LCCC – ALBANY COUNTY CAMPUS
EMERGENCY GENERATOR ADDITION
LARAMIE, WYOMING

LARAMIE COUNTY COMMUNITY COLLEGE (LCCC)
1400 EAST COLLEGE DRIVE
CHEYENNE, WY 82007

FACILITIES MAINTENANCE DIRECTOR: 307-778-1121

CATOR, RUMA & ASSOCIATES
420 WEST LINCOLNWAY
CHEYENNE, WYOMING 82001
CONSULTING ENGINEER: 307-274-3832

DRAWING LIST

UNIT: COVER SHEET
011 GENERAL ELECTRICAL/MECHANICAL DRAWINGS
012 ELECTRICAL/MECHANICAL DETAILS
020 ELECTRICAL/MECHANICAL SYSTEM PLAN - DRAW 1
021 ELECTRICAL/MECHANICAL SYSTEM PLAN - DRAW 2
022 ELECTRICAL/MECHANICAL SYSTEM PLAN - DRAW 3

PROJECT LOCATION

LCCC ALBANY COUNTY CAMPUS COLLEGE
CAPHORN HALL

AUTHORITIES HAVING JURISDICTION

CITY OF LARAMIE
Building Dept.
Telephone: (307) 742-9000
Website: www.cityoflaramie.org

DESIGN TEAM

ELECTRICAL
PROJECT MANAGER
WILLIAM MCDONALD
Telephone: (307) 777-6621
Email: william.mcdonald@laramie.edu

MECHANICAL
PROJECT MANAGER
WILLIAM MCDONALD
Telephone: (307) 777-6621
Email: william.mcdonald@laramie.edu

PROJECT INFORMATION

APPLICABLE CODES

INTERNATIONAL BUILDING CODE (IBC)
2016

INTERNATIONAL FIRE CODE (IFC)
2016

FIRE SAFETY CODE (NFPA 101)
2015

STANDARD FOR EMERGENCY POWER SYSTEMS (NFPA 110)
2013

ACCESSIBLE AND HABITABLE BUILDINGS AND FACILITIES (ADA/HFA A117.1)
2009

NFPA 70E: ELECTRICAL CODE (NFPA 70)
2014

BUILDING INFORMATION

ACQUISITION TYPE (PER IBC 304.1)
W

SQUARE FOOTAGE (SFL)
18,000 SF
**Panel Notes:**

1. PROVIDE 30mA GROUND FAULT CIRCUIT BREAKER.
2. BREAKER AND WIRING SIZED BY DEVICE SUPPLIER.
3. LIGHTING CIRCUITS TO SHARE COMMON NEUTRAL.

**MFR:** GE

**AMPERE SHORT CIRCUIT RATING (FULLY RATED):** 42,000

**MTG:** SURFACE

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**Phase Loading Summary**

<table>
<thead>
<tr>
<th>LOAD TYPE</th>
<th>PH A</th>
<th>PH B</th>
<th>PH C</th>
<th>LOAD TYPE</th>
<th>CONNECTED</th>
<th>NEC CALCULATED POWER</th>
<th>DEMAND</th>
<th>LOAD FACTOR</th>
<th>LOAD KW</th>
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<tbody>
<tr>
<td>LIGHTING</td>
<td>845.0</td>
<td>1,040</td>
<td>0.0</td>
<td>LIGHTING</td>
<td>1.9 KVA x 125% = 2.4 KVA x 95% = 2.2 KW 96%</td>
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<td></td>
<td></td>
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<tr>
<td>RECEPTACLES</td>
<td>0.0</td>
<td>0.0</td>
<td>0.0</td>
<td>RECEPTACLES</td>
<td>0.0 KVA x 125% = 0.0 KVA x 100% = 0.0 KW</td>
<td></td>
<td></td>
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<tr>
<td>MOTORS</td>
<td>1,819</td>
<td>1,819</td>
<td>1,819</td>
<td>MOTORS</td>
<td>1.9 KVA x 125% = 2.4 KVA x 95% = 2.2 KW 96%</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>OTHER</td>
<td>0.0</td>
<td>0.0</td>
<td>0.0</td>
<td>OTHER</td>
<td>0.0 KVA x 125% = 0.0 KVA x 100% = 0.0 KW</td>
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<tr>
<td>GENERAL</td>
<td>3,882</td>
<td>3,882</td>
<td>3,882</td>
<td>GENERAL</td>
<td>3.2 KVA x 100% = 3.2 KVA x 100% = 3.2 KW</td>
<td></td>
<td></td>
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</tbody>
</table>

**Total (VA):** 6,546.0 6,741.0 5,701.0

**Remainder:** 0.0 KVA x 50% = 0.0 KVA x 100% = 0.0 KW

**Ampacity:**

**MOTORS:** 52.7

**NEC Calculated Largest:** 4.0 KVA x 125% = 5.0 KVA x 90% = 4.5 KW

**Phase Ampacity:** 58.9 61.0 50.2

**Remainder:** 1.5 KVA x 100% = 1.5 KVA x 90% = 1.3 KW

**Nec Demand:**

**General:** 100.0

**General Notes:**

1. EVERY CIRCUIT SHALL BE UNIQUELY IDENTIFIED WITH ITS SPECIFIC PURPOSE AND/OR EQUIPMENT AS NECESSARY TO DISTINGUISH FROM ALL OTHER LOADS. IDENTIFICATION SHALL INCLUDE A DEGREE OF DETAIL AS APPROVED BY THE AHJ.

2. PROVIDE TYPED DESCRIPTIONS FOR NEW CIRCUITS BEING INSTALLED. INDICATE THE SPARES IN PENCIL.
MINIMUM COVER REQUIREMENTS

LOCATION NONMETALLIC RACEWAYS W/O CONCRETE LOW VOLTAGE

INSTALLED UNDER TWO INCHES OF CONCRETE 18 IN 6 IN

ALL OTHER LOCATIONS (NOT UNDER STREETS & ROADWAYS) 24 IN 6 IN

REFER TO NEC TABLE 300.5 FOR COMPLETE REQUIREMENTS