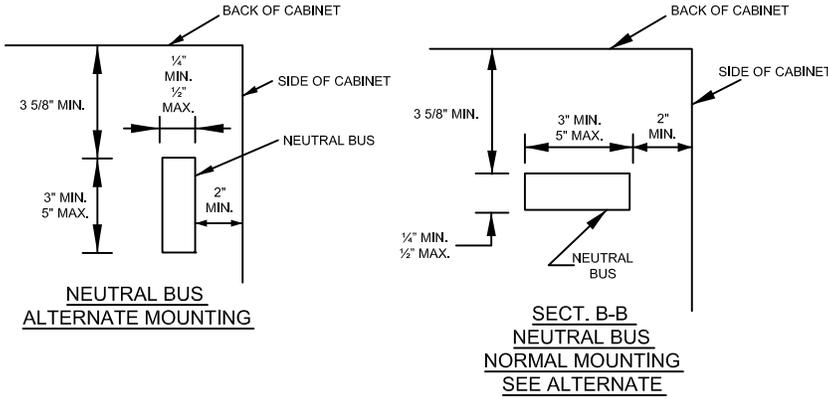


REVISIONS

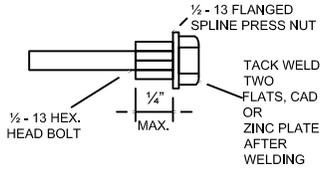
John Signorelli 11/25/92	13	ADDED NEUTRAL BUS AND NOTES 14 & 15. REDRAWN TO CAD. CHANGED TITLE
J.L. 11/25/92		
V. FERGUSON 1/8/01	14	CHANGED NOTE 12 C.D.
V. FERGUSON 5/17/04	15	CHANGED NOTES 8, 14 & 15. ADDED NOTE 16. CHANGED REF. DWG FROM MES NO. 8. ADDED REF. DWG MEP NO. 47 G.D.
A. MILLER/C. MAGOULAS 5/31/19	16	ADDED 600 AMP TO TITLE. REDRAWN TO AUTOCAD & REVIEWED
A.M. 12/22/20	17	Changed maximum size for bus bar through the CT from 4" max to 5" max
M. PAROBKOT-SIDHOM 05/24/24	18	REWORKED NOTE 11 AND ADDED NOTE 15. T.S.



OPTIONAL METHOD

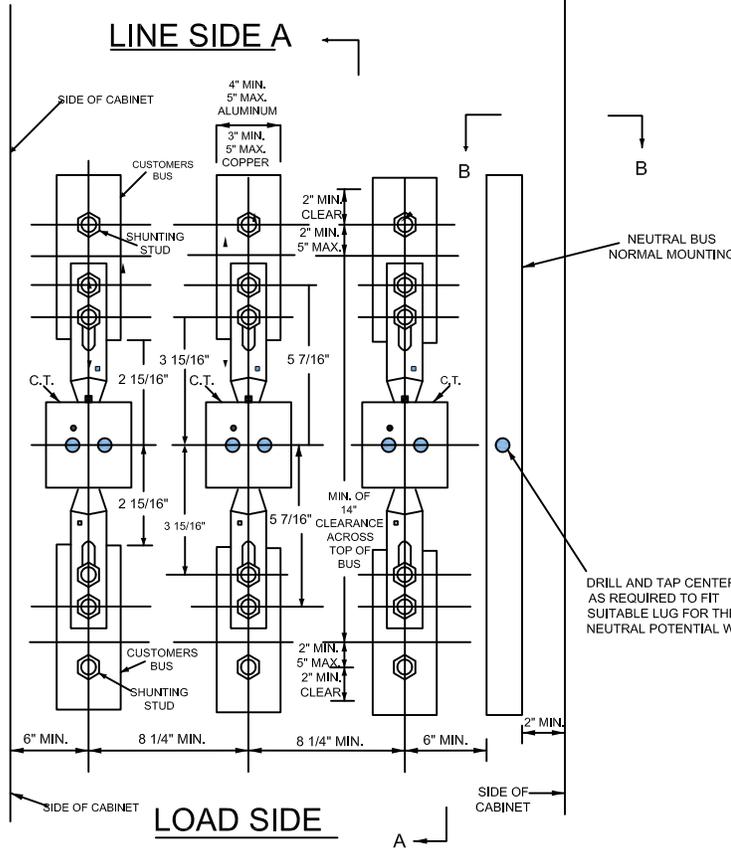
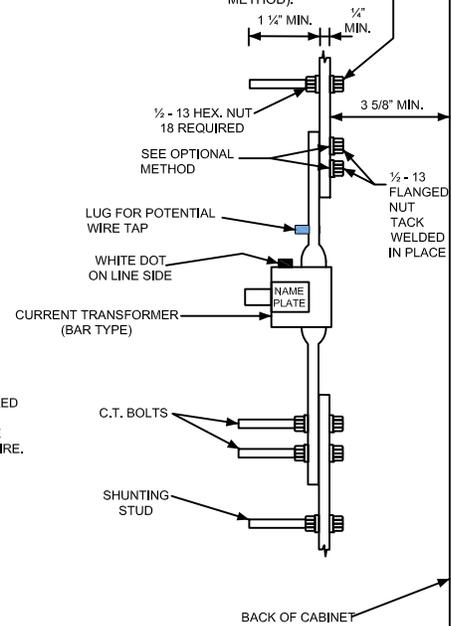
USE APPROVED 1/2 - 13 STEEL SPLINE BOLTS WITH 1/2 - 13 FLANGED PRESS NUT. 6 REQUIRED (SEE SECTION A-A).

FOR ALL OTHER BOLT LOCATIONS USE 1/2 - 13 HEX HEAD BOLTS TACK WELDED ON TWO FLATS TO 1/2 - 13 FLANGED NUTS, THEN CADMIUM OR ZINC PLATE. 12 REQUIRED (SEE SECTION A-A).



STANDARD METHOD

1/2 - 13 HEX. HO. STEEL BOLT TACK WELDED ON TWO FLATS TO 1/2 - 13 FLANGED NUT THEN CAD. OR ZINC PLATE 18 REQUIRED (OR SEE OPTIONAL METHOD).



NOTES:

- THE CUSTOMER'S BUS BARS ARE TO BE RIGIDLY SUPPORTED AND BE CAPABLE OF SUPPORTING THE WEIGHT OF THE TRANSFORMER (MAXIMUM 15 POUNDS).
- ALUMINUM BUS, WHEN USED, IS TO BE TIN OR SILVER PLATED AT THE CONTACT SURFACES ACCORDING TO ASTM B 253-53. RECOMMENDED PRACTICE FOR PREPARATION OF AND ELECTROPLATING ON ALUMINUM BUS.
- FOR SERVICE OR LOAD CONNECTIONS WHERE THE CUSTOMER'S BUS BARS ARE ALUMINUM ALL CONNECTIONS ARE TO BE MADE USING CADMIUM PLATED STEEL BOLTS AND HEX NUTS WITH A BELLEVILLE WASHER UNDER EACH NUT AND EACH BOLT HEAD, WITH THE MARKED SIDE VISIBLE.
- BELLEVILLE WASHERS ARE TO BE AS FOLLOWS: I.D. = 17/32"; O.D. = 1 3/8" MAX. APPROX. CAPACITY 3,000 LBS. THE TOP (CONVEX SURFACE) OF EACH WASHER IS TO BE MARKED SO AS TO BE CONSPICUOUS WITH THE NUT OR CAP SCREW IN PLACE.
- TRANSFORMERS ARE TO BE MOUNTED BY MEANS OF CADMIUM PLATED STEEL, CAP SCREWS ON THE LINE DETAIL AND CADMIUM PLATED STEEL HEX. NUTS ON THE LOAD DETAIL.
- WHEN THE CUSTOMER'S BUS IS ALUMINUM, A BELLEVILLE WASHER IS TO BE PLACED UNDER THE CAP SCREW ON LINE DETAIL AND ANOTHER UNDER THE HEX. NUT ON THE LOAD DETAIL WITH THE MARKED SIDE VISIBLE. BOLTS AND NUTS ARE TO BE TIGHTENED UNTIL THE WASHERS ARE FLATTENED, THEN BACKED-OFF 1/8 TURN.
- THE BUS DETAIL MAY BE ENCLOSED IN A SEPARATE CURRENT TRANSFORMER CABINET OR IN A COMBINED SERVICE DISCONNECT AND CURRENT TRANSFORMER CABINET.
- THE PART OF THE CABINET HOUSING THE TRANSFORMERS IS TO BE SEPERATED BY BARRIERS (1/8" THICK NON-FERROUS) FROM THE REMAINDER OF THE CABINET AND BE EQUIPPED WITH SEPARATE SEALABLE DOUBLE DOORS AND A THREE-WAY CATCH. THE HANDLE IS TO HAVE FACILITIES TO ACCOMODATE STANDARD COMPANY SEALS AND PADLOCKS WITH A 5/16" HASP. THE DOOR OPENING IS TO GIVE A MINIMUM CLEARANCE OF 4 INCHES (HORIZONTALLY) FROM THE CENTER LINE OF THE OUTER TRANSFORMERS AND 4 INCHES (VERTICALLY) FROM THE CENTER LINE OF THE SHUNTING STUDS. THE BARRIERS ARE TO BE INSTALLED WITH THE SAME VERTICAL CLEARANCE FROM THE SHUNTING STUD AS THE DOOR OPENING.
- THE MINIMUM DEPTH OF THE CABINET IS TO BE SUCH AS TO ALLOW A CLEARANCE OF 7 INCHES FROM THE BUS TO THE SIDES OF THE CABINET OR TO THE NEUTRAL BUS IS TO BE 6 INCHES. THE NEUTRAL BUS MUST BE CONTAINED WITHIN THE CABINET; 2 INCHES MINIMUM FROM THE SIDE OF THE CABINET; 3 5/8 INCHES MINIMUM FROM THE REAR OF THE CABINET.
- THERE IS TO BE A CLEAR SPACE OF AT LEAST 3 FEET IN FRONT OF THE CURRENT TRANSFORMER ENCLOSURE.
- CURRENT TRANSFORMERS ARE TO BE INSTALLED ON THE LINE SIDE OF THE SERVICE DISCONNECT SWITCH, WHERE PERMITTED BY THE REGULATORY AUTHORITIES HAVING JURISDICTION. HOWEVER, IN THE CASE OF A 265/460-VOLT SERVICE, THERE MUST BE A SERVICE DISCONNECT SWITCH ON THE LINE SIDE OF THE CURRENT TRANSFORMERS. ALL FLANGED NUTS REFERRED TO ON THIS DRAWING ARE TO BE FORCED FITTED IN THEIR RESPECTIVE HOLES.
- BUS BAR CURRENT DENSITY MUST COMPLY WITH THE LATEST NYC CODE REQUIREMENTS.
- MAXIMUM CABLE SIZING:
 - 4-SETS OF 600 KCML CABLES OR 5-SETS OF 500 KCML CABLES WITH THE ENGINEERING DESIGN CAPACITY OF 1600 AMPS AND NOT EXCEEDING 4-SETS OF 600 KCML CABLES, 3-SETS OF 600 KCML CABLES OR 4-SETS OF 500 KCML CABLES REQUIRE 1/2" X 5" COPPER BUS.
 - 4-SETS OF 600 KCML CABLES OR 5-SETS OF 500 KCML CABLES REQUIRE TWO 1/2" X 4" COPPER BUS.
- LAMINATES MUST BE INTERLEAVED WITH 1/4 INCH SPACE FILLERS AND NOT STACKED TO COMPLY WITH NOTE 14.
- CUSTOMER'S LOAD SHALL NOT EXCEED THE MAXIMUM CURRENT CAPABILITY OF THE INSTRUMENT TRANSFORMER (SEE MEP 47 FOR TRANSFORMER SIZING).

REFERENCE DRAWINGS:

- WIRING DIAGRAM FOR 200-800 AMP CTS.....MES NO. 195
- LOW TENSION METERING INSTALLATIONS.....MES NO. 8
- ORDERING AND ASSIGNING ELECTRIC METERS AND METER DEVICES.....MEP NO. 47

BUS AND CABINET DETAILS FOR INSTALLATION OF LOW VOLTAGE 400, 600 OR 800 AMP. BAR TYPE CURRENT TRANSFORMERS	
CONSOLIDATED EDISON COMPANY OF N.Y. INC. ELECTRIC METER SHOP	
DATE: 10/18/1948	MES 298-1 REV. 18
LAST REV: 05/24/2024	

DIV SIGNATURE DATE	DESIGNED BY DATE	CHECKED BY DATE
APPROVED	SCALE	NAME
DWG NO. MES 298-1 R18	16 ELE	CHIEF DESIGNER/ENGINEER DATE