

CODES & STANDARDS

NFPA 70: NATIONAL ELECTRICAL CODE2020

- GENERAL NOTES
1. MECHANICAL EQUIPMENT IS SHOWN IN APPROXIMATE LOCATIONS. FOR EXACT LOCATIONS OF MECHANICAL EQUIPMENT AND PIPING, SEE MECHANICAL DRAWINGS. SOME MECHANICAL EQUIPMENT IS LOCATED ON THE ROOF. VERIFY LOCATION WITH MECHANICAL AND PROVIDE ALL CONDUIT AND WIRING TO OUTDOOR EQUIPMENT.

2. WHERE LIGHT SWITCHES ARE INDICATED TO BE MOUNTED BEHIND DOOR, MOUNT SUCH SWITCHES A MINIMUM OF 3'-9" FROM HINGED SIDE.

3. REVISE PANELBOARD SCHEDULES ON PANEL DIRECTORIES TO REFLECT FINAL INSTALLATION CONDITIONS.

4. LOCATE ALL RACEWAYS TO AVOID INTERFERENCE WITH DUCTS, PIPES, MECHANICAL EQUIPMENT, WITH REMOVAL OF CEILING TILES, OR WITH ACCESS TO EQUIPMENT WHICH REQUIRES PERIODIC ADJUSTMENT OR MAINTENANCE.

5. PROVIDE NAMEPLATES ON THE EXTERIOR OF ALL ELECTRICAL PANELS AND ENCLOSURES WITH THE DEVICE ID, RATING, POWER SOURCE AND INSTALLATION DATE AND BY WHICH SWITCH OR STARTER.

6. COUNTER AND TOILET RECEPTACLES TO BE GFI AND COUNTER HEIGHT EXCEPT WHERE NOTED. REFRIGERATOR RECEPTACLE TO BE 36" AFF.

7. LIGHT FIXTURE TYPE IS SHOWN ONLY ONCE AS TYPICAL FOR THE ENTIRE ROOM UNLESS SPECIFICALLY INDICATED OTHERWISE.

8. UNLESS INDICATED OTHERWISE, SIZE CONDUITS IN ACCORDANCE WITH NFPA 70.

9. COORDINATE WITH THE MECHANICAL CONTRACTOR TO ENSURE ALL WORKING CLEARANCE AND DEDICATED WORKING SPACE OF PANELBOARDS.

10.COORDINATE ELECTRICAL INSTALLATION WITH ALL CASEWORK TO BE INSTALLED. PROVIDE THE NECESSARY JUNCTION BOXES FOR ALL POWER AND DATA CONNECTIONS INDICATED.

11. GROUNDING CONDUCTORS ARE NOT INDICATED IN BRANCH CIRCUIT RACEWAYS. PROVIDE GROUND CONDUCTORS AS REQUIRED BY NEC.

12.OCCUPANCY SENSORS SHOULD CONTROL ALL LIGHTING IN ROOMS, BOTH INBOARD AND OUTBOARD SWITCHING WHERE APPLICABLE, UNLESS INDICATED OTHERWISE.

13.PROVIDE PLASTIC BUSHING ON THE END OF ALL CONDUIT.

14.PROVIDE LABELS ON ALL RECEPTACLE INDICATING PANEL AND CIRCUIT FEEDING EACH DEVICE.

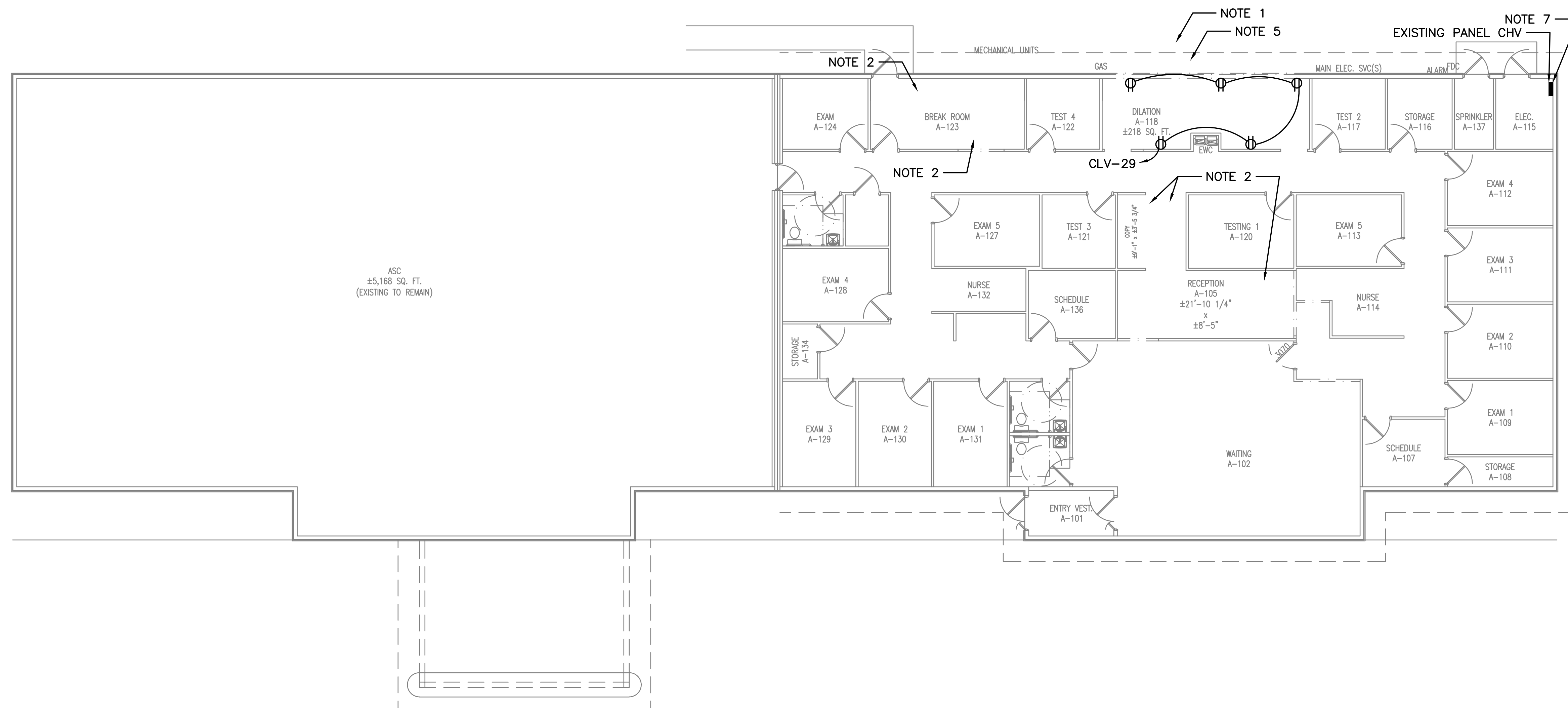
15.COORDINATE WITH DOC ELECTRONIC SECURITY CONTRACTOR TO PROVIDE DATA DROPS AS REQUIRED AND TO EXACT LOCATION OF DESIRED DROPS. PROVIDE PULL CORDS WITH ALL DATA BOXES. ALL WORK STATIONS REQUIRE DATA DROP.

FIRE ALARM SYSTEM SCOPE

CONTRACTOR TO PROVIDE A NEW FIRE ALARM SYSTEM. REUSE EXISTING FIRE ALARM DEVICE LOCATION. PROVIDE NEW DEVICE LOCATIONS FOR AREAS PREVIOUSLY NOT COVERED BY EXISTING FIRE ALARM DEVICES. E. PROVIDE SHOP DRAWINGS FOR REVIEW BY EOR AND FIRE MARSHAL

ELECTRICAL LEGEND			
	LED LIGHTING FIXTURE, RECESSED, SURFACE OR PENDANT CEILING MOUNTED, COORDINATE WITH OWNER FOR ANY DESIRED NIGHT LIGHT LOCATIONS. 'EM' INDICATES INTEGRAL OR REMOTE INVERTER TO PROVIDE STANDBY POWER FOR EGRESS. 'NL' INDICATES NIGHT LIGHT. 'b' SUBSCRIPT INDICATES SWITCHING CONTROL WHEN SHOWN FOR CLARITY.		BRANCH CIRCUIT HOME RUN TO PANELBOARD. NOTATION INDICATES PANELBOARD & BRANCH CIRCUIT CONNECTION.
	EXIT LIGHTING FIXTURE, SURFACE CEILING MOUNTED, DIRECTIONAL ARROWS AS REQUIRED. VR SUBSCRIPT INDICATES VANDAL RESISTANT. LITHONIA LIGHTING EDG-EDGR EDGE LIT		CONDUCTORS IN CONDUIT CONCEALED IN SLAB OR BELOW GRADE.
	EXIT LIGHTING FIXTURE, SURFACE WALL MOUNTED, DIRECTIONAL ARROWS AS REQUIRED. LITHONIA LIGHTING EDG-EDGR EDGE LIT		CONDUCTORS IN CONDUIT TURNED UP.
	FURNITURE WHIPS UNLESS INDICATED OTHERWISE, FOR FURNITURE WHIPS PROVIDE POWER		CONDUCTORS IN CONDUIT TURNED DOWN.
	QUAD-PLEX WALL RECEPTACLE		SINGLE-POLE SWITCH, MOUNTING HEIGHT = 4'-0" TO TOP. LOWER CASE SUBSCRIPT WHEN USED, INDICATES FIXTURES CONTROLLED (TYP).
	DUPLEX WALL RECEPTACLE, MOUNTING HEIGHT = 1'-6", EXCEPT 'C' SUBSCRIPT INDICATES MOUNTING IN CASEWORK(TYP). 'GF' SUBSCRIPT INDICATES GROUND FAULT, 'WP' SUBSCRIPT INDICATES WEATHERPROOF, 'EWC' SUBSCRIPT INDICATES GROUND FAULT BEHIND ELECTRIC WATER COOLER. '*' INDICATES MOUNTED HEIGHT = 10" ABOVE COUNTER (ALL OF THE COUNTERTOPS HAVE A 4" BACKSPASH). 'TV' INDICATES COORDINATE MOUNTING HEIGHT WITH TENANT SECURITY PLANS FOR MONITOR LOCATIONS. RECEPTACLE AND DATA OUTLET TO BE BEHIND MONITOR. OUTLETS SHALL BE NEMA 5-20R UNLESS SPECIFIED OTHERWISE.		THREE-WAY SWITCH, MOUNTING HEIGHT = 4'-0" TO TOP.
	OCCUPANCY SENSOR, DUAL TECHNOLOGY		INTEGRAL OCCUPANCY SENSOR SWITCH, MOUNTING HEIGHT = 4'-0" TO TOP.
	EMERGENCY BATTERY UNIT		COMBINATION 2 DATA/VOICE OUTLET. DATA SYSTEM OUTLET, MOUNTING HEIGHT = 1'-6" UNLESS INDICATED OTHERWISE. PROVIDE 3/4" EMT CONDUIT FROM BOX TO ABOVE ACCESSIBLE CEILING WITH PULL WIRE/STRING WHERE MOUNTED BESIDE COUNTER RECEPTACLE: MOUNT SAME HEIGHT AS RECEPTACLE.
	COMBO EXIT SIGN/ EMERGENCY BATTERY UNIT		DIMMER SWITCH, MOUNTING HEIGHT = 4'-0" TO TOP, SUBSCRIPT INDICATES FIXTURES CONTROLLED WITH THIS SWITCH
	EMERGENCY BATTERY UNIT, REMOTE HEAD		PANELBOARD, 480Y/277 VOLT, 208Y/120-VOLT, 3-PHASE, 4-WIRE, MOUNTING HEIGHT=6'-0" TO TOP. SEE PANELBOARD SCHEDULES.
	FIRE ALARM PULL STATION		DISCONNECT SWITCH, EXTERNALLY OPERATED, 240V, 3 # UNLESS OTHERWISE NOTED. NOTATION INDICATES NUMBER OF POLES AND AMPERAGE CAPACITY. 'NF' SUBSCRIPT INDICATES NON FUSED.
	FIRE ALARM HORN STROBES COMBO UNITS		
	FIRE ALARM STROBES		
	FIRE ALARM SMOKE DETECTORS		
	FIRE ALARM CONTROL PANEL		
	FIRE ALARM ANNUNCIATOR PANEL		
LEGEND NOTES: 1. ALL MOUNTING HEIGHTS ARE TO TOP OF DEVICE UNLESS INDICATED OTHERWISE.			

LIGHTING FIXTURE SCHEDULE							
MARK	MANUFACTURER	MODEL NUMBER	INPUT VOLTAGE	LAMPS	TOTAL WATTS	MNTG.	REMARKS
				TYPE			
A	LITHONIA	2GTL4 48L FW SWL EZB LP835 (EL7L)	MVOLT	LED	34.1	GRID	2X4 GRID MOUNTED, CLASSROOM/OFFICE FIXTURE
B	LITHONIA	2GTL2 40L FW SWL GZ10 LP835	MVOLT	LED	30.96	GRID	2X2 GRID MOUNTED, CLASSROOM/OFFICE FIXTURE
C	LITHONIA	2BLT2 40L ADP GZ1 LP835	MVOLT	LED	26.67	GRID	2X2 GRID MOUNTED, OFFICE FIXTURE/BASKET DESIGN
D	LITHONIA	LND6 35/15 L06 AR LSS MVOLT EZ10	MVOLT	LED	17.5	GRID	6" RECESSED DOWNLIGHT, DIMMABLE
E	LITHONIA	CLX 40L ADP LP835	MVOLT	LED	24	GRID	LINEAR STRIP LIGHT
F	LITHONIA	WPX1 LED P2 40K MVOLT DDBXD	MVOLT	LED	24	SURF	EXTERIOR WALL PACK
G	LITHONIA	WMCL4P1 SWW2 A45 UVOLT PE DDBXD M4	MVOLT	LED	19	SURF	4" LED WALL CYLINDER LIGHT
	LITHONIA	EU2C				SURF	EMERGENCY LIGHT WITH REMOTE HEADS
	LITHONIA	EXR				SURF	EMERGENCY EXIT SIGN

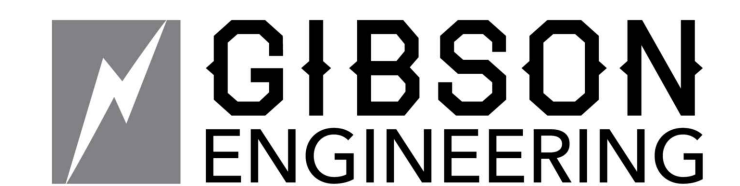


## DEMOLITION PLAN

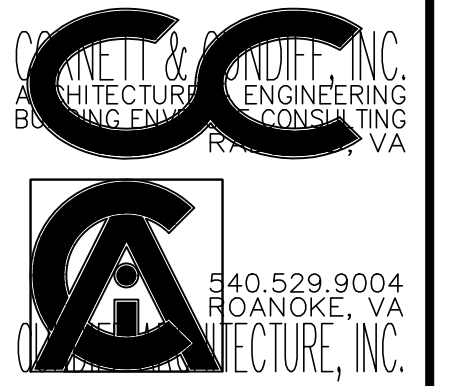
SCALE: 1/8" = 1'-0"

### NOTES THIS SHEET:

1. REMOVE EXISTING RECEPTACLES IN WALLS SCHEDULED FOR DEMOLITION. REMOVE ALL CONDUIT AND WIRING BACK TO SOURCE.
2. REMOVE EXISTING LIGHTING IN ALL AREAS SCHEDULED FOR DEMOLITION. RETAIN LIGHTING CIRCUITS FOR REUSE IN THESE AREAS.
3. REMOVE ELECTRICAL ASSOCIATED WITH MECHANICAL EQUIPMENT SCHEDULED FOR DEMOLITION. REMOVE ALL CONDUIT AND WIRING BACK TO SOURCE.
4. RETAIN ALL EXISTING CIRCUITS FOR REUSE WITH NEW LAYOUT IN EXISTING PANEL.
5. RETAIN EXISTING PANELS FOR REUSE. REUSE EXISTING CIRCUITS WHERE AVAILABLE. PROVIDE NEW BREAKERS AS REQUIRED FOR NEW LOADS.
6. RELOCATE EXISTING EXTERIOR LIGHT/WALL PACK ABOVE DOOR LEAVING WAITING ROOM.
7. REMOVE AND RECONFIGURE EXISTING FIRE ALARM DEVICES WITH DEMOLITION. SEE NEW WORK.



2100 LUBNA DR  
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P. 540.998.6069



DEMOLITION PLAN  
VISTAR EYE CENTER - WHITEVILLE  
ADDITION  
470 LITHIA RD.  
WHITEVILLE, VIRGINIA

PRELIMINARY DESIGN (NOT FOR CONSTRUCTION)

E1.2 SHEET: 01  
OF: 01

DATE: 04/29/24  
REV. NO.:

DESIGNED BY: DWG  
DRAWN BY: DWG  
CHECKED BY: DWG

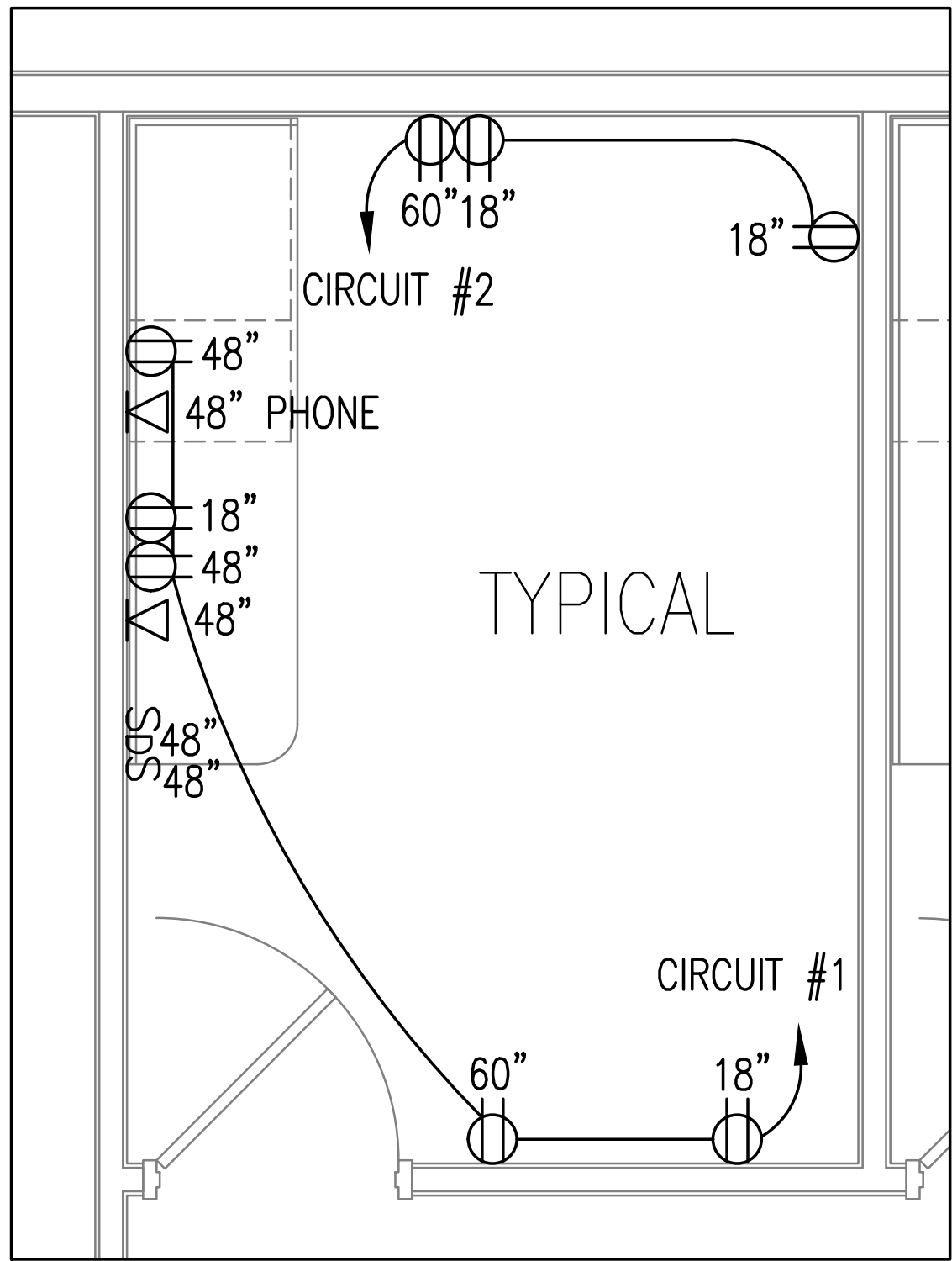
PROJECT NO.: --  
CG COMM. NO.: --

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DESIGNED BY: DWG  
DRAWN BY: DWG  
CHECKED BY: DWG

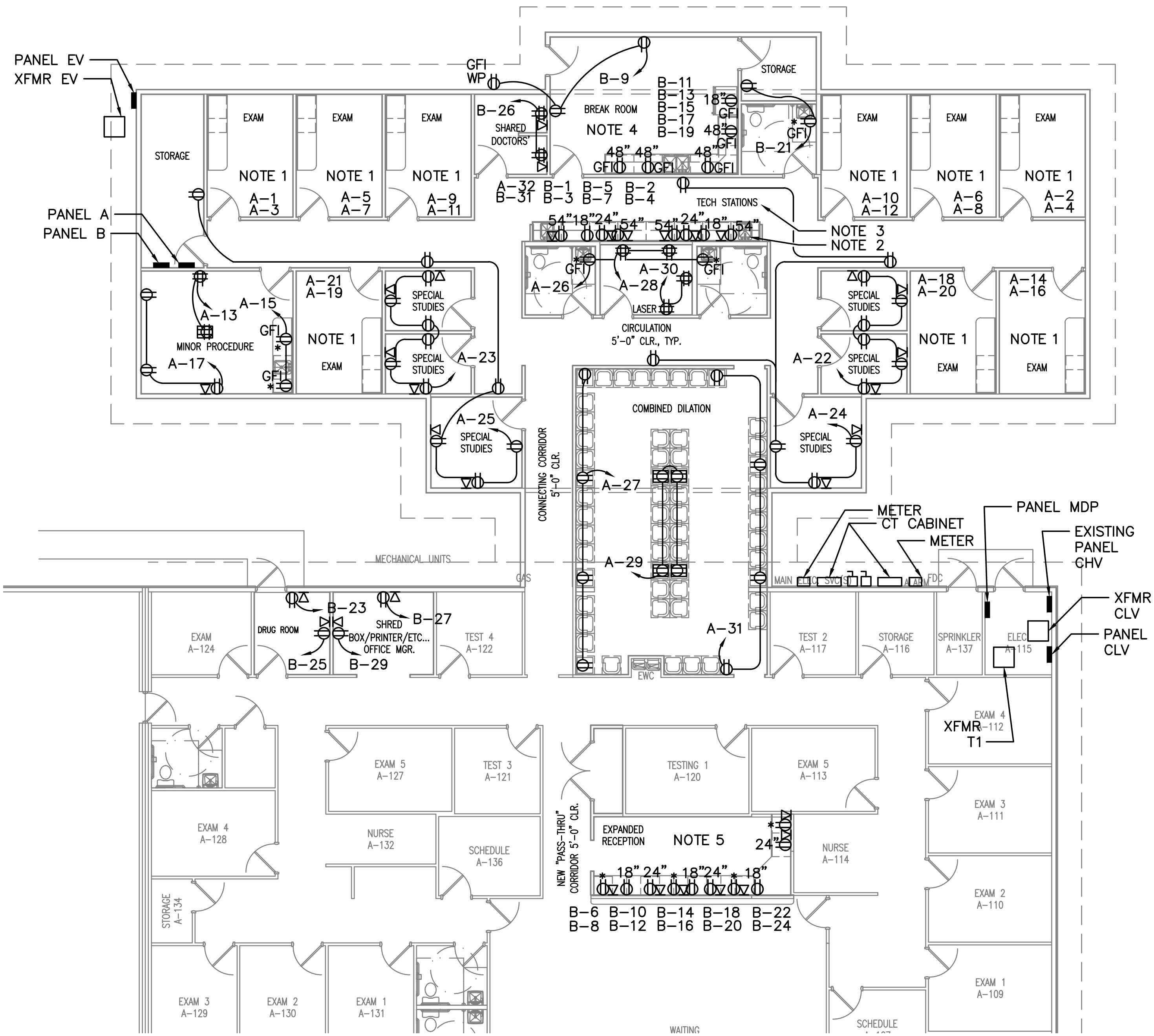
PROJECT NO.: --  
CCi COMM. NO.: --



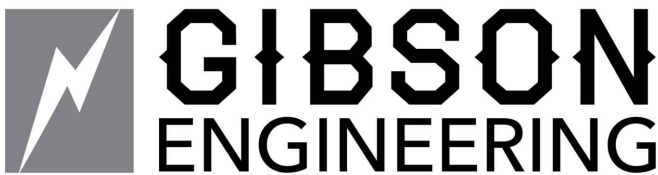
TYPICAL EXAM ROOM/OFFICE  
SCALE: 1/2" = 1'-0"

NOTES THIS SHEET:

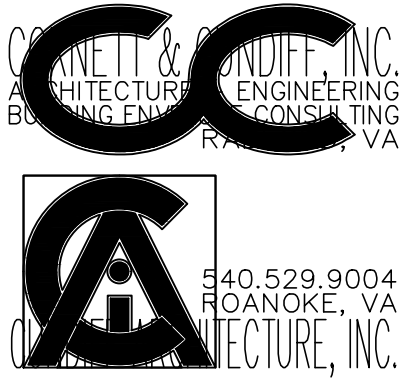
1. TYPICAL LAB ROOM LAYOUT IS TO BE APPLIED TO ALL ROOMS LISTED AS EXAM ROOM OR OFFICE. SEE TYPICAL AND SHEET A 8.1 FOR RECEPTACLE LAYOUTS IN THIS ROOM.
2. PROVIDE GFCI TO ALL RECEPTACLES IN THE TECH STATION AREA.
3. SEE SHEET A 8.1 FOR RECEPTACLE LAYOUTS IN THIS ROOM.
4. SEE SHEET A 8.2 FOR RECEPTACLE LAYOUTS IN THIS ROOM.
5. SEE SHEET A 8.3 FOR RECEPTACLE LAYOUTS IN THIS ROOM.



POWER AND DATA PLAN  
SCALE: 1/8" = 1'-0"



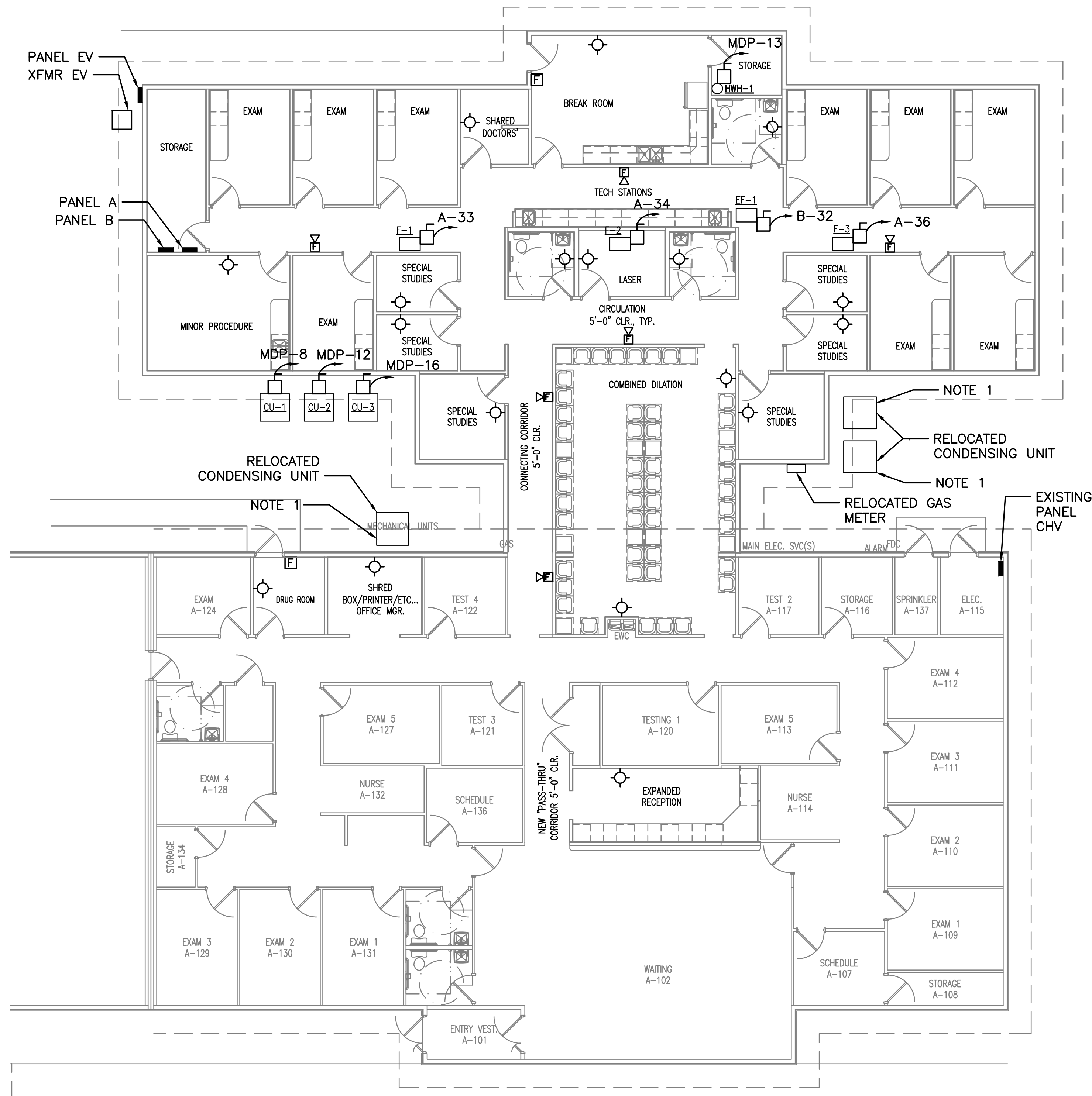
2100 LUBNA DR  
CHRISTIANSBURG VA 24073  
P. 540.998.6069



POWER AND DATA PLAN  
VISTAR EYE CENTER - WYTHEVILLE  
ADDITION  
470 LITHIA RD.  
WYTHEVILLE, VIRGINIA  
PRELIMINARY DESIGN (NOT FOR CONSTRUCTION)

E3.1 SHEET: 01  
OF: 01  
DATE: 04/29/24  
REV. NO.:  
DESIGNED BY: DWG  
DRAWN BY: DWG  
CHECKED BY: DWG  
PROJECT NO.: --  
CG COMM. NO.: --



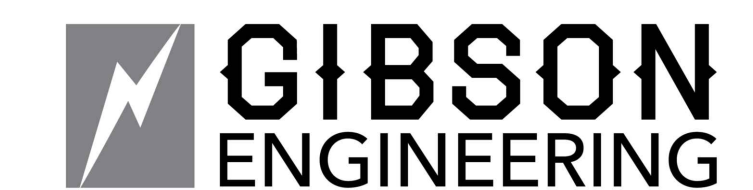


### NOTES THIS SHEET:

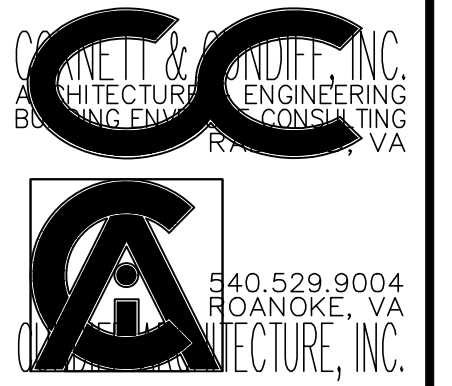
1. RELOCATE EXISTING CONDENSING UNITS AND RECONNECT TO EXISTING ELECTRICAL CIRCUITS. COORDINATE ALL WORK WITH MECHANICAL CONTRACTOR.

### MECHANICAL AND FIRE ALARM PLAN

SCALE: 1/8" = 1'-0"



2100 LUBNA DR  
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MECHANICAL AND FIRE ALARM PLAN  
VISTAR EYE CENTER - WYTHEVILLE  
ADDITION  
470 LITHIA RD.  
WYTHEVILLE, VIRGINIA  
PRELIMINARY DESIGN (NOT FOR CONSTRUCTION)

E1.1 SHEET: 01  
OF: 01  
DATE: 04/29/24  
REV. NO.:  
DESIGNED BY: DWG  
DRAWN BY: DWG  
CHECKED BY: DWG  
PROJECT NO.: --  
CG COMM. NO.: --

PANEL MDP																						
VOLTAGE: 208Y/120				PHASE: 3				BUS AMPS: 400A				<input checked="" type="checkbox"/> SURFACE MOUNTED				KAIC RATING: 22,000						
				WIRE: 4				MAIN BREAKER AMPS: MLO				<input type="checkbox"/> FLUSH MOUNTED										
CKT NO.		BRKR	WIRE		*	CIRCUIT DESCRIPTION	LOAD - KVA				CKT NO.		BRKR	WIRE		*	CIRCUIT DESCRIPTION	LOAD - KVA				
	P	AMPS	NO	SZ			PHA	PHB	PHC	3 PH		P	AMPS	NO	SZ			PHA	PHB	PHC	3 PH	
1						PANEL A	8.3				2						PANEL EV	33.3				
3	3	200						10.1	9.5		4	3	400						16.7	16.7		
5											6											
7								3.1			8	2	35	3	8		CU-1	1.9				
9	3	200				PANEL B		3.4			10							1.9		2.3		
11									3.2		12	2	50	3	6		CU-2					
13	2	20	3	12		HWH-1	1.3				14							2.3				
15								1.3			16	2	30	3	10		CU-3	1.5		1.5		
17	1	20				SPARE					18											
19	1	20				SPARE					20	1	20				SPARE					
21	1	20				SPARE					22	1	20				SPARE					
23	1	20				SPARE					24	1	20				SPARE					
25	1	20				SPARE					26	1	20				SPARE					
27	1	20				SPARE					28	1	20				SPARE					
29	1	20				SPARE					30	1	20				SPARE					
31	1	20				SPARE					32	1	20				SPARE					
33	1	20				SPARE					34	1	20				SPARE					
35	1	20				SPARE					36	1	20				SPARE					
37	1	20				SPARE					38	1	20				SPARE					
39	1	20				SPARE					40	1	20				SPARE					
41	1	20				SPARE					42	1	20				SPARE					
TOTAL LEFT SIDE							12.6	14.7	12.7	0.0	TOTAL RIGHT SIDE							37.5	20.1	20.5	0.0	
TOTAL RIGHT SIDE							37.5	20.1	20.5	0.0												
TOTAL							50.2	34.8	33.2	0.0												118.2
* NOTES																						

PANEL A																					
VOLTAGE: 208Y/120				PHASE: 3				BUS AMPS: 200A				<input checked="" type="checkbox"/> SURFACE MOUNTED				KAIC RATING: 22,000					
				WIRE: 4				MAIN BREAKER AMPS: 200A				<input type="checkbox"/> FLUSH MOUNTED									
CKT NO.	BRKR	WIRE									CKT NO.	BRKR	WIRE								
NO.	P	AMPS	NO	SZ	*	CIRCUIT DESCRIPTION	PHA	PHB	PHC	3 PH	NO.	P	AMPS	NO	SZ	*	CIRCUIT DESCRIPTION	PHA	PHB	PHC	3 PH
1	1	20	2	12		EXAM RM CIR.1	0.9				2	1	20	2	12		EXAM RM CIR.1	0.9			
3	1	20	2	12		EXAM RM CIR.2		0.5			4	1	20	2	12		EXAM RM CIR.2		0.5		
5	1	20	2	12		EXAM RM CIR.1			0.9		6	1	20	2	12		EXAM RM CIR.1			0.9	
7	1	20	2	12		EXAM RM CIR.2	0.5				8	1	20	2	12		EXAM RM CIR.2	0.5			
9	1	20	2	12		EXAM RM CIR.1		0.9			10	1	20	2	12		EXAM RM CIR.1		0.9		
11	1	20	2	12		EXAM RM CIR.2			0.5		12	1	20	2	12		EXAM RM CIR.2			0.5	
13	1	20	2	12		MINOR PRODEDURE	0.7				14	1	20	2	12		EXAM RM CIR.1	0.9			
15	1	20	2	12		MINOR PRODEDURE		0.4			16	1	20	2	12		EXAM RM CIR.2		0.5		
17	1	20	2	12		MINOR PRODEDURE			0.5		18	1	20	2	12		EXAM RM CIR.1			0.9	
19	1	20	2	12		EXAM RM CIR.1	0.9				20	1	20	2	12		EXAM RM CIR.2	0.5			
21	1	20	2	12		EXAM RM CIR.2		0.5			22	1	20	2	12		SPECIAL STUDIES		1.1		
23	1	20	2	12		SPECIAL STUDIES			1.1		24	1	20	2	12		SPECIAL STU, CORR			1.1	
25	1	20	2	12		SPECIAL STU, CORR	1.1				26	1	20	2	12		RR RCPTS	0.4			
27	1	20	2	12		COMBINED DILATION		0.7			28	1	20	2	12		LASER RM QUADS		0.7		
29	1	20	2	12		COMBINED DILATION			0.7		30	1	20	2	12		LASER RM QUADS			0.7	
31	1	20	2	12		COMBINED DILATION	0.7				32	1	20	2	12		TECH STA. PRINTER	0.2			
33	1	15	2	12		F-1		1.6			34	1	15	2	12		F-2		1.6		
35	1	20				SPARE					36	1	15	2	12		F-3			1.6	
37	1	20				SPARE					38	1	20				SPARE				
39	1	20				SPARE					40	1	20				SPARE				
41	1	20				SPARE					42	1	20				SPARE				
TOTAL LEFT SIDE							4.9	4.7	3.8	0.0	TOTAL RIGHT SIDE							3.4	5.4	5.7	0.0
TOTAL RIGHT SIDE							3.4	5.4	5.7	0.0	TOTAL CONNECTED LOAD										27.9
TOTAL							8.3	10.1	9.5	0.0											
* NOTES																					

PANEL B																						
VOLTAGE: 208Y/120				PHASE: 3				BUS AMPS: 200A				<input checked="" type="checkbox"/> SURFACE MOUNTED				KAIC RATING: 22,000						
				WIRE: 4				MAIN BREAKER AMPS: MLO				<input type="checkbox"/> FLUSH MOUNTED										
CKT NO.	BRKR	WIRE									CKT NO.	BRKR	WIRE									
NO.	P	AMPS	NO	SZ	*	CIRCUIT DESCRIPTION	PHA	PHB	PHC	3 PH	NO.	P	AMPS	NO	SZ	*	CIRCUIT DESCRIPTION	PHA	PHB	PHC	3 PH	
1	1	20	2	12		TECH STA 54"	0.7				2	1	20	2	12		TECH STA 54"	0.2				
3	1	20	2	12		TECH STA 18"		0.2			4	1	20	2	12		TECH STA 54"		0.2			
5	1	20	2	12		TECH STA PRINTER			0.2		6	1	20	2	12		EX RECEPTION TOP			0.2		
7	1	20	2	12		TECH STA 18"	0.2				8	1	20	2	12		EX RECEPTION 18"	0.2				
9	1	20	2	12		BRK, OUTSIDE RCPTS		0.5			10	1	20	2	12		EX RECEPTION PRINT		0.2			
11	1	20	2	12		BREAK FRIDGE			0.2		12	1	20	2	12		EX RECEPTION TOP			0.2		
13	1	20	2	12		BREAK 48"	0.2				14	1	20	2	12		EX RECEPTION 18"	0.2				
15	1	20	2	12		BREAK 48"		0.2			16	1	20	2	12		EX RECEPTION PRINT		0.2			
17	1	20	2	12		BREAK 48"			0.2		18	1	20	2	12		EX RECEPTION TOP			0.2		
19	1	20	2	12		BREAK 48"	0.2				20	1	20	2	12		EX RECEPTION 18"	0.2				
21	1	20	2	12		STOR. RR RCPTS		0.4			22	1	20	2	12		EX RECEPTION PRINT		0.2			
23	1	20	2	12		DRUG RM RCPT			0.2		24	1	20	2	12		EX RECEPTION TOP			0.2		
25	1	20	2	12		DRUG RM RCPT	0.2				26	1	20	2	12		SHARED DOCTOR	0.7				
27	1	20	2	12		SHRED/PRINT RM		0.2			28	1	20	2	12		LTS		1.3			
29	1	20	2	12		SHRED/PRINT RM			0.2		30	1	20	2	12		LTS			1.6		
31	1	20	2	12		TECH STA 54"	0.2				32	1	20	2	12		EF-1	0.0				
33	1	20				SPARE					34	1	20				SPARE					
35	1	20				SPARE					36	1	20				SPARE					
37	1	20				SPARE					38	1	20				SPARE					
39	1	20				SPARE					40	1	20				SPARE					
41	1	20				SPARE					42	1	20				SPARE					
TOTAL LEFT SIDE							1.6	1.4	0.9	0.0	TOTAL RIGHT SIDE							1.5	2.0	2.3	0.0	
TOTAL							3.1	3.4	3.2	0.0	TOTAL CONNECTED LOAD							9.7				
* NOTES																						