

# CITY OF GEORGETOWN

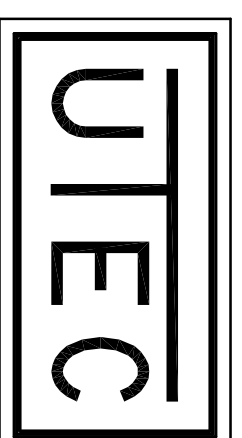
## GEORGETOWN, SOUTH CAROLINA

# FRONT STREET ELECTRICAL UPGRADE

### S H E E T     I N D E X

<p>G001 FRONT STREET ELECTRICAL UPGRADE TITLE SHEET</p> <p>G002 FRONT STREET ELECTRICAL UPGRADE LEGEND, ABBREVIATIONS &amp; GENERAL NOTES</p> <p>E001 FRONT STREET ELECTRICAL UPGRADE OVERALL EQUIPMENT LOCATION PLAN</p> <p>E002-1 FRONT STREET ELECTRICAL UPGRADE ELECTRICAL PLAN EXISTING</p> <p>E002-2 FRONT STREET ELECTRICAL UPGRADE ELECTRICAL PLAN EXISTING</p> <p>E002-3 FRONT STREET ELECTRICAL UPGRADE ELECTRICAL PLAN EXISTING</p> <p>E002-4 FRONT STREET ELECTRICAL UPGRADE ELECTRICAL PLAN EXISTING</p> <p>E003-1 FRONT STREET ELECTRICAL UPGRADE ELECTRICAL PLAN NEW</p> <p>E003-2 FRONT STREET ELECTRICAL UPGRADE ELECTRICAL PLAN NEW</p> <p>E003-3 FRONT STREET ELECTRICAL UPGRADE ELECTRICAL PLAN NEW</p> <p>E003-4 FRONT STREET ELECTRICAL UPGRADE ELECTRICAL PLAN NEW</p> <p>E004-1 FRONT STREET ELECTRICAL UPGRADE CONSTRUCTION SEQUENCE PHASES 1-3</p> <p>E004-2 FRONT STREET ELECTRICAL UPGRADE CONSTRUCTION SEQUENCE PHASE 4</p> <p>E004-3 FRONT STREET ELECTRICAL UPGRADE CONSTRUCTION SEQUENCE PHASE 5</p> <p>E004-4 FRONT STREET ELECTRICAL UPGRADE CONSTRUCTION SEQUENCE PHASE 6</p> <p>E005 FRONT STREET ELECTRICAL UPGRADE CONSTRUCTION SEQUENCE PHASES 6-7</p> <p>E011-1 FRONT STREET ELECTRICAL UPGRADE MISCELLANEOUS DETAILS</p> <p>E011-1-1 FRONT STREET ELECTRICAL UPGRADE MISCELLANEOUS DETAILS</p> <p>E011-1-2 FRONT STREET ELECTRICAL UPGRADE MISCELLANEOUS DETAILS</p> <p>E012 FRONT STREET ELECTRICAL UPGRADE CABLE RACKING DETAILS MANHOLE T1A</p> <p>E013 FRONT STREET ELECTRICAL UPGRADE CABLE RACKING DETAILS MANHOLE T1B</p> <p>E014 FRONT STREET ELECTRICAL UPGRADE CABLE RACKING DETAILS MANHOLE T2</p>	<p>E015 FRONT STREET ELECTRICAL UPGRADE CABLE RACKING DETAILS MANHOLE T3</p> <p>E016 FRONT STREET ELECTRICAL UPGRADE CABLE RACKING DETAILS MANHOLE T4A</p> <p>E017 FRONT STREET ELECTRICAL UPGRADE CABLE RACKING DETAILS MANHOLE T4B</p> <p>E021 FRONT STREET ELECTRICAL UPGRADE CABLE RACKING DETAILS PULLBOX 1</p> <p>E022 FRONT STREET ELECTRICAL UPGRADE CABLE RACKING DETAILS PULLBOX 2</p> <p>E023 FRONT STREET ELECTRICAL UPGRADE CABLE RACKING DETAILS PULLBOX 3</p> <p>E024 FRONT STREET ELECTRICAL UPGRADE CABLE RACKING DETAILS PULLBOX 4</p> <p>E025 FRONT STREET ELECTRICAL UPGRADE CABLE RACKING DETAILS PULLBOX 5</p> <p>E026 FRONT STREET ELECTRICAL UPGRADE CABLE RACKING DETAILS PULLBOX 6</p> <p>E027 FRONT STREET ELECTRICAL UPGRADE CABLE RACKING DETAILS PULLBOX 7</p> <p>E028 FRONT STREET ELECTRICAL UPGRADE CABLE RACKING DETAILS PULLBOX 8</p> <p>E029 FRONT STREET ELECTRICAL UPGRADE CABLE RACKING DETAILS PULLBOX 9</p> <p>E030 FRONT STREET ELECTRICAL UPGRADE CABLE RACKING DETAILS PULLBOX 10</p> <p>E031 FRONT STREET ELECTRICAL UPGRADE CABLE RACKING DETAILS PULLBOX 11</p> <p>E040 FRONT STREET ELECTRICAL UPGRADE CONDUIT AND CABLE SCHEDULE</p> <p>E050-1 FRONT STREET ELECTRICAL UPGRADE TRANSFORMER DETAILS</p> <p>E050-2 FRONT STREET ELECTRICAL UPGRADE TRANSFORMER DETAILS</p> <p>E100-1 FRONT STREET ELECTRICAL UPGRADE ONE-LINE DIAGRAM EXISTING</p> <p>E100-2 FRONT STREET ELECTRICAL UPGRADE ONE-LINE DIAGRAM NEW</p> <p>S001 FRONT STREET ELECTRICAL UPGRADE STRUCTURAL TRANSFORMER PADS</p>
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PROJECT NO. 171007



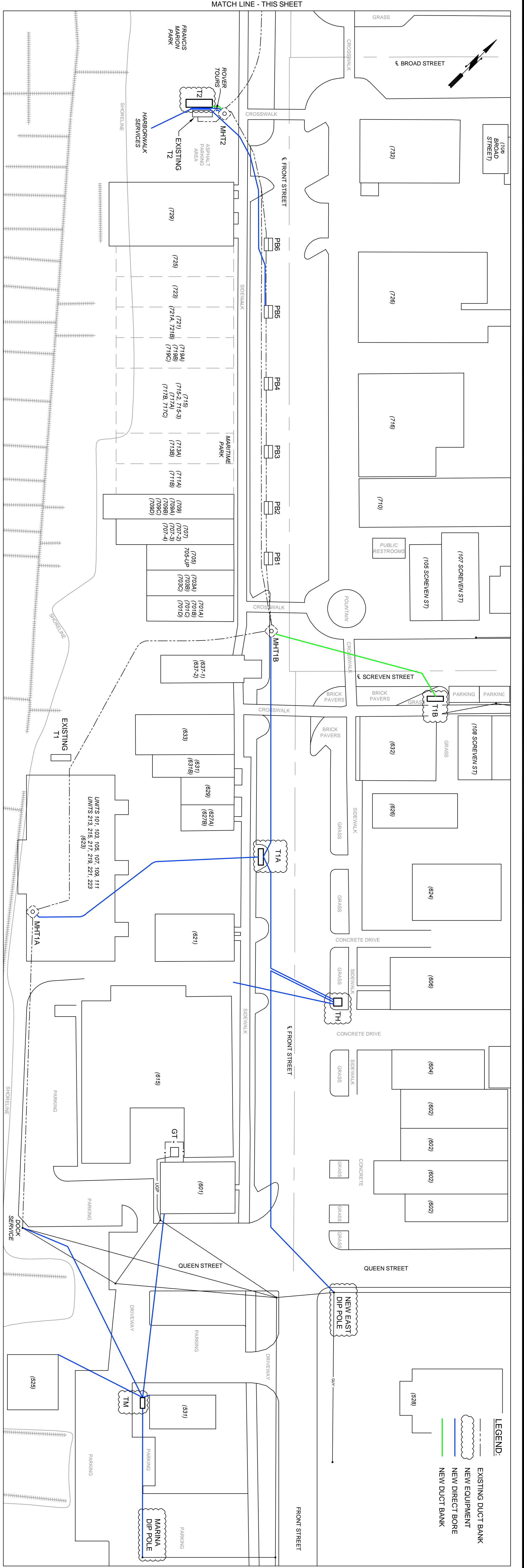
## UTILITY TECHNOLOGY

### ENGINEERS - CONSULTANTS

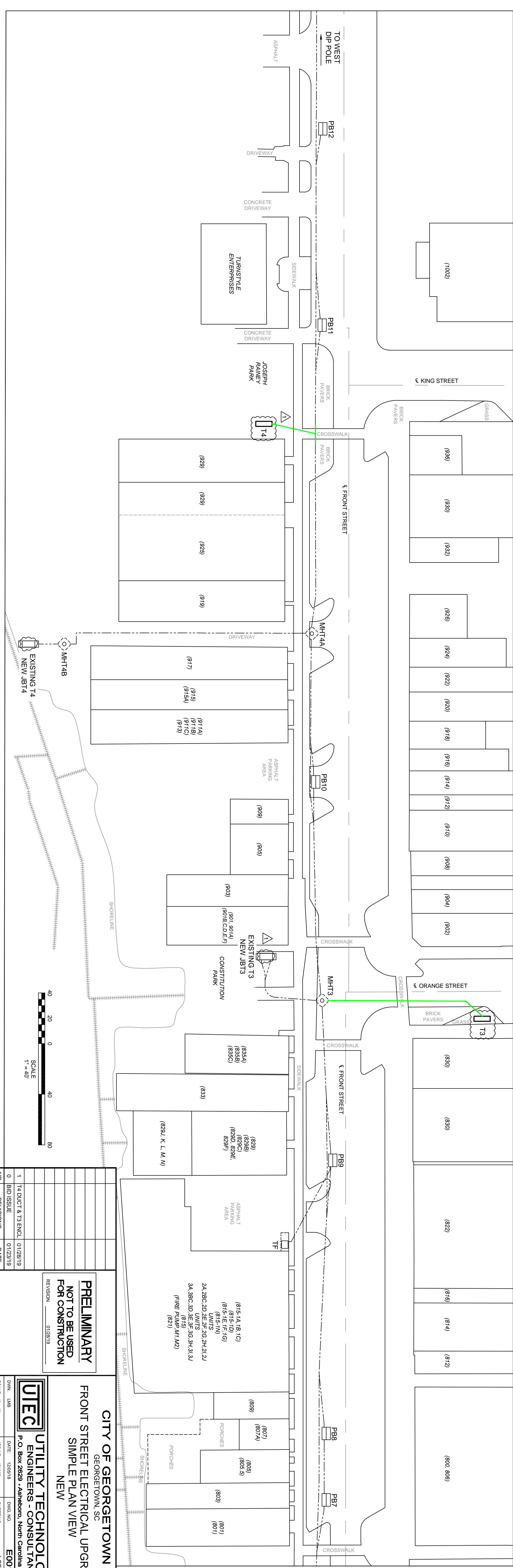
Asheboro, North Carolina  
Spartanburg, South Carolina

JANUARY, 2019

NO.	REVISIONS	DATE	<b>PRELIMINARY</b> NOT TO BE USED FOR CONSTRUCTION REVISION _____ 01/25/19		
1	T4 DUCT & T3 ENCL	01/28/19	<div style="display: flex; align-items: center;"> <div> <p style="margin: 0;"><b>UTILITY TECHNOLOGY</b></p> <p style="margin: 0;">ENGINEERS - CONSULTANTS</p> <p style="margin: 0;">P.O. Box 2629 • Asheboro, North Carolina • 27204</p> </div> </div>		
0	BID ISSUE	01/23/19			
DATE	SCALE	DATE	DWG. NO.	SHEET NO.	SHEET NO.
	1"=1'	01/22/19	G001	1 OF 1	1 OF 1



MATCH LINE - THIS SHEET



MATCH LINE - THIS SHEET



NO.	REVISIONS	DATE
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0	BID ISSUE	01/23/19

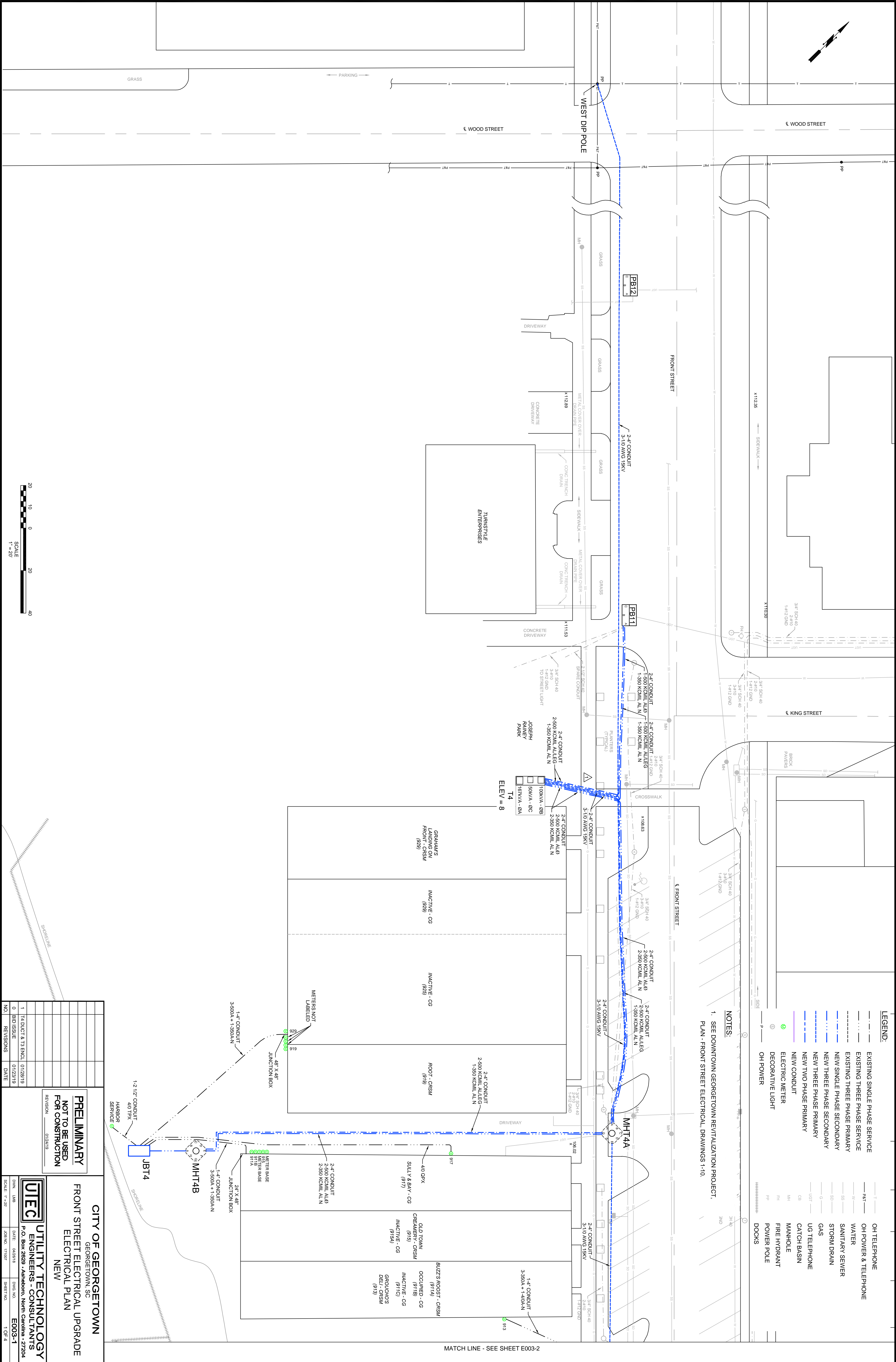
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FOR CONSTRUCTION

**CITY OF GEORGETOWN**  
GEORGETOWN, SC

**FRONT STREET ELECTRICAL UPGRADE**  
SIMPLE PLAN VIEW

**UTILITY TECHNOLOGY ENGINEERS - CONSULTANTS**  
P.O. Box 2829 • Ashboro, North Carolina • 27204

DATE: 12/05/18 DWG. NO.: E001  
 2829 NO. 1712001 SHEET NO.: 1 OF 1



**CITY OF GEORGETOWN**  
 GEORGETOWN, SC  
**FRONT STREET ELECTRICAL UPGRADE**  
 ELECTRICAL PLAN  
 NEW

**UTEC**  
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NO.	REVISIONS	DATE
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0	BID ISSUE	01/23/19

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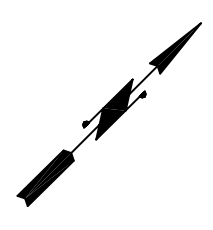
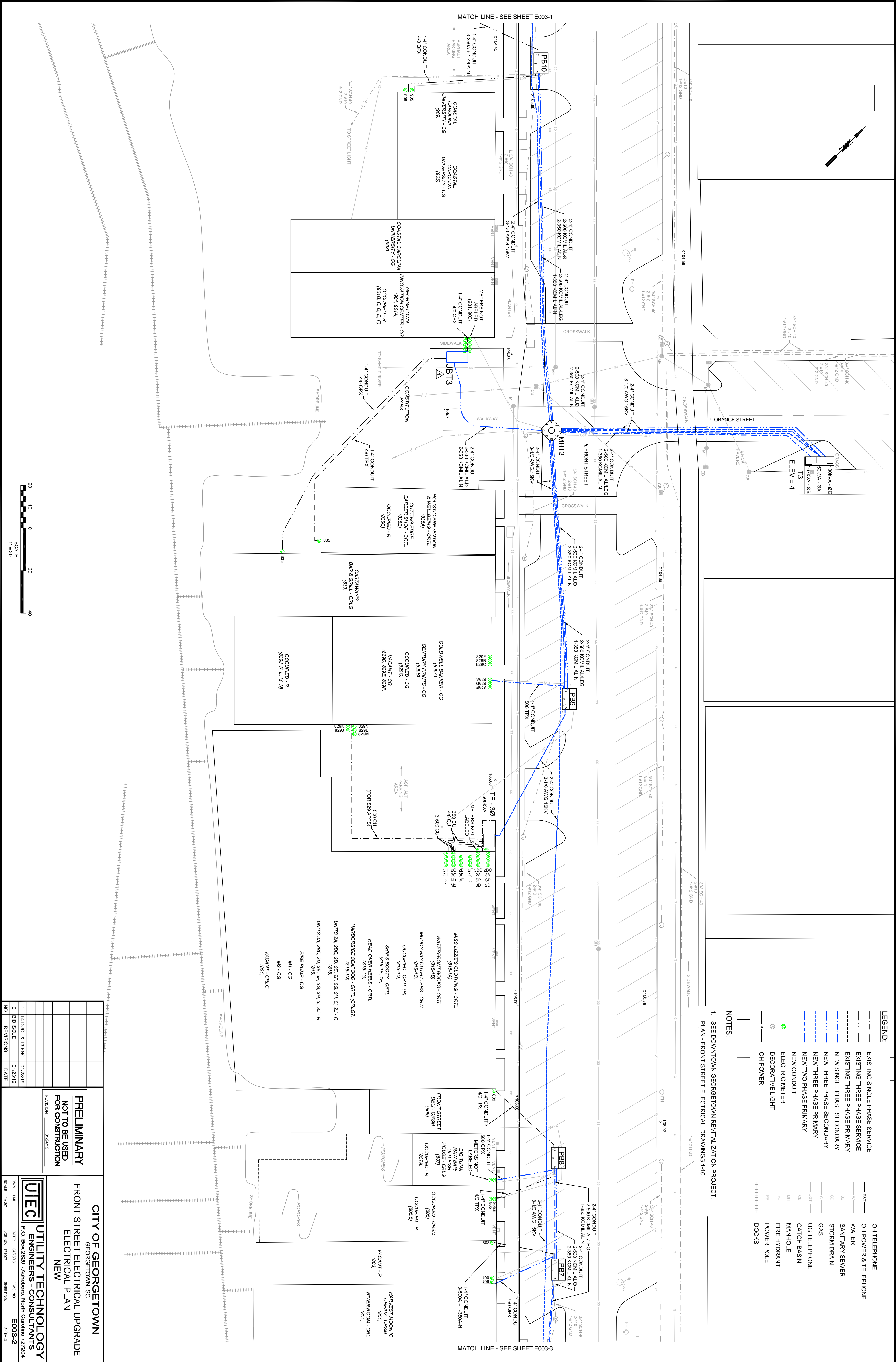
REVISION: 01/28/19

DATE	BY	CHKD.	DATE	BY	CHKD.

SCALE: 1" = 20'

DWG. NO. E003-1  
 SHEET NO. 1 OF 4





**LEGEND:**

---	EXISTING SINGLE PHASE SERVICE	---	OH TELEPHONE
---	EXISTING THREE PHASE SERVICE	---	OH POWER & TELEPHONE
---	EXISTING THREE PHASE PRIMARY	---	WATER
---	NEW SINGLE PHASE SECONDARY	---	SANITARY SEWER
---	NEW THREE PHASE SECONDARY	---	STORM DRAIN
---	NEW THREE PHASE PRIMARY	---	GAS
---	NEW TWO PHASE PRIMARY	---	UG TELEPHONE
---	NEW CONDUIT	---	CATCH BASIN
---	ELECTRIC METER	---	MANHOLE
---	DECORATIVE LIGHT	---	FIRE HYDRANT
---	OH POWER	---	POWER POLE
---		---	DOCKS

**NOTES:**  
 1. SEE DOWNTOWN GEORGETOWN REVITALIZATION PROJECT, PLAN - FRONT STREET ELECTRICAL DRAWINGS 1-10.



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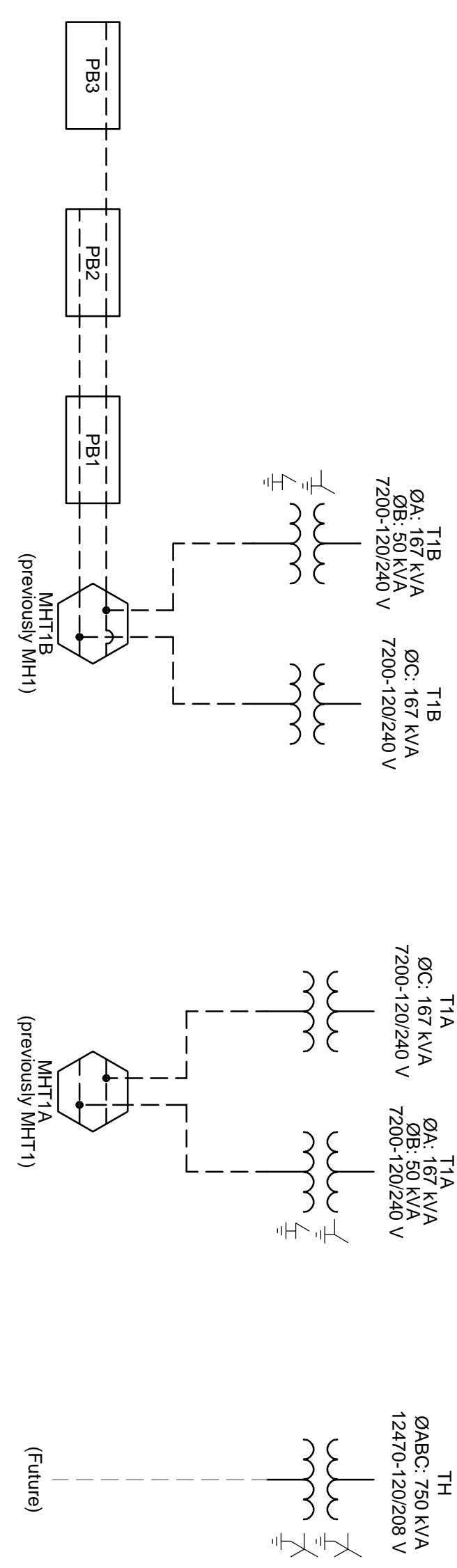
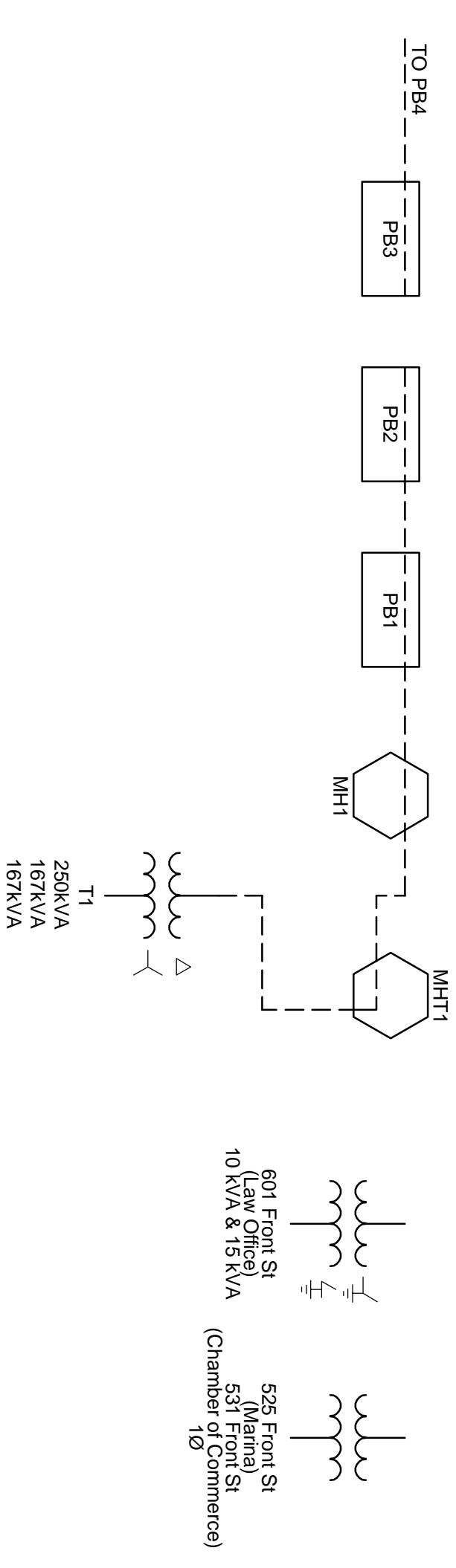
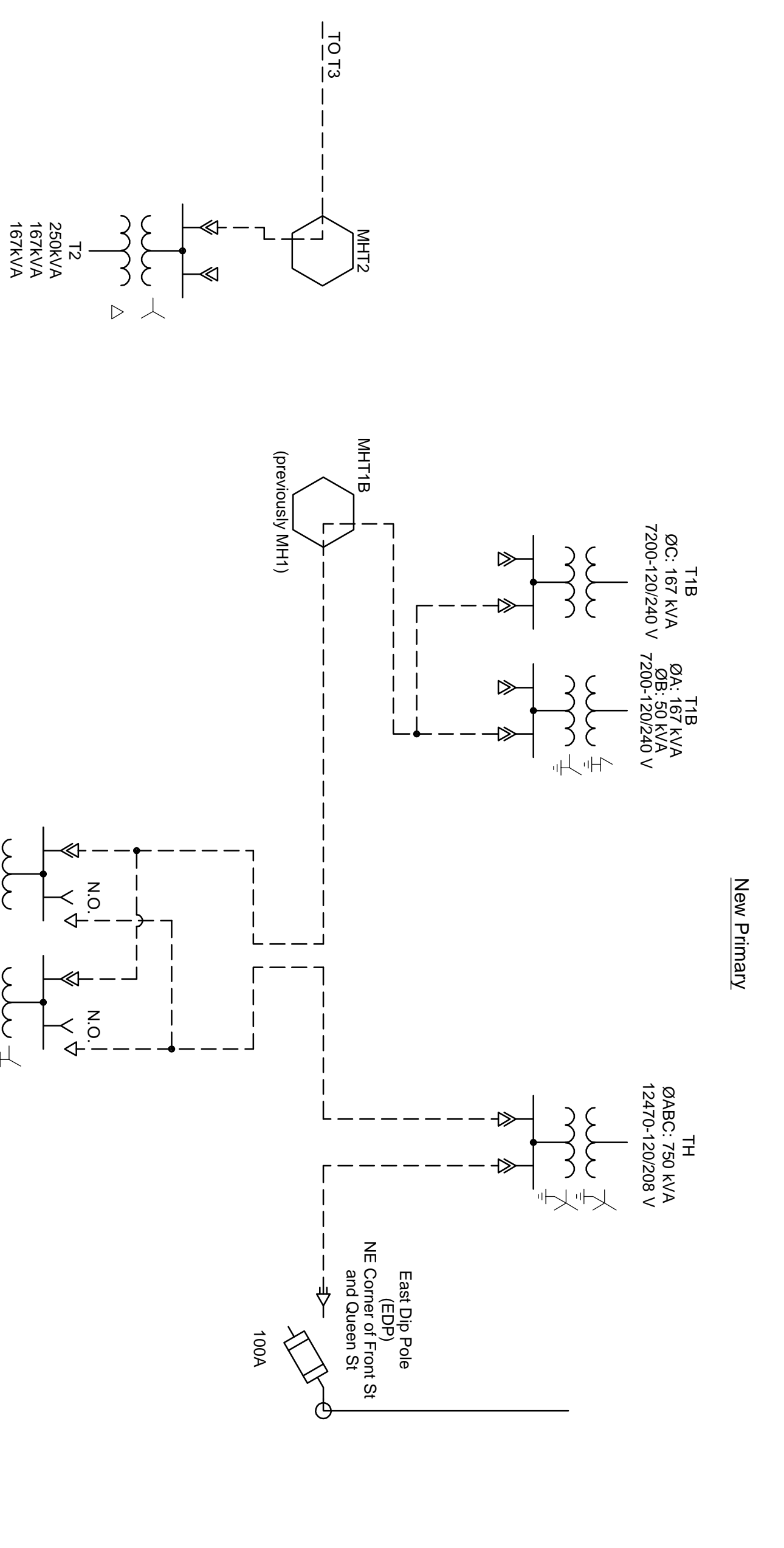
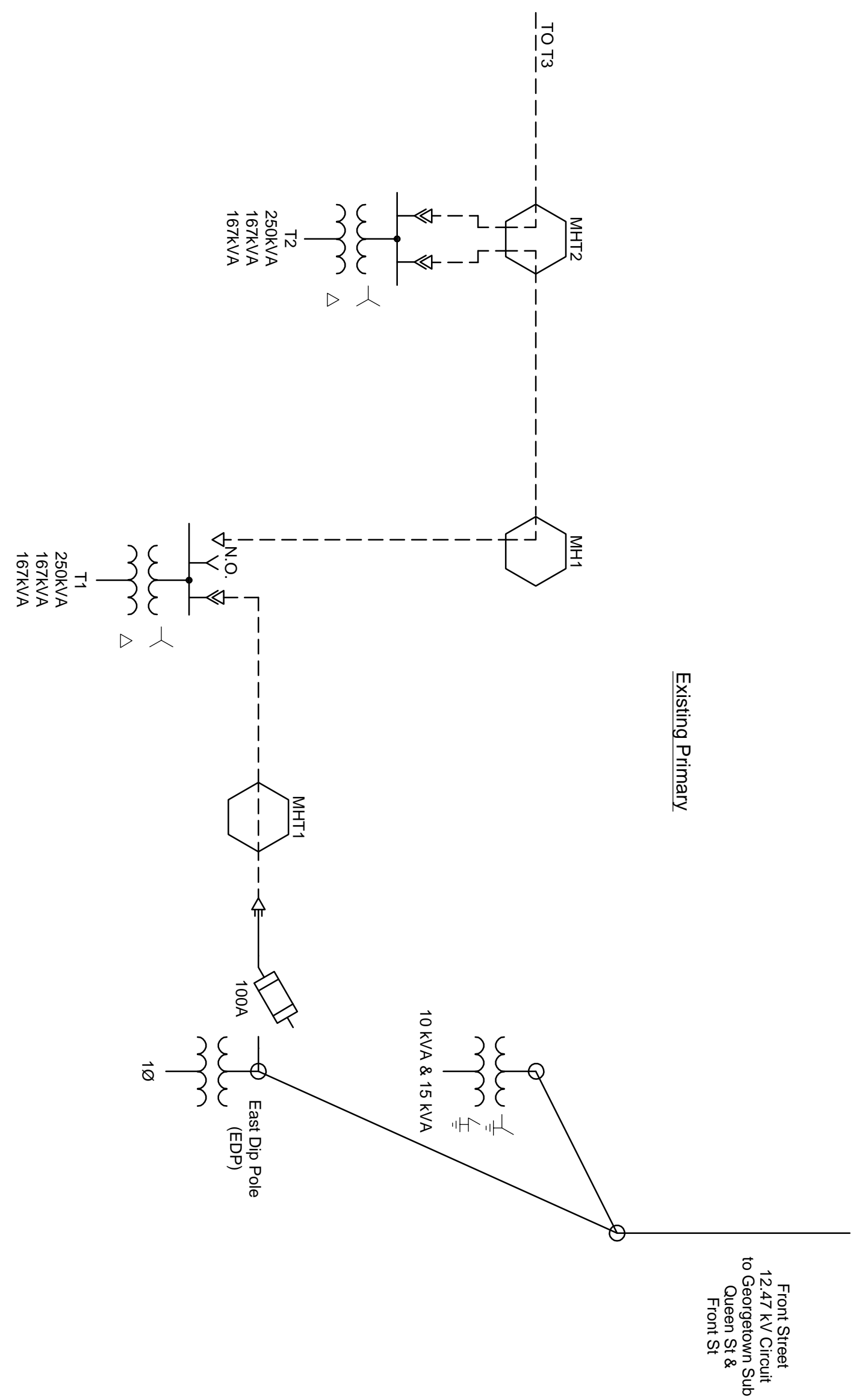
**CITY OF GEORGETOWN**  
 GEORGETOWN, SC

**FRONT STREET ELECTRICAL UPGRADE**  
 ELECTRICAL PLAN  
 NEW

**UTEC**  
 UTILITY TECHNOLOGY  
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DATE: 06/28/18  
 DWG. NO.: E003-2  
 SCALE: 1" = 30'

DATE: 06/28/18  
 SHEET NO.: 2 OF 4



**PHASE 1 - PRE-CONSTRUCTION/MOBILIZATION**

1. PROVIDE DETAILED CONSTRUCTION PLAN AND SCHEDULE
2. PRE-CONSTRUCTION MEETING
3. SET CONSTRUCTION TRAILER
4. TEMPORARY UTILITY SERVICES
5. SITE INSPECTION AND FINALIZE CONSTRUCTION SCHEDULE

**PHASE 2 - DIP POLES, FOUNDATIONS, DUCT BANK, AND DIRECT BORE CONDUITS**

1. INSTALL NEW EAST DIP POLE (EDP) AND MARINA AREA DIP POLE (MADP) (BY OTHERS)
2. INSTALL FOUNDATIONS FOR NEW T1A, T1B, T1C, T2, T3, AND T4 TRANSFORMERS.
3. INSTALL NEW DIRECT BORE CONDUITS (PREVIOUSLY MHT1); T2 TO MHT2; T3 TO MHT3; T4 TO STUB UP JUST INSIDE 615 FROM ST PROPERTY; T1A TO CUSTOMERS 525 FRONT ST; 531 FROM ST; 601 FROM ST; AND MARINA DOCK SERVICE; NEW EDP TO TH; TH TO T1A; TH TO STUB UP JUST INSIDE 615 FROM ST PROPERTY; T1B TO MHT1A (PREVIOUSLY MHT1) AND MHT1B; MHT2 TO NOVER TOWNS AND HARBORWALK SERVICE.

**PHASE 3 - TRANSFORMERS T1A, T1B, AND TH**

1. INSTALL NEW T1A, T1B, AND TH TRANSFORMERS.
2. INSTALL NEW PRIMARY CABLE FROM NEW EDP TO TH, TH TO T1A.
3. REMOVE EXISTING CABLE WALL CHANNELS AND CABLE SUPPORT BRACKETS IN MHT1A. LEAVE EXISTING CABLES IN MANHOLE.
4. INSTALL NEW CABLE WALL CHANNELS AND CABLE SUPPORT BRACKETS IN MHT1A.
5. INSTALL NEW SECONDARY CABLE FROM T1A TO MHT1A.
6. DE-ENERGIZE EXISTING T1 TRANSFORMERS.
7. DISCONNECT ALL SERVICES IN MHT1A FROM EXISTING T1 TRANSFORMER SECONDARIES. INSTALL INSULATING SLEEVE COVERS ON EXISTING CONNECTORS WHERE SERVICES WERE REMOVED.
8. RE-ENERGIZE EXISTING T1 TRANSFORMERS TO RESTORE SERVICE TO REMAINING T1 CUSTOMERS FED FROM MHT1B, PB1, AND PB2.
9. RECONNECT ALL SERVICES IN MHT1A TO NEW T1A TRANSFORMER SECONDARIES.
10. ENERGIZE NEW T1A TRANSFORMERS FROM NEW TH TRANSFORMER.
11. REMOVE EXISTING CABLE WALL CHANNELS AND CABLE SUPPORT BRACKETS IN MHT1B, PB1, PB2, AND PB3. LEAVE EXISTING CABLES IN MANHOLE/PULLBOXES.
12. INSTALL NEW CABLE WALL CHANNELS AND CABLE SUPPORT BRACKETS IN MHT1B, PB1, PB2, AND PB3.
13. INSTALL NEW PRIMARY CABLE FROM T1A TO T1B.
14. INSTALL NEW SECONDARY CABLE FROM T1B TO MHT1B.

15. INSTALL NEW SECONDARY CABLE FROM MHT1B TO PB1, PB2 AND PB3 FOR THE OPEN-WYE/OPEN-DELTA TRANSFORMER ONLY.
16. DE-ENERGIZE EXISTING T1 TRANSFORMERS.
17. SWAP ALL SERVICES IN MHT1B FROM EXISTING T1 TRANSFORMERS SECONDARIES TO NEW T1B TRANSFORMER SECONDARIES. NEW LARGER SERVICE CABLE TO BE INSTALLED FOR CUSTOMER 701/703 FRONT ST. SWAP ALL SERVICES IN PB1 AND PB2 FROM EXISTING T1 TRANSFORMERS TO NEW T1B OPEN-WYE/OPEN-DELTA TRANSFORMER BANK SECONDARIES ONLY. NEW LARGER SERVICE CABLE TO BE INSTALLED FOR CUSTOMER THEATRE. REMOVE ALL PREVIOUS SECONDARY CABLES IN MHT1A, MHT1B, PB1 AND PB2.
18. ENERGIZE NEW T1B TRANSFORMERS FROM NEW T1A.
19. REMOVE PREVIOUS PRIMARY CABLES FROM EXISTING T1 TO EDP AND TO EXISTING T2.
20. INSTALL NEW SECONDARY CABLE FROM MHT1B THRU PB1 AND PB2 FOR THE T1B SINGLE PHASE TRANSFORMER.
21. DE-ENERGIZE NEW T1B TRANSFORMERS.
22. SWAP SINGLE PHASE SERVICES IN PB1 AND PB2 TO NEW T1B SINGLE PHASE TRANSFORMER SECONDARY.
23. DE-ENERGIZE EXISTING TRANSFORMER T2.
24. SWAP SERVICE IN PB3 TO NEW T1B OPEN-WYE/OPEN-DELTA TRANSFORMER BANK SECONDARY.
25. REMOVE PREVIOUS SECONDARY BETWEEN PB3 AND PB4. INSTALL INSULATING SLEEVE COVERS ON EXISTING CONNECTORS WHERE SERVICE AND SECONDARY CABLES WERE REMOVED.
26. RE-ENERGIZE EXISTING TRANSFORMER T2.

27. ENERGIZE NEW T1B TRANSFORMERS FROM NEW T1A.
28. REMOVE EXISTING T1 TRANSFORMERS, ENCLOSURE, CABLES, ASSOCIATED EQUIPMENT AND FOUNDATION. CUT CONDUITS TO BELOW GROUNDLINE. FILL FOUNDATION AREA WITH TOPSOIL AND SEED WITH GRASS.

NO.	REVISIONS	DATE
1	T4 DUCT & T3 ENCL.	01/28/19
0	BID ISSUE	01/23/19

PRELIMINARY  
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REVISION 01/28/19

**CITY OF GEORGETOWN**  
GEORGETOWN, SC  
FRONT STREET ELECTRICAL UPGRADE  
CONSTRUCTION SEQUENCE  
PHASES 1 - 3

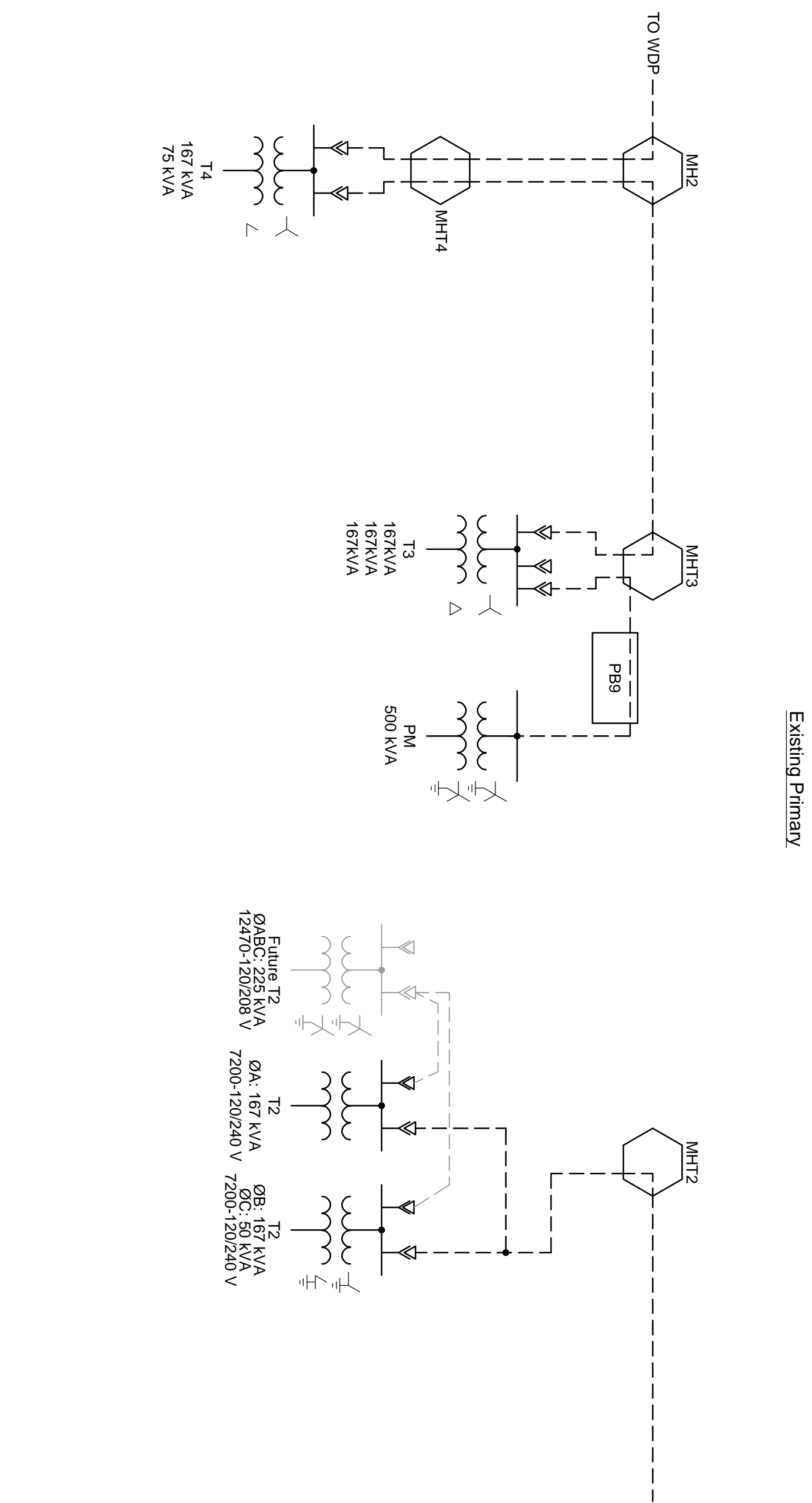
**UTEC**  
UTILITY TECHNOLOGY  
ENGINEERS - CONSULTANTS  
P.O. Box 2829 • Ashboro, North Carolina • 27204

DATE	TIME	DWG. NO.	SHEET NO.
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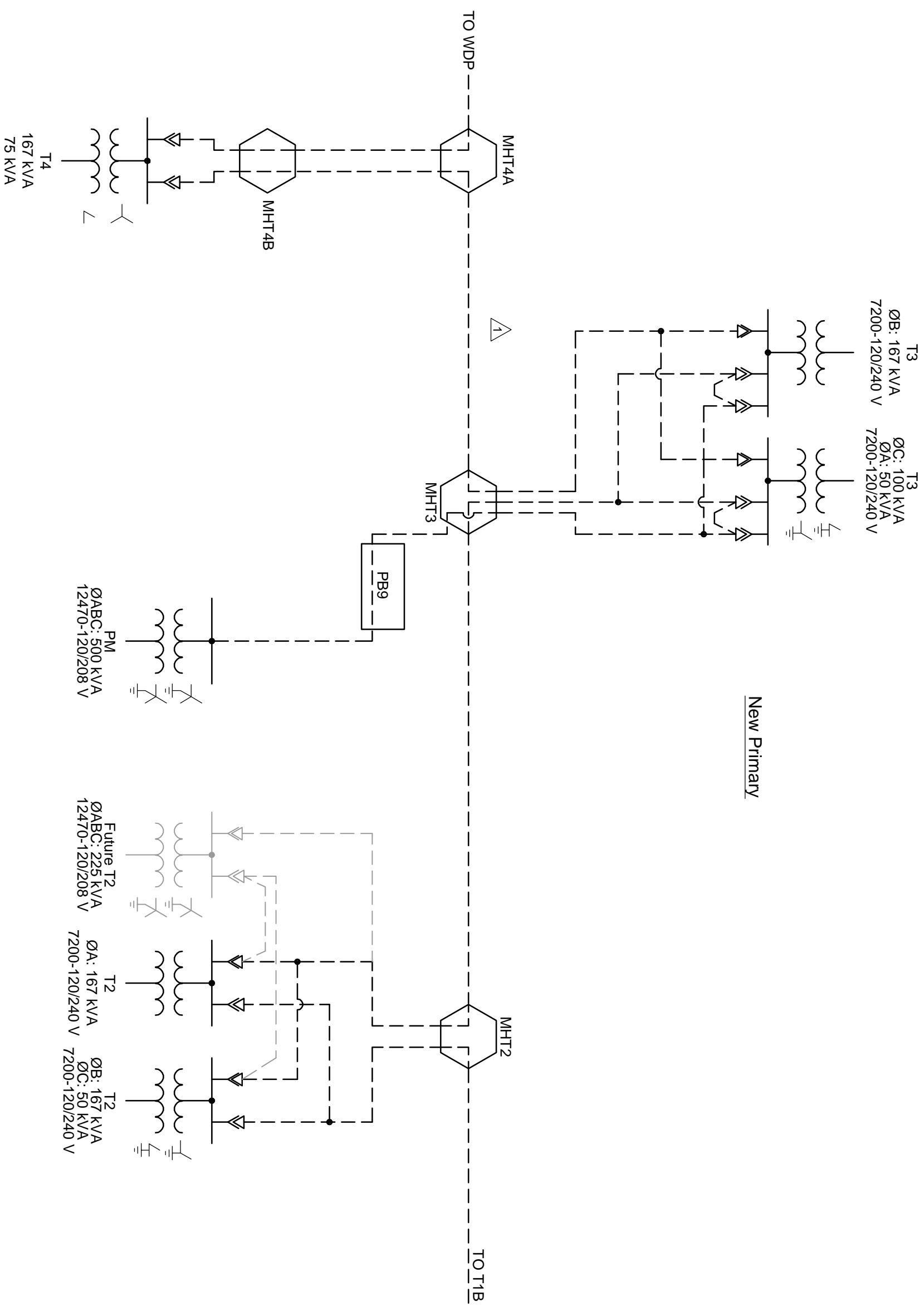
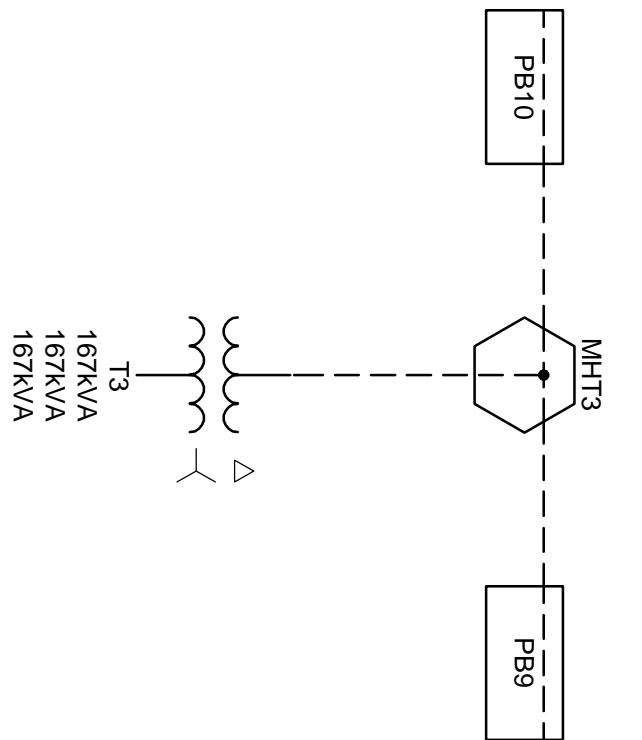
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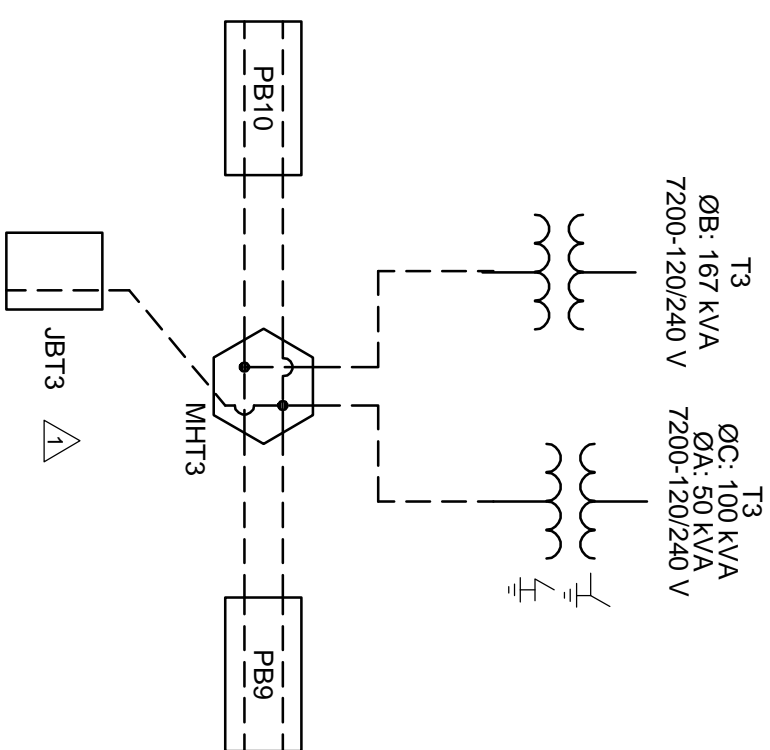




Existing Secondary



New Secondary



PHASE 5 - TRANSFORMERS T3 AND TF

1. INSTALL NEW T3 TRANSFORMERS.
2. REMOVE EXISTING CABLE WALL CHANNELS AND CABLE SUPPORT BRACKETS IN MHT3, PB9, AND PB10. LEAVE EXISTING CABLES IN MANHOLE/PULLBOXES.
3. INSTALL NEW CABLE WALL CHANNELS AND CABLE SUPPORT BRACKETS IN MHT3, PB9, AND PB10.
4. INSTALL NEW PRIMARY CABLE FROM T2 TO T3. INSTALL NEW PRIMARY CABLE FROM T3 TO MHT3 FOR EXISTING TF TRANSFORMER.
5. INSTALL NEW SECONDARY CABLE FROM T3 TO MHT3.
6. INSTALL NEW SECONDARY CABLE FROM MHT3 TO PB9 FOR THE NEW T3 SINGLE PHASE TRANSFORMER ONLY.
7. INSTALL NEW SECONDARY CABLE FROM MHT3 TO PB10 FOR THE NEW T3 OPEN-WYE/OPEN-DELTA TRANSFORMER ONLY.
8. DE-ENERGIZE EXISTING PADMOUNT AND T3 TRANSFORMERS. DISCONNECT AND REMOVE SECONDARY CABLES TO MHT3, RE-ENERGIZE EXISTING T3 TRANSFORMERS TO CONTINUE SERVICE TO CUSTOMERS 833 FRONT ST, 835 FRONT ST, AND 901/903 FRONT ST.
9. SWAP ALL SERVICES IN MHT3 FROM EXISTING T3 TRANSFORMER SECONDARIES TO NEW T3 TRANSFORMER SECONDARIES. SWAP ALL SERVICES IN PB9 FROM EXISTING T3 TRANSFORMER SECONDARIES TO NEW T3 SINGLE PHASE TRANSFORMER ONLY. NEW LARGER SERVICE CABLE TO BE INSTALLED FOR CUSTOMER 829 FRONT ST. SWAP ALL SERVICES IN PB10 FROM EXISTING T3 TRANSFORMER SECONDARIES TO NEW T3 OPEN-WYE/OPEN-DELTA TRANSFORMER BANK SECONDARIES ONLY. REMOVE ALL PREVIOUS SECONDARY CABLES IN MHT3, PB9 AND PB10.
10. SPLICE EXISTING TF PRIMARY CABLE TO NEW PRIMARY CABLE FROM NEW T3 TRANSFORMERS IN MHT3. EXISTING PRIMARY CABLE IN PB9 SHOULD BE SUPPORTED ON NEWLY INSTALLED CABLE SUPPORT BRACKETS.
11. ENERGIZE NEW T3 TRANSFORMERS AND EXISTING TF FROM NEW T2 TRANSFORMERS.
12. DE-ENERGIZE AND REMOVE EXISTING T3 TRANSFORMERS, ENCLOSURE, AND ASSOCIATED EQUIPMENT.
13. INSTALL NEW SECONDARY CABLE FROM MHT3 TO NEW JBT3 (EXISTING T3 TRANSCLASURE), RECONNECT ALL SERVICES IN JBT3 TO NEW T3 TRANSFORMER SECONDARY.
14. DE-ENERGIZE NEW T3 TRANSFORMERS. CONNECT NEW JBT3 T3 TRANSFORMER SECONDARY CABLES TO CONNECTORS IN MHT3. RE-ENERGIZE NEW T3 TRANSFORMERS.
15. REMOVE PREVIOUS PRIMARY CABLES FROM T3 TO MHT3. SPLICE EXISTING PRIMARY CABLES FROM EXISTING T3 TO EXISTING T4 TO NEW PRIMARY CABLE FROM NEW T3 TRANSFORMERS IN MHT3 TO ALLOW TEMPORARY SERVICE TO THE EXISTING T4 TRANSFORMERS FROM THE EAST SIDE.
16. INSTALL NEW SECONDARY CABLE FROM MHT3 TO PB9 FOR THE T18 SINGLE PHASE TRANSFORMER. INSTALL NEW SECONDARY CABLE FROM MHT3 TO PB9 FOR THE T18 OPEN-WYE/OPEN-DELTA TRANSFORMER.
17. DE-ENERGIZE NEW T3 TRANSFORMERS.
18. SWAP SINGLE PHASE SERVICES IN PB10 TO SINGLE PHASE TRANSFORMER SECONDARY.
19. ENERGIZE NEW T3 TRANSFORMERS.

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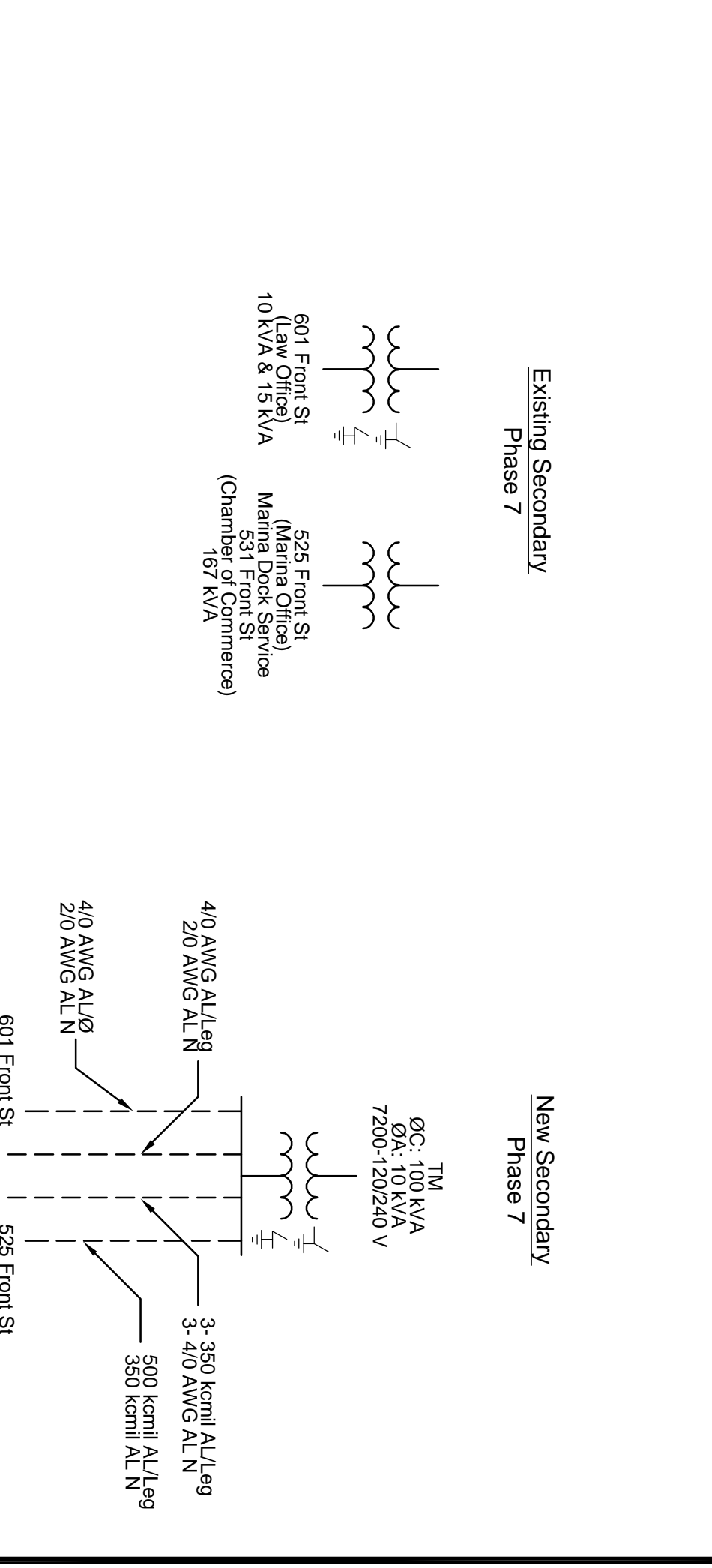
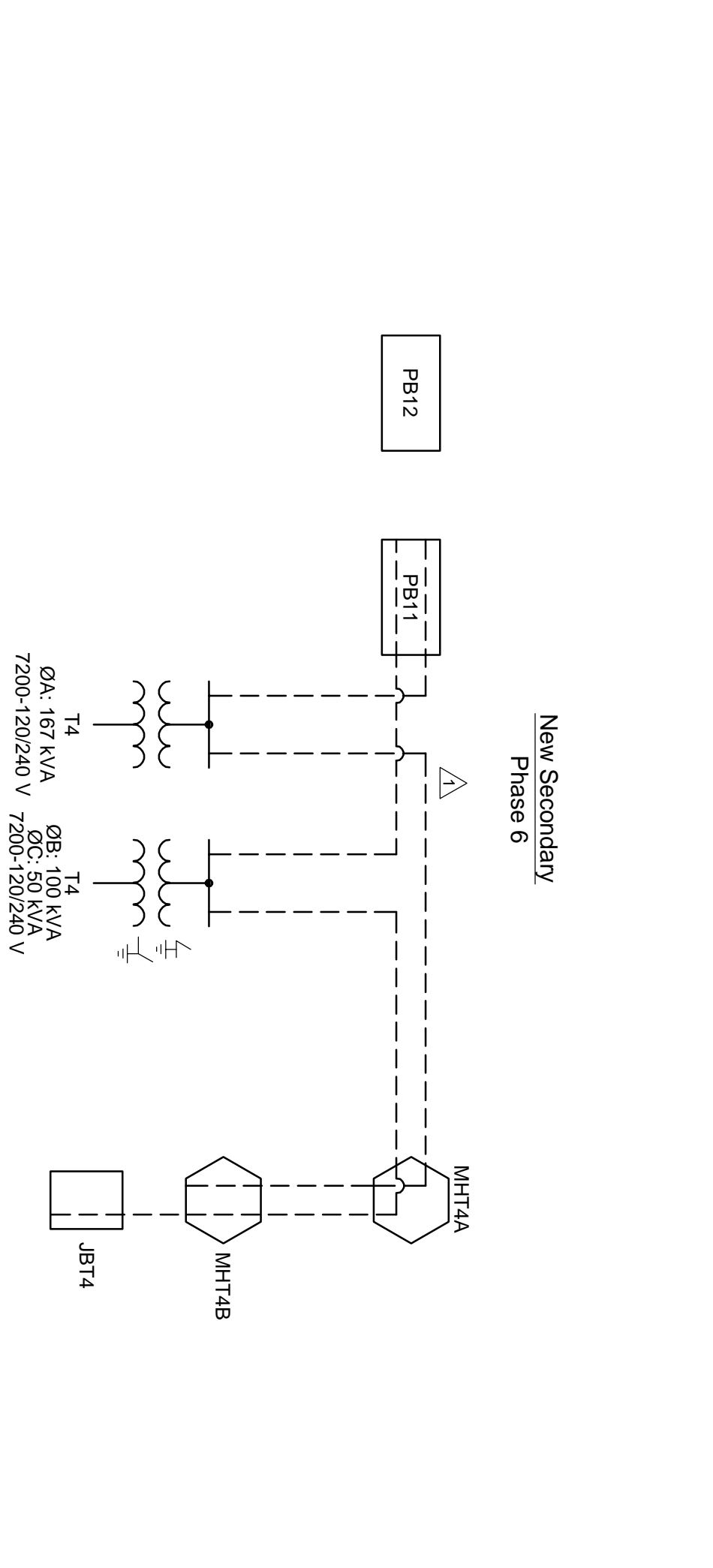
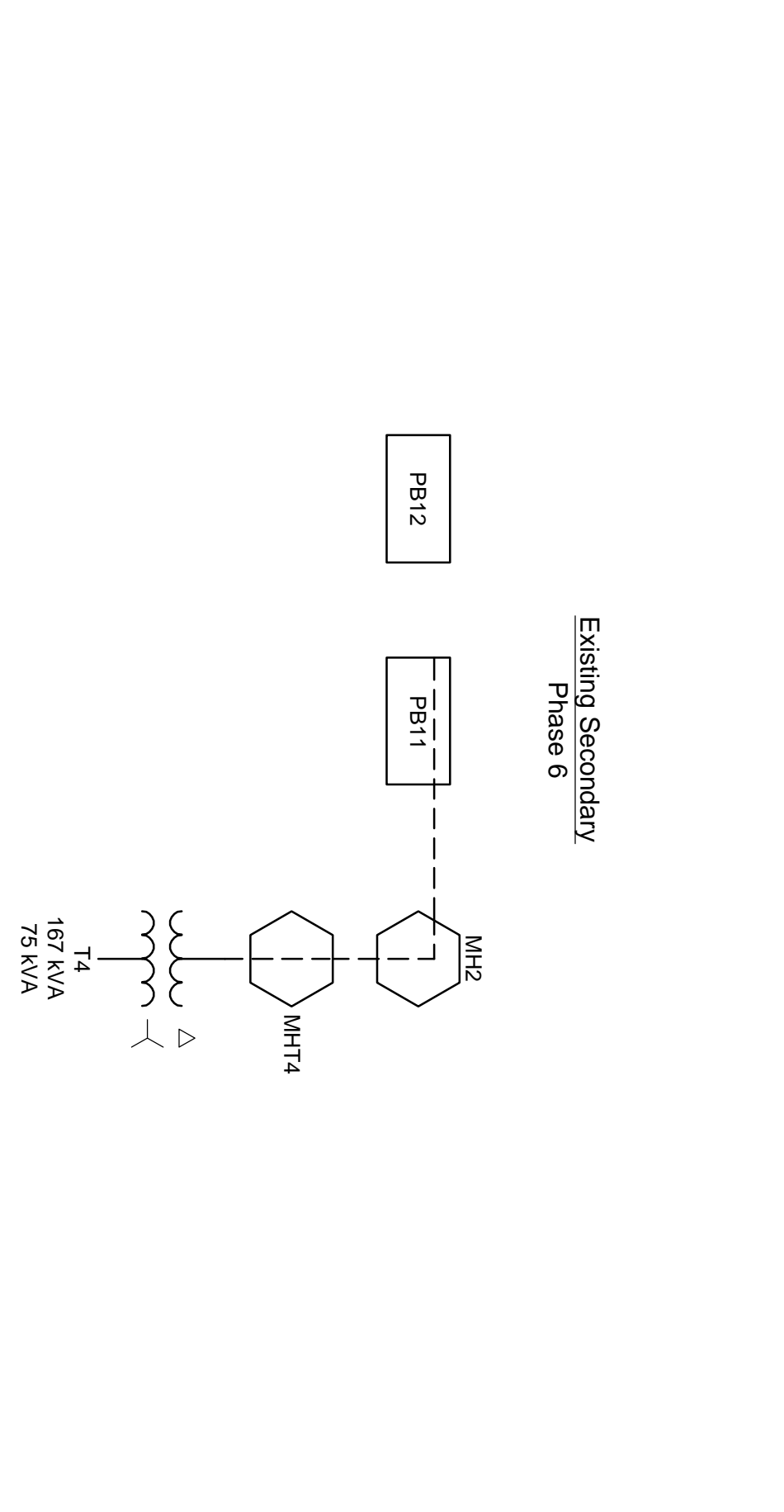
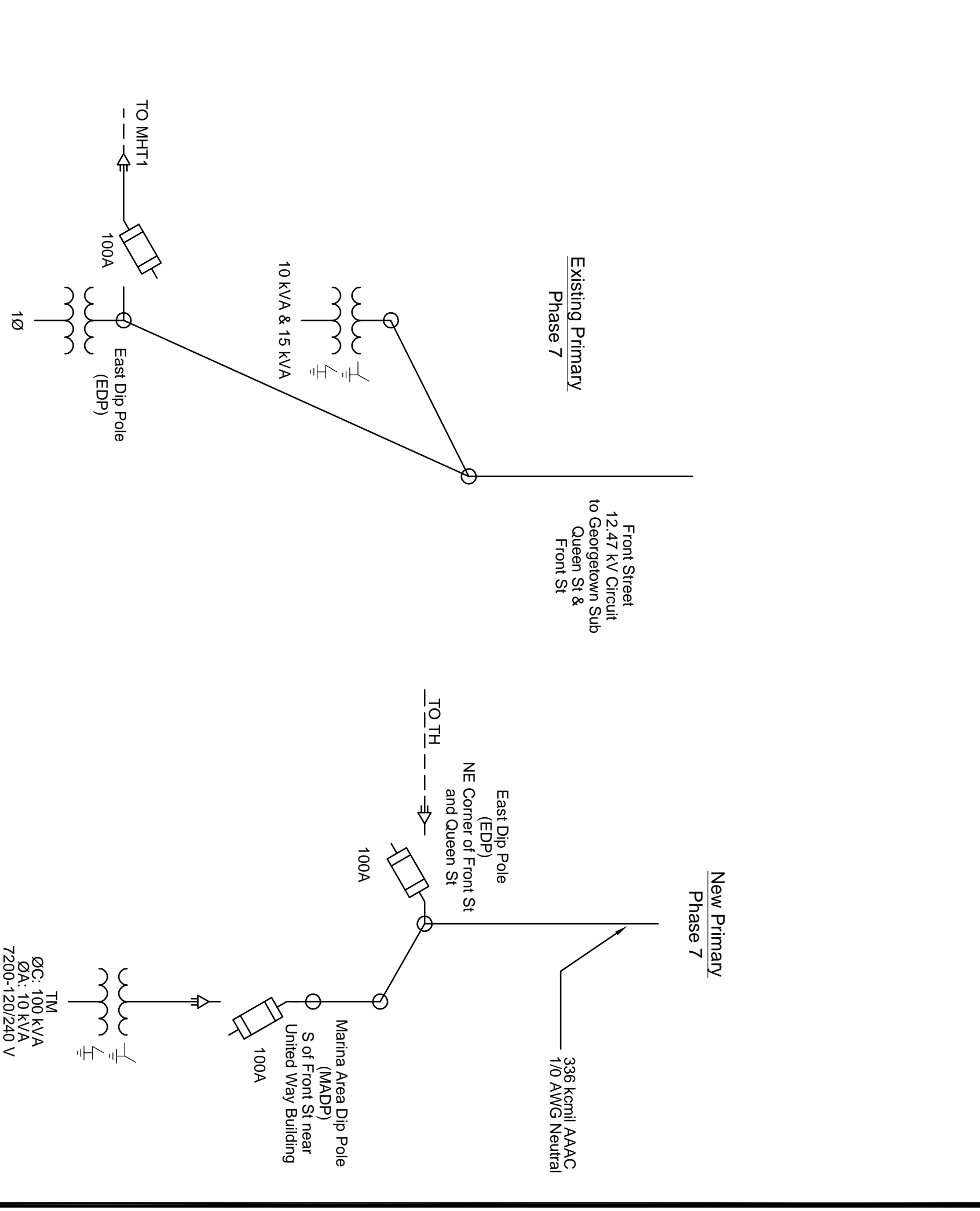
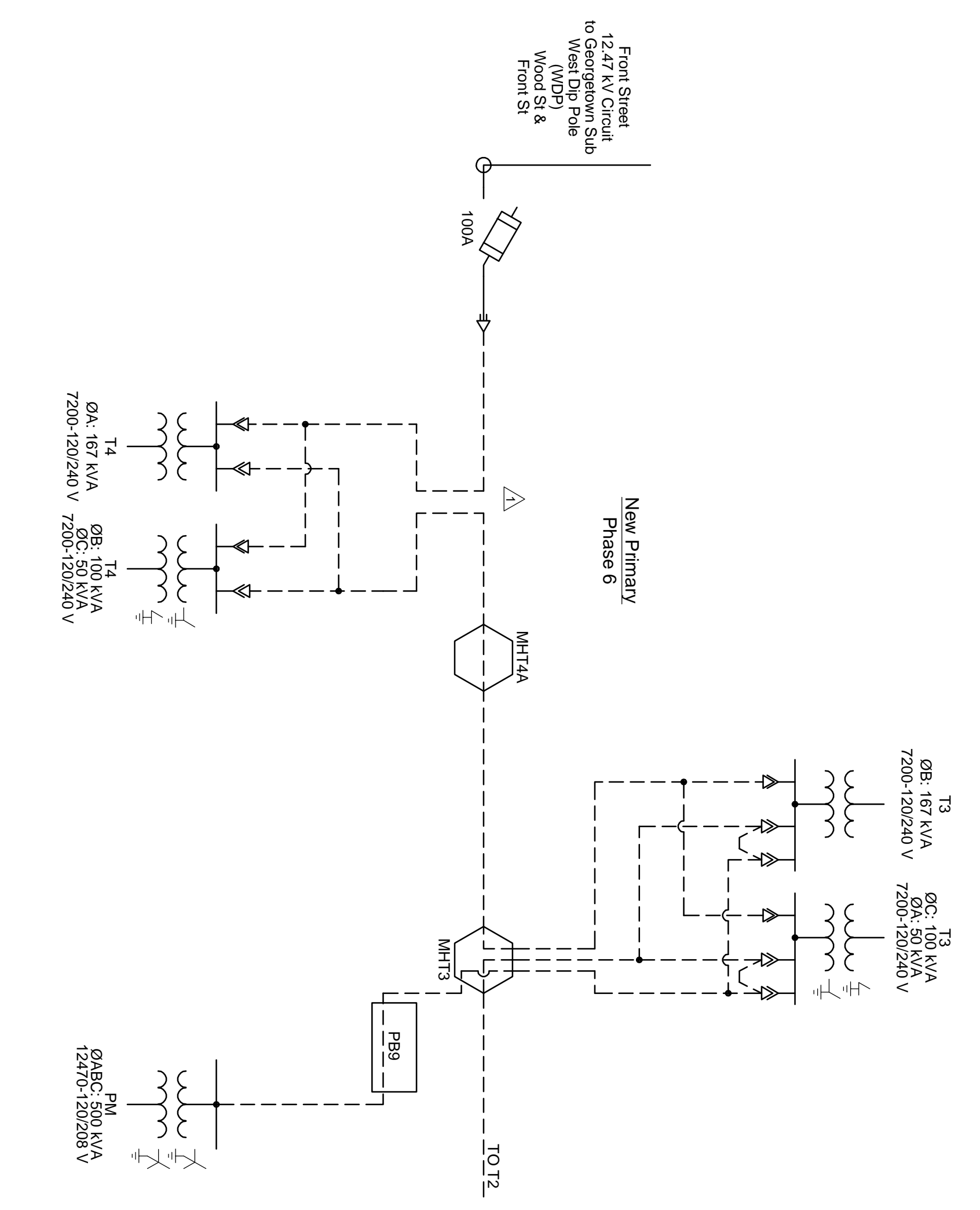
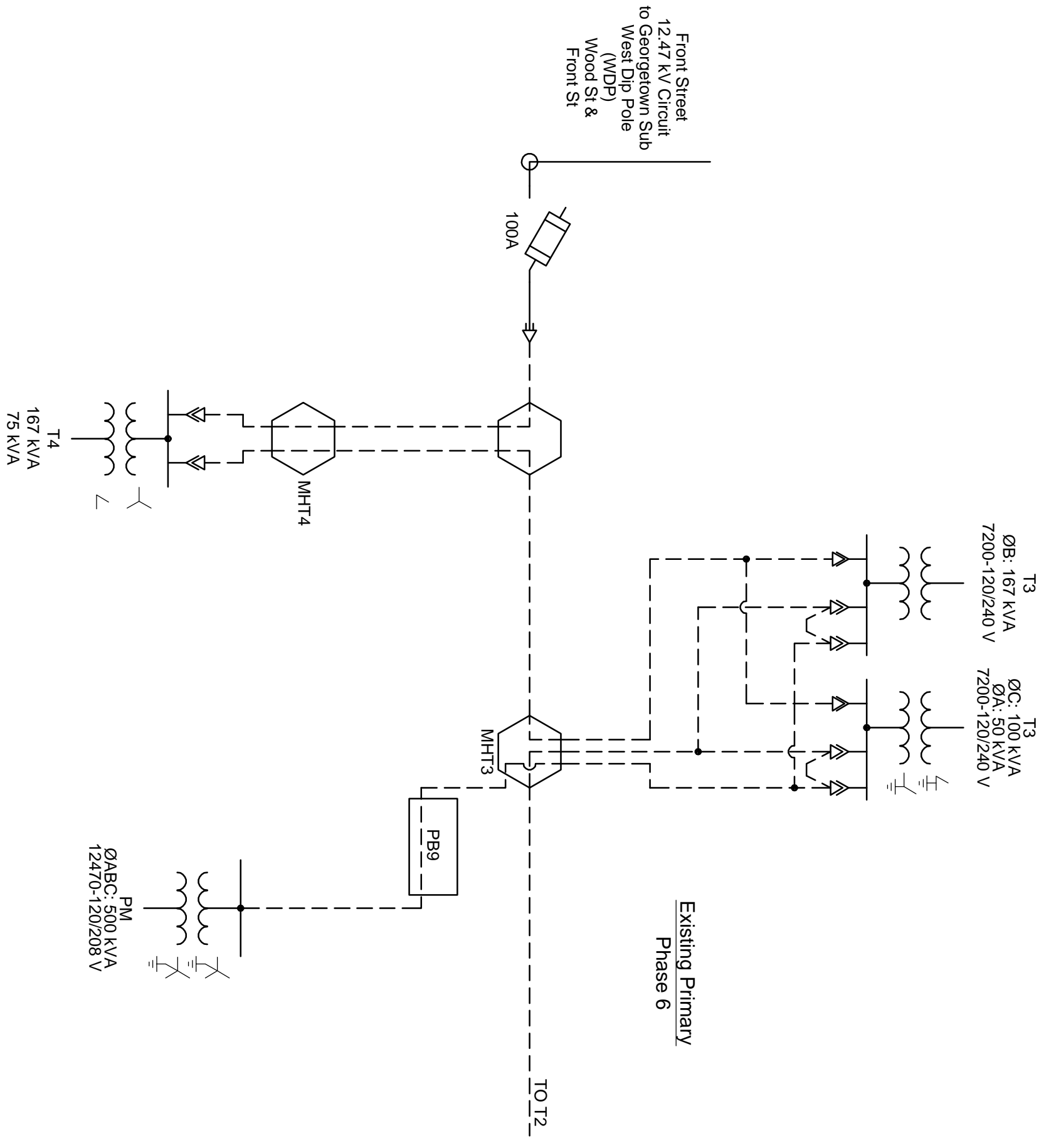
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UTILITY TECHNOLOGY  
ENGINEERS - CONSULTANTS

CITY OF GEORGETOWN  
GEORGETOWN, SC  
FRONT STREET ELECTRICAL UPGRADE  
CONSTRUCTION SEQUENCE  
PHASE 5

DATE: 12/31/18  
SCALE: NONE  
SHEET NO: 1 OF 1



**PHASE 6 - TRANSFORMER T4**

1. INSTALL NEW T4 TRANSFORMERS.
2. REMOVE PRIMARY CABLE FROM WEST DIP POLE (WDP) TO EXISTING T4 TRANSFORMERS.
3. DE-ENERGIZE EXISTING T4 TRANSFORMERS. REMOVE CONNECTIONS TO PB11 FROM MHT4A (PREVIOUSLY MHT2). INSTALL INSULATING SLEEVES OF EXISTING CONNECTORS WHERE SECONDARY CABLE WAS REMOVED. RE-ENERGIZE EXISTING T4 TRANSFORMERS.
4. LOCATE AND BREAK INTO EXISTING PRIMARY AND SECONDARY DUCT BANK AT SOUTH CROSSWALK OF FRONT ST AND KING ST. INSTALL NEW DUCT BANK FROM NEW T4 TRANSFORMERS. CONNECT NEW DUCT BANK INTO EXISTING DUCT BANKS.
5. INSTALL NEW PRIMARY CABLE FROM WDP TO NEW T4.
6. REMOVE EXISTING CABLE WALL CHANNELS AND CABLE SUPPORT BRACKETS IN MHT4A, MHT4B AND PB11.
7. LEAVE EXISTING CABLES IN MANHOLE/PULLBOXES.
8. INSTALL NEW CABLE WALL CHANNELS AND CABLE SUPPORT BRACKETS IN MHT4A, MHT4B AND PB11.
9. DE-ENERGIZE EXISTING T4 TRANSFORMERS.
10. SWAP ALL SERVICES IN MHT4A AND PB11 FROM EXISTING T4 TRANSFORMERS TO NEW T4 TRANSFORMERS. DISCONNECT ALL SERVICES IN EXISTING T4 TRANSCLOSURE. REMOVE ALL PREVIOUS SECONDARY CABLES.
11. REMOVE EXISTING T4 TRANSFORMERS, ENCLOSURE, CABLES AND ASSOCIATED EQUIPMENT.

**PHASE 7 - TM TRANSFORMER**

1. INSTALL NEW TM TRANSFORMERS
2. INSTALL NEW PRIMARY CABLE FROM NEW MADP TO TM.
3. INSTALL NEW SERVICE CABLES FROM TM TO CUSTOMERS 525, 531, 601 FRONT ST AND MARINA DOCK SERVICE.
4. DE-ENERGIZE EXISTING TRANSFORMER SERVICES TO CUSTOMERS 525, 531, 601 FRONT ST AND MARINA DOCK SERVICE.
5. SWAP CUSTOMERS 525, 531, 601 FRONT ST AND MARINA DOCK SERVICE FROM EXISTING TRANSFORMERS TO NEW TM TRANSFORMER BANK. REMOVE ALL PREVIOUS SERVICE CABLES.
6. ENERGIZE NEW TM TRANSFORMER FROM NEW MADP.

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0	BID ISSUE	01/23/19	

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SCALE	AS SHOWN	SHEET NO.	1 OF 1

**PRELIMINARY NOT TO BE USED FOR CONSTRUCTION**

REVISION: 01/28/19

**CITY OF GEORGETOWN**  
GEORGETOWN, SC

**FRONT STREET ELECTRICAL UPGRADE CONSTRUCTION SEQUENCE PHASES 6 - 7**

**UTEC UTILITY TECHNOLOGY ENGINEERS - CONSULTANTS**  
P.O. Box 2829 • Ashboro, North Carolina • 27204

Equipment Description	Manufacturer (or Equal)	Part Number (or Equal)	Quantity
10 KVA Single Phase Pad-Mounted Transformer (by Owner)			1
50 KVA Single Phase Pad-Mounted Transformer (by Owner)			5
100 KVA Single Phase Pad-Mounted Transformer (by Owner)			3
167 KVA Single Phase Pad-Mounted Transformer (by Owner)			8
750 KVA Three Phase Pad-Mounted Transformer (by Owner)			1
15 kV, 200 A Loadbreak Elbow			41
15 kV, 200 A Loadbreak Feed-Thru Insert			3
15 kV Cable Splice			6
15 kV OH to UG Terminator			6
Flood-seal Multi-port Bus Connectors, 6 outlets; with rubber insulating sleeve covers	Homac	175 Series	110
Flood-seal Dual Adapter Kit	Homac	175 Series	22
Flood-seal Multi-port Bus Connectors, 3 outlets; Y type, with rubber insulating sleeve covers	Homac	125 Series	34
Manhole Wall Support, stainless steel slotted channel, 72" long, 13/16" x 1 5/8", 12 GA			32
Pull Box Wall Support, stainless steel slotted channel, 38" long, 13/16" x 1 5/8", 12 GA			33
Cable Support Bracket, stainless steel slotted channel, 18" long, 1 5/8"x1 5/8", 12 GA			248
Cable Clamp, 1-7/8", polymer, with stainless steel strap	ZSI	Porce-a-Clamp	851
600 V Terminal Lug, 750 Kcmil AL, 2-hole NEMA			6
600 V Terminal Lug, 500 Kcmil AL, 2-hole NEMA			370
600 V Terminal Lug, 350 Kcmil AL, 2-hole NEMA			121
600 V Terminal Lug, # 4/0 AWG AL, 2-hole NEMA			121
600 V Terminal Lug, # 4/0 AWG AL, 2-hole NEMA			50
600 V Terminal Lug, # 2/0 AWG AL, 2-hole NEMA			25
600 V Terminal Lug, # 1/0 AWG AL, 2-hole NEMA			7
600 V Terminal Lug, # 10 AWG AL, 2-hole NEMA			13
600 V Terminal Lug, # 12 AWG AL, 2-hole NEMA			7
600 V Terminal Lug, 500 Kcmil AL, 1-hole NEMA			19
600 V Terminal Lug, # 12 AWG AL, 1-hole NEMA			8
600 V Terminal Lug, 350 Kcmil AL, 1-hole NEMA			27
600 V Terminal Lug, # 4/0 AWG AL, 1-hole NEMA			11
600 V Terminal Lug, # 2/0 AWG AL, 1-hole NEMA			7
600 V Terminal Lug, # 1/0 AWG AL, 1-hole NEMA			20
600 V Terminal Lug, # 10 AWG AL, 1-hole NEMA			10
600 V Terminal Lug, # 12 AWG AL, 1-hole NEMA			40
4-hole NEMA Stud Connector			5
6-hole NEMA Stud Connector			2
Fiberglass Enclosure w/ lockable lid, Min Inside Width 70", Min Depth 16", Min Height 40", w/ Stainless Steel Hardware			


NO.	REVISIONS	DATE
1	T4 DUCT & T3 ENCL	01/28/19
0	BID ISSUE	01/23/19

**PRELIMINARY**  
NOT TO BE USED  
FOR CONSTRUCTION

REVISION \_\_\_\_\_ 01/28/19

**CITY OF GEORGETOWN**  
GEORGETOWN, SC

FRONT STREET ELECTRICAL UPGRADE  
BILL OF MATERIALS



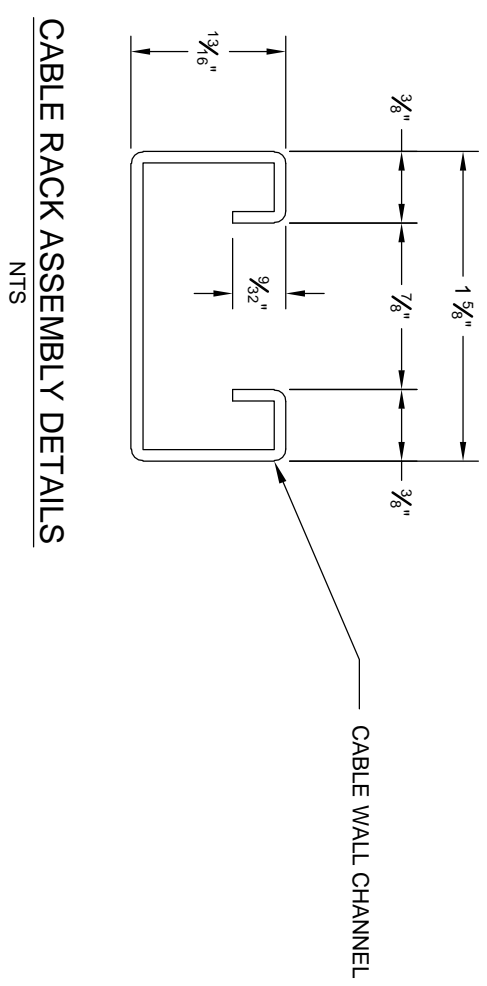
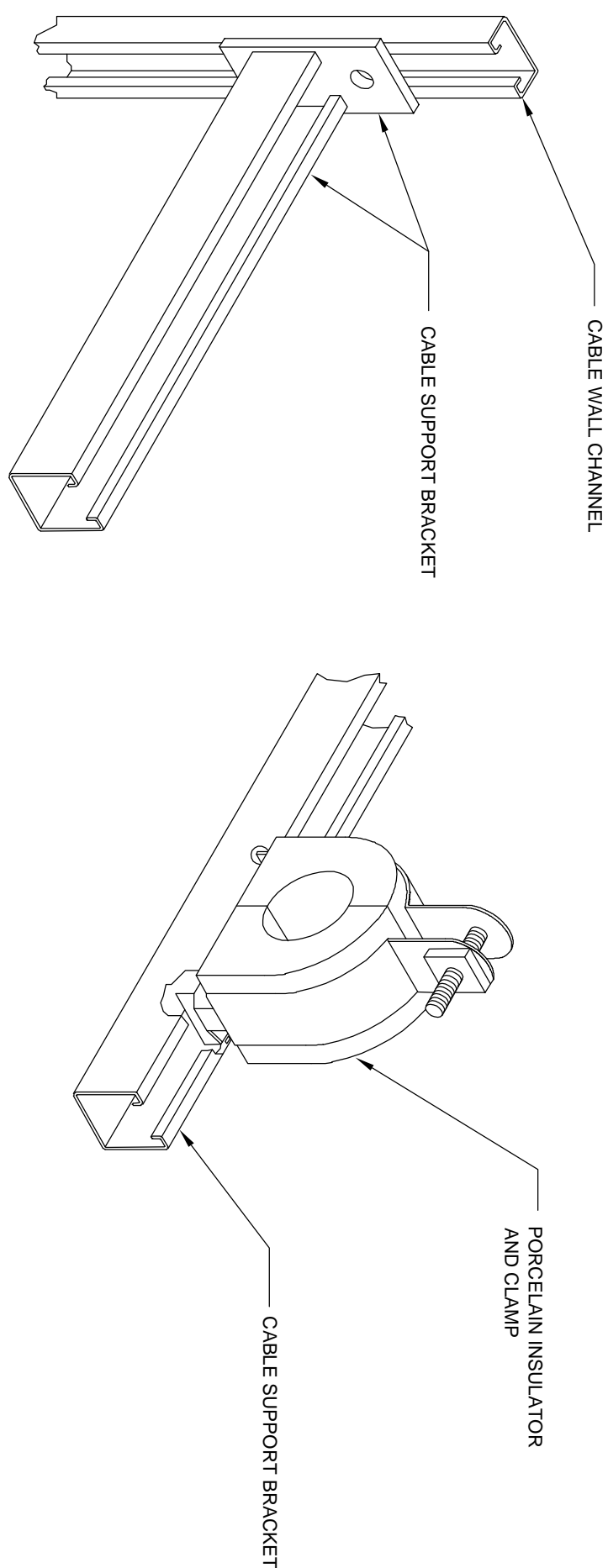
**UTEC**  
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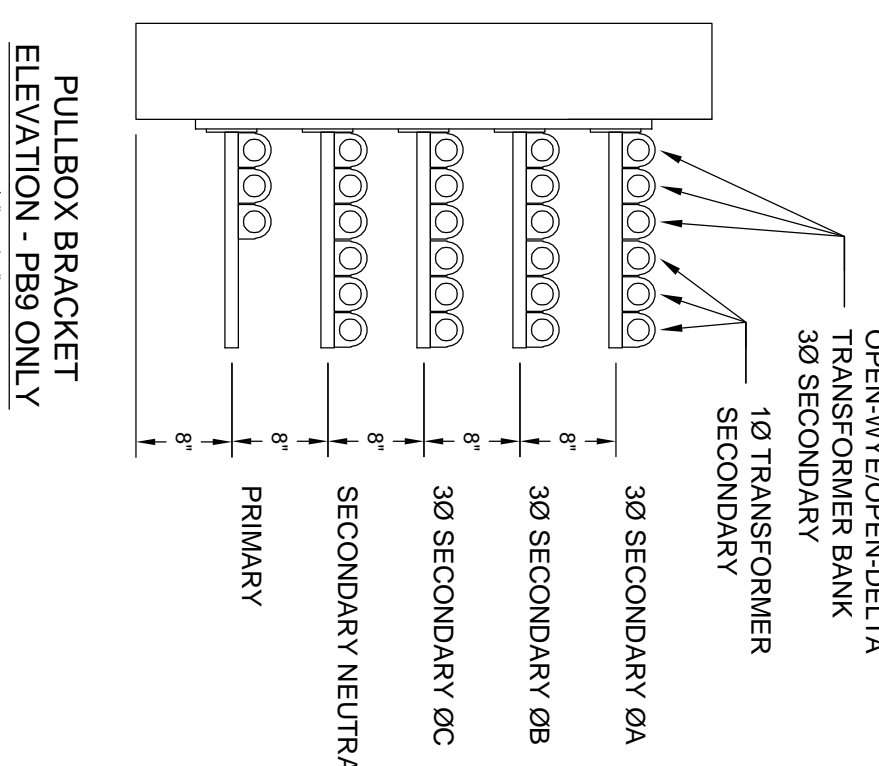
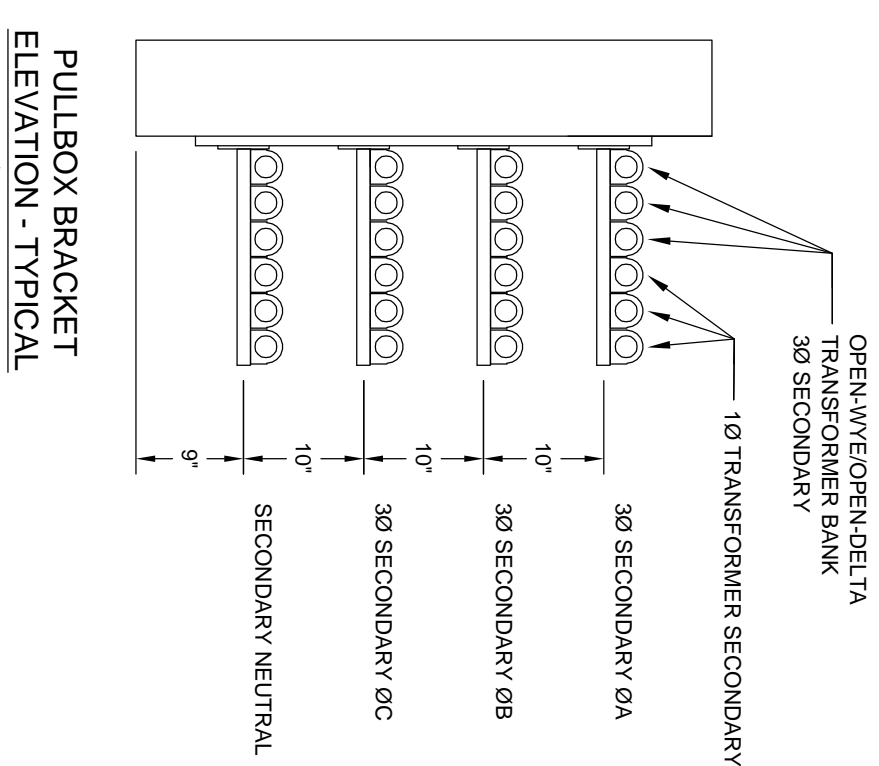
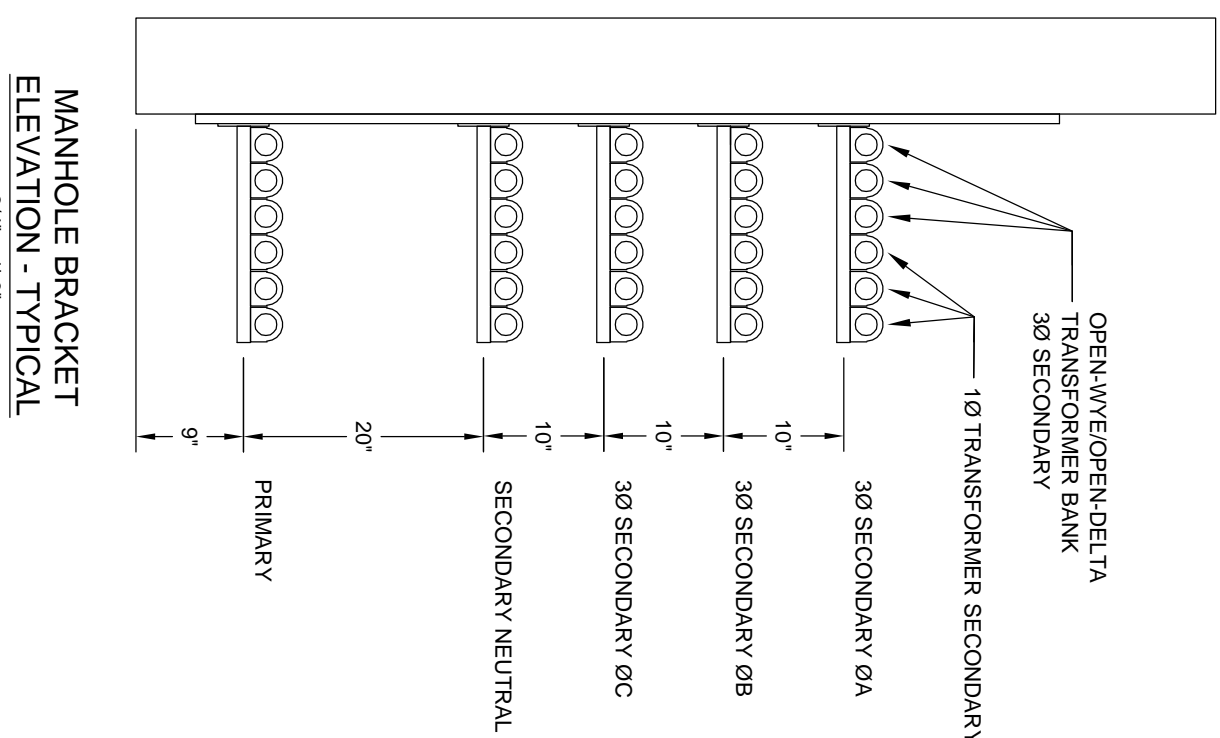
DATE: 01/08/19  
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DWG. NO.: E005  
SHEET NO.: 1 OF 1

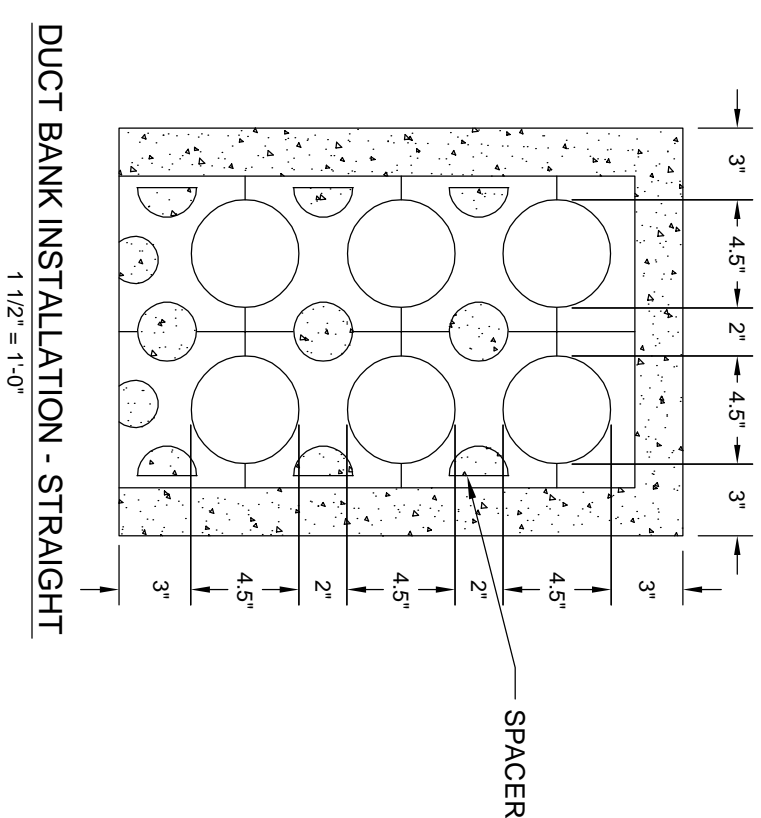




CABLE RACK ASSEMBLY DETAILS

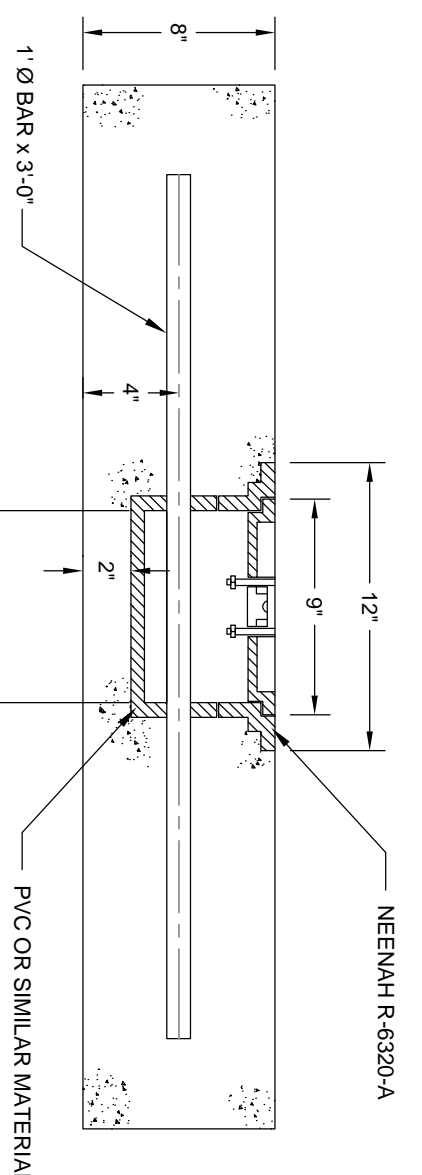


- NOTES: CABLE RACKING
- CABLE SUPPORT BRACKETS TO BE INSTALLED ONLY WHERE SHOWN ON THE MANHOLE AND PULLBOX DRAWINGS.
  - SIX CABLE INSULATORS SHOWN PER BRACKET. INSTALL ONLY ENOUGH INSULATORS FOR THE CABLES AS SHOWN ON THE MANHOLE AND PULLBOX DRAWINGS.

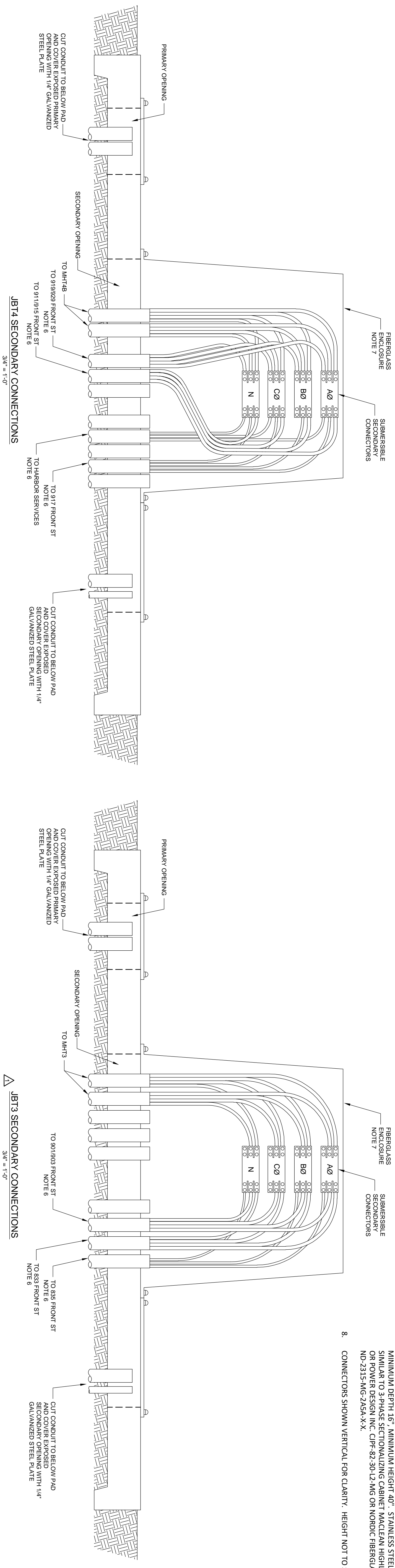


- NOTES: DUCT BANK INSTALLATION - STRAIGHT
- DEPTH TO THE TOP OF CONDUITS SHALL NOT BE LESS THAN 24" FOR CONDUITS WITH SECONDARY AND SERVICE CABLES AND NOT LESS THAN 30" FOR CONDUITS WITH PRIMARY CABLES.
  - USE 4" TYPE DB PVC CONDUIT FOR ALL DUCT BANK INSTALLATIONS.
  - BOTTOM OF TRENCH TO BE SMOOTH AND FREE OF ROCK AND DEBRIS. A 4" BED OF SAND SHOULD BE ADDED IF THE BOTTOM IS ROCKY.
  - DUCT SPACERS SHOULD BE LOCATED EVERY 5' - 8' ALONG LENGTH OF THE DUCT BANK.
  - DUCT BANK MUST HAVE A MINIMUM 3" ENVELOPE OF CONCRETE SURROUNDING THE PVC CONDUIT (3" AT TOP, BOTTOM, AND SIDES).
  - DUCT BANKS SHALL SLOPE TOWARD A MANHOLE OR PULLBOX.

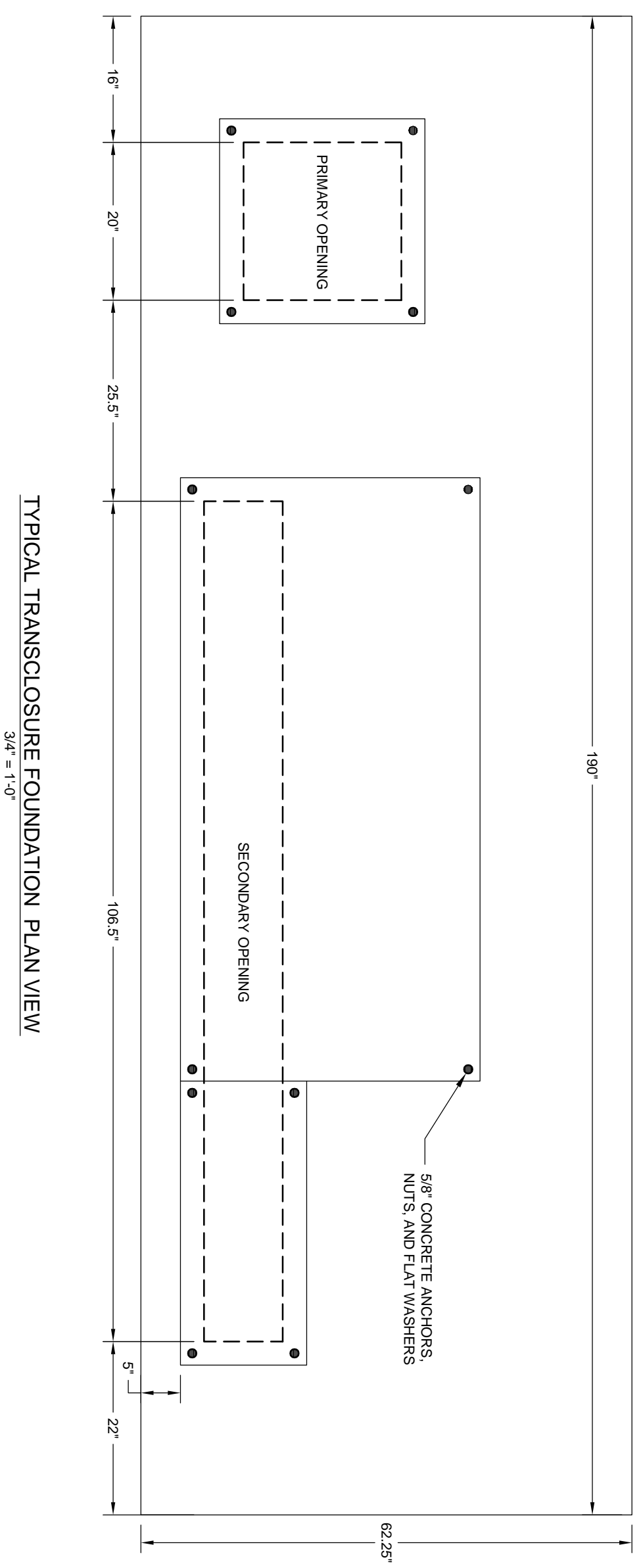
- NOTES: DUCT BANK INSTALLATION - FIELD BENDS
- BENDS OF LESS THAN 35° RADIUS CAN BE ACCOMPLISHED USING FACTORY BENDS. BENDS GREATER THAN 150° GENERALLY REQUIRE NO SPECIAL TECHNIQUE. BENDING RADIUS SHALL BE 36 INCHES OR GREATER.
  - JOINTS WHICH FALL WITHIN THE RADIUS OF THE CURVE ARE SUBJECTED TO THE SAME BENDING FORCES AS THE CONDUIT ITSELF. TO PREVENT THE TENSION SIDE (OUTSIDE OF CURVE) OF THE JOINT FROM FAILING, CAUTION MUST BE TAKEN TO ALLOW SUFFICIENT CURING TIME FOR ALL JOINTS IN THE RADIUS IN THE BEND. TWO HOURS CURING TIME IS REQUIRED AT 70°. SHORTER TIMES MAY BE ADEQUATE IN HOTTER WEATHER AND LONGER TIMES MAY BE REQUIRED IN COLDER WEATHER.
  - FOR THE BENDS WHERE THE RUNNING LENGTH OF DUCT REQUIRED IS 150' OR LESS, THE BENDING OPERATION IS SIMPLIFIED IF THE ENTIRE LENGTH IS PREASSEMBLED AND ALLOWED TO CURE PRIOR TO BENDING, PARTICULARLY IN INSTALLATIONS WHERE THE RADIUS OF CURVATURE IS LESS THAN 80'.
  - PLACE BOTTOM SPACERS AS NEEDED (REDUCE SPACING AS NECESSARY). INSTALL THE FIRST HORIZONTAL ROW OF DUCTS JOINED AND CURED. INTERMEDIATE SPACERS ARE THEN PLACED AND THE OPERATION REPEATED. CHECK FOR AND ENSURE ALIGNMENT. POUR CONCRETE.



<p><b>CITY OF GEORGETOWN</b> GEORGETOWN, SC</p> <p><b>FRONT STREET ELECTRICAL UPGRADE</b> MISCELLANEOUS DETAILS</p>		<p><b>UTEC</b> UTILITY TECHNOLOGY ENGINEERS - CONSULTANTS P.O. Box 2829 • Ashboro, North Carolina • 27204</p>	
DATE: 12/05/18	DWG. NO. 171201	SCALE: NOTED	SHEET NO. 1 OF 2
<p><b>PRELIMINARY</b> NOT TO BE USED FOR CONSTRUCTION</p> <p>REVISION: 01/24/19</p>		<p>NO. 1 DATE: 01/23/19</p>	

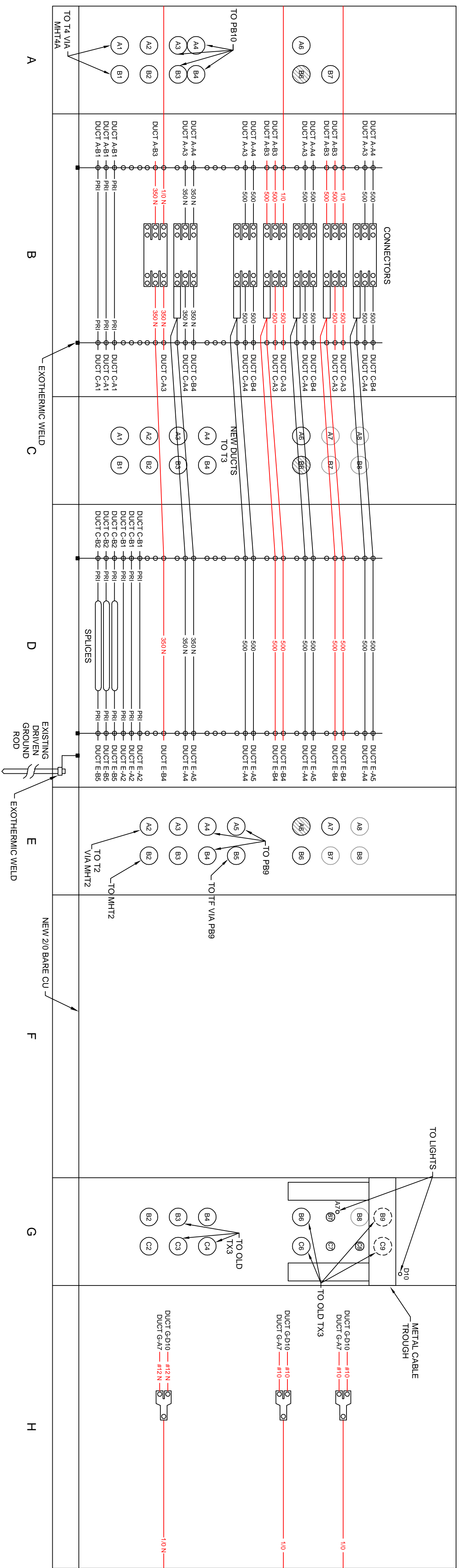
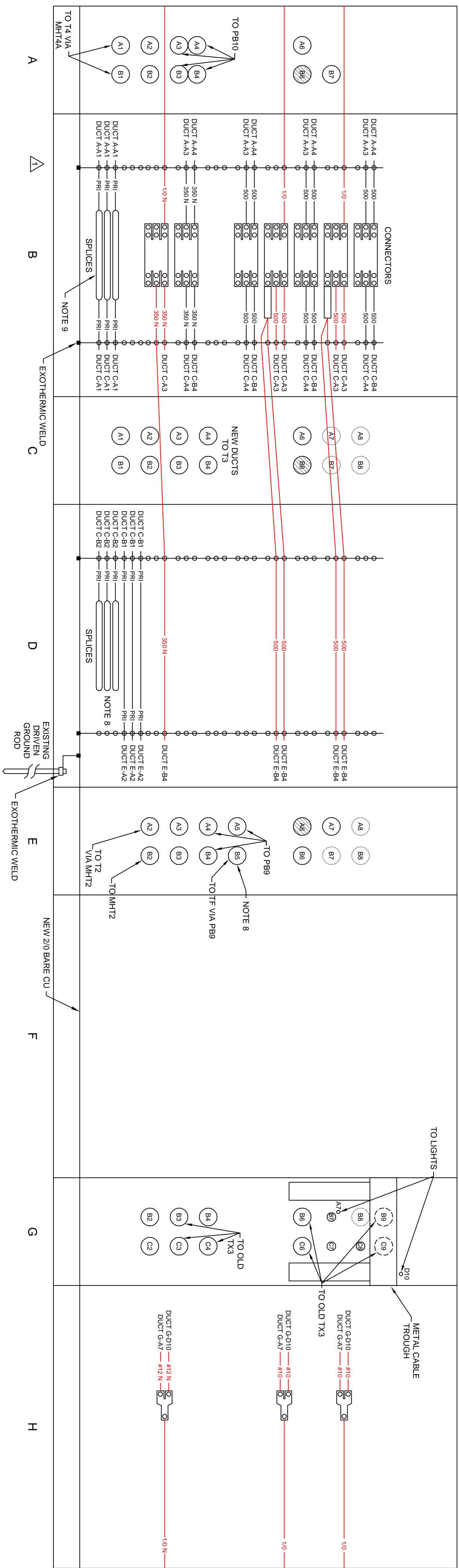


- NOTES:**
1. SEE DWG E004 FOR DETAILED CONSTRUCTION SEQUENCE.
  2. VERIFY PHASE ROTATION OF 3-PHASE SERVICES BEFORE DISCONNECTING THE SERVICE FROM THE EXISTING SECONDARY CABLES AND AFTER CONNECTING TO THE NEW SECONDARY CABLE, BUT BEFORE CLOSING THE SERVICE DISCONNECT.
  3. ALL EXISTING SERVICE CABLES TO BE KEPT IF IN ACCEPTABLE CONDITION UNLESS OTHERWISE NOTED. ALL SERVICE CABLES TO BE TAGGED WITH SERVICE ADDRESSES.
  4. RECONNECT ALL LIGHTING/OUTLET CABLES NOT SHOWN ON THE DRAWING.
  5. VERIFY CONDUIT PATHS BEFORE PULLING NEW CABLES.
  6. VERIFY WHICH CONDUIT GOES TO WHICH ADDRESS AND TAG CABLES ACCORDINGLY.
  7. FIBERGLASS ENCLOSURE WITH LOCKABLE LID. MINIMUM INSIDE WIDTH 70", MINIMUM DEPTH 16", MINIMUM HEIGHT 40". STAINLESS STEEL HARDWARE SIMILAR TO 3-PHASE SECTIONALIZING CABINET MACLEAN HIGHLINE ESCG541 OR POWER DESIGN INC. C/PF-82-30-12-2MG OR NORBIC FIBERGLASS, INC. ND-2315-MG-245A-X-X.
  8. CONNECTORS SHOWN VERTICAL FOR CLARITY. HEIGHT NOT TO SCALE.



TYPICAL TRANSCLOSURE FOUNDATION PLAN VIEW  
3/4" = 1'-0"

<p><b>CITY OF GEORGETOWN</b> GEORGETOWN, SC</p> <p><b>FRONT STREET ELECTRICAL UPGRADE</b> MISCELLANEOUS DETAILS</p>		<p><b>UTEC</b> UTILITY TECHNOLOGY ENGINEERS - CONSULTANTS P.O. Box 2829 • Ashboro, North Carolina • 27204</p>
<p>NO. 01</p>	<p>REVISIONS</p>	<p>DATE</p>
<p>PRELIMINARY NOT TO BE USED FOR CONSTRUCTION</p> <p>REVISION 01/28/19</p>		
<p>DATE: 01/28/19</p>	<p>DWG. NO. E011-2</p>	<p>SCALE: NOTED</p>

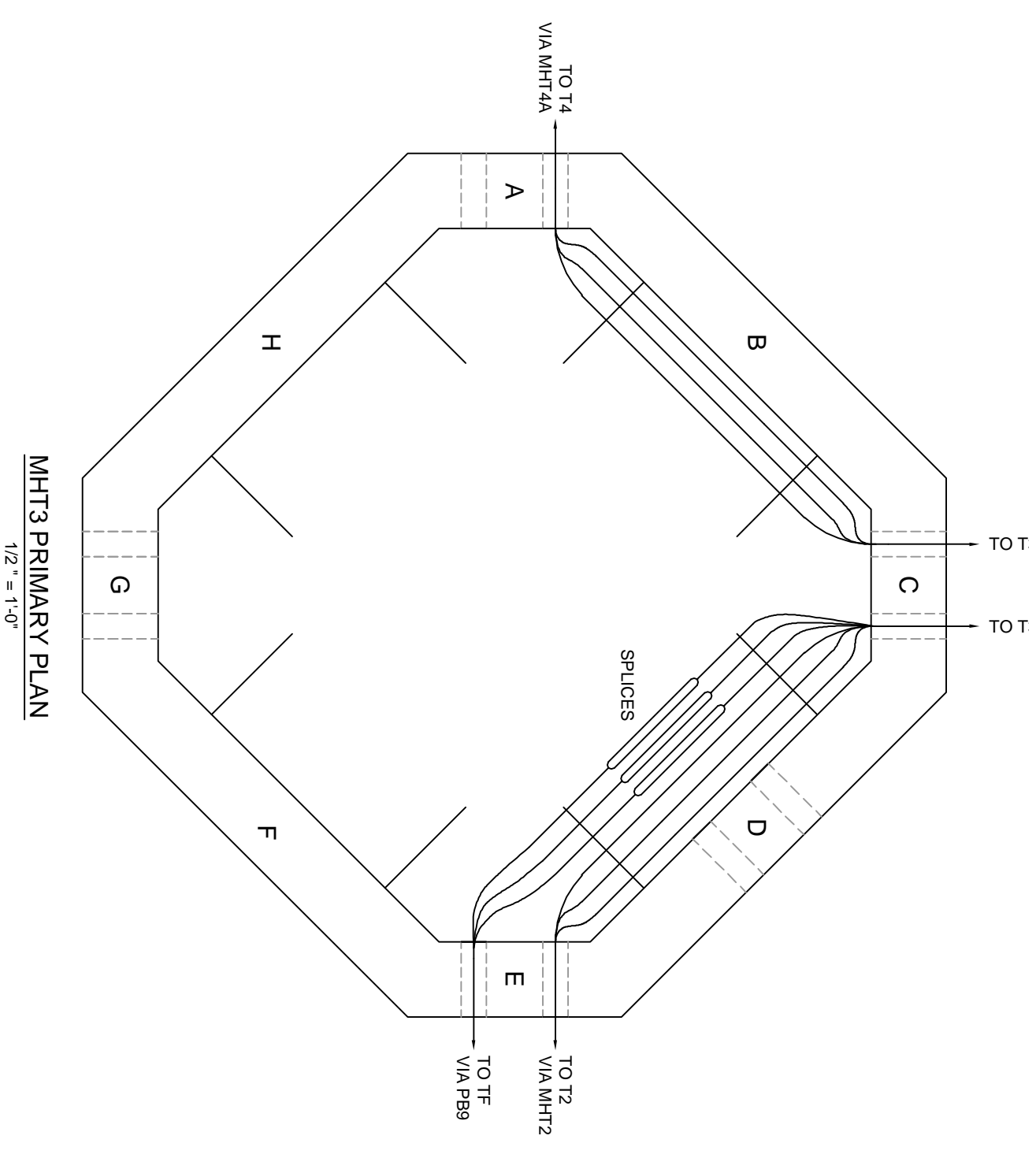
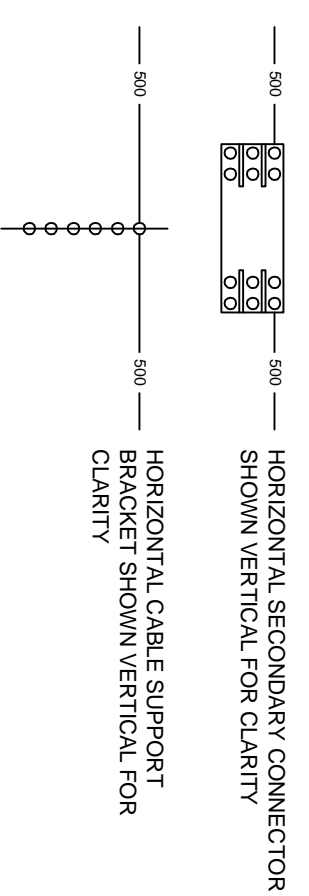


**NOTES:**

1. SEE DWG E004 FOR DETAILED CONSTRUCTION SEQUENCE.
2. VERIFY PHASE ROTATION OF 3-PHASE SERVICES BEFORE DISCONNECTING THE SERVICE FROM THE EXISTING SECONDARY CABLES AND AFTER CONNECTING TO THE NEW SECONDARY CABLE, BUT BEFORE CLOSING THE SERVICE DISCONNECT.
3. ALL EXISTING SERVICE CABLES TO BE KEPT IF IN ACCEPTABLE CONDITION UNLESS OTHERWISE NOTED. ALL SERVICE CABLES TO BE TAGGED WITH SERVICE ADDRESSES.
4. RECONNECT ALL LIGHTING/OUTLET CABLES NOT SHOWN ON THE DRAWING.
5. VERIFY CONDUIT PATHS BEFORE PULLING NEW CABLES.
6. ALL EXISTING CABLE WALL SUPPORTS SHALL BE REMOVED AND REPLACED. ALL EXISTING CABLE SUPPORT BRACKETS SHALL BE REMOVED AND NEW BRACKETS INSTALLED AS SHOWN. NEW GROUND CABLE SHOULD BE INSTALLED FROM EXISTING GROUND ROD TO NEW CHANNELS.
7. FIREPROOFING TAPE SHALL BE INSTALLED ON PRIMARY CABLES WHERE ONE PRIMARY CIRCUIT IS ROUNDED ADJACENT TO ANOTHER PRIMARY CIRCUIT. TIGHTLY WRAP STRIPS OF FIREPROOFING TAPE AROUND EACH CABLE SPIRALLY IN HALF-LAPPED WRAPPING. INSTALL TAPE IN ACCORDANCE WITH MANUFACTURER'S INSTRUCTIONS. EXTEND TAPE TO THE END OF THE WALL WHERE THE CIRCUITS ARE ADJACENT.
8. WHEN EXISTING T3 IS DEENERGIZED TO SWAP CUSTOMERS TO NEW T3, CONNECT EXISTING PADMOUNT PRIMARY CABLE TO NEW PADMOUNT PRIMARY SERVED FROM NEW T3 IN MHT3. EXISTING PRIMARY SHALL BE SUPPORTED ON NEW CABLE SUPPORT BRACKETS IN P89.
9. EXISTING PRIMARY CABLE FROM EXISTING T3 TO EXISTING T4 TO BE SPLICED TO NEW PRIMARY CABLE FROM NEW T3.

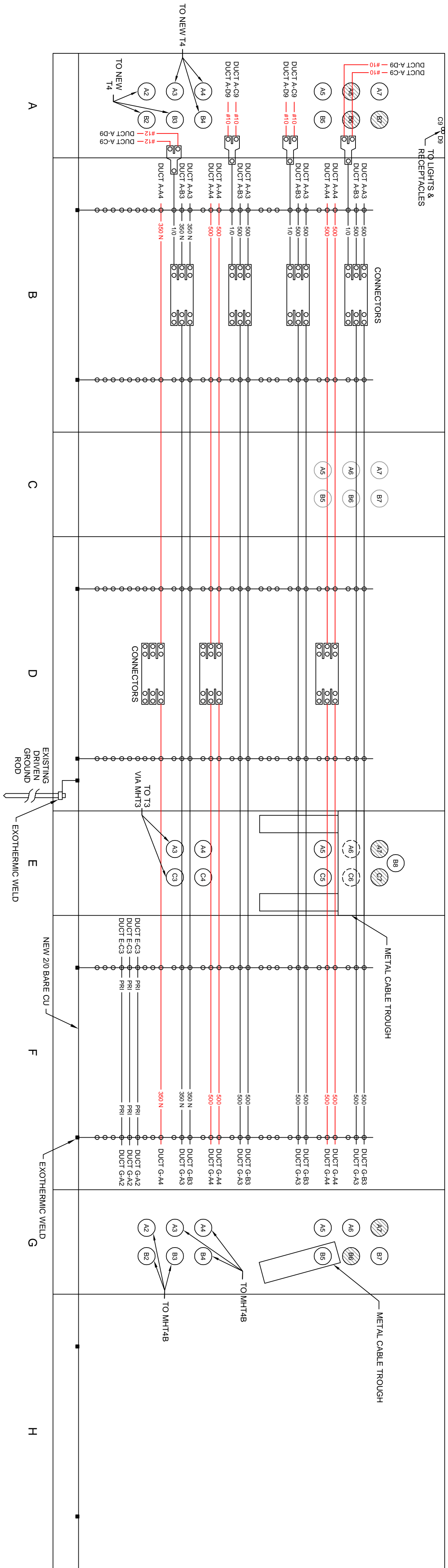
**LEGEND:**

- CONDUIT USED BY OTHERS
- OPEN CONDUIT
- HOA/MC 175 SERIES
- HOA/MC 175 SERIES
- HOA/MC 125 SERIES
- SINGLE PHASE TRANSFORMER SECONDARY SIZE SSS
- THREE PHASE TRANSFORMER SECONDARY SIZE SSS
- PRIMARY
- CABLE EXTENDS TO CONDUIT AS ON FACE OF MANHOLE

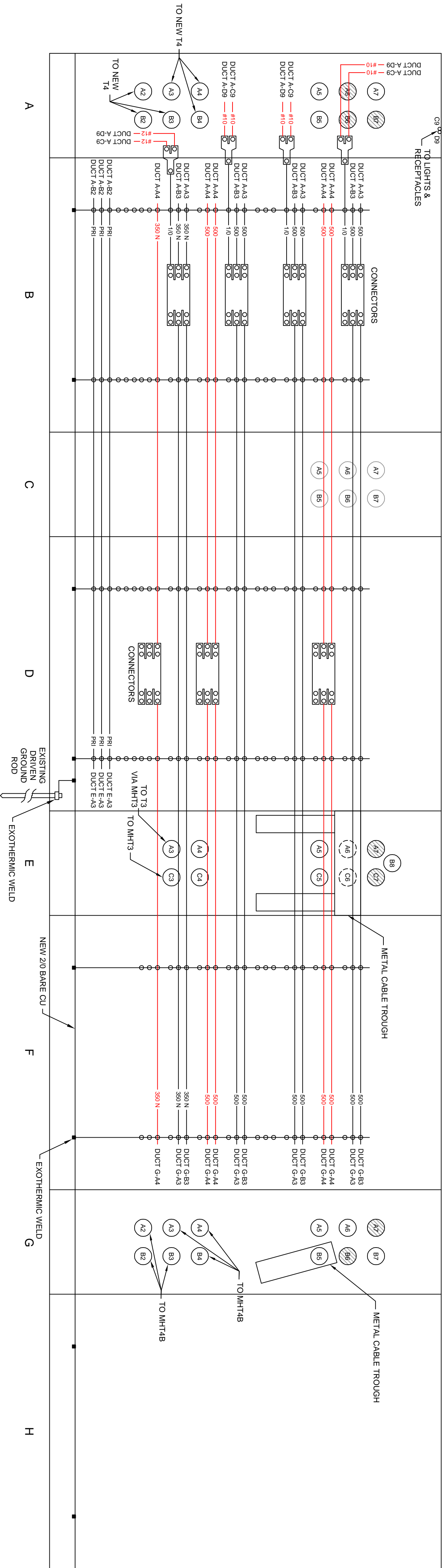


<p><b>PRELIMINARY</b> NOT TO BE USED FOR CONSTRUCTION</p>		<p><b>CITY OF GEORGETOWN</b> GEORGETOWN, SC</p>	
		<p><b>UTILITY TECHNOLOGY</b> ENGINEERS - CONSULTANTS P.O. Box 2829 • Ashleboro, North Carolina • 27204</p>	
NO.	REVISIONS	DATE	DATE
1	T4 DUCT & T3 ENCL.	01/28/19	
0	BID ISSUE	01/23/19	
<p><b>UTEC</b> UTILITY TECHNOLOGY ENGINEERS - CONSULTANTS</p>		<p>DATE: 03/21/18 DWG NO. E015 SCALE: 3/4" = 1'-0"</p>	<p>DATE: 01/28/19 DWG NO. 171201 SHEET NO. 1 OF 1</p>





INSIDE WALL ELEVATION - MHT4A  
TEMPORARY LAYOUT



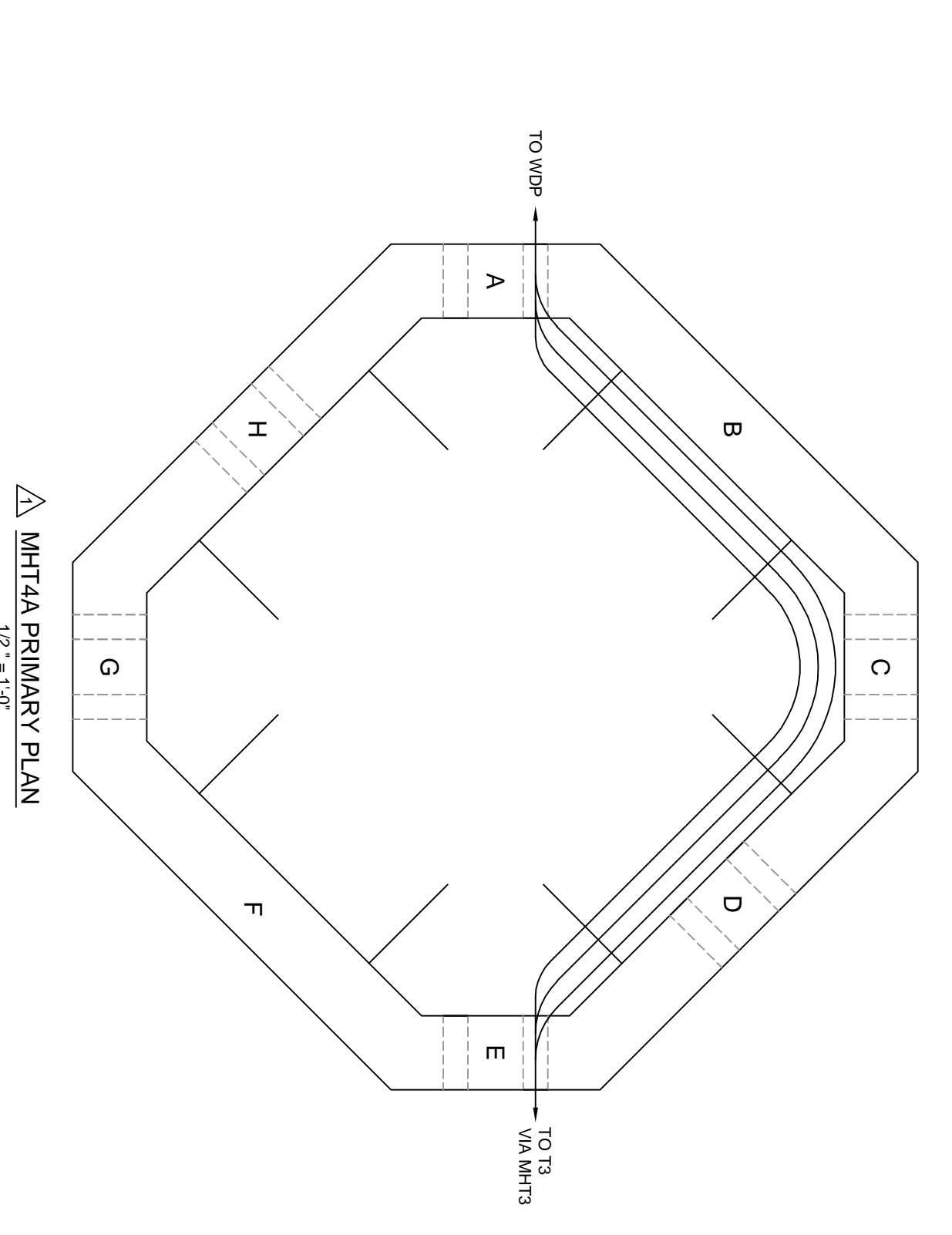
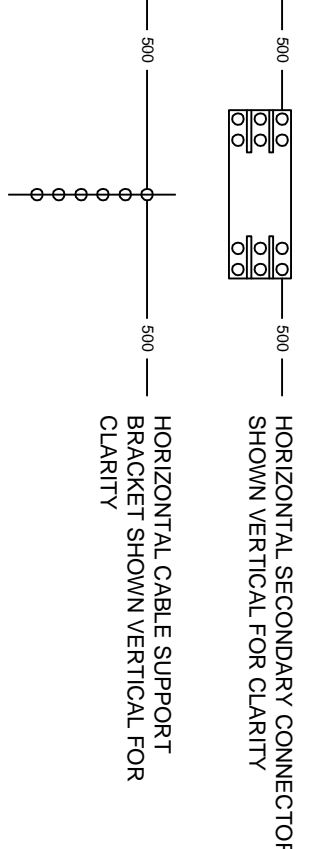
INSIDE WALL ELEVATION - MHT4A  
FINAL LAYOUT

NOTES:

1. SEE DWG E004 FOR DETAILED CONSTRUCTION SEQUENCE.
2. VERIFY PHASE ROTATION OF 3-PHASE SERVICES BEFORE DISCONNECTING THE SERVICE FROM THE EXISTING SECONDARY CABLES AND AFTER CONNECTING TO THE NEW SECONDARY CABLE, BUT BEFORE CLOSING THE SERVICE DISCONNECT.
3. ALL EXISTING SERVICE CABLES TO BE KEPT IF IN ACCEPTABLE CONDITION UNLESS OTHERWISE NOTED. ALL SERVICE CABLES TO BE TAGGED WITH SERVICE ADDRESSES.
4. RECONNECT ALL LIGHTING/OUTLET CABLES NOT SHOWN ON THE DRAWING.
5. VERIFY CONDUIT PATHS BEFORE PULLING NEW CABLES.
6. ALL EXISTING CABLE WALL SUPPORTS SHALL BE REMOVED AND REPLACED. ALL EXISTING CABLE SUPPORT BRACKET'S SHALL BE REMOVED AND NEW BRACKET'S INSTALLED AS SHOWN. NEW GROUND CABLE SHOULD BE INSTALLED FROM EXISTING GROUND ROD TO NEW CHANNELS.
7. FIREPROOFING TAPE SHALL BE INSTALLED ON PRIMARY CABLES WHERE ONE PRIMARY CIRCUIT IS ROUTED ADJACENT TO ANOTHER PRIMARY CIRCUIT. TIGHTLY WRAP STRIPS OF FIREPROOFING TAPE AROUND EACH CABLE SPIRALLY IN HALF-LAPPED WRAPPING. INSTALL TAPE IN ACCORDANCE WITH MANUFACTURER'S INSTRUCTIONS. EXTEND TAPE TO THE END OF THE WALL WHERE THE CIRCUITS ARE ADJACENT.

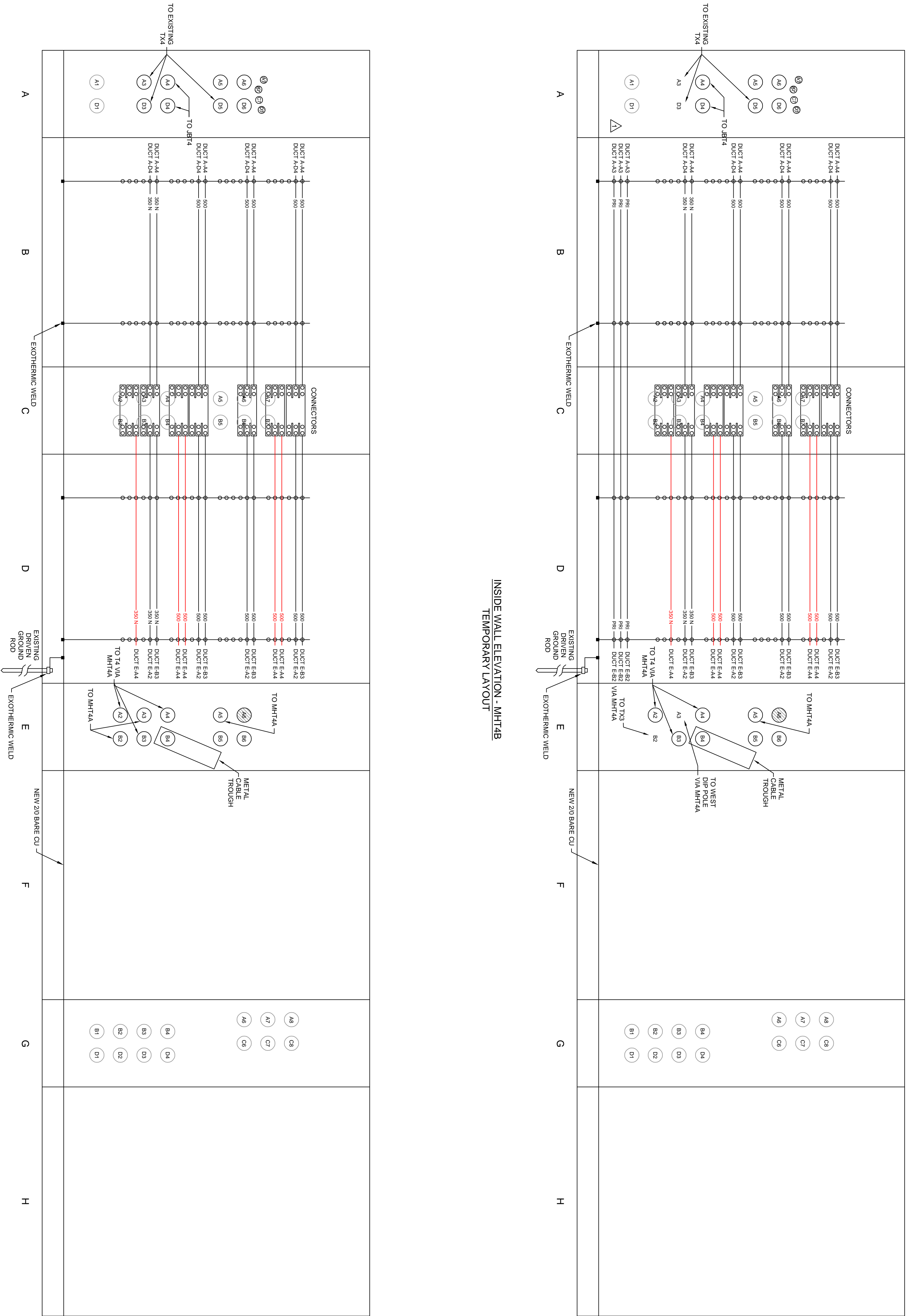
LEGEND:

- CONDUIT USED BY OTHERS
- OPEN CONDUIT
- CONDUIT KNOCKOUT
- HOVAC 175 SERIES
- HOVAC 175 SERIES
- HOVAC 128 SERIES
- SINGLE PHASE TRANSFORMER SECONDARY SIZE SSS
- THREE PHASE TRANSFORMER SECONDARY SIZE SSS
- PRIMARY
- CABLE EXTENDS TO CONDUIT AS ON FACE G OF MANHOLE

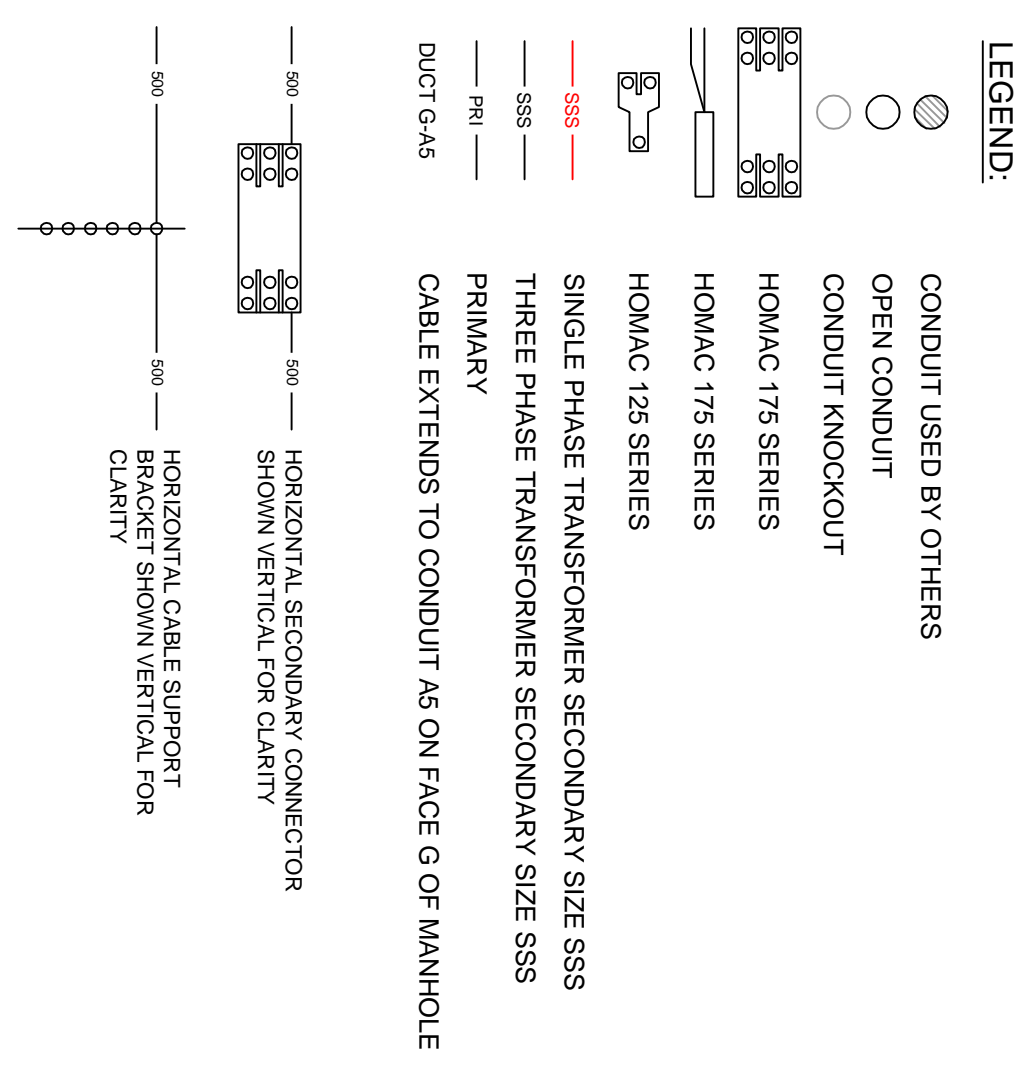


MHT4A PRIMARY PLAN  
1/2" = 1'-0"

<p><b>PRELIMINARY</b> NOT TO BE USED FOR CONSTRUCTION</p>		<p><b>CITY OF GEORGETOWN</b> GEORGETOWN, SC</p>	
<p>REVISION 01/28/18</p>		<p><b>UTILITY TECHNOLOGY</b> ENGINEERS - CONSULTANTS P.O. Box 2829 • Ashboro, North Carolina • 27204</p>	
NO.	REVISIONS	DATE	DATE
1	T4 DUCT & T3 ENCL	01/28/18	
0	ISSUE	01/23/19	
<p>SCALE: 3/4" = 1'-0"</p>		<p>DWG. NO. 001218</p>	<p>DWG. NO. E016</p>
<p>DATE: 01/28/18</p>		<p>SCALE: 3/4" = 1'-0"</p>	<p>DATE: 01/28/18</p>
<p>SCALE: 3/4" = 1'-0"</p>		<p>DWG. NO. 001218</p>	<p>DWG. NO. E016</p>
<p>SCALE: 3/4" = 1'-0"</p>		<p>DWG. NO. 001218</p>	<p>DWG. NO. E016</p>



- NOTES:**
- SEE DWG E004 FOR DETAILED CONSTRUCTION SEQUENCE.
  - RECONNECT ALL LIGHTING/OUTLET CABLES NOT SHOWN ON THE DRAWING.
  - VERIFY CONDUIT PATHS BEFORE PULLING NEW CABLES.
  - ALL EXISTING CABLE WALL SUPPORTS SHALL BE REMOVED AND REPLACED. ALL EXISTING CABLE SUPPORT BRACKETS SHALL BE REMOVED AND NEW BRACKETS INSTALLED AS SHOWN. NEW GROUND CABLE SHOULD BE INSTALLED FROM EXISTING GROUND ROD TO NEW CHANNELS.



INSIDE WALL ELEVATION - MHT4B  
FINAL LAYOUT

INSIDE WALL ELEVATION - MHT4B  
TEMPORARY LAYOUT

NO.	REVISIONS	DATE
1	T4 DUCT & T3 ENCL	01/28/19
0	BID ISSUE	01/23/19

PRELIMINARY  
NOT TO BE USED  
FOR CONSTRUCTION

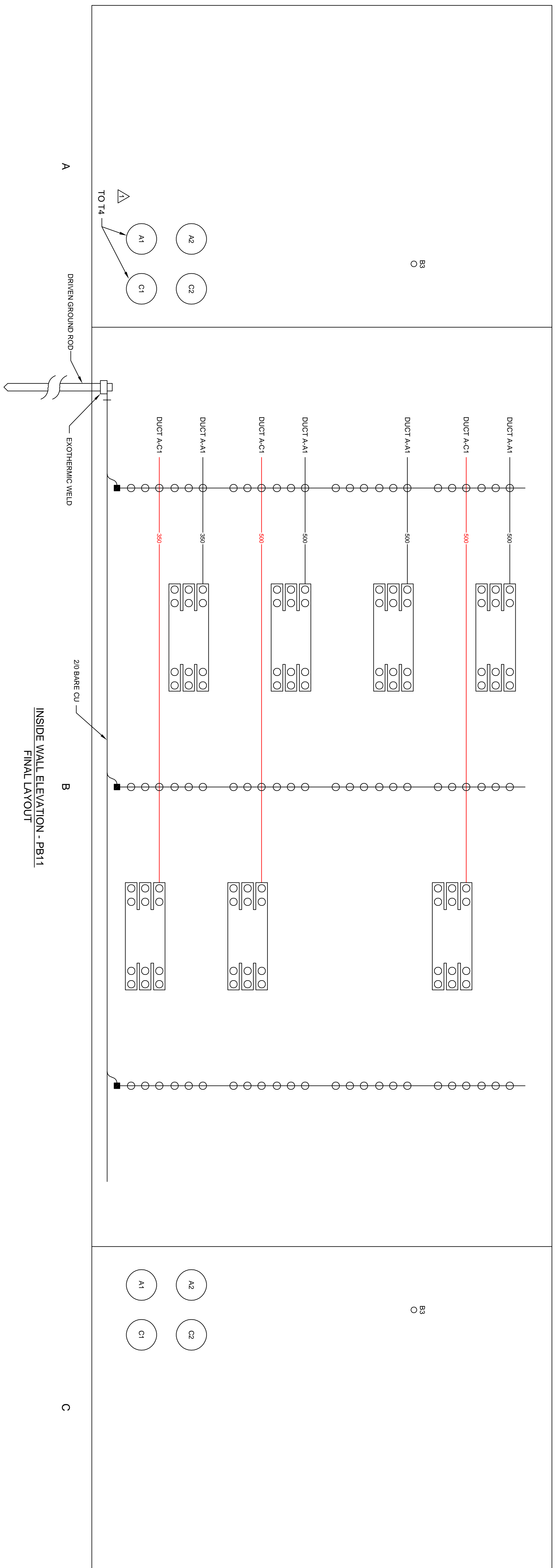
REVISION 01/28/19

**CITY OF GEORGETOWN**  
GEORGETOWN, SC

**FRONT STREET ELECTRICAL UPGRADE  
CABLE RACKING DETAILS  
MANHOLE T4B**

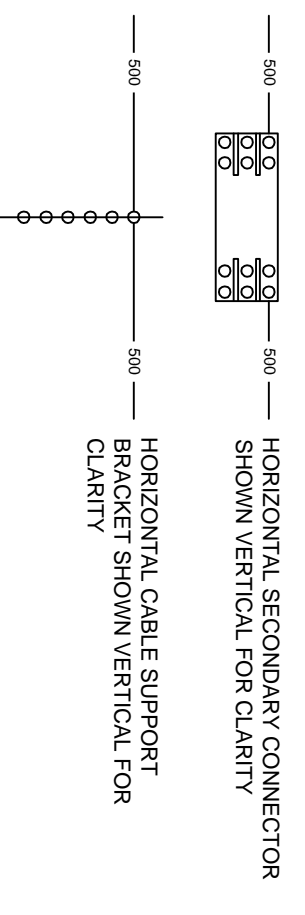
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DATE: 03/21/18 DWG NO: E017  
SCALE: 3/4" = 1'-0" SHEET NO: 1 OF 1



- NOTES:
1. SEE DWG E004 FOR DETAILED CONSTRUCTION SEQUENCE.
  2. ALL EXISTING SERVICE CABLES TO BE KEPT IF IN ACCEPTABLE CONDITION UNLESS OTHERWISE NOTED. ALL SERVICE CABLES TO BE TAGGED WITH SERVICE ADDRESSES.
  3. RECONNECT ALL LIGHTING/OUTLET CABLES NOT SHOWN ON THE DRAWING.
  4. VERIFY CONDUIT PATHS BEFORE PULLING NEW CABLES.
  5. ALL EXISTING CABLE WALL SUPPORTS SHALL BE REMOVED AND REPLACED. ALL EXISTING CABLE SUPPORT BRACKETS SHALL BE REMOVED AND NEW BRACKETS INSTALLED AS SHOWN. NEW GROUND CABLE SHOULD BE INSTALLED FROM EXISTING GROUND ROD TO NEW CHANNELS.

- LEGEND:
- CONDUIT USED BY OTHERS
  - OPEN CONDUIT
  - CONDUIT KNOCKOUT
  - HOMAC 175 SERIES
  - HOMAC 175 SERIES
  - HOMAC 175 SERIES
  - HOMAC 125 SERIES
  - SINGLE PHASE TRANSFORMER SECONDARY SIZE SSS
  - THREE PHASE TRANSFORMER SECONDARY SIZE SSS
  - TEMPORARY SECONDARY SERVICES SIZE SSS
  - PRIMARY
  - CABLE EXTENDS TO CONDUIT AS ON FACE C OF PULLBOX



NO.	REVISIONS	DATE
1	T1 DUCT & TR ENCL	01/28/19
0	BID ISSUE	01/23/19

**PRELIMINARY**  
NOT TO BE USED  
FOR CONSTRUCTION

**CITY OF GEORGETOWN**  
GEORGETOWN, SC

**FRONT STREET ELECTRICAL UPGRADE**  
CABLE RACKING DETAILS  
PULLBOX 11

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DATE: 09/2018 DWG NO: E031  
SCALE: 3/4" = 1'-0" SHEET NO: 1 OF 1

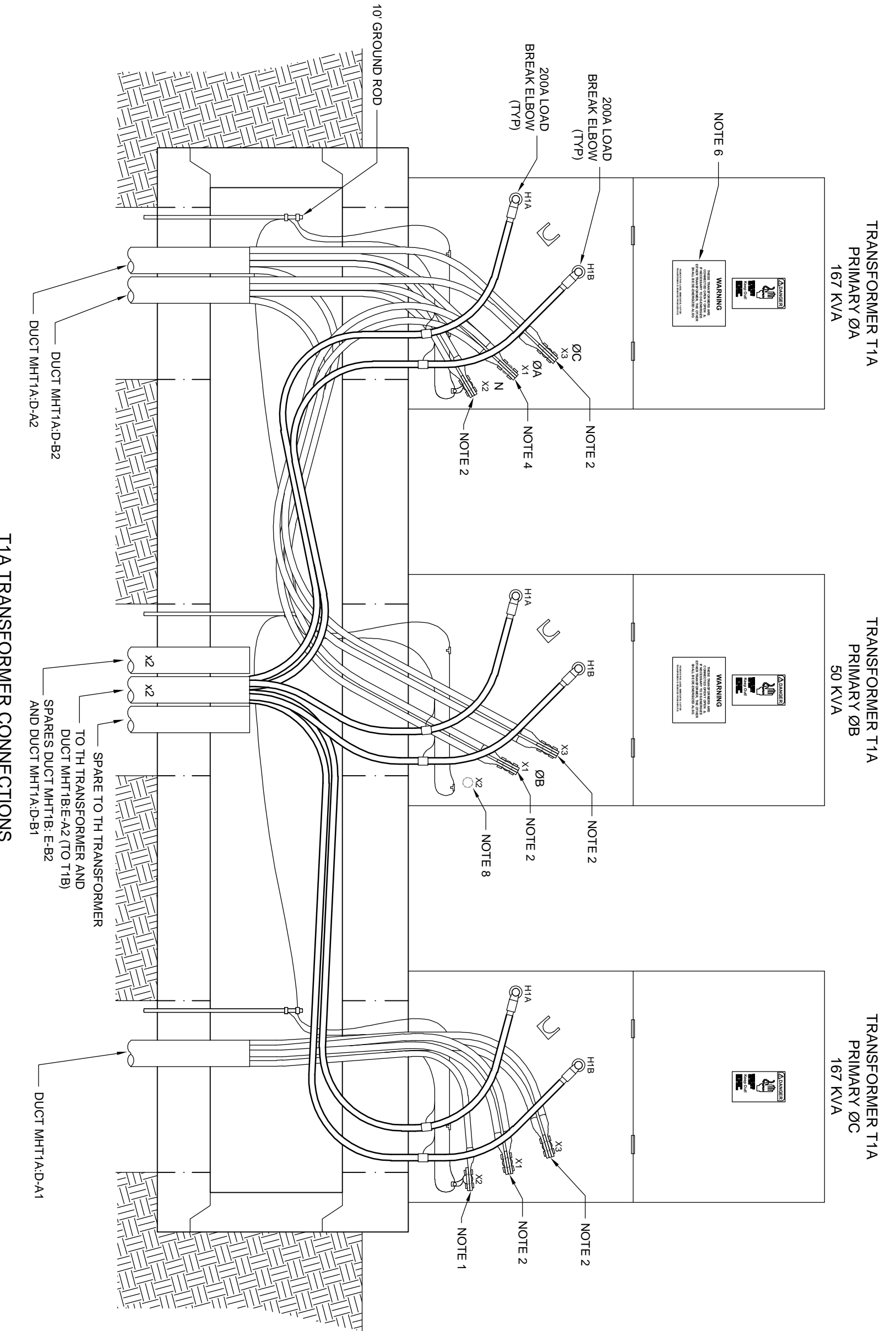


CONDUIT SCHEDULE					
Conduit No.	Installation Type	From	To	Length	Cables
1	Direct Bore	Marina Area Dip Pole (MADP)	Transformer TM	125	P1 Spare
2	Direct Bore	Transformer TM	525 Front St	80	S1
3	Direct Bore	Transformer TM	531 Front St	10	S2
4	Direct Bore	Transformer TM	601 Front St	155	S3
5	Direct Bore	Transformer TM	Marina Dock	180	S4
6	Direct Bore	Transformer TM	Marina Dock	180	S4
7	Direct Bore	Transformer TM	Marina Dock	180	S4
8	Direct Bore	Transformer TM	Marina Dock	180	S4
9	Direct Bore	Transformer TM	Marina Dock	180	S4
10	Direct Bore	Transformer TM	Marina Dock	180	S4
11	Direct Bore	Transformer TM	Marina Dock	180	S4
12	Direct Bore	Transformer TM	Marina Dock	180	S4
13	Direct Bore	Transformer TM	Marina Dock	180	S4
14	Direct Bore	Transformer TM	Marina Dock	180	S4
15	Direct Bore	Transformer TM	Marina Dock	180	S4
16	Direct Bore	Transformer TM	Marina Dock	180	S4
17	Direct Bore	Transformer TM	Marina Dock	180	S4
18	Direct Bore	Transformer TM	Marina Dock	180	S4
19	Direct Bore	Transformer TM	Marina Dock	180	S4
20	Direct Bore	Transformer TM	Marina Dock	180	S4
21	Direct Bore	Transformer TM	Marina Dock	180	S4
22	Direct Bore	Transformer TM	Marina Dock	180	S4
23	Direct Bore	Transformer TM	Marina Dock	180	S4
24	Direct Bore	Transformer TM	Marina Dock	180	S4
25	Direct Bore	Transformer TM	Marina Dock	180	S4
26	Direct Bore	Transformer TM	Marina Dock	180	S4
27	Direct Bore	Transformer TM	Marina Dock	180	S4
28	Direct Bore	Transformer TM	Marina Dock	180	S4
29	Direct Bore	Transformer TM	Marina Dock	180	S4
30	Direct Bore	Transformer TM	Marina Dock	180	S4
31	Direct Bore	Transformer TM	Marina Dock	180	S4
32	Direct Bore	Transformer TM	Marina Dock	180	S4
33	Direct Bore	Transformer TM	Marina Dock	180	S4
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37	Direct Bore	Transformer TM	Marina Dock	180	S4
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39	Direct Bore	Transformer TM	Marina Dock	180	S4
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41	Direct Bore	Transformer TM	Marina Dock	180	S4
42	Direct Bore	Transformer TM	Marina Dock	180	S4
43	Direct Bore	Transformer TM	Marina Dock	180	S4
44	Direct Bore	Transformer TM	Marina Dock	180	S4
45	Direct Bore	Transformer TM	Marina Dock	180	S4
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47	Direct Bore	Transformer TM	Marina Dock	180	S4
48	Direct Bore	Transformer TM	Marina Dock	180	S4
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55	Direct Bore	Transformer TM	Marina Dock	180	S4
56	Direct Bore	Transformer TM	Marina Dock	180	S4
57	Direct Bore	Transformer TM	Marina Dock	180	S4
58	Direct Bore	Transformer TM	Marina Dock	180	S4
59	Direct Bore	Transformer TM	Marina Dock	180	S4
60	Direct Bore	Transformer TM	Marina Dock	180	S4
61	Direct Bore	Transformer TM	Marina Dock	180	S4
62	Direct Bore	Transformer TM	Marina Dock	180	S4
63	Direct Bore	Transformer TM	Marina Dock	180	S4
64	Direct Bore	Transformer TM	Marina Dock	180	S4
65	Direct Bore	Transformer TM	Marina Dock	180	S4

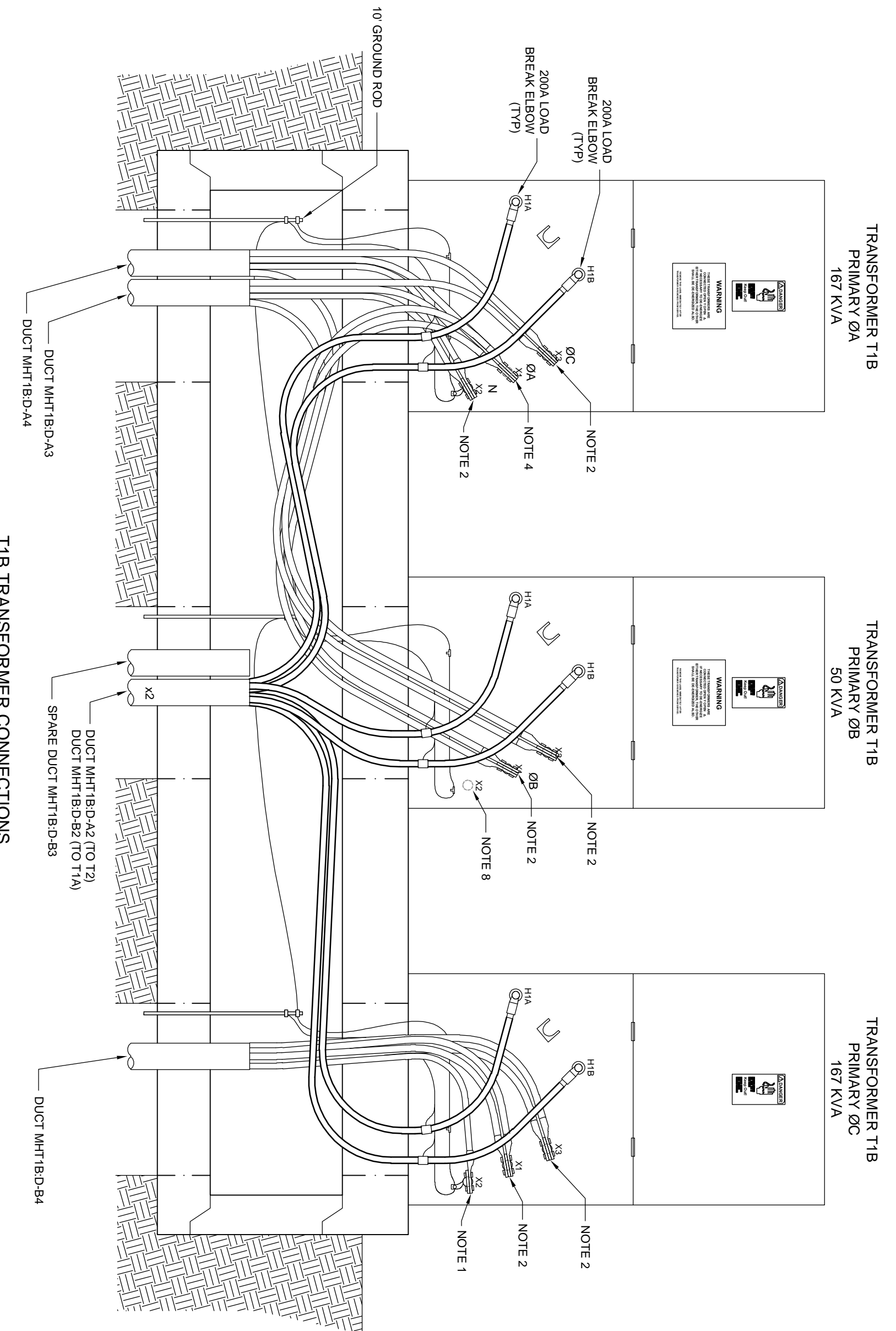
CABLE SCHEDULE						
Cable No.	Cable Type	Cable Size	Cable Length	From	To	MH / PB
P1	A	2 - 1/0 AWG AL	175	MADP	TM	
P2	A	3 - 1/0 AWG AL	385	EDP	TH	
P3	A	3 - 1/0 AWG AL	160	TH	T1A - H1A	
P4	A	3 - 1/0 AWG AL	380	T1A - H1B	T1B - H1A	MHT1B
P5	A	3 - 1/0 AWG AL	635	T1B - H1B	T1B - H1A	MHT1B
P6	A	3 - 1/0 AWG AL	790	T2 - H1B	T3 - H1A	MHT2
P7	A	3 - 1/0 AWG AL	160	T3 - H1A	MHT3	MHT3
P8	A	3 - 1/0 AWG AL	505	T3 - H1B	T4 - H1A	MHT3
P9	A	3 - 1/0 AWG AL	750	T4 - H1B	WDP	MHT4
P10	A	3 - 1/0 AWG AL	160	T3 - H1B	MHT3	
S1	C	1-500 kcmil AL/leg 1-350 kcmil AL/N	100	TM	525 Front St	
S2	C	1-4/0 AWG AL/leg 1-2/0 AWG AL/N	30	TM	531 Front St	
S3	C	1-4/0 AWG AL/leg 1-2/0 AWG AL/N	175	TM	601 Front St	
S4	C	1-350 kcmil AL/leg 1-4/0 AWG AL/N	200	TM	Marina Dock	
S5	B	2-500 kcmil AL	15	T1A - 3Ø 167 kVA X1	T1A - 3Ø 50 kVA X3	
S6	B	2-500 kcmil AL/Ø	220	T1A - 3Ø Secondary	MHT1A	
S7	B	2-500 kcmil AL/leg 1-350 kcmil AL/N	220	T1A - 1Ø Secondary	MHT1A	
S8	B	2-500 kcmil AL	15	T1B - 3Ø 167 kVA X1	T1B - 3Ø 50 kVA X3	
S9	B	2-500 kcmil AL/Ø	330	T1B - 3Ø Secondary	PB3	MHT1B
S10	B	2-500 kcmil AL/leg 1-350 kcmil AL/N	285	T1B - 1Ø Secondary	PB2	MHT1B
S11	C	1-500 kcmil AL/Ø	125	PB1	Theatre	PB1
S12	B	2-500 kcmil AL	15	T2 - 3Ø 167 kVA X1	T2 - 3Ø 50 kVA X3	
S13	B	2-500 kcmil AL/Ø	175	T2 - 3Ø Secondary	PB6	MHT2
S14	B	2-500 kcmil AL/leg 1-350 kcmil AL/N	175	T2 - 1Ø Secondary	PB6	MHT2
S15	B	2-500 kcmil AL/Ø	210	MHT2	PB8	PB7
S16	B	2-500 kcmil AL/leg 1-350 kcmil AL/N	215	MHT2	PB8	PB7
S17	B	1-750 kcmil AL/Ø	65	PB7	801 Front St	
S18	C	1-500 kcmil AL/Ø	60	PB8	807 Front St	
S19	B	2-500 kcmil AL	15	T3 - 3Ø 100 kVA X1	T3 - 3Ø 50 kVA X3	
S20	B	2-500 kcmil AL/Ø	290	T3 - 3Ø Secondary	PB9	MHT3
S21	B	2-500 kcmil AL/leg 1-350 kcmil AL/N	295	T3 - 1Ø Secondary	PB9	MHT3
S22	B	2-500 kcmil AL/Ø	180	MHT3	PB10	
S23	B	2-500 kcmil AL/leg 1-350 kcmil AL/N	180	MHT3	PB10	
S24	C	1-500 kcmil AL/leg 1-350 kcmil AL/N	65	PB9	829 Front St	
S25	B	2-500 kcmil AL	15	T4 - 3Ø 100 kVA X1	T4 - 3Ø 50 kVA X3	
S26	B	2-500 kcmil AL/Ø	320	T4 - 3Ø Secondary	PB14	MHT4A
S27	B	2-500 kcmil AL/leg 1-350 kcmil AL/N	305	T4 - 1Ø Secondary	MHT4B	MHT4A
S28	B	1-500 kcmil AL/Ø	150	T4 - 3Ø Secondary	PB11	
S29	B	1-500 kcmil AL/leg 1-350 kcmil AL/N	155	T4 - 1Ø Secondary	PB11	
S33	C	1-4/0 AWG AL/leg 1-2/0 AWG AL/N	50	MHT2	Rover Tours	
S34	C	1-4/0 AWG AL/leg 1-2/0 AWG AL/N	105	MHT2	Harborwalk Service	
S35	B	1-500 kcmil AL	15	TM - 100 kVA X1	TM - 10 kVA X3	
S36	B	2-500 kcmil AL/Ø	90	MHT3	PB13	

Cable Type	Description																														
A	15 kV underground primary distribution cable. #1/0 AWG aluminum filled strand conductor. 19 strand, 5 x #14 AWG wire copper concentric neutral, 105°C rating, 1/75 mil EPR insulation, 90 mil density PE jacket.																														
B	600 volt single conductor secondary. UD. Stranded compressed aluminum conductor. XLPE insulation.																														
	<table border="1"> <thead> <tr> <th>Size</th> <th>Stranding</th> <th>Insulation Thickness</th> </tr> </thead> <tbody> <tr><td>#1/0 AWG</td><td>9</td><td>80 mils</td></tr> <tr><td>#4/0 AWG</td><td>18</td><td>80 mils</td></tr> <tr><td>350 kcmil</td><td>37</td><td>95 mils</td></tr> <tr><td>500 kcmil</td><td>37</td><td>95 mils</td></tr> <tr><td>750 kcmil</td><td>61</td><td>110 mils</td></tr> </tbody> </table>	Size	Stranding	Insulation Thickness	#1/0 AWG	9	80 mils	#4/0 AWG	18	80 mils	350 kcmil	37	95 mils	500 kcmil	37	95 mils	750 kcmil	61	110 mils												
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C	600 volt service conductor, triplex and quadripex. Stranded compressed aluminum conductor, XLPE insulation.																														
	<table border="1"> <thead> <tr> <th colspan="3">Phase Conductor</th> <th colspan="3">Neutral Conductor</th> </tr> <tr> <th>Size</th> <th>Stranding</th> <th>Insulation Thickness</th> <th>Size</th> <th>Stranding</th> <th>Insulation Thickness</th> </tr> </thead> <tbody> <tr><td>#4/0 AWG</td><td>18</td><td>80 mils</td><td>#2/0 AWG</td><td>11</td><td>80 mils</td></tr> <tr><td>350 kcmil</td><td>37</td><td>95 mils</td><td>#4/0 AWG</td><td>18</td><td>80 mils</td></tr> <tr><td>500 kcmil</td><td>37</td><td>95 mils</td><td>350 kcmil</td><td>37</td><td>95 mils</td></tr> </tbody> </table>	Phase Conductor			Neutral Conductor			Size	Stranding	Insulation Thickness	Size	Stranding	Insulation Thickness	#4/0 AWG	18	80 mils	#2/0 AWG	11	80 mils	350 kcmil	37	95 mils	#4/0 AWG	18	80 mils	500 kcmil	37	95 mils	350 kcmil	37	95 mils
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D	600 volt single conductor power cable, copper conductor, XLPE insulation, for use in streetlight or outlet services.																														
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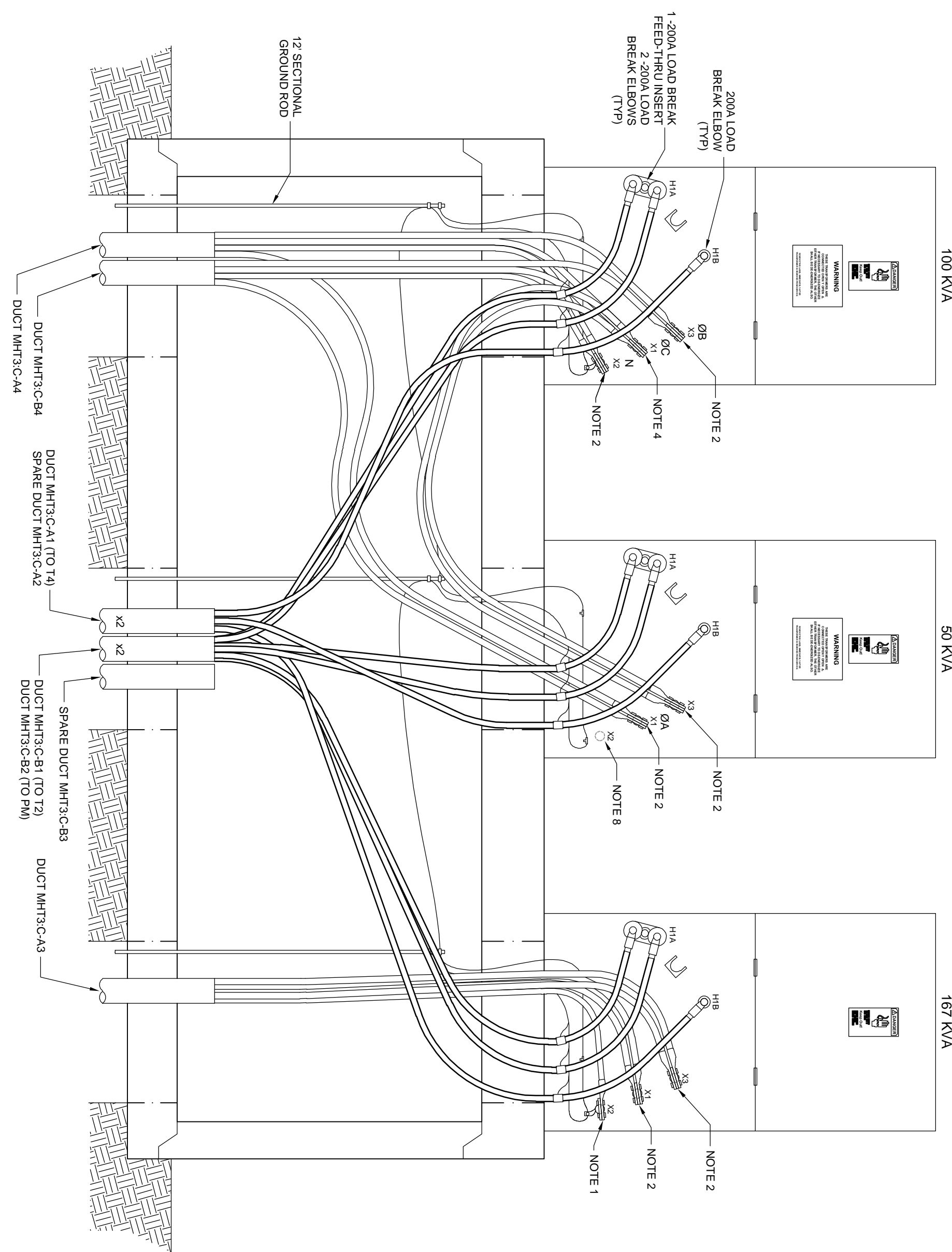
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<p>NO. 1 0. BID ISSUE REVISIONS</p>	<p>DATE 01/28/19 DATE 01/23/19 DATE</p>
<p><b>CITY OF GEORGETOWN</b> GEORGETOWN, SC</p>	
<p><b>UTILITY TECHNOLOGY</b> ENGINEERS - CONSULTANTS</p>	
<p><b>UTEC</b> P.O. Box 2829 • Ashboro, North Carolina • 27204</p>	
<p>DATE: 01/28/19 SCALE: NONE</p>	<p>DATE: 01/28/19 SCALE: NONE</p>
<p>DWG. NO. E040</p>	<p>DWG. NO. E040</p>
<p>SHEET NO. 1 OF 1</p>	<p>SHEET NO. 1 OF 1</p>



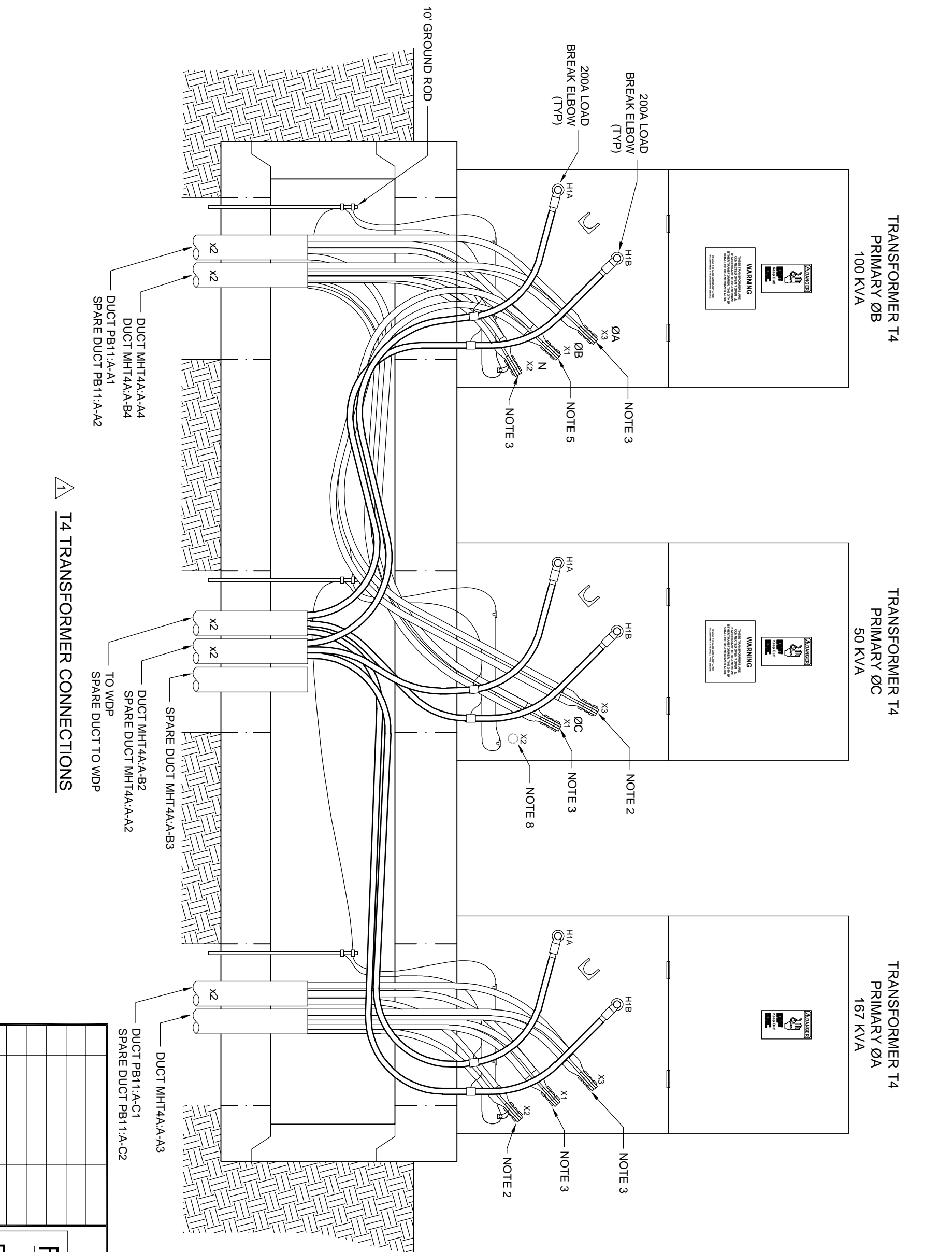
T1A TRANSFORMER CONNECTIONS



T1B TRANSFORMER CONNECTIONS



T3 TRANSFORMER CONNECTIONS



T4 TRANSFORMER CONNECTIONS

- NOTES:
1. PROVIDE 1 4-HOLE NEMA STUD CONNECTOR AND 1 2-HOLE NEMA TERMINAL CONNECTOR.
  2. PROVIDE 1 4-HOLE NEMA STUD CONNECTOR AND 2 2-HOLE NEMA TERMINAL CONNECTORS.
  3. PROVIDE 1 4-HOLE NEMA STUD CONNECTOR AND 3 2-HOLE NEMA TERMINAL CONNECTORS.
  4. PROVIDE 1 4-HOLE NEMA STUD CONNECTOR AND 4 2-HOLE NEMA TERMINAL CONNECTORS.
  5. PROVIDE 1 6-HOLE NEMA STUD CONNECTOR AND 5 2-HOLE NEMA TERMINAL CONNECTORS.
  6. SEE IEEE STANDARD C57.12.38 FIGURE 4 DETAIL C FOR STUD SIZE.
  7. CONTRACTOR TO PROVIDE OPEN-WYE/OPEN-DELTA TRANSFORMER BANK WARNING SIGNS AS SHOWN.
  8. REMOVE GROUND STRAP. TAPE BUSHING WITH VINYL TAPE.
  9. LABEL ALL CABLES.
  10. CONDUIT TO EXTEND TO WITHIN 14" OF BOTTOM OF FOUNDATION LID.
  11. GROUND ROD TO EXTEND TO WITHIN 6" OF BOTTOM OF FOUNDATION LID.

NO.	REVISIONS	DATE
1	T4 DUCT & T3 ENCL	01/28/19
0	BID ISSUE	01/23/19

**CITY OF GEORGETOWN**  
GEORGETOWN, SC

**FRONT STREET ELECTRICAL UPGRADE  
TRANSFORMER DETAILS**

**UTEC**  
UTILITY TECHNOLOGY  
ENGINEERS - CONSULTANTS

P.O. Box 2829 • Ashboro, North Carolina • 27204

DATE: 11/15/18  
SCALE: 1/2" = 1'-0"

DWG. NO.: E050-1  
SHEET NO.: 1 OF 2

PRELIMINARY  
NOT TO BE USED  
FOR CONSTRUCTION

REVISION: 01/28/19



