

### LIGHTING LEGEND

☐ RECESSED 2x4 FLUORESCENT FIXTURE	Ⓢ SINGLE POLE SWITCH
☐ RECESSED 2x2 FLUORESCENT FIXTURE	Ⓣ 2-POLE SWITCH
▣ INDICATES NIGHTLIGHT FIXTURE	Ⓝ 3-WAY SWITCH
▣ INDICATES EMERGENCY FIXTURE	Ⓞ 4-WAY SWITCH
▣ INDICATES EMERGENCY/NIGHTLIGHT FIXTURE	Ⓢ SWITCH W/PILOT LIGHT
☐ SURFACE MOUNT 1x4 FLUORESCENT FIXTURE	Ⓢ WALL MOUNTED SINGLE LEVEL OCCUPANCY SENSOR
☐ HIGH BAY 2x4 FLUORESCENT FIXTURE	Ⓢ WALL MOUNTED DUAL LEVEL OCCUPANCY SENSOR
☐ SURFACE WALL MOUNTED FLUORESCENT FIXTURE	Ⓢ CEILING MOUNTED OCCUPANCY SENSOR
☐ SURFACE CEILING MOUNT FLUORESCENT FIXTURE	NL INDICATES FIXTURE TO REMAIN ON FOR SECURITY PURPOSES
○ RECESSED DOWNLIGHT	A,B INDICATES LIGHT FIXTURE SWITCH-LEGS
○ SURFACE WALL MOUNTED FIXTURE	P-X INDICATES PANEL AND CIRCUIT NUMBER
○ SURFACE MOUNTED FIXTURE	① INDICATES LIGHT FIXTURE TYPE
○ SURFACE MOUNTED PENDANT FIXTURE	EX INDICATES EXISTING FIXTURE
☐ OUTSIDE POLE-MOUNT LIGHT FIXTURE	RL INDICATES RELOCATED FIXTURE
○ EXTERIOR GROUND MOUNTED LIGHT FIXTURE	TC INDICATES FIXTURE CONTROLLED BY TIMECLOCK
☐ EMERGENCY LIGHTING FIXTURE	EM INDICATES EMERGENCY FIXTURE
☐ LED EXIT SIGN-SHADED AREA INDICATES ILLUMINATED FACE	
☐ LED EXIT/EMERGENCY SIGN-SHADED AREA INDICATES ILLUMINATED FACE	
☐ EXTERIOR EMERGENCY EGRESS LIGHT	

### POWER & COMMUNICATION LEGEND

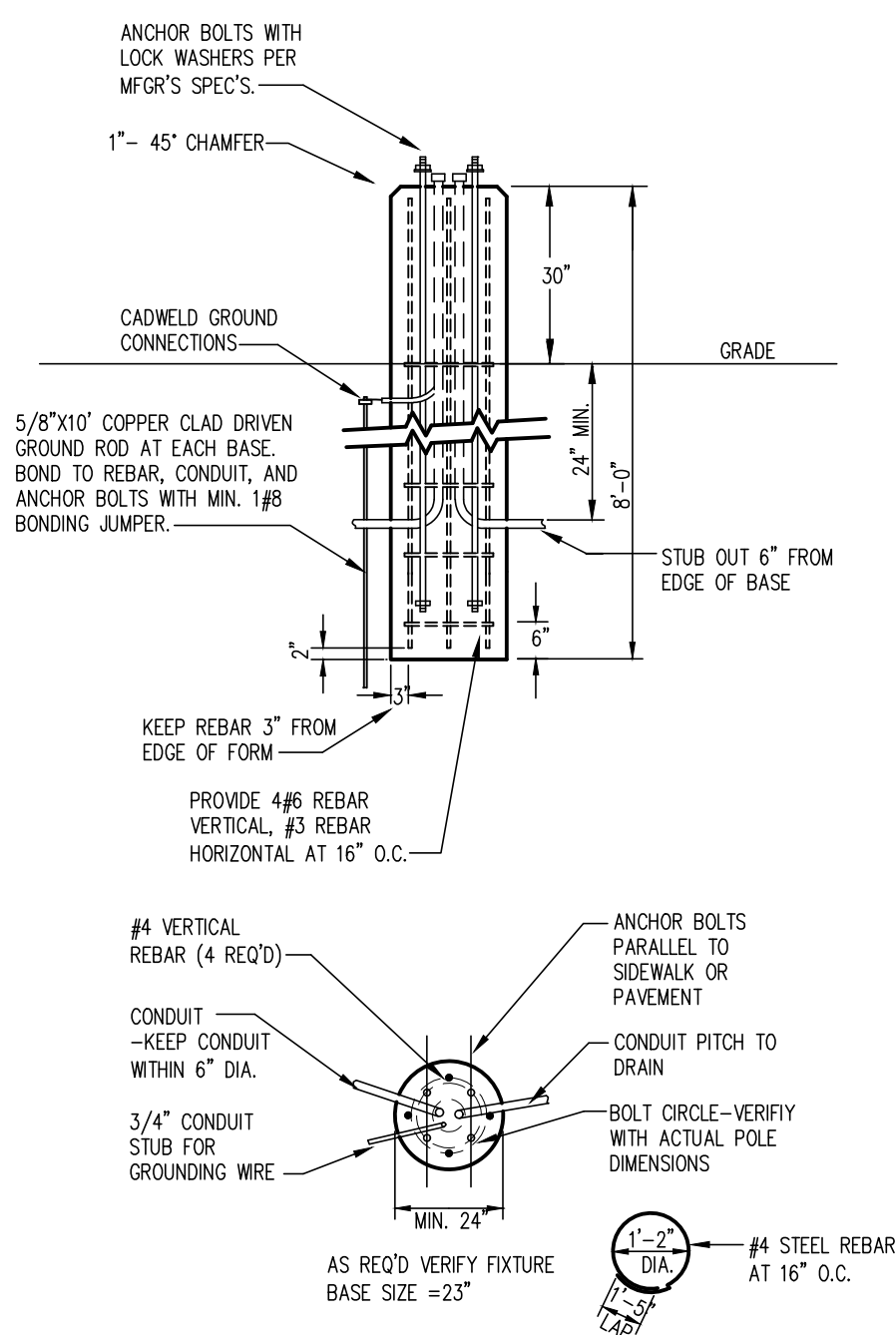
Ⓢ 120V DUPLEX OUTLET	Ⓢ MOTOR CONNECTION
Ⓢ 120V QUAD OUTLET	☐ ELECTRICAL DISCONNECT
Ⓢ 240 VOLT RECEPTACLE	☐ ELECTRICAL STARTER DISCONNECT
▽ DATA/COMMUNICATIONS OUTLET	☐ ELECTRICAL CONNECTION W/NON-FUSED DISCONNECT
▽ TELEPHONE OUTLET	☐ ELECTRICAL CONNECTION W/FUSED DISCONNECT
▽ TELEVISION OUTLET	☐ ELECTRICAL CONNECTION W/WEATHER PROOF DISCONNECTS
▽ DATA/TV COMBO OUTLET	☐ ELECTRICAL CONNECTION W/20A SWITCH FUSE
▽ TELE/TV OUTLET	☐ PANELBOARD
☐ FLOOR OUTLET	Ⓢ THERMOSTAT MOUNTED AT 48" A.F.F.
☐ JUNCTION BOX	Ⓢ SMOKE/CO ALARM
☐ PUSHBUTTON STATION	Ⓢ SMOKE ALARM
Ⓢ SPEAKER	
Ⓢ TIME CLOCK	
Ⓢ NURSE CALL PULL STATION	

### SITE NOTES

- THE CONTRACTOR SHALL PROVIDE ALL LABOR, MATERIALS AND EQUIPMENT NECESSARY FOR A COMPLETE AND FUNCTIONAL ELECTRICAL SYSTEM.
- MATERIALS AND INSTALLATION SHALL COMPLY WITH CODES, UTILITY REQUIREMENTS, LAWS AND ORDINANCES OF FEDERAL, STATE, OSHA AND LOCAL GOVERNING BODIES HAVING JURISDICTION.
- THE CONTRACTOR SHALL COMPLY WITH ALL CODES AND STANDARDS APPLICABLE TO THIS PROJECT THAT ARE LISTED BUT NOT LIMITED TO: NEC, NFPA, NEMA, ANSI, IES, IEEE, NFPA LIFE SAFETY 101, ASHRAE 90.1, IECC ENERGY CODE AND IBC BUILDING CODE.
- PRIOR TO ANY DIGGING, TRENCHING, ETC. CONTACT ALL LOCAL UTILITY COMPANIES AND MUNICIPALITIES AND CONFIRM EXACT LOCATIONS OF ALL EXISTING UTILITIES.
- MATERIALS AND EQUIPMENT SHALL BE LISTED AND/OR LABELED BY UL OR ANOTHER NATIONALLY RECOGNIZED TESTING LABORATORY.
- ALL MATERIAL, EQUIPMENT, WIRING DEVICES, ETC SHALL BE NEW, UNLESS SPECIFICALLY NOTED AS EXISTING TO BE REUSED.
- ALL MATERIALS AND EQUIPMENT SHALL BE STORED, HANDLED, ERECTED, INSTALLED, CONNECTED, CLEANED, ADJUSTED, TESTED, CONDITIONED AND PLACED IN SERVICE IN ACCORDANCE WITH THE MANUFACTURERS DIRECTIONS AND RECOMMENDATIONS.
- COORDINATE THE UTILITY COMPANY SERVICE FEEDS AND INSTALLATION.
- ALL POLE FIXTURES TO BE LOCATED 4' AWAY FROM EDGE OF CURB.
- ALL EXTERIOR LIGHT FIXTURES TO BE CONNECTED TO A COMMON EQUIPMENT GROUND. USE #8, TYPE THWN.
- ALL CIRCUIT TO BE PLACED IN 1" CONDUITS UNLESS OTHERWISE NOTED. CIRCUIT TO USE COPPER WIRE, TYPE THWN.
- THE CONTROLLING LIGHTING CONTACTORS SHALL BE MOUNTED INSIDE THE BUILDING WITH TIME-CLOCK CONTROL & REMOTE PHOTOCELLS LOCATED ON THE EXTERIOR SIDE OF THE BUILDING WALL. INSTALL PHOTOCELLS AT LOCATIONS WHERE BUILDING OR OTHER OBSTRUCTIONS WILL NOT INTERFERE WITH THEIR PROPER OPERATION. FINAL BRANCH CIRCUIT SUPPLY CONNECTIONS WILL BE PROVIDED BY THE BUILDING ELECTRICAL CONTRACTORS.
- MIN. BURIAL DEPTH FOR THE LIGHTING CIRCUIT SHALL BE 24". A SLIGHT DECREASE IN DEPTH IS ALLOWED WITHIN 10' OF THE POLES.
- VERIFY CONSTRUCTION AREAS ON OTHER SITE PLANS FOR POTENTIAL OBSTACLES AND CONSTRUCTION LIMITS.

### ELECTRIC GENERAL NOTES

- ALL WORK SHALL BE COMPLETED IN ACCORDANCE WITH NATIONAL, STATE AND LOCAL ELECTRICAL CODES.
- ENERGY CODE WILL BE IN ACCORDANCE WITH ASHRAE 90.1 2010.
- COORDINATE WORK WITH ALL OTHER TRADES.
- EQUIPMENT SHALL BE INSTALLED IN ACCORDANCE WITH MANUFACTURER'S RECOMMENDATIONS.
- ALL WIRING SHALL BE INSTALLED IN APPROVED RACEWAYS.
- ALL EQUIPMENT GROUNDING CONDUCTORS SHALL BE INSTALLED AT ALL LOCATIONS.
- ALL MEASUREMENTS TO TOP OF BOX. RECEPTACLES SHALL BE 20" A.F.F. SWITCHES SHALL BE 48" A.F.F.
- GFI PROTECT ALL RECEPTACLES WITHIN 6' OF EVERY SINK.



NOTE:  
 1.) USE MFR'S DIMENSIONS FOR EXACT ANCHOR BOLT AND COVER PLACEMENT.  
 2.) INSTALL INLINE FUSES IN EACH UNGROUNDED CONDUCTOR WITHIN POLE BASE HAND HOLE.  
 3.) TROWEL FINISH EXPOSED PORTION OF BASE TO REMOVE/COVER FORM MARKS.

2 POLE BASE DETAIL  
 E1.1 NOT TO SCALE

1 ELECTRICAL SITE PLAN  
 E1.1 SCALE: 1" = 30'-0"  
 0 15' 30' 60'

DATE:	
NAME:	
REVISION DESCRIPTION:	

DRAWN BY: DJK	CHECKED BY: TJA	DATE: 4/5/19	DWG FILE:	REF FILE:	JOB NUMBER: 508-218-19
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**A.C/a**  
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**PRELIMINARY SET**

PROJECT:  
**PROPOSED PROJECT FOR:  
 PARK PLACE APARTMENTS**

RED WING, MN  
**ELECTRICAL SITE PLAN**

SHEET NO. **E1.1**

### LIGHTING LEGEND

	RECESSED 2x4 FLUORESCENT FIXTURE		SINGLE POLE SWITCH
	RECESSED 2x2 FLUORESCENT FIXTURE		2-POLE SWITCH
	INDICATES NIGHTLIGHT FIXTURE		3-WAY SWITCH
	INDICATES EMERGENCY FIXTURE		4-WAY SWITCH
	INDICATES EMERGENCY/NIGHTLIGHT FIXTURE		SWITCH W/PILOT LIGHT
	SURFACE MOUNT 1x4 FLUORESCENT FIXTURE		WALL MOUNTED SINGLE LEVEL OCCUPANCY SENSOR
	HIGH BAY 2x4 FLUORESCENT FIXTURE		WALL MOUNTED DUAL LEVEL OCCUPANCY SENSOR
	SURFACE WALL MOUNTED FLUORESCENT FIXTURE		CEILING MOUNTED OCCUPANCY SENSOR
	SURFACE CEILING MOUNT FLUORESCENT FIXTURE	NL	INDICATES FIXTURE TO REMAIN ON FOR SECURITY PURPOSES
	RECESSED DOWNLIGHT	A,B	INDICATES LIGHT FIXTURE SWITCH-LEGS
	SURFACE WALL MOUNTED FIXTURE	P-X	INDICATES PANEL AND CIRCUIT NUMBER
	SURFACE MOUNTED FIXTURE	(1)	INDICATES LIGHT FIXTURE TYPE
	SURFACE MOUNTED PENDANT FIXTURE	EX	INDICATES EXISTING FIXTURE
	OUTSIDE POLE-MOUNT LIGHT FIXTURE	RL	INDICATES RELOCATED FIXTURE
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	EMERGENCY LIGHTING FIXTURE	EM	INDICATES EMERGENCY FIXTURE
	LED EXIT SIGN-SHADED AREA INDICATES ILLUMINATED FACE		
	LED EXIT/EMERGENCY SIGN-SHADED AREA INDICATES ILLUMINATED FACE		
	EXTERIOR EMERGENCY EGRESS LIGHT		

### SITE NOTES

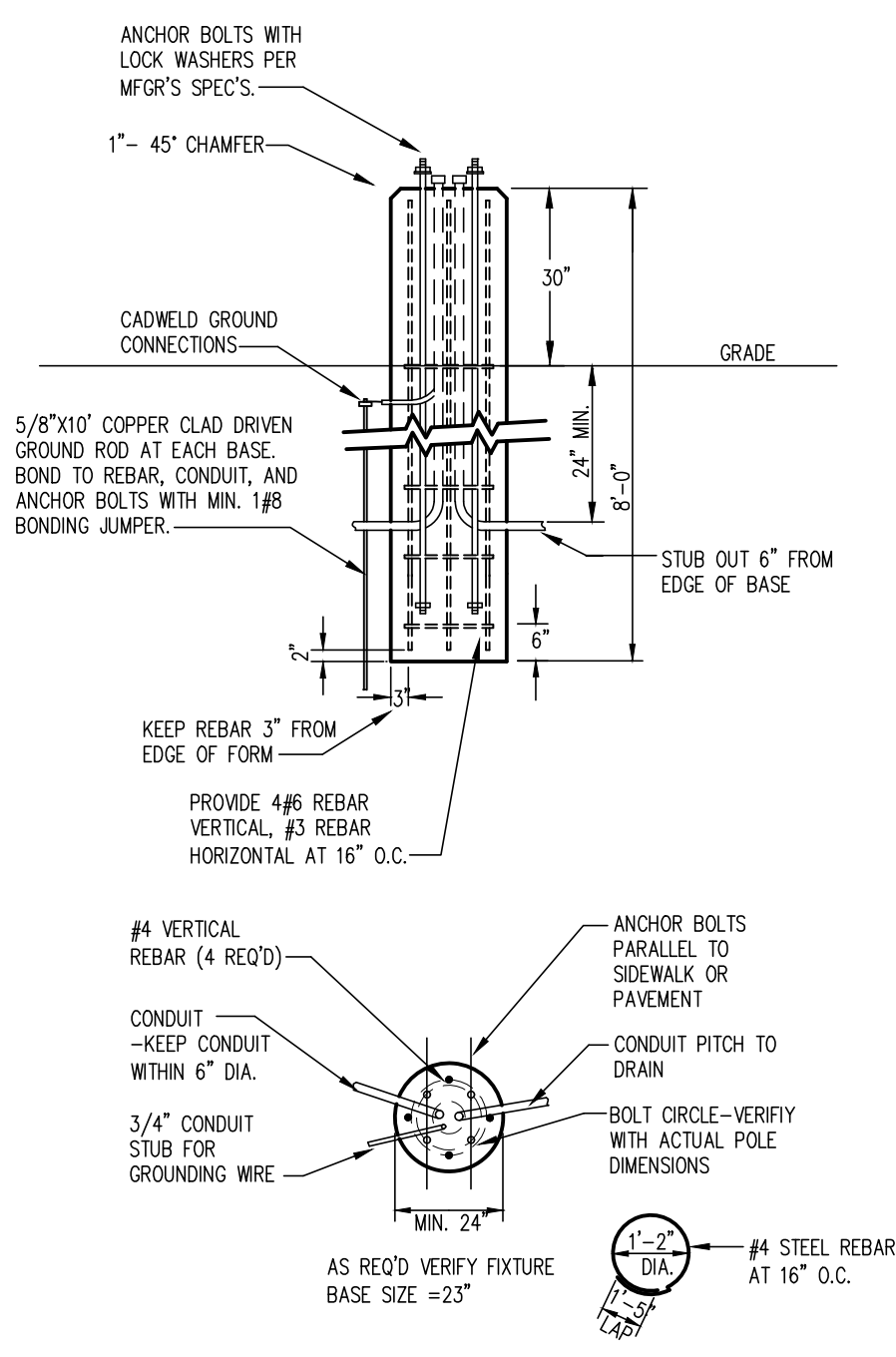
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- GFI PROTECT ALL RECEPTACLES WITHIN 6' OF EVERY SINK.

### POWER & COMMUNICATION LEGEND

	120V DUPLEX OUTLET		MOTOR CONNECTION
	120V QUAD OUTLET		ELECTRICAL DISCONNECT
	240 VOLT RECEPTACLE		ELECTRICAL STARTER DISCONNECT
	DATA/COMMUNICATIONS OUTLET		ELECTRICAL CONNECTION W/NON-FUSED DISCONNECT
	TELEPHONE OUTLET		ELECTRICAL CONNECTION W/FUSED DISCONNECT
	TELEVISION OUTLET		ELECTRICAL CONNECTION W/WEATHER PROOF DISCONNECTS
	DATA/TV COMBO OUTLET		ELECTRICAL CONNECTION W/20A SWITCH FUSE
	TELE/TV OUTLET		PANELBOARD
	FLOOR OUTLET		THERMOSTAT MOUNTED AT 48" A.F.F.
	JUNCTION BOX		SMOKE/CO ALARM
	PUSHBUTTON STATION		SMOKE ALARM
	SPEAKER		
	TIME CLOCK		
	NURSE CALL PULL STATION		



NOTE:  
 1.) USE MFR'S DIMENSIONS FOR EXACT ANCHOR BOLT AND COVER PLACEMENT.  
 2.) INSTALL INLINE FUSES IN EACH UNGROUNDED CONDUCTOR WITHIN POLE BASE HAND HOLE.  
 3.) TROWEL FINISH EXPOSED PORTION OF BASE TO REMOVE/COVER FORM MARKS.

**2 POLE BASE DETAIL**  
 E1.1 NOT TO SCALE



**1 ELECTRICAL SITE PLAN**  
 E1.1 SCALE: 1" = 30'-0"

DATE:	
NAME:	
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JOB NUMBER: 508-218-19	
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**PRELIMINARY SET**

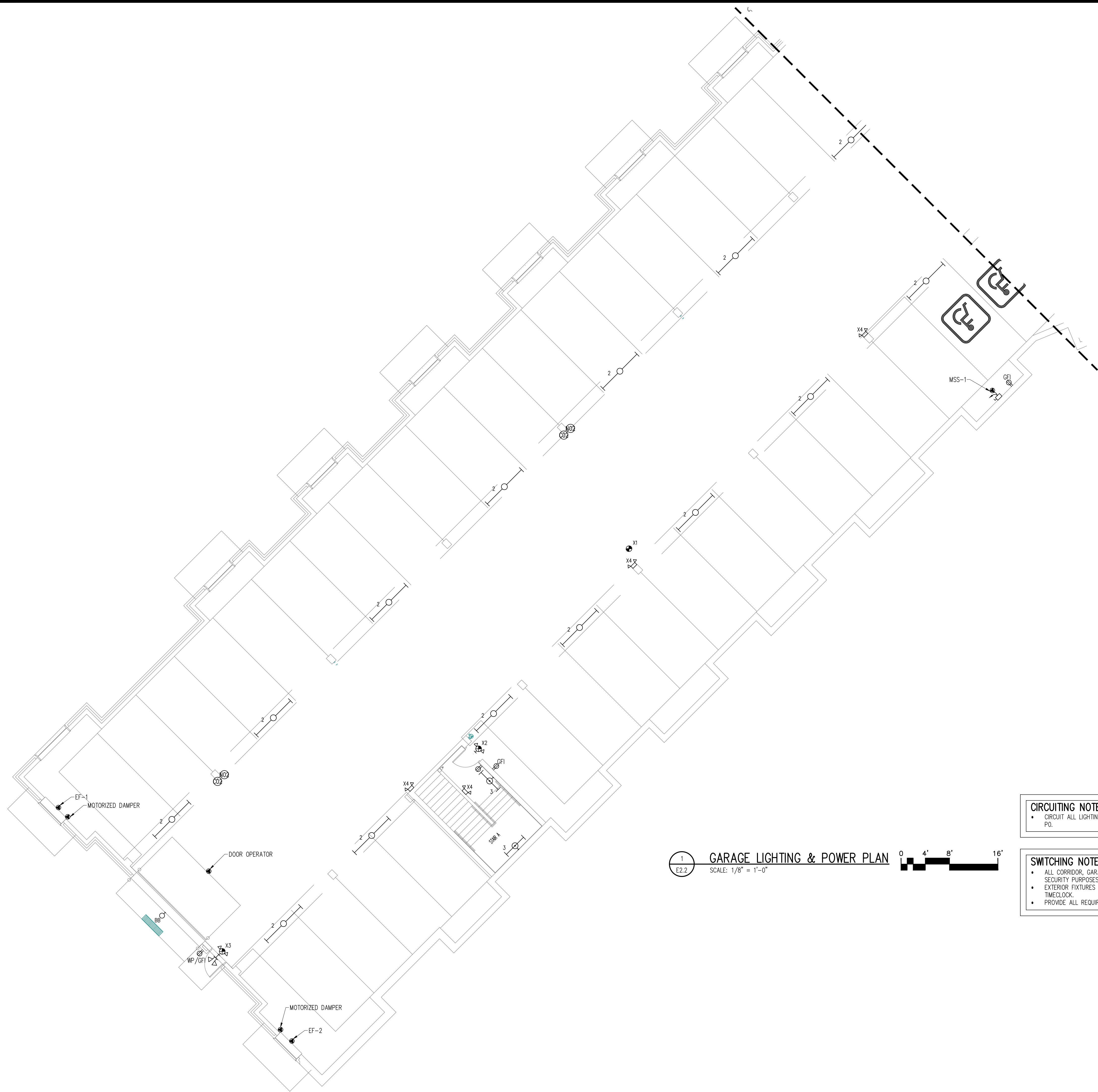
PROJECT:  
**PROPOSED PROJECT FOR:  
 PARK PLACE APARTMENTS**

RED WING, MN

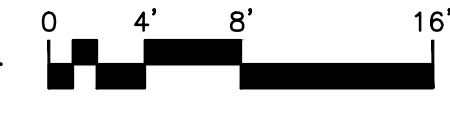
**ELECTRICAL SITE PLAN**

SHEET NO. **E1.1**





**1**  
E2.2 **GARAGE LIGHTING & POWER PLAN**  
SCALE: 1/8" = 1'-0"



**CIRCUITING NOTES:**

- CIRCUIT ALL LIGHTING, POWER AND MECHANICAL EQUIPMENT TO PANEL P0.

**SWITCHING NOTES:**

- ALL CORRIDOR, GARAGE AND STAIRWELL FIXTURES ARE ON 24/7 FOR SECURITY PURPOSES.
- EXTERIOR FIXTURES SHALL BE CONTROLLED BY PHOTOCELL AND TIMECLOCK.
- PROVIDE ALL REQUIRED LIGHTING CONTROLS

**PRELIMINARY SET**

PROJECT:  
**PROPOSED PROJECT FOR:  
PARK PLACE APARTMENTS**  
RED WING, MN  
GARAGE LIGHTING & POWER PLAN

SHEET NO.  
**E2.2**

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DATE: 4/5/19			
DWG FILE:			
REF FILE:			
JOB NUMBER: 508-218-19			



1  
E2.3 FIRST FLOOR LIGHTING & POWER PLAN  
SCALE: 1/8" = 1'-0"

**CIRCUITING NOTES:**

- CIRCUT ALL LIGHTING, POWER AND MECHANICAL EQUIPMENT TO PANEL P1.
- CIRCUT ALL UNIT PANELS ON THIS FLOOR TO METERBANK #1.

**SWITCHING NOTES:**

- ALL CORRIDOR AND STAIRWELL FIXTURES ARE ON 24/7 FOR SECURITY PURPOSES.
- EXTERIOR FIXTURES SHALL BE CONTROLLED BY PHOTOCELL AND TIMECLOCK.
- PROVIDE ALL REQUIRED LIGHTING CONTROLS

**PRELIMINARY SET**

PROJECT:  
**PROPOSED PROJECT FOR:  
PARK PLACE APARTMENTS**  
RED WING, MN

SHEET NO.  
**E2.3**

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**FIRST FLOOR LIGHTING & POWER PLAN**

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1  
E2.4 FIRST FLOOR LIGHTING & POWER PLAN  
SCALE: 1/8" = 1'-0"

**CIRCUITING NOTES:**

- CIRCUIT ALL LIGHTING, POWER AND MECHANICAL EQUIPMENT TO PANEL P1.
- CIRCUIT ALL UNIT PANELS ON THIS FLOOR TO METERBANK #1.

**SWITCHING NOTES:**

- ALL CORRIDOR AND STAIRWELL FIXTURES ARE ON 24/7 FOR SECURITY PURPOSES.
- EXTERIOR FIXTURES SHALL BE CONTROLLED BY PHOTOCELL AND TIMECLOCK.
- PROVIDE ALL REQUIRED LIGHTING CONTROLS

**PRELIMINARY SET**

PROJECT:  
**PROPOSED PROJECT FOR:  
PARK PLACE APARTMENTS  
RED WING, MN**

SHEET NO.  
**E2.4**

**FIRST FLOOR LIGHTING & POWER PLAN**



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JOB NUMBER: 508-218-119			



1 SECOND FLOOR LIGHTING & POWER PLAN  
 E2.5 SCALE: 1/8" = 1'-0"



**CIRCUITING NOTES:**

- CIRCUIT ALL LIGHTING, POWER AND MECHANICAL EQUIPMENT TO PANEL P2.
- CIRCUIT ALL UNIT PANELS ON THIS FLOOR TO METERBANK #1.

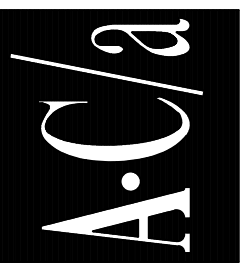
**SWITCHING NOTES:**

- ALL CORRIDOR AND STAIRWELL FIXTURES ARE ON 24/7 FOR SECURITY PURPOSES.
- PROVIDE ALL REQUIRED LIGHTING CONTROLS

PRELIMINARY SET

PROJECT:  
 PROPOSED PROJECT FOR:  
 PARK PLACE APARTMENTS  
 RED WING, MN

SHEET NO.  
 E2.5



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1 SECOND FLOOR LIGHTING & POWER PLAN  
 E2.6 SCALE: 1/8" = 1'-0" 0 4' 8' 16'

**CIRCUITING NOTES:**

- CIRCUIT ALL LIGHTING, POWER AND MECHANICAL EQUIPMENT TO PANEL P2.
- CIRCUIT ALL UNIT PANELS ON THIS FLOOR TO METERBANK #1.

**SWITCHING NOTES:**

- ALL CORRIDOR AND STAIRWELL FIXTURES ARE ON 24/7 FOR SECURITY PURPOSES.
- PROVIDE ALL REQUIRED LIGHTING CONTROLS

**PRELIMINARY SET**

PROJECT:  
**PROPOSED PROJECT FOR:  
 PARK PLACE APARTMENTS**  
 RED WING, MN

SHEET NO.  
**E2.6**

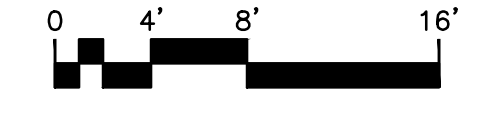
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1  
E2.7  
THIRD FLOOR LIGHTING & POWER PLAN  
SCALE: 1/8" = 1'-0"



**CIRCUITING NOTES:**

- CIRCUIT ALL LIGHTING, POWER AND MECHANICAL EQUIPMENT TO PANEL P2.
- CIRCUIT ALL UNIT PANELS ON THIS FLOOR TO METERBANK #2.

**SWITCHING NOTES:**

- ALL CORRIDOR AND STAIRWELL FIXTURES ARE ON 24/7 FOR SECURITY PURPOSES.
- PROVIDE ALL REQUIRED LIGHTING CONTROLS

**PRELIMINARY SET**

PROJECT:  
PROPOSED PROJECT FOR:  
PARK PLACE APARTMENTS  
RED WING, MN

SHEET NO.  
E2.7

THIRD FLOOR LIGHTING & POWER PLAN



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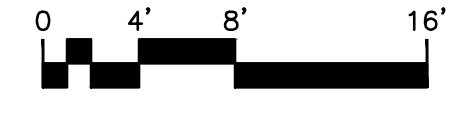
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1 THIRD FLOOR LIGHTING & POWER PLAN  
 E2.8 SCALE: 1/8" = 1'-0"



**CIRCUITING NOTES:**

- CIRCUIT ALL LIGHTING, POWER AND MECHANICAL EQUIPMENT TO PANEL P2.
- CIRCUIT ALL UNIT PANELS ON THIS FLOOR TO METERBANK #2.

**SWITCHING NOTES:**

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**PRELIMINARY SET**

PROJECT:  
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 PARK PLACE APARTMENTS**  
 RED WING, MN

SHEET NO.  
**E2.8**

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 Auth Consulting/associates

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 FAX: 320-656-0312

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CHECKED BY: TJA			
DATE: 4/5/19			
DWG FILE:			
REF FILE:			
JOB NUMBER: 508-218-19			



1 FOURTH FLOOR LIGHTING & POWER PLAN  
 SCALE: 1/8" = 1'-0"

**CIRCUITING NOTES:**

- CIRCUIT ALL LIGHTING, POWER AND MECHANICAL EQUIPMENT TO PANEL P2.
- CIRCUIT ALL UNIT PANELS ON THIS FLOOR TO METERBANK #3.

**SWITCHING NOTES:**

- ALL CORRIDOR AND STAIRWELL FIXTURES ARE ON 24/7 FOR SECURITY PURPOSES.
- PROVIDE ALL REQUIRED LIGHTING CONTROLS

**PRELIMINARY SET**

PROJECT: PROPOSED PROJECT FOR:  
 PARK PLACE APARTMENTS  
 RED WING, MN

SHEET NO. E2.9

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CHECKED BY: TJA			
DATE: 4/5/19			
DWG FILE:			
REF FILE:			
JOB NUMBER: 508-218-19			



1 FOURTH FLOOR LIGHTING & POWER PLAN  
 SCALE: 1/8" = 1'-0" 0 4' 8' 16'

**CIRCUITING NOTES:**

- CIRCUIT ALL LIGHTING, POWER AND MECHANICAL EQUIPMENT TO PANEL P2.
- CIRCUIT ALL UNIT PANELS ON THIS FLOOR TO METERBANK #3.

**SWITCHING NOTES:**

- ALL CORRIDOR AND STAIRWELL FIXTURES ARE ON 24/7 FOR SECURITY PURPOSES.
- PROVIDE ALL REQUIRED LIGHTING CONTROLS

**PRELIMINARY SET**

PROJECT:  
**PROPOSED PROJECT FOR:  
 PARK PLACE APARTMENTS**  
 RED WING, MN

SHEET NO.  
**E2.10**

**FOURTH FLOOR LIGHTING & POWER PLAN**



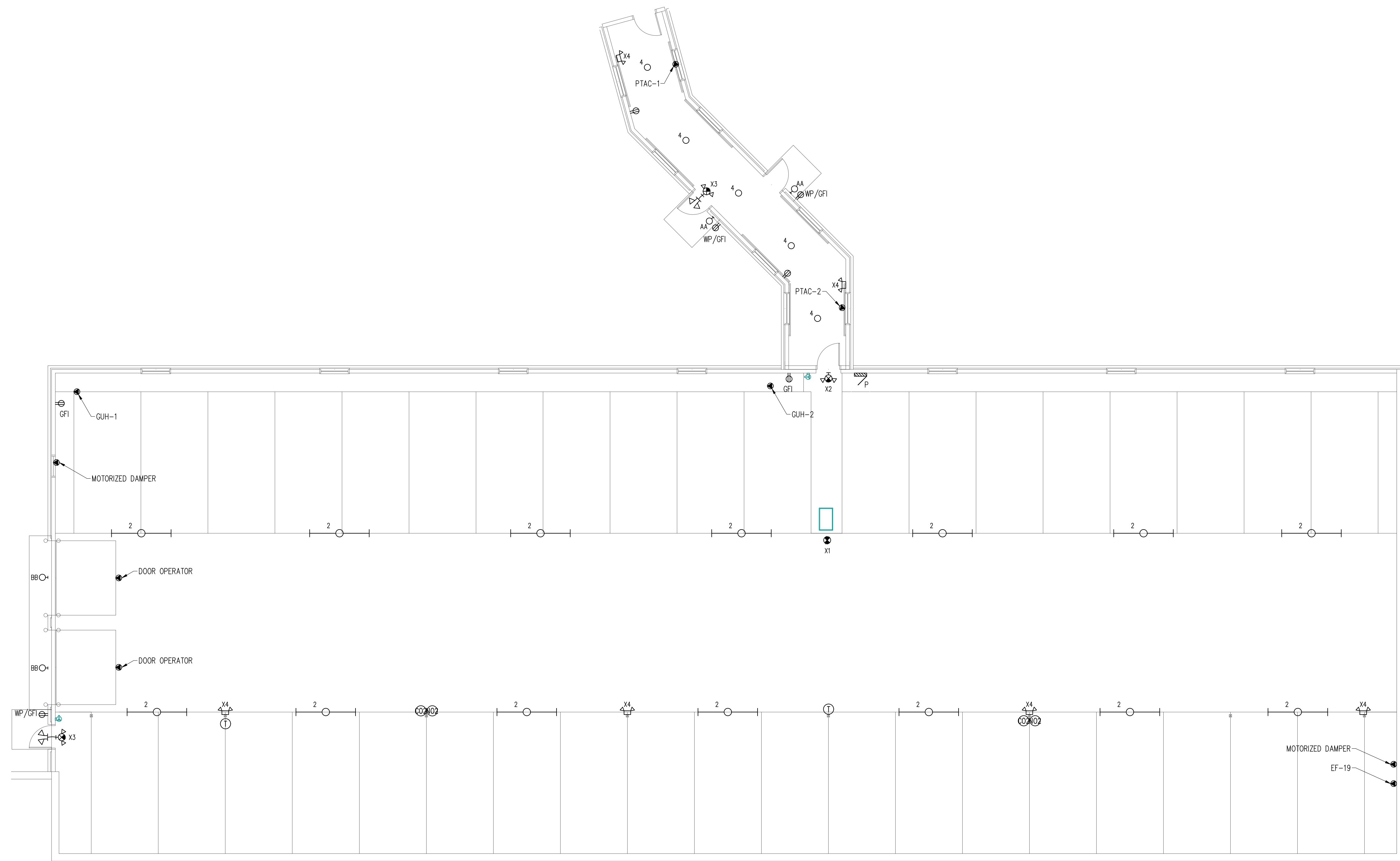
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DATE: 4/5/19			
DWG FILE:			
REF FILE:			
JOB NUMBER: 508-218-19			



1 GARAGE & LINK LIGHTING & POWER PLAN  
 SCALE: 1/8" = 1'-0"



**CIRCUITING NOTES:**

- CIRCUIT ALL LIGHTING, POWER AND MECHANICAL EQUIPMENT TO PANEL P.

**SWITCHING NOTES:**

- ALL CORRIDOR AND GARAGE FIXTURES ARE ON 24/7 FOR SECURITY PURPOSES.
- EXTERIOR FIXTURES SHALL BE CONTROLLED BY PHOTOCELL AND TIMECLOCK.
- PROVIDE ALL REQUIRED LIGHTING CONTROLS

**PRELIMINARY SET**

PROJECT:  
**PROPOSED PROJECT FOR:  
 PARK PLACE APARTMENTS**  
 RED WING, MN

SHEET NO.  
**E2.11**

**A.C/a**  
 AUTH CONSULTING/ASSOCIATES

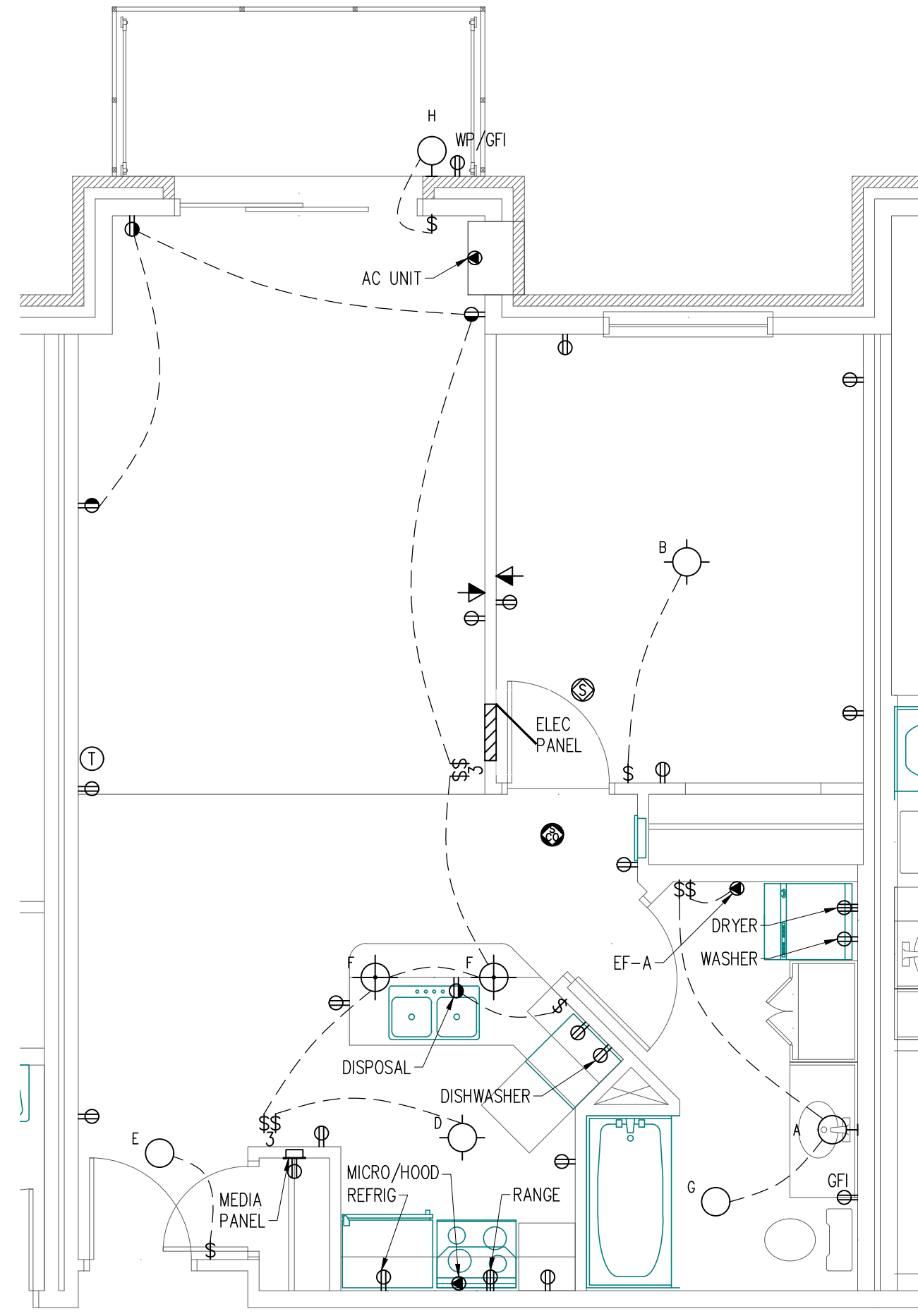
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 Fax: 715-265-4982

**BRANDE OFFICE**  
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 Minnetonka, WI 54016  
 Tel: 715-891-5277

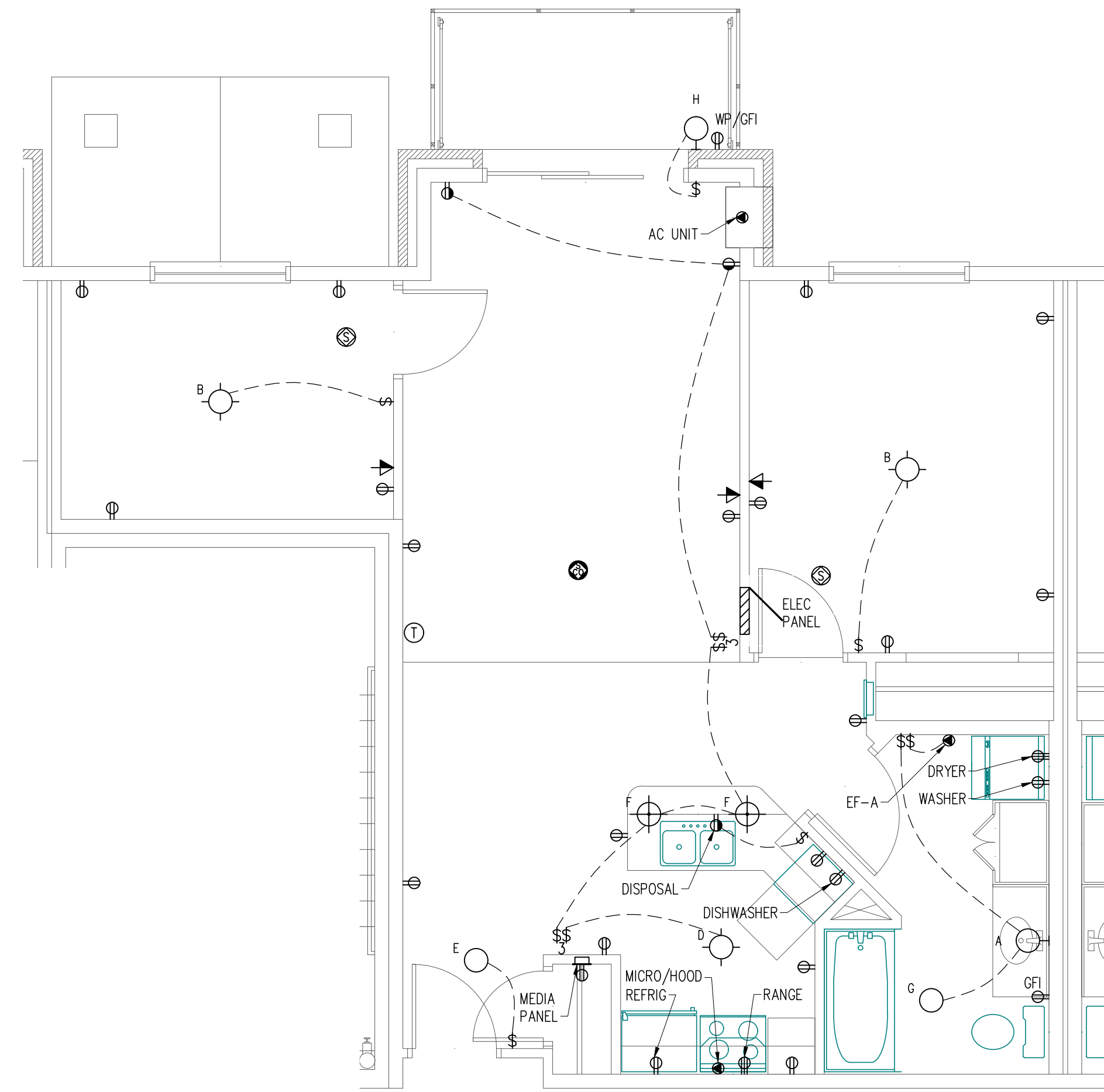
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 FAX: 320-656-0312

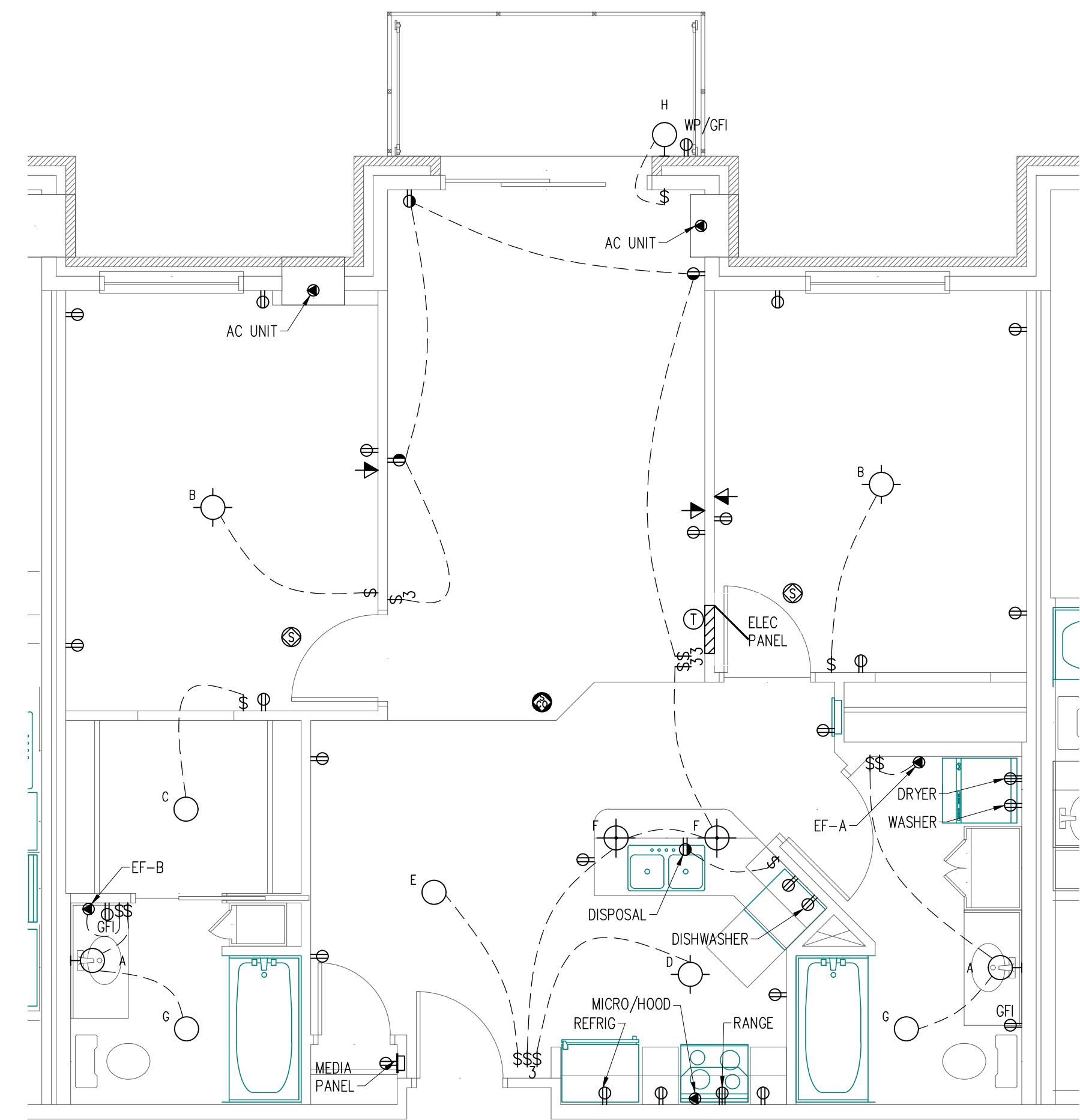
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CHECKED BY: TJA			
DATE: 4/5/19			
DWG FILE:			
REF FILE:			
JOB NUMBER: 508-218-19			



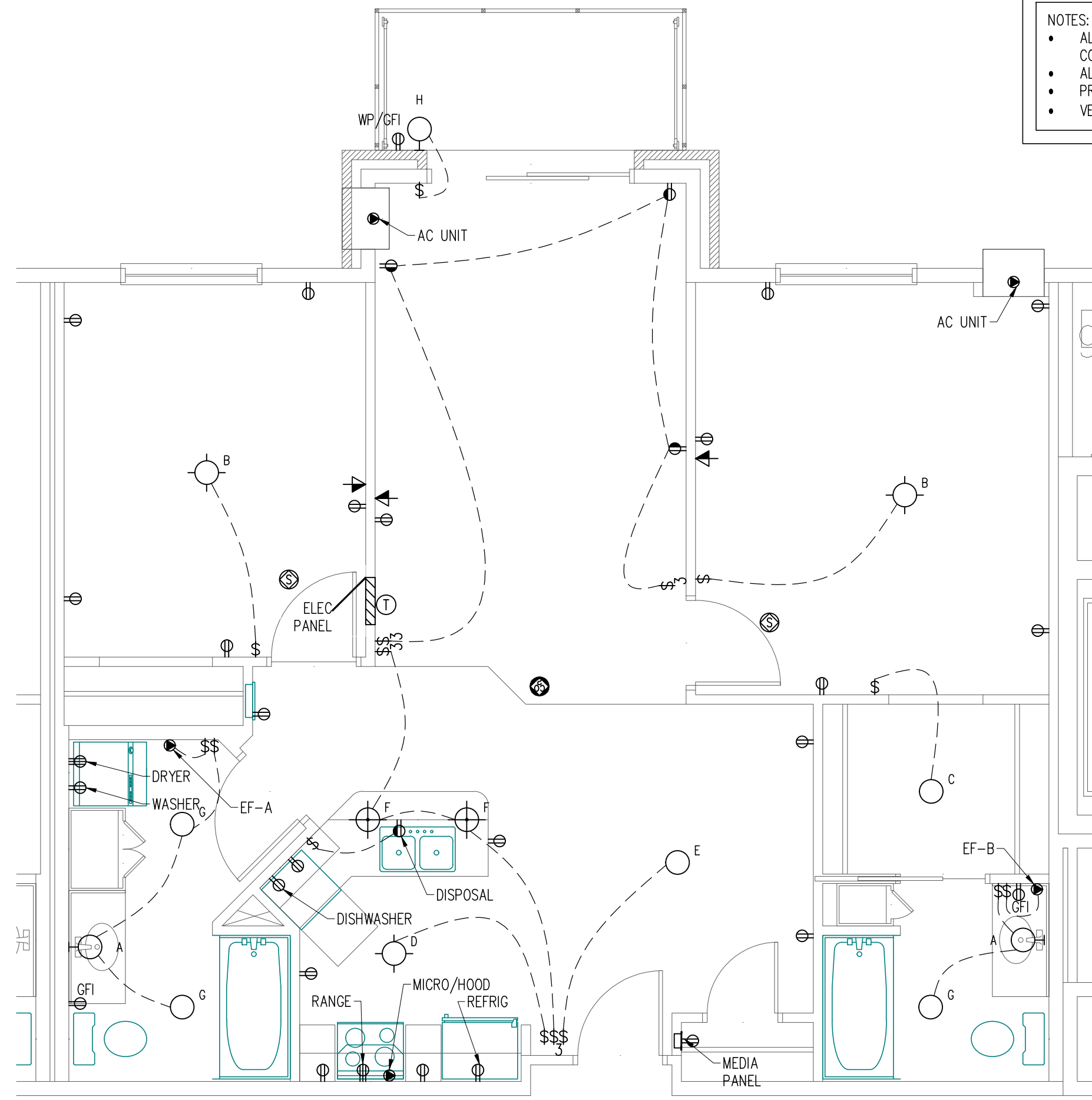
1 TYPICAL UNIT A  
SCALE: 1/4" = 1'-0"



2 TYPICAL UNIT A.1  
SCALE: 1/4" = 1'-0"

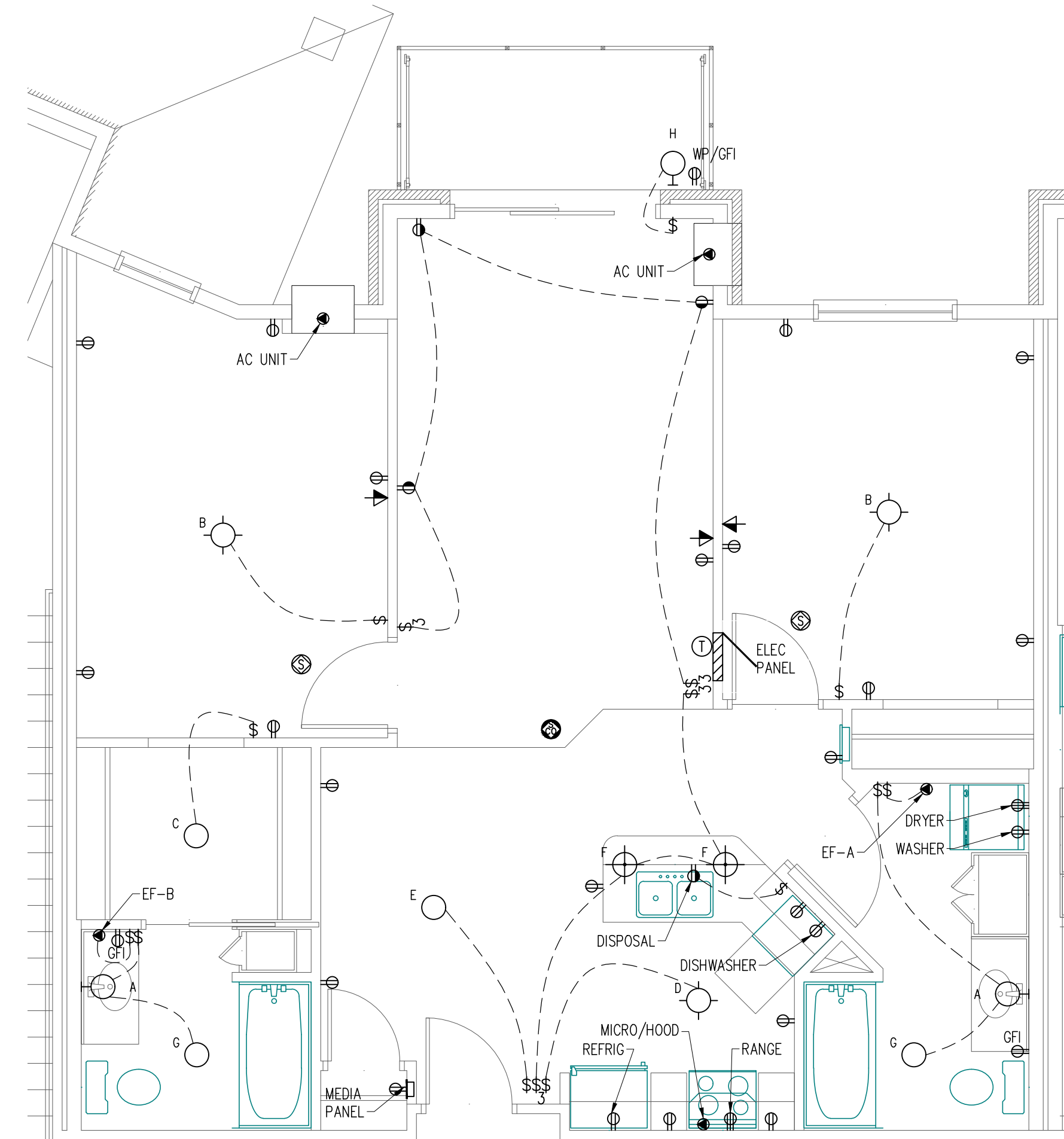


3 TYPICAL UNIT B  
SCALE: 1/4" = 1'-0"



4 TYPICAL UNIT B.1  
SCALE: 1/4" = 1'-0"

NOTES:  
 • ALL RECEPTACLES IN KITCHEN SHALL BE MOUNTED ABOVE THE COUNTERTOP EXCEPT FOR RECEPTACLE FOR DISHWASHER. VERIFY HEIGHT.  
 • ALL ABOVE COUNTER RECEPTACLES IN KITCHEN SHALL BE GFI PROTECTED.  
 • PROVIDE ALL REQUIRED AFCI PROTECTION.  
 • VERIFY LOCATION OF A/C CONNECTION



5 TYPICAL UNIT B.2  
SCALE: 1/4" = 1'-0"

NAME:	
REVISION DESCRIPTION:	
JOB NUMBER: 508-218-19	
REF FILE:	
DWG FILE:	
DATE: 4/5/19	
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DRAWN BY: DJK	

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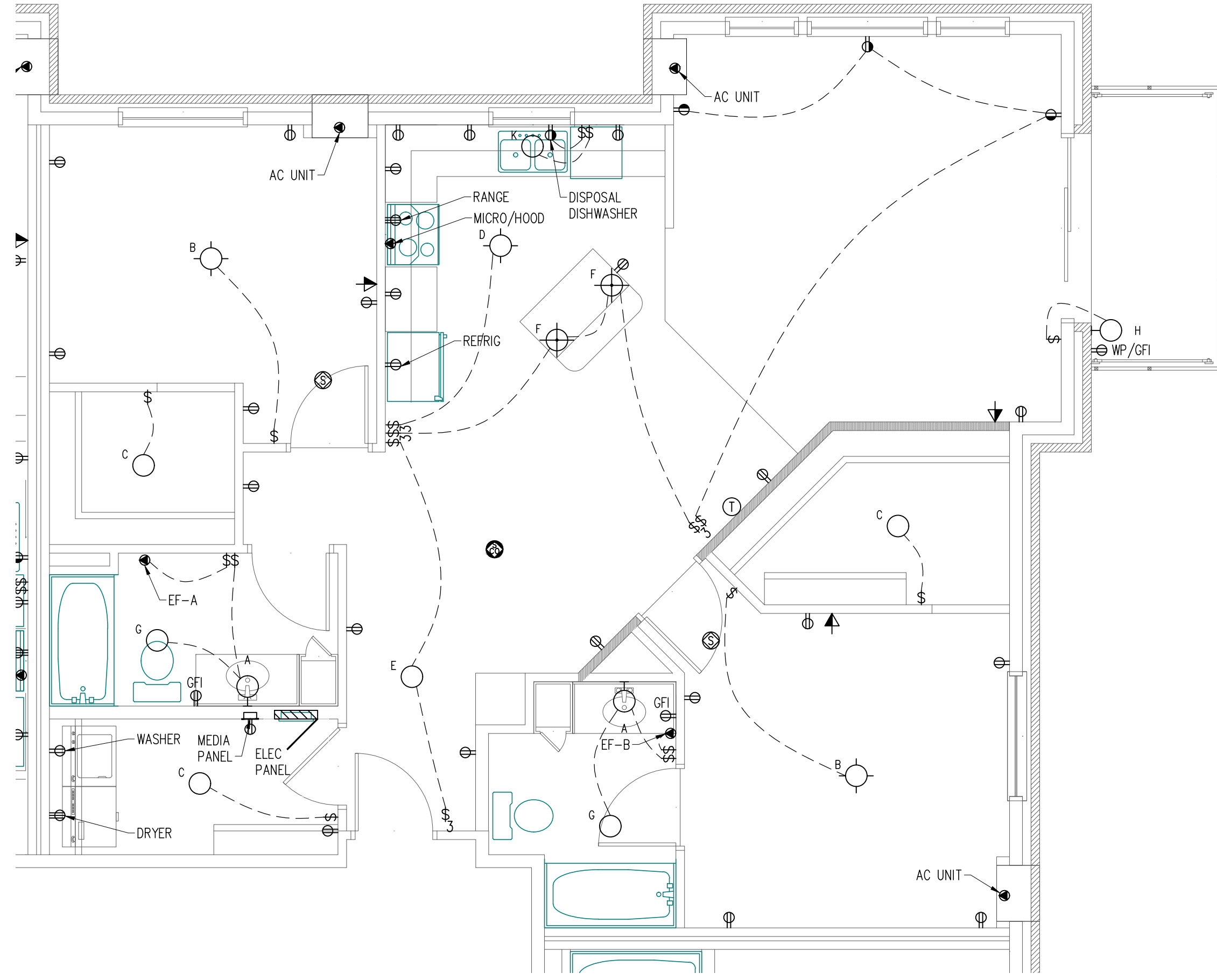
**A.C/a**  
 Auth Consulting/associates

**PRELIMINARY SET**

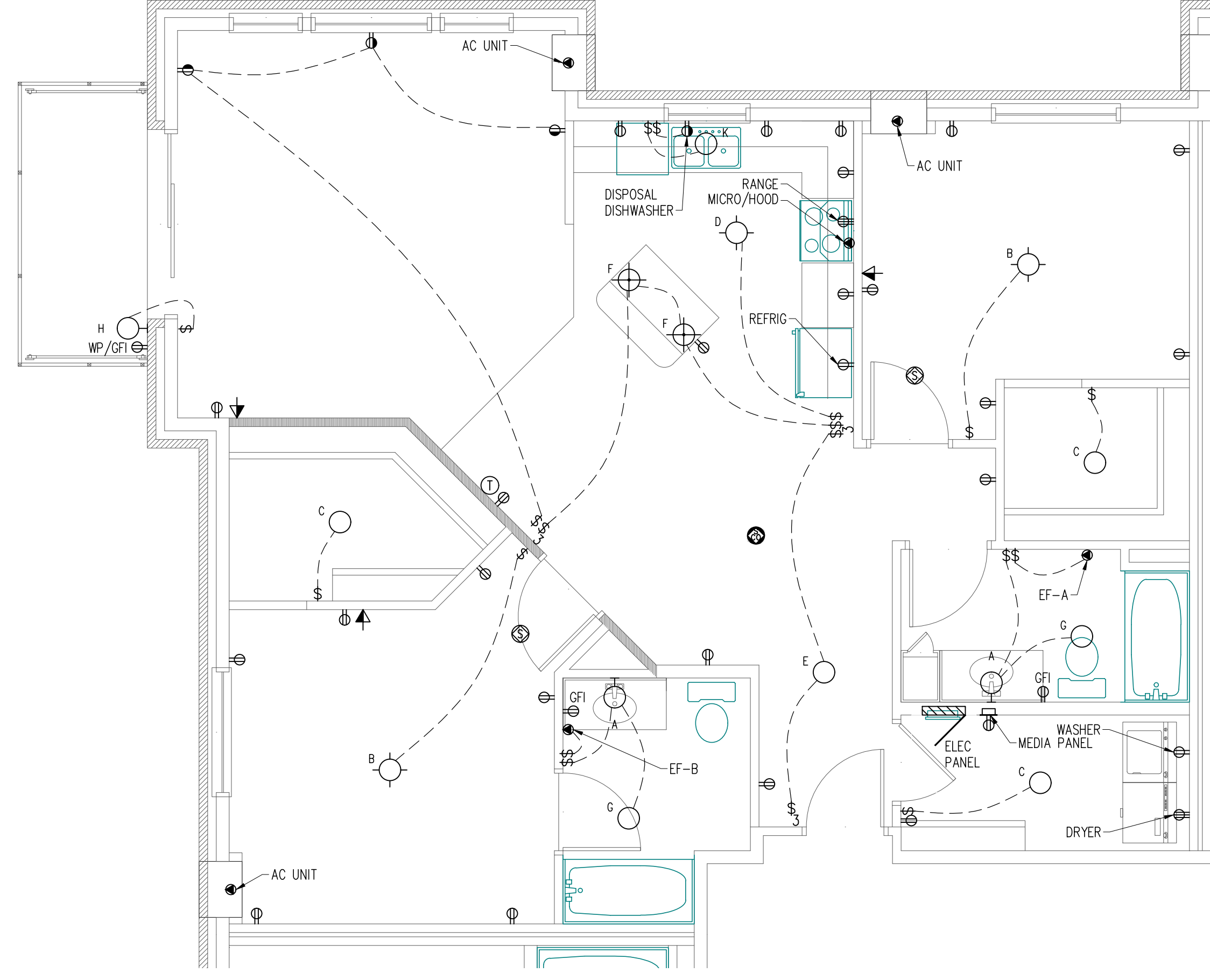
PROJECT:  
**PROPOSED PROJECT FOR:  
 PARK PLACE APARTMENTS**  
 RED WING, MN

SHEET NO.  
**E3.1**

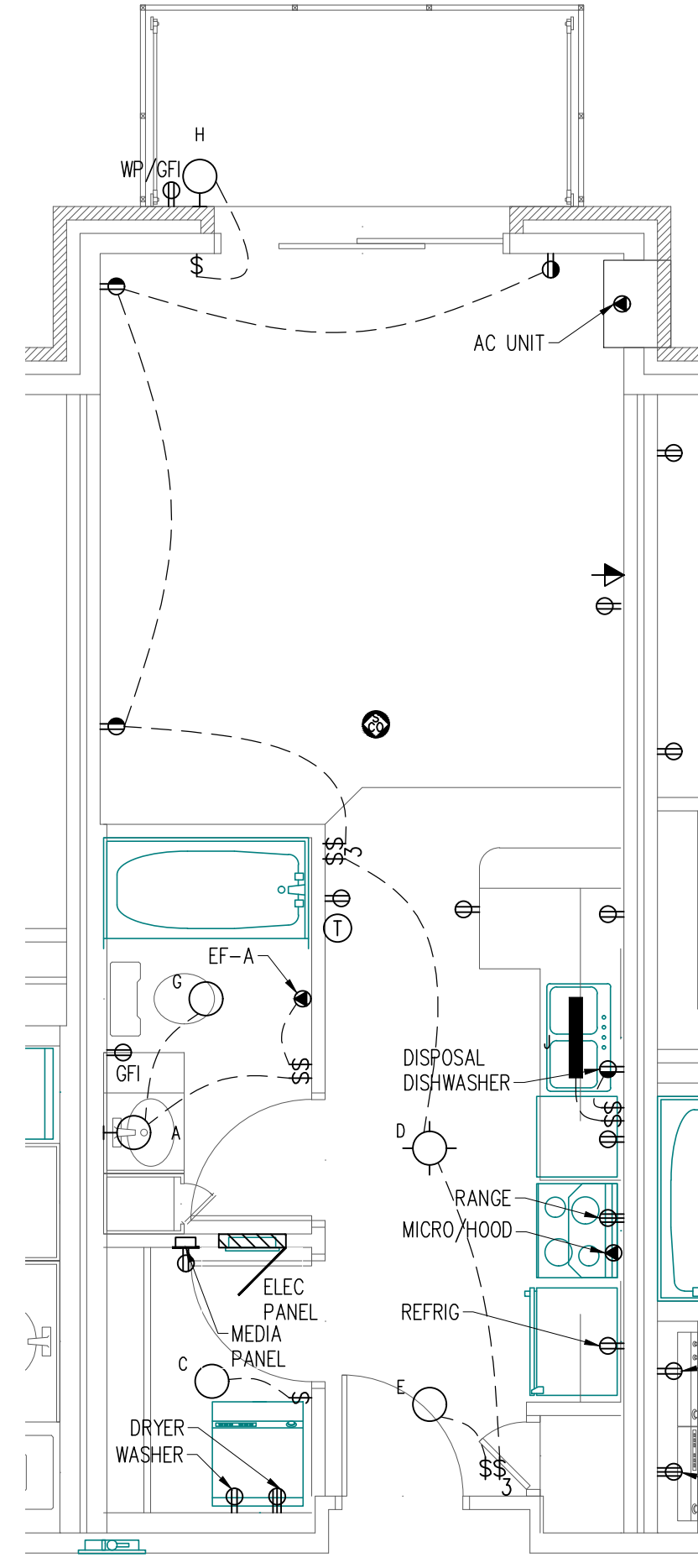
TYPICAL UNITS



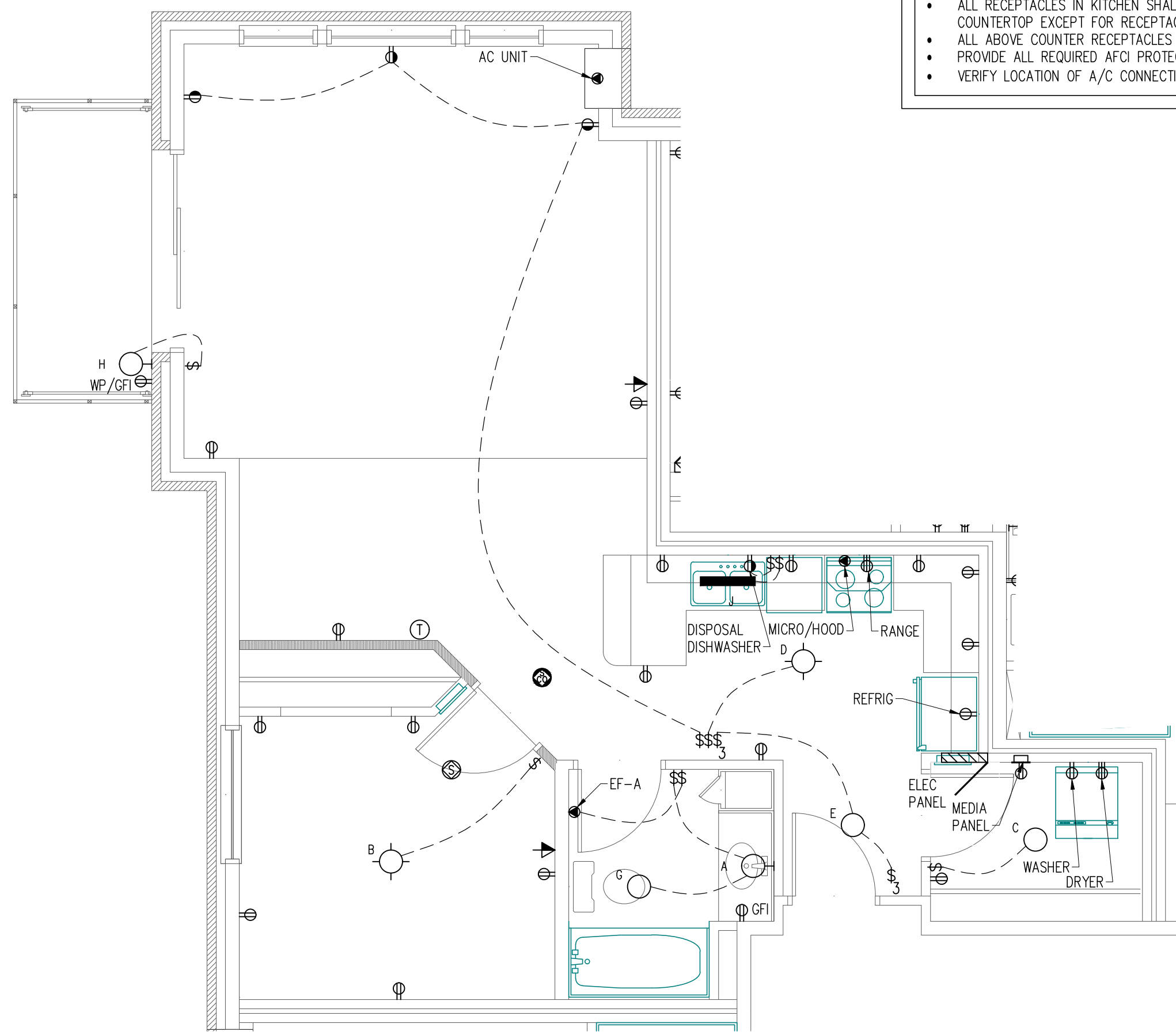
1 TYPICAL UNIT C  
E3.2 SCALE: 1/4" = 1'-0"



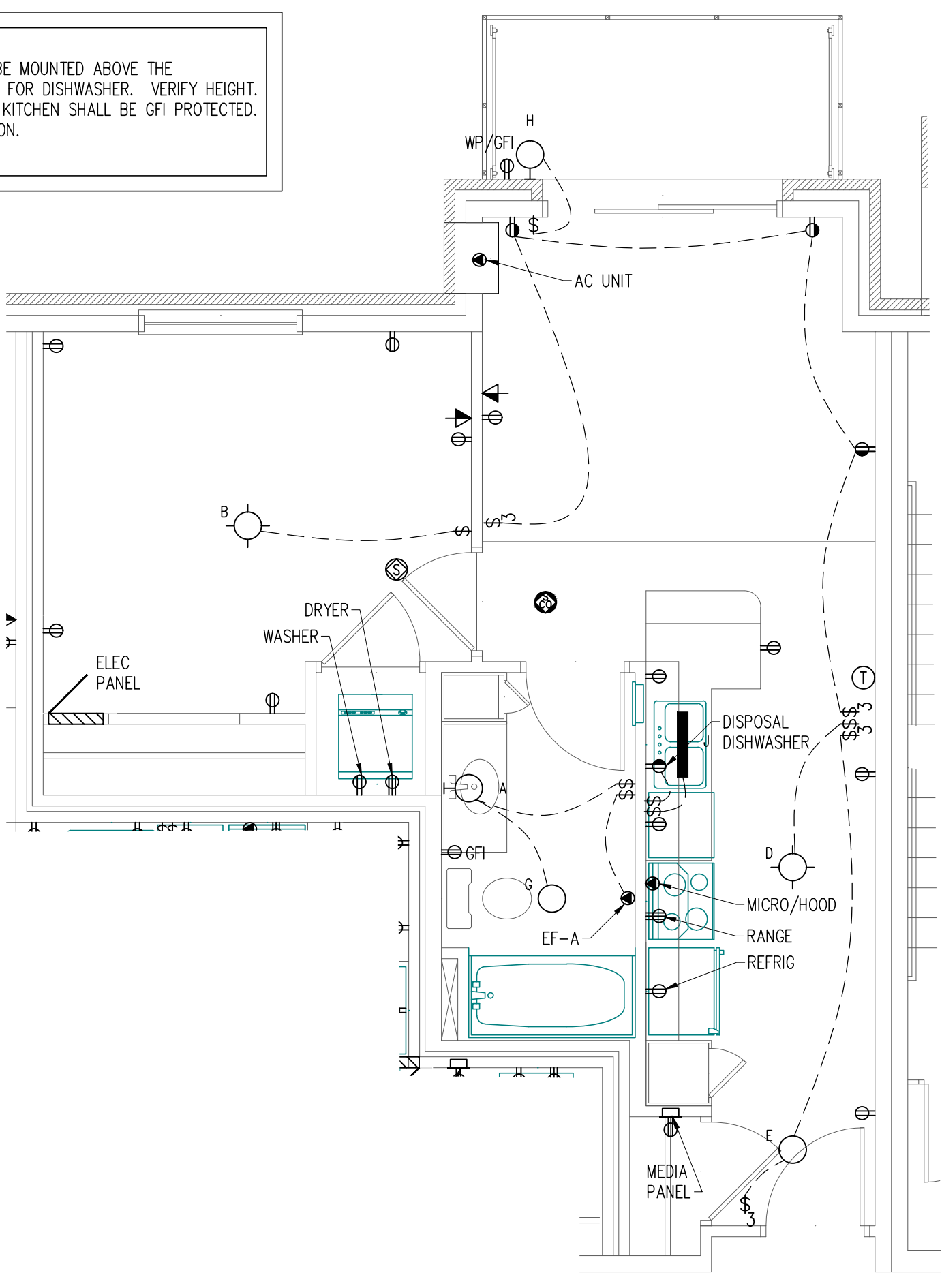
2 TYPICAL UNIT C.1  
E3.2 SCALE: 1/4" = 1'-0"



3 TYPICAL UNIT D  
E3.2 SCALE: 1/4" = 1'-0"



4 TYPICAL UNIT E  
E3.2 SCALE: 1/4" = 1'-0"



5 TYPICAL UNIT F  
E3.2 SCALE: 1/4" = 1'-0"

NOTES:  
 • ALL RECEPTACLES IN KITCHEN SHALL BE MOUNTED ABOVE THE COUNTERTOP EXCEPT FOR RECEPTACLE FOR DISHWASHER. VERIFY HEIGHT.  
 • ALL ABOVE COUNTER RECEPTACLES IN KITCHEN SHALL BE GFI PROTECTED.  
 • PROVIDE ALL REQUIRED AFCI PROTECTION.  
 • VERIFY LOCATION OF A/C CONNECTION

PRELIMINARY SET

PROJECT:  
 PROPOSED PROJECT FOR:  
 PARK PLACE APARTMENTS  
 RED WING, MN  
 TYPICAL UNITS

SHEET NO.  
 E3.2



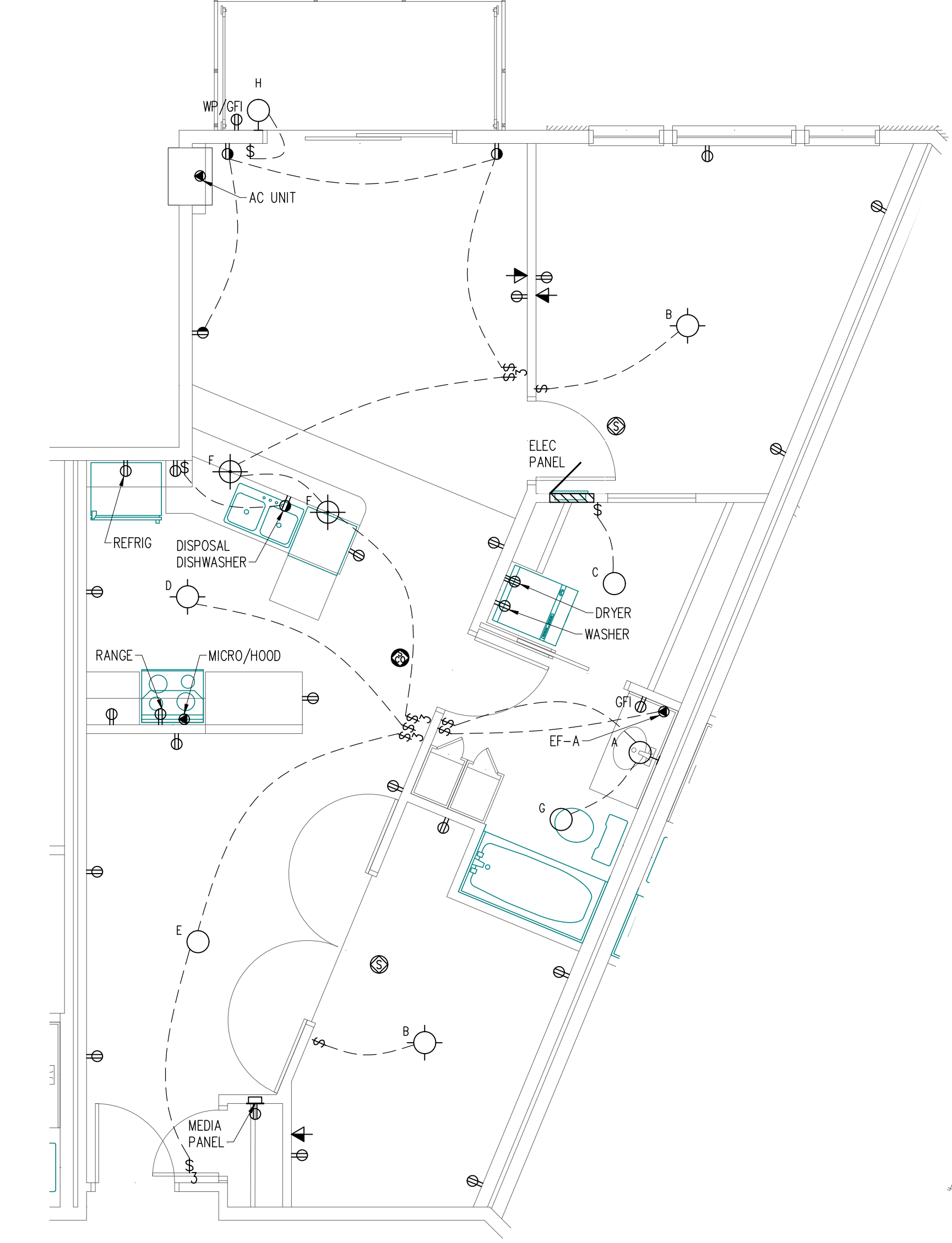
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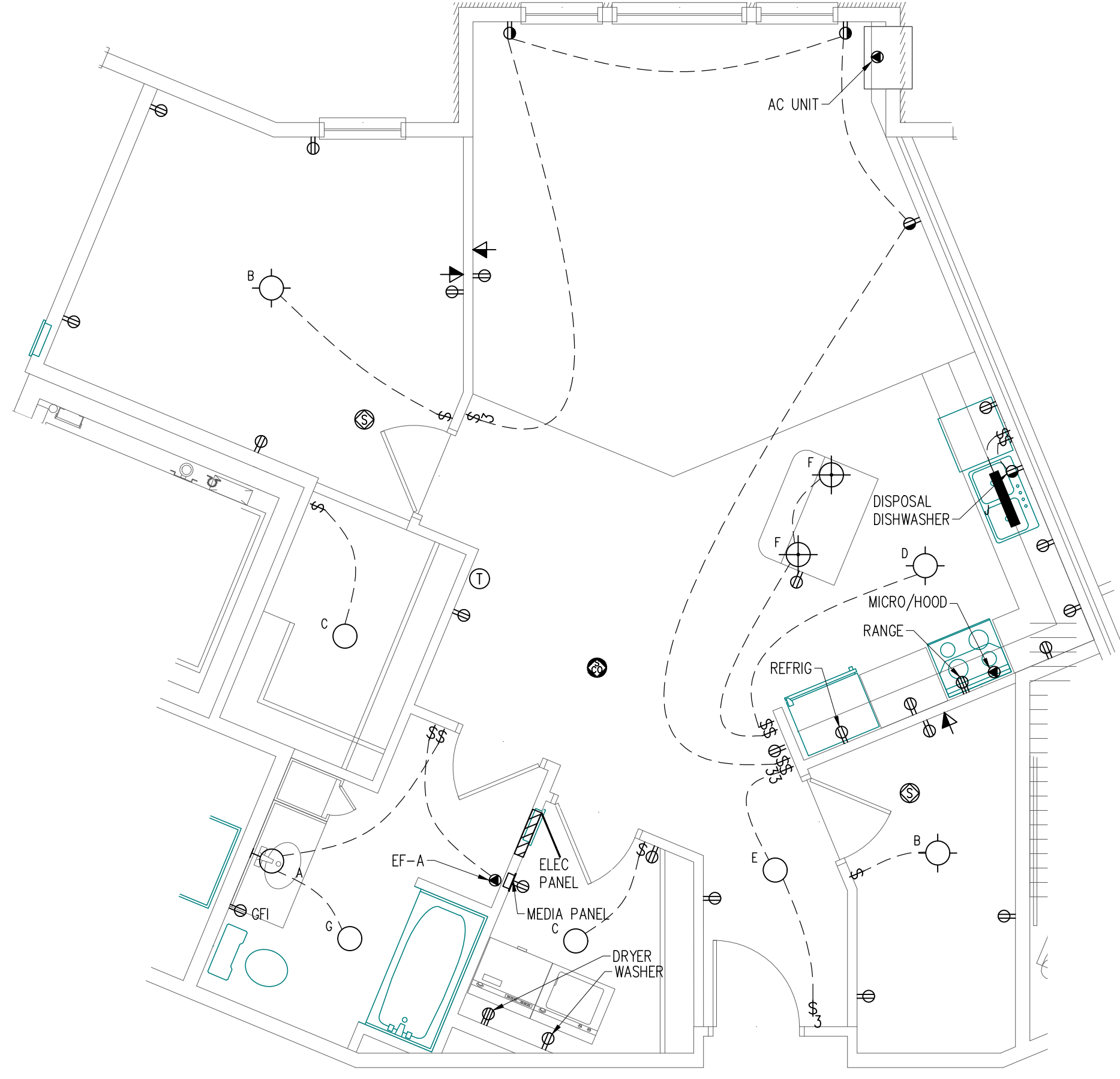
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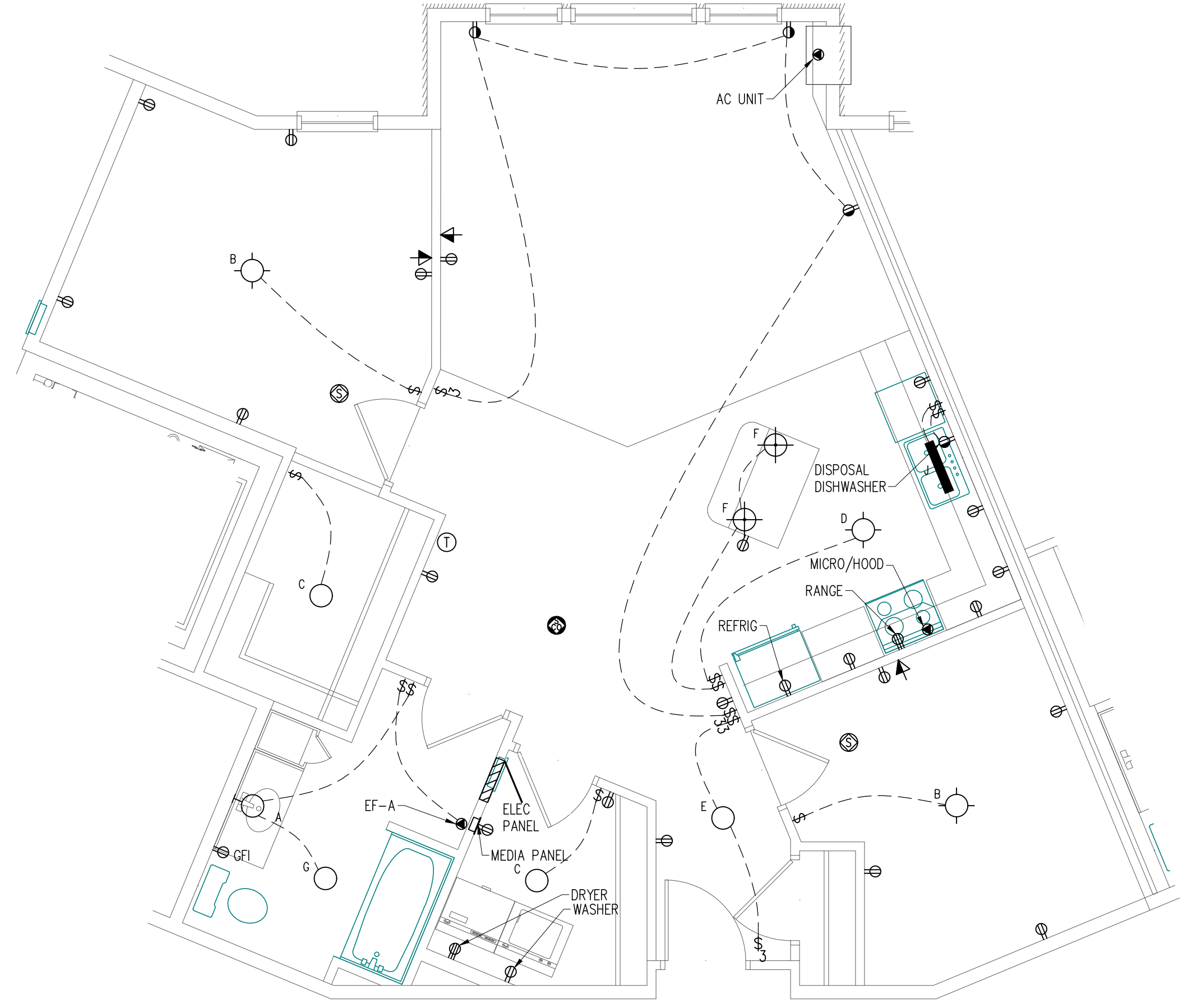
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DATE: 4/5/19			
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REF FILE:			
JOB NUMBER: 508-218-119			



1 TYPICAL UNIT G  
E3.3 SCALE: 1/4" = 1'-0"



3 TYPICAL UNIT J.1  
E3.3 SCALE: 1/4" = 1'-0"



2 TYPICAL UNIT J  
E3.3 SCALE: 1/4" = 1'-0"

NOTES:

- ALL RECEPTACLES IN KITCHEN SHALL BE MOUNTED ABOVE THE COUNTERTOP EXCEPT FOR RECEPTACLE FOR DISHWASHER. VERIFY HEIGHT.
- ALL ABOVE COUNTER RECEPTACLES IN KITCHEN SHALL BE GFI PROTECTED.
- PROVIDE ALL REQUIRED AFCI PROTECTION.
- VERIFY LOCATION OF A/C CONNECTION

PRELIMINARY SET

PROJECT:  
PROPOSED PROJECT FOR:  
PARK PLACE APARTMENTS  
RED WING, MN  
TYPICAL UNITS

SHEET NO.  
E3.3

**A.C./a**  
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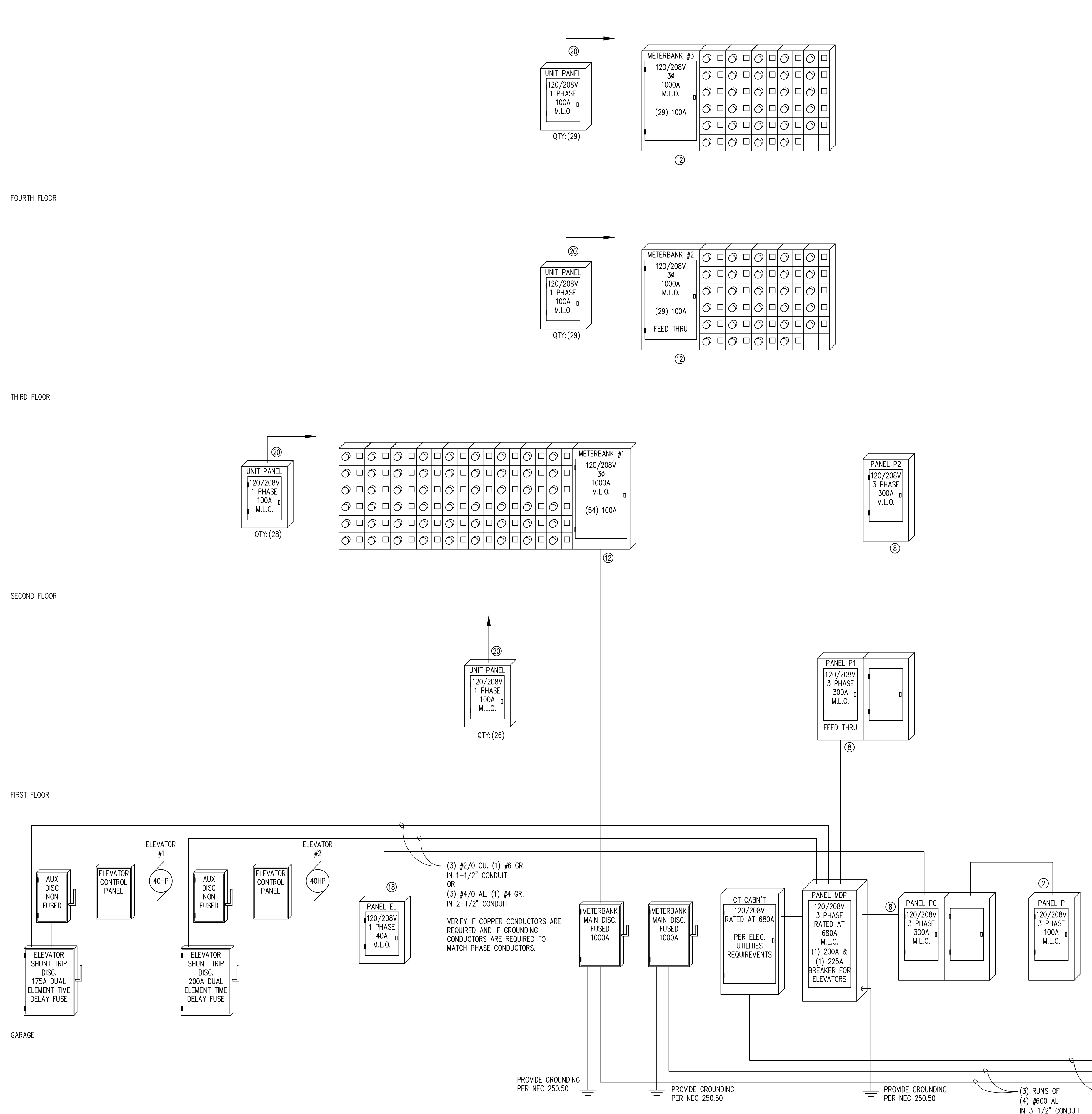
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REF FILE:
JOB NUMBER: 508-218-19

REVISION DESCRIPTION:	NAME:	DATE:



### FEEDER SCHEDULE

#### 3 PHASE 4 WIRE

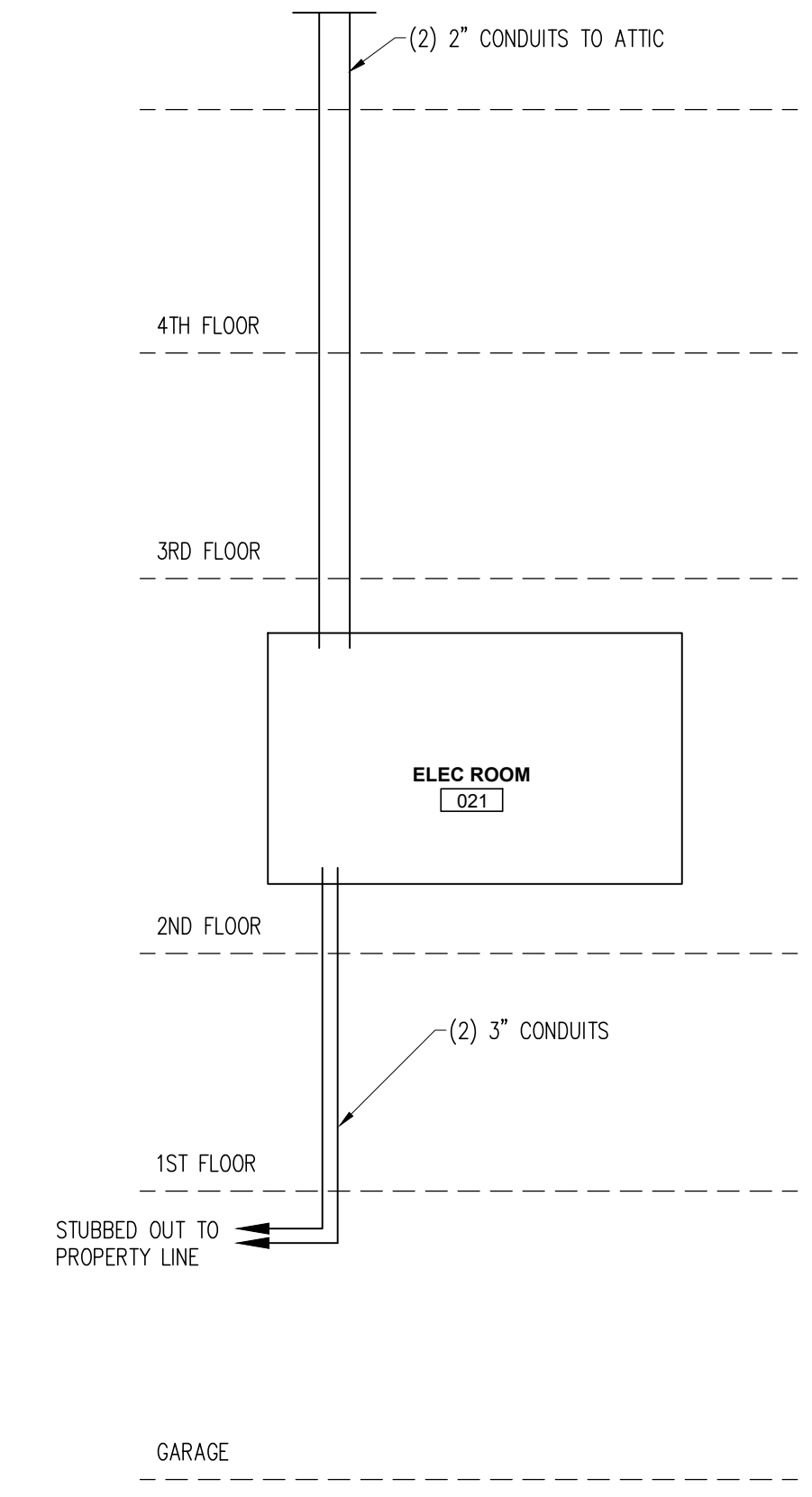
FEEDER IDENTIFIER	AMPS	CONDUCTOR 75°	GROUNDING CONDUCTOR	CONDUIT PVC	CONDUIT EMT	# OF RUNS
1	60	(4)#4	#8	1-1/4"	1-1/4"	1
2	100	(4)#1	#6	1-1/2"	1-1/2"	1
3	125	(4)#2/0	#4	2"	2"	1
4	150	(4)#3/0	#4	2"	2"	1
5	200	(4)#250	#4	2-1/2"	2-1/2"	1
6	225	(4)#300	#2	3"	2-1/2"	1
7	250	(4)#350	#2	3"	2-1/2"	1
8	300	(4)#500	#2	3-1/2"	3"	1
9	400	(4)#250	#1	2-1/2"	2-1/2"	2
10	600	(4)#500	#2/0	3-1/2"	3"	2
11	800	(4)#400	#3/0	3"	3"	3
12	1000	(4)#600	#4/0	3-1/2"	3-1/2"	3
13	1200	(4)#500	#250	3-1/2"	3"	4
14	1600	(4)#600	#350	4"	3-1/2"	5
15	2000	(4)#600	#400	4"	4"	6
16	2500	(4)#600	#600	4"	4"	8
17	3000	(4)#700	#600	4"	4"	8

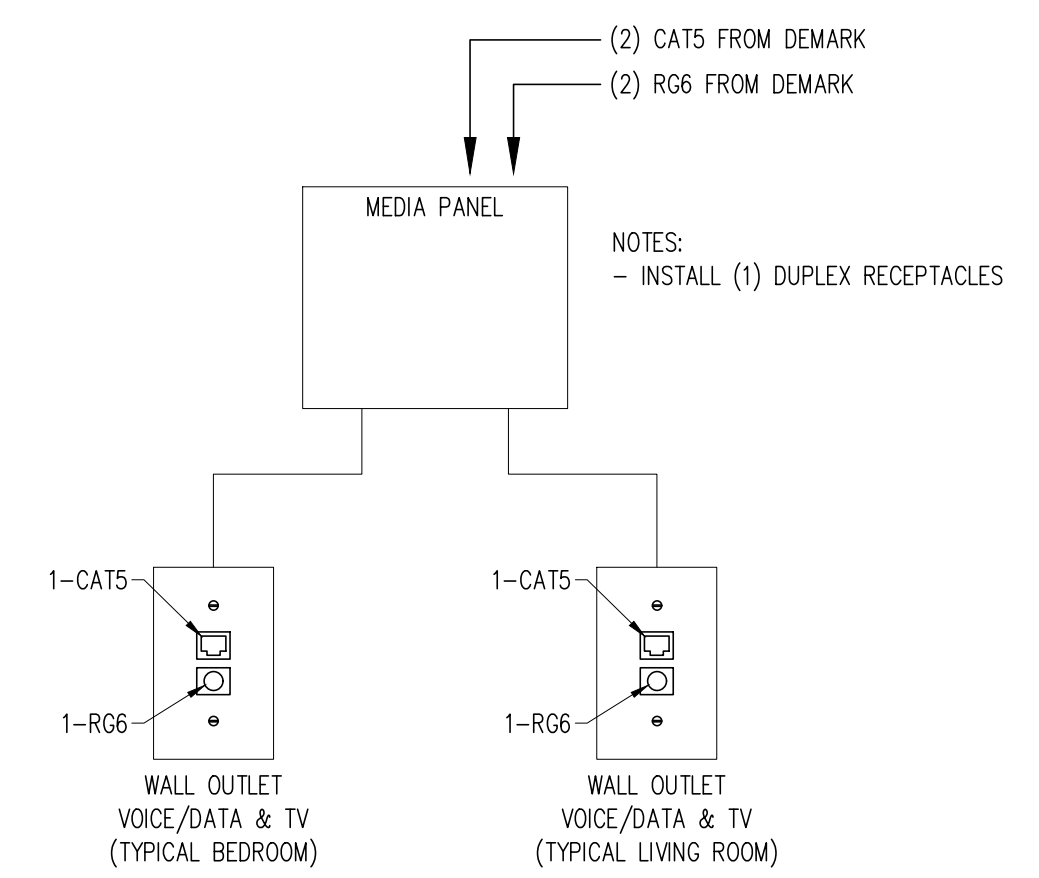
#### 1 PHASE 3 WIRE

FEEDER IDENTIFIER	AMPS	CONDUCTOR 75°	GROUNDING CONDUCTOR	CONDUIT PVC	CONDUIT EMT	# OF RUNS
18	40	(3)#8	#8	1"	1"	1
19	60	(3)#4	#8	1"	1"	1
20	100	(3)#1	#6	1-1/4"	1-1/4"	1
21	110	(3)#1/0	#4	1-1/2"	1-1/2"	1
22	125	(3)#2/0	#4	1-1/2"	1-1/2"	1
23	150	(3)#3/0	#4	2"	2"	1
24	175	(3)#4/0	#4	2"	2"	1
25	200	(3)#250	#4	2"	2"	1

**GENERAL NOTES:**  
 1. ALL FEEDERS ARE SIZED USING ALUMINUM CONDUCTORS.  
 2. UPSIZE FEEDER CONDUCTORS WHEN FEEDER LENGTHS EXCEED 150'.



2 LOW VOLTAGE RISER  
 E4.1 NOT TO SCALE



3 LOW VOLTAGE UNIT DETAIL  
 E4.1 NOT TO SCALE

1 POWER DISTRIBUTION RISER  
 E4.1 NOT TO SCALE

DATE:	
NAME:	
REVISION DESCRIPTION:	
JOB NUMBER: 508-218-19	
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 Fax: 763-553-9882

**PRELIMINARY SET**

PROJECT:  
**PROPOSED PROJECT FOR:  
 PARK PLACE APARTMENTS**

RED WING, MN  
**POWER DISTRIBUTION RISER**

SHEET NO.  
**E4.1**

BUILDING BOILER SCHEDULE									
MARK	MANUFACTURE	MODEL	HEATING MBH EA INPUT/OUTPUT	NET IBR(MBH)	FLUE DIA.	VOLT/PHASE	CONTROL		
B-1	LAARS	NEOTHERM 399	399 / 383	-	4"	120-1	DEDICATED OA SENSOR 20% PROPYLENE GLYCOL		
B-2	LAARS	NEOTHERM 399	399 / 383	-	4"	120-1	DEDICATED OA SENSOR 20% PROPYLENE GLYCOL		
B-3	LAARS	NEOTHERM 399	399 / 383	-	4"	120-1	DEDICATED OA SENSOR 20% PROPYLENE GLYCOL		

PUMP SCHEDULE										
MARK	MANUFACTURE	MODEL	SERVES	TYPE	GPM	HEAD (FT H2O)	RPM	HP	VOLT/PHASE	CONTROL
P-1	GRUNDFOS	UPS43-100	(399)	IN-LINE	31	20'	-	1/6	115-1	INTERLOCKED W/B-1
P-2	GRUNDFOS	UPS43-100	(399)	IN-LINE	31	20'	-	1/6	115-1	INTERLOCKED W/B-2
P-3	GRUNDFOS	UPS43-100	(399)	IN-LINE	31	20'	-	1/6	115-1	INTERLOCKED W/B-3
P-4	WILO	STRATOS 2x3-35	BUILDING SYSTEM	IN-LINE	55	30'	-	3/4	208-1	PARALLEL VFD
P-5	WILO	STRATOS 2x3-35	BUILDING SYSTEM	IN-LINE	55	30'	-	3/4	208-1	PARALLEL VFD

HYDRONIC UNIT HEATER SCHEDULE									
MARK	MANUFACTURE	MODEL	SERVES	CFM	HTG. MBH	GPM	VOLT/PHASE	CONTROL	
HUH-1	BEACON MORRIS	W-42	ELEVATOR LOBBY	200	15.1	1	115/1	LINE VOLTAGE T'STAT WALL MOUNT	
HUH-2	BEACON MORRIS	HB-36	TRASH ROOM	-	-	-	-	LINE VOLTAGE T'STAT/MOTORIZED VALVE INTERLOCKED W/T'STAT	
HUH-3	BEACON MORRIS	RW-42	STAIRWELL	200	15.1	1	115/1	LINE VOLTAGE T'STAT RECESSED WALL MOUNT	
HUH-4	BEACON MORRIS	RW-120	STAIRWELL	400	21.8	1	115/1	LINE VOLTAGE T'STAT RECESSED WALL MOUNT	
HUH-5	BEACON MORRIS	RW-42	VESTIBULE	200	15.1	1	115/1	LINE VOLTAGE T'STAT RECESSED WALL MOUNT	
HUH-6	BEACON MORRIS	RW-42	VESTIBULE	200	15.1	1	115/1	LINE VOLTAGE T'STAT RECESSED WALL MOUNT	
HUH-7	BEACON MORRIS	RW-120	STAIRWELL	400	21.8	1	115/1	LINE VOLTAGE T'STAT RECESSED WALL MOUNT	

MINI SPLIT SYSTEM SCHEDULE - INDOOR UNIT									
MARK	MANUFACTURE	MODEL	SERVES	CFM	SEER/EER	COOLING BTU'S	INDOOR VOLTS	MCA/MAX FUSE	COMMENTS
MSS-1A	DAIKIN	FTKN12NMJUJ	ELEVATOR EQUIPMENT	1000	15/9.2	22,000	208/230-1	POWERED FROM CONDENSING UNIT	-
MSS-2A	DAIKIN	FTKN12NMJUJ	DATA ROOM	1000	15/9.2	22,000	208/230-1	POWERED FROM CONDENSING UNIT	-

MINI SPLIT SYSTEM SCHEDULE - OUTDOOR CONDENSING UNIT									
MARK	MANUFACTURE	MODEL	SERVES	SEER/EER	COOLING BTU'S	VOLTS	MCA/MOCP	COMMENTS	
MSS-1	DAIKIN	RKN12NMJUJ	MSS-1A INDOOR UNITS	15/9.2	22,000	208/230-1	10.7/20	-	
MSS-2	DAIKIN	RKN12NMJUJ	MSS-2A INDOOR UNITS	15/9.2	22,000	208/230-1	10.7/20	-	

EXHAUST FAN SCHEDULE												
MARK	MANUFACTURE	MODEL	LOCATION	CFM	SONES	AMPS	VOLTS	ESP	HP	RPM	ACCESSORIES/COMMENTS	
EF-A	PANASONIC	FV-0810VS1	RESIDENT BATHS	50	0.6	0.39	120-1	.25"	-	-	WALL SWITCH WALL/ROOF CAP	
EF-B	PANASONIC	FV-0510VS1	RESIDENT BATHS	50	0.5	0.39	120-1	.25"	-	-	WALL SWITCH WALL/ROOF CAP	
EF-1	AMERICAN COOL-AIRE	CBL-36.L	PARKING GARAGE	10,380	13.5	-	208-3	.25"	1.0	1,750	MOTORIZED DAMPER INTERLOCKED W/ CO/NO2	
EF-2	AMERICAN COOL-AIRE	CBL-36.L	PARKING GARAGE	10,380	13.5	-	208-3	.25"	1.0	1,750	MOTORIZED DAMPER INTERLOCKED W/ CO/NO2	
EF-3	BROAN	L-400	TRASH ROOM	390	2.6	1.4	120-1	.125"	-	-	RUNS CONTINUOUSLY WALL CAP	
EF-4	BROAN	L-150	CORRIDOR	125	.5	1.1	120-1	.125"	-	-	RUNS CONTINUOUSLY WALL CAP	
EF-5	PANASONIC	FV-0510VS1	WOMEN	50	0.5	0.39	120-1	.25"	-	-	WALL SWITCH INTERLOCKED W/ LIGHTS WALL CAP	
EF-6	PANASONIC	FV-0510VS1	MEN	50	0.5	0.39	120-1	.25"	-	-	WALL SWITCH INTERLOCKED W/ LIGHTS WALL CAP	
EF-7	BROAN	L-300	FITNESS ROOM	290	3.0	2.6	120-1	.125"	-	-	WALL SWITCH INTERLOCKED W/ LIGHTS WALL CAP	
EF-8	PANASONIC	FV-0510VS1	TRASH ROOM	50	0.5	0.39	120-1	.25"	-	-	RUNS CONTINUOUSLY WALL CAP	
EF-9	BROAN	L-150	CORRIDOR	125	.5	1.1	120-1	.125"	-	-	RUNS CONTINUOUSLY WALL CAP	
EF-10	PANASONIC	FV-0510VS1	CORRIDOR	80	0.8	0.39	120-1	.25"	-	-	RUNS CONTINUOUSLY WALL CAP	
EF-11	PANASONIC	FV-0510VS1	TRASH ROOM	50	0.5	0.39	120-1	.25"	-	-	RUNS CONTINUOUSLY WALL CAP	
EF-12	PANASONIC	FV-0510VS1	CORRIDOR	80	0.8	0.39	120-1	.25"	-	-	RUNS CONTINUOUSLY WALL CAP	
EF-13	PANASONIC	FV-0510VS1	CORRIDOR	80	0.8	0.39	120-1	.25"	-	-	RUNS CONTINUOUSLY WALL CAP	
EF-14	PANASONIC	FV-0510VS1	TRASH ROOM	50	0.5	0.39	120-1	.25"	-	-	RUNS CONTINUOUSLY WALL CAP	
EF-15	PANASONIC	FV-0510VS1	CORRIDOR	80	0.8	0.39	120-1	.25"	-	-	RUNS CONTINUOUSLY WALL CAP	
EF-16	PANASONIC	FV-0510VS1	CORRIDOR	80	0.8	0.39	120-1	.25"	-	-	RUNS CONTINUOUSLY WALL CAP	
EF-17	PANASONIC	FV-0510VS1	TRASH ROOM	50	0.5	0.39	120-1	.25"	-	-	RUNS CONTINUOUSLY WALL CAP	
EF-18	PANASONIC	FV-0510VS1	CORRIDOR	80	0.8	0.39	120-1	.25"	-	-	RUNS CONTINUOUSLY WALL CAP	
EF-19	AMERICAN COOL-AIRE	CBL-30.L	PARKING GARAGE	9,580	23.5	-	208-3	.25"	1.0	1,750	BACKDRAFT DAMPER INTERLOCKED W/ CO/NO2	

\*1. - BATH FAN CFM TO BE SET TO MATCH UNIT MUA CONSTANT, WALL SWITCH TO RAMP UP TO 80 CFM.\*

GAS UNIT HEATER SCHEDULE												
MARK	MANUFACTURE	MODEL	SERVES	CFM	BTU INPUT	BTU OUTPUT	GPM	HP	AMPS/FUSE	VENT	VOLT/PHASE	CONTROL
GUH-1	REZTOR	UDAP-175	DETACHED GARAGE	2,242	175,000	145,250	-	.166	3.8/15	6"	115/1	LOW VOLTAGE T'STAT
GUH-2	REZTOR	UDAP-175	DETACHED GARAGE	2,242	175,000	145,250	-	.166	3.8/15	6"	115/1	LOW VOLTAGE T'STAT

MAKE-UP AIR UNIT SCHEDULE														
MARK	MANUFACTURE	MODEL	SERVES	OA CFM	INPUT MBH	COOLING MBH	VOLTAGE	FLA	HP	ESP	CONTROL/COMMENTS		AREA (SQFT)	AREA/1000 x DENSITY--ASHREA ADD.N x CFM/PP x DIVERSITY(.75) = RQRD OA
MUA-1	TITAN	TA.125.NG.HRV	ATTACHED GARAGE	18,870	1,453	-	208-3	49.2	15	.375"	INTERLOCK WITH CO/NO2 SYSTEM, T'STAT		25,160	25,160 x .75 = 18,870 OA CFM REQUIRED
MUA-2	DAIKIN	ASPT31B14	SEE PLANS	1,195	103.3	40	208-1	4.5	.75	.7"	100% OA SYSTEM OA & DUCT SENSOR 20% GLYCOL			
MUA-3	DAIKIN	ASPT31B14	SEE PLANS	1,195	100.0	40	208-1	4.5	.75	.7"	100% OA SYSTEM OA & DUCT SENSOR 20% GLYCOL			
MUA-4	DAIKIN	ASPT31B14	SEE PLANS	1,245	107.7	40	208-1	4.5	.75	.7"	100% OA SYSTEM OA & DUCT SENSOR 20% GLYCOL			
MUA-5	DAIKIN	ASPT31B14	SEE PLANS	1,245	107.7	40	208-1	4.5	.75	.7"	100% OA SYSTEM OA & DUCT SENSOR 20% GLYCOL			

THROUGH THE WALL UNITS										
MARK	MANUFACTURE	MODEL	SERVES	MAX. CFM	MAX. OA	KW	CAPACITY (MBH) COOL	AMPS / FUSE (MCA)	VOLTS	
PTAC-1	AMANA	PTC153G	LINK	332	65	5.0	14.7	14.0	27.6 / 30	208-1
PTAC-2	AMANA	PTC153G	LINK	332	65	5.0	14.7	14.0	27.6 / 30	208-1

2-PIPE FAN COIL SCHEDULE												
MARK	MANUFACTURE	MODEL	SERVES	CFM	OA	HEATING MBH OUTPUT	HEATING GPM	COOLING OUTPUT	ESP	COOLING GPM	HP/VOLTAGE	COMMENTS
FC-1	FIRST CO.	19CDXX-HW	CONF/OFF/ LOBBY	600	65	28.8 @ 180°F	3	1.5T	0.15"	-	1/8 120-1	RUNS CONT. FREEZE T'STAT

NATURAL GAS FURNACE SCHEDULE - ECM MOTOR(HIGH STATIC)										
MARK	MANUFACTURE	MODEL	SERVES	CFM	OA	HEATING MBH INPUT/OUTPUT	ESP	MCA / FUSE	COMMENTS	
F-1	DAIKIN	DM96VE1004CN	COMMUNITY RM.	1600	295	100 / 96.0	.5	13.3 / 15	-	
F-2	DAIKIN	DM96VE0804CN	FITNESS ROOM	1400	275	80 / 76.8	.5	11.6 / 15	-	
F-3	DAIKIN	DM96VE0603BN	ENTRY LOBBY	800	135	60 / 57.6	.5	8 / 15	-	

\*\*\*UNITS CAN BE TWINNED AT THE BOARD, BUT NOT WITH HP'S\*\*\*

CONDENSING UNIT SCHEDULE									
MARK	MANUFACTURE	MODEL	SERVES	TOTAL MBH	SEER/ REFRIGERANT	MCA/FUSE	NOMINAL TONS	VOLTAGE	
CU-1	DAIKIN	DX13SN0181	F-1	46	13/R-410A	26.4 / 45	4	208-1	
CU-2	DAIKIN	DX13SN0241	F-2	40	13/R-410A	23.9 / 40	3.5	208-1	
CU-3	DAIKIN	DX13SN0301	F-3	24	13/R-410A	17.8 / 30	2	208-1	
CU-4	DAIKIN	DX13SN0361	FC-1	18	13/R-410A	12.0 / 20	1.5	208-1	
CU-5	DAIKIN	DX13SA0363	MUA-2	40	13/R-410A	23.9 / 40	3.5	208-1	
CU-6	DAIKIN	DX13SN0421	MUA-3	40	13/R-410A	23.9 / 40	3.5	208-1	
CU-7	DAIKIN	DX13SN0481	MUA-4	40	13/R-410A	23.9 / 40	3.5	208-1	
CU-8	DAIKIN	DX13SA0483	MUA-5	40	13/R-410A	23.9 / 40	3.5	208-1	

ELECTRIC DUCT HEATER									
MARK	MANUFACTURE	MODEL	SERVES	AMPS	KW	VOLT/PHASE	DIMENSIONS	CONTROL	
EDH-1	ELECTRO INDUSTRIES	EM-WX0111R	SF-1	8.34	1.0	120-1	24"L x 6"Ø	DUCT AIR STAT INTERLOCKED W/ SF-1	

SUPPLY FAN SCHEDULE											
MARK	MANUFACTURE	MODEL	LOCATION	CFM	SONES	AMPS	VOLTS	ESP	HP	RPM	ACCESSORIES/COMMENTS
SF-1	BROAN	L-150	CORRIDOR	100	.5	1.1	120-1	.125"	-	-	INTERLOCKED W/ EDH-1 CEILING REGISTER

WATER HEATER SCHEDULE										
MARK	LOCATION	MANUFACTURER'S DESIGNATION	TYPE	INPUT MBH	STOR CAP GAL	REC GPH AT 100° F RISE	VENT SIZE	EXPANSION TANK	THERM EFFICIENCY %	REMARKS
WH1,2	MECH RM	LAARS UHE-100T-300E-3N	NG	300	100	335	3"/4"	ST-30V	92.0	SERVING: BUILDING CIRCULATING PUMP - GRUNDFOS #UPS26-99

SUMP PUMP SCHEDULE										
MARK	MANUFACTURE	MODEL	SERVES	TYPE	GPM	FLA	RPM	HP	VOLT/PHASE	CONTROL
SP-1,3	ZOELLER	#BN152	ELEV DRAIN	SIMPLEX	53	8.5	3450	.4	115/1	MECHANICAL FLOAT SWITCH
SP-2,4	PENTAIR	#MDC33	ELEVATOR DRAIN TILE	SIMPLEX	38	9.8	1550	1/3	115/1	MECHANICAL FLOAT SWITCH (VERIFY WITH GC IF REQUIRED, DRAIN TILE BY OTHERS)

LIGHTING FIXTURE SCHEDULE				
TYPE	LAMPS	WATTAGE	DESCRIPTION	NOTES
1	-	-	4' STRIP FIXTURE	-
2	-	-	8' STRIP FIXTURE	-
2A	-	-	8' STRIP FIXTURE VAPOR TIGHT	-
3	-	-	4' WRAP FIXTURE WITH OCC SENSOR	-
4	-	-	LED DISC DOWNLIGHT	-
5	-	-	DECORATIVE WALL SCONCE	-
6	-	-	VANITY FIXTURE	-
7	-	-	4' WALL MOUNTED VAPORTIGHT FIXTURE	-
8	-	-	KEYLESS	-
9	-	-	HIGH LUMEN RECESSED DOWNLIGHT	-
10	-	-	DECORATIVE PENDANT	-
AA	-	20	SMALL EXTERIOR WALL PACK	-
BB	-	30	MEDIUM EXTERIOR WALL PACK	-
CC	-	15	EXTERIOR RECESSED DOWNLIGHT	-
DD	-	110	POLE MOUNT FIXTURE, TYPE III OPTICS, 20' POLE	-
EE	-	(2) 110	DUAL HEAD POLE MOUNT FIXTURE, TYPE IV OPTICS, 20' POLE	-
A	-	-	3 LAMP VANITY FIXTURE	-
B	-	-	FLUSH MOUNT BEDROOM FIXTURE	-
C	-	-	LED DISC CLOSET/LAUNDRY FIXTURE	-
D	-	-	FLUSH MOUNT KITCHEN FIXTURE	-
E	-	-	LED DISC ENTRY/HALL FIXTURE	-
F	-	-	KITCHEN PENDANT	-
G	-	-	LED DISC BATHROOM	-
H	-	-	EXTERIOR WALL SCONCE	-
J	-	-	2' UNDERCABIN'T FIXTURE	-
K	-	-	LED DISC KITCHEN SINK FIXTURE	-
X1	-	-	LED EXIT SIGN WITH BATTERY BACKUP	-
X2	-	-	LED EXIT SIGN WITH DUAL 5.4W EMERGENCY HEADS AND BATTERY BACKUP	-
X3	-	-	LED EXIT SIGN, DUAL 5.4W EMERGENCY HEADS, BATTERY BACKUP AND DUAL REMOTE EGRESS HEADS	-