LEGEND

- MAIN DISTRIBUTION CENTER
- PANELBOARD
- ELECTRIC SERVICE METER
- CT — CURRENT TRANSFORMER
- T — TRANSFORMER
- CONCEALED CIRCUIT
- UNDERFLOOR / UNDERGROUND CIRCUIT
- EXPOSED CIRCUIT
- WM — WIREMOLD (SURFACE WIREWAY)
- PM — PLUGMOLD
- P-3 — HOMERUN TO PANELBOARD (ONE ARROW / CKT, PNL & CKT #'S SHOWN)
- (44,46) — CIRCUIT NUMBER(S) FOR SPECIFIED PANEL
- CONDUIT TURNS UP
- CONDUIT TURNS DOWN
- J — JUNCTION BOX / CARD READER
- K — PORCELAIN LAMP HOLDER (PC: PULL CHAIN)
- LIGHT FIXTURE: SURFACE MOUNTED
- RECESSED LIGHT FIXTURE
- WALL MOUNTED LIGHT FIXTURE
- EXIT LIGHT: DIRECTIONAL ARROW
- BATTERY PACK
- SURFACE FLUORESCENT FIXTURE
- RECESSED FLUORESCENT FIXTURE
- SINGLE OUTLET: C-CLOCK (+70')
- DUPLEX RECEPTACLE (G: ISOLATED GROUND)
- CEILING DUPLEX RECEPTACLE
- GFCI — DUPLEX RECEPTACLE - GFCI
- GFCI — DUPLEX RECEPTACLE - GFCI BREAKER
- TR — DUPLEX RECEPTACLE - TAMPER RESIST
- SPLIT WIRE DUPLEX
- QUADRAPLEX (DOUBLE DUPLEX)
- S — COMB. SWITCH / RECEPTACLE
- FLOOR MOUNTED RECEPTACLE
- SPECIAL PURPOSE (AS NOTED)
- TELEVISION OUTLET
- M — MOTOR OUTLET (ets = switched thermal overload)
- TELEPHONE TERMINAL
- TELEPHONE OUTLET
- FLOOR MTD. TELEPHONE OUTLET
- C — COMPUTER OUTLET
- COMB. TELE/COMPUTER OUTLET
- S — TOGGLE SWITCH (o-switching, 2-2 pole, 3-3 way, 4-4 way; p-pilot light, k-keyed, to-thermal overload, t-timer)
- # — WALL MOUNTED LIGHTING CONTROL DEVICE RE: LIGHTING CONTROL DEVICE SCHEDULE
- # — CEILING MOUNTED LIGHTING CONTROL DEVICE RE: LIGHTING CONTROL DEVICE SCHEDULE
- T — THERMOSTAT
- TS — TIME SWITCH
- PE — PHOTOCELL
- PUSH-BUTTON STATION
- SAFETY SWITCH
- MOTOR STARTER / LIGHTING CONTACTOR
- COMBINATION MOTOR STARTER
- R — RELAY
- FACP — FIRE ALARM CONTROL PANEL
- ANNUNCIATOR
- PULL STATION
- HORN
- HORN / LIGHT COMBINATION
- S — HORN / STROBE
- S — STROBE
- BELL
- OS & Y VALVE
- F — FLOW SWITCH
- ROOM DETECTOR (SMOKE)
- T — ROOM DETECTOR (THERMAL)
- DUCT DETECTOR
- REMOTE INDICATING LIGHT / TEST SWITCH
- DOOR HOLDER
- CHIME
- FUSED SWITCH
- CIRCUIT BREAKER
- GROUND CONNECTOR
- MECHANICAL EQUIPMENT
- DETAIL NOTE
- KITCHEN / MEDICAL EQUIPMENT
- (E) — EXISTING TO REMAIN
- (ER) — EXISTING TO BE RELOCATED
- (ED) — EXISTING TO BE DEMOLISHED

MECHANICAL EQUIPMENT

KEY	DESCRIPTION	LOAD	VOLT	CIRCUIT	CONNECTION	REMARKS
FU 2	GAS FIRE FURNACE	6.8 A	120/1	(2-#12,#12G) 1/2"C	THERMAL O.L.	
CU 2	CONDENSING UNIT	15 MCA	240/1	(2-#12,#12G) 1/2"C	30/2; 15 FRN	
BH 1	ELECTRIC BASEBOARD HEATER	750 W	240/1	(2-#12,#12G) 1/2"C	30/2; NF	
EF 1	CEILING EXHAUST FAN	11 W	120/1	(2-#12,#12G) 1/2"C	THERMAL O.L.	
EF 2	KITCHEN EXHAUST FAN	9.9 W	120/1	(2-#12,#12G) 1/2"C	THERMAL O.L.	

NOTES: *TEMPERATURE RATING OF ALL DEVICES COULD NOT BE VERIFIED, THEREFORE WIRE IS SIZED BASED ON 60C PER NEC 110.14(C)(1)(a)
*COORDINATE ALL ROUGH-IN HEIGHTS AND LOCATIONS WITH KITCHEN VENDOR AND/OR OWNER.

LUMINAIRE SCHEDULE

KEY	LAMP	DESCRIPTION	CEIL'G (DEPTH)	MANUFACTURER/#	VOLT
RA	TBD	UNIT DOWNLIGHT	RECESSED	TBD	120
RB	TBD	UNIT VANITY	WALL	TBD	120
RC	TBD	UNIT CLOSET / STORAGE LIGHT	SURFACE	TBD	120
RD	TBD	UNIT PENDANT - KITCHEN	SUSPENDED	TBD	120
RE	TBD	UNIT PENDANT - LIVING ROOM	SUSPENDED	TBD	120
RF	TBD	UNIT WALL WASH	RECESSED	TBD	120
RG	TBD	UNIT TRACK FIXTURE W/ 1/2-AMP CURRENT LIMITING DEVICE	SURFACE	TBD	120
RH	TBD	UNIT BEDROOM DOWNLIGHT	SURFACE	TBD	120

NOTES: *NOTIFY ENGINEER OF ANY DISCREPANCIES BETWEEN MODEL NUMBERS AND DESCRIPTIONS PRIOR TO ORDERING
*VERIFY CEILING INSULATION W/ GC AND NOTIFY ENGINEER OF ANY IC RATING CONFLICTS PRIOR TO ORDERING

BUILDING RESIDENTIAL LOAD CALCS BASED UPON NEC 220.84

Number of Units: 7
Total square footage: 14,320

(1) Appliance and Laundry Circuits					
14	Appliance Circuits	@	1,500 VA	=	21,000 VA
7	Laundry Circuits	@	1,500 VA	=	10,500 VA
SUB-TOTAL				=	31,500 VA
(2) Gen Lighting and Gen Use Receptacles					
14320	Sq Ft @ 3 Watts/sq ft			=	42,960 VA
(3) Appliances					
7	Clothes Dryer	@	5,000 VA	=	35,000 VA
7	Range	@	8,000 VA	=	56,000 VA
7	Dishwasher	@	1,200 VA	=	8,400 VA
7	Disposer	@	1,180 VA	=	8,260 VA
7	Hybrid Water Heater	@	7,200 VA	=	50,400 VA
7	Range Hood/ Microwave	@	1,200 VA	=	8,400 VA
7	Refrigerator/Freezer	@	500 VA	=	3,500 VA
27	Bath Exhaust Fan	@	50 VA	=	1,350 VA
SUB-TOTAL				=	225,070 VA
(4) Other Motor or Low P. F. Loads					
7	Garage Door openers	@	1,100 VA	=	7,700 VA
1	Crawlspace EF	@	108 VA	=	758 VA
SUB-TOTAL				=	48,778 VA
(5) Plus 100% Larger of Heating/Cooling Load					
14	Furnace	@	1,200 VA	=	16,800 VA
0	3 Tons	@	3,940 VA	=	-
0	3.5 Tons	@	4,395 VA	=	-
SUB-TOTAL				=	53,550 VA
TOTAL OF ALL LOADS					
Total Load				=	401,856 VA
Multy Family Demand Factor (220-84)					0.44
GRAND TOTAL LOAD				=	176,817 VA
				($240/1)	736.7 A

LARGEST UNIT RESIDENTIAL LOAD CALCS BASED UPON NEC 220.82

Total square footage: 2,475

(1) Appliance and Laundry Circuits					
2	Appliance Circuits	@	1,500 VA	=	3,000 VA
1	Laundry Circuits	@	1,500 VA	=	1,500 VA
SUB-TOTAL				=	4,500 VA
(2) Gen Lighting and Gen Use Receptacles					
2475	Sq Ft @ 3 Watts/sq ft			=	7,425 VA
(3) Appliances					
1	Clothes Dryer	@	5,000 VA	=	5,000 VA
1	Range	@	8,000 VA	=	8,000 VA
1	Dishwasher	@	1,200 VA	=	1,200 VA
1	Disposer	@	1,180 VA	=	1,180 VA
1	Hybrid Water Heater	@	7,200 VA	=	7,200 VA
1	Range Hood/ Microwave	@	1,200 VA	=	1,200 VA
1	Refrigerator/Freezer	@	500 VA	=	500 VA
1	EV Charger, 240V	@	7,680 VA	=	7,680 VA
5	Bath Exhaust Fan	@	50 VA	=	250 VA
SUB-TOTAL				=	32,210 VA
(4) Other Motor or Low P. F. Loads					
1	Garage Door openers	@	1,100 VA	=	1,100 VA
1	Crawlspace EF	@	108 VA	=	108 VA
1	Elevator	@	5,760 VA	=	5,760 VA
SUB-TOTAL				=	6,968 VA
(5) Total of "General" Loads [(1)+(2)+(3)+(4)]				=	51,103 VA
First 10,000		@	100%	=	10,000 VA
Remainder 41,103		@	40%	=	16,441 VA
SUB-TOTAL					26,441 VA
(C) Plus 100% Larger of Heating/Cooling Load					
2	Furnace	@	1,200 VA	=	2,400 VA
1	2 Tons	@	2,630 VA	=	2,630 VA
1	2.5 Tons	@	3,360 VA	=	3,360 VA
SUB-TOTAL				=	8,390 VA
TOTAL OF ALL LOADS					
"Other" Loads				=	26,441 VA
Heating / Cooling Load				=	8,390 VA
GRAND TOTAL LOAD				=	34,831 VA
				($240/1)	145.1 A

METER STACKS LOAD SUMMARY

VOLTS: 120/240 Single PHASE: 1 WIR.: 3
NOTE: ALL EXISTING METER CALCULATED AT 125% PER NEC 220.87

CKT	CIRCUIT DESCRIPTION	LOAD	AMPS
1	ND	176.8 kVA	736.8 A
2	L1H	13.4 kVA	55.8 A
3			
4			

TOTAL CONNECTED: 190.2 kVA

LOAD TYPE		CONN. LOAD	DEMAND FACT.	EST. DEMAND
LIGHTING / EV -	L	0 kVA	0%	0 kVA
RECEPTACLE -	R	0.8 kVA	100%	0.8 kVA
MOTOR -	M	0 kVA	0%	0 kVA
KITCHEN -	K	0 kVA	0%	0 kVA
OTHER -	O	12.56 kVA	100%	12.56 kVA
EXISTING -	E	0 kVA	0%	0 kVA
NEC-220.84-	NC	0 kVA	0%	0 kVA
TOTAL DEMAND:				190.2 kVA/793 A

PANEL L1H

SUPPLY FROM: METER STACKS
MOUNTING: SURFACE
ENCLOSURE: NEMA 3R
VOLTS: 120/240 Single
PHASES: 1
WIRES: 3
A.I.C. RATING: 22K AIC
MAINS TYPE: MLO
MAINS RATINGS: 150 A

CIRCUIT DESCRIPTION	LT	TRIP	P	BT		A			B		BT	P	TRIP	LT	CIRCUIT DESCRIPTION
HEAT TRACE	O	20	1	G	1	17.2	--			2		1	--	--	SPACE
HEAT TRACE	O	20	1	G	3			17.2	--	4		1	--	--	SPACE
HEAT TRACE	O	20	1	G	5	17.2	--			6		1	--	--	SPACE
HEAT TRACE	O	20	1	G	7			17.2	--	8		1	--	--	SPACE
HEAT TRACE	O	20	1	G	9	17.2	--			10		1	--	--	SPACE
HEAT TRACE	O	20	1	G	11			17.2	--	12		1	--	--	SPACE
HEAT TRACE	O	20	1	G	13	17.2	--			14		1	--	--	SPACE
WATER ENTRY SPACE HEATER	O	20	1	S	15			6.00	--	16		1	--	--	SPACE
SPARE	--	20	1	G	17	O	--			18		1	--	--	SPACE
IRRIGATION CONTROL	R	20	1	S	19			4.00	--	20		1	--	--	SPACE
SPARE	--	20	1	S	21	O	--			22		1	--	--	SPACE
FACP	R	20	1	S,L	23			4.00	--	24		1	--	--	SPACE
SPARE	--	20	1	S	25	O	--			26		1	--	--	SPACE
SPACE	--	--	1		27			--	--	28		1	--	--	SPACE
SPACE	--	--	1		29	--	--			30		1	--	--	SPACE

TOTAL LOAD: 6.85 kVA 6.54 kVA
TOTAL AMPS: 57 A 54 A

LOAD TYPE		CONN.LOAD	DEMAND FACT.	EST. DEMAND	BREAKER TYPE		PANEL TOTALS
LIGHTING / EV -	L	0 kVA	0%	0 kVA	SHUNT TRIP -	ST	
RECEPTACLE -	R	0.8 kVA	100%	0.8 kVA	GFCI -	G	TOTAL CONN. LOAD: 13.36 kVA
MOTOR -	M	0 kVA	0%	0 kVA	HANDLE BLOCK -	H	TOTAL EST. DEMAND: 13.36 kVA
KITCHEN -	K	0 kVA	0%	0 kVA	HANDLE TIE -	T	TOTAL CONN.: 56 A
OTHER -	O	12.56 kVA	100%	12.56 kVA	AFCI -	A	TOTAL EST. DEMAND: 56 A
EXISTING -	E	0 kVA	0%	0 kVA	STANDARD -	S	
NEC-220.84-					LOCKOUT -	L	

TH1 SHORT CIRCUIT CALCULATION

LOCATION		SECONDARY VOLTAGE			Ø	KVA	%Z*	Isc AVAIL.		"M"	Isc FAULT
TRANS	I_{sc}	240			1	100	1.4	417		71.4	29800
LOCATION		VOLT.	Ø	WIRE TYPE	CONDUIT TYPE	WIRE SIZE	#OF RUNS	LENGTH	'C' VALUE	Isc AVAIL.	"F"	"M"	Isc FAULT
METER STACK	I_1	240	1	AL	NON	400	3	45	18505	29800	0.201	0.832	24807
UNIT PANEL < 10k	I_{2a}	240	1	AL	MET	3/0	1	64	8826	24807	1.488	0.400	9927
UNIT PANEL > 10k	I_{2b}	240	1	AL	MET	3/0	1	63	8826	24807	1.476	0.404	10021
L1H	I_3	240	1	AL	MET	3/0	1	10	8826	24807	0.234	0.810	20089

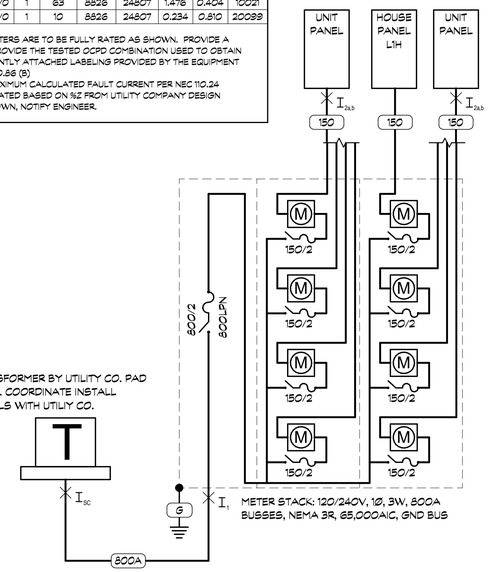
NOTES: SWITCHBOARDS, PANELBOARDS AND LOAD CENTERS ARE TO BE FULLY RATED AS SHOWN. PROVIDE A DEDUCT PRICE TO USE SERIES RATED EQUIPMENT AND PROVIDE THE TESTED OCPD COMBINATION USED TO OBTAIN THE SERIES RATING. ALL EQUIPMENT TO HAVE PERMANENTLY ATTACHED LABELING PROVIDED BY THE EQUIPMENT MANUFACTURER AND INSTALLER PER NEC 110.22 AND 240.85 (B)
PROVIDE MARKING ON ALL SERVICE EQUIPMENT WITH MAXIMUM CALCULATED FAULT CURRENT PER NEC 110.24
*AVAILABLE FAULT CURRENT AT TRANSFORMER CACLUCATED BASED ON %Z FROM UTILITY COMPANY DESIGN STANDARDS. IF TRANSFORMER SIZE IS OTHER THAN SHOWN, NOTIFY ENGINEER.

LOADCENTER: 120/240V, 1Ø, 150 MLO 30 POLE, AIC RATING PER SHORT CIRCUIT CALCULATION. NO HALF WIDTH BREAKERS ALLOWED. SEE PLANS FOR LOCATIONS.

WIRING LEGEND

150	(3-3/0 AL, #6 CU G)2"C
800A	3[(3-400MCM AL)4"C]
G	(2/0 CU)3/4"C TO BLDG STEEL, COLD WATER PIPE, CONCRETE ENCASED ELECTRODE; 2[(#6CU)1/2"C] TO DRIVEN GROUND RODS NOT LESS THAN 6O APART

TRANSFORMER BY UTILITY CO. PAD BY EC. COORDINATE INSTALL DETAILS WITH UTILIY CO.



NTS

ELECTRICAL ONE LINE DIAGRAM 1

APPROVAL STAMPS:

REVIEWED FOR CODE COMPLIANCE 01/27/2025

1	10.18.23	ISSUED FOR PERMIT
Issued to	Date	Description

SUBMISSIONS & REVISIONS

OWNER

MAY RIEGLER PROPERTIES
2201 WISCONSIN AVE NW
SUITE 200
WASHINGTON, DC 20007

ARCHITECT

KASA
KEVIN & ASAKO SPERRY ARCHITECTURE
3318 N. Columbus Street
Arlington, VA 22207
T.312.636.3248 / 312.636.4252
www.kasa-arch.com

GENERAL CONTRACTOR

CIVIL ENGINEER

LANDMARK CONSULTANTS, INC.
141 9TH STREET
PO BOX 774943
STEAMBOAT SPRINGS, CO 80477

LANDSCAPE ARCHITECT

NVISION DESIGN STUDIO, INC.
677 25 ROAD
GRAND JUNCTION, CO 81505

STRUCTURAL ENGINEER

ANTHEM STRUCTURAL ENGINEERS
430 YAMPA STREET
STEAMBOAT SPRINGS, CO 80487

M.E.P. & F.P. ENGINEERS

BOULDER ENGINEERING
1717 15TH STREET
BOULDER, CO 80302

INTERIOR DESIGNER:

PROJECT LOCATION

BASECAMP ROW TOWNHOMES
1950 CURVE COURT
STEAMBOAT SPRINGS, CO 80487

DRAWING TITLE

ELECTRICAL DETAILS & SCHEDULES

SEAL: COLORADO LICENSED PROFESSIONAL ENGINEER 38983 01/16/2025 MICHAEL DEAN VOLPE

DATE: 01.16.2025
DRAWN BY: GU
CHECKED BY: MV
PROJECT NO: 22082

DRAWING NO: **E0401-TH1**

1/16/2025 5:30:45 PM