

**LIGHTING FIXTURES**

SUBSCRIPTS: A1b = TYPE A, CIRCUIT 1, CONTROL ZONE b

- CEILING OR PENDANT INCANDESCENT, HID OR COMPACT FLUORESCENT S<sup>3</sup>
- CEILING OR PENDANT INCANDESCENT, HID OR COMPACT FLUORESCENT EMERGENCY LIGHT
- CEILING OR PENDANT HID WITH QUARTZ RESTRIKE
- WALL MOUNTED INCANDESCENT, HID OR COMPACT FLUORESCENT
- FLUORESCENT STRIP LIGHT
- FLUORESCENT STRIP EMERGENCY LIGHT
- FLUORESCENT
- FLUORESCENT EMERGENCY LIGHT
- FLUORESCENT WITH ASYMMETRICAL DISTRIBUTION LINE REPRESENTS LAMP AXIS
- BATTERY PACK WITH HEADS
- REMOTE EMERGENCY HEAD
- FLOODLIGHT
- SPOTLIGHT, ARROW INDICATES DIRECTION OF AIM
- ROADWAY OR PARKING LOT STANDARD
- POST TOP WALKWAY OR PARKING LOT STANDARD
- BUILDING MOUNTED WALLPACK
- IN POOL WET NICHE LIGHT
- LIGHTING TRACK WITH FIXTURES
- DOCK LIGHT
- STEP OR AISLE LIGHT
- CEILING OR PENDANT MOUNTED EXIT SIGN
- WALL MOUNTED EXIT SIGN
- SHADING INDICATES ILLUMINATED FACE OF EXIT SIGN
- ARROW INDICATES EXIT SIGN DIRECTIONAL ARROW

**RECEPTACLES**

SUBSCRIPTS: 1b = CIRCUIT 1, CONTROL ZONE b  
 GFCI = GROUND FAULT CIRCUIT INTERRUPTER  
 WP = WEATHERPROOF WHILE IN USE COVER  
 S = SWITCHED, F = FLUSH FLOOR,  
 SM = SURFACE MOUNT FLOOR

- DUPLEX RECEPTACLE
- SINGLE RECEPTACLE
- DOUBLE DUPLEX RECEPTACLE
- SPECIAL RECEPTACLE, X = NEMA DESIGNATION
- CLOCK RECEPTACLE WITH HANGER
- DUPLEX RECEPTACLE ON EMERGENCY CIRCUIT
- DUPLEX CEILING RECEPTACLE
- DUPLEX FLOOR RECEPTACLE
- SINGLE FLOOR RECEPTACLE
- DOUBLE DUPLEX FLOOR RECEPTACLE
- SPECIAL FLOOR RECEPTACLE
- DUPLEX RECEPTACLE AND TELEPHONE OUTLET IN FLOOR BOX OR SERVICE FITTING
- DUPLEX RECEPTACLE AND DATA OUTLET IN FLOOR BOX OR SERVICE FITTING
- DUPLEX RECEPTACLE, TELEPHONE AND DATA OUTLET IN FLOOR BOX OR SERVICE FITTING
- POKE-THROUGH WITH DUPLEX RECEPTACLE AND FOUR CATEGORY 5 COMMUNICATION JACKS

**SWITCHES AND CONTROLS**

SUBSCRIPTS: 3b = TYPE 3, CONTROL ZONE b

- TOGGLE SWITCH: 3 = 3-WAY, 2 = DOUBLE POLE, 4 = 4 WAY, DM = DIMMER, K = KEY OPERATED, EX = EXPLOSION PROOF, T = TIMER OPERATED, LM = LOW VOLTAGE MASTER, OC = OCCUPANCY SENSOR SWITCH, F = FUSED, M = MANUAL MOTOR STARTER, CB = CIRCUIT BREAKER
- DIMMER, 6 = 600W, 10 = 1000W
- OCCUPANCY SENSOR, WALL MOUNTED OR CEILING MOUNTED, DIRECTIONAL
- OCCUPANCY SENSOR, CEILING MOUNTED, MULTI DIRECTIONAL
- TIME CLOCK
- PUSHBUTTON OR CONTROL STATION
- PHOTOCELL
- CONTACTOR
- MOTOR STARTER, 0 = STARTER SIZE
- COMBINATION MOTOR STARTER AND DISCONNECT SWITCH 30 = SWITCH AMPERE RATING (12) = FUSE AMPERE RATING 0 = STARTER SIZE
- COMBINATION MOTOR STARTER AND CIRCUIT PROTECTOR 100 = FRAME SIZE (70) = TRIP RATING 1 = STARTER SIZE
- FUSED DISCONNECT SWITCH 30 = SWITCH AMPERE RATING (15) = FUSE AMPERE RATING
- NON-FUSED DISCONNECT SWITCH 30 = SWITCH AMPERE RATING

**TELEPHONE AND DATA COMMUNICATIONS**

- TELEPHONE TERMINAL BOARD (TB)
- TELEPHONE TERMINAL CABINET (TC)
- TELEPHONE WALL OUTLET, W = WALL, P = PUBLIC, F = FIRE FIGHTER, WP = WEATHERPROOF
- TELEPHONE FLOOR OUTLET OR SERVICE FITTING
- DATA WALL OUTLET, D = DATA, F = FAX, S=SIPRNET
- DATA OUTLET IN COMMON FLOOR BOX WITH ELECTRICAL OUTLET
- COMBINATION TELEPHONE AND DATA WALL OUTLET, 2 = 2-PORT, 4 = 4-PORT, EXP = EXPLOSION PROOF, M = MODULAR
- COMBINATION TELEPHONE IN COMMON FLOOR BOX WITH ELECTRICAL OUTLET
- DATA CEILING OUTLET

**MISCELLANEOUS SYSTEMS**

- EQUIPMENT RACK
- MICROPHONE OUTLET
- PUBLIC ADDRESS PUSHBUTTON
- VOLUME CONTROL AND CHANNEL SELECTOR
- CEILING MOUNTED SPEAKER, S=SOUND MASKING
- WALL MOUNTED SPEAKER
- MASTER CLOCK (CM)
- SINGLE FACE CLOCK, A = ANALOG, D = DIGITAL
- DOUBLE FACE CLOCK, A = ANALOG, D = DIGITAL
- PROGRAM CLOCK WITH INTERCOM
- PROGRAM BELL
- PROGRAM BUZZER
- BUZZER SWITCH
- OFF AIR ANTENNA
- TELEVISION OUTLET
- PARTITION SENSOR, 10= 1000, 6=600

**DISTRIBUTION EQUIPMENT (EQUIPMENT PREFIX)**

- LIGHTING OR RECEPTACLE PANELBOARD
- RELAY CABINET
- DISTRIBUTION OR POWER PANELBOARD
- MOTOR CONTROL CENTER
- SWITCHBOARD
- TRANSFORMER

**RACEWAYS AND WIRES**

- CONDUIT OR CABLE (RUN AS INDICATED)
- CONDUIT OR CABLE BELOW RAISED FLOOR
- CONDUIT OR CABLE BELOW SLAB, IN SLAB OR UNDERGROUND
- CONDUIT OR CABLE TURNING UP
- CONDUIT OR CABLE TURNING DOWN
- CONDUIT CAPPED
- HOMERUN, LP1 = PANEL DESTINATION, 2,4,6 = CIRCUITS
- WIRING: LONG SLASH = NEUTRAL (N)  
SHORT SLASH = HOT  
SHORT SLASH WITH HOOK = SWITCHED  
LONG SLASH WITH DOT = GROUND (G)  
#10 = WIRE SIZE  
3/4" = CONDUIT SIZE
- OUTLET BOX WITH BLANK COVER
- JUNCTION BOX
- JUNCTION BOX, FLOOR DUCT SYSTEM
- PULL BOX

**FIRE ALARM & MASS NOTIFICATION SYSTEM LEGEND**

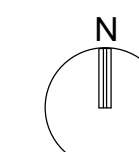
- FIRE ALARM CONTROL PANEL
- LOCAL OPERATING CONSOLE
- FIRE ALARM SYSTEM ANNUNCIATOR
- NAC EXTENDER PANEL (REMOTE POWER SUPPLY)
- FIRE ALARM TRANSPONDER PANEL
- DIGITAL ALARM COMMUNICATOR TRANSMITTER
- LCD ANNUNCIATOR
- RATE OF RISE HEAT DETECTOR
- FIXED TEMPERATURE HEAT DETECTOR
- MANUAL PULL STATION
- PHOTOELECTRIC SMOKE DETECTOR
- IONIZATION SMOKE DETECTOR
- ELEVATOR RECALL PHOTOELECTRIC SMOKE DETECTOR
- DUCT SMOKE DETECTOR
- SUB FLOOR SMOKE DETECTOR
- END OF LINE DEVICE
- WALL-MOUNTED FIRE ALARMSTROBE (CLEAR) (NUMBER INDICATES CANDELA RATING) EXP = EXPLOSION PROOF
- WALL-MOUNTED MASS NOTIFICATION STROBE (AMBER) (NUMBER INDICATES CANDELA RATING) EXP = EXPLOSION PROOF
- WALL-MOUNTED SPEAKER/STROBE (CLEAR) (NUMBER INDICATES CANDELA RATING) EXP = EXPLOSION PROOF
- WALL-MOUNTED FIRE ALARM SPEAKER
- CEILING-MOUNTED MASS NOTIFICATION STROBE (AMBER) (NUMBER INDICATES CANDELA RATING)
- CEILING-MOUNTED SPEAKER/STROBE (CLEAR) (NUMBER INDICATES CANDELA RATING)
- MINI-SPEAKER
- SPRINKLER FLOW SWITCH
- SPRINKLER TAMPER SWITCH
- ADDRESSABLE INTERFACE MODULE
- ADDRESSABLE CONTROL MODULE
- DOOR HOLD AND RELEASE DEVICE

**ELECTRICAL GENERAL NOTES**

1. ALL SYMBOLS, ABBREVIATIONS AND GENERAL NOTES SHOWN ARE NOT NECESSARILY USED ON THIS PROJECT.
2. LIGHTING CONTROL ZONE DESIGNATIONS INDICATE WHICH DEVICES CONTROL WHICH GROUPS OF FIXTURES. WHERE LOCAL SWITCHES AND DIMMERS ARE SHOWN, OR WHERE NO CONTROL ZONE DESIGNATION IS INDICATED, LOCAL CONTROL DEVICES SHALL ONLY CONTROL FIXTURES IN THEIR RESPECTIVE ROOMS.
3. SIZE OUTLET AND JUNCTION BOXES PER 2005 NEC ARTICLE 314, UNLESS OTHERWISE NOTED.
4. FOR EXACT LOCATIONS OF RECESSED LIGHTING FIXTURES, REFERENCE ARCHITECTURAL REFLECTED CEILING PLANS. COORDINATE INSTALLATION OF LIGHTING FIXTURES WITH LOCATION OF EQUIPMENT, PIPING AND DUCTWORK.
5. MOUNTING HEIGHTS FOR CEILING MOUNTED FIXTURES OR DEVICES ARE TO BOTTOM OF FIXTURES OR DEVICES, UNLESS OTHERWISE NOTED.
6. MOUNTING HEIGHTS FOR WALL MOUNTED FIXTURES OR DEVICES ARE TO CENTER LINE OF OUTLET BOXES, UNLESS OTHERWISE NOTED.
7. MOUNTING HEIGHTS ABOVE FINISHED FLOOR ARE AS FOLLOWS, UNLESS OTHERWISE NOTED:  
 LIGHTING SWITCHES \_\_\_\_\_ 4'-0"  
 GENERAL PURPOSE RECEPTACLES \_\_\_\_\_ 1'-6"  
 COUNTER TOP RECEPTACLES \_\_\_\_\_ 8 INCHES ABOVE COUNTER  
 TELEPHONE OUTLETS \_\_\_\_\_ 1'-6"  
 DATA OUTLETS \_\_\_\_\_ 1'-6"  
 TELEVISION OUTLET (COAX) \_\_\_\_\_ 1'-6"
8. WIRES ARE #12, UNLESS OTHERWISE NOTED.
9. CONDUITS ARE 3/4", UNLESS OTHERWISE NOTED.
10. SIZE OUTLET AND JUNCTION BOXES PER 2005 NEC ARTICLE 314, UNLESS OTHERWISE NOTED.
11. ALL EMERGENCY LIGHT FIXTURES SHALL BE UNSWITCHED SO AS TO BE UTILIZED AS NIGHT LIGHTS.

**LEGEND ABBREVIATIONS**

AFF	ABOVE FINISHED FLOOR
AFG	ABOVE FINISHED GRADE
ARCH	ARCHITECTURAL
AVG	AVERAGE
ELEC	ELECTRICAL
ELEV	ELEVATION
EMER	EMERGENCY
FA	FIRE ALARM
FLOUR	FLOURESCENT
G	GROUND
GFCI	GROUND FAULT CIRCUIT INTERRUPTER
INCND	INCANDESCENT
LTG	LIGHTING
MECH	MECHANICAL
MIN	MINIMUM
MTD	MOUNTED
N	NEUTRAL
NIC	NIT IN CONTRACT
NP	NOT PERMITTED
PC	PERSONAL COMPUTER
PWR	POWER
QTY	QUANTITY
RECP	RECEPTACLE
REQD	REQUIRED
RM	ROOM
SC	SPLIT CIRCUIT
SS	SINGLE STATION SMOKE ALARM
SW	SWITCH
TEL	TELEPHONE
TELCOM	TELECOMMUNICATIONS
TYP	TYPICAL
UPS	UNINTERRUPTABLE POWER SUPPLY
WP	WEATHER PROOF
XFRMR	TRANSFORMER



NOT FOR  
CONSTRUCTION

911 Central Parkway N., Suite 425 San Antonio, TX 78323  
501 North Broadway, St. Louis, Missouri 63102-2121

Revision:  
Date: By: Description:

**AIR FORCE CENTER FOR ENGINEERING AND THE  
ENVIRONMENT (AFCEE)  
FACILITIES DYNAMIC PROTOTYPES DESIGN FOR  
DORMITORIES**

Scales:

Jacobs Project No.: FDWD1301

Drawing Title:

**LIGHTING  
SCHEDULE**

Date: May 11, 2009

Designed By: Designer

Drawn By: Author

Checked By: Checker

Drawing No.:

**E-501**

LIGHTING FIXTURE SCHEDULE

Type Mark	TYPE	FIXTURE DESCRIPTION	MOUNTING	LAMP QUANTITY	LAMP WATTAGE	LAMP TYPE	FIXTURE VA	FIXTURE INPUT VOLTAGE	MANUFACTURER	FIXTURE CATALOG NUMBER	REMARKS
A	Exterior Wall	OUTDOOR WALL LIGHT WITH EMERGENCY BALLAST	SURFACE	1	42 W	42TRT	40 VA	120 V	LITHONIA	WST 42TRT MDU 120 ELDWC PE LPI	
C	Bathroom Wall	WALL LIGHT	SURFACE	2	25 W	T8	40 VA	120 V	LITHONIA	WP 2 25 MVOLT S2 BF GEB10PS 2/1	
D	Ceiling	CAN LIGHT	RECESSED	2	18 W	18DTT	30 VA	120 V	LITHONIA	LF6 2/18DTT F602A 120 GEB10	
D	Emergency Ceiling	CAN LIGHT WITH EMERGENCY BALLAST	RECESSED	2	18 W	18DTT	30 VA	120 V	LITHONIA	LF6 2/18DTT F602A 120 GEB10 EL	
F	Ceiling Fan	CEILING FAN	SURFACE	3	18 W	--	50 VA	120 V	--	--	
G	Mech/Laundry Wall	WALL LIGHT	SURFACE	1	25 W	T8	20 VA	120 V	LITHONIA	SM 1 25 MVOLT ES GEB10RS	



**NOT FOR CONSTRUCTION**

911 Central Parkway N., Suite 425 San Antonio, TX 78223  
501 North Broadway, St. Louis, Missouri 63102-2121

Revision: \_\_\_\_\_  
Date: \_\_\_\_\_ By: \_\_\_\_\_ Description: \_\_\_\_\_

**AIR FORCE CENTER FOR ENGINEERING AND THE ENVIRONMENT (AFCEE) FACILITIES DYNAMIC PROTOTYPES DESIGN FOR DORMITORIES**

**KEYED NOTES**

- 1 THE NOTATION "(AFCI)" INDICATES THAT THIS CIRCUIT BREAKER IS A COMBINATION-TYPE ACR-FAULT CIRCUIT INTERRUPTER.
- 2 LOAD FOR THIS SMALL-APPLIANCE OR LAUNDRY CIRCUIT IS SET TO 1500VA PER NEC 220.52.

Panel	Voltage	Phase	Wires	Mains
PP-A	120 V / 208 V	Three Phase	4 Wires	200 A MCB

Mount	Enclosure	Location
TBD	Type 1	TBD

Load Name	Trip	Poles	Ckt. No.	A	B	C	Ckt. No.	Poles	Trip	Load Name
BEDROOM 101 - DESK AND CONV REC	15 A	1 (1)	1	720 VA / 5760 VA			2	2	60 A	KITCHEN 113 - RANGE
BEDROOM 101 - CONV REC	15 A	1 (1)	3		720 VA / 5760 VA		4			
BEDROOM 108 - DESK AND CONV REC	15 A	1 (1)	5			720 VA / 1500 VA	6	1	20 A	LAUNDRY 104 - WASHER
BEDROOM 108 - CONV REC	15 A	1 (1)	7	720 VA / 2880 VA			8	2	30 A	LAUNDRY 104 - DRYER
BEDROOM 111 - DESK AND CONV REC	15 A	1 (1)	9		540 VA / 2880 VA		10			
BEDROOM 111 - CONV REC	15 A	1 (1)	11			540 VA / 960 VA	12	2	20 A	HVAC CENTRAL (1HP)
BEDROOM 116 - DESK AND CONV REC	15 A	1 (1)	13	540 VA / 960 VA			14			
BEDROOM 116 - CONV REC	15 A	1 (1)	15		540 VA / 696 VA		16	(1) 1	15 A	HVAC - BEDROOM 101 (1/4HP)
BATHROOMS 102, 109 - CONV REC	15 A	1 (1)	17			360 VA / 696 VA	18	(1) 1	15 A	HVAC - BEDROOM 108 (1/4HP)
BATHROOMS 106, 115 - CONV REC	15 A	1 (1)	19	360 VA / 696 VA			20	(1) 1	15 A	HVAC - BEDROOM 111 (1/4HP)
LIVING 112 - REC	15 A	1 (1)	21		1260 VA / 696 VA		22	(1) 1	15 A	HVAC - BEDROOM 116 (1/4HP)
LIGHTING - WEST	15 A	1 (1)	23			450 VA / 0 VA	24	1	15 A	SPARE
LIGHTING - EAST	15 A	1 (1)	25	460 VA / 0 VA			26	1	15 A	SPARE
SPARE	15 A	1	27				28	1	15 A	SPARE
SPARE	15 A	1	29				30	1	15 A	SPARE
KITCHEN 113 - REFRIGERATOR	15 A	1	31	1500 VA / 0 VA			32	1	15 A	SPARE
KITCHEN 113 - COUNTER TOP REC	15 A	1	33		180 VA / 0 VA		34	1	15 A	SPARE
KITCHEN 113 - 1/2HP DISPOSER	20 A	1	35			1176 VA / 0 VA	36	1	15 A	SPARE
KITCHEN 113 - DISHWASHER	15 A	1	37	744 VA / 0 VA			38	1	15 A	SPARE
KITCHEN 113 - MICROWAVE	20 A	1	39		1500 VA / 0 VA		40	1	15 A	SPARE
KITCHEN 113 - COUNTER TOP REC	15 A	1	41			180 VA / 0 VA	42	1	15 A	SPARE

Phase A	Phase B	Phase C	Total VA
15340 VA	14772 VA	6582 VA	36694 VA

Mfg. / Type	Modifications	Amps RMS. Sym.
--	--	--

D

C

B

A

Scales:

Jacobs Project No.: FDWD1301

Drawing Title:

**PANEL SCHEDULE A**

Date: May 11, 2009

Designed By: Designer

Drawn By: Author

Checked By: Checker

Drawing No.:

E-502

**NOT FOR CONSTRUCTION**

911 Central Parkway N., Suite 425 San Antonio, TX 78223  
501 North Broadway, St. Louis, Missouri 63102-2121

Revision: \_\_\_\_\_  
Date: \_\_\_\_\_ By: \_\_\_\_\_ Description: \_\_\_\_\_

**AIR FORCE CENTER FOR ENGINEERING AND THE ENVIRONMENT (AFCEE) FACILITIES DYNAMIC PROTOTYPES DESIGN FOR DORMITORIES**

**KEYED NOTES**

- ① THE NOTATION "(AFCI)" INDICATES THAT THIS CIRCUIT BREAKER IS A COMBINATION-TYPE ACR-FAULT CIRCUIT INTERRUPTER.
- ② LOAD FOR THIS SMALL-APPLIANCE OR LAUNDRY CIRCUIT IS SET TO 1500VA PER NEC 220.52.

Panel	Voltage	Phase	Wires	Mains
PP-B	120 V / 208 V	Three Phase	4 Wires	200 A MCB

Mount	Enclosure	Location
TBD	Type 1	TBD

Load Name	Trip	Poles	Ckt. No.	A	B	C	Ckt. No.	Poles	Trip	Load Name
BEDROOM 117 - DESK AND CONV REC	15 A	1 ①	1	540 VA / 5760 VA			2	2	60 A	KITCHEN 126 - RANGE
BEDROOM 117 - CONV REC	15 A	1 ①	3		720 VA / 5760 VA		4			
BEDROOM 127 - DESK AND CONV REC	15 A	1 ①	5			540 VA / 1500 VA	6	1	20 A	LAUNDRY 124 - WASHER
BEDROOM 127 - CONV REC	15 A	1 ①	7	720 VA / 2880 VA			8	2	30 A	LAUNDRY 124 - DRYER
BEDROOM 122 - DESK AND CONV REC	15 A	1 ①	9		540 VA / 2880 VA		10			
BEDROOM 122 - CONV REC	15 A	1 ①	11			720 VA / 960 VA	12	2	20 A	HVAC - CENTRAL (1HP)
BEDROOM 132 - DESK AND CONV REC	15 A	1 ①	13	540 VA / 960 VA			14			
BEDROOM 132 - CONV REC	15 A	1 ①	15		720 VA / 696 VA		16	① 1	15 A	HVAC - BEDROOM 117 (1/4HP)
BATHROOMS 118, 120 - CONV REC	15 A	1 ①	17			360 VA / 696 VA	18	① 1	15 A	HVAC - BEDROOM 127 (1/4HP)
BATHROOMS 129, 131 - CONV REC	15 A	1 ①	19	360 VA / 696 VA			20	① 1	15 A	HVAC - BEDROOM 122 (1/4HP)
LIVING 125 - REC	15 A	1 ①	21		1440 VA / 696 VA		22	① 1	15 A	HVAC - BEDROOM 132 (1/4HP)
LIGHTING - NORTH	15 A	1 ①	23			410 VA / 0 VA	24	1	15 A	SPARE
LIGHTING - SOUTH	15 A	1 ①	25	440 VA / 0 VA			26	1	15 A	SPARE
SPARE	15 A	1	27				28	1	15 A	SPARE
SPARE	15 A	1	29				30	1	15 A	SPARE
② KITCHEN 126 - REFRIGERATOR	15 A	1	31	1500 VA / 0 VA			32	1	15 A	SPARE
KITCHEN 126 - COUNTER TOP REC	15 A	1	33		180 VA / 0 VA		34	1	15 A	SPARE
KITCHEN 126 - DISHWASHER	15 A	1	35			744 VA / 0 VA	36	1	15 A	SPARE
KITCHEN 126 - DISPOSAL (1/2HP)	20 A	1	37	1176 VA / 0 VA			38	1	15 A	SPARE
② KITCHEN 126 - MICROWAVE	20 A	1	39		1500 VA / 0 VA		40	1	15 A	SPARE
KITCHEN 126 - COUNTER TOP REC	15 A	1	41			180 VA / 0 VA	42	1	15 A	SPARE

Phase A	Phase B	Phase C	Total VA
15572 VA	15132 VA	6110 VA	36814 VA

Mfg. / Type	Modifications	Amps RMS. Sym.
--	--	--

D  
C  
B  
A

Scales:

Jacobs Project No.: FDWD1301

Drawing Title:

**PANEL SCHEDULE B**

Date: May 11, 2009

Designed By: Designer

Drawn By: Author

Checked By: Checker

Drawing No.:

**E-503**

**NOT FOR CONSTRUCTION**

911 Central Parkway N., Suite 425 San Antonio, TX 78323  
501 North Broadway, St. Louis, Missouri 63102-2121

Revision: \_\_\_\_\_  
Date: \_\_\_\_\_ By: \_\_\_\_\_ Description: \_\_\_\_\_

**AIR FORCE CENTER FOR ENGINEERING AND THE ENVIRONMENT (AFCEE) FACILITIES DYNAMIC PROTOTYPES DESIGN FOR DORMITORIES**

**KEYED NOTES**

- 1 THE NOTATION "(AFCI)" INDICATES THAT THIS CIRCUIT BREAKER IS A COMBINATION-TYPE ACR-FAULT CIRCUIT INTERRUPTER.
- 2 LOAD FOR THIS SMALL-APPLIANCE OR LAUNDRY CIRCUIT IS SET TO 1500VA PER NEC 220.52.

Panel	Voltage	Phase	Wires	Mains
PP-C	120 V / 208 V	Three Phase	4 Wires	200 A MCB

Mount	Enclosure	Location
TBD	Type 1	TBD

Load Name	Trip	Poles	Ckt. No.	A	B	C	Ckt. No.	Poles	Trip	Load Name
BEDROOM 133 - DESK AND CONV REC	15 A	1 (1)	1	540 VA / 5760 VA			2	2	60 A	KITCHEN 146 - RANGE
BEDROOM 133 - CONV REC	15 A	1 (1)	3		720 VA / 5760 VA		4			
BEDROOM 144 - DESK AND CONV REC	15 A	1 (1)	5			540 VA / 1500 VA	6	1	20 A	LAUNDRY 147 - WASHER
BEDROOM 144 - CONV REC	15 A	1 (1)	7	720 VA / 2880 VA			8	2	30 A	LAUNDRY 147 - DRYER
BEDROOM 136 - DESK AND CONV REC	15 A	1 (1)	9		720 VA / 2880 VA		10			
BEDROOM 136 - CONV REC	15 A	1 (1)	11			720 VA / 960 VA	12	2	20 A	HVAC - CENTRAL (1HP)
BEDROOM 140 - DESK AND CONV REC	15 A	1 (1)	13	720 VA / 960 VA			14			
BEDROOM 140 - CONV REC	15 A	1 (1)	15		720 VA / 696 VA		16	1 (1)	15 A	HVAC - BEDROOM 133 (1/4HP)
BATHROOMS 134, 138 - CONV REC	15 A	1 (1)	17			360 VA / 696 VA	18	1 (1)	15 A	HVAC - BEDROOM 144 (1/4HP)
BATHROOMS 143, 139 - CONV REC	15 A	1 (1)	19	360 VA / 696 VA			20	1 (1)	15 A	HVAC - BEDROOM 136 (1/4HP)
LIVING 145 - REC	15 A	1 (1)	21		900 VA / 696 VA		22	1 (1)	15 A	HVAC - BEDROOM 140 (1/4HP)
LIVING 145 - REC	15 A	1 (1)	23			1080 VA / 0 VA	24	1	15 A	SPARE
LIGHTING - EAST	15 A	1 (1)	25	470 VA / 0 VA			26	1	15 A	SPARE
LIGHTING - WEST	15 A	1 (1)	27		440 VA / 0 VA		28	1	15 A	SPARE
SPARE	15 A	1 (1)	29				30	1	15 A	SPARE
KITCHEN 146 - REFRIGERATOR	15 A	1	31	1500 VA / 0 VA			32	1	15 A	SPARE
KITCHEN 146 - COUNTER TOP REC	15 A	1	33		180 VA / 0 VA		34	1	15 A	SPARE
KITCHEN 146 - DISPOSAL (1/2HP)	20 A	1	35			1176 VA / 0 VA	36	1	15 A	SPARE
KITCHEN 146 - DISHWASHER	15 A	1	37	744 VA / 0 VA			38	1	15 A	SPARE
KITCHEN 146 - COUNTER TOP REC	15 A	1	39		180 VA / 0 VA		40	1	15 A	SPARE
KITCHEN 146 - MICROWAVE	20 A	1	41			1500 VA / 0 VA	42	1	15 A	SPARE

Phase A	Phase B	Phase C	Total VA
15350 VA	13892 VA	8532 VA	37774 VA

Mfg. / Type	Modifications	Amps RMS. Sym.
--	--	--

Scales:

Jacobs Project No.: FDWD1301

Drawing Title:

**PANEL SCHEDULE C**

Date: May 11, 2009

Designed By: Designer

Drawn By: Author

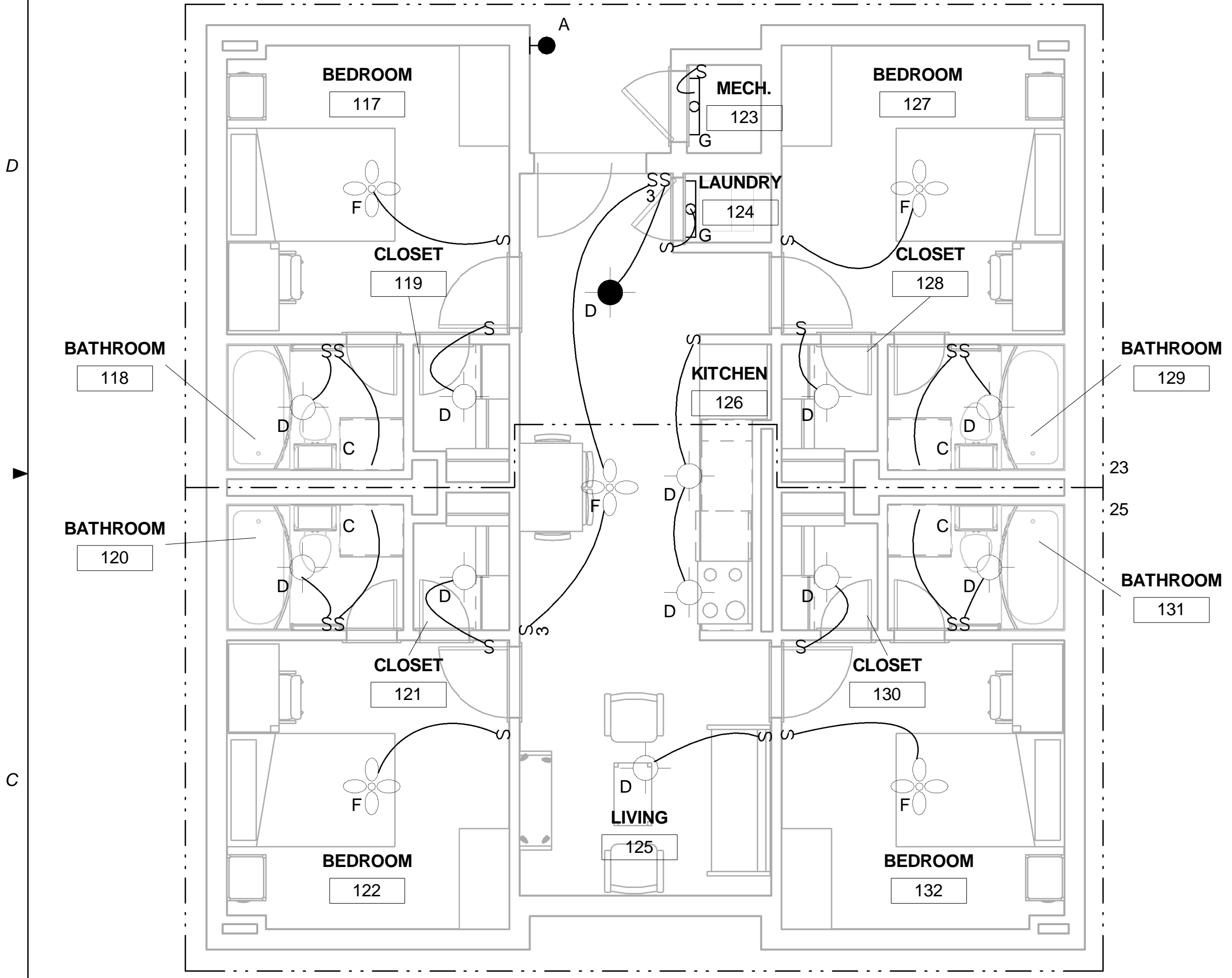
Checked By: Checker

Drawing No.:

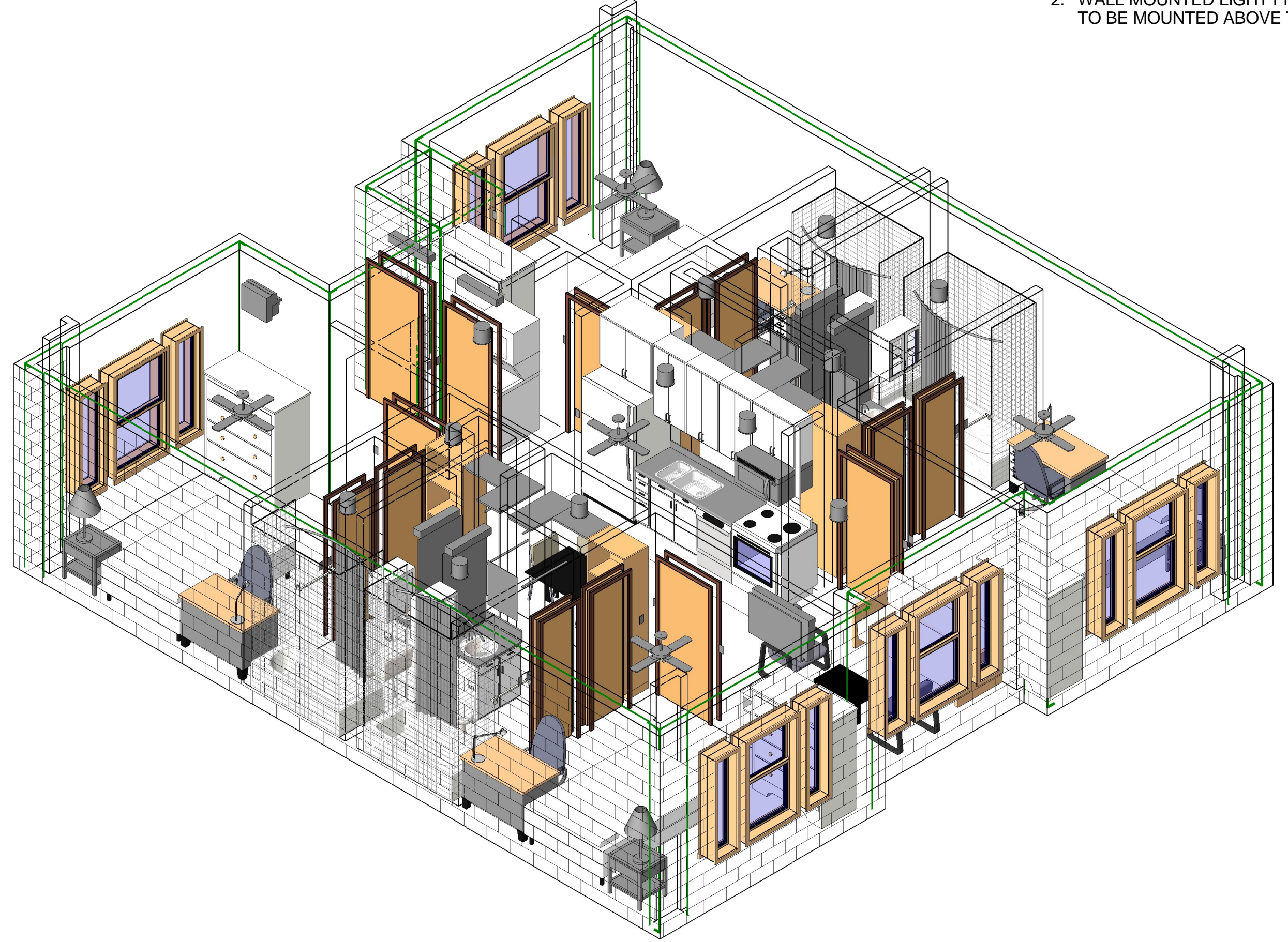
E-504

GENERAL NOTES

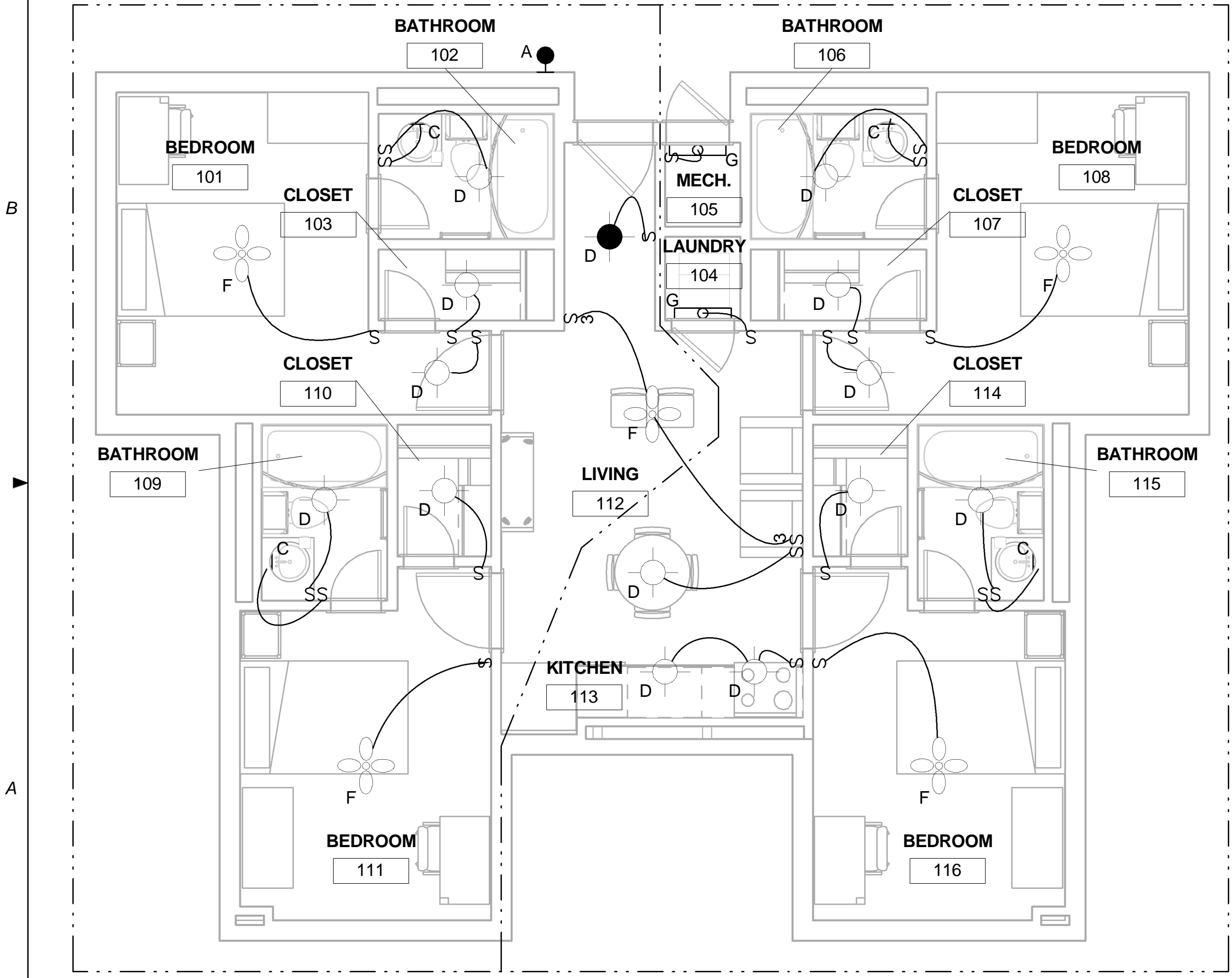
- 1. CEILING MOUNTED LIGHT FIXTURES ARE MOUNTED AT 102" AFF.
- 2. WALL MOUNTED LIGHT FIXTURES IN BATHROOMS ARE COORDINATED TO BE MOUNTED ABOVE THE WALL MIRROR.



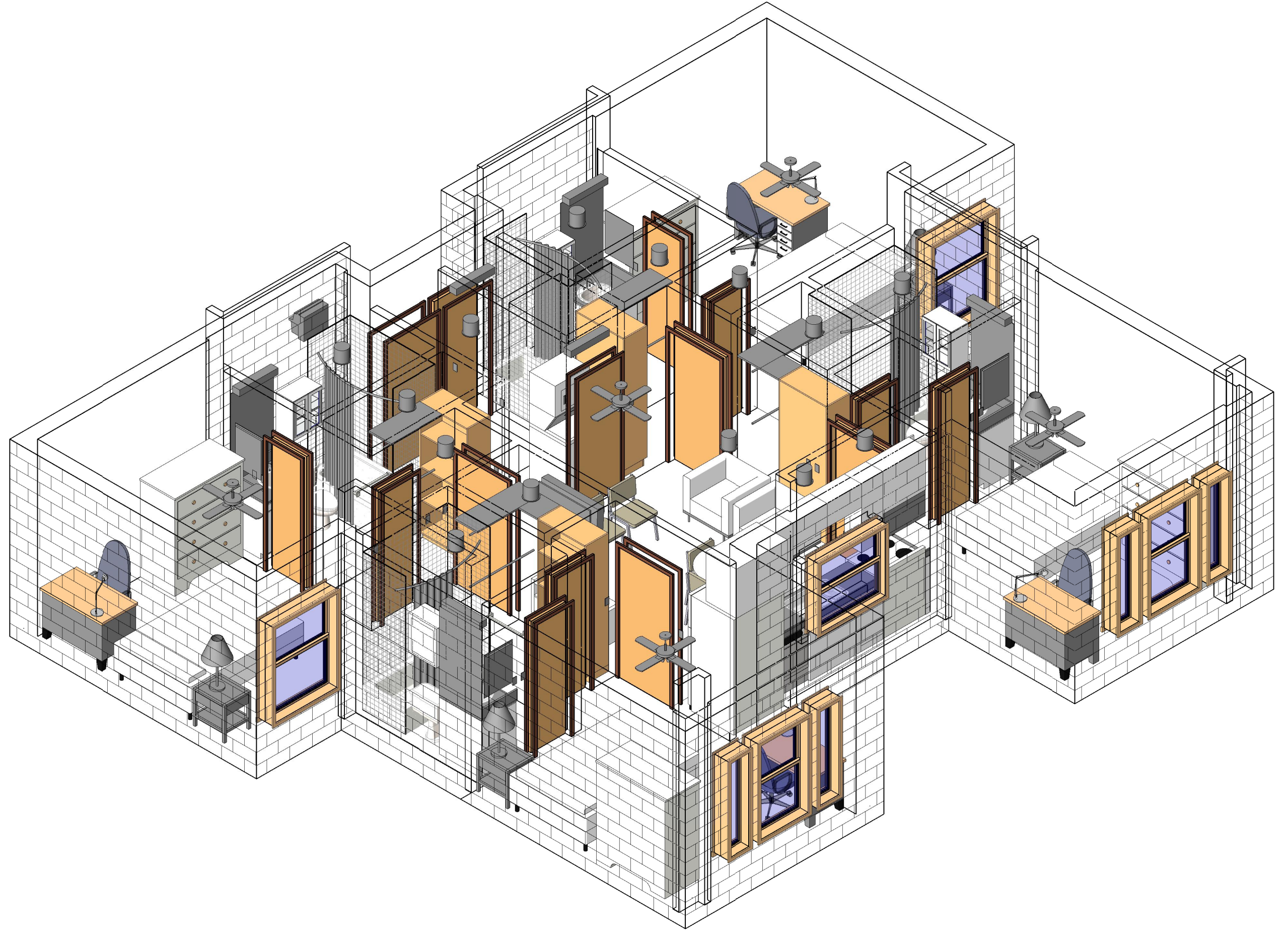
C1 PLAN B LIGHTING PLAN  
1/4" = 1'-0"



C3 PLAN B LIGHTING AXON



A1 PLAN A LIGHTING PLAN  
1/4" = 1'-0"



A3 PLAN A LIGHTING AXON

Scales: 1/4" = 1'-0"

Jacobs Project No.: FDWD1301

Drawing Title:

LIGHTING PLANS/AXON

Date: May 11, 2009

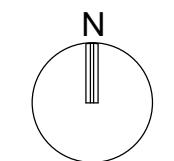
Designed By: Designer

Drawn By: SBW

Checked By: Checker

Drawing No.:

EL101



NOT FOR CONSTRUCTION

911 Central Parkway N., Suite 425 San Antonio, TX 78233  
501 North Broadway, St. Louis, Missouri 63102-2121

Revision: \_\_\_\_\_  
Date: \_\_\_\_\_ By: \_\_\_\_\_ Description: \_\_\_\_\_

GENERAL NOTES

- 1. CEILING MOUNTED LIGHT FIXTURES ARE MOUNTED AT 102" AFF.
- 2. WALL MOUNTED LIGHT FIXTURES IN BATHROOMS ARE COORDINATED TO BE MOUNTED ABOVE THE WALL MIRROR.

AIR FORCE CENTER FOR ENGINEERING AND THE ENVIRONMENT (AFCEE) FACILITIES DYNAMIC PROTOTYPES DESIGN FOR DORMITORIES

Scales: 1/4" = 1'-0"

Jacobs Project No.: FDWD1301

Drawing Title:

LIGHTING PLANS/AXON

Date: May 11, 2009

Designed By: Designer

Drawn By: SBW

Checked By: Checker

Drawing No.:

EL102

D  
C  
B  
A

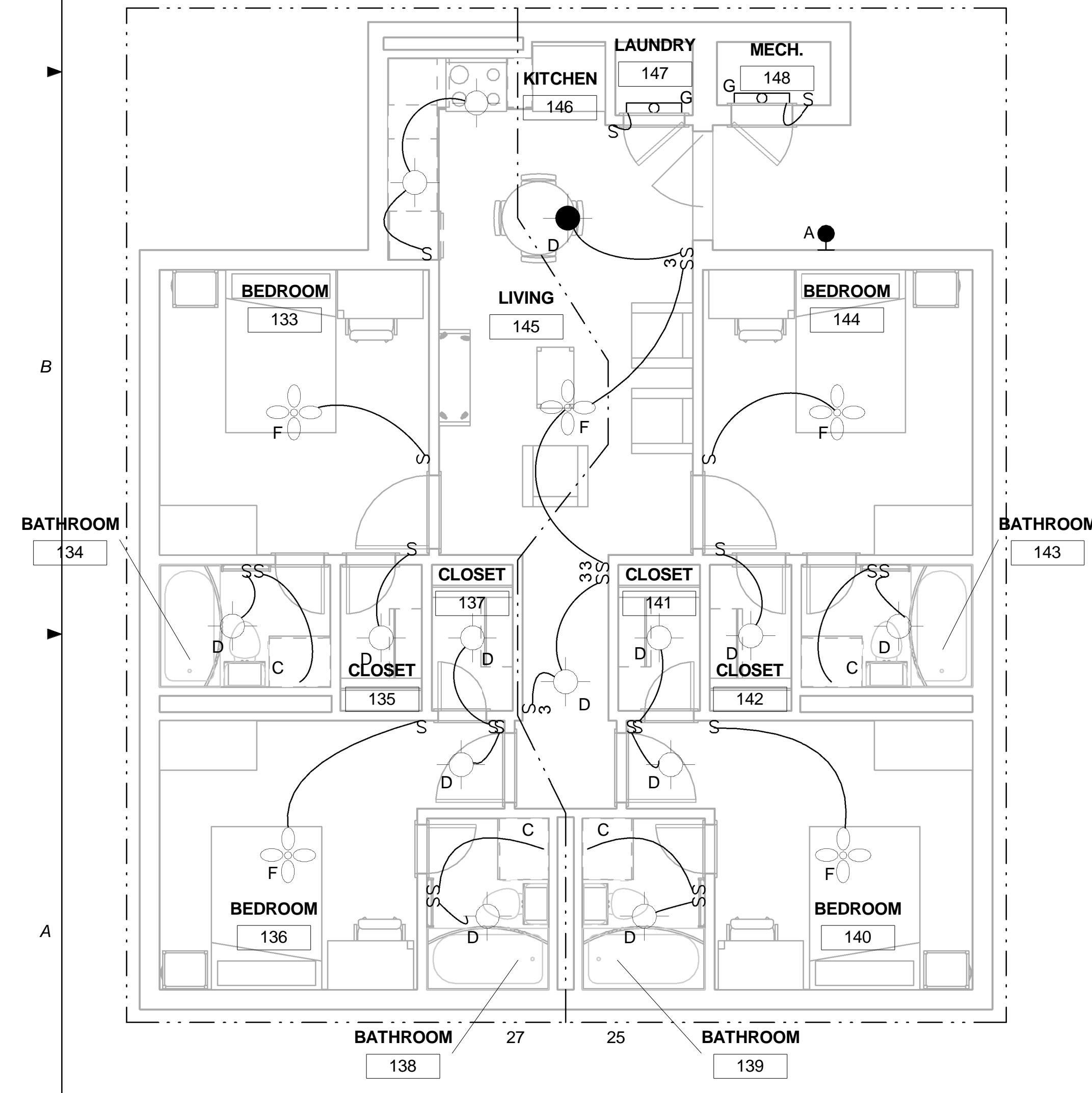
1

2

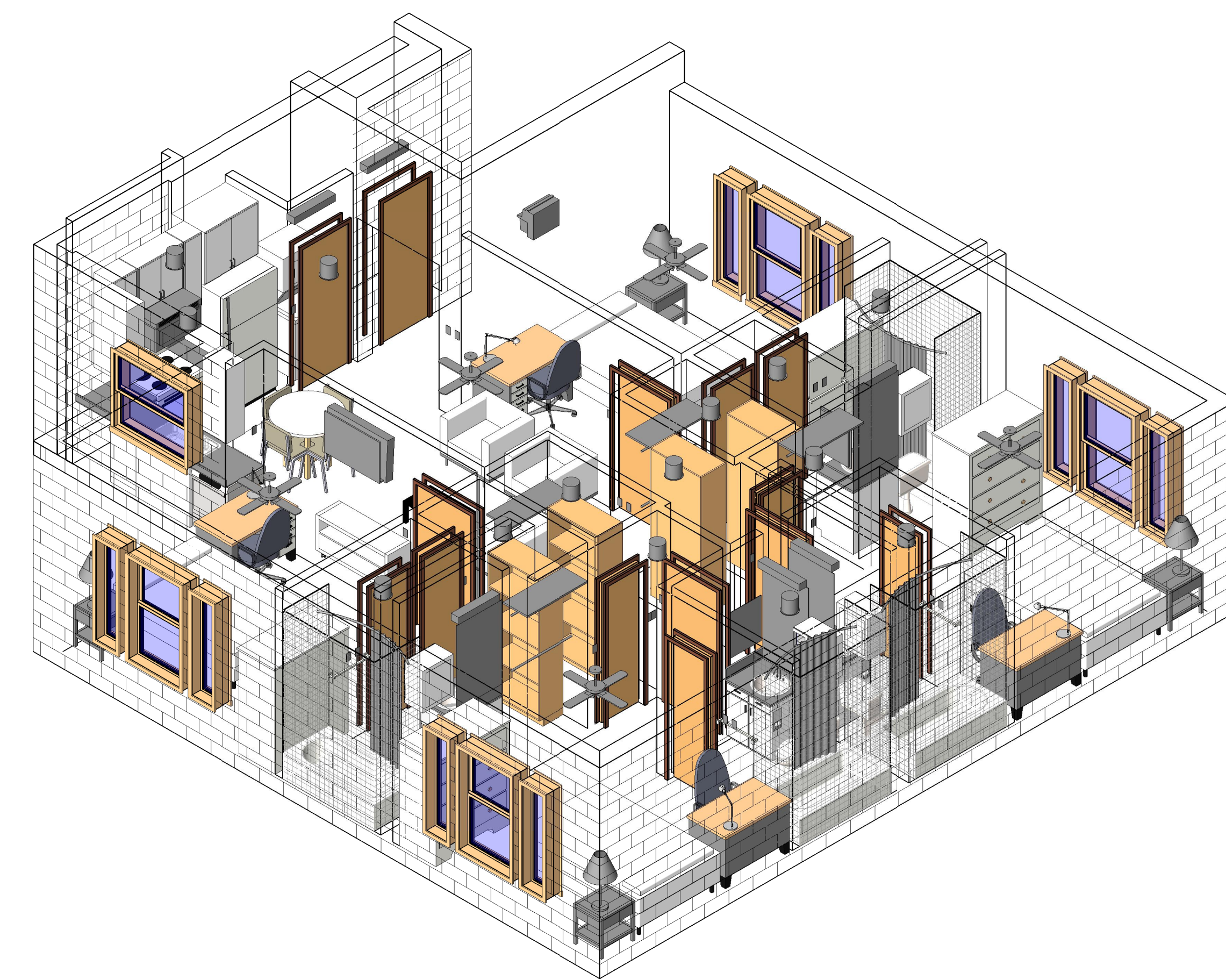
3

4

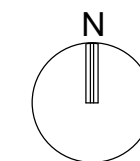
5



A1 PLAN C LIGHTING PLAN  
1/4" = 1'-0"



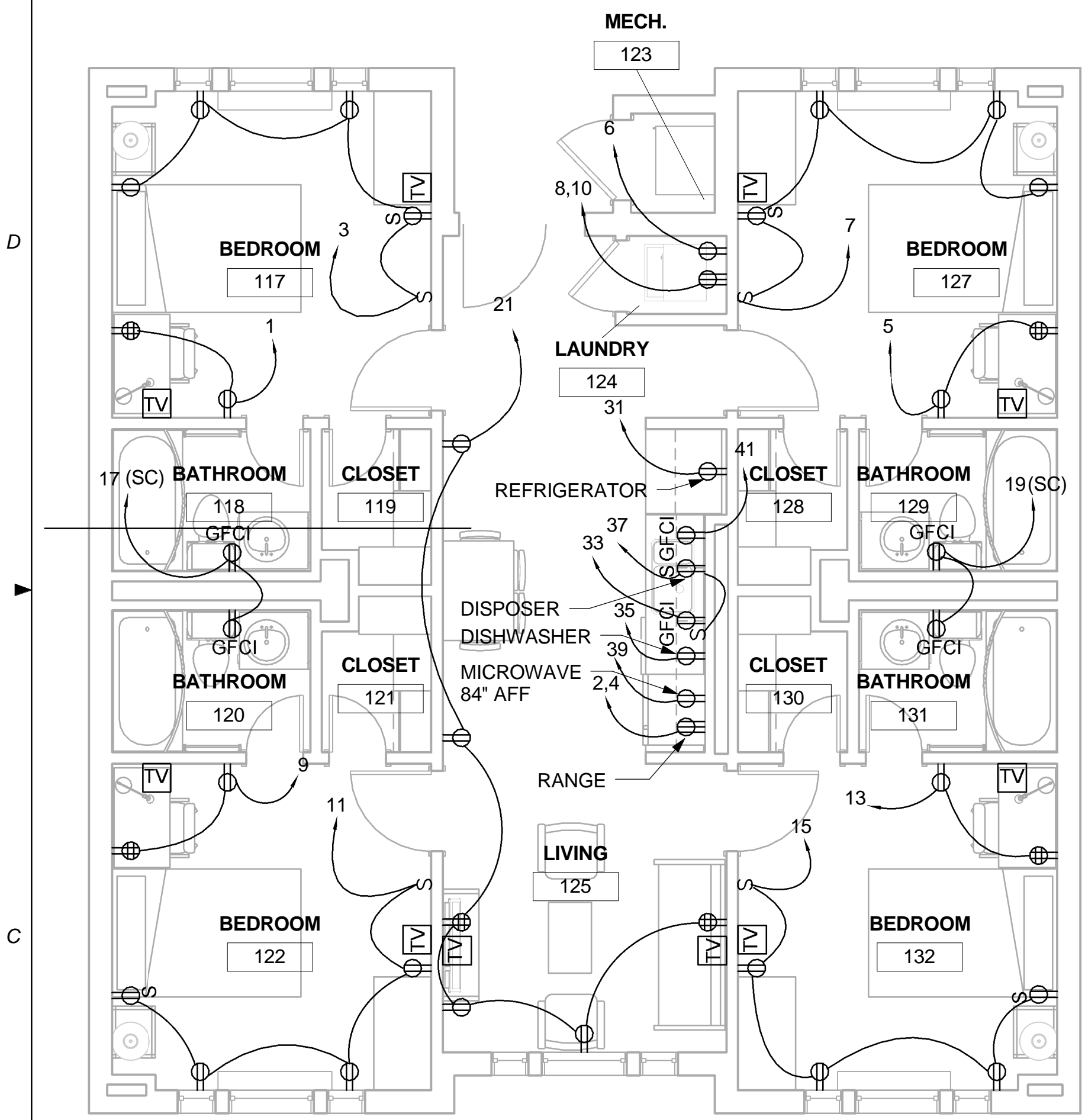
A3 PLAN C LIGHTING AXON



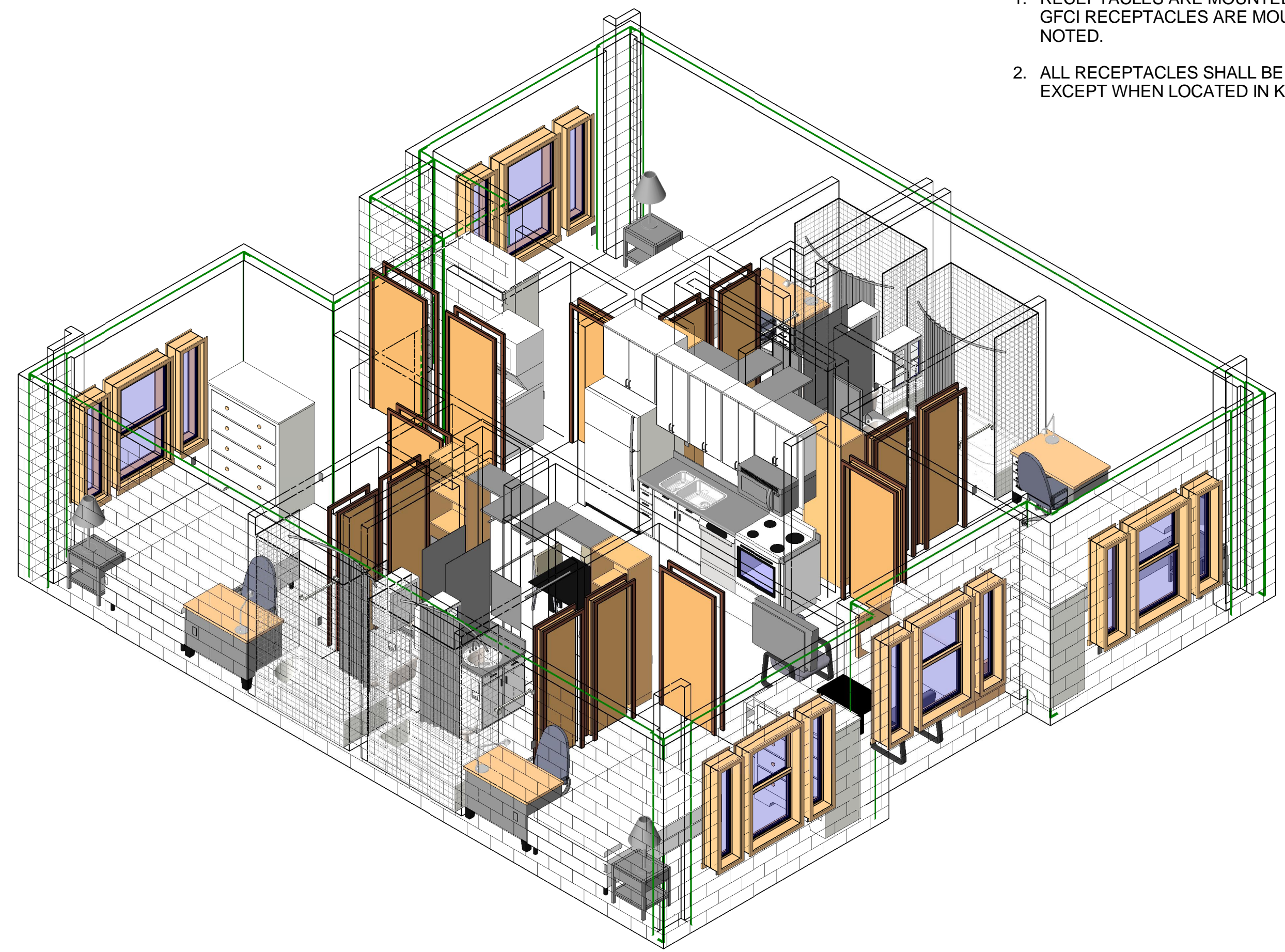
**AIR FORCE CENTER FOR ENGINEERING AND THE ENVIRONMENT (AFCEE) FACILITIES DYNAMIC PROTOTYPES DESIGN FOR DORMITORIES**

**GENERAL NOTES**

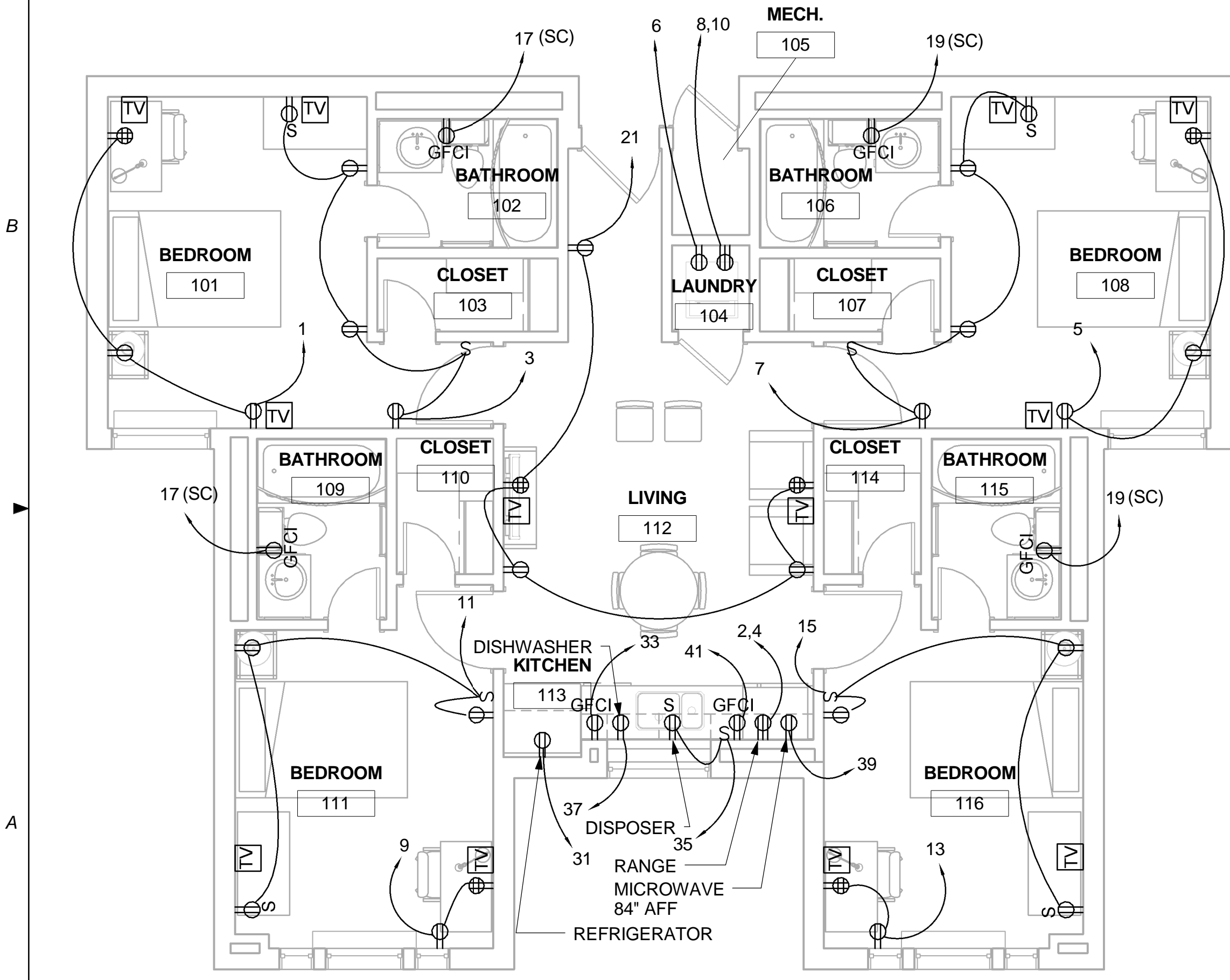
1. RECEPTACLES ARE MOUNTED AT 18" AFF UNLESS OTHERWISE NOTED. GFCI RECEPTACLES ARE MOUNTED AT 48" AFF UNLESS OTHERWISE NOTED.
2. ALL RECEPTACLES SHALL BE ARC-FAULT CIRCUIT INTERRUPTER TYPE EXCEPT WHEN LOCATED IN KITCHENS, BATHROOMS, AND OUTDOORS.



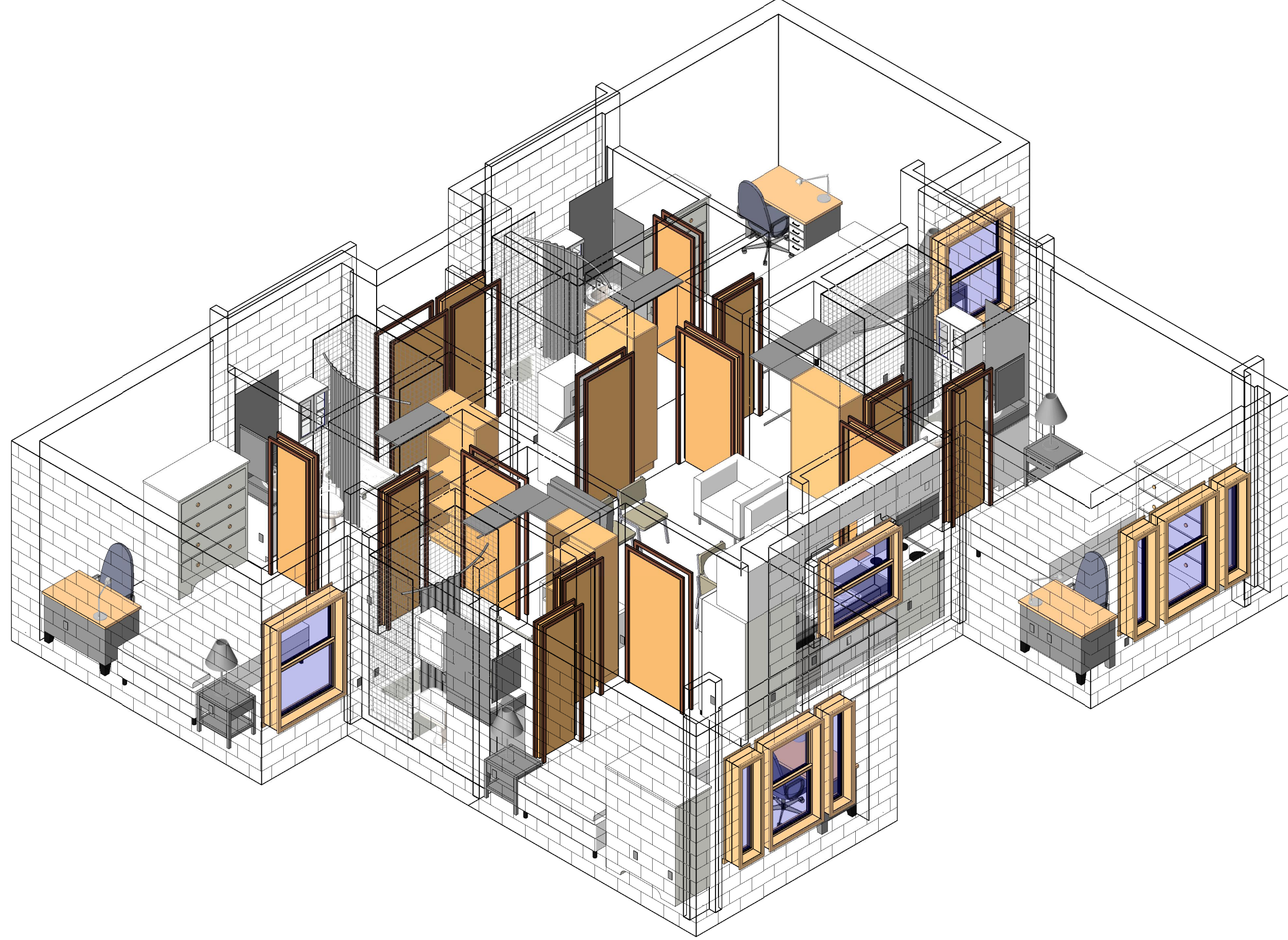
**C1 PLAN B POWER PLAN**  
1/4" = 1'-0"



**C3 PLAN B POWER AXON**



**A1 PLAN A POWER PLAN**  
1/4" = 1'-0"



**A3 PLAN A POWER AXON**

Scales: 1/4" = 1'-0"

Jacobs Project No.: FDWD1301

Drawing Title:

**POWER PLANS/AXON**

Date: May 11, 2009

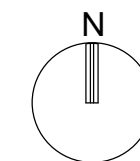
Designed By: Designer

Drawn By: SBW

Checked By: Checker

Drawing No.:

**EP101**





1 2 3 4 5

**NOT FOR  
CONSTRUCTION**

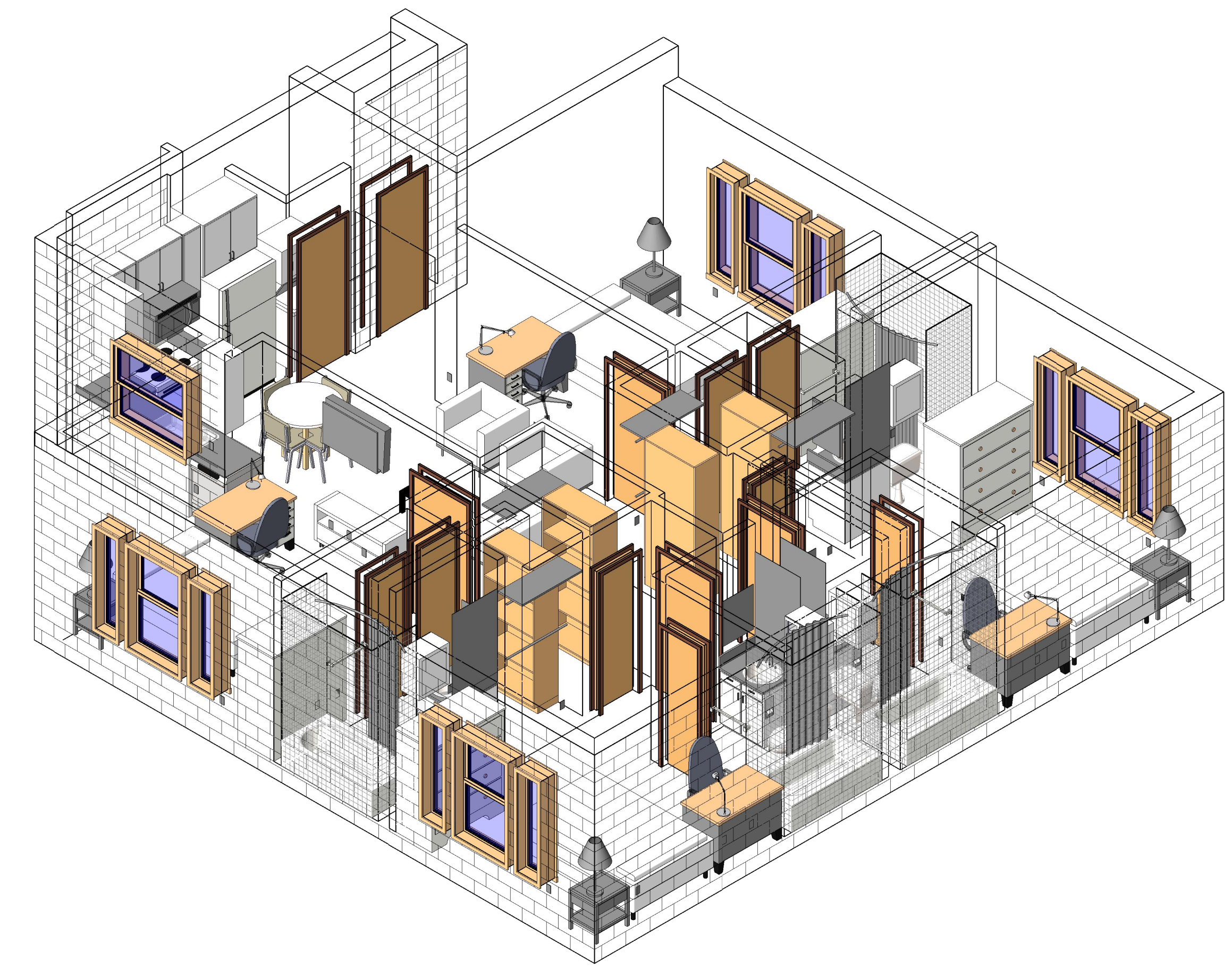
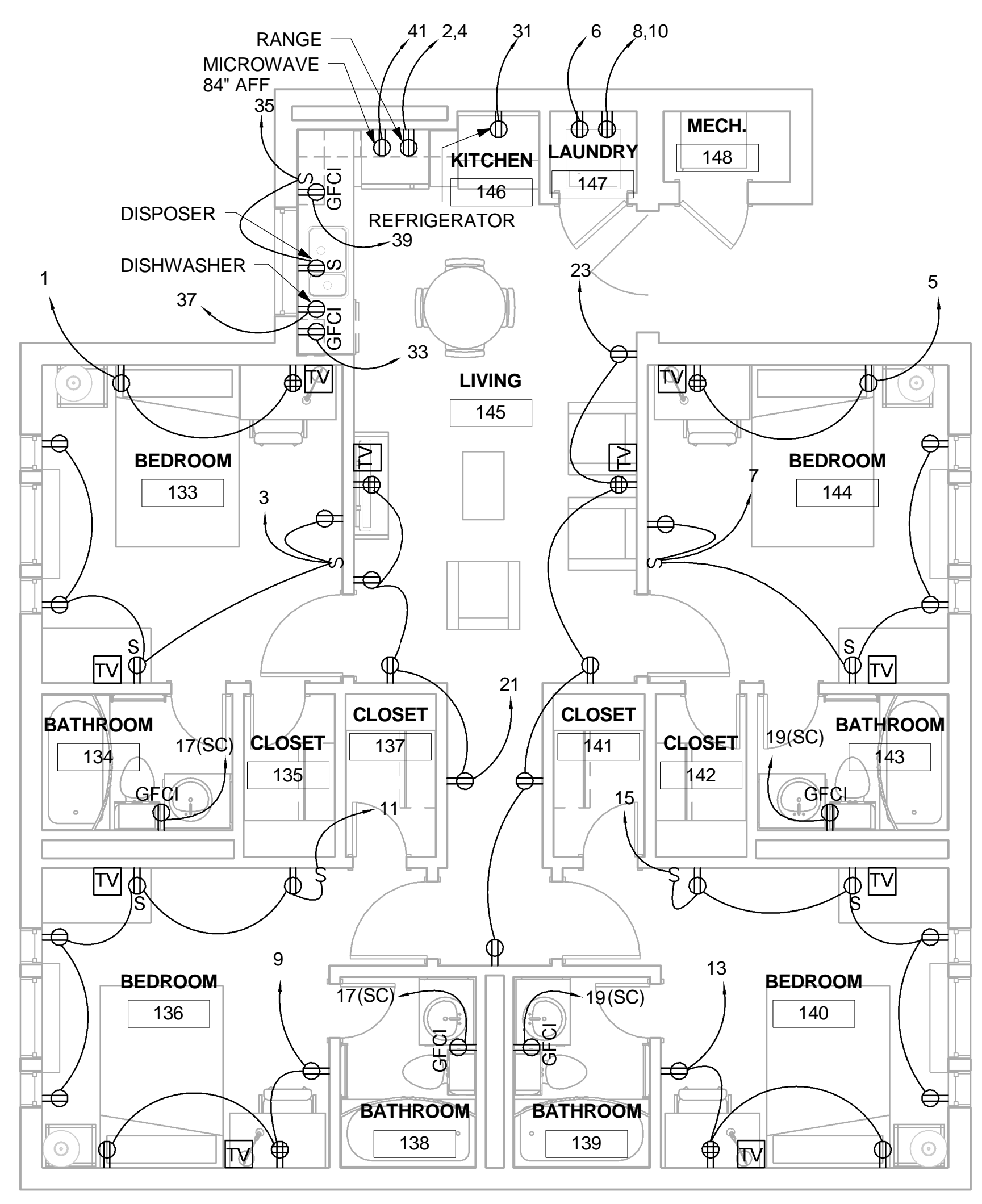
911 Central Parkway N., Suite 425 San Antonio, TX 78223  
501 North Broadway, St. Louis, Missouri 63102-2121

Revision:  
Date: By: Description:

**GENERAL NOTES**

1. RECEPTACLES ARE MOUNTED AT 18" AFF UNLESS OTHERWISE NOTED. GFCI RECEPTACLES ARE MOUNTED AT 48" AFF UNLESS OTHERWISE NOTED.
2. ALL RECEPTACLES SHALL BE ARC-FAULT CIRCUIT INTERRUPTER TYPE EXCEPT WHEN LOCATED IN KITCHENS, BATHROOMS, AND OUTDOORS.

D  
C  
B  
A



A1 PLAN C POWER PLAN  
1/4" = 1'-0"

1 PLAN C POWER AXON

**AIR FORCE CENTER FOR ENGINEERING AND THE  
ENVIRONMENT (AFCEE)  
FACILITIES DYNAMIC PROTOTYPES DESIGN FOR  
DORMITORIES**

Scales: 1/4" = 1'-0"

Jacobs Project No.: FDWD1301

Drawing Title:

**POWER  
PLANS/AXON**

Date: May 11, 2009

Designed By: Designer

Drawn By: SBW

Checked By: Checker

Drawing No.:

**EP102**

