



Reviewed for Code Compliance
Permitting and Inspections Department
Approved with Conditions

05/15/2018

SEWALL ST

THOMPSONS POINT ROAD

THOMPSONS POINT ROAD

NOTES:

1. PRESENT 38KV LINE TO BE REMOVED TO MAKE ROOM FOR 115KV LINE & SUB
- 2.

PORTLAND
TRANSPORTATION
CENTER

115KV SECT. 161
TO MOSHERS

HPFF
CABLE PUMP
HOUSE

R.R. TELEGRAPH LINE

(M.C.R.R. CO.)
PORTLAND TERMINAL CO

REFERENCE DRAWINGS

| | |
|------------|---|
| 337-65 | CABLE TRENCH: CONDS & GRNDS KEY PLAN |
| 337-62 | FOUNDATION KEY PLAN |
| 337-21 | CONDUIT AND GROUNDING PLAN |
| 337-18 | GENERAL ARRGT - PLAN 115/11KV O.D. SUBST |
| 337-16 | FOUNDATION KEY PLAN 115/11KV O.D. SUBSTA |
| 337-8/9/10 | (PRINTS) BLDG. DETAILS BE INDOOR PRINT OF EQUIP |
| 337-7 | PLAN BE DETAILS 38KV O.D. SUB. |
| 337-6 | FOUNDATION PLAN BE DETAILS 38KV O.D. SUB. |

GENERAL LOCATION PLAN
SEWALL ST. SUBSTATION

SEWALL STREET/659 PORTLAND

BY: JCB/MP SCALE: 1" = 20'-0" FILE: 337-15 REV 23 GENERAL LOCATION PLAN.dwg

DATE: 04/09/2018

337-15 23

PE STAMP

AVANGRID ENGINEERING
CONFIDENTIAL, PROPRIETARY and
TRADE SECRET INFORMATION
Property of AVANGRID



| | | | | | |
|-----|--------------------------------------|------------|--------|-------|-------|
| 22 | AS BUILT 2013 CONST. | 03/29/2013 | JHM | | |
| 21 | IFC - ADDED C.S. CONVERSION KITS | 03/04/2011 | JHM | | |
| 20 | ADDED PRES PLANT | 09/13/2004 | MJS | | |
| 19 | REMOVED BUILDING | 07/02/2001 | MPB | | |
| 18 | NEW FENCE AND 34KV CIRCUIT | 04/29 | JM | | |
| 23 | ASSET BREAKER REPLACEMENT 34KV - IFC | 04/09/2018 | JCB/MP | ANSVC | ANSVC |
| REV | DESCRIPTION | DATE | BY | CK | APP |

| REV | DESCRIPTION | DATE | BY | CK | APP |
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LOGO

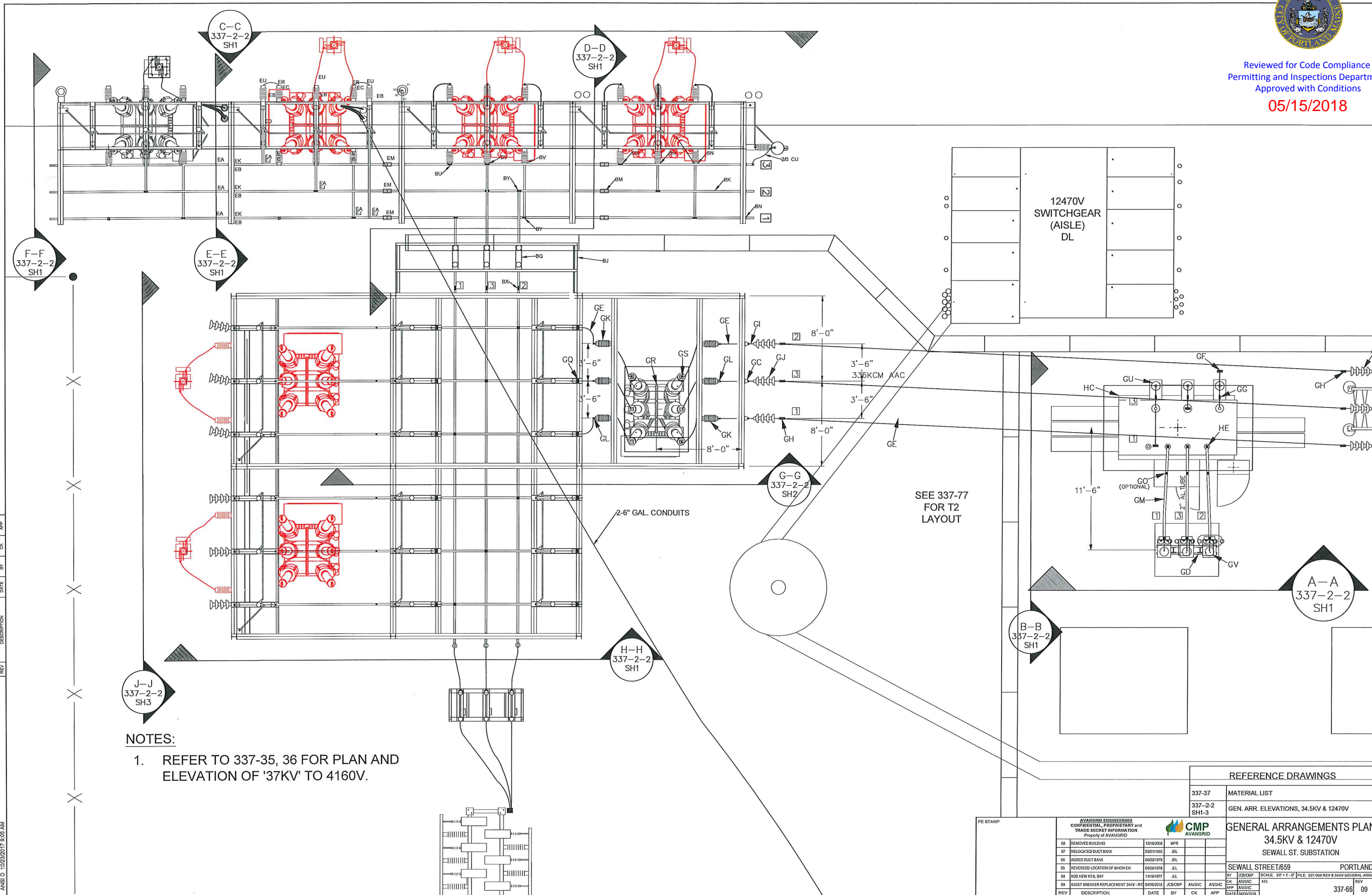
INFO

ANSI D 1029/2017 9:05 AM



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NOTES:

- REFER TO 337-35, 36 FOR PLAN AND ELEVATION OF '37KV' TO 4160V.

REFERENCE DRAWINGS

| | |
|---------------|---------------------------------------|
| 337-37 | MATERIAL LIST |
| 337-2-2 SH1-3 | GEN. ARR. ELEVATIONS, 34.5KV & 12470V |

GENERAL ARRANGEMENTS PLAN
34.5KV & 12470V
SEWALL ST. SUBSTATION

SEWALL STREET/659 PORTLAND

| REV | DESCRIPTION | DATE | BY | CK | APP |
|-----|------------------------------------|------------|---------|--------|--------|
| 08 | REMOVED BUILDING | 12/19/2008 | MFR | | |
| 07 | RELOCATED DUCT BANK | 02/21/1990 | JDL | | |
| 06 | ADDED DUCT BANK | 08/22/1979 | JDL | | |
| 05 | REVERSED LOCATION OF MIHON EH | 04/29/1978 | JUL | | |
| 04 | ADD NEW KTEL BAY | 11/19/1977 | JUL | | |
| 09 | ASSET BREAKER REPLACEMENT 34KV-IFC | 04/05/2018 | JCB/CMP | AVNS/C | AVNS/C |
| REV | DESCRIPTION | DATE | BY | CK | APP |

| | | | | | |
|------|------------|-------|--------------|------|--|
| BY | JCB/CMP | SCALE | 1/4" = 1'-0" | FILE | 337-066 REV 9 34KV GENERAL ARRANGEMENTS PLAN |
| DATE | 04/06/2018 | NO. | | | |
| | | | | | 337-66 09 |

| REV | DESCRIPTION | DATE | BY | CK | APP |
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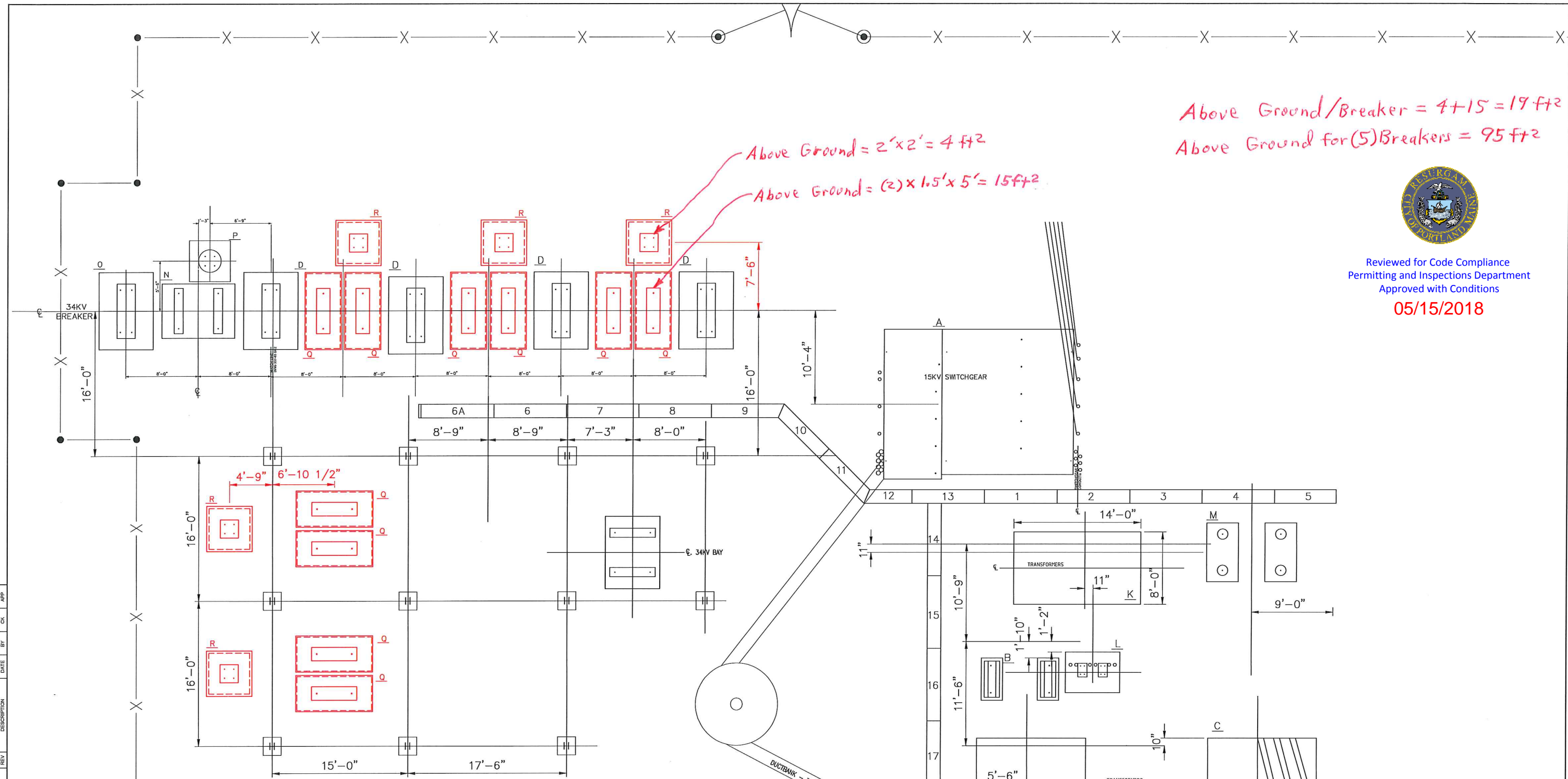
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Above Ground/Breaker = 4+15 = 19 ft²
 Above Ground for (5) Breakers = 95 ft²



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Above Ground = 2' x 2' = 4 ft²
 Above Ground = (2) x 1.5' x 5' = 15 ft²



| REV | DESCRIPTION | DATE | BY | CHK | APP |
|-----|-------------|------|----|-----|-----|
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ANSI D. 1029/2017 9:05 AM

| MARK | QTY. | FOUNDATION FOR | DRAWING NO. | CU. YD. CONCRETE | |
|------|------|--------------------------------------|---------------|------------------|-------|
| | | | | EACH | TOTAL |
| A | 1 | FDN DETAIL 12470V SWITCHGEAR | 337-68 | 5.4 | 5.4 |
| B | 2 | FDN DETAIL - 34.5KV SW. & FUSE | 479-70 | 1.1 | 2.2 |
| C | 1 | FDN DETAILS - 34.5KV - 12470V TRANS. | 337-70 | 4.45 | 4.45 |
| D | 4 | FDN FOR 33KV(34.5) SW. FRAME | 25-138 | 5.75 | 17.25 |
| E | 0 | FDN FOR 34.5KV OGB WITH 345G5-1500 | 25-224 | 4.7 | 3.4 |
| F | 0 | FDN FOR 34.5 OGB GE FKA-38-22000 | 25-196 SH1 | 0.8 | 4.6 |
| G | 1 | FDN FOR 34.5KV GCB SIEMENS SP | 25-316 | 1.7 | 1.7 |
| H | 1 | FDN FOR 34.5KV SINGLE VT STAND | 25-317 | 1.84 | 1.84 |
| J | 1 | SIEMENS GAS BREAKER | 25-376 | 3.5 | 3.5 |
| K | 1 | T2 TRANSFORMER SLAB | 337-75 | 6.2 | 6.2 |
| L | 1 | CABLE RISER SUPPORT FND. | 337-76 | 1.5 | 1.5 |
| M | 1 | 34.5KV STRAIN BUS STR. | 25-195 | 2.5 | 2.5 |
| N | 1 | SIEMENS 34.5KV SPS2 FND | 25-376 | 3.5 | 3.5 |
| O | 1 | 34.5KV SWITCH FRAME FND | 25-138 | 5.75 | 5.75 |
| P | 1 | 34.5 PT STAND FND | 25-355 | 1.5 | 1.5 |
| Q | 10 | SIEMENS 72KV SP2S BREAKER FND | 337-6-7 SH1-2 | 2.75 | 27.5 |
| R | 5 | 34.5KV PT STAND FOUNDATION | 6/8/1900 | 1.8 | 9.0 |

| REFERENCE DRAWINGS | |
|--------------------|--|
| 337-37 | MATERIAL LIST, 37KV-4160 & 12470 INST. |
| 337-68 | FDN DETAILS - 12470V SWMCHGEAR |
| 337-62 | FOUNDATION KEY PLAN |

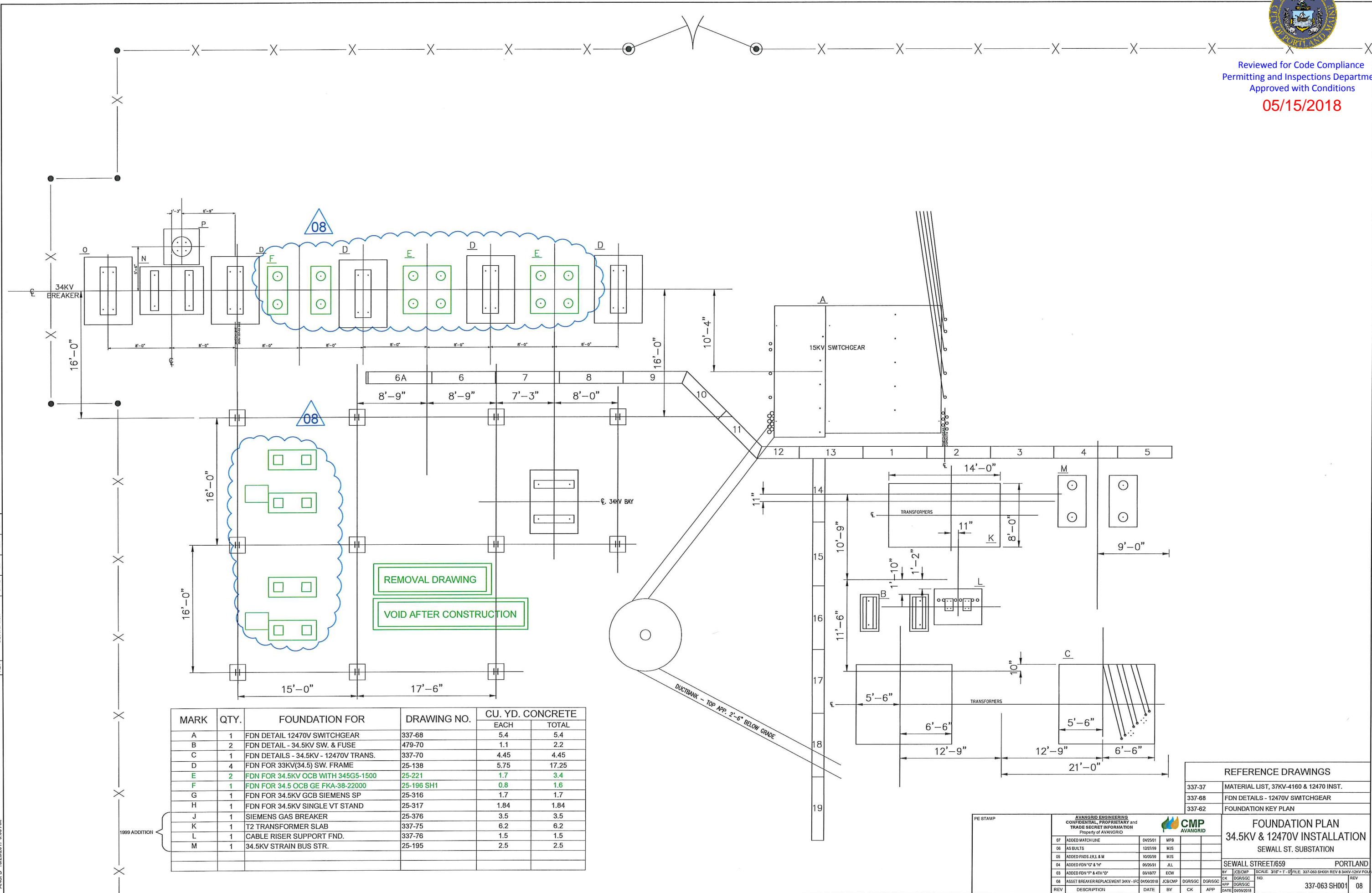
| AVANGRID ENGINEERING CONFIDENTIAL, PROPRIETARY and TRADE SECRET INFORMATION Property of AVANGRID | | | | CMP AVANGRID | |
|---|-------------------------------------|------------|---------|-----------------|---------|
| 07 | ADDED MATCH LINE | 04/25/11 | MPB | | |
| 06 | AS BUILTS | 12/27/09 | MJS | | |
| 05 | ADDED FDS J,K,L & M | 10/05/09 | MJS | | |
| 04 | ADDED FDN "G" & "H" | 06/20/11 | JLL | | |
| 03 | ADDED FDN "F" & 4TH "D" | 09/15/11 | ECW | | |
| 02 | ASSET BREAKER REPLACEMENT 34KV-12KV | 04/05/2018 | JCB/CMP | DGR/VSC | DGR/VSC |
| REV | DESCRIPTION | DATE | BY | CK | APP |

FOUNDATION PLAN
34.5KV & 12470V INSTALLATION
 SEWALL ST. SUBSTATION
 SEWALL STREET/659 PORTLAND
 SCALE: 3/16" = 1'-0" FILE: 337-063 SH001 REV 8 34KV-12KV FOUNDATION PLAN
 337-063 SH001 08



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| MARK | QTY. | FOUNDATION FOR | DRAWING NO. | CU. YD. CONCRETE | |
|------|------|------------------------------------|-------------|------------------|-------|
| | | | | EACH | TOTAL |
| A | 1 | FDN DETAIL 12470V SWITCHGEAR | 337-68 | 5.4 | 5.4 |
| B | 2 | FDN DETAIL - 34.5KV SW. & FUSE | 479-70 | 1.1 | 2.2 |
| C | 1 | FDN DETAILS - 34.5KV TRANS. | 337-70 | 4.45 | 4.45 |
| D | 4 | FDN FOR 33KV(34.5) SW. FRAME | 25-138 | 5.75 | 17.25 |
| E | 2 | FDN FOR 34.5KV OCB WITH 345G5-1500 | 25-221 | 1.7 | 3.4 |
| F | 1 | FDN FOR 34.5 OCB GE FKA-38-22000 | 25-196 SH1 | 0.8 | 1.6 |
| G | 1 | FDN FOR 34.5KV GCB SIEMENS SP | 25-316 | 1.7 | 1.7 |
| H | 1 | FDN FOR 34.5KV SINGLE VT STAND | 25-317 | 1.84 | 1.84 |
| J | 1 | SIEMENS GAS BREAKER | 25-376 | 3.5 | 3.5 |
| K | 1 | T2 TRANSFORMER SLAB | 337-75 | 6.2 | 6.2 |
| L | 1 | CABLE RISER SUPPORT FND. | 337-76 | 1.5 | 1.5 |
| M | 1 | 34.5KV STRAIN BUS STR. | 25-195 | 2.5 | 2.5 |

| REFERENCE DRAWINGS | |
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| 337-37 | MATERIAL LIST, 37KV-4160 & 12470 INST. |
| 337-68 | FDN DETAILS - 12470V SWITCHGEAR |
| 337-62 | FOUNDATION KEY PLAN |

FOUNDATION PLAN
34.5KV & 12470V INSTALLATION
SEWALL ST. SUBSTATION
PORTLAND

| REV | DESCRIPTION | DATE | BY | CK | APP |
|-----|--------------------------------------|------------|---------|---------|---------|
| 07 | ADDED MATCH LINE | 04/25/11 | MPB | | |
| 06 | AS BUILTS | 12/21/09 | MJS | | |
| 05 | ADDED FIBRS JKLL & M | 10/05/09 | MJS | | |
| 04 | ADDED FDN 'G' & 'H' | 06/26/11 | JLL | | |
| 03 | ADDED FDN 'P' & 4TH 'D' | 09/18/11 | ECW | | |
| 02 | ASSET BREAKER REPLACEMENT 34KV - IFC | 04/09/2018 | JCB/CMP | DGR/SJC | DGR/SJC |

| REV | DESCRIPTION | DATE | BY | CK | APP |
|-----|-------------|------|----|----|-----|
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