MILLENIA MOB & ASC

ICT

Available Fault Current Calculation

Utility Fault Current ☐ amperes — kVA = 1000; E = 480

I = kVA x 1000 = trans. FLA
E x 1.732 — trans. FLA = 1203

$I_{sca} = \frac{\text{trans. FLA} \times 100 \times PF}{\text{transformer } Z}$ = — PF = 80%; Z = 3.80%

I_{sca} = ampere short-circuit current RMS symmetrical. — I_{sca} = 39,567 amperes

Point to Point Method — Three Phase 480/277

Length (distance) FEET — L = 1 — Copper in Nonmetallic Raceway

'f ' factor = $\frac{1.732 \times L \times I}{N \times C \times E_{L\text{-}N}}$ — (ASC) I_{sca} = 39,567

# conductors per phase — N = 4

Phase conductor constant — C = 26,706 **Phase Conductor** 500 kcmil

Volt Line to Line — $E_{L\text{-}L}$ = **480** Volt

f = 0.001

Neutral conductor constant — C = 13,353 **Neutral Conductor** AWG

Multiplier

Volt Line to Neutral — $E_{L\text{-}N}$ = **277** Volt

f = 0.007

$M = \frac{1}{1 + f}$

Line to Line — M = 0.999

Line to Neutral — M = 0.993

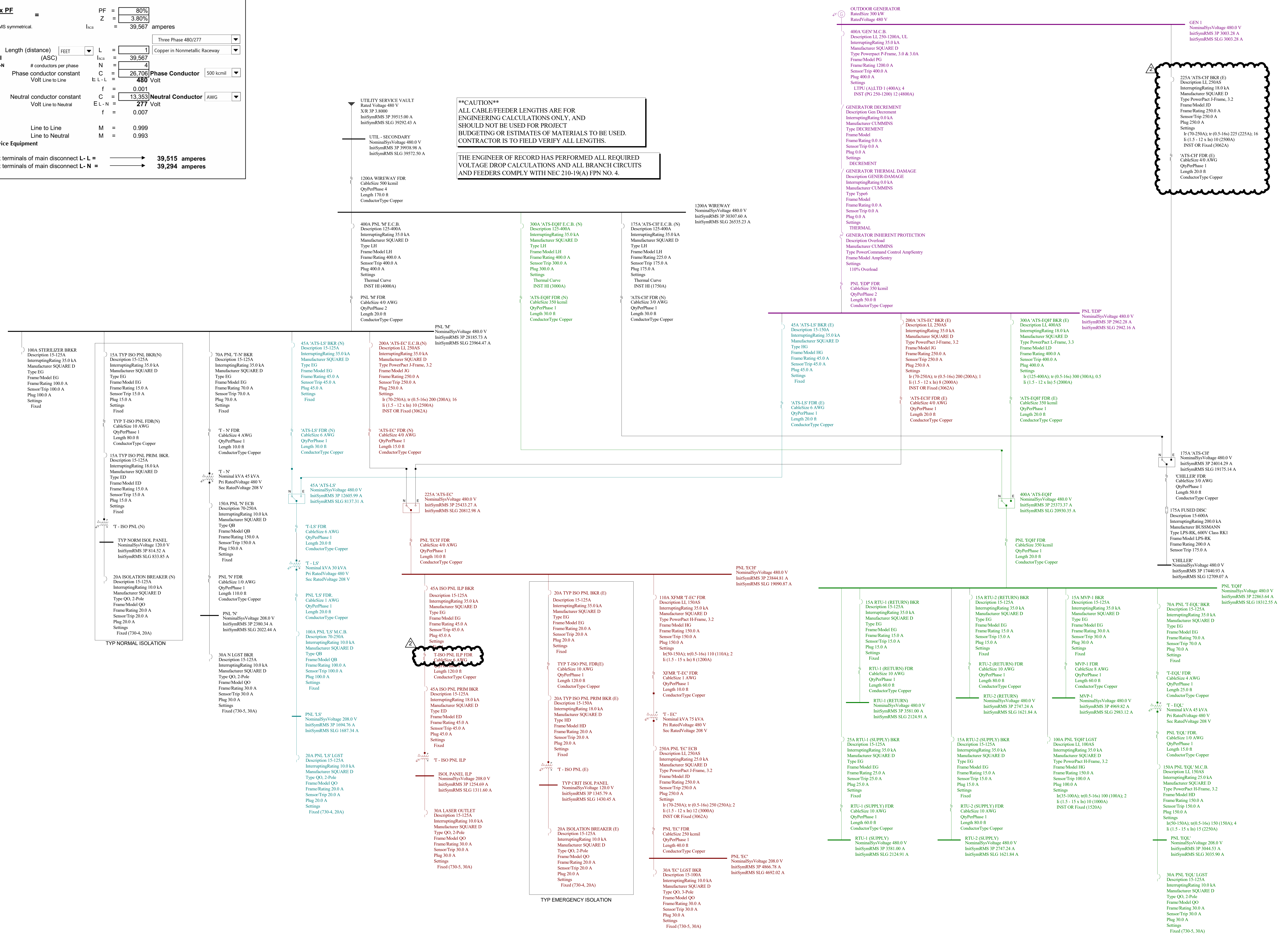
Fault Current at Service Equipment

I_{sca} x M = fault current at terminals of main disconnect L- L = → **39,515 amperes**

I_{sca} x M = fault current at terminals of main disconnect L- N = → **39,294 amperes**

CAUTION
ALL CABLE/FEEDER LENGTHS ARE FOR ENGINEERING CALCULATIONS ONLY, AND SHOULD NOT BE USED FOR PROJECT BUDGETING OR ESTIMATES OF MATERIALS TO BE USED. CONTRACTOR IS TO FIELD VERIFY ALL LENGTHS.

THE ENGINEER OF RECORD HAS PERFORMED ALL REQUIRED VOLTAGE DROP CALCULATIONS AND ALL BRANCH CIRCUITS AND FEEDERS COMPLY WITH NEC 210-19(A) FPN NO. 4.



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SEAL

PHILIP G. GARRETT
No 63289

This item has been digitally signed and sealed by Philip G. Garrett on the date adjacent to the seal.

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DATE	SUBMISSION	NO
12.12.2023	CONSTRUCTION DOCUMENTS	
08.07.26	CCD #2R	2

ELECTRICAL ONE-LINE DIAGRAM

PROJ. NO. H-23016.00
DRAWN RC
SHEET
E601A

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