

27 ELM - BUILDING ELECTRICAL LOAD SUMMARY							
PANEL	DWELLING UNIT TYPE	VOLTAGE	NUMBER OF DWELLING UNITS IN BUILDING	TOTAL CONNECTED LOAD BY DWELLING UNIT TYPE		TOTAL BUILDING DEMAND LOAD	
				KVA	AMPS	KVA	AMPS
A	TOWN HOME	240/120	1	37.9	158		
B	TOWN HOME	240/120	1	38.8	161		
C	TOWN HOME	240/120	1	38.8	161		
D	TOWN HOME	240/120	1	37.9	158		
TOTAL BUILDING CONNECTED LOAD:				153.2	639		
TOTAL NUMBER OF DWELLING UNITS:				4			
SELECT NUMBER OF DWELLING UNITS:				3-5			
DEMAND FACTOR (PERCENT):				45			
DEMAND FOR MULTIFAMILY DWELLING UNITS BASED ON NEC 220.84						69.0	287

PANEL: A		PROJECT: 27 ELM				ENCLOSURE TYPE: NEMA 1, LOCKABLE								
VOLTAGE: 240/120		PHASE: 1	WIRE: 3	AMPERE RATING: 125 AMPS	SC RATING: 22000 AIC	ENTRY: TOP/BOTTOM		TYPE: M.L.O.	MOUNTING: FLUSH					
REMARKS:														
OKT NO.	DESCRIPTION	AMPS/ POLES	LOAD W	LOAD W	WIRE SIZE	PHASE (W)	WIRE SIZE	LOAD W	LOAD W	AMPS/ POLES	DESCRIPTION	OKT NO.		
1	FIRST FLOOR BATHROOM	20	1	540	4.5	12	840	12	2.5	300	20	1	EXTERIOR LIGHTING	2
3	FIRST FLOOR LIGHTING	20	1	500	4.2	12	1560	12	8.8	1060	20	1	FIRST FLOOR BEDROOM	4
5	KITCHEN COUNTER	20	1	360	3.0	12	560	12	1.7	200	20	1	KITCHEN HOOD	6
7	KITCHEN COUNTER	20	1	360	3.0	12	540	12	1.5	180	20	1	REFRIGERATOR	8
9	KITCHEN ISLAND	20	1	180	1.5	12	4180	8	33.3	4000	50	2	RANGE	10
11	LIVING ROOM	20	1	1260	10.5	12	5260	8	33.3	4000	50	2	***	12
13	MASTER BEDROOM	20	1	1600	13.3	12	1700	12	0.8	100	20	1	SMOKE DETECTORS	14
15	HALL RECEPTACLES	20	1	360	3.0	12	3980	8	25.0	3000	40	2	WASHER/DRYER	16
17	SECOND FLOOR BEDROOM	20	1	1600	13.3	12	4600	8	25.0	3000	40	2	***	18
19	FURNACE	40	1	3750	31.3	8	4350	12	5.0	600	20	1	SECOND FLOOR BATHROOM	20
21	***	40	1	3750	31.3	8	4350	12	5.0	600	20	1	MASTER BATHROOM	22
23	CONDENSING UNIT	30	2	2500	20.8	10	4750	8	18.8	2250	40	2	WATER HEATER	24
25	***	30	2	2500	20.8	10	4750	8	18.8	2250	40	2	***	26
27	SPARE	20	1	0.0	0.0	12	0	0	12.0	0.0	20	1	SPARE	28
29	SPARE	20	1	0.0	0.0	12	0	0	12.0	0.0	20	1	SPARE	30
31	SPARE	20	1	0.0	0.0	12	0	0	12.0	0.0	20	1	SPARE	32
33	SPARE	20	1	0.0	0.0	12	0	0	12.0	0.0	20	1	SPARE	34
35	SPARE	20	1	0.0	0.0	12	0	0	12.0	0.0	20	1	SPARE	36
37	BLANK			0.0	F.N.A.	0		F.N.A.	0.0				BLANK	38
39	BLANK			0.0	F.N.A.	0		F.N.A.	0.0				BLANK	40
41	BLANK			0.0	F.N.A.	0		F.N.A.	0.0				BLANK	42
CONNECTED LOAD - TOTAL KW				41	KW	20980		19820						
CONNECTED LOAD - TOTAL AMPS				170	AMPS	175		165						
DEMAND BASED ON OPTIONAL METHOD, NEC 220.80														
DEMAND LOAD - TOTAL KW				23	KW									
DEMAND LOAD - TOTAL AMPS				86	AMPS									

PANEL: B		PROJECT: 27 ELM				ENCLOSURE TYPE: NEMA 1, LOCKABLE								
VOLTAGE: 240/120		PHASE: 1	WIRE: 3	AMPERE RATING: 125 AMPS	SC RATING: 22000 AIC	ENTRY: TOP/BOTTOM		TYPE: M.L.O.	MOUNTING: SURFACE					
REMARKS:														
OKT NO.	DESCRIPTION	AMPS/ POLES	LOAD W	LOAD W	WIRE SIZE	PHASE (W)	WIRE SIZE	LOAD W	LOAD W	AMPS/ POLES	DESCRIPTION	OKT NO.		
1	FIRST FLOOR BATHROOM	20	1	540	4.5	12	840	12	2.5	300	20	1	EXTERIOR LIGHTING	2
3	FIRST FLOOR LIGHTING	20	1	500	4.2	12	1560	12	8.8	1060	20	1	FIRST FLOOR BEDROOM	4
5	KITCHEN COUNTER	20	1	360	3.0	12	560	12	1.7	200	20	1	KITCHEN HOOD	6
7	KITCHEN COUNTER	20	1	360	3.0	12	540	12	1.5	180	20	1	REFRIGERATOR	8
9	KITCHEN ISLAND	20	1	180	1.5	12	4180	8	33.3	4000	50	2	RANGE	10
11	LIVING ROOM	20	1	1260	10.5	12	5260	8	33.3	4000	50	2	***	12
13	MASTER BEDROOM	20	1	1600	13.3	12	1700	12	0.8	100	20	1	SMOKE DETECTORS	14
15	HALL RECEPTACLES	20	1	360	3.0	12	3980	8	25.0	3000	40	2	WASHER/DRYER	16
17	SECOND FLOOR BEDROOM	20	1	1600	13.3	12	4600	8	25.0	3000	40	2	***	18
19	FURNACE	40	1	3750	31.3	8	4350	12	5.0	600	20	1	SECOND FLOOR BATHROOM	20
21	***	40	1	3750	31.3	8	4350	12	5.0	600	20	1	MASTER BATHROOM	22
23	CONDENSING UNIT	30	2	2016	16.8	10	4266	8	18.8	2250	40	2	WATER HEATER	24
25	***	30	2	2016	16.8	10	4266	8	18.8	2250	40	2	***	26
27	SPARE	20	1	0.0	0.0	12	0	0	12.0	0.0	20	1	SPARE	28
29	SPARE	20	1	0.0	0.0	12	0	0	12.0	0.0	20	1	SPARE	30
31	SPARE	20	1	0.0	0.0	12	0	0	12.0	0.0	20	1	SPARE	32
33	SPARE	20	1	0.0	0.0	12	0	0	12.0	0.0	20	1	SPARE	34
35	SPARE	20	1	0.0	0.0	12	0	0	12.0	0.0	20	1	SPARE	36
37	BLANK			0.0	F.N.A.	0		F.N.A.	0.0				BLANK	38
39	BLANK			0.0	F.N.A.	0		F.N.A.	0.0				BLANK	40
41	BLANK			0.0	F.N.A.	0		F.N.A.	0.0				BLANK	42
CONNECTED LOAD - TOTAL KW				40	KW	20436		19336						
CONNECTED LOAD - TOTAL AMPS				166	AMPS	171		161						
DEMAND BASED ON OPTIONAL METHOD, NEC 220.80														
DEMAND LOAD - TOTAL KW				23	KW									
DEMAND LOAD - TOTAL AMPS				87	AMPS									

DWELLING UNIT DEMAND LOAD CALCULATION (OPTIONAL METHOD, NEC 220.80)		VA
SMALL APPLIANCE CIRCUITS: 2 X 1500		3000
LAUNDRY BRANCH CIRCUIT: 1 X 1500		1500
GENERAL LIGHTING AND RECEPTACLES (3VA/ SQ. FT)	SQ. FT.: 1177	3531
FIXED APPLIANCES:		
MICROWAVE:	WATTAGE: 1140 QUANTITY: 1	1140
RANGE:	9000 1	9000
DRYER:	5000 1	5000
DISHWASHER:	1200 1	1200
WATER HEATER:	4500 1	4500
GARBAGE DISPOSER:	1500 1	1500
SUBTOTAL:		30371
FIRST 10KVA @ 100%:		10000
REMAINDER @ 40%:		8148.4
SUBTOTAL:		18148.4
HEATING AND A/C LOADS:		
HEATING:	WATTAGE: 7500	4875
AIR COND.:	4932	
TOTAL LOAD:		23975 VA
		97 AMPS

DWELLING UNIT DEMAND LOAD CALCULATION (OPTIONAL METHOD, NEC 220.80)		VA
SMALL APPLIANCE CIRCUITS: 2 X 1500		3000
LAUNDRY BRANCH CIRCUIT: 1 X 1500		1500
GENERAL LIGHTING AND RECEPTACLES (3VA/ SQ. FT)	SQ. FT.: 1470	4410
FIXED APPLIANCES:		
MICROWAVE:	WATTAGE: 1140 QUANTITY: 1	1140
RANGE:	9000 1	9000
DRYER:	5000 1	5000
DISHWASHER:	1200 1	1200
WATER HEATER:	4500 1	4500
GARBAGE DISPOSER:	1500 1	1500
SUBTOTAL:		31250
FIRST 10KVA @ 100%:		10000
REMAINDER @ 40%:		8500
SUBTOTAL:		18500
HEATING AND A/C LOADS:		
HEATING:	WATTAGE: 7500	4875
AIR COND.:	4932	
TOTAL LOAD:		23975 VA
		97 AMPS

PANEL: C		PROJECT: 27 ELM				ENCLOSURE TYPE: NEMA 1, LOCKABLE								
VOLTAGE: 240/120		PHASE: 1	WIRE: 3	AMPERE RATING: 125 AMPS	SC RATING: 22000 AIC	ENTRY: TOP/BOTTOM		TYPE: M.L.O.	MOUNTING: FLUSH					
REMARKS:														
OKT NO.	DESCRIPTION	AMPS/ POLES	LOAD W	LOAD W	WIRE SIZE	PHASE (W)	WIRE SIZE	LOAD W	LOAD W	AMPS/ POLES	DESCRIPTION	OKT NO.		
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5	KITCHEN COUNTER	20	1	360	3.0	12	560	12	1.7	200	20	1	KITCHEN HOOD	6
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27	SPARE	20	1	0.0	0.0	12	0	0	12.0	0.0	20	1	SPARE	28
29	SPARE	20	1	0.0	0.0	12	0	0	12.0	0.0	20	1	SPARE	30
31	SPARE	20	1	0.0	0.0	12	0	0	12.0	0.0	20	1	SPARE	32
33	SPARE	20	1	0.0	0.0	12	0	0	12.0	0.0	20	1	SPARE	34
35	SPARE	20	1	0.0	0.0	12	0	0	12.0	0.0	20	1	SPARE	36
37	BLANK			0.0	F.N.A.	0		F.N.A.	0.0				BLANK	38
39	BLANK			0.0	F.N.A.	0		F.N.A.	0.0				BLANK	40
41	BLANK			0.0	F.N.A.	0		F.N.A.	0.0				BLANK	42
CONNECTED LOAD - TOTAL KW				40	KW</									