Central Pacific Engineering, Inc.
Professional Electrical Engineering and Design

PO Box 1727
Capitola, CA 95010
T: 831-476-1525

08-10-15
CPE #15-024-0

Alimur Mobile Home Park - HOA
4300 Soquel Dr,
Soquel, CA 95073
Ph: 831-475-0252

Attn: David Loop, APHOA Purchase Attorney
Ph: 831-688-1293
Email: deloop1@sbcglobal.net

Subject: Site Electrical Evaluation

Dear HOA Board of Directors,

Alimur Mobile Home Park is in the process of converting to a resident owned park. The park was originally constructed as a 1957+/- vintage recreational vehicle (RV) park with a 208/120V, three phase main electrical service. At some point in time the park was expanded adding additional spaces fed from the same main electrical service.

We understand the park has applied to PG&E for gas & electric infrastructure upgrade program.

The following is our report, relative to the above subject project, for our site visit referred to our office by yourself.

Purpose: This purpose of this report is to evaluate, document the existing park electrical distribution system and prepare a report of our findings. Our site evaluation work included walking the park and opening up main electrical panels to observe and develop an overview understanding of the electrical system condition. Site assessment studies are a overview review of the existing electrical system. A detailed, more in depth review is beyond the scope of services and often difficult since portions of the electrical system are not directly observable without dismantling and/or destructing portions of the electrical system.

Site Investigation:

Date: primary dates July 28 & 29, 2015, follow up date August 3, 2015
Place: Alimur Mobile Home Park, 4300 Soquel Dr., Soquel, CA
Persons present: David Smith & Staff – Central Pacific Engineering, Inc.

Site Observations – Power Distribution:

Main Service: 208/120V, 800amp, three phase main electrical service master PG&E utility meter serving the majority of the park. Several additional PG&E meters exist to serve the House and Garage structures, space 101A, space 200, and space 23A with empty meter socket but connected to PG&E. The main service that serves the park has nineteen (19) fused disconnects for seventeen distribution feeders serving spaces 1-104 in groups of two to nine spaces and two additional feeders to serve the office/clubhouse and laundry room/recreation building. A 400amp fused disconnect is tapped off of the main bus to serve the park expansion spaces #201-237.

The park's electrical system was designed in 1957 to support 120/208V or 120-240V, 3,600watt per lot load, with 50amp max service to homes. This was in accordance with the first regulations effective July 14th, 1956 and prior to August 17th, 1969 when the regulations changed requiring 16,000watts per lot.

The seventeen distribution feeders for spaces 1-104 feed panels & meters located in meter cabinet structures throughout the park. The original construction consisted of a branch circuit panel feeding individual meter sockets, one for each space. Over the years it appeared in some of the meter cabinets this scheme had been modified by the addition of individual circuit breakers, some tapping the main feeder & others not, and in some cases abandoning the meter and using a meter pedestal to serve the space.

This assembly method of meter cabinet structures with a separate panel and meter sockets is an older practice which is being replaced with an individual self contained weatherproof rated meter main panels when the cabinets become dilapidated or the park is modernizing.

For the age of the park **the meter cabinet equipment is usable for the short term but should be incorporated into the reserve study to be replaced should the PG&E infrastructure upgrade program work not materialize.**

Panels in the office /clubhouse, laundry room / recreation building should be incorporated into the reserve study to be replaced since they would not be abolished as part of the PG&E infrastructure upgrade program work.

We observed the supplemental ground at each meter cabinet was bonded with a metal armor jacketed solid copper ground conductor without the appropriate connector to clamp the armor jacket to the grounding rod or panel. **We recommend this be corrected**.

Various wiring methods are used feed spaces 1-104 from these meter cabinets. Spaces with individual meter pedestals were documented on the attached electrical drawings.

We observed no electrical service for space 23 and space 23A tapped on the PG&E feeder lugs in the PG&E CT meter section. We recommend this tap be removed and both spaces be rewired to panel 4 serving spaces 17 & 18.

Spaces 201-237 are fed from a 208V to 240V transformer and panels denoted as Panel A, Panel B, & Panel C. These panels have two or three feeder breakers that typically serve 6 spaces. Each space has an individual meter pedestal for the home connection.

We prepared a site plan, one-line drawing, and panel schedules with meter cabinet elevations documenting our observations.

Site Observations – Site Lighting:

The mobile home park act Title 25, section 1108 requires an average 0.2 foot-candles of light the full length of all roadways, walkways, during the hours of darkness. An average 5 foot-candles is required for toilet, shower, laundry, and recreation building entrances when the buildings are in use during the hours of darkness. The code references an ”Average” therefore some areas may be dark while other areas are heavily lighted and only applies to the specific area (ie: paved roadway, designated walkways and entrance areas) and not the surrounding areas (ie: adjacent landscape areas).

A night time site visit or photometric lighting study was not part of this study therefore compliance was not be verified.

The lights we observed while walking the park we documented on the site drawing we prepared. The layout appeared to be supplemented with additional lighting from the original construction and typical for parks of this vintage. Various times clocks were observed throughout the park to control the exterior site lighting. Most fixtures observed had screw in fluorescent lamps which provide respectable energy savings. LED replacement should be considered for long term maintenance planning.

Recommend incorporating long term LED lighting replacement into the reserve study.

Conclusion:
Minor corrections noted above in **"bold"** text should be addressed as noted.

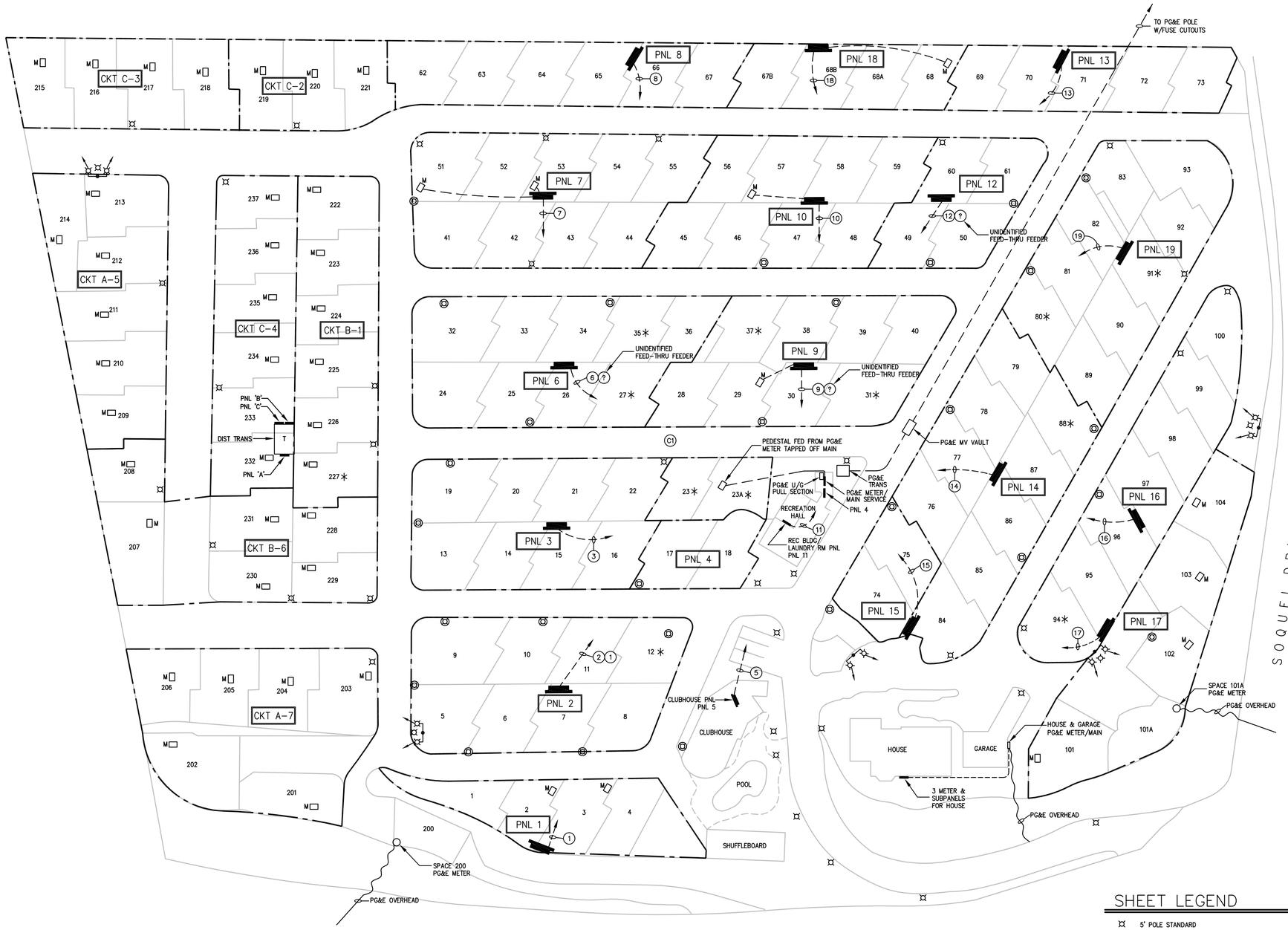
We thank you for the opportunity to perform this investigation-evaluation for you and the Association. Should you or any of your associates have any additional questions or requirements, please feel free to contact this office. Again thank you.

Cordially,
Central Pacific Engineering, Inc.

David G. Smith, P.E.
Electrical Engineer
CA-E13492, exp. 09-30-16

DGS/dgs

Enclosures: Electrical Drawings E1.00, E4.00, E4.10, E4.20, E4.30



SHEET LEGEND

- 5' POLE STANDARD
- BOLLARD 24"±
- POLE W/FLOOD LIGHTS
- M METER PEDESTAL
- * VACANT SITE
- (#) FEEDER TAG/ CIRCUIT #

1 ELECTRICAL SITE PLAN
SCALE: 1" = 40'-0"

40 0 40 80
SCALE: 1" = 40'-0"

ELECTRICAL SITE PLAN

REGISTERED PROFESSIONAL ENGINEER
DAVID GRANT SMITH
E 13492
EXPIRATION DATE: 09-30-16
ELECTRICAL
STATE OF CALIFORNIA

Central Pacific Engineering, Inc.
Professional Engineers
P.O. Box 1727, Capitola, CA 95010
831-476-1525
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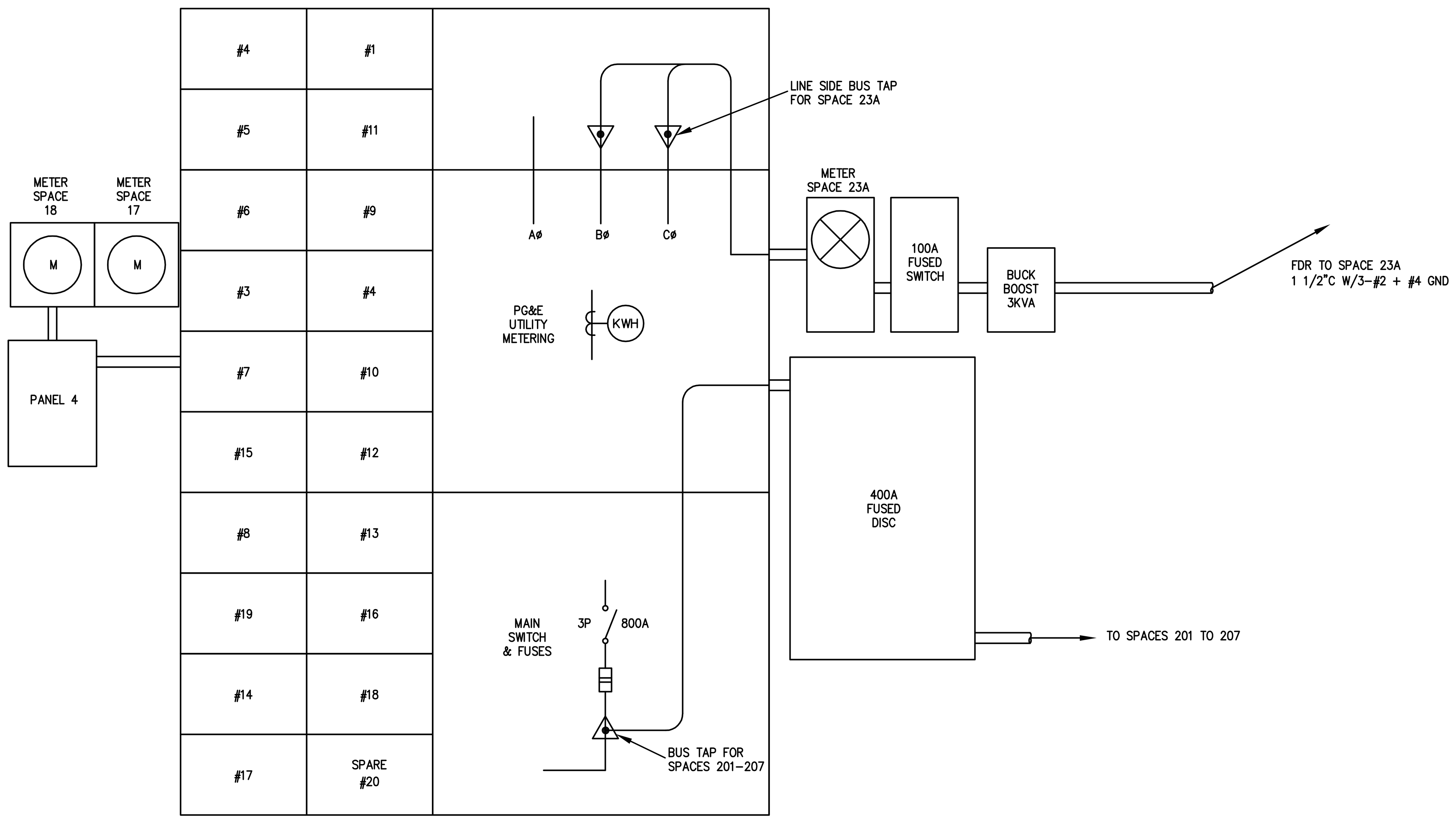
REV.	DESCRIPTION	DATE
0	SITE EVALUATION	08/10/15
1		
2		
3		
4		
5		

TITLE: **ALIMUR MOBILE HOME PARK**
LOCATION: 4300 SOQUEL DR, SOQUEL, CA 95073
OWNER:

DR.	DATE	CHK.	APPD.	SCALE
SLM	08/10/15	DCS	DCS	AS NOTED

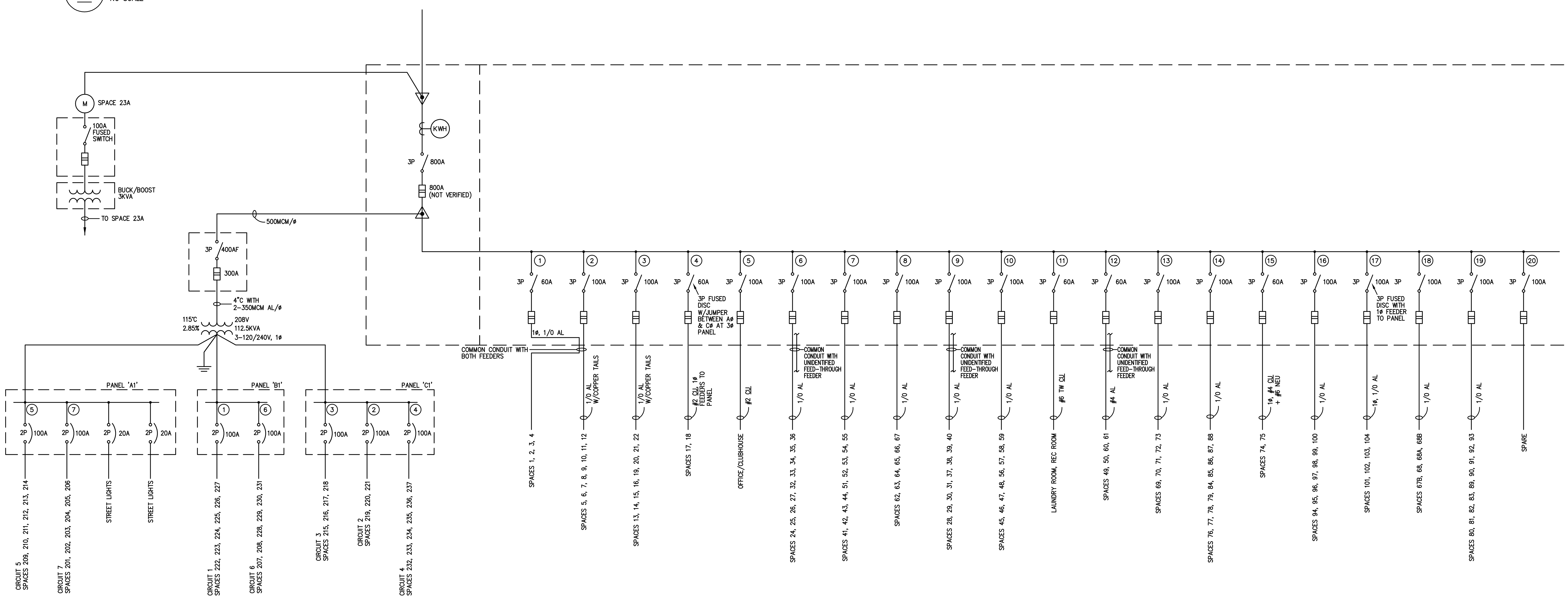
JOB NO. 15-024-0
DWG. NO. **E1.00**
SH 1 OF 5
REV. 0



2 FRONT ELEVATION PG&E METER/MAIN

NO SCALE

FEEDER DIRECTORY				
FDR #	LOAD DESCRIPTION	QTY	UNIT LOAD	QTY STREET LIGHTS
1	SP – 1, 2, 3, 4	4		–
2	SP – 5, 6, 7, 8, 9, 10, 11, 12	8		5
3	SP – 13, 14, 15, 16, 19, 20, 21, 22	8		4
4	SP – 17, 18	2		–
5	OFFICE/CLUBHOUSE	–		10
6	SP – 24, 25, 26, 27, 32, 33, 34, 35, 36	9		4
7	SP – 41, 42, 43, 44, 51, 52, 53, 54, 55	9		5
8	SP – 62, 63, 64, 65, 66, 67	6		–
9	SP – 28, 29, 30, 31, 37, 38, 39, 40	8		3
10	SP – 45, 46, 47, 48, 56, 57, 58, 59, 60	9		2
11	LAUNDRY ROOM, REC ROOM	–		–
12	SP – 49, 50, 60, 61	4		3
13	SP – 69, 70, 71, 72, 73	5		–
14	SP – 76, 77, 78, 79, 84, 85, 86, 87, 88	9		3
15	SP – 74, 75	2		5
16	SP – 94, 95, 96, 97, 98, 99, 100	7		–
17	SP – 101, 102, 103, 104	4		6
18	SP – 67B, 68, 68A, 69B	4		–
19	SP – 80, 81, 82, 83, 89, 90, 91, 92, 93	9		–
20	SPACE	–		–



1 ONE-LINE DIAGRAM

NO SCALE

ONE-LINE DIAGRAM

REGISTERED PROFESSIONAL ENGINEER
DAVID GRANT SMITH
E 13492
EXPIRATION DATE: 09-30-16
ELECTRICAL
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REV.	DESCRIPTION	DATE
0		
1	SITE EVALUATION	08/10/15
2		
3		
4		
5		

TITLE: **ALIMUR MOBILE HOME PARK**

LOCATION: 4300 SOQUEL DR, SOQUEL, CA 95073

OWNER:

DR.	DATE	CHK.	APPD.	SCALE
SLM	08/10/15	DGS	DGS	AS NOTED

JOB NO. 15-024-0

DWG. NO. **E4.00**

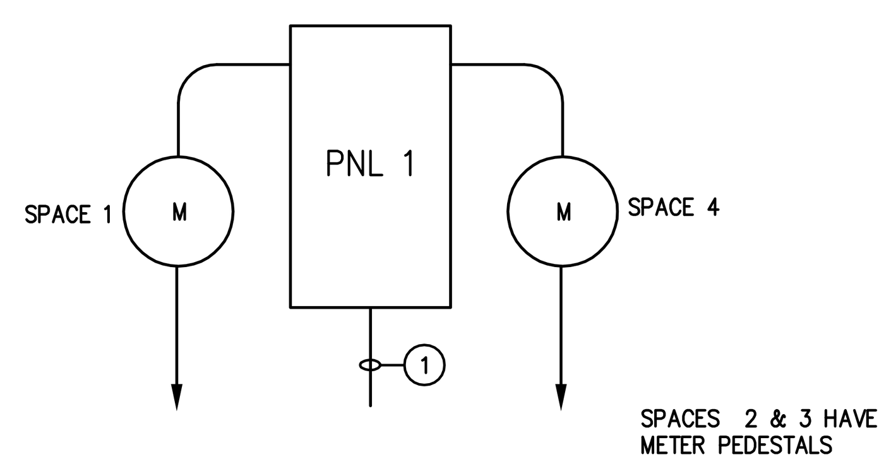
SH 2 OF 5 REV. 0

PANEL NAME: 1 LOCATION: 1 PANEL TYPE: ☐ PANEL BOARD ☒ LOAD CENTER
VOLTAGE: 208/120 BUS RATING: 100 3 PHASE 4 WIRE + GND. ENCLOSURE TYPE: NEMA 1 MOUNTING: ☒ SURFACE ☐ FLUSH
SHORT CIR RATING: 10 KAIC BUS TYPE: ☒ COPPER ☐ ALUMINUM INTERIOR: ☒ MAIN LUGS ☐ MAIN CIRCUIT BREAKER – SEE ONE LINE
O.C. DEVICES: ☐BOLT–ON ☒PLUG–ON DEVICE FAMILY: ☐ SUB–FEED CIRCUIT BREAKER – SEE ONE LINE

DESCRIPTION	LTG	PWR	VOLT • AMPS φA	φB	φC	BRK.	CKT NO.	BUS CONN. A B C	CKT NO.	BRK.	VOLT • AMPS φA	φB	φC	PWR	LTG	DESCRIPTION
							1		2	40	3600			X	X	SPACE 1
							3		4	40		1800		X	X	SPACE 4
							5		6	–			1800	X	X	
							7		8							
							9		10							
							11		12							
							13		14							
							15		16							
							17		18							
							19		20							
TOTALS			0	0	0						3600	1800	1800			

BUS A 3.6 KVA
BUS B 1.8 KVA
BUS C 1.8 KVA
TOTAL 7.2 KVA

SPACES 2 & 3 HAVE METER PEDESTALS

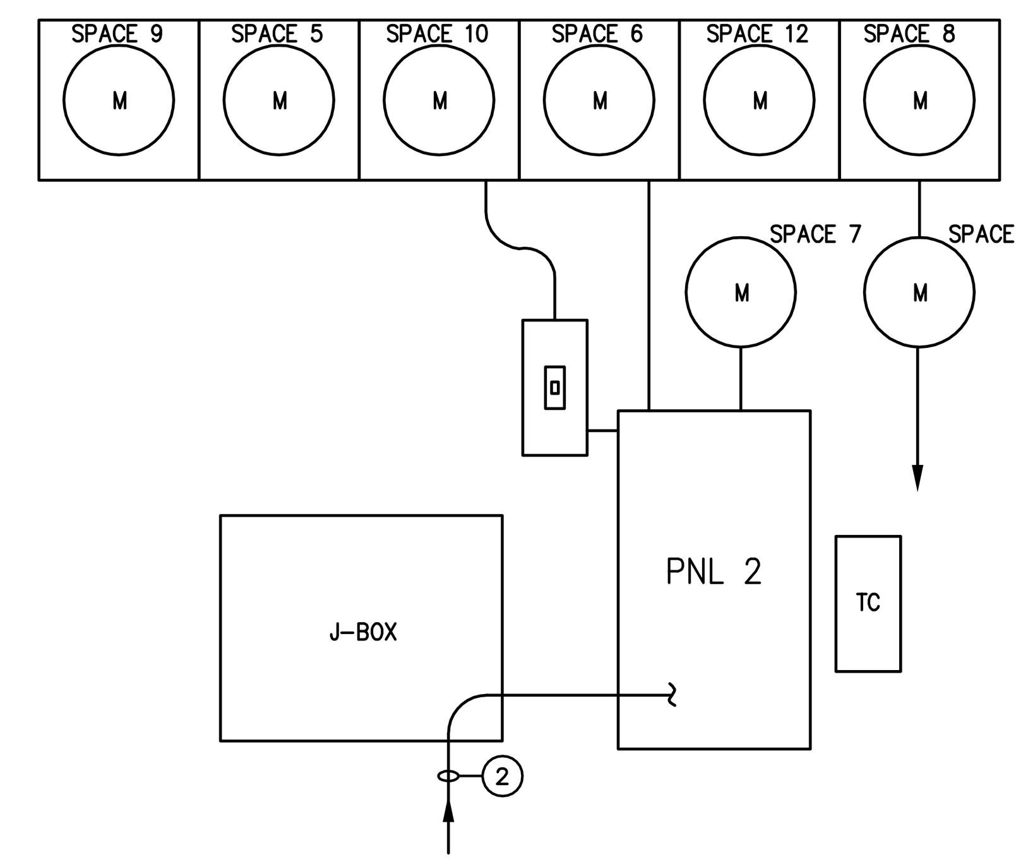


METER CABINET #1

PANEL NAME: 2 LOCATION: 2 PANEL TYPE: ☐ PANEL BOARD ☒ LOAD CENTER
VOLTAGE: 208/120 BUS RATING: 100 3 PHASE 4 WIRE + GND. ENCLOSURE TYPE: NEMA 1 MOUNTING: ☒ SURFACE ☐ FLUSH
SHORT CIR RATING: 10 KAIC BUS TYPE: ☒ COPPER ☐ ALUMINUM INTERIOR: ☒ MAIN LUGS ☐ MAIN CIRCUIT BREAKER – SEE ONE LINE
O.C. DEVICES: ☐BOLT–ON ☒PLUG–ON DEVICE FAMILY: ☐ SUB–FEED CIRCUIT BREAKER – SEE ONE LINE

DESCRIPTION	LTG	PWR	VOLT • AMPS φA	φB	φC	BRK.	CKT NO.	BUS CONN. A B C	CKT NO.	BRK.	VOLT • AMPS φA	φB	φC	PWR	LTG	DESCRIPTION
SPACE 12	X	X	3600			40	1		2	40	3600			X	X	SPACE 8
SPACE 11	X	X		3600		40	3		4	40		1800		X	X	SPACE 7
SPACE 5	X	X			3600	30	5		6	–			1800	X	X	SPACE 7
SPACE 9	X	X	1800			30	7		8	40	1800			X	X	SPACE 6
SPACE 9	X	X		1800		–	9		10	–		1800		X	X	SPACE 6
SPARE						40	11		12	20			500		X	TIME CLOCK/ SITE LTS
							13		14							
							15		16							
							17		18							
							19		20							
TOTALS			5400	5400	3600						5400	3600	2300			

BUS A 10.8 KVA
BUS B 9.0 KVA
BUS C 5.9 KVA
TOTAL 25.7 KVA

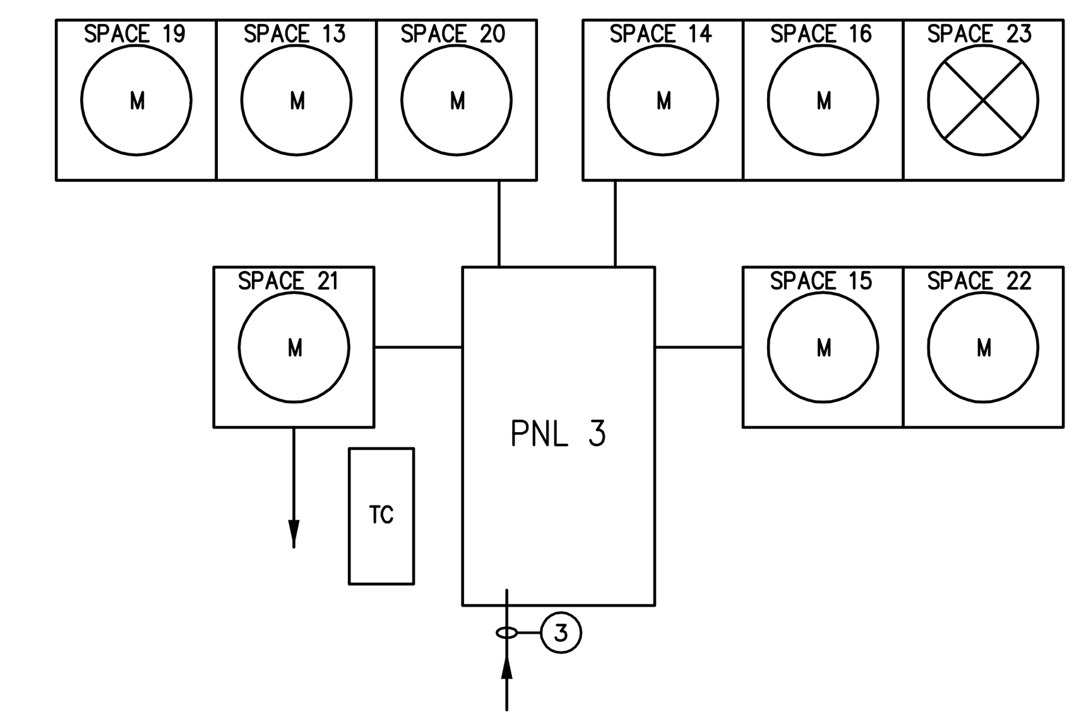


METER CABINET #2

PANEL NAME: 3 LOCATION: 3 PANEL TYPE: ☐ PANEL BOARD ☒ LOAD CENTER
VOLTAGE: 208/120 BUS RATING: 100 3 PHASE 4 WIRE + GND. ENCLOSURE TYPE: NEMA 1 MOUNTING: ☒ SURFACE ☐ FLUSH
SHORT CIR RATING: 10 KAIC BUS TYPE: ☒ COPPER ☐ ALUMINUM INTERIOR: ☒ MAIN LUGS ☐ MAIN CIRCUIT BREAKER – SEE ONE LINE
O.C. DEVICES: ☐BOLT–ON ☒PLUG–ON DEVICE FAMILY: ☐ SUB–FEED CIRCUIT BREAKER – SEE ONE LINE

DESCRIPTION	LTG	PWR	VOLT • AMPS φA	φB	φC	BRK.	CKT NO.	BUS CONN. A B C	CKT NO.	BRK.	VOLT • AMPS φA	φB	φC	PWR	LTG	DESCRIPTION
SPACE 16	X	X	3600			30	1		2	40	3600			X	X	SPACE 23
SPACE 15	X	X		3600		30	3		4	40		3600		X	X	SPACE 22
SPACE 14	X	X			1800	60	5		6	40			3600	X	X	SPACE 21
SPACE 14	X	X	1800			–	7		8	40	3600			X	X	SPACE 20
SPACE 13	X	X		3600		40	9		10							
TIME CLOCK/ SITE LTS	X				500	20	11		12	30			3600	X	X	SPACE 19
							13		14							
							15		16							
							17		18							
							19		20							
TOTALS			5400	7200	2300						7200	3600	7200			

BUS A 12.6 KVA
BUS B 10.8 KVA
BUS C 9.5 KVA
TOTAL 32.9 KVA

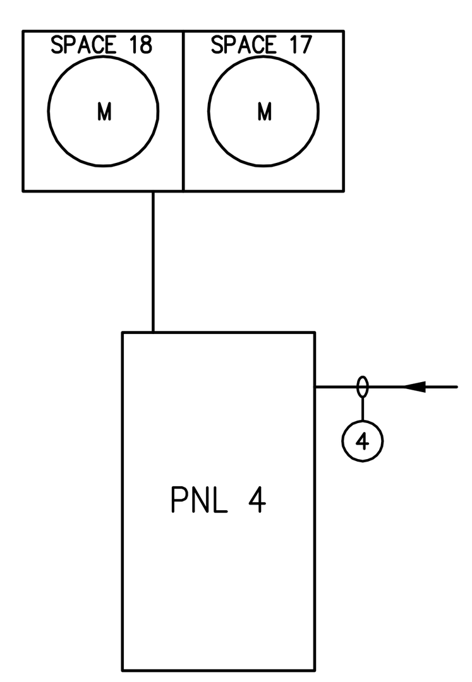


METER CABINET #3

PANEL NAME: 4 LOCATION: 4 PANEL TYPE: ☐ PANEL BOARD ☒ LOAD CENTER
VOLTAGE: 208/120 BUS RATING: 100 3 PHASE 4 WIRE + GND. ENCLOSURE TYPE: NEMA 1 MOUNTING: ☒ SURFACE ☐ FLUSH
SHORT CIR RATING: 10 KAIC BUS TYPE: ☒ COPPER ☐ ALUMINUM INTERIOR: ☒ MAIN LUGS ☐ MAIN CIRCUIT BREAKER – SEE ONE LINE
O.C. DEVICES: ☐BOLT–ON ☒PLUG–ON DEVICE FAMILY: ☐ SUB–FEED CIRCUIT BREAKER – SEE ONE LINE

DESCRIPTION	LTG	PWR	VOLT • AMPS φA	φB	φC	BRK.	CKT NO.	BUS CONN. A B C	CKT NO.	BRK.	VOLT • AMPS φA	φB	φC	PWR	LTG	DESCRIPTION
							1		2	30	1800			X	X	SPACE 18
SPACE 17	X	X		3600		30	3		4	–		1800		X	X	SPACE 18
							5		6							
							7		8							
TIME CLOCK/ SITE LTS	X			500		20	9		10							
							11		12							
							13		14							
							15		16							
							17		18							
							19		20							
TOTALS			0	4100	0						1800	1800	0			

BUS A 1.8 KVA
BUS B 5.9 KVA
BUS C 0.0 KVA
TOTAL 7.7 KVA



METER CABINET #4

PANEL NAME: 5 LOCATION: 5 PANEL TYPE: ☐ PANEL BOARD ☒ LOAD CENTER
VOLTAGE: 208/120 BUS RATING: 100 3 PHASE 4 WIRE + GND. ENCLOSURE TYPE: NEMA 1 MOUNTING: ☒ SURFACE ☐ FLUSH
SHORT CIR RATING: 10 KAIC BUS TYPE: ☒ COPPER ☐ ALUMINUM INTERIOR: ☒ MAIN LUGS ☐ MAIN CIRCUIT BREAKER – SEE ONE LINE
O.C. DEVICES: ☐BOLT–ON ☒PLUG–ON DEVICE FAMILY: ☐ SUB–FEED CIRCUIT BREAKER – SEE ONE LINE

DESCRIPTION	LTG	PWR	VOLT • AMPS φA	φB	φC	BRK.	CKT NO.	BUS CONN. A B C	CKT NO.	BRK.	VOLT • AMPS φA	φB	φC	PWR	LTG	DESCRIPTION
(E) LOAD	X	X	1200			15	1		2	20	1500			X		(E) LOAD
(E) LOAD		X		1500		20	3		4	20		1500		X		(E) LOAD
CEILING LTS	X				1200	15	5		6	20			1500	X		(E) LOAD
CLUBHOUSE FLOOD	X		1200			15	7		8	15	1200			X		(E) LOAD
TRANSFORMER DOOR LTS	X			1500		20	9		10	20		1500		X		(E) LOAD
							11		12	20			1500	X		(E) LOAD
DISHWASHER		X	1500			20	13		14	40	2500			X	X	(E) LOAD
(E) LOAD		X		1500		20	15		16	–		2500		X	X	(E) LOAD
(E) LOAD		X			2500	40	17		18	40			2500	X	X	(E) LOAD
(E) LOAD		X	1500			20	19		20	–	2500			X	X	(E) LOAD
TOTALS			5400	4500	3700						7700	5500	5500			

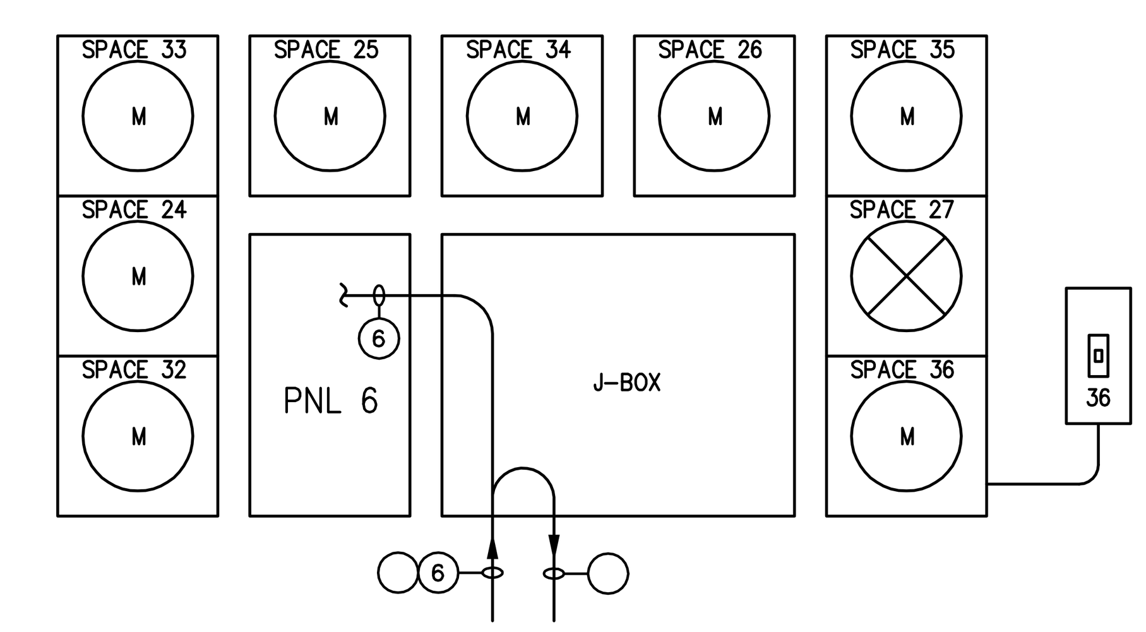
BUS A 13.1 KVA
BUS B 10.0 KVA
BUS C 9.2 KVA
TOTAL 32.3 KVA

OFFICE/CLUBHOUSE – PNL/FDR #5

PANEL NAME: 6 LOCATION: 6 PANEL TYPE: ☐ PANEL BOARD ☒ LOAD CENTER
VOLTAGE: 208/120 BUS RATING: 100 3 PHASE 4 WIRE + GND. ENCLOSURE TYPE: NEMA 1 MOUNTING: ☒ SURFACE ☐ FLUSH
SHORT CIR RATING: 10 KAIC BUS TYPE: ☒ COPPER ☐ ALUMINUM INTERIOR: ☒ MAIN LUGS ☐ MAIN CIRCUIT BREAKER – SEE ONE LINE
O.C. DEVICES: ☐BOLT–ON ☒PLUG–ON DEVICE FAMILY: ☐ SUB–FEED CIRCUIT BREAKER – SEE ONE LINE

DESCRIPTION	LTG	PWR	VOLT • AMPS φA	φB	φC	BRK.	CKT NO.	BUS CONN. A B C	CKT NO.	BRK.	VOLT • AMPS φA	φB	φC	PWR	LTG	DESCRIPTION
SPACE 34	X	X	3600			40	1		2	40	1800			X	X	SPACE 35
SPACE 25	X	X		3600		30	3		4	–		1800		X	X	SPACE 35
SPACE 33	X	X			3600	40	5		6	40			3600	X	X	SPACE 27
SPACE 24	X	X	3600			40	7		8	30	1800			X	X	SPACE 26
NOT USED						40	9		10	–		1800		X	X	SPACE 26
SPACE 32	X	X			3600	40	11		12	15			500		X	TIME CLOCK/ SITE LTS
							13		14							
							15		16							
							17		18							
							19		20							
TOTALS			7200	3600	7200						3600	3600	4100			

BUS A 10.8 KVA
BUS B 7.2 KVA
BUS C 11.3 KVA
TOTAL 29.3 KVA



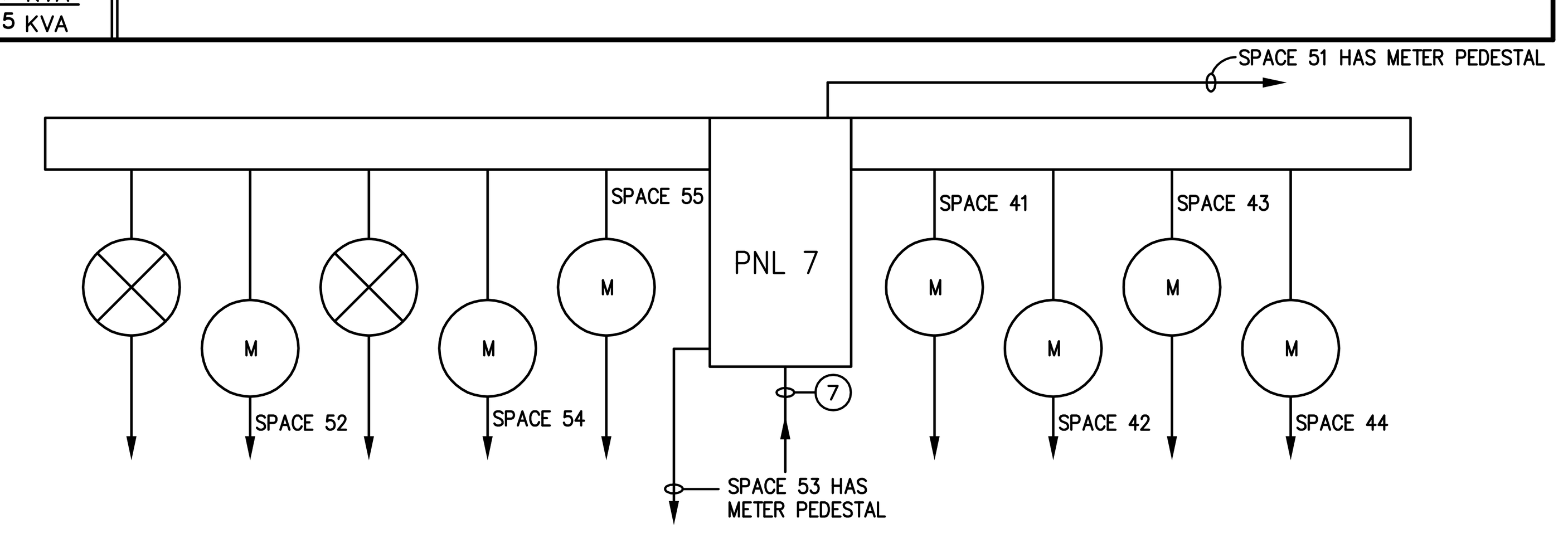
METER CABINET #6

PANEL NAME: 7 LOCATION: 7 PANEL TYPE: ☐ PANEL BOARD ☒ LOAD CENTER
VOLTAGE: 208/120 BUS RATING: 100 3 PHASE 4 WIRE + GND. ENCLOSURE TYPE: NEMA 1 MOUNTING: ☒ SURFACE ☐ FLUSH
SHORT CIR RATING: 10 KAIC BUS TYPE: ☒ COPPER ☐ ALUMINUM INTERIOR: ☒ MAIN LUGS ☐ MAIN CIRCUIT BREAKER – SEE ONE LINE
O.C. DEVICES: ☐BOLT–ON ☒PLUG–ON DEVICE FAMILY: ☐ SUB–FEED CIRCUIT BREAKER – SEE ONE LINE

DESCRIPTION	LTG	PWR	VOLT • AMPS φA	φB	φC	BRK.	CKT NO.	BUS CONN. A B C	CKT NO.	BRK.	VOLT • AMPS φA	φB	φC	PWR	LTG	DESCRIPTION
							1		2	60	1800			X	X	SPACE 53
NOT USED						30	3		4	–		1800		X	X	SPACE 53
SPACE 55	X	X			3600	30	5		6	30			1800	X	X	SPACE 43
SPACE 54	X	X	3600			30	7		8	–	1800			X	X	SPACE 43
							9		10	30		3600		X	X	SPACE 44
SPACE 52	X	X			3600	30	11		12	15			500		X	TIME CLOCK/ SITE LTS
							13		14	30	3600			X	X	SPACE 41
							15		16							
SPACE 51	X	X			3600	60	17		18							
SPACE 51	X	X	3600			–	19		20	30	3600			X	X	SPACE 42
TOTALS			7200	0	10800						10800	5400	2300			

BUS A 18.0 KVA
BUS B 5.4 KVA
BUS C 13.1 KVA
TOTAL 36.5 KVA

SPACES 51 & 53 HAVE METER PEDESTALS



METER CABINET #7

METER CABINETS

REGISTERED PROFESSIONAL ENGINEER
DAVID GRANT SMITH
E 13492
EXPIRATION DATE: 09–30–16
ELECTRICAL
STATE OF CALIFORNIA

Central Pacific Engineering, Inc.
Professional Engineers
P.O. Box 1727, Capitola, CA 95010
831–476–1525
www.cpeinc.com

REV.	DESCRIPTION	DATE
0	SITE EVALUATION	08/10/15
1		
2		
3		
4		
5		

TITLE: ALIMUR MOBILE HOME PARK
LOCATION: 4300 SOQUEL DR, SOQUEL, CA 95073
OWNER:

DR.	DATE	CHK.	APPD.	SCALE
SLM	08/10/15	DGS	DGS	AS NOTED

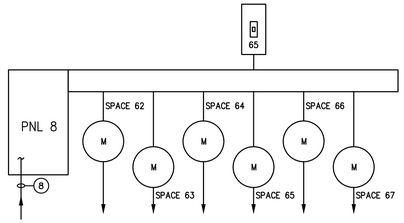
JOB NO. 15–024–0
DWG. NO. E4.10
SH 3 OF 5 REV. 0

PANEL NAME: 8 LOCATION: 8 PANEL TYPE: ☐ PANEL BOARD ☒ LOAD CENTER
VOLTAGE: 208/120 BUS RATING: 100 3 PHASE 4 WIRE + GND. ENCLOSURE TYPE: NEMA 1 MOUNTING: ☒ SURFACE ☐ FLUSH
SHORT CIR RATING: 10 KAIC BUS TYPE: ☒ COPPER ☐ ALUMINUM INTERIOR: ☒ MAIN LUGS ☐ MAIN CIRCUIT BREAKER – SEE ONE LINE
O.C. DEVICES: ☐BOLT–ON ☒PLUG–ON DEVICE FAMILY: ☐ SUB–FEED CIRCUIT BREAKER – SEE ONE LINE

DESCRIPTION	LTG	PWR	VOLT · AMPS ΦA	ΦB	ΦC	BRK.	CKT NO.	BUS CONN. A B C	CKT NO.	BRK.	VOLT · AMPS ΦA	ΦB	ΦC	PWR	LTG	DESCRIPTION
SPACE 67	X	X	3600			20	1		2	30	1800			X	X	SPACE 62
							3		4	–		1800		X	X	SPACE 62
							5		6	30			3600	X	X	SPACE 63
							7		8							
SPACE 64	X	X		1800		30	9		10	30		3600		X	X	SPACE 66
SPACE 64	X	X			1800	–	11		12							
							13		14							
							15		16							
							17			50			1800	X	X	SPACE 65
							19			–	1800			X	X	SPACE 65
TOTALS			3600	1800	1800						3600	5400	5400			

BUS A 7.2 KVA
BUS B 7.2 KVA
BUS C 7.2 KVA
TOTAL 21.6 KVA

SPACE 65 TAPPED OFF FEEDER

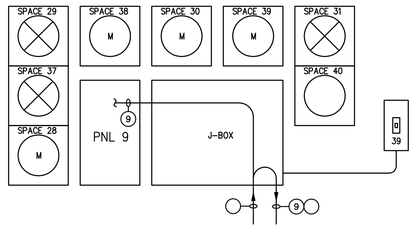


METER CABINET #8

PANEL NAME: 9 LOCATION: 9 PANEL TYPE: ☐ PANEL BOARD ☒ LOAD CENTER
VOLTAGE: 208/120 BUS RATING: 100 3 PHASE 4 WIRE + GND. ENCLOSURE TYPE: NEMA 1 MOUNTING: ☒ SURFACE ☐ FLUSH
SHORT CIR RATING: 10 KAIC BUS TYPE: ☒ COPPER ☐ ALUMINUM INTERIOR: ☒ MAIN LUGS ☐ MAIN CIRCUIT BREAKER – SEE ONE LINE
O.C. DEVICES: ☐BOLT–ON ☒PLUG–ON DEVICE FAMILY: ☐ SUB–FEED CIRCUIT BREAKER – SEE ONE LINE

DESCRIPTION	LTG	PWR	VOLT · AMPS ΦA	ΦB	ΦC	BRK.	CKT NO.	BUS CONN. A B C	CKT NO.	BRK.	VOLT · AMPS ΦA	ΦB	ΦC	PWR	LTG	DESCRIPTION
SPACE 38	X	X	3600			40	1		2	40	3600			X	X	SPACE 40
SPACE 37	X	X		3600		40	3		4	40		3600		X	X	SPACE 31
SPACE 28	X	X			3600	40	5		6	40			3600	X	X	SPACE 39
SPACE 29	X	X	1800			100	7		8	40	3600			X	X	SPACE 30
SPACE 29	X	X		1800		–	9		10							
							11		12	15			500	X	X	TIME CLOCK/ SITE LTS
							13		14							
							15		16							
							17		18							
							19		20							
TOTALS			5400	5400	3600						7200	3600	4100			

BUS A 12.6 KVA
BUS B 9.0 KVA
BUS C 7.7 KVA
TOTAL 29.3 KVA



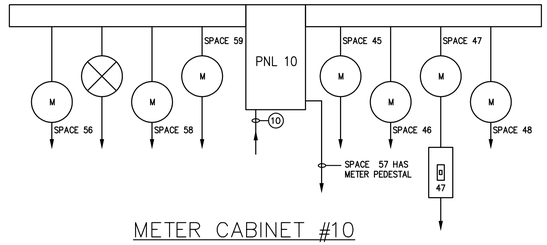
METER CABINET #9

PANEL NAME: 10 LOCATION: 10 PANEL TYPE: ☐ PANEL BOARD ☒ LOAD CENTER
VOLTAGE: 208/120 BUS RATING: 100 3 PHASE 4 WIRE + GND. ENCLOSURE TYPE: NEMA 1 MOUNTING: ☒ SURFACE ☐ FLUSH
SHORT CIR RATING: 10 KAIC BUS TYPE: ☒ COPPER ☐ ALUMINUM INTERIOR: ☒ MAIN LUGS ☐ MAIN CIRCUIT BREAKER – SEE ONE LINE
O.C. DEVICES: ☐BOLT–ON ☒PLUG–ON DEVICE FAMILY: ☐ SUB–FEED CIRCUIT BREAKER – SEE ONE LINE

DESCRIPTION	LTG	PWR	VOLT · AMPS ΦA	ΦB	ΦC	BRK.	CKT NO.	BUS CONN. A B C	CKT NO.	BRK.	VOLT · AMPS ΦA	ΦB	ΦC	PWR	LTG	DESCRIPTION
							1		2	30	3600					SPACE 48
SPACE 58	X	X		3600		30	3		4							
							5		6							6
SPACE 56	X	X	3600			30	7		8							8
							9		10	30		3600		X	X	SPACE 46
							11		12							
							13		14	30	1800			X	X	SPACE 45
TIME CLOCK/ SITE LTS	X			500		20	15		16	–		1800		X	X	SPACE 45
SPACE 59	X	X			3600	30	17		18							
							19		20							
							21		22	50		1800		X	X	SPACE 47
							23		24	–			1800	X	X	SPACE 47
							25		26	50	1800			X	X	SPACE 57
							27		28	–		1800		X	X	SPACE 57
TOTALS			3600	4100	3600						7200	9000	1800			

BUS A 10.8 KVA
BUS B 13.1 KVA
BUS C 5.4 KVA
TOTAL 29.3 KVA

SPACE 57 HAS METER PEDESTAL



METER CABINET #10

PANEL NAME: 11 LOCATION: 11 PANEL TYPE: ☐ PANEL BOARD ☒ LOAD CENTER
VOLTAGE: 208/120 BUS RATING: 100 3 PHASE 4 WIRE + GND. ENCLOSURE TYPE: NEMA 1 MOUNTING: ☒ SURFACE ☐ FLUSH
SHORT CIR RATING: 10 KAIC BUS TYPE: ☒ COPPER ☐ ALUMINUM INTERIOR: ☒ MAIN LUGS ☐ MAIN CIRCUIT BREAKER – SEE ONE LINE
O.C. DEVICES: ☐BOLT–ON ☒PLUG–ON DEVICE FAMILY: ☐ SUB–FEED CIRCUIT BREAKER – SEE ONE LINE

DESCRIPTION	LTG	PWR	VOLT · AMPS ΦA	ΦB	ΦC	BRK.	CKT NO.	BUS CONN. A B C	CKT NO.	BRK.	VOLT · AMPS ΦA	ΦB	ΦC	PWR	LTG	DESCRIPTION
PLUG		X	1500			20	1		2	20	1500			X		PLUGS
PLUG		X		1500		20	3		4	20		1500		X		PLUGS
LTS	X				1000	20	5		6	20			1500	X		PLUGS
LTS LAUNDRY	X		500			20	7		8	20	1500			X		PLUGS
						20	9		10	20		500			X	TIME CLOCK/ SITE LTS
PLUG		X			1500	30	11		12	20			1500	X		PLUGS
PLUG		X	1500			–	13		14	30	1500			X		PLUG
							15		16	–		1500		X		PLUG
							17		18							
							19		20							
TOTALS			3500	1500	2500						4500	3500	3000			

BUS A 8.0 KVA
BUS B 5.0 KVA
BUS C 5.5 KVA
TOTAL 18.5 KVA

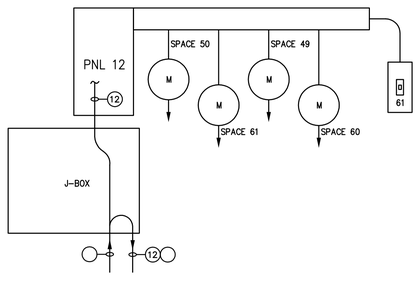
LAUNDRY ROOM/ REC BLDG – PNL/FDR #11

PANEL NAME: 12 LOCATION: 12 PANEL TYPE: ☐ PANEL BOARD ☒ LOAD CENTER
VOLTAGE: 208/120 BUS RATING: 100 3 PHASE 4 WIRE + GND. ENCLOSURE TYPE: NEMA 1 MOUNTING: ☒ SURFACE ☐ FLUSH
SHORT CIR RATING: 10 KAIC BUS TYPE: ☒ COPPER ☐ ALUMINUM INTERIOR: ☒ MAIN LUGS ☐ MAIN CIRCUIT BREAKER – SEE ONE LINE
O.C. DEVICES: ☐BOLT–ON ☒PLUG–ON DEVICE FAMILY: ☐ SUB–FEED CIRCUIT BREAKER – SEE ONE LINE

DESCRIPTION	LTG	PWR	VOLT · AMPS ΦA	ΦB	ΦC	BRK.	CKT NO.	BUS CONN. A B C	CKT NO.	BRK.	VOLT · AMPS ΦA	ΦB	ΦC	PWR	LTG	DESCRIPTION
							1		2							
							3		4							
							5		6	30			3600	X	X	SPACE 49
							7		8							
SPACE 50	X	X		1800		40	9		10	40		1800		X	X	SPACE 60
SPACE 50	X	X			1800	–	11		12	–			1800	X	X	SPACE 60
							13									
							15									
							17			50			1800	X	X	SPACE 61
							19			–	1800			X	X	SPACE 61
TOTALS			0	1800	1800						1800	1800	7200			

BUS A 1.8 KVA
BUS B 3.6 KVA
BUS C 9.0 KVA
TOTAL 14.4 KVA

SPACE 61 TAPPED OFF FEEDER

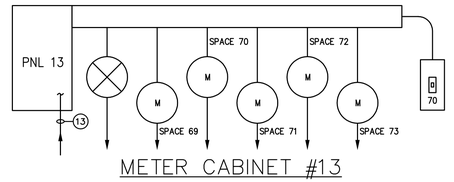


METER CABINET #12

PANEL NAME: 13 LOCATION: 13 PANEL TYPE: ☐ PANEL BOARD ☒ LOAD CENTER
VOLTAGE: 208/120 BUS RATING: 100 3 PHASE 4 WIRE + GND. ENCLOSURE TYPE: NEMA 1 MOUNTING: ☒ SURFACE ☐ FLUSH
SHORT CIR RATING: 10 KAIC BUS TYPE: ☒ COPPER ☐ ALUMINUM INTERIOR: ☒ MAIN LUGS ☐ MAIN CIRCUIT BREAKER – SEE ONE LINE
O.C. DEVICES: ☐BOLT–ON ☒PLUG–ON DEVICE FAMILY: ☐ SUB–FEED CIRCUIT BREAKER – SEE ONE LINE

DESCRIPTION	LTG	PWR	VOLT · AMPS ΦA	ΦB	ΦC	BRK.	CKT NO.	BUS CONN. A B C	CKT NO.	BRK.	VOLT · AMPS ΦA	ΦB	ΦC	PWR	LTG	DESCRIPTION
SPACE 72	X	X	3600			30	1		2	50	1800			X	X	SPACE 70
							3		4	–		1800		X	X	SPACE 70
SPACE 69	X	X			3600	50	5		6	30						NOT USED
							7		8							
SPACE 73	X	X		1800		60	9		10	30		3600		X	X	SPACE 71
SPACE 73	X	X			1800	–	11		12							
							13		14							
							15		16							
							17		18							
							19		20							
TOTALS			3600	1800	5400						1800	5400	0			

BUS A 5.4 KVA
BUS B 7.2 KVA
BUS C 5.4 KVA
TOTAL 18.0 KVA



METER CABINET #13

METER CABINETS

REGISTERED PROFESSIONAL ENGINEER
DAVID GRANT SMITH
E 13492
EXPIRATION DATE: 09-30-16
ELECTRICAL
STATE OF CALIFORNIA

Central Pacific Engineering, Inc.
Professional Engineers
P.O. Box 1727, Capitola, CA 95010
831-476-1454
www.cpeinc.com

REV.	DESCRIPTION	DATE
0		
1	SITE EVALUATION	08/10/15
2		
3		
4		
5		

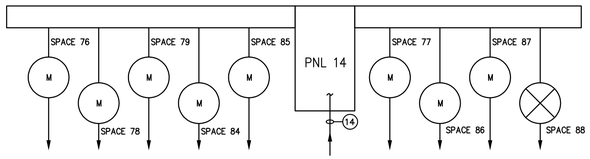
TITLE: ALIMUR MOBILE HOME PARK
LOCATION: 4300 SOQUEL DR., SOQUEL, CA 95073
OWNER:
DR. SLM | DATE 08/10/15 | CHK. DCS | APPD. DCS | SCALE AS NOTED

JOB NO. 15–024–0
DWG. NO. E4.20
SH 4 OF 5 REV. 0

PANEL NAME: 14 LOCATION: 14
VOLTAGE: 208/120 BUS RATING: 100 3 PHASE 4 WIRE + GND.
SHORT CIR RATING: 10 KAIC BUS TYPE: ☒ COPPER ☐ ALUMINUM
O.C. DEVICES: ☐BOLT-ON ☒PLUG-ON DEVICE FAMILY:
PANEL TYPE: ☐ PANEL BOARD ☒ LOAD CENTER
ENCLOSURE TYPE: NEMA 1 MOUNTING: ☒ SURFACE ☐ FLUSH
INTERIOR: ☒ MAIN LUGS ☐ MAIN CIRCUIT BREAKER – SEE ONE LINE
☐ SUB-FEED CIRCUIT BREAKER – SEE ONE LINE

DESCRIPTION	LTG	PWR	VOLT · AMPS ϕA	ϕB	ϕC	BRK.	CKT NO.	BUS CONN. A B C	CKT NO.	BRK.	VOLT · AMPS ϕA	ϕB	ϕC	PWR	LTG	DESCRIPTION
							1		2							
SPACE 76	X	X		3600		40	3		4	40		3600		X	X	SPACE 77
							5		6	20			500		X	TIME CLOCK/ SITE LTS
SPACE 78	X	X	3600			40	7		8	40	1800			X	X	SPACE 87
							9		10	–		1800		X	X	SPACE 87
SPACE 79	X	X			3600	40	11		12	40			3600	X	X	SPACE 86
SPACE 84	X	X	1800			40	13		14	40	1800			X	X	SPACE 88
SPACE 84	X	X		1800		–	15		16	–		1800		X	X	SPACE 88
SPACE 85	X	X			1800	40	17		18	20			500		X	SITE LTS
SPACE 85	X	X	1800			–	19		20							
TOTALS			7200	5400	5400						3600	7200	4600			

BUS A 10.8 KVA
BUS B 12.6 KVA
BUS C 10.0 KVA
TOTAL 33.4 KVA

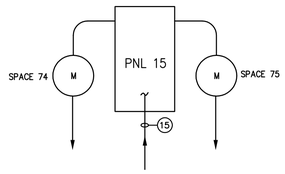


METER CABINET #14

PANEL NAME: 15 LOCATION: 15
VOLTAGE: 208/120 BUS RATING: 100 3 PHASE 4 WIRE + GND.
SHORT CIR RATING: 10 KAIC BUS TYPE: ☒ COPPER ☐ ALUMINUM
O.C. DEVICES: ☐BOLT-ON ☒PLUG-ON DEVICE FAMILY:
PANEL TYPE: ☐ PANEL BOARD ☒ LOAD CENTER
ENCLOSURE TYPE: NEMA 1 MOUNTING: ☒ SURFACE ☐ FLUSH
INTERIOR: ☒ MAIN LUGS ☐ MAIN CIRCUIT BREAKER – SEE ONE LINE
☐ SUB-FEED CIRCUIT BREAKER – SEE ONE LINE

DESCRIPTION	LTG	PWR	VOLT · AMPS ϕA	ϕB	ϕC	BRK.	CKT NO.	BUS CONN. A B C	CKT NO.	BRK.	VOLT · AMPS ϕA	ϕB	ϕC	PWR	LTG	DESCRIPTION
							1		2							
							3		4							
							5		6							
							7		8							
							9		10							
							11		12							
							13		14							
							15		16							
SPACE 74	X	X			3600	30	17		18	40			1800	X	X	SPACE 75
							19		20	–	1800			X	X	SPACE 75
TOTALS			0	0	3600						1800	0	1800			

BUS A 1.8 KVA
BUS B 0.0 KVA
BUS C 5.4 KVA
TOTAL 7.2 KVA

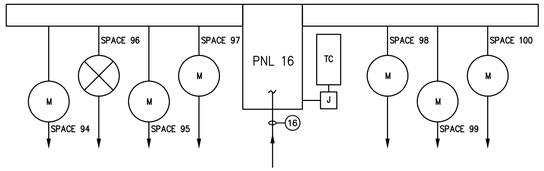


METER CABINET #15

PANEL NAME: 16 LOCATION: 16
VOLTAGE: 208/120 BUS RATING: 100 3 PHASE 4 WIRE + GND.
SHORT CIR RATING: 10 KAIC BUS TYPE: ☒ COPPER ☐ ALUMINUM
O.C. DEVICES: ☐BOLT-ON ☒PLUG-ON DEVICE FAMILY:
PANEL TYPE: ☐ PANEL BOARD ☒ LOAD CENTER
ENCLOSURE TYPE: NEMA 1 MOUNTING: ☒ SURFACE ☐ FLUSH
INTERIOR: ☒ MAIN LUGS ☐ MAIN CIRCUIT BREAKER – SEE ONE LINE
☐ SUB-FEED CIRCUIT BREAKER – SEE ONE LINE

DESCRIPTION	LTG	PWR	VOLT · AMPS ϕA	ϕB	ϕC	BRK.	CKT NO.	BUS CONN. A B C	CKT NO.	BRK.	VOLT · AMPS ϕA	ϕB	ϕC	PWR	LTG	DESCRIPTION
SPACE 94	X	X	1800			40	1		2	50	1800			X	X	SPACE 98
SPACE 94	X	X		1800		–	3		4	–		1800		X	X	SPACE 98
SPACE 96	X	X			1800	40	5		6	40			1800	X	X	SPACE 99
SPACE 96	X	X	1800			–	7		8	–	1800			X	X	SPACE 99
SPACE 95	X	X		1800		40	9		10	50		1800		X	X	SPACE 100
SPACE 95	X	X			1800	–	11		12	–			1800	X	X	SPACE 100
SPACE 97	X	X	1800			40	13		14	15	500			X		TIME CLOCK/ SITE LTS
SPACE 97	X	X		1800		–	15		16							
							17		18							
							19		20							
TOTALS			5400	5400	3600						4100	3600	3600			

BUS A 9.5 KVA
BUS B 9.0 KVA
BUS C 7.2 KVA
TOTAL 25.7 KVA



METER CABINET #16

PANEL NAME: 17 LOCATION: 17
VOLTAGE: 208/120 BUS RATING: 125 1 PHASE 3 WIRE + GND.
SHORT CIR RATING: 40KAIC BUS TYPE: ☒ COPPER ☐ ALUMINUM
O.C. DEVICES: ☒BOLT-ON ☐PLUG-ON DEVICE FAMILY:
PANEL TYPE: ☒ PANEL BOARD ☐ LOAD CENTER
ENCLOSURE TYPE: NEMA 1 MOUNTING: ☒ SURFACE ☐ FLUSH
INTERIOR: ☒ MAIN LUGS ☐ MAIN CIRCUIT BREAKER
☐ SUB-FEED CIRCUIT BREAKER

DESCRIPTION	LTG	PWR	VOLT · AMPS ϕA	ϕB	BRK.	CKT NO.	BUS CONN. A B	CKT NO.	BRK.	VOLT · AMPS ϕA	ϕB	PWR	LTG	DESCRIPTION
								1						
								2						
								3						
								4	20		500		X	TIME CLOCK/ SITE LTS
								5	50	1800		X	X	SPACE 104
								6	–		1800	X	X	SPACE 104
								7	50	1800		X	X	SPACE 101
								8	–		1800	X	X	SPACE 101
								9	50	1800		X	X	SPACE 103
								10	–		1800	X	X	SPACE 103
								11	50	1800		X	X	SPACE 102
								12	–		1800	X	X	SPACE 102
TOTALS			0	0						7200	7700			

BUS A 7.2 KVA
BUS B 7.7 KVA
TOTAL 14.9 KVA

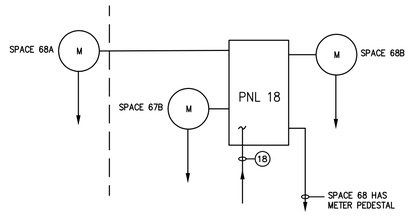
METER CABINET #17

PANEL NAME: 18 LOCATION: 18
VOLTAGE: 208/120 BUS RATING: 100 3 PHASE 4 WIRE + GND.
SHORT CIR RATING: 10 KAIC BUS TYPE: ☒ COPPER ☐ ALUMINUM
O.C. DEVICES: ☐BOLT-ON ☒PLUG-ON DEVICE FAMILY:
PANEL TYPE: ☐ PANEL BOARD ☒ LOAD CENTER
ENCLOSURE TYPE: NEMA 1 MOUNTING: ☒ SURFACE ☐ FLUSH
INTERIOR: ☒ MAIN LUGS ☐ MAIN CIRCUIT BREAKER – SEE ONE LINE
☐ SUB-FEED CIRCUIT BREAKER – SEE ONE LINE

DESCRIPTION	LTG	PWR	VOLT · AMPS ϕA	ϕB	ϕC	BRK.	CKT NO.	BUS CONN. A B C	CKT NO.	BRK.	VOLT · AMPS ϕA	ϕB	ϕC	PWR	LTG	DESCRIPTION
							1		2	60	1800			X	X	SPACE 68
							3		4	–		1800		X	X	SPACE 68
							5		6							
SPACE 68A	X	X	1800			40	7		8							
SPACE 68A	X	X		1800		–	9		10							
SPACE 67B	X	X			1800	40	11		12							
SPACE 67B	X	X	1800			–	13		14	40	1800			X	X	SPACE 68B
							15		16	–		1800		X	X	SPACE 68B
							17		18							
							19		20							
TOTALS																

BUS A 7.2 KVA
BUS B 5.4 KVA
BUS C 1.8 KVA
TOTAL 14.4 KVA

SPACE 68 HAS METER PEDESTAL

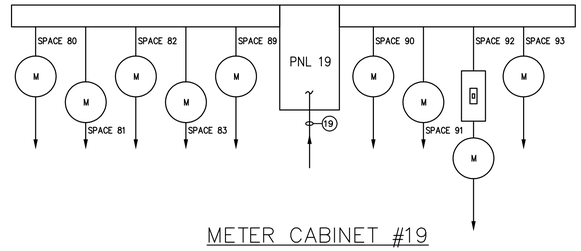


METER CABINET #18

PANEL NAME: 19 LOCATION: 19
VOLTAGE: 208/120 BUS RATING: 100 3 PHASE 4 WIRE + GND.
SHORT CIR RATING: 10 KAIC BUS TYPE: ☒ COPPER ☐ ALUMINUM
O.C. DEVICES: ☐BOLT-ON ☒PLUG-ON DEVICE FAMILY:
PANEL TYPE: ☐ PANEL BOARD ☒ LOAD CENTER
ENCLOSURE TYPE: NEMA 1 MOUNTING: ☒ SURFACE ☐ FLUSH
INTERIOR: ☒ MAIN LUGS ☐ MAIN CIRCUIT BREAKER – SEE ONE LINE
☐ SUB-FEED CIRCUIT BREAKER – SEE ONE LINE

DESCRIPTION	LTG	PWR	VOLT · AMPS ϕA	ϕB	ϕC	BRK.	CKT NO.	BUS CONN. A B C	CKT NO.	BRK.	VOLT · AMPS ϕA	ϕB	ϕC	PWR	LTG	DESCRIPTION
SPACE 80	X	X	1800			40	1		2							
SPACE 80	X	X		1800		–	3		4	40		1800		X	X	SPACE 90
SPACE 81	X	X			1800	40	5		6	–			1800	X	X	SPACE 90
SPACE 81	X	X	1800			–	7		8	40	1800			X	X	SPACE 91
SPACE 82	X	X		3600		40	9		10	–		1800		X	X	SPACE 91
NOT USED						40	11		12	40			1800	X	X	SPACE 93
SPACE 83	X	X	1800			40	13		14	–	1800			X	X	SPACE 93
SPACE 83	X	X		1800		–	15		16	20		500			X	TIME CLOCK/ SITE LTS
SPACE 89	X	X			1800	40	17		18							
SPACE 89	X	X	1800			–	19		20							
TOTALS			7200	7200	3600						3600	4100	3600			

BUS A 10.8 KVA
BUS B 11.3 KVA
BUS C 7.2 KVA
TOTAL 29.3 KVA



METER CABINET #19

METER CABINETS

REGISTERED PROFESSIONAL ENGINEER
DAVID GRANT SMITH
E 13492
EXPIRATION DATE: 09-30-16
ELECTRICAL
STATE OF CALIFORNIA

Central Pacific Engineering, Inc.
Professional Engineers
P.O. Box 1727, Capitola, CA 95010
831-476-1454
www.cpeinc.com

REV.	DESCRIPTION	DATE
0	SITE EVALUATION	08/10/15
1		
2		
3		
4		
5		

TITLE: ALIMUR MOBILE HOME PARK
LOCATION: 4300 SOQUEL DR., SOQUEL, CA 95073
OWNER:
DR. SLM | DATE 08/10/15 | CHK. DCS | APPD. DCS | SCALE AS NOTED

JOB NO. 15-024-0
DWG. NO. E4.30
SH 5 OF 5 | REV. 0