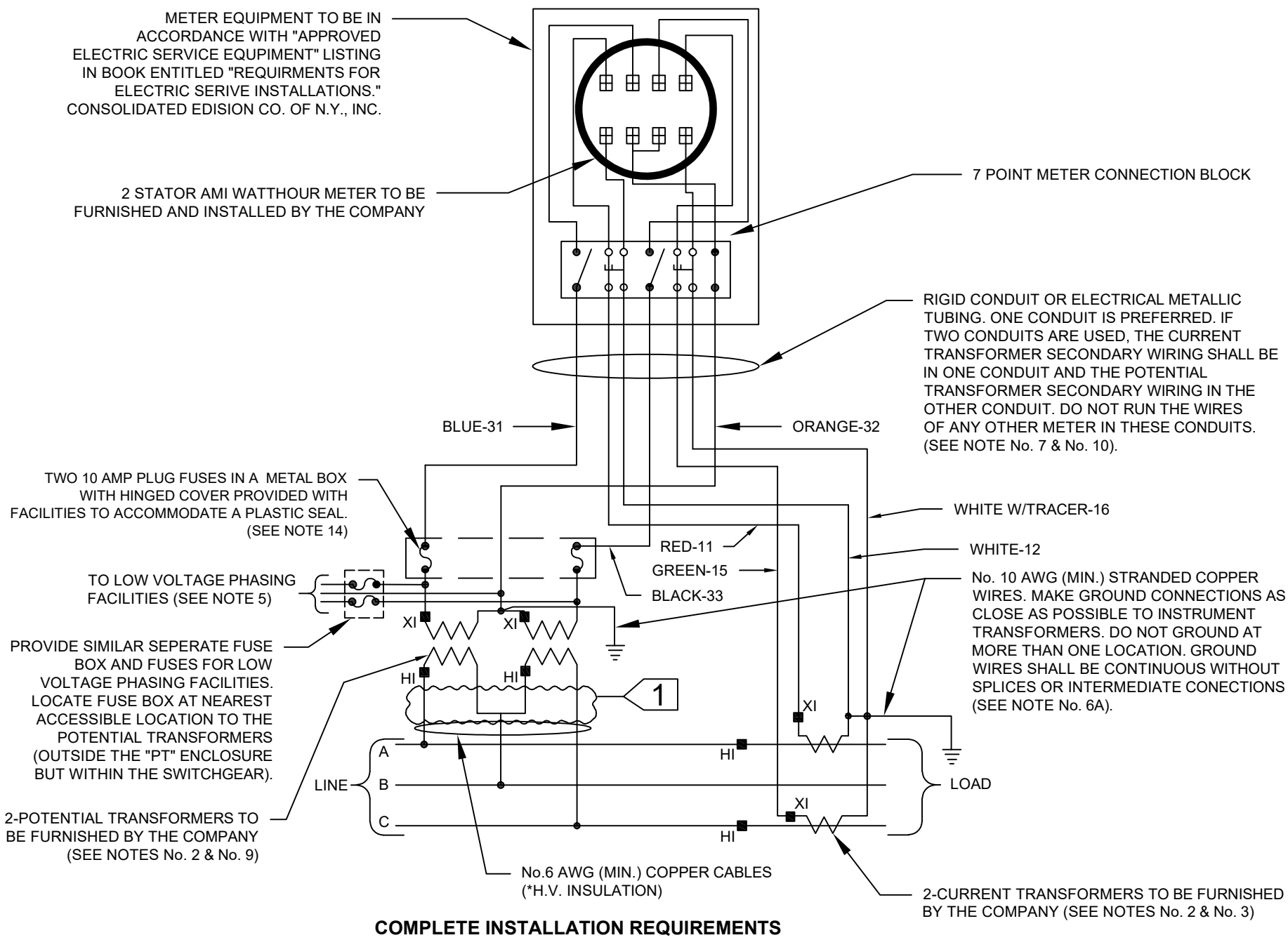
MES 273D

C. MAGOULAS 5-9-13

REVISIONS

CM	12/17/14	1
DELETED PRIMARY FUSES		
DE	12/17/14	
CM/AM	3/27/19	2
Added use of stranded wire to: Note 7 and grounding wire note.		
CM/AM	3/27/19	
CM/AM	3/27/19	3
Added note 14 for NYCTA locations		
AS/AM	04/22/24	4
Expanded Note #6 into 6a and 6b.		



COMPLETE INSTALLATION REQUIREMENTS SHALL BE IN ACCORDANCE WITH MES 350.

NOTES:

1. THE CUSTOMER SHALL FURNISH LABOR AND MATERIAL FOR COMPELTE INSTALLATIONE XCEPT AS OTHERWISE NOTED.
2. CUSTOMER INSTRUMENTS OR PROTECTIVE EQUIPMENT SHALL NOT BE CONENCTED TO REVENUE METERING CURRENT OR POTENTIAL TRSNSFORMERS. CUSTOMER SHALL PROVIE SEPARATE TRANSFORMERS FOR HIS EQUIPMENT WHICH MUST BE CONNECTED ONT EH LOAD SIDE OF THE COMPANY REVENUE METERING TRANSFORMERS.
3. CURRENT TRANSFORMER SECONDARY TERMINALS BRIDGED BY A SHORT CIRCUITING WIRE SHALL NOT BE OPENED CIRCUITED BY THE CONTRACTOR. COMPANY WILL REMOVE SHORT CIRCUITING WIRE AND TAG WHEN MAKING FINAL CONNECTIONS TO THE WATTHOUR METER AND CURRENT TRANSFORMERS.
4. WIRING TO CURRENT AND POTENTIAL TRANSFORMER SECONDARIES SHALL BE CUT AND FORMED TO PROPER LENGTH AND IDENTIFIED. COMPANY WILL MAKE FINAL CONNECTIONS TO ISNTRUMENT TRNANSFORMER SECONDARY TERMINALS. CONNECTIONS TO THE BOTTOM OF THE METER CONNECTION BLOCK SHALL BE MADE BY THE CUSTOMER.
5. LOW VOLTAGE PHASING FACILILITIES ARE REQUIRED WHERE SERVICE CONSISTS OF MORE THAN ONE FEEDER, 13.2 KV AND ABOVE (REFER TO SPEC. NO. EO-3299-D).

6A. CURRENT AND POTENTIAL TRANSFORMER SECONDARY NEUTRAL TERMINALS SHALL BE CONNECTED TO THE INSTRUMENT TRANSFORMER ENCLOSURE GROUND BUS AS CLOSE AS POSSIBLE, USING #10 (MINIMUM) AWG STRANDED COPPER WIRE. THE CURRENT TRANSFORMER NEUTRAL GROUND WIRES SHALL BE SEPARATED FROM THE POTENTIAL TRANSFORMER NEUTRAL GROUND WIRE. THERE SHALL BE NO OTHER GROUND CONNECTION TO THE SECONDARY CIRCUITS.

6B. THE BASE OF THE INSTRUMENT TRANSFORMERS (CT & PT) CASES SHALL BE ELECTRICALLY CONNECTED TO THE CUBICLE GROUND BUS.

7. CABLE SHALL BE COLOR CODED 1-7 CONDUCTOR NO.10 AWG STRANDED (2) TYPE "R" OR "I" OR "T". USE TYPE "R "TW" CABLE IN WET OR UNDERGROUND INSTALLATIONS.
8. ALL WIRING SHALL BE CONTINUOUS WITHOUT SPLICES OR INTERMEDIATE TERMINAL POIJNTS AS STATED IN MES 350. WIRING RING LUGS SHALL BE USED TO CONNECT STRANDED WIRES TO METER CONNECTION BLOCK. WIRING THROUGH PARTITIONS SHALL BE INSTALLED IN CONDUIT NIPPLES FITTED WITH LOCKNUTS AND BUSHINGS OR EQUIVALENT MEANS FOR PTEOTECTION.
9. PRIMARY FUSED POTENTIAL TRANSFORMERS ARE ONLY REUQIRED FOR 13.2 KV AND 4.15 KV SERVICES.
10. WHERE IT IS IMPRACTICAL TO USE METAL CONDUIT WITHIN THE SWITCHGEAR, THE SECONDARY WIRING SHALL BE PROPERLY SUPPROTED WITH ADEQUATE CLEARANCE FROM HIGH TENSION BUSSES AND EQUIPMENT AND BE PROTECTED BY USE OF GREENLEE CONDUIT THAT IS PROPERLY DRESSED ALONG ITS RUN.
11. "CT" AND "PT" SECONDARY WIRING SHALL NOT PASS THROUGH THE PHASING FACILITY BOX OR OTHER NON COMPANY FUSE BOXES.
12. METERING COMPARTMENTS WITH SWING DOORS OR PANELS MUST HAVE FLEXIBILITY BRAIDED BOND WIRE OR CABLE, NOT SMALLER THAN NO.4 AWG COPPER INSTALLED ACCROSS THE HINGE TO ASSURE A SATISFACTORILY GROUNDED PANELS AS PER MES 350.
13. ALL NEW INSTALLATIONS FOR METERING 27KV & 33KV, 3-PHASE, 3-WIRE H.T. SERVICE SHALL USE THIS METERING WIRING DIAGRAM.
14. A THIRD SET OF 10 AMP FUSES EXISTS IN NYCTA LOCATIONS TO FEED 47 RELAYS.

LEGEND:

- POTENTIAL TRANSFORMER PRIMARY WIRING SHALL BE NO.6 AWG.(MIN) COPPER CABLES INSULATED FOR LINE TO LINE VOLTAGE.

- POLARITY MARKINGS ON CURRENT AND POTENTIAL TRANSFORMERS.

REFERENCE SPECS:

HIGH TENSION METERING INSTALLATIONS - - - - - - - - - - - - - MES 350
WIRING DIAG. FOR METERING 13KV, 3 PHASE, 3 WIRE - - - - MES 273A
WIRING DIAG. FOR METERING 27 & 33KV 3 PHASE
3 WIRE - MES 273B
WIRING DIAGRAM FOR SOCKET-BASED METERING
27KV & 33KV, 3 PHASE, 3 WIRE - MES 273C
INSULATING & TAPING OF ELECTRICAL CONNECTIONS - - - E.1.3002

FIELD MANUALS
NO.4: SERIVCE INSTL.
SECT.6: METER INSTL.
No.16: SERVICE INSPECTION AND CONTROL
SECT.3: ELECT. METERING

WIRING DIAGRAM FOR SOCKET-BASED METERING 27KV & 33KV, 3 PHASE, 3 WIRE HIGH TENSION SERVICE

THIS DRAWING IS FILED IN THE TEAMCENTER DATABASE AS ITEM 500367

CONSOLIDATED EDISION COMPANY OF N.Y., INC.
ELECTRIC METER SHOP

DATE	5-9-13	DWG. NO.	MES 273D REV.4
LAST REV.	4-22-24		

DRAWN BY A. VASILE	DATE 5-9-13	CHECKED BY -	DATE
DISCIPLINE CODE TE		SCALE NOTE	
APPROVED MGR.	C. MAGOULAS ENGINEER		5-9-13 DATE
MGR.	C. FELDMAN MANAGER		4-22-24 DATE