## PANEL SCHEDULE

PANEL: CC1 (Existing) LOC: COLO CONC South VOLTS: 120 / 240 1 PH 3 W
NO. POLES: 20 100/2 MAIN CKT BKR
BUS RATING: 100A 10 KA INTERRUPTING CAP. MOUNTING: SURFACE
FEATURES: EX 3R PANEL

| DESCRIPTION | NOTES | VA | TYPE | BRKR | P | CKT | PH | CKT | P | BRKR | TYPE | VA | DESCRIPTION | NOTES |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| FAIR RECEP LOADS | 1 | 1000 | R | 20 | 1 | 1 | A | 2 | 2 | 30 | | | SPARE | 1 |
| FAIR RECEP LOADS | 1 | 1000 | R | 20 | 1 | 3 | B | 4 | | | | | " | |
| FAIR RECEP LOADS | 1 | 1000 | R | 20 | 1 | 5 | A | 6 | 1 | 20 | R | 1000 | FAIR RECEP LOADS | 1 |
| FAIR RECEP LOADS | 1 | 1000 | R | 20 | 1 | 7 | B | 8 | 1 | 20 | R | 1000 | FAIR RECEP LOADS | 1 |
| FAIR RECEP LOADS | 1 | 1000 | R | 20 | 1 | 9 | A | 10 | 2 | 50 | P | 3600 | VENDOR PANEL | 2 |
| FAIR RECEP LOADS | 1 | 1000 | R | 20 | 1 | 11 | B | 12 | | | P | 3600 | " | |
| | | | | | | 13 | A | 14 | | | | | | |
| | | | | | | 15 | B | 16 | | | | | | |
| | | | | | | 17 | A | 18 | | | | | | |
| | | | | | | 19 | B | 20 | | | | | | |

LOAD SUMMARY:

| LOAD TYPE | CONN. | pf | DEMAND FACTOR | DEMAND |
|---|---|---|---|---|
| P=PANELS | 7.2 | 0.90 | 1.00 | 7.2 |
| L=LIGHTING | | 0.96 | 1.00 | " |
| R=RECEPTACLES | 6.4 | 0.90 | 50% OF > 10k | 6.4 |
| A=APPLIANCES | | 0.80 | 1.00 | " |
| M=MOTORS | | 0.60 | 1.00 | |
| 2M=2Pole MOTORS | | 0.90 | 1.25 | |
| H=HEATERS | | 1.00 | 1.00 | |
| 0=SPARE | | 0.65 | 0.50 | " |
| TOTAL | 15.6 kVA | 0.90 | | 15.6 kVA |

CONNECTED PHASE LOADING
PHASE A: 7.6
PHASE B: 7.6
[LARGEST MOTO Kw]

EST. MAX. DEMAND: 15.6 kVA
MIN. FEEDER AMPACITY: 64.8 A

NOTES:
1. EXISTING BREAKER.
2. ADD BREAKER IN EXISTING SPACE TO SERVE LOAD INDICATED.

## PANEL SCHEDULE

PANEL: CC2 (Existing) LOC: COLO CONC South VOLTS: 120 / 240 1 PH 3 W
NO. POLES: 100/2 MAIN CKT BKR
BUS RATING: 100A 10 KA INTERRUPTING CAP. MOUNTING: SURFACE
FEATURES: EX 3R PANEL

| DESCRIPTION | NOTES | VA | TYPE | BRKR | P | CKT | PH | CKT | P | BRKR | TYPE | VA | DESCRIPTION | NOTES |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| FAIR RECEP LOADS | | 1000 | R | 20 | 1 | 1 | A | 2 | 1 | 20 | R | 1000 | FAIR RECEP LOADS | 1 |
| FAIR RECEP LOADS | | 1000 | R | 20 | 1 | 3 | B | 4 | 1 | 20 | R | 1000 | FAIR RECEP LOADS | 1 |
| FAIR RECEP LOADS | | 1000 | R | 20 | 1 | 5 | A | 6 | 1 | 20 | R | 1000 | FAIR RECEP LOADS | 1 |
| FAIR RECEP LOADS | | 1000 | R | 20 | 1 | 7 | B | 8 | 1 | 20 | R | 1000 | FAIR RECEP LOADS | 1 |
| FAIR RECEP LOADS | | 1000 | R | 20 | 1 | 9 | A | 10 | 1 | 20 | R | 1000 | FAIR RECEP LOADS | 1 |
| FAIR RECEP LOADS | | 1000 | R | 20 | 1 | 11 | B | 12 | 1 | 20 | R | 1000 | FAIR RECEP LOADS | 1 |
| FESTOON LIGHTING | 2 | 800 | L | 20 | 1 | 13 | A | 14 | 2 | 50 | P | 3600 | VENDOR PANEL | 2 |
| FESTOON LIGHTING | 2 | 1600 | L | 20 | 1 | 15 | B | 16 | | | P | 3600 | " | |

LOAD SUMMARY:

| LOAD TYPE | CONN. | pf | DEMAND FACTOR | DEMAND |
|---|---|---|---|---|
| P=PANELS | 7.2 | 0.90 | 1.00 | 7.2 |
| L=LIGHTING | 2.4 | 0.96 | 1.00 | 2.4 |
| R=RECEPTACLES | 12.4 | 0.90 | 50% OF > 10k | 11.2 |
| A=APPLIANCES | | 0.80 | 1.00 | " |
| M=MOTORS | | 0.60 | 1.00 | |
| 2M=2Pole MOTORS | | 0.90 | 1.25 | |
| H=HEATERS | | 1.00 | 1.00 | |
| 0=SPARE | | 0.65 | 0.50 | " |
| TOTAL | 21.9 kVA | 0.91 | | 22.5 kVA |

CONNECTED PHASE LOADING
PHASE A: 10.4
PHASE B: 11.2
[LARGEST MOTO Kw]

EST. MAX. DEMAND: 22.5 kVA
MIN. FEEDER AMPACITY: 96.2 A

NOTES:
1. EXISTING BREAKER.
2. ADD BREAKER IN EXISTING SPACE TO SERVE LOAD INDICATED.

## PANEL SCHEDULE

PANEL: CC3 LOCATION: COLO CONC South VOLTS: 120 / 240 1 PH 3 W
NO. POLES: 18 MAIN LUG ONLY
BUS RATING: 100A 10 KA INTERRUPTING CAP. MOUNTING: SURFACE
FEATURES: NEMA 3R ENCL

| DESCRIPTION | NOTES | VA | TYPE | BRKR | P | CKT | PH | CKT | P | BRKR | TYPE | VA | DESCRIPTION | NOTES |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| EVENT LOAD | | 1000 | R | 20 | 1 | 1 | A | 2 | 2 | 50 | P | 3600 | VENDOR PANEL | |
| EVENT LOAD | | 1000 | R | 20 | 1 | 3 | B | 4 | | | P | 3600 | " | |
| EVENT LOAD | | 1000 | R | 20 | 1 | 5 | A | 6 | 1 | 20 | | | SPARE | |
| EVENT LOAD | | 1000 | R | 20 | 1 | 7 | B | 8 | 1 | 20 | | | SPARE | |
| EVENT LOAD | | 1000 | R | 20 | 1 | 9 | A | 10 | 1 | 20 | | | SPARE | |
| EVENT LOAD | | 1000 | R | 20 | 1 | 11 | B | 12 | 1 | 20 | | | SPARE | |
| | | | | | | 13 | A | 14 | | | | | | |
| | | | | | | 15 | B | 16 | | | | | | |
| | | | | | | 17 | A | 18 | | | | | | |

LOAD SUMMARY:

| LOAD TYPE | CONN. | pf | DEMAND FACTOR | DEMAND |
|---|---|---|---|---|
| P=PANELS | 7.2 | 0.90 | 1.00 | 7.2 |
| L=LIGHTING | | 0.96 | 1.00 | " |
| R=RECEPTACLES | 6.4 | 0.90 | 50% OF > 10k | 6.4 |
| A=APPLIANCES | | 0.80 | 1.00 | " |
| M=MOTORS | | 0.60 | 1.00 | |
| 2M=2Pole MOTORS | | 0.90 | 1.25 | |
| H=HEATERS | | 1.00 | 1.00 | |
| 0=SPARE | | 0.65 | 0.50 | " |
| TOTAL | 13.6 kVA | 0.90 | | 13.6 kVA |

CONNECTED PHASE LOADING
PHASE A: 6.6
PHASE B: 6.6
[LARGEST MOTO Kw]
NOTES:

EST. MAX. DEMAND: 13.6 kVA
MIN. FEEDER AMPACITY: 56.5 A

## PANEL SCHEDULE

PANEL: CC4 LOCATION: COLO CONC South VOLTS: 120 / 240 1 PH 3 W
NO. POLES: 18 MAIN LUG ONLY
BUS RATING: 100A 10 KA INTERRUPTING CAP. MOUNTING: SURFACE
FEATURES: NEMA 3R

| DESCRIPTION | NOTES | VA | TYPE | BRKR | P | CKT | PH | CKT | P | BRKR | TYPE | VA | DESCRIPTION | NOTES |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| EVENT LOAD | | 1000 | R | 20 | 1 | 1 | A | 2 | 2 | 50 | P | 3600 | VENDOR PANEL CCVP9 | |
| EVENT LOAD | | 1000 | R | 20 | 1 | 3 | B | 4 | | | P | 3600 | " | |
| EVENT LOAD | | 1000 | R | 20 | 1 | 5 | A | 6 | 2 | 30 | | | SPARE | |
| EVENT LOAD | | 1000 | R | 20 | 1 | 7 | B | 8 | | | | | " | |
| EVENT LOAD | | 1000 | R | 20 | 1 | 9 | A | 10 | 1 | 20 | | | SPARE | |
| EVENT LOAD | | 1000 | R | 20 | 1 | 11 | B | 12 | 1 | 20 | | | SPARE | |
| - | | | | 20 | 1 | 13 | A | 14 | | | | | | |
| - | | | | 20 | 1 | 15 | B | 15 | | | | | | |
| | | | | | | 17 | A | 18 | | | | | | |

LOAD SUMMARY:

| LOAD TYPE | CONN. | pf | DEMAND FACTOR | DEMAND |
|---|---|---|---|---|
| P=PANELS | 7.2 | 0.90 | 1.00 | 7.2 |
| L=LIGHTING | | 0.96 | 1.00 | " |
| R=RECEPTACLES | 6.4 | 0.90 | 50% OF > 10k | 6.4 |
| A=APPLIANCES | | 0.80 | 1.00 | " |
| M=MOTORS | | 0.60 | 1.00 | |
| 2M=2Pole MOTORS | | 0.90 | 1.25 | |
| H=HEATERS | | 1.00 | 1.00 | |
| 0=SPARE | | 0.65 | 0.50 | " |
| TOTAL | 13.6 kVA | 0.90 | | 13.6 kVA |

CONNECTED PHASE LOADING
PHASE A: 6.6
PHASE B: 6.6
[LARGEST MOTO Kw]
NOTES:

EST. MAX. DEMAND: 13.6 kVA
MIN. FEEDER AMPACITY: 56.5 A

## PANEL SCHEDULE

PANEL: CAFE1 (Existing) LOC: CAFÉ VOLTS: 120 / 208 3 PH 4 W
NO. POLES: 18 100/3 MAIN BREAKER
BUS RATING: 100A 10 KA INTERRUPTING CAP. MOUNTING: SURFACE
FEATURES: EXPANEL 3R

| DESCRIPTION | NOTES | VA | TYPE | BRKR | P | CKT | PH | CKT | P | BRKR | TYPE | VA | DESCRIPTION | NOTES |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| MAIN BREAKER | 1 | | | 100 | 3 | 1 | A | 2 | 1 | 20 | O | 1200 | EX LOAD | 1 |
| " | | | | | | 3 | B | 4 | 1 | 20 | O | 1200 | EX LOAD | 1 |
| " | | | | | | 5 | C | 6 | | | | | SPACE | |
| EX LOAD | 1 | 1200 | O | 20 | 2 | 7 | A | 8 | | | | | | |
| " | | 1200 | O | | | 9 | B | 10 | 1 | 20 | R | 1200 | EX LOAD | 1 |
| EX LOAD | 1 | 1200 | O | 20 | 1 | 11 | C | 12 | 1 | 20 | R | 1200 | EX LOAD | 1 |
| EX LOAD | 1 | 1200 | O | 20 | 1 | 13 | A | 14 | 1 | 20 | R | 1200 | EX LOAD | 1 |
| EX LOAD | 1 | 1200 | O | 20 | 1 | 15 | B | 16 | 1 | 20 | R | 1200 | EX LOAD | 1 |
| EX LOAD | 1 | 1200 | O | 20 | 1 | 17 | C | 18 | 1 | 20 | R | 1000 | SIGN | 2 |

LOAD SUMMARY:

| LOAD TYPE | CONN. | pf | DEMAND FACTOR | DEMAND |
|---|---|---|---|---|
| P=PANELS | | 0.90 | 1.00 | " |
| L=LIGHTING | | 0.96 | 1.00 | " |
| R=RECEPTACLES | 5.8 | 0.85 | 50% OF > 10k | 5.8 |
| A=APPLIANCES | | 0.80 | 0.50 | " |
| M=MOTORS | | 0.60 | 1.00 | |
| 3M=3PH MOTORS | | 0.90 | 1.25 | |
| H=HEATERS | | 1.00 | 1.00 | |
| 0=SPARE | 9.6 | 0.85 | 0.50 | 4.8 |
| TOTAL | 15.4 kVA | 0.85 | | 10.6 kVA |

CONNECTED PHASE LOADING
PHASE A: 4.8
PHASE B: 6.0
PHASE C: 4.6
[LARGEST MOTO Kw]
NOTES:
1. EXISTING LOAD TO REMAIN.
2. PROVIDE BREAKER IN EX SPACE.

EST. MAX. DEMAND: 10.6 kVA
MIN. FEEDER AMPACITY: 29.4 A

## METER CENTER: MC3

LOCATION: COLO CONC North VOLTS: 120 / 240 ### 3 W
BUS RATING: 800A

| CIRCUIT NO. | DESCRIPTION | LOAD | TYPE | MIN BRKR | DESCRIPTION |
|---|---|---|---|---|---|
| 1 | PANEL CC1 | 15.6 | P | 85.3 | EX PANEL |
| 2 | PANEL CC2 | 22.5 | P | 35.6 | EX PANEL |
| 3 | PANEL CC3 | 13.6 | P | 21.5 | PANEL |
| 4 | PANEL CC4 | 7.2 | P | 11.4 | EX PANEL |
| 5 | PANEL CAFE2 | 12.0 | P | 19.0 | EX PANEL |
| 6 | PANEL BL4 | 7.2 | P | 11.4 | PANEL |
| 7 | BLVP2 & BLVP1 | 24.0 | P | 38.0 | EX VENDOR PANELS |
| 8 | BLP3 | 7.2 | P | 11.4 | STREET POWER PIT |
| 9 | CCVP4 | 12.0 | P | 19.0 | VENDOR PANEL |
| 10 | CCVP5 | 7.2 | P | 11.4 | VENDOR PANEL |
| 11 | CCVP6 | 12.0 | P | 19.0 | VENDOR PANEL |
| 12 | FUTURE | 7.2 | P | 11.4 | VENDOR PANEL |
| 13 | FUTURE | 12.0 | P | 19.0 | VENDOR PANEL |
| 14 | | | | | |
| 15 | | | | | |

| LOAD SUMMARY | TOTAL | DF | E.M.D | | |
|---|---|---|---|---|---|
| P=PANELS | 159.6 | 0.90 | 143.6 | EST. MAX. DEM.: | 143.6 KVA |
| H=HEATING | 0.0 | 0.80 | 0.0 | 8% SPARE | 11.5 KVA |
| C=COOLING | 0.0 | 0.00 | 0.0 | E.M.D. + SPARE: | 155.1 KVA |
| M=MOTORS | 0.0 | 0.80 | 0.0 | EST. MAX. DEM.: | 646.4 AMPS |
| O=OTHER | 0.0 | 0.50 | 0.0 | MINIMUM OCPD: | 808.0 AMPS |
| TOTAL | 159.6 KVA | | 143.6 | | |

## METER CENTER: MC5

LOCATION: MAIN STREET South VOLTS: 120 / 240 ### 3 W
BUS RATING: 600A

| CIRCUIT NO. | DESCRIPTION | LOAD | TYPE | MIN BRKR | DESCRIPTION |
|---|---|---|---|---|---|
| 1 | MSVP2 | 12.0 | P | 19.0 | VENDOR PANEL |
| 2 | MSVP3 | 12.0 | P | 19.0 | VENDOR PANEL |
| 3 | MSVP4 | 12.0 | P | 19.0 | VENDOR PANEL |
| 4 | MSVP5 | 19.2 | P | 30.4 | VENDOR PANEL |
| 5 | MSVP6 | 12.0 | P | 19.0 | VENDOR PANEL |
| 6 | MSVP7 | 12.0 | P | 19.0 | VENDOR PANEL |
| 7 | MSVP8 | 16.8 | P | 26.6 | VENDOR PANEL |
| 8 | | | | | |
| 9 | | | | | |
| 10 | | | | | |
| 11 | | | | | |
| 12 | | | | | |
| 13 | | | | | |
| 14 | | | | | |
| 15 | | | | | |

| LOAD SUMMARY | TOTAL | DF | E.M.D | | |
|---|---|---|---|---|---|
| P=PANELS | 96.0 | 0.90 | 86.4 | EST. MAX. DEM.: | 86.4 KVA |
| H=HEATING | 0.0 | 0.80 | 0.0 | 20% SPARE | 17.3 KVA |
| C=COOLING | 0.0 | 0.00 | 0.0 | E.M.D. + SPARE: | 103.7 KVA |
| M=MOTORS | 0.0 | 0.80 | 0.0 | EST. MAX. DEM.: | 432.0 AMPS |
| O=OTHER | 0.0 | 0.50 | 0.0 | MINIMUM OCPD: | 540.0 AMPS |
| TOTAL | 96.0 KVA | | 86.4 | | |

## PANEL SCHEDULE

PANEL: BL4 (Existing) LOC: BLOCKS East VOLTS: 120 / 208 3 PH 4 W
NO. POLES: XX 200/2 MAIN BREAKER
BUS RATING: 200A 10 KA INTERRUPTING CAP. MOUNTING: SURFACE
FEATURES: RELOCATED EX 3R PANEL (From Main St Pole)

| DESCRIPTION | NOTES | VA | TYPE | BRKR | P | CKT | PH | CKT | P | BRKR | TYPE | VA | DESCRIPTION | NOTES |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| EVENT LOAD | | 1400 | R | 20 | 1 | 1 | A | 2 | 2 | 100 | | | SPARE | |
| EVENT LOAD | | 1400 | R | 20 | 1 | 3 | B | 4 | | | | | " | |
| EVENT LOAD | | 1400 | R | 20 | 1 | 5 | C | 6 | 1 | 20 | R | 1400 | EVENT LOAD | |
| EVENT LOAD | | 1400 | R | 20 | 1 | 7 | A | 8 | 1 | 20 | R | 1400 | EVENT LOAD | |
| EVENT LOAD | | 1400 | R | 20 | 1 | 9 | B | 10 | 1 | 20 | R | 1400 | EVENT LOAD | |
| EVENT LOAD | | 1400 | R | 20 | 1 | 11 | C | 12 | | | | | | |
| | | | | | | 13 | A | 14 | | | | | | |
| | | | | | | 15 | B | 16 | | | | | | |
| | | | | | | 17 | C | 18 | | | | | | |
| | | | | | | 19 | A | 20 | | | | | | |
| | | | | | | 21 | B | 22 | | | | | | |
| | | | | | | 23 | C | 24 | | | | | | |
| | | | | | | 25 | A | 26 | | | | | | |
| | | | | | | 27 | B | 28 | | | | | | |
| | | | | | | 29 | C | 30 | | | | | | |
| | | | | | | 31 | A | 32 | | | | | | |
| | | | | | | 33 | B | 34 | | | | | | |
| | | | | | | 35 | C | 36 | | | | | | |
| | | | | | | 37 | A | 38 | | | | | | |
| | | | | | | 39 | B | 40 | | | | | | |
| | | | | | | 41 | C | 42 | | | | | | |

LOAD SUMMARY:

| LOAD TYPE | CONN. | pf | DEMAND FACTOR | DEMAND |
|---|---|---|---|---|
| P=PANELS | | 0.90 | 1.00 | " |
| L=LIGHTING | | 0.96 | 1.00 | " |
| R=RECEPTACLES | 12.6 | 0.85 | 50% OF > 10k | 11.3 |
| A= APPLIANCES | | 0.80 | 0.50 | " |
| M=MOTORS | | 0.60 | 1.00 | |
| 3M=3PH MOTORS | | 0.90 | 1.25 | |
| H=HEATERS | | 1.00 | 1.00 | |
| 0=SPARE | | 0.85 | 0.50 | " |
| TOTAL | 12.6 kVA | 0.85 | | 13.3 kVA |

CONNECTED PHASE LOADING
PHASE A: 4.2
PHASE B: 4.2
PHASE C: 4.2
[LARGEST MOTO Kw]
NOTES:

EST. MAX. DEMAND: 13.3 kVA
MIN. FEEDER AMPACITY: 36.9 A

MC3, MC5, CC1-4, BL4, CAFE1


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COLORADO REGISTERED PROFESSIONAL ENGINEER JEFFERY B. TANNER 28627

STATE OF COLORADO 1876

Colorado State Fair
Project M-09003

# COLORADO STATE FAIR
# REPLACE SECONDARY ELECTRICAL
1001 BEULAH AVE., PUEBLO, CO

## SCHEDULES

| MARK | REVISION | DATE |
|---|---|---|
| | | |

PROJECT NO: 09050
STATE PROJ: M-09003
DRAWN: CAD
CHECKED: JBT
ISSUE DATE: 10/7/2010


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E-4.2