

# GRAND FORKS AIR FORCE BASE GRAND FORKS, ND

## ADD/REPAIR CDC FOR COMPLIANCE & RECAPITALIZATION B168

### TYPE B 100% FINAL SUBMITTAL - QFPE SIGNED DRAWINGS



I HEREBY CERTIFY THAT THIS PLAN, SPECIFICATION OR REPORT WAS PREPARED BY ME OR UNDER MY DIRECT SUPERVISION AND THAT I AM A DULY REGISTERED ARCHITECT UNDER THE LAWS OF THE STATE OF NORTH DAKOTA.

SIGNATURE: *Benjamin M. Menne*

REGISTRATION NAME: BENJAMIN M. MENNE  
ND REGISTRATION NO.: 2741



#### SHEET INDEX

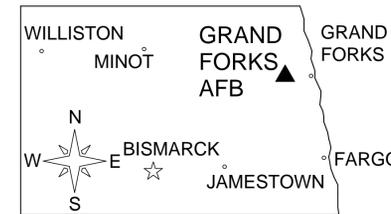
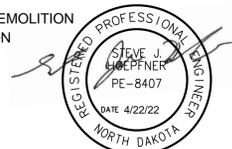
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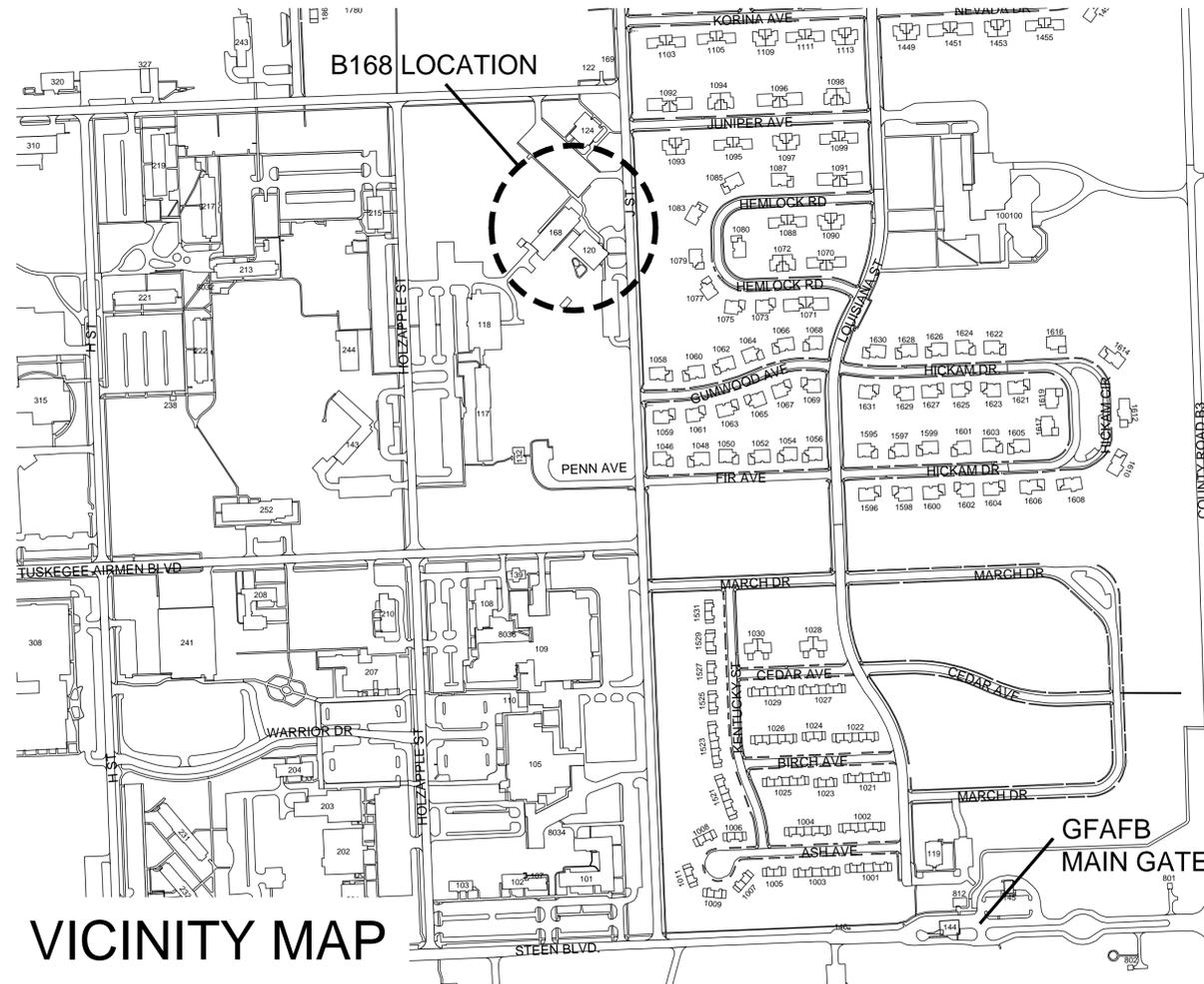
- E-000 ELECTRICAL - TITLE SHEET
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#### STATE OF NORTH DAKOTA - VICINITY MAP

NO SCALE

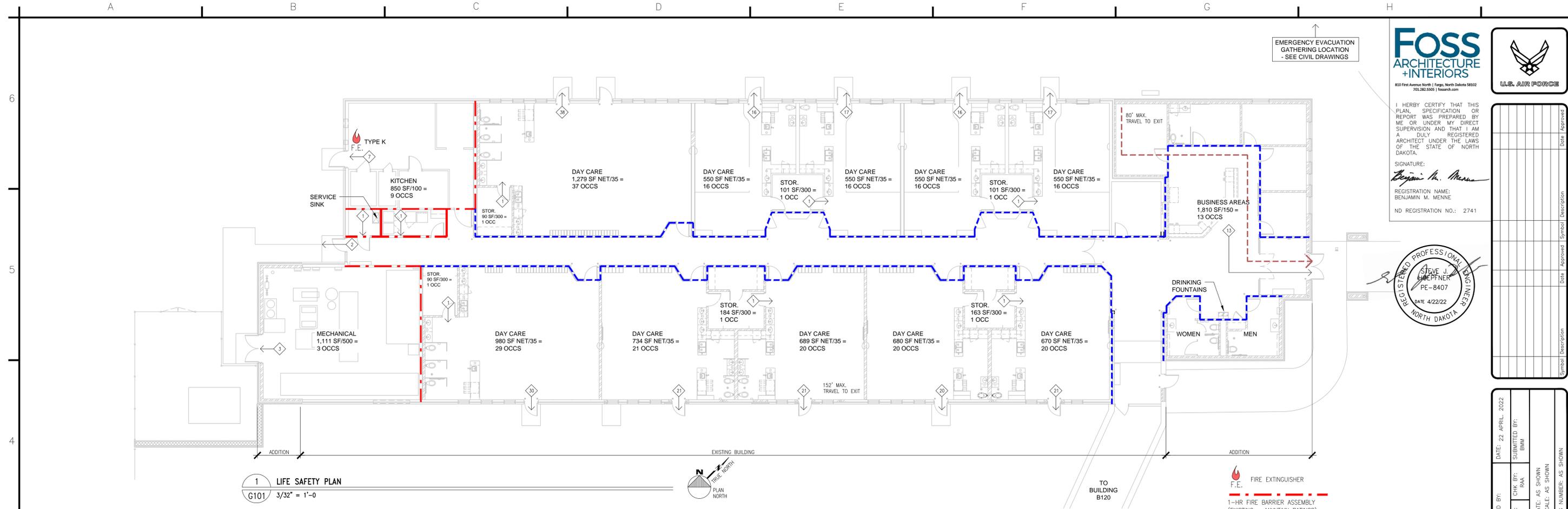
THIS SUBMITTAL INCLUDES THE FIRE PROTECTION AND LIFE SAFETY DRAWINGS SIGNED AND SEALED BY THE PROJECTS QFPE.



#### VICINITY MAP

#### ABBREVIATIONS

Ø	At	C	Channel	DBL	Double	F/A	Fire Alarm	H	High	M.	Men	OHD	Overhead	REOD	Required	STL	Steel	UG	Underground
Z	Angle	CAB	Cabinet	D.C.S.	Double Compartment	F.A.	Fresh Air	H.B.	Hose Bib	MAS	Masonry	OLF	Occupant Load Factor	RET	Return	STM	Steam	U.H.	Unit Heater
A.B.	Anchor Bolt	CASG	Casing	DET	Detail	F.B.	Face Brick	HC	Hollow Core Precast	MAT	Material	OPG	Opening	REV	Revisions	STOR	Storage	UNEX	Unexcavated
AC	Acoustic	C.B.	Chalk Board/Catch Basin	D.F.	Detail	F.C.O.	Floor Clean-out	H.D.	Hollow Duty	MAX	Maximum	OPP	Opposite	RFC	Roofing	STRUCT	Structural	UNFN	Unfinished
A.C.	Air Conditioning	C.C.	Center to Center	D.M.	Drinking Fountain	F.D.	Floor Drain	H.D.R.	Heavy Duty	M.B.	Machine Bolt/Map Basin	ORIG	Original	REG	Regulator	SUP	Supplier	U.O.N.	Unless Otherwise Noted
A.D.	Access Door	C.C.J.	Construction Control Joint	DIA/Ø	Diameter	F.D.V.	Fire Department Valve	H.B.D.	Hardboard	M.C.	Mechanical Contractor	O <sub>2</sub>	Oxygen	R.H.	Robe Hook/Right Hand	SUSP	Suspended	UR	Urinal
ADD	Addition	CEM	Cement	DIM	Dimension	F.E.	Fire Extinguisher	HDR	Header	M.D.O.	Medium Density Overlaid	O <sub>2</sub>	Ounce	R.H.W.	Recirculating Hot Water	SW	Switch	U.S.	Urinal Screen
A.F.F.	Above Finish Floor	CER	Ceramic	DISC	Disconnect	F.E.C.	Fire Extinguisher Cabinet	HWE	Hardware	MED	Medicine	PART	Partition/Particle	R.I.	Rough-In	SWB	Switchboard	UT	Utility
AGG	Aggregate	CFCI	Contractor Furnish	DIV-15	Division 15-Mechanical	F.F.	Finish Floor	H.M.	Hollow Metal	MEMB	Membrane	PC	Precast Concrete	R.L.	Rain Leader	S.W.B.	Switchboard	U.V.	Unit Ventilator
A.H.U.	Air Handling Unit	CFM	Cubic Feet per Minute	DK	Deck	F.F.	Fiberglass	HORIZ	Horizontal	MEV	Member	PF	Pre-Finished	R.M.	Room	R.O.	Roof Opening	V	Volt/Vent
ALT	Alternate	CFM	Contractor Furnish	DN	Down	F.H.	Fire Head	H.P.	Horsepower	ME/MTL	Metal	PC	Precast Concrete	R	Roof	R.O.	Roof Opening	V	Volt/Vent
ALUM/AL	Aluminum	CFDI	Contractor Furnish	DO	Door	F.H.C.	Fire Hose Cabinet	HR	Hour	MANUFACTURER	Manufacturer	P.LAM.	Plastic Laminite	R & S	Rod & Shelf	R.T.	Rubber Tile	VAC	Vacuum
ANCH	Anchor	CG	Curb & Gutter	DOOR	Door	FIN	Finish	HTG	Heating	M.K.	Mark	PLB	Plumbing	R.T.A.H.	Roof Top Air	RUB	Rubber	V.B.	Vacuum Breaker/ Vapor Barrier/ Vinyl Base
ANOD	Anodized	C&G	Curb & Gutter	DS/DNSPT	Downspout	F.O.	Finished Opening	HTG	Heating	MKB	Markerboard	P.L.	Plaster	RUB	Rubber	R.V.	Relief Vent	TER	Terrazzo
A.P.	Access Panel	CH	Coat Hook	D.T.	Double Tee/DrainTile	FLR	Floor	HR	Heater	MKB	Markerboard	P.L.	Plaster	RUB	Rubber	R.V.	Relief Vent	TER	Terrazzo
APPROX	Approximate	C.I.	Cast Iron	D.W.	Dishwasher	FND	Foundation	H & V	Heating & Ventilating	MIS	Miscellaneous	PNL	Panel	RUB	Rubber	R.V.	Relief Vent	TER	Terrazzo
ARCH	Architectural	C.J.	Control Joint	DWL	Dowel	FR	Frame	H & V	Heating & Ventilating	MIS	Miscellaneous	PNL	Panel	RUB	Rubber	R.V.	Relief Vent	TER	Terrazzo
ASPH	Asphalt	CL	Center Line	DWL	Dowel	FR	Frame	H & V	Heating & Ventilating	MIS	Miscellaneous	PNL	Panel	RUB	Rubber	R.V.	Relief Vent	TER	Terrazzo
A.T.C.	Automatic Temp Control	CLG	Ceiling	DWL	Dowel	FR	Frame	H & V	Heating & Ventilating	MIS	Miscellaneous	PNL	Panel	RUB	Rubber	R.V.	Relief Vent	TER	Terrazzo
		CLR	Clear	DWL	Dowel	FR	Frame	H & V	Heating & Ventilating	MIS	Miscellaneous	PNL	Panel	RUB	Rubber	R.V.	Relief Vent	TER	Terrazzo
		CLT or CLO	Closet	DWL	Dowel	FR	Frame	H & V	Heating & Ventilating	MIS	Miscellaneous	PNL	Panel	RUB	Rubber	R.V.	Relief Vent	TER	Terrazzo
		C.M.P.	Corrugated Metal Pipe	EA	Each	F.R.	Fire Rated	I.D.	Inside Diameter	M.O.	Masonry Opening	PORT	Portland	S	Sink/Sewer/South	T	Tile	V.C.P.	Vinyl Composition Tile
		CNT	Concrete Masonry Unit	EA	Each	FREQ	Frequency	I.J.	Isolation Joint	MON	Monument	P.P.G.	Polished Plate Glass	S.A.	Sanitary	T.H.	Towel Hook	VENT	Ventilate(r)(ing)
		C.O.	Clean Out	EA	Each	FT	Foot/Foot	INSUL	Insulation/Insulated	MTD	Mounted	PR	Pressure Relief Valve(Vent)	SAN	Sanitary	THK	Thick	VERT	Vertical
		CONC	Concrete	E.A.	Exhaust Air	F.T./F.R.T.	Fire-Retardant-Treated	INT	Interior/Insulated	MTL	Metal	PT	Point	SCHED	Schedule	THD	Threshold	VOL	Volume
		CONSTR	Construction	E.B.	Erection Bolt	FIG	Footings	INT	Interior/Internal	MULL	Mullion	PRV	Pressure Relief Valve(Vent)	SCHED	Schedule	T.O.B.	Top of Beam	V.S.T.	Vent Stack
		CONT	Continuous	E.C.	Electrical Contractor	FIR	Firing	INT	Interior/Internal			P.V.	Plumbing Vent	SCHED	Schedule	T.O.F.	Top of Footing	V.T.R.	Vent Thru Roof
		CONC	Concrete	E.F.	Each Face/Exhaust Fan	F.W.	Fire Wall	INT	Interior/Internal			P.V.C.	Polyvinyl Chloride	SCHED	Schedule	T.O.F.L.	Top of Floor	VWC	Vinyl Wall Covering
		CONSTR	Construction	E.J.	Expansion Joint	G	Gas	INT	Interior/Internal			P.V.M.	Pavement	SCHED	Schedule	T.O.F.L.	Top of Floor	V.W.F.	Vinyl Wall Fabric
		CONSTR	Construction	E.L.	Electrical	G	Gas	INT	Interior/Internal			P.W.	Pavement	SCHED	Schedule	T.O.J.	Top of Joist	W	Wide/West/Warmen
		CONTR	Contractor	E.L.EC	Electrical	G	Gauge	INT	Interior/Internal			P.W.	Pavement	SCHED	Schedule	TOPO	Topographical	W/	Width/With
		CONV	Converter	ELEV	Elevator	GAL	Gallon	INT	Interior/Internal			P.W.	Pavement	SCHED	Schedule	T.O.S.	Top of Steel	W.C.	Water Closet
		COR	Corner	EMER	Emergency	GALV	Galvanized	INT	Interior/Internal			P.W.	Pavement	SCHED	Schedule	T.P.	Toilet Partition	WD	Wood
		CORR	Corrosion	ENT	Entrance	G.B.	Grab Bar	INT	Interior/Internal			P.W.	Pavement	SCHED	Schedule	T.P.H.	Toilet Paper Holder	WDW	Window
		C.P.	Cement Plaster/Chrome Plated	E.P.S.	Expanded Polystyrene	G.C.	General Contractor	INT	Interior/Internal			P.W.	Pavement	SCHED	Schedule	T.P.P.	Thermal Plastic Piping	W.F.	Wash Fountain
		C.P.	Cement Plaster/Chrome Plated	EQUIP	Equipment	G.C.O.	Ground Contractor	INT	Interior/Internal			P.W.	Pavement	SCHED	Schedule	T.R.	Tread	W.H.	Wall Hydrant
		CPT	Carpet	E.W.	Each Way	GEN	General	LAV/L	Lavatory	O.A.	Outside Air	R	Riser/Radius	S.S.	Stainless Steel/Service Sink	TR	Tread	W.I.	Wrought Iron
		CSG	Casing	E.W.C.	Electric Water Cooler	G.L.	Galvanized	L.H.	Left Hand	O.A.L.	Overall Length	R.A.	Return Air	S.S.	Stainless Steel/Service Sink	TR	Tread	W.I.	Wrought Iron
		C.T.	Ceramic Tile	EXC	Excavate	G.L.	Galvanized	L.K.R	Locker	OBS	Obscure	RAD	Radiation	S.S.	Stainless Steel/Service Sink	TR	Tread	W.I.	Wrought Iron
		CTR	Counter/Center	EXC	Excavate	G.L.	Galvanized	L.L.H.	Long Leg Horizontal	O.C.	On Center	R.A.F.	Return Air Fan	S.S.	Stainless Steel/Service Sink	TR	Tread	W.I.	Wrought Iron
		CTS	Countersink	EXH	Exhaust	G.N.	Gooseneck	L.L.V.	Long Leg Vertical	O.D.	Outside Diameter	R.A.G.	Return Air Grille	S.S.	Stainless Steel/Service Sink	TR	Tread	W.I.	Wrought Iron
		C.U.H.	Cabinet Unit Heater	EXIST	Existing	GND	Ground	LOC	Location	O.F.	Outside Face	R.C.	Remote Control	S.S.	Stainless Steel/Service Sink	TR	Tread	W.I.	Wrought Iron
		C.U.L.	Custodian	EXTR	Exterior	GND	Ground	LONG.	Longitudinal	OFCI	Owner Furnished/Contractor Installed	R.C.P.	Reinforced Concrete Pipe	S.S.	Stainless Steel/Service Sink	TR	Tread	W.I.	Wrought Iron
		C.W.	Cold Water	EXTR	Exterior	GND	Ground	L.P.	Low Pressure	OFOI	Owner Furnished/Owner Installed	R.D./Ø	Reinforced Concrete Pipe	S.S.	Stainless Steel/Service Sink	TR	Tread	W.I.	Wrought Iron
		C.Y.	Cubic Yard	EXTR	Exterior	GND	Ground	L.S.J.	Long Span Joist	OFOI	Owner Furnished/Owner Installed	R.D.	Roof Drain	S.S.	Stainless Steel/Service Sink	TR	Tread	W.I.	Wrought Iron
				EXTR	Exterior	GND	Ground	L.T.	Laundry Tray	OFOI	Owner Furnished/Owner Installed	R.D.	Roof Drain	S.S.	Stainless Steel/Service Sink	TR	Tread	W.I.	Wrought Iron
				EXTR	Exterior	GND	Ground	L.T.	Laundry Tray	OFOI	Owner Furnished/Owner Installed	R.D.	Roof Drain	S.S.	Stainless Steel/Service Sink	TR	Tread	W.I.	Wrought Iron
				EXTR	Exterior	GND	Ground	L.T.	Laundry Tray	OFOI	Owner Furnished/Owner Installed	R.D.	Roof Drain	S.S.	Stainless Steel/Service Sink	TR	Tread	W.I.	Wrought Iron
				EXTR	Exterior	GND	Ground	L.T.	Laundry Tray	OFOI	Owner Furnished/Owner Installed	R.D.	Roof Drain	S.S.	Stainless Steel/Service Sink	TR	Tread	W.I.	Wrought Iron
				EXTR	Exterior	GND	Ground	L.T.	Laundry Tray	OFOI	Owner Furnished/Owner Installed	R.D.	Roof Drain	S.S.	Stainless Steel/Service Sink	TR	Tread	W.I.	Wrought Iron
				EXTR	Exterior	GND	Ground	L.T.	Laundry Tray	OFOI	Owner Furnished/Owner Installed	R.D.	Roof Drain	S.S.	Stainless Steel/Service Sink	TR	Tread	W.I.	Wrought Iron
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				EXTR	Exterior	GND	Ground	L.T.	Laundry Tray	OFOI	Owner Furnished/Owner Installed	R.D.	Roof Drain	S.S.	Stainless Steel/Service Sink	TR	Tread	W.I.	Wrought Iron
				EXTR	Exterior	GND	Ground	L.T.	Laundry Tray	OFOI	Owner Furnished/Owner Installed	R.D.	Roof Drain	S.S.	Stainless Steel/Service Sink	TR	Tread	W.I.	Wrought Iron
				EXTR	Exterior	GND	Ground	L.T.	Laundry Tray	OFOI	Owner Furnished/Owner Installed	R.D.	Roof Drain	S.S.	Stainless Steel/Service Sink	TR	Tread	W.I.	Wrought Iron
				EXTR	Exterior	GND	Ground	L.T.	Laundry Tray	OFOI	Owner Furnished/Owner Installed	R.D.	Roof Drain	S.S.	Stainless Steel/Service Sink	TR	Tread	W.I.	Wrought Iron
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				EXTR	Exterior	GND	Ground	L.T.	Laundry Tray	OFOI	Owner Furnished/Owner Installed	R.D.	Roof Drain	S.S.	Stainless Steel/Service Sink	TR	Tread	W.I.	Wrought Iron
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				EXTR	Exterior	GND	Ground	L.T.	Laundry Tray	OFOI	Owner Furnished/Owner Installed	R.D.	Roof Drain	S.S.	Stainless Steel/Service Sink	TR	Tread	W.I.	Wrought Iron
				EXTR	Exterior	GND	Ground	L.T.	Laundry Tray	OFOI	Owner Furnished/Owner Installed	R.D.	Roof Drain	S.S.	Stainless Steel/Service Sink	TR	Tread	W.I.	Wrought Iron
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				EXTR	Exterior	GND	Ground	L.T.	Laundry Tray	OFOI	Owner Furnished/Owner Installed	R.D.	Roof Drain	S.S.	Stainless Steel/Service Sink	TR	Tread	W.I.	Wrought Iron



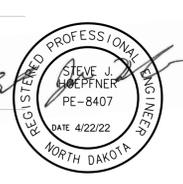
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I HEREBY CERTIFY THAT THIS PLAN, SPECIFICATION OR REPORT WAS PREPARED BY ME OR UNDER MY DIRECT SUPERVISION AND THAT I AM A DULY REGISTERED ARCHITECT UNDER THE LAWS OF THE STATE OF NORTH DAKOTA.

SIGNATURE:  
*Benjamin M. Menne*

REGISTRATION NAME:  
BENJAMIN M. MENNE

ND REGISTRATION NO.: 2741



**1 LIFE SAFETY PLAN**  
G101 3/32" = 1'-0"

**CODE INFORMATION**

**APPLICABLE BUILDING CODES**

BUILDING CODE:	AFSA 1-10-10 DESIGN REQUIREMENTS FOR A CHILD DEVELOPMENT CENTER
UFC 1-200-01 / 2018 INTERNATIONAL BUILDING CODE (IBC)	AFMAN 32-1084 FACILITY REQUIREMENT STANDARDS
UFC 3-410-01 / 2018 INTERNATIONAL MECHANICAL CODE (IMC)	UFC 3-120-01 DESIGN: SIGN STANDARDS
UFC 3-420-01 / 2018 INTERNATIONAL PLUMBING CODE (IPC)	UFC 3-120-10 INTERIOR DESIGN
UFC 3-600-01 / 2018 INTERNATIONAL FIRE CODE (IFC)	UFC 4-010-01 DOD MINIMUM ANTI-TERRORISM STANDARDS FOR BUILDINGS
NFPA 54 & NFPA 58 / 2018 INTERNATIONAL FUEL GAS CODE (IFGC)	ETL 04-03 DESIGN CRITERIA FOR PREVENTION OF MOLD IN AIR FORCE FACILITIES
UFC 1-200-02 / 2018 INTERNATIONAL ENERGY CONSERVATION CODE (IECC)	ETL 07-4 AIR FORCE CARPET STANDARD
UFC 3-501-01 / NFPA 70 / NATIONAL ELECTRIC CODE	AIR FORCE CORPORATE FACILITIES STANDARDS (AFCFS)
UFC 3-530-01 DESIGN: INTERIOR AND EXTERIOR LIGHTING AND CONTROLS	
NFPA 101 LIFE SAFETY CODE	
UFC 4-021-01 MASS NOTIFICATION SYSTEMS	
FC 4-740-14F FACILITIES CRITERIA DESIGN: AIR FORCE CHILD DEVELOPMENT CENTERS	
ARCHITECTURAL BARRIERS AT ACCESSIBILITY GUIDELINES (ABAG)	

**PROJECT INFORMATION**

**PROJECT TITLE:**  
ADD/REPAIR CDC FOR COMPLIANCE & RECAPITALIZATION B168

**ADDRESS:**  
B168 - GRAND FORKS AIR FORCE BASE, NORTH DAKOTA

**PROJECT DESCRIPTION:**  
PROJECT CONSISTS OF A NEW OFFICE/ENTRY ADDITION, MECHANICAL ROOM ADDITION AND RENOVATION OF EXISTING CHILD DEVELOPMENT CENTER

**B. TYPE OF CONSTRUCTION**

II-B

**C. OCCUPANCY:**

INSTITUTIONAL GROUP I-4, DAY CARE FACILITIES

**D. GROSS SQUARE FEET:**

13,633 SF EXISTING  
2,518 SF ADDITION  
16,151 SF TOTAL

**HEIGHT OF BUILDING:**  
HEIGHT 23'-6"  
STORIES 1

**E. OCCUPANT LOAD:**

MAXIMUM FLOOR AREA ALLOWANCES PER OCCUPANT (NFPA 101 TABLE 7.3.1.2)  
SEE LIFE SAFETY PLANS ABOVE FOR OCCUPANT INFORMATION (NOTE THAT OCCUPANT FIGURES ARE ROUNDED UP ON LIFE SAFETY PLAN)

TOTAL = 242 OCCUPANTS

**GENERAL BUILDING HEIGHT AND AREA LIMITATIONS (IBC CHAPT. 5)**

CONSTRUCTION TYPE: II-B	SPRINKLERED BUILDING: YES	75 FEET
ALLOWABLE BUILDING HEIGHT IN FEET ABOVE GRADE PLANE (TABLE 504.3):		3 STORES
ALLOWABLE NUMBER OF STORES ABOVE GRADE PLANE (TABLE 504.4):		
BASE ALLOWABLE BUILDING AREA PER FLOOR FOR SINGLE-STORY BUILDING WITH AUTOMATIC SPRINKLERED SYSTEM (TABLE 506.2):	52,000 SF	
PROPOSED BUILDING AREA: 16,151 SF		
PROPOSED BUILDING AREA DOES NOT EXCEED TABULAR ALLOWABLE BUILDING AREA - AREA INCREASE DUE TO FRONTAGE NOT CALCULATED		

**RATING REQUIREMENTS (IBC CHAPT. 6)**

BUILDING ELEMENT	TYPE II-B
STRUCTURAL FRAME	0 HR.
BEARING WALLS - EXTERIOR (FIRE SEPARATION DISTANCE GREATER THAN 10FT)	0 HR.
BEARING WALLS - INTERIOR	0 HR.
NONBEARING WALLS - EXTERIOR (FIRE SEPARATION DISTANCE GREATER THAN 10FT)	0 HR.
NONBEARING PARTITIONS - INTERIOR	0 HR.
FLOORS AND FLOOR CEILINGS	0 HR.
ROOFS AND ROOF CEILINGS	0 HR.

**INTERIOR FINISHES (NFPA 101 CHAPT. 10)**

INTERIOR FINISH SHALL APPLY PER CHAPTER 16 (10.2.2.1)  
INTERIOR WALL AND CEILING FINISH (16.3.3.2)  
CORRIDORS & LOBBIES: CLASS A  
ALL OTHER OCCUPIED AREAS: CLASS A OR CLASS B  
INTERIOR FLOOR FINISH (16.3.3.3)  
EXIT ACCESS CORRIDORS AND SPACES NOT SEPARATED FROM THEM BY WALLS: NOT LESS THAN CLASS II.

**FIRE PROTECTION INFORMATION**

FIRE SAFETY SYSTEM	TYPE:
AUTOMATIC FIRE SPRINKLER SYSTEM	NFPA 13
FIRE ALARM SYSTEM	
SMOKE & CO DETECTION SYSTEM	

**PORTABLE FIRE EXTINGUISHERS**

PORTABLE FIRE EXTINGUISHERS PER NFPA 101 - PROVIDE TYPE K FIRE EXTINGUISHER @ KITCHEN  
FC 4-740-14F STATES TO PROVIDE PORTABLE FIRE EXTINGUISHERS PER UFC 3-600-01, WHICH REFERENCES TO PROVIDE WHERE REQUIRED PER NFPA 101. NFPA 101 ONLY REQUIRES PORTABLE FIRE EXTINGUISHER PROTECTION IN THE COMMERCIAL KITCHEN SPACE WITH A CLASS K FIRE EXTINGUISHER PER NFPA 96

**MEANS OF EGRESS (NFPA 101 CHAPT. 7 & 16)**

MAXIMUM FLOOR AREA ALLOWANCES PER OCC. (TABLE 7.3.1.2): SEE LIFE SAFETY PLANS  
COMMON PATH OF EGRESS TRAVEL (16.2.5.3.1): 100' MAX. - SPINKLERED  
MINIMUM DOOR CLEAR WIDTH (7.2.1.2.3.1): 32" MIN.  
EXIT ACCESS TRAVEL DISTANCE (16.2.6.2 & 16.2.6.3): 150' MAX. FROM ANY ROOM EXIT ACCESS DOOR TO AN EXIT  
200' MAX. FROM ANY POINT IN A ROOM TO AN EXIT  
0 (ZERO) HOURS IN SUPERVISED SPRINKLERED BUILDING WALLS TO BE CONSTRUCTED AS SMOKE PARTITIONS

CORRIDOR FIRE RATINGS (16.3.6):

**INTERIOR ENVIRONMENT (CHAPT. 12)**

TOILET AND BATHROOM REQUIREMENTS (SECT. 1210):  
RESTROOM FLOOR FINISH MATERIAL SHALL HAVE A SMOOTH, HARD, NONABSORBENT SURFACE - INTERSECTION OF FLOOR WITH WALL SHALL HAVE A SMOOTH, HARD, NONABSORBENT VERTICAL BASE THAT EXTENDS UPWARDS FOR NOT LESS THAN 4 INCHES. WALLS AND PARTITIONS WITHIN 2 FEET OF SERVICE SINKS, URINALS AND WATER CLOSETS SHALL HAVE A SMOOTH, HARD, NONABSORBENT SURFACE TO A HEIGHT OF NOT LESS THAN 4 FEET ABOVE THE FLOOR.

**PLUMBING CALCULATIONS - TABLE 2902.1**

AREA/OCCUPANCY	OCCUPANCY LOAD TOTAL	OCCUPANCY LOAD MEN	OCCUPANCY LOAD WOMEN	REQUIRED					PROVIDED									
				WATER CLOSETS	LAVATORIES	BATH/UB OR SHOWER	DRINKING FOUNTAIN	SERVICE SINK	CHILD UNI-SEX WC	CHILD UNI-SEX LAV	ADULT UNI-SEX WC	ADULT UNI-SEX LAV	WOMEN WC	WOMEN LAV	BATH/UB OR SHOWER	DRINKING FOUNTAIN	SERVICE SINK	
INSTITUTIONAL - CHILD DAY CARE	242	121	121	17	17	1	3	1	11	15	2	1	2	1	2	0	2	1
<b>BUILDING TOTALS</b>									<b>11</b>	<b>15</b>	<b>2</b>	<b>1</b>	<b>2</b>	<b>2</b>	<b>0</b>	<b>2</b>	<b>**1</b>	<b>1</b>

**PLUMBING RATIOS:**

INSTITUTIONAL - CHILD DAY CARE	
WATER CLOSETS:	1 PER 15
LAVATORIES:	1 PER 15
BATH/UBS OR SHOWERS:	1 PER BUILDING
DRINKING FOUNTAIN:	1 PER 100
SERVICE SINK:	1 PER BUILDING

\* NOTE: FACILITY IS NOT IN COMPLIANCE WITH THE CALCULATED NUMBER OF WATER CLOSET FIXTURES REQUIRED. REQUEST THAT AHJ APPROVES PROJECT AS DESIGNED CONSIDERING THE FOLLOWING JUSTIFICATIONS:  
- 6 LOCATIONS ARE PLUMBED & CAPPED FOR FUTURE WATER CLOSET INSTALLATION IF NEEDED AT INFANT/PRE-TODDLER CHILD ACTIVITY ROOMS  
- A SIGNIFICANT PORTION OF THE BUILDING OCCUPANTS ARE OF AN AGE WHERE WATER CLOSET FIXTURES ARE NOT UTILIZED

\*\* STAFF MEMBERS CAN GIVE ACCESS TO DRINKING WATER @ FOOD PREP SINKS & BOTTLE FILLING FAUCETS IN EACH CHILD ACTIVITY ROOM

-GFAB IS NOT REQUIRING A BATHTUB OR SHOWER TO BE PROVIDED AT THIS DAYCARE FACILITY

DESIGNED BY: [Signature]  
DATE: 22 APRIL, 2022

CHIEF: BMM  
SUBMITTED BY: BMM

DEPARTMENT OF THE AIR FORCE  
AIR COMBAT COMMAND

GRAND FORKS, ND  
AIR FORCE BASE

DATE: 22 APRIL, 2022  
SUBMITTED BY: BMM  
PLOT DATE: AS SHOWN  
PLOT SCALE: AS SHOWN  
DRAWING NUMBER: AS SHOWN

**PROJECT #JFSD201808 - 100% SUBMITTAL  
ADD/REPAIR CDC FOR COMPLIANCE &  
RECAPITALIZATION B168**

**CODE INFORMATION & LIFE SAFETY PLAN**

SHEET  
REFERENCE  
NUMBER  
**G-101**



A

B

C

D

E

F

G

H

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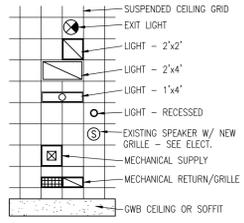
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1

GENERAL RCP PLAN NOTES

1. EXTENT OF CEILING WORK MAY NOT ALL BE SHOWN ON THIS PLAN - SEE MECHANICAL & ELECTRICAL REFLECTED CEILING PLAN DRAWINGS TO VERIFY LOCATION OF MECHANICAL AND ELECTRICAL EQUIPMENT NOT LIMITED TO BUT INCLUDING SPEAKERS, CAMERAS, FIRE ALARMS, SPRINKLER HEADS, ETC.
2. CEILINGS SHALL BE INSTALLED AT HEIGHTS INDICATED - NOTIFY ARCHITECT WHERE CONDITIONS WARRANT CHANGE TO CLG. HEIGHT.
3. FIELD CONDITIONS THAT VARY FROM THOSE INDICATED IN DRAWINGS AND SPECIFICATIONS SHALL BE BROUGHT TO THE CM/ARCHITECT'S ATTENTION PRIOR TO COMMENCEMENT OF THE WORK.

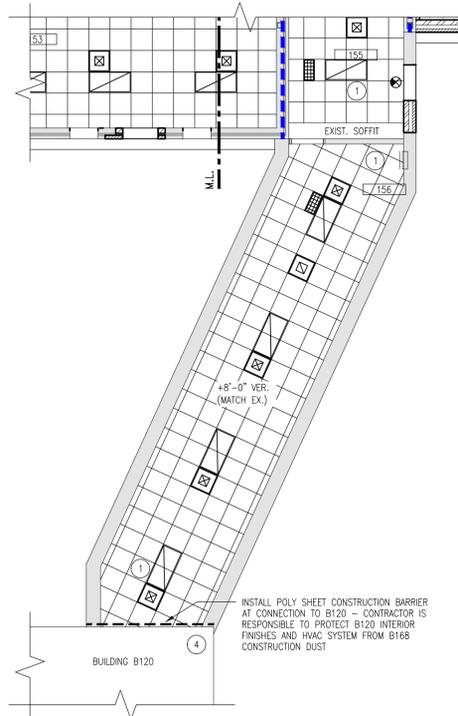
CEILING SYMBOLS & CEILING FIXTURES



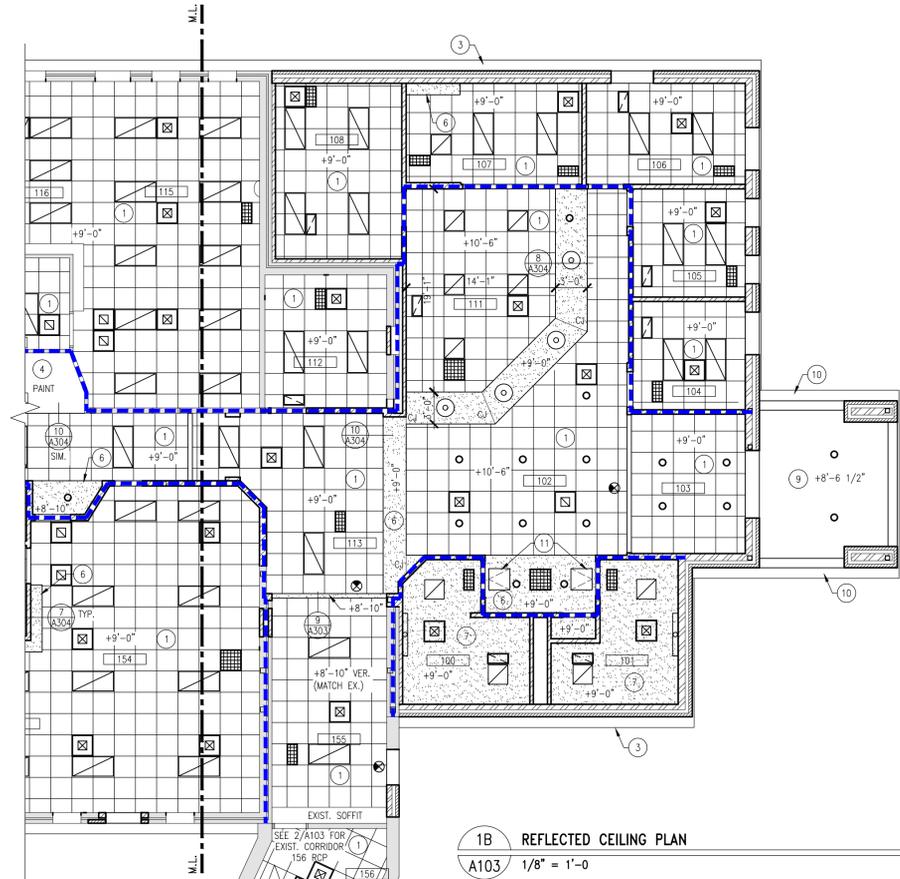
**CLASSROOM** - ROOM NAME  
 ### - ROOM TAG  
 (M.E.) 9'-9" - CEILING HEIGHT A.F.F. (VERIFY IF MATCHING EXISTING)  
 M.E. = MATCH EXISTING CEILING HEIGHT  
 --- 1-HR FIRE BARRIER (EXISTING)  
 --- SMOKE PARTITION

RCP PLAN NOTES

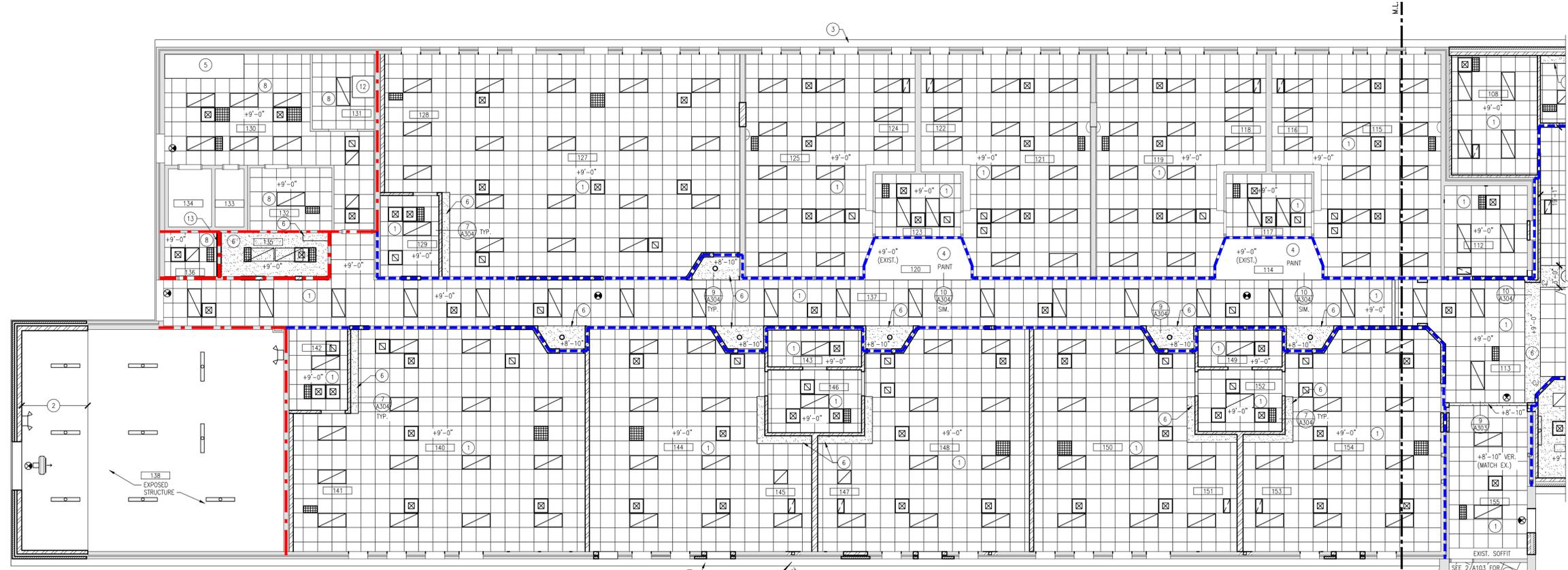
- 1 24" X 24" ACOUSTICAL CEILING TILES (ACT-1); TYPICAL UNLESS NOTED OTHERWISE
- 2 EXPOSED STRUCTURE - PAINT BY DIV. 9 - PAINT STEEL STRUCTURE, METAL DECK, BRACING, CONDUIT, ETC.
- 3 PREFINISHED NON-VENTED METAL SOFFIT PANEL
- 4 EXISTING CEILING TO REMAIN.
- 5 KITCHEN HOOD - SEE MECHANICAL.
- 6 GYPSUM WALLBOARD SOFFIT OR CEILING - PAINTED.
- 7 GYPSUM WALL BOARD CEILING, PAINTED - PROVIDE MOLD/MILDEW/MOISTURE RESISTANT OWB.
- 8 24" X 24" ACOUSTICAL CEILING TILES (ACT-2).
- 9 CANOPY CEILING - 1" STUCCO ON METAL LATH & SUSPENDED CEILING FRAMING.
- 10 PREFINISHED METAL VENTED SOFFIT
- 11 24" X 24" CEILING ACCESS PANEL BY 083100.
- 12 EXISTING DISHWASHER HOOD TO REMAIN.
- 13 ABOVE CEILING PROVIDE NEW 1-HR RATED METAL STUD WALL ASSEMBLY, EXTEND WALL ASSEMBLY UP TO THE ROOF DECK- FIRE STOPPED.



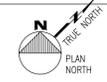
2 REFLECTED CEILING PLAN  
A103 1/8" = 1'-0"



1B REFLECTED CEILING PLAN  
A103 1/8" = 1'-0"



1A REFLECTED CEILING PLAN  
A103 1/8" = 1'-0"



I HEREBY CERTIFY THAT THIS PLAN, SPECIFICATION OR REPORT WAS PREPARED BY ME OR UNDER MY DIRECT SUPERVISION AND THAT I AM A DULY REGISTERED ARCHITECT UNDER THE LAWS OF THE STATE OF NORTH DAKOTA.

SIGNATURE: *Benjamin M. Menne*  
 REGISTRATION NAME: BENJAMIN M. MENNE  
 ND REGISTRATION NO.: 2741



Symbol	Description	Date	Approved

DESIGNED BY: [Blank]	DATE: 22 APRIL 2022
DRAWN BY: [Blank]	SUBMITTED BY: [Blank]
CHECKED BY: [Blank]	BY: [Blank]
DATE: [Blank]	BY: [Blank]
PLOT DATE: AS SHOWN	PLOT SCALE: AS SHOWN
DRAWING NUMBER: AS SHOWN	

DEPARTMENT OF THE AIR FORCE  
 AIR COMBAT COMMAND  
 GRAND FORKS, ND  
 AIR FORCE BASE

PROJECT #JFSD201808 - 100% SUBMITTAL  
 ADDRESS/REPAIR CDC FOR COMPLIANCE &  
 RECAPITALIZATION B168  
 REFLECTED CEILING PLAN

SHEET REFERENCE NUMBER  
**A-103**

**MECHANICAL GENERAL DEMOLITION NOTES**

- A. OWNER WILL OCCUPY PORTIONS OF THE BUILDING IMMEDIATELY ADJACENT TO SELECTIVE DEMOLITION AREA. CONDUCT DEMOLITION SO OWNER'S OPERATION WILL NOT BE DISTURBED. PROVIDE NOT LESS THAN 48 HOURS NOTICE TO OWNER OF ACTIVITIES THAT WILL AFFECT THE OWNER'S OPERATIONS.
- B. MAINTAIN EXISTING SERVICES TO OWNER OCCUPIED AREAS DURING DEMOLITION IF POSSIBLE OR COORDINATE INTERRUPTION OF SERVICES PRIOR TO DEMOLITION.
- C. OWNER ASSUMES NO RESPONSIBILITY FOR CONDITION OF AREA TO BE SELECTIVELY DEMOLISHED.
- D. IF MATERIALS SUSPECTED OF CONTAINING HAZARDOUS MATERIALS ARE ENCOUNTERED, DO NOT DISTURB, IMMEDIATELY NOTIFY THE OWNER. HAZARDOUS MATERIALS WILL BE REMOVED BY OWNER UNDER A SEPARATE CONTRACT.
- E. VERIFY FIELD MEASUREMENTS AND EXISTING DUCTWORK AND PIPING ARRANGEMENTS ARE AS SHOWN ON DRAWINGS.
- F. VERIFY THAT ABANDONED EQUIPMENT SERVES ONLY ABANDONED FACILITIES.
- G. DEMOLITION DRAWINGS ARE BASED ON CASUAL FIELD OBSERVATION AND EXISTING RECORD DOCUMENTS. THE DEMOLITION DRAWINGS ARE DIAGRAMMATIC AND SHOW THE GENERAL SCOPE OF DEMOLITION WORK AND DO NOT SHOW ALL THE CONSTRUCTION DETAIL OF THE ORIGINAL RECORD DRAWINGS. THIS CONTRACTOR SHALL VERIFY ALL EXISTING CONDITIONS PRIOR TO BEGINNING WORK AND NOTIFY THE ARCHITECT/ENGINEER OF ANY DISCREPANCIES BETWEEN THE "AS-BUILT" CONDITIONS AND THESE DRAWINGS. PROVIDE ADDITIONAL DEMOLITION AS REQUIRED BASED ON FIELD CONDITIONS.
- H. THE CONTRACTOR SHALL VISIT THE EXISTING BUILDING AND GROUNDS AND REVIEW THE EXISTING BUILDING RECORD DRAWINGS FOR DETAILS OF EXISTING INSTALLATION TO FAMILIARIZE HIMSELF WITH EXISTING CONDITIONS PRIOR TO SUBMITTING BID. NO ALLOWANCE WILL BE MADE SUBSEQUENTLY, IN THIS CONNECTION, ON BEHALF OF THE CONTRACTOR FOR ANY ERROR OR NEGLIGENCE ON HIS PART.
- I. BEGINNINGS OF DEMOLITION MEANS THE CONTRACTOR ACCEPTS EXISTING CONDITIONS.
- J. DISCONNECT MECHANICAL SYSTEMS IN AREAS SCHEDULED FOR REMOVAL. NOTIFY PROJECT ENGINEER AND OWNER OF AREAS TO BE AFFECTED BY MECHANICAL DEMOLITION WORK PRIOR TO COMMENCING.
- K. DEMOLISH AND REMOVE FROM SITE, AND EXTEND EXISTING MECHANICAL WORK UNDER PROVISIONS OF THIS DIVISION AND AS INDICATED ON THE DRAWINGS UNLESS OTHERWISE NOTED.
- L. SALVAGE ITEMS NOTED TO REMAIN THE PROPERTY OF THE OWNER SHALL BE DELIVERED TO A LOCATION TO BE DESIGNATED BY THE OWNER. CONTRACTOR SHALL REMOVE FROM CONSTRUCTION AREAS ALL TRASH OR DEBRIS AS IT ACCUMULATES AND DISPOSE OF IT OFF SITE AT NO ADDITIONAL COST TO THE OWNER. ALL CONSTRUCTION AREAS SHALL BE KEPT CLEAN, SAFE, AND ORDERLY AT ALL TIMES. AT THE COMPLETION AND ACCEPTANCE FOR WORK, CONTRACTOR SHALL REMOVE FROM THE SITE ALL DEBRIS AND SURPLUS MATERIALS RESULTING FROM THIS WORK AND DISPOSE OF THEM OFF SITE AT NO ADDITIONAL COST TO THE OWNER.
- M. DO NOT USE CUTTING TORCHES UNTIL WORK AREA IS CLEAR OF FLAMMABLE MATERIALS, AT CONCEALED SPACES VERIFY CONDITION AND CONTENTS OF HIDDEN SPACE BEFORE STARTING FLAME CUTTING OPERATIONS. MAINTAIN FIRE WATCH AND PORTABLE FIRE SUPPRESSION DEVICES DURING FLAME-CUTTING OPERATIONS. MAINTAIN AND EVALUATE VENTILATION DURING FLAME-CUTTING OPERATIONS.
- N. MAINTAIN VENTILATION FOR DUST CONTROL DURING SELECTIVE DEMOLITION PROCESS. VERIFY OWNER REQUIREMENTS FOR DUST CONTROL AND CONFORM TO THEIR STANDARDS FOR ALL DEMOLITION ACTIVITIES.
- O. REMOVE, RELOCATE, AND EXTEND EXISTING INSTALLATIONS TO ACCOMMODATE NEW CONSTRUCTION AS REQUIRED FOR PROPER INSTALLATION AND SYSTEM OPERATION.
- P. REMOVE ALL ACCESSORIES ABOVE GRADE. WHEN REMOVING EQUIPMENT OR TERMINAL DEVICES ALL ASSOCIATED PIPE, DUCT, ATC DEVICES, WIRING, ETC. SHALL BE REMOVED AND CAPPED AS REQUIRED. CUT PIPING, DUCT, TUBING, ETC. BEHIND WALLS, ABOVE CEILING AND BELOW FLOORS, AND PATCH SURFACES TO MATCH EXISTING CONDITIONS. FINISHES WILL BE BY OTHERS UNLESS OTHERWISE NOTED IN DOCUMENTS.
- Q. NEATLY CUT OPENINGS AND HOLES PLUMB, SQUARE AND TRUE TO DIMENSION REQUIRED. USE CUTTING METHODS LEAST LIKELY TO DAMAGE CONSTRUCTION TO REMAIN OR ADJOINING CONSTRUCTION. CUT AND DRILL FROM EXPOSED SURFACES INTO CONCEALED SURFACES TO AVOID MARRING OR SPALLING OF FINISHED SURFACES. TEMPORARILY COVER OPENINGS TO REMAIN.
- R. PATCH ALL OPENINGS IN FLOORS, WALLS, CEILING AND ROOFS CREATED BY REMOVAL OF MECHANICAL EQUIPMENT, ATC DEVICES, DUCTS, PIPES, ETC. UNLESS NOTED AS BEING PATCHED BY OTHERS. OPENINGS TO BE PATCHED TO MATCH EXISTING WITH SIMILAR MATERIALS AND FINISH UNLESS OTHERWISE NOTED.
- S. FLOOR CUTTING FOR PLUMBING DEMOLITION IS DIAGRAMMATIC ONLY. CONTRACTOR TO VERIFY EXISTING INVERTS AND DEPTH OF PIPING PRIOR TO FLOOR CUTTING AND TRENCHING.
- T. THIS CONTRACTOR IS RESPONSIBLE FOR REMOVAL AND RE-INSTALLING OF EXISTING CEILING TILE NOT REMOVED BY THE GENERAL CONTRACTOR FOR THE DEMOLITION OF EXISTING PIPING, DUCTWORK, EQUIPMENT, ETC. VERIFY WITH ARCHITECTURAL PLANS FOR CEILING WORK BY THE GENERAL CONTRACTOR. ANY CEILING TILE OR GRID DAMAGED DURING CONSTRUCTION SHALL BE REPLACED WITH NEW BY THIS CONTRACTOR.
- U. SEAL ALL EXISTING ROOF PENETRATIONS, WHICH WILL NOT BE REUSED. ROOF PATCHING SHALL BE BY PROJECT ROOFING CONTRACTOR OR AN OWNER APPROVED ROOFING CONTRACTOR.
- V. REMOVE, RELOCATE OR PROVIDE BRACKETS, HANGERS, AND OTHER ACCESSORIES AS REQUIRED.
- W. REPAIR ADJACENT CONSTRUCTION AND FINISHES DAMAGED DURING DEMOLITION AND EXTENSION WORK.
- X. MAINTAIN ACCESS TO EXISTING MECHANICAL INSTALLATIONS, WHICH REMAIN ACTIVE.
- Y. CLEAN AND REPAIR EXISTING MATERIALS AND EQUIPMENT, WHICH REMAIN OR ARE TO BE RETURNED TO THE OWNER.
- Z. ALL BUILDING SURFACES DAMAGED AND OPENINGS LEFT BY NEW WORK OR THE REMOVAL OR RELOCATION OF MECHANICAL EQUIPMENT, PIPING, ETC., SHALL BE REPAIRED TO ORIGINAL CONDITION AND PAINTED BY THIS CONTRACTOR.

**MECHANICAL GENERAL NOTES**

- A. NOTIFY THE ENGINEER OF ANY DISCREPANCIES IN OR OMISSIONS FROM THE DRAWINGS OR DOCUMENTS. NEITHER THE OWNER NOR THE ARCHITECT WILL BE RESPONSIBLE FOR ANY ORAL INSTRUCTIONS OR MODIFICATIONS OF THE SPECIFICATIONS OR DRAWINGS. WRITTEN INTERPRETATIONS WILL BE MADE ONLY BY ADDENDA.
- B. IF DISCREPANCIES ARE NOT REPORTED, THE CONTRACTOR SHALL BID THE GREATER QUANTITY OR BETTER QUALITY (HIGHEST DOLLAR VALUE), AND APPROPRIATE ADJUSTMENT WILL BE MADE AFTER CONTRACT AWARD.
- C. DISCREPANCIES DISCOVERED DURING CONSTRUCTION SHALL IMMEDIATELY BE CALLED TO THE ATTENTION OF THE ARCHITECT/ENGINEER FOR CLARIFICATION.
- D. ALL MINOR ITEMS NECESSARY FOR THE COMPLETION AND SUCCESSFUL OPERATION OF THE SYSTEM, WHETHER OR NOT HEREIN DEFINITELY SPECIFIED OR INDICATED ON THE DRAWINGS, SHALL BE FURNISHED AND INSTALLED.
- E. OMISSION OF OR EXPRESS REFERENCE TO ANY MATERIAL NECESSARY FOR OR REASONABLY INCIDENTAL TO COMPLETE INSTALLATION SHALL NOT RELEASE CONTRACTOR FROM PROVIDING SUCH MATERIAL, WHERE MATERIAL IS SHOWN ON DRAWINGS BUT IS NOT SPECIFIED OR IS SPECIFIED BUT NOT SHOWN, SUCH MATERIAL SHALL BE CONSIDERED BOTH SHOWN AND SPECIFIED.
- F. ANY WORK NOT CLEAR TO CONTRACTOR SHALL BE REFERRED TO ENGINEER FOR CLARIFICATION BEFORE BID IS SUBMITTED. IF NO QUESTION IS RAISED PRIOR TO OPENING OF BID, CONTRACTOR SHALL BE REQUIRED TO PROVIDE WORK IN QUESTION AS DIRECTED BY ENGINEER, WHOSE DECISION IS FINAL, WITHOUT ADDITIONAL CHARGES.
- G. BY VIRTUE OF SUBMITTING A BID, CONTRACTOR AGREES THAT HE IS SKILLED AND EXPERIENCED IN USE OF AND IN INTERPRETATION OF DRAWINGS AND SPECIFICATIONS. CONTRACTOR FURTHER AGREES THAT HE HAS CAREFULLY REVIEWED ALL DRAWINGS, ALL SPECIFICATIONS AND ALL ADDENDA, WHICH CONSTITUTE BID DOCUMENTS FOR THIS CONTRACT, AND FINDS THEM FREE OF AMBIGUITIES AND GOOD AND SUFFICIENT FOR BIDDING AND CONSTRUCTION PURPOSES.
- H. THE DRAWINGS INDICATE THE EXTENT AND GENERAL LAYOUT OF THE MECHANICAL SYSTEMS INTENDED FOR THE BUILDING. BECAUSE OF THE SMALL SCALE OF THE DRAWINGS, IT IS NOT POSSIBLE TO INDICATE ALL OFFSETS, FITTINGS, CONNECTIONS AND ACCESSORIES WHICH MAY BE REQUIRED. FURNISH OFFSETS, FITTINGS, VALVES, AND ACCESSORIES AS MAY BE REQUIRED, TO PROVIDE A COMPLETE AND OPERATING INSTALLATION OF TYPE SHOWN AND SPECIFIED.
- I. ALL PIPING AND DUCTWORK SHALL BE ROUTED SO AS NOT TO OBSTRUCT ACCESS TO OTHER EQUIPMENT (I.E. VAV BOX CONTROLS, ELECTRICAL DEVICES, FIRE ALARM DEVICES, ETC.). MAINTAIN 3'-0" CLEAR SPACE IN FRONT OF ALL ELECTRICAL, CONTROLS AND ACCESS PANELS FOR ACCESSIBILITY. ROUTING INDICATED ON DRAWINGS IS REPRESENTATIVE OF INTENDED LOCATION BUT SHALL BE FIELD VERIFIED. IT SHALL BE THIS CONTRACTOR'S RESPONSIBILITY TO COORDINATE WITH OTHER TRADES FOR ACCESSIBILITY.
- J. ALL EXPOSED PIPING AND DUCTWORK SHALL BE INSTALLED AS HIGH AS POSSIBLE TIGHT TO STRUCTURE ABOVE.
- K. IN GENERAL, THE MECHANICAL EQUIPMENT DRAWINGS ARE DRAWN TO SCALE AS NOTED. OBTAIN DIMENSIONS AND LOCATIONS OF PARTITIONS, WALLS, ETC. FROM THE ARCHITECTURAL DRAWINGS WHENEVER POSSIBLE AND DO NOT SCALE THE MECHANICAL DRAWINGS. CONSULT THE ARCHITECTURAL DRAWINGS FOR DETAILS OF CONSTRUCTION, LOCATION OF SUSPENDED CEILING, CEILING HEIGHTS, AND OTHER PERTINENT INFORMATION. ARCHITECT'S DRAWINGS SHALL NOT TAKE PRECEDENCE OVER FIELD MEASUREMENTS.
- L. ALL DRAWINGS AND SPECIFICATIONS SHALL BE CONSIDERED IN BIDDING. THE DRAWINGS AND SPECIFICATIONS ARE COMPLEMENTARY, AND WHAT IS CALLED FOR IN EITHER OF THESE SHALL BE AS BIDDING AS THOUGH CALLED FOR BY BOTH. SHOULD ANY CONFLICT ARISE BETWEEN DRAWINGS AND SPECIFICATIONS, SUCH CONFLICT SHALL BE BROUGHT TO THE ATTENTION OF THE ARCHITECT.
- M. ALL APPLIANCES AND EQUIPMENT SHALL BE INSTALLED AND CONNECTED IN ACCORDANCE WITH MANUFACTURER'S INSTRUCTIONS AND RECOMMENDATIONS UNLESS SUCH INSTRUCTIONS ARE IN CONFLICT WITH THESE SPECIFICATIONS. AUXILIARY PIPING, VALVES, ELECTRICAL CONNECTIONS, ETC., RECOMMENDED BY THE MANUFACTURER OR REQUIRED FOR PROPER OPERATION SHALL BE FURNISHED AND INSTALLED COMPLETE.
- N. ALL EQUIPMENT SHALL BE INSTALLED IN SUCH A MANNER AND LOCATION AS TO FACILITATE ACCESSIBILITY FOR MAINTENANCE AND/OR REPLACEMENT.
- O. AS A PART OF THE WORK OF THIS CONTRACT, THE MECHANICAL CONTRACTOR SHALL MAKE ANY CHANGES IN THE RULLEYS, BELTS, AND DAMPERS, AND SHALL INSTALL ADDITIONAL DAMPERS REQUIRED FOR CORRECT BALANCE AS RECOMMENDED BY AIR BALANCE AGENCY, AT NO ADDITIONAL COST TO THE OWNER.
- P. COOPERATE WITH OTHER TRADES SO AS TO AVOID INTERFERENCES. WHERE REQUIRED TO AVOID INTERFERENCES WITH OTHER WORK OR TO INCREASE THE HEADROOM, CAREFULLY CHECK ALL CONSTRUCTION DETAILS TO ASSURE THE PROPER INSTALLATION OF ALL WORK UNDER THIS SPECIFICATION. SCHEDULE THE WORK SUCH THAT IT WILL KEEP PACE WITH THE WORK OF OTHER CRAFTS AND CAUSE NO DELAY.
- Q. BEFORE SUBMITTING A PROPOSAL ON THE WORK CONTEMPLATED IN THESE SPECIFICATIONS AND ACCOMPANYING DRAWINGS, EACH BIDDER SHALL EXAMINE THE SITE AND FAMILIARIZE HIMSELF WITH ALL OF THE EXISTING CONDITIONS AND LIMITATIONS. NO EXTRAS WILL BE ALLOWED BECAUSE OF CONTRACTOR'S MISUNDERSTANDING AS TO THE AMOUNT OF WORK INVOLVED OR LACK OF HIS KNOWLEDGE OF ANY CONDITION IN CONNECTION WITH THE NEW CONSTRUCTION. THIS CONTRACTOR SHALL VERIFY ALL EXISTING CONDITIONS PRIOR TO BEGINNING WORK AND NOTIFY THE ARCHITECT/ENGINEER OF ANY DISCREPANCIES BETWEEN THE "AS-BUILT" CONDITIONS AND THESE DRAWINGS.
- R. NEATLY CUT OPENINGS AND HOLES PLUMB, SQUARE AND TRUE TO DIMENSION REQUIRED. USE CUTTING METHODS LEAST LIKELY TO DAMAGE CONSTRUCTION TO REMAIN OR ADJOINING CONSTRUCTION. CUT AND DRILL FROM EXPOSED SURFACES INTO CONCEALED SURFACES TO AVOID MARRING OR SPALLING OF FINISHED SURFACES. TEMPORARILY COVER OPENINGS TO REMAIN.
- S. THIS CONTRACTOR SHALL OPEN ALL EXISTING WALLS, FLOORS, CEILING AND ROOFS FOR INSTALLATION OF NEW PIPING, DUCTWORK, EQUIPMENT, ETC. PATCH ALL OPENINGS IN FLOORS, WALLS, CEILING AND ROOFS CREATED FOR INSTALLATION OF MECHANICAL EQUIPMENT, ATC DEVICES, DUCTS, PIPES, ETC. UNLESS NOTED AS BEING PATCHED BY OTHERS. OPENINGS TO BE PATCHED TO MATCH EXISTING WITH SIMILAR MATERIALS AND FINISH UNLESS OTHERWISE NOTED.
- T. REFER TO AND COORDINATE WITH ARCHITECTURAL PLANS FOR CEILING TYPES, HEIGHTS, SOFFIT AREAS AND ELEVATIONS FOR INSTALLATION OF NEW PIPING, DUCTWORK, EQUIPMENT, ETC.
- U. ALL SHUT-OFF VALVES, STRAINERS, CONTROL VALVES, DAMPERS, ACCESS DOORS, VAV BOXES, TERMINAL COILS, ATC DEVICES, ETC. SHALL BE INSTALLED IN ACCESSIBLE CEILING NOT MORE THAN 2 FEET ABOVE CEILING.
- V. FLOOR CUTTING FOR PLUMBING INSTALLATION IS DIAGRAMMATIC ONLY. CONTRACTOR TO VERIFY EXISTING INVERTS AND DEPTH OF PIPING PRIOR TO FLOOR CUTTING AND TRENCHING.
- W. PROVIDE 1/2" DRAIN VALVE AT ALL LOW POINTS OF EACH FIRE PROTECTION AND HVAC PIPING SYSTEM TO ENABLE COMPLETE DRAINAGE. PROVIDE 1/2" VENT VALVES AT ALL HIGH POINTS OF EACH HVAC PIPING SYSTEM TO ENABLE COMPLETE VENTING.
- X. ALL OPEN ENDS OF DUCTWORK SHALL BE CAPPED AT THE END OF CONSTRUCTION EACH DAY.
- Y. THIS CONTRACTOR IS RESPONSIBLE FOR REMOVAL AND RE-INSTALLING OF EXISTING CEILING TILE NOT REMOVED BY THE GENERAL CONTRACTOR FOR THE INSTALLATION OF NEW PIPING, DUCTWORK, EQUIPMENT, ETC. VERIFY WITH ARCHITECTURAL PLANS FOR CEILING WORK BY THE GENERAL CONTRACTOR. ANY CEILING TILE OR GRID DAMAGED DURING CONSTRUCTION SHALL BE REPLACED WITH NEW BY THIS CONTRACTOR.
- Z. THE ENTIRE INSTALLATION SHALL BE MADE IN ACCORDANCE WITH ALL STATE AND LOCAL LAWS. IF, IN ANY INSTANCE, THE PLANS AND SPECIFICATIONS CONFLICT WITH SUCH LAWS, THE LAW SHALL TAKE PRECEDENCE. THIS, HOWEVER, SHALL NOT BE CONSTRUED AS RELIEVING THE CONTRACTOR FROM COMPLYING WITH ANY REQUIREMENTS OF THE DRAWINGS AND SPECIFICATIONS THAT MAY BE IN EXCESS OF THE RULES AND NOT CONTRARY TO THE SAME.
- AA. ALL WORK SHALL CONFORM TO APPLICABLE STATE AND LOCAL CODES, ORDINANCES, REGULATIONS AND/OR STANDARDS.
- AB. ALL FIRE PROTECTION WORK SHALL ADHERE TO CURRENT NFPA 13 STANDARDS. THE ENTIRE BUILDING SHALL BE SPRINKLED. VERIFY WHERE MULTIPLE FLOORS EXIST. SPRINKLER HEADS IN LAY-IN-TILE CEILING SHALL BE LOCATED IN THE CENTER OF TILE. FIRE PROTECTION PIPING AND SPRINKLER HEADS SHOWN ARE FOR REFERENCE ONLY. THE FIRE PROTECTION CONTRACTOR SHALL PREPARE COMPLETE WORKING DRAWINGS OF THE ENTIRE SPRINKLER SYSTEM.

**MECHANICAL ABBREVIATIONS**

ACCU	AIR COOLED CONDENSING UNIT	HN	HOT WATER
AF	ABOVE FINISHED FLOOR	IJS	IN JOIST SPACE
AFM	AIRFLOW MEASURING DEVICE	INS	IN WEB SPACE
AHU	AIR HANDLING UNIT	KW	KILOWATT
ARCH	ARCHITECT, ARCHITECTURAL	LAT	LEAVING AIR TEMPERATURE
ATC	AUTOMATIC TEMPERATURE CONTROLS	LAV	LAVATORY
BDD	BACKDRAFT DAMPER	LBHR	POUNDS PER HOUR
BLDG	BUILDING	LWTR	LEAVING WATER TEMPERATURE
BTUH	BRITISH THERMAL UNITS PER HOUR	MA	MAKEUP AIR
BVI	BALL VALVE INDICATOR	MAU	MAKEUP AIR HANDLING UNIT
CA	COMBUSTION AIR	MBH	ONE THOUSAND BTU PER HOUR
CC	COOLING COIL	MCA	MINIMUM CIRCUIT AMPACITY
CFM	CUBIC FEET PER MINUTE	MECH	MECHANICAL
CIRC	CIRCULATING	MFS	MAXIMUM FUSE SIZE
CONC	CONCRETE	MISC	MISCELLANEOUS
COND	CONDENSATE	MO	NOT IN CONTRACT
CUN	CABINET UNIT HEATER	NA	NOT APPLICABLE
CU	COLD WATER	NC	NORMALLY CLOSED
DB	DECIBELS	NO	NORMALLY OPEN
DE	DRY BULB TEMPERATURE	NTS	NOT TO SCALE
DEMO	DEMOLISH, DEMOLITION	OA	OUTSIDE AIR
DIA	DIAMETER	ORD	OVERFLOW ROOF DRAIN
DIV	DIVISION	ORL	OVERFLOW RAIN LEADER
DN	DOWN	PH	PHASE
DWG	DRAWING	PRV	PRESSURE REDUCING VALVE
(E)	EXISTING	PSI	POUNDS PER SQUARE INCH
EA	EXHAUST AIR	PV	POWER VENTILATOR
EAT	ENTERING AIR TEMPERATURE	RA	RETURN AIR
EER	ENERGY EFFICIENCY RATIO	RD	ROOF DRAIN
EF	EXHAUST FAN	RH	ROOF HOOD
ELEG	ELECTRIC, ELECTRICAL	RHN	RECIRCULATING HOT WATER
ESP	EXTERNAL STATIC PRESSURE	RL	RAIN LEADER
EWT	ENTERING WATER TEMPERATURE	RPM	REVOLUTIONS PER MINUTE
EXH	EXHAUST	RTU	ROOFTOP AIR HANDLING UNIT
EXIST	EXISTING	SA	SUPPLY AIR
F	DEGREES FAHRENHEIT	SD	STORM DRAIN
FSD	COMBINATION FIRE/SMOKE DAMPER	SEER	SEASONAL ENERGY EFFICIENCY RATIO
FD	FIRE DAMPER	SPEC	SPECIFICATION
FLEX	FLOOR DRAIN	TA	TRANSFER AIR
FLX	FLEXIBLE	TR	TEMPERATURE RISE
FLA	FULL LOAD AMPERAGE	TSP	TOTAL STATIC PRESSURE
FMD	FLOW MEASURING DEVICE (LIQUID)	TYP	TYPICAL
PFM	FEET PER MINUTE	UH	UNIT HEATER
FTR	FINED TUBE RADIATION	V	SANITARY VENT
GALV	GALVANIZED	VD	VOLUME DAMPER (MANUAL OPPOSED BLADE)
GCO	GRADE CLEANOUT	VAV	VARIABLE AIR VOLUME
GFH	GALLONS PER HOUR	VTR	VENT THROUGH ROOF
GPM	GALLONS PER MINUTE	W	SANITARY WASTE
HB	HOSE BIBB	W	WITH
HC	HEATING COIL	WB	WET BULB TEMPERATURE
HP	HORSE POWER	WCO	WALL CLEANOUT
HR	HOUR	WH	WATER HEATER
HVAC	HEATING, VENTILATION, AND AIR CONDITIONING	W/O	WITHOUT

\* ALL ABBREVIATIONS DO NOT NECESSARILY APPEAR ON DRAWINGS

**MECHANICAL SHEET INDEX:**

M-000	MECHANICAL TITLE SHEET
M-101	MAIN FLOOR PLAN - FIRE PROTECTION - DEMOLITION
M-110	FOUNDATION PLAN - PLUMBING - DEMOLITION
M-111	MAIN FLOOR PLAN - PLUMBING - DEMOLITION
M-120	FOUNDATION PLAN - HVAC PIPING - DEMOLITION
M-121	MAIN FLOOR PLAN - HVAC PIPING - DEMOLITION
M-131	MAIN FLOOR PLAN/ROOF - VENTILATION - DEMOLITION
M-201	MAIN FLOOR PLAN - FIRE PROTECTION
M-300	FOUNDATION PLAN - PLUMBING
M-301	MAIN FLOOR PLAN - PLUMBING
M-302	PLUMBING RISER DIAGRAMS
M-400	FOUNDATION PLAN - HVAC PIPING
M-401	MAIN FLOOR PLAN - HVAC PIPING
M-402	HEATING/COOLING SCHEMATICS
M-501	MAIN FLOOR PLAN - VENTILATION
M-502	MECHANICAL SECTIONS
M-503	MECHANICAL SECTION PLAN
M-600	MECHANICAL DETAILS
M-100	MECHANICAL CONTROLS
M-800	MECHANICAL SCHEDULES
M-801	MECHANICAL SCHEDULES

**MECHANICAL SYMBOLS**

---+---	DOMESTIC COLD WATER	IP	DUCT SECTION, POSITIVE PRESSURE
---+---	DOMESTIC HOT WATER	DN	DUCT SECTION, NEGATIVE PRESSURE
---+---	DOMESTIC RECIRCULATING HOT WATER	IP	DUCT UP THROUGH FLOOR ABOVE OR ROOF
---+---	SANITARY VENT	DN	DUCT DOWN THROUGH FLOOR ABOVE OR ROOF
---+---	SANITARY SEWER	POS	RECTANGULAR DUCT, FIRST DIMENSION IS SIDE SHOWN
---+---	STORM DRAIN	NEG	ROUND DUCT
---+---	OVERFLOW DRAIN	20x12	RECTANGULAR DUCT, FIRST DIMENSION IS SIDE SHOWN
---+---	HEATING WATER RETURN	20x9	RECTANGULAR DUCT, FIRST DIMENSION IS SIDE SHOWN
---+---	HEATING WATER SUPPLY	20x12	RECTANGULAR DUCT, FIRST DIMENSION IS SIDE SHOWN
---+---	GLYCOL HEATING RETURN	20x12	RECTANGULAR DUCT, FIRST DIMENSION IS SIDE SHOWN
---+---	GLYCOL HEATING SUPPLY	20x12	RECTANGULAR DUCT, FIRST DIMENSION IS SIDE SHOWN
---+---	CHILLED WATER RETURN	20x12	RECTANGULAR DUCT, FIRST DIMENSION IS SIDE SHOWN
---+---	CHILLED WATER SUPPLY	20x12	RECTANGULAR DUCT, FIRST DIMENSION IS SIDE SHOWN
---+---	CONDENSER WATER RETURN	20x12	RECTANGULAR DUCT, FIRST DIMENSION IS SIDE SHOWN
---+---	CONDENSER WATER SUPPLY	20x12	RECTANGULAR DUCT, FIRST DIMENSION IS SIDE SHOWN
---+---	HEAT PUMP WATER RETURN	20x12	RECTANGULAR DUCT, FIRST DIMENSION IS SIDE SHOWN
---+---	HEAT PUMP WATER SUPPLY	20x12	RECTANGULAR DUCT, FIRST DIMENSION IS SIDE SHOWN
---+---	HIGH PRESSURE STEAM	20x12	RECTANGULAR DUCT, FIRST DIMENSION IS SIDE SHOWN
---+---	MEDIUM PRESSURE STEAM	20x12	RECTANGULAR DUCT, FIRST DIMENSION IS SIDE SHOWN
---+---	LOW PRESSURE STEAM	20x12	RECTANGULAR DUCT, FIRST DIMENSION IS SIDE SHOWN
---+---	CONDENSATE DRAIN	20x12	RECTANGULAR DUCT, FIRST DIMENSION IS SIDE SHOWN
---+---	PUMPED CONDENSATE	20x12	RECTANGULAR DUCT, FIRST DIMENSION IS SIDE SHOWN
---+---	REFRIGERANT LIQUID	20x12	RECTANGULAR DUCT, FIRST DIMENSION IS SIDE SHOWN
---+---	REFRIGERANT SUCTION	20x12	RECTANGULAR DUCT, FIRST DIMENSION IS SIDE SHOWN
---+---	REFRIGERANT DISCHARGE	20x12	RECTANGULAR DUCT, FIRST DIMENSION IS SIDE SHOWN
---+---	HOT GAS BYPASS	20x12	RECTANGULAR DUCT, FIRST DIMENSION IS SIDE SHOWN
---+---	FUEL OIL RETURN	20x12	RECTANGULAR DUCT, FIRST DIMENSION IS SIDE SHOWN
---+---	FUEL OIL SUPPLY	20x12	RECTANGULAR DUCT, FIRST DIMENSION IS SIDE SHOWN
---+---	FUEL OIL VENT	20x12	RECTANGULAR DUCT, FIRST DIMENSION IS SIDE SHOWN
---+---	NATURAL GAS	20x12	RECTANGULAR DUCT, FIRST DIMENSION IS SIDE SHOWN
---+---	FIRM NATURAL GAS	20x12	RECTANGULAR DUCT, FIRST DIMENSION IS SIDE SHOWN
---+---	INTERFERIBLE NATURAL GAS	20x12	RECTANGULAR DUCT, FIRST DIMENSION IS SIDE SHOWN
---+---	MEDICAL AIR	20x12	RECTANGULAR DUCT, FIRST DIMENSION IS SIDE SHOWN
---+---	CARBON DIOXIDE	20x12	RECTANGULAR DUCT, FIRST DIMENSION IS SIDE SHOWN
---+---	WASTE ANESTHETIC GAS DISPOSAL	20x12	RECTANGULAR DUCT, FIRST DIMENSION IS SIDE SHOWN
---+---	COMPRESSED AIR	20x12	RECTANGULAR DUCT, FIRST DIMENSION IS SIDE SHOWN
---+---	PIPE DOWN	20x12	RECTANGULAR DUCT, FIRST DIMENSION IS SIDE SHOWN
---+---	PIPE UP	20x12	RECTANGULAR DUCT, FIRST DIMENSION IS SIDE SHOWN
---+---	BRANCH DOWN	20x12	RECTANGULAR DUCT, FIRST DIMENSION IS SIDE SHOWN
---+---	GATE VALVE	20x12	RECTANGULAR DUCT, FIRST DIMENSION IS SIDE SHOWN
---+---	PIPE BREAK	20x12	RECTANGULAR DUCT, FIRST DIMENSION IS SIDE SHOWN
---+---	PIPE CAP	20x12	RECTANGULAR DUCT, FIRST DIMENSION IS SIDE SHOWN
---+---	FLOW ARROW	20x12	RECTANGULAR DUCT, FIRST DIMENSION IS SIDE SHOWN
---+---	PIPE GUIDE	20x12	RECTANGULAR DUCT, FIRST DIMENSION IS SIDE SHOWN
---+---	PIPE ANCHOR	20x12	RECTANGULAR DUCT, FIRST DIMENSION IS SIDE SHOWN
---+---	CONCENTRIC REDUCER	20x12	RECTANGULAR DUCT, FIRST DIMENSION IS SIDE SHOWN
---+---	UNION	20x12	RECTANGULAR DUCT, FIRST DIMENSION IS SIDE SHOWN
---+---	FLEXIBLE PIPE CONNECTION	20x12	RECTANGULAR DUCT, FIRST DIMENSION IS SIDE SHOWN
---+---	PIPE FLANGE	20x12	RECTANGULAR DUCT, FIRST DIMENSION IS SIDE SHOWN
---+---	SHUT-OFF VALVE	20x12	RECTANGULAR DUCT, FIRST DIMENSION IS SIDE SHOWN
---+---	BALANCING VALVES	20x12	RECTANGULAR DUCT, FIRST DIMENSION IS SIDE SHOWN
---+---	GATE VALVE	20x12	RECTANGULAR DUCT, FIRST DIMENSION IS SIDE SHOWN
---+---	GATE ANGLE VALVE	20x12	RECTANGULAR DUCT, FIRST DIMENSION IS SIDE SHOWN
---+---	PISTON VALVE	20x12	RECTANGULAR DUCT, FIRST DIMENSION IS SIDE SHOWN
---+---	GLOBE VALVE	20x12	RECTANGULAR DUCT, FIRST DIMENSION IS SIDE SHOWN
---+---	GLOBE ANGLE VALVE	20x12	RECTANGULAR DUCT, FIRST DIMENSION IS SIDE SHOWN
---+---	CHECK VALVE	20x12	RECTANGULAR DUCT, FIRST DIMENSION IS SIDE SHOWN
---+---	SAFETY RELIEF VALVE	20x12	RECTANGULAR DUCT, FIRST DIMENSION IS SIDE SHOWN
---+---	SOLENOID VALVE	20x12	RECTANGULAR DUCT, FIRST DIMENSION IS SIDE SHOWN
---+---	PRESSURE REGULATOR VALVE	20x12	RECTANGULAR DUCT, FIRST DIMENSION IS SIDE SHOWN
---+---	GAS COCK VALVE	20x12	RECTANGULAR DUCT, FIRST DIMENSION IS SIDE SHOWN
---+---	NATURAL GAS OUTLET	20x12	RECTANGULAR DUCT, FIRST DIMENSION IS SIDE SHOWN
---+---	PRESSURE REDUCING VALVE	20x12	RECTANGULAR DUCT, FIRST DIMENSION IS SIDE SHOWN
---+---	2-WAY CONTROL VALVE	20x12	RECTANGULAR DUCT, FIRST DIMENSION IS SIDE SHOWN
---+---	3-WAY CONTROL VALVE	20x12	RECTANGULAR DUCT, FIRST DIMENSION IS SIDE SHOWN
---+---	FLOW MEASURING DEVICE (LIQUID)	20x12	RECTANGULAR DUCT, FIRST DIMENSION IS SIDE SHOWN
---+---	FLOW METER	20x12	RECTANGULAR DUCT, FIRST DIMENSION IS SIDE SHOWN
---+---	AUTOFLOW VALVE ASSEMBLY	20x12	RECTANGULAR DUCT, FIRST DIMENSION IS SIDE SHOWN
---+---	BALL VALVE/STRAINER ASSEMBLY	20x12	RECTANGULAR DUCT, FIRST DIMENSION IS SIDE SHOWN
---+---	STRAINER	20x12	RECTANGULAR DUCT, FIRST DIMENSION IS SIDE SHOWN
---+---	STRAINER WITH BALL VALVE	20x12	RECTANGULAR DUCT, FIRST DIMENSION IS SIDE SHOWN
---+---	TERMOSTAT	20x12	RECTANGULAR DUCT, FIRST DIMENSION IS SIDE SHOWN
---+---	TEMPERATURE SENSOR	20x12	RECTANGULAR DUCT, FIRST DIMENSION IS SIDE SHOWN
---+---	HUMIDISTAT	20x12	RECTANGULAR DUCT, FIRST DIMENSION IS SIDE SHOWN
---+---	PRESSURE SWITCH	20x12	RECTANGULAR DUCT, FIRST DIMENSION IS SIDE SHOWN
---+---	RPZ BACKFLOW PREVENTOR ASSEMBLY	20x12	RECTANGULAR DUCT, FIRST DIMENSION IS SIDE SHOWN
---+---	PRESSURE GAUGE	20x12	RECTANGULAR DUCT, FIRST DIMENSION IS SIDE SHOWN
---+---	SENSOR WELL	20x12	RECTANGULAR DUCT, FIRST DIMENSION IS SIDE SHOWN
---+---	THERMOMETER	20x12	RECTANGULAR DUCT, FIRST DIMENSION IS SIDE SHOWN
---+---	AQUASTAT	20x12	RECTANGULAR DUCT, FIRST DIMENSION IS SIDE SHOWN
---+---	STEAM TRAP	20x12	RECTANGULAR DUCT, FIRST DIMENSION IS SIDE SHOWN
---+---	INLINE PUMP	20x12	RECTANGULAR DUCT, FIRST DIMENSION IS SIDE SHOWN
---+---	FLOOR DRAIN	20x12	RECTANGULAR DUCT, FIRST DIMENSION IS SIDE SHOWN
---+---	FLOOR SINK	20x12	RECTANGULAR DUCT, FIRST DIMENSION IS SIDE SHOWN
---+---	MEDICAL AIR MEDICAL GAS OUTLET	20x12	RECTANGULAR DUCT, FIRST DIMENSION IS SIDE SHOWN
---+---	OXYGEN MEDICAL GAS OUTLET	20x12	RECTANGULAR DUCT, FIRST DIMENSION IS SIDE SHOWN
---+---	VACUUM MEDICAL GAS OUTLET	20x12	RECTANGULAR DUCT, FIRST DIMENSION IS SIDE SHOWN
---+---	NITROGEN MEDICAL GAS OUTLET	20x12	RECTANGULAR DUCT, FIRST DIMENSION IS SIDE SHOWN
---+---	NITROUS OXIDE MEDICAL GAS OUTLET	20x12	RECTANGULAR DUCT, FIRST DIMENSION IS SIDE SHOWN
---+---	WAGD MEDICAL GAS OUTLET	20x12	RECTANGULAR DUCT, FIRST DIMENSION IS SIDE SHOWN
---+---	CARBON DIOXIDE MEDICAL GAS OUTLET	20x12	RECTANGULAR DUCT, FIRST DIMENSION IS SIDE SHOWN
---+---	CHROME PLATED RECESSED TYPE SPRINKLER HEAD	20x12	RECTANGULAR DUCT, FIRST DIMENSION IS SIDE SHOWN
---+---	WHITE CONCEALED PENDENT TYPE SPRINKLER HEAD	20x12	RECTANGULAR DUCT, FIRST DIMENSION IS SIDE SHOWN
---+---	BRASS UPRIGHT PENDENT TYPE SPRINKLER HEAD	20x12	RECTANGULAR DUCT, FIRST DIMENSION IS SIDE SHOWN
---+---	BRASS PENDENT TYPE SPRINKLER HEAD	20x12	RECTANGULAR DUCT, FIRST DIMENSION IS SIDE SHOWN
---+---	SIDEWALL PENDENT TYPE SPRINKLER HEAD	20x12	RECTANGULAR DUCT, FIRST DIMENSION IS SIDE SHOWN
---+---	BRASS UPRIGHT SIDEWALL PENDENT TYPE SPRINKLER HEAD	20x12	RECTANGULAR DUCT, FIRST DIMENSION IS SIDE SHOWN
---+---	FIRE DEPARTMENT CONNECTION	20x12	RECTANGULAR DUCT, FIRST DIMENSION IS SIDE SHOWN





ELECTRICAL ABBREVIATIONS

Table of electrical abbreviations including symbols and descriptions for various components like switches, outlets, and lighting fixtures.

ELECTRICAL SYMBOLS

Table of electrical symbols categorized by function: SHEET, AUTOMATIC LIGHTING CONTROL, AUDIO/VISUAL, ACCESS, FIRE ALARM, NURSE CALL, LIGHTING, LIGHTING CONTROL, and ELECTRIC HEATING.

\* ALL SYMBOLS AND ABBREVIATIONS DO NOT NECESSARILY APPEAR ON DRAWINGS \*

PROJECT GENERAL ELECTRICAL DEMOLITION NOTES:

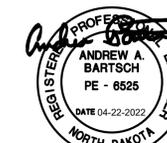
- List of demolition notes including instructions on handling existing electrical work, salvaging materials, and removing equipment.

PROJECT GENERAL ELECTRICAL NOTES:

- List of general electrical notes covering labeling, grounding, conductor types, and installation requirements.

SHEET INDEX

Sheet index table listing sheet numbers and titles, such as E-000 ELECTRICAL - TITLE SHEET.



Revision table with columns for Date, Description, and Symbol.

Design and submission information table including dates, names, and roles of project participants.

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ELECTRICAL - TITLE SHEET

SHEET REFERENCE NUMBER E-000



