PROJECT:

TFSD 2023 CAPITAL IMPROVEMENTS PACKAGE 6, SUPPORT SERVICE CLASSROOM TENANT IMPROVEMENT AT ROBERT STUART MIDDLE SCHOOL

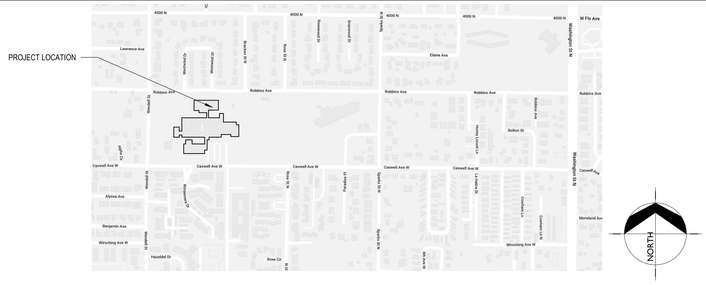
644 Casewell Ave W
Twin Falls, ID 83301

CLIENT:

TWIN FALLS SCHOOL DISTRICT #411

201 Main Ave W
Twin Falls, ID 83301

VICINITY MAP :



H . A . - J O B # 23010-00

HUMMEL ARCHITECTS

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DRAWING SET:

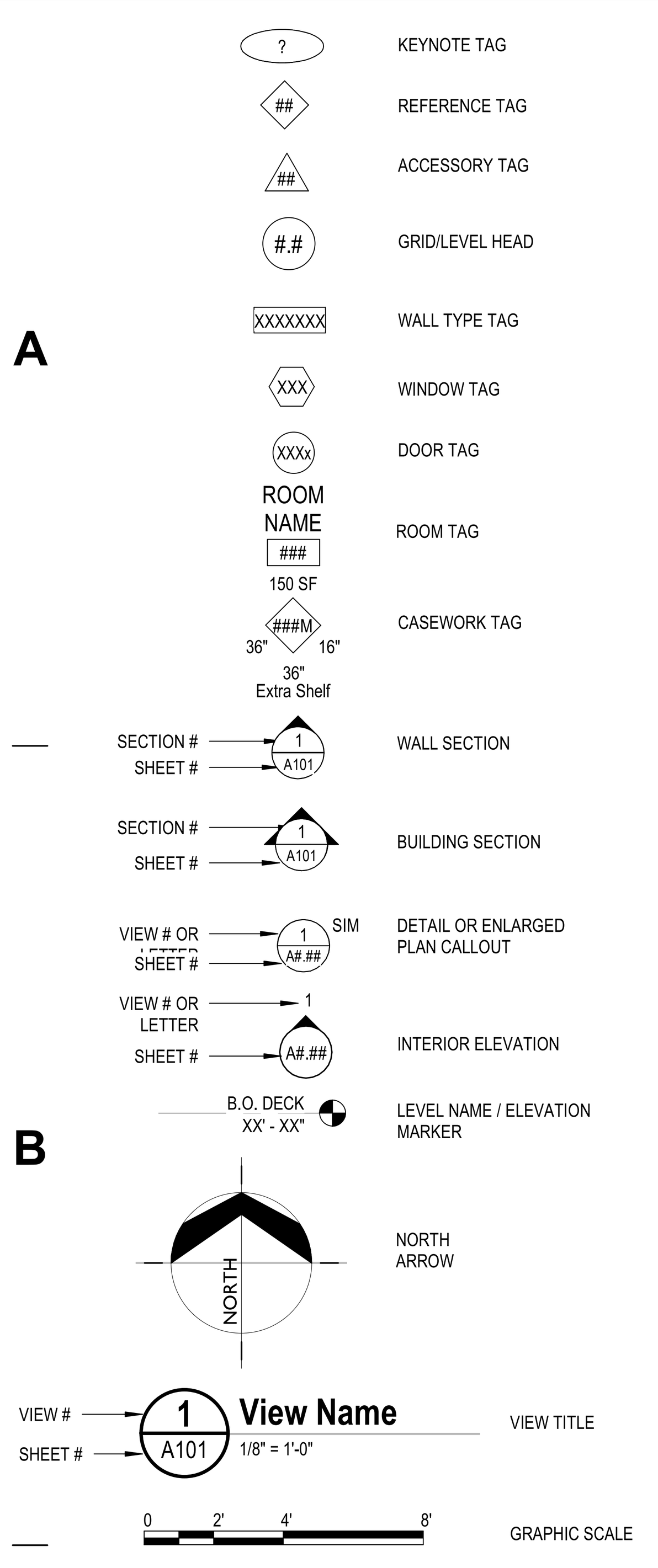
ARCHITECTURAL
MECHANICAL
PLUMBING
ELECTRICAL

PERMIT SET

DRAWING SET NO.

LICENSED PROFESSIONAL ARCHITECT
AR-1635
2/16/24
STATE OF IDAHO

SYMBOLS:

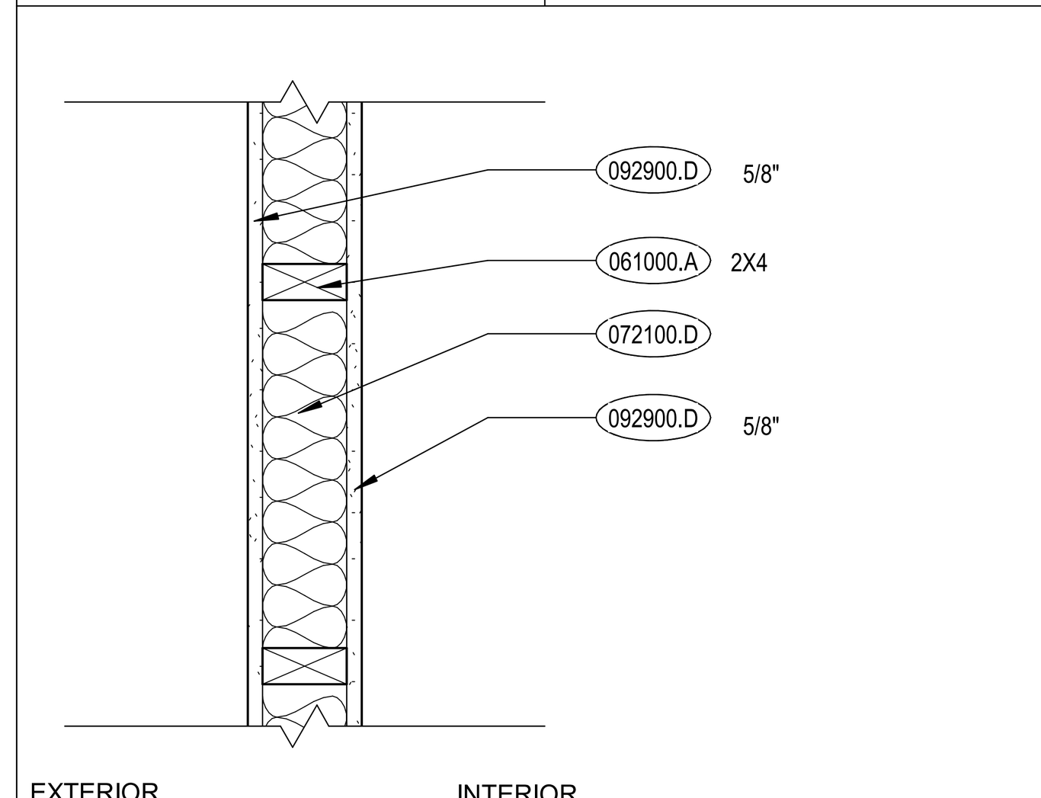


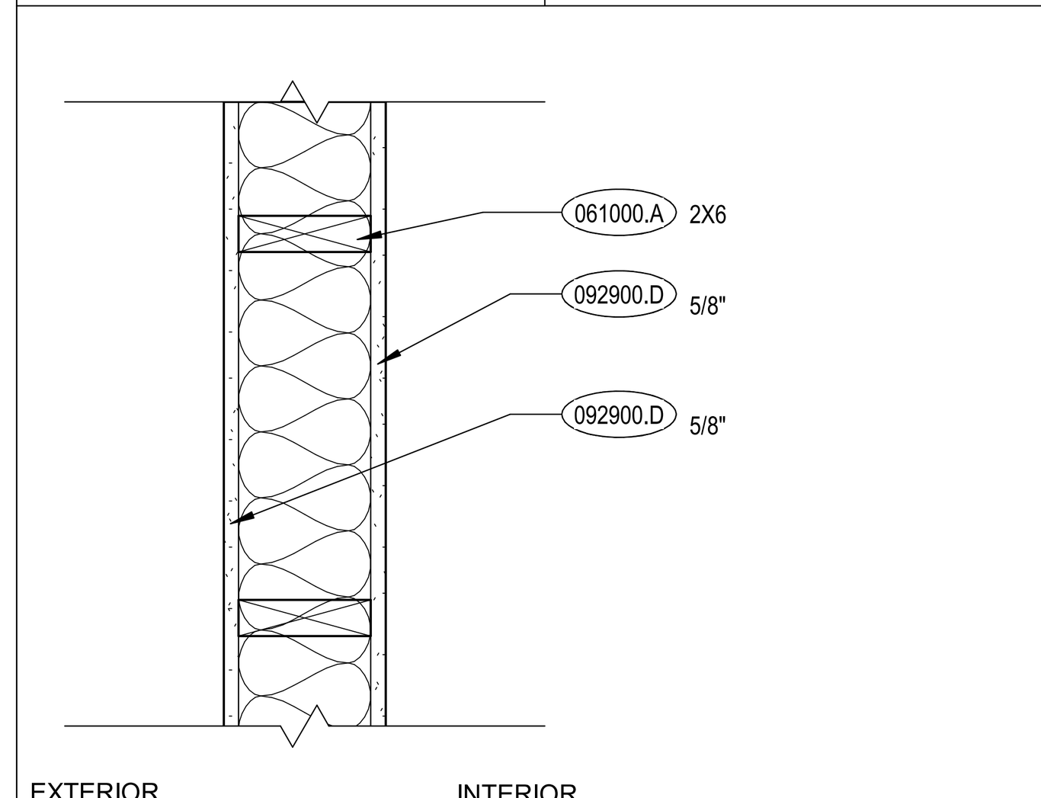
ABBREVIATIONS:

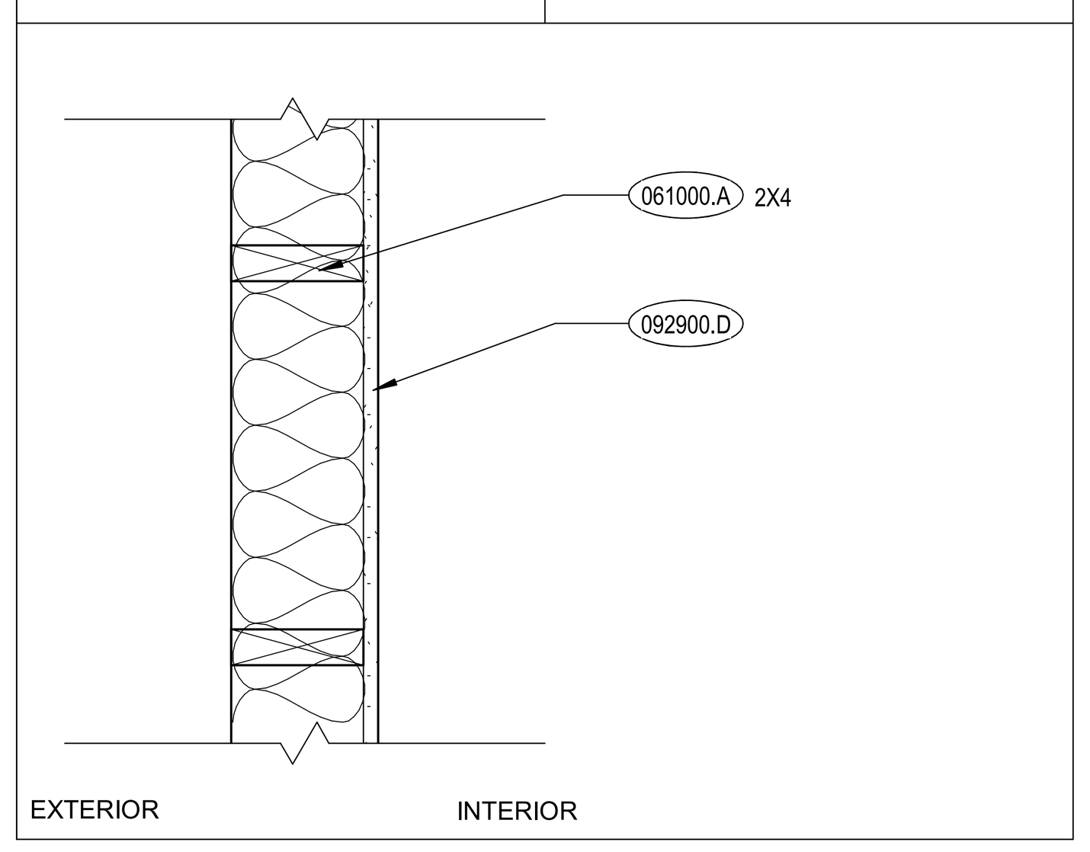
#	NUMBER OR POUND
ø	DIAMETER
	ANGLE
@	AT
&	AND
CL	CENTERLINE
AB	ANCHOR BOLT
ACP	ACOUSTICAL CEILING PANEL
ACT	ACOUSTICAL CEILING TILE
ADJ	ADJUSTABLE
AFF	ABOVE FINISH FLOOR
ALUM	ALUMINUM
ANOD	ANODIZED
APPROX	APPROXIMATE
ASSOC	ASSOCIATED
AWP	ACOUSTICAL WALL PANEL
AWS	ACOUSTICAL WALL SYSTEM
BD	BOARD
BFC	BROOM FINISH CONCRETE
BLDG	BUILDING
BLKG	BLOCKING
BM	BEAM
BO	BOTTOM OF
BOT	BOTTOM
BRG	BEARING
BSMT	BASEMENT
BTWN	BETWEEN
CAB	CABINET
CPT	CARPET
C.I.P.	CAST-IN-PLACE
CJ	CONTROL JOINT
CL	CENTERLINE
CLG	CEILING
CMU	CONCRETE MASONRY UNITS
CO	CLEAN OUT
COL	COLUMN
CONC	CONCRETE
CONST	CONSTRUCT
CONT	CONTINUOUS
CSK	COUNTERSINK
CMT	CERAMIC MOSAIC TILE
CQT	CERAMIC QUARRY TILE
CWB	CERAMIC WALL BASE
DBL	DOUBLE
DEPT	DEPARTMENT
DT	DETAIL
DF	DRINKING FOUNTAIN
DIA	DIAMETER
DIM	DIMENSION
DN	DOWN
DS	DOWNSPOUT
EA	EACH
EBT	EXPANSION BASE TRIM
EJ	EXPANSION JOINT
ELEC	ELECTRICAL
ELEV	ELEVATION
EP	EPOXY PAINT
EQ	EQUAL
EQUIP	EQUIPMENT
ESTR	EXPOSED STRUCTURE (NEW OR EXISTING)
EIFS	EXTERIOR INSULATION & FINISH SYSTEM
EXIST	EXISTING
EXP	EXPANSION
EXT	EXTERIOR
FD	FLOOR DRAIN
F.D.C.	FIRE DEPARTMENT CONNECTION
FB	FIRE BLANKET
FE	FIRE EXTINGUISHER
FF	FACTORY FINISH
F.H.	FIRE HYDRANT
FIN	FINISH
FL	FLOOR LINE
FLR	FLOOR
FND	FOUNDATION
FOC	FACE OF CHANNEL
FOF	FACE OF FINISH
FOS	FACE OF STUDS
FT	FEET
FTG	FOOTING
FV	FIELD VERIFY
GA	GAUGE
GALV	GALVANIZED
GB	GYPSUM BOARD
GYP.BD.	GYPSUM BOARD
HAS	HEAD ANCHOR STUD
HCW	HOLLOW CORE WOOD
HM	HOLLOW METAL
HORIZ	HORIZONTAL
HT	HEIGHT
HW	HARDWOOD
ICMU	INTEGRAL COLORED CONCRETE MASONRY UNITS
ID	INSIDE DIAMETER
INSUL	INSULATION
INT	INTERIOR
INV	INVERT
JAN	JANITOR
JST	JOIST
JT	JOINT
LAB	LABORATORY
LAM	LAMINATE
LAV	LAVATORY
MAT	MATERIAL
MAX	MAXIMUM
MECH	MECHANICAL
MET	METAL
MFR	MANUFACTURER
MIN	MINIMUM
MISC	MISCELLANEOUS
ML	MEASURING LINE
MO	MASONRY OPENING
MTD	MOUNTED
MTG	MOUNTING
NA	NOT APPLICABLE
NB	NO BASE (EXPOSED WALL OR FOUNDATION)
NC	NEW CONCRETE
NIC	NOT IN CONTRACT
NM	NEW MASONRY
NO	NUMBER
NOM	NOMINAL
NTS	NOT TO SCALE
OC	ON CENTER
OD	OUTSIDE DIAMETER
OFF	OFFICE
OFCI	OWNER FURNISHED/ CONTRACTOR INSTALLED
OFOI	OWNER FURNISHED/ OWNER INSTALLED
OPNG	OPENING
OTA	OPEN TO ABOVE
OTS	OPEN TO STRUCTURE
OVF	OVERFLOW
PC	PAINT COLOR
P.I.V.	POST INDICATOR VALVE
PLAST	PLASTIC
PLYWD	PLYWOOD
PR	PAIR
R	THERMAL RESISTANCE
RCP	REFLECTED CEILING PLAN
RD	ROOF DRAIN
RDL	RAIN DRAIN LEADER
RE:	REFERENCE
REFRIG	REFRIGERATOR
REINF	REINFORCING
REQ	REQUIRED
RF	EPOXY FLOOR SYSTEM
RM	ROOM
RO	ROUGH OPENING
RST	RUBBER STAIR TREADS
RW	REDWOOD
RWB	RUBBER WALL BASE
RWC	RAIN WATER CONDUCTOR
SC	SEALED CONCRETE
SCHED	SCHEDULE
SCW	SOLID CORE WOOD
SGWB	SUSPENDED GYPSUM WALL BOARD
SHT	SHEET
SHTG	SHEATHING
SIM	SIMILAR
SPECS	SPECIFICATIONS
SQ	SQUARE
SS	STAINLESS STEEL
STD	STANDARD
STL	STEEL
STOR	STORAGE
STRUCT	STRUCTURAL
SUSP	SUSPENDED
SV	SHEET VINYL
T&G	TONGUE AND GROOVE
TEMP	TEMPORARY
TO	TOP OF
TOM	TOP OF MASONRY
TS	TUBE STEEL
TYP	TYPICAL
UON	UNLESS OTHERWISE NOTED
VAR	VARIES
VCT	VINYL COMPOSITION TILE
VERT	VERTICAL
VEST	VESTIBULE
W/	WITH
WC	WATER CLOSET
WD	WOOD
WF	WALL FABRIC
WH	WATER HEATER
WM	WALK-OFF MAT
W/O	WITH OUT
WP	WATERPROOF
WRGB	WATER RESISTANT GYPSUM BOARD
WT	WEIGHT
WWF	WELDED WIRE FABRIC

WALL TYPES:

WALL TYPE:	FIRE RATING:	FIRE TEST:	WALL HEIGHT:
W4	NON-RATED	NONE	TO DECK ABOVE
W6	NON-RATED	NONE	SEE SECTIONS
W68	NON-RATED	NONE	SEE SECTIONS







MASTER KEYNOTES:

Keynote #	Keynote Text
033000.A	CAST-IN-PLACE CONCRETE.
061000.A	DIMENSION LUMBER
064116.E	PLASTIC-LAMINATE-END PANEL
064116.UU	PLASTIC-LAMINATE-FACED COUNTERTOP W/ BACKSPLASH
072100.D	SOUND ATTENUATION BLANKET INSULATION
072500.B	VAPOR BARRIER
079200.B	JOINT SEALANT
079200.C	JOINT SEALANT BACKING
081113.A	HOLLOW METAL FRAME
084113.A	ALUMINUM ENTRANCE DOOR
084113.B	ALUMINUM STOREFRONT FRAMING SYSTEM
092900.A	GYPSUM WALL BOARD
092900.B	HIGH IMPACT GYPSUM WALL BOARD
092900.D	GYPSUM BOARD TYPE X.
093013.A	WALL TILE
093013.B	METAL EDGE STRIP ACCESSORY
093013.C	METAL COVE BASE
095113.A	ACOUSTICAL PANEL CEILING
096513.A	RESILIENT BASE
096513.B	RESILIENT MOLDING ACCESSORY
099123.A	INTERIOR PAINT
102600.A	CORNER GUARD
102600.B	FIBER REINFORCED PANEL.

LIFE SAFETY PLAN:

Applicable Codes

2017 National Electrical Code
2017 Idaho State Plumbing Code
2018 International Building Code
2018 International Fire Code
2018 International Existing Building Code
2018 International Energy Conservation Code
2015 International Mechanical Code
2015 International Fuel Gas Code
2009 ICC A117.1-2009 Accessible and Usable Buildings and Facilities
1997 Uniform Code for the Abatement of Dangerous Buildings

Robert Stuart Middle School

Project Description: An addition of a security vestibule, remodel of the adjacent Administration area and remodel of two classrooms.

Existing School Area A
Occupancy Type: **E** Construction Type: **V-A** (Nonsprinklered)

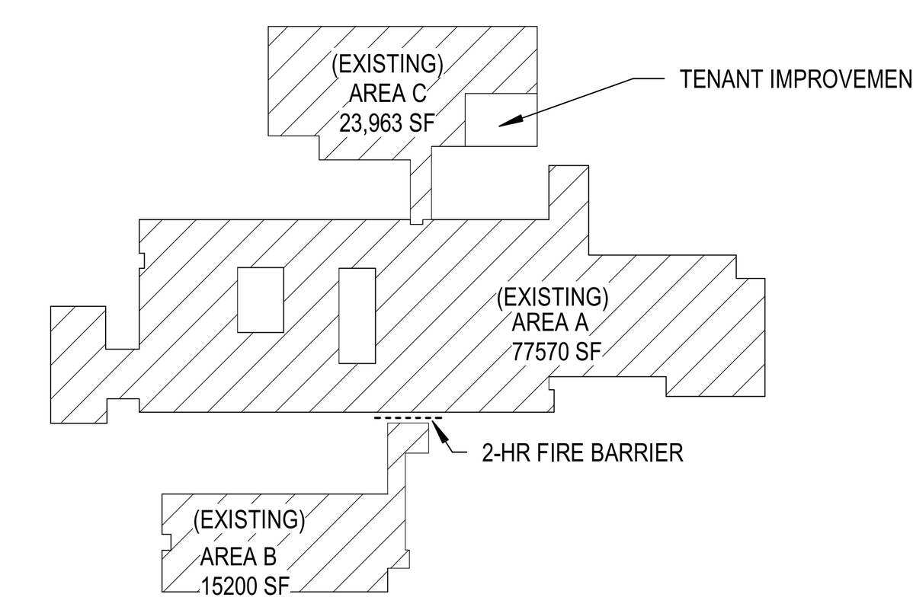
Actual Area = 77,570 sqft

Existing School Area B
Occupancy Type: **E** Construction Type: **V-A** (Fully Sprinklered)

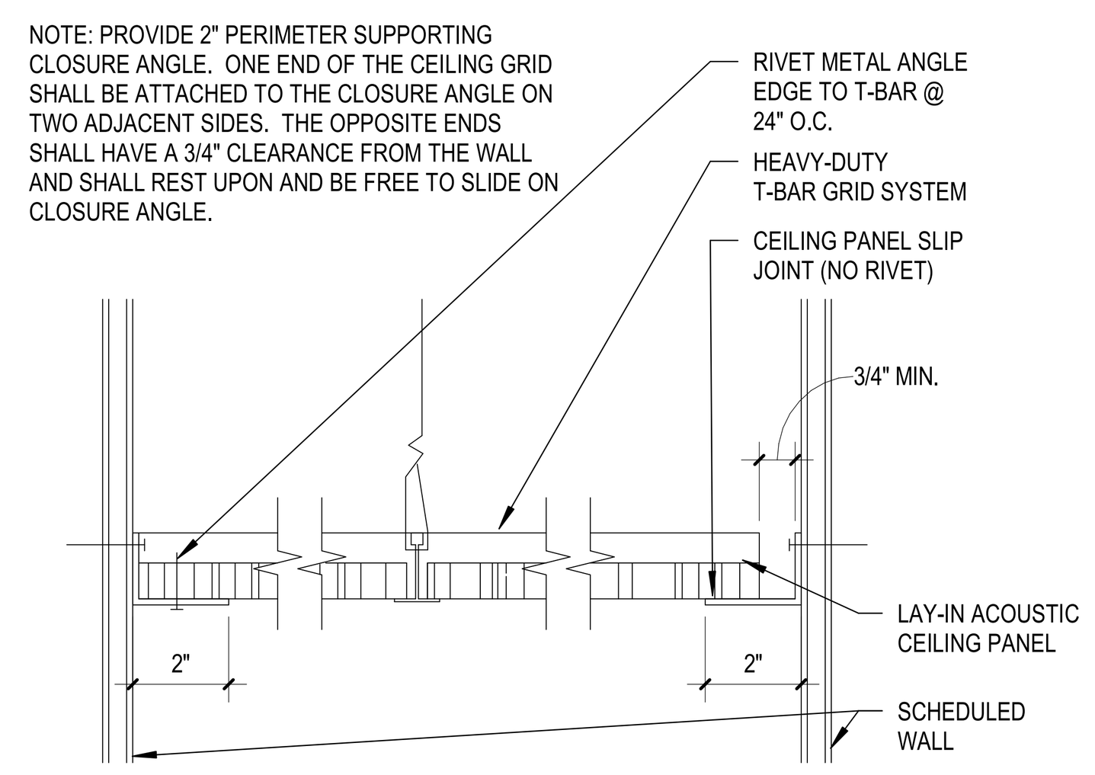
Allowable Area = 26,270 sqft. (See Table 1 for calculation.)
Actual Area = 15,200 sqft

New Vestibule
Added Sqft: 2,700 sqft.
Occupancy: **E-U** Construction Type: **V-B** (Fully Sprinklered)

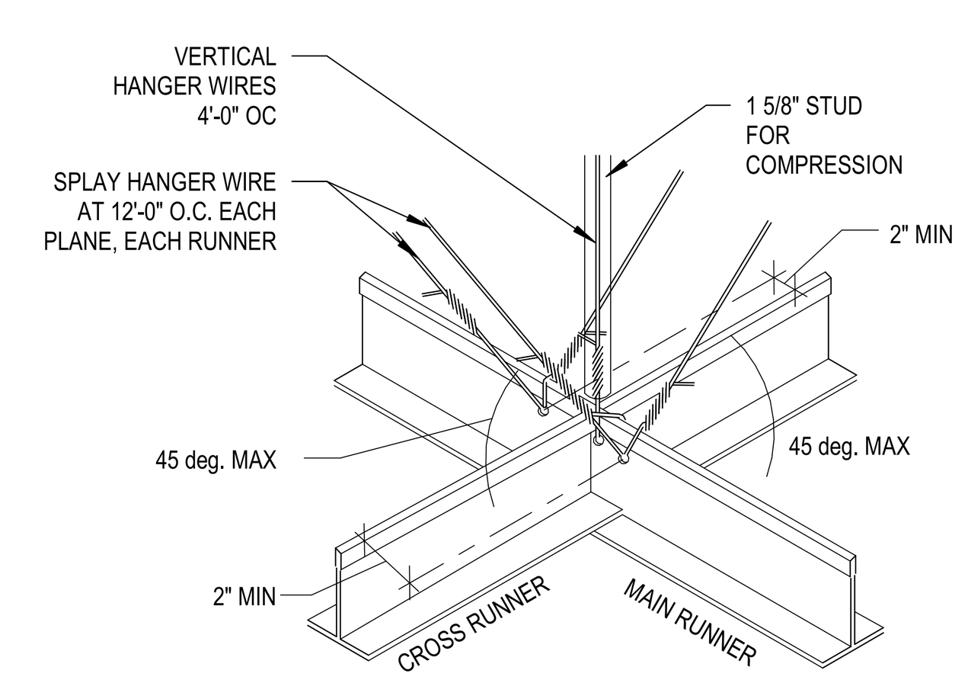
Occupant Load: **Unchanged**



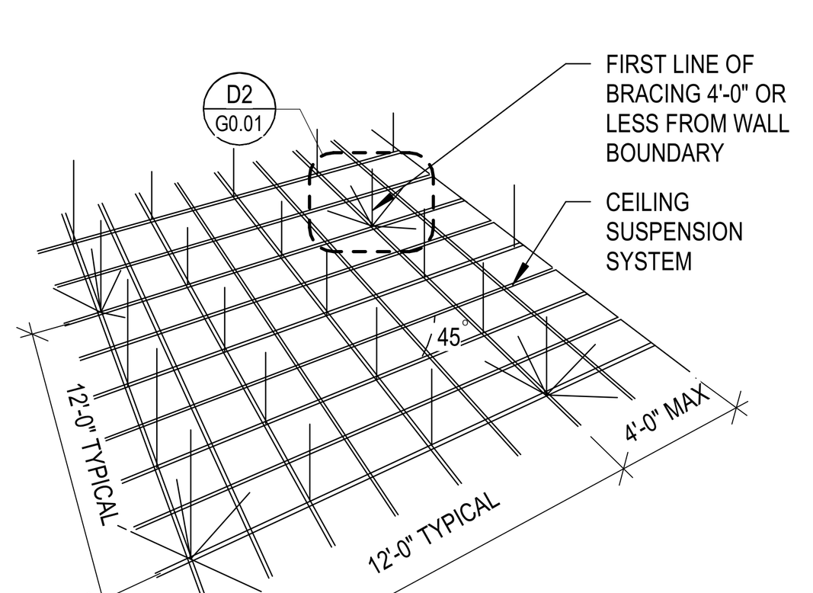
NOTE: PROVIDE 2" PERIMETER SUPPORTING CLOSURE ANGLE. ONE END OF THE CEILING GRID SHALL BE ATTACHED TO THE CLOSURE ANGLE ON TWO ADJACENT SIDES. THE OPPOSITE ENDS SHALL HAVE A 3/4" CLEARANCE FROM THE WALL AND SHALL REST UPON AND BE FREE TO SLIDE ON CLOSURE ANGLE.



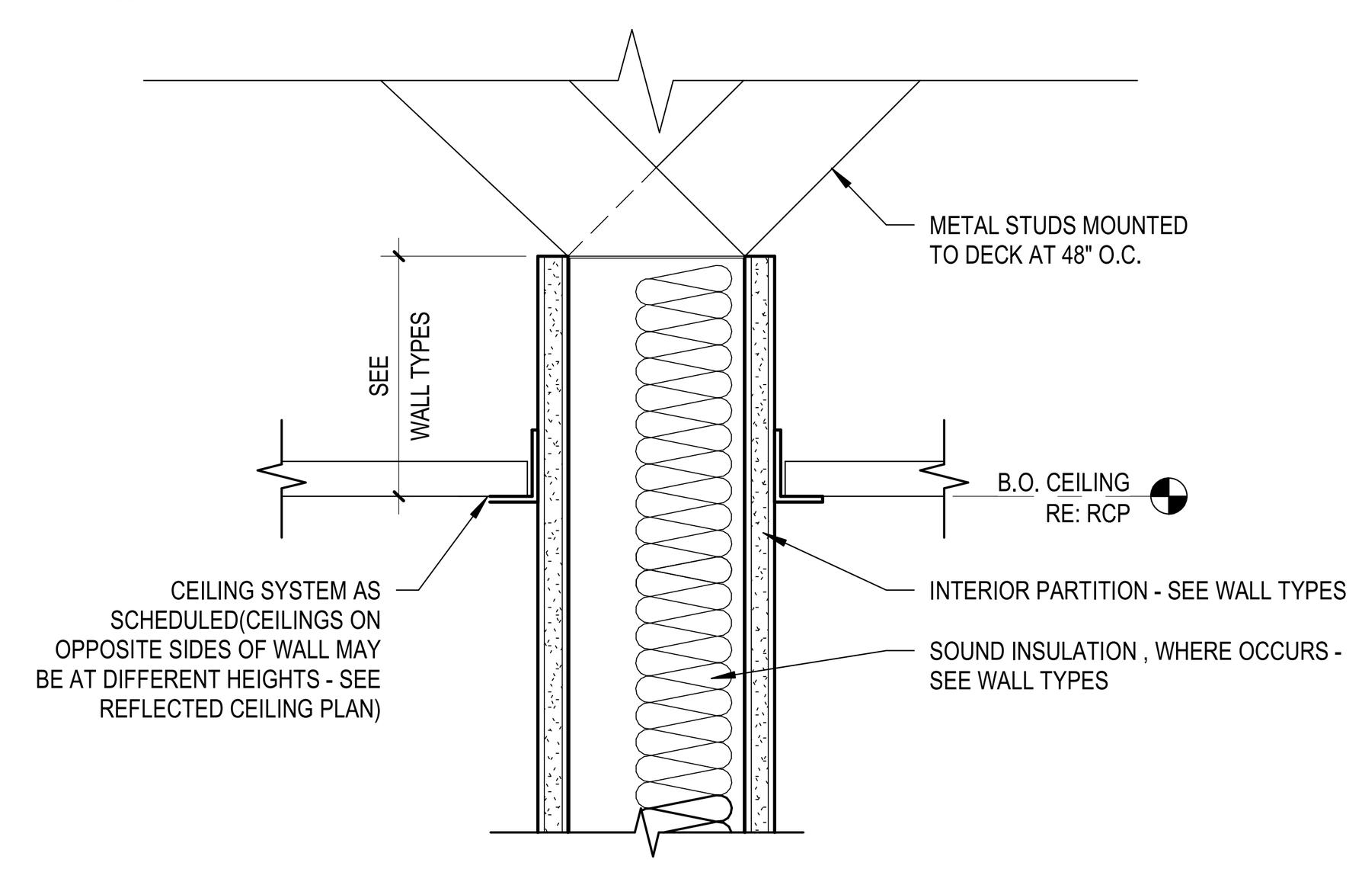
D1 G0.01 TYPICAL LAY-IN CEILING TILE EDGE DETAIL
3" = 1'-0"



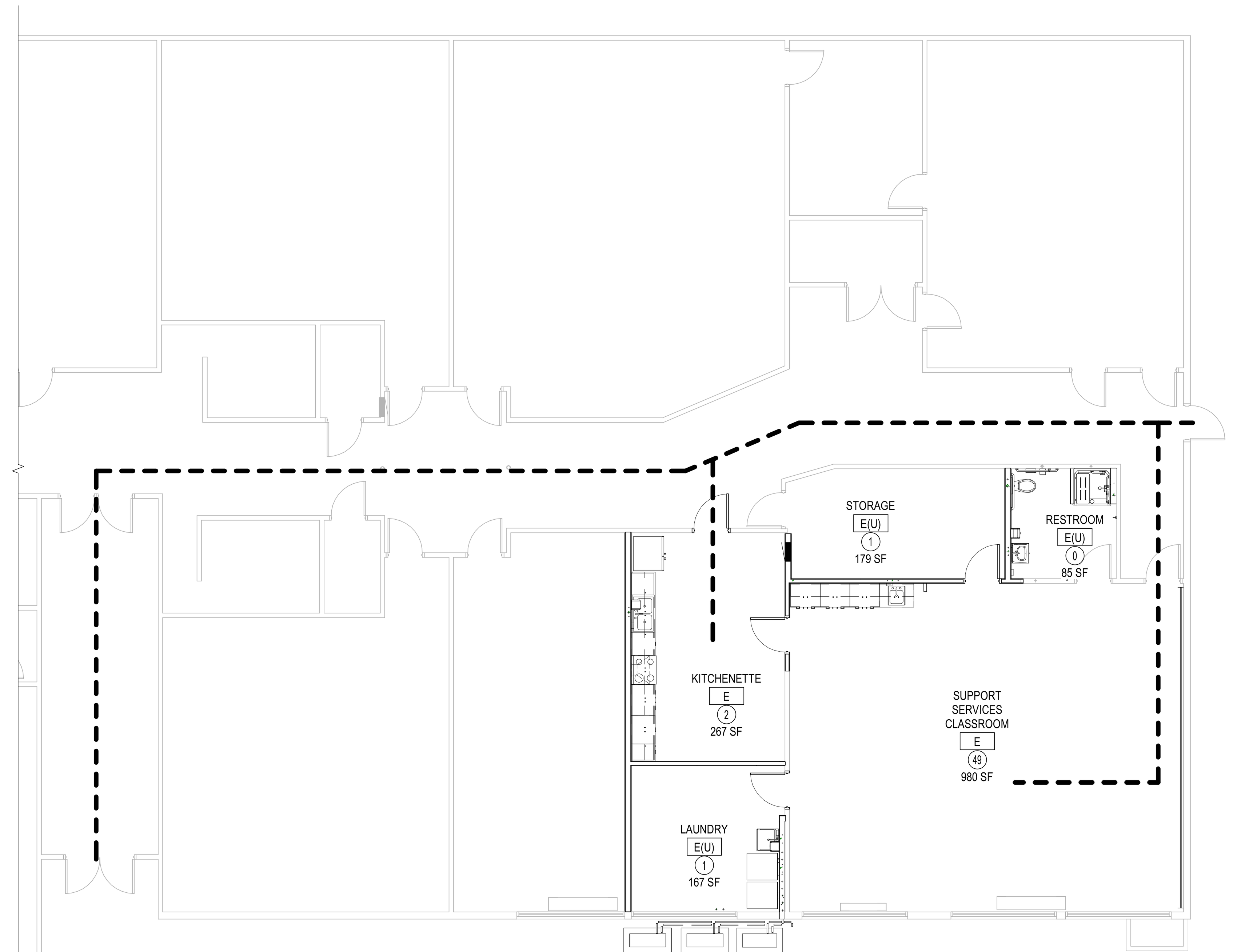
D2 G0.01 TYPICAL SEISMIC BRACING DETAIL-01
12" = 1'-0"



E1 G0.01 TYPICAL SEISMIC BRACING DETAIL-02
NOT TO SCALE



E2 G0.01 TYP. SEISMIC BRACING
NOT TO SCALE



E6 G0.01 EXITING AND OCCUPANCY PLAN
1/8" = 1'-0"

KEYNOTES

061000.A	DIMENSION LUMBER
072100.D	SOUND ATTENUATION BLANKET INSULATION
092900.D	GYPSUM BOARD TYPE X.

REFERENCE NOTES

LEGEND

ROOM NAME X-1 — OCCUPANCY CLASSIFICATION (PER IBC CHAPTER 3) NOTE: (U) = UNOCCUPIED ACCESSORY AREA PER IBC 1002.1
— ROOM OCCUPANT LOAD (PER IBC TABLE 1004.1.1)
WIDTH OF EGRESS COMPONENT
DIRECTION OF EXITING
OCCUPANCY LOAD PER IBC TABLE 1004.1.1
OCCUPANT CAPACITY OF EGRESS COMPONENT
— NUMBER AND DIRECTION OF OCCUPANTS EXITING THRU THE ROOM OPENING
— COLLECTIVE NUMBER OF OCCUPANTS AND THE DIRECTION OF TRAVEL THRU THE CORRIDOR
EXITING TRAVEL DISTANCE

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Project:
TFSD 2023 CAPITAL IMPROVEMENTS PACKAGE 6, SUPPORT SERVICE CLASSROOM TENANT IMPROVEMENT AT ROBERT STUART MIDDLE SCHOOL
644 Casewell Ave W
Twin Falls, ID 83301

Sheet:
DRAWING INFORMATION

PERMIT SET

LICENSED PROFESSIONAL ARCHITECT AR-1635 2/16/24 SCOTT J. STRAUBHAR STATE OF IDAHO

1	Agency Review 1	2/16/2024

Project No:	23010-00
Drawn By:	KT
Checked By:	PR
Date:	2/23/2024

2/22/2024 4:24:14 PM

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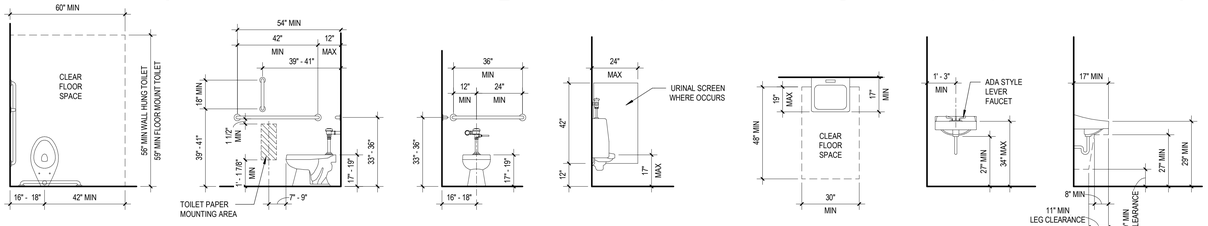
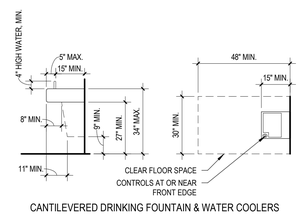
A



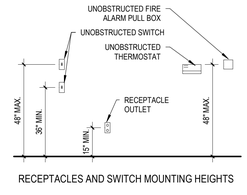
WATER CLOSET | URINAL | LAVATORY

A1 G0.02 ACCESSIBLE FIXTURE CLEARANCE REQUIREMENTS
3/8" = 1'-0"



CANTILEVERED DRINKING FOUNTAIN & WATER COOLERS

A4 G0.02 DRINKING FOUNTAINS
3/8" = 1'-0"



RECEPTACLES AND SWITCH MOUNTING HEIGHTS

A6 G0.02 MISC. MOUNTING HEIGHTS
3/8" = 1'-0"

B

B1 G0.02 TYPICAL ACCESSORIES MOUNTING HEIGHTS
3/8" = 1'-0"

B4 G0.02 RESTROOM SIGNAGE
3/8" = 1'-0"

C

C1 G0.02 SIGN - RESTROOM WALL
3" = 1'-0"

C2 G0.02 SIGN - TACTILE EXIT
6" = 1'-0"

C3 G0.02 SIGN - BUILDING ENTRANCE
3" = 1'-0"

C4 G0.02 RESTROOM DOOR SIGNAGE
1 1/2" = 1'-0"

C6 G0.02 CHANGE IN LEVELS
6" = 1'-0"

D

E

2/22/2024 4:24:14 PM

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644 Casewell Ave W
Twin Falls, ID 83301

Sheet:
ACCESSIBILITY COMPLIANCE

PERMIT SET

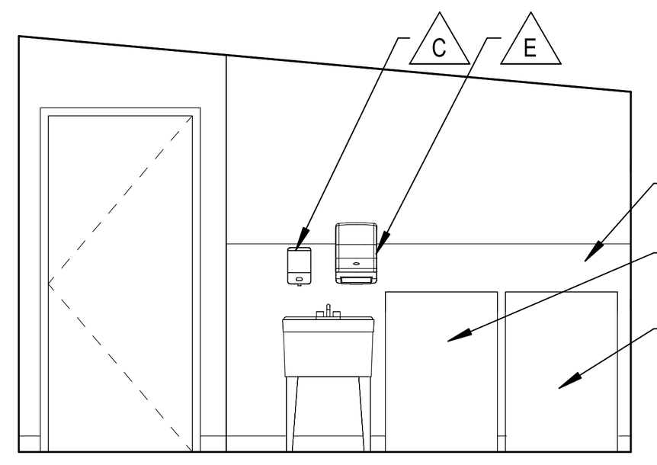
LICENSED PROFESSIONAL ARCHITECT AR-1635 2/16/24 STATE OF IDAHO

Project No:	23010-00
Drawn By:	KT
Checked By:	PR
Date:	2/23/2024

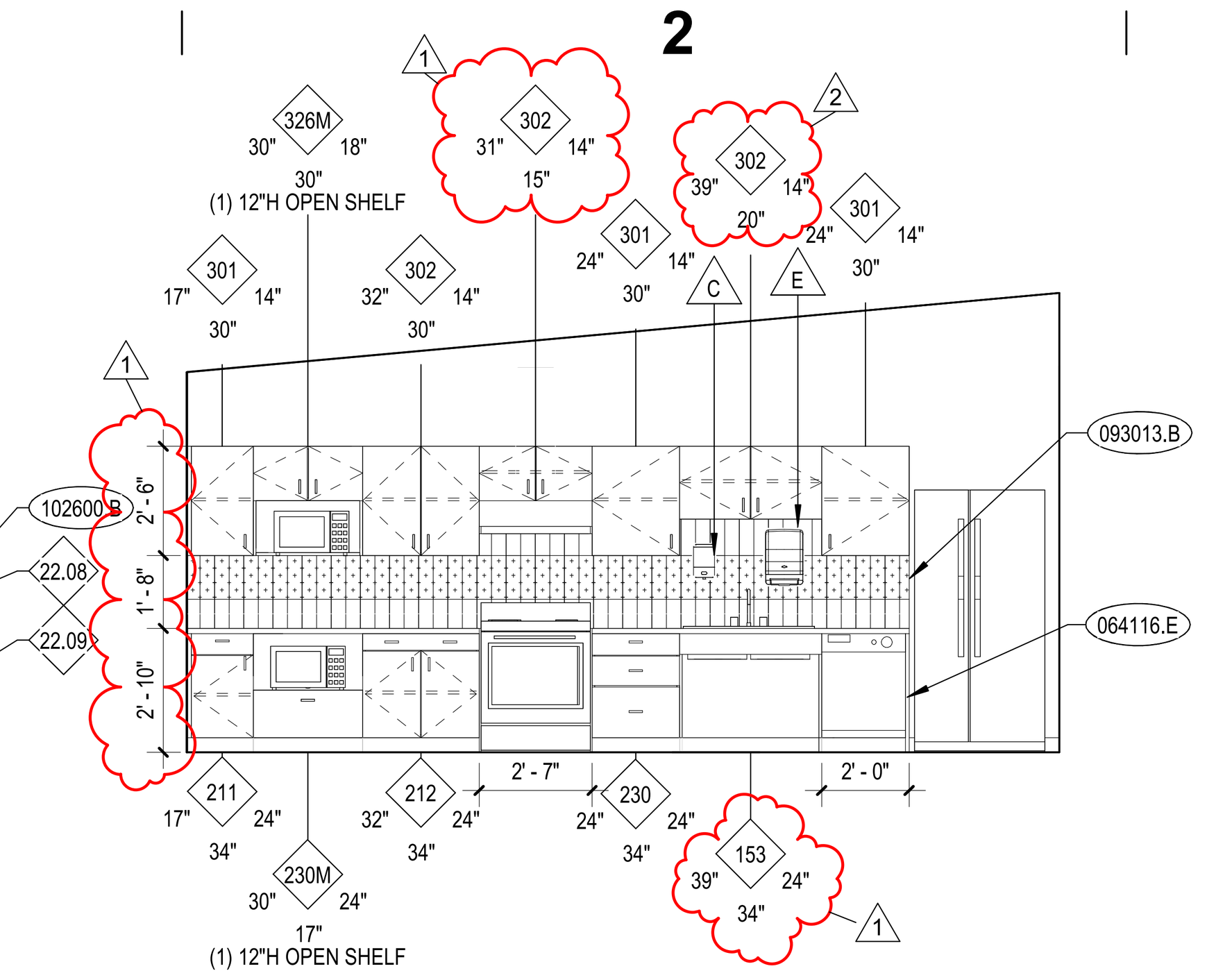
Sheet No:
G0.02

1 2 3 4 5 6

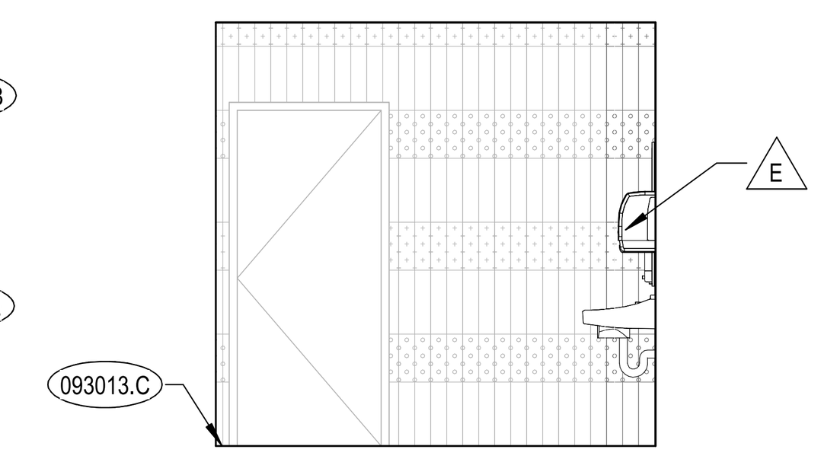
A B C D E



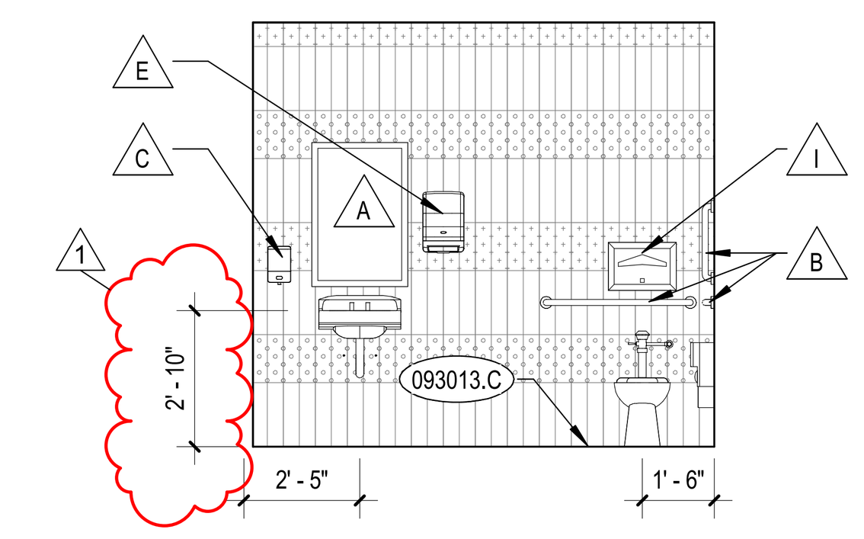
A1 LAUNDRY 308E - EAST
A2.01 1/4" = 1'-0"



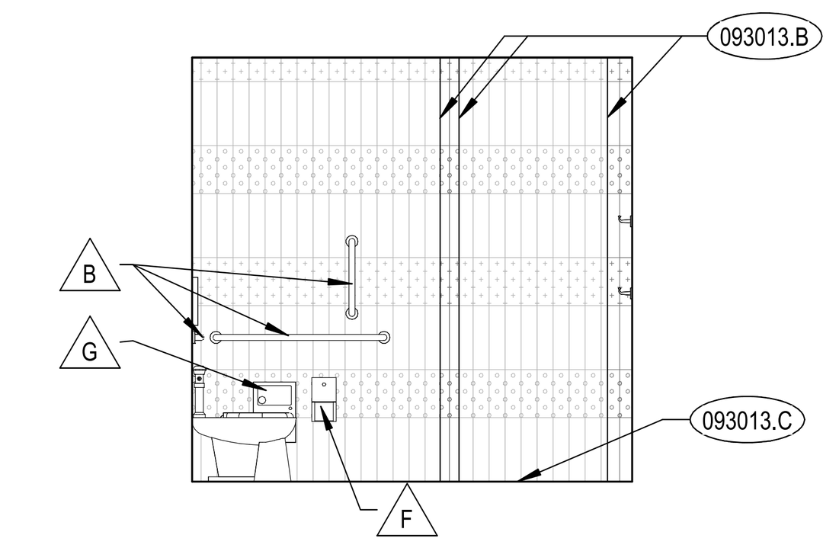
A2 KITCHENETTE 308C - WEST
A2.01 1/4" = 1'-0"



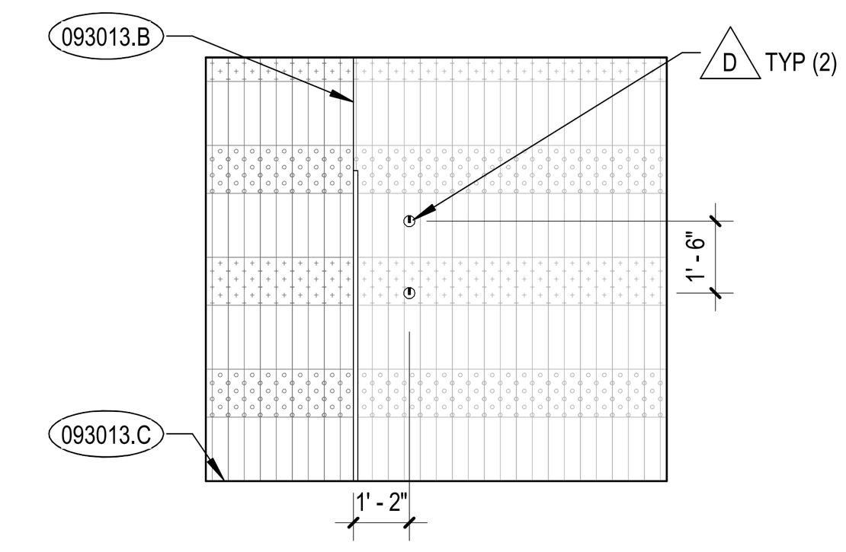
A3 RESTROOM 308A SOUTH
A2.01 1/4" = 1'-0"



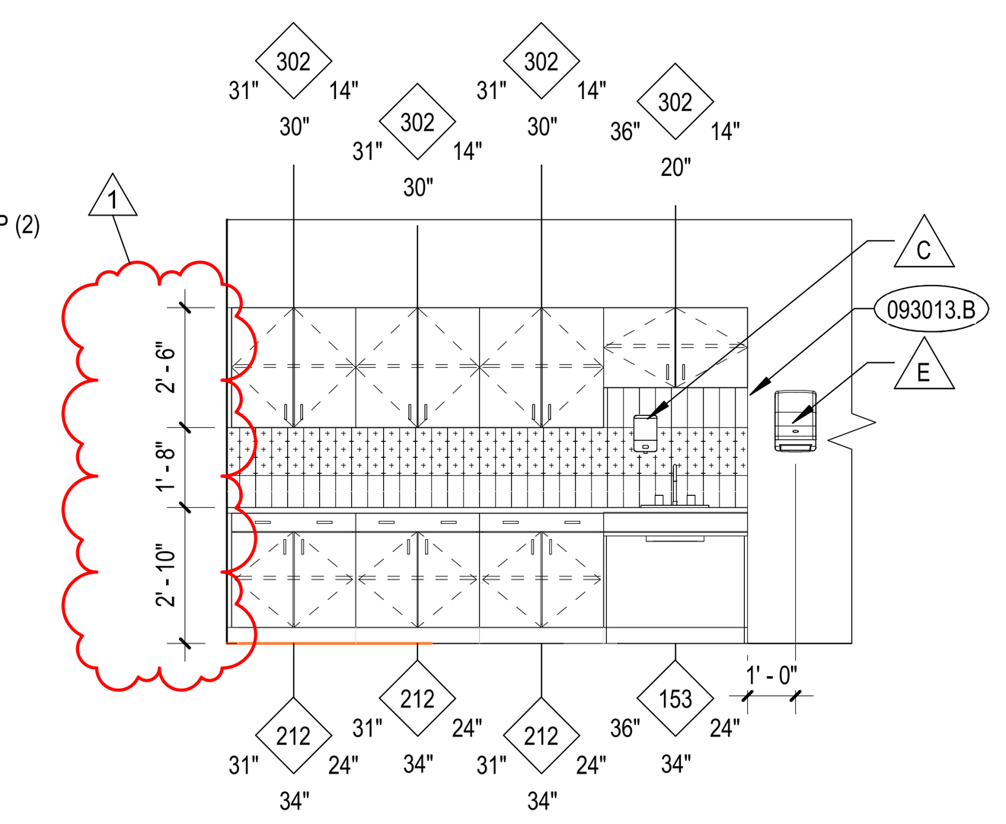
A4 RESTROOM 308A WEST
A2.01 1/4" = 1'-0"



A4.5 RESTROOM 308A NORTH
A2.01 1/4" = 1'-0"

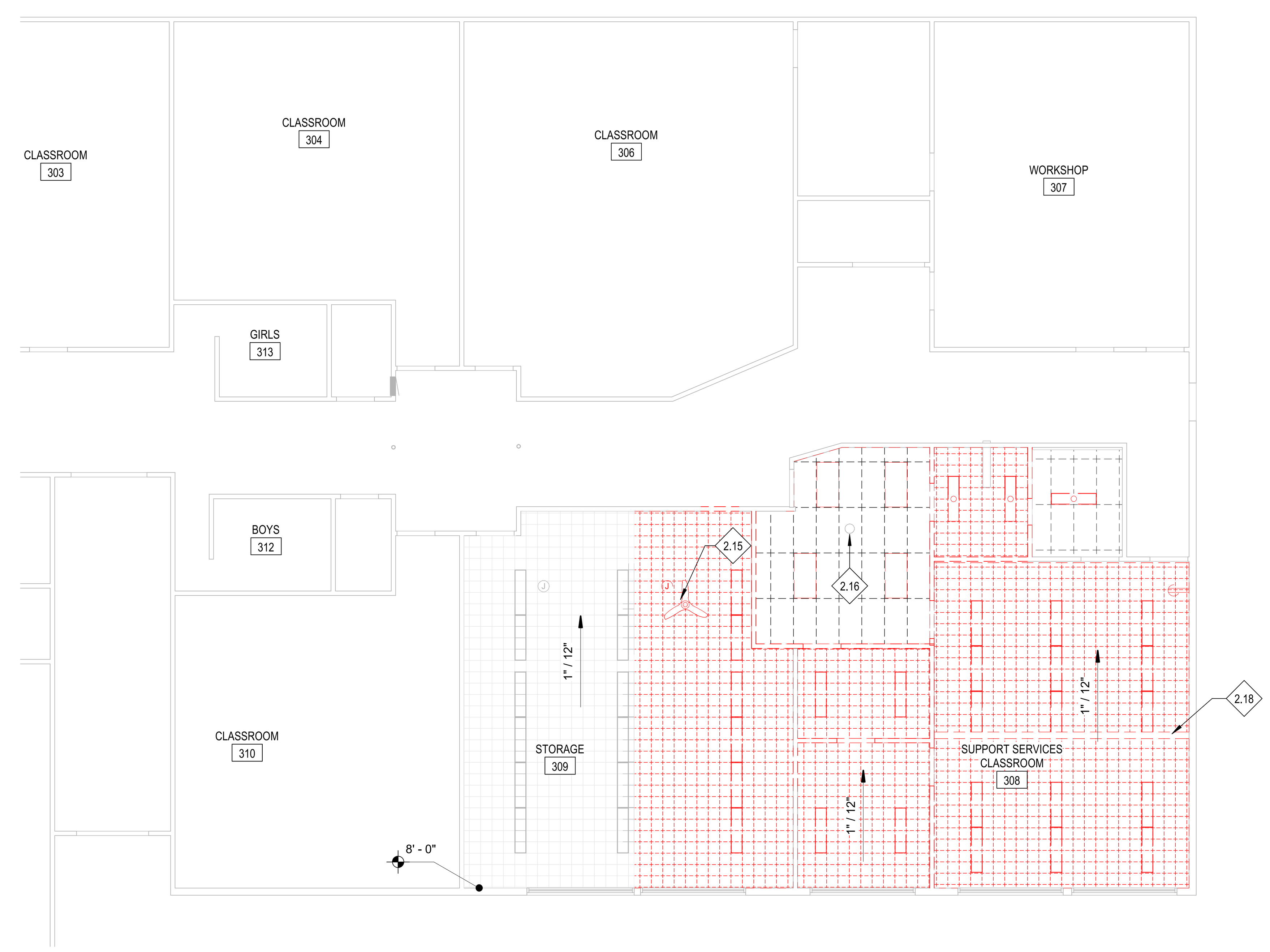


A5 RESTROOM 308A EAST
A2.01 1/4" = 1'-0"

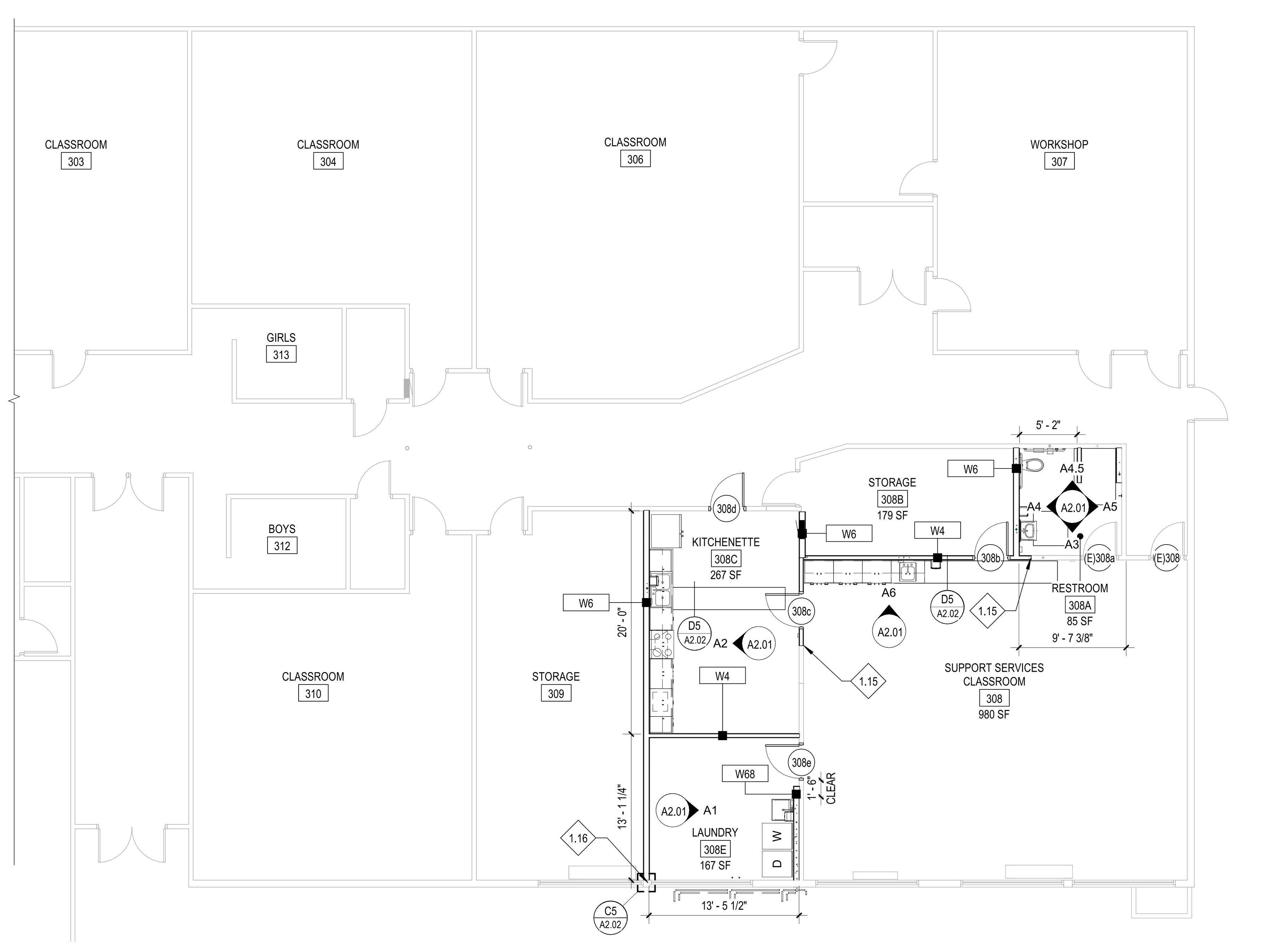


A6 SUPPORT SERVICES 308 - NORTH
A2.01 1/4" = 1'-0"

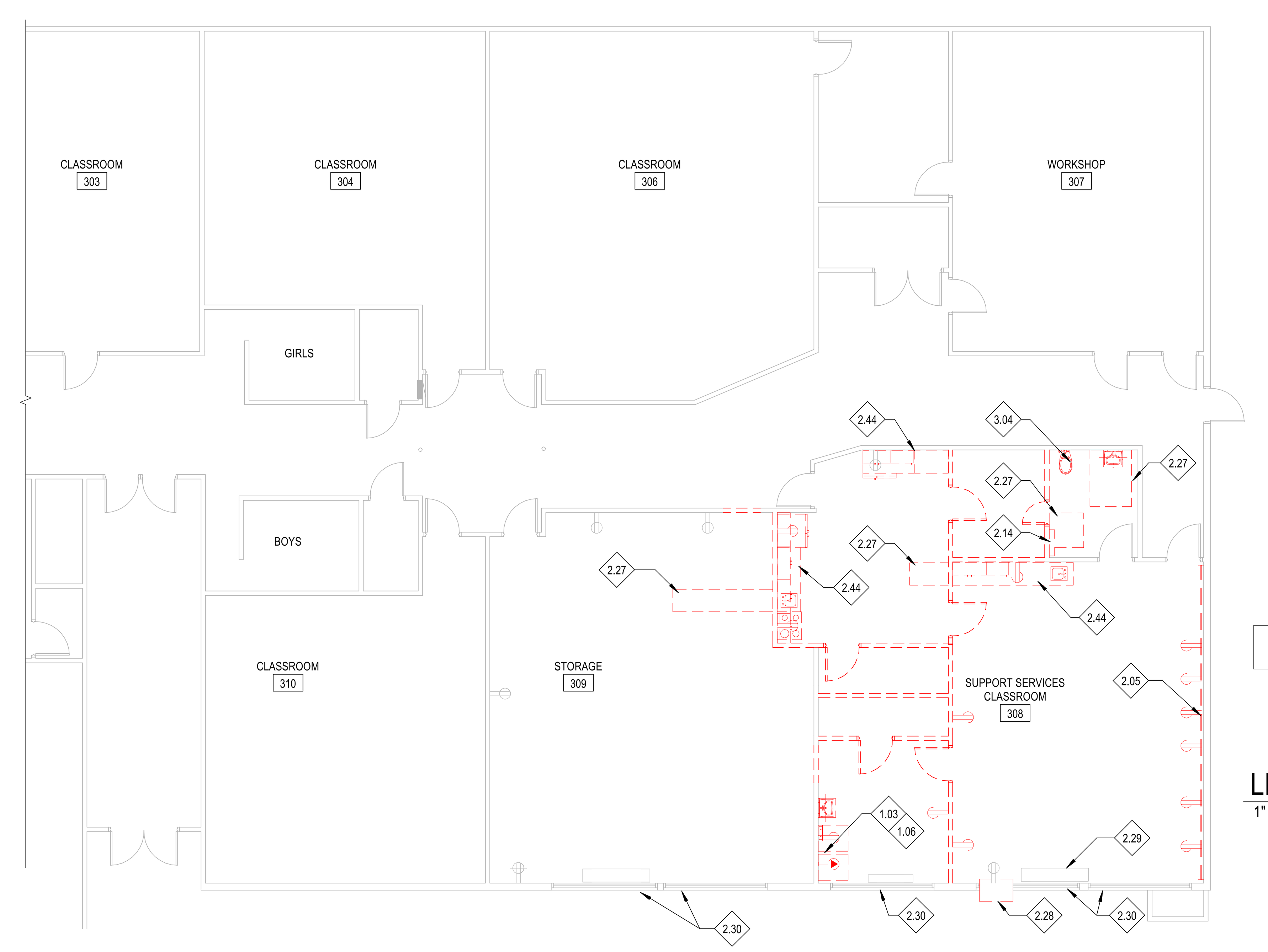
C1 LEVEL 01 - CEILING PLAN
A2.01 1/8" = 1'-0"



C4 LEVEL 01 - DEMO CEILING PLAN
A2.01 1/8" = 1'-0"



E1 LEVEL 01 - ENLARGED PLAN-SUPPORT SERVICE CLASSROOM TI
A2.01 1/8" = 1'-0"



E4 DEMO FLOOR PLAN
A2.01 1/8" = 1'-0"

KEYNOTES

064116.E	PLASTIC-LAMINATE-END PANEL
093013.B	METAL EDGE STRIP ACCESSORY
093013.C	METAL COVE BASE
102600.B	FIBER REINFORCED PANEL.

REFERENCE NOTES

1.03	SEE PLUMBING DRAWINGS FOR REMOVAL OF EXISTING PLUMBING FIXTURE
1.06	SEE ARCHITECTURAL AND PLUMBING PLANS FOR /NEW WORK ON OTHER SIDE OF WALL. PREP TO INSTALL NEW FIXTURES
1.15	ALIGN NEW WALL WITH EXISTING WALL
1.16	NEW WALL TO BE CENTERED AT MULLION BETWEEN THE EXISTING WINDOWS
2.05	DEMO PLYWOOD ON WALL AND CLEAN BRICK.
2.14	DEMO EXISTING WALL HEATER
2.15	OWNER TO REMOVE EXISTING CEILING FAN
2.16	REINSTALL EXISTING CEILING SPEAKER IN NEW CEILING
2.18	REMOVE EXISTING BEAM THAT IS ATTACHED TO THE WALLS
2.27	SAW CUT AS NECESSARY TO CONNECT NEW PLUMBING
2.28	EXISTING WINDOW AC UNIT
2.29	EXISTING RADIANT HEATER
2.30	REMOVE SCREWS THAT ARE PREVENTING WINDOWS FROM OPPERATING AND RESTORE WINDOWS TO AN OPERABLE STATUS.
2.44	DEMOLISH EXISTING CABINETS, COUTNER TOP AND UPPER CABINETS
3.04	CONTRACTOR TO PATCH EXISTING CONCRETE FLOOR AFTER REMOVAL OF PLUMBING ITEMS FOR A FLUSH FINISH. TO INSTALL NEW FLOORING.
22.08	O.F.O.I. WASHER
22.09	O.F.O.I. DRYER

FINISH WALL LEGEND

▥ CWT-1
▨ CWT-3
▨ CWT-2

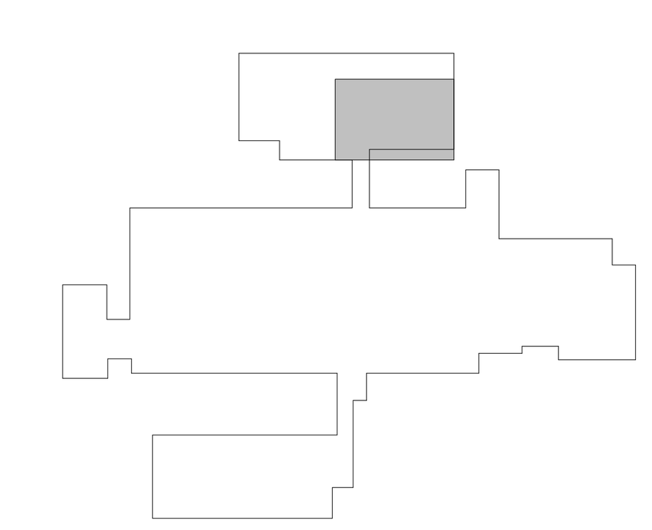
GENERAL NOTES

1. UNLESS NOTED OTHERWISE, ALL DIMENSIONS ARE TO THE FACE OF STUDS FOR GWB WALLS / PARTITIONS.
2. DIMENSIONS CALLED OUT AS "CLEAR" INDICATE A MEASUREMENT FROM FACE OF FINISH.
3. UNLESS NOTED OTHERWISE, All INTERIOR PARTITION WALLS ARE WALL TYPE: W4; REFER TO WALL ASSEMBLY SHEET.
4. FOR ROOM FINISH SCHEDULE AND FINISH PLANS, RE: , SHEETS A2.02.
5. UNLESS NOTED OTHERWISE ALL GWB WALLS SHALL HAVE A 6" STUD FRAME RETURN AT ALL DOOR AND WINDOW JAMBS.
6. COORDINATE WITH MECHANICAL AND ELECTRICAL DRAWINGS FOR LOCATION AND NUMBER OF OTHER ROOF PENETRATIONS (I.E., VENT STACKS, VENT PIPES, CONDUIT PENETRATIONS, ETC.), FLASH ALL PENETRATIONS WEATHER TIGHT. COORDINATE WITH ROOF DETAILS.
7. ALL METAL ROOF FLASHING DETAILS SHALL BE PER MANUFACTURER'S. RECOMMENDATIONS AND REVIEWED BY THE ARCHITECT FOR DESIGN INTENT.
8. SEE G0.01 FOR CEILING DETAILS

1

LEGEND

1	TOILET AND BATH ACCESSORY, RE: SHEET G0.02
XXXx	DOOR SYMBOL, RE: DOOR SCHEDULE, SHEET A7.01
XXXXXXX	WALL TYPE, RE: SHEET G0.01
XXX	WINDOW TYPE, RE: WINDOW FRAME TYPE SHEETS, SHEET A7.01
	FIRE EXTINGUISHER CABINET. RE: DIVISION 10 - SPECIALTIES 10 AND SHEET A8.91.
FD	FLOOR DRAIN. COORDINATE WITH PLUMBING DRAWINGS.
	WOOD/STEEL STUD WALL AND GYPSUM BOARD WALL. RE: WALL TYPES.



LEGEND - KEY PLAN
1" = 200'-0"

PERMIT SET

HUMMEL
ARCHITECTS
205 N. 10th Street
Suite 300
Boise, Idaho 83702
208.343.7523
482 Constitution Way,
Suite 111
Idaho Falls, ID 83402
208.343.7523
hummelarch.com

Project:
TFSD 2023 CAPITAL IMPROVEMENTS PACKAGE 6, SUPPORT SERVICE CLASSROOM TENANT IMPROVEMENT AT ROBERT STUART MIDDLE SCHOOL
644 Casewell Ave W
Twin Falls, ID 83301

Sheet:
SUPPORT SERVICE CLASSROOM TI - PLANS

LICENSED PROFESSIONAL ARCHITECT
AR-1635
2/16/24
STATE OF IDAHO
SCOTT J. STRAUBHAR

[illegible]

1	Agency Review 1	2/16/2024
2	Consolidated Set	2/23/2024

Project No:	23010-00
Drawn By:	KT
Checked By:	PR
Date:	2/23/2024

Sheet No:
A2.01

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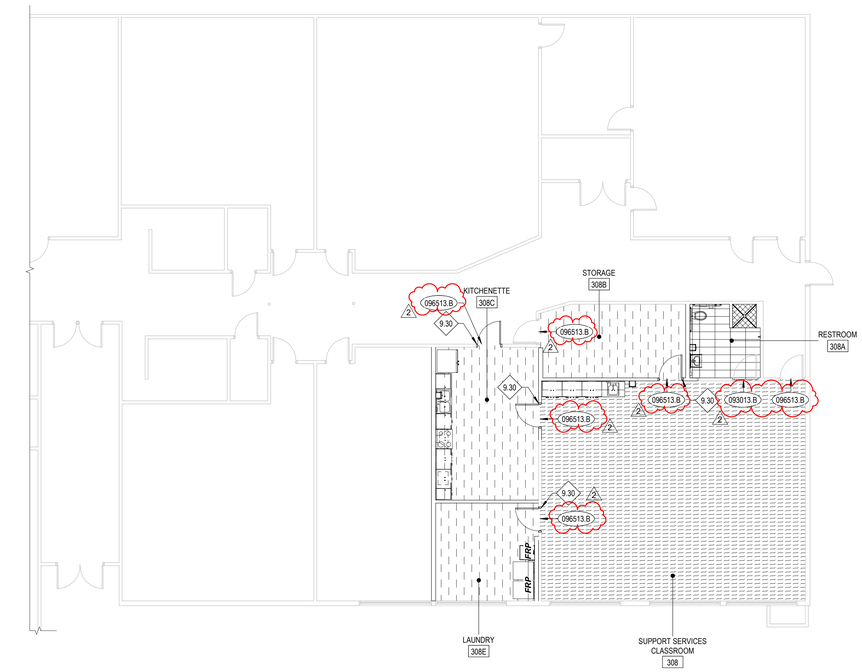
SCHEDULE - ROOM FINISH

ROOM NO.	ROOM TITLE	FLOOR MAT.	FLOOR BASE	WALLS NORTH	WALLS EAST	WALLS SOUTH	WALLS WEST	CASEWORK CABINETRY	CASEWORK COUNTER TOP	CEILING FINISH	REMARKS
308	SUPPORT SERVICES CLASSROOM	CPT-1	RWB-1	P-6, CWT-1, CWT-2	P-6	P-6	P-6	PL-1	PL-2	-	2, 4
308A	RESTROOM	PFT-1, CFT-1	MCB-1	CWT-1, CWT-2, CWT-3	CWT-1, CWT-2, CWT-3	CWT-1, CWT-2, CWT-3	CWT-1, CWT-2, CWT-3	-	-	P-9	2, 3, 4
308B	STORAGE	LVT-1	RWB-1	P-1	P-1	P-1	P-1	-	-	-	
308C	KITCHENETTE	LVT-1	RWB-1	P-1	P-1	P-1	P-1, CWT-1, CWT-2	PL-1	PL-2	-	2, 4
308E	LAUNDRY	LVT-1	RWB-1	P-1	P-1, FRP-1	P-1	P-1	-	-	-	1



C1 A2.02 **LEVEL 01 - FINISH FLOOR PLAN**
1/8" = 1'-0"

SCHEDULE - DOOR

DOOR #	DOOR TYPE	DOOR WIDTH	DOOR HEIGHT	DOOR MATERIAL	DOOR FINISH	FRAME TYPE	FRAME MATERIAL	FRAME FINISH	Fire Rating	DOOR HARDWARE	REMARKS
(E)308	F	3' - 0"	7' - 0"	EXIST	EXIST	EXIST	EXIST	ETR		HW-11	
(E)308a	F	3' - 0"	7' - 0"	EXIST	EXIST	EXIST	EXIST	ETR		HW-15	PROVIDE SIGNAGE PER C4/G0.02 & C1/G0.02
308b	F	3' - 0"	7' - 0"	WD	MATCH EXIST	HM-02	HM	P-11		HW-10	
308c	F	3' - 0"	7' - 0"	WD	MATCH EXIST	HM-02	HM	P-11		HW-12	
308d	F	3' - 0"	7' - 0"	WD	MATCH EXIST	HM-02	HM	P-11		HW-13	
308e	F	3' - 0"	7' - 0"	WD	MATCH EXIST	HM-02	HM	P-11		HW-11	

HW SET: 10
For use on Door #(s):
308B
Each to have:

3	EA	HINGE	5BB1 4.5 X 4.5	652	IVE
1	EA	STOREROOM LOCKSET	9K37D 15D PATD S3	626AM	BES
1	EA	SURFACE CLOSER	4040XP HEDA	689	LCN
1	EA	KICK PLATE	8400 10" X 2" LDW B-CS	630	IVE
1	EA	WALL STOP	WS406/407CCV	630	IVE
1	EA	GASKETING	488SBK PSA	BK	ZER

HW SET: 11
For use on Door #(s):
(E)308 308E
Each to have:

3	EA	HINGE	5BB1 4.5 X 4.5 NRP	652	IVE
1	EA	ENTRANCE LOCKSET	9K37UA 15D PATD S3	626AM	BES
1	EA	SURFACE CLOSER	4040XP HEDA	689	LCN
1	EA	KICK PLATE	8400 10" X 2" LDW B-CS	630	IVE
1	EA	WALL STOP	WS406/407CCV	630	IVE
1	EA	GASKETING	488SBK PSA	BK	ZER

HW SET: 12
For use on Door #(s):
308C
Each to have:

3	EA	HINGE	5BB1 4.5 X 4.5 NRP	652	IVE
1	EA	ENTRANCE LOCKSET	9K37UA 15D PATD S3	626AM	BES
1	EA	SURFACE CLOSER	4040XP HCUSH	689	LCN
1	EA	KICK PLATE	8400 10" X 2" LDW B-CS	630	IVE
1	EA	GASKETING	488SBK PSA	BK	ZER

HW SET: 13
For use on Door #(s):
308D
Each to have:

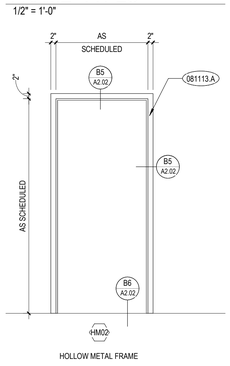
3	EA	HINGE	5BB1 4.5 X 4.5 NRP	652	IVE
1	EA	PASSAGE	9K30N 15D S3	626AM	BES
1	EA	SURFACE CLOSER	4040XP HEDA	689	LCN
1	EA	KICK PLATE	8400 10" X 2" LDW B-CS	630	IVE
1	EA	WALL STOP	WS406/407CCV	630	IVE
3	EA	SILENCER	SR64	GRY	IVE

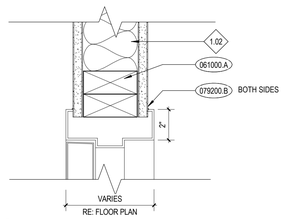
HW SET: 15
For use on Door #(s):
(E)308A
Each to have:

3	EA	HINGE	5BB1 4.5 X 4.5	652	IVE
1	EA	PRIVACY W/ IND	45H-0-L-15H VIN S3	626	BES
1	EA	SURFACE CLOSER	4040XP EDA	689	LCN
1	EA	KICK PLATE	8400 10" X 2" LDW B-CS	630	IVE
1	EA	WALL STOP	WS406/407CCV	630	IVE
1	EA	GASKETING	488SBK PSA	BK	ZER

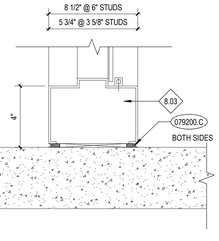
DOOR IS NORMALLY UNLOCKED AND INDICATOR IS GREEN FOR "VACANT"
USER ENTERS RESTROOM CLOSES DOOR AND ROTATES THUMBTURN EXTENDING THE DEAD BOLT AND CHANING THE OUTSIDE INDICATOR TO RED INDICATING "OCCUPIED"
USER ROTATES INSIDE LEVER SIMULTANIOUSLY RETRACTIGNG THE LATCHBOLT AND DEAD BOLT AND RETRUNING THE INDICATOR TO GREEN
EMERGENCY ENTRY WHEN OCCUPIED BY KEY.

FRAME TYPES
1/2" = 1'-0"



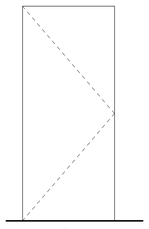


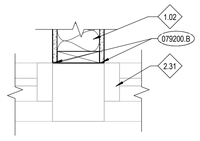
B5 A2.02 **INT. HM DOOR HEAD /JAMB @ STUD/GYP**
3" = 1'-0"



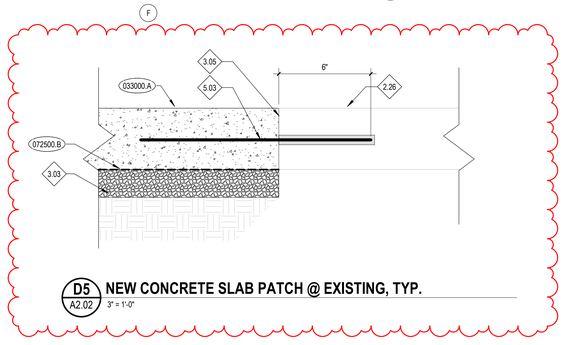
B6 A2.02 **HM DOOR SILL @ CONCRETE**
3" = 1'-0"

DOOR TYPES
1/2" = 1'-0"

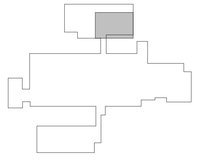




C5 A2.02 **WALL TO WINDOW MULLION**
1 1/2" = 1'-0"



D5 A2.02 **NEW CONCRETE SLAB PATCH @ EXISTING, TYP.**
3" = 1'-0"



LEGEND - KEY PLAN
1" = 200'-0"

PERMIT SET

KEYNOTES

033000.A	CAST-IN-PLACE CONCRETE.
061000.A	DIMENSION LUMBER
072500.B	VAPOR BARRIER
079200.B	JOINT SEALANT
079200.C	JOINT SEALANT BACKING
081113.A	HOLLOW METAL FRAME
093013.B	METAL EDGE STRIP ACCESSORY
096513.B	RESILIENT MOLDING ACCESSORY

REFERENCE NOTES

1.02	RE: FLOOR PLAN FOR WALL TYPES.
2.26	EXISTING CONCRETE SLAB ON GRADE
2.31	EXISTING WINDOW SYSTEM TO REMAIN
3.03, 7.2	MATCH ADJACENT EXISTING SUBGRADEPREP, INCLUDING GRAVEL AND VAPOR RETARDER, PATCH ALL SEAMS PER MANUF. INSTRUCTIONS.
3.05	SEAL BETWEEN EXISTING AND NEW
5.03, 7.2	#4 X 24" LONG DOWEL (CORE AND EPOXY) AT 24" O.C. AROUND PERIMETER INTO THE EXISTING SLAB
8.03	WINDOW SYSTEM AND/OR DOOR SYSTEM. RE: FLOOR PLANS AND WINDOW/DOOR TYPES.
9.30	MATCH COLOR OF EXISTING DOOR FRAMES, P-11 RE: SECTION 099123, "INTERIOR PAINTING."

FINISH SCHEDULE REMARKS

1. RE: INTERIOR ELEVATIONS FOR CERAMIC WALL TILE LOCATIONS.
2. SEE FLOOR FINISH PLAN FOR LOCATIONS OF FLOOR MATERIALS.
3. FLOOR AND WALL TILES TO BE EQUAL AT PERIMETERS OF SURFACE.
4. PROVIDE CONTINUOUS SEALANT BETWEEN DISSIMILAR FINISHES. SEE FLOOR FINISH PLANS FOR /FLOOR TRANSITIONS.
5. PAINT ALL EXISTING AND NEW EXPOSED TO VIEW ITEMS THAT ARE NOT PREFINISHED, INCLUDING AND NOT LIMITED TO CONDUITS, GRILLES, PIPING AND COVER PLATES. (5, 2)

FINISH FLOOR LEGEND

CPT-1 PFT-2 PFT-1 LVT-1

FINISH ABBREVIATIONS

FLOOR FINISHES

CPT	CARPET TILE
CFT	CERAMIC FLOOR TILE
PFT	PORCELAIN FLOOR TILE
LVT	LUXURY VINYL TILE

WALL BASE

RWB	RESILIENT WALL BASE
MCB	METAL COVE BASE

WALL FINISHES

P	PAINT
CWT	CERAMIC WALL TILE

CEILINGS

APC	ACOUSTICAL PANEL CEILING
GYP	GYPSUM BOARD
O.T.S.	OPEN TO STRUCTURE

CASEWORK

PL	PLASTIC LAMINATE

GENERAL NOTES

1. PAINT ALL METAL FRAMES & ACCESSORIES P-11.
2. ALL HOLLOW METAL FRAME GLAZING STOPS TO BE PLACED ON ROOM SIDE OPPOSITE FROM HALLWAY / CORRIDOR.
3. CORNER GUARDS TO BE INSTALLED AT ALL OUTSIDE CORNERS RE: SECTION 102800, "WALL AND DOOR PROTECTION."
4. WHERE WALL TILE IS TO BE INSTALLED, PREPARE WALL WITH CEMENT BACKERBOARD.

ABBREVIATIONS

ALUM	- ALUMINUM
FF	- FACTORY FINISH AS SPECIFIED
HM	- HOLLOW METAL
HPC	- HIGH PERFORMANCE COATING
P#	- PAINT COLOR "NUMBER" (RE: DIVISION 9 SECTION "INTERIOR PAINTING"
WD	- WOOD
AN	- ANODIZED
ETR	-EXISTING TO REMAIN

HUMMEL ARCHITECTS
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482 Constitution Way, Suite 111, Idaho Falls, ID 83402, 208.343.7523
hummelarch.com

Project:
TFSD 2023 CAPITAL IMPROVEMENTS PACKAGE 6, SUPPORT SERVICE CLASSROOM TENANT IMPROVEMENT AT ROBERT STUART MIDDLE SCHOOL
644 Casewell Ave W
Twin Falls, ID 83301

Sheet:
SUPPORT SERVICE CLASSRM TI - DOORS & FINISHES

1	Agency Review 1	2/16/2024
2	Consolidated Set	2/23/2024

LICENSED PROFESSIONAL ARCHITECT AR-1635 2/16/24 STATE OF IDAHO

Project No:	23010-00
Drawn By:	CW
Checked By:	PR
Date:	2/23/2024

Sheet No:
A2.02

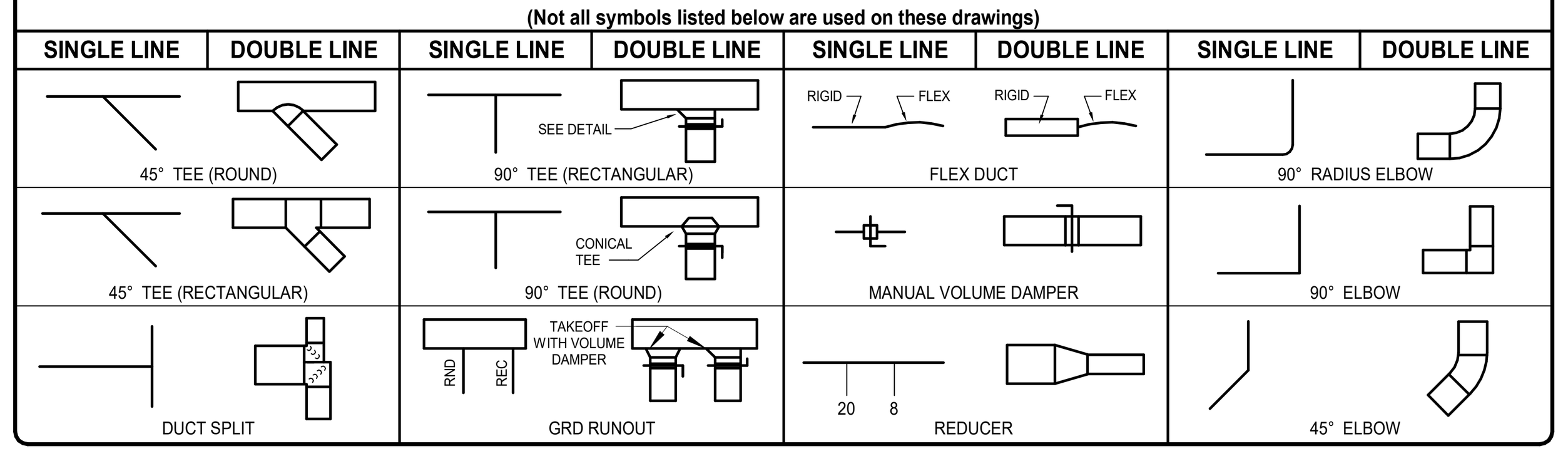
2/22/2024 4:24:17 PM

GENERAL LEGEND
(Not all symbols listed below are used on these drawings)

ABBR.	SYMBOL	DESCRIPTION
	X / X-X	SECTION DESIGNATION SECTION CUT ON THIS SHEET
	X / X-X	VIEW REFERENCE DESIGNATION VIEW REFERENCE ON THIS SHEET
	X / 1-2-3	EQUIPMENT UNIT IDENTIFICATION EQUIPMENT UNIT NUMBER (UNIT SERVED - FLOOR - SEQUENCE #)
⊠	A 10 / 250	DIFFUSER IDENTIFICATION DIFFUSER NECK DIAMETER DIFFUSER CFM
	E 8ø/24"L / 9999	LINEAR DIFFUSER IDENTIFICATION LINEAR DIFFUSER NECK DIAMETER LINEAR DIFFUSER LENGTH LINEAR DIFFUSER CFM
	2'-6" FTR / 3'-6" 28	FINNED TUBE RADIATOR ACTIVE ELEMENT LENGTH EQUIPMENT UNIT IDENTIFICATION EQUIPMENT UNIT NUMBER RADIATOR ENCLOSURE LENGTH (OR W-W=WALL-TO-WALL)
	X	KEY NOTE REFERENCE
	1	KITCHEN/OWNER/MEDICAL EQUIPMENT REFERENCE
		TYPICAL ROOM REFERENCE (TOP = RM #, BOTTOM = FLR)
		POINT OF CONNECTION, NEW TO EXISTING
		POINT OF DISCONNECTION, DEMO
		DIRECTION OF FLOW IN PIPE
		DUCTWORK, PIPING AND EQUIPMENT TO BE REMOVED
(E)		EXISTING
(N)		NEW
(R)		RELOCATED
(F)		FUTURE
DIA	Ø	DIAMETER
WAD		WALL ACCESS DOOR
NIC		NOT IN CONTRACT
AFF		ABOVE FINISHED FLOOR
GC		GENERAL CONTRACTOR
MC		MECHANICAL CONTRACTOR
EC		ELECTRICAL CONTRACTOR
UNO		UNLESS NOTED OTHERWISE
C		COMMON
NC		NORMALLY CLOSED
NO		NORMALLY OPEN

ABBR.	SYMBOL	DESCRIPTION
		CAP END OF PIPE
	SLOPE	PITCH DOWN IN DIRECTION OF ARROW
		PIPE ANCHOR
		PIPE ALIGNMENT GUIDE
		UNION OR FLANGE
		CONCENTRIC PIPE REDUCER
		ECCENTRIC PIPE REDUCER
PRV		PRESSURE REDUCING VALVE
PTRV		PRESSURE AND/OR TEMPERATURE RELIEF VALVE
		ISOLATION VALVE (RE: SPEC FOR TYPE)
		VERTICAL PIPE VALVE
CV		CHECK VALVE
		SOLENOID / MOTORIZED VALVE
		SOLENOID VALVE
		HOSE END DRAIN VALVE
P/T	P/T	PRESSURE / TEMPERATURE TAP
		STRAINER
		STRAINER W/ BLOWDOWN
		BRAIDED FLEXIBLE PIPE CONNECTOR
		DOUBLE-BOWL FLEXIBLE PIPE CONNECTOR
		THERMOMETER
		PRESSURE GAUGE
		SIGHT GLASS
C.A.P.		CEILING ACCESS PANEL
		PUMP
TB		THRUST BLOCK
MAV		MANUAL AIR VENT
AAV		AUTOMATIC AIR VENT

DOUBLE/SINGLE LINE DUCT LEGEND
(Not all symbols listed below are used on these drawings)



HVAC LEGEND
(Not all symbols listed below are used on these drawings)

ABBR.	SYMBOL	DESCRIPTION
HWS	HWS	HEATING WATER SUPPLY PIPING
HWR	HWR	HEATING WATER RETURN PIPING
HTWS	HTWS	HIGH TEMPERATURE HEATING WATER SUPPLY PIPING
HTWR	HTWR	HIGH TEMPERATURE HEATING WATER RETURN PIPING
CHWS	CHWS	CHILLED WATER SUPPLY PIPING
CHWR	CHWR	CHILLED WATER RETURN PIPING
D	D	COOLING COIL DRAIN PAN PIPING
CWS	CWS	CONDENSER WATER SUPPLY PIPING
CWR	CWR	CONDENSER WATER RETURN PIPING
GHWS	GHWS	GLYCOL HEATING WATER SUPPLY PIPING
GHWR	GHWR	GLYCOL HEATING WATER RETURN PIPING
PCWS	PCWS	PROCESS CHILLED WATER SUPPLY PIPING
PCWR	PCWR	PROCESS CHILLED WATER RETURN PIPING
LPS	LPS	LOW PRESSURE STEAM SUPPLY PIPING (0 - 15#)
LPC	LPC	LOW PRESSURE CONDENSATE RETURN PIPING
MPS	MPS	MEDIUM PRESSURE STEAM SUPPLY PIPING (16# - 60#)
MPC	MPC	MEDIUM PRESSURE CONDENSATE RETURN PIPING
HPS	HPS	HIGH PRESSURE STEAM SUPPLY PIPING (61# - 125#)
HPC	HPC	HIGH PRESSURE CONDENSATE RETURN PIPING
PC	PC	PUMPED CONDENSATE PIPING
BBD	BBD	BOILER BLOWDOWN PIPING
BF	BF	BOILER FEED WATER PIPING
RL	RL	REFRIGERANT LIQUID PIPING
RS	RS	REFRIGERANT SUCTION PIPING
RHG	RHG	REFRIGERANT HOT GAS PIPING
TT	TT	THERMOSTATIC STEAM TRAP
F&T	F&T	FLOAT AND THERMOSTATIC STEAM TRAP
IBT	IBT	INVERTED BUCKET STEAM TRAP
TCV		(2 OR 3-WAY) TEMPERATURE CONTROL VALVE
		VENTURI METER
BV		CALIBRATED BALANCING VALVE
AFV		AUTO FLOW VALVE
RSV		REFRIGERANT SERVICE VALVE
DPS	DP	DIFFERENTIAL PRESSURE SWITCH
FS		FLOW SWITCH
EJ		EXPANSION JOINT
BJ		BALL JOINT EXPANSION COMPENSATOR
SA		SUPPLY AIR
RA		RETURN AIR
EA		EXHAUST AIR
OA		OUTSIDE AIR

ABBR.	SYMBOL	DESCRIPTION
		SUPPLY DUCT UP / DOWN
		RETURN DUCT UP / DOWN
		EXHAUST DUCT UP / DOWN
		ROUND DUCT UP / ROUND DUCT DOWN
48F12		FLAT OVAL DUCTWORK
		FLEXIBLE DUCT CONNECTION
BDD		BACKDRAFT DAMPER
TCD		TEMP. CONTROL DAMPER-OPPOSED BLADE
TCD		TEMP. CONTROL DAMPER- PARALLEL BLADE
MVD		MANUAL VOLUME DAMPER
MD	M	DUCT MOTORIZED DAMPER
		CONICAL FITTING WITH MVD
		SPIN-IN FITTING WITH MVD
FD		DUCT FIRE DAMPER
FSD		COMBINATION DUCT FIRE/SMOKE DAMPER
SD		DUCT SMOKE DAMPER
	F	DUCT SMOKE DETECTOR
DAD		DUCT ACCESS DOOR
		TURNING VANES IN DUCT ELBOW
EP		ELECTRIC-PNEUMATIC CONTROL VALVE
PE		PNEUMATIC-ELECTRIC CONTROL SWITCH
	S ES	WALL SWITCH / EMERGENCY SWITCH
	TS	TEMPERATURE SENSOR
	T	WALL MOUNTED THERMOSTAT
	CO2	WALL MOUNTED CARBON DIOXIDE SENSOR
	O	WALL MOUNTED OXYGEN SENSOR
	H	HUMIDISTAT
	T	UNIT MOUNTED THERMOSTAT
	P PM	PRESSURE SENSOR / PRESSURE MONITOR
	U	UNDERCUT DOOR
	L	LOUVER IN DOOR
	RISE	DUCT RISE
	DROP	DUCT DROP
A.L.		ACOUSTICALLY LINED DUCTWORK
TCOAD		TEMPERATURE CONTROL OUTSIDE AIR DAMPER
TCRAD		TEMPERATURE CONTROL RETURN AIR DAMPER
TCEAD		TEMPERATURE CONTROL EXHAUST AIR DAMPER
SP IN WC		STATIC PRESSURE IN INCHES WATER COLUMN
EOMD		END OF MAIN DRIP
SCCR		SHORT CIRCUIT CURRENT RATING
SD	⊠	SUPPLY AIR DEVICE
RG		RETURN AIR DEVICE
RG		RETURN AIR DEVICE WITH SOUND BOOT
EG		EXHAUST AIR DEVICE

UNLESS NOTED OTHERWISE ALL SCHEDULED DATA IS LISTED AT ELEVATION 3700 FT

HVAC PLAN NOTES:

1. ALL SUPPLY AIR DIFFUSERS ARE 4-WAY AIR PATTERN UNLESS SHOWN OTHERWISE.
2. DUCT SIZE OF BRANCH DUCT TO AIR DEVICE SHALL BE THE SAME SIZE AS NECK SIZE OF AIR DEVICE UNLESS NOTED OTHERWISE.
3. UNLESS OTHERWISE NOTED, ALL SUPPLY AIR DUCTWORK SHALL BE EXTERNALLY WRAPPED TO THICKNESS AS STATED IN SPECIFICATIONS AND RETURN AND EXHAUST DUCTWORK IS NEITHER LINED NOR WRAPPED.
4. REFER TO ARCHITECTURAL DRAWINGS FOR ROOF PENETRATION DETAILS.
5. DUCT SIZES INDICATED ARE SHEET METAL SIZES. WHERE INTERNAL DUCT LINING IS PROVIDED, SHEET METAL SHALL NOT BE INCREASED IN SIZE.

COMcheck Software Version 4.1.5.5
Mechanical Compliance Certificate

Project Information

Energy Code: 2018 IECC
Project Title: TFSD Capital Improvements - Robert Stuart Middle School
Location: Twin Falls, Idaho
Climate Zone: 5b
Project Type: Alteration

Construction Site:
Twin Falls, ID

Owner/Agent:
Twin Falls School District
Twin Falls, ID 83301

Designer/Contractor:
Lilly Johnson, P.E.
CATOR RUMA
BOISE, ID
2083433663

Mechanical Systems List

Quantity	System Type & Description
1	DX-1 and CU-1 (Single Zone): Cooling: 1 each - Split System, Capacity = 42 kBtu/h, Air-Cooled Condenser, No Economizer, Economizer exception: None Proposed Efficiency = 13.00 SEER, Required Efficiency: 13.00 SEER Fan System: Unspecified
2	DX-2,3 and CU-2,3 (Single Zone): Split System Heat Pump Heating Mode: Capacity = 27 kBtu/h, Proposed Efficiency = 8.20 HSPF, Required Efficiency = 8.20 HSPF Cooling Mode: Capacity = 24 kBtu/h, Proposed Efficiency = 14.00 SEER, Required Efficiency: 14.00 SEER Fan System: Unspecified

Mechanical Compliance Statement

Compliance Statement: The proposed mechanical alteration project represented in this document is consistent with the building plans, specifications, and other calculations submitted with this permit application. The proposed mechanical systems have been designed to meet the 2018 IECC requirements in COM*check* Version 4.1.5.5 and to comply with any applicable mandatory requirements listed in the Inspection Checklist.

Lilly Johnson, P.E. — Name - Title
[illegible] — Signature
2.16.24 — Date

GENERAL NOTES:

1. WORK INCLUDED IN THE CONTRACT IS DENOTED IN BOLD. EXISTING CONDITIONS TO REMAIN ARE DENOTED LIGHTLY.
2. A DETAILED METHOD OF PROCEDURE IS REQUIRED WHEN A CONSTRUCTION ACTIVITY AFFECTS THE SAFETY OF THE OCCUPANTS, OWNER'S EQUIPMENT OR VALUABLE CONTENTS OR ANY SYSTEM WHICH SUPPORTS THESE SYSTEMS; OR ESSENTIALLY AFFECTS THE BUILDING MANAGEMENT, OPERATIONS OR SECURITY.
3. CONTRACTOR IS RESPONSIBLE FOR FIELD VERIFICATION OF ALL EXISTING CONDITIONS PRIOR TO COMMENCEMENT OF ANY WORK AND SHALL NOTIFY THE ENGINEER/ARCHITECT OF ANY DISCREPANCIES FOR RESOLUTION.
4. COORDINATE WORK WITH ALL TRADES.
5. CONTRACTOR IS RESPONSIBLE FOR SECURING AND WEATHERPROOFING ANY ROOF OPENING NOT COMPLETED DURING WORKING HOURS.
6. COORDINATE ALL DUCTWORK AND PIPING WITH EQUIPMENT, STRUCTURE, ETC.
7. CONTRACTOR SHALL BE RESPONSIBLE FOR DEACTIVATION OF ROOF-MOUNTED EQUIPMENT AND ASSOCIATED INDOOR EQUIPMENT. ONLY ONE UNIT SHALL BE TAKEN OUT OF SERVICE AT ANY TIME, WITH REMAINDER OF UNITS LEFT OPERATIONAL.
8. CONTRACTOR SHALL NOT SHUT DOWN / TAKE OUT OF SERVICE ANY SYSTEMS WITHOUT FIRST COORDINATING WITH OWNER AND PREPARING M.O.P.

DEMOLITION GENERAL NOTES:

1. EXISTING ITEMS TO REMAIN ARE DENOTED LIGHTLY UNLESS OTHERWISE NOTED. ALL ITEMS SHOWN DASHED & BOLD SHALL BE REMOVED UNLESS OTHERWISE NOTED.
2. CONTRACTOR SHALL NOT SHUT-OFF OR PUT-OUT OF SERVICE ANY SYSTEMS OR SERVICE WITHOUT FIRST COORDINATING WITH THE OWNER.
3. IT IS THE RESPONSIBILITY OF THE CONTRACTOR TO VISIT THE SITE AND UNDERSTAND THE EXTENT OF THE REMODEL WORK REQUIRED PRIOR TO BID. NO EXTRAS WILL BE ALLOWED FOR WORK REQUIRED TO ACHIEVE THE END RESULT AS INDICATED BY THE CONTRACT DOCUMENT.
4. CONTRACTOR SHALL DETERMINE AND COORDINATE THE EXACT EXTENT OF DEMOLITION TO FACILITATE ALL WORK INDICATED BY THE CONTRACT DOCUMENT.
5. PRIOR TO COMMENCEMENT OF ANY DEMOLITION WORK, VERIFY EXISTING CONDITIONS AND NOTIFY ENGINEER OF ANY DISCREPANCIES FOR RESOLUTION.
6. ALL ITEMS IDENTIFIED TO BE REMOVED SHALL BE REMOVED IN THEIR ENTIRETY UNLESS OTHERWISE NOTED. REMOVED ITEMS SHALL BE TURNED OVER TO THE OWNER UNLESS OTHERWISE NOTED AND STORED IN THE AREA DESIGNATED BY THE OWNER. REMOVE FROM SITE AND LEGALLY DISPOSE OF ALL ITEMS THE OWNER CHOOSES NOT TO ACCEPT.
7. WHERE EXISTING PIPING, T.C. TUBING/WIRING ETC. ARE TO BE REMOVED FROM WALLS WHICH ARE REMAINING, THE WALLS SHALL BE REPAIRED TO MATCH ORIGINAL CONDITIONS.
8. WHERE EXISTING PIPING TO BE REMOVED PASSES THROUGH FLOORS, THEY SHALL BE CUT BACK TO WITHIN CONCRETE AND FILLED WITH GROUT TO ACHIEVE A SMOOTH AND EVEN FINISH WITH CONCRETE SURFACE.

DUCTLESS SPLIT SYSTEM OUTDOOR UNIT SCHEDULE

REMARKS:

GENERAL: UNITS SUPPLIED ON THE PROJECT SHALL BE THE MOST RECENT SERIES CURRENTLY MANUFACTURED.

1. **REFER TO ELECTRICAL DRAWINGS FOR POWER REQUIREMENTS, INCLUDING COORDINATION OF VOLTAGE, PHASE, SCCR, WIRE SIZES, AND OVERCURRENT PROTECTIVE DEVICES. REFER TO ELECTRICAL ONE-LINE DIAGRAM FOR MINIMUM FAULT CURRENT RATING THAT EACH UNIT SHALL EXCEED. UNIT NAMEPLATE SHALL INDICATE THE SHORT CIRCUIT CURRENT RATING.**
2. **PROVIDE FACTORY-SUPPLIED, FIELD-INSTALLED INTAKE AND DISCHARGE WIND BAFFLES FOR LOW AMBIENT OPERATION OF OUTDOOR UNIT EITHER AS PROVIDED BY THE MANUFACTURER OR SHOP-FABRICATED PER MANUFACTURER'S INSTRUCTIONS.**
3. **REFER TO ASSOCIATED INDOOR UNIT SCHEDULE FOR ADDITIONAL REMARKS APPLICABLE TO OUTDOOR UNITS.**

DESIG. NAME	DESIG. NO.	MFR	MODEL	MATCHED SYSTEM COMPONENT	OPERATING FUNCTION	COOLING CAPACITY NOMINAL TONS (SL)	COOLING CAPACITY TOTAL MBH (SL)	COOLING CAPACITY AMBIENT AIR (°F)	COOLING CAPACITY LOW AMBIENT (°F)	AHRI SEER	SOUND POWER (dBA)	REFRIGERANT TYPE	REFRIGERANT CHARGE (LBS)	SIZE (INCHES) L	SIZE (INCHES) W	SIZE (INCHES) H	OPER WEIGHT (LBS)	ELECTRICAL VOLTAGE	ELECTRICAL PHASE	ELECTRICAL MCA	ELECTRICAL MOCP	CONTROL	REMARKS
CU	1	DAIKIN	RZR42TAVJUA	DX 1	COOLING	3.5	40.5	95	0	14	57	R410A	7.90	36	14	52	225	208	1	REMARK 1	REMARK 1	FACTORY	1,2,3
CU	2	DAIKIN	RZQ24TAVJUA	DX 2	HEAT PUMP	2.0	24.0	95	23	17.6	58	R410A	6.40	38	14	39	175	208	1	REMARK 1	REMARK 1	FACTORY	1,2,3
CU	3	DAIKIN	RZQ24TAVJUA	DX 3	HEAT PUMP	2.0	24.0	95	23	17.6	58	R410A	6.40	38	14	39	175	208	1	REMARK 1	REMARK 1	FACTORY	1,2,3

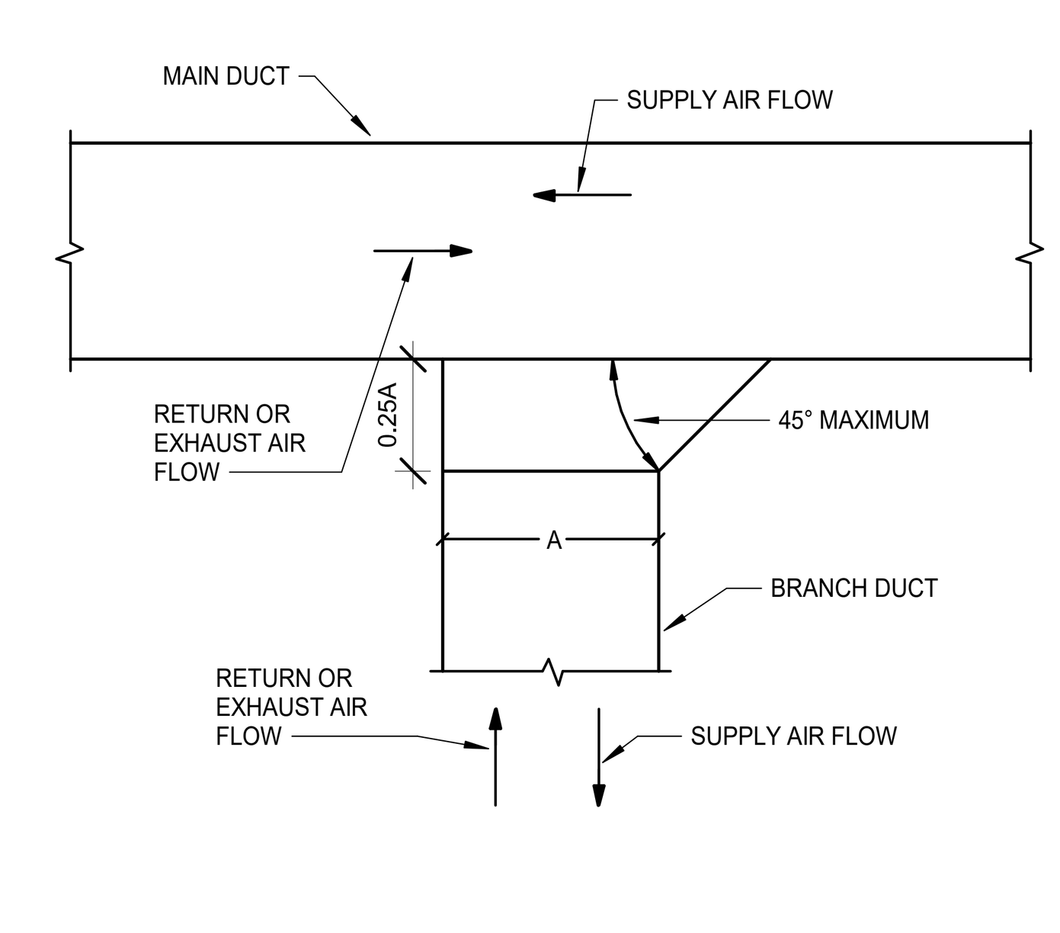
DUCTLESS SPLIT SYSTEM INDOOR UNIT SCHEDULE

REMAR...

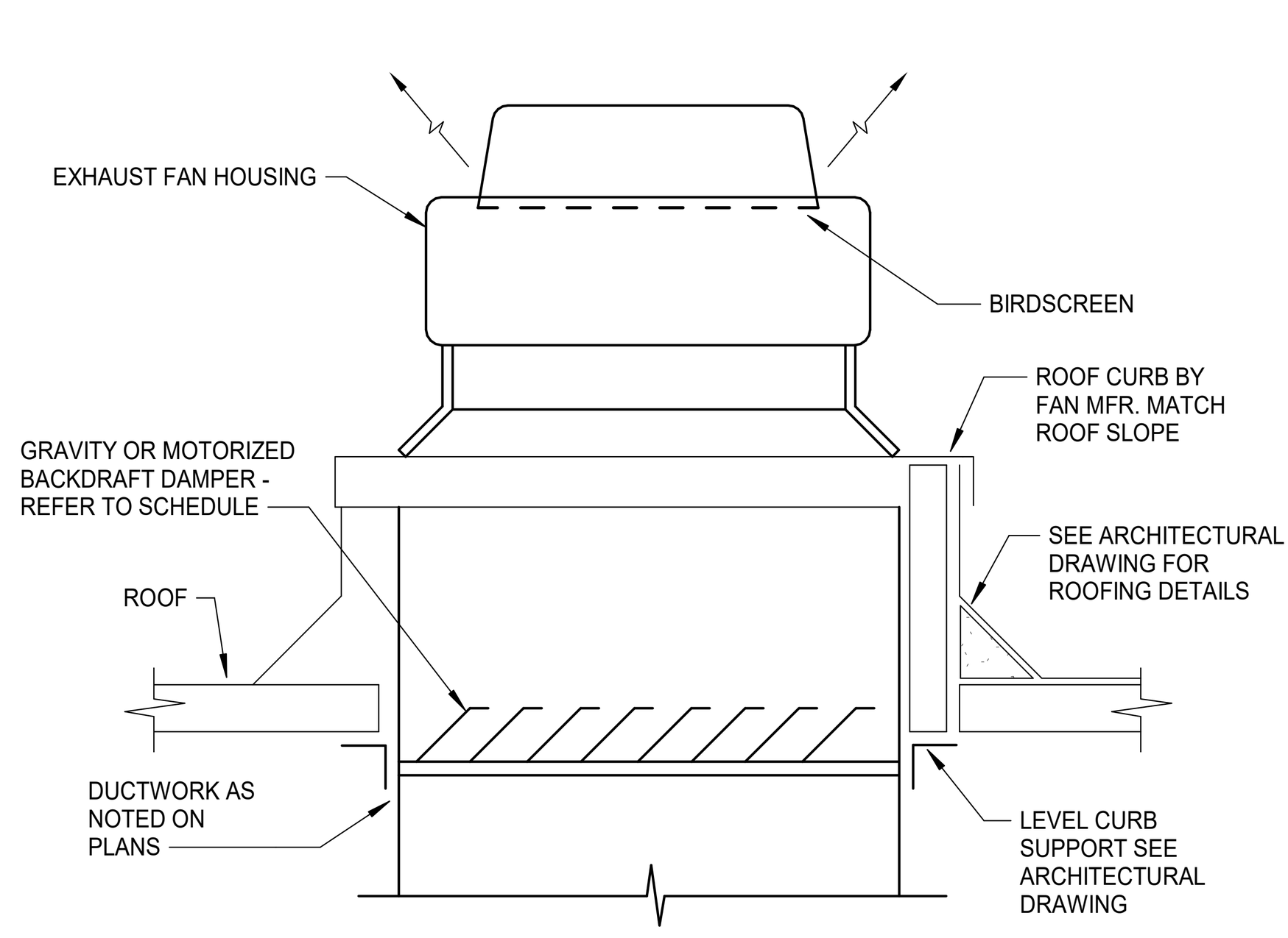
GENERAL: UNITS SUPPLIED ON THE PROJECT SHALL BE THE MOST RECENT SERIES CURRENTLY MANUFACTURED.

1. **REFER TO ELECTRICAL DRAWINGS FOR POWER REQUIREMENTS, INCLUDING COORDINATION OF VOLTAGE, PHASE, SCCR, WIRE SIZES, AND OVERCURRENT PROTECTIVE DEVICES. REFER TO ELECTRICAL ONE-LINE DIAGRAM FOR MINIMUM FAULT CURRENT RATING THAT EACH UNIT SHALL EXCEED. UNIT NAMEPLATE SHALL INDICATE THE SHORT CIRCUIT CURRENT RATING.**
2. **POWER FOR LINE VOLTAGE SOURCE MAY ROUTE THROUGH OUTDOOR UNIT FOR CONTROL AND MAIN SWITCH PURPOSES. MECHANICAL CONTRACTOR SHALL COORDINATE MFR REQUIREMENTS WITH ELECTRICAL CONTRACTOR.**
3. **REFRIGERANT CHARGE VARIES DEPENDENT UPON SIZE & LENGTH OF RUN OF PIPING.**
4. **PROVIDE WIRED REMOTE CONTROL PANEL WITH INTEGRAL SPACE TEMPERATURE SENSOR. PROVIDE SETUP PER MANFACTURER'S INSTRUCTIONS AND TEMPERATURE SETPOINTS REQUIRED BY THESE PLANS AND SPECIFICATIONS.**
5. **PROVIDE CONDENSATE PUMP FOR EACH UNIT.**
6. **PROVIDE DRAIN PAN LEVEL SENSOR AT UNIT FOR SHUTDOWN UPON OVERFLOW OF CONDENSATE PAN.**

DESIG. NAME	DESIG. NO.	MFR	MODEL	MOUNTING STYLE	SUPPLY FAN CFM (SL)	SUPPLY FAN FAN SPEED	SUPPLY FAN SOUND POWER (dBA)	SUPPLY FAN VOLTAGE	SUPPLY FAN PHASE	SUPPLY FAN MCA	SUPPLY FAN MOCP	COOLING COIL - REFRIGERANT (AHRI) TOTAL MBH (SL)	SENS. MBH (SL)	ENTERING AIR DB (°F)	ENTERING AIR WB (°F)	SIZE (INCHES) L	SIZE (INCHES) W	SIZE (INCHES) H	OPER WEIGHT (LBS)	POWER SOURCE COMMENT	REMARKS
DX	1	DAIKIN	FHQ42MVJU	CEILING SUSPENDED	850	HIGH	47	208	1	REMARK 1	REMARK 1	40.5	28.2	80	67	28	64	8	90	POWERED BY CU	1,2,3,4,5,6
DX	2	DAIKIN	FAQ24TAVJU	WALL MOUNT	600	HIGH	43	208	1	REMARK 1	REMARK 1	24.0	18.0	80	67	42	10	12	40	POWERED BY CU	1,2,3,4,5,6
DX	3	DAIKIN	FAQ24TAVJU	WALL MOUNT	600	HIGH	43	208	1	REMARK 1	REMARK 1	24.0	18.0	80	67	42	10	12	40	POWERED BY CU	1,2,3,4,5,6



DUCT TAKE-OFF DETAIL
SCALE: NONE
3300-02



UPBLAST ROOF EXHAUST FAN DETAIL
SCALE: NONE
3400-10 12.13.22

FAN SCHEDULE

GENERAL REMARKS:

A. **REFER TO ELECTRICAL DRAWINGS FOR POWER REQUIREMENTS, INCLUDING COORDINATION OF VOLTAGE, PHASE, SCCR, WIRE SIZES, AND OVERCURRENT PROTECTIVE DEVICES. REFER TO ELECTRICAL ONE-LINE DIAGRAM FOR MINIMUM FAULT CURRENT RATING THAT EACH UNIT SHALL EXCEED. UNIT NAMEPLATE SHALL INDICATE THE SHORT CIRCUIT CURRENT RATING.**
B. **REFER TO MECHANICAL LEGENDS AND NOTES SHEET FOR PROJECT ELEVATION.**

SPECIFIC REMARKS:

1. **PROVIDE WITH GRAVITY BACKDRAFT DAMPER IN THE NECK.**

DESIG. NAME	DESIG. NO.	MFR	MODEL	FAN TYPE	SERVICE	FAN CLASS	CFM AT ELEV.	E.S.P. (IN. W.C.)	APPROX. RPM	MOTOR HP OR WATTS	MOTOR VOLTAGE	MOTOR PHASE	DRIVE TYPE	BACKDRAFT DAMPER (BDD) TYPE & LOCATION	BACKDRAFT DAMPER (BDD) AIR PRESS DROP (IN WC)	THROAT HEIGHT (INCHES)	THROAT WIDTH (INCHES)	SIZE (INCHES) L	SIZE (INCHES) W	SIZE (INCHES) H	OPER. WEIGHT (LBS.)	CONTROL	REMARKS
EF	1	SOLER & PALAU	STXDe6	UPBLAST	TOILET	I	125	0.50	1750	0.33	120	1	DIRECT	GRAVITY IN NECK	0.10	10	10	0	28	26	100	LIGHTS	1

AIR DEVICE SCHEDULE

REMARKS:

GENERAL - APPLIES TO ALL AIR DEVICES: MANUAL VOLUME DAMPERS SHALL BE ACCEPTABLE IN DUCTWORK AT THE BRANCH POINT OF THE RUNOUT DUCT OR IN-LINE TO THE AIR DEVICE BY THE CONTRACTOR INSTALLING DUCTWORK. A DAMPER LOCATED AT THE AIR DEVICE SHALL BE ACCEPTABLE WHEN PERMITTED BY ENGINEER ON A CASE-BY-CASE BASIS OR WHEN THE MANUFACTURER REQUIRES AN INTEGRAL MANUAL VOLUME DAMPER.

1. **REFER TO ARCHITECTURAL CEILING PLANS.**

DESIG.	FUNCTION	STYLE	MFR.	MODEL	FRAME STYLE	MODULE SIZE	MATERIAL	FINISH	REMARKS
A	CEILING SUPPLY	LOUVERED FACE, ADJUSTABLE	TITUS	TDCA	LAY IN	24x24	STEEL	WHITE	1
B	CEILING EXHAUST	ALUMINUM EGGCRATE	TITUS	50F	SURFACE	SEE PLANS	STEEL	WHITE	1
C	SIDEWALL SUPPLY	ADJUSTABLE VANES, DOUBLE DEFLECTION	TITUS	272RL	SURFACE	SEE PLANS	STEEL	WHITE	1
D	SIDEWALL EXHAUST	FIXED ANGLE VANES	TITUS	33	SURFACE	SEE PLANS	STEEL	WHITE	1

ENERGY RECOVERY VENTILATOR SCHEDULE

COMMON NOTES (APPLIES TO ALL AIR HANDLERS):

A. **REFER TO ELECTRICAL DRAWINGS FOR POWER REQUIREMENTS, INCLUDING COORDINATION OF VOLTAGE, PHASE, SCCR, WIRE SIZES, AND OVERCURRENT PROTECTIVE DEVICES. REFER TO ELECTRICAL ONE-LINE DIAGRAM FOR MINIMUM FAULT CURRENT RATING THAT EACH UNIT SHALL EXCEED. UNIT NAMEPLATE SHALL INDICATE THE SHORT CIRCUIT CURRENT RATING.**
B. **REFER TO MECHANICAL LEGENDS AND NOTES SHEET FOR PROJECT ELEVATION.**

UNIT SPECIFIC REMARKS:

1. **PROVIDE WITH BACKDRAFT DAMPERS IN OUTSIDE AIR AND EXHAUST AIR.**
2. **PROVIDE WITH DIGITAL TIME CLOCK.**

DESIG. NAME	DESIG. NO.	MFR	MODEL NO.	SUPPLY FAN SECTION AIR FLOW AT ELEV CFM	SUPPLY FAN ESP (IN WC)	SUPPLY FAN TSP (IN WC)	SUPPLY FAN NO. OF FANS	EXHAUST FAN SECTION AIR FLOW AT ELEV CFM	EXHAUST FAN ESP (IN WC)	EXHAUST FAN NO. OF FANS	HEATING EXHAUST AIR AT ELEV CFM	HEATING EXHAUST AIR EAT °F DB	HEATING EXHAUST AIR LAT °F DB	HEATING OUTSIDE AIR AT ELEV CFM	HEATING OUTSIDE AIR EAT °F DB	HEATING OUTSIDE AIR LAT °F DB	COOLING EXHAUST AIR AT ELEV CFM	COOLING EXHAUST AIR EAT °F DB	COOLING EXHAUST AIR LAT °F DB	COOLING OUTSIDE AIR AT ELEV CFM	COOLING OUTSIDE AIR EAT °F DB	COOLING OUTSIDE AIR LAT °F DB	UNIT SIZE L (IN)	UNIT SIZE W (IN)	UNIT SIZE H (IN)	OPER WEIGHT (LBS)	CONTROL	REMARKS
ERV	1	RENEWAIRE	EV PREMIUM SH	100	0.60	0.00	1	100	0.60	1	100	70	50	100	5	45	100	75	85	100	96	86	24	12	24	50	FACTORY	1,2

(ENERGY RECOVERY WHEEL OR AIR-TO-AIR HEAT EXCHANGER)

△1

OUTSIDE AIR VENTILATION CALCULATIONS (OA)

AIR SYSTEM TAG		ROOM OCCUPANCY CLASSIFICATON		Code Basis: IMC 2018			ZONE VENTILATION EFFECTIVENESS (Ez) =	0.8		SYSTEM OCCUPANT DIVERSITY (D) =		100%	OUTSIDE AIR SUMMARY	
ROOM NUMBER	ROOM NAME	PRIMARY	SECONDARY	ZONE AREA (SF) (Az)	ZONE PRIMARY AIR CFM (Vpz)	PEOPLE OUTSIDE AIR RATE (CFM) (Rp)	AREA OUTSIDE AIR RATE (CFM/SF) (Ra)	OCCUPANT DENSITY #/1000 SF	TOTAL PEOPLE (Pz)	BREATHING ZONE OUTSIDE AIR CFM (Vbz)	ZONE OUTSIDE AIR CFM (Voz)	PRIMARY OUTSIDE AIR FRACTION (Zp)	PEOPLE OUTSIDE AIR CFM	ROOM OUTSIDE AIR CFM
308	Classroom	Education	Classroom	991	1,200	10.0	0.12	35	35	466	582	0.485	347	119
308B	Storage	Office	Storage	180	100	5.0	0.06	2	0	13	16	0.158	2	11
308C	Kitchenette	Office	Breakroom	266	600	5.0	0.12	50	13	98	123	0.205	67	32
308E	Laundry	Hotel	Laundry In-unit	172	600	5.0	0.12	10	2	29	37	0.061	9	21
309	Storage	Office	Storage	487	600	5.0	0.06	2	1	34	43	0.071	5	29
Project:	Robert Stuart		Total Supply Air CFM =		3,100				Uncorrected Outside Air Intake, CFM (Vou) =		640	<<<<< OA Sum	429	212
Location:	Twin Falls		Critical Zone Outside Air Fraction (MAX Zp) =		0.485	System Ventilation Efficiency (Ev) =		0.721	Corrected Outside Air Intake Air, CFM (Vot) =		887	Corrected Outside Air as % of Supply Air =		28.6%

COIL SCHEDULE

REMARKS:

1. **SUPPLIER SHALL REVIEW DRAWINGS TO VERIFY CORRECT COIL SIZE REQUIREMENTS TO DUCTWORK AND PIPING CONNECTIONS TO AVOID INSTALLATION CONFLICTS WITH SURROUNDING**
2. **OBJECTS.**
3. **CONTRACTOR SHALL FIELD VERIFY EXISTING CONDITIONS FOR REPLACEMENT COILS IN DUCTWORK & EQUIPMENT TO PROVIDE COIL SUPPLIER WITH SIZE REQUIREMENTS TO AVIOD**
4. **INSTALLATION CONFLICTS. REFER TO ELECTRICAL DRAWINGS FOR POWER REQUIREMENTS, INCLUDING COORDINATION OF VOLTAGE, PHASE, SCCR, WIRE SIZES, AND OVERCURRENT PROTECTION. PROVIDE WITH DUCT TEMPERATURE SENSOR. SET FOR L.A.T. = 70.**

DESIG. NAME	DESIG. NO.	MFR	MODEL	CFM AT ELEV	DUCT SIZE WIDTH (IN)	DUCT SIZE HEIGHT (IN)	ELECTRIC COIL CONDITIONS KW	ELECTRIC COIL CONDITIONS STAGES OR SCR	ELECTRIC COIL CONDITIONS VOLTAGE	ELECTRIC COIL CONDITIONS PHASE	OPER. WEIGHT (LBS.)	CONTROL	REMARKS	Schedule
EHC	1	INDEECO	QUZ	100	12	12	1	SCR	120	1	15	SCR	1,2,3,4,5	C

100% CONSTRUCTION DOCUMENTS

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hummelarch.com

Project:
TFSD 2023 CAPITAL IMPROVEMENTS PACKAGE 6, SUPPORT SERVICE CLASSROOM TENANT IMPROVEMENT AT ROBERT STUART MIDDLE SCHOOL
644 Casewell Ave W
Twin Falls, ID 83301

Sheet:
MECHANICAL LEGENDS, NOTES & SCHEDULES

PROFESSIONAL ENGINEER LICENSED 20608 02/15/2024 STATE OF IDAHO LILLIAN J. JOHNSON

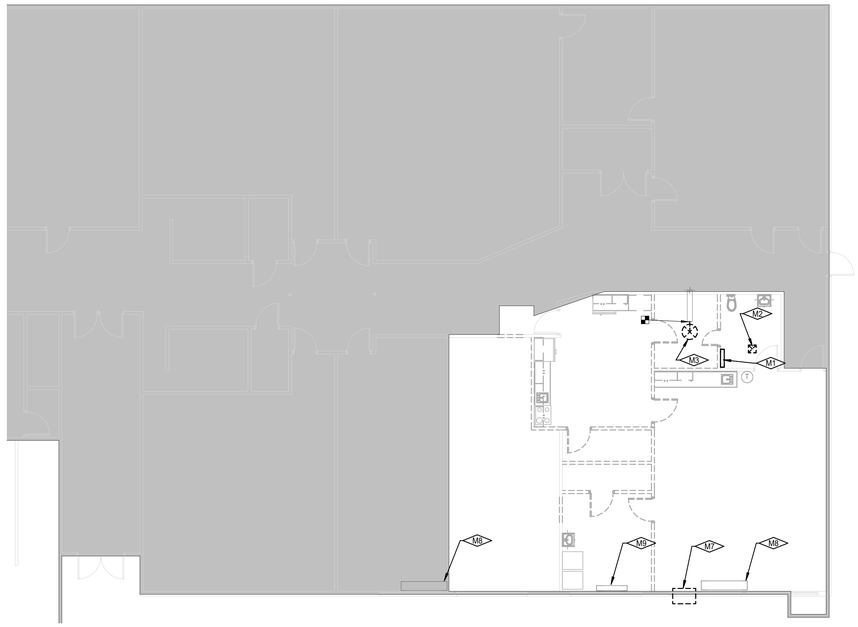
1	Agency Review 1	02 16 24

Project No: 23010-00
Drawn By: BS
Checked By: LJ
Date: 12/22/2023

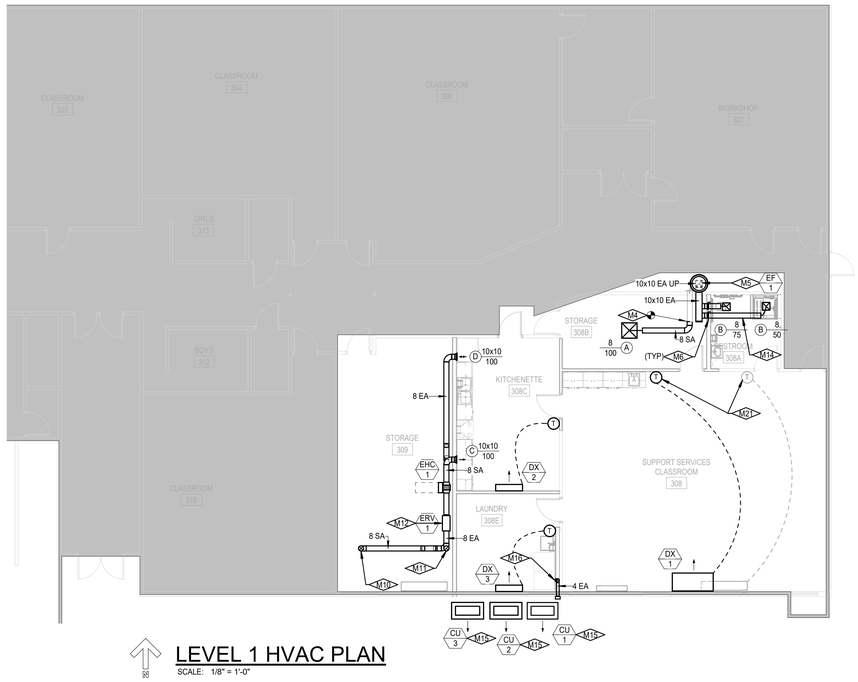
Sheet No: M0.01

KEYNOTES

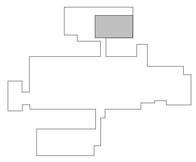
M1	REMOVE EXISTING WALL MOUNT STEAM CONVECTOR. REMOVE STEAM AND CONDENSATE PIPING DOWN BELOW FLOOR SLAB AND CAP.
M2	REMOVE EXISTING EXHAUST CEILING GRILLE. REMOVE EXHAUST DUCT UP TO MAIN AND CAP.
M3	REMOVE EXISTING CEILING SUPPLY GRILLE AND FLEXIBLE DUCT. MAINTAIN DUCTWORK FOR REUSE IN NEW STORAGE ROOM.
M4	CONNECT TO EXISTING SUPPLY AIR DUCTWORK. FIELD VERIFY LOCATION AND SIZE. PROVIDE TRANSITION TO NEW DUCT AND MODIFY EXISTING AS REQUIRED TO MAKE A PROPER CONNECTION.
M5	EXTEND 10X10 EXHAUST DUCT UP TO NEW EXHAUST FAN, EF-1, ON ROOF ABOVE.
M6	LOCATE BALANCE DAMPERS ABOVE ACCESSIBLE CEILING.
M7	REMOVE EXISTING WINDOW MOUNTED AIR CONDITIONER, RETURN TO OWNER.
M8	EXISTING HEATING VENTILATOR TO REMAIN.
M9	EXISTING HEATING CONVECTOR TO REMAIN.
M10	NEW 8" DIAMETER DUCT TO NEW FRESH AIR ROOF CAP ABOVE.
M11	NEW 8" DIAMETER DUCT TO NEW EXHAUST AIR ROOF CAP ABOVE.
M12	MOUNT ON WALL AS HIGH AS POSSIBLE.
M14	USE ALUMINUM DUCTWORK FOR BRANCH SERVING SHOWER.
M15	SUPPORT CONDENSING UNITS ON 'MIRO' MINI SPLIT RAIL SUPPORT STAND OR SIMILAR. SIZE STAND TO PREVENT OVERTURNING. ALLOW FOR MANUFACTURE'S REQUIRED CLEARANCES.
M16	PROVIDE 4" DUCT FOR NEW DRYER, BY OTHERS. EXTEND THROUGH EXTERIOR WALL AND PROVIDE WITH DRYER APPROVED WALL CAP. NO INSECT SCREEN.
M21	SET EXISTING HEATING THERMOSTAT TO 70 F. AND THE NEW COOLING THERMOSTAT TO 76 F., TO PREVENT SIMULTANEOUS HEATING AND COOLING IN THE ROOM.



LEVEL 1 HVAC DEMOLITION PLAN
SCALE: 1/8" = 1'-0"



LEVEL 1 HVAC PLAN
SCALE: 1/8" = 1'-0"



KEY PLAN
SCALE: NONE

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Project:
TFSD 2023 CAPITAL IMPROVEMENTS PACKAGE 6, SUPPORT SERVICE CLASSROOM TENANT IMPROVEMENT AT ROBERT STUART MIDDLE SCHOOL
644 Casewell Ave W
Twin Falls, ID 83301

Sheet:
LEVEL 1 HVAC PLANS

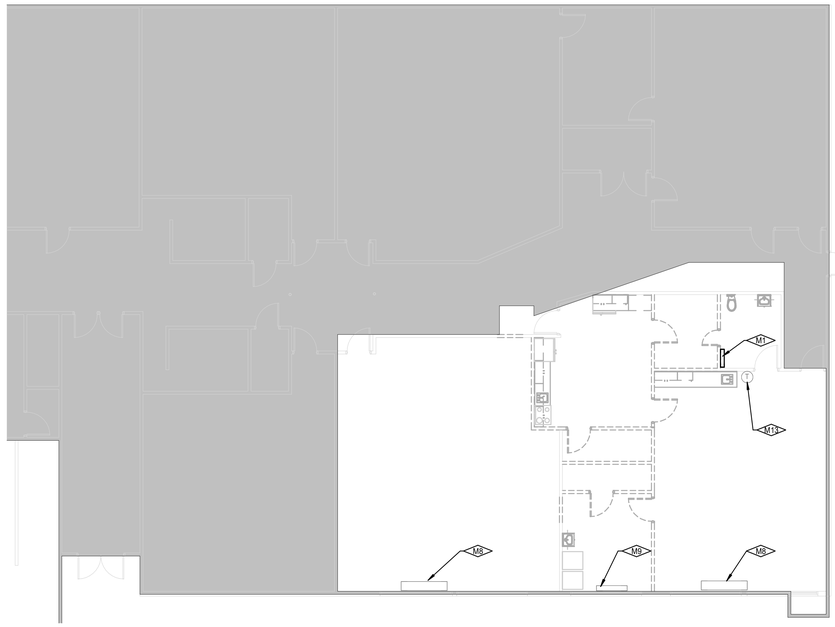
PROFESSIONAL ENGINEER LICENSED 20600 12/21/2023 STATE OF IDAHO LILLIAN J. JOHNSON

Project No:	23010-00
Drawn By:	BS
Checked By:	LJ
Date:	12/22/2023

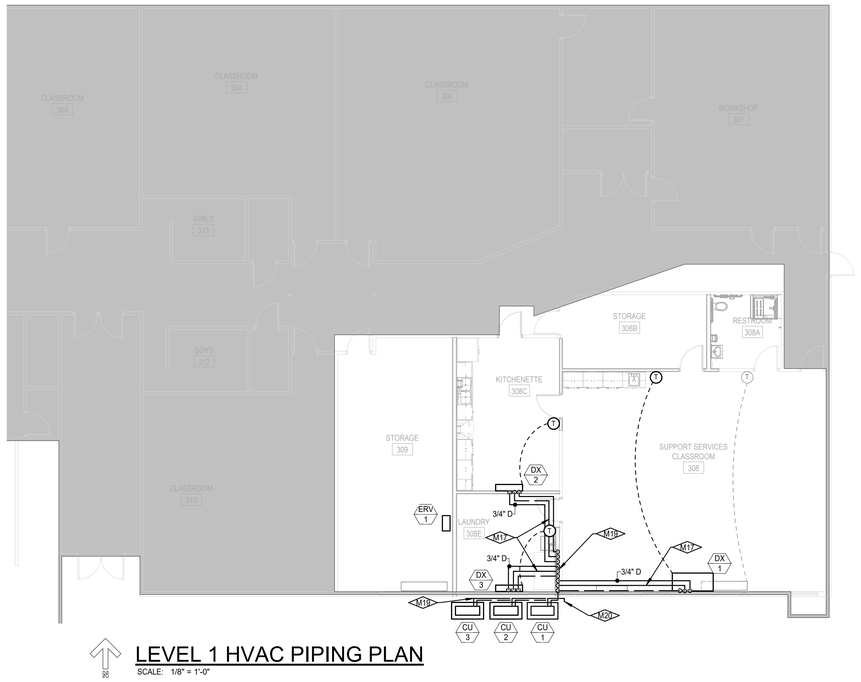
Sheet No:
M2.01

1"
IF LINE DOES NOT MEASURE 1 INCH, DRAWING IS NOT TO SCALE

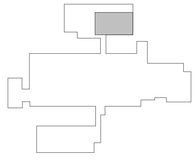
KEYNOTES	
M1	REMOVE EXISTING WALL MOUNT STEAM CONVECTOR. REMOVE STEAM AND CONDENSATE PIPING DOWN BELOW FLOOR SLAB AND CAP.
M8	EXISTING HEATING VENTILATOR TO REMAIN.
M9	EXISTING HEATING CONVECTOR TO REMAIN.
M13	EXISTING THERMOSTAT TO REMAIN.
M17	LOCATE REFRIGERANT AND CONDENSATE PIPING ABOVE NEW CEILING. REFER TO ARCHITECTURAL DRAWINGS. SIZE REFRIGERANT PIPING PER MANUFACTURE FOR ACTUAL INSTALLED PIPE LENGTHS.
M19	SUPPORT EXTERIOR REFRIGERANT PIPING ON EXISTING EXTERIOR WALL.
M20	DISCHARGE CONDENSATE PIPING FROM EACH NEW UNIT NEAR GRADE.



LEVEL 1 HVAC PIPING DEMOLITION PLAN
SCALE: 1/8" = 1'-0"



LEVEL 1 HVAC PIPING PLAN
SCALE: 1/8" = 1'-0"



KEY PLAN
SCALE: NONE

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hummelarch.com

Project:
TFSD 2023 CAPITAL IMPROVEMENTS
PACKAGE 6, SUPPORT SERVICE
CLASSROOM TENANT IMPROVEMENT
AT ROBERT STUART MIDDLE SCHOOL
644 Casewell Ave W
Twin Falls, ID 83301

Sheet:
LEVEL 1 HVAC PIPING PLANS

PROFESSIONAL ENGINEER LICENSED 20608 12/21/2023 STATE OF IDAHO LILLIAN J. JOHNSON

Project No:	23010-00
Drawn By:	BS
Checked By:	LJ
Date:	12/22/2023

Sheet No:
M2.11

1"
IF LINE DOES NOT MEASURE 1 INCH, DRAWING IS NOT TO SCALE

12/20/2023 1:32:42 PM
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GENERAL LEGEND
(Not all symbols listed below are used on these drawings)

ABBR.	SYMBOL	DESCRIPTION	ABBR.	SYMBOL	DESCRIPTION
	X / X-X	SECTION DESIGNATION SECTION CUT ON THIS SHEET			CAP END OF PIPE
				% OR #	PITCH DOWN IN DIRECTION OF ARROW
					PIPE ANCHOR
	X / X-X	VIEW REFERENCE DESIGNATION VIEW REFERENCE ON THIS SHEET			PIPE ALIGNMENT GUIDE
					UNION OR FLANGE
	X / 1-2-3	EQUIPMENT UNIT IDENTIFICATION EQUIPMENT UNIT NUMBER (UNIT SERVED - FLOOR - SEQUENCE #)			CONCENTRIC PIPE REDUCER
					ECCENTRIC PIPE REDUCER
	A / 10 / 250	DIFFUSER IDENTIFICATION DIFFUSER NECK DIAMETER DIFFUSER CFM	PRV		PRESSURE REDUCING VALVE
			PTRV		PRESSURE AND/OR TEMPERATURE RELIEF VALVE
	E / 8x8/24"L / 9999	LINEAR DIFFUSER IDENTIFICATION LINEAR DIFFUSER NECK DIAMETER LINEAR DIFFUSER LENGTH LINEAR DIFFUSER CFM			ISOLATION VALVE (RE: SPEC FOR TYPE)
					VERTICAL PIPE VALVE
			CV		CHECK VALVE
	2'-6" / FTR / 20	FINNED TUBE RADIATOR ACTIVE ELEMENT LENGTH EQUIPMENT UNIT IDENTIFICATION EQUIPMENT UNIT NUMBER RADIATOR ENCLOSURE LENGTH (OR W-W=WALL-TO-WALL)			SOLENOID / MOTORIZED VALVE
					SOLENOID VALVE
					HOSE END DRAIN VALVE
	2	KEY NOTE REFERENCE	P/T	PRT	PRESSURE / TEMPERATURE TAP
	1	KITCHEN/OWNER/MEDICAL EQUIPMENT REFERENCE			STRAINER
		TYPICAL ROOM REFERENCE (TOP = RM #, BOTTOM = FLR)		3/4"	STRAINER W/ BLOWDOWN
		POINT OF CONNECTION, NEW TO EXISTING			BRAIDED FLEXIBLE PIPE CONNECTOR
		POINT OF DISCONNECTION, DEMO			DOUBLE-BOWL FLEXIBLE PIPE CONNECTOR
		DIRECTION OF FLOW IN PIPE			THERMOMETER
		DUCTWORK, PIPING AND EQUIPMENT TO BE REMOVED			PRESSURE GAUGE
(E)		EXISTING			SIGHT GLASS
(N)		NEW	C.A.P.		CEILING ACCESS PANEL
(R)		RELOCATED			PUMP
(F)		FUTURE	TB		THRUST BLOCK
DIA	Ø	DIAMETER	MAV		MANUAL AIR VENT
WAD		WALL ACCESS DOOR	AAV		AUTOMATIC AIR VENT
NIC		NOT IN CONTRACT			
AFF		ABOVE FINISHED FLOOR			
GC		GENERAL CONTRACTOR			
MC		MECHANICAL CONTRACTOR			
EC		ELECTRICAL CONTRACTOR			
UNO		UNLESS NOTED OTHERWISE			
C		COMMON			
NC		NORMALLY CLOSED			
NO		NORMALLY OPEN			

PLUMBING LEGEND
(Not all symbols listed below are used on these drawings)

ABBR.	SYMBOL	DESCRIPTION	ABBR.	SYMBOL	DESCRIPTION
CW	—CW—	DOMESTIC COLD WATER PIPING	GCO/SCO		GRADE CLEANOUT / SURFACE CLEANOUT
HW	—HW—	DOMESTIC HOT WATER PIPING	FCO		FLOOR CLEANOUT
HWC	—HWC—	DOMESTIC HOT WATER CIRC PIPING	WCO		WALL CLEANOUT
CW-S	—CW-S—	SOFTENED DOMESTIC COLD WATER PIPING	CO		LINE CLEANOUT
HW-S	—HW-S—	SOFTENED DOMESTIC HOT WATER PIPING	AD		AREA DRAIN
140°F HW	—140°F HW—	DOMESTIC HOT WATER PIPING @ TEMP SHOWN	FD		FLOOR DRAIN
140°F HWC	—140°F HWC—	DOMESTIC HOT WATER CIRC PIPING @ TEMP SHOWN	FS		FLOOR SINK
TW	—TW—	TEPID WATER PIPING	RD / OD		ROOF DRAIN OR OVERFLOW DRAIN
TWC	—TWC—	TEPID WATER CIRC PIPING			
ICW	—ICW—	INDUSTRIAL COLD WATER PIPING	VB		ATMOSPHERIC VACUUM BREAKER
IHW	—IHW—	INDUSTRIAL HOT WATER PIPING	BFP		BACKFLOW PREVENTER
IHWC	—IHWC—	INDUSTRIAL HOT WATER CIRC PIPING	SA		SHOCK ARRESTOR W / ISOLATION VALVE
NPCW	—NPCW—	NON-POTABLE COLD WATER PIPING	GC		GAS SHUT-OFF VALVE
NPHW	—NPHW—	NON-POTABLE HOT WATER PIPING			STOP AND DRAIN VALVE
NPHR	—NPHR—	NON-POTABLE HOT WATER CIRC PIPING	BV		BALANCING VALVE
V	—V—	VENT PIPING	WH		WALL HYDRANT
AV	—AV—	ACID RESISTANT VENT PIPING	HB		HOSE BIBB
W	—W—	WASTE PIPING	RH		ROOF HYDRANT
W	—W—	WASTE PIPING BELOW FLOOR	YH		YARD HYDRANT
AW	—AW—	ACID RESISTANT WASTE PIPING	DSN		DOWNSPOUT NOZZLE
AW	—AW—	ACID RESISTANT WASTE PIPING BELOW FLOOR	MH		MANHOLE
GW	—GW—	GREASE WASTE (TO GREASE INTERCEPTOR)	CI		CAST IRON
GW	—GW—	GREASE WASTE PIPING BELOW FLOOR	CB		CATCH BASIN
SD	—SD—	STORM DRAIN PIPING	VTR		VENT THRU ROOF
SD	—SD—	STORM DRAIN PIPING BELOW FLOOR	IE		INVERT ELEVATION
OD	—OD—	OVERFLOW DRAIN PIPING	PVC		POLYVINYL CHLORIDE
OD	—OD—	OVERFLOW DRAIN PIPING BELOW FLOOR			
CA	—CA—	COMPRESSED AIR			
G	—G—	NATURAL GAS PIPING			

GENERAL NOTES:

1. WORK INCLUDED IN THE CONTRACT IS DENOTED IN BOLD. EXISTING CONDITIONS TO REMAIN ARE DENOTED LIGHTLY.
2. A DETAILED METHOD OF PROCEDURE IS REQUIRED WHEN A CONSTRUCTION ACTIVITY AFFECTS THE SAFETY OF THE OCCUPANTS, OWNER'S EQUIPMENT OR VALUABLE CONTENTS OR ANY SYSTEM WHICH SUPPORTS THESE SYSTEMS; OR ESSENTIALLY AFFECTS THE BUILDING MANAGEMENT, OPERATIONS OR SECURITY.
3. CONTRACTOR IS RESPONSIBLE FOR FIELD VERIFICATION OF ALL EXISTING CONDITIONS PRIOR TO COMMENCEMENT OF ANY WORK AND SHALL NOTIFY THE ENGINEER/ARCHITECT OF ANY DISCREPANCIES FOR RESOLUTION.
4. COORDINATE WORK WITH ALL TRADES.
5. COORDINATE ALL PIPING WITH EQUIPMENT, STRUCTURE, ETC.
6. CONTRACTOR SHALL NOT SHUT DOWN / TAKE OUT OF SERVICE ANY SYSTEMS WITHOUT FIRST COORDINATING WITH OWNER AND PREPARING M.O.P.

PLUMBING NOTES:

1. CONTRACTOR SHALL NOT SHUT-OFF/PUT OUT OF SERVICE ANY SYSTEMS/SERVICES WITHOUT FIRST COORDINATING WITH OWNER.
2. THIS CONTRACTOR SHALL COORDINATE LOCATIONS OF PIPING WITH OTHER TRADES AND ADVISE ARCHITECT/ENGINEER OF ANY POSSIBLE CONFLICTS. VERIFY EXACT LOCATIONS, ELEVATIONS AND DIMENSIONS OF STRUCTURAL MEMBERS AND OPENINGS.
3. SEE SPECIFICATIONS FOR WATER HAMMER ARRESTOR SIZING. ALL FLUSH VALVES AND SOLENOID OPERATED EQUIPMENT SHALL HAVE A WATER HAMMER ARRESTOR.
4. SEE PLUMBING FIXTURE SCHEDULE FOR PIPE SIZING TO INDIVIDUAL PLUMBING FIXTURES.
5. ALL EXISTING FIXTURES AND EQUIPMENT TO BE REMOVED SHALL HAVE ALL ASSOCIATED PIPING CONTROLS, HANGERS, SUPPORTS AND ANY MISCELLANEOUS ASSOCIATED SERVICE OR PART REMOVED COMPLETELY.
6. REFER TO ARCHITECTURAL DRAWINGS FOR FIXTURE ELEVATIONS AND LOCATIONS.
7. SEE ARCHITECTURAL CONSTRUCTION DOCUMENTS FOR DIMENSIONED LOCATION OF PLUMBING FIXTURES AND WALLS.
8. PROVIDE CLEANOUTS IN ACCESSIBLE LOCATIONS PER THE PROJECT SPECIFICATIONS AND LOCAL PLUMBING CODES.

FOUNDATION PLUMBING NOTES:

1. CONTRACTOR IS RESPONSIBLE FOR FIELD VERIFICATION OF ALL EXISTING CONDITIONS PRIOR TO COMMENCEMENT OF ANY WORK.
2. COORDINATE WORK WITH ALL TRADES.
3. SEE ARCHITECTURAL CONSTRUCTION DOCUMENTS FOR EXACT LOCATION OF PLUMBING FIXTURES AND WALLS.
4. PROVIDE A WALL CLEANOUT ON ALL VERTICAL VENT PIPING SERVING BELOW GRADE HORIZONTAL WASTE PIPING.

DEMOLITION GENERAL NOTES:

1. EXISTING ITEMS TO REMAIN ARE DENOTED LIGHTLY UNLESS OTHERWISE NOTED. ALL ITEMS SHOWN DASHED & BOLD SHALL BE REMOVED UNLESS OTHERWISE NOTED.
2. CONTRACTOR SHALL NOT SHUT-OFF OR PUT-OUT OF SERVICE ANY SYSTEMS OR SERVICE WITHOUT FIRST COORDINATING WITH THE OWNER.
3. IT IS THE RESPONSIBILITY OF THE CONTRACTOR TO VISIT THE SITE AND UNDERSTAND THE EXTENT OF THE REMODEL WORK REQUIRED PRIOR TO BID. NO EXTRAS WILL BE ALLOWED FOR WORK REQUIRED TO ACHIEVE THE END RESULT AS INDICATED BY THE CONTRACT DOCUMENT.
4. CONTRACTOR SHALL DETERMINE AND COORDINATE THE EXACT EXTENT OF DEMOLITION TO FACILITATE ALL WORK INDICATED BY THE CONTRACT DOCUMENT.
5. PRIOR TO COMMENCEMENT OF ANY DEMOLITION WORK, VERIFY EXISTING CONDITIONS AND NOTIFY ENGINEER OF ANY DISCREPANCIES FOR RESOLUTION.
6. ALL ITEMS IDENTIFIED TO BE REMOVED SHALL BE REMOVED IN THEIR ENTIRETY UNLESS OTHERWISE NOTED. REMOVED ITEMS SHALL BE TURNED OVER TO THE OWNER UNLESS OTHERWISE NOTED AND STORED IN THE AREA DESIGNATED BY THE OWNER. REMOVE FROM SITE AND LEGALLY DISPOSE OF ALL ITEMS THE OWNER CHOOSES NOT TO ACCEPT.
7. WHERE EXISTING PIPING, WIRING ETC. ARE TO BE REMOVED FROM WALLS WHICH ARE REMAINING, THE WALLS SHALL BE REPAIRED TO MATCH ORIGINAL CONDITIONS.
8. WHERE EXISTING PIPING TO BE REMOVED PASSES THROUGH FLOORS, THEY SHALL BE CUT BACK TO WITHIN CONCRETE AND FILLED WITH GROUT TO ACHIEVE A SMOOTH AND EVEN FINISH WITH CONCRETE SURFACE.

PLUMBING FIXTURE SCHEDULE

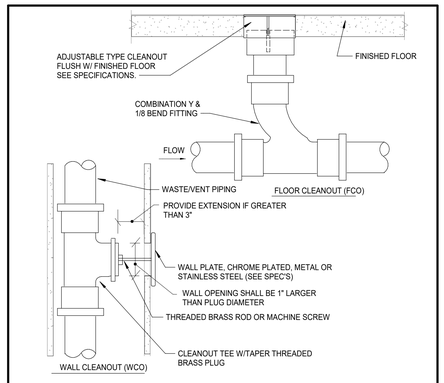
NOTES:
1. **REFER TO GENERAL SPECIFICATIONS FOR WATER CLOSETS, URINALS, LAVATORIES, SINKS AND MISCELLANEOUS FIXTURE REQUIREMENTS.**
2. **GRAB BARS BY ARCHITECT.**
3. **THIS SCHEDULE INCLUDES ITEMS THAT MAY NOT BE INCLUDED IN THE DRAWING DOCUMENTS.**
4. **REFER TO ARCHITECTURAL DRAWINGS FOR LOCATION AND MOUNTING HEIGHT.**

	FIXTURE					TRIM		ELECTRICAL ACCESSORY REQUIREMENTS I.R/BATTERY/HP	FLOW	CONNECTIONS				
DESIG.	FIXTURE NAME	FIXTURE DESCRIPTION	MANUFACTURER	MODEL	SIZE	MANUFACTURER	MODEL			WASTE	VENT	CW	HW	REMARKS
L-1	LAVATORY	ADA WALL MOUNT LAVATORY WITH SINGLE LEVER HANDLE FAUCET WITH ASSE 1070 SCALD PROTECTION.	KOHLER	K-2032	20x18	CHICAGO	420-T	MANUAL	0.5 GPM	1 1/2"	1 1/2"	1/2"	1/2"	PROVIDE WITH WALL CARRIER MATCHED TO WALL CONSTRUCTION.
S-1	LAUNDRY SINK	LAUNDRY TUB, WHITE POLY TUB WITH STEEL ENAMEL LEGS AND DECK MOUNT SWING FAUCET WITH BLADE STYLE HANDLES	FIAT	P1	23x22	FIAT	A1	MANUAL	2.2 GPM	2"	1 1/2"	1/2"	1/2"	
S-2	2 COMPT. SINK	SELF-RIMMING, STAINLESS STEEL, DOUBLE BOWL, 29x18x7.5 SINK WITH MANUAL FAUCET	ELKAY	LR2918	29x18x7.5	ELKAY	LK1000CR	MANUAL	1.5 GPM	2"	1 1/2"	1/2"	1/2"	
S-3	1 COMPT. SINK	SELF-RIMMING, STAINLESS STEEL, 19x18x6.5, WITH 5" GOOSENECK FAUCET WITH 4" WRISTBLADE HANDLES	ELKAY	LRAD191865	19x18x6.5	CHICAGO	796-TWGN8FC ABCP	MANUAL	0.5 GPM	2"	1 1/2"	1/2"	1/2"	PROVIDE WITH ASSE 1070 MIXING VALVE LOCATED BELOW COUNTER
SH-1	SHOWER	SHOWER SYSTEM WITH PRESSURE BALANCING VALVE, SHOWER BY ARCHITECT	N/A	N/A	N/A	SYMMONS / BRICOR	SYMMONS C-96-1-X-L1 WITH INTEGRAL SERVICE STOPS, BRICOR SHOWER HEAD ELITE-E AT 1.25 GPM	MANUAL	1.25 / 1.125 GPM	2"	1 1/2"	1/2"	1/2"	
WC-1	WATER CLOSET	ADA FLOOR MOUNT, ELONGATED BOWL WITH MANUAL FLUSH VALVE	KOHLER	K-96067	N/A	SLOAN	REGAL 111	MANUAL	1.6 GPF	4"	2"	1"	-	PROVIDE WITH KOHLER COMMERCIAL SEAT, K-4670
WWB-1	WASHER WALL BOX	RECESSED WALL MOUNT, 20GA. POWDER COATED STEEL, 1/4 TURN SWEAT VALVES W/ WATER HAMMER ARRESTORS, 2" DRAIN	GUY GRAY	T200TPPVCH A	14" X 9.2"	N/A	N/A	N/A	-	2"	1 1/2"	1/2"	1/2"	

PLUMBING SPECIALTY SCHEDULE

NOTES:
1.

DESIG.	FIXTURE TYPE	LOCATION	MANUFACTURER	MODEL #	REMARKS
GD-1	GARBAGE DISPOSAL	IN SINK	INSINKERATOR	BADGER 5	HARD WIRED 1/2 HP. PROVIDE WITH WALL SWITCH, REFERENCE ELECTRICAL DRAWINGS



CLEANOUT DETAIL
SCALE: NONE
1319-08

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100% CONSTRUCTION DOCUMENTS

Project:
TFSD 2023 CAPITAL IMPROVEMENTS PACKAGE 6, SUPPORT SERVICE CLASSROOM TENANT IMPROVEMENT AT ROBERT STUART MIDDLE SCHOOL
644 Casewell Ave W
Twin Falls, ID 83301

Sheet:
PLUMBING LEGENDS, NOTES & SCHEDULES

PROFESSIONAL ENGINEER LICENSED 20608 12/21/2023 STATE OF IDAHO LELINA J. JOHNSON

Project No:	23010-00
Drawn By:	BS
Checked By:	LJ
Date:	12/22/2023

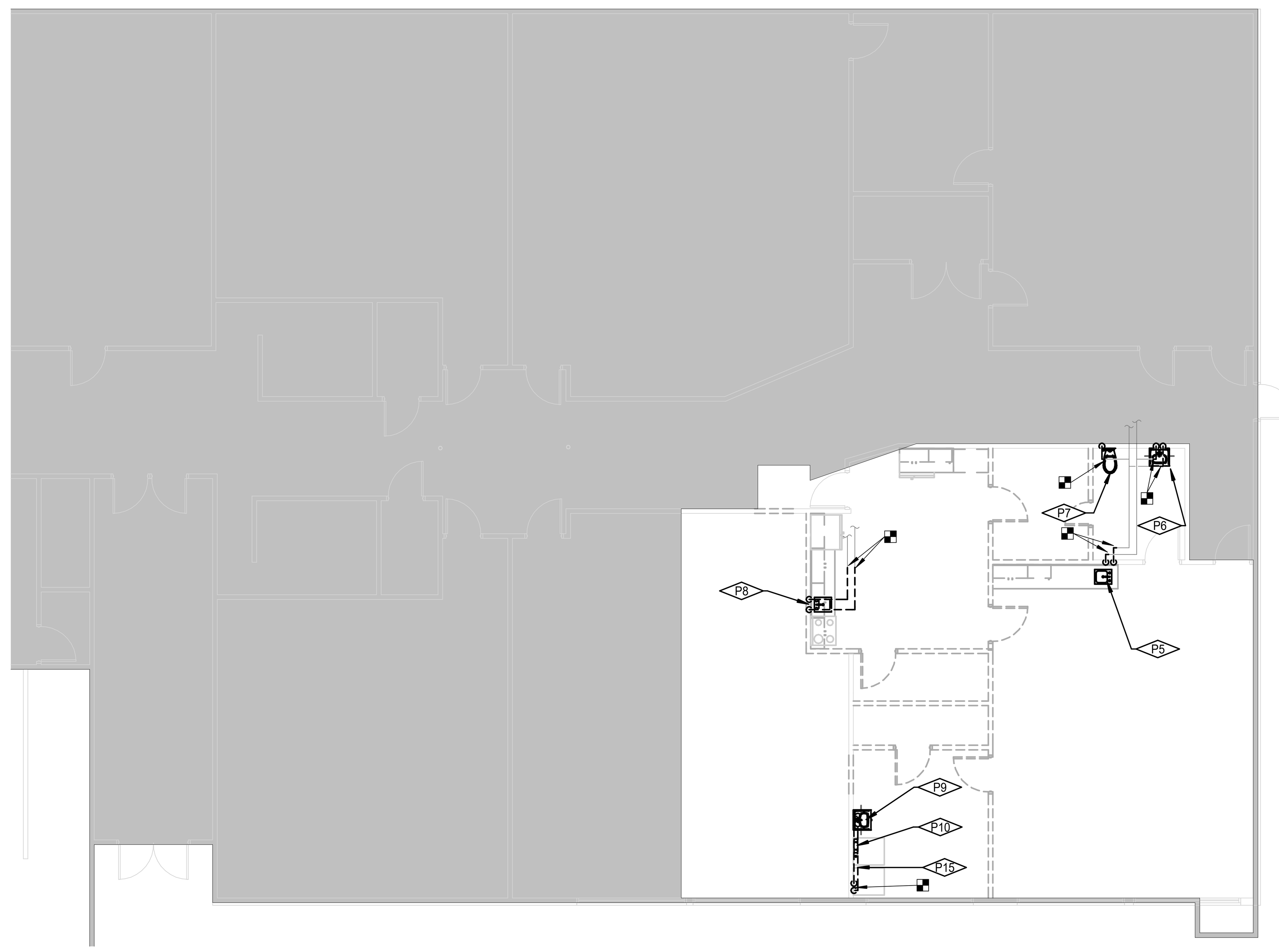
Sheet No: P0.01

1 2 3 4 5 6

A B C D E

KEYNOTES

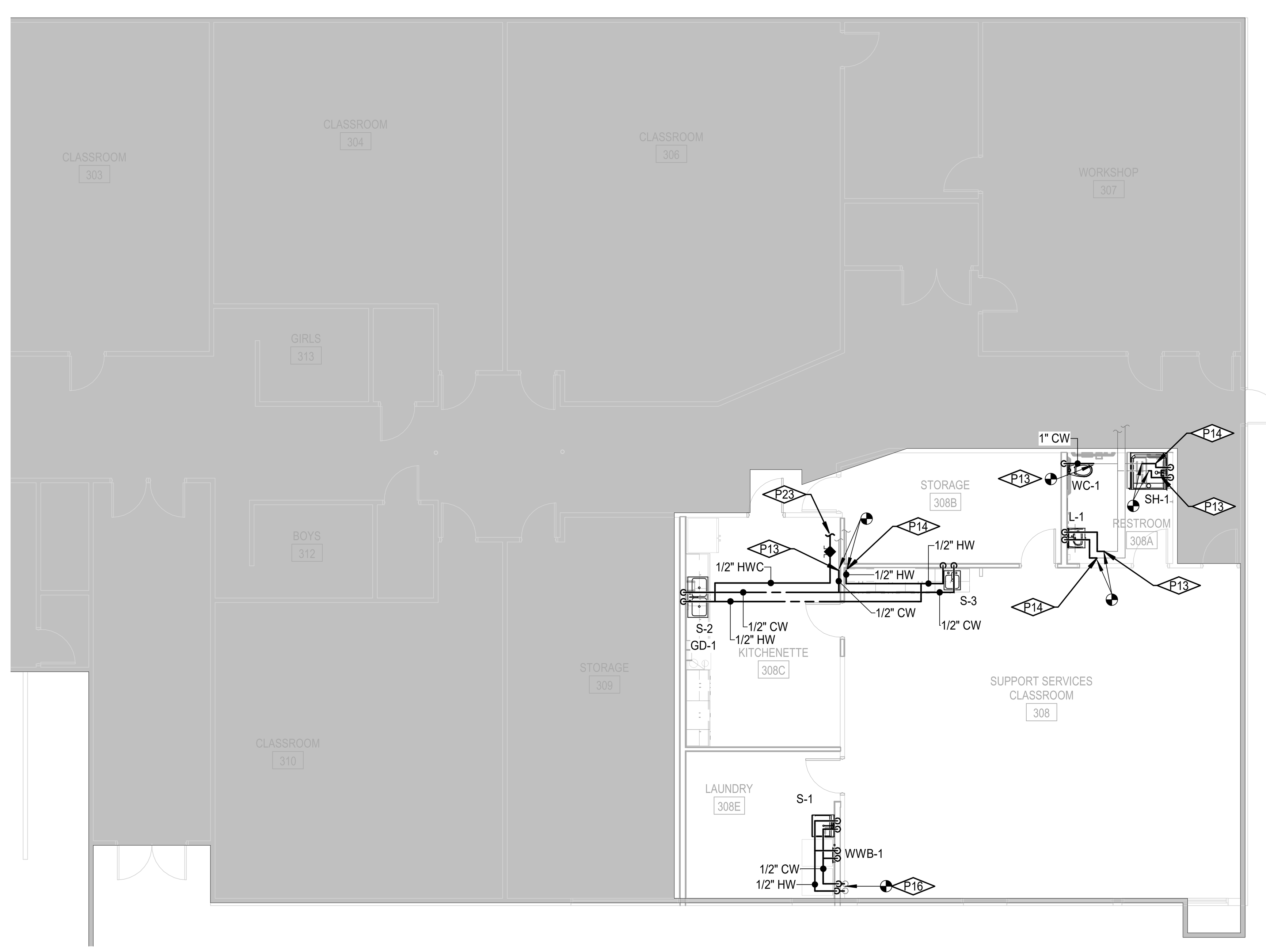
P5	REMOVE EXISTING COUNTER MOUNTED SINK AND FAUCET. REMOVE HW AND CW UP TO ABOVE CEILING, MAINTAIN FOR REUSE.
P6	REMOVE EXISTING WALL HUNG LAVATORY AND FAUCET. REMOVE EXISTING HW AND CW PIPING UP TO ABOVE CEILING, MAINTAIN FOR REUSE.
P7	REMOVE EXISTING FLOOR MOUNT WATER CLOSET. REMOVE EXISTING CW UP TO ABOVE CEILING, MAINTAIN FOR REUSE.
P8	REMOVE EXISTING COUNTER MOUNTED SINK AND FAUCET. REMOVE EXISTING HW AND CW PIPING UP TO ABOVE CEILING, MAINTAIN FOR REUSE.
P9	REMOVE EXISTING LAUNDRY SINK AND FAUCET. REMOVE ALL EXPOSED HW AND CW PIPING.
P10	REMOVE EXISTING SURFACE MOUNT WASHER VALVE BOX. REMOVE ALL EXPOSED HW AND CW PIPING. CAP EXISTING BELOW FLOOR.
P13	CONNECT TO EXISTING CW PIPING AND EXTEND TO NEW FIXTURE. MODIFY EXISTING PIPING AS REQUIRED TO MAKE A PROPER CONNECTION.
P14	CONNECT TO EXISTING HW PIPING AND EXTEND TO NEW FIXTURE. MODIFY EXISTING PIPING AS REQUIRED TO MAKE A PROPER CONNECTION.
P15	REMOVE EXISTING HW AND CW EXPOSED ON FLOOR BEHIND SINK, WASHER, AND DRYER. REMOVE TO BELOW FLOOR, MAINTAIN FOR REUSE.
P16	ACCESS EXISTING HW AND CW BELOW FLOOR SLAB. CONNECT TO EXISTING PIPING AND EXTEND UP INSIDE NEW WALL TO ABOVE NEW CEILING AND OVER TO NEW FIXTURES. MODIFY EXISTING PIPING AS REQUIRED TO MAKE PROPER CONNECTIONS.
P23	EXTEND NEW HOT WATER CIRULATION LINE BACK TO NEAREST ACTIVE MAIN AND CONNECT. FIELD VERIFY LOCATION OF EXISTING PIPING.



LEVEL 1 DOMESTIC WATER DEMOLITION PLAN

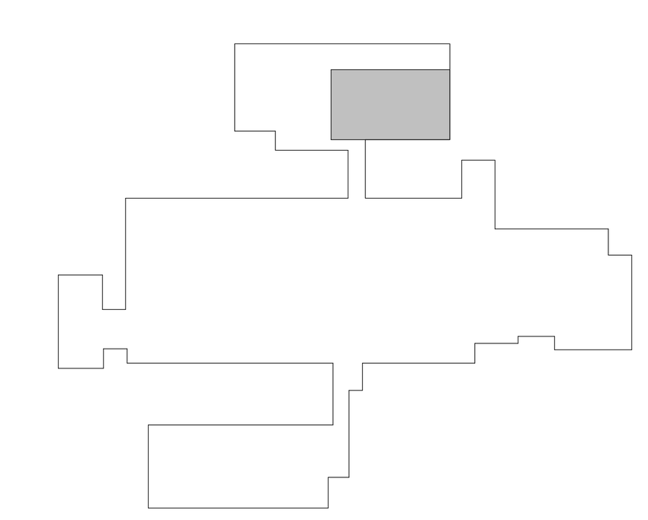
SCALE: 1/8" = 1'-0"

CONTRACTOR SHALL FIELD VERIFY THE LOCATIONS AND SIZES OF THE EXISTING DOMESTIC WATER PIPING.



LEVEL 1 DOMESTIC WATER PLAN

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



KEY PLAN

SCALE: NONE

1"

IF LINE DOES NOT MEASURE 1 INCH, DRAWING IS NOT TO SCALE

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Sheet:
LEVEL 1 DOMESTIC WATER PLANS

PROFESSIONAL ENGINEER LICENSED 20608 12/21/2023 STATE OF IDAHO LILLIAN J. JOHNSON

Project No:	23010-00
Drawn By:	BS
Checked By:	LJ
Date:	12/22/2023

Sheet No:
P2.01

1 2 3 4 5 6

A B C D E

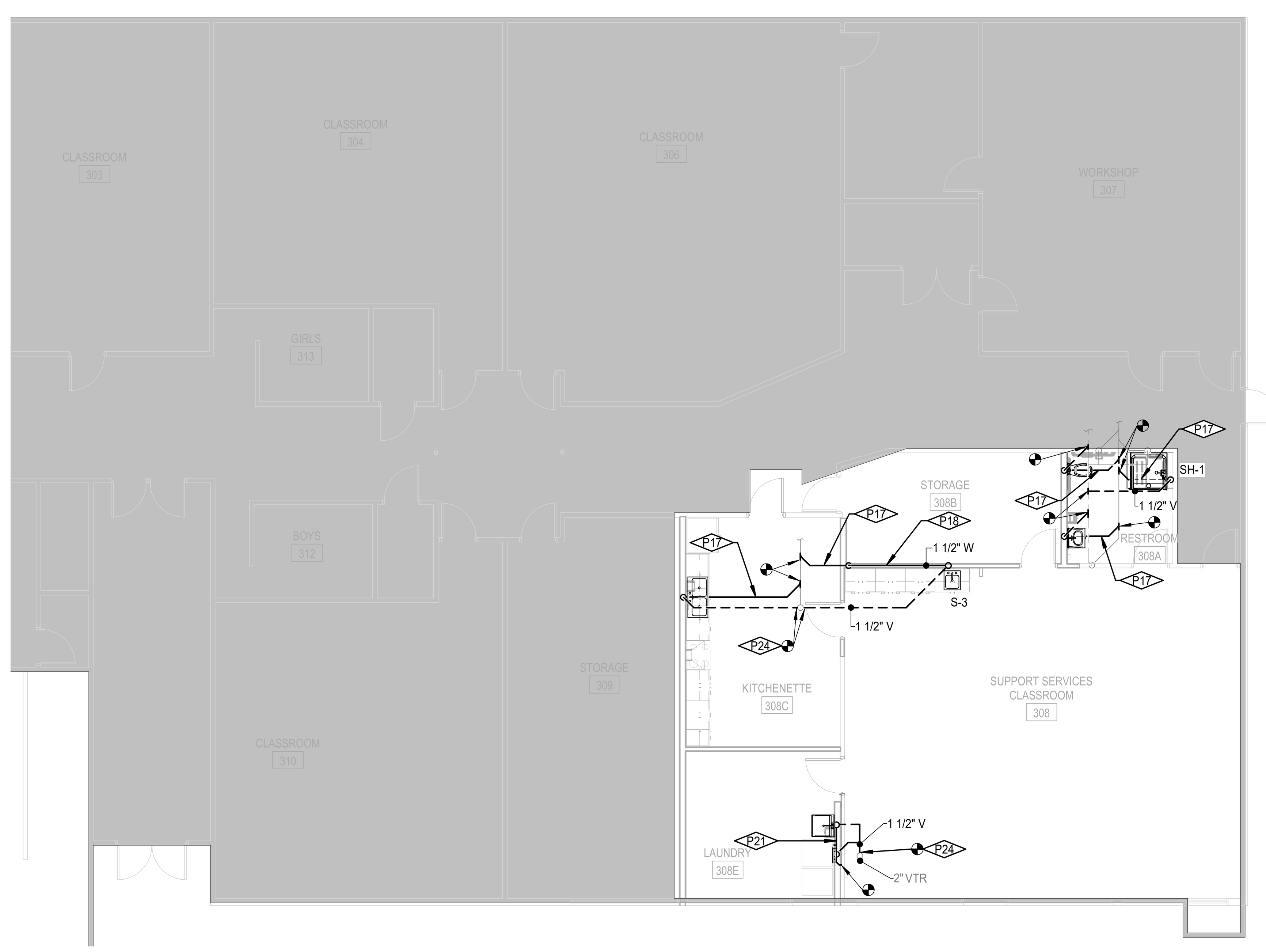
KEYNOTES

P1	REMOVE EXISTING COUNTER MOUNTED SINK AND FAUCET. REMOVE EXISTING WASTE PIPING BACK INTO EXISTING WALL AND CAP.
P2	REMOVE EXISTING WALL HUNG LAVATORY AND FAUCET. REMOVE EXISTING WASTE PIPING BACK INTO EXISTING WALL AND CAP.
P3	REMOVE EXISTING FLOOR MOUNT WATER CLOSET. REMOVE EXISTING WASTE PIPING BELOW FLOOR AND CAP.
P4	REMOVE EXISTING COUNTER MOUNTED SINK AND FAUCET. REMOVE EXISTING WASTE PIPING BACK DOWN TO BELOW FLOOR SLAB AND CAP. REMOVE EXISTING VENT PIPING UP TO ABOVE CEILING. MAINTAIN VENT PIPING FOR RECONNECTION.
P11	REMOVE ALL EXPOSTED WASTE PIPING TO DOWN BELOW THE EXISTING FLOOR AND CAP.
P12	REMOVE EXPSOED VENT PIPING UP TO JUST BELOW THE CEILING PENETRATION. MAINTAIN VENT PIPE FOR RECONNECTION.
P17	REMOVE EXISTING FLOOR SLAB AS REQUIRED TO CONNECT WASTE PIPING FROM NEW FIXTURE TO EXISTING WASTE PIPING. MODIFY EXISTING PIPING AS REQUIRED TO MAKE A PROPER CONNECTION. CONTRACTOR SHALL FIELD VERIFY LOCATION OF EXISTING WASTE PIPING UNDER SLAB PRIOR TO DEMOLITION. PROVIDE VERIFIED LOCATION TO ENGINEER.
P18	LOCATE NEW 1 1/2" WASTE PIPING ABOVE THE FLOOR INSIDE NEW WALL. TRANSITION TO 2" AND DROP BELOW EXISTING SLAB AND EXTEND TO EXISTING WASTE PIPING AS REQUIRED.
P19	REMOVE EXISTING LAUNDRY SINK AND FAUCET. REMOVE ALL EXPOSED WASTE AND VENT PIPING.
P20	REMOVE EXISTING SURFACE MOUNT WASHER VALVE BOX. REMOVE ALL EXPOSED WASTE AND VENT PIPING. CAP WASTE BELOW FLOOR.
P21	LOCATE NEW 2" WASTE PIPING FROM LAUNDRY SINK AND WASHER VALVE BOX DRAIN INSIDE NEW WALL. ACCESS EXISTING WASTE PIPING BELOW FLOOR AND CONNECT. MODIFY EXISTING PIPING AS REQUIRED TO MAKE A PROPER CONNECTION.
P24	CONNECT TO EXISTING VENT PIPING. MODIFY EXISTING PIPING AS REQUIRED TO MAKE A PROPER CONNECTION.

LEVEL 1 WASTE & VENT DEMOLITION PLAN

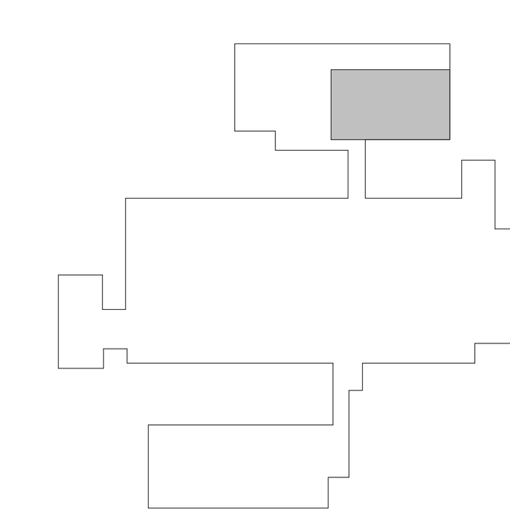
SCALE: 1/8" = 1'-0"

CONTRACTOR SHALL FIELD VERIFY THE LOCATIONS AND SIZES OF THE EXISTING WASTE AND VENT PIPING.



LEVEL 1 WASTE & VENT PLAN

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



KEY PLAN

SCALE: NONE

1"

IF LINE DOES NOT MEASURE 1 INCH, DRAWING IS NOT TO SCALE

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Sheet:
LEVEL 1 WASTE & VENT PLANS

PROFESSIONAL ENGINEER LICENSED 20608 12/21/2023 STATE OF IDAHO LILLIAN J. JOHNSON

Project No:	23010-00
Drawn By:	BS
Checked By:	LJ
Date:	12/22/2023

Sheet No: P2.11

POWER LEGEND
(Not all symbols listed below are used on these drawings)

SYMBOL	DESCRIPTION	SYMBOL	DESCRIPTION
	SINGLE RECEPTACLE		ELECTRICAL PANELBOARD, CONTROL PANEL, OR OTHER CABINET AS NOTED
	DUPLEX RECEPTACLE; WALL, CEILING, FLOOR MOUNTED	PM	PLUG MOLD (MULTI-OUTLET ASSEMBLY)
	DOUBLE DUPLEX RECEPTACLE; WALL, CEILING, FLOOR MOUNTED	WM	WIREMOLD (SURFACE RACEWAY)
	SPECIAL RECEPTACLE; WALL, CEILING, FLOOR MOUNTED		CONDUIT CONCEALED
	JUNCTION BOX; WALL, CEILING, FLOOR MOUNTED	UG	CONDUIT, UNDERGROUND OR CONCEALED IN FLOOR AS ALLOWED PER SPECIFICATIONS
	DUPLEX RECEPTACLE, HALF CONTROLLED		CONDUIT TURNING DOWN
	DUPLEX RECEPTACLE, FULL CONTROLLED		CONDUIT TURNING UP
	DOUBLE DUPLEX RECEPTACLE, HALF CONTROLLED		CONDUIT CAPPED
	DOUBLE DUPLEX RECEPTACLE, FULL CONTROLLED		GROUND BAR
A-1	SHADING INDICATES EMERGENCY SYSTEM TEXT INDICATES PANEL AND CIRCUIT DESIGNATION		MAIN SWITCHBOARD/DISTRIBUTION CENTER
	DISCONNECT SWITCH (NON-FUSED)	T	TRANSFORMER
	DISCONNECT SWITCH (FUSED)	CT	CURRENT TRANSFORMER
	VARIABLE SPEED DRIVE WITH DISCONNECT	T	THERMOSTAT
	ENCLOSED CIRCUIT BREAKER	GANN	GENERATOR ANNUNCIATOR PANEL
S	TOGGLE SWITCH	M	UTILITY METER
			POWER POLE

LIGHTING LEGEND
(Not all symbols listed below are used on these drawings)

SYMBOL	DESCRIPTION	SYMBOL	DESCRIPTION
a A	SHADING INDICATES EM SYSTEM, LOWER CASE SUBSCRIPT INDICATES SWITCHING, UPPER CASE SUBSCRIPT INDICATES LUMINAIRE TYPE (TYP)		PENDANT LUMINAIRE - SINGLE SUSPENSION
	TROFFER - RECESSED		PENDANT LUMINAIRE - MULTIPLE SUSPENSION
	SURFACE LUMINAIRE		WALL MOUNTED LUMINAIRE
	LINEAR LUMINAIRE - RECESSED		IN-WALL LUMINAIRE
A B	FIELD MEASURED LUMINAIRE LENGTH AND SHAPE DENOTED BY LINEWORK SUBSCRIPT IN RECTANGLE INDICATES LUMINAIRE TYPE		POLE LUMINAIRE - ARM MOUNTED
	DOWNLIGHT - RECESSED		POLE LUMINAIRE - POST TOP
	DOWNLIGHT - SURFACE		BOLLARD
	EXIT SIGN - CEILING MOUNTED		TRACK HEAD AND TRACK
	EXIT SIGN - WALL MOUNTED (FLUSH TO WALL)		EXTERIOR STAKE MOUNTED
	EXIT SIGN - WALL MOUNTED (PROJECTS FROM WALL)		EMERGENCY LIGHTING UNIT - WALL MOUNTED
	INDICATES EXIT SIGN FACES - SINGLE OR DOUBLE		EMERGENCY LIGHTING UNIT - CEILING MOUNTED
	INDICATES EXIT SIGN CHEVRONS - LEFT/RIGHT OR BOTH		INDICATES DIRECTIONAL AIMING

CONTROLS LEGEND
(Not all symbols listed below are used on these drawings)

SYMBOL	DESCRIPTION	SYMBOL	DESCRIPTION
S_a	SINGLE POLE SWITCH (SUBSCRIPT DENOTES SWITCHING)	S_{VS}	VARIABLE SPEED/SPEED CONTROLLER SWITCH
S_2	TWO POLE SWITCH	S_{EP}	EXPLOSION PROOF SWITCH
S_3	THREE-WAY SWITCH	S_{TO}	THERMAL OVERLOAD SWITCH
S_4	FOUR-WAY SWITCH	S_{MC}	MOMENTARY CONTACT SWITCH
S_K	KEY OPERATED SWITCH	S	COMBINATION SWITCH AND DUPLEX RECEPTACLE
S_M	MANUAL SWITCH, HORSEPOWER RATE	P	PHOTOCELL
S_D	DIMMER SWITCH		PUSH BUTTON
S_{PI}	SWITCH WITH PILOT LIGHT (PILOT LIGHT IS 'ON' WHEN SWITCH IS 'ON')	TC	TIME CLOCK
S_P	SWITCH WITH PILOT LIGHT LOCATOR (CONTINUOUSLY LIGHTED HANDLE)		OCCUPANCY SENSOR - WALL MOUNTED IR=INFRARED, US=ULTRASONIC, DT=DUAL TECHNOLOGY
S_{LV}	LOW VOLTAGE SWITCH		

FIRE ALARM SYSTEM LEGEND
(Not all symbols listed below are used on these drawings)

SYMBOL	DESCRIPTION	SYMBOL	DESCRIPTION
FACP	FIRE ALARM CONTROL PANEL	F	MANUAL PULL STATION
NAC	FIRE ALARM (NAC) POWER SUPPLY	AIM	ADDRESSABLE INPUT MODULE
LCD	FIRE ALARM REMOTE ANNUNCIATOR PANEL (LCD)	AOM	ADDRESSABLE OUTPUT MODULE
FAA	FIRE ALARM ANNUNCIATOR PANEL (LED)	15cd	FIRE ALARM STROBE (cd= CANDELA RATING 15, 30, 75, 95, 110, 177)
TPR	FIRE ALARM TRANSPONDER PANEL	15cd	MASS NOTIFICATION STROBE (cd= CANDELA RATING 15, 30, 75, 95, 110, 177)
RACP	RESCUE ASSISTANCE SYSTEM BASE UNIT	c	FIRE ALARM HORN/VISIBLE (C = CEILING MOUNT))
ARCM	AREA OF REFUGE COMMUNICATION MASTER UNIT	c	FIRE ALARM SPEAKER/VISIBLE (C = CEILING MOUNT))
ARCR	AREA OF REFUGE COMMUNICATION REMOTE UNIT	c	MASS NOTIFICATION SPEAKER/VISIBLE (C = CEILING MOUNT))
MAP	GRAPHIC ZONE MAP	c F	FIRE ALARM HORN (C = CEILING MOUNT))
FFSC	FIRE FIGHTER SMOKE CONTROL PANEL	c F	FIRE ALARM SPEAKER (C = CEILING MOUNT))
S x	SMOKE DETECTOR (P=PHOTOELECTRIC, SB=WITH SOUNDER BASE, BR=BEAM RECEIVER, BT=BEAM TRANSMITTER)	c M	MASS NOTIFICATION SPEAKER (C = CEILING MOUNT))
SS	SMOKE ALARM (120 VAC SINGLE STATION)	RA	RESCUE ASSISTANCE TELEPHONE STATION
H x	HEAT DETECTOR (F = FIXED TEMPERATURE, R = RATE OF RISE)	x	FIRE FIGHTER TELEPHONE (J = JACK, H = HANDSET)
x S	DUCT SMOKE DETECTOR S=SUPPLY, R=RETURN	DH	MAGNETIC DOOR HOLD
RTS	DUCT DETECTOR REMOTE INDICATOR ALARM AND TEST	VS	TAMPER SWITCH
RI	REMOTE INDICATOR LIGHT	WF	FLOW DETECTOR SWITCH
S	FIRE/SMOKE DAMPER	PS	PRESSURE SWITCH
S	SMOKE DAMPER	SS	SURGE SUPPRESSOR
CO	CARBON MONOXIDE ALARM/DETECTOR	X	FLAME DETECTOR (UV=ULTRAVIOLET, IR=INFRARED)

REFERENCE SYMBOLS LEGEND
(Not all symbols listed below are used on these drawings)

SYMBOL	DESCRIPTION	SYMBOL	DESCRIPTION
X	KEY NOTE REFERENCE	1	KITCHEN/OWNER/MEDICAL EQUIPMENT REFERENCE
LPA-#	TYPICAL CIRCUIT NUMBER	E	EXISTING TO REMAIN
TG#	TYPICAL LUMINAIRE TYPE	R	EXISTING TO BE REMOVED
	TYPICAL ROOM REFERENCE (TOP = RM #, BOTTOM = FLR)	RL	EXISTING TO BE RELOCATED
UH	MECHANICAL EQUIPMENT REFERENCE	ER	EXISTING TO REMAIN - REPLACE DEVICE
LC1	LIGHTING CONTROL / EQUIPMENT REFERENCE	RR	EXISTING TO BE REMOVED AND REPLACED
LC1	ELECTRICAL ACCESSORIES REFERENCE		

ONE-LINE DIAGRAM LEGEND
(Not all symbols listed below are used on these drawings)

SYMBOL	DESCRIPTION	SYMBOL	DESCRIPTION
	DISCONNECT SWITCH	A	PANELBOARD "A"
	DISCONNECT SWITCH, FUSED	PM	EM=ENERGY METER, PM=POWER METER, CM=CIRCUIT MONITOR
	CIRCUIT BREAKER	VS	VOLTMETER TEST SWITCH
	FUSE	AS	AMMETER TEST SWITCH
	GROUND	V	VOLTMETER
T ##	STEP DOWN TRANSFORMER, ## INDICATES KVA	A	AMMETER
TK ##	K-RATED STEP DOWN TRANSFORMER ## INDICATES KVA, # INDICATES K RATING	XXX	SEE FEEDER/MEC/TRANSFORMER SCHEDULES FOR FEEDER SIZE
	CURRENT TRANSFORMER	G	ENGINE GENERATOR
	POTENTIAL TRANSFORMER		CONTACTOR/RELAY/CAPACITOR (AS NOTED)
OR	SERVICE ENTRANCE TRANSFORMER		TRANSFER SWITCH - ATS=AUTOMATIC, MTS=MANUAL
M	METER	GFI	GROUND FAULT INTERRUPTER
	EQUIPMENT ENCLOSURE	SPD	SURGE PROTECTIVE DEVICE
	SERVICE WEATHERHEAD	ST	SHUNT TRIP
ISCA	SHORT CIRCUIT CURRENT AVAILABLE		TERMINATIONS LB=LOAD BREAK, NLB=NO LOAD BREAK
K a	KIRK KEY INTERLOCK, SUBSCRIPT INDICATES INTERLOCKED GROUP		DRAW-OUT DEVICE
E a	ELECTRICAL INTERLOCK, SUBSCRIPT INDICATES INTERLOCKED GROUP		PLUG-IN DEVICE
M	MECHANICAL INTERLOCK	EO	ELECTRICALLY OPERATED

ABBREVIATIONS LEGEND
(Not all symbols listed below are used on these drawings)

SYMBOL	DESCRIPTION	SYMBOL	DESCRIPTION
A	AMPERES	MCP	MOTOR CIRCUIT PROTECTOR
AC	ABOVE COUNTER, MOUNT HORIZONTALLY TO CENTERLINE OF DEVICE, +6" ABOVE COUNTER OR BACK SPLASH	MEC	SEE MECHANICAL EQUIPMENT SCHEDULE
AFF	ABOVE FINISHED FLOOR	MIN	MINIMUM
AFG	ABOVE FINISHED GRADE	MLO	MAIN LUGS ONLY
ANN	ANNUNCIATOR	MTS	MANUAL TRANSFER SWITCH
ARF	ABOVE RAISED FLOOR	NC	NORMALLY CLOSED
ASSD	AIR SAMPLING SMOKE DETECTION	NIC	NOT IN CONTRACT
ATS	AUTOMATIC TRANSFER SWITCH	NL	NIGHT LIGHT
BFG	BELOW FINISHED GRADE	NO	NORMALLY OPEN
C	CONDUIT	NTS	NOT TO SCALE
CATV	CABLE TELEVISION	OC	ON CENTER
CB	CIRCUIT BREAKER	OFCI	OWNER FURNISHED, CONTRACTOR INSTALLED
CCTV	CLOSED CIRCUIT TELEVISION	OFOI	OWNER FURNISHED, OWNER INSTALLED
(E)	EXISTING	OSWF	ON SITE WORK FORCE
EM	EMERGENCY	PB	PULL BOX
EMDC	EMERGENCY MAIN DISTRIBUTION CENTER	SB	STAND-BY
EP	EXPLOSION PROOF	SDC	SUB-DISTRIBUTION CENTER
EPO	EMERGENCY POWER OFF	TP	TAMPER PROOF
EVO	EMERGENCY VENTILATION ON/OFF	TVSS	TRANSIENT VOLTAGE SURGE SUPPRESSER
EWC	ELECTRIC WATER COOLER	TYP	TYPICAL
FA	FIRE ALARM	UF	UNDER FLOOR
G	GROUND	UG	UNDER GROUND
GCP	GENERATOR CONTROL PANEL	UON	UNLESS OTHERWISE NOTED
GFCI	GROUND FAULT CIRCUIT INTERRUPTER	UPS	UNINTERRUPTIBLE POWER SUPPLY
HOA	HAND OFF AUTOMATIC	V	VOLTS
IG	ISOLATED GROUND	VFD	VARIABLE FREQUENCY DRIVE
MAX	MAXIMUM	W/	WITH
MCB	MAIN CIRCUIT BREAKER	W/O	WITHOUT
MCC	MOTOR CONTROL CENTER	WP	WEATHER PROOF
MDC	MAIN DISTRIBUTION CENTER	XFMR	TRANSFORMER

ONE-LINE DIAGRAM LEGEND
(Not all symbols listed below are used on these drawings)

SYMBOL	DESCRIPTION	SYMBOL	DESCRIPTION
	DISCONNECT SWITCH	A	PANELBOARD "A"
	DISCONNECT SWITCH, FUSED	PM	EM=ENERGY METER, PM=POWER METER, CM=CIRCUIT MONITOR
	CIRCUIT BREAKER	VS	VOLTMETER TEST SWITCH
	FUSE	AS	AMMETER TEST SWITCH
	GROUND	V	VOLTMETER
T ##	STEP DOWN TRANSFORMER, ## INDICATES KVA	A	AMMETER
TK ##	K-RATED STEP DOWN TRANSFORMER ## INDICATES KVA, # INDICATES K RATING	XXX	SEE FEEDER/MEC/TRANSFORMER SCHEDULES FOR FEEDER SIZE
	CURRENT TRANSFORMER	G	ENGINE GENERATOR
	POTENTIAL TRANSFORMER		CONTACTOR/RELAY/CAPACITOR (AS NOTED)
OR	SERVICE ENTRANCE TRANSFORMER		TRANSFER SWITCH - ATS=AUTOMATIC, MTS=MANUAL
M	METER	GFI	GROUND FAULT INTERRUPTER
	EQUIPMENT ENCLOSURE	SPD	SURGE PROTECTIVE DEVICE
	SERVICE WEATHERHEAD	ST	SHUNT TRIP
ISCA	SHORT CIRCUIT CURRENT AVAILABLE		TERMINATIONS LB=LOAD BREAK, NLB=NO LOAD BREAK
K a	KIRK KEY INTERLOCK, SUBSCRIPT INDICATES INTERLOCKED GROUP		DRAW-OUT DEVICE
E a	ELECTRICAL INTERLOCK, SUBSCRIPT INDICATES INTERLOCKED GROUP		PLUG-IN DEVICE
M	MECHANICAL INTERLOCK	EO	ELECTRICALLY OPERATED

TECHNOLOGY LEGEND
(Not all symbols listed below are used on these drawings)

SYMBOL	DESCRIPTION	
	WALL FIELD	
	TELECOM GROUND BAR	
	WIRE BASKET TRAY	
	CABLE TRAY	
—J—J—J—	J-HOOK PATHWAY	
#	FLOOR SPACE BOX DATA OUTLET(# = QTY OF CABLES)	
#	POKE-THRU (# = QTY OF CABLES)	
# XXX ZZ	DATA OUTLET (# = QTY OF CABLES; XXX = SEE BELOW ZZ = ELEVATION)	
	D = MEDICAL/SUPPLY DISPENSER	RED = RED PHONE
	EEG = EEG NETWORK	T = TRANSLATION PHONE
	EP = EMERGENCY PHONE	TC = TIME CLOCK
	F = FACP	W = WALL PHONE
	POS = POINT OF SALE	AV = AUDIO VISUAL
	RAD = RADIOLOGY NETWORK	PRT = PRINTER
	SR = SURFACE RUNWAY	MFP = MULTI FUNCTIONS PRINTER
	BAS = BUILDING AUTOMATION SYSTEM	WP = WEATHER PROOF
	SCH = SCHEDULER	SEC = SECURITY
	CP = CONTROL PANEL	CLK = CLOCK

SYMBOL	DESCRIPTION	
# XXX	CEILING MOUNTED OUTLET (# = QTY OF CABLES; XXX= SEE BELOW)	
	AV = AUDIO VISUAL	SEC = SECURITY
	WAP=WIRELESS ACCESS POINT	PRJ = PROJECTOR
T XXX	DATA POWER POLE (XXX = SEE BELOW)	
	SEC = SECURITY	SR = SURFACE RACEWAY
ZZ	TELEVISION COAXIAL CABLE (ZZ = ELEVATION)	
	CEILING MOUNTED TELEVISION COAXIAL OUTLET	
J	FLOOR JBOX	
J XXX	POKE THRU; (XXX = SEE BELOW)	
	FF = FURNITURE FEED	AV = AUDIO VISUAL
J XXX ZZ	WALL MOUNTED JBOX (XXX = SEE BELOW; ZZ = ELEVATION)	
	CLG = CEILING	AV = AUDIO VISUAL
PB YY	PULLBOX (YY = SIZE)	
C XXX	CLOCK OUTLET (XXX = SEE BELOW)	
	DS = DOUBLE SIDED	DIGITAL (PROVIDE 1 CAT 6 CONNECTION)
	A = ANALOG	
CS XXX	COMBINATION CLOCK/SPEAKER OUTLET (XXX = SEE BELOW)	
	A = ANALOG	D = DIGITAL
C	CEILING MOUNTED CLOCK	
DAS	DISTRIBUTED ANTENNA SYSTEM	
WAP	WIRELESS ACCESS POINT ENCLOSURE	
	EQUIPMENT RACK	
	WIRE MANAGER	
	CABINET	

AUDIO VISUAL LEGEND
(Not all symbols listed below are used on these drawings)

SYMBOL	DESCRIPTION	SYMBOL	DESCRIPTION
S ##	CEILING MOUNTED SPEAKER (## = TYPE #)	J XXX	FLOOR POKE THRU (XXX = SEE BELOW)
S	WALL MOUNTED SPEAKER		CTRL = CONTROL UNIT; I/O = INPUT/OUTPUT PLATE
DIS (XX) "	DISPLAY (XX = SIZE OF SCREEN " = ELEVATION)	SSS	SOUND SHOWER SPEAKER
SCH "	SCHEDULER ; (" = ELEVATION)	PS ZZ	PARTITION SENSOR (ZZ = ELEVATION)
CTRL "	CONTROL UNIT ; (" = ELEVATION)	ZZ	TELEVISION COAXIAL CABLE (ZZ = ELEVATION)
I/O "	INPUT/OUTPUT PLATE ; (" = ELEVATION)		CEILING MOUNTED TELEVISION COAXIAL OUTLET
M "	MICROPHONE OUTLET ; (" = ELEVATION)	VC	VOLUME CONTROL
	PROJECTOR	HDMI	HIGH DEFINITION MULTIMEDIA INTERFACE

OVERHEAD PAGING/SOUNDMASKING LEGEND
(Not all symbols listed below are used on these drawings)

SYMBOL	DESCRIPTION	SYMBOL	DESCRIPTION
	WALL FIELD	SM XXX	SOUND MASKING SPEAKER FLUSH MOUNT (XXX = SEE BELOW)
S Z	CEILING MOUNTED ZONE SPEAKER (Z = ZONE #)		PM = PENDANT MOUNT; FM = FLUSH MOUNT
VC	VOLUME CONTROL OUTLET	SSS	SOUND SHOWER SPEAKER
M	MICROPHONE STATION	S	HORN SPEAKER
IC	INTERCOM STATION	S	SURFACE SPEAKER
CB	CALL BUTTON		

LIGHTING PLAN NOTES:

1. REFER TO ARCHITECTURAL ELEVATIONS AND REFLECTED CEILING PLANS FOR EXACT MOUNTING LOCATIONS OF DEVICES AND LUMINAIRES.
2. COORDINATE LUMINAIRE LOCATIONS WITH MECHANICAL PIPING, DUCTWORK, ETC., TO AVOID CONFLICTS. SEE SPECIFICATIONS FOR COORDINATION REQUIREMENTS.
3. PROVIDE A DEDICATED NEUTRAL CONDUCTOR FOR EACH 120V AND 277V CIRCUIT.
4. CIRCUITS MAY BE COMBINED INTO HOMERUNS OF UP TO SIX (6) CURRENT CARRYING CONDUCTORS, INCLUDING NEUTRALS, UNLESS OTHERWISE INDICATED. WHERE CIRCUITS ARE COMBINED WITHIN A SINGLE CONDUIT, PROVIDE STRIPING FOR FULL LENGTH OF NEUTRAL CONDUCTOR INSULATION TO MATCH THE COLOR CODE OF THE ASSOCIATED PHASE CONDUCTOR. SEE SPECIFICATION FOR COLOR CODES.
5. FIELD COORDINATE EXACT LOCATION OF CEILING MOUNTED OCCUPANCY SENSORS PER MANUFACTURER'S INSTRUCTIONS. OCCUPANCY/VACANCY SENSING DEVICES ARE SHOWN FOR GENERAL DESIGN INTENT ONLY. CONTRACTOR SHALL PROVIDE THE TYPE AND QUANTITY OF OCCUPANCY/VACANCY SENSING DEVICES AS NECESSARY FOR PROPER COVERAGE AND CONTROL OF LUMINAIRES WHERE INDICATED ON THE LIGHTING PLANS. FIELD ADJUSTMENT TO DEVICE LOCATIONS SHALL BE MADE AS REQUIRED TO CAPTURE ALL OCCUPANTS, WHETHER SITTING AT A DESK OR MOVING AROUND THE SPACE. ADDITIONAL DEVICES SHALL BE PROVIDED AND FIELD ADJUSTMENTS SHALL BE MADE AS NECESSARY, AT NO ADDITIONAL COST TO OWNER. CONTRACTOR SHALL PROVIDE A COMPLETE AND OPERATIONAL SYSTEM.

DEMOLITION NOTES:

1. UNLESS NOTED OTHERWISE, BOLD ITEMS INDICATE EQUIPMENT, DEVICES, ETC. TO BE REMOVED. SEE SPECIFICATION SECTION 260500 FOR REMODEL/DEMOLITION DETAILED REQUIREMENTS.
2. DEMOLITION DRAWINGS MAY NOT SHOW EVERY ITEM TO BE DEMOLISHED. CONTRACTOR SHALL VISIT SITE TO DETERMINE AND COORDINATE THE EXACT EXTENT OF DEMOLITION TO FACILITATE ALL WORK INDICATED BY THE CONTRACT DOCUMENTS PRIOR TO QUOTATION. NO EXTRAS WILL BE ALLOWED FOR WORK REQUIRED TO ACHIEVE THE END RESULT AS INDICATED BY THE CONTRACT DOCUMENTS. REWORK EXISTING TERMINATIONS, CONNECTIONS, CONDUIT, WIRING, ETC. TO ACCEPT NEW WORK. MAINTAIN CIRCUIT CONTINUITY TO EXISTING CIRCUITS AND DEVICES TO REMAIN OR REMODEL/DEMOLITION DETAILED REQUIREMENTS TO BE RELOCATED. PRIOR TO COMMENCEMENT OF ANY DEMO WORK, CONFIRM EXISTING CONDITIONS AND NOTIFY ENGINEER OF ANY DISCREPANCIES FOR RESOLUTION.
3. ALL ITEMS IDENTIFIED TO BE REMOVED SHALL BE REMOVED IN THEIR ENTIRETY INCLUDING ALL WIRING AND EXPOSED CONDUIT AND CONDUIT SUPPORTS BACK TO POINT OF ORIGIN OR NEXT DEVICE TO REMAIN. REMOVED ITEMS SHALL BE TURNED OVER TO THE OWNER, UNLESS NOTED OTHERWISE, AND STORED IN THE AREA DESIGNATED BY THE OWNER. REMOVE FROM SITE AND LEGALLY DISPOSE OF ALL ITEMS THE OWNER CHOOSES NOT TO ACCEPT.
4. REUSE EXISTING CONDUIT WHERE CURRENT NEC AND LOCAL CODE REQUIREMENTS ARE MAINTAINED. PROVIDE NEW CONDUIT AND WIRE FOR NEW INSTALLATIONS AND EXTENSION OF EXISTING INSTALLATIONS. REUSE EXISTING CONDUIT IN PLACE, DO NOT REINSTALL EXISTING CONDUIT. PROVIDE LABELING PER SPECIFICATIONS FOR REUSED CONDUIT.
5. WHERE EXISTING DEVICES, SWITCHES, MOTOR CONNECTIONS, ETC. ARE TO BE REMOVED FROM WALLS WHICH ARE REMAINING, WALLS SHALL BE PATCHED TO MATCH ORIGINAL FINISH. BLANK COVERPLATES OVER EXISTING BOXES ARE NOT ACCEPTABLE, UNLESS NOTED OTHERWISE.

ONE-LINE DIAGRAM NOTES:

1. PANELBOARDS INDICATED ON ONE-LINE DIAGRAMS DO NOT SHOW ALL BRANCH CIRCUITS. REFER TO PANELBOARD SCHEDULE(S).
2. PROVIDE CONTINUOUS #10 AWG INSULATED COPPER CONDUCTOR FOR BONDING THE EQUIPMENT GROUNDING TERMINAL BUSSES OF THE NORMAL AND ESSENTIAL BRANCH CIRCUIT PANELBOARDS SERVING THE SAME INDIVIDUAL PATIENT VICINITY.
3. ADJUSTABLE BREAKERS SHALL BE SOLID STATE TRIP. CIRCUIT BREAKER TRIP FUNCTIONS:
   L=LONG TIME
   S=SHORT TIME
   I=INSTANTANEOUS
   G=GROUND FAULT
   Z=ZONE SELECT INTERLOCK
   A=GROUND FAULT ALARM ONLY
4. EXISTING ONE-LINE DIAGRAM TAKEN FROM OWNER FURNISHED DRAWINGS. EXISTING INFORMATION SHOWN OTHER THAN LOCATIONS IMPACTED BY NEW WORK HAS NOT BEEN VERIFIED.
5. COORDINATE MOUNTING, CONDUIT, WIRE, AND OCPD SIZE FOR SPD'S WITH MANUFACTURER'S INSTALLATION INSTRUCTIONS.

GENERAL NOTES:

1. FOR REMODELING, WORK INCLUDED IS DENOTED IN BOLD. EXISTING CONDITIONS TO REMAIN ARE DENOTED LIGHTLY.
2. PROTECT STRUCTURE AND OWNER EQUIPMENT FROM DAMAGE. IMMEDIATELY REPLACE OR REPAIR, TO ORIGINAL CONDITION, DAMAGE CAUSED BY THE CONTRACTOR WHETHER EQUIPMENT APPEARS TO BE CURRENTLY IN USE OR NOT, UNLESS WRITTEN AUTHORIZATION FROM THE OWNER INDICATED OTHERWISE. PREPARE LISTING OF ALL EXISTING DAMAGED ITEMS AND SUBMIT TO OWNER PRIOR TO BEGINNING WORK.
3. INSTALL CONDUIT CONCEALED IN FINISHED AREAS UNLESS OTHERWISE NOTED. PAINT EXPOSED CONDUIT TO MATCH EXISTING FINISHES WITHIN THE SURROUNDING AREA.
4. COORDINATE EXACT REQUIREMENTS AND LOCATIONS OF MECHANICAL EQUIPMENT WITH MECHANICAL DRAWINGS AND MECHANICAL CONTRACTOR PRIOR TO ROUGH-IN AND ORDERING MATERIALS OR EQUIPMENT.
5. EXISTING INFORMATION SHOWN ON THE DRAWINGS HAS BEEN TAKEN FROM OWNER FURNISHED DRAWINGS AND/OR LIMITED FIELD OBSERVATIONS. CATOR, RUMA & ASSOCIATES IS NOT RESPONSIBLE FOR THE ACCURACY OF ANY INFORMATION OR THE ADEQUACY, SAFETY AND CONFORMANCE TO CURRENT PREVAILING CODES OF ANY WORK SHOWN AS EXISTING ON THESE DRAWINGS.
6. PROVIDE SEPARATE INSULATED EQUIPMENT GROUNDING CONDUCTOR IN ALL FEEDER, HOMERUN AND BRANCH CIRCUITS.

POWER PLAN NOTES:

1. MAKE ALL FINAL ELECTRICAL CONNECTIONS TO EQUIPMENT REQUIRING ELECTRICAL CONNECTION. THIS SHALL INCLUDE BUT NOT BE LIMITED TO ALL MECHANICAL AND OTHER EQUIPMENT INCLUDED IN THIS PROJECT.
2. COORDINATE EXACT REQUIREMENTS AND LOCATIONS OF MECHANICAL EQUIPMENT WITH MECHANICAL DRAWINGS AND MECHANICAL CONTRACTOR PRIOR TO ROUGH-IN.
3. PROVIDE FUSES SIZED PER EQUIPMENT MANUFACTURER'S REQUIREMENTS.
4. DISCONNECT SWITCH LOCATIONS ARE SHOWN DIAGRAMMATICALLY AND SHALL BE INSTALLED IN ACCESSIBLE LOCATIONS TO SUIT EQUIPMENT AND SPACE. DISCONNECT SWITCHES SHALL BE WITHIN SIGHT OF THE EQUIPMENT THEY SERVE AND MOUNTED AT 6'-3", MAXIMUM, TO TOP OF CABINET. MAINTAIN NEC WORK SPACE REQUIREMENTS.
5. RECEPTACLES INDICATED TO BE MOUNTED ABOVE COUNTER ARE TO BE MOUNTED HORIZONTALLY 6" ABOVE COUNTER UNLESS OTHERWISE NOTED.
6. COORDINATE AND VERIFY EXACT MOUNTING LOCATIONS OF WALL AND FLOOR DEVICES WITH ARCHITECTURAL ELEVATIONS, AND ANY FURNITURE OR SPECIALTY EQUIPMENT SUPPLIER DRAWINGS PRIOR TO ROUGH-IN.
7. NO RECEPTACLES SHALL BE MOUNTED BELOW +18" AFF.
8. PROVIDE A DEDICATED NEUTRAL CONDUCTOR FOR EACH 120V CIRCUIT.
9. CIRCUITS MAY BE COMBINED INTO HOMERUNS OF UP TO SIX (6) CURRENT CARRYING CONDUCTORS, INCLUDING NEUTRALS, UNLESS OTHERWISE INDICATED. WHERE CIRCUITS ARE COMBINED WITHIN A SINGLE CONDUIT, PROVIDE STRIPING FOR FULL LENGTH OF NEUTRAL CONDUCTOR INSULATION TO MATCH THE COLOR CODE OF THE ASSOCIATED PHASE CONDUCTOR. SEE SPECIFICATION FOR COLOR CODES.
10. GFCI RECEPTACLES ARE NOT GENERALLY SHOWN ON DRAWINGS. ALL RECEPTACLE OUTLETS LOCATED IN TOILET ROOMS, SHOWER ROOMS, LOCKER ROOMS, GARAGES, SERVICE BAYS, ROOFTOPS, OUTDOOR LOCATIONS, MECHANICAL ROOMS, WITHIN 6 FEET OF A SINK, AT ELECTRIC WATER COOLERS, OR OTHER WET LOCATIONS SHALL BE PROVIDED WITH GFCI PROTECTION PER NEC ARTICLE 210 AND NEC SECTION 422.5. PROVIDE GFCI RECEPTACLES IN ELEVATOR PITS, HOISTWAYS, MACHINE ROOMS, CONTROL SPACES, AND CONTROL ROOMS PER NEC SECTION 620.85. ADDITIONAL GFCI PROTECTION TO BE PROVIDED AS INDICATED. WHERE GFCI DEVICES ARE REQUIRED AND/OR SHOWN BUT ARE NOT ACCESSIBLE WHEN EQUIPMENT IS INSTALLED, I.E. VENDING MACHINES, ETC., PROVIDE BLANK FACE GFCI DEVICE AND COVERPLATE AHEAD OF INACCESSIBLE RECEPTACLES. MOUNT ADJACENT TO EQUIPMENT AT SWITCH HEIGHT UNLESS OTHERWISE SHOWN.

TECHNOLOGY PLAN NOTES:

1. PROVIDE 8' SERVICE LOOP AT STATION END OF ALL CABLE RUNS.
2. HOMERUN ALL VOICE, DATA, AND TELEVISION CABLES TO DESIGNATED CONTROL PANELS, PATCH PANELS, OR WALL FIELDS IN NEAREST TELECOMMUNICATION ROOM LOCATED IN THE SAME ZONE UNLESS OTHERWISE NOTED.
3. PROVIDE J-HOOK TYPE CABLE SUPPORTS EVERY 4'-0" TO 5'-0" IN OPEN OR ACCESSIBLE CEILING SPACE AS REQUIRED TO SUPPORT CABLES IN ROUTE TO CABLE TRAY OR CONDUIT PATHWAY TO TELECOMMUNICATIONS ROOM. ROUTE CABLE SUPPORTS SUCH THAT CABLE VISIBILITY WILL BE MINIMIZED IN ANY OPEN CEILING AREAS.

ROUGH-IN AND PATHWAY NOTES:

1. PROVIDE 4-11/16" x 4-11/16" x 2-7/8" OUTLET BOX AND SINGLE GANG MUD RING FOR ALL TELE/DATA OUTLETS. ROUTE 1" CONDUIT FROM EACH OUTLET TO ABOVE ACCESSIBLE CEILING UNLESS OTHERWISE NOTED. PROVIDE INSULATED THROAT CONNECTOR ON CONDUIT END. KEEP ALL EXPOSED CONDUITS TIGHT TO STRUCTURE.
2. PROVIDE 4-11/16" x 4-11/16" x 2-7/8" OUTLET BOX AND TWO-GANG MUD RING FOR ALL AV DEVICE AND DISPLAY BACKBOX LOCATIONS UNLESS OTHERWISE NOTED. ROUTE 1-1/4" CONDUIT TO ABOVE ACCESSIBLE CEILING UNLESS OTHERWISE NOTED. PROVIDE INSULATED THROAT CONNECTOR ON CONDUIT END. KEEP ALL EXPOSED CONDUITS TIGHT TO STRUCTURE.
3. COORDINATE AND VERIFY EXACT MOUNTING LOCATIONS OF WALL, CEILING, AND FLOOR DEVICES WITH ARCHITECTURAL ELEVATIONS AND ANY FURNITURE OR SPECIALTY EQUIPMENT SUPPLIER DRAWINGS PRIOR TO ROUGH-IN.
4. CONDUIT DEDICATED FOR TECHNOLOGY SYSTEMS SHALL BE INSTALLED IN EMT UNLESS OTHERWISE NOTED. FLEX CONDUIT SHALL NOT BE USED WITHOUT PRIOR APPROVAL FROM THE ENGINEER OR OWNER.
5. CONDUIT DEDICATED FOR TECHNOLOGY SYSTEMS SHALL NOT EXCEED 100' OR CONTAIN MORE THAN 180 DEGREES OF TOTAL BENDS WITHOUT UTILIZING APPROPRIATELY SIZED PULL BOXES.
6. MINIMUM BEND RADII FOR 2" CONDUIT OR SMALLER SHALL BE 6 TIMES THE OUTSIDE DIAMETER OF THE CONDUIT. BEND RADII FOR CONDUIT LARGER THAN 2" SHALL BE 10 TIMES THE OUTSIDE DIAMETER OF THE CONDUIT. L-BENDS SHALL NOT BE USED.
7. CONTRACTOR SHALL VERIFY ALL EXISTING CONDITIONS AND NOTIFY ENGINEER OF ANY ADVERSE FIELD CONDITIONS PRIOR TO PERFORMING ANY WORK.

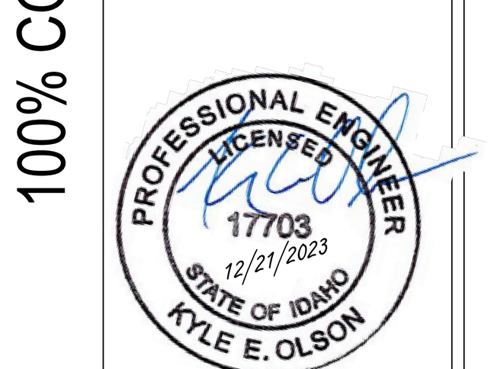
100% CONSTRUCTION DOCUMENTS

CATOR | RUMA & ASSOCIATES, CO.
420 South Orchard Street, Boise, ID 83705
(208) 343-3663 ▪ www.catorruma.com

HUMMEL ARCHITECTS
205 N. 10th Street Suite 300 Boise, Idaho 83702 208.343.7523
482 Constitution Way, Suite 111 Idaho Falls, ID 83402 208.343.7523
hummelarch.com

Project:
TFSD 2023 CAPITAL IMPROVEMENTS PACKAGE 6, SUPPORT SERVICE CLASSROOM TENANT IMPROVEMENT AT ROBERT STUART MIDDLE SCHOOL
644 Casewell Ave W
Twin Falls, ID 83301

Sheet:
ELECTRICAL LEGENDS, DETAILS & NOTES



Electrical

Project No:	23010-00
Drawn By:	BEL
Checked By:	RHM
Date:	12/22/2023

Sheet No: E0.01

COMcheck Software Version COMcheckWeb

Interior Lighting Compliance Certificate

Project Information

Energy Code: 2018 IECC
Project Title: TFSD Robert Stuart Middle School
Project Type: Alteration

Construction Site:
Twin Falls, Idaho

Owner/Agent:
Twin Falls School District
Twin Falls, Idaho 83301

Designer/Contractor:
Randy Munns
Cator Ruma & Associates
420 S Orchard St #1238
Boise, Idaho 83705
(208) 343-3663
rmunns@catorruma.com

Allowed Interior Lighting Power

A Area Category	B Floor Area (ft2)	C Allowed Watts / ft2	D Allowed Watts
1-Classroom (School/University)	1750	0.81	1418
		Total Allowed Watts =	1418

Proposed Interior Lighting Power

A Fixture ID : Description / Lamp / Wattage Per Lamp / Ballast	B Lamps / Fixture	C # of Fixture	D Fixture Watt.	E (C X D)
Classroom (School/University, 1750 sq.ft.)				
LED: D2: RE: LUMINAIRE SCHEDULE: Other:	1	3	15	45
LED: T1: RE: LUMINAIRE SCHEDULE: Other:	1	20	40	800
LED: W1: RE: LUMINAIRE SCHEDULE: Other:	1	1	21	21
			Total Proposed Watts =	866

Interior Lighting PASSES

Interior Lighting Compliance Statement

Compliance Statement: The proposed interior lighting alteration project represented in this document is consistent with the building plans, specifications, and other calculations submitted with this permit application. The proposed interior lighting systems have been designed to meet the 2018 IECC requirements in COMcheck Version COMcheckWeb and to comply with any applicable mandatory requirements listed in the Inspection Checklist.

Kyle Olson, PE - Electrical Engineer — Name - Title
Signature
12/21/2023 — Date

GENERAL EQUIPMENT SCHEDULE

COMMON NOTES:
A. PRIOR TO WORK, VERIFY ELECTRICAL REQUIREMENTS (VOLTAGE, AMPERAGE, RECOMMENDED OCPD, CONDUCTORS, AND DISCONNECT) FOR EACH PIECE OF EQUIPMENT.
B. PRIOR TO WORK, VERIFY EXACT LOCATION FOR EACH PIECE OF EQUIPMENT WITH ARCHITECT AND/OR OWNER.

SPECIFIC REMARKS:

KEY	ITEM	HP	FLA	LOAD	EQ LOAD (VA)	VOLTAGE	FEEDERS			PROTECTION			REMARKS
							WIRE	GROUND	CONDUIT	BREAKER	DISCONNECT	FUSE	
DISH	DISH WASHER	0	0 A	1500 VA	1500 VA	120 V/ 1ph	2#12	#12G	3/4"	20 A			
DRY	DRYER	0	22 A	0 VA	4576 VA	208 V/ 1ph	2#10	#10G	3/4"	30 A	NEMA 6-30		
GD	GARBAGE DISPOSAL	0.5	0 A	0 VA	1176 VA	120 V/ 1ph	2#12	#12G	3/4"	20 A			
HOOD	KITCHEN HOOD	0	2 A	0 VA	240 VA	120 V/ 1ph	2#12	#12G	3/4"	20 A			
MICRO	MICROWAVE	0	0 A	1000 VA	1000 VA	120 V/ 1ph	2#12	#12G	3/4"	20 A			
RANGE	ELECTRIC RANGE	0	40 A	0 VA	8320 VA	208 V/ 1ph	3#8	#10G	1"	50 A	NEMA 14-50		
REF	REFRIGERATOR	0	0 A	1500 VA	1500 VA	120 V/ 1ph	2#12	#12G	3/4"	20 A			
WASH	WASHING MACHINE	0	0 A	1200 VA	1200 VA	120 V/ 1ph	2#12	#12G	3/4"	20 A			

MECHANICAL EQUIPMENT SCHEDULE

COMMON NOTES:
A. PRIOR TO WORK, VERIFY ELECTRICAL REQUIREMENTS (VOLTAGE, AMPERAGE, RECOMMENDED OCPD, CONDUCTORS, AND DISCONNECT) FOR EACH PIECE OF EQUIPMENT.
B. PRIOR TO WORK, VERIFY EXACT LOCATION FOR EACH PIECE OF EQUIPMENT.
C. COORDINATE AND PROVIDE ALL FIELD CONNECTIONS AS REQUIRED.
D. COORDINATE 120V POWER CONNECTIONS TO DAMPERS AND OTHER CONTROL CIRCUITS. GROUP EQUIPMENT CONTROL CIRCUITS SUCH THAT FAILURE OF ONE CONTROL CIRCUIT DOES NOT AFFECT OPERATION OF OTHER EQUIPMENT. FOR EXAMPLE, DO NOT CONNECT A DAMPER ASSOCIATED WITH ONE AIR HANDLING UNIT TO THE SAME BRANCH CIRCUIT AS DAMPERS ASSOCIATED WITH A DIFFERENT AIR HANDLING UNIT.
E. FEEDERS, BREAKERS, DISCONNECTS, AND FUSING APPLIES TO FIELD-INSTALLED AND/OR FACTORY-INSTALLED EQUIPMENT.
F. COORDINATE LOCATION OF VFD(S) AND WORKING SPACE CLEARANCES. IF INSTALLED REMOTE FROM EQUIPMENT, PROVIDE CIRCUIT CONNECTION FROM VFD TO MOTOR(S).
G. WHERE MULTIPLE MOTORS ARE SERVED BY A SINGLE VFD, COORDINATE FIELD-WIRING REQUIREMENTS WITH EQUIPMENT VENDOR.

SPECIFIC REMARKS:

KEY	#	ITEM	HP	FLA	LOAD	EQ LOAD (VA)	VOLTAGE	FEEDERS			PROTECTION			REMARKS
								WIRE	GROUND	CONDUIT	BREAKER	DISCONNECT	FUSE	
CU	1	OUTDOOR SPLIT UNIT	0	23.3 A	0 VA	4842 VA	208 V/ 1ph	2#10	#10G	3/4"	35 A	30 A		
CU	2	OUTDOOR SPLIT UNIT	0	13.2 A	0 VA	2746 VA	208 V/ 1ph	2#12	#12G	3/4"	20 A	S		
CU	3	OUTDOOR SPLIT UNIT	0	13.2 A	0 VA	2746 VA	208 V/ 1ph	2#12	#12G	3/4"	20 A	S		
DX	1	INDOOR SPLIT UNIT	0	1.1 A	0 VA	233 VA	208 V/ 1ph	2#12	#12G	3/4"	15 A	S		
DX	2	INDOOR SPLIT UNIT	0	0.5 A	0 VA	100 VA	208 V/ 1ph	2#12	#12G	3/4"	15 A	S		
DX	3	INDOOR SPLIT UNIT	0	0.5 A	0 VA	100 VA	208 V/ 1ph	2#12	#12G	3/4"	15 A	S		
EF	1	EXHAUST FAN	0	7.2 A	0 VA	864 VA	120 V/ 1ph	2#12	#12G	3/4"	20 A	S		
EHC	1	ELECTRIC HEATING COIL	0	0.0 A	1000 VA	1000 VA	120 V/ 1ph	2#12	#12G	3/4"	20 A	S		
ERV	1	ENERGY RECOVERY UNIT	0	0.0 A	130 VA	130 VA	120 V/ 1ph	2#12	#12G	3/4"	20 A	S		

ELECTRICAL ACCESSORIES SCHEDULE

COMMON NOTES:
A. COORDINATE EXACT LOCATION OF FLOORBOXES WITH ARCHITECTURAL PLANS.
B. VERIFY FINISHES WITH ARCHITECT. VERIFY PROPER FLANGE TYPES WITH ARCHITECTURAL FLOORING PLANS.
C. REFER TO TECHNOLOGY PLANS FOR ALL DEVICES REQUIRING TECHNOLOGY AND CONDUIT ROUGH-INS.

SPECIFIC REMARKS:

KEY	ITEM	DESCRIPTION	MANUFACTURER	CATALOG SERIES	FINISH	REMARKS
WM-1	DUAL-CHANNEL WIREMOLD	DUAL-CHANNEL RACEWAY FOR DATA AND POWER CABLES.	HUBBELL	PB2	WHITE	

LIGHTING CONTROL MATRIX

COMMON NOTES:
A. NOT ALL SPACE NAMES ARE LISTED FOR EACH LIGHTING CONTROL TYPE. REFER TO PLANS FOR ALL SPACES TO BE CONTROLLED.
B. SPACES MAY CONTAIN MULTIPLE ZONES OF CONTROL. REFER TO PLANS FOR QUANTITY OF ZONES, SWITCHES, ETC.
C. PROVIDE THE QUANTITY OF SENSORS AS REQUIRED FOR FULL COVERAGE OF THE SPACE. DEVICES SHOWN ON PLAN ARE FOR DESIGN INTENT ONLY AND DO NOT NECESSARILY REFLECT THE EXACT QUANTITY REQUIRED FOR FULL COVERAGE.
D. WHERE A SINGLE SWITCH/DIMMER IS DENOTED WITH MULTIPLE SWITCH LEGS, DESIGN INTENT IS A SINGLE-GANG DEVICE WITH MULTIPLE-MODE CONTROL.
E. ALL NON-NETWORKED SPACES WITH SENSORS SHALL BE PROVIDED WITH MANUAL 'OFF' MEANS.
F. WHERE NETWORKED SPACES HAVE NO MANUAL 'OFF' MEANS WITHIN SPACE, PROVIDE LABELED MEANS OF SHUTOFF AT CONTROLLER LOCATION FOR NO MORE THAN 5,000 SQUARE FEET.

SPECIFIC REMARKS:

KEY:

ON / OFF	M = MANUAL (SWITCH), A = AUTOMATIC (SENSOR), T = TIME SCHEDULE, P = EXTERIOR PHOTOCELL, #% = CONTROL TO #% LIGHT LEVEL
CONTROL	0-10V DIMMING, ELV DIMMING, STEP DIMMING, DMX CONTROL
OCC / VAC	DT = DUAL TECHNOLOGY, PIR = PASSIVE INFRARED, CLG = CEILING MOUNT, WALL = WALL CORNER MOUNT, SW = INTEGRAL TO WALL SWITCH
DAYLIGHT	CALIBRATE BOTTOM LIMIT OF DAYLIGHT SENSOR TO DENOTED FOOTCANDLE LEVEL AT HEIGHT LISTED
INTERFACE	AV = ALLOW OVERRIDE BY A/V SYSTEM, BAS = COMMUNICATE OCCUPIED/UNOCCUPIED STATE TO BAS, VAV = TIE SENSOR RELAY DIRECTLY TO VAV BOX IN ROOM
NETWORK	X = CONNECT ZONE TO CENTRAL LIGHTING CONTROL SYSTEM
EMERGENCY	X = PROVIDE AUTOMATIC LOAD CONTROL RELAYS (ALCR) FOR LUMINAIRES ON EMERGENCY CIRCUIT, PROVIDE TEST SWITCH IF NOT INTEGRAL TO RELAY

TYPE	SPACE	ON	OFF	CONTROL	OCCUPANCY / VACANCY SENSOR			DAYLIGHT SENSOR		INTERFACE	NETWORK	EMERGENCY	REMARKS
					TECH	MOUNT	DELAY (MIN.)	TARGET LEVEL (FC)	MEASURED HEIGHT (IN.)				
LC2	RESTROOM	A	A		DT	SW	20						
LC8	STORAGE	M	A		PIR	CLG	5						
LC13	CLASSROOM	M	A	0-10V	DT	CLG	20	40	24				

LUMINAIRE SCHEDULE

COMMON NOTES:
A. CATALOG NUMBER REFERS TO FIRST NAME LISTED UNDER MANUFACTURER PER LUMINAIRE TYPE. REMAINING MANUFACTURERS LISTED ARE CONSIDERED TO BE EQUIVALENT PRODUCTS FOR THIS PROJECT AND SHALL MEET ALL CRITERIA LISTED INCLUDING THAT CALLED FOR BY THE SPECIFIC LUMINAIRE CATALOG NUMBER. CATALOG NUMBERS DO NOT NECESSARILY REPRESENT COMPLETE CATALOG NUMBERS. ALL ITEMS LISTED IN THE DESCRIPTION SHALL BE PROVIDED.
B. REFER TO LIGHTING SPECIFICATIONS FOR ADDITIONAL REQUIREMENTS.
C. PROVIDE UNIT PRICING FOR ALL LUMINAIRES BY TYPE AND SUBMIT WITH BID FORM.
D. PROVIDE AN EMERGENCY BALLAST TEST SWITCH FOR RECESSED DOWNLIGHTS ON CEILING ADJACENT TO LUMINAIRE.
E. PROVIDE FLICKER FREE LED DRIVERS MEETING IEEE 1789.

SPECIFIC REMARKS:
1. VERIFY MOUNTING HEIGHT WITH ARCHITECTURAL ELEVATION.

TYPE	DESCRIPTION	LAMP		BALLAST/DRIVER			APPARENT LOAD	MANUFACTURER	CATALOG SERIES	FINISH	MOUNTING	REMARKS
		COLOR	LUMENS	TYPE	DIM LEVEL	VOLTAGE						
D2	3" DIAMETER LED RECESSED DOWNLIGHT, SHOWER RATED, 50 DEGREE BEAM, SELF FLANGED	3500K	1500	0-10V	10%	120 V	15 VA	ACULUX OR APPROVED EQUAL	INIT3 OR APPROVED EQUAL	CLEAR SPECULAR	RECESSED	
T1	2X4 RECESSED FLAT PANEL	3500K	5000	0-10V	10%	120 V	40 VA	LITHONIA COOPER LIGHTING SOLUTIONS OR APPROVED EQUAL	CPX 24CGTS OR APPROVED EQUAL	WHITE	RECESSED	
T1E	SAME AS T1 WITH EMERGENCY SELF-DIAGNOSTIC BATTERY BACKUP	3500K	5000	0-10V	10%	120 V	40 VA	LITHONIA COOPER LIGHTING SOLUTIONS OR APPROVED EQUAL	CPX 24CGTS OR APPROVED EQUAL	WHITE	RECESSED	
W1	2' BATHROOM VANITY	3500K	2000	0-10V	10%	120 V	21 VA	BROWNLEE SCOTT ARCH LIGHTING OR APPROVED EQUAL	5178 S3951 OR APPROVED EQUAL	BRUSHED NICKEL	WALL	1

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Project:
TFSD 2023 CAPITAL IMPROVEMENTS PACKAGE 6, SUPPORT SERVICE CLASSROOM TENANT IMPROVEMENT AT ROBERT STUART MIDDLE SCHOOL
644 Casewell Ave W
Twin Falls, ID 83301

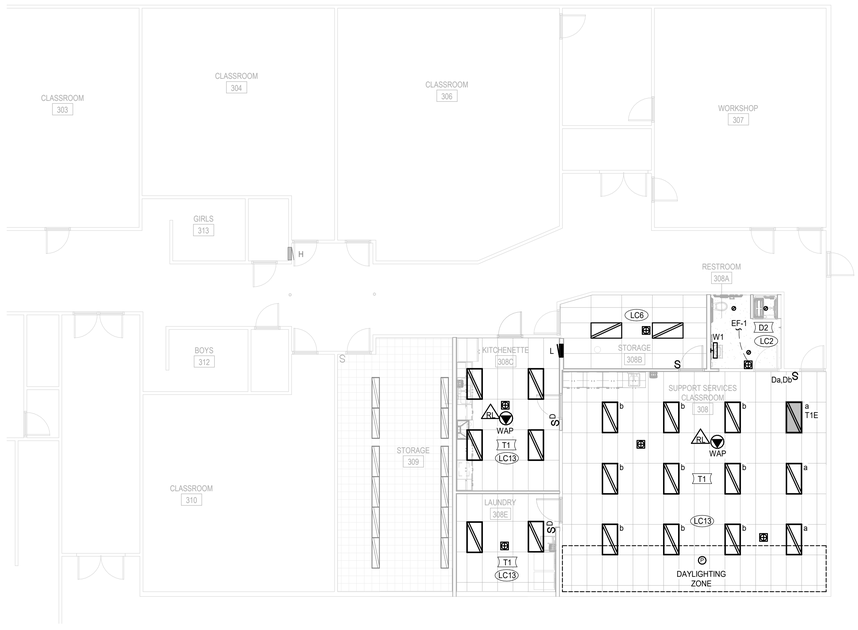
Sheet:
ELECTRICAL SCHEDULES

PROFESSIONAL ENGINEER LICENSED 17703 12/21/2023 STATE OF IDAHO KYLE E. OLSON
Electrical

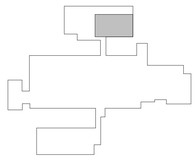
Project No: 23010-00
Drawn By: BEL
Checked By: RHM
Date: 12/22/2023

Sheet No: E0.02

LEVEL 1 LIGHTING DEMOLITION PLAN
SCALE: 1/8" = 1'-0"



LEVEL 1 LIGHTING PLAN
SCALE: 1/8" = 1'-0"



KEY PLAN
SCALE: NONE

KEYNOTES

GENERAL NOTES:

1. EXISTING LIGHTING CIRCUITRY TO BE MAINTAINED AND EXTENDED TO NEW FIXTURES.

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Project:
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644 Casewell Ave W
Twin Falls, ID 83301

Sheet:
LEVEL 1 LIGHTING PLANS

PROFESSIONAL ENGINEER LICENSED 17703 12/27/2023 STATE OF IDAHO KYLE E. OLSON
Electrical

Project No:	23010-00
Drawn By:	BEL
Checked By:	RHM
Date:	12/22/2023

Sheet No:
E2.01

1"
IF LINE DOES NOT MEASURE 1 INCH, DRAWING IS NOT TO SCALE

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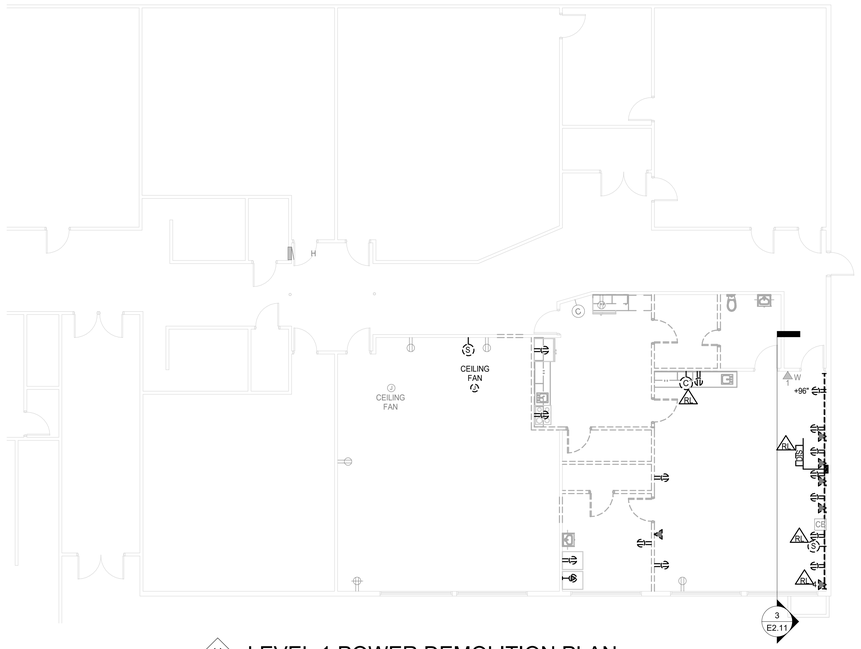
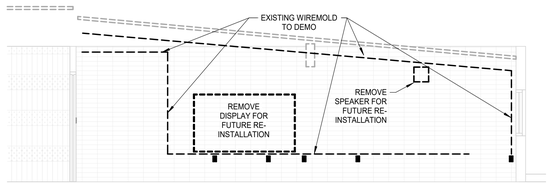
KEYNOTES

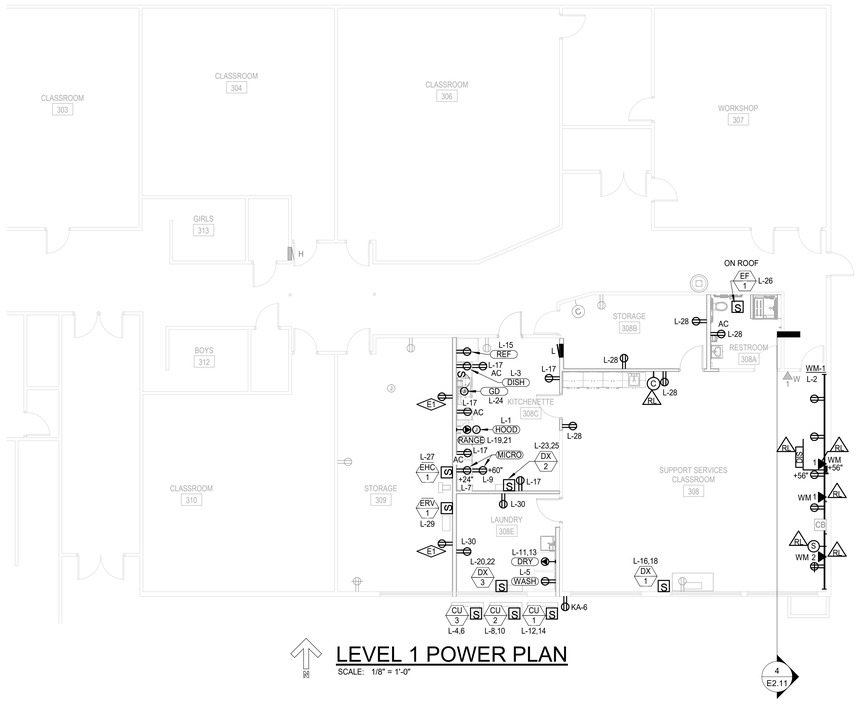
E1	EXISTING CIRCUITRY TO BE MAINTAINED AND EXTENDED TO NEW OUTLETS.
T1	COORDINATE ROUGH-IN WITH TV MOUNT.



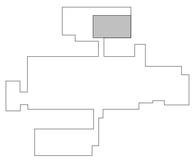
LEVEL 1 POWER DEMOLITION PLAN
SCALE: 1/8" = 1'-0"



3 EAST WALL ELEVATION - DEMO
SCALE: 1/4" = 1'-0"



4 EAST WALL ELEVATION - NEW
SCALE: 1/4" = 1'-0"



KEY PLAN
SCALE: NONE

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Project:
TFSD 2023 CAPITAL IMPROVEMENTS
PACKAGE 6, SUPPORT SERVICE CLASSROOM TENANT IMPROVEMENT
AT ROBERT STUART MIDDLE SCHOOL
644 Casewell Ave W
Twin Falls, ID 83301

Sheet:
LEVEL 1 POWER PLANS

PROFESSIONAL ENGINEER LICENSED 17703 12/27/2023 STATE OF IDAHO KYLE E. OLSON
Electrical

Project No:	23010-00
Drawn By:	BEL
Checked By:	RHM
Date:	12/22/2023

Sheet No: E2.11

1"
IF LINE DOES NOT MEASURE 1 INCH, DRAWING IS NOT TO SCALE

12/21/2023 7:57:01 AM
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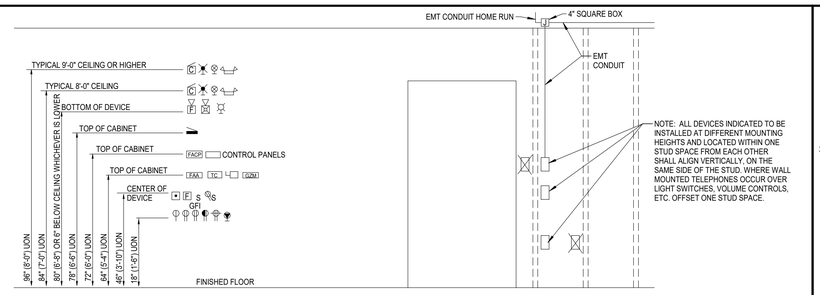
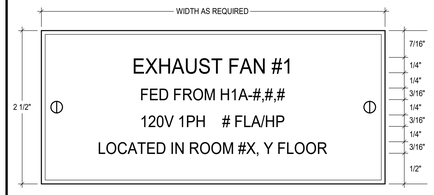


TYPICAL ELECTRICAL DEVICE MOUNTING HEIGHTS

NO SCALE

NOTES:

1. HEIGHTS SHOWN ARE TYPICAL TO CENTERLINE OF BOX UNLESS NOTED OTHERWISE.
2. WHERE EVER DEVICES ARE INDICATED TO BE ABOVE DOORS, DEVICE SHALL BE CENTERED BETWEEN TOP OF DOOR TRIM AND CEILING LINE.
3. MOUNTING HEIGHTS SHOWN ON ARCHITECTURAL ELEVATIONS SHALL GOVERN OVER THOSE SHOWN ABOVE. VERIFY MOUNTING HEIGHTS WITH ARCHITECTURAL ELEVATIONS. DEVICES AND COVER PLATES SHALL NOT COVER/OVERLAP EDGES OF WAINSCOTING, TILE OR OTHER SPECIALTY WALL FINISHES.
4. REFER TO TYPICAL TECHNOLOGY DEVICE MOUNTING HEIGHTS DETAIL FOR ADDITIONAL INFORMATION.
5. DEVICE MOUNTING HEIGHTS SHALL BE PER MOST CURRENT VERSION OF GOVERNING CODES AND STANDARDS NEC, IBC, NFPA, ADA, ETC. WHERE DESCREPANCIES BECOME EVIDENT CONSULT THE ARCHITECT AND ENGINEER OF RECORD.
6. WHERE RECEPTACLES, SWITCHES AND OTHER DEVICES ARE INSTALLED ABOVE COUNTERS, THE DEVICES SHALL BE INSTALLED AT 46" MAXIMUM (COUNTERS/SHELVES 0-20 INCHES WIDE) AND 44" MAXIMUM (COUNTERS/SHELVES 20-25 INCHES WIDE) ABOVE FINISHED FLOOR TO DEVICE CENTER.
7. RECEPTACLES AND LOW VOLTAGE DEVICES SHALL NOT BE INSTALLED BELOW 15" AFF PER ADA STANDARDS.

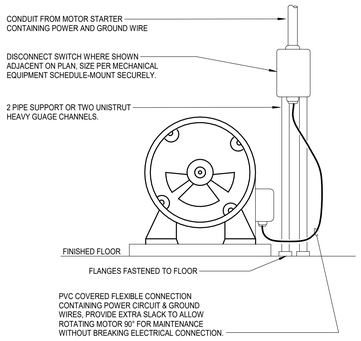


UTILIZATION EQUIPMENT NAMEPLATE DETAIL

SCALE: FULL

NOTES:

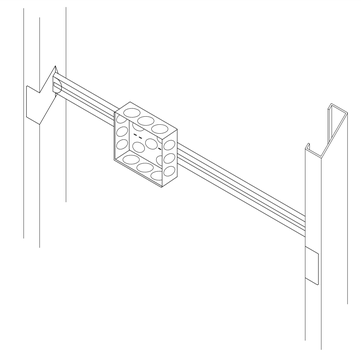
1. SEE SPECIFICATIONS FOR ADDITIONAL NAMEPLATE INFORMATION.
2. REWORD NAMEPLATE FOR FIELD CONDITIONS.
3. HP SHALL INDICATE HORSEPOWER; FLA SHALL INDICATE FULL LOAD AMPS.
4. CONFIRM ROOM NUMBER (X) AND FLOOR (Y) WITH OWNER AND ARCHITECT PRIOR TO PRINTING LABEL.



CONNECTION TO FLOOR MOUNTED MOTORS

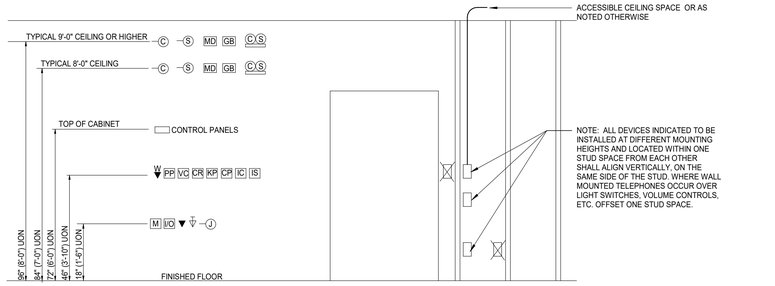
NO SCALE

NOTE: SEE SPECIFICATIONS FOR ADDITIONAL SUPPORT, SEISMIC AND OTHER REQUIREMENTS.



OUTLET BOX SUPPORT DETAIL

NO SCALE

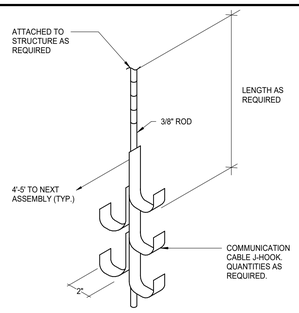


TYPICAL LOW VOLTAGE DEVICE MOUNTING HEIGHTS

NO SCALE

NOTES:

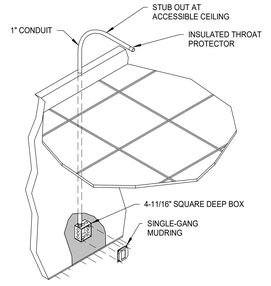
1. HEIGHTS SHOWN ARE TYPICAL TO CENTERLINE OF BOX UNLESS OTHERWISE NOTED.
2. WHERE EVER DEVICES ARE INDICATED TO BE ABOVE DOORS, DEVICE SHALL BE CENTERED BETWEEN TOP OF DOOR TRIM AND CEILING LINE.
3. MOUNTING HEIGHTS SHOWN ON ARCHITECTURAL ELEVATIONS SHALL GOVERN OVER THOSE SHOWN ABOVE. VERIFY MOUNTING HEIGHTS SHOWN ON ARCHITECTURAL ELEVATIONS. DEVICES AND COVER PLATES SHALL NOT COVER/OVERLAP EDGES OF WAINSCOTING, TILE OR OTHER SPECIALTY WALL FINISHES.
4. DEVICE MOUNTING HEIGHTS SHALL BE PER MOST CURRENT VERSION OF GOVERNING CODE AND STANDARDS NEC, IBC, NFPA, ADA, ETC. WHERE DESCREPANCIES BECOME EVIDENT, CONSULT THE ARCHITECT AND ENGINEER OF RECORD.
5. WHERE DEVICES ARE INSTALLED ABOVE COUNTER, THE DEVICES SHALL BE INSTALLED AT 46" MAXIMUM (COUNTERS/SHELVES 0-20 INCHES WIDE) AND 44" MAXIMUM (COUNTER/SHELVES 20-25 INCHES WIDE) ABOVE FINISHED FLOOR TO DEVICE CENTER.
6. LOW VOLTAGE DEVICES SHALL NOT BE INSTALLED BELOW 15" AFF PER ADA STANDARDS.



NOTE:
ALL WIRES AND CABLES SHALL BE SUPPORTED. MAXIMUM SPACING BETWEEN HOOKS SHALL BE 4' to 5'. ATTACH HOOK ASSEMBLY TO BUILDING STRUCTURE. ALL CABLE RUNS TO BE PERPENDICULAR AND PARALLEL TO BUILDING WALLS.

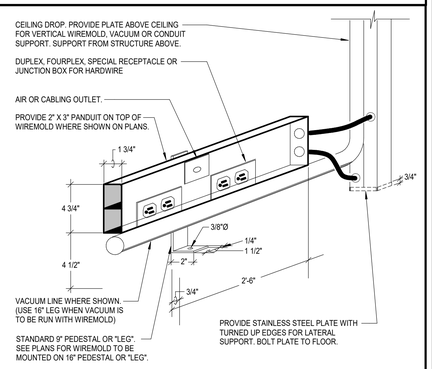
CABLE SUPPORT SYSTEM DETAIL

NO SCALE



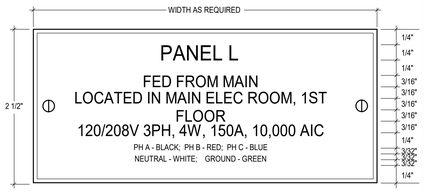
OUTLET ROUGH-IN DETAIL

NO SCALE



WIREMOLD DETAIL

NO SCALE



SUB-DISTRIBUTION CENTER AND BRANCH PANELBOARD NAMEPLATE DETAIL

SCALE: FULL

NOTES:

1. SEE SPECIFICATIONS FOR ADDITIONAL NAMEPLATE INFORMATION.
2. REWORD NAMEPLATE FOR FIELD CONDITIONS.
3. AMP RATING SHALL INDICATE BUS RATING.
4. CONFIRM ROOM NUMBER (X) AND FLOOR (Y) WITH OWNER AND ARCHITECT PRIOR TO PRINTING LABEL.
5. REFER TO SPECIFICATIONS FOR 277/480V PHASE CONDUCTOR COLOR REQUIREMENTS.

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644 Casewell Ave W
Twin Falls, ID 83301

Sheet:
ELECTRICAL DETAILS

PROFESSIONAL ENGINEER · REGISTERED · 17703 · 12/27/2023 · STATE OF IDAHO · KYLE E. OLSON
Electrical

Project No:	23010-00
Drawn By:	BEL
Checked By:	RHM
Date:	12/22/2023

Sheet No:
E3.01

Dist. Panel MAIN

EXISTING

Location:
Supply From:
Mounting: Surface

Volts: 120/208 Wye
Phases: 3
Wires: 4

A.I.C. Rating: 10,000
Mains Type: MCB
Bus Rating: 400 A
MCB Rating: 400 A

Circuit Notes:

Load	Type	A	B	C	Note
100A	--	0 VA			
PANEL K 200A	Spare	0 VA	0 VA	0 VA	
PANEL KA 200A	Spare; R	0 VA	0 VA	180 VA	
PANEL L 150A	**Spare; R; G; M**	14246 VA	12972 VA	10014 VA	
		14246 VA	12972 VA	10194 VA	
Refer to one-line diagram for space, spare, and circuit breaker quantities.		122 A	112 A	85 A	
		10	31	44	
		% A-B	% B-C	% C-A	

Load Type		Connected Load	Demand Factor	Demand Load	Switchboard Totals	
L	Lighting	0 VA	0.00%	0 VA	**Power Factor:**	
R	Receptacle	12460 VA	90.13%	11230 VA		
M	Motor	12760 VA	109.49%	13971 VA	**Total Connected Load:**	37412 VA
C	Continuous	0 VA	0.00%	0 VA	**Total Connected Current:**	104 A
G	General	12192 VA	100.00%	12192 VA		
K	Kitchen	0 VA	0.00%	0 VA	**Total Demand Load:**	37393 VA
E	Existing	0 VA	0.00%	0 VA	**Total Demand Current:**	104 A
O	Other	0 VA	0.00%	0 VA		

General Notes:

Panel L

NEW

Location: KITCHENETTE 308C
Supply From: MAIN
Mounting: Recessed
Enclosure: Type 1

Voltage: 120/208 Wye
Phase: 3
Wire: 4

A.I.C. Rating: 10,000
Mains Type: MLO
Bus Rating: 150 A

Circuit Notes:

Note	Circ...	Load	Type	Trip	Po...	A	B	C	Po...	Trip	Type	Load	Circ...	Note
	1	VENT HOOD	G	20 A	1	240 VA	1080 VA		1	20 A	R	R-CLASSROOM 308	2	
	3	DISH WASHER	G	20 A	1		1500 VA	1373 VA	2	20 A	M	CONDENSING UNIT CU-3	4	
	5	WASHER	G	20 A	1			1200 VA	1373 VA				6	
	7	MICROWAVE	G	20 A	1	1000 VA	1373 VA		2	20 A	M	CONDENSING UNIT CU-2	8	
	9	MICROWAVE	G	20 A	1		1000 VA	1373 VA					10	
	11	DRYER	G	30 A	2	2288 VA	2421 VA		2	35 A	M	CONDENSING UNIT CU-1	12	
	13							2288 VA	2421 VA				14	
	15	REFRIGERATOR	G	20 A	1		1500 VA	116 VA	2	15 A	M	INDOOR SPLIT UNIT DX-1	16	
	17	R-KITCHENETTE 308C	R	20 A	1			900 VA	116 VA				18	
	19	RANGE	R	50 A	2	4160 VA	50 VA		2	15 A	M	INDOOR SPLIT UNIT DX-3	20	
	21						4160 VA	50 VA					22	
	23	INDOOR SPLIT UNIT DX-2	M	15 A	2			50 VA	1176 VA	1	20 A	G	GARBAGE DISPOSAL	24
	25					50 VA	864 VA		1	20 A	M	EF-1 RESTROOM 308A	26	
	27	EHC-1	M	20 A	1		1000 VA	900 VA	1	20 A	R	R-RM 308A, 308, 308B	28	
	29	ERV-1	M	20 A	1			130 VA	360 VA	1	20 A	R	R-RM 308E, 309	30
	31	SPACE	--	--	1	--	720 VA			1	20 A	R	R-STORAGE 309	32
	33	SPACE	--	--	1		--	0 VA		1	20 A	--	SPARE	34
	35	SPACE	--	--	1				--	0 VA	1	20 A	--	SPARE	36
	37	SPACE	--	--	1	--	0 VA			1	20 A	--	SPARE	38
	39	SPACE	--	--	1		--	0 VA		1	20 A	--	SPARE	40
	41	SPACE	--	--	1				--	0 VA	1	20 A	--	SPARE	42
				Total Load:		14246 VA		12972 VA		10014 VA				
				Total Amps:		123 A		112 A		83 A				
				Phase Balance:		9 % A-B		34 % B-C		47 % C-A				

Load Type		Connected Load	Demand Factor	Demand Load	Panel Totals	
L	Lighting	0 VA	0.00%	0 VA	**Power Factor:**	1
R	Receptacle	12280 VA	90.72%	11140 VA		
M	Motor	12760 VA	109.49%	13971 VA	**Total Connected Load:**	37232 VA
C	Continuous	0 VA	0.00%	0 VA	**Total Connected Current:**	103 A
G	General	12192 VA	100.00%	12192 VA		
K	Kitchen	0 VA	0.00%	0 VA	**Total Demand Load:**	37303 VA
E	Existing	0 VA	0.00%	0 VA	**Total Demand Current:**	104 A
O	Other	0 VA	0.00%	0 VA		

General Notes:

Panel H

EXISTING

Location:
Supply From:
Mounting: Recessed
Enclosure: Type 1

Voltage: 120/208 Wye
Phase: 3
Wire: 4

A.I.C. Rating: 10,000
Mains Type: MLO
Bus Rating: 225 A

Circuit Notes:
1. EXISTING LOAD REMOVED. LABEL BREAKER AS SPARE.

Note	Circ...	Load	Type	Trip	Po...	A	B	C	Po...	Trip	Type	Load	Circ...	Note
	1	RESTROOM LIGHTS	--	20 A	1	0 VA	0 VA		1	20 A	--	GIRLS RR OUTLETS	2	
	3	CLASS 305 LIGHTS	--	20 A	1			0 VA	0 VA	1	20 A	--	BOYS RR OUTLETS	4	
	5	CLASS 306 LIGHTS	--	20 A	1				0 VA	0 VA	1	20 A	--	MULTI PUR OUTLETS	6	
	7	CLASS 310 LIGHTS	--	20 A	1	0 VA	0 VA				1	20 A	--	CLASS C OUTLETS	8	
	9	CLASS 309 LIGHTS	--	20 A	1			0 VA	0 VA			1	20 A	--	CLASS E OUTLETS	10
	11	OFFICE LIGHTS	--	20 A	1				0 VA	0 VA	1	20 A	--	MULTI PUR OUTLETS	12	
	13	HALL LIGHTS	--	20 A	1	0 VA	0 VA				1	20 A	--	OFFICE OUTLETS	14	
	15	KITCHEN 308 LIGHTS	--	20 A	1			0 VA	0 VA			1	20 A	--	OFFICE/ ENTRY OUTLS	16
	17	RRs LIGHTS	--	20 A	1				0 VA	0 VA	1	20 A	--	CLASS B OUTLET U.V.	18	
	19	307/306 STOR LIGHTS	--	20 A	1	0 VA	0 VA				1	20 A	--	PHY THERAPY OUTLETS	20	
	21	CLASS 307 LIGHTS	--	20 A	1			0 VA	0 VA			1	20 A	--	CLASS F OUTLETS	22
1	**23**	**SPARE**	**--**	**20 A**	**1**				0 VA	0 VA	1	20 A	--	U.V. CLASS A	24	
	25	SPARE	--	20 A	1	0 VA	0 VA				1	20 A	--	U.V. CLASS C & E	26	
1	**27**	**SPARE**	**--**	**20 A**	**1**			0 VA	0 VA			**1**	**20 A**	**--**	**SPARE**	**28**	**1**
	29	SPARE	--	20 A	1				0 VA	0 VA	1	20 A	--	U.V. CLASS D	30	
	31	SPARE	--	20 A	1	0 VA	0 VA				1	20 A	--	SPARE	32	
1	**33**	**SPARE**	**--**	**30 A**	**2**			0 VA	0 VA			**2**	**50 A**	**--**	**SPARE**	**34**	**1**
	35									0 VA	0 VA					**36**	
	37					0 VA	0 VA									38	
	39	SPARE	--	20 A	3			0 VA	0 VA			3	20 A	--	SPARE	40	
	41									0 VA	0 VA					42	
				Total Load:		0 VA		0 VA		0 VA							
				Total Amps:		0 A		0 A		0 A							
				Phase Balance:		% A-B		% B-C		% C-A							

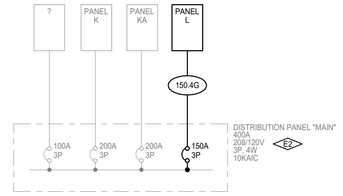
Load Type		Connected Load	Demand Factor	Demand Load	Panel Totals	
L	Lighting	0 VA	0.00%	0 VA	**Power Factor:**	1
R	Receptacle	0 VA	0.00%	0 VA		
M	Motor	0 VA	0.00%	0 VA	**Total Connected Load:**	0 VA
C	Continuous	0 VA	0.00%	0 VA	**Total Connected Current:**	0 A
G	General	0 VA	0.00%	0 VA		
K	Kitchen	0 VA	0.00%	0 VA	**Total Demand Load:**	0 VA
E	Existing	0 VA	0.00%	0 VA	**Total Demand Current:**	0 A
O	Other	0 VA	0.00%	0 VA		

General Notes:

FEEDER SCHEDULE

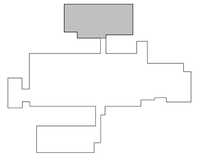
NOTE:

KEY	CONDUCTORS	C"
150.4G	4 # 1/0 , 1 # 6 G	2



ELECTRICAL ONE-LINE DIAGRAM
SCALE: NONE

OVERALL ELECTRICAL PANEL PLAN
SCALE: 1/16" = 1'-0"



KEY PLAN OVERALL
SCALE: NONE

KEYNOTES

E2	PROVIDE 3-PHASE DIGITAL RECORDING METER AT LOCATION INDICATED FOR A PERIOD OF 30 DAYS PRIOR TO SUBMITTING FOR PERMIT TO VERIFY EXISTING LOAD. METER SHALL RECORD VOLTAGE AMPERAGE, KVA AND POWER FACTOR FOR EACH PHASE AND SUM OF THE PHASES. THE METER SHALL CONTINUALLY AVERAGE THE POWER DEMAND OVER MAXIMUM 15 MINUTE INTERVALS AS REQUIRED BY NEC 220.87. COMPILE A METERING SUMMARY REPORT AND DELIVER RESULTS TO ENGINEER AFTER 7 DAYS AND AFTER 30 DAYS. VERIFY EXISTING LOADS AT AND DOWNSTREAM OF THE METERING LOCATION AND PROVIDE LIST TO ENGINEER OF WHAT LOADS ARE NOT ON DURING THE 30 DAY METERING AND THE REASON WHY. ORGANIZE LIST BY EQUIPMENT NAME. IF ANY LOADS HAVE BEEN REMOVED OR PERMANENTLY ABANDONED, TURN CIRCUIT BREAKER OFF AND RELABEL AS SPARE.

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Project:
TFSD 2023 CAPITAL IMPROVEMENTS PACKAGE 6, SUPPORT SERVICE CLASSROOM TENANT IMPROVEMENT AT ROBERT STUART MIDDLE SCHOOL
644 Casewell Ave W
Twin Falls, ID 83301

Sheet:
ELECTRICAL PANEL SCHEDULES

100% CONSTRUCTION DOCUMENTS

PROFESSIONAL ENGINEER LICENSED 17703 12/21/2023 STATE OF IDAHO KYLE E. OLSON
Electrical

Project No:	23010-00
Drawn By:	Author
Checked By:	Checker
Date:	12/22/2023

Sheet No:
E4.01

1"
IF LINE DOES NOT MEASURE 1 INCH, DRAWING IS NOT TO SCALE