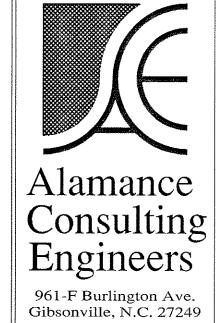


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RCHITECTS
SST FRIENDLY AVE
O, N.C. 27410

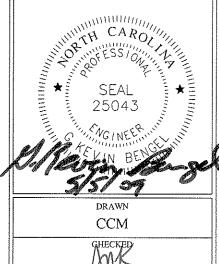
AR 5921-H WES GREENSBORO,

ULINA FUREST BEDROOM APT.

"A" BUILDING-1/2/3

DRAWING NAME

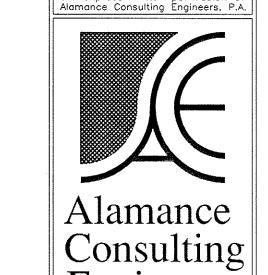
1ST FLOOR
ELECTRICAL PLAN



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SCALE
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FOR NO.

FOB NO.
9006
SHEET

R-1



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BRADLEY
& BALL
RCHITECTS

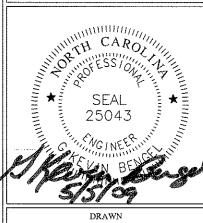
A IN SO21-H WES

BEDROOM APT.

"A" BUILDING-1/2/3 E

DRAWING NAME

2ND & 3RD FLOOR
ELECTRICAL PLAN



DRAWN
CCM
CHECKED
DATE
5/5/09
SCALE
AS NOTED
JOB NO.
9006

F-2

10.00	Soft Soft	10,000 V, 19	о мін. Ф, ЗW	. "	TYPICAL PANEL S		e for NEL		ROOM A	\PARTME	NT		125A M.L.O. 125A BUS
POLE NO.	BRKR NO.	TRIP AMPS	BRKR POLES	WIRE	SERVES	LOA! Aø	) VA Bø	POLE NO.	BRKR NO.	TRIP AMPS	BRKR POLES	WIRE	SERVES
1	.1	15	1	14	LIGHTING-RECEPTACLES *		>	2	2	40	2	8	RANGE
3	3	15		14	LIGHTING-RECEPTACLES *	. <		> 4	4	_	***	-	3
5	5	15	. 1	14	MICROWAVE (SEE NOTE 19)		>	6	6	30	2	10	DRYER
7	7	20	. 1	12	KITCHEN APPLIANCE REC.	<		> 8	8	-	_	-	}
9	9	20	1	12	KITCHEN APPLIANCE REC.		>	10	10	30	2	10	WATER HEATER**
11	11	15	1	14	DISHWASHER (SEE NOTE 4)	(		>12	12			_	}
13	13	20	1	12	WASHER			14	14	30	2	10	AIR HANDLER (AHU)
15	15	20	1	12	BATHROOM RECEPTACLES	. <		>16	16	_	_		+
17	17	20	2	10	HEAT PUMP (HP)			18	18	20	1	12	REFRIGERATOR/DISPOSAL
19	19	-		_	\$	<	,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,	20	20	15	1	14	*BEDROOM LIGHTS-RECEPTACLES
21	21							22	22				
23	23					<		>24	24				
					CONNECTED V.A. PER PHASE							UIT INT	ERRUPTER (AFCI BREAKER)
					TOTAL AMPERES PER PHASE			] **LO	CK-UUI	i Break	LK		

		10,000 V, 19	о мін. Ф, ЗW		TYPICAL PANEL S		E FOR NEL		ROOM A	APARTME	NT		.125A M.L.O. 125A BUS
POLE NO.	BRKR NO.	TRIP AMPS	BRKR POLES	WIRE	SERVES	LOAI Aø	) VA Bø	POLE NO.	BRKR NO.	TRIP AMPS	Brkr Poles	WIRE	SERVES
1	1	15	1	14	LIGHTING-RECEPTACLES *		>	2	2	40	2	8	RANGE
3	3	15	1	14	LIGHTING-RECEPTACLES *			> 4	4	-		_	Ì
5	5	15	1	14	MICROWAVE (SEE NOTE 19)		>	6	6	30	2	10	DRYER
7	7	20	1	12	KITCHEN APPLIANCE REC.			> 8	8	_			\$
9	9	20	1	12	KITCHEN APPLIANCE REC.			10	10	30	2	10	WATER HEATER**
11	11	15	1	14	DISHWASHER (SEE NOTE 4)	<		>12	12	-	_	ı	+
13	13	20	1	12	WASHER			14	14	30	2	10	AIR HANDLER (AHU)
15	15	20	1	12	BATHROOM RECEPTACLES	<		>16	16	-	****		}
17	17	25	2	10	HEAT PUMP (HP)			18	18	20	1	12	REFRIGERATOR/DISPOSAL
19	19	3 <del>-</del> 44	_			<		>20	20	15	1	14	*BEDROOM LIGHTS-RECEPTACLES
21	21	15	::/.1	14	*BEDROOM LIGHTS-RECEPTACLES			22	22	15	1	14	*BEDROOM LIGHTS-RECEPTACLES
23	23					<		>24	24				
11.4				I,	CONNECTED V.A. PER PHASE							UIT INTI	ERRUPTER (AFCI BREAKER)
1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1					TOTAL AMPERES PER PHASE			] **LO	UK-UUI	BREAK	ĽΚ		

		10,000 V, 19	) MIN. 0, 3W		TYPICAL PANEL S		E FOR		ROOM A	APARTME	NT		125A M.L.O. 125A BUS
POLE NO.	BRKR NO.	TRIP AMPS	BRKR POLES	WIRE	SERVES	LOAI Aø	D VA Bø	POLE NO.	BRKR NO.	TRIP AMPS	BRKR POLES	WIRE	SERVES
1	1	15	1	14	LIGHTING-RECEPTACLES *		>	2	2	40	2	8	RANGE
3	3	15	1	14	LIGHTING-RECEPTACLES *	<		> 4	4			_	<b>}</b>
5	5	15	1	14	MICROWAVE (SEE NOTE 19)		>	6	6	30	2	10	DRYER
. 7	7	20	1	12	KITCHEN APPLIANCE REC.	<		>8	8	_		-	+
9	9	20	1	12	KITCHEN APPLIANCE REC.			10	10	30	2	10	WATER HEATER**
11	11	15	1	14	DISHWASHER (SEE NOTE 4)	<		>12	12	_	_	-	}
13	13	20	1	12	WASHER			14	14	30	2	10	AIR HANDLER (AHU)
15	15	20	1	12	BATHROOM RECEPTACLES	<	<u> </u>	>16	16				}
17	17	25	2	10	HEAT PUMP (HP)		>	18	18	20	1	12	REFRIGERATOR/DISPOSAL
19	19		_	-		<		>20	20	15	1	14	*BEDROOM LIGHTS-RECEPTACLES
21	21	15	1	14	*BEDROOM LIGHTS-RECEPTACLES			22	22				
23	23					<		>24	24				
				-	CONNECTED V.A. PER PHASE			* MU	IST INS	TALL FA	ULT CIRC	CUIT INT	ERRUPTER (AFCI BREAKER)
					TOTAL AMPERES PER PHASE			] **LO	UK-UUI	r Break	LK		

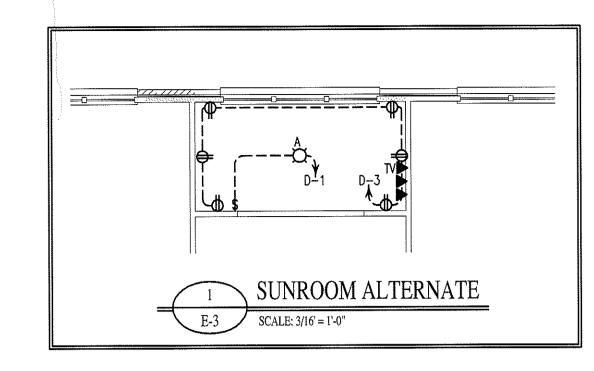
		10,000 )V, 19	о мін. Ф, ЗW		TYPICAL PANEL S		E FOR NEL		ROOM A	APARTME	NT		125A M.L.O. 125A BUS
POLE NO.	BRKR NO.	TRIP AMPS	BRKR POLES	WIRE	SERVES	LOAI Aø	) VA Bø	POLE NO.	BRKR NO.	TRIP AMPS	BRKR POLES	WIRE	SERVES
1	1	15	1	14	LIGHTING-RECEPTACLES *		>	2	2	40	2	8	RANGE
3	3	15	1	14	LIGHTING-RECEPTACLES *			<b>4</b>	4	_	-		}
5	5	15	1	14	MICROWAVE (SEE NOTE 19)		>	6	6	30	2	10	DRYER
7	7	20	1	12	KITCHEN APPLIANCE REC.			8	8		_	-	<b>}</b>
9	9	20	1	12	KITCHEN APPLIANCE REC.			10	10	30	2	10	WATER HEATER**
11	11	15	1	14	DISHWASHER (SEE NOTE 4)			12	12		_		}
13	13	20	vic <b>i</b> es	12	WASHER <		>	14	14	30	2	10	AIR HANDLER (AHU)
15	15	20	. 1	12	BATHROOM RECEPTACLES	1 <		16	16	_		_	\$
17	17	25	2	10	HEAT PUMP (HP)		>	18	18	20	1	12	REFRIGERATOR/DISPOSAL
19	19	-	_	_	-	] <		20	20	15	1	14	*BEDROOM LIGHTS-RECEPTACLES
21	21	15	. 1	14	*BEDROOM LIGHTS-RECEPTACLES			22	22				
23	23					_ <	[	24	24				
					CONNECTED V.A. PER PHASE			* ML	JST INS	TALL FAI	ULT CIRC	UIT INT	ERRUPTER (AFCI BREAKER)
				· .: ·	TOTAL AMPERES PER PHASE			] **LO	CK-OUI	BREAK	ΕK		

AREA = 8		Formula	VA
Heating and Coo	ling		
	AIR HANDLER (AHU) HEAT PUMP (HP)		6,18 2,76 8,94
Light Load	General Lighting/Rec	AREA X 3W/ft 2	2,45
Small Appliances SUB TOTAL	Kitchen Appliance Kitchen Appliance Range Dryer Washing Machine Dishwasher Water Heater		1,50 1,50 8,00 5,00 1,50 1,50 4,50 25,95
First 10,000 V Remainder @			10,00 6,38
TOTALS			16,38
	Total +	HVAC	25,32
= =	anel Size (Single Phase) =Total D	10mand /240 M	10

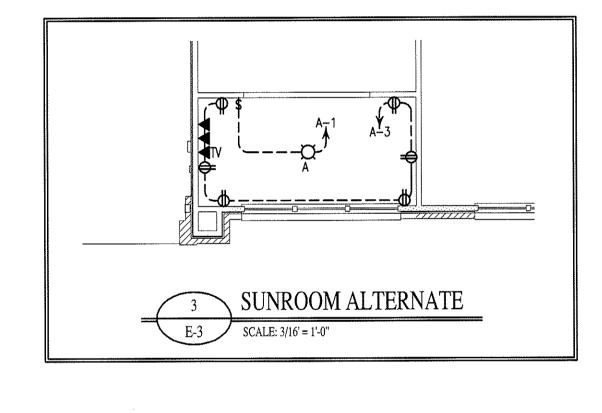
	3 BEDROOM UNIT		
AREA = 1		Formula	VA
Heating and Coo			
	AIR HANDLER (AHU)		6,18
	HEAT PUMP (HP)		3,864 10,05
Light Load			10,00
e.g.ic codd	General Lighting/Rec	AREA X 3W/ft 2	3,696
Small Appliances			
, , , , , , , , , , , , , , , , , , ,	Kitchen Appliance		1,50
	Kitchen Appliance		1,50
	Range		8,00
	Dryer		5,00
	Washing Machine Dishwasher		1,50 1,50
	Water Heater		4,50
SUB TOTAL	water mouter		27,19
005 10716			<b></b> ,
First 10,000 \	VA @ 100%		10,00
Remainder @	40%		6,87
TOTALS			16,87
	Total +	HVAC	26,92
Minimum Euro I	Panel Size (Single Phase) =Total C	emand /240 V	11

	2 BEDROOM UNIT		
AREA = 1		Formula	VA
Heating and Coo			
	AIR HANDLER (AḤU)		6,187
	HEAT PUMP (HP)		3,864
			10,05
Light Load	O Linking /D	AREA X 3W/ft 2	3,009
	General Lighting/Rec	AREA X SW/ IC	3,00
Small Appliances			4.500
	Kitchen Appliance		1,500
	Kitchen Appliance		1,500 8,000
	Range Dryer		5,000
	Washing Machine		1,500
	Dishwasher		1,500
	Water Heater		4,500
SUB TOTAL			2650
First 10,000 \	'A @ 100%		10,000
Remainder @	40%		6,60
TOTALS			16,60
	Total +	HVAC	26,65
Maines Francis	anel Size (Single Phase) =Total D	omand /240 V	11

	Electric Load Cal 2 BEDROOM UNIT		
AREA = 1		Formula	VA
Heating and Cool	ling		
	AIR HANDLER (AHU)		6,187
	HEAT PUMP (HP)		3,864 10,051
Light Load			
-	General Lighting/Rec	AREA X $3W/ft^2$	3,492
Small Appliances			
	Kitchen Appliance		1,500
	Kitchen Appliance Range		1,500 8,000
	Dryer		5,000
	Washing Machine		1,500
	Dishwasher		1,500
	Water Heater		4,500
SUB TOTAL			26,992
First 10,000 V	A @ 100%		10,000
Remainder @	40%		6,797
TOTALS			16,797
	Total +	HVAC	26,848
Minimum Fuse P	anel Size (Single Phase) =Total [	Demand/240 V	112



SUNROOM ALTERNATE  SCALE: 3/16' = 1'-0"



	ELECTRICAL LEGEND	
SYMBOL	DESCRIPTION	MOUNTING HEIGHT
φ	DUPLEX RECEPTACLE (120V)	18" A.F.F.
P	DUPLEX RECEPTACLE (120V) GROUND FAULT INTERRUPTOR	18" A.F.F.
₽ <sub>WP</sub>	DUPLEX RECEPTACLE (120V) GROUND FAULT INTERRUPTOR, WEATHER PROOF	18" A.F.F.
P	RECEPTACLE (220V)	18" A.F.F.
90	120 V. SMOKE DETECTOR, FIREX, MODEL #FADC (INSTALLED BY ELECTRICAL CONTRACTOR)	7'-0" A.F.F.
다	FUSED DISSCONNECT	
4	TELEPHONE JACK	18" A.F.F.
<b>∢</b> TV	CABLE CONNECTION JACK	18" A.F.F.
C.B.	16 x 16 COMMUNICATION BOX	
<b>(</b>	JUNCTION BOX	
\$	SINGLE POLE WALL SWITCH	48" A.F.F.
<b>\$</b> 3	THREE WAY WALL SWITCH	48" A.F.F.

		10,000 )V, 19	о мін. Ф, ЗW			HOU?	SE PA		-				100A M.L.O. 100A BUS
POLE NO.	BRKR NO.	TRIP AMPS	BRKR POLES	WIRE	SERVES	LOA Aø	D VA Bø	POLE NO.	BRKR NO.	TRIP AMPS	BRKR POLES	WIRE	SERVES
1	1	15	1	14	LIGHTING 1ST FLOOR	580 600		2	2	15	1	14	LIGHTING 1ST FLOOR
3	3	15	1	14	LIGHTING 2ND FLOOR	] <	940 200	> 4	4	15	1	14	LIGHTING 2ND FLOOR
5	5	15	1	14	LIGHTING 3RD FLOOR/RECEPT.	1 <u>580</u> 500		6	6	15	1	14	LIGHTING 3RD FLOOR
7	7	20	1	12	HALLWAY RECEPTACLES	<	580 1,540	> 8	8	20	1	12	RECEPTACLES
9	9	20	1	12	FACP	500 504	)  -	10	10	20	1	12	UH-1
11	11	20	1	12	RECEPTACLE	1	360	>12	12				
<u></u>			<b></b>		CONNECTED V.A. PER PHASE	3,264	3,620						
					TOTAL AMPERES PER PHASE	27	30						

LOAD CALCULATION SUMM	MARY (H	OUSE P	ANEL)
ITEM	TOTAL VA	(X) D.F.	VA
LIGHTS	3,400	125 (%)	4,250
RECEPTACLES	2,980	100 (%)	2,980
HVAC *	504	100 (%)	504
TOTAL	6,884		7,734
	TOTAL A	MPS = VA/24	0 = 32

\* NOTE: NAME PLATE RATING INCLUDES 125% DIVERSITY FACTOR.

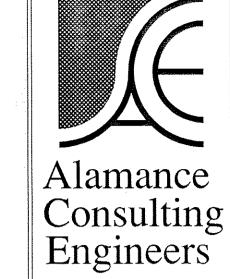
## ELECTRICAL NOTES:

- 1. BREAKERS SHALL HAVE "AIC" RATING GREATER THAN THE FAULT CURRENT. ELECTRICAL CONTRACTOR IS TO CONTACT POWER COMPANY FOR AVAILABLE FAULT CURRENT. SERIES RATING IS PERMISSIBLE.
- 2. FUSES IN SERVICE DISCONNECTS SHALL BE CURRENT LIMITING TYPE.
- 3. COORDINATE ALL HVAC WIRING WITH MECHANICAL CONTRACTOR.
- 4. HALF OF THE RECEPTACLE UNDER THE COUNTER FOR THE DISHWASHER AND GARBAGE DISPOSAL SHALL BE SWITCHED. THE SWITCH PORTION SHALL BE USED FOR THE GARBAGE DISPOSAL. (CIRCUIT #18)
- 5. EMERGENCY LIGHTING AND EXIT SIGNS TO BE CONNECTED AHEAD OF ANY SWITCHING.
- 6. ALL APARTMENT WIRING TO BE NM CABLE.
- 7. COORDINATE LOCATION OF ALL DEVICES AND MOUNTING HEIGHTS OF RECEPTACLES WITH OWNER.
- 8. ALL ELECTRICAL COMPONENTS ARE TO BE UL LISTED.
- 9. HANDICAP UNITS THERMOSTATS TO BE MOUNTED MAXIMUM 48" AFF.
- 10. HANDICAP UNITS SHALL HAVE SWITCHES TO RANGE HOOD FAN AND LIGHT LOCATED ON WORK SURFACE SIDE OF RANGE.
- 11. HANDICAP UNITS ELECTRICAL PANEL SHALL BE MOUNTED SO THAT BREAKER #1 AND #2 ARE 48" MAXIMUM AFF.
- 12. ALL WIRING AND TERMINATIONS ARE BASED ON 167°F RATING.
- 13. EQUIPMENT GROUND CONDUCTOR TO BE PROVIDED IN ACCORDANCE WITH NEC SECTION 250.
- 14. BATHROOM EXHAUST FANS ARE TO BE FURNISHED AND INSTALLED BY MECHANICAL CONTRACTOR. FANS TO BE WIRED BY ELECTRICAL CONTRACTOR.
- 15. BREEZEWAY AND EXTERIOR LIGHTS TO BE WIRED TO AND CONTROLLED BY A MASTER PHOTOCELL. COORDINATE LOCATION OF PHOTOCELL WITH GENERAL CONTRACTOR.
- 16. ELECTRICAL CONTRACTOR SHALL PROVIDE TWO SWITCHES FOR CEILING FANS (ONE FOR LIGHTING KIT, ONE FOR FAN) 17. NOT USED.
- 18. THE CONTRACTOR SHALL COORDINATED THE LOCATION OF ALL CONDUIT AND EQUIPMENT WITH ALL OTHER TRADES PRIOR TO BEGINNING INSTALLATION TO AVOID CONFLICTS AND INTERFERENCE WITH OTHER TRADES.
- 19. A DEDICATED CIRCUIT IS REQUIRED FOR A PERMANENTLY MOUNTED MICROWAVE. IF MICROWAVE IS NOT PERMANENTLY MOUNTED, THIS CIRCUIT MAY BE OMITTED.
- 20. FINAL UTILITY CONNECTIONS (GAS, ELECTRIC, WATER, ETC.) TO EQUIPMENT SHALL BE MADE BY THE CONTRACTOR INSTALLING THE EQUIPMENT REQUIRING THE UTILITIES.
- 21. ELECTRICAL DRAWINGS ARE DIAGRAMMATIC. THERE IS NO INTENT TO INDICATE ALL FITTINGS REQUIRED. GENERALLY, CONDUIT SHALL BE INSTALLED PARALLEL OR PERPENDICULAR TO AND PLUMB WITH WALL CONSTRUCTION. 22. REFER TO ARCHITECTURAL DRAWINGS FOR DIMENSIONED LOCATIONS OF WALL AND PARTITIONS AND FOR PARTITION
- THICKNESS AND CONSTRUCTION MATERIALS.
- 24. ALL GROUND ELECTRODE CONDUCTORS TO BE CONNECTED TO THE SAME ELECTRODE IN ACCORDANCE WITH ARTICLE

23. TELEPHONE AND CABLE TV SERVICE TO BE GROUNDED IN ACCORDANCE WITH SECTION 800.40 AND 820.40 OF THE NEC.

- 25. NOT USED.
- 26. ELECTRICAL CONTRACTOR TO INSTALL ROUGH-IN WIRING TO COMMUNICATION BOX LOCATION. COMMUNICATION CONTRACTOR TO PUNCH OUT ELECTRICAL BOX KNOCK-OUT AND INSTALL LINE VOLTAGE CONDUCTORS INTO COMMUNICATION BOX DURING ROUGH-IN INSTALLATION. ELECTRICAL CONTRACTOR TO INSTALL FLUSH MOUNTED RECEPTACLE WITH RECESSED BOX IN THE BOTTOM OF COMMUNICATION BOX.

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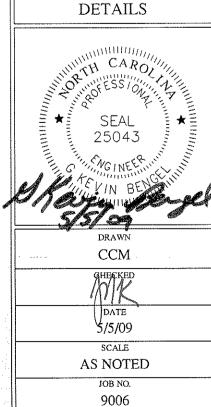


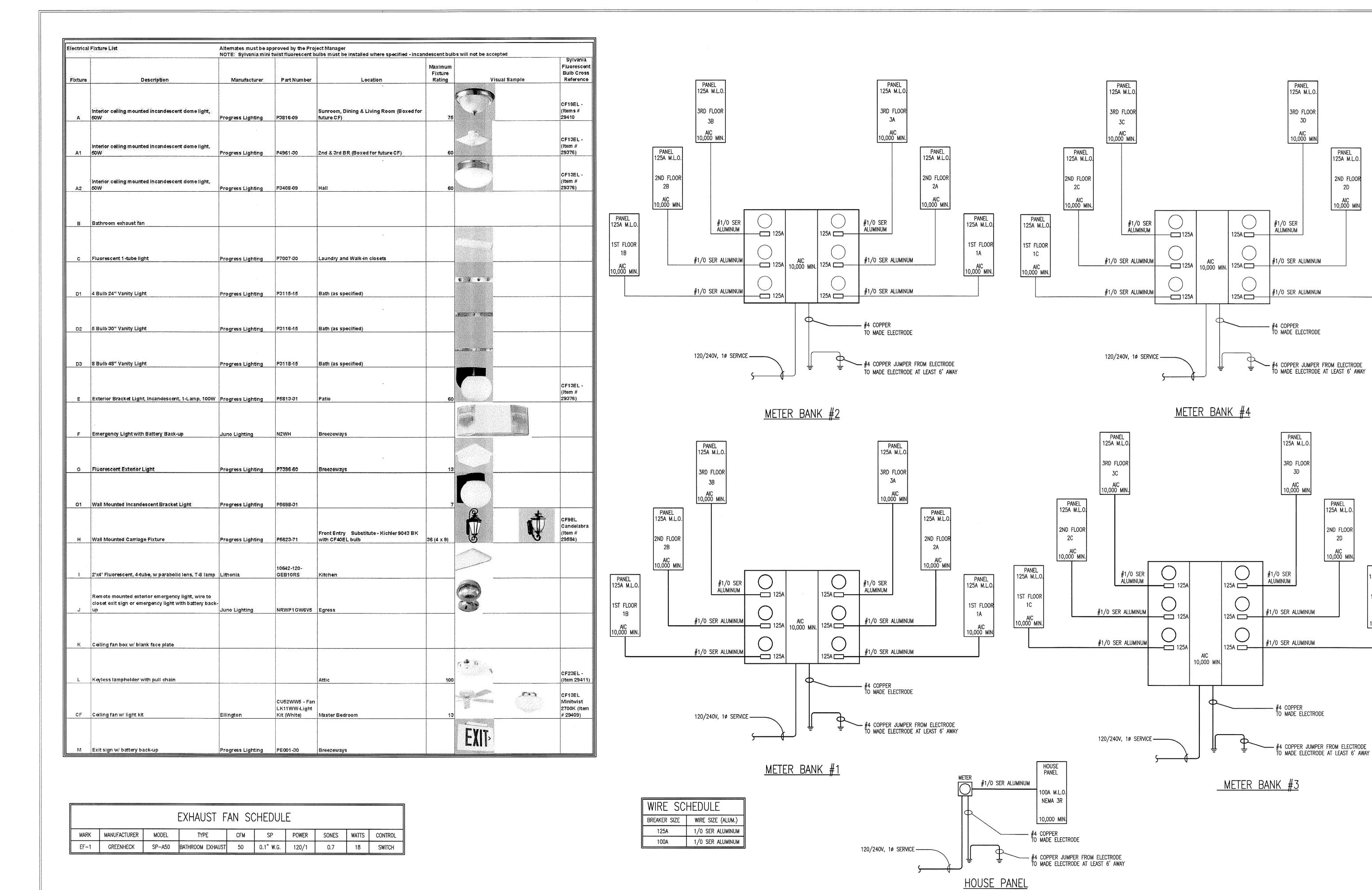
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JAROLINA JAROLINA 1/2/3 BEDRO <del>-</del> BLUE RIDGE PRO 3GACY AT ( BUILDING-

DRAWING NAME ELECTRICAL

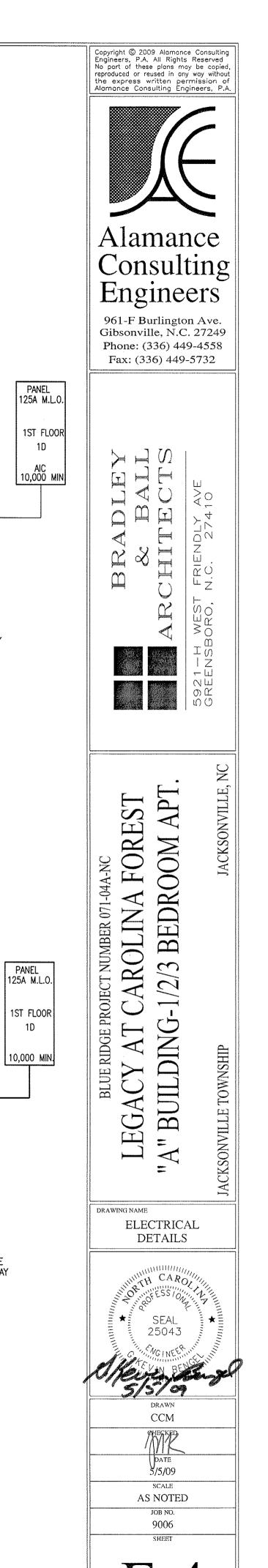
LEGAA" BU





ELECTRICAL

RISER DIAGRAMS



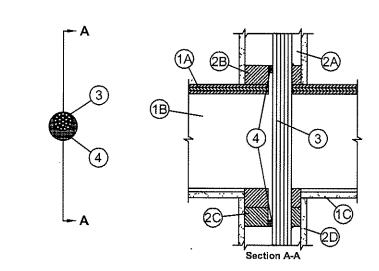
PANEL 125A M.L.O.

AIC 10,000 MIN

125A M.L.O.

2ND FLOOR

AIC 10,000 MIN.



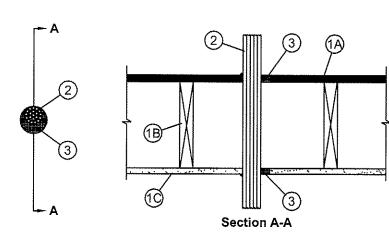
- 1. **Floor-Ceiling Assembly** The 1 hr fire-rated solid or trussed lumber joist floor-ceiling assembly shall be constructed of the materials and in the manner specified in the individual L500 Series Floor-Ceiling Designs in the UL Fire Resistance Directory. The general construction features of the floor-ceiling assembly are summarized below:
- A. Wood Joists\* Nom 10 in. (254 mm) deep (or deeper) lumber, steel or combination lumber and steel joists, trusses or Structural Wood Members\* with bridging as required and with ends firestoned
- B. Flooring System Lumber or plywood subfloor with finish floor of lumber, plywood or Floor Topping Mixture\* as specified in the individual Floor-Ceiling Design. Max diam of floor opening is 3 in. (76 mm).
- C. **Gypsum Board\*** Thickness, type, number of layers and fasteners shall be as specified in the individual Floor-Ceiling Design.
- 2. Chase Wall The through penetrant (Item 3) shall be routed through a 1 hr fire-rated single, double or staggered wood stud/gypsum board chase wall having a fire rating consistent with that of the floor-ceiling assembly. The chase wall shall be constructed of the materials and in the manner specified in the individual U300 Series Wall and Partition Designs in the UL Fire Resistance Directory and shall include the following construction features:
- A. Studs Nom 2 by 6 in. (51 by 152 mm) or double nom 2 by 4 in. (51 by 102 mm) lumber studs.
- B. Sole Plate Nom 2 by 6 in. (51 by 152 mm) or parallel 2 by 4 in. (51 by 102 mm) lumber plates, tightly butted together. Max diam of opening in sole plate is 3 in. (76 mm).
- C. **Top Plate** The double top plate shall consist of two nom 2 by 6 in. (51 by 152 mm) or two sets of parallel 2 by 4 in. (51 by 102 mm) lumber plates, tightly butted together. Max diam of opening in top plate is 3 in. (76 mm).
- D. **Gypsum Board\* -** Thickness, type, number of layers and fasteners shall be as specified in individual Wall and Partition Design.
- Cables Aggregate cross-sectional area of cable in opening to be max 45 percent of the cross-sectional area of the opening. The annular space between the cable bundle and the periphery of the opening to be min 0 in. (point contact) to max 1 in. (0 to 25 mm). Cables to be rigidly supported on both sides of the floor-ceiling assembly. Any combination of the following types and sizes of copper conductor cables may be used:
- A. Max 25 pair No. 24 AWG telephone cable with PVC insulation and jacket.
- B. Type RG 59/U coaxial cable with polyethylene (PE) insulation and PVC jacket.
- C. Max 3/C with ground 2/0 AWG aluminum conductor SER cable with PVC insulation and jacket.
- D. Max 3/C No. 8 AWG steel or aluminum jacketed metal clad or armored clad cable.
- E. Max 3/C No. 10 AWG with ground Type NM nonmetallic sheathed (Romex) cable with PVC insulation and jacket.
- 4. **Fill, Void or Cavity Material\* Sealant -** Min 1/2 in. (13 mm) thickness of fill material applied around cable bundle within the annulus on top surface of chase wall sole plate. Min 1/2 in. (13 mm) thickness of fill material applied within the annulus of the top plate flush with the bottom surface of the lower top plate. Min 1/2 in. (13 mm) bead of fill material applied at the cable/lumber plate interfaces at point contact locations on both sides of assembly.

SPECIFIED TECHNOLOGIES INC - Type WF300 Caulk

\*Bearing the UL Classification Mark

FIRE PENETRATION DETAIL (FOR ALL BUT #8 NM CABLE)

System No. F-C-3057 F Rating — 1 Hr T Rating — 1 Hr



1. Floor - Ceiling Assembly - The 1 hr fire-rated wood joist floor-ceiling assembly shall be constructed of the materials and in the manner specified in the individual L500 Designs in the UL Fire Resistance Directory. The 2 hr fire-rated wood joist floor-ceiling assembly shall be constructed of the materials and in the manner specified in Design Nos. L505, L511 or L536 in the UL Fire Resistance Directory. The F Rating of the firestop system is equal to the fire rating of the floor-ceiling assembly. The general construction features of the floor assembly are summarized below:

A. Flooring System - Lumber or plywood subfloor with finish floor of lumber, plywood or Floor Topping Mixture\* as specified in the individual Floor-Ceiling Design. Max diam of opening is 3 in. B. Wood Joists - Nom 10 in. deep (or deeper) lumber, steel or combination lumber and steel joists, trusses or Structural Wood Members\* with bridging as required and with ends firestopped. C. Gypsum Board\* - Thickness, type, number of layers and fasteners as required in the individual

Floor-Ceiling Design. Max diam of opening is 3 in.

1A. Chase Wall - (Optional, Not Shown) - The through penetrant (Item 2) may be routed through a 1 or 2 hr fire rated single, double or staggered wood stud/gypsum board chase wall. Depth of chase wall stud cavity to be min 1/2 in. greater than diameter of opening cut in sole and top plates to accommodate the through penetrant (Item 2). The chase wall shall be constructed of the materials and in the manner specified in the individual U300 Series Wall and Partition Designs in the UL Fire Resistance Directory and shall include the following construction features:

- A. Studs Nom 2 by 4 in., 2 by 6 in. or double nom 2 by 4 in. lumber studs.
- B. Sole Plate Nom 2 by 4 in., 2 by 6 in. or parallel 2 by 4 in. lumber plates, tightly butted. Max diam of opening is 3 in.
- C. Top Plate The double top plate shall consist of two nom 2 by 4 in., two nom 2 by 6 in. or two sets of parallel 2 by 4 in. lumber plates, tightly butted. Max diam of opening is 3 in.
  D. Gypsum Board\* Thickness, type, number of layers and fasteners shall be as specified in the individual Wall and Partition Design.
- 2. Cables Aggregate cross-sectional area of cables within opening to be max 54 percent of the cross-sectional area of the opening. Annular space to be min 0 in. (point contact) to max 1-1/4 in. Penetrants to be rigidly supported on both sides of floor-ceiling assembly. The following types and sizes of cables may be used:
  - A. Max 200 pair No. 24 AWG (or smaller) copper conductor telecommunication cable with PVC insulation and jacketing.
- B. Max 3/C No. 3/0 AWG (or smaller) aluminum or copper conductor SER cable with PVC
- C. Max 3/C with ground No. 8 AWG (or smaller) Type NM (Romex) nonmetallic sheathed cable
- with PVC insulation and jacketing.

  D. Max 1/C 350 kcmil (or smaller) power cables with XLP insulation and jacketing.
- E. Max 7/C No. 12 AWG (or smaller) power/control cables with PVC insulation and jacketing.

  F. Max RG/U (or smaller) copper conductor coaxial cable with fluorinated ethylene insulation and jacketing materials.
- G. Max 4 pair No. 24 AWG (or smaller) copper conductor data cable with Hylar insulation and jacketing.
- H. Max 4 pair No. 18 AWG (or smaller) copper conductor instrumentation cable with PVC
- insulation and jacketing.

  I. Fiber optic cable with PVC insulation and jacketing.
- 2A. Through Penetrating Product\* (Not Shown) As an alternate Item 3), one or more through-penetrating product to be installed within the opening. Max aggregate cross-sectional area of cables to be 52 percent of the cross-sectional area of the opening. Annular space between through-penetrating products and periphery of opening to be min 0 in. (point contact) to max 1-1/4 in. Through penetrating product rigidly supported on both sides of floor or wall assembly. The following types of through-penetrating products may be used:
  - A. Max four copper conductors No. 2/0 AWG (or smaller) aluminum or steel Armored Cable# or Metal-Clad Cable+.
  - AFC CABLE SYSTEMS INC

    B. Two or more twisted copper conductors No. 6 AWG (or smaller) Power Limited Circuit

    Cable+ with or without a jacket under a metal armor.
  - AFC CABLE SYSTEMS INC

    C. Two or more twisted copper conductors No. 10 AWG (or smaller) Power Limited Fire Alarm

    Cable+ with or without a jacket under a metal armor.
  - AFC CABLE SYSTEMS INC

    D. Max two twisted copper conductors No. 12 AWG (or smaller) Non Power Limited Fire Alarm

    Cable+ with or without a jacket under a metal armor.
- AFC CABLE SYSTEMS INC

  3. Fill, Void or Cavity Material\* Sealant Min 3/4 in. thickness of fill material applied within the annulus, flush with the top surface of the floor or chase wall sole plate. Min 5/8 in. thickness of fill material applied within the annulus, flush with bottom surface of ceiling or chase wall top plate. At point contact, min 1/4 in. diam bead of fill material applied at cable bundle/subfloor or chase wall sole plate

interface and at cable bundle/ceiling or chase wall top plate interface.

SPECIFIED TECHNOLOGIES INC - SpecSeal LCI Sealant

\*Bearing the UL Classification Mark



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LEGACY AT CAROLINA FOR "A" BUILDING-1/2/3 BEDRO

DETAILS

DETAILS

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AS NOTED

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