UTAH VALLEY UNIVERSITY

Orem, Utah 84058

METERING

DFCM Project #09054790

Prepared by:

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UTAH VALLEY UNIVERSITY
DFCM PROJECT #09054790

ELECTRICAL METERING

OREM, UTAH 84058

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SHEET TITLE

COVER SHEET

G001

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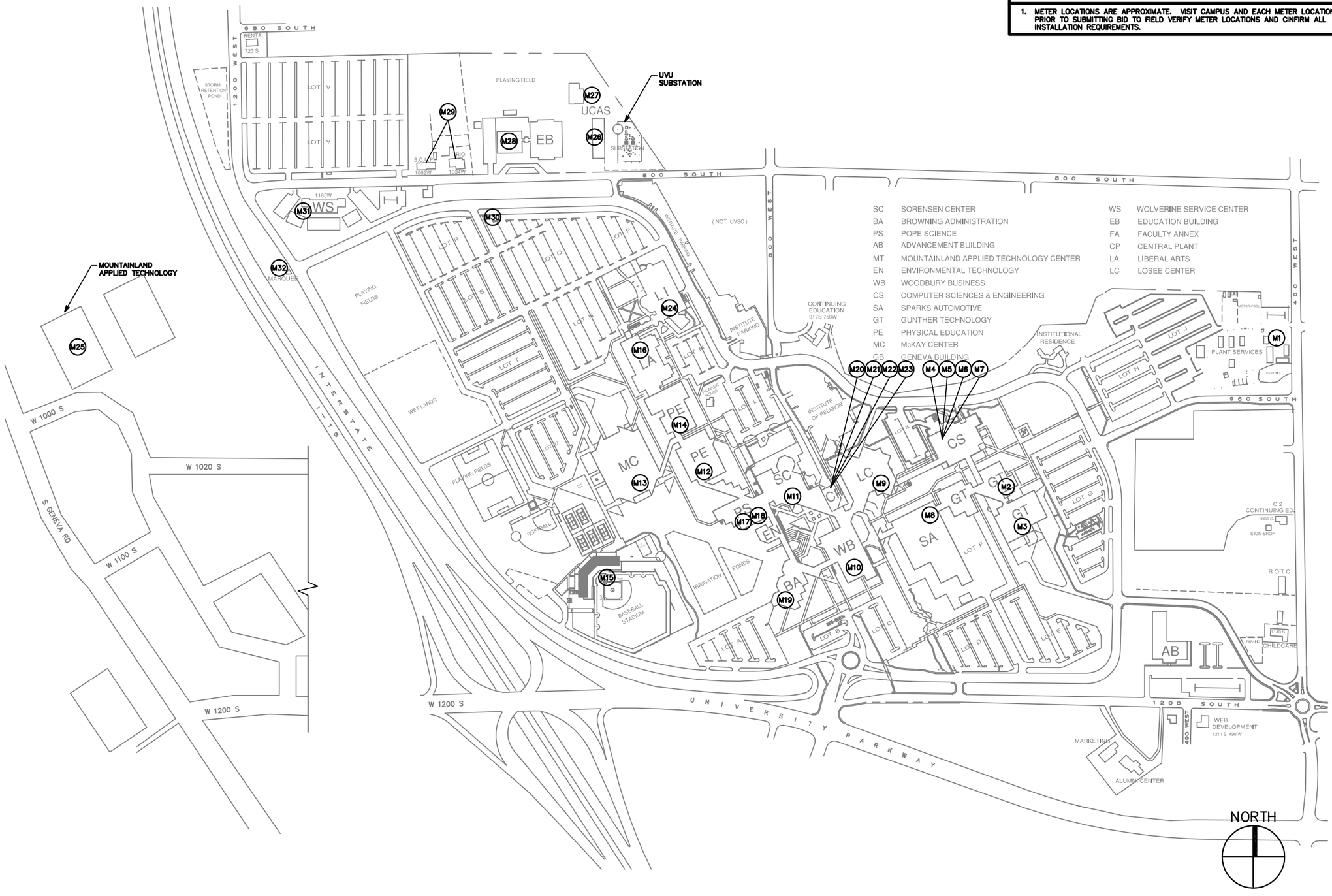
GENERAL SHEET NOTES

1. METER LOCATIONS ARE APPROXIMATE. VISIT CAMPUS AND EACH METER LOCATION PRIOR TO SUBMITTING BID TO FIELD VERIFY METER LOCATIONS AND CINFIRM ALL INSTALLATION REQUIREMENTS.



SC SORENSEN CENTER
BA BROWNING ADMINISTRATION
PS POPE SCIENCE
AB ADVANCEMENT BUILDING
MT MOUNTAINLAND APPLIED TECHNOLOGY CENTER
EN ENVIRONMENTAL TECHNOLOGY
WB WOODBURY BUSINESS
CS COMPUTER SCIENCES & ENGINEERING
SA SPARKS AUTOMOTIVE
GT GUNTHER TECHNOLOGY
PE PHYSICAL EDUCATION
MC McKAY CENTER
GB GENEVA BUILDING

WS WOLVERINE SERVICE CENTER
EB EDUCATION BUILDING
FA FACULTY ANNEX
CP CENTRAL PLANT
LA LIBERAL ARTS
LC LOSEE CENTER

A1 CAMPUS METER PLAN

NTS

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SHEET TITLE
CAMPUS METER PLAN

E101

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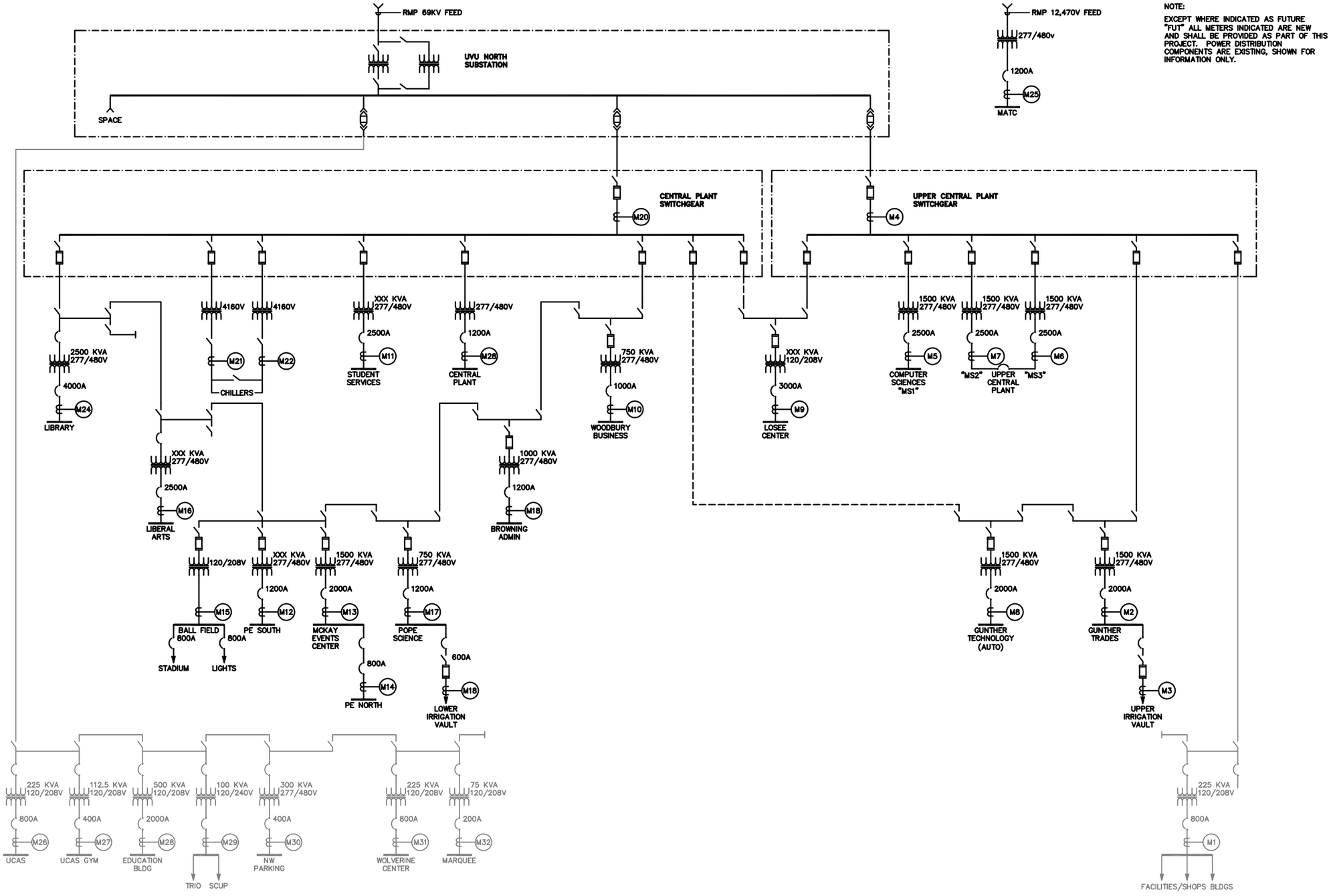

NOTE:

EXCEPT WHERE INDICATED AS FUTURE "FUT" ALL METERS INDICATED ARE NEW AND SHALL BE PROVIDED AS PART OF THIS PROJECT. POWER DISTRIBUTION COMPONENTS ARE EXISTING, SHOWN FOR INFORMATION ONLY.

A1 POWER ONE-LINE DIAGRAM

NO SCALE

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SHEET TITLE

POWER ONE-LINE DIAGRAM

E601

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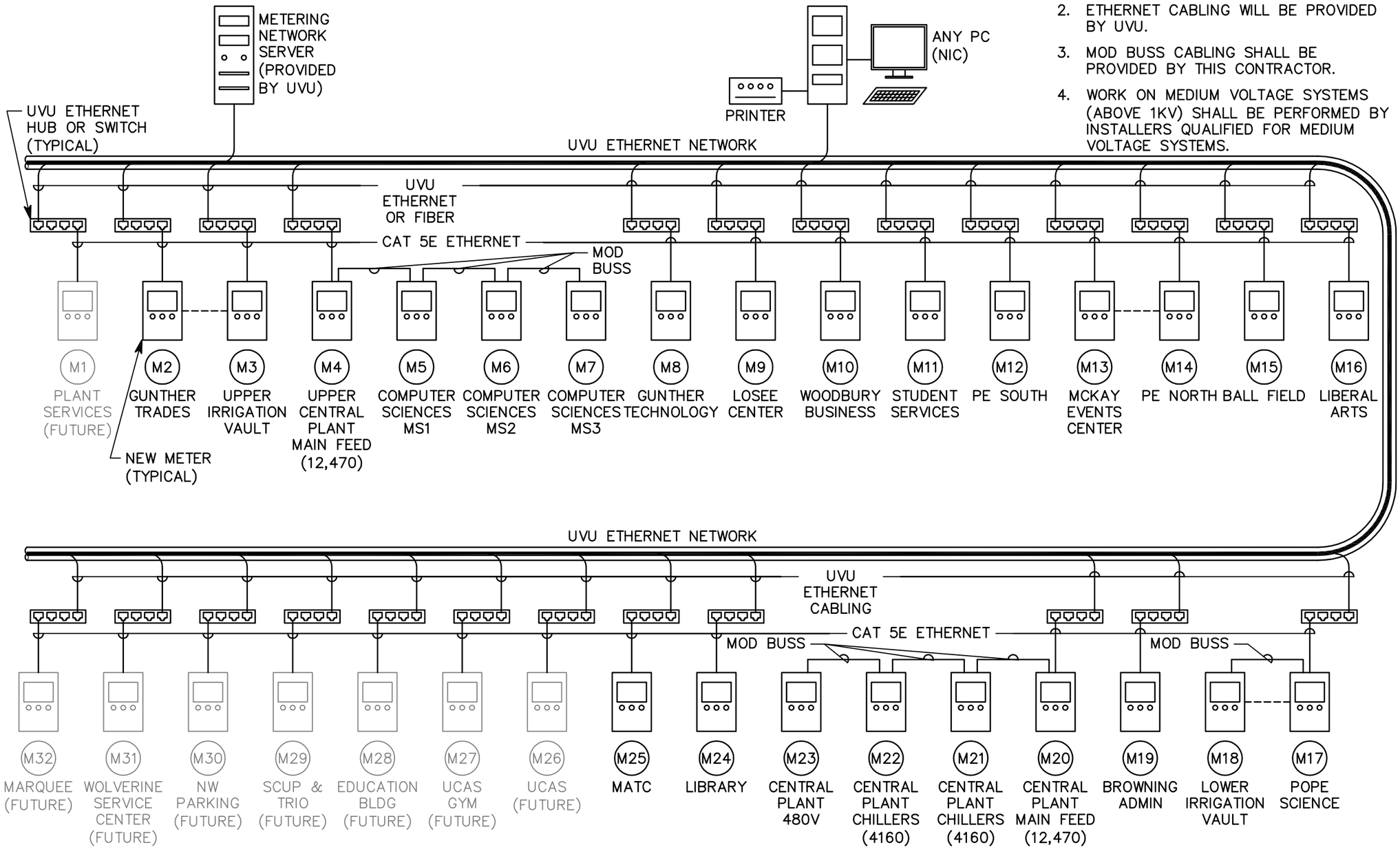

NOTES:

1. EXCEPT AS OTHERWISE INDICATED, PROVIDE ALL METERS SHOWN.
2. ETHERNET CABLING WILL BE PROVIDED BY UVU.
3. MOD BUSS CABLING SHALL BE PROVIDED BY THIS CONTRACTOR.
4. WORK ON MEDIUM VOLTAGE SYSTEMS (ABOVE 1KV) SHALL BE PERFORMED BY INSTALLERS QUALIFIED FOR MEDIUM VOLTAGE SYSTEMS.

A1 METERING NETWORK SCHEMATIC

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SHEET TITLE

METERING NETWORK SCHEMATIC

E602

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⚠ DANGER

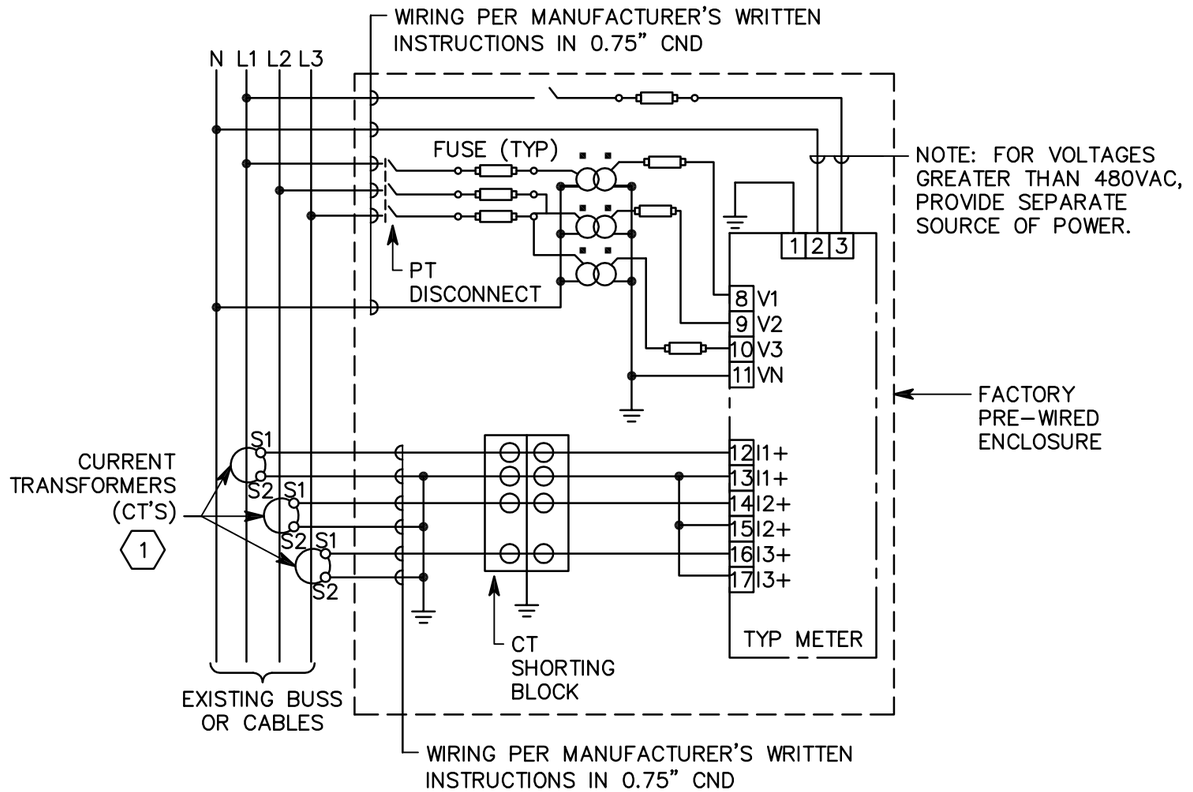
HAZARD OF ELECTRIC SHOCK, BURN OR ARC FLASH

- APPLY APPROPRIATE PERSONAL PROTECTIVE EQUIPMENT (PPE) AND FOLLOW SAFE ELECTRICAL WORK PRACTICES AS INDICATED IN NFPA 70E.
- THIS EQUIPMENT MUST ONLY BE INSTALLED AND SERVICED BY QUALIFIED ELECTRICAL PERSONNEL. ANY WORK ON MEDIUM VOLTAGE SYSTEMS (ABOVE 1KV) EQUIPMENT SHALL BE PERFORMED BY INSTALLERS QUALIFIED FOR MEDIUM VOLTAGE WORK.
- PERFORM THIS WORK ONLY AFTER COMPLETELY READING THE MANUFACTURER'S INSTALLATION INSTRUCTIONS AND WIRING DIAGRAMS.
- TURN OFF ALL POWER SUPPLYING THE POWER METER AND THE EQUIPMENT IN WHICH IT IS INSTALLED BEFORE WORKING ON IT.
- ALWAYS USE A PROPERLY RATED VOLTAGE SENSING DEVICE TO VERIFY THAT THE POWER IS OFF.
- NEVER SHORT THE SECONDARY OF A PT.
- NEVER OPEN CIRCUIT A CT; USE THE SHORTING BLOCK TO SHORT CIRCUIT THE LEADS OF THE CT BEFORE REMOVING THE CONNECTION FROM THE POWER METER.

FAILURE TO FOLLOW THESE INSTRUCTIONS WILL RESULT IN DEATH OR SERIOUS INJURY.

⬡ SHEET KEYNOTES

1. SUBMITTALS SHALL INCLUDE CT CUT SHEET FOR EACH METER BY METER # INCLUDING DISCRIPTION OF WIRE OR BUSS THAT IS MEASURED.



3-PHASE 4-WIRE WYE CONNECTION 3 CT 3 PT WITH DIRECT CONNECT CONTROL POWER (PHASE TO NEUTRAL)

A1 TYP METER WIRING DIAGRAM

NO SCALE

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SHEET TITLE

TYP METER WIRING DIAGRAM

E603

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METER SCHEDULE – UVU OREM CAMPUS

NEW METER ID	BUILDING / LOCATON ABBRV	NAME	ROOM	ELECTRICAL INFORMATION VOLTAGE	AMP	EXISTING METER	NOTES
		Priority #1					
M2	GT	Gunther Trades	Electrical Vault, 5th Level	277/480V 3Ø4W	2,000 A	SQD Power Logic	(2)
M3	GT	Upper Irrigation Pump Station (Subfeed from M1)	GT519	277/480V 3Ø4W	400 A	kwhr Submeter	(1) (3)
M4	CS	Upper Central Plant – Main Feed In from Substation	CS415 Main Switchgear Room	12,470V 3Ø	600 A	RMP Utility Meter	(4) (5)
M5	CS	Computer Science – MS1	CS415 Main Switchgear Room	277/480V 3Ø4W	2,500 A	Siemens 4300	(2)
M6	CS	Computer Science – MS2	CS415 Main Switchgear Room	277/480V 3Ø4W	2,500 A	Siemens 4300	(2)
M7	CS	Computer Science – MS3	CS415 Main Switchgear Room	277/480V 3Ø4W	2,500 A	Siemens 4300	(2)
M8	GT	Gunther Technology (Automotive)	SA301 Auto Shop	277/480V 3Ø4W	2,000 A	Unknown	(1)
M11	SC	Student Services Building	SC108 (Center Stage)	277/480V 3Ø4W	2,500 A	Unknown	(1)
M13	MC	McKay Events Center	EC002C Main Electrical Room	277/480V 3Ø4W	2,000 A	SQD Powerlogic Circuit Monitor	(2)
M15	–	Ball Field	Main Electrical Room	120/208V 3Ø4W	1,600 A	Unknown	(1)
M17	PS	Pope Science	PS018 Main Electrical Room	277/480V 3Ø4W	1,200 A	Unknown	(1)
M18	PS	Lower Pump Irrigation Station (Subfeed from M17)	PS018 Main Electrical Room	277/480V 3Ø4W	600 A	None	(3) (6)
M20	CP	Central Plant – Main Feed In from Substation	CP Main Switchgear Room	12,470V 3Ø	600 A	RMP Utility Meter	(4) (5)
M21	CP	Central Plant – 4160V Chillers (transformer #1)	CP Main Switchgear Room	4,160V 3Ø	600 A	None	(6)
M22	CP	Central Plant – 4160V Chillers (transformer #2)	CP Main Switchgear Room	4,160V 3Ø	600 A	None	(6)
M23	CP	Central Plant – Building Service	CP Mechanical Room	277/480V 3Ø4W	1,200 A	None	(6)
M24	LI	Library	LI106–109 Main Electrical Room	277/480V 3Ø4W	4,000 A	Cutler Hammer	(2)
		Priority #2					
M9	LC	Losee Center	LC301A Main Electrical Room	120/208V 3Ø4W	3,000 A	SQD Powerlogic Circuit Monitor	(2)
M10	WB	Woodbury Business Building	WB273 Mech/Elec. Room	277/480V 3Ø4W	1,000 A	Unknown	(1)
M12	PE	PE Building – South	PE133 Main Electrical Room	277/480V 3Ø4W	1,200 A	Unknown	(1)
M14	PE	PE Building – North (Subfeed from M13)	PE247 Mech Mezzanine	277/480V 3Ø4W	800 A	None	(3) (6)
M16	LA	Liberal Arts	LA031 Main Electrical Room	277/480V 3Ø4W	2,500 A	GE Digital Meter	(2)
M19	BA	Browning Administration	BA001K Main Electrical Room	277/480V 3Ø4W	1,200 A	Unknown	(1)
M25	MT	Mountain Land Applied Technoloty Center	Main Electrical Room	277/480V 3Ø4W	1,200 A	Cutler Hammer IQDP–4000	(2)
		Priority #3 (Future)					
M1	–	Plant Services	Outdoor	120/240 1Ø3W	400 A	RMP Utility Meter	(4)
M26	UCAS	UCAS Building	Main Electrical Room	120/208V 3Ø4W	800 A	RMP Utility Meter	(4)
M27	UCAS	UCAS Gym	Main Electrical Room	120/208V 3Ø4W	400 A	RMP Utility Meter	(4)
M28	EB	Education Building	Main Electrical Room	120/208V 3Ø4W	2,000 A	RMP Utility Meter	(4)
M29	SCUP/TRIO	SCUP amd TRIO Buildings	Outdoor	120/240 1Ø3W	400 A	RMP Utility Meter	(4)
M30	–	Parking Lot – Northwest	Outdoor	277/480V 3Ø4W	400 A	RMP Utility Meter	(4)
M31	WS	Wolverine Service Center	Main Electrical Room	120/208V 3Ø4W	800 A	RMP Utility Meter	(4)
M32	–	Marquee	Outdoor	120/208V 3Ø4W	200 A	RMP Utility Meter	(4)

NOTES:

(1) Remove existing meter and provide new meter.
(2) Interface with existing meter if possible; otherwise remove and provide new meter.
(3) Submeter (don't add to campus total).
(4) Contact RMP to remove meter, then remove all associated enclosures, conduit and wiring.
(5) Feeds multiple downstream buildings and meters.
(6) Provide new meter.

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SHEET TITLE
METER SCHEDULE

E604

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