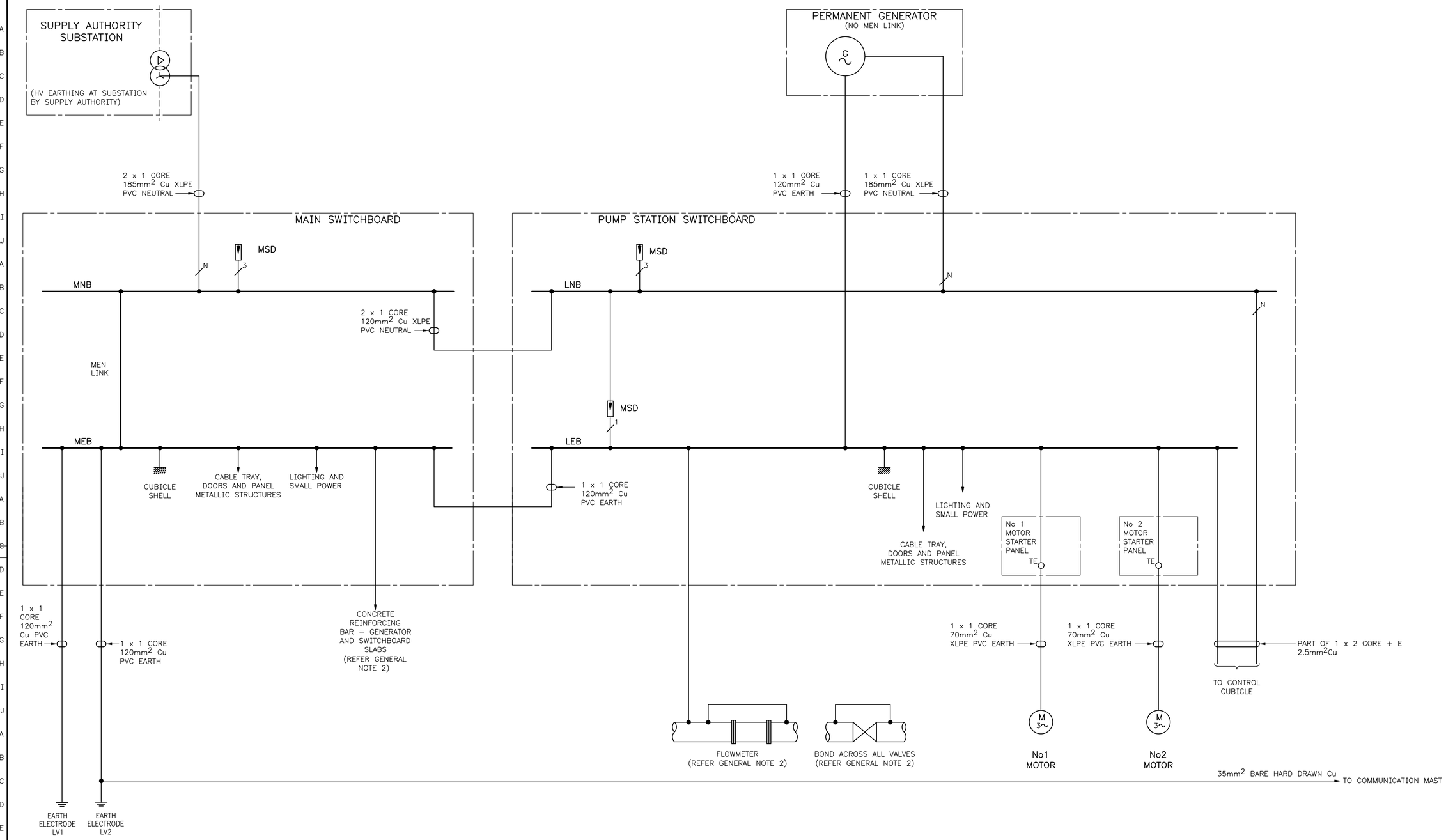

EARTH ELECTRODE DESIGN

1. TWO EARTH ELECTRODES, 16mm DIAMETER SHALL BE INSTALLED 4 METRES DEEP AND SPACED A MINIMUM OF 8 METRES APART
2. INDIVIDUAL ELECTRODE RESISTANCE CALCULATED TO BE 17.29 Ω
3. ELECTRODE SYSTEM RESISTANCE CALCULATED TO BE 9.3 Ω

CODE SCHEDULE

LEB	LOCAL EARTH BAR
LNB	LOCAL NEUTRAL BAR
MEB	MAIN EARTH BAR
MNB	MAIN NEUTRAL BAR
MSD	MAINS SURGE DIVERTER

SOIL RESISTIVITY TESTS

PERFORMED BY JOHN DOE, A COMPANY, 3 APRIL 2016

DISTANCE (m)	2	4	6	8	10	12
RESISTANCE (Ω)	11.12	2.62	0.96	0.52	0.43	0.35
SOIL RESISTIVITY (Ωm)	139.74	65.85	36.19	26.14	27.02	26.39

CAUTION

VALUES SHOWN ARE INDICATIVE ONLY, DRAWING IS ONLY A PRESENTATION EXAMPLE OF A COMPLETED DESIGN

GENERAL NOTES

1. THE OVERALL EARTHING RESISTANCE OF THE ELECTRICAL EARTHING SYSTEM SHALL BE NOT MORE THAN 15 OHMS
2. UNLESS OTHERWISE SHOWN ALL BONDING CABLES 70mm2

ISSUE	DATE	GRID	REVISION	DRN	REC	APPD
D	07/2021		CAUTION NOTE ADDED	PH	TL	EG
C	11/2019		SSMS DELETED	PH	EG	NJ
B	05/2019		MAIN SURGE DIVERTER REVISED	PH	TL	EG

566
810

DESIGN SURVEY NONE | VERTICAL DATUM NONE | DES CALC E FONG
COORDINATE SYS NONE | DES CHD K O'GRADY
ASCON SURVEY NONE | DES REF | DRN P HARVEY
Q.C. CHD S MEMORY

NORTH POINT

SUBMITTED 24/07/2017 E FONG (SIGNED) SENIOR ENGINEER – ELECTRICAL

RECOMMENDED 24/07/2017 K O'GRADY (SIGNED) PRINCIPAL ENGINEER – ELECTRICAL

APPROVED 24/07/2017 N JOHNSON (SIGNED) SNR PRINCIPAL ENGINEER – ELECT

ENGINEERING

WATER CORPORATION

ELECTRICAL STANDARD SWITCHBOARD DESIGNS
SMALL PUMP STATIONS
ELECTRICAL PRIMARY DESIGN – DRAWING EXAMPLE
WASTEWATER 440A – EARTHING DIAGRAM

FILE | PLAN MN01–32–3 | CAD | ISSUE D | ORIGINAL SHEET SIZE A1
PROJECT | MF

STANDARDS\APPROVED\MN01\MN01–032–003–01D 13:26 26/04/2022 HARVEYP0/NB46193

© THIS DRAWING IS THE PROPERTY OF THE WATER CORPORATION. IT SHALL NOT BE COPIED WITHOUT PERMISSION.