

Alexander Von Koch v. PECO Energy Company

Docket No. C-2021-3029826

EXHIBIT INDEX

NUMBER	DESCRIPTION	FOR IDENTIFICATION	IN EVIDENCE
Complainant Exhibit			
1	(email from Rep. Christina Sappey to complainant)	--	--
PECO Exhibit			
1	claim registration form, 10/29/21	24	54
2	report of investigation, 7/24/18	26	54
3	report of investigation, 10/10/21	29	54
4	report of investigation, 10/8/19	28	54
5	report of investigation, 10/29/21	24	54
6	service reliability report, 1255 Newark Road	35	54
7	service reliability report, 1259 Newark Road)	39	54
8	London 4 kV unit sub retirement detailed design)	42	54

NOTE: By request from Ms. Scott, an email from Rep.Christina Sappey to complainant was designated as a late-filed exhibit, Complainant Exhibit 1, to be ruled upon by Judge Brady upon receipt.)

Hearing Date: March 8, 2022



Direct Dial: 215.841.6841  
khadijah.scott@exeloncorp.com

February 23, 2022

**VIA E-MAIL**

Honorable F. Joseph Brady  
Pennsylvania Public Utility Commission  
Office of Administrative Law Judge  
801 Market Street, Ste 4063  
Philadelphia, PA 19107

**RE: Alexander Van Koch v. PECO Energy Company**  
**Docket No.: C-2021-3029826**  
**Date of Hearing: March 8<sup>th</sup> at 10:00 a.m.**

Dear Judge Brady:

Enclosed please find a copy of PECO Energy Company's Exhibits 1 through 9, which it intends to use in the above referenced hearing. By copy of this letter, I am sending a copy of same to the Complainant.

Please call my direct dial number if you have any questions regarding this case.

Respectfully submitted,

A handwritten signature in blue ink that reads "Khadijah Scott".

Khadijah Scott

KS/ab  
Enclosure

Cc: Alexander Van Koch (via email)

# **EXHIBIT 1**

**PECO CLAIM REGISTRATION FORM**

Claims Division  
1-877-538-7769

Dear PECO Customer:

To register your claim with PECO, please print out and return a completed claim registration form. You may e-mail it to [pecoclaims@exeloncorp.com](mailto:pecoclaims@exeloncorp.com), fax it to 215-841-4919, or mail the form to the following address: **PECO Energy, Claims Division, S16-1, 2301 Market Street, Philadelphia, PA 19103.**

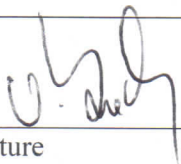
Once this form is received in our office, you will be contacted by one of our Case Managers.

Thomas von Koch Name	302-230-1970 _____
	Daytime Phone No.
1255 Newark Road Mailing Address	wgkglass@aol.com _____
	E-mail Address
Toughkenamon, PA 19374 City, State, Zip	10/29/2021, about 06:00 pm
	Date & Time of Loss or Damage
05210-12046 PECO Energy Account No. (if applicable)	1255 + 1259 Newark Road, Toughkenamon, PA 19374
	Address of Loss Location

Please describe the details of the incident and list the item(s) damaged.

There was a loud sound in the basement and the power was lost for a very short period of time. After the power came back on, we realized, that there was damage to 5 light fixtures and LED bulbs \_\_\_\_\_

\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

  
\_\_\_\_\_  
Signature

11/02/2021 \_\_\_\_\_  
Date

## **EXHIBIT 2**

<b>Event Number: EVC2018106715</b>	<b>Date of Event: 07/24/2018</b>
<b>Claim Number: C2018106715</b>	<b>Date of Claim: 07/26/2018</b>
<b>Claimant Name: VONKOCH, THOMAS</b>	

<b>Entered By:</b>	Timothy Grow	<b>Date Time Created:</b>	08/07/2018 2:08 PM
<b>Note Type:</b>	CL Claimant	<b>Subject:</b>	
<b>Activity:</b>	08/07/2018	<b>Important:</b>	No
<b>Note Text:</b>	08/07/2018 2:05 PM (Timothy Grow)		
	CLAIM DENIAL WITH MR VON KOCH BASED ON A NON-PREVENTABLE TREE CONDITION.		
	SEE PRIOR CLAIM # C2018106679.		
	FRED BAUMISTER, E.S. T-MAN CONFIRMED THAT A TREE FELL ACROSS NEWARK ROAD IMPACTING THE LONDON 02 CIRCUIT ON 7/24/18.		
	THE INCIDENT OCCURRED BETWEEN ROUTE 1 BYPASS AND MILL ROAD. TOWNSHIP BLOCKED ROADWAY AND REMOVED TREE.		
	END OF REPORT-TJG.		

# **EXHIBIT 3**

<b>Event Number: EV20210119400</b>	<b>Date of Event: 10/10/2021</b>
<b>Claim Number: C2021119789</b>	<b>Date of Claim: 10/12/2021</b>
<b>Claimant Name: VONKOCH, ALEXANDER and DEBRA</b>	

<b>Entered By:</b>	Timothy Grow	<b>Date Time Created:</b>	10/13/2021 2:34 PM
<b>Note Type:</b>	CL Claimant	<b>Subject:</b>	
<b>Activity:</b>	10/13/2021	<b>Important:</b>	No
<b>Note Text:</b>	13-Oct-2021 3:32 PM (Timothy Grow)  This is a pole strike event on 10/10/21 @ 5:06 am.  Refer to OMS Event #C21101000005 PF2  London 002 circuit.  Pole # 3438 struck by an auto on Newark Road. Toughkenomen.  See OMS Event #C21101000007 for 34KV/ Daleville 342.   13-Oct-2021 4:15 PM (Timothy Grow)  Spoke to the claimant, Alex Vonkoch who reported that his tenants experienced another surge event. He was well aware of the pole strike event and has been given the Incident number from New Garden Township Police. He will not require a call back from PECO Claims.  He understood that PECO does not accept fault for auto accidents with their utility poles.  VonKoch requested to speak to PECO Engineering on the topic of surge prevention.  Agreed to forward a memo to DC Engineering-satisfied. .   14-Oct-2021 4:42 PM (Timothy Grow)  Spoke to Rosemary Mele, DC Engineering who suggested I forward an email to Dan Miller, DC Reliability Engineer.		

15-Oct-2021 8:42 AM (Timothy Grow)

Email to Miller to contact Mr. Vonkoch involving his request for a PECO review of the service reliability.

# **EXHIBIT 4**

<b>Event Number: EVC2019112332</b>	<b>Date of Event: 10/08/2019</b>
<b>Claim Number: C2019112332</b>	<b>Date of Claim: 10/21/2019</b>
<b>Claimant Name: VONKOCH, THOMAS</b>	

<b>Entered By:</b>	Timothy Grow	<b>Date Time Created:</b>	11/01/2019 12:39 PM
<b>Note Type:</b>	CL Claimant	<b>Subject:</b>	
<b>Activity:</b>	11/01/2019	<b>Important:</b>	No
<b>Note Text:</b>	10/23/19 REC'D CASE.  SEE PRIOR CLAIM REQUEST # C2018106715 D/I 7/24/19.  REVIEWED COMPANY RECORDS FOR DOL 10/08/19.  SEE OMS EVENT # C19100800003  CAUSE = DOWNED TREE/VEG AT NEWARK & LINE RD. KENNETT SQUARE.  THIS INFORMATION WAS VERIFIED WITH BILL BROWN, E.S. TROUBLEMAN, DELCHESTER REGION.  LONDON 002.  L/M FOR CLAIMANT.  10/28/19 9:40 AM  2ND MESSAGE.  11/01/19  NO RESPONSE TO REQUEST.  CASE CLOSED.  11/04/2019 04:55 PM (Timothy Grow)  ATTEMPTED TO RETURN CALL FROM CLAIMANT. TEL # IS BUSY ON SEVERAL PHONE ATTEMPTS.		

11/13/2019 01:10 PM (Timothy Grow)

RETURNED CALL FROM CLAIMANT. HE PROVIDED AN UPDATED CONTACT # 302.528.5178. DISCUSSED SURGE EVENT TO THREE PROPERTIES (TWO ZONED RESIDENTIAL & ONE COMMERCIAL). CLAIMANT DOES NOT RESIDE AT THE PROPERTY. VONKOCH WAS AWARE OF THE DOWNED TREE/VEG EVENT AT THE SUUBJECT LOCATION. HE CITED A PRIOR SURGE EVENT LOSS FROM LAST YEAR AS NOTED ABOVE. CARRIER IS INVOLVED IN THE LOSS.

ADVISED HIM THAT PECO DOES NOT PROVIDE COVERAGE FOR PD LOSSES FROM DOWNED TREE/VEG EVENTS.

EXPLAINED FACTORS OUT OF THE CONTROL OF SERVICE RELIABILITY FOR ELECTRIC UTILITIES SUCH AS PECO.

CLAIMANT REPORTED THAT HIS ELECTRICIAN INSTALLED WHOLE HOUSE PROTECTION AFTER LAST YEAR'S EVENT.

THIS DEVICE DID NOT OFFER PROTECTION FROM THE VOLTAGE DISTURBANCE ON 10/08/19.

VONKOCH REQUESTED PECO ENGINEERING PERFORM AN ANALYSIS OF HIS AREA FOR POWER PROTECTION.

AGREED TO FORWARD A MEMO TO THE DEPT. CLAIMANT WAS PROVIDED WITH MY NAME/# IN THE EVENT PECO ENGINEERING DOES NOT RESPOND IN A TIMELY MANNER.

UNDERSTOOD THE CLAIM DENIAL.

END OF REPORT-TJG.

11/13/2019 01:23 PM (Timothy Grow)

EMAIL TO AL BALDWIN, MANAGER-ENGINEERING, DELCHESTER REGION.

12/02/2019 09:50 AM (Jonathan Frissora) Contacted the customer to acknowledge PUC complaint. Reaffirmed the companies position of a denial on the claim. The customer indicated his PUC complaint also discusses how to

prevent this in the future and that he never heard from anyone within the engineering department. I advised I will look into this and reach out to engineering as a follow up.

Spoke to Al Baldwin Del/Chester Engineering Mgr. as a follow up to TG's email to him on 11/13/19. Al indicated he did not make contact with the customer but will check with his team to see if someone else made contact. Al Baldwin will follow up with the customer and get back to me on discussion with customer to add onto the PUC complaint response.

# **EXHIBIT 5**

<b>Event Number: EV20210119640</b>	<b>Date of Event: 10/29/2021</b>
<b>Claim Number: C2021120029</b>	<b>Date of Claim: 11/04/2021</b>
<b>Claimant Name: WGK GLASS ART</b>	

<b>Entered By:</b>	Timothy Grow	<b>Date Time Created:</b>	11/11/2021 1:23 PM
<b>Note Type:</b>	CL Claimant	<b>Subject:</b>	
<b>Activity:</b>	11/11/2021	<b>Important:</b>	No
<b>Note Text:</b>	10-Nov-2021 2:07 PM (Timothy Grow)  Reviewed records for the London 002 circuit for noted DOL as 10/29/21 @ 6pm.  Identified large wind/rain storm (70K) outages  Left a message for the customer.  15-Nov-2021 12:35 PM (Timothy Grow)  No response.  Rec'd notice of a PUC complaint.  Left another recorded message at Glass Art business for Thomas Von Koch.  10-Dec-2021 3:46 PM (Timothy Grow)  No response from this claimant?  Will close.		

# **EXHIBIT 6**

## Service Reliability Report

Thomas Vonkoch  
1255 Newark Road  
Toughkenamon, PA 19374

Account Number: 05210-12046

T-Quad: D\_60B6D5

Service Characteristics		
<input type="checkbox"/> Single HT	<input type="checkbox"/> Dual HT	<input checked="" type="checkbox"/> GS (Commercial) <input type="checkbox"/> Residential
<b>Circuit:</b> London-002	<b>Feeder:</b> Bradford-346	<b>Source Substation:</b> Bradford
<b>Circuit Miles Aerial:</b> 5.17		
<b>Additional Information:</b> This 4kV circuit is in Chester County and feeds 83 customers.		

Sustained Outage History From January 1, 2018 to December 9, 2021 (Only outages affecting this customer are listed)				
Date of Interruption	Storm (Y/N)	Cause	Number of Customers Interrupted	Customer Interruption Duration (HH:MM)
10/25/2021 07:22 PM	Y	<b><u>VEGETATION - BROKEN LIMB/TRUNK</u></b> Tree broke pole and brought down crossarm near Street Rd. & Byrd Rd.	313	01:13
10/11/2021 03:25 PM	N	<b><u>VEGETATION - BROKEN LIMB/TRUNK</u></b> Tree and primary wire down along Street Rd.	313	00:28
10/10/2021 08:27 AM	N	<b><u>UNKNOWN - UNDETERMINED</u></b> Surge reported in area. Customer fuse and lightning arrestor found blown.	2	05:32
08/10/2020 12:25 PM	N	<b><u>PUBLIC DAMAGE - VEHICLE (PUBLIC)</u></b> Pole hit on Doe Run Rd. Pole and equipment replaced under WO# 16715622.	312	00:09
08/10/2020 05:33 AM	N	<b><u>VEGETATION - BROKEN LIMB/TRUNK</u></b> Tree down on Feeder	508	00:14
08/05/2020 02:51 PM	Y	<b><u>VEGETATION - BROKEN LIMB/TRUNK</u></b> Tree and primary wire down on Feeder along Street Rd.	248	01:18
08/04/2020 11:36 AM	Y	<b><u>VEGETATION - BROKEN LIMB/TRUNK</u></b> Storm	830	09:52
04/30/2020 03:04 PM	Y	<b><u>VEGETATION - BROKEN LIMB/TRUNK</u></b> Storm	398	03:00
10/08/2019 08:02 AM	N	<b><u>VEGETATION - BROKEN LIMB/TRUNK</u></b> Customer meter, lightning arrestor, and fuse replaced under WO# 16199399. Related to previous event.	2	03:41
10/08/2019 12:20 AM	N	<b><u>VEGETATION - BROKEN LIMB/TRUNK</u></b> Tree limb down near Newark Rd. and Line Rd.	314	01:20
07/08/2019 09:33 AM	N	<b><u>EQUIPMENT FAILURE - DEF/MALFUNCT/DETERIORATION</u></b> Feeder crossarm failure along Street Rd.	1308	00:36
06/29/2019 04:46 PM	Y	<b><u>EQUIPMENT FAILURE - DEF/MALFUNCT/DETERIORATION</u></b> Storm	316	04:46

12/31/2018 05:10 PM	Y	<b>VEGETATION - TREE GROWTH/CONTACT</b> Tree contact on Feeder along Oak Tree Rd.	1249	00:10
09/09/2018 08:43 PM	Y	<b>VEGETATION - TREE GROWTH/CONTACT</b> Tree down on Feeder along Line Rd. north of Kennett Square Bypass.	347	01:09
05/22/2018 01:48 PM	N	<b>EQUIPMENT FAILURE - DEF/MALFUNCT/DETERIORATION</b> Tree down on Feeder near Line Rd. & Cedar Spring Rd.	2645	00:38

<b>Reliability Enhancements</b>			
W/O #	Date	Status	Description
17452046	09/20/2021	Complete	2021 Circuit Patrol – split crossarm replaced along Newark Rd.
17238693	05/17/2021	Plan	London 002 Unit Sub Retirement – work planned for Q1-Q2 2022

<b>Preventative Maintenance Work</b>			
<b>Last Routine Tree Trimming:</b>	03/24/2018	<b>Next Scheduled Tree Trimming:</b>	2022
<b>Last Circuit Patrol/Thermography:</b>	09/14/2021	<b>Next Scheduled Circuit Patrol/Thermography:</b>	2022

Revision 0

Prepared By: Mark Boccelli

Reviewed By: Dan Miller

Date: 10/22/2021

Date: 10/26/2021

Revision 1

Prepared By: Mark Boccelli

Reviewed By: Dan Miller

Date: 12/09/2021

Date: 12/12/2021

# **EXHIBIT 7**

## Service Reliability Report

Sandra Jahn  
1259 Newark Road  
Toughkenamon, PA 19374

Account Number: 85345-68288

T-Quad: D\_60B6B5

Service Characteristics		
<input type="checkbox"/> Single HT	<input type="checkbox"/> Dual HT	<input type="checkbox"/> GS (Commercial) <input checked="" type="checkbox"/> Residential
<b>Circuit:</b> London-002	<b>Feeder:</b> Bradford-346	<b>Source Substation:</b> Bradford
<b>Circuit Miles Aerial:</b> 5.17		
<b>Additional Information:</b> This 4kV circuit is in Chester County and feeds 83 customers.		

Sustained Outage History				
From January 1, 2018 to December 9, 2021				
(Only outages affecting this customer are listed)				
Date of Interruption	Storm (Y/N)	Cause	Number of Customers Interrupted	Customer Interruption Duration (HH:MM)
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10/11/2021 03:25 PM	N	<b>VEGETATION - BROKEN LIMB/TRUNK</b> Tree and primary wire down along Street Rd.	313	00:28
10/10/2021 08:01 AM	N	<b>NO INTERRUPTION TO SERVICE</b> Surge reported in area. Customer meter replaced.	1	12:45
08/10/2020 12:25 PM	N	<b>PUBLIC DAMAGE - VEHICLE (PUBLIC)</b> Pole hit on Doe Run Rd. Pole and equipment replaced under WO# 16715622.	312	00:09
08/10/2020 05:33 AM	N	<b>VEGETATION - BROKEN LIMB/TRUNK</b> Tree down on Feeder	508	00:14
08/05/2020 02:51 PM	Y	<b>VEGETATION - BROKEN LIMB/TRUNK</b> Tree and primary wire down on Feeder along Street Rd.	248	01:18
08/04/2020 11:36 AM	Y	<b>VEGETATION - BROKEN LIMB/TRUNK</b> Storm	830	09:52
04/30/2020 03:04 PM	Y	<b>VEGETATION - BROKEN LIMB/TRUNK</b> Storm	398	03:00
10/08/2019 12:20 AM	N	<b>VEGETATION - BROKEN LIMB/TRUNK</b> Tree limb down near Newark Rd. and Line Rd.	314	01:20
07/08/2019 09:33 AM	N	<b>EQUIPMENT FAILURE - DEF/MALFUNCT/DETERIORATION</b> Feeder crossarm failure along Street Rd.	1308	00:36
06/29/2019 04:46 PM	Y	<b>EQUIPMENT FAILURE - DEF/MALFUNCT/DETERIORATION</b> Storm	316	04:46
12/31/2018 05:10 PM	Y	<b>VEGETATION - TREE GROWTH/CONTACT</b> Tree contact on Feeder along Oak Tree Rd.	1249	00:10
09/09/2018 08:43 PM	Y	<b>VEGETATION - TREE GROWTH/CONTACT</b> Tree down on Feeder along Line Rd. north of Kennett Square Bypass.	347	01:09

05/22/2018 01:48 PM	N	<b>EQUIPMENT FAILURE - DEF/MALFUNCT/DETERIORATION</b> Tree down on Feeder near Line Rd. & Cedar Spring Rd.	2645	00:38
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Reliability Enhancements			
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W/O #	Date	Status	Description
17452046	09/20/2021	Complete	2021 Circuit Patrol – split crossarm replaced along Newark Rd.
17238693	05/17/2021	Plan	London 002 Unit Sub Retirement – work planned for Q1-Q2 2022

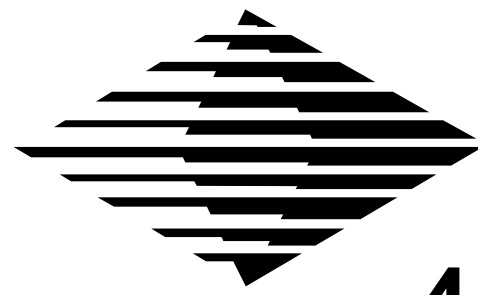
Preventative Maintenance Work			
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<b>Last Routine Tree Trimming:</b>	03/24/2018	<b>Next Scheduled Tree Trimming:</b>	2022
<b>Last Circuit Patrol/Thermography:</b>	09/14/2021	<b>Next Scheduled Circuit Patrol/Thermography:</b>	2022

Prepared By: Zahidul Islam  
 Reviewed By: Dan Miller

Date: 12/10/2021  
 Date: 12/12/2021

# **EXHIBIT 8**



# PECO ENERGY

## 4KV UNIT SUB RETIREMENT LONDON-001, LONDON-002, TOKENA-002 W.O. #: 17238693

PECO Exhibit 8  
C-2021-3029826  
3/8/22 JK

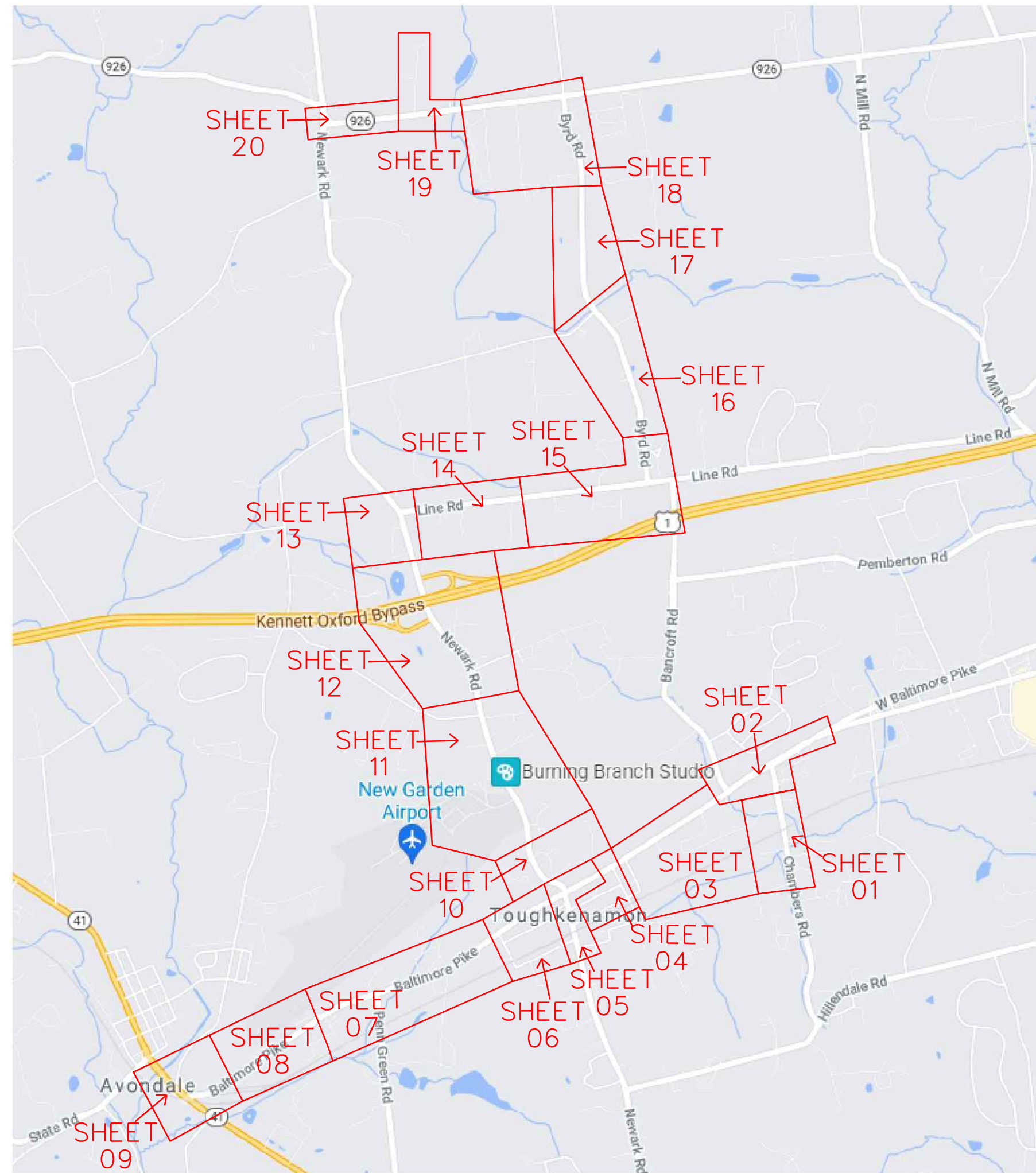


### OVERHEAD LEGEND

- PROPOSED/EXISTING AERIAL CABLE
- PROPOSED/EXISTING OH WIRE
- PROPOSED/EXISTING SEC WIRE
- PROPOSED/EXISTING POLE TO POLE GUY
- PROPOSED/EXISTING RECLOSER
- PROPOSED/EXISTING SECTIONALIZER
- PROPOSED/EXISTING CLOSED LOAD BREAK SWITCH
- PROPOSED/EXISTING OPEN LOAD BREAK SWITCH
- PROPOSED/EXISTING OPEN FUSE/DISCONNECT
- PROPOSED/EXISTING CLOSED FUSE/DISCONNECT
- PROPOSED/EXISTING OPEN IN LINE DISCONNECT
- PROPOSED/EXISTING CLOSED IN LINE DISCONNECT
- PROPOSED/EXISTING PRIMARY DEAD SPAN
- PROPOSED/EXISTING ANCHOR GUY
- REMOVAL SLASH
- PHASE DESIGNATOR
- PECO POLE
- PROPOSED/EXISTING TERMINAL POLE
- PROPOSED INSTALL POLE
- VZ POLE
- PROPOSED/EXISTING 1 PH AERIAL XFMR
- PROPOSED/EXISTING 3 PH AERIAL XFMR
- PROPOSED/EXISTING INTERPOSING XFMR
- VEGETATION WORK REQUIRED AT THIS LOCATION

### UNDERGROUND LEGEND

- PROPOSED/EXISTING UG CABLE
- PROPOSED/EXISTING 1 PH PADMOUNT XFMR
- PROPOSED/EXISTING 3 PH PADMOUNT XFMR



DESIGNER: C. BYDLON  
484.707.8999  
ENG: D. WALKES  
312.763.2198  
LRE: J. PATEL  
610.725.7165

PECO WORK ORDER: 17238693  
E.C.#: 0000253518  
CIRCUIT: LONDON-001, LONDON-002,  
TOKENA-002, AVONDALE-002,  
DELCHESER REGION-CHESTER COUNTY  
CLAY-341, BRADFORD-346  
QUAD: 53EF56, 53GH56, 53GH78  
60AB56, 60B7, 60C5, 60C6  
60CD78, 60D5



NOTE:  
- ALL POLE REPLACEMENTS TO BE WITHIN 2' OF EXISTING POLE UNLESS OTHERWISE SPECIFIED  
- HOT STICK WORK REQUIRED

SAFETY NOTE:  
CAUTION SHALL BE USED TO INSURE THAT THE PROPER PERSONAL PROTECTIVE CLOTHING AND EQUIPMENT ARE USED. HARD HAT, GLOVES, SAFETY GLASSES AND P.P.E. ARE A MUST WHEN WORKING AROUND OR ON ENERGIZED FACILITIES.

#### CONTRACTORS NOTE:

CONTRACTOR TO CONTACT PA ONE CALL(1-800-242-1776) THREE DAYS(MINIMUM) PRIOR TO BEGINNING WORK FOR UTILITY OBSTRUCTION MARKINGS IN STREET AND SIDEWALK. CARE SHOULD BE TAKEN TO LOCATE ALL OBSTRUCTIONS PRIOR TO EARTH REMOVAL. ALL OBSTRUCTIONS MAY NOT HAVE BEEN SHOWN ON THE DESIGN. EXCAVATION AND LOCATION OF OBSTRUCTIONS SHOULD BE FAR ENOUGH IN ADVANCE TO PERMIT REALIGNMENT OF DUCT AND (OR) MANHOLES IF NECESSARY.

**ISSUED FOR  
CONSTRUCTION REV 0  
09/20/2021**

REV. #	DESCRIPTION	DATE
0	SUBMITTED FOR IFC	09/20/2021
B	REVISED PER LRE COMMENTS	07/29/2021
A	SUBMITTED FOR IFA	05/28/2021

DRAWN BY	DATE	JOB/W.O. NO.
CBB	09/20/2021	17238693

**IKDAM** ENGINEERING COVER SHEET

PECO 2021 4KV UNIT SUB RETIREMENT  
LONDON-001, LONDON-002, TOKENA-002  
DELCHESER REGION-CHESTER COUNTY  
AVONDALE BORO & NEW GARDEN TWSP.  
EAST & WEST MARLBOROUGH TWSPS.

# REFERENCED SPECIFICATIONS

- S - 0107 DISTRIBUTION CUTOUTS & FUSE MOUNTING
- S - 0130 FRAMING FOR TANGENT AND ANGLE DISTRIBUTION STRUCTURE INSTALL
- S - 0251 ELECTRICAL BOLTED CONNECTORS
- S - 0252 ELECTRICAL COMPRESSION CONNECTORS
- S - 1006 CONCRETE PAD & GROUNDING FOR 3 PH PADMOUNT DIST. XFMR. 13 & 34KV
- S - 1025 AERIAL SURGE ARRESTOR PRACTICE
- S - 1026 ANIMAL PROTECTION 4KV THRU 34KV DISTRIBUTION
- S - 1050 LINE WIRE INSULATOR TIES
- S - 1051-B LIVE WIRE DEAD ENDS 4KV AND ABOVE
- S - 1062 WIRE SAGS FOR ACSR AND AAAC CONDUCTORS
- S - 1065 WIRE SAGS FOR BARE ALL ALUMINUM CONDUCTORS
- S - 1079-B STRINGING SAGS & MAX TENSIONS FOR #1/0 AWG AL. 35KV CONC. NEUT CA. 5/16" MESS.
- S - 1129 GUIDELINES FOR LOCATION OF 34-13KV, 34-4KV, & 13-4KV INTERPOSING XFMRs
- S - 1131 GROUNDING INSTALLATION AT WOOD POLES
- S - 1136 POLE TOP PIN INSTALLATION
- S - 1140 SETTING WOOD POLES
- S - 1141-A WOOD POLE SETTING IN LEVEL AREAS & FIELD APPLIED RE-TREATMENT
- S - 1223-A POWER INSTALLED SCREW ANCHORS
- S - 1224 GUY ATTACHMENT TO POLE AND ANCHOR
- S - 1310 SECONDARY RACK INSTALLATION ON POLES AND EXTENSIONS
- S - 1323 240 VOLT TRIPLEX AERIAL CABLE
- S - 1340 SECONDARY TERMINAL POLE INSTALLATION
- S - 1605 GUYING - 34KV
- S - 1608-A LIGHTING PROTECTION-34KV
- S - 1609-A SURGE ARRESTER INSTALLATION-34KV
- S - 1609-B 1 PHASE TRANSFORMER FOR 34KV RECLOSERS
- S - 1611 GROUNDING OF 34KV GANG OPERATED LOAD BREAK SWITCH HANDLES
- S - 1622-B 3 PH SINGLE AND DOUBLE DEADEND STRUCTURES 34KV
- S - 1625-A 1 PHASE-2 WAY CORNER W/ AND W/O CUTOUT 34KV
- S - 1625-B 3 PHASE-2 WAY CORNER STRUCTURE (PREFERRED) 34KV
- S - 1626-A 1 PHASE-3 WAY CORNER STRUCTURE W/ AND W/O CUTOUT 34KV
- S - 1626-B 3 PHASE-3 WAY CORNER STRUCTURE (PREFERRED) 34KV
- S - 1626-C 3 PHASE-3 WAY CORNER STRUCTURE W/ CUTOUTS ON TAP-OFF SIDE 34KV
- S - 1626-D 3 WAY CORNER STRUCTURE W/ CUTOUTS OPPOSITE TAP-OFF SIDE 34KV
- S - 1626-E 3 PHASE-3 WAY CORNER STRUCTURE (ALTERNATE) 34KV
- S - 1627-C 3 PHASE-4 WAY CORNER STRUCTURE W/ EXTENSION ARM 34KV
- S - 1631-A 1 PHASE TAP FROM TRI. CONFIG. W/ CUTOUT - ALT. #1 34KV
- S - 1631-B 1 PHASE TAP FROM TRI. CONFIG. W/ CUTOUT - ALT. #2 34KV
- S - 1633 STANDARD DESIGNATOR FOR 13KV & 34KV SECTIONALIZING DEVICES
- S - 1636-E 3 PHASE ELASTIMOLD MVR RECLOSER 34KV
- S - 1640-A INSTALLATION OF IN-LINE DISCONNECT SWITCHES 34KV
- S - 1641-B 3 PH SECTIONALIZING W/DISCONNECTS OF FUSES TANGENT & ANGLE LINE STRUCT. 34KV
- S - 1642-B 600A VERT. MOUNT INTEGRAL STYLE GANG OPERATED LB SWITCH (S&C) 34KV
- S - 1644-E 600A HORIZ. MOUNT POLE TOP INTEGRAL STYLE GANG OPERATED LB SW (S&C) 34KV

- S - 1651-A 1 PHASE XFMR. ON 3 PHASE LINE 34KV
- S - 1652-A 1 PHASE XFMR. ON 1 PHASE LINE 34KV
- S - 1652-C 1 PHASE TRANSFORMER INSTALLATION ON 1 PHASE DEADEND STRUCTURE 34KV
- S - 1660-A 1 PH INTERPOSING 34KV TO 4KV XFMR. INSTALL ON 3 PH W/1 CABLE W/O UNDERBUILD 34KV
- S - 1660-D 1 PH INTERPOSING 34KV TO 4KV XFMR. INSTALL ON 3 PH DEADEND STRUC. W/ 1 CABLE W/O UNDERBUILD
- S - 1661-A 1 PH INTERPOSING 34KV TO 4KV XFMR. INSTALL ON 1 PH W/1 CABLE W/O UNDERBUILD 34KV
- S - 1661-D 1 PH INTERPOSING 34KV TO 4KV XFMR. INSTALL ON 1 PH DEADEND STRUCTURE W/O UNDERBUILD 34KV
- S - 1662 1 PH INTERPOSING 34KV TO 4KV XFMR. INSTALL ON 3 PH LINE W/ UNDERBUILD 34KV
- S - 1663-A 2 OR 3 1 PH INTERPOSING 34KV TO 4KV XFMR. INSTALL-CLUSTER MOUNT W/O UNDERBUILD 34KV
- S - 1672-A 1 PHASE TERM. POLE FOR 1/0 CABLE TANGENT & DEADEND STRUCT. 3 PH LINE 34KV
- S - 1672-B 2 OR 3 PHASE TERMINAL POLE FOR 1/0 CABLE TANGENT STRUCTURE 34KV
- S - 1828 AERIAL TO UNDERGROUND CABLE TRANSITION POLE AND MESSENGER SPLICE
- S - 1832 METHOD OF SECURING LASHED CABLE
- S - 1833 METHOD OF SECURING LASHED AERIAL CABLE [EXTENSION BRACKET]
- S - 2320 CABLE DATA
- S - 5128-A DEADEND STRUCTURE 13KV DIST.
- S - 5128-C DEADEND STRUCTURE USING PRE-ASSEMBLED FIBERGLASS CROSSARM 35KV & BELOW
- S - 5300-B 3 PHASE SPACER CABLE TANGENT POLE 13KV DISTRIBUTION
- S - 5506-A FUSING AND SECTIONALIZING GENERAL PRACTICE
- S - 5506-C FUSING & SECTIONALIZING PRACTICE BRANCH & SPUR FUSING SECTION
- S - 5506-D TRANSFORMER FUSING TABLES
- S - 5506-E TERMINAL POLE FUSING TABLES
- S - 5570-A PADMOUNT XFMR. INSTALLATION DEAD FRONT 34KV
- S - 5571-A 3 PH PADMOUNT XFMR. INSTALL DEAD FRONT 34KV
- S - 5591-A 35KV 200A LOADBREAK ELBOW TERMINATOR TYPE CONNECTOR [PURPLE CUFF]

### S-1062

STRINGING AND DESIGN SAGS-1/0 6/1 STRAND ACSR  
STRINGING AND DESIGN SAGS-1/0 7 STRAND [AAAC]

MAXIMUM TENSION = 1400\* @1/2" ICE, 4LB WIND (NESC HEAVY)

SPAN FEET	STRINGING SAG - INCHES					MAX. SAG INCHES	MAX. SWING INCHES
	0'	30'	60'	90'	120'		
100	2	2	3	5	9	23*	6*
125	3	4	6	9	15	31*	10*
150	5	7	10	16	23	41*	17*
175	9	12	18	26	33	52*	24*
200	15	21	29	37	44	65*	34*
225	25	34	42	50	57	78*	44*
250	40	49	57	65	72	93*	56*
275	56	65	73	81	88	110*	69*
300	75	83	91	99	106	128*	83*

\*THIS DIMENSION TO BE USED ONLY FOR DESIGN PURPOSES.  
THIS MUST NOT BE USED FOR INSTALLATION PURPOSES.

### S-1065

STRINGING AND DESIGN SAGS-477 19 STAND  
STRINGING AND DESIGN SAGS-566 19 STRAND

MAXIMUM TENSION = 2200\* @1/2" ICE, 4LB WIND (NESC HEAVY)

SPAN FEET	STRINGING SAG - INCHES					MAX. SAG INCHES	MAX. SWING INCHES
	0'	30'	60'	90'	120'		
100	5	10	16	21	25	37*	12*
125	10	17	24	29	34	47*	16*
150	17	25	32	38	44	59*	22*
175	27	35	42	49	55	72*	29*
200	38	47	54	61	67	86*	36*
225	51	60	67	75	81	101*	45*
250	66	74	82	89	96	117*	54*
275	82	90	99	106	113	135*	65*
300	100	108	116	124	131	154*	76*

\*THIS DIMENSION TO BE USED ONLY FOR DESIGN PURPOSES.  
THIS MUST NOT BE USED FOR INSTALLATION PURPOSES.

#### NOTE:

- ALL POLE REPLACEMENTS TO BE WITHIN 2' OF EXISTING POLE UNLESS OTHERWISE SPECIFIED
- HOT STICK WORK REQUIRED

DESIGNER: C. BYDLON  
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ENG: D. WALKES  
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LRE: J. PATEL  
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PECO WORK ORDER: 17238693  
E.C.\*: 0000253518  
CIRCUIT: LONDON-001, LONDON-002  
TOKENA-002, AVONDALE-002,  
DALEVILLE-341, DALEVILLE-342,  
CLAY-341, BRADFORD-346  
QUAD: 53EF56, 53GH56, 53GH78  
60AB56, 60B7, 60C5, 60C6  
60CD78, 60D5

#### CONTRACTORS NOTE:

CONTRACTOR TO CONTACT PAONE CALL(1-800-242-1776) THREE DAYS(MINIMUM) PRIOR TO BEGINNING WORK FOR UTILITY OBSTRUCTION MARKINGS IN STREET AND SIDEWALK. CARE SHOULD BE TAKEN TO LOCATE ALL OBSTRUCTIONS PRIOR TO EARTH REMOVAL. ALL OBSTRUCTIONS MAY NOT HAVE BEEN SHOWN ON THE DESIGN. EXCAVATION AND LOCATION OF OBSTRUCTIONS SHOULD BE FAR ENOUGH IN ADVANCE TO PERMIT REALIGNMENT OF DUCT AND (OR) MANHOLES IF NECESSARY.

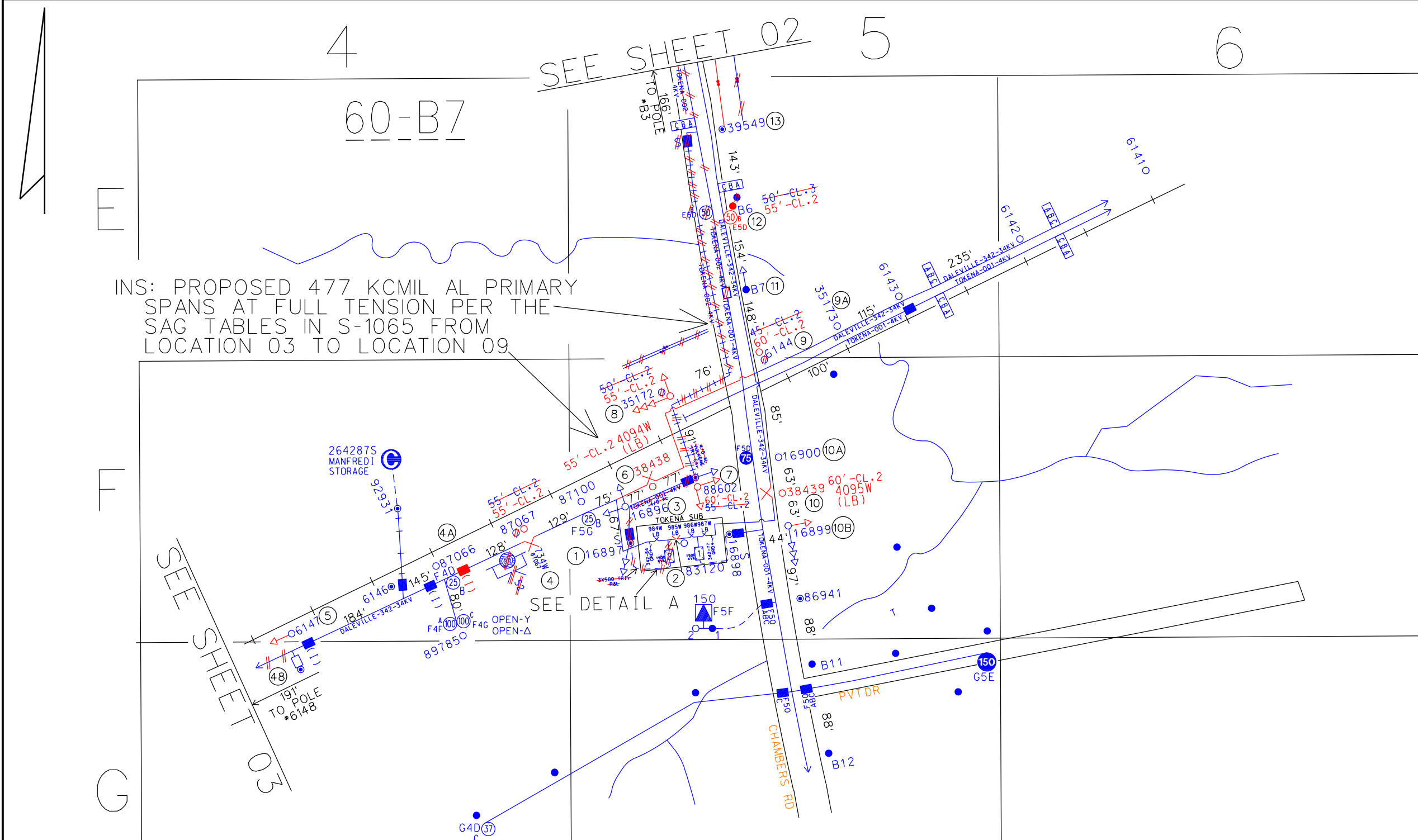
ISSUED FOR  
CONSTRUCTION REV 0  
09/20/2021



#### SAFETY NOTE:

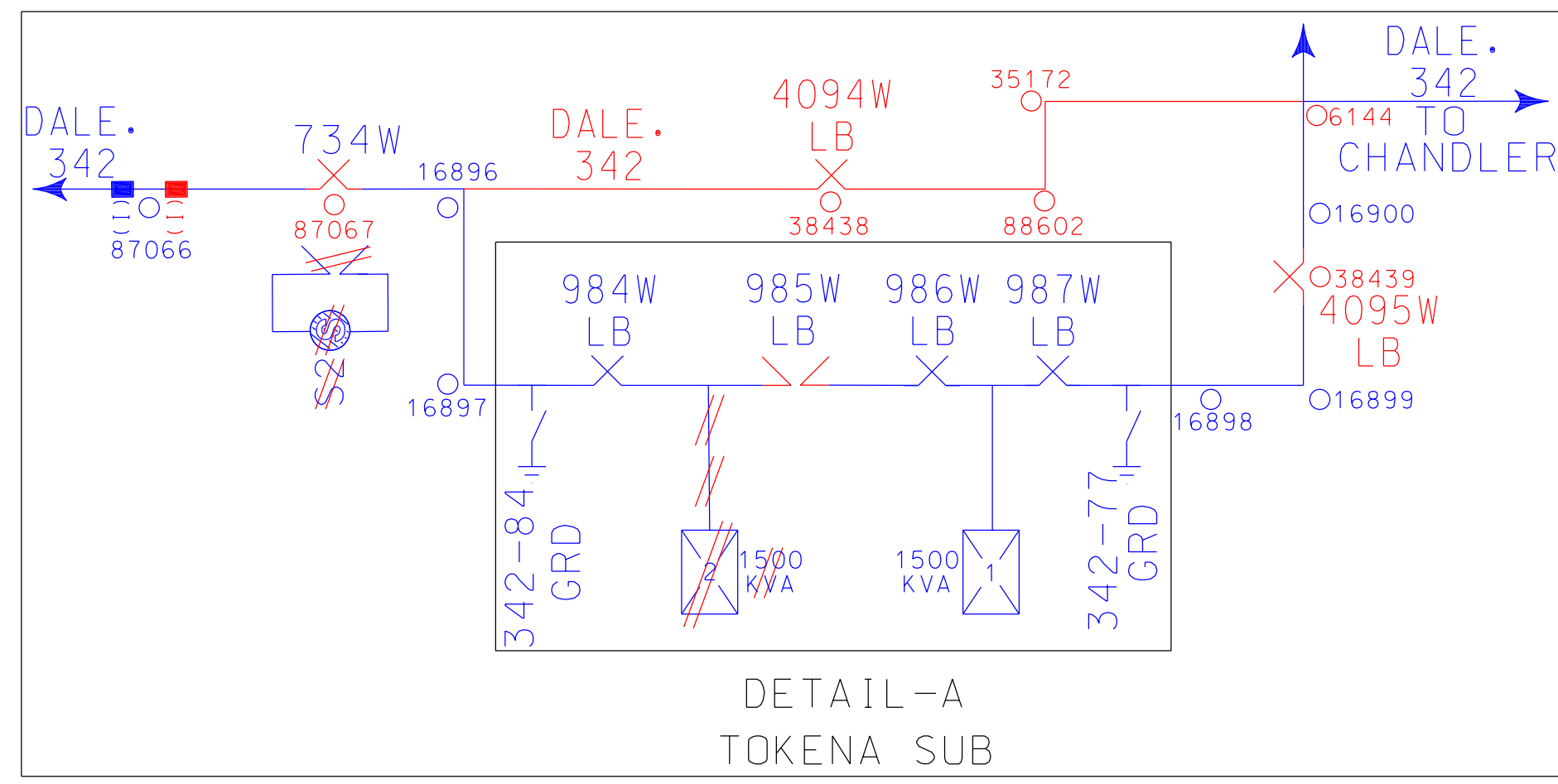
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		<b>KDAM</b> ENGINEERING		REF. SHEET
0	SUBMITTED FOR IFC	09/20/2021		PECO 2021 4KV UNIT SUB RETIREMENT
B	REVISED PER LRE COMMENTS	07/29/2021		LONDON-001, LONDON-002, TOKENA-002
A	SUBMITTED FOR IFA	05/28/2021		DELCHESER REGION-CHESTER COUNTY
REV. #	DESCRIPTION	DATE		AVONDALE BORO & NEW GARDEN TWSP.
REVISIONS				
	DRAWN BY	DATE		JOB/W.O. NO.
	CBB	09/20/2021		17238693



INS: PROPOSED 477 KCMIL AL PRIMARY SPANS AT FULL TENSION PER THE SAG TABLES IN S-1065 FROM LOCATION 03 TO LOCATION 09

- ① POLE \*16897 - TOKENA-002 TP  
REM: TOKENA-002 4KV CUTOUTS, CONDUCTORS, AND EQUIPMENT  
REM: CUT AND CAP TOKENA-002 UNDERGROUND CABLE TO POLE \*16897 AT THE BASE OF THE POLE
- ② TOKENA SUB - 985W LB SW  
REM: TOKENA-002 XFMR AND ASSOCIATED EQUIPMENT  
OPEN: LOAD BREAK SWITCH 985W INSIDE TOKENA SUB.  
REFER TO DETAIL A FOR MORE INFORMATION
- ③ POLE \*16896  
INS: 3 PHASE 3 WAY 34KV CORNER STRUCTURE WITH FIBERGLASS CROSSARM FOR TOP ARM THAT FEEDS DALEVILLE-342 TO POLE \*38438 (S-1625-B & S-5128-C)  
INS: APPROX. 77' OF 477 KCMIL AL WITH 1/0 AAC NEUTRAL TO PROPOSED POLE \*38438 (S-1065)  
TRF: DALEVILLE-342 CONDUCTORS  
REM: EXISTING CROSSARMS, PINS, AND CUTOUTS FOR DALEVILLE-342 CIRCUIT  
REM: EXISTING CROSSARMS, PINS, AND CUTOUTS FOR TOKENA-002 CIRCUIT
- ④ POLE \*87067 - DALEVILLE-342 S2 TO BE REMOVED HERE & 734W LB SW TO BE REPLACED  
NOTE: THIS WORK LOCATION TO BE COMPLETED ON WO #17239287 TASK #15  
REP: 55'-CL-2 POLE WITH 60'-CL-2 PENTA POLE (S-1140)  
INS: 34KV HORIZONTAL MOUNT 600A GANG OPERATED LOAD BREAK SWITCH IN THE NORMALLY CLOSED POSITION FOR DALEVILLE-342 (S-1644-E)  
INS: GROUNDING FOR LOAD BREAK SWITCH (S-1611)  
REM: EXISTING DALEVILLE-342 S2 SECTIONALIZER, CONTROL BOX, AND LOADBREAK SWITCH
- ④A POLE \*87066 - PROPOSED DALEVILLE-342 INLINE DISCONNECTS  
INS: 34KV IN-LINE DISCONNECT SWITCHES ON THE DALEVILLE-342 CONDUCTORS EAST OF POLE \*87066 TOWARDS POLE \*87067 (S-1640-A FIG. I)  
TRF: DALEVILLE-342 CONDUCTORS
- ⑤ POLE \*6147 - DALEVILLE-342 INLINE DISCONNECTS  
INS: CUT AND DEADEND DALEVILLE-342 ON DEADEND STRUCTURE USING PRE-ASSEMBLED FIBERGLASS CROSSARM (S-5128-C)  
INS: ANCHOR GUY AT 14' LEAD LENGTH (S-1605)  
REM: EXISTING CROSSARMS AND PINS  
REM: DALEVILLE-342 CONDUCTOR IN THE DIRECTION TOWARDS POLE \*6148
- ⑥ POLE \*38438 - 4094W LB SW  
INS: 55'-CL-2 PENTA POLE APPROX. 77' EAST OF POLE \*16896 (S-1140)  
INS: 34KV HORIZONTAL MOUNT 600A GANG OPERATED LOAD BREAK SWITCH IN THE NORMALLY CLOSED POSITION FOR DALEVILLE-342 (S-1644-E)  
INS: GROUNDING FOR LOAD BREAK SWITCH (S-1611)  
INS: NEUTRAL BRACKET EXTENSION ATTACHMENT (S-1644-E)
- ⑦ POLE \*88602  
REP: 55'-CL-2 POLE WITH 60'-CL-2 PENTA POLE (S-1140)  
INS: 3 PHASE 2 WAY 34KV CORNER STRUCTURE WITH FIBERGLASS CROSSARM FOR BOTTOM TAP ARM OF DALEVILLE-342 (S-1625-B & S-5128-C)  
INS: APPROX. 97' OF 477 KCMIL AL WITH 1/0 AAC NEUTRAL TO POLE \*35172 (S-1065)  
INS: ANCHOR GUYS AT 11' & 14' LEAD LENGTHS IN EAST DIRECTION AND 11' IN SOUTH DIRECTION (S-1605)  
REM: TOKENA-002 CONDUCTORS AND EQUIPMENT
- ⑧ POLE \*35172  
REP: 50'-CL-2 POLE WITH 55'-CL-2 PENTA POLE (S-1140)  
INS: 3 PHASE 2 WAY 34KV CORNER STRUCTURE WITH FIBERGLASS CROSSARM FOR BOTTOM TAP ARM FOR DALEVILLE-342 (S-1625-B & S-5128-C)  
INS: APPROX. 76' OF 477 KCMIL AL WITH 1/0 AAC NEUTRAL TO POLE \*6144 (S-1065)  
INS: DEADEND STRUCTURE USING PRE-ASSEMBLED FIBERGLASS CROSSARM FOR TOKENA-001 (S-5128-C)  
INS: ANCHOR GUYS AT 11' & 14' LEAD LENGTHS IN WEST DIRECTION AND 15' LEAD LENGTH IN NORTH DIRECTION (S-1605)  
TRF: TOKENA-002 CONDUCTORS FROM POLE \*6144  
REM: TOKENA-001 AERIAL CABLE AND POLE TO POLE GUY WIRE FROM POLE \*6144
- ⑨ POLE \*6144  
REP: 45'-CL-2 PENTA POLE (S-1140)  
INS: 3 PHASE 4 WAY 34KV HORIZONTAL CORNER STRUCTURE FRAMED AS 2 WAY 34KV HORIZONTAL CORNER STRUCTURE FOR DALEVILLE-342 (S-1625-B). INSTALL DEADEND INSULATORS ON EACH SIDE OF THE CROSSARMS FOR DALEVILLE-342. DEADEND PROPOSED 477 KCMIL AL FROM POLE \*35172 PHASE ROLL WILL BE REQUIRED TO TRANSFER EXISTING VERTICAL CONFIGURATION TO THE HORIZONTAL CONFIGURATION  
INS: TANGENT BRACKET FOR TOKENA-001 SPACER CABLE (S-5300-B)  
TRF: DALEVILLE-342 CONDUCTORS  
REM: TOKENA-001 CONDUCTORS  
REM: TOKENA-002 AERIAL CABLE AND POLE TO POLE GUY WIRE TO POLE \*35172
- ⑨A POLE \*35173  
INS: 34KV ALLEY ARM STRUCTURE ON \*10 CROSSARM FOR EXISTING DALEVILLE-342 CONDUCTORS (S-0130). PHASE ROLL WILL BE REQUIRED TO TRANSFER EXISTING VERTICAL CONFIGURATION TO THE HORIZONTAL CONFIGURATION  
INS: TANGENT BRACKET FOR TOKENA-001 SPACER CABLE (S-5300-B)  
TRF: DALEVILLE-342 CONDUCTORS  
TRF: TOKENA-001 CONDUCTORS
- ⑩ POLE \*38439 - 4095W LB SW  
INS: 60'-CL-2 PENTA POLE APPROX. 63' SOUTH OF POLE \*16900 (S-1140)  
INS: 34KV HORIZONTAL MOUNT 600A GANG OPERATED LOAD BREAK SWITCH IN THE NORMALLY CLOSED POSITION FOR DALEVILLE-342 (S-1644-E)  
INS: PHASE ROLL WILL BE REQUIRED TO TRANSFER EXISTING VERTICAL CONFIGURATION TO THE HORIZONTAL CONFIGURATION  
INS: GROUNDING FOR LOAD BREAK SWITCH (S-1611)  
INS: TANGENT BRACKET FOR TOKENA-001 SPACER CABLE (S-5300-B)  
INS: SECONDARY BRACKET EXTENSION ATTACHMENT (S-1642-B)  
TRF: DALEVILLE-342 CONDUCTORS  
TRF: TOKENA-001 CONDUCTORS
- ⑩A POLE \*16900 - XFMR 60-B7-F5D  
INS: 34KV TANGENT STRUCTURE ON 2'-8 CROSSARMS FOR EXISTING DALEVILLE-342 CONDUCTORS (S-0130). PHASE ROLL WILL BE REQUIRED TO TRANSFER EXISTING VERTICAL CONFIGURATION TO THE HORIZONTAL CONFIGURATION  
TRF: DALEVILLE-342 CONDUCTORS  
REM: EXISTING VERTICAL CONSTRUCTION FOR DALEVILLE-342 CONDUCTORS
- ⑩B POLE \*16899  
INS: 3 PHASE 2 WAY 34KV CORNER STRUCTURE WITH FIBERGLASS CROSSARMS FOR BOTH TOP AND BOTTOM ARMS OF DALEVILLE-342 (S-1625-B & S-5128-C). TOP ARM IS TO BE CONDUCTOR DEADENDED FROM POLE \*38439. BOTTOM ARM IS TO BE CONDUCTOR DEADENDED TO POLE \*16898. PHASE ROLL WILL BE REQUIRED TO TRANSFER EXISTING VERTICAL CONFIGURATION TO THE HORIZONTAL CONFIGURATION  
INS: ANCHOR GUY IN THE EAST DIRECTION AT 15' LEAD LENGTH (S-1605)  
TRF: DALEVILLE-342 CONDUCTORS  
REM: EXISTING VERTICAL CONSTRUCTION FOR DALEVILLE-342 CONDUCTORS
- ⑪ POLE \*B7 - BD TOKENA-001 & TOKENA-002  
REM: TOKENA-002 DEADEND INSULATORS, OPEN DISCONNECTS, AND JUMPER WIRE FROM CROSSARM  
REM: TOKENA-002 AERIAL CABLE
- ⑫ POLE \*B6 - XFMR 60-B7-F5D  
REP: 50'-CL-2 POLE WITH 55'-CL-2 PENTA POLE PROVIDED BY VERICON (S-1140)  
INS: 34KV B PH 50KVA XFMR WITH 10A CURRENT LIMITING FUSE AND SECONDARY ATTACHMENT (S-1651-A & S-5506-D)  
INS: POLE MOLDING FOR UG SECONDARY SERVICE (S-1172)  
TRF: DALEVILLE-342 CONDUCTORS  
REM: PREPARE SECONDARY WIRE FOR CONVERSION  
REM: TOP POLE AND REMOVE ALL PECO EQUIPMENT ABOVE COMMUNICATIONS INCLUDING TOKENA-002 CONDUCTORS AND XFMR
- ⑬ POLE \*39549 - TOKENA-002 AERIAL CABLE TP  
INS: POLE TO POLE GUY TO POLE \*B3 (S-1605)  
REM: TOKENA-002 CONDUIT INCLUDING CONDUCTORS, CROSSARM, CLOSED CUTOUTS, AND AERIAL CABLE  
REM: POLE TO POLE GUY TO POLE \*B4



DETAIL-A  
TOKENA SUB

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LRE: J. PATEL  
610.725.7165

PECO WORK ORDER: 17238693  
E.C.\*: 0000253518  
CIRCUIT: LONDON-001, LONDON-002  
TOKENA-002, AVONDALE-002,  
DALEVILLE-341, DALEVILLE-342,  
CLAY-341, BRADFORD-346  
QUAD: 53EF56, 53GH56, 53GH78  
60AB56, 60B7, 60C5, 60C6  
60CD78, 60D5

NOTE:  
- ALL POLE REPLACEMENTS TO BE WITHIN 2' OF EXISTING POLE UNLESS OTHERWISE SPECIFIED  
- HOT STICK WORK REQUIRED

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**CONTRACTORS NOTE:**  
CONTRACTOR TO CONTACT P.A. ONE CALL (1-800-242-1776) THREE DAYS (MINIMUM) PRIOR TO BEGINNING WORK FOR UTILITY OBSTRUCTION MARKINGS IN STREET AND SIDEWALK. CARE SHOULD BE TAKEN TO LOCATE ALL OBSTRUCTIONS PRIOR TO EARTH REMOVAL. ALL OBSTRUCTIONS MAY NOT HAVE BEEN SHOWN ON THE DESIGN. EXCAVATION AND LOCATION OF OBSTRUCTIONS SHOULD BE FAR ENOUGH IN ADVANCE TO PERMIT REALIGNMENT OF DUCT AND (OR) MANHOLES IF NECESSARY.



**ISSUED FOR CONSTRUCTION REV 0 09/20/2021**

REV. #	DESCRIPTION	DATE
0	SUBMITTED FOR IFC	09/20/2021
B	REVISED PER LRE COMMENTS	07/29/2021
A	SUBMITTED FOR IFA	05/28/2021

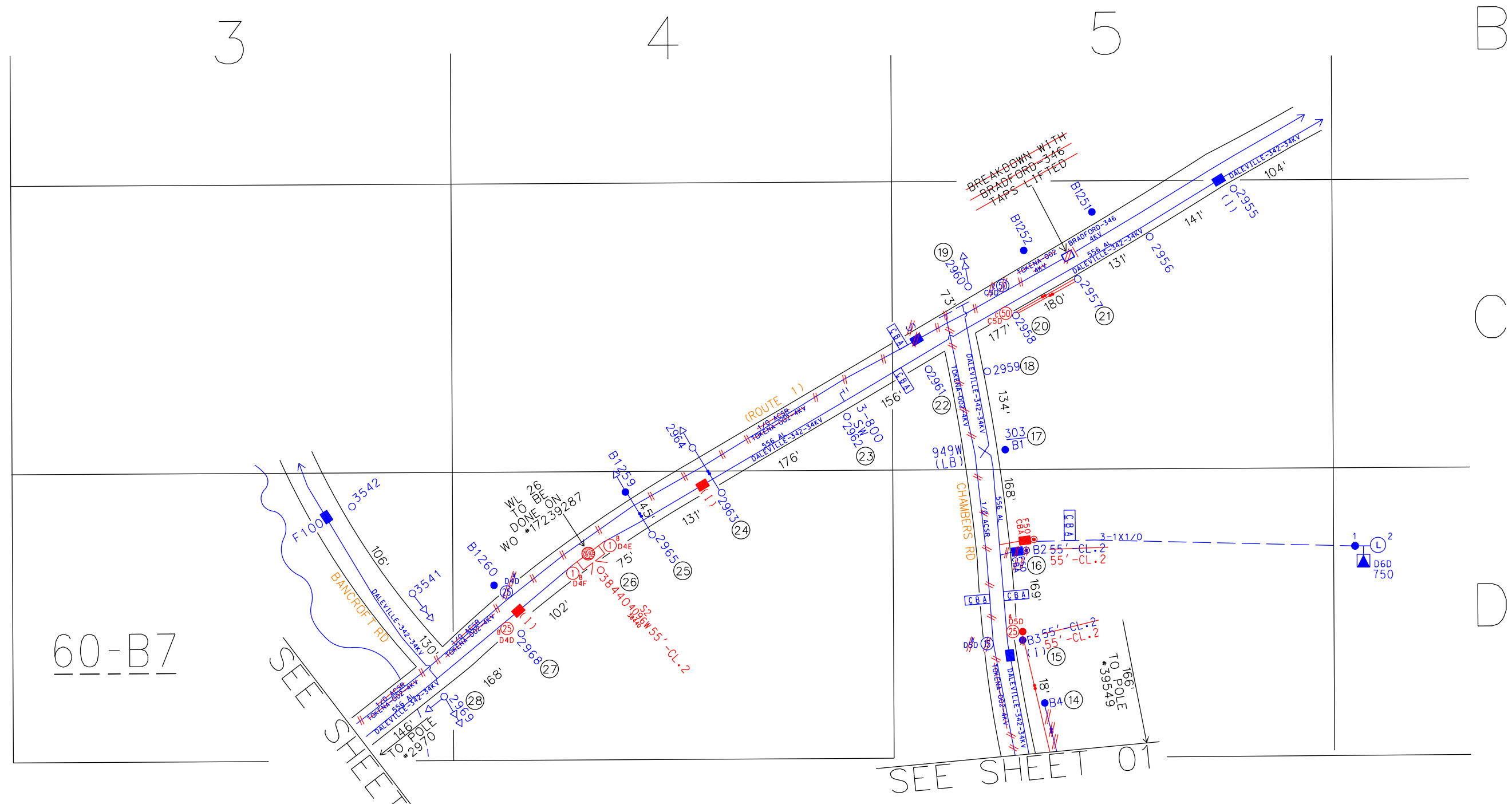
REV. #	DESCRIPTION	DATE
REVISIONS		

DRAWN BY	DATE	JOB/W.O. NO.
CBB	09/20/2021	17238693

**IKDAM ENGINEERING** SHEET 01 OF 20

PECO 2021 4KV UNIT SUB RETIREMENT  
LONDON-001, LONDON-002, TOKENA-002  
DELCESTER REGION-CHESTER COUNTY  
AVONDALE BORO & NEW GARDEN TWSP.  
EAST & WEST MARLBOROUGH TWSPS.



60-B7

SEE SHEET 03

SEE SHEET 01

- 14) POLE \*B4  
REM: POLE TO POLE GUY FROM POLE \*39549
- 15) POLE \*B3 - XFMR 60-B7-D5D  
REP: 55'-CL-2 POLE WITH 55'-CL-2 PENTA POLE PROVIDED BY VERIZON (S-1140)  
INS: 34KV A PH 25KVA XFMR WITH 10A CURRENT LIMITING FUSE AND SECONDARY ATTACHMENT (S-1651-A & S-5506-D)  
INS: POLE TO POLE GUY ATTACHMENT FOR GUY WIRE FROM POLE \*39549 (S-1605)  
TRF: DALEVILLE-342 CONDUCTORS AND IN-LINE DISCONNECTS  
TRF: PREPARE SECONDARY WIRE FOR CONVERSION  
REM: TOP POLE AND REMOVE ALL PECO EQUIPMENT ABOVE COMMUNICATIONS INCLUDING TOKENA-002 CONDUCTORS AND XFMR
- 16) POLE \*B2 - TP TO XFMR 60-B7-D6D  
REP: 55'-CL-2 POLE WITH 55'-CL-2 PENTA POLE PROVIDED BY VERIZON (S-1140). INSTALL POLE 2' NORTH OF EXISTING POLE  
INS: 34KV 3 PH TERMINAL POLE TANGENT STRUCTURE WITH SIX FUSES FOR 1/0 CABLE (S-1672-B & S-5506-A)  
INS: POLE GROUND (S-1131)  
TRF: DALEVILLE-342 CONDUCTORS AND 3-1X1/0 ALUG CABLE THAT FEEDS XFMR 60-B7-D6D  
REM: TOP POLE AND REMOVE ALL PECO EQUIPMENT ABOVE COMMUNICATIONS INCLUDING TOKENA-002 CONDUCTORS
- 17) POLE \*B1 - 949W LB SW  
REM: TOKENA-002 CONDUCTORS AND EQUIPMENT
- 18) POLE \*2959  
REM: TOKENA-002 CONDUCTORS AND EQUIPMENT
- 19) POLE \*2960  
REM: TOKENA-002 CONDUCTORS AND EQUIPMENT
- 20) POLE \*2958 - XFMR 60-B7-C5D  
INS: 34KV C PH 50KVA XFMR WITH 10A CURRENT LIMITING FUSE AND SECONDARY ATTACHMENT (S-1651-A & S-5506-D)  
INS: POLE TO POLE GUY ATTACHMENTS FOR GUY WIRE FROM POLE \*2957  
TRF: DALEVILLE-342 CONDUCTORS  
TRF: PREPARE SECONDARY WIRE FOR CONVERSION  
REM: TOKENA-002 CONDUCTORS AND EQUIPMENT INCLUDING THE XFMR
- 21) POLE \*2957  
INS: ALLEY ARM DEADEND STRUCTURE FOR BRADFORD-346 4KV CIRCUIT WITH 2 POLE TO POLE GUY WIRES TO POLE \*2958 (S-5128-A FIG. 3)  
TRF: BRADFORD-346 4KV CONDUCTORS TO ALLEY ARM DEADEND STRUCTURE  
REM: BRADFORD-346 4KV CIRCUIT DISCONNECTS  
REM: TOKENA-002 EQUIPMENT AND CONDUCTORS INCLUDING DEADEND INSULATORS AND JUMPER WIRE
- 22) POLE \*2961  
TRF: PREPARE SECONDARY WIRE FOR CONVERSION  
REM: TOKENA-002 CONDUCTORS AND EQUIPMENT INCLUDING NORMALLY CLOSED DISCONNECTS
- 23) POLE \*2962 - DALEVILLE-342 CAP BANK  
REM: TOKENA-002 CONDUCTORS AND EQUIPMENT
- 24) POLE \*2963 - PROPOSED DALEVILLE-342 IN-LINE DISCONNECTS  
INS: 34KV IN-LINE DISCONNECT SWITCHES ON THE DALEVILLE-342 CONDUCTORS WEST OF POLE \*2963 TOWARDS POLE \*2965 (S-1640-A FIG. 1)  
REM: TOKENA-002 CONDUCTORS AND EQUIPMENT
- 25) POLE \*2965 - XFMR 60-B7-D4E  
INS: 3 PH 27KV LIGHTNING ARRESTERS FOR DALEVILLE-342 S2 RECLOSER BEING INSTALLED ON POLE \*38440 (S-1609-A)  
TRF: PREPARE SECONDARY WIRE FOR CONVERSION  
REM: TOKENA-002 CONDUCTORS AND EQUIPMENT
- 26) POLE \*38440 - DALEVILLE-342 S2 & 4096W LB SW  
NOTE: THIS WORK LOCATION TO BE COMPLETED ON WO #17239287 TASK #15  
INS: 55'-CL-2 PENTA POLE APPROX. 75' WEST OF POLE \*2965 (S-1140)  
INS: 34KV 3 PH ELASTIMOLD MVR RECLOSER FOR DALEVILLE-342 S2 WITH 600A LOAD BREAK SWITCH IN THE NORMALLY OPEN POSITION AND 2-1KVA XFRMS PER THE ALTERNATE INSTALL OPTION (S-1636-E)  
INS: SENSUS RADIO 2'8" OFF THE GROUND  
TRF: DALEVILLE-342 CONDUCTORS  
TRF: ATTACH EXISTING SECONDARY TO SECONDARY EXTENSION BRACKET (S-1636-E)
- 27) POLE \*2968 - PROPOSED DALEVILLE-342 IN-LINE DISCONNECTS & XFMR 60-B7-D4D  
INS: 34KV IN-LINE DISCONNECT SWITCHES ON THE DALEVILLE-342 CONDUCTORS EAST OF POLE \*2968 TOWARDS POLE \*38440 (S-1640-A FIG. 1)  
INS: 34KV 3 PH 25KVA XFMR WITH 10A CURRENT LIMITING FUSE AND 3 PH 27KV LIGHTNING ARRESTERS FOR DALEVILLE-342 S2 RECLOSER BEING INSTALLED ON POLE \*38440 (S-1609-A)  
TRF: DALEVILLE-342 CONDUCTORS  
TRF: PREPARE SECONDARY WIRE FOR CONVERSION  
REM: TOKENA-002 CONDUCTORS AND EQUIPMENT INCLUDING THE XFMR
- 28) POLE \*2969  
TRF: PREPARE SECONDARY WIRE FOR CONVERSION  
REM: TOKENA-002 CONDUCTORS AND EQUIPMENT

NOTE:  
- ALL POLE REPLACEMENTS TO BE WITHIN 2' OF EXISTING POLE UNLESS OTHERWISE SPECIFIED  
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ISSUED FOR CONSTRUCTION REV 0 09/20/2021

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312.763.2198  
LRE: J. PATEL  
610.725.7165

PECO WORK ORDER: 17238693  
E.C.#: 0000253518  
CIRCUIT: LONDON-001, LONDON-002  
TOKENA-002, AVONDALE-002,  
DALEVILLE-341, DALEVILLE-342,  
CLAY-341, BRADFORD-346  
QUAD: 53EF56, 53GH56, 53GH78  
60AB56, 60B7, 60C5, 60C6  
60CD78, 60D5

REV. #	DESCRIPTION	DATE
0	SUBMITTED FOR IFC	09/20/2021
B	REVISED PER LRE COMMENTS	07/29/2021
A	SUBMITTED FOR IFA	05/28/2021

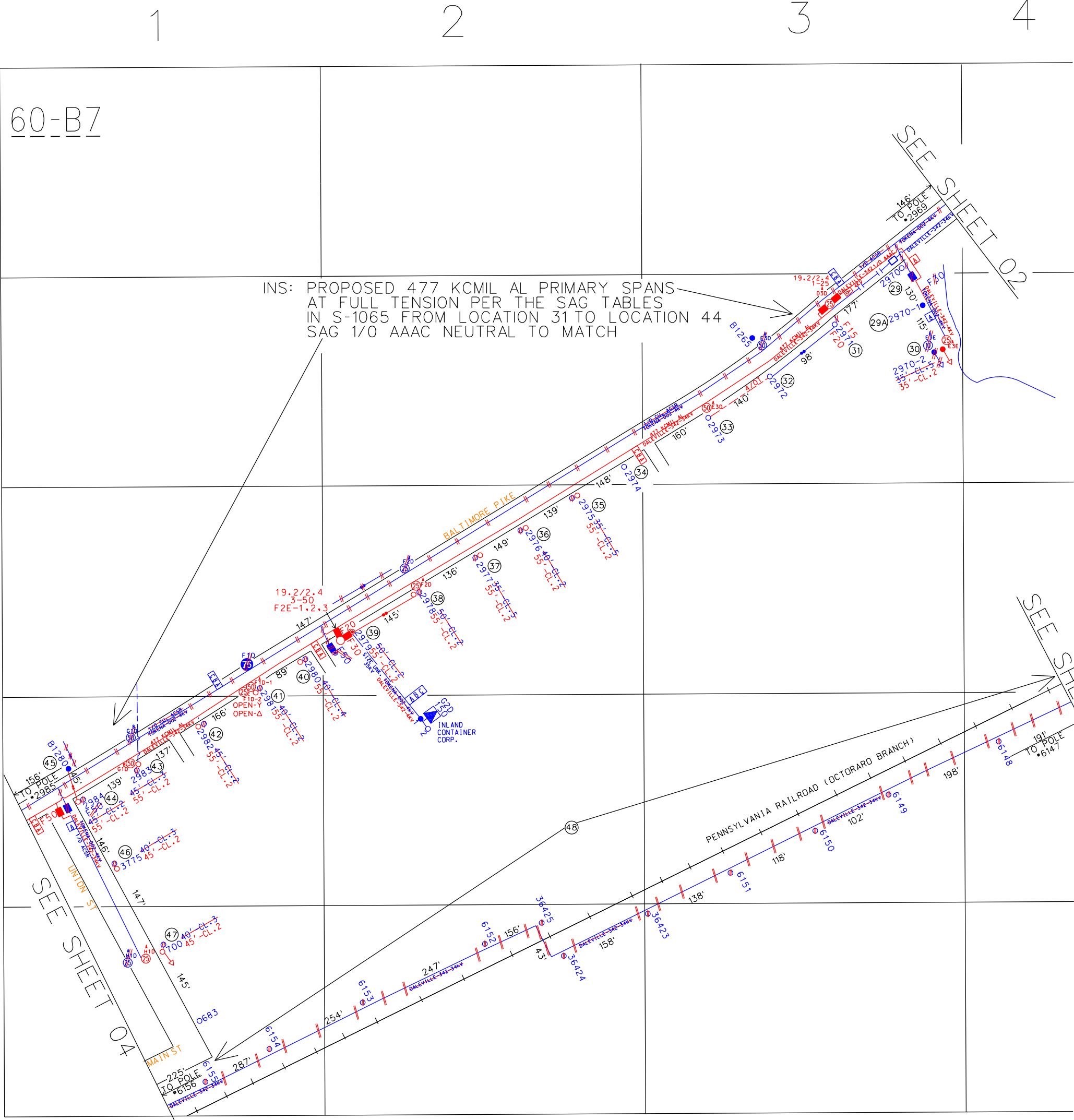
REV. #	DESCRIPTION	DATE
REVISIONS		

DRAWN BY	DATE	JOB/W.O. NO.
CBB	09/20/2021	17238693

**KDAM** ENGINEERING SHEET 02 OF 20

PECO 2021 4KV UNIT SUB RETIREMENT  
LONDON-001, LONDON-002, TOKENA-002  
DELCHESIER REGION-CHESTER COUNTY  
AVONDALE BORO & NEW GARDEN TWSP.  
EAST & WEST MARLBOROUGH TWSPS.



- 29 POLE \*2970  
INS: APPROX. 130' OF A PH 1/0 AAAC 4KV INTERPOSED UNDERBUILD PRIMARY AND 1/0 AAAC NEUTRAL TO POLE \*2970-1 (S-1062) DEADEND AND FRAME A PH TAP TO POLE \*2970-1 FROM DEADEND TRIANGULAR CONFIGURATION WITHOUT CUTOUT ON \*8 CROSSARM (S-1631-F)  
TRF: PREPARE SECONDARY WIRE FOR CONVERSION  
REM: TOKENA-002 4KV A PH TAP TO XFMR 60-B7-E3E TO BE REPLACED WITH 1/0 AAAC FROM POLE \*2971  
REM: TOKENA-002 CONDUCTORS AND EQUIPMENT
- 29A POLE \*2970-1  
INS: DOUBLE DEADEND 1PH STRUCTURE TO CONNECT PROPOSED A PH 1/0 AAAC 4KV INTERPOSED UNDERBUILD PRIMARY AND 1/0 AAAC NEUTRAL FROM POLE \*2970 TO A PH CONDUCTOR TO XFMR 60-B7-E3E (S-0130)  
TRF: PREPARE SECONDARY WIRE FOR CONVERSION
- 30 POLE \*2970-2 - XFMR 60-B7-E3E  
REP: 35'-CL-5 POLE WITH 55'-CL-2 PENTA POLE (S-1140)  
INS: 34KVX4KV A PH 25KVA DUAL RATIO XFMR ON 4KV TAP SETTING WITH 30K FUSE (S-1652-C & S-5506-D) DIRECTION (S-1605)  
INS: ANCHOR GUY AT 14' LEAD LENGTH IN SOUTH  
TRF: DALEVILLE-342 4KV A PH CONDUCTOR  
TRF: SECONDARY CONDUCTORS  
TRF: STREET LIGHT ATTACHMENT  
REM: TOP POLE AND REMOVE ALL PECO EQUIPMENT ABOVE COMMUNICATIONS INCLUDING TOKENA-002 CONDUCTORS AND XFMR
- 31 POLE \*2971 - 1-25KVA INTERPOSING XFMR 60-B7-03D  
INS: DOUBLE DEADEND STRUCTURE USING PRE-ASSEMBLED FIBERGLASS CROSSARM WITH 1PH A PH 25KVA 34KV TO 4KV INTERPOSING XFMR WITH 20A CURRENT LIMITING FUSE ON PRIMARY SIDE AND 10R FUSE ON SECONDARY SIDE (S-1660-D & S-5506-D)  
INS: APPROX. 177' OF A PH 1/0 AAAC 4KV INTERPOSED UNDERBUILD PRIMARY AND 1/0 AAAC NEUTRAL TO POLE \*2970 (S-1062)  
TRF: DALEVILLE-342 CONDUCTORS  
REM: DALEVILLE CROSSARMS  
REM: TOKENA-002 CONDUCTORS AND EQUIPMENT
- 32 POLE \*2972 - XFMR 60-B7-E3D TO BE REMOVED HERE  
INS: 34KV TANGENT STRUCTURE ON \*8 CROSSARM FOR PROPOSED DALEVILLE-342 CONDUCTORS (S-0130)  
INS: NEUTRAL ATTACHMENT (S-1137)  
TRF: CONNECT SERVICE WIRE TO PROPOSED TRIPLEX SECONDARY WIRE FROM POLE \*2975 (S-1523)  
REM: TOKENA-002 CONDUCTORS AND EQUIPMENT INCLUDING THE XFMR
- 33 POLE \*2973 - XFMR 60-B7-E3D TO BE INSTALLED HERE  
INS: 34KV TANGENT STRUCTURE WITH 34KVX4KV A PH 50KVA DUAL RATIO XFMR ON 4KV TAP SETTING WITH 30K POWER FUSE ON SECONDARY ATTACHMENT (S-1651-A & S-5506-D)  
INS: APPROX. 140' OF 4/0 TRIPLEX SECONDARY TO POLE \*2972 CROSSARMS  
REM: TOKENA-002 CONDUCTORS AND EQUIPMENT
- 34 POLE \*2974  
INS: 34KV TANGENT STRUCTURE ON \*8 CROSSARM FOR PROPOSED DALEVILLE-342 CONDUCTORS (S-0130)  
INS: NEUTRAL ATTACHMENT (S-1137)  
REM: TOKENA-002 CONDUCTORS AND EQUIPMENT
- 35 POLE \*2975  
REP: 35'-CL-5 POLE WITH 55'-CL-2 PENTA POLE (S-1140)  
INS: 34KV TANGENT STRUCTURE ON \*8 CROSSARM FOR PROPOSED DALEVILLE-342 CONDUCTORS (S-0130)  
INS: NEUTRAL ATTACHMENT (S-1137)  
REM: TOP POLE AND REMOVE ALL PECO EQUIPMENT ABOVE COMMUNICATIONS INCLUDING TOKENA-002 CONDUCTORS
- 36 POLE \*2976  
REP: 40'-CL-2 POLE WITH 55'-CL-2 PENTA POLE (S-1140)  
INS: 34KV TANGENT STRUCTURE ON \*8 CROSSARM FOR PROPOSED DALEVILLE-342 CONDUCTORS (S-0130)  
INS: NEUTRAL ATTACHMENT (S-1137)  
REM: TOP POLE AND REMOVE ALL PECO EQUIPMENT ABOVE COMMUNICATIONS INCLUDING TOKENA-002 CONDUCTORS
- 37 POLE \*2977  
REP: 35'-CL-5 POLE WITH 55'-CL-2 PENTA POLE (S-1140)  
INS: 34KV TANGENT STRUCTURE ON \*8 CROSSARM FOR PROPOSED DALEVILLE-342 CONDUCTORS (S-0130)  
INS: NEUTRAL ATTACHMENT (S-1137)  
REM: TOP POLE AND REMOVE ALL PECO EQUIPMENT ABOVE COMMUNICATIONS INCLUDING TOKENA-002 CONDUCTORS
- 38 POLE \*2978 - XFMR 60-B7-F2D  
REP: 50'-CL-2 POLE WITH 55'-CL-2 PENTA POLE (S-1140)  
INS: 34KV TANGENT STRUCTURE WITH 34KV A PH 25KVA XFMR WITH 10A CURRENT LIMITING FUSE AND SECONDARY ATTACHMENT (S-1651-A & S-5506-D)  
INS: POLE TO POLE GUY ATTACHMENT FOR GUY WIRE FROM POLE \*2979 (S-1605)  
TRF: PREPARE SECONDARY WIRE FOR CONVERSION  
REM: TOP POLE AND REMOVE ALL PECO EQUIPMENT ABOVE COMMUNICATIONS INCLUDING TOKENA-002 CONDUCTORS AND XFMR
- 39 POLE \*2979 - 3-50KVA INTERPOSING XFMR 60-B7-F2E-1,2,3  
REP: 50'-CL-2 POLE WITH 55'-CL-2 PENTA POLE (S-1140)  
INS: 3 PH 50KVA 34KV TO 4KV INTERPOSING XFMR WITH 20A CURRENT LIMITING FUSES ON PRIMARY SIDE AND 30K FUSES ON SECONDARY SIDE (S-1663-A & S-5506-D)  
INS: POLE MOLDING FOR 3 PH UG CABLE THAT FEEDS XFMR 60-B7-G2D (S-1172)  
INS: APPROX. 145' OF POLE TO POLE GUY TO POLE \*2978 (S-1605)  
TRF: 3 PH UG CABLE THAT FEEDS XFMR 60-B7-G2D  
REM: TOP POLE AND REMOVE ALL PECO EQUIPMENT ABOVE COMMUNICATIONS INCLUDING TOKENA-002 CONDUCTORS
- 40 POLE \*2980  
REP: 40'-CL-4 POLE WITH 55'-CL-2 PENTA POLE (S-1140)  
INS: 34KV TANGENT STRUCTURE ON \*8 CROSSARM FOR PROPOSED DALEVILLE-342 CONDUCTORS (S-0130)  
INS: NEUTRAL ATTACHMENT (S-1137)  
REM: TOP POLE AND REMOVE ALL PECO EQUIPMENT ABOVE COMMUNICATIONS INCLUDING TOKENA-002 CONDUCTORS
- 41 POLE \*2981 - XFMR 60-B7-F1D-1,2  
REP: 40'-CL-2 POLE WITH 55'-CL-2 PENTA POLE (S-1140)  
INS: 34KV 50KVA A PH XFMR WITH 10A CURRENT LIMITING FUSE AND 25KVA C PH XFMR WITH 10A CURRENT LIMITING FUSE FOR OPEN WYE OPEN DELTA XFMR INSTALLATION (S-1656-A)  
INS: SECONDARY ATTACHMENT (S-1656-A)  
INS: POLE MOLDING FOR UG SECONDARY SERVICE (S-1172)  
TRF: PREPARE SECONDARY WIRE FOR CONVERSION  
REM: TOP POLE AND REMOVE ALL PECO EQUIPMENT ABOVE COMMUNICATIONS INCLUDING TOKENA-002 CONDUCTORS AND XFMR
- 42 POLE \*2982  
REP: 45'-CL-2 POLE WITH 55'-CL-2 PENTA POLE (S-1140)  
INS: 34KV TANGENT STRUCTURE ON \*8 CROSSARM FOR PROPOSED DALEVILLE-342 CONDUCTORS (S-0130)  
INS: NEUTRAL ATTACHMENT (S-1137)  
TRF: PREPARE SECONDARY WIRE FOR CONVERSION  
REM: TOP POLE AND REMOVE ALL PECO EQUIPMENT ABOVE COMMUNICATIONS INCLUDING TOKENA-002 CONDUCTORS
- 43 POLE \*2983 - XFMR 60-B7-G1D  
REP: 45'-CL-3 POLE WITH 55'-CL-2 PENTA POLE (S-1140)  
INS: 34KV TANGENT STRUCTURE WITH 34KV B PH 50KVA XFMR WITH 10A CURRENT LIMITING FUSE AND SECONDARY ATTACHMENT (S-1651-A & S-5506-D)  
TRF: PREPARE SECONDARY WIRE FOR CONVERSION  
REM: TOP POLE AND REMOVE ALL PECO EQUIPMENT ABOVE COMMUNICATIONS INCLUDING TOKENA-002 CONDUCTORS AND XFMR
- 44 POLE \*2984  
REP: 45'-CL-2 POLE WITH 55'-CL-2 PENTA POLE (S-1140)  
INS: 34KV TANGENT STRUCTURE ON \*8 CROSSARM WITH A PH TAP AND 30K FUSE TO POLE \*3775 FOR PROPOSED DALEVILLE-342 CONDUCTORS (S-1631-B)  
INS: APPROX. 45' OF POLE TO POLE GUY TO POLE \*9128D (S-1605)  
INS: SECONDARY DEADEND ATTACHMENTS (S-1323)  
TRF: EXISTING A PH CONDUCTOR TO POLE \*3775 TO THE NEW CROSSARM  
TRF: STREET LIGHT ATTACHMENT  
REM: TOP POLE AND REMOVE ALL PECO EQUIPMENT ABOVE COMMUNICATIONS INCLUDING TOKENA-002 CONDUCTORS AND CUTOUT
- 45 POLE \*B1280  
INS: POLE TO POLE GUY ATTACHMENT FOR GUY WIRE FROM POLE \*2984 (S-1605)
- 46 POLE \*3775  
REP: 40'-CL-3 POLE WITH 45'-CL-2 PENTA POLE (S-1140)  
INS: 34KV 1PH TANGENT STRUCTURE WITH POLE TOP PIN (S-0130)  
INS: NEUTRAL ATTACHMENT (S-1137)  
TRF: EXISTING A PH CONDUCTOR TO THE NEW PIN  
TRF: NEUTRAL WIRE  
REM: TOP POLE AND REMOVE ALL PECO EQUIPMENT ABOVE COMMUNICATIONS INCLUDING TOKENA-002 CONDUCTOR
- 47 POLE \*700 - XFMR 60-B7-H1D  
REP: 40'-CL-3 POLE WITH 45'-CL-2 PENTA POLE (S-1140)  
INS: 34KVX4KV A PH 25KVA DUAL RATIO XFMR ON 4KV TAP SETTING WITH 30K FUSE (S-1652-C & S-5506-D)  
INS: SECONDARY ATTACHMENT (S-1652-C)  
INS: ANCHOR GUY AT 14' LEAD LENGTH IN SOUTH DIRECTION (S-1605)  
TRF: EXISTING A PH CONDUCTOR TO THE NEW DEADEND  
TRF: SECONDARY WIRE  
REM: TOP POLE AND REMOVE ALL PECO EQUIPMENT ABOVE COMMUNICATIONS INCLUDING TOKENA-002 CONDUCTOR AND XFMR
- 48 POLES \*6147 THROUGH \*6161  
REM: STARTING WEST OF THE DEADEND CROSSARM AT POLE \*6147 REMOVE ALL CONDUCTORS, EQUIPMENT AND POLES FROM POLE \*6147 TO POLE \*6161 ALONG THE RAILROAD ROW FOR DALEVILLE-342

NOTE:  
- ALL POLE REPLACEMENTS TO BE WITHIN 2' OF EXISTING POLE UNLESS OTHERWISE SPECIFIED  
- HOT STICK WORK REQUIRED



ISSUED FOR  
CONSTRUCTION REV 0  
09/20/2021

DESIGNER: C. BYDLON 848.707.8999  
ENG: D. WALKES 312.763.2198  
LRE: J. PATEL 610.725.7165

PECO WORK ORDER: 17238693  
E.C.\*: 0000253518  
CIRCUIT: LONDON-001, LONDON-002  
TOKENA-002, AVONDALE-002,  
DALEVILLE-341, DALEVILLE-342,  
CLAY-341, BRADFORD-346  
QUAD: 53EF56, 53GH56, 53GH78  
60AB56, 60B7, 60C5, 60C6  
60CD78, 60D5

**SAFETY NOTE:**  
CAUTION SHALL BE USED TO INSURE THAT THE PROPER PERSONAL PROTECTIVE CLOTHING AND EQUIPMENT ARE USED. HARD HAT, GLOVES, SAFETY GLASSES AND P.P.E. ARE A MUST WHEN WORKING AROUND OR ON ENERGIZED FACILITIES.

**CONTRACTORS NOTE:**  
CONTRACTOR TO CONTACT P.A.L.O.N.E. CALL (1-800-242-1776) THREE DAYS MINIMUM PRIOR TO BEGINNING WORK FOR UTILITY OBSTRUCTION MARKINGS IN STREET AND SIDEWALK. CARE SHOULD BE TAKEN TO LOCATE ALL OBSTRUCTIONS PRIOR TO EARTH REMOVAL. ALL OBSTRUCTIONS MAY NOT HAVE BEEN SHOWN ON THE DESIGN. EXCAVATION AND LOCATION OF OBSTRUCTIONS SHOULD BE FAR ENOUGH IN ADVANCE TO PERMIT REALIGNMENT OF DUCT AND (OR) MANHOLES IF NECESSARY.

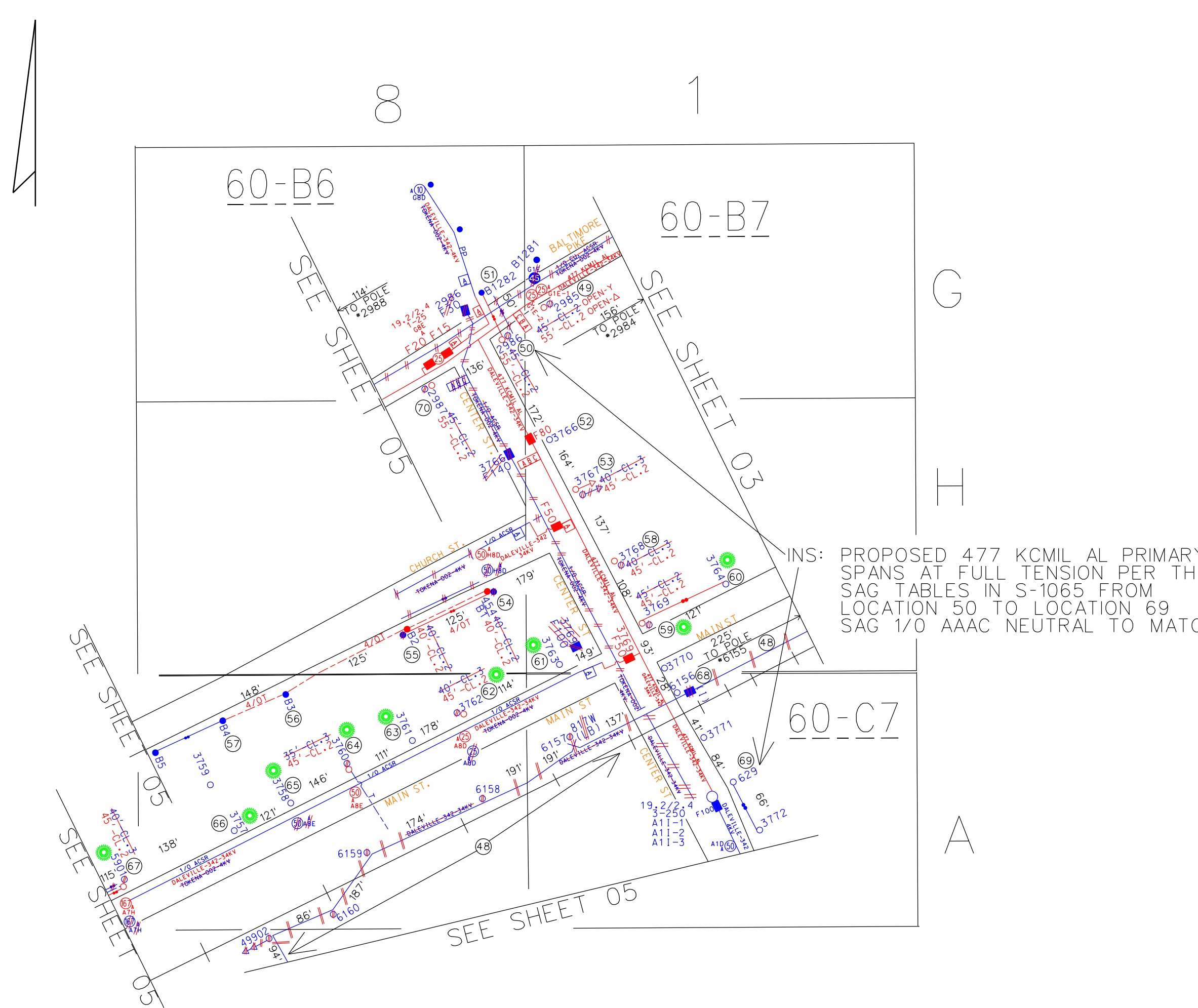
REV. #	DESCRIPTION	DATE
0	SUBMITTED FOR IFC	09/20/2021
B	REVISED PER LRE COMMENTS	07/29/2021
A	SUBMITTED FOR IFA	05/28/2021

DRAWN BY	DATE	JOB#/W.O. NO.
CBB	09/20/2021	17238693

**ICDAM**  
ENGINEERING SHEET 03 OF 20

PECO 2021 4KV UNIT SUB RETIREMENT  
LONDON-001, LONDON-002, TOKENA-002  
DELCHESTER REGION-CHESTER COUNTY  
AVONDALE BORO & NEW GARDEN TWSP.  
EAST & WEST MARLBOROUGH TWSPS.



INS: PROPOSED 477 KCMIL AL PRIMARY SPANS AT FULL TENSION PER THE SAG TABLES IN S-1065 FROM LOCATION 50 TO LOCATION 69 SAG 1/0 AAC NEUTRAL TO MATCH

- 48 POLE #6147 THROUGH #6161**  
 REM: STARTING WEST OF THE DEADEND CROSSARM AT POLE #6147 REMOVE ALL CONDUCTORS, EQUIPMENT AND POLES FROM POLE #6147 TO POLE #6161 ALONG THE RAILROAD ROW FOR DALEVILLE-342
- 49 POLE #2985 - XFMR 60-B7-GE-1-2**  
 REP: 45'-CL-2 POLE WITH 55'-CL-2 PENTA POLE (S-1140)  
 INS: 34KV TANGENT STRUCTURE ON #8 CROSSARM WITH A PH TAP AND 50K FUSE TO POLE #3763 FOR EXISTING A PH CONDUCTOR (S-1631-B)  
 INS: SECONDARY ATTACHMENTS (S-1323)  
 INS: APPROX 125' OF POLE TO POLE GUY TO POLE #3763 (S-1605)  
 TRF: EXISTING A PH CONDUCTOR TO POLE #3763 TO OPERATE AT 34KV  
 TRF: STREET LIGHT ATTACHMENT  
 REM: TOP POLE AND REMOVE ALL PECO EQUIPMENT ABOVE COMMUNICATIONS INCLUDING TOKENA-002 CONDUCTORS
- 50 POLE #2986**  
 REP: 45'-CL-2 POLE WITH 55'-CL-2 PENTA POLE (S-1140)  
 INS: 3 PHASE 3 WAY 34KV CORNER STRUCTURE WITH FIBERGLASS CROSSARM FOR TAP ARM THAT FEEDS DALEVILLE-342 TO POLE #3766 (S-1626-B & S-5128-C) DEADEND PROPOSED 477 KCMIL AL TO POLE #3766  
 INS: APPROX 50' OF A PH 1/0 AAC INTERPOSED UNDERBUILD PRIMARY AND 1/0 AAC NEUTRAL TO POLE #3766 (S-1605) DEADEND AND FRAME A PH TAP TO POLE #3766 FROM DEADEND TRIANGULAR CONFIGURATION WITHOUT CUTOFF ON #8 CROSSARM (S-1631-B)  
 INS: SECONDARY DEADEND ATTACHMENTS (S-1323)  
 INS: APPROX 45' OF POLE TO POLE GUY TO POLE #3766 (S-1605)  
 TRF: STREET LIGHT ATTACHMENT  
 REM: TOP POLE AND REMOVE ALL PECO EQUIPMENT ABOVE COMMUNICATIONS INCLUDING TOKENA-002 CONDUCTORS AND CUTOFF FOR WIRE TO POLE #3766 EXISTING A PH TAP TO POLE #3766
- 51 POLE #81282**  
 INS: DOUBLE DEADEND 1PH STRUCTURE TO CONNECT PROPOSED 1PH 1/0 AAC 4KV INTERPOSED UNDERBUILD PRIMARY AND 1/0 AAC NEUTRAL FROM POLE #2986 TO A PH CONDUCTOR TO XFMR 60-B6-G8D (S-0130)  
 INS: APPROX 125' OF POLE TO POLE GUY FROM POLE #2986 (S-1605)  
 TRF: CUT AND DEADEND EXISTING A PH TAP CONDUCTOR TO XFMR 60-B6-G8D CONDUCTOR ON THIS POLE WILL BE OPERATING AT 4KV
- 52 POLE #3766 - PROPOSED DALEVILLE-342 F80 FUSES**  
 INS: 3 PH 80K FUSES ON 34KV TANGENT STRUCTURE WITH 2" 10 CROSSARMS FOR PROPOSED DALEVILLE-342 CONDUCTORS (S-1652-C FIG. II)  
 REM: TOKENA-002 CONDUCTORS AND EQUIPMENT INCLUDING 140K FUSES
- 53 POLE #3767**  
 REP: 40'-CL-3 POLE WITH 45'-CL-2 PENTA POLE (S-1140)  
 INS: 34KV TANGENT STRUCTURE ON #8 CROSSARM WITH A PH TAP AND 50K FUSE TO POLE #81 FOR EXISTING A PH CONDUCTOR (S-1631-B)  
 INS: SECONDARY ATTACHMENTS (S-1323)  
 INS: ANCHOR GUY AT 14' LEAD LENGTH IN EAST DIRECTION (S-1605)  
 TRF: EXISTING A PH CONDUCTOR TO POLE #81 TO OPERATE AT 34KV  
 TRF: NEUTRAL CONDUCTOR  
 TRF: STREET LIGHT ATTACHMENT  
 REM: TOP POLE AND REMOVE ALL PECO EQUIPMENT ABOVE COMMUNICATIONS INCLUDING TOKENA-002 CONDUCTORS
- 54 POLE #81 - XFMR 60-B6-H8D**  
 REP: 40'-CL-2 POLE WITH 40'-CL-2 PENTA POLE PROVIDED BY VERIZON (S-1140)  
 INS: 50KVA DUAL RATIO XFMR WITH 34KVX4KV A PH 50KVA DUAL RATIO XFMR ON 4KV TAP SETTING WITH 50K FUSE AND SECONDARY ATTACHMENT (S-1652-C & S-5506-D)  
 INS: APPROX 125' OF 4/0 TRIPLEX SECONDARY TO POLE #82 (S-1605)  
 INS: APPROX 125' OF POLE TO POLE GUY TO POLE #82 (S-1605)  
 TRF: EXISTING A PH CONDUCTOR AND NEUTRAL CONDUCTOR  
 REM: TOP POLE AND REMOVE ALL PECO EQUIPMENT ABOVE COMMUNICATIONS INCLUDING TOKENA-002 CONDUCTOR TO POLE #82 AND XFMR  
 REM: OPEN WIRE SECONDARY TO POLE #82
- 55 POLE #82**  
 REP: 40'-CL-2 POLE WITH 40'-CL-2 PENTA POLE PROVIDED BY VERIZON (S-1140)  
 INS: APPROX 125' OF 4/0 TRIPLEX SECONDARY TO POLE #85  
 INS: POLE TO POLE GUY ATTACHMENT FOR GUY WIRE FROM POLE #81 (S-1605)  
 TRF: NEUTRAL CONDUCTOR  
 REM: TOP POLE AND REMOVE ALL PECO EQUIPMENT ABOVE COMMUNICATIONS INCLUDING TOKENA-002 CONDUCTOR FROM POLE #81  
 REM: OPEN WIRE SECONDARY TO POLE #83
- 56 POLE #83**  
 INS: APPROX 148' OF 4/0 TRIPLEX SECONDARY TO POLE #84  
 REM: OPEN WIRE SECONDARY TO POLE #84
- 57 POLE #84**  
 INS: SECONDARY DEADEND ATTACHMENT FOR 4/0 TRIPLEX FROM POLE #83 (S-1323)  
 REM: OPEN WIRE SECONDARY FROM POLE #83
- 58 POLE #3768**  
 REP: 40'-CL-3 POLE WITH 45'-CL-2 PENTA POLE (S-1140)  
 INS: 34KV TANGENT STRUCTURE ON #8 CROSSARM FOR PROPOSED DALEVILLE-342 CONDUCTORS (S-0130)  
 INS: SECONDARY ATTACHMENT (S-1323)  
 REM: TOP POLE AND REMOVE ALL PECO EQUIPMENT ABOVE COMMUNICATIONS INCLUDING TOKENA-002 CONDUCTORS
- 59 POLE #3769**  
 NOTE: VEGETATION WORK REQUIRED AT THIS LOCATION  
 REP: 45'-CL-2 POLE WITH 45'-CL-2 PENTA POLE (S-1140)  
 INS: 34KV TANGENT STRUCTURE ON #8 CROSSARM WITH A PH TAP AND 50K FUSE TO POLE #3763 FOR EXISTING A PH CONDUCTOR (S-1631-B)  
 INS: SECONDARY ATTACHMENTS (S-1323)  
 INS: APPROX 125' OF POLE TO POLE GUY TO POLE #3763 (S-1605)  
 TRF: EXISTING A PH CONDUCTOR TO POLE #3763 TO OPERATE AT 34KV  
 TRF: STREET LIGHT ATTACHMENT  
 REM: TOP POLE AND REMOVE ALL PECO EQUIPMENT ABOVE COMMUNICATIONS INCLUDING TOKENA-002 CONDUCTORS
- 60 POLE #3764**  
 NOTE: VEGETATION WORK REQUIRED AT THIS LOCATION  
 INS: POLE TO POLE GUY ATTACHMENT FOR GUY WIRE FROM POLE #3769 (S-1605)
- 61 POLE #3763**  
 NOTE: VEGETATION WORK REQUIRED AT THIS LOCATION  
 INS: 34KV POLE TOP PIN (S-0130)  
 REM: EXISTING POLE TOP PIN
- 62 POLE #3762 - XFMR 60-C6-ABD**  
 NOTE: VEGETATION WORK REQUIRED AT THIS LOCATION  
 REP: 40'-CL-3 POLE WITH 45'-CL-2 PENTA POLE (S-1140)  
 INS: 34KVX4KV A PH 25KV DUAL RATIO XFMR ON 4KV TAP SETTING WITH 50K FUSE (S-1652-A & S-5506-D)  
 INS: SECONDARY ATTACHMENT (S-1652-A)  
 TRF: EXISTING A PH CONDUCTOR  
 TRF: SECONDARY WIRE  
 TRF: STREET LIGHT ATTACHMENT  
 REM: TOP POLE AND REMOVE PECO EQUIPMENT ABOVE COMMUNICATIONS INCLUDING TOKENA-002 XFMR
- 63 POLE #3761**  
 NOTE: VEGETATION WORK REQUIRED AT THIS LOCATION  
 INS: 34KV POLE TOP PIN (S-0130)  
 REM: EXISTING POLE TOP PIN
- 64 POLE #3760 - XFMR 60-C6-ABE TO BE INSTALLED HERE**  
 NOTE: VEGETATION WORK REQUIRED AT THIS LOCATION  
 REP: 35'-CL-3 POLE WITH 45'-CL-2 PENTA POLE (S-1140)  
 INS: 34KVX4KV A PH 50KVA DUAL RATIO XFMR ON 4KV TAP SETTING WITH 50K FUSE (S-1652-A & S-5506-D)  
 INS: SECONDARY ATTACHMENT (S-1652-A)  
 TRF: EXISTING A PH CONDUCTOR  
 TRF: SECONDARY WIRE  
 TRF: STREET LIGHT ATTACHMENT  
 REM: TOP POLE AND REMOVE PECO EQUIPMENT ABOVE COMMUNICATIONS INCLUDING TOKENA-002 XFMR
- 65 POLE #3758 - XFMR 60-C6-ABE TO BE REMOVED HERE**  
 NOTE: VEGETATION WORK REQUIRED AT THIS LOCATION  
 INS: 34KV POLE TOP PIN (S-0130)  
 REM: EXISTING POLE TOP PIN
- 66 POLE #3757**  
 NOTE: VEGETATION WORK REQUIRED AT THIS LOCATION  
 INS: 34KV POLE TOP PIN (S-0130)  
 REM: EXISTING POLE TOP PIN
- 67 POLE #5901 - XFMR 60-C6-A7H**  
 NOTE: VEGETATION WORK REQUIRED AT THIS LOCATION  
 REP: 40'-CL-3 POLE WITH 45'-CL-2 PENTA POLE (S-1140)  
 INS: 34KVX4KV A PH 16KV DUAL RATIO XFMR ON 4KV TAP SETTING WITH 140K FUSE (S-1652-C & S-5506-D)  
 INS: SECONDARY ATTACHMENT (S-1652-C)  
 INS: APPROX 125' OF POLE TO POLE GUY TO POLE #7780 (S-1605)  
 TRF: EXISTING A PH CONDUCTOR  
 TRF: SECONDARY WIRE  
 TRF: STREET LIGHT ATTACHMENT  
 REM: TOP POLE AND REMOVE PECO EQUIPMENT ABOVE COMMUNICATIONS INCLUDING TOKENA-002 XFMR
- 68 POLE #6156 - EXISTING DALEVILLE-342 IN-LINE DISCONNECTS**  
 INS: DOUBLE DEADEND STRUCTURE USING PRE-ASSEMBLED FIBERGLASS CROSSARM TO CONNECT PROPOSED DALEVILLE-342 CONDUCTORS FROM POLE #3769 TO PROPOSED DALEVILLE-342 CONDUCTORS TO POLE #629 (S-5128-C)  
 REM: DALEVILLE-342 CROSSARMS CONDUCTORS TOWARDS POLE #6155 & #6157 AND IN-LINE DISCONNECT SWITCHES TOWARDS POLE #6155  
 REM: TOKENA-002 CONDUCTORS AND CROSSARMS
- 69 POLE #629 - 3-250KVA INTERPOSING XFMR AII-1-23**  
 INS: DEADEND INSULATORS ON EXISTING DOUBLE DEADEND CROSSARMS FOR PROPOSED DALEVILLE-342 CONDUCTORS FROM POLE #6156 (S-1651-B) INSTALL JUMPER WIRES TO CONNECT TO PRIMARY SIDE OF INTERPOSING XFMR  
 REM: EXISTING DALEVILLE-342 CONDUCTORS FROM POLE #6156
- 70 POLE #2987 - 1-25KVA INTERPOSING XFMR 60-B6-GBE**  
 REP: 45'-CL-2 POLE WITH 55'-CL-2 PENTA POLE (S-1140)  
 INS: 1PH A PH 25KVA 34KV TO 4KV INTERPOSING XFMR WITH 20A CURRENT LIMITING FUSE ON PRIMARY SIDE AND 15K FUSE ON SECONDARY SIDE (S-1660-A & S-5506-D)  
 INS: APPROX 136' OF A PH 1/0 AAC 4KV INTERPOSED UNDERBUILD PRIMARY AND 1/0 NEUTRAL TO POLE #2986 (S-1062)  
 INS: SECONDARY ATTACHMENT (S-1660-A)  
 TRF: PREPARE SECONDARY WIRE FOR CONVERSION  
 REM: TOP POLE AND REMOVE ALL PECO EQUIPMENT ABOVE COMMUNICATIONS INCLUDING TOKENA-002 CONDUCTORS

DESIGNER: C. BYDLON PECO WORK ORDER: 17238693  
 484.707.8999 E.C.#: 0000253518  
 ENG: D. WALKES CIRCUIT: LONDON-001, LONDON-002  
 312.763.2198 TOKENA-002, AVONDALE-002,  
 LRE: J. PATEL DALEVILLE-341, DALEVILLE-342,  
 610.725.7165 CLAY-341, BRADFORD-346  
 QUAD: 53EF56, 53GH56, 53GH78  
 60AB56, 60B7, 60C5, 60C6  
 60CD78, 60D5

NOTE:  
 - ALL POLE REPLACEMENTS TO BE WITHIN 2' OF EXISTING POLE UNLESS OTHERWISE SPECIFIED  
 - HOT STICK WORK REQUIRED



SAFETY NOTE:  
 CAUTION SHALL BE USED TO INSURE THAT THE PROPER PERSONAL PROTECTIVE CLOTHING AND EQUIPMENT ARE USED. HARD HAT, GLOVES, SAFETY GLASSES AND P.P.E. ARE A MUST WHEN WORKING AROUND OR ON ENERGIZED FACILITIES.

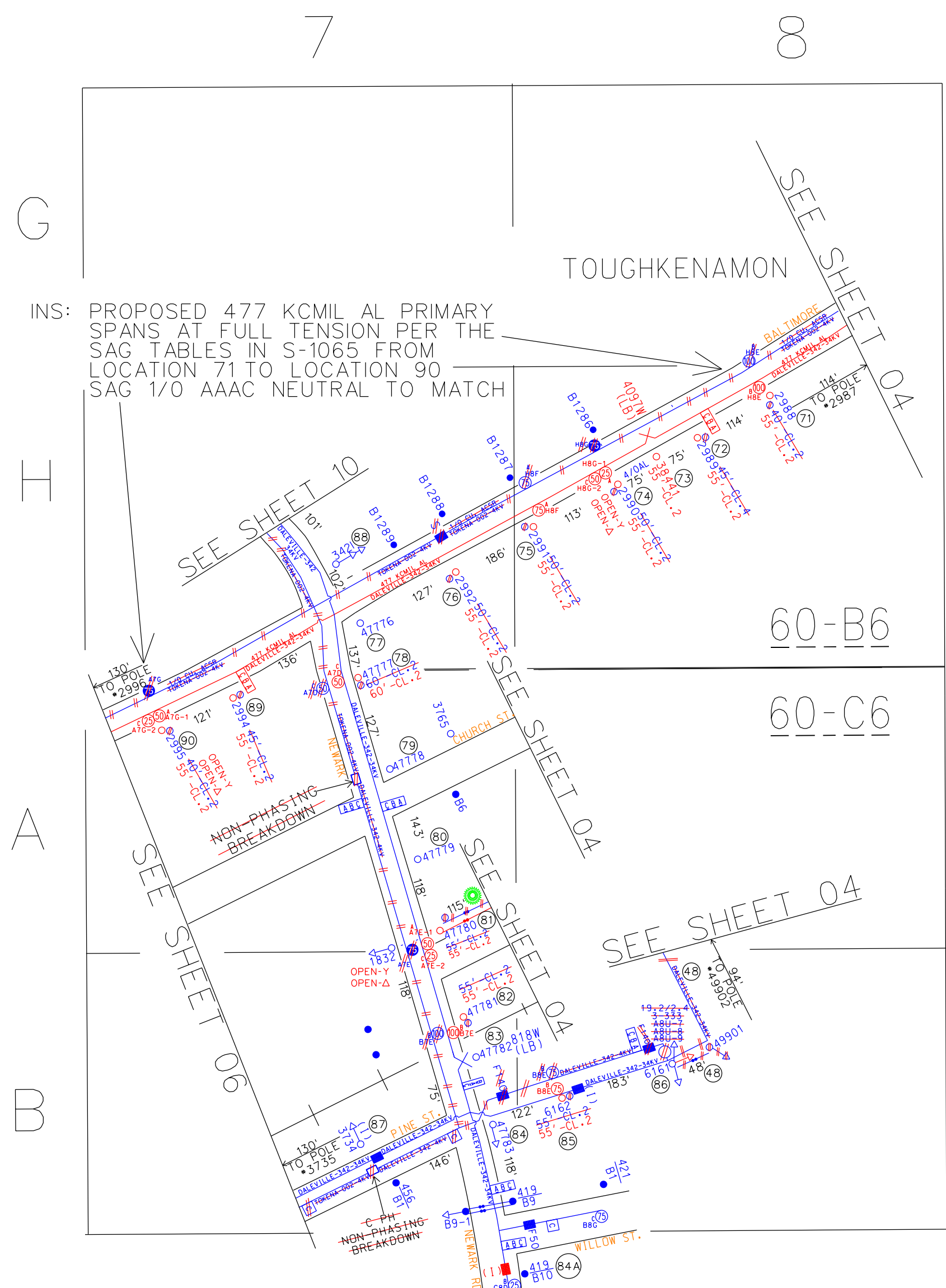
CONTRACTORS NOTE:  
 CONTRACTOR TO CONTACT P.A. ONE CALL (1-800-242-1776) THREE DAYS (MINIMUM) PRIOR TO BEGINNING WORK FOR UTILITY OBSTRUCTION MARKINGS IN STREET AND SIDEWALK. CARE SHOULD BE TAKEN TO LOCATE ALL OBSTRUCTIONS PRIOR TO EARTH REMOVAL. ALL OBSTRUCTIONS MAY NOT HAVE BEEN SHOWN ON THE DESIGN. EXCAVATION AND LOCATION OF OBSTRUCTIONS SHOULD BE FAR ENOUGH IN ADVANCE TO PERMIT REALIGNMENT OF DUCT AND (OR) MANHOLES IF NECESSARY.

REV. #	DESCRIPTION	DATE	DRAWN BY	DATE	JOB/W.O. NO.
0	SUBMITTED FOR IFC	09/20/2021	CBB	09/20/2021	17238693
B	REVISED PER LRE COMMENTS	07/29/2021			
A	SUBMITTED FOR IFA	05/28/2021			

**IKDAM ENGINEERING** SHEET 04 OF 20

PECO 2021 4KV UNIT SUB RETIREMENT  
 LONDON-001, LONDON-002, TOKENA-002  
 DELCHESTER REGION-CHESTER COUNTY  
 AVONDALE BORO & NEW GARDEN TWSP.  
 EAST & WEST MARLBOROUGH TWSPS.

INS: PROPOSED 477 KCML AL PRIMARY SPANS AT FULL TENSION PER THE SAG TABLES IN S-1065 FROM LOCATION 71 TO LOCATION 90 SAG 1/0 AAAC NEUTRAL TO MATCH



- 71) POLE #2988 - XFMR 60-C6-B6-HBE  
 REP: 40'-CL 2 POLE WITH 55'-CL 2 PENTA POLE (S-1140)  
 INS: 34KV TANGENT STRUCTURE WITH 34KV B PH 100KVA XFMR WITH 10A CURRENT LIMITING FUSE AND SECONDARY ATTACHMENT (S-1651-A & S-5506-D)  
 INS: POLE MOLDING FOR UG SECONDARY SERVICE (S-1172)  
 TRF: PREPARE SECONDARY WIRE FOR CONVERSION  
 TRF: STREET LIGHT ATTACHMENT  
 REM: TOP POLE AND REMOVE ALL PECO EQUIPMENT ABOVE COMMUNICATIONS INCLUDING TOKENA-002 CONDUCTORS AND XFMR
- 72) POLE #2989  
 REP: 45'-CL 4 POLE WITH 55'-CL 2 PENTA POLE (S-1140)  
 INS: 34KV TANGENT STRUCTURE ON \*8 CROSSARM FOR PROPOSED DALEVILLE-342 CONDUCTORS (S-0130)  
 INS: SECONDARY ATTACHMENT (S-1323)  
 TRF: PREPARE SECONDARY WIRE FOR CONVERSION  
 TRF: TOP POLE AND REMOVE ALL PECO EQUIPMENT ABOVE COMMUNICATIONS INCLUDING TOKENA-002 CONDUCTORS
- 73) POLE #38441 - 4097W LB SW  
 INS: 55'-CL 2 PENTA POLE APPROX 75' WEST OF POLE #2989 & 75' EAST OF POLE #2990 (S-1140)  
 INS: 34KV HORIZONTAL MOUNT 600A GANG OPERATED LOAD BREAK SWITCH IN THE NORMALLY CLOSED POSITION FOR DALEVILLE-342 (S-1644-E)  
 INS: GROUNDING FOR LOAD BREAK SWITCH (S-1611)  
 INS: NEUTRAL BRACKET EXTENSION ATTACHMENT (S-1644-E)
- 74) POLE #2990 - XFMR 60-B6-HBG-12  
 REP: 50'-CL 2 POLE WITH 55'-CL 2 PENTA POLE (S-1140)  
 INS: 34KV TANGENT STRUCTURE WITH 34KV A PH 75KVA XFMR WITH 10A CURRENT LIMITING FUSE AND 50KVA C PH XFMR WITH 10A CURRENT LIMITING FUSE FOR 3 PH OPEN WYE OPEN DELTA XFMR INSTALLATION (S-1656-A)  
 TRF: PREPARE SECONDARY WIRE FOR CONVERSION  
 TRF: STREET LIGHT ATTACHMENT  
 REM: TOP POLE AND REMOVE ALL PECO EQUIPMENT ABOVE COMMUNICATIONS INCLUDING TOKENA-002 CONDUCTORS AND XFMR
- 75) POLE #2991 - XFMR 60-B6-HBE  
 REP: 50'-CL 2 POLE WITH 55'-CL 2 PENTA POLE (S-1140)  
 INS: 34KV TANGENT STRUCTURE WITH 34KV A PH 75KVA XFMR WITH 10A CURRENT LIMITING FUSE AND SECONDARY ATTACHMENT (S-1651-A & S-5506-D)  
 TRF: PREPARE SECONDARY WIRE FOR CONVERSION  
 TRF: STREET LIGHT ATTACHMENT  
 REM: TOP POLE AND REMOVE ALL PECO EQUIPMENT ABOVE COMMUNICATIONS INCLUDING TOKENA-002 CONDUCTORS AND XFMR
- 76) POLE #2992  
 REP: 50'-CL 2 POLE WITH 55'-CL 2 PENTA POLE (S-1140)  
 INS: 34KV TANGENT STRUCTURE ON \*8 CROSSARM FOR PROPOSED DALEVILLE-342 CONDUCTORS (S-0130)  
 INS: SECONDARY ATTACHMENT (S-1323)  
 TRF: PREPARE SECONDARY WIRE FOR CONVERSION  
 TRF: STREET LIGHT ATTACHMENT  
 REM: TOP POLE AND REMOVE ALL PECO EQUIPMENT ABOVE COMMUNICATIONS INCLUDING TOKENA-002 CONDUCTORS AND CLOSED DISCONNECTS
- 77) POLE #47776  
 INS: 3 PHASE 4 WAY 34KV CORNER STRUCTURE FRAMED AS A 2 WAY CORNER STRUCTURE WITH FIBERGLASS CROSSARM FOR 60' TAP ARM FOR DALEVILLE-342 (S-1628-B & S-5128-C). INSTALL DEADEND INSULATORS ON EACH SIDE OF THE CROSSARMS FOR EXISTING DALEVILLE-342 DEADEND PROPOSED 477 KCML AL FROM POLE #2992 AND TO POLE #2994 ON FIBERGLASS CROSSARM  
 TRF: DALEVILLE-342 CONDUCTORS  
 REM: EXISTING DALEVILLE-342 CROSSARM AND PINS  
 REM: TOKENA-002 CONDUCTORS AND EQUIPMENT
- 78) POLE #47777 - XFMR 60-C6-A7D  
 REP: 60'-CL 2 POLE WITH 60'-CL 2 PENTA POLE (S-1140)  
 INS: 34KV TANGENT STRUCTURE WITH 34KV C PH 50KVA XFMR WITH 10A CURRENT LIMITING FUSE AND SECONDARY ATTACHMENT (S-1651-A & S-5506-D)  
 TRF: DALEVILLE-342 34KV CONDUCTORS  
 TRF: PREPARE SECONDARY WIRE FOR CONVERSION  
 REM: TOP POLE AND REMOVE ALL PECO EQUIPMENT ABOVE COMMUNICATIONS INCLUDING TOKENA-002 CONDUCTORS AND XFMR
- 79) POLE #47778 - TOKENA-002 & DALEVILLE-342 4KV BREAKDOWN  
 INS: 34KV TANGENT STRUCTURE ON \*8 CROSSARM FOR EXISTING DALEVILLE-342 CONDUCTORS (S-0130)  
 TRF: DALEVILLE-342 34KV CONDUCTORS  
 REM: EXISTING CROSSARM AND PINS FOR DALEVILLE-342 34KV CIRCUIT  
 REM: TOKENA-002 CONDUCTORS AND EQUIPMENT INCLUDING NORMALLY OPEN DISCONNECTS  
 REM: DALEVILLE-342 4KV CONDUCTORS AND EQUIPMENT
- 80) POLE #47779  
 INS: 34KV TANGENT STRUCTURE ON \*8 CROSSARM FOR EXISTING DALEVILLE-342 CONDUCTORS (S-0130)  
 TRF: DALEVILLE-342 34KV CONDUCTORS  
 REM: EXISTING CROSSARM AND PINS FOR DALEVILLE-342 34KV CIRCUIT  
 REM: DALEVILLE-342 4KV CONDUCTORS AND EQUIPMENT
- 81) POLE #47780 - XFMR 60-C6-A7E-12  
 NOTE: VEGETATION WORK REQUIRED AT THIS LOCATION  
 REP: 55'-CL 2 POLE WITH 55'-CL 2 PENTA POLE (S-1140)  
 INS: 34KV 50KVA A PH XFMR WITH 10A CURRENT LIMITING FUSE AND 25KVA C PH XFMR WITH 10A CURRENT LIMITING FUSE FOR 3 PH OPEN WYE OPEN DELTA XFMR INSTALLATION (S-1656-A)  
 INS: SECONDARY ATTACHMENT (S-1656-A)  
 TRF: DALEVILLE-342 34KV CONDUCTORS  
 TRF: PREPARE SECONDARY WIRE FOR CONVERSION  
 TRF: STREET LIGHT ATTACHMENT  
 REM: TOP POLE AND REMOVE ALL PECO EQUIPMENT ABOVE COMMUNICATIONS INCLUDING DALEVILLE-342 4KV CONDUCTORS AND XFMR
- 82) POLE #47781 - XFMR 60-C6-B7E  
 REP: 55'-CL 2 POLE WITH 55'-CL 2 PENTA POLE (S-1140)  
 INS: 34KV TANGENT STRUCTURE WITH 34KV B PH 100KVA XFMR WITH 10A CURRENT LIMITING FUSE AND SECONDARY ATTACHMENT (S-1651-A & S-5506-D)  
 INS: POLE MOLDING FOR UG SECONDARY SERVICE (S-1172)  
 TRF: PREPARE SECONDARY WIRE FOR CONVERSION  
 TRF: TOP POLE AND REMOVE ALL PECO EQUIPMENT ABOVE COMMUNICATIONS INCLUDING DALEVILLE-342 4KV CONDUCTORS AND XFMR
- 83) POLE #47782 - 818W LB SW  
 REM: DALEVILLE-342 4KV CONDUCTORS AND EQUIPMENT INCLUDING DEADEND INSULATORS
- 84) POLE #47783 - DALEVILLE-342 F140 DISCONNECTS  
 REM: DALEVILLE-342 4KV CONDUCTORS AND EQUIPMENT INCLUDING 3 PH F140 CLOSED DISCONNECTS  
 REM: DALEVILLE-342 4KV C PH CONDUCTOR TO POLE #3734
- 84A) POLE #810 - PROPOSED DALEVILLE-342 IN-LINE DISCONNECTS & XFMR 60-C6-CBD  
 INS: 34KV IN-LINE DISCONNECT SWITCHES ON THE DALEVILLE-342 CONDUCTOR NORTH OF POLE #810 TOWARD POLE #89 (S-1640-A FIG. 1)  
 TRF: DALEVILLE-342 CONDUCTORS
- 85) POLE #6162 - XFMR 60-C6-BBE  
 REP: 55'-CL 2 POLE WITH 55'-CL 2 PENTA POLE (S-1140)  
 INS: 34KV TANGENT STRUCTURE WITH 34KV B PH 75KVA XFMR WITH 10A CURRENT LIMITING FUSE AND SECONDARY ATTACHMENT (S-1651-A & S-5506-D)  
 INS: POLE MOLDING FOR UG SECONDARY SERVICE (S-1172)  
 TRF: DALEVILLE-342 34KV CONDUCTORS & IN-LINE DISCONNECT SWITCHES  
 TRF: PREPARE SECONDARY WIRE FOR CONVERSION  
 REM: TOP POLE AND REMOVE ALL PECO EQUIPMENT ABOVE COMMUNICATIONS INCLUDING DALEVILLE-342 4KV CONDUCTORS AND XFMR
- 86) POLE #6161 - 3-333KVA INTERPOSING XFMR 60-C6-ABU-7.8.9  
 INS: SINGLE DEADEND STRUCTURE USING PRE-ASSEMBLED FIBERGLASS CROSSARM (S-5128-C) CUT AND DEADEND EXISTING DALEVILLE-342 CONDUCTORS FROM POLE #6162 ON FIBERGLASS CROSSARM  
 INS: ANCHOR GUY AT 20' LEAD LENGTH IN EAST DIRECTION (S-1605)  
 TRF: DALEVILLE-342 34KV CONDUCTORS FROM POLE #6162  
 REM: DALEVILLE-342 34KV CROSSARMS, PINS, AND CONDUCTORS TO POLE #4900  
 REM: 3-333KVA INTERPOSING XFMR AND CUTOUPS  
 REM: DALEVILLE-342 4KV CONDUCTORS AND EQUIPMENT INCLUDING CUTOUPS
- 87) POLE #3734 - DALEVILLE-342 IN-LINE DISC. & 4KV C PH BREAKDOWN  
 REM: DALEVILLE-342 4KV C PH CONDUCTOR AND EQUIPMENT INCLUDING DEADEND INSULATOR  
 REM: TOKENA-002 4KV C PH CONDUCTOR AND EQUIPMENT INCLUDING OPEN DISCONNECT
- 88) POLE #3421  
 INS: 34KV TANGENT STRUCTURE ON 2-\*8 CROSSARMS FOR EXISTING DALEVILLE-342 CONDUCTORS (S-0130)  
 TRF: DALEVILLE-342 CONDUCTORS  
 REM: DALEVILLE-342 CROSSARMS AND PINS  
 REM: TOKENA-002 CONDUCTORS AND EQUIPMENT
- 89) POLE #2994  
 REP: 45'-CL 2 POLE WITH 55'-CL 2 PENTA POLE (S-1140)  
 INS: 34KV TANGENT STRUCTURE ON \*8 CROSSARM FOR PROPOSED DALEVILLE-342 CONDUCTORS (S-0130)  
 INS: NEUTRAL ATTACHMENT (S-1157)  
 TRF: STREET LIGHT ATTACHMENT  
 REM: TOP POLE AND REMOVE ALL PECO EQUIPMENT ABOVE COMMUNICATIONS INCLUDING TOKENA-002 CONDUCTORS
- 90) POLE #2995 - XFMR 60-C6-A7G-12  
 REP: 40'-CL 2 POLE WITH 55'-CL 2 PENTA POLE (S-1140)  
 INS: 34KV 50KVA A PH XFMR WITH 10A CURRENT LIMITING FUSE AND 25KVA C PH XFMR WITH 10A CURRENT LIMITING FUSE FOR 3 PH OPEN WYE OPEN DELTA XFMR INSTALLATION (S-1656-A)  
 INS: SECONDARY ATTACHMENT (S-1656-A)  
 TRF: PREPARE SECONDARY WIRE FOR CONVERSION  
 REM: TOP POLE AND REMOVE ALL PECO EQUIPMENT ABOVE COMMUNICATIONS INCLUDING TOKENA-002 CONDUCTORS AND XFMR

DESIGNER: C. BYDLON PECO WORK ORDER: 17238693  
 484.707.8999 E.C.#: 000025318  
 ENG: D. WALKES CIRCUIT: LONDON-001, LONDON-002  
 312.763.2198 TOKENA-002, AVONDALE-002,  
 LRE: J. PATEL DALEVILLE-341, DALEVILLE-342,  
 610.725.7165 CLAY-341, BRADFORD-346  
 QUAD: 53EF56, 53GH56, 53GH78  
 60AB56, 60B7, 60C5, 60C6  
 60CD78, 60D5

NOTE:  
 - ALL POLE REPLACEMENTS TO BE WITHIN 2' OF EXISTING POLE UNLESS OTHERWISE SPECIFIED  
 - HOT STICK WORK REQUIRED



ISSUED FOR CONSTRUCTION REV 0 09/20/2021

**SAFETY NOTE:**  
 CAUTION SHALL BE USED TO INSURE THAT THE PROPER PERSONAL PROTECTIVE CLOTHING AND EQUIPMENT ARE USED. HARD HAT, GLOVES, SAFETY GLASSES AND P.P.E. ARE A MUST WHEN WORKING AROUND OR ON ENERGIZED FACILITIES.

**CONTRACTORS NOTE:**  
 CONTRACTOR TO CONTACT P.A. ONE CALL (1-800-242-1776) THREE DAYS (MINIMUM) PRIOR TO BEGINNING WORK FOR UTILITY OBSTRUCTION MARKINGS IN STREET AND SIDEWALK. CARE SHOULD BE TAKEN TO LOCATE ALL OBSTRUCTIONS PRIOR TO EARTH REMOVAL. ALL OBSTRUCTIONS MAY NOT HAVE BEEN SHOWN ON THE DESIGN. EXCAVATION AND LOCATION OF OBSTRUCTIONS SHOULD BE FAR ENOUGH IN ADVANCE TO PERMIT REALIGNMENT OF DUCT AND (OR) MANHOLES IF NECESSARY.

REV. #	DESCRIPTION	DATE
0	SUBMITTED FOR IFC	09/20/2021
B	REVISED PER LRE COMMENTS	07/29/2021
A	SUBMITTED FOR IFA	05/28/2021

REVISIONS

ICDAM ENGINEERING	SHEET 05 OF 20	
PECO 2021 4KV UNIT SUB RETIREMENT LONDON-001, LONDON-002, TOKENA-002 DELCHESTER REGION-CHESTER COUNTY AVONDALE BORO & NEW GARDEN TWSP. EAST & WEST MARLBOROUGH TWSPS.		
DRAWN BY	DATE	JOB/W.O. NO.
CBB	09/20/2021	17238693

5

6

7

60-C6

INS: PROPOSED 477 KCML AL PRIMARY SPANS AT FULL TENSION PER THE SAG TABLES IN S-1065 FROM LOCATION 91 TO LOCATION 109 SAG 1/0 AAC NEUTRAL TO MATCH

SEE SHEET 05

SEE SHEET 05

TOUGHKENAMON

PENNSYLVANIA RAILROAD (OCTORARO BRANCH)

W CHURCH ST.

- 91) POLE \*2996 - XFMR 60-C6-A7F  
NOTE: VEGETATION WORK REQUIRED AT THIS LOCATION  
REP: 45'-CL-2 POLE WITH 55'-CL-2 PENTA POLE (S-1140)  
INS: 34KV TANGENT STRUCTURE WITH 34KV C PH 25KVA XFMR WITH 10A CURRENT LIMITING FUSE AND SECONDARY ATTACHMENT (S-1651-A & S-5506-D)  
TRF: PREPARE SECONDARY WIRE FOR CONVERSION  
REM: TOP POLE AND REMOVE ALL PECO EQUIPMENT ABOVE COMMUNICATIONS INCLUDING TOKENA-002 CONDUCTORS AND XFMR
- 92) POLE \*2997 - XFMR 60-C6-A6E-1,2  
NOTE: VEGETATION WORK REQUIRED AT THIS LOCATION  
REP: 45'-CL-2 POLE WITH 55'-CL-2 PENTA POLE (S-1140)  
INS: 34KV TANGENT STRUCTURE WITH 34KV C PH 25KVA XFMR WITH 10A CURRENT LIMITING FUSE FOR 3 PH OPEN WYE OPEN DELTA XFMR INSTALLATION (S-1656-A)  
INS: SECONDARY ATTACHMENT (S-1656-A)  
TRF: PREPARE SECONDARY WIRE FOR CONVERSION  
TRF: STREET LIGHT ATTACHMENT  
REM: TOP POLE AND REMOVE ALL PECO EQUIPMENT ABOVE COMMUNICATIONS INCLUDING TOKENA-002 CONDUCTORS AND XFMR
- 93) POLE \*2998 - TOKENA-002 3-100 CAP BANK  
NOTE: VEGETATION WORK REQUIRED AT THIS LOCATION  
REP: 40'-CL-3 POLE WITH 55'-CL-2 PENTA POLE (S-1140)  
INS: 34KV TANGENT STRUCTURE ON 8 CROSSARM FOR PROPOSED DALEVILLE-342 CONDUCTORS (S-0130)  
INS: SECONDARY ATTACHMENT (S-1323)  
REM: TOP POLE AND REMOVE ALL PECO EQUIPMENT ABOVE COMMUNICATIONS INCLUDING TOKENA-002 CONDUCTORS AND CAP BANK

- 94) POLE \*2999  
NOTE: VEGETATION WORK REQUIRED AT THIS LOCATION  
REP: 45'-CL-2 POLE WITH 55'-CL-2 PENTA POLE (S-1140)  
INS: 34KV TANGENT STRUCTURE ON 8 CROSSARM FOR PROPOSED DALEVILLE-342 CONDUCTORS (S-0130)  
INS: SECONDARY ATTACHMENT (S-1323)  
TRF: STREET LIGHT ATTACHMENT  
REM: TOP POLE AND REMOVE ALL PECO EQUIPMENT ABOVE COMMUNICATIONS INCLUDING TOKENA-002 CONDUCTORS
- 95) POLE \*3000 - XFMR 60-C6-A6D  
REP: 50'-CL-2 POLE WITH 55'-CL-2 PENTA POLE (S-1140)  
INS: 34KV TANGENT STRUCTURE WITH 34KV B PH 25KVA XFMR WITH 10A CURRENT LIMITING FUSE AND SECONDARY ATTACHMENT (S-1651-A & S-5506-D)  
INS: APPROX 48' OF POLE TO POLE GUY TO POLE \*B1298 (S-1605)  
TRF: PREPARE SECONDARY WIRE FOR CONVERSION  
TRF: STREET LIGHT ATTACHMENT  
REM: TOP POLE AND REMOVE ALL PECO EQUIPMENT ABOVE COMMUNICATIONS INCLUDING TOKENA-002 CONDUCTORS AND XFMR
- 96) POLE \*B1296  
INS: POLE TO POLE GUY ATTACHMENT FOR GUY WIRE FROM POLE \*3000 (S-1605)  
REM: EXISTING POLE TO POLE GUY ATTACHMENT

- 97) POLE \*38442 - 4098W LB SW  
INS: 55'-CL-2 PENTA POLE APPROX 63' WEST OF POLE \*3000 1/2 63' EAST OF POLE \*3002 (S-1140)  
INS: 34KV TANGENT STRUCTURE ON 8 CROSSARM FOR LOAD BREAK SWITCH IN THE NORMALLY OPEN POSITION (S-1644-E) SWITCH TO SERVE AS OPEN POINT BETWEEN DALEVILLE-341 & CLAY-341  
INS: GROUNDING FOR LOAD BREAK SWITCH (S-1611)  
INS: SECONDARY BRACKET EXTENSION ATTACHMENT (S-1644-E)
- 98) POLE \*3002  
REP: 40'-CL-2 POLE WITH 55'-CL-2 PENTA POLE (S-1140)  
INS: 34KV TANGENT STRUCTURE ON 8 CROSSARM FOR PROPOSED CLAY-341 CONDUCTORS (S-0130)  
INS: SECONDARY ATTACHMENT (S-1323)  
REM: TOP POLE AND REMOVE ALL PECO EQUIPMENT ABOVE COMMUNICATIONS INCLUDING TOKENA-002 CONDUCTORS
- 99) POLE \*3003  
REP: 40'-CL-2 POLE WITH 55'-CL-2 PENTA POLE (S-1140)  
INS: 34KV TANGENT STRUCTURE ON 8 CROSSARM FOR PROPOSED CLAY-341 CONDUCTORS (S-0130)  
INS: SECONDARY ATTACHMENT (S-1323)  
TRF: STREET LIGHT ATTACHMENT  
REM: TOP POLE AND REMOVE ALL PECO EQUIPMENT ABOVE COMMUNICATIONS INCLUDING TOKENA-002 CONDUCTORS

- 100) POLE \*3004  
REP: 40'-CL-4 POLE WITH 55'-CL-2 PENTA POLE (S-1140)  
INS: 3 PHASE 3 WAY 34KV CORNER STRUCTURE WITH 34KV TANGENT STRUCTURE ON 8 CROSSARM FOR PROPOSED CLAY-341 CONDUCTORS (S-0130)  
INS: SECONDARY ATTACHMENT (S-1323)  
REM: TOP POLE AND REMOVE ALL PECO EQUIPMENT ABOVE COMMUNICATIONS INCLUDING TOKENA-002 CONDUCTORS
- 101) POLE \*3005  
REP: 50'-CL-2 POLE WITH 55'-CL-2 PENTA POLE (S-1140)  
INS: 3 PHASE 3 WAY 34KV CORNER STRUCTURE WITH 34KV TANGENT STRUCTURE ON 8 CROSSARM FOR FEEDS CLAY-341 TO POLE \*3731  
INS: SECONDARY ATTACHMENT (S-1323)  
INS: APPROX 47' OF POLE TO POLE GUY TO POLE \*3008 (S-1605)  
TRF: STREET LIGHT ATTACHMENT  
REM: TOP POLE AND REMOVE ALL PECO EQUIPMENT ABOVE COMMUNICATIONS INCLUDING TOKENA-002 CONDUCTORS TO POLE \*3007 & \*3731
- 102) POLE \*3006  
INS: POLE TO POLE GUY ATTACHMENT FOR GUY WIRE FROM POLE \*3005 (S-1605)  
REM: EXISTING POLE TO POLE GUY ATTACHMENT
- 103) POLE \*3731  
REP: 35'-CL-2 POLE WITH 50'-CL-2 PENTA POLE (S-1140)  
INS: 34KV TANGENT STRUCTURE WITH 34KV A PH 25KVA HORIZONTAL MOUNT 600A GANG OPERATED LOAD BREAK SWITCH IN THE NORMALLY OPEN POSITION (S-1644-E) SWITCH TO SERVE AS OPEN POINT BETWEEN CLAY-341 & CLAY-341  
INS: GROUNDING FOR LOAD BREAK SWITCH (S-1611)  
INS: SECONDARY BRACKET EXTENSION ATTACHMENT (S-1644-E)
- 104) POLE \*38443 - 4099W LB SW  
INS: 50'-CL-2 PENTA POLE APPROX 74' SOUTH OF POLE \*3731 & 74' NORTH OF POLE \*3732 (S-1140)  
INS: 34KV HORIZONTAL MOUNT 600A GANG OPERATED LOAD BREAK SWITCH IN THE NORMALLY OPEN POSITION (S-1644-E) SWITCH TO SERVE AS OPEN POINT BETWEEN CLAY-341 & CLAY-341  
INS: GROUNDING FOR LOAD BREAK SWITCH (S-1611)  
INS: SECONDARY BRACKET EXTENSION ATTACHMENT (S-1644-E)
- 105) POLE \*3732 - XFMR 60-C6-C5E  
REP: 35'-CL-5 POLE WITH 45'-CL-2 PENTA POLE (S-1140)  
INS: 34KV TANGENT STRUCTURE WITH 34KV A PH 25KVA XFMR WITH 10A CURRENT LIMITING FUSE AND SECONDARY ATTACHMENT (S-1626-D)  
TRF: PREPARE SECONDARY WIRE FOR CONVERSION  
TRF: STREET LIGHT ATTACHMENT  
REM: TOP POLE AND REMOVE ALL PECO EQUIPMENT ABOVE COMMUNICATIONS INCLUDING TOKENA-002 CONDUCTORS AND XFMR
- 106) POLE \*3733  
REP: 35'-CL-5 POLE WITH 50'-CL-2 PENTA POLE (S-1140)  
INS: 3 PHASE 3 WAY 34KV CORNER STRUCTURE WITH GUTOUTS AND 34KV F30 FUSES INSTALLED OPPOSITE OF THE TAP-OFF SIDE FOR #10 CROSSARM TAP ARM THAT FEEDS TO XFMR 60-C6-CSF & C5H (S-1626-D)  
INS: SECONDARY ATTACHMENTS (S-1626-D)  
INS: GROUNDING FOR LOAD BREAK SWITCH TO POLE \*38449 (S-1605)  
TRF: CONDUCTORS THAT FEED XFMR 60-C6-CSF & C5H  
REM: TOP POLE AND REMOVE ALL PECO EQUIPMENT ABOVE COMMUNICATIONS INCLUDING TOKENA-002 CONDUCTORS AND CUTOUS
- 107) POLE \*38449  
INS: 30'-CL-2 PENTA POLE APPROX 32' EAST OF POLE \*3733 ON THE EAST SIDE OF REESE ST (S-1140)  
INS: POLE TO POLE GUY ATTACHMENT FOR GUY WIRE FROM POLE \*3733 (S-1605)  
INS: ANCHOR GUY AT 14' LEAD LENGTH IN EAST DIRECTION (S-1605)
- 108) POLE \*3733-2 - XFMR 60-C6-CSF & C5H  
INS: 34KVX4KV A PH 25KVA AND C PH 25KVA DUAL RATIO XFMR ON 4KV TAP OFF LINE WITH 30K FUSES FOR 3 PH OPEN WYE OPEN DELTA XFMR INSTALLATION ON DEADEND STRUCTURE (S-1651-C, S-1656-A, S-5506-D)
- 109) POLE \*6164  
INS: 3 PHASE 3 WAY 34KV VERTICAL CORNER STRUCTURE FROM POLE \*3733 TO EXISTING CLAY-341 FROM POLE \*634 (S-1626-E FIG. I), REPLACE INSULATORS FOR EXISTING CLAY-341 CONDUCTORS  
INS: APPROX 32' OF DOUBLE POLE TO POLE GUY TO POLE \*6163 (S-1626-E FIG. I)  
REM: TOKENA-002 CONDUCTORS AND EQUIPMENT ABOVE COMMUNICATIONS INCLUDING TOKENA-002 CONDUCTORS AND WOODEN GUY INSULATORS IN THE NORTH AND EAST DIRECTIONS

- 112) POLE \*3741 - XFMR 60-C6-C6D TO BE REMOVED HERE  
REP: 50'-CL-2 POLE WITH 55'-CL-2 PENTA POLE (S-1140)  
INS: 3 PHASE 3 WAY VERTICAL CORNER STRUCTURE FOR EXISTING CLAY-341 CONDUCTORS (S-1625-C FIG. I)  
INS: SECONDARY ATTACHMENT (S-1323)  
INS: APPROX 58' OF DOUBLE POLE TO POLE GUY TO POLE \*B8 (S-1605)  
TRF: STREET LIGHT ATTACHMENT  
REM: TOP POLE AND REMOVE ALL PECO EQUIPMENT ABOVE COMMUNICATIONS INCLUDING TOKENA-002 CONDUCTORS, XFMR & WOODEN GUY INSULATORS
- 113) POLE \*B8  
INS: TWO POLE TO POLE GUY ATTACHMENTS FOR GUY WIRE FROM POLE \*3741 (S-1605)  
REM: EXISTING POLE TO POLE GUY ATTACHMENT
- 114) POLE \*3740 - XFMR 60-C6-C6D TO BE INSTALLED HERE  
REP: 50'-CL-2 POLE WITH 55'-CL-2 PENTA POLE (S-1140)  
INS: 34KV TANGENT STRUCTURE WITH 34KV B PH 25KVA XFMR WITH 10A CURRENT LIMITING FUSE AND SECONDARY ATTACHMENT (S-1651-A & S-5506-D)  
INS: POLE MOLDING FOR UG SECONDARY SERVICE (S-1172)  
TRF: CLAY-341 CONDUCTORS  
TRF: PREPARE SECONDARY WIRE FOR CONVERSION  
REM: TOP POLE AND REMOVE ALL PECO EQUIPMENT ABOVE COMMUNICATIONS INCLUDING TOKENA-002 CONDUCTORS
- 115) POLE \*3739 - PROPOSED CLAY-341 IN-LINE DISCONNECTS  
INS: 34KV IN-LINE DISCONNECT SWITCHES ON THE CLAY-341 CONDUCTORS WEST OF POLE \*3739 TOWARDS POLE \*3740 (S-1640-A FIG. I)  
REM: CLAY-341 CONDUCTORS AND EQUIPMENT INCLUDING THE XFMR
- 116) POLE \*3738 - PROPOSED CLAY-341 IN-LINE DISCONNECTS & XFMR 60-C6-C7D-1,2 TO BE INSTALLED & XFMR 60-C6-C6E TO BE REMOVED  
INS: 34KV IN-LINE DISCONNECT SWITCHES ON THE CLAY-341 CONDUCTORS WEST OF POLE \*3738 TOWARDS POLE \*3739 (S-1640-A FIG. I)  
INS: 34KV TANGENT STRUCTURE WITH 10A CURRENT LIMITING FUSE AND 25KVA C PH XFMR WITH 10A CURRENT LIMITING FUSE FOR 3 PH OPEN WYE OPEN DELTA XFMR INSTALLATION (S-1656-A)  
INS: APPROX 40' OF 4/0 TRIPLEX SECONDARY TO POLE \*B5  
TRF: CLAY-341 CONDUCTORS  
TRF: PREPARE SECONDARY WIRE FOR CONVERSION  
REM: TOP POLE AND REMOVE ALL PECO EQUIPMENT ABOVE COMMUNICATIONS INCLUDING TOKENA-002 CONDUCTORS AND EQUIPMENT INCLUDING THE XFMR
- 117) POLE \*B5  
INS: APPROX 135' OF 4/0 TRIPLEX SECONDARY TO POLE \*B4  
INS: APPROX 108' OF POLE TO POLE GUY TO POLE \*B6 (S-1605)
- 117A) POLE \*B6  
INS: POLE TO POLE GUY ATTACHMENT FOR GUY WIRE FROM POLE \*B5 (S-1605)
- 118) POLE \*B4 - XFMR 60-C6-C7D TO BE REMOVED  
INS: SECONDARY DEADEND ATTACHMENT TO CONNECT TO 4/0 TRIPLEX FROM POLE \*B5 (S-1323)  
TRF: PREPARE SECONDARY WIRE FOR CONVERSION  
REM: TOKENA-002 CONDUCTORS AND EQUIPMENT INCLUDING XFMR AND CUTOUS
- 119) POLE \*3737 - CLAY-341 CAP BANK  
REM: TOKENA-002 CONDUCTORS AND EQUIPMENT
- 120) POLE \*3736 - EXISTING CLAY-341 IN-LINE DISCONNECTS & XFMR 60-C6-C7E  
REP: 50'-CL-2 POLE WITH 55'-CL-2 PENTA POLE (S-1140)  
INS: 34KV TANGENT STRUCTURE WITH 34KV C PH 75KVA XFMR WITH 10A CURRENT LIMITING FUSE AND SECONDARY ATTACHMENT (S-1651-A & S-5506-D)  
TRF: CLAY-341 CONDUCTORS & IN-LINE DISCONNECTS  
TRF: PREPARE SECONDARY WIRE FOR CONVERSION  
REM: TOP POLE AND REMOVE ALL PECO EQUIPMENT ABOVE COMMUNICATIONS INCLUDING TOKENA-002 CONDUCTORS AND XFMR
- 121) POLE \*36805 - PROPOSED CLAY-341 IN-LINE DISCONNECTS & XFMR 60-C6-C7E-1,2  
REP: 50'-CL-2 POLE WITH 55'-CL-2 PENTA POLE (S-1140)  
INS: 34KV IN-LINE DISCONNECT SWITCHES ON THE CLAY-341 CONDUCTORS WEST OF POLE \*36805 TOWARDS POLE \*3740 (S-1640-A FIG. I)  
INS: 34KV 3-1 PH CLUSTER MOUNT 25KVA XFMR WITH 20A CURRENT LIMITING FUSES FOR 120/208V PH 4 WIRE SERVICE (S-1657)  
INS: SECONDARY EXTENSION ATTACHMENT (S-1657)  
TRF: CLAY-341 CONDUCTORS  
TRF: PREPARE SECONDARY WIRE FOR CONVERSION  
REM: TOP POLE AND REMOVE ALL PECO EQUIPMENT ABOVE COMMUNICATIONS INCLUDING TOKENA-002 CONDUCTORS AND XFMR
- 122) POLE \*3735  
REM: TOKENA-002 C PH CONDUCTOR AND EQUIPMENT

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PECO WORK ORDER: 17238693  
E.C.#: 0000253518  
CIRCUIT: LONDON-001, LONDON-002  
TOKENA-002, AVONDALE-002,  
DALEVILLE-341, DALEVILLE-342,  
CLAY-341, BRADFORD-346  
QUAD: 53EF56, 53GH56, 53GH78  
60AB56, 60B7, 60C5, 60C6  
60CD78, 60D5

**SAFETY NOTE:**  
CAUTION SHALL BE USED TO INSURE THAT THE PROPER PERSONAL PROTECTIVE CLOTHING AND EQUIPMENT ARE USED. HARD HAT, GLOVES, SAFETY GLASSES AND P.E. ARE A MUST WHEN WORKING AROUND OR ON ENERGIZED FACILITIES.

**CONTRACTORS NOTE:**  
CONTRACTOR TO CONTACT PAONE CALL(1-800-242-1776) THREE DAYS(MINIMUM) PRIOR TO BEGINNING WORK FOR UTILITY OBSTRUCTION MARKINGS IN STREET AND SIDEWALK. CARE SHOULD BE TAKEN TO LOCATE ALL OBSTRUCTIONS PRIOR TO EARTH REMOVAL. ALL OBSTRUCTIONS MAY NOT HAVE BEEN SHOWN ON THE DESIGN. EXCAVATION AND LOCATION OF OBSTRUCTIONS SHOULD BE FAR ENOUGH IN ADVANCE TO PERMIT REPAIRMENT OF DUCT AND (OR) MANHOLES IF NECESSARY.

**NOTE:**  
- ALL POLE REPLACEMENTS TO BE WITHIN 2' OF EXISTING POLE UNLESS OTHERWISE SPECIFIED  
- HOT STICK WORK REQUIRED



**ISSUED FOR CONSTRUCTION REV 0 09/20/2021**

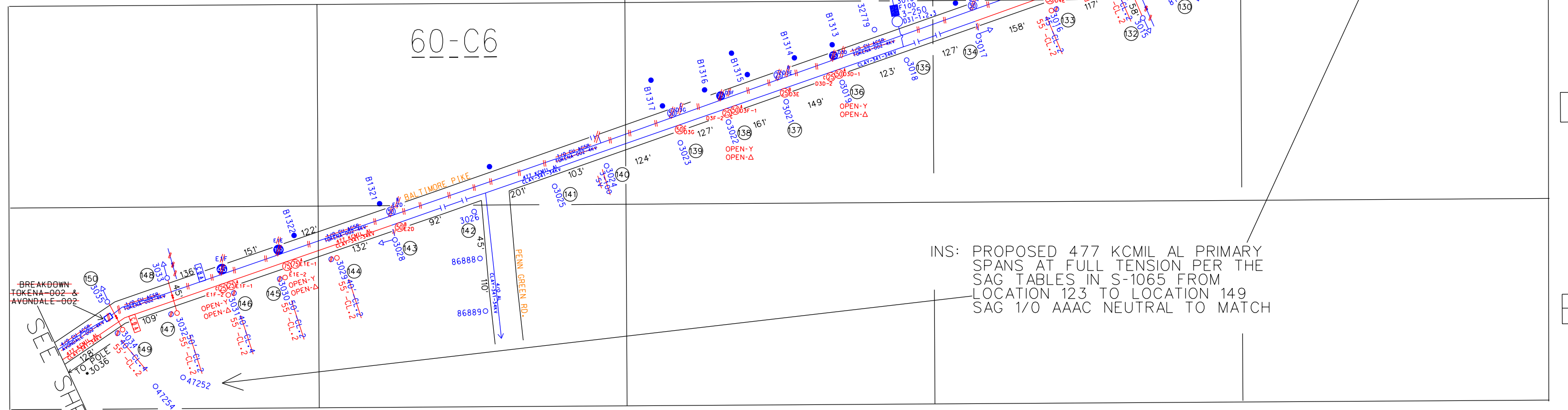
REV. #	DESCRIPTION	DATE
0	SUBMITTED FOR IFC	09/20/2021
B	REVISED PER LRE COMMENTS	07/29/2021
A	SUBMITTED FOR IFA	05/28/2021

REVISIONS

<b>IKDAN ENGINEERING</b>		SHEET 06 OF 20
PECO 2021 4KV UNIT SUB RETIREMENT		
LONDON-001, LONDON-002, TOKENA-002		
DELCHESTER REGION-CHESTER COUNTY		
AVONDALE BORO & NEW GARDEN TWSP.		
EAST & WEST MARLBOROUGH TWSPS.		
DRAWN BY	DATE	JOB/W.O. NO.
CBB	09/20/2021	17238693

- (12) POLE #3007 - XFMR 60-C6-B5D TO BE REMOVED HERE**  
 REP: 50'-CL-2 POLE WITH 55'-CL-2 PENTA POLE (S-1140)  
 INS: 34KV TANGENT STRUCTURE ON #8 CROSSARM FOR PROPOSED CLAY-341 CONDUCTORS (S-0130)  
 INS: SECONDARY ATTACHMENT (S-1323)  
 TRF: PREPARE SECONDARY WIRE FOR CONVERSION  
 REM: TOP POLE AND REMOVE ALL PECO EQUIPMENT ABOVE COMMUNICATIONS INCLUDING TOKENA-002 CONDUCTORS AND XFMR
- (124) POLE #3008 - XFMR 60-C6-B5D TO BE INSTALLED HERE**  
 REP: 40'-CL-4 POLE WITH 55'-CL-2 PENTA POLE (S-1140)  
 INS: 34KV TANGENT STRUCTURE WITH 34KV B PH 50KVA XFMR WITH 10A CURRENT LIMITING FUSE AND 25KVA C PH XFMR WITH 10A CURRENT LIMITING FUSE FOR 3 PH OPEN WYE OPEN DELTA XFMR INSTALLATION (S-1656-A)  
 TRF: PREPARE SECONDARY WIRE FOR CONVERSION  
 REM: TOP POLE AND REMOVE ALL PECO EQUIPMENT ABOVE COMMUNICATIONS INCLUDING TOKENA-002 CONDUCTORS AND CLOSED DISCONNECTS
- (125) POLE #3009 - XFMR 60-C6-C5G-1.2**  
 REP: 45'-CL-2 POLE WITH 55'-CL-2 PENTA POLE (S-1140)  
 INS: 34KV TANGENT STRUCTURE WITH 34KV C PH 50KVA XFMR WITH 10A CURRENT LIMITING FUSE AND 25KVA C PH XFMR WITH 10A CURRENT LIMITING FUSE FOR 3 PH OPEN WYE OPEN DELTA XFMR INSTALLATION (S-1656-A)  
 INS: SECONDARY ATTACHMENT (S-1656-A)  
 INS: POLE MOLDING FOR UG SECONDARY SERVICE (S-1172)  
 TRF: PREPARE SECONDARY WIRE FOR CONVERSION  
 REM: TOP POLE AND REMOVE ALL PECO EQUIPMENT ABOVE COMMUNICATIONS INCLUDING TOKENA-002 CONDUCTORS AND XFMR
- (126) POLE #3010**  
 REP: 40'-CL-4 POLE WITH 55'-CL-2 PENTA POLE (S-1140)  
 INS: 34KV TANGENT STRUCTURE ON #8 CROSSARM FOR PROPOSED CLAY-341 CONDUCTORS (S-0130)  
 INS: SECONDARY ATTACHMENT (S-1323)  
 REM: TOP POLE AND REMOVE ALL PECO EQUIPMENT ABOVE COMMUNICATIONS INCLUDING TOKENA-002 CONDUCTORS
- (127) POLE #3011**  
 REP: 40'-CL-2 POLE WITH 55'-CL-2 PENTA POLE (S-1140)  
 INS: 34KV TANGENT STRUCTURE ON #8 CROSSARM FOR PROPOSED CLAY-341 CONDUCTORS (S-0130)  
 INS: SECONDARY ATTACHMENT (S-1323)  
 REM: TOP POLE AND REMOVE ALL PECO EQUIPMENT ABOVE COMMUNICATIONS INCLUDING TOKENA-002 CONDUCTORS
- (128) POLE #3012 - XFMR 60-C6-C5D**  
 REP: 45'-CL-2 POLE WITH 55'-CL-2 PENTA POLE (S-1140)  
 INS: 34KV TANGENT STRUCTURE WITH 34KV C PH 50KVA XFMR WITH 10A CURRENT LIMITING FUSE AND 25KVA C PH XFMR WITH 10A CURRENT LIMITING FUSE FOR 3 PH OPEN WYE OPEN DELTA XFMR INSTALLATION (S-1656-A)  
 TRF: PREPARE SECONDARY WIRE FOR CONVERSION  
 REM: TOP POLE AND REMOVE ALL PECO EQUIPMENT ABOVE COMMUNICATIONS INCLUDING TOKENA-002 CONDUCTORS AND XFMR
- (129) POLE #3013**  
 REP: 45'-CL-2 POLE WITH 55'-CL-2 PENTA POLE (S-1140)  
 INS: 34KV TANGENT STRUCTURE ON #8 CROSSARM FOR PROPOSED CLAY-341 CONDUCTORS (S-0130)  
 INS: SECONDARY ATTACHMENT (S-1323)  
 INS: APPROX 67' OF POLE TO POLE GUY TO POLE #87041 (S-1605)  
 REM: TOP POLE AND REMOVE ALL PECO EQUIPMENT ABOVE COMMUNICATIONS INCLUDING TOKENA-002 CONDUCTORS  
 REM: EXISTING POLE TO POLE GUY TO POLE #87041
- (130) POLE #87041**  
 INS: POLE TO POLE GUY ATTACHMENT FOR GUY WIRE FROM POLE #3013 (S-1605)  
 REM: EXISTING POLE TO POLE GUY ATTACHMENT
- (131) POLE #3014 - 1-50KVA INTERPOSING XFMR 60-C6-C4E**  
 REP: 40'-CL-2 POLE WITH 55'-CL-2 PENTA POLE (S-1140)  
 INS: 1 PH A PH 50KVA 34KV TO 4KV INTERPOSING XFMR WITH 20A CURRENT LIMITING FUSE ON PRIMARY SIDE AND 30K FUSE ON SECONDARY SIDE (S-1660-A & S-5506-D)  
 INS: DOUBLE DEADEND CROSSARM FOR CUTOUT AND SECONDARY SIDE A PH 4KV OH WIRE THAT FEEDS TO POLE #32831 (S-1626-D)  
 INS: APPROX 45' OF POLE TO POLE GUY TO POLE #3015 (S-1605)  
 TRF: A PH 4KV OH WIRE THAT FEEDS TO POLE #32831  
 REM: TOP POLE AND REMOVE ALL PECO EQUIPMENT ABOVE COMMUNICATIONS INCLUDING TOKENA-002 CONDUCTORS AND CUTOUTS  
 REM: TOKENA-002 B AND C PH OH WIRE TO POLE #32831
- (131A) POLE #32831**  
 REM: TOKENA-002 B AND C PH OH WIRE TO POLES #32832, 32833 & 91042
- (132) POLE #3015**  
 INS: POLE TO POLE GUY ATTACHMENT FOR GUY WIRE FROM POLE #3014 (S-1605)  
 REM: EXISTING POLE TO POLE GUY ATTACHMENT
- (133) POLE #3016 - TOKENA-002 CAP BANK & XFMR 60-C6-D4E TO BE INSTALLED HERE**  
 REP: 45'-CL-2 POLE WITH 55'-CL-2 PENTA POLE (S-1140)  
 INS: 34KV TANGENT STRUCTURE WITH 34KV A PH 50KVA XFMR WITH 10A CURRENT LIMITING FUSE AND 25KVA C PH XFMR WITH 10A CURRENT LIMITING FUSE FOR 3 PH OPEN WYE OPEN DELTA XFMR INSTALLATION (S-1656-A)  
 TRF: PREPARE SECONDARY WIRE FOR CONVERSION  
 REM: TOP POLE AND REMOVE ALL PECO EQUIPMENT ABOVE COMMUNICATIONS INCLUDING TOKENA-002 CONDUCTORS AND CAP BANK
- (134) POLE #3017 - XFMR 60-C6-D4E TO BE REMOVED HERE**  
 INS: DOUBLE DEADEND STRUCTURE USING PRE-ASSEMBLED FIBERGLASS CONNECT, PROPOSED CLAY-341 CONDUCTORS FROM POLE #3016 TO EXISTING CLAY-341 CONDUCTORS FROM POLE #812 (S-5128-C)  
 TRF: CLAY-341 CONDUCTORS  
 REM: TOKENA-002 CONDUCTORS AND EQUIPMENT INCLUDING THE XFMR
- (135) POLE #3018 - 3-250KVA INTERPOSING XFMR 60-C6-D3I**  
 TRF: PREPARE SECONDARY WIRE FOR CONVERSION  
 REM: TOKENA-002 CONDUCTORS AND EQUIPMENT

- (136) POLE #3019 - XFMR 60-C6-D3D-1.2**  
 INS: 34KV 50KVA A PH XFMR WITH 10A CURRENT LIMITING FUSE AND 25KVA C PH XFMR WITH 10A CURRENT LIMITING FUSE FOR 3 PH OPEN WYE OPEN DELTA XFMR INSTALLATION (S-1656-A)  
 INS: SECONDARY ATTACHMENT (S-1656-A)  
 TRF: PREPARE SECONDARY WIRE FOR CONVERSION  
 REM: EXISTING CROSSARM AND PINS FOR CLAY-341  
 REM: TOKENA-002 CONDUCTORS AND EQUIPMENT INCLUDING THE XFMR
- (137) POLE #3021 - XFMR 60-C6-D3F**  
 INS: 34KV TANGENT STRUCTURE WITH 34KV B PH 25KVA XFMR WITH 10A CURRENT LIMITING FUSE AND 25KVA C PH XFMR WITH 10A CURRENT LIMITING FUSE FOR 3 PH OPEN WYE OPEN DELTA XFMR INSTALLATION (S-1656-A)  
 TRF: PREPARE SECONDARY WIRE FOR CONVERSION  
 REM: EXISTING CROSSARM AND PINS FOR CLAY-341  
 REM: TOKENA-002 CONDUCTORS AND EQUIPMENT INCLUDING THE XFMR
- (138) POLE #3022 - XFMR 60-C6-D3F-1.2**  
 INS: 34KV 50KVA A PH XFMR WITH 10A CURRENT LIMITING FUSE AND 25KVA C PH XFMR WITH 10A CURRENT LIMITING FUSE FOR 3 PH OPEN WYE OPEN DELTA XFMR INSTALLATION (S-1656-A)  
 INS: SECONDARY ATTACHMENT (S-1656-A)  
 TRF: PREPARE SECONDARY WIRE FOR CONVERSION  
 REM: EXISTING CROSSARM AND PINS FOR CLAY-341  
 REM: TOKENA-002 CONDUCTORS AND EQUIPMENT INCLUDING THE XFMR
- (139) POLE #3023 - XFMR 60-C6-D3G**  
 INS: 34KV TANGENT STRUCTURE WITH 34KV C PH 50KVA XFMR WITH 10A CURRENT LIMITING FUSE AND 25KVA C PH XFMR WITH 10A CURRENT LIMITING FUSE FOR 3 PH OPEN WYE OPEN DELTA XFMR INSTALLATION (S-1656-A)  
 TRF: PREPARE SECONDARY WIRE FOR CONVERSION  
 REM: EXISTING CROSSARM AND PINS FOR CLAY-341  
 REM: TOKENA-002 CONDUCTORS AND EQUIPMENT INCLUDING THE XFMR



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**NOTE:**  
 - ALL POLE REPLACEMENTS TO BE WITHIN 2' OF EXISTING POLE UNLESS OTHERWISE SPECIFIED  
 - HOT STICK WORK REQUIRED



**ISSUED FOR CONSTRUCTION REV 0 09/20/2021**

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 ENG: D. WALKES  
 312.763.2198  
 LRE: J. PATEL  
 610.725.7165

PECO WORK ORDER: 17238693  
 E.C.#: 0000253518  
 CIRCUIT: LONDON-001, LONDON-002  
 TOKENA-002, AVONDALE-002,  
 DALEVILLE-341, DALEVILLE-342,  
 CLAY-341, BRADFORD-346  
 QUAD: 53EF56, 53GH56, 53GH78  
 60AB56, 60B7, 60C5, 60C6  
 60CD78, 60D5

REV. #	DESCRIPTION	DATE
0	SUBMITTED FOR IFC	09/20/2021
B	REVISED PER LRE COMMENTS	07/29/2021
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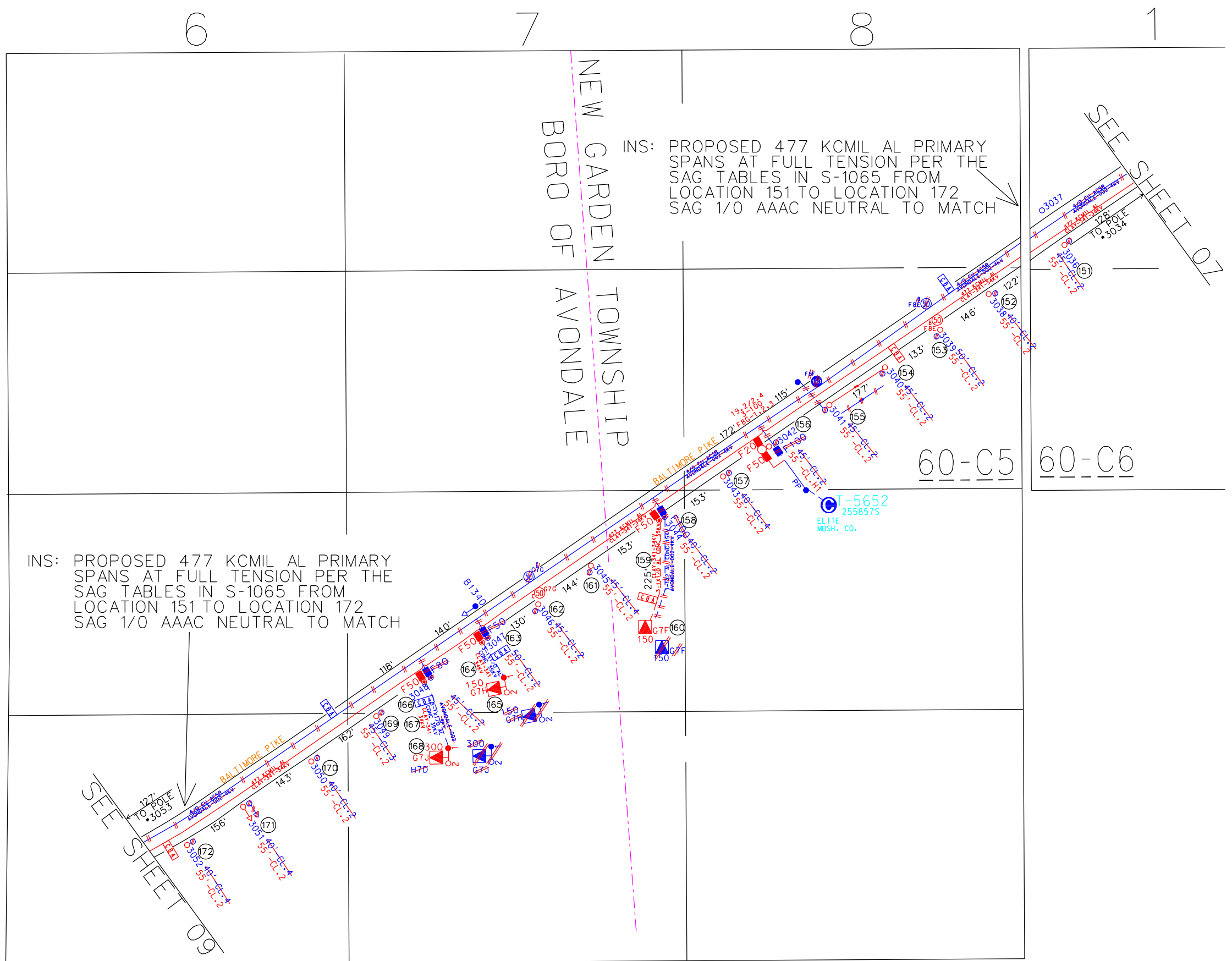
REV. #	DESCRIPTION	DATE
REVISIONS		

DRAWN BY	DATE	JOB/W.O. NO.
CBB	09/20/2021	17238693

**IKDAM ENGINEERING** SHEET 07 OF 20

PECO 2021 4KV UNIT SUB RETIREMENT  
 LONDON-001, LONDON-002, TOKENA-002  
 DELCHESTER REGION-CHESTER COUNTY  
 AVONDALE BORO & NEW GARDEN TWSP.  
 EAST & WEST MARLBOROUGH TWSPS.



- 151 POLE #3036  
REP: 45'-CL 2 POLE WITH 55'-CL 2 PENTA POLE (S-1140)  
INS: 34KV TANGENT STRUCTURE ON #8 CROSSARM  
FOR PROPOSED CLAY-341 CONDUCTORS (S-0130)  
INS: NEUTRAL ATTACHMENT (S-1137)  
TRF: PREPARE SECONDARY WIRE FOR CONVERSION  
REM: TOP POLE AND REMOVE ALL PECO EQUIPMENT  
ABOVE COMMUNICATIONS INCLUDING AVONDALE-002  
CONDUCTORS
- 152 POLE #3038  
REP: 50'-CL 2 POLE WITH 55'-CL 2 PENTA POLE (S-1140)  
INS: 34KV TANGENT STRUCTURE ON #8 CROSSARM  
FOR PROPOSED CLAY-341 CONDUCTORS (S-0130)  
INS: NEUTRAL ATTACHMENT (S-1137)  
TRF: PREPARE SECONDARY WIRE FOR CONVERSION  
REM: TOP POLE AND REMOVE ALL PECO EQUIPMENT  
ABOVE COMMUNICATIONS INCLUDING AVONDALE-002  
CONDUCTORS
- 153 POLE #3039 - XFMR 60-C5-FBE  
REP: 50'-CL 2 POLE WITH 55'-CL 2 PENTA POLE (S-1140)  
INS: 34KV TANGENT STRUCTURE WITH 34KV B PH  
50KVA XFMR WITH 10A CURRENT LIMITING FUSE  
AND SECONDARY ATTACHMENT (S-1251-A & S-5506-D)  
TRF: PREPARE SECONDARY WIRE FOR CONVERSION  
REM: TOP POLE AND REMOVE ALL PECO EQUIPMENT  
ABOVE COMMUNICATIONS INCLUDING AVONDALE-002  
CONDUCTORS AND XFMR
- 154 POLE #3040  
REP: 45'-CL 2 POLE WITH 55'-CL 2 PENTA POLE (S-1140)  
INS: 34KV TANGENT STRUCTURE ON #8 CROSSARM  
FOR PROPOSED CLAY-341 CONDUCTORS (S-0130)  
INS: APPROX. 177' OF POLE TO POLE GUY WIRE  
TO POLE #3041 (S-1605)  
TRF: PREPARE SECONDARY WIRE FOR CONVERSION  
REM: TOP POLE AND REMOVE ALL PECO EQUIPMENT  
ABOVE COMMUNICATIONS INCLUDING AVONDALE-002  
CONDUCTORS
- 155 POLE #3041 - XFMR 60-C5-FBE TO BE REMOVED HERE  
REP: 45'-CL 2 POLE WITH 55'-CL 2 PENTA POLE (S-1140)  
INS: 34KV TANGENT STRUCTURE ON #8 CROSSARM  
FOR PROPOSED CLAY-341 CONDUCTORS (S-0130)  
INS: SECONDARY ATTACHMENT (S-1251-A)  
INS: POLE TO POLE GUY ATTACHMENT FOR GUY WIRE  
FROM POLE #3042 (S-1605)  
REM: TOP POLE AND REMOVE ALL PECO EQUIPMENT  
ABOVE COMMUNICATIONS INCLUDING AVONDALE-002  
CONDUCTORS AND XFMR  
REM: SERVICE WIRE THAT GOES TO THE POLE  
ACROSS BALTIMORE PIKE AND DEADENDS THERE
- 156 POLE #3042 - 3-100KVA INTERPOSING XFMR 60-C5-FBG-1,2,3  
REP: 45'-CL 2 POLE WITH 55'-CL 2 PENTA POLE (S-1140)  
INS: 3-100KVA 34KV TO 4KV INTERPOSING XFMR  
WITH 20A CURRENT LIMITING FUSES ON PRIMARY SIDE  
AND 50K FUSES ON SECONDARY SIDE  
(S-1663-A & S-5506-D)  
INS: DOUBLE DEADEND CROSSARM FOR CUTOUTS AND  
SECONDARY SIDE 3 PH 4KV OH WIRE THAT  
FEEDS TO T-5652 CUSTOMER  
TRF: PREPARE SECONDARY WIRE FOR CONVERSION  
REM: TOP POLE AND REMOVE ALL PECO EQUIPMENT  
ABOVE COMMUNICATIONS INCLUDING AVONDALE-002  
CONDUCTORS AND CUTOUTS
- 157 POLE #3043  
REP: 40'-CL 2 POLE WITH 55'-CL 2 PENTA POLE (S-1140)  
INS: 34KV TANGENT STRUCTURE ON #8 CROSSARM  
FOR PROPOSED CLAY-341 CONDUCTORS (S-0130)  
INS: SECONDARY ATTACHMENT (S-1137)  
TRF: PREPARE SECONDARY WIRE FOR CONVERSION  
REM: TOP POLE AND REMOVE ALL PECO EQUIPMENT  
ABOVE COMMUNICATIONS INCLUDING AVONDALE-002  
CONDUCTORS
- 158 POLE #3044 - TP TO XFMR 60-C5-G7F  
REP: 40'-CL 2 POLE WITH 55'-CL 2 PENTA POLE (S-1140)  
INS: 3-PHASE TERMINAL POLE FOR 1/0 CABLE TANGENT  
STRUCTURE (S-1672-B)  
INS: APPROX. 225' OF 35 KV 3-1X1/0 AL CONC CABLE FROM  
P#3047 TO XFMR 60-C5-G7H (S-2320)  
INS: SECONDARY ATTACHMENT (S-1137)  
TRF: PREPARE SECONDARY WIRE FOR CONVERSION  
REM: TOP POLE AND REMOVE ALL PECO EQUIPMENT  
ABOVE COMMUNICATIONS INCLUDING AVONDALE-002  
CONDUCTORS
- 159 UG CABLE TO XFMR 60-C5-G7F  
INS: DIRECTIONAL BORE 2-5" DUCTS APPROX. 225' FROM  
POLE #3044 TO XFMR 60-C5-G7F  
INS: APPROX. 225' OF 35 KV 3-1X1/0 AL CABLE WITH  
#4/0 CU NEUTRAL FROM POLE #3044 TO XFMR 60-C5-G7F
- 160 PADMOUNT XFMR 60-C5-G7F  
INS: ON EXISTING PAD FOUNDATION, 34KV 150KVA 3 PH  
PADMOUNT DEAD FRONT XFMR WITH 8A BAYONET  
FUSES (S-5571-A & S-5506-D)  
INS: 35KV LOADBREAK ELBOWS ON PROPOSED 3-1X1/0AL  
CABLE (S-5591-A)  
TRF: EXISTING SECONDARY CABLE TO NEW XFMR  
REM: EXISTING 4KV PADMOUNT XFMR
- 161 POLE #3045  
REP: 45'-CL 2 POLE WITH 55'-CL 2 PENTA POLE (S-1140)  
INS: 34KV TANGENT STRUCTURE ON #8 CROSSARM  
FOR PROPOSED CLAY-341 CONDUCTORS (S-0130)  
INS: NEUTRAL ATTACHMENT (S-1137)  
TRF: PREPARE SECONDARY WIRE FOR CONVERSION  
REM: TOP POLE AND REMOVE ALL PECO EQUIPMENT  
ABOVE COMMUNICATIONS INCLUDING AVONDALE-002  
CONDUCTORS
- 162 POLE #3046 - XFMR 60-C5-G7G  
REP: 45'-CL 2 POLE WITH 55'-CL 2 PENTA POLE (S-1140)  
INS: 34KV TANGENT STRUCTURE WITH 34KV B PH  
50KVA XFMR WITH 10A CURRENT LIMITING FUSE  
AND SECONDARY ATTACHMENT (S-1251-A & S-5506-D)  
TRF: PREPARE SECONDARY WIRE FOR CONVERSION  
REM: TOP POLE AND REMOVE ALL PECO EQUIPMENT  
ABOVE COMMUNICATIONS INCLUDING AVONDALE-002  
CONDUCTORS AND XFMR
- 163 POLE #3047 - TP TO XFMR 60-C5-G7H  
REP: 50'-CL 2 POLE WITH 55'-CL 2 PENTA POLE (S-1140)  
INS: 3-PH TERMINAL POLE FOR 1/0 CABLE TANGENT  
STRUCTURE (S-1672-B)  
INS: 1-1X1/0 AL UG CABLE WITH 1/0AL-1/0AL COLD SHRINK  
SPICE KITS TO CONNECT TO EXISTING 3-1X1/0 AL  
UG CABLE TO XFMR 60-C5-G7H (S-25-102-A)  
INS: SECONDARY ATTACHMENT (S-1137)  
TRF: EXISTING 3-1X1/0 AL UG CABLE TO XFMR 60-C5-G7H  
AFTER CONNECTING TO PROPOSED 3-1X1/0 AL UG  
CABLE TO THE POLE  
TRF: PREPARE SECONDARY WIRE FOR CONVERSION  
REM: TOP POLE AND REMOVE ALL PECO EQUIPMENT  
ABOVE COMMUNICATIONS INCLUDING AVONDALE-002  
CONDUCTORS
- 164 UG CABLE TO XFMR 60-C5-G7H  
INS: VERIFY CABLE IS 35KV RATED  
INS: CABLE TAG AT XFMR INDICATING CABLE  
IS ON CLAY-341 DURING CONVERSION
- 165 PADMOUNT XFMR 60-C5-G7H  
INS: ON EXISTING PAD FOUNDATION, 34KV 150KVA 3 PH  
PADMOUNT DEAD FRONT XFMR WITH 8A BAYONET  
FUSES (S-5571-A & S-5506-D)  
INS: 35KV LOADBREAK ELBOWS ON EXISTING 3-1X1/0AL  
CABLE (S-5591-A)  
TRF: EXISTING 3-1X1/0 AL CABLE TO NEW XFMR  
FOR EXISTING SECONDARY CABLE TO NEW XFMR  
REM: EXISTING 4KV PADMOUNT XFMR
- 166 POLE #3048 - TP TO XFMR 60-C5-G7J  
REP: 45'-CL 2 POLE WITH 55'-CL 2 PENTA POLE (S-1140)  
INS: 3-PH TERMINAL POLE FOR 1/0 CABLE TANGENT  
STRUCTURE (S-1672-B)  
INS: 3-1X1/0 AL UG CABLE WITH 1/0AL-1/0AL COLD SHRINK  
SPICE KITS TO CONNECT TO EXISTING 3-1X1/0 AL  
UG CABLE TO XFMR 60-C5-G7I (S-25-102-A)  
INS: SECONDARY ATTACHMENT (S-1137)  
TRF: EXISTING 3-1X1/0 AL UG CABLE TO XFMR 60-C5-G7J  
AFTER CONNECTING TO PROPOSED 3-1X1/0 AL UG  
CABLE ON THE POLE  
TRF: PREPARE SECONDARY WIRE FOR CONVERSION  
REM: TOP POLE AND REMOVE ALL PECO EQUIPMENT  
ABOVE COMMUNICATIONS INCLUDING AVONDALE-002  
CONDUCTORS
- 167 UG CABLE TO XFMR 60-C5-G7J  
INS: VERIFY CABLE IS 35KV RATED  
INS: CABLE TAG AT XFMR INDICATING CABLE  
IS ON CLAY-341 DURING CONVERSION
- 168 PADMOUNT XFMR 60-C5-G7J  
INS: ON EXISTING PAD FOUNDATION, 34KV 300KVA 3 PH  
PADMOUNT DEAD FRONT XFMR WITH 15A BAYONET  
FUSES (S-5571-A & S-5506-D)  
INS: 35KV LOADBREAK ELBOWS ON EXISTING 3-1X1/0AL  
CABLE (S-5591-A)  
TRF: EXISTING 3-1X1/0 AL CABLE TO NEW XFMR  
FOR EXISTING SECONDARY CABLE TO NEW XFMR  
REM: EXISTING 4KV PADMOUNT XFMR
- 169 POLE #3049  
REP: 45'-CL 2 POLE WITH 55'-CL 2 PENTA POLE (S-1140)  
INS: 34KV TANGENT STRUCTURE ON #8 CROSSARM  
FOR PROPOSED CLAY-341 CONDUCTORS (S-0130)  
INS: NEUTRAL ATTACHMENT (S-1137)  
TRF: PREPARE SECONDARY WIRE FOR CONVERSION  
REM: TOP POLE AND REMOVE ALL PECO EQUIPMENT  
ABOVE COMMUNICATIONS INCLUDING AVONDALE-002  
CONDUCTORS
- 170 POLE #3050  
REP: 45'-CL 2 POLE WITH 55'-CL 2 PENTA POLE (S-1140)  
INS: 34KV TANGENT STRUCTURE ON #8 CROSSARM  
FOR PROPOSED CLAY-341 CONDUCTORS (S-0130)  
INS: NEUTRAL ATTACHMENT (S-1137)  
TRF: PREPARE SECONDARY WIRE FOR CONVERSION  
REM: TOP POLE AND REMOVE ALL PECO EQUIPMENT  
ABOVE COMMUNICATIONS INCLUDING AVONDALE-002  
CONDUCTORS
- 171 POLE #3051  
REP: 40'-CL 2 POLE WITH 55'-CL 2 PENTA POLE (S-1140)  
INS: 34KV TANGENT STRUCTURE ON #8 CROSSARM  
FOR PROPOSED CLAY-341 CONDUCTORS (S-0130)  
INS: NEUTRAL ATTACHMENT (S-1137)  
INS: ANCHOR GUY AT 15' LEAD LENGTH IN SOUTH DIRECTION  
(S-1605)  
INS: GROUND WIRE (S-1131)  
TRF: PREPARE SECONDARY WIRE FOR CONVERSION  
REM: TOP POLE AND REMOVE ALL PECO EQUIPMENT  
ABOVE COMMUNICATIONS INCLUDING AVONDALE-002  
CONDUCTORS
- 172 POLE #3052  
REP: 40'-CL 2 POLE WITH 55'-CL 2 PENTA POLE (S-1140)  
INS: 34KV TANGENT STRUCTURE ON #8 CROSSARM  
FOR PROPOSED CLAY-341 CONDUCTORS (S-0130)  
INS: NEUTRAL ATTACHMENT (S-1137)  
TRF: PREPARE SECONDARY WIRE FOR CONVERSION  
REM: TOP POLE AND REMOVE ALL PECO EQUIPMENT  
ABOVE COMMUNICATIONS INCLUDING AVONDALE-002  
CONDUCTORS

DESIGNER: C. BYDLON  
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312.763.2198  
LRE: J. PATEL  
610.725.7165

PECO WORK ORDER: 17238693  
E.C.#: 0000253518  
CIRCUIT: LONDON-001, LONDON-002  
TOKENA-002, AVONDALE-002,  
DALEVILLE-341, DALEVILLE-342,  
CLAY-341, BRADFORD-346  
QUAD: 53EF56, 53GH56, 53GH78  
60AB56, 60B7, 60C5, 60C6  
60CD78, 60D5

NOTE:  
- ALL POLE REPLACEMENTS TO  
BE WITHIN 2' OF EXISTING POLE  
UNLESS OTHERWISE SPECIFIED  
- HOT STICK WORK REQUIRED

**SAFETY NOTE:**  
CAUTION SHALL BE USED TO INSURE THAT THE PROPER  
PERSONAL PROTECTIVE CLOTHING AND EQUIPMENT ARE USED.  
HARD HAT, GLOVES, SAFETY GLASSES AND P.P.E. ARE A MUST  
WHEN WORKING AROUND OR ON ENERGIZED FACILITIES.

**CONTRACTORS NOTE:**  
CONTRACTOR TO CONTACT PA ONE CALL (1-800-242-1776)  
THREE DAYS (MINIMUM) PRIOR TO BEGINNING WORK  
FOR UTILITY OBSTRUCTION MARKINGS IN STREET AND SIDEWALK.  
CARE SHOULD BE TAKEN TO LOCATE ALL OBSTRUCTIONS PRIOR TO  
EARTH REMOVAL. ALL OBSTRUCTIONS MAY NOT HAVE BEEN SHOWN  
ON THE DESIGN. EXCAVATION AND LOCATION OF OBSTRUCTIONS  
SHOULD BE FAR ENOUGH IN ADVANCE TO PERMIT REALIGNMENT  
OF DUCT AND (OR) MANHOLES IF NECESSARY.



REV. #	DESCRIPTION	DATE
0	SUBMITTED FOR IFC	09/20/2021
B	REVISED PER LRE COMMENTS	07/29/2021
A	SUBMITTED FOR IFA	05/28/2021

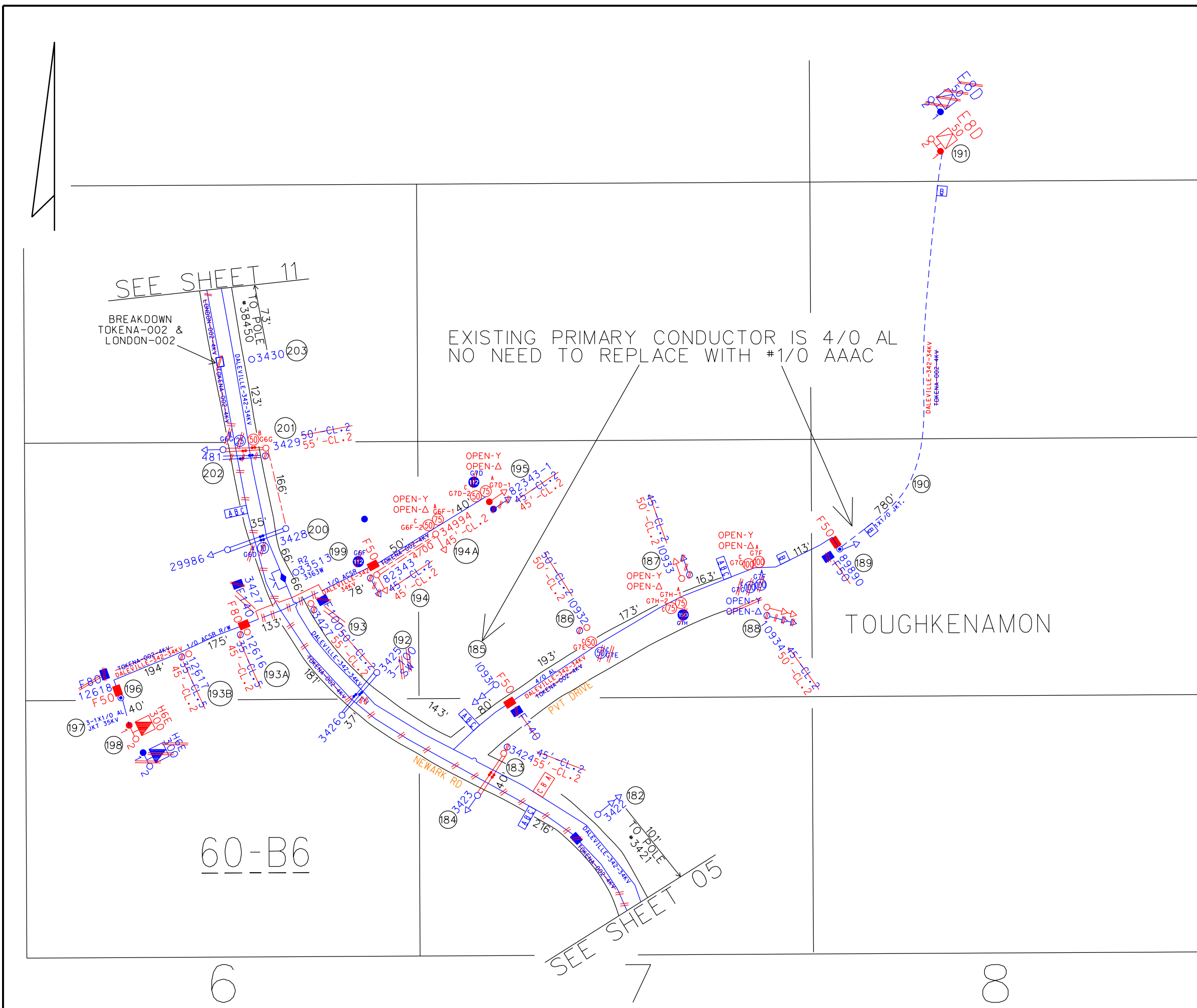
REVISIONS

DRAWN BY	DATE	JOB/W.O. NO.
CBB	09/20/2021	17238693

**IKDAM ENGINEERING** SHEET 08 OF 20

PECO 2021 4KV UNIT SUB RETIREMENT  
LONDON-001, LONDON-002, TOKENA-002  
DELCESTER REGION-CHESTER COUNTY  
AVONDALE BORO & NEW GARDEN TWSP.  
EAST & WEST MARLBOROUGH TWSPS.





- 186 POLE \*10932 - XFMR 60-B6-G7E**  
 REP: 50'-CL-2 POLE WITH 50'-CL-2 PENTA POLE (S-1140)  
 INS: 34KV TANGENT STRUCTURE WITH 34KVX4KV C PH 50KVA DUAL RATIO XFMR ON 4KV TAP SETTING WITH 50K FUSE FOR 3 PH OPEN WYE OPEN DELTA XFMR INSTALLATION (S-1656-A)  
 TRF: EXISTING 4/0 AL PRIMARY CONDUCTORS  
 REM: TOP POLE AND REMOVE ALL PECO EQUIPMENT ABOVE COMMUNICATIONS INCLUDING TOKENA-002 XFMR
- 187 POLE \*10933 - XFMR 60-B6-G7H-12**  
 REP: 45'-CL-2 POLE WITH 50'-CL-2 PENTA POLE (S-1140)  
 INS: 34KVX4KV 75KVA A PH DUAL RATIO XFMR ON 4KV TAP SETTING WITH 80K FUSE AND 34KVX4KV 75KVA C PH DUAL RATIO XFMR ON 4KV TAP SETTING WITH 80K FUSE FOR 3 PH OPEN WYE OPEN DELTA XFMR INSTALLATION (S-1656-A)  
 INS: ANCHOR GUY AT 15' LEAD LENGTH IN NORTH DIRECTION (S-1605)  
 TRF: EXISTING 4/0 AL PRIMARY CONDUCTORS  
 TRF: PREPARE SECONDARY WIRE FOR CONVERSION  
 REM: TOP POLE AND REMOVE ALL PECO EQUIPMENT ABOVE COMMUNICATIONS INCLUDING TOKENA-002 XFMR
- 188 POLE \*10934 - XFMR 60-B6-G7F & G7G**  
 REP: 45'-CL-2 POLE WITH 50'-CL-2 PENTA POLE (S-1140)  
 INS: 34KVX4KV 100KVA A PH DUAL RATIO XFMR ON 4KV TAP SETTING WITH 100K FUSE AND 34KVX4KV 100KVA C PH DUAL RATIO XFMR ON 4KV TAP SETTING WITH 100K FUSE FOR 3 PH OPEN WYE OPEN DELTA XFMR INSTALLATION (S-1656-A)  
 INS: DOUBLE ANCHOR GUYS AT 15' LEAD LENGTH IN EAST DIRECTION (S-1605)  
 TRF: EXISTING 4/0 AL PRIMARY CONDUCTORS  
 TRF: PREPARE SECONDARY WIRE FOR CONVERSION  
 REM: TOP POLE AND REMOVE ALL PECO EQUIPMENT ABOVE COMMUNICATIONS INCLUDING TOKENA-002 XFMR
- 189 POLE \*89890 - DALEVILLE-342 B PH TP TO XFMR 60-B6-E8D**  
 INS: 34KV RATED DEADEND INSULATOR FOR EXISTING 4/0 AL PRIMARY CONDUCTOR (S-1671-B)  
 TRF: PREPARE UC CABLE TO XFMR 60-B6-E8D FOR CONVERSION
- 190 UG CABLE TO XFMR 60-B6-E8D**  
 INS: VERIFY CABLE IS 35KV RATED
- 191 PADMOUNT XFMR 60-B6-E8D**  
 INS: 34KVX4KV 50KVA B PH PADMOUNT DUAL RATIO XFMR ON 4KV TAP SETTING WITH 50A BAYONET FUSE (S-5570-A & S-5506-D)  
 INS: 3PH LOADBREAK ELBOW ON EXISTING 1/0AL CABLE (S-5591-A)  
 TRF: EXISTING 1/0 AL CABLE TO NEW XFMR  
 TRF: EXISTING SECONDARY CABLE TO NEW XFMR  
 REM: EXISTING 4KV PADMOUNT XFMR
- 192 POLE \*3425 - TOKENA-002 CAP BANK**  
 INS: 34KV TANGENT STRUCTURE ON 2-B CROSSARMS FOR EXISTING DALEVILLE-342 CONDUCTORS (S-0130)  
 TRF: DALEVILLE-342 CONDUCTORS  
 REM: DALEVILLE-342 CROSSARMS AND PINS INCLUDING TOKENA-002 CONDUCTORS AND EQUIPMENT INCLUDING CAP BANK
- 193 POLE \*3427 - 3 PH TAPS TO \*82343 & \*12616**  
 REP: 50'-CL-2 POLE WITH 55'-CL-2 PENTA POLE (S-1140)  
 INS: 3 PHASE 4 WAY 34KV HORIZONTAL CORNER STRUCTURE FRAMED AS A 2 WAY 34KV HORIZONTAL CORNER STRUCTURE FOR DALEVILLE-342 (S-1625-B). INSTALL DEADEND INSULATORS ON EACH SIDE OF THE CROSSARMS FOR DALEVILLE-342. DEADEND EXISTING 3 PH TAP CONDUCTORS TO POLE \*82343 AND \*12616 ON LOWER TAP ARMS  
 INS: 34KV SURGE ARRESTERS BELOW TAP CROSSARMS (S-1609-A)  
 INS: SECONDARY ATTACHMENT (S-1323)  
 TRF: 3 PH TAPS TO POLES \*82343 & \*12616 ONTO NEWLY INSTALLED DEADEND INSULATORS  
 TRF: RAISE NEUTRAL WIRE AFTER 4KV IS REMOVED  
 REM: TOP POLE AND REMOVE ALL PECO EQUIPMENT ABOVE COMMUNICATIONS INCLUDING TOKENA-002 CROSSARMS AND FUSES
- 193A POLE \*12616 - PROPOSED DALEVILLE-342 F50 FUSES**  
 REP: 35'-CL-5 POLE WITH 45'-CL-2 PENTA POLE (S-1140)  
 INS: 3 PH 80K FUSES ON 34KV TANGENT STRUCTURE WITH 2-1/0 CROSSARMS EXISTING CONDUCTORS TO POLE \*12617 TO BE CONVERTED TO 34KV ON DALEVILLE-342 (S-1641-B FIG. II)  
 TRF: EXISTING 3 PH 1/0 ACSR CONDUCTOR  
 TRF: PREPARE NEUTRAL WIRE FOR CONVERSION  
 REM: TOP POLE AND REMOVE ALL PECO EQUIPMENT EXCEPT CONDUCTORS
- 193B POLE \*12617**  
 REP: 35'-CL-2 POLE WITH 45'-CL-2 PENTA POLE (S-1140)  
 INS: 34KV TANGENT STRUCTURE ON \*B CROSSARM FOR EXISTING 3 PH 1/0 ACSR CONDUCTORS (S-0130)  
 INS: NEUTRAL ATTACHMENT (S-1377)  
 TRF: EXISTING 3 PH 1/0 ACSR CONDUCTOR  
 TRF: PREPARE NEUTRAL WIRE FOR CONVERSION  
 REM: TOP POLE AND REMOVE ALL PECO EQUIPMENT EXCEPT CONDUCTORS
- 194 POLE \*82343 - PROPOSED DALEVILLE-342 F50 FUSES**  
 REP: 45'-CL-2 POLE WITH 45'-CL-2 PENTA POLE (S-1140)  
 INS: 3 PH 50K FUSES ON 34KV TANGENT STRUCTURE WITH 2-1/0 CROSSARMS EXISTING CONDUCTORS TO POLE \*34994 TO BE CONVERTED TO 34KV ON DALEVILLE-342 (S-1641-B FIG. II)  
 INS: SECONDARY ATTACHMENT (S-1323)  
 TRF: EXISTING 3 PH 1/0 ACSR CONDUCTOR  
 TRF: PREPARE NEUTRAL WIRE FOR CONVERSION  
 REM: TOP POLE AND REMOVE ALL PECO EQUIPMENT EXCEPT CONDUCTORS
- 194A POLE \*34994 - XFMR 60-B6-G6F-12**  
 INS: 45'-CL-2 PENTA POLE APPROX. 50' EAST OF POLE \*82343 (S-1140)  
 INS: 34KVX4KV 75KVA A PH DUAL RATIO XFMR ON 4KV TAP SETTING WITH 80K FUSE AND 34KVX4KV 50KVA C PH DUAL RATIO XFMR ON 4KV TAP SETTING WITH 80K FUSE FOR 3 PH OPEN WYE OPEN DELTA XFMR INSTALLATION (S-1656-A)  
 INS: ANCHOR GUY AT 15' LEAD LENGTH IN SOUTH DIRECTION (S-1605)  
 TRF: EXISTING 3 PH 1/0 ACSR CONDUCTOR  
 TRF: PREPARE SECONDARY WIRE FOR CONVERSION  
 REM: TOP POLE AND REMOVE ALL PECO EQUIPMENT EXCEPT CONDUCTORS
- 195 POLE \*82343-1 - XFMR 60-B6-G7D-12**  
 REP: 45'-CL-2 POLE WITH 45'-CL-2 PENTA POLE (S-1140)  
 INS: 34KVX4KV 75KVA A PH DUAL RATIO XFMR ON 4KV TAP SETTING WITH 80K FUSE AND 34KVX4KV 50KVA C PH DUAL RATIO XFMR ON 4KV TAP SETTING WITH 80K FUSE FOR 3 PH OPEN WYE OPEN DELTA XFMR INSTALLATION ON DEADEND STRUCTURE (S-1651-C & S-1656-A)  
 INS: ANCHOR GUY AT 15' LEAD LENGTH IN EAST DIRECTION (S-1605)  
 TRF: EXISTING 3 PH 1/0 ACSR CONDUCTOR  
 TRF: PREPARE SECONDARY WIRE FOR CONVERSION  
 REM: TOP POLE AND REMOVE ALL PECO EQUIPMENT EXCEPT CONDUCTORS
- 196 POLE \*12618 - DALEVILLE-342 3 PH TP TO XFMR 60-B6-H6E**  
 INS: REPLACE CUTOUTS AND TERMINATORS AND REFRAME TO 34KV DEADEND TERMINAL POLE (S-1672-C)  
 INS: 34KV 50K FUSES IN CUTOUTS (S-5506-E)  
 TRF: PREPARE UC CABLE TO XFMR 60-B6-H6E FOR CONVERSION  
 REM: EXISTING 4KV CUTOUTS, FUSES, AND TERMINATORS
- 197 UG CABLE TO XFMR 60-B6-H6E**  
 INS: VERIFY CABLE IS 35KV RATED  
 INS: CABLE TAG AT XFMR INDICATING CABLE IS ON DALEVILLE-342 DURING CONVERSION
- 198 PADMOUNT XFMR 60-B6-H6E**  
 INS: 34KV 300KVA 3 PH PADMOUNT DEAD FRONT XFMR WITH 15A BAYONET FUSE (S-5571-A & S-5506-D)  
 INS: 35KV LOADBREAK ELBOWS ON EXISTING 3-1X1/0AL CABLE (S-5591-A)  
 TRF: EXISTING 3-1X1/0AL CABLE TO NEW XFMR  
 TRF: EXISTING SECONDARY CABLE TO NEW XFMR  
 REM: EXISTING 4KV PADMOUNT XFMR
- 199 POLE \*33513 - DALEVILLE-342 B2**  
 REM: TOKENA-002 CONDUCTORS AND EQUIPMENT
- 200 POLE \*3428 - XFMR 60-B6-G8D TO BE REMOVED HERE**  
 INS: 34KV TANGENT STRUCTURE ON 2-B CROSSARMS FOR EXISTING DALEVILLE-342 CONDUCTORS (S-0130)  
 INS: SECONDARY DEADEND ATTACHMENT FOR 4/0 TRIPLEX SECONDARY FROM POLE \*3429 (S-1323)  
 TRF: DALEVILLE-342 CONDUCTORS  
 TRF: CONNECT 4/0 TRIPLEX FROM POLE \*3429 TO EXISTING SERVICE WIRE TO POLE 29986  
 REM: DALEVILLE-342 CROSSARMS AND PINS  
 REM: TOKENA-002 CONDUCTORS AND EQUIPMENT INCLUDING THE XFMR
- 201 POLE \*3429 - XFMR 60-B6-G6G**  
 REP: 50'-CL-2 POLE WITH 55'-CL-2 PENTA POLE (S-1140)  
 INS: 34KV TANGENT STRUCTURE WITH 34KV B PH 50KVA XFMR WITH 10K CURRENT LIMITING FUSE AND SECONDARY ATTACHMENT (S-1651-A & S-5506-D)  
 INS: APPROX. 166' OF 4/0 TRIPLEX SECONDARY TO POLE \*3428 (S-1323)  
 INS: APPROX. 35' OF DOUBLE POLE TO POLE GUY TO POLE \*481 (S-1605)  
 TRF: PREPARE SECONDARY WIRE FOR CONVERSION  
 REM: TOP POLE AND REMOVE ALL PECO EQUIPMENT ABOVE COMMUNICATIONS INCLUDING TOKENA-002 CONDUCTORS AND XFMR
- 202 POLE \*481**  
 INS: POLE TO POLE GUY ATTACHMENTS FOR GUY WIRE FROM POLE \*3429 (S-1605)  
 REM: EXISTING POLE TO POLE GUY ATTACHMENT
- 203 POLE \*3430 - TOKENA-002 & LONDON-002 4KV BREAKDOWN**  
 INS: 34KV TANGENT STRUCTURE ON \*B CROSSARM FOR EXISTING DALEVILLE-342 CONDUCTORS (S-0130)  
 TRF: DALEVILLE-342 CONDUCTORS  
 REM: EXISTING CROSSARM AND PINS FOR DALEVILLE-342 CROSSARM  
 REM: TOKENA-002 CONDUCTORS AND EQUIPMENT INCLUDING NORMALLY OPEN DISCONNECTS LONDON-002 CONDUCTORS AND EQUIPMENT

**NOTE:**  
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**CONTRACTORS NOTE:**  
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**ISSUED FOR CONSTRUCTION REV 0 09/20/2021**

PECO WORK ORDER: 17238693  
 E.C.#: 0000253518  
 CIRCUIT: LONDON-001, LONDON-002, TOKENA-002, AVONDALE-002, DALEVILLE-341, DALEVILLE-342, CLAY-341, BRADFORD-346  
 QUAD: 53EF56, 53GH56, 53GH78  
 60AB56, 60B7, 60C5, 60C6  
 60CD78, 60D5

DESIGNER: C. BYDLON  
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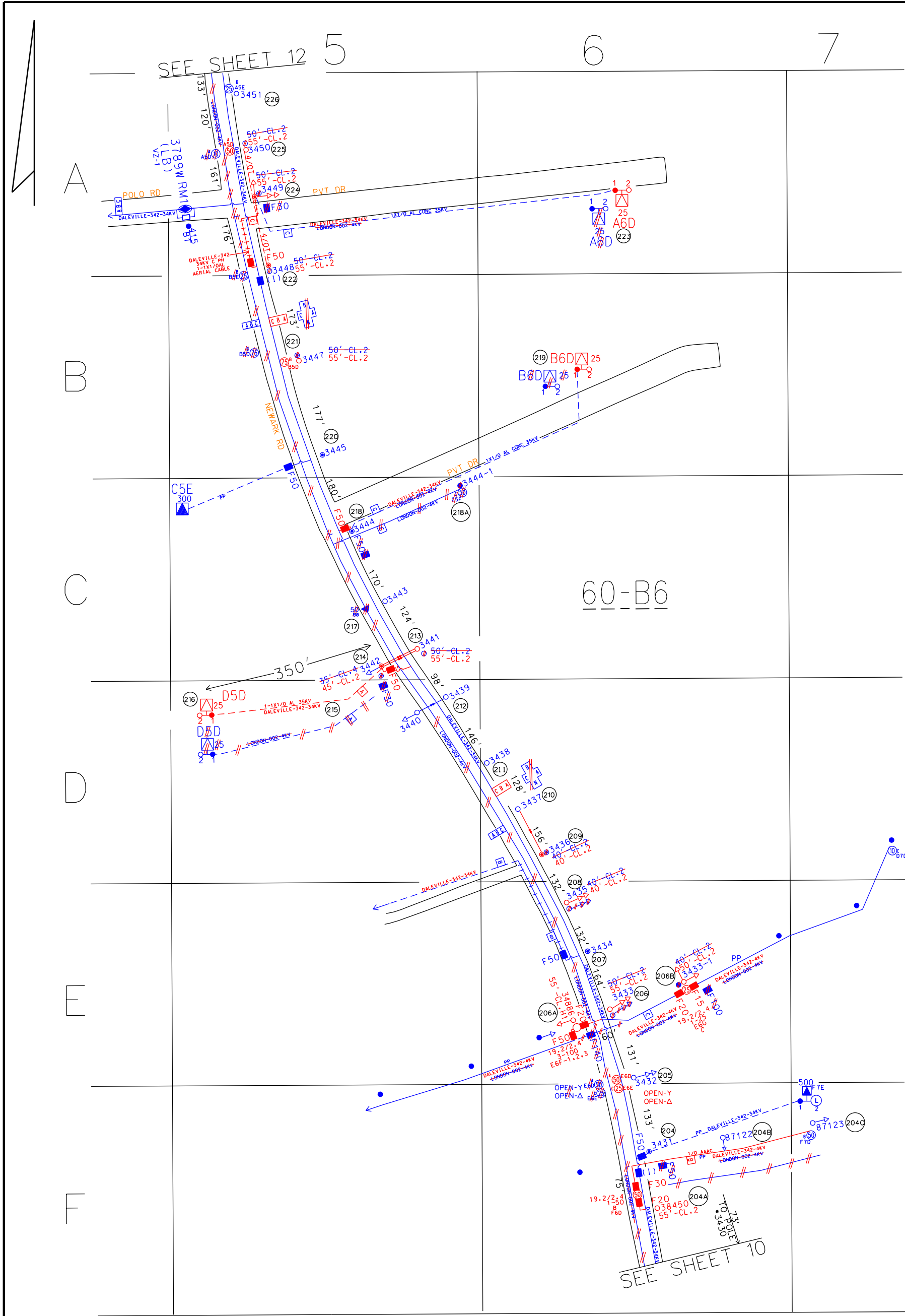
REV. #	DESCRIPTION	DATE
0	SUBMITTED FOR IFC	09/20/2021
B	REVISED PER LRE COMMENTS	07/29/2021
A	SUBMITTED FOR IFA	05/28/2021

REV. #	DESCRIPTION	DATE
REVISIONS		
	DRAWN BY	DATE
	CBB	09/20/2021
	JOB/W.O. NO.	17238693

**IKDAN ENGINEERING** SHEET 10 OF 20

PECO 2021 4KV UNIT SUB RETIREMENT  
 LONDON-001, LONDON-002, TOKENA-002  
 DELCHESTER REGION-CHESTER COUNTY  
 AVONDALE BORO & NEW GARDEN TWSP.  
 EAST & WEST MARLBOROUGH TWSPS.



- 204A POLE #38450 - 1-50KVA INTERPOSING XFMR 60-B6-F6D  
INS: 55'-CL.2 PENTA POLE APPROX. 75' SOUTH OF POLE #3431 (S-1140). CUT POLE TO MATCH EXISTING POLE HEIGHT.  
INS: 1 PH B PH 50KVA INTERPOSING XFMR WITH 20A CURRENT LIMITING FUSE ON PRIMARY SIDE AND 30K FUSE ON SECONDARY SIDE (S-1660-A & S-5506-D)  
INS: REPLACE EXISTING B PH 4KV CONDUCTOR WITH 1/0 AAAC ON CROSSARM BELOW SECONDARY SIDE FUSE (S-1678-A & S-5506-D). THIS 4KV INTERPOSED TAP TO FEED XFMR 60-B6-F7D ON POLE #87123  
TRF: DALEVILLE-342 CONDUCTORS  
TRF: NEUTRAL CONDUCTOR  
REM: A,B,C PH 4KV CONDUCTORS FROM POLE #3430 AND THE A,B,C PH 4KV CONDUCTORS TO POLE #3431
- 204 POLE #3431 - DALEVILLE-342 TP TO XFMR 60-B6-F7E  
INS: CUT AND DEADEND PROPOSED 1/0 AAAC B PH 4KV CONDUCTOR ON EXISTING 4KV CROSSARM (S-5128-B) THIS 4KV INTERPOSED TAP TO FEED XFMR 60-B6-F7D ON POLE #87123 DEADEND PROPOSED 1/0 AAAC TO POLE #87122  
REM: 4KV CUTOUT AND FUSE  
REM: A,B,C PH 4KV CONDUCTORS FROM POLE #38450 AND THE A,B,C PH 4KV CONDUCTORS TO POLE #3432
- 204B POLE #87122  
INS: 4KV 1PH TANGENT STRUCTURE WITH POLE TOP PIN FOR PROPOSED 1/0 AAAC CONDUCTOR FROM POLE #3431 (S-0130)
- 204C POLE #87123 - XFMR 60-B6-F7D  
INS: PROPOSED 1/0 AAAC CONDUCTOR FROM POLE #87122 ON DEADEND STRUCTURE FOR 1PH XFMR (S-1652-C)
- 205 POLE #3432 - XFMR 60-B6-E6D & E6E  
INS: 34KV 50KVA A PH XFMR WITH 10A CURRENT LIMITING FUSE AND 25KVA C PH XFMR WITH 10A CURRENT LIMITING FUSE FOR 3 PH OPEN WYE OPEN DELTA XFMR INSTALLATION (S-1656-A)  
INS: SECONDARY ATTACHMENT (S-1656-A)  
TRF: DALEVILLE-342 CONDUCTORS  
TRF: PREPARE SECONDARY WIRE FOR CONVERSION  
REM: LONDON-002 EQUIPMENT AND CONDUCTORS
- 206 POLE #3433  
REP: 50'-CL.2 POLE WITH 55'-CL.2 PENTA POLE (S-1140)  
INS: 3 PHASE 4 WAY 34KV CORNER STRUCTURE FRAMED 45'-CL.2 WAY CORNER STRUCTURE FOR DALEVILLE-342 TAPS (S-1625-B). INSTALL DEADEND INSULATORS ON EACH SIDE OF THE CROSSARMS FOR DALEVILLE-342 EAST AND WEST TAPS  
INS: SECONDARY ATTACHMENT (S-1323)  
TRF: GUY WIRES EAST OF POLE (S-1605)  
TRF: DALEVILLE-342 CONDUCTORS  
TRF: 4KV TAPS THAT GO EAST AND WEST AND PUT ON DALEVILLE-342 CIRCUIT  
TRF: PREPARE SECONDARY WIRE FOR CONVERSION  
REM: TOP POLE AND REMOVE ALL PECO EQUIPMENT ABOVE COMMUNICATIONS INCLUDING LONDON-002 CONDUCTORS
- 206A POLE #34886 - 3-100KVA INTERPOSING XFMR 60-B6-E6F-1,2,3  
INS: 55'-CL.1 PENTA POLE ON THE WEST SIDE OF NEWARK RD APPROX. 60' WEST OF POLE #3433 (S-1140)  
INS: 1 PH 100KVA 34KV TO 4KV INTERPOSING XFMR WITH 20A CURRENT LIMITING FUSES ON PRIMARY SIDE AND 50K FUSES ON SECONDARY SIDE AS DEADEND STRUCTURE  
INS: 1/0 AAAC C PH CONDUCTOR FROM POLE #3433 AND TO TERMINAL POLE (S-1051-B)  
INS: ANCHOR GUY AT 15' LEAD LENGTH IN THE WEST DIRECTION (S-1605)  
TRF: EXISTING 3 PH TAP CONDUCTOR CONDUCTOR TO TERMINAL POLE WILL BE OPERATING AT 4KV
- 206B POLE #3433-1 - 1-25KVA INTERPOSING XFMR 60-B6-E6G  
REP: 40'-CL.2 POLE WITH 50'-CL.2 PENTA POLE (S-1140)  
INS: 1 PH C PH 25KVA 34KV TO 4KV INTERPOSING XFMR ON DEADEND STRUCTURE WITH 20A CURRENT LIMITING FUSE ON PRIMARY SIDE AND 15K FUSE ON SECONDARY SIDE (S-1661-D & S-5506-D)  
INS: CUT AND DEADEND C PH CONDUCTOR FROM POLE #3433 AND TO XFMR 60-B6-G7D (S-1051-B)  
INS: ANCHOR GUYS IN THE NORTH AND EAST DIRECTIONS  
TRF: EXISTING C PH TAP CONDUCTOR CONDUCTOR TO XFMR 60-B6-G7D WILL BE OPERATING AT 4KV
- 207 POLE #3434 - DALEVILLE-342 B PH AERIAL TP  
TRF: RAISE NEUTRAL AFTER 4KV IS REMOVED  
REM: LONDON-002 EQUIPMENT AND CONDUCTORS
- 208 POLE #3435  
REP: 40'-CL.2 POLE WITH 50'-CL.2 PENTA POLE (S-1140). CUT POLE TO MATCH EXISTING POLE HEIGHT  
INS: 34KV TANGENT STRUCTURE ON 2-B CROSSARM FOR EXISTING DALEVILLE-342 CONDUCTORS (S-0130)  
INS: NEUTRAL ATTACHMENT (S-1137)  
INS: AERIAL CABLE BRACKET FOR DALEVILLE-342 B PH TAP TO POLE #3436 (S-1832)  
INS: DOUBLE ANCHOR GUYS AT 15' LEAD LENGTH IN THE EAST DIRECTION (S-1605)  
TRF: DALEVILLE-342 CONDUCTORS  
REM: TOP POLE AND REMOVE ALL PECO EQUIPMENT ABOVE COMMUNICATIONS INCLUDING LONDON-002 EQUIPMENT AND CONDUCTORS
- 209 POLE #3436 - DALEVILLE-342 B PH TP  
REP: 40'-CL.2 POLE WITH 50'-CL.2 PENTA POLE (S-1140). CUT POLE TO MATCH EXISTING POLE HEIGHT  
INS: 34KV TANGENT STRUCTURE ON 10 CROSSARM FOR EXISTING DALEVILLE-342 CONDUCTORS (S-0130)  
INS: NEUTRAL ATTACHMENT (S-1137)  
INS: DEADEND AERIAL CABLE ATTACHMENT AND POLE MOLDING FOR DALEVILLE-342 B PH CABLE THAT TRANSITIONS UNDERGROUND (S-1828)  
INS: APPROX. 150' OF POLE TO POLE GUY TO POLE #3437 (S-1605)  
INS: DOUBLE ANCHOR GUYS AT 15' LEAD LENGTH IN THE EAST DIRECTION (S-1605)  
TRF: DALEVILLE-342 CONDUCTORS  
TRF: DALEVILLE-342 B PH AERIAL CABLE THAT TRANSITIONS UNDERGROUND  
REM: TOP POLE AND REMOVE ALL PECO EQUIPMENT ABOVE COMMUNICATIONS INCLUDING LONDON-002 EQUIPMENT AND CONDUCTORS
- 210 POLE #3437  
INS: POLE TO POLE GUY ATTACHMENT FOR GUY WIRE FROM POLE #3436 (S-1605)  
REM: LONDON-002 EQUIPMENT AND CONDUCTORS
- 211 POLE #3438  
TRF: RAISE NEUTRAL AFTER 4KV IS REMOVED  
REM: LONDON-002 EQUIPMENT AND CONDUCTORS
- 212 POLE #3439  
INS: 34KV TANGENT STRUCTURE ON 8 CROSSARM FOR EXISTING DALEVILLE-342 CONDUCTORS (S-0130)  
TRF: RAISE NEUTRAL AFTER 4KV IS REMOVED  
REM: DALEVILLE-342 CROSSARM AND PINS  
REM: LONDON-002 EQUIPMENT AND CONDUCTORS
- 213 POLE #3441  
REP: 50'-CL.2 POLE WITH 55'-CL.2 PENTA POLE (S-1140)  
INS: 34KV TANGENT STRUCTURE ON 8 CROSSARM WITH A PH TAP TO POLE #3442 FOR PROPOSED A PH CONDUCTOR (S-1631-C)  
INS: APPROX. 45' OF 1/0 AAAC CONDUCTOR AT 34KV TO POLE #3442 (S-1062)  
INS: 2 POLE-TO-POLE GUY WIRES TO POLE #3442  
TRF: DALEVILLE-342 CONDUCTORS  
TRF: NEUTRAL CONDUCTOR  
REM: TOP POLE AND REMOVE ALL PECO EQUIPMENT ABOVE COMMUNICATIONS INCLUDING LONDON-002 EQUIPMENT AND CONDUCTORS
- 214 POLE #3442 - A PH TP TO XFMR 60-B6-D5D  
REP: 35'-CL.4 POLE WITH 45'-CL.2 PENTA POLE (S-1140)  
INS: 34 KV A PHASE TERMINAL POLE DEADEND STRUCTURE WITH 50K FUSE (S-1671-B)  
NOTE: UNDERGROUND DIRECTIONAL BORE APPROX. 350' FROM POLE #3442 TO XFMR 60-B6-D5D  
TRF: NEUTRAL CONDUCTOR  
REM: TOP POLE AND REMOVE ALL PECO EQUIPMENT ABOVE COMMUNICATIONS INCLUDING LONDON-002 EQUIPMENT AND CONDUCTORS
- 215 UG CABLE TO XFMR 60-B6-D5D  
NOTE: UNDERGROUND DIRECTIONAL BORE APPROX. 350' FROM POLE #3442 TO XFMR 60-B6-D5D  
INS: APPROX. 350' OF 35 KV 1-1X1/0 AL UG CABLE WITH 4/0 CU NEUTRAL FROM POLE #3442 TO XFMR 60-B6-D5D
- 216 XFMR 60-B6-D5D  
INS: 34KVX4KV 25KVA A PH PADMOUNT DUAL RATIO XFMR ON 4KV TAP SETTING WITH 25A BAYONET FUSE (S-5570-A & S-5506-D)  
REM: EXISTING 1-PHASE 25 KVA PADMOUNT XFMR AND UNDERGROUND CABLE LEADING UP TO IT
- 217 POLE #3443 - LONDON-002 B PH VOLTAGE REGULATOR  
INS: 34KV TANGENT STRUCTURE ON 8 CROSSARM FOR EXISTING DALEVILLE-342 CONDUCTORS (S-0130)  
TRF: RAISE NEUTRAL AFTER 4KV IS REMOVED  
REM: DALEVILLE-342 CROSSARM AND PINS  
REM: LONDON-002 EQUIPMENT AND CONDUCTORS INCLUDING THE VOLTAGE REGULATOR
- 218 POLE #3444 - C PH TAP TO XFMR 60-B6-B6D  
INS: 1PH TERMINAL POLE FOR 1/0 AL CABLE ON 3 PH TANGENT STRUCTURE WITH 50K FUSE (S-1672-A & S-5506-D)  
INS: 1/0AL-1/0AL COLD SHRINK SPLICE KIT TO CONNECT TO EXISTING 1/0 AL UG CABLE TO XFMR 60-B6-B6D (S-25-102-A & S-1828)  
INS: NEUTRAL ATTACHMENT (S-1137)  
TRF: DALEVILLE-342 CONDUCTORS  
TRF: NEUTRAL CONDUCTOR  
REM: TOP POLE AND REMOVE ALL PECO EQUIPMENT ABOVE COMMUNICATIONS INCLUDING LONDON-002 EQUIPMENT AND CONDUCTORS  
REM: C PH OH WIRE TO POLE WITH XFMR 60-B6-C5F ON IT
- 218A POLE #3444-1 - XFMR 60-B6-C5F  
REM: POLE AND ALL PECO EQUIPMENT INCLUDING LONDON-002 CONDUCTOR AND XFMR  
REM: CUT AND ABANDON UG SECONDARY WIRE AT THE BASE OF THE POLE
- 219 XFMR 60-B6-B6D  
REM: EXISTING 1-PHASE 25 KVA PADMOUNT XFMR  
INS: 34KVX4KV 25KVA C PH PADMOUNT DUAL RATIO XFMR ON 4KV TAP SETTING WITH 25A BAYONET FUSE (S-5570-A & S-5506-D)  
INS: 1-34 KV ELBOW ON CBL#(S-5591-A)  
TRF: EXISTING 1/0 AL CABLE TO NEW XFMR
- 220 POLE #3445 - DALEVILLE-342 TP TO XFMR 60-B6-C5E  
INS: 8 CROSSARM FOR TOP CROSSARM OF 3 PH TERMINAL POLE FOR DALEVILLE-342 (S-1672-B)  
TRF: DALEVILLE-342 CONDUCTORS  
TRF: DALEVILLE-342 CROSSARM AND PORCELAIN INSULATORS  
REM: LONDON-002 EQUIPMENT AND CONDUCTORS
- 221 POLE #3447 - XFMR 60-B6-B5D  
REP: 50'-CL.2 POLE WITH 55'-CL.2 PENTA POLE (S-1140)  
INS: 34KV TANGENT STRUCTURE WITH 34KV B PH 75KVA XFMR WITH 10A CURRENT LIMITING FUSE AND SECONDARY ATTACHMENT (S-1651-A & S-5506-D)  
INS: POLE MOLDING FOR UG SECONDARY SERVICE (S-1172)  
TRF: DALEVILLE-342 CONDUCTORS  
TRF: PREPARE SECONDARY WIRE FOR CONVERSION  
REM: TOP POLE AND REMOVE ALL PECO EQUIPMENT ABOVE COMMUNICATIONS INCLUDING LONDON-002 CONDUCTORS AND EQUIPMENT INCLUDING THE XFMR
- 222 POLE #3448 - DALEVILLE-342 IN-LINE DISCS PROPOSED C PH AERIAL CABLE TP & XFMR 60-B6-B5E TO BE REMOVED  
REP: 50'-CL.2 POLE WITH 55'-CL.2 PENTA POLE (S-1140)  
INS: 34KV TANGENT STRUCTURE WITH 34KV C PH 1/0 AL AERIAL CABLE TERMINAL POLE WITH 50K FUSE AND SECONDARY ATTACHMENT (S-1672-A & S-5506-A)  
INS: APPROX. 176' OF 1-1X1/0 AL AERIAL CABLE TO POLE #3449 (S-1079-B)  
INS: SECONDARY DEADEND ATTACHMENT FOR 4/0 TRIPLEX SECONDARY FROM POLE #3449 AND CONNECT TO EXISTING SERVICE WIRE (S-1323)  
TRF: DALEVILLE-342 CONDUCTORS AND IN-LINE DISCS  
TRF: PREPARE SECONDARY WIRE FOR CONVERSION  
REM: TOP POLE AND REMOVE ALL PECO EQUIPMENT ABOVE COMMUNICATIONS INCLUDING LONDON-002 CONDUCTORS AND EQUIPMENT INCLUDING THE XFMR
- 223 XFMR 60-B6-A5D  
REM: EXISTING 1PH 25 KVA PADMOUNT XFMR  
INS: 34KVX4KV 25KVA C PH PADMOUNT DUAL RATIO XFMR ON 4KV TAP SETTING WITH 25A BAYONET FUSE (S-5570-A & S-5506-D)  
INS: 1-34 KV ELBOW ON CBL#(S-5591-A)  
TRF: EXISTING 1/0 AL CABLE TO NEW XFMR
- 224 POLE #3449 - C PH TP TO XFMR 60-B6-A6D  
REP: 50'-CL.2 POLE WITH 55'-CL.2 PENTA POLE (S-1140)  
INS: 3 PHASE 3 WAY 34KV CORNER STRUCTURE WITH FIBERGLASS CROSSARM FOR TAP ARM THAT FEEDS DALEVILLE-342 TO POLE #B1 (S-1626-B). PLACE SURGE ARRESTERS BELOW TAP ARM  
INS: 1/0AL-1/0AL COLD SHRINK SPLICE KIT AND AERIAL TO UNDERGROUND AERIAL CABLE TRANSITION TO CONNECT PROPOSED AERIAL CABLE FROM POLE #3448 TO EXISTING 1/0 AL C PH UG CABLE TO XFMR 60-B6-A6D (S-25-102-A & S-1828)  
INS: SECONDARY EXTENSION ATTACHMENT FOR 4/0 TRIPLEX SECONDARY FROM POLE #3450 (S-1323)  
INS: APPROX. 176' OF 4/0 TRIPLEX SECONDARY TO POLE #3448  
INS: ANCHOR GUYS IN THE NORTH AND EAST DIRECTIONS (S-1605)  
TRF: DALEVILLE-342 CONDUCTORS  
TRF: PREPARE SECONDARY WIRE FOR CONVERSION  
TRF: EXISTING 1/0 AL UG CABLE TO XFMR 60-B6-A6D  
REM: TOP POLE AND REMOVE ALL PECO EQUIPMENT ABOVE COMMUNICATIONS INCLUDING LONDON-002 EQUIPMENT AND CONDUCTORS
- 225 POLE #3450 - XFMR 60-B6-A5D  
REP: 50'-CL.2 POLE WITH 55'-CL.2 PENTA POLE (S-1140)  
INS: 34KV TANGENT STRUCTURE WITH 34KV A PH 50KVA XFMR WITH 10A CURRENT LIMITING FUSE AND SECONDARY ATTACHMENT (S-1651-A & S-5506-D)  
INS: APPROX. 161' OF 4/0 TRIPLEX SECONDARY TO POLE #3449  
TRF: DALEVILLE-342 CONDUCTORS  
TRF: PREPARE SECONDARY WIRE FOR CONVERSION  
REM: TOP POLE AND REMOVE ALL PECO EQUIPMENT ABOVE COMMUNICATIONS INCLUDING LONDON-002 CONDUCTORS AND EQUIPMENT INCLUDING THE XFMR
- 226 POLE #3451 - XFMR 60-B6-A5E  
TRF: RAISE SECONDARY AFTER 4KV IS REMOVED  
REM: LONDON-002 EQUIPMENT AND CONDUCTORS



**NOTE:**  
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 - HOT STICK WORK REQUIRED

**CONTRACTORS NOTE:**  
 CONTRACTOR TO CONTACT P.A.G.E. CALL(1-800-242-1776) THREE DAYS(MINIMUM) PRIOR TO BEGINNING WORK FOR UTILITY OBSTRUCTION MARKINGS IN STREET AND SIDEWALK. CARE SHOULD BE TAKEN TO LOCATE ALL OBSTRUCTIONS PRIOR TO THE DESIGN. EXCAVATION AND LOCATION OF OBSTRUCTIONS SHOULD BE FAR ENOUGH IN ADVANCE TO PERMIT REALIGNMENT OF DUCT AND (OR) MANHOLES IF NECESSARY.

**SAFETY NOTE:**  
 CAUTION SHALL BE USED TO INSURE THAT THE PROPER PERSONAL PROTECTIVE CLOTHING AND EQUIPMENT ARE USED. HARD HAT, GLOVES, SAFETY GLASSES AND P.P.E. ARE A MUST WHEN WORKING AROUND OR ON ENERGIZED FACILITIES.

ISSUED FOR CONSTRUCTION REV 0 09/20/2021

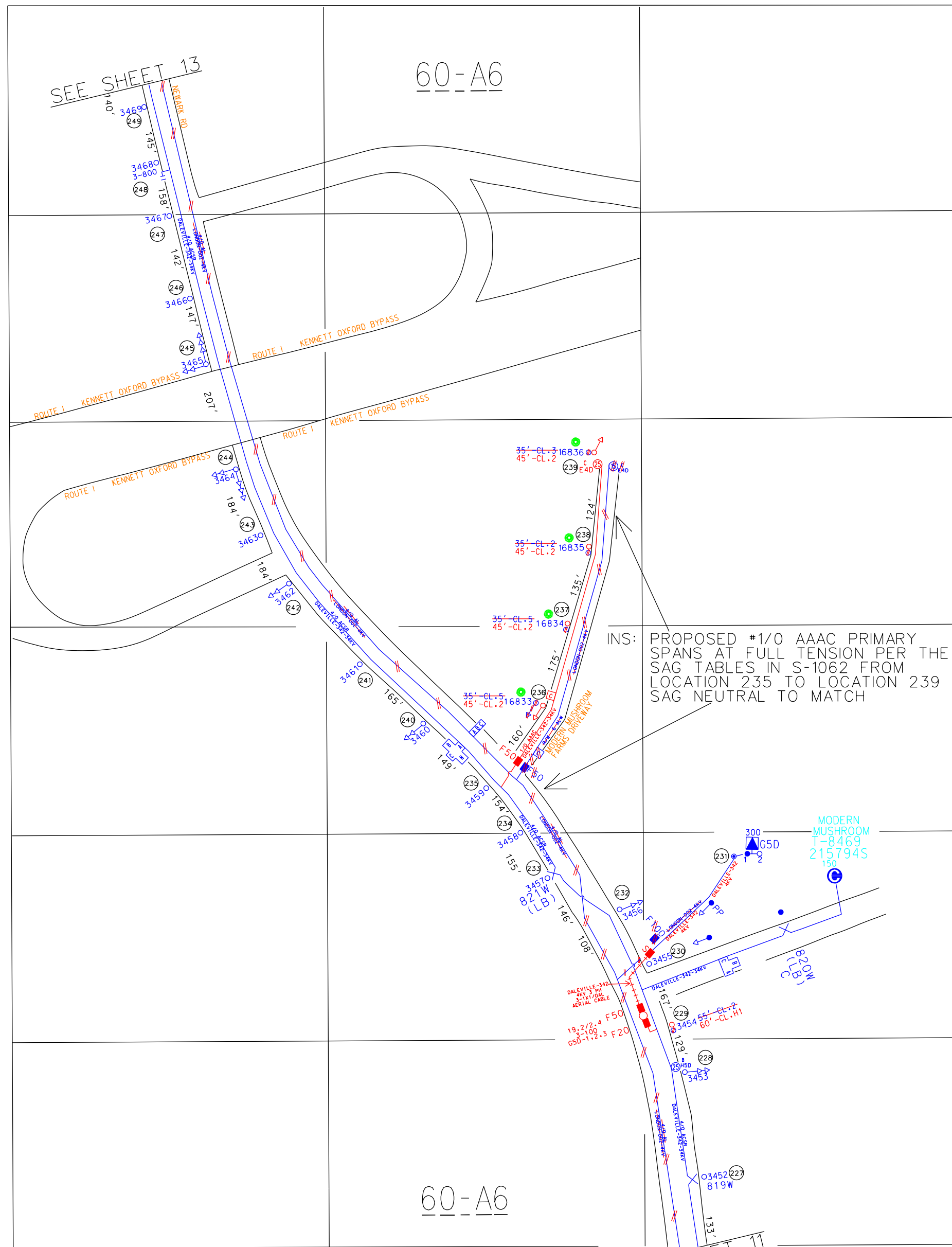
DESIGNER: C. BYDLON 484.707.8999  
 ENG: D. WALKES 312.763.2198  
 LRE: J. PATEL 610.725.7165

PECO WORK ORDER: 17238693  
 E.C.#: 0000253518  
 CIRCUIT: LONDON-001, LONDON-002  
 TOKENA-002, AVONDALE-002,  
 DALEVILLE-341, DALEVILLE-342,  
 CLAY-341, BRADFORD-346  
 QUAD: 53EF56, 53GH56, 53GH78  
 60AB56, 60B7, 60C5, 60C6  
 60CD78, 60D5

REV. #	DESCRIPTION	DATE
0	SUBMITTED FOR IFC	09/20/2021
B	REVISED PER LRE COMMENTS	07/29/2021
A	SUBMITTED FOR IFA	05/28/2021

REVISIONS		
DRAWN BY	DATE	JOB/W.O. NO.
CBB	09/20/2021	17238693



- 227) POLE \*3452 - 819W LB SW  
TRF: RAISE SECONDARY AFTER 4KV IS REMOVED  
REM: LONDON-002 EQUIPMENT AND CONDUCTORS
- 228) POLE \*3453 - XFMR 60-A6-H50  
TRF: RAISE SECONDARY AFTER 4KV IS REMOVED  
REM: LONDON-002 EQUIPMENT AND CONDUCTORS
- 229) POLE \*3454 - 3-100KVA INTERPOSING XFMR 60-A6-G5D-1.2.3  
REP: 35'-CL.2 POLE WITH 60'-CL.HI PENTA POLE (S-1140)  
INS: 34KV TANGENT STRUCTURE WITH 2\*-8 CROSSARMS AND 3 1PH 100KVA 34KV TO 4KV INTERPOSING XFMR WITH 20A CURRENT LIMITING FUSES ON PRIMARY SIDE AND 50K FUSES ON SECONDARY SIDE CONNECTED TO 3-1X1/0 AL AERIAL CABLE (S-1663-A & S-5506-D)  
INS: APPROX. 167' OF 3-1X1/0 AL AERIAL CABLE TO POLE \*3455 (S-1079-B)  
INS: CHANGE POLE TAG TO \*3454  
TRF: RAISE NEUTRAL AFTER 4KV IS REMOVED  
REM: TOP POLE AND REMOVE ALL PECO EQUIPMENT ABOVE COMMUNICATIONS INCLUDING LONDON-002 EQUIPMENT AND CONDUCTORS
- 230) POLE \*3455  
INS: TEMPORARILY RAISE AND REFRAME LONDON-002 UNDERBUILD TO \*8 ALLEY ARM (S-0130)  
INS: 34KV DEAD END TERMINAL POLE WITH SOLID BLADE CUTOUTS FOR 3-1X1/0 AL AERIAL CABLE FROM POLE \*3454 (S-1672-C)  
TRF: PLACE EXISTING CONDUCTORS TO XFMR 60-A6-G5D ON 2\*-8 CROSSARMS ABOVE SOLID BLADE CUTOUTS CROSSARM AND CONNECT TO SOLID BLADE CUTOUTS  
TRF: RAISE NEUTRAL AFTER 4KV IS REMOVED  
REM: LONDON-002 EQUIPMENT AND CONDUCTORS TO POLE \*3454 AND POLE \*3456
- 231) XFMR 60-A6-G5D  
INS: FAULT INDICATOR ON ELB\*1 OF XFMR (S-5524-A)
- 232) POLE \*3456  
TRF: RAISE NEUTRAL AFTER 4KV IS REMOVED  
REM: LONDON-002 EQUIPMENT AND CONDUCTORS
- 233) POLE \*3457 - 821LB SW  
TRF: RAISE NEUTRAL AFTER 4KV IS REMOVED  
REM: LONDON-002 EQUIPMENT AND CONDUCTORS
- 234) POLE \*3458  
INS: 34KV TANGENT STRUCTURE ON 2\*-8 CROSSARMS WITH 45" FIBERGLASS POLE TOP PIN FOR EXISTING DALEVILLE-342 CONDUCTORS (S-0130)  
TRF: DALEVILLE-342 CONDUCTORS  
TRF: RAISE NEUTRAL AFTER 4KV IS REMOVED  
REM: LONDON-002 EQUIPMENT AND CONDUCTORS
- 235) POLE \*3459 - C PH TAP TO XFMR 60-A6-E4D  
INS: 34KV C PHASE TAP FROM TRIANGULAR CONFIGURATION WITH 50K FUSE (S-1631-A)  
TRF: DALEVILLE-342 CONDUCTORS  
TRF: RAISE NEUTRAL AFTER 4KV IS REMOVED  
REM: LONDON-002 EQUIPMENT AND CONDUCTORS
- 236) POLE \*16833  
NOTE: VEGETATION WORK REQUIRED AT THIS LOCATION  
REP: 35'-CL.5 POLE WITH 45'-CL.2 PENTA POLE (S-1140)  
INS: 34KV 1PH TANGENT STRUCTURE WITH POLE TOP PIN (S-0130)  
INS: ANCHOR GUY IN THE WEST DIRECTION (S-1605)  
REM: LONDON-002 EQUIPMENT AND CONDUCTORS
- 237) POLE \*16834  
NOTE: VEGETATION WORK REQUIRED AT THIS LOCATION  
REP: 35'-CL.5 POLE WITH 45'-CL.2 PENTA POLE (S-1140)  
INS: 34KV 1PH TANGENT STRUCTURE WITH POLE TOP PIN (S-0130)  
REM: LONDON-002 PECO EQUIPMENT AND CONDUCTORS
- 238) POLE \*16835  
NOTE: VEGETATION WORK REQUIRED AT THIS LOCATION  
REP: 35'-CL.2 POLE WITH 45'-CL.2 PENTA POLE (S-1140)  
INS: 34KV 1PH TANGENT STRUCTURE WITH POLE TOP PIN (S-0130)  
REM: LONDON-002 PECO EQUIPMENT AND CONDUCTORS
- 239) POLE \*16836 - XFMR 60-A6-E6D  
NOTE: VEGETATION WORK REQUIRED AT THIS LOCATION  
REP: 35'-CL.3 POLE WITH 45'-CL.2 PENTA POLE (S-1140)  
INS: 34KVX4KV C PH 25KVA DUAL RATIO XFMR ON 4KV TAP SETTING WITH 30K FUSE (S-1652-C & S-5506-D)  
INS: ANCHOR GUY IN THE NORTH DIRECTION AT 15' LEAD LENGTH (S-1605)  
REM: LONDON-002 EQUIPMENT AND CONDUCTORS
- 240) POLE \*3460  
TRF: RAISE NEUTRAL AFTER 4KV IS REMOVED  
REM: LONDON-002 EQUIPMENT AND CONDUCTORS
- 241) POLE \*3461  
TRF: RAISE NEUTRAL AFTER 4KV IS REMOVED  
REM: LONDON-002 EQUIPMENT AND CONDUCTORS
- 242) POLE \*3462  
TRF: RAISE NEUTRAL AFTER 4KV IS REMOVED  
REM: LONDON-002 EQUIPMENT AND CONDUCTORS
- 243) POLE \*3463  
TRF: RAISE NEUTRAL AFTER 4KV IS REMOVED  
REM: LONDON-002 EQUIPMENT AND CONDUCTORS
- 244) POLE \*3464  
TRF: RAISE NEUTRAL AFTER 4KV IS REMOVED  
REM: LONDON-002 EQUIPMENT AND CONDUCTORS
- 245) POLE \*3465  
TRF: RAISE NEUTRAL AFTER 4KV IS REMOVED  
REM: LONDON-002 EQUIPMENT AND CONDUCTORS
- 246) POLE \*3466  
TRF: RAISE NEUTRAL AFTER 4KV IS REMOVED  
REM: LONDON-002 EQUIPMENT AND CONDUCTORS
- 247) POLE \*3467  
TRF: RAISE NEUTRAL AFTER 4KV IS REMOVED  
REM: LONDON-002 EQUIPMENT AND CONDUCTORS
- 248) POLE \*3468 - DALEVILLE-342 CAP BANK  
TRF: RAISE NEUTRAL AFTER 4KV IS REMOVED  
REM: LONDON-002 EQUIPMENT AND CONDUCTORS
- 249) POLE \*3469  
TRF: RAISE NEUTRAL AFTER 4KV IS REMOVED  
REM: LONDON-002 EQUIPMENT AND CONDUCTORS

NOTE:  
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 - HOT STICK WORK REQUIRED

DESIGNER: C. BYDLON  
 484.707.8999  
 ENG: D. WALKES  
 312.763.2198  
 LRE: J. PATEL  
 610.725.7165

PECO WORK ORDER: 17238693  
 E.C.#: 0000253518  
 CIRCUIT: LONDON-001, LONDON-002, TOKENA-002, AVONDALE-002, DALEVILLE-341, DALEVILLE-342, CLAY-341, BRADFORD-346  
 QUAD: 53EF56, 53GH56, 53GH78, 60AB56, 60B7, 60C5, 60C6, 60CD78, 60D5



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ISSUED FOR CONSTRUCTION REV 0 09/20/2021

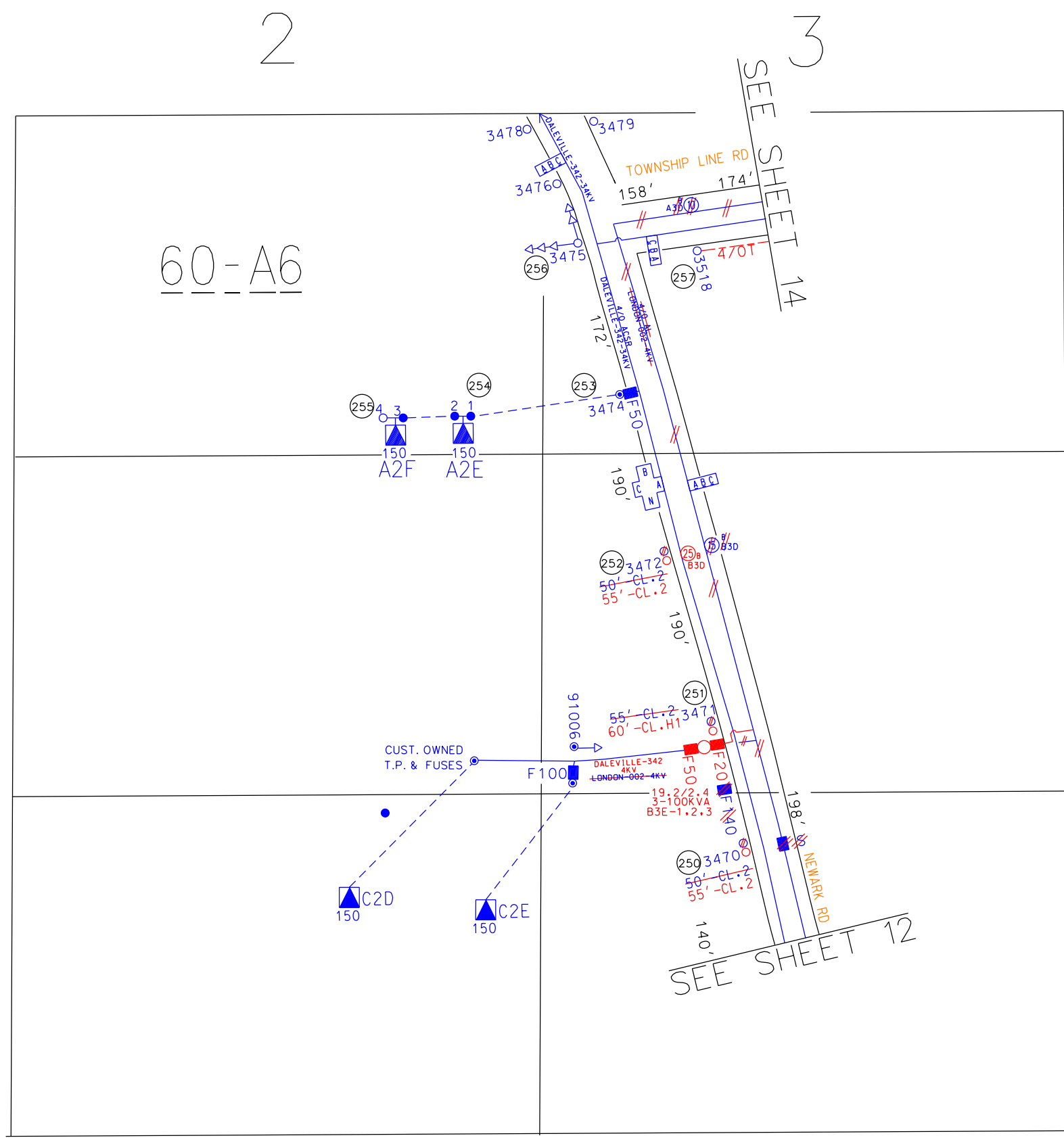
REV. #	DESCRIPTION	DATE
0	SUBMITTED FOR IFC	09/20/2021
B	REVISED PER LRE COMMENTS	07/29/2021
A	SUBMITTED FOR IFA	05/28/2021

REVISIONS

DRAWN BY	DATE	JOB/W.O. NO.
CBB	09/20/2021	17238693

**IKDAM ENGINEERING** SHEET 12 OF 20

PECO 2021 4KV UNIT SUB RETIREMENT  
 LONDON-001, LONDON-002, TOKENA-002  
 DELCHESTER REGION-CHESTER COUNTY  
 AVONDALE BORO & NEW GARDEN TWSP.  
 EAST & WEST MARLBOROUGH TWSPS.



- 250 POLE #3470  
REP: 50'-CL-2 POLE WITH 55'-CL.2 PENTA POLE (S-1140)  
INS: 34KV TANGENT STRUCTURE ON #B CROSSARM FOR EXISTING DALEVILLE-342 CONDUCTORS (S-0130)  
INS: SECONDARY ATTACHMENT (S-1323)  
TRF: PREPARE SECONDARY WIRE FOR CONVERSION  
REM: TOP POLE AND REMOVE ALL PECO EQUIPMENT ABOVE COMMUNICATIONS INCLUDING LONDON-002 EQUIPMENT AND CONDUCTORS
- 251 POLE #3471 - 3-100KVA INTERPOSING XFMR 60-A6-B3E-1.2.3  
REP: 55'-CL-2 POLE WITH 60'-CL.H1 PENTA POLE (S-1140)  
INS: 3 PH 100KVA 34KV TO 4KV INTERPOSING XFMR WITH 20A CURRENT LIMITING FUSES ON PRIMARY SIDE AND 50K FUSES ON SECONDARY SIDE (S-1663-A & S-5506-D)  
INS: 3 WAY CORNER STRUCTURE W/ CUTOUTS ON TAP-OFF SIDE (S-1626-C)  
TRF: DALEVILLE-342 CONDUCTORS  
TRF: EXISTING CONDUCTORS TO POLE #91006  
TRF: PREPARE SECONDARY WIRE FOR CONVERSION  
REM: TOP POLE AND REMOVE ALL PECO EQUIPMENT ABOVE COMMUNICATIONS INCLUDING LONDON-002 CONDUCTORS AND EQUIPMENT INCLUDING THE DISCONNECT SWITCHES
- 252 POLE #3472 - XFMR 60-A6-B3D  
REP: 50'-CL-2 POLE WITH 55'-CL.2 PENTA POLE (S-1140)  
INS: 34KV TANGENT STRUCTURE WITH 34KV B PH 25KVA XFMR WITH 10A CURRENT LIMITING FUSE AND SECONDARY ATTACHMENT (S-1651-A & S-5506-D)  
TRF: DALEVILLE-342 CONDUCTORS  
TRF: PREPARE SECONDARY WIRE FOR CONVERSION  
REM: TOP POLE AND REMOVE ALL PECO EQUIPMENT ABOVE COMMUNICATIONS INCLUDING LONDON-002 CONDUCTORS AND EQUIPMENT INCLUDING THE XFMR
- 253 POLE #3474 - DALEVILLE-342 TP TO XFMR 60-A6-A2E  
TRF: RAISE NEUTRAL AFTER 4KV IS REMOVED  
REM: LONDON-002 EQUIPMENT AND CONDUCTORS
- 254 XFMR 60-A6-A2E  
INS: FAULT INDICATOR ON ELB#1 OF XFMR (S-5524-A)
- 255 XFMR 60-A6-A2E  
INS: FAULT INDICATOR ON ELB#1 OF XFMR (S-5524-A)
- 256 POLE #3475  
TRF: RAISE NEUTRAL AFTER 4KV IS REMOVED  
REM: LONDON-002 EQUIPMENT AND CONDUCTORS
- 257 POLE #3518 - XFMR 60-A6-A3D TO BE REMOVED HERE  
INS: SECONDARY DEADEND ATTACHMENT TO CONNECT PROPOSED 4/0 TRIPLEX SECONDARY FROM POLE #3519 TO EXISTING SERVICE WIRE (S-1323)  
TRF: PREPARE SECONDARY AND NEUTRAL WIRE FOR CONVERSION  
REM: LONDON-002 EQUIPMENT AND CONDUCTORS

NOTE:  
 - ALL POLE REPLACEMENTS TO BE WITHIN 2' OF EXISTING POLE UNLESS OTHERWISE SPECIFIED  
 - HOT STICK WORK REQUIRED

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 484.707.8999  
 ENG: D. WALKES  
 312.763.2198  
 LRE: J. PATEL  
 610.725.7165

PECO WORK ORDER: 17238693  
 E.C.#: 0000253518  
 CIRCUIT: LONDON-001, LONDON-002  
 TOKENA-002, AVONDALE-002,  
 DALEVILLE-341, DALEVILLE-342,  
 CLAY-341, BRADFORD-346  
 QUAD: 53EF56, 53GH56, 53GH78  
 60AB56, 60B7, 60C5, 60C6  
 60CD78, 60D5

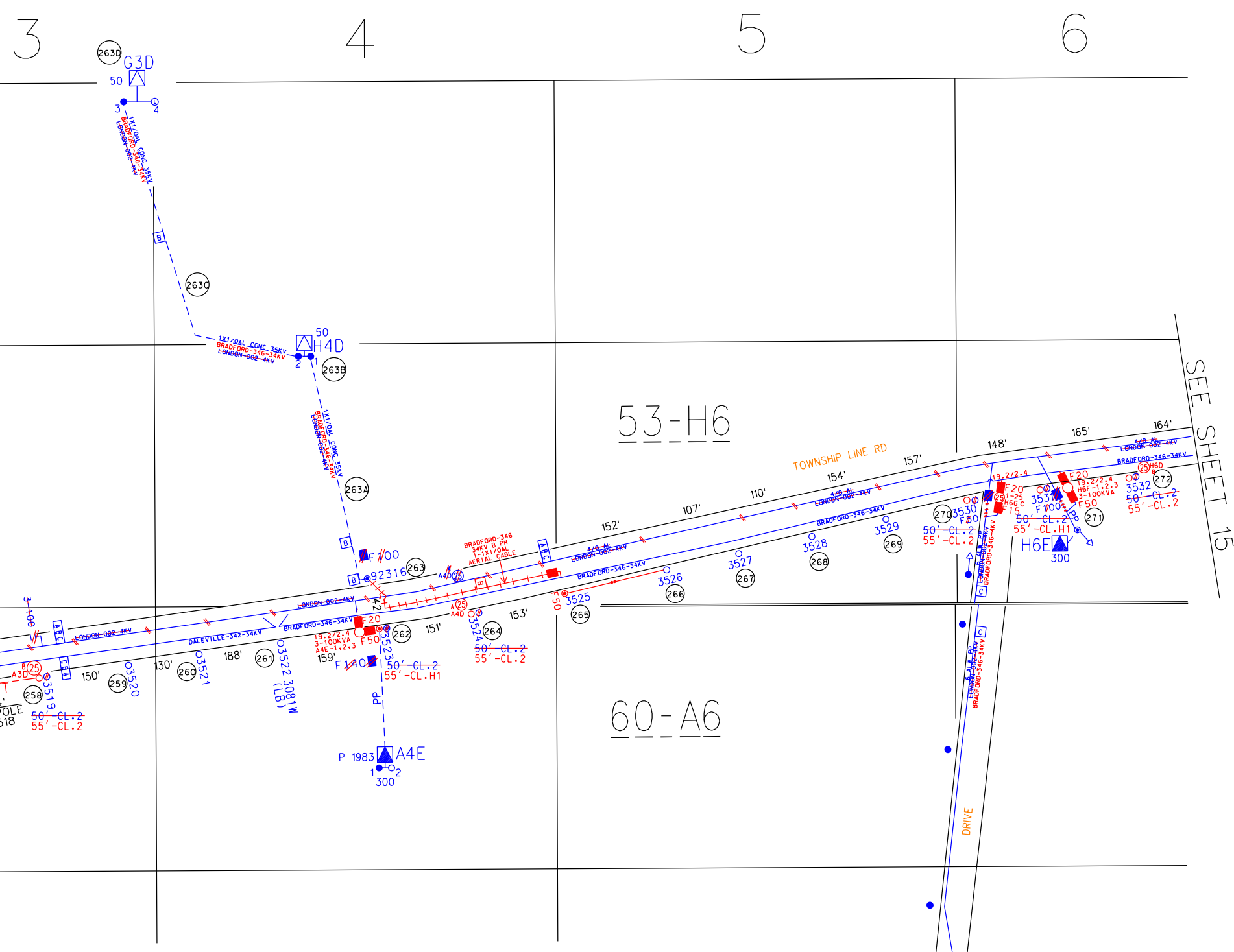
CONTRACTORS NOTE:  
 CONTRACTOR TO CONTACT PA. ONE CALL (1-800-242-1776) THREE DAYS (MINIMUM) PRIOR TO BEGINNING WORK FOR UTILITY OBSTRUCTION MARKINGS IN STREET AND SIDEWALK. CARE SHOULD BE TAKEN TO LOCATE ALL OBSTRUCTIONS PRIOR TO EARTH REMOVAL. ALL OBSTRUCTIONS MAY NOT HAVE BEEN SHOWN ON THE DESIGN EXCAVATION AND LOCATION OF OBSTRUCTIONS SHOULD BE FAR ENOUGH IN ADVANCE TO PERMIT REALIGNMENT OF DUCT AND (OR) MANHOLES IF NECESSARY.

ISSUED FOR  
CONSTRUCTION REV 0  
09/20/2021

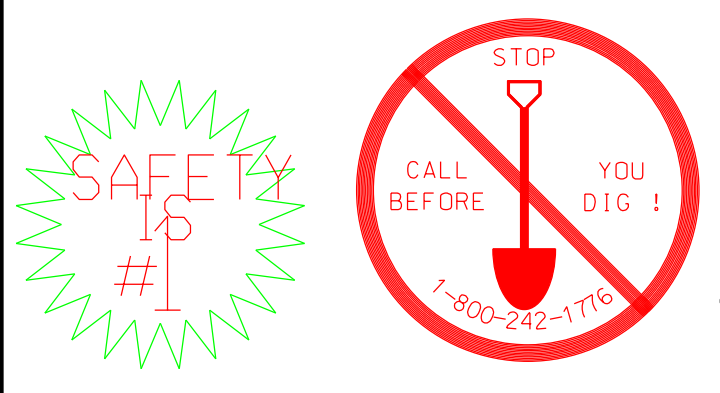
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			<b>IKDAM</b> ENGINEERING	SHEET 13 OF 20
0	SUBMITTED FOR IFC	09/20/2021	PECO 2021 4KV UNIT SUB RETIREMENT	
B	REVISED PER LRE COMMENTS	07/29/2021	LONDON-001, LONDON-002, TOKENA-002	
A	SUBMITTED FOR IFA	05/28/2021	DELCHESER REGION-CHESTER COUNTY	
REV. #	DESCRIPTION	DATE	AVONDALE BORO & NEW GARDEN TWSP. EAST & WEST MARLBOROUGH TWSPS.	
REVISIONS			DRAWN BY	DATE
			CBB	09/20/2021
			JOB/W.O. NO.	17238693



- 258 POLE #3519 - XFMR 60-A6-A3D TO BE INSTALLED HERE & LONDON-002 CAP BANK TO BE REMOVED  
 REP: 50'-CL. 2 POLE WITH 55'-CL. 2 PENTA POLE (S-1140)  
 INS: 34KV TANGENT STRUCTURE WITH 34KV B PH 25KVA XFMR WITH 10A CURRENT LIMITING FUSE (S-1651-A & S-5506-D)  
 INS: SECONDARY ATTACHMENT FOR PROPOSED 4/0 TRIPLEX SECONDARY TO POLE #3518 (S-1651-A)  
 INS: APPROX. 174' OF 4/0 TRIPLEX SECONDARY TO POLE #3518 (S-1223)  
 TRF: DALEVILLE-342 CONDUCTORS  
 TRF: RAISE NEUTRAL AND SECONDARY AFTER 4KV IS REMOVED  
 REM: TOP POLE AND REMOVE ALL PECO EQUIPMENT ABOVE COMMUNICATIONS INCLUDING LONDON-002 CONDUCTORS AND EQUIPMENT INCLUDING THE CAPACITOR BANK
- 259 POLE #3520  
 INS: 34KV TANGENT STRUCTURE ON \*B CROSSARM FOR EXISTING DALEVILLE-342 CONDUCTORS (S-0130)  
 TRF: DALEVILLE-342 CONDUCTORS  
 TRF: RAISE NEUTRAL AFTER 4KV IS REMOVED  
 REM: DALEVILLE-342 CROSSARM AND PINS  
 REM: LONDON-002 EQUIPMENT AND CONDUCTORS
- 260 POLE #3521  
 INS: 34KV TANGENT STRUCTURE ON \*B CROSSARM FOR EXISTING DALEVILLE-342 CONDUCTORS (S-0130)  
 TRF: DALEVILLE-342 CONDUCTORS  
 TRF: RAISE NEUTRAL AFTER 4KV IS REMOVED  
 REM: DALEVILLE-342 CROSSARM AND PINS  
 REM: LONDON-002 EQUIPMENT AND CONDUCTORS
- 261 POLE #3522 - 3081W LB SW DALEVILLE-342 & BRADFORD-346  
 REM: LONDON-002 EQUIPMENT AND CONDUCTORS
- 262 POLE #3523 - 3-100KVA INTERPOSING XFMR 60-A6-A4E  
 REP: 50'-CL. 2 POLE WITH 55'-CL. H1 PENTA POLE (S-1140)  
 INS: 1 PH 100KVA 34KV TO 4KV INTERPOSING XFMR WITH 20A CURRENT LIMITING FUSES ON PRIMARY SIDE AND 50K FUSES ON SECONDARY SIDE (S-1663-A & S-5506-D)  
 INS: 2CU-2CU COLD SHRINK SPLICE KIT TO CONNECT TO EXISTING \*2 CU UG CABLE TO XFMR 60-A6-A4E (S-25-102-A)  
 INS: POLE MOLDING FOR EXISTING 3 PH UG CABLE TO XFMR 60-A6-A4E (S-1172)  
 INS: AERIAL CABLE CORNER ATTACHMENT FOR 1X1/0AL AERIAL CABLE TO POLE #92316 (S-1824)  
 TRF: BRADFORD-346 CONDUCTORS  
 TRF: EXISTING 3 PH UG CABLE TO XFMR 60-A6-A4E  
 TRF: RAISE NEUTRAL AFTER 4KV IS REMOVED  
 REM: REMOVE ALL 4KV PECO EQUIPMENT ABOVE COMMUNICATIONS
- 263 POLE #92316 - B PH TAP TO XFMR 53-H6-H4D  
 INS: 1/0AL-1/0AL COLD SHRINK SPLICE KIT AND AERIAL TO UNDERGROUND AERIAL CABLE TRANSITION TO CONNECT PROPOSED AERIAL CABLE FROM POLE #3525 TO EXISTING 1/0 AL B PH UG CABLE TO XFMR 53-H6-H4D (S-25-102-A & S-1828)  
 REM: REMOVE ALL 4KV PECO EQUIPMENT ABOVE COMMUNICATIONS
- 263A UG CABLE TO XFMR 53-H6-H4D  
 INS: VERIFY CABLE IS 35KV RATED
- 263B XFMR 53-H6-H4D  
 INS: FAULT INDICATOR ON ELB #1 & #2 OF XFMR (S-5524-A)
- 263C UG CABLE TO XFMR 53-H6-G3D  
 INS: VERIFY CABLE IS 35KV RATED
- 263D XFMR 53-H6-G3D  
 INS: FAULT INDICATOR ON ELB #3 OF XFMR (S-5524-A)
- 264 POLE #3524 - XFMR 53-H6-A4D  
 REP: 50'-CL. 2 POLE WITH 55'-CL. 2 PENTA POLE (S-1140)  
 INS: 34KV TANGENT STRUCTURE WITH 34KV A PH 25KVA XFMR WITH 10A CURRENT LIMITING FUSE AND SECONDARY ATTACHMENT (S-1651-A & S-5506-D)  
 INS: AERIAL CABLE ATTACHMENT FOR 1-1X1/0 AL B PH AERIAL CABLE FROM POLE #3525 (S-1832)  
 TRF: BRADFORD-346 CONDUCTORS  
 TRF: PREPARE SECONDARY WIRE AND NEUTRAL FOR CONVERSION  
 REM: TOP POLE AND REMOVE ALL PECO EQUIPMENT ABOVE COMMUNICATIONS INCLUDING LONDON-002 CONDUCTORS AND EQUIPMENT INCLUDING THE XFMR
- 265 POLE #3525 - PROPOSED B PH AERIAL CABLE TP  
 INS: 34KV TANGENT STRUCTURE WITH 34KV B PH 1/0 AL AERIAL CABLE TERMINAL POLE WITH 50K FUSE AND SECONDARY ATTACHMENT (S-1672-A & S-5506-A)  
 INS: APPROX. 346' OF 1-1X1/0 AL AERIAL CABLE TO POLE #92316 (S-1079-B)  
 INS: APPROX. 152' OF POLE TO POLE GUY TO POLE #3526 (S-1605)  
 TRF: BRADFORD-346 CONDUCTORS  
 TRF: RAISE NEUTRAL AFTER 4KV IS REMOVED  
 REM: BRADFORD-346 CROSSARM AND PINS  
 REM: LONDON-002 EQUIPMENT AND CONDUCTORS
- 266 POLE #3526  
 INS: 34KV TANGENT STRUCTURE ON \*B CROSSARM FOR EXISTING BRADFORD-346 CONDUCTORS (S-0130)  
 INS: POLE TO POLE GUY ATTACHMENT FOR GUY WIRE FROM POLE #3525 (S-1605)  
 TRF: BRADFORD-346 CONDUCTORS  
 TRF: RAISE NEUTRAL AFTER 4KV IS REMOVED  
 REM: BRADFORD-346 CROSSARM AND PINS  
 REM: LONDON-002 EQUIPMENT AND CONDUCTORS
- 267 POLE #3527  
 INS: 34KV TANGENT STRUCTURE ON \*B CROSSARM FOR EXISTING BRADFORD-346 CONDUCTORS (S-0130)  
 TRF: BRADFORD-346 CONDUCTORS  
 TRF: RAISE NEUTRAL AFTER 4KV IS REMOVED  
 REM: BRADFORD-346 CROSSARM AND PINS  
 REM: LONDON-002 EQUIPMENT AND CONDUCTORS
- 268 POLE #3528  
 INS: 34KV TANGENT STRUCTURE ON \*B CROSSARM FOR EXISTING BRADFORD-346 CONDUCTORS (S-0130)  
 TRF: BRADFORD-346 CONDUCTORS  
 TRF: RAISE NEUTRAL AFTER 4KV IS REMOVED  
 REM: BRADFORD-346 CROSSARM AND PINS  
 REM: LONDON-002 EQUIPMENT AND CONDUCTORS
- 269 POLE #3529  
 TRF: RAISE NEUTRAL AFTER 4KV IS REMOVED  
 REM: LONDON-002 EQUIPMENT AND CONDUCTORS
- 270 POLE #3530 - 1-25KVA INTERPOSING XFMR 53-H6-H6G  
 REP: 50'-CL. 2 POLE WITH 55'-CL. 2 PENTA POLE (S-1141-A)  
 INS: 1 PH C PH 25KVA 34KV TO 4KV INTERPOSING XFMR WITH 20A CURRENT LIMITING FUSE ON PRIMARY SIDE AND 15K FUSE ON SECONDARY SIDE (S-1660-A & S-5506-D)  
 TRF: BRADFORD-346 CONDUCTORS  
 TRF: 4KV C PH TAP TO XFMR 60-A6-B6D FRAME AS 1 PH TAP FROM TRIANGULAR CONFIGURATION WITH CUTOUT ALTERNATE \*1 (S-1631-A)  
 TRF: RAISE NEUTRAL AFTER 4KV IS REMOVED  
 REM: TOP POLE AND REMOVE ALL PECO EQUIPMENT ABOVE COMMUNICATIONS INCLUDING LONDON-002 CONDUCTORS AND EQUIPMENT
- 271 POLE #3531 - 3-100KVA INTERPOSING XFMR 53-H6-H6F-1,2,3  
 REP: 50'-CL. 2 POLE WITH 55'-CL. H1 PENTA POLE (S-1140)  
 INS: 34KV 3-PHASE CLUSTERMOUNT 100KVA INTERPOSING AERIAL XFMR WITH 20A CURRENT LIMITING FUSES ON PRIMARY SIDE AND 50K FUSES ON SECONDARY SIDE WITH OPEN WIRE TAP TO TERMINAL POLE FOR XFMR 53-H6-H6E (S-1663-C)  
 TRF: BRADFORD-346 CONDUCTORS  
 TRF: 4KV 3-PHASE TAP TO TERMINAL POLE FOR XFMR 53-H6-H6E FRAME PER S-1663-C  
 TRF: RAISE NEUTRAL AFTER 4KV IS REMOVED  
 REM: TOP POLE AND REMOVE ALL PECO EQUIPMENT ABOVE COMMUNICATIONS INCLUDING LONDON-002 CONDUCTORS AND EQUIPMENT
- 272 POLE #3532 - XFMR 53-H6-H6D TO BE INSTALLED HERE  
 REP: 50'-CL. 5 POLE WITH 55'-CL. 2 PENTA POLE (S-1140)  
 INS: 34KV TANGENT STRUCTURE WITH 34KV B PH 25KVA XFMR WITH 10A CURRENT LIMITING FUSE (S-1651-A & S-5506-D)  
 INS: SECONDARY DEADEND ATTACHMENTS (S-1323)  
 TRF: BRADFORD-346 CONDUCTORS  
 TRF: PREPARE SECONDARY WIRE FOR CONVERSION. CONNECT XFMR TO SECONDARY WIRE TO POLE #46037  
 REM: TOP POLE AND REMOVE ALL PECO EQUIPMENT ABOVE COMMUNICATIONS INCLUDING LONDON-002 CONDUCTORS AND EQUIPMENT



NOTE:  
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CONTRACTORS NOTE:  
 CONTRACTOR TO CONTACT P.A. ONE CALL (1-800-242-1776) THREE DAYS (MINIMUM) PRIOR TO BEGINNING WORK FOR UTILITY OBSTRUCTION MARKINGS IN STREET AND SIDEWALK. CARE SHOULD BE TAKEN TO LOCATE ALL OBSTRUCTIONS PRIOR TO EARTH REMOVAL. ALL OBSTRUCTIONS MAY NOT HAVE BEEN SHOWN ON THE DESIGN. EXCAVATION AND LOCATION OF OBSTRUCTIONS SHOULD BE FAR ENOUGH IN ADVANCE TO PERMIT REALIGNMENT OF DUCT AND (OR) MANHOLES IF NECESSARY.

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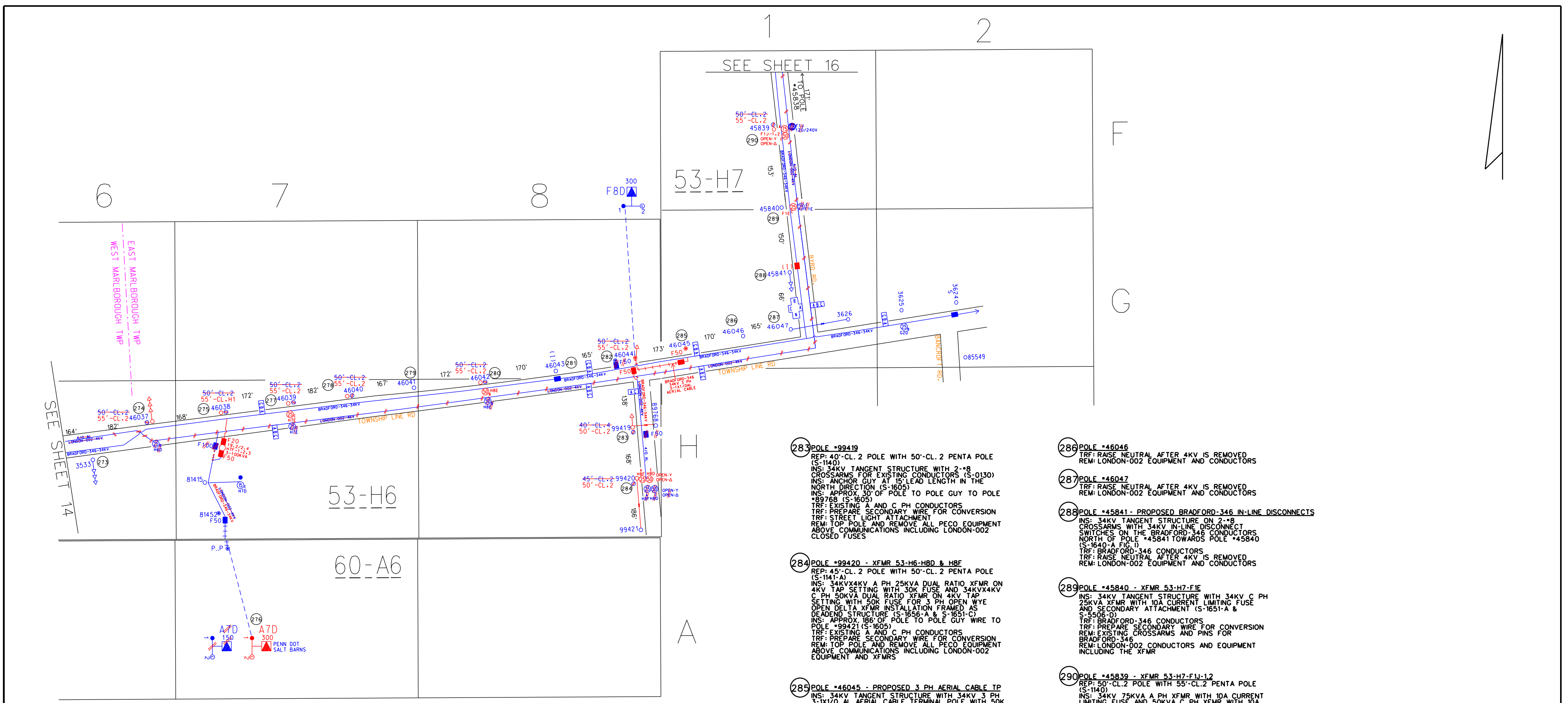
ISSUED FOR CONSTRUCTION REV 0 09/20/2021

REV. #	DESCRIPTION	DATE	DRAWN BY	DATE	JOB/W.O. NO.
0	SUBMITTED FOR IFC	09/20/2021	CBB	09/20/2021	17238693
B	REVISED PER LRE COMMENTS	07/29/2021			
A	SUBMITTED FOR IFA	05/28/2021			
REVISIONS					

SHEET 14 OF 20

**ICDAN**  
ENGINEERING

PECO 2021 4KV UNIT SUB RETIREMENT  
 LONDON-001, LONDON-002, TOKENA-002  
 DELCHESTER REGION-CHESTER COUNTY  
 AVONDALE BORO & NEW GARDEN TWSP.  
 EAST & WEST MARLBOROUGH TWSPS.



- 273 POLE \*3533  
INS: 34KV POLYMER SUSPENSION INSULATORS FOR EXISTING BRADFORD-346 CONDUCTORS (S-1625-C)  
TRF: BRADFORD-346 CONDUCTORS  
TRF: RAISE NEUTRAL AFTER 4KV IS REMOVED  
REM: EXISTING BRADFORD-346 SUSPENSION INSULATORS  
REM: LONDON-002 EQUIPMENT AND CONDUCTORS
- 274 POLE \*46037 - XFMR 53-H6-H6D TO BE REMOVED HERE  
REP: 50'-CL. 5 POLE WITH 55'-CL. 2 PENTA POLE (S-1140)  
INS: 34KV POLYMER SUSPENSION INSULATORS FOR EXISTING BRADFORD-346 CONDUCTORS (S-1625-C)  
INS: 34KV CUTTING (S-1605)  
TRF: BRADFORD-346 CONDUCTORS  
TRF: PREPARE SECONDARY WIRE FOR CONVERSION  
REM: TOP POLE AND REMOVE ALL PECO EQUIPMENT ABOVE COMMUNICATIONS INCLUDING LONDON-002 CONDUCTORS AND EQUIPMENT
- 275 POLE \*46038 - 3-100KVA INTERPOSING XFMR 53-H6-H7F-1,2,3  
REP: 50'-CL. 2 POLE WITH 55'-CL. HI PENTA POLE (S-1140)  
INS: 34KV 3-PHASE CLUSTERMOUNT 100KVA INTERPOSING AERIAL XFMR WITH 20A CURRENT LIMITING FUSES ON PRIMARY SIDE AND 50K FUSES ON SECONDARY SIDE WITH OPEN WIRE TAP TO POLE #8145 (S-1663-C)  
TRF: BRADFORD-346 CONDUCTORS  
TRF: 4KV 3-PHASE TAP TO POLE #8145. FRAME PER S-1663-C  
REM: TOP POLE AND REMOVE ALL PECO EQUIPMENT ABOVE COMMUNICATIONS INCLUDING LONDON-002 CONDUCTORS AND EQUIPMENT

- 276 XFMR 60-A6-A7D  
REM: EXISTING 4KV PADMOUNT  
INS: PROPOSED 4KV 3-PHASE 300KVA PADMOUNT XFMR (S-5165-C)  
INS: 100 AMP BAYONET FUSE (S-5506-D)  
TRF: EXISTING LOADBREAK ELBOW TO NEW XFMR
- 277 POLE \*46039 - XFMR 53-H6-H7E  
REP: 50'-CL. 2 POLE WITH 55'-CL. 2 PENTA POLE (S-1140)  
INS: 34KV TANGENT STRUCTURE WITH 34KV C PH 25KVA XFMR WITH 10A CURRENT LIMITING FUSE AND SECONDARY ATTACHMENT (S-1651-A & S-5506-D)  
TRF: BRADFORD-346 CONDUCTORS  
TRF: PREPARE SECONDARY WIRE FOR CONVERSION  
REM: TOP POLE AND REMOVE ALL PECO EQUIPMENT ABOVE COMMUNICATIONS INCLUDING LONDON-002 CONDUCTORS AND EQUIPMENT INCLUDING THE XFMR
- 278 POLE \*46040  
REP: 50'-CL. 2 POLE WITH 55'-CL. 2 PENTA POLE (S-1140)  
INS: 34KV TANGENT STRUCTURE ON #8 CROSSARM FOR EXISTING BRADFORD-346 CONDUCTORS (S-0130)  
INS: SECONDARY ATTACHMENT (S-1323)  
TRF: BRADFORD-346 CONDUCTORS  
TRF: PREPARE SECONDARY WIRE FOR CONVERSION  
REM: TOP POLE AND REMOVE ALL PECO EQUIPMENT ABOVE COMMUNICATIONS INCLUDING LONDON-002 CONDUCTORS AND EQUIPMENT

- 279 POLE \*46041  
INS: 34KV TANGENT STRUCTURE ON #8 CROSSARM FOR EXISTING BRADFORD-346 CONDUCTORS (S-0130)  
TRF: BRADFORD-346 CONDUCTORS  
TRF: RAISE NEUTRAL AFTER 4KV IS REMOVED  
REM: BRADFORD-346 CROSSARM AND PINS  
REM: LONDON-002 EQUIPMENT AND CONDUCTORS
- 280 POLE \*46042 - XFMR 53-H6-H8E  
REP: 50'-CL. 2 POLE WITH 55'-CL. 2 PENTA POLE (S-1140)  
INS: 34KV TANGENT STRUCTURE WITH 34KV B PH 50KVA XFMR WITH 10A CURRENT LIMITING FUSE AND SECONDARY ATTACHMENT (S-1651-A & S-5506-D)  
TRF: BRADFORD-346 CONDUCTORS  
TRF: PREPARE SECONDARY WIRE FOR CONVERSION  
REM: TOP POLE AND REMOVE ALL PECO EQUIPMENT ABOVE COMMUNICATIONS INCLUDING LONDON-002 CONDUCTORS AND EQUIPMENT INCLUDING THE XFMR
- 281 POLE \*46043 - BRADFORD-346 IN-LINE DISC  
TRF: PREPARE SECONDARY WIRE FOR CONVERSION  
REM: LONDON-002 EQUIPMENT AND CONDUCTORS
- 282 POLE \*46044 - BRADFORD-346 TP & A.C. PH TAP TO POLE \*99419  
REP: 50'-CL. 2 POLE WITH 55'-CL. 2 PENTA POLE (S-1140)  
INS: 3 PHASE 3 WAY 34KV CORNER STRUCTURE WITH 2\*10 CROSSARMS FOR A-PHASE AND C-PHASE TAPS WITH 50K FUSES TO POLE \*99419 (S-1626-C)  
INS: 3/0AL-1/0AL GOLD SHRINK SPLICE KITS AND AERIAL TO UNDERGROUND AERIAL CABLE TRANSITION TO CONNECT PROPOSED 3-1X1/0 AL AERIAL CABLE FROM POLE \*46044 TO EXISTING 3 PH UG CABLE TO XFMR 53-H6-F8D (S-25-102-A & S-1828)  
INS: ANCHOR GUY IN THE NORTH DIRECTION (S-1605)  
TRF: BRADFORD-346 CONDUCTORS  
TRF: A AND C PH TAP CONDUCTORS TO POLE \*99419  
TRF: EXISTING 3 PH UG CABLE TO XFMR 53-H6-F8D  
TRF: RAISE NEUTRAL AFTER 4KV IS REMOVED  
REM: TOP POLE AND REMOVE ALL PECO EQUIPMENT ABOVE COMMUNICATIONS INCLUDING BRADFORD-346 FUSES AND TERMINATORS AND LONDON-002 CONDUCTORS

- 283 POLE \*99419  
REP: 40'-CL. 2 POLE WITH 50'-CL. 2 PENTA POLE (S-1140)  
INS: 34KV TANGENT STRUCTURE WITH 2\*8 CROSSARMS FOR EXISTING CONDUCTORS (S-0130)  
INS: ANCHOR GUY AT 15' LEAD LENGTH IN THE NORTH DIRECTION (S-1605)  
INS: APPROX 30' OF POLE TO POLE GUY TO POLE \*99758 (S-1605)  
TRF: EXISTING A AND C PH CONDUCTORS  
TRF: STREET LIGHT ATTACHMENT  
TRF: PREPARE SECONDARY WIRE FOR CONVERSION  
REM: TOP POLE AND REMOVE ALL PECO EQUIPMENT ABOVE COMMUNICATIONS INCLUDING LONDON-002 CLOSED FUSES
- 284 POLE \*99420 - XFMR 53-H6-H8D & H8F  
REP: 45'-CL. 2 POLE WITH 50'-CL. 2 PENTA POLE (S-1141-A)  
INS: 34KVX4KV A PH 25KVA DUAL RATIO XFMR ON 4KV TAP SETTING WITH 30K FUSE AND 34KVX4KV C PH 50KVA DUAL RATIO XFMR ON 4KV TAP SETTING WITH 50K FUSE FOR 3 PH OPEN WYE OPEN DELTA XFMR INSTALLATION FRAMED AS DEADEND STRUCTURE (S-1656-A & S-1651-C)  
INS: APPROX 186' OF POLE TO POLE GUY WIRE TO POLE \*99421 (S-1605)  
TRF: EXISTING A AND C PH CONDUCTORS  
TRF: PREPARE SECONDARY WIRE FOR CONVERSION  
REM: TOP POLE AND REMOVE ALL PECO EQUIPMENT ABOVE COMMUNICATIONS INCLUDING LONDON-002 EQUIPMENT AND XFMR
- 285 POLE \*46045 - PROPOSED 3 PH AERIAL CABLE TP  
INS: 34KV TANGENT STRUCTURE WITH 34KV 3 PH 3-1X1/0 AL AERIAL CABLE TERMINAL POLE WITH 50K FUSES FOR BRADFORD-346 CONDUCTORS (S-1672-B)  
INS: APPROX 173' OF 3-1X1/0 AL AERIAL CABLE TO POLE \*46044 (S-1079-B)  
INS: NEUTRAL EXTENSION ATTACHMENT (S-1672-B)  
TRF: BRADFORD-346 CONDUCTORS  
TRF: RAISE NEUTRAL AFTER 4KV IS REMOVED  
REM: BRADFORD-346 CROSSARM AND PINS  
REM: LONDON-002 EQUIPMENT AND CONDUCTORS

- 286 POLE \*46046  
TRF: RAISE NEUTRAL AFTER 4KV IS REMOVED  
REM: LONDON-002 EQUIPMENT AND CONDUCTORS
- 287 POLE \*46047  
TRF: RAISE NEUTRAL AFTER 4KV IS REMOVED  
REM: LONDON-002 EQUIPMENT AND CONDUCTORS
- 288 POLE \*45841 - PROPOSED BRADFORD-346 IN-LINE DISCONNECTS  
INS: 34KV TANGENT STRUCTURE ON 2\*8 CROSSARMS WITH 34KV IN-LINE DISCONNECT SWITCHES ON THE BRADFORD-346 CONDUCTORS NORTH OF POLE \*45841 TOWARDS POLE \*45840 (S-1640-A FIG. 1)  
TRF: BRADFORD-346 CONDUCTORS  
TRF: RAISE NEUTRAL AFTER 4KV IS REMOVED  
REM: LONDON-002 EQUIPMENT AND CONDUCTORS
- 289 POLE \*45840 - XFMR 53-H7-F1E  
INS: 34KV TANGENT STRUCTURE WITH 34KV C PH 25KVA XFMR WITH 10A CURRENT LIMITING FUSE AND SECONDARY ATTACHMENT (S-1651-A & S-5506-D)  
TRF: BRADFORD-346 CONDUCTORS  
TRF: PREPARE SECONDARY WIRE FOR CONVERSION  
REM: EXISTING CROSSARMS AND PINS FOR BRADFORD-346  
REM: LONDON-002 CONDUCTORS AND EQUIPMENT INCLUDING THE XFMR
- 290 POLE \*45839 - XFMR 53-H7-F1J-1,2  
REP: 50'-CL. 2 POLE WITH 55'-CL. 2 PENTA POLE (S-1140)  
INS: 34KV 75KVA A PH XFMR WITH 10A CURRENT LIMITING FUSE AND 50KVA C PH XFMR WITH 10A CURRENT LIMITING FUSE FOR 3 PH OPEN WYE OPEN DELTA XFMR INSTALLATION (S-1656-A) & S-1651-C)  
INS: SECONDARY ATTACHMENT (S-1656-A)  
INS: POLE MOLDING FOR UG SECONDARY SERVICE (S-1172)  
TRF: BRADFORD-346 CONDUCTORS  
TRF: PREPARE SECONDARY WIRE FOR CONVERSION  
REM: TOP POLE AND REMOVE ALL PECO EQUIPMENT ABOVE COMMUNICATIONS INCLUDING LONDON-002 CONDUCTORS AND XFMR

NOTE:  
- ALL POLE REPLACEMENTS TO BE WITHIN 2' OF EXISTING POLE UNLESS OTHERWISE SPECIFIED  
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60CD78, 60D5



SAFETY NOTE:  
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CONTRACTOR TO CONTACT PAONE CALL(1-800-242-1776) THREE DAYS(MINIMUM) PRIOR TO BEGINNING WORK FOR UTILITY OBSTRUCTION MARKINGS IN STREET AND SIDEWALK. CARE SHOULD BE TAKEN TO LOCATE ALL OBSTRUCTIONS PRIOR TO EARTH REMOVAL. ALL OBSTRUCTIONS MAY NOT HAVE BEEN SHOWN ON THE DESIGN. EXCAVATION AND LOCATION OF OBSTRUCTIONS SHOULD BE FAR ENOUGH IN ADVANCE TO PERMIT REALIGNMENT OF DUCT AND (OR) MANHOLES IF NECESSARY.

ISSUED FOR CONSTRUCTION REV 0 09/20/2021

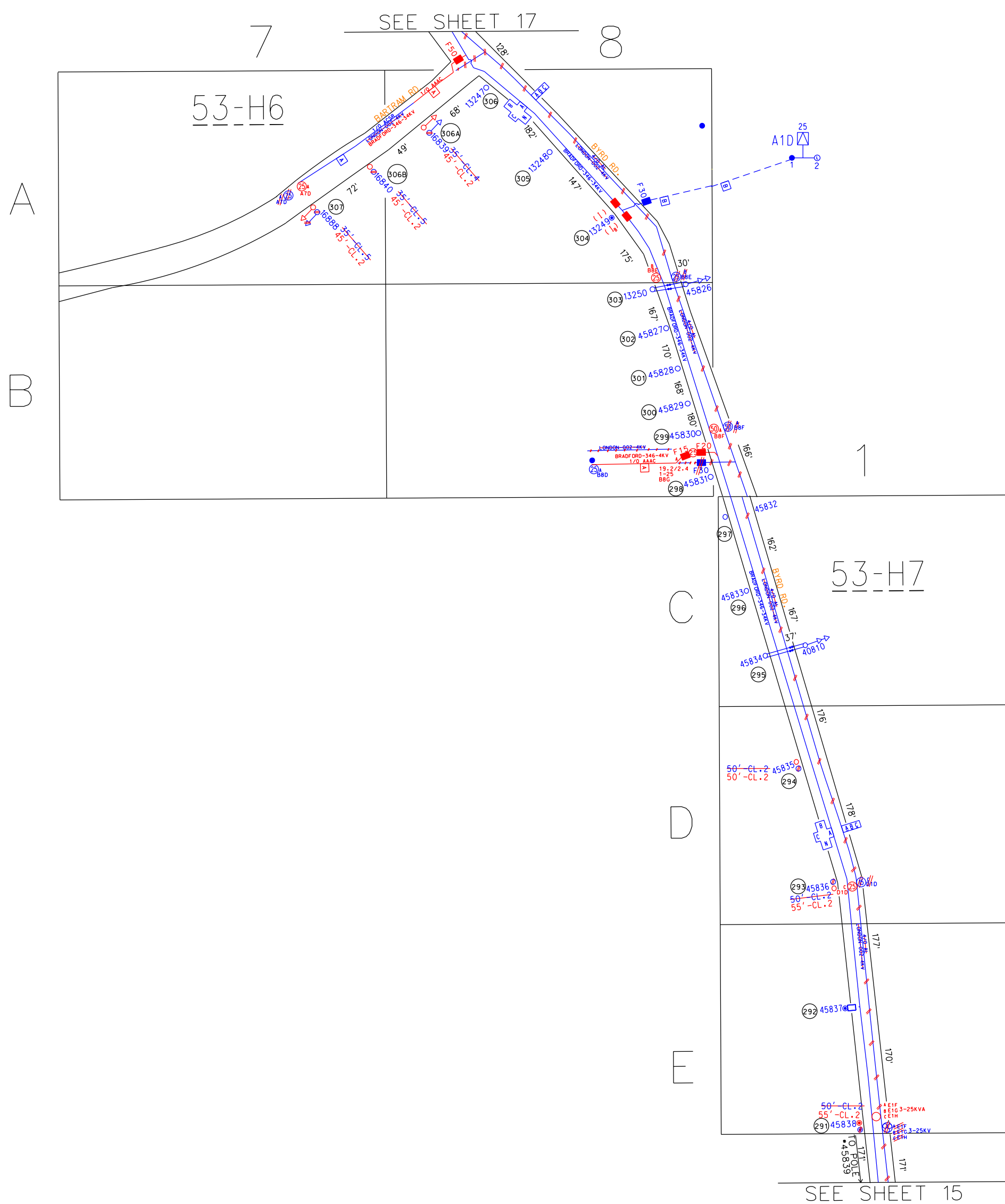
REV. #	DESCRIPTION	DATE
0	SUBMITTED FOR IFC	09/20/2021
B	REVISED PER LRE COMMENTS	07/29/2021
A	SUBMITTED FOR IFA	05/28/2021

DRAWN BY	DATE	JOB/W.O. NO.
CBB	09/20/2021	17238693

**KD&I ENGINEERING** SHEET 15 OF 20

PECO 2021 4KV UNIT SUB RETIREMENT  
LONDON-001, LONDON-002, TOKENA-002  
DELCHESTER REGION-CHESTER COUNTY  
AVONDALE BORO & NEW GARDEN TWSPS.  
EAST & WEST MARLBOROUGH TWSPS.



- (291) POLE \*45838 - XFMR 53-H7-EF.EIG.EIH  
 REP: 50'-CL.2 POLE WITH 55'-CL.2 PENTA POLE (S-1140)  
 INS: 34KV TANGENT STRUCTURE WITH 34KV 3-1PH CLUSTER MOUNT 25KVA XFMR WITH 20A CURRENT LIMITING FUSE FOR 120/208V 3 PH 4 WIRE SERVICE (S-1657)  
 INS: SECONDARY EXTENSION ATTACHMENT (S-1657)  
 INS: SPLICE KIT FOR UG SECONDARY SERVICE (S-25-102-A)  
 INS: POLE MOLDING FOR UG SECONDARY SERVICE (S-1172)  
 TRF: BRADFORD-346 CONDUCTORS  
 TRF: RAISE NEUTRAL AFTER 4KV IS REMOVED  
 TRF: UG SECONDARY WIRE  
 REM: TOP POLE AND REMOVE ALL PECO EQUIPMENT ABOVE COMMUNICATIONS INCLUDING LONDON-002 CONDUCTORS AND XFMR
- (292) POLE \*45837 - OPEN BRADFORD-346 TP  
 TRF: RAISE NEUTRAL AFTER 4KV IS REMOVED  
 REM: LONDON-002 EQUIPMENT AND CONDUCTORS
- (293) POLE \*45836 - XFMR 53-H7-DID  
 REP: 50'-CL.2 POLE WITH 55'-CL.2 PENTA POLE (S-1141-A)  
 INS: 34KV TANGENT STRUCTURE WITH 34KV C PH 25KVA XFMR WITH 10A CURRENT LIMITING FUSE AND SECONDARY ATTACHMENT (S-1651-A & S-5506-D)  
 TRF: BRADFORD-346 CONDUCTORS  
 TRF: RAISE NEUTRAL AFTER 4KV IS REMOVED  
 TRF: PREPARE SECONDARY WIRE FOR CONVERSION  
 REM: EXISTING BRADFORD-346 CONDUCTORS AND PINS FOR BRADFORD-346  
 REM: LONDON-002 CONDUCTORS AND EQUIPMENT INCLUDING THE XFMR
- (294) POLE \*45835  
 REP: 50'-CL.2 POLE WITH 50'-CL.2 PENTA POLE (S-1141-A)  
 INS: 34KV TANGENT STRUCTURE ON \*8 CROSSARM FOR EXISTING BRADFORD-346 CONDUCTORS (S-0130)  
 INS: NEUTRAL ATTACHMENT (S-1137)  
 TRF: BRADFORD-346 CONDUCTORS  
 TRF: PREPARE SECONDARY WIRE FOR CONVERSION  
 REM: TOP POLE AND REMOVE ALL PECO EQUIPMENT ABOVE COMMUNICATIONS INCLUDING LONDON-002 CONDUCTORS AND EQUIPMENT
- (295) POLE \*45834  
 INS: 34KV TANGENT STRUCTURE ON 2-\*8 CROSSARMS FOR EXISTING BRADFORD-346 CONDUCTORS (S-0130)  
 TRF: BRADFORD-346 CONDUCTORS  
 TRF: RAISE NEUTRAL AFTER 4KV IS REMOVED  
 REM: BRADFORD-346 CROSSARMS AND PINS  
 REM: LONDON-002 EQUIPMENT AND CONDUCTORS
- (296) POLE \*45833  
 INS: 34KV TANGENT STRUCTURE ON \*8 CROSSARM FOR EXISTING BRADFORD-346 CONDUCTORS (S-0130)  
 TRF: BRADFORD-346 CONDUCTORS  
 TRF: RAISE NEUTRAL AFTER 4KV IS REMOVED  
 REM: BRADFORD-346 CROSSARM AND PINS  
 REM: LONDON-002 EQUIPMENT AND CONDUCTORS
- (297) POLE \*45832  
 INS: 34KV TANGENT STRUCTURE ON \*8 CROSSARM FOR EXISTING BRADFORD-346 CONDUCTORS (S-0130)  
 TRF: BRADFORD-346 CONDUCTORS  
 TRF: RAISE NEUTRAL AFTER 4KV IS REMOVED  
 REM: BRADFORD-346 CROSSARM AND PINS  
 REM: LONDON-002 EQUIPMENT AND CONDUCTORS
- (298) POLE \*45831 - 1-25KVA INTERPOSING XFMR 53-H6-BBG  
 INS: 1 PH A PH 25KVA 34KV TO 4KV INTERPOSING XFMR WITH 20A CURRENT LIMITING FUSE ON PRIMARY SIDE AND 15K FUSE ON SECONDARY SIDE (S-1660-A & S-5506-D)  
 INS: APPROX. 135' OF 1/0 AAAC PRIMARY AND NEUTRAL AS 4KV A PH INTERPOSED TAP TO XFMR 53-H6-BBG FRAME AS 1 PH TAP FROM TRIANGULAR CONFIGURATION WITH CUTOFF ALTERNATE \*1 (S-1651-A)  
 TRF: BRADFORD-346 CONDUCTORS  
 TRF: RAISE NEUTRAL AFTER 4KV IS REMOVED  
 REM: TOP POLE AND REMOVE ALL PECO EQUIPMENT ABOVE COMMUNICATIONS INCLUDING LONDON-002 CONDUCTORS AND EQUIPMENT  
 REM: EXISTING LONDON-002 4KV A PH TAP CONDUCTOR TO XFMR 53-H6-BBG
- (299) POLE \*45830 - XFMR 53-H6-BBF  
 INS: 34KV TANGENT STRUCTURE WITH 34KV A PH 50KVA XFMR WITH 10A CURRENT LIMITING FUSE AND SECONDARY ATTACHMENT (S-1651-A & S-5506-D)  
 INS: SPLICE KIT FOR UG SECONDARY SERVICE (S-25-102-A)  
 INS: POLE MOLDING FOR UG SECONDARY SERVICE (S-1172)  
 TRF: BRADFORD-346 CONDUCTORS  
 TRF: RAISE NEUTRAL AFTER 4KV IS REMOVED  
 TRF: UG SECONDARY WIRE  
 REM: TOP POLE AND REMOVE ALL PECO EQUIPMENT ABOVE COMMUNICATIONS INCLUDING LONDON-002 CONDUCTORS AND EQUIPMENT INCLUDING THE XFMR
- (300) POLE \*45829  
 INS: 34KV TANGENT STRUCTURE ON \*8 CROSSARM FOR EXISTING BRADFORD-346 CONDUCTORS (S-0130)  
 TRF: BRADFORD-346 CONDUCTORS  
 TRF: RAISE NEUTRAL AFTER 4KV IS REMOVED  
 REM: BRADFORD-346 CROSSARM AND PINS  
 REM: LONDON-002 EQUIPMENT AND CONDUCTORS
- (301) POLE \*45828  
 INS: 34KV TANGENT STRUCTURE ON \*8 CROSSARM FOR EXISTING BRADFORD-346 CONDUCTORS (S-0130)  
 TRF: BRADFORD-346 CONDUCTORS  
 TRF: RAISE NEUTRAL AFTER 4KV IS REMOVED  
 REM: BRADFORD-346 CROSSARM AND PINS  
 REM: LONDON-002 EQUIPMENT AND CONDUCTORS
- (302) POLE \*45827  
 INS: 34KV TANGENT STRUCTURE ON 2-\*8 CROSSARMS FOR EXISTING BRADFORD-346 CONDUCTORS (S-0130)  
 TRF: BRADFORD-346 CONDUCTORS  
 TRF: RAISE NEUTRAL AFTER 4KV IS REMOVED  
 REM: BRADFORD-346 CROSSARMS AND PINS  
 REM: LONDON-002 EQUIPMENT AND CONDUCTORS
- (303) POLE \*13250 - XFMR 53-H6-BBE  
 INS: 34KV TANGENT STRUCTURE WITH 34KV B PH 25KVA XFMR WITH 10A CURRENT LIMITING FUSE AND SECONDARY ATTACHMENT (S-1651-A & S-5506-D)  
 TRF: BRADFORD-346 CONDUCTORS  
 TRF: RAISE NEUTRAL AFTER 4KV IS REMOVED  
 TRF: PREPARE SECONDARY WIRE FOR CONVERSION  
 REM: EXISTING BRADFORD-346 CONDUCTORS AND PINS FOR BRADFORD-346  
 REM: LONDON-002 CONDUCTORS AND EQUIPMENT INCLUDING THE XFMR
- (304) POLE \*13249 - DALEVILLE-342 TP & PROPOSED BRADFORD-346 IN-LINE DISCONNECTS  
 INS: 34KV TANGENT STRUCTURE ON 2-\*8 CROSSARMS WITH B PH 34KV IN-LINE DISCONNECT SWITCH ON THE BRADFORD-346 B PH CONDUCTOR SOUTH OF POLE \*13249 TOWARDS POLE \*13250 AND 1 PH 34KV IN-LINE DISCONNECT SWITCHES ON THE BRADFORD-346 CONDUCTORS NORTH OF POLE \*13249 TOWARDS POLE \*13248 (S-1640-A FIG. 1)  
 TRF: BRADFORD-346 CONDUCTORS  
 TRF: RAISE NEUTRAL AFTER 4KV IS REMOVED  
 REM: LONDON-002 EQUIPMENT AND CONDUCTORS
- (305) POLE \*13248  
 INS: 34KV TANGENT STRUCTURE ON \*8 CROSSARM FOR EXISTING BRADFORD-346 CONDUCTORS (S-0130)  
 TRF: BRADFORD-346 CONDUCTORS  
 TRF: RAISE NEUTRAL AFTER 4KV IS REMOVED  
 REM: BRADFORD-346 CROSSARM AND PINS  
 REM: LONDON-002 EQUIPMENT AND CONDUCTORS
- (306) POLE \*13247  
 INS: APPROX. 68' OF 1/0 AAAC PRIMARY TO POLE \*16839 FRAMED AS 4KV A PHASE TAP FROM TRIANGULAR CONFIGURATION WITH 50K FUSE (S-1651-A)  
 TRF: BRADFORD-346 CONDUCTORS  
 TRF: RAISE NEUTRAL AFTER 4KV IS REMOVED  
 REM: LONDON-002 EQUIPMENT AND CONDUCTORS
- (306A) POLE \*16839  
 REP: 35'-CL.4 POLE WITH 45'-CL.2 PENTA POLE (S-1140)  
 INS: 34KV 1PH DOUBLE DEADEND STRUCTURE WITH POLE TOP PIN (S-0130). DEADEND PROPOSED 1/0 AAAC PRIMARY FROM POLE \*13242 AND EXISTING 1/0 ACSR CONDUCTOR TO POLE \*16840  
 INS: ANCHOR GUY AT 15' LEAD LENGTH IN THE EAST DIRECTION (S-1605)  
 TRF: A PHASE CONDUCTOR TO POLE \*16840  
 TRF: NEUTRAL WIRE TO POLE \*16840  
 REM: TOP POLE AND REMOVE ALL PECO EQUIPMENT ABOVE COMMUNICATIONS INCLUDING LONDON-002 EQUIPMENT AND CONDUCTOR
- (306B) POLE \*16840  
 REP: 35'-CL.5 POLE WITH 45'-CL.2 PENTA POLE (S-1140)  
 INS: 34KV 1PH TANGENT STRUCTURE WITH POLE TOP PIN (S-0130)  
 TRF: A PHASE CONDUCTOR TO POLE \*16888  
 TRF: NEUTRAL WIRE TO POLE \*16888  
 REM: TOP POLE AND REMOVE ALL PECO EQUIPMENT ABOVE COMMUNICATIONS INCLUDING LONDON-002 EQUIPMENT AND CONDUCTOR
- (307) POLE \*16888 - XFMR 53-H6-A7D  
 REP: 35'-CL.5 POLE WITH 45'-CL.2 PENTA POLE (S-1140)  
 INS: 34KVX4KV A PH 25KVA DUAL RATIO XFMR ON 4KV TAP SETTING WITH 30K FUSE (S-1652-C & S-5506-D)  
 INS: ANCHOR GUY AT 15' LEAD LENGTH IN THE WEST DIRECTION (S-1605)  
 TRF: A PHASE CONDUCTOR  
 TRF: PREPARE SECONDARY WIRE FOR CONVERSION  
 REM: TOP POLE AND REMOVE ALL PECO EQUIPMENT ABOVE COMMUNICATIONS INCLUDING LONDON-002 EQUIPMENT INCLUDING THE XFMR

NOTE:  
 - ALL POLE REPLACEMENTS TO BE WITHIN 2' OF EXISTING POLE UNLESS OTHERWISE SPECIFIED  
 - HOT STICK WORK REQUIRED

DESIGNER: C. BYDLON  
 484.707.8999  
 ENG: D. WALKES  
 312.763.2198  
 LRE: J. PATEL  
 610.725.7165

PECO WORK ORDER: 17238693  
 E.C.#: 0000253518  
 CIRCUIT: LONDON-001, LONDON-002  
 TOKENA-002, AVONDALE-002,  
 DALEVILLE-341, DALEVILLE-342,  
 CLAY-341, BRADFORD-346  
 QUAD: 53EF56, 53GH56, 53GH78  
 60AB56, 60B7, 60C5, 60C6  
 60CD78, 60D5



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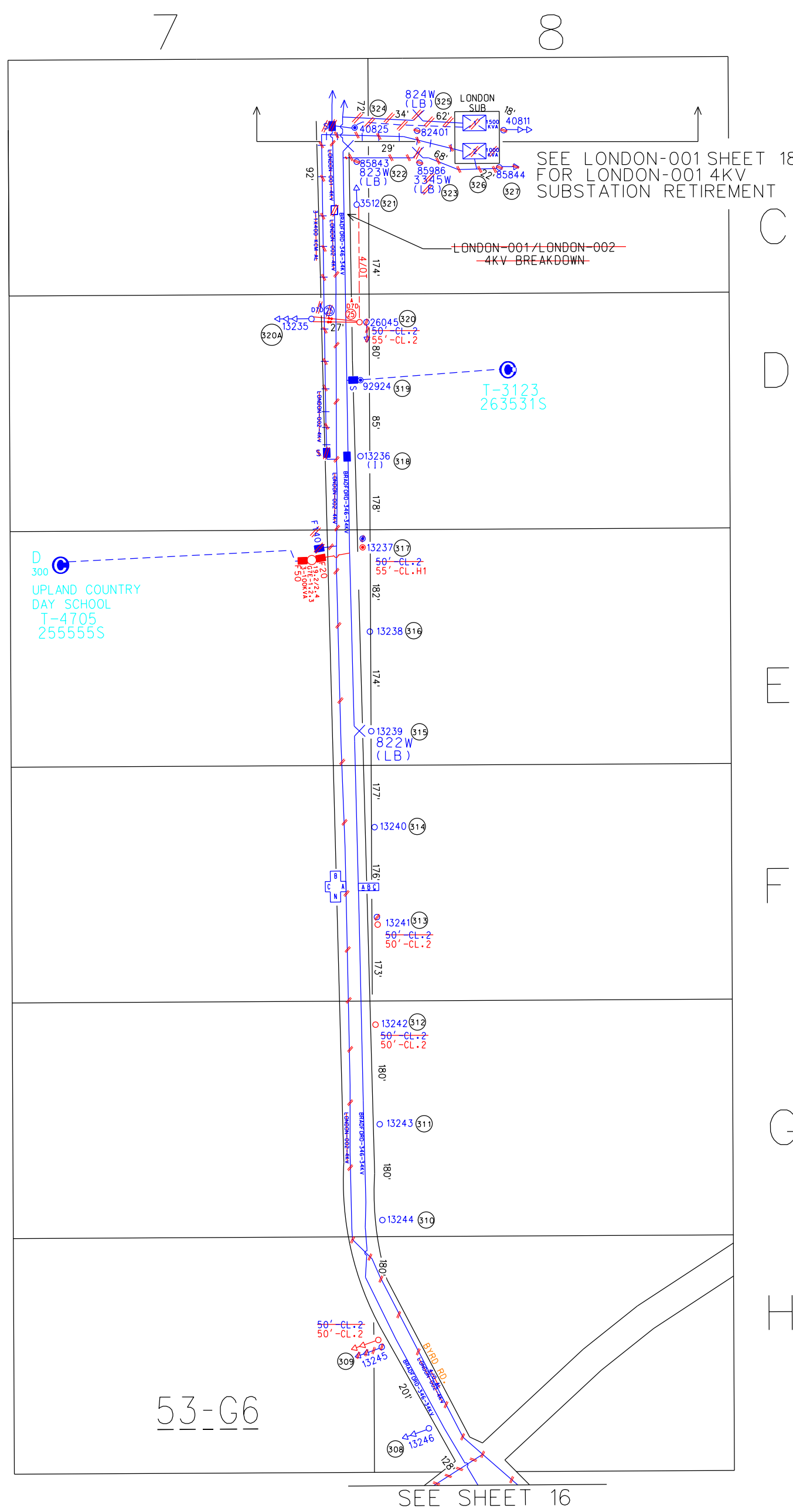
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- 308 POLE \*13246  
INS: 34KV TANGENT STRUCTURE ON 2\*8 CROSSARMS FOR EXISTING BRADFORD-346 CONDUCTORS (S-0130)  
TRF: BRADFORD-346 CONDUCTORS  
TRF: RAISE NEUTRAL AFTER 4KV IS REMOVED  
REM: BRADFORD-346 CROSSARMS AND PINS  
REM: LONDON-002 EQUIPMENT AND CONDUCTORS
- 309 POLE \*13245  
REP: 50'-CL.2 POLE WITH 50'-CL.2 PENTA POLE (S-1140)  
INS: 34KV TANGENT STRUCTURE ON 2\*8 CROSSARMS FOR EXISTING BRADFORD-346 CONDUCTORS (S-0130)  
INS: NEUTRAL ATTACHMENT (S-1137)  
INS: DOUBLE ANCHOR GUYS AT 15' LEAD LENGTH IN THE WEST DIRECTION (S-1605)  
TRF: BRADFORD-346 CONDUCTORS  
TRF: RAISE NEUTRAL AFTER 4KV IS REMOVED  
REM: TOP POLE AND REMOVE ALL PECO EQUIPMENT ABOVE COMMUNICATIONS INCLUDING LONDON-002 CONDUCTORS AND EQUIPMENT
- 310 POLE \*13244  
INS: 34KV TANGENT STRUCTURE ON \*8 CROSSARM FOR EXISTING BRADFORD-346 CONDUCTORS (S-0130)  
TRF: BRADFORD-346 CONDUCTORS  
TRF: RAISE NEUTRAL AFTER 4KV IS REMOVED  
REM: BRADFORD-346 CROSSARM AND PINS  
REM: LONDON-002 EQUIPMENT AND CONDUCTORS
- 311 POLE \*13243  
INS: 34KV TANGENT STRUCTURE ON \*8 CROSSARM FOR EXISTING BRADFORD-346 CONDUCTORS (S-0130)  
TRF: BRADFORD-346 CONDUCTORS  
TRF: RAISE NEUTRAL AFTER 4KV IS REMOVED  
REM: BRADFORD-346 CROSSARM AND PINS  
REM: LONDON-002 EQUIPMENT AND CONDUCTORS
- 312 POLE \*13242  
REP: 50'-CL.2 POLE WITH 50'-CL.2 PENTA POLE (S-1140)  
INS: 34KV TANGENT STRUCTURE ON \*8 CROSSARM FOR EXISTING BRADFORD-346 CONDUCTORS (S-0130)  
INS: NEUTRAL ATTACHMENT (S-1137)  
TRF: BRADFORD-346 CONDUCTORS  
TRF: RAISE NEUTRAL AFTER 4KV IS REMOVED  
REM: TOP POLE AND REMOVE ALL PECO EQUIPMENT ABOVE COMMUNICATIONS INCLUDING LONDON-002 CONDUCTORS AND EQUIPMENT
- 313 POLE \*13241  
REP: 50'-CL.2 POLE WITH 50'-CL.2 PENTA POLE (S-1140)  
INS: 34KV TANGENT STRUCTURE ON \*8 CROSSARM FOR EXISTING BRADFORD-346 CONDUCTORS (S-0130)  
INS: NEUTRAL ATTACHMENT (S-1137)  
TRF: BRADFORD-346 CONDUCTORS  
TRF: RAISE NEUTRAL AFTER 4KV IS REMOVED  
REM: TOP POLE AND REMOVE ALL PECO EQUIPMENT ABOVE COMMUNICATIONS INCLUDING LONDON-002 CONDUCTORS AND EQUIPMENT
- 314 POLE \*13240  
TRF: RAISE NEUTRAL AFTER 4KV IS REMOVED  
REM: LONDON-002 EQUIPMENT AND CONDUCTORS
- 315 POLE \*13239 - 822W LB SW  
TRF: RAISE NEUTRAL AFTER 4KV IS REMOVED  
REM: LONDON-002 EQUIPMENT AND CONDUCTORS
- 316 POLE \*13238  
TRF: RAISE NEUTRAL AFTER 4KV IS REMOVED  
REM: LONDON-002 EQUIPMENT AND CONDUCTORS
- 317 POLE \*13237 - 3-100KVA INTERPOSING XFMR 53-G6-G7E-1.2.3  
REP: 50'-CL.2 POLE WITH 55'-CL.HI PENTA POLE (S-1140)  
INS: 34KV 3-PHASE CLUSTERMOUNT 100KVA INTERPOSING AERIAL XFMR'S WITH 20A CURRENT LIMITING FUSES ON PRIMARY SIDE AND 50K FUSES ON SECONDARY SIDE (S-1663-A)  
INS: POLE MOLDING FOR 3 PH UG CABLE THAT FEEDS T-4705 CUSTOMER UPLAND COUNTRY DAY SCHOOL (S-1172)  
TRF: BRADFORD-346 CONDUCTORS  
TRF: 3 PH UG CABLE THAT FEEDS T-4705 CUSTOMER UPLAND COUNTRY DAY SCHOOL  
TRF: RAISE NEUTRAL AFTER 4KV IS REMOVED  
REM: TOP POLE AND REMOVE ALL PECO EQUIPMENT ABOVE COMMUNICATIONS INCLUDING LONDON-002 CONDUCTORS AND EQUIPMENT
- 318 POLE \*13236 - BRADFORD-346 IN-LINE DISC & LONDON-002 AERIAL TP  
TRF: RAISE NEUTRAL AFTER 4KV IS REMOVED  
REM: LONDON-002 EQUIPMENT AND CONDUCTORS
- 319 POLE \*92924 - BRADFORD-346 TP TO T-3123 CUSTOMER  
TRF: RAISE NEUTRAL AFTER 4KV IS REMOVED  
REM: LONDON-002 EQUIPMENT AND CONDUCTORS
- 320 POLE \*26045 - XMFR 53-G6-D7D  
REP: 50'-CL.2 POLE WITH 55'-CL.2 PENTA POLE (S-1140)  
INS: 34KV TANGENT STRUCTURE WITH 34KV A PH 25KVA XFMR WITH 10A CURRENT LIMITING FUSE AND SECONDARY ATTACHMENT (S-1651-A & S-5508-D)  
INS: APPROX. 174' OF 4/0 TRIPLEX SECONDARY TO POLE \*3512 (S-1323)  
INS: APPROX. 30' OF DOUBLE POLE TO POLE GUY TO POLE \*13235 (S-1605)  
TRF: BRADFORD-346 CONDUCTORS  
TRF: PREPARE SECONDARY WIRE FOR CONVERSION  
REM: TOP POLE AND REMOVE ALL PECO EQUIPMENT ABOVE COMMUNICATIONS INCLUDING LONDON-002 CONDUCTORS AND EQUIPMENT INCLUDING THE XFMR  
REM: OPEN WIRE SECONDARY TO POLE \*3512
- 320A POLE \*13235  
INS: DOUBLE POLE TO POLE GUY ATTACHMENTS FOR GUY WIRE FROM POLE \*26045 (S-1605)
- 321 POLE \*3512 - LONDON-001 & LONDON-002 BD  
INS: SECONDARY DEADEND ATTACHMENT FOR PROPOSED 4/0 TRIPLEX SECONDARY FROM POLE \*26045 (S-1323)  
TRF: PREPARE SECONDARY WIRE FOR CONVERSION  
REM: LONDON-002 CONDUCTORS AND EQUIPMENT INCLUDING BREAKDOWN DISCONNECTS WITH LONDON-001 CONDUCTORS  
REM: OPEN WIRE SECONDARY FROM POLE \*26045
- 322 POLE \*85843 - 823W LB SW  
TRF: RAISE NEUTRAL AFTER 4KV IS REMOVED  
REM: BRADFORD-346 CONDUCTORS TO POLE \*85986  
REM: LONDON-002 EQUIPMENT AND CONDUCTORS  
REM: LONDON-001 EQUIPMENT AND CONDUCTORS
- 323 POLE \*85986 - 3345W LB SW  
REM: BRADFORD-346 CONDUCTORS  
REM: EXISTING POLE AND EQUIPMENT  
REM: BRADFORD-346 LOADBREAK SWITCH 3345W
- 324 POLE \*40825 - LONDON-001 TP  
TRF: RAISE NEUTRAL AFTER 4KV IS REMOVED  
REM: BRADFORD-346 CONDUCTORS TO POLE \*82401  
REM: LONDON-002 EQUIPMENT AND CONDUCTORS  
REM: LONDON-001 EQUIPMENT AND CONDUCTORS
- 325 POLE \*82401 - 824W LB SW  
REM: BRADFORD-346 CONDUCTORS  
REM: EXISTING POLE AND EQUIPMENT  
REM: BRADFORD-346 LOADBREAK SWITCH 824W
- 326 LONDON-002 XFMR  
REM: BRADFORD-346 SUPPLY WIRES TO LONDON-002 XFMR
- 327 POLE \*85844  
REM: EXISTING POLE  
REM: BRADFORD-346 DEADEND CONDUCTORS

NOTE:  
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DESIGNER: C. BYDLON  
484.707.8999  
ENG: D. WALKES  
312.763.2198  
LRE: J. PATEL  
610.725.7165

PECO WORK ORDER: 17238693  
E.C.#: 0000253518  
CIRCUIT: LONDON-001, LONDON-002, TOKENA-002, AVONDALE-002, DALEVILLE-341, DALEVILLE-342, CLAY-341, BRADFORD-346  
QUAD: 53EF56, 53GH56, 53GH78  
60AB56, 60B7, 60C5, 60C6  
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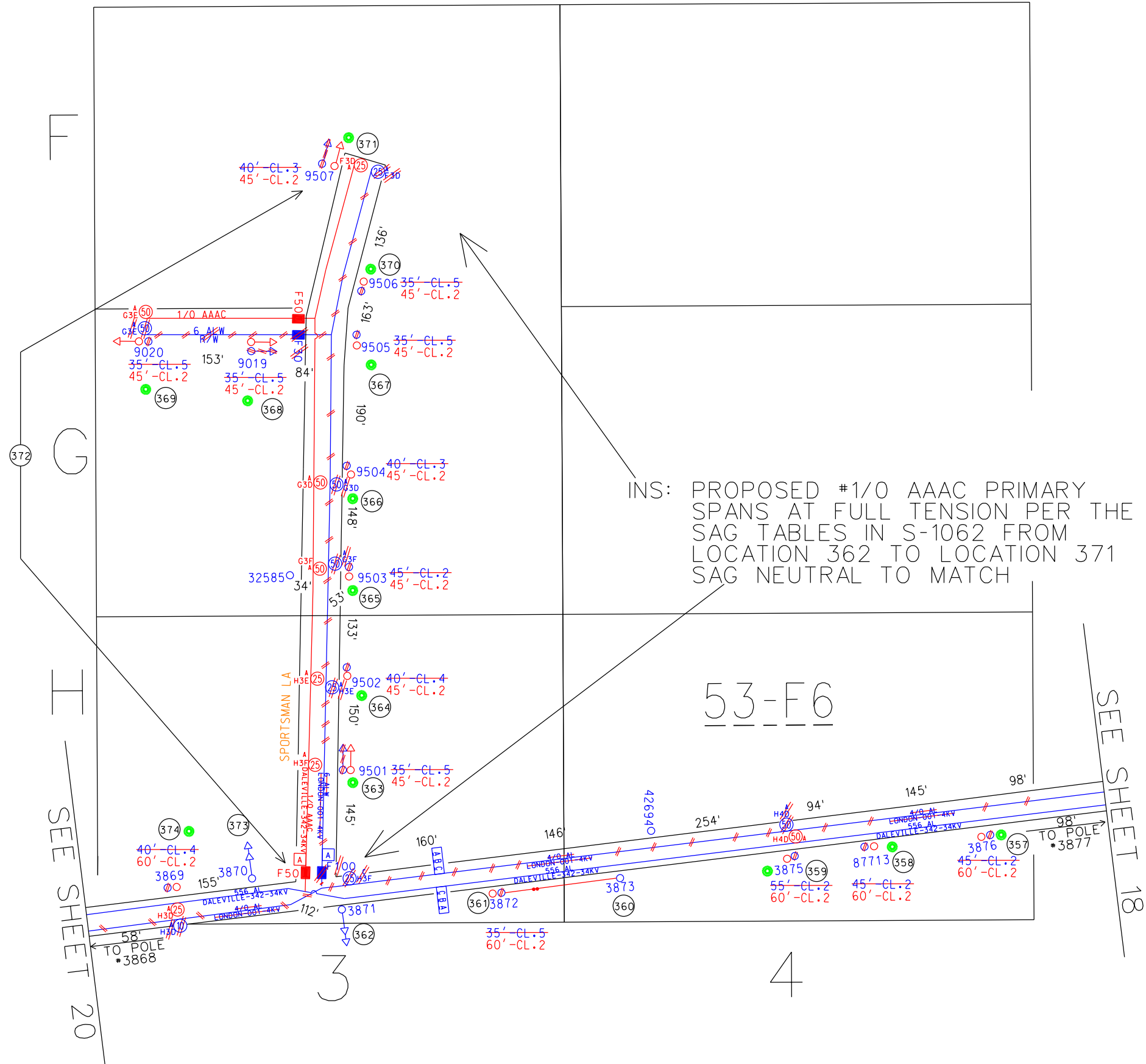
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REVISIONS

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- 357 POLE #3876  
NOTE: VEGETATION WORK REQUIRED AT THIS LOCATION  
REP: 45'-CL. 2 POLE WITH 60'-CL. 2 PENTA POLE (S-1140)  
INS: 34KV TANGENT STRUCTURE ON \*8 CROSSARM FOR EXISTING DALEVILLE-342 CONDUCTORS (S-0130)  
TRF: DALEVILLE-342 CONDUCTORS  
TRF: RAISE NEUTRAL AFTER 4KV IS REMOVED  
REM: TOP POLE AND REMOVE ALL PECO EQUIPMENT ABOVE COMMUNICATIONS INCLUDING LONDON-001 CONDUCTORS AND EQUIPMENT
- 358 POLE #87713  
NOTE: VEGETATION WORK REQUIRED AT THIS LOCATION  
REP: 45'-CL. 2 POLE WITH 60'-CL. 2 PENTA POLE (S-1140)  
INS: 34KV TANGENT STRUCTURE ON \*8 CROSSARM FOR EXISTING DALEVILLE-342 CONDUCTORS (S-0130)  
TRF: DALEVILLE-342 CONDUCTORS  
TRF: RAISE NEUTRAL AFTER 4KV IS REMOVED  
REM: TOP POLE AND REMOVE ALL PECO EQUIPMENT ABOVE COMMUNICATIONS INCLUDING LONDON-001 CONDUCTORS AND EQUIPMENT
- 359 POLE #3875 - XFMR 53-F6-H40  
NOTE: VEGETATION WORK REQUIRED AT THIS LOCATION  
REP: 55'-CL. 2 POLE WITH 60'-CL. 2 PENTA POLE (S-1140)  
INS: 34KV TANGENT STRUCTURE ON 2-\*10 CROSSARMS WITH A PH 50KVA XFMR WITH 10A CURRENT LIMITING FUSE AND SECONDARY ATTACHMENT (S-1651-A & S-5506-D)  
TRF: DALEVILLE-342 CONDUCTORS  
TRF: PREPARE SECONDARY WIRE FOR CONVERSION  
REM: TOP POLE AND REMOVE ALL PECO EQUIPMENT ABOVE COMMUNICATIONS INCLUDING LONDON-001 CONDUCTORS AND EQUIPMENT INCLUDING THE XFMR
- 360 POLE #3873  
INS: 34KV TANGENT STRUCTURE ON 2-\*10 CROSSARMS FOR EXISTING DALEVILLE-342 CONDUCTORS (S-0130)  
INS: APPROX. 146' OF POLE TO POLE GUY TO POLE #3872 (S-1605)  
TRF: DALEVILLE-342 CONDUCTORS  
TRF: RAISE NEUTRAL AFTER 4KV IS REMOVED  
REM: LONDON-001 CONDUCTORS AND EQUIPMENT
- 361 POLE #3872  
REP: 35'-CL. 5 POLE WITH 60'-CL. 2 PENTA POLE (S-1140)  
INS: 34KV TANGENT STRUCTURE ON \*8 CROSSARM FOR EXISTING DALEVILLE-342 CONDUCTORS (S-0130)  
INS: POLE TO POLE GUY ATTACHMENT FROM POLE #3873 (S-1605)  
TRF: DALEVILLE-342 CONDUCTORS  
TRF: RAISE NEUTRAL AFTER 4KV IS REMOVED  
REM: TOP POLE AND REMOVE ALL PECO EQUIPMENT ABOVE COMMUNICATIONS INCLUDING LONDON-001 CONDUCTORS AND EQUIPMENT
- 362 POLE #3871 - XFMR 53-F6-H3F TO BE REMOVED HERE & A PH TAP TO POLE #9501  
INS: 34KV TANGENT STRUCTURE ON \*8 CROSSARM WITH A PHASE 50K FUSE TAP FROM TRIANGULAR CONFIGURATION (S-1651-A)  
TRF: DALEVILLE-342 CONDUCTORS  
TRF: RAISE SECONDARY AND NEUTRAL AFTER 4KV IS REMOVED  
REM: LONDON-001 CONDUCTORS AND EQUIPMENT INCLUDING THE XFMR
- 363 POLE #9501 - XFMR 53-F6-H3F TO BE INSTALLED HERE  
NOTE: VEGETATION WORK REQUIRED AT THIS LOCATION  
REP: 35'-CL. 5 POLE WITH 45'-CL. 2 PENTA POLE (S-1140)  
INS: 34KVX4KV A PH 25KVA DUAL RATIO XFMR ON 4KV TAP SETTING WITH 30K FUSE (S-1652-A & S-5506-D)  
INS: SECONDARY ATTACHMENT (S-1652-A)  
INS: 34KV GUYING IN THE NORTH DIRECTION (S-1605)  
TRF: PREPARE SECONDARY WIRE FOR CONVERSION  
REM: TOP POLE AND REMOVE ALL PECO EQUIPMENT ABOVE COMMUNICATIONS INCLUDING LONDON-001 CONDUCTORS AND EQUIPMENT
- 364 POLE #9502 - XFMR 53-F6-H3E  
NOTE: VEGETATION WORK REQUIRED AT THIS LOCATION  
REP: 40'-CL. 4 POLE WITH 45'-CL. 2 PENTA POLE (S-1140)  
INS: 34KVX4KV A PH 25KVA DUAL RATIO XFMR ON 4KV TAP SETTING WITH 30K FUSE (S-1652-A & S-5506-D)  
INS: POLE MOLDING FOR UG SECONDARY SERVICE (S-1172)  
TRF: PREPARE SECONDARY WIRE FOR CONVERSION  
REM: TOP POLE AND REMOVE ALL PECO EQUIPMENT ABOVE COMMUNICATIONS INCLUDING LONDON-001 CONDUCTORS AND EQUIPMENT
- 365 POLE #9503 - XFMR F3-F6-G3F  
NOTE: VEGETATION WORK REQUIRED AT THIS LOCATION  
REP: 45'-CL. 2 POLE WITH 45'-CL. 2 PENTA POLE (S-1140)  
INS: 34KVX4KV A PH 50KVA DUAL RATIO XFMR ON 4KV TAP SETTING WITH 50K FUSE (S-1652-A & S-5506-D)  
INS: SECONDARY ATTACHMENT (S-1652-A)  
TRF: PREPARE SECONDARY WIRE FOR CONVERSION  
REM: TOP POLE AND REMOVE ALL PECO EQUIPMENT ABOVE COMMUNICATIONS INCLUDING LONDON-001 CONDUCTORS AND EQUIPMENT
- 366 POLE #9504 - XFMR 53-F6-G3D  
NOTE: VEGETATION WORK REQUIRED AT THIS LOCATION  
REP: 40'-CL. 3 POLE WITH 45'-CL. 2 PENTA POLE (S-1140)  
INS: 34KVX4KV A PH 25KVA DUAL RATIO XFMR ON 4KV TAP SETTING WITH 30K FUSE ON SINGLE PHASE DEADEND STRUCTURE (S-1652-C & S-5506-D)  
INS: SECONDARY ATTACHMENT (S-1652-C)  
INS: 34KV GUYING IN THE NORTH DIRECTION (S-1605)  
TRF: PREPARE SECONDARY WIRE FOR CONVERSION  
REM: TOP POLE AND REMOVE ALL PECO EQUIPMENT ABOVE COMMUNICATIONS INCLUDING LONDON-001 CONDUCTORS AND EQUIPMENT
- 367 POLE #9505  
NOTE: VEGETATION WORK REQUIRED AT THIS LOCATION  
REP: 35'-CL. 5 POLE WITH 45'-CL. 2 PENTA POLE (S-1140)  
INS: 34KV 1-PHASE 3-WAY CORNER WITH 30K FUSE (S-1626-A)  
INS: NEUTRAL ATTACHMENT (S-1137)  
TRF: RAISE NEUTRAL AFTER 4KV IS REMOVED  
REM: TOP POLE AND REMOVE ALL PECO EQUIPMENT ABOVE COMMUNICATIONS INCLUDING LONDON-001 CONDUCTORS AND EQUIPMENT
- 368 POLE #9019  
NOTE: VEGETATION WORK REQUIRED AT THIS LOCATION  
REP: 35'-CL. 5 POLE WITH 45'-CL. 2 PENTA POLE (S-1140)  
INS: 34KV 1-PHASE TANGENT FRAMING (S-0130)  
INS: 34KV GUYING IN THE EAST DIRECTION (S-1605)  
INS: NEUTRAL ATTACHMENT (S-1137)  
TRF: NEUTRAL WIRE  
REM: TOP POLE AND REMOVE ALL PECO EQUIPMENT ABOVE COMMUNICATIONS INCLUDING LONDON-001 CONDUCTORS AND EQUIPMENT
- 369 POLE #9020 - XFMR 53-F6-G3E  
NOTE: VEGETATION WORK REQUIRED AT THIS LOCATION  
REP: 35'-CL. 5 POLE WITH 45'-CL. 2 PENTA POLE (S-1140)  
INS: 34KVX4KV A PH 50KVA DUAL RATIO XFMR ON 4KV TAP SETTING WITH 50K FUSE ON SINGLE PHASE DEADEND STRUCTURE (S-1652-C & S-5506-D)  
INS: 34KV GUYING IN THE WEST DIRECTION (S-1605)  
INS: SECONDARY ATTACHMENT (S-1652-C)  
TRF: PREPARE SECONDARY WIRE FOR CONVERSION  
REM: TOP POLE AND REMOVE ALL PECO EQUIPMENT ABOVE COMMUNICATIONS INCLUDING LONDON-001 CONDUCTORS AND EQUIPMENT
- 370 POLE #9506  
NOTE: VEGETATION WORK REQUIRED AT THIS LOCATION  
REP: 35'-CL. 5 POLE WITH 45'-CL. 2 PENTA POLE (S-1140)  
INS: 34KV 1-PHASE TANGENT FRAMING (S-0130)  
INS: NEUTRAL ATTACHMENT (S-1137)  
REM: TOP POLE AND REMOVE ALL PECO EQUIPMENT ABOVE COMMUNICATIONS INCLUDING LONDON-001 CONDUCTORS AND EQUIPMENT
- 371 POLE #9507 - XFMR 53-F6-F3D  
NOTE: VEGETATION WORK REQUIRED AT THIS LOCATION  
REP: 40'-CL. 3 POLE WITH 45'-CL. 2 PENTA POLE (S-1140)  
INS: 34KVX4KV A PH 25KVA DUAL RATIO XFMR ON 4KV TAP SETTING WITH 30K FUSE ON SINGLE PHASE DEADEND STRUCTURE (S-1652-C & S-5506-D)  
INS: SECONDARY ATTACHMENT (S-1652-C)  
INS: 34KV GUYING IN THE NORTH DIRECTION (S-1605)  
TRF: PREPARE SECONDARY WIRE FOR CONVERSION  
REM: TOP POLE AND REMOVE ALL PECO EQUIPMENT ABOVE COMMUNICATIONS INCLUDING LONDON-001 CONDUCTORS AND EQUIPMENT
- 372 POLE #3872 THROUGH POLE #9507 & #9505 TO #9020  
INS: APPROX. 1065' OF 1/0 AAAC DALEVILLE-342 34KV PH PRIMARY WIRE FROM POLE #3871 TO POLE #9507 (S-1062)  
INS: APPROX. 217' OF 1/0 AAAC DALEVILLE-342 34KV PRIMARY WIRE FROM POLE #9505 TO POLE #9020 (S-1062)
- 373 POLE #3870  
TRF: RAISE NEUTRAL AFTER 4KV IS REMOVED  
REM: LONDON-001 EQUIPMENT AND CONDUCTORS
- 374 POLE #3869 - XFMR 53-F6-H3D  
NOTE: VEGETATION WORK REQUIRED AT THIS LOCATION  
REP: 40'-CL. 4 POLE WITH 60'-CL. 2 PENTA POLE (S-1140)  
INS: 34KV TANGENT STRUCTURE WITH 34KV A PH 25KVA XFMR WITH 10A CURRENT LIMITING FUSE AND SECONDARY ATTACHMENT (S-1651-A & S-5506-D)  
TRF: DALEVILLE-342 CONDUCTORS  
TRF: PREPARE SECONDARY WIRE FOR CONVERSION  
REM: TOP POLE AND REMOVE ALL PECO EQUIPMENT ABOVE COMMUNICATIONS INCLUDING LONDON-001 CONDUCTORS AND EQUIPMENT INCLUDING THE XFMR

NOTE:  
- ALL POLE REPLACEMENTS TO BE WITHIN 2' OF EXISTING POLE UNLESS OTHERWISE SPECIFIED  
- HOT STICK WORK REQUIRED

DESIGNER: C. BYDLON  
484.707.8999  
ENG: D. WALKES  
312.763.2198  
LRE: J. PATEL  
610.725.7165

PECO WORK ORDER: 17238693  
E.C.#: 0000253518  
CIRCUIT: LONDON-001, LONDON-002  
TOKENA-002, AVONDALE-002,  
DALEVILLE-341, DALEVILLE-342,  
CLAY-341, BRADFORD-346  
QUAD: 53EF56, 53GH56, 53GH78  
60AB56, 60B7, 60C5, 60C6  
60CD78, 60D5

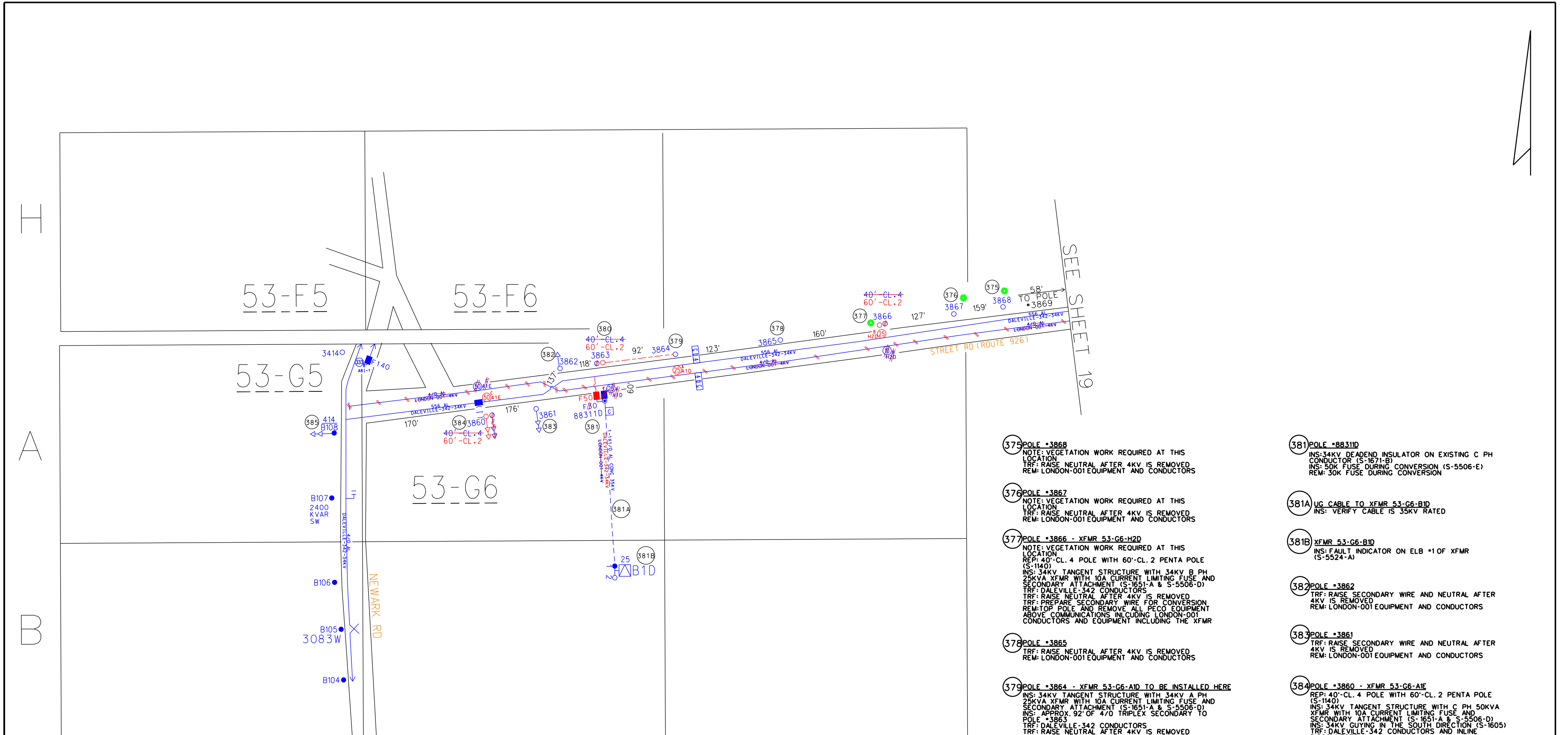


SAFETY NOTE:  
CAUTION SHALL BE USED TO INSURE THAT THE PROPER PERSONAL PROTECTIVE CLOTHING AND EQUIPMENT ARE USED. HARD HAT, GLOVES, SAFETY GLASSES AND P.P.E. ARE A MUST WHEN WORKING AROUND OR ON ENERGIZED FACILITIES.

CONTRACTORS NOTE:  
CONTRACTOR TO CONTACT P.A. ONE CALL (1-800-242-1776) THREE DAYS (MINIMUM) PRIOR TO BEGINNING WORK FOR UTILITY OBSTRUCTION MARKINGS IN STREET AND SIDEWALK. CARE SHOULD BE TAKEN TO LOCATE ALL OBSTRUCTIONS PRIOR TO EARTH REMOVAL. ALL OBSTRUCTIONS MAY NOT HAVE BEEN SHOWN ON THE DESIGN. EXCAVATION AND LOCATION OF OBSTRUCTIONS SHOULD BE FAR ENOUGH IN ADVANCE TO PERMIT REALIGNMENT OF DUCT AND (OR) MANHOLES IF NECESSARY.

ISSUED FOR CONSTRUCTION REV 0 09/20/2021

		KCDM ENGINEERING SHEET 19 OF 20	
0	SUBMITTED FOR IFC	09/20/2021	PECO 2021 4KV UNIT SUB RETIREMENT
B	REVISED PER LRE COMMENTS	07/29/2021	LONDON-001, LONDON-002, TOKENA-002
A	SUBMITTED FOR IFA	05/28/2021	DELCESTER REGION-CHESTER COUNTY
REV. #	DESCRIPTION	DATE	AVONDALE BORO & NEW GARDEN TWSP.
REVISIONS			
	DRAWN BY	DATE	JOB/W.O. NO.
	CBB	09/20/2021	17238693



- 375 POLE #3868  
NOTE: VEGETATION WORK REQUIRED AT THIS LOCATION  
TRF: RAISE NEUTRAL AFTER 4KV IS REMOVED  
REM: LONDON-001 EQUIPMENT AND CONDUCTORS
- 376 POLE #3867  
NOTE: VEGETATION WORK REQUIRED AT THIS LOCATION  
TRF: RAISE NEUTRAL AFTER 4KV IS REMOVED  
REM: LONDON-001 EQUIPMENT AND CONDUCTORS
- 377 POLE #3866 - XFMR 53-G6-H2D  
NOTE: VEGETATION WORK REQUIRED AT THIS LOCATION  
REP: 40'-CL. 4 POLE WITH 60'-CL. 2 PENTA POLE (S-1140)  
INS: 34KV TANGENT STRUCTURE WITH 34KV B PH 25KVA XFMR WITH 10A CURRENT LIMITING FUSE AND SECONDARY ATTACHMENT (S-1651-A & S-5508-D)  
TRF: DALEVILLE-342 CONDUCTORS  
TRF: RAISE NEUTRAL AFTER 4KV IS REMOVED  
TRF: PREPARE SECONDARY WIRE FOR CONVERSION  
REM: TOP POLE AND REMOVE ALL PECO EQUIPMENT ABOVE COMMUNICATIONS INCLUDING LONDON-001 CONDUCTORS AND EQUIPMENT INCLUDING THE XFMR
- 378 POLE #3865  
TRF: RAISE NEUTRAL AFTER 4KV IS REMOVED  
REM: LONDON-001 EQUIPMENT AND CONDUCTORS
- 379 POLE #3864 - XFMR 53-G6-AID TO BE INSTALLED HERE  
INS: 34KV TANGENT STRUCTURE WITH 34KV A PH 25KVA XFMR WITH 10A CURRENT LIMITING FUSE AND SECONDARY ATTACHMENT (S-1651-A & S-5508-D)  
INS: APPROX. 92' OF 4/0 TRIPLEX SECONDARY TO POLE #3865  
TRF: DALEVILLE-342 CONDUCTORS  
TRF: RAISE NEUTRAL AFTER 4KV IS REMOVED  
REM: LONDON-001 CONDUCTORS AND EQUIPMENT
- 380 POLE #3863 - XFMR 53-G6-AID TO BE REMOVED HERE & C PH TAP TO POLE #88311D  
REP: 40'-CL. 4 POLE WITH 60'-CL. 2 PENTA POLE (S-1140)  
INS: 34KV TANGENT STRUCTURE ON #8 CROSSARM WITH C PH TAP TO POLE #88311D (S-1631-C)  
INS: SECONDARY ATTACHMENT FOR 4/0 TRIPLEX SECONDARY FROM POLE #3864 (S-1523)  
INS: POLE MOLDING FOR UG SECONDARY SERVICE (S-1172)  
TRF: C PH CONDUCTOR TO POLE #88311D  
TRF: PREPARE SECONDARY WIRE FOR CONVERSION  
REM: TOP POLE AND REMOVE ALL PECO EQUIPMENT ABOVE COMMUNICATIONS INCLUDING LONDON-001 CONDUCTORS AND EQUIPMENT INCLUDING THE XFMR
- 381 POLE #88311D  
INS: 34KV DEADEND INSULATOR ON EXISTING C PH CONDUCTOR (S-1671-B)  
INS: 50K FUSE DURING CONVERSION (S-5506-E)  
REM: 30K FUSE DURING CONVERSION
- 381A UG CABLE TO XFMR 53-G6-BID  
INS: VERIFY CABLE IS 35KV RATED
- 381B XFMR 53-G6-BID  
INS: FAULT INDICATOR ON ELB #1 OF XFMR (S-5524-A)
- 382 POLE #3862  
TRF: RAISE SECONDARY WIRE AND NEUTRAL AFTER 4KV IS REMOVED  
REM: LONDON-001 EQUIPMENT AND CONDUCTORS
- 383 POLE #3861  
TRF: RAISE SECONDARY WIRE AND NEUTRAL AFTER 4KV IS REMOVED  
REM: LONDON-001 EQUIPMENT AND CONDUCTORS
- 384 POLE #3860 - XFMR 53-G6-AIE  
REP: 40'-CL. 4 POLE WITH 60'-CL. 2 PENTA POLE (S-1140)  
INS: 34KV TANGENT STRUCTURE WITH C PH 50KVA XFMR WITH 10A CURRENT LIMITING FUSE AND SECONDARY ATTACHMENT (S-1651-A & S-5506-D)  
INS: 34KV GUYING IN THE SOUTH DIRECTION (S-1605)  
TRF: DALEVILLE-342 CONDUCTORS AND INLINE DISCONNECTS  
TRF: PREPARE SECONDARY WIRE FOR CONVERSION  
REM: TOP POLE AND REMOVE ALL PECO EQUIPMENT ABOVE COMMUNICATIONS INCLUDING LONDON-001 CONDUCTORS AND EQUIPMENT INCLUDING THE XFMR
- 385 POLE #8108  
TRF: RAISE SECONDARY WIRE AND NEUTRAL AFTER 4KV IS REMOVED  
REM: LONDON-001 EQUIPMENT AND DEADEND CONDUCTORS

NOTE:  
- ALL POLE REPLACEMENTS TO BE WITHIN 2' OF EXISTING POLE UNLESS OTHERWISE SPECIFIED  
- HOT STICK WORK REQUIRED

DESIGNER: C. BYDLON  
484.707.8999  
ENG: D. WALKES  
312.763.2198  
LRE: J. PATEL  
610.725.7165

PECO WORK ORDER: 17238693  
E.C.#: 0000253518  
CIRCUIT: LONDON-001, LONDON-002  
TOKENA-002, AVONDALE-002,  
DALEVILLE-341, DALEVILLE-342,  
CLAY-341, BRADFORD-346  
QUAD: 53EF56, 53GH56, 53GH78  
60AB56, 60B7, 60C5, 60C6  
60CD78, 60D5

CONTRACTORS NOTE:  
CONTRACTOR TO CONTACT P.A. ONE CALL (1-800-242-1776) THREE DAYS (MINIMUM) PRIOR TO BEGINNING WORK FOR UTILITY OBSTRUCTION MARKINGS IN STREET AND SIDEWALK. CARE SHOULD BE TAKEN TO LOCATE ALL OBSTRUCTIONS PRIOR TO EARTH REMOVAL. ALL OBSTRUCTIONS MAY NOT HAVE BEEN SHOWN ON THE DESIGN. EXCAVATION AND LOCATION OF OBSTRUCTIONS SHOULD BE FAR ENOUGH IN ADVANCE TO PERMIT REALIGNMENT OF DUCT AND (OR) MANHOLES IF NECESSARY.

ISSUED FOR CONSTRUCTION REV 0 09/20/2021

SAFETY NOTE:  
CAUTION SHALL BE USED TO INSURE THAT THE PROPER PERSONAL PROTECTIVE CLOTHING AND EQUIPMENT ARE USED. HARD HAT, GLOVES, SAFETY GLASSES AND P.P.E. ARE A MUST WHEN WORKING AROUND OR ON ENERGIZED FACILITIES.



		<b>KDAM ENGINEERING</b> SHEET 20 OF 20	
0	SUBMITTED FOR IFC	09/20/2021	PECO 2021 4KV UNIT SUB RETIREMENT
B	REVISED PER LRE COMMENTS	07/29/2021	LONDON-001, LONDON-002, TOKENA-002
A	SUBMITTED FOR IFA	05/28/2021	DELCHESTER REGION-CHESTER COUNTY
REV. #	DESCRIPTION	DATE	AVONDALE BORO & NEW GARDEN TWS. EAST & WEST MARLBOROUGH TWS.
REVISIONS			
	DRAWN BY	DATE	JOB/W.O. NO.
	CBB	09/20/2021	17238693

# **EXHIBIT 9**



February 23, 2022

**BCS Decision Report #3**

BCS Case #: 003809428 **Open Date:** 2021-10-20  
Customer Name: ALEX VON KOCH  
Service Address: 1259 NEWARK RD

TOUGHKENAMON, PA 19350  
BCS Bill Account #: 8888888888 **Previous Case #:**  
Violation Type: NO **Chapter Type:**  
Decision Type: O **Section / Rule:**  
Investigator Name: IJANAYA YOUNG

**Decision Issued Date:**  
**Case Closed Date:** 2021-12-06

**Letter Description:**

**Total Balance:** \$0.00 **Balance Date:** 2021-11-19  
**Amount to Restore Service:** \$0.00 **Amount to Continue Service:** \$0.00  
**Date Payment Due:** **Regular Budget Amount:** \$0.00  
**Special Budget Payment:** \$0.00 **Final Bill Monthly Payment:** \$0.00  
**Plus Arrears Payment:** \$0.00 **End of Month Payment:** \$0.00  
**Current Monthly Payment:** \$0.00  
**Payment Terms:**

**PAR Description:**

**Resolution Description:**

VERBAL CLOSE: SPOKE TO CUSTOMER, INFORMED HIM THAT COMPANY HAS HIS DAMAGE CLAIM AND IT IS PENDING. INFORMED LIMITED JURISDICTION OVER SERVICE COMPLAINTS AND NOT ABLE TO AWARD DAMAGES AT INFORMAL LEVEL. CUSTOMER WAS ADVISED OF THE COMPANY'S PLANS FOR TREE TRIMMING AND CIRCUIT PATROL IN 2022 AND WORK ORDER #17238693 SCHEDULED TO BE COMPLETED MID 2022. CUSTOMER UNDERSTOOD BUT STATES NEEDS WORK DONE WITHIN NEXT FEW MONTHS. CUSTOMER AGREED TO VERBALLY CLOSE BOTH INFORMAL CASES





February 23, 2022

**BCS Decision Report #1**

**BCS Case #:** 003748927 **Open Date:** 2019-11-13  
**Customer Name:** THOMAS VON KOCH  
**Service Address:** 1259 NEWARK RD

TOUGHKENAMON, PA 19374  
**BCS Bill Account #:** NONE **Previous Case #:**  
**Violation Type:** NO **Chapter Type:**  
**Decision Type:** O **Section / Rule:**  
**Investigator Name:** SANDRA YATES

**Decision Issued Date:**  
**Case Closed Date:** 2019-12-18

**Letter Description:**

<b>Total Balance:</b>	\$260.79	<b>Balance Date:</b>	2019-12-06
<b>Amount to Restore Service:</b>	\$0.00	<b>Amount to Continue Service:</b>	\$0.00
<b>Date Payment Due:</b>		<b>Regular Budget Amount:</b>	\$0.00
<b>Special Budget Payment:</b>	\$0.00	<b>Final Bill Monthly Payment:</b>	\$0.00
<b>Plus Arrears Payment:</b>	\$0.00	<b>End of Month Payment:</b>	\$0.00
<b>Current Monthly Payment:</b>	\$0.00		

**Payment Terms:**

**PAR Description:**

**Resolution Description:**  
VERBAL DISMISSAL: CU REQUEST HAS BEEN COMPLETED. CASE CLOSED.