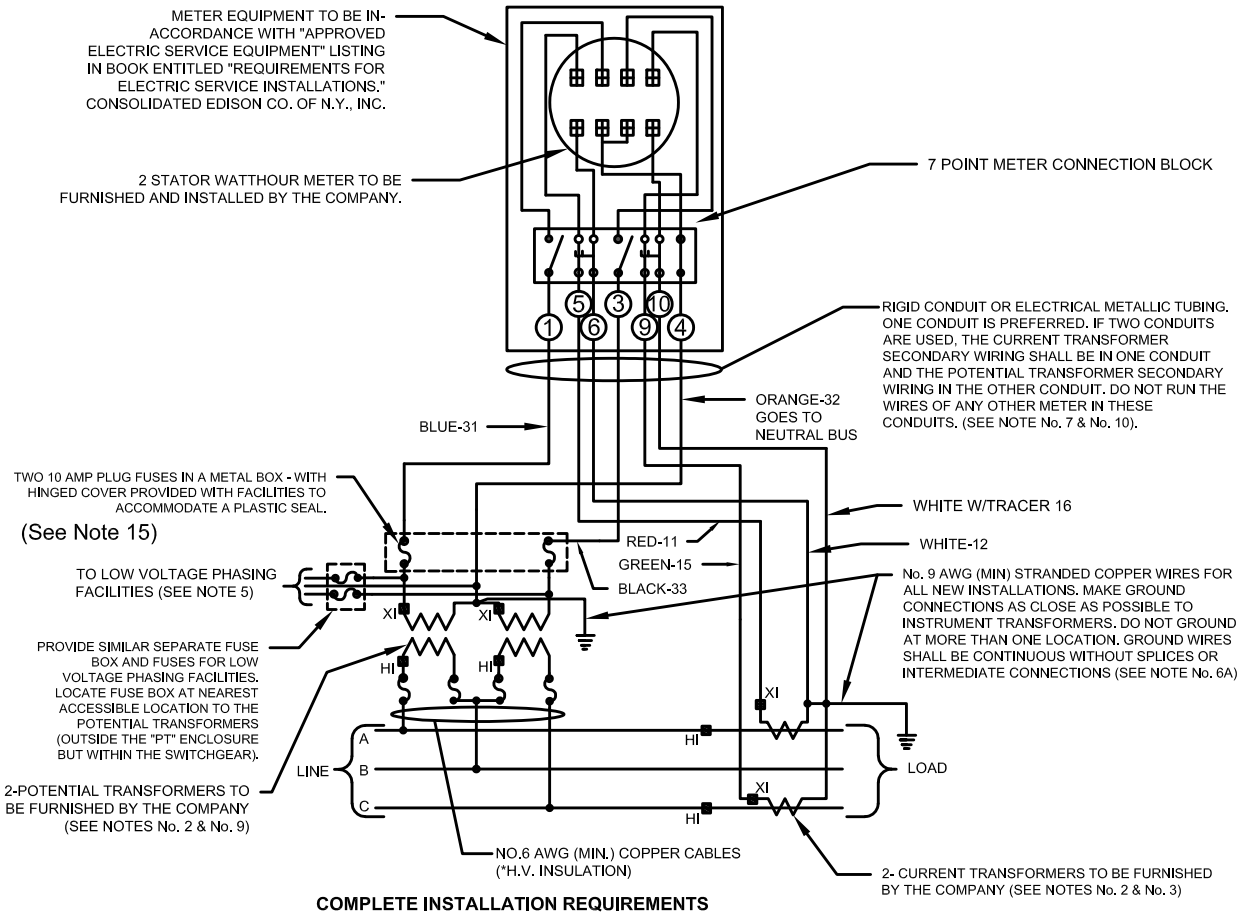
MES 273C

C. MAGOULAS 5-9-13

REVISIONS

CM/AM	3/27/19	1
Added use of stranded wire to: Note 7 and grounding wire note.		
AM	3/27/19	
CM/AM	5/24/19	2
Added note 15 for NYCTA locations		
CM/AM	1/14/19	3
Labeled line to neutral bus. Added numbering to wires. Changed note 6, added note 16, and changed annotation for ground wires.		
AM/JI	1/14/22	
AS/AM	04/22/24	4
Expanded Note #6 into 6a and 6b.		
T.S.	10/18/24	5
Edited note 7		
T.SIDHOM	10/18/24	



COMPLETE INSTALLATION REQUIREMENTS SHALL BE IN ACCORDANCE WITH MES 350.

NOTES:

1. THE CUSTOMER SHALL FURNISH LABOR AND MATERIAL FOR COMPLETE INSTALLATION EXCEPT AS OTHERWISE NOTED.
2. CUSTOMER INSTRUMENTS OR PROTECTIVE EQUIPMENT SHALL NOT BE CONNECTED TO REVENUE METERING CURRENT OR POTENTIAL TRANSFORMERS. CUSTOMERS SHALL PROVIDE SEPARATE INSTRUMENT TRANSFORMERS FOR HIS EQUIPMENT WHICH MUST BE CONNECTED ON THE LOAD SIDE OF THE COMPANY REVENUE METERING TRANSFORMERS.
3. CURRENT TRANSFORMER SECONDARY TERMINALS BRIDGED BY A SHORT CIRCUITING WIRE SHALL NOT BE OPEN 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 INSTRUMENT TRANSFORMER SECONDARY TERMINALS. CONNECTIONS TO THE BOTTOM OF THE METER CONNECTION BLOCK SHALL BE MADE BY THE CUSTOMER.
5. LOW VOLTAGE PHASING FACILITIES ARE REQUIRED WHERE SERVICE CONSISTS OF MORE THAN ONE FEEDER, 13.2 KV AND ABOVE (REFER TO SPEC. No. E0-3299-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 POINTS 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 OTHER EQUIVALENT MEANS FOR PROTECTION.
9. PRIMARY FUSED POTENTIAL TRANSFORMERS ARE ONLY REQUIRED 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 SUPPORTED 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 ACROSS THE HINGE TO ASSURE A SATISFACTORILY GROUNDED PANEL AS PER MES 350.
13. PT SHIELD PART #20119 AVAILABLE FROM MAINTENANCE SERVICES, VAN NEST YARD. FOR USE AS INSULATING BARRIER AND ANIMAL GUARD.
14. ALL NEW INSTALLATIONS FOR METERING 13 KV, 3-PHASE, 3-WIRE H.T. SERVICE SHALL USE THIS METERING WIRING DIAGRAM.
15. A THIRD SET OF 10 AMP FUSES EXISTS IN NYCTA LOCATIONS TO FEED 47 RELAY.
16. MINIMUM LENGTHS OF 12" ARE TO BE LEFT ABOVE THE METER EQUIPMENT CABINET.

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 13KV, 3 PHASE,3 WIRE HIGH TENSION SERVICE

THIS DRAWING IS FILED IN THE TEAMCENTER DATABASE AS ITEM 500167

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

DATE LAST REV.	10-18-24	DWG. NO.	MES 273C REV.5

DRAWN BY J. Imordino	DATE 1-14-22	CHECKED BY A. Miller	DATE 10-18-24
DISCIPLINE CODE TE		SCALE NONE	
APPROVED			
MGR.	ENGINEER C. MAGOULAS		DATE 5-9-13
MGR.	MANAGER A. MILLER		DATE 10-18-24