University of Colorado Boulder
Boulder, CO

MEDIUM VOLTAGE FEEDER 215
AND 15 REPLACEMENT PROJECT

November 2012

DRAWING INDEX
E-00  COVER SHEET (1 OF 4)
E-01  ELECTRICAL SITE MAP (2 OF 4)
E-02  MANHOLE DETAILS (3 OF 4)
E-03  SINGLE LINE DIAGRAMS (4 OF 4)

REFERENCE DRAWINGS
EO-105-A  DUCTBANK DETAILS
EO-106-A  LOCATE SYSTEM DETAILS
REFERENCE DRAWINGS

EQ-105-A DUCTBANK DETAILS
EQ-105-A LOCATE SYSTEM

REFERENCE STDS
1. 02/05 GENERAL UTILITIES REQUIREMENTS
2. 02/765 ELECTRIC POWER TRANSMISSION
3. REFER TO DIVISION 2, SECTIONS 02210, 02220, 02230, 02250, 02232 FOR SURFACE RESTORATION REQUIREMENTS

GENERAL NOTES
1. CONDUIT ROUTING LOCATIONS ARE DIAGRAMMED. ALL LOCATIONS SHALL BE COORDINATED WITH THE CONTRACTORS INVOLVED.
2. ALL LOCATIONS FOR MANHOLE AND DUCTBANKS SHALL BE APPROVED BY THE UCB MEDIUM VOLTAGE SUPERVISION.
3. NEW CABLES SHALL BE INDIVIDUALLY FIRE TAPED. ALL CIRCUITS SHALL BE IDENTIFIED WITH PREVIOUS LABELS.
4. CONTRACTOR SHALL REQUEST UNDERGROUND UTILITIES LOCATED PRIOR TO ANY EXCAVATIONS.
5. DRAWINGS, SPECIFICATIONS, AND STANDARDS ARE TO BE CONSIDERED ONE COMPLETE DOCUMENT. ANYTHING SHOWN ON ONE SHALL BE CONSIDERED SHOWN ON ALL

KEY NOTES
1. NEW TWO-WAY DUCTBANK, SEE EQ-105-A DETAIL 1
2. NEW THREE-WAY DUCTBANK, SEE EQ-105-A DETAIL 2
3. NEW MANHOLE #.__ SEE EQ-03, DETAILS 1, 2
4. MINIMUM BEND RADIUS, TOTAL NOT TO EXCEED 270° PER RUN
5. CONNECT TO EXISTING PAD MOUNTED TRANSFORMER
6. ABANDON IN PLACE EXISTING DUCTBANK AND MANHOLE #67 & #45
7. EXISTING MANHOLE #49 TO REMAIN
8. EXISTING EXCEL FEEDERS 1355 AND 1443 TO REMAIN
9. NEW DUCTBANK TO INCORPORATE EXISTING MANHOLE #68
10. EXISTING TRACER WIRE SNMP/10
11. INSTALL TRACER WIRE SNMP/10 AS CLOSE TO TRANSFORMER/MANHOLE AS POSSIBLE. DETAIL B E-02
12. INSTALL JUNCTION BOX AND SIDE CONNECTION TO EXISTING XMR 30, SEE DETAIL ___
13. FEEDERS TO BE 2/0 COPPER CAPE PER CU STDS
SNAPPE1T COLOR CODE

<table>
<thead>
<tr>
<th>Color</th>
<th>Code</th>
</tr>
</thead>
<tbody>
<tr>
<td>Red</td>
<td>Electric</td>
</tr>
<tr>
<td>Yellow</td>
<td>Gas</td>
</tr>
<tr>
<td>Orange</td>
<td>Communication</td>
</tr>
<tr>
<td>Blue</td>
<td>Domestic Water</td>
</tr>
<tr>
<td>Green</td>
<td>Sewer</td>
</tr>
<tr>
<td>Purple</td>
<td>Reclaimed Water</td>
</tr>
</tbody>
</table>

TRACE WIRE REQUIREMENTS

COMPLETE REQUIREMENTS REFER TO DIVISION 2, SECTION 02400, PART 1.14 - UTILITY TRACE WIRE

1. TRACE WIRES MUST BE DESIGNED TO MATCH LIFE OF UTILITY, CONTINUOUS, INSULATED, AND GROUNDED ON BOTH ENDS.
2. TRACE WIRES MUST BE INSTALLED ON ALL NEW OR REPLACED UNDERGROUND UTILITIES EXCEEDING 20 FEET IN LENGTH.
3. TRACE WIRE ENDS TO TERMINATE IN A FLUSH-MOUNTED, LABELED BOX (SNAKE PIT MAGNETIZED BOX) EVERY 250 FT AND ADJACENT TO OUTSIDE WALLS AND MANHOLES.
4. TRACE WIRE AND BOXES TO REFLECT UNCC UTILITY COLOR CODE.
5. TRACE WIRE TO BE AFFIXED TO CONDUIT AS CLOSE TO CENTER OF TRENCH AS POSSIBLE USING PLASTIC, NONCONDUCTIVE TIES APPROXIMATELY EVERY 8 TO 12 FEET TO PREVENT WIRED MOVEMENT UPON BACKFILLING. DO NOT WRAP TRACE WIRE AROUND CONDUIT. TRACE WIRE FOR FUEL AND GAS LINES TO BE FASTENED TO PIPE BY USE OF A SPACER.
6. TRACE WIRES TO BE ALLOWED SOME SLACK FOR BENDS, FUTURE WORK, EARTH MOVEMENTS, ETC.
7. ALL TRACE WIRES TO BE TESTED BEFORE ACCEPTANCE.