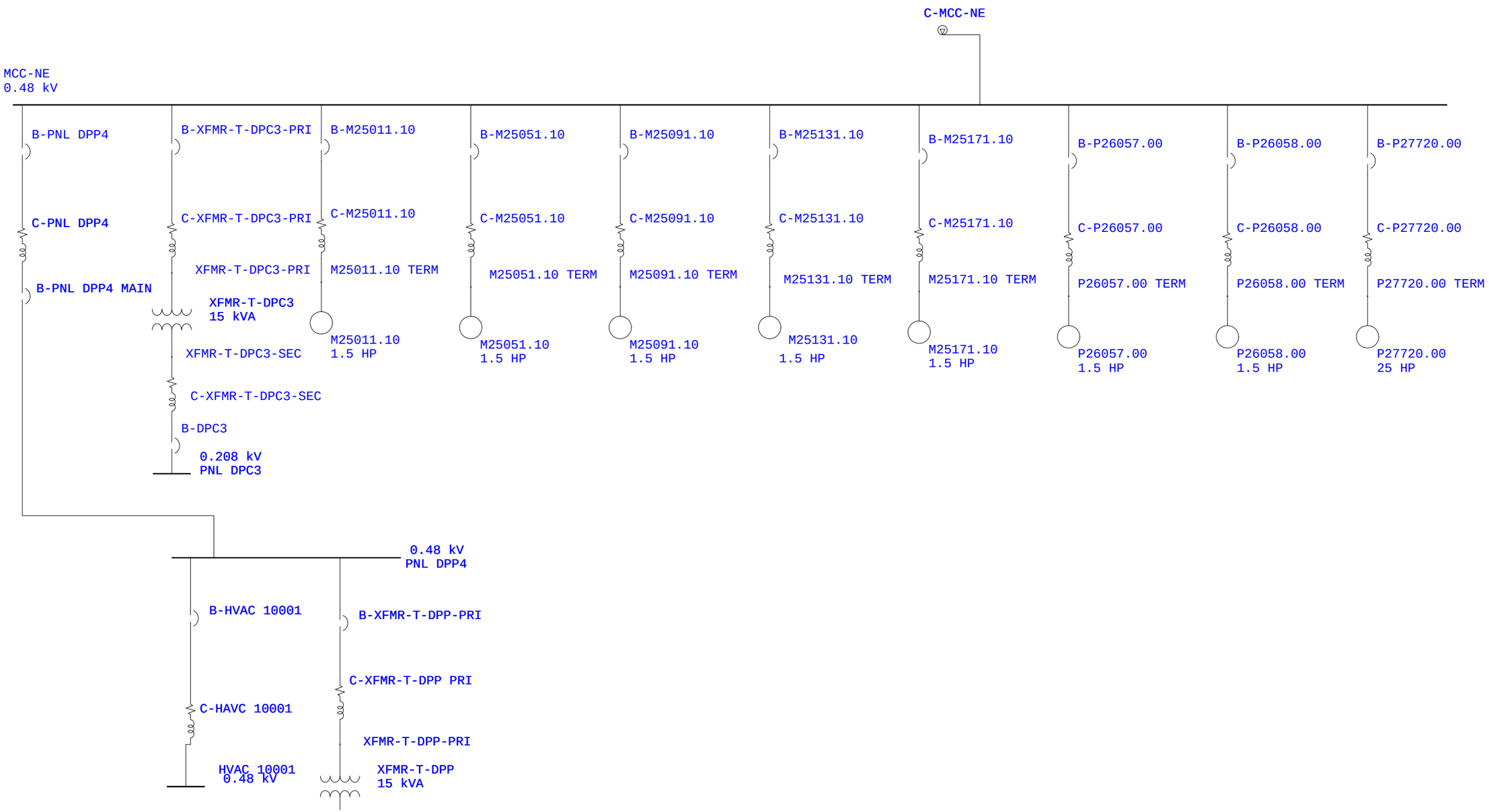

PNL DP3
C-DPP8
MB-DPP8
PNL DPP8
0.48 kV
B-HVC-1750
C-HVC-1750
HVC-1750
0.48 kV
B-HVC-1760
C-HVC-1760
HVC-1760
0.48 kV
B-BATTERY CHARGER XFMR
C-BATTERY CHARGER XFMR
BATTERY CHARGER XFMR
0.48 kV
B-XFMR-DPL4-PRI
C-XFMR-DPL4-PRI
XFMR-DPL4-PRI
XFMR-DPL4
45 kVA
XFMR-DPL4-SEC
C-XFMR-DPL4-SEC
B-PNL DPL4
0.208 kV
PANEL DPL4

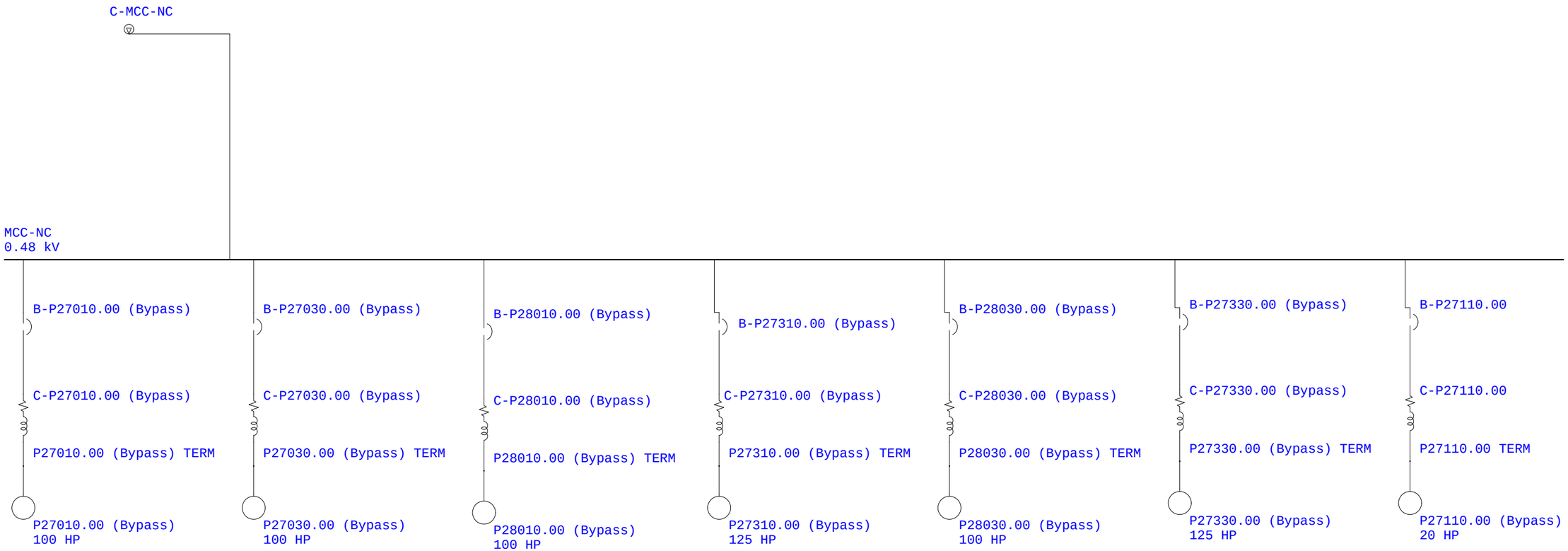

PNL DP3
C-MCC-DP3A
MCC-DP3A
0.48 kV
C-F1003.00
F1003.00 TERM
F1003.00
1.5 HP
C-F1004.00
F1004.00 TERM
F1004.00
5 HP
C-F1009.10
F1009.10 TERM
F1009.10
1 HP
C-F1010.10
F1010.10 TERM
F1010.10
1 HP
C-XFMR-LPA-PRI
XFMR-LPA-PRI
XFMR-LPA
45 kVA
S-XFMR-LPA-SEC
XFMR-LPA-SEC
C-XFMR-LPA-SEC
LTG PNL LPA
0.208 kV
C-XFMR-T2-LPB-PRI
XFMR-T2-LPB-PRI
XFMR-T2-LPB
30 kVA
S-XFMR-T2-LPB-SEC
XFMR-T2-LPB-SEC
C-XFMR-T2-LPB-SEC
LTG PNL LPB
0.208 kV
C-XFMR-T2-LPC-PRI
XFMR-T2-LPC-PRI
XFMR-T2-LPC
75 kVA
S-XFMR-T2-LPC-SEC
XFMR-T2-LPC-SEC
C-XFMR-T2-LPC-SEC
LTG PNL LPC
0.208 kV
C-XFMR-LPD-PRI
XFMR-LPD-PRI
XFMR-LPD
30 kVA
XFMR-LPD-SEC
C-XFMR-LPD-SEC
LTG PNL LPD
0.208 kV


C-MCC-DP3D
0.48 kV
MCC-DP3D
C-XFMR-LP4-PRI
XFMR-LP4-PRI
XFMR-LP4
9 kVA
LTG PNL LP4
0.208 kV
C-XFMR-LP9-PRI
XFMR-LP9-PRI
XFMR-LP9
15 kVA
LTG PNL LP9
0.208 kV
B-XFMR-LPJ-PRI
C-XFMR-LPJ-PRI
XFMR-LPJ-PRI
XFMR-LPJ
30 kVA
LTG PNL LPJ
0.208 kV
B-PP VFD PNL
C-PP VFD PNL
PANEL PP-VFD
0.48 kV
B=XFRM-LP-VFD-PRI
C-XFRM-LP-VFD-PRI
XFRM-LP-VFD-PRI
XFRM-LP-VFD
30 kVA
XFRM-LP-VFD-SEC
C-XFRM-LP-VFD-SEC
B-LP-VFD
PANEL LP VFD
0.208 kV
B-FC-1
C-FC-1
AIR HANDLER (FC-1)
0.48 kV
B-AC-1
C-AC-1
AIR CONDENSER (AC-1)
0.48 kV

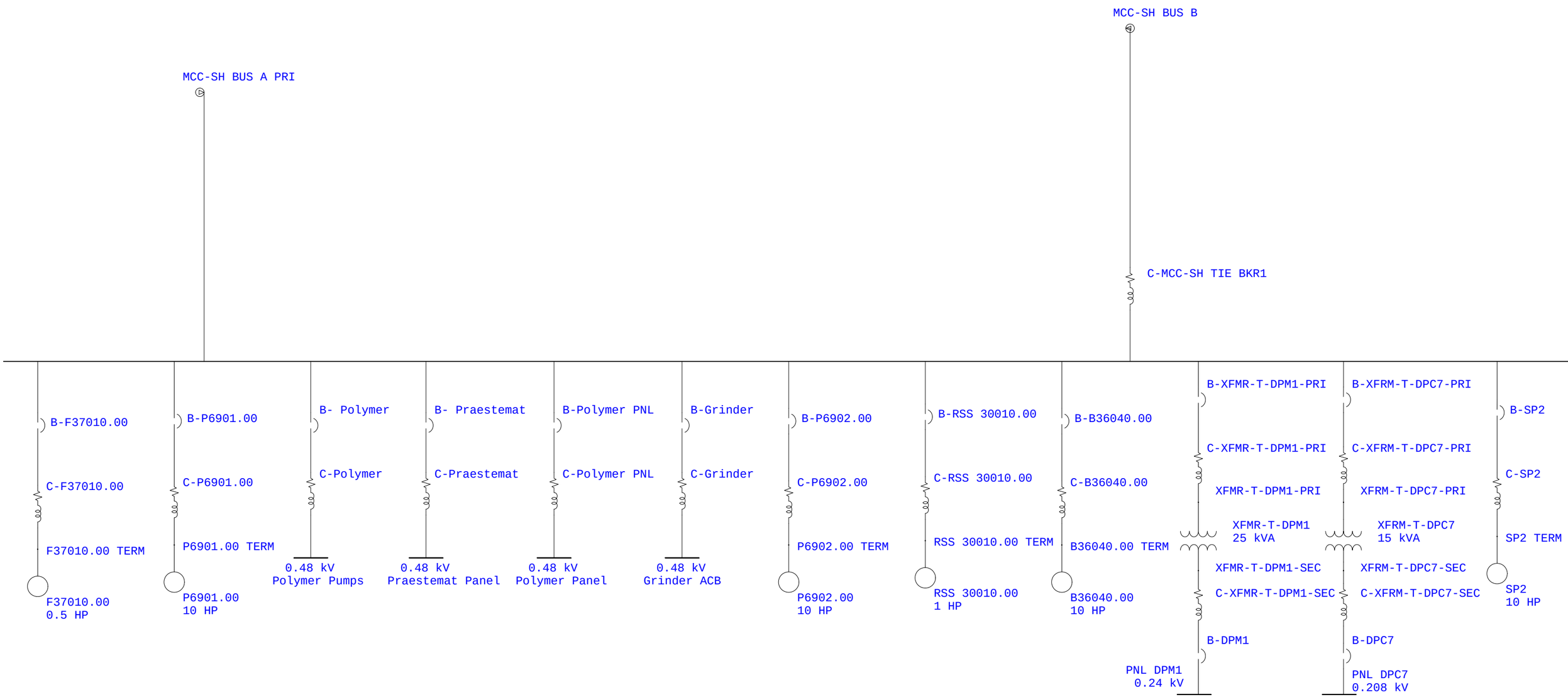

C-MCC-NA BUS A
C-MCC-NA BUS B
MCC-NA BUS A PRI
2.4 kV
MCC-NA BUS B PRI
2.4 kV
SW MCC-NA BUS A
SW MCC-NA BUS B
F MCC-NA BUS A
F MCC-NA BUS B
MCC-NA BUS A
2.4 kV
SW MCC-NA TIE
Open
MCC-NA BUS B
2.4 kV
SW B20100.00
SW B20200.00
SW B20300.00
SW TRANSF TC
SW TRANSF TD
SW B20400.00
SW B20500.00
F B20100.00
F B20200.00
F B20300.00
F TRANSF TC
F TRANSF TD
F B20400.00
F B20500.00
C-B20100.00
C-B20200.00
C-B20300.00
C-TRANSF TC
C-TRANSF TD
C-B20400.00
C-B20500.00
B20100.00 TERMINALS
B20200.00 TERMINALS
B20300.00 TERMINALS
TRANSF TC PRI
TRANSF TD PRI
B20400.00 TERMINALS
B20500.00 TERMINALS
TRANSF TC
1000 kVA
TRANSF TD
1000 kVA
B20100.00
350 HP
B20200.00
350 HP
B20300.00
350 HP
TRANSF TC SEC
TRANSF TD SEC
B20400.00
350 HP
B20500.00
350 HP
C-SWBD-NB BUS A
C-SWBD-NB BUS B
SWBD-NB BUS A PRI
0.48 kV
SWBD-NB BUS B PRI
0.48 kV
SWBD NB

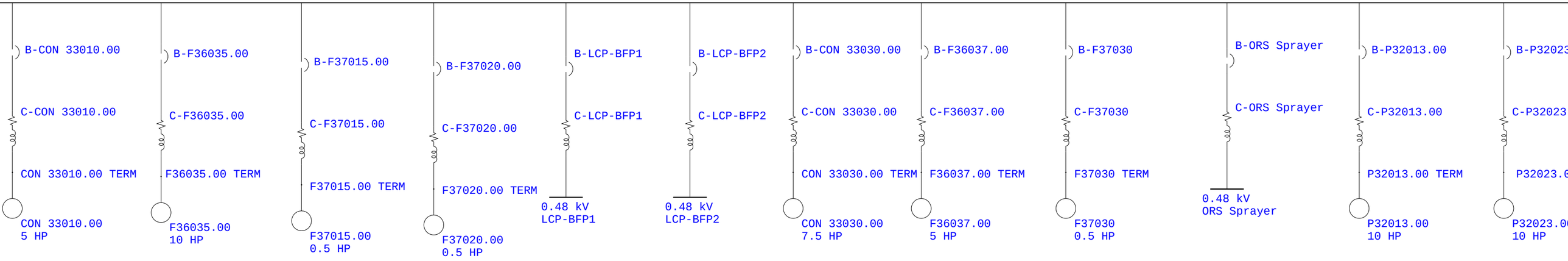

SWBD-NB BUS A PRI
SWBD-NB BUS B PRI
B-SWBD-NB BUS A MAIN
B-SWBD-NB BUS B MAIN
SWBD-NB BUS A
0.48 kV
B-SWBD-NB TIE
Open
SWBD-NB BUS B
0.48 kV
B-SR-DAF
C-SR-DAF
SR-DAF PRI
0.48 kV
SW SR-DAF
SR-DAF
0.48 kV
B-MCC-NE
C-MCC-NE
MCC NE
B-MCC-NC
C-MCC-NC
MCC NC
B-MCC-SH BUS A
C-MCC-SH BUS A
MCC-SH BUS A PRI
0.48 kV
B-MCC-SH BUS A MAIN
B-MCC-NG BUS A
C-MCC-NG BUS A
MCC-NG BUS A PRI
0.48 kV
B-BUS A MCC-NG
B-MCC-NG BUS B
C-MCC-NG BUS B
MCC-NG BUS B PRI
0.48 kV
B-BUS-B MCC-NG
B-MCC-SH BUS B
C-MCC-SH BUS B
MCC-SH BUS B PRI
0.48 kV
B-MCC-SH BUS B MAIN
Open
B-MCC-ND
C-MCC-ND
MCC ND
B-MCC-NF
C-MCC-NF
MCC NF
TIE ABC MCC-NG TERM
B-TIE ACB MCC-NG
MCC NG BUS A
Open
MCC NG BUS B
MCC SH BUS A
B-MCC-SH TIE
MCC SH BUS B

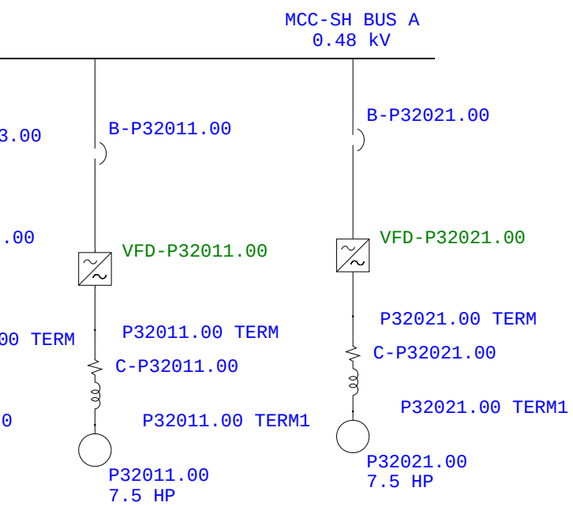

C-MCC-NE
MCC-NE
0.48 kV
B-PNL DPP4
C-PNL DPP4
B-PNL DPP4 MAIN
B-XFMR-T-DPC3-PRI
C-XFMR-T-DPC3-PRI
XFMR-T-DPC3-PRI
XFMR-T-DPC3
15 kVA
XFMR-T-DPC3-SEC
C-XFMR-T-DPC3-SEC
B-DPC3
0.208 kV
PNL DPC3
B-M25011.10
C-M25011.10
M25011.10 TERM
M25011.10
1.5 HP
B-M25051.10
C-M25051.10
M25051.10 TERM
M25051.10
1.5 HP
B-M25091.10
C-M25091.10
M25091.10 TERM
M25091.10
1.5 HP
B-M25131.10
C-M25131.10
M25131.10 TERM
M25131.10
1.5 HP
B-M25171.10
C-M25171.10
M25171.10 TERM
M25171.10
1.5 HP
B-P26057.00
C-P26057.00
P26057.00 TERM
P26057.00
1.5 HP
B-P26058.00
C-P26058.00
P26058.00 TERM
P26058.00
1.5 HP
B-P27720.00
C-P27720.00
P27720.00 TERM
P27720.00
25 HP
0.48 kV
PNL DPP4
B-HVAC 10001
C-HAVC 10001
HVAC 10001
0.48 kV
B-XFMR-T-DPP-PRI
C-XFMR-T-DPP PRI
XFMR-T-DPP-PRI
XFMR-T-DPP
15 kVA

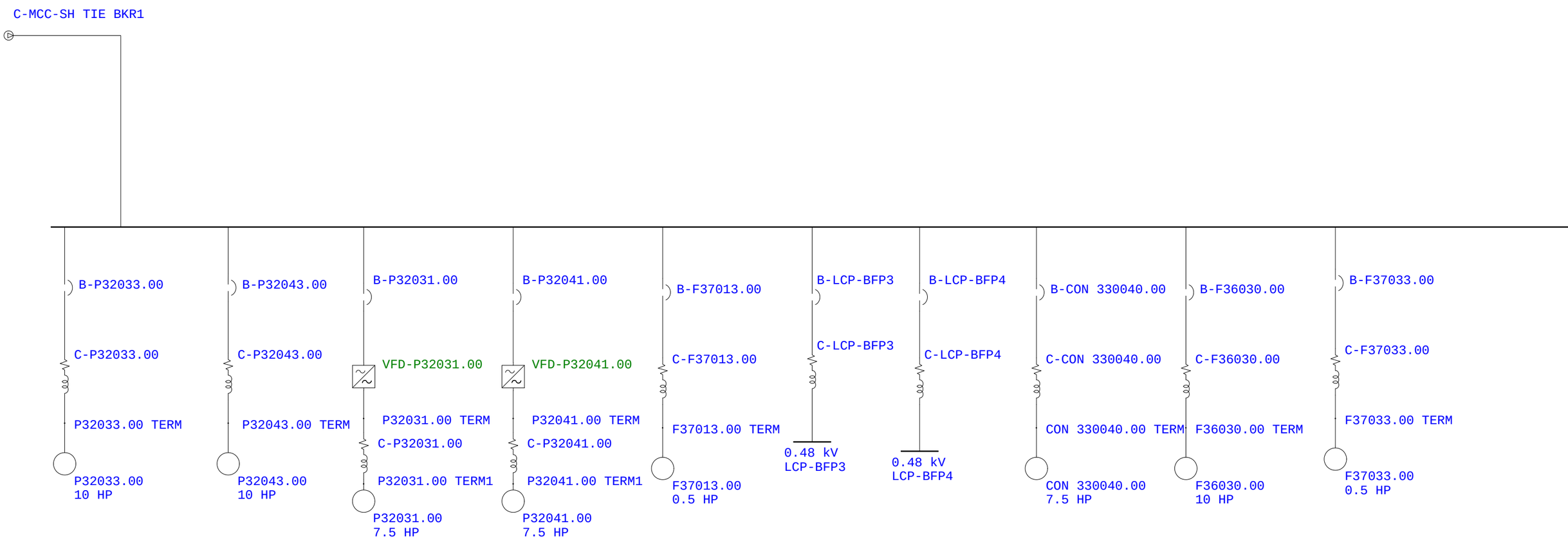

C-MCC-NC
MCC-NC
0.48 kV
B-P27010.00 (Bypass)
C-P27010.00 (Bypass)
P27010.00 (Bypass) TERM
P27010.00 (Bypass)
100 HP
B-P27030.00 (Bypass)
C-P27030.00 (Bypass)
P27030.00 (Bypass) TERM
P27030.00 (Bypass)
100 HP
B-P28010.00 (Bypass)
C-P28010.00 (Bypass)
P28010.00 (Bypass) TERM
P28010.00 (Bypass)
100 HP
B-P27310.00 (Bypass)
C-P27310.00 (Bypass)
P27310.00 (Bypass) TERM
P27310.00 (Bypass)
125 HP
B-P28030.00 (Bypass)
C-P28030.00 (Bypass)
P28030.00 (Bypass) TERM
P28030.00 (Bypass)
100 HP
B-P27330.00 (Bypass)
C-P27330.00 (Bypass)
P27330.00 (Bypass) TERM
P27330.00 (Bypass)
125 HP
B-P27110.00
C-P27110.00
P27110.00 TERM
P27110.00 (Bypass)
20 HP

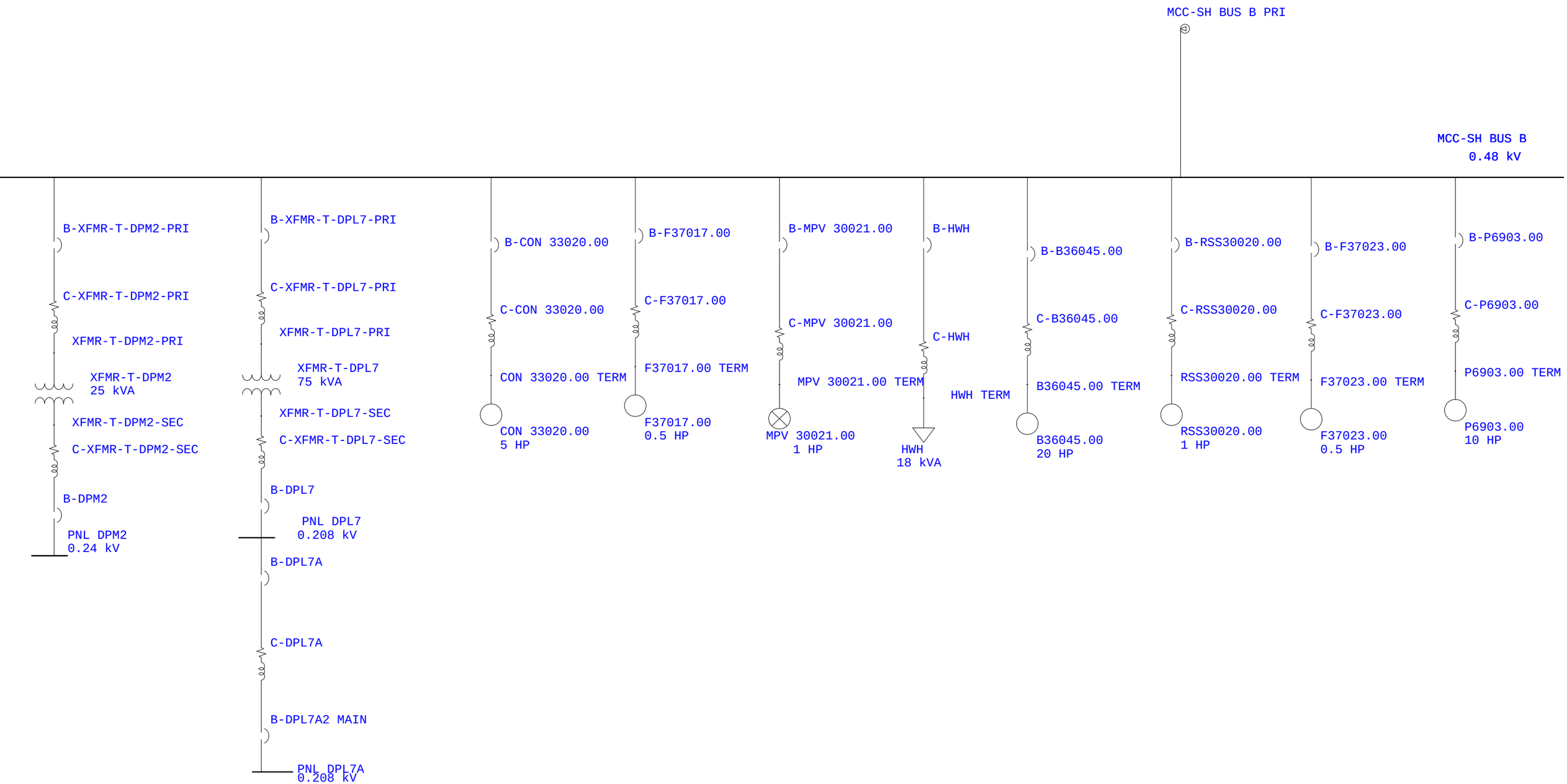
One-Line Diagram - OLV1=>...=>MCC SH BUS A (Edit Mode)

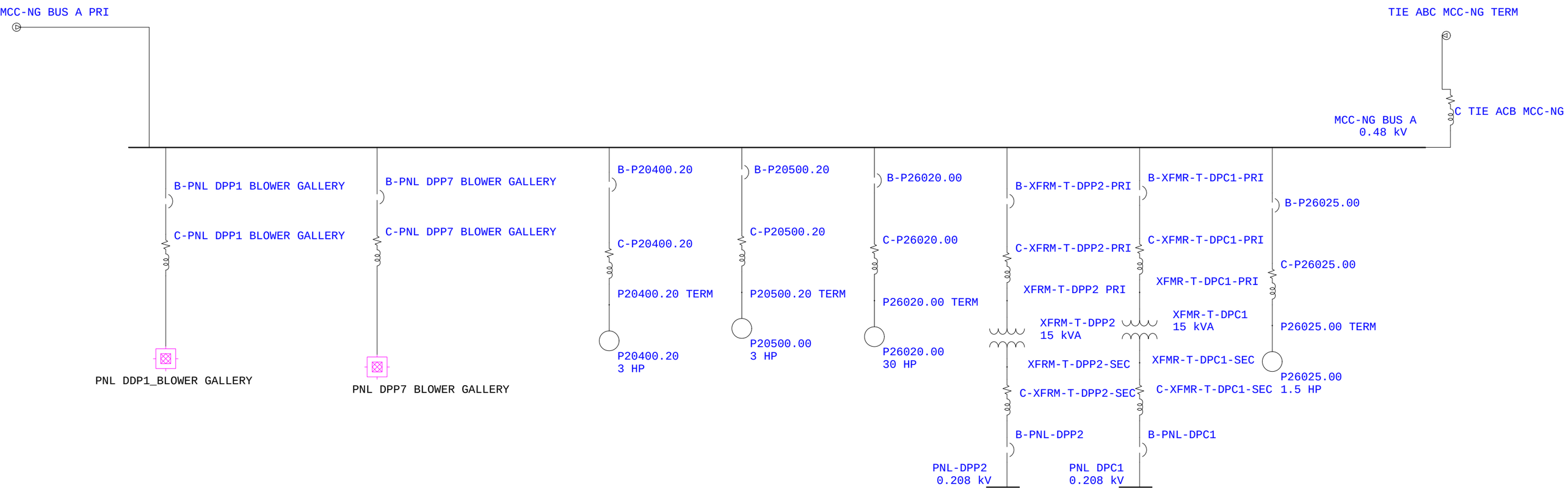


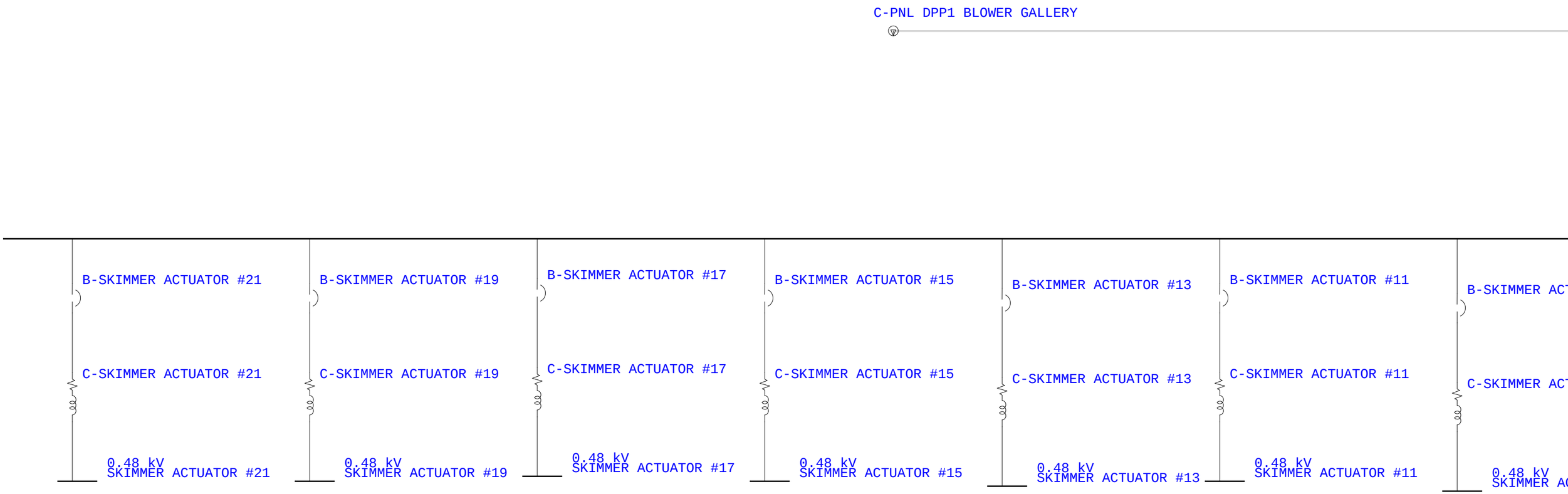

B-CON 33010.00
C-CON 33010.00
CON 33010.00 TERM
CON 33010.00
5 HP
B-F36035.00
C-F36035.00
F36035.00 TERM
F36035.00
10 HP
B-F37015.00
C-F37015.00
F37015.00 TERM
F37015.00
0.5 HP
B-F37020.00
C-F37020.00
F37020.00 TERM
F37020.00
0.5 HP
B-LCP-BFP1
C-LCP-BFP1
0.48 kV
LCP-BFP1
B-LCP-BFP2
C-LCP-BFP2
0.48 kV
LCP-BFP2
B-CON 33030.00
C-CON 33030.00
CON 33030.00 TERM
CON 33030.00
7.5 HP
B-F36037.00
C-F36037.00
F36037.00 TERM
F36037.00
5 HP
B-F37030
C-F37030
F37030 TERM
F37030
0.5 HP
B-ORS Sprayer
C-ORS Sprayer
0.48 kV
ORS Sprayer
B-P32013.00
C-P32013.00
P32013.00 TERM
P32013.00
10 HP
B-P32023
C-P32023
P32023.0
P32023.00
10 HP

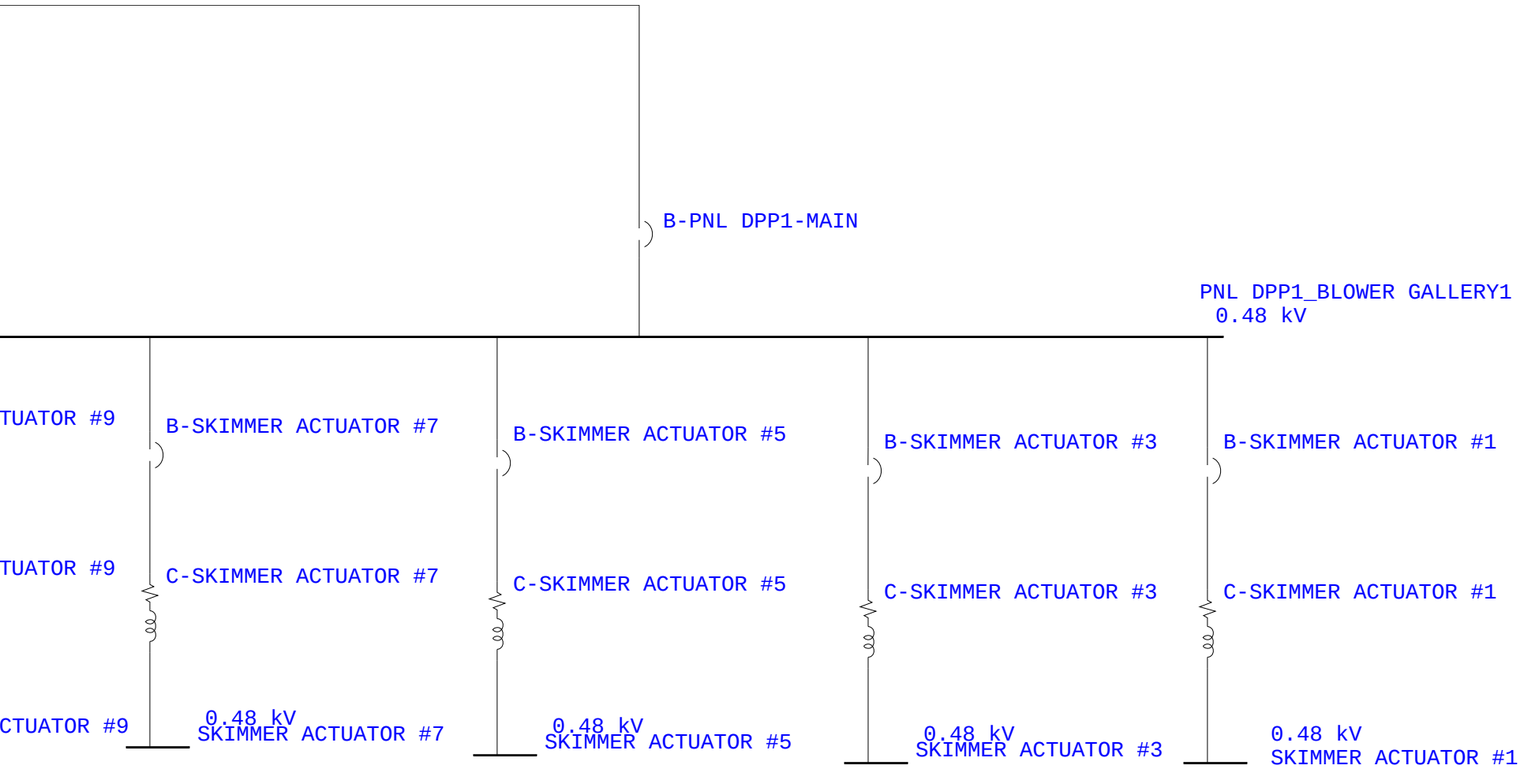

MCC-SH BUS A
0.48 kV
3.00
B-P32011.00
B-P32021.00
.00
VFD-P32011.00
VFD-P32021.00
00 TERM
P32011.00 TERM
P32021.00 TERM
C-P32011.00
C-P32021.00
0
P32011.00 TERM1
P32021.00 TERM1
P32011.00
7.5 HP
P32021.00
7.5 HP

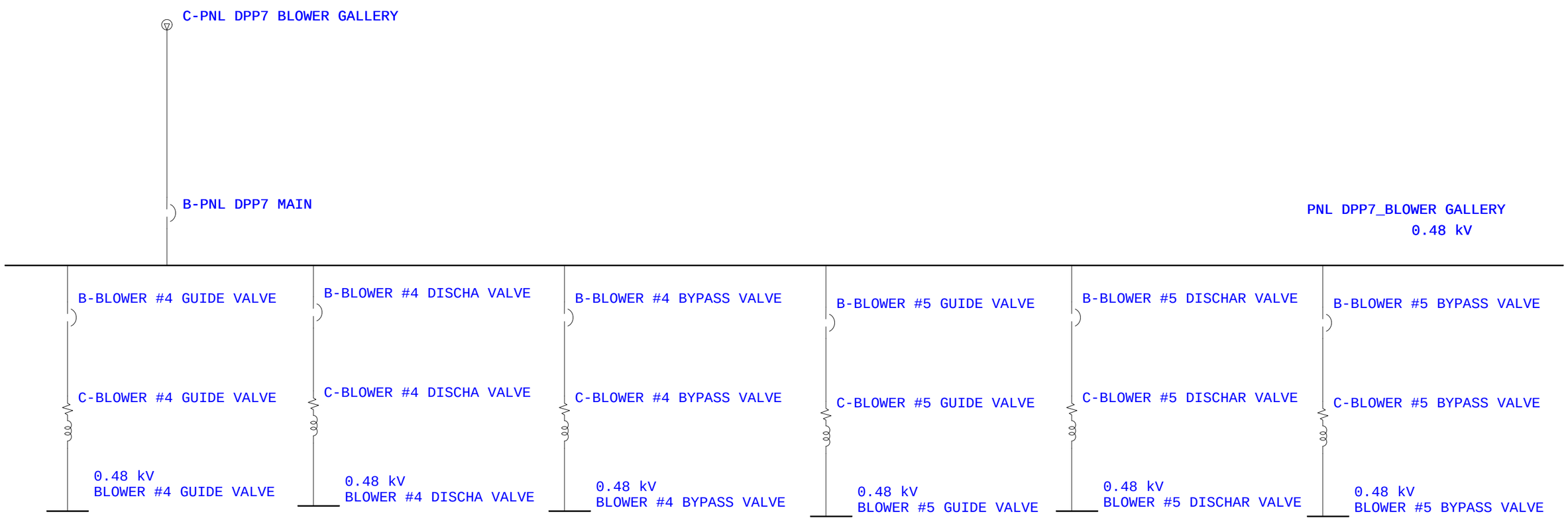

C-MCC-SH TIE BKR1
B-P32033.00
C-P32033.00
P32033.00 TERM
P32033.00
10 HP
B-P32043.00
C-P32043.00
P32043.00 TERM
P32043.00
10 HP
B-P32031.00
VFD-P32031.00
P32031.00 TERM
C-P32031.00
P32031.00 TERM1
P32031.00
7.5 HP
B-P32041.00
VFD-P32041.00
P32041.00 TERM
C-P32041.00
P32041.00 TERM1
P32041.00
7.5 HP
B-F37013.00
C-F37013.00
F37013.00 TERM
F37013.00
0.5 HP
B-LCP-BFP3
C-LCP-BFP3
0.48 kV
LCP-BFP3
B-LCP-BFP4
C-LCP-BFP4
0.48 kV
LCP-BFP4
B-CON 330040.00
C-CON 330040.00
CON 330040.00 TERM
CON 330040.00
7.5 HP
B-F36030.00
C-F36030.00
F36030.00 TERM
F36030.00
10 HP
B-F37033.00
C-F37033.00
F37033.00 TERM
F37033.00
0.5 HP

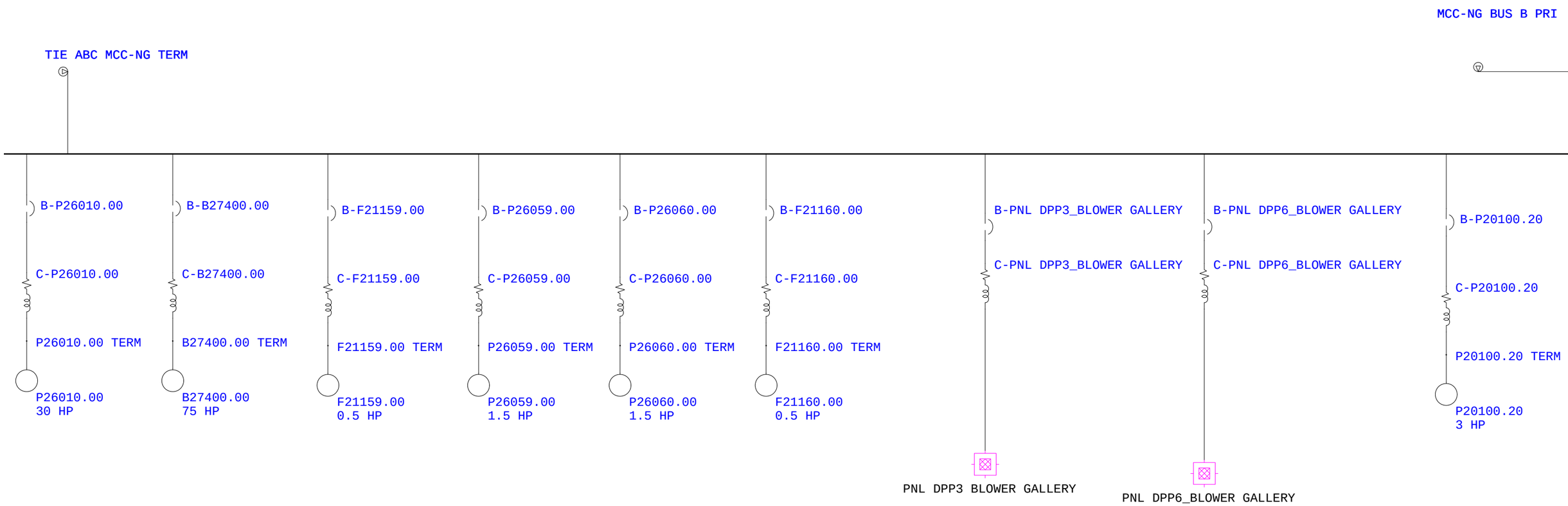

MCC-SH BUS B PRI
MCC-SH BUS B
0.48 kV
B-XFMR-T-DPM2-PRI
C-XFMR-T-DPM2-PRI
XFMR-T-DPM2-PRI
XFMR-T-DPM2
25 kVA
XFMR-T-DPM2-SEC
C-XFMR-T-DPM2-SEC
B-DPM2
PNL DPM2
0.24 kV
B-XFMR-T-DPL7-PRI
C-XFMR-T-DPL7-PRI
XFMR-T-DPL7-PRI
XFMR-T-DPL7
75 kVA
XFMR-T-DPL7-SEC
C-XFMR-T-DPL7-SEC
B-DPL7
PNL DPL7
0.208 kV
B-DPL7A
C-DPL7A
B-DPL7A2 MAIN
PNL DPL7A
0.208 kV
B-CON 33020.00
C-CON 33020.00
CON 33020.00 TERM
CON 33020.00
5 HP
B-F37017.00
C-F37017.00
F37017.00 TERM
F37017.00
0.5 HP
B-MPV 30021.00
C-MPV 30021.00
MPV 30021.00 TERM
MPV 30021.00
1 HP
B-HWH
C-HWH
HWH TERM
HWH
18 kVA
B-B36045.00
C-B36045.00
B36045.00 TERM
B36045.00
20 HP
B-RSS30020.00
C-RSS30020.00
RSS30020.00 TERM
RSS30020.00
1 HP
B-F37023.00
C-F37023.00
F37023.00 TERM
F37023.00
0.5 HP
B-P6903.00
C-P6903.00
P6903.00 TERM
P6903.00
10 HP

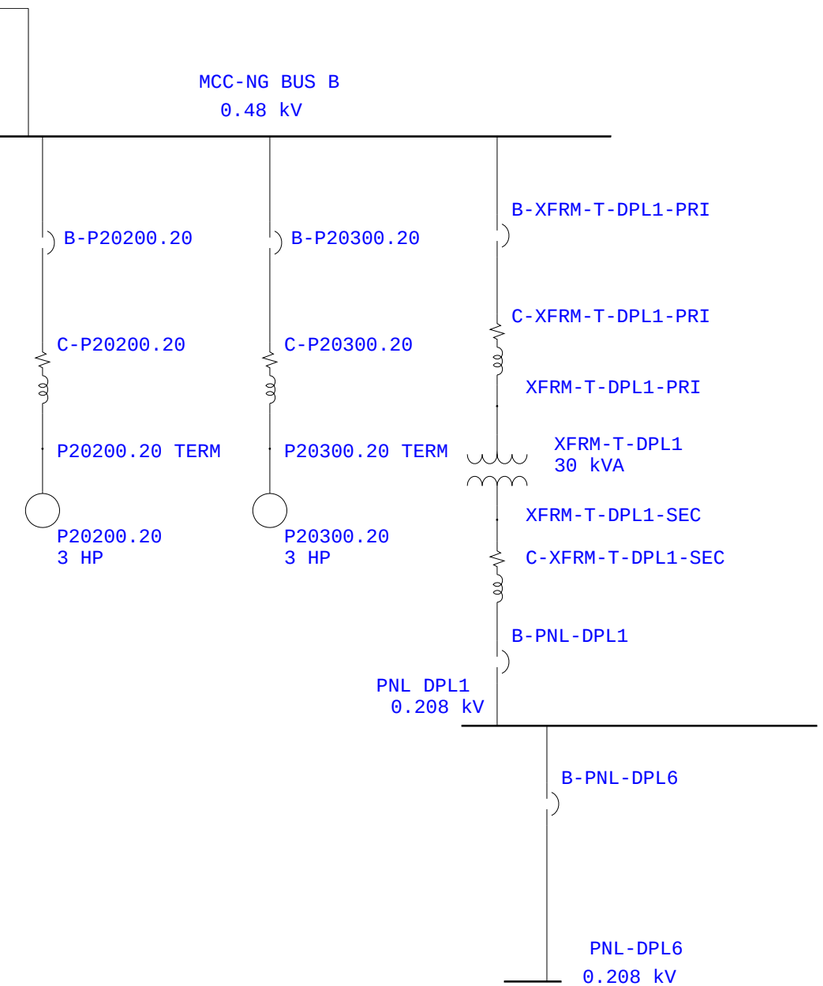

MCC-NG BUS A PRI
TIE ABC MCC-NG TERM
C TIE ACB MCC-NG
MCC-NG BUS A
0.48 kV
B-PNL DPP1 BLOWER GALLERY
C-PNL DPP1 BLOWER GALLERY
PNL DDP1_BLOWER GALLERY
B-PNL DPP7 BLOWER GALLERY
C-PNL DPP7 BLOWER GALLERY
PNL DPP7 BLOWER GALLERY
B-P20400.20
C-P20400.20
P20400.20 TERM
P20400.20
3 HP
B-P20500.20
C-P20500.20
P20500.20 TERM
P20500.00
3 HP
B-P26020.00
C-P26020.00
P26020.00 TERM
P26020.00
30 HP
B-XFRM-T-DPP2-PRI
C-XFRM-T-DPP2-PRI
XFRM-T-DPP2 PRI
XFRM-T-DPP2
15 kVA
XFRM-T-DPP2-SEC
C-XFRM-T-DPP2-SEC
B-PNL-DPP2
PNL-DPP2
0.208 kV
B-XFMR-T-DPC1-PRI
C-XFMR-T-DPC1-PRI
XFMR-T-DPC1-PRI
XFMR-T-DPC1
15 kVA
XFMR-T-DPC1-SEC
C-XFMR-T-DPC1-SEC
B-PNL-DPC1
PNL DPC1
0.208 kV
B-P26025.00
C-P26025.00
P26025.00 TERM
P26025.00
1.5 HP

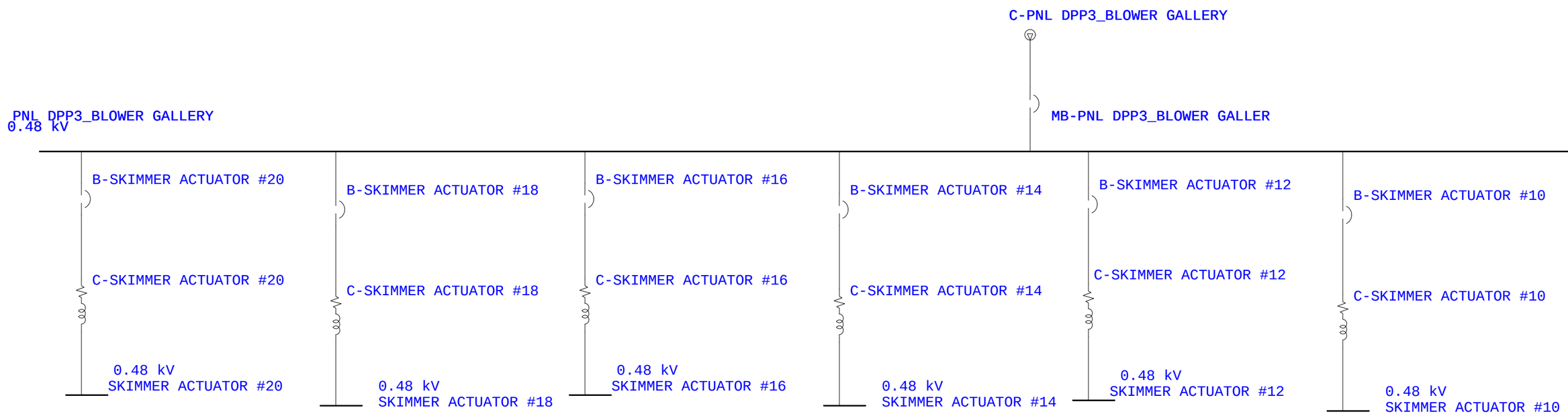

C-PNL DPP1 BLOWER GALLERY
B-SKIMMER ACTUATOR #21
C-SKIMMER ACTUATOR #21
0.48 kV
SKIMMER ACTUATOR #21
B-SKIMMER ACTUATOR #19
C-SKIMMER ACTUATOR #19
0.48 kV
SKIMMER ACTUATOR #19
B-SKIMMER ACTUATOR #17
C-SKIMMER ACTUATOR #17
0.48 kV
SKIMMER ACTUATOR #17
B-SKIMMER ACTUATOR #15
C-SKIMMER ACTUATOR #15
0.48 kV
SKIMMER ACTUATOR #15
B-SKIMMER ACTUATOR #13
C-SKIMMER ACTUATOR #13
0.48 kV
SKIMMER ACTUATOR #13
B-SKIMMER ACTUATOR #11
C-SKIMMER ACTUATOR #11
0.48 kV
SKIMMER ACTUATOR #11
B-SKIMMER AC
C-SKIMMER AC
0.48 kV
SKIMMER A

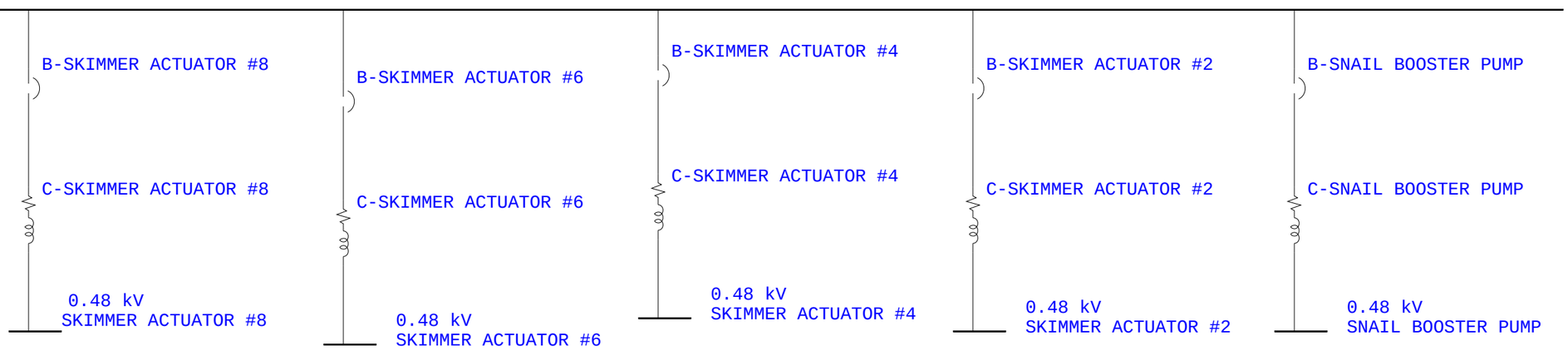

B-PNL DPP1-MAIN
PNL DPP1_BLOWER GALLERY1
0.48 kV
TUATOR #9
B-SKIMMER ACTUATOR #7
B-SKIMMER ACTUATOR #5
B-SKIMMER ACTUATOR #3
B-SKIMMER ACTUATOR #1
TUATOR #9
C-SKIMMER ACTUATOR #7
C-SKIMMER ACTUATOR #5
C-SKIMMER ACTUATOR #3
C-SKIMMER ACTUATOR #1
CTUATOR #9
0.48 kV
SKIMMER ACTUATOR #7
0.48 kV
SKIMMER ACTUATOR #5
0.48 kV
SKIMMER ACTUATOR #3
0.48 kV
SKIMMER ACTUATOR #1

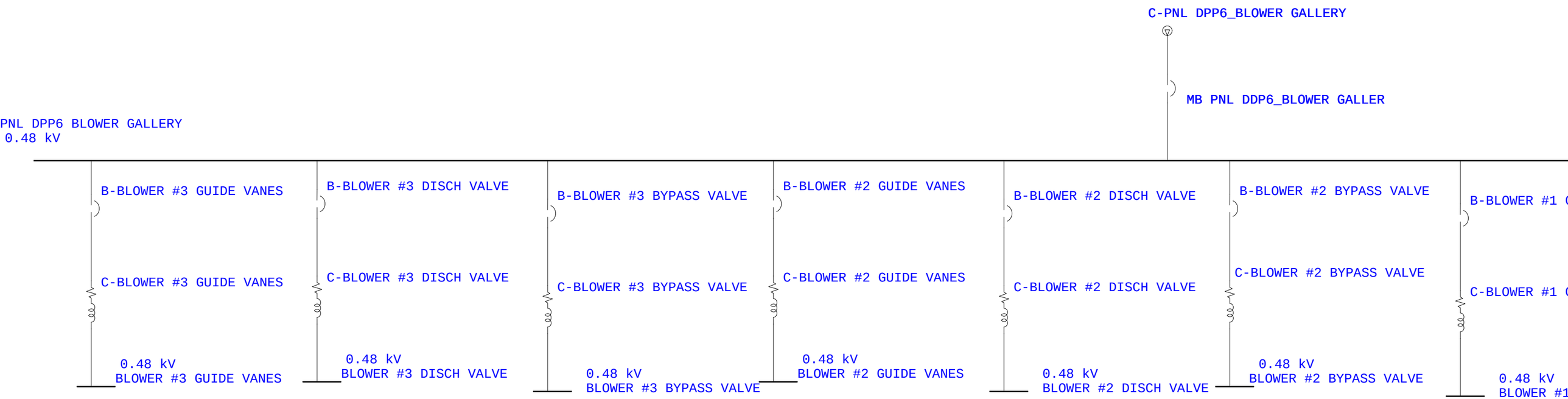

C-PNL DPP7 BLOWER GALLERY
B-PNL DPP7 MAIN
PNL DPP7_BLOWER GALLERY
0.48 kV
B-BLOWER #4 GUIDE VALVE
C-BLOWER #4 GUIDE VALVE
0.48 kV
BLOWER #4 GUIDE VALVE
B-BLOWER #4 DISCHA VALVE
C-BLOWER #4 DISCHA VALVE
0.48 kV
BLOWER #4 DISCHA VALVE
B-BLOWER #4 BYPASS VALVE
C-BLOWER #4 BYPASS VALVE
0.48 kV
BLOWER #4 BYPASS VALVE
B-BLOWER #5 GUIDE VALVE
C-BLOWER #5 GUIDE VALVE
0.48 kV
BLOWER #5 GUIDE VALVE
B-BLOWER #5 DISCHAR VALVE
C-BLOWER #5 DISCHAR VALVE
0.48 kV
BLOWER #5 DISCHAR VALVE
B-BLOWER #5 BYPASS VALVE
C-BLOWER #5 BYPASS VALVE
0.48 kV
BLOWER #5 BYPASS VALVE

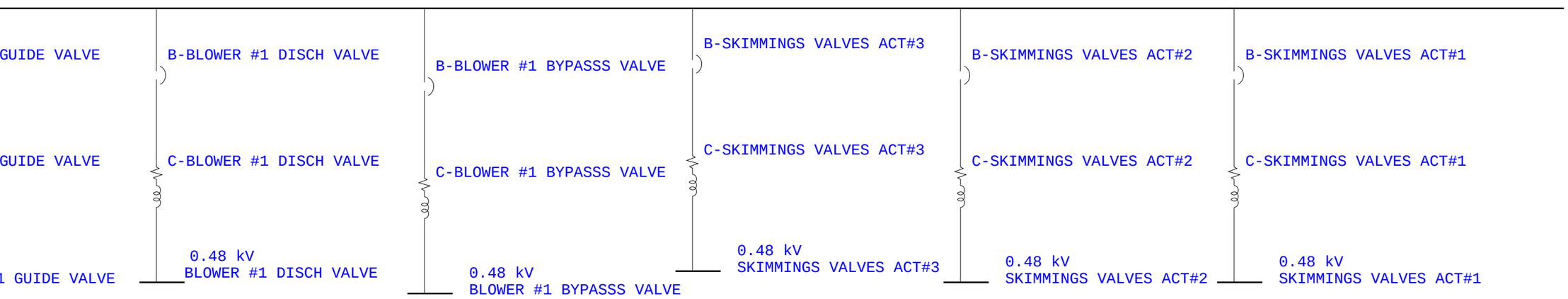

MCC-NG BUS B PRI
TIE ABC MCC-NG TERM
B-P26010.00
C-P26010.00
P26010.00 TERM
P26010.00
30 HP
B-B27400.00
C-B27400.00
B27400.00 TERM
B27400.00
75 HP
B-F21159.00
C-F21159.00
F21159.00 TERM
F21159.00
0.5 HP
B-P26059.00
C-P26059.00
P26059.00 TERM
P26059.00
1.5 HP
B-P26060.00
C-P26060.00
P26060.00 TERM
P26060.00
1.5 HP
B-F21160.00
C-F21160.00
F21160.00 TERM
F21160.00
0.5 HP
B-PNL DPP3_BLOWER GALLERY
C-PNL DPP3_BLOWER GALLERY
PNL DPP3 BLOWER GALLERY
B-PNL DPP6_BLOWER GALLERY
C-PNL DPP6_BLOWER GALLERY
PNL DPP6_BLOWER GALLERY
B-P20100.20
C-P20100.20
P20100.20 TERM
P20100.20
3 HP

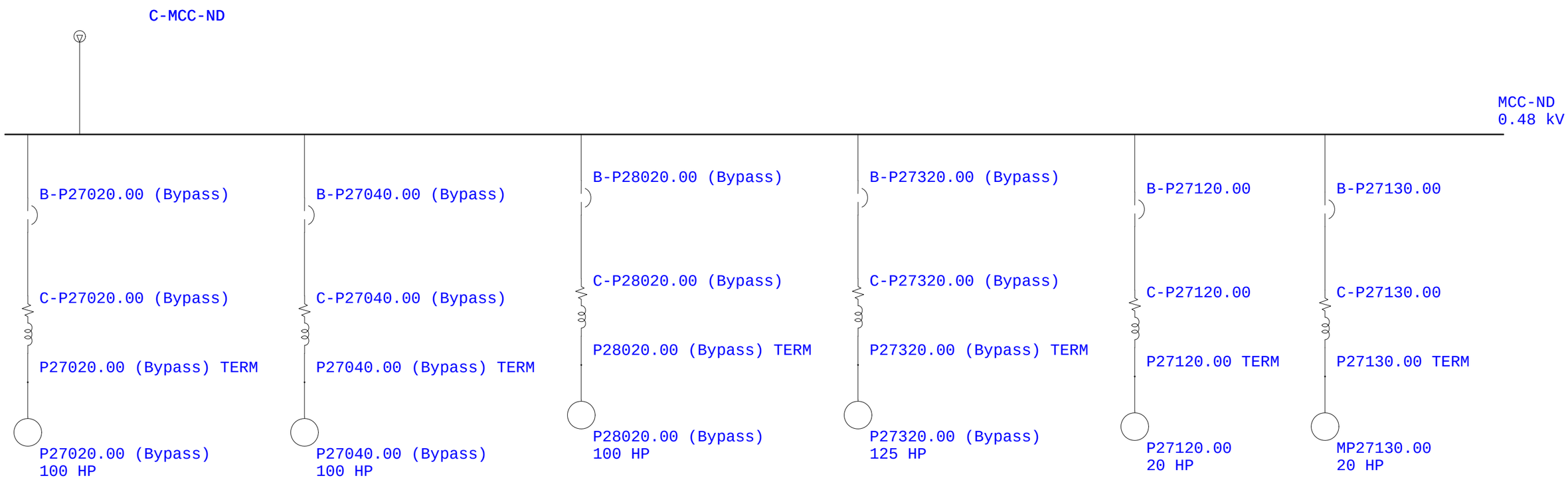

MCC-NG BUS B
0.48 kV
B-P20200.20
B-P20300.20
B-XFRM-T-DPL1-PRI
C-P20200.20
C-P20300.20
C-XFRM-T-DPL1-PRI
XFRM-T-DPL1-PRI
P20200.20 TERM
P20300.20 TERM
XFRM-T-DPL1
30 kVA
XFRM-T-DPL1-SEC
P20200.20
3 HP
P20300.20
3 HP
C-XFRM-T-DPL1-SEC
B-PNL-DPL1
PNL DPL1
0.208 kV
B-PNL-DPL6
PNL-DPL6
0.208 kV


C-PNL DPP3_BLOWER GALLERY
PNL DPP3_BLOWER GALLERY
0.48 kV
MB-PNL DPP3_BLOWER GALLER
B-SKIMMER ACTUATOR #20
C-SKIMMER ACTUATOR #20
0.48 kV
SKIMMER ACTUATOR #20
B-SKIMMER ACTUATOR #18
C-SKIMMER ACTUATOR #18
0.48 kV
SKIMMER ACTUATOR #18
B-SKIMMER ACTUATOR #16
C-SKIMMER ACTUATOR #16
0.48 kV
SKIMMER ACTUATOR #16
B-SKIMMER ACTUATOR #14
C-SKIMMER ACTUATOR #14
0.48 kV
SKIMMER ACTUATOR #14
B-SKIMMER ACTUATOR #12
C-SKIMMER ACTUATOR #12
0.48 kV
SKIMMER ACTUATOR #12
B-SKIMMER ACTUATOR #10
C-SKIMMER ACTUATOR #10
0.48 kV
SKIMMER ACTUATOR #10

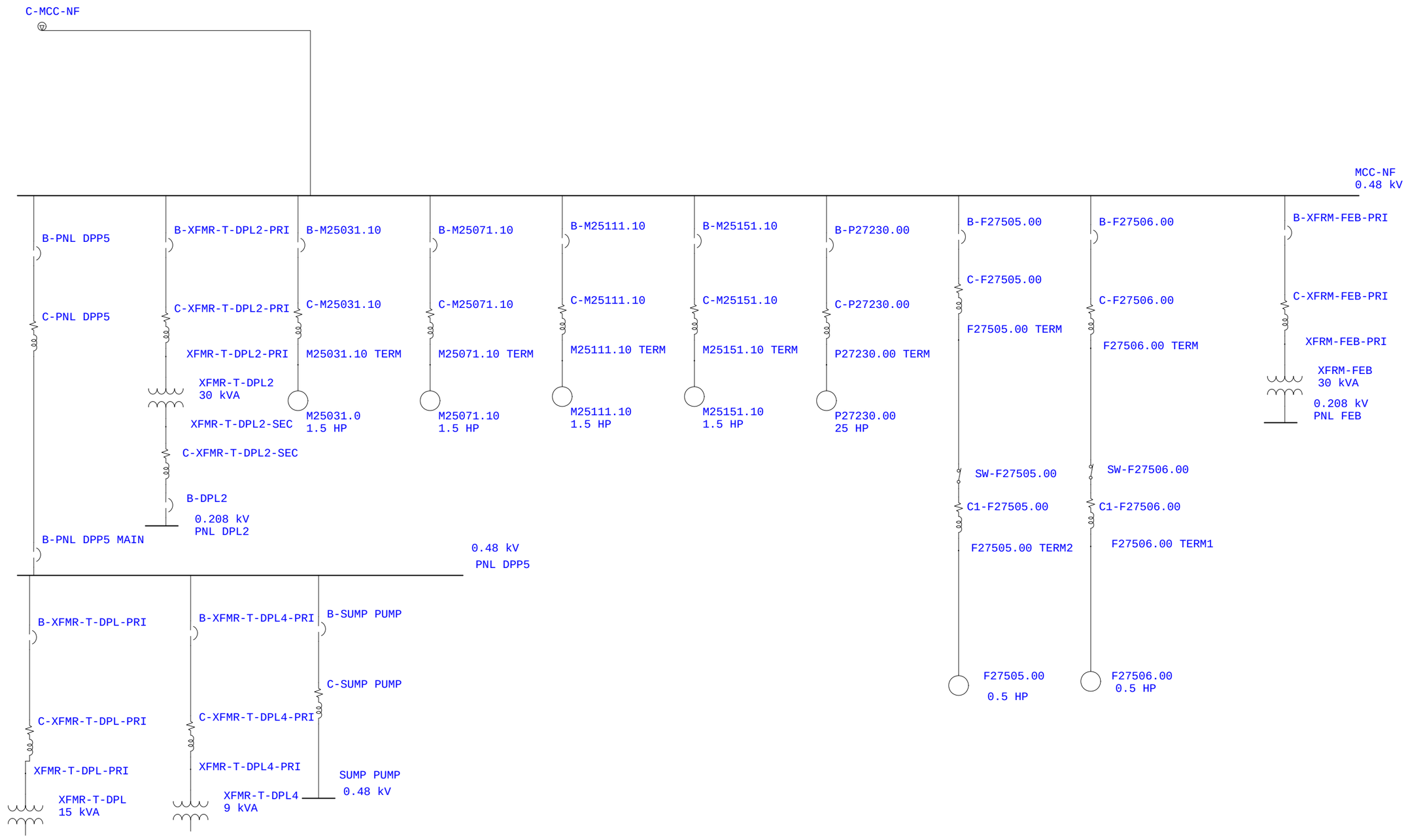

B-SKIMMER ACTUATOR #8
C-SKIMMER ACTUATOR #8
0.48 kV
SKIMMER ACTUATOR #8
B-SKIMMER ACTUATOR #6
C-SKIMMER ACTUATOR #6
0.48 kV
SKIMMER ACTUATOR #6
B-SKIMMER ACTUATOR #4
C-SKIMMER ACTUATOR #4
0.48 kV
SKIMMER ACTUATOR #4
B-SKIMMER ACTUATOR #2
C-SKIMMER ACTUATOR #2
0.48 kV
SKIMMER ACTUATOR #2
B-SNAIL BOOSTER PUMP
C-SNAIL BOOSTER PUMP
0.48 kV
SNAIL BOOSTER PUMP

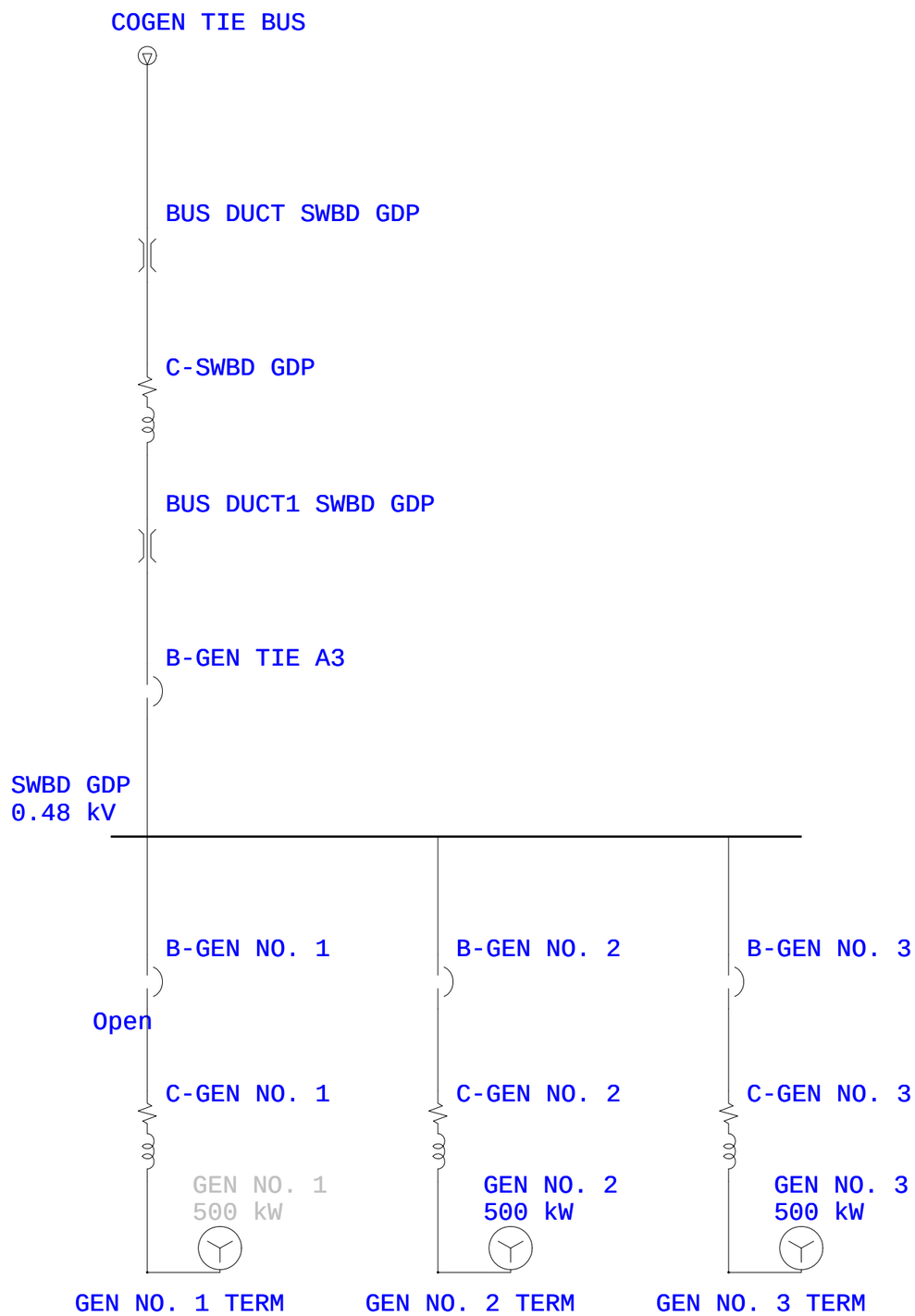

C-PNL DPP6_BLOWER GALLERY
MB PNL DDP6_BLOWER GALLER
PNL DPP6 BLOWER GALLERY
0.48 kV
B-BLOWER #3 GUIDE VANES
C-BLOWER #3 GUIDE VANES
0.48 kV
BLOWER #3 GUIDE VANES
B-BLOWER #3 DISCH VALVE
C-BLOWER #3 DISCH VALVE
0.48 kV
BLOWER #3 DISCH VALVE
B-BLOWER #3 BYPASS VALVE
C-BLOWER #3 BYPASS VALVE
0.48 kV
BLOWER #3 BYPASS VALVE
B-BLOWER #2 GUIDE VANES
C-BLOWER #2 GUIDE VANES
0.48 kV
BLOWER #2 GUIDE VANES
B-BLOWER #2 DISCH VALVE
C-BLOWER #2 DISCH VALVE
0.48 kV
BLOWER #2 DISCH VALVE
B-BLOWER #2 BYPASS VALVE
C-BLOWER #2 BYPASS VALVE
0.48 kV
BLOWER #2 BYPASS VALVE
B-BLOWER #1
C-BLOWER #1
0.48 kV
BLOWER #1

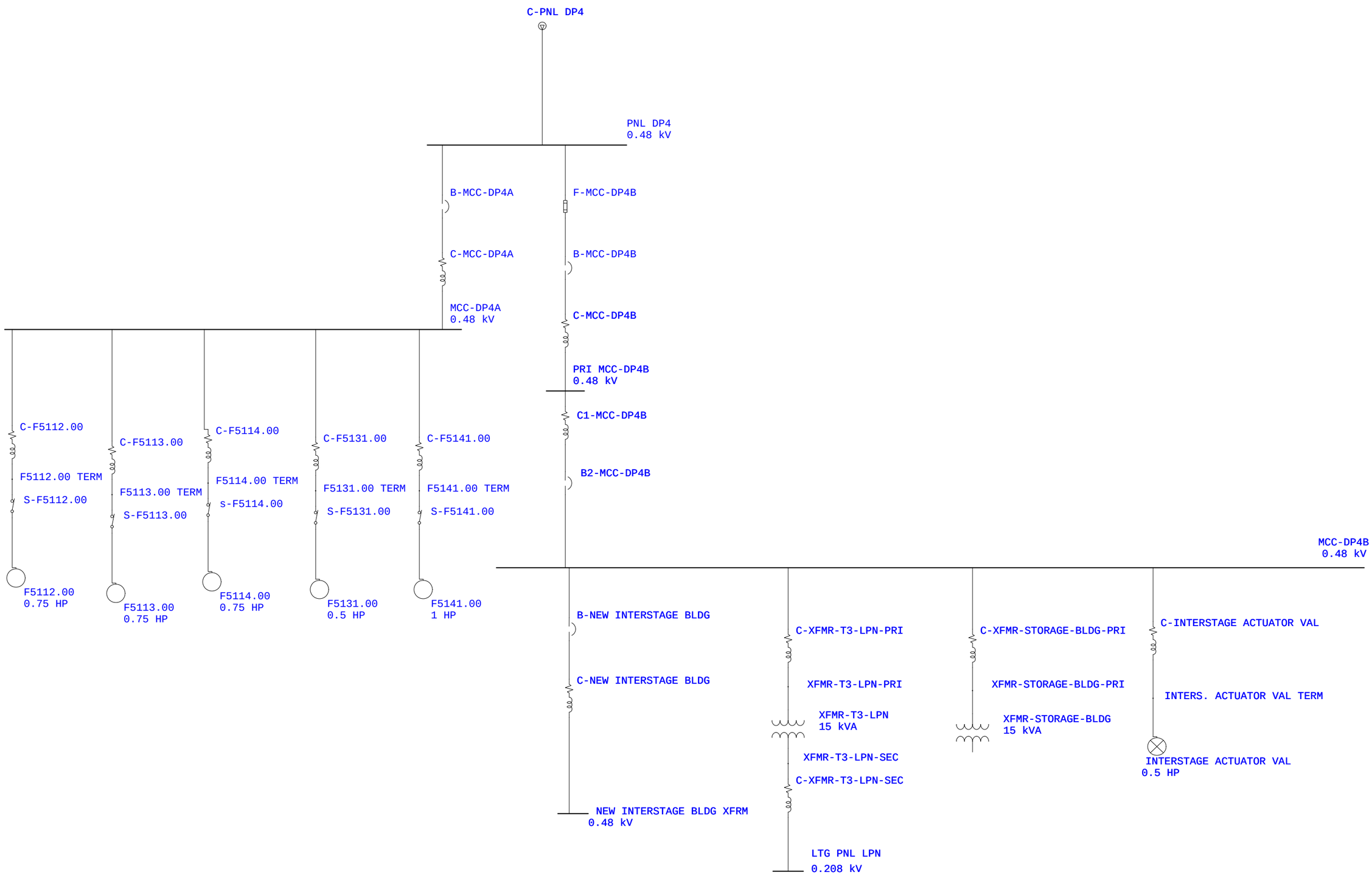

GUIDE VALVE
B-BLOWER #1 DISCH VALVE
B-BLOWER #1 BYPASSS VALVE
B-SKIMMINGS VALVES ACT#3
B-SKIMMINGS VALVES ACT#2
B-SKIMMINGS VALVES ACT#1
GUIDE VALVE
C-BLOWER #1 DISCH VALVE
C-BLOWER #1 BYPASSS VALVE
C-SKIMMINGS VALVES ACT#3
C-SKIMMINGS VALVES ACT#2
C-SKIMMINGS VALVES ACT#1
1 GUIDE VALVE
0.48 kV
BLOWER #1 DISCH VALVE
0.48 kV
BLOWER #1 BYPASSS VALVE
0.48 kV
SKIMMINGS VALVES ACT#3
0.48 kV
SKIMMINGS VALVES ACT#2
0.48 kV
SKIMMINGS VALVES ACT#1

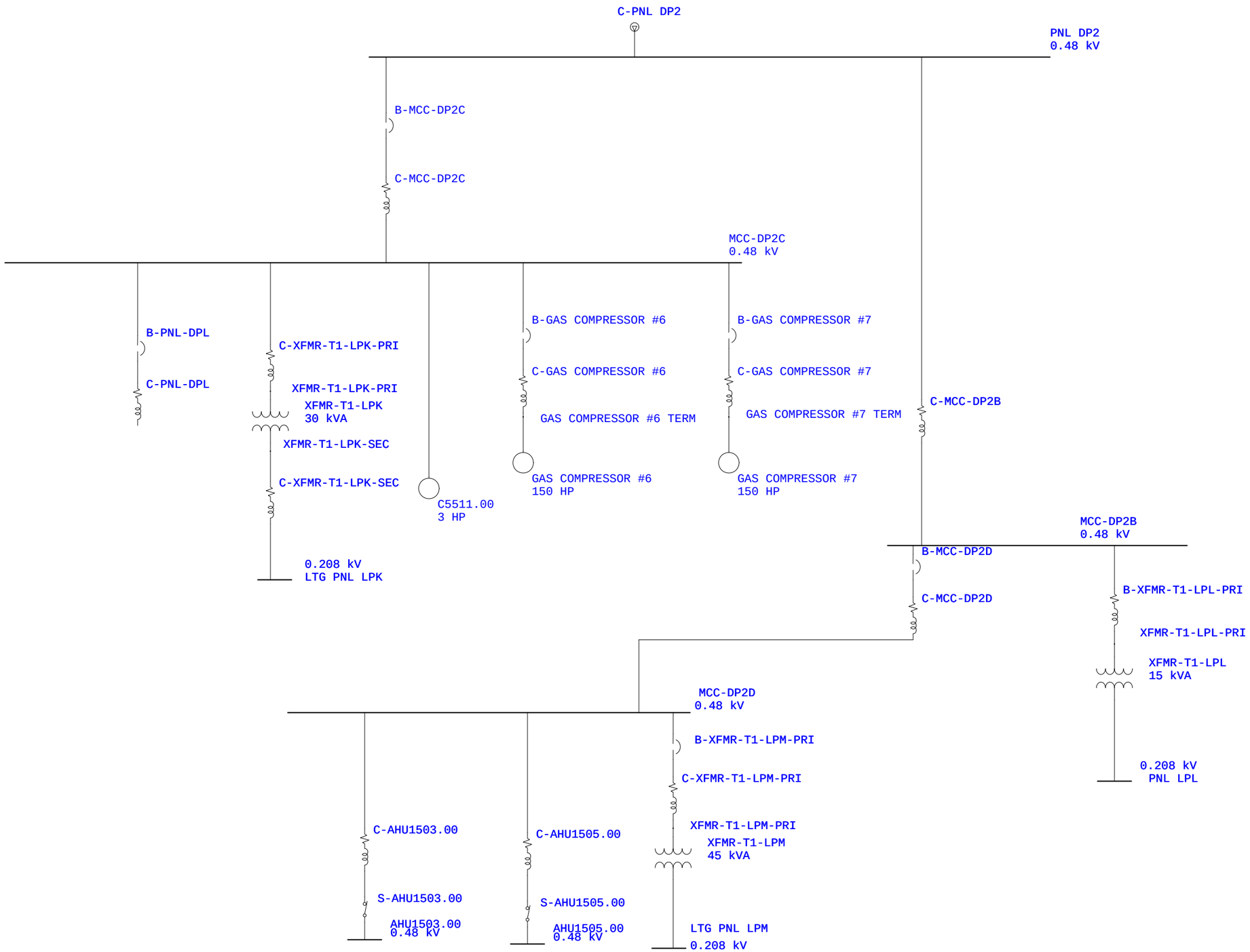

C-MCC-ND
MCC-ND
0.48 kV
B-P27020.00 (Bypass)
C-P27020.00 (Bypass)
P27020.00 (Bypass) TERM
P27020.00 (Bypass)
100 HP
B-P27040.00 (Bypass)
C-P27040.00 (Bypass)
P27040.00 (Bypass) TERM
P27040.00 (Bypass)
100 HP
B-P28020.00 (Bypass)
C-P28020.00 (Bypass)
P28020.00 (Bypass) TERM
P28020.00 (Bypass)
100 HP
B-P27320.00 (Bypass)
C-P27320.00 (Bypass)
P27320.00 (Bypass) TERM
P27320.00 (Bypass)
125 HP
B-P27120.00
C-P27120.00
P27120.00 TERM
P27120.00
20 HP
B-P27130.00
C-P27130.00
P27130.00 TERM
MP27130.00
20 HP

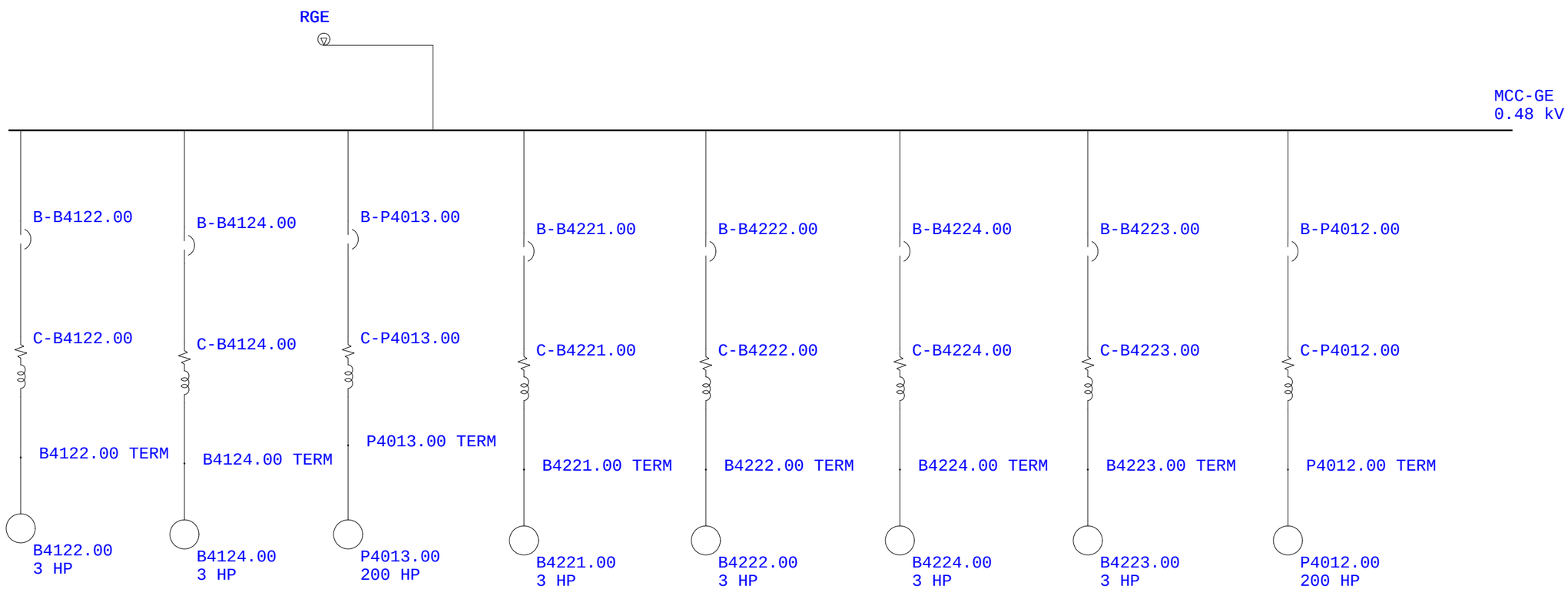
One-Line Diagram - OLV1=>...=>MCC NF (Edit Mode)

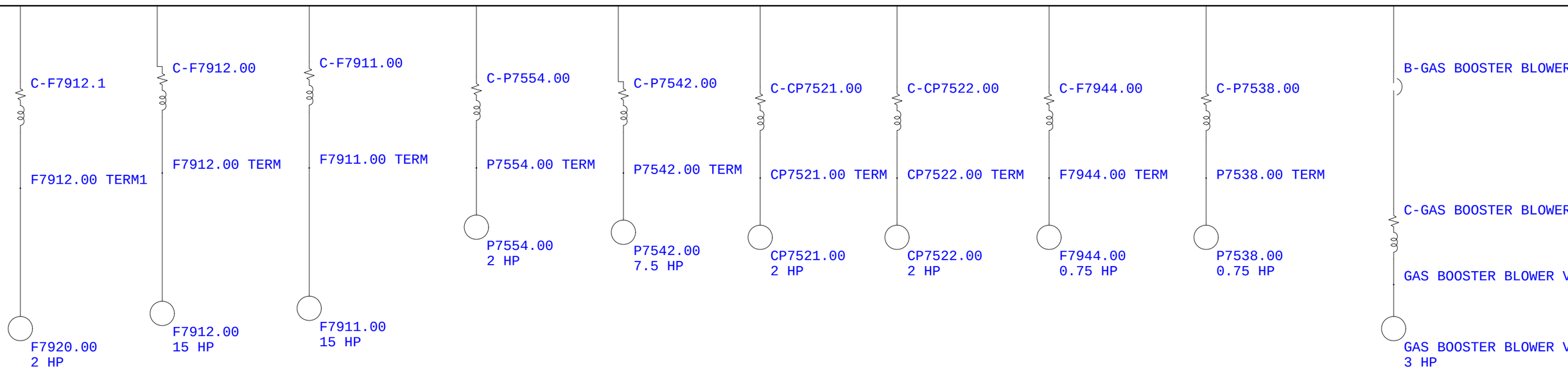


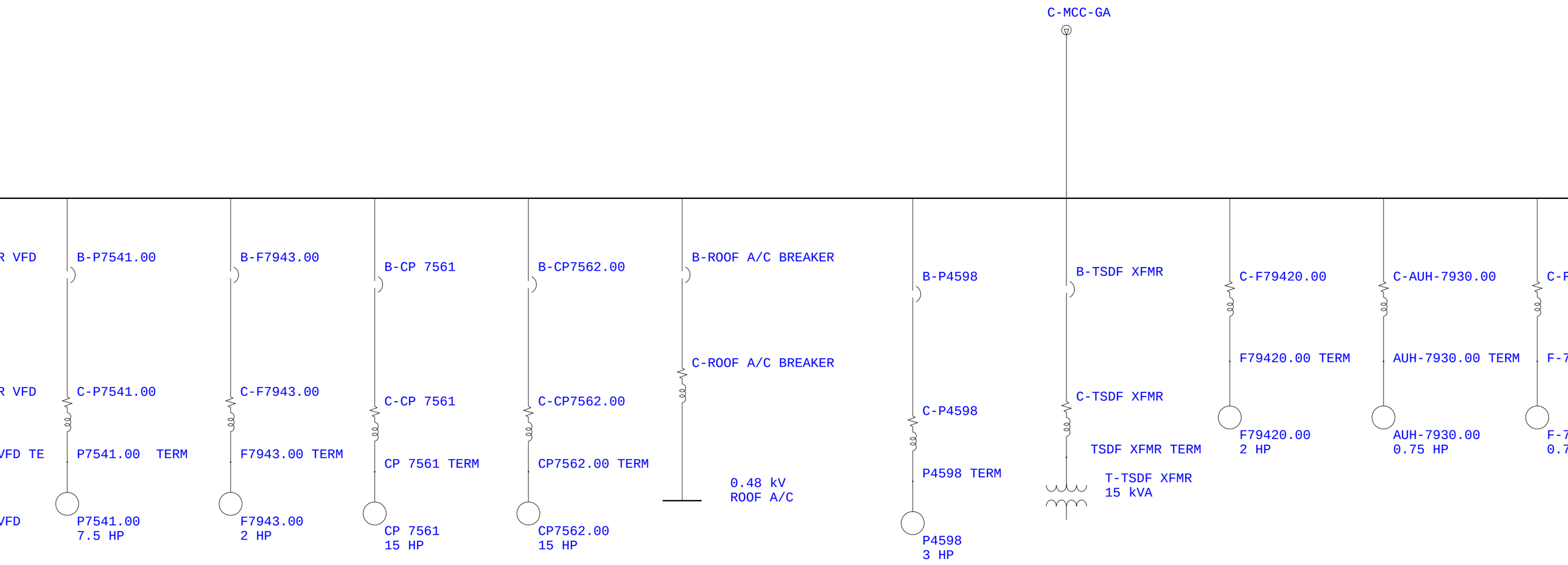

COGEN TIE BUS
BUS DUCT SWBD GDP
C-SWBD GDP
BUS DUCT1 SWBD GDP
B-GEN TIE A3
SWBD GDP
0.48 kV
B-GEN NO. 1
B-GEN NO. 2
B-GEN NO. 3
Open
C-GEN NO. 1
C-GEN NO. 2
C-GEN NO. 3
GEN NO. 1
500 kW
GEN NO. 2
500 kW
GEN NO. 3
500 kW
GEN NO. 1 TERM
GEN NO. 2 TERM
GEN NO. 3 TERM

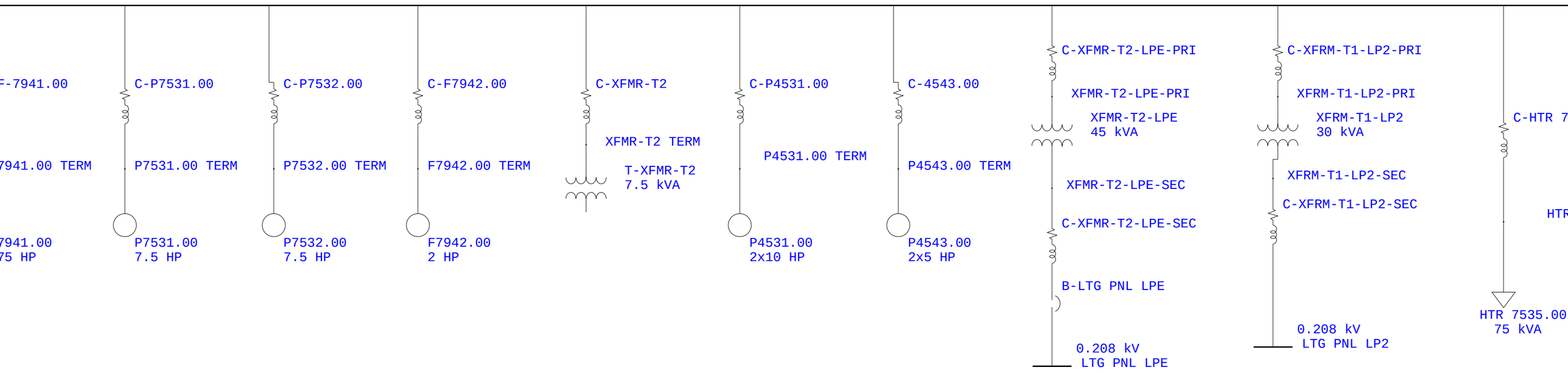

C-PNL DP4
PNL DP4
0.48 kV
B-MCC-DP4A
F-MCC-DP4B
C-MCC-DP4A
B-MCC-DP4B
MCC-DP4A
0.48 kV
C-MCC-DP4B
PRI MCC-DP4B
0.48 kV
C1-MCC-DP4B
B2-MCC-DP4B
C-F5112.00
C-F5113.00
C-F5114.00
C-F5131.00
C-F5141.00
F5112.00 TERM
F5113.00 TERM
F5114.00 TERM
F5131.00 TERM
F5141.00 TERM
S-F5112.00
S-F5113.00
s-F5114.00
S-F5131.00
S-F5141.00
F5112.00
0.75 HP
F5113.00
0.75 HP
F5114.00
0.75 HP
F5131.00
0.5 HP
F5141.00
1 HP
MCC-DP4B
0.48 kV
B-NEW INTERSTAGE BLDG
C-NEW INTERSTAGE BLDG
NEW INTERSTAGE BLDG XFRM
0.48 kV
C-XFMR-T3-LPN-PRI
XFMR-T3-LPN-PRI
XFMR-T3-LPN
15 kVA
XFMR-T3-LPN-SEC
C-XFMR-T3-LPN-SEC
LTG PNL LPN
0.208 kV
C-XFMR-STORAGE-BLDG-PRI
XFMR-STORAGE-BLDG-PRI
XFMR-STORAGE-BLDG
15 kVA
C-INTERSTAGE ACTUATOR VAL
INTERS. ACTUATOR VAL TERM
INTERSTAGE ACTUATOR VAL
0.5 HP

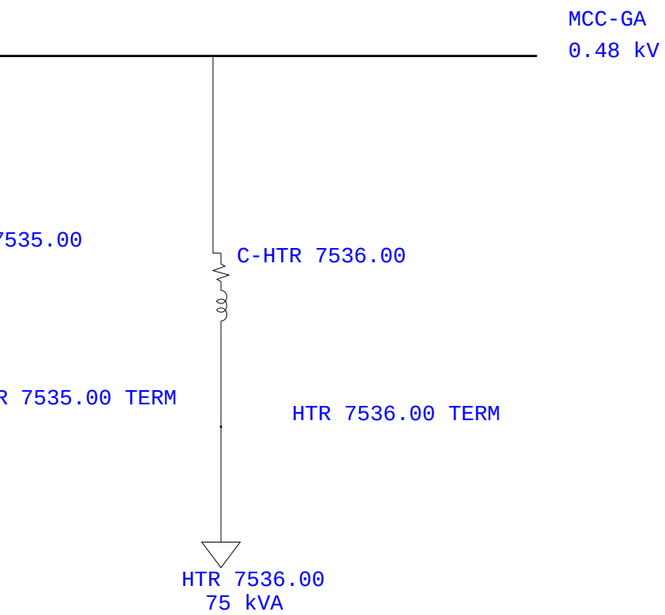

C-PNL DP2
PNL DP2
0.48 kV
B-MCC-DP2C
C-MCC-DP2C
MCC-DP2C
0.48 kV
B-PNL-DPL
C-PNL-DPL
C-XFMR-T1-LPK-PRI
XFMR-T1-LPK-PRI
XFMR-T1-LPK
30 kVA
XFMR-T1-LPK-SEC
C-XFMR-T1-LPK-SEC
0.208 kV
LTG PNL LPK
C5511.00
3 HP
B-GAS COMPRESSOR #6
C-GAS COMPRESSOR #6
GAS COMPRESSOR #6 TERM
GAS COMPRESSOR #6
150 HP
B-GAS COMPRESSOR #7
C-GAS COMPRESSOR #7
GAS COMPRESSOR #7 TERM
GAS COMPRESSOR #7
150 HP
C-MCC-DP2B
MCC-DP2B
0.48 kV
B-MCC-DP2D
C-MCC-DP2D
B-XFMR-T1-LPL-PRI
XFMR-T1-LPL-PRI
XFMR-T1-LPL
15 kVA
0.208 kV
PNL LPL
MCC-DP2D
0.48 kV
B-XFMR-T1-LPM-PRI
C-XFMR-T1-LPM-PRI
XFMR-T1-LPM-PRI
XFMR-T1-LPM
45 kVA
LTG PNL LPM
0.208 kV
C-AHU1503.00
S-AHU1503.00
AHU1503.00
0.48 kV
C-AHU1505.00
S-AHU1505.00
AHU1505.00
0.48 kV

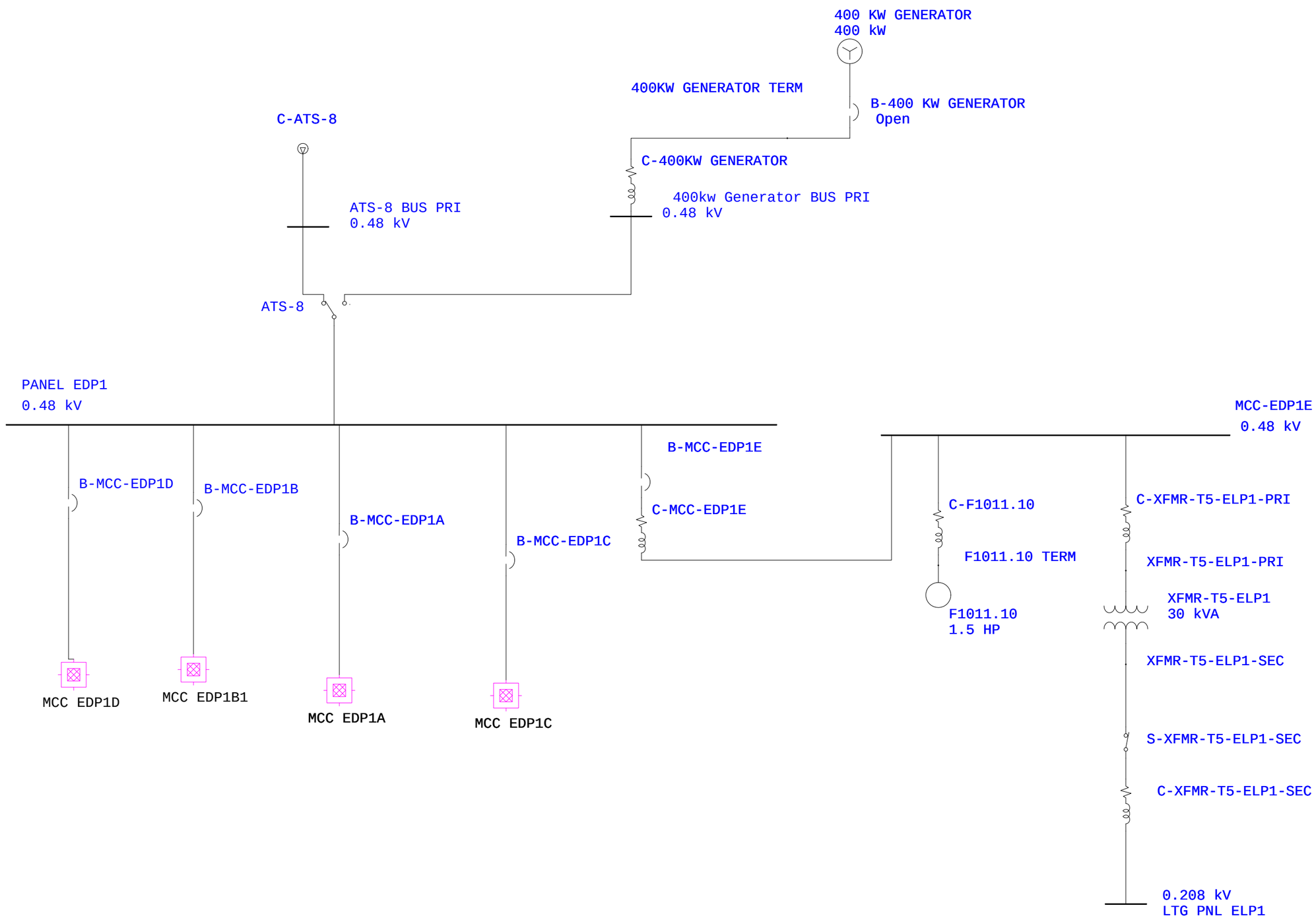

RGE
MCC-GE
0.48 kV
B-B4122.00
B-B4124.00
B-P4013.00
B-B4221.00
B-B4222.00
B-B4224.00
B-B4223.00
B-P4012.00
C-B4122.00
C-B4124.00
C-P4013.00
C-B4221.00
C-B4222.00
C-B4224.00
C-B4223.00
C-P4012.00
B4122.00 TERM
B4124.00 TERM
P4013.00 TERM
B4221.00 TERM
B4222.00 TERM
B4224.00 TERM
B4223.00 TERM
P4012.00 TERM
B4122.00
3 HP
B4124.00
3 HP
P4013.00
200 HP
B4221.00
3 HP
B4222.00
3 HP
B4224.00
3 HP
B4223.00
3 HP
P4012.00
200 HP

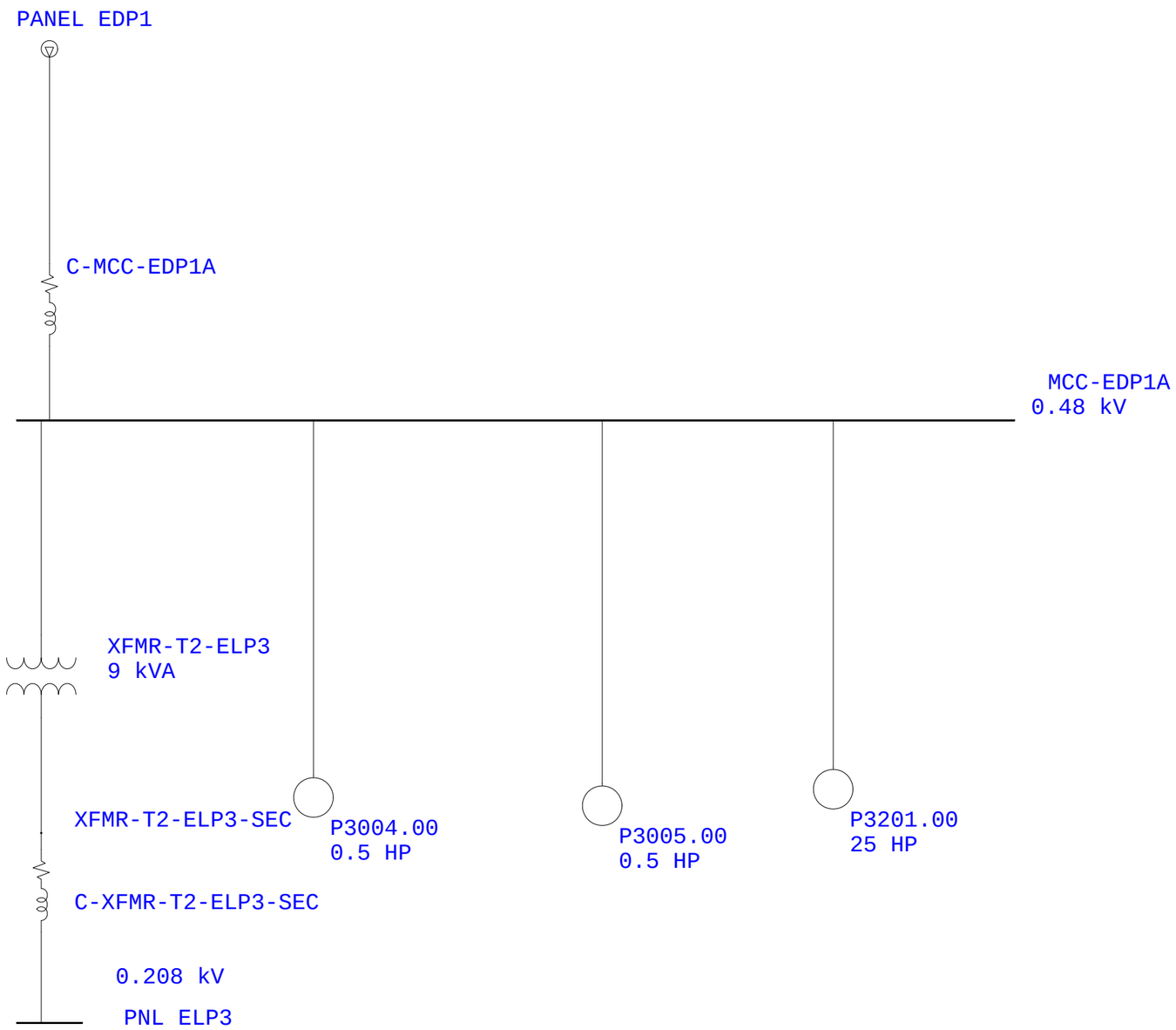

C-F7912.1
F7912.00 TERM1
F7920.00
2 HP
C-F7912.00
F7912.00 TERM
F7912.00
15 HP
C-F7911.00
F7911.00 TERM
F7911.00
15 HP
C-P7554.00
P7554.00 TERM
P7554.00
2 HP
C-P7542.00
P7542.00 TERM
P7542.00
7.5 HP
C-CP7521.00
CP7521.00 TERM
CP7521.00
2 HP
C-CP7522.00
CP7522.00 TERM
CP7522.00
2 HP
C-F7944.00
F7944.00 TERM
F7944.00
0.75 HP
C-P7538.00
P7538.00 TERM
P7538.00
0.75 HP
B-GAS BOOSTER BLOWER
C-GAS BOOSTER BLOWER
GAS BOOSTER BLOWER V
GAS BOOSTER BLOWER V
3 HP

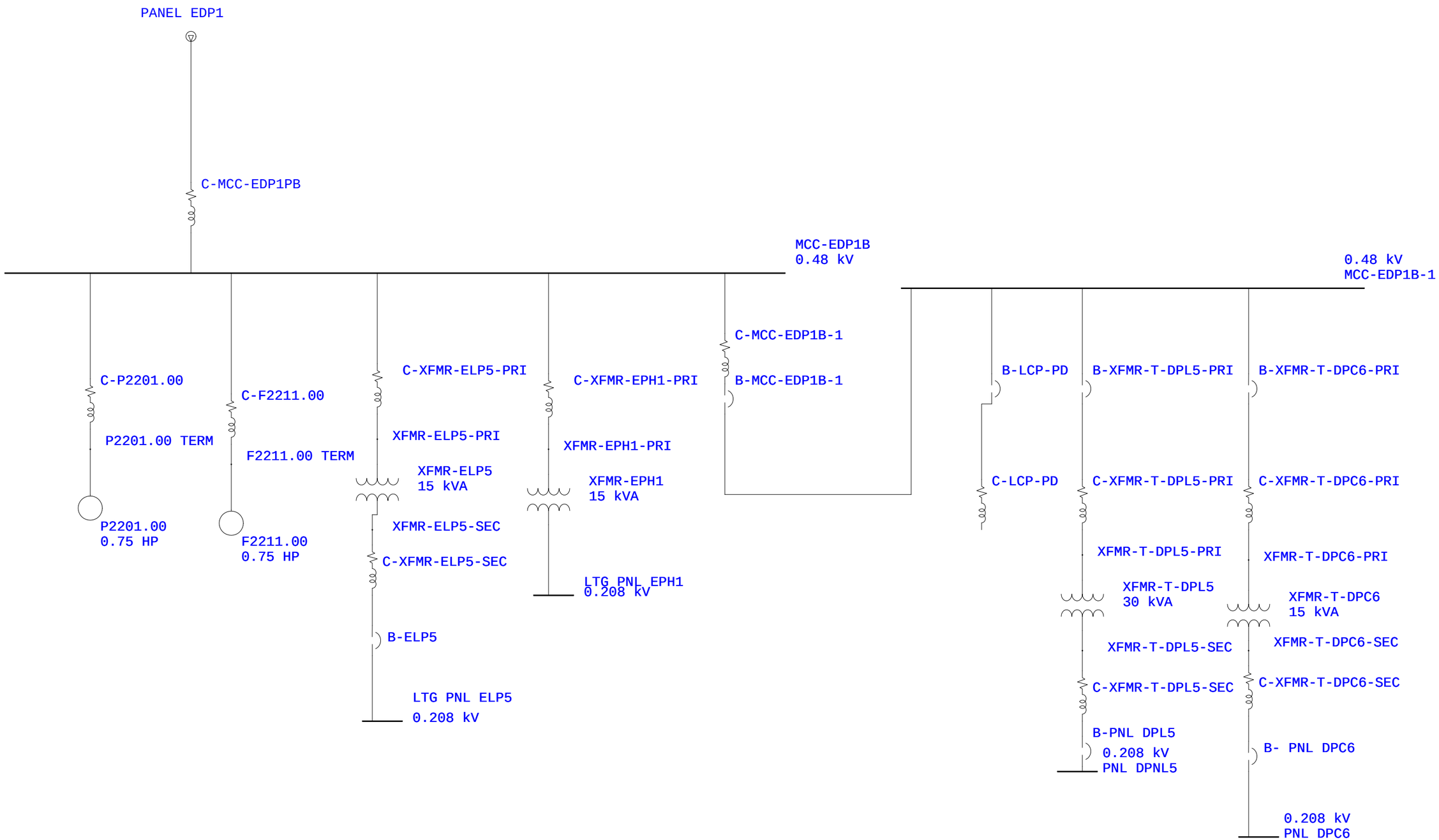

C-MCC-GA
R VFD
B-P7541.00
B-F7943.00
B-CP 7561
B-CP7562.00
B-ROOF A/C BREAKER
B-P4598
B-TSDF XFMR
C-F79420.00
C-AUH-7930.00
C-F
C-ROOF A/C BREAKER
F79420.00 TERM
AUH-7930.00 TERM
F-7
R VFD
C-P7541.00
C-F7943.00
C-CP 7561
C-CP7562.00
C-P4598
C-TSDF XFMR
VFD TE
P7541.00 TERM
F7943.00 TERM
CP 7561 TERM
CP7562.00 TERM
TSDF XFMR TERM
F79420.00
2 HP
AUH-7930.00
0.75 HP
F-7
0.7
0.48 kV
ROOF A/C
P4598 TERM
T-TSDF XFMR
15 kVA
VFD
P7541.00
7.5 HP
F7943.00
2 HP
CP 7561
15 HP
CP7562.00
15 HP
P4598
3 HP

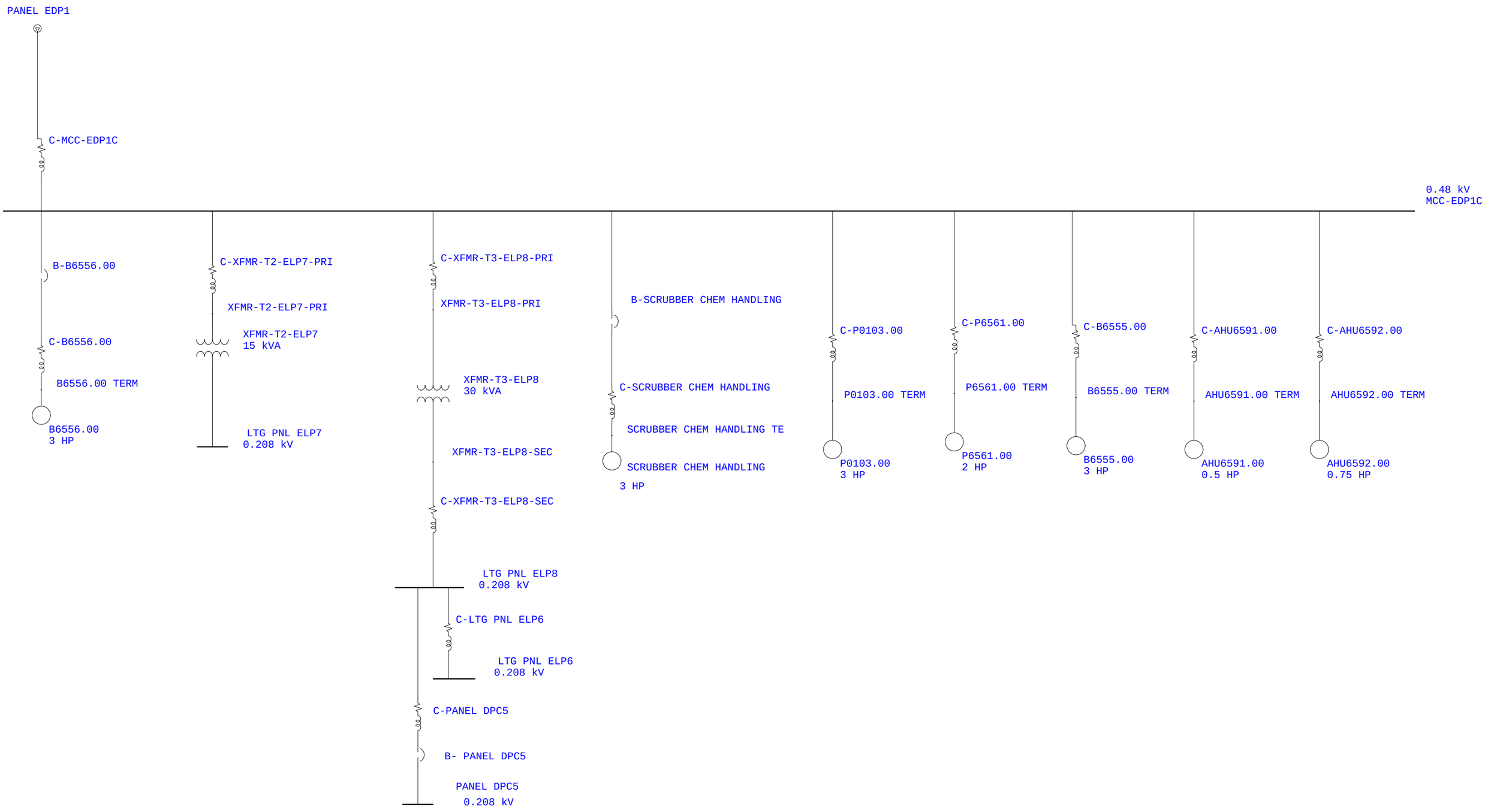

F-7941.00
7941.00 TERM
7941.00
75 HP
C-P7531.00
P7531.00 TERM
P7531.00
7.5 HP
C-P7532.00
P7532.00 TERM
P7532.00
7.5 HP
C-F7942.00
F7942.00 TERM
F7942.00
2 HP
C-XFMR-T2
XFMR-T2 TERM
T-XFMR-T2
7.5 kVA
C-P4531.00
P4531.00 TERM
P4531.00
2x10 HP
C-4543.00
P4543.00 TERM
P4543.00
2x5 HP
C-XFMR-T2-LPE-PRI
XFMR-T2-LPE-PRI
XFMR-T2-LPE
45 kVA
XFMR-T2-LPE-SEC
C-XFMR-T2-LPE-SEC
B-LTG PNL LPE
0.208 kV
LTG PNL LPE
C-XFRM-T1-LP2-PRI
XFRM-T1-LP2-PRI
XFRM-T1-LP2
30 kVA
XFRM-T1-LP2-SEC
C-XFRM-T1-LP2-SEC
0.208 kV
LTG PNL LP2
C-HTR 7
HTR
HTR 7535.00
75 kVA

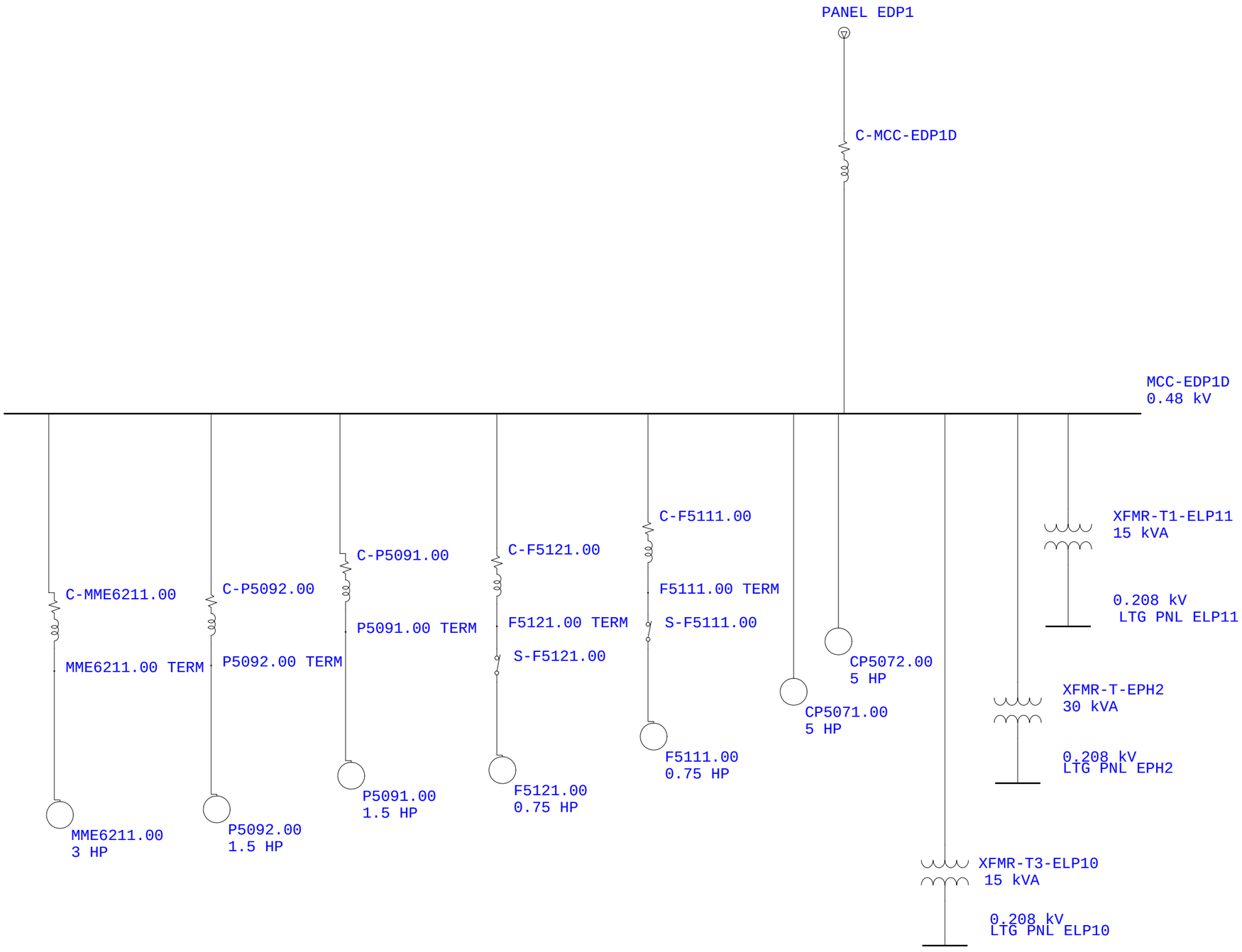

MCC-GA
0.48 kV
7535.00
C-HTR 7536.00
R 7535.00 TERM
HTR 7536.00 TERM
HTR 7536.00
75 kVA

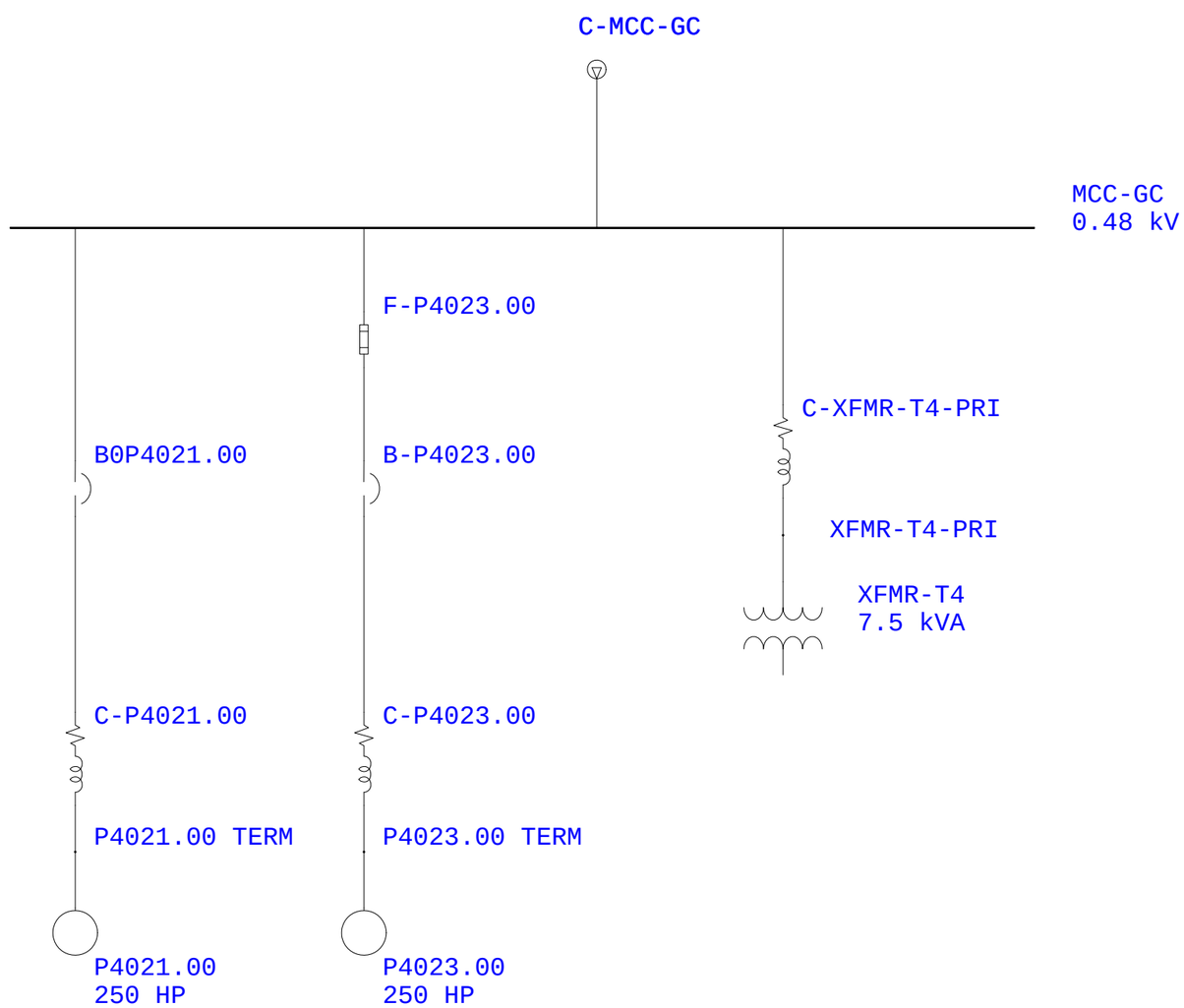

400 KW GENERATOR
400 kW
400KW GENERATOR TERM
B-400 KW GENERATOR
Open
C-ATS-8
C-400KW GENERATOR
400kw Generator BUS PRI
0.48 kV
ATS-8 BUS PRI
0.48 kV
ATS-8
PANEL EDP1
0.48 kV
MCC-EDP1E
0.48 kV
B-MCC-EDP1E
B-MCC-EDP1D
B-MCC-EDP1B
B-MCC-EDP1A
B-MCC-EDP1C
C-MCC-EDP1E
C-F1011.10
C-XFMR-T5-ELP1-PRI
F1011.10 TERM
XFMR-T5-ELP1-PRI
XFMR-T5-ELP1
30 kVA
F1011.10
1.5 HP
XFMR-T5-ELP1-SEC
MCC EDP1D
MCC EDP1B1
MCC EDP1A
MCC EDP1C
S-XFMR-T5-ELP1-SEC
C-XFMR-T5-ELP1-SEC
0.208 kV
LTG PNL ELP1


PANEL EDP1
C-MCC-EDP1A
MCC-EDP1A
0.48 kV
XFMR-T2-ELP3
9 kVA
XFMR-T2-ELP3-SEC
P3004.00
0.5 HP
P3005.00
0.5 HP
P3201.00
25 HP
C-XFMR-T2-ELP3-SEC
0.208 kV
PNL ELP3


PANEL EDP1
C-MCC-EDP1PB
MCC-EDP1B
0.48 kV
0.48 kV
MCC-EDP1B-1
C-P2201.00
P2201.00 TERM
P2201.00
0.75 HP
C-F2211.00
F2211.00 TERM
F2211.00
0.75 HP
C-XFMR-ELP5-PRI
XFMR-ELP5-PRI
XFMR-ELP5
15 kVA
XFMR-ELP5-SEC
C-XFMR-ELP5-SEC
B-ELP5
LTG PNL ELP5
0.208 kV
C-XFMR-EPH1-PRI
XFMR-EPH1-PRI
XFMR-EPH1
15 kVA
LTG PNL EPH1
0.208 kV
C-MCC-EDP1B-1
B-MCC-EDP1B-1
B-LCP-PD
B-XFMR-T-DPL5-PRI
B-XFMR-T-DPC6-PRI
C-LCP-PD
C-XFMR-T-DPL5-PRI
C-XFMR-T-DPC6-PRI
XFMR-T-DPL5-PRI
XFMR-T-DPL5
30 kVA
XFMR-T-DPL5-SEC
C-XFMR-T-DPL5-SEC
B-PNL DPL5
0.208 kV
PNL DPNL5
XFMR-T-DPC6-PRI
XFMR-T-DPC6
15 kVA
XFMR-T-DPC6-SEC
C-XFMR-T-DPC6-SEC
B- PNL DPC6
0.208 kV
PNL DPC6


PANEL EDP1
C-MCC-EDP1C
0.48 kV
MCC-EDP1C
B-B6556.00
C-B6556.00
B6556.00 TERM
B6556.00
3 HP
C-XFMR-T2-ELP7-PRI
XFMR-T2-ELP7-PRI
XFMR-T2-ELP7
15 kVA
LTG PNL ELP7
0.208 kV
C-XFMR-T3-ELP8-PRI
XFMR-T3-ELP8-PRI
XFMR-T3-ELP8
30 kVA
XFMR-T3-ELP8-SEC
C-XFMR-T3-ELP8-SEC
LTG PNL ELP8
0.208 kV
C-LTG PNL ELP6
LTG PNL ELP6
0.208 kV
C-PANEL DPC5
B- PANEL DPC5
PANEL DPC5
0.208 kV
B-SCRUBBER CHEM HANDLING
C-SCRUBBER CHEM HANDLING
SCRUBBER CHEM HANDLING TE
SCRUBBER CHEM HANDLING
3 HP
C-P0103.00
P0103.00 TERM
P0103.00
3 HP
C-P6561.00
P6561.00 TERM
P6561.00
2 HP
C-B6555.00
B6555.00 TERM
B6555.00
3 HP
C-AHU6591.00
AHU6591.00 TERM
AHU6591.00
0.5 HP
C-AHU6592.00
AHU6592.00 TERM
AHU6592.00
0.75 HP


PANEL EDP1
C-MCC-EDP1D
MCC-EDP1D
0.48 kV
C-MME6211.00
MME6211.00 TERM
MME6211.00
3 HP
C-P5092.00
P5092.00 TERM
P5092.00
1.5 HP
C-P5091.00
P5091.00 TERM
P5091.00
1.5 HP
C-F5121.00
F5121.00 TERM
S-F5121.00
F5121.00
0.75 HP
C-F5111.00
F5111.00 TERM
S-F5111.00
F5111.00
0.75 HP
CP5071.00
5 HP
CP5072.00
5 HP
XFMR-T1-ELP11
15 kVA
0.208 kV
LTG PNL ELP11
XFMR-T-EPH2
30 kVA
0.208 kV
LTG PNL EPH2
XFMR-T3-ELP10
15 kVA
0.208 kV
LTG PNL ELP10


C-MCC-GC
MCC-GC
0.48 kV
F-P4023.00
C-XFMR-T4-PRI
B0P4021.00
B-P4023.00
XFMR-T4-PRI
XFMR-T4
7.5 kVA
C-P4021.00
C-P4023.00
P4021.00 TERM
P4023.00 TERM
P4021.00
250 HP
P4023.00
250 HP

APPENDIX B1 – SHORT CIRCUIT STUDY (MOMENTARY DUTY SUMMARY REPORT)

Momentary Duty Summary Report

3-Phase Fault Currents: (Prefault Voltage = 100 % of the Bus Nominal Voltage)

Bus		Device		Momentary Duty					Device Capability		
ID	kV	ID	Type	Symm. kA rms	X/R Ratio	M.F.	Asymm. kA rms	Asymm. kA Peak	Symm. kA rms	Asymm. kA rms	Asymm. kA Peak
ATS-L BUS A	0.480	ATS-L BUS A	MCC	30.392	3.4	1.149	34.916	60.169	65.000	81.100	
ATS-L BUS B	0.480	ATS-L BUS B	MCC	26.452	2.0	1.039	27.491	44.894	65.000	81.100	
ATS-L SEC	0.480	ATS-L SEC	MCC	30.392	3.4	1.149	34.916	60.169	65.000	81.100	
B20100.00 TERMINALS	2.400	B20100.00 TERMINALS	MCC	4.779	6.1	1.310	6.260	10.802		81.100	0.000 *
B20200.00 TERMINALS	2.400	B20200.00 TERMINALS	MCC	4.723	5.5	1.278	6.037	10.439		81.100	0.000 *
B20400.00 TERMINALS	2.400	B20400.00 TERMINALS	MCC	4.811	5.8	1.297	6.240	10.778		81.100	0.000 *
B52180.00 DISC	0.480	B52180.00 DISC	Bus	5.714	0.5	1.000	5.714	8.101			
B52180.00 TERM	0.480	B52180.00 TERM	Bus	5.544	0.5	1.000	5.544	7.858			
B52190.00 DISC	0.480	B52190.00 DISC	Bus	4.218	0.4	1.000	4.218	5.966			
B52190.00 TERM	0.480	B52190.00 TERM	Bus	4.123	0.4	1.000	4.123	5.832			
B52210.00 DISC	0.480	B52210.00 DISC	Bus	1.587	0.2	1.000	1.587	2.244			
B52210.00 TERM	0.480	B52210.00 TERM	Bus	1.553	0.2	1.000	1.553	2.197			
B52220.00 DISC	0.480	B52220.00 DISC	Bus	1.491	0.2	1.000	1.491	2.109			
B52220.00 TERM	0.480	B52220.00 TERM	Bus	1.462	0.2	1.000	1.462	2.068			
BLWR BLDG TROLLEY	0.480	BLWR BLDG TROLLEY	MCC	4.420	0.3	1.000	4.420	6.251	65.000	81.100	
BSN51240.00 DISC	0.480	BSN51240.00 DISC	Bus	0.765	0.1	1.000	0.765	1.082			
BSN51240.00 TERM	0.480	BSN51240.00 TERM	Bus	0.752	0.1	1.000	0.752	1.064			
BSN51250.00 DISC	0.480	BSN51250.00 DISC	Bus	0.765	0.1	1.000	0.765	1.081			
BSN51250.00 TERM	0.480	BSN51250.00 TERM	Bus	0.752	0.1	1.000	0.752	1.064			
BSN51260.00 DISC	0.480	BSN51260.00 DISC	Bus	0.765	0.1	1.000	0.765	1.082			
BSN51260.00 TERM	0.480	BSN51260.00 TERM	Bus	0.752	0.1	1.000	0.752	1.064			
BSN51270.00 DISC	0.480	BSN51270.00 DISC	Bus	0.765	0.1	1.000	0.765	1.081			
BSN51270.00 TERM	0.480	BSN51270.00 TERM	Bus	0.752	0.1	1.000	0.752	1.064			
COGEN TIE BUS	0.480	COGEN TIE BUS	Switchgear	57.915	13.6	1.504	87.095	146.954	100.000	133.000	
COM53030.00 DISC	0.480	COM53030.00 DISC	Bus	0.795	0.1	1.000	0.795	1.125			
COM53030.00 TERM	0.480	COM53030.00 TERM	Bus	0.782	0.1	1.000	0.782	1.106			
COM53040.00 DISC	0.480	COM53040.00 DISC	Bus	0.869	0.1	1.000	0.869	1.229			
COM53040.00 TERM	0.480	COM53040.00 TERM	Bus	0.853	0.1	1.000	0.853	1.207			
CON51300.00 DISC	0.480	CON51300.00 DISC	Bus	0.798	0.1	1.000	0.798	1.129			
CON51300.00 TERM	0.480	CON51300.00 TERM	Bus	0.785	0.1	1.000	0.785	1.110			
CON51320.00 DISC	0.480	CON51320.00 DISC	Bus	0.798	0.1	1.000	0.798	1.129			
CON51320.00 TERM	0.480	CON51320.00 TERM	Bus	0.785	0.1	1.000	0.785	1.110			
CON53020.00 DISC	0.480	CON53020.00 DISC	Bus	0.748	0.1	1.000	0.748	1.057			
CON53020.00 TERM	0.480	CON53020.00 TERM	Bus	0.736	0.1	1.000	0.736	1.041			

3-Phase Fault Currents: (Prefault Voltage = 100 % of the Bus Nominal Voltage)

Bus		Device		Momentary Duty					Device Capability		
ID	kV	ID	Type	Symm. kA rms	X/R Ratio	M.F.	Asymm. kA rms	Asymm. kA Peak	Symm. kA rms	Asymm. kA rms	Asymm. kA Peak
CON53030.00 DISC	0.480	CON53030.00 DISC	Bus	0.748	0.1	1.000	0.748	1.057			
CON53030.00 TERM	0.480	CON53030.00 TERM	Bus	0.736	0.1	1.000	0.736	1.041			
EFF PS SWGR BUS A	0.480	EFF PS SWGR BUS A	Switchgear	19.810	5.8	1.294	25.632	44.281	65.000	86.500	
EFF PS SWGR BUS A PRI	0.480	EFF PS SWGR BUS A PRI	Bus	19.810	5.8	1.294	25.632	44.281			
EFF PS SWGR BUS B	0.480	EFF PS SWGR BUS B	Switchgear	19.809	5.8	1.297	25.687	44.368	65.000	86.500	
EFF PS SWGR BUS B PRI	0.480	EFF PS SWGR BUS B PRI	Bus	19.809	5.8	1.297	25.687	44.368			
EFF PUMP NO. 2 VFD PRI	0.480	EFF PUMP NO. 2 VFD PRI	Bus	19.060	5.0	1.252	23.864	41.314			
EFF PUMP NO. 4 VFD PRI	0.480	EFF PUMP NO. 4 VFD PRI	Bus	19.061	4.9	1.250	23.819	41.240			
F52410.00 DISC	0.480	F52410.00 DISC	Bus	0.627	0.1	1.000	0.627	0.887			
F52410.00 STR	0.480	F52410.00 STR	Bus	0.673	0.1	1.000	0.673	0.951			
F52420.00 DISC	0.480	F52420.00 DISC	Bus	0.503	0.1	1.000	0.503	0.712			
F52420.00 STR	0.480	F52420.00 STR	Bus	0.532	0.1	1.000	0.532	0.752			
F54330.00 DISC	0.480	F54330.00 DISC	Bus	2.516	0.1	1.000	2.516	3.558			
F54330.00 TERM	0.480	F54330.00 TERM	Bus	2.388	0.1	1.000	2.388	3.377			
F55010.00 TERM	0.480	F55010.00 TERM	Bus	4.157	0.4	1.000	4.157	5.881			
GEN NO. 2 TERM	0.480	GEN NO. 2 TERM	Bus	22.464	9.3	1.421	31.923	54.450			
GEN NO. 3 TERM	0.480	GEN NO. 3 TERM	Bus	22.780	9.6	1.429	32.544	55.457			
GRIT SCR TROLLEY	0.480	GRIT SCR TROLLEY	MCC	0.739	0.1	1.000	0.739	1.046	65.000	81.100	
HVAC56100.00 DISC	0.480	HVAC56100.00 DISC	Bus	6.021	0.3	1.000	6.021	8.516			
HVAC56100.00 TERM	0.480	HVAC56100.00 TERM	Bus	5.563	0.3	1.000	5.563	7.867			
HVAC56110.00 DISC	0.480	HVAC56110.00 DISC	Bus	2.531	0.2	1.000	2.531	3.579			
HVAC56110.00 TERM	0.480	HVAC56110.00 TERM	Bus	2.401	0.2	1.000	2.401	3.395			
HW ELEVATOR	0.480	HW ELEVATOR	MCC	8.455	0.5	1.000	8.455	11.973	65.000	81.100	
HW GATES	0.480	HW GATES	MCC	0.418	0.1	1.000	0.418	0.591	65.000	81.100	
INFL PUMP 1 TERMINALS	0.480	INFL PUMP 1 TERMINALS	Bus	24.231	4.7	1.236	29.944	51.860			
INFL PUMP 1 VFD PRI	0.480	INFL PUMP 1 VFD PRI	Bus	31.573	5.7	1.288	40.655	70.262			
INFL PUMP 2 TERMINALS	0.480	INFL PUMP 2 TERMINALS	Bus	21.921	3.7	1.170	25.657	44.333			
INFL PUMP 2 VFD	0.480	INFL PUMP 2 VFD	Bus	30.017	5.3	1.267	38.025	65.793			
INFL PUMP 2 VFD PRI	0.480	INFL PUMP 2 VFD PRI	Bus	30.017	5.3	1.267	38.025	65.793			
INFL PUMP 3 TERMINALS	0.480	INFL PUMP 3 TERMINALS	Bus	22.707	3.7	1.167	26.499	45.772			
INFL PUMP 3 VFD	0.480	INFL PUMP 3 VFD	Bus	31.575	5.6	1.283	40.525	70.056			
INFL PUMP 3 VFD PRI	0.480	INFL PUMP 3 VFD PRI	Bus	31.575	5.6	1.283	40.525	70.056			
INFL PUMP 4 TERMINALS	0.480	INFL PUMP 4 TERMINALS	Bus	22.114	3.7	1.170	25.872	44.702			
INFL PUMP 4 VFD	0.480	INFL PUMP 4 VFD	Bus	30.385	5.3	1.272	38.649	66.856			
INFL PUMP 4 VFD PRI	0.480	INFL PUMP 4 VFD PRI	Bus	30.385	5.3	1.272	38.649	66.856			
INFL PUMP 5 TERMINALS	0.480	INFL PUMP 5 TERMINALS	Bus	22.707	3.7	1.167	26.499	45.772			

3-Phase Fault Currents: (Prefault Voltage = 100 % of the Bus Nominal Voltage)

Bus		Device		Momentary Duty					Device Capability		
ID	kV	ID	Type	Symm. kA rms	X/R Ratio	M.F.	Asymm. kA rms	Asymm. kA Peak	Symm. kA rms	Asymm. kA rms	Asymm. kA Peak
INFL PUMP 5 VFD	0.480	INFL PUMP 5 VFD	Bus	31.575	5.6	1.283	40.525	70.056			
INFL PUMP 5 VFD PRI	0.480	INFL PUMP 5 VFD PRI	Bus	31.575	5.6	1.283	40.525	70.056			
INFL PUMP 6 TERMINALS	0.480	INFL PUMP 6 TERMINALS	Bus	23.125	4.7	1.233	28.520	49.396			
INFL PUMP 6 VFD PRI	0.480	INFL PUMP 6 VFD PRI	Bus	29.655	5.3	1.269	37.623	65.092			
LCP-HWOCS	0.480	LCP-HWOCS	MCC	4.308	0.4	1.000	4.308	6.095	65.000	81.100	
MAIN SWGR "FILTER"	0.480	MAIN SWGR "FILTER"	Switchgear	49.949	14.1	1.510	75.420	127.147	100.000	133.000	
MAIN SWGR "SLUDGE"	0.480	MAIN SWGR "SLUDGE"	Switchgear	57.915	13.6	1.504	87.095	146.954	100.000	133.000	
MAIN SWGR BUS A PRI	0.480	MAIN SWGR BUS A PRI	Bus	49.949	14.1	1.510	75.420	127.147			
MAIN SWGR BUS B PRI	0.480	MAIN SWGR BUS B PRI	Bus	57.915	13.6	1.504	87.095	146.954			
MCC-DP2C	0.480	MCC-DP2C	MCC	16.279	2.7	1.095	17.833	30.304	25.000	31.200	
MCC-DP4A	0.480	MCC-DP4A	MCC	1.724	0.2	1.000	1.724	2.437	25.000	31.200	
MCC-DP4B	0.480	MCC-DP4B	MCC	48.572	6.1	1.311	63.699	109.902	65.000	81.100	
MCC-GE	0.480	MCC-GE	MCC	15.296	9.2	1.417	21.676	36.990	35.000	43.600	
MCC-GE PRI	0.480	MCC-GE PRI	MCC	42.998	4.4	1.213	52.170	90.352	65.000	81.100	
MCC-HW BUS A	0.480	MCC-HW BUS A	MCC	31.811	5.3	1.270	40.387	69.871	65.000	81.100	
MCC-HW BUS A PRI	0.480	MCC-HW BUS A PRI	Bus	31.811	5.3	1.270	40.387	69.871			
MCC-HW BUS B	0.480	MCC-HW BUS B	MCC	31.318	5.3	1.269	39.736	68.746	65.000	81.100	
MCC-HW BUS B PRI	0.480	MCC-HW BUS B PRI	Bus	31.318	5.3	1.269	39.736	68.746			
MCC-NA BUS A	2.400	MCC-NA BUS A	MCC	5.016	7.3	1.360	6.821	11.716		50.000	84.375
MCC-NA BUS A PRI	2.400	MCC-NA BUS A PRI	MCC	5.016	7.3	1.360	6.821	11.716		81.100	25.000
MCC-NA BUS B	2.400	MCC-NA BUS B	MCC	5.091	7.1	1.352	6.883	11.833		50.000	84.375
MCC-NA BUS B PRI	2.400	MCC-NA BUS B PRI	MCC	5.091	7.1	1.352	6.883	11.833		81.100	25.000
MCC-NC	0.480	MCC-NC	MCC	15.294	6.0	1.306	19.980	34.485	65.000	81.100	
MCC-ND	0.480	MCC-ND	MCC	14.124	5.9	1.300	18.366	31.713	65.000	81.100	
MCC-NE	0.480	MCC-NE	MCC	14.305	4.9	1.247	17.838	30.887	65.000	81.100	
MCC-NF	0.480	MCC-NF	MCC	13.303	4.9	1.249	16.613	28.764	65.000	81.100	
MCC-NG BUS A	0.480	MCC-NG BUS A	MCC	8.191	2.3	1.066	8.733	14.613	65.000	81.100	
MCC-NG BUS A PRI	0.480	MCC-NG BUS A PRI	Bus	8.191	2.3	1.066	8.733	14.613			
MCC-NG BUS B	0.480	MCC-NG BUS B	MCC	8.233	2.6	1.089	8.963	15.187	65.000	81.100	
MCC-NG BUS B PRI	0.480	MCC-NG BUS B PRI	Bus	8.233	2.6	1.089	8.963	15.187			
MCC-SH BUS A	0.480	MCC-SH BUS A	MCC	8.185	2.3	1.061	8.686	14.481	65.000	81.100	
MCC-SH BUS A PRI	0.480	MCC-SH BUS A PRI	Bus	8.185	2.3	1.061	8.686	14.481			
MCC-SH BUS B	0.480	MCC-SH BUS B	MCC	8.118	2.3	1.060	8.607	14.340	65.000	81.100	
MCC-SH BUS B PRI	0.480	MCC-SH BUS B PRI	Bus	7.425	2.3	1.063	7.891	13.171			
MS-HW BUS A	0.480	MS-HW BUS A	Switchgear	33.733	6.3	1.320	44.511	76.746	100.000	133.000	
MS-HW BUS A PRI	0.480	MS-HW BUS A PRI	Bus	33.733	6.3	1.320	44.511	76.746			

3-Phase Fault Currents: (Prefault Voltage = 100 % of the Bus Nominal Voltage)

Bus		Device		Momentary Duty					Device Capability		
ID	kV	ID	Type	Symm. kA rms	X/R Ratio	M.F.	Asymm. kA rms	Asymm. kA Peak	Symm. kA rms	Asymm. kA rms	Asymm. kA Peak
MS-HW BUS B	0.480	MS-HW BUS B	Switchgear	33.241	6.3	1.318	43.828	75.574	100.000	133.000	
MS-HW BUS B PRI	0.480	MS-HW BUS B PRI	Bus	33.241	6.3	1.318	43.828	75.574			
P52100.00 DISC	0.480	P52100.00 DISC	Bus	3.998	0.5	1.000	3.998	5.663			
P52100.00 TERM	0.480	P52100.00 TERM	Bus	3.942	0.5	1.000	3.942	5.583			
P52110.00 DISC	0.480	P52110.00 DISC	Bus	2.808	0.4	1.000	2.808	3.972			
P52110.00 TERM	0.480	P52110.00 TERM	Bus	2.766	0.4	1.000	2.766	3.913			
P52120.00 DISC	0.480	P52120.00 DISC	Bus	4.240	0.5	1.000	4.240	6.006			
P52120.00 TERM	0.480	P52120.00 TERM	Bus	4.177	0.5	1.000	4.177	5.916			
P52130.00 DISC	0.480	P52130.00 DISC	Bus	2.989	0.4	1.000	2.989	4.227			
P52130.00 TERM	0.480	P52130.00 TERM	Bus	2.941	0.4	1.000	2.941	4.160			
P52140.00 DISC	0.480	P52140.00 DISC	Bus	4.998	0.5	1.000	4.998	7.082			
P52140.00 TERM	0.480	P52140.00 TERM	Bus	4.910	0.5	1.000	4.910	6.957			
P52150.00 DISC	0.480	P52150.00 DISC	Bus	3.564	0.4	1.000	3.564	5.042			
P52150.00 TERM	0.480	P52150.00 TERM	Bus	3.497	0.4	1.000	3.497	4.946			
P52160.00 DISC	0.480	P52160.00 DISC	Bus	3.710	0.4	1.000	3.710	5.248			
P52160.00 TERM	0.480	P52160.00 TERM	Bus	3.637	0.4	1.000	3.637	5.144			
P52170.00 DISC	0.480	P52170.00 DISC	Bus	3.946	0.4	1.000	3.946	5.582			
P52170.00 TERM	0.480	P52170.00 TERM	Bus	3.863	0.4	1.000	3.863	5.465			
P52220.00 DISC	0.480	P52220.00 DISC	Bus	0.693	0.1	1.000	0.693	0.980			
P52220.00 TERM	0.480	P52220.00 TERM	Bus	0.683	0.1	1.000	0.683	0.966			
P52230.00 DISC	0.480	P52230.00 DISC	Bus	0.693	0.1	1.000	0.693	0.980			
P52230.00 TERM	0.480	P52230.00 TERM	Bus	0.683	0.1	1.000	0.683	0.966			
P52240.00 DISC	0.480	P52240.00 DISC	Bus	0.872	0.1	1.000	0.872	1.233			
P52240.00 TERM	0.480	P52240.00 TERM	Bus	0.856	0.1	1.000	0.856	1.211			
P52250.00 DISC	0.480	P52250.00 DISC	Bus	0.872	0.1	1.000	0.872	1.233			
P52250.00 TERM	0.480	P52250.00 TERM	Bus	0.856	0.1	1.000	0.856	1.211			
P54080.00 DISC	0.480	P54080.00 DISC	Bus	1.432	0.1	1.000	1.432	2.025			
P54080.00 TERM	0.480	P54080.00 TERM	Bus	1.389	0.1	1.000	1.389	1.965			
P54090.00 DISC	0.480	P54090.00 DISC	Bus	1.432	0.1	1.000	1.432	2.025			
P54090.00 TERM	0.480	P54090.00 TERM	Bus	1.389	0.1	1.000	1.389	1.965			
P55020.00 TERM	0.480	P55020.00 TERM	MCC	3.398	0.3	1.000	3.398	4.805	65.000	81.100	
P55030.00 TERM	0.480	P55030.00 TERM	Bus	3.398	0.3	1.000	3.398	4.805			
PNL DP2	0.480	PNL DP2	Switchboard	19.957	2.8	1.098	21.906	37.256	22.000	27.400	
PNL DP4	0.480	PNL DP4	Switchboard	53.398	8.0	1.382	73.820	126.487	14.000 *	17.500 *	
PNL DPLC-1	0.208	PNL DPLC-1	Panelboard	1.963	1.5	1.017	1.996	3.141	10.000	12.500	
PNL DPLC-2	0.208	PNL DPLC-2	Panelboard	1.560	1.2	1.005	1.568	2.362	10.000	12.500	

3-Phase Fault Currents: (Prefault Voltage = 100 % of the Bus Nominal Voltage)

Bus		Device		Momentary Duty					Device Capability		
ID	kV	ID	Type	Symm. kA rms	X/R Ratio	M.F.	Asymm. kA rms	Asymm. kA Peak	Symm. kA rms	Asymm. kA rms	Asymm. kA Peak
PNL DPLC-3	0.208	PNL DPLC-3	Panelboard	1.862	1.4	1.010	1.881	2.898	10.000	12.500	
PNL DPLC-4	0.208	PNL DPLC-4	Panelboard	0.881	1.0	1.002	0.883	1.305	10.000	12.500	
PNL DPP1	0.480	PNL DPP1	Panelboard	16.073	0.9	1.001	16.091	23.497	160.000	200.000	
PNL DPP1 PRI	0.480	PNL DPP1 PRI	MCC	16.073	0.9	1.001	16.091	23.497	65.000	81.100	
SCR BLDG N OH DOOR DISC	0.480	SCR BLDG N OH DOOR DISC	Bus	1.240	0.1	1.000	1.240	1.753			
SCR BLDG N OH DOOR TERM	0.480	SCR BLDG N OH DOOR TERM	Bus	1.207	0.1	1.000	1.207	1.707			
SCR BLDG S OH DOOR DISC	0.480	SCR BLDG S OH DOOR DISC	Bus	1.348	0.1	1.000	1.348	1.906			
SCR BLDG S OH DOOR TERM	0.480	SCR BLDG S OH DOOR TERM	Bus	1.310	0.1	1.000	1.310	1.852			
SEP53000.00 DISC	0.480	SEP53000.00 DISC	Bus	0.742	0.1	1.000	0.742	1.050			
SEP53000.00 TERM	0.480	SEP53000.00 TERM	Bus	0.731	0.1	1.000	0.731	1.033			
SEP53010.00 DISC	0.480	SEP53010.00 DISC	Bus	0.742	0.1	1.000	0.742	1.050			
SEP53010.00 TERM	0.480	SEP53010.00 TERM	Bus	0.731	0.1	1.000	0.731	1.033			
SEP53020.00 DISC	0.480	SEP53020.00 DISC	Bus	0.719	0.1	1.000	0.719	1.017			
SEP53020.00 TERM	0.480	SEP53020.00 TERM	Bus	0.708	0.1	1.000	0.708	1.002			
SR-DAF	0.480	SR-DAF	Cable Bus	9.941	2.9	1.109	11.026	18.828			
SR-DAF PRI	0.480	SR-DAF PRI	Bus	9.941	2.9	1.109	11.026	18.828			
SWBD GDP	0.480	SWBD GDP	Switchboard	24.385	11.9	1.476	35.980	60.942	100.000	125.000	
SWBD-NB BUS A	0.480	SWBD-NB BUS A	Switchboard	15.403	6.1	1.310	20.180	34.821	50.000	62.300	
SWBD-NB BUS A PRI	0.480	SWBD-NB BUS A PRI	Switchboard	15.403	6.1	1.310	20.180	34.821	50.000	62.300	
SWBD-NB BUS B	0.480	SWBD-NB BUS B	Switchboard	14.246	6.0	1.307	18.617	32.132	50.000	62.300	
SWBD-NB BUS B PRI	0.480	SWBD-NB BUS B PRI	Switchboard	14.246	6.0	1.307	18.617	32.132	50.000	62.300	
TRANSF TA PRI	0.480	TRANSF TA PRI	Bus	49.949	14.1	1.510	75.420	127.147			
TRANSF TB PRI	0.480	TRANSF TB PRI	Bus	57.915	13.6	1.504	87.095	146.954			
TRANSF TB SEC	2.400	TRANSF TB SEC	Bus	5.694	8.9	1.411	8.033	13.719			
TRANSF TC PRI	2.400	TRANSF TC PRI	Bus	4.986	7.1	1.353	6.744	11.592			
TRANSF TC SEC	0.480	TRANSF TC SEC	Bus	15.560	6.3	1.318	20.511	35.369			
TRANSF TD PRI	2.400	TRANSF TD PRI	Bus	5.056	6.9	1.344	6.797	11.693			
TRANSF TD SEC	0.480	TRANSF TD SEC	Bus	14.441	6.3	1.317	19.015	32.794			
XFMR T-C4 PRI	0.480	XFMR T-C4 PRI	MCC	8.349	0.4	1.000	8.349	11.813	65.000	81.100	
XFMR T-C4 SEC	0.208	XFMR T-C4 SEC	MCC	0.906	1.1	1.003	0.909	1.352	65.000	81.100	
XFMR T-LC1 PRI	0.480	XFMR T-LC1 PRI	MCC	11.990	0.6	1.000	11.991	17.057	65.000	81.100	
XFMR T-LC1 SEC	0.208	XFMR T-LC1 SEC	MCC	1.982	1.6	1.018	2.018	3.181	65.000	81.100	
XFMR T-LC2 PRI	0.480	XFMR T-LC2 PRI	MCC	2.958	0.2	1.000	2.958	4.183	65.000	81.100	
XFMR T-LC2 SEC	0.208	XFMR T-LC2 SEC	MCC	1.565	1.2	1.005	1.573	2.370	65.000	81.100	

Method: IEEE - X/R is calculated from separate R & X networks.
Protective device duty is calculated based on total fault current.
The multiplication factors for high voltage circuit-breaker and high voltage bus momentary duty (asymmetrical and crest values) are calculated based on system X/R.

* Indicates a device with momentary duty exceeding the device capability

APPENDIX B2 – SHORT CIRCUIT STUDY (INTERRUPTING DUTY SUMMARY REPORT)

Interrupting Duty Summary Report

3-Phase Fault Currents: (Prefault Voltage = 100 % of the Bus Nominal Voltage)

Bus		Device			Interrupting Duty				Device Capability			
ID	kV	ID	Type	CPT (Cy)	Symm. kA rms	X/R Ratio	M.F.	Adj. Sym. kA rms	kV	Test PF	Rated Int.	Adjusted Int.
ATS-L BUS A	0.480				30.392	3.4						
ATS-L BUS B	0.480				26.452	2.0						
ATS-L SEC	0.480				30.392	3.4						
B20100.00 TERMINALS	2.400				3.982	6.1						
B20200.00 TERMINALS	2.400				3.959	5.8						
B20400.00 TERMINALS	2.400				4.102	5.7						
B52180.00 DISC	0.480				5.714	0.5						
B52180.00 TERM	0.480				5.544	0.5						
B52190.00 DISC	0.480				4.218	0.4						
B52190.00 TERM	0.480				4.123	0.4						
B52210.00 DISC	0.480				1.587	0.2						
B52210.00 TERM	0.480				1.553	0.2						
B52220.00 DISC	0.480				1.491	0.2						
B52220.00 TERM	0.480				1.462	0.2						
BLWR BLDG TROLLEY	0.480				4.420	0.3						
BSN51240.00 DISC	0.480				0.765	0.1						
BSN51240.00 TERM	0.480				0.752	0.1						
BSN51250.00 DISC	0.480				0.765	0.1						
BSN51250.00 TERM	0.480				0.752	0.1						
BSN51260.00 DISC	0.480				0.765	0.1						
BSN51260.00 TERM	0.480				0.752	0.1						
BSN51270.00 DISC	0.480				0.765	0.1						
BSN51270.00 TERM	0.480				0.752	0.1						
COGEN TIE BUS	0.480	B-MAIN SWGR B2	InsulUnfuse		57.915	13.6	1.130	65.447	0.480	15.00	100.000	100.000
COM53030.00 DISC	0.480				0.795	0.1						
COM53030.00 TERM	0.480				0.782	0.1						
COM53040.00 DISC	0.480				0.869	0.1						
COM53040.00 TERM	0.480				0.853	0.1						
CON51300.00 DISC	0.480				0.798	0.1						
CON51300.00 TERM	0.480				0.785	0.1						
CON51320.00 DISC	0.480				0.798	0.1						
CON51320.00 TERM	0.480				0.785	0.1						

3-Phase Fault Currents: (Prefault Voltage = 100 % of the Bus Nominal Voltage)

Bus		Device			Interrupting Duty				Device Capability			
ID	kV	ID	Type	CPT (Cy)	Symm. kA rms	X/R Ratio	M.F.	Adj. Sym. kA rms	kV	Test PF	Rated Int.	Adjusted Int.
CON53020.00 DISC	0.480				0.748	0.1						
CON53020.00 TERM	0.480				0.736	0.1						
CON53030.00 DISC	0.480				0.748	0.1						
CON53030.00 TERM	0.480				0.736	0.1						
EFF PS SWGR BUS A	0.480	B-EFF PS SWGR BUS A	PowerUnfuse		19.810	5.8	1.000	19.810	0.480	15.00	65.000	65.000
		B-EFF PUMP NO. 4 VFD	PowerUnfuse		19.810	5.8	1.000	19.810	0.480	15.00	65.000	65.000
EFF PS SWGR BUS A PRI	0.480	B-EFF PS SWGR BUS A	PowerUnfuse		19.810	5.8	1.000	19.810	0.480	15.00	65.000	65.000
EFF PS SWGR BUS B	0.480	B-EFF PS SWGR BUS B	PowerUnfuse		19.809	5.8	1.000	19.809	0.480	15.00	65.000	65.000
		B-EFF PUMP NO. 2 VFD	PowerUnfuse		19.809	5.8	1.000	19.809	0.480	15.00	65.000	65.000
EFF PS SWGR BUS B PRI	0.480	B-EFF PS SWGR BUS B	PowerUnfuse		19.809	5.8	1.000	19.809	0.480	15.00	65.000	65.000
EFF PUMP NO. 2 VFD PRI	0.480	F-EFF PUMP NO. 2 VFD	Fuse		19.060	5.0	1.004	19.139	0.600	20.00	300.000	300.000
EFF PUMP NO. 4 VFD PRI	0.480	F-EFF PUMP NO. 4 VFD	Fuse		19.061	4.9	1.002	19.103	0.600	20.00	300.000	300.000
F52410.00 DISC	0.480				0.627	0.1						
F52410.00 STR	0.480				0.673	0.1						
F52420.00 DISC	0.480				0.503	0.1						
F52420.00 STR	0.480				0.532	0.1						
F54330.00 DISC	0.480				2.516	0.1						
F54330.00 TERM	0.480				2.388	0.1						
F55010.00 TERM	0.480				4.157	0.4						
GEN NO. 2 TERM	0.480				22.464	9.3						
GEN NO. 3 TERM	0.480				22.780	9.6						
GRIT SCR TROLLEY	0.480				0.739	0.1						
HVAC56100.00 DISC	0.480	F-HVAC56100.00	Fuse		6.021	0.3	1.000	6.021	0.480	6.65	14.000	14.000
HVAC56100.00 TERM	0.480				5.563	0.3						
HVAC56110.00 DISC	0.480	F-HVAC56110.00	Fuse		2.531	0.2	1.000	2.531	0.480	6.65	14.000	14.000
HVAC56110.00 TERM	0.480				2.401	0.2						
HW ELEVATOR	0.480				8.455	0.5						
HW GATES	0.480				0.418	0.1						
INFL PUMP 1 TERMINALS	0.480				24.231	4.7						
INFL PUMP 1 VFD PRI	0.480	B-INFL PUMP 1	Molded Case		31.573	5.7	1.033	32.606	0.480	20.00	65.000	65.000
INFL PUMP 2 TERMINALS	0.480				21.921	3.7						
INFL PUMP 2 VFD	0.480	B-INFL PUMP 2 VFD MAIN	Molded Case		30.017	5.3	1.016	30.497	0.480	20.00	65.000	65.000
		B-INFL PUMP 2	Molded Case		30.017	5.3	1.016	30.497	0.480	20.00	50.000	50.000
INFL PUMP 2 VFD PRI	0.480	B-INFL PUMP 2 VFD MAIN	Molded Case		30.017	5.3	1.016	30.497	0.480	20.00	65.000	65.000

3-Phase Fault Currents: (Prefault Voltage = 100 % of the Bus Nominal Voltage)

Bus		Device			Interrupting Duty				Device Capability			
ID	kV	ID	Type	CPT (Cy)	Symm. kA rms	X/R Ratio	M.F.	Adj. Sym. kA rms	kV	Test PF	Rated Int.	Adjusted Int.
INFL PUMP 3 TERMINALS	0.480				22.707	3.7						
INFL PUMP 3 VFD	0.480	B-INFL PUMP 3 VFD MAIN	Molded Case		31.575	5.6	1.029	32.502	0.480	20.00	65.000	65.000
		B-INFL PUMP 3	Molded Case		31.575	5.6	1.029	32.502	0.480	20.00	50.000	50.000
INFL PUMP 3 VFD PRI	0.480	B-INFL PUMP 3 VFD MAIN	Molded Case		31.575	5.6	1.029	32.502	0.480	20.00	65.000	65.000
INFL PUMP 4 TERMINALS	0.480				22.114	3.7						
INFL PUMP 4 VFD	0.480	B-INFL PUMP 4 VFD MAIN	Molded Case		30.385	5.3	1.020	30.997	0.480	20.00	65.000	65.000
		B-INFL PUMP 4	Molded Case		30.385	5.3	1.020	30.997	0.480	20.00	50.000	50.000
INFL PUMP 4 VFD PRI	0.480	B-INFL PUMP 4 VFD MAIN	Molded Case		30.385	5.3	1.020	30.997	0.480	20.00	65.000	65.000
INFL PUMP 5 TERMINALS	0.480				22.707	3.7						
INFL PUMP 5 VFD	0.480	B-INFL PUMP 5 VFD MAIN	Molded Case		31.575	5.6	1.029	32.502	0.480	20.00	65.000	65.000
		B-INFL PUMP 5	Molded Case		31.575	5.6	1.029	32.502	0.480	20.00	50.000	50.000
INFL PUMP 5 VFD PRI	0.480	B-INFL PUMP 5 VFD MAIN	Molded Case		31.575	5.6	1.029	32.502	0.480	20.00	65.000	65.000
INFL PUMP 6 TERMINALS	0.480				23.125	4.7						
INFL PUMP 6 VFD PRI	0.480	B-INFL PUMP 6	Molded Case		29.655	5.3	1.018	30.174	0.480	20.00	65.000	65.000
LCP-HWOCS	0.480				4.308	0.4						
MAIN SWGR "FILTER"	0.480	B-FA5-MCC-GB	InsulUnfuse		49.949	14.1	1.135	56.673	0.480	15.00	100.000	100.000
		B-FA7-MCC-GH	InsulUnfuse		49.949	14.1	1.135	56.673	0.480	15.00	100.000	100.000
		B-FA6-MCC-GF	InsulUnfuse		49.949	14.1	1.135	56.673	0.480	15.00	100.000	100.000
		B-PNL DP1	InsulUnfuse		49.949	14.1	1.135	56.673	0.480	15.00	100.000	100.000
		B-FA2-MCC-HCC	InsulUnfuse		49.949	14.1	1.135	56.673	0.480	15.00	100.000	100.000
		B-FA1	InsulUnfuse		49.949	14.1	1.135	56.673	0.480	15.00	100.000	100.000
		B-FA3-PNL DP3	InsulUnfuse		49.949	14.1	1.135	56.673	0.480	15.00	100.000	100.000
		B-FA4-MCC-GD	InsulUnfuse		49.949	14.1	1.135	56.673	0.480	15.00	100.000	100.000
		B-MAIN SWGR A1	InsulUnfuse		49.949	14.1	1.135	56.673	0.480	15.00	100.000	100.000
MAIN SWGR "SLUDGE"	0.480	B-MAIN SWGR B2	InsulUnfuse		57.915	13.6	1.130	65.447	0.480	15.00	100.000	100.000
		B-FB1	InsulUnfuse		57.915	13.6	1.130	65.447	0.480	15.00	100.000	100.000
		B-FB3	InsulUnfuse		57.915	13.6	1.130	65.447	0.480	15.00	100.000	100.000
		B-FB4	InsulUnfuse		57.915	13.6	1.130	65.447	0.480	15.00	100.000	100.000
		B-FB5-MCC-GE	InsulUnfuse		57.915	13.6	1.130	65.447	0.480	15.00	100.000	100.000
		B-FB8-ATS-8	InsulUnfuse		57.915	13.6	1.130	65.447	0.480	15.00	100.000	100.000
		B-FB7-MCC-GA	InsulUnfuse		57.915	13.6	1.130	65.447	0.480	15.00	100.000	100.000
		B-FB6-MCC-GC	InsulUnfuse		57.915	13.6	1.130	65.447	0.480	15.00	100.000	100.000
		B-FB2-MCC-HC	InsulUnfuse		57.915	13.6	1.130	65.447	0.480	15.00	100.000	100.000
		B-MAIN SWGR B1	InsulUnfuse		57.915	13.6	1.130	65.447	0.480	15.00	100.000	100.000

3-Phase Fault Currents: (Prefault Voltage = 100 % of the Bus Nominal Voltage)

Bus		Device			Interrupting Duty				Device Capability				
ID	kV	ID	Type	CPT (Cy)	Symm. kA rms	X/R Ratio	M.F.	Adj. Sym. kA rms	kV	Test PF	Rated Int.	Adjusted Int.	
MAIN SWGR BUS A PRI	0.480	B-MAIN SWGR A1	InsulUnfuse		49.949	14.1	1.135	56.673	0.480	15.00	100.000	100.000	
MAIN SWGR BUS B PRI	0.480	B-MAIN SWGR B1	InsulUnfuse		57.915	13.6	1.130	65.447	0.480	15.00	100.000	100.000	
MCC-DP2C	0.480	B-GAS COMPRESSOR #6	Molded Case		16.279	2.7	1.000	16.279	0.480	20.00	35.000	35.000	
		B-GAS COMPRESSOR #7	Molded Case		16.279	2.7	1.000	16.279	0.480	20.00	35.000	35.000	
MCC-DP4A	0.480				1.724	0.2							
MCC-DP4B	0.480	B-NEW INTERSTAGE BLDG	Molded Case		48.572	6.1	1.052	51.088	0.480	20.00	65.000	65.000	
		B2-MCC-DP4B	Molded Case		48.572	6.1	1.052	51.088	0.480	20.00	200.000	200.000	
MCC-GE	0.480	B-P4013.00	Molded Case		15.296	9.2	1.137	17.384	0.480	20.00	100.000	100.000	
		B-P4012.00	Molded Case		15.296	9.2	1.137	17.384	0.600	20.00	200.000	200.000	
MCC-GE PRI	0.480				42.998	4.4							
MCC-HW BUS A	0.480	B-MCC-HW BUS A MAIN	Molded Case		31.811	5.3	1.018	32.391	0.480	20.00	65.000	65.000	
		B-P52160.00	Molded Case		31.811	5.3	1.018	32.391	0.480	20.00	100.000	100.000	
		B-P52140.00	Molded Case		31.811	5.3	1.018	32.391	0.480	20.00	100.000	100.000	
		B-P52120.00	Molded Case		31.811	5.3	1.018	32.391	0.480	20.00	100.000	100.000	
		B-P52100.00	Molded Case		31.811	5.3	1.018	32.391	0.480	20.00	100.000	100.000	
		B-BSN51260.00	Molded Case		31.811	5.3	1.018	32.391	0.480	20.00	100.000	100.000	
		B-BSN51240.00	Molded Case		31.811	5.3	1.018	32.391	0.480	20.00	100.000	100.000	
		B-P52230.00	Molded Case		31.811	5.3	1.018	32.391	0.480	20.00	100.000	100.000	
		B-B52180.00	Molded Case		31.811	5.3	1.018	32.391	0.480	20.00	100.000	100.000	
		B-B52220.00	Molded Case		31.811	5.3	1.018	32.391	0.480	20.00	100.000	100.000	
		B-COM53030.00	Molded Case		31.811	5.3	1.018	32.391	0.480	20.00	100.000	100.000	
		B-SEP53000.00	Molded Case		31.811	5.3	1.018	32.391	0.480	20.00	100.000	100.000	
		B-P52220.00	Molded Case		31.811	5.3	1.018	32.391	0.480	20.00	100.000	100.000	
		B-P54090.00	Molded Case		31.811	5.3	1.018	32.391	0.480	20.00	100.000	100.000	
		B-P54080.00	Molded Case		31.811	5.3	1.018	32.391	0.480	20.00	100.000	100.000	
		B-CON51320.00	Molded Case		31.811	5.3	1.018	32.391	0.480	20.00	100.000	100.000	
		B-CON51300.00	Molded Case		31.811	5.3	1.018	32.391	0.480	20.00	100.000	100.000	
		B-HW ELEVATOR	Molded Case		31.811	5.3	1.018	32.391	0.480	20.00	65.000	65.000	
		B-ATS-L BUS A	Molded Case		31.811	5.3	1.123	35.736	0.480	30.00	14.000	14.000	*
		B-GRIT SCR TROLLEY	Molded Case		31.811	5.3	1.018	32.391	0.480	20.00	65.000	65.000	
		B-BLRW BLDG TROLLEY	Molded Case		31.811	5.3	1.018	32.391	0.480	20.00	65.000	65.000	
		B-PNL DPP1	Molded Case		31.811	5.3	1.018	32.391	0.480	20.00	65.000	65.000	
		B-LCP-HWOCS	Molded Case		31.811	5.3	1.018	32.391	0.480	20.00	65.000	65.000	
MCC-HW BUS A PRI	0.480	B-MCC-HW BUS A MAIN	Molded Case		31.811	5.3	1.018	32.391	0.480	20.00	65.000	65.000	

3-Phase Fault Currents: (Prefault Voltage = 100 % of the Bus Nominal Voltage)

Bus		Device			Interrupting Duty				Device Capability				
ID	kV	ID	Type	CPT (Cy)	Symm. kA rms	X/R Ratio	M.F.	Adj. Sym. kA rms	kV	Test PF	Rated Int.	Adjusted Int.	
MCC-HW BUS B	0.480	B-MCC-HW BUS B MAIN	Molded Case		31.318	5.3	1.018	31.869	0.480	20.00	65.000	65.000	
		B-F54330.00	Molded Case		31.318	5.3	1.018	31.869	0.480	20.00	100.000	100.000	
		B-BSN51250.00	Molded Case		31.318	5.3	1.018	31.869	0.480	20.00	100.000	100.000	
		B-BSN51270.00	Molded Case		31.318	5.3	1.018	31.869	0.480	20.00	100.000	100.000	
		B-P52150.00	Molded Case		31.318	5.3	1.018	31.869	0.480	20.00	100.000	100.000	
		B-P52170.00	Molded Case		31.318	5.3	1.018	31.869	0.480	20.00	100.000	100.000	
		B-P52110.00	Molded Case		31.318	5.3	1.018	31.869	0.480	20.00	100.000	100.000	
		B-P52130.00	Molded Case		31.318	5.3	1.018	31.869	0.480	20.00	100.000	100.000	
		B-SEP53010.00	Molded Case		31.318	5.3	1.018	31.869	0.480	20.00	100.000	100.000	
		B-P52250.00	Molded Case		31.318	5.3	1.018	31.869	0.480	20.00	100.000	100.000	
		B-COM53040.00	Molded Case		31.318	5.3	1.018	31.869	0.480	20.00	100.000	100.000	
		B-B52190.00	Molded Case		31.318	5.3	1.018	31.869	0.480	20.00	100.000	100.000	
		B-B52210.00	Molded Case		31.318	5.3	1.018	31.869	0.480	20.00	100.000	100.000	
		B-SEP53020.00	Molded Case		31.318	5.3	1.018	31.869	0.480	20.00	100.000	100.000	
		B-CON53020.00	Molded Case		31.318	5.3	1.018	31.869	0.480	20.00	100.000	100.000	
		B-CON53030.00	Molded Case		31.318	5.3	1.018	31.869	0.480	20.00	100.000	100.000	
		B-P52240.00	Molded Case		31.318	5.3	1.018	31.869	0.480	20.00	100.000	100.000	
		B-ATS-L BUS B	Molded Case		31.318	5.3	1.123	35.159	0.480	30.00	18.000	18.000	*
MCC-HW BUS B PRI	0.480	B-MCC-HW BUS B MAIN	Molded Case		31.318	5.3	1.018	31.869	0.480	20.00	65.000	65.000	
MCC-NA BUS A	2.400	F MCC-NA BUS A	Fuse		5.016	7.3	1.000	5.016	5.500	6.65	25.000	25.000	
		F TRANSF TC	Fuse		5.016	7.3	1.000	5.016	5.500	6.65	25.000	25.000	
		F B20100.00	Fuse		5.016	7.3	1.000	5.016	5.080	3.95	50.000	50.000	
		F B20200.00	Fuse		5.016	7.3	1.000	5.016	5.080	3.95	50.000	50.000	
		F B20300.00	Fuse		5.016	7.3	1.000	5.016	5.080	3.95	50.000	50.000	
MCC-NA BUS A PRI	2.400	F MCC-NA BUS A	Fuse		5.016	7.3	1.000	5.016	5.500	6.65	25.000	25.000	
MCC-NA BUS B	2.400	F MCC-NA BUS B	Fuse		5.091	7.1	1.000	5.091	5.500	6.65	25.000	25.000	
		F TRANSF TD	Fuse		5.091	7.1	1.000	5.091	5.500	6.65	25.000	25.000	
		F B20400.00	Fuse		5.091	7.1	1.000	5.091	5.080	3.95	50.000	50.000	
		F B20500.00	Fuse		5.091	7.1	1.000	5.091	5.080	3.95	50.000	50.000	
MCC-NA BUS B PRI	2.400	F MCC-NA BUS B	Fuse		5.091	7.1	1.000	5.091	5.500	6.65	25.000	25.000	
MCC-NC	0.480	B-P27010.00 (Bypass)	Molded Case		15.294	6.0	1.048	16.024	0.480	20.00	100.000	100.000	
		B-P27030.00 (Bypass)	Molded Case		15.294	6.0	1.048	16.024	0.480	20.00	100.000	100.000	
		B-P28010.00 (Bypass)	Molded Case		15.294	6.0	1.048	16.024	0.480	20.00	100.000	100.000	
		B-P27310.00 (Bypass)	Molded Case		15.294	6.0	1.048	16.024	0.480	20.00	100.000	100.000	

3-Phase Fault Currents: (Prefault Voltage = 100 % of the Bus Nominal Voltage)

Bus		Device			Interrupting Duty				Device Capability			
ID	kV	ID	Type	CPT (Cy)	Symm. kA rms	X/R Ratio	M.F.	Adj. Sym. kA rms	kV	Test PF	Rated Int.	Adjusted Int.
MCC-NC		B-P28030.00 (Bypass)	Molded Case		15.294	6.0	1.048	16.024	0.480	20.00	100.000	100.000
		B-P27330.00 (Bypass)	Molded Case		15.294	6.0	1.048	16.024	0.480	20.00	100.000	100.000
		B-P27110.00	Molded Case		15.294	6.0	1.048	16.024	0.480	20.00	100.000	100.000
MCC-ND	0.480	B-P27020.00 (Bypass)	Molded Case		14.124	5.9	1.043	14.729	0.480	20.00	100.000	100.000
		B-P27040.00 (Bypass)	Molded Case		14.124	5.9	1.043	14.729	0.480	20.00	100.000	100.000
		B-P28020.00 (Bypass)	Molded Case		14.124	5.9	1.043	14.729	0.480	20.00	100.000	100.000
		B-P27320.00 (Bypass)	Molded Case		14.124	5.9	1.043	14.729	0.480	20.00	100.000	100.000
		B-P27120.00	Molded Case		14.124	5.9	1.043	14.729	0.480	20.00	100.000	100.000
		B-P27130.00	Molded Case		14.124	5.9	1.043	14.729	0.480	20.00	100.000	100.000
MCC-NE	0.480	B-PNL DPP4	Molded Case		14.305	4.9	1.000	14.307	0.480	20.00	65.000	65.000
		B-XFMR-T-DPC3-PRI	Molded Case		14.305	4.9	1.000	14.307	0.480	20.00	65.000	65.000
		B-M25011.10	Molded Case		14.305	4.9	1.000	14.307	0.480	20.00	100.000	100.000
		B-M25051.10	Molded Case		14.305	4.9	1.000	14.307	0.480	20.00	100.000	100.000
		B-M25131.10	Molded Case		14.305	4.9	1.000	14.307	0.480	20.00	100.000	100.000
		B-M25091.10	Molded Case		14.305	4.9	1.000	14.307	0.480	20.00	100.000	100.000
		B-M25171.10	Molded Case		14.305	4.9	1.000	14.307	0.480	20.00	100.000	100.000
		B-P26057.00	Molded Case		14.305	4.9	1.000	14.307	0.480	20.00	100.000	100.000
		B-P26058.00	Molded Case		14.305	4.9	1.000	14.307	0.480	20.00	100.000	100.000
		B-P27720.00	Molded Case		14.305	4.9	1.000	14.307	0.480	20.00	100.000	100.000
MCC-NF	0.480	B-PNL DPP5	Molded Case		13.303	4.9	1.002	13.324	0.480	20.00	65.000	65.000
		B-XFMR-T-DPL2-PRI	Molded Case		13.303	4.9	1.002	13.324	0.480	20.00	65.000	65.000
		B-M25031.10	Molded Case		13.303	4.9	1.002	13.324	0.480	20.00	100.000	100.000
		B-M25071.10	Molded Case		13.303	4.9	1.002	13.324	0.480	20.00	100.000	100.000
		B-M25111.10	Molded Case		13.303	4.9	1.002	13.324	0.480	20.00	100.000	100.000
		B-M25151.10	Molded Case		13.303	4.9	1.002	13.324	0.480	20.00	100.000	100.000
		B-P27230.00	Molded Case		13.303	4.9	1.002	13.324	0.480	20.00	100.000	100.000
		B-F27505.00	Molded Case		13.303	4.9	1.002	13.324	0.480	20.00	100.000	100.000
		B-F27506.00	Molded Case		13.303	4.9	1.002	13.324	0.480	20.00	100.000	100.000
		B-XFRM-FEB-PRI	Molded Case		13.303	4.9	1.002	13.324	0.480	20.00	65.000	65.000
MCC-NG BUS A	0.480	B-PNL DPP7 BLOWER GALLERY	Molded Case		8.191	2.3	1.000	8.191	0.480	20.00	65.000	65.000
		B-P20400.20	Molded Case		8.191	2.3	1.000	8.191	0.480	20.00	100.000	100.000
		B-P20500.20	Molded Case		8.191	2.3	1.000	8.191	0.480	20.00	100.000	100.000
		B-P26020.00	Molded Case		8.191	2.3	1.000	8.191	0.480	20.00	100.000	100.000
		B-XFRM-T-DPP2-PRI	Molded Case		8.191	2.3	1.000	8.191	0.480	20.00	65.000	65.000

3-Phase Fault Currents: (Prefault Voltage = 100 % of the Bus Nominal Voltage)

Bus		Device			Interrupting Duty				Device Capability			
ID	kV	ID	Type	CPT (Cy)	Symm. kA rms	X/R Ratio	M.F.	Adj. Sym. kA rms	kV	Test PF	Rated Int.	Adjusted Int.
MCC-NG BUS A		B-XFMR-T-DPC1-PRI	Molded Case		8.191	2.3	1.000	8.191	0.480	20.00	65.000	65.000
		B-P26025.00	Molded Case		8.191	2.3	1.000	8.191	0.480	20.00	100.000	100.000
		B-PNL DPP1 BLOWER GALLERY	Molded Case		8.191	2.3	1.000	8.191	0.480	20.00	65.000	65.000
		B-BUS A MCC-NG	Molded Case		8.191	2.3	1.000	8.191	0.480	20.00	65.000	65.000
MCC-NG BUS A PRI	0.480	B-BUS A MCC-NG	Molded Case		8.191	2.3	1.000	8.191	0.480	20.00	65.000	65.000
MCC-NG BUS B	0.480	B-P26010.00	Molded Case		8.233	2.6	1.000	8.233	0.480	20.00	100.000	100.000
		B-B27400.00	Molded Case		8.233	2.6	1.000	8.233	0.480	20.00	100.000	100.000
		B-F21159.00	Molded Case		8.233	2.6	1.000	8.233	0.480	20.00	100.000	100.000
		B-P26059.00	Molded Case		8.233	2.6	1.000	8.233	0.480	20.00	100.000	100.000
		B-P26060.00	Molded Case		8.233	2.6	1.000	8.233	0.480	20.00	100.000	100.000
		B-F21160.00	Molded Case		8.233	2.6	1.000	8.233	0.480	20.00	100.000	100.000
		B-PNL DPP3_BLOWER GALLERY	Molded Case		8.233	2.6	1.000	8.233	0.480	20.00	65.000	65.000
		B-PNL DPP6_BLOWER GALLERY	Molded Case		8.233	2.6	1.000	8.233	0.480	20.00	65.000	65.000
		B-P20100.20	Molded Case		8.233	2.6	1.000	8.233	0.480	20.00	100.000	100.000
		B-P20200.20	Molded Case		8.233	2.6	1.000	8.233	0.480	20.00	100.000	100.000
		B-P20300.20	Molded Case		8.233	2.6	1.000	8.233	0.480	20.00	100.000	100.000
		B-XFRM-T-DPL1-PRI	Molded Case		8.233	2.6	1.000	8.233	0.480	20.00	65.000	65.000
		B-BUS-B MCC-NG	Molded Case		8.233	2.6	1.000	8.233	0.480	20.00	65.000	65.000
MCC-NG BUS B PRI	0.480	B-BUS-B MCC-NG	Molded Case		8.233	2.6	1.000	8.233	0.480	20.00	65.000	65.000
MCC-SH BUS A	0.480	B-P6901.00	Molded Case		8.185	2.3	1.000	8.185	0.480	20.00	100.000	100.000
		B-F37010.00	Molded Case		8.185	2.3	1.000	8.185	0.480	20.00	100.000	100.000
		B- Polymer	Molded Case		8.185	2.3	1.000	8.185	0.480	20.00	65.000	65.000
		B- Praestemat	Molded Case		8.185	2.3	1.000	8.185	0.480	20.00	65.000	65.000
		B-Polymer PNL	Molded Case		8.185	2.3	1.000	8.185	0.480	20.00	65.000	65.000
		B-Grinder	Molded Case		8.185	2.3	1.000	8.185	0.480	20.00	65.000	65.000
		B-P6902.00	Molded Case		8.185	2.3	1.000	8.185	0.480	20.00	100.000	100.000
		B-RSS 30010.00	Molded Case		8.185	2.3	1.000	8.185	0.480	20.00	100.000	100.000
		B-B36040.00	Molded Case		8.185	2.3	1.000	8.185	0.480	20.00	100.000	100.000
		B-XFMR-T-DPM1-PRI	Molded Case		8.185	2.3	1.000	8.185	0.480	20.00	65.000	65.000
		B-XFRM-T-DPC7-PRI	Molded Case		8.185	2.3	1.000	8.185	0.480	20.00	65.000	65.000
		B-SP2	Molded Case		8.185	2.3	1.000	8.185	0.480	20.00	100.000	100.000
		B-CON 33010.00	Molded Case		8.185	2.3	1.000	8.185	0.480	20.00	100.000	100.000
		B-F36035.00	Molded Case		8.185	2.3	1.000	8.185	0.480	20.00	100.000	100.000

3-Phase Fault Currents: (Prefault Voltage = 100 % of the Bus Nominal Voltage)

Bus		Device			Interrupting Duty				Device Capability			
ID	kV	ID	Type	CPT (Cy)	Symm. kA rms	X/R Ratio	M.F.	Adj. Sym. kA rms	kV	Test PF	Rated Int.	Adjusted Int.
MCC-SH BUS A		B-F37015.00	Molded Case		8.185	2.3	1.000	8.185	0.480	20.00	100.000	100.000
		B-F37020.00	Molded Case		8.185	2.3	1.000	8.185	0.480	20.00	100.000	100.000
		B-LCP-BFP2	Molded Case		8.185	2.3	1.000	8.185	0.480	20.00	65.000	65.000
		B-LCP-BFP1	Molded Case		8.185	2.3	1.000	8.185	0.480	20.00	65.000	65.000
		B-CON 33030.00	Molded Case		8.185	2.3	1.000	8.185	0.480	20.00	100.000	100.000
		B-F36037.00	Molded Case		8.185	2.3	1.000	8.185	0.480	20.00	100.000	100.000
		B-F37030	Molded Case		8.185	2.3	1.000	8.185	0.480	20.00	100.000	100.000
		B-ORS Sprayer	Molded Case		8.185	2.3	1.000	8.185	0.480	20.00	35.000	35.000
		B-P32013.00	Molded Case		8.185	2.3	1.000	8.185	0.480	20.00	100.000	100.000
		B-P32023.00	Molded Case		8.185	2.3	1.000	8.185	0.480	20.00	100.000	100.000
		B-P32011.00	Molded Case		8.185	2.3	1.000	8.185	0.480	20.00	100.000	100.000
		B-P32021.00	Molded Case		8.185	2.3	1.000	8.185	0.480	20.00	100.000	100.000
		B-MCC-SH BUS A MAIN	Molded Case		8.185	2.3	1.000	8.185	0.480	20.00	30.000	30.000
MCC-SH BUS A PRI	0.480	B-MCC-SH BUS A MAIN	Molded Case		8.185	2.3	1.000	8.185	0.480	20.00	30.000	30.000
MCC-SH BUS B	0.480	B-P32033.00	Molded Case		8.118	2.3	1.000	8.118	0.480	20.00	100.000	100.000
		B-P32043.00	Molded Case		8.118	2.3	1.000	8.118	0.480	20.00	100.000	100.000
		B-P32031.00	Molded Case		8.118	2.3	1.000	8.118	0.480	20.00	100.000	100.000
		B-P32041.00	Molded Case		8.118	2.3	1.000	8.118	0.480	20.00	100.000	100.000
		B-F37013.00	Molded Case		8.118	2.3	1.000	8.118	0.480	20.00	100.000	100.000
		B-LCP-BFP3	Molded Case		8.118	2.3	1.000	8.118	0.480	20.00	65.000	65.000
		B-LCP-BFP4	Molded Case		8.118	2.3	1.000	8.118	0.480	20.00	65.000	65.000
		B-CON 330040.00	Molded Case		8.118	2.3	1.000	8.118	0.480	20.00	100.000	100.000
		B-F36030.00	Molded Case		8.118	2.3	1.000	8.118	0.480	20.00	100.000	100.000
		B-F37033.00	Molded Case		8.118	2.3	1.000	8.118	0.480	20.00	100.000	100.000
		B-XFMR-T-DPM2-PRI	Molded Case		8.118	2.3	1.000	8.118	0.480	20.00	65.000	65.000
		B-XFMR-T-DPL7-PRI	Molded Case		8.118	2.3	1.000	8.118	0.480	20.00	65.000	65.000
		B-CON 33020.00	Molded Case		8.118	2.3	1.000	8.118	0.480	20.00	100.000	100.000
		B-F37017.00	Molded Case		8.118	2.3	1.000	8.118	0.480	20.00	100.000	100.000
		B-MPV 30021.00	InsulUnfuse		8.118	2.3	1.000	8.118	0.480	15.00	50.000	50.000
		B-HWH	Molded Case		8.118	2.3	1.000	8.118	0.480	20.00	100.000	100.000
		B-B36045.00	Molded Case		8.118	2.3	1.000	8.118	0.480	20.00	100.000	100.000
		B-RSS30020.00	Molded Case		8.118	2.3	1.000	8.118	0.480	20.00	100.000	100.000
		B-F37023.00	Molded Case		8.118	2.3	1.000	8.118	0.480	20.00	100.000	100.000
		B-P6903.00	Molded Case		8.118	2.3	1.000	8.118	0.480	20.00	100.000	100.000

3-Phase Fault Currents: (Prefault Voltage = 100 % of the Bus Nominal Voltage)

Bus		Device			Interrupting Duty				Device Capability			
ID	kV	ID	Type	CPT (Cy)	Symm. kA rms	X/R Ratio	M.F.	Adj. Sym. kA rms	kV	Test PF	Rated Int.	Adjusted Int.
MCC-SH BUS B		B-MCC-SH TIE	Molded Case		8.118	2.3	1.000	8.118	0.480	20.00	30.000	30.000
MCC-SH BUS B PRI	0.480				7.425	2.3						
MS-HW BUS A	0.480	B-MS-HW 52-A	PowerUnfuse		33.733	6.3	1.000	33.733	0.508	15.00	100.000	100.000
		B-52-2B	PowerUnfuse		33.733	6.3	1.000	33.733	0.508	15.00	100.000	100.000
		B-52-2C	PowerUnfuse		33.733	6.3	1.000	33.733	0.508	15.00	100.000	100.000
		B-52-2D	PowerUnfuse		33.733	6.3	1.000	33.733	0.508	15.00	100.000	100.000
		B-52-3C	PowerUnfuse		33.733	6.3	1.000	33.733	0.508	15.00	100.000	100.000
MS-HW BUS A PRI	0.480	B-MS-HW 52-A	PowerUnfuse		33.733	6.3	1.000	33.733	0.508	15.00	100.000	100.000
MS-HW BUS B	0.480	B-52-5C	PowerUnfuse		33.241	6.3	1.000	33.241	0.508	15.00	100.000	100.000
		B-MS-HW 52-B	PowerUnfuse		33.241	6.3	1.000	33.241	0.508	15.00	100.000	100.000
		B-52-6B	PowerUnfuse		33.241	6.3	1.000	33.241	0.508	15.00	100.000	100.000
		B-52-6C	PowerUnfuse		33.241	6.3	1.000	33.241	0.508	15.00	100.000	100.000
		B-52-6D	PowerUnfuse		33.241	6.3	1.000	33.241	0.508	15.00	100.000	100.000
MS-HW BUS B PRI	0.480	B-MS-HW 52-B	PowerUnfuse		33.241	6.3	1.000	33.241	0.508	15.00	100.000	100.000
P52100.00 DISC	0.480				3.998	0.5						
P52100.00 TERM	0.480				3.942	0.5						
P52110.00 DISC	0.480				2.808	0.4						
P52110.00 TERM	0.480				2.766	0.4						
P52120.00 DISC	0.480				4.240	0.5						
P52120.00 TERM	0.480				4.177	0.5						
P52130.00 DISC	0.480				2.989	0.4						
P52130.00 TERM	0.480				2.941	0.4						
P52140.00 DISC	0.480				4.998	0.5						
P52140.00 TERM	0.480				4.910	0.5						
P52150.00 DISC	0.480				3.564	0.4						
P52150.00 TERM	0.480				3.497	0.4						
P52160.00 DISC	0.480				3.710	0.4						
P52160.00 TERM	0.480				3.637	0.4						
P52170.00 DISC	0.480				3.946	0.4						
P52170.00 TERM	0.480				3.863	0.4						
P52220.00 DISC	0.480				0.693	0.1						
P52220.00 TERM	0.480				0.683	0.1						
P52230.00 DISC	0.480				0.693	0.1						
P52230.00 TERM	0.480				0.683	0.1						

3-Phase Fault Currents: (Prefault Voltage = 100 % of the Bus Nominal Voltage)

Bus		Device			Interrupting Duty				Device Capability				
ID	kV	ID	Type	CPT (Cy)	Symm. kA rms	X/R Ratio	M.F.	Adj. Sym. kA rms	kV	Test PF	Rated Int.	Adjusted Int.	
P52240.00 DISC	0.480				0.872	0.1							
P52240.00 TERM	0.480				0.856	0.1							
P52250.00 DISC	0.480				0.872	0.1							
P52250.00 TERM	0.480				0.856	0.1							
P54080.00 DISC	0.480				1.432	0.1							
P54080.00 TERM	0.480				1.389	0.1							
P54090.00 DISC	0.480				1.432	0.1							
P54090.00 TERM	0.480				1.389	0.1							
P55020.00 TERM	0.480				3.398	0.3							
P55030.00 TERM	0.480				3.398	0.3							
PNL DP2	0.480	B-MCC-DP2C	Molded Case		19.957	2.8	1.000	19.957	0.480	20.00	30.000	30.000	
PNL DP4	0.480	B-MCC-DP4A	Molded Case		53.398	8.0	1.223	65.318	0.600	30.00	14.000	14.000	*
		F-MCC-DP4B	Fuse		53.398	8.0	1.109	59.204	0.600	20.00	200.000	200.000	
		B-MCC-DP4B	Molded Case		53.398	8.0	1.109	59.204	0.600	20.00	200.000	200.000	
PNL DPLC-1	0.208	B-PNL DPLC-3	Molded Case		1.963	1.5	1.000	1.963	0.240	50.00	10.000	10.000	
		B-STANDBY GEN PNL	Molded Case		1.963	1.5	1.000	1.963	0.240	50.00	10.000	10.000	
		B-PURGING COMPROSSER	Molded Case		1.963	1.5	1.000	1.963	0.240	50.00	10.000	10.000	
		B-PNL DPLC-1	Molded Case		1.963	1.5	1.000	1.963	0.240	20.00	65.000	65.000	
PNL DPLC-2	0.208	B-PNL DPLC-2 MAIN	Molded Case		1.560	1.2	1.000	1.560	0.240	20.00	65.000	65.000	
PNL DPLC-3	0.208	B-PNL DPLC-3 MAIN	Molded Case		1.862	1.4	1.000	1.862	0.240	50.00	10.000	10.000	
PNL DPLC-4	0.208	B-PNL DPLC-4 MAIN	Molded Case		0.881	1.0	1.000	0.881	0.240	50.00	10.000	10.000	
PNL DPP1	0.480	B-XFMR T-C4	MoldedFused		16.073	0.9	1.000	16.073	0.480	30.00	18.000	18.000	
		B-HVAC56100.00	MoldedFused		16.073	0.9	1.000	16.073	0.480	30.00	18.000	18.000	
		B-HVAC56110.00	MoldedFused		16.073	0.9	1.000	16.073	0.480	30.00	18.000	18.000	
		B-F52420.00	MoldedFused		16.073	0.9	1.000	16.073	0.480	30.00	18.000	18.000	
		B-F52410.00	MoldedFused		16.073	0.9	1.000	16.073	0.480	30.00	18.000	18.000	
		B-SCR BLDG S OH DOOR	MoldedFused		16.073	0.9	1.000	16.073	0.480	30.00	18.000	18.000	
		B-XFMR T-LC2	MoldedFused		16.073	0.9	1.000	16.073	0.480	30.00	18.000	18.000	
		B-SCR BLDG N OH DOOR	MoldedFused		16.073	0.9	1.000	16.073	0.480	30.00	18.000	18.000	
		B-HW GATES	MoldedFused		16.073	0.9	1.000	16.073	0.480	30.00	18.000	18.000	
		B-PNL DPP1 MAIN	MoldedFused		16.073	0.9	1.000	16.073	0.480	20.00	42.000	42.000	
PNL DPP1 PRI	0.480	B-PNL DPP1 MAIN	MoldedFused		16.073	0.9	1.000	16.073	0.480	20.00	42.000	42.000	
SCR BLDG N OH DOOR DISC	0.480				1.240	0.1							

3-Phase Fault Currents: (Prefault Voltage = 100 % of the Bus Nominal Voltage)

Bus		Device			Interrupting Duty				Device Capability			
ID	kV	ID	Type	CPT (Cy)	Symm. kA rms	X/R Ratio	M.F.	Adj. Sym. kA rms	kV	Test PF	Rated Int.	Adjusted Int.
SCR BLDG N OH DOOR TERM	0.480				1.207	0.1						
SCR BLDG S OH DOOR DISC	0.480				1.348	0.1						
SCR BLDG S OH DOOR TERM	0.480				1.310	0.1						
SEP53000.00 DISC	0.480				0.742	0.1						
SEP53000.00 TERM	0.480				0.731	0.1						
SEP53010.00 DISC	0.480				0.742	0.1						
SEP53010.00 TERM	0.480				0.731	0.1						
SEP53020.00 DISC	0.480				0.719	0.1						
SEP53020.00 TERM	0.480				0.708	0.1						
SR-DAF	0.480				9.941	2.9						
SR-DAF PRI	0.480				9.941	2.9						
SWBD GDP	0.480	B-GEN NO. 2	PowerUnfuse		24.385	11.9	1.090	26.586	0.480	15.00	50.000	50.000
		B-GEN NO. 3	PowerUnfuse		24.385	11.9	1.090	26.586	0.480	15.00	50.000	50.000
		B-GEN TIE A3	InsulUnfuse		24.385	11.9	1.109	27.037	0.480	15.00	100.000	100.000
SWBD-NB BUS A	0.480	B-SWBD-NB BUS A MAIN	InsulUnfuse		15.403	6.1	1.000	15.403	0.480	15.00	65.000	65.000
		B-MCC-NG BUS A	InsulUnfuse		15.403	6.1	1.000	15.403	0.480	15.00	50.000	50.000
		B-MCC-SH BUS A	InsulUnfuse		15.403	6.1	1.000	15.403	0.480	15.00	50.000	50.000
		B-MCC-NC	InsulUnfuse		15.403	6.1	1.000	15.403	0.480	15.00	65.000	65.000
		B-MCC-NE	InsulUnfuse		15.403	6.1	1.000	15.403	0.480	15.00	50.000	50.000
		B-SR-DAF	InsulUnfuse		15.403	6.1	1.000	15.403	0.480	15.00	50.000	50.000
SWBD-NB BUS A PRI	0.480	B-SWBD-NB BUS A MAIN	InsulUnfuse		15.403	6.1	1.000	15.403	0.480	15.00	65.000	65.000
SWBD-NB BUS B	0.480	B-MCC-NG BUS B	InsulUnfuse		14.246	6.0	1.000	14.246	0.480	15.00	50.000	50.000
		B-MCC-SH BUS B	InsulUnfuse		14.246	6.0	1.000	14.246	0.480	15.00	50.000	50.000
		B-SWBD-NB BUS B MAIN	InsulUnfuse		14.246	6.0	1.000	14.246	0.480	15.00	65.000	65.000
		B-MCC-NF	InsulUnfuse		14.246	6.0	1.000	14.246	0.480	15.00	50.000	50.000
		B-MCC-ND	InsulUnfuse		14.246	6.0	1.000	14.246	0.480	15.00	65.000	65.000
SWBD-NB BUS B PRI	0.480	B-SWBD-NB BUS B MAIN	InsulUnfuse		14.246	6.0	1.000	14.246	0.480	15.00	65.000	65.000
TRANSF TA PRI	0.480	B-FA1	InsulUnfuse		49.949	14.1	1.135	56.673	0.480	15.00	100.000	100.000
TRANSF TB PRI	0.480	B-FB1	InsulUnfuse		57.915	13.6	1.130	65.447	0.480	15.00	100.000	100.000
TRANSF TB SEC	2.400				4.909	9.4						
TRANSF TC PRI	2.400				4.133	7.2						
TRANSF TC SEC	0.480				15.560	6.3						
TRANSF TD PRI	2.400				4.294	6.9						

3-Phase Fault Currents: (Prefault Voltage = 100 % of the Bus Nominal Voltage)

Bus		Device			Interrupting Duty				Device Capability			
ID	kV	ID	Type	CPT (Cy)	Symm. kA rms	X/R Ratio	M.F.	Adj. Sym. kA rms	kV	Test PF	Rated Int.	Adjusted Int.
TRANSF TD SEC	0.480				14.441	6.3						
XFMR T-C4 PRI	0.480				8.349	0.4						
XFMR T-C4 SEC	0.208				0.906	1.1						
XFMR T-LC1 PRI	0.480				11.990	0.6						
XFMR T-LC1 SEC	0.208				1.982	1.6						
XFMR T-LC2 PRI	0.480				2.958	0.2						
XFMR T-LC2 SEC	0.208				1.565	1.2						

Method: IEEE - X/R is calculated from separate R & X networks.
HV CB interrupting capability is adjusted based on bus nominal voltage
Short-circuit multiplying factor for LV Molded Case and Insulated Case Circuit Breakers is calculated based on asymmetrical current.
Generator protective device duty is calculated based on maximum through fault current. Other protective device duty is calculated based on total fault current.

* Indicates a device with interrupting duty exceeding the device capability

** Indicates that the circuit breaker has been flagged as a generator circuit breaker. However, ETAP could not detect a single path, without a transformer, to the specified generator. Therefore, this circuit breaker is treated as a regular circuit breaker in short-circuit calculations.

\+ The prefault voltage exceeds the rated maximum kV limit of the circuit breaker - The rated interrupting kA must be derated.

APPENDIX B3 – SHORT CIRCUIT STUDY (1/2 CYCLE SHORT-CIRCUIT SUMMARY REPORT)

Short-Circuit Summary Report

1/2 Cycle - 3-Phase, LG, LL, & LLG Fault Currents

Prefault Voltage = 100 % of the Bus Nominal Voltage

Bus		3-Phase Fault			Line-to-Ground Fault			Line-to-Line Fault			*Line-to-Line-to-Ground		
ID	kV	Real	Imag.	Mag.	Real	Imag.	Mag.	Real	Imag.	Mag.	Real	Imag.	Mag.
ATS-L BUS A	0.48	8.990	-29.032	30.392	10.625	-26.498	28.549	25.142	7.785	26.320	-30.997	4.251	31.287
ATS-L BUS B	0.48	12.342	-23.396	26.452	13.709	-18.132	22.731	20.262	10.689	22.908	-27.061	-3.636	27.304
ATS-L SEC	0.48	8.990	-29.032	30.392	10.625	-26.498	28.549	25.142	7.785	26.320	-30.997	4.251	31.287
B20100.00 TERMINALS	2.40	0.874	-4.698	4.779	1.291	-3.882	4.091	4.069	0.757	4.139	-4.793	0.854	4.868
B20200.00 TERMINALS	2.40	0.910	-4.634	4.723	1.300	-3.834	4.048	4.013	0.788	4.090	-4.736	0.807	4.804
B20400.00 TERMINALS	2.40	0.908	-4.724	4.811	1.313	-3.843	4.061	4.092	0.790	4.168	-4.813	0.789	4.877
B52180.00 DISC	0.48	5.122	-2.533	5.714	3.260	-1.193	3.471	2.194	4.436	4.949	-3.379	-4.064	5.285
B52180.00 TERM	0.48	4.986	-2.425	5.544	3.162	-1.138	3.361	2.100	4.318	4.801	-3.248	-3.964	5.125
B52190.00 DISC	0.48	3.964	-1.442	4.218	2.423	-0.631	2.504	1.249	3.433	3.653	-2.116	-3.243	3.873
B52190.00 TERM	0.48	3.877	-1.402	4.123	2.368	-0.613	2.446	1.214	3.358	3.571	-2.062	-3.174	3.785
B52210.00 DISC	0.48	1.561	-0.286	1.587	0.912	-0.110	0.918	0.248	1.352	1.374	-0.569	-1.321	1.438
B52210.00 TERM	0.48	1.528	-0.280	1.553	0.892	-0.107	0.899	0.242	1.323	1.345	-0.557	-1.293	1.408
B52220.00 DISC	0.48	1.467	-0.268	1.491	0.856	-0.102	0.862	0.232	1.271	1.292	-0.534	-1.242	1.352
B52220.00 TERM	0.48	1.438	-0.263	1.462	0.839	-0.100	0.845	0.228	1.245	1.266	-0.523	-1.218	1.325
BLWR BLDG TROLLEY	0.48	4.270	-1.143	4.420	2.592	-0.508	2.642	0.990	3.698	3.828	-1.917	-3.544	4.029
BSN51240.00 DISC	0.48	0.763	-0.058	0.765	0.446	-0.027	0.446	0.051	0.660	0.662	-0.208	-0.652	0.684
BSN51240.00 TERM	0.48	0.750	-0.057	0.752	0.438	-0.026	0.439	0.050	0.650	0.652	-0.204	-0.642	0.673
BSN51250.00 DISC	0.48	0.762	-0.059	0.765	0.446	-0.027	0.446	0.051	0.660	0.662	-0.208	-0.652	0.684
BSN51250.00 TERM	0.48	0.750	-0.057	0.752	0.438	-0.026	0.439	0.050	0.650	0.652	-0.205	-0.641	0.673
BSN51260.00 DISC	0.48	0.763	-0.058	0.765	0.446	-0.027	0.446	0.051	0.660	0.662	-0.208	-0.652	0.684
BSN51260.00 TERM	0.48	0.750	-0.057	0.752	0.438	-0.026	0.439	0.050	0.650	0.652	-0.204	-0.642	0.673
BSN51270.00 DISC	0.48	0.762	-0.059	0.765	0.446	-0.027	0.446	0.051	0.660	0.662	-0.208	-0.652	0.684
BSN51270.00 TERM	0.48	0.750	-0.057	0.752	0.438	-0.026	0.439	0.050	0.650	0.652	-0.205	-0.641	0.673
COGEN TIE BUS	0.48	4.920	-57.705	57.915	5.767	-61.084	61.356	50.056	4.382	50.248	-53.253	27.990	60.161
COM53030.00 DISC	0.48	0.793	-0.065	0.795	0.462	-0.029	0.463	0.056	0.686	0.689	-0.219	-0.678	0.712
COM53030.00 TERM	0.48	0.779	-0.064	0.782	0.454	-0.028	0.455	0.055	0.675	0.677	-0.215	-0.666	0.700
COM53040.00 DISC	0.48	0.866	-0.073	0.869	0.505	-0.032	0.506	0.063	0.750	0.753	-0.241	-0.740	0.779
COM53040.00 TERM	0.48	0.850	-0.071	0.853	0.496	-0.031	0.497	0.062	0.736	0.739	-0.237	-0.727	0.764
CON51300.00 DISC	0.48	0.795	-0.070	0.798	0.462	-0.030	0.463	0.061	0.689	0.691	-0.224	-0.680	0.716
CON51300.00 TERM	0.48	0.782	-0.069	0.785	0.455	-0.029	0.456	0.060	0.677	0.680	-0.220	-0.668	0.704
CON51320.00 DISC	0.48	0.795	-0.070	0.798	0.462	-0.030	0.463	0.061	0.689	0.691	-0.224	-0.680	0.716

1/2 Cycle - 3-Phase, LG, LL, & LLG Fault Currents

Prefault Voltage = 100 % of the Bus Nominal Voltage

Bus		3-Phase Fault			Line-to-Ground Fault			Line-to-Line Fault			*Line-to-Line-to-Ground		
ID	kV	Real	Imag.	Mag.	Real	Imag.	Mag.	Real	Imag.	Mag.	Real	Imag.	Mag.
CON51320.00 TERM	0.48	0.782	-0.069	0.785	0.455	-0.029	0.456	0.060	0.677	0.680	-0.220	-0.668	0.704
CON53020.00 DISC	0.48	0.745	-0.066	0.748	0.433	-0.028	0.434	0.057	0.645	0.647	-0.209	-0.637	0.670
CON53020.00 TERM	0.48	0.733	-0.065	0.736	0.426	-0.027	0.427	0.056	0.635	0.637	-0.206	-0.627	0.660
CON53030.00 DISC	0.48	0.745	-0.066	0.748	0.433	-0.028	0.434	0.057	0.645	0.647	-0.209	-0.637	0.670
CON53030.00 TERM	0.48	0.733	-0.065	0.736	0.426	-0.027	0.427	0.056	0.635	0.637	-0.206	-0.627	0.660
EFF PS SWGR BUS A	0.48	4.127	-19.376	19.810	3.635	-19.734	20.066	16.669	3.333	16.999	14.870	13.605	20.155
EFF PS SWGR BUS A PRI	0.48	4.127	-19.376	19.810	3.635	-19.734	20.066	16.669	3.333	16.999	14.870	13.605	20.155
EFF PS SWGR BUS B	0.48	4.100	-19.380	19.809	3.609	-19.738	20.065	16.673	3.309	16.998	14.886	13.583	20.152
EFF PS SWGR BUS B PRI	0.48	4.100	-19.380	19.809	3.609	-19.738	20.065	16.673	3.309	16.998	14.886	13.583	20.152
EFF PUMP NO. 2 VFD PRI	0.48	4.409	-18.543	19.060	4.204	-18.202	18.681	15.947	3.573	16.342	-18.259	5.406	19.043
EFF PUMP NO. 4 VFD PRI	0.48	4.434	-18.538	19.061	4.226	-18.197	18.681	15.942	3.595	16.342	-18.265	5.382	19.041
F52410.00 DISC	0.48	0.626	-0.039	0.627	0.365	-0.017	0.365	0.033	0.542	0.543	-0.162	-0.537	0.561
F52410.00 STR	0.48	0.671	-0.043	0.673	0.391	-0.019	0.392	0.037	0.581	0.583	-0.175	-0.576	0.602
F52420.00 DISC	0.48	0.502	-0.029	0.503	0.292	-0.013	0.293	0.025	0.435	0.436	-0.128	-0.431	0.450
F52420.00 STR	0.48	0.531	-0.031	0.532	0.309	-0.014	0.309	0.027	0.460	0.461	-0.136	-0.456	0.475
F54330.00 DISC	0.48	2.493	-0.343	2.516	1.469	-0.139	1.476	0.297	2.159	2.179	-0.817	-2.119	2.271
F54330.00 TERM	0.48	2.366	-0.317	2.388	1.393	-0.129	1.399	0.275	2.049	2.068	-0.768	-2.012	2.154
F55010.00 TERM	0.48	3.906	-1.421	4.157	2.350	-0.541	2.411	1.231	3.383	3.600	-2.063	-3.235	3.837
GEN NO. 2 TERM	0.48	2.839	-22.284	22.464	4.116	-24.096	24.445	19.429	2.656	19.610	-21.985	10.320	24.287
GEN NO. 3 TERM	0.48	2.751	-22.613	22.780	4.027	-24.546	24.874	19.716	2.581	19.885	-22.230	10.697	24.670
GRIT SCR TROLLEY	0.48	0.737	-0.055	0.739	0.431	-0.025	0.432	0.048	0.639	0.640	-0.200	-0.631	0.662
HVAC56100.00 DISC	0.48	5.719	-1.882	6.021	3.537	-0.826	3.632	1.630	4.953	5.214	-2.903	-4.707	5.530
HVAC56100.00 TERM	0.48	5.314	-1.646	5.563	3.264	-0.720	3.342	1.425	4.602	4.818	-2.598	-4.387	5.098
HVAC56110.00 DISC	0.48	2.499	-0.397	2.531	1.476	-0.169	1.486	0.344	2.165	2.192	-0.867	-2.114	2.285
HVAC56110.00 TERM	0.48	2.373	-0.365	2.401	1.400	-0.155	1.409	0.316	2.055	2.079	-0.812	-2.009	2.166
HW ELEVATOR	0.48	7.654	-3.594	8.455	4.989	-1.676	5.263	3.112	6.628	7.323	-4.944	-6.116	7.865
HW GATES	0.48	0.417	-0.021	0.418	0.243	-0.010	0.244	0.018	0.361	0.362	-0.104	-0.358	0.373
INFL PUMP 1 TERMINALS	0.48	6.511	-23.340	24.231	6.987	-18.995	20.239	20.213	5.639	20.985	-23.661	2.298	23.773
INFL PUMP 1 VFD PRI	0.48	6.263	-30.945	31.573	6.724	-29.682	30.434	26.800	5.424	27.343	-30.350	8.821	31.606
INFL PUMP 2 TERMINALS	0.48	8.389	-20.252	21.921	8.917	-14.803	17.282	17.539	7.265	18.984	-21.737	-1.604	21.796
INFL PUMP 2 VFD	0.48	6.280	-29.353	30.017	6.902	-27.570	28.420	25.420	5.439	25.996	-29.097	7.529	30.056
INFL PUMP 2 VFD PRI	0.48	6.280	-29.353	30.017	6.902	-27.570	28.420	25.420	5.439	25.996	-29.097	7.529	30.056
INFL PUMP 3 TERMINALS	0.48	8.720	-20.966	22.707	9.310	-15.430	18.021	18.157	7.552	19.665	-22.561	-1.629	22.620
INFL PUMP 3 VFD	0.48	6.270	-30.946	31.575	6.729	-29.682	30.435	26.800	5.430	27.345	-30.351	8.815	31.605

1/2 Cycle - 3-Phase, LG, LL, & LLG Fault Currents

Prefault Voltage = 100 % of the Bus Nominal Voltage

Bus		3-Phase Fault			Line-to-Ground Fault			Line-to-Line Fault			*Line-to-Line-to-Ground		
ID	kV	Real	Imag.	Mag.	Real	Imag.	Mag.	Real	Imag.	Mag.	Real	Imag.	Mag.
INFL PUMP 3 VFD PRI	0.48	6.270	-30.946	31.575	6.729	-29.682	30.435	26.800	5.430	27.345	-30.351	8.815	31.605
INFL PUMP 4 TERMINALS	0.48	8.451	-20.435	22.114	9.020	-14.992	17.497	17.697	7.319	19.151	-21.958	-1.575	22.014
INFL PUMP 4 VFD	0.48	6.240	-29.738	30.385	6.828	-28.166	28.982	25.754	5.404	26.314	-29.393	7.949	30.449
INFL PUMP 4 VFD PRI	0.48	6.240	-29.738	30.385	6.828	-28.166	28.982	25.754	5.404	26.314	-29.393	7.949	30.449
INFL PUMP 5 TERMINALS	0.48	8.720	-20.966	22.707	9.310	-15.430	18.021	18.157	7.552	19.665	-22.561	-1.629	22.620
INFL PUMP 5 VFD	0.48	6.270	-30.946	31.575	6.729	-29.682	30.435	26.800	5.430	27.345	-30.351	8.815	31.605
INFL PUMP 5 VFD PRI	0.48	6.270	-30.946	31.575	6.729	-29.682	30.435	26.800	5.430	27.345	-30.351	8.815	31.605
INFL PUMP 6 TERMINALS	0.48	6.352	-22.236	23.125	6.791	-17.815	19.065	19.257	5.501	20.027	-22.580	1.857	22.656
INFL PUMP 6 VFD PRI	0.48	6.304	-28.977	29.655	6.957	-26.995	27.877	25.095	5.460	25.682	-28.799	7.142	29.671
LCP-HWOCS	0.48	4.057	-1.451	4.308	2.440	-0.549	2.501	1.257	3.513	3.731	-2.121	-3.363	3.976
MAIN SWGR "FILTER"	0.48	4.399	-49.755	49.949	4.776	-53.100	53.315	43.089	3.810	43.257	-45.699	24.654	51.925
MAIN SWGR "SLUDGE"	0.48	4.920	-57.705	57.915	5.767	-61.084	61.356	50.056	4.382	50.248	-53.253	27.990	60.161
MAIN SWGR BUS A PRI	0.48	4.399	-49.755	49.949	4.776	-53.100	53.315	43.089	3.810	43.257	-45.699	24.654	51.925
MAIN SWGR BUS B PRI	0.48	4.920	-57.705	57.915	5.767	-61.084	61.356	50.056	4.382	50.248	-53.253	27.990	60.161
MCC-DP2C	0.48	6.281	-15.018	16.279	5.390	-9.536	10.954	13.005	5.449	14.101	-15.231	-1.999	15.362
MCC-DP4A	0.48	1.700	-0.282	1.724	0.996	-0.132	1.005	0.244	1.472	1.493	-0.596	-1.431	1.550
MCC-DP4B	0.48	8.250	-47.867	48.572	10.945	-45.410	46.711	41.496	7.238	42.123	-47.948	14.191	50.004
MCC-GE	0.48	1.722	-15.199	15.296	2.166	-13.764	13.933	13.167	1.498	13.252	-14.380	4.771	15.151
MCC-GE PRI	0.48	10.352	-41.733	42.998	13.201	-35.752	38.111	36.162	9.041	37.275	-43.337	6.322	43.795
MCC-HW BUS A	0.48	6.453	-31.150	31.811	6.942	-30.099	30.889	26.977	5.589	27.550	-30.656	8.956	31.937
MCC-HW BUS A PRI	0.48	6.453	-31.150	31.811	6.942	-30.099	30.889	26.977	5.589	27.550	-30.656	8.956	31.937
MCC-HW BUS B	0.48	6.329	-30.672	31.318	6.852	-29.800	30.577	26.562	5.481	27.122	-30.219	8.993	31.529
MCC-HW BUS B PRI	0.48	6.329	-30.672	31.318	6.852	-29.800	30.577	26.562	5.481	27.122	-30.219	8.993	31.529
MCC-NA BUS A	2.40	0.748	-4.960	5.016	1.238	-4.374	4.546	4.296	0.648	4.344	-5.055	1.260	5.210
MCC-NA BUS A PRI	2.40	0.748	-4.960	5.016	1.238	-4.374	4.546	4.296	0.648	4.344	-5.055	1.260	5.210
MCC-NA BUS B	2.40	0.760	-5.034	5.091	1.257	-4.412	4.588	4.362	0.662	4.412	-5.125	1.253	5.276
MCC-NA BUS B PRI	2.40	0.760	-5.034	5.091	1.257	-4.412	4.588	4.362	0.662	4.412	-5.125	1.253	5.276
MCC-NC	0.48	2.723	-15.050	15.294	3.184	-15.936	16.251	13.034	2.358	13.245	-14.905	6.101	16.106
MCC-ND	0.48	2.468	-13.907	14.124	2.983	-15.052	15.344	12.045	2.142	12.234	-13.865	6.050	15.127
MCC-NE	0.48	3.042	-13.978	14.305	3.728	-14.176	14.658	12.105	2.635	12.388	-14.336	4.526	15.034
MCC-NF	0.48	2.734	-13.019	13.303	3.453	-13.512	13.946	11.276	2.372	11.523	-13.415	4.619	14.188
MCC-NG BUS A	0.48	3.275	-7.508	8.191	3.295	-5.655	6.545	6.502	2.836	7.094	-8.039	-0.610	8.062
MCC-NG BUS A PRI	0.48	3.275	-7.508	8.191	3.295	-5.655	6.545	6.502	2.836	7.094	-8.039	-0.610	8.062
MCC-NG BUS B	0.48	3.062	-7.642	8.233	3.221	-5.732	6.575	6.618	2.653	7.130	-8.144	-0.412	8.154

1/2 Cycle - 3-Phase, LG, LL, & LLG Fault Currents

Prefault Voltage = 100 % of the Bus Nominal Voltage

Bus		3-Phase Fault			Line-to-Ground Fault			Line-to-Line Fault			*Line-to-Line-to-Ground		
ID	kV	Real	Imag.	Mag.	Real	Imag.	Mag.	Real	Imag.	Mag.	Real	Imag.	Mag.
MCC-NG BUS B PRI	0.48	3.062	-7.642	8.233	3.221	-5.732	6.575	6.618	2.653	7.130	-8.144	-0.412	8.154
MCC-SH BUS A	0.48	3.325	-7.479	8.185	3.221	-5.332	6.230	6.477	2.880	7.089	-7.926	-0.849	7.972
MCC-SH BUS A PRI	0.48	3.325	-7.479	8.185	3.221	-5.332	6.230	6.477	2.880	7.089	-7.926	-0.849	7.972
MCC-SH BUS B	0.48	3.313	-7.411	8.118	3.198	-5.269	6.164	6.418	2.869	7.031	-7.854	-0.865	7.901
MCC-SH BUS B PRI	0.48	2.988	-6.797	7.425	3.048	-5.186	6.016	5.886	2.589	6.431	-7.323	-0.533	7.343
MS-HW BUS A	0.48	5.928	-33.208	33.733	5.947	-33.388	33.913	28.759	5.134	29.214	25.776	21.919	33.835
MS-HW BUS A PRI	0.48	5.928	-33.208	33.733	5.947	-33.388	33.913	28.759	5.134	29.214	25.776	21.919	33.835
MS-HW BUS B	0.48	5.809	-32.730	33.241	5.869	-33.063	33.580	28.345	5.030	28.788	-31.311	11.671	33.415
MS-HW BUS B PRI	0.48	5.809	-32.730	33.241	5.869	-33.063	33.580	28.345	5.030	28.788	-31.311	11.671	33.415
P52100.00 DISC	0.48	3.647	-1.639	3.998	2.261	-0.758	2.385	1.420	3.158	3.462	-2.233	-2.923	3.678
P52100.00 TERM	0.48	3.597	-1.612	3.942	2.228	-0.745	2.350	1.396	3.115	3.414	-2.198	-2.884	3.626
P52110.00 DISC	0.48	2.660	-0.899	2.808	1.597	-0.383	1.642	0.779	2.304	2.432	-1.346	-2.190	2.571
P52110.00 TERM	0.48	2.621	-0.885	2.766	1.573	-0.377	1.617	0.766	2.270	2.396	-1.325	-2.158	2.532
P52120.00 DISC	0.48	3.859	-1.756	4.240	2.401	-0.815	2.536	1.521	3.342	3.672	-2.386	-3.089	3.903
P52120.00 TERM	0.48	3.804	-1.725	4.177	2.364	-0.800	2.496	1.494	3.294	3.617	-2.346	-3.045	3.844
P52130.00 DISC	0.48	2.829	-0.962	2.989	1.703	-0.412	1.752	0.833	2.450	2.588	-1.439	-2.327	2.736
P52130.00 TERM	0.48	2.785	-0.946	2.941	1.675	-0.405	1.723	0.819	2.412	2.547	-1.415	-2.291	2.693
P52140.00 DISC	0.48	4.515	-2.142	4.998	2.842	-1.002	3.013	1.855	3.910	4.328	-2.884	-3.599	4.611
P52140.00 TERM	0.48	4.440	-2.096	4.910	2.790	-0.980	2.957	1.815	3.845	4.252	-2.824	-3.540	4.529
P52150.00 DISC	0.48	3.364	-1.176	3.564	2.039	-0.510	2.102	1.019	2.914	3.087	-1.747	-2.761	3.267
P52150.00 TERM	0.48	3.302	-1.150	3.497	2.000	-0.498	2.061	0.996	2.860	3.028	-1.710	-2.710	3.205
P52160.00 DISC	0.48	3.501	-1.228	3.710	2.124	-0.534	2.191	1.063	3.032	3.213	-1.822	-2.872	3.401
P52160.00 TERM	0.48	3.433	-1.199	3.637	2.081	-0.521	2.146	1.039	2.973	3.150	-1.781	-2.817	3.333
P52170.00 DISC	0.48	3.716	-1.329	3.946	2.264	-0.579	2.337	1.151	3.218	3.417	-1.960	-3.044	3.620
P52170.00 TERM	0.48	3.640	-1.295	3.863	2.215	-0.564	2.286	1.122	3.152	3.346	-1.913	-2.983	3.544
P52220.00 DISC	0.48	0.690	-0.060	0.693	0.401	-0.025	0.402	0.052	0.598	0.600	-0.193	-0.590	0.621
P52220.00 TERM	0.48	0.680	-0.059	0.683	0.395	-0.025	0.396	0.051	0.589	0.591	-0.190	-0.582	0.612
P52230.00 DISC	0.48	0.690	-0.060	0.693	0.401	-0.025	0.402	0.052	0.598	0.600	-0.193	-0.590	0.621
P52230.00 TERM	0.48	0.680	-0.059	0.683	0.395	-0.025	0.396	0.051	0.589	0.591	-0.190	-0.582	0.612
P52240.00 DISC	0.48	0.869	-0.078	0.872	0.506	-0.033	0.507	0.068	0.752	0.755	-0.246	-0.742	0.782
P52240.00 TERM	0.48	0.853	-0.077	0.856	0.496	-0.032	0.497	0.066	0.739	0.742	-0.241	-0.729	0.768
P52250.00 DISC	0.48	0.869	-0.078	0.872	0.506	-0.033	0.507	0.068	0.752	0.755	-0.246	-0.742	0.782
P52250.00 TERM	0.48	0.853	-0.077	0.856	0.496	-0.032	0.497	0.066	0.739	0.742	-0.241	-0.729	0.768
P54080.00 DISC	0.48	1.425	-0.146	1.432	0.833	-0.062	0.836	0.127	1.234	1.240	-0.421	-1.215	1.286

1/2 Cycle - 3-Phase, LG, LL, & LLG Fault Currents

Prefault Voltage = 100 % of the Bus Nominal Voltage

Bus		3-Phase Fault			Line-to-Ground Fault			Line-to-Line Fault			*Line-to-Line-to-Ground		
ID	kV	Real	Imag.	Mag.	Real	Imag.	Mag.	Real	Imag.	Mag.	Real	Imag.	Mag.
P54080.00 TERM	0.48	1.382	-0.140	1.389	0.808	-0.059	0.810	0.122	1.197	1.203	-0.407	-1.180	1.248
P54090.00 DISC	0.48	1.425	-0.146	1.432	0.833	-0.062	0.836	0.127	1.234	1.240	-0.421	-1.215	1.286
P54090.00 TERM	0.48	1.382	-0.140	1.389	0.808	-0.059	0.810	0.122	1.197	1.203	-0.407	-1.180	1.248
P55020.00 TERM	0.48	3.261	-0.955	3.398	1.929	-0.360	1.963	0.827	2.824	2.942	-1.508	-2.725	3.114
P55030.00 TERM	0.48	3.261	-0.955	3.398	1.929	-0.360	1.963	0.827	2.824	2.942	-1.508	-2.725	3.114
PNL DP2	0.48	7.339	-18.559	19.957	6.634	-12.360	14.028	16.072	6.371	17.289	-18.899	-1.796	18.984
PNL DP4	0.48	7.193	-52.911	53.398	9.727	-53.049	53.933	45.881	6.338	46.317	-51.881	20.123	55.647
PNL DPLC-1	0.21	1.065	-1.649	1.963	1.071	-1.681	1.993	1.428	0.922	1.700	0.889	1.779	1.989
PNL DPLC-2	0.21	1.007	-1.192	1.560	1.010	-1.314	1.658	1.032	0.872	1.351	0.532	1.598	1.685
PNL DPLC-3	0.21	1.100	-1.503	1.862	1.128	-1.431	1.822	1.301	0.953	1.613	-1.876	-0.272	1.896
PNL DPLC-4	0.21	0.612	-0.633	0.881	0.615	-0.623	0.876	0.548	0.530	0.763	-0.858	-0.224	0.886
PNL DPP1	0.48	11.847	-10.862	16.073	9.407	-6.040	11.179	9.407	10.260	13.919	-13.161	-8.301	15.560
PNL DPP1 PRI	0.48	11.847	-10.862	16.073	9.407	-6.040	11.179	9.407	10.260	13.919	-13.161	-8.301	15.560
SCR BLDG N OH DOOR DISC	0.48	1.233	-0.126	1.240	0.723	-0.057	0.725	0.109	1.068	1.074	-0.365	-1.050	1.112
SCR BLDG N OH DOOR TERM	0.48	1.201	-0.121	1.207	0.704	-0.055	0.706	0.105	1.040	1.046	-0.354	-1.023	1.083
SCR BLDG S OH DOOR DISC	0.48	1.340	-0.143	1.348	0.786	-0.064	0.789	0.124	1.161	1.167	-0.402	-1.141	1.210
SCR BLDG S OH DOOR TERM	0.48	1.303	-0.137	1.310	0.764	-0.061	0.766	0.119	1.128	1.134	-0.389	-1.109	1.175
SEP53000.00 DISC	0.48	0.740	-0.057	0.742	0.432	-0.026	0.433	0.050	0.641	0.643	-0.202	-0.633	0.664
SEP53000.00 TERM	0.48	0.728	-0.056	0.731	0.425	-0.025	0.426	0.049	0.631	0.633	-0.199	-0.623	0.654
SEP53010.00 DISC	0.48	0.740	-0.058	0.742	0.432	-0.026	0.432	0.050	0.641	0.643	-0.202	-0.633	0.664
SEP53010.00 TERM	0.48	0.728	-0.057	0.731	0.425	-0.025	0.426	0.049	0.631	0.633	-0.199	-0.623	0.654
SEP53020.00 DISC	0.48	0.717	-0.056	0.719	0.418	-0.025	0.419	0.048	0.621	0.623	-0.196	-0.613	0.644
SEP53020.00 TERM	0.48	0.706	-0.054	0.708	0.412	-0.025	0.413	0.047	0.612	0.613	-0.193	-0.604	0.634
SR-DAF	0.48	3.311	-9.373	9.941	3.644	-7.788	8.598	8.117	2.867	8.609	-9.960	0.414	9.969
SR-DAF PRI	0.48	3.311	-9.373	9.941	3.644	-7.788	8.598	8.117	2.867	8.609	-9.960	0.414	9.969
SWBD GDP	0.48	2.222	-24.283	24.385	3.417	-26.913	27.129	21.177	2.134	21.284	-23.347	12.794	26.623
SWBD-NB BUS A	0.48	2.706	-15.164	15.403	3.108	-16.255	16.550	13.132	2.343	13.340	-14.937	6.411	16.254
SWBD-NB BUS A PRI	0.48	2.706	-15.164	15.403	3.108	-16.255	16.550	13.132	2.343	13.340	-14.937	6.411	16.254
SWBD-NB BUS B	0.48	2.433	-14.036	14.246	2.876	-15.376	15.643	12.158	2.112	12.340	-13.881	6.383	15.278
SWBD-NB BUS B PRI	0.48	2.433	-14.036	14.246	2.876	-15.376	15.643	12.158	2.112	12.340	-13.881	6.383	15.278
TRANSF TA PRI	0.48	4.399	-49.755	49.949	4.776	-53.100	53.315	43.089	3.810	43.257	-45.699	24.654	51.925
TRANSF TB PRI	0.48	4.920	-57.705	57.915	5.767	-61.084	61.356	50.056	4.382	50.248	-53.253	27.990	60.161
TRANSF TB SEC	2.40	0.678	-5.653	5.694	0.796	-6.326	6.376	4.899	0.592	4.934	-5.369	2.996	6.148
TRANSF TC PRI	2.40	0.759	-4.928	4.986	1.246	-4.296	4.473	4.267	0.658	4.318	-5.022	1.198	5.163

1/2 Cycle - 3-Phase, LG, LL, & LLG Fault Currents

Prefault Voltage = 100 % of the Bus Nominal Voltage

Bus		3-Phase Fault			Line-to-Ground Fault			Line-to-Line Fault			*Line-to-Line-to-Ground		
ID	kV	Real	Imag.	Mag.	Real	Imag.	Mag.	Real	Imag.	Mag.	Real	Imag.	Mag.
TRANSF TC SEC	0.48	2.664	-15.330	15.560	2.928	-16.874	17.126	13.277	2.307	13.476	11.652	11.689	16.505
TRANSF TD PRI	2.40	0.774	-4.996	5.056	1.265	-4.330	4.511	4.329	0.674	4.381	-5.086	1.189	5.223
TRANSF TD SEC	0.48	2.388	-14.243	14.441	2.703	-15.980	16.207	12.336	2.072	12.509	-13.885	7.027	15.562
XFMR T-C4 PRI	0.48	7.724	-3.169	8.349	4.949	-1.415	5.148	2.744	6.690	7.231	-4.549	-6.268	7.745
XFMR T-C4 SEC	0.21	0.614	-0.666	0.906	0.619	-0.680	0.919	0.577	0.532	0.785	0.265	0.879	0.918
XFMR T-LC1 PRI	0.48	10.244	-6.231	11.990	7.148	-3.025	7.762	5.396	8.872	10.384	-8.089	-7.946	11.339
XFMR T-LC1 SEC	0.21	1.066	-1.671	1.982	1.071	-1.719	2.025	1.447	0.923	1.717	0.909	1.808	2.024
XFMR T-LC2 PRI	0.48	2.876	-0.691	2.958	1.724	-0.317	1.753	0.598	2.490	2.561	-1.213	-2.392	2.682
XFMR T-LC2 SEC	0.21	1.008	-1.197	1.565	1.010	-1.324	1.665	1.037	0.873	1.355	0.538	1.607	1.694

All fault currents are symmetrical momentary (1/2 Cycle network) values in rms kA

* LLG fault current is the larger of the two faulted line currents

Short-Circuit Summary Report

Bus		Positive Sequence Imp. (ohm)			Negative Sequence Imp. (ohm)			Zero Sequence Imp. (ohm)		
ID	kV	Resistance	Reactance	Impedance	Resistance	Reactance	Impedance	Resistance	Reactance	Impedance
ATS-L BUS A	0.480	0.00270	0.00871	0.00912	0.00270	0.00871	0.00912	0.00544	0.00961	0.01104
ATS-L BUS B	0.480	0.00489	0.00927	0.01048	0.00489	0.00927	0.01048	0.01228	0.01064	0.01625
ATS-L SEC	0.480	0.00270	0.00871	0.00912	0.00270	0.00871	0.00912	0.00544	0.00961	0.01104
B20100.00 TERMINALS	2.400	0.05306	0.28506	0.28996	0.05306	0.28506	0.28996	0.21464	0.39405	0.44871
B20200.00 TERMINALS	2.400	0.05651	0.28790	0.29340	0.05651	0.28790	0.29340	0.21673	0.39668	0.45202
B20400.00 TERMINALS	2.400	0.05437	0.28286	0.28804	0.05475	0.28252	0.28777	0.22195	0.40325	0.46030
B52180.00 DISC	0.480	0.04347	0.02150	0.04850	0.04347	0.02150	0.04850	0.13796	0.03931	0.14346
B52180.00 TERM	0.480	0.04495	0.02186	0.04999	0.04495	0.02186	0.04999	0.14285	0.04005	0.14835
B52190.00 DISC	0.480	0.06175	0.02246	0.06570	0.06175	0.02246	0.06570	0.19782	0.03869	0.20156
B52190.00 TERM	0.480	0.06321	0.02286	0.06722	0.06321	0.02286	0.06722	0.20270	0.03942	0.20650
B52210.00 DISC	0.480	0.17180	0.03146	0.17466	0.17180	0.03146	0.17466	0.55534	0.04514	0.55717
B52210.00 TERM	0.480	0.17548	0.03216	0.17840	0.17548	0.03216	0.17840	0.56763	0.04594	0.56948
B52220.00 DISC	0.480	0.18279	0.03341	0.18582	0.18279	0.03341	0.18582	0.59219	0.04754	0.59410
B52220.00 TERM	0.480	0.18645	0.03413	0.18955	0.18645	0.03413	0.18955	0.60448	0.04834	0.60641
BLWR BLDG TROLLEY	0.480	0.06057	0.01621	0.06270	0.06057	0.01621	0.06270	0.18773	0.02806	0.18982
BSN51240.00 DISC	0.480	0.36129	0.02769	0.36235	0.36129	0.02769	0.36235	1.13651	0.05566	1.13788
BSN51240.00 TERM	0.480	0.36728	0.02802	0.36835	0.36728	0.02802	0.36835	1.15541	0.05643	1.15679
BSN51250.00 DISC	0.480	0.36132	0.02783	0.36239	0.36132	0.02783	0.36239	1.13652	0.05566	1.13788
BSN51250.00 TERM	0.480	0.36730	0.02815	0.36838	0.36730	0.02815	0.36838	1.15542	0.05643	1.15679
BSN51260.00 DISC	0.480	0.36129	0.02769	0.36235	0.36129	0.02769	0.36235	1.13651	0.05566	1.13788
BSN51260.00 TERM	0.480	0.36728	0.02802	0.36835	0.36728	0.02802	0.36835	1.15541	0.05643	1.15679
BSN51270.00 DISC	0.480	0.36132	0.02783	0.36239	0.36132	0.02783	0.36239	1.13652	0.05566	1.13788
BSN51270.00 TERM	0.480	0.36730	0.02815	0.36838	0.36730	0.02815	0.36838	1.15542	0.05643	1.15679
COGEN TIE BUS	0.480	0.00041	0.00477	0.00479	0.00043	0.00475	0.00477	0.00044	0.00397	0.00400
COM53030.00 DISC	0.480	0.34731	0.02849	0.34848	0.34731	0.02849	0.34848	1.09871	0.05411	1.10004
COM53030.00 TERM	0.480	0.35323	0.02887	0.35441	0.35323	0.02887	0.35441	1.11761	0.05488	1.11896
COM53040.00 DISC	0.480	0.31773	0.02677	0.31885	0.31773	0.02677	0.31885	1.00422	0.05023	1.00547
COM53040.00 TERM	0.480	0.32365	0.02714	0.32479	0.32365	0.02714	0.32479	1.02312	0.05101	1.02439
CON51300.00 DISC	0.480	0.34582	0.03062	0.34717	0.34582	0.03062	0.34717	1.09871	0.05411	1.10004
CON51300.00 TERM	0.480	0.35168	0.03107	0.35305	0.35168	0.03107	0.35305	1.11761	0.05488	1.11896
CON51320.00 DISC	0.480	0.34582	0.03062	0.34717	0.34582	0.03062	0.34717	1.09871	0.05411	1.10004
CON51320.00 TERM	0.480	0.35168	0.03107	0.35305	0.35168	0.03107	0.35305	1.11761	0.05488	1.11896
CON53020.00 DISC	0.480	0.36929	0.03256	0.37072	0.36929	0.03256	0.37072	1.17432	0.05721	1.17571
CON53020.00 TERM	0.480	0.37515	0.03302	0.37660	0.37515	0.03302	0.37660	1.19322	0.05798	1.19462
CON53030.00 DISC	0.480	0.36929	0.03256	0.37072	0.36929	0.03256	0.37072	1.17432	0.05721	1.17571

Bus		Positive Sequence Imp. (ohm)			Negative Sequence Imp. (ohm)			Zero Sequence Imp. (ohm)		
ID	kV	Resistance	Reactance	Impedance	Resistance	Reactance	Impedance	Resistance	Reactance	Impedance
CON53030.00 TERM	0.480	0.37515	0.03302	0.37660	0.37515	0.03302	0.37660	1.19322	0.05798	1.19462
EFF PS SWGR BUS A	0.480	0.00291	0.01368	0.01399	0.00262	0.01401	0.01425	0.00197	0.01306	0.01321
EFF PS SWGR BUS A PRI	0.480	0.00291	0.01368	0.01399	0.00262	0.01401	0.01425	0.00197	0.01306	0.01321
EFF PS SWGR BUS B	0.480	0.00290	0.01369	0.01399	0.00260	0.01401	0.01425	0.00196	0.01306	0.01321
EFF PS SWGR BUS B PRI	0.480	0.00290	0.01369	0.01399	0.00260	0.01401	0.01425	0.00196	0.01306	0.01321
EFF PUMP NO. 2 VFD PRI	0.480	0.00336	0.01415	0.01454	0.00306	0.01452	0.01484	0.00359	0.01470	0.01513
EFF PUMP NO. 4 VFD PRI	0.480	0.00338	0.01414	0.01454	0.00308	0.01451	0.01483	0.00361	0.01470	0.01513
F52410.00 DISC	0.480	0.44088	0.02721	0.44171	0.44088	0.02721	0.44171	1.39166	0.05284	1.39267
F52410.00 STR	0.480	0.41111	0.02606	0.41194	0.41111	0.02606	0.41194	1.29716	0.05033	1.29814
F52420.00 DISC	0.480	0.54987	0.03150	0.55077	0.54987	0.03150	0.55077	1.73816	0.06204	1.73927
F52420.00 STR	0.480	0.52016	0.03032	0.52105	0.52016	0.03032	0.52105	1.64366	0.05953	1.64474
F54330.00 DISC	0.480	0.10911	0.01501	0.11014	0.10911	0.01501	0.11014	0.34272	0.02311	0.34349
F54330.00 TERM	0.480	0.11504	0.01541	0.11607	0.11504	0.01541	0.11607	0.36162	0.02389	0.36240
F55010.00 TERM	0.480	0.06265	0.02280	0.06667	0.06265	0.02280	0.06667	0.21073	0.03174	0.21311
GEN NO. 2 TERM	0.480	0.00156	0.01224	0.01234	0.00176	0.01201	0.01214	0.00241	0.00927	0.00958
GEN NO. 3 TERM	0.480	0.00147	0.01208	0.01217	0.00166	0.01186	0.01197	0.00228	0.00905	0.00933
GRIT SCR TROLLEY	0.480	0.37377	0.02806	0.37482	0.37377	0.02806	0.37482	1.17431	0.05721	1.17571
HVAC56100.00 DISC	0.480	0.04372	0.01439	0.04603	0.04372	0.01439	0.04603	0.13544	0.02327	0.13743
HVAC56100.00 TERM	0.480	0.04759	0.01474	0.04982	0.04759	0.01474	0.04982	0.14773	0.02407	0.14968
HVAC56110.00 DISC	0.480	0.10815	0.01717	0.10951	0.10815	0.01717	0.10951	0.33956	0.02928	0.34082
HVAC56110.00 TERM	0.480	0.11409	0.01755	0.11544	0.11409	0.01755	0.11544	0.35846	0.03005	0.35972
HW ELEVATOR	0.480	0.02967	0.01393	0.03278	0.02967	0.01393	0.03278	0.09040	0.02245	0.09314
HW GATES	0.480	0.66271	0.03375	0.66357	0.66271	0.03375	0.66357	2.08466	0.07124	2.08588
INFL PUMP 1 TERMINALS	0.480	0.00307	0.01102	0.01144	0.00307	0.01102	0.01144	0.00803	0.01652	0.01837
INFL PUMP 1 VFD PRI	0.480	0.00174	0.00860	0.00878	0.00174	0.00860	0.00878	0.00255	0.00944	0.00978
INFL PUMP 2 TERMINALS	0.480	0.00484	0.01168	0.01264	0.00484	0.01168	0.01264	0.01515	0.01785	0.02341
INFL PUMP 2 VFD	0.480	0.00193	0.00903	0.00923	0.00193	0.00903	0.00923	0.00324	0.01032	0.01082
INFL PUMP 2 VFD PRI	0.480	0.00193	0.00903	0.00923	0.00193	0.00903	0.00923	0.00324	0.01032	0.01082
INFL PUMP 3 TERMINALS	0.480	0.00469	0.01127	0.01220	0.00469	0.01127	0.01220	0.01446	0.01696	0.02229
INFL PUMP 3 VFD	0.480	0.00174	0.00860	0.00878	0.00174	0.00860	0.00878	0.00255	0.00944	0.00978
INFL PUMP 3 VFD PRI	0.480	0.00174	0.00860	0.00878	0.00174	0.00860	0.00878	0.00255	0.00944	0.00978
INFL PUMP 4 TERMINALS	0.480	0.00479	0.01158	0.01253	0.00479	0.01158	0.01253	0.01492	0.01755	0.02304
INFL PUMP 4 VFD	0.480	0.00187	0.00893	0.00912	0.00187	0.00893	0.00912	0.00301	0.01003	0.01047
INFL PUMP 4 VFD PRI	0.480	0.00187	0.00893	0.00912	0.00187	0.00893	0.00912	0.00301	0.01003	0.01047
INFL PUMP 5 TERMINALS	0.480	0.00469	0.01127	0.01220	0.00469	0.01127	0.01220	0.01446	0.01696	0.02229
INFL PUMP 5 VFD	0.480	0.00174	0.00860	0.00878	0.00174	0.00860	0.00878	0.00255	0.00944	0.00978
INFL PUMP 5 VFD PRI	0.480	0.00174	0.00860	0.00878	0.00174	0.00860	0.00878	0.00255	0.00944	0.00978

Bus		Positive Sequence Imp. (ohm)			Negative Sequence Imp. (ohm)			Zero Sequence Imp. (ohm)		
ID	kV	Resistance	Reactance	Impedance	Resistance	Reactance	Impedance	Resistance	Reactance	Impedance
INFL PUMP 6 TERMINALS	0.480	0.00329	0.01152	0.01198	0.00329	0.01152	0.01198	0.00895	0.01770	0.01984
INFL PUMP 6 VFD PRI	0.480	0.00199	0.00913	0.00934	0.00199	0.00913	0.00934	0.00347	0.01062	0.01117
LCP-HWOCS	0.480	0.06056	0.02167	0.06432	0.06056	0.02167	0.06432	0.20317	0.02963	0.20532
MAIN SWGR "FILTER"	0.480	0.00049	0.00553	0.00555	0.00049	0.00553	0.00555	0.00042	0.00448	0.00450
MAIN SWGR "SLUDGE"	0.480	0.00041	0.00477	0.00479	0.00043	0.00475	0.00477	0.00044	0.00397	0.00400
MAIN SWGR BUS A PRI	0.480	0.00049	0.00553	0.00555	0.00049	0.00553	0.00555	0.00042	0.00448	0.00450
MAIN SWGR BUS B PRI	0.480	0.00041	0.00477	0.00479	0.00043	0.00475	0.00477	0.00044	0.00397	0.00400
MCC-DP2C	0.480	0.00657	0.01571	0.01702	0.00659	0.01569	0.01702	0.02419	0.03467	0.04228
MCC-DP4A	0.480	0.15862	0.02632	0.16079	0.15864	0.02630	0.16081	0.50300	0.05606	0.50611
MCC-DP4B	0.480	0.00097	0.00562	0.00571	0.00099	0.00560	0.00569	0.00221	0.00608	0.00647
MCC-GE	0.480	0.00204	0.01800	0.01812	0.00205	0.01799	0.01810	0.00518	0.02295	0.02353
MCC-GE PRI	0.480	0.00155	0.00626	0.00645	0.00157	0.00624	0.00643	0.00443	0.00797	0.00912
MCC-HW BUS A	0.480	0.00177	0.00853	0.00871	0.00177	0.00853	0.00871	0.00251	0.00917	0.00950
MCC-HW BUS A PRI	0.480	0.00177	0.00853	0.00871	0.00177	0.00853	0.00871	0.00251	0.00917	0.00950
MCC-HW BUS B	0.480	0.00179	0.00867	0.00885	0.00179	0.00867	0.00885	0.00252	0.00917	0.00950
MCC-HW BUS B PRI	0.480	0.00179	0.00867	0.00885	0.00179	0.00867	0.00885	0.00252	0.00917	0.00950
MCC-NA BUS A	2.400	0.04118	0.27314	0.27623	0.04118	0.27314	0.27623	0.16660	0.33356	0.37285
MCC-NA BUS A PRI	2.400	0.04118	0.27314	0.27623	0.04118	0.27314	0.27623	0.16660	0.33356	0.37285
MCC-NA BUS B	2.400	0.04065	0.26910	0.27215	0.04103	0.26874	0.27186	0.16660	0.33356	0.37285
MCC-NA BUS B PRI	2.400	0.04065	0.26910	0.27215	0.04103	0.26874	0.27186	0.16660	0.33356	0.37285
MCC-NC	0.480	0.00323	0.01783	0.01812	0.00323	0.01783	0.01812	0.00357	0.01451	0.01494
MCC-ND	0.480	0.00343	0.01932	0.01962	0.00344	0.01931	0.01961	0.00366	0.01452	0.01498
MCC-NE	0.480	0.00412	0.01893	0.01937	0.00412	0.01893	0.01937	0.00618	0.01699	0.01808
MCC-NF	0.480	0.00428	0.02039	0.02083	0.00429	0.02038	0.02082	0.00618	0.01699	0.01808
MCC-NG BUS A	0.480	0.01353	0.03101	0.03383	0.01353	0.03101	0.03383	0.03690	0.04774	0.06034
MCC-NG BUS A PRI	0.480	0.01353	0.03101	0.03383	0.01353	0.03101	0.03383	0.03690	0.04774	0.06034
MCC-NG BUS B	0.480	0.01252	0.03125	0.03366	0.01253	0.03124	0.03366	0.03690	0.04774	0.06034
MCC-NG BUS B PRI	0.480	0.01252	0.03125	0.03366	0.01253	0.03124	0.03366	0.03690	0.04774	0.06034
MCC-SH BUS A	0.480	0.01375	0.03094	0.03386	0.01375	0.03094	0.03386	0.04150	0.05236	0.06681
MCC-SH BUS A PRI	0.480	0.01375	0.03094	0.03386	0.01375	0.03094	0.03386	0.04150	0.05236	0.06681
MCC-SH BUS B	0.480	0.01393	0.03116	0.03414	0.01393	0.03116	0.03414	0.04212	0.05297	0.06767
MCC-SH BUS B PRI	0.480	0.01502	0.03417	0.03732	0.01503	0.03416	0.03732	0.03997	0.05082	0.06465
MS-HW BUS A	0.480	0.00144	0.00809	0.00822	0.00144	0.00809	0.00822	0.00141	0.00796	0.00808
MS-HW BUS A PRI	0.480	0.00144	0.00809	0.00822	0.00144	0.00809	0.00822	0.00141	0.00796	0.00808
MS-HW BUS B	0.480	0.00146	0.00821	0.00834	0.00146	0.00821	0.00834	0.00141	0.00796	0.00808
MS-HW BUS B PRI	0.480	0.00146	0.00821	0.00834	0.00146	0.00821	0.00834	0.00141	0.00796	0.00808
P52100.00 DISC	0.480	0.06322	0.02842	0.06932	0.06322	0.02842	0.06932	0.20411	0.05404	0.21115

Bus		Positive Sequence Imp. (ohm)			Negative Sequence Imp. (ohm)			Zero Sequence Imp. (ohm)		
ID	kV	Resistance	Reactance	Impedance	Resistance	Reactance	Impedance	Resistance	Reactance	Impedance
P52100.00 TERM	0.480	0.06415	0.02876	0.07030	0.06415	0.02876	0.07030	0.20726	0.05474	0.21437
P52110.00 DISC	0.480	0.09350	0.03159	0.09869	0.09350	0.03159	0.09869	0.30523	0.05492	0.31013
P52110.00 TERM	0.480	0.09492	0.03204	0.10018	0.09492	0.03204	0.10018	0.31011	0.05566	0.31507
P52120.00 DISC	0.480	0.05949	0.02707	0.06536	0.05949	0.02707	0.06536	0.19151	0.05123	0.19825
P52120.00 TERM	0.480	0.06043	0.02741	0.06635	0.06043	0.02741	0.06635	0.19466	0.05193	0.20147
P52130.00 DISC	0.480	0.08779	0.02986	0.09273	0.08779	0.02986	0.09273	0.28570	0.05197	0.29039
P52130.00 TERM	0.480	0.08922	0.03029	0.09422	0.08922	0.03029	0.09422	0.29058	0.05271	0.29533
P52140.00 DISC	0.480	0.05010	0.02377	0.05545	0.05010	0.02377	0.05545	0.16001	0.04422	0.16601
P52140.00 TERM	0.480	0.05104	0.02409	0.05645	0.05104	0.02409	0.05645	0.16316	0.04492	0.16923
P52150.00 DISC	0.480	0.07339	0.02566	0.07775	0.07339	0.02566	0.07775	0.23688	0.04459	0.24104
P52150.00 TERM	0.480	0.07484	0.02608	0.07926	0.07484	0.02608	0.07926	0.24176	0.04533	0.24597
P52160.00 DISC	0.480	0.07048	0.02472	0.07469	0.07048	0.02472	0.07469	0.22711	0.04311	0.23116
P52160.00 TERM	0.480	0.07194	0.02513	0.07620	0.07194	0.02513	0.07620	0.23199	0.04385	0.23610
P52170.00 DISC	0.480	0.06613	0.02365	0.07023	0.06613	0.02365	0.07023	0.21246	0.04090	0.21636
P52170.00 TERM	0.480	0.06759	0.02405	0.07174	0.06759	0.02405	0.07174	0.21735	0.04164	0.22130
P52220.00 DISC	0.480	0.39854	0.03473	0.40005	0.39854	0.03473	0.40005	1.26881	0.06108	1.27028
P52220.00 TERM	0.480	0.40439	0.03520	0.40592	0.40439	0.03520	0.40592	1.28771	0.06186	1.28920
P52230.00 DISC	0.480	0.39854	0.03473	0.40005	0.39854	0.03473	0.40005	1.26881	0.06108	1.27028
P52230.00 TERM	0.480	0.40439	0.03520	0.40592	0.40439	0.03520	0.40592	1.28771	0.06186	1.28920
P52240.00 DISC	0.480	0.31647	0.02854	0.31775	0.31647	0.02854	0.31775	1.00422	0.05023	1.00547
P52240.00 TERM	0.480	0.32235	0.02898	0.32365	0.32235	0.02898	0.32365	1.02312	0.05101	1.02439
P52250.00 DISC	0.480	0.31647	0.02854	0.31775	0.31647	0.02854	0.31775	1.00422	0.05023	1.00547
P52250.00 TERM	0.480	0.32235	0.02898	0.32365	0.32235	0.02898	0.32365	1.02312	0.05101	1.02439
P54080.00 DISC	0.480	0.19251	0.01975	0.19352	0.19251	0.01975	0.19352	0.60731	0.03396	0.60826
P54080.00 TERM	0.480	0.19843	0.02014	0.19945	0.19843	0.02014	0.19945	0.62621	0.03474	0.62718
P54090.00 DISC	0.480	0.19251	0.01975	0.19352	0.19251	0.01975	0.19352	0.60731	0.03396	0.60826
P54090.00 TERM	0.480	0.19843	0.02014	0.19945	0.19843	0.02014	0.19945	0.62621	0.03474	0.62718
P55020.00 TERM	0.480	0.07828	0.02292	0.08156	0.07828	0.02292	0.08156	0.25987	0.03196	0.26183
P55030.00 TERM	0.480	0.07828	0.02292	0.08156	0.07828	0.02292	0.08156	0.25987	0.03196	0.26183
PNL DP2	0.480	0.00511	0.01291	0.01389	0.00513	0.01290	0.01388	0.01780	0.02641	0.03185
PNL DP4	0.480	0.00070	0.00514	0.00519	0.00072	0.00512	0.00517	0.00136	0.00490	0.00508
PNL DPLC-1	0.208	0.03319	0.05140	0.06118	0.03319	0.05140	0.06118	0.03078	0.04961	0.05839
PNL DPLC-2	0.208	0.04967	0.05878	0.07696	0.04967	0.05878	0.07696	0.03310	0.05475	0.06398
PNL DPLC-3	0.208	0.03809	0.05204	0.06449	0.03809	0.05204	0.06449	0.04621	0.05119	0.06896
PNL DPLC-4	0.208	0.09477	0.09804	0.13636	0.09477	0.09804	0.13636	0.09954	0.09661	0.13871
PNL DPP1	0.480	0.01271	0.01165	0.01724	0.01271	0.01165	0.01724	0.03716	0.01688	0.04082
PNL DPP1 PRI	0.480	0.01271	0.01165	0.01724	0.01271	0.01165	0.01724	0.03716	0.01688	0.04082

Bus		Positive Sequence Imp. (ohm)			Negative Sequence Imp. (ohm)			Zero Sequence Imp. (ohm)		
ID	kV	Resistance	Reactance	Impedance	Resistance	Reactance	Impedance	Resistance	Reactance	Impedance
SCR BLDG N OH DOOR DISC	0.480	0.22240	0.02278	0.22356	0.22240	0.02278	0.22356	0.69866	0.04400	0.70005
SCR BLDG N OH DOOR TERM	0.480	0.22838	0.02310	0.22955	0.22838	0.02310	0.22955	0.71756	0.04477	0.71896
SCR BLDG S OH DOOR DISC	0.480	0.20445	0.02181	0.20561	0.20445	0.02181	0.20561	0.64196	0.04167	0.64332
SCR BLDG S OH DOOR TERM	0.480	0.21043	0.02213	0.21159	0.21043	0.02213	0.21159	0.66086	0.04245	0.66223
SEP53000.00 DISC	0.480	0.37224	0.02891	0.37336	0.37224	0.02891	0.37336	1.17431	0.05721	1.17571
SEP53000.00 TERM	0.480	0.37819	0.02926	0.37932	0.37819	0.02926	0.37932	1.19321	0.05798	1.19462
SEP53010.00 DISC	0.480	0.37226	0.02905	0.37339	0.37226	0.02905	0.37339	1.17432	0.05721	1.17571
SEP53010.00 TERM	0.480	0.37821	0.02939	0.37935	0.37821	0.02939	0.37935	1.19322	0.05798	1.19462
SEP53020.00 DISC	0.480	0.38416	0.02973	0.38531	0.38416	0.02973	0.38531	1.21212	0.05876	1.21354
SEP53020.00 TERM	0.480	0.39011	0.03008	0.39127	0.39011	0.03008	0.39127	1.23102	0.05953	1.23246
SR-DAF	0.480	0.00929	0.02629	0.02788	0.00929	0.02629	0.02788	0.02241	0.03501	0.04157
SR-DAF PRI	0.480	0.00929	0.02629	0.02788	0.00929	0.02629	0.02788	0.02241	0.03501	0.04157
SWBD GDP	0.480	0.00104	0.01132	0.01136	0.00122	0.01112	0.01119	0.00160	0.00796	0.00812
SWBD-NB BUS A	0.480	0.00316	0.01771	0.01799	0.00316	0.01771	0.01799	0.00311	0.01392	0.01426
SWBD-NB BUS A PRI	0.480	0.00316	0.01771	0.01799	0.00316	0.01771	0.01799	0.00311	0.01392	0.01426
SWBD-NB BUS B	0.480	0.00332	0.01917	0.01945	0.00333	0.01916	0.01945	0.00311	0.01392	0.01426
SWBD-NB BUS B PRI	0.480	0.00332	0.01917	0.01945	0.00333	0.01916	0.01945	0.00311	0.01392	0.01426
TRANSF TA PRI	0.480	0.00049	0.00553	0.00555	0.00049	0.00553	0.00555	0.00042	0.00448	0.00450
TRANSF TB PRI	0.480	0.00041	0.00477	0.00479	0.00043	0.00475	0.00477	0.00044	0.00397	0.00400
TRANSF TB SEC	2.400	0.02896	0.24164	0.24337	0.02936	0.24125	0.24303	0.02310	0.16398	0.16560
TRANSF TC PRI	2.400	0.04233	0.27468	0.27792	0.04233	0.27468	0.27792	0.17413	0.34322	0.38486
TRANSF TC SEC	0.480	0.00305	0.01755	0.01781	0.00305	0.01755	0.01781	0.00220	0.01274	0.01293
TRANSF TD PRI	2.400	0.04193	0.27084	0.27406	0.04231	0.27048	0.27377	0.17413	0.34322	0.38486
TRANSF TD SEC	0.480	0.00317	0.01893	0.01919	0.00318	0.01892	0.01918	0.00220	0.01274	0.01293
XFMR T-C4 PRI	0.480	0.03071	0.01260	0.03319	0.03071	0.01260	0.03319	0.09386	0.01920	0.09581
XFMR T-C4 SEC	0.208	0.08987	0.09740	0.13253	0.08987	0.09740	0.13253	0.08410	0.09504	0.12691
XFMR T-LC1 PRI	0.480	0.01975	0.01201	0.02311	0.01975	0.01201	0.02311	0.05915	0.01773	0.06175
XFMR T-LC1 SEC	0.208	0.03259	0.05107	0.06059	0.03259	0.05107	0.06059	0.02889	0.04882	0.05672
XFMR T-LC2 PRI	0.480	0.09111	0.02189	0.09370	0.09111	0.02189	0.09370	0.28412	0.04207	0.28722
XFMR T-LC2 SEC	0.208	0.04942	0.05872	0.07675	0.04942	0.05872	0.07675	0.03231	0.05461	0.06345

APPENDIX B4 – SHORT CIRCUIT STUDY (1/2-4 CYCLE SHORT-CIRCUIT SUMMARY REPORT)

Short-Circuit Summary Report

1.5-4 Cycle - 3-Phase, LG, LL, & LLG Fault Currents

Prefault Voltage = 100 % of the Bus Nominal Voltage

Bus		3-Phase Fault			Line-to-Ground Fault			Line-to-Line Fault			*Line-to-Line-to-Ground		
ID	kV	Real	Imag.	Mag.	Real	Imag.	Mag.	Real	Imag.	Mag.	Real	Imag.	Mag.
ATS-L BUS A	0.48	7.253	-24.550	25.599	9.774	-24.809	26.665	22.591	6.969	23.642	-27.309	4.297	27.645
ATS-L BUS B	0.48	10.014	-20.680	22.977	12.754	-17.488	21.645	18.716	9.500	20.989	-24.675	-2.505	24.802
ATS-L SEC	0.48	7.253	-24.550	25.599	9.774	-24.809	26.665	22.591	6.969	23.642	-27.309	4.297	27.645
B20100.00 TERMINALS	2.40	0.675	-3.924	3.982	1.179	-3.642	3.828	3.627	0.681	3.691	-4.195	0.830	4.276
B20200.00 TERMINALS	2.40	0.690	-3.898	3.959	1.185	-3.605	3.795	3.591	0.699	3.658	-4.160	0.806	4.237
B20400.00 TERMINALS	2.40	0.740	-4.034	4.102	1.229	-3.644	3.846	3.718	0.738	3.791	-4.297	0.752	4.362
B52180.00 DISC	0.48	4.922	-2.449	5.497	3.220	-1.170	3.426	2.087	4.319	4.796	-3.260	-3.931	5.107
B52180.00 TERM	0.48	4.796	-2.338	5.336	3.125	-1.114	3.317	1.992	4.207	4.654	-3.129	-3.838	4.951
B52190.00 DISC	0.48	3.856	-1.338	4.081	2.399	-0.603	2.474	1.134	3.365	3.550	-1.997	-3.168	3.745
B52190.00 TERM	0.48	3.773	-1.296	3.989	2.344	-0.584	2.416	1.098	3.292	3.470	-1.941	-3.102	3.659
B52210.00 DISC	0.48	1.530	-0.214	1.545	0.904	-0.093	0.908	0.181	1.327	1.340	-0.501	-1.297	1.391
B52210.00 TERM	0.48	1.498	-0.208	1.512	0.884	-0.090	0.889	0.176	1.299	1.311	-0.489	-1.270	1.361
B52220.00 DISC	0.48	1.437	-0.196	1.450	0.848	-0.085	0.852	0.166	1.247	1.257	-0.466	-1.219	1.305
B52220.00 TERM	0.48	1.408	-0.191	1.421	0.831	-0.083	0.835	0.161	1.222	1.232	-0.455	-1.195	1.279
BLWR BLDG TROLLEY	0.48	4.187	-1.229	4.364	2.581	-0.521	2.633	1.032	3.652	3.795	-1.958	-3.484	3.997
BSN51240.00 DISC	0.48	0.760	-0.061	0.763	0.445	-0.027	0.446	0.052	0.659	0.661	-0.209	-0.650	0.683
BSN51240.00 TERM	0.48	0.748	-0.060	0.750	0.438	-0.026	0.439	0.051	0.648	0.650	-0.205	-0.640	0.672
BSN51250.00 DISC	0.48	0.760	-0.061	0.763	0.445	-0.027	0.446	0.052	0.659	0.661	-0.209	-0.650	0.683
BSN51250.00 TERM	0.48	0.748	-0.060	0.750	0.438	-0.026	0.439	0.051	0.648	0.650	-0.206	-0.640	0.672
BSN51260.00 DISC	0.48	0.760	-0.061	0.763	0.445	-0.027	0.446	0.052	0.659	0.661	-0.209	-0.650	0.683
BSN51260.00 TERM	0.48	0.748	-0.060	0.750	0.438	-0.026	0.439	0.051	0.648	0.650	-0.205	-0.640	0.672
BSN51270.00 DISC	0.48	0.760	-0.061	0.763	0.445	-0.027	0.446	0.052	0.659	0.661	-0.209	-0.650	0.683
BSN51270.00 TERM	0.48	0.748	-0.060	0.750	0.438	-0.026	0.439	0.051	0.648	0.650	-0.206	-0.640	0.672
COGEN TIE BUS	0.48	3.546	-50.637	50.761	5.334	-57.668	57.914	46.172	3.945	46.340	-47.778	26.189	54.485
COM53030.00 DISC	0.48	0.786	-0.064	0.789	0.460	-0.028	0.461	0.054	0.681	0.683	-0.217	-0.672	0.706
COM53030.00 TERM	0.48	0.773	-0.063	0.776	0.453	-0.027	0.454	0.053	0.670	0.672	-0.213	-0.661	0.694
COM53040.00 DISC	0.48	0.860	-0.072	0.863	0.504	-0.031	0.505	0.061	0.745	0.747	-0.239	-0.735	0.773
COM53040.00 TERM	0.48	0.844	-0.071	0.847	0.494	-0.031	0.495	0.060	0.731	0.734	-0.234	-0.721	0.758
CON51300.00 DISC	0.48	0.786	-0.064	0.789	0.460	-0.028	0.461	0.054	0.681	0.683	-0.217	-0.672	0.706
CON51300.00 TERM	0.48	0.773	-0.063	0.776	0.453	-0.027	0.454	0.053	0.670	0.672	-0.213	-0.661	0.694
CON51320.00 DISC	0.48	0.786	-0.064	0.789	0.460	-0.028	0.461	0.054	0.681	0.683	-0.217	-0.672	0.706

1.5-4 Cycle - 3-Phase, LG, LL, & LLG Fault Currents

Prefault Voltage = 100 % of the Bus Nominal Voltage

Bus		3-Phase Fault			Line-to-Ground Fault			Line-to-Line Fault			*Line-to-Line-to-Ground		
ID	kV	Real	Imag.	Mag.	Real	Imag.	Mag.	Real	Imag.	Mag.	Real	Imag.	Mag.
CON51320.00 TERM	0.48	0.773	-0.063	0.776	0.453	-0.027	0.454	0.053	0.670	0.672	-0.213	-0.661	0.694
CON53020.00 DISC	0.48	0.736	-0.059	0.738	0.431	-0.026	0.432	0.050	0.638	0.640	-0.202	-0.629	0.661
CON53020.00 TERM	0.48	0.724	-0.057	0.727	0.424	-0.025	0.425	0.049	0.628	0.630	-0.199	-0.620	0.651
CON53030.00 DISC	0.48	0.736	-0.059	0.738	0.431	-0.026	0.432	0.050	0.638	0.640	-0.202	-0.629	0.661
CON53030.00 TERM	0.48	0.724	-0.057	0.727	0.424	-0.025	0.425	0.049	0.628	0.630	-0.199	-0.620	0.651
EFF PS SWGR BUS A	0.48	3.250	-18.193	18.481	3.397	-18.982	19.283	15.759	3.018	16.046	14.243	12.855	19.186
EFF PS SWGR BUS A PRI	0.48	3.250	-18.193	18.481	3.397	-18.982	19.283	15.759	3.018	16.046	14.243	12.855	19.186
EFF PS SWGR BUS B	0.48	3.222	-18.197	18.480	3.371	-18.986	19.283	15.763	2.994	16.045	14.259	12.833	19.183
EFF PS SWGR BUS B PRI	0.48	3.222	-18.197	18.480	3.371	-18.986	19.283	15.763	2.994	16.045	14.259	12.833	19.183
EFF PUMP NO. 2 VFD PRI	0.48	3.522	-17.348	17.701	3.949	-17.498	17.938	15.027	3.255	15.376	-16.979	5.637	17.890
EFF PUMP NO. 4 VFD PRI	0.48	3.547	-17.342	17.701	3.971	-17.493	17.938	15.023	3.277	15.376	-16.984	5.613	17.887
F52410.00 DISC	0.48	0.623	-0.039	0.624	0.364	-0.017	0.365	0.033	0.540	0.541	-0.162	-0.534	0.558
F52410.00 STR	0.48	0.668	-0.044	0.669	0.391	-0.019	0.391	0.037	0.579	0.580	-0.175	-0.573	0.599
F52420.00 DISC	0.48	0.499	-0.029	0.500	0.292	-0.013	0.292	0.024	0.433	0.433	-0.127	-0.428	0.447
F52420.00 STR	0.48	0.528	-0.031	0.529	0.308	-0.014	0.309	0.026	0.457	0.458	-0.135	-0.453	0.473
F54330.00 DISC	0.48	2.464	-0.356	2.490	1.464	-0.140	1.470	0.297	2.139	2.160	-0.817	-2.096	2.249
F54330.00 TERM	0.48	2.340	-0.327	2.363	1.388	-0.129	1.394	0.273	2.031	2.049	-0.766	-1.991	2.133
F55010.00 TERM	0.48	3.779	-1.207	3.967	2.329	-0.507	2.384	1.089	3.335	3.509	-1.897	-3.190	3.711
GEN NO. 2 TERM	0.48	2.624	-21.655	21.814	4.018	-23.797	24.134	19.091	2.569	19.263	-21.449	10.230	23.763
GEN NO. 3 TERM	0.48	2.537	-21.959	22.105	3.929	-24.233	24.550	19.365	2.496	19.526	-21.676	10.592	24.125
GRIT SCR TROLLEY	0.48	0.736	-0.058	0.738	0.431	-0.026	0.432	0.050	0.638	0.640	-0.202	-0.629	0.661
HVAC56100.00 DISC	0.48	5.535	-1.990	5.882	3.510	-0.843	3.609	1.670	4.847	5.126	-2.938	-4.576	5.438
HVAC56100.00 TERM	0.48	5.159	-1.739	5.444	3.241	-0.733	3.323	1.459	4.511	4.741	-2.627	-4.276	5.018
HVAC56110.00 DISC	0.48	2.469	-0.416	2.504	1.471	-0.171	1.481	0.348	2.144	2.172	-0.871	-2.090	2.264
HVAC56110.00 TERM	0.48	2.345	-0.381	2.376	1.395	-0.157	1.404	0.319	2.036	2.061	-0.815	-1.986	2.147
HW ELEVATOR	0.48	7.266	-3.774	8.188	4.934	-1.716	5.224	3.196	6.418	7.170	-5.007	-5.858	7.706
HW GATES	0.48	0.417	-0.022	0.417	0.243	-0.010	0.244	0.019	0.361	0.361	-0.105	-0.358	0.373
INFL PUMP 1 TERMINALS	0.48	5.619	-19.832	20.613	6.629	-17.983	19.166	18.329	5.283	19.075	-21.149	2.107	21.253
INFL PUMP 1 VFD PRI	0.48	5.338	-25.865	26.411	6.392	-27.608	28.338	23.990	5.093	24.525	-26.595	7.879	27.737
INFL PUMP 2 TERMINALS	0.48	7.327	-17.395	18.875	8.483	-14.152	16.500	16.037	6.800	17.420	-19.671	-1.433	19.723
INFL PUMP 2 VFD	0.48	5.432	-24.811	25.398	6.577	-25.820	26.644	22.950	5.141	23.518	-25.764	6.756	26.635
INFL PUMP 2 VFD PRI	0.48	5.432	-24.811	25.398	6.577	-25.820	26.644	22.950	5.141	23.518	-25.764	6.756	26.635
INFL PUMP 3 TERMINALS	0.48	7.501	-17.933	19.438	8.808	-14.726	17.159	16.541	6.995	17.959	-20.330	-1.375	20.377
INFL PUMP 3 VFD	0.48	5.339	-25.866	26.411	6.395	-27.608	28.338	23.990	5.096	24.525	-26.594	7.877	27.736

1.5-4 Cycle - 3-Phase, LG, LL, & LLG Fault Currents

Prefault Voltage = 100 % of the Bus Nominal Voltage

Bus		3-Phase Fault			Line-to-Ground Fault			Line-to-Line Fault			*Line-to-Line-to-Ground		
ID	kV	Real	Imag.	Mag.	Real	Imag.	Mag.	Real	Imag.	Mag.	Real	Imag.	Mag.
INFL PUMP 3 VFD PRI	0.48	5.339	-25.866	26.411	6.395	-27.608	28.338	23.990	5.096	24.525	-26.594	7.877	27.736
INFL PUMP 4 TERMINALS	0.48	7.374	-17.552	19.038	8.577	-14.330	16.701	16.181	6.846	17.569	-19.867	-1.399	19.916
INFL PUMP 4 VFD	0.48	5.401	-25.113	25.687	6.514	-26.354	27.147	23.235	5.113	23.791	-26.000	7.120	26.957
INFL PUMP 4 VFD PRI	0.48	5.401	-25.113	25.687	6.514	-26.354	27.147	23.235	5.113	23.791	-26.000	7.120	26.957
INFL PUMP 5 TERMINALS	0.48	7.501	-17.933	19.438	8.808	-14.726	17.159	16.541	6.995	17.959	-20.330	-1.375	20.377
INFL PUMP 5 VFD	0.48	5.339	-25.866	26.411	6.395	-27.608	28.338	23.990	5.096	24.525	-26.594	7.877	27.736
INFL PUMP 5 VFD PRI	0.48	5.339	-25.866	26.411	6.395	-27.608	28.338	23.990	5.096	24.525	-26.594	7.877	27.736
INFL PUMP 6 TERMINALS	0.48	5.570	-19.017	19.816	6.481	-16.927	18.126	17.555	5.205	18.310	-20.310	1.663	20.378
INFL PUMP 6 VFD PRI	0.48	5.459	-24.515	25.115	6.627	-25.305	26.158	22.671	5.161	23.251	-25.528	6.414	26.322
LCP-HWOCS	0.48	3.921	-1.237	4.112	2.418	-0.515	2.472	1.113	3.460	3.635	-1.953	-3.313	3.845
MAIN SWGR "FILTER"	0.48	3.075	-44.503	44.609	4.333	-50.408	50.594	40.079	3.328	40.217	37.479	29.650	47.789
MAIN SWGR "SLUDGE"	0.48	3.546	-50.637	50.761	5.334	-57.668	57.914	46.172	3.945	46.340	-47.778	26.189	54.485
MAIN SWGR BUS A PRI	0.48	3.075	-44.503	44.609	4.333	-50.408	50.594	40.079	3.328	40.217	37.479	29.650	47.789
MAIN SWGR BUS B PRI	0.48	3.546	-50.637	50.761	5.334	-57.668	57.914	46.172	3.945	46.340	-47.778	26.189	54.485
MCC-DP2C	0.48	5.761	-13.634	14.801	5.278	-9.300	10.693	12.291	5.293	13.382	-14.305	-1.944	14.436
MCC-DP4A	0.48	1.686	-0.281	1.709	0.993	-0.131	1.002	0.240	1.461	1.480	-0.592	-1.418	1.537
MCC-DP4B	0.48	6.443	-43.016	43.496	10.147	-43.549	44.715	38.818	6.475	39.355	-43.999	14.054	46.189
MCC-GE	0.48	1.434	-13.351	13.428	2.097	-13.148	13.314	12.223	1.469	12.311	-13.081	4.410	13.804
MCC-GE PRI	0.48	8.541	-37.621	38.578	12.426	-34.498	36.668	33.920	8.253	34.909	-40.069	6.611	40.611
MCC-HW BUS A	0.48	5.451	-26.022	26.586	6.573	-27.928	28.691	24.079	5.216	24.637	-26.790	8.051	27.973
MCC-HW BUS A PRI	0.48	5.451	-26.022	26.586	6.573	-27.928	28.691	24.079	5.216	24.637	-26.790	8.051	27.973
MCC-HW BUS B	0.48	5.442	-25.878	26.444	6.532	-27.782	28.539	23.892	5.168	24.444	-26.637	8.083	27.836
MCC-HW BUS B PRI	0.48	5.442	-25.878	26.444	6.532	-27.782	28.539	23.892	5.168	24.444	-26.637	8.083	27.836
MCC-NA BUS A	2.40	0.570	-4.121	4.160	1.123	-4.075	4.227	3.815	0.588	3.860	-4.394	1.188	4.551
MCC-NA BUS A PRI	2.40	0.570	-4.121	4.160	1.123	-4.075	4.227	3.815	0.588	3.860	-4.394	1.188	4.551
MCC-NA BUS B	2.40	0.615	-4.280	4.324	1.171	-4.160	4.321	3.952	0.627	4.001	-4.548	1.167	4.695
MCC-NA BUS B PRI	2.40	0.615	-4.280	4.324	1.171	-4.160	4.321	3.952	0.627	4.001	-4.548	1.167	4.695
MCC-NC	0.48	1.837	-11.269	11.418	2.778	-13.799	14.076	10.690	1.993	10.874	-11.681	5.296	12.826
MCC-ND	0.48	1.893	-11.193	11.352	2.789	-13.571	13.855	10.467	1.990	10.655	-11.584	5.311	12.743
MCC-NE	0.48	2.039	-10.683	10.876	3.193	-12.462	12.864	10.054	2.172	10.286	-11.448	4.163	12.182
MCC-NF	0.48	2.075	-10.628	10.828	3.160	-12.302	12.701	9.876	2.150	10.107	-11.350	4.204	12.103
MCC-NG BUS A	0.48	2.486	-6.422	6.887	2.994	-5.349	6.130	5.796	2.410	6.277	-7.096	-0.233	7.100
MCC-NG BUS A PRI	0.48	2.486	-6.422	6.887	2.994	-5.349	6.130	5.796	2.410	6.277	-7.096	-0.233	7.100
MCC-NG BUS B	0.48	2.483	-6.533	6.989	3.005	-5.423	6.200	5.934	2.397	6.400	-7.231	-0.226	7.234

1.5-4 Cycle - 3-Phase, LG, LL, & LLG Fault Currents

Prefault Voltage = 100 % of the Bus Nominal Voltage

Bus		3-Phase Fault			Line-to-Ground Fault			Line-to-Line Fault			*Line-to-Line-to-Ground		
ID	kV	Real	Imag.	Mag.	Real	Imag.	Mag.	Real	Imag.	Mag.	Real	Imag.	Mag.
MCC-NG BUS B PRI	0.48	2.483	-6.533	6.989	3.005	-5.423	6.200	5.934	2.397	6.400	-7.231	-0.226	7.234
MCC-SH BUS A	0.48	2.451	-6.040	6.519	2.854	-4.900	5.671	5.433	2.360	5.923	-6.657	-0.389	6.669
MCC-SH BUS A PRI	0.48	2.451	-6.040	6.519	2.854	-4.900	5.671	5.433	2.360	5.923	-6.657	-0.389	6.669
MCC-SH BUS B	0.48	2.445	-5.992	6.472	2.836	-4.846	5.614	5.387	2.352	5.878	-6.602	-0.406	6.615
MCC-SH BUS B PRI	0.48	2.468	-6.138	6.615	2.877	-5.016	5.783	5.494	2.345	5.973	-6.761	-0.313	6.768
MS-HW BUS A	0.48	5.083	-27.582	28.047	5.741	-30.862	31.391	25.628	4.866	26.086	22.367	19.679	29.791
MS-HW BUS A PRI	0.48	5.083	-27.582	28.047	5.741	-30.862	31.391	25.628	4.866	26.086	22.367	19.679	29.791
MS-HW BUS B	0.48	5.076	-27.439	27.905	5.707	-30.704	31.230	25.441	4.821	25.894	22.181	19.641	29.627
MS-HW BUS B PRI	0.48	5.076	-27.439	27.905	5.707	-30.704	31.230	25.441	4.821	25.894	22.181	19.641	29.627
P52100.00 DISC	0.48	3.536	-1.521	3.850	2.236	-0.728	2.351	1.298	3.089	3.350	-2.105	-2.848	3.541
P52100.00 TERM	0.48	3.489	-1.493	3.795	2.203	-0.715	2.317	1.274	3.047	3.303	-2.070	-2.810	3.490
P52110.00 DISC	0.48	2.597	-0.763	2.706	1.580	-0.351	1.618	0.649	2.259	2.351	-1.214	-2.145	2.464
P52110.00 TERM	0.48	2.558	-0.748	2.665	1.556	-0.344	1.593	0.636	2.226	2.315	-1.192	-2.114	2.426
P52120.00 DISC	0.48	3.738	-1.643	4.083	2.374	-0.786	2.501	1.401	3.267	3.555	-2.260	-3.007	3.761
P52120.00 TERM	0.48	3.686	-1.611	4.022	2.338	-0.771	2.462	1.374	3.221	3.502	-2.219	-2.966	3.704
P52130.00 DISC	0.48	2.761	-0.830	2.883	1.685	-0.380	1.727	0.705	2.403	2.505	-1.308	-2.279	2.628
P52130.00 TERM	0.48	2.718	-0.812	2.837	1.657	-0.372	1.699	0.690	2.366	2.464	-1.283	-2.244	2.585
P52140.00 DISC	0.48	4.357	-2.044	4.813	2.809	-0.976	2.974	1.742	3.816	4.195	-2.761	-3.493	4.452
P52140.00 TERM	0.48	4.286	-1.996	4.728	2.758	-0.953	2.918	1.701	3.753	4.121	-2.702	-3.437	4.372
P52150.00 DISC	0.48	3.280	-1.057	3.446	2.019	-0.479	2.075	0.897	2.858	2.995	-1.621	-2.702	3.150
P52150.00 TERM	0.48	3.220	-1.029	3.380	1.980	-0.467	2.034	0.873	2.805	2.938	-1.583	-2.653	3.089
P52160.00 DISC	0.48	3.410	-1.115	3.587	2.103	-0.505	2.163	0.945	2.972	3.119	-1.699	-2.807	3.281
P52160.00 TERM	0.48	3.344	-1.084	3.516	2.060	-0.492	2.118	0.919	2.915	3.057	-1.658	-2.754	3.215
P52170.00 DISC	0.48	3.618	-1.218	3.818	2.241	-0.550	2.308	1.033	3.155	3.320	-1.838	-2.976	3.498
P52170.00 TERM	0.48	3.545	-1.182	3.737	2.193	-0.534	2.257	1.003	3.091	3.250	-1.790	-2.917	3.422
P52220.00 DISC	0.48	0.682	-0.053	0.684	0.399	-0.023	0.400	0.045	0.591	0.592	-0.186	-0.583	0.612
P52220.00 TERM	0.48	0.672	-0.052	0.674	0.393	-0.023	0.394	0.044	0.582	0.584	-0.183	-0.575	0.603
P52230.00 DISC	0.48	0.682	-0.053	0.684	0.399	-0.023	0.400	0.045	0.591	0.592	-0.186	-0.583	0.612
P52230.00 TERM	0.48	0.672	-0.052	0.674	0.393	-0.023	0.394	0.044	0.582	0.584	-0.183	-0.575	0.603
P52240.00 DISC	0.48	0.860	-0.072	0.863	0.504	-0.031	0.505	0.061	0.745	0.747	-0.239	-0.735	0.773
P52240.00 TERM	0.48	0.844	-0.071	0.847	0.494	-0.031	0.495	0.060	0.731	0.734	-0.234	-0.721	0.758
P52250.00 DISC	0.48	0.860	-0.072	0.863	0.504	-0.031	0.505	0.061	0.745	0.747	-0.239	-0.735	0.773
P52250.00 TERM	0.48	0.844	-0.071	0.847	0.494	-0.031	0.495	0.060	0.731	0.734	-0.234	-0.721	0.758
P54080.00 DISC	0.48	1.412	-0.148	1.420	0.831	-0.061	0.833	0.124	1.224	1.230	-0.418	-1.205	1.275

1.5-4 Cycle - 3-Phase, LG, LL, & LLG Fault Currents

Prefault Voltage = 100 % of the Bus Nominal Voltage

Bus		3-Phase Fault			Line-to-Ground Fault			Line-to-Line Fault			*Line-to-Line-to-Ground		
ID	kV	Real	Imag.	Mag.	Real	Imag.	Mag.	Real	Imag.	Mag.	Real	Imag.	Mag.
P54080.00 TERM	0.48	1.370	-0.141	1.377	0.806	-0.059	0.808	0.118	1.188	1.194	-0.404	-1.169	1.237
P54090.00 DISC	0.48	1.412	-0.148	1.420	0.831	-0.061	0.833	0.124	1.224	1.230	-0.418	-1.205	1.275
P54090.00 TERM	0.48	1.370	-0.141	1.377	0.806	-0.059	0.808	0.118	1.188	1.194	-0.404	-1.169	1.237
P55020.00 TERM	0.48	3.158	-0.814	3.261	1.913	-0.337	1.942	0.727	2.778	2.871	-1.392	-2.680	3.020
P55030.00 TERM	0.48	3.158	-0.814	3.261	1.913	-0.337	1.942	0.727	2.778	2.871	-1.392	-2.680	3.020
PNL DP2	0.48	6.642	-17.018	18.269	6.469	-12.076	13.700	15.268	6.122	16.449	-17.831	-1.657	17.907
PNL DP4	0.48	5.438	-46.978	47.292	8.944	-50.484	51.271	42.610	5.645	42.983	-47.066	19.394	50.905
PNL DPLC-1	0.21	1.057	-1.643	1.953	1.068	-1.678	1.989	1.424	0.918	1.695	0.887	1.772	1.982
PNL DPLC-2	0.21	1.001	-1.189	1.555	1.008	-1.313	1.655	1.031	0.869	1.348	0.532	1.593	1.680
PNL DPLC-3	0.21	1.092	-1.498	1.854	1.125	-1.429	1.819	1.299	0.949	1.608	-1.871	-0.268	1.890
PNL DPLC-4	0.21	0.610	-0.633	0.879	0.615	-0.623	0.875	0.548	0.529	0.762	-0.857	-0.222	0.885
PNL DPP1	0.48	10.388	-10.546	14.803	9.095	-6.063	10.930	9.182	9.477	13.196	-12.754	-7.388	14.739
PNL DPP1 PRI	0.48	10.388	-10.546	14.803	9.095	-6.063	10.930	9.182	9.477	13.196	-12.754	-7.388	14.739
SCR BLDG N OH DOOR DISC	0.48	1.227	-0.134	1.235	0.722	-0.058	0.724	0.113	1.064	1.070	-0.368	-1.045	1.109
SCR BLDG N OH DOOR TERM	0.48	1.196	-0.129	1.202	0.703	-0.055	0.705	0.109	1.036	1.042	-0.357	-1.019	1.079
SCR BLDG S OH DOOR DISC	0.48	1.334	-0.152	1.342	0.785	-0.065	0.788	0.128	1.156	1.163	-0.406	-1.135	1.206
SCR BLDG S OH DOOR TERM	0.48	1.296	-0.146	1.304	0.763	-0.062	0.765	0.123	1.124	1.130	-0.393	-1.104	1.172
SEP53000.00 DISC	0.48	0.736	-0.059	0.738	0.431	-0.026	0.432	0.050	0.638	0.640	-0.202	-0.629	0.661
SEP53000.00 TERM	0.48	0.725	-0.057	0.727	0.424	-0.025	0.425	0.049	0.628	0.630	-0.198	-0.620	0.651
SEP53010.00 DISC	0.48	0.736	-0.059	0.738	0.431	-0.026	0.432	0.050	0.638	0.640	-0.202	-0.629	0.661
SEP53010.00 TERM	0.48	0.724	-0.057	0.727	0.424	-0.025	0.425	0.049	0.628	0.630	-0.199	-0.620	0.651
SEP53020.00 DISC	0.48	0.713	-0.056	0.715	0.418	-0.025	0.418	0.048	0.618	0.620	-0.195	-0.610	0.640
SEP53020.00 TERM	0.48	0.702	-0.055	0.705	0.411	-0.024	0.412	0.047	0.609	0.610	-0.192	-0.601	0.631
SR-DAF	0.48	2.402	-7.829	8.189	3.250	-7.275	7.967	7.164	2.396	7.554	-8.630	0.741	8.662
SR-DAF PRI	0.48	2.402	-7.829	8.189	3.250	-7.275	7.967	7.164	2.396	7.554	-8.630	0.741	8.662
SWBD GDP	0.48	2.030	-23.494	23.582	3.332	-26.519	26.728	20.755	2.065	20.858	-22.698	12.603	25.962
SWBD-NB BUS A	0.48	1.817	-11.364	11.508	2.715	-14.054	14.313	10.772	1.975	10.951	-11.692	5.552	12.944
SWBD-NB BUS A PRI	0.48	1.817	-11.364	11.508	2.715	-14.054	14.313	10.772	1.975	10.951	-11.692	5.552	12.944
SWBD-NB BUS B	0.48	1.860	-11.304	11.456	2.699	-13.852	14.113	10.568	1.962	10.749	-11.588	5.593	12.867
SWBD-NB BUS B PRI	0.48	1.860	-11.304	11.456	2.699	-13.852	14.113	10.568	1.962	10.749	-11.588	5.593	12.867
TRANSF TA PRI	0.48	3.075	-44.503	44.609	4.333	-50.408	50.594	40.079	3.328	40.217	37.479	29.650	47.789
TRANSF TB PRI	0.48	3.546	-50.637	50.761	5.334	-57.668	57.914	46.172	3.945	46.340	-47.778	26.189	54.485
TRANSF TB SEC	2.40	0.526	-4.880	4.909	0.755	-5.914	5.962	4.480	0.553	4.514	3.990	3.759	5.482
TRANSF TC PRI	2.40	0.580	-4.093	4.133	1.131	-4.005	4.162	3.789	0.597	3.836	-4.365	1.132	4.510

1.5-4 Cycle - 3-Phase, LG, LL, & LLG Fault Currents

Prefault Voltage = 100 % of the Bus Nominal Voltage

Bus		3-Phase Fault			Line-to-Ground Fault			Line-to-Line Fault			*Line-to-Line-to-Ground		
ID	kV	Real	Imag.	Mag.	Real	Imag.	Mag.	Real	Imag.	Mag.	Real	Imag.	Mag.
TRANSF TC SEC	0.48	1.773	-11.558	11.693	2.567	-14.587	14.811	10.939	1.936	11.109	9.351	9.617	13.414
TRANSF TD PRI	2.40	0.626	-4.248	4.294	1.178	-4.085	4.251	3.921	0.637	3.973	-4.516	1.109	4.650
TRANSF TD SEC	0.48	1.814	-11.512	11.654	2.553	-14.393	14.618	10.752	1.922	10.922	9.187	9.677	13.344
XFMR T-C4 PRI	0.48	7.353	-3.373	8.090	4.896	-1.457	5.109	2.839	6.484	7.078	-4.627	-6.014	7.588
XFMR T-C4 SEC	0.21	0.612	-0.665	0.904	0.618	-0.679	0.918	0.576	0.531	0.784	0.265	0.878	0.917
XFMR T-LC1 PRI	0.48	9.419	-6.406	11.391	7.016	-3.091	7.667	5.467	8.428	10.046	-8.097	-7.409	10.975
XFMR T-LC1 SEC	0.21	1.058	-1.664	1.972	1.068	-1.716	2.021	1.443	0.919	1.711	0.908	1.801	2.017
XFMR T-LC2 PRI	0.48	2.839	-0.731	2.932	1.719	-0.323	1.749	0.618	2.469	2.545	-1.232	-2.364	2.666
XFMR T-LC2 SEC	0.21	1.001	-1.194	1.559	1.007	-1.323	1.662	1.035	0.869	1.352	0.538	1.602	1.690

All fault currents are symmetrical momentary (1.5-4 Cycle network) values in rms kA

* LLG fault current is the larger of the two faulted line currents

Short-Circuit Summary Report

Bus		Positive Sequence Imp. (ohm)			Negative Sequence Imp. (ohm)			Zero Sequence Imp. (ohm)		
ID	kV	Resistance	Reactance	Impedance	Resistance	Reactance	Impedance	Resistance	Reactance	Impedance
ATS-L BUS A	0.480	0.00307	0.01038	0.01083	0.00292	0.00902	0.00948	0.00544	0.00961	0.01104
ATS-L BUS B	0.480	0.00526	0.01086	0.01206	0.00509	0.00954	0.01081	0.01228	0.01064	0.01625
ATS-L SEC	0.480	0.00307	0.01038	0.01083	0.00292	0.00902	0.00948	0.00544	0.00961	0.01104
B20100.00 TERMINALS	2.400	0.05900	0.34298	0.34802	0.06096	0.29615	0.30236	0.21464	0.39405	0.44871
B20200.00 TERMINALS	2.400	0.06098	0.34468	0.35004	0.06431	0.29929	0.30612	0.21673	0.39668	0.45202
B20400.00 TERMINALS	2.400	0.06098	0.33229	0.33784	0.06237	0.28874	0.29539	0.22195	0.40325	0.46030
B52180.00 DISC	0.480	0.04513	0.02246	0.05041	0.04497	0.02108	0.04967	0.13796	0.03931	0.14346
B52180.00 TERM	0.480	0.04668	0.02276	0.05194	0.04652	0.02138	0.05120	0.14285	0.04005	0.14835
B52190.00 DISC	0.480	0.06415	0.02226	0.06790	0.06396	0.02091	0.06730	0.19782	0.03869	0.20156
B52190.00 TERM	0.480	0.06570	0.02256	0.06947	0.06551	0.02121	0.06886	0.20270	0.03942	0.20650
B52210.00 DISC	0.480	0.17764	0.02490	0.17938	0.17740	0.02354	0.17895	0.55534	0.04514	0.55717
B52210.00 TERM	0.480	0.18154	0.02523	0.18329	0.18129	0.02386	0.18286	0.56763	0.04594	0.56948
B52220.00 DISC	0.480	0.18932	0.02583	0.19107	0.18908	0.02441	0.19064	0.59219	0.04754	0.59410
B52220.00 TERM	0.480	0.19322	0.02616	0.19498	0.19297	0.02473	0.19455	0.60448	0.04834	0.60641
BLWR BLDG TROLLEY	0.480	0.06094	0.01788	0.06351	0.06079	0.01652	0.06299	0.18773	0.02806	0.18982
BSN51240.00 DISC	0.480	0.36214	0.02910	0.36330	0.36199	0.02774	0.36305	1.13651	0.05566	1.13788
BSN51240.00 TERM	0.480	0.36814	0.02942	0.36931	0.36799	0.02805	0.36905	1.15541	0.05643	1.15679
BSN51250.00 DISC	0.480	0.36216	0.02916	0.36333	0.36199	0.02784	0.36306	1.13652	0.05566	1.13788
BSN51250.00 TERM	0.480	0.36816	0.02947	0.36933	0.36799	0.02815	0.36907	1.15542	0.05643	1.15679
BSN51260.00 DISC	0.480	0.36214	0.02910	0.36330	0.36199	0.02774	0.36305	1.13651	0.05566	1.13788
BSN51260.00 TERM	0.480	0.36814	0.02942	0.36931	0.36799	0.02805	0.36905	1.15541	0.05643	1.15679
BSN51270.00 DISC	0.480	0.36216	0.02916	0.36333	0.36199	0.02784	0.36306	1.13652	0.05566	1.13788
BSN51270.00 TERM	0.480	0.36816	0.02947	0.36933	0.36799	0.02815	0.36907	1.15542	0.05643	1.15679
COGEN TIE BUS	0.480	0.00038	0.00545	0.00546	0.00050	0.00487	0.00490	0.00044	0.00397	0.00400
COM53030.00 DISC	0.480	0.35013	0.02848	0.35129	0.34998	0.02711	0.35102	1.09871	0.05411	1.10004
COM53030.00 TERM	0.480	0.35613	0.02879	0.35729	0.35598	0.02742	0.35703	1.11761	0.05488	1.11896
COM53040.00 DISC	0.480	0.32015	0.02695	0.32128	0.31999	0.02563	0.32101	1.00422	0.05023	1.00547
COM53040.00 TERM	0.480	0.32615	0.02727	0.32729	0.32598	0.02595	0.32702	1.02312	0.05101	1.02439
CON51300.00 DISC	0.480	0.35013	0.02848	0.35128	0.34996	0.02710	0.35101	1.09871	0.05411	1.10004
CON51300.00 TERM	0.480	0.35613	0.02880	0.35729	0.35596	0.02742	0.35702	1.11761	0.05488	1.11896
CON51320.00 DISC	0.480	0.35013	0.02848	0.35128	0.34996	0.02710	0.35101	1.09871	0.05411	1.10004
CON51320.00 TERM	0.480	0.35613	0.02880	0.35729	0.35596	0.02742	0.35702	1.11761	0.05488	1.11896
CON53020.00 DISC	0.480	0.37414	0.02980	0.37533	0.37397	0.02846	0.37505	1.17432	0.05721	1.17571
CON53020.00 TERM	0.480	0.38014	0.03011	0.38133	0.37996	0.02878	0.38105	1.19322	0.05798	1.19462
CON53030.00 DISC	0.480	0.37414	0.02980	0.37533	0.37397	0.02846	0.37505	1.17432	0.05721	1.17571

Bus		Positive Sequence Imp. (ohm)			Negative Sequence Imp. (ohm)			Zero Sequence Imp. (ohm)		
ID	kV	Resistance	Reactance	Impedance	Resistance	Reactance	Impedance	Resistance	Reactance	Impedance
CON53030.00 TERM	0.480	0.38014	0.03011	0.38133	0.37996	0.02878	0.38105	1.19322	0.05798	1.19462
EFF PS SWGR BUS A	0.480	0.00264	0.01476	0.01500	0.00299	0.01462	0.01492	0.00197	0.01306	0.01321
EFF PS SWGR BUS A PRI	0.480	0.00264	0.01476	0.01500	0.00299	0.01462	0.01492	0.00197	0.01306	0.01321
EFF PS SWGR BUS B	0.480	0.00261	0.01477	0.01500	0.00297	0.01462	0.01492	0.00196	0.01306	0.01321
EFF PS SWGR BUS B PRI	0.480	0.00261	0.01477	0.01500	0.00297	0.01462	0.01492	0.00196	0.01306	0.01321
EFF PUMP NO. 2 VFD PRI	0.480	0.00312	0.01534	0.01566	0.00349	0.01517	0.01556	0.00359	0.01470	0.01513
EFF PUMP NO. 4 VFD PRI	0.480	0.00314	0.01534	0.01566	0.00352	0.01516	0.01556	0.00361	0.01470	0.01513
F52410.00 DISC	0.480	0.44313	0.02796	0.44401	0.44298	0.02659	0.44378	1.39166	0.05284	1.39267
F52410.00 STR	0.480	0.41313	0.02694	0.41401	0.41298	0.02557	0.41377	1.29716	0.05033	1.29814
F52420.00 DISC	0.480	0.55313	0.03170	0.55404	0.55298	0.03033	0.55381	1.73816	0.06204	1.73927
F52420.00 STR	0.480	0.52313	0.03068	0.52403	0.52298	0.02931	0.52380	1.64366	0.05953	1.64474
F54330.00 DISC	0.480	0.11015	0.01593	0.11130	0.10999	0.01461	0.11096	0.34272	0.02311	0.34349
F54330.00 TERM	0.480	0.11615	0.01624	0.11728	0.11599	0.01492	0.11694	0.36162	0.02389	0.36240
F55010.00 TERM	0.480	0.06655	0.02125	0.06986	0.06350	0.02121	0.06694	0.21073	0.03174	0.21311
GEN NO. 2 TERM	0.480	0.00153	0.01261	0.01270	0.00179	0.01208	0.01222	0.00241	0.00927	0.00958
GEN NO. 3 TERM	0.480	0.00144	0.01245	0.01254	0.00170	0.01193	0.01205	0.00228	0.00905	0.00933
GRIT SCR TROLLEY	0.480	0.37414	0.02973	0.37532	0.37399	0.02837	0.37506	1.17431	0.05721	1.17571
HVAC56100.00 DISC	0.480	0.04434	0.01594	0.04711	0.04419	0.01457	0.04653	0.13544	0.02327	0.13743
HVAC56100.00 TERM	0.480	0.04824	0.01626	0.05090	0.04809	0.01490	0.05034	0.14773	0.02407	0.14968
HVAC56110.00 DISC	0.480	0.10914	0.01838	0.11067	0.10898	0.01701	0.11030	0.33956	0.02928	0.34082
HVAC56110.00 TERM	0.480	0.11514	0.01869	0.11664	0.11498	0.01733	0.11628	0.35846	0.03005	0.35972
HW ELEVATOR	0.480	0.03004	0.01560	0.03385	0.02989	0.01424	0.03311	0.09040	0.02245	0.09314
HW GATES	0.480	0.66314	0.03544	0.66408	0.66299	0.03407	0.66386	2.08466	0.07124	2.08588
INFL PUMP 1 TERMINALS	0.480	0.00366	0.01294	0.01344	0.00330	0.01124	0.01172	0.00803	0.01652	0.01837
INFL PUMP 1 VFD PRI	0.480	0.00212	0.01028	0.01049	0.00194	0.00887	0.00908	0.00255	0.00944	0.00978
INFL PUMP 2 TERMINALS	0.480	0.00570	0.01353	0.01468	0.00506	0.01184	0.01287	0.01515	0.01785	0.02341
INFL PUMP 2 VFD	0.480	0.00233	0.01066	0.01091	0.00213	0.00926	0.00950	0.00324	0.01032	0.01082
INFL PUMP 2 VFD PRI	0.480	0.00233	0.01066	0.01091	0.00213	0.00926	0.00950	0.00324	0.01032	0.01082
INFL PUMP 3 TERMINALS	0.480	0.00550	0.01315	0.01426	0.00491	0.01146	0.01247	0.01446	0.01696	0.02229
INFL PUMP 3 VFD	0.480	0.00212	0.01028	0.01049	0.00195	0.00887	0.00908	0.00255	0.00944	0.00978
INFL PUMP 3 VFD PRI	0.480	0.00212	0.01028	0.01049	0.00195	0.00887	0.00908	0.00255	0.00944	0.00978
INFL PUMP 4 TERMINALS	0.480	0.00564	0.01342	0.01456	0.00501	0.01174	0.01276	0.01492	0.01755	0.02304
INFL PUMP 4 VFD	0.480	0.00227	0.01055	0.01079	0.00207	0.00916	0.00939	0.00301	0.01003	0.01047
INFL PUMP 4 VFD PRI	0.480	0.00227	0.01055	0.01079	0.00207	0.00916	0.00939	0.00301	0.01003	0.01047
INFL PUMP 5 TERMINALS	0.480	0.00550	0.01315	0.01426	0.00491	0.01146	0.01247	0.01446	0.01696	0.02229
INFL PUMP 5 VFD	0.480	0.00212	0.01028	0.01049	0.00195	0.00887	0.00908	0.00255	0.00944	0.00978
INFL PUMP 5 VFD PRI	0.480	0.00212	0.01028	0.01049	0.00195	0.00887	0.00908	0.00255	0.00944	0.00978

Bus		Positive Sequence Imp. (ohm)			Negative Sequence Imp. (ohm)			Zero Sequence Imp. (ohm)		
ID	kV	Resistance	Reactance	Impedance	Resistance	Reactance	Impedance	Resistance	Reactance	Impedance
INFL PUMP 6 TERMINALS	0.480	0.00393	0.01342	0.01399	0.00352	0.01171	0.01223	0.00895	0.01770	0.01984
INFL PUMP 6 VFD PRI	0.480	0.00240	0.01077	0.01103	0.00218	0.00936	0.00961	0.00347	0.01062	0.01117
LCP-HWOCS	0.480	0.06428	0.02027	0.06740	0.06144	0.02016	0.06466	0.20317	0.02963	0.20532
MAIN SWGR "FILTER"	0.480	0.00043	0.00620	0.00621	0.00056	0.00570	0.00572	0.00042	0.00448	0.00450
MAIN SWGR "SLUDGE"	0.480	0.00038	0.00545	0.00546	0.00050	0.00487	0.00490	0.00044	0.00397	0.00400
MAIN SWGR BUS A PRI	0.480	0.00043	0.00620	0.00621	0.00056	0.00570	0.00572	0.00042	0.00448	0.00450
MAIN SWGR BUS B PRI	0.480	0.00038	0.00545	0.00546	0.00050	0.00487	0.00490	0.00044	0.00397	0.00400
MCC-DP2C	0.480	0.00729	0.01725	0.01872	0.00690	0.01570	0.01715	0.02419	0.03467	0.04228
MCC-DP4A	0.480	0.15992	0.02662	0.16212	0.16004	0.02605	0.16214	0.50300	0.05606	0.50611
MCC-DP4B	0.480	0.00094	0.00630	0.00637	0.00106	0.00573	0.00583	0.00221	0.00608	0.00647
MCC-GE	0.480	0.00220	0.02052	0.02064	0.00245	0.01819	0.01836	0.00518	0.02295	0.02353
MCC-GE PRI	0.480	0.00159	0.00701	0.00718	0.00166	0.00635	0.00657	0.00443	0.00797	0.00912
MCC-HW BUS A	0.480	0.00214	0.01020	0.01042	0.00199	0.00884	0.00906	0.00251	0.00917	0.00950
MCC-HW BUS A PRI	0.480	0.00214	0.01020	0.01042	0.00199	0.00884	0.00906	0.00251	0.00917	0.00950
MCC-HW BUS B	0.480	0.00216	0.01026	0.01048	0.00199	0.00894	0.00916	0.00252	0.00917	0.00950
MCC-HW BUS B PRI	0.480	0.00216	0.01026	0.01048	0.00199	0.00894	0.00916	0.00252	0.00917	0.00950
MCC-NA BUS A	2.400	0.04565	0.32992	0.33307	0.04897	0.28453	0.28872	0.16660	0.33356	0.37285
MCC-NA BUS A PRI	2.400	0.04565	0.32992	0.33307	0.04897	0.28453	0.28872	0.16660	0.33356	0.37285
MCC-NA BUS B	2.400	0.04555	0.31719	0.32044	0.04849	0.27525	0.27948	0.16660	0.33356	0.37285
MCC-NA BUS B PRI	2.400	0.04555	0.31719	0.32044	0.04849	0.27525	0.27948	0.16660	0.33356	0.37285
MCC-NC	0.480	0.00391	0.02395	0.02427	0.00418	0.01944	0.01988	0.00357	0.01451	0.01494
MCC-ND	0.480	0.00407	0.02407	0.02441	0.00435	0.02019	0.02065	0.00366	0.01452	0.01498
MCC-NE	0.480	0.00478	0.02503	0.02548	0.00508	0.02058	0.02120	0.00618	0.01699	0.01808
MCC-NF	0.480	0.00490	0.02512	0.02559	0.00520	0.02129	0.02191	0.00618	0.01699	0.01808
MCC-NG BUS A	0.480	0.01453	0.03753	0.04024	0.01483	0.03308	0.03625	0.03690	0.04774	0.06034
MCC-NG BUS A PRI	0.480	0.01453	0.03753	0.04024	0.01483	0.03308	0.03625	0.03690	0.04774	0.06034
MCC-NG BUS B	0.480	0.01409	0.03707	0.03965	0.01400	0.03247	0.03537	0.03690	0.04774	0.06034
MCC-NG BUS B PRI	0.480	0.01409	0.03707	0.03965	0.01400	0.03247	0.03537	0.03690	0.04774	0.06034
MCC-SH BUS A	0.480	0.01598	0.03939	0.04251	0.01630	0.03494	0.03855	0.04150	0.05236	0.06681
MCC-SH BUS A PRI	0.480	0.01598	0.03939	0.04251	0.01630	0.03494	0.03855	0.04150	0.05236	0.06681
MCC-SH BUS B	0.480	0.01618	0.03964	0.04282	0.01650	0.03519	0.03886	0.04212	0.05297	0.06767
MCC-SH BUS B PRI	0.480	0.01563	0.03887	0.04189	0.01592	0.03504	0.03849	0.03997	0.05082	0.06465
MS-HW BUS A	0.480	0.00179	0.00972	0.00988	0.00164	0.00836	0.00852	0.00141	0.00796	0.00808
MS-HW BUS A PRI	0.480	0.00179	0.00972	0.00988	0.00164	0.00836	0.00852	0.00141	0.00796	0.00808
MS-HW BUS B	0.480	0.00181	0.00977	0.00993	0.00164	0.00845	0.00861	0.00141	0.00796	0.00808
MS-HW BUS B PRI	0.480	0.00181	0.00977	0.00993	0.00164	0.00845	0.00861	0.00141	0.00796	0.00808
P52100.00 DISC	0.480	0.06613	0.02845	0.07199	0.06596	0.02705	0.07129	0.20411	0.05404	0.21115

Bus		Positive Sequence Imp. (ohm)			Negative Sequence Imp. (ohm)			Zero Sequence Imp. (ohm)		
ID	kV	Resistance	Reactance	Impedance	Resistance	Reactance	Impedance	Resistance	Reactance	Impedance
P52100.00 TERM	0.480	0.06713	0.02873	0.07302	0.06695	0.02733	0.07232	0.20726	0.05474	0.21437
P52110.00 DISC	0.480	0.09824	0.02887	0.10240	0.09802	0.02749	0.10180	0.30523	0.05492	0.31013
P52110.00 TERM	0.480	0.09979	0.02917	0.10397	0.09957	0.02779	0.10337	0.31011	0.05566	0.31507
P52120.00 DISC	0.480	0.06213	0.02731	0.06787	0.06196	0.02591	0.06716	0.19151	0.05123	0.19825
P52120.00 TERM	0.480	0.06313	0.02759	0.06890	0.06296	0.02620	0.06819	0.19466	0.05193	0.20147
P52130.00 DISC	0.480	0.09205	0.02767	0.09611	0.09183	0.02630	0.09552	0.28570	0.05197	0.29039
P52130.00 TERM	0.480	0.09360	0.02797	0.09768	0.09337	0.02660	0.09709	0.29058	0.05271	0.29533
P52140.00 DISC	0.480	0.05213	0.02446	0.05758	0.05197	0.02307	0.05686	0.16001	0.04422	0.16601
P52140.00 TERM	0.480	0.05313	0.02474	0.05861	0.05297	0.02335	0.05789	0.16316	0.04492	0.16923
P52150.00 DISC	0.480	0.07655	0.02466	0.08042	0.07635	0.02331	0.07983	0.23688	0.04459	0.24104
P52150.00 TERM	0.480	0.07810	0.02496	0.08199	0.07790	0.02361	0.08139	0.24176	0.04533	0.24597
P52160.00 DISC	0.480	0.07343	0.02401	0.07726	0.07325	0.02261	0.07666	0.22711	0.04311	0.23116
P52160.00 TERM	0.480	0.07498	0.02431	0.07882	0.07479	0.02291	0.07822	0.23199	0.04385	0.23610
P52170.00 DISC	0.480	0.06880	0.02316	0.07259	0.06861	0.02181	0.07199	0.21246	0.04090	0.21636
P52170.00 TERM	0.480	0.07035	0.02346	0.07416	0.07016	0.02211	0.07356	0.21735	0.04164	0.22130
P52220.00 DISC	0.480	0.40412	0.03132	0.40533	0.40395	0.02994	0.40506	1.26881	0.06108	1.27028
P52220.00 TERM	0.480	0.41012	0.03164	0.41134	0.40995	0.03025	0.41107	1.28771	0.06186	1.28920
P52230.00 DISC	0.480	0.40412	0.03132	0.40533	0.40395	0.02994	0.40506	1.26881	0.06108	1.27028
P52230.00 TERM	0.480	0.41012	0.03164	0.41134	0.40995	0.03025	0.41107	1.28771	0.06186	1.28920
P52240.00 DISC	0.480	0.32015	0.02696	0.32128	0.31997	0.02563	0.32100	1.00422	0.05023	1.00547
P52240.00 TERM	0.480	0.32615	0.02727	0.32729	0.32597	0.02594	0.32700	1.02312	0.05101	1.02439
P52250.00 DISC	0.480	0.32015	0.02696	0.32128	0.31997	0.02563	0.32100	1.00422	0.05023	1.00547
P52250.00 TERM	0.480	0.32615	0.02727	0.32729	0.32597	0.02594	0.32700	1.02312	0.05101	1.02439
P54080.00 DISC	0.480	0.19413	0.02029	0.19519	0.19398	0.01892	0.19490	0.60731	0.03396	0.60826
P54080.00 TERM	0.480	0.20013	0.02060	0.20119	0.19998	0.01923	0.20090	0.62621	0.03474	0.62718
P54090.00 DISC	0.480	0.19413	0.02029	0.19519	0.19398	0.01892	0.19490	0.60731	0.03396	0.60826
P54090.00 TERM	0.480	0.20013	0.02060	0.20119	0.19998	0.01923	0.20090	0.62621	0.03474	0.62718
P55020.00 TERM	0.480	0.08228	0.02122	0.08497	0.07944	0.02110	0.08219	0.25987	0.03196	0.26183
P55030.00 TERM	0.480	0.08228	0.02122	0.08497	0.07944	0.02110	0.08219	0.25987	0.03196	0.26183
PNL DP2	0.480	0.00552	0.01413	0.01517	0.00534	0.01295	0.01401	0.01780	0.02641	0.03185
PNL DP4	0.480	0.00067	0.00582	0.00586	0.00079	0.00525	0.00531	0.00136	0.00490	0.00508
PNL DPLC-1	0.208	0.03326	0.05171	0.06149	0.03324	0.05146	0.06126	0.03078	0.04961	0.05839
PNL DPLC-2	0.208	0.04975	0.05910	0.07725	0.04972	0.05884	0.07704	0.03310	0.05475	0.06398
PNL DPLC-3	0.208	0.03816	0.05235	0.06479	0.03814	0.05210	0.06456	0.04621	0.05119	0.06896
PNL DPLC-4	0.208	0.09485	0.09836	0.13664	0.09482	0.09810	0.13644	0.09954	0.09661	0.13871
PNL DPP1	0.480	0.01314	0.01334	0.01872	0.01299	0.01197	0.01766	0.03716	0.01688	0.04082
PNL DPP1 PRI	0.480	0.01314	0.01334	0.01872	0.01299	0.01197	0.01766	0.03716	0.01688	0.04082

Bus		Positive Sequence Imp. (ohm)			Negative Sequence Imp. (ohm)			Zero Sequence Imp. (ohm)		
ID	kV	Resistance	Reactance	Impedance	Resistance	Reactance	Impedance	Resistance	Reactance	Impedance
SCR BLDG N OH DOOR DISC	0.480	0.22314	0.02436	0.22446	0.22299	0.02300	0.22417	0.69866	0.04400	0.70005
SCR BLDG N OH DOOR TERM	0.480	0.22914	0.02468	0.23046	0.22899	0.02331	0.23017	0.71756	0.04477	0.71896
SCR BLDG S OH DOOR DISC	0.480	0.20514	0.02342	0.20647	0.20499	0.02205	0.20617	0.64196	0.04167	0.64332
SCR BLDG S OH DOOR TERM	0.480	0.21114	0.02373	0.21247	0.21099	0.02237	0.21217	0.66086	0.04245	0.66223
SEP53000.00 DISC	0.480	0.37413	0.02973	0.37531	0.37398	0.02837	0.37506	1.17431	0.05721	1.17571
SEP53000.00 TERM	0.480	0.38013	0.03005	0.38132	0.37998	0.02868	0.38106	1.19321	0.05798	1.19462
SEP53010.00 DISC	0.480	0.37415	0.02979	0.37534	0.37399	0.02847	0.37507	1.17432	0.05721	1.17571
SEP53010.00 TERM	0.480	0.38015	0.03010	0.38134	0.37999	0.02878	0.38108	1.19322	0.05798	1.19462
SEP53020.00 DISC	0.480	0.38615	0.03042	0.38735	0.38599	0.02910	0.38708	1.21212	0.05876	1.21354
SEP53020.00 TERM	0.480	0.39215	0.03073	0.39335	0.39199	0.02941	0.39309	1.23102	0.05953	1.23246
SR-DAF	0.480	0.00993	0.03235	0.03384	0.01023	0.02791	0.02972	0.02241	0.03501	0.04157
SR-DAF PRI	0.480	0.00993	0.03235	0.03384	0.01023	0.02791	0.02972	0.02241	0.03501	0.04157
SWBD GDP	0.480	0.00101	0.01171	0.01175	0.00127	0.01119	0.01126	0.00160	0.00796	0.00812
SWBD-NB BUS A	0.480	0.00380	0.02378	0.02408	0.00410	0.01933	0.01976	0.00311	0.01392	0.01426
SWBD-NB BUS A PRI	0.480	0.00380	0.02378	0.02408	0.00410	0.01933	0.01976	0.00311	0.01392	0.01426
SWBD-NB BUS B	0.480	0.00393	0.02387	0.02419	0.00422	0.02004	0.02048	0.00311	0.01392	0.01426
SWBD-NB BUS B PRI	0.480	0.00393	0.02387	0.02419	0.00422	0.02004	0.02048	0.00311	0.01392	0.01426
TRANSF TA PRI	0.480	0.00043	0.00620	0.00621	0.00056	0.00570	0.00572	0.00042	0.00448	0.00450
TRANSF TB PRI	0.480	0.00038	0.00545	0.00546	0.00050	0.00487	0.00490	0.00044	0.00397	0.00400
TRANSF TB SEC	2.400	0.03027	0.28065	0.28228	0.03490	0.24705	0.24950	0.02310	0.16398	0.16560
TRANSF TC PRI	2.400	0.04707	0.33190	0.33522	0.05027	0.28618	0.29056	0.17413	0.34322	0.38486
TRANSF TC SEC	0.480	0.00359	0.02343	0.02370	0.00393	0.01912	0.01952	0.00220	0.01274	0.01293
TRANSF TD PRI	2.400	0.04703	0.31924	0.32269	0.04987	0.27703	0.28148	0.17413	0.34322	0.38486
TRANSF TD SEC	0.480	0.00370	0.02349	0.02378	0.00403	0.01977	0.02018	0.00220	0.01274	0.01293
XFMR T-C4 PRI	0.480	0.03114	0.01428	0.03426	0.03099	0.01292	0.03357	0.09386	0.01920	0.09581
XFMR T-C4 SEC	0.208	0.08995	0.09772	0.13282	0.08992	0.09746	0.13261	0.08410	0.09504	0.12691
XFMR T-LC1 PRI	0.480	0.02012	0.01368	0.02433	0.01997	0.01232	0.02346	0.05915	0.01773	0.06175
XFMR T-LC1 SEC	0.208	0.03266	0.05139	0.06089	0.03264	0.05113	0.06066	0.02889	0.04882	0.05672
XFMR T-LC2 PRI	0.480	0.09154	0.02358	0.09452	0.09139	0.02221	0.09405	0.28412	0.04207	0.28722
XFMR T-LC2 SEC	0.208	0.04950	0.05904	0.07704	0.04947	0.05878	0.07683	0.03231	0.05461	0.06345

APPENDIX B5 – SHORT CIRCUIT STUDY (30 CYCLE SHORT-CIRCUIT SUMMARY REPORT)

Short-Circuit Summary Report

30 Cycle - 3-Phase, LG, LL, & LLG Fault Currents

Prefault Voltage = 100 % of the Bus Nominal Voltage

Bus		3-Phase Fault			Line-to-Ground Fault			Line-to-Line Fault			*Line-to-Line-to-Ground		
ID	kV	Real	Imag.	Mag.	Real	Imag.	Mag.	Real	Imag.	Mag.	Real	Imag.	Mag.
ATS-L BUS A	0.48	6.528	-21.977	22.926	8.354	-22.218	23.737	19.033	5.653	19.854	-24.193	5.441	24.797
ATS-L BUS B	0.48	8.863	-18.934	20.905	11.148	-16.424	19.851	16.397	7.676	18.105	-22.611	-0.822	22.626
ATS-L SEC	0.48	6.528	-21.977	22.926	8.354	-22.218	23.737	19.033	5.653	19.854	-24.193	5.441	24.797
B20100.00 TERMINALS	2.40	0.592	-3.447	3.498	0.965	-3.251	3.392	2.985	0.513	3.029	-3.616	0.985	3.748
B20200.00 TERMINALS	2.40	0.596	-3.440	3.491	0.967	-3.237	3.379	2.979	0.516	3.024	-3.609	0.972	3.738
B20400.00 TERMINALS	2.40	0.639	-3.534	3.591	1.020	-3.276	3.431	3.082	0.565	3.133	-3.709	0.909	3.819
B52180.00 DISC	0.48	4.793	-2.492	5.403	3.176	-1.202	3.396	2.158	4.151	4.679	-3.333	-3.778	5.037
B52180.00 TERM	0.48	4.676	-2.381	5.248	3.083	-1.145	3.289	2.062	4.050	4.544	-3.200	-3.694	4.887
B52190.00 DISC	0.48	3.796	-1.377	4.038	2.381	-0.623	2.461	1.192	3.287	3.497	-2.055	-3.098	3.718
B52190.00 TERM	0.48	3.716	-1.333	3.948	2.326	-0.603	2.403	1.155	3.218	3.419	-1.997	-3.035	3.633
B52210.00 DISC	0.48	1.524	-0.223	1.540	0.902	-0.096	0.907	0.193	1.320	1.334	-0.513	-1.291	1.389
B52210.00 TERM	0.48	1.492	-0.216	1.508	0.883	-0.093	0.888	0.187	1.292	1.306	-0.500	-1.264	1.359
B52220.00 DISC	0.48	1.432	-0.204	1.446	0.846	-0.088	0.851	0.177	1.240	1.252	-0.477	-1.213	1.304
B52220.00 TERM	0.48	1.403	-0.198	1.417	0.829	-0.086	0.834	0.172	1.215	1.227	-0.466	-1.189	1.277
BLWR BLDG TROLLEY	0.48	4.121	-1.283	4.316	2.562	-0.547	2.620	1.111	3.569	3.737	-2.035	-3.409	3.971
BSN51240.00 DISC	0.48	0.759	-0.063	0.762	0.445	-0.028	0.446	0.055	0.657	0.660	-0.212	-0.649	0.683
BSN51240.00 TERM	0.48	0.747	-0.062	0.749	0.438	-0.027	0.438	0.054	0.647	0.649	-0.208	-0.639	0.672
BSN51250.00 DISC	0.48	0.759	-0.063	0.762	0.445	-0.028	0.446	0.055	0.657	0.660	-0.212	-0.649	0.683
BSN51250.00 TERM	0.48	0.747	-0.062	0.749	0.438	-0.027	0.438	0.054	0.647	0.649	-0.208	-0.639	0.672
BSN51260.00 DISC	0.48	0.759	-0.063	0.762	0.445	-0.028	0.446	0.055	0.657	0.660	-0.212	-0.649	0.683
BSN51260.00 TERM	0.48	0.747	-0.062	0.749	0.438	-0.027	0.438	0.054	0.647	0.649	-0.208	-0.639	0.672
BSN51270.00 DISC	0.48	0.759	-0.063	0.762	0.445	-0.028	0.446	0.055	0.657	0.660	-0.212	-0.649	0.683
BSN51270.00 TERM	0.48	0.747	-0.062	0.749	0.438	-0.027	0.438	0.054	0.647	0.649	-0.208	-0.639	0.672
COGEN TIE BUS	0.48	2.843	-44.458	44.549	4.013	-51.154	51.311	39.230	2.663	39.321	-41.458	26.247	49.068
COM53030.00 DISC	0.48	0.785	-0.066	0.788	0.460	-0.029	0.461	0.058	0.680	0.682	-0.220	-0.671	0.706
COM53030.00 TERM	0.48	0.772	-0.065	0.775	0.452	-0.028	0.453	0.056	0.668	0.671	-0.216	-0.660	0.694
COM53040.00 DISC	0.48	0.858	-0.075	0.861	0.503	-0.033	0.504	0.065	0.743	0.746	-0.243	-0.733	0.772
COM53040.00 TERM	0.48	0.842	-0.073	0.846	0.494	-0.032	0.495	0.063	0.729	0.732	-0.238	-0.720	0.758
CON51300.00 DISC	0.48	0.785	-0.066	0.788	0.460	-0.029	0.461	0.058	0.680	0.682	-0.220	-0.671	0.706
CON51300.00 TERM	0.48	0.772	-0.065	0.775	0.452	-0.028	0.453	0.056	0.668	0.671	-0.216	-0.660	0.694
CON51320.00 DISC	0.48	0.785	-0.066	0.788	0.460	-0.029	0.461	0.058	0.680	0.682	-0.220	-0.671	0.706

30 Cycle - 3-Phase, LG, LL, & LLG Fault Currents

Prefault Voltage = 100 % of the Bus Nominal Voltage

Bus		3-Phase Fault			Line-to-Ground Fault			Line-to-Line Fault			*Line-to-Line-to-Ground		
ID	kV	Real	Imag.	Mag.	Real	Imag.	Mag.	Real	Imag.	Mag.	Real	Imag.	Mag.
CON51320.00 TERM	0.48	0.772	-0.065	0.775	0.452	-0.028	0.453	0.056	0.668	0.671	-0.216	-0.660	0.694
CON53020.00 DISC	0.48	0.735	-0.061	0.737	0.431	-0.027	0.431	0.053	0.636	0.639	-0.205	-0.628	0.661
CON53020.00 TERM	0.48	0.723	-0.059	0.726	0.424	-0.026	0.425	0.051	0.626	0.629	-0.201	-0.619	0.650
CON53030.00 DISC	0.48	0.735	-0.061	0.737	0.431	-0.027	0.431	0.053	0.636	0.639	-0.205	-0.628	0.661
CON53030.00 TERM	0.48	0.723	-0.059	0.726	0.424	-0.026	0.425	0.051	0.626	0.629	-0.201	-0.619	0.650
EFF PS SWGR BUS A	0.48	2.660	-17.398	17.600	2.800	-18.388	18.600	15.067	2.304	15.242	13.589	12.053	18.164
EFF PS SWGR BUS A PRI	0.48	2.660	-17.398	17.600	2.800	-18.388	18.600	15.067	2.304	15.242	13.589	12.053	18.164
EFF PS SWGR BUS B	0.48	2.633	-17.402	17.600	2.774	-18.392	18.600	15.071	2.280	15.242	13.605	12.031	18.161
EFF PS SWGR BUS B PRI	0.48	2.633	-17.402	17.600	2.774	-18.392	18.600	15.071	2.280	15.242	13.605	12.031	18.161
EFF PUMP NO. 2 VFD PRI	0.48	2.931	-16.550	16.808	3.359	-16.959	17.289	14.333	2.538	14.556	-16.248	6.148	17.372
EFF PUMP NO. 4 VFD PRI	0.48	2.956	-16.545	16.807	3.382	-16.954	17.288	14.329	2.560	14.555	-16.254	6.124	17.369
F52410.00 DISC	0.48	0.622	-0.041	0.624	0.364	-0.018	0.364	0.035	0.539	0.540	-0.164	-0.533	0.558
F52410.00 STR	0.48	0.667	-0.045	0.669	0.390	-0.020	0.391	0.039	0.578	0.579	-0.177	-0.572	0.599
F52420.00 DISC	0.48	0.499	-0.030	0.500	0.292	-0.013	0.292	0.026	0.432	0.433	-0.129	-0.428	0.447
F52420.00 STR	0.48	0.527	-0.032	0.528	0.308	-0.014	0.309	0.028	0.457	0.458	-0.137	-0.452	0.473
F54330.00 DISC	0.48	2.449	-0.378	2.478	1.460	-0.148	1.467	0.328	2.121	2.146	-0.847	-2.080	2.245
F54330.00 TERM	0.48	2.327	-0.347	2.352	1.385	-0.137	1.391	0.301	2.015	2.037	-0.793	-1.977	2.130
F55010.00 TERM	0.48	3.706	-1.112	3.869	2.289	-0.480	2.339	0.963	3.209	3.350	-1.787	-3.068	3.550
GEN NO. 2 TERM	0.48	2.189	-18.883	19.009	3.566	-22.251	22.535	17.399	2.195	17.537	-19.216	9.622	21.491
GEN NO. 3 TERM	0.48	2.112	-19.139	19.256	3.479	-22.639	22.905	17.635	2.128	17.763	-19.402	9.953	21.806
GRIT SCR TROLLEY	0.48	0.735	-0.061	0.737	0.431	-0.027	0.431	0.053	0.636	0.639	-0.205	-0.628	0.661
HVAC56100.00 DISC	0.48	5.404	-2.072	5.787	3.470	-0.888	3.582	1.794	4.680	5.012	-3.060	-4.424	5.379
HVAC56100.00 TERM	0.48	5.049	-1.814	5.365	3.208	-0.773	3.300	1.571	4.372	4.646	-2.737	-4.150	4.971
HVAC56110.00 DISC	0.48	2.452	-0.438	2.491	1.466	-0.180	1.477	0.380	2.124	2.157	-0.902	-2.072	2.260
HVAC56110.00 TERM	0.48	2.330	-0.401	2.364	1.391	-0.165	1.401	0.348	2.018	2.048	-0.842	-1.970	2.143
HW ELEVATOR	0.48	6.980	-3.858	7.976	4.833	-1.792	5.155	3.341	6.045	6.907	-5.154	-5.515	7.549
HW GATES	0.48	0.416	-0.023	0.417	0.243	-0.010	0.243	0.020	0.361	0.361	-0.106	-0.357	0.373
INFL PUMP 1 TERMINALS	0.48	5.241	-17.696	18.456	5.915	-16.184	17.231	15.325	4.539	15.983	-18.498	2.864	18.718
INFL PUMP 1 VFD PRI	0.48	5.032	-22.958	23.503	5.683	-24.273	24.929	19.882	4.358	20.354	-23.113	8.509	24.630
INFL PUMP 2 TERMINALS	0.48	6.810	-15.577	17.001	7.632	-12.911	14.998	13.490	5.898	14.723	-17.395	-0.528	17.403
INFL PUMP 2 VFD	0.48	5.129	-22.147	22.734	5.873	-22.893	23.634	19.180	4.442	19.688	-22.539	7.388	23.719
INFL PUMP 2 VFD PRI	0.48	5.129	-22.147	22.734	5.873	-22.893	23.634	19.180	4.442	19.688	-22.539	7.388	23.719
INFL PUMP 3 TERMINALS	0.48	6.926	-16.015	17.449	7.870	-13.408	15.547	13.870	5.998	15.111	-17.944	-0.387	17.948
INFL PUMP 3 VFD	0.48	5.032	-22.958	23.503	5.683	-24.273	24.929	19.882	4.358	20.354	-23.113	8.509	24.630

30 Cycle - 3-Phase, LG, LL, & LLG Fault Currents

Prefault Voltage = 100 % of the Bus Nominal Voltage

Bus		3-Phase Fault			Line-to-Ground Fault			Line-to-Line Fault			*Line-to-Line-to-Ground		
ID	kV	Real	Imag.	Mag.	Real	Imag.	Mag.	Real	Imag.	Mag.	Real	Imag.	Mag.
INFL PUMP 3 VFD PRI	0.48	5.032	-22.958	23.503	5.683	-24.273	24.929	19.882	4.358	20.354	-23.113	8.509	24.630
INFL PUMP 4 TERMINALS	0.48	6.851	-15.719	17.147	7.711	-13.071	15.176	13.613	5.933	14.849	-17.573	-0.486	17.580
INFL PUMP 4 VFD	0.48	5.105	-22.411	22.985	5.822	-23.336	24.052	19.408	4.421	19.905	-22.735	7.738	24.015
INFL PUMP 4 VFD PRI	0.48	5.105	-22.411	22.985	5.822	-23.336	24.052	19.408	4.421	19.905	-22.735	7.738	24.015
INFL PUMP 5 TERMINALS	0.48	6.926	-16.015	17.449	7.870	-13.408	15.547	13.870	5.998	15.111	-17.944	-0.387	17.948
INFL PUMP 5 VFD	0.48	5.032	-22.958	23.503	5.683	-24.273	24.929	19.882	4.358	20.354	-23.113	8.509	24.630
INFL PUMP 5 VFD PRI	0.48	5.032	-22.958	23.503	5.683	-24.273	24.929	19.882	4.358	20.354	-23.113	8.509	24.630
INFL PUMP 6 TERMINALS	0.48	5.223	-17.027	17.810	5.828	-15.300	16.372	14.746	4.523	15.424	-17.825	2.369	17.982
INFL PUMP 6 VFD PRI	0.48	5.151	-21.890	22.488	5.916	-22.464	23.230	18.957	4.461	19.475	-22.340	7.055	23.428
LCP-HWOCS	0.48	3.844	-1.145	4.011	2.377	-0.489	2.426	0.992	3.329	3.474	-1.848	-3.186	3.683
MAIN SWGR "FILTER"	0.48	2.602	-41.045	41.128	3.275	-46.143	46.259	35.546	2.254	35.617	-37.672	24.085	44.713
MAIN SWGR "SLUDGE"	0.48	2.843	-44.458	44.549	4.013	-51.154	51.311	39.230	2.663	39.321	-41.458	26.247	49.068
MAIN SWGR BUS A PRI	0.48	2.602	-41.045	41.128	3.275	-46.143	46.259	35.546	2.254	35.617	-37.672	24.085	44.713
MAIN SWGR BUS B PRI	0.48	2.843	-44.458	44.549	4.013	-51.154	51.311	39.230	2.663	39.321	-41.458	26.247	49.068
MCC-DP2C	0.48	5.336	-12.563	13.649	4.928	-8.825	10.108	10.921	4.677	11.880	-13.042	-1.324	13.109
MCC-DP4A	0.48	1.683	-0.288	1.708	0.992	-0.133	1.001	0.249	1.458	1.479	-0.600	-1.416	1.538
MCC-DP4B	0.48	5.234	-38.525	38.879	8.322	-39.903	40.762	33.890	4.762	34.223	-39.230	15.194	42.070
MCC-GE	0.48	1.271	-12.013	12.080	1.750	-11.908	12.035	10.455	1.119	10.514	-11.518	4.716	12.446
MCC-GE PRI	0.48	7.193	-33.851	34.607	10.653	-31.980	33.707	29.700	6.471	30.397	-35.967	8.109	36.869
MCC-HW BUS A	0.48	5.102	-23.170	23.725	5.805	-24.628	25.303	20.066	4.418	20.546	-23.395	8.715	24.966
MCC-HW BUS A PRI	0.48	5.102	-23.170	23.725	5.805	-24.628	25.303	20.066	4.418	20.546	-23.395	8.715	24.966
MCC-HW BUS B	0.48	5.119	-23.166	23.724	5.819	-24.624	25.302	20.062	4.433	20.546	-23.398	8.699	24.962
MCC-HW BUS B PRI	0.48	5.119	-23.166	23.724	5.819	-24.624	25.302	20.062	4.433	20.546	-23.398	8.699	24.962
MCC-NA BUS A	2.40	0.503	-3.612	3.647	0.900	-3.602	3.713	3.128	0.436	3.158	-3.776	1.317	3.999
MCC-NA BUS A PRI	2.40	0.503	-3.612	3.647	0.900	-3.602	3.713	3.128	0.436	3.158	-3.776	1.317	3.999
MCC-NA BUS B	2.40	0.532	-3.738	3.775	0.950	-3.699	3.819	3.261	0.471	3.295	-3.910	1.295	4.119
MCC-NA BUS B PRI	2.40	0.532	-3.738	3.775	0.950	-3.699	3.819	3.261	0.471	3.295	-3.910	1.295	4.119
MCC-NC	0.48	1.581	-9.424	9.556	2.059	-11.216	11.403	8.162	1.369	8.276	-9.595	5.549	11.084
MCC-ND	0.48	1.638	-9.586	9.725	2.150	-11.394	11.595	8.333	1.434	8.456	-9.789	5.523	11.240
MCC-NE	0.48	1.717	-9.033	9.194	2.372	-10.366	10.634	7.823	1.487	7.963	-9.535	4.565	10.572
MCC-NF	0.48	1.767	-9.185	9.354	2.446	-10.525	10.806	7.983	1.547	8.132	-9.700	4.545	10.712
MCC-NG BUS A	0.48	2.120	-5.807	6.182	2.558	-4.989	5.606	5.029	1.836	5.353	-6.407	0.291	6.414
MCC-NG BUS A PRI	0.48	2.120	-5.807	6.182	2.558	-4.989	5.606	5.029	1.836	5.353	-6.407	0.291	6.414
MCC-NG BUS B	0.48	2.164	-5.864	6.251	2.596	-5.018	5.650	5.088	1.885	5.426	-6.468	0.247	6.473

30 Cycle - 3-Phase, LG, LL, & LLG Fault Currents

Prefault Voltage = 100 % of the Bus Nominal Voltage

Bus		3-Phase Fault			Line-to-Ground Fault			Line-to-Line Fault			*Line-to-Line-to-Ground		
ID	kV	Real	Imag.	Mag.	Real	Imag.	Mag.	Real	Imag.	Mag.	Real	Imag.	Mag.
MCC-NG BUS B PRI	0.48	2.164	-5.864	6.251	2.596	-5.018	5.650	5.088	1.885	5.426	-6.468	0.247	6.473
MCC-SH BUS A	0.48	2.104	-5.495	5.884	2.466	-4.603	5.222	4.759	1.822	5.096	-6.053	0.105	6.054
MCC-SH BUS A PRI	0.48	2.104	-5.495	5.884	2.466	-4.603	5.222	4.759	1.822	5.096	-6.053	0.105	6.054
MCC-SH BUS B	0.48	2.101	-5.456	5.846	2.454	-4.556	5.175	4.725	1.819	5.063	-6.008	0.083	6.008
MCC-SH BUS B PRI	0.48	2.152	-5.648	6.044	2.533	-4.751	5.384	4.901	1.874	5.247	-6.223	0.119	6.224
MS-HW BUS A	0.48	4.837	-24.426	24.900	5.179	-26.906	27.400	21.153	4.189	21.564	18.372	19.161	26.546
MS-HW BUS A PRI	0.48	4.837	-24.426	24.900	5.179	-26.906	27.400	21.153	4.189	21.564	18.372	19.161	26.546
MS-HW BUS B	0.48	4.855	-24.422	24.900	5.196	-26.903	27.400	21.150	4.205	21.564	18.362	19.176	26.549
MS-HW BUS B PRI	0.48	4.855	-24.422	24.900	5.196	-26.903	27.400	21.150	4.205	21.564	18.362	19.176	26.549
P52100.00 DISC	0.48	3.476	-1.549	3.806	2.216	-0.745	2.337	1.342	3.010	3.296	-2.149	-2.776	3.511
P52100.00 TERM	0.48	3.431	-1.521	3.753	2.184	-0.731	2.303	1.317	2.971	3.250	-2.113	-2.741	3.461
P52110.00 DISC	0.48	2.572	-0.783	2.688	1.572	-0.360	1.613	0.678	2.227	2.328	-1.242	-2.116	2.454
P52110.00 TERM	0.48	2.535	-0.767	2.648	1.548	-0.353	1.588	0.664	2.195	2.293	-1.220	-2.086	2.416
P52120.00 DISC	0.48	3.670	-1.674	4.034	2.351	-0.804	2.485	1.449	3.178	3.493	-2.308	-2.926	3.727
P52120.00 TERM	0.48	3.620	-1.641	3.974	2.316	-0.788	2.447	1.421	3.135	3.442	-2.266	-2.887	3.670
P52130.00 DISC	0.48	2.733	-0.852	2.863	1.676	-0.390	1.721	0.738	2.367	2.479	-1.340	-2.246	2.616
P52130.00 TERM	0.48	2.691	-0.833	2.817	1.649	-0.382	1.693	0.722	2.330	2.440	-1.314	-2.212	2.573
P52140.00 DISC	0.48	4.260	-2.082	4.742	2.776	-1.001	2.951	1.803	3.690	4.106	-2.823	-3.377	4.402
P52140.00 TERM	0.48	4.193	-2.033	4.660	2.727	-0.977	2.897	1.761	3.631	4.036	-2.762	-3.326	4.323
P52150.00 DISC	0.48	3.238	-1.086	3.416	2.006	-0.494	2.066	0.941	2.804	2.958	-1.664	-2.653	3.132
P52150.00 TERM	0.48	3.180	-1.058	3.351	1.967	-0.481	2.026	0.916	2.754	2.902	-1.625	-2.606	3.072
P52160.00 DISC	0.48	3.362	-1.148	3.553	2.089	-0.521	2.153	0.994	2.912	3.077	-1.748	-2.753	3.261
P52160.00 TERM	0.48	3.299	-1.117	3.483	2.047	-0.507	2.109	0.967	2.857	3.017	-1.705	-2.702	3.195
P52170.00 DISC	0.48	3.566	-1.253	3.780	2.225	-0.568	2.296	1.085	3.088	3.273	-1.889	-2.916	3.474
P52170.00 TERM	0.48	3.495	-1.216	3.701	2.178	-0.551	2.246	1.053	3.027	3.205	-1.840	-2.859	3.400
P52220.00 DISC	0.48	0.681	-0.055	0.683	0.399	-0.024	0.399	0.047	0.589	0.591	-0.188	-0.582	0.612
P52220.00 TERM	0.48	0.671	-0.054	0.673	0.393	-0.024	0.394	0.046	0.581	0.583	-0.185	-0.574	0.603
P52230.00 DISC	0.48	0.681	-0.055	0.683	0.399	-0.024	0.399	0.047	0.589	0.591	-0.188	-0.582	0.612
P52230.00 TERM	0.48	0.671	-0.054	0.673	0.393	-0.024	0.394	0.046	0.581	0.583	-0.185	-0.574	0.603
P52240.00 DISC	0.48	0.858	-0.075	0.861	0.503	-0.033	0.504	0.065	0.743	0.746	-0.243	-0.733	0.772
P52240.00 TERM	0.48	0.842	-0.073	0.846	0.494	-0.032	0.495	0.063	0.729	0.732	-0.238	-0.720	0.758
P52250.00 DISC	0.48	0.858	-0.075	0.861	0.503	-0.033	0.504	0.065	0.743	0.746	-0.243	-0.733	0.772
P52250.00 TERM	0.48	0.842	-0.073	0.846	0.494	-0.032	0.495	0.063	0.729	0.732	-0.238	-0.720	0.758
P54080.00 DISC	0.48	1.408	-0.155	1.416	0.829	-0.064	0.832	0.135	1.219	1.226	-0.428	-1.200	1.275

30 Cycle - 3-Phase, LG, LL, & LLG Fault Currents

Prefault Voltage = 100 % of the Bus Nominal Voltage

Bus		3-Phase Fault			Line-to-Ground Fault			Line-to-Line Fault			*Line-to-Line-to-Ground		
ID	kV	Real	Imag.	Mag.	Real	Imag.	Mag.	Real	Imag.	Mag.	Real	Imag.	Mag.
P54080.00 TERM	0.48	1.366	-0.149	1.374	0.805	-0.061	0.807	0.129	1.183	1.190	-0.414	-1.165	1.236
P54090.00 DISC	0.48	1.408	-0.155	1.416	0.829	-0.064	0.832	0.135	1.219	1.226	-0.428	-1.200	1.275
P54090.00 TERM	0.48	1.366	-0.149	1.374	0.805	-0.061	0.807	0.129	1.183	1.190	-0.414	-1.165	1.236
P55020.00 TERM	0.48	3.104	-0.762	3.196	1.886	-0.323	1.913	0.660	2.688	2.768	-1.335	-2.593	2.917
P55030.00 TERM	0.48	3.104	-0.762	3.196	1.886	-0.323	1.913	0.660	2.688	2.768	-1.335	-2.593	2.917
PNL DP2	0.48	6.067	-15.742	16.870	5.999	-11.500	12.971	13.701	5.336	14.704	-16.375	-0.883	16.398
PNL DP4	0.48	4.362	-41.640	41.868	7.085	-45.537	46.085	36.688	4.006	36.906	-41.418	20.176	46.070
PNL DPLC-1	0.21	1.051	-1.638	1.946	1.062	-1.673	1.982	1.418	0.910	1.685	0.882	1.765	1.973
PNL DPLC-2	0.21	0.997	-1.187	1.550	1.003	-1.310	1.650	1.028	0.863	1.342	0.530	1.588	1.674
PNL DPLC-3	0.21	1.086	-1.494	1.847	1.119	-1.426	1.813	1.294	0.941	1.600	-1.867	-0.261	1.885
PNL DPLC-4	0.21	0.609	-0.632	0.877	0.613	-0.622	0.874	0.547	0.527	0.760	-0.856	-0.221	0.884
PNL DPP1	0.48	9.502	-10.227	13.960	8.562	-6.131	10.531	8.857	8.229	12.090	-12.491	-6.231	13.959
PNL DPP1 PRI	0.48	9.502	-10.227	13.960	8.562	-6.131	10.531	8.857	8.229	12.090	-12.491	-6.231	13.959
SCR BLDG N OH DOOR DISC	0.48	1.224	-0.140	1.232	0.721	-0.060	0.723	0.121	1.060	1.067	-0.376	-1.042	1.108
SCR BLDG N OH DOOR TERM	0.48	1.192	-0.134	1.200	0.702	-0.058	0.704	0.116	1.033	1.039	-0.365	-1.015	1.079
SCR BLDG S OH DOOR DISC	0.48	1.329	-0.159	1.339	0.784	-0.068	0.787	0.138	1.151	1.160	-0.416	-1.131	1.205
SCR BLDG S OH DOOR TERM	0.48	1.292	-0.152	1.301	0.762	-0.065	0.764	0.132	1.119	1.127	-0.402	-1.100	1.171
SEP53000.00 DISC	0.48	0.735	-0.061	0.737	0.431	-0.027	0.431	0.053	0.636	0.639	-0.205	-0.628	0.661
SEP53000.00 TERM	0.48	0.723	-0.059	0.726	0.424	-0.026	0.425	0.051	0.627	0.629	-0.201	-0.619	0.650
SEP53010.00 DISC	0.48	0.735	-0.061	0.737	0.431	-0.027	0.431	0.053	0.636	0.639	-0.205	-0.628	0.661
SEP53010.00 TERM	0.48	0.723	-0.059	0.726	0.424	-0.026	0.425	0.051	0.626	0.629	-0.201	-0.619	0.650
SEP53020.00 DISC	0.48	0.712	-0.058	0.715	0.417	-0.026	0.418	0.050	0.617	0.619	-0.198	-0.609	0.640
SEP53020.00 TERM	0.48	0.701	-0.057	0.704	0.411	-0.025	0.412	0.049	0.607	0.609	-0.195	-0.600	0.631
SR-DAF	0.48	2.018	-6.914	7.203	2.651	-6.565	7.080	5.988	1.747	6.238	-7.578	1.313	7.691
SR-DAF PRI	0.48	2.018	-6.914	7.203	2.651	-6.565	7.080	5.988	1.747	6.238	-7.578	1.313	7.691
SWBD GDP	0.48	1.669	-20.429	20.497	2.914	-24.662	24.833	18.824	1.734	18.904	-20.224	11.764	23.396
SWBD-NB BUS A	0.48	1.561	-9.515	9.643	2.007	-11.417	11.592	8.241	1.352	8.351	-9.621	5.778	11.223
SWBD-NB BUS A PRI	0.48	1.561	-9.515	9.643	2.007	-11.417	11.592	8.241	1.352	8.351	-9.621	5.778	11.223
SWBD-NB BUS B	0.48	1.608	-9.686	9.818	2.075	-11.614	11.798	8.420	1.409	8.538	-9.799	5.778	11.376
SWBD-NB BUS B PRI	0.48	1.608	-9.686	9.818	2.075	-11.614	11.798	8.420	1.409	8.538	-9.799	5.778	11.376
TRANSF TA PRI	0.48	2.602	-41.045	41.128	3.275	-46.143	46.259	35.546	2.254	35.617	-37.672	24.085	44.713
TRANSF TB PRI	0.48	2.843	-44.458	44.549	4.013	-51.154	51.311	39.230	2.663	39.321	-41.458	26.247	49.068
TRANSF TB SEC	2.40	0.444	-4.295	4.318	0.582	-5.154	5.186	3.753	0.397	3.774	-4.119	2.759	4.958
TRANSF TC PRI	2.40	0.512	-3.587	3.623	0.909	-3.544	3.659	3.106	0.444	3.138	-3.751	1.264	3.959

30 Cycle - 3-Phase, LG, LL, & LLG Fault Currents

Prefault Voltage = 100 % of the Bus Nominal Voltage

Bus		3-Phase Fault			Line-to-Ground Fault			Line-to-Line Fault			*Line-to-Line-to-Ground		
ID	kV	Real	Imag.	Mag.	Real	Imag.	Mag.	Real	Imag.	Mag.	Real	Imag.	Mag.
TRANSF TC SEC	0.48	1.518	-9.702	9.820	1.888	-11.836	11.986	8.402	1.315	8.505	-9.648	6.272	11.508
TRANSF TD PRI	2.40	0.541	-3.710	3.750	0.959	-3.637	3.761	3.237	0.480	3.273	-3.883	1.241	4.077
TRANSF TD SEC	0.48	1.564	-9.880	10.003	1.953	-12.050	12.207	8.590	1.371	8.699	-9.831	6.281	11.666
XFMR T-C4 PRI	0.48	7.083	-3.481	7.893	4.807	-1.538	5.047	3.015	6.134	6.835	-4.803	-5.695	7.450
XFMR T-C4 SEC	0.21	0.611	-0.665	0.903	0.616	-0.679	0.917	0.576	0.529	0.782	0.265	0.876	0.915
XFMR T-LC1 PRI	0.48	8.852	-6.431	10.941	6.777	-3.215	7.501	5.569	7.666	9.475	-8.216	-6.706	10.605
XFMR T-LC1 SEC	0.21	1.052	-1.659	1.965	1.062	-1.711	2.013	1.437	0.911	1.702	0.902	1.794	2.008
XFMR T-LC2 PRI	0.48	2.811	-0.758	2.911	1.711	-0.335	1.744	0.656	2.434	2.521	-1.269	-2.333	2.656
XFMR T-LC2 SEC	0.21	0.997	-1.192	1.554	1.002	-1.320	1.657	1.032	0.864	1.346	0.536	1.596	1.684

All fault currents are symmetrical momentary (30 Cycle network) values in rms kA

* LLG fault current is the larger of the two faulted line currents

Short-Circuit Summary Report

Bus		Positive Sequence Imp. (ohm)			Negative Sequence Imp. (ohm)			Zero Sequence Imp. (ohm)		
ID	kV	Resistance	Reactance	Impedance	Resistance	Reactance	Impedance	Resistance	Reactance	Impedance
ATS-L BUS A	0.480	0.00344	0.01159	0.01209	0.00344	0.01159	0.01209	0.00544	0.00961	0.01104
ATS-L BUS B	0.480	0.00562	0.01201	0.01326	0.00562	0.01201	0.01326	0.01228	0.01064	0.01625
ATS-L SEC	0.480	0.00344	0.01159	0.01209	0.00344	0.01159	0.01209	0.00544	0.00961	0.01104
B20100.00 TERMINALS	2.400	0.06711	0.39044	0.39617	0.06711	0.39044	0.39617	0.21464	0.39405	0.44871
B20200.00 TERMINALS	2.400	0.06774	0.39106	0.39688	0.06774	0.39106	0.39688	0.21673	0.39668	0.45202
B20400.00 TERMINALS	2.400	0.06861	0.37968	0.38583	0.06943	0.37376	0.38015	0.22195	0.40325	0.46030
B52180.00 DISC	0.480	0.04551	0.02366	0.05130	0.04551	0.02366	0.05130	0.13796	0.03931	0.14346
B52180.00 TERM	0.480	0.04706	0.02396	0.05281	0.04706	0.02396	0.05281	0.14285	0.04005	0.14835
B52190.00 DISC	0.480	0.06452	0.02341	0.06863	0.06452	0.02341	0.06863	0.19782	0.03869	0.20156
B52190.00 TERM	0.480	0.06607	0.02371	0.07019	0.06607	0.02371	0.07019	0.20270	0.03942	0.20650
B52210.00 DISC	0.480	0.17802	0.02603	0.17991	0.17802	0.02603	0.17991	0.55534	0.04514	0.55717
B52210.00 TERM	0.480	0.18192	0.02636	0.18382	0.18192	0.02636	0.18382	0.56763	0.04594	0.56948
B52220.00 DISC	0.480	0.18971	0.02701	0.19162	0.18971	0.02701	0.19162	0.59219	0.04754	0.59410
B52220.00 TERM	0.480	0.19361	0.02733	0.19553	0.19361	0.02733	0.19553	0.60448	0.04834	0.60641
BLWR BLDG TROLLEY	0.480	0.06131	0.01909	0.06421	0.06131	0.01909	0.06421	0.18773	0.02806	0.18982
BSN51240.00 DISC	0.480	0.36251	0.03031	0.36378	0.36251	0.03031	0.36378	1.13651	0.05566	1.13788
BSN51240.00 TERM	0.480	0.36851	0.03062	0.36978	0.36851	0.03062	0.36978	1.15541	0.05643	1.15679
BSN51250.00 DISC	0.480	0.36252	0.03031	0.36378	0.36252	0.03031	0.36378	1.13652	0.05566	1.13788
BSN51250.00 TERM	0.480	0.36852	0.03062	0.36979	0.36852	0.03062	0.36979	1.15542	0.05643	1.15679
BSN51260.00 DISC	0.480	0.36251	0.03031	0.36378	0.36251	0.03031	0.36378	1.13651	0.05566	1.13788
BSN51260.00 TERM	0.480	0.36851	0.03062	0.36978	0.36851	0.03062	0.36978	1.15541	0.05643	1.15679
BSN51270.00 DISC	0.480	0.36252	0.03031	0.36378	0.36252	0.03031	0.36378	1.13652	0.05566	1.13788
BSN51270.00 TERM	0.480	0.36852	0.03062	0.36979	0.36852	0.03062	0.36979	1.15542	0.05643	1.15679
COGEN TIE BUS	0.480	0.00040	0.00621	0.00622	0.00043	0.00597	0.00599	0.00044	0.00397	0.00400
COM53030.00 DISC	0.480	0.35051	0.02968	0.35177	0.35051	0.02968	0.35177	1.09871	0.05411	1.10004
COM53030.00 TERM	0.480	0.35651	0.02999	0.35777	0.35651	0.02999	0.35777	1.11761	0.05488	1.11896
COM53040.00 DISC	0.480	0.32052	0.02810	0.32175	0.32052	0.02810	0.32175	1.00422	0.05023	1.00547
COM53040.00 TERM	0.480	0.32652	0.02842	0.32775	0.32652	0.02842	0.32775	1.02312	0.05101	1.02439
CON51300.00 DISC	0.480	0.35051	0.02968	0.35177	0.35051	0.02968	0.35177	1.09871	0.05411	1.10004
CON51300.00 TERM	0.480	0.35651	0.02999	0.35777	0.35651	0.02999	0.35777	1.11761	0.05488	1.11896
CON51320.00 DISC	0.480	0.35051	0.02968	0.35177	0.35051	0.02968	0.35177	1.09871	0.05411	1.10004
CON51320.00 TERM	0.480	0.35651	0.02999	0.35777	0.35651	0.02999	0.35777	1.11761	0.05488	1.11896
CON53020.00 DISC	0.480	0.37452	0.03094	0.37580	0.37452	0.03094	0.37580	1.17432	0.05721	1.17571
CON53020.00 TERM	0.480	0.38052	0.03125	0.38180	0.38052	0.03125	0.38180	1.19322	0.05798	1.19462
CON53030.00 DISC	0.480	0.37452	0.03094	0.37580	0.37452	0.03094	0.37580	1.17432	0.05721	1.17571

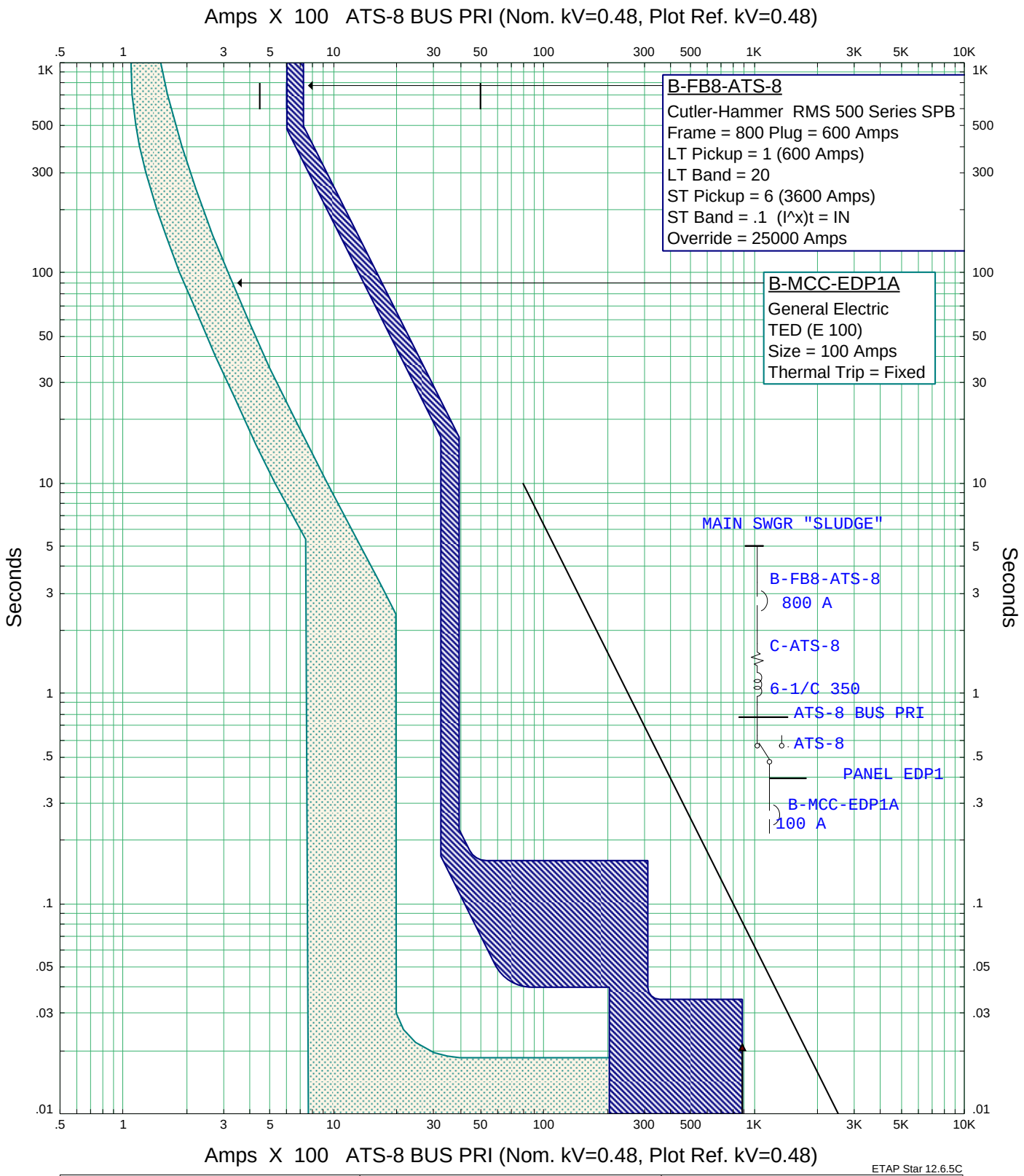
Bus		Positive Sequence Imp. (ohm)			Negative Sequence Imp. (ohm)			Zero Sequence Imp. (ohm)		
ID	kV	Resistance	Reactance	Impedance	Resistance	Reactance	Impedance	Resistance	Reactance	Impedance
CON53030.00 TERM	0.480	0.38052	0.03125	0.38180	0.38052	0.03125	0.38180	1.19322	0.05798	1.19462
EFF PS SWGR BUS A	0.480	0.00238	0.01557	0.01575	0.00238	0.01557	0.01575	0.00197	0.01306	0.01321
EFF PS SWGR BUS A PRI	0.480	0.00238	0.01557	0.01575	0.00238	0.01557	0.01575	0.00197	0.01306	0.01321
EFF PS SWGR BUS B	0.480	0.00236	0.01557	0.01575	0.00236	0.01557	0.01575	0.00196	0.01306	0.01321
EFF PS SWGR BUS B PRI	0.480	0.00236	0.01557	0.01575	0.00236	0.01557	0.01575	0.00196	0.01306	0.01321
EFF PUMP NO. 2 VFD PRI	0.480	0.00288	0.01624	0.01649	0.00288	0.01624	0.01649	0.00359	0.01470	0.01513
EFF PUMP NO. 4 VFD PRI	0.480	0.00290	0.01623	0.01649	0.00290	0.01623	0.01649	0.00361	0.01470	0.01513
F52410.00 DISC	0.480	0.44351	0.02916	0.44447	0.44351	0.02916	0.44447	1.39166	0.05284	1.39267
F52410.00 STR	0.480	0.41351	0.02814	0.41447	0.41351	0.02814	0.41447	1.29716	0.05033	1.29814
F52420.00 DISC	0.480	0.55351	0.03290	0.55449	0.55351	0.03290	0.55449	1.73816	0.06204	1.73927
F52420.00 STR	0.480	0.52351	0.03188	0.52448	0.52351	0.03188	0.52448	1.64366	0.05953	1.64474
F54330.00 DISC	0.480	0.11052	0.01708	0.11183	0.11052	0.01708	0.11183	0.34272	0.02311	0.34349
F54330.00 TERM	0.480	0.11652	0.01739	0.11781	0.11652	0.01739	0.11781	0.36162	0.02389	0.36240
F55010.00 TERM	0.480	0.06861	0.02058	0.07163	0.06861	0.02058	0.07163	0.21073	0.03174	0.21311
GEN NO. 2 TERM	0.480	0.00168	0.01448	0.01458	0.00175	0.01267	0.01279	0.00241	0.00927	0.00958
GEN NO. 3 TERM	0.480	0.00158	0.01431	0.01439	0.00166	0.01252	0.01263	0.00228	0.00905	0.00933
GRIT SCR TROLLEY	0.480	0.37451	0.03094	0.37579	0.37451	0.03094	0.37579	1.17431	0.05721	1.17571
HVAC56100.00 DISC	0.480	0.04471	0.01714	0.04789	0.04471	0.01714	0.04789	0.13544	0.02327	0.13743
HVAC56100.00 TERM	0.480	0.04861	0.01747	0.05165	0.04861	0.01747	0.05165	0.14773	0.02407	0.14968
HVAC56110.00 DISC	0.480	0.10951	0.01958	0.11125	0.10951	0.01958	0.11125	0.33956	0.02928	0.34082
HVAC56110.00 TERM	0.480	0.11551	0.01990	0.11721	0.11551	0.01990	0.11721	0.35846	0.03005	0.35972
HW ELEVATOR	0.480	0.03041	0.01681	0.03475	0.03041	0.01681	0.03475	0.09040	0.02245	0.09314
HW GATES	0.480	0.66351	0.03664	0.66452	0.66351	0.03664	0.66452	2.08466	0.07124	2.08588
INFL PUMP 1 TERMINALS	0.480	0.00426	0.01440	0.01502	0.00426	0.01440	0.01502	0.00803	0.01652	0.01837
INFL PUMP 1 VFD PRI	0.480	0.00252	0.01152	0.01179	0.00252	0.01152	0.01179	0.00255	0.00944	0.00978
INFL PUMP 2 TERMINALS	0.480	0.00653	0.01494	0.01630	0.00653	0.01494	0.01630	0.01515	0.01785	0.02341
INFL PUMP 2 VFD	0.480	0.00275	0.01188	0.01219	0.00275	0.01188	0.01219	0.00324	0.01032	0.01082
INFL PUMP 2 VFD PRI	0.480	0.00275	0.01188	0.01219	0.00275	0.01188	0.01219	0.00324	0.01032	0.01082
INFL PUMP 3 TERMINALS	0.480	0.00630	0.01458	0.01588	0.00630	0.01458	0.01588	0.01446	0.01696	0.02229
INFL PUMP 3 VFD	0.480	0.00252	0.01152	0.01179	0.00252	0.01152	0.01179	0.00255	0.00944	0.00978
INFL PUMP 3 VFD PRI	0.480	0.00252	0.01152	0.01179	0.00252	0.01152	0.01179	0.00255	0.00944	0.00978
INFL PUMP 4 TERMINALS	0.480	0.00646	0.01482	0.01616	0.00646	0.01482	0.01616	0.01492	0.01755	0.02304
INFL PUMP 4 VFD	0.480	0.00268	0.01176	0.01206	0.00268	0.01176	0.01206	0.00301	0.01003	0.01047
INFL PUMP 4 VFD PRI	0.480	0.00268	0.01176	0.01206	0.00268	0.01176	0.01206	0.00301	0.01003	0.01047
INFL PUMP 5 TERMINALS	0.480	0.00630	0.01458	0.01588	0.00630	0.01458	0.01588	0.01446	0.01696	0.02229
INFL PUMP 5 VFD	0.480	0.00252	0.01152	0.01179	0.00252	0.01152	0.01179	0.00255	0.00944	0.00978
INFL PUMP 5 VFD PRI	0.480	0.00252	0.01152	0.01179	0.00252	0.01152	0.01179	0.00255	0.00944	0.00978

Bus		Positive Sequence Imp. (ohm)			Negative Sequence Imp. (ohm)			Zero Sequence Imp. (ohm)		
ID	kV	Resistance	Reactance	Impedance	Resistance	Reactance	Impedance	Resistance	Reactance	Impedance
INFL PUMP 6 TERMINALS	0.480	0.00456	0.01488	0.01556	0.00456	0.01488	0.01556	0.00895	0.01770	0.01984
INFL PUMP 6 VFD PRI	0.480	0.00282	0.01200	0.01232	0.00282	0.01200	0.01232	0.00347	0.01062	0.01117
LCP-HWOCS	0.480	0.06621	0.01973	0.06909	0.06621	0.01973	0.06909	0.20317	0.02963	0.20532
MAIN SWGR "FILTER"	0.480	0.00043	0.00672	0.00674	0.00043	0.00672	0.00674	0.00042	0.00448	0.00450
MAIN SWGR "SLUDGE"	0.480	0.00040	0.00621	0.00622	0.00043	0.00597	0.00599	0.00044	0.00397	0.00400
MAIN SWGR BUS A PRI	0.480	0.00043	0.00672	0.00674	0.00043	0.00672	0.00674	0.00042	0.00448	0.00450
MAIN SWGR BUS B PRI	0.480	0.00040	0.00621	0.00622	0.00043	0.00597	0.00599	0.00044	0.00397	0.00400
MCC-DP2C	0.480	0.00794	0.01869	0.02030	0.00797	0.01845	0.02010	0.02419	0.03467	0.04228
MCC-DP4A	0.480	0.15994	0.02738	0.16227	0.15997	0.02715	0.16226	0.50300	0.05606	0.50611
MCC-DP4B	0.480	0.00096	0.00706	0.00713	0.00099	0.00683	0.00690	0.00221	0.00608	0.00647
MCC-GE	0.480	0.00241	0.02281	0.02294	0.00245	0.02258	0.02271	0.00518	0.02295	0.02353
MCC-GE PRI	0.480	0.00166	0.00783	0.00801	0.00170	0.00760	0.00778	0.00443	0.00797	0.00912
MCC-HW BUS A	0.480	0.00251	0.01141	0.01168	0.00251	0.01141	0.01168	0.00251	0.00917	0.00950
MCC-HW BUS A PRI	0.480	0.00251	0.01141	0.01168	0.00251	0.01141	0.01168	0.00251	0.00917	0.00950
MCC-HW BUS B	0.480	0.00252	0.01141	0.01168	0.00252	0.01141	0.01168	0.00252	0.00917	0.00950
MCC-HW BUS B PRI	0.480	0.00252	0.01141	0.01168	0.00252	0.01141	0.01168	0.00252	0.00917	0.00950
MCC-NA BUS A	2.400	0.05241	0.37630	0.37993	0.05241	0.37630	0.37993	0.16660	0.33356	0.37285
MCC-NA BUS A PRI	2.400	0.05241	0.37630	0.37993	0.05241	0.37630	0.37993	0.16660	0.33356	0.37285
MCC-NA BUS B	2.400	0.05167	0.36338	0.36704	0.05249	0.35746	0.36130	0.16660	0.33356	0.37285
MCC-NA BUS B PRI	2.400	0.05167	0.36338	0.36704	0.05249	0.35746	0.36130	0.16660	0.33356	0.37285
MCC-NC	0.480	0.00480	0.02860	0.02900	0.00480	0.02860	0.02900	0.00357	0.01451	0.01494
MCC-ND	0.480	0.00480	0.02809	0.02850	0.00483	0.02785	0.02827	0.00366	0.01452	0.01498
MCC-NE	0.480	0.00563	0.02961	0.03014	0.00563	0.02961	0.03014	0.00618	0.01699	0.01808
MCC-NF	0.480	0.00560	0.02909	0.02963	0.00563	0.02886	0.02940	0.00618	0.01699	0.01808
MCC-NG BUS A	0.480	0.01538	0.04211	0.04483	0.01538	0.04211	0.04483	0.03690	0.04774	0.06034
MCC-NG BUS A PRI	0.480	0.01538	0.04211	0.04483	0.01538	0.04211	0.04483	0.03690	0.04774	0.06034
MCC-NG BUS B	0.480	0.01535	0.04159	0.04434	0.01538	0.04136	0.04412	0.03690	0.04774	0.06034
MCC-NG BUS B PRI	0.480	0.01535	0.04159	0.04434	0.01538	0.04136	0.04412	0.03690	0.04774	0.06034
MCC-SH BUS A	0.480	0.01684	0.04399	0.04710	0.01684	0.04399	0.04710	0.04150	0.05236	0.06681
MCC-SH BUS A PRI	0.480	0.01684	0.04399	0.04710	0.01684	0.04399	0.04710	0.04150	0.05236	0.06681
MCC-SH BUS B	0.480	0.01704	0.04424	0.04740	0.01704	0.04424	0.04740	0.04212	0.05297	0.06767
MCC-SH BUS B PRI	0.480	0.01632	0.04284	0.04585	0.01636	0.04261	0.04564	0.03997	0.05082	0.06465
MS-HW BUS A	0.480	0.00216	0.01092	0.01113	0.00216	0.01092	0.01113	0.00141	0.00796	0.00808
MS-HW BUS A PRI	0.480	0.00216	0.01092	0.01113	0.00216	0.01092	0.01113	0.00141	0.00796	0.00808
MS-HW BUS B	0.480	0.00217	0.01092	0.01113	0.00217	0.01092	0.01113	0.00141	0.00796	0.00808
MS-HW BUS B PRI	0.480	0.00217	0.01092	0.01113	0.00217	0.01092	0.01113	0.00141	0.00796	0.00808
P52100.00 DISC	0.480	0.06651	0.02965	0.07282	0.06651	0.02965	0.07282	0.20411	0.05404	0.21115

Bus		Positive Sequence Imp. (ohm)			Negative Sequence Imp. (ohm)			Zero Sequence Imp. (ohm)		
ID	kV	Resistance	Reactance	Impedance	Resistance	Reactance	Impedance	Resistance	Reactance	Impedance
P52100.00 TERM	0.480	0.06751	0.02993	0.07385	0.06751	0.02993	0.07385	0.20726	0.05474	0.21437
P52110.00 DISC	0.480	0.09862	0.03001	0.10308	0.09862	0.03001	0.10308	0.30523	0.05492	0.31013
P52110.00 TERM	0.480	0.10017	0.03031	0.10465	0.10017	0.03031	0.10465	0.31011	0.05566	0.31507
P52120.00 DISC	0.480	0.06251	0.02851	0.06871	0.06251	0.02851	0.06871	0.19151	0.05123	0.19825
P52120.00 TERM	0.480	0.06351	0.02879	0.06973	0.06351	0.02879	0.06973	0.19466	0.05193	0.20147
P52130.00 DISC	0.480	0.09242	0.02881	0.09681	0.09242	0.02881	0.09681	0.28570	0.05197	0.29039
P52130.00 TERM	0.480	0.09397	0.02911	0.09837	0.09397	0.02911	0.09837	0.29058	0.05271	0.29533
P52140.00 DISC	0.480	0.05251	0.02566	0.05844	0.05251	0.02566	0.05844	0.16001	0.04422	0.16601
P52140.00 TERM	0.480	0.05351	0.02594	0.05947	0.05351	0.02594	0.05947	0.16316	0.04492	0.16923
P52150.00 DISC	0.480	0.07692	0.02581	0.08113	0.07692	0.02581	0.08113	0.23688	0.04459	0.24104
P52150.00 TERM	0.480	0.07847	0.02611	0.08270	0.07847	0.02611	0.08270	0.24176	0.04533	0.24597
P52160.00 DISC	0.480	0.07381	0.02521	0.07800	0.07381	0.02521	0.07800	0.22711	0.04311	0.23116
P52160.00 TERM	0.480	0.07536	0.02551	0.07956	0.07536	0.02551	0.07956	0.23199	0.04385	0.23610
P52170.00 DISC	0.480	0.06917	0.02431	0.07332	0.06917	0.02431	0.07332	0.21246	0.04090	0.21636
P52170.00 TERM	0.480	0.07072	0.02461	0.07488	0.07072	0.02461	0.07488	0.21735	0.04164	0.22130
P52220.00 DISC	0.480	0.40451	0.03251	0.40582	0.40451	0.03251	0.40582	1.26881	0.06108	1.27028
P52220.00 TERM	0.480	0.41051	0.03283	0.41182	0.41051	0.03283	0.41182	1.28771	0.06186	1.28920
P52230.00 DISC	0.480	0.40451	0.03251	0.40582	0.40451	0.03251	0.40582	1.26881	0.06108	1.27028
P52230.00 TERM	0.480	0.41051	0.03283	0.41182	0.41051	0.03283	0.41182	1.28771	0.06186	1.28920
P52240.00 DISC	0.480	0.32052	0.02810	0.32175	0.32052	0.02810	0.32175	1.00422	0.05023	1.00547
P52240.00 TERM	0.480	0.32652	0.02842	0.32775	0.32652	0.02842	0.32775	1.02312	0.05101	1.02439
P52250.00 DISC	0.480	0.32052	0.02810	0.32175	0.32052	0.02810	0.32175	1.00422	0.05023	1.00547
P52250.00 TERM	0.480	0.32652	0.02842	0.32775	0.32652	0.02842	0.32775	1.02312	0.05101	1.02439
P54080.00 DISC	0.480	0.19451	0.02149	0.19570	0.19451	0.02149	0.19570	0.60731	0.03396	0.60826
P54080.00 TERM	0.480	0.20051	0.02180	0.20169	0.20051	0.02180	0.20169	0.62621	0.03474	0.62718
P54090.00 DISC	0.480	0.19451	0.02149	0.19570	0.19451	0.02149	0.19570	0.60731	0.03396	0.60826
P54090.00 TERM	0.480	0.20051	0.02180	0.20169	0.20051	0.02180	0.20169	0.62621	0.03474	0.62718
P55020.00 TERM	0.480	0.08421	0.02067	0.08671	0.08421	0.02067	0.08671	0.25987	0.03196	0.26183
P55030.00 TERM	0.480	0.08421	0.02067	0.08671	0.08421	0.02067	0.08671	0.25987	0.03196	0.26183
PNL DP2	0.480	0.00591	0.01533	0.01643	0.00594	0.01509	0.01622	0.01780	0.02641	0.03185
PNL DP4	0.480	0.00069	0.00658	0.00662	0.00072	0.00635	0.00639	0.00136	0.00490	0.00508
PNL DPLC-1	0.208	0.03333	0.05194	0.06171	0.03333	0.05194	0.06171	0.03078	0.04961	0.05839
PNL DPLC-2	0.208	0.04982	0.05932	0.07747	0.04982	0.05932	0.07747	0.03310	0.05475	0.06398
PNL DPLC-3	0.208	0.03823	0.05258	0.06501	0.03823	0.05258	0.06501	0.04621	0.05119	0.06896
PNL DPLC-4	0.208	0.09492	0.09859	0.13685	0.09492	0.09859	0.13685	0.09954	0.09661	0.13871
PNL DPP1	0.480	0.01351	0.01454	0.01985	0.01351	0.01454	0.01985	0.03716	0.01688	0.04082
PNL DPP1 PRI	0.480	0.01351	0.01454	0.01985	0.01351	0.01454	0.01985	0.03716	0.01688	0.04082

Bus		Positive Sequence Imp. (ohm)			Negative Sequence Imp. (ohm)			Zero Sequence Imp. (ohm)		
ID	kV	Resistance	Reactance	Impedance	Resistance	Reactance	Impedance	Resistance	Reactance	Impedance
SCR BLDG N OH DOOR DISC	0.480	0.22351	0.02557	0.22497	0.22351	0.02557	0.22497	0.69866	0.04400	0.70005
SCR BLDG N OH DOOR TERM	0.480	0.22951	0.02588	0.23097	0.22951	0.02588	0.23097	0.71756	0.04477	0.71896
SCR BLDG S OH DOOR DISC	0.480	0.20551	0.02462	0.20698	0.20551	0.02462	0.20698	0.64196	0.04167	0.64332
SCR BLDG S OH DOOR TERM	0.480	0.21151	0.02494	0.21298	0.21151	0.02494	0.21298	0.66086	0.04245	0.66223
SEP53000.00 DISC	0.480	0.37451	0.03094	0.37579	0.37451	0.03094	0.37579	1.17431	0.05721	1.17571
SEP53000.00 TERM	0.480	0.38051	0.03125	0.38179	0.38051	0.03125	0.38179	1.19321	0.05798	1.19462
SEP53010.00 DISC	0.480	0.37452	0.03094	0.37580	0.37452	0.03094	0.37580	1.17432	0.05721	1.17571
SEP53010.00 TERM	0.480	0.38052	0.03125	0.38180	0.38052	0.03125	0.38180	1.19322	0.05798	1.19462
SEP53020.00 DISC	0.480	0.38652	0.03157	0.38781	0.38652	0.03157	0.38781	1.21212	0.05876	1.21354
SEP53020.00 TERM	0.480	0.39252	0.03188	0.39381	0.39252	0.03188	0.39381	1.23102	0.05953	1.23246
SR-DAF	0.480	0.01078	0.03694	0.03848	0.01078	0.03694	0.03848	0.02241	0.03501	0.04157
SR-DAF PRI	0.480	0.01078	0.03694	0.03848	0.01078	0.03694	0.03848	0.02241	0.03501	0.04157
SWBD GDP	0.480	0.00110	0.01348	0.01352	0.00123	0.01181	0.01187	0.00160	0.00796	0.00812
SWBD-NB BUS A	0.480	0.00465	0.02836	0.02874	0.00465	0.02836	0.02874	0.00311	0.01392	0.01426
SWBD-NB BUS A PRI	0.480	0.00465	0.02836	0.02874	0.00465	0.02836	0.02874	0.00311	0.01392	0.01426
SWBD-NB BUS B	0.480	0.00462	0.02784	0.02823	0.00466	0.02761	0.02800	0.00311	0.01392	0.01426
SWBD-NB BUS B PRI	0.480	0.00462	0.02784	0.02823	0.00466	0.02761	0.02800	0.00311	0.01392	0.01426
TRANSF TA PRI	0.480	0.00043	0.00672	0.00674	0.00043	0.00672	0.00674	0.00042	0.00448	0.00450
TRANSF TB PRI	0.480	0.00040	0.00621	0.00622	0.00043	0.00597	0.00599	0.00044	0.00397	0.00400
TRANSF TB SEC	2.400	0.03303	0.31918	0.32089	0.03385	0.31326	0.31508	0.02310	0.16398	0.16560
TRANSF TC PRI	2.400	0.05407	0.37860	0.38244	0.05407	0.37860	0.38244	0.17413	0.34322	0.38486
TRANSF TC SEC	0.480	0.00436	0.02788	0.02822	0.00436	0.02788	0.02822	0.00220	0.01274	0.01293
TRANSF TD PRI	2.400	0.05333	0.36568	0.36955	0.05415	0.35976	0.36381	0.17413	0.34322	0.38486
TRANSF TD SEC	0.480	0.00433	0.02736	0.02771	0.00437	0.02713	0.02748	0.00220	0.01274	0.01293
XFMR T-C4 PRI	0.480	0.03151	0.01549	0.03511	0.03151	0.01549	0.03511	0.09386	0.01920	0.09581
XFMR T-C4 SEC	0.208	0.09002	0.09795	0.13303	0.09002	0.09795	0.13303	0.08410	0.09504	0.12691
XFMR T-LC1 PRI	0.480	0.02049	0.01489	0.02533	0.02049	0.01489	0.02533	0.05915	0.01773	0.06175
XFMR T-LC1 SEC	0.208	0.03273	0.05161	0.06112	0.03273	0.05161	0.06112	0.02889	0.04882	0.05672
XFMR T-LC2 PRI	0.480	0.09191	0.02478	0.09519	0.09191	0.02478	0.09519	0.28412	0.04207	0.28722
XFMR T-LC2 SEC	0.208	0.04957	0.05926	0.07726	0.04957	0.05926	0.07726	0.03231	0.05461	0.06345

APPENDIX C – TIME CURRENT CURVES

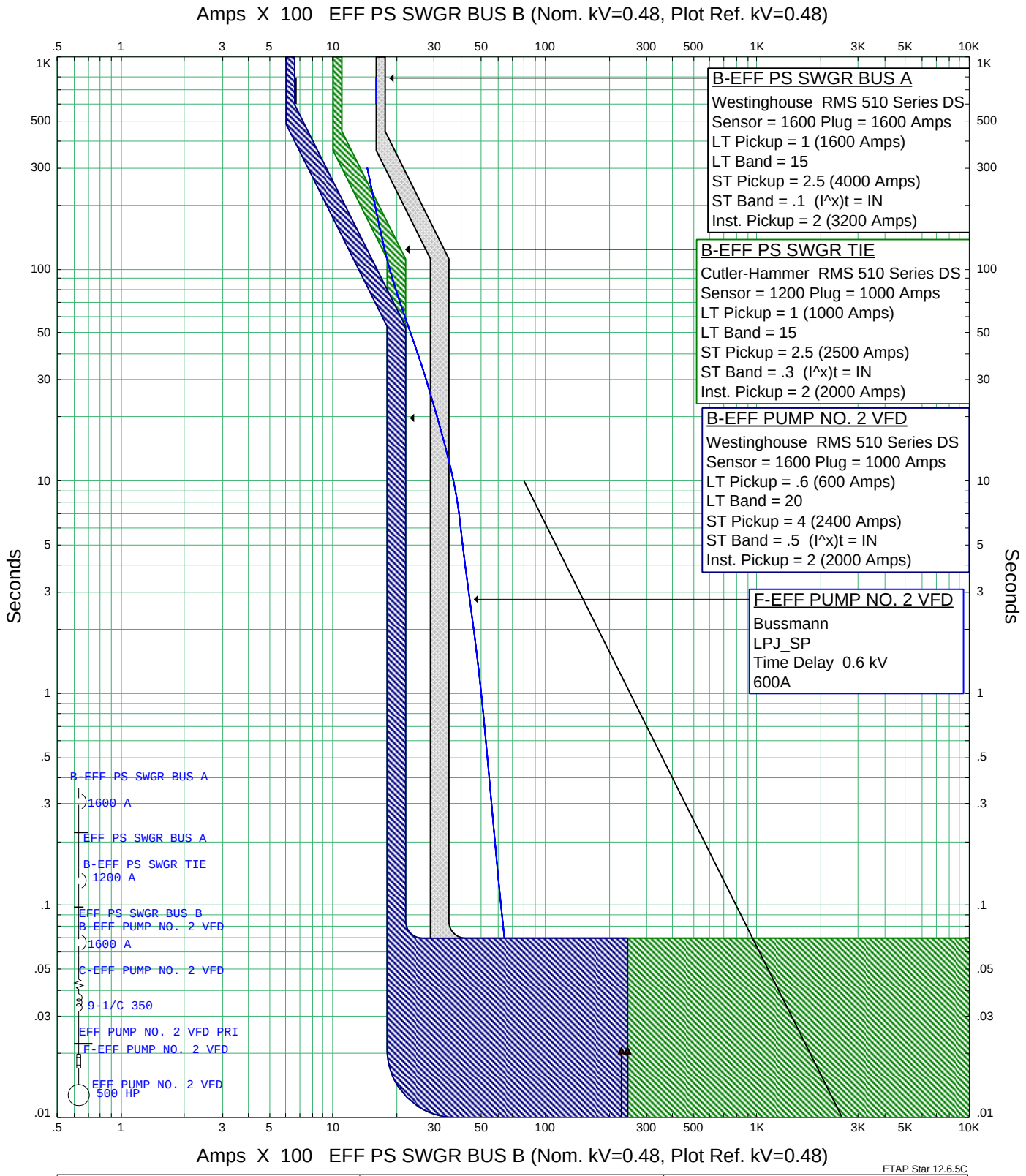


ETAP Star 12.6.5C

ATS 8 TCC

Project: OXNARD WWTP
Location: OXNARD, CA
Contract: 9587A.00
Engineer: SKB
Filename: C:\Users\asukar\Desktop\Etap\OWTP.OTI

Date: 04-07-2015
SN: CAROLLOWAN
Rev: Base
Fault: Phase

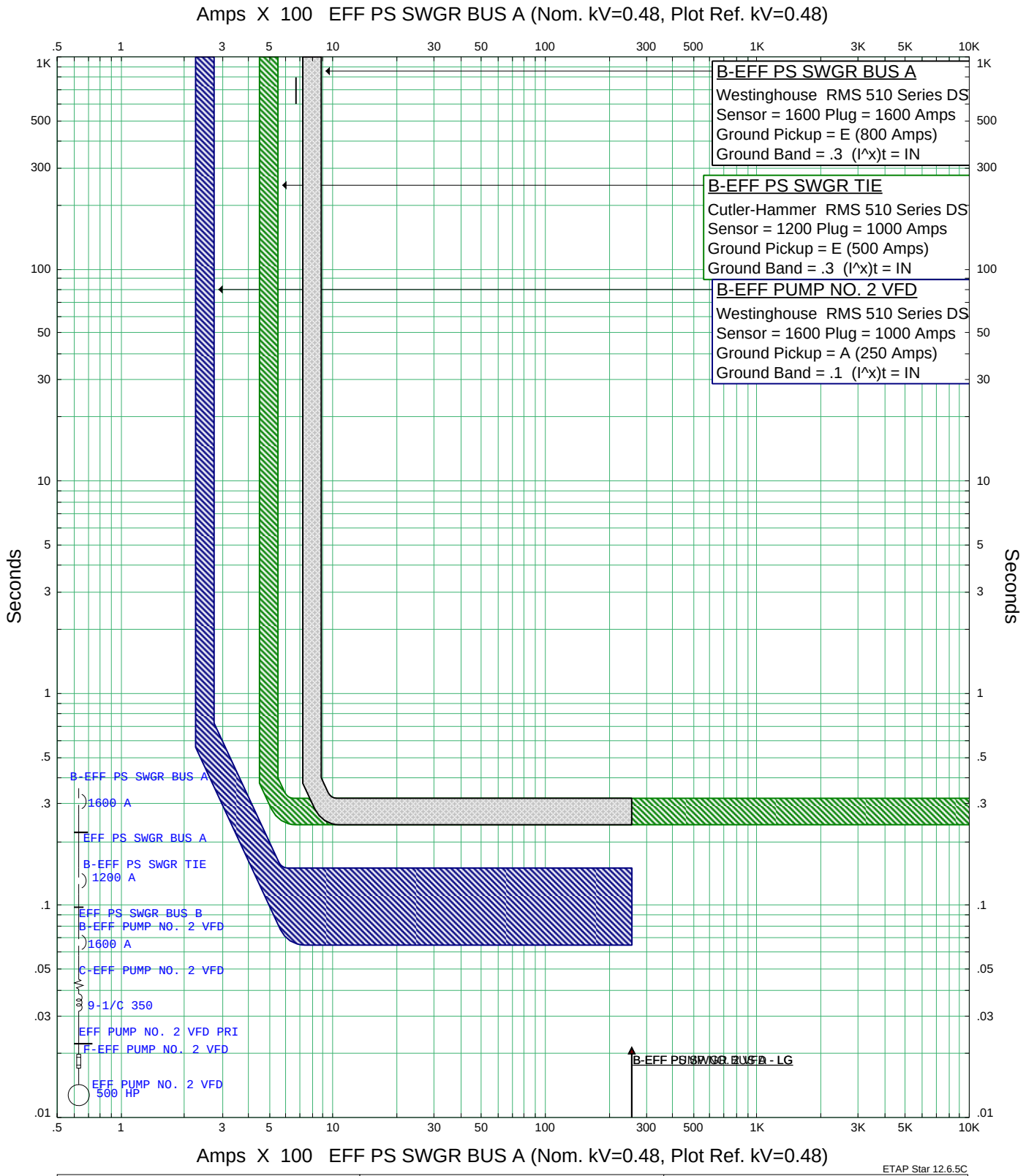


ETAP Star 12.6.5C

EFF PUMP NO 2 VFD TIE TCC

Project: OXNARD WWTP
Location: OXNARD, CA
Contract: 9587A.00
Engineer: SKB
Filename: C:\Users\asukar\Desktop\Etap\OWTP.OTI

Date: 04-06-2015
SN: CAROLLOWAN
Rev: Base
Fault: Phase

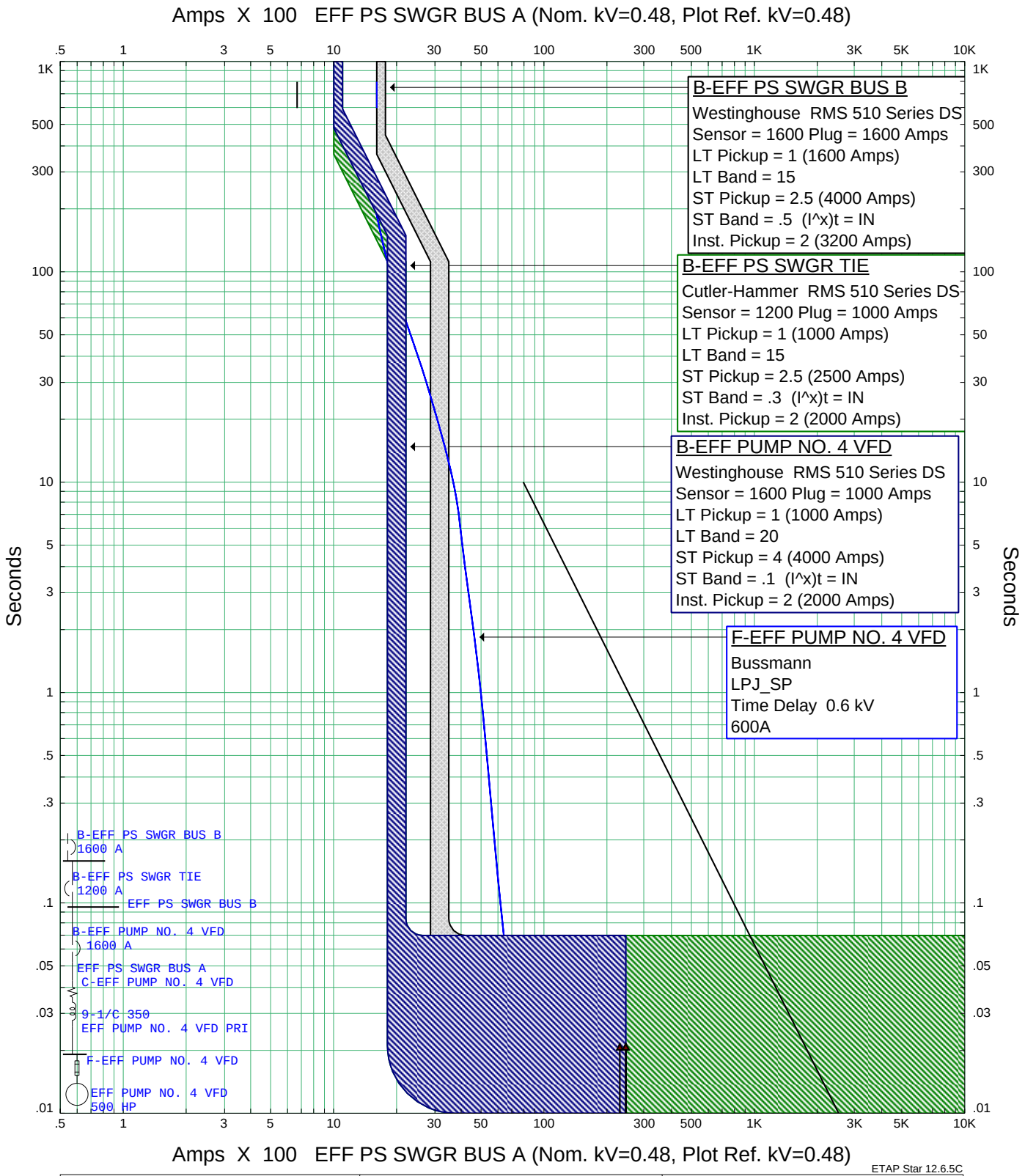


ETAP Star 12.6.5C

EFF PUMP NO 2 VFD TIE TCC

Project: OXNARD WWTP
Location: OXNARD, CA
Contract: 9587A.00
Engineer: SKB
Filename: C:\Users\asukar\Desktop\Etap\OWTP.OTI

Date: 04-06-2015
SN: CAROLLOWAN
Rev: Base
Fault: Ground

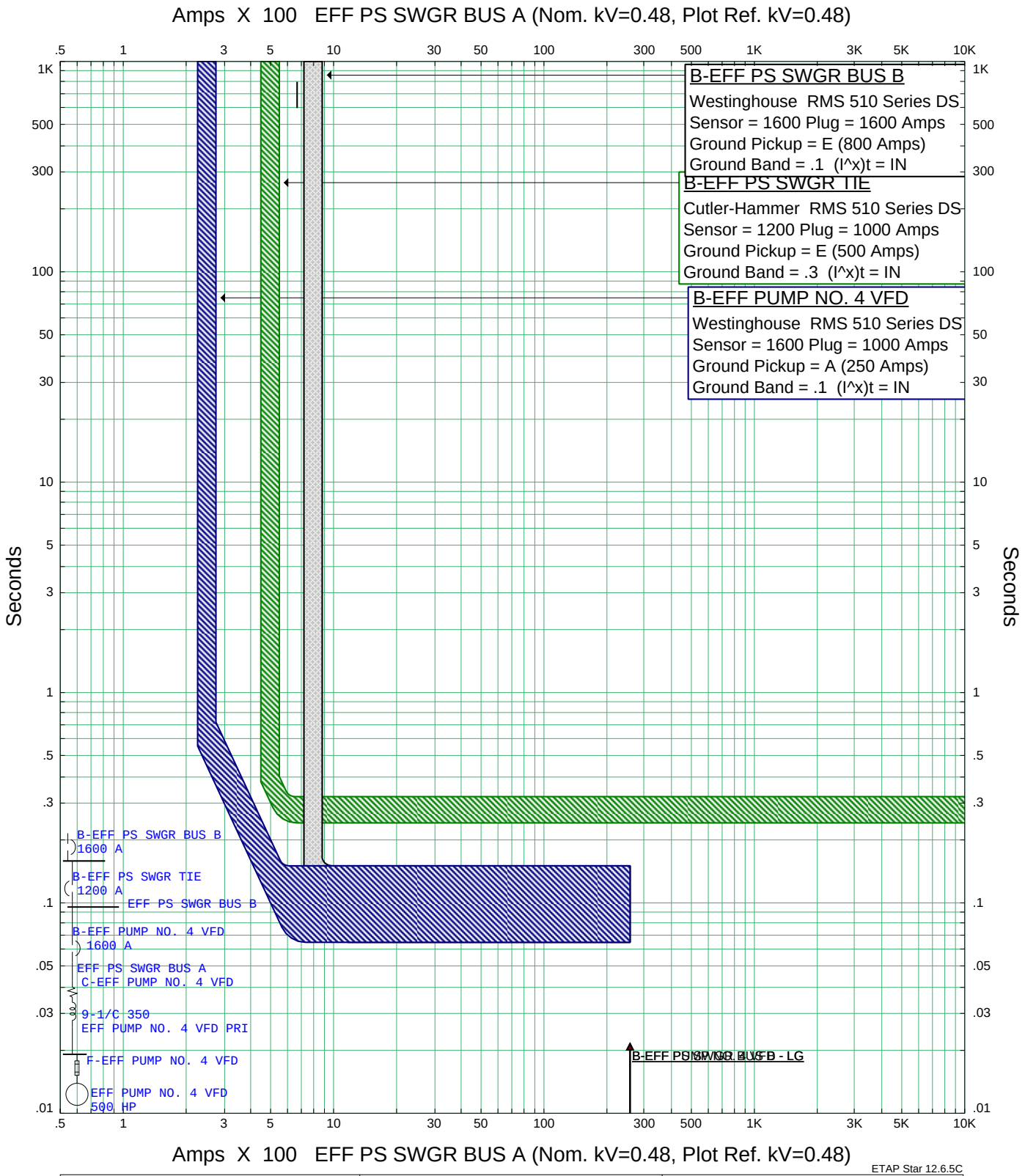


ETAP Star 12.6.5C

EFF PUMP NO 4 VFD TIE TCC

Project: OXNARD WWTP
Location: OXNARD, CA
Contract: 9587A.00
Engineer: SKB
Filename: C:\Users\asukar\Desktop\Etap\OWTP.OTI

Date: 04-06-2015
SN: CAROLLOWAN
Rev: Base
Fault: Phase



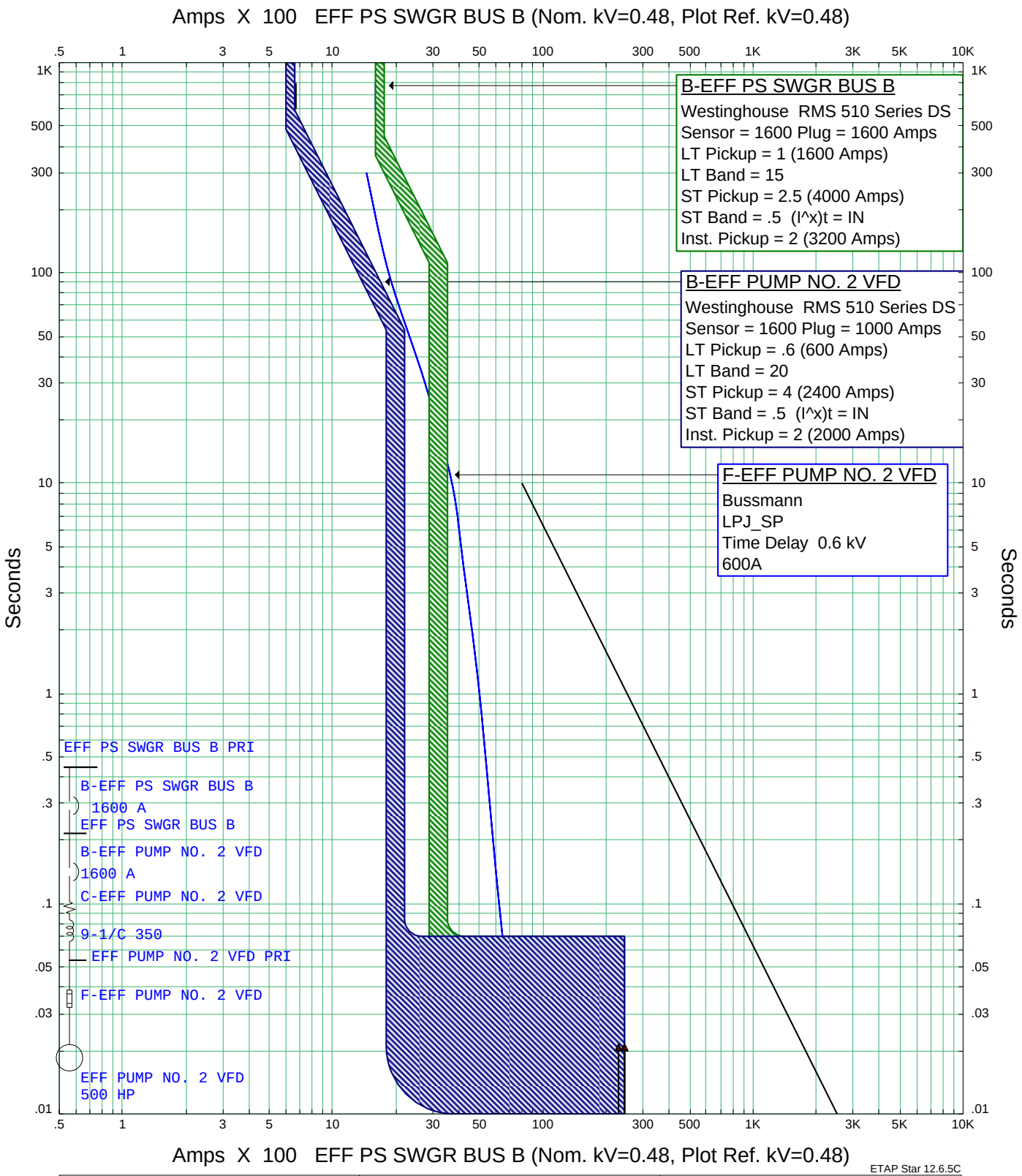
Amps X 100 EFF PS SWGR BUS A (Nom. kV=0.48, Plot Ref. kV=0.48)

ETAP Star 12.6.5C

EFF PUMP NO 4 VFD TIE TCC

Project: OXNARD WWTP
Location: OXNARD, CA
Contract: 9587A.00
Engineer: SKB
Filename: C:\Users\asukar\Desktop\Etap\OWTP.OTI

Date: 04-06-2015
SN: CAROLLOWAN
Rev: Base
Fault: Ground

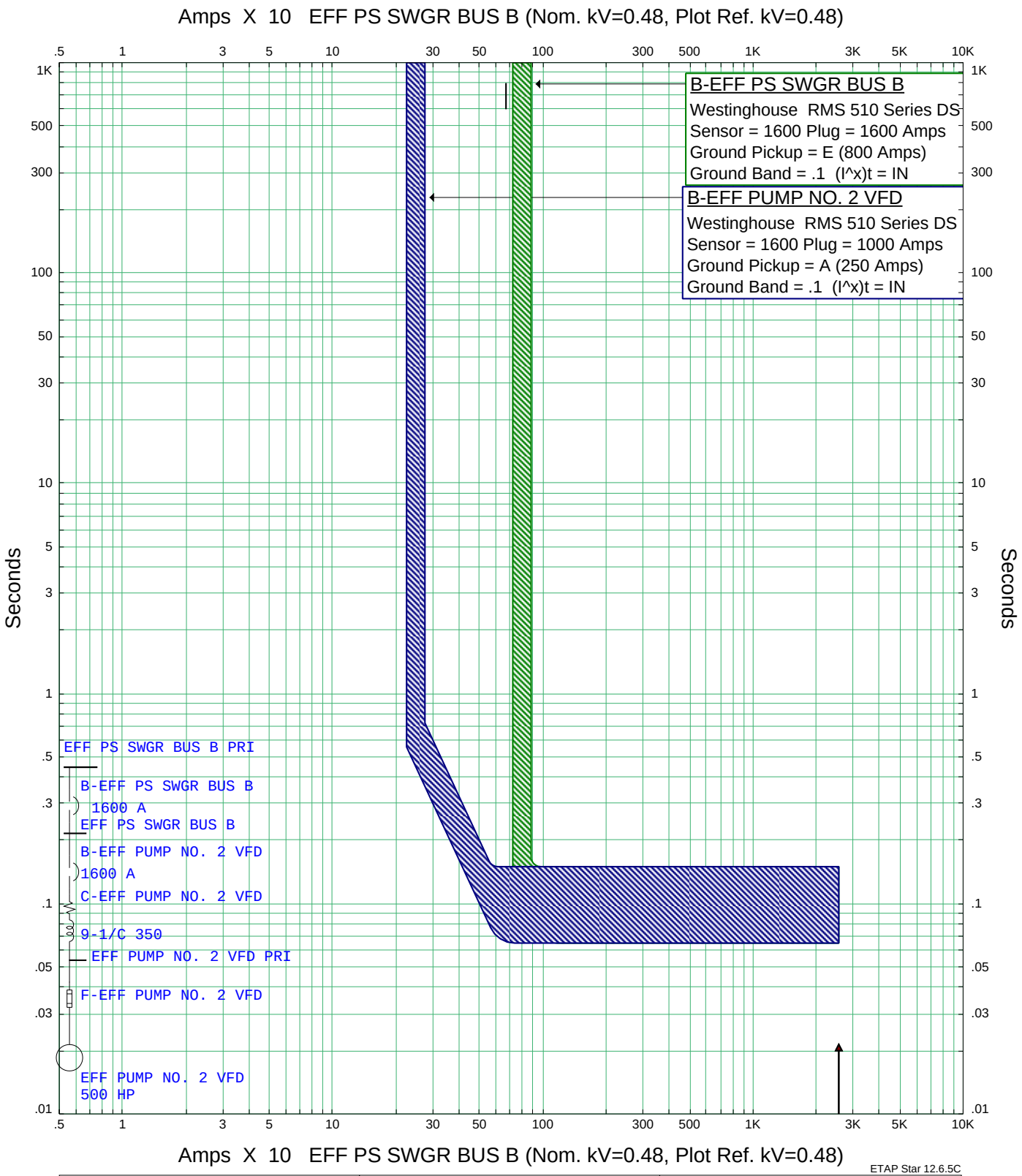


ETAP Star 12.6.5C

EFF PUMP NO. 2 VFD TCC

Project: OXNARD WWTP
Location: OXNARD, CA
Contract: 9587A.00
Engineer: SKB
Filename: C:\Users\asukar\Desktop\Etap\OWTP.OTI

Date: 04-06-2015
SN: CAROLLOWAN
Rev: Base
Fault: Phase



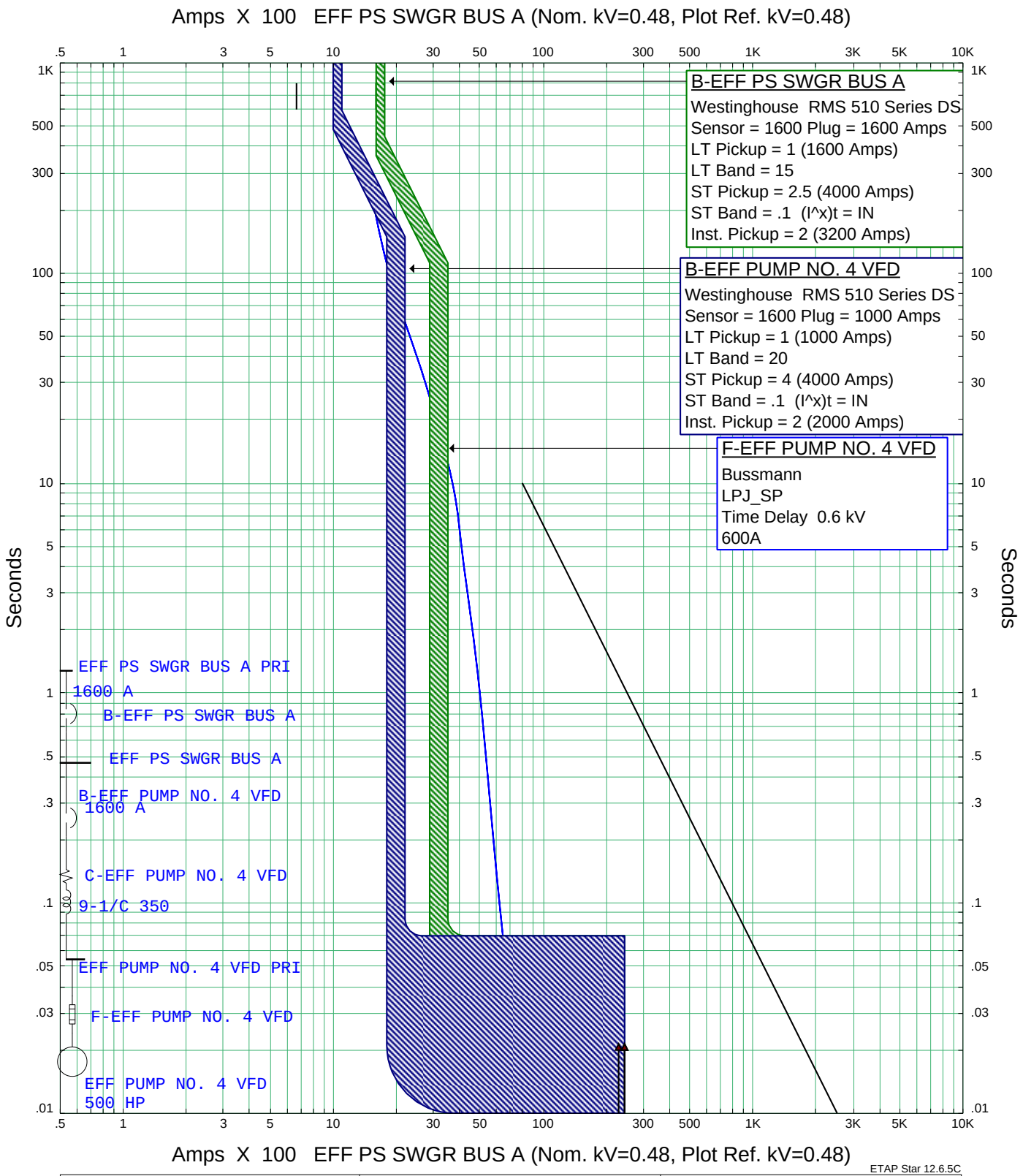
Amps X 10 EFF PS SWGR BUS B (Nom. kV=0.48, Plot Ref. kV=0.48)

ETAP Star 12.6.5C

EFF PUMP NO. 2 VFD TCC

Project: OXNARD WWTP
Location: OXNARD, CA
Contract: 9587A.00
Engineer: SKB
Filename: C:\Users\asukar\Desktop\Etap\OWTP.OTI

Date: 04-06-2015
SN: CAROLLOWAN
Rev: Base
Fault: Ground

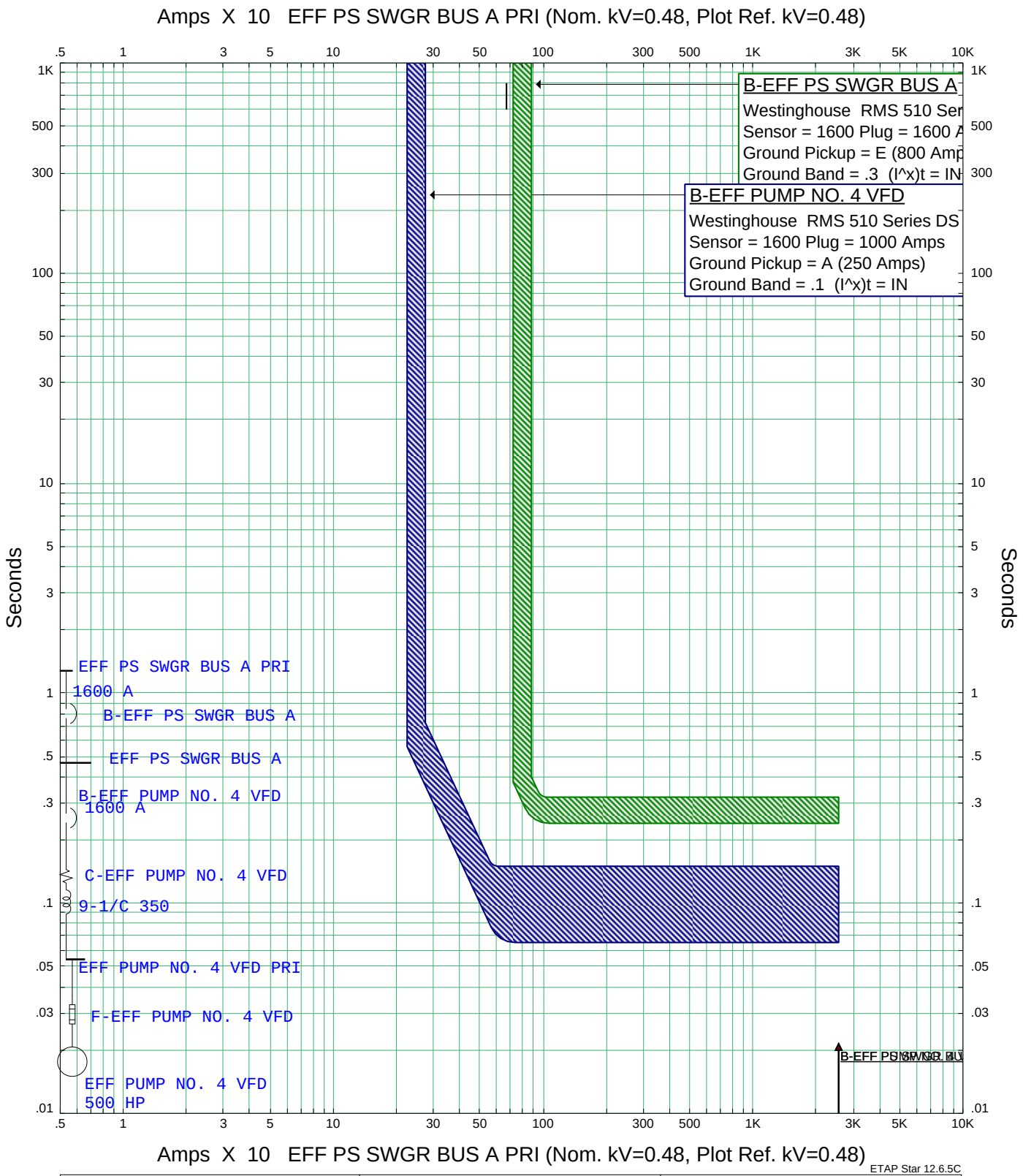


ETAP Star 12.6.5C

EFF PUMP NO. 4 VFD TCC

Project: OXNARD WWTP
Location: OXNARD, CA
Contract: 9587A.00
Engineer: SKB
Filename: C:\Users\asukar\Desktop\Etap\OWTP.OTI

Date: 04-06-2015
SN: CAROLLOWAN
Rev: Base
Fault: Phase



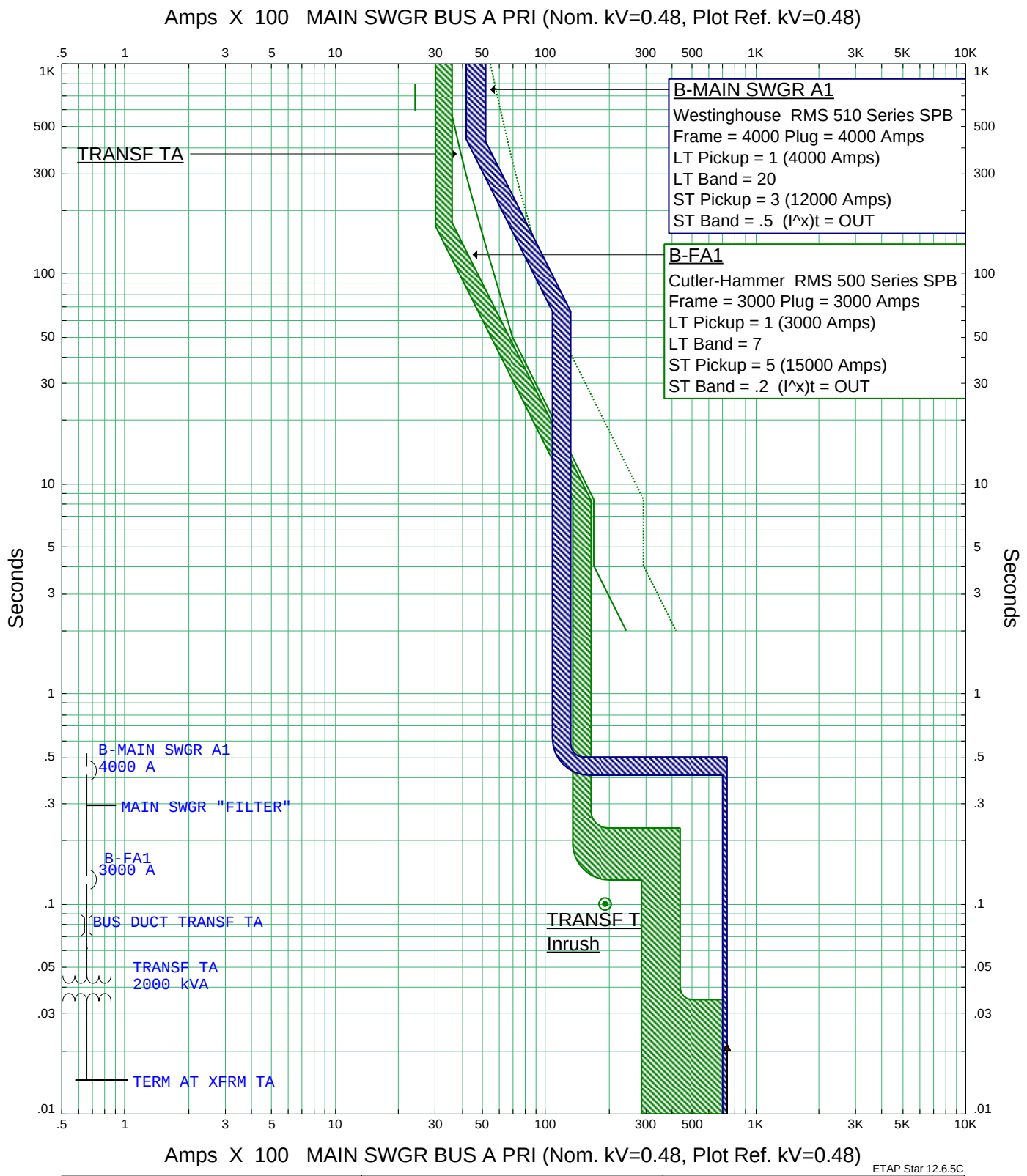
Amps X 10 EFF PS SWGR BUS A PRI (Nom. kV=0.48, Plot Ref. kV=0.48)

ETAP Star 12.6.5C

EFF PUMP NO. 4 VFD TCC

Project: OXNARD WWTP
Location: OXNARD, CA
Contract: 9587A.00
Engineer: SKB
Filename: C:\Users\asukar\Desktop\Etap\OWTP.OTI

Date: 04-06-2015
SN: CAROLLOWAN
Rev: Base
Fault: Ground



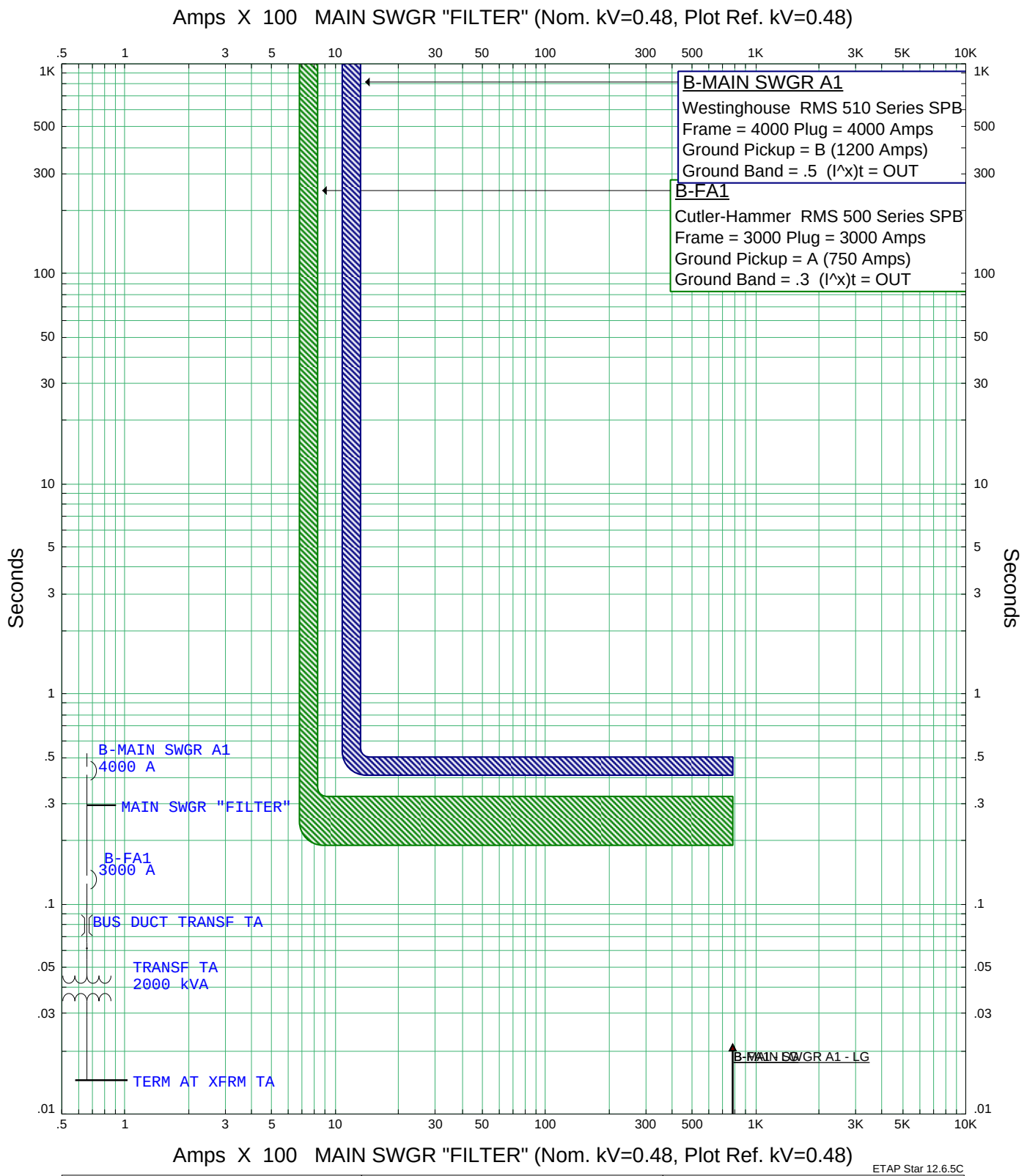
Amps X 100 MAIN SWGR BUS A PRI (Nom. kV=0.48, Plot Ref. kV=0.48)

ETAP Star 12.6.5C

MAIN SWGR FILTER TCC

Project: OXNARD WWTP
Location: OXNARD, CA
Contract: 9587A.00
Engineer: SKB
Filename: C:\Users\asukar\Desktop\Etap\OWTP.OTI

Date: 04-06-2015
SN: CAROLLOWAN
Rev: Base
Fault: Phase



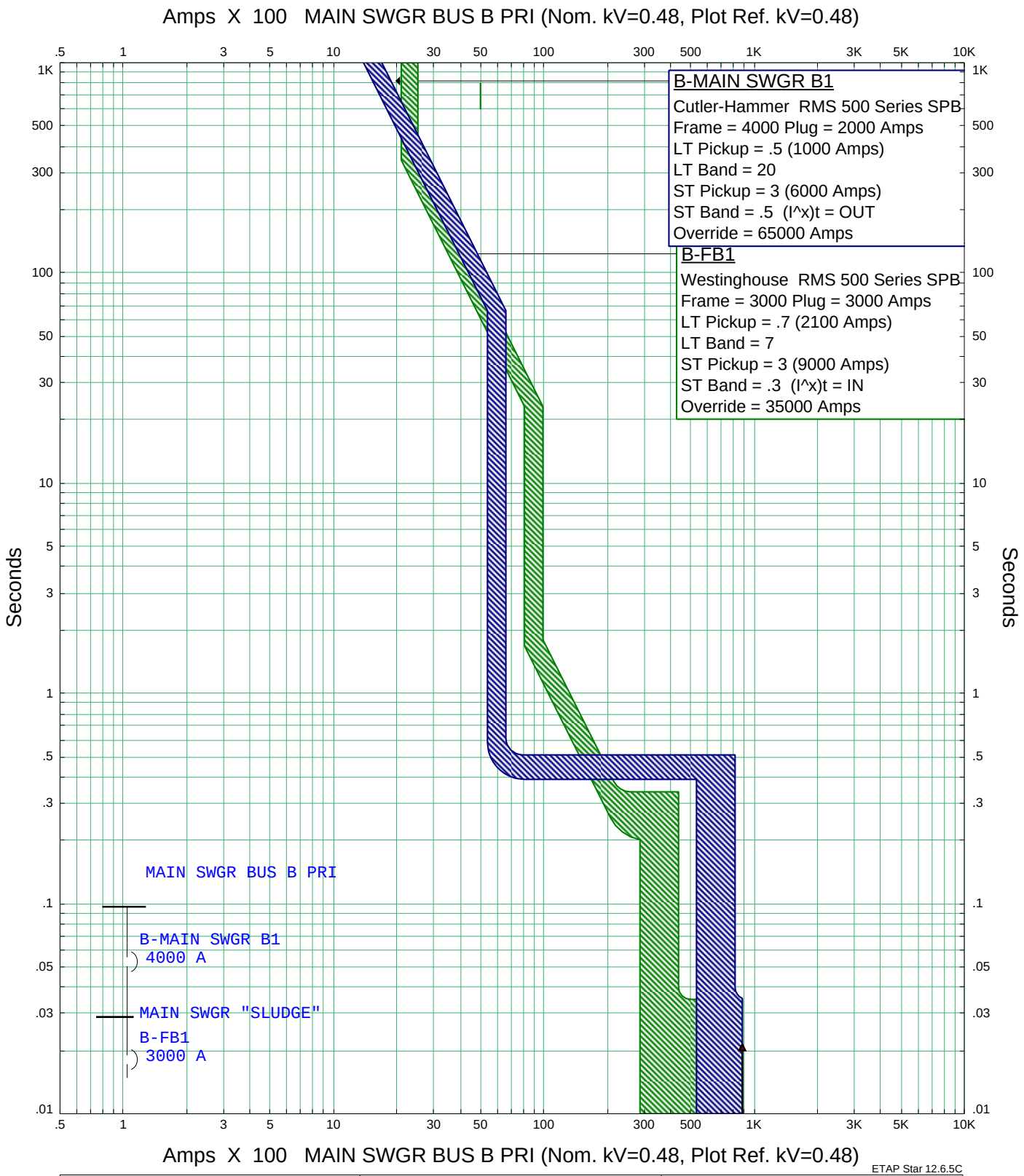
Amps X 100 MAIN SWGR "FILTER" (Nom. kV=0.48, Plot Ref. kV=0.48)

ETAP Star 12.6.5C

MAIN SWGR FILTER TCC

Project: OXNARD WWTP
Location: OXNARD, CA
Contract: 9587A.00
Engineer: SKB
Filename: C:\Users\asukar\Desktop\Etap\OWTP.OTI

Date: 04-06-2015
SN: CAROLLOWAN
Rev: Base
Fault: Ground

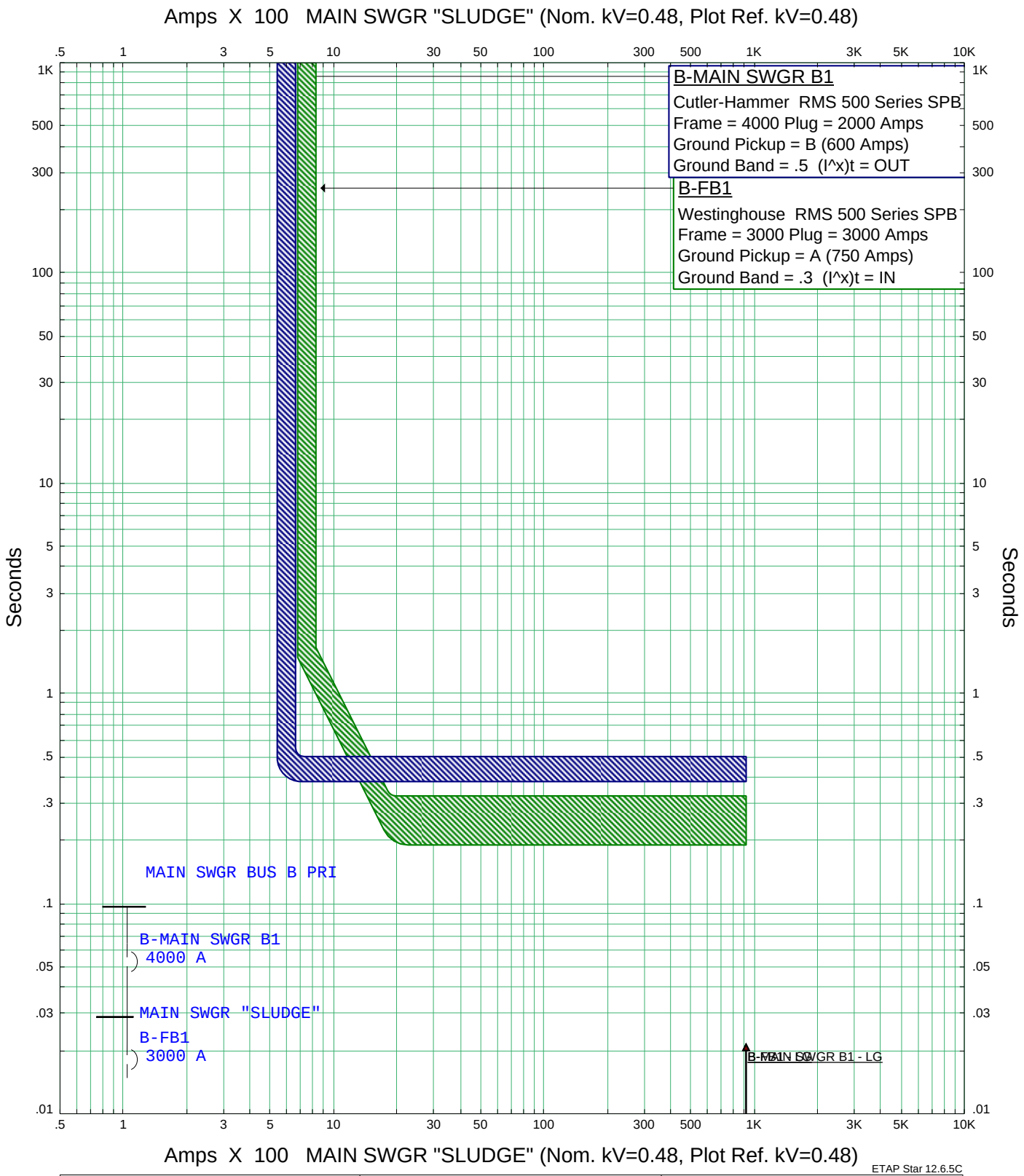


ETAP Star 12.6.5C

MAIN SWGR SLUDGE TCC

Project: OXNARD WWTP
Location: OXNARD, CA
Contract: 9587A.00
Engineer: SKB
Filename: C:\Users\asukar\Desktop\Etap\OWTP.OTI

Date: 04-06-2015
SN: CAROLLOWAN
Rev: Base
Fault: Phase

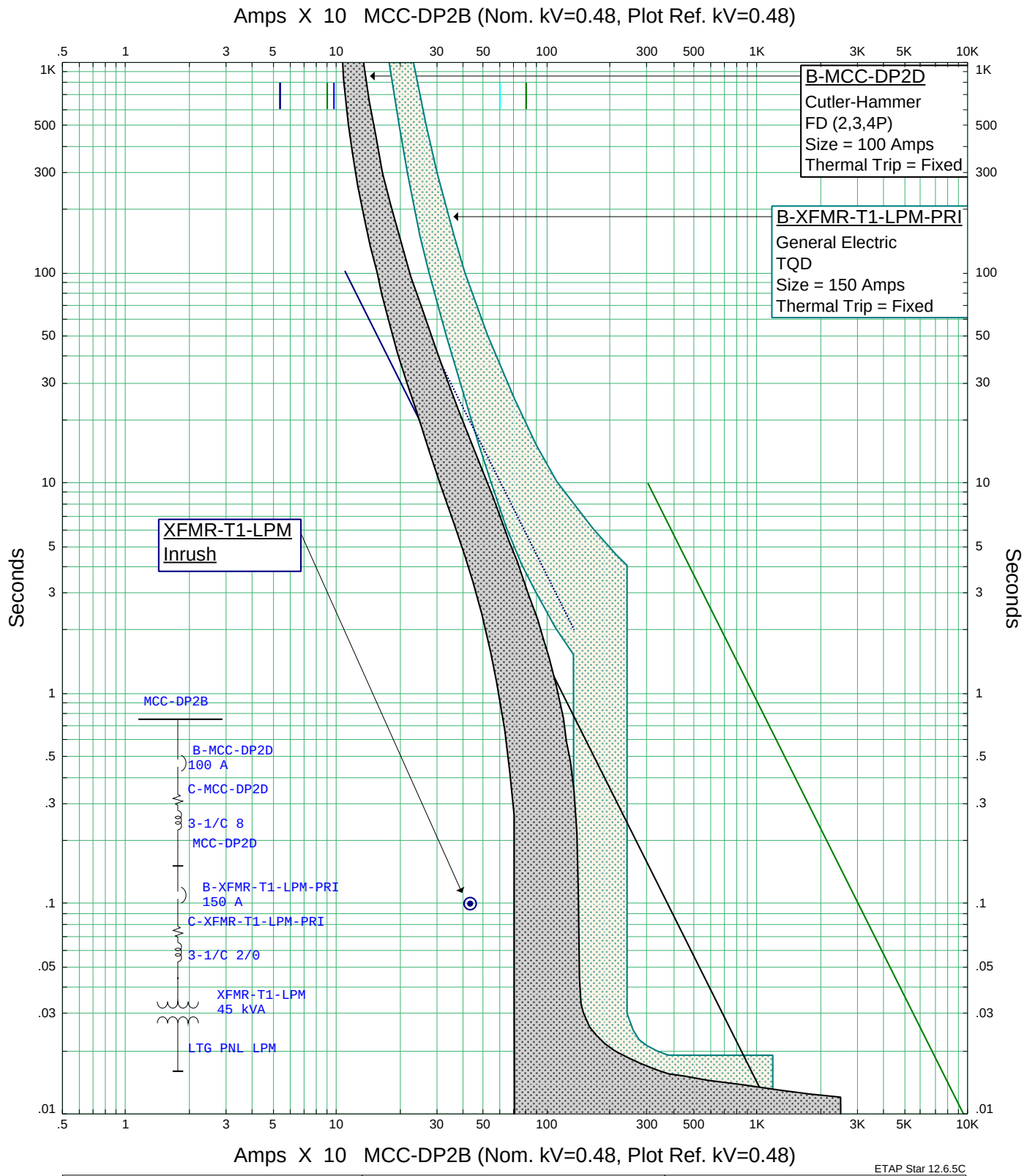


ETAP Star 12.6.5C

MAIN SWGR SLUDGE TCC

Project: OXNARD WWTP
Location: OXNARD, CA
Contract: 9587A.00
Engineer: SKB
Filename: C:\Users\asukar\Desktop\Etap\OWTP.OTI

Date: 04-06-2015
SN: CAROLLOWAN
Rev: Base
Fault: Ground

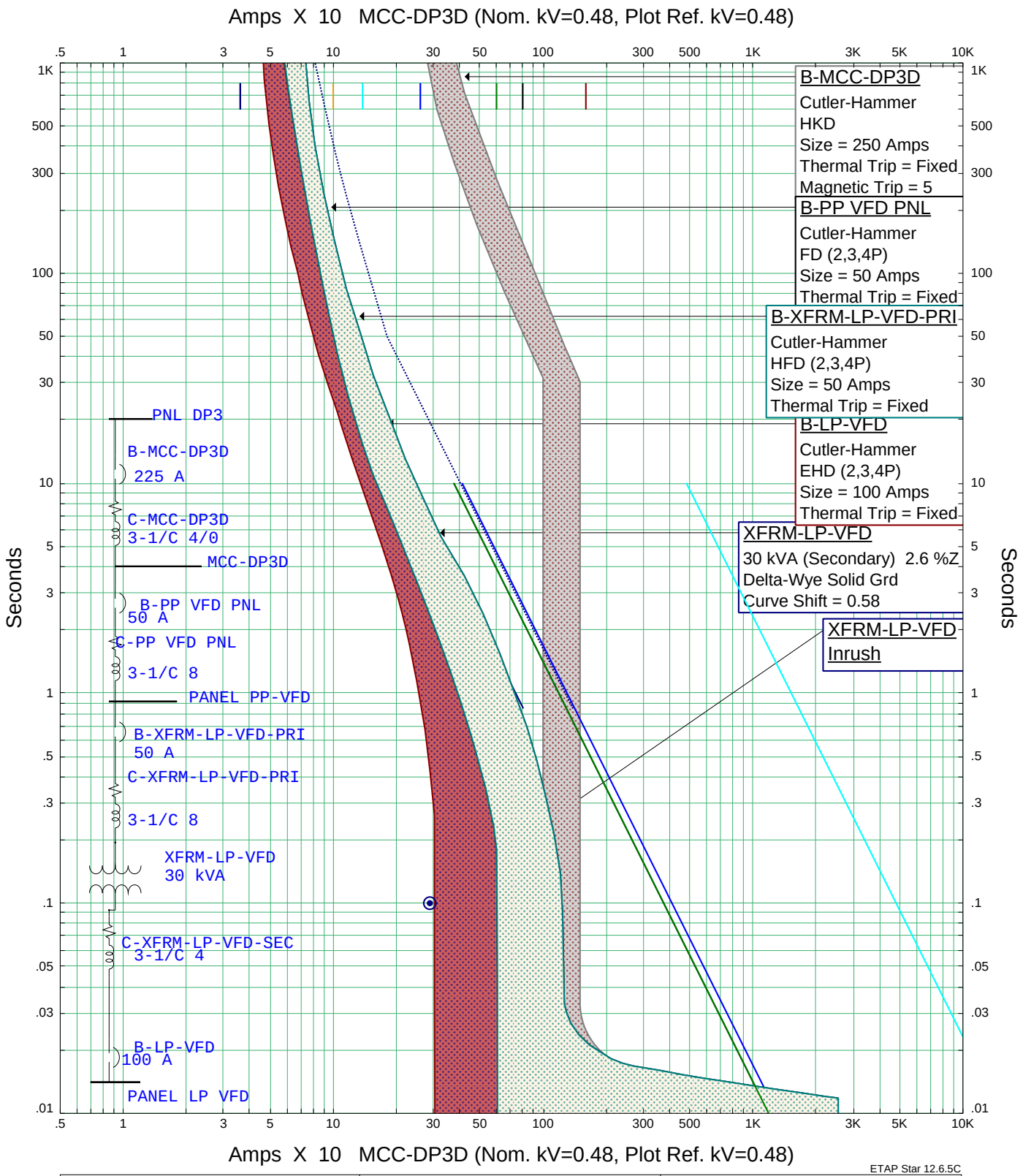


ETAP Star 12.6.5C

MCC-DP2B TCC

Project: OXNARD WWTP
Location: OXNARD, CA
Contract: 9587A.00
Engineer: SKB
Filename: C:\Users\asukar\Desktop\Etap\OWTP.OTI

Date: 04-07-2015
SN: CAROLLOWAN
Rev: Base
Fault: Phase

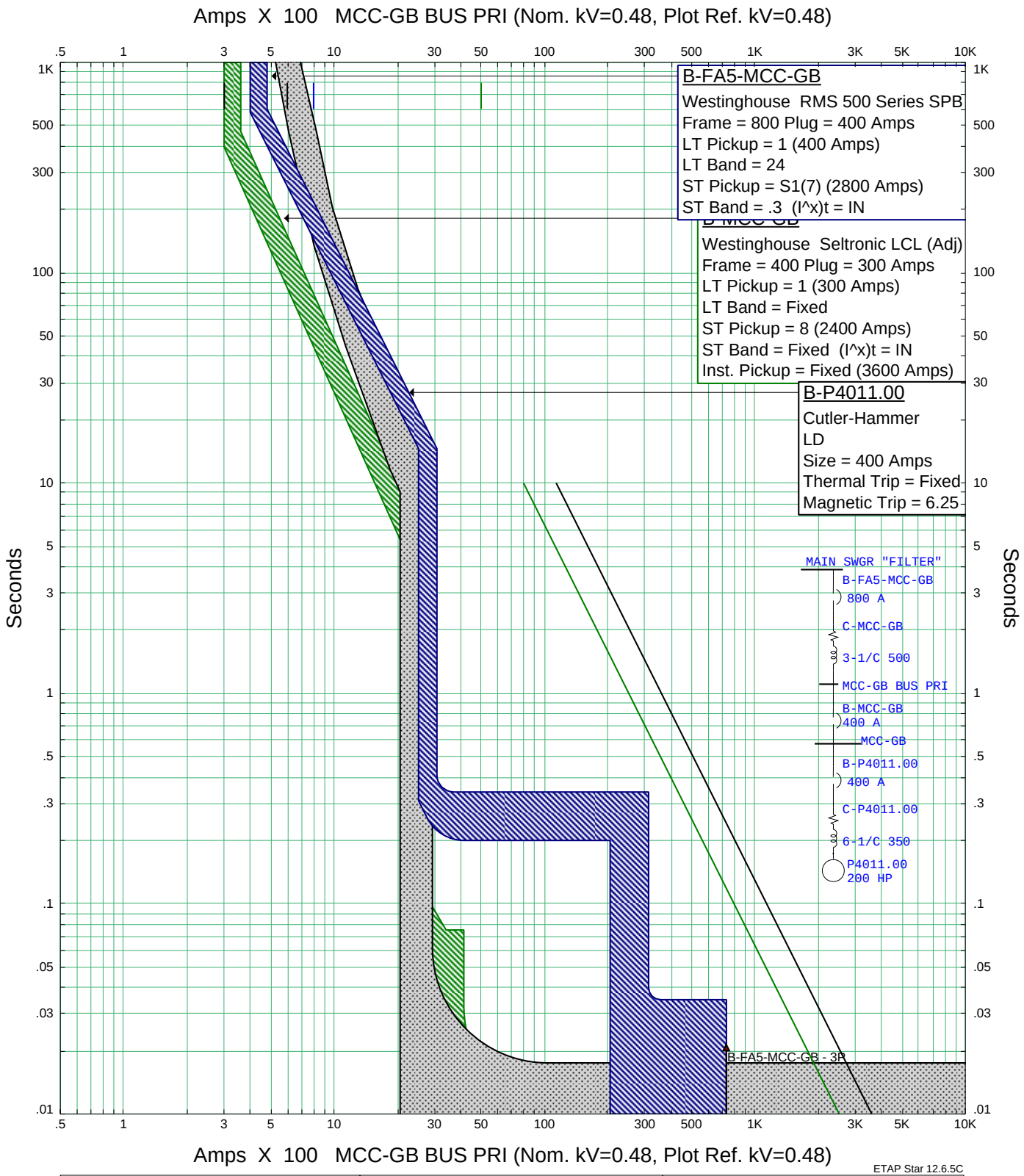


ETAP Star 12.6.5C

MCC-DP3D TCC

Project: OXNARD WWTP
Location: OXNARD, CA
Contract: 9587A.00
Engineer: SKB
Filename: C:\Users\asukar\Desktop\Etap\OWTP.OTI

Date: 04-07-2015
SN: CAROLLOWAN
Rev: Base
Fault: Phase

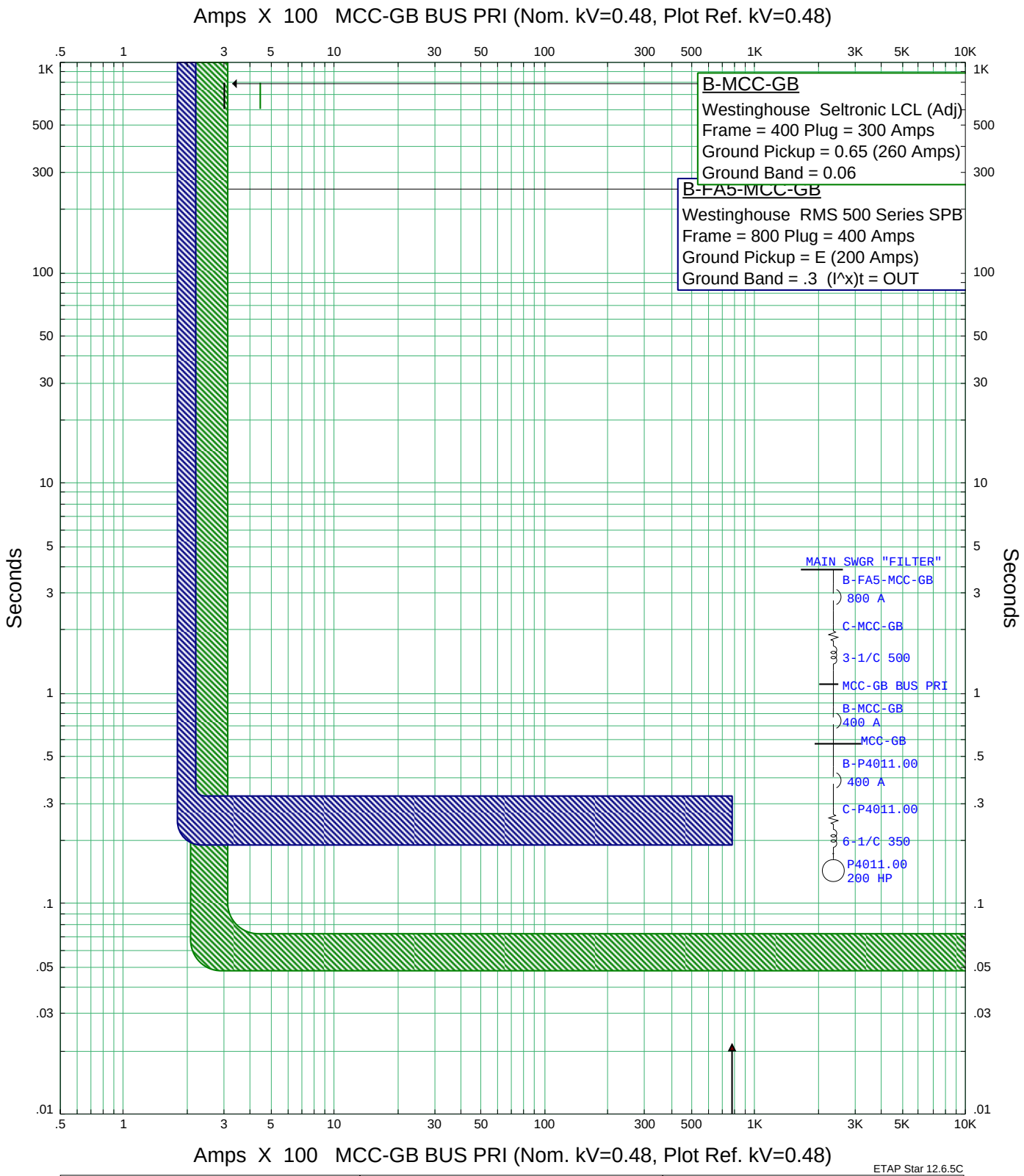


ETAP Star 12.6.5C

MCC-GB TCC

Project: OXNARD WWTP
Location: OXNARD, CA
Contract: 9587A.00
Engineer: SKB
Filename: C:\Users\asukar\Desktop\Etap\OWTP.OTI

Date: 04-07-2015
SN: CAROLLOWAN
Rev: Base
Fault: Phase

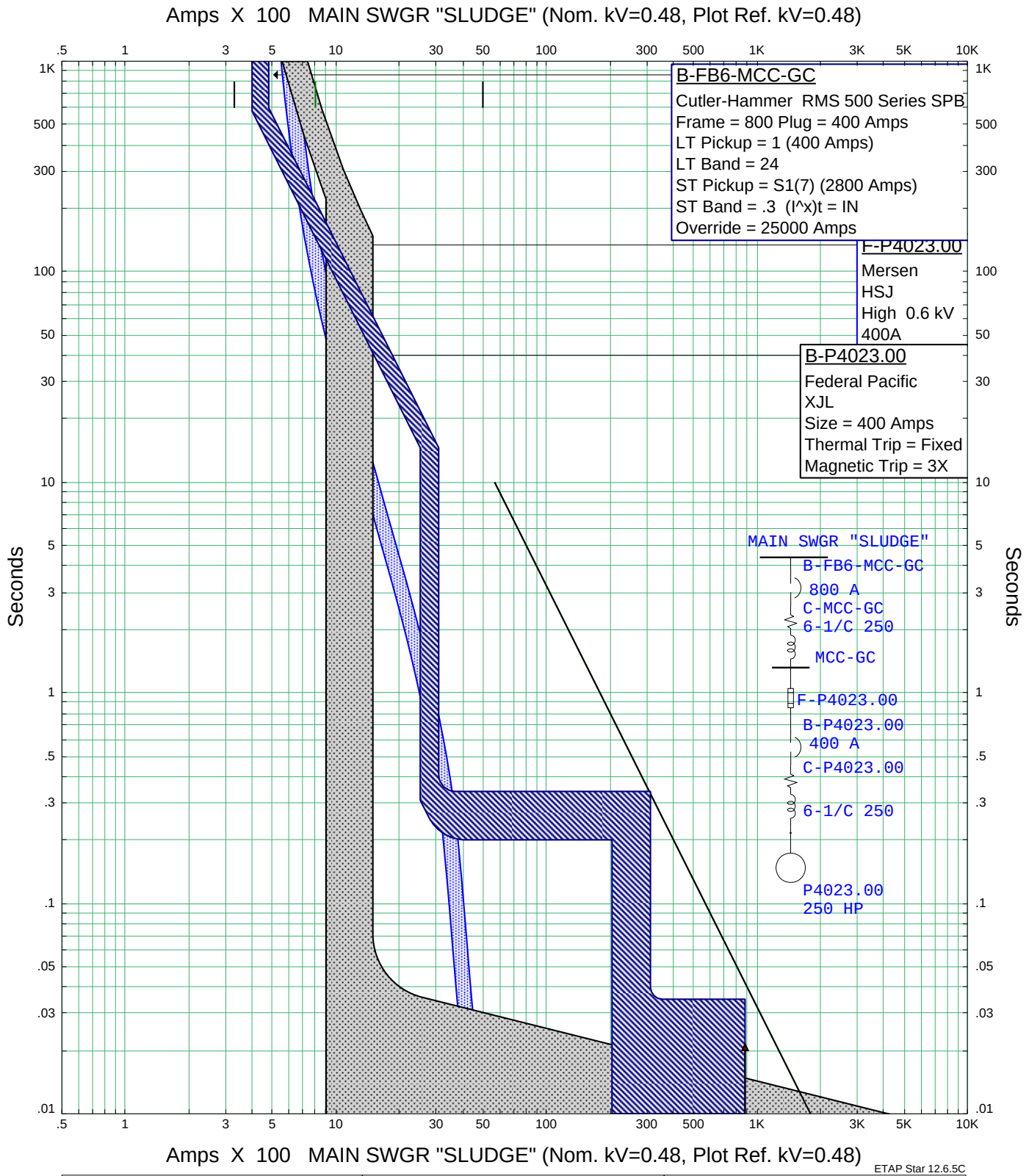


ETAP Star 12.6.5C

MCC-GB TCC

Project: OXNARD WWTP
Location: OXNARD, CA
Contract: 9587A.00
Engineer: SKB
Filename: C:\Users\asukar\Desktop\Etap\OWTP.OTI

Date: 04-07-2015
SN: CAROLLOWAN
Rev: Base
Fault: Ground

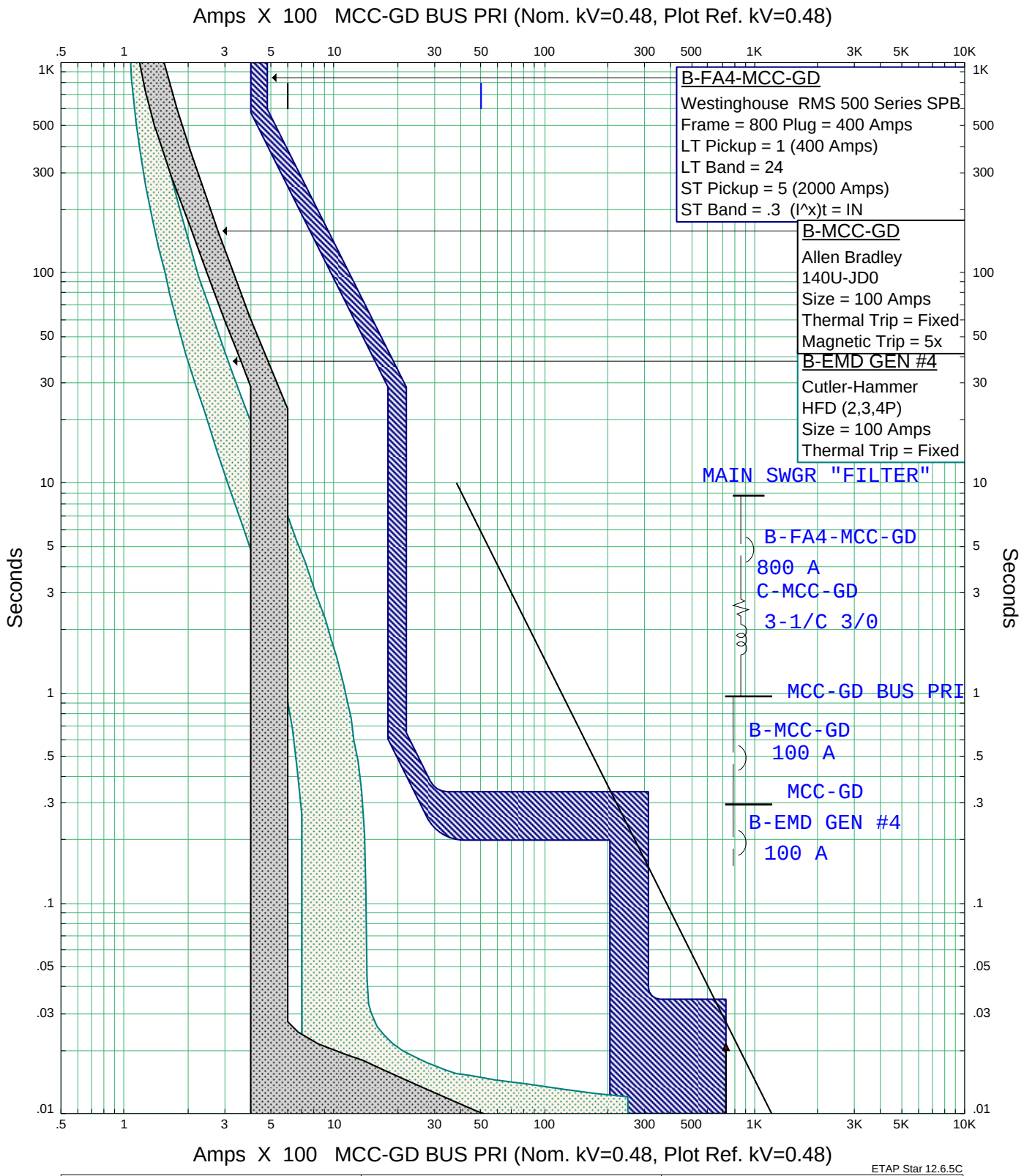


ETAP Star 12.6.5C

MCC-GC TCC

Project: OXNARD WWTP
Location: OXNARD, CA
Contract: 9587A.00
Engineer: SKB
Filename: C:\Users\asukar\Desktop\Etap\OWTP.OTI

Date: 04-07-2015
SN: CAROLLOWAN
Rev: Base
Fault: Phase



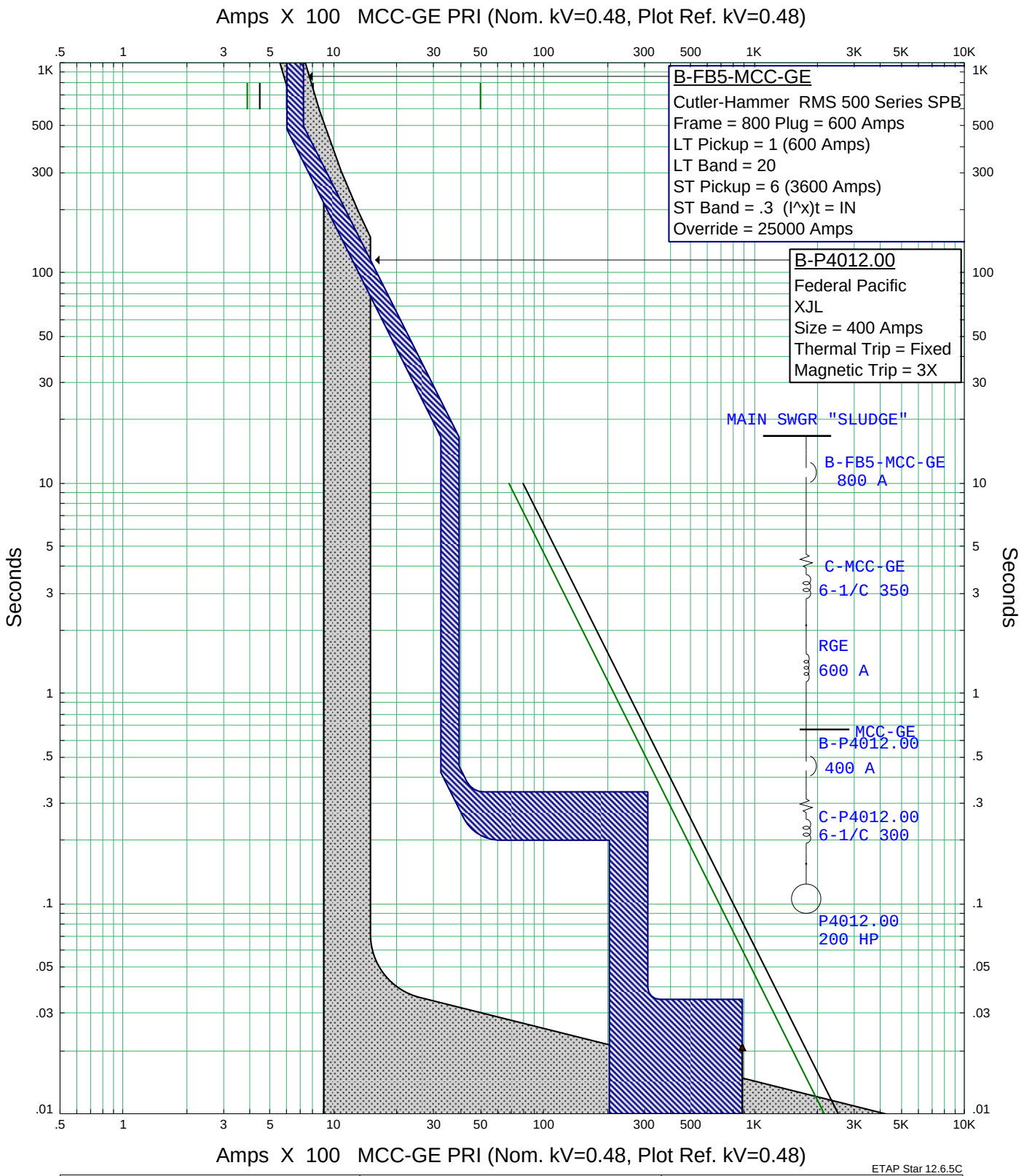
Amps X 100 MCC-GD BUS PRI (Nom. kV=0.48, Plot Ref. kV=0.48)

ETAP Star 12.6.5C

MCC-GD TCC

Project: OXNARD WWTP
Location: OXNARD, CA
Contract: 9587A.00
Engineer: SKB
Filename: C:\Users\asukar\Desktop\Etap\OWTP.OTI

Date: 04-07-2015
SN: CAROLLOWAN
Rev: Base
Fault: Phase

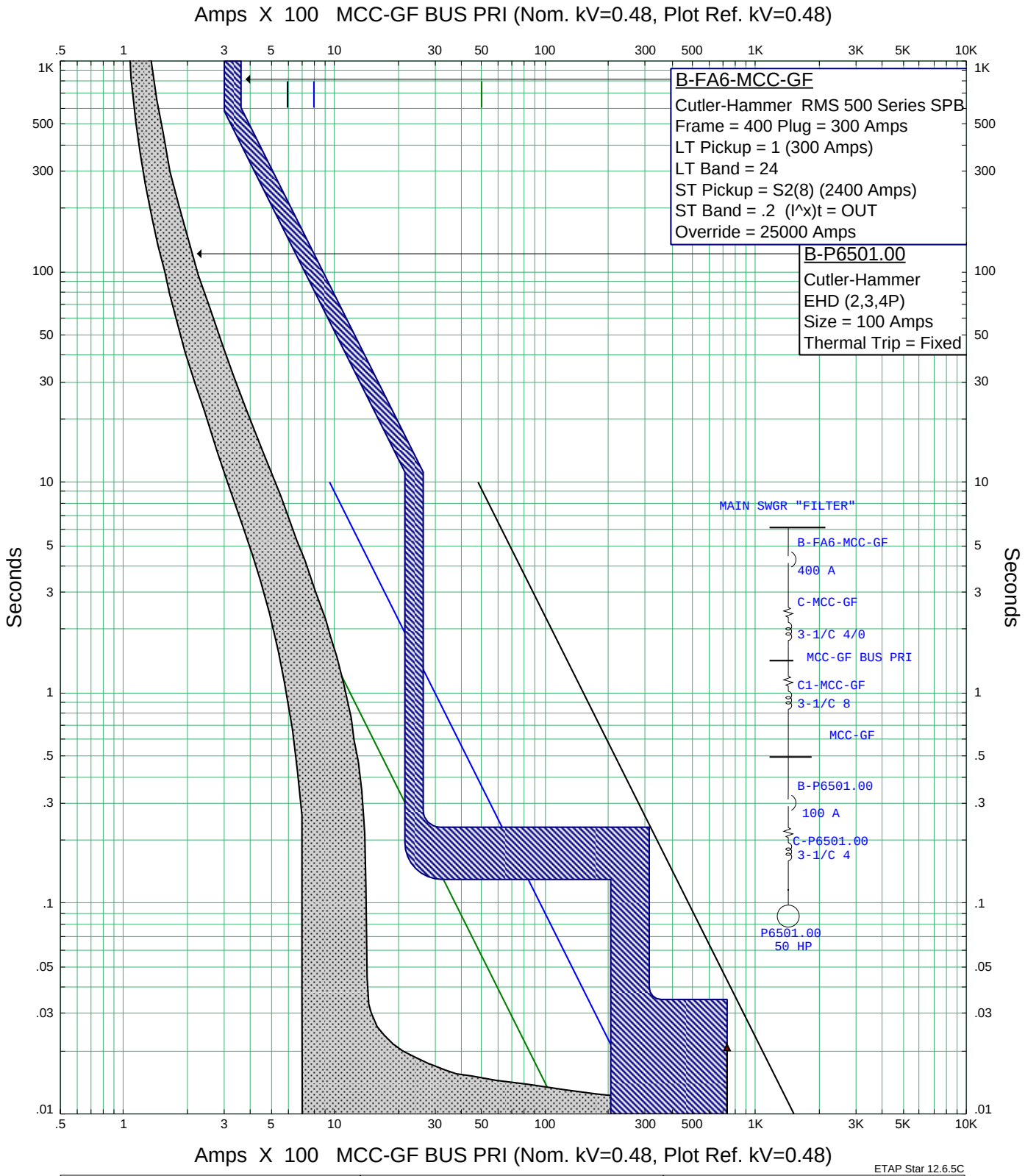


ETAP Star 12.6.5C

MCC-GE TCC

Project: OXNARD WWTP
Location: OXNARD, CA
Contract: 9587A.00
Engineer: SKB
Filename: C:\Users\asukar\Desktop\Etap\OWTP.OTI

Date: 04-07-2015
SN: CAROLLOWAN
Rev: Base
Fault: Phase

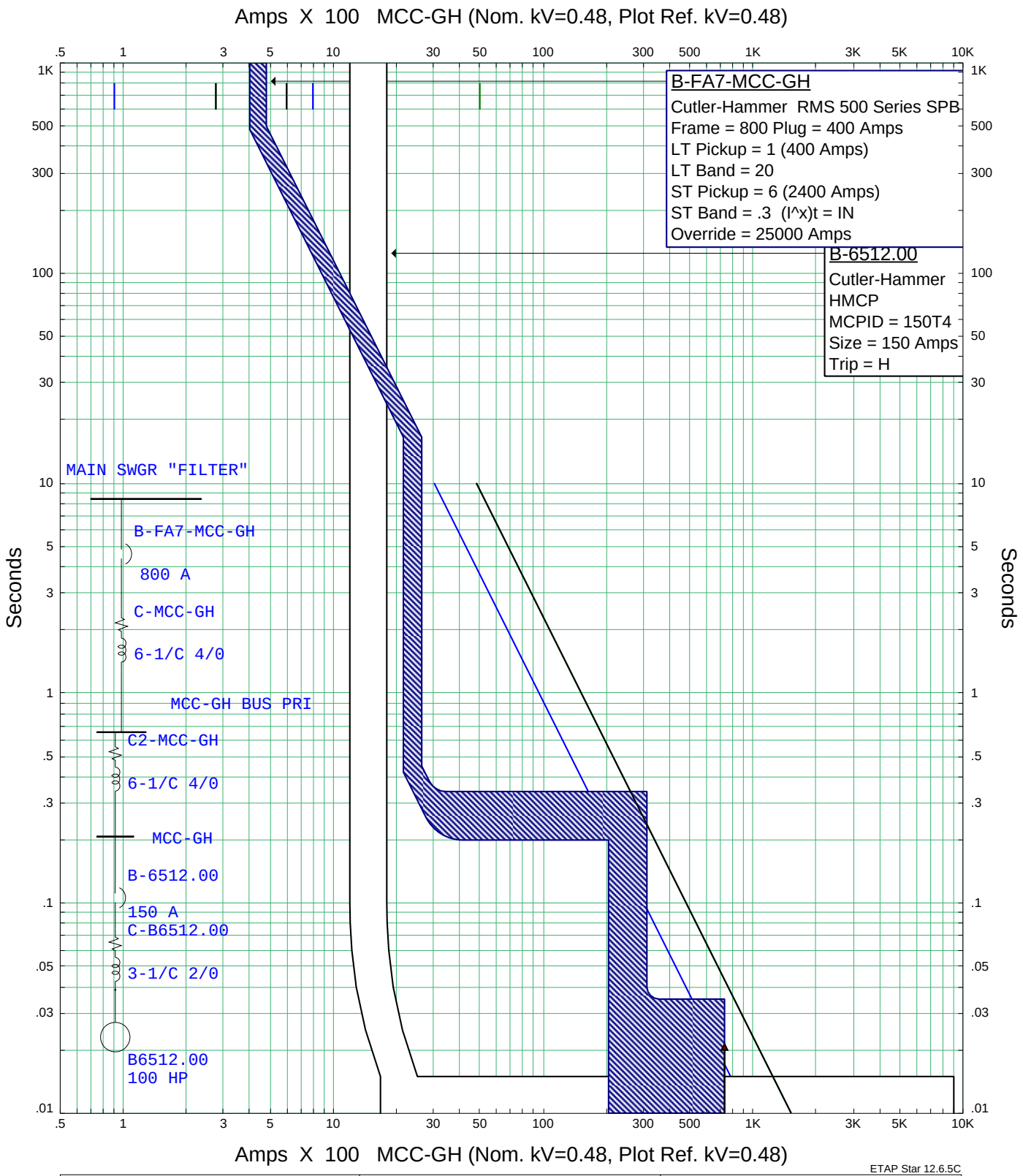


ETAP Star 12.6.5C

MCC-GF TCC

Project: OXNARD WWTP
Location: OXNARD, CA
Contract: 9587A.00
Engineer: SKB
Filename: C:\Users\asukar\Desktop\Etap\OWTP.OTI

Date: 04-07-2015
SN: CAROLLOWAN
Rev: Base
Fault: Phase

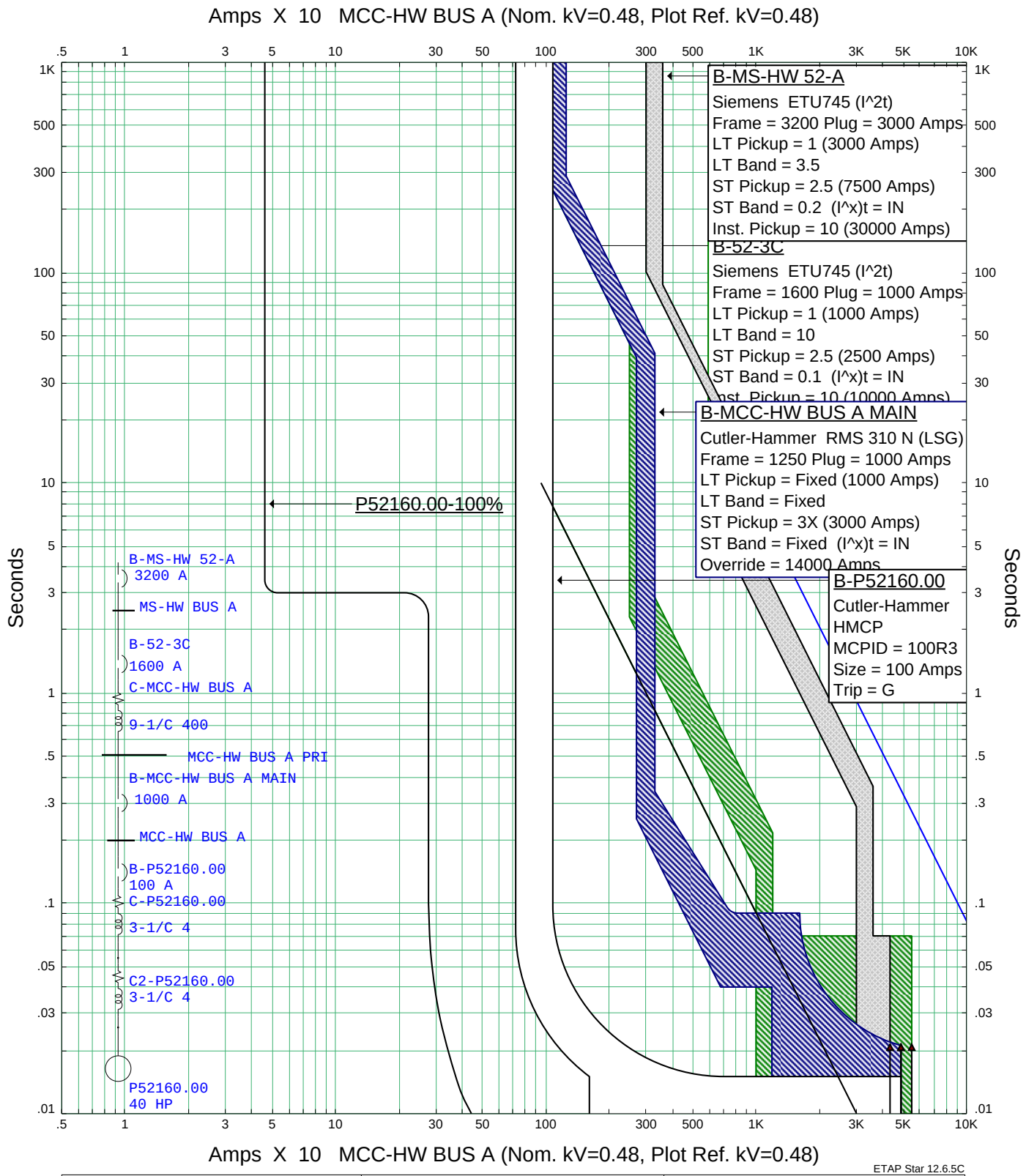


ETAP Star 12.6.5C

MCC-GH TCC

Project: OXNARD WWTP
Location: OXNARD, CA
Contract: 9587A.00
Engineer: SKB
Filename: C:\Users\asukar\Desktop\Etap\OWTP.OTI

Date: 04-07-2015
SN: CAROLLOWAN
Rev: Base
Fault: Phase

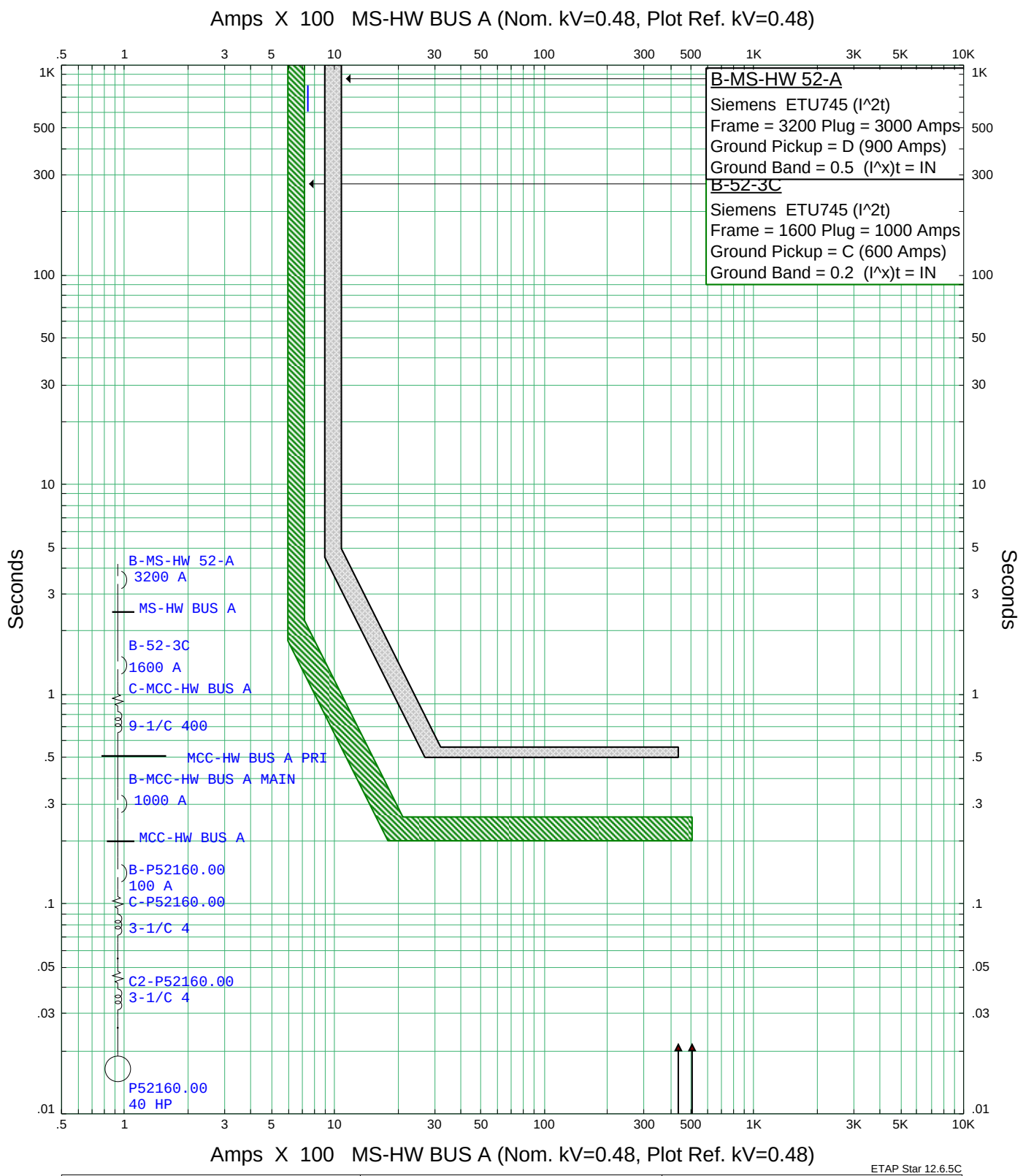


ETAP Star 12.6.5C

MCC-HW BUS A TCC

Project: OXNARD WWTP
Location: OXNARD, CA
Contract: 9587A.00
Engineer: SKB
Filename: C:\Users\asukar\Desktop\Etap\OWTP.OTI

Date: 04-06-2015
SN: CAROLLOWAN
Rev: Base
Fault: Phase



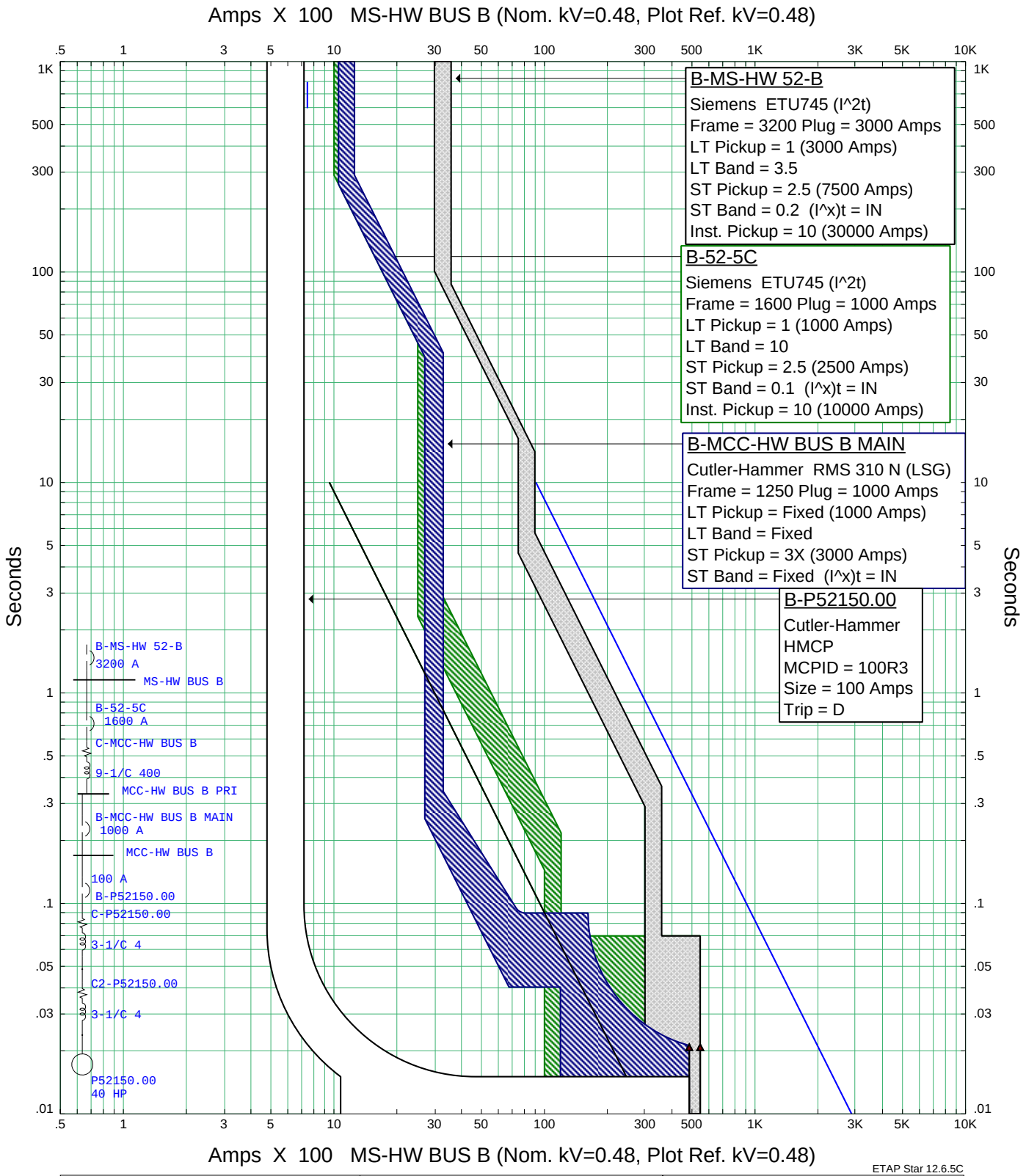
Amps X 100 MS-HW BUS A (Nom. kV=0.48, Plot Ref. kV=0.48)

ETAP Star 12.6.5C

MCC-HW BUS A TCC

Project: OXNARD WWTP
Location: OXNARD, CA
Contract: 9587A.00
Engineer: SKB
Filename: C:\Users\asukar\Desktop\Etap\OWTP.OTI

Date: 04-06-2015
SN: CAROLLOWAN
Rev: Base
Fault: Ground

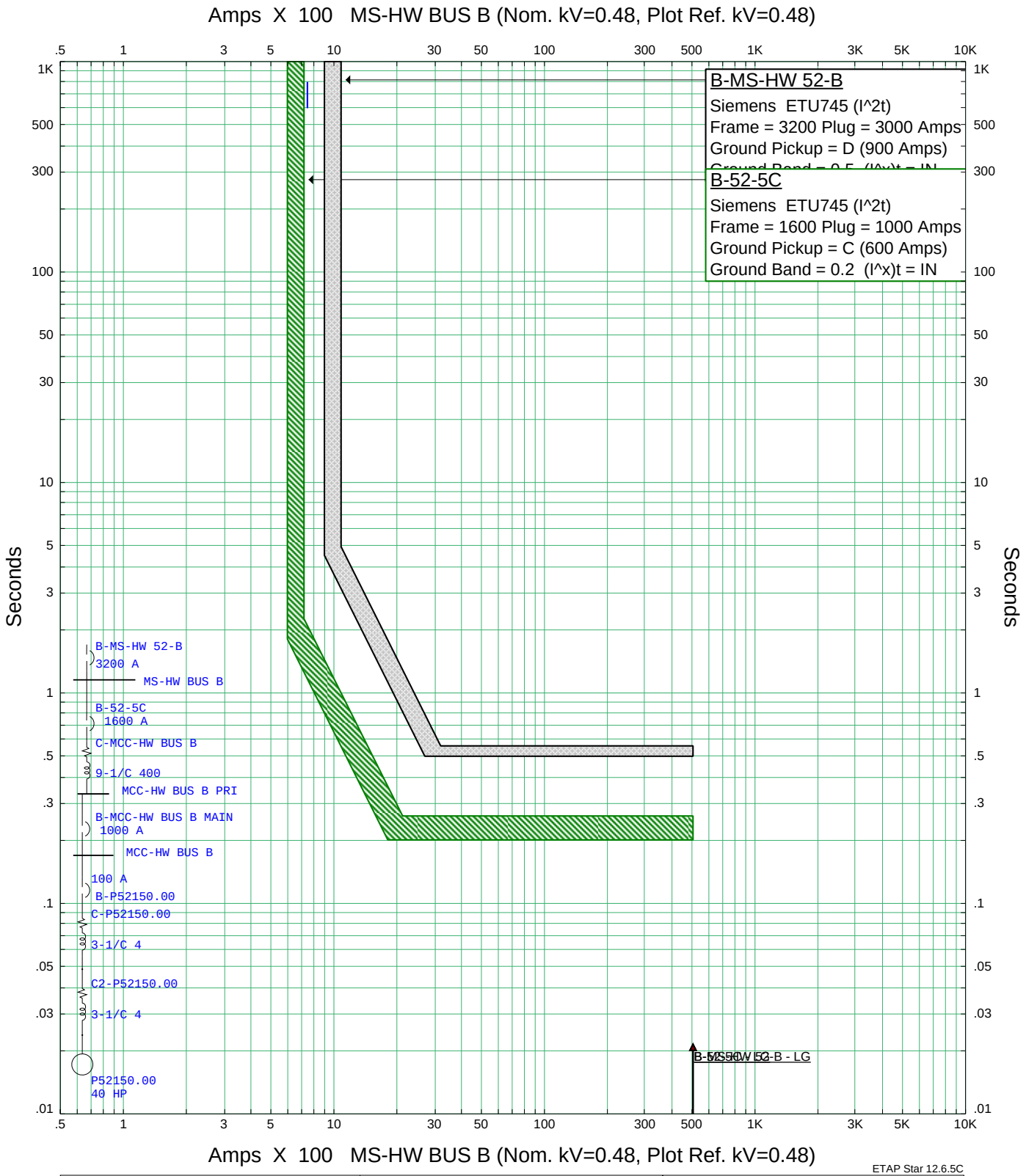


ETAP Star 12.6.5C

MCC-HW BUS B TCC

Project: OXNARD WWTP
Location: OXNARD, CA
Contract: 9587A.00
Engineer: SKB
Filename: C:\Users\asukar\Desktop\Etap\OWTP.OTI

Date: 04-06-2015
SN: CAROLLOWAN
Rev: Base
Fault: Phase

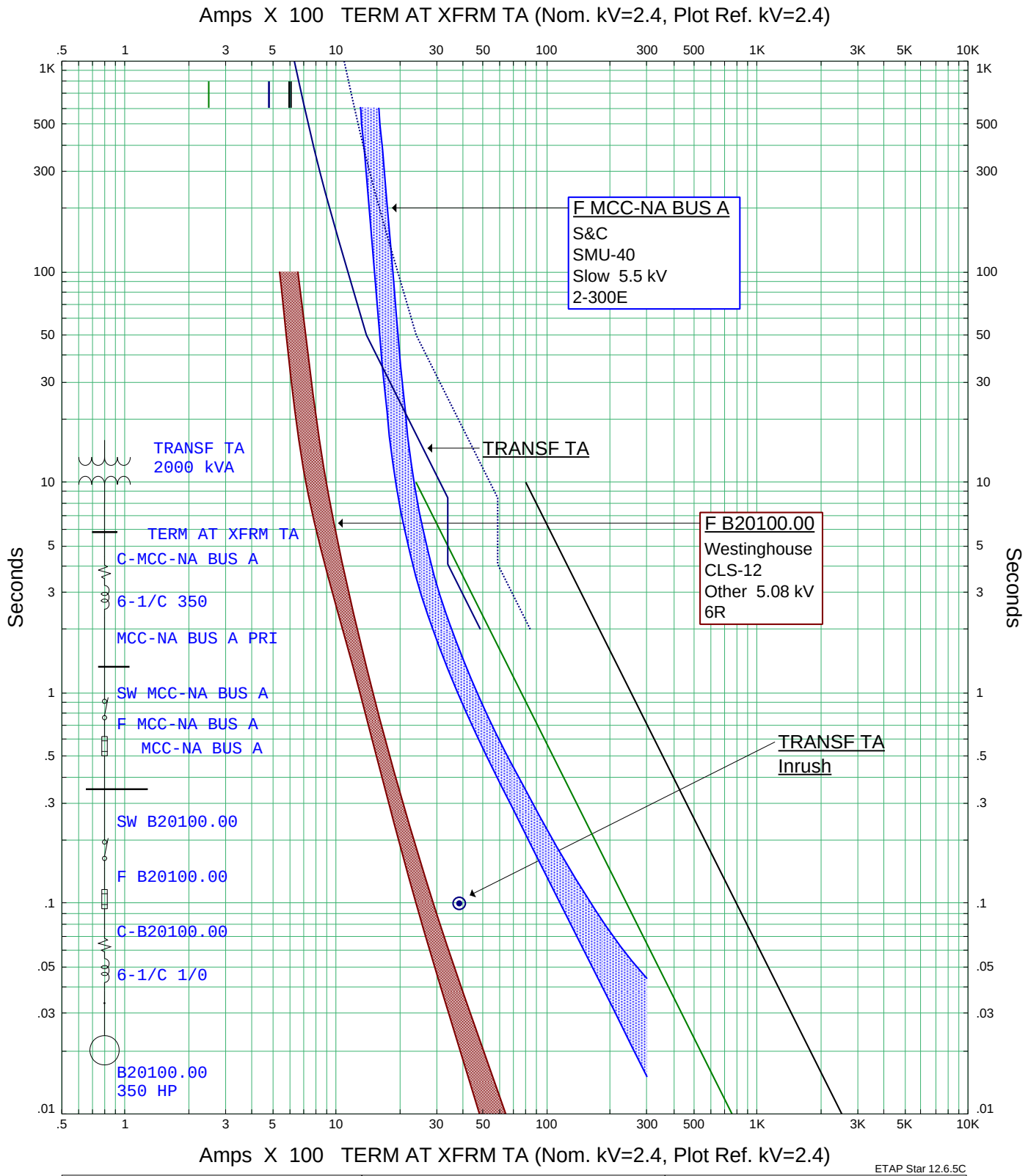


ETAP Star 12.6.5C

MCC-HW BUS B TCC

Project: OXNARD WWTP
Location: OXNARD, CA
Contract: 9587A.00
Engineer: SKB
Filename: C:\Users\asukar\Desktop\Etap\OWTP.OTI

Date: 04-06-2015
SN: CAROLLOWAN
Rev: Base
Fault: Ground

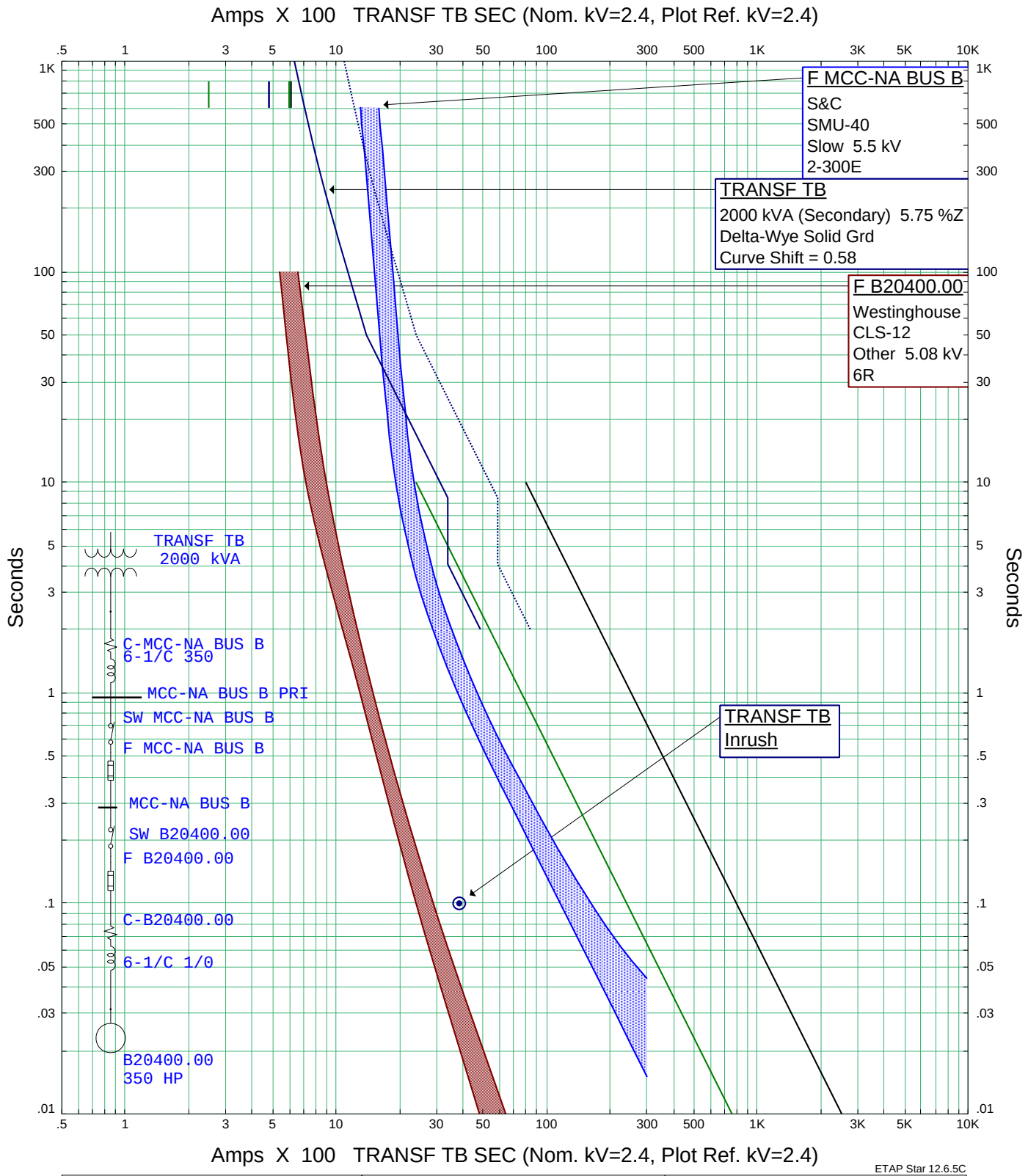


ETAP Star 12.6.5C

MCC-NA BUA A TCC

Project: OXNARD WWTP
Location: OXNARD, CA
Contract: 9587A.00
Engineer: SKB
Filename: C:\Users\asukar\Desktop\Etap\OWTP.OTI

Date: 04-06-2015
SN: CAROLLOWAN
Rev: Base
Fault: Phase

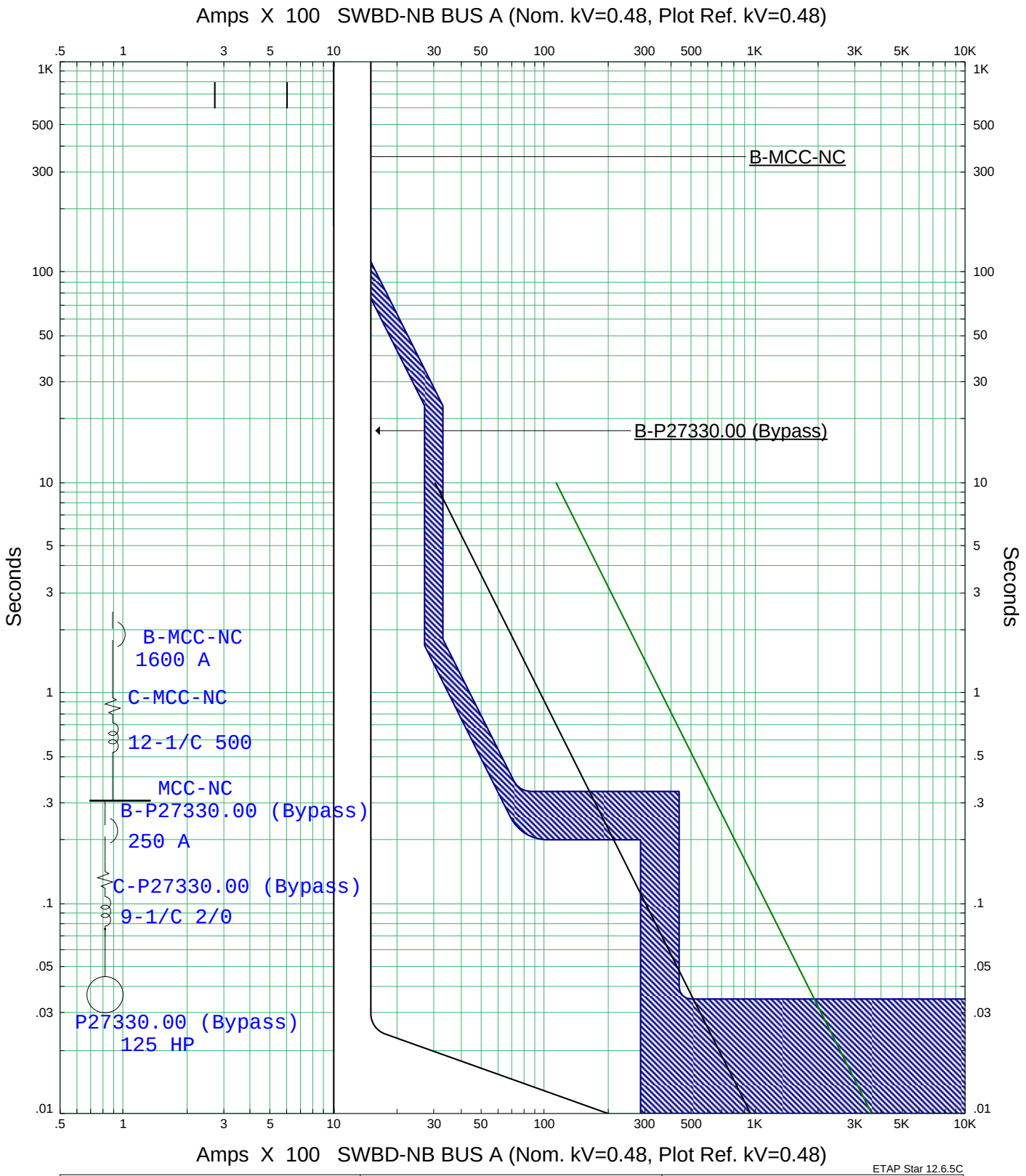


ETAP Star 12.6.5C

MCC-NA BUS B TCC

Project: OXNARD WWTP
Location: OXNARD, CA
Contract: 9587A.00
Engineer: SKB
Filename: C:\Users\asukar\Desktop\Etap\OWTP.OTI

Date: 04-06-2015
SN: CAROLLOWAN
Rev: Base
Fault: Phase

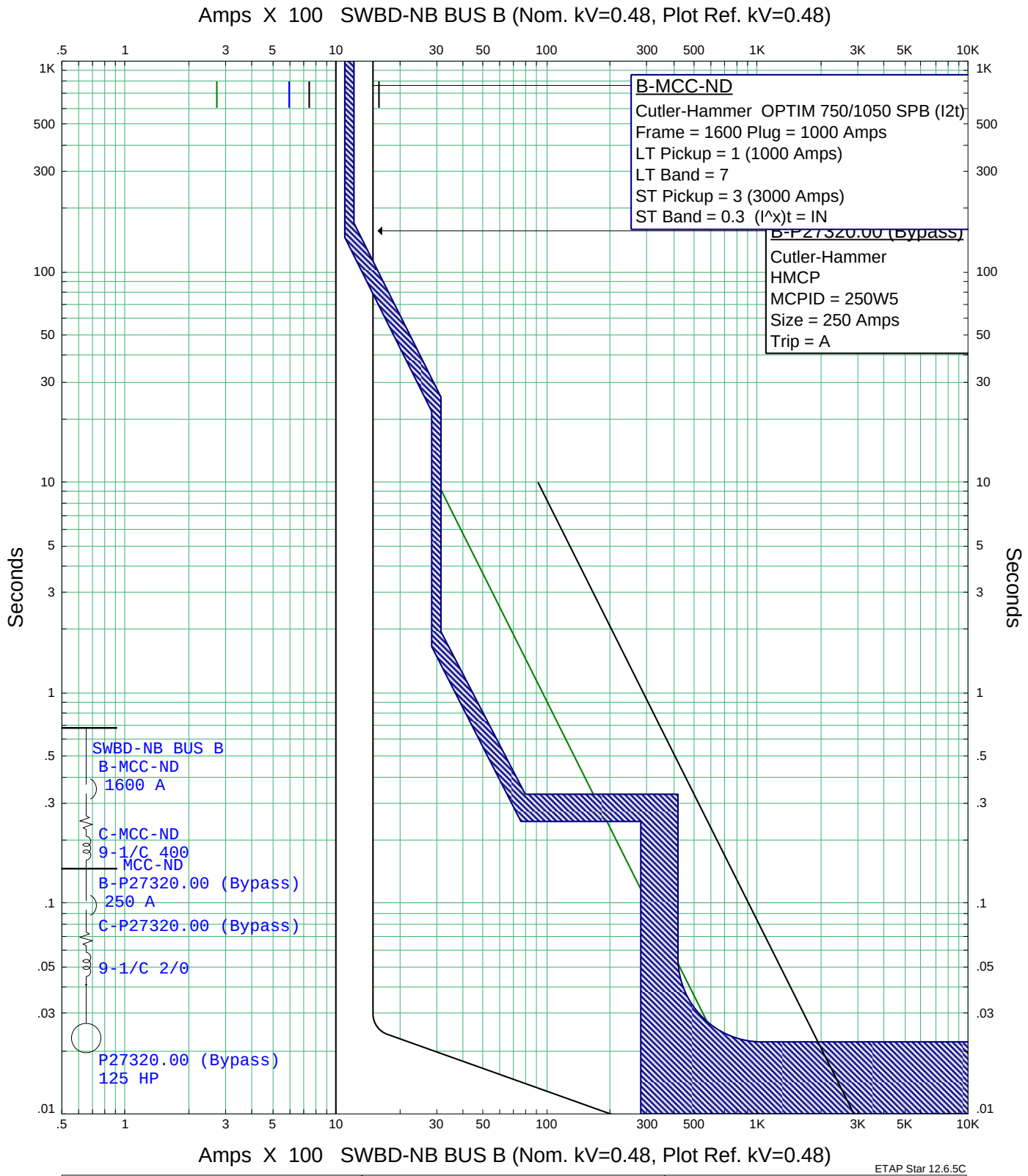


ETAP Star 12.6.5C

MCC-NC TCC

Project: OXNARD WWTP
Location: OXNARD, CA
Contract: 9587A.00
Engineer: SKB
Filename: C:\Users\asukar\Desktop\Etap\OWTP.OTI

Date: 04-06-2015
SN: CAROLLOWAN
Rev: Base
Fault: Phase

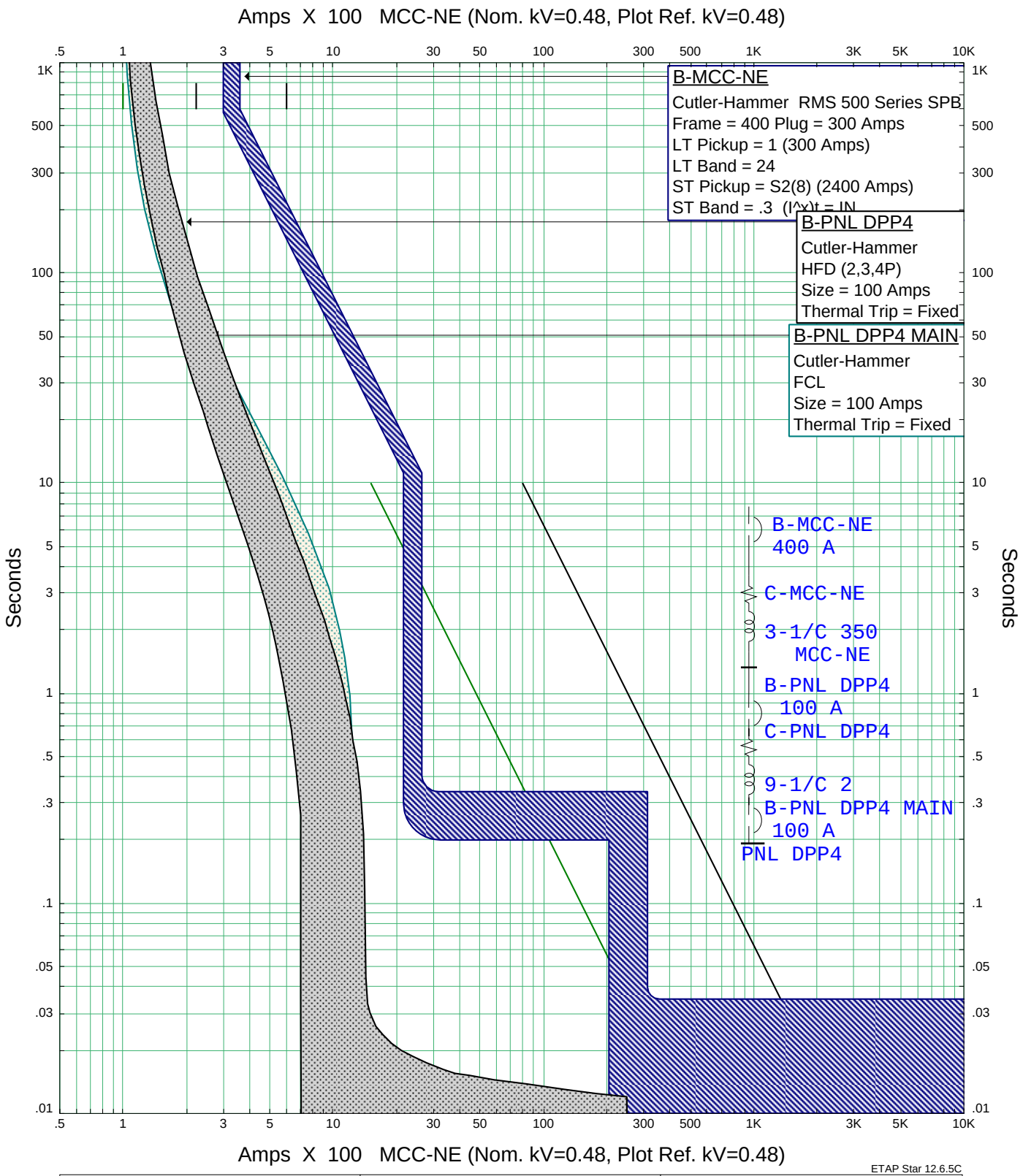


ETAP Star 12.6.5C

MCC-ND TCC

Project: OXNARD WWTP
Location: OXNARD, CA
Contract: 9587A.00
Engineer: SKB
Filename: C:\Users\asukar\Desktop\Etap\OWTP.OTI

Date: 04-07-2015
SN: CAROLLOWAN
Rev: Base
Fault: Phase



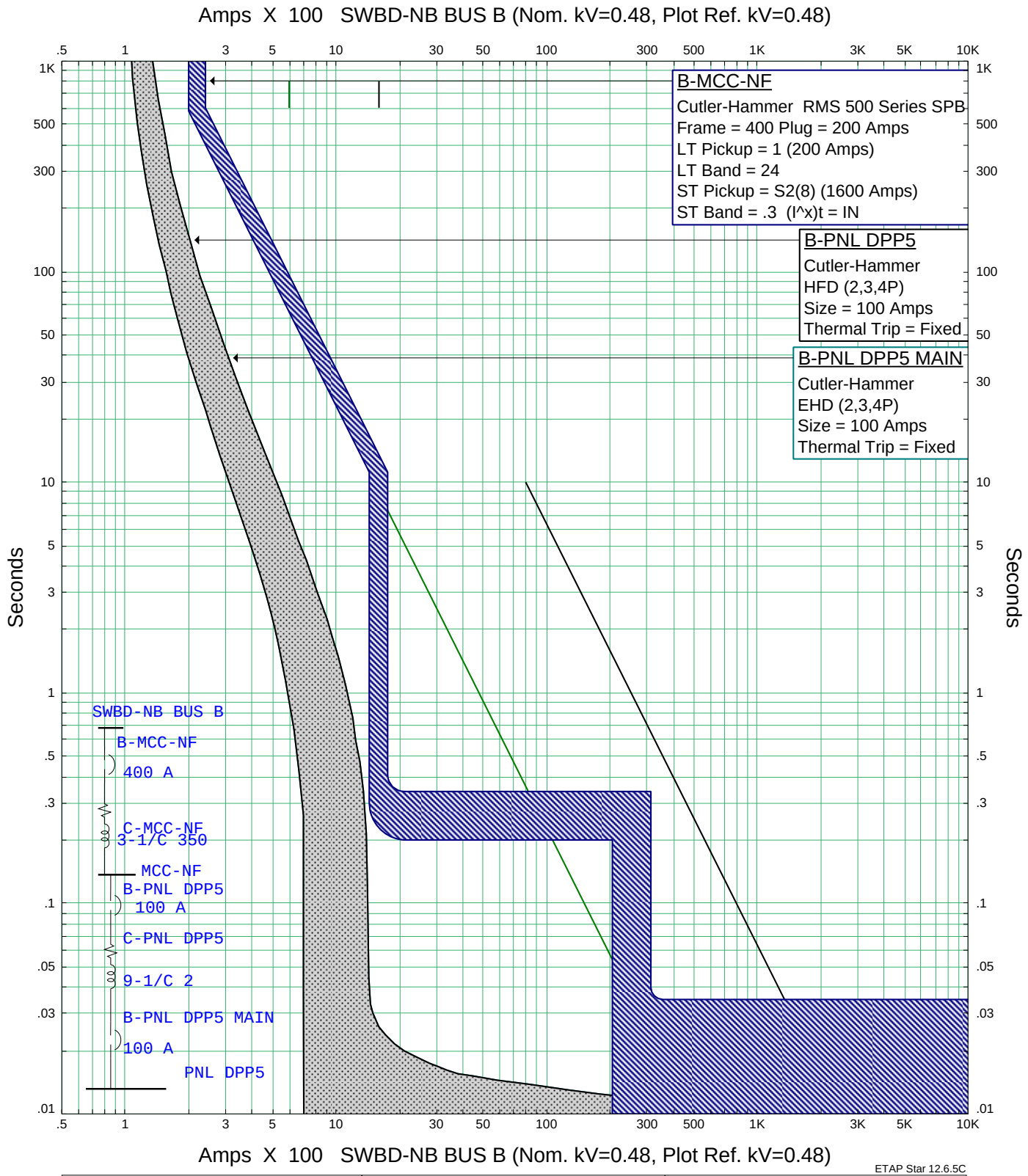
Amps X 100 MCC-NE (Nom. kV=0.48, Plot Ref. kV=0.48)

ETAP Star 12.6.5C

MCC-NE TCC

Project: OXNARD WWTP
Location: OXNARD, CA
Contract: 9587A.00
Engineer: SKB
Filename: C:\Users\asukar\Desktop\Etap\OWTP.OTI

Date: 04-06-2015
SN: CAROLLOWAN
Rev: Base
Fault: Phase



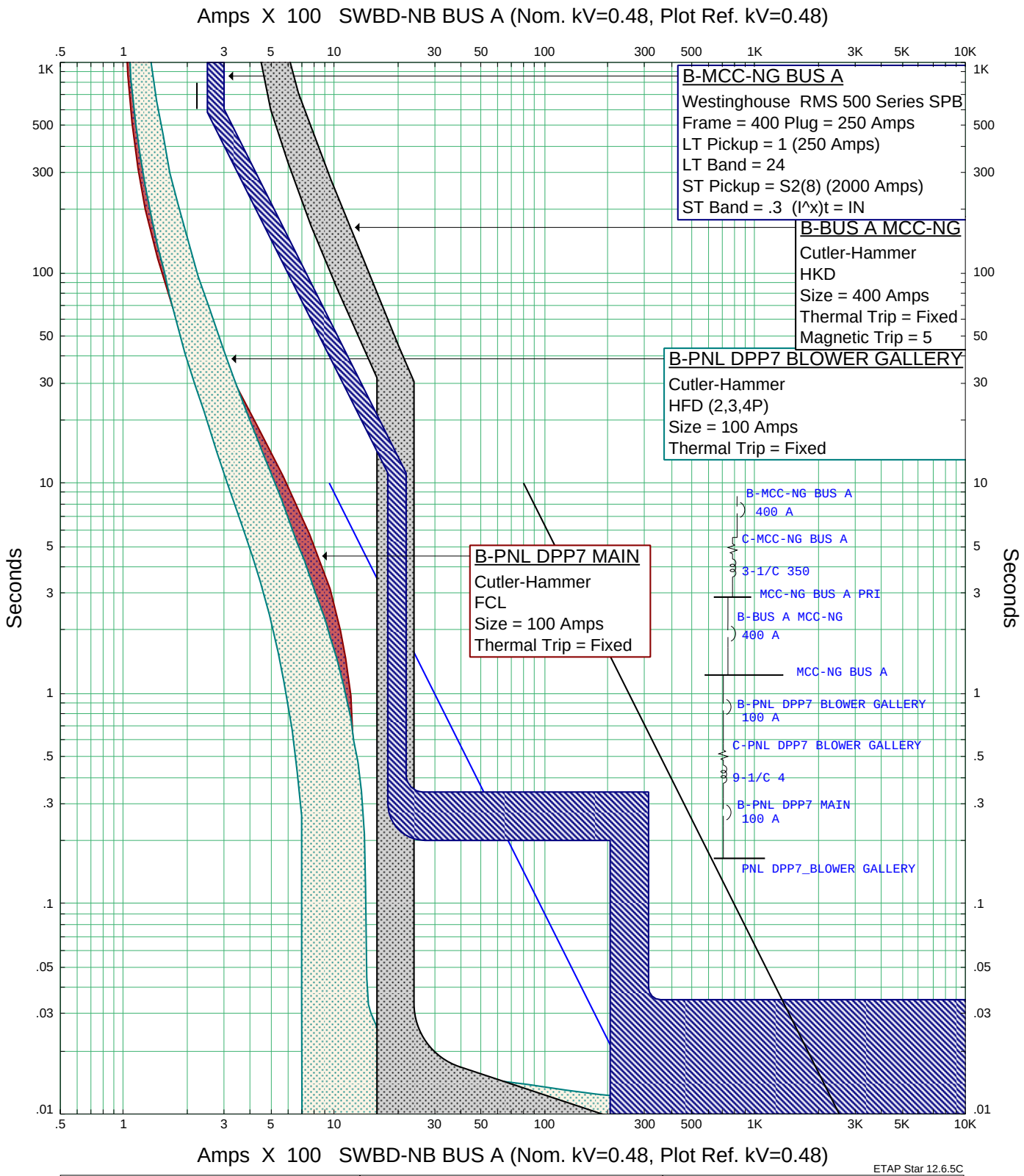
Amps X 100 SWBD-NB BUS B (Nom. kV=0.48, Plot Ref. kV=0.48)

ETAP Star 12.6.5C

MCC-NF TCC

Project: OXNARD WWTP
Location: OXNARD, CA
Contract: 9587A.00
Engineer: SKB
Filename: C:\Users\asukar\Desktop\Etap\OWTP.OTI

Date: 04-07-2015
SN: CAROLLOWAN
Rev: Base
Fault: Phase

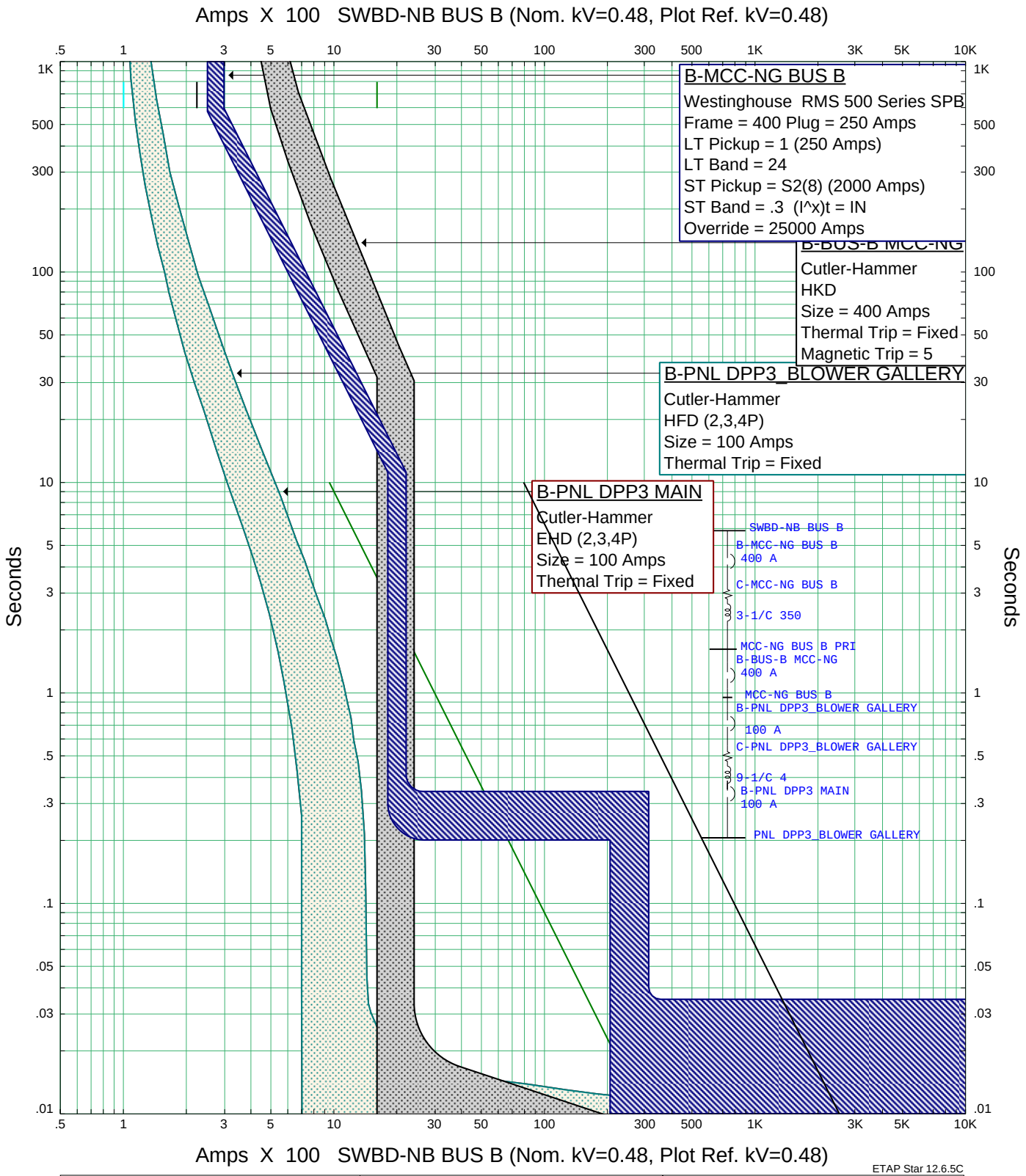


ETAP Star 12.6.5C

MCC-NG BUS A TCC

Project: OXNARD WWTP
Location: OXNARD, CA
Contract: 9587A.00
Engineer: SKB
Filename: C:\Users\asukar\Desktop\Etap\OWTP.OTI

Date: 04-06-2015
SN: CAROLLOWAN
Rev: Base
Fault: Phase

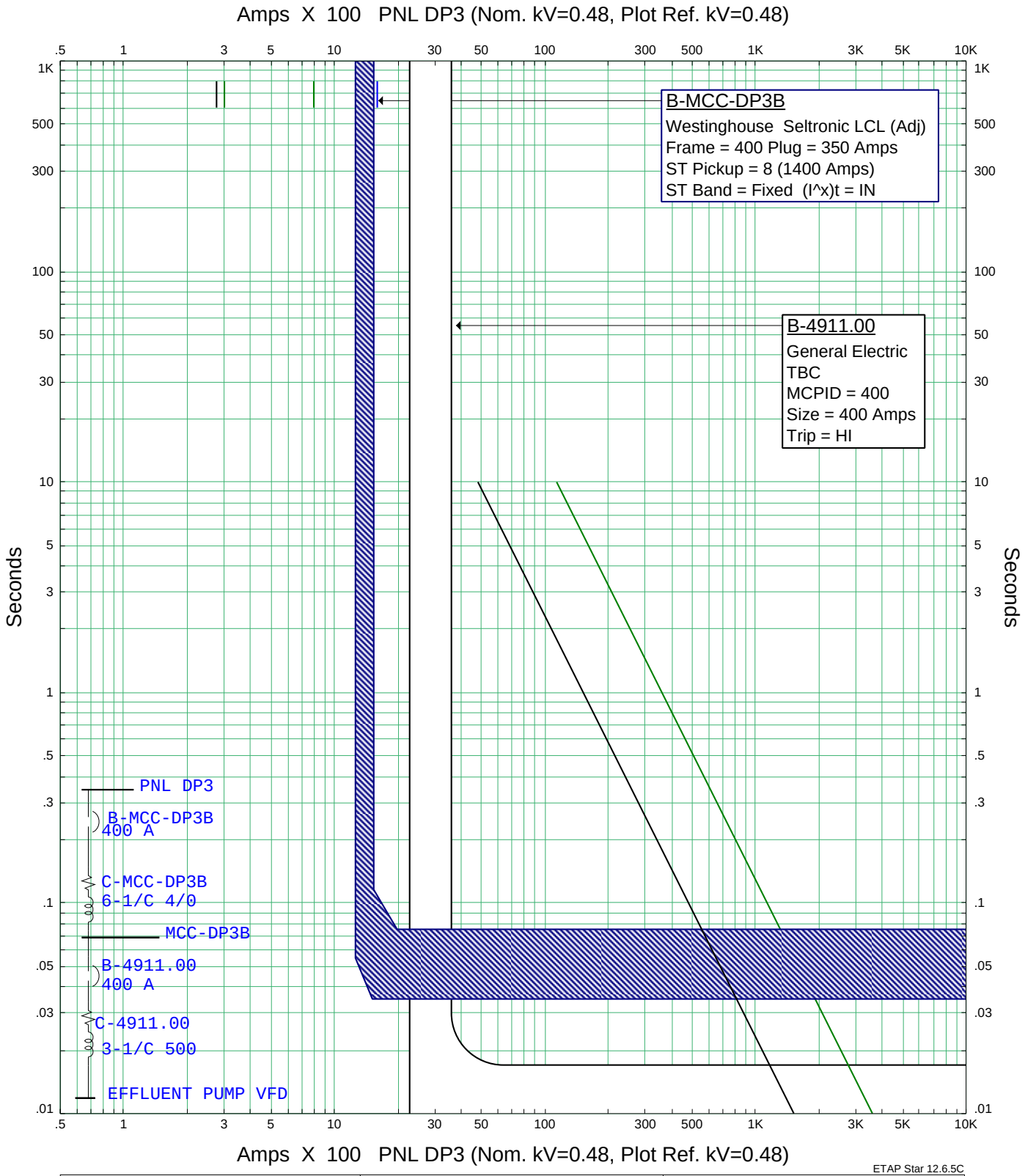


ETAP Star 12.6.5C

MCC-NG-BUS B TCC

Project: OXNARD WWTP
Location: OXNARD, CA
Contract: 9587A.00
Engineer: SKB
Filename: C:\Users\asukar\Desktop\Etap\OWTP.OTI

Date: 04-07-2015
SN: CAROLLOWAN
Rev: Base
Fault: Phase

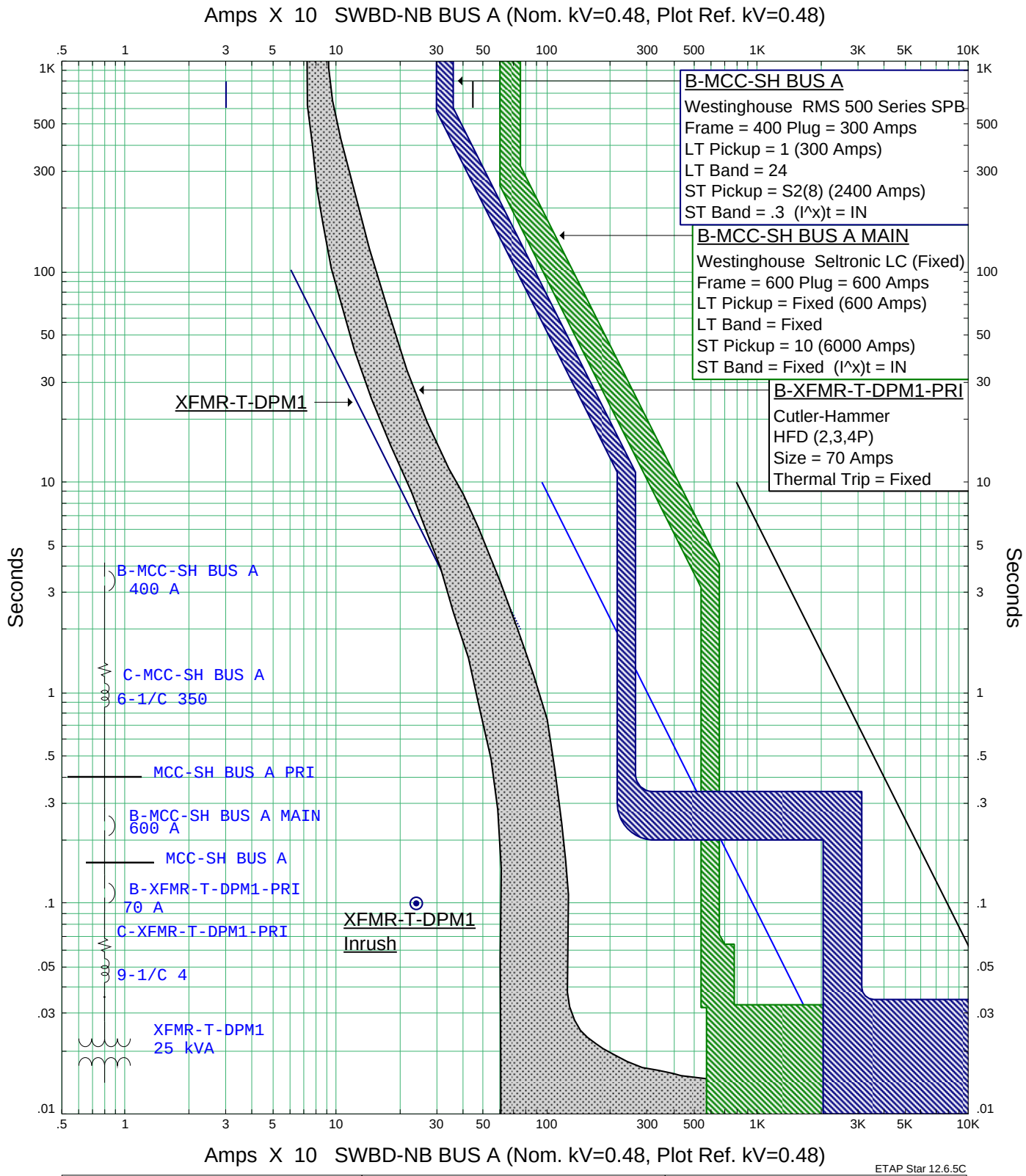


ETAP Star 12.6.5C

MCC-PD3B TCC

Project: OXNARD WWTP
Location: OXNARD, CA
Contract: 9587A.00
Engineer: SKB
Filename: C:\Users\asukar\Desktop\Etap\OWTP.OTI

Date: 04-07-2015
SN: CAROLLOWAN
Rev: Base
Fault: Phase

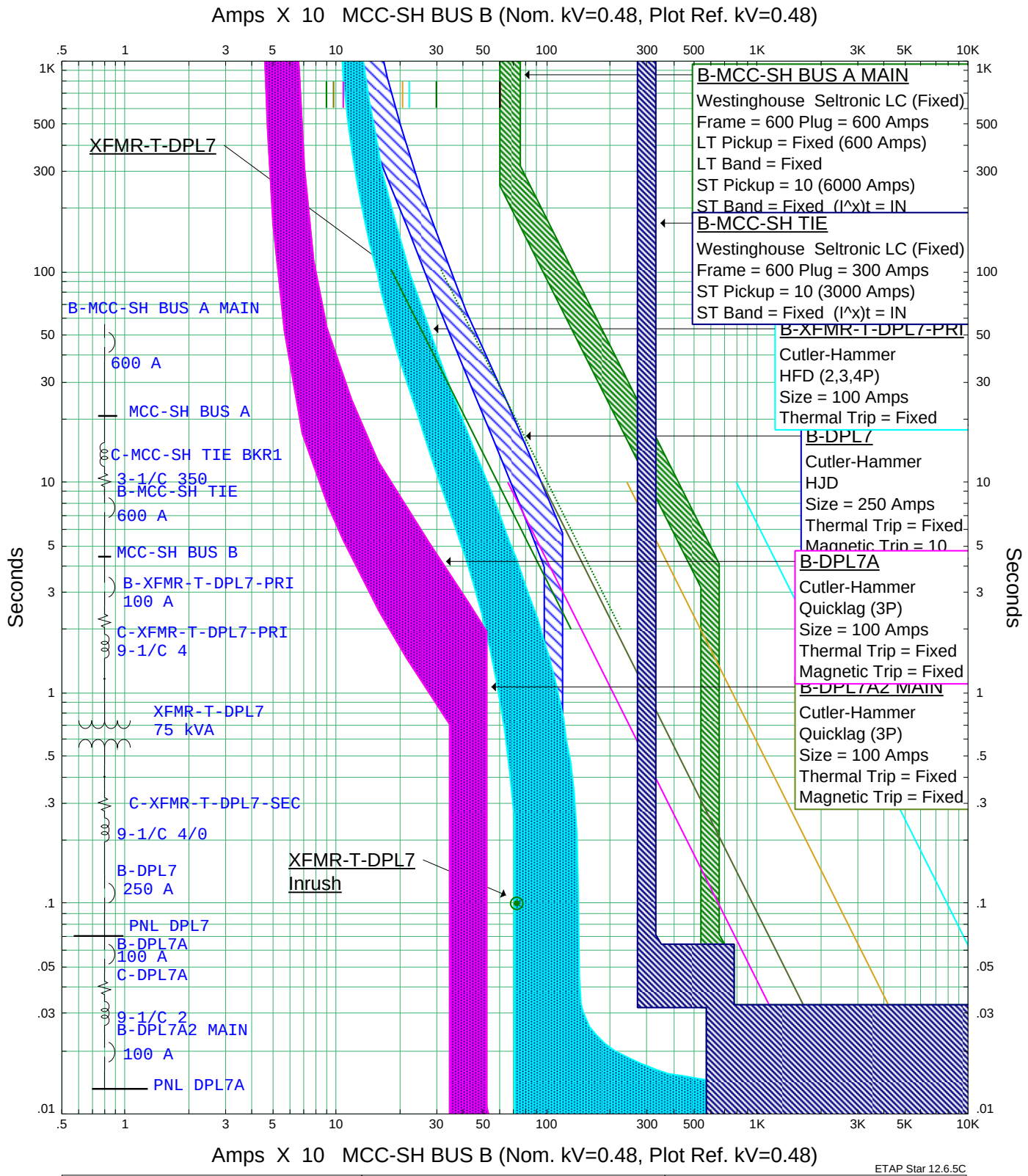


ETAP Star 12.6.5C

MCC-SH BUS A TCC

Project: OXNARD WWTP
Location: OXNARD, CA
Contract: 9587A.00
Engineer: SKB
Filename: C:\Users\asukar\Desktop\Etap\OWTP.OTI

Date: 04-06-2015
SN: CAROLLOWAN
Rev: Base
Fault: Phase

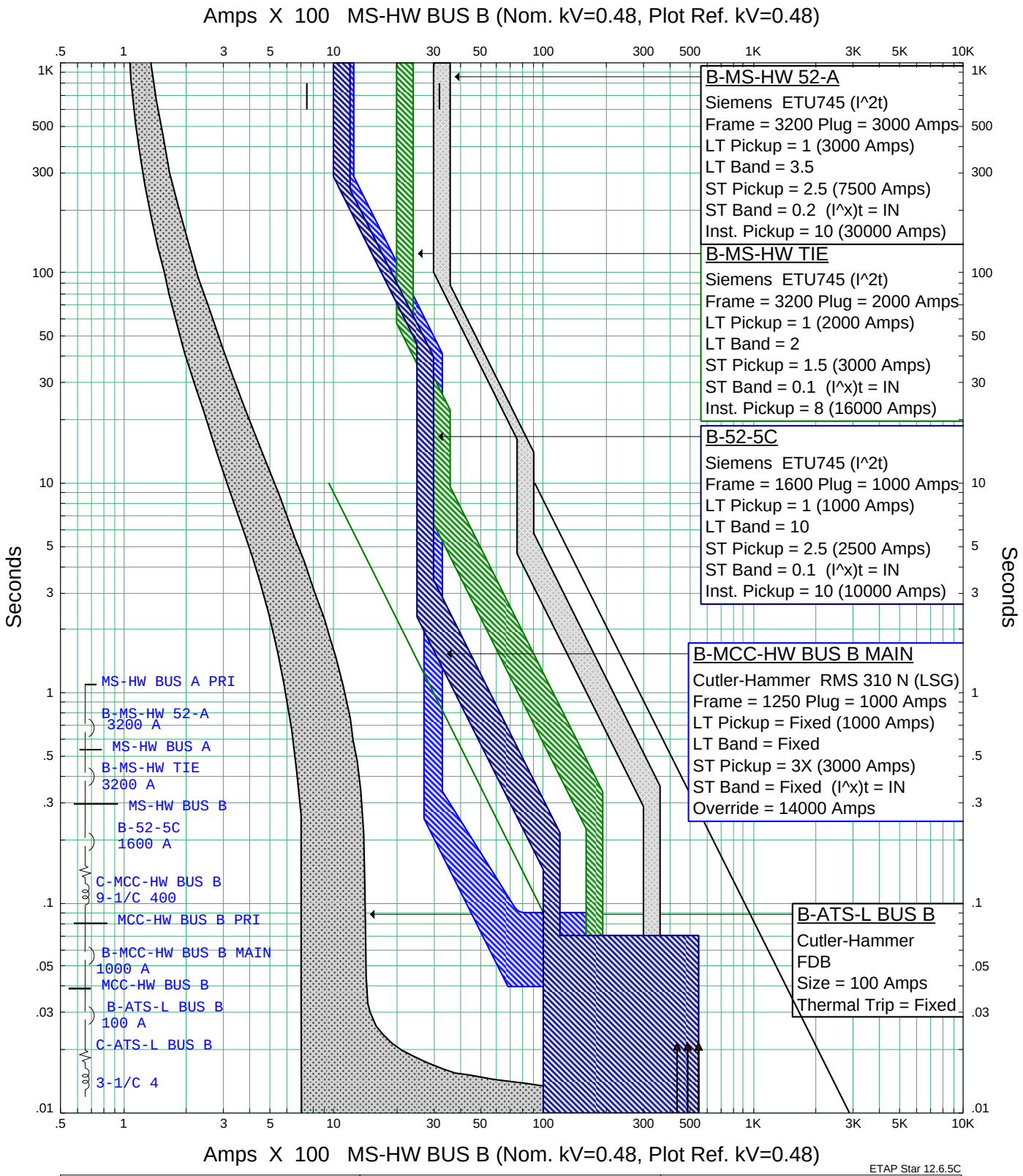


ETAP Star 12.6.5C

MCC-SH BUS B TCC

Project: OXNARD WWTP
Location: OXNARD, CA
Contract: 9587A.00
Engineer: SKB
Filename: C:\Users\asukar\Desktop\Etap\OWTP.OTI

Date: 04-07-2015
SN: CAROLLOWAN
Rev: Base
Fault: Phase

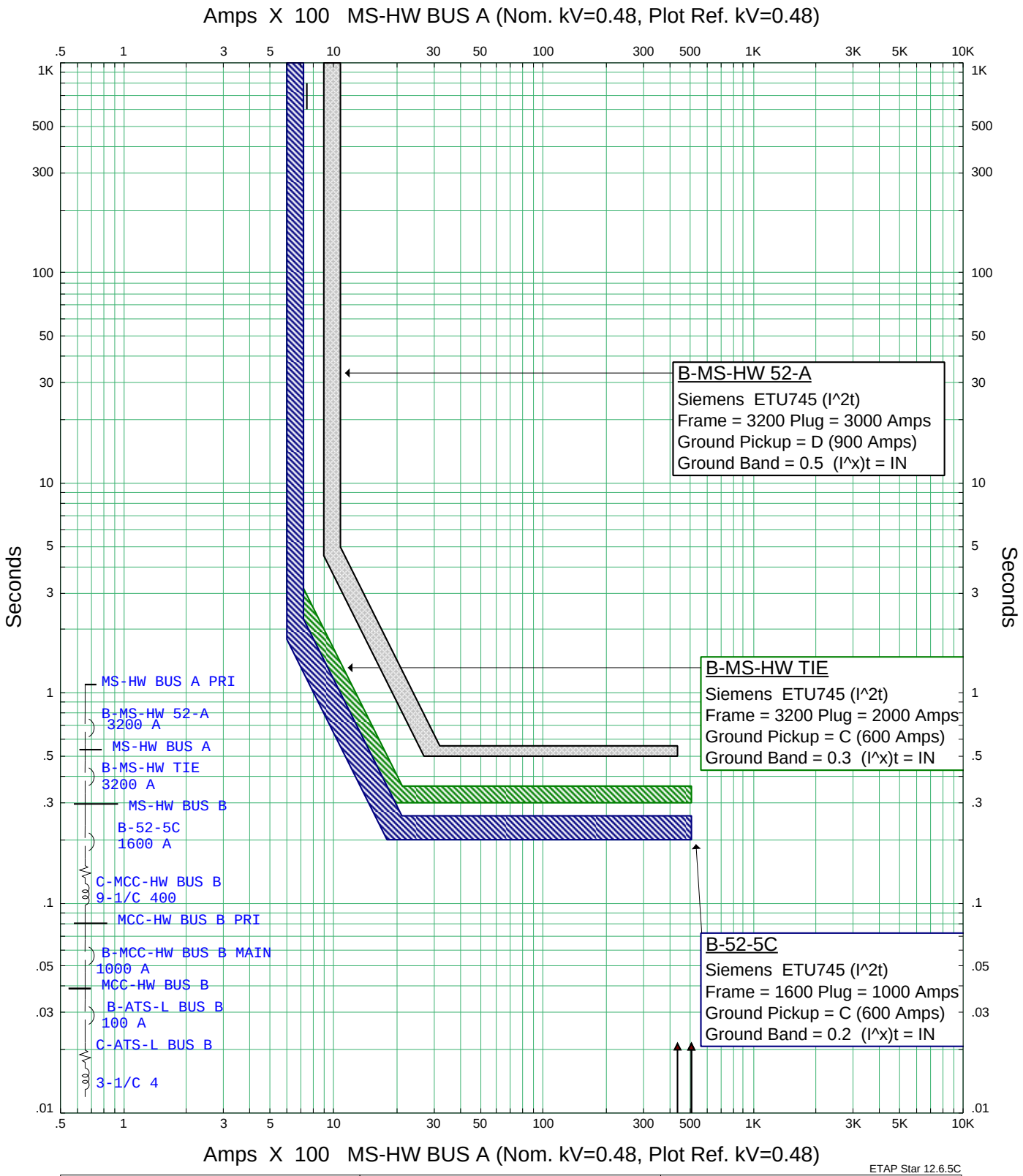


ETAP Star 12.6.5C

MS-HW BUS A - TIE TCC

Project: OXNARD WWTP
Location: OXNARD, CA
Contract: 9587A.00
Engineer: SKB
Filename: C:\Users\asukar\Desktop\Etap\OWTP.OTI

Date: 04-06-2015
SN: CAROLLOWAN
Rev: Base
Fault: Phase

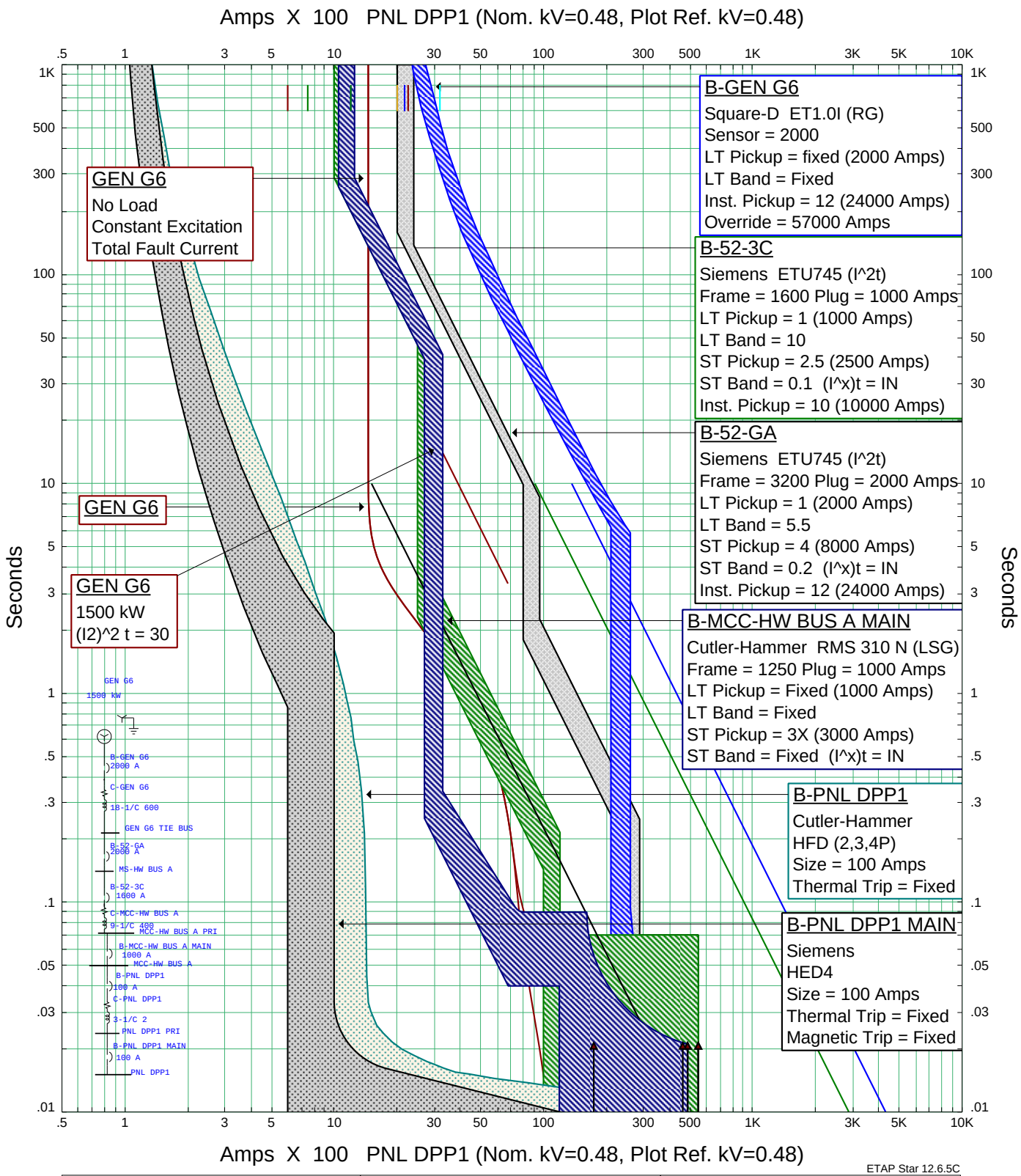


ETAP Star 12.6.5C

MS-HW BUS A - TIE TCC

Project: OXNARD WWTP
Location: OXNARD, CA
Contract: 9587A.00
Engineer: SKB
Filename: C:\Users\asukar\Desktop\Etap\OWTP.OTI

Date: 04-06-2015
SN: CAROLLOWAN
Rev: Base
Fault: Ground

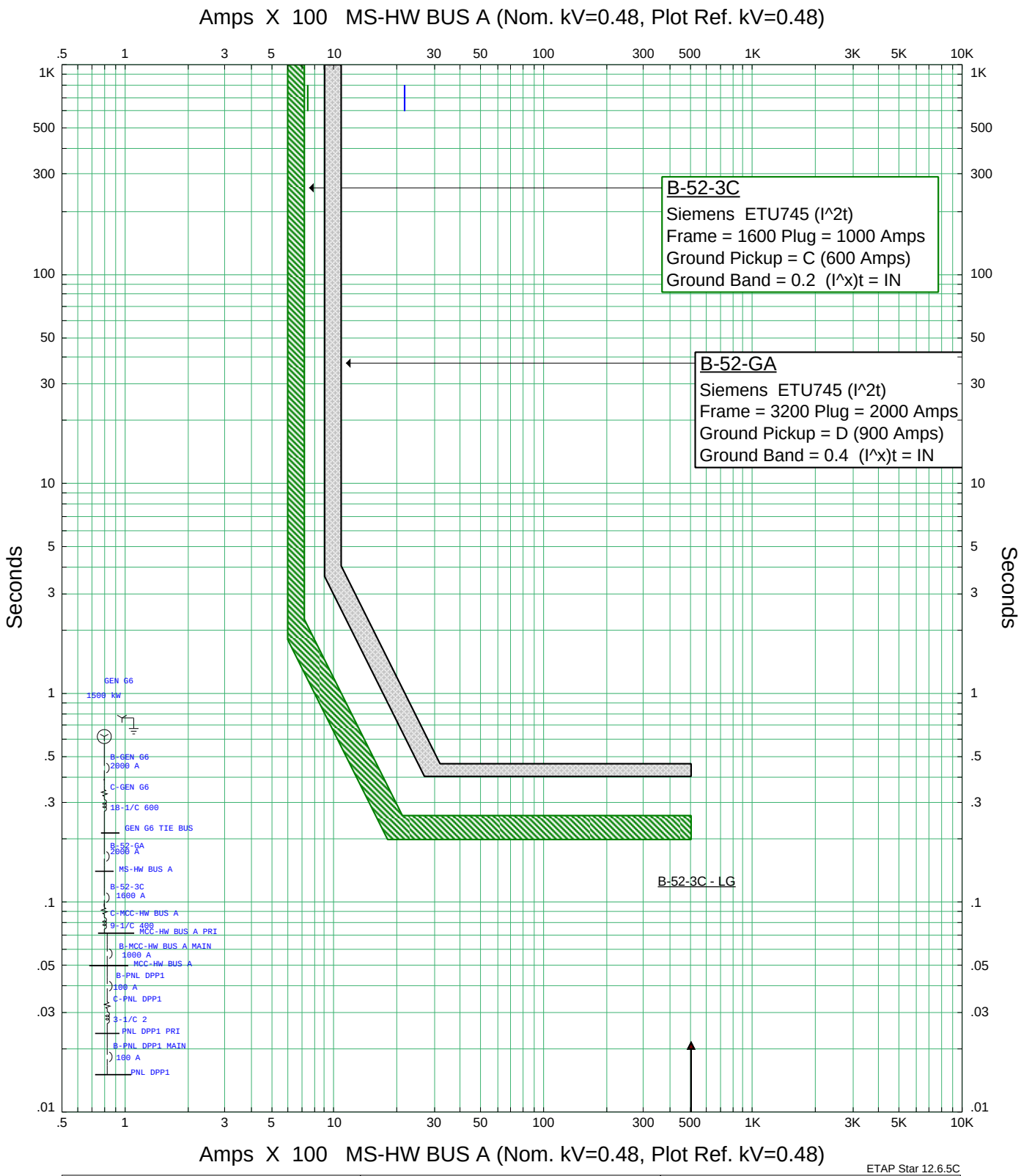


ETAP Star 12.6.5C

MS-HW BUS A GEN TCC

Project: OXNARD WWTP
Location: OXNARD, CA
Contract: 9587A.00
Engineer: SKB
Filename: C:\Users\asukar\Desktop\Etap\OWTP.OTI

Date: 04-06-2015
SN: CAROLLOWAN
Rev: Base
Fault: Phase



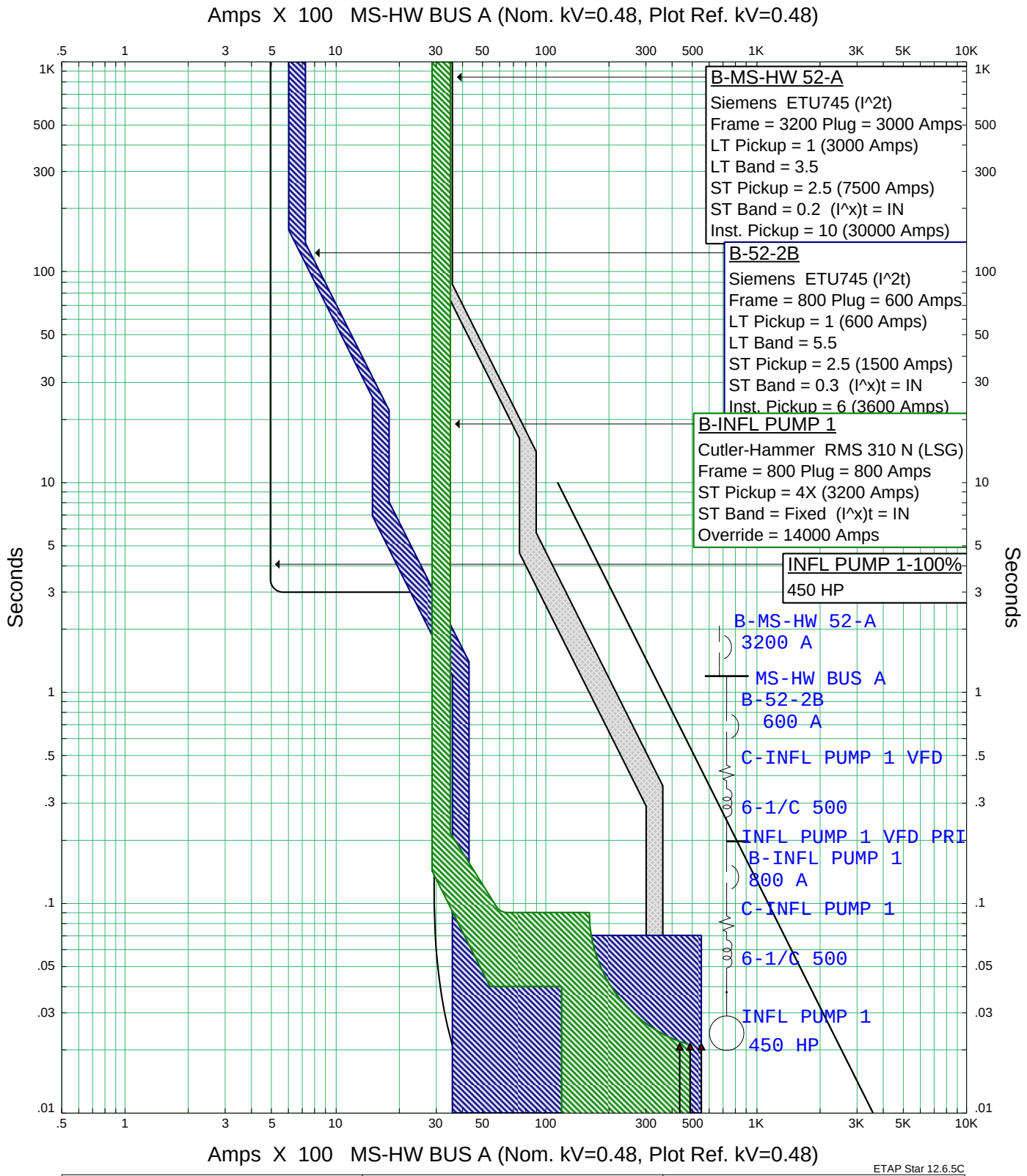
Amps X 100 MS-HW BUS A (Nom. kV=0.48, Plot Ref. kV=0.48)

ETAP Star 12.6.5C

MS-HW BUS A GEN TCC

Project: OXNARD WWTP
Location: OXNARD, CA
Contract: 9587A.00
Engineer: SKB
Filename: C:\Users\asukar\Desktop\Etap\OWTP.OTI

Date: 04-06-2015
SN: CAROLLOWAN
Rev: Base
Fault: Ground

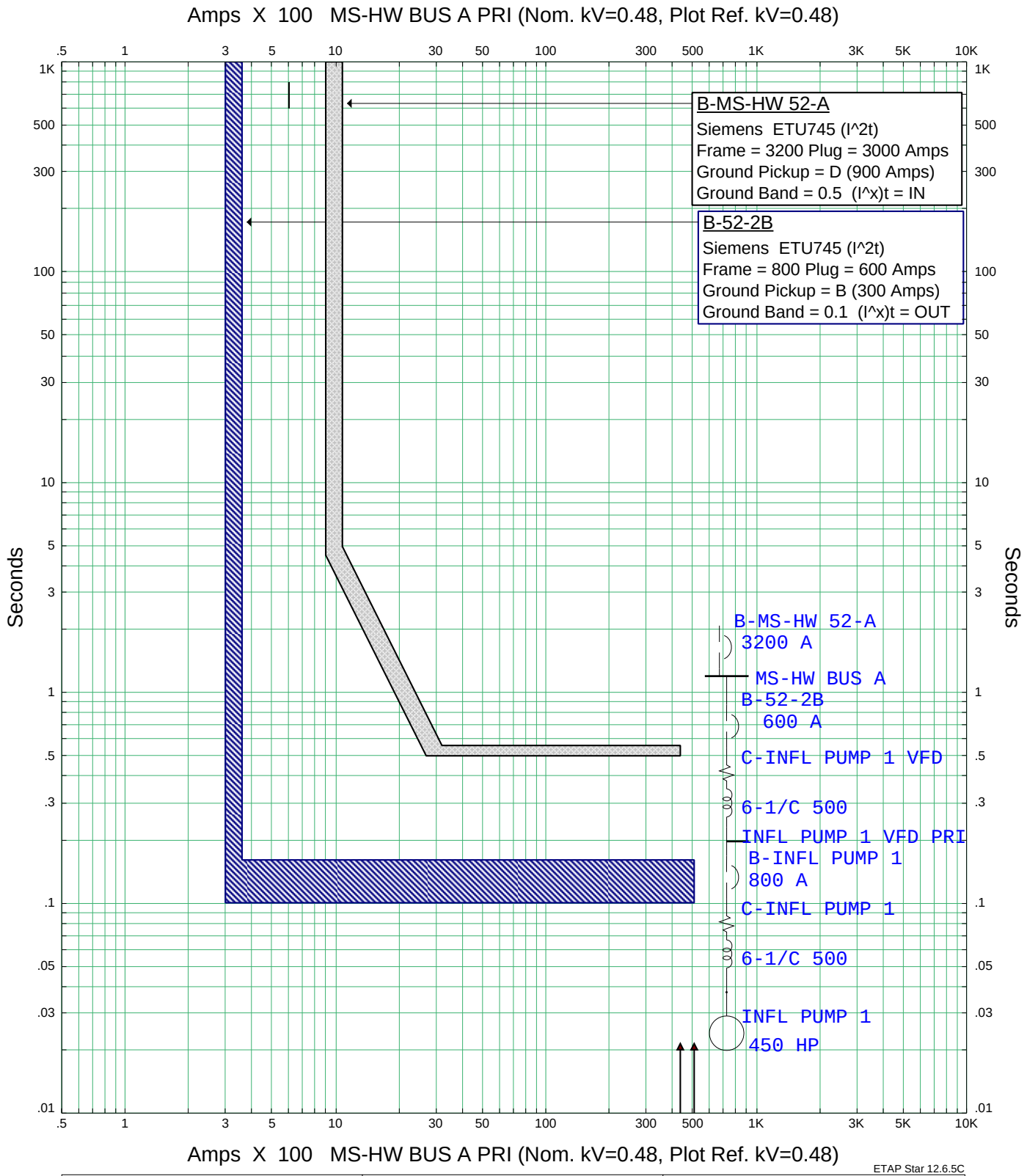


ETAP Star 12.6.5C

MS-HW BUS A PUMP TCC

Project: OXNARD WWTP
Location: OXNARD, CA
Contract: 9587A.00
Engineer: SKB
Filename: C:\Users\asukar\Desktop\Etap\OWTP.OTI

Date: 04-06-2015
SN: CAROLLOWAN
Rev: Base
Fault: Phase

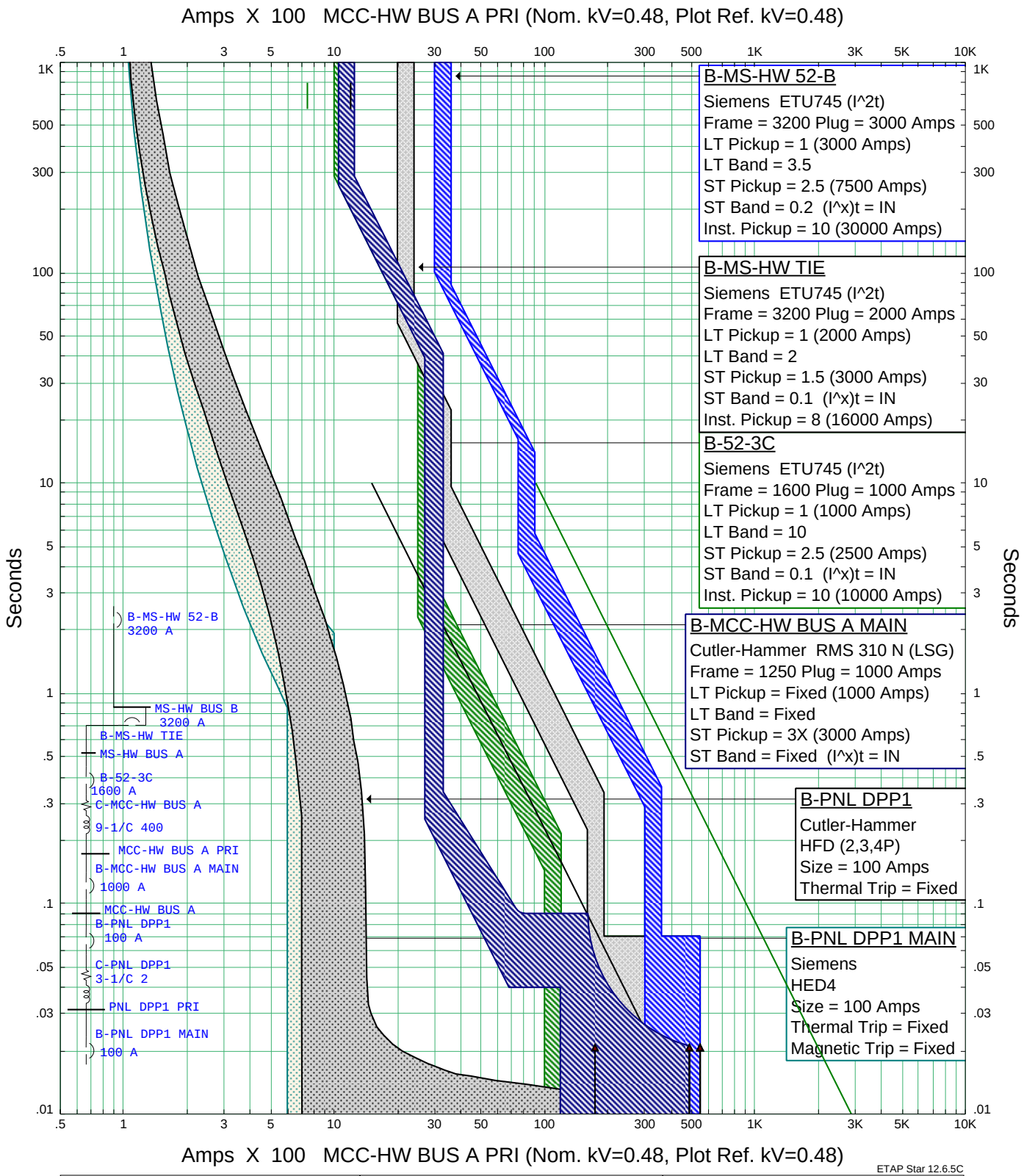


ETAP Star 12.6.5C

MS-HW BUS A PUMP TCC

Project: OXNARD WWTP
Location: OXNARD, CA
Contract: 9587A.00
Engineer: SKB
Filename: C:\Users\asukar\Desktop\Etap\OWTP.OTI

Date: 04-06-2015
SN: CAROLLOWAN
Rev: Base
Fault: Ground

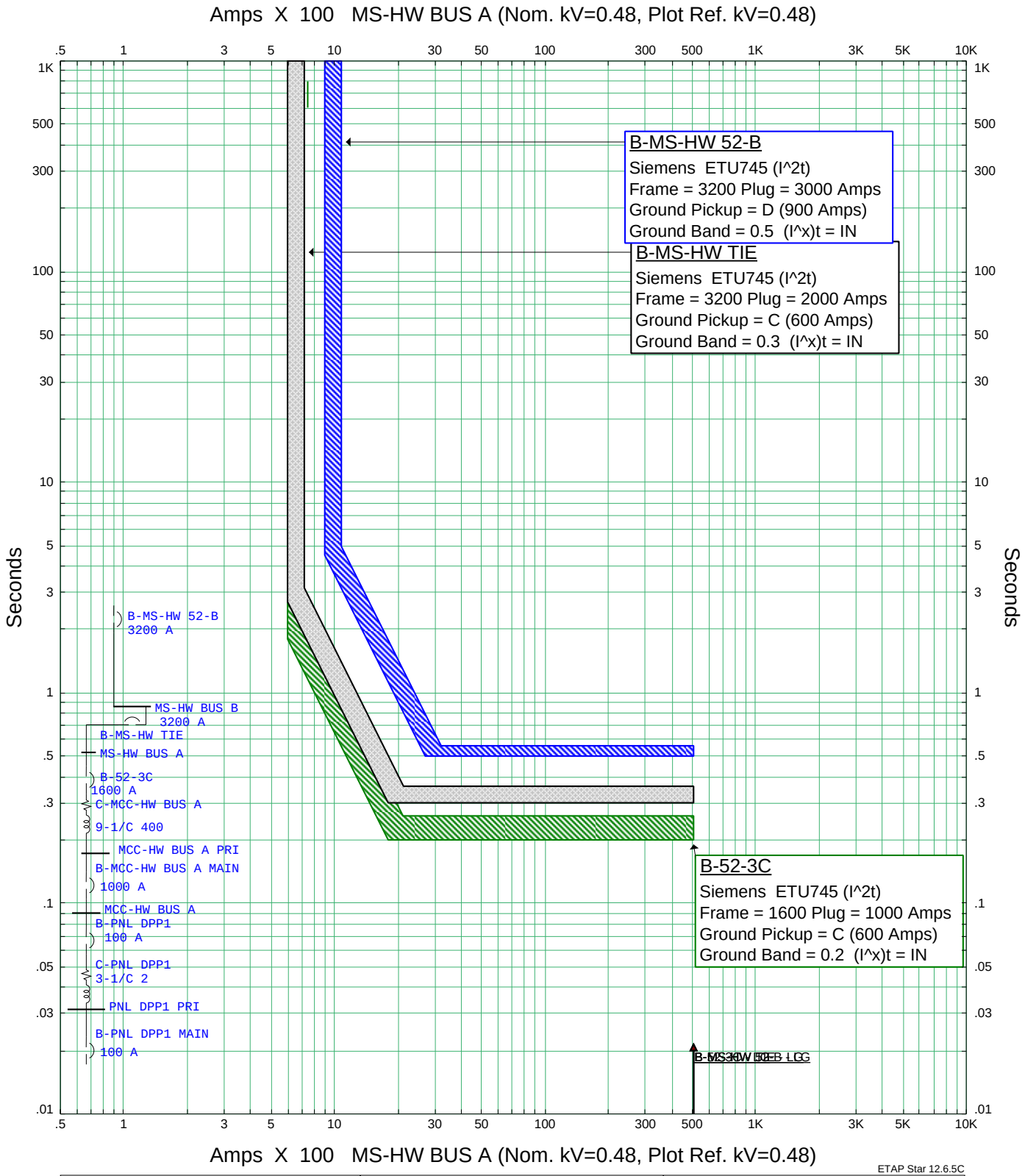


ETAP Star 12.6.5C

MS-HW BUS B - TIE TCC

Project: OXNARD WWTP
Location: OXNARD, CA
Contract: 9587A.00
Engineer: SKB
Filename: C:\Users\asukar\Desktop\Etap\OWTP.OTI

Date: 04-06-2015
SN: CAROLLOWAN
Rev: Base
Fault: Phase



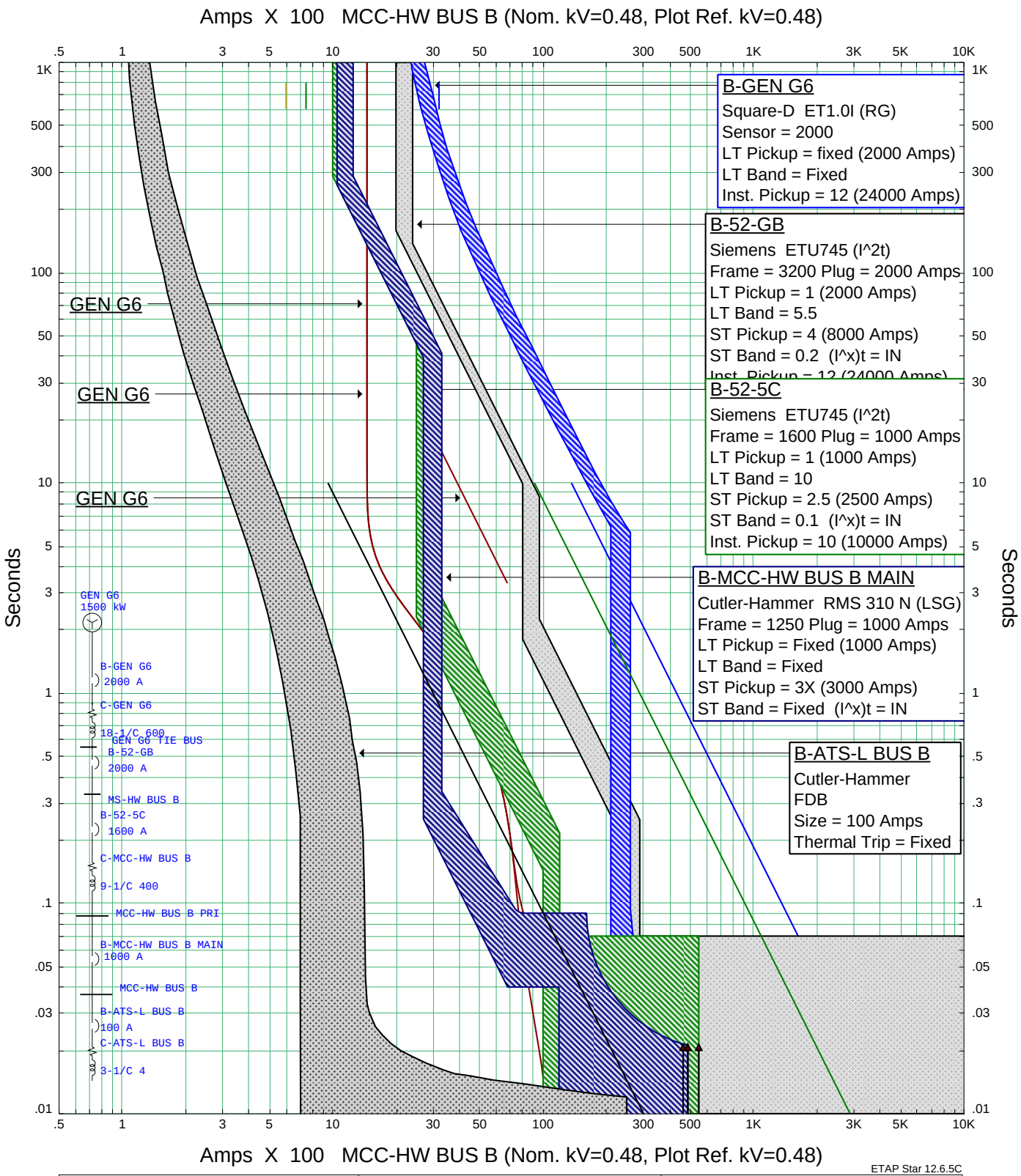
Amps X 100 MS-HW BUS A (Nom. kV=0.48, Plot Ref. kV=0.48)

ETAP Star 12.6.5C

MS-HW BUS B - TIE TCC

Project: OXNARD WWTP
Location: OXNARD, CA
Contract: 9587A.00
Engineer: SKB
Filename: C:\Users\asukar\Desktop\Etap\OWTP.OTI

Date: 04-06-2015
SN: CAROLLOWAN
Rev: Base
Fault: Ground

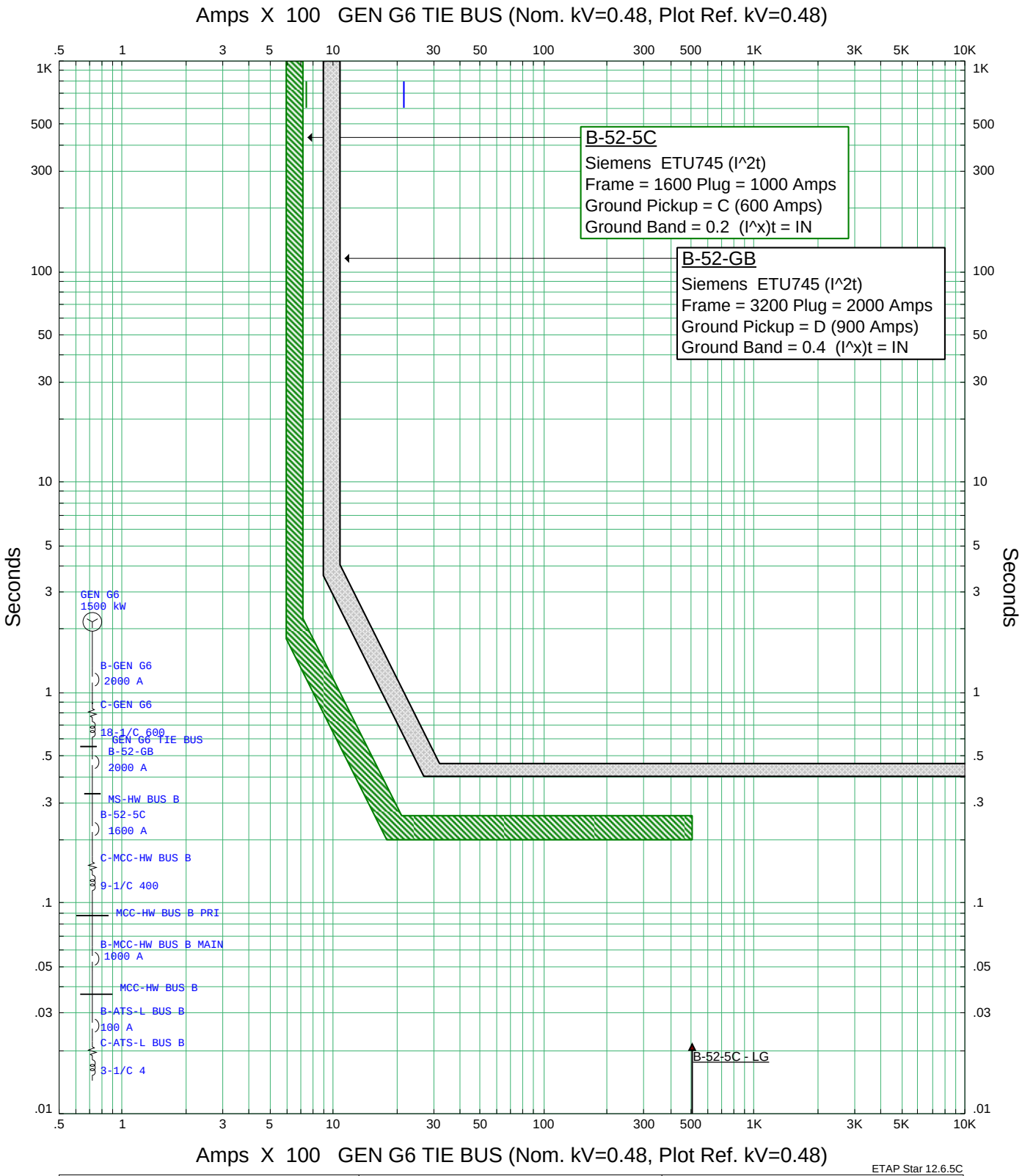


ETAP Star 12.6.5C

MS-HW BUS B GEN TCC

Project: OXNARD WWTP
Location: OXNARD, CA
Contract: 9587A.00
Engineer: SKB
Filename: C:\Users\asukar\Desktop\Etap\OWTP.OTI

Date: 04-06-2015
SN: CAROLLOWAN
Rev: Base
Fault: Phase

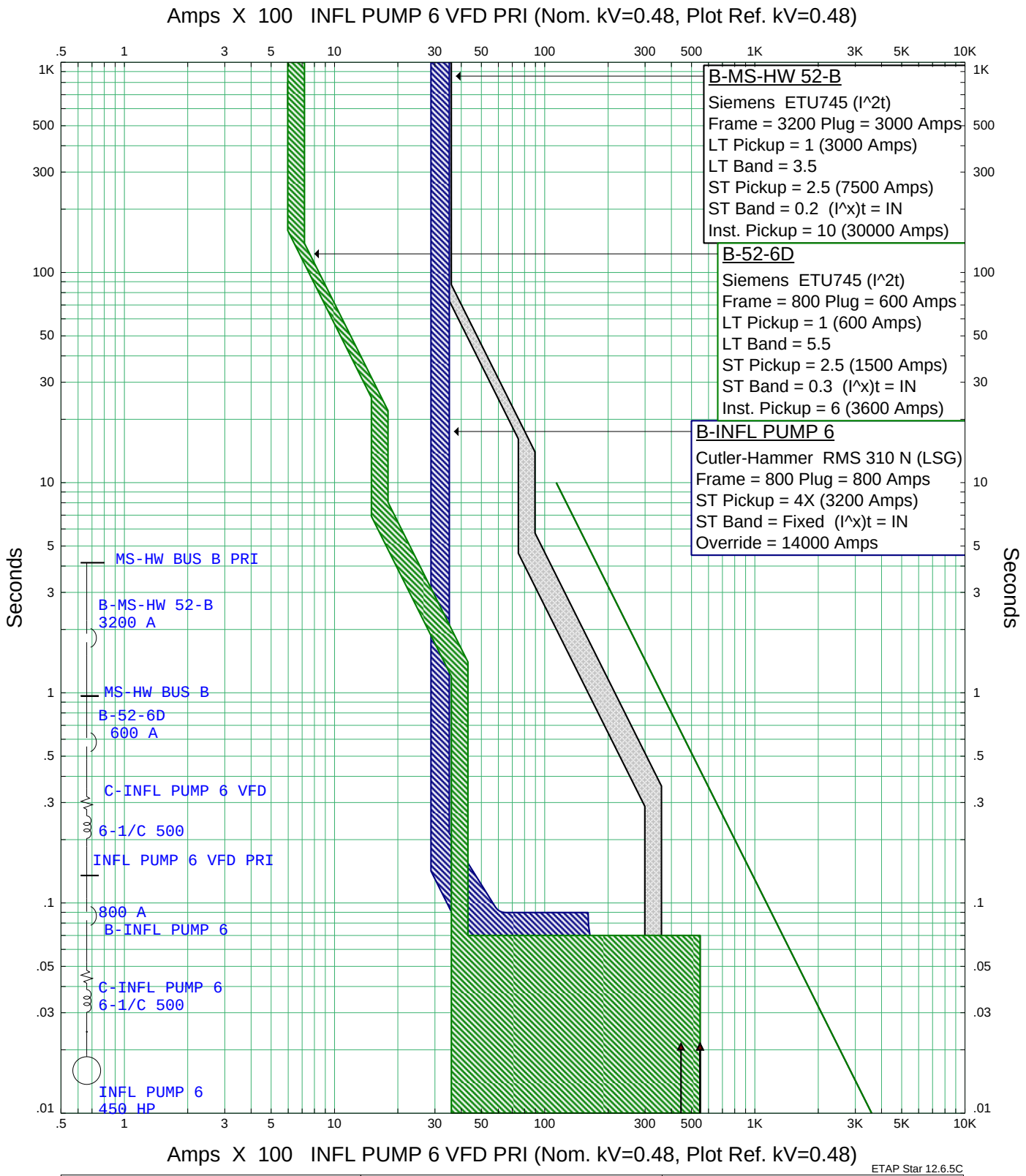


ETAP Star 12.6.5C

MS-HW BUS B GEN TCC

Project: OXNARD WWTP
Location: OXNARD, CA
Contract: 9587A.00
Engineer: SKB
Filename: C:\Users\asukar\Desktop\Etap\OWTP.OTI

Date: 04-06-2015
SN: CAROLLOWAN
Rev: Base
Fault: Ground

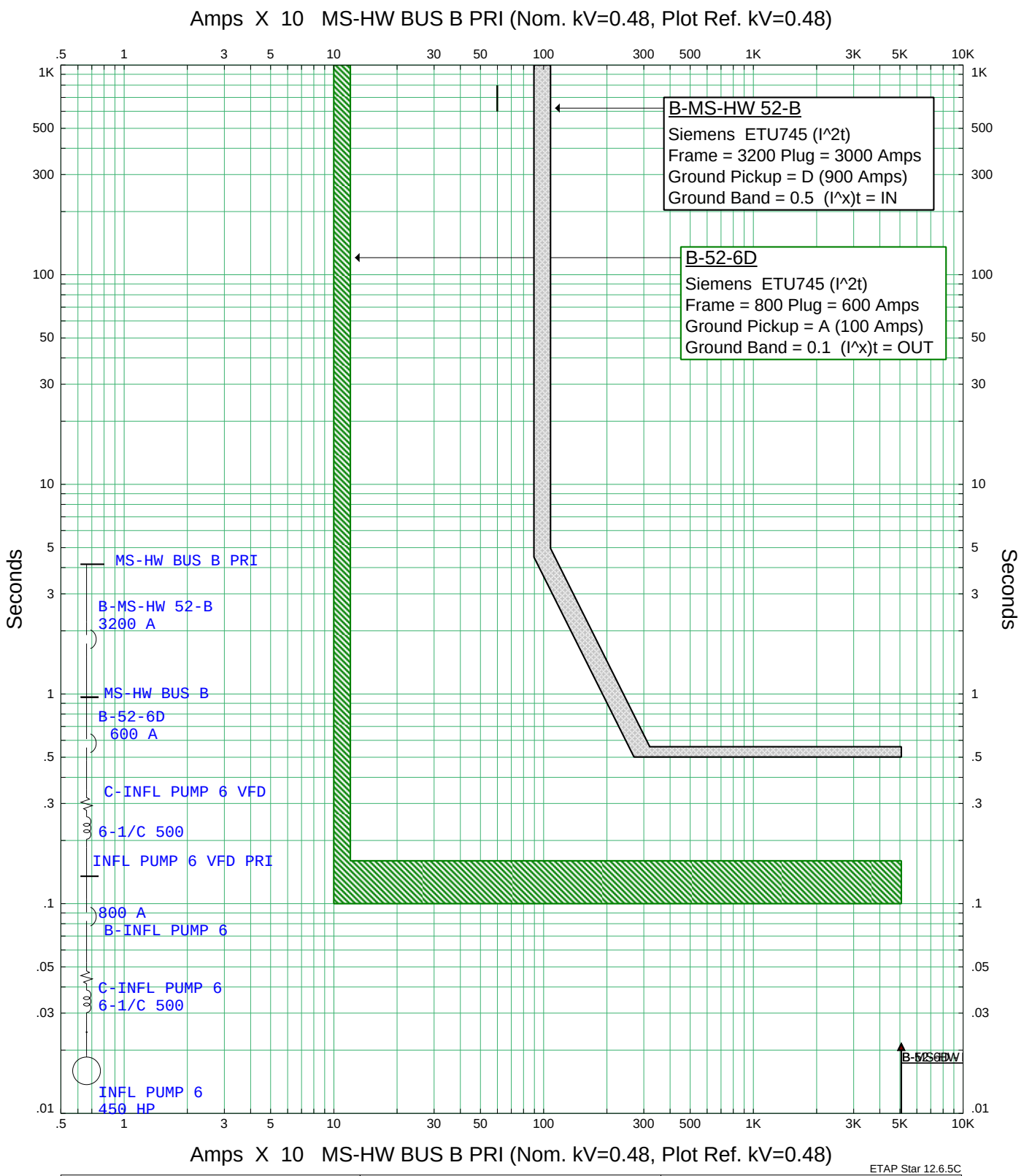


ETAP Star 12.6.5C

MS-HW BUS B PUMP TCC

Project: OXNARD WWTP
Location: OXNARD, CA
Contract: 9587A.00
Engineer: SKB
Filename: C:\Users\asukar\Desktop\Etap\OWTP.OTI

Date: 04-06-2015
SN: CAROLLOWAN
Rev: Base
Fault: Phase

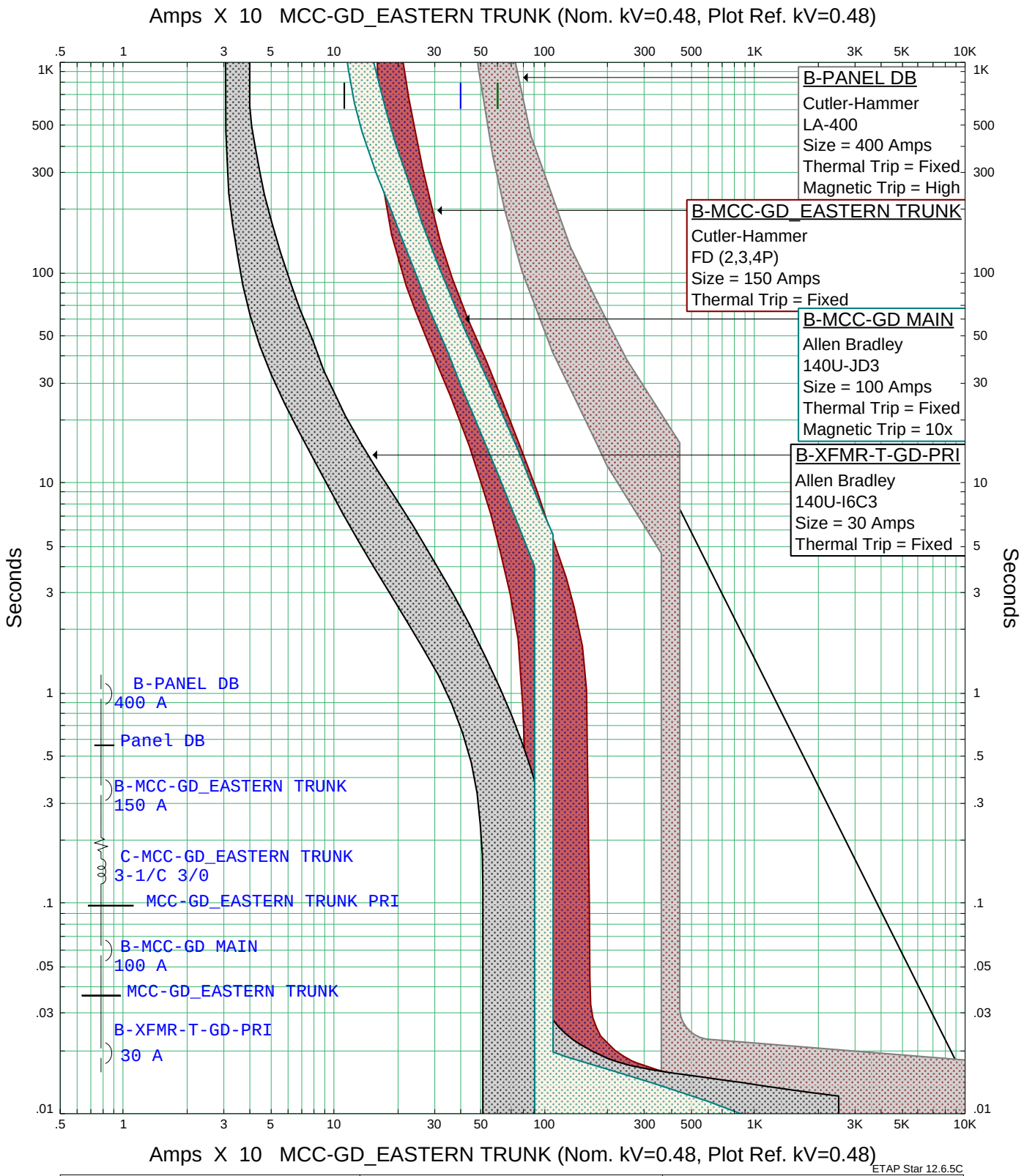


ETAP Star 12.6.5C

MS-HW BUS B PUMP TCC

Project: OXNARD WWTP
Location: OXNARD, CA
Contract: 9587A.00
Engineer: SKB
Filename: C:\Users\asukar\Desktop\Etap\OWTP.OTI

Date: 04-06-2015
SN: CAROLLOWAN
Rev: Base
Fault: Ground

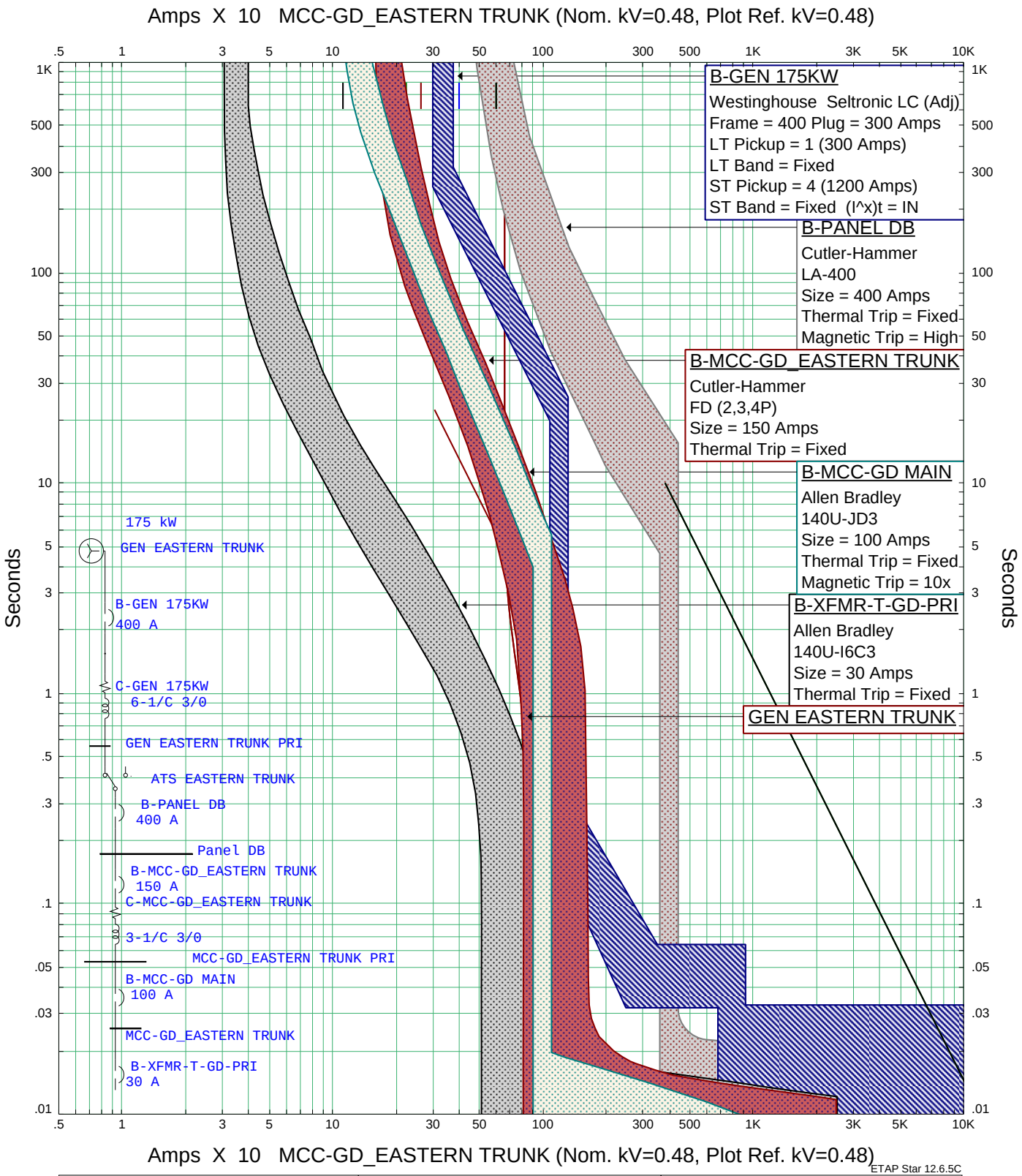


ETAP Star 12.6.5C

PANEL DB - TCC

Project: OXNARD WWTP
Location: OXNARD, CA
Contract: 9587A.00
Engineer: SKB
Filename: C:\Users\asukar\Desktop\Etap\OWTP.OTI

Date: 04-06-2015
SN: CAROLLOWAN
Rev: Base
Fault: Phase



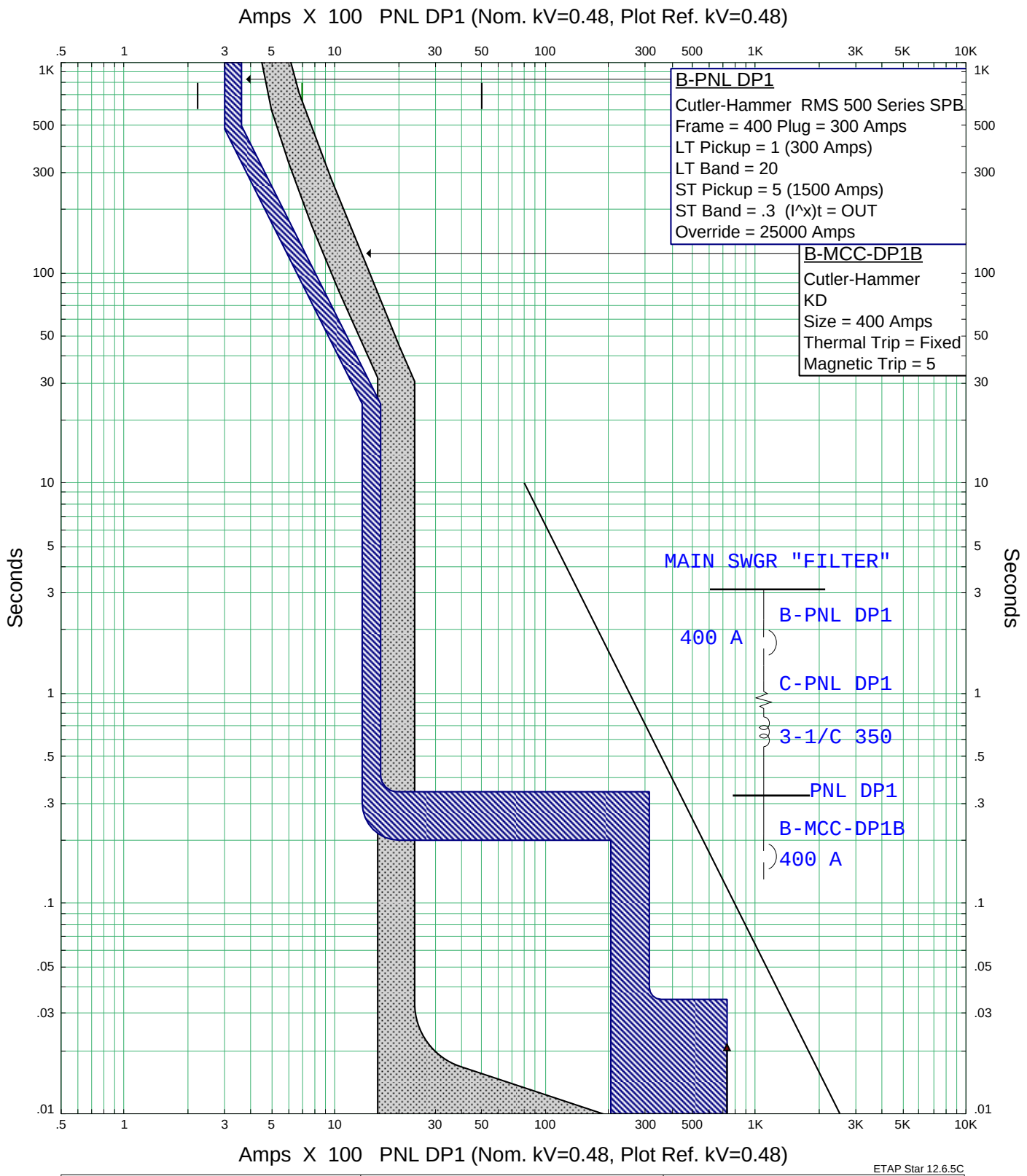
Amps X 10 MCC-GD_EASTERN TRUNK (Nom. kV=0.48, Plot Ref. kV=0.48)

ETAP Star 12.6.5C

PANEL DB GEN TCC

Project: OXNARD WWTP
Location: OXNARD, CA
Contract: 9587A.00
Engineer: SKB
Filename: C:\Users\asukar\Desktop\Etap\OWTP.OTI

Date: 04-06-2015
SN: CAROLLOWAN
Rev: Base
Fault: Phase

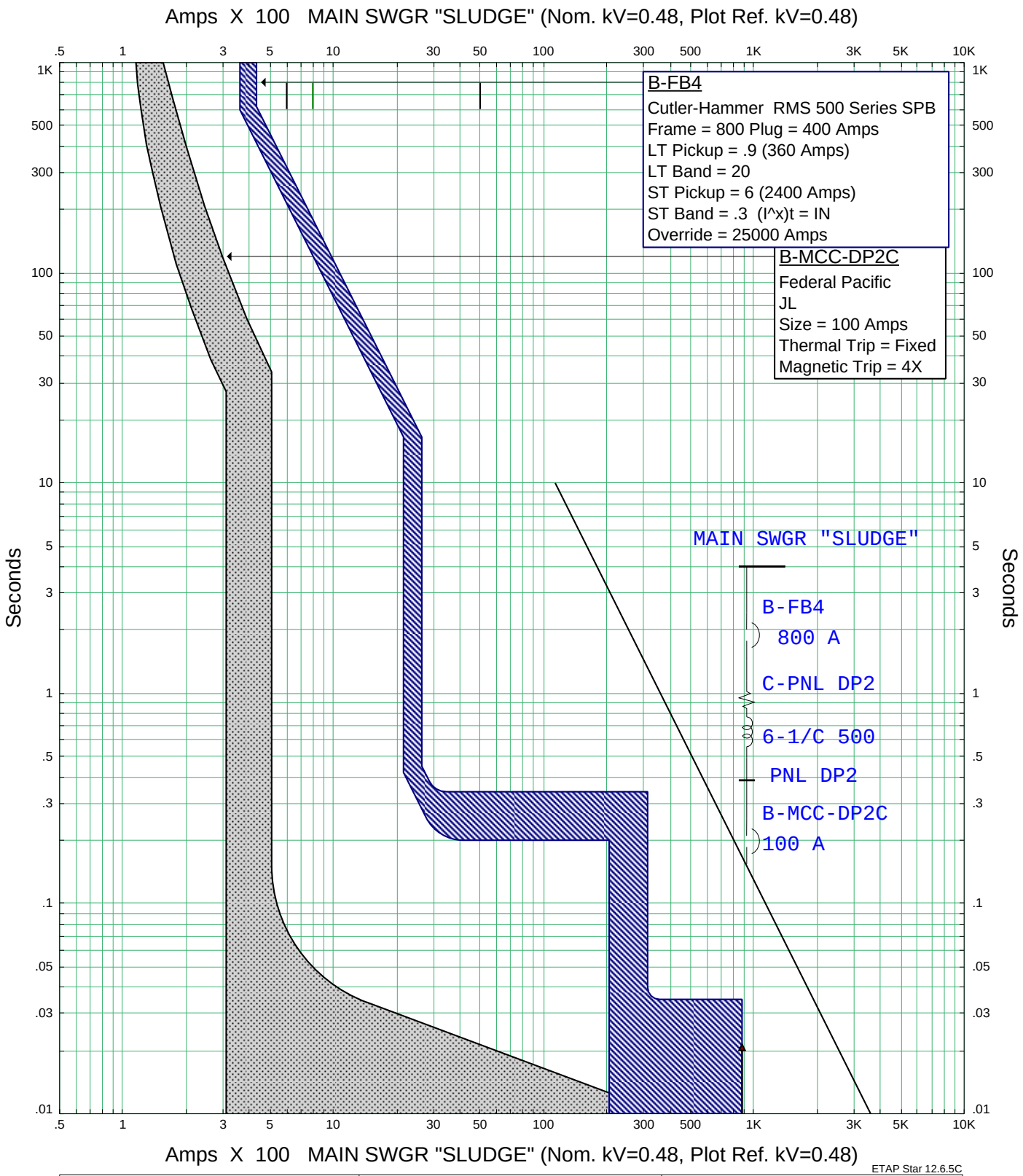


ETAP Star 12.6.5C

PNL DP1 TCC

Project: OXNARD WWTP
Location: OXNARD, CA
Contract: 9587A.00
Engineer: SKB
Filename: C:\Users\asukar\Desktop\Etap\OWTP.OTI

Date: 04-07-2015
SN: CAROLLOWAN
Rev: Base
Fault: Phase

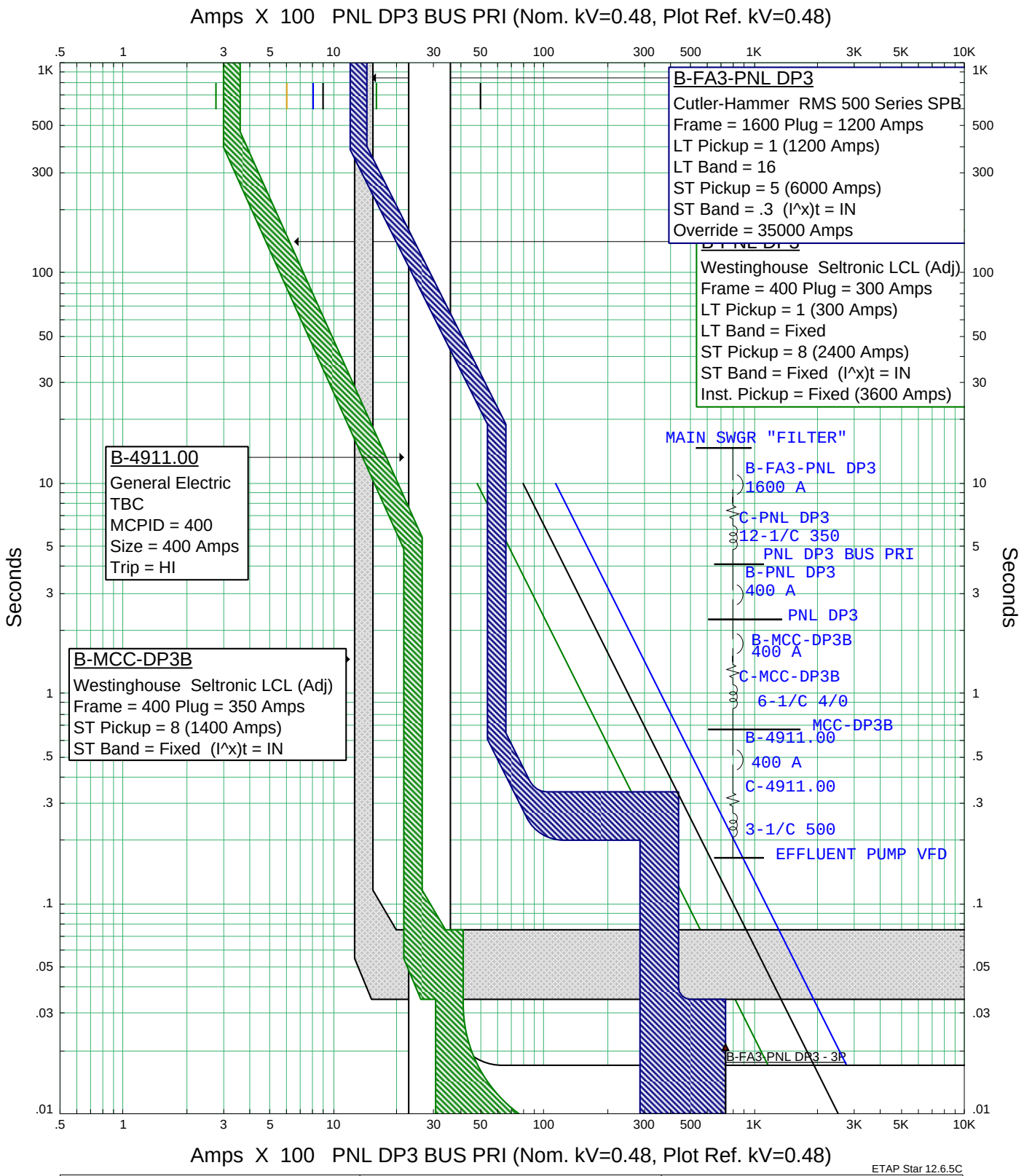


ETAP Star 12.6.5C

PNL DP2 TCC

Project: OXNARD WWTP
Location: OXNARD, CA
Contract: 9587A.00
Engineer: SKB
Filename: C:\Users\asukar\Desktop\Etap\OWTP.OTI

Date: 04-07-2015
SN: CAROLLOWAN
Rev: Base
Fault: Phase

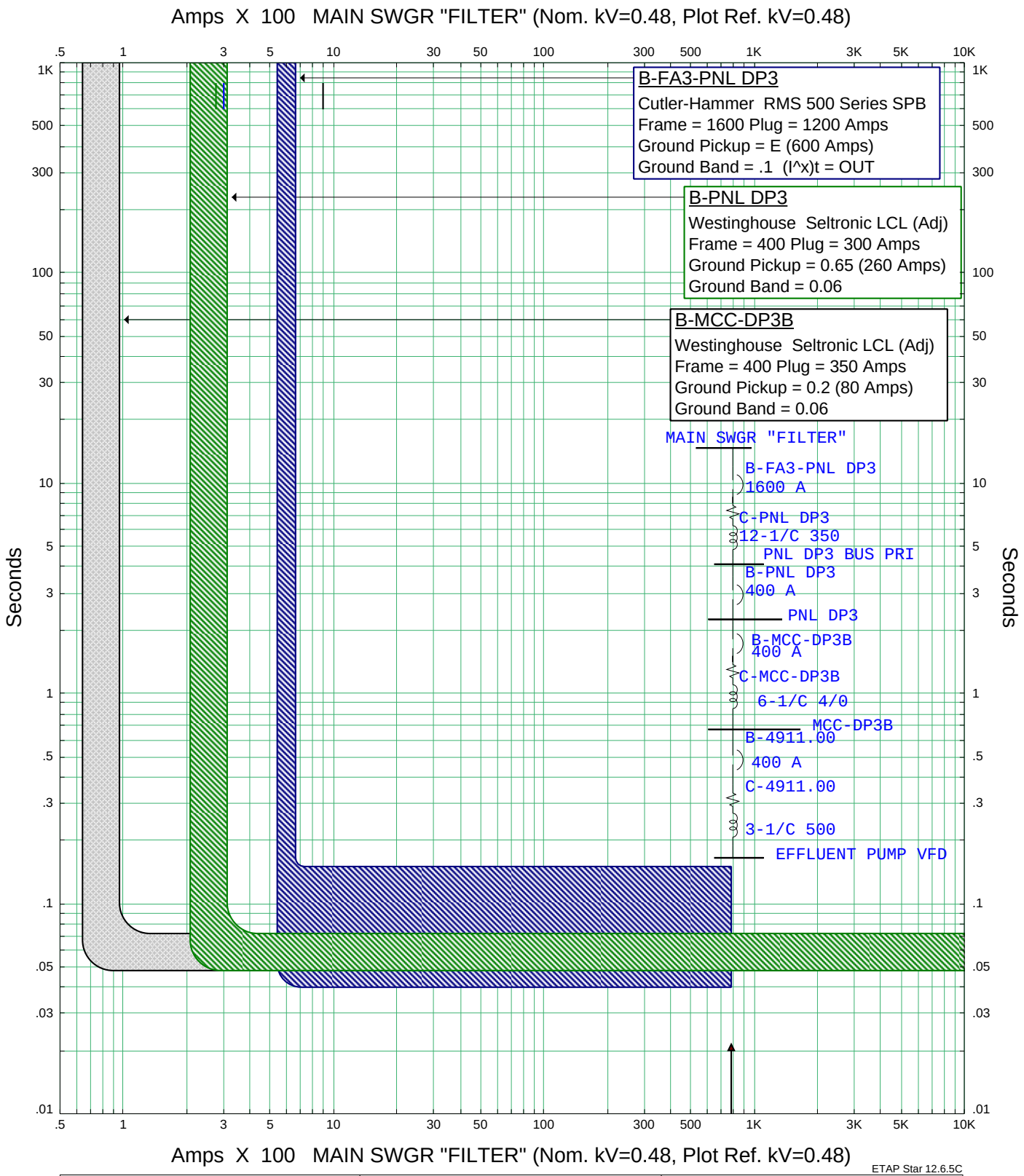


ETAP Star 12.6.5C

PNL DP3 TCC

Project: OXNARD WWTP
Location: OXNARD, CA
Contract: 9587A.00
Engineer: SKB
Filename: C:\Users\asukar\Desktop\Etap\OWTP.OTI

Date: 04-07-2015
SN: CAROLLOWAN
Rev: Base
Fault: Phase

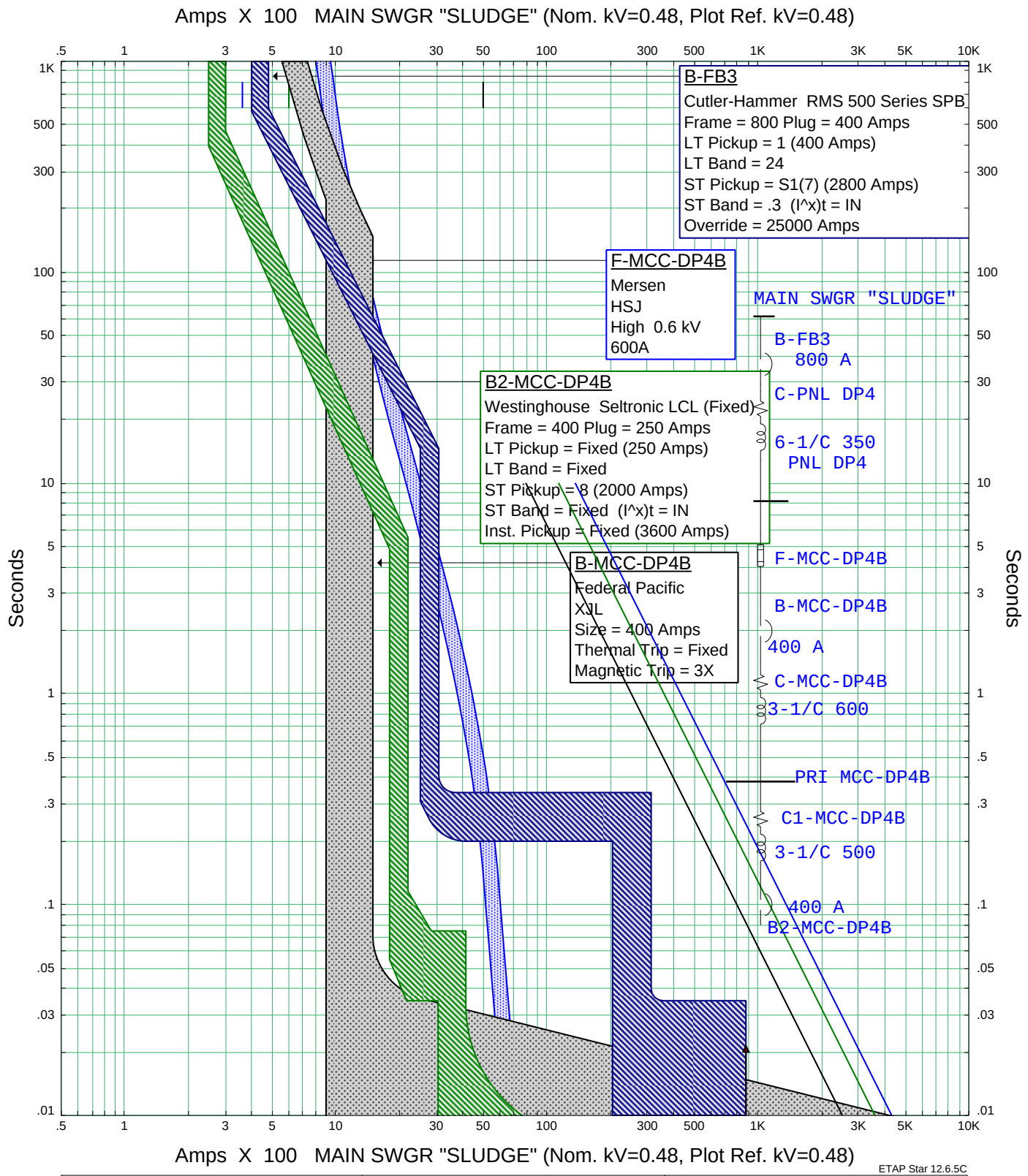


ETAP Star 12.6.5C

PNL DP3 TCC

Project: OXNARD WWTP
Location: OXNARD, CA
Contract: 9587A.00
Engineer: SKB
Filename: C:\Users\asukar\Desktop\Etap\OWTP.OTI

Date: 04-07-2015
SN: CAROLLOWAN
Rev: Base
Fault: Ground

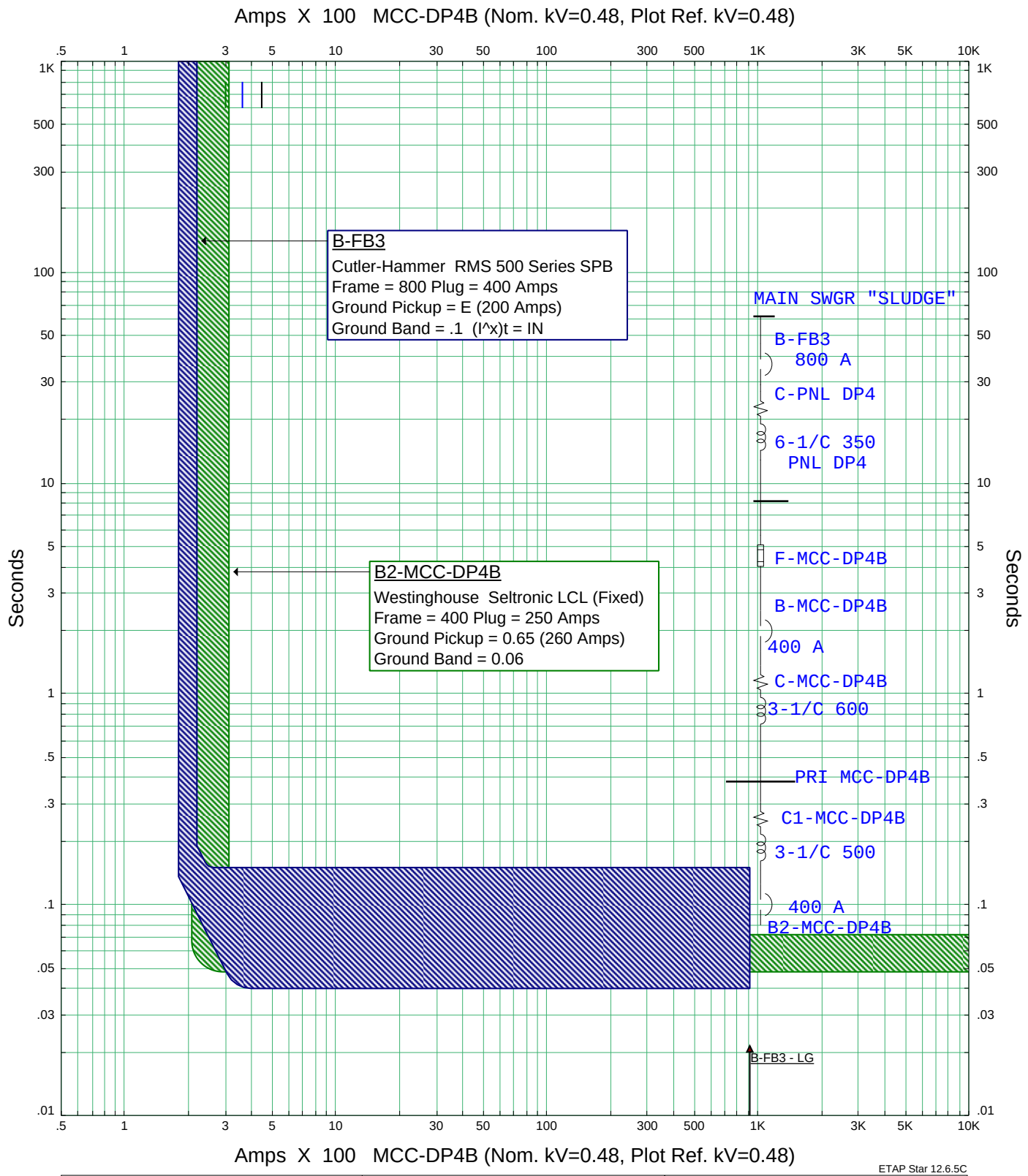


ETAP Star 12.6.5C

PNL DP4 TCC

Project: OXNARD WWTP
Location: OXNARD, CA
Contract: 9587A.00
Engineer: SKB
Filename: C:\Users\asukar\Desktop\Etap\OWTP.OTI

Date: 04-07-2015
SN: CAROLLOWAN
Rev: Base
Fault: Phase

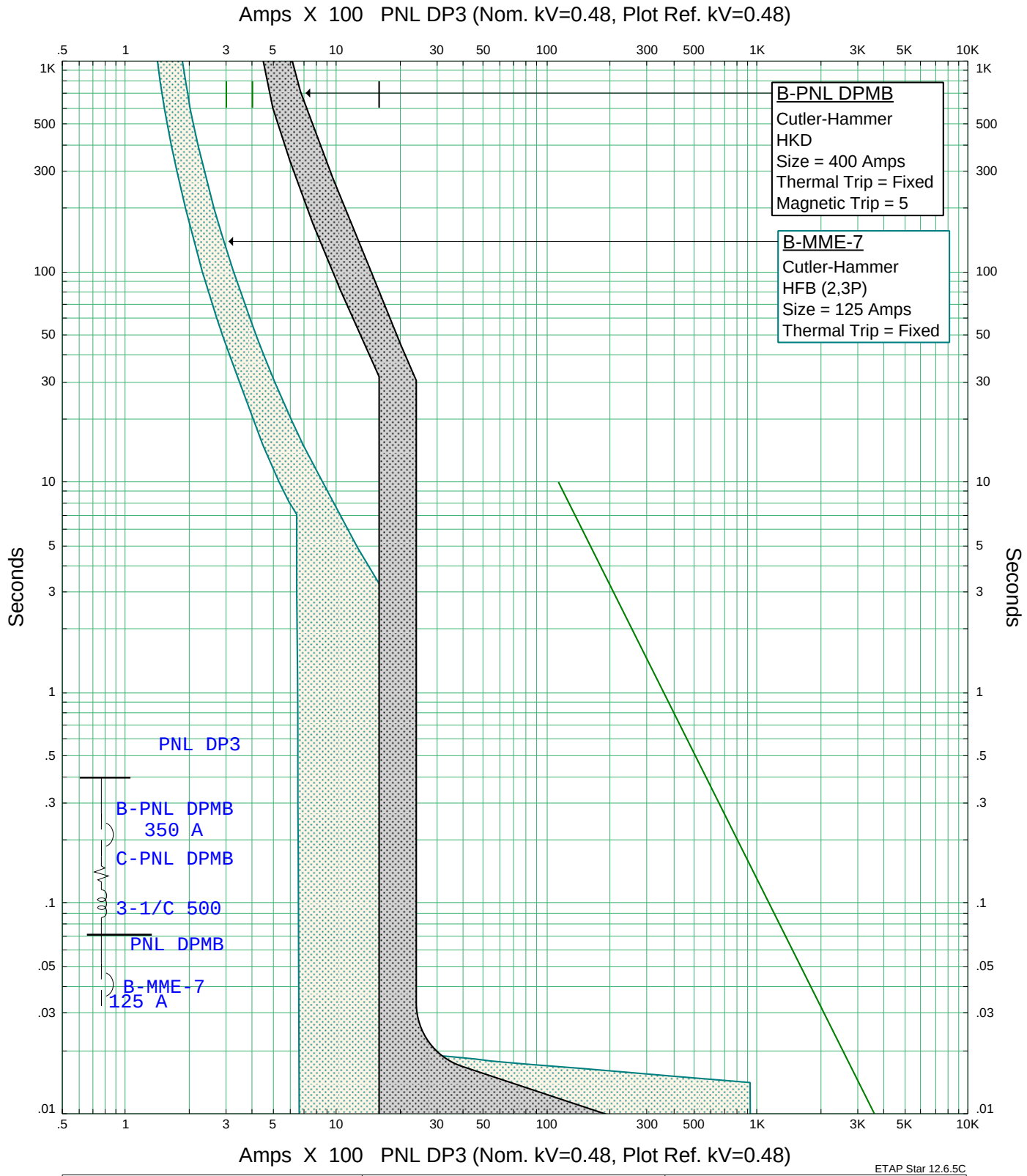


ETAP Star 12.6.5C

PNL DP4 TCC

Project: OXNARD WWTP
Location: OXNARD, CA
Contract: 9587A.00
Engineer: SKB
Filename: C:\Users\asukar\Desktop\Etap\OWTP.OTI

Date: 04-07-2015
SN: CAROLLOWAN
Rev: Base
Fault: Ground

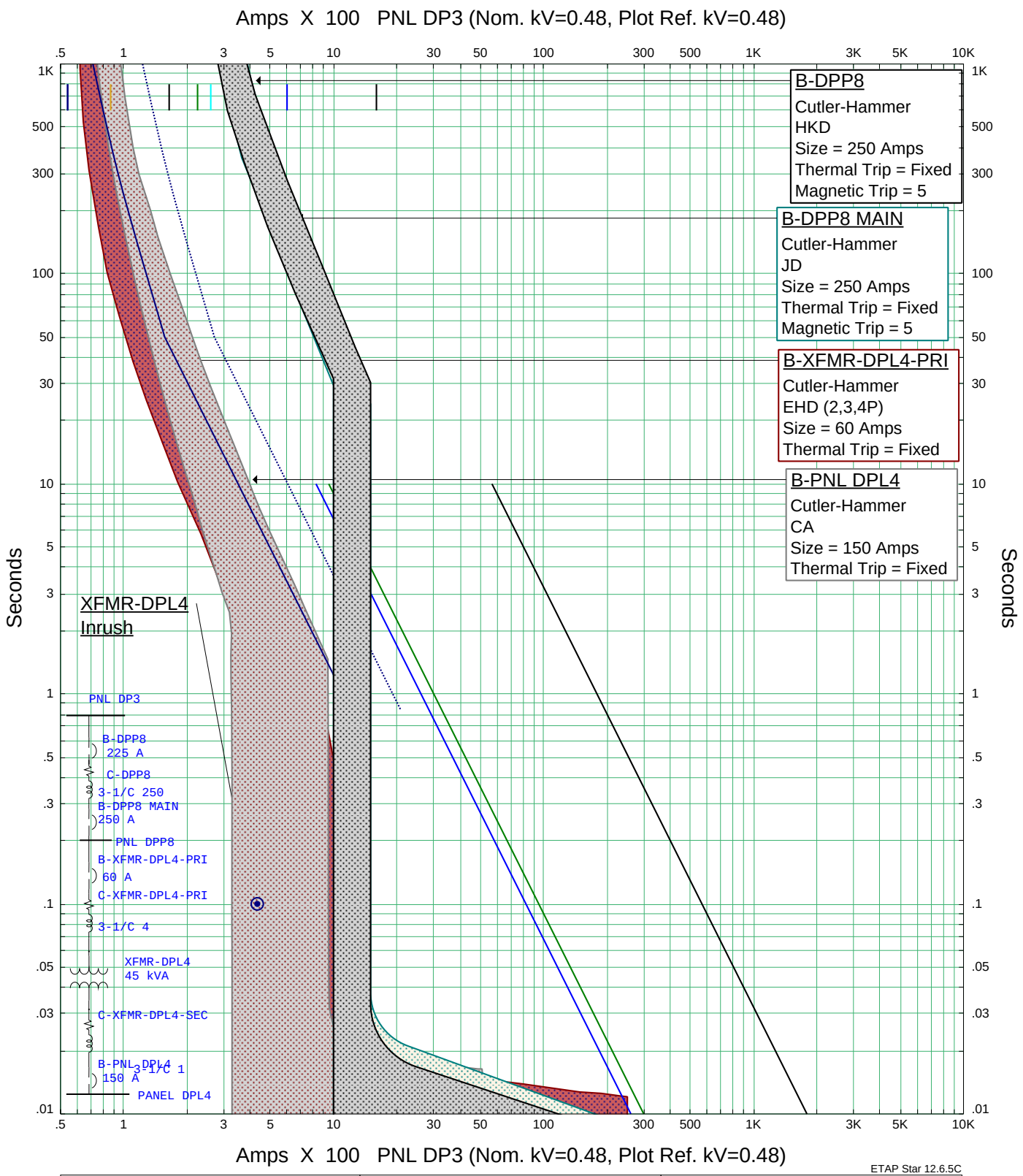


ETAP Star 12.6.5C

PNL DPMB TCC

Project: OXNARD WWTP
Location: OXNARD, CA
Contract: 9587A.00
Engineer: SKB
Filename: C:\Users\asukar\Desktop\Etap\OWTP.OTI

Date: 04-07-2015
SN: CAROLLOWAN
Rev: Base
Fault: Phase

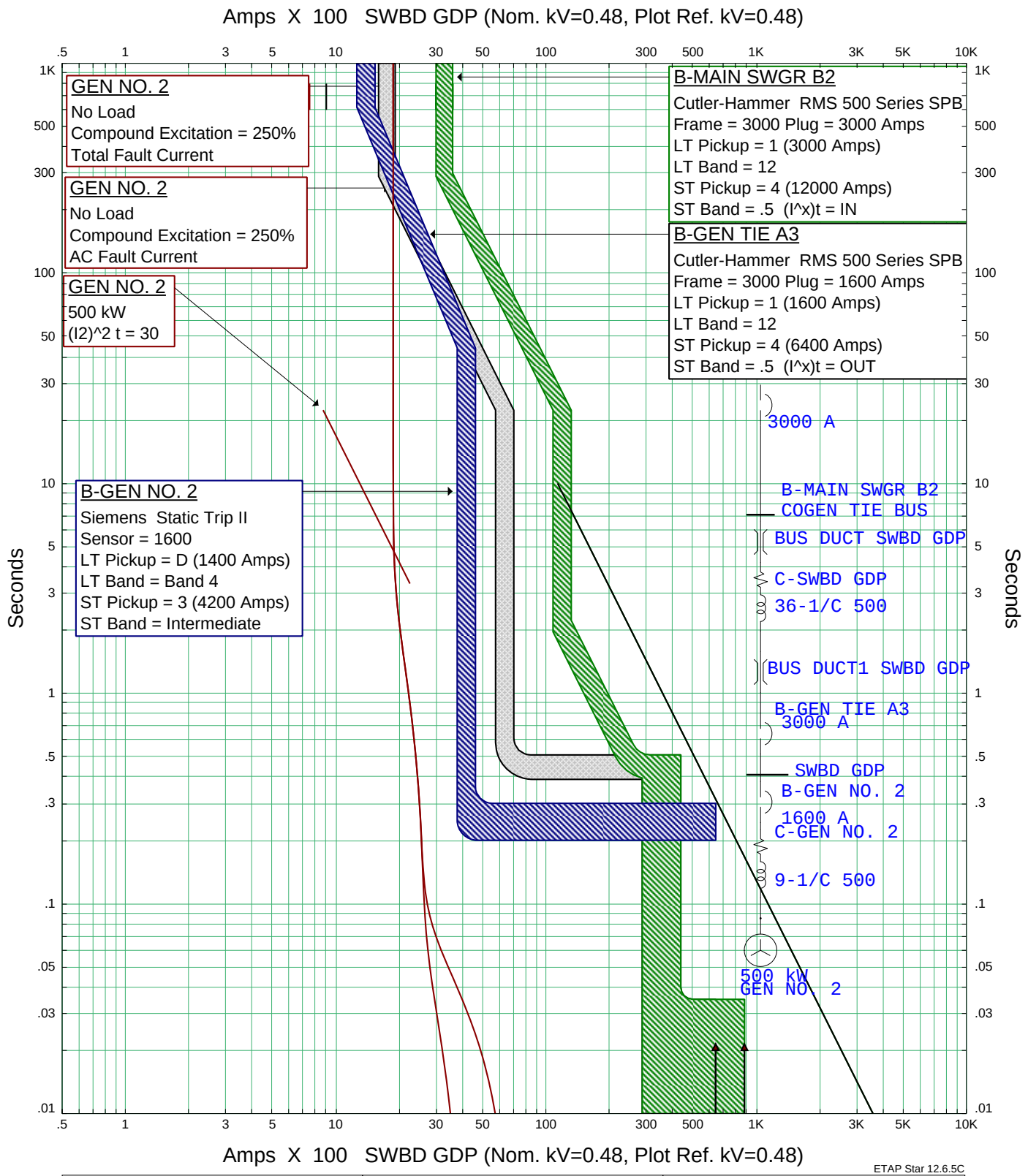


ETAP Star 12.6.5C

PNL DPP8 TCC

Project: OXNARD WWTP
Location: OXNARD, CA
Contract: 9587A.00
Engineer: SKB
Filename: C:\Users\asukar\Desktop\Etap\OWTP.OTI

Date: 04-07-2015
SN: CAROLLOWAN
Rev: Base
Fault: Phase

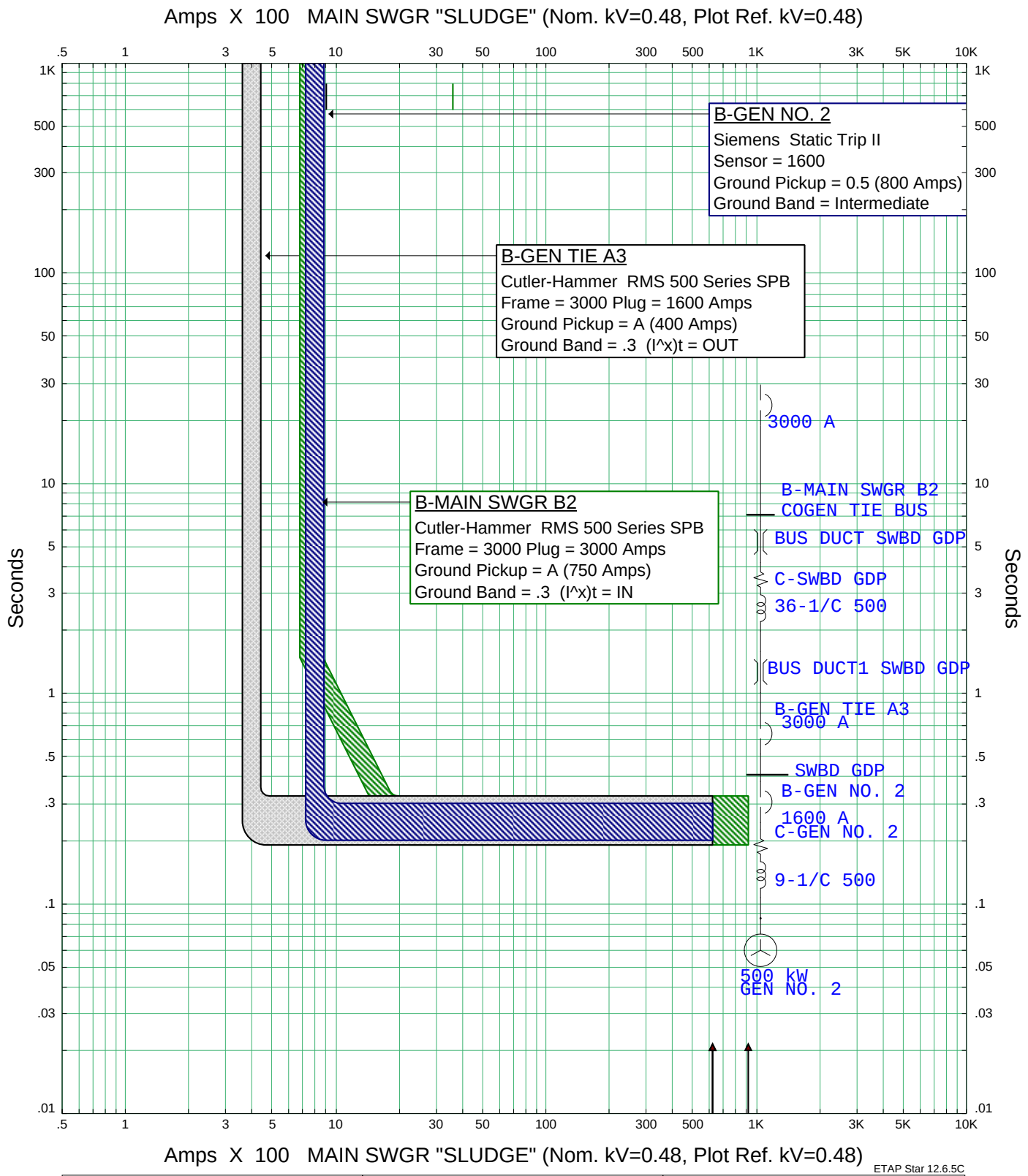


ETAP Star 12.6.5C

SWBD GDP TCC

Project: OXNARD WWTP
Location: OXNARD, CA
Contract: 9587A.00
Engineer: SKB
Filename: C:\Users\asukar\Desktop\Etap\OWTP.OTI

Date: 04-07-2015
SN: CAROLLOWAN
Rev: Base
Fault: Phase

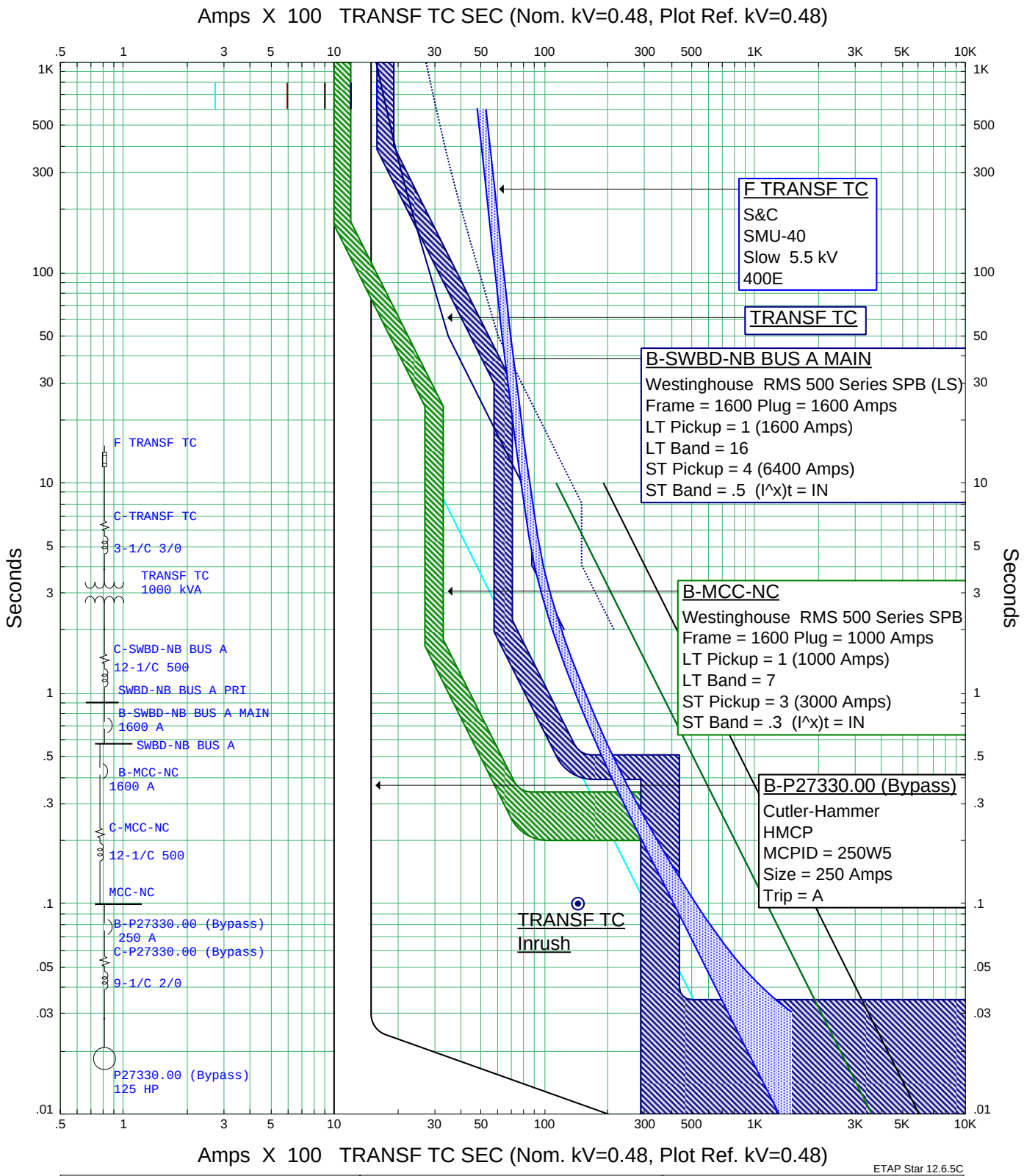


ETAP Star 12.6.5C

SWBD GDP TCC

Project: OXNARD WWTP
Location: OXNARD, CA
Contract: 9587A.00
Engineer: SKB
Filename: C:\Users\asukar\Desktop\Etap\OWTP.OTI

Date: 04-07-2015
SN: CAROLLOWAN
Rev: Base
Fault: Ground

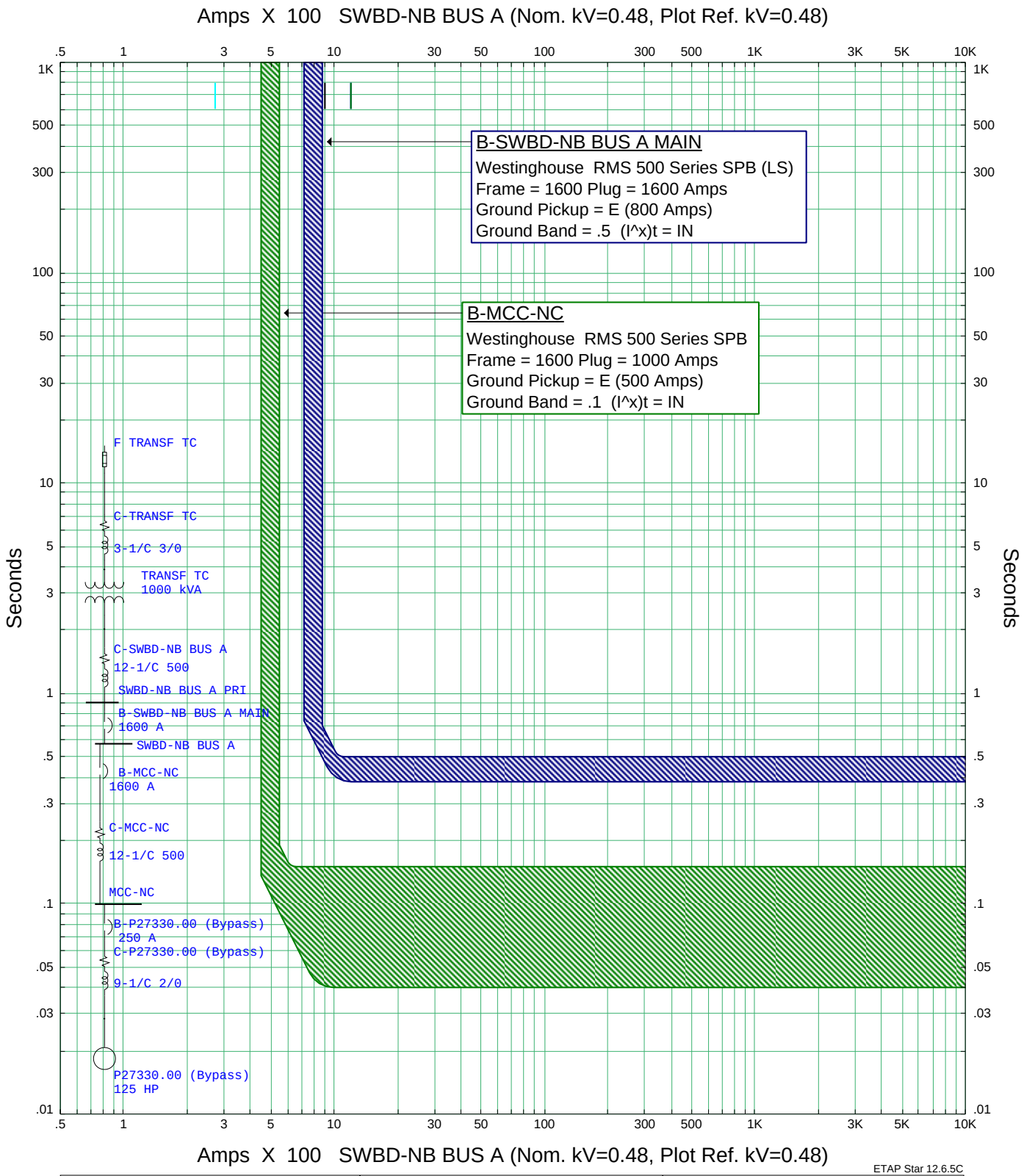


ETAP Star 12.6.5C

SWBD-NB BUS A TCC

Project: OXNARD WWTP
Location: OXNARD, CA
Contract: 9587A.00
Engineer: SKB
Filename: C:\Users\asukar\Desktop\Etap\OWTP.OTI

Date: 04-06-2015
SN: CAROLLOWAN
Rev: Base
Fault: Phase

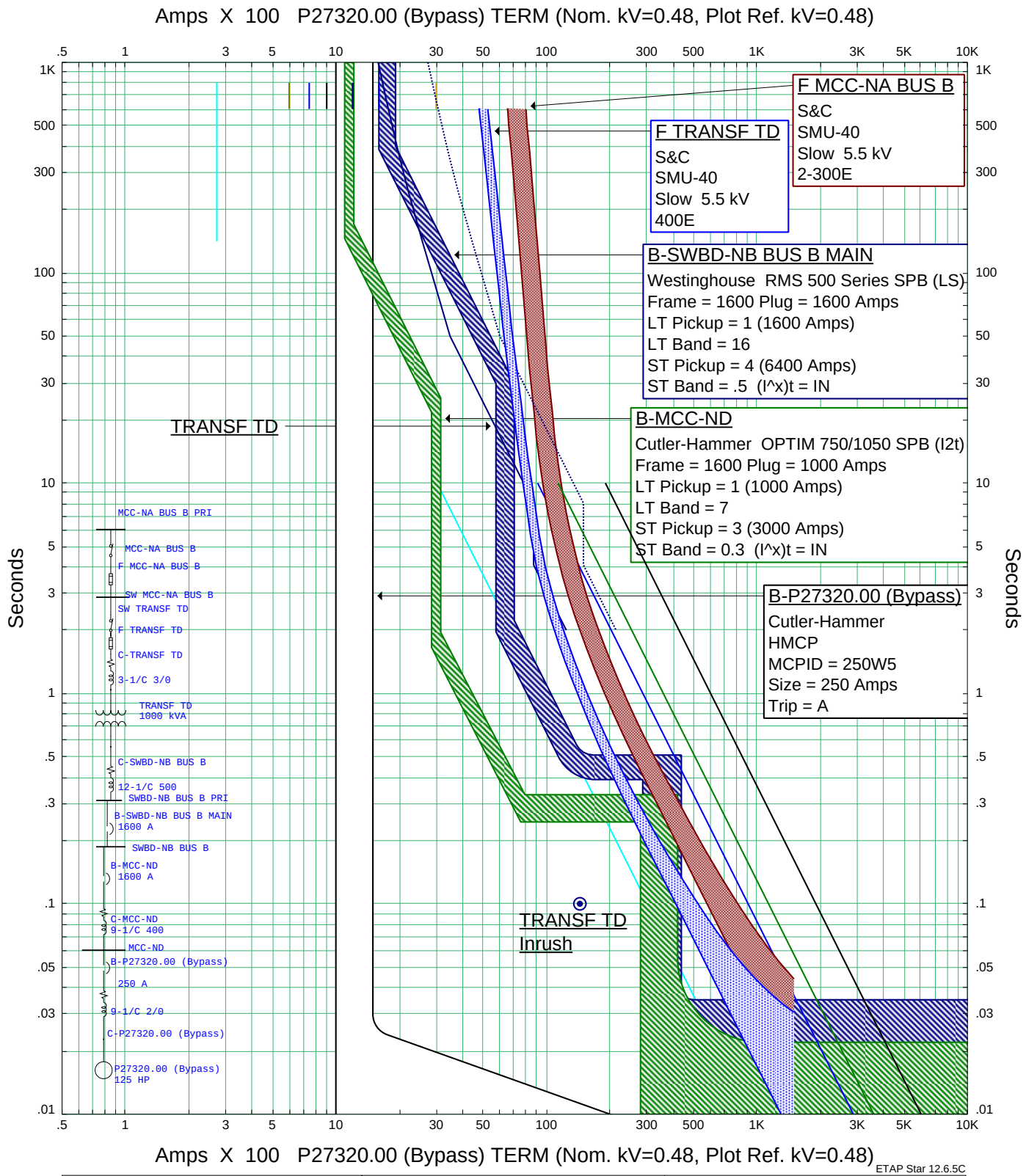


ETAP Star 12.6.5C

SWBD-NB BUS A TCC

Project: OXNARD WWTP
Location: OXNARD, CA
Contract: 9587A.00
Engineer: SKB
Filename: C:\Users\asukar\Desktop\Etap\OWTP.OTI

Date: 04-06-2015
SN: CAROLLOWAN
Rev: Base
Fault: Ground

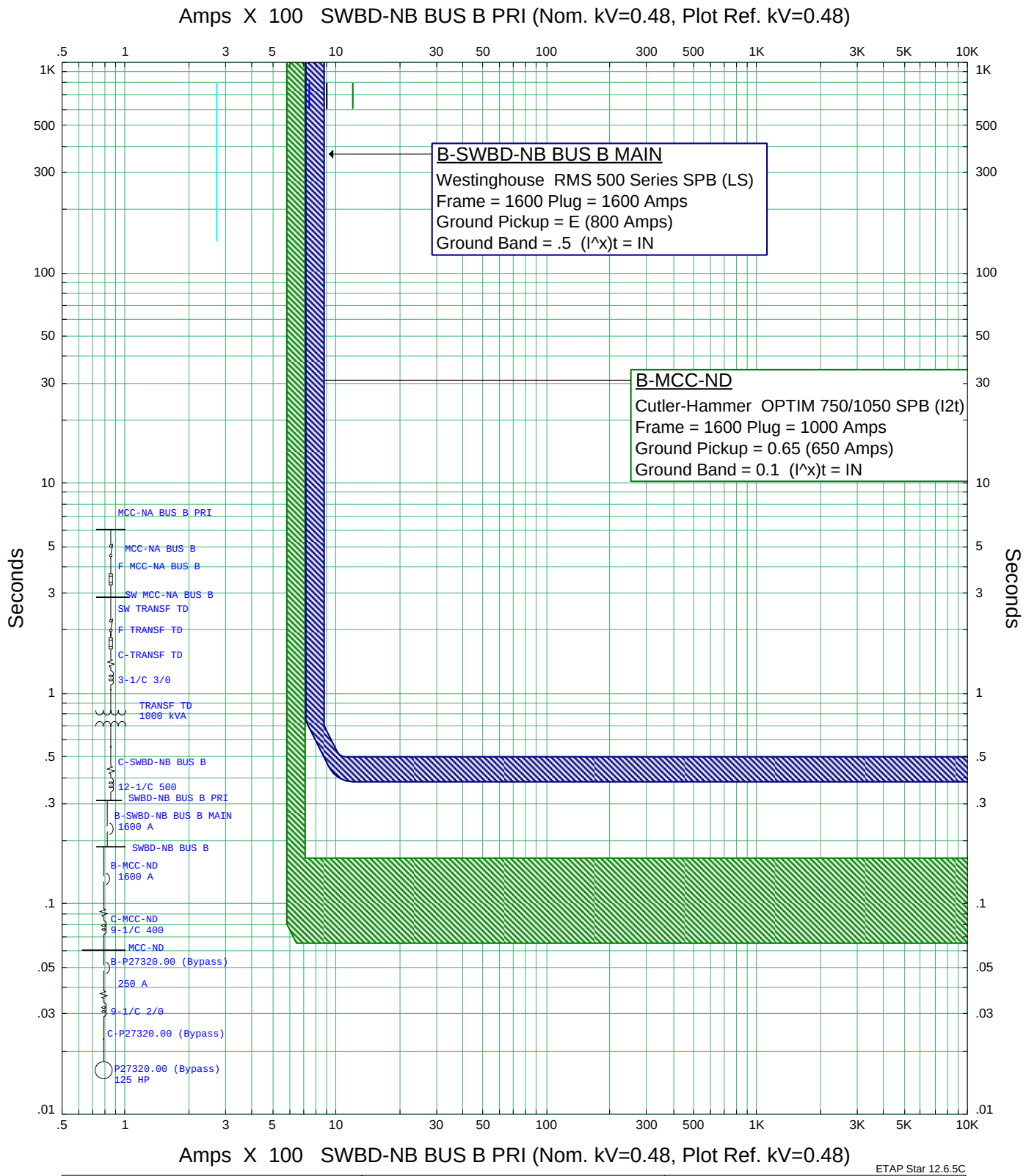


ETAP Star 12.6.5C

SWBD-NB BUS B TCC

Project: OXNARD WWTP
Location: OXNARD, CA
Contract: 9587A.00
Engineer: SKB
Filename: C:\Users\asukar\Desktop\Etap\OWTP.OTI

Date: 04-06-2015
SN: CAROLLOWAN
Rev: Base
Fault: Phase



ETAP Star 12.6.5C

SWBD-NB BUS B TCC

Project: OXNARD WWTP
Location: OXNARD, CA
Contract: 9587A.00
Engineer: SKB
Filename: C:\Users\asukar\Desktop\Etap\OWTP.OTI

Date: 04-06-2015
SN: CAROLLOWAN
Rev: Base
Fault: Ground

APPENDIX D – ARC FLASH STUDY

ID	kV (kV)	Output Rpt.	Configuration	Total Energy (cal/cm²)	AFB (ft)	Energy Levels	Final FCT (sec)	Ia at FCT (kA)	Source PD ID	% Ia Variation
P52220.00 TERM	0.48	STANDBY	Standby	0.012057	0.2	Level A	0.015	0.683	B-P52220.00	
P52230.00 TERM	0.48	STANDBY	Standby	0.012057	0.2	Level A	0.015	0.683	B-P52230.00	
P52220.00 DISC	0.48	STANDBY	Standby	0.012234	0.2	Level A	0.015	0.693	B-P52220.00	
P52230.00 DISC	0.48	STANDBY	Standby	0.012234	0.2	Level A	0.015	0.693	B-P52230.00	
SEP53020.00 TERM	0.48	STANDBY	Standby	0.028641	0.2	Level A	0.015	0.666	B-SEP53020.00	
SEP53020.00 DISC	0.48	STANDBY	Standby	0.029068	0.2	Level A	0.015	0.675	B-SEP53020.00	
SEP53000.00 TERM	0.48	STANDBY	Standby	0.029508	0.2	Level A	0.015	0.684	B-SEP53000.00	
SEP53010.00 TERM	0.48	STANDBY	Standby	0.029508	0.2	Level A	0.015	0.684	B-SEP53010.00	
CON53020.00 TERM	0.48	STANDBY	Standby	0.029717	0.2	Level A	0.015	0.689	B-CON53020.00	
CON53030.00 TERM	0.48	STANDBY	Standby	0.029717	0.2	Level A	0.015	0.689	B-CON53030.00	
SEP53000.00 DISC	0.48	STANDBY	Standby	0.029962	0.2	Level A	0.015	0.694	B-SEP53000.00	
SEP53010.00 DISC	0.48	STANDBY	Standby	0.029962	0.2	Level A	0.015	0.694	B-SEP53010.00	
CON53020.00 DISC	0.48	STANDBY	Standby	0.030171	0.2	Level A	0.015	0.698	B-CON53020.00	
CON53030.00 DISC	0.48	STANDBY	Standby	0.030171	0.2	Level A	0.015	0.698	B-CON53030.00	
BSN51240.00 TERM	0.48	STANDBY	Standby	0.030355	0.2	Level A	0.015	0.702	B-BSN51240.00	
BSN51250.00 TERM	0.48	STANDBY	Standby	0.030355	0.2	Level A	0.015	0.702	B-BSN51250.00	
BSN51260.00 TERM	0.48	STANDBY	Standby	0.030355	0.2	Level A	0.015	0.702	B-BSN51260.00	
BSN51270.00 TERM	0.48	STANDBY	Standby	0.030355	0.2	Level A	0.015	0.702	B-BSN51270.00	
BSN51240.00 DISC	0.48	STANDBY	Standby	0.030839	0.2	Level A	0.015	0.713	B-BSN51240.00	
BSN51250.00 DISC	0.48	STANDBY	Standby	0.030839	0.2	Level A	0.015	0.713	B-BSN51250.00	
BSN51260.00 DISC	0.48	STANDBY	Standby	0.030839	0.2	Level A	0.015	0.713	B-BSN51260.00	
BSN51270.00 DISC	0.48	STANDBY	Standby	0.030839	0.2	Level A	0.015	0.713	B-BSN51270.00	
COM53030.00 TERM	0.48	STANDBY	Standby	0.031505	0.2	Level A	0.015	0.727	B-COM53030.00	
CON51300.00 TERM	0.48	STANDBY	Standby	0.031622	0.2	Level A	0.015	0.729	B-CON51300.00	
CON51320.00 TERM	0.48	STANDBY	Standby	0.031622	0.2	Level A	0.015	0.729	B-CON51320.00	
COM53030.00 DISC	0.48	STANDBY	Standby	0.032021	0.2	Level A	0.015	0.738	B-COM53030.00	
CON51300.00 DISC	0.48	STANDBY	Standby	0.032139	0.2	Level A	0.015	0.74	B-CON51300.00	
CON51320.00 DISC	0.48	STANDBY	Standby	0.032139	0.2	Level A	0.015	0.74	B-CON51320.00	
COM53040.00 TERM	0.48	STANDBY	Standby	0.034273	0.3	Level A	0.015	0.786	B-COM53040.00	
P52240.00 TERM	0.48	STANDBY	Standby	0.03439	0.3	Level A	0.015	0.788	B-P52240.00	
P52250.00 TERM	0.48	STANDBY	Standby	0.03439	0.3	Level A	0.015	0.788	B-P52250.00	
COM53040.00 DISC	0.48	STANDBY	Standby	0.034888	0.3	Level A	0.015	0.799	B-COM53040.00	
P52240.00 DISC	0.48	STANDBY	Standby	0.035005	0.3	Level A	0.015	0.801	B-P52240.00	
P52250.00 DISC	0.48	STANDBY	Standby	0.035005	0.3	Level A	0.015	0.801	B-P52250.00	
R BLDG N OH DOOR TE	0.48	STANDBY	Standby	0.053784	0.3	Level A	0.017	1.071	-SCR BLDG N OH DOO	
R BLDG N OH DOOR DI	0.48	STANDBY	Standby	0.054554	0.3	Level A	0.017	1.096	-SCR BLDG N OH DOO	
P54080.00 TERM	0.48	STANDBY	Standby	0.05484	0.3	Level A	0.015	1.214	B-P54080.00	
P54090.00 TERM	0.48	STANDBY	Standby	0.05484	0.3	Level A	0.015	1.214	B-P54090.00	
R BLDG S OH DOOR TE	0.48	STANDBY	Standby	0.056366	0.3	Level A	0.016	1.151	-SCR BLDG S OH DOO	
P54080.00 DISC	0.48	STANDBY	Standby	0.056461	0.3	Level A	0.015	1.247	B-P54080.00	
P54090.00 DISC	0.48	STANDBY	Standby	0.056461	0.3	Level A	0.015	1.247	B-P54090.00	
R BLDG S OH DOOR DI	0.48	STANDBY	Standby	0.057423	0.3	Level A	0.016	1.181	-SCR BLDG S OH DOO	
B52220.00 TERM	0.48	STANDBY	Standby	0.064502	0.3	Level A	0.017	1.27	B-B52220.00	
B52220.00 DISC	0.48	STANDBY	Standby	0.065324	0.3	Level A	0.017	1.293	B-B52220.00	
B52210.00 TERM	0.48	STANDBY	Standby	0.067089	0.4	Level A	0.016	1.341	B-B52210.00	
B52210.00 DISC	0.48	STANDBY	Standby	0.068048	0.4	Level A	0.016	1.367	B-B52210.00	
HVAC56110.00 TERM	0.48	STANDBY	Standby	0.087954	0.4	Level A	0.014	1.977	B-HVAC56110.00	
HVAC56110.00 DISC	0.48	STANDBY	Standby	0.091454	0.4	Level A	0.014	2.072	B-HVAC56110.00	
F54330.00 TERM	0.48	STANDBY	Standby	0.092474	0.4	Level A	0.015	1.968	B-F54330.00	
F54330.00 DISC	0.48	STANDBY	Standby	0.097274	0.4	Level A	0.015	2.063	B-F54330.00	
XFMR T-LC2 PRI	0.48	STANDBY	Standby	0.101032	0.3	Level A	0.015	2.32	B-XFMR T-LC2	

P52130.00 TERM	0.48	STANDBY	Standby	0.112944	0.5	Level A	0.015	2.368	B-P52130.00	
P52130.00 DISC	0.48	STANDBY	Standby	0.114684	0.5	Level A	0.015	2.402	B-P52130.00	
P55020.00 TERM	0.48	STANDBY	Standby	0.142762	0.4	Level A	0.018	2.617	B-LCP-HWOCS	
P52150.00 TERM	0.48	STANDBY	Standby	0.145169	0.5	Level A	0.016	2.762	B-P52150.00	
P52150.00 DISC	0.48	STANDBY	Standby	0.147085	0.5	Level A	0.016	2.81	B-P52150.00	
BLWR BLDG TROLLEY	0.48	STANDBY	Standby	0.152082	0.4	Level A	0.015	3.269	B-BLRW BLDG TROLLEY	
P52170.00 TERM	0.48	STANDBY	Standby	0.155725	0.5	Level A	0.016	3.019	B-P52170.00	
P55030.00 TERM	0.48	STANDBY	Standby	0.156021	0.5	Level A	0.018	2.697	B-LCP-HWOCS	
P52100.00 TERM	0.48	BASE	Normal	0.157882	0.5	Level A	0.016	3.068	B-P52100.00	
P52120.00 TERM	0.48	BASE	Normal	0.157946	0.5	Level A	0.015	3.23	B-P52120.00	
P52170.00 DISC	0.48	STANDBY	Standby	0.158173	0.5	Level A	0.016	3.076	B-P52170.00	
P52100.00 DISC	0.48	BASE	Normal	0.159545	0.5	Level A	0.016	3.107	B-P52100.00	
P52120.00 DISC	0.48	BASE	Normal	0.160248	0.5	Level A	0.015	3.273	B-P52120.00	
P52110.00 TERM	0.48	STANDBY	Standby	0.161184	0.5	Level A	0.023	2.242	B-P52110.00	
P52110.00 DISC	0.48	STANDBY	Standby	0.161749	0.6	Level A	0.022	2.272	B-P52110.00	
LCP-HWOCS	0.48	STANDBY	Standby	0.163488	0.4	Level A	0.017	3.205	B-LCP-HWOCS	
B52190.00 TERM	0.48	STANDBY	Standby	0.170336	0.6	Level A	0.016	3.199	B-B52190.00	
B52190.00 DISC	0.48	STANDBY	Standby	0.173001	0.6	Level A	0.016	3.264	B-B52190.00	
F55010.00 TERM	0.48	STANDBY	Standby	0.176902	0.6	Level A	0.017	3.227	B-LCP-HWOCS	
P52160.00 TERM	0.48	STANDBY	Standby	0.176908	0.6	Level A	0.019	2.859	B-P52160.00	
P52160.00 DISC	0.48	STANDBY	Standby	0.178512	0.6	Level A	0.019	2.91	B-P52160.00	
HVAC56100.00 TERM	0.48	STANDBY	Standby	0.178756	0.6	Level A	0.013	4.173	B-HVAC56100.00	
P52140.00 TERM	0.48	BASE	Normal	0.187729	0.6	Level A	0.015	3.73	B-P52140.00	
HVAC56100.00 DISC	0.48	STANDBY	Standby	0.189449	0.6	Level A	0.013	4.476	B-HVAC56100.00	
P52140.00 DISC	0.48	BASE	Normal	0.190561	0.6	Level A	0.015	3.79	B-P52140.00	
XFMR T-C4 PRI	0.48	BASE	Normal	0.195321	0.5	Level A	0.011	5.621	B-XFMR T-C4	
B52180.00 TERM	0.48	BASE	Normal	0.207464	0.6	Level A	0.015	4.157	B-B52180.00	
B52180.00 DISC	0.48	BASE	Normal	0.213587	0.6	Level A	0.015	4.27	B-B52180.00	
HW ELEVATOR	0.48	BASE	Normal	0.265548	0.6	Level A	0.015	5.682	B-HW ELEVATOR	
F52410.00 STR	0.48	STANDBY	Standby	0.334003	0.8	Level A	0.424	0.669	B-F52410.00	
F52410.00 DISC	0.48	STANDBY	Standby	0.340021	0.8	Level A	0.463	0.624	B-F52410.00	
PNL DPP1	0.48	BASE	Normal	0.343072	0.7	Level A	0.011	9.835	B-PNL DPP1 MAIN	
XFMR T-LC1 PRI	0.48	BASE	Normal	0.347395	0.7	Level A	0.014	7.657	B-ATS-L BUS A	
F52420.00 STR	0.48	STANDBY	Standby	0.355724	0.8	Level A	0.579	0.483	B-F52420.00	
F52420.00 DISC	0.48	STANDBY	Standby	0.361183	0.8	Level A	0.624	0.46	B-F52420.00	
HW GATES	0.48	STANDBY	Standby	0.378724	0.8	Level A	0.789	0.392	B-HW GATES	
MCC-DP4B	0.48	BASE	Normal	0.386607	0.8	Level A	0.004	25.872	F-MCC-DP4B	
B20400.00 TERMINALS	2.4	STANDBY	Standby	0.389522	0.5	Level A	0.045	4.209	F B20400.00	
B20100.00 TERMINALS	2.4	MinUtility	Normal	0.411293	0.5	Level A	0.058	3.459	F B20100.00	
B20200.00 TERMINALS	2.4	MinUtility	Normal	0.412669	0.5	Level A	0.059	3.453	F B20200.00	
PNL DPP1 PRI	0.48	BASE	Normal	0.439913	0.8	Level A	0.013	9.835	B-PNL DPP1	
MCC-NG BUS A	0.48	STANDBY	Standby	0.509439	0.9	Level A	0.016	9.662	B-BUS A MCC-NG	
MCC-NG BUS B	0.48	STANDBY	Standby	0.509791	0.9	Level A	0.016	9.667	B-BUS-B MCC-NG	
MCC-DP2C	0.48	BASE	Normal	0.56971	1	Level A	0.017	10.001	B-MCC-DP2C	
ATS-L BUS B	0.48	BASE	Normal	0.656259	1	Level A	0.013	15.053	B-ATS-L BUS B	
ATS-L BUS A	0.48	BASE	Normal	0.734519	1.1	Level A	0.013	16.948	B-ATS-L BUS A	
ATS-L SEC	0.48	BASE	Normal	0.734519	1.1	Level A	0.013	16.948	B-ATS-L BUS A	
GRIT SCR TROLLEY	0.48	STANDBY	Standby	0.736726	1.1	Level A	0.464	0.601	B-GRIT SCR TROLLEY	15%
NFL PUMP 2 TERMINAL	0.48	BASE	Normal	0.911308	1.3	Level A	0.018	14.142	B-INFL PUMP 2	
NFL PUMP 4 TERMINAL	0.48	BASE	Normal	0.918588	1.3	Level A	0.018	14.253	B-INFL PUMP 4	
NFL PUMP 3 TERMINAL	0.48	BASE	Normal	0.941289	1.3	Level A	0.018	14.593	B-INFL PUMP 3	
NFL PUMP 5 TERMINAL	0.48	BASE	Normal	0.941289	1.3	Level A	0.018	14.593	B-INFL PUMP 5	

MCC-SH BUS B	0.48	STANDBY	Standby	1.36	1.6	Level A	0.064	6.638	B-MCC-SH TIE	
EFF PS SWGR BUS A	0.48	BASE	Normal	1.65	2.5	Level A	0.07	10.382	B-EFF PS SWGR BUS A	
EFF PS SWGR BUS B	0.48	BASE	Normal	1.65	2.5	Level A	0.07	10.381	B-EFF PS SWGR BUS B	
MCC-NE	0.48	STANDBY	Standby	11.43	5.9	Level D	0.34	9.169	B-MCC-NE	
MCC-NF	0.48	STANDBY	Standby	11.43	5.9	Level D	0.34	9.169	B-MCC-NF	
MCC-ND	0.48	BASE	Normal	12.84	6.4	Level D	0.681	5.134	B-MCC-ND	15%
TRANSF TC PRI	2.4	STANDBY	Standby	13.26	5	Level D	2	2.524	B-SWBD-NB TIE	
MCC-NC	0.48	BASE	Normal	13.57	6.6	Level D	0.727	5.007	B-MCC-NC	15%
PNL DP4	0.48	BASE	Normal	17.55	12.4	Level D	0.34	22.123	B-FB3	
MCC-NA BUS A	2.4	BASE	Normal	2.1	2.7	Level B	0.234	4.085	B-FA1	
MCC-NA BUS A PRI	2.4	BASE	Normal	2.1	2.7	Level B	0.234	4.085	B-FA1	
TRANSF TA PRI	0.48	BASE	Normal	24.25	6.7	Level D	0.23	26.302	B-FA1	
SWBD-NB BUS A PRI	0.48	MinUtility	Normal	24.74	15.6	Level D	2	6.109	F TRANSF TC	
MCC-GE PRI	0.48	BASE	Normal	24.9	9.5	Level D	0.34	20.184	B-FB5-MCC-GE	
SWBD-NB BUS B	0.48	MinUtility	Normal	25.05	15.7	Level E	2	6.165	3-SWBD-NB BUS B MAIN	
SWBD-NB BUS B PRI	0.48	MinUtility	Normal	25.05	15.7	Level E	2	6.165	F TRANSF TD	
SWBD-NB BUS A	0.48	STANDBY	Standby	26.02	16.1	Level E	2	5.192	B-SWBD-NB TIE	
FF PUMP NO. 2 VFD PF	0.48	BASE	Normal	3.17	2.4	Level B	0.07	11.596	B-EFF PUMP NO. 2 VFD	
FF PUMP NO. 4 VFD PF	0.48	BASE	Normal	3.17	2.4	Level B	0.07	11.596	B-EFF PUMP NO. 4 VFD	
NFL PUMP 6 TERMINAL	0.48	BASE	Normal	3.8	2.7	Level B	0.07	12.709	B-52-6D	
NFL PUMP 1 TERMINAL	0.48	BASE	Normal	3.98	2.7	Level B	0.07	13.154	B-52-2B	
MAIN SWGR "FILTER"	0.48	STANDBY	Standby	34.79	19.7	Level E	2	5.675	B-FA1	
TRANSF TB PRI	0.48	BASE	Normal	39.92	8.6	Level E	0.34	28.955	B-FB1	
PNL DPLC-1	0.208	BASE	Normal	4	3.1	Level B		1.386		
PNL DPLC-2	0.208	BASE	Normal	4	3.1	Level B		1.18		
PNL DPLC-3	0.208	BASE	Normal	4	3.1	Level B		1.336		
PNL DPLC-4	0.208	BASE	Normal	4	3.1	Level B		0.79		
XFMR T-C4 SEC	0.208	BASE	Normal	4	3.1	Level B		0.806		
XFMR T-LC1 SEC	0.208	BASE	Normal	4	3.1	Level B		1.396		
XFMR T-LC2 SEC	0.208	BASE	Normal	4	3.1	Level B		1.182		
INFL PUMP 2 VFD	0.48	STANDBY	Standby	4.15	2.8	Level C	0.07	8.342	B-52-6B	
INFL PUMP 4 VFD	0.48	STANDBY	Standby	4.19	2.8	Level C	0.07	8.375	B-52-6C	
INFL PUMP 3 VFD	0.48	BASE	Normal	4.3	2.8	Level C	0.07	13.917	B-52-2C	15%
INFL PUMP 5 VFD	0.48	BASE	Normal	4.3	2.8	Level C	0.07	13.917	B-52-2D	15%
INFL PUMP 6 VFD PRI	0.48	BASE	Normal	4.83	3	Level C	0.07	15.676	B-52-6D	
INFL PUMP 2 VFD PRI	0.48	BASE	Normal	4.88	3	Level C	0.07	15.832	B-52-6B	
INFL PUMP 4 VFD PRI	0.48	BASE	Normal	4.94	3	Level C	0.07	15.991	B-52-6C	
TRANSF TC SEC	0.48	BASE	Normal	48.45	9.5	Level F	2	6.577	F TRANSF TC	
TRANSF TD SEC	0.48	BASE	Normal	49.15	9.6	Level F	2	6.727	F TRANSF TD	
MCC-HW BUS B PRI	0.48	BASE	Normal	5.09	3.1	Level C	0.07	16.408	B-52-5C	
INFL PUMP 1 VFD PRI	0.48	BASE	Normal	5.13	3.1	Level C	0.07	16.372	B-52-2B	
INFL PUMP 3 VFD PRI	0.48	BASE	Normal	5.13	3.1	Level C	0.07	16.373	B-52-2C	
INFL PUMP 5 VFD PRI	0.48	BASE	Normal	5.13	3.1	Level C	0.07	16.373	B-52-2D	
MCC-HW BUS A PRI	0.48	BASE	Normal	5.16	3.1	Level C	0.07	16.468	B-52-3C	
TRANSF TD PRI	2.4	MinUtility	Normal	5.45	3.2	Level C	0.666	3.674	F TRANSF TD	
MCC-HW BUS A	0.48	STANDBY	Standby	5.84	3.9	Level C	0.158	7.672	B-MCC-HW BUS A MAIN	
MCC-HW BUS B	0.48	STANDBY	Standby	5.84	3.9	Level C	0.158	7.672	B-MCC-HW BUS B MAIN	
MCC-SH BUS A	0.48	STANDBY	Standby	5.94	4	Level C	0.34	5.231	B-MCC-SH BUS A	
MS-HW BUS A	0.48	MinUtility	Normal	58.08	27.8	Level F	2	13.426	B-MS-HW 52-A	
MS-HW BUS B	0.48	MinUtility	Normal	58.14	27.9	Level F	2	13.463	B-MS-HW 52-B	
MCC-SH BUS A PRI	0.48	STANDBY	Standby	6.9	3.6	Level C	0.34	5.612	B-MCC-SH BUS A	
MCC-SH BUS B PRI	0.48	STANDBY	Standby	6.98	3.6	Level C	0.34	5.767	B-MCC-SH BUS B	

PNL DP2	0.48	BASE	Normal	7.48	6.9	Level C	0.34	10.19	B-FB4	
MCC-NA BUS B	2.4	STANDBY	Standby	7.94	10.5	Level C	2	1.666	F TRANSF TD	
MCC-NA BUS B PRI	2.4	STANDBY	Standby	7.94	10.5	Level C	2	1.666	F TRANSF TD	
MCC-DP4A	0.48	MinUtility	Normal	8.23	4.8	Level D	2	1.449	B-FB3	
TRANSF TB SEC	2.4	STANDBY	Standby	8.42	4	Level D	2	1.646	F TRANSF TD	
SR-DAF	0.48	STANDBY	Standby	9.15	4.1	Level D	0.34	7.281	B-SR-DAF	
SR-DAF PRI	0.48	STANDBY	Standby	9.15	4.1	Level D	0.34	7.281	B-SR-DAF	
MCC-GE	0.48	BASE	Normal	9.45	5.3	Level D	0.34	8.243	B-FB5-MCC-GE	
MCC-NG BUS A PRI	0.48	STANDBY	Standby	9.96	4.3	Level D	0.34	7.777	B-MCC-NG BUS A	
MCC-NG BUS B PRI	0.48	STANDBY	Standby	9.96	4.3	Level D	0.34	7.778	B-MCC-NG BUS B	
COGEN TIE BUS	0.48	MinUtility	Normal	96.39	39.3	Level F	2	21.271	B-GEN TIE A3	
MAIN SWGR "SLUDGE"	0.48	MinUtility	Normal	96.39	39.3	Level F	2	21.271	B-GEN TIE A3	

APPENDIX E – PROTECTION SETTINGS

Protective Device Settings

OCR: OCR-3 ATS #10

MFR: GE Multilin Tag #:
Model: IFCV

	CT	Base kV	If (kA)
CT Input:	400/5		

OC Level: OC1

		Range	Setting
Phase TOC	Inverse (51) (0%)		
	Pickup (Tap)	2 - 16 Sec - 5A	6.000
	Time Dial		1.000

OCR: OCR3 ATS#11

MFR: GE Multilin Tag #:
Model: IFCV

	CT	Base kV	If (kA)
CT Input:	400/5		

OC Level: OC1

		Range	Setting
Phase TOC	Inverse (51) (0%)		
	Pickup (Tap)	2 - 16 Sec - 5A	6.000
	Time Dial		1.000

Fuse: F B20100.00

MFR:	Westinghouse	Tag #:		3-Phase kA:	0.00	Asym. (Calc.)
Model:	CLS-12	kV:	5.080	LG kA:	0.00	Asym. (Calc.)
Speed:	Other	Int. kA:	50.000	Base kV:	0.000	(Calc.)
Size:	6R	Cont. Amp:	170.000			

Fuse: F B20200.00

MFR:	Westinghouse	Tag #:		3-Phase kA:	0.00	Asym. (Calc.)
Model:	CLS-12	kV:	5.080	LG kA:	0.00	Asym. (Calc.)
Speed:	Other	Int. kA:	50.000	Base kV:	0.000	(Calc.)
Size:	6R	Cont. Amp:	170.000			

Fuse: F B20300.00

MFR:	Westinghouse	Tag #:		3-Phase kA:	0.00	Asym. (Calc.)
Model:	CLS-12	kV:	5.080	LG kA:	0.00	Asym. (Calc.)
Speed:	Other	Int. kA:	50.000	Base kV:	0.000	(Calc.)
Size:	6R	Cont. Amp:	170.000			

Fuse: F B20400.00

MFR:	Westinghouse	Tag #:		3-Phase kA:	0.00	Asym. (Calc.)
Model:	CLS-12	kV:	5.080	LG kA:	0.00	Asym. (Calc.)
Speed:	Other	Int. kA:	50.000	Base kV:	0.000	(Calc.)
Size:	6R	Cont. Amp:	170.000			

Protective Device Settings

Fuse: F B20500.00

MFR:	Westinghouse	Tag #:		3-Phase kA:	0.00	Asym. (Calc.)
Model:	CLS-12	kV:	5.080	LG kA:	0.00	Asym. (Calc.)
Speed:	Other	Int. kA:	50.000	Base kV:	0.000	(Calc.)
Size:	6R	Cont. Amp:	170.000			

Fuse: F MCC-NA BUS A

MFR:	S&C	Tag #:		3-Phase kA:	0.00	Asym. (Calc.)
Model:	SMU-40	kV:	5.500	LG kA:	0.00	Asym. (Calc.)
Speed:	Slow	Int. kA:	25.000	Base kV:	0.000	(Calc.)
Size:	2-300E	Cont. Amp:	540.000			

Fuse: F MCC-NA BUS B

MFR:	S&C	Tag #:		3-Phase kA:	0.00	Asym. (Calc.)
Model:	SMU-40	kV:	5.500	LG kA:	0.00	Asym. (Calc.)
Speed:	Slow	Int. kA:	25.000	Base kV:	0.000	(Calc.)
Size:	2-300E	Cont. Amp:	540.000			

Fuse: F TRANSF TC

MFR:	S&C	Tag #:		3-Phase kA:	0.00	Asym. (Calc.)
Model:	SMU-40	kV:	5.500	LG kA:	0.00	Asym. (Calc.)
Speed:	Slow	Int. kA:	25.000	Base kV:	0.000	(Calc.)
Size:	400E	Cont. Amp:	400.000			

Fuse: F TRANSF TD

MFR:	S&C	Tag #:		3-Phase kA:	0.00	Asym. (Calc.)
Model:	SMU-40	kV:	5.500	LG kA:	0.00	Asym. (Calc.)
Speed:	Slow	Int. kA:	25.000	Base kV:	0.000	(Calc.)
Size:	400E	Cont. Amp:	400.000			

Fuse: F-EFF PUMP NO. 2 VFD

MFR:	Bussmann	Tag #:		3-Phase kA:	22.94	Asym. (Calc.)
Model:	LPJ_SP	kV:	0.600	LG kA:	22.64	Asym. (Calc.)
Speed:	Time Delay	Int. kA:	300.000	Base kV:	0.480	(Calc.)
Size:	600A	Cont. Amp:	600.000			

Fuse: F-EFF PUMP NO. 4 VFD

MFR:	Bussmann	Tag #:		3-Phase kA:	22.91	Asym. (Calc.)
Model:	LPJ_SP	kV:	0.600	LG kA:	22.61	Asym. (Calc.)
Speed:	Time Delay	Int. kA:	300.000	Base kV:	0.480	(Calc.)
Size:	600A	Cont. Amp:	600.000			

Fuse: F-HVAC56100.00

MFR:	S&C*	Tag #:		3-Phase kA:	6.13	Asym. (Calc.)
Model:	SMU-20	kV:	0.480	LG kA:	3.65	Asym. (Calc.)
Speed:	Standard	Int. kA:	14.000	Base kV:	0.480	(Calc.)
Size:	30E	Cont. Amp:	30.000			

* Retrieved library data is modified by user.

Protective Device Settings

Fuse: F-HVAC56110.00

MFR:	S&C*	Tag #:		3-Phase kA:	2.54	Asym. (Calc.)
Model:	SMU-20	kV:	0.480	LG kA:	1.49	Asym. (Calc.)
Speed:	Standard	Int. kA:	14.000	Base kV:	0.480	(Calc.)
Size:	20E	Cont. Amp:	20.000			

* Retrieved library data is modified by user.

Fuse: F-MCC-DP4B

MFR:	Mersen	Tag #:		3-Phase kA:	0.00	Asym. (Calc.)
Model:	HSJ	kV:	0.600	LG kA:	0.00	Asym. (Calc.)
Speed:	High	Int. kA:	200.000	Base kV:	0.000	(Calc.)
Size:	600A	Cont. Amp:	600.000			

Fuse: F-P4023.00

MFR:	Mersen	Tag #:		3-Phase kA:	0.00	Asym. (Calc.)
Model:	HSJ	kV:	0.600	LG kA:	0.00	Asym. (Calc.)
Speed:	High	Int. kA:	200.000	Base kV:	0.000	(Calc.)
Size:	400A	Cont. Amp:	400.000			

CB: B- PANEL DPC5

MFR:	Westinghouse	Tag #:		3-Phase kA:	0.00	Asym. (Calc.)
Model:	BA	Rating:	10 kA, 0.24 kV	LG kA:	0.00	Asym. (Calc.)
Size:	30	Cont. Amp:	30.000	Base kV:	0.000	(Calc.)

Thermal Magnetic Trip Device

MFR:	Cutler-Hammer	Thermal Trip:	Fixed
Model:	Quicklag (2P)	Magnetic Trip:	FIXED
ID:	30		

CB: B- PNL DPC6

MFR:	Cutler-Hammer	Tag #:		3-Phase kA:	0.00	Asym. (Calc.)
Model:	BAB	Rating:	10 kA, 0.24 kV	LG kA:	0.00	Asym. (Calc.)
Size:	50	Cont. Amp:	50.000	Base kV:	0.000	(Calc.)

Thermal Magnetic Trip Device

MFR:	Cutler-Hammer	Thermal Trip:	Fixed
Model:	Quicklag (3P)	Magnetic Trip:	FIXED
ID:	50		

CB: B- Polymer

MFR:	Cutler-Hammer	Tag #:		3-Phase kA:	0.00	Asym. (Calc.)
Model:	HFD	Rating:	65 kA, 0.48 kV	LG kA:	0.00	Asym. (Calc.)
Size:	20	Cont. Amp:	20.000	Base kV:	0.000	(Calc.)

Thermal Magnetic Trip Device

MFR:	Cutler-Hammer	Thermal Trip:	Fixed
Model:	HFD (2,3,4P)	Magnetic Trip:	FIXED
ID:	20		

Protective Device Settings

CB: B- Praestemat

MFR:	Cutler-Hammer	Tag #:		3-Phase kA:	0.00	Asym. (Calc.)
Model:	HFD	Rating:	65 kA, 0.48 kV	LG kA:	0.00	Asym. (Calc.)
Size:	20	Cont. Amp:	20.000	Base kV:	0.000	(Calc.)

Thermal Magnetic Trip Device

MFR:	Cutler-Hammer	Thermal Trip:	Fixed
Model:	HFD (2,3,4P)	Magnetic Trip:	FIXED
ID:	20		

CB: B SUMP PUMP CONTROL PANEL

MFR:	Allen-Bradley	Tag #:		3-Phase kA:	0.00	Asym. (Calc.)
Model:	140U-I6C3	Rating:	65 kA, 0.48 kV	LG kA:	0.00	Asym. (Calc.)
Size:	15	Cont. Amp:	15.000	Base kV:	0.000	(Calc.)

Thermal Magnetic Trip Device

MFR:	Allen Bradley	Thermal Trip:	Fixed
Model:	140U-I6C3	Magnetic Trip:	FIXED
ID:	15		

CB: B0P4021.00

MFR:	Westinghouse*	Tag #:		3-Phase kA:	0.00	Asym. (Calc.)
Model:	LA-400 (125-400A)	Rating:	200 kA, 0.48 kV	LG kA:	0.00	Asym. (Calc.)
Size:	400	Cont. Amp:	400.000	Base kV:	0.000	(Calc.)

* The retrieved library data is modified by user.

Thermal Magnetic Trip Device

MFR:	Cutler-Hammer	Thermal Trip:	Fixed
Model:	LA-400	Magnetic Trip:	High
ID:	400		

CB: B2-MCC-DP4B

MFR:	Westinghouse	Tag #:		3-Phase kA:	0.00	Asym. (Calc.)
Model:	LCL	Rating:	200 kA, 0.48 kV	LG kA:	0.00	Asym. (Calc.)
Size:	400	Cont. Amp:	400.000	Base kV:	0.000	(Calc.)

LV Solid State Trip Device

MFR: Westinghouse
Model: Seltronic LCL (Fixed)
Sensor: 400
Rating Plug: 250.00

		Phase Setting	
Long-Time	LT Pickup	Fixed	
	LT Band	Fixed	
Short-Time	ST Pickup	8	
	ST Band	Fixed	I^xt=IN
INST	Inst. Pickup	Fixed	

Ground Setting	
Ground Pickup	0.650
Ground Band	0.060

Protective Device Settings

CB: B-400 KW GENERATOR

MFR:	Merlin Gerin*	Tag #:		3-Phase kA:	0.00	Asym. (Calc.)
Model:	NSJ600N	Rating:	35 kA, 0.48 kV	LG kA:	0.00	Asym. (Calc.)
Size:	600	Cont. Amp:	240.000	Base kV:	0.000	(Calc.)

* The retrieved library data is modified by user.

LV Solid State Trip Device

MFR: Merlin Gerin
Model: STR23SP
Sensor: 600
Rating Plug: 300.00

		Phase Setting
Long-Time	LT Pickup	1.0
	LT Band	Fixed
Short-Time	ST Pickup	6
	ST Band	Fixed

CB: B-4911.00

MFR:	General Electric	Tag #:		3-Phase kA:	0.00	Asym. (Calc.)
Model:	TBC4	Rating:	100 kA, 0.48 kV	LG kA:	0.00	Asym. (Calc.)
Size:	400	Cont. Amp:	400.000	Base kV:	0.000	(Calc.)

Motor Circuit Protector Trip Device

MFR: General Electric
Model: TBC
ID: 400
Pick up: HI

CB: B-50A RECEPT

MFR:	Cutler-Hammer	Tag #:		3-Phase kA:	0.00	Asym. (Calc.)
Model:	HFB	Rating:	25 kA, 0.48 kV	LG kA:	0.00	Asym. (Calc.)
Size:	50	Cont. Amp:	50.000	Base kV:	0.000	(Calc.)

Thermal Magnetic Trip Device

MFR:	Cutler-Hammer	Thermal Trip:	Fixed
Model:	HFB (2,3P)	Magnetic Trip:	FIXED
ID:	50		

Protective Device Settings

CB: B-52-2B

MFR:	Siemens*	Tag #:		3-Phase kA:	54.93 Asym. (Calc.)
Model:	WL-L-800	Rating:	100 kA, 0.508 kV	LG kA:	50.77 Asym. (Calc.)
Size:	800	Cont. Amp:	600.000	Base kV:	0.480 (Calc.)

* The retrieved library data is modified by user.

LV Solid State Trip Device

MFR: Siemens
Model: ETU745 (I^2t)
Sensor: Frame Size II - 800
Rating Plug: 600.00

		Phase Setting			Ground Setting	
Long-Time	LT Pickup	1		Ground Pickup	B	
	LT Band	5.5		Ground Band	0.1	I^xt=OUT
Short-Time	ST Pickup	2.5				
	ST Band	0.3	I^xt=IN			
INST	Inst. Pickup	6				

CB: B-52-2C

MFR:	Siemens*	Tag #:		3-Phase kA:	54.93 Asym. (Calc.)
Model:	WL-L-800	Rating:	100 kA, 0.508 kV	LG kA:	50.77 Asym. (Calc.)
Size:	800	Cont. Amp:	600.000	Base kV:	0.480 (Calc.)

* The retrieved library data is modified by user.

LV Solid State Trip Device

MFR: Siemens
Model: ETU745 (I^2t)
Sensor: Frame Size II - 800
Rating Plug: 600.00

		Phase Setting			Ground Setting	
Long-Time	LT Pickup	1		Ground Pickup	B	
	LT Band	5.5		Ground Band	0.1	I^xt=OUT
Short-Time	ST Pickup	2.5				
	ST Band	0.3	I^xt=IN			
INST	Inst. Pickup	6				

Protective Device Settings

CB: B-52-2D

MFR:	Siemens*	Tag #:		3-Phase kA:	54.93	Asym. (Calc.)
Model:	WL-L-800	Rating:	100 kA, 0.508 kV	LG kA:	50.77	Asym. (Calc.)
Size:	800	Cont. Amp:	600.000	Base kV:	0.480	(Calc.)

* The retrieved library data is modified by user.

LV Solid State Trip Device

MFR: Siemens
Model: ETU745 (I^2t)
Sensor: Frame Size II - 800
Rating Plug: 600.00

		Phase Setting			Ground Setting	
Long-Time	LT Pickup	1		Ground Pickup	B	
	LT Band	5.5		Ground Band	0.1	I^xt=OUT
Short-Time	ST Pickup	2.5				
	ST Band	0.3	I^xt=IN			
INST	Inst. Pickup	6				

CB: B-52-3C

MFR:	Siemens	Tag #:		3-Phase kA:	54.93	Asym. (Calc.)
Model:	WL-L-1600	Rating:	100 kA, 0.508 kV	LG kA:	50.77	Asym. (Calc.)
Size:	1600	Cont. Amp:	1600.000	Base kV:	0.480	(Calc.)

LV Solid State Trip Device

MFR: Siemens
Model: ETU745 (I^2t)
Sensor: Frame Size II - 1600
Rating Plug: 1000.00

		Phase Setting			Ground Setting	
Long-Time	LT Pickup	1		Ground Pickup	C	
	LT Band	10		Ground Band	0.2	I^xt=IN
Short-Time	ST Pickup	2.5				
	ST Band	0.1	I^xt=IN			
INST	Inst. Pickup	10				

Protective Device Settings

CB: B-52-5C

MFR:	Siemens	Tag #:		3-Phase kA:	54.93 Asym. (Calc.)
Model:	WL-L-1600	Rating:	100 kA, 0.508 kV	LG kA:	50.77 Asym. (Calc.)
Size:	1600	Cont. Amp:	1600.000	Base kV:	0.480 (Calc.)

LV Solid State Trip Device

MFR: Siemens
Model: ETU745 (I^2t)
Sensor: Frame Size II - 1600
Rating Plug: 1000.00

		Phase Setting			Ground Setting	
Long-Time	LT Pickup	1		Ground Pickup	C	
	LT Band	10		Ground Band	0.2	I^xt=IN
Short-Time	ST Pickup	2.5				
	ST Band	0.1	I^xt=IN			
INST	Inst. Pickup	10				

CB: B-52-6B

MFR:	Siemens*	Tag #:		3-Phase kA:	54.93 Asym. (Calc.)
Model:	WL-L-800	Rating:	100 kA, 0.508 kV	LG kA:	50.77 Asym. (Calc.)
Size:	800	Cont. Amp:	600.000	Base kV:	0.480 (Calc.)

* The retrieved library data is modified by user.

LV Solid State Trip Device

MFR: Siemens
Model: ETU745 (I^2t)
Sensor: Frame Size II - 800
Rating Plug: 600.00

		Phase Setting			Ground Setting	
Long-Time	LT Pickup	1		Ground Pickup	A	
	LT Band	5.5		Ground Band	0.1	I^xt=OUT
Short-Time	ST Pickup	2.5				
	ST Band	0.3	I^xt=IN			
INST	Inst. Pickup	6				

Protective Device Settings

CB: B-52-6C

MFR:	Siemens*	Tag #:		3-Phase kA:	54.93	Asym. (Calc.)
Model:	WL-L-800	Rating:	100 kA, 0.508 kV	LG kA:	50.77	Asym. (Calc.)
Size:	800	Cont. Amp:	600.000	Base kV:	0.480	(Calc.)

* The retrieved library data is modified by user.

LV Solid State Trip Device

MFR: Siemens
Model: ETU745 (I^2t)
Sensor: Frame Size II - 800
Rating Plug: 600.00

		Phase Setting			Ground Setting	
Long-Time	LT Pickup	1		Ground Pickup	A	
	LT Band	5.5		Ground Band	0.1	I^xt=OUT
Short-Time	ST Pickup	2.5				
	ST Band	0.3	I^xt=IN			
INST	Inst. Pickup	6				

CB: B-52-6D

MFR:	Siemens*	Tag #:		3-Phase kA:	54.93	Asym. (Calc.)
Model:	WL-L-800	Rating:	100 kA, 0.508 kV	LG kA:	50.77	Asym. (Calc.)
Size:	800	Cont. Amp:	600.000	Base kV:	0.480	(Calc.)

* The retrieved library data is modified by user.

LV Solid State Trip Device

MFR: Siemens
Model: ETU745 (I^2t)
Sensor: Frame Size II - 800
Rating Plug: 600.00

		Phase Setting			Ground Setting	
Long-Time	LT Pickup	1		Ground Pickup	A	
	LT Band	5.5		Ground Band	0.1	I^xt=OUT
Short-Time	ST Pickup	2.5				
	ST Band	0.3	I^xt=IN			
INST	Inst. Pickup	6				

Protective Device Settings

CB: B-52-GA

MFR:	Siemens*	Tag #:		3-Phase kA:	54.93	Asym. (Calc.)
Model:	WL-L-3200	Rating:	100 kA, 0.508 kV	LG kA:	50.77	Asym. (Calc.)
Size:	3200	Cont. Amp:	2000.000	Base kV:	0.480	(Calc.)

* The retrieved library data is modified by user.

LV Solid State Trip Device

MFR: Siemens
Model: ETU745 (I^2t)
Sensor: Frame Size II - 3200
Rating Plug: 2000.00

		Phase Setting			Ground Setting		
Long-Time	LT Pickup	1			Ground Pickup	D	
	LT Band	5.5			Ground Band	0.4	I^xt=IN
Short-Time	ST Pickup	4					
	ST Band	0.2	I^xt=IN				
INST	Inst. Pickup	12					

CB: B-52-GB

MFR:	Siemens*	Tag #:		3-Phase kA:	0.00	Asym. (Calc.)
Model:	WL-L-3200	Rating:	100 kA, 0.508 kV	LG kA:	0.00	Asym. (Calc.)
Size:	3200	Cont. Amp:	2000.000	Base kV:	0.000	(Calc.)

* The retrieved library data is modified by user.

LV Solid State Trip Device

MFR: Siemens
Model: ETU745 (I^2t)
Sensor: Frame Size II - 3200
Rating Plug: 2000.00

		Phase Setting			Ground Setting		
Long-Time	LT Pickup	1			Ground Pickup	D	
	LT Band	5.5			Ground Band	0.4	I^xt=IN
Short-Time	ST Pickup	4					
	ST Band	0.2	I^xt=IN				
INST	Inst. Pickup	12					

CB: B-6511.00

MFR:	Cutler-Hammer	Tag #:		3-Phase kA:	0.00	Asym. (Calc.)
Model:	HMCP-F	Rating:	100 kA, 0.48 kV	LG kA:	0.00	Asym. (Calc.)
Size:	150	Cont. Amp:	150.000	Base kV:	0.000	(Calc.)

Motor Circuit Protector Trip Device

MFR: Cutler-Hammer
Model: HMCP
ID: 150T4
Pick up: E

Protective Device Settings

CB: B-6512.00

MFR:	Cutler-Hammer	Tag #:		3-Phase kA:	0.00	Asym. (Calc.)
Model:	HMCP-F	Rating:	100 kA, 0.48 kV	LG kA:	0.00	Asym. (Calc.)
Size:	150	Cont. Amp:	150.000	Base kV:	0.000	(Calc.)

Motor Circuit Protector Trip Device

MFR: Cutler-Hammer
Model: HMCP
ID: 150T4
Pick up: H

CB: B-AC-1

MFR:	Cutler-Hammer	Tag #:		3-Phase kA:	0.00	Asym. (Calc.)
Model:	HFD	Rating:	100 kA, 0.24 kV	LG kA:	0.00	Asym. (Calc.)
Size:	15	Cont. Amp:	15.000	Base kV:	0.000	(Calc.)

Thermal Magnetic Trip Device

MFR: Cutler-Hammer — Thermal Trip: Fixed
Model: HFD (2,3,4P) — Magnetic Trip: FIXED
ID: 15

CB: B-ATS-C BUS A

MFR:	Allen-Bradley	Tag #:		3-Phase kA:	0.00	Asym. (Calc.)
Model:	140U-I6C3	Rating:	65 kA, 0.48 kV	LG kA:	0.00	Asym. (Calc.)
Size:	70	Cont. Amp:	70.000	Base kV:	0.000	(Calc.)

Thermal Magnetic Trip Device

MFR: Allen Bradley — Thermal Trip: Fixed
Model: 140U-I6C3 — Magnetic Trip: FIXED
ID: 70

CB: B-ATS-C BUS B

MFR:	Cutler-Hammer	Tag #:		3-Phase kA:	0.00	Asym. (Calc.)
Model:	FDB	Rating:	18 kA, 0.24 kV	LG kA:	0.00	Asym. (Calc.)
Size:	70	Cont. Amp:	70.000	Base kV:	0.000	(Calc.)

Thermal Magnetic Trip Device

MFR: Cutler-Hammer — Thermal Trip: Fixed
Model: FDB — Magnetic Trip: FIXED
ID: 70

CB: B-ATS-L BUS A

MFR:	Cutler-Hammer	Tag #:		3-Phase kA:	48.82	Asym. (Calc.)
Model:	FDB	Rating:	14 kA, 0.48 kV	LG kA:	42.55	Asym. (Calc.)
Size:	100	Cont. Amp:	100.000	Base kV:	0.480	(Calc.)

Thermal Magnetic Trip Device

MFR: Cutler-Hammer — Thermal Trip: Fixed
Model: FDB — Magnetic Trip: FIXED
ID: 100

Protective Device Settings

CB: B-ATS-L BUS B

MFR:	Cutler-Hammer*	Tag #:		3-Phase kA:	48.69	Asym. (Calc.)
Model:	FDB	Rating:	18 kA, 0.48 kV	LG kA:	42.49	Asym. (Calc.)
Size:	100	Cont. Amp:	100.000	Base kV:	0.480	(Calc.)

* The retrieved library data is modified by user.

Thermal Magnetic Trip Device

MFR:	Cutler-Hammer	Thermal Trip:	Fixed
Model:	FDB	Magnetic Trip:	FIXED
ID:	100		

CB: B-B27400.00

MFR:	Cutler-Hammer	Tag #:		3-Phase kA:	0.00	Asym. (Calc.)
Model:	HMCP-F	Rating:	100 kA, 0.48 kV	LG kA:	0.00	Asym. (Calc.)
Size:	150	Cont. Amp:	150.000	Base kV:	0.000	(Calc.)

Motor Circuit Protector Trip Device

MFR:	Cutler-Hammer
Model:	HMCP
ID:	150T4
Pick up:	F

CB: B-B36040.00

MFR:	Cutler-Hammer	Tag #:		3-Phase kA:	0.00	Asym. (Calc.)
Model:	HMCP-F	Rating:	100 kA, 0.48 kV	LG kA:	0.00	Asym. (Calc.)
Size:	50	Cont. Amp:	50.000	Base kV:	0.000	(Calc.)

Motor Circuit Protector Trip Device

MFR:	Cutler-Hammer
Model:	HMCP
ID:	050K2
Pick up:	G

CB: B-B36045.00

MFR:	Cutler-Hammer	Tag #:		3-Phase kA:	0.00	Asym. (Calc.)
Model:	HMCP-F	Rating:	100 kA, 0.48 kV	LG kA:	0.00	Asym. (Calc.)
Size:	50	Cont. Amp:	50.000	Base kV:	0.000	(Calc.)

Motor Circuit Protector Trip Device

MFR:	Cutler-Hammer
Model:	HMCP
ID:	050K2
Pick up:	G

Protective Device Settings

CB: B-B4121.00

MFR:	Westinghouse	Tag #:		3-Phase kA:	0.00	Asym. (Calc.)
Model:	MCP	Rating:	0 kA, 0 kV	LG kA:	0.00	Asym. (Calc.)
Size:	30	Cont. Amp:	30.000	Base kV:	0.000	(Calc.)

Motor Circuit Protector Trip Device

MFR: Westinghouse
Model: MCP
ID: 13300R
Pick up: 195.000 (100 - 300)

CB: B-B4122.00

MFR:	Westinghouse	Tag #:		3-Phase kA:	0.00	Asym. (Calc.)
Model:	MCP	Rating:	0 kA, 0 kV	LG kA:	0.00	Asym. (Calc.)
Size:	30	Cont. Amp:	30.000	Base kV:	0.000	(Calc.)

Motor Circuit Protector Trip Device

MFR: Westinghouse
Model: MCP
ID: 13300R
Pick up: 150.000 (100 - 300)

CB: B-B4123.00

MFR:	Westinghouse	Tag #:		3-Phase kA:	0.00	Asym. (Calc.)
Model:	MCP	Rating:	0 kA, 0 kV	LG kA:	0.00	Asym. (Calc.)
Size:	30	Cont. Amp:	30.000	Base kV:	0.000	(Calc.)

Motor Circuit Protector Trip Device

MFR: Westinghouse
Model: MCP
ID: 13300R
Pick up: 150.000 (100 - 300)

CB: B-B4124.00

MFR:	Westinghouse	Tag #:		3-Phase kA:	0.00	Asym. (Calc.)
Model:	MCP	Rating:	0 kA, 0 kV	LG kA:	0.00	Asym. (Calc.)
Size:	30	Cont. Amp:	30.000	Base kV:	0.000	(Calc.)

Motor Circuit Protector Trip Device

MFR: Westinghouse
Model: MCP
ID: 13300R
Pick up: 150.000 (100 - 300)

Protective Device Settings

CB: B-B4221.00

MFR:	Westinghouse	Tag #:		3-Phase kA:	0.00	Asym. (Calc.)
Model:	MCP	Rating:	0 kA, 0 kV	LG kA:	0.00	Asym. (Calc.)
Size:	15	Cont. Amp:	15.000	Base kV:	0.000	(Calc.)

Motor Circuit Protector Trip Device

MFR: Westinghouse
Model: MCP
ID: 03150R
Pick up: 75.000 (50 - 150)

CB: B-B4222.00

MFR:	Westinghouse	Tag #:		3-Phase kA:	0.00	Asym. (Calc.)
Model:	MCP	Rating:	0 kA, 0 kV	LG kA:	0.00	Asym. (Calc.)
Size:	15	Cont. Amp:	15.000	Base kV:	0.000	(Calc.)

Motor Circuit Protector Trip Device

MFR: Westinghouse
Model: MCP
ID: 03150R
Pick up: 100.000 (100 - 300)

CB: B-B4223.00

MFR:	Westinghouse	Tag #:		3-Phase kA:	0.00	Asym. (Calc.)
Model:	MCP	Rating:	0 kA, 0 kV	LG kA:	0.00	Asym. (Calc.)
Size:	15	Cont. Amp:	15.000	Base kV:	0.000	(Calc.)

Motor Circuit Protector Trip Device

MFR: Westinghouse
Model: MCP
ID: 03150R
Pick up: 75.000 (50 - 150)

CB: B-B4224.00

MFR:	Westinghouse	Tag #:		3-Phase kA:	0.00	Asym. (Calc.)
Model:	MCP	Rating:	0 kA, 0 kV	LG kA:	0.00	Asym. (Calc.)
Size:	15	Cont. Amp:	15.000	Base kV:	0.000	(Calc.)

Motor Circuit Protector Trip Device

MFR: Westinghouse
Model: MCP
ID: 03150R
Pick up: 100.000 (100 - 300)

Protective Device Settings

CB: B-B52180.00

MFR:	Cutler-Hammer	Tag #:		3-Phase kA:	48.82	Asym. (Calc.)
Model:	HMCP-F	Rating:	100 kA, 0.48 kV	LG kA:	42.55	Asym. (Calc.)
Size:	100	Cont. Amp:	100.000	Base kV:	0.480	(Calc.)

Motor Circuit Protector Trip Device

MFR: Cutler-Hammer
Model: HMCP
ID: 100R3
Pick up: C

CB: B-B52190.00

MFR:	Cutler-Hammer	Tag #:		3-Phase kA:	48.69	Asym. (Calc.)
Model:	HMCP-F	Rating:	100 kA, 0.48 kV	LG kA:	42.49	Asym. (Calc.)
Size:	100	Cont. Amp:	100.000	Base kV:	0.480	(Calc.)

Motor Circuit Protector Trip Device

MFR: Cutler-Hammer
Model: HMCP
ID: 100R3
Pick up: E

CB: B-B52210.00

MFR:	Cutler-Hammer	Tag #:		3-Phase kA:	48.69	Asym. (Calc.)
Model:	HMCP-F	Rating:	100 kA, 0.48 kV	LG kA:	42.49	Asym. (Calc.)
Size:	50	Cont. Amp:	50.000	Base kV:	0.480	(Calc.)

Motor Circuit Protector Trip Device

MFR: Cutler-Hammer
Model: HMCP
ID: 050K2
Pick up: D

CB: B-B52220.00

MFR:	Cutler-Hammer	Tag #:		3-Phase kA:	48.82	Asym. (Calc.)
Model:	HMCP-F	Rating:	100 kA, 0.48 kV	LG kA:	42.55	Asym. (Calc.)
Size:	50	Cont. Amp:	50.000	Base kV:	0.480	(Calc.)

Motor Circuit Protector Trip Device

MFR: Cutler-Hammer
Model: HMCP
ID: 050K2
Pick up: D

Protective Device Settings

CB: B-B6513.00

MFR:	Cutler-Hammer	Tag #:		3-Phase kA:	0.00	Asym. (Calc.)
Model:	HMCP-F	Rating:	100 kA, 0.48 kV	LG kA:	0.00	Asym. (Calc.)
Size:	150	Cont. Amp:	150.000	Base kV:	0.000	(Calc.)

Motor Circuit Protector Trip Device

MFR: Cutler-Hammer
Model: HMCP
ID: 150U4
Pick up: H

CB: B-B6556.00

MFR:	Cutler-Hammer	Tag #:		3-Phase kA:	0.00	Asym. (Calc.)
Model:	HMCP-F	Rating:	100 kA, 0.48 kV	LG kA:	0.00	Asym. (Calc.)
Size:	7	Cont. Amp:	7.000	Base kV:	0.000	(Calc.)

Motor Circuit Protector Trip Device

MFR: Cutler-Hammer
Model: HMCP
ID: 007C0
Pick up: H

CB: B-BATTERY CHARGER XFMR

MFR:	Cutler-Hammer	Tag #:		3-Phase kA:	0.00	Asym. (Calc.)
Model:	EHD	Rating:	14 kA, 0.48 kV	LG kA:	0.00	Asym. (Calc.)
Size:	15	Cont. Amp:	15.000	Base kV:	0.000	(Calc.)

Thermal Magnetic Trip Device

MFR: Cutler-Hammer — Thermal Trip: Fixed
Model: EHD (2,3,4P) — Magnetic Trip: FIXED
ID: 15

CB: B-BLOWER #1 BYPASSS VALVE

MFR:	Cutler-Hammer	Tag #:		3-Phase kA:	0.00	Asym. (Calc.)
Model:	EHD	Rating:	14 kA, 0.48 kV	LG kA:	0.00	Asym. (Calc.)
Size:	15	Cont. Amp:	15.000	Base kV:	0.000	(Calc.)

Thermal Magnetic Trip Device

MFR: Cutler-Hammer — Thermal Trip: Fixed
Model: EHD (2,3,4P) — Magnetic Trip: FIXED
ID: 15

CB: B-BLOWER #1 DISCH VALVE

MFR:	Cutler-Hammer	Tag #:		3-Phase kA:	0.00	Asym. (Calc.)
Model:	EHD	Rating:	14 kA, 0.48 kV	LG kA:	0.00	Asym. (Calc.)
Size:	15	Cont. Amp:	15.000	Base kV:	0.000	(Calc.)

Thermal Magnetic Trip Device

MFR: Cutler-Hammer — Thermal Trip: Fixed
Model: EHD (2,3,4P) — Magnetic Trip: FIXED
ID: 15

Protective Device Settings

CB: B-BLOWER #1 GUIDE VALVE

MFR:	Cutler-Hammer	Tag #:		3-Phase kA:	0.00	Asym. (Calc.)
Model:	EHD	Rating:	14 kA, 0.48 kV	LG kA:	0.00	Asym. (Calc.)
Size:	15	Cont. Amp:	15.000	Base kV:	0.000	(Calc.)

Thermal Magnetic Trip Device

MFR:	Cutler-Hammer	Thermal Trip:	Fixed
Model:	EHD (2,3,4P)	Magnetic Trip:	FIXED
ID:	15		

CB: B-BLOWER #2 BYPASS VALVE

MFR:	Cutler-Hammer	Tag #:		3-Phase kA:	0.00	Asym. (Calc.)
Model:	EHD	Rating:	14 kA, 0.48 kV	LG kA:	0.00	Asym. (Calc.)
Size:	15	Cont. Amp:	15.000	Base kV:	0.000	(Calc.)

Thermal Magnetic Trip Device

MFR:	Cutler-Hammer	Thermal Trip:	Fixed
Model:	EHD (2,3,4P)	Magnetic Trip:	FIXED
ID:	15		

CB: B-BLOWER #2 DISCH VALVE

MFR:	Cutler-Hammer	Tag #:		3-Phase kA:	0.00	Asym. (Calc.)
Model:	EHD	Rating:	14 kA, 0.48 kV	LG kA:	0.00	Asym. (Calc.)
Size:	15	Cont. Amp:	15.000	Base kV:	0.000	(Calc.)

Thermal Magnetic Trip Device

MFR:	Cutler-Hammer	Thermal Trip:	Fixed
Model:	EHD (2,3,4P)	Magnetic Trip:	FIXED
ID:	15		

CB: B-BLOWER #2 GUIDE VANES

MFR:	Cutler-Hammer	Tag #:		3-Phase kA:	0.00	Asym. (Calc.)
Model:	EHD	Rating:	14 kA, 0.48 kV	LG kA:	0.00	Asym. (Calc.)
Size:	15	Cont. Amp:	15.000	Base kV:	0.000	(Calc.)

Thermal Magnetic Trip Device

MFR:	Cutler-Hammer	Thermal Trip:	Fixed
Model:	EHD (2,3,4P)	Magnetic Trip:	FIXED
ID:	15		

CB: B-BLOWER #3 BYPASS VALVE

MFR:	Cutler-Hammer	Tag #:		3-Phase kA:	0.00	Asym. (Calc.)
Model:	EHD	Rating:	14 kA, 0.48 kV	LG kA:	0.00	Asym. (Calc.)
Size:	15	Cont. Amp:	15.000	Base kV:	0.000	(Calc.)

Thermal Magnetic Trip Device

MFR:	Cutler-Hammer	Thermal Trip:	Fixed
Model:	EHD (2,3,4P)	Magnetic Trip:	FIXED
ID:	15		

Protective Device Settings

CB: B-BLOWER #3 DISCH VALVE

MFR:	Cutler-Hammer	Tag #:		3-Phase kA:	0.00	Asym. (Calc.)
Model:	EHD	Rating:	14 kA, 0.48 kV	LG kA:	0.00	Asym. (Calc.)
Size:	15	Cont. Amp:	15.000	Base kV:	0.000	(Calc.)

Thermal Magnetic Trip Device

MFR:	Cutler-Hammer	Thermal Trip:	Fixed
Model:	EHD (2,3,4P)	Magnetic Trip:	FIXED
ID:	15		

CB: B-BLOWER #3 GUIDE VANES

MFR:	Cutler-Hammer	Tag #:		3-Phase kA:	0.00	Asym. (Calc.)
Model:	EHD	Rating:	14 kA, 0.48 kV	LG kA:	0.00	Asym. (Calc.)
Size:	15	Cont. Amp:	15.000	Base kV:	0.000	(Calc.)

Thermal Magnetic Trip Device

MFR:	Cutler-Hammer	Thermal Trip:	Fixed
Model:	EHD (2,3,4P)	Magnetic Trip:	FIXED
ID:	15		

CB: B-BLOWER #4 BYPASS VALVE

MFR:	Cutler-Hammer	Tag #:		3-Phase kA:	0.00	Asym. (Calc.)
Model:	EHD	Rating:	14 kA, 0.48 kV	LG kA:	0.00	Asym. (Calc.)
Size:	20	Cont. Amp:	20.000	Base kV:	0.000	(Calc.)

Thermal Magnetic Trip Device

MFR:	Cutler-Hammer	Thermal Trip:	Fixed
Model:	EHD (2,3,4P)	Magnetic Trip:	FIXED
ID:	20		

CB: B-BLOWER #4 DISCHA VALVE

MFR:	Cutler-Hammer	Tag #:		3-Phase kA:	0.00	Asym. (Calc.)
Model:	EHD	Rating:	14 kA, 0.48 kV	LG kA:	0.00	Asym. (Calc.)
Size:	20	Cont. Amp:	20.000	Base kV:	0.000	(Calc.)

Thermal Magnetic Trip Device

MFR:	Cutler-Hammer	Thermal Trip:	Fixed
Model:	EHD (2,3,4P)	Magnetic Trip:	FIXED
ID:	20		

CB: B-BLOWER #4 GUIDE VALVE

MFR:	Cutler-Hammer	Tag #:		3-Phase kA:	0.00	Asym. (Calc.)
Model:	EHD	Rating:	14 kA, 0.48 kV	LG kA:	0.00	Asym. (Calc.)
Size:	20	Cont. Amp:	20.000	Base kV:	0.000	(Calc.)

Thermal Magnetic Trip Device

MFR:	Cutler-Hammer	Thermal Trip:	Fixed
Model:	EHD (2,3,4P)	Magnetic Trip:	FIXED
ID:	20		

Protective Device Settings

CB: B-BLOWER #5 BYPASS VALVE

MFR:	Cutler-Hammer	Tag #:		3-Phase kA:	0.00	Asym. (Calc.)
Model:	EHD	Rating:	14 kA, 0.48 kV	LG kA:	0.00	Asym. (Calc.)
Size:	20	Cont. Amp:	20.000	Base kV:	0.000	(Calc.)

Thermal Magnetic Trip Device

MFR:	Cutler-Hammer	Thermal Trip:	Fixed
Model:	EHD (2,3,4P)	Magnetic Trip:	FIXED
ID:	20		

CB: B-BLOWER #5 DISCHAR VALVE

MFR:	Cutler-Hammer	Tag #:		3-Phase kA:	0.00	Asym. (Calc.)
Model:	EHD	Rating:	14 kA, 0.48 kV	LG kA:	0.00	Asym. (Calc.)
Size:	20	Cont. Amp:	20.000	Base kV:	0.000	(Calc.)

Thermal Magnetic Trip Device

MFR:	Cutler-Hammer	Thermal Trip:	Fixed
Model:	EHD (2,3,4P)	Magnetic Trip:	FIXED
ID:	20		

CB: B-BLOWER #5 GUIDE VALVE

MFR:	Cutler-Hammer	Tag #:		3-Phase kA:	0.00	Asym. (Calc.)
Model:	EHD	Rating:	14 kA, 0.48 kV	LG kA:	0.00	Asym. (Calc.)
Size:	20	Cont. Amp:	20.000	Base kV:	0.000	(Calc.)

Thermal Magnetic Trip Device

MFR:	Cutler-Hammer	Thermal Trip:	Fixed
Model:	EHD (2,3,4P)	Magnetic Trip:	FIXED
ID:	20		

CB: B-BLRW BLDG TROLLEY

MFR:	Cutler-Hammer	Tag #:		3-Phase kA:	48.82	Asym. (Calc.)
Model:	HFD	Rating:	65 kA, 0.48 kV	LG kA:	42.55	Asym. (Calc.)
Size:	20	Cont. Amp:	20.000	Base kV:	0.480	(Calc.)

Thermal Magnetic Trip Device

MFR:	Cutler-Hammer	Thermal Trip:	Fixed
Model:	HFD (2,3,4P)	Magnetic Trip:	FIXED
ID:	20		

CB: B-BSN51240.00

MFR:	Cutler-Hammer	Tag #:		3-Phase kA:	48.82	Asym. (Calc.)
Model:	HMCP-F	Rating:	100 kA, 0.48 kV	LG kA:	42.55	Asym. (Calc.)
Size:	3	Cont. Amp:	3.000	Base kV:	0.480	(Calc.)

Motor Circuit Protector Trip Device

MFR:	Cutler-Hammer
Model:	HMCP
ID:	003A0
Pick up:	B

Protective Device Settings

CB: B-BSN51250.00

MFR:	Cutler-Hammer	Tag #:		3-Phase kA:	48.69	Asym. (Calc.)
Model:	HMCP-F	Rating:	100 kA, 0.48 kV	LG kA:	42.49	Asym. (Calc.)
Size:	3	Cont. Amp:	3.000	Base kV:	0.480	(Calc.)

Motor Circuit Protector Trip Device

MFR: Cutler-Hammer
Model: HMCP
ID: 003A0
Pick up: A

CB: B-BSN51260.00

MFR:	Cutler-Hammer	Tag #:		3-Phase kA:	48.82	Asym. (Calc.)
Model:	HMCP-F	Rating:	100 kA, 0.48 kV	LG kA:	42.55	Asym. (Calc.)
Size:	3	Cont. Amp:	3.000	Base kV:	0.480	(Calc.)

Motor Circuit Protector Trip Device

MFR: Cutler-Hammer
Model: HMCP
ID: 003A0
Pick up: A

CB: B-BSN51270.00

MFR:	Cutler-Hammer	Tag #:		3-Phase kA:	48.69	Asym. (Calc.)
Model:	HMCP-F	Rating:	100 kA, 0.48 kV	LG kA:	42.49	Asym. (Calc.)
Size:	3	Cont. Amp:	3.000	Base kV:	0.480	(Calc.)

Motor Circuit Protector Trip Device

MFR: Cutler-Hammer
Model: HMCP
ID: 003A0
Pick up: A

CB: B-BUS A MCC-NG

MFR:	Cutler-Hammer	Tag #:		3-Phase kA:	0.00	Asym. (Calc.)
Model:	HKD	Rating:	65 kA, 0.48 kV	LG kA:	0.00	Asym. (Calc.)
Size:	400	Cont. Amp:	400.000	Base kV:	0.000	(Calc.)

Thermal Magnetic Trip Device

MFR: Cutler-Hammer
Model: HKD
ID: 400
Thermal Trip: Fixed
Magnetic Trip: 5

CB: B-BUS-B MCC-NG

MFR:	Cutler-Hammer	Tag #:		3-Phase kA:	0.00	Asym. (Calc.)
Model:	HKD	Rating:	65 kA, 0.48 kV	LG kA:	0.00	Asym. (Calc.)
Size:	400	Cont. Amp:	400.000	Base kV:	0.000	(Calc.)

Thermal Magnetic Trip Device

MFR: Cutler-Hammer
Model: HKD
ID: 400
Thermal Trip: Fixed
Magnetic Trip: 5.000

Protective Device Settings

CB: B-COM53030.00

MFR:	Cutler-Hammer	Tag #:		3-Phase kA:	48.82	Asym. (Calc.)
Model:	HMCP-F	Rating:	100 kA, 0.48 kV	LG kA:	42.55	Asym. (Calc.)
Size:	7	Cont. Amp:	7.000	Base kV:	0.480	(Calc.)

Motor Circuit Protector Trip Device

MFR: Cutler-Hammer
Model: HMCP
ID: 007C0
Pick up: A

CB: B-COM53040.00

MFR:	Cutler-Hammer	Tag #:		3-Phase kA:	48.69	Asym. (Calc.)
Model:	HMCP-F	Rating:	100 kA, 0.48 kV	LG kA:	42.49	Asym. (Calc.)
Size:	7	Cont. Amp:	7.000	Base kV:	0.480	(Calc.)

Motor Circuit Protector Trip Device

MFR: Cutler-Hammer
Model: HMCP
ID: 007C0
Pick up: D

CB: B-COMPRESSOR

MFR:	Cutler-Hammer	Tag #:		3-Phase kA:	0.00	Asym. (Calc.)
Model:	HFB	Rating:	25 kA, 0.48 kV	LG kA:	0.00	Asym. (Calc.)
Size:	30	Cont. Amp:	30.000	Base kV:	0.000	(Calc.)

Thermal Magnetic Trip Device

MFR:	Cutler-Hammer	Thermal Trip:	Fixed
Model:	HFB (2,3P)	Magnetic Trip:	FIXED
ID:	30		

CB: B-CON 330040.00

MFR:	Cutler-Hammer	Tag #:		3-Phase kA:	0.00	Asym. (Calc.)
Model:	HMCP-F	Rating:	100 kA, 0.48 kV	LG kA:	0.00	Asym. (Calc.)
Size:	15	Cont. Amp:	15.000	Base kV:	0.000	(Calc.)

Motor Circuit Protector Trip Device

MFR: Cutler-Hammer
Model: HMCP
ID: 015E0
Pick up: A

Protective Device Settings

CB: B-CON 33010.00

MFR:	Cutler-Hammer	Tag #:		3-Phase kA:	0.00	Asym. (Calc.)
Model:	HMCP-F	Rating:	100 kA, 0.48 kV	LG kA:	0.00	Asym. (Calc.)
Size:	15	Cont. Amp:	15.000	Base kV:	0.000	(Calc.)

Motor Circuit Protector Trip Device

MFR: Cutler-Hammer
Model: HMCP
ID: 015E0
Pick up: B

CB: B-CON 33020.00

MFR:	Cutler-Hammer	Tag #:		3-Phase kA:	0.00	Asym. (Calc.)
Model:	HMCP-F	Rating:	100 kA, 0.48 kV	LG kA:	0.00	Asym. (Calc.)
Size:	15	Cont. Amp:	15.000	Base kV:	0.000	(Calc.)

Motor Circuit Protector Trip Device

MFR: Cutler-Hammer
Model: HMCP
ID: 015E0
Pick up: B

CB: B-CON 33030.00

MFR:	Cutler-Hammer	Tag #:		3-Phase kA:	0.00	Asym. (Calc.)
Model:	HMCP-F	Rating:	100 kA, 0.48 kV	LG kA:	0.00	Asym. (Calc.)
Size:	15	Cont. Amp:	15.000	Base kV:	0.000	(Calc.)

Motor Circuit Protector Trip Device

MFR: Cutler-Hammer
Model: HMCP
ID: 015E0
Pick up: C

CB: B-CON51300.00

MFR:	Cutler-Hammer	Tag #:		3-Phase kA:	48.82	Asym. (Calc.)
Model:	HMCP-F	Rating:	100 kA, 0.48 kV	LG kA:	42.55	Asym. (Calc.)
Size:	15	Cont. Amp:	15.000	Base kV:	0.480	(Calc.)

Motor Circuit Protector Trip Device

MFR: Cutler-Hammer
Model: HMCP
ID: 015E0
Pick up: C

Protective Device Settings

CB: B-CON51320.00

MFR:	Cutler-Hammer	Tag #:		3-Phase kA:	48.82	Asym. (Calc.)
Model:	HMCP-F	Rating:	100 kA, 0.48 kV	LG kA:	42.55	Asym. (Calc.)
Size:	15	Cont. Amp:	15.000	Base kV:	0.480	(Calc.)

Motor Circuit Protector Trip Device

MFR: Cutler-Hammer
Model: HMCP
ID: 015E0
Pick up: D

CB: B-CON53020.00

MFR:	Cutler-Hammer	Tag #:		3-Phase kA:	48.69	Asym. (Calc.)
Model:	HMCP-F	Rating:	100 kA, 0.48 kV	LG kA:	42.49	Asym. (Calc.)
Size:	15	Cont. Amp:	15.000	Base kV:	0.480	(Calc.)

Motor Circuit Protector Trip Device

MFR: Cutler-Hammer
Model: HMCP
ID: 015E0
Pick up: A

CB: B-CON53030.00

MFR:	Cutler-Hammer	Tag #:		3-Phase kA:	48.69	Asym. (Calc.)
Model:	HMCP-F	Rating:	100 kA, 0.48 kV	LG kA:	42.49	Asym. (Calc.)
Size:	15	Cont. Amp:	15.000	Base kV:	0.480	(Calc.)

Motor Circuit Protector Trip Device

MFR: Cutler-Hammer
Model: HMCP
ID: 015E0
Pick up: B

CB: B-CP 7561

MFR:	Cutler-Hammer	Tag #:		3-Phase kA:	0.00	Asym. (Calc.)
Model:	HMCP-F	Rating:	100 kA, 0.48 kV	LG kA:	0.00	Asym. (Calc.)
Size:	50	Cont. Amp:	50.000	Base kV:	0.000	(Calc.)

Motor Circuit Protector Trip Device

MFR: Cutler-Hammer
Model: HMCP
ID: 050K2
Pick up: G

Protective Device Settings

CB: B-CP7562.00

MFR:	Cutler-Hammer	Tag #:		3-Phase kA:	0.00	Asym. (Calc.)
Model:	HMCP-F	Rating:	100 kA, 0.48 kV	LG kA:	0.00	Asym. (Calc.)
Size:	50	Cont. Amp:	50.000	Base kV:	0.000	(Calc.)

Motor Circuit Protector Trip Device

MFR: Cutler-Hammer
Model: HMCP
ID: 050K2
Pick up: G

CB: B-CRANE (MME-1)

MFR:	Cutler-Hammer	Tag #:		3-Phase kA:	0.00	Asym. (Calc.)
Model:	HFB	Rating:	25 kA, 0.48 kV	LG kA:	0.00	Asym. (Calc.)
Size:	15	Cont. Amp:	15.000	Base kV:	0.000	(Calc.)

Thermal Magnetic Trip Device

MFR: Cutler-Hammer — Thermal Trip: Fixed
Model: HFB (2,3P) — Magnetic Trip: FIXED
ID: 15

CB: B-DPC3

MFR:	Westinghouse	Tag #:		3-Phase kA:	0.00	Asym. (Calc.)
Model:	BAB	Rating:	10 kA, 0.24 kV	LG kA:	0.00	Asym. (Calc.)
Size:	60	Cont. Amp:	60.000	Base kV:	0.000	(Calc.)

Thermal Magnetic Trip Device

MFR: Cutler-Hammer — Thermal Trip: Fixed
Model: Quicklag (3P) — Magnetic Trip: FIXED
ID: 60

CB: B-DPC7

MFR:	Westinghouse	Tag #:		3-Phase kA:	0.00	Asym. (Calc.)
Model:	BA	Rating:	10 kA, 0.24 kV	LG kA:	0.00	Asym. (Calc.)
Size:	50	Cont. Amp:	50.000	Base kV:	0.000	(Calc.)

Thermal Magnetic Trip Device

MFR: Cutler-Hammer — Thermal Trip: Fixed
Model: Quicklag (3P) — Magnetic Trip: FIXED
ID: 50

CB: B-DPL2

MFR:	Westinghouse	Tag #:		3-Phase kA:	0.00	Asym. (Calc.)
Model:	BAB	Rating:	10 kA, 0.24 kV	LG kA:	0.00	Asym. (Calc.)
Size:	100	Cont. Amp:	100.000	Base kV:	0.000	(Calc.)

Thermal Magnetic Trip Device

MFR: Cutler-Hammer — Thermal Trip: Fixed
Model: Quicklag (3P) — Magnetic Trip: FIXED
ID: 100

Protective Device Settings

CB: B-DPL7

MFR:	Cutler-Hammer	Tag #:		3-Phase kA:	0.00	Asym. (Calc.)
Model:	HJD	Rating:	65 kA, 0.48 kV	LG kA:	0.00	Asym. (Calc.)
Size:	250	Cont. Amp:	250.000	Base kV:	0.000	(Calc.)

Thermal Magnetic Trip Device

MFR:	Cutler-Hammer	Thermal Trip:	Fixed
Model:	HJD	Magnetic Trip:	10
ID:	250		

CB: B-DPL7A

MFR:	Westinghouse	Tag #:		3-Phase kA:	0.00	Asym. (Calc.)
Model:	BA	Rating:	10 kA, 0.24 kV	LG kA:	0.00	Asym. (Calc.)
Size:	100	Cont. Amp:	100.000	Base kV:	0.000	(Calc.)

Thermal Magnetic Trip Device

MFR:	Cutler-Hammer	Thermal Trip:	Fixed
Model:	Quicklag (3P)	Magnetic Trip:	FIXED
ID:	100		

CB: B-DPL7A2 MAIN

MFR:	Westinghouse	Tag #:		3-Phase kA:	0.00	Asym. (Calc.)
Model:	BA	Rating:	10 kA, 0.24 kV	LG kA:	0.00	Asym. (Calc.)
Size:	100	Cont. Amp:	100.000	Base kV:	0.000	(Calc.)

Thermal Magnetic Trip Device

MFR:	Cutler-Hammer	Thermal Trip:	Fixed
Model:	Quicklag (3P)	Magnetic Trip:	FIXED
ID:	100		

CB: B-DPM1

MFR:	Westinghouse	Tag #:		3-Phase kA:	0.00	Asym. (Calc.)
Model:	CA	Rating:	10 kA, 0.24 kV	LG kA:	0.00	Asym. (Calc.)
Size:	125	Cont. Amp:	125.000	Base kV:	0.000	(Calc.)

Thermal Magnetic Trip Device

MFR:	Cutler-Hammer	Thermal Trip:	Fixed
Model:	CA	Magnetic Trip:	FIXED
ID:	125		

CB: B-DPM2

MFR:	Westinghouse	Tag #:		3-Phase kA:	0.00	Asym. (Calc.)
Model:	CA	Rating:	10 kA, 0.24 kV	LG kA:	0.00	Asym. (Calc.)
Size:	125	Cont. Amp:	125.000	Base kV:	0.000	(Calc.)

Thermal Magnetic Trip Device

MFR:	Cutler-Hammer	Thermal Trip:	Fixed
Model:	CA	Magnetic Trip:	FIXED
ID:	125		

Protective Device Settings

CB: B-DPP8

MFR:	Cutler-Hammer*	Tag #:		3-Phase kA:	0.00	Asym. (Calc.)
Model:	HKD	Rating:	65 kA, 0.48 kV	LG kA:	0.00	Asym. (Calc.)
Size:	250	Cont. Amp:	225.000	Base kV:	0.000	(Calc.)

* The retrieved library data is modified by user.

Thermal Magnetic Trip Device

MFR:	Cutler-Hammer	Thermal Trip:	Fixed
Model:	HKD	Magnetic Trip:	5
ID:	250		

CB: B-DPP8 MAIN

MFR:	Cutler-Hammer	Tag #:		3-Phase kA:	0.00	Asym. (Calc.)
Model:	JD	Rating:	35 kA, 0.48 kV	LG kA:	0.00	Asym. (Calc.)
Size:	250	Cont. Amp:	250.000	Base kV:	0.000	(Calc.)

Thermal Magnetic Trip Device

MFR:	Cutler-Hammer	Thermal Trip:	Fixed
Model:	JD	Magnetic Trip:	5.000
ID:	250		

CB: B-EFF PS SWGR BUS A

MFR:	Cutler-Hammer	Tag #:		3-Phase kA:	24.46	Asym. (Calc.)
Model:	DSII-616	Rating:	65 kA, 0.48 kV	LG kA:	25.61	Asym. (Calc.)
Size:	1600	Cont. Amp:	1600.000	Base kV:	0.480	(Calc.)

LV Solid State Trip Device

MFR: Westinghouse
Model: RMS 510 Series DS
Sensor: 1600
Rating Plug: 1600.00

		Phase Setting	
Long-Time	LT Pickup	1	
	LT Band	15	
Short-Time	ST Pickup	2.5	
	ST Band	.1	I^xt=IN
INST	Inst. Pickup	2	

Ground Setting		
Ground Pickup	E	
Ground Band	.3	I^xt=IN

Protective Device Settings

CB: B-EFF PS SWGR BUS B

MFR:	Cutler-Hammer	Tag #:		3-Phase kA:	24.50	Asym. (Calc.)
Model:	DSII-616	Rating:	65 kA, 0.48 kV	LG kA:	25.65	Asym. (Calc.)
Size:	1600	Cont. Amp:	1600.000	Base kV:	0.480	(Calc.)

LV Solid State Trip Device

MFR: Westinghouse
Model: RMS 510 Series DS
Sensor: 1600
Rating Plug: 1600.00

		Phase Setting			Ground Setting	
Long-Time	LT Pickup	1		Ground Pickup	E	
	LT Band	15		Ground Band	.1	I^xt=IN
Short-Time	ST Pickup	2.5				
	ST Band	.5	I^xt=IN			
INST	Inst. Pickup	2				

CB: B-EFF PS SWGR TIE

MFR:	Cutler-Hammer*	Tag #:		3-Phase kA:	0.00	Asym. (Calc.)
Model:	DSII-616	Rating:	65 kA, 0.48 kV	LG kA:	0.00	Asym. (Calc.)
Size:	1600	Cont. Amp:	1200.000	Base kV:	0.000	(Calc.)

* The retrieved library data is modified by user.

LV Solid State Trip Device

MFR: Cutler-Hammer
Model: RMS 510 Series DS
Sensor: 1200
Rating Plug: 1000.00

		Phase Setting			Ground Setting	
Long-Time	LT Pickup	1		Ground Pickup	E	
	LT Band	15		Ground Band	.3	I^xt=IN
Short-Time	ST Pickup	2.5				
	ST Band	.3	I^xt=IN			
INST	Inst. Pickup	2				

Protective Device Settings

CB: B-EFF PUMP NO. 2 VFD

MFR:	Cutler-Hammer	Tag #:		3-Phase kA:	24.50	Asym. (Calc.)
Model:	DSII-616	Rating:	65 kA, 0.48 kV	LG kA:	25.65	Asym. (Calc.)
Size:	1600	Cont. Amp:	1600.000	Base kV:	0.480	(Calc.)

LV Solid State Trip Device

MFR: Westinghouse
Model: RMS 510 Series DS
Sensor: 1600
Rating Plug: 1000.00

		Phase Setting		Ground Setting		
Long-Time	LT Pickup	.6		Ground Pickup	A	
	LT Band	20		Ground Band	.1	I^xt=IN
Short-Time	ST Pickup	4				
	ST Band	.5	I^xt=IN			
INST	Inst. Pickup	2				

CB: B-EFF PUMP NO. 4 VFD

MFR:	Cutler-Hammer	Tag #:		3-Phase kA:	24.46	Asym. (Calc.)
Model:	DSII-616	Rating:	65 kA, 0.48 kV	LG kA:	25.61	Asym. (Calc.)
Size:	1600	Cont. Amp:	1600.000	Base kV:	0.480	(Calc.)

LV Solid State Trip Device

MFR: Westinghouse
Model: RMS 510 Series DS
Sensor: 1600
Rating Plug: 1000.00

		Phase Setting		Ground Setting		
Long-Time	LT Pickup	1		Ground Pickup	A	
	LT Band	20		Ground Band	.1	I^xt=IN
Short-Time	ST Pickup	4				
	ST Band	.1	I^xt=IN			
INST	Inst. Pickup	2				

CB: B-ELP5

MFR:	Westinghouse	Tag #:		3-Phase kA:	0.00	Asym. (Calc.)
Model:	BA	Rating:	10 kA, 0.24 kV	LG kA:	0.00	Asym. (Calc.)
Size:	50	Cont. Amp:	50.000	Base kV:	0.000	(Calc.)

Thermal Magnetic Trip Device

MFR:	Cutler-Hammer	Thermal Trip:	Fixed
Model:	Quicklag (3P)	Magnetic Trip:	FIXED
ID:	50		

Protective Device Settings

CB: B-EMD GEN #4

MFR:	Cutler-Hammer	Tag #:		3-Phase kA:	0.00	Asym. (Calc.)
Model:	HFD	Rating:	65 kA, 0.48 kV	LG kA:	0.00	Asym. (Calc.)
Size:	100	Cont. Amp:	100.000	Base kV:	0.000	(Calc.)

Thermal Magnetic Trip Device

MFR:	Cutler-Hammer	Thermal Trip:	Fixed
Model:	HFD (2,3,4P)	Magnetic Trip:	FIXED
ID:	100		

CB: B-EMD GEN #5

MFR:	Cutler-Hammer	Tag #:		3-Phase kA:	0.00	Asym. (Calc.)
Model:	HFD	Rating:	65 kA, 0.48 kV	LG kA:	0.00	Asym. (Calc.)
Size:	100	Cont. Amp:	100.000	Base kV:	0.000	(Calc.)

Thermal Magnetic Trip Device

MFR:	Cutler-Hammer	Thermal Trip:	Fixed
Model:	HFD (2,3,4P)	Magnetic Trip:	FIXED
ID:	100		

CB: B-EXHAUST FAN #1

MFR:	Cutler-Hammer*	Tag #:		3-Phase kA:	0.00	Asym. (Calc.)
Model:	FD	Rating:	25 kA, 0.48 kV	LG kA:	0.00	Asym. (Calc.)
Size:	15	Cont. Amp:	15.000	Base kV:	0.000	(Calc.)

* The retrieved library data is modified by user.

Thermal Magnetic Trip Device

MFR:	Cutler-Hammer	Thermal Trip:	Fixed
Model:	FD (2,3,4P)	Magnetic Trip:	FIXED
ID:	15		

CB: B-F21159.00

MFR:	Cutler-Hammer	Tag #:		3-Phase kA:	0.00	Asym. (Calc.)
Model:	HMCP-F	Rating:	100 kA, 0.48 kV	LG kA:	0.00	Asym. (Calc.)
Size:	3	Cont. Amp:	3.000	Base kV:	0.000	(Calc.)

Motor Circuit Protector Trip Device

MFR:	Cutler-Hammer
Model:	HMCP
ID:	003A0
Pick up:	G

CB: B-F21160.00

MFR:	Cutler-Hammer	Tag #:		3-Phase kA:	0.00	Asym. (Calc.)
Model:	HMCP-F	Rating:	100 kA, 0.48 kV	LG kA:	0.00	Asym. (Calc.)
Size:	3	Cont. Amp:	3.000	Base kV:	0.000	(Calc.)

Motor Circuit Protector Trip Device

MFR:	Cutler-Hammer
Model:	HMCP
ID:	003A0
Pick up:	G

Protective Device Settings

CB: B-F27505.00

MFR:	Cutler-Hammer	Tag #:		3-Phase kA:	0.00	Asym. (Calc.)
Model:	HMCP-F	Rating:	100 kA, 0.48 kV	LG kA:	0.00	Asym. (Calc.)
Size:	7	Cont. Amp:	7.000	Base kV:	0.000	(Calc.)

Motor Circuit Protector Trip Device

MFR: Cutler-Hammer
Model: HMCP
ID: 007C0
Pick up: F

CB: B-F27506.00

MFR:	Cutler-Hammer	Tag #:		3-Phase kA:	0.00	Asym. (Calc.)
Model:	HMCP-F	Rating:	100 kA, 0.48 kV	LG kA:	0.00	Asym. (Calc.)
Size:	7	Cont. Amp:	7.000	Base kV:	0.000	(Calc.)

Motor Circuit Protector Trip Device

MFR: Cutler-Hammer
Model: HMCP
ID: 007C0
Pick up: F

CB: B-F36030.00

MFR:	Cutler-Hammer	Tag #:		3-Phase kA:	0.00	Asym. (Calc.)
Model:	HMCP-F	Rating:	100 kA, 0.48 kV	LG kA:	0.00	Asym. (Calc.)
Size:	30	Cont. Amp:	30.000	Base kV:	0.000	(Calc.)

Motor Circuit Protector Trip Device

MFR: Cutler-Hammer
Model: HMCP
ID: 030H1
Pick up: E

CB: B-F36035.00

MFR:	Cutler-Hammer	Tag #:		3-Phase kA:	0.00	Asym. (Calc.)
Model:	HMCP-F	Rating:	100 kA, 0.48 kV	LG kA:	0.00	Asym. (Calc.)
Size:	30	Cont. Amp:	30.000	Base kV:	0.000	(Calc.)

Motor Circuit Protector Trip Device

MFR: Cutler-Hammer
Model: HMCP
ID: 030H1
Pick up: E

Protective Device Settings

CB: B-F36037.00

MFR:	Cutler-Hammer	Tag #:		3-Phase kA:	0.00	Asym. (Calc.)
Model:	HMCP-F	Rating:	100 kA, 0.48 kV	LG kA:	0.00	Asym. (Calc.)
Size:	15	Cont. Amp:	15.000	Base kV:	0.000	(Calc.)

Motor Circuit Protector Trip Device

MFR: Cutler-Hammer
Model: HMCP
ID: 015E0
Pick up: G

CB: B-F37010.00

MFR:	Cutler-Hammer	Tag #:		3-Phase kA:	0.00	Asym. (Calc.)
Model:	HMCP-F	Rating:	100 kA, 0.48 kV	LG kA:	0.00	Asym. (Calc.)
Size:	3	Cont. Amp:	3.000	Base kV:	0.000	(Calc.)

Motor Circuit Protector Trip Device

MFR: Cutler-Hammer
Model: HMCP
ID: 003A0
Pick up: H

CB: B-F37013.00

MFR:	Cutler-Hammer	Tag #:		3-Phase kA:	0.00	Asym. (Calc.)
Model:	HMCP-F	Rating:	100 kA, 0.48 kV	LG kA:	0.00	Asym. (Calc.)
Size:	3	Cont. Amp:	3.000	Base kV:	0.000	(Calc.)

Motor Circuit Protector Trip Device

MFR: Cutler-Hammer
Model: HMCP
ID: 003A0
Pick up: H

CB: B-F37015.00

MFR:	Cutler-Hammer	Tag #:		3-Phase kA:	0.00	Asym. (Calc.)
Model:	HMCP-F	Rating:	100 kA, 0.48 kV	LG kA:	0.00	Asym. (Calc.)
Size:	3	Cont. Amp:	3.000	Base kV:	0.000	(Calc.)

Motor Circuit Protector Trip Device

MFR: Cutler-Hammer
Model: HMCP
ID: 003A0
Pick up: C

Protective Device Settings

CB: B-F37017.00

MFR:	Cutler-Hammer	Tag #:		3-Phase kA:	0.00	Asym. (Calc.)
Model:	HMCP-F	Rating:	100 kA, 0.48 kV	LG kA:	0.00	Asym. (Calc.)
Size:	3	Cont. Amp:	3.000	Base kV:	0.000	(Calc.)

Motor Circuit Protector Trip Device

MFR: Cutler-Hammer
Model: HMCP
ID: 003A0
Pick up: G

CB: B-F37020.00

MFR:	Cutler-Hammer	Tag #:		3-Phase kA:	0.00	Asym. (Calc.)
Model:	HMCP-F	Rating:	100 kA, 0.48 kV	LG kA:	0.00	Asym. (Calc.)
Size:	3	Cont. Amp:	3.000	Base kV:	0.000	(Calc.)

Motor Circuit Protector Trip Device

MFR: Cutler-Hammer
Model: HMCP
ID: 003A0
Pick up: C

CB: B-F37023.00

MFR:	Cutler-Hammer	Tag #:		3-Phase kA:	0.00	Asym. (Calc.)
Model:	HMCP-F	Rating:	100 kA, 0.48 kV	LG kA:	0.00	Asym. (Calc.)
Size:	3	Cont. Amp:	3.000	Base kV:	0.000	(Calc.)

Motor Circuit Protector Trip Device

MFR: Cutler-Hammer
Model: HMCP
ID: 003A0
Pick up: C

CB: B-F37030

MFR:	Cutler-Hammer	Tag #:		3-Phase kA:	0.00	Asym. (Calc.)
Model:	HMCP-F	Rating:	100 kA, 0.48 kV	LG kA:	0.00	Asym. (Calc.)
Size:	3	Cont. Amp:	3.000	Base kV:	0.000	(Calc.)

Motor Circuit Protector Trip Device

MFR: Cutler-Hammer
Model: HMCP
ID: 003A0
Pick up: F

Protective Device Settings

CB: B-F37033.00

MFR:	Cutler-Hammer	Tag #:		3-Phase kA:	0.00	Asym. (Calc.)
Model:	HMCP-F	Rating:	100 kA, 0.48 kV	LG kA:	0.00	Asym. (Calc.)
Size:	3	Cont. Amp:	3.000	Base kV:	0.000	(Calc.)

Motor Circuit Protector Trip Device

MFR: Cutler-Hammer
Model: HMCP
ID: 003A0
Pick up: G

CB: B-F52410.00

MFR:	Siemens*	Tag #:		3-Phase kA:	17.39	Asym. (Calc.)
Model:	HED4	Rating:	18 kA, 0.48 kV	LG kA:	11.53	Asym. (Calc.)
Size:	20	Cont. Amp:	20.000	Base kV:	0.480	(Calc.)

* The retrieved library data is modified by user.

Thermal Magnetic Trip Device

MFR: Siemens
Model: HED4
ID: 20 (0.48kV)
Thermal Trip: Fixed
Magnetic Trip: FIXED

CB: B-F52420.00

MFR:	Siemens*	Tag #:		3-Phase kA:	17.39	Asym. (Calc.)
Model:	HED4	Rating:	18 kA, 0.48 kV	LG kA:	11.53	Asym. (Calc.)
Size:	20	Cont. Amp:	20.000	Base kV:	0.480	(Calc.)

* The retrieved library data is modified by user.

Thermal Magnetic Trip Device

MFR: Siemens
Model: HED4
ID: 20 (0.24kV)
Thermal Trip: Fixed
Magnetic Trip: FIXED

CB: B-F54330.00

MFR:	Cutler-Hammer	Tag #:		3-Phase kA:	48.69	Asym. (Calc.)
Model:	HMCP-F	Rating:	100 kA, 0.48 kV	LG kA:	42.49	Asym. (Calc.)
Size:	15	Cont. Amp:	15.000	Base kV:	0.480	(Calc.)

Motor Circuit Protector Trip Device

MFR: Cutler-Hammer
Model: HMCP
ID: 015E0
Pick up: C

Protective Device Settings

CB: B-F7943.00

MFR:	Cutler-Hammer	Tag #:		3-Phase kA:	0.00	Asym. (Calc.)
Model:	HMCP-F	Rating:	100 kA, 0.48 kV	LG kA:	0.00	Asym. (Calc.)
Size:	7	Cont. Amp:	7.000	Base kV:	0.000	(Calc.)

Motor Circuit Protector Trip Device

MFR: Cutler-Hammer
Model: HMCP
ID: 007C0
Pick up: F

CB: B-FA1

MFR:	Cutler-Hammer	Tag #:		3-Phase kA:	73.20	Asym. (Calc.)
Model:	SPB-100 (3000)	Rating:	100 kA, 0.48 kV	LG kA:	77.93	Asym. (Calc.)
Size:	3000	Cont. Amp:	3000.000	Base kV:	0.480	(Calc.)

LV Solid State Trip Device

MFR: Cutler-Hammer
Model: RMS 500 Series SPB
Sensor: 3000
Rating Plug: 3000.00

		Phase Setting			Ground Setting	
Long-Time	LT Pickup	1		Ground Pickup	A	
	LT Band	7		Ground Band	.3	I^xt=OUT
Short-Time	ST Pickup	5				
	ST Band	.2	I^xt=OUT			

CB: B-FA2-MCC-HCC

MFR:	Cutler-Hammer	Tag #:		3-Phase kA:	73.20	Asym. (Calc.)
Model:	SPB-100 (1600)	Rating:	100 kA, 0.48 kV	LG kA:	77.93	Asym. (Calc.)
Size:	1600	Cont. Amp:	1600.000	Base kV:	0.480	(Calc.)

LV Solid State Trip Device

MFR: Westinghouse
Model: RMS 500 Series SPB
Sensor: 1600
Rating Plug: 800.00

		Phase Setting			Ground Setting	
Long-Time	LT Pickup	1		Ground Pickup	F	
	LT Band	24		Ground Band	.1	I^xt=OUT
Short-Time	ST Pickup	5				
	ST Band	.3	I^xt=IN			

Protective Device Settings

CB: B-FA3-PNL DP3

MFR:	Cutler-Hammer	Tag #:		3-Phase kA:	73.20 Asym. (Calc.)
Model:	SPB-100 (1600)	Rating:	100 kA, 0.48 kV	LG kA:	77.93 Asym. (Calc.)
Size:	1600	Cont. Amp:	1600.000	Base kV:	0.480 (Calc.)

LV Solid State Trip Device

MFR: Cutler-Hammer
Model: RMS 500 Series SPB
Sensor: 1600
Rating Plug: 1200.00

		Phase Setting			Ground Setting	
Long-Time	LT Pickup	1		Ground Pickup	E	
	LT Band	16		Ground Band	.1	I^xt=OUT
Short-Time	ST Pickup	5				
	ST Band	.3	I^xt=IN			

CB: B-FA4-MCC-GD

MFR:	Cutler-Hammer	Tag #:		3-Phase kA:	73.20 Asym. (Calc.)
Model:	SPB-100 (800)	Rating:	100 kA, 0.48 kV	LG kA:	77.93 Asym. (Calc.)
Size:	800	Cont. Amp:	800.000	Base kV:	0.480 (Calc.)

LV Solid State Trip Device

MFR: Westinghouse
Model: RMS 500 Series SPB
Sensor: 800
Rating Plug: 400.00

		Phase Setting			Ground Setting	
Long-Time	LT Pickup	1		Ground Pickup	E	
	LT Band	24		Ground Band	.1	I^xt=OUT
Short-Time	ST Pickup	5				
	ST Band	.3	I^xt=IN			

CB: B-FA5-MCC-GB

MFR:	Cutler-Hammer	Tag #:		3-Phase kA:	73.20 Asym. (Calc.)
Model:	SPB-100 (800)	Rating:	100 kA, 0.48 kV	LG kA:	77.93 Asym. (Calc.)
Size:	800	Cont. Amp:	800.000	Base kV:	0.480 (Calc.)

LV Solid State Trip Device

MFR: Westinghouse
Model: RMS 500 Series SPB
Sensor: 800
Rating Plug: 400.00

		Phase Setting			Ground Setting	
Long-Time	LT Pickup	1		Ground Pickup	E	
	LT Band	24		Ground Band	.3	I^xt=OUT
Short-Time	ST Pickup	S1(7)				
	ST Band	.3	I^xt=IN			

Protective Device Settings

CB: B-FA6-MCC-GF

MFR:	Cutler-Hammer	Tag #:		3-Phase kA:	73.20 Asym. (Calc.)
Model:	SPB-100 (400)	Rating:	100 kA, 0.48 kV	LG kA:	77.93 Asym. (Calc.)
Size:	400	Cont. Amp:	400.000	Base kV:	0.480 (Calc.)

LV Solid State Trip Device

MFR: Cutler-Hammer
Model: RMS 500 Series SPB
Sensor: 400
Rating Plug: 300.00

		Phase Setting				
Long-Time	LT Pickup	1		Ground Pickup	E	
	LT Band	24		Ground Band	.1	I^xt=OUT
Short-Time	ST Pickup	S2(8)				
	ST Band	.2	I^xt=OUT			

CB: B-FA7-MCC-GH

MFR:	Cutler-Hammer	Tag #:		3-Phase kA:	73.20 Asym. (Calc.)
Model:	SPB-100 (800)	Rating:	100 kA, 0.48 kV	LG kA:	77.93 Asym. (Calc.)
Size:	800	Cont. Amp:	800.000	Base kV:	0.480 (Calc.)

LV Solid State Trip Device

MFR: Cutler-Hammer
Model: RMS 500 Series SPB
Sensor: 800
Rating Plug: 400.00

		Phase Setting				
Long-Time	LT Pickup	1		Ground Pickup	E	
	LT Band	20		Ground Band	.1	I^xt=OUT
Short-Time	ST Pickup	6				
	ST Band	.3	I^xt=IN			

CB: B-FB1

MFR:	Cutler-Hammer	Tag #:		3-Phase kA:	87.95 Asym. (Calc.)
Model:	SPB-100 (3000)	Rating:	100 kA, 0.48 kV	LG kA:	91.71 Asym. (Calc.)
Size:	3000	Cont. Amp:	3000.000	Base kV:	0.480 (Calc.)

LV Solid State Trip Device

MFR: Westinghouse
Model: RMS 500 Series SPB
Sensor: 3000
Rating Plug: 3000.00

		Phase Setting				
Long-Time	LT Pickup	.7		Ground Pickup	A	
	LT Band	7		Ground Band	.3	I^xt=IN
Short-Time	ST Pickup	3				
	ST Band	.3	I^xt=IN			

Protective Device Settings

CB: B-FB2-MCC-HC

MFR:	Cutler-Hammer	Tag #:		3-Phase kA:	87.95 Asym. (Calc.)
Model:	SPB-100 (1600)	Rating:	100 kA, 0.48 kV	LG kA:	91.71 Asym. (Calc.)
Size:	1600	Cont. Amp:	1600.000	Base kV:	0.480 (Calc.)

LV Solid State Trip Device

MFR: Cutler-Hammer
Model: RMS 500 Series SPB
Sensor: 1600
Rating Plug: 1200.00

		Phase Setting			Ground Setting	
Long-Time	LT Pickup	1		Ground Pickup	F	
	LT Band	24		Ground Band	.1	I^xt=IN
Short-Time	ST Pickup	S1(7)				
	ST Band	.3	I^xt=IN			

CB: B-FB3

MFR:	Cutler-Hammer	Tag #:		3-Phase kA:	87.95 Asym. (Calc.)
Model:	SPB-100 (800)	Rating:	100 kA, 0.48 kV	LG kA:	91.71 Asym. (Calc.)
Size:	800	Cont. Amp:	800.000	Base kV:	0.480 (Calc.)

LV Solid State Trip Device

MFR: Cutler-Hammer
Model: RMS 500 Series SPB
Sensor: 800
Rating Plug: 400.00

		Phase Setting			Ground Setting	
Long-Time	LT Pickup	1		Ground Pickup	E	
	LT Band	24		Ground Band	.1	I^xt=IN
Short-Time	ST Pickup	S1(7)				
	ST Band	.3	I^xt=IN			

CB: B-FB4

MFR:	Cutler-Hammer	Tag #:		3-Phase kA:	87.95 Asym. (Calc.)
Model:	SPB-100 (800)	Rating:	100 kA, 0.48 kV	LG kA:	91.71 Asym. (Calc.)
Size:	800	Cont. Amp:	800.000	Base kV:	0.480 (Calc.)

LV Solid State Trip Device

MFR: Cutler-Hammer
Model: RMS 500 Series SPB
Sensor: 800
Rating Plug: 400.00

		Phase Setting			Ground Setting	
Long-Time	LT Pickup	.9		Ground Pickup	F	
	LT Band	20		Ground Band	.1	I^xt=IN
Short-Time	ST Pickup	6				
	ST Band	.3	I^xt=IN			

Protective Device Settings

CB: B-FB5-MCC-GE

MFR:	Cutler-Hammer	Tag #:		3-Phase kA:	87.95 Asym. (Calc.)
Model:	SPB-100 (800)	Rating:	100 kA, 0.48 kV	LG kA:	91.71 Asym. (Calc.)
Size:	800	Cont. Amp:	800.000	Base kV:	0.480 (Calc.)

LV Solid State Trip Device

MFR: Cutler-Hammer
Model: RMS 500 Series SPB
Sensor: 800
Rating Plug: 600.00

		Phase Setting			Ground Setting		
Long-Time	LT Pickup	1			Ground Pickup	F	
	LT Band	20			Ground Band	.1	I^xt=IN
Short-Time	ST Pickup	6					
	ST Band	.3	I^xt=IN				

CB: B-FB6-MCC-GC

MFR:	Cutler-Hammer	Tag #:		3-Phase kA:	87.95 Asym. (Calc.)
Model:	SPB-100 (800)	Rating:	100 kA, 0.48 kV	LG kA:	91.71 Asym. (Calc.)
Size:	800	Cont. Amp:	800.000	Base kV:	0.480 (Calc.)

LV Solid State Trip Device

MFR: Cutler-Hammer
Model: RMS 500 Series SPB
Sensor: 800
Rating Plug: 400.00

		Phase Setting			Ground Setting		
Long-Time	LT Pickup	1			Ground Pickup	F	
	LT Band	24			Ground Band	.1	I^xt=IN
Short-Time	ST Pickup	S1(7)					
	ST Band	.3	I^xt=IN				

CB: B-FB7-MCC-GA

MFR:	Cutler-Hammer	Tag #:		3-Phase kA:	87.95 Asym. (Calc.)
Model:	SPB-100 (800)	Rating:	100 kA, 0.48 kV	LG kA:	91.71 Asym. (Calc.)
Size:	800	Cont. Amp:	800.000	Base kV:	0.480 (Calc.)

LV Solid State Trip Device

MFR: Westinghouse
Model: RMS 500 Series SPB
Sensor: 800
Rating Plug: 400.00

		Phase Setting			Ground Setting		
Long-Time	LT Pickup	1			Ground Pickup	F	
	LT Band	24			Ground Band	.1	I^xt=IN
Short-Time	ST Pickup	S1(7)					
	ST Band	.3	I^xt=IN				

Protective Device Settings

CB: B-FB8-ATS-8

MFR:	Cutler-Hammer	Tag #:		3-Phase kA:	87.95	Asym. (Calc.)
Model:	SPB-100 (800)	Rating:	100 kA, 0.48 kV	LG kA:	91.71	Asym. (Calc.)
Size:	800	Cont. Amp:	800.000	Base kV:	0.480	(Calc.)

LV Solid State Trip Device

MFR: Cutler-Hammer
Model: RMS 500 Series SPB
Sensor: 800
Rating Plug: 600.00

		Phase Setting				Ground Setting	
Long-Time	LT Pickup	1			Ground Pickup	E	
	LT Band	20			Ground Band	.1	I^xt=IN
Short-Time	ST Pickup	6					
	ST Band	.1	I^xt=IN				

CB: B-FC-1

MFR:	Cutler-Hammer	Tag #:		3-Phase kA:	0.00	Asym. (Calc.)
Model:	HFD	Rating:	100 kA, 0.24 kV	LG kA:	0.00	Asym. (Calc.)
Size:	15	Cont. Amp:	15.000	Base kV:	0.000	(Calc.)

Thermal Magnetic Trip Device

MFR: Cutler-Hammer
Model: HFD (2,3,4P)
ID: 15

Thermal Trip: Fixed
Magnetic Trip: FIXED

CB: B-GAS BOOSTER BLOWER VFD

MFR:	Cutler-Hammer	Tag #:		3-Phase kA:	0.00	Asym. (Calc.)
Model:	HMCP-F	Rating:	100 kA, 0.48 kV	LG kA:	0.00	Asym. (Calc.)
Size:	50	Cont. Amp:	50.000	Base kV:	0.000	(Calc.)

Motor Circuit Protector Trip Device

MFR: Cutler-Hammer
Model: HMCP
ID: 050K2
Pick up: F

CB: B-GAS COMPRESSOR #6

MFR:	Siemens	Tag #:		3-Phase kA:	0.00	Asym. (Calc.)
Model:	FD6-A	Rating:	35 kA, 0.48 kV	LG kA:	0.00	Asym. (Calc.)
Size:	250	Cont. Amp:	250.000	Base kV:	0.000	(Calc.)

Thermal Magnetic Trip Device

MFR: Siemens
Model: FD6-A
ID: 250 (0.48kV)

Thermal Trip: Fixed
Magnetic Trip: 4

Protective Device Settings

CB: B-GAS COMPRESSOR #7

MFR:	Siemens	Tag #:		3-Phase kA:	0.00	Asym. (Calc.)
Model:	FD6-A	Rating:	35 kA, 0.48 kV	LG kA:	0.00	Asym. (Calc.)
Size:	250	Cont. Amp:	250.000	Base kV:	0.000	(Calc.)

Thermal Magnetic Trip Device

MFR:	Siemens	Thermal Trip:	Fixed
Model:	FD6-A	Magnetic Trip:	5
ID:	250 (0.48kV)		

CB: B-GEN 175KW

MFR:	Westinghouse	Tag #:		3-Phase kA:	0.00	Asym. (Calc.)
Model:	LC	Rating:	30 kA, 0.48 kV	LG kA:	0.00	Asym. (Calc.)
Size:	400	Cont. Amp:	400.000	Base kV:	0.000	(Calc.)

LV Solid State Trip Device

MFR:	Westinghouse
Model:	Seltronic LC (Adj)
Sensor:	400
Rating Plug:	300.00

		Phase Setting		Ground Setting	
Long-Time	LT Pickup	1.000		Ground Pickup	0.650
	LT Band	Fixed		Ground Band	0.060
Short-Time	ST Pickup	4			
	ST Band	Fixed	I^xt=IN		

CB: B-GEN G6

MFR:	Square-D	Tag #:		3-Phase kA:	46.31	Asym. (Calc.)
Model:	RGF	Rating:	35 kA, 0.48 kV	LG kA:	49.42	Asym. (Calc.)
Size:	2000	Cont. Amp:	2000.000	Base kV:	0.480	(Calc.)

LV Solid State Trip Device

MFR:	Square-D
Model:	ET1.0I (RG)
Sensor:	2000

		Phase Setting		
Long-Time	LT Pickup	fixed	LT Band	Fixed
INST	Inst. Pickup	12		

Protective Device Settings

CB: B-GEN NO. 1

MFR:	Siemens-Allis	Tag #:		3-Phase kA:	64.89 Asym. (Calc.)
Model:	LA-1600A	Rating:	50 kA, 0.48 kV	LG kA:	66.24 Asym. (Calc.)
Size:	1600	Cont. Amp:	1600.000	Base kV:	0.480 (Calc.)

LV Solid State Trip Device

MFR: Siemens
Model: Static Trip II
Sensor: 1600

		Phase Setting		
Long-Time	LT Pickup	B	Ground Pickup	0.15
	LT Band	Band 6	Ground Band	Minimum
Short-Time	ST Pickup	12		
	ST Band	Minimum		
INST	Inst. Pickup	12		

CB: B-GEN NO. 2

MFR:	Siemens-Allis	Tag #:	7713.00	3-Phase kA:	64.14 Asym. (Calc.)
Model:	LA-1600A	Rating:	50 kA, 0.48 kV	LG kA:	62.04 Asym. (Calc.)
Size:	1600	Cont. Amp:	1600.000	Base kV:	0.480 (Calc.)

LV Solid State Trip Device

MFR: Siemens
Model: Static Trip II
Sensor: 1600

		Phase Setting		
Long-Time	LT Pickup	D	Ground Pickup	0.5
	LT Band	Band 4	Ground Band	Intermediate
Short-Time	ST Pickup	3		
	ST Band	Intermediate		

CB: B-GEN NO. 3

MFR:	Siemens-Allis	Tag #:		3-Phase kA:	64.14 Asym. (Calc.)
Model:	LA-1600A	Rating:	50 kA, 0.48 kV	LG kA:	62.04 Asym. (Calc.)
Size:	1600	Cont. Amp:	1600.000	Base kV:	0.480 (Calc.)

LV Solid State Trip Device

MFR: Siemens
Model: Static Trip II
Sensor: 1600

		Phase Setting		
Long-Time	LT Pickup	B	Ground Pickup	0.15
	LT Band	Band 6	Ground Band	Minimum
Short-Time	ST Pickup	12		
	ST Band	Minimum		
INST	Inst. Pickup	12		

Protective Device Settings

CB: B-GEN TIE A3

MFR:	Cutler-Hammer	Tag #:		3-Phase kA:	64.14	Asym. (Calc.)
Model:	SPB-100 (3000)	Rating:	100 kA, 0.48 kV	LG kA:	62.04	Asym. (Calc.)
Size:	3000	Cont. Amp:	3000.000	Base kV:	0.480	(Calc.)

LV Solid State Trip Device

MFR: Cutler-Hammer
Model: RMS 500 Series SPB
Sensor: 3000
Rating Plug: 1600.00

		Phase Setting			Ground Setting	
Long-Time	LT Pickup	1		Ground Pickup	A	
	LT Band	12		Ground Band	.3	I^xt=OUT
Short-Time	ST Pickup	4				
	ST Band	.5	I^xt=OUT			

CB: B-Grinder

MFR:	Cutler-Hammer	Tag #:		3-Phase kA:	0.00	Asym. (Calc.)
Model:	HFD	Rating:	65 kA, 0.48 kV	LG kA:	0.00	Asym. (Calc.)
Size:	30	Cont. Amp:	30.000	Base kV:	0.000	(Calc.)

Thermal Magnetic Trip Device

MFR: Cutler-Hammer — Thermal Trip: Fixed
Model: HFD (2,3,4P) — Magnetic Trip: FIXED
ID: 30

CB: B-GRIT SCR TROLLEY

MFR:	Cutler-Hammer	Tag #:		3-Phase kA:	48.82	Asym. (Calc.)
Model:	HFD	Rating:	65 kA, 0.48 kV	LG kA:	42.55	Asym. (Calc.)
Size:	20	Cont. Amp:	20.000	Base kV:	0.480	(Calc.)

Thermal Magnetic Trip Device

MFR: Cutler-Hammer — Thermal Trip: Fixed
Model: HFD (2,3,4P) — Magnetic Trip: FIXED
ID: 20

CB: B-HOIST TROLLY

MFR:	Cutler-Hammer	Tag #:		3-Phase kA:	0.00	Asym. (Calc.)
Model:	HFB	Rating:	25 kA, 0.48 kV	LG kA:	0.00	Asym. (Calc.)
Size:	15	Cont. Amp:	15.000	Base kV:	0.000	(Calc.)

Thermal Magnetic Trip Device

MFR: Cutler-Hammer — Thermal Trip: Fixed
Model: HFB (2,3P) — Magnetic Trip: FIXED
ID: 15

Protective Device Settings

CB: B-HVAC 10001

MFR:	Cutler-Hammer	Tag #:		3-Phase kA:	0.00	Asym. (Calc.)
Model:	GHB	Rating:	14 kA, 0.48 kV	LG kA:	0.00	Asym. (Calc.)
Size:	30	Cont. Amp:	30.000	Base kV:	0.000	(Calc.)

Thermal Magnetic Trip Device

MFR:	Cutler-Hammer	Thermal Trip:	Fixed
Model:	GHB (2,3P)	Magnetic Trip:	FIXED
ID:	30		

CB: B-HVAC56100.00

MFR:	Siemens*	Tag #:		3-Phase kA:	17.39	Asym. (Calc.)
Model:	HED4	Rating:	18 kA, 0.48 kV	LG kA:	11.53	Asym. (Calc.)
Size:	30	Cont. Amp:	30.000	Base kV:	0.480	(Calc.)

* The retrieved library data is modified by user.

Thermal Magnetic Trip Device

MFR:	Siemens	Thermal Trip:	Fixed
Model:	HED4	Magnetic Trip:	FIXED
ID:	30 (0.48kV)		

CB: B-HVAC56110.00

MFR:	Siemens*	Tag #:		3-Phase kA:	17.39	Asym. (Calc.)
Model:	HED4	Rating:	18 kA, 0.48 kV	LG kA:	11.53	Asym. (Calc.)
Size:	20	Cont. Amp:	20.000	Base kV:	0.480	(Calc.)

* The retrieved library data is modified by user.

Thermal Magnetic Trip Device

MFR:	Siemens	Thermal Trip:	Fixed
Model:	HED4	Magnetic Trip:	FIXED
ID:	20 (0.48kV)		

CB: B-HVC-1750

MFR:	Cutler-Hammer	Tag #:		3-Phase kA:	0.00	Asym. (Calc.)
Model:	EHD	Rating:	14 kA, 0.48 kV	LG kA:	0.00	Asym. (Calc.)
Size:	60	Cont. Amp:	60.000	Base kV:	0.000	(Calc.)

Thermal Magnetic Trip Device

MFR:	Cutler-Hammer	Thermal Trip:	Fixed
Model:	EHD (2,3,4P)	Magnetic Trip:	FIXED
ID:	60		

CB: B-HVC-1760

MFR:	Cutler-Hammer	Tag #:		3-Phase kA:	0.00	Asym. (Calc.)
Model:	EHD	Rating:	14 kA, 0.48 kV	LG kA:	0.00	Asym. (Calc.)
Size:	20	Cont. Amp:	20.000	Base kV:	0.000	(Calc.)

Thermal Magnetic Trip Device

MFR:	Cutler-Hammer	Thermal Trip:	Fixed
Model:	EHD (2,3,4P)	Magnetic Trip:	FIXED
ID:	20		

Protective Device Settings

CB: B-HW ELEVATOR

MFR:	Cutler-Hammer	Tag #:		3-Phase kA:	48.82	Asym. (Calc.)
Model:	HFD	Rating:	65 kA, 0.48 kV	LG kA:	42.55	Asym. (Calc.)
Size:	50	Cont. Amp:	50.000	Base kV:	0.480	(Calc.)

Thermal Magnetic Trip Device

MFR:	Cutler-Hammer	Thermal Trip:	Fixed
Model:	HFD (2,3,4P)	Magnetic Trip:	FIXED
ID:	50		

CB: B-HW GATES

MFR:	Siemens*	Tag #:		3-Phase kA:	17.39	Asym. (Calc.)
Model:	HED4	Rating:	18 kA, 0.48 kV	LG kA:	11.53	Asym. (Calc.)
Size:	20	Cont. Amp:	20.000	Base kV:	0.480	(Calc.)

* The retrieved library data is modified by user.

Thermal Magnetic Trip Device

MFR:	Siemens	Thermal Trip:	Fixed
Model:	HED4	Magnetic Trip:	FIXED
ID:	20 (0.48kV)		

CB: B-HWH

MFR:	Cutler-Hammer*	Tag #:		3-Phase kA:	0.00	Asym. (Calc.)
Model:	HFD	Rating:	100 kA, 0.48 kV	LG kA:	0.00	Asym. (Calc.)
Size:	30	Cont. Amp:	30.000	Base kV:	0.000	(Calc.)

* The retrieved library data is modified by user.

Thermal Magnetic Trip Device

MFR:	Cutler-Hammer	Thermal Trip:	Fixed
Model:	HFD (2,3,4P)	Magnetic Trip:	FIXED
ID:	30		

CB: B-HYDRALIC PRESS

MFR:	Cutler-Hammer	Tag #:		3-Phase kA:	0.00	Asym. (Calc.)
Model:	HFB	Rating:	25 kA, 0.48 kV	LG kA:	0.00	Asym. (Calc.)
Size:	30	Cont. Amp:	30.000	Base kV:	0.000	(Calc.)

Thermal Magnetic Trip Device

MFR:	Cutler-Hammer	Thermal Trip:	Fixed
Model:	HFB (2,3P)	Magnetic Trip:	FIXED
ID:	30		

Protective Device Settings

CB: B-INFL PUMP 1

MFR:	Cutler-Hammer	Tag #:		3-Phase kA:	48.58	Asym. (Calc.)
Model:	HND	Rating:	65 kA, 0.48 kV	LG kA:	41.99	Asym. (Calc.)
Size:	800	Cont. Amp:	800.000	Base kV:	0.480	(Calc.)

LV Solid State Trip Device

MFR: Cutler-Hammer
Model: RMS 310 N (LSG)
Sensor: 800
Rating Plug: 800.00

		Phase Setting	
Short-Time	ST Pickup	4X	
	ST Band	Fixed	I^xt=IN

CB: B-INFL PUMP 2

MFR:	Cutler-Hammer	Tag #:		3-Phase kA:	45.48	Asym. (Calc.)
Model:	MDL	Rating:	50 kA, 0.48 kV	LG kA:	38.13	Asym. (Calc.)
Size:	800	Cont. Amp:	800.000	Base kV:	0.480	(Calc.)

Thermal Magnetic Trip Device

MFR: Cutler-Hammer
Model: MDL
ID: 800

Thermal Trip: Fixed
Magnetic Trip: 4

CB: B-INFL PUMP 2 VFD MAIN

MFR:	Cutler-Hammer	Tag #:		3-Phase kA:	45.48	Asym. (Calc.)
Model:	HND	Rating:	65 kA, 0.48 kV	LG kA:	38.13	Asym. (Calc.)
Size:	800	Cont. Amp:	800.000	Base kV:	0.480	(Calc.)

LV Solid State Trip Device

MFR: Cutler-Hammer
Model: RMS 310 N (LSG)
Sensor: 800
Rating Plug: 800.00

		Phase Setting	
Short-Time	ST Pickup	4X	
	ST Band	Fixed	I^xt=IN

CB: B-INFL PUMP 3

MFR:	Cutler-Hammer	Tag #:		3-Phase kA:	48.57	Asym. (Calc.)
Model:	MDL	Rating:	50 kA, 0.48 kV	LG kA:	41.98	Asym. (Calc.)
Size:	800	Cont. Amp:	800.000	Base kV:	0.480	(Calc.)

Thermal Magnetic Trip Device

MFR: Cutler-Hammer
Model: MDL
ID: 800

Thermal Trip: Fixed
Magnetic Trip: 4.000

Protective Device Settings

CB: B-INFL PUMP 3 VFD MAIN

MFR:	Cutler-Hammer	Tag #:		3-Phase kA:	48.57	Asym. (Calc.)
Model:	HND	Rating:	65 kA, 0.48 kV	LG kA:	41.98	Asym. (Calc.)
Size:	800	Cont. Amp:	800.000	Base kV:	0.480	(Calc.)

LV Solid State Trip Device

MFR: Cutler-Hammer
Model: RMS 310 N (LSG)
Sensor: 800
Rating Plug: 800.00

		Phase Setting	
Short-Time	ST Pickup	4X	
	ST Band	Fixed	I^xt=IN

CB: B-INFL PUMP 4

MFR:	Cutler-Hammer	Tag #:		3-Phase kA:	46.46	Asym. (Calc.)
Model:	MDL	Rating:	50 kA, 0.48 kV	LG kA:	39.32	Asym. (Calc.)
Size:	800	Cont. Amp:	800.000	Base kV:	0.480	(Calc.)

Thermal Magnetic Trip Device

MFR:	Cutler-Hammer	Thermal Trip:	Fixed
Model:	MDL	Magnetic Trip:	4
ID:	800		

CB: B-INFL PUMP 4 VFD MAIN

MFR:	Cutler-Hammer	Tag #:		3-Phase kA:	46.46	Asym. (Calc.)
Model:	HND	Rating:	65 kA, 0.48 kV	LG kA:	39.32	Asym. (Calc.)
Size:	800	Cont. Amp:	800.000	Base kV:	0.480	(Calc.)

LV Solid State Trip Device

MFR: Cutler-Hammer
Model: RMS 310 N (LSG)
Sensor: 800
Rating Plug: 800.00

		Phase Setting		Ground Setting	
Short-Time	ST Pickup	4X		Ground Pickup	1
	ST Band	Fixed	I^xt=IN	Ground Band	INST

CB: B-INFL PUMP 5

MFR:	Cutler-Hammer	Tag #:		3-Phase kA:	48.57	Asym. (Calc.)
Model:	MDL	Rating:	50 kA, 0.48 kV	LG kA:	41.98	Asym. (Calc.)
Size:	800	Cont. Amp:	800.000	Base kV:	0.480	(Calc.)

Thermal Magnetic Trip Device

MFR:	Cutler-Hammer	Thermal Trip:	Fixed
Model:	MDL	Magnetic Trip:	4
ID:	800		

Protective Device Settings

CB: B-INFL PUMP 5 VFD MAIN

MFR:	Cutler-Hammer	Tag #:		3-Phase kA:	48.57	Asym. (Calc.)
Model:	HND	Rating:	65 kA, 0.48 kV	LG kA:	41.98	Asym. (Calc.)
Size:	800	Cont. Amp:	800.000	Base kV:	0.480	(Calc.)

LV Solid State Trip Device

MFR: Cutler-Hammer
Model: RMS 310 N (LSG)
Sensor: 800
Rating Plug: 800.00

		Phase Setting	
Short-Time	ST Pickup	2X	
	ST Band	Fixed	I^xt=IN

CB: B-INFL PUMP 6

MFR:	Cutler-Hammer	Tag #:		3-Phase kA:	44.56	Asym. (Calc.)
Model:	HND	Rating:	65 kA, 0.48 kV	LG kA:	37.02	Asym. (Calc.)
Size:	800	Cont. Amp:	800.000	Base kV:	0.480	(Calc.)

LV Solid State Trip Device

MFR: Cutler-Hammer
Model: RMS 310 N (LSG)
Sensor: 800
Rating Plug: 800.00

		Phase Setting	
Short-Time	ST Pickup	4X	
	ST Band	Fixed	I^xt=IN

CB: B-LATCH

MFR:	Cutler-Hammer	Tag #:		3-Phase kA:	0.00	Asym. (Calc.)
Model:	HFB	Rating:	25 kA, 0.48 kV	LG kA:	0.00	Asym. (Calc.)
Size:	15	Cont. Amp:	15.000	Base kV:	0.000	(Calc.)

Thermal Magnetic Trip Device

MFR:	Cutler-Hammer	Thermal Trip:	Fixed
Model:	HFB (2,3P)	Magnetic Trip:	FIXED
ID:	15		

CB: B-LCP-BFP1

MFR:	Cutler-Hammer	Tag #:		3-Phase kA:	0.00	Asym. (Calc.)
Model:	HFD	Rating:	65 kA, 0.48 kV	LG kA:	0.00	Asym. (Calc.)
Size:	30	Cont. Amp:	30.000	Base kV:	0.000	(Calc.)

Thermal Magnetic Trip Device

MFR:	Cutler-Hammer	Thermal Trip:	Fixed
Model:	HFD (2,3,4P)	Magnetic Trip:	FIXED
ID:	30		

Protective Device Settings

CB: B-LCP-BFP2

MFR:	Cutler-Hammer	Tag #:		3-Phase kA:	0.00	Asym. (Calc.)
Model:	HFD	Rating:	65 kA, 0.48 kV	LG kA:	0.00	Asym. (Calc.)
Size:	30	Cont. Amp:	30.000	Base kV:	0.000	(Calc.)

Thermal Magnetic Trip Device

MFR:	Cutler-Hammer	Thermal Trip:	Fixed
Model:	HFD (2,3,4P)	Magnetic Trip:	FIXED
ID:	30		

CB: B-LCP-BFP3

MFR:	Cutler-Hammer	Tag #:		3-Phase kA:	0.00	Asym. (Calc.)
Model:	HFD	Rating:	65 kA, 0.48 kV	LG kA:	0.00	Asym. (Calc.)
Size:	30	Cont. Amp:	30.000	Base kV:	0.000	(Calc.)

Thermal Magnetic Trip Device

MFR:	Cutler-Hammer	Thermal Trip:	Fixed
Model:	HFD (2,3,4P)	Magnetic Trip:	FIXED
ID:	30		

CB: B-LCP-BFP4

MFR:	Cutler-Hammer	Tag #:		3-Phase kA:	0.00	Asym. (Calc.)
Model:	HFD	Rating:	65 kA, 0.48 kV	LG kA:	0.00	Asym. (Calc.)
Size:	30	Cont. Amp:	30.000	Base kV:	0.000	(Calc.)

Thermal Magnetic Trip Device

MFR:	Cutler-Hammer	Thermal Trip:	Fixed
Model:	HFD (2,3,4P)	Magnetic Trip:	FIXED
ID:	30		

CB: B-LCP-HWOCS

MFR:	Cutler-Hammer	Tag #:		3-Phase kA:	48.82	Asym. (Calc.)
Model:	HFD	Rating:	65 kA, 0.48 kV	LG kA:	42.55	Asym. (Calc.)
Size:	150	Cont. Amp:	150.000	Base kV:	0.480	(Calc.)

Thermal Magnetic Trip Device

MFR:	Cutler-Hammer	Thermal Trip:	Fixed
Model:	HFD (2,3,4P)	Magnetic Trip:	FIXED
ID:	150		

CB: B-LCP-PD

MFR:	Cutler-Hammer	Tag #:		3-Phase kA:	0.00	Asym. (Calc.)
Model:	HFD	Rating:	65 kA, 0.48 kV	LG kA:	0.00	Asym. (Calc.)
Size:	60	Cont. Amp:	60.000	Base kV:	0.000	(Calc.)

Thermal Magnetic Trip Device

MFR:	Cutler-Hammer	Thermal Trip:	Fixed
Model:	HFD (2,3,4P)	Magnetic Trip:	FIXED
ID:	60		

Protective Device Settings

CB: B-LP-GD

MFR:	Cutler-Hammer	Tag #:		3-Phase kA:	0.00	Asym. (Calc.)
Model:	BAB	Rating:	10 kA, 0.24 kV	LG kA:	0.00	Asym. (Calc.)
Size:	50	Cont. Amp:	50.000	Base kV:	0.000	(Calc.)

Thermal Magnetic Trip Device

MFR:	Cutler-Hammer	Thermal Trip:	Fixed
Model:	Quicklag (3P)	Magnetic Trip:	FIXED
ID:	50		

CB: B-LP-VFD

MFR:	Cutler-Hammer	Tag #:		3-Phase kA:	0.00	Asym. (Calc.)
Model:	EHD	Rating:	14 kA, 0.48 kV	LG kA:	0.00	Asym. (Calc.)
Size:	100	Cont. Amp:	100.000	Base kV:	0.000	(Calc.)

Thermal Magnetic Trip Device

MFR:	Cutler-Hammer	Thermal Trip:	Fixed
Model:	EHD (2,3,4P)	Magnetic Trip:	FIXED
ID:	100		

CB: B-LTG PNL LPE

MFR:	General Electric	Tag #:		3-Phase kA:	0.00	Asym. (Calc.)
Model:	TQD	Rating:	10 kA, 0.24 kV	LG kA:	0.00	Asym. (Calc.)
Size:	150	Cont. Amp:	150.000	Base kV:	0.000	(Calc.)

Thermal Magnetic Trip Device

MFR:	General Electric	Thermal Trip:	Fixed
Model:	TQD	Magnetic Trip:	FIXED
ID:	150		

CB: B-M25011.10

MFR:	Cutler-Hammer	Tag #:		3-Phase kA:	0.00	Asym. (Calc.)
Model:	HMCP-F	Rating:	100 kA, 0.48 kV	LG kA:	0.00	Asym. (Calc.)
Size:	7	Cont. Amp:	7.000	Base kV:	0.000	(Calc.)

Motor Circuit Protector Trip Device

MFR:	Cutler-Hammer
Model:	HMCP
ID:	007C0
Pick up:	A

CB: B-M25031.10

MFR:	Cutler-Hammer	Tag #:		3-Phase kA:	0.00	Asym. (Calc.)
Model:	HMCP-F	Rating:	100 kA, 0.48 kV	LG kA:	0.00	Asym. (Calc.)
Size:	7	Cont. Amp:	7.000	Base kV:	0.000	(Calc.)

Motor Circuit Protector Trip Device

MFR:	Cutler-Hammer
Model:	HMCP
ID:	007C0
Pick up:	F

Protective Device Settings

CB: B-M25051.10

MFR:	Cutler-Hammer	Tag #:		3-Phase kA:	0.00	Asym. (Calc.)
Model:	HMCP-F	Rating:	100 kA, 0.48 kV	LG kA:	0.00	Asym. (Calc.)
Size:	7	Cont. Amp:	7.000	Base kV:	0.000	(Calc.)

Motor Circuit Protector Trip Device

MFR: Cutler-Hammer
Model: HMCP
ID: 007C0
Pick up: A

CB: B-M25071.10

MFR:	Cutler-Hammer	Tag #:		3-Phase kA:	0.00	Asym. (Calc.)
Model:	HMCP-F	Rating:	100 kA, 0.48 kV	LG kA:	0.00	Asym. (Calc.)
Size:	7	Cont. Amp:	7.000	Base kV:	0.000	(Calc.)

Motor Circuit Protector Trip Device

MFR: Cutler-Hammer
Model: HMCP
ID: 007C0
Pick up: A

CB: B-M25091.10

MFR:	Cutler-Hammer	Tag #:		3-Phase kA:	0.00	Asym. (Calc.)
Model:	HMCP-F	Rating:	100 kA, 0.48 kV	LG kA:	0.00	Asym. (Calc.)
Size:	7	Cont. Amp:	7.000	Base kV:	0.000	(Calc.)

Motor Circuit Protector Trip Device

MFR: Cutler-Hammer
Model: HMCP
ID: 007C0
Pick up: B

CB: B-M25111.10

MFR:	Cutler-Hammer	Tag #:		3-Phase kA:	0.00	Asym. (Calc.)
Model:	HMCP-F	Rating:	100 kA, 0.48 kV	LG kA:	0.00	Asym. (Calc.)
Size:	7	Cont. Amp:	7.000	Base kV:	0.000	(Calc.)

Motor Circuit Protector Trip Device

MFR: Cutler-Hammer
Model: HMCP
ID: 007C0
Pick up: A

Protective Device Settings

CB: B-M25131.10

MFR:	Cutler-Hammer	Tag #:		3-Phase kA:	0.00	Asym. (Calc.)
Model:	HMCP-F	Rating:	100 kA, 0.48 kV	LG kA:	0.00	Asym. (Calc.)
Size:	7	Cont. Amp:	7.000	Base kV:	0.000	(Calc.)

Motor Circuit Protector Trip Device

MFR: Cutler-Hammer
Model: HMCP
ID: 007C0
Pick up: B

CB: B-M25151.10

MFR:	Cutler-Hammer	Tag #:		3-Phase kA:	0.00	Asym. (Calc.)
Model:	HMCP-F	Rating:	100 kA, 0.48 kV	LG kA:	0.00	Asym. (Calc.)
Size:	7	Cont. Amp:	7.000	Base kV:	0.000	(Calc.)

Motor Circuit Protector Trip Device

MFR: Cutler-Hammer
Model: HMCP
ID: 007C0
Pick up: A

CB: B-M25171.10

MFR:	Cutler-Hammer	Tag #:		3-Phase kA:	0.00	Asym. (Calc.)
Model:	HMCP-F	Rating:	100 kA, 0.48 kV	LG kA:	0.00	Asym. (Calc.)
Size:	7	Cont. Amp:	7.000	Base kV:	0.000	(Calc.)

Motor Circuit Protector Trip Device

MFR: Cutler-Hammer
Model: HMCP
ID: 007C0
Pick up: A

CB: B-MAIN SWGR A1

MFR:	Cutler-Hammer	Tag #:		3-Phase kA:	73.20	Asym. (Calc.)
Model:	SPB-100M (4000)	Rating:	100 kA, 0.48 kV	LG kA:	77.93	Asym. (Calc.)
Size:	4000	Cont. Amp:	4000.000	Base kV:	0.480	(Calc.)

LV Solid State Trip Device

MFR: Westinghouse
Model: RMS 510 Series SPB
Sensor: 4000 (100M, 150)
Rating Plug: 4000.00

		Phase Setting				Ground Setting	
Long-Time	LT Pickup	1			Ground Pickup	B	
	LT Band	20			Ground Band	.5	I^xt=OUT
Short-Time	ST Pickup	3					
	ST Band	.5	I^xt=OUT				

Protective Device Settings

CB: B-MAIN SWGR A2

MFR:	Cutler-Hammer	Tag #:		3-Phase kA:	82.68 Asym. (Calc.)
Model:	SPB-100 (3000)	Rating:	100 kA, 0.48 kV	LG kA:	89.29 Asym. (Calc.)
Size:	3000	Cont. Amp:	3000.000	Base kV:	0.480 (Calc.)

LV Solid State Trip Device

MFR: Westinghouse
Model: RMS 500 Series SPB
Sensor: 3000
Rating Plug: 3000.00

		Phase Setting			Ground Setting	
Long-Time	LT Pickup	1		Ground Pickup	A	
	LT Band	12		Ground Band	.3	I^xt=OUT
Short-Time	ST Pickup	4				
	ST Band	.5	I^xt=IN			

CB: B-MAIN SWGR B1

MFR:	Cutler-Hammer	Tag #:		3-Phase kA:	87.95 Asym. (Calc.)
Model:	SPB-100 (4000)	Rating:	100 kA, 0.48 kV	LG kA:	91.71 Asym. (Calc.)
Size:	4000	Cont. Amp:	4000.000	Base kV:	0.480 (Calc.)

LV Solid State Trip Device

MFR: Cutler-Hammer
Model: RMS 500 Series SPB
Sensor: 4000
Rating Plug: 2000.00

		Phase Setting			Ground Setting	
Long-Time	LT Pickup	.5		Ground Pickup	B	
	LT Band	20		Ground Band	.5	I^xt=OUT
Short-Time	ST Pickup	3				
	ST Band	.5	I^xt=OUT			

CB: B-MAIN SWGR B2

MFR:	Cutler-Hammer	Tag #:		3-Phase kA:	87.95 Asym. (Calc.)
Model:	SPB-100 (3000)	Rating:	100 kA, 0.48 kV	LG kA:	91.71 Asym. (Calc.)
Size:	3000	Cont. Amp:	3000.000	Base kV:	0.480 (Calc.)

LV Solid State Trip Device

MFR: Cutler-Hammer
Model: RMS 500 Series SPB
Sensor: 3000
Rating Plug: 3000.00

		Phase Setting			Ground Setting	
Long-Time	LT Pickup	1		Ground Pickup	A	
	LT Band	12		Ground Band	.3	I^xt=IN
Short-Time	ST Pickup	4				
	ST Band	.5	I^xt=IN			

Protective Device Settings

CB: B-MAIN SWGR TIE A1-B1

MFR:	Cutler-Hammer	Tag #:		3-Phase kA:	0.00	Asym. (Calc.)
Model:	SPB-100 (4000)	Rating:	100 kA, 0.48 kV	LG kA:	0.00	Asym. (Calc.)
Size:	4000	Cont. Amp:	4000.000	Base kV:	0.000	(Calc.)

LV Solid State Trip Device

MFR: Cutler-Hammer
Model: RMS 500 Series SPB
Sensor: 4000
Rating Plug: 4000.00

		Phase Setting			Ground Setting		
Long-Time	LT Pickup	.9			Ground Pickup	A	
	LT Band	10			Ground Band	.3	I^xt=OUT
Short-Time	ST Pickup	3					
	ST Band	.5	I^xt=IN				

CB: B-MAINT

MFR:	Cutler-Hammer	Tag #:		3-Phase kA:	0.00	Asym. (Calc.)
Model:	HFB	Rating:	25 kA, 0.48 kV	LG kA:	0.00	Asym. (Calc.)
Size:	30	Cont. Amp:	30.000	Base kV:	0.000	(Calc.)

Thermal Magnetic Trip Device

MFR:	Cutler-Hammer	Thermal Trip:	Fixed
Model:	HFB (2,3P)	Magnetic Trip:	FIXED
ID:	30		

CB: B-MCC-DP1A

MFR:	Cutler-Hammer	Tag #:		3-Phase kA:	0.00	Asym. (Calc.)
Model:	EHD	Rating:	14 kA, 0.48 kV	LG kA:	0.00	Asym. (Calc.)
Size:	100	Cont. Amp:	100.000	Base kV:	0.000	(Calc.)

Thermal Magnetic Trip Device

MFR:	Cutler-Hammer	Thermal Trip:	Fixed
Model:	EHD (2,3,4P)	Magnetic Trip:	FIXED
ID:	100		

CB: B-MCC-DP1B

MFR:	Cutler-Hammer	Tag #:		3-Phase kA:	0.00	Asym. (Calc.)
Model:	KD	Rating:	35 kA, 0.48 kV	LG kA:	0.00	Asym. (Calc.)
Size:	400	Cont. Amp:	400.000	Base kV:	0.000	(Calc.)

Thermal Magnetic Trip Device

MFR:	Cutler-Hammer	Thermal Trip:	Fixed
Model:	KD	Magnetic Trip:	5
ID:	400		

Protective Device Settings

CB: B-MCC-DP2C

MFR:	Federal Pacific	Tag #:		3-Phase kA:	0.00	Asym. (Calc.)
Model:	NJL	Rating:	30 kA, 0.48 kV	LG kA:	0.00	Asym. (Calc.)
Size:	100	Cont. Amp:	100.000	Base kV:	0.000	(Calc.)

Thermal Magnetic Trip Device

MFR:	Federal Pacific	Thermal Trip:	Fixed
Model:	JL	Magnetic Trip:	4.000
ID:	100		

CB: B-MCC-DP2D

MFR:	Cutler-Hammer*	Tag #:		3-Phase kA:	0.00	Asym. (Calc.)
Model:	FD	Rating:	25 kA, 0.48 kV	LG kA:	0.00	Asym. (Calc.)
Size:	100	Cont. Amp:	100.000	Base kV:	0.000	(Calc.)

* The retrieved library data is modified by user.

Thermal Magnetic Trip Device

MFR:	Cutler-Hammer	Thermal Trip:	Fixed
Model:	FD (2,3,4P)	Magnetic Trip:	FIXED
ID:	100		

CB: B-MCC-DP3A

MFR:	Cutler-Hammer*	Tag #:		3-Phase kA:	0.00	Asym. (Calc.)
Model:	HKD	Rating:	65 kA, 0.48 kV	LG kA:	0.00	Asym. (Calc.)
Size:	400	Cont. Amp:	350.000	Base kV:	0.000	(Calc.)

* The retrieved library data is modified by user.

Thermal Magnetic Trip Device

MFR:	Cutler-Hammer	Thermal Trip:	Fixed
Model:	HKD	Magnetic Trip:	5.000
ID:	400		

CB: B-MCC-DP3B

MFR:	Westinghouse	Tag #:		3-Phase kA:	0.00	Asym. (Calc.)
Model:	LCL	Rating:	200 kA, 0.24 kV	LG kA:	0.00	Asym. (Calc.)
Size:	400	Cont. Amp:	400.000	Base kV:	0.000	(Calc.)

LV Solid State Trip Device

MFR:	Westinghouse
Model:	Seltronic LCL (Adj)
Sensor:	400
Rating Plug:	350.00

		Phase Setting			Ground Setting	
Short-Time	ST Pickup	8			Ground Pickup	0.200
	ST Band	Fixed	I^xt=IN		Ground Band	0.060

Protective Device Settings

CB: B-MCC-DP3C

MFR:	Cutler-Hammer*	Tag #:		3-Phase kA:	0.00	Asym. (Calc.)
Model:	HKD	Rating:	65 kA, 0.48 kV	LG kA:	0.00	Asym. (Calc.)
Size:	400	Cont. Amp:	350.000	Base kV:	0.000	(Calc.)

* The retrieved library data is modified by user.

Thermal Magnetic Trip Device

MFR:	Cutler-Hammer	Thermal Trip:	Fixed
Model:	HKD	Magnetic Trip:	5
ID:	400		

CB: B-MCC-DP3D

MFR:	Cutler-Hammer*	Tag #:		3-Phase kA:	0.00	Asym. (Calc.)
Model:	HKD	Rating:	65 kA, 0.48 kV	LG kA:	0.00	Asym. (Calc.)
Size:	250	Cont. Amp:	225.000	Base kV:	0.000	(Calc.)

* The retrieved library data is modified by user.

Thermal Magnetic Trip Device

MFR:	Cutler-Hammer	Thermal Trip:	Fixed
Model:	HKD	Magnetic Trip:	5
ID:	250		

CB: B-MCC-DP4A

MFR:	Federal Pacific*	Tag #:		3-Phase kA:	0.00	Asym. (Calc.)
Model:	XF	Rating:	14 kA, 0.6 kV	LG kA:	0.00	Asym. (Calc.)
Size:	70	Cont. Amp:	70.000	Base kV:	0.000	(Calc.)

* The retrieved library data is modified by user.

Thermal Magnetic Trip Device

MFR:	Federal Pacific	Thermal Trip:	Fixed
Model:	XF	Magnetic Trip:	FIXED
ID:	70		

CB: B-MCC-DP4B

MFR:	Federal Pacific	Tag #:		3-Phase kA:	0.00	Asym. (Calc.)
Model:	XJL	Rating:	200 kA, 0.6 kV	LG kA:	0.00	Asym. (Calc.)
Size:	400	Cont. Amp:	400.000	Base kV:	0.000	(Calc.)

Thermal Magnetic Trip Device

MFR:	Federal Pacific	Thermal Trip:	Fixed
Model:	XJL	Magnetic Trip:	3.000
ID:	400		

CB: B-MCC-EDP1A

MFR:	General Electric	Tag #:		3-Phase kA:	0.00	Asym. (Calc.)
Model:	TED	Rating:	18 kA, 0.48 kV	LG kA:	0.00	Asym. (Calc.)
Size:	100	Cont. Amp:	100.000	Base kV:	0.000	(Calc.)

Thermal Magnetic Trip Device

MFR:	General Electric	Thermal Trip:	Fixed
Model:	TED (E 100)	Magnetic Trip:	FIXED
ID:	100		

Protective Device Settings

CB: B-MCC-EDP1B

MFR:	General Electric*	Tag #:		3-Phase kA:	0.00	Asym. (Calc.)
Model:	TED	Rating:	14 kA, 0.48 kV	LG kA:	0.00	Asym. (Calc.)
Size:	70	Cont. Amp:	70.000	Base kV:	0.000	(Calc.)

* The retrieved library data is modified by user.

Thermal Magnetic Trip Device

MFR:	General Electric	Thermal Trip:	Fixed
Model:	TED (E 100)	Magnetic Trip:	FIXED
ID:	70		

CB: B-MCC-EDP1B-1

MFR:	Cutler-Hammer*	Tag #:		3-Phase kA:	0.00	Asym. (Calc.)
Model:	FD	Rating:	200 kA, 0.48 kV	LG kA:	0.00	Asym. (Calc.)
Size:	150	Cont. Amp:	150.000	Base kV:	0.000	(Calc.)

* The retrieved library data is modified by user.

Thermal Magnetic Trip Device

MFR:	Cutler-Hammer	Thermal Trip:	Fixed
Model:	FD (2,3,4P)	Magnetic Trip:	FIXED
ID:	150		

CB: B-MCC-EDP1C

MFR:	General Electric*	Tag #:		3-Phase kA:	0.00	Asym. (Calc.)
Model:	TED	Rating:	14 kA, 0.48 kV	LG kA:	0.00	Asym. (Calc.)
Size:	100	Cont. Amp:	100.000	Base kV:	0.000	(Calc.)

* The retrieved library data is modified by user.

Thermal Magnetic Trip Device

MFR:	General Electric	Thermal Trip:	Fixed
Model:	TED (E 100)	Magnetic Trip:	FIXED
ID:	100		

CB: B-MCC-EDP1D

MFR:	General Electric	Tag #:		3-Phase kA:	0.00	Asym. (Calc.)
Model:	TED	Rating:	18 kA, 0.48 kV	LG kA:	0.00	Asym. (Calc.)
Size:	70	Cont. Amp:	70.000	Base kV:	0.000	(Calc.)

Thermal Magnetic Trip Device

MFR:	General Electric	Thermal Trip:	Fixed
Model:	TED (E 100)	Magnetic Trip:	FIXED
ID:	70		

CB: B-MCC-EDP1E

MFR:	General Electric	Tag #:		3-Phase kA:	0.00	Asym. (Calc.)
Model:	TED	Rating:	18 kA, 0.48 kV	LG kA:	0.00	Asym. (Calc.)
Size:	50	Cont. Amp:	50.000	Base kV:	0.000	(Calc.)

Thermal Magnetic Trip Device

MFR:	General Electric	Thermal Trip:	Fixed
Model:	TED (E 100)	Magnetic Trip:	FIXED
ID:	50		

Protective Device Settings

CB: B-MCC-GB

MFR:	Westinghouse	Tag #:		3-Phase kA:	0.00	Asym. (Calc.)
Model:	LCL	Rating:	200 kA, 0.48 kV	LG kA:	0.00	Asym. (Calc.)
Size:	400	Cont. Amp:	400.000	Base kV:	0.000	(Calc.)

LV Solid State Trip Device

MFR: Westinghouse
Model: Seltronic LCL (Adj)
Sensor: 400
Rating Plug: 300.00

		Phase Setting		Ground Setting	
Long-Time	LT Pickup	1.000		Ground Pickup	0.650
	LT Band	Fixed		Ground Band	0.060
Short-Time	ST Pickup	8			
	ST Band	Fixed	I^xt=IN		
INST	Inst. Pickup	Fixed			

CB: B-MCC-GD

MFR:	Allen-Bradley	Tag #:		3-Phase kA:	0.00	Asym. (Calc.)
Model:	140U-JD0	Rating:	100 kA, 0.48 kV	LG kA:	0.00	Asym. (Calc.)
Size:	100	Cont. Amp:	100.000	Base kV:	0.000	(Calc.)

Thermal Magnetic Trip Device

MFR: Allen Bradley
Model: 140U-JD0
ID: 100 (0.48kV)

Thermal Trip: Fixed
Magnetic Trip: 5x

CB: B-MCC-GD MAIN

MFR:	Allen-Bradley	Tag #:		3-Phase kA:	0.00	Asym. (Calc.)
Model:	140U-JD6	Rating:	65 kA, 0.48 kV	LG kA:	0.00	Asym. (Calc.)
Size:	100	Cont. Amp:	100.000	Base kV:	0.000	(Calc.)

Thermal Magnetic Trip Device

MFR: Allen Bradley
Model: 140U-JD3
ID: 100

Thermal Trip: Fixed
Magnetic Trip: 10x

CB: B-MCC-GD_EASTERN TRUNK

MFR:	Cutler-Hammer*	Tag #:		3-Phase kA:	0.00	Asym. (Calc.)
Model:	FD	Rating:	25 kA, 0.48 kV	LG kA:	0.00	Asym. (Calc.)
Size:	150	Cont. Amp:	150.000	Base kV:	0.000	(Calc.)

* The retrieved library data is modified by user.

Thermal Magnetic Trip Device

MFR: Cutler-Hammer
Model: FD (2,3,4P)
ID: 150

Thermal Trip: Fixed
Magnetic Trip: FIXED

Protective Device Settings

CB: B-MCC-HW BUS A MAIN

MFR:	Cutler-Hammer*	Tag #:		3-Phase kA:	48.82	Asym. (Calc.)
Model:	CHND	Rating:	65 kA, 0.48 kV	LG kA:	42.55	Asym. (Calc.)
Size:	1200	Cont. Amp:	1000.000	Base kV:	0.480	(Calc.)

* The retrieved library data is modified by user.

LV Solid State Trip Device

MFR: Cutler-Hammer
Model: RMS 310 N (LSG)
Sensor: 1250
Rating Plug: 1000.00

		Phase Setting	
Long-Time	LT Pickup	Fixed	
	LT Band	Fixed	
Short-Time	ST Pickup	3X	
	ST Band	Fixed	I^xt=IN

CB: B-MCC-HW BUS B MAIN

MFR:	Cutler-Hammer*	Tag #:		3-Phase kA:	48.69	Asym. (Calc.)
Model:	HND	Rating:	65 kA, 0.48 kV	LG kA:	42.49	Asym. (Calc.)
Size:	1200	Cont. Amp:	1000.000	Base kV:	0.480	(Calc.)

* The retrieved library data is modified by user.

LV Solid State Trip Device

MFR: Cutler-Hammer
Model: RMS 310 N (LSG)
Sensor: 1250
Rating Plug: 1000.00

		Phase Setting	
Long-Time	LT Pickup	Fixed	
	LT Band	Fixed	
Short-Time	ST Pickup	3X	
	ST Band	Fixed	I^xt=IN

CB: B-MCC-HW TIE

MFR:	Cutler-Hammer	Tag #:		3-Phase kA:	0.00	Asym. (Calc.)
Model:	HMDLB	Rating:	65 kA, 0.48 kV	LG kA:	0.00	Asym. (Calc.)
Size:	600	Cont. Amp:	600.000	Base kV:	0.000	(Calc.)

Thermal Magnetic Trip Device

MFR:	Cutler-Hammer	Thermal Trip:	Fixed
Model:	HMDLB	Magnetic Trip:	5
ID:	600		

Protective Device Settings

CB: B-MCC-NC

MFR:	Cutler-Hammer	Tag #:		3-Phase kA:	0.00 Asym. (Calc.)
Model:	SPB-65 (1600)	Rating:	65 kA, 0.48 kV	LG kA:	0.00 Asym. (Calc.)
Size:	1600	Cont. Amp:	1600.000	Base kV:	0.000 (Calc.)

LV Solid State Trip Device

MFR: Westinghouse
Model: RMS 500 Series SPB
Sensor: 1600
Rating Plug: 1000.00

		Phase Setting			Ground Setting		
Long-Time	LT Pickup	1			Ground Pickup	E	
	LT Band	7			Ground Band	.1	I^xt=IN
Short-Time	ST Pickup	3					
	ST Band	.3	I^xt=IN				

CB: B-MCC-ND

MFR:	Cutler-Hammer	Tag #:		3-Phase kA:	0.00 Asym. (Calc.)
Model:	SPB-65 (1600)	Rating:	65 kA, 0.48 kV	LG kA:	0.00 Asym. (Calc.)
Size:	1600	Cont. Amp:	1600.000	Base kV:	0.000 (Calc.)

LV Solid State Trip Device

MFR: Cutler-Hammer
Model: OPTIM 750/1050 SPB (I2t)
Sensor: 1600
Rating Plug: 1000.00

		Phase Setting			Ground Setting		
Long-Time	LT Pickup	1.000			Ground Pickup	0.650	
	LT Band	7.000	Range=(2 - 24)		Ground Band	0.1	I^xt=IN
Short-Time	ST Pickup	3.000					
	ST Band	0.3	I^xt=IN				

CB: B-MCC-NE

MFR:	Cutler-Hammer	Tag #:		3-Phase kA:	0.00 Asym. (Calc.)
Model:	SPB-50 (400)	Rating:	50 kA, 0.48 kV	LG kA:	0.00 Asym. (Calc.)
Size:	400	Cont. Amp:	400.000	Base kV:	0.000 (Calc.)

LV Solid State Trip Device

MFR: Cutler-Hammer
Model: RMS 500 Series SPB
Sensor: 400
Rating Plug: 300.00

		Phase Setting			Ground Setting		
Long-Time	LT Pickup	1			Ground Pickup	E	
	LT Band	24			Ground Band	.1	I^xt=IN
Short-Time	ST Pickup	S2(8)					
	ST Band	.3	I^xt=IN				

Protective Device Settings

CB: B-MCC-NF

MFR:	Cutler-Hammer	Tag #:		3-Phase kA:	0.00 Asym. (Calc.)
Model:	SPB-50 (400)	Rating:	50 kA, 0.48 kV	LG kA:	0.00 Asym. (Calc.)
Size:	400	Cont. Amp:	400.000	Base kV:	0.000 (Calc.)

LV Solid State Trip Device

MFR: Cutler-Hammer
Model: RMS 500 Series SPB
Sensor: 400
Rating Plug: 200.00

		Phase Setting			Ground Setting	
Long-Time	LT Pickup	1		Ground Pickup	E	
	LT Band	24		Ground Band	.1	I^xt=IN
Short-Time	ST Pickup	S2(8)				
	ST Band	.3	I^xt=IN			

CB: B-MCC-NG BUS A

MFR:	Cutler-Hammer	Tag #:		3-Phase kA:	0.00 Asym. (Calc.)
Model:	SPB-50 (400)	Rating:	50 kA, 0.48 kV	LG kA:	0.00 Asym. (Calc.)
Size:	400	Cont. Amp:	400.000	Base kV:	0.000 (Calc.)

LV Solid State Trip Device

MFR: Westinghouse
Model: RMS 500 Series SPB
Sensor: 400
Rating Plug: 250.00

		Phase Setting			Ground Setting	
Long-Time	LT Pickup	1		Ground Pickup	E	
	LT Band	24		Ground Band	.1	I^xt=IN
Short-Time	ST Pickup	S2(8)				
	ST Band	.3	I^xt=IN			

CB: B-MCC-NG BUS B

MFR:	Cutler-Hammer	Tag #:		3-Phase kA:	0.00 Asym. (Calc.)
Model:	SPB-50 (400)	Rating:	50 kA, 0.48 kV	LG kA:	0.00 Asym. (Calc.)
Size:	400	Cont. Amp:	400.000	Base kV:	0.000 (Calc.)

LV Solid State Trip Device

MFR: Westinghouse
Model: RMS 500 Series SPB
Sensor: 400
Rating Plug: 250.00

		Phase Setting			Ground Setting	
Long-Time	LT Pickup	1		Ground Pickup	E	
	LT Band	24		Ground Band	.1	I^xt=IN
Short-Time	ST Pickup	S2(8)				
	ST Band	.3	I^xt=IN			

Protective Device Settings

CB: B-MCC-SH BUS A

MFR:	Cutler-Hammer	Tag #:		3-Phase kA:	0.00 Asym. (Calc.)
Model:	SPB-50 (400)	Rating:	50 kA, 0.48 kV	LG kA:	0.00 Asym. (Calc.)
Size:	400	Cont. Amp:	400.000	Base kV:	0.000 (Calc.)

LV Solid State Trip Device

MFR: Westinghouse
Model: RMS 500 Series SPB
Sensor: 400
Rating Plug: 300.00

		Phase Setting			Ground Setting		
Long-Time	LT Pickup	1			Ground Pickup	E	
	LT Band	24			Ground Band	.1	I^xt=IN
Short-Time	ST Pickup	S2(8)					
	ST Band	.3	I^xt=IN				

CB: B-MCC-SH BUS A MAIN

MFR:	Westinghouse	Tag #:		3-Phase kA:	0.00 Asym. (Calc.)
Model:	LC	Rating:	30 kA, 0.48 kV	LG kA:	0.00 Asym. (Calc.)
Size:	600	Cont. Amp:	600.000	Base kV:	0.000 (Calc.)

LV Solid State Trip Device

MFR: Westinghouse
Model: Seltronic LC (Fixed)
Sensor: 600
Rating Plug: 600.00

		Phase Setting	
Long-Time	LT Pickup	Fixed	
	LT Band	Fixed	
Short-Time	ST Pickup	10	
	ST Band	Fixed	I^xt=IN

CB: B-MCC-SH BUS B

MFR:	Cutler-Hammer	Tag #:		3-Phase kA:	0.00 Asym. (Calc.)
Model:	SPB-50 (400)	Rating:	50 kA, 0.48 kV	LG kA:	0.00 Asym. (Calc.)
Size:	400	Cont. Amp:	400.000	Base kV:	0.000 (Calc.)

LV Solid State Trip Device

MFR: Westinghouse
Model: RMS 500 Series SPB
Sensor: 400
Rating Plug: 250.00

		Phase Setting			Ground Setting		
Long-Time	LT Pickup	1			Ground Pickup	E	
	LT Band	24			Ground Band	.1	I^xt=IN
Short-Time	ST Pickup	S2(8)					
	ST Band	.3	I^xt=IN				

Protective Device Settings

CB: B-MCC-SH BUS B MAIN

MFR:	Westinghouse	Tag #:		3-Phase kA:	0.00	Asym. (Calc.)
Model:	LC	Rating:	30 kA, 0.48 kV	LG kA:	0.00	Asym. (Calc.)
Size:	600	Cont. Amp:	600.000	Base kV:	0.000	(Calc.)

LV Solid State Trip Device

MFR: Westinghouse
Model: Seltronic LC (Fixed)
Sensor: 600
Rating Plug: 600.00

		Phase Setting	
Long-Time	LT Pickup	Fixed	
	LT Band	Fixed	
Short-Time	ST Pickup	10	
	ST Band	Fixed	I^xt=IN

CB: B-MCC-SH TIE

MFR:	Westinghouse	Tag #:		3-Phase kA:	0.00	Asym. (Calc.)
Model:	LC	Rating:	30 kA, 0.48 kV	LG kA:	0.00	Asym. (Calc.)
Size:	600	Cont. Amp:	600.000	Base kV:	0.000	(Calc.)

LV Solid State Trip Device

MFR: Westinghouse
Model: Seltronic LC (Fixed)
Sensor: 600
Rating Plug: 300.00

		Phase Setting	
Short-Time	ST Pickup	10	
	ST Band	Fixed	I^xt=IN

CB: B-MME-1

MFR:	Cutler-Hammer	Tag #:		3-Phase kA:	0.00	Asym. (Calc.)
Model:	HFB	Rating:	25 kA, 0.48 kV	LG kA:	0.00	Asym. (Calc.)
Size:	15	Cont. Amp:	15.000	Base kV:	0.000	(Calc.)

Thermal Magnetic Trip Device

MFR:	Cutler-Hammer	Thermal Trip:	Fixed
Model:	HFB (2,3P)	Magnetic Trip:	FIXED
ID:	15		

CB: B-MME-13

MFR:	Cutler-Hammer	Tag #:		3-Phase kA:	0.00	Asym. (Calc.)
Model:	HFB	Rating:	25 kA, 0.48 kV	LG kA:	0.00	Asym. (Calc.)
Size:	30	Cont. Amp:	30.000	Base kV:	0.000	(Calc.)

Thermal Magnetic Trip Device

MFR:	Cutler-Hammer	Thermal Trip:	Fixed
Model:	HFB (2,3P)	Magnetic Trip:	FIXED
ID:	30		

Protective Device Settings

CB: B-MME15

MFR:	Cutler-Hammer	Tag #:		3-Phase kA:	0.00	Asym. (Calc.)
Model:	HFB	Rating:	25 kA, 0.48 kV	LG kA:	0.00	Asym. (Calc.)
Size:	15	Cont. Amp:	15.000	Base kV:	0.000	(Calc.)

Thermal Magnetic Trip Device

MFR:	Cutler-Hammer	Thermal Trip:	Fixed
Model:	HFB (2,3P)	Magnetic Trip:	FIXED
ID:	15		

CB: B-MME-4

MFR:	Cutler-Hammer	Tag #:		3-Phase kA:	0.00	Asym. (Calc.)
Model:	HFB	Rating:	25 kA, 0.48 kV	LG kA:	0.00	Asym. (Calc.)
Size:	15	Cont. Amp:	15.000	Base kV:	0.000	(Calc.)

Thermal Magnetic Trip Device

MFR:	Cutler-Hammer	Thermal Trip:	Fixed
Model:	HFB (2,3P)	Magnetic Trip:	FIXED
ID:	15		

CB: B-MME-6

MFR:	Cutler-Hammer	Tag #:		3-Phase kA:	0.00	Asym. (Calc.)
Model:	HFB	Rating:	25 kA, 0.48 kV	LG kA:	0.00	Asym. (Calc.)
Size:	15	Cont. Amp:	15.000	Base kV:	0.000	(Calc.)

Thermal Magnetic Trip Device

MFR:	Cutler-Hammer	Thermal Trip:	Fixed
Model:	HFB (2,3P)	Magnetic Trip:	FIXED
ID:	15		

CB: B-MME-7

MFR:	Cutler-Hammer	Tag #:		3-Phase kA:	0.00	Asym. (Calc.)
Model:	HFB	Rating:	25 kA, 0.48 kV	LG kA:	0.00	Asym. (Calc.)
Size:	125	Cont. Amp:	125.000	Base kV:	0.000	(Calc.)

Thermal Magnetic Trip Device

MFR:	Cutler-Hammer	Thermal Trip:	Fixed
Model:	HFB (2,3P)	Magnetic Trip:	FIXED
ID:	125		

CB: B-MME-9

MFR:	Cutler-Hammer	Tag #:		3-Phase kA:	0.00	Asym. (Calc.)
Model:	HFB	Rating:	25 kA, 0.48 kV	LG kA:	0.00	Asym. (Calc.)
Size:	15	Cont. Amp:	15.000	Base kV:	0.000	(Calc.)

Thermal Magnetic Trip Device

MFR:	Cutler-Hammer	Thermal Trip:	Fixed
Model:	HFB (2,3P)	Magnetic Trip:	FIXED
ID:	15		

Protective Device Settings

CB: B-MONORAIL HOSIT

MFR:	Cutler-Hammer*	Tag #:		3-Phase kA:	0.00	Asym. (Calc.)
Model:	FD	Rating:	25 kA, 0.48 kV	LG kA:	0.00	Asym. (Calc.)
Size:	15	Cont. Amp:	15.000	Base kV:	0.000	(Calc.)

* The retrieved library data is modified by user.

Thermal Magnetic Trip Device

MFR:	Cutler-Hammer	Thermal Trip:	Fixed
Model:	FD (2,3,4P)	Magnetic Trip:	FIXED
ID:	15		

CB: B-MPV 30021.00

MFR:	Cutler-Hammer	Tag #:		3-Phase kA:	0.00	Asym. (Calc.)
Model:	SPB-50 (400)	Rating:	50 kA, 0.48 kV	LG kA:	0.00	Asym. (Calc.)
Size:	400	Cont. Amp:	400.000	Base kV:	0.000	(Calc.)

LV Solid State Trip Device

MFR: Westinghouse
Model: OPTIM 750/1050 SPB (I2t)
Sensor: 400
Rating Plug: 250.00

		Phase Setting			Ground Setting		
Long-Time	LT Pickup	1.000			Ground Pickup	0.650	
	LT Band	24.000	Range=(2 - 24)		Ground Band	0.1	I^xt=IN
Short-Time	ST Pickup	8.000					
	ST Band	0.3	I^xt=IN				

CB: B-MS-HW 52-A

MFR:	Siemens	Tag #:		3-Phase kA:	43.35	Asym. (Calc.)
Model:	WL-L-3200	Rating:	100 kA, 0.508 kV	LG kA:	43.60	Asym. (Calc.)
Size:	3200	Cont. Amp:	3200.000	Base kV:	0.480	(Calc.)

LV Solid State Trip Device

MFR: Siemens
Model: ETU745 (I^2t)
Sensor: Frame Size II - 3200
Rating Plug: 3000.00

		Phase Setting			Ground Setting		
Long-Time	LT Pickup	1			Ground Pickup	D	
	LT Band	3.5			Ground Band	0.5	I^xt=IN
Short-Time	ST Pickup	2.5					
	ST Band	0.2	I^xt=IN				
INST	Inst. Pickup	10					

Protective Device Settings

CB: B-MS-HW 52-B

MFR:	Siemens	Tag #:		3-Phase kA:	54.93 Asym. (Calc.)
Model:	WL-L-3200	Rating:	100 kA, 0.508 kV	LG kA:	50.77 Asym. (Calc.)
Size:	3200	Cont. Amp:	3200.000	Base kV:	0.480 (Calc.)

LV Solid State Trip Device

MFR: Siemens
Model: ETU745 (I^2t)
Sensor: Frame Size II - 3200
Rating Plug: 3000.00

		Phase Setting		Ground Setting		
Long-Time	LT Pickup	1		Ground Pickup	D	
	LT Band	3.5		Ground Band	0.5	I^xt=IN
Short-Time	ST Pickup	2.5				
	ST Band	0.2	I^xt=IN			
INST	Inst. Pickup	10				

CB: B-MS-HW TIE

MFR:	Siemens	Tag #:		3-Phase kA:	54.93 Asym. (Calc.)
Model:	WL-L-3200	Rating:	100 kA, 0.508 kV	LG kA:	50.77 Asym. (Calc.)
Size:	3200	Cont. Amp:	3200.000	Base kV:	0.480 (Calc.)

LV Solid State Trip Device

MFR: Siemens
Model: ETU745 (I^2t)
Sensor: Frame Size II - 3200
Rating Plug: 2000.00

		Phase Setting		Ground Setting		
Long-Time	LT Pickup	1		Ground Pickup	C	
	LT Band	2		Ground Band	0.3	I^xt=IN
Short-Time	ST Pickup	1.5				
	ST Band	0.1	I^xt=IN			
INST	Inst. Pickup	8				

CB: B-NEW INTERSTAGE BLDG

MFR:	Cutler-Hammer	Tag #:		3-Phase kA:	0.00 Asym. (Calc.)
Model:	HFD	Rating:	65 kA, 0.48 kV	LG kA:	0.00 Asym. (Calc.)
Size:	50	Cont. Amp:	50.000	Base kV:	0.000 (Calc.)

Thermal Magnetic Trip Device

MFR:	Cutler-Hammer	Thermal Trip:	Fixed
Model:	HFD (2,3,4P)	Magnetic Trip:	FIXED
ID:	50		

Protective Device Settings

CB: B-ORS Sprayer

MFR:	Cutler-Hammer	Tag #:		3-Phase kA:	0.00	Asym. (Calc.)
Model:	FD	Rating:	35 kA, 0.48 kV	LG kA:	0.00	Asym. (Calc.)
Size:	15	Cont. Amp:	15.000	Base kV:	0.000	(Calc.)

Thermal Magnetic Trip Device

MFR:	Cutler-Hammer	Thermal Trip:	Fixed
Model:	FD (2,3,4P)	Magnetic Trip:	FIXED
ID:	15		

CB: B-P20100.20

MFR:	Cutler-Hammer	Tag #:		3-Phase kA:	0.00	Asym. (Calc.)
Model:	HMCP-F	Rating:	100 kA, 0.48 kV	LG kA:	0.00	Asym. (Calc.)
Size:	7	Cont. Amp:	7.000	Base kV:	0.000	(Calc.)

Motor Circuit Protector Trip Device

MFR:	Cutler-Hammer
Model:	HMCP
ID:	007C0
Pick up:	E

CB: B-P20200.20

MFR:	Cutler-Hammer	Tag #:		3-Phase kA:	0.00	Asym. (Calc.)
Model:	HMCP-F	Rating:	100 kA, 0.48 kV	LG kA:	0.00	Asym. (Calc.)
Size:	7	Cont. Amp:	7.000	Base kV:	0.000	(Calc.)

Motor Circuit Protector Trip Device

MFR:	Cutler-Hammer
Model:	HMCP
ID:	007C0
Pick up:	G

CB: B-P20300.20

MFR:	Cutler-Hammer	Tag #:		3-Phase kA:	0.00	Asym. (Calc.)
Model:	HMCP-F	Rating:	100 kA, 0.48 kV	LG kA:	0.00	Asym. (Calc.)
Size:	7	Cont. Amp:	7.000	Base kV:	0.000	(Calc.)

Motor Circuit Protector Trip Device

MFR:	Cutler-Hammer
Model:	HMCP
ID:	007C0
Pick up:	E

Protective Device Settings

CB: B-P20400.20

MFR:	Cutler-Hammer	Tag #:		3-Phase kA:	0.00	Asym. (Calc.)
Model:	HMCP-F	Rating:	100 kA, 0.48 kV	LG kA:	0.00	Asym. (Calc.)
Size:	7	Cont. Amp:	7.000	Base kV:	0.000	(Calc.)

Motor Circuit Protector Trip Device

MFR: Cutler-Hammer
Model: HMCP
ID: 007C0
Pick up: F

CB: B-P20500.20

MFR:	Cutler-Hammer	Tag #:		3-Phase kA:	0.00	Asym. (Calc.)
Model:	HMCP-F	Rating:	100 kA, 0.48 kV	LG kA:	0.00	Asym. (Calc.)
Size:	7	Cont. Amp:	7.000	Base kV:	0.000	(Calc.)

Motor Circuit Protector Trip Device

MFR: Cutler-Hammer
Model: HMCP
ID: 007C0
Pick up: G

CB: B-P26010.00

MFR:	Cutler-Hammer	Tag #:		3-Phase kA:	0.00	Asym. (Calc.)
Model:	HMCP-F	Rating:	100 kA, 0.48 kV	LG kA:	0.00	Asym. (Calc.)
Size:	100	Cont. Amp:	100.000	Base kV:	0.000	(Calc.)

Motor Circuit Protector Trip Device

MFR: Cutler-Hammer
Model: HMCP
ID: 100R3
Pick up: F

CB: B-P26020.00

MFR:	Cutler-Hammer	Tag #:		3-Phase kA:	0.00	Asym. (Calc.)
Model:	HMCP-F	Rating:	100 kA, 0.48 kV	LG kA:	0.00	Asym. (Calc.)
Size:	100	Cont. Amp:	100.000	Base kV:	0.000	(Calc.)

Motor Circuit Protector Trip Device

MFR: Cutler-Hammer
Model: HMCP
ID: 100R3
Pick up: G

Protective Device Settings

CB: B-P26025.00

MFR:	Cutler-Hammer	Tag #:		3-Phase kA:	0.00	Asym. (Calc.)
Model:	HMCP-F	Rating:	100 kA, 0.48 kV	LG kA:	0.00	Asym. (Calc.)
Size:	7	Cont. Amp:	7.000	Base kV:	0.000	(Calc.)

Motor Circuit Protector Trip Device

MFR: Cutler-Hammer
Model: HMCP
ID: 007C0
Pick up: D

CB: B-P26057.00

MFR:	Cutler-Hammer	Tag #:		3-Phase kA:	0.00	Asym. (Calc.)
Model:	HMCP-F	Rating:	100 kA, 0.48 kV	LG kA:	0.00	Asym. (Calc.)
Size:	15	Cont. Amp:	15.000	Base kV:	0.000	(Calc.)

Motor Circuit Protector Trip Device

MFR: Cutler-Hammer
Model: HMCP
ID: 015E0
Pick up: G

CB: B-P26058.00

MFR:	Cutler-Hammer	Tag #:		3-Phase kA:	0.00	Asym. (Calc.)
Model:	HMCP-F	Rating:	100 kA, 0.48 kV	LG kA:	0.00	Asym. (Calc.)
Size:	15	Cont. Amp:	15.000	Base kV:	0.000	(Calc.)

Motor Circuit Protector Trip Device

MFR: Cutler-Hammer
Model: HMCP
ID: 015E0
Pick up: G

CB: B-P26059.00

MFR:	Cutler-Hammer	Tag #:		3-Phase kA:	0.00	Asym. (Calc.)
Model:	HMCP-F	Rating:	100 kA, 0.48 kV	LG kA:	0.00	Asym. (Calc.)
Size:	7	Cont. Amp:	7.000	Base kV:	0.000	(Calc.)

Motor Circuit Protector Trip Device

MFR: Cutler-Hammer
Model: HMCP
ID: 007C0
Pick up: E

Protective Device Settings

CB: B-P26060.00

MFR:	Cutler-Hammer	Tag #:		3-Phase kA:	0.00	Asym. (Calc.)
Model:	HMCP-F	Rating:	100 kA, 0.48 kV	LG kA:	0.00	Asym. (Calc.)
Size:	7	Cont. Amp:	7.000	Base kV:	0.000	(Calc.)

Motor Circuit Protector Trip Device

MFR: Cutler-Hammer
Model: HMCP
ID: 007C0
Pick up: E

CB: B-P27010.00 (Bypass)

MFR:	Cutler-Hammer	Tag #:		3-Phase kA:	0.00	Asym. (Calc.)
Model:	HMCP-J	Rating:	100 kA, 0.48 kV	LG kA:	0.00	Asym. (Calc.)
Size:	250	Cont. Amp:	250.000	Base kV:	0.000	(Calc.)

Motor Circuit Protector Trip Device

MFR: Cutler-Hammer
Model: HMCP
ID: 250W5
Pick up: A

CB: B-P27020.00 (Bypass)

MFR:	Cutler-Hammer	Tag #:		3-Phase kA:	0.00	Asym. (Calc.)
Model:	HMCP-J	Rating:	100 kA, 0.48 kV	LG kA:	0.00	Asym. (Calc.)
Size:	250	Cont. Amp:	250.000	Base kV:	0.000	(Calc.)

Motor Circuit Protector Trip Device

MFR: Cutler-Hammer
Model: HMCP
ID: 250W5
Pick up: A

CB: B-P27030.00 (Bypass)

MFR:	Cutler-Hammer	Tag #:		3-Phase kA:	0.00	Asym. (Calc.)
Model:	HMCP-J	Rating:	100 kA, 0.48 kV	LG kA:	0.00	Asym. (Calc.)
Size:	250	Cont. Amp:	250.000	Base kV:	0.000	(Calc.)

Motor Circuit Protector Trip Device

MFR: Cutler-Hammer
Model: HMCP
ID: 250W5
Pick up: A

Protective Device Settings

CB: B-P27040.00 (Bypass)

MFR:	Cutler-Hammer	Tag #:		3-Phase kA:	0.00	Asym. (Calc.)
Model:	HMCP-J	Rating:	100 kA, 0.48 kV	LG kA:	0.00	Asym. (Calc.)
Size:	250	Cont. Amp:	250.000	Base kV:	0.000	(Calc.)

Motor Circuit Protector Trip Device

MFR: Cutler-Hammer
Model: HMCP
ID: 250W5
Pick up: A

CB: B-P27110.00

MFR:	Cutler-Hammer	Tag #:		3-Phase kA:	0.00	Asym. (Calc.)
Model:	HMCP-F	Rating:	100 kA, 0.48 kV	LG kA:	0.00	Asym. (Calc.)
Size:	50	Cont. Amp:	50.000	Base kV:	0.000	(Calc.)

Motor Circuit Protector Trip Device

MFR: Cutler-Hammer
Model: HMCP
ID: 050K2
Pick up: D

CB: B-P27120.00

MFR:	Cutler-Hammer	Tag #:		3-Phase kA:	0.00	Asym. (Calc.)
Model:	HMCP-F	Rating:	100 kA, 0.48 kV	LG kA:	0.00	Asym. (Calc.)
Size:	50	Cont. Amp:	50.000	Base kV:	0.000	(Calc.)

Motor Circuit Protector Trip Device

MFR: Cutler-Hammer
Model: HMCP
ID: 050K2
Pick up: D

CB: B-P27130.00

MFR:	Cutler-Hammer	Tag #:		3-Phase kA:	0.00	Asym. (Calc.)
Model:	HMCP-F	Rating:	100 kA, 0.48 kV	LG kA:	0.00	Asym. (Calc.)
Size:	50	Cont. Amp:	50.000	Base kV:	0.000	(Calc.)

Motor Circuit Protector Trip Device

MFR: Cutler-Hammer
Model: HMCP
ID: 050K2
Pick up: D

Protective Device Settings

CB: B-P27230.00

MFR:	Cutler-Hammer	Tag #:		3-Phase kA:	0.00	Asym. (Calc.)
Model:	HMCP-F	Rating:	100 kA, 0.48 kV	LG kA:	0.00	Asym. (Calc.)
Size:	70	Cont. Amp:	70.000	Base kV:	0.000	(Calc.)

Motor Circuit Protector Trip Device

MFR: Cutler-Hammer
Model: HMCP
ID: 070M2
Pick up: G

CB: B-P27310.00 (Bypass)

MFR:	Cutler-Hammer	Tag #:		3-Phase kA:	0.00	Asym. (Calc.)
Model:	HMCP-J	Rating:	100 kA, 0.48 kV	LG kA:	0.00	Asym. (Calc.)
Size:	250	Cont. Amp:	250.000	Base kV:	0.000	(Calc.)

Motor Circuit Protector Trip Device

MFR: Cutler-Hammer
Model: HMCP
ID: 250W5
Pick up: A

CB: B-P27320.00 (Bypass)

MFR:	Cutler-Hammer	Tag #:		3-Phase kA:	0.00	Asym. (Calc.)
Model:	HMCP-J	Rating:	100 kA, 0.48 kV	LG kA:	0.00	Asym. (Calc.)
Size:	250	Cont. Amp:	250.000	Base kV:	0.000	(Calc.)

Motor Circuit Protector Trip Device

MFR: Cutler-Hammer
Model: HMCP
ID: 250W5
Pick up: A

CB: B-P27330.00 (Bypass)

MFR:	Cutler-Hammer	Tag #:		3-Phase kA:	0.00	Asym. (Calc.)
Model:	HMCP-J	Rating:	100 kA, 0.48 kV	LG kA:	0.00	Asym. (Calc.)
Size:	250	Cont. Amp:	250.000	Base kV:	0.000	(Calc.)

Motor Circuit Protector Trip Device

MFR: Cutler-Hammer
Model: HMCP
ID: 250W5
Pick up: A

Protective Device Settings

CB: B-P27720.00

MFR:	Cutler-Hammer	Tag #:		3-Phase kA:	0.00	Asym. (Calc.)
Model:	HMCP-F	Rating:	100 kA, 0.48 kV	LG kA:	0.00	Asym. (Calc.)
Size:	50	Cont. Amp:	50.000	Base kV:	0.000	(Calc.)

Motor Circuit Protector Trip Device

MFR: Cutler-Hammer
Model: HMCP
ID: 050K2
Pick up: F

CB: B-P28010.00 (Bypass)

MFR:	Cutler-Hammer	Tag #:		3-Phase kA:	0.00	Asym. (Calc.)
Model:	HMCP-J	Rating:	100 kA, 0.48 kV	LG kA:	0.00	Asym. (Calc.)
Size:	250	Cont. Amp:	250.000	Base kV:	0.000	(Calc.)

Motor Circuit Protector Trip Device

MFR: Cutler-Hammer
Model: HMCP
ID: 250W5
Pick up: A

CB: B-P28020.00 (Bypass)

MFR:	Cutler-Hammer	Tag #:		3-Phase kA:	0.00	Asym. (Calc.)
Model:	HMCP-J	Rating:	100 kA, 0.48 kV	LG kA:	0.00	Asym. (Calc.)
Size:	250	Cont. Amp:	250.000	Base kV:	0.000	(Calc.)

Motor Circuit Protector Trip Device

MFR: Cutler-Hammer
Model: HMCP
ID: 250W5
Pick up: A

CB: B-P28030.00 (Bypass)

MFR:	Cutler-Hammer	Tag #:		3-Phase kA:	0.00	Asym. (Calc.)
Model:	HMCP-J	Rating:	100 kA, 0.48 kV	LG kA:	0.00	Asym. (Calc.)
Size:	250	Cont. Amp:	250.000	Base kV:	0.000	(Calc.)

Motor Circuit Protector Trip Device

MFR: Cutler-Hammer
Model: HMCP
ID: 250W5
Pick up: A

Protective Device Settings

CB: B-P32011.00

MFR:	Cutler-Hammer	Tag #:		3-Phase kA:	0.00	Asym. (Calc.)
Model:	HMCP-F	Rating:	100 kA, 0.48 kV	LG kA:	0.00	Asym. (Calc.)
Size:	30	Cont. Amp:	30.000	Base kV:	0.000	(Calc.)

Motor Circuit Protector Trip Device

MFR: Cutler-Hammer
Model: HMCP
ID: 030H1
Pick up: C

CB: B-P32013.00

MFR:	Cutler-Hammer	Tag #:		3-Phase kA:	0.00	Asym. (Calc.)
Model:	HMCP-F	Rating:	100 kA, 0.48 kV	LG kA:	0.00	Asym. (Calc.)
Size:	30	Cont. Amp:	30.000	Base kV:	0.000	(Calc.)

Motor Circuit Protector Trip Device

MFR: Cutler-Hammer
Model: HMCP
ID: 030H1
Pick up: C

CB: B-P32021.00

MFR:	Cutler-Hammer	Tag #:		3-Phase kA:	0.00	Asym. (Calc.)
Model:	HMCP-F	Rating:	100 kA, 0.48 kV	LG kA:	0.00	Asym. (Calc.)
Size:	30	Cont. Amp:	30.000	Base kV:	0.000	(Calc.)

Motor Circuit Protector Trip Device

MFR: Cutler-Hammer
Model: HMCP
ID: 030H1
Pick up: B

CB: B-P32023.00

MFR:	Cutler-Hammer	Tag #:		3-Phase kA:	0.00	Asym. (Calc.)
Model:	HMCP-F	Rating:	100 kA, 0.48 kV	LG kA:	0.00	Asym. (Calc.)
Size:	30	Cont. Amp:	30.000	Base kV:	0.000	(Calc.)

Motor Circuit Protector Trip Device

MFR: Cutler-Hammer
Model: HMCP
ID: 030H1
Pick up: F

Protective Device Settings

CB: B-P32031.00

MFR:	Cutler-Hammer	Tag #:		3-Phase kA:	0.00	Asym. (Calc.)
Model:	HMCP-F	Rating:	100 kA, 0.48 kV	LG kA:	0.00	Asym. (Calc.)
Size:	30	Cont. Amp:	30.000	Base kV:	0.000	(Calc.)

Motor Circuit Protector Trip Device

MFR: Cutler-Hammer
Model: HMCP
ID: 030H1
Pick up: C

CB: B-P32033.00

MFR:	Cutler-Hammer	Tag #:		3-Phase kA:	0.00	Asym. (Calc.)
Model:	HMCP-F	Rating:	100 kA, 0.48 kV	LG kA:	0.00	Asym. (Calc.)
Size:	30	Cont. Amp:	30.000	Base kV:	0.000	(Calc.)

Motor Circuit Protector Trip Device

MFR: Cutler-Hammer
Model: HMCP
ID: 030H1
Pick up: G

CB: B-P32041.00

MFR:	Cutler-Hammer	Tag #:		3-Phase kA:	0.00	Asym. (Calc.)
Model:	HMCP-F	Rating:	100 kA, 0.48 kV	LG kA:	0.00	Asym. (Calc.)
Size:	30	Cont. Amp:	30.000	Base kV:	0.000	(Calc.)

Motor Circuit Protector Trip Device

MFR: Cutler-Hammer
Model: HMCP
ID: 030H1
Pick up: B

CB: B-P32043.00

MFR:	Cutler-Hammer	Tag #:		3-Phase kA:	0.00	Asym. (Calc.)
Model:	HMCP-F	Rating:	100 kA, 0.48 kV	LG kA:	0.00	Asym. (Calc.)
Size:	30	Cont. Amp:	30.000	Base kV:	0.000	(Calc.)

Motor Circuit Protector Trip Device

MFR: Cutler-Hammer
Model: HMCP
ID: 030H1
Pick up: C

Protective Device Settings

CB: B-P4011.00

MFR:	Cutler-Hammer	Tag #:		3-Phase kA:	0.00	Asym. (Calc.)
Model:	LD	Rating:	35 kA, 0.48 kV	LG kA:	0.00	Asym. (Calc.)
Size:	400	Cont. Amp:	400.000	Base kV:	0.000	(Calc.)

Thermal Magnetic Trip Device

MFR:	Cutler-Hammer	Thermal Trip:	Fixed
Model:	LD	Magnetic Trip:	6.25
ID:	400		

CB: B-P4012.00

MFR:	Federal Pacific	Tag #:		3-Phase kA:	0.00	Asym. (Calc.)
Model:	XJL	Rating:	200 kA, 0.6 kV	LG kA:	0.00	Asym. (Calc.)
Size:	400	Cont. Amp:	400.000	Base kV:	0.000	(Calc.)

Thermal Magnetic Trip Device

MFR:	Federal Pacific	Thermal Trip:	Fixed
Model:	XJL	Magnetic Trip:	3.000
ID:	400		

CB: B-P4013.00

MFR:	Cutler-Hammer	Tag #:		3-Phase kA:	0.00	Asym. (Calc.)
Model:	LDC	Rating:	100 kA, 0.48 kV	LG kA:	0.00	Asym. (Calc.)
Size:	400	Cont. Amp:	400.000	Base kV:	0.000	(Calc.)

Thermal Magnetic Trip Device

MFR:	Cutler-Hammer	Thermal Trip:	Fixed
Model:	LDC	Magnetic Trip:	7.5
ID:	400 (0.48kV)		

CB: B-P4014.00

MFR:	Federal Pacific	Tag #:		3-Phase kA:	0.00	Asym. (Calc.)
Model:	XJL	Rating:	200 kA, 0.6 kV	LG kA:	0.00	Asym. (Calc.)
Size:	400	Cont. Amp:	400.000	Base kV:	0.000	(Calc.)

Thermal Magnetic Trip Device

MFR:	Federal Pacific	Thermal Trip:	Fixed
Model:	XJL	Magnetic Trip:	3.000
ID:	400		

CB: B-P4023.00

MFR:	Federal Pacific	Tag #:		3-Phase kA:	0.00	Asym. (Calc.)
Model:	XJL	Rating:	200 kA, 0.6 kV	LG kA:	0.00	Asym. (Calc.)
Size:	400	Cont. Amp:	400.000	Base kV:	0.000	(Calc.)

Thermal Magnetic Trip Device

MFR:	Federal Pacific	Thermal Trip:	Fixed
Model:	XJL	Magnetic Trip:	3.000
ID:	400		

Protective Device Settings

CB: B-P4598

MFR:	Cutler-Hammer	Tag #:		3-Phase kA:	0.00	Asym. (Calc.)
Model:	HMCP-F	Rating:	100 kA, 0.48 kV	LG kA:	0.00	Asym. (Calc.)
Size:	7	Cont. Amp:	7.000	Base kV:	0.000	(Calc.)

Motor Circuit Protector Trip Device

MFR: Cutler-Hammer
Model: HMCP
ID: 007C0
Pick up: E

CB: B-P52100.00

MFR:	Cutler-Hammer	Tag #:		3-Phase kA:	48.82	Asym. (Calc.)
Model:	HMCP-F	Rating:	100 kA, 0.48 kV	LG kA:	42.55	Asym. (Calc.)
Size:	100	Cont. Amp:	100.000	Base kV:	0.480	(Calc.)

Motor Circuit Protector Trip Device

MFR: Cutler-Hammer
Model: HMCP
ID: 100R3
Pick up: D

CB: B-P52110.00

MFR:	Cutler-Hammer	Tag #:		3-Phase kA:	48.69	Asym. (Calc.)
Model:	HMCP-F	Rating:	100 kA, 0.48 kV	LG kA:	42.49	Asym. (Calc.)
Size:	100	Cont. Amp:	100.000	Base kV:	0.480	(Calc.)

Motor Circuit Protector Trip Device

MFR: Cutler-Hammer
Model: HMCP
ID: 100R3
Pick up: G

CB: B-P52120.00

MFR:	Cutler-Hammer	Tag #:		3-Phase kA:	48.82	Asym. (Calc.)
Model:	HMCP-F	Rating:	100 kA, 0.48 kV	LG kA:	42.55	Asym. (Calc.)
Size:	100	Cont. Amp:	100.000	Base kV:	0.480	(Calc.)

Motor Circuit Protector Trip Device

MFR: Cutler-Hammer
Model: HMCP
ID: 100R3
Pick up: A

Protective Device Settings

CB: B-P52130.00

MFR:	Cutler-Hammer	Tag #:		3-Phase kA:	48.69	Asym. (Calc.)
Model:	HMCP-F	Rating:	100 kA, 0.48 kV	LG kA:	42.49	Asym. (Calc.)
Size:	100	Cont. Amp:	100.000	Base kV:	0.480	(Calc.)

Motor Circuit Protector Trip Device

MFR: Cutler-Hammer
Model: HMCP
ID: 100R3
Pick up: A

CB: B-P52140.00

MFR:	Cutler-Hammer	Tag #:		3-Phase kA:	48.82	Asym. (Calc.)
Model:	HMCP-F	Rating:	100 kA, 0.48 kV	LG kA:	42.55	Asym. (Calc.)
Size:	100	Cont. Amp:	100.000	Base kV:	0.480	(Calc.)

Motor Circuit Protector Trip Device

MFR: Cutler-Hammer
Model: HMCP
ID: 100R3
Pick up: D

CB: B-P52150.00

MFR:	Cutler-Hammer	Tag #:		3-Phase kA:	48.69	Asym. (Calc.)
Model:	HMCP-F	Rating:	100 kA, 0.48 kV	LG kA:	42.49	Asym. (Calc.)
Size:	100	Cont. Amp:	100.000	Base kV:	0.480	(Calc.)

Motor Circuit Protector Trip Device

MFR: Cutler-Hammer
Model: HMCP
ID: 100R3
Pick up: D

CB: B-P52160.00

MFR:	Cutler-Hammer	Tag #:		3-Phase kA:	48.82	Asym. (Calc.)
Model:	HMCP-F	Rating:	100 kA, 0.48 kV	LG kA:	42.55	Asym. (Calc.)
Size:	100	Cont. Amp:	100.000	Base kV:	0.480	(Calc.)

Motor Circuit Protector Trip Device

MFR: Cutler-Hammer
Model: HMCP
ID: 100R3
Pick up: G

Protective Device Settings

CB: B-P52170.00

MFR:	Cutler-Hammer	Tag #:		3-Phase kA:	48.69	Asym. (Calc.)
Model:	HMCP-F	Rating:	100 kA, 0.48 kV	LG kA:	42.49	Asym. (Calc.)
Size:	100	Cont. Amp:	100.000	Base kV:	0.480	(Calc.)

Motor Circuit Protector Trip Device

MFR: Cutler-Hammer
Model: HMCP
ID: 100R3
Pick up: D

CB: B-P52220.00

MFR:	Cutler-Hammer	Tag #:		3-Phase kA:	48.82	Asym. (Calc.)
Model:	HMCP-F	Rating:	100 kA, 0.48 kV	LG kA:	42.55	Asym. (Calc.)
Size:	15	Cont. Amp:	15.000	Base kV:	0.480	(Calc.)

Motor Circuit Protector Trip Device

MFR: Cutler-Hammer
Model: HMCP
ID: 015E0
Pick up: A

CB: B-P52230.00

MFR:	Cutler-Hammer	Tag #:		3-Phase kA:	48.82	Asym. (Calc.)
Model:	HMCP-F	Rating:	100 kA, 0.48 kV	LG kA:	42.55	Asym. (Calc.)
Size:	15	Cont. Amp:	15.000	Base kV:	0.480	(Calc.)

Motor Circuit Protector Trip Device

MFR: Cutler-Hammer
Model: HMCP
ID: 015E0
Pick up: A

CB: B-P52240.00

MFR:	Cutler-Hammer	Tag #:		3-Phase kA:	48.69	Asym. (Calc.)
Model:	HMCP-F	Rating:	100 kA, 0.48 kV	LG kA:	42.49	Asym. (Calc.)
Size:	15	Cont. Amp:	15.000	Base kV:	0.480	(Calc.)

Motor Circuit Protector Trip Device

MFR: Cutler-Hammer
Model: HMCP
ID: 015E0
Pick up: B

Protective Device Settings

CB: B-P52250.00

MFR:	Cutler-Hammer	Tag #:		3-Phase kA:	48.69	Asym. (Calc.)
Model:	HMCP-F	Rating:	100 kA, 0.48 kV	LG kA:	42.49	Asym. (Calc.)
Size:	15	Cont. Amp:	15.000	Base kV:	0.480	(Calc.)

Motor Circuit Protector Trip Device

MFR: Cutler-Hammer
Model: HMCP
ID: 015E0
Pick up: A

CB: B-P54080.00

MFR:	Cutler-Hammer	Tag #:		3-Phase kA:	48.82	Asym. (Calc.)
Model:	HMCP-F	Rating:	100 kA, 0.48 kV	LG kA:	42.55	Asym. (Calc.)
Size:	15	Cont. Amp:	15.000	Base kV:	0.480	(Calc.)

Motor Circuit Protector Trip Device

MFR: Cutler-Hammer
Model: HMCP
ID: 015E0
Pick up: A

CB: B-P54090.00

MFR:	Cutler-Hammer	Tag #:		3-Phase kA:	48.82	Asym. (Calc.)
Model:	HMCP-F	Rating:	100 kA, 0.48 kV	LG kA:	42.55	Asym. (Calc.)
Size:	15	Cont. Amp:	15.000	Base kV:	0.480	(Calc.)

Motor Circuit Protector Trip Device

MFR: Cutler-Hammer
Model: HMCP
ID: 015E0
Pick up: A

CB: B-P6501.00

MFR:	Cutler-Hammer	Tag #:		3-Phase kA:	0.00	Asym. (Calc.)
Model:	EHD	Rating:	14 kA, 0.48 kV	LG kA:	0.00	Asym. (Calc.)
Size:	100	Cont. Amp:	100.000	Base kV:	0.000	(Calc.)

Thermal Magnetic Trip Device

MFR:	Cutler-Hammer	Thermal Trip:	Fixed
Model:	EHD (2,3,4P)	Magnetic Trip:	FIXED
ID:	100		

Protective Device Settings

CB: B-P6901.00

MFR:	Cutler-Hammer	Tag #:		3-Phase kA:	0.00	Asym. (Calc.)
Model:	HMCP-F	Rating:	100 kA, 0.48 kV	LG kA:	0.00	Asym. (Calc.)
Size:	30	Cont. Amp:	30.000	Base kV:	0.000	(Calc.)

Motor Circuit Protector Trip Device

MFR: Cutler-Hammer
Model: HMCP
ID: 030H1
Pick up: G

CB: B-P6902.00

MFR:	Cutler-Hammer	Tag #:		3-Phase kA:	0.00	Asym. (Calc.)
Model:	HMCP-F	Rating:	100 kA, 0.48 kV	LG kA:	0.00	Asym. (Calc.)
Size:	30	Cont. Amp:	30.000	Base kV:	0.000	(Calc.)

Motor Circuit Protector Trip Device

MFR: Cutler-Hammer
Model: HMCP
ID: 030H1
Pick up: E

CB: B-P6903.00

MFR:	Cutler-Hammer	Tag #:		3-Phase kA:	0.00	Asym. (Calc.)
Model:	HMCP-F	Rating:	100 kA, 0.48 kV	LG kA:	0.00	Asym. (Calc.)
Size:	30	Cont. Amp:	30.000	Base kV:	0.000	(Calc.)

Motor Circuit Protector Trip Device

MFR: Cutler-Hammer
Model: HMCP
ID: 030H1
Pick up: E

CB: B-P7541.00

MFR:	Cutler-Hammer	Tag #:		3-Phase kA:	0.00	Asym. (Calc.)
Model:	HMCP-F	Rating:	100 kA, 0.48 kV	LG kA:	0.00	Asym. (Calc.)
Size:	30	Cont. Amp:	30.000	Base kV:	0.000	(Calc.)

Motor Circuit Protector Trip Device

MFR: Cutler-Hammer
Model: HMCP
ID: 030H1
Pick up: H

Protective Device Settings

CB: B-PANEL A

MFR:	Cutler-Hammer*	Tag #:		3-Phase kA:	0.00	Asym. (Calc.)
Model:	FD	Rating:	25 kA, 0.48 kV	LG kA:	0.00	Asym. (Calc.)
Size:	30	Cont. Amp:	30.000	Base kV:	0.000	(Calc.)

* The retrieved library data is modified by user.

Thermal Magnetic Trip Device

MFR:	Cutler-Hammer	Thermal Trip:	Fixed
Model:	FD (2,3,4P)	Magnetic Trip:	FIXED
ID:	30		

CB: B-PANEL DB

MFR:	Westinghouse*	Tag #:		3-Phase kA:	0.00	Asym. (Calc.)
Model:	LA-400 (125-400A)	Rating:	200 kA, 0.48 kV	LG kA:	0.00	Asym. (Calc.)
Size:	400	Cont. Amp:	400.000	Base kV:	0.000	(Calc.)

* The retrieved library data is modified by user.

Thermal Magnetic Trip Device

MFR:	Cutler-Hammer	Thermal Trip:	Fixed
Model:	LA-400	Magnetic Trip:	High
ID:	400		

CB: B-PNL DDP6 MAIN

MFR:	Cutler-Hammer	Tag #:		3-Phase kA:	0.00	Asym. (Calc.)
Model:	EHD	Rating:	14 kA, 0.48 kV	LG kA:	0.00	Asym. (Calc.)
Size:	100	Cont. Amp:	100.000	Base kV:	0.000	(Calc.)

Thermal Magnetic Trip Device

MFR:	Cutler-Hammer	Thermal Trip:	Fixed
Model:	EHD (2,3,4P)	Magnetic Trip:	FIXED
ID:	100		

CB: B-PNL DP1

MFR:	Cutler-Hammer	Tag #:		3-Phase kA:	73.20	Asym. (Calc.)
Model:	SPB-100 (400)	Rating:	100 kA, 0.48 kV	LG kA:	77.93	Asym. (Calc.)
Size:	400	Cont. Amp:	400.000	Base kV:	0.480	(Calc.)

LV Solid State Trip Device

MFR:	Cutler-Hammer
Model:	RMS 500 Series SPB
Sensor:	400
Rating Plug:	300.00

		Phase Setting			Ground Setting		
Long-Time	LT Pickup	1			Ground Pickup	E	
	LT Band	20			Ground Band	.1	I^xt=OUT
Short-Time	ST Pickup	5					
	ST Band	.3	I^xt=OUT				

Protective Device Settings

CB: B-PNL DP3

MFR:	Westinghouse	Tag #:		3-Phase kA:	0.00	Asym. (Calc.)
Model:	LCL	Rating:	200 kA, 0.48 kV	LG kA:	0.00	Asym. (Calc.)
Size:	400	Cont. Amp:	400.000	Base kV:	0.000	(Calc.)

LV Solid State Trip Device

MFR: Westinghouse
Model: Seltronic LCL (Adj)
Sensor: 400
Rating Plug: 300.00

		Phase Setting		Ground Setting	
Long-Time	LT Pickup	1.000		Ground Pickup	0.650
	LT Band	Fixed		Ground Band	0.060
Short-Time	ST Pickup	8			
	ST Band	Fixed	I^xt=IN		
INST	Inst. Pickup	Fixed			

CB: B-PNL DPC-2

MFR:	Siemens	Tag #:		3-Phase kA:	0.00	Asym. (Calc.)
Model:	BL	Rating:	10 kA, 0.24 kV	LG kA:	0.00	Asym. (Calc.)
Size:	100	Cont. Amp:	100.000	Base kV:	0.000	(Calc.)

Thermal Magnetic Trip Device

MFR:	Siemens	Thermal Trip:	Fixed
Model:	BL (2,3P)	Magnetic Trip:	FIXED
ID:	100		

CB: B-PNL DPL4

MFR:	Westinghouse	Tag #:		3-Phase kA:	0.00	Asym. (Calc.)
Model:	CA	Rating:	10 kA, 0.24 kV	LG kA:	0.00	Asym. (Calc.)
Size:	150	Cont. Amp:	150.000	Base kV:	0.000	(Calc.)

Thermal Magnetic Trip Device

MFR:	Cutler-Hammer	Thermal Trip:	Fixed
Model:	CA	Magnetic Trip:	FIXED
ID:	150		

CB: B-PNL DPL5

MFR:	Cutler-Hammer	Tag #:		3-Phase kA:	0.00	Asym. (Calc.)
Model:	BAB	Rating:	10 kA, 0.24 kV	LG kA:	0.00	Asym. (Calc.)
Size:	100	Cont. Amp:	100.000	Base kV:	0.000	(Calc.)

Thermal Magnetic Trip Device

MFR:	Cutler-Hammer	Thermal Trip:	Fixed
Model:	Quicklag (3P)	Magnetic Trip:	FIXED
ID:	100		

Protective Device Settings

CB: B-PNL DPLC-1

MFR:	Siemens	Tag #:		3-Phase kA:	2.01	Asym. (Calc.)
Model:	ED4	Rating:	65 kA, 0.24 kV	LG kA:	2.04	Asym. (Calc.)
Size:	100	Cont. Amp:	100.000	Base kV:	0.208	(Calc.)

Thermal Magnetic Trip Device

MFR:	Siemens	Thermal Trip:	Fixed
Model:	ED4	Magnetic Trip:	FIXED
ID:	100 (0.24kV)		

CB: B-PNL DPLC-2 MAIN

MFR:	Siemens	Tag #:		3-Phase kA:	1.57	Asym. (Calc.)
Model:	ED6	Rating:	65 kA, 0.24 kV	LG kA:	1.67	Asym. (Calc.)
Size:	90	Cont. Amp:	90.000	Base kV:	0.208	(Calc.)

Thermal Magnetic Trip Device

MFR:	Siemens	Thermal Trip:	Fixed
Model:	ED6	Magnetic Trip:	FIXED
ID:	90 (0.6kV)		

CB: B-PNL DPLC-3

MFR:	Siemens	Tag #:		3-Phase kA:	2.01	Asym. (Calc.)
Model:	BL	Rating:	10 kA, 0.24 kV	LG kA:	2.04	Asym. (Calc.)
Size:	60	Cont. Amp:	60.000	Base kV:	0.208	(Calc.)

Thermal Magnetic Trip Device

MFR:	Siemens	Thermal Trip:	Fixed
Model:	BL (2,3P)	Magnetic Trip:	FIXED
ID:	60		

CB: B-PNL DPLC-3 MAIN

MFR:	Westinghouse	Tag #:		3-Phase kA:	1.89	Asym. (Calc.)
Model:	BAB	Rating:	10 kA, 0.24 kV	LG kA:	1.84	Asym. (Calc.)
Size:	60	Cont. Amp:	60.000	Base kV:	0.208	(Calc.)

Thermal Magnetic Trip Device

MFR:	Cutler-Hammer	Thermal Trip:	Fixed
Model:	Quicklag (3P)	Magnetic Trip:	FIXED
ID:	60		

CB: B-PNL DPLC-4 MAIN

MFR:	Siemens	Tag #:		3-Phase kA:	0.88	Asym. (Calc.)
Model:	BL	Rating:	10 kA, 0.24 kV	LG kA:	0.88	Asym. (Calc.)
Size:	100	Cont. Amp:	100.000	Base kV:	0.208	(Calc.)

Thermal Magnetic Trip Device

MFR:	Siemens	Thermal Trip:	Fixed
Model:	BL (2,3P)	Magnetic Trip:	FIXED
ID:	100		

Protective Device Settings

CB: B-PNL DPMB

MFR:	Cutler-Hammer*	Tag #:		3-Phase kA:	0.00	Asym. (Calc.)
Model:	HKD	Rating:	65 kA, 0.48 kV	LG kA:	0.00	Asym. (Calc.)
Size:	400	Cont. Amp:	350.000	Base kV:	0.000	(Calc.)

* The retrieved library data is modified by user.

Thermal Magnetic Trip Device

MFR:	Cutler-Hammer	Thermal Trip:	Fixed
Model:	HKD	Magnetic Trip:	5
ID:	400		

CB: B-PNL DPP1

MFR:	Cutler-Hammer	Tag #:		3-Phase kA:	48.82	Asym. (Calc.)
Model:	HFD	Rating:	65 kA, 0.48 kV	LG kA:	42.55	Asym. (Calc.)
Size:	100	Cont. Amp:	100.000	Base kV:	0.480	(Calc.)

Thermal Magnetic Trip Device

MFR:	Cutler-Hammer	Thermal Trip:	Fixed
Model:	HFD (2,3,4P)	Magnetic Trip:	FIXED
ID:	100		

CB: B-PNL DPP1 BLOWER GALLERY

MFR:	Cutler-Hammer	Tag #:		3-Phase kA:	0.00	Asym. (Calc.)
Model:	HFD	Rating:	65 kA, 0.48 kV	LG kA:	0.00	Asym. (Calc.)
Size:	100	Cont. Amp:	100.000	Base kV:	0.000	(Calc.)

Thermal Magnetic Trip Device

MFR:	Cutler-Hammer	Thermal Trip:	Fixed
Model:	HFD (2,3,4P)	Magnetic Trip:	FIXED
ID:	100		

CB: B-PNL DPP1 MAIN

MFR:	Siemens	Tag #:		3-Phase kA:	17.39	Asym. (Calc.)
Model:	HED4	Rating:	42 kA, 0.48 kV	LG kA:	11.53	Asym. (Calc.)
Size:	100	Cont. Amp:	100.000	Base kV:	0.480	(Calc.)

Thermal Magnetic Trip Device

MFR:	Siemens	Thermal Trip:	Fixed
Model:	HED4	Magnetic Trip:	FIXED
ID:	100 (0.48kV)		

CB: B-PNL DPP1-MAIN

MFR:	Cutler-Hammer	Tag #:		3-Phase kA:	0.00	Asym. (Calc.)
Model:	EHD	Rating:	14 kA, 0.48 kV	LG kA:	0.00	Asym. (Calc.)
Size:	100	Cont. Amp:	100.000	Base kV:	0.000	(Calc.)

Thermal Magnetic Trip Device

MFR:	Cutler-Hammer	Thermal Trip:	Fixed
Model:	EHD (2,3,4P)	Magnetic Trip:	FIXED
ID:	100		

Protective Device Settings

CB: B-PNL DPP3 MAIN

MFR:	Cutler-Hammer	Tag #:		3-Phase kA:	0.00	Asym. (Calc.)
Model:	EHD	Rating:	14 kA, 0.48 kV	LG kA:	0.00	Asym. (Calc.)
Size:	100	Cont. Amp:	100.000	Base kV:	0.000	(Calc.)

Thermal Magnetic Trip Device

MFR:	Cutler-Hammer	Thermal Trip:	Fixed
Model:	EHD (2,3,4P)	Magnetic Trip:	FIXED
ID:	100		

CB: B-PNL DPP3_BLOWER GALLERY

MFR:	Cutler-Hammer	Tag #:		3-Phase kA:	0.00	Asym. (Calc.)
Model:	HFD	Rating:	65 kA, 0.48 kV	LG kA:	0.00	Asym. (Calc.)
Size:	100	Cont. Amp:	100.000	Base kV:	0.000	(Calc.)

Thermal Magnetic Trip Device

MFR:	Cutler-Hammer	Thermal Trip:	Fixed
Model:	HFD (2,3,4P)	Magnetic Trip:	FIXED
ID:	100		

CB: B-PNL DPP4

MFR:	Cutler-Hammer	Tag #:		3-Phase kA:	0.00	Asym. (Calc.)
Model:	HFD	Rating:	65 kA, 0.48 kV	LG kA:	0.00	Asym. (Calc.)
Size:	100	Cont. Amp:	100.000	Base kV:	0.000	(Calc.)

Thermal Magnetic Trip Device

MFR:	Cutler-Hammer	Thermal Trip:	Fixed
Model:	HFD (2,3,4P)	Magnetic Trip:	FIXED
ID:	100		

CB: B-PNL DPP4 MAIN

MFR:	Westinghouse	Tag #:		3-Phase kA:	0.00	Asym. (Calc.)
Model:	FCL	Rating:	150 kA, 0.48 kV	LG kA:	0.00	Asym. (Calc.)
Size:	100	Cont. Amp:	100.000	Base kV:	0.000	(Calc.)

Thermal Magnetic Trip Device

MFR:	Cutler-Hammer	Thermal Trip:	Fixed
Model:	FCL	Magnetic Trip:	FIXED
ID:	100 (0.24kV)		

CB: B-PNL DPP5

MFR:	Cutler-Hammer	Tag #:		3-Phase kA:	0.00	Asym. (Calc.)
Model:	HFD	Rating:	65 kA, 0.48 kV	LG kA:	0.00	Asym. (Calc.)
Size:	100	Cont. Amp:	100.000	Base kV:	0.000	(Calc.)

Thermal Magnetic Trip Device

MFR:	Cutler-Hammer	Thermal Trip:	Fixed
Model:	HFD (2,3,4P)	Magnetic Trip:	FIXED
ID:	100		

Protective Device Settings

CB: B-PNL DPP5 MAIN

MFR:	Cutler-Hammer	Tag #:		3-Phase kA:	0.00	Asym. (Calc.)
Model:	EHD	Rating:	14 kA, 0.48 kV	LG kA:	0.00	Asym. (Calc.)
Size:	100	Cont. Amp:	100.000	Base kV:	0.000	(Calc.)

Thermal Magnetic Trip Device

MFR:	Cutler-Hammer	Thermal Trip:	Fixed
Model:	EHD (2,3,4P)	Magnetic Trip:	FIXED
ID:	100		

CB: B-PNL DPP6_BLOWER GALLERY

MFR:	Cutler-Hammer	Tag #:		3-Phase kA:	0.00	Asym. (Calc.)
Model:	HFD	Rating:	65 kA, 0.48 kV	LG kA:	0.00	Asym. (Calc.)
Size:	100	Cont. Amp:	100.000	Base kV:	0.000	(Calc.)

Thermal Magnetic Trip Device

MFR:	Cutler-Hammer	Thermal Trip:	Fixed
Model:	HFD (2,3,4P)	Magnetic Trip:	FIXED
ID:	100		

CB: B-PNL DPP7 BLOWER GALLERY

MFR:	Cutler-Hammer	Tag #:		3-Phase kA:	0.00	Asym. (Calc.)
Model:	HFD	Rating:	65 kA, 0.48 kV	LG kA:	0.00	Asym. (Calc.)
Size:	100	Cont. Amp:	100.000	Base kV:	0.000	(Calc.)

Thermal Magnetic Trip Device

MFR:	Cutler-Hammer	Thermal Trip:	Fixed
Model:	HFD (2,3,4P)	Magnetic Trip:	FIXED
ID:	100		

CB: B-PNL DPP7 MAIN

MFR:	Westinghouse	Tag #:		3-Phase kA:	0.00	Asym. (Calc.)
Model:	FCL	Rating:	150 kA, 0.48 kV	LG kA:	0.00	Asym. (Calc.)
Size:	100	Cont. Amp:	100.000	Base kV:	0.000	(Calc.)

Thermal Magnetic Trip Device

MFR:	Cutler-Hammer	Thermal Trip:	Fixed
Model:	FCL	Magnetic Trip:	FIXED
ID:	100 (0.24kV)		

CB: B-PNL-DPC1

MFR:	Westinghouse	Tag #:		3-Phase kA:	0.00	Asym. (Calc.)
Model:	BA	Rating:	10 kA, 0.24 kV	LG kA:	0.00	Asym. (Calc.)
Size:	50	Cont. Amp:	50.000	Base kV:	0.000	(Calc.)

Thermal Magnetic Trip Device

MFR:	Cutler-Hammer	Thermal Trip:	Fixed
Model:	Quicklag (3P)	Magnetic Trip:	FIXED
ID:	50		

Protective Device Settings

CB: B-PNL-DPL

MFR:	Cutler-Hammer	Tag #:		3-Phase kA:	0.00	Asym. (Calc.)
Model:	HFD	Rating:	65 kA, 0.48 kV	LG kA:	0.00	Asym. (Calc.)
Size:	30	Cont. Amp:	30.000	Base kV:	0.000	(Calc.)

Thermal Magnetic Trip Device

MFR:	Cutler-Hammer	Thermal Trip:	Fixed
Model:	HFD (2,3,4P)	Magnetic Trip:	FIXED
ID:	30		

CB: B-PNL-DPL1

MFR:	Westinghouse	Tag #:		3-Phase kA:	0.00	Asym. (Calc.)
Model:	BA	Rating:	10 kA, 0.24 kV	LG kA:	0.00	Asym. (Calc.)
Size:	80	Cont. Amp:	80.000	Base kV:	0.000	(Calc.)

Thermal Magnetic Trip Device

MFR:	Cutler-Hammer	Thermal Trip:	Fixed
Model:	Quicklag (3P)	Magnetic Trip:	FIXED
ID:	80		

CB: B-PNL-DPL6

MFR:	Westinghouse	Tag #:		3-Phase kA:	0.00	Asym. (Calc.)
Model:	BA	Rating:	10 kA, 0.24 kV	LG kA:	0.00	Asym. (Calc.)
Size:	50	Cont. Amp:	50.000	Base kV:	0.000	(Calc.)

Thermal Magnetic Trip Device

MFR:	Cutler-Hammer	Thermal Trip:	Fixed
Model:	Quicklag (3P)	Magnetic Trip:	FIXED
ID:	50		

CB: B-PNL-DPP2

MFR:	Westinghouse	Tag #:		3-Phase kA:	0.00	Asym. (Calc.)
Model:	BA	Rating:	10 kA, 0.24 kV	LG kA:	0.00	Asym. (Calc.)
Size:	80	Cont. Amp:	80.000	Base kV:	0.000	(Calc.)

Thermal Magnetic Trip Device

MFR:	Cutler-Hammer	Thermal Trip:	Fixed
Model:	Quicklag (3P)	Magnetic Trip:	FIXED
ID:	80		

CB: B-Polymer PNL

MFR:	Cutler-Hammer	Tag #:		3-Phase kA:	0.00	Asym. (Calc.)
Model:	HFD	Rating:	65 kA, 0.48 kV	LG kA:	0.00	Asym. (Calc.)
Size:	15	Cont. Amp:	15.000	Base kV:	0.000	(Calc.)

Thermal Magnetic Trip Device

MFR:	Cutler-Hammer	Thermal Trip:	Fixed
Model:	HFD (2,3,4P)	Magnetic Trip:	FIXED
ID:	15		

Protective Device Settings

CB: B-PP VFD PNL

MFR:	Cutler-Hammer*	Tag #:		3-Phase kA:	0.00	Asym. (Calc.)
Model:	FD	Rating:	25 kA, 0.48 kV	LG kA:	0.00	Asym. (Calc.)
Size:	50	Cont. Amp:	50.000	Base kV:	0.000	(Calc.)

* The retrieved library data is modified by user.

Thermal Magnetic Trip Device

MFR:	Cutler-Hammer	Thermal Trip:	Fixed
Model:	FD (2,3,4P)	Magnetic Trip:	FIXED
ID:	50		

CB: B-PURGING COMPROSSER

MFR:	Siemens	Tag #:		3-Phase kA:	2.01	Asym. (Calc.)
Model:	BL	Rating:	10 kA, 0.24 kV	LG kA:	2.04	Asym. (Calc.)
Size:	20	Cont. Amp:	20.000	Base kV:	0.208	(Calc.)

Thermal Magnetic Trip Device

MFR:	Siemens	Thermal Trip:	Fixed
Model:	BL (2,3P)	Magnetic Trip:	FIXED
ID:	20		

CB: B-ROOF A/C BREAKER

MFR:	Cutler-Hammer	Tag #:		3-Phase kA:	0.00	Asym. (Calc.)
Model:	HFD	Rating:	65 kA, 0.48 kV	LG kA:	0.00	Asym. (Calc.)
Size:	30	Cont. Amp:	30.000	Base kV:	0.000	(Calc.)

Thermal Magnetic Trip Device

MFR:	Cutler-Hammer	Thermal Trip:	Fixed
Model:	HFD (2,3,4P)	Magnetic Trip:	FIXED
ID:	30		

CB: B-RSS 30010.00

MFR:	Cutler-Hammer	Tag #:		3-Phase kA:	0.00	Asym. (Calc.)
Model:	HMCP-F	Rating:	100 kA, 0.48 kV	LG kA:	0.00	Asym. (Calc.)
Size:	3	Cont. Amp:	3.000	Base kV:	0.000	(Calc.)

Motor Circuit Protector Trip Device

MFR:	Cutler-Hammer
Model:	HMCP
ID:	003A0
Pick up:	F

CB: B-RSS30020.00

MFR:	Cutler-Hammer	Tag #:		3-Phase kA:	0.00	Asym. (Calc.)
Model:	HMCP-F	Rating:	100 kA, 0.48 kV	LG kA:	0.00	Asym. (Calc.)
Size:	3	Cont. Amp:	3.000	Base kV:	0.000	(Calc.)

Motor Circuit Protector Trip Device

MFR:	Cutler-Hammer
Model:	HMCP
ID:	003A0
Pick up:	G

Protective Device Settings

CB: B-SCR BLDG N OH DOOR

MFR:	Siemens*	Tag #:		3-Phase kA:	17.39	Asym. (Calc.)
Model:	HED4	Rating:	18 kA, 0.48 kV	LG kA:	11.53	Asym. (Calc.)
Size:	20	Cont. Amp:	20.000	Base kV:	0.480	(Calc.)

* The retrieved library data is modified by user.

Thermal Magnetic Trip Device

MFR:	Siemens	Thermal Trip:	Fixed
Model:	HED4	Magnetic Trip:	FIXED
ID:	20 (0.48kV)		

CB: B-SCR BLDG S OH DOOR

MFR:	Siemens*	Tag #:		3-Phase kA:	17.39	Asym. (Calc.)
Model:	HED4	Rating:	18 kA, 0.48 kV	LG kA:	11.53	Asym. (Calc.)
Size:	20	Cont. Amp:	20.000	Base kV:	0.480	(Calc.)

* The retrieved library data is modified by user.

Thermal Magnetic Trip Device

MFR:	Siemens	Thermal Trip:	Fixed
Model:	HED4	Magnetic Trip:	FIXED
ID:	20 (0.48kV)		

CB: B-SCRUBBER CHEM HANDLING

MFR:	Cutler-Hammer	Tag #:		3-Phase kA:	0.00	Asym. (Calc.)
Model:	HFD	Rating:	65 kA, 0.48 kV	LG kA:	0.00	Asym. (Calc.)
Size:	60	Cont. Amp:	60.000	Base kV:	0.000	(Calc.)

Thermal Magnetic Trip Device

MFR:	Cutler-Hammer	Thermal Trip:	Fixed
Model:	HFD (2,3,4P)	Magnetic Trip:	FIXED
ID:	60		

CB: B-SEP53000.00

MFR:	Cutler-Hammer	Tag #:		3-Phase kA:	48.82	Asym. (Calc.)
Model:	HMCP-F	Rating:	100 kA, 0.48 kV	LG kA:	42.55	Asym. (Calc.)
Size:	7	Cont. Amp:	7.000	Base kV:	0.480	(Calc.)

Motor Circuit Protector Trip Device

MFR:	Cutler-Hammer
Model:	HMCP
ID:	007C0
Pick up:	C

Protective Device Settings

CB: B-SEP53010.00

MFR:	Cutler-Hammer	Tag #:		3-Phase kA:	48.69	Asym. (Calc.)
Model:	HMCP-F	Rating:	100 kA, 0.48 kV	LG kA:	42.49	Asym. (Calc.)
Size:	7	Cont. Amp:	7.000	Base kV:	0.480	(Calc.)

Motor Circuit Protector Trip Device

MFR: Cutler-Hammer
Model: HMCP
ID: 007C0
Pick up: A

CB: B-SEP53020.00

MFR:	Cutler-Hammer	Tag #:		3-Phase kA:	48.69	Asym. (Calc.)
Model:	HMCP-F	Rating:	100 kA, 0.48 kV	LG kA:	42.49	Asym. (Calc.)
Size:	7	Cont. Amp:	7.000	Base kV:	0.480	(Calc.)

Motor Circuit Protector Trip Device

MFR: Cutler-Hammer
Model: HMCP
ID: 007C0
Pick up: C

CB: B-SKIMMER ACTUATOR #1

MFR:	Cutler-Hammer	Tag #:		3-Phase kA:	0.00	Asym. (Calc.)
Model:	EHD	Rating:	14 kA, 0.48 kV	LG kA:	0.00	Asym. (Calc.)
Size:	15	Cont. Amp:	15.000	Base kV:	0.000	(Calc.)

Thermal Magnetic Trip Device

MFR: Cutler-Hammer
Thermal Trip: Fixed
Model: EHD (2,3,4P)
Magnetic Trip: FIXED
ID: 15

CB: B-SKIMMER ACTUATOR #10

MFR:	Cutler-Hammer	Tag #:		3-Phase kA:	0.00	Asym. (Calc.)
Model:	EHD	Rating:	14 kA, 0.48 kV	LG kA:	0.00	Asym. (Calc.)
Size:	15	Cont. Amp:	15.000	Base kV:	0.000	(Calc.)

Thermal Magnetic Trip Device

MFR: Cutler-Hammer
Thermal Trip: Fixed
Model: EHD (2,3,4P)
Magnetic Trip: FIXED
ID: 15

CB: B-SKIMMER ACTUATOR #11

MFR:	Cutler-Hammer	Tag #:		3-Phase kA:	0.00	Asym. (Calc.)
Model:	EHD	Rating:	14 kA, 0.48 kV	LG kA:	0.00	Asym. (Calc.)
Size:	15	Cont. Amp:	15.000	Base kV:	0.000	(Calc.)

Thermal Magnetic Trip Device

MFR: Cutler-Hammer
Thermal Trip: Fixed
Model: EHD (2,3,4P)
Magnetic Trip: FIXED
ID: 15

Protective Device Settings

CB: B-SKIMMER ACTUATOR #12

MFR:	Cutler-Hammer	Tag #:		3-Phase kA:	0.00	Asym. (Calc.)
Model:	EHD	Rating:	14 kA, 0.48 kV	LG kA:	0.00	Asym. (Calc.)
Size:	15	Cont. Amp:	15.000	Base kV:	0.000	(Calc.)

Thermal Magnetic Trip Device

MFR:	Cutler-Hammer	Thermal Trip:	Fixed
Model:	EHD (2,3,4P)	Magnetic Trip:	FIXED
ID:	15		

CB: B-SKIMMER ACTUATOR #13

MFR:	Cutler-Hammer	Tag #:		3-Phase kA:	0.00	Asym. (Calc.)
Model:	EHD	Rating:	14 kA, 0.48 kV	LG kA:	0.00	Asym. (Calc.)
Size:	15	Cont. Amp:	15.000	Base kV:	0.000	(Calc.)

Thermal Magnetic Trip Device

MFR:	Cutler-Hammer	Thermal Trip:	Fixed
Model:	EHD (2,3,4P)	Magnetic Trip:	FIXED
ID:	15		

CB: B-SKIMMER ACTUATOR #14

MFR:	Cutler-Hammer	Tag #:		3-Phase kA:	0.00	Asym. (Calc.)
Model:	EHD	Rating:	14 kA, 0.48 kV	LG kA:	0.00	Asym. (Calc.)
Size:	15	Cont. Amp:	15.000	Base kV:	0.000	(Calc.)

Thermal Magnetic Trip Device

MFR:	Cutler-Hammer	Thermal Trip:	Fixed
Model:	EHD (2,3,4P)	Magnetic Trip:	FIXED
ID:	15		

CB: B-SKIMMER ACTUATOR #15

MFR:	Cutler-Hammer	Tag #:		3-Phase kA:	0.00	Asym. (Calc.)
Model:	EHD	Rating:	14 kA, 0.48 kV	LG kA:	0.00	Asym. (Calc.)
Size:	15	Cont. Amp:	15.000	Base kV:	0.000	(Calc.)

Thermal Magnetic Trip Device

MFR:	Cutler-Hammer	Thermal Trip:	Fixed
Model:	EHD (2,3,4P)	Magnetic Trip:	FIXED
ID:	15		

CB: B-SKIMMER ACTUATOR #16

MFR:	Cutler-Hammer	Tag #:		3-Phase kA:	0.00	Asym. (Calc.)
Model:	EHD	Rating:	14 kA, 0.48 kV	LG kA:	0.00	Asym. (Calc.)
Size:	15	Cont. Amp:	15.000	Base kV:	0.000	(Calc.)

Thermal Magnetic Trip Device

MFR:	Cutler-Hammer	Thermal Trip:	Fixed
Model:	EHD (2,3,4P)	Magnetic Trip:	FIXED
ID:	15		

Protective Device Settings

CB: B-SKIMMER ACTUATOR #17

MFR:	Cutler-Hammer	Tag #:		3-Phase kA:	0.00	Asym. (Calc.)
Model:	EHD	Rating:	14 kA, 0.48 kV	LG kA:	0.00	Asym. (Calc.)
Size:	15	Cont. Amp:	15.000	Base kV:	0.000	(Calc.)

Thermal Magnetic Trip Device

MFR:	Cutler-Hammer	Thermal Trip:	Fixed
Model:	EHD (2,3,4P)	Magnetic Trip:	FIXED
ID:	15		

CB: B-SKIMMER ACTUATOR #18

MFR:	Cutler-Hammer	Tag #:		3-Phase kA:	0.00	Asym. (Calc.)
Model:	EHD	Rating:	14 kA, 0.48 kV	LG kA:	0.00	Asym. (Calc.)
Size:	15	Cont. Amp:	15.000	Base kV:	0.000	(Calc.)

Thermal Magnetic Trip Device

MFR:	Cutler-Hammer	Thermal Trip:	Fixed
Model:	EHD (2,3,4P)	Magnetic Trip:	FIXED
ID:	15		

CB: B-SKIMMER ACTUATOR #19

MFR:	Cutler-Hammer	Tag #:		3-Phase kA:	0.00	Asym. (Calc.)
Model:	EHD	Rating:	14 kA, 0.48 kV	LG kA:	0.00	Asym. (Calc.)
Size:	15	Cont. Amp:	15.000	Base kV:	0.000	(Calc.)

Thermal Magnetic Trip Device

MFR:	Cutler-Hammer	Thermal Trip:	Fixed
Model:	EHD (2,3,4P)	Magnetic Trip:	FIXED
ID:	15		

CB: B-SKIMMER ACTUATOR #2

MFR:	Cutler-Hammer	Tag #:		3-Phase kA:	0.00	Asym. (Calc.)
Model:	EHD	Rating:	14 kA, 0.48 kV	LG kA:	0.00	Asym. (Calc.)
Size:	15	Cont. Amp:	15.000	Base kV:	0.000	(Calc.)

Thermal Magnetic Trip Device

MFR:	Cutler-Hammer	Thermal Trip:	Fixed
Model:	EHD (2,3,4P)	Magnetic Trip:	FIXED
ID:	15		

CB: B-SKIMMER ACTUATOR #20

MFR:	Cutler-Hammer	Tag #:		3-Phase kA:	0.00	Asym. (Calc.)
Model:	EHD	Rating:	14 kA, 0.48 kV	LG kA:	0.00	Asym. (Calc.)
Size:	15	Cont. Amp:	15.000	Base kV:	0.000	(Calc.)

Thermal Magnetic Trip Device

MFR:	Cutler-Hammer	Thermal Trip:	Fixed
Model:	EHD (2,3,4P)	Magnetic Trip:	FIXED
ID:	15		

Protective Device Settings

CB: B-SKIMMER ACTUATOR #21

MFR:	Cutler-Hammer	Tag #:		3-Phase kA:	0.00	Asym. (Calc.)
Model:	EHD	Rating:	14 kA, 0.48 kV	LG kA:	0.00	Asym. (Calc.)
Size:	15	Cont. Amp:	15.000	Base kV:	0.000	(Calc.)

Thermal Magnetic Trip Device

MFR:	Cutler-Hammer	Thermal Trip:	Fixed
Model:	EHD (2,3,4P)	Magnetic Trip:	FIXED
ID:	15		

CB: B-SKIMMER ACTUATOR #3

MFR:	Cutler-Hammer	Tag #:		3-Phase kA:	0.00	Asym. (Calc.)
Model:	EHD	Rating:	14 kA, 0.48 kV	LG kA:	0.00	Asym. (Calc.)
Size:	15	Cont. Amp:	15.000	Base kV:	0.000	(Calc.)

Thermal Magnetic Trip Device

MFR:	Cutler-Hammer	Thermal Trip:	Fixed
Model:	EHD (2,3,4P)	Magnetic Trip:	FIXED
ID:	15		

CB: B-SKIMMER ACTUATOR #4

MFR:	Cutler-Hammer	Tag #:		3-Phase kA:	0.00	Asym. (Calc.)
Model:	EHD	Rating:	14 kA, 0.48 kV	LG kA:	0.00	Asym. (Calc.)
Size:	15	Cont. Amp:	15.000	Base kV:	0.000	(Calc.)

Thermal Magnetic Trip Device

MFR:	Cutler-Hammer	Thermal Trip:	Fixed
Model:	EHD (2,3,4P)	Magnetic Trip:	FIXED
ID:	15		

CB: B-SKIMMER ACTUATOR #5

MFR:	Cutler-Hammer	Tag #:		3-Phase kA:	0.00	Asym. (Calc.)
Model:	EHD	Rating:	14 kA, 0.48 kV	LG kA:	0.00	Asym. (Calc.)
Size:	15	Cont. Amp:	15.000	Base kV:	0.000	(Calc.)

Thermal Magnetic Trip Device

MFR:	Cutler-Hammer	Thermal Trip:	Fixed
Model:	EHD (2,3,4P)	Magnetic Trip:	FIXED
ID:	15		

CB: B-SKIMMER ACTUATOR #6

MFR:	Cutler-Hammer	Tag #:		3-Phase kA:	0.00	Asym. (Calc.)
Model:	EHD	Rating:	14 kA, 0.48 kV	LG kA:	0.00	Asym. (Calc.)
Size:	15	Cont. Amp:	15.000	Base kV:	0.000	(Calc.)

Thermal Magnetic Trip Device

MFR:	Cutler-Hammer	Thermal Trip:	Fixed
Model:	EHD (2,3,4P)	Magnetic Trip:	FIXED
ID:	15		

Protective Device Settings

CB: B-SKIMMER ACTUATOR #7

MFR:	Cutler-Hammer	Tag #:		3-Phase kA:	0.00	Asym. (Calc.)
Model:	EHD	Rating:	14 kA, 0.48 kV	LG kA:	0.00	Asym. (Calc.)
Size:	15	Cont. Amp:	15.000	Base kV:	0.000	(Calc.)

Thermal Magnetic Trip Device

MFR:	Cutler-Hammer	Thermal Trip:	Fixed
Model:	EHD (2,3,4P)	Magnetic Trip:	FIXED
ID:	15		

CB: B-SKIMMER ACTUATOR #8

MFR:	Cutler-Hammer	Tag #:		3-Phase kA:	0.00	Asym. (Calc.)
Model:	EHD	Rating:	14 kA, 0.48 kV	LG kA:	0.00	Asym. (Calc.)
Size:	15	Cont. Amp:	15.000	Base kV:	0.000	(Calc.)

Thermal Magnetic Trip Device

MFR:	Cutler-Hammer	Thermal Trip:	Fixed
Model:	EHD (2,3,4P)	Magnetic Trip:	FIXED
ID:	15		

CB: B-SKIMMER ACTUATOR #9

MFR:	Cutler-Hammer	Tag #:		3-Phase kA:	0.00	Asym. (Calc.)
Model:	EHD	Rating:	14 kA, 0.48 kV	LG kA:	0.00	Asym. (Calc.)
Size:	15	Cont. Amp:	15.000	Base kV:	0.000	(Calc.)

Thermal Magnetic Trip Device

MFR:	Cutler-Hammer	Thermal Trip:	Fixed
Model:	EHD (2,3,4P)	Magnetic Trip:	FIXED
ID:	15		

CB: B-SKIMMINGS VALVES ACT#1

MFR:	Cutler-Hammer	Tag #:		3-Phase kA:	0.00	Asym. (Calc.)
Model:	EHD	Rating:	14 kA, 0.48 kV	LG kA:	0.00	Asym. (Calc.)
Size:	20	Cont. Amp:	20.000	Base kV:	0.000	(Calc.)

Thermal Magnetic Trip Device

MFR:	Cutler-Hammer	Thermal Trip:	Fixed
Model:	EHD (2,3,4P)	Magnetic Trip:	FIXED
ID:	20		

CB: B-SKIMMINGS VALVES ACT#2

MFR:	Cutler-Hammer	Tag #:		3-Phase kA:	0.00	Asym. (Calc.)
Model:	EHD	Rating:	14 kA, 0.48 kV	LG kA:	0.00	Asym. (Calc.)
Size:	15	Cont. Amp:	15.000	Base kV:	0.000	(Calc.)

Thermal Magnetic Trip Device

MFR:	Cutler-Hammer	Thermal Trip:	Fixed
Model:	EHD (2,3,4P)	Magnetic Trip:	FIXED
ID:	15		

Protective Device Settings

CB: B-SKIMMINGS VALVES ACT#3

MFR:	Cutler-Hammer	Tag #:		3-Phase kA:	0.00	Asym. (Calc.)
Model:	EHD	Rating:	14 kA, 0.48 kV	LG kA:	0.00	Asym. (Calc.)
Size:	15	Cont. Amp:	15.000	Base kV:	0.000	(Calc.)

Thermal Magnetic Trip Device

MFR:	Cutler-Hammer	Thermal Trip:	Fixed
Model:	EHD (2,3,4P)	Magnetic Trip:	FIXED
ID:	15		

CB: B-SNAIL BOOSTER PUMP

MFR:	Cutler-Hammer	Tag #:		3-Phase kA:	0.00	Asym. (Calc.)
Model:	EHD	Rating:	14 kA, 0.48 kV	LG kA:	0.00	Asym. (Calc.)
Size:	20	Cont. Amp:	20.000	Base kV:	0.000	(Calc.)

Thermal Magnetic Trip Device

MFR:	Cutler-Hammer	Thermal Trip:	Fixed
Model:	EHD (2,3,4P)	Magnetic Trip:	FIXED
ID:	20		

CB: B-SP2

MFR:	Cutler-Hammer	Tag #:		3-Phase kA:	0.00	Asym. (Calc.)
Model:	HMCP-F	Rating:	100 kA, 0.48 kV	LG kA:	0.00	Asym. (Calc.)
Size:	50	Cont. Amp:	50.000	Base kV:	0.000	(Calc.)

Motor Circuit Protector Trip Device

MFR:	Cutler-Hammer
Model:	HMCP
ID:	050K2
Pick up:	A

CB: B-SR-DAF

MFR:	Cutler-Hammer	Tag #:		3-Phase kA:	0.00	Asym. (Calc.)
Model:	SPB-50 (400)	Rating:	50 kA, 0.48 kV	LG kA:	0.00	Asym. (Calc.)
Size:	400	Cont. Amp:	400.000	Base kV:	0.000	(Calc.)

LV Solid State Trip Device

MFR:	Cutler-Hammer
Model:	RMS 500 Series SPB
Sensor:	400
Rating Plug:	300.00

		Phase Setting	
Long-Time	LT Pickup	1	
	LT Band	2	
Short-Time	ST Pickup	S2(8)	
	ST Band	.3	I^xt=IN

Ground Setting		
Ground Pickup	E	
Ground Band	.1	I^xt=IN

Protective Device Settings

CB: B-STANDBY GEN PNL

MFR:	Siemens	Tag #:		3-Phase kA:	2.01	Asym. (Calc.)
Model:	BL	Rating:	10 kA, 0.24 kV	LG kA:	2.04	Asym. (Calc.)
Size:	70	Cont. Amp:	70.000	Base kV:	0.208	(Calc.)

Thermal Magnetic Trip Device

MFR:	Siemens	Thermal Trip:	Fixed
Model:	BL (2,3P)	Magnetic Trip:	FIXED
ID:	70		

CB: B-SUMP PUMP

MFR:	Westinghouse	Tag #:		3-Phase kA:	0.00	Asym. (Calc.)
Model:	BA	Rating:	10 kA, 0.24 kV	LG kA:	0.00	Asym. (Calc.)
Size:	45	Cont. Amp:	45.000	Base kV:	0.000	(Calc.)

Thermal Magnetic Trip Device

MFR:	Cutler-Hammer	Thermal Trip:	Fixed
Model:	Quicklag (3P)	Magnetic Trip:	FIXED
ID:	45		

CB: B-SUPPLY FAN 1

MFR:	Cutler-Hammer	Tag #:		3-Phase kA:	0.00	Asym. (Calc.)
Model:	EHD	Rating:	14 kA, 0.48 kV	LG kA:	0.00	Asym. (Calc.)
Size:	15	Cont. Amp:	15.000	Base kV:	0.000	(Calc.)

Thermal Magnetic Trip Device

MFR:	Cutler-Hammer	Thermal Trip:	Fixed
Model:	EHD (2,3,4P)	Magnetic Trip:	FIXED
ID:	15		

CB: B-SWBD-NB BUS A MAIN

MFR:	Cutler-Hammer	Tag #:		3-Phase kA:	0.00	Asym. (Calc.)
Model:	SPB-65 (1600)	Rating:	65 kA, 0.48 kV	LG kA:	0.00	Asym. (Calc.)
Size:	1600	Cont. Amp:	1600.000	Base kV:	0.000	(Calc.)

LV Solid State Trip Device

MFR:	Westinghouse
Model:	RMS 500 Series SPB (LS)
Sensor:	1600
Rating Plug:	1600.00

		Phase Setting				Ground Setting	
Long-Time	LT Pickup	1			Ground Pickup	E	
	LT Band	16			Ground Band	.5	I^xt=IN
Short-Time	ST Pickup	4					
	ST Band	.5	I^xt=IN				

Protective Device Settings

CB: B-SWBD-NB BUS B MAIN

MFR:	Cutler-Hammer	Tag #:		3-Phase kA:	0.00	Asym. (Calc.)
Model:	SPB-65 (1600)	Rating:	65 kA, 0.48 kV	LG kA:	0.00	Asym. (Calc.)
Size:	1600	Cont. Amp:	1600.000	Base kV:	0.000	(Calc.)

LV Solid State Trip Device

MFR: Westinghouse
Model: RMS 500 Series SPB (LS)
Sensor: 1600
Rating Plug: 1600.00

		Phase Setting			Ground Setting		
Long-Time	LT Pickup	1			Ground Pickup	E	
	LT Band	16			Ground Band	.5	I^xt=IN
Short-Time	ST Pickup	4					
	ST Band	.5	I^xt=IN				

CB: B-SWBD-NB TIE

MFR:	Cutler-Hammer	Tag #:		3-Phase kA:	0.00	Asym. (Calc.)
Model:	SPB-65 (1600)	Rating:	65 kA, 0.48 kV	LG kA:	0.00	Asym. (Calc.)
Size:	1600	Cont. Amp:	1600.000	Base kV:	0.000	(Calc.)

LV Solid State Trip Device

MFR: Cutler-Hammer
Model: RMS 500 Series SPB (LS)
Sensor: 1600
Rating Plug: 1600.00

		Phase Setting			Ground Setting		
Long-Time	LT Pickup	.9			Ground Pickup	E	
	LT Band	10			Ground Band	.5	I^xt=IN
Short-Time	ST Pickup	3					
	ST Band	.5	I^xt=IN				

CB: B-TIE ACB MCC-NG

MFR:	Cutler-Hammer	Tag #:		3-Phase kA:	0.00	Asym. (Calc.)
Model:	HJD	Rating:	65 kA, 0.48 kV	LG kA:	0.00	Asym. (Calc.)
Size:	250	Cont. Amp:	250.000	Base kV:	0.000	(Calc.)

Thermal Magnetic Trip Device

MFR:	Cutler-Hammer	Thermal Trip:	Fixed
Model:	HJD	Magnetic Trip:	10
ID:	250		

Protective Device Settings

CB: B-TSDF XFMR

MFR:	Cutler-Hammer*	Tag #:		3-Phase kA:	0.00	Asym. (Calc.)
Model:	FD	Rating:	25 kA, 0.48 kV	LG kA:	0.00	Asym. (Calc.)
Size:	30	Cont. Amp:	30.000	Base kV:	0.000	(Calc.)

* The retrieved library data is modified by user.

Thermal Magnetic Trip Device

MFR:	Cutler-Hammer	Thermal Trip:	Fixed
Model:	FD (2,3,4P)	Magnetic Trip:	FIXED
ID:	30		

CB: B-WELDER RECPT NEW ROLL U

MFR:	Cutler-Hammer	Tag #:		3-Phase kA:	0.00	Asym. (Calc.)
Model:	HFB	Rating:	25 kA, 0.48 kV	LG kA:	0.00	Asym. (Calc.)
Size:	50	Cont. Amp:	50.000	Base kV:	0.000	(Calc.)

Thermal Magnetic Trip Device

MFR:	Cutler-Hammer	Thermal Trip:	Fixed
Model:	HFB (2,3P)	Magnetic Trip:	FIXED
ID:	50		

CB: B-XFMR T-C4

MFR:	Siemens*	Tag #:		3-Phase kA:	17.39	Asym. (Calc.)
Model:	HED4	Rating:	18 kA, 0.48 kV	LG kA:	11.53	Asym. (Calc.)
Size:	25	Cont. Amp:	25.000	Base kV:	0.480	(Calc.)

* The retrieved library data is modified by user.

Thermal Magnetic Trip Device

MFR:	Siemens	Thermal Trip:	Fixed
Model:	HED4	Magnetic Trip:	FIXED
ID:	25 (0.48kV)		

CB: B-XFMR T-LC2

MFR:	Siemens*	Tag #:		3-Phase kA:	17.39	Asym. (Calc.)
Model:	HED4	Rating:	18 kA, 0.48 kV	LG kA:	11.53	Asym. (Calc.)
Size:	50	Cont. Amp:	50.000	Base kV:	0.480	(Calc.)

* The retrieved library data is modified by user.

Thermal Magnetic Trip Device

MFR:	Siemens	Thermal Trip:	Fixed
Model:	HED4	Magnetic Trip:	FIXED
ID:	45 (0.48kV)		

CB: B-XFMR-DPL4-PRI

MFR:	Cutler-Hammer	Tag #:		3-Phase kA:	0.00	Asym. (Calc.)
Model:	EHD	Rating:	14 kA, 0.48 kV	LG kA:	0.00	Asym. (Calc.)
Size:	60	Cont. Amp:	60.000	Base kV:	0.000	(Calc.)

Thermal Magnetic Trip Device

MFR:	Cutler-Hammer	Thermal Trip:	Fixed
Model:	EHD (2,3,4P)	Magnetic Trip:	FIXED
ID:	60		

Protective Device Settings

CB: B-XFMR-LPG-PRI

MFR:	Westinghouse	Tag #:		3-Phase kA:	0.00	Asym. (Calc.)
Model:	EHB	Rating:	14 kA, 0.48 kV	LG kA:	0.00	Asym. (Calc.)
Size:	30	Cont. Amp:	30.000	Base kV:	0.000	(Calc.)

Thermal Magnetic Trip Device

MFR:	Cutler-Hammer	Thermal Trip:	Fixed
Model:	EHB (2,3P)	Magnetic Trip:	FIXED
ID:	30		

CB: B-XFMR-LPJ-PRI

MFR:	Westinghouse	Tag #:		3-Phase kA:	0.00	Asym. (Calc.)
Model:	EHB	Rating:	14 kA, 0.48 kV	LG kA:	0.00	Asym. (Calc.)
Size:	30	Cont. Amp:	30.000	Base kV:	0.000	(Calc.)

Thermal Magnetic Trip Device

MFR:	Cutler-Hammer	Thermal Trip:	Fixed
Model:	EHB (2,3P)	Magnetic Trip:	FIXED
ID:	30		

CB: B-XFMR-T1-LPM-PRI

MFR:	General Electric	Tag #:		3-Phase kA:	0.00	Asym. (Calc.)
Model:	TQD	Rating:	10 kA, 0.24 kV	LG kA:	0.00	Asym. (Calc.)
Size:	150	Cont. Amp:	150.000	Base kV:	0.000	(Calc.)

Thermal Magnetic Trip Device

MFR:	General Electric	Thermal Trip:	Fixed
Model:	TQD	Magnetic Trip:	FIXED
ID:	150		

CB: B-XFMR-T-DPC1-PRI

MFR:	Cutler-Hammer	Tag #:		3-Phase kA:	0.00	Asym. (Calc.)
Model:	HFD	Rating:	65 kA, 0.48 kV	LG kA:	0.00	Asym. (Calc.)
Size:	30	Cont. Amp:	30.000	Base kV:	0.000	(Calc.)

Thermal Magnetic Trip Device

MFR:	Cutler-Hammer	Thermal Trip:	Fixed
Model:	HFD (2,3,4P)	Magnetic Trip:	FIXED
ID:	30		

CB: B-XFMR-T-DPC3-PRI

MFR:	Cutler-Hammer	Tag #:		3-Phase kA:	0.00	Asym. (Calc.)
Model:	HFD	Rating:	65 kA, 0.48 kV	LG kA:	0.00	Asym. (Calc.)
Size:	30	Cont. Amp:	30.000	Base kV:	0.000	(Calc.)

Thermal Magnetic Trip Device

MFR:	Cutler-Hammer	Thermal Trip:	Fixed
Model:	HFD (2,3,4P)	Magnetic Trip:	FIXED
ID:	30		

Protective Device Settings

CB: B-XFMR-T-DPC6-PRI

MFR:	Cutler-Hammer	Tag #:		3-Phase kA:	0.00	Asym. (Calc.)
Model:	HFD	Rating:	65 kA, 0.48 kV	LG kA:	0.00	Asym. (Calc.)
Size:	30	Cont. Amp:	30.000	Base kV:	0.000	(Calc.)

Thermal Magnetic Trip Device

MFR:	Cutler-Hammer	Thermal Trip:	Fixed
Model:	HFD (2,3,4P)	Magnetic Trip:	FIXED
ID:	30		

CB: B-XFMR-T-DPL2-PRI

MFR:	Cutler-Hammer	Tag #:		3-Phase kA:	0.00	Asym. (Calc.)
Model:	HFD	Rating:	65 kA, 0.48 kV	LG kA:	0.00	Asym. (Calc.)
Size:	50	Cont. Amp:	50.000	Base kV:	0.000	(Calc.)

Thermal Magnetic Trip Device

MFR:	Cutler-Hammer	Thermal Trip:	Fixed
Model:	HFD (2,3,4P)	Magnetic Trip:	FIXED
ID:	50		

CB: B-XFMR-T-DPL4-PRI

MFR:	Westinghouse	Tag #:		3-Phase kA:	0.00	Asym. (Calc.)
Model:	BA	Rating:	10 kA, 0.24 kV	LG kA:	0.00	Asym. (Calc.)
Size:	15	Cont. Amp:	15.000	Base kV:	0.000	(Calc.)

Thermal Magnetic Trip Device

MFR:	Cutler-Hammer	Thermal Trip:	Fixed
Model:	Quicklag (3P)	Magnetic Trip:	FIXED
ID:	15		

CB: B-XFMR-T-DPL5-PRI

MFR:	Cutler-Hammer	Tag #:		3-Phase kA:	0.00	Asym. (Calc.)
Model:	HFD	Rating:	65 kA, 0.48 kV	LG kA:	0.00	Asym. (Calc.)
Size:	50	Cont. Amp:	50.000	Base kV:	0.000	(Calc.)

Thermal Magnetic Trip Device

MFR:	Cutler-Hammer	Thermal Trip:	Fixed
Model:	HFD (2,3,4P)	Magnetic Trip:	FIXED
ID:	50		

CB: B-XFMR-T-DPL7-PRI

MFR:	Cutler-Hammer	Tag #:		3-Phase kA:	0.00	Asym. (Calc.)
Model:	HFD	Rating:	65 kA, 0.48 kV	LG kA:	0.00	Asym. (Calc.)
Size:	100	Cont. Amp:	100.000	Base kV:	0.000	(Calc.)

Thermal Magnetic Trip Device

MFR:	Cutler-Hammer	Thermal Trip:	Fixed
Model:	HFD (2,3,4P)	Magnetic Trip:	FIXED
ID:	100		

Protective Device Settings

CB: B-XFMR-T-DPL-PRI

MFR:	Westinghouse	Tag #:		3-Phase kA:	0.00	Asym. (Calc.)
Model:	BA	Rating:	10 kA, 0.24 kV	LG kA:	0.00	Asym. (Calc.)
Size:	30	Cont. Amp:	30.000	Base kV:	0.000	(Calc.)

Thermal Magnetic Trip Device

MFR:	Cutler-Hammer	Thermal Trip:	Fixed
Model:	Quicklag (3P)	Magnetic Trip:	FIXED
ID:	30		

CB: B-XFMR-T-DPM1-PRI

MFR:	Cutler-Hammer	Tag #:		3-Phase kA:	0.00	Asym. (Calc.)
Model:	HFD	Rating:	65 kA, 0.48 kV	LG kA:	0.00	Asym. (Calc.)
Size:	70	Cont. Amp:	70.000	Base kV:	0.000	(Calc.)

Thermal Magnetic Trip Device

MFR:	Cutler-Hammer	Thermal Trip:	Fixed
Model:	HFD (2,3,4P)	Magnetic Trip:	FIXED
ID:	70		

CB: B-XFMR-T-DPM2-PRI

MFR:	Cutler-Hammer	Tag #:		3-Phase kA:	0.00	Asym. (Calc.)
Model:	HFD	Rating:	65 kA, 0.48 kV	LG kA:	0.00	Asym. (Calc.)
Size:	70	Cont. Amp:	70.000	Base kV:	0.000	(Calc.)

Thermal Magnetic Trip Device

MFR:	Cutler-Hammer	Thermal Trip:	Fixed
Model:	HFD (2,3,4P)	Magnetic Trip:	FIXED
ID:	70		

CB: B-XFMR-T-DPP-PRI

MFR:	Cutler-Hammer	Tag #:		3-Phase kA:	0.00	Asym. (Calc.)
Model:	GHB	Rating:	14 kA, 0.48 kV	LG kA:	0.00	Asym. (Calc.)
Size:	30	Cont. Amp:	30.000	Base kV:	0.000	(Calc.)

Thermal Magnetic Trip Device

MFR:	Cutler-Hammer	Thermal Trip:	Fixed
Model:	GHB (2,3P)	Magnetic Trip:	FIXED
ID:	30		

CB: B-XFMR-T-GD-PRI

MFR:	Allen-Bradley	Tag #:		3-Phase kA:	0.00	Asym. (Calc.)
Model:	140U-I6C3	Rating:	65 kA, 0.48 kV	LG kA:	0.00	Asym. (Calc.)
Size:	30	Cont. Amp:	30.000	Base kV:	0.000	(Calc.)

Thermal Magnetic Trip Device

MFR:	Allen Bradley	Thermal Trip:	Fixed
Model:	140U-I6C3	Magnetic Trip:	FIXED
ID:	30		

Protective Device Settings

CB: B-XFRM-FEB-PRI

MFR:	Cutler-Hammer	Tag #:		3-Phase kA:	0.00	Asym. (Calc.)
Model:	HFD	Rating:	65 kA, 0.48 kV	LG kA:	0.00	Asym. (Calc.)
Size:	50	Cont. Amp:	50.000	Base kV:	0.000	(Calc.)

Thermal Magnetic Trip Device

MFR:	Cutler-Hammer	Thermal Trip:	Fixed
Model:	HFD (2,3,4P)	Magnetic Trip:	FIXED
ID:	50		

CB: B-XFRM-LP-VFD-PRI

MFR:	Cutler-Hammer	Tag #:		3-Phase kA:	0.00	Asym. (Calc.)
Model:	HFD	Rating:	100 kA, 0.24 kV	LG kA:	0.00	Asym. (Calc.)
Size:	50	Cont. Amp:	50.000	Base kV:	0.000	(Calc.)

Thermal Magnetic Trip Device

MFR:	Cutler-Hammer	Thermal Trip:	Fixed
Model:	HFD (2,3,4P)	Magnetic Trip:	FIXED
ID:	50		

CB: B-XFRM-T-DPC7-PRI

MFR:	Cutler-Hammer	Tag #:		3-Phase kA:	0.00	Asym. (Calc.)
Model:	HFD	Rating:	65 kA, 0.48 kV	LG kA:	0.00	Asym. (Calc.)
Size:	30	Cont. Amp:	30.000	Base kV:	0.000	(Calc.)

Thermal Magnetic Trip Device

MFR:	Cutler-Hammer	Thermal Trip:	Fixed
Model:	HFD (2,3,4P)	Magnetic Trip:	FIXED
ID:	30		

CB: B-XFRM-T-DPL1-PRI

MFR:	Cutler-Hammer	Tag #:		3-Phase kA:	0.00	Asym. (Calc.)
Model:	HFD	Rating:	65 kA, 0.48 kV	LG kA:	0.00	Asym. (Calc.)
Size:	60	Cont. Amp:	60.000	Base kV:	0.000	(Calc.)

Thermal Magnetic Trip Device

MFR:	Cutler-Hammer	Thermal Trip:	Fixed
Model:	HFD (2,3,4P)	Magnetic Trip:	FIXED
ID:	60		

CB: B-XFRM-T-DPP2-PRI

MFR:	Cutler-Hammer	Tag #:		3-Phase kA:	0.00	Asym. (Calc.)
Model:	HFD	Rating:	65 kA, 0.48 kV	LG kA:	0.00	Asym. (Calc.)
Size:	30	Cont. Amp:	30.000	Base kV:	0.000	(Calc.)

Thermal Magnetic Trip Device

MFR:	Cutler-Hammer	Thermal Trip:	Fixed
Model:	HFD (2,3,4P)	Magnetic Trip:	FIXED
ID:	30		

Protective Device Settings

CB: B-XFRM-TRAN-LPA-PRI

MFR:	Cutler-Hammer*	Tag #:		3-Phase kA:	0.00	Asym. (Calc.)
Model:	HFD	Rating:	25 kA, 0.24 kV	LG kA:	0.00	Asym. (Calc.)
Size:	70	Cont. Amp:	70.000	Base kV:	0.000	(Calc.)

* The retrieved library data is modified by user.

Thermal Magnetic Trip Device

MFR:	Cutler-Hammer	Thermal Trip:	Fixed
Model:	HFD (2,3,4P)	Magnetic Trip:	FIXED
ID:	70		

CB: B-XFRM-TRAN-PPA-PRI

MFR:	Cutler-Hammer*	Tag #:		3-Phase kA:	0.00	Asym. (Calc.)
Model:	HFD	Rating:	25 kA, 0.24 kV	LG kA:	0.00	Asym. (Calc.)
Size:	70	Cont. Amp:	70.000	Base kV:	0.000	(Calc.)

* The retrieved library data is modified by user.

Thermal Magnetic Trip Device

MFR:	Cutler-Hammer	Thermal Trip:	Fixed
Model:	HFD (2,3,4P)	Magnetic Trip:	FIXED
ID:	70		

CB: B-XFRM-TRAN-PPB-PRI

MFR:	Cutler-Hammer*	Tag #:		3-Phase kA:	0.00	Asym. (Calc.)
Model:	HFD	Rating:	25 kA, 0.24 kV	LG kA:	0.00	Asym. (Calc.)
Size:	70	Cont. Amp:	70.000	Base kV:	0.000	(Calc.)

* The retrieved library data is modified by user.

Thermal Magnetic Trip Device

MFR:	Cutler-Hammer	Thermal Trip:	Fixed
Model:	HFD (2,3,4P)	Magnetic Trip:	FIXED
ID:	70		

APPENDIX F – EQUIPMENT DATA

Transformer Schedule

2-Winding Transformer

		Rating						% Tap Setting	
Transformer ID	Status	kVA	Prim. kV	Sec. kV	% Z	X/R	% Tol.	Pri.	Sec.
TRANSF A	Energized	2500	16.000	0.480	4.9	10.67	0.0	0.000	0.000
TRANSF B	Energized	2500	16.000	0.480	5.1	10.67	0.0	0.000	0.000
TRANSF TA	Energized	2000	0.480	2.400	5.8	7.10	0.0	0.000	0.000
TRANSF TB	Energized	2000	0.480	2.400	5.8	7.10	0.0	0.000	0.000
TRANSF TC	Energized	1000	2.400	0.480	5.6	5.79	0.0	0.000	0.000
TRANSF TD	Energized	1000	2.400	0.480	5.6	5.79	0.0	0.000	0.000
T-TSDF XFMR	De-energized	15.0	0.480	0.240	0.0	0.00	0.0	0.000	0.000
T-XFMR-T2	De-energized	7.5	0.480	0.120	2.3	1.13	0.0	0.000	0.000
XFMR LPF	De-energized	30.0	0.480	0.208	2.6	1.69	0.0	0.000	0.000
XFMR T-C2	Energized	25.0	0.480	0.240	5.2	1.13	0.0	0.000	0.000
XFMR T-C4	Energized	15.0	0.480	0.208	4.4	1.13	0.0	0.000	0.000
XFMR T-LC1	Energized	45.0	0.480	0.208	5.9	1.69	0.0	0.000	0.000
XFMR T-LC2	Energized	30.0	0.480	0.208	4.4	1.69	0.0	0.000	0.000
XFMR-DPL4	Energized	45.0	0.480	0.208	2.6	1.69	0.0	0.000	0.000
XFMR-ELP5	Energized	15.0	0.480	0.208	2.3	1.13	0.0	0.000	0.000
XFMR-EPH1	Energized	15.0	0.480	0.208	2.3	1.13	0.0	0.000	0.000
XFMR-LP4	Energized	9.0	0.480	0.208	2.3	1.13	0.0	0.000	0.000
XFMR-LP9	Energized	15.0	0.480	0.208	2.3	1.13	0.0	0.000	0.000
XFMR-LPA	Energized	45.0	0.480	0.208	2.6	1.69	0.0	0.000	0.000
XFMR-LPD	Energized	30.0	0.480	0.208	2.6	1.92	0.0	0.000	0.000
XFMR-LPG	Energized	15.0	0.408	0.208	2.3	1.13	0.0	0.000	0.000
XFMR-LPJ	Energized	30.0	0.480	0.208	2.6	1.69	0.0	0.000	0.000
XFMR-STORAGE-BLDG	De-energized	15.0	0.480	0.208	2.3	1.13	0.0	0.000	0.000
XFMR-T1-ELP11	Energized	15.0	0.480	0.208	2.3	1.13	0.0	0.000	0.000
XFMR-T1-LPK	Energized	30.0	0.480	0.208	2.6	1.69	0.0	0.000	0.000
XFMR-T1-LPL	Energized	15.0	0.480	0.208	2.3	1.13	0.0	0.000	0.000
XFMR-T1-LPM	Energized	45.0	0.480	0.208	2.6	1.69	0.0	0.000	0.000
XFMR-T2-ELP3	Energized	9.0	0.480	0.208	2.3	1.13	0.0	0.000	0.000
XFMR-T2-ELP7	Energized	15.0	0.480	0.208	2.3	1.13	0.0	0.000	0.000
XFMR-T2-LPB	Energized	30.0	0.480	0.208	2.6	1.69	0.0	0.000	0.000
XFMR-T2-LPC	Energized	75.0	0.480	0.208	2.6	1.92	0.0	0.000	0.000
XFMR-T2-LPE	Energized	45.0	0.480	0.208	2.6	1.69	0.0	0.000	0.000
XFMR-T3-ELP10	Energized	15.0	0.480	0.208	2.3	1.13	0.0	0.000	0.000
XFMR-T3-ELP8	Energized	30.0	0.480	0.208	2.3	1.13	0.0	0.000	0.000
XFMR-T3-LPN	Energized	15.0	0.480	0.208	2.3	1.13	0.0	0.000	0.000
XFMR-T4	De-energized	7.5	0.480	0.120	7.8	2.47	0.0	0.000	0.000
XFMR-T5-ELP1	Energized	30.0	0.480	0.208	2.6	1.69	0.0	0.000	0.000
XFMR-T-DPC1	Energized	15.0	0.480	0.208	2.3	1.13	0.0	0.000	0.000
XFMR-T-DPC3	Energized	15.0	0.480	0.208	2.3	1.13	0.0	0.000	0.000
XFMR-T-DPC6	Energized	15.0	0.480	0.208	2.3	1.13	0.0	0.000	0.000
XFMR-T-DPL	De-energized	15.0	0.480	0.208	2.3	1.13	0.0	0.000	0.000

Transformer Schedule

2-Winding Transformer

		Rating						% Tap Setting	
Transformer ID	Status	kVA	Prim. kV	Sec. kV	% Z	X/R	% Tol.	Pri.	Sec.
XFMR-T-DPL2	Energized	30.0	0.480	0.208	2.6	1.69	0.0	0.000	0.000
XFMR-T-DPL4	De-energized	9.0	0.480	0.208	2.3	1.13	0.0	0.000	0.000
XFMR-T-DPL5	Energized	30.0	0.480	0.208	7.8	2.47	0.0	0.000	0.000
XFMR-T-DPL7	Energized	75.0	0.480	0.208	2.6	1.92	0.0	0.000	0.000
XFMR-T-DPM1	Energized	25.0	0.480	0.240	2.3	1.13	0.0	0.000	0.000
XFMR-T-DPM2	Energized	25.0	0.480	0.240	2.3	1.13	0.0	0.000	0.000
XFMR-T-DPP	De-energized	15.0	0.480	0.208	2.3	1.13	0.0	0.000	0.000
XFMR-T-EPH2	Energized	30.0	0.480	0.208	2.6	1.69	0.0	0.000	0.000
XFMR-T-GD	Energized	15.0	0.480	0.208	2.3	1.13	0.0	0.000	0.000
XFRM-FEB	Energized	30.0	0.480	0.208	2.6	1.69	0.0	0.000	0.000
XFRM-LP-VFD	Energized	30.0	0.480	0.208	2.6	1.69	0.0	0.000	0.000
XFRM-T1-LP12	Energized	15.0	0.480	0.208	2.3	1.13	0.0	0.000	0.000
XFRM-T1-LP2	Energized	30.0	0.480	0.208	2.6	1.69	0.0	0.000	0.000
XFRM-T-DPC7	Energized	15.0	0.480	0.208	2.3	1.13	0.0	0.000	0.000
XFRM-T-DPL1	Energized	30.0	0.480	0.208	2.6	1.69	0.0	0.000	0.000
XFRM-T-DPP2	Energized	15.0	0.480	0.208	2.3	1.13	0.0	0.000	0.000
XFRM-TRAN-LPA	Energized	45.0	0.480	0.208	2.6	1.69	0.0	0.000	0.000
XFRM-TRAN-PPA	Energized	45.0	0.480	0.240	2.6	1.69	0.0	0.000	0.000
XFRM-TRAN-PPB	Energized	45.0	0.480	0.240	2.3	1.13	0.0	0.000	0.000

Cable Data Schedule

Cable ID	Library	Status	Size	Length	#/ph	T (C)	R	X	Y	Impedance Unit
B-XFMR-T1-LPL-PRI	NEC , XHHW, 0.6, 100, Copper, 1/C, Magnetic, 75, 1000 ft,60, English, 30 90 90 30 90	Energized	10	30.000 ft	1	75	1.20000	0.06300	0	Ohms per 1,000 ft
C TIE ACB MCC-NG	NEC , XHHW, 0.6, 100, Copper, 1/C, Magnetic, 75, 1000 ft,60, English, 30 90 90 30 90	Energized	4/0	5.000 ft	1	75	0.06300	0.05100	0	Ohms per 1,000 ft
C1-F27505.00	NEC , XHHW, 0.6, 100, Copper, 1/C, Magnetic, 75, 1000 ft,60, English, 30 90 90 30 90	Energized	8	30.000 ft	3	75	0.78000	0.06500	0	Ohms per 1,000 ft
C1-F27506.00	NEC , XHHW, 0.6, 100, Copper, 1/C, Magnetic, 75, 1000 ft,60, English, 30 90 90 30 90	Energized	8	30.000 ft	3	75	0.78000	0.06500	0	Ohms per 1,000 ft
C1-MCC-DP4B	NEC , XHHW, 0.6, 100, Copper, 1/C, Magnetic, 75, 1000 ft,60, English, 30 90 90 30 90	Energized	500	5.000 ft	1	75	0.02900	0.04800	0	Ohms per 1,000 ft
C1-MCC-GF	NEC , XHHW, 0.6, 100, Copper, 1/C, Magnetic, 75, 1000 ft,60, English, 30 90 90 30 90	Energized	8	30.000 ft	1	75	0.78000	0.06500	0	Ohms per 1,000 ft
C2-B52180.00	NEC , XHHW, 0.6, 100, Copper, 1/C, Magnetic, 75, 1000 ft,60, English, 30 90 90 30 90	Energized	4	5.000 ft	1	75	0.31000	0.06000	0	Ohms per 1,000 ft
C2-B52190.00	NEC , XHHW, 0.6, 100, Copper, 1/C, Magnetic, 75, 1000 ft,60, English, 30 90 90 30 90	Energized	4	5.000 ft	1	75	0.31000	0.06000	0	Ohms per 1,000 ft
C2-B52210.00	NEC , XHHW, 0.6, 100, Copper, 1/C, Magnetic, 75, 1000 ft,60, English, 30 90 90 30 90	Energized	8	5.000 ft	1	75	0.78000	0.06500	0	Ohms per 1,000 ft
C2-B52220.00	NEC , XHHW, 0.6, 100, Copper, 1/C, Magnetic, 75, 1000 ft,60, English, 30 90 90 30 90	Energized	8	5.000 ft	1	75	0.78000	0.06500	0	Ohms per 1,000 ft
C2-BSN51240.00	NEC , XHHW, 0.6, 100, Copper, 1/C, Magnetic, 75, 1000 ft,60, English, 30 90 90 30 90	Energized	10	5.000 ft	1	75	1.20000	0.06300	0	Ohms per 1,000 ft
C2-BSN51250.00	NEC , XHHW, 0.6, 100, Copper, 1/C, Magnetic, 75, 1000 ft,60, English, 30 90 90 30 90	Energized	10	5.000 ft	1	75	1.20000	0.06300	0	Ohms per 1,000 ft
C2-BSN51260.00	NEC , XHHW, 0.6, 100, Copper, 1/C, Magnetic, 75, 1000 ft,60, English, 30 90 90 30 90	Energized	10	5.000 ft	1	75	1.20000	0.06300	0	Ohms per 1,000 ft
C2-BSN51270.00	NEC , XHHW, 0.6, 100, Copper, 1/C, Magnetic, 75, 1000 ft,60, English, 30 90 90 30 90	Energized	10	5.000 ft	1	75	1.20000	0.06300	0	Ohms per 1,000 ft
C2-COM53030.00	NEC , XHHW, 0.6, 100, Copper, 1/C, Magnetic, 75, 1000 ft,60, English, 30 90 90 30 90	Energized	10	5.000 ft	1	75	1.20000	0.06300	0	Ohms per 1,000 ft
C2-COM53040.00	NEC , XHHW, 0.6, 100, Copper, 1/C, Magnetic, 75, 1000 ft,60, English, 30 90 90 30 90	Energized	10	5.000 ft	1	75	1.20000	0.06300	0	Ohms per 1,000 ft
C2-CON51300.00	NEC , XHHW, 0.6, 100, Copper, 1/C, Magnetic, 75, 1000 ft,60, English, 30 90 90 30 90	Energized	10	5.000 ft	1	75	1.20000	0.06300	0	Ohms per 1,000 ft
C2-CON51320.00	NEC , XHHW, 0.6, 100, Copper, 1/C, Magnetic, 75, 1000 ft,60, English, 30 90 90 30 90	Energized	10	5.000 ft	1	75	1.20000	0.06300	0	Ohms per 1,000 ft
C2-CON53020.00	NEC , XHHW, 0.6, 100, Copper, 1/C, Magnetic, 75, 1000 ft,60, English, 30 90 90 30 90	Energized	10	5.000 ft	1	75	1.20000	0.06300	0	Ohms per 1,000 ft

Cable Data Schedule

Cable ID	Library	Status	Size	Length	#/ph	T (C)	R	X	Y	Impedance Unit
C2-CON53030.00	NEC , XHHW, 0.6, 100, Copper, 1/C, Magnetic, 75, 1000 ft,60, English, 30 90 90 30 90	Energized	10	5.000 ft	1	75	1.20000	0.06300	0	Ohms per 1,000 ft
C2-F52410.00	NEC , XHHW, 0.6, 100, Copper, 1/C, Magnetic, 75, 1000 ft,60, English, 30 90 90 30 90	Energized	12	15.000 ft	1	75	2.00000	0.06800	0	Ohms per 1,000 ft
C2-F52420.00	NEC , XHHW, 0.6, 100, Copper, 1/C, Magnetic, 75, 1000 ft,60, English, 30 90 90 30 90	Energized	12	15.000 ft	1	75	2.00000	0.06800	0	Ohms per 1,000 ft
C2-F54330.00	NEC , XHHW, 0.6, 100, Copper, 1/C, Magnetic, 75, 1000 ft,60, English, 30 90 90 30 90	Energized	10	5.000 ft	1	75	1.20000	0.06300	0	Ohms per 1,000 ft
C2-HVAC56100.00	NEC , XHHW, 0.6, 100, Copper, 1/C, Magnetic, 75, 1000 ft,60, English, 30 90 90 30 90	Energized	8	5.000 ft	1	75	0.78000	0.06500	0	Ohms per 1,000 ft
C2-HVAC56110.00	NEC , XHHW, 0.6, 100, Copper, 1/C, Magnetic, 75, 1000 ft,60, English, 30 90 90 30 90	Energized	10	5.000 ft	1	75	1.20000	0.06300	0	Ohms per 1,000 ft
C2-MCC-GH	NEC , XHHW, 0.6, 100, Copper, 1/C, Magnetic, 75, 1000 ft,60, English, 30 90 90 30 90	Energized	4/0	1.000 ft	2	75	0.06300	0.05100	0	Ohms per 1,000 ft
C2-P52100.00	NEC , XHHW, 0.6, 100, Copper, 1/C, Magnetic, 75, 1000 ft,60, English, 30 90 90 30 90	Energized	2	5.000 ft	1	75	0.20000	0.05700	0	Ohms per 1,000 ft
C2-P52110.00	NEC , XHHW, 0.6, 100, Copper, 1/C, Magnetic, 75, 1000 ft,60, English, 30 90 90 30 90	Energized	4	5.000 ft	1	75	0.31000	0.06000	0	Ohms per 1,000 ft
C2-P52120.00	NEC , XHHW, 0.6, 100, Copper, 1/C, Magnetic, 75, 1000 ft,60, English, 30 90 90 30 90	Energized	2	5.000 ft	1	75	0.20000	0.05700	0	Ohms per 1,000 ft
C2-P52130.00	NEC , XHHW, 0.6, 100, Copper, 1/C, Magnetic, 75, 1000 ft,60, English, 30 90 90 30 90	Energized	4	5.000 ft	1	75	0.31000	0.06000	0	Ohms per 1,000 ft
C2-P52140.00	NEC , XHHW, 0.6, 100, Copper, 1/C, Magnetic, 75, 1000 ft,60, English, 30 90 90 30 90	Energized	2	5.000 ft	1	75	0.20000	0.05700	0	Ohms per 1,000 ft
C2-P52150.00	NEC , XHHW, 0.6, 100, Copper, 1/C, Magnetic, 75, 1000 ft,60, English, 30 90 90 30 90	Energized	4	5.000 ft	1	75	0.31000	0.06000	0	Ohms per 1,000 ft
C2-P52160.00	NEC , XHHW, 0.6, 100, Copper, 1/C, Magnetic, 75, 1000 ft,60, English, 30 90 90 30 90	Energized	4	5.000 ft	1	75	0.31000	0.06000	0	Ohms per 1,000 ft
C2-P52170.00	NEC , XHHW, 0.6, 100, Copper, 1/C, Magnetic, 75, 1000 ft,60, English, 30 90 90 30 90	Energized	4	5.000 ft	1	75	0.31000	0.06000	0	Ohms per 1,000 ft
C2-P52220.00	NEC , XHHW, 0.6, 100, Copper, 1/C, Magnetic, 75, 1000 ft,60, English, 30 90 90 30 90	Energized	10	5.000 ft	1	75	1.20000	0.06300	0	Ohms per 1,000 ft
C2-P52230.00	NEC , XHHW, 0.6, 100, Copper, 1/C, Magnetic, 75, 1000 ft,60, English, 30 90 90 30 90	Energized	10	5.000 ft	1	75	1.20000	0.06300	0	Ohms per 1,000 ft
C2-P52240.00	NEC , XHHW, 0.6, 100, Copper, 1/C, Magnetic, 75, 1000 ft,60, English, 30 90 90 30 90	Energized	10	5.000 ft	1	75	1.20000	0.06300	0	Ohms per 1,000 ft
C2-P52250.00	NEC , XHHW, 0.6, 100, Copper, 1/C, Magnetic, 75, 1000 ft,60, English, 30 90 90 30 90	Energized	10	5.000 ft	1	75	1.20000	0.06300	0	Ohms per 1,000 ft

Cable Data Schedule

Cable ID	Library	Status	Size	Length	#/ph	T (C)	R	X	Y	Impedance Unit
C2-P54080.00	NEC , XHHW, 0.6, 100, Copper, 1/C, Magnetic, 75, 1000 ft,60, English, 30 90 90 30 90	Energized	10	5.000 ft	1	75	1.20000	0.06300	0	Ohms per 1,000 ft
C2-P54090.00	NEC , XHHW, 0.6, 100, Copper, 1/C, Magnetic, 75, 1000 ft,60, English, 30 90 90 30 90	Energized	10	5.000 ft	1	75	1.20000	0.06300	0	Ohms per 1,000 ft
C2-SCR BLDG N OH DOOR	NEC , XHHW, 0.6, 100, Copper, 1/C, Magnetic, 75, 1000 ft,60, English, 30 90 90 30 90	Energized	10	5.000 ft	1	75	1.20000	0.06300	0	Ohms per 1,000 ft
C2-SCR BLDG S OH DOOR	NEC , XHHW, 0.6, 100, Copper, 1/C, Magnetic, 75, 1000 ft,60, English, 30 90 90 30 90	Energized	10	5.000 ft	1	75	1.20000	0.06300	0	Ohms per 1,000 ft
C2-SEP53000.00	NEC , XHHW, 0.6, 100, Copper, 1/C, Magnetic, 75, 1000 ft,60, English, 30 90 90 30 90	Energized	10	5.000 ft	1	75	1.20000	0.06300	0	Ohms per 1,000 ft
C2-SEP53010.00	NEC , XHHW, 0.6, 100, Copper, 1/C, Magnetic, 75, 1000 ft,60, English, 30 90 90 30 90	Energized	10	5.000 ft	1	75	1.20000	0.06300	0	Ohms per 1,000 ft
C2-SEP53020.00	NEC , XHHW, 0.6, 100, Copper, 1/C, Magnetic, 75, 1000 ft,60, English, 30 90 90 30 90	Energized	10	5.000 ft	1	75	1.20000	0.06300	0	Ohms per 1,000 ft
C-400KW GENERATOR	NEC , XHHW, 0.6, 100, Copper, 1/C, Magnetic, 75, 1000 ft,60, English, 30 90 90 30 90	De-energized	350	30.000 ft	2	75	0.03900	0.05000	0	Ohms per 1,000 ft
C-4543.00	NEC , XHHW, 0.6, 100, Copper, 1/C, Magnetic, 75, 1000 ft,60, English, 30 90 90 30 90	Energized	8	30.000 ft	1	75	0.78000	0.06500	0	Ohms per 1,000 ft
C-4911.00	NEC , XHHW, 0.6, 100, Copper, 1/C, Magnetic, 75, 1000 ft,60, English, 30 90 90 30 90	Energized	500	18.000 ft	1	75	0.02900	0.04800	0	Ohms per 1,000 ft
C-50A RECEPT.	NEC , XHHW, 0.6, 100, Copper, 1/C, Magnetic, 75, 1000 ft,60, English, 30 90 90 30 90	Energized	10	30.000 ft	1	75	1.20000	0.06300	0	Ohms per 1,000 ft
C-AC-1	NEC , XHHW, 0.6, 100, Copper, 1/C, Magnetic, 75, 1000 ft,60, English, 30 90 90 30 90	Energized	10	30.000 ft	1	75	1.20000	0.06300	0	Ohms per 1,000 ft
C-AHU1503.00	NEC , XHHW, 0.6, 100, Copper, 1/C, Magnetic, 75, 1000 ft,60, English, 30 90 90 30 90	Energized	8	35.000 ft	1	75	0.78000	0.06500	0	Ohms per 1,000 ft
C-AHU1505.00	NEC , XHHW, 0.6, 100, Copper, 1/C, Magnetic, 75, 1000 ft,60, English, 30 90 90 30 90	Energized	12	40.000 ft	1	75	2.00000	0.06800	0	Ohms per 1,000 ft
C-AHU6591.00	NEC , XHHW, 0.6, 100, Copper, 1/C, Magnetic, 75, 1000 ft,60, English, 30 90 90 30 90	Energized	12	35.000 ft	1	75	2.00000	0.06800	0	Ohms per 1,000 ft
C-AHU6592.00	NEC , XHHW, 0.6, 100, Copper, 1/C, Magnetic, 75, 1000 ft,60, English, 30 90 90 30 90	Energized	10	35.000 ft	1	75	1.20000	0.06300	0	Ohms per 1,000 ft
C-ATS-8	NEC , XHHW, 0.6, 100, Copper, 1/C, Magnetic, 75, 1000 ft,60, English, 30 90 90 30 90	Energized	350	870.00 ft	2	75	0.03900	0.05000	0	Ohms per 1,000 ft
C-ATS-C BUS A	NEC , XHHW, 0.6, 100, Copper, 1/C, Magnetic, 75, 1000 ft,60, English, 30 90 90 30 90	Energized	6	3.000 ft	1	75	0.49000	0.06400	0	Ohms per 1,000 ft
C-ATS-C BUS B	NEC , XHHW, 0.6, 100, Copper, 1/C, Magnetic, 75, 1000 ft,60, English, 30 90 90 30 90	Energized	6	10.000 ft	1	75	0.49000	0.06400	0	Ohms per 1,000 ft

Cable Data Schedule

Cable ID	Library	Status	Size	Length	#/ph	T (C)	R	X	Y	Impedance Unit
C-ATS-L BUS A	NEC , XHHW, 0.6, 100, Copper, 1/C, Magnetic, 75, 1000 ft,60, English, 30 90 90 30 90	Energized	4	3.000 ft	1	75	0.31000	0.06000	0	Ohms per 1,000 ft
C-ATS-L BUS B	NEC , XHHW, 0.6, 100, Copper, 1/C, Magnetic, 75, 1000 ft,60, English, 30 90 90 30 90	Energized	4	10.000 ft	1	75	0.31000	0.06000	0	Ohms per 1,000 ft
C-AUH-7930.00	NEC , XHHW, 0.6, 100, Copper, 1/C, Magnetic, 75, 1000 ft,60, English, 30 90 90 30 90	Energized	8	31.000 ft	1	75	0.78000	0.06500	0	Ohms per 1,000 ft
C-B20100.00	KERITE, EPR, 5.0, 100, Copper, 1/C, Magnetic, 90, 1000 ft,60, English, 20 90 90 35 90	Energized	1/0	230.00 ft	2	90	0.13400	0.12300	0	Ohms per 1,000 ft
C-B20200.00	KERITE, EPR, 5.0, 100, Copper, 1/C, Magnetic, 90, 1000 ft,60, English, 20 90 90 35 90	Energized	1/0	240.00 ft	2	90	0.13400	0.12300	0	Ohms per 1,000 ft
C-B20300.00	KERITE, EPR, 5.0, 100, Copper, 1/C, Magnetic, 90, 1000 ft,60, English, 20 90 90 35 90	Energized	1/0	250.00 ft	2	90	0.13400	0.12300	0	Ohms per 1,000 ft
C-B20400.00	KERITE, EPR, 5.0, 100, Copper, 1/C, Magnetic, 90, 1000 ft,60, English, 20 90 90 35 90	Energized	1/0	265.00 ft	2	90	0.13400	0.12300	0	Ohms per 1,000 ft
C-B20500.00	KERITE, EPR, 5.0, 100, Copper, 1/C, Magnetic, 90, 1000 ft,60, English, 20 90 90 35 90	Energized	1/0	280.00 ft	2	90	0.13400	0.12300	0	Ohms per 1,000 ft
C-B27400.00	NEC , XHHW, 0.6, 100, Copper, 1/C, Magnetic, 75, 1000 ft,60, English, 30 90 90 30 90	Energized	4	80.000 ft	3	75	0.31000	0.06000	0	Ohms per 1,000 ft
C-B36040.00	NEC , XHHW, 0.6, 100, Copper, 1/C, Magnetic, 75, 1000 ft,60, English, 30 90 90 30 90	Energized	8	70.000 ft	3	75	0.78000	0.06500	0	Ohms per 1,000 ft
C-B36045.00	NEC , XHHW, 0.6, 100, Copper, 1/C, Magnetic, 75, 1000 ft,60, English, 30 90 90 30 90	Energized	8	60.000 ft	3	75	0.78000	0.06500	0	Ohms per 1,000 ft
C-B4121.00	NEC , XHHW, 0.6, 100, Copper, 1/C, Magnetic, 75, 1000 ft,60, English, 30 90 90 30 90	Energized	8	340.00 ft	1	75	0.78000	0.06500	0	Ohms per 1,000 ft
C-B4122.00	NEC , XHHW, 0.6, 100, Copper, 1/C, Magnetic, 75, 1000 ft,60, English, 30 90 90 30 90	Energized	6	205.00 ft	1	75	0.49000	0.06400	0	Ohms per 1,000 ft
C-B4123.00	NEC , XHHW, 0.6, 100, Copper, 1/C, Magnetic, 75, 1000 ft,60, English, 30 90 90 30 90	Energized	8	150.00 ft	1	75	0.78000	0.06500	0	Ohms per 1,000 ft
C-B4124.00	NEC , XHHW, 0.6, 100, Copper, 1/C, Magnetic, 75, 1000 ft,60, English, 30 90 90 30 90	Energized	6	300.00 ft	1	75	0.49000	0.06400	0	Ohms per 1,000 ft
C-B4221.00	NEC , XHHW, 0.6, 100, Copper, 1/C, Magnetic, 75, 1000 ft,60, English, 30 90 90 30 90	Energized	8	150.00 ft	1	75	0.78000	0.06500	0	Ohms per 1,000 ft
C-B4222.00	NEC , XHHW, 0.6, 100, Copper, 1/C, Magnetic, 75, 1000 ft,60, English, 30 90 90 30 90	Energized	8	70.000 ft	1	75	0.78000	0.06500	0	Ohms per 1,000 ft
C-B4223.00	NEC , XHHW, 0.6, 100, Copper, 1/C, Magnetic, 75, 1000 ft,60, English, 30 90 90 30 90	Energized	8	180.00 ft	1	75	0.78000	0.06500	0	Ohms per 1,000 ft
C-B4224.00	NEC , XHHW, 0.6, 100, Copper, 1/C, Magnetic, 75, 1000 ft,60, English, 30 90 90 30 90	Energized	8	275.00 ft	1	75	0.78000	0.06500	0	Ohms per 1,000 ft

Cable Data Schedule

Cable ID	Library	Status	Size	Length	#/ph	T (C)	R	X	Y	Impedance Unit
C-B52180.00	NEC , XHHW, 0.6, 100, Copper, 1/C, Magnetic, 75, 1000 ft,60, English, 30 90 90 30 90	Energized	2	215.00 ft	1	75	0.20000	0.05700	0	Ohms per 1,000 ft
C-B52190.00	NEC , XHHW, 0.6, 100, Copper, 1/C, Magnetic, 75, 1000 ft,60, English, 30 90 90 30 90	Energized	4	200.00 ft	1	75	0.31000	0.06000	0	Ohms per 1,000 ft
C-B52210.00	NEC , XHHW, 0.6, 100, Copper, 1/C, Magnetic, 75, 1000 ft,60, English, 30 90 90 30 90	Energized	8	225.00 ft	1	75	0.78000	0.06500	0	Ohms per 1,000 ft
C-B52220.00	NEC , XHHW, 0.6, 100, Copper, 1/C, Magnetic, 75, 1000 ft,60, English, 30 90 90 30 90	Energized	8	240.00 ft	1	75	0.78000	0.06500	0	Ohms per 1,000 ft
C-B6511.00	NEC , XHHW, 0.6, 100, Copper, 1/C, Magnetic, 75, 1000 ft,60, English, 30 90 90 30 90	Energized	2	100.00 ft	1	75	0.20000	0.05700	0	Ohms per 1,000 ft
C-B6512.00	NEC , XHHW, 0.6, 100, Copper, 1/C, Magnetic, 75, 1000 ft,60, English, 30 90 90 30 90	Energized	2/0	95.000 ft	1	75	0.10000	0.05400	0	Ohms per 1,000 ft
C-B6513.00	NEC , XHHW, 0.6, 100, Copper, 1/C, Magnetic, 75, 1000 ft,60, English, 30 90 90 30 90	Energized	2/0	100.00 ft	1	75	0.10000	0.05400	0	Ohms per 1,000 ft
C-B6555.00	NEC , XHHW, 0.6, 100, Copper, 1/C, Magnetic, 75, 1000 ft,60, English, 30 90 90 30 90	Energized	12	30.000 ft	1	75	2.00000	0.06800	0	Ohms per 1,000 ft
C-B6556.00	NEC , XHHW, 0.6, 100, Copper, 1/C, Magnetic, 75, 1000 ft,60, English, 30 90 90 30 90	Energized	10	30.000 ft	1	75	1.20000	0.06300	0	Ohms per 1,000 ft
C-BATTERY CHARGER XFMR	NEC , XHHW, 0.6, 100, Copper, 1/C, Magnetic, 75, 1000 ft,60, English, 30 90 90 30 90	Energized	12	30.000 ft	1	75	2.00000	0.06800	0	Ohms per 1,000 ft
C-BLOWER #1 BYPASSS VALVE	NEC , XHHW, 0.6, 100, Copper, 1/C, Magnetic, 75, 1000 ft,60, English, 30 90 90 30 90	Energized	10	30.000 ft	1	75	1.20000	0.06300	0	Ohms per 1,000 ft
C-BLOWER #1 DISCH VALVE	NEC , XHHW, 0.6, 100, Copper, 1/C, Magnetic, 75, 1000 ft,60, English, 30 90 90 30 90	Energized	10	30.000 ft	1	75	1.20000	0.06300	0	Ohms per 1,000 ft
C-BLOWER #1 GUIDE VALVE	NEC , XHHW, 0.6, 100, Copper, 1/C, Magnetic, 75, 1000 ft,60, English, 30 90 90 30 90	Energized	10	30.000 ft	1	75	1.20000	0.06300	0	Ohms per 1,000 ft
C-BLOWER #2 BYPASS VALVE	NEC , XHHW, 0.6, 100, Copper, 1/C, Magnetic, 75, 1000 ft,60, English, 30 90 90 30 90	Energized	10	30.000 ft	1	75	1.20000	0.06300	0	Ohms per 1,000 ft
C-BLOWER #2 DISCH VALVE	NEC , XHHW, 0.6, 100, Copper, 1/C, Magnetic, 75, 1000 ft,60, English, 30 90 90 30 90	Energized	10	30.000 ft	1	75	1.20000	0.06300	0	Ohms per 1,000 ft
C-BLOWER #2 GUIDE VANES	NEC , XHHW, 0.6, 100, Copper, 1/C, Magnetic, 75, 1000 ft,60, English, 30 90 90 30 90	Energized	10	30.000 ft	1	75	1.20000	0.06300	0	Ohms per 1,000 ft
C-BLOWER #3 BYPASS VALVE	NEC , XHHW, 0.6, 100, Copper, 1/C, Magnetic, 75, 1000 ft,60, English, 30 90 90 30 90	Energized	10	30.000 ft	1	75	1.20000	0.06300	0	Ohms per 1,000 ft
C-BLOWER #3 DISCH VALVE	NEC , XHHW, 0.6, 100, Copper, 1/C, Magnetic, 75, 1000 ft,60, English, 30 90 90 30 90	Energized	10	30.000 ft	1	75	1.20000	0.06300	0	Ohms per 1,000 ft
C-BLOWER #3 GUIDE VANES	NEC , XHHW, 0.6, 100, Copper, 1/C, Magnetic, 75, 1000 ft,60, English, 30 90 90 30 90	Energized	10	30.000 ft	1	75	1.20000	0.06300	0	Ohms per 1,000 ft

Cable Data Schedule

Cable ID	Library	Status	Size	Length	#/ph	T (C)	R	X	Y	Impedance Unit
C-BLOWER #4 BYPASS VALVE	NEC , XHHW, 0.6, 100, Copper, 1/C, Magnetic, 75, 1000 ft,60, English, 30 90 90 30 90	Energized	10	30.000 ft	1	75	1.20000	0.06300	0	Ohms per 1,000 ft
C-BLOWER #4 DISCHA VALVE	NEC , XHHW, 0.6, 100, Copper, 1/C, Magnetic, 75, 1000 ft,60, English, 30 90 90 30 90	Energized	10	30.000 ft	1	75	1.20000	0.06300	0	Ohms per 1,000 ft
C-BLOWER #4 GUIDE VALVE	NEC , XHHW, 0.6, 100, Copper, 1/C, Magnetic, 75, 1000 ft,60, English, 30 90 90 30 90	Energized	10	30.000 ft	1	75	1.20000	0.06300	0	Ohms per 1,000 ft
C-BLOWER #5 BYPASS VALVE	NEC , XHHW, 0.6, 100, Copper, 1/C, Magnetic, 75, 1000 ft,60, English, 30 90 90 30 90	Energized	10	30.000 ft	1	75	1.20000	0.06300	0	Ohms per 1,000 ft
C-BLOWER #5 DISCHAR VALVE	NEC , XHHW, 0.6, 100, Copper, 1/C, Magnetic, 75, 1000 ft,60, English, 30 90 90 30 90	Energized	10	30.000 ft	1	75	1.20000	0.06300	0	Ohms per 1,000 ft
C-BLOWER #5 GUIDE VALVE	NEC , XHHW, 0.6, 100, Copper, 1/C, Magnetic, 75, 1000 ft,60, English, 30 90 90 30 90	Energized	10	30.000 ft	1	75	1.20000	0.06300	0	Ohms per 1,000 ft
C-BLRW BLDG TROLLEY	NEC , XHHW, 0.6, 100, Copper, 1/C, Magnetic, 75, 1000 ft,60, English, 30 90 90 30 90	Energized	6	240.00 ft	2	75	0.49000	0.06400	0	Ohms per 1,000 ft
C-BSN51240.00	NEC , XHHW, 0.6, 100, Copper, 1/C, Magnetic, 75, 1000 ft,60, English, 30 90 90 30 90	Energized	10	300.00 ft	1	75	1.20000	0.06300	0	Ohms per 1,000 ft
C-BSN51250.00	NEC , XHHW, 0.6, 100, Copper, 1/C, Magnetic, 75, 1000 ft,60, English, 30 90 90 30 90	Energized	10	300.00 ft	1	75	1.20000	0.06300	0	Ohms per 1,000 ft
C-BSN51260.00	NEC , XHHW, 0.6, 100, Copper, 1/C, Magnetic, 75, 1000 ft,60, English, 30 90 90 30 90	Energized	10	300.00 ft	1	75	1.20000	0.06300	0	Ohms per 1,000 ft
C-BSN51270.00	NEC , XHHW, 0.6, 100, Copper, 1/C, Magnetic, 75, 1000 ft,60, English, 30 90 90 30 90	Energized	10	300.00 ft	1	75	1.20000	0.06300	0	Ohms per 1,000 ft
C-COM53030.00	NEC , XHHW, 0.6, 100, Copper, 1/C, Magnetic, 75, 1000 ft,60, English, 30 90 90 30 90	Energized	10	290.00 ft	1	75	1.20000	0.06300	0	Ohms per 1,000 ft
C-COM53040.00	NEC , XHHW, 0.6, 100, Copper, 1/C, Magnetic, 75, 1000 ft,60, English, 30 90 90 30 90	Energized	10	265.00 ft	1	75	1.20000	0.06300	0	Ohms per 1,000 ft
C-COMPRESSOR	NEC , XHHW, 0.6, 100, Copper, 1/C, Magnetic, 75, 1000 ft,60, English, 30 90 90 30 90	Energized	12	30.000 ft	1	75	2.00000	0.06800	0	Ohms per 1,000 ft
C-CON 330040.00	NEC , XHHW, 0.6, 100, Copper, 1/C, Magnetic, 75, 1000 ft,60, English, 30 90 90 30 90	Energized	8	30.000 ft	3	75	0.78000	0.06500	0	Ohms per 1,000 ft
C-CON 33010.00	NEC , XHHW, 0.6, 100, Copper, 1/C, Magnetic, 75, 1000 ft,60, English, 30 90 90 30 90	Energized	8	30.000 ft	3	75	0.78000	0.06500	0	Ohms per 1,000 ft
C-CON 33020.00	NEC , XHHW, 0.6, 100, Copper, 1/C, Magnetic, 75, 1000 ft,60, English, 30 90 90 30 90	Energized	8	30.000 ft	3	75	0.78000	0.06500	0	Ohms per 1,000 ft
C-CON 33030.00	NEC , XHHW, 0.6, 100, Copper, 1/C, Magnetic, 75, 1000 ft,60, English, 30 90 90 30 90	Energized	8	30.000 ft	3	75	0.78000	0.06500	0	Ohms per 1,000 ft
C-CON51300.00	NEC , XHHW, 0.6, 100, Copper, 1/C, Magnetic, 75, 1000 ft,60, English, 30 90 90 30 90	Energized	10	290.00 ft	1	75	1.20000	0.06300	0	Ohms per 1,000 ft

Cable Data Schedule

Cable ID	Library	Status	Size	Length	#/ph	T (C)	R	X	Y	Impedance Unit
C-CON51320.00	NEC , XHHW, 0.6, 100, Copper, 1/C, Magnetic, 75, 1000 ft,60, English, 30 90 90 30 90	Energized	10	290.00 ft	1	75	1.20000	0.06300	0	Ohms per 1,000 ft
C-CON53020.00	NEC , XHHW, 0.6, 100, Copper, 1/C, Magnetic, 75, 1000 ft,60, English, 30 90 90 30 90	Energized	10	310.00 ft	1	75	1.20000	0.06300	0	Ohms per 1,000 ft
C-CON53030.00	NEC , XHHW, 0.6, 100, Copper, 1/C, Magnetic, 75, 1000 ft,60, English, 30 90 90 30 90	Energized	10	310.00 ft	1	75	1.20000	0.06300	0	Ohms per 1,000 ft
C-CP 7561	NEC , XHHW, 0.6, 100, Copper, 1/C, Magnetic, 75, 1000 ft,60, English, 30 90 90 30 90	Energized	8	31.000 ft	1	75	0.78000	0.06500	0	Ohms per 1,000 ft
C-CP3112.00	NEC , XHHW, 0.6, 100, Copper, 1/C, Magnetic, 75, 1000 ft,60, English, 30 90 90 30 90	Energized	10	105.00 ft	1	75	1.20000	0.06300	0	Ohms per 1,000 ft
C-CP3212.00	NEC , XHHW, 0.6, 100, Copper, 1/C, Magnetic, 75, 1000 ft,60, English, 30 90 90 30 90	Energized	10	120.00 ft	1	75	1.20000	0.06300	0	Ohms per 1,000 ft
C-CP3312.00	NEC , XHHW, 0.6, 100, Copper, 1/C, Magnetic, 75, 1000 ft,60, English, 30 90 90 30 90	Energized	10	75.000 ft	1	75	1.20000	0.06300	0	Ohms per 1,000 ft
C-CP3412.00	NEC , XHHW, 0.6, 100, Copper, 1/C, Magnetic, 75, 1000 ft,60, English, 30 90 90 30 90	Energized	10	90.000 ft	1	75	1.20000	0.06300	0	Ohms per 1,000 ft
C-CP7521.00	NEC , XHHW, 0.6, 100, Copper, 1/C, Magnetic, 75, 1000 ft,60, English, 30 90 90 30 90	Energized	6	36.000 ft	1	75	0.49000	0.06400	0	Ohms per 1,000 ft
C-CP7522.00	NEC , XHHW, 0.6, 100, Copper, 1/C, Magnetic, 75, 1000 ft,60, English, 30 90 90 30 90	Energized	6	36.000 ft	1	75	0.49000	0.06400	0	Ohms per 1,000 ft
C-CP7562.00	NEC , XHHW, 0.6, 100, Copper, 1/C, Magnetic, 75, 1000 ft,60, English, 30 90 90 30 90	Energized	8	31.000 ft	1	75	0.78000	0.06500	0	Ohms per 1,000 ft
C-CRANE (MME-1)	NEC , XHHW, 0.6, 100, Copper, 1/C, Magnetic, 75, 1000 ft,60, English, 30 90 90 30 90	Energized	12	30.000 ft	1	75	2.00000	0.06800	0	Ohms per 1,000 ft
C-DPL7A	NEC , XHHW, 0.6, 100, Copper, 1/C, Magnetic, 75, 1000 ft,60, English, 30 90 90 30 90	Energized	2	30.000 ft	3	75	0.20000	0.05700	0	Ohms per 1,000 ft
C-DPP8	NEC , XHHW, 0.6, 100, Copper, 1/C, Magnetic, 75, 1000 ft,60, English, 30 90 90 30 90	Energized	250	30.000 ft	1	75	0.05400	0.05200	0	Ohms per 1,000 ft
C-EFF PUMP NO. 2 VFD	NEC , XHHW, 0.6, 100, Copper, 1/C, Magnetic, 75, 1000 ft,60, English, 30 90 90 30 90	Energized	350	40.000 ft	3	75	0.03900	0.05000	0	Ohms per 1,000 ft
C-EFF PUMP NO. 4 VFD	NEC , XHHW, 0.6, 100, Copper, 1/C, Magnetic, 75, 1000 ft,60, English, 30 90 90 30 90	Energized	350	40.000 ft	3	75	0.03900	0.05000	0	Ohms per 1,000 ft
C-EMD #4	KERITE, EPR, 5.0, 100, Copper, 1/C, Non-Mag., 90, 1000 ft,60, English, 20 90 90 40 90	Energized	2/0	30.000 ft	1	90	0.10800	0.09500	0	Ohms per 1,000 ft
C-EMD #5	KERITE, EPR, 5.0, 100, Copper, 1/C, Magnetic, 90, 1000 ft,60, English, 20 90 90 40 90	Energized	2/0	30.000 ft	1	90	0.10800	0.11900	0	Ohms per 1,000 ft
C-EMD GEN#4	NEC , XHHW, 0.6, 100, Copper, 1/C, Magnetic, 75, 1000 ft,60, English, 30 90 90 30 90	Energized	8	30.000 ft	1	75	0.78000	0.06500	0	Ohms per 1,000 ft

Cable Data Schedule

Cable ID	Library	Status	Size	Length	#/ph	T (C)	R	X	Y	Impedance Unit
C-EMD GEN#5	NEC , XHHW, 0.6, 100, Copper, 1/C, Magnetic, 75, 1000 ft,60, English, 30 90 90 30 90	Energized	8	30.000 ft	1	75	0.78000	0.06500	0	Ohms per 1,000 ft
C-EXHAUST FAN #1	NEC , XHHW, 0.6, 100, Copper, 1/C, Magnetic, 75, 1000 ft,60, English, 30 90 90 30 90	De-energized	12	30.000 ft	1	75	2.00000	0.06800	0	Ohms per 1,000 ft
C-F1003.00	NEC , XHHW, 0.6, 100, Copper, 1/C, Magnetic, 75, 1000 ft,60, English, 30 90 90 30 90	Energized	12	30.000 ft	1	75	2.00000	0.06800	0	Ohms per 1,000 ft
C-F1004.00	NEC , XHHW, 0.6, 100, Copper, 1/C, Magnetic, 75, 1000 ft,60, English, 30 90 90 30 90	Energized	12	30.000 ft	1	75	2.00000	0.06800	0	Ohms per 1,000 ft
C-F1009.10	NEC , XHHW, 0.6, 100, Copper, 1/C, Magnetic, 75, 1000 ft,60, English, 30 90 90 30 90	Energized	12	20.000 ft	1	75	2.00000	0.06800	0	Ohms per 1,000 ft
C-F1010.10	NEC , XHHW, 0.6, 100, Copper, 1/C, Magnetic, 75, 1000 ft,60, English, 30 90 90 30 90	Energized	12	17.000 ft	1	75	2.00000	0.06800	0	Ohms per 1,000 ft
C-F1011.10	NEC , XHHW, 0.6, 100, Copper, 1/C, Magnetic, 75, 1000 ft,60, English, 30 90 90 30 90	Energized	12	20.000 ft	1	75	2.00000	0.06800	0	Ohms per 1,000 ft
C-F21159.00	NEC , XHHW, 0.6, 100, Copper, 1/C, Magnetic, 75, 1000 ft,60, English, 30 90 90 30 90	Energized	8	25.000 ft	3	75	0.78000	0.06500	0	Ohms per 1,000 ft
C-F21160.00	NEC , XHHW, 0.6, 100, Copper, 1/C, Magnetic, 75, 1000 ft,60, English, 30 90 90 30 90	Energized	8	30.000 ft	3	75	0.78000	0.06500	0	Ohms per 1,000 ft
C-F2211.00	NEC , XHHW, 0.6, 100, Copper, 1/C, Magnetic, 75, 1000 ft,60, English, 30 90 90 30 90	Energized	10	30.000 ft	1	75	1.20000	0.06300	0	Ohms per 1,000 ft
C-F27505.00	NEC , XHHW, 0.6, 100, Copper, 1/C, Magnetic, 75, 1000 ft,60, English, 30 90 90 30 90	Energized	8	595.00 ft	3	75	0.78000	0.06500	0	Ohms per 1,000 ft
C-F27506.00	NEC , XHHW, 0.6, 100, Copper, 1/C, Magnetic, 75, 1000 ft,60, English, 30 90 90 30 90	Energized	8	600.00 ft	3	75	0.78000	0.06500	0	Ohms per 1,000 ft
C-F36030.00	NEC , XHHW, 0.6, 100, Copper, 1/C, Magnetic, 75, 1000 ft,60, English, 30 90 90 30 90	Energized	8	90.000 ft	3	75	0.78000	0.06500	0	Ohms per 1,000 ft
C-F36035.00	NEC , XHHW, 0.6, 100, Copper, 1/C, Magnetic, 75, 1000 ft,60, English, 30 90 90 30 90	Energized	8	90.000 ft	3	75	0.78000	0.06500	0	Ohms per 1,000 ft
C-F36037.00	NEC , XHHW, 0.6, 100, Copper, 1/C, Magnetic, 75, 1000 ft,60, English, 30 90 90 30 90	Energized	8	85.000 ft	3	75	0.78000	0.06500	0	Ohms per 1,000 ft
C-F37010.00	NEC , XHHW, 0.6, 100, Copper, 1/C, Magnetic, 75, 1000 ft,60, English, 30 90 90 30 90	Energized	8	90.000 ft	3	75	0.78000	0.06500	0	Ohms per 1,000 ft
C-F37013.00	NEC , XHHW, 0.6, 100, Copper, 1/C, Magnetic, 75, 1000 ft,60, English, 30 90 90 30 90	Energized	8	100.00 ft	3	75	0.78000	0.06500	0	Ohms per 1,000 ft
C-F37015.00	NEC , XHHW, 0.6, 100, Copper, 1/C, Magnetic, 75, 1000 ft,60, English, 30 90 90 30 90	Energized	8	85.000 ft	3	75	0.78000	0.06500	0	Ohms per 1,000 ft
C-F37017.00	NEC , XHHW, 0.6, 100, Copper, 1/C, Magnetic, 75, 1000 ft,60, English, 30 90 90 30 90	Energized	8	80.000 ft	3	75	0.78000	0.06500	0	Ohms per 1,000 ft

Cable Data Schedule

Cable ID	Library	Status	Size	Length	#/ph	T (C)	R	X	Y	Impedance Unit
C-F37020.00	NEC , XHHW, 0.6, 100, Copper, 1/C, Magnetic, 75, 1000 ft,60, English, 30 90 90 30 90	Energized	8	65.000 ft	3	75	0.78000	0.06500	0	Ohms per 1,000 ft
C-F37023.00	NEC , XHHW, 0.6, 100, Copper, 1/C, Magnetic, 75, 1000 ft,60, English, 30 90 90 30 90	Energized	8	80.000 ft	3	75	0.78000	0.06500	0	Ohms per 1,000 ft
C-F37030	NEC , XHHW, 0.6, 100, Copper, 1/C, Magnetic, 75, 1000 ft,60, English, 30 90 90 30 90	Energized	8	100.00 ft	3	75	0.78000	0.06500	0	Ohms per 1,000 ft
C-F37033.00	NEC , XHHW, 0.6, 100, Copper, 1/C, Magnetic, 75, 1000 ft,60, English, 30 90 90 30 90	Energized	8	100.00 ft	3	75	0.78000	0.06500	0	Ohms per 1,000 ft
C-F3705.00	NEC , XHHW, 0.6, 100, Copper, 1/C, Magnetic, 75, 1000 ft,60, English, 30 90 90 30 90	Energized	12	30.000 ft	1	75	2.00000	0.06800	0	Ohms per 1,000 ft
C-F3706.00	NEC , XHHW, 0.6, 100, Copper, 1/C, Magnetic, 75, 1000 ft,60, English, 30 90 90 30 90	Energized	12	30.000 ft	1	75	2.00000	0.06800	0	Ohms per 1,000 ft
C-F5111.00	NEC , XHHW, 0.6, 100, Copper, 1/C, Magnetic, 75, 1000 ft,60, English, 30 90 90 30 90	Energized	12	30.000 ft	1	75	2.00000	0.06800	0	Ohms per 1,000 ft
C-F5112.00	NEC , XHHW, 0.6, 100, Copper, 1/C, Magnetic, 75, 1000 ft,60, English, 30 90 90 30 90	Energized	12	30.000 ft	1	75	2.00000	0.06800	0	Ohms per 1,000 ft
C-F5113.00	NEC , XHHW, 0.6, 100, Copper, 1/C, Magnetic, 75, 1000 ft,60, English, 30 90 90 30 90	Energized	12	30.000 ft	1	75	2.00000	0.06800	0	Ohms per 1,000 ft
C-F5114.00	NEC , XHHW, 0.6, 100, Copper, 1/C, Magnetic, 75, 1000 ft,60, English, 30 90 90 30 90	Energized	12	30.000 ft	1	75	2.00000	0.06800	0	Ohms per 1,000 ft
C-F5121.00	NEC , XHHW, 0.6, 100, Copper, 1/C, Magnetic, 75, 1000 ft,60, English, 30 90 90 30 90	Energized	12	30.000 ft	1	75	2.00000	0.06800	0	Ohms per 1,000 ft
C-F5131.00	NEC , XHHW, 0.6, 100, Copper, 1/C, Magnetic, 75, 1000 ft,60, English, 30 90 90 30 90	Energized	12	30.000 ft	1	75	2.00000	0.06800	0	Ohms per 1,000 ft
C-F5141.00	NEC , XHHW, 0.6, 100, Copper, 1/C, Magnetic, 75, 1000 ft,60, English, 30 90 90 30 90	Energized	12	30.000 ft	1	75	2.00000	0.06800	0	Ohms per 1,000 ft
C-F52410.00	NEC , XHHW, 0.6, 100, Copper, 1/C, Magnetic, 75, 1000 ft,60, English, 30 90 90 30 90	Energized	12	200.00 ft	1	75	2.00000	0.06800	0	Ohms per 1,000 ft
C-F52420.00	NEC , XHHW, 0.6, 100, Copper, 1/C, Magnetic, 75, 1000 ft,60, English, 30 90 90 30 90	Energized	12	255.00 ft	1	75	2.00000	0.06800	0	Ohms per 1,000 ft
C-F54330.00	NEC , XHHW, 0.6, 100, Copper, 1/C, Magnetic, 75, 1000 ft,60, English, 30 90 90 30 90	Energized	10	90.000 ft	1	75	1.20000	0.06300	0	Ohms per 1,000 ft
C-F55010.00	NEC , XHHW, 0.6, 100, Copper, 1/C, Magnetic, 75, 1000 ft,60, English, 30 90 90 30 90	Energized	1	15.000 ft	1	75	0.16000	0.05700	0	Ohms per 1,000 ft
C-F7911.00	NEC , XHHW, 0.6, 100, Copper, 1/C, Magnetic, 75, 1000 ft,60, English, 30 90 90 30 90	Energized	10	31.000 ft	1	75	1.20000	0.06300	0	Ohms per 1,000 ft
C-F7912.00	NEC , XHHW, 0.6, 100, Copper, 1/C, Magnetic, 75, 1000 ft,60, English, 30 90 90 30 90	Energized	10	31.000 ft	1	75	1.20000	0.06300	0	Ohms per 1,000 ft

Cable Data Schedule

Cable ID	Library	Status	Size	Length	#/ph	T (C)	R	X	Y	Impedance Unit
C-F7912.1	NEC , XHHW, 0.6, 100, Copper, 1/C, Magnetic, 75, 1000 ft,60, English, 30 90 90 30 90	Energized	10	31.000 ft	1	75	1.20000	0.06300	0	Ohms per 1,000 ft
C-F-7941.00	NEC , XHHW, 0.6, 100, Copper, 1/C, Magnetic, 75, 1000 ft,60, English, 30 90 90 30 90	Energized	8	30.000 ft	1	75	0.78000	0.06500	0	Ohms per 1,000 ft
C-F7942.00	NEC , XHHW, 0.6, 100, Copper, 1/C, Magnetic, 75, 1000 ft,60, English, 30 90 90 30 90	Energized	8	30.000 ft	1	75	0.78000	0.06500	0	Ohms per 1,000 ft
C-F79420.00	NEC , XHHW, 0.6, 100, Copper, 1/C, Magnetic, 75, 1000 ft,60, English, 30 90 90 30 90	Energized	8	30.000 ft	1	75	0.78000	0.06500	0	Ohms per 1,000 ft
C-F7943.00	NEC , XHHW, 0.6, 100, Copper, 1/C, Magnetic, 75, 1000 ft,60, English, 30 90 90 30 90	Energized	8	30.000 ft	1	75	0.78000	0.06500	0	Ohms per 1,000 ft
C-F7944.00	NEC , XHHW, 0.6, 100, Copper, 1/C, Magnetic, 75, 1000 ft,60, English, 30 90 90 30 90	Energized	6	30.000 ft	1	75	0.49000	0.06400	0	Ohms per 1,000 ft
C-FC-1	NEC , XHHW, 0.6, 100, Copper, 1/C, Magnetic, 75, 1000 ft,60, English, 30 90 90 30 90	Energized	10	30.000 ft	1	75	1.20000	0.06300	0	Ohms per 1,000 ft
C-GAS BOOSTER BLOWER VFD	NEC , XHHW, 0.6, 100, Copper, 1/C, Magnetic, 75, 1000 ft,60, English, 30 90 90 30 90	Energized	6	30.000 ft	1	75	0.49000	0.06400	0	Ohms per 1,000 ft
C-GAS COMPRESSOR #6	NEC , XHHW, 0.6, 100, Copper, 1/C, Magnetic, 75, 1000 ft,60, English, 30 90 90 30 90	Energized	2	100.00 ft	2	75	0.20000	0.05700	0	Ohms per 1,000 ft
C-GAS COMPRESSOR #7	NEC , XHHW, 0.6, 100, Copper, 1/C, Magnetic, 75, 1000 ft,60, English, 30 90 90 30 90	Energized	2	100.00 ft	2	75	0.20000	0.05700	0	Ohms per 1,000 ft
C-GEN 175KW	NEC , XHHW, 0.6, 100, Copper, 1/C, Magnetic, 75, 1000 ft,60, English, 30 90 90 30 90	De-energized	3/0	30.000 ft	2	75	0.07900	0.05200	0	Ohms per 1,000 ft
C-GEN G6	NEC , XHHW, 0.6, 100, Copper, 1/C, Magnetic, 75, 1000 ft,60, English, 30 90 90 30 90	De-energized	600	285.00 ft	6	75	0.02500	0.04800	0	Ohms per 1,000 ft
C-GEN NO. 1	NEC , XHHW, 0.6, 100, Copper, 1/C, Magnetic, 75, 1000 ft,60, English, 30 90 90 30 90	De-energized	500	100.00 ft	3	75	0.02900	0.04800	0	Ohms per 1,000 ft
C-GEN NO. 2	NEC , XHHW, 0.6, 100, Copper, 1/C, Magnetic, 75, 1000 ft,60, English, 30 90 90 30 90	Energized	500	85.000 ft	3	75	0.02900	0.04800	0	Ohms per 1,000 ft
C-GEN NO. 3	NEC , XHHW, 0.6, 100, Copper, 1/C, Magnetic, 75, 1000 ft,60, English, 30 90 90 30 90	Energized	500	70.000 ft	3	75	0.02900	0.04800	0	Ohms per 1,000 ft
C-Grinder	NEC , XHHW, 0.6, 100, Copper, 1/C, Magnetic, 75, 1000 ft,60, English, 30 90 90 30 90	Energized	4	85.000 ft	3	75	0.31000	0.06000	0	Ohms per 1,000 ft
C-GRIT SCR TROLLEY	NEC , XHHW, 0.6, 100, Copper, 1/C, Magnetic, 75, 1000 ft,60, English, 30 90 90 30 90	Energized	10	310.00 ft	1	75	1.20000	0.06300	0	Ohms per 1,000 ft
C-HAVC 10001	NEC , XHHW, 0.6, 100, Copper, 1/C, Magnetic, 75, 1000 ft,60, English, 30 90 90 30 90	Energized	10	30.000 ft	1	75	1.20000	0.06300	0	Ohms per 1,000 ft
C-HOIST TROLLY	NEC , XHHW, 0.6, 100, Copper, 1/C, Magnetic, 75, 1000 ft,60, English, 30 90 90 30 90	Energized	12	30.000 ft	1	75	2.00000	0.06800	0	Ohms per 1,000 ft

Cable Data Schedule

Cable ID	Library	Status	Size	Length	#/ph	T (C)	R	X	Y	Impedance Unit
C-HTR 7535.00	NEC , XHHW, 0.6, 100, Copper, 1/C, Magnetic, 75, 1000 ft,60, English, 30 90 90 30 90	Energized	2	28.000 ft	1	75	0.20000	0.05700	0	Ohms per 1,000 ft
C-HTR 7536.00	NEC , XHHW, 0.6, 100, Copper, 1/C, Magnetic, 75, 1000 ft,60, English, 30 90 90 30 90	Energized	2	28.000 ft	1	75	0.20000	0.05700	0	Ohms per 1,000 ft
C-HVAC56100.00	NEC , XHHW, 0.6, 100, Copper, 1/C, Magnetic, 75, 1000 ft,60, English, 30 90 90 30 90	Energized	8	40.000 ft	1	75	0.78000	0.06500	0	Ohms per 1,000 ft
C-HVAC56110.00	NEC , XHHW, 0.6, 100, Copper, 1/C, Magnetic, 75, 1000 ft,60, English, 30 90 90 30 90	Energized	10	80.000 ft	1	75	1.20000	0.06300	0	Ohms per 1,000 ft
C-HVC-1750	NEC , XHHW, 0.6, 100, Copper, 1/C, Magnetic, 75, 1000 ft,60, English, 30 90 90 30 90	Energized	10	30.000 ft	1	75	1.20000	0.06300	0	Ohms per 1,000 ft
C-HVC-1760	NEC , XHHW, 0.6, 100, Copper, 1/C, Magnetic, 75, 1000 ft,60, English, 30 90 90 30 90	Energized	10	30.000 ft	1	75	1.20000	0.06300	0	Ohms per 1,000 ft
C-HW ELEVATOR	NEC , XHHW, 0.6, 100, Copper, 1/C, Magnetic, 75, 1000 ft,60, English, 30 90 90 30 90	Energized	4	90.000 ft	1	75	0.31000	0.06000	0	Ohms per 1,000 ft
C-HW GATES	NEC , XHHW, 0.6, 100, Copper, 1/C, Magnetic, 75, 1000 ft,60, English, 30 90 90 30 90	Energized	12	325.00 ft	1	75	2.00000	0.06800	0	Ohms per 1,000 ft
C-HWH	NEC , XHHW, 0.6, 100, Copper, 1/C, Magnetic, 75, 1000 ft,60, English, 30 90 90 30 90	Energized	4	30.000 ft	3	75	0.31000	0.06000	0	Ohms per 1,000 ft
C-HYDRAULIC PRESS	NEC , XHHW, 0.6, 100, Copper, 1/C, Magnetic, 75, 1000 ft,60, English, 30 90 90 30 90	Energized	10	30.000 ft	1	75	1.20000	0.06300	0	Ohms per 1,000 ft
C-INFL PUMP 1	NEC , XHHW, 0.6, 100, Copper, 1/C, Magnetic, 75, 1000 ft,60, English, 30 90 90 30 90	Energized	500	120.00 ft	2	75	0.02900	0.04800	0	Ohms per 1,000 ft
C-INFL PUMP 1 VFD	NEC , XHHW, 0.6, 100, Copper, 1/C, Magnetic, 75, 1000 ft,60, English, 30 90 90 30 90	Energized	500	25.000 ft	2	75	0.02900	0.04800	0	Ohms per 1,000 ft
C-INFL PUMP 2	NEC , XHHW, 0.6, 100, Copper, 1/C, Magnetic, 75, 1000 ft,60, English, 30 90 90 30 90	Energized	4/0	120.00 ft	2	75	0.06300	0.05100	0	Ohms per 1,000 ft
C-INFL PUMP 2 VFD	NEC , XHHW, 0.6, 100, Copper, 1/C, Magnetic, 75, 1000 ft,60, English, 30 90 90 30 90	Energized	500	40.000 ft	2	75	0.02900	0.04800	0	Ohms per 1,000 ft
C-INFL PUMP 3	NEC , XHHW, 0.6, 100, Copper, 1/C, Magnetic, 75, 1000 ft,60, English, 30 90 90 30 90	Energized	4/0	120.00 ft	2	75	0.06300	0.05100	0	Ohms per 1,000 ft
C-INFL PUMP 3 VFD	NEC , XHHW, 0.6, 100, Copper, 1/C, Magnetic, 75, 1000 ft,60, English, 30 90 90 30 90	Energized	500	25.000 ft	2	75	0.02900	0.04800	0	Ohms per 1,000 ft
C-INFL PUMP 4	NEC , XHHW, 0.6, 100, Copper, 1/C, Magnetic, 75, 1000 ft,60, English, 30 90 90 30 90	Energized	4/0	120.00 ft	2	75	0.06300	0.05100	0	Ohms per 1,000 ft
C-INFL PUMP 4 VFD	NEC , XHHW, 0.6, 100, Copper, 1/C, Magnetic, 75, 1000 ft,60, English, 30 90 90 30 90	Energized	500	35.000 ft	2	75	0.02900	0.04800	0	Ohms per 1,000 ft
C-INFL PUMP 5	NEC , XHHW, 0.6, 100, Copper, 1/C, Magnetic, 75, 1000 ft,60, English, 30 90 90 30 90	Energized	4/0	120.00 ft	2	75	0.06300	0.05100	0	Ohms per 1,000 ft

Cable Data Schedule

Cable ID	Library	Status	Size	Length	#/ph	T (C)	R	X	Y	Impedance Unit
C-INFL PUMP 5 VFD	NEC , XHHW, 0.6, 100, Copper, 1/C, Magnetic, 75, 1000 ft,60, English, 30 90 90 30 90	Energized	500	25.000 ft	2	75	0.02900	0.04800	0	Ohms per 1,000 ft
C-INFL PUMP 6	NEC , XHHW, 0.6, 100, Copper, 1/C, Magnetic, 75, 1000 ft,60, English, 30 90 90 30 90	Energized	500	120.00 ft	2	75	0.02900	0.04800	0	Ohms per 1,000 ft
C-INFL PUMP 6 VFD	NEC , XHHW, 0.6, 100, Copper, 1/C, Magnetic, 75, 1000 ft,60, English, 30 90 90 30 90	Energized	500	45.000 ft	2	75	0.02900	0.04800	0	Ohms per 1,000 ft
C-INTERSTAGE ACTUATOR VAL	NEC , XHHW, 0.6, 100, Copper, 1/C, Magnetic, 75, 1000 ft,60, English, 30 90 90 30 90	Energized	12	125.00 ft	1	75	2.00000	0.06800	0	Ohms per 1,000 ft
C-LATCH	NEC , XHHW, 0.6, 100, Copper, 1/C, Magnetic, 75, 1000 ft,60, English, 30 90 90 30 90	Energized	12	30.000 ft	1	75	2.00000	0.06800	0	Ohms per 1,000 ft
C-LCP-BFP1	NEC , XHHW, 0.6, 100, Copper, 1/C, Magnetic, 75, 1000 ft,60, English, 30 90 90 30 90	Energized	4	30.000 ft	3	75	0.31000	0.06000	0	Ohms per 1,000 ft
C-LCP-BFP2	NEC , XHHW, 0.6, 100, Copper, 1/C, Magnetic, 75, 1000 ft,60, English, 30 90 90 30 90	Energized	4	30.000 ft	3	75	0.31000	0.06000	0	Ohms per 1,000 ft
C-LCP-BFP3	NEC , XHHW, 0.6, 100, Copper, 1/C, Magnetic, 75, 1000 ft,60, English, 30 90 90 30 90	Energized	4	30.000 ft	3	75	0.31000	0.06000	0	Ohms per 1,000 ft
C-LCP-BFP4	NEC , XHHW, 0.6, 100, Copper, 1/C, Magnetic, 75, 1000 ft,60, English, 30 90 90 30 90	Energized	4	30.000 ft	3	75	0.31000	0.06000	0	Ohms per 1,000 ft
C-LCP-HWOCS	NEC , XHHW, 0.6, 100, Copper, 1/C, Magnetic, 75, 1000 ft,60, English, 30 90 90 30 90	Energized	6	260.00 ft	2	75	0.49000	0.06400	0	Ohms per 1,000 ft
C-LCP-PD	NEC , XHHW, 0.6, 100, Copper, 1/C, Magnetic, 75, 1000 ft,60, English, 30 90 90 30 90	De-energized	6	30.000 ft	1	75	0.49000	0.06400	0	Ohms per 1,000 ft
C-LTG PNL ELP6	NEC , XHHW, 0.6, 100, Copper, 1/C, Magnetic, 75, 1000 ft,60, English, 30 90 90 30 90	Energized	4	30.000 ft	1	75	0.31000	0.06000	0	Ohms per 1,000 ft
C-M25011.10	NEC , XHHW, 0.6, 100, Copper, 1/C, Magnetic, 75, 1000 ft,60, English, 30 90 90 30 90	Energized	8	180.00 ft	3	75	0.78000	0.06500	0	Ohms per 1,000 ft
C-M25031.10	NEC , XHHW, 0.6, 100, Copper, 1/C, Magnetic, 75, 1000 ft,60, English, 30 90 90 30 90	Energized	8	220.00 ft	3	75	0.78000	0.06500	0	Ohms per 1,000 ft
C-M25051.10	NEC , XHHW, 0.6, 100, Copper, 1/C, Magnetic, 75, 1000 ft,60, English, 30 90 90 30 90	Energized	8	260.00 ft	3	75	0.78000	0.06500	0	Ohms per 1,000 ft
C-M25071.10	NEC , XHHW, 0.6, 100, Copper, 1/C, Magnetic, 75, 1000 ft,60, English, 30 90 90 30 90	Energized	8	300.00 ft	3	75	0.78000	0.06500	0	Ohms per 1,000 ft
C-M25091.10	NEC , XHHW, 0.6, 100, Copper, 1/C, Magnetic, 75, 1000 ft,60, English, 30 90 90 30 90	Energized	8	345.00 ft	3	75	0.78000	0.06500	0	Ohms per 1,000 ft
C-M25111.10	NEC , XHHW, 0.6, 100, Copper, 1/C, Magnetic, 75, 1000 ft,60, English, 30 90 90 30 90	Energized	8	385.00 ft	3	75	0.78000	0.06500	0	Ohms per 1,000 ft
C-M25131.10	NEC , XHHW, 0.6, 100, Copper, 1/C, Magnetic, 75, 1000 ft,60, English, 30 90 90 30 90	Energized	8	430.00 ft	3	75	0.78000	0.06500	0	Ohms per 1,000 ft

Cable Data Schedule

Cable ID	Library	Status	Size	Length	#/ph	T (C)	R	X	Y	Impedance Unit
C-M25151.10	NEC , XHHW, 0.6, 100, Copper, 1/C, Magnetic, 75, 1000 ft,60, English, 30 90 90 30 90	Energized	8	470.00 ft	3	75	0.78000	0.06500	0	Ohms per 1,000 ft
C-M25171.10	NEC , XHHW, 0.6, 100, Copper, 1/C, Magnetic, 75, 1000 ft,60, English, 30 90 90 30 90	Energized	8	515.00 ft	3	75	0.78000	0.06500	0	Ohms per 1,000 ft
C-MAINT	NEC , XHHW, 0.6, 100, Copper, 1/C, Magnetic, 75, 1000 ft,60, English, 30 90 90 30 90	Energized	8	30.000 ft	1	75	0.78000	0.06500	0	Ohms per 1,000 ft
C-MCC-DP1A	NEC , XHHW, 0.6, 100, Copper, 1/C, Magnetic, 75, 1000 ft,60, English, 30 90 90 30 90	Energized	3/0	260.00 ft	1	75	0.07900	0.05200	0	Ohms per 1,000 ft
C-MCC-DP1B	NEC , XHHW, 0.6, 100, Copper, 1/C, Magnetic, 75, 1000 ft,60, English, 30 90 90 30 90	Energized	500	265.00 ft	1	75	0.02900	0.04800	0	Ohms per 1,000 ft
C-MCC-DP2B	NEC , XHHW, 0.6, 100, Copper, 1/C, Magnetic, 75, 1000 ft,60, English, 30 90 90 30 90	Energized	250	30.000 ft	1	75	0.05400	0.05200	0	Ohms per 1,000 ft
C-MCC-DP2C	NEC , XHHW, 0.6, 100, Copper, 1/C, Magnetic, 75, 1000 ft,60, English, 30 90 90 30 90	Energized	500	140.00 ft	2	75	0.02900	0.04800	0	Ohms per 1,000 ft
C-MCC-DP2D	NEC , XHHW, 0.6, 100, Copper, 1/C, Magnetic, 75, 1000 ft,60, English, 30 90 90 30 90	Energized	8	30.000 ft	1	75	0.78000	0.06500	0	Ohms per 1,000 ft
C-MCC-DP3A	NEC , XHHW, 0.6, 100, Copper, 1/C, Magnetic, 75, 1000 ft,60, English, 30 90 90 30 90	Energized	500	30.000 ft	1	75	0.02900	0.04800	0	Ohms per 1,000 ft
C-MCC-DP3B	NEC , XHHW, 0.6, 100, Copper, 1/C, Magnetic, 75, 1000 ft,60, English, 30 90 90 30 90	Energized	4/0	30.000 ft	2	75	0.06300	0.05100	0	Ohms per 1,000 ft
C-MCC-DP3C	NEC , XHHW, 0.6, 100, Copper, 1/C, Magnetic, 75, 1000 ft,60, English, 30 90 90 30 90	Energized	3/0	30.000 ft	2	75	0.07900	0.05200	0	Ohms per 1,000 ft
C-MCC-DP3D	NEC , XHHW, 0.6, 100, Copper, 1/C, Magnetic, 75, 1000 ft,60, English, 30 90 90 30 90	Energized	4/0	30.000 ft	1	75	0.06300	0.05100	0	Ohms per 1,000 ft
C-MCC-DP4A	NEC , XHHW, 0.6, 100, Copper, 1/C, Magnetic, 75, 1000 ft,60, English, 30 90 90 30 90	Energized	6	325.00 ft	1	75	0.49000	0.06400	0	Ohms per 1,000 ft
C-MCC-DP4B	NEC , XHHW, 0.6, 100, Copper, 1/C, Magnetic, 75, 1000 ft,60, English, 30 90 90 30 90	Energized	600	5.000 ft	1	75	0.02500	0.04800	0	Ohms per 1,000 ft
C-MCC-EDP1A	NEC , XHHW, 0.6, 100, Copper, 1/C, Magnetic, 75, 1000 ft,60, English, 30 90 90 30 90	Energized	1/0	260.00 ft	1	75	0.12000	0.05500	0	Ohms per 1,000 ft
C-MCC-EDP1B-1	NEC , XHHW, 0.6, 100, Copper, 1/C, Magnetic, 75, 1000 ft,60, English, 30 90 90 30 90	Energized	2	30.000 ft	1	75	0.20000	0.05700	0	Ohms per 1,000 ft
C-MCC-EDP1C	NEC , XHHW, 0.6, 100, Copper, 1/C, Magnetic, 75, 1000 ft,60, English, 30 90 90 30 90	Energized	4/0	365.00 ft	1	75	0.06300	0.05100	0	Ohms per 1,000 ft
C-MCC-EDP1D	NEC , XHHW, 0.6, 100, Copper, 1/C, Magnetic, 75, 1000 ft,60, English, 30 90 90 30 90	Energized	1/0	580.00 ft	1	75	0.12000	0.05500	0	Ohms per 1,000 ft
C-MCC-EDP1E	NEC , XHHW, 0.6, 100, Copper, 1/C, Magnetic, 75, 1000 ft,60, English, 30 90 90 30 90	Energized	6	560.00 ft	1	75	0.49000	0.06400	0	Ohms per 1,000 ft

Cable Data Schedule

Cable ID	Library	Status	Size	Length	#/ph	T (C)	R	X	Y	Impedance Unit
C-MCC-EDP1PB	NEC , XHHW, 0.6, 100, Copper, 1/C, Magnetic, 75, 1000 ft,60, English, 30 90 90 30 90	Energized	1/0	100.00 ft	1	75	0.12000	0.05500	0	Ohms per 1,000 ft
C-MCC-GA	NEC , XHHW, 0.6, 100, Copper, 1/C, Magnetic, 75, 1000 ft,60, English, 30 90 90 30 90	Energized	500	240.00 ft	2	75	0.02900	0.04800	0	Ohms per 1,000 ft
C-MCC-GB	NEC , XHHW, 0.6, 100, Copper, 1/C, Magnetic, 75, 1000 ft,60, English, 30 90 90 30 90	Energized	500	42.000 ft	1	75	0.02900	0.04800	0	Ohms per 1,000 ft
C-MCC-GC	NEC , XHHW, 0.6, 100, Copper, 1/C, Magnetic, 75, 1000 ft,60, English, 30 90 90 30 90	Energized	250	36.000 ft	2	75	0.05400	0.05200	0	Ohms per 1,000 ft
C-MCC-GD	NEC , XHHW, 0.6, 100, Copper, 1/C, Magnetic, 75, 1000 ft,60, English, 30 90 90 30 90	Energized	3/0	50.000 ft	1	75	0.07900	0.05200	0	Ohms per 1,000 ft
C-MCC-GD_EASTERN TRUNK	NEC , XHHW, 0.6, 100, Copper, 1/C, Magnetic, 75, 1000 ft,60, English, 30 90 90 30 90	Energized	3/0	25.000 ft	1	75	0.07900	0.05200	0	Ohms per 1,000 ft
C-MCC-GE	NEC , XHHW, 0.6, 100, Copper, 1/C, Magnetic, 75, 1000 ft,60, English, 30 90 90 30 90	Energized	350	65.000 ft	2	75	0.03900	0.05000	0	Ohms per 1,000 ft
C-MCC-GF	NEC , XHHW, 0.6, 100, Copper, 1/C, Magnetic, 75, 1000 ft,60, English, 30 90 90 30 90	Energized	4/0	980.00 ft	1	75	0.06300	0.05100	0	Ohms per 1,000 ft
C-MCC-GH	NEC , XHHW, 0.6, 100, Copper, 1/C, Magnetic, 75, 1000 ft,60, English, 30 90 90 30 90	Energized	4/0	980.00 ft	2	75	0.06300	0.05100	0	Ohms per 1,000 ft
C-MCC-HC	NEC , XHHW, 0.6, 100, Copper, 1/C, Magnetic, 75, 1000 ft,60, English, 30 90 90 30 90	Energized	750	950.00 ft	2	75	0.02100	0.04800	0	Ohms per 1,000 ft
C-MCC-HCC	NEC , XHHW, 0.6, 100, Copper, 1/C, Magnetic, 75, 1000 ft,60, English, 30 90 90 30 90	Energized	750	955.00 ft	2	75	0.02100	0.04800	0	Ohms per 1,000 ft
C-MCC-HW BUS A	NEC , XHHW, 0.6, 100, Copper, 1/C, Magnetic, 75, 1000 ft,60, English, 30 90 90 30 90	Energized	400	30.000 ft	3	75	0.03500	0.04900	0	Ohms per 1,000 ft
C-MCC-HW BUS B	NEC , XHHW, 0.6, 100, Copper, 1/C, Magnetic, 75, 1000 ft,60, English, 30 90 90 30 90	Energized	400	30.000 ft	3	75	0.03500	0.04900	0	Ohms per 1,000 ft
C-MCC-NA BUS A	KERITE, EPR, 5.0, 100, Copper, 1/C, Magnetic, 90, 1000 ft,60, English, 20 90 90 35 90	Energized	350	850.00 ft	2	90	0.04600	0.10400	0	Ohms per 1,000 ft
C-MCC-NA BUS B	KERITE, EPR, 5.0, 100, Copper, 1/C, Magnetic, 90, 1000 ft,60, English, 20 90 90 35 90	Energized	350	850.00 ft	2	90	0.04600	0.10400	0	Ohms per 1,000 ft
C-MCC-NC	NEC , XHHW, 0.6, 100, Copper, 1/C, Magnetic, 75, 1000 ft,60, English, 30 90 90 30 90	Energized	500	20.000 ft	4	75	0.02900	0.04800	0	Ohms per 1,000 ft
C-MCC-ND	NEC , XHHW, 0.6, 100, Copper, 1/C, Magnetic, 75, 1000 ft,60, English, 30 90 90 30 90	Energized	400	15.000 ft	3	75	0.03500	0.04900	0	Ohms per 1,000 ft
C-MCC-NE	NEC , XHHW, 0.6, 100, Copper, 1/C, Magnetic, 75, 1000 ft,60, English, 30 90 90 30 90	Energized	350	25.000 ft	1	75	0.03900	0.05000	0	Ohms per 1,000 ft
C-MCC-NF	NEC , XHHW, 0.6, 100, Copper, 1/C, Magnetic, 75, 1000 ft,60, English, 30 90 90 30 90	Energized	350	25.000 ft	1	75	0.03900	0.05000	0	Ohms per 1,000 ft

Cable Data Schedule

Cable ID	Library	Status	Size	Length	#/ph	T (C)	R	X	Y	Impedance Unit
C-MCC-NG BUS A	NEC , XHHW, 0.6, 100, Copper, 1/C, Magnetic, 75, 1000 ft,60, English, 30 90 90 30 90	Energized	350	275.00 ft	1	75	0.03900	0.05000	0	Ohms per 1,000 ft
C-MCC-NG BUS B	NEC , XHHW, 0.6, 100, Copper, 1/C, Magnetic, 75, 1000 ft,60, English, 30 90 90 30 90	Energized	350	275.00 ft	1	75	0.03900	0.05000	0	Ohms per 1,000 ft
C-MCC-SH BUS A	NEC , XHHW, 0.6, 100, Copper, 1/C, Magnetic, 75, 1000 ft,60, English, 30 90 90 30 90	Energized	350	625.00 ft	2	75	0.03900	0.05000	0	Ohms per 1,000 ft
C-MCC-SH BUS B	NEC , XHHW, 0.6, 100, Copper, 1/C, Magnetic, 75, 1000 ft,60, English, 30 90 90 30 90	Energized	350	600.00 ft	2	75	0.03900	0.05000	0	Ohms per 1,000 ft
C-MCC-SH TIE BKR1	NEC , XHHW, 0.6, 100, Copper, 1/C, Magnetic, 75, 1000 ft,60, English, 30 90 90 30 90	Energized	350	5.000 ft	1	75	0.03900	0.05000	0	Ohms per 1,000 ft
C-MME-1	NEC , XHHW, 0.6, 100, Copper, 1/C, Magnetic, 75, 1000 ft,60, English, 30 90 90 30 90	Energized	12	30.000 ft	1	75	2.00000	0.06800	0	Ohms per 1,000 ft
C-MME-13	NEC , XHHW, 0.6, 100, Copper, 1/C, Magnetic, 75, 1000 ft,60, English, 30 90 90 30 90	Energized	12	30.000 ft	1	75	2.00000	0.06800	0	Ohms per 1,000 ft
C-MME-15	NEC , XHHW, 0.6, 100, Copper, 1/C, Magnetic, 75, 1000 ft,60, English, 30 90 90 30 90	Energized	12	30.000 ft	1	75	2.00000	0.06800	0	Ohms per 1,000 ft
C-MME-4	NEC , XHHW, 0.6, 100, Copper, 1/C, Magnetic, 75, 1000 ft,60, English, 30 90 90 30 90	Energized	12	30.000 ft	1	75	2.00000	0.06800	0	Ohms per 1,000 ft
C-MME-6	NEC , XHHW, 0.6, 100, Copper, 1/C, Magnetic, 75, 1000 ft,60, English, 30 90 90 30 90	Energized	12	30.000 ft	1	75	2.00000	0.06800	0	Ohms per 1,000 ft
C-MME6211.00	NEC , XHHW, 0.6, 100, Copper, 1/C, Magnetic, 75, 1000 ft,60, English, 30 90 90 30 90	Energized	12	30.000 ft	1	75	2.00000	0.06800	0	Ohms per 1,000 ft
C-MME-7	NEC , XHHW, 0.6, 100, Copper, 1/C, Magnetic, 75, 1000 ft,60, English, 30 90 90 30 90	Energized	1	30.000 ft	1	75	0.16000	0.05700	0	Ohms per 1,000 ft
C-MME-9	NEC , XHHW, 0.6, 100, Copper, 1/C, Magnetic, 75, 1000 ft,60, English, 30 90 90 30 90	Energized	12	30.000 ft	1	75	2.00000	0.06800	0	Ohms per 1,000 ft
C-MONORAIL HOSIT	NEC , XHHW, 0.6, 100, Copper, 1/C, Magnetic, 75, 1000 ft,60, English, 30 90 90 30 90	De-energized	12	30.000 ft	1	75	2.00000	0.06800	0	Ohms per 1,000 ft
C-MPV 30021.00	NEC , XHHW, 0.6, 100, Copper, 1/C, Magnetic, 75, 1000 ft,60, English, 30 90 90 30 90	Energized	4	30.000 ft	3	75	0.31000	0.06000	0	Ohms per 1,000 ft
C-NEW INTERSTAGE BLDG	NEC , XHHW, 0.6, 100, Copper, 1/C, Magnetic, 75, 1000 ft,60, English, 30 90 90 30 90	Energized	6	30.000 ft	1	75	0.49000	0.06400	0	Ohms per 1,000 ft
C-ORS Sprayer	NEC , XHHW, 0.6, 100, Copper, 1/C, Magnetic, 75, 1000 ft,60, English, 30 90 90 30 90	Energized	4	30.000 ft	3	75	0.31000	0.06000	0	Ohms per 1,000 ft
C-P0103.00	NEC , XHHW, 0.6, 100, Copper, 1/C, Magnetic, 75, 1000 ft,60, English, 30 90 90 30 90	Energized	10	30.000 ft	1	75	1.20000	0.06300	0	Ohms per 1,000 ft
C-P20100.20	NEC , XHHW, 0.6, 100, Copper, 1/C, Magnetic, 75, 1000 ft,60, English, 30 90 90 30 90	Energized	8	40.000 ft	3	75	0.78000	0.06500	0	Ohms per 1,000 ft

Cable Data Schedule

Cable ID	Library	Status	Size	Length	#/ph	T (C)	R	X	Y	Impedance Unit
C-P20200.20	NEC , XHHW, 0.6, 100, Copper, 1/C, Magnetic, 75, 1000 ft,60, English, 30 90 90 30 90	Energized	8	30.000 ft	3	75	0.78000	0.06500	0	Ohms per 1,000 ft
C-P20300.20	NEC , XHHW, 0.6, 100, Copper, 1/C, Magnetic, 75, 1000 ft,60, English, 30 90 90 30 90	Energized	8	25.000 ft	3	75	0.78000	0.06500	0	Ohms per 1,000 ft
C-P20400.20	NEC , XHHW, 0.6, 100, Copper, 1/C, Magnetic, 75, 1000 ft,60, English, 30 90 90 30 90	Energized	8	35.000 ft	3	75	0.78000	0.06500	0	Ohms per 1,000 ft
C-P20500.20	NEC , XHHW, 0.6, 100, Copper, 1/C, Magnetic, 75, 1000 ft,60, English, 30 90 90 30 90	Energized	8	50.000 ft	3	75	0.78000	0.06500	0	Ohms per 1,000 ft
C-P2201.00	NEC , XHHW, 0.6, 100, Copper, 1/C, Magnetic, 75, 1000 ft,60, English, 30 90 90 30 90	Energized	10	30.000 ft	1	75	1.20000	0.06300	0	Ohms per 1,000 ft
C-P26010.00	NEC , XHHW, 0.6, 100, Copper, 1/C, Magnetic, 75, 1000 ft,60, English, 30 90 90 30 90	Energized	4	75.000 ft	3	75	0.31000	0.06000	0	Ohms per 1,000 ft
C-P26020.00	NEC , XHHW, 0.6, 100, Copper, 1/C, Magnetic, 75, 1000 ft,60, English, 30 90 90 30 90	Energized	4	70.000 ft	3	75	0.31000	0.06000	0	Ohms per 1,000 ft
C-P26025.00	NEC , XHHW, 0.6, 100, Copper, 1/C, Magnetic, 75, 1000 ft,60, English, 30 90 90 30 90	Energized	8	65.000 ft	3	75	0.78000	0.06500	0	Ohms per 1,000 ft
C-P26057.00	NEC , XHHW, 0.6, 100, Copper, 1/C, Magnetic, 75, 1000 ft,60, English, 30 90 90 30 90	Energized	8	30.000 ft	3	75	0.78000	0.06500	0	Ohms per 1,000 ft
C-P26058.00	NEC , XHHW, 0.6, 100, Copper, 1/C, Magnetic, 75, 1000 ft,60, English, 30 90 90 30 90	Energized	8	30.000 ft	3	75	0.78000	0.06500	0	Ohms per 1,000 ft
C-P26059.00	NEC , XHHW, 0.6, 100, Copper, 1/C, Magnetic, 75, 1000 ft,60, English, 30 90 90 30 90	Energized	8	48.000 ft	3	75	0.78000	0.06500	0	Ohms per 1,000 ft
C-P26060.00	NEC , XHHW, 0.6, 100, Copper, 1/C, Magnetic, 75, 1000 ft,60, English, 30 90 90 30 90	Energized	8	45.000 ft	3	75	0.78000	0.06500	0	Ohms per 1,000 ft
C-P27010.00 (Bypass)	NEC , XHHW, 0.6, 100, Copper, 1/C, Magnetic, 75, 1000 ft,60, English, 30 90 90 30 90	Energized	2/0	400.00 ft	3	75	0.10000	0.05400	0	Ohms per 1,000 ft
C-P27020.00 (Bypass)	NEC , XHHW, 0.6, 100, Copper, 1/C, Magnetic, 75, 1000 ft,60, English, 30 90 90 30 90	Energized	2/0	410.00 ft	3	75	0.10000	0.05400	0	Ohms per 1,000 ft
C-P27030.00 (Bypass)	NEC , XHHW, 0.6, 100, Copper, 1/C, Magnetic, 75, 1000 ft,60, English, 30 90 90 30 90	Energized	2/0	400.00 ft	3	75	0.10000	0.05400	0	Ohms per 1,000 ft
C-P27040.00 (Bypass)	NEC , XHHW, 0.6, 100, Copper, 1/C, Magnetic, 75, 1000 ft,60, English, 30 90 90 30 90	Energized	2/0	410.00 ft	3	75	0.10000	0.05400	0	Ohms per 1,000 ft
C-P27110.00	NEC , XHHW, 0.6, 100, Copper, 1/C, Magnetic, 75, 1000 ft,60, English, 30 90 90 30 90	Energized	2/0	400.00 ft	3	75	0.10000	0.05400	0	Ohms per 1,000 ft
C-P27120.00	NEC , XHHW, 0.6, 100, Copper, 1/C, Magnetic, 75, 1000 ft,60, English, 30 90 90 30 90	Energized	8	405.00 ft	3	75	0.78000	0.06500	0	Ohms per 1,000 ft
C-P27130.00	NEC , XHHW, 0.6, 100, Copper, 1/C, Magnetic, 75, 1000 ft,60, English, 30 90 90 30 90	Energized	8	410.00 ft	3	75	0.78000	0.06500	0	Ohms per 1,000 ft

Cable Data Schedule

Cable ID	Library	Status	Size	Length	#/ph	T (C)	R	X	Y	Impedance Unit
C-P27230.00	NEC , XHHW, 0.6, 100, Copper, 1/C, Magnetic, 75, 1000 ft,60, English, 30 90 90 30 90	Energized	8	30.000 ft	3	75	0.78000	0.06500	0	Ohms per 1,000 ft
C-P27310.00 (Bypass)	NEC , XHHW, 0.6, 100, Copper, 1/C, Magnetic, 75, 1000 ft,60, English, 30 90 90 30 90	Energized	2/0	115.00 ft	3	75	0.10000	0.05400	0	Ohms per 1,000 ft
C-P27320.00 (Bypass)	NEC , XHHW, 0.6, 100, Copper, 1/C, Magnetic, 75, 1000 ft,60, English, 30 90 90 30 90	Energized	2/0	125.00 ft	3	75	0.10000	0.05400	0	Ohms per 1,000 ft
C-P27330.00 (Bypass)	NEC , XHHW, 0.6, 100, Copper, 1/C, Magnetic, 75, 1000 ft,60, English, 30 90 90 30 90	Energized	2/0	115.00 ft	3	75	0.10000	0.05400	0	Ohms per 1,000 ft
C-P27720.00	NEC , XHHW, 0.6, 100, Copper, 1/C, Magnetic, 75, 1000 ft,60, English, 30 90 90 30 90	Energized	6	125.00 ft	3	75	0.49000	0.06400	0	Ohms per 1,000 ft
C-P28010.00 (Bypass)	NEC , XHHW, 0.6, 100, Copper, 1/C, Magnetic, 75, 1000 ft,60, English, 30 90 90 30 90	Energized	2/0	150.00 ft	3	75	0.10000	0.05400	0	Ohms per 1,000 ft
C-P28020.00 (Bypass)	NEC , XHHW, 0.6, 100, Copper, 1/C, Magnetic, 75, 1000 ft,60, English, 30 90 90 30 90	Energized	2/0	160.00 ft	3	75	0.10000	0.05400	0	Ohms per 1,000 ft
C-P28030.00 (Bypass)	NEC , XHHW, 0.6, 100, Copper, 1/C, Magnetic, 75, 1000 ft,60, English, 30 90 90 30 90	Energized	2/0	150.00 ft	3	75	0.10000	0.05400	0	Ohms per 1,000 ft
C-P32011.00	NEC , XHHW, 0.6, 100, Copper, 1/C, Magnetic, 75, 1000 ft,60, English, 30 90 90 30 90	Energized	10	75.000 ft	3	75	1.20000	0.06300	0	Ohms per 1,000 ft
C-P32013.00	NEC , XHHW, 0.6, 100, Copper, 1/C, Magnetic, 75, 1000 ft,60, English, 30 90 90 30 90	Energized	8	30.000 ft	3	75	0.78000	0.06500	0	Ohms per 1,000 ft
C-P32021.00	NEC , XHHW, 0.6, 100, Copper, 1/C, Magnetic, 75, 1000 ft,60, English, 30 90 90 30 90	Energized	10	70.000 ft	3	75	1.20000	0.06300	0	Ohms per 1,000 ft
C-P32023.00	NEC , XHHW, 0.6, 100, Copper, 1/C, Magnetic, 75, 1000 ft,60, English, 30 90 90 30 90	Energized	8	30.000 ft	3	75	0.78000	0.06500	0	Ohms per 1,000 ft
C-P32031.00	NEC , XHHW, 0.6, 100, Copper, 1/C, Magnetic, 75, 1000 ft,60, English, 30 90 90 30 90	Energized	10	65.000 ft	3	75	1.20000	0.06300	0	Ohms per 1,000 ft
C-P32033.00	NEC , XHHW, 0.6, 100, Copper, 1/C, Magnetic, 75, 1000 ft,60, English, 30 90 90 30 90	Energized	8	30.000 ft	3	75	0.78000	0.06500	0	Ohms per 1,000 ft
C-P32041.00	NEC , XHHW, 0.6, 100, Copper, 1/C, Magnetic, 75, 1000 ft,60, English, 30 90 90 30 90	Energized	10	60.000 ft	3	75	1.20000	0.06300	0	Ohms per 1,000 ft
C-P32043.00	NEC , XHHW, 0.6, 100, Copper, 1/C, Magnetic, 75, 1000 ft,60, English, 30 90 90 30 90	Energized	8	30.000 ft	3	75	0.78000	0.06500	0	Ohms per 1,000 ft
C-P4011.00	NEC , XHHW, 0.6, 100, Copper, 1/C, Magnetic, 75, 1000 ft,60, English, 30 90 90 30 90	Energized	350	120.00 ft	2	75	0.03900	0.05000	0	Ohms per 1,000 ft
C-P4012.00	NEC , XHHW, 0.6, 100, Copper, 1/C, Magnetic, 75, 1000 ft,60, English, 30 90 90 30 90	Energized	300	120.00 ft	2	75	0.04500	0.05100	0	Ohms per 1,000 ft
C-P4013.00	NEC , XHHW, 0.6, 100, Copper, 1/C, Magnetic, 75, 1000 ft,60, English, 30 90 90 30 90	Energized	350	105.00 ft	2	75	0.03900	0.05000	0	Ohms per 1,000 ft

Cable Data Schedule

Cable ID	Library	Status	Size	Length	#/ph	T (C)	R	X	Y	Impedance Unit
C-P4014.00	NEC , XHHW, 0.6, 100, Copper, 1/C, Magnetic, 75, 1000 ft,60, English, 30 90 90 30 90	Energized	350	105.00 ft	2	75	0.03900	0.05000	0	Ohms per 1,000 ft
C-P4021.00	NEC , XHHW, 0.6, 100, Copper, 1/C, Magnetic, 75, 1000 ft,60, English, 30 90 90 30 90	Energized	250	105.00 ft	2	75	0.05400	0.05200	0	Ohms per 1,000 ft
C-P4023.00	NEC , XHHW, 0.6, 100, Copper, 1/C, Magnetic, 75, 1000 ft,60, English, 30 90 90 30 90	Energized	250	88.000 ft	2	75	0.05400	0.05200	0	Ohms per 1,000 ft
C-P4531.00	NEC , XHHW, 0.6, 100, Copper, 1/C, Magnetic, 75, 1000 ft,60, English, 30 90 90 30 90	Energized	8	30.000 ft	1	75	0.78000	0.06500	0	Ohms per 1,000 ft
C-P4598	NEC , XHHW, 0.6, 100, Copper, 1/C, Magnetic, 75, 1000 ft,60, English, 30 90 90 30 90	Energized	8	30.000 ft	1	75	0.78000	0.06500	0	Ohms per 1,000 ft
C-P5091.00	NEC , XHHW, 0.6, 100, Copper, 1/C, Magnetic, 75, 1000 ft,60, English, 30 90 90 30 90	Energized	12	30.000 ft	1	75	2.00000	0.06800	0	Ohms per 1,000 ft
C-P5092.00	NEC , XHHW, 0.6, 100, Copper, 1/C, Magnetic, 75, 1000 ft,60, English, 30 90 90 30 90	Energized	12	30.000 ft	1	75	2.00000	0.06800	0	Ohms per 1,000 ft
C-P52100.00	NEC , XHHW, 0.6, 100, Copper, 1/C, Magnetic, 75, 1000 ft,60, English, 30 90 90 30 90	Energized	2	320.00 ft	1	75	0.20000	0.05700	0	Ohms per 1,000 ft
C-P52110.00	NEC , XHHW, 0.6, 100, Copper, 1/C, Magnetic, 75, 1000 ft,60, English, 30 90 90 30 90	Energized	4	310.00 ft	1	75	0.31000	0.06000	0	Ohms per 1,000 ft
C-P52120.00	NEC , XHHW, 0.6, 100, Copper, 1/C, Magnetic, 75, 1000 ft,60, English, 30 90 90 30 90	Energized	2	300.00 ft	1	75	0.20000	0.05700	0	Ohms per 1,000 ft
C-P52130.00	NEC , XHHW, 0.6, 100, Copper, 1/C, Magnetic, 75, 1000 ft,60, English, 30 90 90 30 90	Energized	4	290.00 ft	1	75	0.31000	0.06000	0	Ohms per 1,000 ft
C-P52140.00	NEC , XHHW, 0.6, 100, Copper, 1/C, Magnetic, 75, 1000 ft,60, English, 30 90 90 30 90	Energized	2	250.00 ft	1	75	0.20000	0.05700	0	Ohms per 1,000 ft
C-P52150.00	NEC , XHHW, 0.6, 100, Copper, 1/C, Magnetic, 75, 1000 ft,60, English, 30 90 90 30 90	Energized	4	240.00 ft	1	75	0.31000	0.06000	0	Ohms per 1,000 ft
C-P52160.00	NEC , XHHW, 0.6, 100, Copper, 1/C, Magnetic, 75, 1000 ft,60, English, 30 90 90 30 90	Energized	4	230.00 ft	1	75	0.31000	0.06000	0	Ohms per 1,000 ft
C-P52170.00	NEC , XHHW, 0.6, 100, Copper, 1/C, Magnetic, 75, 1000 ft,60, English, 30 90 90 30 90	Energized	4	215.00 ft	1	75	0.31000	0.06000	0	Ohms per 1,000 ft
C-P52220.00	NEC , XHHW, 0.6, 100, Copper, 1/C, Magnetic, 75, 1000 ft,60, English, 30 90 90 30 90	Energized	10	335.00 ft	1	75	1.20000	0.06300	0	Ohms per 1,000 ft
C-P52230.00	NEC , XHHW, 0.6, 100, Copper, 1/C, Magnetic, 75, 1000 ft,60, English, 30 90 90 30 90	Energized	10	335.00 ft	1	75	1.20000	0.06300	0	Ohms per 1,000 ft
C-P52240.00	NEC , XHHW, 0.6, 100, Copper, 1/C, Magnetic, 75, 1000 ft,60, English, 30 90 90 30 90	Energized	10	265.00 ft	1	75	1.20000	0.06300	0	Ohms per 1,000 ft
C-P52250.00	NEC , XHHW, 0.6, 100, Copper, 1/C, Magnetic, 75, 1000 ft,60, English, 30 90 90 30 90	Energized	10	265.00 ft	1	75	1.20000	0.06300	0	Ohms per 1,000 ft

Cable Data Schedule

Cable ID	Library	Status	Size	Length	#/ph	T (C)	R	X	Y	Impedance Unit
C-P54080.00	NEC , XHHW, 0.6, 100, Copper, 1/C, Magnetic, 75, 1000 ft,60, English, 30 90 90 30 90	Energized	10	160.00 ft	1	75	1.20000	0.06300	0	Ohms per 1,000 ft
C-P54090.00	NEC , XHHW, 0.6, 100, Copper, 1/C, Magnetic, 75, 1000 ft,60, English, 30 90 90 30 90	Energized	10	160.00 ft	1	75	1.20000	0.06300	0	Ohms per 1,000 ft
C-P55020.00	NEC , XHHW, 0.6, 100, Copper, 1/C, Magnetic, 75, 1000 ft,60, English, 30 90 90 30 90	Energized	10	15.000 ft	1	75	1.20000	0.06300	0	Ohms per 1,000 ft
C-P55030.00	NEC , XHHW, 0.6, 100, Copper, 1/C, Magnetic, 75, 1000 ft,60, English, 30 90 90 30 90	Energized	10	15.000 ft	1	75	1.20000	0.06300	0	Ohms per 1,000 ft
C-P6501.00	NEC , XHHW, 0.6, 100, Copper, 1/C, Magnetic, 75, 1000 ft,60, English, 30 90 90 30 90	Energized	4	30.000 ft	1	75	0.31000	0.06000	0	Ohms per 1,000 ft
C-P6503.00	NEC , XHHW, 0.6, 100, Copper, 1/C, Magnetic, 75, 1000 ft,60, English, 30 90 90 30 90	Energized	12	30.000 ft	1	75	2.00000	0.06800	0	Ohms per 1,000 ft
C-P6561.00	NEC , XHHW, 0.6, 100, Copper, 1/C, Magnetic, 75, 1000 ft,60, English, 30 90 90 30 90	Energized	12	30.000 ft	1	75	2.00000	0.06800	0	Ohms per 1,000 ft
C-P6601.00	NEC , XHHW, 0.6, 100, Copper, 1/C, Magnetic, 75, 1000 ft,60, English, 30 90 90 30 90	Energized	4	30.000 ft	1	75	0.31000	0.06000	0	Ohms per 1,000 ft
C-P6701.00	NEC , XHHW, 0.6, 100, Copper, 1/C, Magnetic, 75, 1000 ft,60, English, 30 90 90 30 90	Energized	4	30.000 ft	1	75	0.31000	0.06000	0	Ohms per 1,000 ft
C-P6901.00	NEC , XHHW, 0.6, 100, Copper, 1/C, Magnetic, 75, 1000 ft,60, English, 30 90 90 30 90	Energized	8	90.000 ft	3	75	0.78000	0.06500	0	Ohms per 1,000 ft
C-P6902.00	NEC , XHHW, 0.6, 100, Copper, 1/C, Magnetic, 75, 1000 ft,60, English, 30 90 90 30 90	Energized	8	90.000 ft	3	75	0.78000	0.06500	0	Ohms per 1,000 ft
C-P6903.00	NEC , XHHW, 0.6, 100, Copper, 1/C, Magnetic, 75, 1000 ft,60, English, 30 90 90 30 90	Energized	8	90.000 ft	3	75	0.78000	0.06500	0	Ohms per 1,000 ft
C-P7531.00	NEC , XHHW, 0.6, 100, Copper, 1/C, Magnetic, 75, 1000 ft,60, English, 30 90 90 30 90	Energized	2	36.000 ft	1	75	0.20000	0.05700	0	Ohms per 1,000 ft
C-P7532.00	NEC , XHHW, 0.6, 100, Copper, 1/C, Magnetic, 75, 1000 ft,60, English, 30 90 90 30 90	Energized	2	36.000 ft	1	75	0.20000	0.05700	0	Ohms per 1,000 ft
C-P7538.00	NEC , XHHW, 0.6, 100, Copper, 1/C, Magnetic, 75, 1000 ft,60, English, 30 90 90 30 90	Energized	6	34.000 ft	1	75	0.49000	0.06400	0	Ohms per 1,000 ft
C-P7541.00	NEC , XHHW, 0.6, 100, Copper, 1/C, Magnetic, 75, 1000 ft,60, English, 30 90 90 30 90	Energized	6	34.000 ft	1	75	0.49000	0.06400	0	Ohms per 1,000 ft
C-P7542.00	NEC , XHHW, 0.6, 100, Copper, 1/C, Magnetic, 75, 1000 ft,60, English, 30 90 90 30 90	Energized	6	30.000 ft	1	75	0.49000	0.06400	0	Ohms per 1,000 ft
C-P7554.00	NEC , XHHW, 0.6, 100, Copper, 1/C, Magnetic, 75, 1000 ft,60, English, 30 90 90 30 90	Energized	6	31.000 ft	1	75	0.49000	0.06400	0	Ohms per 1,000 ft
C-PANEL A	NEC , XHHW, 0.6, 100, Copper, 1/C, Magnetic, 75, 1000 ft,60, English, 30 90 90 30 90	Energized	10	10.000 ft	1	75	1.20000	0.06300	0	Ohms per 1,000 ft

Cable Data Schedule

Cable ID	Library	Status	Size	Length	#/ph	T (C)	R	X	Y	Impedance Unit
C-PANEL DPC5	NEC , XHHW, 0.6, 100, Copper, 1/C, Magnetic, 75, 1000 ft,60, English, 30 90 90 30 90	Energized	10	5.000 ft	1	75	1.20000	0.06300	0	Ohms per 1,000 ft
C-PNL DP1	NEC , XHHW, 0.6, 100, Copper, 1/C, Magnetic, 75, 1000 ft,60, English, 30 90 90 30 90	Energized	350	1020 ft	1	75	0.03900	0.05000	0	Ohms per 1,000 ft
C-PNL DP2	NEC , XHHW, 0.6, 100, Copper, 1/C, Magnetic, 75, 1000 ft,60, English, 30 90 90 30 90	Energized	500	380.00 ft	2	75	0.02900	0.04800	0	Ohms per 1,000 ft
C-PNL DP3	NEC , XHHW, 0.6, 100, Copper, 1/C, Magnetic, 75, 1000 ft,60, English, 30 90 90 30 90	Energized	350	235.00 ft	4	75	0.03900	0.05000	0	Ohms per 1,000 ft
C-PNL DP4	NEC , XHHW, 0.6, 100, Copper, 1/C, Magnetic, 75, 1000 ft,60, English, 30 90 90 30 90	Energized	350	15.000 ft	2	75	0.03900	0.05000	0	Ohms per 1,000 ft
C-PNL DPC-2	NEC , XHHW, 0.6, 100, Copper, 1/C, Magnetic, 75, 1000 ft,60, English, 30 90 90 30 90	Energized	1	8.000 ft	1	75	0.16000	0.05700	0	Ohms per 1,000 ft
C-PNL DPLC-1	NEC , XHHW, 0.6, 100, Copper, 1/C, Magnetic, 75, 1000 ft,60, English, 30 90 90 30 90	Energized	2/0	6.000 ft	1	75	0.10000	0.05400	0	Ohms per 1,000 ft
C-PNL DPLC-2	NEC , XHHW, 0.6, 100, Copper, 1/C, Magnetic, 75, 1000 ft,60, English, 30 90 90 30 90	Energized	3	1.000 ft	1	75	0.25000	0.05900	0	Ohms per 1,000 ft
C-PNL DPLC-3	NEC , XHHW, 0.6, 100, Copper, 1/C, Magnetic, 75, 1000 ft,60, English, 30 90 90 30 90	Energized	6	10.000 ft	1	75	0.49000	0.06400	0	Ohms per 1,000 ft
C-PNL DPLC-4	NEC , XHHW, 0.6, 100, Copper, 1/C, Magnetic, 75, 1000 ft,60, English, 30 90 90 30 90	Energized	6	10.000 ft	1	75	0.49000	0.06400	0	Ohms per 1,000 ft
C-PNL DPMB	NEC , XHHW, 0.6, 100, Copper, 1/C, Magnetic, 75, 1000 ft,60, English, 30 90 90 30 90	Energized	500	30.000 ft	1	75	0.02900	0.04800	0	Ohms per 1,000 ft
C-PNL DPP1	NEC , XHHW, 0.6, 100, Copper, 1/C, Magnetic, 75, 1000 ft,60, English, 30 90 90 30 90	Energized	2	55.000 ft	1	75	0.20000	0.05700	0	Ohms per 1,000 ft
C-PNL DPP1 BLOWER GALLERY	NEC , XHHW, 0.6, 100, Copper, 1/C, Magnetic, 75, 1000 ft,60, English, 30 90 90 30 90	Energized	4	90.000 ft	3	75	0.31000	0.06000	0	Ohms per 1,000 ft
C-PNL DPP3_BLOWER GALLERY	NEC , XHHW, 0.6, 100, Copper, 1/C, Magnetic, 75, 1000 ft,60, English, 30 90 90 30 90	Energized	4	90.000 ft	3	75	0.31000	0.06000	0	Ohms per 1,000 ft
C-PNL DPP4	NEC , XHHW, 0.6, 100, Copper, 1/C, Magnetic, 75, 1000 ft,60, English, 30 90 90 30 90	Energized	2	30.000 ft	3	75	0.20000	0.05700	0	Ohms per 1,000 ft
C-PNL DPP5	NEC , XHHW, 0.6, 100, Copper, 1/C, Magnetic, 75, 1000 ft,60, English, 30 90 90 30 90	Energized	2	365.00 ft	3	75	0.20000	0.05700	0	Ohms per 1,000 ft
C-PNL DPP6_BLOWER GALLERY	NEC , XHHW, 0.6, 100, Copper, 1/C, Magnetic, 75, 1000 ft,60, English, 30 90 90 30 90	Energized	4	90.000 ft	3	75	0.31000	0.06000	0	Ohms per 1,000 ft
C-PNL DPP7 BLOWER GALLERY	NEC , XHHW, 0.6, 100, Copper, 1/C, Magnetic, 75, 1000 ft,60, English, 30 90 90 30 90	Energized	4	50.000 ft	3	75	0.31000	0.06000	0	Ohms per 1,000 ft
C-PNL-DPL	NEC , XHHW, 0.6, 100, Copper, 1/C, Magnetic, 75, 1000 ft,60, English, 30 90 90 30 90	De-energized	6	100.00 ft	1	75	0.49000	0.06400	0	Ohms per 1,000 ft

Cable Data Schedule

Cable ID	Library	Status	Size	Length	#/ph	T (C)	R	X	Y	Impedance Unit
C-Polymer	NEC , XHHW, 0.6, 100, Copper, 1/C, Magnetic, 75, 1000 ft,60, English, 30 90 90 30 90	Energized	4	30.000 ft	3	75	0.31000	0.06000	0	Ohms per 1,000 ft
C-Polymer PNL	NEC , XHHW, 0.6, 100, Copper, 1/C, Magnetic, 75, 1000 ft,60, English, 30 90 90 30 90	Energized	4	30.000 ft	3	75	0.31000	0.06000	0	Ohms per 1,000 ft
C-PP VFD PNL	NEC , XHHW, 0.6, 100, Copper, 1/C, Magnetic, 75, 1000 ft,60, English, 30 90 90 30 90	Energized	8	30.000 ft	1	75	0.78000	0.06500	0	Ohms per 1,000 ft
C-Praestemat	NEC , XHHW, 0.6, 100, Copper, 1/C, Magnetic, 75, 1000 ft,60, English, 30 90 90 30 90	Energized	4	30.000 ft	3	75	0.31000	0.06000	0	Ohms per 1,000 ft
C-PURGING COMPROSSER	NEC , XHHW, 0.6, 100, Copper, 1/C, Magnetic, 75, 1000 ft,60, English, 30 90 90 30 90	Energized	12	30.000 ft	1	75	2.00000	0.06800	0	Ohms per 1,000 ft
C-ROOF A/C BREAKER	NEC , XHHW, 0.6, 100, Copper, 1/C, Magnetic, 75, 1000 ft,60, English, 30 90 90 30 90	Energized	8	31.000 ft	1	75	0.78000	0.06500	0	Ohms per 1,000 ft
C-RSS 30010.00	NEC , XHHW, 0.6, 100, Copper, 1/C, Magnetic, 75, 1000 ft,60, English, 30 90 90 30 90	Energized	8	125.00 ft	3	75	0.78000	0.06500	0	Ohms per 1,000 ft
C-RSS30020.00	NEC , XHHW, 0.6, 100, Copper, 1/C, Magnetic, 75, 1000 ft,60, English, 30 90 90 30 90	Energized	8	130.00 ft	3	75	0.78000	0.06500	0	Ohms per 1,000 ft
C-SCR BLDG N OH DOOR	NEC , XHHW, 0.6, 100, Copper, 1/C, Magnetic, 75, 1000 ft,60, English, 30 90 90 30 90	Energized	10	175.00 ft	1	75	1.20000	0.06300	0	Ohms per 1,000 ft
C-SCR BLDG S OH DOOR	NEC , XHHW, 0.6, 100, Copper, 1/C, Magnetic, 75, 1000 ft,60, English, 30 90 90 30 90	Energized	10	160.00 ft	1	75	1.20000	0.06300	0	Ohms per 1,000 ft
C-SCRUBBER CHEM HANDLING	NEC , XHHW, 0.6, 100, Copper, 1/C, Magnetic, 75, 1000 ft,60, English, 30 90 90 30 90	Energized	6	30.000 ft	1	75	0.49000	0.06400	0	Ohms per 1,000 ft
C-SEP53000.00	NEC , XHHW, 0.6, 100, Copper, 1/C, Magnetic, 75, 1000 ft,60, English, 30 90 90 30 90	Energized	10	310.00 ft	1	75	1.20000	0.06300	0	Ohms per 1,000 ft
C-SEP53010.00	NEC , XHHW, 0.6, 100, Copper, 1/C, Magnetic, 75, 1000 ft,60, English, 30 90 90 30 90	Energized	10	310.00 ft	1	75	1.20000	0.06300	0	Ohms per 1,000 ft
C-SEP53020.00	NEC , XHHW, 0.6, 100, Copper, 1/C, Magnetic, 75, 1000 ft,60, English, 30 90 90 30 90	Energized	10	320.00 ft	1	75	1.20000	0.06300	0	Ohms per 1,000 ft
C-SKIMMER ACTUATOR #1	NEC , XHHW, 0.6, 100, Copper, 1/C, Magnetic, 75, 1000 ft,60, English, 30 90 90 30 90	Energized	10	30.000 ft	1	75	1.20000	0.06300	0	Ohms per 1,000 ft
C-SKIMMER ACTUATOR #10	NEC , XHHW, 0.6, 100, Copper, 1/C, Magnetic, 75, 1000 ft,60, English, 30 90 90 30 90	Energized	10	30.000 ft	1	75	1.20000	0.06300	0	Ohms per 1,000 ft
C-SKIMMER ACTUATOR #11	NEC , XHHW, 0.6, 100, Copper, 1/C, Magnetic, 75, 1000 ft,60, English, 30 90 90 30 90	Energized	10	30.000 ft	1	75	1.20000	0.06300	0	Ohms per 1,000 ft
C-SKIMMER ACTUATOR #12	NEC , XHHW, 0.6, 100, Copper, 1/C, Magnetic, 75, 1000 ft,60, English, 30 90 90 30 90	Energized	10	30.000 ft	1	75	1.20000	0.06300	0	Ohms per 1,000 ft
C-SKIMMER ACTUATOR #13	NEC , XHHW, 0.6, 100, Copper, 1/C, Magnetic, 75, 1000 ft,60, English, 30 90 90 30 90	Energized	10	30.000 ft	1	75	1.20000	0.06300	0	Ohms per 1,000 ft

Cable Data Schedule

Cable ID	Library	Status	Size	Length	#/ph	T (C)	R	X	Y	Impedance Unit
C-SKIMMER ACTUATOR #14	NEC , XHHW, 0.6, 100, Copper, 1/C, Magnetic, 75, 1000 ft,60, English, 30 90 90 30 90	Energized	10	30.000 ft	1	75	1.20000	0.06300	0	Ohms per 1,000 ft
C-SKIMMER ACTUATOR #15	NEC , XHHW, 0.6, 100, Copper, 1/C, Magnetic, 75, 1000 ft,60, English, 30 90 90 30 90	Energized	10	30.000 ft	1	75	1.20000	0.06300	0	Ohms per 1,000 ft
C-SKIMMER ACTUATOR #16	NEC , XHHW, 0.6, 100, Copper, 1/C, Magnetic, 75, 1000 ft,60, English, 30 90 90 30 90	Energized	10	30.000 ft	1	75	1.20000	0.06300	0	Ohms per 1,000 ft
C-SKIMMER ACTUATOR #17	NEC , XHHW, 0.6, 100, Copper, 1/C, Magnetic, 75, 1000 ft,60, English, 30 90 90 30 90	Energized	10	30.000 ft	1	75	1.20000	0.06300	0	Ohms per 1,000 ft
C-SKIMMER ACTUATOR #18	NEC , XHHW, 0.6, 100, Copper, 1/C, Magnetic, 75, 1000 ft,60, English, 30 90 90 30 90	Energized	10	30.000 ft	1	75	1.20000	0.06300	0	Ohms per 1,000 ft
C-SKIMMER ACTUATOR #19	NEC , XHHW, 0.6, 100, Copper, 1/C, Magnetic, 75, 1000 ft,60, English, 30 90 90 30 90	Energized	10	30.000 ft	1	75	1.20000	0.06300	0	Ohms per 1,000 ft
C-SKIMMER ACTUATOR #2	NEC , XHHW, 0.6, 100, Copper, 1/C, Magnetic, 75, 1000 ft,60, English, 30 90 90 30 90	Energized	10	30.000 ft	1	75	1.20000	0.06300	0	Ohms per 1,000 ft
C-SKIMMER ACTUATOR #20	NEC , XHHW, 0.6, 100, Copper, 1/C, Magnetic, 75, 1000 ft,60, English, 30 90 90 30 90	Energized	10	30.000 ft	1	75	1.20000	0.06300	0	Ohms per 1,000 ft
C-SKIMMER ACTUATOR #21	NEC , XHHW, 0.6, 100, Copper, 1/C, Magnetic, 75, 1000 ft,60, English, 30 90 90 30 90	Energized	10	30.000 ft	1	75	1.20000	0.06300	0	Ohms per 1,000 ft
C-SKIMMER ACTUATOR #3	NEC , XHHW, 0.6, 100, Copper, 1/C, Magnetic, 75, 1000 ft,60, English, 30 90 90 30 90	Energized	10	30.000 ft	1	75	1.20000	0.06300	0	Ohms per 1,000 ft
C-SKIMMER ACTUATOR #4	NEC , XHHW, 0.6, 100, Copper, 1/C, Magnetic, 75, 1000 ft,60, English, 30 90 90 30 90	Energized	10	30.000 ft	1	75	1.20000	0.06300	0	Ohms per 1,000 ft
C-SKIMMER ACTUATOR #5	NEC , XHHW, 0.6, 100, Copper, 1/C, Magnetic, 75, 1000 ft,60, English, 30 90 90 30 90	Energized	10	30.000 ft	1	75	1.20000	0.06300	0	Ohms per 1,000 ft
C-SKIMMER ACTUATOR #6	NEC , XHHW, 0.6, 100, Copper, 1/C, Magnetic, 75, 1000 ft,60, English, 30 90 90 30 90	Energized	10	30.000 ft	1	75	1.20000	0.06300	0	Ohms per 1,000 ft
C-SKIMMER ACTUATOR #7	NEC , XHHW, 0.6, 100, Copper, 1/C, Magnetic, 75, 1000 ft,60, English, 30 90 90 30 90	Energized	10	30.000 ft	1	75	1.20000	0.06300	0	Ohms per 1,000 ft
C-SKIMMER ACTUATOR #8	NEC , XHHW, 0.6, 100, Copper, 1/C, Magnetic, 75, 1000 ft,60, English, 30 90 90 30 90	Energized	10	30.000 ft	1	75	1.20000	0.06300	0	Ohms per 1,000 ft
C-SKIMMER ACTUATOR #9	NEC , XHHW, 0.6, 100, Copper, 1/C, Magnetic, 75, 1000 ft,60, English, 30 90 90 30 90	Energized	10	30.000 ft	1	75	1.20000	0.06300	0	Ohms per 1,000 ft
C-SKIMMINGS VALVES ACT#1	NEC , XHHW, 0.6, 100, Copper, 1/C, Magnetic, 75, 1000 ft,60, English, 30 90 90 30 90	Energized	12	30.000 ft	1	75	2.00000	0.06800	0	Ohms per 1,000 ft
C-SKIMMINGS VALVES ACT#2	NEC , XHHW, 0.6, 100, Copper, 1/C, Magnetic, 75, 1000 ft,60, English, 30 90 90 30 90	Energized	10	30.000 ft	1	75	1.20000	0.06300	0	Ohms per 1,000 ft
C-SKIMMINGS VALVES ACT#3	NEC , XHHW, 0.6, 100, Copper, 1/C, Magnetic, 75, 1000 ft,60, English, 30 90 90 30 90	Energized	10	30.000 ft	1	75	1.20000	0.06300	0	Ohms per 1,000 ft

Cable Data Schedule

Cable ID	Library	Status	Size	Length	#/ph	T (C)	R	X	Y	Impedance Unit
C-SNAIL BOOSTER PUMP	NEC , XHHW, 0.6, 100, Copper, 1/C, Magnetic, 75, 1000 ft,60, English, 30 90 90 30 90	Energized	12	30.000 ft	1	75	2.00000	0.06800	0	Ohms per 1,000 ft
C-SP2	NEC , XHHW, 0.6, 100, Copper, 1/C, Magnetic, 75, 1000 ft,60, English, 30 90 90 30 90	Energized	8	30.000 ft	3	75	0.78000	0.06500	0	Ohms per 1,000 ft
C-SR-DAF	NEC , XHHW, 0.6, 100, Copper, 1/C, Magnetic, 75, 1000 ft,60, English, 30 90 90 30 90	Energized	400	175.00 ft	1	75	0.03500	0.04900	0	Ohms per 1,000 ft
C-STANDBY GEN PNL	NEC , XHHW, 0.6, 100, Copper, 1/C, Magnetic, 75, 1000 ft,60, English, 30 90 90 30 90	Energized	6	30.000 ft	1	75	0.49000	0.06400	0	Ohms per 1,000 ft
C-SUMP PUMP	NEC , XHHW, 0.6, 100, Copper, 1/C, Magnetic, 75, 1000 ft,60, English, 30 90 90 30 90	Energized	8	30.000 ft	1	75	0.78000	0.06500	0	Ohms per 1,000 ft
C-SUPPLY FAN 1	NEC , XHHW, 0.6, 100, Copper, 1/C, Magnetic, 75, 1000 ft,60, English, 30 90 90 30 90	Energized	12	30.000 ft	1	75	2.00000	0.06800	0	Ohms per 1,000 ft
C-SWBD GDP	NEC , XHHW, 0.6, 100, Copper, 1/C, Magnetic, 75, 1000 ft,60, English, 30 90 90 30 90	Energized	500	320.00 ft	12	75	0.02900	0.04800	0	Ohms per 1,000 ft
C-SWBD-NB BUS A	NEC , XHHW, 0.6, 100, Copper, 1/C, Magnetic, 75, 1000 ft,60, English, 30 90 90 30 90	Energized	500	40.000 ft	4	75	0.02900	0.04800	0	Ohms per 1,000 ft
C-SWBD-NB BUS B	NEC , XHHW, 0.6, 100, Copper, 1/C, Magnetic, 75, 1000 ft,60, English, 30 90 90 30 90	Energized	500	40.000 ft	4	75	0.02900	0.04800	0	Ohms per 1,000 ft
C-TRANSF TC	KERITE, EPR, 5.0, 100, Copper, 1/C, Magnetic, 90, 1000 ft,60, English, 20 90 90 35 90	Energized	3/0	20.000 ft	1	90	0.08700	0.11500	0	Ohms per 1,000 ft
C-TRANSF TD	KERITE, EPR, 5.0, 100, Copper, 1/C, Magnetic, 90, 1000 ft,60, English, 20 90 90 35 90	Energized	3/0	20.000 ft	1	90	0.08700	0.11500	0	Ohms per 1,000 ft
C-TSDF XFMR	NEC , XHHW, 0.6, 100, Copper, 1/C, Magnetic, 75, 1000 ft,60, English, 30 90 90 30 90	Energized	8	30.000 ft	1	75	0.78000	0.06500	0	Ohms per 1,000 ft
C-WELDER RECPT NEW ROLL U	NEC , XHHW, 0.6, 100, Copper, 1/C, Magnetic, 75, 1000 ft,60, English, 30 90 90 30 90	Energized	6	30.000 ft	1	75	0.49000	0.06400	0	Ohms per 1,000 ft
C-XFMR T-C2	NEC , XHHW, 0.6, 100, Copper, 1/C, Magnetic, 75, 1000 ft,60, English, 30 90 90 30 90	Energized	6	40.000 ft	1	75	0.49000	0.06400	0	Ohms per 1,000 ft
C-XFMR T-C4	NEC , XHHW, 0.6, 100, Copper, 1/C, Magnetic, 75, 1000 ft,60, English, 30 90 90 30 90	Energized	10	15.000 ft	1	75	1.20000	0.06300	0	Ohms per 1,000 ft
C-XFMR T-LC1	NEC , XHHW, 0.6, 100, Copper, 1/C, Magnetic, 75, 1000 ft,60, English, 30 90 90 30 90	Energized	4	55.000 ft	1	75	0.31000	0.06000	0	Ohms per 1,000 ft
C-XFMR T-LC2	NEC , XHHW, 0.6, 100, Copper, 1/C, Magnetic, 75, 1000 ft,60, English, 30 90 90 30 90	Energized	6	160.00 ft	1	75	0.49000	0.06400	0	Ohms per 1,000 ft
C-XFMR-DPL4-PRI	NEC , XHHW, 0.6, 100, Copper, 1/C, Magnetic, 75, 1000 ft,60, English, 30 90 90 30 90	Energized	4	30.000 ft	1	75	0.31000	0.06000	0	Ohms per 1,000 ft
C-XFMR-DPL4-SEC	NEC , XHHW, 0.6, 100, Copper, 1/C, Magnetic, 75, 1000 ft,60, English, 30 90 90 30 90	Energized	1	30.000 ft	1	75	0.16000	0.05700	0	Ohms per 1,000 ft

Cable Data Schedule

Cable ID	Library	Status	Size	Length	#/ph	T (C)	R	X	Y	Impedance Unit
C-XFMR-ELP5-PRI	NEC , XHHW, 0.6, 100, Copper, 1/C, Magnetic, 75, 1000 ft,60, English, 30 90 90 30 90	Energized	10	30.000 ft	1	75	1.20000	0.06300	0	Ohms per 1,000 ft
C-XFMR-ELP5-SEC	NEC , XHHW, 0.6, 100, Copper, 1/C, Magnetic, 75, 1000 ft,60, English, 30 90 90 30 90	Energized	6	30.000 ft	1	75	0.49000	0.06400	0	Ohms per 1,000 ft
C-XFMR-EPH1-PRI	NEC , XHHW, 0.6, 100, Copper, 1/C, Magnetic, 75, 1000 ft,60, English, 30 90 90 30 90	Energized	10	30.000 ft	1	75	1.20000	0.06300	0	Ohms per 1,000 ft
C-XFMR-LP4-PRI	NEC , XHHW, 0.6, 100, Copper, 1/C, Magnetic, 75, 1000 ft,60, English, 30 90 90 30 90	Energized	12	30.000 ft	1	75	2.00000	0.06800	0	Ohms per 1,000 ft
C-XFMR-LP9-PRI	NEC , XHHW, 0.6, 100, Copper, 1/C, Magnetic, 75, 1000 ft,60, English, 30 90 90 30 90	Energized	10	30.000 ft	1	75	1.20000	0.06300	0	Ohms per 1,000 ft
C-XFMR-LPA-PRI	NEC , XHHW, 0.6, 100, Copper, 1/C, Magnetic, 75, 1000 ft,60, English, 30 90 90 30 90	Energized	4	73.000 ft	1	75	0.31000	0.06000	0	Ohms per 1,000 ft
C-XFMR-LPA-SEC	NEC , XHHW, 0.6, 100, Copper, 1/C, Magnetic, 75, 1000 ft,60, English, 30 90 90 30 90	Energized	2/0	30.000 ft	1	75	0.10000	0.05400	0	Ohms per 1,000 ft
C-XFMR-LPD-PRI	NEC , XHHW, 0.6, 100, Copper, 1/C, Magnetic, 75, 1000 ft,60, English, 30 90 90 30 90	Energized	6	16.000 ft	1	75	0.49000	0.06400	0	Ohms per 1,000 ft
C-XFMR-LPD-SEC	NEC , XHHW, 0.6, 100, Copper, 1/C, Magnetic, 75, 1000 ft,60, English, 30 90 90 30 90	Energized	1	30.000 ft	1	75	0.16000	0.05700	0	Ohms per 1,000 ft
C-XFMR-LPF	NEC , XHHW, 0.6, 100, Copper, 1/C, Magnetic, 75, 1000 ft,60, English, 30 90 90 30 90	Energized	8	30.000 ft	1	75	0.78000	0.06500	0	Ohms per 1,000 ft
C-XFMR-LPG-PRI	NEC , XHHW, 0.6, 100, Copper, 1/C, Magnetic, 75, 1000 ft,60, English, 30 90 90 30 90	Energized	12	30.000 ft	1	75	2.00000	0.06800	0	Ohms per 1,000 ft
C-XFMR-LPG-SEC	NEC , XHHW, 0.6, 100, Copper, 1/C, Magnetic, 75, 1000 ft,60, English, 30 90 90 30 90	Energized	4	30.000 ft	1	75	0.31000	0.06000	0	Ohms per 1,000 ft
C-XFMR-LPJ-PRI	NEC , XHHW, 0.6, 100, Copper, 1/C, Magnetic, 75, 1000 ft,60, English, 30 90 90 30 90	Energized	3	30.000 ft	1	75	0.25000	0.05900	0	Ohms per 1,000 ft
C-XFMR-STORAGE-BLDG-PRI	NEC , XHHW, 0.6, 100, Copper, 1/C, Magnetic, 75, 1000 ft,60, English, 30 90 90 30 90	Energized	8	30.000 ft	1	75	0.78000	0.06500	0	Ohms per 1,000 ft
C-XFMR-T1-LPK-PRI	NEC , XHHW, 0.6, 100, Copper, 1/C, Magnetic, 75, 1000 ft,60, English, 30 90 90 30 90	Energized	8	30.000 ft	1	75	0.78000	0.06500	0	Ohms per 1,000 ft
C-XFMR-T1-LPK-SEC	NEC , XHHW, 0.6, 100, Copper, 1/C, Magnetic, 75, 1000 ft,60, English, 30 90 90 30 90	Energized	1	8.000 ft	1	75	0.16000	0.05700	0	Ohms per 1,000 ft
C-XFMR-T1-LPM-PRI	NEC , XHHW, 0.6, 100, Copper, 1/C, Magnetic, 75, 1000 ft,60, English, 30 90 90 30 90	Energized	2/0	80.000 ft	1	75	0.10000	0.05400	0	Ohms per 1,000 ft
C-XFMR-T2	NEC , XHHW, 0.6, 100, Copper, 1/C, Magnetic, 75, 1000 ft,60, English, 30 90 90 30 90	Energized	8	30.000 ft	1	75	0.78000	0.06500	0	Ohms per 1,000 ft
C-XFMR-T2-ELP3-SEC	NEC , XHHW, 0.6, 100, Copper, 1/C, Magnetic, 75, 1000 ft,60, English, 30 90 90 30 90	Energized	1	30.000 ft	1	75	0.16000	0.05700	0	Ohms per 1,000 ft

Cable Data Schedule

Cable ID	Library	Status	Size	Length	#/ph	T (C)	R	X	Y	Impedance Unit
C-XFMR-T2-ELP7-PRI	NEC , XHHW, 0.6, 100, Copper, 1/C, Magnetic, 75, 1000 ft,60, English, 30 90 90 30 90	Energized	10	30.000 ft	1	75	1.20000	0.06300	0	Ohms per 1,000 ft
C-XFMR-T2-LPB-PRI	NEC , XHHW, 0.6, 100, Copper, 1/C, Magnetic, 75, 1000 ft,60, English, 30 90 90 30 90	Energized	6	76.000 ft	1	75	0.49000	0.06400	0	Ohms per 1,000 ft
C-XFMR-T2-LPB-SEC	NEC , XHHW, 0.6, 100, Copper, 1/C, Magnetic, 75, 1000 ft,60, English, 30 90 90 30 90	Energized	1	30.000 ft	1	75	0.16000	0.05700	0	Ohms per 1,000 ft
C-XFMR-T2-LPC-PRI	NEC , XHHW, 0.6, 100, Copper, 1/C, Magnetic, 75, 1000 ft,60, English, 30 90 90 30 90	Energized	1	14.000 ft	1	75	0.16000	0.05700	0	Ohms per 1,000 ft
C-XFMR-T2-LPC-SEC	NEC , XHHW, 0.6, 100, Copper, 1/C, Magnetic, 75, 1000 ft,60, English, 30 90 90 30 90	Energized	350	30.000 ft	1	75	0.03900	0.05000	0	Ohms per 1,000 ft
C-XFMR-T2-LPE-PRI	NEC , XHHW, 0.6, 100, Copper, 1/C, Magnetic, 75, 1000 ft,60, English, 30 90 90 30 90	Energized	8	30.000 ft	1	75	0.78000	0.06500	0	Ohms per 1,000 ft
C-XFMR-T2-LPE-SEC	NEC , XHHW, 0.6, 100, Copper, 1/C, Magnetic, 75, 1000 ft,60, English, 30 90 90 30 90	Energized	2	30.000 ft	1	75	0.20000	0.05700	0	Ohms per 1,000 ft
C-XFMR-T3-ELP8-PRI	NEC , XHHW, 0.6, 100, Copper, 1/C, Magnetic, 75, 1000 ft,60, English, 30 90 90 30 90	Energized	8	30.000 ft	1	75	0.78000	0.06500	0	Ohms per 1,000 ft
C-XFMR-T3-ELP8-SEC	NEC , XHHW, 0.6, 100, Copper, 1/C, Magnetic, 75, 1000 ft,60, English, 30 90 90 30 90	Energized	1	30.000 ft	1	75	0.16000	0.05700	0	Ohms per 1,000 ft
C-XFMR-T3-LPN-PRI	NEC , XHHW, 0.6, 100, Copper, 1/C, Magnetic, 75, 1000 ft,60, English, 30 90 90 30 90	Energized	8	30.000 ft	1	75	0.78000	0.06500	0	Ohms per 1,000 ft
C-XFMR-T3-LPN-SEC	NEC , XHHW, 0.6, 100, Copper, 1/C, Magnetic, 75, 1000 ft,60, English, 30 90 90 30 90	Energized	6	15.000 ft	1	75	0.49000	0.06400	0	Ohms per 1,000 ft
C-XFMR-T4-PRI	NEC , XHHW, 0.6, 100, Copper, 1/C, Magnetic, 75, 1000 ft,60, English, 30 90 90 30 90	Energized	12	30.000 ft	1	75	2.00000	0.06800	0	Ohms per 1,000 ft
C-XFMR-T5-ELP1-PRI	NEC , XHHW, 0.6, 100, Copper, 1/C, Magnetic, 75, 1000 ft,60, English, 30 90 90 30 90	Energized	6	80.000 ft	1	75	0.49000	0.06400	0	Ohms per 1,000 ft
C-XFMR-T5-ELP1-SEC	NEC , XHHW, 0.6, 100, Copper, 1/C, Magnetic, 75, 1000 ft,60, English, 30 90 90 30 90	Energized	1	30.000 ft	1	75	0.16000	0.05700	0	Ohms per 1,000 ft
C-XFMR-T-DPC1-PRI	NEC , XHHW, 0.6, 100, Copper, 1/C, Magnetic, 75, 1000 ft,60, English, 30 90 90 30 90	Energized	4	95.000 ft	3	75	0.31000	0.06000	0	Ohms per 1,000 ft
C-XFMR-T-DPC1-SEC	NEC , XHHW, 0.6, 100, Copper, 1/C, Magnetic, 75, 1000 ft,60, English, 30 90 90 30 90	Energized	6	30.000 ft	3	75	0.49000	0.06400	0	Ohms per 1,000 ft
C-XFMR-T-DPC3-PRI	NEC , XHHW, 0.6, 100, Copper, 1/C, Magnetic, 75, 1000 ft,60, English, 30 90 90 30 90	Energized	10	53.000 ft	3	75	1.20000	0.06300	0	Ohms per 1,000 ft
C-XFMR-T-DPC3-SEC	NEC , XHHW, 0.6, 100, Copper, 1/C, Magnetic, 75, 1000 ft,60, English, 30 90 90 30 90	Energized	6	30.000 ft	3	75	0.49000	0.06400	0	Ohms per 1,000 ft
C-XFMR-T-DPC6-PRI	NEC , XHHW, 0.6, 100, Copper, 1/C, Magnetic, 75, 1000 ft,60, English, 30 90 90 30 90	Energized	10	30.000 ft	1	75	1.20000	0.06300	0	Ohms per 1,000 ft

Cable Data Schedule

Cable ID	Library	Status	Size	Length	#/ph	T (C)	R	X	Y	Impedance Unit
C-XFMR-T-DPC6-SEC	NEC , XHHW, 0.6, 100, Copper, 1/C, Magnetic, 75, 1000 ft,60, English, 30 90 90 30 90	Energized	6	30.000 ft	1	75	0.49000	0.06400	0	Ohms per 1,000 ft
C-XFMR-T-DPL2-PRI	NEC , XHHW, 0.6, 100, Copper, 1/C, Magnetic, 75, 1000 ft,60, English, 30 90 90 30 90	Energized	2	95.000 ft	3	75	0.20000	0.05700	0	Ohms per 1,000 ft
C-XFMR-T-DPL2-SEC	NEC , XHHW, 0.6, 100, Copper, 1/C, Magnetic, 75, 1000 ft,60, English, 30 90 90 30 90	Energized	2	30.000 ft	3	75	0.20000	0.05700	0	Ohms per 1,000 ft
C-XFMR-T-DPL4-PRI	NEC , XHHW, 0.6, 100, Copper, 1/C, Magnetic, 75, 1000 ft,60, English, 30 90 90 30 90	Energized	8	30.000 ft	1	75	0.78000	0.06500	0	Ohms per 1,000 ft
C-XFMR-T-DPL5-PRI	NEC , XHHW, 0.6, 100, Copper, 1/C, Magnetic, 75, 1000 ft,60, English, 30 90 90 30 90	Energized	6	30.000 ft	1	75	0.49000	0.06400	0	Ohms per 1,000 ft
C-XFMR-T-DPL5-SEC	NEC , XHHW, 0.6, 100, Copper, 1/C, Magnetic, 75, 1000 ft,60, English, 30 90 90 30 90	Energized	1	30.000 ft	1	75	0.16000	0.05700	0	Ohms per 1,000 ft
C-XFMR-T-DPL7-PRI	NEC , XHHW, 0.6, 100, Copper, 1/C, Magnetic, 75, 1000 ft,60, English, 30 90 90 30 90	Energized	4	95.000 ft	3	75	0.31000	0.06000	0	Ohms per 1,000 ft
C-XFMR-T-DPL7-SEC	NEC , XHHW, 0.6, 100, Copper, 1/C, Magnetic, 75, 1000 ft,60, English, 30 90 90 30 90	Energized	4/0	30.000 ft	3	75	0.06300	0.05100	0	Ohms per 1,000 ft
C-XFMR-T-DPL-PRI	NEC , XHHW, 0.6, 100, Copper, 1/C, Magnetic, 75, 1000 ft,60, English, 30 90 90 30 90	Energized	8	30.000 ft	1	75	0.78000	0.06500	0	Ohms per 1,000 ft
C-XFMR-T-DPM1-PRI	NEC , XHHW, 0.6, 100, Copper, 1/C, Magnetic, 75, 1000 ft,60, English, 30 90 90 30 90	Energized	4	95.000 ft	3	75	0.31000	0.06000	0	Ohms per 1,000 ft
C-XFMR-T-DPM1-SEC	NEC , XHHW, 0.6, 100, Copper, 1/C, Magnetic, 75, 1000 ft,60, English, 30 90 90 30 90	Energized	400	30.000 ft	3	75	0.03500	0.04900	0	Ohms per 1,000 ft
C-XFMR-T-DPM2-PRI	NEC , XHHW, 0.6, 100, Copper, 1/C, Magnetic, 75, 1000 ft,60, English, 30 90 90 30 90	Energized	4	95.000 ft	3	75	0.31000	0.06000	0	Ohms per 1,000 ft
C-XFMR-T-DPM2-SEC	NEC , XHHW, 0.6, 100, Copper, 1/C, Magnetic, 75, 1000 ft,60, English, 30 90 90 30 90	Energized	400	30.000 ft	3	75	0.03500	0.04900	0	Ohms per 1,000 ft
C-XFMR-T-DPP PRI	NEC , XHHW, 0.6, 100, Copper, 1/C, Magnetic, 75, 1000 ft,60, English, 30 90 90 30 90	Energized	10	30.000 ft	1	75	1.20000	0.06300	0	Ohms per 1,000 ft
C-XFMR-T-GD-PRI	NEC , XHHW, 0.6, 100, Copper, 1/C, Magnetic, 75, 1000 ft,60, English, 30 90 90 30 90	Energized	8	30.000 ft	1	75	0.78000	0.06500	0	Ohms per 1,000 ft
C-XFMR-T-GD-SEC	NEC , XHHW, 0.6, 100, Copper, 1/C, Magnetic, 75, 1000 ft,60, English, 30 90 90 30 90	Energized	6	30.000 ft	1	75	0.49000	0.06400	0	Ohms per 1,000 ft
C-XFRM-FEB-PRI	NEC , XHHW, 0.6, 100, Copper, 1/C, Magnetic, 75, 1000 ft,60, English, 30 90 90 30 90	Energized	4	30.000 ft	3	75	0.31000	0.06000	0	Ohms per 1,000 ft
C-XFRM-LP-VFD-PRI	NEC , XHHW, 0.6, 100, Copper, 1/C, Magnetic, 75, 1000 ft,60, English, 30 90 90 30 90	Energized	8	30.000 ft	1	75	0.78000	0.06500	0	Ohms per 1,000 ft
C-XFRM-LP-VFD-SEC	NEC , XHHW, 0.6, 100, Copper, 1/C, Magnetic, 75, 1000 ft,60, English, 30 90 90 30 90	Energized	4	30.000 ft	1	75	0.31000	0.06000	0	Ohms per 1,000 ft

Cable Data Schedule

Cable ID	Library	Status	Size	Length	#/ph	T (C)	R	X	Y	Impedance Unit
C-XFRM-T1-LP12-PRI	NEC , XHHW, 0.6, 100, Copper, 1/C, Magnetic, 75, 1000 ft,60, English, 30 90 90 30 90	Energized	8	30.000 ft	1	75	0.78000	0.06500	0	Ohms per 1,000 ft
C-XFRM-T1-LP12-SEC	NEC , XHHW, 0.6, 100, Copper, 1/C, Magnetic, 75, 1000 ft,60, English, 30 90 90 30 90	Energized	6	15.000 ft	1	75	0.49000	0.06400	0	Ohms per 1,000 ft
C-XFRM-T1-LP2-PRI	NEC , XHHW, 0.6, 100, Copper, 1/C, Magnetic, 75, 1000 ft,60, English, 30 90 90 30 90	Energized	8	30.000 ft	1	75	0.78000	0.06500	0	Ohms per 1,000 ft
C-XFRM-T1-LP2-SEC	NEC , XHHW, 0.6, 100, Copper, 1/C, Magnetic, 75, 1000 ft,60, English, 30 90 90 30 90	Energized	1	30.000 ft	1	75	0.16000	0.05700	0	Ohms per 1,000 ft
C-XFRM-T-DPC7-PRI	NEC , XHHW, 0.6, 100, Copper, 1/C, Magnetic, 75, 1000 ft,60, English, 30 90 90 30 90	Energized	4	95.000 ft	3	75	0.31000	0.06000	0	Ohms per 1,000 ft
C-XFRM-T-DPC7-SEC	NEC , XHHW, 0.6, 100, Copper, 1/C, Magnetic, 75, 1000 ft,60, English, 30 90 90 30 90	Energized	400	30.000 ft	3	75	0.03500	0.04900	0	Ohms per 1,000 ft
C-XFRM-T-DPL1-PRI	NEC , XHHW, 0.6, 100, Copper, 1/C, Magnetic, 75, 1000 ft,60, English, 30 90 90 30 90	Energized	4	95.000 ft	3	75	0.31000	0.06000	0	Ohms per 1,000 ft
C-XFRM-T-DPL1-SEC	NEC , XHHW, 0.6, 100, Copper, 1/C, Magnetic, 75, 1000 ft,60, English, 30 90 90 30 90	Energized	4	30.000 ft	3	75	0.31000	0.06000	0	Ohms per 1,000 ft
C-XFRM-T-DPP2-PRI	NEC , XHHW, 0.6, 100, Copper, 1/C, Magnetic, 75, 1000 ft,60, English, 30 90 90 30 90	Energized	4	95.000 ft	3	75	0.31000	0.06000	0	Ohms per 1,000 ft
C-XFRM-T-DPP2-SEC	NEC , XHHW, 0.6, 100, Copper, 1/C, Magnetic, 75, 1000 ft,60, English, 30 90 90 30 90	Energized	4	10.000 ft	3	75	0.31000	0.06000	0	Ohms per 1,000 ft
C-XFRM-TRAN-LPA-PRI	NEC , XHHW, 0.6, 100, Copper, 1/C, Magnetic, 75, 1000 ft,60, English, 30 90 90 30 90	Energized	4	30.000 ft	1	75	0.31000	0.06000	0	Ohms per 1,000 ft
C-XFRM-TRAN-LPA-SEC	NEC , XHHW, 0.6, 100, Copper, 1/C, Magnetic, 75, 1000 ft,60, English, 30 90 90 30 90	Energized	2/0	30.000 ft	1	75	0.10000	0.05400	0	Ohms per 1,000 ft
C-XFRM-TRAN-PPA-PRI	NEC , XHHW, 0.6, 100, Copper, 1/C, Magnetic, 75, 1000 ft,60, English, 30 90 90 30 90	Energized	4	30.000 ft	1	75	0.31000	0.06000	0	Ohms per 1,000 ft
C-XFRM-TRAN-PPA-SEC	NEC , XHHW, 0.6, 100, Copper, 1/C, Magnetic, 75, 1000 ft,60, English, 30 90 90 30 90	Energized	2/0	30.000 ft	1	75	0.10000	0.05400	0	Ohms per 1,000 ft
C-XFRM-TRAN-PPB-PRI	NEC , XHHW, 0.6, 100, Copper, 1/C, Magnetic, 75, 1000 ft,60, English, 30 90 90 30 90	Energized	4	30.000 ft	1	75	0.31000	0.06000	0	Ohms per 1,000 ft
C-XFRM-TRAN-PPB-SEC	NEC , XHHW, 0.6, 100, Copper, 1/C, Magnetic, 75, 1000 ft,60, English, 30 90 90 30 90	Energized	1/0	30.000 ft	1	75	0.12000	0.05500	0	Ohms per 1,000 ft

APPENDIX G – SUMMARY OF THE CONDITION ASSESSMENT

	A	B	O	P	Q	R
1	Equipment	Location	Manufacturer	Install Year	Condition	Reason
2	MCC-DP3A	Administration Bldg	Federal Pacific	1978	4	1, 2
3	MCC-EDP1E	Administration Bldg	Federal Pacific	1978	4	1, 2
4	MCC-NG Bus A	Blower Bldg	Westinghouse Series 2100	1989	3	
5	MCC-NG Bus B	Blower Bldg	Westinghouse Series 2100	1989	3	
6	COGEN SWBD	Cogen Bldg	Westinghouse Pow-R-Line	1989	4	1, 2
7	MCC-DP3B	Cogen Bldg	Federal Pacific	1978	5	
8	MCC-GA	Cogen Bldg	Federal Pacific	1978	5	1, 2
9	Panel DP3	Cogen Bldg	Federal Pacific	1978	5	1, 2
10	Panel DPP8	Collec. Sys. Maint Bldg				
11	MCC-DP1A	DAF Bldg	Federal Pacific	1978	5	1, 2, 3, 4, 11
12	MCC-DP1B	DAF Bldg	Federal Pacific	1978	5	1, 3, 4, 5, 11
13	MCC-EDP1A	DAF Bldg	Federal Pacific	1978	5	1, 2, 3, 4, 11
14	Panel DP1	DAF Bldg	Federal Pacific	1978	5	1, 3
15	SR-DAF	DAF Tank Area				
16	MCC-DP2C	Digester Control Bldg	Federal Pacific	1978	5	1, 2, 3
17	MCC-EDP1C	Digester Control Bldg	Federal Pacific	1978	5	1, 2, 3, 4, 5, 9
18	MCC-GF	Digester Control Bldg	Federal Pacific	1978	4	1, 2
19	MCC-GH	Digester Control Bldg	Federal Pacific	1978	4	1, 2
20	MCC-GD_AB	Eastern Trunk	Allen-Bradley Centerline 2100	2011	1	
21	Panel DB	Eastern Trunk	Westinghouse Pow-R-Line C	1989	5	1, 3
22	MCC-DP4A	Eff. Pump Station	Federal Pacific	1978	5	1, 2, 3, 5, 10
23	MCC-EDP1D	Eff. Pump Station	Federal Pacific	1978	5	1, 2, 3, 5, 10
24	Eff PS SWGR Bus A	Gym	C-H Westinghouse DS II	1997	2	
25	Eff PS SWGR Bus B	Gym	C-H Westinghouse DS II	1997	2	
26	IPS Pump No. 1	Headworks Elec. Bldg	Allen-Bradley 1336 Plus II	2007	2	
27	IPS Pump No. 2	Headworks Elec. Bldg	Allen-Bradley 1336 Plus II	2007	2	
28	IPS Pump No. 3	Headworks Elec. Bldg	Allen-Bradley 1336 Plus II	2007	2	
29	IPS Pump No. 4	Headworks Elec. Bldg	Allen-Bradley 1336 Plus II	2007	2	
30	IPS Pump No. 5	Headworks Elec. Bldg	Allen-Bradley 1336 Plus II	2007	2	
31	IPS Pump No. 6	Headworks Elec. Bldg	Allen-Bradley 1336 Plus II	2007	2	
32	MCC-HW Bus A	Headworks Elec. Bldg	Allen-Bradley Centerline	2007	2	
33	MCC-HW Bus B	Headworks Elec. Bldg	Allen-Bradley Centerline	2007	2	
34	Panel DPP1 (HW)	Headworks Elec. Bldg	Siemens	2007	2	
35	SWGR MS-HW Bus A	Headworks Elec. Bldg	Siemens Type WL LV SWGR	2007	2	
36	SWGR MS-HW Bus B	Headworks Elec. Bldg	Siemens Type WL LV SWGR	2007	2	
37	Main SWGR Bus A	Main Electrical Bldg	Westinghouse	1989	4	1, 2, 6, 8
38	Main SWGR Bus B	Main Electrical Bldg	Westinghouse	1989	4	1, 2, 6, 8
39	MCC-DP4B	Main Electrical Bldg	Federal Pacific	1978	5	1, 2, 5, 8
40	MCC-GB	Main Electrical Bldg	Federal Pacific	1978	4	1, 2, 5, 8
41	MCC-GC	Main Electrical Bldg	Federal Pacific	1978	4	1, 2, 5, 8
42	MCC-GD	Main Electrical Bldg	Federal Pacific	1978	4	1, 2, 5, 8
43	MCC-GE	Main Electrical Bldg	Federal Pacific	1978	4	1, 2, 5, 8
44	Panel DP4	Main Electrical Bldg	Federal Pacific	1978	5	1, 2, 7, 8
45	MCC-NA Bus A	N. Area Elec. Room	Westinghouse Ampguard MV MCC	1989	3	
46	MCC-NA Bus B	N. Area Elec. Room	Westinghouse Ampguard MV MCC	1989	3	
47	MCC-NC	N. Area Elec. Room	Westinghouse Series 2100	1989	3	
48	MCC-ND	N. Area Elec. Room	Westinghouse Series 2100	1989	3	
49	MCC-NE	N. Area Elec. Room	Westinghouse Series 2100	1989	3	
50	MCC-NF	N. Area Elec. Room	Westinghouse Series 2100	1989	3	
51	Panel DPP4	N. Area Elec. Room	Westinghouse Pow-R-Line C	1989	3	

	A	B	O	P	Q	R
52	SWBD-NB Bus A	N. Area Elec. Room	Westinghouse	1989	3	
53	SWBD-NB Bus B	N. Area Elec. Room	Westinghouse	1989	3	
54	MCC-DP2B	Old Blower Bldg	Federal Pacific	1978	5	1, 2, 3, 4, 9, 11
55	Panel DP2	Old Blower Bldg	Federal Pacific	1978	5	1, 3, 11
56	ATS PSS1	Old Headworks Bldg	Westinghouse Series 2100	1989	3	
57	MCC-DP2A-1	Old Headworks Bldg	Federal Pacific	1978	4	
58	MCC-EDP1B-1	Old Headworks Bldg	Federal Pacific	1978	4	1, 2
59	MCC-HCC	Old Headworks Bldg	Westinghouse Series 2100	1989	3	
60	ATS-8	Old Infl. Bldg	Federal Pacific	1978	5	1, 3
61	MCC-DP2A	Old Infl. Bldg	Federal Pacific	1978	5	1, 2, 3, 4, 11
62	MCC-EDP1B	Old Infl. Bldg	Federal Pacific	1978	5	1, 2, 3, 4, 5, 9, 11
63	Panel EDP-1	Old Infl. Bldg	Federal Pacific	1978	5	1, 2, 3, 4
64	MCC-DP2D	Plant Control Center	Federal Pacific	1978	5	1, 2, 3, 4, 5
65	Panel DPMB	Plant Maint Bldg	Sierra Switchboard Company	Unknown	5	3
66	MCC-SH Bus A	Solids Processing Bldg	Westinghouse Series 2100	1989	3	
67	MCC-SH Bus B	Solids Processing Bldg	Westinghouse Series 2100	1989	3	
68	Panel DPP7	South Gallery	Westinghouse Pow-R-Line C	1989	3	
69	Panel DPP1	South Pipe Gallery	Westinghouse Pow-R-Line C	1989	3	
70	Panel DPP2	South Pipe Gallery	Westinghouse Pow-R-Line C	1989	3	
71	Panel DPP3	South Pipe Gallery	Westinghouse Pow-R-Line C	1989	3	
72	Panel DPP6	South Pipe Gallery	Westinghouse Pow-R-Line C	1989	3	
73	MCC-DP3C	Thickeners	Federal Pacific	1978	5	1, 2
74	MCC-DP3D	Thickeners	Federal Pacific	1978	5	1, 2
75	Panel DPP5	West Pipe Gallery	Westinghouse Pow-R-Line C	1989	3	
76	Panel PP-VFD		Cutler-Hammer Pow-R-Line C	1999	3	3
77						
78	Condition Score					
79	1 = Equipment like new.					
80	2 = Equipment in good condition.					
81	3 = Equipment in adequate condition. Nearing end of useful life. Parts may be difficult/expensive to obtain.					
82	4 = Equipment in poor condition. Past useful life. Parts are difficult/expensive or impossible to obtain.					
83	5= Equipment in very poor condition. Past useful life. Parts are difficult/expensive or impossible to obtain.					
84						
85	Reasons for condition assessment					
86	1. Equipment is at or nearing end of life					
87	2. Replacement parts difficult to find or expensive.					
88	3. Very dusty and/or rusty.					
89	4. Uncovered holes in equipment.					
90	5. Broken/missing components					
91	6. Feeder circuit breaker to DP1 charging motor does not operate.					
92	Charging spring handle on the Tie breaker is broken. Relays have not been tested in a long time.					
93	7. Not fully rated for short circuit current.					
94	8. Building is in poor condition. The leaky roof presents dangerous conditions when there is rain.					
95	9. Exposed bus.					
96	10. Unconditioned room w/ engine driven pumps					
97	11. Unconditioned room.					