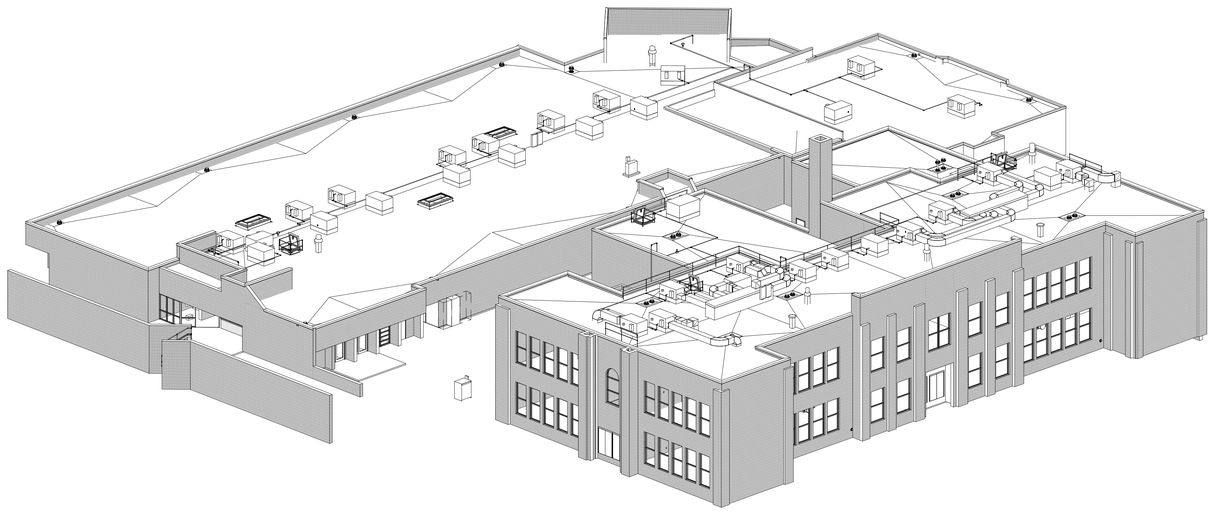


PROJECT:

LINCOLN ELEMENTARY SCHOOL HVAC REPLACEMENT

LINCOLN ELEMENTARY SCHOOL
238 BUHL ST N
TWIN FALLS, ID 83301

CLIENT:

TWIN FALLS SCHOOL DISTRICT

201 MAIN AVE.
TWIN FALLS, IDAHO 83301

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

VICINITY MAP :

NOT TO SCALE

H.A.-JOB # 24076

CONSULTANTS:

STRUCTRUAL ENGINEER
KPFF

MECHANICAL AND ELECTRICAL ENGINEER
CATOR RUMA & ASSOCIATES CO

DRAWING SET:

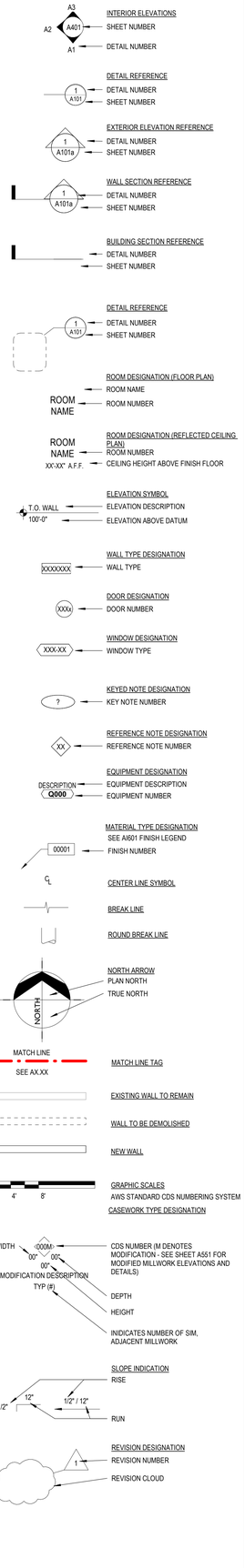
ARCHITECTURAL
STRUCTURAL
MECHANICAL
ELECTRICAL

100% CD

100% CD - 02/27/2025

PROFESSIONAL ARCHITECT
LICENSED
02/27/2025
AR-986
STATE OF IDAHO
BRIAN F. COLEMAN

SYMBOLS:



ABBREVIATIONS:

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

MASTER KEYNOTES:

Keynote #	Keynote Text
055000.C	STEEL ANGLE
055213.A	STEEL GAURDRAIL
061000.A	DIMENSIONAL LUMBER
061000.C	SHEATHING
061000.D	SHIM AS REQUIRED.
061053.A	WOOD BLOCKING/NAILER
062023.A	WOOD TRIM. PAINT TO MATCH EXISTING.
062023.B	PAINTED CROWN MOLDING TO MATCH EXISTING.
072100.C	MINERAL WOOL
072500.A	WEATHER RESISTIVE BARRIER
075423.A	THERMOPLASTIC-POLYOLEFIN (TPO) ROOFING
075423.B	TPO SHEET FLASHING
075423.E	ROOF INSULATION
075423.G	VAPOR BARRIER
075423.J	FASTENER AND PLATE
075423.L	ROOFING MANUFACTURER'S RECOMMENDED SEALANT
075423.O	MANUFACTURED ROOF PAD
075423.Q	ROOFING MANUFACTURER'S RECOMMENDED BONDING ADHESIVE
076200.A	PARAPET COPING
076200.C	METAL FLASHING & TRIM
076200.E	FLASHING AND DRIP EDGE
076200.J	DOWNSPOUT
076200.K	OVERFLOW SCUPPER.
076200.N	ROOF EDGE FLASHING
076200.O	SHEET METAL COVER TO INFILL OPENING.
076200.Q	MASONRY-TYPE REGLET & COUNTERFLASHING
076200.Z	CLEAT
077200.B	ROOF HATCH
078413.A	FIRE RESISTIVE JOINT SEALANT
079200.B	JOINT SEALANT
079513.16.A	ROOF TO WALL EXPANSION JOINT
079513.16.B	ROOF TO ROOF EXPANSION JOINT
086200.A	FIBERGLASS-SANDWICH-PANEL SKYLIGHT ASSEMBLY
088000.A	GLASS INFILL PANEL.
088000.B	INFILL PANEL.
092900.A	GYPSUM WALL BOARD
092900.D	GYPSUM BOARD TYPE X.
092900.G	CEMENT BOARD
096513.A	RESILIENT BASE
096813.B	CARPET INFILL TO MATCH EXISTING

DRAWING INDEX:

CODE INFORMATION:

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
2018 INTERNATIONAL MECHANICAL CODE
2018 INTERNATIONAL FUEL GAS CODE
2009 ICC A117.1-2009 ACCESSIBLE AND USABLE BUILDINGS AND FACILITIES
1997 UNIFORM CODE FOR THE ABATEMENT OF DANGEROUS BUILDINGS

LINCOLN ELEMENTARY SCHOOL

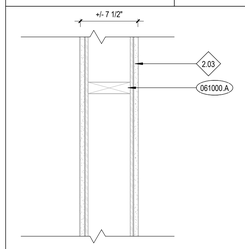
EXISTING SCHOOL

OCCUPANY TYPE: **E** FULLY SPRINKLERED

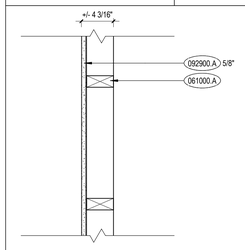
PROJECT DESCRIPTION: REROOFING, HVAC & ELEC UPGRADES AND RENOVATION OF THE EXISTING CLASSROOM AND HALLWAY CEILINGS. NO FLOOR PLAN OR EGRESS MODIFICATIONS.

OCCUPANT LOAD: **UNCHANGED**

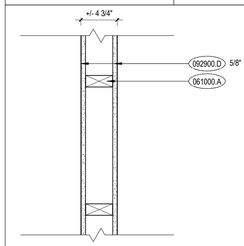
WALL TYPE: **E-W61**
FIRE RATING: 1-HOUR
FIRE TEST: GA-WP-3430
WALL HEIGHT: TO DECK ABOVE



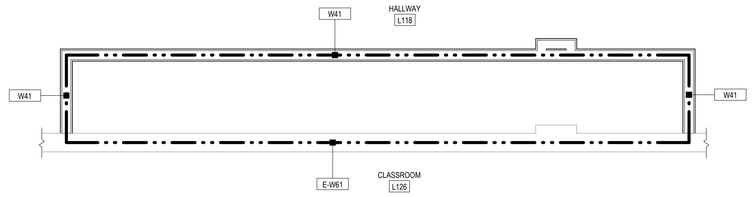
WALL TYPE: **W36**
FIRE RATING: NON-RATED
FIRE TEST: NONE
WALL HEIGHT: TO DECK ABOVE



WALL TYPE: **W41**
FIRE RATING: 1-HOUR
FIRE TEST: UL U305
WALL HEIGHT: TO DECK ABOVE



C6 / G0.02 WALL TYPES - INTERIOR
1 1/2" = 1'-0"



D5 / G0.02 TYPICAL FIRE RATED SHAFT
1/2" = 1'-0"

KEYNOTES

061000.A	DIMENSIONAL LUMBER
092900.A	GYPSUM WALL BOARD
092900.D	GYPSUM BOARD TYPE X.

REFERENCE NOTES

2.03	EXISTING PLASTER WALL FINISH ON 3/8" ROCKLATH

LEGEND

FIRE SHAFT - 1-HOUR FIRE-RESISTIVE RATING PER IBC SECTION 713 SHAFT ENCLOSURES.

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482 Constitution Way, Suite 111, Idaho Falls, ID 83402, 208.343.7523
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Project:
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LINCOLN ELEMENTARY SCHOOL
238 BUHL ST N
TWIN FALLS, ID 83301

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PROFESSIONAL ARCHITECT LICENSED 02/27/2025 AR-986107 STATE OF IDAHO BRIAN F. COLEMAN

Revisions:

Project No:	24076
Drawn By:	NB
Checked By:	PR
Date:	02/27/2025

Sheet No:
G0.02

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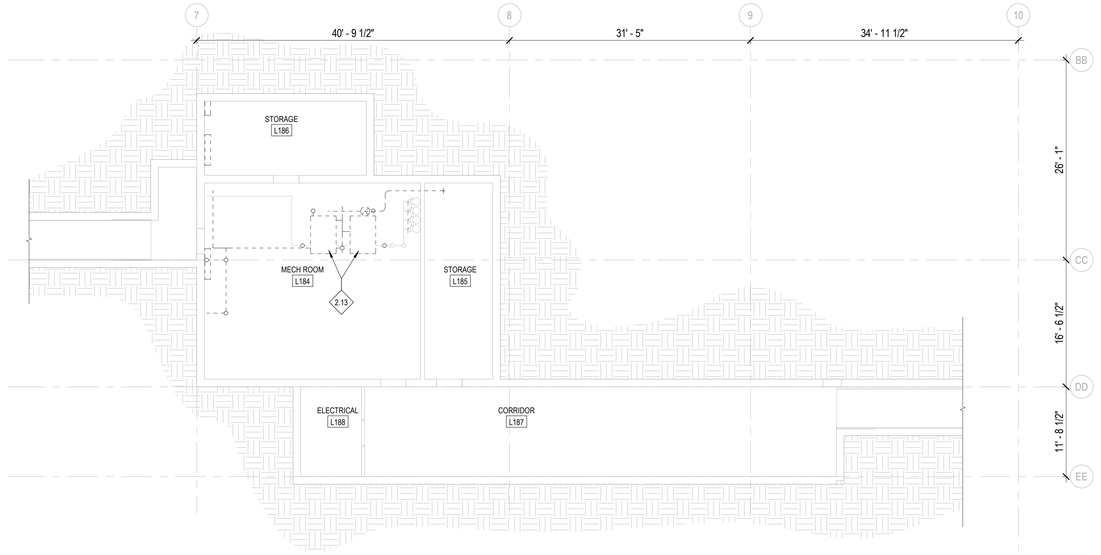
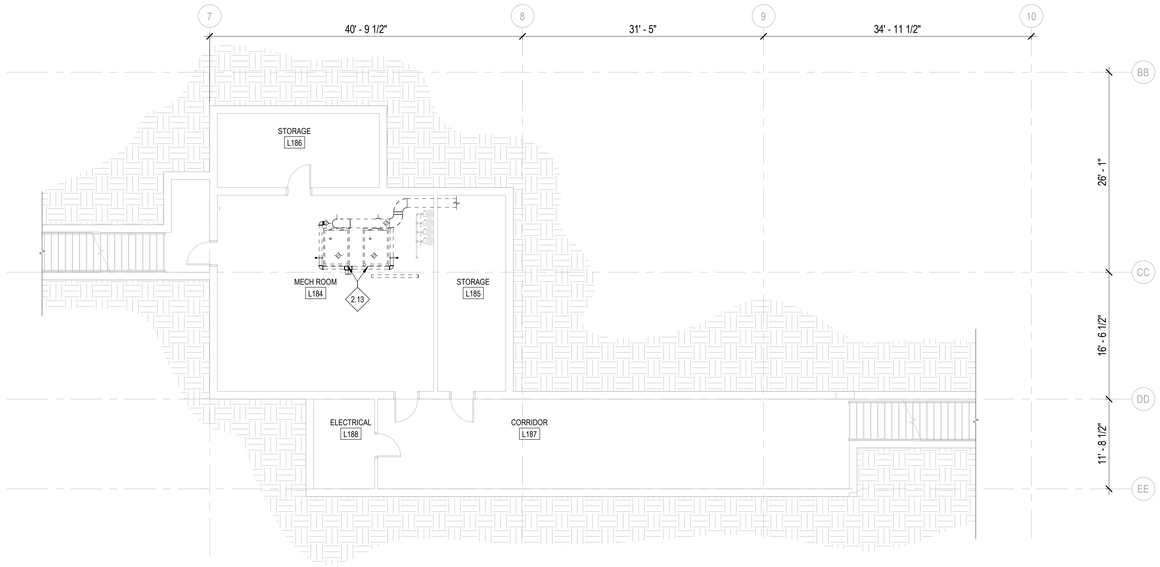


B1 / D2.00 **BASEMENT - DEMO CEILING PLAN**

1/8" = 1'-0"



D1 / D2.00 **BASEMENT- DEMO FLOOR PLAN**

1/8" = 1'-0"

GENERAL NOTES

1. UNLESS NOTED OTHERWISE, ALL DIMENSIONS ARE TO THE FACE OF STUDS FOR GWB WALLS/PARTITIONS.
2. UNLESS NOTED OTHERWISE, ALL DIMENSIONS ARE TO FACE OF FINISHED MASONRY FOR CMU.
3. SCREENED LINES REPRESENT EXISTING WALLS, DOORS, WINDOWS, ETC TO REMAIN. PROTECT FROM DAMAGE DURING CONSTRUCTION ACTIVITIES.
4. FOR DIMENSIONAL EXTENTS OF EXISTING WALL DEMOLITION, CUTTING AND PATCHING, SEE NEW FLOOR PLANS.
5. PROTECT FROM DAMAGE ALL EXISTING TO REMAIN CASEWORK, EQUIPMENT, FLOOR FINISHES AND CEILING FINISHES DURING CONSTRUCTION.
6. PROTECT FROM DAMAGE DURING DEMOLITION, MOVING AND CONSTRUCTION ALL EXISTING CASEWORK, EQUIPMENT, FURNITURE AND ARTWORK THAT IS TO BE RE-USED.
7. SEE MECHANICAL AND ELECTRICAL DRAWINGS FOR ADDITIONAL DEMOLITION WORK.
8. COORDINATE THE DEMOLITION OF EXISTING CEILING WITH NEW PLANS, REFLECTED CEILING PLANS AND ROOF FINISH SCHEDULE.
9. WHERE EXISTING CARPET/CARPET TILE ARE TO REMAIN, CUT AND PATCH CARPET AS REQUIRED TO FACILITATE NEW CONSTRUCTION.

KEYNOTES

REFERENCE NOTES

2.13 REMOVE EXISTING BOILER AND ALL ASSOCIATED ITEMS. COORDINATE WITH MECHANICAL

LEGEND

- EXISTING WALL SYSTEM TO REMAIN. PROTECT FROM DAMAGE DURING CONSTRUCTION.
- EXISTING MECHANICAL UNIT TO BE REMOVED. SEE MECHANICAL DRAWINGS FOR EXTENT OF DEMO.
- EXISTING THERMOSTAT TO BE REMOVED. SEE MECHANICAL DRAWINGS FOR EXTENT OF DEMO.
- EXTENT OF DAMAGED CARPET TO BE REMOVED.
- EXISTING DOOR SYSTEM TO REMAIN. PROTECT FROM DAMAGE DURING CONSTRUCTION.
- EXISTING DOOR SYSTEM TO REMOVED.

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482 Constitution Way, Suite 111, Idaho Falls, ID 83402, 208.343.7523
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Sheet:
DEMO BASEMENT - FLOOR & CEILING PLAN

100% CD

Revisions:

PROFESSIONAL ARCHITECT LICENSED 02/27/2025 AR-986174 STATE OF IDAHO BRIAN F. COLEMAN

Project No:	24076
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Checked By:	PR
Date:	02/27/2025

Sheet No: D2.00

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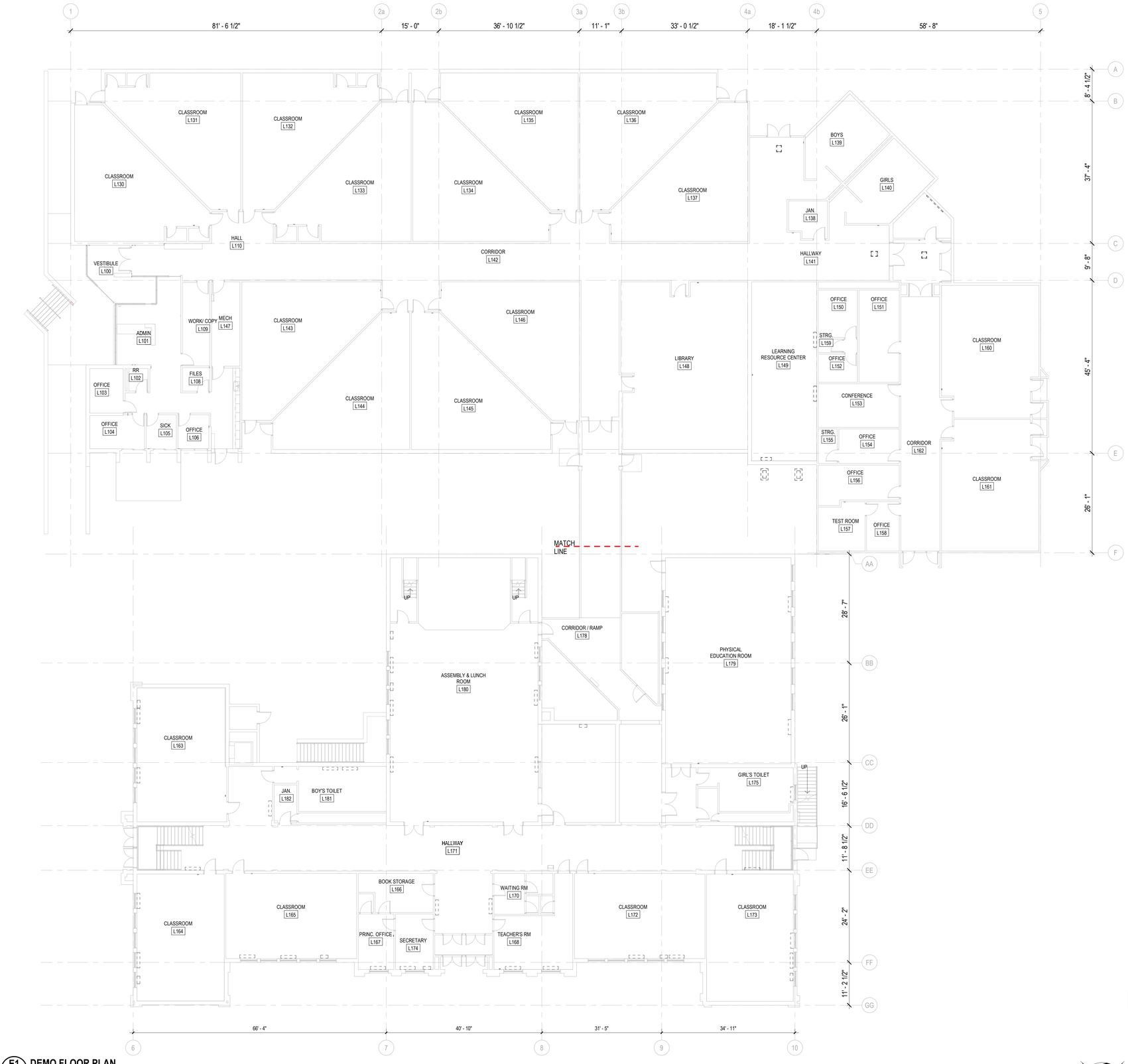
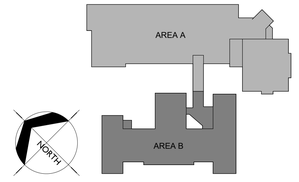


E1 / D2.01 **DEMO FLOOR PLAN**
3/32" = 1'-0"



GENERAL NOTES

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2. UNLESS NOTED OTHERWISE, ALL DIMENSIONS ARE TO FACE OF FINISHED MASONRY FOR CMU.
3. SCREENED LINES REPRESENT EXISTING WALLS, DOORS, WINDOWS, ETC TO REMAIN. PROTECT FROM DAMAGE DURING CONSTRUCTION ACTIVITIES.
4. FOR DIMENSIONAL EXTENTS OF EXISTING WALL DEMOLITION, CUTTING AND PATCHING, SEE NEW FLOOR PLANS.
5. PROTECT FROM DAMAGE ALL EXISTING TO REMAIN CASEWORK, EQUIPMENT, FLOOR FINISHES AND CEILING FINISHES DURING CONSTRUCTION.
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7. SEE MECHANICAL AND ELECTRICAL DRAWINGS FOR ADDITIONAL DEMOLITION WORK.
8. COORDINATE THE DEMOLITION OF EXISTING CEILING WITH NEW PLANS, REFLECTED CEILING PLANS AND ROOF FINISH SCHEDULE.
9. WHERE EXISTING CARPET/CARPET TILE ARE TO REMAIN, CUT AND PATCH CARPET AS REQUIRED TO FACILITATE NEW CONSTRUCTION.

KEYNOTES

REFERENCE NOTES

LEGEND

- EXISTING WALL SYSTEM TO REMAIN. PROTECT FROM DAMAGE DURING CONSTRUCTION.
- EXISTING MECHANICAL UNIT TO BE REMOVED. SEE MECHANICAL DRAWINGS FOR EXTENT OF DEMO.
- EXISTING THERMOSTAT TO BE REMOVED. SEE MECHANICAL DRAWINGS FOR EXTENT OF DEMO.
- EXTENT OF DAMAGED CARPET TO BE REMOVED.
- EXISTING DOOR SYSTEM TO REMAIN. PROTECT FROM DAMAGE DURING CONSTRUCTION.
- EXISTING DOOR SYSTEM TO REMOVED.

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Sheet:
DEMO LEVEL 01 - COMPOSITE FLOOR PLAN

100% CD

PROFESSIONAL ARCHITECT LICENSED 02/27/2025 PR-986 STATE OF IDAHO BRIAN F. COLEMAN

Revisions:

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Drawn By:	NB
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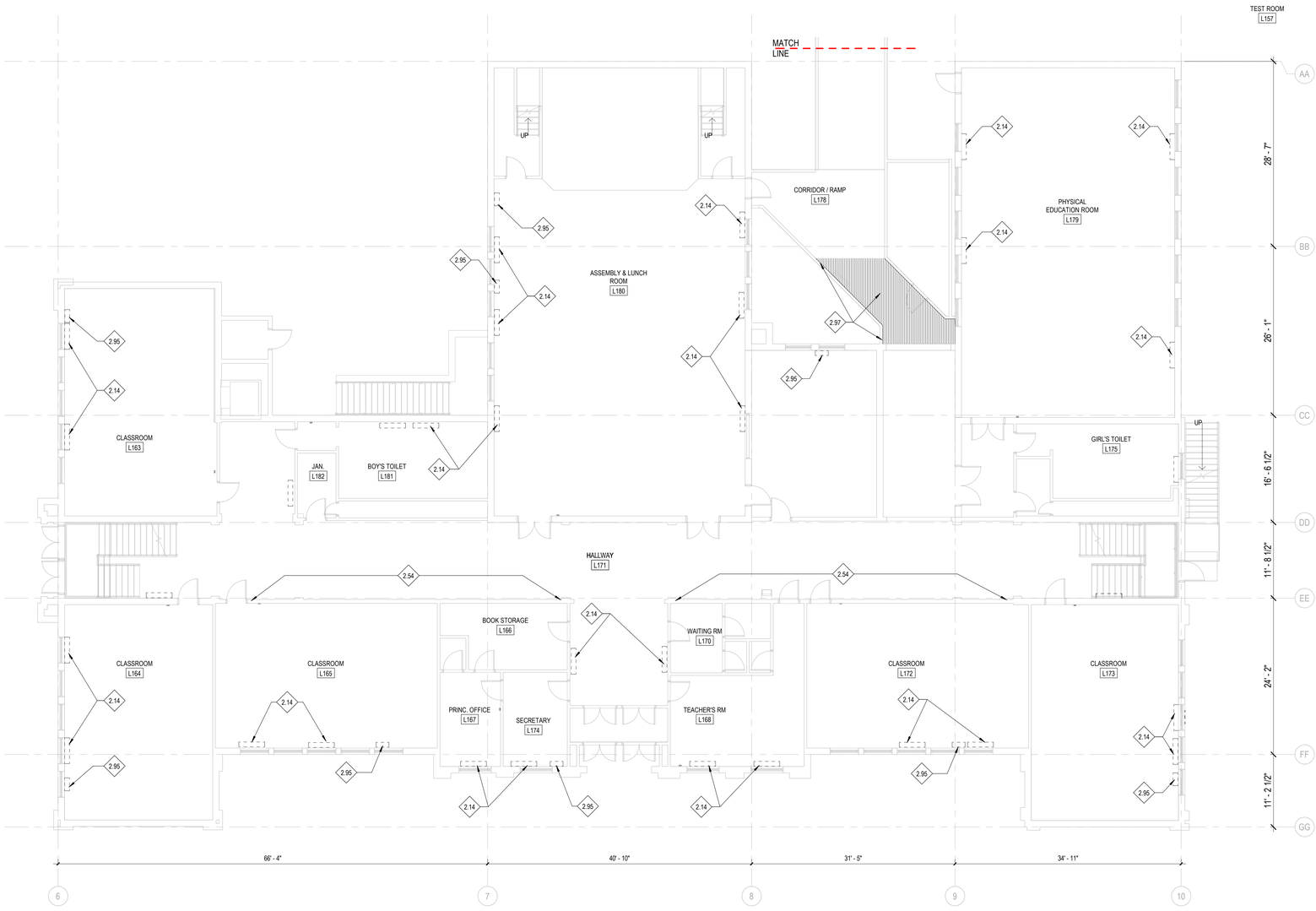

E1 / D2.02 DEMO FLOOR PLAN - LEVEL 01 - AREA 'B'
1/8" = 1'-0"

GENERAL NOTES

1. UNLESS NOTED OTHERWISE, ALL DIMENSIONS ARE TO THE FACE OF STUDS FOR GWB WALLS/PARTITIONS.
2. UNLESS NOTED OTHERWISE, ALL DIMENSIONS ARE TO FACE OF FINISHED MASONRY FOR CMU.
3. SCREENED LINES REPRESENT EXISTING WALLS, DOORS, WINDOWS, ETC TO REMAIN. PROTECT FROM DAMAGE DURING CONSTRUCTION ACTIVITIES.
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7. SEE MECHANICAL AND ELECTRICAL DRAWINGS FOR ADDITIONAL DEMOLITION WORK.
8. COORDINATE THE DEMOLITION OF EXISTING CEILING WITH NEW PLANS, REFLECTED CEILING PLANS AND ROOF FINISH SCHEDULE.
9. WHERE EXISTING CARPET/CARPET TILE ARE TO REMAIN, CUT AND PATCH CARPET AS REQUIRED TO FACILITATE NEW CONSTRUCTION.

KEYNOTES

REFERENCE NOTES

2.14	REMOVE EXISTING MECHANICAL UNIT AND ALL ASSOCIATED ITEMS. COORDINATE WITH MECHANICAL DRAWINGS. REMOVE DAMAGED FLOOR AND/OR WALL IN PREPARATION FOR NEW WORK.
2.54	EXISTING WALL SHEATHING TO BE REMOVED ON HALLWAY SIDE, IN PREPARATION FOR NEW STRUCTURE. SEE STRUCTURAL DRAWINGS FOR LOCATION OF WORK.
2.95	REMOVE EXISTING WINDOW MOUNTED MECHANICAL UNIT AND ASSOCIATED WINDOW PANEL. PREPARE AREA FOR NEW SCOPE OF WORK.
2.97	REMOVE DAMAGED CARPET, SHEETROCK AND WALL BASE. PREPARE AREA TO BE PATCHED TO MATCH EXISTING.

LEGEND

- EXISTING WALL SYSTEM TO REMAIN. PROTECT FROM DAMAGE DURING CONSTRUCTION.
- EXISTING MECHANICAL UNIT TO BE REMOVED. SEE MECHANICAL DRAWINGS FOR EXTENT OF DEMO.
- EXISTING THERMOSTAT TO BE REMOVED. SEE MECHANICAL DRAWINGS FOR EXTENT OF DEMO.
- EXTENT OF DAMAGED CARPET TO BE REMOVED.
- EXISTING DOOR SYSTEM TO REMAIN. PROTECT FROM DAMAGE DURING CONSTRUCTION.
- EXISTING DOOR SYSTEM TO REMOVED.

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LINCOLN ELEMENTARY SCHOOL
238 BUHL ST N
TWIN FALLS, ID 83301

Sheet:
DEMO FLOOR PLAN - LEVEL 01 - AREA 'B'

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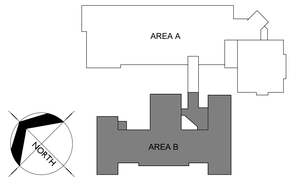
PROFESSIONAL ARCHITECT LICENSED 02/27/2025 AR-986 STATE OF IDAHO BRIAN F. COLEMAN

Revisions:



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Date:	02/27/2025

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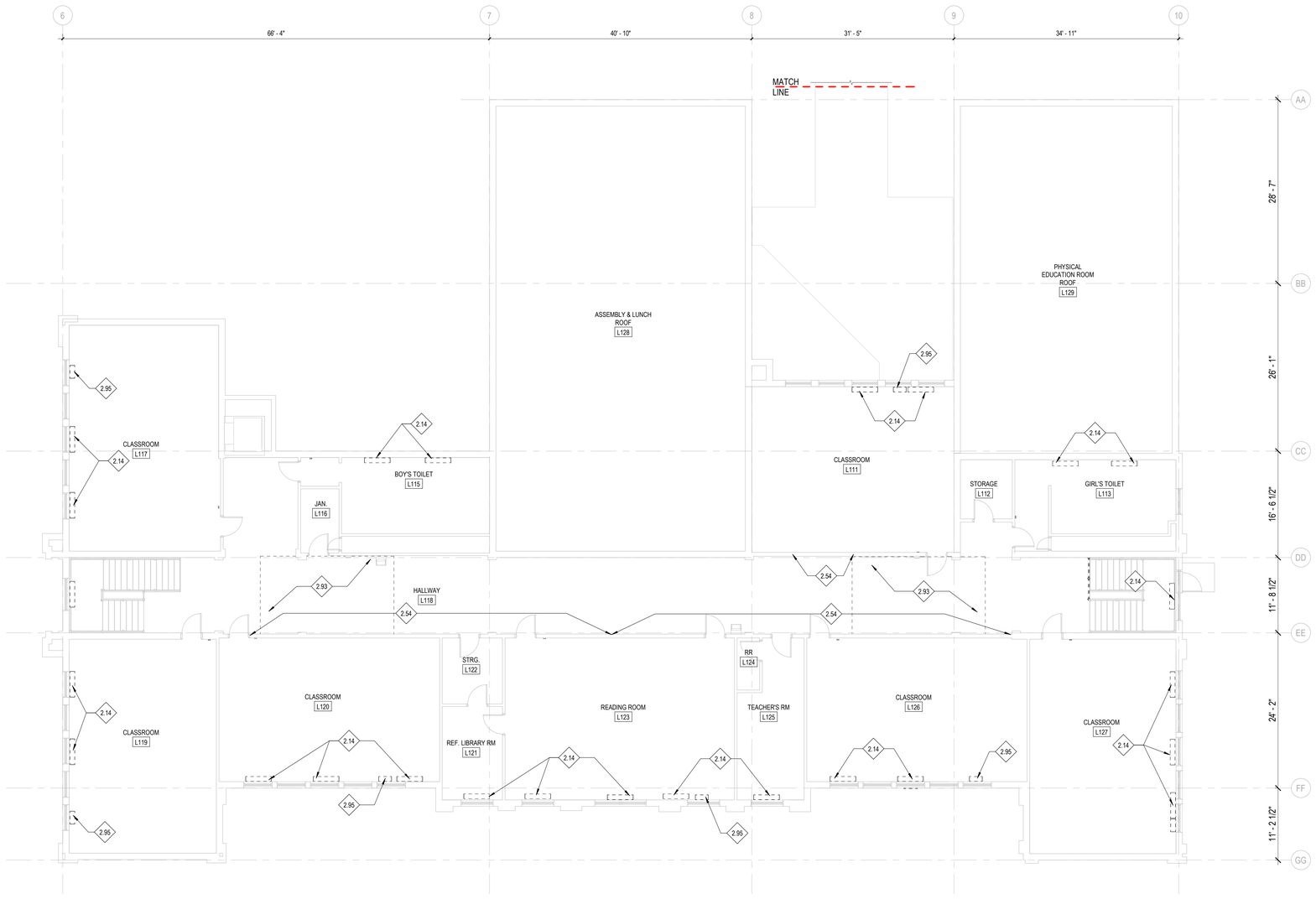
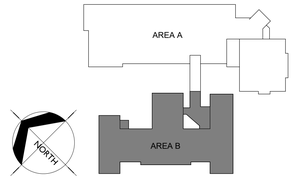


E1 / D2.03 **DEMO FLOOR PLAN - LEVEL 02 - AREA 'B'**
1/8" = 1'-0"



GENERAL NOTES

1. UNLESS NOTED OTHERWISE, ALL DIMENSIONS ARE TO THE FACE OF STUDS FOR GWB WALLS/PARTITIONS.
2. UNLESS NOTED OTHERWISE, ALL DIMENSIONS ARE TO FACE OF FINISHED MASONRY FOR CMU.
3. SCREENED LINES REPRESENT EXISTING WALLS, DOORS, WINDOWS, ETC TO REMAIN. PROTECT FROM DAMAGE DURING CONSTRUCTION ACTIVITIES.
4. FOR DIMENSIONAL EXTENTS OF EXISTING WALL DEMOLITION, CUTTING AND PATCHING, SEE NEW FLOOR PLANS.
5. PROTECT FROM DAMAGE ALL EXISTING TO REMAIN CASEWORK, EQUIPMENT, FLOOR FINISHES AND CEILING FINISHES DURING CONSTRUCTION.
6. PROTECT FROM DAMAGE DURING DEMOLITION, MOVING AND CONSTRUCTION ALL EXISTING CASEWORK, EQUIPMENT, FURNITURE AND ARTWORK THAT IS TO BE RE-USED.
7. SEE MECHANICAL AND ELECTRICAL DRAWINGS FOR ADDITIONAL DEMOLITION WORK.
8. COORDINATE THE DEMOLITION OF EXISTING CEILING WITH NEW PLANS, REFLECTED CEILING PLANS AND ROOF FINISH SCHEDULE.
9. WHERE EXISTING CARPET/CARPET TILE ARE TO REMAIN, CUT AND PATCH CARPET AS REQUIRED TO FACILITATE NEW CONSTRUCTION.

KEYNOTES

REFERENCE NOTES

2.14	REMOVE EXISTING MECHANICAL UNIT AND ALL ASSOCIATED ITEMS. COORDINATE WITH MECHANICAL DRAWINGS. REMOVE DAMAGED FLOOR AND/OR WALL IN PREPARATION FOR NEW WORK.
2.54	EXISTING WALL SHEATHING TO BE REMOVED ON HALLWAY SIDE, IN PREPARATION FOR NEW STRUCTURE. SEE STRUCTURAL DRAWINGS FOR LOCATION OF WORK.
2.93	REMOVE EXISTING CARPET AND SUB FLOOR TO PREPARE FOR NEW STRUCTURAL MEMBERS. SEE STRUCTURAL DRAWINGS.
2.95	REMOVE EXISTING WINDOW MOUNTED MECHANICAL UNIT AND ASSOCIATED WINDOW PANEL. PREPARE AREA FOR NEW SCOPE OF WORK.

LEGEND

- EXISTING WALL SYSTEM TO REMAIN. PROTECT FROM DAMAGE DURING CONSTRUCTION.
- EXISTING MECHANICAL UNIT TO BE REMOVED. SEE MECHANICAL DRAWINGS FOR EXTENT OF DEMO.
- EXISTING THERMOSTAT TO BE REMOVED. SEE MECHANICAL DRAWINGS FOR EXTENT OF DEMO.
- EXTENT OF DAMAGED CARPET TO BE REMOVED.
- EXISTING DOOR SYSTEM TO REMAIN. PROTECT FROM DAMAGE DURING CONSTRUCTION.
- EXISTING DOOR SYSTEM TO REMOVED.

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Sheet:
DEMO FLOOR PLAN - LEVEL 02 - AREA 'B'

100% CD

PROFESSIONAL ARCHITECT LICENSED 02/27/2025 AR-986101 STATE OF IDAHO BRIAN F. COLEMAN

Revisions:

Project No:	24076
Drawn By:	NB
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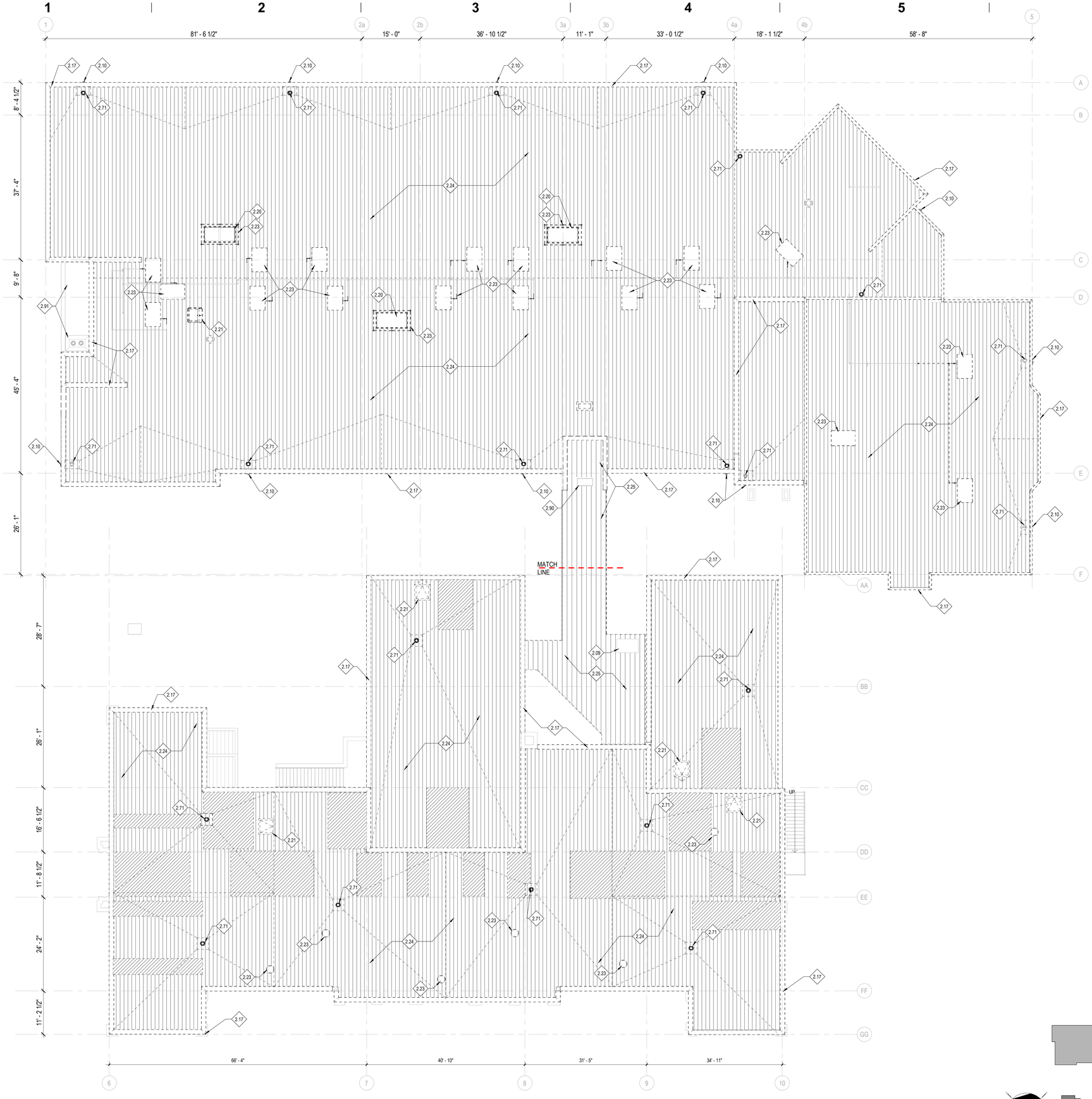

GENERAL NOTES

A. CONTRACTOR IS REQUIRED TO FIELD VERIFY THE EXISTING CONDITIONS PRIOR TO BID. NOTIFY ARCHITECT IMMEDIATELY OF ANY DISCREPANCIES BETWEEN DRAWINGS AND EXISTING CONDITIONS.
B. DIMENSIONS ARE FOR REFERENCE. CONTRACTOR IS RESPONSIBLE TO FIELD VERIFY ALL DIMENSIONS.
C. PROVIDE COMPLETE TEAR-OFF OF EXISTING ROOFING SYSTEMS DOWN TO INSULATION.
D. DISCONNECT AND RE-ATTACH EXISTING GAS PIPING, ELECTRICAL CONDUITS AND ALL ASSOCIATE ITEMS TO ACCOMPLISH RE-ROOF WORK. COORDINATE WITH ELECTRICAL AND MECHANICAL DRAWINGS.

KEYNOTES

REFERENCE NOTES

2.09	EXISTING MECHANICAL UNIT TO REMAIN. PRESERVE AND PROTECT.
2.10	EXISTING OVERFLOW SCUPPER TO BE REMOVED, PREPARE FOR NEW SCUPPER IN THE SAME LOCATION.
2.17	REMOVE EXISTING COPING, PREPARE FOR NEW COPING.
2.20	DEMO EXISTING SKYLIGHT, PREPARE FOR NEW SKYLIGHT.
2.21	DEMO EXISTING ROOF HATCH, PREPARE FOR NEW HATCH.
2.23	EXISTING MECHANICAL UNIT TO BE REMOVED, SEE MECHANICAL.
2.24	EXISTING METAL ROOFING SYSTEM TO BE REMOVED COMPLETELY. DOWN TO RIGID INSULATION. INCLUDING ANY ASSOCIATED METAL TRIMS. PREPARE FOR NEW TPO ROOF MEMBRANE.
2.25	EXISTING ASPHALT ROOFING SYSTEM TO BE REMOVED, INCLUDING ANY ASSOCIATED METAL TRIMS. PREPARE FOR NEW INSULATION AND TPO ROOF MEMBRANE.
2.71	EXISTING ROOF DRAIN TO BE REMOVED AND PREPARED FOR NEW ROOF DRAIN. SEE PLUMBING DRAWINGS.
2.90	EXISTING SKYLIGHT TO REMAIN AND BE PROTECTED.
2.91	EXISTING TPO ROOF AND DRAIN TO REMAIN AND BE PROTECTED.

LEGEND

IN AREAS INDICATED EXISTING METAL ROOFING, INSULATION AND ASPHALT SHINGLES SHALL BE REMOVED DOWN TO SHEATHING.

IN AREAS INDICATED EXISTING ROOF SHEATHING SHALL BE REMOVED AS REQUIRED TO ACCOMMODATE STRUCTURAL MODIFICATIONS - SEE STRUCTURAL DRAWINGS.

EXISTING MECHANICAL UNITS, METAL PARAPET CAP, GUTTERS, FLASHINGS, AND TRIM PIECES SHALL BE REMOVED.

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Sheet:
DEMO ROOF PLAN

100% CD

PROFESSIONAL ARCHITECT LICENSED 02/27/2025 AR-986121 STATE OF IDAHO BRIAN F. COLEMAN

Revisions:

AREA A
AREA B
NORTH

Project No:	24076
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D2.04

E1 / D2.04 DEMO ROOF PLAN
1" = 10'-0"

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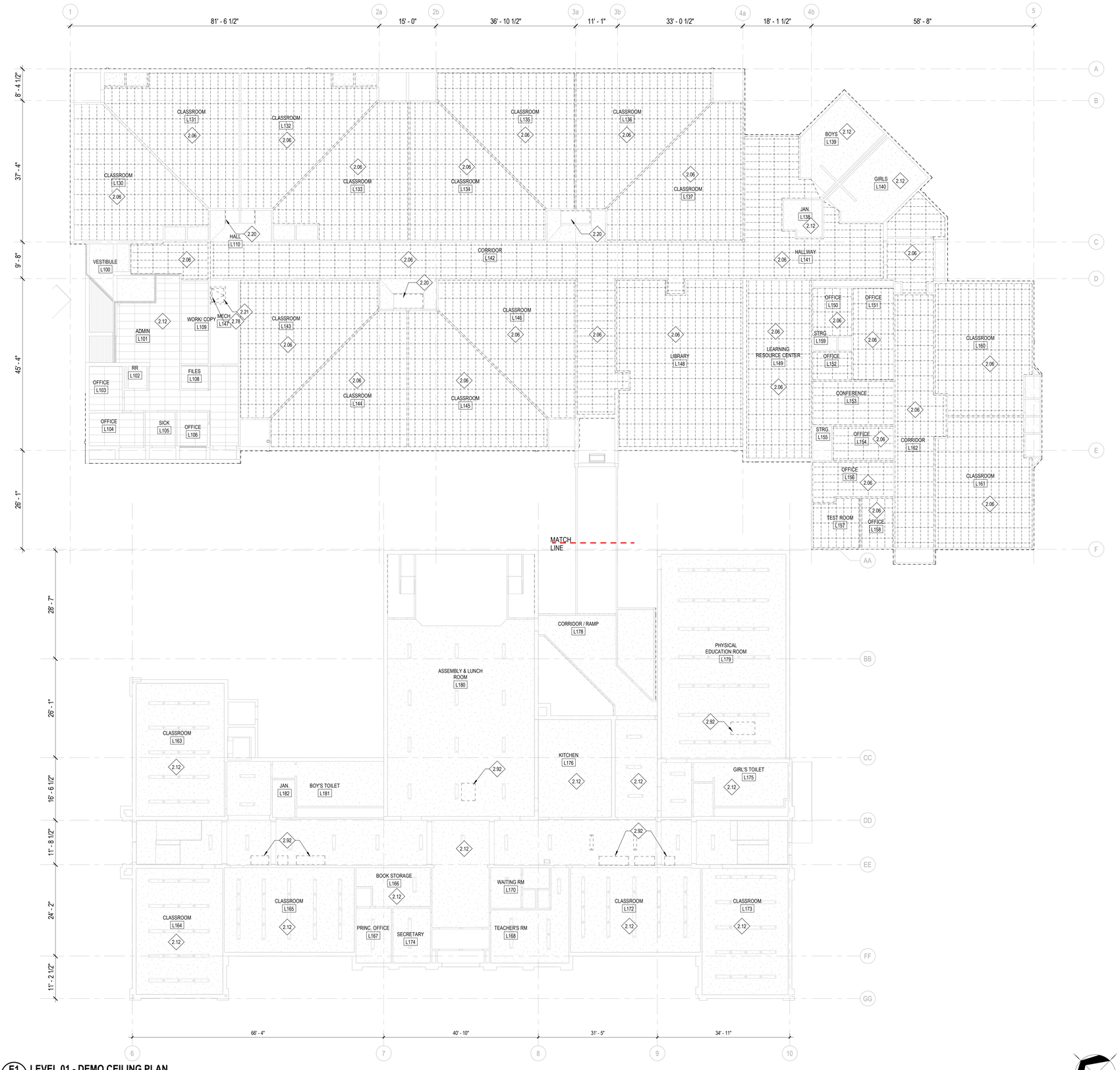
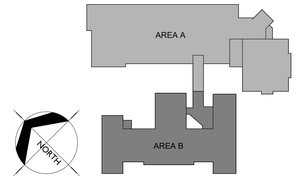


E1 / D2.05 **LEVEL 01 - DEMO CEILING PLAN**
3/32" = 1'-0"



GENERAL NOTES

1. UNLESS NOTED OTHERWISE, ALL DIMENSIONS ARE TO THE FACE OF STUDS FOR GWB WALLS/PARTITIONS.
2. UNLESS NOTED OTHERWISE, ALL DIMENSIONS ARE TO FACE OF FINISHED MASONRY FOR CMU.
3. SCREENED LINES REPRESENT EXISTING WALLS, DOORS, WINDOWS, CEILINGS, ETC TO REMAIN. PROTECT FROM DAMAGE DURING CONSTRUCTION ACTIVITIES.
4. PROTECT FROM DAMAGE ALL EXISTING TO REMAIN CASEWORK, EQUIPMENT, FLOOR FINISHES AND CEILING FINISHES DURING CONSTRUCTION.
5. PROTECT FROM DAMAGE DURING DEMOLITION, MOVING AND CONSTRUCTION ALL EXISTING CASEWORK, EQUIPMENT, FURNITURE, PROJECTORS AND ARTWORK THAT IS TO BE RE-USED.
6. SEE MECHANICAL AND ELECTRICAL DRAWINGS FOR ADDITIONAL DEMOLITION WORK.
7. COORDINATE THE DEMOLITION OF EXISTING CEILING WITH REFLECTED CEILING PLANS.
8. FIELD VERIFY ALL EXISTING STRUCTURAL WALLS AND BEAMS.

KEYNOTES

REFERENCE NOTES

2.06	EXISTING CEILING TILES AND CHANNELS TO BE REMOVED, PREPARE FOR NEW CEILING. REMOVE EXISTING ELECTRICAL FIXTURES, SEE ELECTRICAL DRAWINGS FOR SCOPE OF WORK. EXISTING DUCTING AND DIFFUSERS TO BE REMOVED, SEE MECHANICAL DRAWINGS FOR SCOPE OF WORK.
2.12	CEILING AND LIGHTS EXISTING TO REMAIN
2.20	DEMO EXISTING SKYLIGHT, PREPARE FOR NEW SKYLIGHT.
2.21	DEMO EXISTING ROOF HATCH, PREPARE FOR NEW HATCH.
2.78	EXISTING ROOF LADDER TO REMAIN
2.92	DEMO EXISTING CEILING IN INDICATED AREA TO PREPARE FOR NEW MECHANICAL CHASE AND DUCTING. SEE MECHANICAL FOR SIZES AND LOCATIONS.

LEGEND

- EXISTING CEILING SYSTEM TO REMAIN. PROTECT FROM DAMAGE DURING CONSTRUCTION.
- EXISTING CEILING SYSTEM TO REMAIN. PROTECT FROM DAMAGE DURING CONSTRUCTION.
- EXISTING GYPSUM BOARD CEILING TO REMAIN. PROTECT FROM DAMAGE DURING CONSTRUCTION.
- EXISTING CEILING SYSTEM TO BE REMOVED.
- EXISTING PORTION OF CEILING TO BE REMOVED. SEE MECHANICAL DRAWING.

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Sheet:
LEVEL 01 - COMPOSITE DEMO REFLECTED CEILING PLAN

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PROFESSIONAL ARCHITECT LICENSED 02/27/2025 AR-986140 STATE OF IDAHO BRIAN F. COLEMAN

Revisions:

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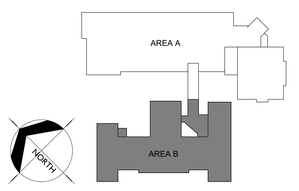
E1 / D2.06 **LEVEL 2- DEMO CEILING PLAN**
1/8" = 1'-0"



GENERAL NOTES

1. UNLESS NOTED OTHERWISE, ALL DIMENSIONS ARE TO THE FACE OF STUDS FOR GWB WALLS/PARTITIONS.
2. UNLESS NOTED OTHERWISE, ALL DIMENSIONS ARE TO FACE OF FINISHED MASONRY FOR CMU.
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4. PROTECT FROM DAMAGE ALL EXISTING TO REMAIN CASEWORK, EQUIPMENT, FLOOR FINISHES AND CEILING FINISHES DURING CONSTRUCTION.
5. PROTECT FROM DAMAGE DURING DEMOLITION, MOVING AND CONSTRUCTION ALL EXISTING CASEWORK, EQUIPMENT, FURNITURE, PROJECTORS AND ARTWORK THAT IS TO BE RE-USED.
6. SEE MECHANICAL AND ELECTRICAL DRAWINGS FOR ADDITIONAL DEMOLITION WORK.
7. COORDINATE THE DEMOLITION OF EXISTING CEILING WITH REFLECTED CEILING PLANS.
8. FIELD VERIFY ALL EXISTING STRUCTURAL WALLS AND BEAMS.

KEYNOTES

REFERENCE NOTES

2.12 CEILING AND LIGHTS EXISTING TO REMAIN
2.92 DEMO EXISTING CEILING IN INDICATED AREA TO PREPARE FOR NEW MECHANICAL CHASE AND DUCTING. SEE MECHANICAL FOR SIZES AND LOCATIONS.

LEGEND

- EXISTING CEILING SYSTEM TO REMAIN. PROTECT FROM DAMAGE DURING CONSTRUCTION.
- EXISTING CEILING SYSTEM TO REMAIN. PROTECT FROM DAMAGE DURING CONSTRUCTION.
- EXISTING GYPSUM BOARD CEILING TO REMAIN. PROTECT FROM DAMAGE DURING CONSTRUCTION.
- EXISTING CEILING SYSTEM TO BE REMOVED.
- EXISTING PORTION OF CEILING TO BE REMOVED. SEE MECHANICAL DRAWING.

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LEVEL 02 - DEMO REFLECTED CEILING PLAN

100% CD

PROFESSIONAL ARCHITECT LICENSED 02/27/2025 AR-986 STATE OF IDAHO BRIAN F. COLEMAN

Revisions:

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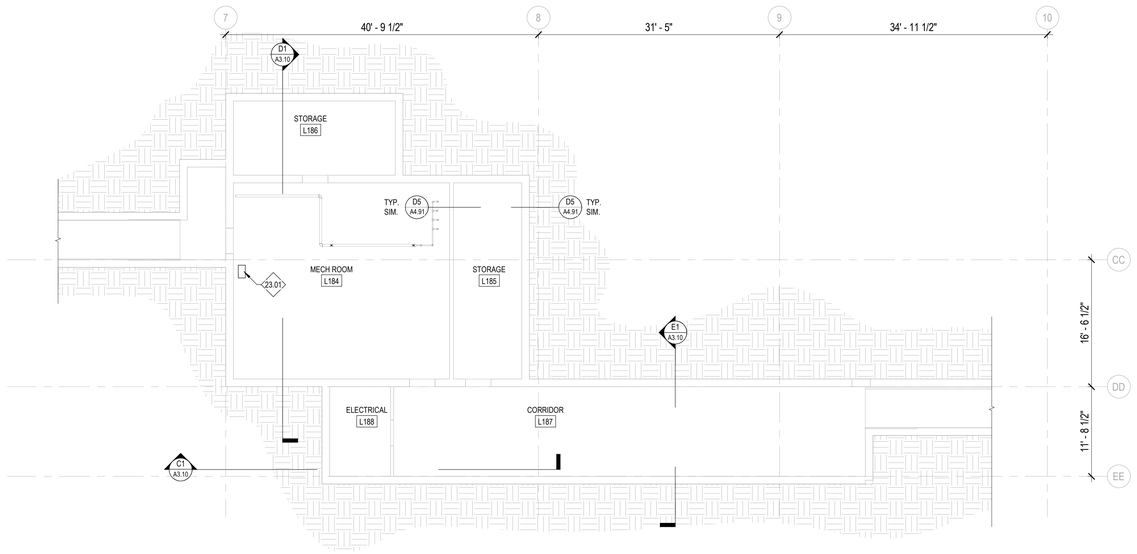
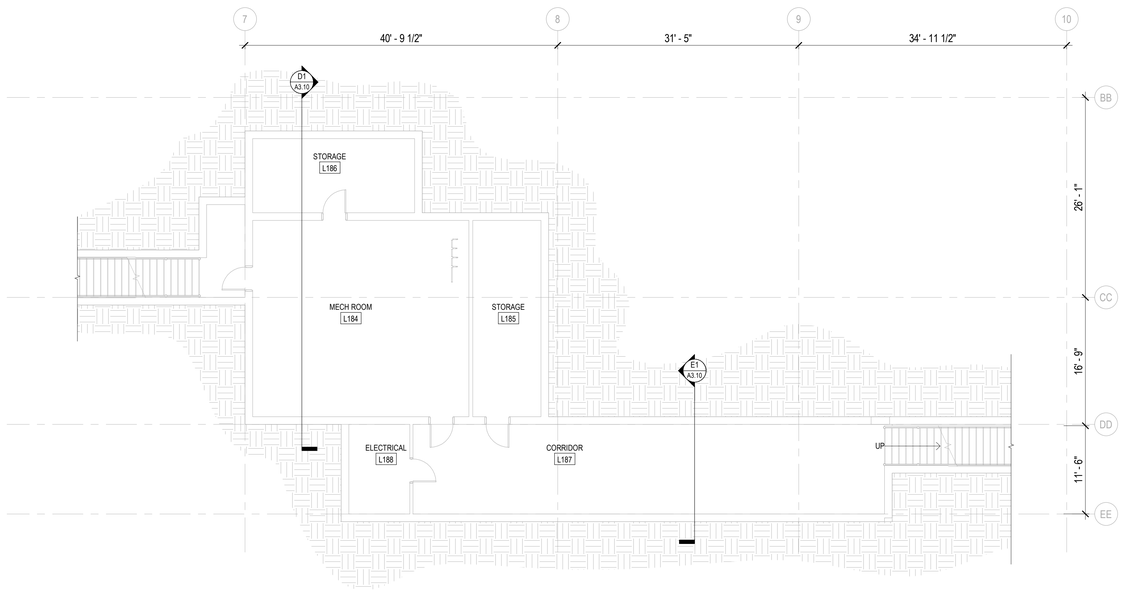


B1 / A2.00 BASEMENT - CEILING PLAN
1/8" = 1'-0"



D1 / A2.00 BASEMENT - FLOOR PLAN
1/8" = 1'-0"

GENERAL NOTES

A. THE COMPOSITE PLANS ARE INTENDED TO SHOW OVERALL LAYOUT. RE: AREA PLANS FOR ADDITIONAL INFORMATION
B. PLAN WALL DIMENSIONS ARE TO GRID LINE OR FACE OF WALL STRUCTURE. "CLEAR" DIMENSIONS ARE TO FACE OF WALL FINISH.
C. FIELD VERIFY ALL EXISTING CONDITIONS AND THEIR COMPATIBILITY WITH NEW CONSTRUCTION PRIOR TO THE COMMENCEMENT OF WORK. COORDINATE DISCREPANCIES WITH ARCHITECT.
D. DO NOT SCALE DRAWINGS.
E. SEE STRUCTURAL, MECHANICAL AND ELECTRICAL DRAWINGS FOR MORE INFORMATION.
F. WHERE WALL IS PATCHED, PAINT WALL CORNER TO CORNER AND FLOOR TO CEILING TO MATCH EXISTING.

KEYNOTES

REFERENCE NOTES

23.01 COOORDINATE WITH MECHANICAL DRAWINGS.

LEGEND

- NEW CONSTRUCTION
- EXISTING WALL
- EXISTING WINDOW
- EXISTING DOOR
- AREA OF FLOOR INFILL. RE: DIVISION 09 IN THE SPECIFICATIONS
- CARPET INFILL. RE: DIVISION 09 IN THE SPECIFICATIONS
- MATCH LINE

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BASEMENT - COMPOSITE PLANS

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PROFESSIONAL ARCHITECT LICENSED 02/27/2025 AR-986 STATE OF IDAHO BRIAN F. COLEMAN

Revisions:

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NORTH

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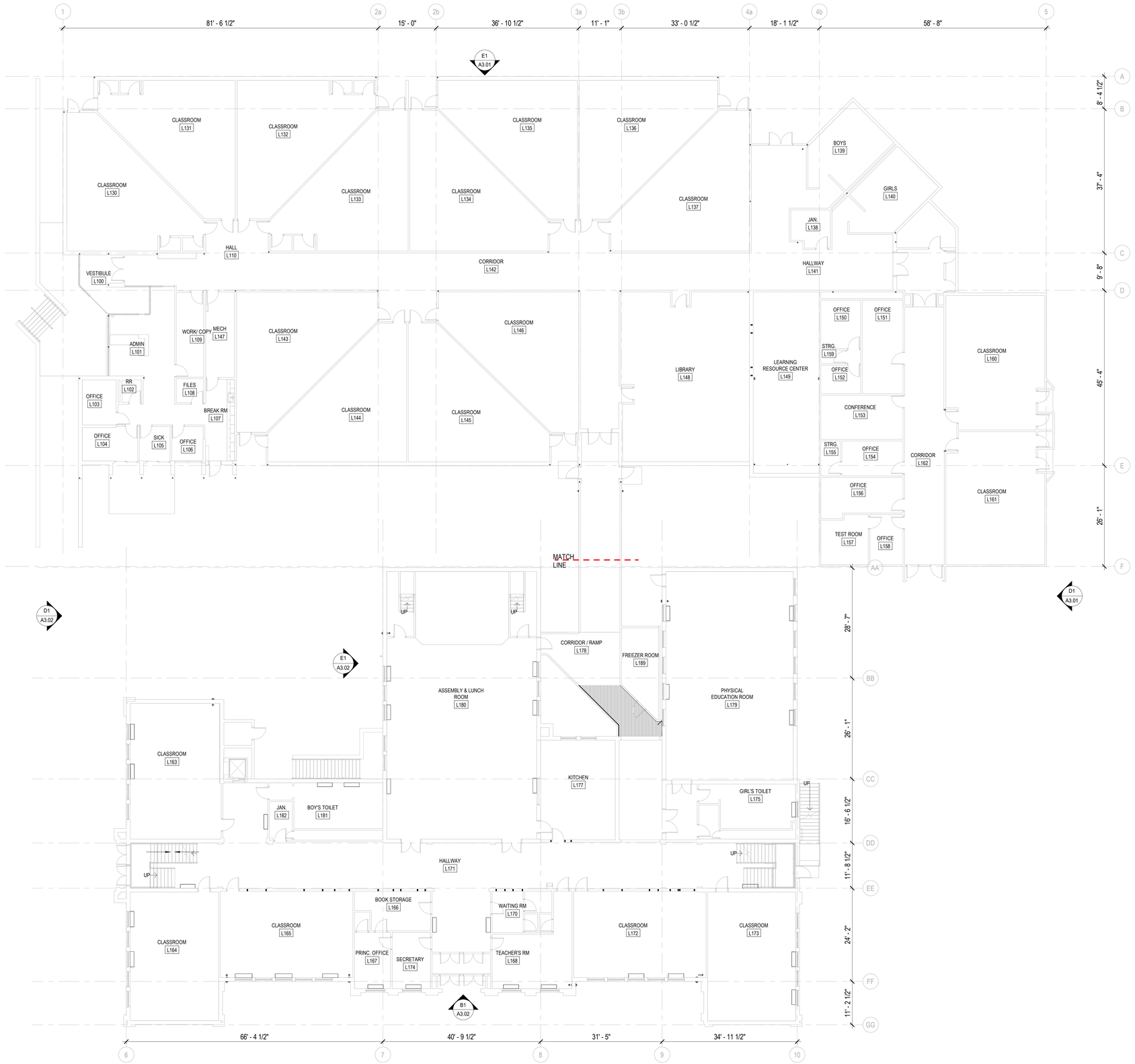

E1 A2.01 **LEVEL 01 - COMPOSITE FLOOR PLAN**
3/32" = 1'-0"

GENERAL NOTES

A. THE COMPOSITE PLANS ARE INTENDED TO SHOW OVERALL LAYOUT. RE: AREA PLANS FOR ADDITIONAL INFORMATION
B. PLAN WALL DIMENSIONS ARE TO GRID LINE OR FACE OF WALL STRUCTURE. "CLEAR" DIMENSIONS ARE TO FACE OF WALL FINISH.
C. FIELD VERIFY ALL EXISTING CONDITIONS AND THEIR COMPATIBILITY WITH NEW CONSTRUCTION PRIOR TO THE COMMENCEMENT OF WORK. COORDINATE DISCREPANCIES WITH ARCHITECT.
D. DO NOT SCALE DRAWINGS.
E. SEE STRUCTURAL, MECHANICAL AND ELECTRICAL DRAWINGS FOR MORE INFORMATION.
F. WHERE WALL IS PATCHED, PAINT WALL CORNER TO CORNER AND FLOOR TO CEILING TO MATCH EXISTING.

LEGEND

- NEW CONSTRUCTION
- EXISTING WALL
- EXISTING WINDOW
- EXISTING DOOR
- AREA OF FLOOR INFILL
- CARPET INFILL
- MATCH LINE

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Sheet:
LEVEL 01 - COMPOSITE FLOOR PLAN

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PROFESSIONAL ARCHITECT LICENSED 02/27/2025 AR-986701 STATE OF IDAHO BRIAN F. COLEMAN

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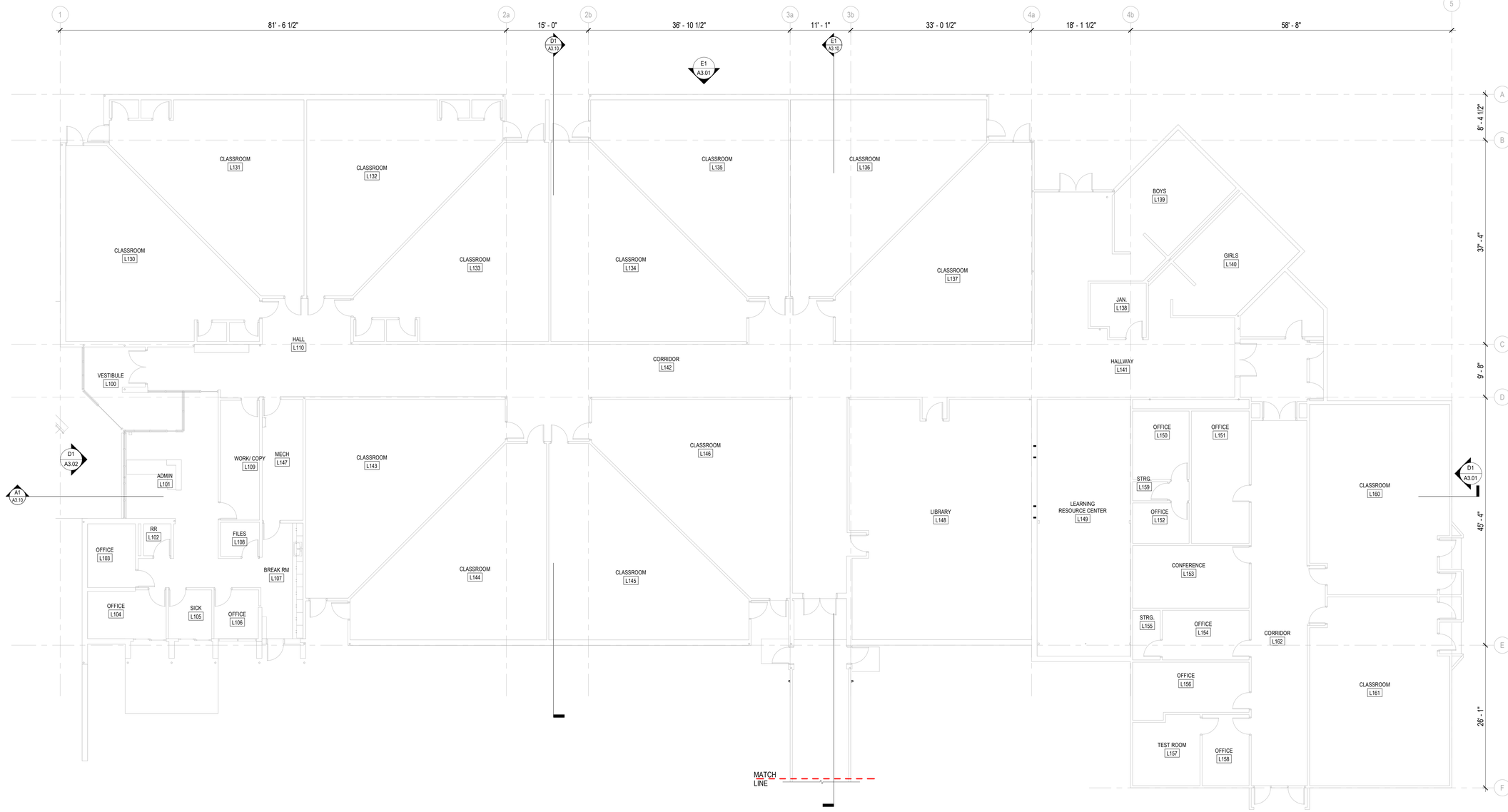
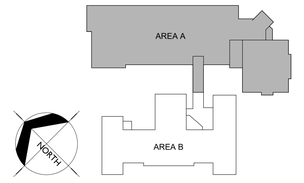


E1 A2.01a **LEVEL 01 - FLOOR PLAN - AREA 'A'**

1/8" = 1'-0"



GENERAL NOTES

A. THE COMPOSITE PLANS ARE INTENDED TO SHOW OVERALL LAYOUT. RE: AREA PLANS FOR ADDITIONAL INFORMATION.
B. PLAN WALL DIMENSIONS ARE TO GRID LINE OR FACE OF WALL STRUCTURE. "CLEAR" DIMENSIONS ARE TO FACE OF WALL FINISH.
C. FIELD VERIFY ALL EXISTING CONDITIONS AND THEIR COMPATIBILITY WITH NEW CONSTRUCTION PRIOR TO THE COMMENCEMENT OF WORK. COORDINATE DISCREPANCIES WITH ARCHITECT.
D. DO NOT SCALE DRAWINGS.
E. SEE STRUCTURAL, MECHANICAL AND ELECTRICAL DRAWINGS FOR MORE INFORMATION.
F. WHERE WALL IS PATCHED, PAINT WALL CORNER TO CORNER AND FLOOR TO CEILING TO MATCH EXISTING.

KEYNOTES

REFERENCE NOTES

LEGEND

- NEW CONSTRUCTION
- EXISTING WALL
- EXISTING WINDOW
- EXISTING DOOR
- AREA OF FLOOR INFILL RE: DIVISION 09 IN THE SPECIFICATIONS
- CARPET INFILL RE: DIVISION 09 IN THE SPECIFICATIONS
- MATCH LINE

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Suite 111
Idaho Falls, ID 83402
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LEVEL 01 - FLOOR PLAN - AREA 'A'

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PROFESSIONAL ARCHITECT LICENSED 02/27/2025 AR-986 STATE OF IDAHO BRIAN F. COLEMAN

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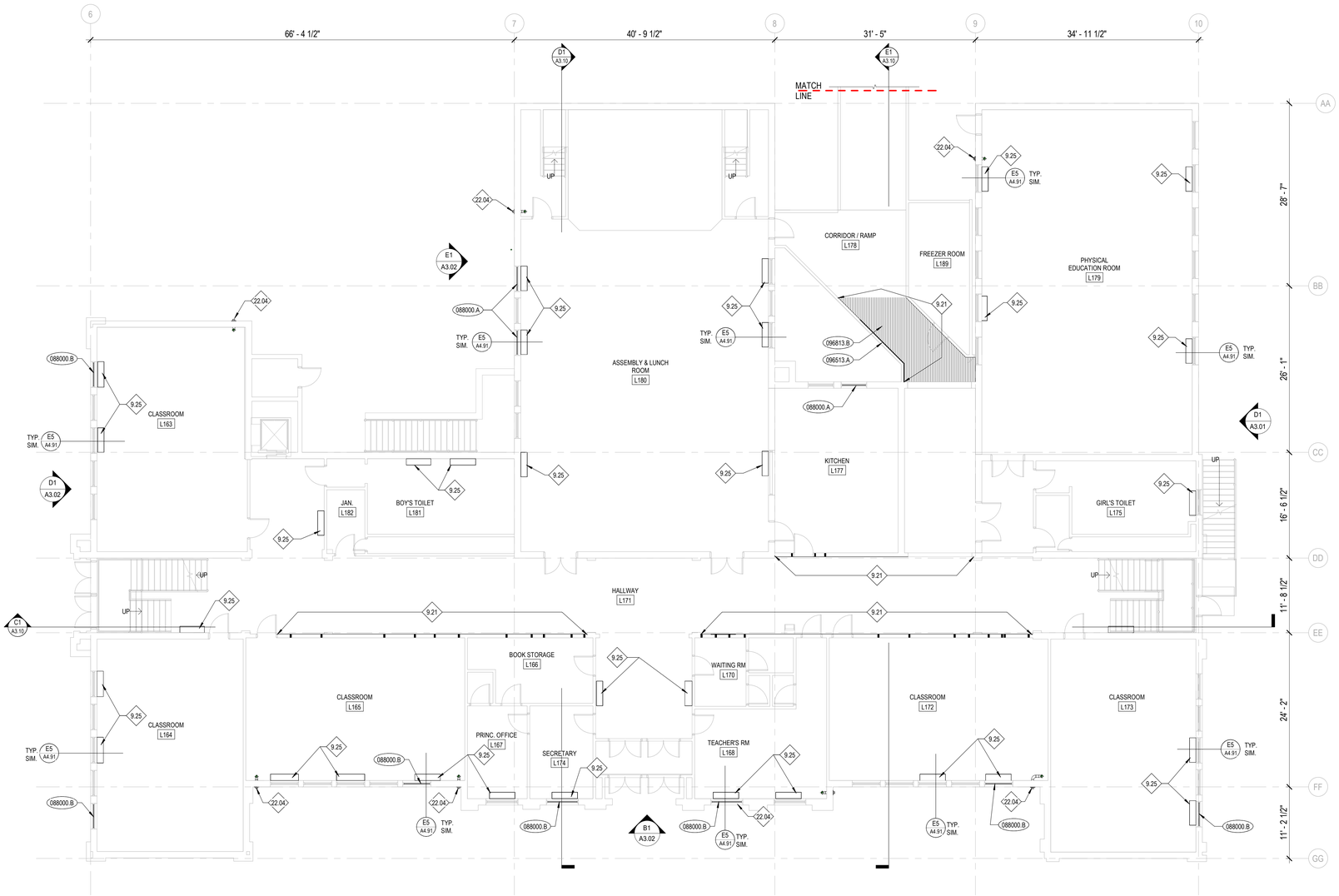
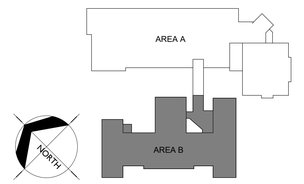


E1 / A2.01b **LEVEL 01 - FLOOR PLAN - AREA 'B'**
1/8" = 1'-0"



GENERAL NOTES

A. THE COMPOSITE PLANS ARE INTENDED TO SHOW OVERALL LAYOUT. RE: AREA PLANS FOR ADDITIONAL INFORMATION.
B. PLAN WALL DIMENSIONS ARE TO GRID LINE OR FACE OF WALL STRUCTURE. "CLEAR" DIMENSIONS ARE TO FACE OF WALL FINISH.
C. FIELD VERIFY ALL EXISTING CONDITIONS AND THEIR COMPATIBILITY WITH NEW CONSTRUCTION PRIOR TO THE COMMENCEMENT OF WORK. COORDINATE DISCREPANCIES WITH ARCHITECT.
D. DO NOT SCALE DRAWINGS.
E. SEE STRUCTURAL, MECHANICAL AND ELECTRICAL DRAWINGS FOR MORE INFORMATION.
F. WHERE WALL IS PATCHED, PAINT WALL CORNER TO CORNER AND FLOOR TO CEILING TO MATCH EXISTING.

KEYNOTES

088000.A	GLASS INFILL PANEL.
088000.B	INFILL PANEL.
096513.A	RESILIENT BASE
096813.B	CARPET INFILL TO MATCH EXISTING

REFERENCE NOTES

9.21	PATCH AND TEXTURE WALL OPENINGS FLUSH TO ADJACENT EXISTING GYP BOARD SURFACES. PAINT WALL CORNER TO CORNER, FLOOR TO CEILING TO MATCH EXISTING.
9.25	PATCH AND TEXTURE WALL OPENINGS FLUSH TO ADJACENT EXISTING GYP BOARD SURFACES. PAINT WALL TO MATCH EXISTING. NEW CONTINUOUS BASE AND FLOOR INFILL AS REQUIRED TO MATCH EXISTING.
22.04	OVERFLOW ROOF DRAIN. SEE PLUMBING DRAWINGS FOR SIZES AND LOCATIONS.

LEGEND

- NEW CONSTRUCTION
- EXISTING WALL
- EXISTING WINDOW
- EXISTING DOOR
- AREA OF FLOOR INFILL. RE: DIVISION 09 IN THE SPECIFICATIONS
- CARPET INFILL. RE: DIVISION 09 IN THE SPECIFICATIONS
- MATCH LINE

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Sheet:
LEVEL 01 - FLOOR PLAN - AREA 'B'

100% CD

PROFESSIONAL ARCHITECT LICENSED 02/27/2025 AR-986191 STATE OF IDAHO BRIAN F. COLEMAN

Revisions:

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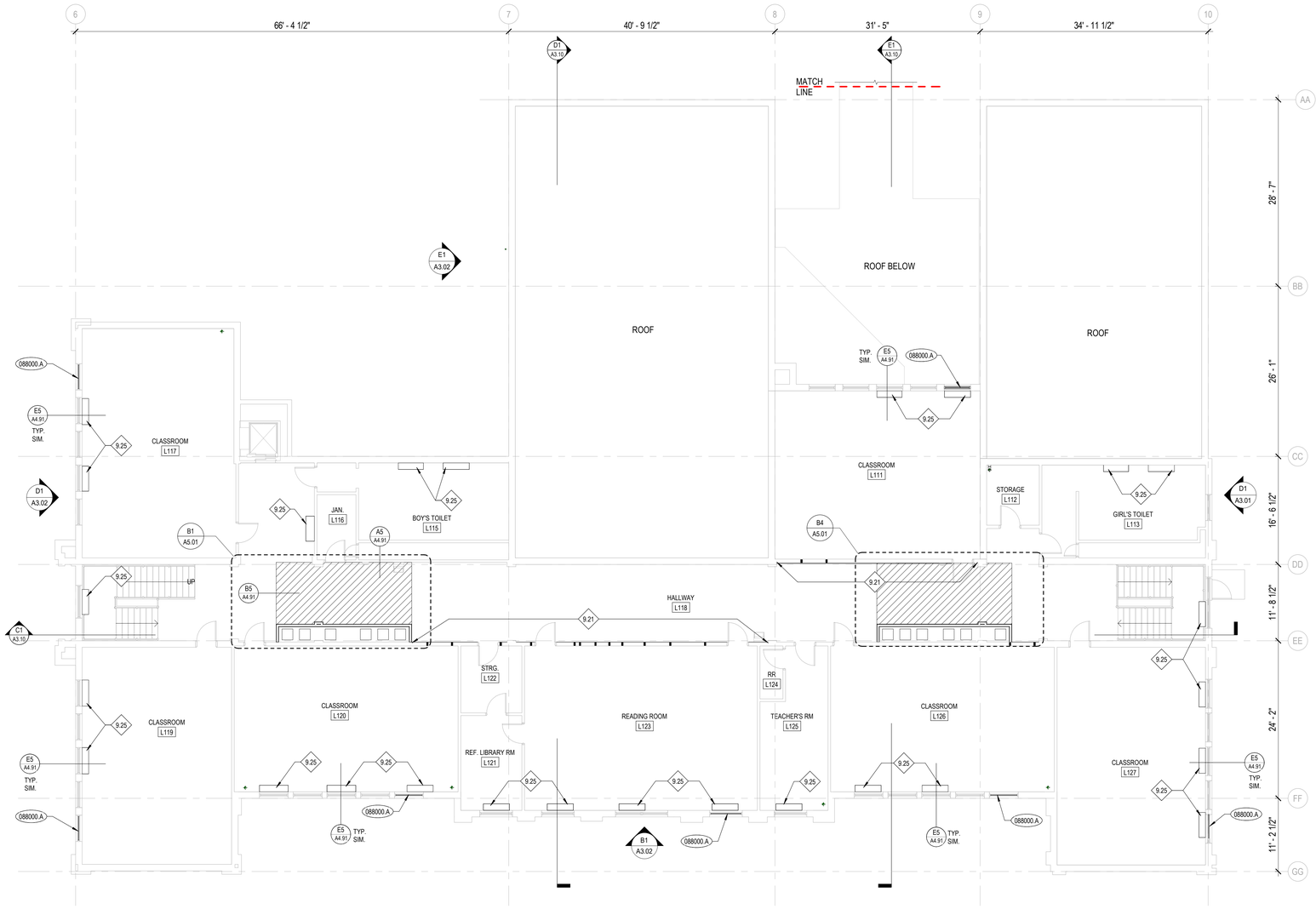
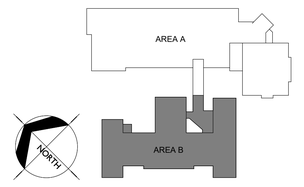


E1 / A2.02 LEVEL 02 - FLOOR PLAN - AREA 'B'
1/8" = 1'-0"



GENERAL NOTES

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B. PLAN WALL DIMENSIONS ARE TO GRID LINE OR FACE OF WALL STRUCTURE. "CLEAR" DIMENSIONS ARE TO FACE OF WALL FINISH.
C. FIELD VERIFY ALL EXISTING CONDITIONS AND THEIR COMPATIBILITY WITH NEW CONSTRUCTION PRIOR TO THE COMMENCEMENT OF WORK. COORDINATE DISCREPANCIES WITH ARCHITECT.
D. DO NOT SCALE DRAWINGS.
E. SEE STRUCTURAL, MECHANICAL AND ELECTRICAL DRAWINGS FOR MORE INFORMATION.
F. WHERE WALL IS PATCHED, PAINT WALL CORNER TO CORNER AND FLOOR TO CEILING TO MATCH EXISTING.

KEYNOTES

088000.A GLASS INFILL PANEL.

REFERENCE NOTES

9.21 PATCH AND TEXTURE WALL OPENINGS FLUSH TO ADJACENT EXISTING GYP BOARD SURFACES. PAINT WALL CORNER TO CORNER, FLOOR TO CEILING TO MATCH EXISTING.
9.25 PATCH AND TEXTURE WALL OPENINGS FLUSH TO ADJACENT EXISTING GYP BOARD SURFACES. PAINT WALL TO MATCH EXISTING. NEW CONTINUOUS BASE AND FLOOR INFILL AS REQUIRED TO MATCH EXISTING.

LEGEND

NEW CONSTRUCTION
EXISTING WALL
EXISTING WINDOW
EXISTING DOOR
AREA OF FLOOR INFILL. RE: DIVISION 09 IN THE SPECIFICATIONS
CARPET INFILL. RE: DIVISION 09 IN THE SPECIFICATIONS
MATCH LINE

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Project:
LINCOLN ELEMENTARY SCHOOL HVAC REPLACEMENT
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Sheet:
LEVEL 02 - FLOOR PLAN - AREA 'B'

100% CD

PROFESSIONAL ARCHITECT LICENSED 02/27/2025 AR-986101 STATE OF IDAHO BRIAN F. COLEMAN

Revisions:

Project No:	24076
Drawn By:	NB
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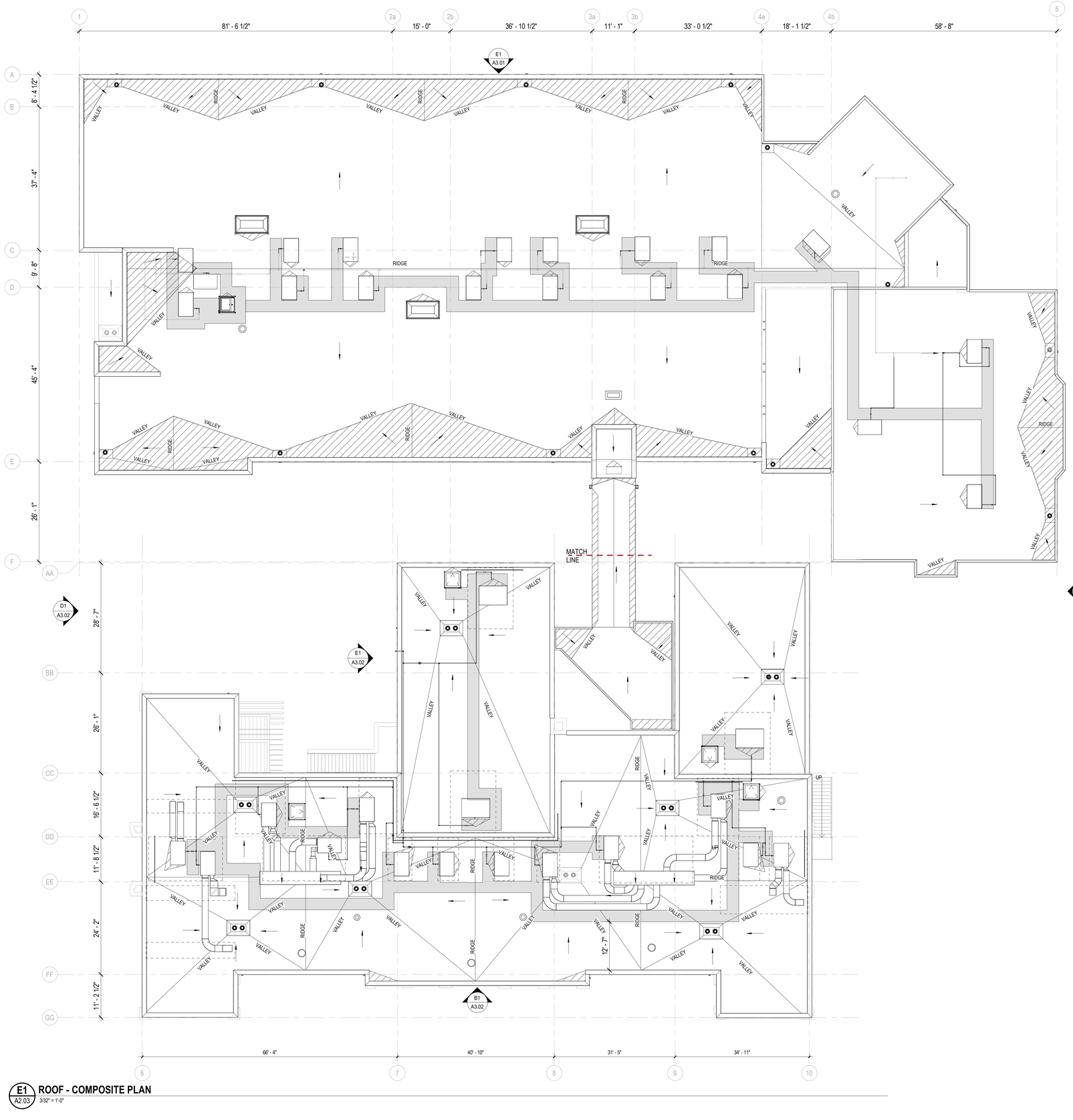


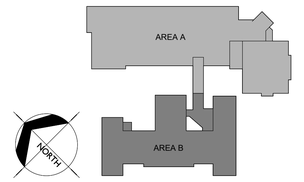
E1 A2.03 **ROOF - COMPOSITE PLAN**
3/32" = 1'-0"

GENERAL NOTES

A. 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.
B. SLOPE ALL CRICKETS AS SHOWN AT A SLOPE OF 1/2" PER FOOT, EXCEPT WHERE NOTED.
C. PROVIDE BUILT-UP TAPERED INSULATION ROOF CRICKETS AT ALL CURB LOCATIONS TO ALLOW POSITIVE DRAINAGE AND PREVENT PONDING.
D. COORDINATE ROOF DRAIN SUMP LOCATION AND REQUIRED PENETRATION WITH PLUMBING DRAWINGS.
E. ALL ROOF MEMBRANE ACCESSORIES SHALL COME FROM THE SAME MANUFACTURER OR FROM A SUPPLIER APPROVED BY THE MEMBRANE MANUFACTURER. ALL ROOF COVERING, MATERIAL AND ACCESSORIES SHALL BE COMPATIBLE.
F. PREFABRICATED CURBS SHALL BE INSTALLED AND SET LEVEL.
G. ALL DIMENSIONS ARE FOR GENERAL ARRANGEMENT AND LOCATION ONLY. ACTUAL REQUIREMENTS AND DIMENSIONS ARE TO BE VERIFIED AND COORDINATED WITH EQUIPMENT, OTHER CONSTRUCTION TRADES, SHOP DRAWINGS AND STRUCTURAL FRAMING.
H. CONSTRUCTION SHALL BE IN FULL COMPLIANCE WITH ALL CURRENT LOCAL CODES AND REGULATIONS IN EFFECT AT THE TIME OF AGREEMENT BETWEEN OWNER AND CONTRACTOR.
I. AT AREAS WHERE STRUCTURAL ROOF DECK IS LEVEL, PROVIDE SLOPED INSULATION TO ACHIEVE REQUIRED SLOPE.
J. DETAILS IN THE PROJECT DRAWING ARE SHOWN AT SPECIFIC LOCATIONS AND ARE INTENDED TO SHOW GENERAL REQUIREMENTS THROUGHOUT.
K. REMOVE DAMAGED EXISTING ROOF INSULATION. REPLACE WITH NEW INSULATION, LEVEL WITH EXISTING INSULATION.

LEGEND

- AREA OF TAPERED INSULATION
- RE: ROOF DETAILS FOR ROOF ASSEMBLY
- AREA OF STRUCTURAL ROOF FRAMING MODIFICATIONS - SEE STRUCTUAL.
- FLEXIBLE WALKWAY. RE: SPECIFICATION 075423
- ROOF DRAIN SUMP
- ROOF HATCH



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482 Constitution Way,
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208.343.7523
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Sheet:
ROOF - COMPOSITE PLAN

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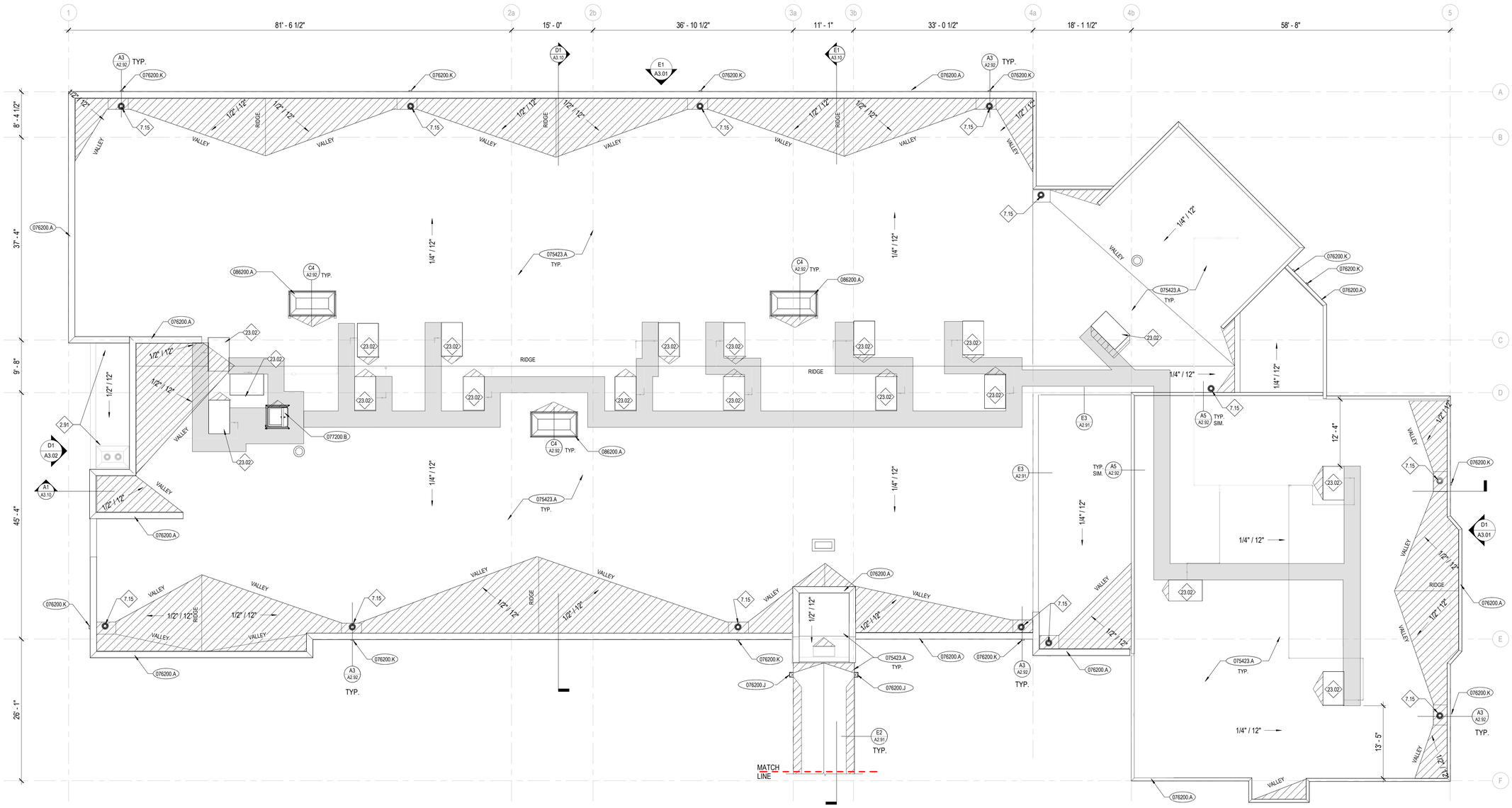


E1 A2.03a **ROOF - AREA 'A'**
1/8" = 1'-0"

GENERAL NOTES

A. 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.
B. SLOPE ALL CRICKETS AS SHOWN AT A SLOPE OF 1/2" PER FOOT, EXCEPT WHERE NOTED.
C. PROVIDE BUILT-UP TAPERED INSULATION ROOF CRICKETS AT ALL CURB LOCATIONS TO ALLOW POSITIVE DRAINAGE AND PREVENT PONDING.
D. COORDINATE ROOF DRAIN SUMP LOCATION AND REQUIRED PENETRATION WITH PLUMBING DRAWINGS.
E. ALL ROOF MEMBRANE ACCESSORIES SHALL COME FROM THE SAME MANUFACTURER OR FROM A SUPPLIER APPROVED BY THE MEMBRANE MANUFACTURER. ALL ROOF COVERING, MATERIAL AND ACCESSORIES SHALL BE COMPATIBLE.
F. PREFABRICATED CURBS SHALL BE INSTALLED AND SET LEVEL.
G. ALL DIMENSIONS ARE FOR GENERAL ARRANGEMENT AND LOCATION ONLY. ACTUAL REQUIREMENTS AND DIMENSIONS ARE TO BE VERIFIED AND COORDINATED WITH EQUIPMENT, OTHER CONSTRUCTION TRADES, SHOP DRAWINGS AND STRUCTURAL FRAMING.
H. CONSTRUCTION SHALL BE IN FULL COMPLIANCE WITH ALL CURRENT LOCAL CODES AND REGULATIONS IN EFFECT AT THE TIME OF AGREEMENT BETWEEN OWNER AND CONTRACTOR.
I. AT AREAS WHERE STRUCTURAL ROOF DECK IS LEVEL, PROVIDE SLOPED INSULATION TO ACHIEVE REQUIRED SLOPE.
J. DETAILS IN THE PROJECT DRAWING ARE SHOWN AT SPECIFIC LOCATIONS AND ARE INTENDED TO SHOW GENERAL REQUIREMENTS THROUGHOUT.
K. REMOVE DAMAGED EXISTING ROOF INSULATION. REPLACE WITH NEW INSULATION, LEVEL WITH EXISTING INSULATION.

KEYNOTES

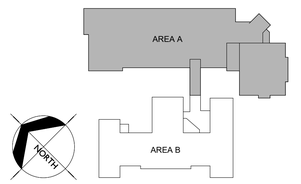
075423.A	THERMOPLASTIC-POLYOLEFIN (TPO) ROOFING
076200.A	PARAPET COPING
076200.J	DOWNSPOUT
076200.K	OVERFLOW SCUPPER.
077200.B	ROOF HATCH
086200.A	FIBERGLASS-SANDWICH-PANEL SKYLIGHT ASSEMBLY

REFERENCE NOTES

2.91	EXISTING TPO ROOF AND DRAIN TO REMAIN AND BE PROTECTED.
7.15	ROOF DRAIN. COORDINATE WITH PLUMBING DRAWINGS.
23.02	MECHANICAL EQUIPMENT. COORDINATE WITH MECHANICAL AND STRUCTURAL DRAWINGS.

LEGEND

- AREA OF TAPERED INSULATION
- RE: ROOF DETAILS FOR ROOF ASSEMBLY
- AREA OF STRUCTURAL ROOF FRAMING MODIFICATIONS - SEE STRUCTURAL. REPLACE RIGID INSULATION BOARD TO PROVIDE A MINIMUM 5" THICKNESS AND SLOPES INDICATED.
- FLEXIBLE WALKWAY. RE: SPECIFICATION 075423
- ROOF DRAIN SUMP
- ROOF HATCH



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Sheet:
ROOF - AREA 'A'

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PROFESSIONAL ARCHITECT LICENSED 02/27/2025 AR-986121 STATE OF IDAHO BRIAN F. COLEMAN

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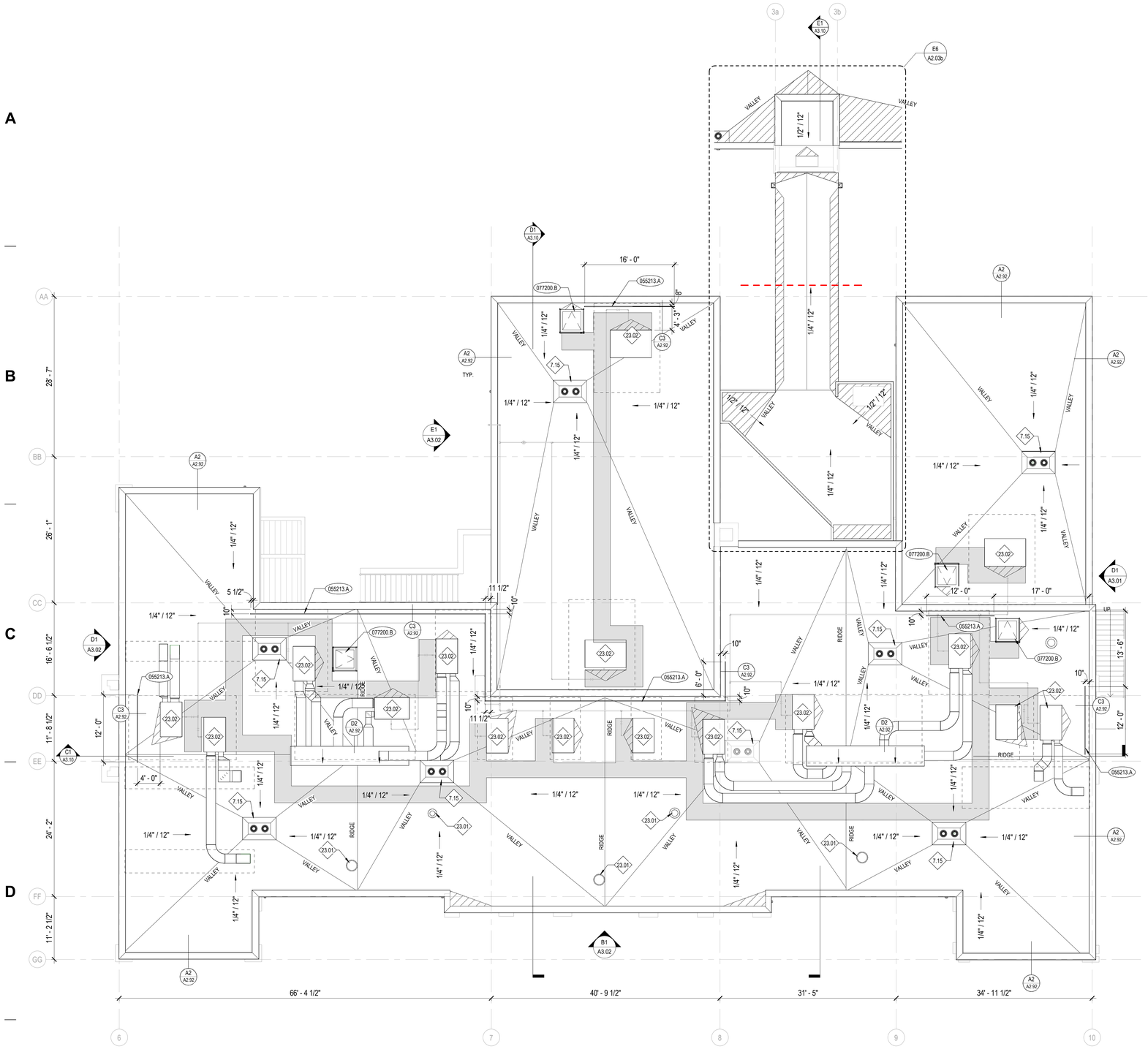
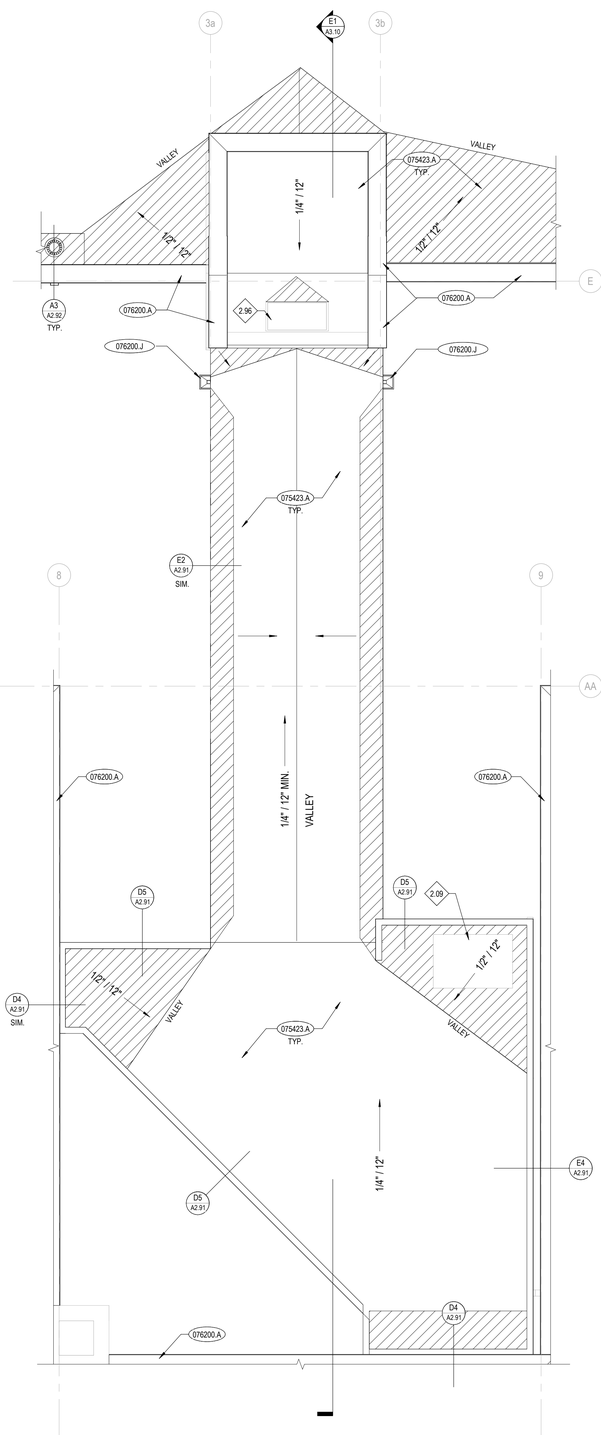
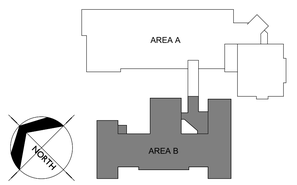


A1 ROOF - AREA 'B'
A2.03b
1/8" = 1'-0"



E6 ENLARGED ROOF PLAN
A2.03b
1/4" = 1'-0"



GENERAL NOTES

A. 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.
B. SLOPE ALL CRICKETS AS SHOWN AT A SLOPE OF 1/2" PER FOOT, EXCEPT WHERE NOTED.
C. PROVIDE BUILT-UP TAPERED INSULATION ROOF CRICKETS AT ALL CURB LOCATIONS TO ALLOW POSITIVE DRAINAGE AND PREVENT PONDING.
D. COORDINATE ROOF DRAIN SUMP LOCATION AND REQUIRED PENETRATION WITH PLUMBING DRAWINGS.
E. ALL ROOF MEMBRANE ACCESSORIES SHALL COME FROM THE SAME MANUFACTURER OR FROM A SUPPLIER APPROVED BY THE MEMBRANE MANUFACTURER. ALL ROOF COVERING, MATERIAL AND ACCESSORIES SHALL BE COMPATIBLE.
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K. REMOVE DAMAGED EXISTING ROOF INSULATION. REPLACE WITH NEW INSULATION, LEVEL WITH EXISTING INSULATION.

KEYNOTES

055213.A	STEEL GAURDRAIL
075423.A	THERMOPLASTIC-POLYOLEFIN (TPO) ROOFING
076200.A	PARAPET COPING
076200.J	DOWNSPOUT
077200.B	ROOF HATCH

REFERENCE NOTES

2.09	EXISTING MECHANICAL UNIT TO REMAIN. PRESERVE AND PROTECT.
2.96	EXISTING SKYLIGHT TO REMAIN AND BE PROTECTED.
7.15	ROOF DRAIN. COORDINATE WITH PLUMBING DRAWINGS.
23.01	COOORDINATE WITH MECHANICAL DRAWINGS.
23.02	MECHANICAL EQUIPMENT. COORDINATE WITH MECHANICAL AND STRUCTURAL DRAWINGS.

LEGEND

- AREA OF TAPERED INSULATION
- RE: ROOF DETAILS FOR ROOF ASSEMBLY
- AREA OF STRUCTURAL ROOF FRAMING MODIFICATIONS - SEE STRUCTURAL. REPLACE RIGID INSULATION BOARD TO PROVIDE A MINIMUM 5" THICKNESS AND SLOPES INDICATED.
- FLEXIBLE WALKWAY. RE: SPECIFICATION 075423
- ROOF DRAIN SUMP
- ROOF HATCH

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Sheet:
ROOF - AREA 'B'

100% CD

PROFESSIONAL ARCHITECT LICENSED 02/27/2025 AR-986101 STATE OF IDAHO BRIAN F. COLEMAN

Revisions:

Project No:	24076
Drawn By:	NB
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Sheet No:
A2.03b

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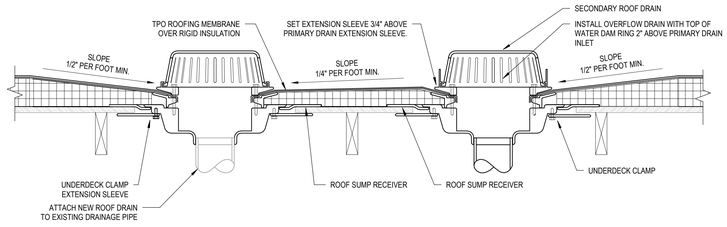
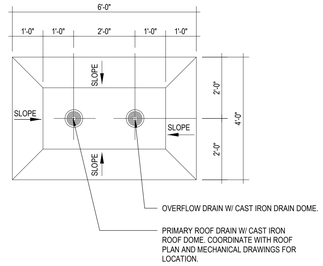
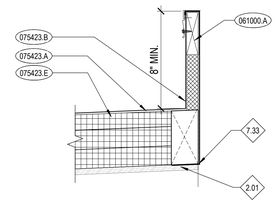


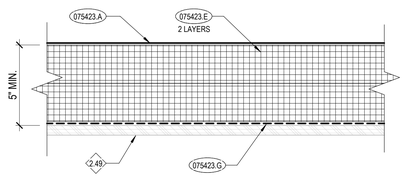
A1 A2.91 **ROOF DRAIN DETAIL (BASIC)**
1 1/2" = 1'-0"



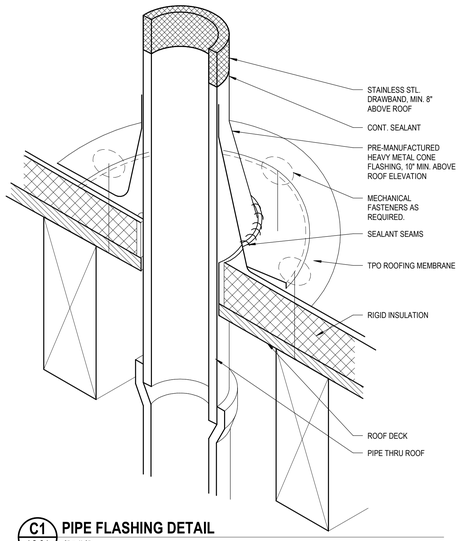
A3 A2.91 **ROOF SUMP PLAN**
1/2" = 1'-0"



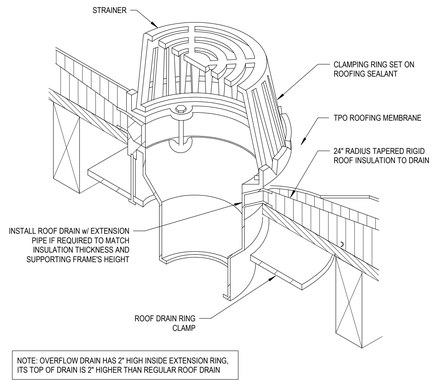
A4 A2.91 **TYPICAL CURB DETAIL**
1 1/2" = 1'-0"



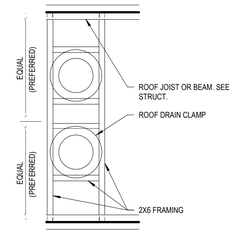
A6 A2.91 **ROOF ASSEMBLY - NEW INSULATION**
3" = 1'-0"



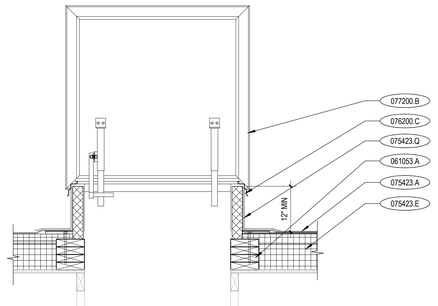
C1 A2.91 **PIPE FLASHING DETAIL**
6" = 1'-0"



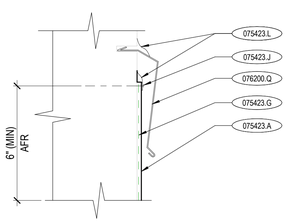
C2 A2.91 **TYPICAL ROOF DRAIN DETAIL**
3" = 1'-0"



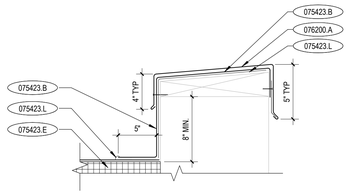
ROOF DRAIN SUPPORT FRAME DETAIL



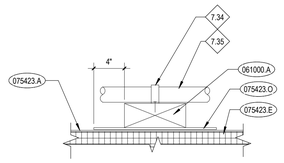
C4 A2.91 **ROOF HATCH DETAIL**
1" = 1'-0"



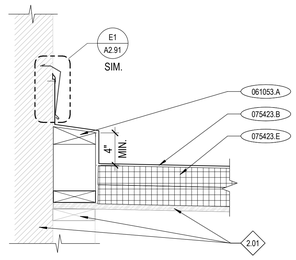
D1 A2.91 **EXHAUST FAN DETAIL**
1 1/2" = 1'-0"



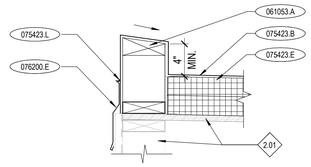
D2 A2.91 **TYPICAL PARAPET COPING**
1 1/2" = 1'-0"



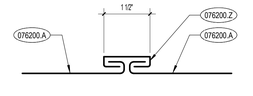
D3 A2.91 **PIPE SUPPORT DETAIL**
1 1/2" = 1'-0"



D4 A2.91 **ROOF PARAPET @ WALL**
1 1/2" = 1'-0"

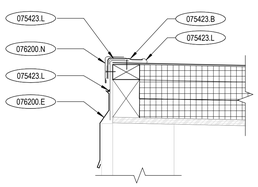


D5 A2.91 **ROOF PARAPET**
1 1/2" = 1'-0"

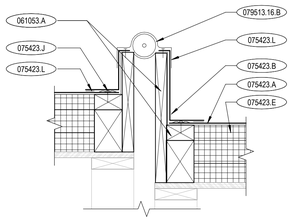


D6 A2.91 **TYP. COPING SEAM DETAIL**
6" = 1'-0"

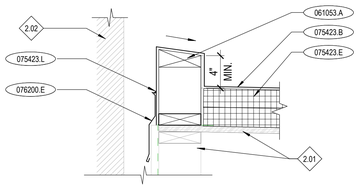
E1 A2.91 **ROOF VERTICAL TERM @ MASONRY**
3" = 1'-0"



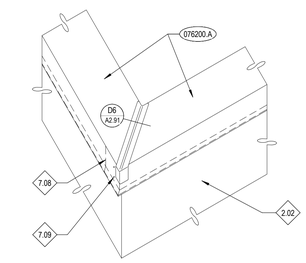
E2 A2.91 **ROOF EDGE DETAIL @ TPO**
1 1/2" = 1'-0"



E3 A2.91 **ROOF EXPANSION JOINT**
1 1/2" = 1'-0"



E4 A2.91 **ROOF PARAPET NEXT TO WALL**
1 1/2" = 1'-0"



E5 A2.91 **TYPICAL CORNER COPING DETAIL**
1 1/2" = 1'-0"

GENERAL NOTES

A. ALL ROOF PENETRATIONS SHALL BE FLASHED AND SEALED PER ROOF MANUFACTURER'S RECOMMENDATION.
B. COORDINATE WITH MECHANICAL, PLUMBING, AND ELECTRICAL FOR ALL ROOF PENETRATION SIZES AND LOCATIONS.
C. ALL METAL ROOF FLASHING DETAILS SHALL BE PER MANUFACTURER'S RECOMMENDATIONS AND REVIEWED BY THE ARCHITECT FOR DESIGN INTENT.
D. SEE CIVIL, STRUCTURAL, MECHANICAL AND ELECTRICAL DRAWINGS FOR MORE INFORMATION.
E. DO NOT SCALE DRAWINGS.

KEYNOTES

061000.A	DIMENSIONAL LUMBER
061053.A	WOOD BLOCKING/NAILER
075423.A	THERMOPLASTIC-POLYOLEFIN (TPO) ROOFING
075423.B	TPO SHEET FLASHING
075423.E	ROOF INSULATION
075423.G	VAPOR BARRIER
075423.J	FASTENER AND PLATE
075423.L	ROOFING MANUFACTURER'S RECOMMENDED SEALANT
075423.O	MANUFACTURED ROOF PAD
075423.Q	ROOFING MANUFACTURER'S RECOMMENDED BONDING ADHESIVE
076200.A	PARAPET COPING
076200.C	METAL FLASHING & TRIM
076200.E	FLASHING AND DRIP EDGE
076200.N	ROOF EDGE FLASHING
076200.Q	MASONRY-TYPE REGLET & COUNTERFLASHING
076200.Z	CLEAT
077200.B	ROOF HATCH
079513.16.B	ROOF TO ROOF EXPANSION JOINT

REFERENCE NOTES

2.01	PRESERVE AND PROTECT EXISTING CONSTRUCTION
2.02	PRESERVE & PROTECT EXISTING BRICK WALL.
2.49	EXISTING SHEATHING AND UNDERLAYMENT.
7.08	COPING END CLOSURE, PROVIDE FOLDED TAB UNDER COPING FACE AS SHOWN
7.09	LINE OF FLASHING UNDERLAP BELOW
7.33	PREFABRICATED OR FIELD INSTALLED & INSULATED METAL CURB ANCHORED TO STRUCTURE
7.34	PIPE CLAMP. FASTEN SECURELY TO WOOD BLOCK.
7.35	PIPE. COORDINATE WITH MECHANICAL DRAWINGS.

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Sheet:
ROOF DETAILS

100% CD

PROFESSIONAL ARCHITECT LICENSED 02/27/2025 AR-986101 STATE OF IDAHO BRIAN F. COLEMAN

Revisions:

Project No:	24076
Drawn By:	NB
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A2.91

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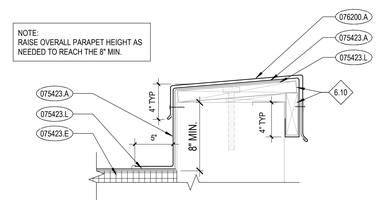
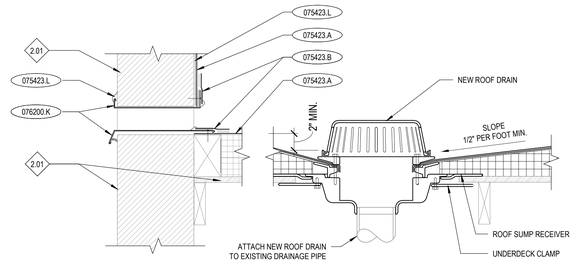
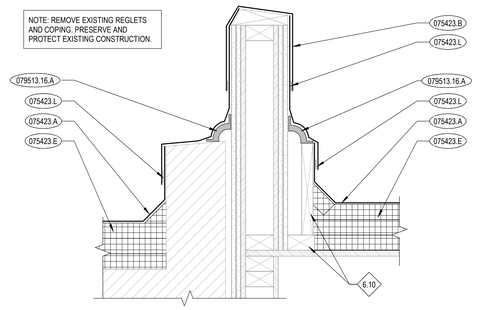


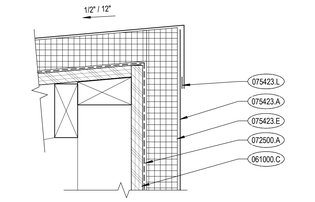
A2 PARAPET COPING W/ EDGE
A2.92 1 1/2" = 1'-0"

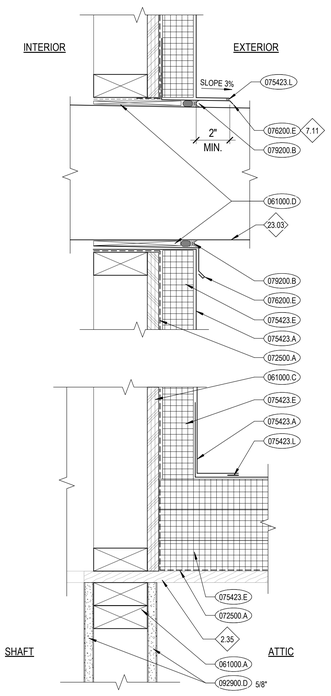


A3 THROUGH WALL SCUPPER
A2.92 1 1/2" = 1'-0"

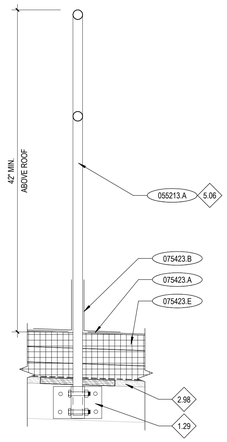


A5 ROOF PARAPET @ FIRE WALL
A2.92 1 1/2" = 1'-0"

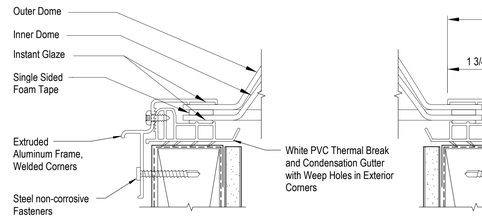




D2 MECH DOGHOUSE @ ROOF
A2.92 3" = 1'-0"



C3 ROOFTOP GAURDRAIL
A2.92 1 1/2" = 1'-0"



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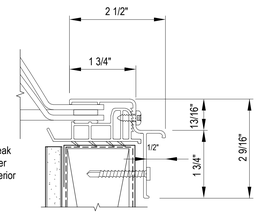

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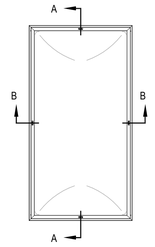
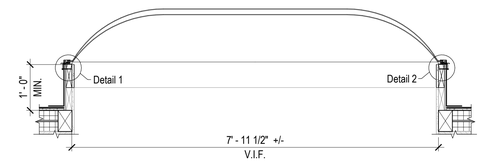
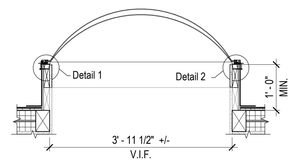


PLAN



SECTION A-A



SECTION B-B

C4 TYPCIAL SKYLIGHT DETAIL
A2.92 3/4" = 1'-0"

GENERAL NOTES

A. ALL ROOF PENETRATIONS SHALL BE FLASHED AND SEALED PER ROOF MANUFACTURER'S RECOMMENDATION.
B. COORDINATE WITH MECHANICAL, PLUMBING, AND ELECTRICAL FOR ALL ROOF PENETRATION SIZES AND LOCATIONS.
C. ALL METAL ROOF FLASHING DETAILS SHALL BE PER MANUFACTURER'S RECOMMENDATIONS AND REVIEWED BY THE ARCHITECT FOR DESIGN INTENT.
D. SEE CIVIL, STRUCTURAL, MECHANICAL AND ELECTRICAL DRAWINGS FOR MORE INFORMATION.
E. DO NOT SCALE DRAWINGS.

KEYNOTES

055213.A	STEEL GAURDRAIL
061000.A	DIMENSIONAL LUMBER
061000.C	SHEATHING
061000.D	SHIM AS REQUIRED.
072500.A	WEATHER RESISTIVE BARRIER
075423.A	THERMOPLASTIC-POLYOLEFIN (TPO) ROOFING
075423.B	TPO SHEET FLASHING
075423.E	ROOF INSULATION
075423.L	ROOFING MANUFACTURER'S RECOMMENDED SEALANT
076200.A	PARAPET COPING
076200.E	FLASHING AND DRIP EDGE
076200.K	OVERFLOW SCUPPER.
078200.B	JOINT SEALANT
079513.16.A	ROOF TO WALL EXPANSION JOINT
092900.D	GYPSUM BOARD TYPE X.

REFERENCE NOTES

1.29	SEE STRUCTURAL DRAWINGS FOR MOUNTING DETAIL.
2.01	PRESERVE AND PROTECT EXISTING CONSTRUCTION
2.35	EXISTING ROOF DECK.
2.98	EXISTING ROOF FRAMING
5.06	1-1/2" XS PIPE TOP AND MID RAILS. GALVANIZED AND PAINTED GRAY.
6.10	EXISTING BLOCKING. REPLACE AS REQUIRED.
7.11	22 GA GALV STEEL FLASHING. EXTEND FLASHING MINIMUM 1" HORIZONTALLY PAST METAL DUCT.
23.03	DUCT, COORDINATE WITH MECHANICAL DRAWINGS.

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205 N. 10th Street
Suite 500
Boise, Idaho 83702
208.343.7523
482 Constitution Way,
Suite 111
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208.343.7523
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ROOF DETAILS

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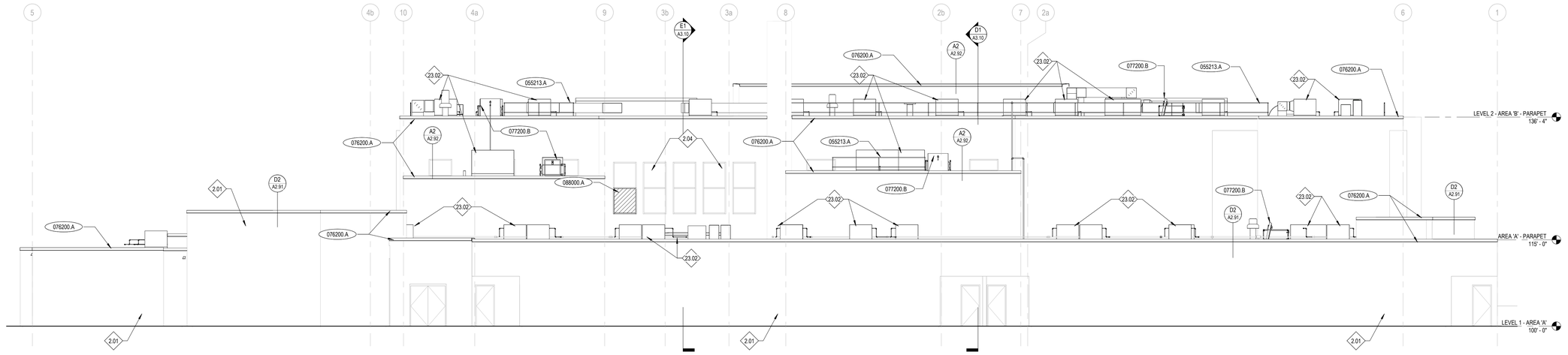
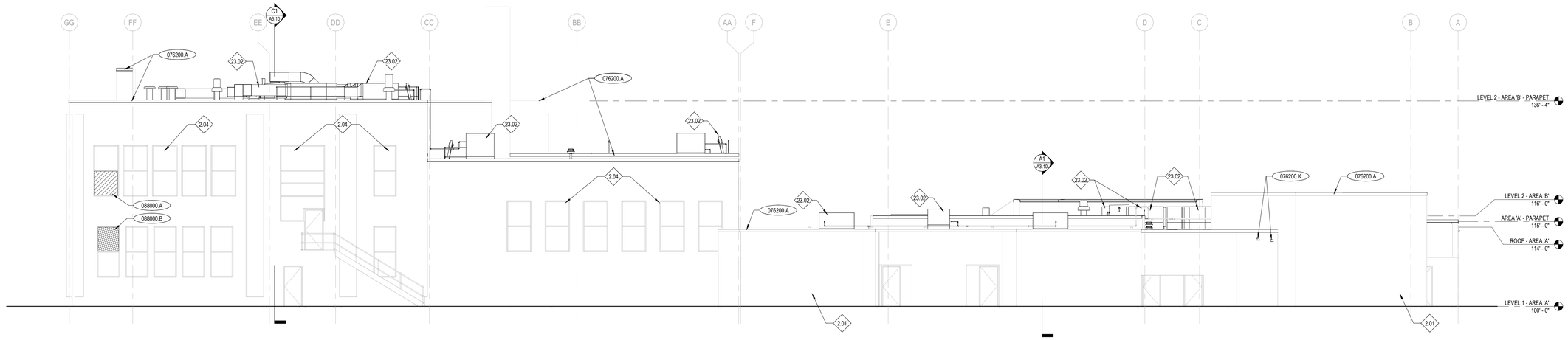


E1 / A3.01 BUILDING ELEVATION - NORTH
1/8" = 1'-0"



D1 / A3.01 BUILDING ELEVATION - EAST
1/8" = 1'-0"

GENERAL NOTES

A. SEE CIVIL, STRUCTURAL, MECHANICAL AND ELECTRICAL DRAWINGS FOR MORE INFORMATION.
B. DO NOT SCALE DRAWINGS.
C. FOR ROOF FRAMING COORDINATE WITH STRUCTURAL DRAWINGS.
D. ALL DUCTS TO BE INSTALLED AS TIGHT TO THE CEILING AS POSSIBLE. AT A MINIMUM OF 7'-6" ABOVE FINISH FLOOR, AND 8'-0" MINIMUM IN HALLWAYS.

KEYNOTES

055213.A	STEEL GAURDRAIL
076200.A	PARAPET COPING
076200.K	OVERFLOW SCUPPER.
077200.B	ROOF HATCH
088000.A	GLASS INFILL PANEL.
088000.B	INFILL PANEL.

REFERENCE NOTES

2.01	PRESERVE AND PROTECT EXISTING CONSTRUCTION
2.04	PRESERVE AND PROTECT EXISTING WINDOW SYSTEM
23.02	MECHANICAL EQUIPMENT. COORDINATE WITH MECHANICAL AND STRUCTURAL DRAWINGS.

LEGEND

HATCH PATTERN INDICATES GLASS PANEL INFILL.

HATCH PATTERN INDICATES SPANDREL PANEL INFILL.

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BUILDING ELEVATIONS

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Revisions:

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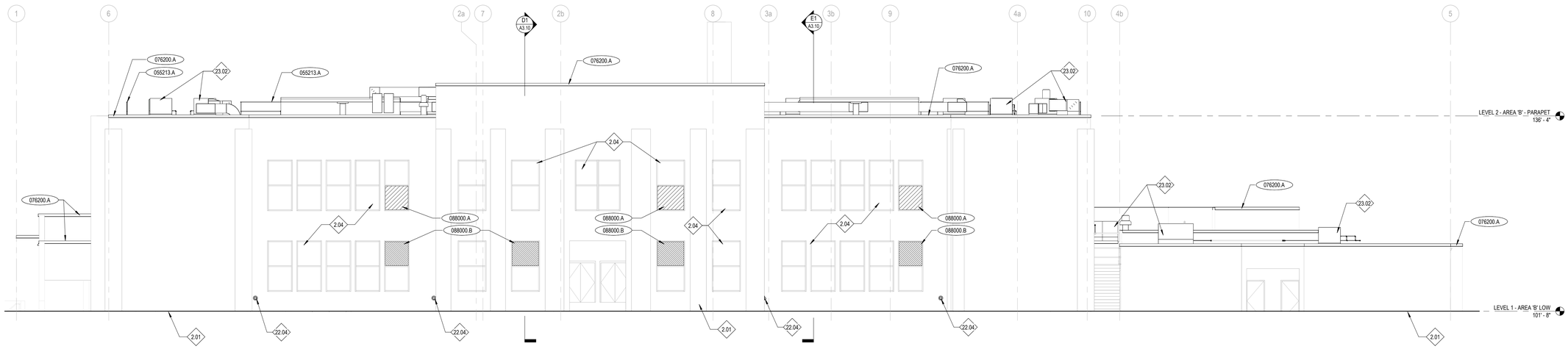
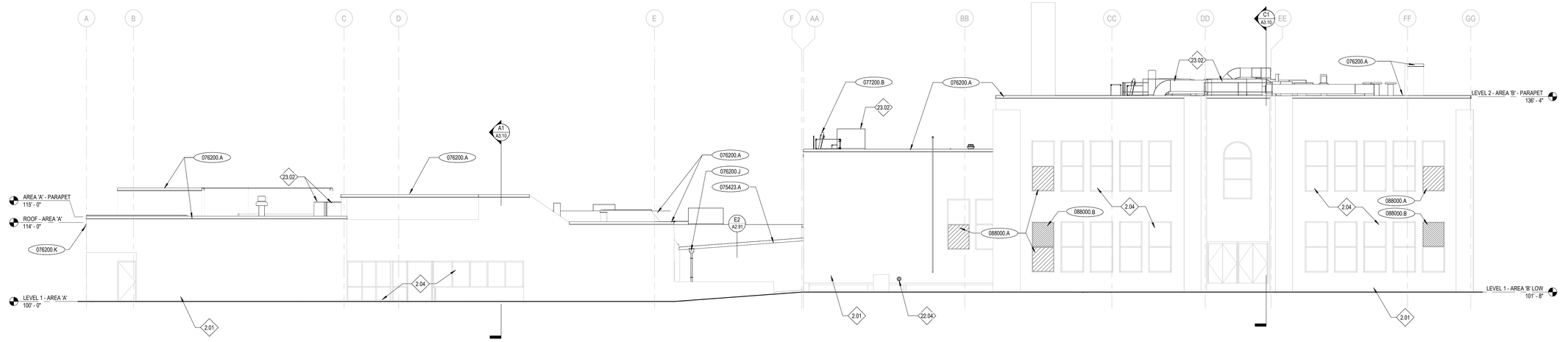
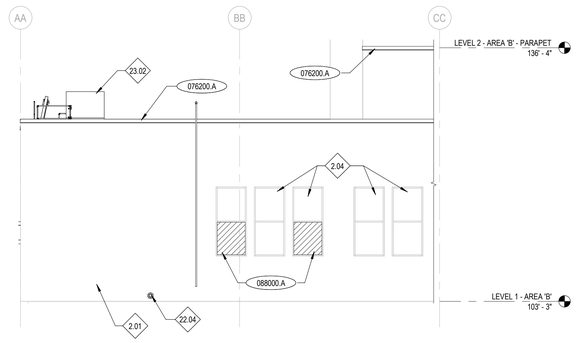


B1 / A3.02 BUILDING ELEVATION - SOUTH
1/8" = 1'-0"



D1 / A3.02 BUILDING ELEVATION - WEST 1A
1/8" = 1'-0"



E1 / A3.02 BUILDING ELEVATION - WEST 1B
1/8" = 1'-0"

GENERAL NOTES

A. SEE CIVIL, STRUCTURAL, MECHANICAL AND ELECTRICAL DRAWINGS FOR MORE INFORMATION.
B. DO NOT SCALE DRAWINGS.
C. FOR ROOF FRAMING COORDINATE WITH STRUCTURAL DRAWINGS.
D. ALL DUCTS TO BE INSTALLED AS TIGHT TO THE CEILING AS POSSIBLE. AT A MINIMUM OF 7'-6" ABOVE FINISH FLOOR, AND 8'-0" MINIMUM IN HALLWAYS.

KEYNOTES

055213.A	STEEL GAURDRAIL
075423.A	THERMOPLASTIC-POLYOLEFIN (TPO) ROOFING
076200.A	PARAPET COPING
076200.J	DOWNSPOUT
076200.K	OVERFLOW SCUPPER.
077200.B	ROOF HATCH
088000.A	GLASS INFILL PANEL.
088000.B	INFILL PANEL.

REFERENCE NOTES

2.01	PRESERVE AND PROTECT EXISTING CONSTRUCTION
2.04	PRESERVE AND PROTECT EXISTING WINDOW SYSTEM
22.04	OVERFLOW ROOF DRAIN. SEE PLUMBING DRAWINGS FOR SIZES AND LOCATIONS.
23.02	MECHANICAL EQUIPMENT. COORDINATE WITH MECHANICAL AND STRUCTURAL DRAWINGS.

LEGEND

HATCH PATTERN INDICATES GLASS PANEL INFILL

HATCH PATTERN INDICATES SPANDREL PANEL INFILL

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205 N. 10th Street
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Boise, Idaho 83702
208.343.7523
482 Constitution Way,
Suite 111
Idaho Falls, ID 83402
208.343.7523
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BUILDING ELEVATIONS

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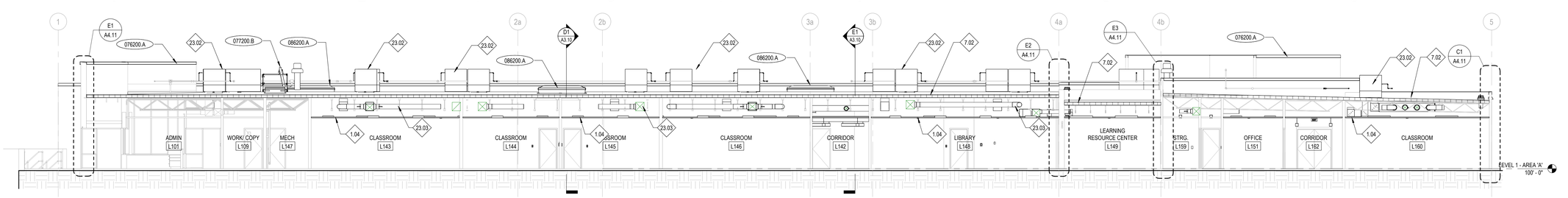
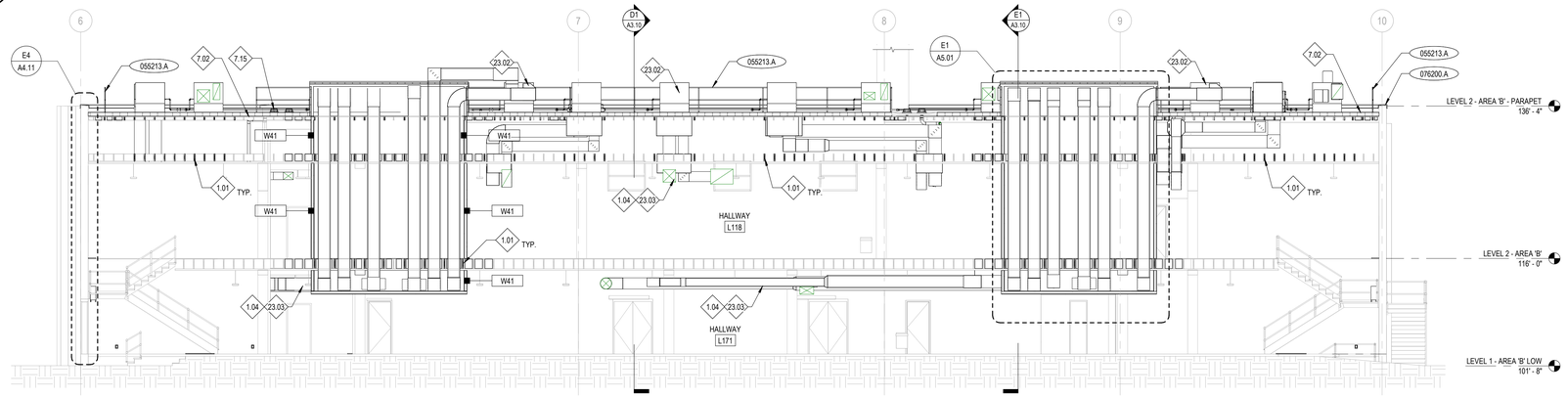
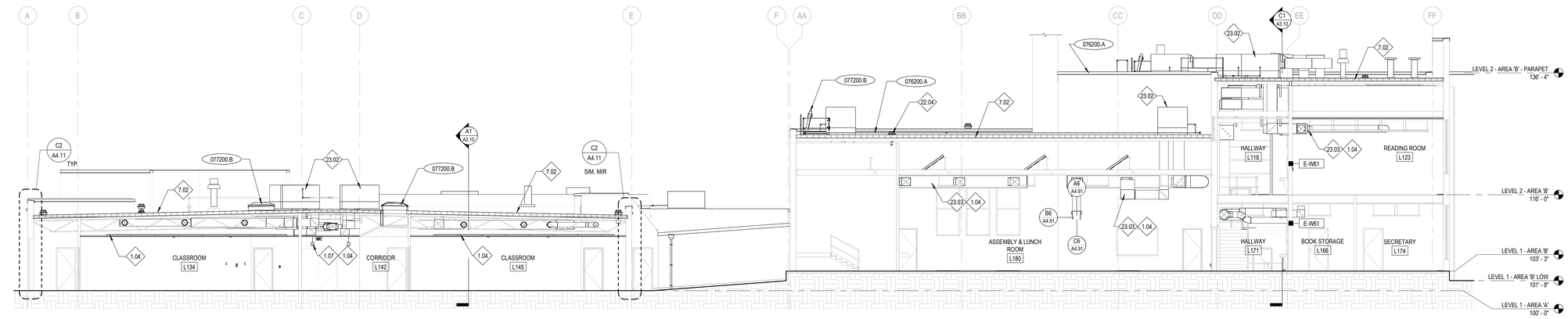


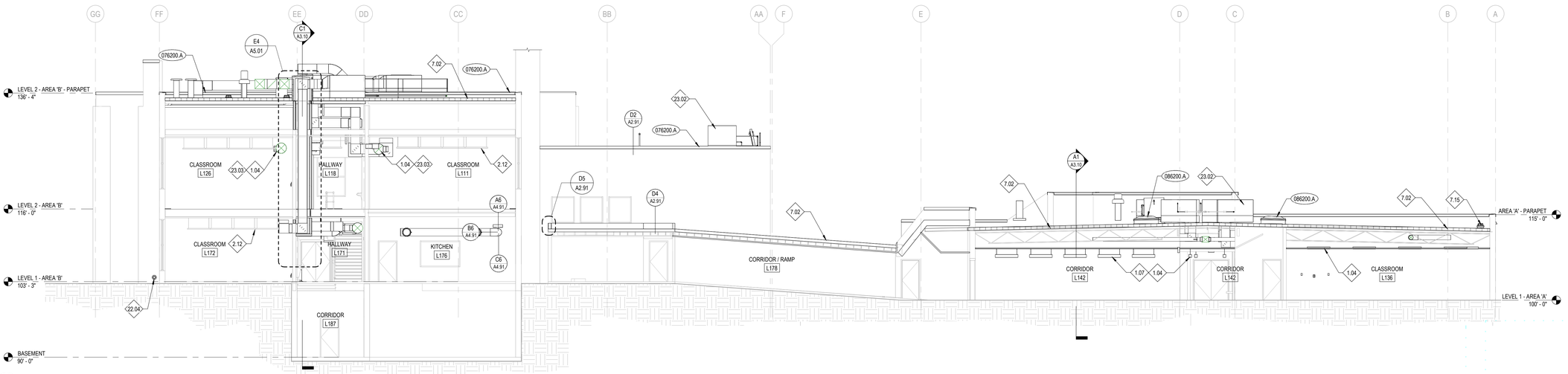
A1 / A3.10 BUILDING SECTION 1
1/8" = 1'-0"



C1 / A3.10 BUILDING SECTION 2
1/8" = 1'-0"



D1 / A3.10 BUILDING SECTION 3
1/8" = 1'-0"



E1 / A3.10 BUILDING SECTION 4
1/8" = 1'-0"

GENERAL NOTES

A. SEE CIVIL, STRUCTURAL, MECHANICAL AND ELECTRICAL DRAWINGS FOR MORE INFORMATION.
B. DO NOT SCALE DRAWINGS.
C. FOR ROOF FRAMING COORDINATE WITH STRUCTURAL DRAWINGS.
D. ALL DUCTS TO BE INSTALLED AS TIGHT TO THE CEILING AS POSSIBLE. AT A MINIMUM OF 7'-6" ABOVE FINISH FLOOR, AND 8'-0" MINIMUM IN HALLWAYS.

KEYNOTES

055213.A	STEEL GAURDRAIL
076200.A	PARAPET COPING
077200.B	ROOF HATCH
086200.A	FIBERGLASS-SANDWICH-PANEL SKYLIGHT ASSEMBLY

REFERENCE NOTES

1.01	COORDINATE WITH STRUCTURAL DRAWINGS.
1.04	COORDINATE WITH REFLECTED CEILING PLAN.
1.07	LIGHTING FIXTURES. COORDINATE WITH ELECTRICAL DRAWINGS.
2.12	CEILING AND LIGHTS EXISTING TO REMAIN.
7.02	NEW TPO ROOFING AND INSULATION. COORDINATE WITH ROOF PLANS.
7.15	ROOF DRAIN. COORDINATE WITH PLUMBING DRAWINGS.
22.04	OVERFLOW ROOF DRAIN. SEE PLUMBING DRAWINGS FOR SIZES AND LOCATIONS.
23.02	MECHANICAL EQUIPMENT. COORDINATE WITH MECHANICAL AND STRUCTURAL DRAWINGS.
23.03	DUCT, COORDINATE WITH MECHANICAL DRAWINGS.

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BUILDING SECTIONS

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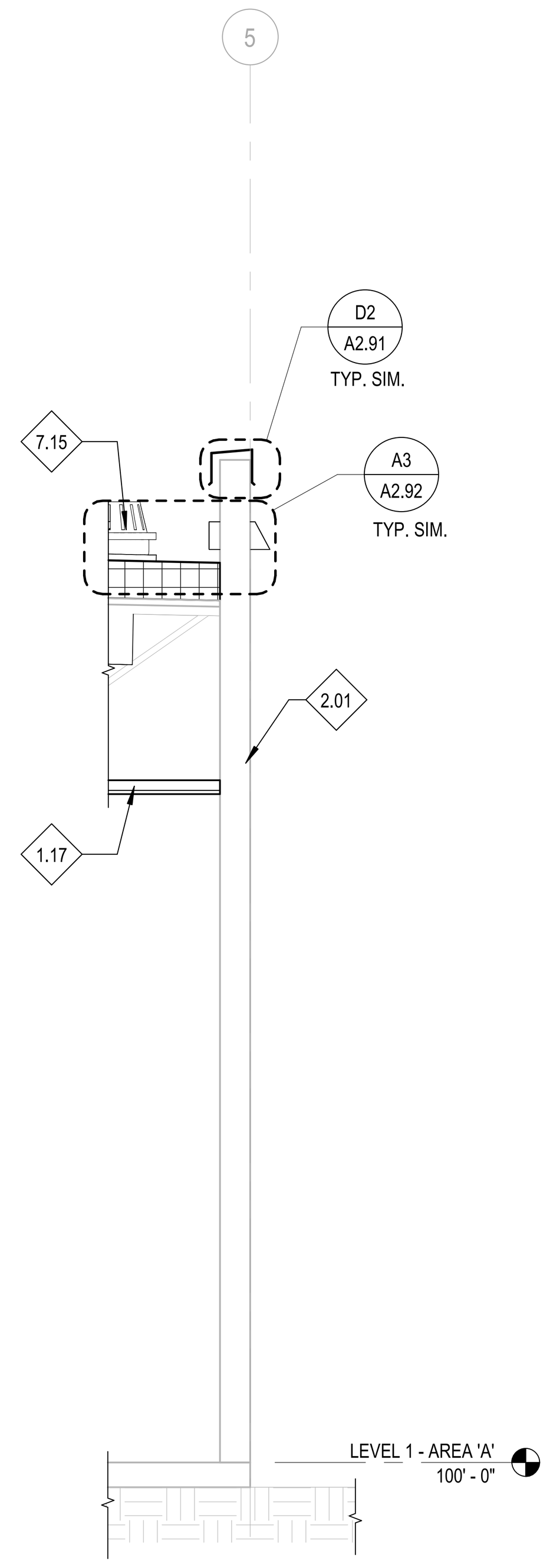
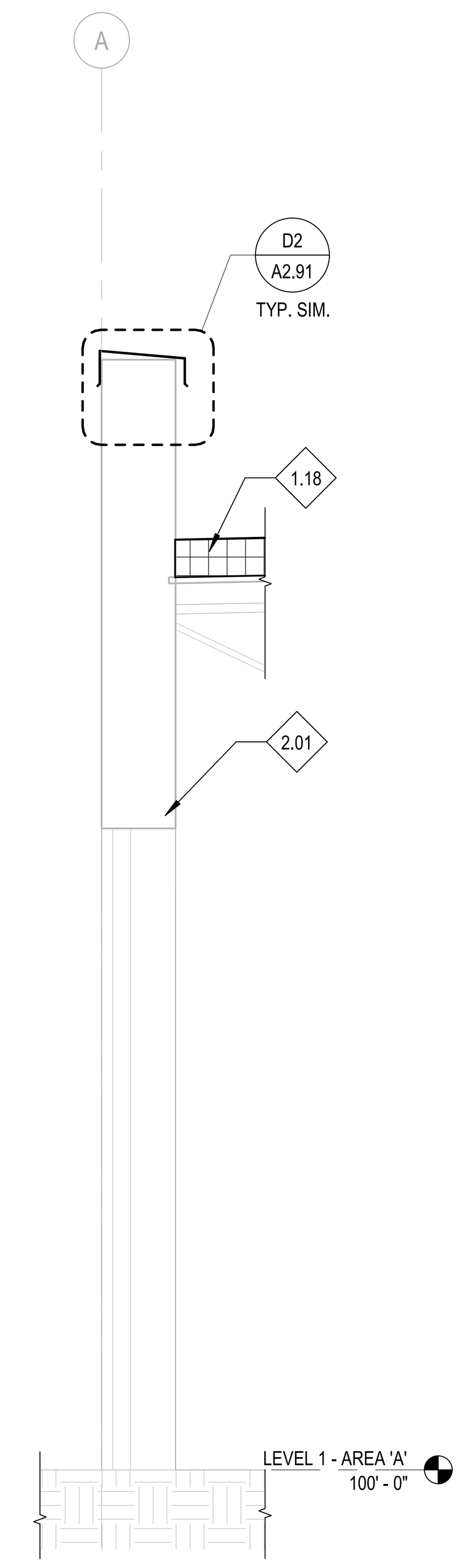
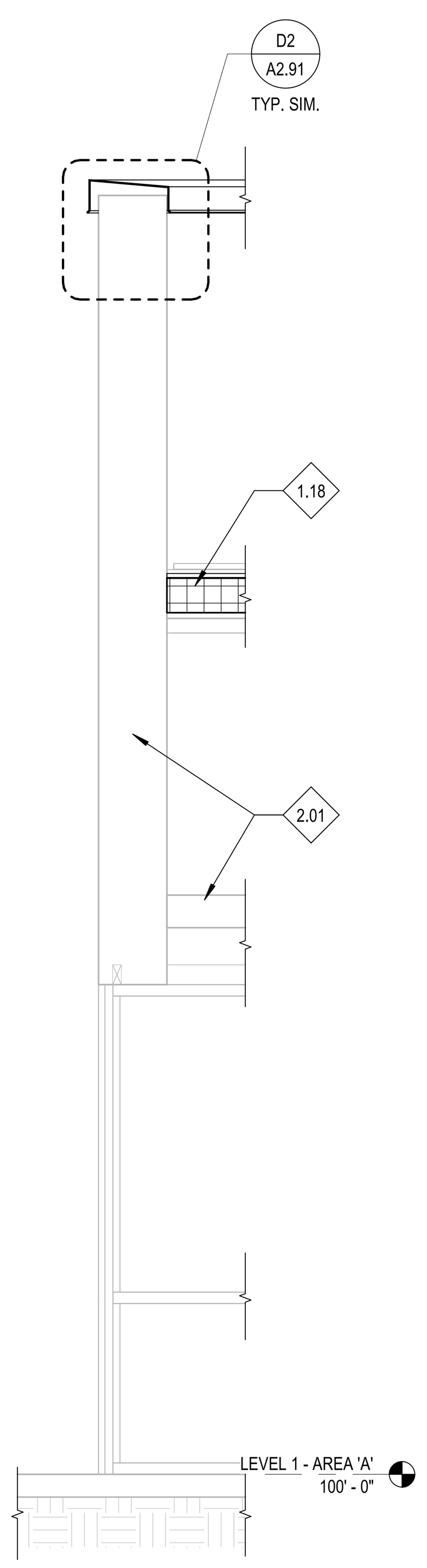


C1 / A4.11 **WALL SECTION 04**
1/2" = 1'-0"



C2 / A4.11 **WALL SECTION 05**
1/2" = 1'-0"



E1 / A4.11 **WALL SECTION 01**
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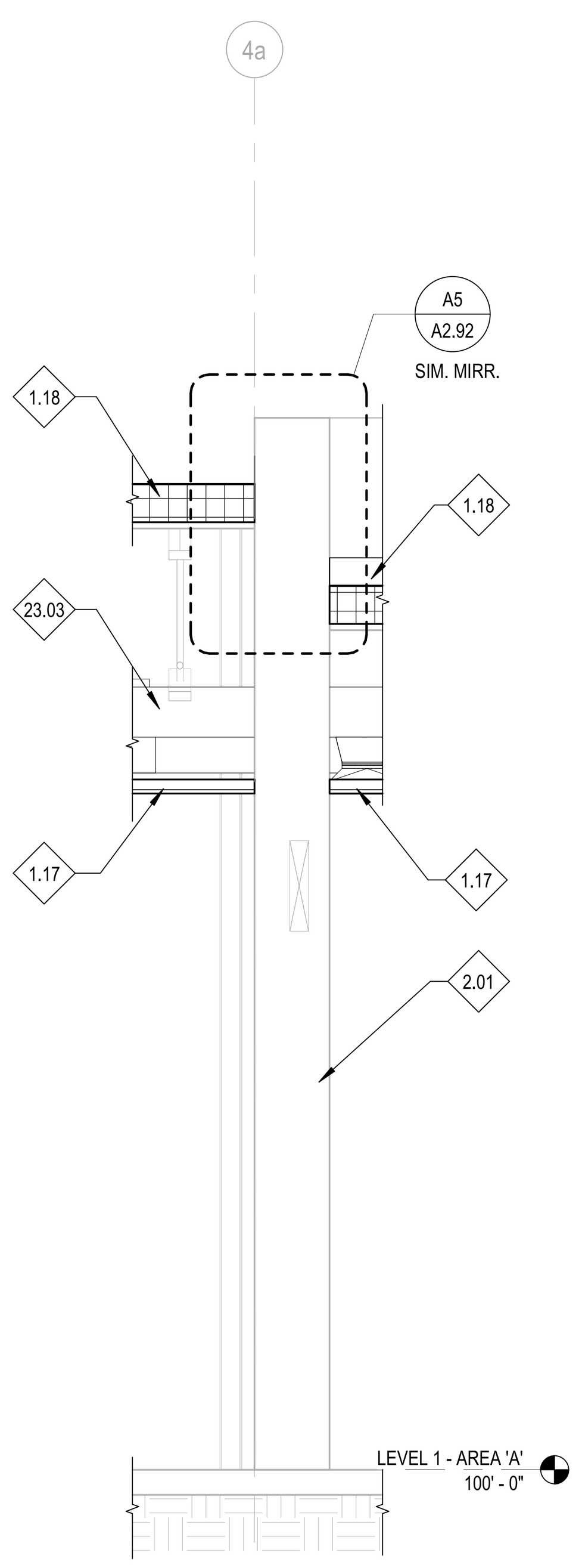
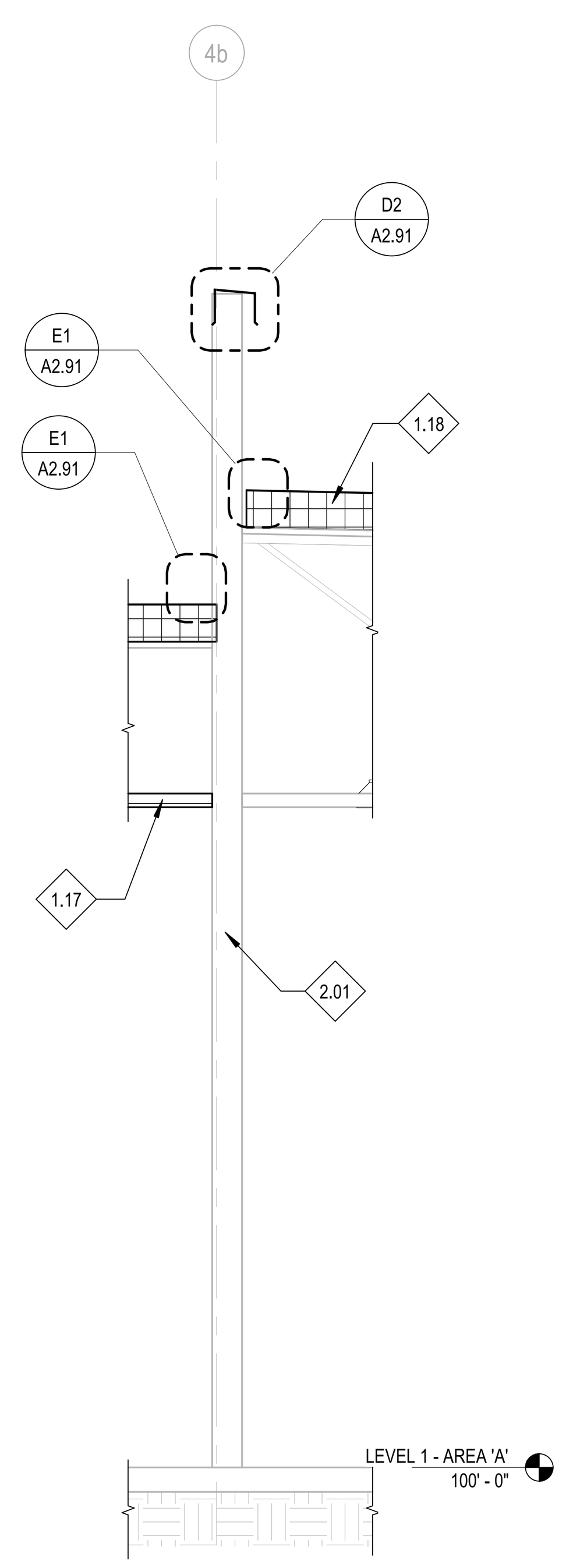
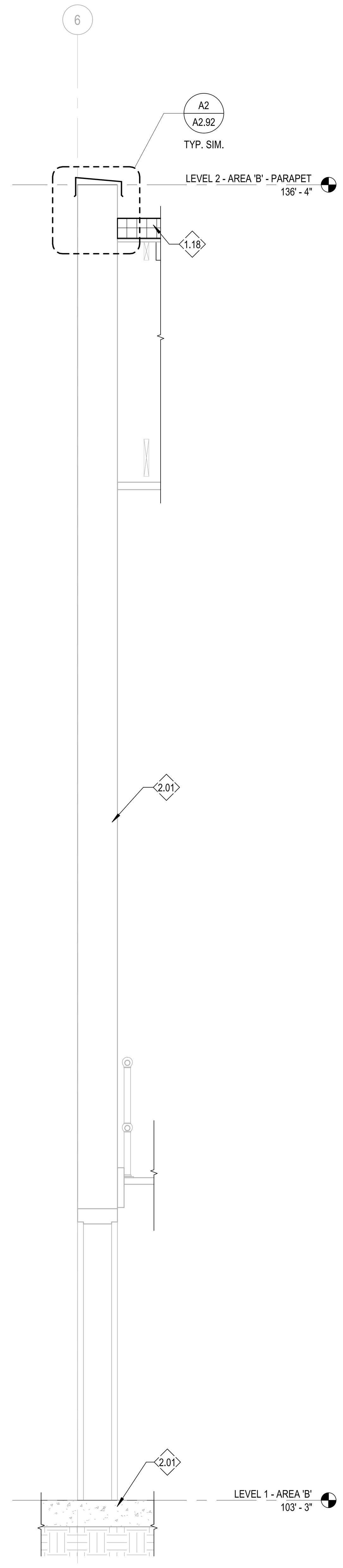


E2 / A4.11 **WALL SECTION 02**
1/2" = 1'-0"



E3 / A4.11 **WALL SECTION 03**
1/2" = 1'-0"



E4 / A4.11 **WALL SECTION -06**
1/2" = 1'-0"

KEYNOTES

REFERENCE NOTES

1.17	RE: CEILING PLAN FOR CEILING TYPES
1.18	RE ROOF PLAN AND DETAILS FOR ROOF COMPOSITION
2.01	PRESERVE AND PROTECT EXISTING CONSTRUCTION
7.15	ROOF DRAIN, COORDINATE WITH PLUMBING DRAWINGS.
23.03	DUCT, COORDINATE WITH MECHANICAL DRAWINGS.

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
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EXTERIOR WALL SECTIONS

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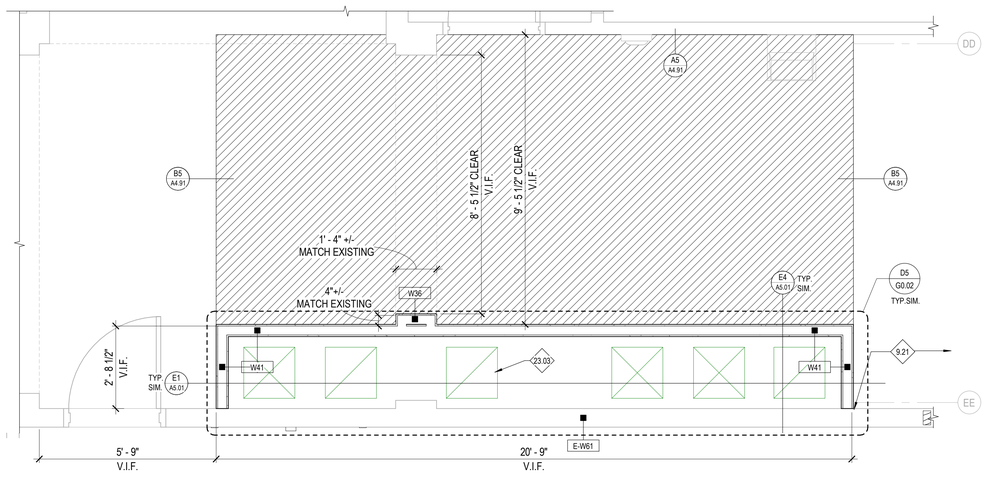
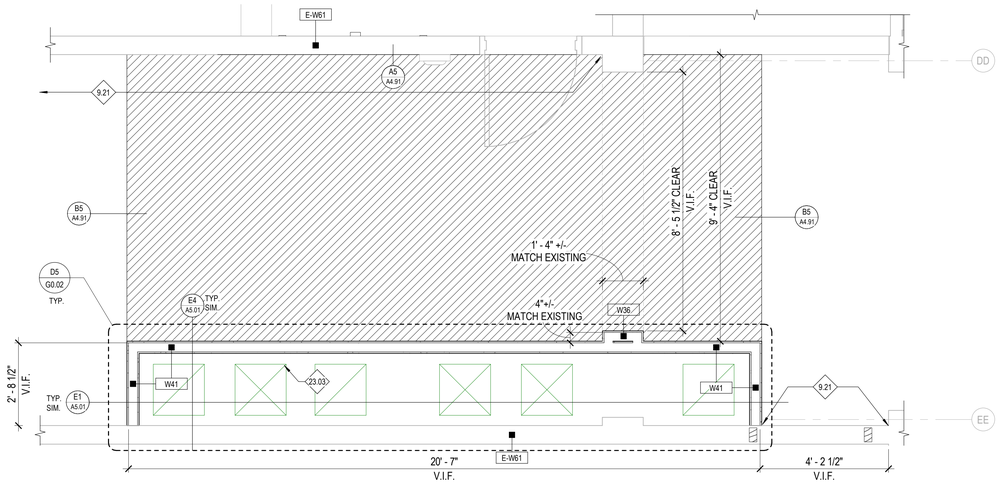
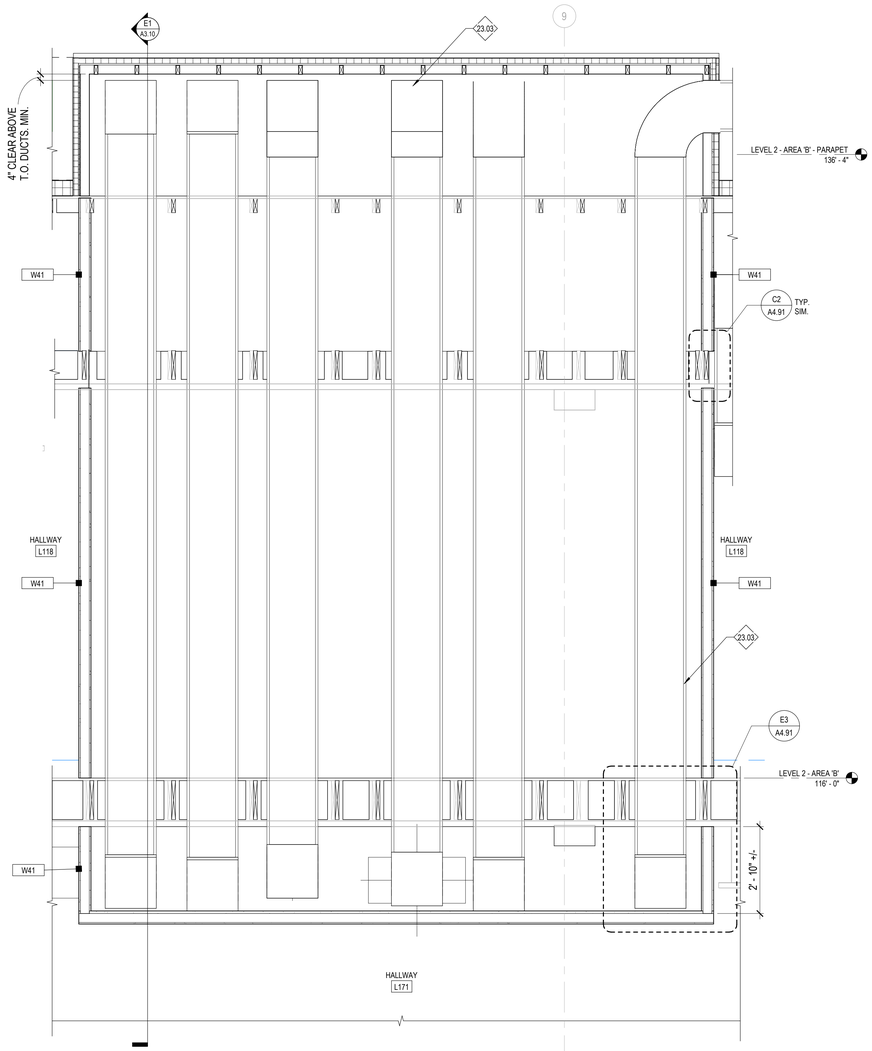


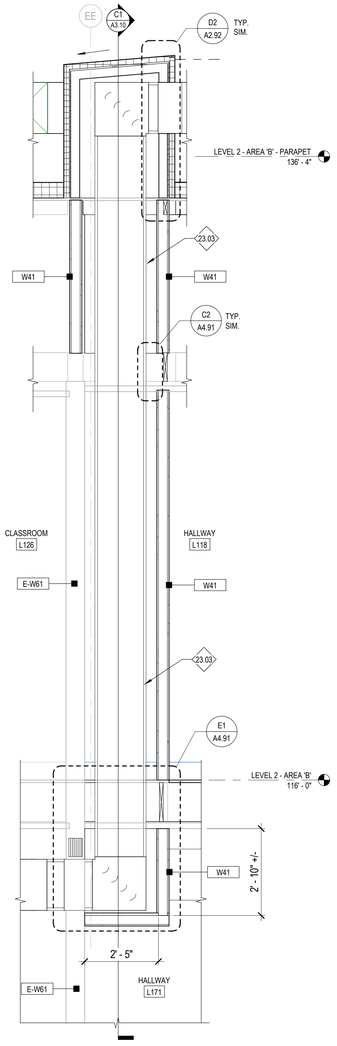
B1 HVAC CHASE - WEST
A5.01 — 1/2" = 1'-0"



B4 HVAC CHASE - EAST
A5.01 — 1/2" = 1'-0"



E1 FIRE SHAFT - SECTION 01
A5.01 — 1/2" = 1'-0"



E4 FIRE SHAFT - SECTION 02
A5.01 — 1/2" = 1'-0"

GENERAL NOTES

A. THE COMPOSITE PLANS ARE INTENDED TO SHOW OVERALL LAYOUT. RE: AREA PLANS FOR ADDITIONAL INFORMATION
B. PLAN WALL DIMENSIONS ARE TO GRID LINE OR FACE OF WALL STRUCTURE. "CLEAR" DIMENSIONS ARE TO FACE OF WALL FINISH.
C. FIELD VERIFY ALL EXISTING CONDITIONS AND THEIR COMPATIBILITY WITH NEW CONSTRUCTION PRIOR TO THE COMMENCEMENT OF WORK. COORDINATE DISCREPANCIES WITH ARCHITECT.
D. DO NOT SCALE DRAWINGS.
E. SEE STRUCTURAL, MECHANICAL AND ELECTRICAL DRAWINGS FOR MORE INFORMATION.
F. WHERE WALL IS PATCHED, PAINT WALL CORNER TO CORNER AND FLOOR TO CEILING TO MATCH EXISTING.

KEYNOTES

REFERENCE NOTES

9.21 PATCH AND TEXTURE WALL OPENINGS FLUSH TO ADJACENT EXISTING GYP BOARD SURFACES. PAINT WALL CORNER TO CORNER, FLOOR TO CEILING TO MATCH EXISTING.
23.03 DUCT, COORDINATE WITH MECHANICAL DRAWINGS.

LEGEND

NEW CONSTRUCTION

EXISTING WALL

AREA OF FLOOR INFILL. RE: DIVISION 09 IN THE SPECIFICATIONS

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482 Constitution Way, Suite 111, Idaho Falls, ID 83402, 208.343.7523
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Project:
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LINCOLN ELEMENTARY SCHOOL
238 BUHL ST N
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Sheet:
ENLARGED PLANS

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PROFESSIONAL ARCHITECT LICENSED 02/27/2025 AR-986101 STATE OF IDAHO BRIAN F. COLEMAN

Revisions:

Project No:	24076
Drawn By:	NB
Checked By:	PR
Date:	02/27/2025

Sheet No: A5.01

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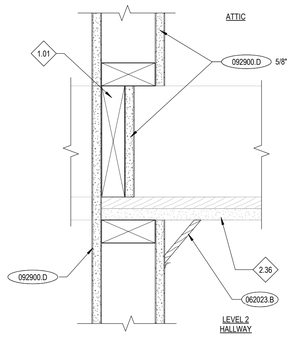
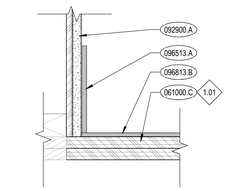
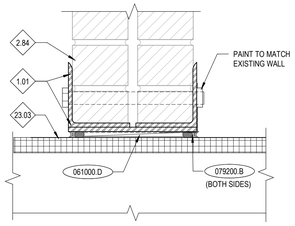


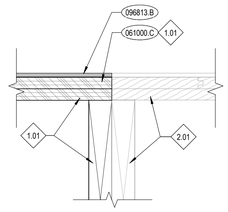
C2 FIRE SHAFT - CELING @ ATTIC PENETRATION
A4.91 — 3" = 1'-0"



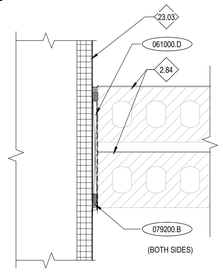
A5 WALL & FLOOR INFILL
A4.91 — 3" = 1'-0"



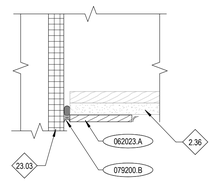
A6 DUCT HEAD @ MASONRY
A4.91 — 3" = 1'-0"



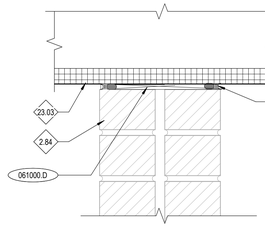
B5 FLOOR INFILL
A4.91 — 3" = 1'-0"



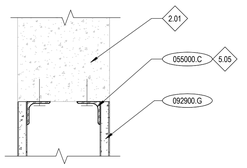
B6 DUCT JAMB @ MASONRY
A4.91 — 3" = 1'-0"



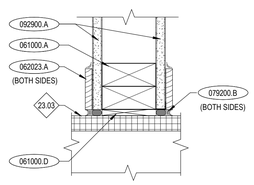
C5 DUCT @ CEILING
A4.91 — 3" = 1'-0"



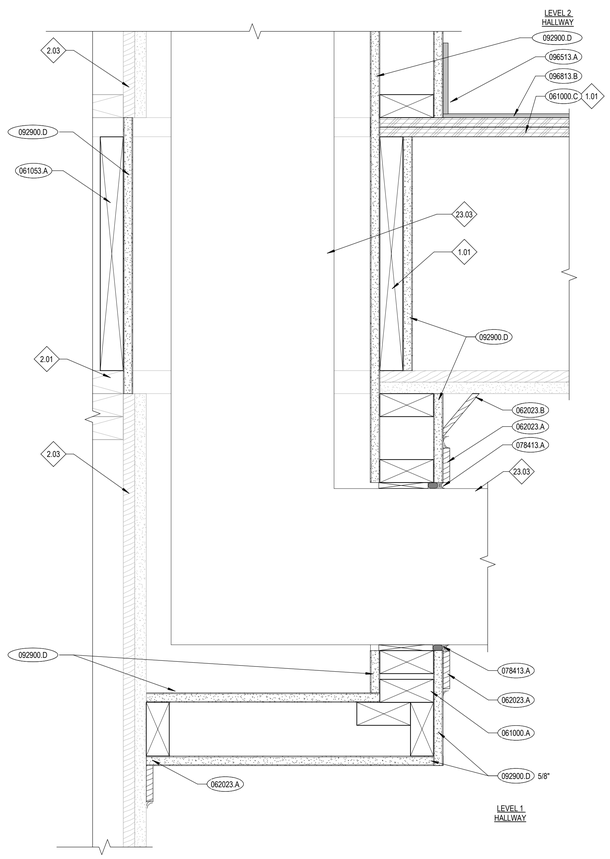
C6 DUCT SILL @ MASONRY
A4.91 — 3" = 1'-0"



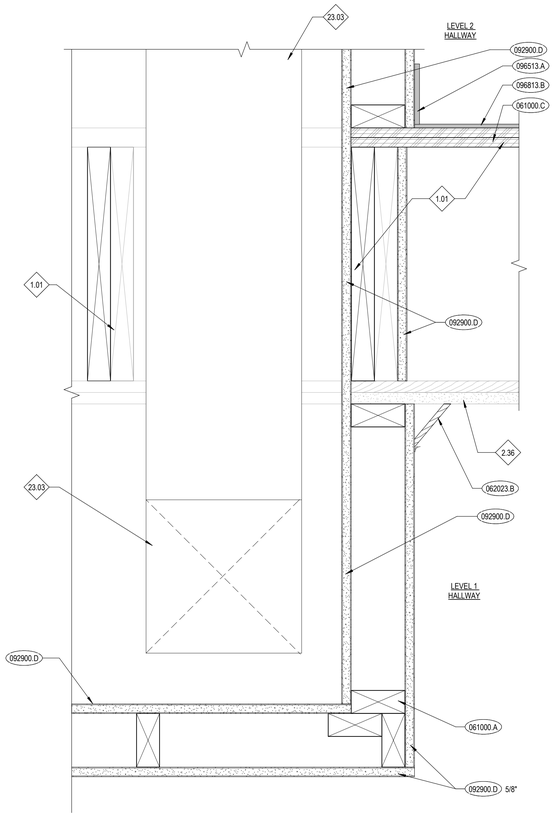
D5 WALL INFILL
A4.91 — 3" = 1'-0"



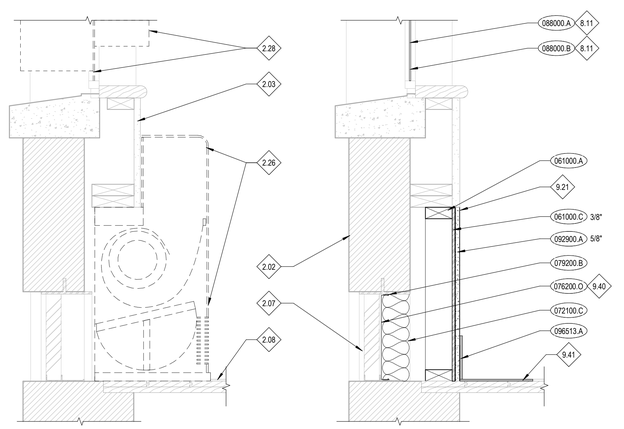
D6 DUCT HEAD/SILL/JAMB @ GYP
A4.91 — 3" = 1'-0"



E1 FIRE SHAFT - FLOOR PENETRATION & SOFFIT - A2
A4.91 — 3" = 1'-0"



E3 FIRE SHAFT - FLOOR PENETRATION & SOFFIT - A1
A4.91 — 3" = 1'-0"



E5 UNIT VENTILATOR INFILL
A4.91 — 1 1/2" = 1'-0"

KEYNOTES

055000.C	STEEL ANGLE
061000.A	DIMENSIONAL LUMBER
061000.C	SHEATHING
061000.D	SHIM AS REQUIRED.
061053.A	WOOD BLOCKING/NAILER
062023.A	WOOD TRIM. PAINT TO MATCH EXISTING.
062023.B	PAINTED CROWN MOLDING TO MATCH EXISTING.
072100.C	MINERAL WOOL
076200.O	SHEET METAL COVER TO INFILL OPENING.
078413.A	FIRE RESISTIVE JOINT SEALANT
079200.B	JOINT SEALANT
088000.A	GLASS INFILL PANEL.
088000.B	INFILL PANEL.
092900.A	GYPSUM WALL BOARD
092900.D	GYPSUM BOARD TYPE X.
092900.G	CEMENT BOARD
096513.A	RESILIENT BASE
096813.B	CARPET INFILL TO MATCH EXISTING

REFERENCE NOTES

1.01	COORDINATE WITH STRUCTURAL DRAWINGS.
2.01	PRESERVE AND PROTECT EXISTING CONSTRUCTION
2.02	PRESERVE & PROTECT EXISTING BRICK WALL.
2.03	EXISTING PLASTER WALL FINISH ON 3/8" ROCKLATH
2.07	EXISTING AIR INTAKE GRILLE TO REMAIN
2.08	DEMO DAMAGED FLOORING AS REQUIRED. VERIFY WITH CMGC PRIOR TO DEMO
2.26	EXISTING FAN COIL UNIT TO BE REMOVED - SEE MECHANICAL AND ELECTRICAL DRAWINGS FOR ADDITIONAL INFORMATION.
2.28	EXISTING SWAMP COOLER AND WINDOW PANEL TO BE REMOVED. SEE MECHANICAL AND ELECTRICAL DRAWINGS FOR THE EXTENT OF WORK.
2.36	EXISTING CEILING TO REMAIN. PROTECT IN PLACE.
2.84	PRESERVE AND PROTECT EXISTING MASONRY WALL SYSTEM TO REMAIN. REPAIR DAMAGED AREAS TO MATCH ADJACENT WALL FINISH.
5.05	20 GA. 1 1/2" X 1 1/2" X 1 1/2"
8.11	INFILL OR GLAZING PANEL TO BE INSTALLED WHERE MECHANICAL UNITS ARE REMOVED. FIELD VERIFY EACH WINDOW INDIVIDUALLY FOR DIMENSIONS, MATCH EXISTING. SEE MECHANICAL DRAWINGS FOR LOCATIONS.
9.21	PATCH AND TEXTURE WALL OPENINGS FLUSH TO ADJACENT EXISTING GYP BOARD SURFACES. PAINT WALL CORNER TO CORNER, FLOOR TO CEILING TO MATCH EXISTING.
9.40	PAINT BLACK ON EXTERIOR SIDE.
9.41	PATCH FLOOR, INFILL AS REQUIRED TO MATCH EXISTING.
23.03	DUCT, COORDINATE WITH MECHANICAL DRAWINGS.

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
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Sheet:
EXTERIOR & INTERIOR DETAILS

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PROFESSIONAL ARCHITECT LICENSED 02/27/2025 AR-98617 STATE OF IDAHO BRIAN F. COLEMAN

Revisions:

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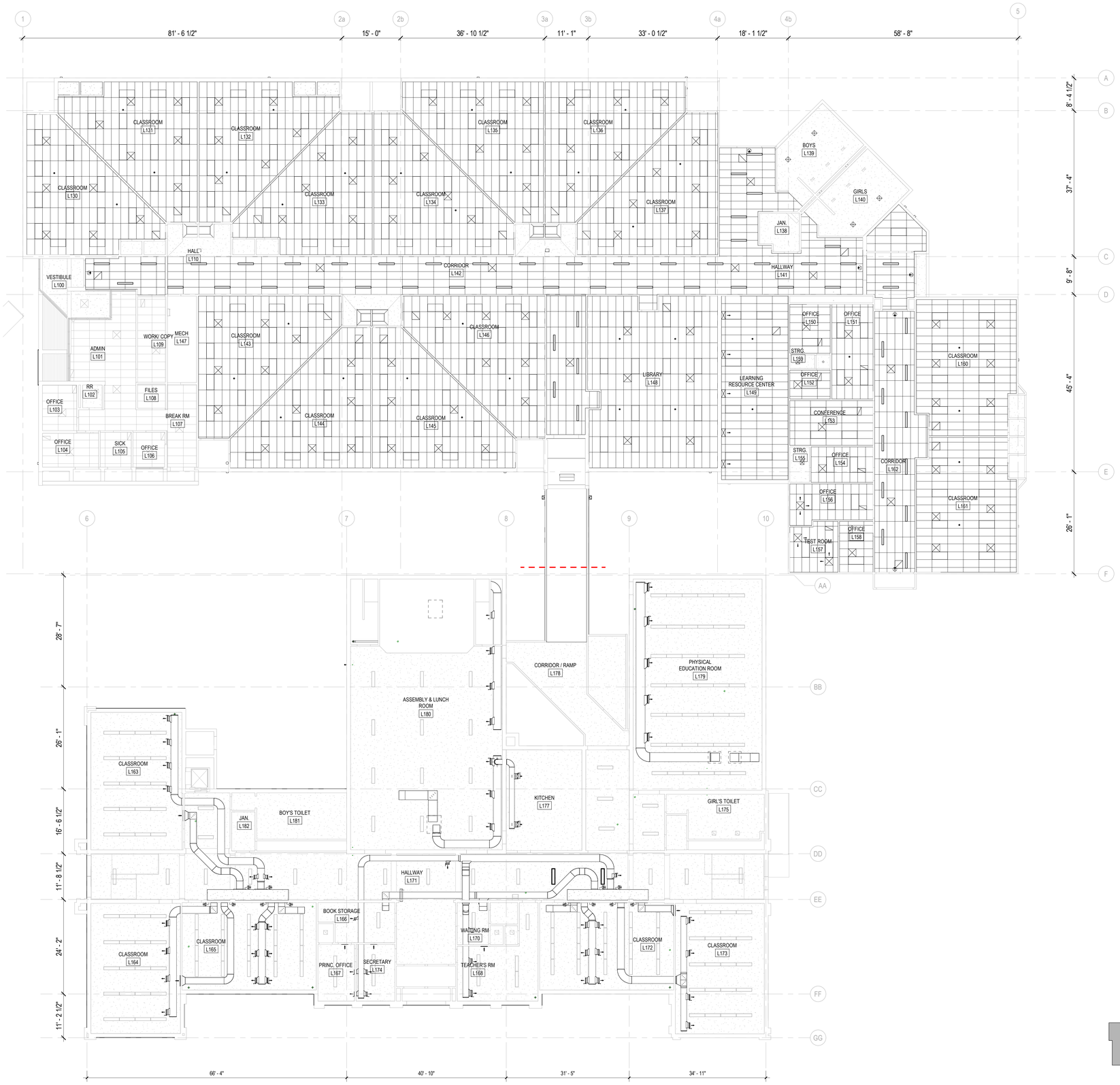


A2 / A9.01 **CEILING PLAN**
3/32" = 1'-0"

GENERAL NOTES

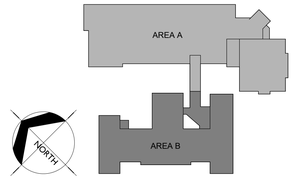
1. COORDINATE WITH MECHANICAL AND ELECTRICAL DRAWINGS AND SPECIFICATIONS FOR ADDITIONAL ITEMS TO BE PROVIDED AT THE CEILING PLANE AND IN THE WORK.
2. CENTER ALL LIGHT FIXTURES AND SPRINKLER HEADS IN THEIR RESPECTIVE CEILING PANEL.
3. INSTALL ALL SUSPENSION SYSTEMS FOR ACOUSTICAL PANEL CEILINGS PER PROVISIONS OF ASTM C 635 AND ASTM C 636.
4. ALL SOFFIT DIMENSIONS SHOWN ARE TO FACE OF FINISH.
5. COORDINATE WITH MECHANICAL & ELECTRICAL DRAWINGS AND SPECIFICATIONS FOR PHYSICAL SIZES OF ALL CEILING GRILLES, DIFFUSERS, FIXTURES, CANS, AND ALL RELATED ITEMS.
6. PAINT ALL EXPOSED-TO-VIEW STRUCTURAL STEEL DECK, AND ASSOCIATED STRUCTURAL ITEMS PAINT COLOR P-9, UNLESS OTHERWISE NOTED. RE: DIVISION 9 SECTION "INTERIOR PAINTING".
7. PAINT ALL EXPOSED-TO-VIEW MECHANICAL DUCTWORK AND ASSOCIATED ITEMS, ELECTRICAL CONDUIT AND ASSOCIATED ITEMS, PLUMBING AND FIRE PROTECTION LINES AND ALL ASSOCIATED ITEMS PAINT COLOR P-9, UNLESS OTHERWISE NOTED. RE: DIVISION 9 SECTION "INTERIOR PAINTING".
8. SUSPENSION SYSTEMS FOR GYPSUM BOARD CEILINGS SHALL BE INSTALLED PER THE SPECIFICATIONS AND ASTM C754.
9. PATCH AND PAINT WALL AROUND ALL MECHANICAL PENETRATIONS. PAINT TO MATCH EXISTING WALL.
10. ALL DUCTS TO BE INSTALLED AS TIGHT TO THE CEILING AS POSSIBLE. AT A MINIMUM OF 7'-6" ABOVE FINISH FLOOR, AND 8'-0" MINIMUM IN HALLWAYS.
11. EXISTING CEILING, LIGHTS AND SURROUNDING CONSTRUCTION TO BE PROTECTED. REPAIR OR REPLACE DAMAGED ITEMS.

KEYNOTES

REFERENCE NOTES

LEGEND

- 2' x 4' ACOUSTICAL CEILING METAL SUSPENSION SYSTEM WITH ACOUSTICAL PANEL CEILING UNITS, APC-1, U.O.N. RE: DIVISION 09 - FINISHES IN THE SPECIFICATIONS
- GYPSUM BOARD CEILING ON STEEL FRAMING AND SUPPORT SYSTEM. PAINT - P-9, U.O.N. RE: DIVISION 09 - FINISHES IN THE SPECIFICATION.
- AREA OF CEILING INFILL
- O.T.S. — OPEN TO STRUCTURE
- VERTICAL SERVICE DROP/CHASE. COORDINATE WITH MECHANICAL DRAWINGS.
- LIGHTING FIXTURES, COORDINATE WITH ELECTRICAL DRAWINGS.
- MECHANICAL FIXTURES, COORDINATE WITH MECHANICAL DRAWINGS.
- X' - X" — CEILING HEIGHT ABOVE FINISH FLOOR



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205 N. 10th Street
Suite 300
Boise, Idaho 83702
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482 Constitution Way,
Suite 111
Idaho Falls, ID 83402
208.343.7523
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Sheet:
LEVEL 01 - COMPOSITE CEILING PLAN

100% CD

Revisions:

PROFESSIONAL ARCHITECT LICENSED 02/27/2025 AR-986191 STATE OF IDAHO BRIAN F. COLEMAN

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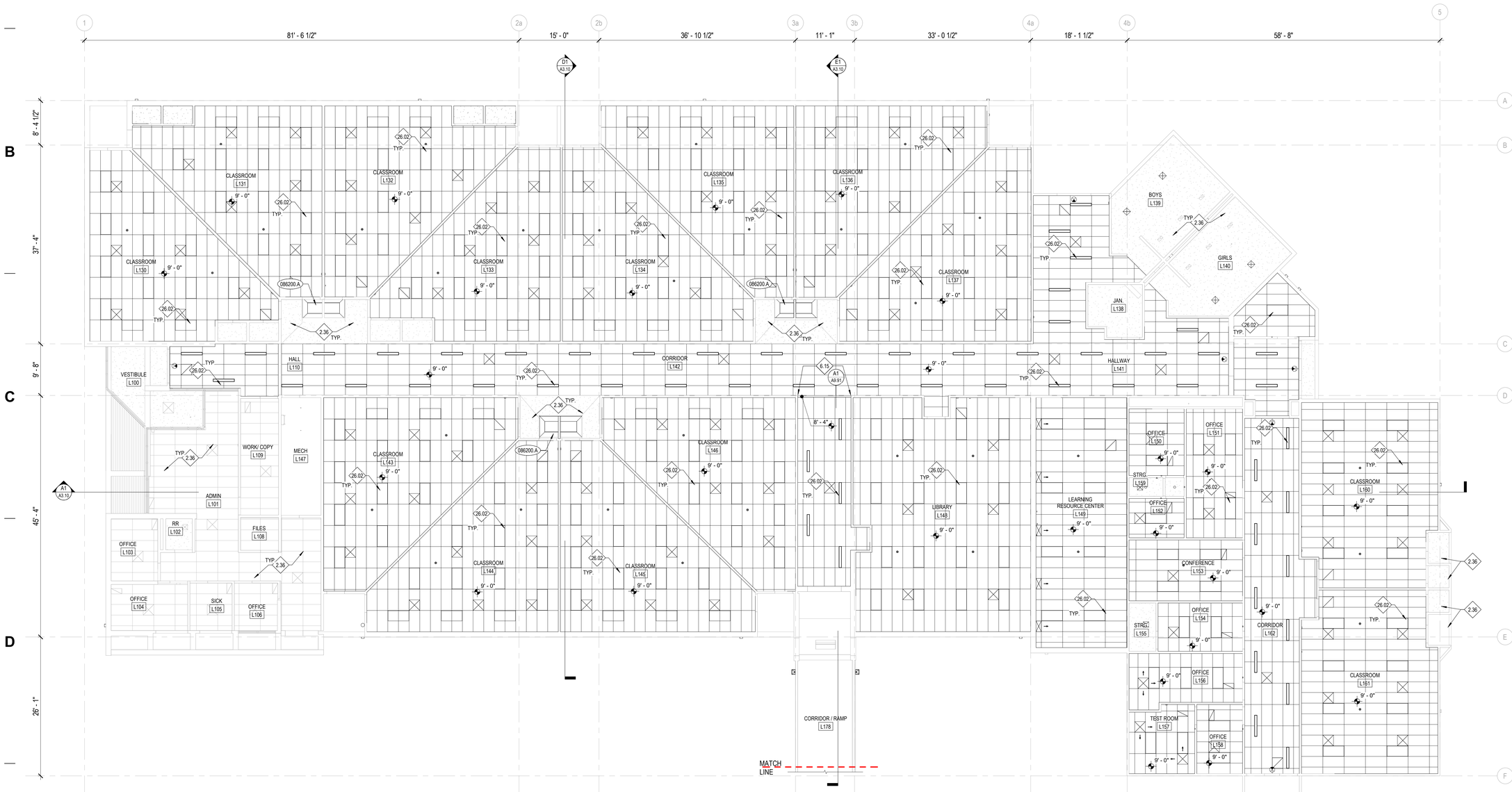

E1 A9.11a **LEVEL 1 - CEILNG PLAN AREA 'A'**

1/8" = 1'-0"

GENERAL NOTES

1. COORDINATE WITH MECHANICAL AND ELECTRICAL DRAWINGS AND SPECIFICATIONS FOR ADDITIONAL ITEMS TO BE PROVIDED AT THE CEILING PLANE AND IN THE WORK.
2. CENTER ALL LIGHT FIXTURES AND SPRINKLER HEADS IN THEIR RESPECTIVE CEILING PANEL.
3. INSTALL ALL SUSPENSION SYSTEMS FOR ACOUSTICAL PANEL CEILINGS PER PROVISIONS OF ASTM C 635 AND ASTM C 636.
4. ALL SOFFIT DIMENSIONS SHOWN ARE TO FACE OF FINISH.
5. COORDINATE WITH MECHANICAL & ELECTRICAL DRAWINGS AND SPECIFICATIONS FOR PHYSICAL SIZES OF ALL CEILING GRILLES, DIFFUSERS, FIXTURES, CANS, AND ALL RELATED ITEMS.
6. PAINT ALL EXPOSED-TO-VIEW STRUCTURAL STEEL DECK, AND ASSOCIATED STRUCTURAL ITEMS PAINT COLOR P-9, UNLESS OTHERWISE NOTED. RE: DIVISION 9 SECTION "INTERIOR PAINTING".
7. PAINT ALL EXPOSED-TO-VIEW MECHANICAL DUCTWORK AND ASSOCIATED ITEMS, ELECTRICAL CONDUIT AND ASSOCIATED ITEMS, PLUMBING AND FIRE PROTECTION LINES AND ALL ASSOCIATED ITEMS PAINT COLOR P-9, UNLESS OTHERWISE NOTED. RE: DIVISION 9 SECTION "INTERIOR PAINTING"
8. SUSPENSION SYSTEMS FOR GYPSUM BOARD CEILINGS SHALL BE INSTALLED PER THE SPECIFICATIONS AND ASTM C754.
9. PATCH AND PAINT WALL AROUND ALL MECHANICAL PENETRATIONS. PAINT TO MATCH EXISTING WALL.
10. ALL DUCTS TO BE INSTALLED AS TIGHT TO THE CEILING AS POSSIBLE. AT A MINIMUM OF 7'-6" ABOVE FINISH FLOOR, AND 8'-0" MINIMUM IN HALLWAYS.
11. EXISTING CEILING, LIGHTS AND SURROUNDING CONSTRUCTION TO BE PROTECTED. REPAIR OR REPLACE DAMAGED ITEMS.

KEYNOTES

086200.A FIBERGLASS-SANDWICH-PANEL SKYLIGHT ASSEMBLY

REFERENCE NOTES

2.36 EXISTING CEILING TO REMAIN. PROTECT IN PLACE.
6.15 NEW INTERIOR SOFFIT, PAINT TO MATCH EXISTING WALL COLOR.
26.02 LIGHT FIXTURE, SEE ELECTRICAL DRAWINGS

LEGEND

- 2' x 4' ACOUSTICAL CEILING METAL SUSPENSION SYSTEM WITH ACOUSTICAL PANEL CEILING UNITS, APC-1, U.O.N. RE: DIVISION 09 - FINISHES IN THE SPECIFICATIONS
- GYPSUM BOARD CEILING ON STEEL FRAMING AND SUPPORT SYSTEM. PAINT - P-9, U.O.N. RE: DIVISION 09 - FINISHES IN THE SPECIFICATION.
- AREA OF CEILING INFILL
- O.T.S. — OPEN TO STRUCTURE
- VERTICAL SERVICE DROP/CHASE. COORDINATE WITH MECHANICAL DRAWINGS.
- LIGHTING FIXTURES. COORDINATE WITH ELECTRICAL DRAWINGS.
- MECHANICAL FIXTURES. COORDINATE WITH MECHANICAL DRAWINGS.
- X' - X" — CEILING HEIGHT ABOVE FINISH FLOOR

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Sheet:
LEVEL 01 - CEILING PLAN AREA 'A'

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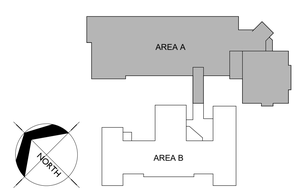
Revisions:

PROFESSIONAL ARCHITECT LICENSED 02/27/2025 AR-986101 STATE OF IDAHO BRIAN F. COLEMAN

Project No:	24076
Drawn By:	NB
Checked By:	PR
Date:	02/27/2025

Sheet No: A9.11a



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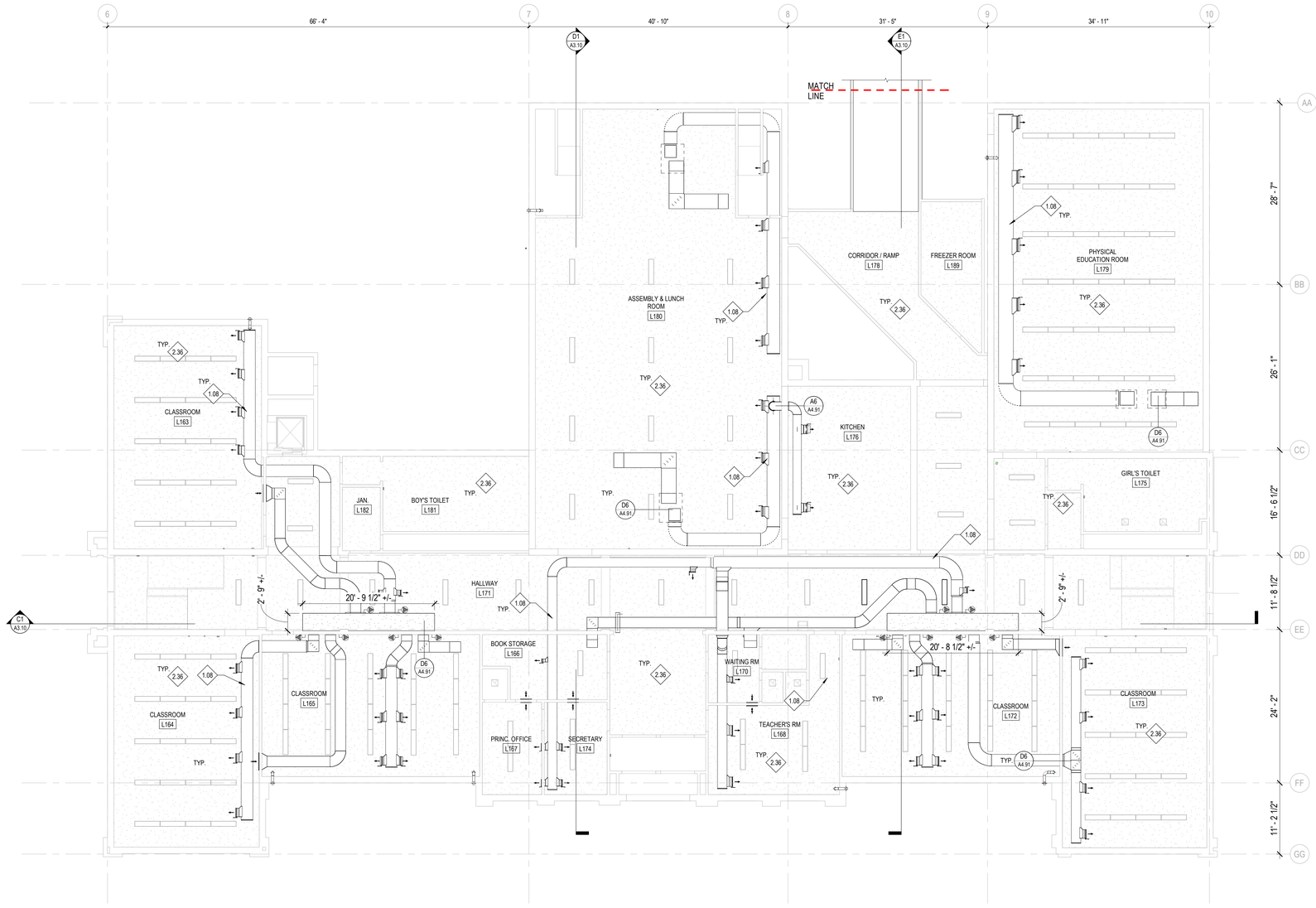
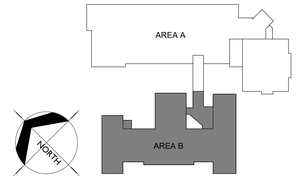


E1 / A9.11b **LEVEL 1 - CEILNG PLAN AREA 'B'**
1/8" = 1'-0"



GENERAL NOTES

1. COORDINATE WITH MECHANICAL AND ELECTRICAL DRAWINGS AND SPECIFICATIONS FOR ADDITIONAL ITEMS TO BE PROVIDED AT THE CEILING PLANE AND IN THE WORK.
2. CENTER ALL LIGHT FIXTURES AND SPRINKLER HEADS IN THEIR RESPECTIVE CEILING PANEL.
3. INSTALL ALL SUSPENSION SYSTEMS FOR ACOUSTICAL PANEL CEILINGS PER PROVISIONS OF ASTM C 635 AND ASTM C 636.
4. ALL SOFFIT DIMENSIONS SHOWN ARE TO FACE OF FINISH.
5. COORDINATE WITH MECHANICAL & ELECTRICAL DRAWINGS AND SPECIFICATIONS FOR PHYSICAL SIZES OF ALL CEILING GRILLES, DIFFUSERS, FIXTURES, CANS, AND ALL RELATED ITEMS.
6. PAINT ALL EXPOSED-TO-VIEW STRUCTURAL STEEL DECK, AND ASSOCIATED STRUCTURAL ITEMS PAINT COLOR P-9, UNLESS OTHERWISE NOTED. RE: DIVISION 9 SECTION "INTERIOR PAINTING".
7. PAINT ALL EXPOSED-TO-VIEW MECHANICAL DUCTWORK AND ASSOCIATED ITEMS, ELECTRICAL CONDUIT AND ASSOCIATED ITEMS, PLUMBING AND FIRE PROTECTION LINES AND ALL ASSOCIATED ITEMS PAINT COLOR P-9, UNLESS OTHERWISE NOTED. RE: DIVISION 9 SECTION "INTERIOR PAINTING"
8. SUSPENSION SYSTEMS FOR GYPSUM BOARD CEILINGS SHALL BE INSTALLED PER THE SPECIFICATIONS AND ASTM C754.
9. PATCH AND PAINT WALL AROUND ALL MECHANICAL PENETRATIONS. PAINT TO MATCH EXISTING WALL.
10. ALL DUCTS TO BE INSTALLED AS TIGHT TO THE CEILING AS POSSIBLE. AT A MINIMUM OF 7'-6" ABOVE FINISH FLOOR, AND 8'-0" MINIMUM IN HALLWAYS.
11. EXISTING CEILING, LIGHTS AND SURROUNDING CONSTRUCTION TO BE PROTECTED. REPAIR OR REPLACE DAMAGED ITEMS.

KEYNOTES

REFERENCE NOTES

1.08	MECHANICAL EQUIPMENT. SEE MECHANICAL DRAWINGS.
2.36	EXISTING CEILING TO REMAIN. PROTECT IN PLACE.

LEGEND

- 2' x 4' ACOUSTICAL CEILING METAL SUSPENSION SYSTEM WITH ACOUSTICAL PANEL CEILING UNITS, APC-1, U.O.N. RE: DIVISION 09 - FINISHES IN THE SPECIFICATIONS
- GYPSUM BOARD CEILING ON STEEL FRAMING AND SUPPORT SYSTEM. PAINT - P-9, U.O.N. RE: DIVISION 09 - FINISHES IN THE SPECIFICATION.
- AREA OF CEILING INFILL
- O.T.S. — OPEN TO STRUCTURE
- VERTICAL SERVICE DROP/CHASE. COORDINATE WITH MECHANICAL DRAWINGS.
- LIGHTING FIXTURES, COORDINATE WITH ELECTRICAL DRAWINGS.
- MECHANICAL FIXTURES, COORDINATE WITH MECHANICAL DRAWINGS.
- X' - X" — CEILING HEIGHT ABOVE FINISH FLOOR

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205 N. 10th Street, Suite 500, Boise, Idaho 83702, 208.343.7523
482 Constitution Way, Suite 111, Idaho Falls, ID 83402, 208.343.7523
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Sheet:
LEVEL 01 - CEILING PLAN AREA 'B'

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PROFESSIONAL ARCHITECT LICENSED 02/27/2025 PR-986/20 STATE OF IDAHO BRIAN F. COLEMAN

Revisions:

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Date:	02/27/2025

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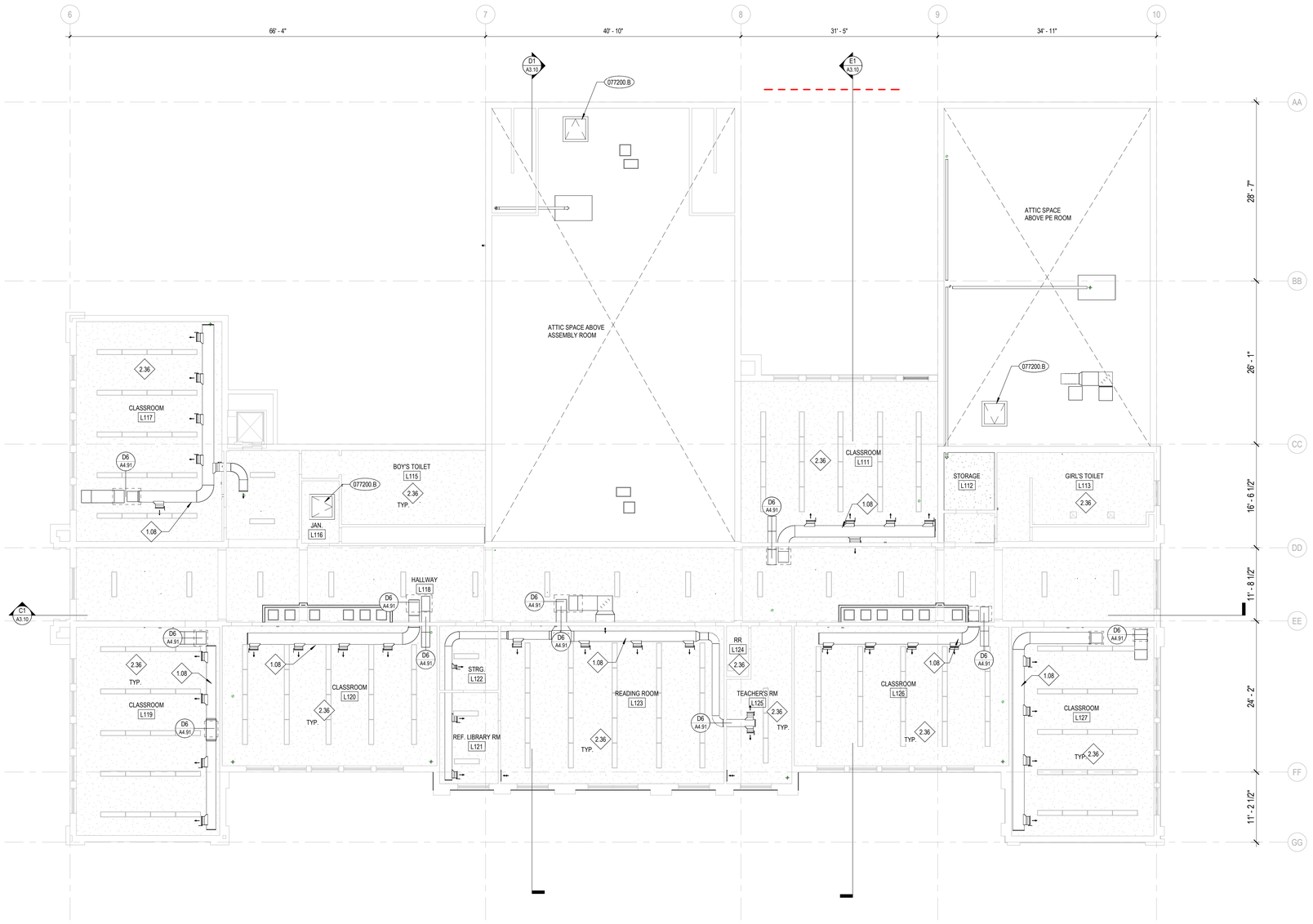
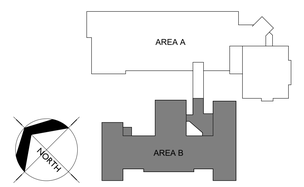


E1 / A9.02 LEVEL 2- REFLECTED CEILING PLAN
1/8" = 1'-0"



GENERAL NOTES

1. COORDINATE WITH MECHANICAL AND ELECTRICAL DRAWINGS AND SPECIFICATIONS FOR ADDITIONAL ITEMS TO BE PROVIDED AT THE CEILING PLANE AND IN THE WORK.
2. CENTER ALL LIGHT FIXTURES AND SPRINKLER HEADS IN THEIR RESPECTIVE CEILING PANEL.
3. INSTALL ALL SUSPENSION SYSTEMS FOR ACOUSTICAL PANEL CEILINGS PER PROVISIONS OF ASTM C 635 AND ASTM C 636.
4. ALL SOFFIT DIMENSIONS SHOWN ARE TO FACE OF FINISH.
5. COORDINATE WITH MECHANICAL & ELECTRICAL DRAWINGS AND SPECIFICATIONS FOR PHYSICAL SIZES OF ALL CEILING GRILLES, DIFFUSERS, FIXTURES, CANS, AND ALL RELATED ITEMS.
6. PAINT ALL EXPOSED-TO-VIEW STRUCTURAL STEEL DECK, AND ASSOCIATED STRUCTURAL ITEMS PAINT COLOR P-9, UNLESS OTHERWISE NOTED. RE: DIVISION 9 SECTION "INTERIOR PAINTING".
7. PAINT ALL EXPOSED-TO-VIEW MECHANICAL DUCTWORK AND ASSOCIATED ITEMS, ELECTRICAL CONDUIT AND ASSOCIATED ITEMS, PLUMBING AND FIRE PROTECTION LINES AND ALL ASSOCIATED ITEMS PAINT COLOR P-9, UNLESS OTHERWISE NOTED. RE: DIVISION 9 SECTION "INTERIOR PAINTING".
8. SUSPENSION SYSTEMS FOR GYPSUM BOARD CEILINGS SHALL BE INSTALLED PER THE SPECIFICATIONS AND ASTM C754.
9. PATCH AND PAINT WALL AROUND ALL MECHANICAL PENETRATIONS. PAINT TO MATCH EXISTING WALL.
10. ALL DUCTS TO BE INSTALLED AS TIGHT TO THE CEILING AS POSSIBLE, AT A MINIMUM OF 7'-6" ABOVE FINISH FLOOR, AND 8'-0" MINIMUM IN HALLWAYS.
11. EXISTING CEILING, LIGHTS AND SURROUNDING CONSTRUCTION TO BE PROTECTED. REPAIR OR REPLACE DAMAGED ITEMS.

KEYNOTES

077200.B ROOF HATCH

REFERENCE NOTES

1.08 MECHANICAL EQUIPMENT. SEE MECHANICAL DRAWINGS.
2.36 EXISTING CEILING TO REMAIN. PROTECT IN PLACE.

LEGEND

- 2' x 4' ACOUSTICAL CEILING METAL SUSPENSION SYSTEM WITH ACOUSTICAL PANEL CEILING UNITS, APC-1, U.O.N. RE: DIVISION 09 - FINISHES IN THE SPECIFICATIONS
- GYPSUM BOARD CEILING ON STEEL FRAMING AND SUPPORT SYSTEM. PAINT - P-9, U.O.N. RE: DIVISION 09 - FINISHES IN THE SPECIFICATION.
- AREA OF CEILING INFILL
- O.T.S. — OPEN TO STRUCTURE
- VERTICAL SERVICE DROP/CHASE. COORDINATE WITH MECHANICAL DRAWINGS.
- LIGHTING FIXTURES, COORDINATE WITH ELECTRICAL DRAWINGS.
- MECHANICAL FIXTURES, COORDINATE WITH MECHANICAL DRAWINGS.
- X' - X" — CEILING HEIGHT ABOVE FINISH FLOOR

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205 N. 10th Street, Suite 300, Boise, Idaho 83702, 208.343.7523
482 Constitution Way, Suite 111, Idaho Falls, ID 83402, 208.343.7523
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Project:
LINCOLN ELEMENTARY SCHOOL HVAC REPLACEMENT
LINCOLN ELEMENTARY SCHOOL
238 BUHL ST N
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Sheet:
LEVEL 02 - CEILING PLAN

100% CD

PROFESSIONAL ARCHITECT LICENSED 02/27/2025 AR-986101 STATE OF IDAHO BRIAN F. COLEMAN

Revisions:

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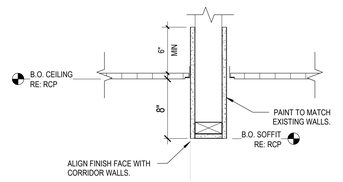
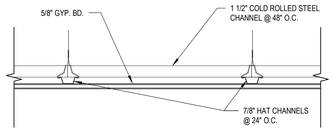
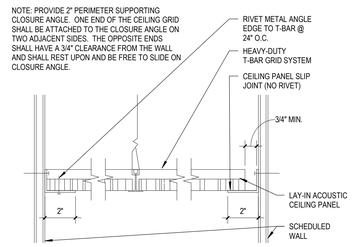


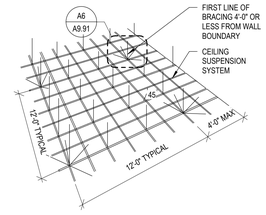
A1 / A9.91 SOFFIT DETAIL
1 1/2" = 1'-0"



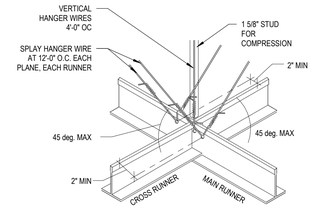
A2 / A9.91 SUSPENDED CEILING DETAIL
3" = 1'-0"



A3 / A9.91 TYPICAL LAY-IN CEILING TILE EDGE DETAIL
3" = 1'-0"



A5 / A9.91 TYPICAL SEISMIC BRACING DETAIL-01
NOT TO SCALE



A6 / A9.91 TYPICAL SEISMIC BRACING DETAIL-02
12" = 1'-0"

GENERAL NOTES

1. COORDINATE WITH MECHANICAL AND ELECTRICAL DRAWINGS AND SPECIFICATIONS FOR ADDITIONAL ITEMS TO BE PROVIDED AT THE CEILING PLANE AND IN THE WORK.
2. CENTER ALL LIGHT FIXTURES AND SPRINKLER HEADS IN THEIR RESPECTIVE CEILING PANEL.
3. INSTALL ALL SUSPENSION SYSTEMS FOR ACOUSTICAL PANEL CEILINGS PER PROVISIONS OF ASTM C 635 AND ASTM C 636.
4. ALL SOFFIT DIMENSIONS SHOWN ARE TO FACE OF FINISH.
5. COORDINATE WITH MECHANICAL & ELECTRICAL DRAWINGS AND SPECIFICATIONS FOR PHYSICAL SIZES OF ALL CEILING GRILLES, DIFFUSERS, FIXTURES, CANS, AND ALL RELATED ITEMS.
6. PAINT ALL EXPOSED-TO-VIEW STRUCTURAL STEEL DECK, AND ASSOCIATED STRUCTURAL ITEMS PAINT COLOR P-9, UNLESS OTHERWISE NOTED. RE: DIVISION 9 SECTION "INTERIOR PAINTING".
7. PAINT ALL EXPOSED-TO-VIEW MECHANICAL DUCTWORK AND ASSOCIATED ITEMS, ELECTRICAL CONDUIT AND ASSOCIATED ITEMS, PLUMBING AND FIRE PROTECTION LINES AND ALL ASSOCIATED ITEMS PAINT COLOR P-9, UNLESS OTHERWISE NOTED. RE: DIVISION 9 SECTION "INTERIOR PAINTING".
8. SUSPENSION SYSTEMS FOR GYPSUM BOARD CEILINGS SHALL BE INSTALLED PER THE SPECIFICATIONS AND ASTM C754.
9. PATCH AND PAINT WALL AROUND ALL MECHANICAL PENETRATIONS. PAINT TO MATCH EXISTING WALL.
10. ALL DUCTS TO BE INSTALLED AS TIGHT TO THE CEILING AS POSSIBLE. AT A MINIMUM OF 7'-6" ABOVE FINISH FLOOR, AND 8'-0" MINIMUM IN HALLWAYS.
11. EXISTING CEILING, LIGHTS AND SURROUNDING CONSTRUCTION TO BE PROTECTED. REPAIR OR REPLACE DAMAGED ITEMS.

KEYNOTES

REFERENCE NOTES

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
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Sheet:
CEILING DETAILS

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STRUCTURAL SHEET INDEX

SHEET NUMBER	SHEET NAME	ISSUE LOG: 100% DD	ISSUE LOG: BID SET
S0.00	ABBREVIATIONS, SYMBOLS AND SHEET INDEX	X	X
S1.00	GENERAL STRUCTURAL NOTES	X	X
S1.01	GENERAL STRUCTURAL NOTES	X	X
S1.02	STATEMENT OF STRUCTURAL SPECIAL INSPECTIONS AND TESTING	X	X
S1.03	STATEMENT OF STRUCTURAL SPECIAL INSPECTIONS AND TESTING	X	X
S2.01	LOWER ROOF - LOWER TIER FRAMING PLAN	X	X
S2.02	CLASSROOM ADDITION BUILDING ROOF FRAMING PLAN, ORIGINAL BUILDING LOWER ROOF - UPPER TIER & LEVEL 02 FLOOR FRAMING PLAN	X	X
S2.03	HIGHER ROOF - LOWER TIER FRAMING PLAN	X	X
S2.04	HIGHER ROOF - UPPER TIER FRAMING PLAN	X	X
S3.00	RETROFIT DETAILS	X	X
S3.01	RETROFIT DETAILS	X	X
S3.02	RETROFIT DETAILS		X
S3.03	RETROFIT DETAILS		X

ISSUE LOG KEY:
X ISSUED AS PART OF A SET
- NOT AS PART OF ISSUED SET
* FOR INFORMATION ONLY

STRUCTURAL ABBREVIATIONS

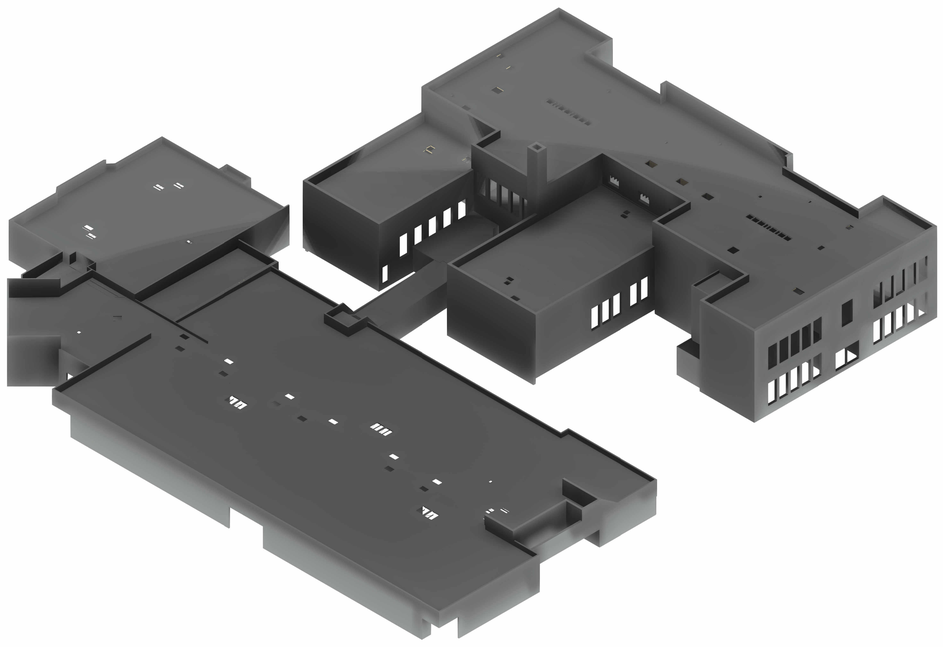
(E)	EXISTING
AB	ANCHOR BOLT
ADD'L	ADDITIONAL
ADJ	ADJUSTABLE
AESS	ARCHITECTURALLY EXPOSED STRUCTURAL STEEL
AFF	ABOVE FINISH FLOOR
ANCH	ANCHOR
ARCH	ARCHITECTURAL
B.O.	BOTTOM OF
BLDG	BUILDING
BLKG	BLOCKING
BM	BEAM
BN	DIAPHRAGM BOUNDARY NAILING
BOT	BOTTOM
BRG	BEARING
BSMT	BASEMENT
BTWN	BETWEEN
C	CAMBER
CAP	CAPACITY
CC	CENTER TO CENTER
CDF	CONTROLLED DENSITY FILL
CIP	CAST-IN-PLACE
CJ	CONSTRUCTION OR CONTROL JOINT
CJP	COMPLETE JOINT PENETRATION
CL	CENTERLINE
CLG	CEILING
CLR	CLEAR
CMU	CONCRETE MASONRY UNIT
COL	COLUMN
CONC	CONCRETE
CONN	CONNECTION
CONST	CONSTRUCTION
CONT	CONTINUOUS
COORD	COORDINATE
CTR	CENTER
CY	CUBIC YARD
DBA	DEFORMED BAR ANCHOR
DBL	DOUBLE
DCW	DEMAND CRITICAL WELD
DEMO	DEMOLISH
DET	DETAIL
DF	DOUGLAS FIR
DIA	DIAMETER
DIAG	DIAGONAL
DKG	DECKING
DN	DOWN
DWF	DEFORMED WIRE FABRIC
DWG	DRAWING
DWL	DOWEL
EA	EACH
EF	EACH FACE
EL	ELEVATION
ELECT	ELECTRICAL
ELEV	ELEVATOR
EN	PANEL EDGE NAILING
EQ	EQUAL OR EQUIPMENT
ES	EACH SIDE
EW	EACH WAY
EXP	EXPANSION
EXT	EXTERIOR
F	FAHRENHEIT
FD	FLOOR DRAIN
FDN	FOUNDATION
FF	FINISH FLOOR
FLR	FLOOR
FOB	FACE OF BUILDING
FS	FAR SIDE
FT	FEET
FTG	FOOTING
GA	GAUGE
GALV	GALVANIZED
GB	GRADE BEAM
GEN	GENERAL
GL	GLUED LAMINATED TIMBER
GOV	GOVERNMENT
GR	GRADE
GWB	GYPSUM WALL BOARD
HF	HEM-FIR
HGR	HANGER
HK	HOOK
HORIZ	HORIZONTAL
HP	HIGH POINT
HSS	HOLLOW STRUCTURAL SECTION
IBC	INTERNATIONAL BUILDING CODE
ID	INSIDE DIAMETER
IE	INVERT ELEVATION
IF	INSIDE FACE
IN	INCH
INFO	INFORMATION
INT	INTERIOR
JST	JOIST
JT	JOINT
K	KIP (1,000 LBS.)
KSF	KIPS PER SQUARE FOOT
LF	LINEAL FOOT
LFH	LONG FACE HORIZONTAL
LLH	LONG LEG HORIZONTAL
LLV	LONG LEG VERTICAL
LNGT	LONGITUDINAL
LP	LOW POINT
LSL	LAMINATED STRAND LUMBER
LVL	LAMINATED VENEER LUMBER
MAX	MAXIMUM
MECH	MECHANICAL
MFR	MANUFACTURER
MIN	MINIMUM
MISC	MISCELLANEOUS
NIC	NOT IN CONTRACT
NO	NUMBER
NOM	NOMINAL
NS	NEAR SIDE
NS	NONSHRINK
NTS	NOT TO SCALE
OC	ON CENTER
OD	OUTSIDE DIAMETER
OF	OUTSIDE FACE
OPNG	OPENING
OPP	OPPOSITE
PAF	POWER ACTUATED FASTENER
PC	PIECE
PC	PILE CAP
PEN	PENETRATION
PJP	PARTIAL JOINT PENETRATION
PL	PLATE
PLWD	PLYWOOD
PSF	POUNDS PER SQUARE FOOT
PSI	POUNDS PER SQUARE INCH
PT	POST-TENSIONED
PT	PRESERVATIVE-TREATED
PWT	PREFABRICATED WOOD TRUSS
R	RADIUS
RD	ROOF DRAIN
REINF	REINFORCING
REQ'D	REQUIRED
RND	ROUND
RO	ROUGH OPENING
RTN	RETURN
SC	SLIP CRITICAL
SCHED	SCHEDULE
SECT	SECTION
SFRS	SEISMIC FORCE-RESISTING SYSTEM
SHT	SHEET
SHTG	SHEATHING
SIM	SIMILAR
SOG	SLAB-ON-GRADE
SPEC	SPECIFICATION
SQ	SQUARE
SS	STAINLESS STEEL
STD	STANDARD
STIFF	STIFFENER
STIRR	STIRRUP
STL	STEEL
STRUCT	STRUCTURAL
SUPP	SUPPORT
SYM	SYMMETRICAL
T&B	TOP AND BOTTOM
T&G	TONGUE AND GROOVE
T.O.	TOP OF
THK	THICK(NESS)
THRU	THROUGH
TRANS	TRANSVERSE
TYP	TYPICAL
UNO	UNLESS NOTED OTHERWISE
UT	ULTRASONIC TESTING
VERT	VERTICAL
VIF	VERIFY IN FIELD
W/	WITH
W/O	WITHOUT
WD	WOOD
WF	WIDE FLANGE
WHS	WELDED HEADED STUD
WP	WORK POINT

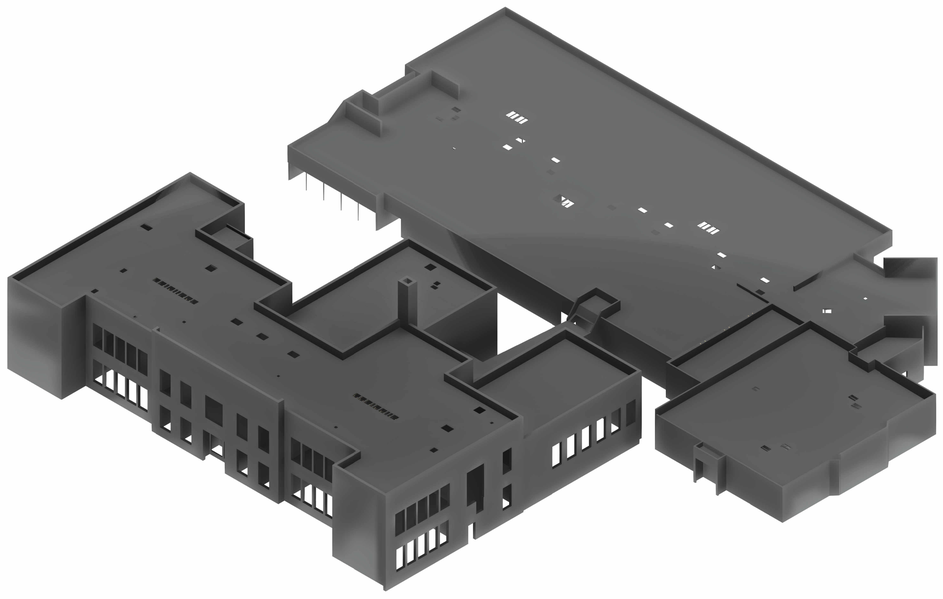
STRUCTURAL DRAWING SYMBOLS

GRIDLINE (10)
SURFACE - SLOPE UP
SURFACE - STEPPED
SURFACE - SLOPE DOWN
SURFACE - SLOPE TWO WAYS
UNDISTURBED SOIL, COMPACTED SOIL, BACKFILL, OR ANY PREPARED SUBGRADE.
PLAN NORTH — NORTH ARROW
DETAIL SYMBOL
BUILDING SECTION CUTS
ELEVATION OF WALL OR FRAME
A — A — DETAIL SECTION
T.O. XXXX / EL = XX'-XX" — SPOT ELEVATION AS INDICATED
T.O. DECK
T.O.CONC.
T.O. STEEL
T.O. PLY
DECK BRG
LEVEL 01 — ELEVATION OF LEVEL
WP — WORKPOINT
DN — DIRECTION OF DOWNWARD SLOPE

CONCRETE WALL
CMU WALL
WALL ABOVE
WALL BELOW

ISOMETRIC VIEWS





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kpff
412 E. ParkCenter Blvd,
Suite 200
Boise, ID 83706
208.336.6985
www.kpff.com

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

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TFSD DISTRICT WIDE HVAC REPLACEMENT

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Sheet:
ABBREVIATIONS, SYMBOLS AND SHEET INDEX

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Project No: 10212400111
Drawn By: DC/YK
Checked By: JW
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GENERAL STRUCTURAL NOTES

DESIGN CRITERIA:

ROOF LIVE LOADS:

ROOF 20 PSF (REDUCIBLE)

ROOF SNOW LOADS: (SECTION 1603.1.3 OF THE CODE):

GROUND SNOW LOAD: P_g = 15 PSF

FLAT ROOF SNOW LOAD: P_f = 12 PSF

MINIMUM SNOW LOAD: P_m = 25 PSF

SNOW EXPOSURE FACTOR: C_e = 1.0

SNOW LOAD IMPORTANCE FACTOR: I_s = 1.1

SLOPE FACTOR: C_s = 1.0

THERMAL FACTOR: C_t = 1.0

RAIN LOADS:

RAIN INTENSITY: i = 1.0 in/hr

WIND DESIGN DATA:

WIND LOADS ARE IN ACCORDANCE WITH SECTION 1609 OF THE CODE.

RISK CATEGORY: III

BASIC WIND SPEED: V = 110 MPH (3-SECOND GUST)

WIND EXPOSURE: C

INTERNAL PRESSURE COEFFICIENT: GC_{pi} = ± 0.18

COMPONENTS & CLADDING WIND PRESSURES (ORIGINAL)				
LOCATION		COMPONENT TRIBUTARY AREA (SQ FT)		
		10	50	100
ROOF	ZONE 1	12.2/-47.6	10.4/-40.4	9.6/-37.2
	ZONE 2	12.2/-62.7	10.4/-53.4	9.6/-49.4
	ZONE 3	12.2/-85.5	10.4/-66.9	9.6/-58.8
WALLS	ZONE 4	29.9/-32.4	26.8/-29.2	25.4/-28.0
	ZONE 5	29.9/-40.0	26.8/-33.8	25.4/-31.0
PARAPETS	ZONE 4	92.7/-62.3	80.2/-56.0	74.8/-53.4
	ZONE 5	115.5/-69.9	93.6/-60.5	84.2/-56.4

COMPONENTS & CLADDING WIND PRESSURES (ADDITION)				
LOCATION		COMPONENT TRIBUTARY AREA (SQ FT)		
		10	50	100
ROOF	ZONE 1	10.8/-42.0	9.2/-35.6	8.5/-32.8
	ZONE 2	10.8/-55.3	9.2/-47.1	8.5/-43.6
	ZONE 3	10.8/-75.4	9.2/-58.9	8.5/-51.8
WALLS	ZONE 4	26.4/-28.6	23.6/-25.8	22.4/-24.7
	ZONE 5	26.4/-35.2	23.6/-29.8	22.4/-27.3
PARAPETS	ZONE 4	81.7/-54.9	70.7/-49.4	65.9/-47.1
	ZONE 5	101.8/-61.6	82.5/-53.4	74.2/-49.7

EARTHQUAKE DESIGN DATA:

SITE AND OCCUPANCY PARAMETERS	
SEISMIC IMPORTANCE FACTOR	I_e = 1.25
RISK CATEGORY	III
MAPPED SPECTRAL RESPONSE ACCELERATION PARAMETERS	S_S = 0.192
	S_1 = 0.082
SITE CLASS	D-DEFAULT
DESIGN SPECTRAL RESPONSE ACCELERATION PARAMETERS	S_{DS} = 0.205
	S_{D1} = 0.131
SEISMIC DESIGN CATEGORY	B

BUILDING PARAMETERS (ORIGINAL)	
SEISMIC FORCE RESISTING SYSTEM	ORDINARY PLAIN MASONRY SHEAR WALLS (BEARING)
SEISMIC RESPONSE COEFFICIENTS	C_S = 0.171
RESPONSE MODIFICATION FACTOR	R = 1.5
SYSTEM OVERSTRENGTH FACTOR	Ω_0 = 2.5
DEFLECTION AMPLIFICATION FACTOR	C_d = 1.25
ANALYSIS PROCEDURE USED	EQUIVALENT LATERAL FORCE
DESIGN BASE SHEAR	V = 424.4 KIPS

BUILDING PARAMETERS (ADDITION)	
SEISMIC FORCE RESISTING SYSTEM	LIGHT-FRAME (WOOD) WALLS WITH SHEAR PANELS OF ALL MATERIALS
SEISMIC RESPONSE COEFFICIENTS	C_S = 0.128
RESPONSE MODIFICATION FACTOR	R = 2.0
SYSTEM OVERSTRENGTH FACTOR	Ω_0 = 2.5
DEFLECTION AMPLIFICATION FACTOR	C_d = 2.0
ANALYSIS PROCEDURE USED	EQUIVALENT LATERAL FORCE
DESIGN BASE SHEAR	V = 93.9 Kips

GENERAL:

STRUCTURAL DRAWINGS:

1. STRUCTURAL DRAWINGS ARE A PORTION OF THE CONTRACT DOCUMENTS AND ARE INTENDED TO BE USED WITH OTHER DRAWINGS, SPECIFICATIONS, AND DOCUMENTS ENUMERATED IN THE OWNER/CONTRACTOR AGREEMENT.
2. REVIEW AND COORDINATE THE REQUIREMENTS OF THE DRAWINGS AND SPECIFICATIONS PRIOR TO THE START OF CONSTRUCTION. ANY DISCREPANCY IDENTIFIED SHALL BE BROUGHT TO THE ATTENTION OF THE ARCHITECT SO THAT A CLARIFICATION CAN BE ISSUED. ANY WORK PERFORMED IN CONFLICT WITH THE CONTRACT DOCUMENTS SHALL BE CORRECTED BY THE CONTRACTOR AT THEIR OWN EXPENSE.
3. NOTES AND DETAILS ON DRAWINGS SHALL TAKE PRECEDENCE OVER GENERAL NOTES AND TYPICAL DETAILS. WHERE NO DETAILS ARE GIVEN, CONSTRUCTION SHALL BE AS SHOWN FOR SIMILAR WORK.

CODE REQUIREMENTS AND REFERENCED STANDARDS:

1. ALL WORK SHALL CONFORM TO THE MINIMUM STANDARDS OF THE FOLLOWING CODES:

   2018 INTERNATIONAL BUILDING CODE (IBC) AND INTERNATIONAL EXISTING BUILDING CODE (IEBC) WITH LATEST REVISIONS REFERRED TO HERE AS "THE CODE", AND ANY OTHER REGULATING AGENCIES WHICH HAVE AUTHORITY OVER ANY PORTION OF THE WORK AND THOSE CODES & STANDARDS LISTED IN THESE NOTES AND SPECIFICATIONS.

2. ASTM SPECIFICATIONS AND REFERENCED STANDARDS ON THE DRAWINGS SHALL BE THE VERSION REFERENCED IN CHAPTER 35 OF THE CODE OR AS REFERENCED IN THE APPLICABLE DESIGN STANDARD.

EXISTING CONDITIONS:

1. VERIFY EXISTING CONDITIONS, DIMENSIONS, AND ELEVATIONS PRIOR TO STARTING CONSTRUCTION. NOTIFY THE ARCHITECT OF ANY DISCREPANCIES OR INCONSISTENCIES.
2. INVESTIGATE SITE DURING CLEARING AND EARTHWORK OPERATIONS FOR FILLED EXCAVATIONS OR BURIED STRUCTURES, SUCH AS CESSPOOLS, CISTERNS, FOUNDATIONS, ETC. IF ANY SUCH STRUCTURES ARE FOUND, NOTIFY THE ARCHITECT IMMEDIATELY.

TEMPORARY CONDITIONS:

1. THE CONTRACT DRAWINGS REPRESENT THE FINISHED STRUCTURE. THEY DO NOT INDICATE THE METHOD OF CONSTRUCTION. PROVIDE ALL MEASURES NECESSARY TO PROTECT THE STRUCTURE DURING CONSTRUCTION, INCLUDING BRACING, SHORING FOR LOADS DUE TO CONSTRUCTION EQUIPMENT ETC. OBSERVATION VISITS TO THE SITE BY THE STRUCTURAL ENGINEER DO NOT INCLUDE INSPECTION OF THE ABOVE ITEMS.
2. THE CONTRACT STRUCTURAL DRAWINGS SHOW THE BUILDING IN ITS FINAL INTENDED POSITION. MAKE PROVISIONS IN THE CONSTRUCTION SEQUENCING OF THE BUILDING TO TAKE INTO ACCOUNTS SHRINKAGE, CREEP, SHORTENING, THERMAL EXPANSION, ETC.
3. SPREAD OUT CONSTRUCTION MATERIALS IF PLACED ON FRAMED ROOF OR FLOOR. LOAD SHALL NOT EXCEED THE DESIGN LIVE LOAD PER SQUARE FOOT.

OTHER DRAWINGS:

1. SEE ARCHITECTURAL DRAWINGS FOR THE FOLLOWING:
   - A. SIZE AND LOCATION OF ALL DOOR AND WINDOW OPENINGS, EXCEPT AS NOTED
   - B. SIZE AND LOCATION OF ALL INTERIOR AND EXTERIOR NON-BEARING PARTITIONS UNLESS NOTED AND/OR DETAILED ON THE STRUCTURAL DRAWINGS
   - C. SIZE AND LOCATION OF ALL CONCRETE CURBS, EQUIPMENT PADS, PITS, FLOOR DRAINS, SLOPES, DEPRESSED AREAS, CHANGES IN LEVEL, CHAMFERS, GROOVES, INSERTS, ETC
   - D. SIZE AND LOCATION OF ALL FLOOR AND ROOF OPENINGS EXCEPT AS SHOWN
   - E. FLOOR AND ROOF FINISHES
   - F. MISCELLANEOUS DRAINAGE AND WATERPROOFING
   - G. ALL FIREPROOFING REQUIREMENTS INCLUDING FIREPROOFING OF STRUCTURAL STEEL
   - H. DIMENSIONS NOT SHOWN ON STRUCTURAL DRAWINGS
2. SEE MECHANICAL, PLUMBING AND ELECTRICAL DRAWINGS FOR THE FOLLOWING:
   - A. PIPE RUNS, SLEEVES, HANGERS, TRENCHES, WALL AND SLAB OPENINGS, ETC., EXCEPT AS SHOWN OR NOTED.
   - B. ELECTRICAL CONDUIT RUNS, BOXES, OUTLETS IN WALLS AND SLABS.
   - C. CONCRETE INSERTS FOR ELECTRICAL, MECHANICAL OR PLUMBING FIXTURES.
   - D. SIZE AND LOCATION OF MACHINE OR EQUIPMENT BASES, ANCHOR BOLTS FOR MOTOR MOUNTS.

SPECIAL INSPECTION AND TESTING:

1. SPECIAL INSPECTION WILL BE PROVIDED BY A THIRD-PARTY TESTING AGENCY, RETAINED BY THE OWNER TO VERIFY COMPLIANCE WITH ITEMS SUMMERIZED IN THE STATEMENT OF SPECIAL INSPECTION.
2. CONTRACTOR SHALL PROVIDE SUFFICIENT NOTICE AND ACCESS FOR THE SPECIAL INSPECTOR TO PERFORM THESE INSPECTIONS.

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kpff
412 E. ParkCenter Blvd, Suite 200
Boise, ID 83706
208.336.6985
www.kpff.com

HUMMEL ARCHITECTS
205 N. 10th Street Suite 300 Boise, Idaho 83702 208.343.7323
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Sheet:
GENERAL STRUCTURAL NOTES

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GENERAL STRUCTURAL NOTES

ROUGH CARPENTRY:

GENERAL:

1. COMPLY WITH THE REQUIREMENTS IN CHAPTER 23 OF THE CODE AND AF&PA'S WCD 1, "DETAILS FOR CONVENTIONAL WOOD FRAME CONSTRUCTION," UNLESS OTHERWISE INDICATED

PRODUCTS:

2. DIMENSIONAL LUMBER FRAMING:

   A. SPECIES, GRADE, AND MOISTURE CONTENT NOTED BELOW:

DIMENSIONAL LUMBER			
USE	SPECIES	GRADE	MOISTURE CONTENT
LUMBER 2" TO 4" THICK x 5" OR WIDER (JOISTS/RAFTERS)	DOUGLAS FIR-LARCH	#2 & BETTER	KD (15%)
LUMBER 2" TO 3" THICK x 4" TO 6" WIDE (STUDS)	DOUGLAS FIR-LARCH	#2 & BETTER	KD (15%)
LUMBER 5x5 AND GREATER (BEAMS)	DOUGLAS FIR-LARCH	#1	S-DRY (19%)
LUMBER 5x5 AND GREATER (POSTS)	DOUGLAS FIR-LARCH	#1	S-DRY (19%)

3. FIRE-RETARDANT-TREATED MATERIALS

   A. APPLICATION: TREAT ALL LUMBER IN 3 HOUR FIRE RATED WALLS AND EXTERIOR WALLS IN TYPE III CONSTRUCTION. SEE ARCHITECTURAL DRAWINGS FOR FIRE RATED WALL LOCATIONS AND DETAILS.

4. ENGINEERED WOOD PRODUCTS:

A. STRUCTURAL COMPOSITE LUMBER MADE FROM WOOD VENEERS WITH GRAIN PRIMARILY PARALLEL TO MEMBER LENGTHS, EVALUATED AND MONITORED ACCORDING TO ASTM D 5456 AND MANUFACTURED WITH AN EXTERIOR-TYPE ADHESIVE COMPLYING WITH ASTM D 2559. PROVIDE PRODUCTS THAT CONFORM TO THE FOLLOWING MINIMUM DESIGN STRESS:

STRUCTURAL COMPOSITE LUMBER			
PRODUCT TYPE & USE	FLEXURAL STRESS, F_b	SHEAR STRESS, F_v	MODULUS OF ELASTICITY
LAMINATED STRAND LUMBER (LSL)			
BEAM	2,325 psi	310 psi	1.55×10^6 psi
COLUMN	1,700 psi	425 psi	1.3×10^6 psi

5. FASTENERS:

   1. WHERE ROUGH CARPENTRY IS EXPOSED TO WEATHER, IN GROUND CONTACT, PRESERVATIVE TREATED, FIRE RETARDANT TREATED, OR IN AREA OF HIGH RELATIVE HUMIDITY, PROVIDE FASTENERS WITH HOT-DIP ZINC COATING COMPLYING WITH ASTM A 153.

   2. NAILS: ASTM F1667, COMMON TYPE.

6. WOOD CONNECTORS:

   A. PROVIDED BASIS OF DESIGN HANGERS, STRAPS, TIES, HOLD DOWNS, ETC, AS INDICATED ON THE DRAWINGS.

   B. WHERE CONNECTORS ARE IN EXPOSED, EXTERIOR APPLICATIONS OR IN CONTACT WITH PRESERVATIVE TREATED LUMBER, PROVIDE HOT-DIP GALVANIZED OR STAINLESS STEEL CONNECTORS.

EXECUTION:

1. WHERE POSTS OR MULTIPLE STUDS UNDER BEAMS OR HEADERS ARE CALLED FOR ON DRAWINGS THOSE POSTS OR MULTIPLE STUDS SHALL BE CARRIED TO THE FOUNDATLON/PODIUM LEVEL U.N.O.

2. JOIST BLOCKING AND BRIDGING:

   A. PROVIDE FULL DEPTH SOLID BLOCKING BETWEEN JOISTS OVER SUPPORT AND BELOW PARTITION WALLS.

   B. PROVIDE FULL DEPTH BRIDGING AT 8'-0" O.C. MAX, NOT MORE THAN 8'-0" FROM SUPPORT.

3. PROVIDE DOUBLE JOISTS UNDER NON-BEARING WALLS RUNNING PARALLEL TO JOISTS.

4. PROVIDE REQUIRED FIRE STOPPING, BACKING FOR INTERIOR FINISHES, NONBEARING WALLS, AND OTHER NON-STRUCTURAL FRAMING THAT ARE NOT SHOWN ON STRUCTURAL DRAWINGS.

5. SECURELY ATTACH ROUGH CARPENTRY WORK TO SUBSTRATE BY ANCHORING AND FASTENING AS INDICATED, COMPLYING WITH TABLE 2304.10.1 OF THE CODE AND THE ICC-ES REPORT FOR THE FASTENER.

6. INSTALL WOOD CONNECTORS PER MANUFACTURER'S WRITTEN INSTRUCTIONS AND THE ICC-ES REPORT.

STRUCTURAL STEEL:

GENERAL:

1. DETAIL, FABRICATE, AND ERECT STRUCTURAL STEEL IN ACCORDANCE WITH THE FOLLOWING PROVISIONS:

   A. AISC 303 - "CODE OF STANDARD PRACTICE FOR STEEL BUILDINGS AND BRIDGES"

   B. AISC 360 - "SPECIFICATIONS FOR STRUCTURAL STEEL BUILDINGS"

   C. AISC 341 - "SEISMIC PROVISIONS FOR STRUCTURAL STEEL BUILDINGS" FOR MEMBERS OF THE SEISMIC FORCE RESISTING SYSTEM (SFRS)

   D. RCSC's - "SPECIFICATIONS FOR STRUCTURAL JOINTS USING HIGH STRENGTH BOLTS"

2. COMPLY WITH THE FOLLOWING PROVISIONS FOR ALL WELDED JOINTS:

   A. AWS D1.1 - "STRUCTURAL STEEL WELDING CODE"

3. WELD LENGTHS CALLED FOR ON PLANS ARE THE NET EFFECTIVE LENGTH REQUIRED. WHERE FILLET WELD SYMBOL IS GIVEN WITHOUT INDICATION OF SIZE, USE MINIMUM SIZE WELDS AS SPECIFIED IN AISC 360 SECTION J2.2b.

PRODUCTS:

1. ALL STRUCTURAL STEEL SHALL CONFORM TO THE ASTM DESIGNATION AS INDICATED BELOW (UNO):

TYPE	ASTM SPECIFICATION
W SHAPES AND WT SHAPES	A992 OR A913, GR 50 (S75)
ANGLES & CHANNELS	A36
PLATES & BARS	A36 A572, GR 50 (WHERE INDICATED)
PIPE SECTIONS	A53, GR B
HSS SECTIONS	A500 GR B A1085 (WHERE INDICATED)
CORROSION RESISTANT STEEL (WHERE INDICATED)	A588 GR 50 (FOR ROLLED SHAPES) A847 (FOR HSS)
HIGH STRENGTH BOLTS (AS INDICATED IN DETAILS)	A325 OR F1852 (TWIST-OFF TYPE) A490 OR F2280 (TWIST-OFF TYPE)
ANCHOR RODS	F1554 GR 55 F1554 GR 36/105 (WHERE INDICATED)
COMMON/MACHINE BOLTS	A307, GR A
SHEAR CONNECTORS	A108, GRADES 1015 TROUGH 1020 AWS D1.1, TYPE B

EXECUTION:

1. DO NOT CUT OR DAMAGE EXISTING REINFORCEMENT. PRIOR TO FABRICATING PLATES, MEMBERS, OR OTHER STEEL ASSEMBLIES ATTACHED TO REINFORCED CONCRETE/MASONRY USING POST-INSTALLED ANCHORS, LOCATE ALL REINFORCEMENT AND CONFIRM CONSTRUCTABILTY OF ANCHOR LOCATIONS. SHOULD CONFLICTS WITH REINFORCEMENT OCCUR, SUBMIT ALTERNATE ANCHOR LOCATIONS AND REVISED STEEL FABRICATIONS TO ARCHITECT FOR REVIEW AND APPROVAL.

2. BACKUP BARS MAY REMAIN IN PLACE UNLESS NOTED IN DRAWINGS, OR WHEN ULTRASONIC TESTING INDICATES A POSSIBLE WELD DEFECT. IF DEFECTS ARE INDICATED BACKUP BAR IS TO BE REMOVED AND THE ROOT INSPECTED. IF IMPERFECTIONS ARE FOUND, THEY ARE TO BE REMOVED AND REPAIRED PER AWS REQUIREMENTS.

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kpff
412 E. ParkCenter Blvd, Suite 200
Boise, ID 83706
208.336.6985
www.kpff.com

HUMMEL ARCHITECTS
205 N. 10th Street Suite 300 Boise, Idaho 83702 208.343.7523
482 Constitution Way, Suite 111 Idaho Falls, ID 83402 208.543.7523
hummelarch.com

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238 BUHL ST N
TWIN FALLS, ID 83301

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GENERAL STRUCTURAL NOTES

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STATEMENT OF STRUCTURAL SPECIAL INSPECTIONS AND TESTING

TABLE 2 - REQUIRED STRUCTURAL SPECIAL INSPECTIONS

SYSTEM OR MATERIAL	INSPECTION				REMARKS
	IBC CODE REFERENCE	CODE OR STANDARD REFERENCE	FREQUENCY (NOTE 8) OBSERVE	FREQUENCY (NOTE 8) PERFORM	
STEEL					
INSPECTION TASKS PRIOR TO WELDING:					
WELDING PROCEDURE SPECIFICATIONS (WPS) AVAILABLE	1705.2	AISC 360: TB N5.4-1 AISC 360: N5.4	-	X	-
MANUFACTURER CERTIFICATIONS FOR WELDING CONSUMABLES AVAILABLE			-	X	-
MATERIAL IDENTIFICATION (TYPE/GRADE)			X	-	-
WELDER IDENTIFICATION SYSTEM			X	-	-
FIT-UP OF GROOVE WELDS (INCLUDING JOINT GEOMETRY): JOINT PREPARATION, DIMENSIONS (ALIGNMENT, ROOT OPENING, ROOT FACE, BEVEL), CLEANLINESS (CONDITION OF STEEL SURFACES), TACKING (TACK WELD QUALITY AND LOCATION), BACKING TYPE AND FIT (IF APPLICABLE)			X	-	-
CONFIGURATION AND FINISH OF ACCESS HOLES			X	-	-
FIT-UP OF FILLET WELDS: DIMENSIONS (ALIGNMENT, GAPS AT ROOT), CLEANLINESS (CONDITION OF STEEL SURFACES), TACKING (TACK WELD QUALITY AND LOCATION), BACKING TYPE AND FIT (IF APPLICABLE)			X	-	-
CHECK WELDING EQUIPMENT			-	-	FABRICATOR OR ERECTOR SHALL OBSERVE
INSPECTION TASKS DURING WELDING:					
USE OF QUALIFIED WELDERS	1705.2	AISC 360: TB N5.4-2 AISC 360: N5.4	X	-	-
CONTROL AND HANDLING OF WELDING CONSUMABLES: PACKAGING, EXPOSURE CONTROL			X	-	-
NO WELDING OVER CRACKED TACK WELDS			X	-	-
ENVIRONMENTAL CONDITIONS: WIND SPEED WITHIN LIMITS, PRECIPITATION AND TEMPERATURE			X	-	-
WPS FOLLOWED: SETTINGS ON WELDING EQUIPMENT, TRAVEL SPEED, SELECTED WELDING MATERIALS, SHIELDING GAS TYPE/FLOW RATE, PREHEAT APPLIED, INTERPASS TEMPERATURE MAINTAINED (MIN./MAX.), PROPER POSITION (F, V, H, OH)			X	-	-
WELDING TECHNIQUES: INTERPASS AND FINAL CLEANING, EACH PASS WITHIN PROFILE LIMITATIONS, EACH PASS MEETS QUALITY REQUIREMENTS			X	-	-
INSPECTION TASKS AFTER WELDING:					
WELDS CLEANED	1705.2	AISC 360: TB N5.4-3 AISC 360: N5.4	X	-	-
SIZE, LENGTH AND LOCATION OF WELDS			-	X	-
WELDS MEET VISUAL ACCEPTANCE CRITERIA: CRACK PROHIBITION, WELD/BASE-METAL FUSION, CRATER CROSS SECTION, WELD PROFILES, WELD SIZE, UNDERCUT, POROSITY			-	X	-
ARC STRIKES			-	X	-
K-AREA			-	X	-
BACKING REMOVED AND WELD TABS REMOVED (IF REQUIRED)			-	X	-
REPAIR ACTIVITIES			-	X	-
DOCUMENT ACCEPTANCE OR REJECTION OF WELDED JOINT OR MEMBER			-	X	-
INSPECTION TASKS PRIOR TO BOLTING:					
MANUFACTURER'S CERTIFICATIONS AVAILABLE FOR FASTENER MATERIALS	1705.2	AISC 360: TB N5.6-1 AISC 360: N5.6	-	X	-
FASTENERS MARKED IN ACCORDANCE WITH ASTM REQUIREMENTS			X	-	-
PROPER FASTENERS SELECTED FOR THE JOINT DETAIL (GRADE, TYPE, BOLT LENGTH IF THREADS ARE TO BE EXCLUDED FROM SHEAR PLANE)			X	-	-
PROPER BOLTING PROCEDURE FOR JOINT DETAIL			X	-	-
CONNECTING ELEMENTS, INCLUDING THE APPROPRIATE FAYING SURFACE CONDITION AND HOLE PREPARATION, IF SPECIFIED, MEET APPLICABLE REQUIREMENTS			X	-	-
PRE-INSTALLATION VERIFICATION TESTING BY INSTALLATION PERSONNEL OBSERVED AND DOCUMENTED FOR FASTENER ASSEMBLIES AND METHODS USED			X	-	-
PROPER STORAGE PROVIDED FOR BOLTS, NUTS, WASHERS AND OTHER FASTENER COMPONENTS			X	-	-
INSPECTION TASKS DURING BOLTING:					
FASTENER ASSEMBLIES, OF SUITABLE CONDITION, PLACED IN ALL HOLES AND WASHERS (IF REQUIRED) ARE POSITIONED AS REQUIRED	1705.2	AISC 360: TB N5.6-2 AISC 360: N5.6	X	-	-
JOINT BROUGHT TO SNUG-TIGHT CONDITION PRIOR TO THE PRETENSIONING OPERATION			X	-	-
FASTENER COMPONENT NOT TURNED BY THE WRENCH PREVENTED FROM ROTATING			X	-	-
FASTENERS ARE PRETENSIONED IN ACCORDANCE WITH THE RCSC SPECIFICATION, PROGRESSING SYSTEMATICALLY FROM THE MOST RIGID POINT TOWARD THE FREE EDGES			X	-	-
INSPECTION TASKS AFTER BOLTING:					
DOCUMENT ACCEPTANCE OR REJECTION OF BOLTED CONNECTIONS	1705.2	AISC 360: TB N5.6-3	-	X	-
INSPECTION OF STEEL ELEMENTS OF COMPOSITE CONSTRUCTION PRIOR TO CONCRETE PLACEMENT:					
PLACEMENT AND INSTALLATION OF STEEL DECK	1705.2	AISC 360: TB N6.1 AISC 360: N6.1	-	X	-
PLACEMENT AND INSTALLATION OF STEEL HEADED STUD ANCHORS			-	X	-
DOCUMENT ACCEPTANCE OR REJECTION OF STEEL ELEMENTS			-	X	-
INSTALLATION OF OPEN WEB STEEL JOISTS AND JOIST GIRDERS	1705.2.3 2207.1	-	-	X	SEE JOIST MANUFACTURER FOR SPECIAL INSPECTION REQUIREMENTS ASSOCIATED WITH THE DEFERRED SUBMITTAL

TABLE 3 - REQUIRED STRUCTURAL TESTING

SYSTEM OR MATERIAL	TESTING				REMARKS
	IBC CODE REFERENCE	CODE OR STANDARD REFERENCE	FREQUENCY CONTINUOUS	FREQUENCY PERIODIC	
STEEL					
RADIOGRAPHIC (RT) MAGNETIC PARTICLE (MT) AND ULTRASONIC (UT) TESTING OF WELDS	AISC 360 N5.5	RT- AWS D1.1: 6.16 MT- AWS D1.1: 6.14.4 UT- AWS D1.1: 6.13 & 6.14.3	PER DRAWINGS		ALL CJP WELDS IN MATERIALS 5/16" OR GREATER REQUIRE UT TESTING
PRE-CONSTRUCTION TESTING OF WELDED STUDS	1705.2.2	AWS D1.1: 7.7.1	EACH SIZE AND TYPE OF STUD EACH SHIFT		-
* PRE-INSTALLATION TESTING OF WELDED STUDS WELDED THROUGH DECKING	1705.2.2	AWS D1.1: 7.6	EACH STUD SIZE AND DECK GAUGE COMBINATION		-
* PRE-INSTALLATION VERIFICATION OF PRETENSIONED HIGH STRENGTH BOLTS	1705.2.1 AISC 360: TB N5.6-1	RCSC SPECIFICATION FOR STRUCTURAL JOINTS USING HIGH-STRENGTH BOLTS, SECTION 7	EACH COMBINATION OF DIAMETER, LENGTH, GRADE, AND LOT TO BE USED IN THE WORK		-

* TABLE N2 - REQUIRED NONSTRUCTURAL SPECIAL INSPECTIONS FOR SEISMIC RESISTANCE

SYSTEM OR MATERIAL	TESTING				REMARKS
	IBC CODE REFERENCE	CODE OR STANDARD REFERENCE	FREQUENCY CONTINUOUS	FREQUENCY PERIODIC	
ARCHITECTURAL					
INSTALLATION AND ANCHORAGE OF ACCESS FLOORS	1704.3.2 1705.12.5.1	-	-	X	REFERENCE ARCHITECTURAL FOR INFORMATION
INSTALLATION OF OTHER SEISMIC SUPPORTS FOR DESIGNATED ARCHITECTURAL SYSTEMS AND THEIR COMPONENTS	1704.3.2 1705.12.5	-	-	X	REFERENCE ARCHITECTURAL FOR INFORMATION
ELECTRICAL					
ANCHORAGE OF ELECTRICAL EQUIPMENT FOR EMERGENCY OR STANDBY POWER SYSTEMS	1704.3.2 1705.12.6	-	-	X	SEISMIC RESTRAINT OF ELECTRICAL COMPONENTS IS A CONTRACTOR RESPONSIBILITY AND IS LISTED HERE FOR INFORMATION ONLY. REFERENCE ELECTRICAL FOR FURTHER INFORMATION.
ANCHORAGE OF ALL ELECTRICAL EQUIPMENT IN SEISMIC DESIGN CATEGORY E OR F ONLY		-	-	X	
INSTALLATION OF VIBRATION ISOLATION SYSTEMS IN STRUCTURES ASSIGNED TO SEISMIC DESIGN CATEGORY C, D, E OR F WHERE THE CONSTRUCTION DOCUMENTS REQUIRE A NOMINAL CLEARANCE OF 0.25 INCHES OR LESS BETWEEN THE EQUIPMENT SUPPORT FRAME AND RESTRAINT	1705.12.6 1705.12.8	-	-	X	
INSTALLATION OF OTHER SEISMIC SUPPORTS FOR DESIGNATED ELECTRICAL SYSTEMS AND THEIR COMPONENTS	1705.12.6	-	-	X	
PROCESS MECHANICAL AND PLUMBING					
INSTALLATION AND ANCHORAGE OF PIPING SYSTEMS DESIGNED TO CARRY HAZARDOUS MATERIALS AND ASSOCIATED MECHANICAL UNITS	1704.3.2 1705.12.6	-	-	X	SEISMIC RESTRAINT OF PROCESS MECHANICAL COMPONENTS IS A CONTRACTOR RESPONSIBILITY AND IS LISTED HERE FOR INFORMATION ONLY. REFERENCE MECHANICAL FOR FURTHER INFORMATION.
INSTALLATION OF EQUIPMENT USING COMBUSTIBLE ENERGY SOURCES	1705.12.4	-	-	X	
INSTALLATION OF OTHER SEISMIC SUPPORTS FOR DESIGNATED MECHANICAL SYSTEMS AND THEIR COMPONENTS		-	-	X	
BUILDING MECHANICAL AND PLUMBING					
INSTALLATION AND ANCHORAGE OF HVAC DUCTWORK DESIGNED TO CARRY HAZARDOUS MATERIALS	1704.3.2 1705.12.6	-	-	X	SEISMIC RESTRAINT OF BUILDING MECHANICAL COMPONENTS IS A CONTRACTOR RESPONSIBILITY AND IS LISTED HERE FOR INFORMATION ONLY. REFERENCE MECHANICAL FOR FURTHER INFORMATION.
INSTALLATION OF FIRE PROTECTION SPRINKLER SYSTEM	1705.12	-	-	X	
INSTALLATION OF EQUIPMENT USING COMBUSTIBLE ENERGY SOURCES	1705.12.4	-	-	X	
INSTALLATION OF OTHER SEISMIC SUPPORTS FOR DESIGNATED MECHANICAL SYSTEMS AND THEIR COMPONENTS		-	-	X	
INSTALLATION OF VIBRATION ISOLATION SYSTEMS IN STRUCTURES ASSIGNED TO SEISMIC DESIGN CATEGORY C, D, E OR F WHERE THE CONSTRUCTION DOCUMENTS REQUIRE A NOMINAL CLEARANCE OF 0.25 INCHES OR LESS BETWEEN THE EQUIPMENT SUPPORT FRAME AND RESTRAINT	1705.12.6	-	-	X	

TABLE N4 - REQUIRED NONSTRUCTURAL TESTING FOR SEISMIC RESISTANCE

SYSTEM OR MATERIAL	TESTING				REMARKS
	IBC CODE REFERENCE	CODE OR STANDARD REFERENCE	FREQUENCY		
MECHANICAL AND ELECTRICAL					
COMPONENT TESTING INCLUDING MOUNTING SYSTEMS OR ANCHORAGE IF CERTIFICATES OF COMPLIANCE ARE NOT AVAILABLE	1705.13 1705.13.2 1705.13.3	ASCE 7: 13.2	-	X	SEISMIC RESTRAINT OF MECHANICAL AND ELECTRICAL COMPONENTS IS A CONTRACTOR RESPONSIBILITY AND IS LISTED HERE FOR INFORMATION ONLY. REFERENCE MECHANICAL AND ELECTRICAL FOR FURTHER INFORMATION.

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kpff
412 E. ParkCenter Blvd, Suite 200
Boise, ID 83706
208.336.6985
www.kpff.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
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STATEMENT OF STRUCTURAL SPECIAL INSPECTIONS AND TESTING

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STATEMENT OF STRUCTURAL SPECIAL INSPECTIONS AND TESTING - CONTINUED

STATEMENT OF SPECIAL INSPECTION AND TESTING NOTES:

1. SPECIAL INSPECTIONS SHALL CONFORM TO CHAPTER 17 OF THE IBC AND THE REFERENCE CODES AND STANDARDS LISTED IN NOTE 2. REFER TO TABLES 1 AND 2 FOR SPECIAL INSPECTION AND TABLES 3 AND 4 FOR TESTING REQUIREMENTS.

2. REFERENCE CODES AND STANDARDS ARE THOSE REFERENCED IN CHAPTER 35 OF THE CODE.

3. SPECIAL INSPECTIONS AND ASSOCIATED TESTING SHALL BE PERFORMED BY AN APPROVED QUALIFIED TESTING AND INSPECTING AGENCY MEETING THE REQUIREMENTS OF ASTM E 329 (MATERIALS), ASTM D 3740 (SOILS), ASTM C 1077 (CONCRETE), AND ASTM E 543 (NON-DESTRUCTIVE). SPECIAL INSPECTORS SHALL BE CERTIFIED BY THE BUILDING OFFICIAL. WELDING INSPECTORS SHALL BE QUALIFIED PER SECTION 6.1.4.1.1 OF AWS D1.1.

4. THE SPECIAL INSPECTOR SHALL OBSERVE THE INDICATED WORK FOR COMPLIANCE WITH THE APPROVED CONSTRUCTION DOCUMENTS. ALL DISCREPANCIES SHALL BE BROUGHT TO THE ATTENTION OF THE CONTRACTOR FOR CORRECTION AND NOTED IN THE INSPECTION REPORTS. ISSUES REQUIRING IMMEDIATE CORRECTIVE ACTIONS OR ENGINEERING INPUT ARE TO BE BROUGHT TO THE ENGINEER'S ATTENTION IMMEDIATELY UPON DISCOVERY.

5. THE SPECIAL INSPECTOR SHALL FURNISH INSPECTION REPORTS FOR EACH INSPECTION TO THE BUILDING OFFICIAL, **STRUCTURAL** **ENGINEER** **ARCHITECT**, CONTRACTOR, AND OWNER. THE TESTING AND INSPECTING AGENCY SHALL SUBMIT A FINAL REPORT STATING THAT THE WORK REQUIRING SPECIAL INSPECTION WAS INSPECTED AND IS IN CONFORMANCE WITH THE APPROVED CONSTRUCTION DOCUMENTS AND THAT ALL DISCREPANCIES NOTED IN THE INSPECTION REPORTS HAVE BEEN CORRECTED.

6. CONTINUOUS SPECIAL INSPECTION: SPECIAL INSPECTION BY THE SPECIAL INSPECTOR WHO IS PRESENT WHEN AND WHERE THE WORK TO BE INSPECTED IS BEING PERFORMED. PERIODIC SPECIAL INSPECTION: SPECIAL INSPECTION BY THE SPECIAL INSPECTOR WHO IS INTERMITTENTLY PRESENT WHERE THE WORK TO BE INSPECTED HAS BEEN OR IS BEING PERFORMED.

7. WHERE PERIODIC INSPECTION IS ALLOWED IN ACCORDANCE WITH THE ANCHOR ICC/IAPMO EVALUATION REPORT, INSPECTIONS SHALL BE AS FOLLOWS:
   - FOR ALL ANCHORS, PRIOR TO CONCEALMENT, VERIFY: ANCHOR TYPE, ANCHOR DIMENSIONS, ANCHOR SPACING AND EDGE DISTANCE.
   - FOR EACH ANCHOR TYPE AND SIZE, INSPECTOR SHALL BE ONSITE TO CONTINUOUSLY INSPECT A MINIMUM OF THE FIRST 10 ANCHORS INSTALLED BY EACH INSTALLER FOR CONFORMANCE WITH ICC/IAPMO EVALUATION REPORT. PROVIDED ALL ANCHORS ARE INSTALLED CORRECTLY PER MANUFACTURER'S INSTRUCTIONS, PROVIDE PERIODIC INSPECTION ON A MINIMUM OF 10% OF THE NEXT 1000 ANCHORS BY EACH INSTALLER AND A MINIMUM OF 5% OF THE REMAINING ANCHORS BY EACH INSTALLER. INSPECTIONS SHALL OCCUR A MINIMUM OF ONCE PER WEEK AT A RANDOM TIME WHILE ANCHOR INSTALLATION IS ONGOING. ANY NON-COMPLIANCE ISSUES SHALL RESET THE INSPECTION REQUIREMENTS TO TEN (10) CONTINUOUS INSPECTIONS. NON-COMPLIANT ANCHORS SHALL BE BROUGHT TO THE ATTENTION OF THE ENGINEER OF RECORD FOR REVIEW AND SHALL BE BROUGHT INTO COMPLIANCE BY EITHER TESTING OR RE-INSTALLATION.
   - INSPECTION REPORTS SHALL IDENTIFY NAMES OF INSTALLERS.
   - SPECIAL INSPECTOR SHALL PROVIDE DOCUMENTATION AT THE END OF ANCHOR INSTALLATIONS STATING THAT THE MINIMUM NUMBER OF ANCHORS WERE INSPECTED.

8. OBSERVE: OBSERVE THESE ITEMS ON A RANDOM BASIS. OPERATIONS NEED NOT BE DELAYED PENDING THESE INSPECTIONS.
   PERFORM: PERFORM THESE TASKS FOR EACH ELEMENT.

9. INDICATED CONCRETE TESTING MEETS MINIMUM REQUIREMENTS FOR STRUCTURAL TESTING TO BE PROVIDED BY THE APPROVED QUALIFIED TESTING AND INSPECTING AGENCY. ADDITIONAL TESTING FOR CONSTRUCTION CONSIDERATIONS ARE NOT INDICATED AND SHALL BE DETERMINED BY THE CONTRACTOR AND PROVIDED AT CONTRACTOR'S EXPENSE.

* **CASTELLATED BEAM POST TESTING REQUIREMENTS:**

1. PROVIDE ULTRASONIC TESTING ON THE GREATER OF 20% OF ALL WELDS OR FOUR WEB POST WELDS AT EACH CASTELLATED BEAM. THIS SHALL INCLUDE THE FIRST WEB POST AT EACH END OF THE BEAM AS WELL AS A MINIMUM OF TWO ADDITIONAL WEB POST WELDS SELECTED AT RANDOM FROM THE INTERIOR OF EACH BEAM SPAN. ULTRASONIC TESTING SHALL BE DONE IN ACCORDANCE WITH AWS D1.1 CRITERIA AND SHALL BE EVALUATED AGAINST ACCEPTANCE CRITERIA FOR STATICALLY LOADED STRUCTURES.

2. FREQUENCY OF ULTRASONIC TESTING MAY BE REDUCED TO TWO MINIMUM WEB POSTS AT EACH BEAM ONCE A MINIMUM OF TEN BEAMS HAVE BEEN TESTED WITH OUT REJECTABLE FLAWS. TESTS SHALL INCLUDE ONE OF THE END WEB POSTS AND ONE POST SELECTED AT RANDOM ON EACH SUBSEQUENT BEAM.

3. WHERE REJECTABLE FLAWS ARE ENCOUNTERED, THEY SHALL BE EVALUATED BY THE CELLULAR BEAM DESIGNER FOR DETERMINATION OF ANY NECESSARY REPAIRS, SUBJECT TO REVIEW AND APPROVAL BY STRUCTURAL ENGINEER.

4. WHERE REJECTABLE FLAWS ARE DETECTED AND REPAIRS ARE REQUIRED PER ITEM 3 ABOVE, 100% OF ALL WEB POST WELDS FOR THAT PARTICULAR BEAM SHALL BE TESTED, AND SAMPLING FREQUENCY FOR SUBSEQUENT BEAMS SHALL REVERT TO THE REQUIREMENTS STATED IN ITEM 1 UNTIL AN ACCEPTABLE PASS RATE CAN AGAIN BE ESTABLISHED AS NOTED IN ITEM 2.

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kpff
412 E. ParkCenter Blvd,
Suite 200
Boise, ID 83706
208.336.6985
www.kpff.com

HUMMEL ARCHITECTS
205 N. 10th Street
Suite 300
Boise, Idaho 83702
208.343.7523

482 Constitution Way,
Suite TF
Idaho Falls, ID 83402
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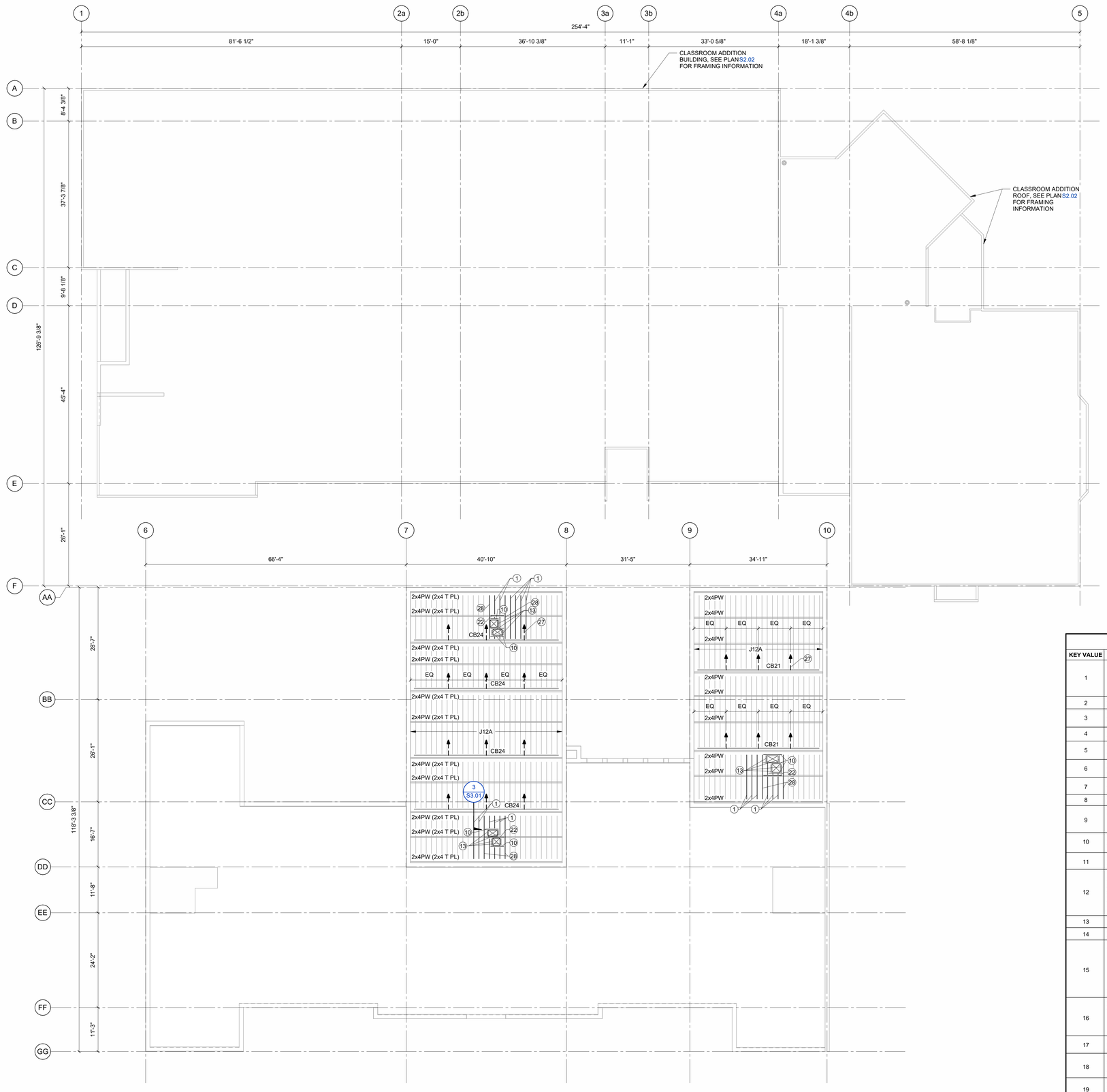

1 S2.01 LOWER ROOF - LOWER TIER FRAMING PLAN

3/32" = 1'-0"

PLAN NORTH

GENERAL PLAN NOTES:

G1 REFERENCE DRAWINGS:

S0.0X - ABBREVIATIONS, SYMBOLS AND SHEET INDEX
S1.0X - GENERAL STRUCTURAL NOTES & STATEMENT OF
S2.0X - ROOF FRAMING PLANS
S3.0X - RETROFIT DETAILS

G2 SEE SHEET S0.00 FOR TYPICAL SYMBOLS

G3 CONTRACTOR SHALL FIELD VERIFY EXISTING STRUCTURAL CONDITIONS PRIOR TO FABRICATION OF ANY STRUCTURAL ELEMENTS. IF ANY DISCREPANCY OCCURS BETWEEN EXISTING CONDITIONS AND PROPOSED ALTERATIONS, CONTRACTOR SHALL CONTACT ARCHITECT AND STRUCTURAL ENGINEER BEFORE PERFORMING ALTERATION WORK.

PLAN NOTES:

S1 INDICATES AREA WHERE RETROFITS TO (E) FLOOR/ROOF FRAMING IS REQUIRED. (E) SHEATHING TO BE REMOVED FOR JOIST RETROFITS IN SHADED AREA.REPLACE WITH (N) 3/4" THICK OSB (FOR FLOOR SHEATHING) AND (N) 5/8" THICK OSB (FOR ROOF SHEATHING) UNO ON PLAN. PROVIDE 0.148" DIA WITH 1 1/2" MINIMUM PENETRATION @ 6" OC (EDGE NAILING) AND 12" OC (FIELD NAILING). TYP. UNO FOR (N) SHEATHING TO STRUCTURE ATTACHMENT.

S2 (E) BEAM/JOIST, SEE SCHEDULE.

S3 (E) POST, SEE SCHEDULE.

S4 (N) BEAM/JOIST.

S5 (N) POST/COLUMN.

S6 (N) DUCTWORK ON ROOF PER MECHANICAL DRAWINGS.

S7 INDICATES HOLD-DOWN AND END STUDS PER 5/S3.03

(E) PONY WALL SCHEDULE

TYPE	TOP PL	BOT PL	POSTS
2x4PW	2x4	2x4	2x4 @ 16" O.C
2x4PW (4x4 T PL)	4x4	2x4	2x4 @ 16" O.C

(E) BEAM SCHEDULE

TYPE	DESCRIPTION
G16	GL 5-1/8"x16-1/2"
G12	GL 5-1/8"x12"
G12.3	GL 3-1/8"x12"
CB24	C.B. 24"-76# I (STEEL BEAM)
CB21	C.B. 21"-68# I (STEEL BEAM)
W12	W12x22
W14	W14x26

(E) POST/COLUMN SCHEDULE

TYPE	DESCRIPTION
P3	3" PIPE
P2	2 1/2" PIPE
S2	(2) 2x6 STUDS
S4	(4) 2x6 STUDS
S5	(2) 2x4 STUDS
S6	(4) 2x4 STUDS

(E) JOISTS SCHEDULE

TYPE	DESCRIPTION
J4	2x4 @ 24" OC
J10	2x10 @ 24" OC
J12A	2x12 JOISTS @ 16" OC
J12B	2x12 JOISTS @ 12" OC
J14	2x14 JOISTS @ 16" OC
J16A	2x16 JOISTS @ 16" OC
J16B	2x16 JOISTS @ 12" OC
R6	2x6 RAFTERS @ 16" OC OVER PONY WALL
R7	2x6 RAFTERS @ 12" OC OVER PONY WALL
T24	24" TJH @ 48" OC
T20	20 TJL @ 32" OC
T22	22 TJL @ 32" OC
T16	16 TJI/35 @ 32" OC
T10	10" TJI @ 24" OC
T14	14" TJI @ 24" OC
T24L	24" TJL @ 32" OC

KEY NOTES

KEY VALUE	KEYNOTE TEXT
1	SISTER (E) 2x JOIST WITH (N) 2x PER 1/S3.00, TYP BELOW (N) RTU UNITS .(E) CROSS-BRIDGING WILL NEED TO BE RE-ATTACHED TO SISTERED JOISTS, MATCH (E) CROSS-BRIDGING SPACING.
2	(N) RTU, MAX WEIGHT = 1000 LBS
3	(E) WOOD WALL WITH 2x4 STUDS @ 16" OC AND (3) 2x4 @ EA JOIST BEARING
4	(E) 13" BRICK WALL
5	(E) WOOD WALL WITH 2x4 STUDS @ 16" OC AND (4) 2x4 @ EA JOIST BEARING
6	(E) WOOD WALL WITH 2x6 STUDS @ 16" OC WITH 5/8" GYPSUM BOARD ON EA SIDE
7	(E) WOOD WALL WITH 2x6 @ 12" OC WITH PLASTER
8	(N) RTU, MAX WEIGHT = 1300 LBS
9	(N) RTU, MAX WEIGHT = 950 LBS. SEE DETAIL 3/S3.02 FOR INFORMATION ON MECH OPENING IN (E) ROOF.
10	(N) (2) 2x JOIST, MATCH (E) RAFTER/JOIST SIZE
11	(E) SKYLIGHT OPENING TO REMAIN
12	CONTRACTOR TO FIELD VERIFY ROUTING OF (E) DUCTWORK, AND ROUTE (N) DUCTWORK THROUGH EXISTING WALL OPENINGS. CONTACT SEOR IF THERE ARE ANY DISCREPANCIES FOUND DURING CONSTRUCTION.
13	(N) 2x, MATCH (E) RAFTER/JOIST SIZE
14	(E) NON-BEARING WOOD WALL ABOVE
15	(N) OPENING IN (E) ROOF FOR RTU DUCT PENETRATIONS PER 2/S3.02. (N) OPENING TO BE LOCATED BETWEEN (E) ROOF TRUSSES. DO NOT DAMAGE (E) ROOF TRUSSES. CONTRACTOR TO FIELD VERIFY LOCATION PRIOR TO CONSTRUCTION. NOTIFY ENGINEER OF ANY DISCREPANCIES OR INCONSISTENSIES.
16	(N) ROOF DRAINS, COORDINATE WITH ARCHITECTURAL & PLUMBING DRAWINGS. LOCATE BETWEEN (E) JOISTS/BEAMS. DO NOT DAMAGE (E) JOIST/BEAMS DURING PLACEMENT
17	(E) 6x6 HEADER MIN OVER (E) DOOR OPENING. CONTRACTOR TO FIELD VERIFY.
18	(E) STEEL LINTEL HEADER ABOVE (E) DOOR OPENING TO SUPPORT (E) BRICK WALL ABOVE. CONTRACTOR TO FIELD VERIFY.
19	(E) DOUBLE TJL's TO SUPPORT (N) EQUIPMENT. CONTRACTOR TO VERIFY IN FIELD.
20	(N) RTU, MAX WEIGHT = 1550 LBS
21	CONTRACTOR TO PROVIDE TEMPORARY SHORING AS REQUIRED DURING FRAMING INSTALLATION AROUND NEW OPENING.
22	(N) 4x12. ATTACH TO SISTERED 2X W/ SIMPSON FACE MOUNT HANGERS.
23	(E) PONY WALL WBOVE (E) BRICK WALL TO SHEATHED WITH 3/4" OSB SHEATHING, TYP. ENTIRE LENGTH. SEE DETAIL 3/S3.03
24	(N) GUARD RAIL PER ARCH, SEE DETAILS 4/S3.02 & 5/S3.02
25	LOCATE RTU SUCH THAT IT IS SUPPORTED BY MINIMUM OF 3 TRUSSES BELOW. PROVIDE 2x6 BLOCKING ALIGNED BELOW ROOF CURB, BLOCKING TO ATTACH TO (E) TRUSS WITH SIMPSON LB26 TOP MOUNT HANGERS. SEE DETAIL 2/S3.02 FOR ADD'L INFO.
26	(E) ROOF OPENING BELOW (E) MECH UNIT OPENING TO BE IN-FILLED AND COVERED, SEE DETAIL 1/S3.02
27	SEE DETAIL 5/S3.01 FOR CARNEGIE BEAM BRACE
28	(3) 2x JOIST, SISTER (E) JOIST W/ (2) ADDITIONAL 2x MEMBERS, (1) EA SIDE OF (E) JOIST.
29	(N) OPENING IN (E) BEARING WALL, FRAME (N) OPENING PER 4/S3.00 & 5/S3.00
30	(E) DOUBLE TJI. CONTRACTOR TO FIELD VERIFY. IF TJI IS NOT DOUBLED UP, SISTER (N) 10" TJI 110 TO (E) 10" TJI.
31	(N) (2) 2x6 WOOD STUD IN (E) WALL BELOW (3) 2x12 JOIST BEARING LOCATION.
32	(N) MECH OPENING IN (E) BRICK WALL, INSTALL (N) STEEL LINTEL PER 6/S3.01
33	RIGID DUCT SUPPORT AT 30'-0" OC MAX PER 7/S3.03
34	CONTRACTOR TO REMOVE THE (E) SHEATHING AROUND OPENING ONLY AND PROVIDE ADDITIONAL FRAMING TO MATCH EXISTING AS NEEDED TO SUPPORT FAN PER MECH DRAWINGS. FAN TO BE PLACED BETWEEN RAFTERS/JOISTS, DO NOT DAMAGE (E) FRAMING.

BID SET

PROFESSIONAL ENGINEER LICENSED 12033 STATE OF IDAHO JUDSEN WILLIAMS

kpff
412 E. ParkCenter Blvd, Suite 200
Boise, ID 83706
208.336.6985
www.kpff.com

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

Project:
TFSD DISTRICT WIDE HVAC REPLACEMENT

LINCOLN ELEMENTARY SCHOOL
238 BUHL ST N
TWIN FALLS, ID 83301

Sheet:
LOWER ROOF - LOWER TIER FRAMING PLAN

Revisions:

Project No: 10212400111
Drawn By: DC/YK
Checked By: JW
Date: 02/27/2025

Sheet No: S2.01

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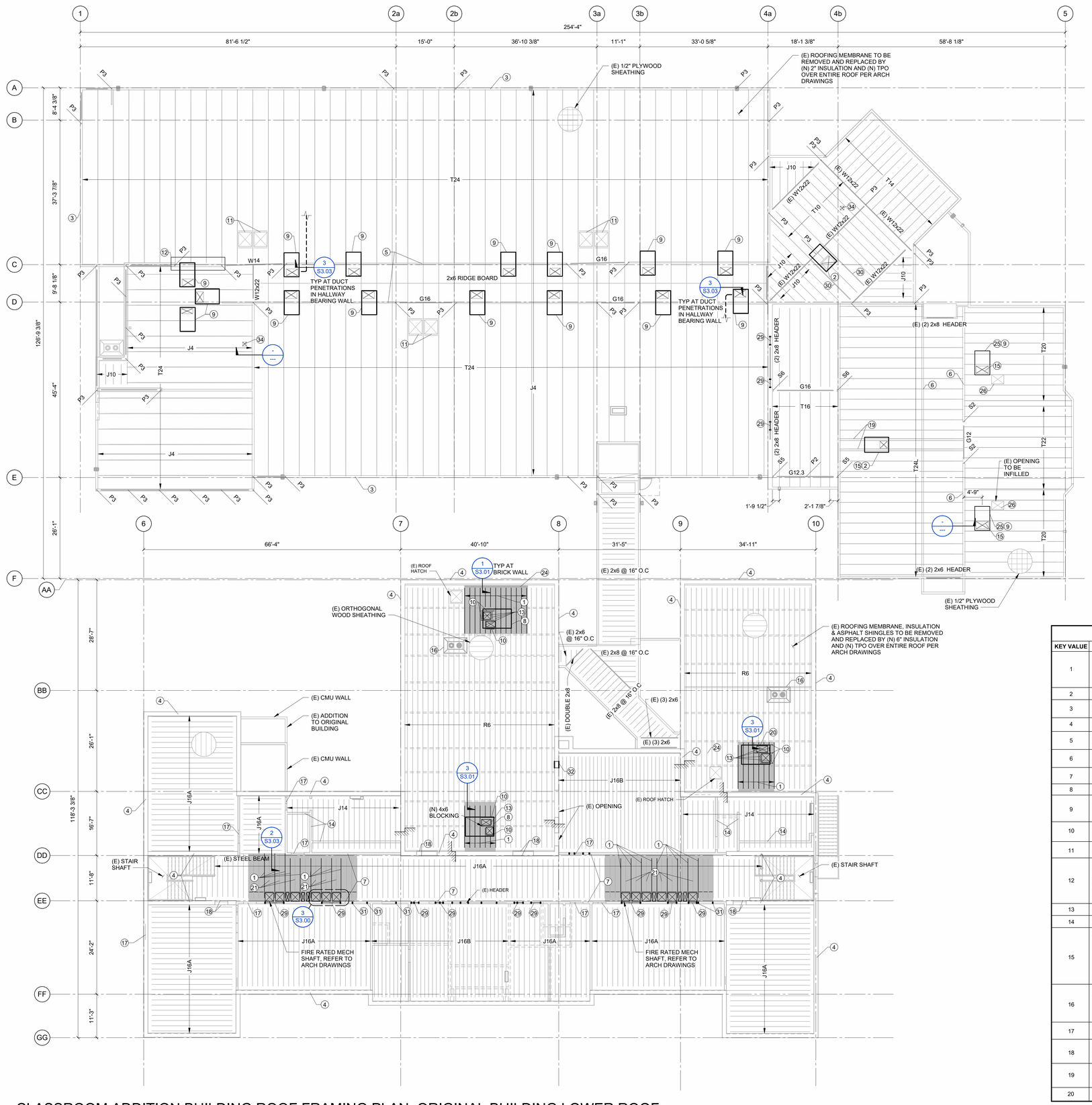

CLASSROOM ADDITION BUILDING ROOF FRAMING PLAN, ORIGINAL BUILDING LOWER ROOF - UPPER TIER & LEVEL 02 FLOOR FRAMING PLAN

1 S2.02 — 3/32" = 1'-0"

PLAN NORTH

GENERAL PLAN NOTES:

G1 REFERENCE DRAWINGS:

S0.0X - ABBREVIATIONS, SYMBOLS AND SHEET INDEX
S1.0X - GENERAL STRUCTURAL NOTES & STATEMENT OF
S2.0X - ROOF FRAMING PLANS
S3.0X - RETROFIT DETAILS

G2 SEE SHEET S0.00 FOR TYPICAL SYMBOLS

G3 CONTRACTOR SHALL FIELD VERIFY EXISTING STRUCTURAL CONDITIONS PRIOR TO FABRICATION OF ANY STRUCTURAL ELEMENTS. IF ANY DISCREPANCY OCCURS BETWEEN EXISTING CONDITIONS AND PROPOSED ALTERATIONS, CONTRACTOR SHALL CONTACT ARCHITECT AND STRUCTURAL ENGINEER BEFORE PERFORMING ALTERATION WORK.

PLAN NOTES:

S1 INDICATES AREA WHERE RETROFITS TO (E) FLOOR/ROOF FRAMING IS REQUIRED. (E) SHEATHING TO BE REMOVED FOR JOIST RETROFITS IN SHADED AREA REPLACE WITH (N) 3/4" THICK OSB (FOR FLOOR SHEATHING) AND (N) 5/8" THICK OSB (FOR ROOF SHEATHING) UNO ON PLAN. PROVIDE 0.148" DIA WITH 1 1/2" MINIMUM PENETRATION @ 6" OC (EDGE NAILING) AND 12" OC (FIELD NAILING). TYP. UNO FOR (N) SHEATHING TO STRUCTURE ATTACHMENT.

S2 (E) BEAM/JOIST, SEE SCHEDULE.

S3 (E) POST, SEE SCHEDULE.

S4 (N) BEAM/JOIST.

S5 (N) POST/COLUMN.

S6 (N) DUCTWORK ON ROOF PER MECHANICAL DRAWINGS.

S7 INDICATES HOLD-DOWN AND END STUDS PER 5/S3.03

(E) PONY WALL SCHEDULE

TYPE	TOP PL	BOT PL	POSTS
2x4PW	2x4	2x4	2x4 @ 16" O.C
2x4PW (4x4 T PL)	4x4	2x4	2x4 @ 16" O.C

(E) BEAM SCHEDULE

TYPE	DESCRIPTION
G16	GL 5-1/8"x16-1/2"
G12	GL 5-1/8"x12"
G12.3	GL 3-1/8"x12"
CB24	C.B. 24"-76# I (STEEL BEAM)
CB21	C.B. 21"-68# I (STEEL BEAM)
W12	W12x22
W14	W14x26

(E) POST/COLUMN SCHEDULE

TYPE	DESCRIPTION
P3	3" PIPE
P2	2 1/2" PIPE
S2	(2) 2x6 STUDS
S4	(4) 2x6 STUDS
S5	(2) 2x4 STUDS
S6	(4) 2x4 STUDS

(E) JOISTS SCHEDULE

TYPE	DESCRIPTION
J4	2x4 @ 24" OC
J10	2x10 @ 24" OC
J12A	2x12 JOISTS @ 16" OC
J12B	2x12 JOISTS @ 12" OC
J14	2x14 JOISTS @ 16" OC
J16A	2x16 JOISTS @ 16" OC
J16B	2x16 JOISTS @ 12" OC
R6	2x6 RAFTERS @ 16" OC OVER PONY WALL
R7	2x6 RAFTERS @ 12" OC OVER PONY WALL
T24	24" TJH @ 48" OC
T20	20 TJL @ 32" OC
T22	22 TJL @ 32" OC
T16	16 TJI/35 @ 32" OC
T10	10" TJI @ 24" OC
T14	14" TJI @ 24" OC
T24L	24" TJL @ 32" OC

KEY NOTES

KEY VALUE	KEYNOTE TEXT
1	SISTER (E) 2x JOIST WITH (N) 2x PER 1/S3.00, TYP BELOW (N) RTU UNITS. (E) CROSS-BRIDGING WILL NEED TO BE RE-ATTACHED TO SISTERED JOISTS, MATCH (E) CROSS-BRIDGING SPACING.
2	(N) RTU, MAX WEIGHT = 1000 LBS
3	(E) WOOD WALL WITH 2x4 STUDS @ 16" OC AND (3) 2x4 @ EA JOIST BEARING
4	(E) 13" BRICK WALL
5	(E) WOOD WALL WITH 2x4 STUDS @ 16" OC AND (4) 2x4 @ EA JOIST BEARING
6	(E) WOOD WALL WITH 2x6 STUDS @ 16" OC WITH 5/8" GYPSUM BOARD ON EA SIDE
7	(E) WOOD WALL WITH 2x6 @ 12" OC WITH PLASTER
8	(N) RTU, MAX WEIGHT = 1300 LBS
9	(N) RTU, MAX WEIGHT = 950 LBS. SEE DETAIL 3/S3.02 FOR INFORMATION ON MECH OPENING IN (E) ROOF.
10	(N) (2) 2x JOIST, MATCH (E) RAFTER/JOIST SIZE
11	(E) SKYLIGHT OPENING TO REMAIN
12	CONTRACTOR TO FIELD VERIFY ROUTING OF (E) DUCTWORK, AND ROUTE (N) DUCTWORK THROUGH EXISTING WALL OPENINGS. CONTACT SEOR IF THERE ARE ANY DISCREPANCIES FOUND DURING CONSTRUCTION.
13	(N) 2x, MATCH (E) RAFTER/JOIST SIZE
14	(E) NON-BEARING WOOD WALL ABOVE
15	(N) OPENING IN (E) ROOF FOR RTU DUCT PENETRATIONS PER 2/S3.02. (N) OPENING TO BE LOCATED BETWEEN (E) ROOF TRUSSES, DO NOT DAMAGE (E) ROOF TRUSSES. CONTRACTOR TO FIELD VERIFY LOCATION PRIOR TO CONSTRUCTION, NOTIFY ENGINEER OF ANY DISCREPANCIES OR INCONSISTENSIES.
16	(N) ROOF DRAINS. COORDINATE WITH ARCHITECTURAL & PLUMBING DRAWINGS, LOCATE BETWEEN (E) JOISTS/BEAMS. DO NOT DAMAGE (E) JOIST/BEAMS DURING PLACEMENT
17	(E) 6x6 HEADER MIN OVER (E) DOOR OPENING, CONTRACTOR TO FIELD VERIFY.
18	(E) STEEL LINTEL HEADER ABOVE (E) DOOR OPENING TO SUPPORT (E) BRICK WALL ABOVE, CONTRACTOR TO FIELD VERIFY.
19	(E) DOUBLE TJL's TO SUPPORT (N) EQUIPMENT. CONTRACTOR TO VERIFY IN FIELD.
20	(N) RTU, MAX WEIGHT = 1550 LBS
21	CONTRACTOR TO PROVIDE TEMPORARY SHORING AS REQUIRED DURING FRAMING INSTALLATION AROUND NEW OPENING.
22	(N) 4x12, ATTACH TO SISTERED 2X W/ SIMPSON FACE MOUNT HANGERS.
23	(E) PONY WALL WBOVE (E) BRICK WALL TO SHEATHED WITH 3/4" OSB SHEATHING, TYP, ENTIRE LENGTH, SEE DETAIL 3/S3.03
24	(N) GUARD RAIL PER ARCH, SEE DETAILS 4/S3.02 & 5/S3.02
25	LOCATE RTU SUCH THAT IT IS SUPPORTED BY MINIMUM OF 3 TRUSSES BELOW, PROVIDE 2x6 BLOCKING ALIGNED BELOW ROOF CURB, BLOCKING TO ATTACH TO (E) TRUSS WITH SIMPSON LB26 TOP MOUNT HANGERS. SEE DETAIL 2/S3.02 FOR ADD'L INFO.
26	(E) ROOF OPENING BELOW (E) MECH UNIT OPENING TO BE IN-FILLED AND COVERED, SEE DETAIL 1/S3.02
27	SEE DETAIL 5/S3.01 FOR CARNEGIE BEAM BRACE
28	(3) 2x JOIST, SISTER (E) JOIST W/ (2) ADDITIONAL 2x MEMBERS, (1) EA SIDE OF (E) JOIST.
29	(N) OPENING IN (E) BEARING WALL, FRAME (N) OPENING PER 4/S3.00 & 5/S3.00
30	(E) DOUBLE TJI, CONTRACTOR TO FIELD VERIFY. IF TJI IS NOT DOUBLED UP, SISTER (N) 10" TJI 110 TO (E) 10" TJI.
31	(N) (2) 2x6 WOOD STUD IN (E) WALL BELOW (3) 2x12 JOIST BEARING LOCATION.
32	(N) MECH OPENING IN (E) BRICK WALL, INSTALL (N) STEEL LINTEL PER 6/S3.01
33	RIGID DUCT SUPPORT AT 30'-0" OC MAX PER 7/S3.03
34	CONTRACTOR TO REMOVE THE (E) SHEATHING AROUND OPENING ONLY AND PROVIDE ADDITIONAL FRAMING TO MATCH EXISTING AS NEEDED TO SUPPORT FAN PER MECH DRAWINGS. FAN TO BE PLACED BETWEEN RAFTERS/JOISTS, DO NOT DAMAGE (E) FRAMING.

PROFESSIONAL ENGINEER LICENSED 12033 STATE OF IDAHO JUDSEN WILLIAMS

kpff
412 E. ParkCenter Blvd, Suite 200
Boise, ID 83706
208.336.6985
www.kpff.com

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

Project:
TFSD DISTRICT WIDE HVAC REPLACEMENT

LINCOLN ELEMENTARY SCHOOL
238 BUHL ST N
TWIN FALLS, ID 83301

Sheet:
CLASSROOM ADDITION BUILDING ROOF FRAMING PLAN, ORIGINAL BUILDING LOWER ROOF - UPPER TIER & LEVEL 02 FLOOR FRAMING PLAN

BID SET

Revisions: △

Project No:	10212400111
Drawn By:	DC/YK
Checked By:	JW
Date:	02/27/2025

Sheet No: S2.02

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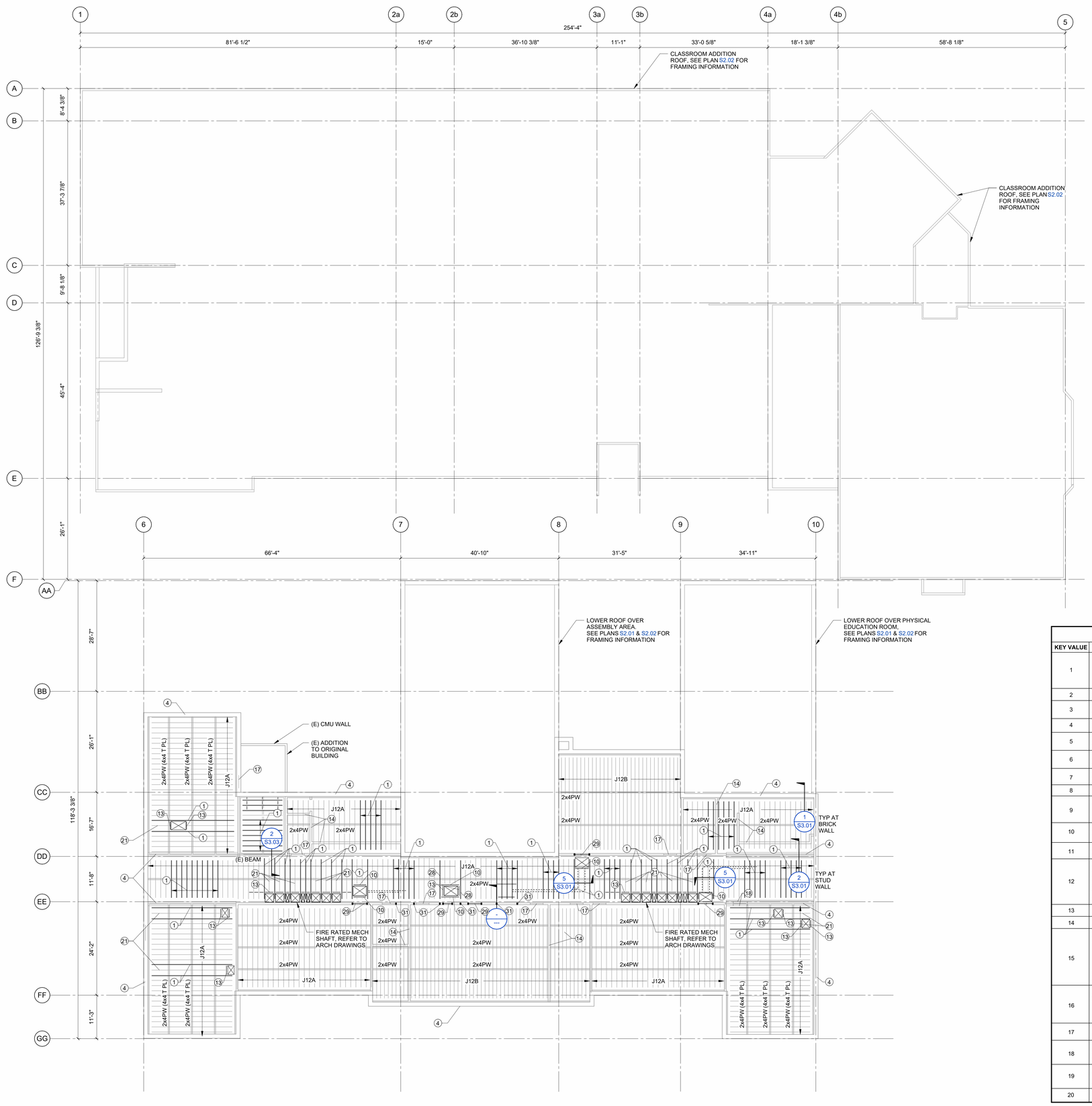

1 S2.03 HIGHER ROOF - LOWER TIER FRAMING PLAN

3/32" = 1'-0"

PLAN NORTH

GENERAL PLAN NOTES:

G1 REFERENCE DRAWINGS:

S0.0X - ABBREVIATIONS, SYMBOLS AND SHEET INDEX
S1.0X - GENERAL STRUCTURAL NOTES & STATEMENT OF
S2.0X - ROOF FRAMING PLANS
S3.0X - RETROFIT DETAILS

G2 SEE SHEET S0.00 FOR TYPICAL SYMBOLS

G3 CONTRACTOR SHALL FIELD VERIFY EXISTING STRUCTURAL CONDITIONS PRIOR TO FABRICATION OF ANY STRUCTURAL ELEMENTS. IF ANY DISCREPANCY OCCURS BETWEEN EXISTING CONDITIONS AND PROPOSED ALTERATIONS, CONTRACTOR SHALL CONTACT ARCHITECT AND STRUCTURAL ENGINEER BEFORE PERFORMING ALTERATION WORK.

PLAN NOTES:

S1 INDICATES AREA WHERE RETROFITS TO (E) FLOOR/ROOF FRAMING IS REQUIRED. (E) SHEATHING TO BE REMOVED FOR JOIST RETROFITS IN SHADED AREA REPLACE WITH (N) 3/4" THICK OSB (FOR FLOOR SHEATHING) AND (N) 5/8" THICK OSB (FOR ROOF SHEATHING) UNO ON PLAN. PROVIDE 0.148" DIA WITH 1 1/2" MINIMUM PENETRATION @ 6" OC (EDGE NAILING) AND 12" OC (FIELD NAILING), TYP, UNO FOR (N) SHEATHING TO STRUCTURE ATTACHMENT.

S2 (E) BEAM/JOIST, SEE SCHEDULE.

S3 (E) POST, SEE SCHEDULE.

S4 (N) BEAM/JOIST.

S5 (N) POST/COLUMN.

S6 (N) DUCTWORK ON ROOF PER MECHANICAL DRAWINGS.

S7 INDICATES HOLD-DOWN AND END STUDS PER 5/S3.03

(E) PONY WALL SCHEDULE

TYPE	TOP PL	BOT PL	POSTS
2x4PW	2x4	2x4	2x4 @ 16" O.C
2x4PW (4x4 T PL)	4x4	2x4	2x4 @ 16" O.C

(E) BEAM SCHEDULE

TYPE	DESCRIPTION
G16	GL 5-1/8"x16-1/2"
G12	GL 5-1/8"x12"
G12.3	GL 3-1/8"x12"
CB24	C.B. 24"-76# I (STEEL BEAM)
CB21	C.B. 21"-68# I (STEEL BEAM)
W12	W12x22
W14	W14x26

(E) JOISTS SCHEDULE

TYPE	DESCRIPTION
J4	2x4 @ 24" OC
J10	2x10 @ 24" OC
J12A	2x12 JOISTS @ 16" OC
J12B	2x12 JOISTS @ 12" OC
J14	2x14 JOISTS @ 16" OC
J16A	2x16 JOISTS @ 16" OC
J16B	2x16 JOISTS @ 12" OC
R6	2x6 RAFTERS @ 16" OC OVER PONY WALL
R7	2x6 RAFTERS @ 12" OC OVER PONY WALL
T24	24" TJH @ 48" OC
T20	20 TJL @ 32" OC
T22	22 TJL @ 32" OC
T16	16 TJI/35 @ 32" OC
T10	10" TJI @ 24" OC
T14	14" TJI @ 24" OC
T24L	24" TJL @ 32" OC

(E) POST/COLUMN SCHEDULE

TYPE	DESCRIPTION
P3	3" PIPE
P2	2 1/2" PIPE
S2	(2) 2x6 STUDS
S4	(4) 2x6 STUDS
S5	(2) 2x4 STUDS
S6	(4) 2x4 STUDS

KEY NOTES

KEY VALUE	KEYNOTE TEXT
1	SISTER (E) 2x JOIST WITH (N) 2x PER 1/S3.00, TYP BELOW (N) RTU UNITS. (E) CROSS-BRIDGING WILL NEED TO BE RE-ATTACHED TO SISTERED JOISTS, MATCH (E) CROSS-BRIDGING SPACING.
2	(N) RTU, MAX WEIGHT = 1000 LBS
3	(E) WOOD WALL WITH 2x4 STUDS @ 16" OC AND (3) 2x4 @ EA JOIST BEARING
4	(E) 13" BRICK WALL
5	(E) WOOD WALL WITH 2x4 STUDS @ 16" OC AND (4) 2x4 @ EA JOIST BEARING
6	(E) WOOD WALL WITH 2x6 STUDS @ 16" OC WITH 5/8" GYPSUM BOARD ON EA SIDE
7	(E) WOOD WALL WITH 2x6 @ 12" OC WITH PLASTER
8	(N) RTU, MAX WEIGHT = 1300 LBS
9	(N) RTU, MAX WEIGHT = 950 LBS. SEE DETAIL 3/S3.02 FOR INFORMATION ON MECH OPENING IN (E) ROOF.
10	(N) (2) 2x JOIST, MATCH (E) RAFTER/JOIST SIZE
11	(E) SKYLIGHT OPENING TO REMAIN
12	CONTRACTOR TO FIELD VERIFY ROUTING OF (E) DUCTWORK, AND ROUTE (N) DUCTWORK THROUGH EXISTING WALL OPENINGS. CONTACT SEOR IF THERE ARE ANY DISCREPANCIES FOUND DURING CONSTRUCTION.
13	(N) 2x, MATCH (E) RAFTER/JOIST SIZE
14	(E) NON-BEARING WOOD WALL ABOVE
15	(N) OPENING IN (E) ROOF FOR RTU DUCT PENETRATIONS PER 2/S3.02. (N) OPENING TO BE LOCATED BETWEEN (E) ROOF TRUSSES, DO NOT DAMAGE (E) ROOF TRUSSES. CONTRACTOR TO FIELD VERIFY LOCATION PRIOR TO CONSTRUCTION, NOTIFY ENGINEER OF ANY DISCREPANCIES OR INCONSISTENSIES.
16	(N) ROOF DRAINS. COORDINATE WITH ARCHITECTURAL & PLUMBING DRAWINGS, LOCATE BETWEEN (E) JOISTS/BEAMS. DO NOT DAMAGE (E) JOIST/BEAMS DURING PLACEMENT
17	(E) 6x6 HEADER MIN OVER (E) DOOR OPENING, CONTRACTOR TO FIELD VERIFY.
18	(E) STEEL LINTEL HEADER ABOVE (E) DOOR OPENING TO SUPPORT (E) BRICK WALL ABOVE, CONTRACTOR TO FIELD VERIFY.
19	(E) DOUBLE TJL's TO SUPPORT (N) EQUIPMENT. CONTRACTOR TO VERIFY IN FIELD.
20	(N) RTU, MAX WEIGHT = 1550 LBS
21	CONTRACTOR TO PROVIDE TEMPORARY SHORING AS REQUIRED DURING FRAMING INSTALLATION AROUND NEW OPENING.
22	(N) 4x12, ATTACH TO SISTERED 2X W/ SIMPSON FACE MOUNT HANGERS.
23	(E) PONY WALL WBOVE (E) BRICK WALL TO SHEATHED WITH 3/4" OSB SHEATHING, TYP, ENTIRE LENGTH, SEE DETAIL 3/S3.03
24	(N) GUARD RAIL PER ARCH, SEE DETAILS 4/S3.02 & 5/S3.02
25	LOCATE RTU SUCH THAT IT IS SUPPORTED BY MINIMUM OF 3 TRUSSES BELOW, PROVIDE 2x6 BLOCKING ALIGNED BELOW ROOF CURB, BLOCKING TO ATTACH TO (E) TRUSS WITH SIMPSON LB26 TOP MOUNT HANGERS. SEE DETAIL 2/S3.02 FOR ADD'L INFO.
26	(E) ROOF OPENING BELOW (E) MECH UNIT OPENING TO BE IN-FILLED AND COVERED, SEE DETAIL 1/S3.02
27	SEE DETAIL 5/S3.01 FOR CARNEGIE BEAM BRACE
28	(3) 2x JOIST, SISTER (E) JOIST W/ (2) ADDITIONAL 2x MEMBERS, (1) EA SIDE OF (E) JOIST.
29	(N) OPENING IN (E) BEARING WALL, FRAME (N) OPENING PER 4/S3.00 & 5/S3.00
30	(E) DOUBLE TJI. CONTRACTOR TO FIELD VERIFY. IF TJI IS NOT DOUBLED UP, SISTER (N) 10" TJI 110 TO (E) 10" TJI.
31	(N) (2) 2x6 WOOD STUD IN (E) WALL BELOW (3) 2x12 JOIST BEARING LOCATION.
32	(N) MECH OPENING IN (E) BRICK WALL, INSTALL (N) STEEL LINTEL PER 6/S3.01
33	RIGID DUCT SUPPORT AT 30'-0" OC MAX PER 7/S3.03
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BID SET

PROFESSIONAL ENGINEER LICENSED 12033 STATE OF IDAHO JUDSEN WILLIAMS

kpff
412 E. ParkCenter Blvd, Suite 200
Boise, ID 83706
208.336.6985
www.kpff.com

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205 N. 10th Street Suite 300 Boise, Idaho 83702 208.343.7523
482 Constitution Way, Suite TI Idaho Falls, ID 83402 208.343.7523
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Project:
TFSD DISTRICT WIDE HVAC REPLACEMENT

LINCOLN ELEMENTARY SCHOOL
238 BUHL ST N
TWIN FALLS, ID 83301

Sheet:
HIGHER ROOF - LOWER TIER FRAMING PLAN

Revisions:

Project No:	10212400111
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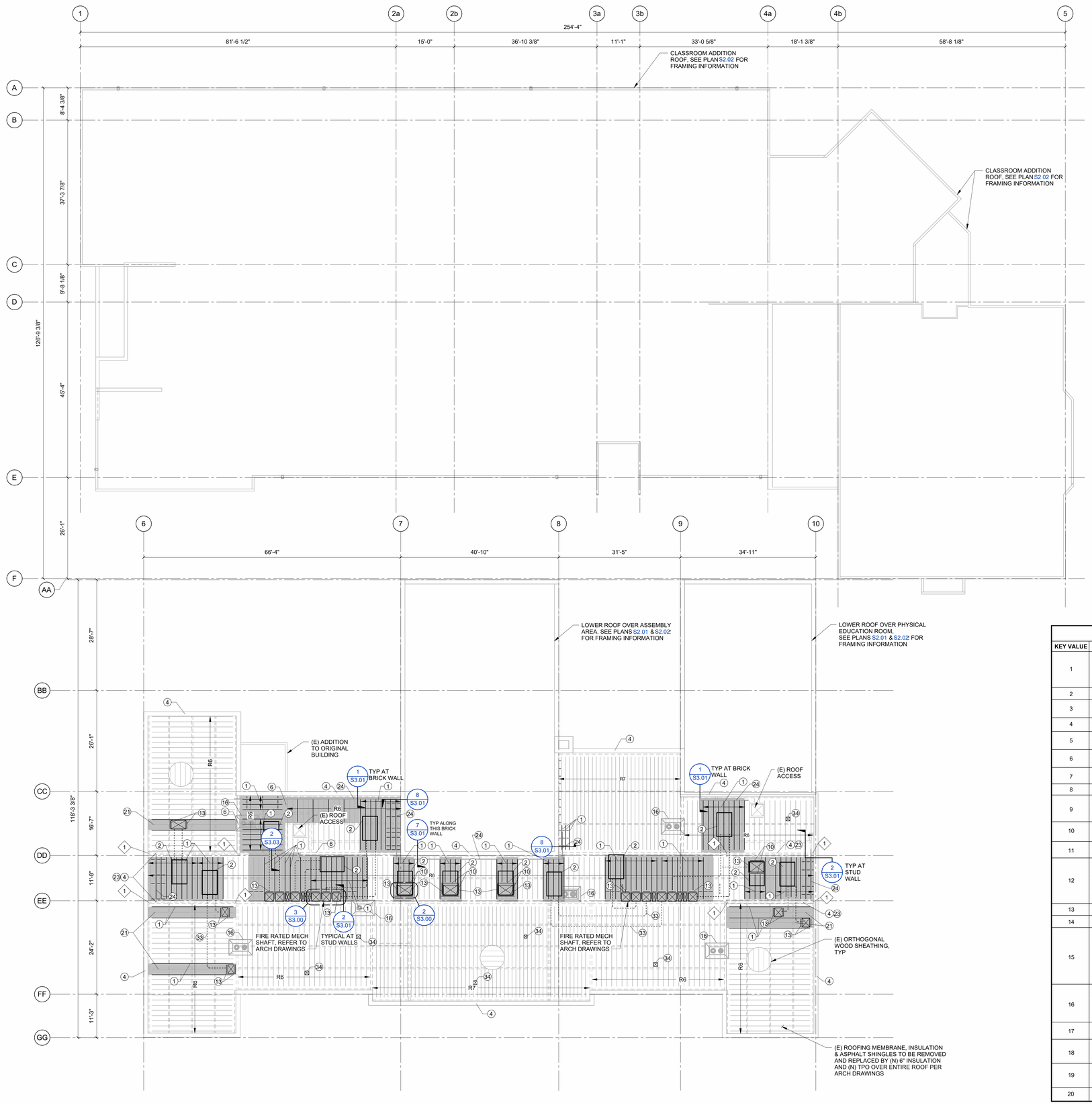

1 S2.04 HIGHER ROOF - UPPER TIER FRAMING PLAN

3/32" = 1'-0"

PLAN NORTH

GENERAL PLAN NOTES:

G1 REFERENCE DRAWINGS:

S0.0X - ABBREVIATIONS, SYMBOLS AND SHEET INDEX
S1.0X - GENERAL STRUCTURAL NOTES & STATEMENT OF
S2.0X - ROOF FRAMING PLANS
S3.0X - RETROFIT DETAILS

G2 SEE SHEET S0.00 FOR TYPICAL SYMBOLS

G3 CONTRACTOR SHALL FIELD VERIFY EXISTING STRUCTURAL CONDITIONS PRIOR TO FABRICATION OF ANY STRUCTURAL ELEMENTS. IF ANY DISCREPANCY OCCURS BETWEEN EXISTING CONDITIONS AND PROPOSED ALTERATIONS, CONTRACTOR SHALL CONTACT ARCHITECT AND STRUCTURAL ENGINEER BEFORE PERFORMING ALTERATION WORK.

PLAN NOTES:

S1 INDICATES AREA WHERE RETROFITS TO (E) FLOOR/ROOF FRAMING IS REQUIRED. (E) SHEATHING TO BE REMOVED FOR JOIST RETROFITS IN SHADED AREA.REPLACE WITH (N) 3/4" THICK OSB (FOR FLOOR SHEATHING) AND (N) 5/8" THICK OSB (FOR ROOF SHEATHING) UNO ON PLAN. PROVIDE 0.148" DIA WITH 1 1/2" MINIMUM PENETRATION @ 6" OC (EDGE NAILING) AND 12" OC (FIELD NAILING), TYP, UNO FOR (N) SHEATHING TO STRUCTURE ATTACHMENT.

S2 (E) BEAM/JOIST, SEE SCHEDULE.

S3 (E) POST, SEE SCHEDULE.

S4 (N) BEAM/JOIST.

S5 (N) POST/COLUMN.

S6 (N) DUCTWORK ON ROOF PER MECHANICAL DRAWINGS.

S7 INDICATES HOLD-DOWN AND END STUDS PER 5/S3.03

(E) BEAM SCHEDULE

TYPE	DESCRIPTION
G16	GL 5-1/8"x16-1/2"
G12	GL 5-1/8"x12"
G12.3	GL 3-1/8"x12"
CB24	C.B. 24"-76# I (STEEL BEAM)
CB21	C.B. 21"-68# I (STEEL BEAM)
W12	W12x22
W14	W14x26

(E) POST/COLUMN SCHEDULE

TYPE	DESCRIPTION
P3	3" PIPE
P2	2 1/2" PIPE
S2	(2) 2x6 STUDS
S4	(4) 2x6 STUDS
S5	(2) 2x4 STUDS
S6	(4) 2x4 STUDS

(E) JOISTS SCHEDULE

TYPE	DESCRIPTION
J4	2x4 @ 24" OC
J10	2x10 @ 24" OC
J12A	2x12 JOISTS @ 16" OC
J12B	2x12 JOISTS @ 12" OC
J14	2x14 JOISTS @ 16" OC
J16A	2x16 JOISTS @ 16" OC
J16B	2x16 JOISTS @ 12" OC
R6	2x6 RAFTERS @ 16" OC OVER PONY WALL
R7	2x6 RAFTERS @ 12" OC OVER PONY WALL
T24	24" TJH @ 48" OC
T20	20 TJL @ 32" OC
T22	22 TJL @ 32" OC
T16	16 TJI/35 @ 32" OC
T10	10" TJI @ 24" OC
T14	14" TJI @ 24" OC
T24L	24" TJL @ 32" OC

KEY NOTES

KEY VALUE	KEYNOTE TEXT
1	SISTER (E) 2x JOIST WITH (N) 2x PER 1/S3.00, TYP BELOW (N) RTU UNITS. (E) CROSS-BRIDGING WILL NEED TO BE RE-ATTACHED TO SISTERED JOISTS, MATCH (E) CROSS-BRIDGING SPACING.
2	(N) RTU, MAX WEIGHT = 1000 LBS
3	(E) WOOD WALL WITH 2x4 STUDS @ 16" OC AND (3) 2x4 @ EA JOIST BEARING
4	(E) 13" BRICK WALL
5	(E) WOOD WALL WITH 2x4 STUDS @ 16" OC AND (4) 2x4 @ EA JOIST BEARING
6	(E) WOOD WALL WITH 2x6 STUDS @ 16" OC WITH 5/8" GYPSUM BOARD ON EA SIDE
7	(E) WOOD WALL WITH 2x6 @ 12" OC WITH PLASTER
8	(N) RTU, MAX WEIGHT = 1300 LBS
9	(N) RTU, MAX WEIGHT = 950 LBS. SEE DETAIL 3/S3.02 FOR INFORMATION ON MECH OPENING IN (E) ROOF.
10	(N) (2) 2x JOIST, MATCH (E) RAFTER/JOIST SIZE
11	(E) SKYLIGHT OPENING TO REMAIN
12	CONTRACTOR TO FIELD VERIFY ROUTING OF (E) DUCTWORK, AND ROUTE (N) DUCTWORK THROUGH EXISTING WALL OPENINGS. CONTACT SEOR IF THERE ARE ANY DISCREPANCIES FOUND DURING CONSTRUCTION.
13	(N) 2x, MATCH (E) RAFTER/JOIST SIZE
14	(E) NON-BEARING WOOD WALL ABOVE
15	(N) OPENING IN (E) ROOF FOR RTU DUCT PENETRATIONS PER 2/S3.02. (N) OPENING TO BE LOCATED BETWEEN (E) ROOF TRUSSES, DO NOT DAMAGE (E) ROOF TRUSSES. CONTRACTOR TO FIELD VERIFY LOCATION PRIOR TO CONSTRUCTION, NOTIFY ENGINEER OF ANY DISCREPANCIES OR INCONSISTENSIES.
16	(N) ROOF DRAINS. COORDINATE WITH ARCHITECTURAL & PLUMBING DRAWINGS, LOCATE BETWEEN (E) JOISTS/BEAMS. DO NOT DAMAGE (E) JOIST/BEAMS DURING PLACEMENT
17	(E) 6x6 HEADER MIN OVER (E) DOOR OPENING, CONTRACTOR TO FIELD VERIFY.
18	(E) STEEL LINTEL HEADER ABOVE (E) DOOR OPENING TO SUPPORT (E) BRICK WALL ABOVE, CONTRACTOR TO FIELD VERIFY.
19	(E) DOUBLE TJL's TO SUPPORT (N) EQUIPMENT. CONTRACTOR TO VERIFY IN FIELD.
20	(N) RTU, MAX WEIGHT = 1550 LBS
21	CONTRACTOR TO PROVIDE TEMPORARY SHORING AS REQUIRED DURING FRAMING INSTALLATION AROUND NEW OPENING.
22	(N) 4x12, ATTACH TO SISTERED 2X W/ SIMPSON FACE MOUNT HANGERS.
23	(E) PONY WALL WBOVE (E) BRICK WALL TO SHEATHED WITH 3/4" OSB SHEATHING, TYP, ENTIRE LENGTH, SEE DETAIL 3/S3.03
24	(N) GUARD RAIL PER ARCH, SEE DETAILS 4/S3.02 & 5/S3.02
25	LOCATE RTU SUCH THAT IT IS SUPPORTED BY MINIMUM OF 3 TRUSSES BELOW, PROVIDE 2x6 BLOCKING ALIGNED BELOW ROOF CURB, BLOCKING TO ATTACH TO (E) TRUSS WITH SIMPSON LB26 TOP MOUNT HANGERS. SEE DETAIL 2/S3.02 FOR ADD'L INFO.
26	(E) ROOF OPENING BELOW (E) MECH UNIT OPENING TO BE IN-FILLED AND COVERED, SEE DETAIL 1/S3.02
27	SEE DETAIL 5/S3.01 FOR CARNEGIE BEAM BRACE
28	(3) 2x JOIST, SISTER (E) JOIST W/ (2) ADDITIONAL 2x MEMBERS, (1) EA SIDE OF (E) JOIST.
29	(N) OPENING IN (E) BEARING WALL, FRAME (N) OPENING PER 4/S3.00 & 5/S3.00
30	(E) DOUBLE TJI. CONTRACTOR TO FIELD VERIFY. IF TJI IS NOT DOUBLED UP, SISTER (N) 10" TJI 110 TO (E) 10" TJI.
31	(N) (2) 2x6 WOOD STUD IN (E) WALL BELOW (3) 2x12 JOIST BEARING LOCATION.
32	(N) MECH OPENING IN (E) BRICK WALL, INSTALL (N) STEEL LINTEL PER 6/S3.01
33	RIGID DUCT SUPPORT AT 30"-0" OC MAX PER 7/S3.03
34	CONTRACTOR TO REMOVE THE (E) SHEATHING AROUND OPENING ONLY AND PROVIDE ADDITIONAL FRAMING TO MATCH EXISTING AS NEEDED TO SUPPORT FAN PER MECH DRAWINGS. FAN TO BE PLACED BETWEEN RAFTERS/JOISTS, DO NOT DAMAGE (E) FRAMING.

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HIGHER ROOF - UPPER TIER FRAMING PLAN

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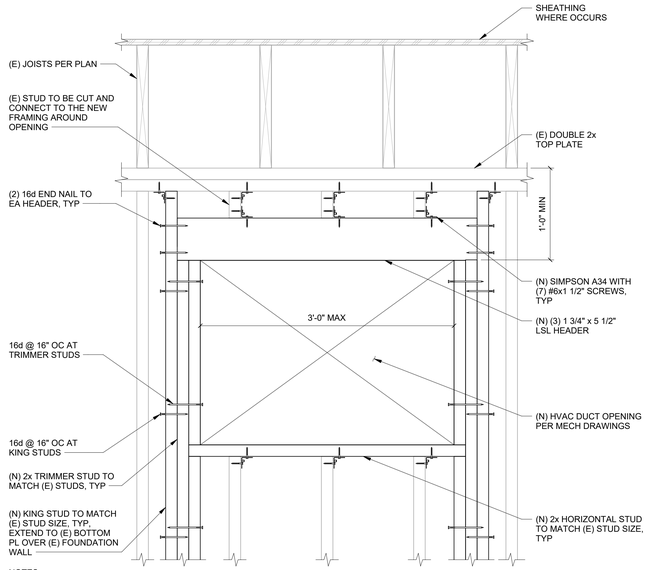
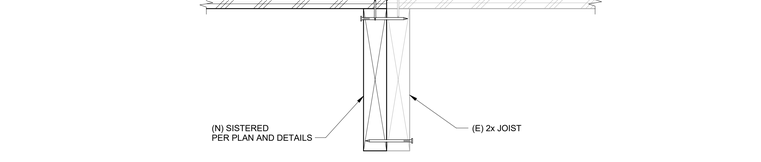


NOTES:
1. CONTRACTOR TO FIELD VERIFY IF THE EXISTING CONDITIONS MATCH THE EXISTING CONDITIONS IN THIS DETAIL ABOVE. NOTIFY SEOR IF THERE ARE ANY DISCREPANCIES.
2. SEE ARCHITECTURAL DRAWINGS FOR ARCHTIECTURAL HALLWAY WALL PATCH-UP DETAILS.
3. CONTRACTOR TO PROVIDE TEMPORARY SHORING AS REQUIRED TO ALLOW FOR HEADER INSTALLATION.

4 S3.00 STUD WALL PENETRATION FOR HVAC DUCTS - 3'-0" WIDE OPENING MAX

1 1/2" = 1'-0"



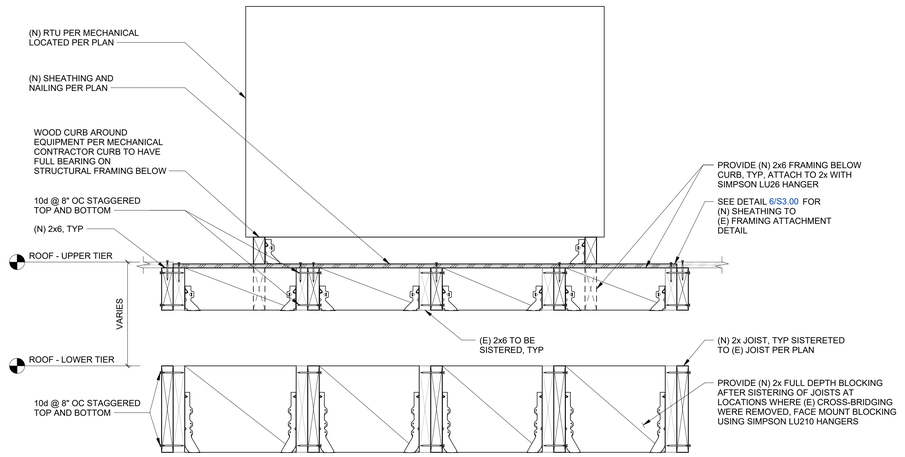
NOTES:
1. CONTRACTOR TO FIELD VERIFY IF THE EXISTING CONDITIONS MATCH THE EXISTING CONDITIONS IN THIS DETAIL ABOVE. NOTIFY SEOR IF THERE ARE ANY DISCREPANCIES.
2. SEE ARCHITECTURAL DRAWINGS FOR ARCHTIECTURAL HALLWAY WALL PATCH-UP DETAILS.
3. CONTRACTOR TO PROVIDE TEMPORARY SHORING AS REQUIRED TO ALLOW FOR HEADER INSTALLATION.

5 S3.00 STUD WALL PENETRATION FOR HVAC DUCTS - 5'-0" WIDE OPENING MAX

1 1/2" = 1'-0"

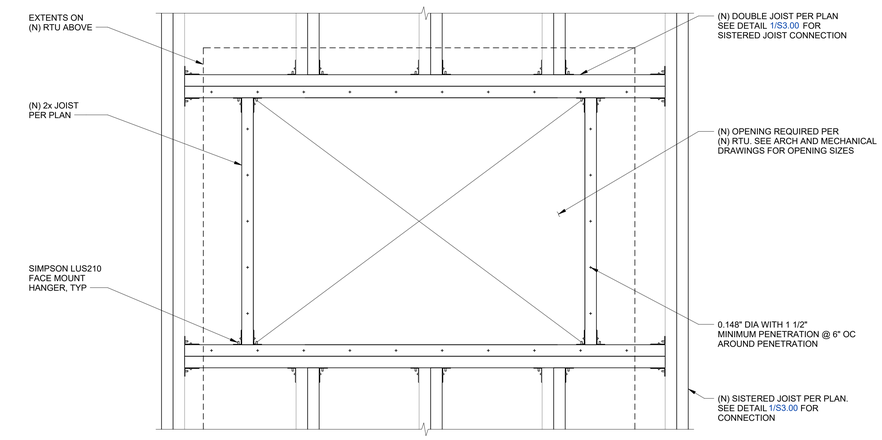
6 S3.00 (N) SHEATING TO (E) FRAMING ATTACHMENT DETAIL

3" = 1'-0"



1 S3.00 SISTERED JOISTS SUPPORTING RTU

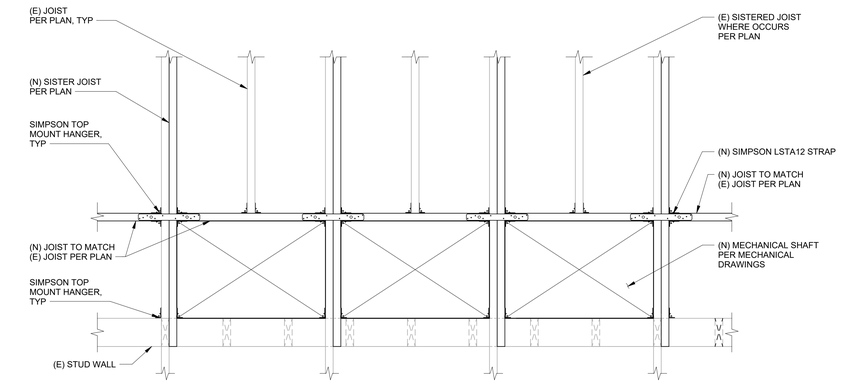
1 1/2" = 1'-0"



NOTES:
1. CONTRACTOR TO PROVIDE TEMPORARY SHORING AS REQUIRED DURING CONSTRUCTION OF NEW ROOF PENETRATION.
2. SEE PLAN FOR ROOF OPENING LOCATIONS, AND ORIENTATION.
3. RTU UNIT CURB SUPPORT FRAMING INDICATED ON 1/S3.00 NOT SHOWN ON THIS DETAIL FOR CLARITY.

2 S3.00 (N) FRAMING FOR PENETRATION ON ROOF - PLAN VIEW

1 1/2" = 1'-0"



3 S3.00 SHAFT TYPICAL DETAIL - PLAN VIEW

1" = 1'-0"

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Sheet:
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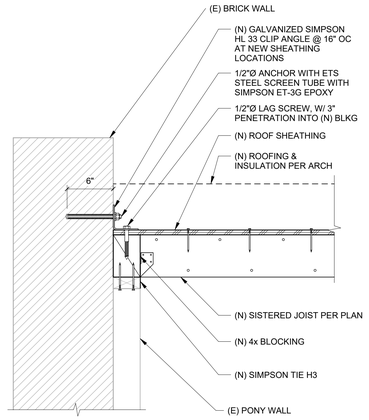
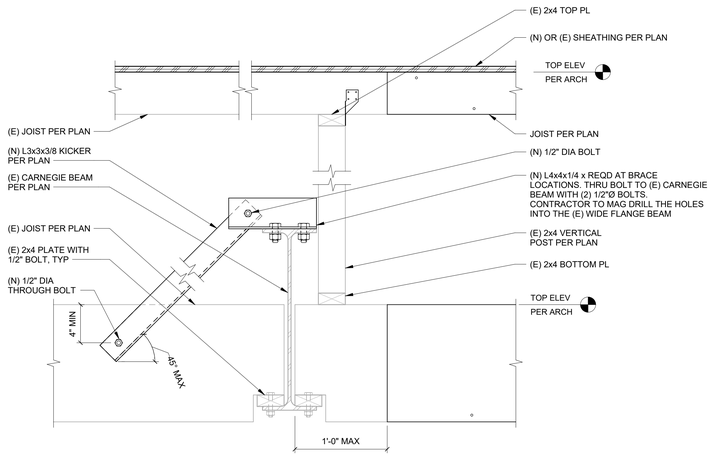


B

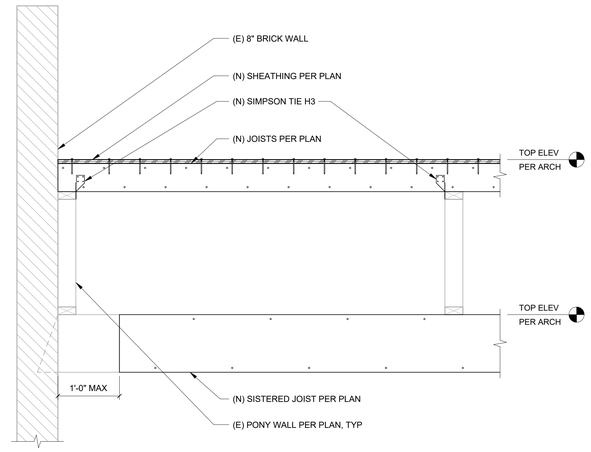
(E) OR (N) SHEATHING TO (E) BRICK WALL ATTACHMENT - FRAMING PERPENDICULAR TO WALL

7 S3.01 — 1 1/2" = 1'-0"



(E) CARNEGIE BEAM - TOP FLANGE BRACING

4 S3.01 — 1 1/2" = 1'-0"



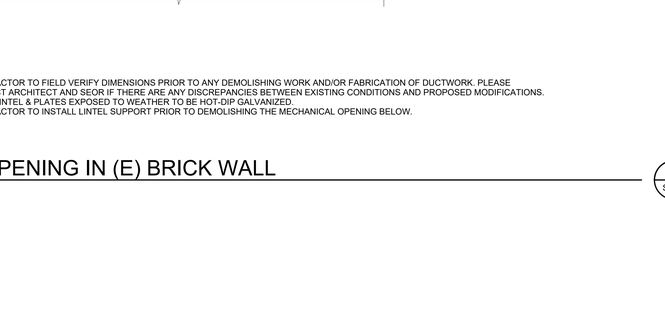
PONY WALL AT EXTERIOR BRICK WALL

1 S3.01 — 1" = 1'-0"

C

(E) OR (N) SHEATHING TO (E) BRICK WALL ATTACHMENT - FRAMING PARALLEL TO WALL

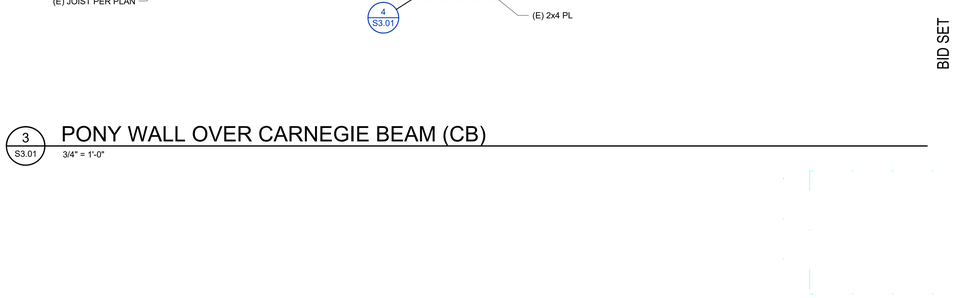
8 S3.01 — 1 1/2" = 1'-0"



NOTES:
1. CONTRACTOR TO FIELD VERIFY IF THE EXISTING CONDITIONS MATCH THE EXISTING CONDITIONS IN THIS DETAIL ABOVE. NOTIFY SEOR IF THERE ARE ANY DISCREPANCIES.
2. CONTRACTOR TO PROVIDE TEMPORARY SHORING AS REQUIRED TO ALLOW FOR HEADER INSTALLATION.

HVAC DUCT OPENING IN PONY WALL

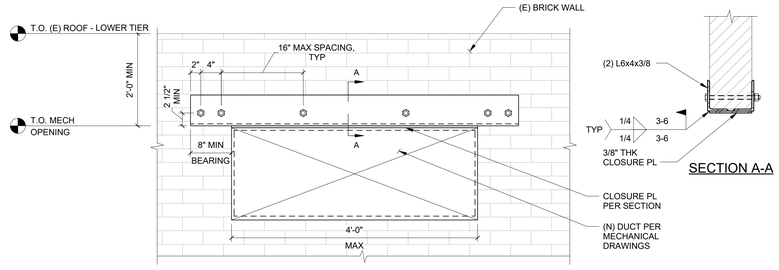
5 S3.01 — 1 1/2" = 1'-0"



PONY WALL AT INTERIOR STUD WALL

2 S3.01 — 1" = 1'-0"

D

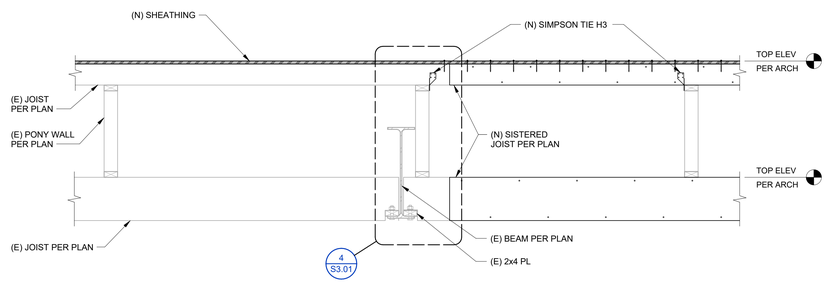


NOTES:
1. CONTRACTOR TO FIELD VERIFY DIMENSIONS PRIOR TO ANY DEMOLISHING WORK AND/OR FABRICATION OF DUCTWORK. PLEASE CONTACT ARCHITECT AND SEOR IF THERE ARE ANY DISCREPANCIES BETWEEN EXISTING CONDITIONS AND PROPOSED MODIFICATIONS.
2. STEEL LINTEL & PLATES EXPOSED TO WEATHER TO BE HOT-DIP GALVANIZED.
3. CONTRACTOR TO INSTALL LINTEL SUPPORT PRIOR TO DEMOLISHING THE MECHANICAL OPENING BELOW.

E

MECHANICAL OPENING IN (E) BRICK WALL

6 S3.01 — 1" = 1'-0"



PONY WALL OVER CARNEGIE BEAM (CB)

3 S3.01 — 3/4" = 1'-0"

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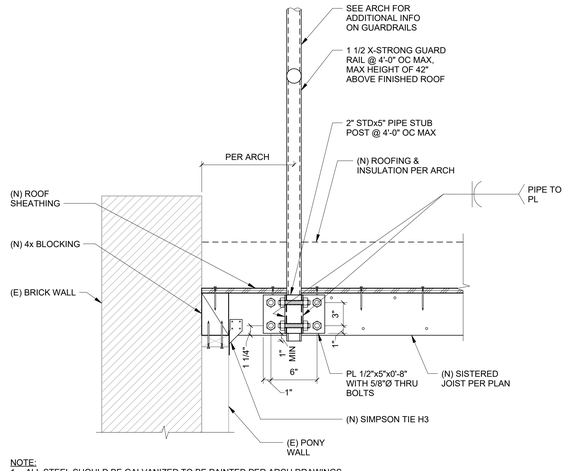
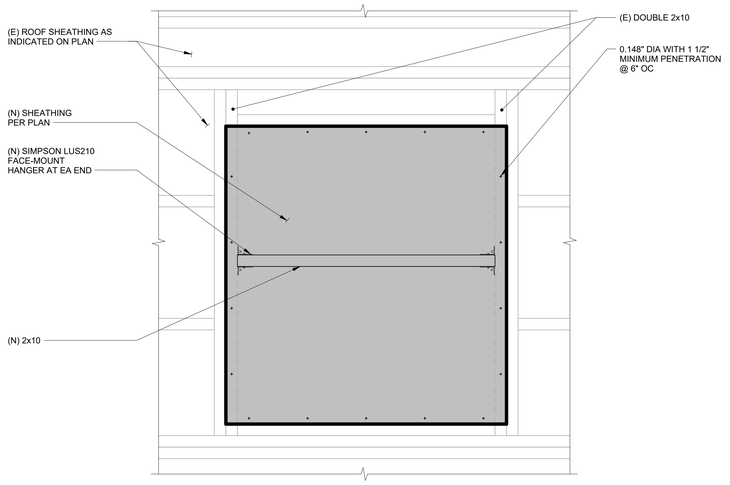


NOTE:
1. ALL STEEL SHOULD BE GALVANIZED TO BE PAINTED PER ARCH DRAWINGS.

(N) GUARDRAIL TO (E) ROOF STRUCTURE ATTACHMENT - FRAMING PERPENDICULAR TO WALL

4 S3.02

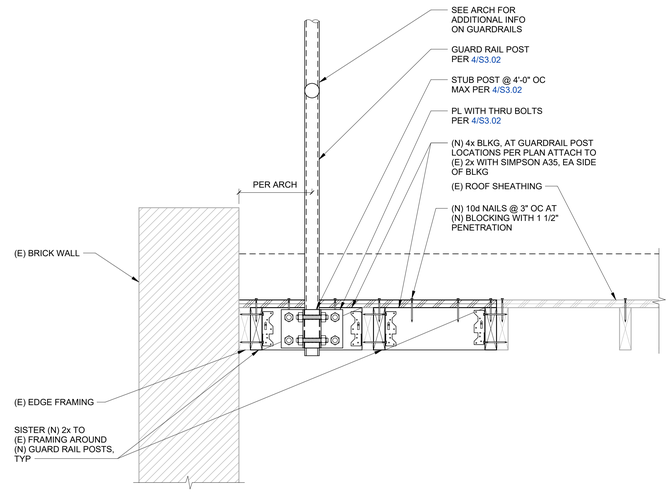
1 1/2" = 1'-0"



(E) ROOF OPENING INFILL DETAIL

1 S3.02

1 1/2" = 1'-0"

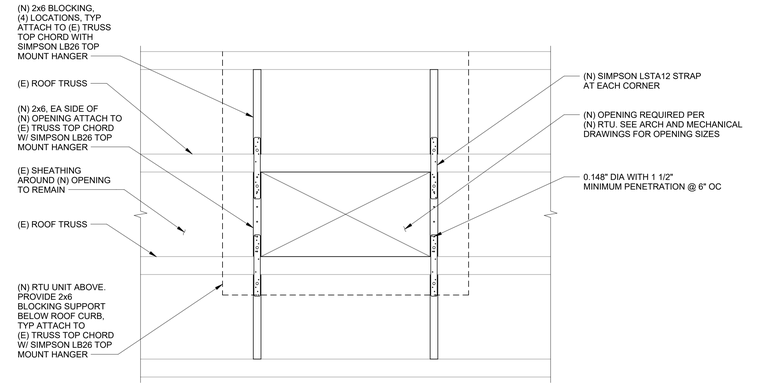


NOTE:
1. ALL STEEL SHOULD BE GALVANIZED TO BE PAINTED PER ARCH DRAWINGS.

(N) GUARDRAIL TO (E) ROOF STRUCTURE ATTACHMENT - FRAMING PARALLEL TO WALL

5 S3.02

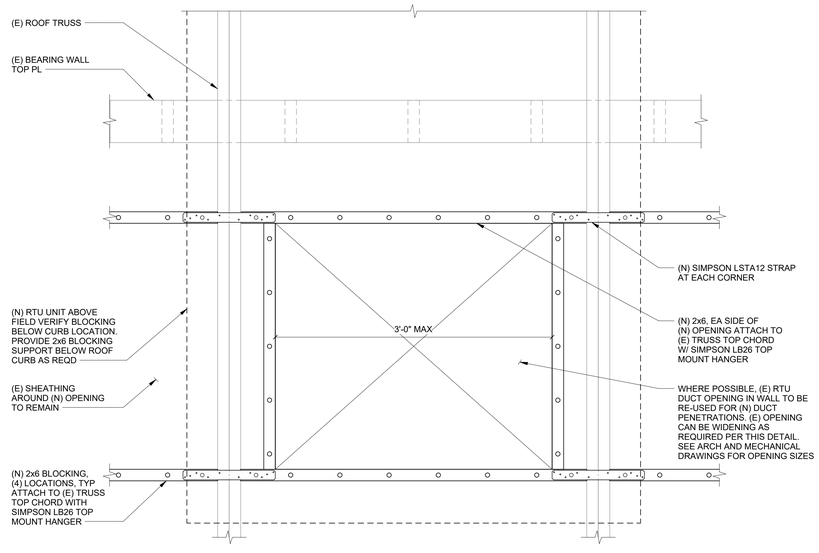
1 1/2" = 1'-0"



(N) MECHANICAL ROOF OPENING IN (E) SOUTH-EAST ADDITION ROOF WITH TRUSSES - PLAN VIEW

2 S3.02

1" = 1'-0"



MECHANICAL ROOF OPENING IN (E) CLASSROOM BUILDING ROOF WITH TRUSSES - PLAN VIEW

3 S3.02

1 1/2" = 1'-0"

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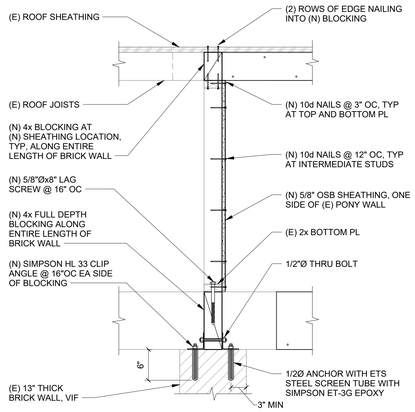


4 S3.03 (N) SHEATHING AT (E) PONY WALL ABOVE (E) BRICK WALL

1" = 1'-0"

HOLD-DOWN AND COMPRESSION STUD SCHEDULE

TYPE MARK	HOLD-DOWN	THREADED ROD SIZE	WASHER PL SIZE	MIN ROD EMBEDMENT INTO (E) BRICK WALL NOTE 2	COMPRESSION STUDS, SEE NOTE 1
1	HDU8-SDS2.5	5/8"Ø	3/8"x2"x0'-2"	8"	(2) 2x4 OR 4x4

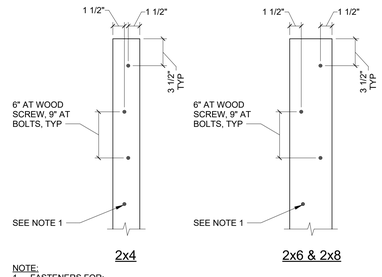
NOTES:
1. FASTEN COMPRESSION STUDS TOGETHER PER6/S3.03 .
2. POST-INSTALLED ADHESIVE ANCHORS, USE SIMPSON ET-3G EPOXY SYSTEM OR EQUIVALENT.

5 S3.03 HOLD-DOWN AND COMPRESSION STUD SCHEDULE

NO SCALE

BUILT-UP COLUMN SCHEDULE

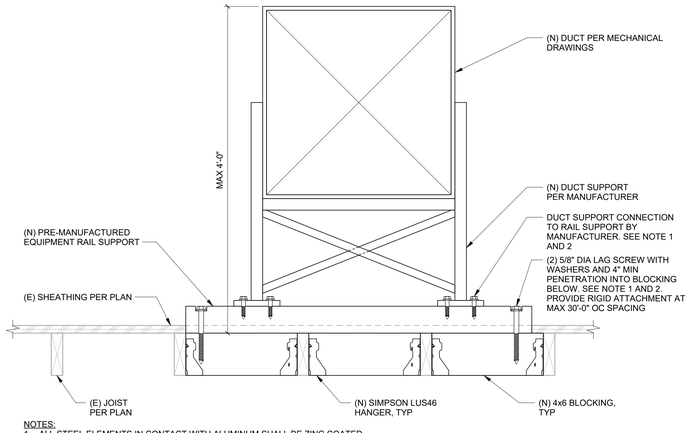
TYPE MARK	STUD SIZE AND QUANTITY
1	(2) 2x4



NOTE:
1. FASTENERS FOR:
   2 PLY = SDW22300
   3 PLY = SDW22438
   4 PLY = SDW22600
   5 PLY = 1/2"Ø BOLT

6 S3.03 BUILT-UP COLUMN SCHEDULE

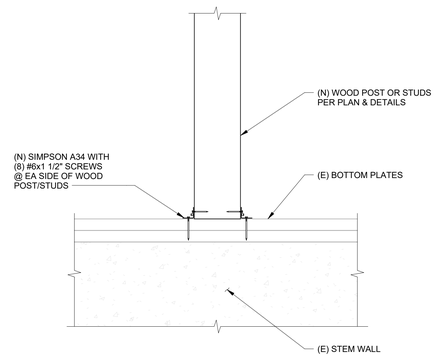
NO SCALE



NOTES:
1. ALL STEEL ELEMENTS IN CONTACT WITH ALUMINUM SHALL BE ZINC COATED.
2. PROTECT STEEL WASHERS WITH NEOPRENE OR NYLON BETWEEN WASHER AND ALUMINUM ELEMENT.

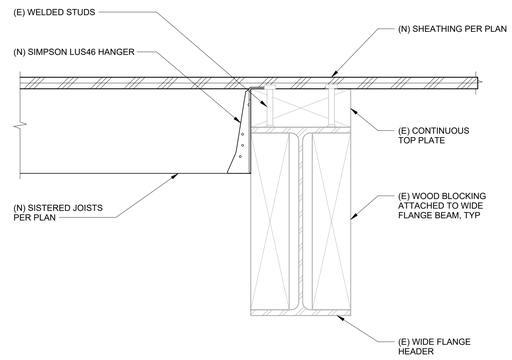
7 S3.03 RIGID DUCT SUPPORT AT ROOF

1 1/2" = 1'-0"



1 S3.03 WOOD POST CONNECTION

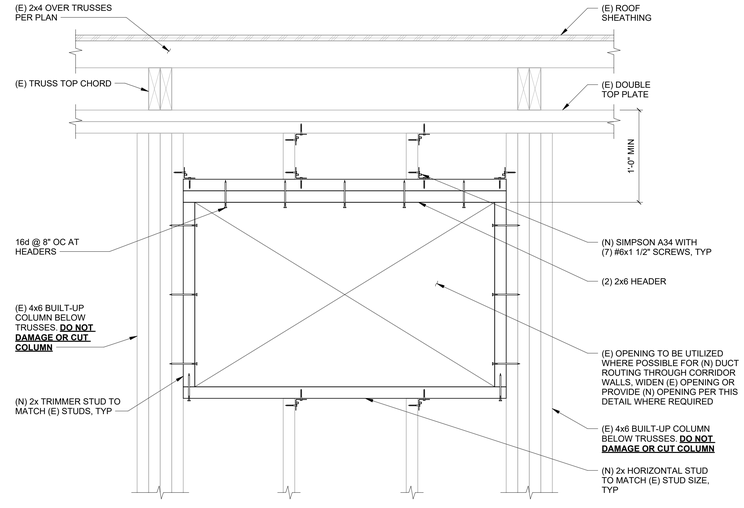
1 1/2" = 1'-0"



NOTE:
1. CONTRACTOR TO VERIFY ACTUAL CONDITIONS AND NOTIFY SEOR IF THERE ARE ANY DISCREPANCIES WITH THIS DETAIL.

2 S3.03 SISTERED JOISTS TO WIDE FLANGE CONNECTION

3" = 1'-0"



NOTES:
1. CONTRACTOR TO FIELD VERIFY IF THE EXISTING CONDITIONS MATCH THE EXISTING CONDITIONS IN THIS DETAIL ABOVE. NOTIFY SEOR IF THERE ARE ANY DISCREPANCIES.
2. CONTRACTOR TO PROVIDE TEMPORARY SHORING AS REQUIRED TO ALLOW FOR HEADER INSTALLATION.

3 S3.03 HVAC DUCT OPENINGS IN HALLWAY BEARING WALL - ELEVATION VIEW

1 1/2" = 1'-0"

BID SET

PROFESSIONAL ENGINEER LICENSED 12033 STATE OF IDAHO JUDSEN WILLIAMS

kpff
412 E. ParkCenter Blvd, Suite 200
Boise, ID 83706
208.336.6985
www.kpff.com

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

Project:
TFSD DISTRICT WIDE HVAC REPLACEMENT

LINCOLN ELEMENTARY SCHOOL
238 BUHL ST N
TWIN FALLS, ID 83301

Sheet:
RETROFIT DETAILS

Revisions:

Project No:	10212400111
Drawn By:	DC/YK
Checked By:	JW
Date:	02/27/2025

Sheet No:
S3.03

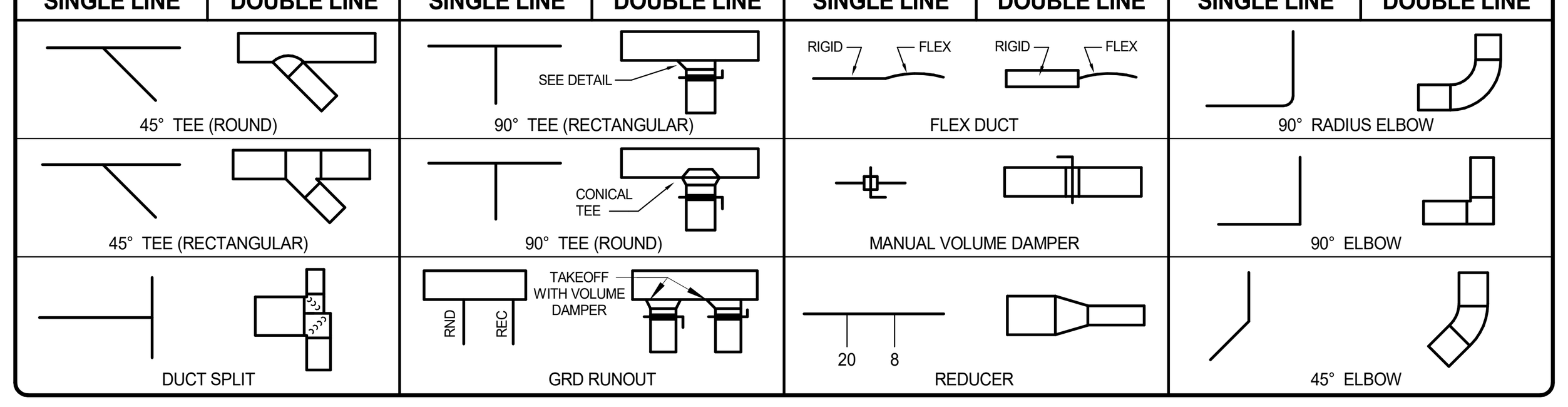
2/27/2025 2:55:24 PM

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 28 3'-6"	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

BAS CONTROL LEGEND & NOTES
(Not all symbols listed below are used on these drawings)

ABBR.	SYMBOL	DESCRIPTION
D.I.	D.I.	DIGITAL INPUT
D.O.	D.O.	DIGITAL OUTPUT
A.I.	A.I.	ANALOG INPUT
A.O.	A.O.	ANALOG OUTPUT

GENERAL NOTES:

1. THE TEMPERATURE CONTROL MATRIX, CONTROL DIAGRAMS, AND THE SEQUENCE OF OPERATIONS ARE ALL BINDING AND COMPLEMENTARY. IF THERE IS A DISCREPANCY BETWEEN THEM, THE WORST CASE SCENARIO SHALL BE USED FOR BIDDING PURPOSES. ADDITIONAL COSTS WILL NOT BE ALLOWED FOR DISCREPANCIES BETWEEN THE SPECIFICATIONS AND THE DRAWINGS.
2. IN ADDITION TO THE DDC POINTS LISTED, THE CONTRACTOR SHALL CAREFULLY REVIEW ALL DRAWINGS, ALL SPECIFICATIONS, AND ALL SEQUENCES OF OPERATION. THE DOCUMENTS ARE ALL INCLUSIVE AND COMPLIMENTARY TO EACH OTHER. THE PROJECT SHALL INCLUDE ANY AND ALL NECESSARY DDC POINTS TO SUPPORT THE REQUIREMENTS OF ALL THE DOCUMENTS.
3. ALWAYS REFER TO DRAWINGS FOR QUANTITY.
4. PROVIDE OPEN PROTOCOL COMMUNICATION WITH FACTORY SUPPLIED CONTROLLER.
5. BAS CONTRACTOR SHALL COORDINATE STATUS LEVEL FOR EACH ALARM POINT WITH THE OWNER TO DETERMINE WHICH ONES REQUIRE IMMEDIATE ATTENTION.
6. IF THERE IS A DISCREPANCY BETWEEN ANY DOCUMENTATION, THE WORST CASE SCENARIO SHALL BE USED FOR BIDDING PURPOSES. ADDITIONAL COSTS WILL NOT BE ALLOWED FOR DISCREPANCIES BETWEEN THE SPECIFICATIONS AND DRAWINGS.

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

HVAC PLAN NOTES:

1. SUPPLY AIR DUCTWORK SHALL EXTEND FROM EACH ROOFTOP UNIT TO THE SPACE SERVED. WHERE CEILING PLENUM SPACE IS LIMITED OR BLOCKED BY STRUCTURE, EXTERIOR ROOF-MOUNTED DUCTWORK MAY BE REQUIRED.
2. WHERE ROOFTOP UNITS SERVE A SINGLE ZONE, THE RETURN AIR DUCTWORK SHALL BE ROUTED FROM THE ROOFTOP UNIT TO THE SPACE SERVED. IF THE UNIT SERVES MULTIPLE ZONES, THE DUCTWORK SHALL EXTEND TO A COMMON LOCATION AMONGST THE SPACES SERVED.
   A. UNLESS EXISTING CONSTRUCTION PROHIBITS PLENUM RETURN (I.E. CONSISTS OF COMBUSTIBLE MATERIALS), THE CEILING PLENUMS SHALL BE UTILIZED FOR RETURN WITH TRANSFER AIR DUCTS FROM THE OCCUPIED SPACE OR FROM SPACE TO SPACE.
   B. IF THE CEILING PLENUM IS EXPOSED TO COMBUSTIBLE MATERIALS THEN THE RETURN SHALL BE FULLY DUCTED TO THE OCCUPIED SPACE AND CONTRACTOR TO NOTIFY ENGINEER.
3. UNLESS OTHERWISE NOTED, ALL SUPPLY AIR DUCTWORK SHALL BE EXTERNALLY WRAPPED TO MEET THE MINIMUM IECC INSULATION VALUES BASED UPON LOCATION (EXTERIOR, ATTIC, AND/OR INTERIOR) OF DUCTWORK. SUPPLY AIR DUCTWORK EXPOSED TO THE OCCUPIED SPACE DOES NOT REQUIRE INSULATION UNLESS INDICATED OTHERWISE. INTERIOR RETURN AIR DUCTWORK SHALL NOT BE WRAPPED BUT EXTERIOR AND ATTIC RETURN DUCTWORK SHALL MEET MINIMUM INSULATION VALUES PER IECC. INTERIOR SUPPLY AND RETURN DUCTWORK SHALL BE LINED WHERE INDICATED. EXHAUST DUCTWORK DOES NOT REQUIRE INSULATION.
4. ALL EXPOSED DUCTWORK SHALL BE SPIRAL OR FLAT OVAL, WITH LABELS REMOVED, FREE OF IMPERFECTIONS, AND PREPPED FOR PAINTING.
5. REFER TO ARCHITECTURAL DRAWINGS FOR ROOF PENETRATION DETAILS.
6. DUCT SIZES INDICATED ARE SHEET METAL SIZES. WHERE INTERNAL DUCT LINING IS PROVIDED, SHEET METAL SHALL NOT BE INCREASED IN SIZE.
7. ALL SUPPLY AIR DIFFUSERS ARE 4-WAY AIR PATTERN UNLESS SHOWN OTHERWISE.
8. DUCT SIZE OF BRANCH DUCT TO AIR DEVICE SHALL BE THE SAME SIZE AS NECK SIZE OF AIR DEVICE UNLESS NOTED OTHERWISE

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 ONDITIONS 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. THE SCOPE OF WORK SHALL INCLUDE REMOVAL OF THE EXISTING STEAM BOILERS, CONDENSATE PUMPS, WATER TREATMENT, STEAM PIPING DISTRIBUTION, AND CONDENSATE RETURN. THE STEAM AND CONDENSATE PIPING SHALL BE DEMOLISHED AND REMOVED TO THE GREATEST EXTENT POSSIBLE. THE EXISTING PIPING IS GENERALLY ROUTED THROUGHOUT THE BUILDING(S) VIA AN UNDERGROUND TUNNEL SYSTEM. WHERE PIPING PASSES BETWEEN BUILDINGS AND IS DIRECT BURIED, THE PIPING MAY BE ABANDONED IN PLACE.
2. THE EXISTING UNIT VENTILATORS SHALL BE DEMOLISHED ENTIRELY AND ALL LOUVERS OR CONNECTIONS TO OUTDOORS SHALL BE INSULATED AND FILLED (RE:ARCH).
3. EXISTING DX SPLIT SYSTEMS SHALL BE DEMOLISHED INCLUDING ALL PIPING, HANGERS, SUPPORTS, EQUIPMENT PADS AND ENCLOSURES. WHERE PIPING PASSES THROUGH EXTERIOR WALLS, THE WALL SHALL BE REPAIRED.
4. EXISTING ITEMS TO REMAIN ARE DENOTED LIGHTLY UNLESS OTHERWISE NOTED. ALL ITEMS SHOWN DASHED & BOLD SHALL BE REMOVED UNLESS OTHERWISE NOTED.
5. CONTRACTOR SHALL NOT SHUT-OFF OR PUT-OUT OF SERVICE ANY SYSTEMS OR SERVICE WITHOUT FIRST COORDINATING WITH THE OWNER.
6. 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.
7. CONTRACTOR SHALL DETERMINE AND COORDINATE THE EXACT EXTENT OF DEMOLITION TO FACILITATE ALL WORK INDICATED BY THE CONCEPTUAL DESIGN FOR BUDGETING.
8. PRIOR TO COMMENCEMENT OF ANY DEMOLITION WORK, VERIFY EXISTING CONDITIONS AND NOTIFY ENGINEER OF ANY DISCREPANCIES FOR RESOLUTION.
9. 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.
10. 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.
11. 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.
12. ALL EQUIPMENT SERVED BY STEAM IS TO BE DEMOLISHED. NOTIFY ENGINEERS IF ANY STEAM EQUIPMENT IS NOT SHOWN ON DEMO PLANS.

COM*check* Software Version COMcheckWeb

Mechanical Compliance Certificate

Project Information

Energy Code: 2018 IECC
Project Title: TFSD Lincoln Elementary
Location: Twin Falls, Idaho
Climate Zone: 5b
Project Type: New Construction

Construction Site:
238 BUHL ST N
TWIN FALLS, Idaho 83301

Owner/Agent:
TWIN FALLS SCHOOL DISTRICT

Designer/Contractor:
LILLY JOHNSON
CATOR RUMA AND ASSOCIATES

Additional Efficiency Package(s)

Credits: 1.0 Required 0.0 Proposed

Mechanical Systems List

Quantity System Type & Description

16 HVAC System (Single Zone w/ PerimeterSystem):
Heating: 1 each - Central Furnace, Gas, Capacity = 110 kBtu/h
Proposed Efficiency = 80.00% Et, Required Efficiency: 80.00 % Et or 80% AFUE
Cooling: 1 each - Packaged Terminal Unit, Capacity = 44 kBtu/h, Air-Cooled Condenser, Air Economizer
Proposed Efficiency = 11.06 EER, Required Efficiency = 9.50 EER
Proposed Part Load Efficiency = 0.00 , Required Part Load Efficiency = 0.00
Fan System: FAN SYSTEM 1 -- Compliance (Motor nameplate HP and fan efficiency method) : Passes

Fans:
FAN 1 Supply, Constant Volume, 1380 CFM, 2.0 motor nameplate hp, 0.0 fan efficiency grade, 0.0 total fan efficiency, 0.0 design fan efficiency , fan exception: Fan array <= 5 total HP
FAN 2 Relief, Single-Zone VAV, 1380 CFM, 0.5 motor nameplate hp, 0.0 fan efficiency grade, 0.0 total fan efficiency, 0.0 design fan efficiency , fan exception: Fan array <= 5 total HP

2 HVAC System (Single Zone w/ PerimeterSystem):
Heating: 1 each - Central Furnace, Gas, Capacity = 110 kBtu/h
Proposed Efficiency = 80.00% Et, Required Efficiency: 80.00 % Et or 80% AFUE
Cooling: 1 each - Packaged Terminal Unit, Capacity = 44 kBtu/h, Air-Cooled Condenser, Unknown Economizer
Proposed Efficiency = 10.65 EER, Required Efficiency = 9.50 EER
Proposed Part Load Efficiency = 0.00 , Required Part Load Efficiency = 0.00
Fan System: FAN SYSTEM 2 -- Compliance (Motor nameplate HP and fan efficiency method) : Passes

Fans:
FAN 3 Supply, Constant Volume, 1600 CFM, 2.0 motor nameplate hp, 0.0 fan efficiency grade, 0.0 total fan efficiency, 0.0 design fan efficiency , fan exception: Fan array <= 5 total HP
FAN 4 Relief, Single-Zone VAV, 1600 CFM, 0.5 motor nameplate hp, 0.0 fan efficiency grade, 0.0 total fan efficiency, 0.0 design fan efficiency , fan exception: Fan array <= 5 total HP

14 HVAC System (Single Zone w/ PerimeterSystem):
Heating: 1 each - Central Furnace, Gas, Capacity = 110 kBtu/h
Proposed Efficiency = 80.00% Et, Required Efficiency: 80.00 % Et or 80% AFUE
Cooling: 1 each - Packaged Terminal Unit, Capacity = 54 kBtu/h, Air-Cooled Condenser, Air Economizer
Proposed Efficiency = 11.36 EER, Required Efficiency = 9.50 EER
Proposed Part Load Efficiency = 0.00 , Required Part Load Efficiency = 0.00
Fan System: FAN SYSTEM 3 -- Compliance (Motor nameplate HP and fan efficiency method) : Passes

Fans:
FAN 5 Supply, Constant Volume, 2000 CFM, 2.4 motor nameplate hp, 0.0 fan efficiency grade, 0.0 total fan efficiency, 0.0 design fan efficiency , fan exception: Fan array <= 5 total HP
FAN 6 Relief, Single-Zone VAV, 2000 CFM, 0.5 motor nameplate hp, 0.0 fan efficiency grade, 0.0 total fan efficiency, 0.0 design fan efficiency , fan exception: Fan array <= 5 total HP

Quantity System Type & Description

2 HVAC System (Single Zone w/ PerimeterSystem):
Heating: 1 each - Central Furnace, Gas, Capacity = 150 kBtu/h
Proposed Efficiency = 82.00% Et, Required Efficiency: 80.00 % Et or 80% AFUE
Cooling: 1 each - Packaged Terminal Unit, Capacity = 66 kBtu/h, Air-Cooled Condenser, Air Economizer
Proposed Efficiency = 11.95 EER, Required Efficiency = 9.50 EER
Proposed Part Load Efficiency = 0.00 , Required Part Load Efficiency = 0.00
Fan System: FAN SYSTEM 4 -- Compliance (Motor nameplate HP and fan efficiency method) : Passes

Fans:
FAN 7 Supply, Constant Volume, 2400 CFM, 3.0 motor nameplate hp, 0.0 fan efficiency grade, 0.0 total fan efficiency, 0.0 design fan efficiency , fan exception: Fan array <= 5 total HP
FAN 8 Relief, Single-Zone VAV, 2400 CFM, 1.0 motor nameplate hp, 0.0 fan efficiency grade, 0.0 total fan efficiency, 0.0 design fan efficiency , fan exception: Fan array <= 5 total HP

1 HVAC System (Single Zone w/ PerimeterSystem):
Heating: 1 each - Duct Furnace, Gas, Capacity = 250 kBtu/h
Proposed Efficiency = 82.00% Ec, Required Efficiency: 80.00 % Ec
Cooling: 1 each - Packaged Terminal Unit, Capacity = 107 kBtu/h, Air-Cooled Condenser, Air Economizer
Proposed Efficiency = 10.32 EER, Required Efficiency = 9.50 EER
Proposed Part Load Efficiency = 0.00 , Required Part Load Efficiency = 0.00
Fan System: FAN SYSTEM 5 -- Compliance (Brake HP and fan efficiency method) : Passes

Fans:
FAN 9 Supply, Constant Volume, 4000 CFM, 5.0 motor nameplate hp, 1.9 design brake hp (5.0 max. BHP), 1.0 fan efficiency grade, 0.0 total fan efficiency, 0.0 design fan efficiency , fan exception: Fan array <= 5 total HP
FAN 10 Relief, Single-Zone VAV, 4000 CFM, 2.0 motor nameplate hp, 2.0 design brake hp (2.0 max. BHP), 1.0 fan efficiency grade, 0.0 total fan efficiency, 0.0 design fan efficiency , fan exception: Fan array <= 5 total HP

Mechanical Compliance Statement

Compliance Statement: The proposed mechanical design 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 COMcheckWeb and to comply with any applicable mandatory requirements listed in the Inspection Checklist.

Lilly Johnson — [signature] — 2/27/25
Name - Title — Signature — Date

IECC INFORMATION ON CONSTRUCTION DOCUMENTS FOR MECHANICAL DRAWINGS

THE FOLLOWING INFORMATION IS PROVIDED TO ACCOMMODATE THE REQUIREMENTS FOR THE CODE SECTION REFERENCED BELOW ON LINE ITEMS 4, 5, 6, 7, 8, & 9 FOR MECHANICAL SYSTEMS ON THIS PROJECT.

IECC 2018-C103.2 INFORMATION ON CONSTRUCTION DOCUMENTS.

4. MECHANICAL SYSTEM DESIGN CRITERIA.

[ ] NOT APPLICABLE TO THIS PROJECT.

HVAC HEATING & COOLING LOADS ARE CALCULATED IN ACCORDANCE WITH THE ASHRAE FUNDAMENTALS HANDBOOK.

DESIGN PROJECT ELEVATION

[3700] FEET ELEVATION FOR THE PROJECT SITE LOCATION.
[0.87] ALTITUDE CORRECTION FACTOR FOR HEAT TRANSFER CALCULATION REQUIRED.

DESIGN TEMPERATURES

95	°F DB OUTDOOR SUMMER	75	°F DB INDOOR SUMMER
62.6	°F WB OUTDOOR SUMMER	30	%RH INDOOR SUMMER
7	°F WB OUTDOOR WINTER	70	°F WB INDOOR WINTER

DESIGN OUTSIDE AIR VENTILATION

[X] IMC 2018 CHAPTER 4
[ ] ASHRAE STANDARD 62.1 VENTILATION FOR ACCEPTABLE INDOOR AIR QUALITY
[ ] ASHRAE STANDARD 62.2 VENTILATION AND ACCEPTABLE INDOOR AIR QUALITY IN LOWRISE RESIDENTIAL BUILDINGS
[ ] ANSI/ASHRAE/ASHE STANDARD 170 VENTILATION OF HEALTH CARE FACILITIES

5. MECHANICAL AND SERVICE WATER HEATING SYSTEM AND EQUIPMENT TYPES, SIZES AND EFFICIENCIES.

[X] NOT APPLICABLE TO THIS PROJECT.
[ ] REFER TO EQUIPMENT SCHEDULES, NOTES & SPECIFICATIONS FOR SYSTEM & EQUIPMENT TYPES, EQUIPMENT SIZES & EFFICIENCES.

6. ECONOMIZER DESCRIPTION.

[ ] NOT APPLICABLE TO THIS PROJECT.
[X] REFER TO ECONOMIZER SEQUENCES OF OPERATION IN SPECIFICATION SECTION 230993 OR ON DRAWINGS FOR DESCRIPTION OF AIR HANDLING & ROOFTOP UNITS.

7. EQUIPMENT AND SYSTEM CONTROLS.

[ ] NOT APPLICABLE TO THIS PROJECT.
[X] REFER TO SEQUENCES OF OPERATION IN SPECIFICATION SECTION 230993 OR ON THE DRAWINGS FOR EQUIPMENT & SYSTEM CONTROLS.

8. FAN MOTOR HORSEPOWER (HP) AND CONTROLS.

[X] NOT APPLICABLE TO THIS PROJECT.
[ ] REFER TO EQUIPMENT SCHEDULES FOR FAN MOTOR HORSEPOWER (HP). REFER TO SEQUENCES OF OPERATION IN SPECIFICATION SECTION 230993 OR ON THE DRAWINGS FOR FAN CONTROLS.

9. DUCT SEALING, DUCT AND PIPE INSULATION AND LOCATION.

[ ] NOT APPLICABLE TO THIS PROJECT.
[X] REFER TO SPECIFICATION SECTION 233113 MECH DUCTS FOR DUCT SEALING REQUIREMENTS. REFER TO SPECIFICATION SECTION 230700 INSULATION FOR MECHANICAL SYSTEMS FOR DUCT & PIPE INSULATION REQUIREMENTS FOR THE SYSTEMS SHOWN ON THE DRAWINGS.

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

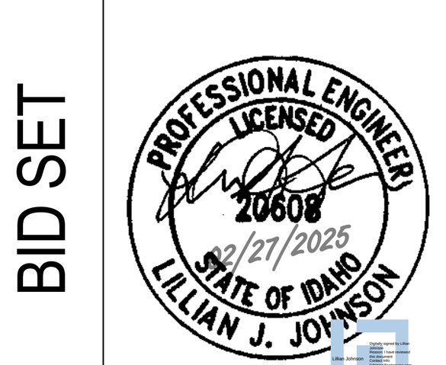
HUMMEL ARCHITECTS
205 N. 10th Street, Suite 300, Boise, Idaho 83702, 208.343.7523
482 Constitution Way, Suite 111, Idaho Falls, ID 83402, 208.343.7523
hummelarch.com

Project:
TFSD DISTRICT WIDE HVAC REPLACEMENT

LINCOLN ELEMENTARY SCHOOL
238 BUHL ST N
TWIN FALLS, ID 83301

Sheet:
MECHANICAL LEGENDS & NOTES

BID SET



Revisions:

Project No: 23028
Drawn By: AK
Checked By: MG
Date: 02/27/2025

Sheet No: M0.01

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.

DESIG.	FUNCTION	STYLE	MFR.	MODEL	FRAME STYLE	MODULE SIZE	MATERIAL	FINISH	REMARKS
A	SIDEWALL SUPPLY	ADJUSTABLE VANES, DOUBLE DEFLECTION, 3/4" O.C.	PRICE	520	SURFACE	SEE PLANS	STEEL	WHITE	
B	CEILING SUPPLY	PLAQUE FACE FIXED PATTERN, RECTANGULAR DIFFUSER	PRICE	SPD	LAY-IN	SEE PLANS	STEEL	WHITE	
C	CEILING RETURN, TRANSFER	MODULAR PERFORATED FACE GRILLE	PRICE	PDDR	LAY-IN	SEE PLANS	STEEL	WHITE	
D	CEILING SUPPLY	PLAQUE FACE FIXED PATTERN, RECTANGULAR DIFFUSER	PRICE	SPD	SURFACE	12x12	STEEL	WHITE	
E	SIDEWALL RETURN, TRANSFER	SIDEWALL RETURN, EXHAUST	PRICE	530	SURFACE	SEE PLANS	STEEL	WHITE	
F	CEILING SUPPLY	LOUVERED FACE FIXED PATTERN RECTANGULAR DIFFUSER	PRICE	SMD	SURFACE	24x12	STEEL	WHITE	1B RECTANGULAR CORE STYLE

CABINET UNIT HEATER SCHEDULE (ELECTRIC)

REMARKS:

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 WITH INTEGRAL THERMOSTAT.
3. PROVIDE REMOTE WALL MOUNTED THERMOSTAT.
4. SURFACE MOUNTED MODEL.
5. PROVIDE RECESSED FRAME.
6. REFER TO MECHANICAL LEGENDS AND NOTES SHEET FOR PROJECT ELEVATION.
7. PROVIDE T-BAR MOUNTING KIT TB3380A.

DESIG.			AIR OPENINGS				ELECTRIC HEAT			FAN MOTOR		AIR TEMP		ELECTRICAL		SIZE (INCHES)				
NAME	NO.	INSTALLATION STYLE	INLET	OUTLET	MFR	MODEL	KW	MBH	STAGES	CFM (HIGH)	NO.	EAT (°F)	LAT (°F)	VOLTAGE	PHASE	L	D	H	OPER WEIGHT (LBS)	REMARKS
ECUH	1	WALL SURFACE	FRONT	FRONT	MARKEL	6333D05	5	17.1	2	250	1	50	122.0	208	3	33.0	9.0	25.0	100	1,3,4,6
ECUH	2	CEILING	FACE	FACE	MARKEL	3380T	1.5	5.1	1	175	1	50	80.0	120	1	16.0	21.0	4.0	30	1,3,6,7

ELECTRIC BASEBOARD SCHEDULE

REMARKS:

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 IN-BUILT SPST THERMOSTAT.

DESIG.				HEATING CAPACITY		MATERIAL		ENCLOSURE		ELECTRICAL			
NAME	NO.	MFR	MODEL	BTUH	WATTS	WATTS / FT	FIN MATERIAL	HEIGHT (IN.)	DEPTH (IN.)	VOLTAGE	PHASE	CONTROL	REMARKS
EBBR	1	MARKEL	2900S	6826	2000	250	ALUMINUM	6	3	208	1	TSTAT	ALL

UNIT HEATER SCHEDULE (ELECTRIC)

REMARKS:

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. PRODUCT IS SUITABLE FOR INSTALLATION AT ALTITUDES ABOVE 6000 FEET.
3. REFER TO PLANS FOR THERMOSTAT LOCATION, REMOTE OR INTEGRAL. PROVIDE 2-STAGE THERMOSTAT CONTROL WHERE 2-STAGE HEATING ELEMENT IS INDICATED.
4. UNITS PROVIDED WITH INTEGRAL AUTOMATIC RESETTING LIMIT CONTROL FOR OVER-TEMPERATURE CONDITION ON HEATER.
5. REFER TO MECHANICAL LEGENDS AND NOTES SHEET FOR PROJECT ELEVATION.

DESIG.				HEATING CAPACITY			FAN MOTOR		AIR TEMP		SIZE (INCHES)			OPER. WEIGHT (LBS)	ELECTRICAL		MAX MTG. HEIGHT TO BOTTOM (FT.)		
NAME	NO.	MFR	MODEL	KW	MBH	STAGES	AIRFLOW (CFM)	NO.	EAT (°F)	LAT (°F)	L	D	H		VOLTAGE	PHASE		CONTROL	REMARKS
EUH	1	MARKEL	UH07	7.5	25.6	1	575	1	60	102	20	11	13	44	208	3	9	SEE SPEC	ALL

EQUIPMENT SOUND DATA SCHEDULE

REMARKS:

1.

DESIG.		INLET NC (Hz)							RADIATED NC (Hz)							DISCHARGE NC (Hz)							
NAME	NO.	63	125	250	500	1K	2K	4K	8K	63	125	250	500	1K	2K	4K	8K	63	125	250	500	1K	2K	4K	8K	REMARKS
RTU	1	81.6	78.8	72.9	64.3	66.6	61.3	51.6	47.9	85.6	84.7	80.5	76	72.4	68	62.8	59.3	92.8	83	77	71.7	67.9	69.5	62.2	59.6	
RTU	2	80.4	77.2	72.1	62.1	64.7	59.5	49.9	46.3	85.6	84.7	80.5	76	72.4	68	62.8	59.3	92.2	82.1	75.8	69.8	65.6	67.2	60.4	58.5	
RTU	3	80.4	77.2	72.1	62.1	64.7	59.5	49.9	46.3	85.6	84.7	80.5	76	72.4	68	62.8	59.3	92.2	82.1	75.8	69.8	65.6	67.2	60.4	58.5	
RTU	4	80.4	77.2	72.1	62.1	64.7	59.5	49.9	46.3	85.6	84.7	80.5	76	72.4	68	62.8	59.3	92.2	82.1	75.8	69.8	65.6	67.2	60.4	58.5	
RTU	5	80.4	77.2	72.1	62.1	64.7	59.5	49.9	46.3	85.6	84.7	80.5	76	72.4	68	62.8	59.3	92.2	82.1	75.8	69.8	65.6	67.2	60.4	58.5	
RTU	6	80.4	77.2	72.1	62.1	64.7	59.5	49.9	46.3	85.6	84.7	80.5	76	72.4	68	62.8	59.3	92.2	82.1	75.8	69.8	65.6	67.2	60.4	58.5	
RTU	7	80.4	77.2	72.1	62.1	64.7	59.5	49.9	46.3	85.6	84.7	80.5	76	72.4	68	62.8	59.3	92.2	82.1	75.8	69.8	65.6	67.2	60.4	58.5	
RTU	8	80.4	77.2	72.1	62.1	64.7	59.5	49.9	46.3	85.6	84.7	80.5	76	72.4	68	62.8	59.3	92.2	82.1	75.8	69.8	65.6	67.2	60.4	58.5	
RTU	9	80.4	77.2	72.1	62.1	64.7	59.5	49.9	46.3	85.6	84.7	80.5	76	72.4	68	62.8	59.3	92.2	82.1	75.8	69.8	65.6	67.2	60.4	58.5	
RTU	10	80.4	77.2	72.1	62.1	64.7	59.5	49.9	46.3	85.6	84.7	80.5	76	72.4	68	62.8	59.3	92.2	82.1	75.8	69.8	65.6	67.2	60.4	58.5	
RTU	11	80.4	77.2	72.1	62.1	64.7	59.5	49.9	46.3	85.6	84.7	80.5	76	72.4	68	62.8	59.3	92.2	82.1	75.8	69.8	65.6	67.2	60.4	58.5	
RTU	12	80.4	77.2	72.1	62.1	64.7	59.5	49.9	46.3	85.6	84.7	80.5	76	72.4	68	62.8	59.3	92.2	82.1	75.8	69.8	65.6	67.2	60.4	58.5	
RTU	13	80.4	77.2	72.1	62.1	64.7	59.5	49.9	46.3	85.6	84.7	80.5	76	72.4	68	62.8	59.3	92.2	82.1	75.8	69.8	65.6	67.2	60.4	58.5	
RTU	14	80.4	77.2	72.1	62.1	64.7	59.5	49.9	46.3	85.6	84.7	80.5	76	72.4	68	62.8	59.3	92.2	82.1	75.8	69.8	65.6	67.2	60.4	58.5	
RTU	15	80.4	77.2	72.1	62.1	64.7	59.5	49.9	46.3	85.6	84.7	80.5	76	72.4	68	62.8	59.3	92.2	82.1	75.8	69.8	65.6	67.2	60.4	58.5	
RTU	16	80.4	77.2	72.1	62.1	64.7	59.5	49.9	46.3	85.6	84.7	80.5	76	72.4	68	62.8	59.3	92.2	82.1	75.8	69.8	65.6	67.2	60.4	58.5	
RTU	17	80.4	77.2	72.1	62.1	64.7	59.5	49.9	46.3	85.6	84.7	80.5	76	72.4	68	62.8	59.3	92.2	82.1	75.8	69.8	65.6	67.2	60.4	58.5	
RTU	18	81.6	78.8	72.9	64.3	66.6	61.3	51.6	47.9	85.6	84.7	80.5	76	72.4	68	62.8	59.3	92.8	83	77	71.7	67.9	69.5	62.2	59.6	
RTU	19	81.8	79.6	73	65.6	67.9	62.6	52.6	49.1	85.6	84.7	80.5	76	72.4	68	62.8	59.3	92.2	82.7	76.9	73.3	69.6	71.5	62.6	60.3	
RTU	20	81.8	79.6	73	65.6	67.9	62.6	52.6	49.1	85.6	84.7	80.5	76	72.4	68	62.8	59.3	92.2	82.7	76.9	73.3	69.6	71.5	62.6	60.3	
RTU	21	81.8	79.6	73	65.6	67.9	62.6	52.6	49.1	85.6	84.7	80.5	76	72.4	68	62.8	59.3	92.2	82.7	76.9	73.3	69.6	71.5	62.6	60.3	
RTU	22	81.8	79.6	73	65.6	67.9	62.6	52.6	49.1	85.6	84.7	80.5	76	72.4	68	62.8	59.3	92.2	82.7	76.9	73.3	69.6	71.5	62.6	60.3	
RTU	23	81.8	79.6	73	65.6	67.9	62.6	52.6	49.1	85.6	84.7	80.5	76	72.4	68	62.8	59.3	92.2	82.7	76.9	73.3	69.6	71.5	62.6	60.3	
RTU	24	81.8	79.6	73	65.6	67.9	62.6	52.6	49.1	85.6	84.7	80.5	76	72.4	68	62.8	59.3	92.2	82.7	76.9	73.3	69.6	71.5	62.6	60.3	
RTU	25	81.8	79.6	73	65.6	67.9	62.6	52.6	49.1	85.6	84.7	80.5	76	72.4	68	62.8	59.3	92.2	82.7	76.9	73.3	69.6	71.5	62.6	60.3	
RTU	26	81.8	79.6	73	65.6	67.9	62.6	52.6	49.1	85.6	84.7	80.5	76	72.4	68	62.8	59.3	92.2	82.7	76.9	73.3	69.6	71.5	62.6	60.3	
RTU	27	81.8	79.6	73	65.6	67.9	62.6	52.6	49.1	85.6	84.7	80.5	76	72.4	68	62.8	59.3	92.2	82.7	76.9	73.3	69.6	71.5	62.6	60.3	
RTU	28	81.8	79.6	73	65.6	67.9	62.6	52.6	49.1	85.6	84.7	80.5	76	72.4	68	62.8	59.3	92.2	82.7	76.9	73.3	69.6	71.5	62.6	60.3	
RTU	29	81.8	79.6	73	65.6	67.9	62.6	52.6	49.1	85.6	84.7	80.5	76	72.4	68	62.8	59.3	92.2	82.7	76.9	73.3	69.6	71.5	62.6	60.3	
RTU	30	81.8	79.6	73	65.6	67.9	62.6	52.6	49.1	85.6	84.7	80.5	76	72.4	68	62.8	59.3	92.2	82.7	76.9	73.3	69.6	71.5	62.6	60.3	
RTU	31	81.8	79.6	73	65.6	67.9	62.6	52.6	49.1	85.6	84.7	80.5	76	72.4	68	62.8	59.3	92.2	82.7	76.9	73.3	69.6	71.5	62.6	60.3	
RTU	32	81.8	79.6	73	65.6	67.9	62.6	52.6	49.1	85.6	84.7	80.5	76	72.4	68	62.8	59.3	92.2	82.7	76.9	73.3	69.6	71.5	62.6	60.3	
RTU	33	82.4	76.6	69.1	63.4	63.1	56.8	49.8	45.7	90.1	82.6	81	79.4	77	73	70.4	66.7	86	81.7	73.4	70.5	71.5	67	61.9	53	
RTU	34	82.4	76.6	69.1	63.4	63.1	56.8	49.8	45.7	90.1	82.6	81	79.4	77	73	70.4	66.7	86	81.7	73.4	70.5	71.5	67	61.9	53	
RTU	35	75.1	80.2	74.3	70.5	69.6	63.6	54.6	48.2	85.9	87.9	85.6	84.4	82.8	78.5	74.9	72.5	90.7	85.1	80.3	77.9	78.9	75.2	69.4	61.4	

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420 South Orchard Street, Boise, ID 83705
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Project:
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LINCOLN ELEMENTARY SCHOOL
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Sheet:
MECHANICAL SCHEDULES

PROFESSIONAL ENGINEER LICENSED 20608 02/27/2025 STATE OF IDAHO LILIAN J. JOHNSON

Revisions:

Project No:	23028
Drawn By:	AK
Checked By:	MG
Date:	02/27/2025

Sheet No:
M0.02

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. PROVIDE SHAFT GROUNDING RINGS FOR EACH BEARING ON MOTORS POWERED THROUGH VARIABLE FREQUENCY DRIVES.
C. FEI = FAN ENERGY INDEX IN ACCORDANCE WITH AMCA 208.
D. FAN E.S.P. INCLUDES DAMPER PRESSURE DROP. INCULDE DAMPER PRESSURE DROP IN SUBMITTAL.
E. REFER TO SOUND DATA SCHEDULE FOR SOUND INFORMATION.
F. REFER TO MECHANICAL LEGENDS AND NOTES SHEET FOR PROJECT ELEVATION.

SPECIFIC REMARKS:

1.

DESIG.													MOTOR											BACKDRAFT DAMPER (BDD)					SIZE (INCHES)					
NAME	NO.	MFR	MODEL	FAN TYPE	SERVICE	FAN CLASS	WHEEL DIA. (INCHES)	CFM AT ELEV.	E.S.P. (IN. W.C.)	APPROX. RPM	TIP SPEED (FPM)	OUTLET VELOCITY (FPM)	REQ'D BHP	HP	VOLTAGE	PHASE	ECM (YES/NO)	VFD (YES/NO)	RELAY (YES/NO)	STARTER (YES/NO)	VFD BYPASS (YES/NO)	DRIVE TYPE	VIBRATION ISOLATOR TYPE	TYPE & LOCATION	AIR PRESS DROP (IN WC)	THROAT HEIGHT (INCHES)	THROAT WIDTH (INCHES)	ARRANGE. & MOUNTING	L	W	H	OPER. WEIGHT (LBS.)	CONTROL	REMARKS
EF	1	GREENHECK	G-120-VG	CENTRIFUGAL DOWNBLAST	RESTROOMS	I	13.0	700	0.50	1057	3597	753	0.09	0.25	115	1	No	No	No	No	No	DIRECT	SEE SPEC	GRAVITY, ROOF PENETRATION	0.05	12	12	CURB	24	24	36	60	TIME CLOCK	
EF	2	GREENHECK	G-080-VG	CENTRIFUGAL DOWNBLAST	RESTROOMS	I	10.9	210	0.50	1597	4557	525	0.05	0.1	115	1	No	No	No	No	No	DIRECT	SEE SPEC	GRAVITY, ROOF PENETRATION	0.05	10	10	CURB	22	22	27	40	TIME CLOCK	
EF	3	GREENHECK	G-060-VG	CENTRIFUGAL DOWNBLAST	RESTROOMS	I	8.1	70	0.30	1562	3312	368	0.01	0.07	115	1	No	No	No	No	No	DIRECT	SEE SPEC	GRAVITY, ROOF PENETRATION	0.05	12	12	CURB	19	19	24	35	OCC SENSOR, BAS	

ROOF TOP UNIT SCHEDULE (PACKAGED)

COMMON NOTES (APPLIES TO ALL UNITS):

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. UNIT HEIGHT DOES NOT INCLUDE HEIGHT OF CURB.
C. PROVIDE BASE RAIL OR CURB HEIGHT TO ACCOMMODATE CONDENSATE DRAIN P-TRAP.
D. PROVIDE SHAFT GROUNDING RINGS FOR EACH BEARING ON MOTORS POWERED THROUGH VARIABLE FREQUENCY DRIVES.
E. REFER TO SOUND DATA SCHEDULE FOR SOUND INFORMATION.
F. REFER TO MECHANICAL LEGENDS AND NOTES SHEET FOR PROJECT ELEVATION.
G. COOLING COIL AND HEAT EXCHANGER PRESSURE DROP INCLUDED IN SIZING OF FAN.
H. POWER EXHAUST REQUIRES SEPARATE POINT OF CONNECTION.
I. PROVIDE WITH CONDENSATE OVERFLOW SWITCH.

UNIT SPECIFIC REMARKS:

1.

DESIG.						SUPPLY FAN SECTION												
						OPERATION AT ELEV			WHEEL				MOTORS EACH FAN					
NAME	NO.	AREA SERVED	MFR	MODEL NO.	OUTSIDE AIR CFM MIN.	CFM	ESP (IN WC)	NO. OF FANS	DIA. (IN)	TYPE (AF/BI/FC)	DRIVE (BELT/ DIRECT)	RPM APPROX.	REQ'D BHP	MAX HP SIZE	SUM OF MAX HP ALL FANS	NO. OF VFDS	VFD BYPASS (YES/NO)	VIBRATION ISOLATOR TYPE
RTU	1	CLASSROOMS	CARRIER	48GEEM05	480	1,600	0.60	1	19	FC	DIRECT	1872	0.6	1.96	1.96	0	No	SEE SPEC
RTU	2	CLASSROOMS	CARRIER	48GEEM05	420	1,380	0.60	1	19	FC	DIRECT	1729	0.5	1.96	1.96	0	No	SEE SPEC
RTU	3	CLASSROOMS	CARRIER	48GEEM05	420	1,380	0.60	1	19	FC	DIRECT	1729	0.5	1.96	1.96	0	No	SEE SPEC
RTU	4	CLASSROOMS	CARRIER	48GEEM05	420	1,380	0.60	1	19	FC	DIRECT	1729	0.5	1.96	1.96	0	No	SEE SPEC
RTU	5	CLASSROOMS	CARRIER	48GEEM05	420	1,380	0.60	1	19	FC	DIRECT	1729	0.5	1.96	1.96	0	No	SEE SPEC
RTU	6	CLASSROOMS	CARRIER	48GEEM05	420	1,380	0.60	1	19	FC	DIRECT	1729	0.5	1.96	1.96	0	No	SEE SPEC
RTU	7	CLASSROOMS	CARRIER	48GEEM05	420	1,380	0.60	1	19	FC	DIRECT	1729	0.5	1.96	1.96	0	No	SEE SPEC
RTU	8	CLASSROOMS	CARRIER	48GEEM05	420	1,380	0.60	1	19	FC	DIRECT	1729	0.5	1.96	1.96	0	No	SEE SPEC
RTU	9	CLASSROOMS	CARRIER	48GEEM05	420	1,380	0.60	1	19	FC	DIRECT	1729	0.5	1.96	1.96	0	No	SEE SPEC
RTU	10	CLASSROOMS	CARRIER	48GEEM05	420	1,380	0.60	1	19	FC	DIRECT	1729	0.5	1.96	1.96	0	No	SEE SPEC
RTU	11	CLASSROOMS	CARRIER	48GEEM05	420	1,380	0.60	1	19	FC	DIRECT	1729	0.5	1.96	1.96	0	No	SEE SPEC
RTU	12	CLASSROOMS	CARRIER	48GEEM05	420	1,380	0.60	1	19	FC	DIRECT	1729	0.5	1.96	1.96	0	No	SEE SPEC
RTU	13	CLASSROOMS	CARRIER	48GEEM05	420	1,380	0.60	1	19	FC	DIRECT	1729	0.5	1.96	1.96	0	No	SEE SPEC
RTU	14	CLASSROOMS	CARRIER	48GEEM05	420	1,380	0.60	1	19	FC	DIRECT	1729	0.5	1.96	1.96	0	No	SEE SPEC
RTU	15	CLASSROOMS	CARRIER	48GEEM05	420	1,380	0.60	1	19	FC	DIRECT	1729	0.5	1.96	1.96	0	No	SEE SPEC
RTU	16	CLASSROOMS	CARRIER	48GEEM05	420	1,380	0.60	1	19	FC	DIRECT	1729	0.5	1.96	1.96	0	No	SEE SPEC
RTU	17	CLASSROOMS	CARRIER	48GEEM05	420	1,380	0.60	1	19	FC	DIRECT	1729	0.5	1.96	1.96	0	No	SEE SPEC
RTU	18	CORRIDOR	CARRIER	48GEEM05	480	1,600	0.60	1	19	FC	DIRECT	1872	0.6	1.96	1.96	0	No	SEE SPEC
RTU	19	CLASSROOMS	CARRIER	48GEEM06	600	2,000	0.60	1	19	FC	DIRECT	1998	0.7	2.43	2.43	0	No	SEE SPEC
RTU	20	CLASSROOMS	CARRIER	48GEEM06	600	2,000	0.60	1	19	FC	DIRECT	1998	0.7	2.43	2.43	0	No	SEE SPEC
RTU	21	CLASSROOMS	CARRIER	48GEEM06	600	2,000	0.60	1	19	FC	DIRECT	1998	0.7	2.43	2.43	0	No	SEE SPEC
RTU	22	CLASSROOMS	CARRIER	48GEEM06	600	2,000	1.00	1	19	FC	DIRECT	1998	0.7	2.43	2.43	0	No	SEE SPEC
RTU	23	CLASSROOMS	CARRIER	48GEEM06	600	2,000	1.00	1	19	FC	DIRECT	1998	0.7	2.43	2.43	0	No	SEE SPEC
RTU	24	CLASSROOMS	CARRIER	48GEEM06	600	2,000	1.00	1	19	FC	DIRECT	1998	0.7	2.43	2.43	0	No	SEE SPEC
RTU	25	CLASSROOMS	CARRIER	48GEEM06	600	2,000	0.60	1	19	FC	DIRECT	1998	0.7	2.43	2.43	0	No	SEE SPEC
RTU	26	CLASSROOMS	CARRIER	48GEEM06	600	2,000	0.60	1	19	FC	DIRECT	1998	0.7	2.43	2.43	0	No	SEE SPEC
RTU	27	CLASSROOMS	CARRIER	48GEEM06	600	2,000	0.60	1	19	FC	DIRECT	1998	0.7	2.43	2.43	0	No	SEE SPEC
RTU	28	CLASSROOMS	CARRIER	48GEEM06	600	2,000	1.00	1	19	FC	DIRECT	1998	0.7	2.43	2.43	0	No	SEE SPEC
RTU	29	CLASSROOMS	CARRIER	48GEEM06	600	2,000	1.00	1	19	FC	DIRECT	1998	0.7	2.43	2.43	0	No	SEE SPEC
RTU	30	CLASSROOMS	CARRIER	48GEEM06	600	2,000	1.00	1	19	FC	DIRECT	1998	0.7	2.43	2.43	0	No	SEE SPEC
RTU	31	CLASSROOMS	CARRIER	48GEEM06	600	2,000	0.60	1	19	FC	DIRECT	1998	0.7	2.43	2.43	0	No	SEE SPEC
RTU	32	CLASSROOMS	CARRIER	48GEEM06	600	2,000	0.60	1	19	FC	DIRECT	1998	0.7	2.43	2.43	0	No	SEE SPEC
RTU	33	LUNCH ROOM AND KITCHEN	CARRIER	48GEFM07	720	2,400	0.90	1	22	FC	DIRECT	1367	0.8	3.00	3.00	0	No	SEE SPEC
RTU	34	LUNCH ROOM	CARRIER	48GEFM07	720	2,400	0.50	1	22	FC	DIRECT	1367	0.8	3.00	3.00	0	No	SEE SPEC
RTU	35	PHYSICAL EDUCATION ROOM	CARRIER	48GEFM12	1,200	4,000	0.50	1	22	FC	DIRECT	1622	1.9	5.00	5.00	0	No	SEE SPEC

DESIG.		POWER EXHAUST FAN SECTION												
		OPERATION AT ELEV			WHEEL			MOTORS EACH FAN						
NAME	NO.	CFM	ESP (IN WC)	NO. OF FANS	DIA. (IN)	TYPE (AF/BI/FC)	DRIVE (BELT/ DIRECT)	MAX HP SIZE	SUM OF MAX HP ALL FANS	VOLTAGE	PHASE	NO. OF VFDS	VFD BYPASS (YES/NO)	VIBRATION ISOLATOR TYPE
RTU	1	1,600	0.50	1	10	FC	DIRECT	0.5	0.5	208	3	1	No	SEE SPEC
RTU	2	1,380	0.50	1	10	FC	DIRECT	0.5	0.5	208	3	1	No	SEE SPEC
RTU	3	1,380	0.50	1	10	FC	DIRECT	0.5	0.5	208	3	1	No	SEE SPEC
RTU	4	1,380	0.50	1	10	FC	DIRECT	0.5	0.5	208	3	1	No	SEE SPEC
RTU	5	1,380	0.50	1	10	FC	DIRECT	0.5	0.5	208	3	1	No	SEE SPEC
RTU	6	1,380	0.50	1	10	FC	DIRECT	0.5	0.5	208	3	1	No	SEE SPEC
RTU	7	1,380	0.50	1	10	FC	DIRECT	0.5	0.5	208	3	1	No	SEE SPEC
RTU	8	1,380	0.50	1	10	FC	DIRECT	0.5	0.5	208	3	1	No	SEE SPEC
RTU	9	1,380	0.50	1	10	FC	DIRECT	0.5	0.5	208	3	1	No	SEE SPEC
RTU	10	1,380	0.50	1	10	FC	DIRECT	0.5	0.5	208	3	1	No	SEE SPEC
RTU	11	1,380	0.50	1	10	FC	DIRECT	0.5	0.5	208	3	1	No	SEE SPEC
RTU	12	1,380	0.50	1	10	FC	DIRECT	0.5	0.5	208	3	1	No	SEE SPEC
RTU	13	1,380	0.50	1	10	FC	DIRECT	0.5	0.5	208	3	1	No	SEE SPEC
RTU	14	1,380	0.50	1	10	FC	DIRECT	0.5	0.5	208	3	1	No	SEE SPEC
RTU	15	1,380	0.50	1	10	FC	DIRECT	0.5	0.5	208	3	1	No	SEE SPEC
RTU	16	1,380	0.50	1	10	FC	DIRECT	0.5	0.5	208	3	1	No	SEE SPEC
RTU	17	1,380	0.50	1	10	FC	DIRECT	0.5	0.5	208	3	1	No	SEE SPEC
RTU	18	1,600	0.50	1	10	FC	DIRECT	0.5	0.5	208	3	1	No	SEE SPEC
RTU	19	2,000	0.50	1	10	FC	DIRECT	0.5	0.5	208	3	1	No	SEE SPEC
RTU	20	2,000	0.50	1	10	FC	DIRECT	0.5	0.5	208	3	1	No	SEE SPEC
RTU	21	2,000	0.50	1	10	FC	DIRECT	0.5	0.5	208	3	1	No	SEE SPEC
RTU	22	2,000	0.50	1	10	FC	DIRECT	0.5	0.5	208	3	1	No	SEE SPEC
RTU	23	2,000	0.50	1	10	FC	DIRECT	0.5	0.5	208	3	1	No	SEE SPEC
RTU	24	2,000	0.50	1	10	FC	DIRECT	0.5	0.5	208	3	1	No	SEE SPEC
RTU	25	2,000	0.50	1	10	FC	DIRECT	0.5	0.5	208	3	1	No	SEE SPEC
RTU	26	2,000	0.50	1	10	FC	DIRECT	0.5	0.5	208	3	1	No	SEE SPEC
RTU	27	2,000	0.50	1	10	FC	DIRECT	0.5	0.5	208	3	1	No	SEE SPEC
RTU	28	2,000	0.50	1	10	FC	DIRECT	0.5	0.5	208	3	1	No	SEE SPEC
RTU	29	2,000	0.50	1	10	FC	DIRECT	0.5	0.5	208	3	1	No	SEE SPEC
RTU	30	2,000	0.50	1	10	FC	DIRECT	0.5	0.5	208	3	1	No	SEE SPEC
RTU	31	2,000	0.50	1	10	FC	DIRECT	0.5	0.5	208	3	1	No	SEE SPEC
RTU	32	2,000	0.50	1	10	FC	DIRECT	0.5	0.5	208	3	1	No	SEE SPEC
RTU	33	2,400	0.50	1	10	FC	DIRECT	1.0	1	208	3	1	No	SEE SPEC
RTU	34	2,400	0.50	1	10	FC	DIRECT	1.0	1	208	3	1	No	SEE SPEC
RTU	35	4,000	0.50	1	10	FC	DIRECT	2.0	2	208	3	1	No	SEE SPEC

SUPPLY AIR COOLING COIL SECTION								DESIG.	
	AT ELEV			EAT		LAT			
NET FACE AREA (SF)	CFM	MBH SENS	MBH TOTAL	°F DB	°F WB	°F DB	°F WB	NAME	NO.
6	1,380	38	44	82	63	53	53	RTU	1
6	1,380	38	44	82	63	53	51	RTU	2
6	1,380	38	44	82	63	53	51	RTU	3
6	1,380	38	44	82	63	53	51	RTU	4
6	1,380	38	44	82	63	53	51	RTU	5
6	1,380	38	44	82	63	53	51	RTU	6
6	1,380	38	44	82	63	53	51	RTU	7
6	1,380	38	44	82	63	53	51	RTU	8
6	1,380	38	44	82	63	53	51	RTU	9
6	1,380	38	44	82	63	53	51	RTU	10
6	1,380	38	44	82	63	53	51	RTU	11
6	1,380	38	44	82	63	53	51	RTU	12
6	1,380	38	44	82	63	53	51	RTU	13
6	1,380	38	44	82	63	53	51	RTU	14
6	1,380	38	44	82	63	53	51	RTU	15
6	1,380	38	44	82	63	53	51	RTU	16
6	1,380	38	44	82	63	53	51	RTU	17
6	1,600	44	45	82	63	53	53	RTU	18
7	2,000	48	54	82	63	56	53	RTU	19
7	2,000	48	54	82	63	56	53	RTU	20
7	2,000	48	54	82	63	56	53	RTU	21
7	2,000	48	54	82	63	56	53	RTU	22
7	2,000	48	54	82	63	56	53	RTU	23
7	2,000	48	54	82	63	56	53	RTU	24
7	2,000	48	54	82	63	56	53	RTU	25
7	2,000	48	54	82	63	56	53	RTU	26
7	2,000	48	54	82	63	56	53	RTU	27
7	2,000	48	54	82	63	56	53	RTU	28
7	2,000	48	54	82	63	56	53	RTU	29
7	2,000	48	54	82	63	56	53	RTU	30
7	2,000	48	54	82	63	56	53	RTU	31
7	2,000	48	54	82	63	56	53	RTU	32
9	2,400	66	66	82	63	53	53	RTU	33
9	2,400	66	66	82	63	53	53	RTU	34
11	4,000	107	107	82	63	53	53	RTU	35

DESIG.		GAS HEATING SECTION								REFRIGERATION SECTION										
		AT ELEV								REFRIGERANT			COMPRESSORS				AIR-COOLED		ARI EFF	
NAME	NO.	CFM	GAS PRESS RANGE (IN WC)	MBH INPUT AT S.L.	MBH OUTPUT AT S.L.	MBH OUTPUT AT ELEV	TURNDOWN RATIO	EAT °F	LAT °F	TYPE	LOAD PER CIRCUIT (LBS)	NO. OF CIRCUITS	NO.	CONTROL STAGES	LOW STG VARIABLE SCROLL (YES/NO)	HOT GAS BYPASS (YES/NO)	OUTDOOR AIR TEMP °F	NO. OF FANS	SEER	SEER2
RTU	1	1,600	4-13	110.0	88.0	73.9	2:1	51	100	R-454B	8.00	1	1	2	No	No	95	1	17.2	16.8
RTU	2	1,380	4-13	110.0	88.0	73.9	2:1	51	107	R-454B	8.00	1	1	2	No	No	95	1	17.2	16.8
RTU	3	1,380	4-13	110.0	88.0	73.9	2:1	51	107	R-454B	8.00	1	1	2	No	No	95	1	17.2	16.8
RTU	4	1,380	4-13	110.0	88.0	73.9	2:1	51	107	R-454B	8.00	1	1	2	No	No	95	1	17.2	16.8
RTU	5	1,380	4-13	110.0	88.0	73.9	2:1	51	107	R-454B	8.00	1	1	2	No	No	95	1	17.2	16.8
RTU	6	1,380	4-13	110.0	88.0	73.9	2:1	51	107	R-454B	8.00	1	1	2	No	No	95	1	17.2	16.8
RTU	7	1,380	4-13	110.0	88.0	73.9	2:1	51	107	R-454B	8.00	1	1	2	No	No	95	1	17.2	16.8
RTU	8	1,380	4-13	110.0	88.0	73.9	2:1	51	107	R-454B	8.00	1	1	2	No	No	95	1	17.2	16.8
RTU	9	1,380	4-13	110.0	88.0	73.9	2:1	51	107	R-454B	8.00	1	1	2	No	No	95	1	17.2	16.8
RTU	10	1,380	4-13	110.0	88.0	73.9	2:1	51	107	R-454B	8.00	1	1	2	No	No	95	1	17.2	16.8
RTU	11	1,380	4-13	110.0	88.0	73.9	2:1	51	107	R-454B	8.00	1	1	2	No	No	95	1	17.2	16.8
RTU	12	1,380	4-13	110.0	88.0	73.9	2:1	51	107	R-454B	8.00	1	1	2	No	No	95	1	17.2	16.8
RTU	13	1,380	4-13	110.0	88.0	73.9	2:1	51	107	R-454B	8.00	1	1	2	No	No	95	1	17.2	16.8
RTU	14	1,380	4-13	110.0	88.0	73.9	2:1	51	107	R-454B	8.00	1	1	2	No	No	95	1	17.2	16.8
RTU	15	1,380	4-13	110.0	88.0	73.9	2:1	51	107	R-454B	8.00	1	1	2	No	No	95	1	17.2	16.8
RTU	16	1,380	4-13	110.0	88.0	73.9	2:1	51	107	R-454B	8.00	1	1	2	No	No	95	1	17.2	16.8
RTU	17	1,380	4-13	110.0	88.0	73.9	2:1	51	107	R-454B	8.00	1	1	2	No	No	95	1	17.2	16.8
RTU	18	1,600	4-13	110.0	88.0	73.9	2:1	51	100	R-454B	8.00	1	1	2	No	No	95	1	17.2	16.8
RTU	19	2,000	4-13	110.0	88.0	73.9	2:1	51	90	R-454B	10.30	1	1	2	No	No	95	1	17.2	16.8
RTU	20	2,000	4-13	110.0	88.0	73.9	2:1	51	90	R-454B	10.30	1	1	2	No	No	95	1	17.2	16.8
RTU	21	2,000	4-13	110.0	88.0	73.9	2:1	51	90	R-454B	10.30	1	1	2	No	No	95	1	17.2	16.8
RTU	22	2,000	4-13	110.0	88.0	73.9	2:1	51	90	R-454B	10.30	1	1	2	No	No	95	1	17.2	16.8
RTU	23	2,000	4-13	110.0	88.0	73.9	2:1	51	90	R-454B	10.30	1	1	2	No	No	95	1	17.2	16.8
RTU	24	2,000	4-13	110.0	88.0	73.9	2:1	51	90	R-454B	10.30	1	1	2	No	No	95	1	17.2	16.8
RTU	25	2,000	4-13	110.0	88.0	73.9	2:1	51	90	R-454B	10.30	1	1	2	No	No	95	1	17.2	16.8
RTU	26	2,000	4-13	110.0	88.0	73.9	2:1	51	90	R-454B	10.30	1	1	2	No	No	95	1	17.2	16.8
RTU	27	2,000	4-13	110.0	88.0	73.9	2:1	51	90	R-454B	10.30	1	1	2	No	No	95	1	17.2	16.8
RTU	28	2,000	4-13	110.0	88.0	73.9	2:1	51	90	R-454B	10.30	1	1	2	No	No	95	1	17.2	16.8
RTU	29	2,000	4-13	110.0	88.0	73.9	2:1	51	90	R-454B	10.30	1	1	2	No	No	95	1	17.2	16.8
RTU	30	2,000	4-13	110.0	88.0	73.9	2:1	51	90	R-454B	10.30	1	1	2	No	No	95	1	17.2	16.8
RTU	31	2,000	4-13	110.0	88.0	73.9	2:1	51	90	R-454B	10.30	1	1	2	No	No	95	1	17.2	16.8
RTU	32	2,000	4-13	110.0	88.0	73.9	2:1	51	90	R-454B	10.30	1	1	2	No	No	95	1	17.2	16.8
RTU	33	2,400	4-13	150.0	123.0	103.3	2:1	51	97	R-454B	0.00	1	1	2	No	No	95	2	0	0
RTU	34	2,400	4-13	150.0	123.0	103.3	2:1	51	97	R-454B	0.00	1	1	2	No	No	95	2	0	0
RTU	35	4,000	4-13	250.0	205.0	172.2	2:1	51	97	R-454B	0.00	1	1	2	No	No	95	1	0	0

AIR FILTER SECTIONS				UNIT SIZE				ELECTRICAL						DESIG.	
PRE-FILTER		AIR P.D.													
AREA (SF)	MERV-A RATING	CLEAN (IN WC)	CHANGE OUT (IN WC)	L (IN)	W (IN)	H (IN)	OPER WEIGHT (LBS)	VOLTAGE	PHASE	MCA	MOCP	CONTROL	REMARKS	NAME	NO.
3	8	0.08	0.20	74	47	33	950	208	3	NOTE A	NOTE A	SEE SPEC		RTU	1
3	8	0.08	0.20	74	47	33	950	208	3	NOTE A	NOTE A	SEE SPEC		RTU	2
3	8	0.08	0.20	74	47	33	950	208	3	NOTE A	NOTE A	SEE SPEC		RTU	3
3	8	0.08	0.20	74	47	33	950	208	3	NOTE A	NOTE A	SEE SPEC		RTU	4
3	8	0.08	0.20	74	47	33	950	208	3	NOTE A	NOTE A	SEE SPEC		RTU	5
3	8	0.08	0.20	74	47	33	950	208	3	NOTE A	NOTE A	SEE SPEC		RTU	6
3	8	0.08	0.20	74	47	33	950	208	3	NOTE A	NOTE A	SEE SPEC		RTU	7
3	8	0.08	0.20	74	47	33	950	208	3	NOTE A	NOTE A	SEE SPEC		RTU	8
3	8	0.08	0.20	74	47	33	950	208	3	NOTE A	NOTE A	SEE SPEC		RTU	9
3	8	0.08	0.20	74	47	33	950	208	3	NOTE A	NOTE A	SEE SPEC		RTU	10
3	8	0.08	0.20	74	47	33	950	208	3	NOTE A	NOTE A	SEE SPEC		RTU	11
3	8	0.08	0.20	74	47	33	950	208	3	NOTE A	NOTE A	SEE SPEC		RTU	12
3	8	0.08	0.20	74	47	33	950	208	3	NOTE A	NOTE A	SEE SPEC		RTU	13
3	8	0.08	0.20	74	47	33	950	208	3	NOTE A	NOTE A	SEE SPEC		RTU	14
3	8	0.08	0.20	74	47	33	950	208	3	NOTE A	NOTE A	SEE SPEC		RTU	15
3	8	0.08	0.20	74	47	33	950	208	3	NOTE A	NOTE A	SEE SPEC		RTU	16
3	8	0.08	0.20	74	47	33	950	208	3	NOTE A	NOTE A	SEE SPEC		RTU	17
3	8	0.10	0.20	74	47	33	950	208	3	NOTE A	NOTE A	SEE SPEC		RTU	18
3	8	0.09	0.20	74	47	33	1,000	208	3	NOTE A	NOTE A	SEE SPEC		RTU	19
3	8	0.09	0.20	74	47	33	1,000	208	3	NOTE A	NOTE A	SEE SPEC		RTU	20
3	8	0.09	0.20	74	47	33	1,000	208	3	NOTE A	NOTE A	SEE SPEC		RTU	21
3	8	0.09	0.20	74	47	33	1,000	208	3	NOTE A	NOTE A	SEE SPEC		RTU	22
3	8	0.09	0.20	74	47	33	1,000	208	3	NOTE A	NOTE A	SEE SPEC		RTU	23
3	8	0.09	0.20	74	47	33	1,000	208	3	NOTE A	NOTE A	SEE SPEC		RTU	24
3	8	0.09	0.20	74	47	33	1,000	208	3	NOTE A	NOTE A	SEE SPEC		RTU	25
3	8	0.09	0.20	74	47	33	1,000	208	3	NOTE A	NOTE A	SEE SPEC		RTU	26
3	8	0.09	0.20	74	47	33	1,000	208	3	NOTE A	NOTE A	SEE SPEC		RTU	27
3	8	0.09	0.20	74	47	33	1,000	208	3	NOTE A	NOTE A	SEE SPEC		RTU	28
3	8	0.09	0.20	74	47	33	1,000	208	3	NOTE A	NOTE A	SEE SPEC		RTU	29
3	8	0.09	0.20	74	47	33	1,000	208	3	NOTE A	NOTE A	SEE SPEC		RTU	30
3	8	0.09	0.20	74	47	33	1,000	208	3	NOTE A	NOTE A	SEE SPEC		RTU	31
3	8	0.09	0.20	74	47	33	1,000	208	3	NOTE A	NOTE A	SEE SPEC		RTU	32
3	8	0.09	0.20	88	60	41	1,300	208	3	NOTE A	NOTE A	SEE SPEC		RTU	33
3	8	0.09	0.20	88	60	41	1,300	208	3	NOTE A	NOTE A	SEE SPEC		RTU	34
3	8	0.14	0.20	88	60	49	1,530	208	3	NOTE A	NOTE A	SEE SPEC		RTU	35

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 DISTRICT WIDE HVAC REPLACEMENT

LINCOLN ELEMENTARY SCHOOL
238 BUHL ST N
TWIN FALLS, ID 83301

Sheet:
MECHANICAL SCHEDULES

BID SET

PROFESSIONAL ENGINEER LICENSED 20608 02/27/2025 STATE OF IDAHO LILLIAN J. JOHNSON

Revisions:

Project No: 23028
Drawn By: AK
Checked By: MG
Date: 02/27/2025

Sheet No: M0.03

RTU-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
L100	VESTIBULE	PUBLIC SPACES	CORRIDORS	193	150	0.0	0.06	0	0	12	14	0.097	0	12
L101	ADMIN	OFFICES	RECEPTION	491	600	5.0	0.06	30	15	103	129	0.215	74	29
L102	RR	PUBLIC SPACES	TOILET ROOMS	29	50	0.0	0.00	0	0	0	0	0.000	0	0
L103	OFFICE	OFFICES	OFFICE SPACES	102	150	5.0	0.06	5	1	9	11	0.072	3	6
L104	OFFICE	OFFICES	OFFICE SPACES	126	150	5.0	0.06	5	1	11	13	0.089	3	8
L105	SICK	OFFICES	OFFICE SPACES	71	150	5.0	0.06	5	1	9	12	0.077	5	4
L106	OFFICE	OFFICES	OFFICE SPACES	73	150	5.0	0.06	5	1	9	12	0.078	5	4
L107	BREAK RM	OFFICES	OFFICE SPACES	155	100	5.0	0.06	5	1	13	16	0.165	4	9
L109	WORK/COPY	WORKROOMS	COPY, PRINTING ROOMS	156	100	5.0	0.06	4	1	12	16	0.156	3	9
Project:	TFSD Lincoln Elementary HVAC Upgrade		Total Supply Air CFM =		1,600				Uncorrected Outside Air Intake, CFM (Vou) =		178	< < < < < OA Sum	96	82
Location:	Twin Falls, Idaho		Critical Zone Outside Air Fraction (MAX Zp) =		0.215	System Ventilation Efficiency (Ev) =		0.897	Corrected Outside Air Intake Air, CFM (Vot) =		199	Corrected Outside Air as % of Supply Air =		12.4%

RTU 2-13

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
L130-L137, L143-L146	CLASSROOM	EDUCATION	CLASSROOMS (AGES 5-8)	912	1,380	10.0	0.12	25	23	337	422	0.306	228	109
Project:	TFSD Lincoln Elementary HVAC Upgrade		Total Supply Air CFM =		1,380				Uncorrected Outside Air Intake, CFM (Vou) =		337	< < < < < OA Sum	228	109
Location:	Twin Falls, Idaho		Critical Zone Outside Air Fraction (MAX Zp) =		0.306	System Ventilation Efficiency (Ev) =		0.939	Corrected Outside Air Intake Air, CFM (Vot) =		359	Corrected Outside Air as % of Supply Air =		26.0%

RTU 14

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
L148	LIBRARY	PUBLIC SPACES	LIBRARIES	1,417	1,380	5.0	0.12	10	14	241	301	0.218	71	170
Project:	TFSD Lincoln Elementary HVAC Upgrade		Total Supply Air CFM =		1,380				Uncorrected Outside Air Intake, CFM (Vou) =		241	< < < < < OA Sum	71	170
Location:	Twin Falls, Idaho		Critical Zone Outside Air Fraction (MAX Zp) =		0.218	System Ventilation Efficiency (Ev) =		0.956	Corrected Outside Air Intake Air, CFM (Vot) =		252	Corrected Outside Air as % of Supply Air =		18.3%

RTU 15

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
L149	LEARNING RESOURCE CENTER	EDUCATION	CLASSROOMS (AGES 5-8)	803	1,380	10.0	0.12	25	20	297	371	0.269	201	96
Project:	TFSD Lincoln Elementary HVAC Upgrade		Total Supply Air CFM =		1,380				Uncorrected Outside Air Intake, CFM (Vou) =		297	< < < < < OA Sum	201	96
Location:	Twin Falls, Idaho		Critical Zone Outside Air Fraction (MAX Zp) =		0.269	System Ventilation Efficiency (Ev) =		0.946	Corrected Outside Air Intake Air, CFM (Vot) =		314	Corrected Outside Air as % of Supply Air =		22.8%

RTU 16,17

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
L160	CLASSROOM	EDUCATION	CLASSROOMS (AGES 5-8)	842	1,380	10.0	0.12	25	21	312	389	0.282	211	101
Project:	TFSD Lincoln Elementary HVAC Upgrade		Total Supply Air CFM =		1,380				Uncorrected Outside Air Intake, CFM (Vou) =		312	< < < < < OA Sum	211	101
Location:	Twin Falls, Idaho		Critical Zone Outside Air Fraction (MAX Zp) =		0.282	System Ventilation Efficiency (Ev) =		0.944	Corrected Outside Air Intake Air, CFM (Vot) =		330	Corrected Outside Air as % of Supply Air =		23.9%

RTU-18

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
L110	HALL	PUBLIC SPACES	CORRIDORS	523	150	0.0	0.06	0	0	31	39	0.262	0	31
L139	BOYS	PUBLIC SPACES	TOILET ROOMS	323	260	0.0	0.00	0	0	0	0	0.000	0	0
L140	GIRLS	PUBLIC SPACES	TOILET ROOMS	331	260	0.0	0.00	0	0	0	0	0.000	0	0
L141	COAT	PUBLIC SPACES	CORRIDORS	820	345	0.0	0.06	0	0	49	62	0.178	0	49
L142	CORRIDOR	PUBLIC SPACES	CORRIDORS	1,797	585	0.0	0.06	0	0	108	135	0.230	0	108
Project:	TFSD Lincoln Elementary HVAC Upgrade		Total Supply Air CFM =		1,600				Uncorrected Outside Air Intake, CFM (Vou) =		188	< < < < < OA Sum	0	188
Location:	Twin Falls, Idaho		Critical Zone Outside Air Fraction (MAX Zp) =		0.262	System Ventilation Efficiency (Ev) =		0.856	Corrected Outside Air Intake Air, CFM (Vot) =		220	Corrected Outside Air as % of Supply Air =		13.8%

RTU-19

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
L150	OFFICE	OFFICES	OFFICE SPACES	128	80	5.0	0.06	5	1	11	14	0.170	3	8
L151	OFFICE	OFFICES	OFFICE SPACES	255	150	5.0	0.06	5	1	22	27	0.181	6	15
L152	OFFICE	OFFICES	OFFICE SPACES	76	60	5.0	0.06	5	1	10	12	0.199	5	5
L153	CONFERENCE	OFFICES	CONFERENCE ROOMS	243	280	5.0	0.06	50	12	75	94	0.336	61	15
L154	OFFICE	OFFICES	OFFICE SPACES	144	120	5.0	0.06	5	1	12	15	0.128	4	9
L155	STORAGE	RETAIL STORES, SALES FLOORS AND SHOWROOM FLOORS	STORAGE ROOMS	45	20	0.0	0.12	0	0	5	7	0.338	0	5
L156	OFFICE	OFFICES	OFFICE SPACES	203	150	5.0	0.06	5	1	17	22	0.144	5	12
L157	TEST ROOM	OFFICES	OFFICE SPACES	151	200	5.0	0.06	5	1	13	16	0.080	4	9
L158	OFFICE	OFFICES	OFFICE SPACES	111	150	5.0	0.06	5	1	9	12	0.079	3	7
L159	STORAGE	RETAIL STORES, SALES FLOORS AND SHOWROOM FLOORS	STORAGE ROOMS	22	20	0.0	0.12	0	0	3	3	0.165	0	3
L162	CORRIDOR	PUBLIC SPACES	CORRIDORS	717	770	0.0	0.06	0	0	43	54	0.070	0	43
Project:	TFSD Lincoln Elementary HVAC Upgrade		Total Supply Air CFM =		2,000				Uncorrected Outside Air Intake, CFM (Vou) =		220	< < < < < OA Sum	91	130
Location:	Twin Falls, Idaho		Critical Zone Outside Air Fraction (MAX Zp) =		0.338	System Ventilation Efficiency (Ev) =		0.773	Corrected Outside Air Intake Air, CFM (Vot) =		285	Corrected Outside Air as % of Supply Air =		14.3%

RTU-20

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
L117	CLASSROOM	EDUCATION	CLASSROOMS (AGES 5-8)	942	1,800	10.0	0.12	25	24	349	436	0.242	236	113
L118	HALLWAY	PUBLIC SPACES	CORRIDORS	713	200	0.0	0.06	0	0	43	53	0.267	0	43
Project:	TFSD Lincoln Elementary HVAC Upgrade		Total Supply Air CFM =		2,000				Uncorrected Outside Air Intake, CFM (Vou) =		391	< < < < < OA Sum	236	156
Location:	Twin Falls, Idaho		Critical Zone Outside Air Fraction (MAX Zp) =		0.267	System Ventilation Efficiency (Ev) =		0.928	Corrected Outside Air Intake Air, CFM (Vot) =		422	Corrected Outside Air as % of Supply Air =		21.1%

RTU-21

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
L119	CLASSROOM	EDUCATION	CLASSROOMS (AGES 5-8)	762	1,800	10.0	0.12	25	19	282	352	0.196	191	91
Project:	TFSD Lincoln Elementary HVAC Upgrade		Total Supply Air CFM =		1,800				Uncorrected Outside Air Intake, CFM (Vou) =		282	< < < < < OA Sum	191	91
Location:	Twin Falls, Idaho		Critical Zone Outside Air Fraction (MAX Zp) =		0.196	System Ventilation Efficiency (Ev) =		0.961	Corrected Outside Air Intake Air, CFM (Vot) =		293	Corrected Outside Air as % of Supply Air =		16.3%

RTU-22

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
L164	CLASSROOM	EDUCATION	CLASSROOMS (AGES 5-8)	762	1,800	10.0	0.12	25	19	282	352	0.196	191	91
Project:	TFSD Lincoln Elementary HVAC Upgrade		Total Supply Air CFM =		1,800				Uncorrected Outside Air Intake, CFM (Vou) =		282	< < < < < OA Sum	191	91
Location:	Twin Falls, Idaho		Critical Zone Outside Air Fraction (MAX Zp) =		0.196	System Ventilation Efficiency (Ev) =		0.961	Corrected Outside Air Intake Air, CFM (Vot) =		293	Corrected Outside Air as % of Supply Air =		16.3%

RTU-23

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
L163	CLASSROOM	EDUCATION	CLASSROOMS (AGES 5-8)	942	1,800	10.0	0.12	25	24	349	436	0.242	236	113
L171	HALLWAY	PUBLIC SPACES	CORRIDORS	1,020	200	0.0	0.06	0	0	61	77	0.383	0	61
Project:	TFSD Lincoln Elementary HVAC Upgrade		Total Supply Air CFM =		2,000				Uncorrected Outside Air Intake, CFM (Vou) =		410	< < < < < OA Sum	236	174
Location:	Twin Falls, Idaho		Critical Zone Outside Air Fraction (MAX Zp) =		0.383	System Ventilation Efficiency (Ev) =		0.822	Corrected Outside Air Intake Air, CFM (Vot) =		498	Corrected Outside Air as % of Supply Air =		24.9%

RTU-24

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
L165	CLASSROOM	EDUCATION	CLASSROOMS (AGES 5-8)	770	2,000	10.0	0.12	25	19	285	356	0.178	193	92
Project:	TFSD Lincoln Elementary HVAC Upgrade		Total Supply Air CFM =		2,000				Uncorrected Outside Air Intake, CFM (Vou) =		285	< < < < < OA Sum	193	92
Location:	Twin Falls, Idaho		Critical Zone Outside Air Fraction (MAX Zp) =		0.178	System Ventilation Efficiency (Ev) =		0.964	Corrected Outside Air Intake Air, CFM (Vot) =		295	Corrected Outside Air as % of Supply Air =		14.8%

RTU-25

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
L120	CLASSROOM	EDUCATION	CLASSROOMS (AGES 5-8)	770	1,800	10.0	0.12	25	19	285	356	0.198	193	92
Project:	TFSD Lincoln Elementary HVAC Upgrade		Total Supply Air CFM =		1,800				Uncorrected Outside Air Intake, CFM (Vou) =		285	< < < < < OA Sum	193	92
Location:	Twin Falls, Idaho		Critical Zone Outside Air Fraction (MAX Zp) =		0.198	System Ventilation Efficiency (Ev) =		0.960	Corrected Outside Air Intake Air, CFM (Vot) =		297	Corrected Outside Air as % of Supply Air =		16.5%

RTU-26

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
L121	REF. LIBRARY	OFFICES	OFFICE SPACES	136	290	5.0	0.06	5	1	12	14	0.050	3	8
L122	STORAGE	RETAIL STORES, SALES FLOORS AND SHOWROOM FLOORS	STORAGE ROOMS	97	50	0.0	0.12	0	0	12	15	0.291	0	12
L123	READING ROOM	EDUCATION	CLASSROOMS (AGES 5-8)	902	1,240	10.0	0.12	25	23	334	417	0.336	226	108
L125	TEACHER'S ROOM	OFFICES	OFFICE SPACES	230	420	5.0	0.06	5	1	20	24	0.058	6	14
Project:	TFSD Lincoln Elementary HVAC Upgrade		Total Supply Air CFM =		2,000				Uncorrected Outside Air Intake, CFM (Vou) =		376	< < < < < OA Sum	235	142
Location:	Twin Falls, Idaho		Critical Zone Outside Air Fraction (MAX Zp) =		0.336	System Ventilation Efficiency (Ev) =		0.852	Corrected Outside Air Intake Air, CFM (Vot) =		442	Corrected Outside Air as % of Supply Air =		22.1%

RTU-27

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
L111	CLASSROOM	EDUCATION	CLASSROOMS (AGES 5-8)	814	1,600	10.0	0.12	25	20	301	376	0.235	204	98
L118	HALLWAY	PUBLIC SPACES	CORRIDORS	1,426	400	0.0	0.06	0	0	86	107	0.267	0	86
Project:	TFSD Lincoln Elementary HVAC Upgrade		Total Supply Air CFM =		2,000				Uncorrected Outside Air Intake, CFM (Vou) =		387	< < < < < OA Sum	204	183
Location:	Twin Falls, Idaho		Critical Zone Outside Air Fraction (MAX Zp) =		0.267	System Ventilation Efficiency (Ev) =		0.926	Corrected Outside Air Intake Air, CFM (Vot) =		418	Corrected Outside Air as % of Supply Air =		20.9%

RTU-28

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
L172	CLASSROOM	EDUCATION	CLASSROOMS (AGES 5-8)	769	2,000	10.0	0.12	25	19	285	356	0.178	192	92
Project:	TFSD Lincoln Elementary HVAC Upgrade		Total Supply Air CFM =		2,000				Uncorrected Outside Air Intake, CFM (Vou) =		285	< < < < < OA Sum	192	92
Location:	Twin Falls, Idaho		Critical Zone Outside Air Fraction (MAX Zp) =		0.178	System Ventilation Efficiency (Ev) =		0.964	Corrected Outside Air Intake Air, CFM (Vot) =		295	Corrected Outside Air as % of Supply Air =		14.8%

RTU-29

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
L173	CLASSROOM	EDUCATION	CLASSROOMS (AGES 5-8)	759	2,000	10.0	0.12	25	19	281	351	0.176	190	91
Project:	TFSD Lincoln Elementary HVAC Upgrade		Total Supply Air CFM =		2,000				Uncorrected Outside Air Intake, CFM (Vou) =		281	< < < < < OA Sum	190	91
Location:	Twin Falls, Idaho		Critical Zone Outside Air Fraction (MAX Zp) =		0.176	System Ventilation Efficiency (Ev) =		0.965	Corrected Outside Air Intake Air, CFM (Vot) =		291	Corrected Outside Air as % of Supply Air =		14.6%

RTU-30

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
L166	BOOK STORAGE	RETAIL STORES, SALES FLOORS AND SHOWROOM FLOORS	STORAGE ROOMS	180	50	0.0	0.12	0	0	22	27	0.540	0	22
L167	PRINCIPALS OFFICE	OFFICES	OFFICE SPACES	136	410	5.0	0.06	5	1	12	14	0.035	3	8
L168	TEACHER'S ROOM	OFFICES	OFFICE SPACES	344	900	5.0	0.06	5	2	29	37	0.041	9	21
L170	WAITING ROOM	OFFICES	MAIN ENTRY LOBBIES	87	70	5.0	0.06	10	1	10	12	0.171	4	5
L174	SECRETARY	OFFICES	OFFICE SPACES	144	410	5.0	0.06	5	1	12	15	0.037	4	9
L171	HALLWAY	PUBLIC SPACES	CORRIDORS	1,240	160	0.0	0.06	0	0	74	93	0.581	0	74
Project:	TFSD Lincoln Elementary HVAC Upgrade		Total Supply Air CFM =		2,000				Uncorrected Outside Air Intake, CFM (Vou) =		159	< < < < < OA Sum	20	139
Location:	Twin Falls, Idaho		Critical Zone Outside Air Fraction (MAX Zp) =		0.581	System Ventilation Efficiency (Ev) =		0.498	Corrected Outside Air Intake Air, CFM (Vot) =		318	Corrected Outside Air as % of Supply Air =		15.9%

RTU-31

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
L126	CLASSROOM	EDUCATION	CLASSROOMS (AGES 5-8)	769	1,800	10.0	0.12	25	19	285	356	0.198	192	92
Project:	TFSD Lincoln Elementary HVAC Upgrade		Total Supply Air CFM =		1,800				Uncorrected Outside Air Intake, CFM (Vou) =		285	< < < < < OA Sum	192	92
Location:	Twin Falls, Idaho		Critical Zone Outside Air Fraction (MAX Zp) =		0.198	System Ventilation Efficiency (Ev) =		0.960	Corrected Outside Air Intake Air, CFM (Vot) =		296	Corrected Outside Air as % of Supply Air =		16.5%

RTU-32

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
L127	CLASSROOM	EDUCATION	CLASSROOMS (AGES 5-8)	759	1,800	10.0	0.12	25	19	281	351	0.195	190	91
Project:	TFSD Lincoln Elementary HVAC Upgrade		Total Supply Air CFM =		1,800				Uncorrected Outside Air Intake, CFM (Vou) =		281	< < < < < OA Sum	190	91
Location:	Twin Falls, Idaho		Critical Zone Outside Air Fraction (MAX Zp) =		0.195	System Ventilation Efficiency (Ev) =		0.961	Corrected Outside Air Intake Air, CFM (Vot) =		292	Corrected Outside Air as % of Supply Air =		16.2%

RTU-33

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
L177	KITCHEN	FOOD AND BEVERAGE SERVICE	KITCHENS	500	750	7.5	0.12	20	10	135	169	0.225	75	60
L180	ASSEMBLY & LUNCH ROOM	FOOD AND BEVERAGE SERVICE	DINING ROOM	1,000	1,650	7.5	0.18	70	40	480	600	0.364	300	180
Project:	TFSD Lincoln Elementary HVAC Upgrade		Total Supply Air CFM =		2,400				Uncorrected Outside Air Intake, CFM (Vou) =		615	< < < < < OA Sum	375	240
Location:	Twin Falls, Idaho		Critical Zone Outside Air Fraction (MAX Zp) =		0.364	System Ventilation Efficiency (Ev) =		0.893	Corrected Outside Air Intake Air, CFM (Vot) =		689	Corrected Outside Air as % of Supply Air =		28.7%

RTU-34

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
L180	ASSEMBLY & LUNCH ROOM	FOOD AND BEVERAGE SERVICE	DINING ROOM	1,400	2,400	7.5	0.18	70	50	627	784	0.327	375	252
Project:	TFSD Lincoln Elementary HVAC Upgrade		Total Supply Air CFM =		2,400				Uncorrected Outside Air Intake, CFM (Vou) =		627	< < < < < OA Sum	375	252
Location:	Twin Falls, Idaho		Critical Zone Outside Air Fraction (MAX Zp) =		0.327	System Ventilation Efficiency (Ev) =		0.935	Corrected Outside Air Intake Air, CFM (Vot) =		671	Corrected Outside Air as % of Supply Air =		28.0%

RTU-35

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
L179	PHYSICAL EDUCATION	SPORTS AND AMUSEMENT	GYM, STADIUM, AREA (PLAY AREA)	1,779	4,000	20.0	0.18	7	30	920	1,150	0.288	600	320
Project:	TFSD Lincoln Elementary HVAC Upgrade		Total Supply Air CFM =		4,000				Uncorrected Outside Air Intake, CFM (Vou) =		920	< < < < < OA Sum	600	320
Location:	Twin Falls, Idaho		Critical Zone Outside Air Fraction (MAX Zp) =		0.288	System Ventilation Efficiency (Ev) =		0.942	Corrected Outside Air Intake Air, CFM (Vot) =		976	Corrected Outside Air as % of Supply Air =		24.4%

ASHRAE 15 7.3.1 (EQ. 7-3a) CIRCUIT CHARGE PERMITTED RCL

SYSTEM	REFRIGERANT					SPACE 1							
	CIRCUIT CHARGE (LB)	TYPE	CLASSIFICATION	REFRIGERANT CHARGE ALLOWED (ASHRAE 34 RCL LBS/1000 CF)	RCL PER CF	NAME	SQ FT	HEIGHT	ROOM CU FT	TOTAL VOLUME	OCC. FACTOR	EDVC (LBS)	COMPLIANT
RTU 1-18	8	4-454B	A2L	4.6	0.0046	LEARNING RESOURCE CENTER, CLASSROOMS, OFFICE SPACES	803	9	7227	7227	1	33.2442	YES

* CALCULATION DONE BASED ON SMALLEST ROOM SERVED BY UNIT

ASHRAE 15 7.3.1 (EQ. 7-3a) CIRCUIT CHARGE PERMITTED RCL

SYSTEM	REFRIGERANT					SPACE 1							
	CIRCUIT CHARGE (LB)	TYPE	CLASSIFICATION	REFRIGERANT CHARGE ALLOWED (ASHRAE 34 RCL LBS/1000 CF)	RCL PER CF	NAME	SQ FT	HEIGHT	ROOM CU FT	TOTAL VOLUME	OCC. FACTOR	EDVC (LBS)	COMPLIANT
RTU 19-32	10.3	4-454B	A2L	4.6	0.0046	CLASSROOMS, OFFICE SPACES	762	11	8382	8382	1	38.5572	YES

* CALCULATION DONE BASED ON SMALLEST CLASSROOM SERVED BY UNIT

ASHRAE 15 7.3.1 (EQ. 7-3a) CIRCUIT CHARGE PERMITTED RCL

SYSTEM	REFRIGERANT					SPACE 1							
	CIRCUIT CHARGE (LB)	TYPE	CLASSIFICATION	REFRIGERANT CHARGE ALLOWED (ASHRAE 34 RCL LBS/1000 CF)	RCL PER CF	NAME	SQ FT	HEIGHT	ROOM CU FT	TOTAL VOLUME	OCC. FACTOR	EDVC (LBS)	COMPLIANT
RTU 33,34	11.13	4-454B	A2L	4.6	0.0046	ASSEMBLY AND LUNCH ROOM, KITCHEN	1200	16	19200	19200	1	88.32	YES

ASHRAE 15 7.3.1 (EQ. 7-3a) CIRCUIT CHARGE PERMITTED RCL

SYSTEM	REFRIGERANT					SPACE 1							
	CIRCUIT CHARGE (LB)	TYPE	CLASSIFICATION	REFRIGERANT CHARGE ALLOWED (ASHRAE 34 RCL LBS/1000 CF)	RCL PER CF	NAME	SQ FT	HEIGHT	ROOM CU FT	TOTAL VOLUME	OCC. FACTOR	EDVC (LBS)	COMPLIANT
RTU 35	23.8	4-454B	A2L	4.6	0.0046	PHYSICAL EDUCATION ROOM	1779	15	26685	26685	1	122.751	YES

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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 DISTRICT WIDE HVAC REPLACEMENT

LINCOLN ELEMENTARY SCHOOL
238 BUHL ST N
TWIN FALLS, ID 83301

Sheet:
MECHANICAL SCHEDULES

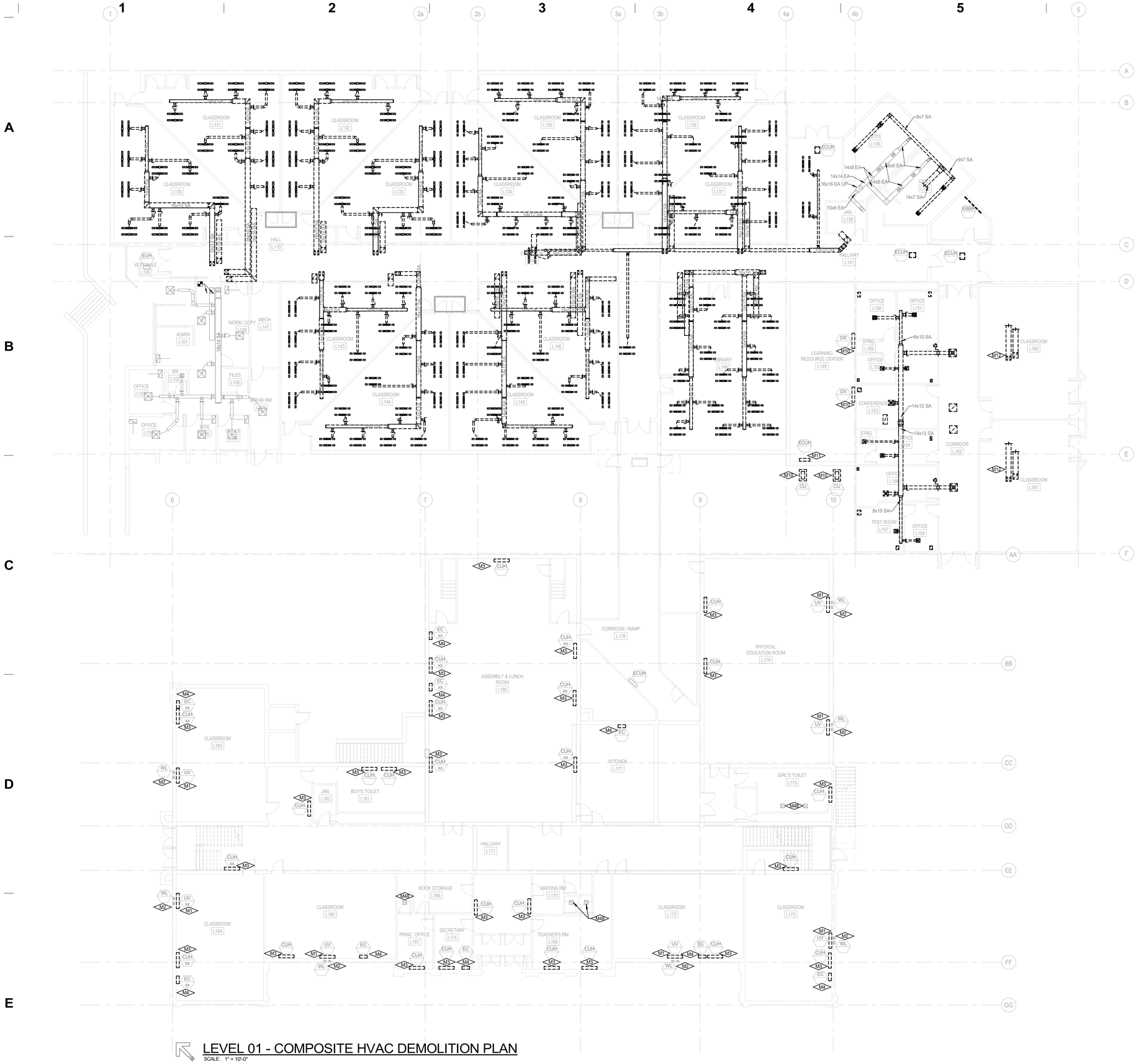
BID SET

PROFESSIONAL ENGINEER LICENSED 20608 02/27/2025 STATE OF IDAHO LILLIAN J. JOHNSON

Revisions:

Project No: 23028
Drawn By: AK
Checked By: MG
Date: 02/27/2025

Sheet No: M0.04



LEVEL 01 - COMPOSITE HVAC DEMOLITION PLAN

SCALE: 1" = 10'-0"

1"

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

KEYNOTES

M1	DEMOLISH EXISTING UNIT VENTILATOR. DEMO ACCESSIBLE ASSOCIATED PIPING AND CAP EXISTING STEAM PIPING IN WALL (TYP.) DEMO ASSOCIATED TSTAT AND CONTROLS.
M2	DEMO LOUVER AND INSTALL SHEET METAL COVER WITH INSULATION. RE: ARCHITECTURAL (TYP.)
M3	DEMOLISH CABINET UNIT HEATER. DEMO ACCESSIBLE ASSOCIATED PIPING AND CAP EXISTING STEAM PIPING IN WALL (TYP.) DEMO ASSOCIATED TSTAT AND CONTROLS.
M4	DEMO SWAMP COOLER IN WINDOW. DEMO ASSOCIATED WATER PIPING AND CONTROLS. SEE ARCH. PLANS.
M10	DEMOLISH DX SPLIT SYSTEM, CONDENSING UNIT AND ALL ASSOCIATED PIPING.
M11	DEMOLISH ELECTRIC CABINET UNIT HEATER.
M12	DEMOLISH ALL DUCTWORK AND AIR DEVICES IN AREA. FULL EXTENT OF DUCTWORK NOT SHOWN DUE TO UNKNOWN CONDITIONS.
M48	EXISTING 12X12 GRILLE AND DUCTWORK TO REMAIN FOR CONNECTION TO NEW EXHAUST FAN. VERIFY CONDITION FOR REUSE.

BID SET

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420 South Orchard Street, Boise, ID 83705
(208) 343-3663 ▪ www.catorruma.com

HUMMEL ARCHITECTS
205 N. 10th Street, Suite 500, Boise, Idaho 83702, 208.343.7323
482 Constitution Way, Suite 111, Idaho Falls, ID 83402, 208.343.7323
hummelarch.com

Project:
TFSD DISTRICT WIDE HVAC REPLACEMENT

LINCOLN ELEMENTARY SCHOOL
238 BUHL ST N
TWIN FALLS, ID 83301

Sheet:
LEVEL 01 - HVAC DEMOLITION PLAN

PROFESSIONAL ENGINEER LICENSED 20608 02/27/2025 STATE OF IDAHO LILIAN J. JOHNSON

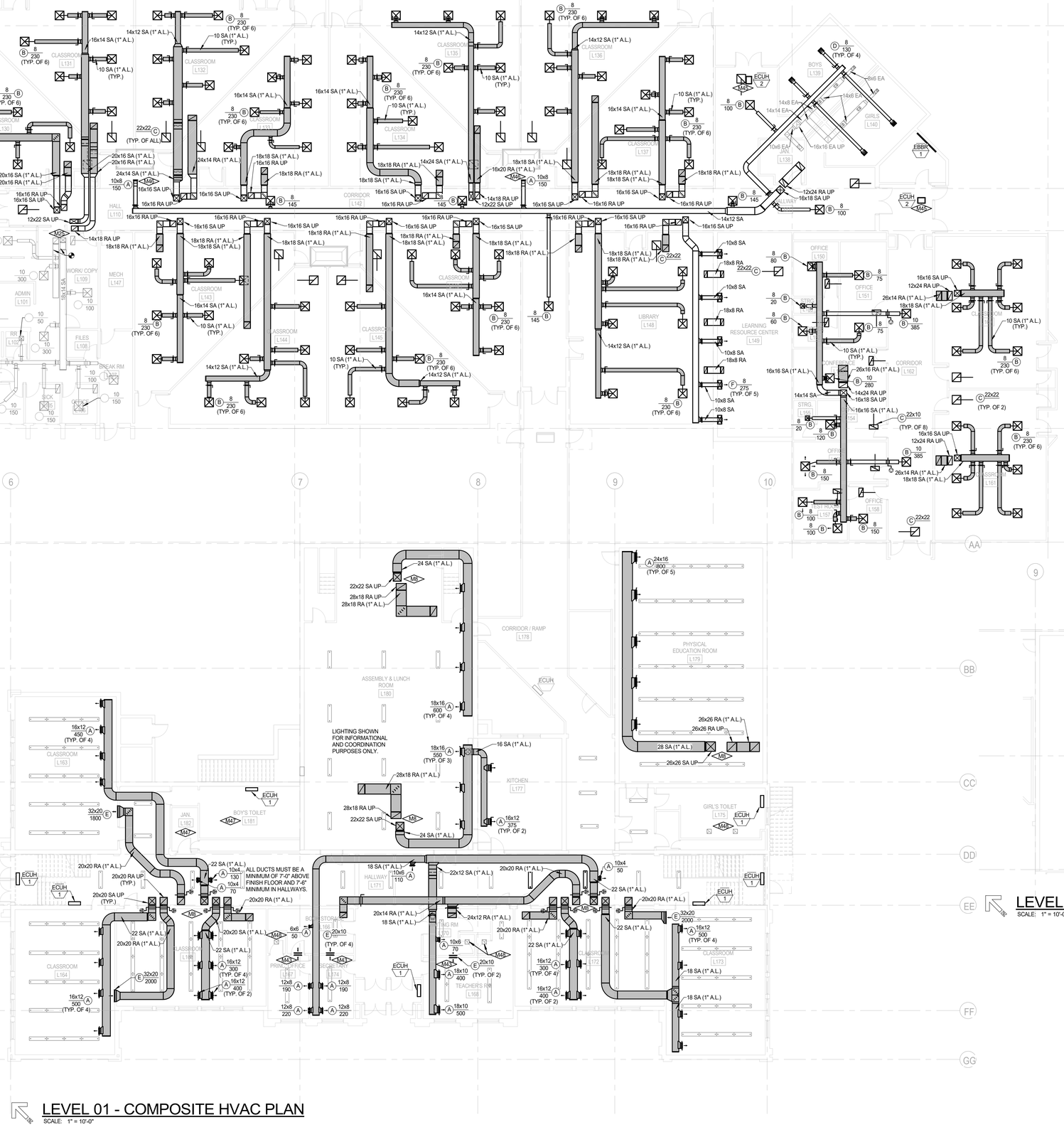
Revisions:

Project No:	23028
Drawn By:	AK
Checked By:	MG
Date:	02/27/2025

Sheet No:
MD2.01

KEYNOTES

M8	PROVIDE 1" ACCOUSTICAL LINING IN SUPPLY AND RETURN DUCTWORK CONTINUOUSLY FROM RTU OUTLET TO AIR DEVICES (TYP. OF ALL EXPOSED DUCTWORK)
M25	REBALANCE EXISTING DIFFUSERS TO CFM SHOWN ON PLANS.
M43	LOCATE ONE GRILLE HIGH AND ONE GRILLE LOW IN A SINGLE WALL STUD SPACE. REMOVE ANY INSULATION IN THAT STUD SPACE TO CREATE A TRANSFER AIR PATH.
M45	DEMOLSH EXISTING ELECTRIC HEATER IN CEILING. DEMO ASSOCIATED TSTAT AND CONTROLS.
M46	SIDEWALL GRILLE IN ARCHITECTURAL SOFFIT.
M47	AREA OUTSIDE SCOPE OF WORK. EXHAUST REMAINS UNTOUCHED.
M48	EXISTING 12X12 GRILLE AND DUCTWORK TO REMAIN FOR CONNECTION TO NEW EXHAUST FAN. VERIFY CONDITION FOR REUSE.



LEVEL 01 - HVAC PLAN

SCALE: 1" = 10'-0"

LEVEL 01 - COMPOSITE HVAC PLAN

SCALE: 1" = 10'-0"

LEVEL 01 PLENUM - COMPOSITE HVAC PLAN

SCALE: 1" = 10'-0"

1"

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

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420 South Orchard Street, Boise, ID 83705
(208) 343-3663 ▪ www.catorruma.com

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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 DISTRICT WIDE HVAC REPLACEMENT

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Sheet:
LEVEL 01 - HVAC PLAN

BID SET

PROFESSIONAL ENGINEER LICENSED 20608 STATE OF IDAHO LILIAN J. JOHNSON 02/27/2025

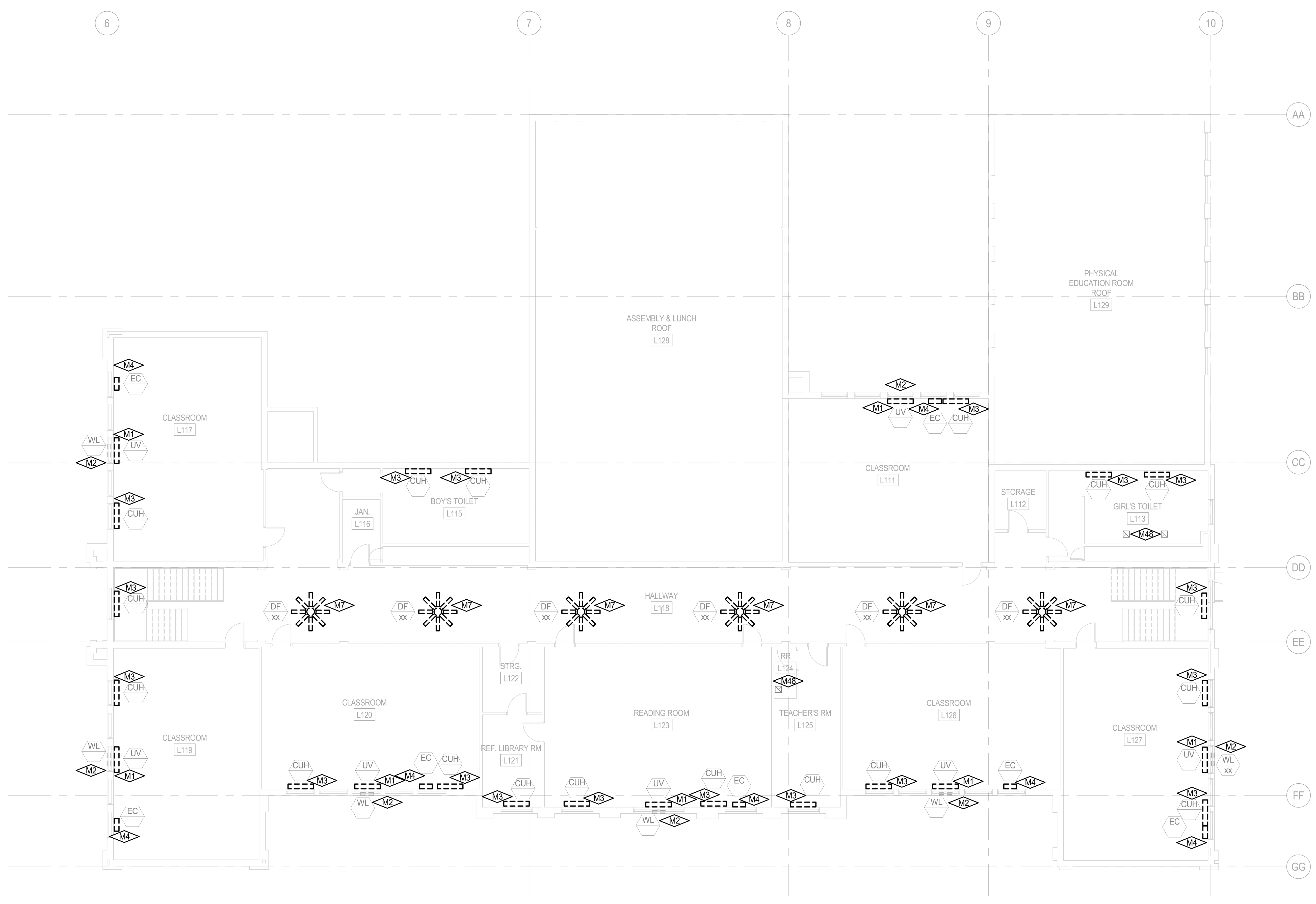
Revisions:

Project No:	23028
Drawn By:	AK
Checked By:	MG
Date:	02/27/2025

Sheet No:
M2.02

KEYNOTES

M1	DEMOLISH EXISTING UNIT VENTILATOR. DEMO ACCESSIBLE ASSOCIATED PIPING AND CAP EXISTING STEAM PIPING IN WALL (TYP.) DEMO ASSOCIATED TSTAT AND CONTROLS.
M2	DEMO LOUVER AND INSTALL SHEET METAL COVER WITH INSULATION. RE: ARCHITECTURAL (TYP.)
M3	DEMOLISH CABINET UNIT HEATER. DEMO ACCESSIBLE ASSOCIATED PIPING AND CAP EXISTING STEAM PIPING IN WALL (TYP.) DEMO ASSOCIATED TSTAT AND CONTROLS.
M4	DEMO SWAMP COOLER IN WINDOW. DEMO ASSOCIATED WATER PIPING AND CONTROLS. SEE ARCH. PLANS.
M7	DEMOLISH EXISTING CEILING FAN.
M48	EXISTING 12X12 GRILLE AND DUCTWORK TO REMAIN FOR CONNECTION TO NEW EXHAUST FAN. VERIFY CONDITION FOR REUSE.



LEVEL 02 - COMPOSITE HVAC DEMOLITION PLAN

SCALE: 1" = 10'-0"

1"

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

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205 N. 10th Street, Suite 300, Boise, Idaho 83702, 208.343.7523
482 Constitution Way, Suite 111, Idaho Falls, ID 83402, 208.343.7523
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Project:
TFSD DISTRICT WIDE HVAC REPLACEMENT

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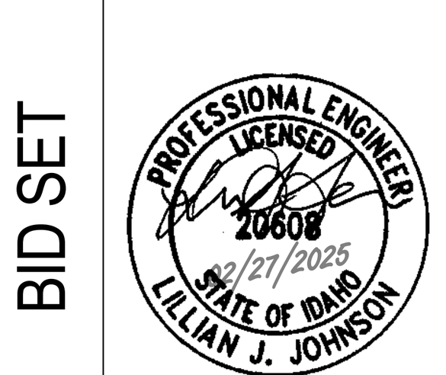
Sheet:
LEVEL 02 - HVAC DEMOLITION PLAN

BID SET

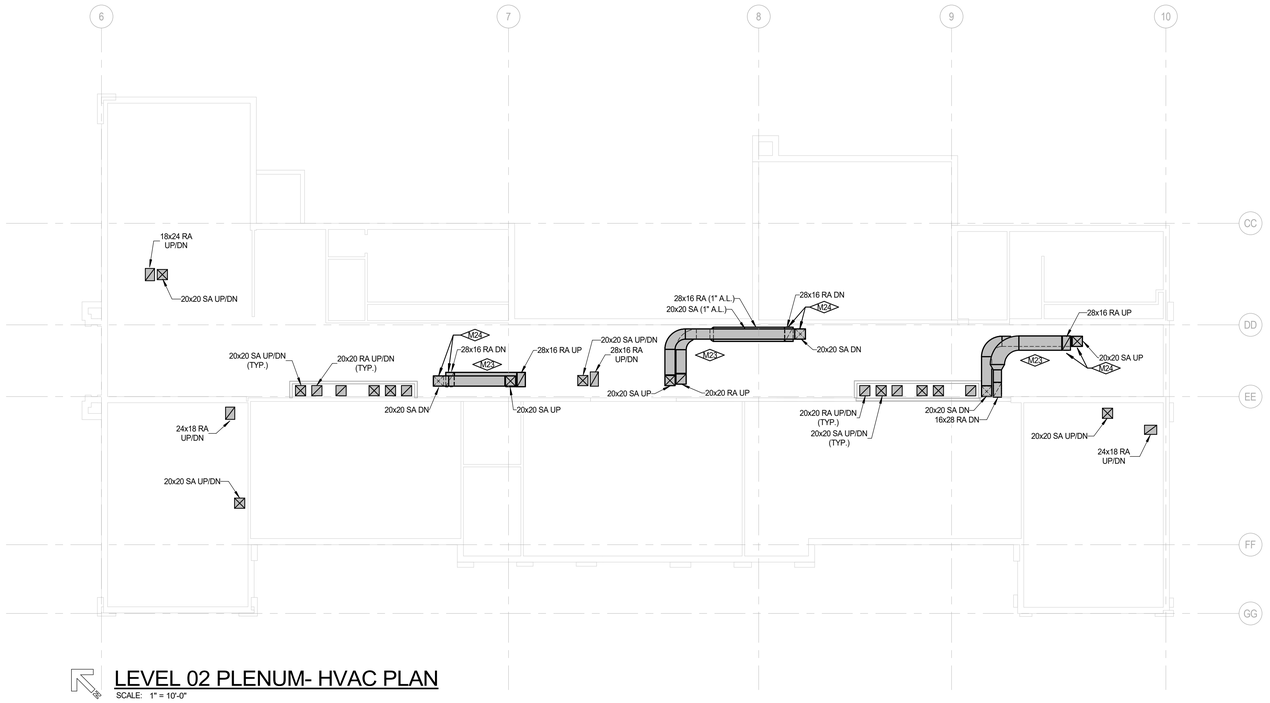


Revisions:

Project No:	23028
Drawn By:	AK
Checked By:	MG
Date:	02/27/2025

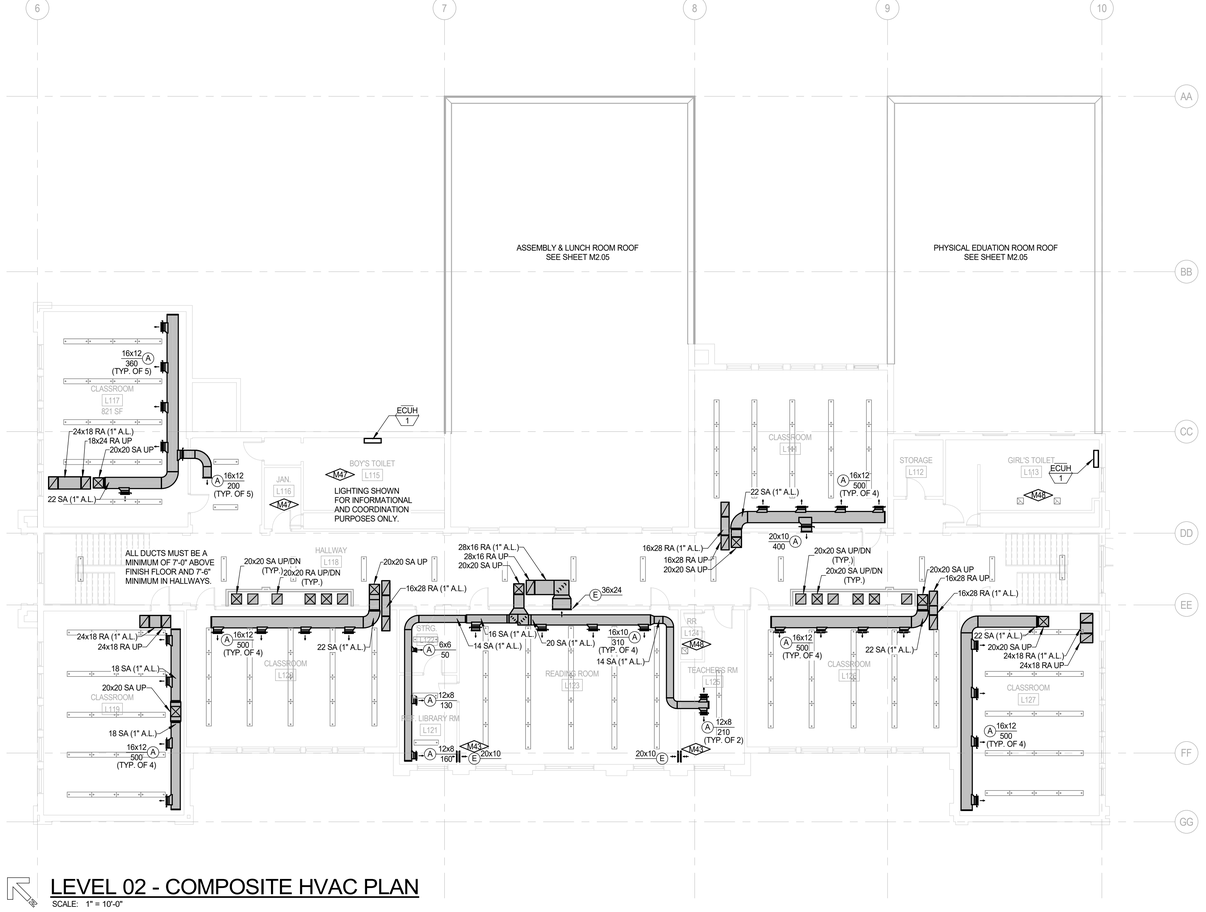
Sheet No: MD2.02

KEYNOTES	
M23	ROUTE DUCTWORK ABOVE CEILING. FIELD COORDINATE TO AVOID PIPING IN SPACE.
M24	DROP DUCTWORK THROUGH CEILING INTO CORRIDOR BELOW. FIELD COORDINATE TO AVOID LIGHTS/PIPING BELOW.
M43	LOCATE ONE GRILLE HIGH AND ONE GRILLE LOW IN A SINGLE WALL STUD SPACE. REMOVE ANY INSULATION IN THAT STUD SPACE TO CREATE A TRANSFER AIR PATH.
M47	AREA OUTSIDE SCOPE OF WORK. EXHAUST REMAINS UNTOUCHED.
M48	EXISTING 12X12 GRILLE AND DUCTWORK TO REMAIN FOR CONNECTION TO NEW EXHAUST FAN. VERIFY CONDITION FOR REUSE.



LEVEL 02 PLENUM- HVAC PLAN

SCALE: 1" = 10'-0"



LEVEL 02 - COMPOSITE HVAC PLAN

SCALE: 1" = 10'-0"

1"

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LEVEL 02 - HVAC PLAN

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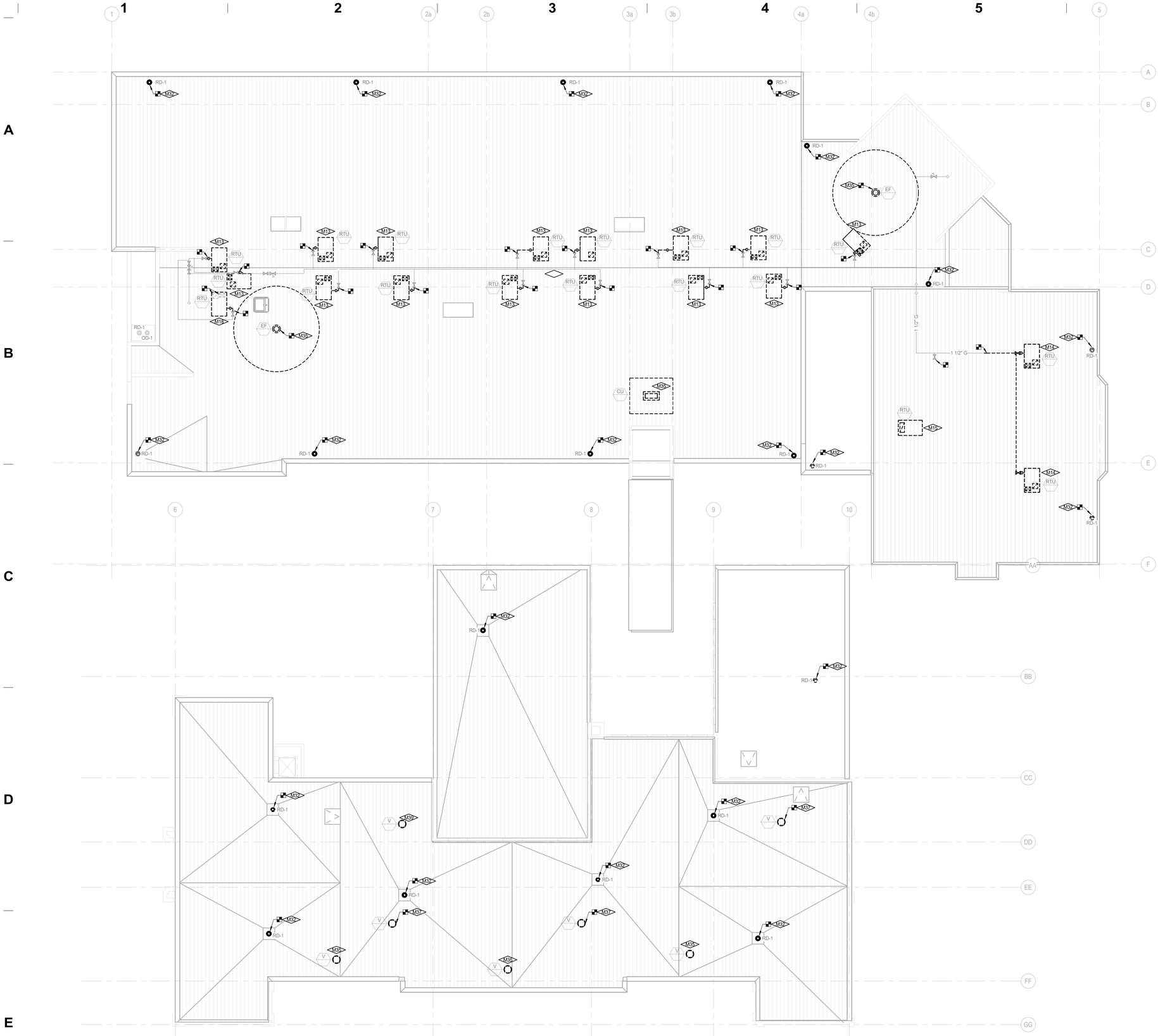

ROOF - COMPOSITE MECHANICAL DEMOLITION PLAN
SCALE: 1" = 10'-0"

1"
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KEYNOTES

M13	DEMOLISH EXISTING ROOFTOP UNIT, ROOF CURB AND DUCTWORK. DISCONNECT GAS LINE AND PREPARE FOR CONNECTION TO NEW UNIT. ROOF OPENING TO REMAIN FOR REUSE.
M14	DEMOLISH ROOFTOP UNIT, ROOF CURB AND DUCTWORK. DISCONNECT GAS LINE AND PREPARE FOR CONNECTION TO NEW UNIT NEARBY. PATCH AND REPAIR ROOF.
M15	DEMOLISH EXISTING ROOFTOP UNIT, ROOF CURB AND DUCTWORK. ROOF OPENING TO REMAIN FOR REUSE.
M18	DEMOLISH ROOTOP UNIT AND ROOF CURB. DUCTWORK TO REMAIN FOR CONNECTION TO NEW UNIT. DISCONNECT GAS LINE AND PREPARE FOR CONNECTION TO NEW UNIT. ROOF OPENING TO REMAIN FOR REUSE.
M32	DEMOLISH EXISTING ROOF DRAIN. PIPING TO REMAIN AND RECONNECT TO NEW ROOF DRAIN.
M35	MECHANICAL EQUIPMENT TO BE REMOVED AND REINSTALLED FOR ROOF REPLACEMENT.
M37	DEMOLISH EXISTING VENTILATOR. DUCTWORK TO REMAIN FOR CONNECTION TO NEW FAN. CONTRACTOR TO VERIFY CONDITION OF EXISTING DUCTWORK FOR REUSE.
M39	DEMOLISH EXISTING VENTILATOR ABANDONNED IN PLACE. CONTRACTOR TO VERIFY VENTILATOR IS NO LONGER IN USE.

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ROOF - MECHANICAL DEMOLITION PLAN

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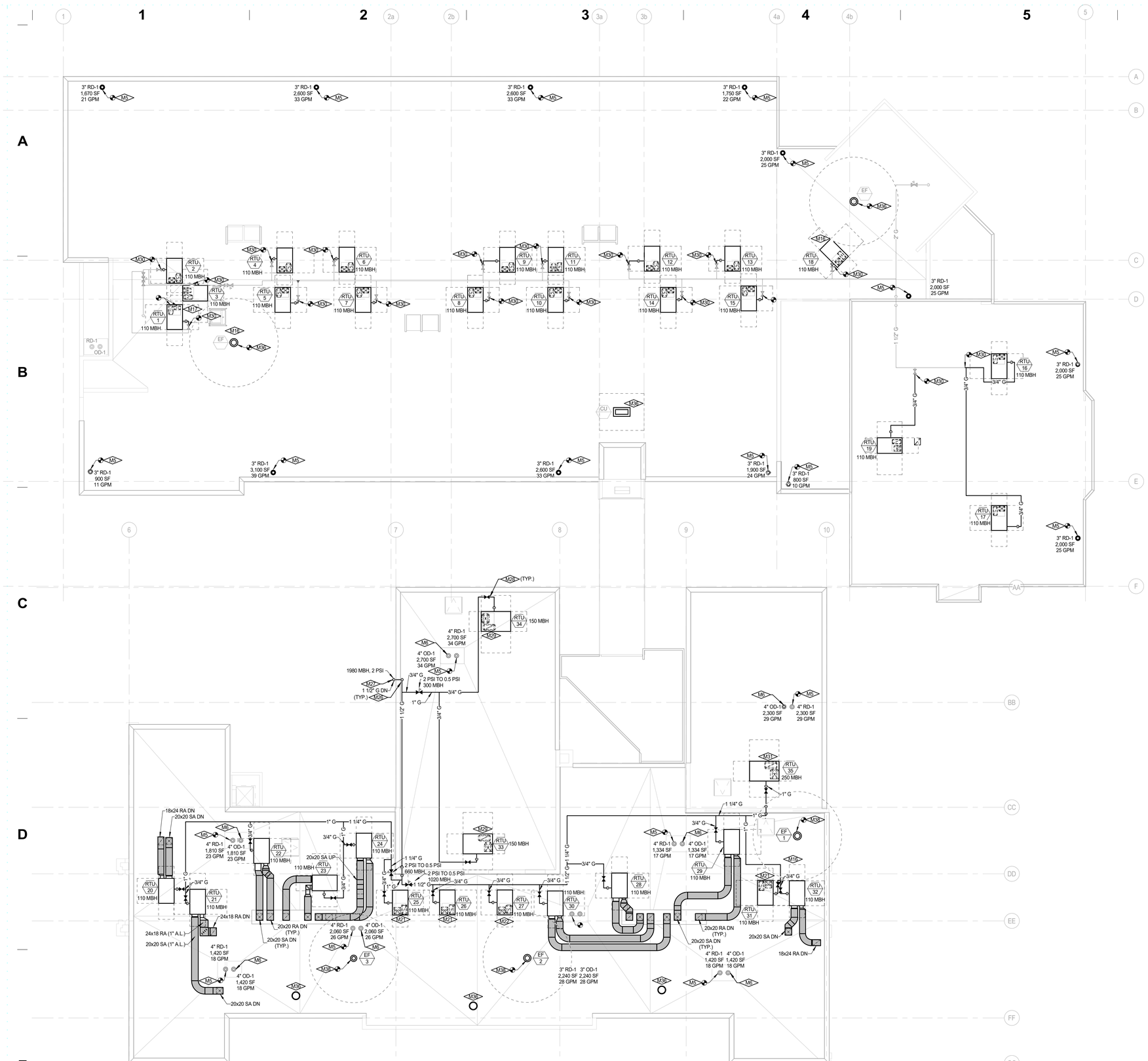

ROOF - COMPOSITE MECHANICAL PLAN

SCALE: 1" = 10'-0"

1"

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

KEYNOTES

M5	INSTALL NEW ROOF DRAIN IN PLACE OF EXISTING. MODIFY EXISTING PIPING AS REQUIRED TO MAKE A PROPER CONNECTION.
M6	INSTALL NEW OVERFLOW DRAIN IN EXISTING ROOF. REFER TO ARCHITECTURAL PLANS FOR ROOFING INFORMATION. FIELD VERIFY LOCATION.
M16	RTU VENTILATION INLET SHALL BE A MINIMUM OF 10' FROM ALL EXHAUST FAN DISCHARGES (TYP.)
M17	CONNECT NEW RTU DUCTS TO EXISTING DUCTWORK.
M21	TRANSITION FROM RTU OPENING TO LINED 20X20 SUPPLY AIR DUCT AND LINED 28X16 RETURN AIR DUCT DOWN.
M22	TRANSITION FROM RTU OPENING TO LINED 20X20 SUPPLY AIR DUCT AND LINED 20X20 RETURN AIR DUCT DOWN.
M26	SUPPORT PIPING OFF ROOF WITH 'DURA' BLOCK RUBBER PIPE SUPPORTS WITH PIPE CLAMPS , OR SIMILAR. INSTALL SUPPORTS A MINIMUM OF 8 FOOT ON CENTERS AND AT ALL JOINTS, UNIONS, ELBOWS, AND VALVES.
M27	DROP 1 1/2", 2 PSI GAS DOWN THE SIDE OF THE BUILDING AND CONNECT TO THE EXISTING MAIN OUT OF THE METER BELOW. MODIFY EXISTING PIPING AS REQUIRED TO MAKE A PROPER CONNECTION. FIELD VERIFY LOCATION AND CONFIRM PRESSURE.
M28	PROVIDE GAS SHUT-OFF AND DIRT LEG FOR EACH UNIT PER CODE.
M29	TRANSITION FROM RTU OPENING TO LINED 22X22 SUPPLY AIR DUCT AND LINED 28X18 RETURN AIR DUCT DOWN.
M30	RECONNECT WITH NEW GAS PIPING SAME SIZE AS EXISTING (TYP.)
M31	TRANSITION FROM RTU OPENING TO LINED 26X26 SUPPLY AIR DUCT AND LINED 34X20 RETURN AIR DUCT DOWN.
M36	REINSTALL EXISTING MECHANICAL EQUIPMENT REMOVED FOR ROOF REPLACEMENT.
M38	CONNECT NEW FAN TO EXISTING DUCTWORK. MODIFY AS NEEDED. CONTRACTOR TO VERIFY CONDITION OF EXISTING DUCTWORK FOR REUSE.

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ROOF - MECHANICAL PLAN

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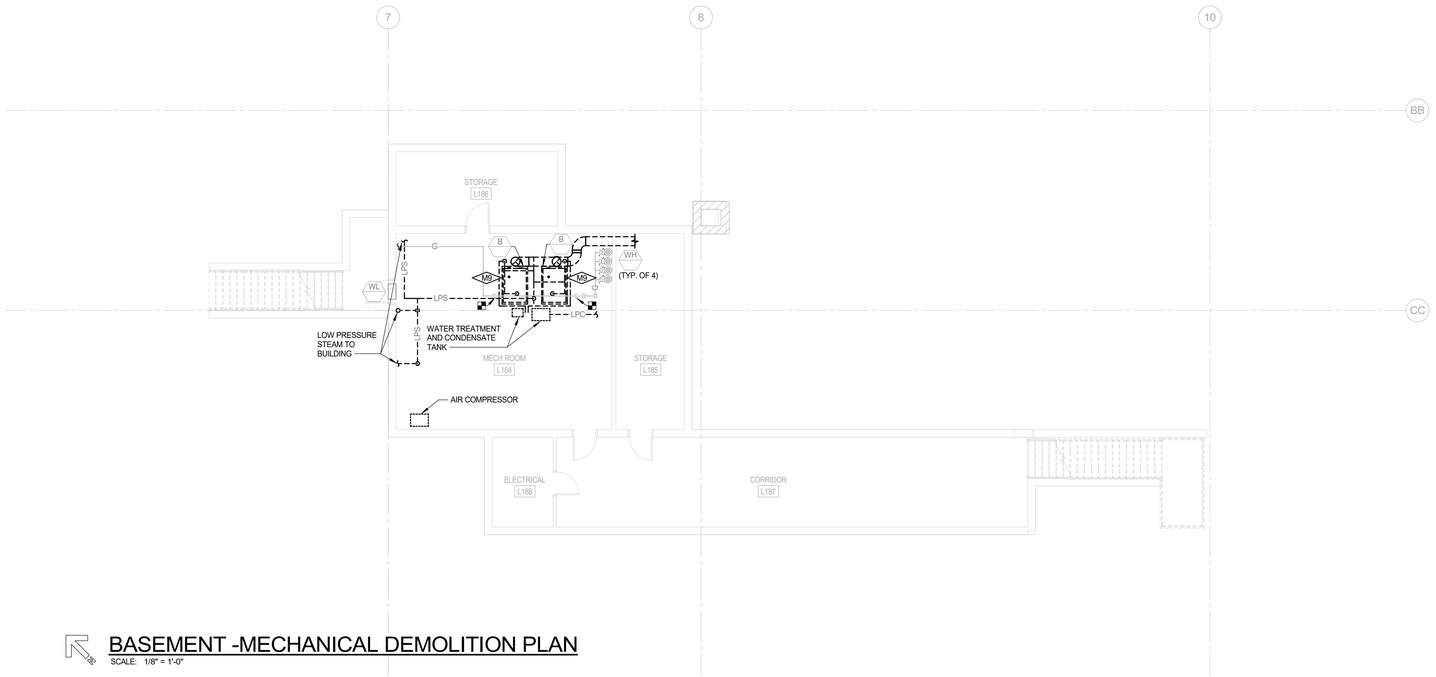
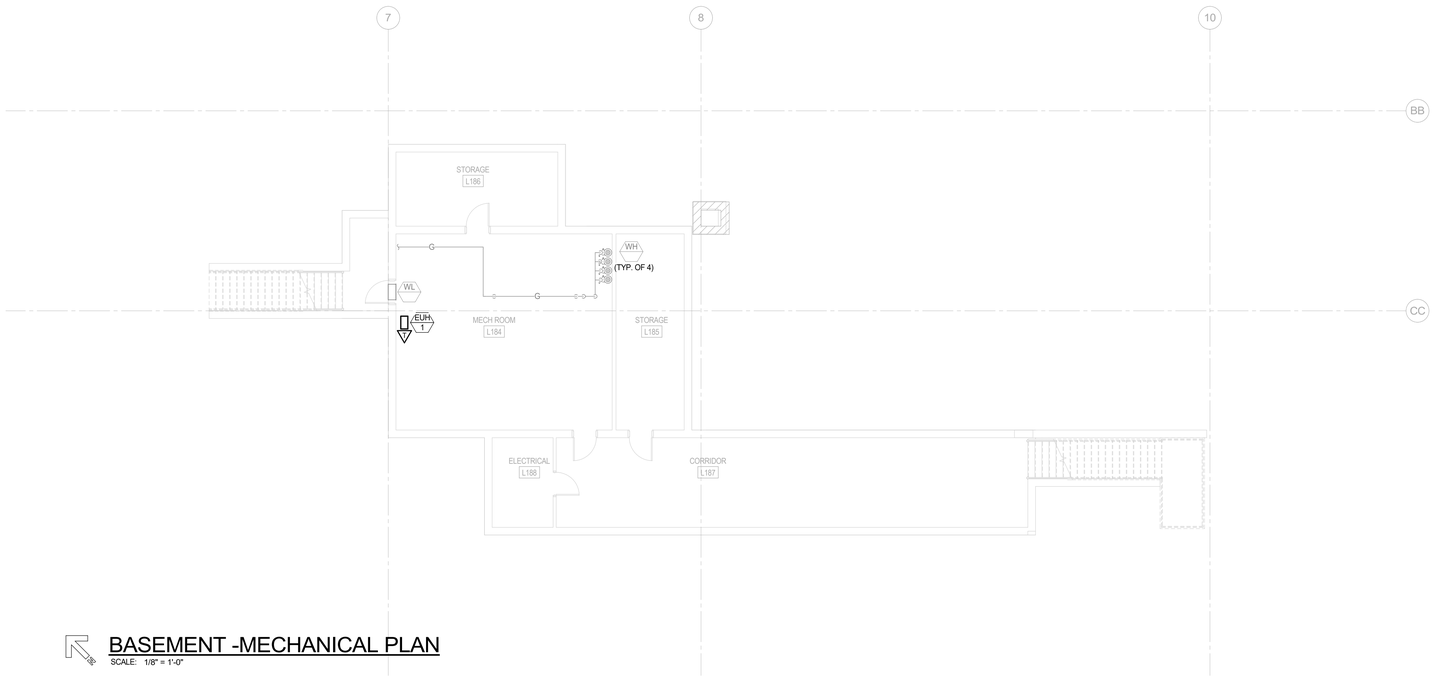
KEYNOTES

M9	DEMOLISH STEAM BOILERS, CONDENSATE PUMPS, PNEUMATIC CONTROLS AIR COMPRESSOR, CONDENSATE RECEIVER AND WATER TREATMENT. DEMOLISH ALL ASSOCIATED STEAM AND CONDENSATE PIPING TO THE GREATEST EXTENT POSSIBLE.



BASEMENT -MECHANICAL DEMOLITION PLAN
SCALE: 1/8" = 1'-0"



BASEMENT -MECHANICAL PLAN
SCALE: 1/8" = 1'-0"

1"
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BASEMENT - MECHANICAL PLAN

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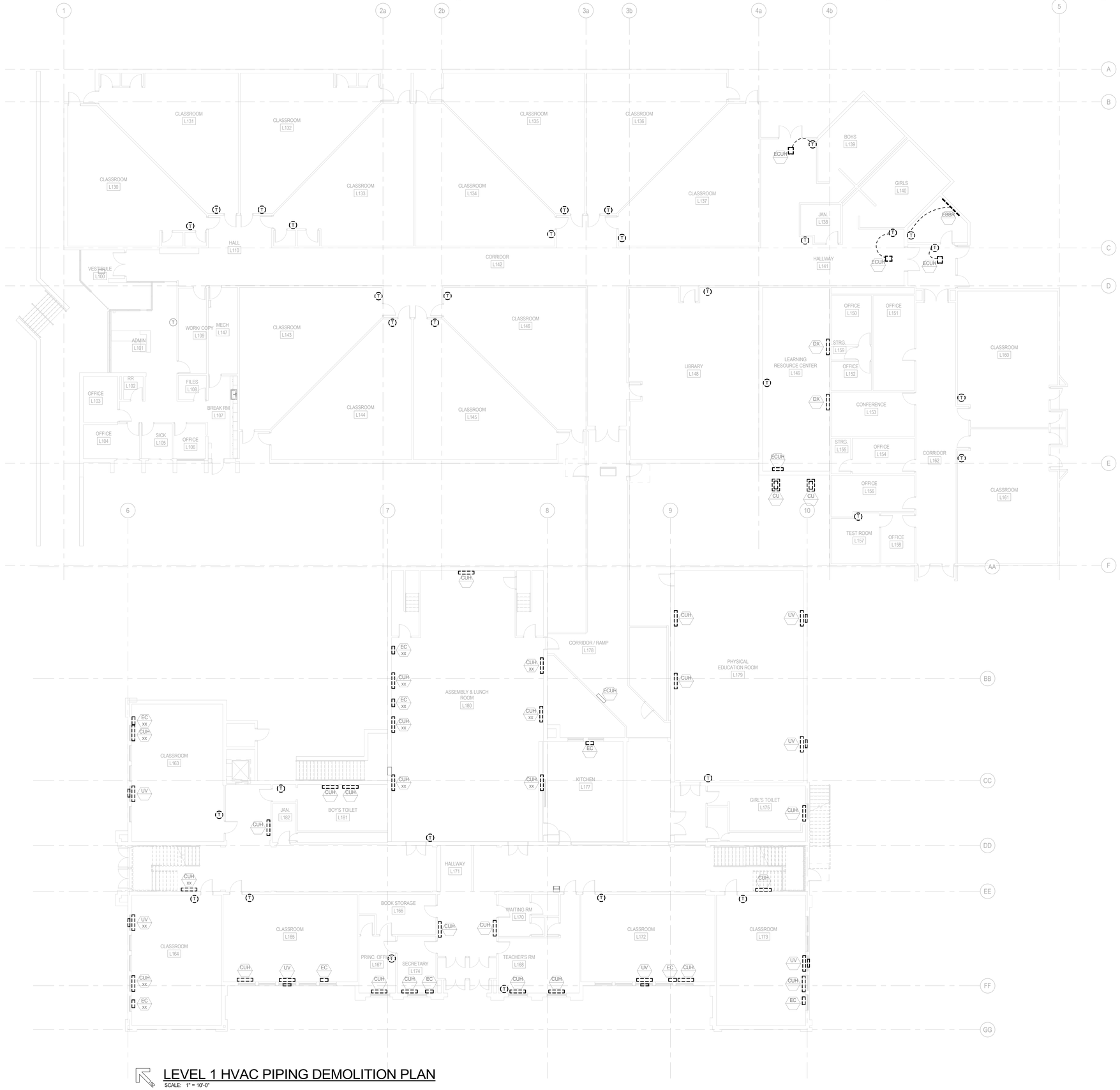

LEVEL 1 HVAC PIPING DEMOLITION PLAN

SCALE: 1" = 10'-0"

1"

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

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Sheet:
LEVEL 01 - HVAC PIPING DEMOLITION PLAN

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LEVEL 01 - COMPOSITE HVAC PIPING PLAN

SCALE: 1" = 10'-0"

1"

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KEYNOTES

M19	RECONNECT EXISTING TSTAT TO NEW RTU. PROVIDE NEW CONTROL WIRING.

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LEVEL 01 - HVAC PIPING PLAN

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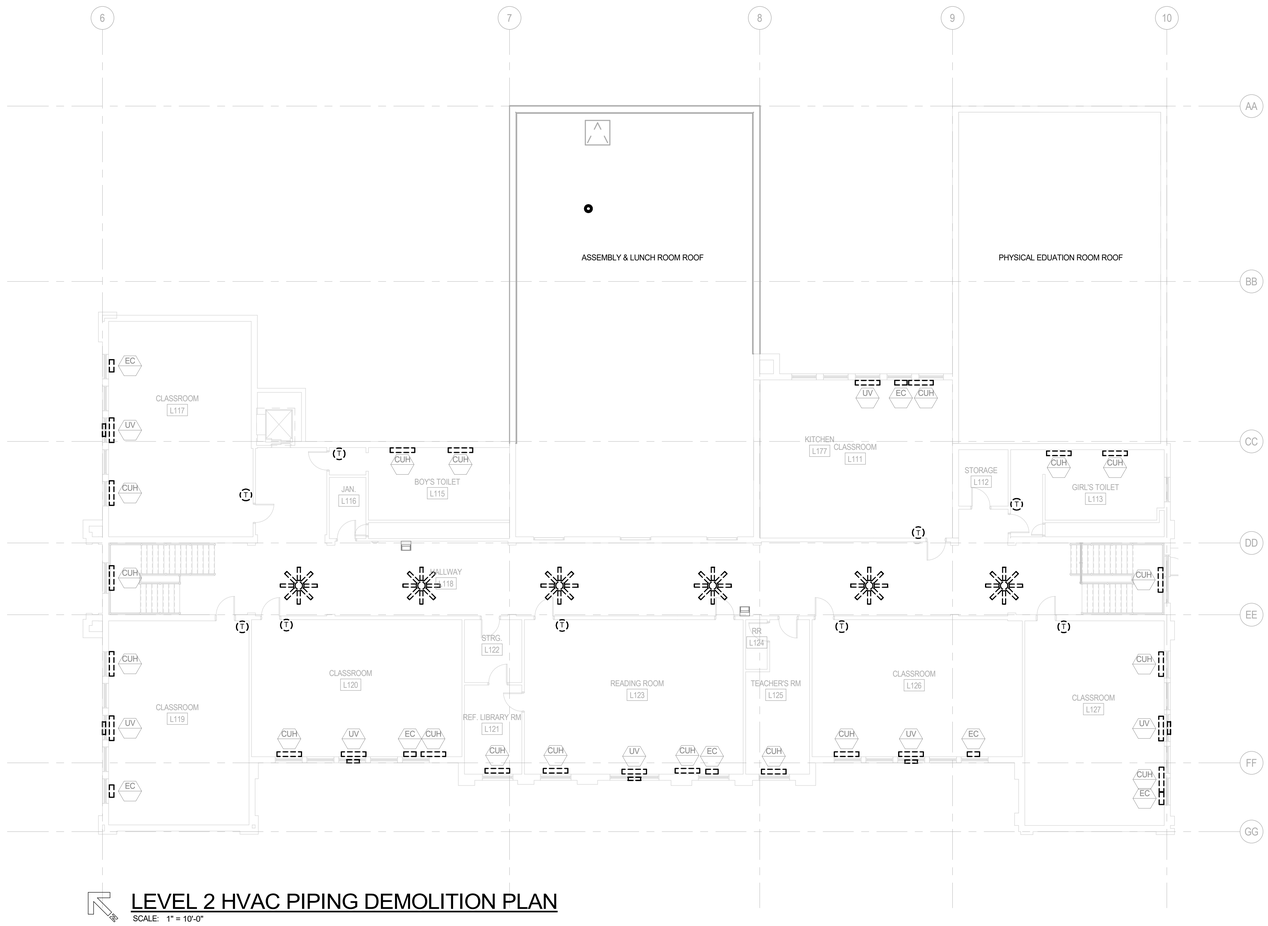

LEVEL 2 HVAC PIPING DEMOLITION PLAN

SCALE: 1" = 10'-0"

1"

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LEVEL 02 - HVAC PIPING DEMOLITION PLAN

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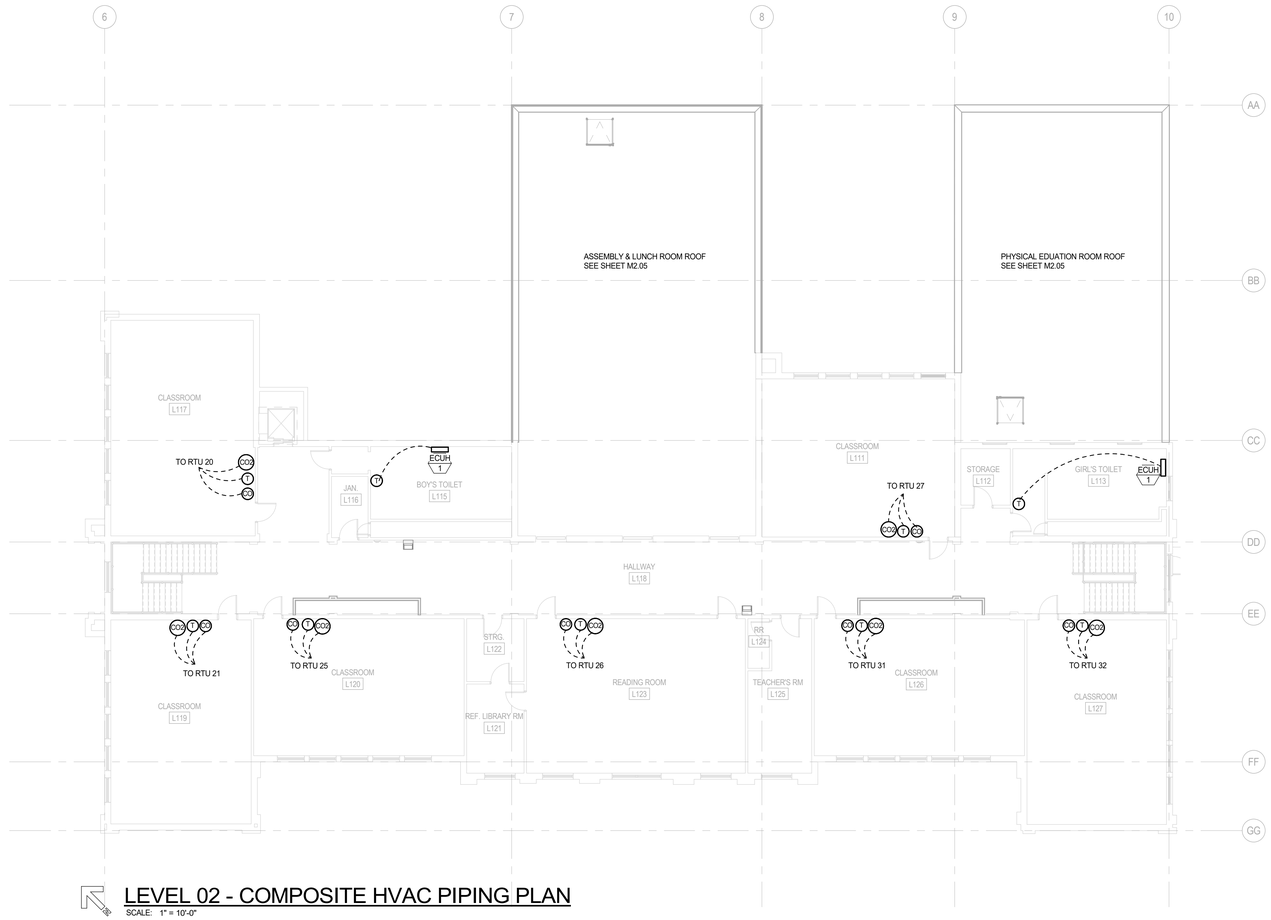
A B C D E

KEYNOTES



LEVEL 02 - COMPOSITE HVAC PIPING PLAN

SCALE: 1" = 10'-0"

1"

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Sheet:
LEVEL 02 - HVAC PIPING PLAN

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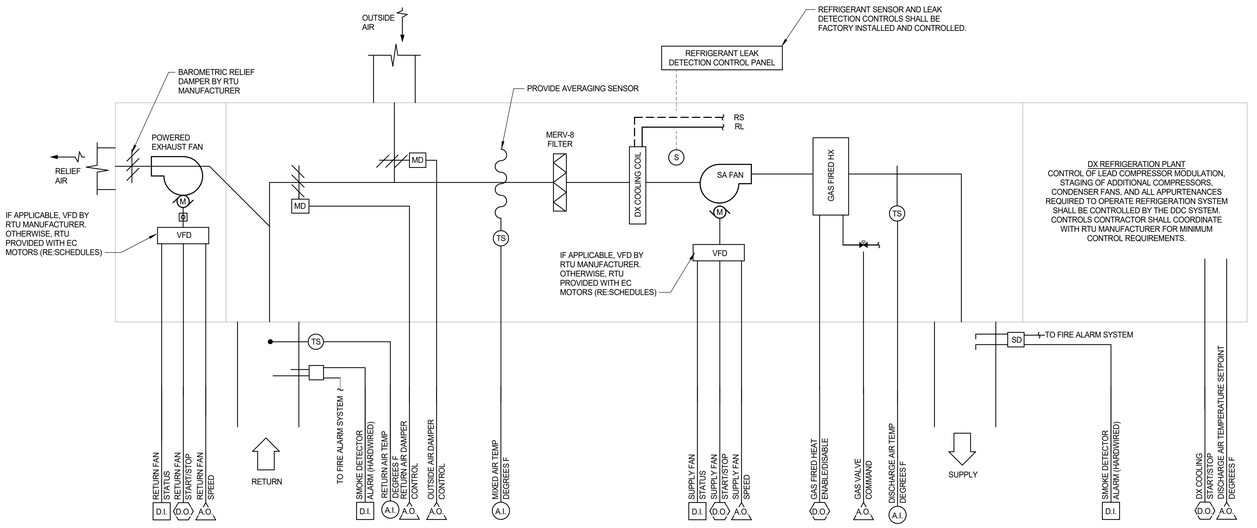


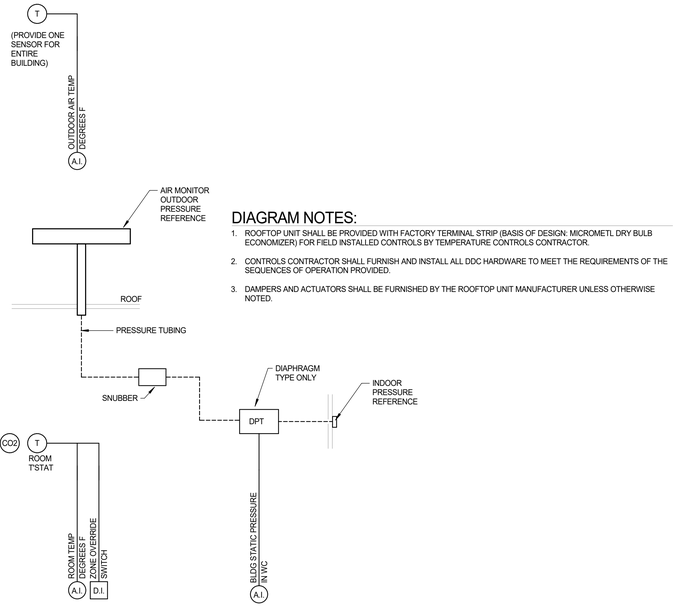


DIAGRAM NOTES:

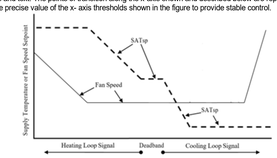
1. ROOFTOP UNIT SHALL BE PROVIDED WITH FACTORY TERMINAL STRIP (BASIS OF DESIGN: MICROMETL DRY BULB ECONOMIZER) FOR FIELD INSTALLED CONTROLS BY TEMPERATURE CONTROLS CONTRACTOR.
2. CONTROLS CONTRACTOR SHALL FURNISH AND INSTALL ALL DDC HARDWARE TO MEET THE REQUIREMENTS OF THE SEQUENCES OF OPERATION PROVIDED.
3. DAMPERS AND ACTUATORS SHALL BE FURNISHED BY THE ROOFTOP UNIT MANUFACTURER UNLESS OTHERWISE NOTED.

SEQUENCE OF OPERATION:

SINGLE-ZONE VARIABLE AIR VOLUME ROOF TOP UNITS:

A. Supply Fan Control and Supply Air Temperature Setpoint Reset
   1. The supply fan shall run whenever the unit is in any mode other than Unoccupied Mode.
   2. Provide a ramp function to prevent changes in fan speed of more than 10% per minute.
   3. If the unit is equipped with a VFD, Fan speeds shall be as follows:
      a. Fan speed shall be reset linearly based on space temperature.
      b. When space is satisfied operate at Min-speed. As the heating or cooling loop increases increase fan speed correspondingly to max speed (heating or cooling).
      c. Max Heating speed shall be 75% (adj)
      d. Max Cooling Speed shall be 100% (adj)

B. Minimum and maximum supply air temperature setpoints shall be as follows:
   1. The Deadband values of SATsp shall be the average of the zone heating setpoint and the zone cooling setpoint, but shall be no lower than 70°F and no higher than 75°F.
   2. When the supply fan is proven on, fan speed and supply air temperature setpoints are controlled as shown in the following diagrams and text. The points of transition along the x-axis shown and described below are representative. Contractor shall adjust the precise value of the x- axis thresholds shown in the figure to provide stable control.



      a. Fan Speed Control (As applicable):
         1. For a Heating Loop signal of 100% - 0%, fan speed is reset from MaxHeatSpeed to MinSpeed.
         2. In Deadband, fan speed setpoint is MinSpeed.
         3. For a Cooling Loop signal of 0% - 100%, fan speed is reset from MinSpeed to MedSpeed.
      b. Supply Air Temperature Setpoint:
         1. For a Heating Loop signal of 100% - 50%, SATsp is 100 deg F (adj).
         2. For a Heating Loop signal of 50% - 0%, SATsp is reset from 100 deg F(adj) to the Deadband value (~70 deg F as described above).
         3. In Deadband, SATsp is the Deadband value.
         4. For a Cooling Loop signal of 0% - 75%, SATsp is reset from the Deadband value to 55 deg F.
         5. For a Cooling Loop signal above 75%, SATsp is unchanged at 55deg F, the supply fan speed continues to increase to additional cooling capacity.

C. Outdoor Air Damper Control
   1. Modulate the air damper shall be modulated to the greater of the economizer command or the ventilation command.
   2. An economizer control loop shall modulate the outdoor air damper open to meet the supply air temperature setpoint anytime the unit is in cooling mode and the outdoor air temperature is less than the return air temperature.
   3. Ventilation command is determined based on zone level CO2 feedback. The ventilation rate is reset linearly between MinVent and MaxVent based on the number of zones that have a high CO2 concentration.
   4. Minimum Outdoor airflow shall be controlled by **monitoring the mixed air temperature** and modulating the outdoor air damper to achieve the ventilation setpoint. The volume of outdoor air is determined by a weighted ratio of the return and outdoor air temperatures. The BAS shall evaluate the actual temperatures and calculate the appropriate ratio every 15min (minimum) and modulate the outdoor air damper to achieve the required volume of outdoor air (based on the calculated mixed air temperature).
      a. The Outdoor Air Volume is calculated as follows:

         1. % OUTSIDE AIR = ($TEMP_{MIX}$ - $TEMP_{RETURN}$) / ($TEMP_{OUTDOOR\,AIR}$ - $TEMP_{RETURN}$)
         2. OUTDOOR AIR VOLUME = %OA * UNIT CAPACITY * (SUPPLY FAN SPEED / 100)

      b. The outdoor air volume setpoint shall be reset between the absolute minimum and the ventilation maximum (see mechanical schedule for setpoints).
      c. When zones are calling for additional ventilation air (CO2 control loop >50% as defined in the VAV sequence of operation) then utilize a trim and response reset algorithm to adjust the minimum ventilation setpoint between the absolute minimum and the ventilation maximum.

VARIABLE	VALUE
SP_S	SP_{MIN}
SP_{MIN}	ABSOLUTE MIN OA
SP_{MAX}	VENTILATION MAX OA
T_A	10 MINUTES
T	2 MINUTES
I	0
R	ZONE VENTILATION REQUESTS
SPrim	+100 CFM
SPres	-200 CFM
SPres-max	-300 CFM

D. Economizer Lockout
   1. The outside will be utilized for free cooling anytime the supply air temperature setpoint is less than return temperature and the return temperature is greater than the outside air temperature by at least 2 deg F. If the outside air temperature is greater than the return air temperature disable the economizer.
      a. Modulate the outside air damper to maintain a mixed air temperate 2 deg F below the supply air temperature setpoint when the economizer is enabled
   2. Once the economizer is disabled, it shall not be re-enabled within 10 minutes and vice versa.

E. Relief Fan and Building Static Pressure Control
   1. Relief Fan Control **– Building Pressure Control**
      a. Relief fan operates whenever associated supply fan is proven on.
      b. Relief fan speed shall be controlled to maintain building static pressure at setpoint. The setpoint shall be determined during balancing (utilize +0.04 iwc as the base condition). This setpoint should be determined in 100% economizer mode and should result in a slightly positive building in that mode.

1 ROOFTOP UNIT - VAV, RETURN FANS, GAS HEAT, SINGLE ZONE

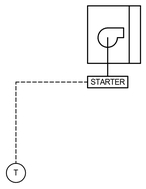
SCALENONE

SEQUENCE OF OPERATION (CONT.):

F. Night Setback and Warmup Mode:
   1. Warm Up: The BAS shall calculate the required warm up time based on the zone's occupied heating setpoint, the current zone temperature, the outdoor air temperature, and a mass/capacity factor for each zone. The mass factor shall be manually adjusted or self-tuned by the BAS. If automatic, the tuning process shall be turned on or off by a software switch, to allow tuning to be stopped after the system has been trained. Warmup Mode shall start based on the zone with the longest calculated warm up time requirement, but no earlier than 3 hours before the start of the scheduled occupied period and shall end at the scheduled Occupied start hour.
   2. Night Setback Mode: During Unoccupied Mode operate the air handling unit to maintain zone temperatures.
      a. NSB Heating: if the zone falls below the unoccupied heating setpoints, the AHU shall enter Setback Mode until the zone is 5°F above their unoccupied setpoints.
         1. The OA damper shall be closed in NSB mode that unit shall operate in 100% return air mode
         2. Supply air setpoint shall by 95 deg F
      b. NSB cooling: if the zone temperature rises above their unoccupied cooling setpoints the AHU shall enter Night Setback Mode until the zone is 5°F below the unoccupied setpoint.
         1. The OA damper shall be closed in NSB mode that unit shall operate in 100% return air mode unless outside air temperature is below the supply air temperature setpoint. Then outside air shall be utilized for cooling
         2. Supply air setpoint is 55 deg F

G. Fault Detection and Diagnostics
   a. Economizer Fault Detection and Diagnostics (FDD)
      a. Economizer Temperature Sensor Failure.
      b. Not Economizing when it Should.
      c. Economizing when it Should Not.
      d. Damper Not Modulating.
      e. Excess Outdoor Air.

H. Alarms and Safeties
   1. Generate a fan failure alarm if the status being different from the command for a period of 15 seconds.
      a. Commanded on, status off: Level 2
      b. Commanded off, status on: Level 4
   2. Generate a high building pressure alarm if the building static pressure is more than 0.10"; Level 3
   3. Generate a low building pressure alarm if the building is negative(less than 0.0");. Level 4
   4. Generate a heating failure alarm if the supply air temperature is 15 deg F below the setpoint: Level 2. If the supply air temperature is less than 40 deg F, shut the unit down until the low temp alarm is reset by an operator.
   5. Generate a cooling failure alarm if the supply air temperature is 15 deg F above the setpoint: Level 2
   6. Refrigeration Leak Detection (Factory Controls)
      A. Upon leak detection by the refrigerant sensor the supply fan shall be enabled (if not already enabled) and run until refrigerant is dilluted below permissable levels.
      B. The factory control panel shall display that a leak has occured and be visible until alarm is acknowledged.



SEQUENCE OF OPERATION:

CABINET UNIT HEATERS AND UNIT HEATERS:

1. HEATER SHALL OPERATE VIA STANDALONE CONTROLS TO ACHEIVE THE FOLLOWING FUNCTION.
2. OPERATION
   a. A WALL MOUNTED ROOM THERMOSTAT OR INTEGRATED THERMOSTAT WILL STAGE THE ELECTRIC HEAT AND CYCLE THE FAN MOTOR TO MAINTAIN ROOM THERMOSTAT TEMPERATURE SETTING.
   b. VESTIBULE SPACE SETPOINT SHALL NOT EXCEED 60F.

2 UNIT HEATER - ELECTRIC

SCALENONE

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Sheet:
MECHANICAL CONTROLS

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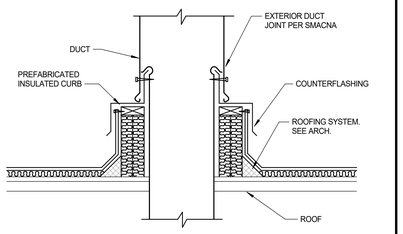
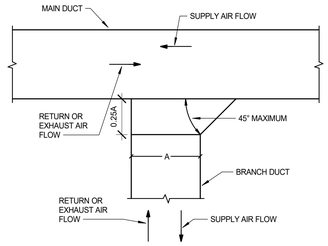


DUCT ROOF PENETRATION DETAIL

SCALE: NONE

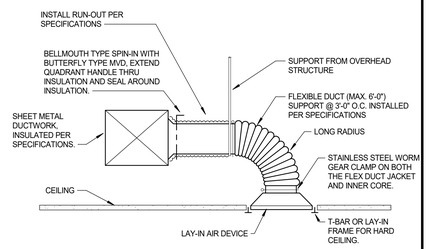
3113-01



DUCT TAKE-OFF DETAIL

SCALE: NONE

3300-02



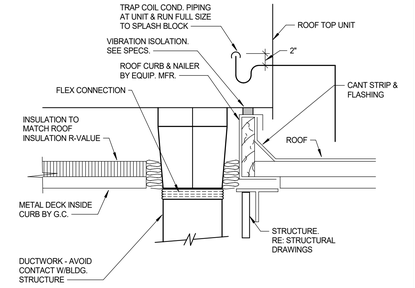
NOTE:
CEILING DIFFUSER SHOWN; REGISTERS AND GRILLES SIMILAR.

HARD CEILING INSTALLATIONS:
1. PROVIDE LAY-IN FRAME TO ALLOW AIR DEVICE TO BE REMOVED.
2. LOCATE MVD TO BE ACCESSIBLE. IF SPIN-IN IS NOT ACCESSIBLE PROVIDE A SEPARATE MVD ACCESSIBLE BY REMOVING THE GRILLE IN LIEU OF THE ONE AT THE SPIN-IN.

ROUND NECK AIR DEVICE DETAIL

SCALE: NONE

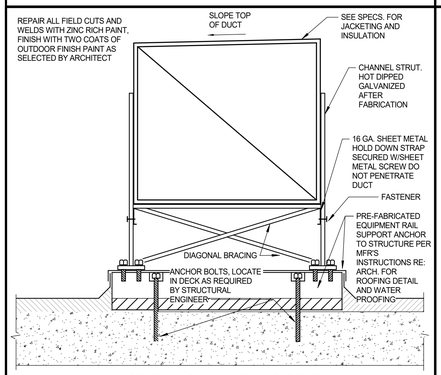
3713-08



ROOF MOUNTED UNIT INSTALLATION DETAIL

SCALE: NONE

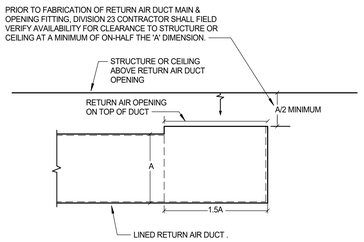
7443-01 6.11.23



ROOF DUCT SUPPORT DETAIL, RECTANGULAR

SCALE: NONE

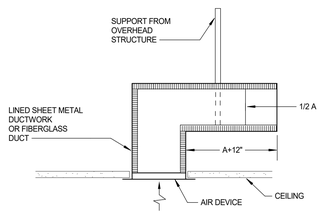
3113-07



RETURN AIR DUCT DETAIL

SCALE: NONE

3300-04 04.20.22

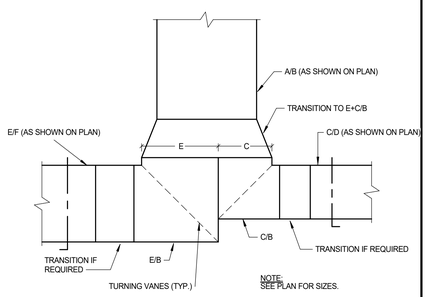


NOTES:
1. PROVIDE ON ALL LAY-IN RETURN AIR DEVICES, UNLESS NOTED OTHERWISE.
2. "A" EQUALS LONGEST DIMENSION OF AIR DEVICE NECK. EXAMPLE: FOR A 22/10 AIR DEVICE, "A" EQUALS 22".

SOUND ELBOW DETAIL

SCALE: NONE

3713-04

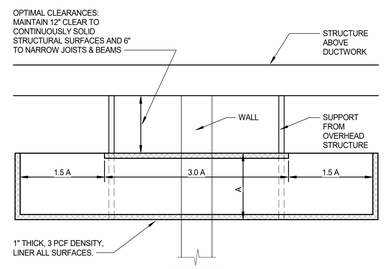


NOTE:
SEE PLAN FOR SIZES.

SPLITTER DUCT DETAIL

SCALE: NONE

3300-07



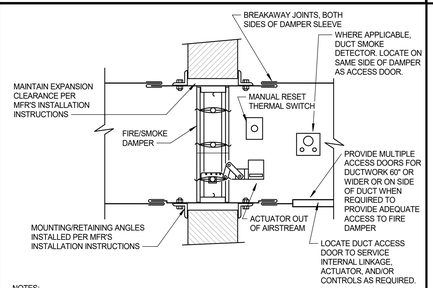
SIDE VIEW

NOTES
1. A = DEPTH OF DUCT SHOWN ON PLANS.
2. DUCT SIZE SHOWN ON PLAN SHALL BE SHEET METAL SIZE OF DUCT FOR THIS DETAIL. AIR WAY SIZE SHALL BE REDUCED BY 2" IN EACH DIRECTION.
3. PROVIDE ONE OPENING IN TOP OF DUCT AT EACH END.
4. SEAL ALL EDGES OF LINER PER SPECIFICATIONS.
5. FIBERGLASS DUCTBOARD IS ACCEPTABLE WHEN CONSTRUCTED PER THE MANUFACTURER'S RECOMMENDATIONS.

TRANSFER AIR DUCT - STRAIGHT

SCALE: NONE

3713-05



NOTES:
1. INSTALL ASSEMBLY IN STRICT ACCORDANCE WITH MANUFACTURER'S INSTRUCTIONS.
2. PROVIDE AND INSTALL ADDITIONAL STEEL MULLIONS FOR MULTIPLE FIRE/SMOKE DAMPER ASSEMBLIES.
3. PROVIDE APPROPRIATE DUCT TRANSITIONS BETWEEN SCHEDULED DAMPER SIZE AND INDICATED DUCT SIZE.
4. PROVIDE RED IDENTIFICATION PAINT ON EXTERIOR OF DAMPER SLEEVE.
5. WHERE DAMPER BLADES MUST BE INSTALLED VERTICALLY, PROVIDE SPECIFICALLY LISTED VERTICAL INSTALLATION.

FIRE/SMOKE DAMPER INSTALLATION DETAIL

SCALE: NONE

3300-11

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Project:
TFSD DISTRICT WIDE HVAC REPLACEMENT

LINCOLN ELEMENTARY SCHOOL
238 BUHL ST N
TWIN FALLS, ID 83301

Sheet:
MECHANICAL DETAILS

BID SET

PROFESSIONAL ENGINEER LICENSED 20608 02/27/2025 STATE OF IDAHO LILLIAN J. JOHNSON

Revisions: △

Project No:	23028
Drawn By:	AK
Checked By:	MG
Date:	02/27/2025

Sheet No:
M5.01

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
				1/2"	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
	B 6x24"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" / 3'-0" FTR1 / 28	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	P/T	PRESSURE / TEMPERATURE TAP
	1	KITCHEN/OWNER/MEDICAL EQUIPMENT REFERENCE			STRAINER
		TYPICAL ROOM REFERENCE (TOP = RM #, BOTTOM = FLR)			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			

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.

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 PIPING WITH EQUIPMENT, STRUCTURE, ETC.
7. 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. 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.
4. REFER TO ARCHITECTURAL DRAWINGS FOR ROOF PENETRATION DETAILS.
5. REFER TO ARCHITECTURAL DRAWINGS FOR FIXTURE ELEVATIONS AND LOCATIONS.
6. SEE ARCHITECTURAL CONSTRUCTION DOCUMENTS FOR DIMENSIONED LOCATION OF PLUMBING FIXTURES AND WALLS.
7. PROVIDE CLEANOUTS IN ACCESSIBLE LOCATIONS PER THE PROJECT SPECIFICATIONS AND LOCAL PLUMBING CODES.

PLUMBING SPECIALTY SCHEDULE

NOTES:
1.

DESIG.	FIXTURE TYPE	LOCATION	MANUFACTURER	MODEL #	REMARKS
DSN-1	DOWNSPOUT NOZZLE	EXTERIOR WALL	J.R. SMITH	1775-CP	CHROME PLATED BRASS FINISH WITH WALL FLANGE
OD-1	OVERFLOW ROOF DRAIN	ROOF	J.R. SMITH	1070	CAST IRON DRAIN WITH CAST IRON DOME STRAINER, PROVIDE DECK CLAMP ASSEMBLY & DRAIN RECEIVER ASSEMBLY AS REQUIRED
RD-1	ROOF DRAIN	ROOF	J.R. SMITH	1010	CAST IRON DRAIN WITH CAST IRON DOME STRAINER, PROVIDE DECK CLAMP ASSEMBLY & DRAIN RECEIVER ASSEMBLY AS REQUIRED

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Project:
TFSD DISTRICT WIDE HVAC REPLACEMENT

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Sheet:
PLUMBING LEGENDS, NOTES & SCHEDULES

BID SET

PROFESSIONAL ENGINEER LICENSED 20608 3/27/2025 STATE OF IDAHO LILIAN J. JOHNSON

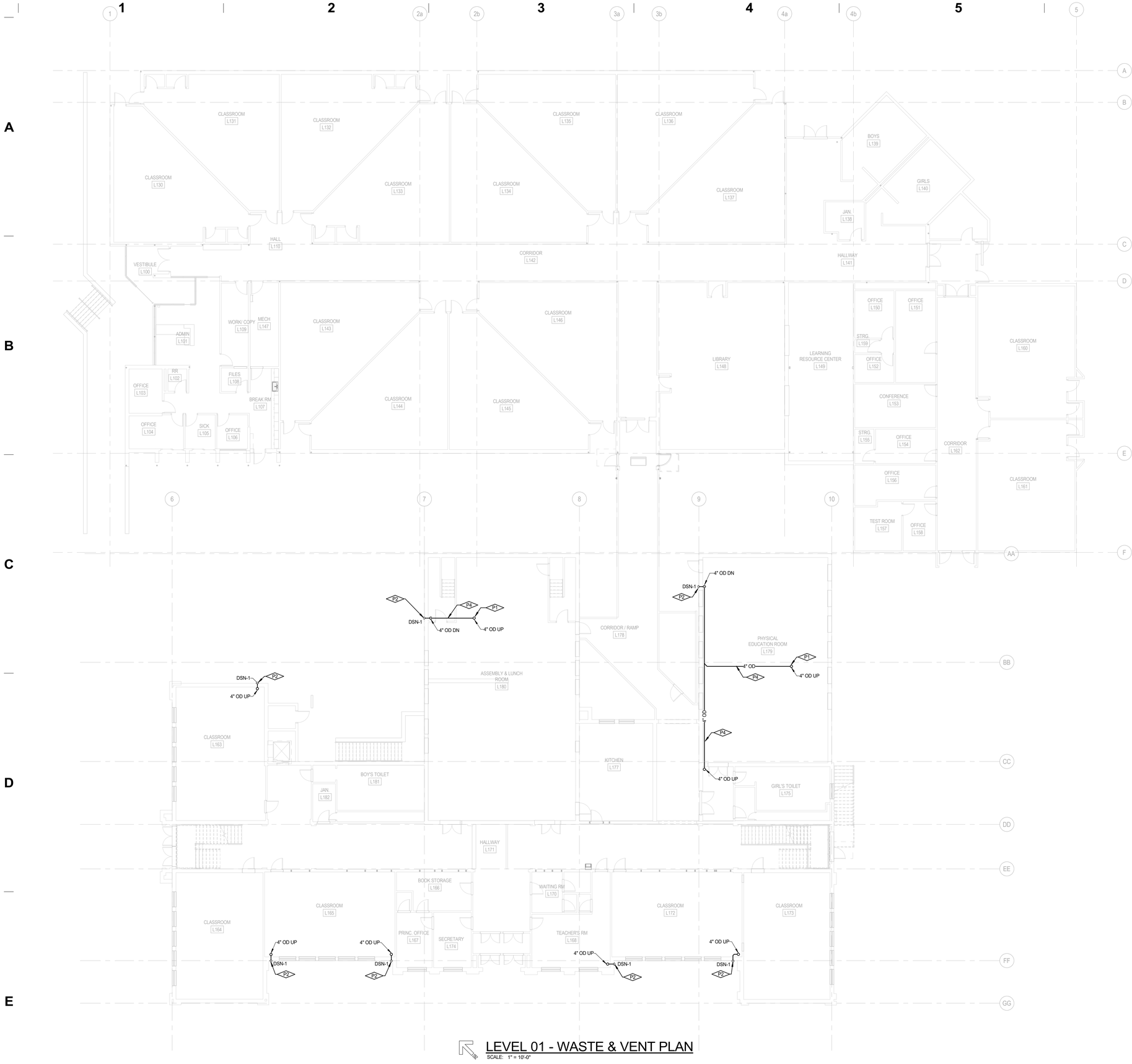
Revisions:

Project No:	23028
Drawn By:	AK
Checked By:	MG
Date:	02/27/2025

Sheet No:
P0.01

KEYNOTES

P1	EXTEND NEW OVERFLOW DRAIN PIPING UP TO NEW OVERFLOW DRAIN ABOVE. REFER TO SHEET M2.03.
P2	INSTALL NEW DOWNSPOUT NOZZLE INTO EXISTING EXTERIOR WALL. DISCHARGE APPROXIMATLEY 18" ABOVE FINISHED GRADE. REFER TO ARCHITECTURAL DRAWINGS.
P4	KEEP PIPING AS HIGH AS POSSIBLE. FIELD VERIFY LOCATION FOR PIPING.



LEVEL 01 - WASTE & VENT PLAN

SCALE: 1" = 10'-0"

1"

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

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Project:
TFSD DISTRICT WIDE HVAC REPLACEMENT

LINCOLN ELEMENTARY SCHOOL
238 BUHL ST N
TWIN FALLS, ID 83301

Sheet:
LEVEL 01 - WASTE & VENT PLAN

BID SET

Revisions:

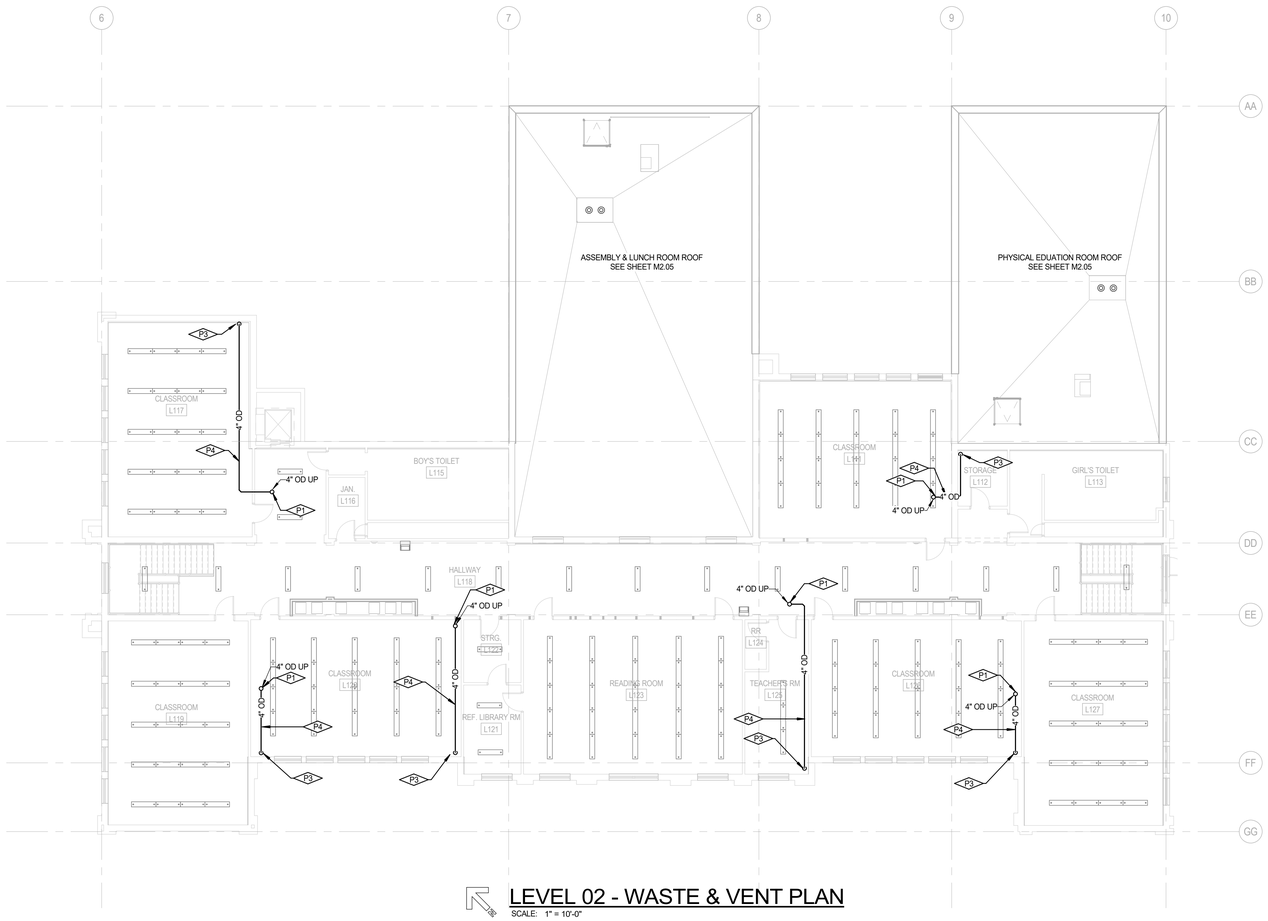
PROFESSIONAL ENGINEER LICENSED 20608 02/27/2025 STATE OF IDAHO LILIAN J. JOHNSON

Project No:	23028
Drawn By:	AK
Checked By:	MG
Date:	02/27/2025

Sheet No:
P2.01

KEYNOTES

P1	EXTEND NEW OVERFLOW DRAIN PIPING UP TO NEW OVERFLOW DRAIN ABOVE. REFER TO SHEET M2.03.
P3	DROP OVERFLOW DRAIN PIPING DOWN TO THE FIRST FLOOR BELOW.
P4	KEEP PIPING AS HIGH AS POSSIBLE. FIELD VERIFY LOCATION FOR PIPING.



LEVEL 02 - WASTE & VENT PLAN

SCALE: 1" = 10'-0"

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

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Project:
TFSD DISTRICT WIDE HVAC REPLACEMENT

LINCOLN ELEMENTARY SCHOOL
238 BUHL ST N
TWIN FALLS, ID 83301

Sheet:
LEVEL 02 - WASTE & VENT PLAN

BID SET

PROFESSIONAL ENGINEER LICENSED 20608 02/27/2025 STATE OF IDAHO LILLIAN J. JOHNSON

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Date:	02/27/2025

Sheet No:
P2.02

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
				SLOPE	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 / X-X	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	T.P.	PRESSURE AND/OR TEMPERATURE RELIEF VALVE
	B 8x24"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
	Z'-0" / 3'-0" FTR 28	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
	KEY NOTE REFERENCE		P/T	P/T	PRESSURE / TEMPERATURE TAP
	KITCHEN/OWNER/MEDICAL EQUIPMENT REFERENCE				STRAINER
	TYPICAL ROOM REFERENCE (TOP = RM #, BOTTOM = FLR)				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			

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

ABBR.	SYMBOL	DESCRIPTION	ABBR.	SYMBOL	DESCRIPTION
F	F	FIRE SERVICE PIPING			NEW SPRINKLER HEAD
O.S.&Y.		O.S.&Y. GATE VALVE W/ TAMPER SWITCH			EXISTING SPRINKLER HEAD
FS	FS	FLOW SWITCH			RELOCATED SPRINKLER HEAD
PIV		POST INDICATOR VALVE			SIDEWALL SPRINKLER HEAD
FDC		FIRE DEPARTMENT CONNECTION		D24	DRY SPRINKLER HEAD (SHAFT LENGTH)
			FHC		FIRE HOSE CABINET
			FVC		FIRE VALVE CABINET
			A/S		AUTOMATIC FIRE SPRINKLER

FIRE PROTECTION NOTES:

1. FURNISH ALL LABOR, MATERIALS, EQUIPMENT AND SERVICES NECESSARY FOR THE INSTALLATION OF A COMPLETE AND PROPERLY FUNCTIONING FIRE PROTECTION SYSTEM.
2. THE FIRE PROTECTION WORK INVOLVES ENGINEERING AND DESIGN BY THE CONTRACTOR TO DETERMINE THE EXTENT OF NEW WORK AND THE MODIFICATION AND EXTENSION OF EXISTING SYSTEMS TO PROVIDE FULL COVERAGE TO THE PROJECT AREA SHOWN ON THESE AND THE ARCHITECTURAL PLANS.
3. THE INFORMATION PRESENTED ON THESE DRAWINGS IS DIAGRAMMATIC. IT DOES NOT NECESSARILY REPRESENT ALL ELBOWS, OFFSETS, HANGERS, ETC., REQUIRED FOR A COMPLETE WORKING SYSTEM.
4. ALL FIRE PROTECTION SYSTEMS INSTALLED SHALL BE IN ACCORDANCE WITH NFPA-13, 14, 20, ETC. AND LOCAL BUILDING CODES AND ORDINANCES.
5. FIRE PROTECTION CONTRACTOR SHALL COORDINATE THE LOCATION OF ALL NEW FIRE PROTECTION EQUIPMENT AND PIPING WITH ALL OTHER TRADES PRIOR TO SUBMITTAL OF SHOP DRAWINGS AND SYSTEM INSTALLATION, SO AS NOT TO INTERFERE WITH THE ROUTING OF NEW DUCTWORK, PLUMBING PIPING, ETC.
6. PROVIDE ALL FITTINGS, RISER NIPPLES, ARM-OVERS, HANGERS, ETC. TO MAINTAIN CONFORMANCE WITH APPLICABLE STANDARDS AND TO POSITION THE SPRINKLERS IN THE PROPER LOCATIONS.
7. SEAL ALL PIPE PENETRATIONS THROUGH FIRE RATED WALLS AND CEILINGS WITH FIRE STOPPING MATERIALS AS REQUIRED.
8. FOR REMODEL AREAS NEW SPRINKLERS SHALL MATCH EXISTING SPRINKLERS.
9. PROVIDE WORKING DRAWINGS AND HYDRAULICALLY CALCULATE THIS FIRE SPRINKLER SYSTEM PER NFPA-13 WHERE REQUIRED BY THE LOCAL AUTHORITY HAVING JURISDICTION.
10. PROVIDE FIELD COORDINATION OF PIPING AND SPRINKLER INSTALLATIONS WITH DUCTWORK, LIGHTS, SMOKE DETECTORS, DIFFUSERS, ETC.

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Project:
TFSD DISTRICT WIDE HVAC REPLACEMENT

LINCOLN ELEMENTARY SCHOOL
238 BUHL ST N
TWIN FALLS, ID 83301

Sheet:
FIRE PROTECTION LEGENDS & NOTES

BID SET

PROFESSIONAL ENGINEER LICENSED 20608 02/27/2025 STATE OF IDAHO JULIAN J. JOHNSON

Revisions: △

Project No:	23028
Drawn By:	AK
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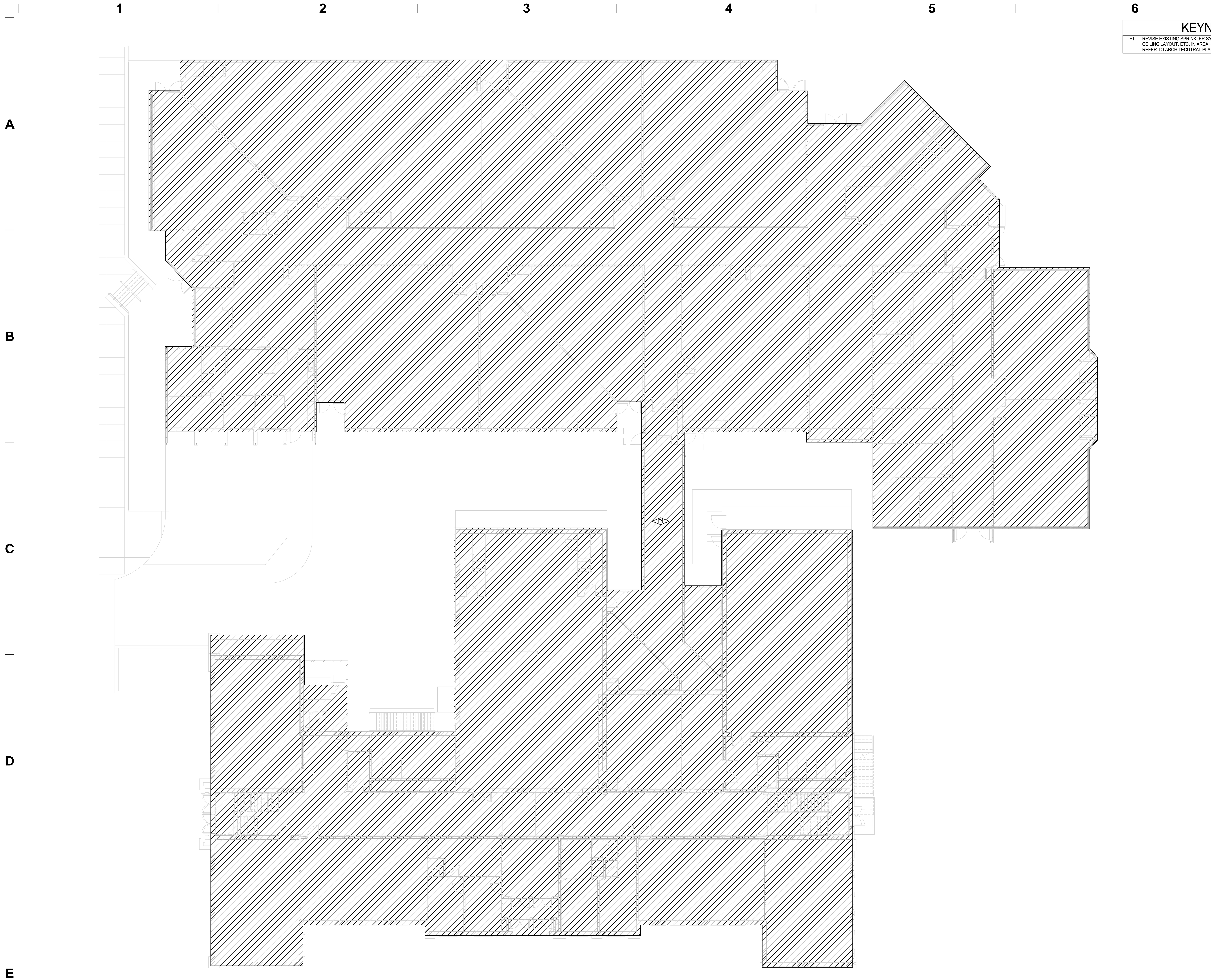
Date:	02/27/2025

Sheet No:
F0.01

KEYNOTES

F1	REVISE EXISTING SPRINKLER SYSTEM LAYOUT TO MATCH NEW WALLS, CEILING LAYOUT, ETC. IN AREA HATCHED. MATCH EXISTING HEADS. REFER TO ARCHITECUTRAL PLANS FOR ACTUAL AREAS REMODELED.



LEVEL 1 FIRE PROTECTION PLAN
SCALE: 1" = 10'-0"

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

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Boise, Idaho 83702
208.343.7523

482 Constitution Way,
Suite 111
Idaho Falls, ID 83402
208.343.7523

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Project:
TFSD DISTRICT WIDE HVAC REPLACEMENT

LINCOLN ELEMENTARY SCHOOL
238 BUHL ST N
TWIN FALLS, ID 83301

Sheet:
LEVEL 01 - FIRE PROTECTION PLAN

BID SET

PROFESSIONAL ENGINEER LICENSED 20608 2/27/2025 STATE OF IDAHO LILLIAN J. JOHNSON

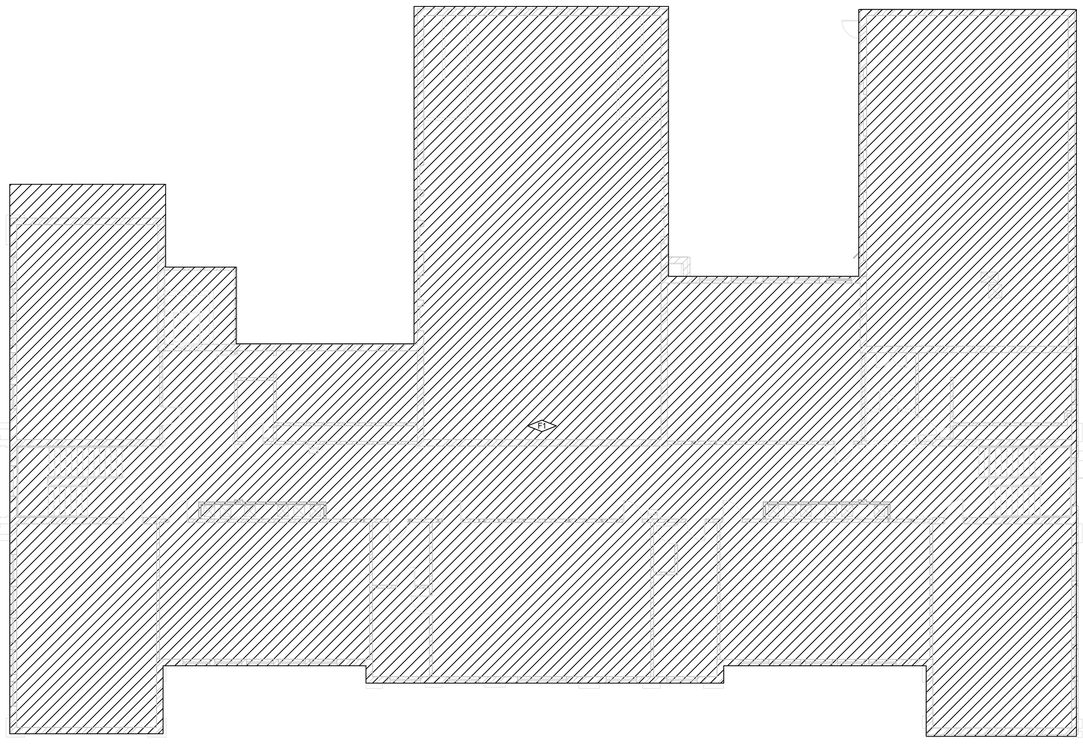
Revisions:

Project No:	23028
Drawn By:	AK
Checked By:	MG
Date:	02/27/2025

Sheet No:
F1.01

KEYNOTES

F1	REVISE EXISTING SPRINKLER SYSTEM LAYOUT TO MATCH NEW WALLS, CEILING LAYOUT, ETC. IN AREA HATCHED. MATCH EXISTING HEADS. REFER TO ARCHITECUTRAL PLANS FOR ACTUAL AREAS REMODELED.



LEVEL 2 FIRE PROTECTION PLAN
SCALE: 1" = 10'-0"

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

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 DISTRICT WIDE HVAC REPLACEMENT

LINCOLN ELEMENTARY SCHOOL
238 BUHL ST N
TWIN FALLS, ID 83301

Sheet:
LEVEL 02 - FIRE PROTECTION PLAN

BID SET

PROFESSIONAL ENGINEER LICENSED 20608 02/27/2025 STATE OF IDAHO LILLIAN J. JOHNSON

Revisions:

Project No:	23028
Drawn By:	AK
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Sheet No:
F1.02

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		THERMOSTAT
	ENCLOSED CIRCUIT BREAKER	GANN	GENERATOR ANNUNCIATOR PANEL
	TOGGLE SWITCH		UTILITY METER
			POWER POLE

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_{PL}	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)		FIRE ALARM STROBE (cd= CANDELA RATING 15, 30, 75, 95, 110, 177)
TPR	FIRE ALARM TRANSPONDER PANEL		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_B S_A	SMOKE DETECTOR (P=PHOTOELECTRIC, SB=WITH SOUNDER BASE, BR=BEAM RECEIVER, BT=BEAM TRANSMITTER)	C M	MASS NOTIFICATION SPEAKER (C = CEILING MOUNT))
SW SW	SMOKE ALARM (120 VAC SINGLE STATION)	RA	RESCUE ASSISTANCE TELEPHONE STATION
H_A H_A	HEAT DETECTOR (F = FIXED TEMPERATURE, R = RATE OF RISE)	X	FIRE FIGHTER TELEPHONE (J = JACK, H = HANDSET)
S	DUCT SMOKE DETECTOR S=SUPPLY, R=RETURN	DH DH	MAGNETIC DOOR HOLD
BTS	DUCT DETECTOR REMOTE INDICATOR ALARM AND TEST	VS	TAMPER SWITCH
	REMOTE INDICATOR LIGHT	WT	FLOW DETECTOR SWITCH
S	FIRE/SMOKE DAMPER	PS	PRESSURE SWITCH
S	SMOKE DAMPER	SS	SURGE SUPPRESSOR
CO CO	CARBON MONOXIDE ALARM/DETECTOR	H_A H_A	FLAME DETECTOR (UV=ULTRAVIOLET, IR=INFRARED)

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

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

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
T/C ##	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
	METER	GFI	GROUND FAULT INTERRUPTER
	EQUIPMENT ENCLOSURE	SPD	SURGE PROTECTIVE DEVICE
	SERVICE WEATHERHEAD		SHUNT TRIP
ISCA	SHORT CIRCUIT CURRENT AVAILABLE		TERMINATIONS LB=LOAD BREAK, NLB=NO LOAD BREAK
A	KIRK KEY INTERLOCK, SUBSCRIPT INDICATES INTERLOCKED GROUP		DRAW-OUT DEVICE
A	ELECTRICAL INTERLOCK, SUBSCRIPT INDICATES INTERLOCKED GROUP		PLUG-IN DEVICE
	MECHANICAL INTERLOCK	ED	ELECTRICALLY OPERATED

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. NO RECEPTACLES SHALL BE MOUNTED BELOW +18" AFF.
6. PROVIDE A DEDICATED NEUTRAL CONDUCTOR FOR EACH 120V CIRCUIT.
7. 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.
8. 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 COVER/PLATE AHEAD OF INACCESSIBLE RECEPTACLES. MOUNT ADJACENT TO EQUIPMENT AT SWITCH HEIGHT UNLESS OTHERWISE SHOWN.
9. 120V POWER HAS BEEN SHOWN ON DRAWINGS TO J-BOXES IDENTIFIED FOR BAS CONTROLS, DAMPER ACTUATORS AND OTHER MISCELLANEOUS POWER TO OPERATE MECHANICAL CONTROLS AND DEVICES. COORDINATE ALL 120V REQUIREMENTS WITH MECHANICAL CONTROLS AND EQUIPMENT AND MAKE ALL CONNECTIONS REQUIRED TO THESE OR OTHER 120V MECHANICAL CIRCUITS AS REQUIRED. DO NOT CONNECT THESE LOADS TO OTHER CIRCUITS WITH LOADS OTHER THAN THOSE IDENTIFIED HERE.
10. ALL OUTDOOR AND ROOFTOP RECEPTACLES SHALL BE OUTDOOR RATED AND SHALL HAVE A WEATHERPROOF IN USE COVER.

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. EXISTING ONE-LINE DIAGRAM TAKEN FROM OWNER FURNISHED DRAWINGS AND/OR LIMITED FIELD OBSERVATIONS. EXISTING INFORMATION SHOWN OTHER THAN LOCATIONS IMPACTED BY NEW WORK HAS NOT BEEN VERIFIED.
4. COORDINATE MOUNTING, CONDUIT, WIRE, AND OCPD SIZE FOR SPD'S WITH MANUFACTURER'S INSTALLATION INSTRUCTIONS.

FIRE ALARM PLAN NOTES:

1. FIRE ALARM EQUIPMENT AND DEVICES SHOWN ON THESE DRAWING INDICATE THE INTENT, PERFORMANCE, AND SCOPE OF THE SYSTEM. THE FULL DESIGN OF THE FIRE ALARM SYSTEM SHALL BE DONE BY THE CONTRACTOR. THE CONTRACTOR SHALL PROVIDE A SHOP DRAWING SUBMITTAL FOR APPROVAL BY THE LOCAL FIRE DEPARTMENT AND/OR THE AUTHORITY HAVING JURISDICTION. THE CONTRACTOR SHALL ARRANGE TO HAVE THE FIRE ALARM SYSTEM SUBMITTAL SEALED AND SIGNED BY A REGISTERED PROFESSIONAL ENGINEER WHO WILL ASSUME THE DUTY OF ENGINEER OF RECORD FOR THE FIRE ALARM SYSTEM DESIGN. THE ELECTRICAL ENGINEER OF RECORD AT CATOR, RUMA & ASSOCIATES, CO. WILL NOT BE RESPONSIBLE FOR SEALING AND SIGNING THE FIRE ALARM SYSTEM SHOP DRAWING SUBMITTAL.
2. WALL OR CEILING MOUNT FIRE ALARM REMOTE INDICATORS ABOVE THE DOOR OF ASSOCIATED ROOMS AS SHOWN.
3. LOCATE SMOKE DETECTORS PER NFPA 72 AND MANUFACTURERS REQUIREMENTS. THE LOCATIONS OF SMOKE DETECTORS ON THE DRAWINGS ARE DIAGRAMMATIC ONLY. DETECTORS SHALL NOT BE PLACED WITHIN 3'-0" OF ANY CEILING MOUNTED HVAC SUPPLY AIR DEVICE.
4. PROVIDE GRAPHIC ZONE MAP/ANNUNCIATORS AND FIRE ALARM CONTROL UNITS AS SHOWN AND REQUIRED. SUBMIT SHOP DRAWINGS AND LOCATIONS TO ENGINEER AND BUILDING/FIRE DEPARTMENT(S) FOR REVIEW PRIOR TO INSTALLATION. REFER TO SPECIFICATIONS FOR ADDITIONAL INFORMATION.
5. NEW FIRE ALARM DEVICES SHALL MATCH EXISTING, UNLESS NOTED OTHERWISE. PROVIDE RE-PROGRAMMING OF SYSTEM AS REQUIRED TO ACCOMMODATE NEW DEVICES. REVISE EXISTING ANNUNCIATOR(S) AND GRAPHIC ZONE MAP(S) TO REFLECT PROJECT FIRE ALARM AND ARCHITECTURAL MODIFICATIONS. UPDATE GRAPHIC ZONE MAPS IN BOTH THE FIRE COMMAND CENTER AND ON THIS FLOOR AS REQUIRED. SUBMIT TO ENGINEER AND BUILDING/FIRE DEPARTMENTS FOR REVIEW PRIOR TO INSTALLATION.

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. DO NOT ROUTE CONDUIT WITHIN STRUCTURAL OR TOPPING SLABS OF FLOORS UNLESS SPECIFICALLY NOTED OTHERWISE AND WRITTEN APPROVAL IS OBTAINED FROM THE STRUCTURAL ENGINEER.
5. FIRE SEAL ALL FIRE RATED WALL AND FLOOR PENETRATIONS. REFER TO ARCHITECTURAL DRAWINGS FOR FIRE RATED WALLS.
6. COORDINATE EXACT REQUIREMENTS AND LOCATIONS OF MECHANICAL EQUIPMENT WITH MECHANICAL DRAWINGS AND MECHANICAL CONTRACTOR PRIOR TO ROUGH-IN AND ORDERING MATERIALS OR EQUIPMENT.
7. 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.
8. FIELD LOCATE EXISTING UNDERGROUND PUBLIC AND OWNER UTILITIES OF ALL TRADES AND BUILDING GROUNDING/LIGHTNING PROTECTION SYSTEMS PRIOR TO ANY EXCAVATION. REPLACE OR REPAIR DAMAGED UTILITIES AND GROUNDING/LIGHTNING PROTECTION SYSTEMS TO ORIGINAL CONDITION.
9. PROVIDE SEPARATE INSULATED EQUIPMENT GROUNDING CONDUCTOR IN ALL FEEDER, HOMERUN AND BRANCH CIRCUITS.

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. WHERE EXISTING CONDUITS ARE SHOWN TO BE REMOVED AND HAVE BEEN ROUTED IN CONCRETE FLOOR SLABS, CONCRETE WALLS OR CONCRETE CEILINGS, THEY SHALL BE CUT BACK FLUSH WITH CONCRETE. FILL WITH GROUT TO ACHIEVE A SMOOTH AND EVEN FINISH FLUSH WITH CONCRETE SURFACE AFTER CONDUCTORS HAVE BEEN REMOVED.
5. 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.
6. 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.

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 DISTRICT WIDE HVAC REPLACEMENT

LINCOLN ELEMENTARY SCHOOL
238 BUHL ST N
TWIN FALLS, ID 83301

Sheet:
ELECTRICAL LEGENDS & NOTES

BID SET

Revisions:

PROFESSIONAL ENGINEER LICENSED 17703 02/27/2025 STATE OF IDAHO KYLE E. OLSON
Electrical

Project No:	23028
Drawn By:	JS
Checked By:	KO
Date:	02/27/2025

Sheet No: E0.01

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. SUSPEND FIXTURES SO THE BOTTOM OF FIXTURE ALIGNS WITH THE BOTTOM OF THE DATA TRAY.

TYPE	DESCRIPTION	LAMP		BALLAST/DRIVER			APPARENT LOAD	MANUFACTURER	CATALOG SERIES	FINISH	MOUNTING	REMARKS
		COLOR	LUMENS	TYPE	DIM LEVEL	VOLTAGE						
D	6" RECESSED LED, CAN LIGHT, 1000 LM, 80+ CRI, 3500 K, 0-10V DIMMING	3500K	1000 LM	0-10V	1%	120 V	10 VA	LIGHTOLIER	6RN	WHITE	RECESSED	
L2	4'LX2'W SUSPENDED LINEAR, DIRECT HIGH-EFFICIENCY LAMBERTIAN OPTIC, INDIRECT WIDESPREAD OPTIC, FLUSH LENS, STATIC WHITE, 80 CRI	3500K	350 L/FT D	0-10V	1%	120 V	17 VA	FINELITE	HP-2	WHITE	SUSPENDED	1
L2E	SAME AS L2 WITH ADDED EMERGENCY BATTERY	-	-	-	-	120 V	17 VA	-	-	-	-	1
T1	4X2 RECESSED TROFFER, ANGLED BASKET, 3500K, 3700 LUMENS, 0-10V DIMMING DRIVER TO 1%,	3500K	3700 LM	0-10V	1%	120 V	27 VA	FINELITE	HPR LED	WHITE	RECESSED	
T1E	SAME AS T1 WITH ADDED EMERGENCY BATTERY	-	-	-	-	120 V	27 VA	-	-	-	-	
X1	CEILING MOUNTED SINGLE FACED EXIT SIGN, THERMOPLASTIC EXIT SIGN, FIELD REMOVABLE CHEVRON DIRECTIONAL INDICATORS PER PLANS	GREEN	-	-	-	120 V	3 VA	MULE	UX	WHITE	UNIVERSAL	

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.

SPECIFIC REMARKS:

1. TIE LIGHTING INTO EXISTING BUILDING LIGHTING CONTOLS.

KEY:

ON / OFF CONTROL	M = MANUAL (SWITCH), A = AUTOMATIC (SENSOR), T = TIME SCHEDULE, P = EXTERIOR PHOTOCELL, #% = CONTROL TO #% LIGHT LEVEL
OCC / VAC DAYLIGHT	0-10V DIMMING, ELV DIMMING, STEP DIMMING, DMX CONTROL DT = DUAL TECHNOLOGY, PIR = PASSIVE INFRARED, CLG = CEILING MOUNT, WALL = WALL CORNER MOUNT, SW = INTEGRAL TO WALL SWITCH 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		RCPT CONTROL	INTERFACE	NETWORK	EMERGENCY	REMARKS
					TECH	MOUNT	DELAY (MIN.)	TARGET LEVEL (FC)	MEASURED HEIGHT (IN.)					
LC1	CORRIDOR			0-10V										1
LC2	LIBRARY	A	A	0-10V	DT	CLG	20						X	
LC6	STORAGE	M	A		PIR	SW	5							
LC8	PRIVATE OFFICE	M	A	0-10V	DT	SW	5			X				
LC9	CONFERENCE ROOM	M	A	0-10V	DT	CLG	20			X			X	
LC10	OPEN OFFICE	M	A	0-10V	DT	CLG	20			X			X	
LC13	CLASSROOM	M	A	0-10V	DT	CLG	20						X	

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.

KEY	ITEM	DESCRIPTION	MANUFACTURER	CATALOG SERIES	FINISH	REMARKS
HT-1	HEAT TRACE	PROVIDE SELF-REGULATING HEAT CABLE. MANUFACTURER AS NOTED OR SIMILAR. IN STAR PATTERN AROUND ROOF DRAINS AND OVERFFLOW DRAINS AND 3' LEG DOWN DRAIN.	RAYCHEM	nVENT		

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:

1. PROVIDE DUCT SMOKE DETECTOR DEVICES FOR EACH RTU 2000 CFM OR GREATER. PROVIDE CONNECTION TO EXISTING FIRE ALARM SYSTEM FACP, AND INTERCONNECT FROM DEVICE TO RTU CONTROL PANEL FOR EQUIPMENT SHUTDOWN UPON ALARM SIGNAL.
2. ROOF TOP UNIT AND POWERED EXHAUST FAN NUMBERED THE SAME SERVICED BY SAME BRANCH CIRCUIT. REFER TO ROOFTOP UNIT / POWERED EXHAUST FAN CONNECTION DETAIL.
3. POWERED EXHAUST FAN SECTION PROVIDED WITH MANUFACTURER FURNISHED VFD AND FUSED DISCONNECT.

KEY	#	ITEM	HP	FLA	LOAD	EQ LOAD (VA)	VOLTAGE	FEEDERS			PROTECTION			REMARKS
								WIRE	GROUND	CONDUIT	BREAKER	DISCONNECT	FUSE	
EBBR	1	ELECTRIC BASEBOARD HEATER	0	0 A	2000 VA	2000 VA	208 V/ 1ph	2#12	#12G	3/4"	20 A	S		
ECUH	1	ELECTRIC UNIT HEATER	0	0 A	3000 VA	3000 VA	208 V/ 3ph	3#12	#12G	3/4"	15 A	30 A	12 A	
ECUH	2	ELECTRIC UNIT HEATER	0	0 A	1500 VA	1500 VA	120 V/ 1ph	2#12	#12G	3/4"	20 A	S		
EF	1	EXHAUST FAN	0.25	0 A	0 VA	696 VA	120 V/ 1ph	2#12	#12G	3/4"	20 A	S		
EF	2	EXHAUST FAN	0.1	2 A	0 VA	180 VA	120 V/ 1ph	2#12	#12G	3/4"	20 A	S		
EF	3	EXHAUST FAN	0.07	1 A	0 VA	156 VA	120 V/ 1ph	2#12	#12G	3/4"	20 A	S		
EUH	1	ELECTRIC UNIT HEATER	0	0 A	7500 VA	7500 VA	208 V/ 3ph	3#10	#10G	3/4"	30 A	30 A	30 A	
PEF	1	POWERED EXHAUST FAN	0.5	0 A	0 VA	865 VA	208 V/ 3ph	3#6	#10G	3/4"	40 A	60 A	5 A	2,3
PEF	2	POWERED EXHAUST FAN	0.5	0 A	0 VA	865 VA	208 V/ 3ph	3#6	#10G	3/4"	40 A	60 A	5 A	2,3
PEF	3	POWERED EXHAUST FAN	0.5	0 A	0 VA	865 VA	208 V/ 3ph	3#6	#10G	3/4"	40 A	60 A	5 A	2,3
PEF	4	POWERED EXHAUST FAN	0.5	0 A	0 VA	865 VA	208 V/ 3ph	3#6	#10G	3/4"	40 A	60 A	5 A	2,3
PEF	5	POWERED EXHAUST FAN	0.5	0 A	0 VA	865 VA	208 V/ 3ph	3#6	#10G	3/4"	40 A	60 A	5 A	2,3
PEF	6	POWERED EXHAUST FAN	0.5	0 A	0 VA	865 VA	208 V/ 3ph	3#6	#10G	3/4"	40 A	60 A	5 A	2,3
PEF	7	POWERED EXHAUST FAN	0.5	0 A	0 VA	865 VA	208 V/ 3ph	3#6	#10G	3/4"	40 A	60 A	5 A	2,3
PEF	8	POWERED EXHAUST FAN	0.5	0 A	0 VA	865 VA	208 V/ 3ph	3#8	#10G	1"	40 A	60 A	5 A	2,3
PEF	9	POWERED EXHAUST FAN	0.5	0 A	0 VA	865 VA	208 V/ 3ph	3#8	#10G	1"	40 A	60 A	5 A	2,3
PEF	10	POWERED EXHAUST FAN	0.5	0 A	0 VA	865 VA	208 V/ 3ph	3#8	#10G	1"	40 A	60 A	5 A	2,3
PEF	11	POWERED EXHAUST FAN	0.5	0 A	0 VA	865 VA	208 V/ 3ph	3#8	#10G	1"	40 A	60 A	5 A	2,3
PEF	12	POWERED EXHAUST FAN	0.5	0 A	0 VA	865 VA	208 V/ 3ph	3#8	#10G	1"	40 A	60 A	5 A	2,3
PEF	13	POWERED EXHAUST FAN	0.5	0 A	0 VA	865 VA	208 V/ 3ph	3#8	#10G	1"	40 A	60 A	5 A	2,3
PEF	14	POWERED EXHAUST FAN	0.5	0 A	0 VA	865 VA	208 V/ 3ph	3#8	#10G	1"	40 A	60 A	5 A	2,3
PEF	15	POWERED EXHAUST FAN	0.5	0 A	0 VA	865 VA	208 V/ 3ph	3#8	#10G	1"	40 A	60 A	5 A	2,3
PEF	16	POWERED EXHAUST FAN	0.5	0 A	0 VA	865 VA	208 V/ 3ph	3#6	#10G	3/4"	40 A	60 A	5 A	2,3
PEF	17	POWERED EXHAUST FAN	0.5	0 A	0 VA	865 VA	208 V/ 3ph	3#6	#10G	3/4"	40 A	60 A	5 A	2,3
PEF	18	POWERED EXHAUST FAN	0.5	0 A	0 VA	865 VA	208 V/ 3ph	3#6	#10G	3/4"	40 A	60 A	5 A	2,3
PEF	19	POWERED EXHAUST FAN	0.5	0 A	0 VA	865 VA	208 V/ 3ph	3#4	#10G	1"	45 A	45 A	5 A	2,3
PEF	20	POWERED EXHAUST FAN	0.5	0 A	0 VA	865 VA	208 V/ 3ph	3#6	#10G	1"	45 A	45 A	5 A	2,3
PEF	21	POWERED EXHAUST FAN	0.5	0 A	0 VA	865 VA	208 V/ 3ph	3#6	#10G	1"	45 A	45 A	5 A	2,3
PEF	22	POWERED EXHAUST FAN	0.5	0 A	0 VA	865 VA	208 V/ 3ph	3#6	#10G	1"	45 A	45 A	5 A	2,3
PEF	23	POWERED EXHAUST FAN	0.5	0 A	0 VA	865 VA	208 V/ 3ph	3#6	#10G	1"	45 A	45 A	5 A	2,3
PEF	24	POWERED EXHAUST FAN	0.5	0 A	0 VA	865 VA	208 V/ 3ph	3#6	#10G	1"	45 A	45 A	5 A	2,3
PEF	25	POWERED EXHAUST FAN	0.5	0 A	0 VA	865 VA	208 V/ 3ph	3#6	#10G	1"	45 A	45 A	5 A	2,3
PEF	26	POWERED EXHAUST FAN	0.5	0 A	0 VA	865 VA	208 V/ 3ph	3#6	#10G	1"	45 A	45 A	5 A	2,3
PEF	27	POWERED EXHAUST FAN	0.5	0 A	0 VA	865 VA	208 V/ 3ph	3#6	#10G	1"	45 A	45 A	5 A	2,3
PEF	28	POWERED EXHAUST FAN	0.5	0 A	0 VA	865 VA	208 V/ 3ph	3#4	#10G	1-1/4"	45 A	45 A	5 A	2,3
PEF	29	POWERED EXHAUST FAN	0.5	0 A	0 VA	865 VA	208 V/ 3ph	3#4	#10G	1-1/4"	45 A	45 A	5 A	2,3
PEF	30	POWERED EXHAUST FAN	0.5	0 A	0 VA	865 VA	208 V/ 3ph	3#6	#10G	1"	45 A	45 A	5 A	2,3
PEF	31	POWERED EXHAUST FAN	0.5	0 A	0 VA	865 VA	208 V/ 3ph	3#4	#10G	1-1/4"	45 A	45 A	5 A	2,3
PEF	32	POWERED EXHAUST FAN	0.5	0 A	0 VA	865 VA	208 V/ 3ph	3#4	#10G	1-1/4"	45 A	45 A	5 A	2,3
PEF	33	POWERED EXHAUST FAN	0.5	0 A	0 VA	865 VA	208 V/ 3ph	3#6	#10G	1"	50 A	60 A	5 A	2,3
PEF	34	POWERED EXHAUST FAN	0.5	0 A	0 VA	865 VA	208 V/ 3ph	3#4	#10G	1-1/4"	50 A	60 A	5 A	2,3
PEF	35	POWERED EXHAUST FAN	0.5	0 A	0 VA	865 VA	208 V/ 3ph	3#2	#8G	1-1/4"	80 A	100 A	5 A	2,3
RTU	1	ROOF TOP UNIT	0	28 A	0 VA	10087 VA	208 V/ 3ph	3#6	#10G	3/4"	40 A	60 A	40 A	2
RTU	2	ROOF TOP UNIT	0	27 A	0 VA	9727 VA	208 V/ 3ph	3#6	#10G	3/4"	40 A	60 A	40 A	2
RTU	3	ROOF TOP UNIT	0	27 A	0 VA	9727 VA	208 V/ 3ph	3#6	#10G	3/4"	40 A	60 A	40 A	2
RTU	4	ROOF TOP UNIT	0	27 A	0 VA	9727 VA	208 V/ 3ph	3#6	#10G	3/4"	40 A	60 A	40 A	2
RTU	5	ROOF TOP UNIT	0	27 A	0 VA	9727 VA	208 V/ 3ph	3#6	#10G	3/4"	40 A	60 A	40 A	2
RTU	6	ROOF TOP UNIT	0	27 A	0 VA	9727 VA	208 V/ 3ph	3#6	#10G	3/4"	40 A	60 A	40 A	2
RTU	7	ROOF TOP UNIT	0	27 A	0 VA	9727 VA	208 V/ 3ph	3#6	#10G	3/4"	40 A	60 A	40 A	2
RTU	8	ROOF TOP UNIT	0	27 A	0 VA	9727 VA	208 V/ 3ph	3#8	#10G	1"	40 A	60 A	40 A	2
RTU	9	ROOF TOP UNIT	0	27 A	0 VA	9727 VA	208 V/ 3ph	3#8	#10G	1"	40 A	60 A	40 A	2
RTU	10	ROOF TOP UNIT	0	27 A	0 VA	9727 VA	208 V/ 3ph	3#8	#10G	1"	40 A	60 A	40 A	2
RTU	11	ROOF TOP UNIT	0	27 A	0 VA	9727 VA	208 V/ 3ph	3#8	#10G	1"	40 A	60 A	40 A	2
RTU	12	ROOF TOP UNIT	0	27 A	0 VA	9727 VA	208 V/ 3ph	3#8	#10G	1"	40 A	60 A	40 A	2
RTU	13	ROOF TOP UNIT	0	27 A	0 VA	9727 VA	208 V/ 3ph	3#8	#10G	1"	40 A	60 A	40 A	2
RTU	14	ROOF TOP UNIT	0	27 A	0 VA	9727 VA	208 V/ 3ph	3#8	#10G	1"	40 A	60 A	40 A	2
RTU	15	ROOF TOP UNIT	0	27 A	0 VA	9727 VA	208 V/ 3ph	3#8	#10G	1"	40 A	60 A	40 A	2
RTU	16	ROOF TOP UNIT	0	27 A	0 VA	9727 VA	208 V/ 3ph	3#6	#10G	3/4"	40 A	60 A	40 A	2
RTU	17	ROOF TOP UNIT	0	27 A	0 VA	9727 VA	208 V/ 3ph	3#6	#10G	3/4"	40 A	60 A	40 A	2
RTU	18	ROOF TOP UNIT	0	28 A	0 VA	10087 VA	208 V/ 3ph	3#6	#10G	3/4"	40 A	60 A	40 A	2
RTU	19	ROOF TOP UNIT	0	30 A	0 VA	10808 VA	208 V/ 3ph	3#4	#10G	1"	45 A	60 A	40 A	1,2
RTU	20	ROOF TOP UNIT	0	30 A	0 VA	10808 VA	208 V/ 3ph	3#6	#10G	1"	45 A	60 A	40 A	1,2
RTU	21	ROOF TOP UNIT	0	30 A	0 VA	10808 VA	208 V/ 3ph	3#6	#10G	1"	45 A	60 A	40 A	1,2
RTU	22	ROOF TOP UNIT	0	30 A	0 VA	10808 VA	208 V/ 3ph	3#6	#10G	1"	45 A	60 A	40 A	1,2
RTU	23	ROOF TOP UNIT	0	30 A	0 VA	10808 VA	208 V/ 3ph	3#6	#10G	1"	45 A	60 A	40 A	1,2
RTU	24	ROOF TOP UNIT	0	30 A	0 VA	10808 VA	208 V/ 3ph	3#6	#10G	1"	45 A	60 A	40 A	1,2
RTU	25	ROOF TOP UNIT	0	30 A	0 VA	10808 VA	208 V/ 3ph	3#6	#10G	1"	45 A	60 A	40 A	1,2
RTU	26	ROOF TOP UNIT	0	30 A	0 VA	10808 VA	208 V/ 3ph	3#6	#10G	1"	45 A	60 A	40 A	1,2
RTU	27	ROOF TOP UNIT	0	30 A	0 VA	10808 VA	208 V/ 3ph	3#6	#10G	1"	45 A	60 A	40 A	1,2
RTU	28	ROOF TOP UNIT	0	30 A	0 VA	10808 VA	208 V/ 3ph	3#4	#10G	1-1/4"	45 A	60 A	40 A	1,2
RTU	29	ROOF TOP UNIT	0	30 A	0 VA	10808 VA	208 V/ 3ph	3#4	#10G	1-1/4"	45 A	60 A	40 A	1,2
RTU	30	ROOF TOP UNIT	0	30 A	0 VA	10808 VA	208 V/ 3ph	3#6	#10G	1"	45 A	60 A	40 A	1,2
RTU	31	ROOF TOP UNIT	0	30 A	0 VA	10808 VA	208 V/ 3ph	3#4	#10G	1-1/4"	45 A	60 A	40 A	1,2
RTU	32	ROOF TOP UNIT	0	30 A	0 VA	10808 VA	208 V/ 3ph	3#4	#10G	1-1/4"	45 A	60 A	40 A	1,2
RTU	33	ROOF TOP UNIT	0	34 A	0 VA	12249 VA	208 V/ 3ph	3#6	#10G	1"	50 A	60 A	45 A	1,2
RTU	34	ROOF TOP UNIT	0	34 A	0 VA	12249 VA	208 V/ 3ph	3#4	#10G	1-1/4"	50 A	60 A	45 A	1,2
RTU	35	ROOF TOP UNIT	0	55 A	0 VA	19815 VA	208 V/ 3ph	3#2	#8G	1-1/4"	80 A	100 A	60 A	1,2

COMcheck Software Version COMcheckWeb

Interior Lighting Compliance Certificate

Project Information

Energy Code: 2018 IECC
Project Title: TFSD Lincoln
Project Type: Alteration

Construction Site:
238 Buhl St N
Twin Falls, Idaho 83301

Owner/Agent:
Hummel Architects
205 N 10th Street, Suite 300
Boise, Idaho 83702

Designer/Contractor:
Kyle Olson
Cator Ruma
420 S Orchard St
Boise, Idaho 83705
208.343.3663
KOlson@catorruma.com

Allowed Interior Lighting Power

A Area Category	B Floor Area (ft2)	C Allowed Watts / ft2	D Allowed Watts
1-Classrooms (Common Space Types:Classroom/Lecture/Training)	12620	0.96	12115
2-Corridors (Common Space Types:Corridor/Transition >=8 ft wide)	4158	0.66	2744
3-Storage Rooms (Common Space Types:Storage >=50 - <=1000 sq.ft.)	145	0.46	67
4-Library (Library:Reading Area)	2262	0.82	1855
5-Offices (Common Space Types:Office - Enclosed)	347	0.93	323
6-Open Offices (Common Space Types:Office - Open Plan)	568	0.81	460
7-Conference (Common Space Types:Conference/Meeting/Multipurpose)	242	1.07	259
		Total Allowed Watts =	17823

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)
Classrooms (Common Space Types: Classroom/Lecture/Training, 12620 sq.ft.)				
LED: T1: 2x4 LED Troffer: Other:	1	170	27	4590
Corridors (Common Space Types: Corridor/Transition >=8 ft wide, 4158 sq.ft.)				
LED: L2: 4' LED Linear Pendant: Other:	1	57	17	969
LED: D: 6" LED Recessed Downlight: Other:	1	1	10	10
Storage Rooms (Common Space Types: Storage >=50 - <=1000 sq.ft., 145 sq.ft.)				
LED: D: 6" LED Recessed Downlight: Other:	1	1	10	10
LED: T1: 2x4 LED Troffer: Other:	1	1	27	27
Library (Library: Reading Area, 2262 sq.ft.)				
LED: T1: 2x4 LED Troffer: Other:	1	24	27	648
Offices (Common Space Types: Office - Enclosed, 347 sq.ft.)				
LED: T1: 2x4 LED Troffer: Other:	1	7	27	189
Open Offices (Common Space Types: Office - Open Plan, 568 sq.ft.)				
LED: T1: 2x4 LED Troffer: Other:	1	7	27	189

Project Title: TFSD Lincoln
Data filename:
Report date: 02/26/25
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A Fixture ID : Description / Lamp / Wattage Per Lamp / Ballast	B Lamps/ Fixture	C # of Fixture	D Fixture Watt.	E (C X D)
Conference (Common Space Types: Conference/Meeting/Multipurpose, 242 sq.ft.)				
LED: T1: 2x4 LED Troffer: Other:	1	4	27	108
			Total Proposed Watts =	6740

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.

John Schindele - Electrical Designer — Name - Title
Signature
02/26/2025 — Date

Project Title: TFSD Lincoln
Data filename:
Report date: 02/26/25
Page 2 of 6

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 DISTRICT WIDE HVAC REPLACEMENT

LINCOLN ELEMENTARY SCHOOL
238 BUHL ST N
TWIN FALLS, ID 83301

Sheet:
ELECTRICAL SCHEDULES

BID SET

PROFESSIONAL ENGINEER LICENSED 17703 02/27/2025 STATE OF IDAHO KYLE E. OLSON
Electrical

Revisions: △

Project No:	23028
Drawn By:	JS
Checked By:	KO
Date:	02/27/2025

Sheet No:
E0.02

FEEDER SCHEDULE

NOTE: CONDUCTORS WITH 'AL' DESIGNATION ARE ALUMINUM TYPE XHHW-2 COMPACT 600V.

KEY	CONDUCTORS	C"
60.3G	3 # 4 , 1 # 10 G	1
100.4G	4 # 1 , 1 # 8 G	1 1/2
200.4G	4 # 3/0 , 1 # 6 G	2 1/2
400.4G	2 [4 # 3/0 , 1 # 3 G	2 1/2]
800.3G	3 [3 # 300 , 1 # 1/0 G	3]
2000.4	6 [4 # 500 , 1 # 250 G	3 1/2]
2000.4G	6 [4 # 500 , 1 # 250 G	3 1/2]

LINCOLN LOAD SUMMARY - 1200A SWBD

MAIN SWITCHBOARD RATING	2000 A
EXISTING PEAK DEMAND	126 KW
EXISTING PEAK DEMAND	350 A
NEC DEMAND FACTOR	x 125%
NEC CORRECTED PEAK DEMAND LOAD	438 A
ASSUMED DEMAND LOAD REMOVED	219 A
(LOAD REMOVED IS MECHANICAL EQUIPMENT, ASSUMED TO BE HALF THE EXISTING DEMAND)	
NEW LOAD ADDED	1233 A
NEW TOTAL SWBD LOAD	1452 A

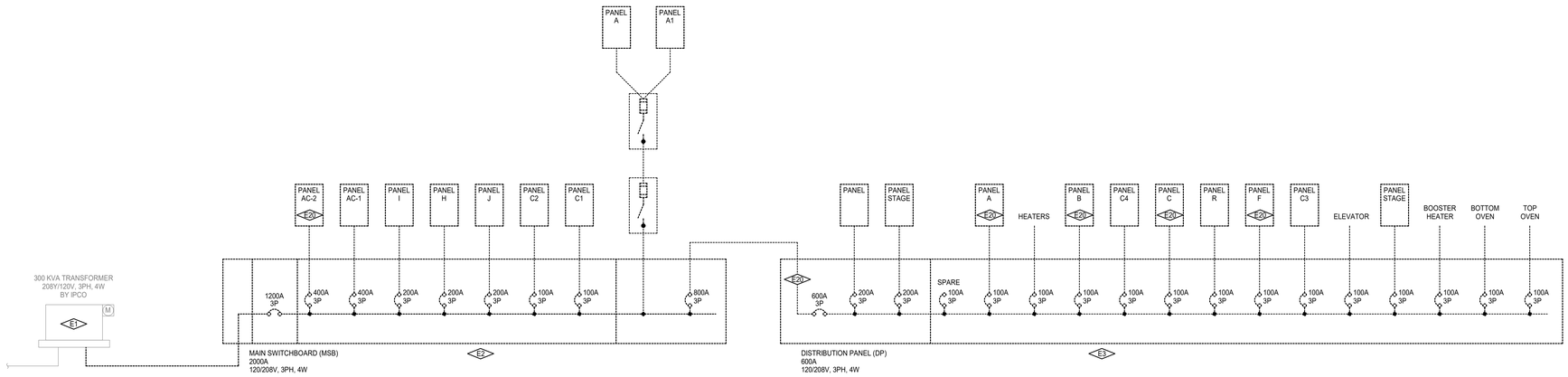
FAULT CURRENT CALCULATIONS *(UTILIZES THE BUSSMAN CALCULATION METHOD AND TABLES)*

CONTRACTOR IS RESPONSIBLE FOR ACTUAL FEEDER DISTANCES AND FIELD CONDITIONS IN PROJECT BID AND SCOPE.

Description	Voltage	Ph.	Length (FT)	# of Run(s)	Conductor "C" value	Available Fault Current (ISC)
At Utility Co						52,000
TO MDP	208	3	120	6	26706	39,278
TO AC-2	208	3	185	2	16483	13,863
TO AC-1	208	3	25	2	16483	31,479
TO I	208	3	180	1	16483	8,599
TO H	208	3	17	1	16483	29,379
TO J	208	3	26	1	16483	25,921
TO C2	208	3	205	1	8924	4,618
TO C1	208	3	32	1	8924	18,088
TO A1	208	3	211	1	16483	7,580
TO A2	208	3	209	1	16483	7,638
TO HVAC1	208	3	128	2	16483	17,315
TO RTU-1	208	3	133	1	2425	1,946
TO RTU-2	208	3	93	1	2425	2,654
TO RTU-3	208	3	133	1	2425	1,946
TO RTU-4	208	3	81	1	2425	2,980
TO RTU-5	208	3	122	1	2425	2,100
TO RTU-6	208	3	53	1	2425	4,175
TO RTU-7	208	3	108	1	2425	2,335
TO RTU-8	208	3	53	1	1557	2,934
TO RTU-9	208	3	101	1	1557	1,674
TO RTU-10	208	3	33	1	1557	4,273
TO HVAC2	208	3	132	2	16483	17,017
TO RTU-11	208	3	39	1	1557	3,744
TO RTU-12	208	3	35	1	1557	4,070
TO RTU-13	208	3	55	1	1557	2,836
TO RTU-14	208	3	42	1	1557	3,532
TO RTU-15	208	3	61	1	1557	2,600
TO RTU-16	208	3	132	1	2425	1,955
TO RTU-17	208	3	170	1	2425	1,558
TO RTU-18	208	3	79	1	2425	3,033
TO RTU-19	208	3	128	1	3806	2,954
TP DP1	208	3	187	3	18755	18,831
TO C5	208	3	18	1	16483	16,081
TO FRZ	208	3	114	1	16483	9,039
TO A	208	3	56	1	8924	9,497
TO B	208	3	74	1	8924	8,192
TO C4	208	3	33	1	8924	11,925
TO C	208	3	53	1	8924	9,756
TO R	208	3	35	1	8924	11,665
TO F	208	3	114	1	8924	6,275
TO C3	208	3	26	1	8924	12,931
TO T	208	3	82	1	8924	7,720
TO HVAC3	208	3	108	2	16483	12,445
TO RTU-20	208	3	68	1	2425	3,189
TO RTU-21	208	3	57	1	2425	3,625
TO RTU-22	208	3	54	1	2425	3,766
TO RTU-23	208	3	32	1	2425	5,260
TO RTU-24	208	3	46	1	2425	4,200
TO RTU-25	208	3	42	1	2425	4,456
TO RTU-26	208	3	53	1	2425	3,815
TO RTU-27	208	3	73	1	2425	3,024
TO RTU-28	208	3	101	1	3806	3,322
TO HVAC4	208	3	106	2	16483	12,524
TO RTU-29	208	3	137	1	3806	2,637
TO RTU-30	208	3	78	1	2425	2,879
TO RTU-31	208	3	138	1	3806	2,622
TO RTU-32	208	3	140	1	3806	2,592
TO RTU-33	208	3	73	1	2425	3,028
TO RTU-34	208	3	140	1	3806	2,592
TO RTU-35	208	3	162	1	5906	3,247

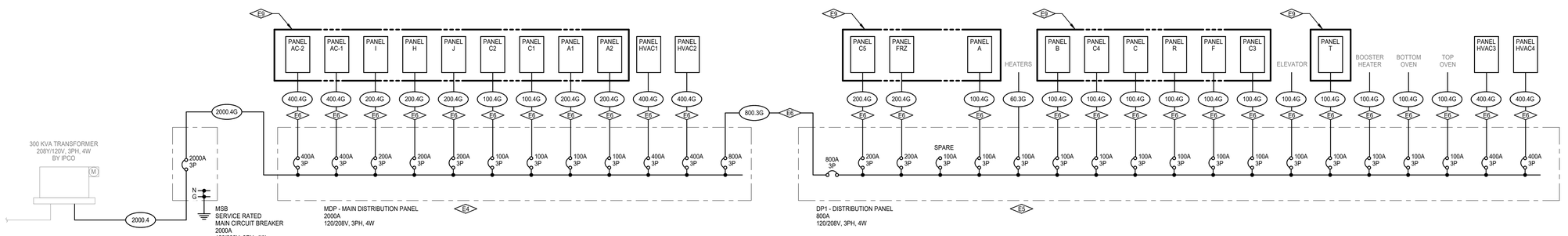
KEYNOTES

E1	EXISTING UTILITY TRANSFORMER TO REMAIN. COORDINATE WITH UTILITY FOR ALL WORK REQUIRED.
E2	SERVICE ENTRANCE SWITCHBOARD TO BE REMOVED AND REPLACED IN PLACE. DISCONNECT AND REMOVE EQUIPMENT AS NOTED.
E3	EXISTING DISTRIBUTION BOARD TO BE REMOVED AND REPLACED. DISCONNECT AND REMOVE EQUIPMENT AS NOTED.
E4	INSTALL NEW SERVICE ENTRANCE SWITCHBOARD AS NOTED IN PLANS.
E5	INSTALL NEW DISTRIBUTION BOARD AS NOTED IN PLANS.
E6	PROVIDE AND INSTALL NEW FEEDER. ROUTE ABOVE CEILING WHERE POSSIBLE. WHERE NOT POSSIBLE, ROUTE EXPOSED HIGH IN CEILING CAVITY AND ALONG WALLS.
E9	PROVIDE BID ALT FOR REPLACING OF ALL EXISTING PANELS WITH NEW.
E20	PROVIDE 3-PHASE DIGITAL RECORDING METER AT LOCATION INDICATED FOR A PERIOD OF 30 DAYS PRIOR TO START OF DEMOLITION OR CONSTRUCTION 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.



ELECTRICAL ONE-LINE DIAGRAM - DEMOLITION

SCALE: NONE



ELECTRICAL ONE-LINE DIAGRAM - NEW

SCALE: NONE

BID SET

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Sheet:
ELECTRICAL ONE-LINE DIAGRAM

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Electrical

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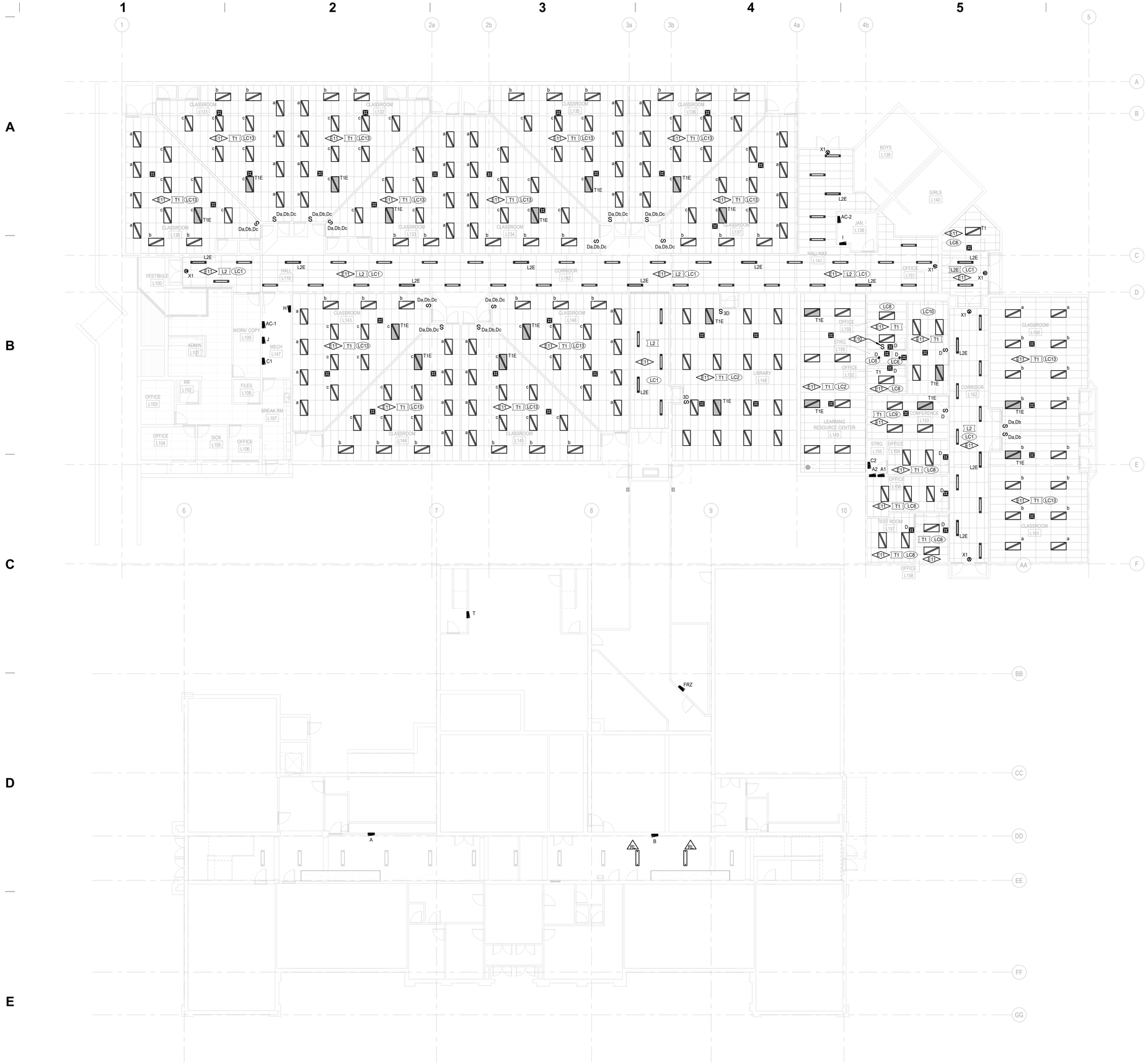

KEYNOTES

E10	TIE LIGHTING INTO EXISTING BUILDING LIGHTING CONTROLS. INCORPORATE WALL BOX DIMMER FOR FINAL OUTPUT.
E11	CONNECT NEW LUMINAIRES THIS AREA TO EXISTING CIRCUITRY MADE AVAILABLE THROUGH DEMOLITION. ENSURE CIRCUIT CONTINUITY OF DOWNSTREAM DEVICES IS MAINTAINED.

GENERAL NOTES:

1. EXISTING LIGHTING CIRCUITRY TO BE MAINTAINED AND EXTENDED TO NEW FIXTURES.
2. RELOCATE EXISTING CAMERAS WHERE NEW ARCHITECTURAL CEILING CLOUDS AND LIGHTING OBSCURE CAMERA'S FIELD OF VIEW. RL TAGS PLACED ON THE REFLECTED CEILING PLAN INDICATE POSSIBLE CAMERA CONFLICTS. FIELD VERIFY ALL LOCATIONS WITH OWNER.
3. RELOCATE EXISTING EMERGENCY LIGHTS AND EXIT LIGHTS WHERE NEW ARCHITECTURAL CEILING CLOUDS AND LIGHTING LAYOUT CONFLICT WITH EXISTING LOCATIONS. RL TAGS PLACED ON THE REFLECTED CEILING PLAN INDICATE POSSIBLE CONFLICTS. FIELD VERIFY ALL LOCATIONS WITH OWNER.
4. RELOCATE EXISTING SPEAKERS WHERE NEW ARCHITECTURAL CEILING CLOUDS CONFLICT WITH EXISTING LOCATIONS. RL TAGS PLACED ON THE REFLECTED CEILING PLAN INDICATE POSSIBLE CONFLICTS. FIELD VERIFY ALL LOCATIONS WITH OWNER.
5. COORDINATE ALL RELOCATED DEVICES WITH ARCHITECT PRIOR TO PERFORMING WORK.

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

LEVEL 01 - PARTIAL LIGHTING PLAN

SCALE: 1" = 10'-0"

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Sheet:
LEVEL 01 - COMPOSITE LIGHTING PLAN

BID SET

PROFESSIONAL ENGINEER LICENSED 17703 02/27/2025 STATE OF IDAHO KYLE E. OLSON Electrical

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1 2 3 4 5 6

A

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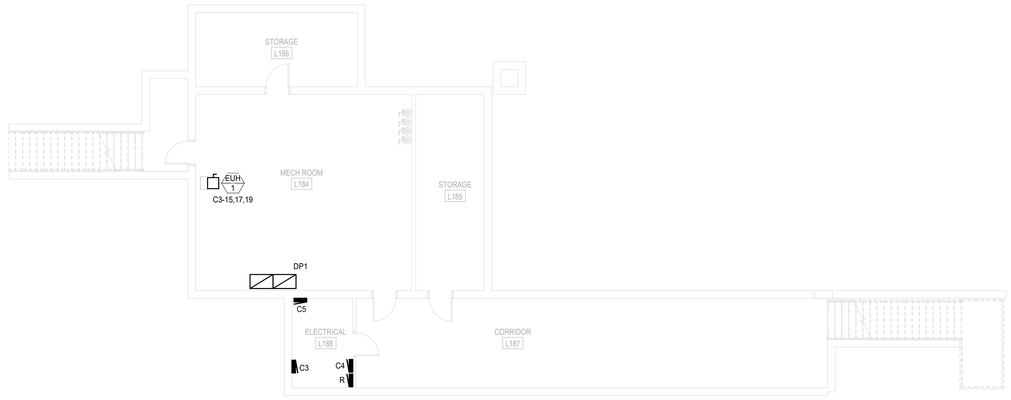
E

KEYNOTES



BASEMENT - COMPOSITE POWER PLAN

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

1"

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

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Sheet:
BASEMENT - COMPOSITE POWER PLAN

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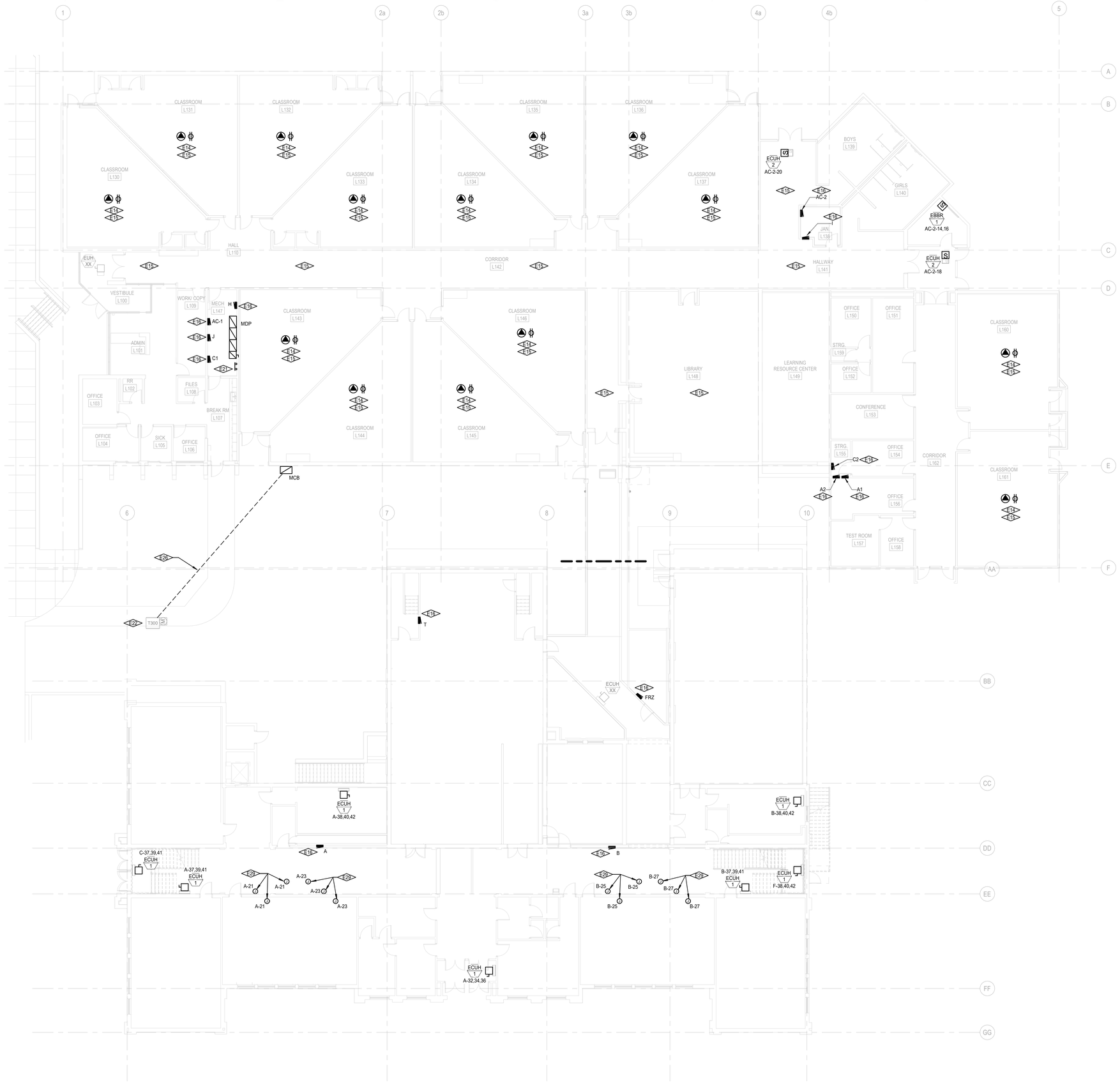

KEYNOTES

E14	CONNECT NEW RECEPTACLE TO EXISTING CIRCUIT SERVING RECEPTACLES IN THIS AREA. ENSURE CIRCUIT CONTINUITY OF DOWNSTREAM DEVICES IS MAINTAINED. VERIFY EXISTING LOADS ON CIRCUIT TO AVOID OVERLOADING CIRCUIT AND UPDATE PANEL SCHEDULE.
E15	REINSTALL CEILING MOUNTED POWER, FIRE ALARMA AND LOW VOLTAGE DEVICES REMOVED THROUGH DEMO PHASE.
E16	BID ALT SCOPE: PROVIDE NEW PANELBOARD TO REPLACE EXISTING PANELBOARD REMOVED THROUGH DEMO PHASE AT THIS LOCATION. PROVIDE NEW FEEDER. REFER TO ONE-LINE DIAGRAM.
E21	APPROXIMATE LOCATION OF MAIN GROUND BAR.
E22	APPROXIMATE LOCATION OF SERVICE ENTRANCE TRANSFORMER.
E26	APPROXIMATE LOCATION OF NEW SERVICE ENTRANCE FEEDER FROM TRANSFORMER TO MAIN CIRCUIT BREAKER.
E29	PROVIDE 120V CONNECTION TO FIRE / SMOKE DAMPER. COORDINATE WITH MECHANICAL CONTRACTOR FOR EXACT LOCATION AND REQUIREMENTS.

1"

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

LEVEL 01 - COMPOSITE POWER PLAN

SCALE: 1" = 10'-0"

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LEVEL 01 - COMPOSITE POWER PLAN

BID SET

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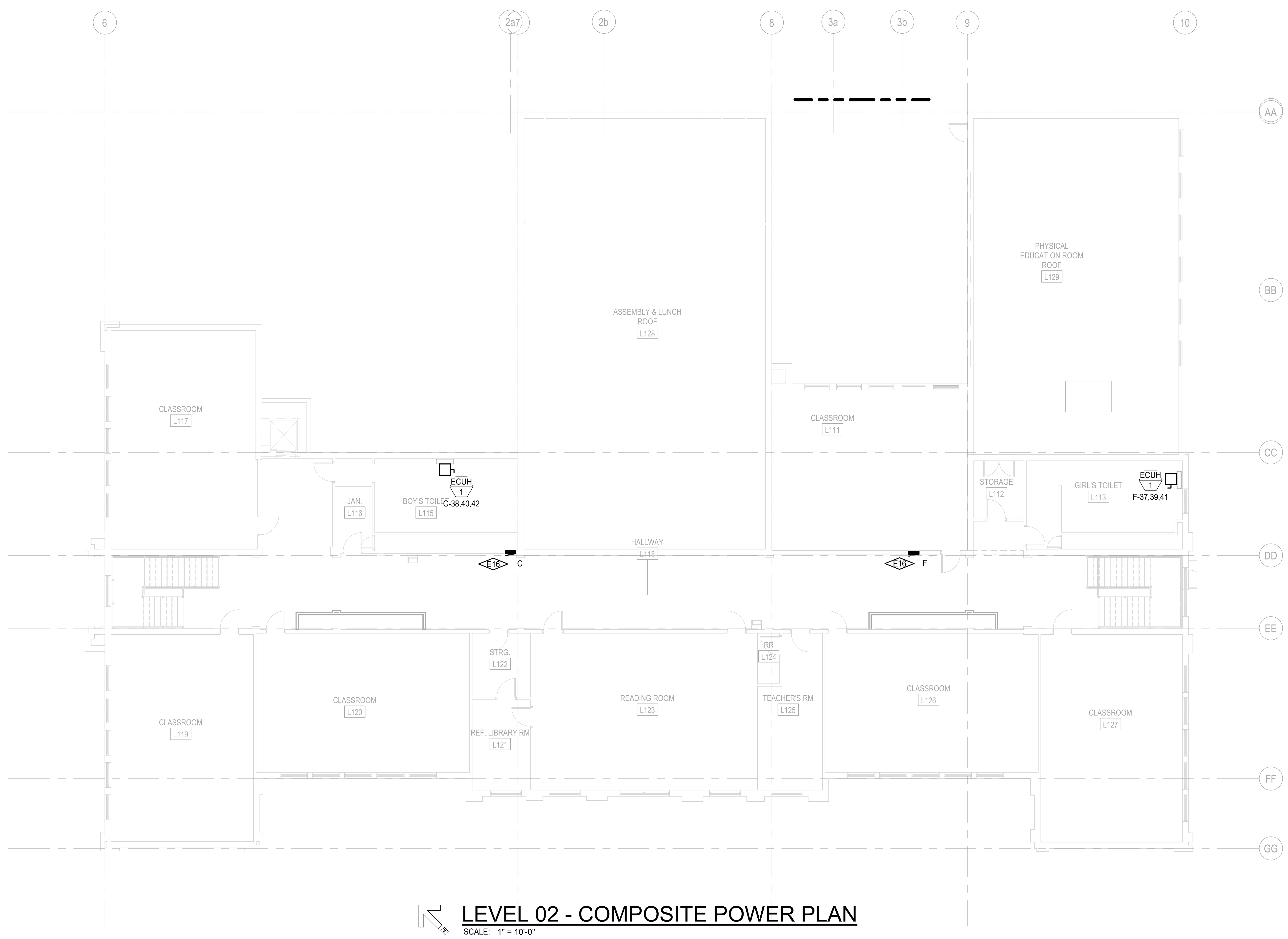
KEYNOTES	
E16	BID ALT SCOPE: PROVIDE NEW PANELBOARD TO REPLACE EXISTING PANELBOARD REMOVED THROUGH DEMO PHASE AT THIS LOCATION. PROVIDE NEW FEEDER. REFER TO ONE-LINE DIAGRAM.



LEVEL 02 - COMPOSITE POWER PLAN

SCALE: 1" = 10'-0"

1"

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

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LEVEL 02 - COMPOSITE POWER PLAN

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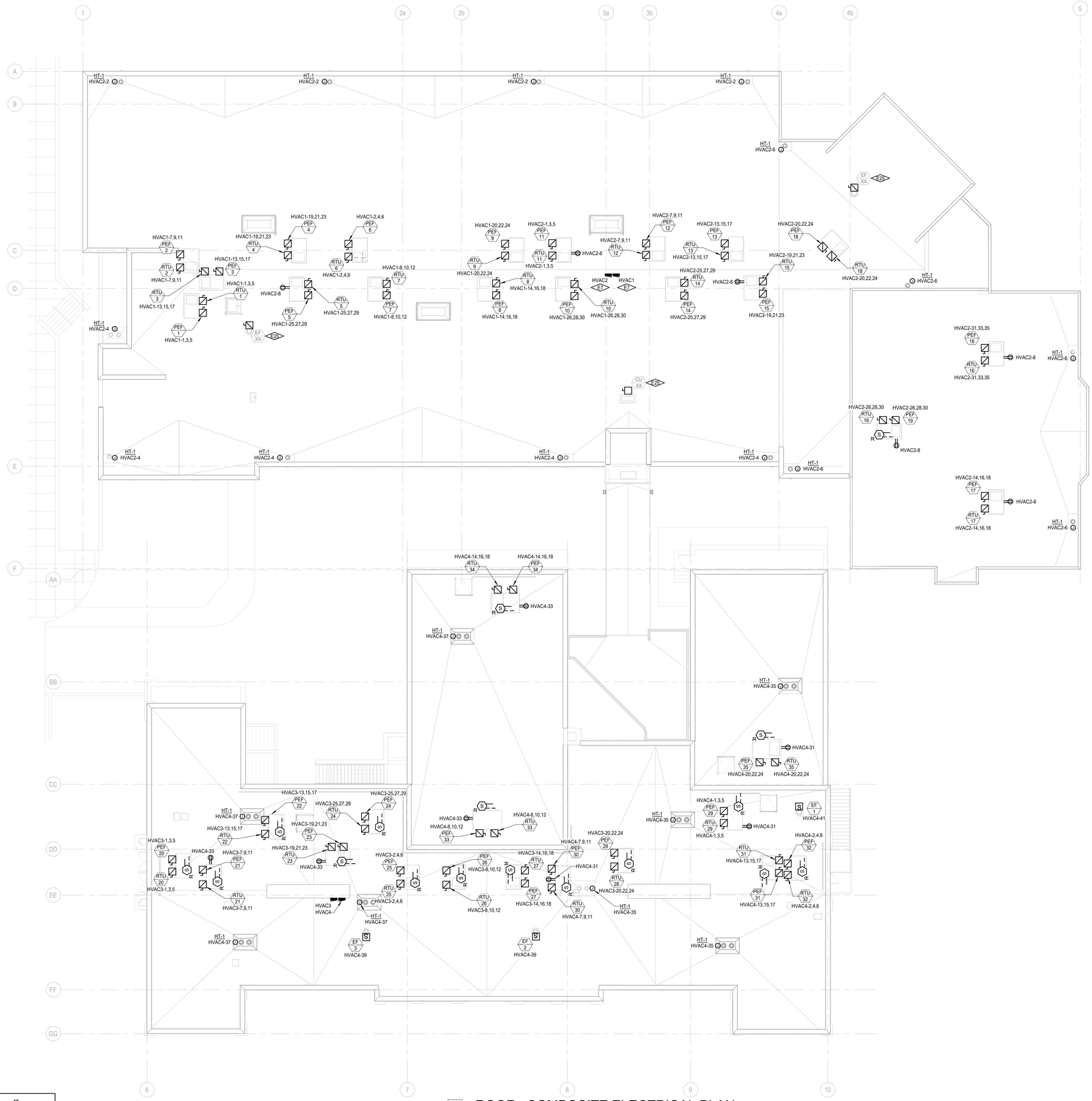

KEYNOTES

E7	MOUNT EQUIPMENT ON SLOTTED METAL U-CHANNEL RACK IN A VISIBLE AND ACCESSIBLE LOCATION, AND PROVIDED WITH NEC REQUIRED WORKING SPACE. WHERE POSSIBLE, ADJACENT WALL MAY BE USED FOR BRACING AT TOP OF RACK IN PLACE OF ANGLED BRACING AT BASE.
E25	REINSTALL EXISTING ELECTRICAL CONNECTION TO FEED REINSTALLED MECHANICAL EQUIPMENT.

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

ROOF - COMPOSITE ELECTRICAL PLAN

SCALE: 1" = 10'-0"

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ROOF - COMPOSITE ELECTRICAL PLAN

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Electrical

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KEYNOTES

1"

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

LEVEL 01 - COMPOSITE FIRE ALARM PLAN

SCALE: 1" = 10'-0"

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LEVEL 01 - COMPOSITE FIRE ALARM PLAN

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Electrical

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1 2 3 4 5 6

A B C D E

KEYNOTES

LEVEL 02 - COMPOSITE FIRE ALARM PLAN

SCALE: 1" = 10'-0"

1"

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

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LEVEL 02 - COMPOSITE FIRE ALARM PLAN

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Electrical

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2/27/2025 10:44:50 AM P:\Idaho\2024\2024-333 TFSD Lincoln Elementary HVAC Upgrade\C.rvt

Switchboard DP1

Location:
Supply From: MDP
Mounting:

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

A.I.C. Rating: 22 KAIC
Mains Type: MCB
Bus Rating: 800 A
MCB Rating: 800 A

Circuit Notes:

Load	Type	A	B	C	Note
PANEL C5	Spare	0 VA	0 VA	0 VA	
PANEL C3	Spare; M	2500 VA	2500 VA	2500 VA	
PANEL C4	Spare	0 VA	0 VA	0 VA	
PANEL R	Spare	0 VA	0 VA	0 VA	
PANEL A	Spare; G; M	3000 VA	3600 VA	3600 VA	
PANEL B	Spare; G; M	2600 VA	2600 VA	2000 VA	
PANEL FRZ	Spare	0 VA	0 VA	0 VA	
PANEL T	Spare	0 VA	0 VA	0 VA	
PANEL C	Spare; M	2000 VA	2000 VA	2000 VA	
PANEL F	Spare; M	2000 VA	2000 VA	2000 VA	
PANEL HVAC3	Spare; M	35018 VA	35018 VA	35018 VA	
PANEL HVAC4	Spare; R; G; M	32739 VA	32255 VA	32895 VA	
		79857 VA	79973 VA	80013 VA	
Refer to one-line diagram for space, spare, and circuit breaker quantities.		665 A	667 A	667 A	
		0	0	0	
		% 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	1260 VA	100.00%	1260 VA		
M	Motor	234183 VA	102.12%	239137 VA	**Total Connected Load:**	239843 VA
C	Continuous	0 VA	0.00%	0 VA	**Total Connected Current:**	666 A
G	General	4400 VA	100.00%	4400 VA		
K	Kitchen	0 VA	0.00%	0 VA	**Total Demand Load:**	244797 VA
E	Existing	0 VA	0.00%	0 VA	**Total Demand Current:**	679 A
O	Other	0 VA	0.00%	0 VA		

General Notes:

Switchboard MDP

Location:
Supply From:
Mounting:

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

A.I.C. Rating: 42 KAIC
Mains Type: MCB
Bus Rating: 2000 A
MCB Rating: 2000 A

Circuit Notes:

Load	Type	A	B	C	Note
PANEL AC-1	Spare	0 VA	0 VA	0 VA	
PANEL J	Spare	0 VA	0 VA	0 VA	
PANEL C1	Spare	0 VA	0 VA	0 VA	
PANEL H	Spare	0 VA	0 VA	0 VA	
PANEL AC-2	Spare; M	2500 VA	1000 VA	1500 VA	
PANEL PANEL I	Spare	0 VA	0 VA	0 VA	
PANEL C2	Spare	0 VA	0 VA	0 VA	
PANEL HVAC1	Spare; M	35426 VA	35426 VA	35426 VA	
PANEL DP1	Spare; R; G; M	79857 VA	79973 VA	80013 VA	
PANEL A1	Spare	0 VA	0 VA	0 VA	
PANEL A2	Spare	0 VA	0 VA	0 VA	
PANEL HVAC2	Spare; R; G; M	34336 VA	33506 VA	33506 VA	
		152119 VA	149905 VA	150445 VA	
Refer to one-line diagram for space, spare, and circuit breaker quantities.		1268 A	1249 A	1254 A	
		2	0	1	
		% 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	2340 VA	100.00%	2340 VA		
M	Motor	442229 VA	101.12%	447183 VA	**Total Connected Load:**	452469 VA
C	Continuous	0 VA	0.00%	0 VA	**Total Connected Current:**	1256 A
G	General	7900 VA	100.00%	7900 VA		
K	Kitchen	0 VA	0.00%	0 VA	**Total Demand Load:**	457423 VA
E	Existing	0 VA	0.00%	0 VA	**Total Demand Current:**	1270 A
O	Other	0 VA	0.00%	0 VA		

General Notes:

Panel HVAC2

Location:
Supply From: MDP
Mounting: Surface
Enclosure: Type 3R

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

A.I.C. Rating: 22 KAIC
Mains Type: MCB
Bus Rating: 400 A
MCB Rating: 400 A

Circuit Notes:
1. GFCI BREAKER W/ 30mA TRIP UNIT

Note	Circ...	Load	Type	Trip	Po...	A	B	C	Po...	Trip	Type	Load	Circ...	Note
	1					3531 VA	1000 VA		1	20 A	G	DRAIN HEAT TRACE	2	1
	3	RTU-11	M	40 A	3		3531 VA	1250 VA	1	20 A	G	DRAIN HEAT TRACE	4	1
	5							3531 VA 1250 VA	1	20 A	G	DRAIN HEAT TRACE	6	1
	7					3531 VA	1080 VA		1	20 A	R	ROOF RECEPTACLES	8	
	9	RTU-12	M	40 A	3		3531 VA	0 VA	1	20 A	--	SPARE	10	
	11							3531 VA 0 VA	1	20 A	--	SPARE	12	
	13					3531 VA	3531 VA						14	
	15	RTU-13	M	40 A	3		3531 VA	3531 VA	3	40 A	M	RTU-17	16	
	17							3531 VA 3531 VA					18	
	19					3531 VA	3651 VA						20	
	21	RTU-15	M	40 A	3		3531 VA	3651 VA	3	40 A	M	RTU-18	22	
	23							3531 VA 3651 VA					24	
	25					3531 VA	3891 VA						26	
	27	RTU-14	M	40 A	3		3531 VA	3891 VA	3	45 A	M	RTU-19	28	
	29							3531 VA 3891 VA					30	
	31					3531 VA	0 VA						32	
	33	RTU-16	M	40 A	3		3531 VA	0 VA	3	40 A	--	SPARE	34	
	35							3531 VA 0 VA					36	
	37					0 VA	0 VA						38	
	39	SPARE	--	40 A	3		0 VA	0 VA	3	40 A	--	SPARE	40	
	41							0 VA 0 VA					42	
					Total Load:	34336 VA	33506 VA	33506 VA						
					Total Amps:	286 A	279 A	279 A						
					Phase Balance:	2 % A-B	0 % B-C	2 % 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	1080 VA	100.00%	1080 VA		
M	Motor	96768 VA	102.79%	99470 VA	**Total Connected Load:**	101348 VA
C	Continuous	0 VA	0.00%	0 VA	**Total Connected Current:**	281 A
G	General	3500 VA	100.00%	3500 VA		
K	Kitchen	0 VA	0.00%	0 VA	**Total Demand Load:**	104050 VA
E	Existing	0 VA	0.00%	0 VA	**Total Demand Current:**	289 A
O	Other	0 VA	0.00%	0 VA		

Panel HVAC1

Location:
Supply From: MDP
Mounting: Surface
Enclosure: Type 3R

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

A.I.C. Rating: 22 KAIC
Mains Type: MCB
Bus Rating: 400 A
MCB Rating: 400 A

Circuit Notes:

Note	Circ...	Load	Type	Trip	Po...	A	B	C	Po...	Trip	Type	Load	Circ...	Note
	1					3651 VA	3531 VA						2	
	3	RTU-1	M	40 A	3			3651 VA 3531 VA	3	40 A	M	RTU-6	4	
	5							3651 VA 3531 VA					6	
	7					3531 VA	3531 VA						8	
	9	RTU-2	M	40 A	3		3531 VA	3531 VA	3	40 A	M	RTU-7	10	
	11							3531 VA 3531 VA					12	
	13					3531 VA	3531 VA						14	
	15	RTU-3	M	40 A	3		3531 VA	3531 VA	3	40 A	M	RTU-8	16	
	17							3531 VA 3531 VA					18	
	19					3531 VA	3531 VA						20	
	21	RTU-4	M	40 A	3		3531 VA	3531 VA	3	40 A	M	RTU-9	22	
	23							3531 VA 3531 VA					24	
	25					3531 VA	3531 VA						26	
	27	RTU-5	M	40 A	3		3531 VA	3531 VA	3	40 A	M	RTU-10	28	
	29							3531 VA 3531 VA					30	
	31					0 VA	0 VA						32	
	33	SPARE	--	40 A	3		0 VA	0 VA	3	40 A	--	SPARE	34	
	35							0 VA 0 VA					36	
	37					0 VA	0 VA						38	
	39	SPARE	--	40 A	3		0 VA	0 VA	3	40 A	--	SPARE	40	
	41							0 VA 0 VA					42	
					Total Load:	35426 VA	35426 VA	35426 VA						
					Total Amps:	295 A	295 A	295 A						
					Phase Balance:	0 % A-B	0 % B-C	0 % 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	106279 VA	102.37%	108801 VA	**Total Connected Load:**	106279 VA
C	Continuous	0 VA	0.00%	0 VA	**Total Connected Current:**	295 A
G	General	0 VA	0.00%	0 VA		
K	Kitchen	0 VA	0.00%	0 VA	**Total Demand Load:**	108801 VA
E	Existing	0 VA	0.00%	0 VA	**Total Demand Current:**	302 A
O	Other	0 VA	0.00%	0 VA		

Panel HVAC4

Location:
Supply From: DP1
Mounting: Surface
Enclosure: Type 3R

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

A.I.C. Rating: 22 KAIC
Mains Type: MCB
Bus Rating: 400 A
MCB Rating: 400 A

Circuit Notes:
1. GFCI BREAKER W/ 30mA TRIP UNIT

Note	Circ...	Load	Type	Trip	Po...	A	B	C	Po...	Trip	Type	Load	Circ...	Note
	1					3891 VA	3891 VA						2	
	3	RTU-29	M	45 A	3			3891 VA 3891 VA	3	45 A	M	RTU-32	4	
	5							3891 VA 3891 VA					6	
	7					3891 VA	4371 VA						8	
	9	RTU-30	M	45 A	3		3891 VA	4371 VA	3	50 A	M	RTU-33	10	
	11							3891 VA 4371 VA					12	
	13					3891 VA	4371 VA						14	
	15	RTU-31	M	45 A	3		3891 VA	4371 VA	3	50 A	M	RTU-34	16	
	17							3891 VA 4371 VA					18	
	19					0 VA	6893 VA						20	
	21	SPARE	--	45 A	3		0 VA	6893 VA	3	80 A	M	RTU-35	22	
	23							0 VA 6893 VA					24	
	25					0 VA	0 VA						26	
	27	SPARE	--	45 A	3		0 VA	0 VA	3	50 A	--	SPARE	28	
	29							0 VA 0 VA					30	
	31	ROOF RECEPTACLES	R	20 A	1	540 VA	--		1	--	--	SPACE	32	
	33	ROOF RECEPTACLES	R	20 A	1		720 VA	--	1	--	--	SPACE	34	
1	35	DRAIN HEAT TRACE	G	20 A	1			1000 VA --	1	--	--	SPACE	36	
1	37	DRAIN HEAT TRACE	G	20 A	1	1000 VA	--		1	--	--	SPACE	38	
	39	EF-2, 3	M	20 A	1		336 VA	--	1	--	--	SPACE	40	
	41	EF-1	M	20 A	1			696 VA --	1	--	--	SPACE	42	
					Total Load:	32739 VA	32255 VA	32895 VA						
					Total Amps:	273 A	269 A	275 A						
					Phase Balance:	2 % A-B	2 % B-C	0 % 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	1260 VA	100.00%	1260 VA		
M	Motor	94629 VA	105.23%	99583 VA	**Total Connected Load:**	97889 VA
C	Continuous	0 VA	0.00%	0 VA	**Total Connected Current:**	272 A
G	General	2000 VA	100.00%	2000 VA		
K	Kitchen	0 VA	0.00%	0 VA	**Total Demand Load:**	102843 VA
E	Existing	0 VA	0.00%	0 VA	**Total Demand Current:**	285 A
O	Other	0 VA	0.00%	0 VA		

Panel HVAC3

Location:
Supply From: DP1
Mounting: Surface
Enclosure: Type 3R

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

A.I.C. Rating: 22 KAIC
Mains Type: MCB
Bus Rating: 400 A
MCB Rating: 400 A

Circuit Notes:

Note	Circ...	Load	Type	Trip	Po...	A	B	C	Po...	Trip	Type	Load	Circ...	Note
	1					3891 VA	3891 VA						2	
	3	RTU-20	M	45 A	3			3891 VA 3891 VA	3	45 A	M	RTU-25	4	
	5							3891 VA 3891 VA					6	
	7					3891 VA	3891 VA						8	
	9	RTU-21	M	45 A	3		3891 VA	3891 VA	3	45 A	M	RTU-26	10	
	11							3891 VA 3891 VA					12	
	13					3891 VA	3891 VA						14	
	15	RTU-22	M	45 A	3		3891 VA	3891 VA	3	45 A	M	RTU-27	16	
	17							3891 VA 3891 VA					18	
	19					3891 VA	3891 VA						20	
	21	RTU-23	M	45 A	3		3891 VA	3891 VA	3	45 A	M	RTU-28	22	
	23							3891 VA 3891 VA					24	
	25					3891 VA	0 VA						26	
	27	RTU-24	M	45 A	3		3891 VA	0 VA	3	45 A	--	SPARE	28	
	29							3891 VA 0 VA					30	
	31					0 VA	0 VA						32	
	33	SPARE	--	45 A	3		0 VA	0 VA	3	45 A	--	SPARE	34	
	35							0 VA 0 VA					36	
	37					0 VA	0 VA						38	
	39	SPARE	--	45 A	3		0 VA	0 VA	3	45 A	--	SPARE	40	
	41							0 VA 0 VA					42	
					Total Load:	35018 VA	35018 VA	35018 VA						
					Total Amps:	292 A	292 A	292 A						
					Phase Balance:	0 % A-B	0 % B-C	0 % 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	105054 VA	102.57%	107756 VA	**Total Connected Load:**	105054 VA
C	Continuous	0 VA	0.00%	0 VA	**Total Connected Current:**	292 A
G	General	0 VA	0.00%	0 VA		
K	Kitchen	0 VA	0.00%	0 VA	**Total Demand Load:**	107756 VA
E	Existing	0 VA	0.00%	0 VA	**Total Demand Current:**	299 A
O	Other	0 VA	0.00%	0 VA		

BID SET

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 DISTRICT WIDE HVAC REPLACEMENT

LINCOLN ELEMENTARY SCHOOL
238 BUHL ST N
TWIN FALLS, ID 83301

Sheet:
ELECTRICAL PANEL SCHEDULES

Revisions: △

PROFESSIONAL ENGINEER LICENSED 17703 02/27/2025 STATE OF IDAHO KYLE E. OLSON
Electrical

Project No: 23028
Drawn By: JS
Checked By: KO
Date: 02/27/2025

Sheet No: E4.01

Panel I

Location: JAN. L138 **Supply From:** MDP **Mounting:** Recessed **Enclosure:** Type 1
Voltage: 120/208 Wye **Phase:** 3 **Wire:** 4
A.I.C. Rating: 10 KAIC **Mains Type:** MCB **Bus Rating:** 225 A **MCB Rating:** 225 A

Circuit Notes:

Note	Circ...	Load	Type	Trip	Po...	A		B		C		Po...	Trip	Type	Load	Circ...	Note
	1	EXISTING BLDG LOAD	--	20 A	1	0 VA	0 VA					1	20 A	--	EXISTING BLDG LOAD	2	
	3	EXISTING BLDG LOAD	--	20 A	1			0 VA	0 VA			1	20 A	--	EXISTING BLDG LOAD	4	
	5	EXISTING BLDG LOAD	--	20 A	1					0 VA	0 VA	1	20 A	--	EXISTING BLDG LOAD	6	
	7	EXISTING BLDG LOAD	--	20 A	1	0 VA	0 VA					1	20 A	--	EXISTING BLDG LOAD	8	
	9	EXISTING BLDG LOAD	--	20 A	1			0 VA	0 VA			1	20 A	--	EXISTING BLDG LOAD	10	
	11	EXISTING BLDG LOAD	--	20 A	1					0 VA	0 VA	1	20 A	--	EXISTING BLDG LOAD	12	
	13	EXISTING BLDG LOAD	--	20 A	1	0 VA	0 VA					1	20 A	--	EXISTING BLDG LOAD	14	
	15	EXISTING BLDG LOAD	--	20 A	1			0 VA	0 VA			1	20 A	--	EXISTING BLDG LOAD	16	
	17	EXISTING BLDG LOAD	--	20 A	1					0 VA	0 VA	1	20 A	--	EXISTING BLDG LOAD	18	
	19	EXISTING BLDG LOAD	--	20 A	1	0 VA	0 VA					1	20 A	--	EXISTING BLDG LOAD	20	
	21	EXISTING BLDG LOAD	--	20 A	1			0 VA	0 VA			1	20 A	--	EXISTING BLDG LOAD	22	
	23	EXISTING BLDG LOAD	--	20 A	1					0 VA	0 VA	1	20 A	--	EXISTING BLDG LOAD	24	
	25	EXISTING BLDG LOAD	--	20 A	1	0 VA	0 VA					1	20 A	--	EXISTING BLDG LOAD	26	
	27	EXISTING BLDG LOAD	--	20 A	2			0 VA	0 VA			1	20 A	--	EXISTING BLDG LOAD	28	
	29									0 VA	0 VA	1	20 A	--	EXISTING BLDG LOAD	30	
	31					0 VA	0 VA									32	
	33	EXISTING BLDG LOAD	--	40 A	3			0 VA	0 VA			3	40 A	--	EXISTING BLDG LOAD	34	
	35									0 VA	0 VA					36	
	37					0 VA	0 VA									38	
	39	EXISTING BLDG LOAD	--	40 A	3			0 VA	0 VA			3	40 A	--	EXISTING BLDG LOAD	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		

Panel AC-2

Location: JAN. L138 **Supply From:** MDP **Mounting:** Surface **Enclosure:** Type 1
Voltage: 120/208 Wye **Phase:** 3 **Wire:** 4
A.I.C. Rating: 18 KAIC **Mains Type:** MCB **Bus Rating:** 225 A **MCB Rating:** 225 A

Circuit Notes:

Note	Circ...	Load	Type	Trip	Po...	A		B		C		Po...	Trip	Type	Load	Circ...	Note
	1					0 VA	0 VA									2	
	3	A/C UNIT #8	--	20 A	3			0 VA	0 VA			3	20 A	--	A/C UNIT #14	4	
	5									0 VA	0 VA					6	
	7					0 VA	0 VA									8	
	9	A/C UNIT #15	--	20 A	3			0 VA	0 VA			3	20 A	--	A/C UNIT #13	10	
	11									0 VA	0 VA					12	
	13					0 VA	1000 VA					2	20 A	M	EBBR-1	14	
	15	A/C UNIT #7	--	20 A	3			0 VA	1000 VA							16	
	17									0 VA	1500 VA	1	20 A	M	ECUH-2	18	
	19	GFI UNIT #8	--	20 A	1	0 VA	1500 VA					1	20 A	M	ECUH-2	20	
	21	GFI UNIT #7	--	20 A	1			0 VA	0 VA			1	20 A	--	SPARE	22	
	23	SPARE	--	20 A	1					0 VA	0 VA	1	20 A	--	SPARE	24	
	25	SPARE	--	20 A	1	0 VA	0 VA					1	20 A	--	SPARE	26	
	27	SPARE	--	20 A	1			0 VA	0 VA			1	20 A	--	SPARE	28	
	29	SPARE	--	20 A	1					0 VA	0 VA	1	20 A	--	SPARE	30	
	31	SPACE	--	--	1	--	--					1	--	--	SPACE	32	
	33	SPACE	--	--	1			--	--			1	--	--	SPACE	34	
	35	SPACE	--	--	1					--	--	1	--	--	SPACE	36	
	37	SPACE	--	--	1	--	--					1	--	--	SPACE	38	
	39	SPACE	--	--	1			--	--			1	--	--	SPACE	40	
	41	SPACE	--	--	1					--	--	1	--	--	SPACE	42	
		Total Load:				2500 VA		1000 VA		1500 VA							
		Total Amps:				21 A		8 A		13 A							
		Phase Balance:				158 % A-B		58 % B-C		63 % 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	5000 VA	110.00%	5500 VA	Total Connected Load:	5000 VA
C	Continuous	0 VA	0.00%	0 VA	Total Connected Current:	14 A
G	General	0 VA	0.00%	0 VA		
K	Kitchen	0 VA	0.00%	0 VA	Total Demand Load:	5500 VA
E	Existing	0 VA	0.00%	0 VA	Total Demand Current:	15 A
O	Other	0 VA	0.00%	0 VA		

Panel AC-1

Location: **Supply From:** MDP **Mounting:** Surface **Enclosure:** Type 1
Voltage: 120/208 Wye **Phase:** 3 **Wire:** 4
A.I.C. Rating: 42 KAIC **Mains Type:** MLO **Bus Rating:** 400 A

Circuit Notes:

Note	Circ...	Load	Type	Trip	Po...	A		B		C		Po...	Trip	Type	Load	Circ...	Note
	1					0 VA	0 VA									2	
	3	A/C UNIT #16	--	20 A	3			0 VA	0 VA			3	20 A	--	A/C UNIT #11	4	
	5									0 VA	0 VA					6	
	7					0 VA	0 VA									8	
	9	A/C UNIT #9	--	20 A	3			0 VA	0 VA			3	20 A	--	A/C UNIT #4	10	
	11									0 VA	0 VA					12	
	13					0 VA	0 VA									14	
	15	A/C UNIT #6	--	20 A	3			0 VA	0 VA			3	20 A	--	A/C UNIT #3	16	
	17									0 VA	0 VA					18	
	19					0 VA	0 VA									20	
	21	A/C UNIT #2	--	20 A	3			0 VA	0 VA			3	20 A	--	A/C UNIT #12	22	
	23									0 VA	0 VA					24	
	25					0 VA	0 VA									26	
	27	A/C UNIT #1	--	20 A	3			0 VA	0 VA			3	20 A	--	A/C UNIT #10	28	
	29									0 VA	0 VA					30	
	31	LIBRARY IT RM AC	--	20 A	2	0 VA	0 VA									32	
	33							0 VA	0 VA			3	20 A	--	A/C UNIT	34	
	35	SPACE	--	--	1					--	0 VA					36	
	37	SPACE	--	--	1	--	--					1	--	--	SPACE	38	
	39	SPACE	--	--	1			--	--			1	--	--	SPACE	40	
	41	SPACE	--	--	1					--	--	1	--	--	SPACE	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:

Panel C1

Location: **Supply From:** MDP **Mounting:** Surface **Enclosure:** Type 1
Voltage: 120/208 Wye **Phase:** 3 **Wire:** 4
A.I.C. Rating: 22 KAIC **Mains Type:** MLO **Bus Rating:** 100 A

Circuit Notes:

Note	Circ...	Load	Type	Trip	Po...	A		B		C		Po...	Trip	Type	Load	Circ...	Note
	1	COMPUTER CKTS RM 1	--	20 A	1	0 VA	0 VA					1	20 A	--	COMPUTER CKTS RM 9	2	
	3	COMPUTER CKTS RM 1	--	20 A	1			0 VA	0 VA			1	20 A	--	COMPUTER CKTS RM 9	4	
	5	COMPUTER CKTS RM 2	--	20 A	1					0 VA	0 VA	1	20 A	--	COMPUTER CKTS RM 10	6	
	7	COMPUTER CKTS RM 2	--	20 A	1	0 VA	0 VA					1	20 A	--	COMPUTER CKTS RM 10	8	
	9	COMPUTER CKTS RM 3	--	20 A	1			0 VA	0 VA			1	20 A	--	COMPUTER CKTS RM 11	10	
	11	COMPUTER CKTS RM 3	--	20 A	1					0 VA	0 VA	1	20 A	--	COMPUTER CKTS RM 11	12	
	13	COMPUTER CKTS RM 8	--	20 A	1	0 VA	0 VA					1	20 A	--	COMPUTER CKTS RM 12	14	
	15	COMPUTER CKTS RM 4	--	20 A	1			0 VA	0 VA			1	20 A	--	COMPUTER CKTS RM 12	16	
	17	COMPUTER CKTS RM 5	--	20 A	1					0 VA	0 VA	1	20 A	--	COMPUTER CKTS RM 13	18	
	19	COMPUTER CKTS RM 5	--	20 A	1	0 VA	0 VA					1	20 A	--	COMPUTER CKTS RM 13	20	
	21	COMPUTER CKTS RM 6	--	20 A	1			0 VA	0 VA			1	20 A	--	COMPUTER CKTS RM 13	22	
	23	COMPUTER CKTS RM 6	--	20 A	1					0 VA	0 VA	1	20 A	--	COMPUTER CKTS RM 13	24	
	25	COMPUTER CKTS RM 7	--	20 A	1	0 VA	0 VA					1	20 A	--	SPARE	26	
	27	COMPUTER CKTS RM 7	--	20 A	1			0 VA	0 VA			1	20 A	--	SPARE	28	
	29	COMPUTER CKTS RM 4	--	20 A	1					0 VA	0 VA	1	20 A	--	COPIER RM OUTLET	30	
	31	EMTRU JEATER	--	20 A	1	0 VA	0 VA					1	20 A	--	COPIER RM OUTLET	32	
	33	EMTRU JEATER	--	20 A	1			0 VA	0 VA			1	20 A	--	COMP CKTS LIBRARY	34	
	35	DOOR ACCESS	--	20 A	1					0 VA	0 VA	1	20 A	--	COMP CKTS LIBRARY	36	
	37	SPARE	--	20 A	1	0 VA	0 VA					1	20 A	--	OFFICE OUTLETS	38	
	39	COPIER	--	20 A	1			0 VA	0 VA			1	20 A	--	SPARE	40	
	41	COPIER	--	20 A	1					0 VA	0 VA	1	20 A	--	SPARE	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:

Panel J

Location: **Supply From:** MDP **Mounting:** Surface **Enclosure:** Type 1
Voltage: 120/208 Wye **Phase:** 3 **Wire:** 4
A.I.C. Rating: 42 KAIC **Mains Type:** MLO **Bus Rating:** 225 A

Circuit Notes:

Note	Circ...	Load	Type	Trip	Po...	A		B		C		Po...	Trip	Type	Load	Circ...	Note
	1	EXISTING BLDG LOAD	--	20 A	1	0 VA	0 VA					1	20 A	--	EXISTING BLDG LOAD	2	
	3	EXISTING BLDG LOAD	--	20 A	1			0 VA	0 VA			1	20 A	--	EXISTING BLDG LOAD	4	
	5	EXISTING BLDG LOAD	--	20 A	1					0 VA	0 VA	1	20 A	--	EXISTING BLDG LOAD	6	
	7	EXISTING BLDG LOAD	--	20 A	1	0 VA	0 VA					1	20 A	--	EXISTING BLDG LOAD	8	
	9	EXISTING BLDG LOAD	--	20 A	1			0 VA	0 VA			1	20 A	--	EXISTING BLDG LOAD	10	
	11	EXISTING BLDG LOAD	--	20 A	1					0 VA	0 VA	1	20 A	--	EXISTING BLDG LOAD	12	
	13	EXISTING BLDG LOAD	--	20 A	1	0 VA	0 VA					1	20 A	--	EXISTING BLDG LOAD	14	
	15	EXISTING BLDG LOAD	--	20 A	1			0 VA	0 VA			1	20 A	--	EXISTING BLDG LOAD	16	
	17									0 VA	0 VA					18	
	19	EXISTING BLDG LOAD	--	20 A	3	0 VA	0 VA					3	20 A	--	EXISTING BLDG LOAD	20	
	21							0 VA	0 VA							22	
	23	SPARE	--	20 A	1					0 VA	0 VA	1	20 A	--	SPARE	24	
	25	SPARE	--	20 A	1	0 VA	0 VA					1	20 A	--	SPARE	26	
	27	SPARE	--	20 A	1			0 VA	0 VA			1	20 A	--	SPARE	28	
	29	SPARE	--	20 A	1					0 VA	0 VA	1	20 A	--	SPARE	30	
	31	SPACE	--	--	1	--	--					1	--	--	SPACE	32	
	33	SPACE	--	--	1			--	--			1	--	--	SPACE	34	
	35	SPACE	--	--	1					--	--	1	--	--	SPACE	36	
	37	SPACE	--	--	1	--	--					1	--	--	SPACE	38	
	39	SPACE	--	--	1			--	--			1	--	--	SPACE	40	
	41	SPACE	--	--	1					--	--	1	--	--	SPACE	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:

Panel H

Location: **Supply From:** MDP **Mounting:** Surface **Enclosure:** Type 1
Voltage: 120/208 Wye **Phase:** 3 **Wire:** 4
A.I.C. Rating: 42 KAIC **Mains Type:** MLO **Bus Rating:** 225 A

Circuit Notes:

Note	Circ...	Load	Type	Trip	Po...	A		B		C		Po...	Trip	Type	Load	Circ...	Note
	1	LITES-L28,L30,L31	--	20 A	1	0 VA	0 VA					1	20 A	--	OUTLETS-L28,L30,L31	2	
	3	LITES-RECEPTION...	--	20 A	1			0 VA	0 VA			1	20 A	--	OUTLETS-L28,L30,L31	4	
	5	LITES-L35,L36,L37	--	20 A	1					0 VA	0 VA	1	20 A	--	OUTLETS-L3,L38,L27	6	
	7	LITES-ENTRY	--	20 A	1	0 VA	0 VA					1	20 A	--	OUTLETS-OFFICE	8	
	9	LITES-CORRIDOR L3	--	20 A	1			0 VA	0 VA			1	20 A	--	FLOOR OUTLETS	10	
	11	LITES-L22,L23	--	20 A	1					0 VA	0 VA	1	20 A	--	OUTLETS-L33	12	
	13	LITES-CLASSROOM L31	--	20 A	1	0 VA	0 VA					1	20 A	--	OUTLES L5	14	
	15	LITES-CLASSROOM L31	--	20 A	1			0 VA	0 VA			1	20 A	--	NORTH WATER...	16	
	17	LITES-CLASSROOM L5	--	20 A	1					0 VA	0 VA	1	20 A	--	OUTLETS-L8,L11	18	
	19	LITES-CLASSROOM L5	--	20 A	1	0 VA	0 VA					1	20 A	--	OUTLETS-L14,L17	20	
	21	LITES-CLASSROOM L8	--	20 A	1			0 VA	0 VA			1	20 A	--	OUTLETS-L18,L19	22	
	23	LITES-CLASSROOM L8	--	20 A	1					0 VA	0 VA	1	20 A	--	LITES-CLASSROOM L28	24	
	25	LITES-CLASSROOM L11	--	20 A	1	0 VA	0 VA					1	20 A	--	LITES-CLASSROOM L27	26	
	27	LITES-CLASSROOM L11	--	20 A	1			0 VA	0 VA			1	20 A	--	LITES-CLASSROOM L27	28	
	29	LITES-CLASSROOM L14	--	20 A	1					0 VA	0 VA	1	20 A	--	LITES-OUTSIDE ENTRY	30	
	31	LITES-CLASSROOM L14	--	20 A	1	0 VA	0 VA					1	20 A	--	LITES-OUTSIDE WALL	32	
	33	LITES-CLASSROOM L17	--	20 A	1			0 VA	0 VA			1	20 A	--	TELEPHONE OUTLET	34	
	35	LITES-CLASSROOM L30	--	20 A	1					0 VA	0 VA	1	20 A	--	CIRCULATING PUMP	36	
	37	LITES-CLASSROOM L30	--	20 A	1	0 VA	0 VA					1	20 A	--	SPARE	38	
	39	LITES-CLASSROOM L28	--	20 A	1			0 VA	0 VA			1	20 A	--	SPARE	40	
	41	ROOF GFCI RCPT	--	20 A	1					0 VA	0 VA	1	20 A	--	SPARE	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:

Panel A2

Location: STRG. L155 **Supply From:** MDP **Mounting:** Recessed **Enclosure:** Type 1
Voltage: 120/208 Wye **Phase:** 3 **Wire:** 4
A.I.C. Rating: 10 KAIC **Mains Type:** MCB **Bus Rating:** 225 A **MCB Rating:** 225 A

Circuit Notes:

Note	Circ...	Load	Type	Trip	Po...	A		B		C		Po...	Trip	Type	Load	Circ...	Note
	1	L-CLASSROOM	--	20 A	1	0 VA	0 VA					1	20 A	--	L-CLASSROOM	2	
	3	L-CLASSROOM	--	20 A	1			0 VA	0 VA			1	20 A	--	L-CLASSROOM	4	
	5	SPARE	--	20 A	1					0 VA	0 VA	1	20 A	--	SPARE	6	
	7	SPARE	--	20 A	1	0 VA	0 VA					1	20 A	--	L-EXIT, HALLWAY	8	
	9	L-OFFICE	--	20 A	1			0 VA	0 VA			1	20 A	--	L-OFFICE	10	
	11	L-TEACHERS ROOM	--	20 A	1					0 VA	0 VA	1	20 A	--	L-OFFICE	12	
	13	L-LIBRARY	--	20 A	1	0 VA	0 VA					1	20 A	--	CLASSROOM OUTLETS	14	
	15	L-LIBRARY	--	20 A	1			0 VA	0 VA			1	20 A	--	CLASSROOM OUTLETS	16	
	17	OFFICE OUTLETS	--	20 A	1					0 VA	0 VA	1	20 A	--	OFFICE OUTLETS	18	
	19	OFFICE OUTLETS	--	20 A	1	0 VA	0 VA					1	20 A	--	OFFICE OUTLETS	20	
	21	LIBRARY OUTLETS	--	20 A	1			0 VA	0 VA			1	20 A	--	OFFICE OUTLETS	22	
	23	SPARE	--	20 A	1					0 VA	0 VA	1	20 A	--	SPARE	24	
	25	SPARE	--	20 A	1	0 VA	0 VA									26	
	27	SPARE	--	20 A	1			0 VA	0 VA			3	90 A	--	ROOFTOP UNIT	28	
	29	SPARE	--	20 A	1					0 VA	0 VA					30	
	31	SPACE	--	--	1	--	--					1	--	--	SPACE	32	
	33	SPACE	--	--	1			--	--			1	--	--	SPACE	34	
	35	SPACE	--	--	1					--	--	1	--	--	SPACE	36	
	37	SPACE	--	--	1	--	--					1	--	--	SPACE	38	
	39	SPACE	--	--	1			--	--			1	--	--	SPACE	40	
	41	SPACE	--	--	1					--	--	1	--	--	SPACE	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		

Panel A1

Location: STRG. L155 **Supply From:** MDP **Mounting:** Recessed **Enclosure:** Type 1
Voltage: 120/208 Wye **Phase:** 3 **Wire:** 4
A.I.C. Rating: 10 KAIC **Mains Type:** MCB **Bus Rating:** 225 A **MCB Rating:** 225 A

Circuit Notes:

Note	Circ...	Load	Type	Trip	Po...	A		B		C		Po...	Trip	Type	Load	Circ...	Note
	1					0 VA	0 VA									2	
	3	LIBRARY HEATER	--	60 A	3			0 VA	0 VA			3	60 A	--	CLASSROOM HEATER	4	
	5									0 VA	0 VA					6	
	7					0 VA	0 VA									8	
	9	CLASSROOM HEATER	--	60 A	3			0 VA	0 VA			3	30 A	--	TEACHERS ROOM HEATER	10	
	11									0 VA	0 VA					12	
	13					0 VA	0 VA					2	20 A	--	WATER HEATER	14	
	15	A/C	--	15 A	3			0 VA	0 VA							16	
	17									0 VA	0 VA	2	20 A	--	WATER HEATER	18	
	19	SPARE	--	20 A	1	0 VA	0 VA									20	
	21	SPARE	--	20 A	1			0 VA	0 VA			1	20 A	--	SPARE	22	
	23	SPARE	--	20 A	1					0 VA	0 VA	1	20 A	--	SPARE	24	
	25	SPARE	--	20 A	1	0 VA	0 VA					1	20 A	--	SPARE	26	
	27	SPARE	--	20 A	1			0 VA	0 VA			1	20 A	--	SPARE	28	
	29	SPARE	--	20 A	1					0 VA	0 VA	1	20 A	--	SPARE	30	
	31	SPACE	--	--	1	--	--					1	--	--	SPACE	32	
	33	SPACE	--	--	1			--	--			1	--	--	SPACE	34	
	35	SPACE	--	--	1					--	--	1	--	--	SPACE	36	
	37	SPACE	--	--	1	--	--					1	--	--	SPACE	38	
	39	SPACE	--	--	1			--	--			1	--	--	SPACE	40	
	41	SPACE	--	--	1					--	--	1	--	--	SPACE	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		

Panel C2

Location: STRG. L155 **Supply From:** MDP **Mounting:** Surface **Enclosure:** Type 1
Voltage: 120/208 Wye **Phase:** 3 **Wire:** 4
A.I.C. Rating: 10 KAIC **Mains Type:** MCB **Bus Rating:** 225 A **MCB Rating:** 225 A

Circuit Notes:

Note	Circ...	Load	Type	Trip	Po...	A		B		C		Po...	Trip	Type	Load	Circ...	Note
	1	LIBRARY POWER POLE	--	20 A	1	0 VA	0 VA					1	20 A	--	CAROUSEL, LIBRARY	2	
	3	R-COMPUTER RM K1	--	20 A	1			0 VA	0 VA			1	20 A	--	CAROUSEL, LIBRARY	4	
	5	R-COMPUTER RM K1	--	20 A	1					0 VA	0 VA	1	20 A	--	R-OFFICE 12	6	
	7	R-OFFICE 9	--	20 A	1	0 VA	0 VA					1	20 A	--	R-OFFICE 10	8	
	9	R-OFFICE 11	--	20 A	1			0 VA	0 VA			1	20 A	--	R-CONF RM K2	10	
	11	R-OFFICE 1	--	20 A	1					0 VA	0 VA	1	20 A	--	R-CONF RM K2	12	
	13	R-CONF, OFFICE	--	20 A	1	0 VA	0 VA					1	20 A	--	R-OFFICE	14	
	15	R-OFFICE 3	--	20 A	1			0 VA	0 VA			1	20 A	--	R-CONF 6	16	
	17	R-OFFICE 4	--	20 A	1					0 VA	0 VA	1	20 A	--	R-COMPUTER LAB	18	
	19	R-COMPUTER LAB	--	20 A	1	0 VA	0 VA					1	20 A	--	R-COMPUTER LAB	20	
	21	R-COMPUTER LAB	--	20 A	1			0 VA	0 VA			1	20 A	--	R-COMPUTER LAB	22	
	23	R-COMPUTER LAB	--	20 A	1					0 VA	0 VA	1	20 A	--	R-COMPUTER LAB	24	
	25	R-COMPUTER LAB	--	20 A	1	0 VA	0 VA					1	20 A	--	R-COMPUTER LAB	26	
	27	R-LIBRARY HEAD END	--	20 A	1			0 VA	0 VA			1	20 A	--	R-SWAMP COOLERS	28	
	29	SPARE	--	20 A	1					0 VA	0 VA	1	20 A	--	SPARE	30	
	31	SPARE	--	20 A	1	0 VA	0 VA					1	20 A	--	SPARE	32	
	33	SPARE	--	20 A	1			0 VA	0 VA			1	20 A	--	SPARE	34	
	35	SPARE	--	20 A	1					0 VA	0 VA	1	20 A	--	SPARE	36	
	37	SPACE	--	--	1	--	--					1	--	--	SPACE	38	
	39	SPACE	--	--	1			--	--			1	--	--	SPACE	40	
	41	SPACE	--	--	1					--	--	1	--	--	SPACE	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		

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 DISTRICT WIDE HVAC REPLACEMENT

LINCOLN ELEMENTARY SCHOOL
238 BUHL ST N
TWIN FALLS, ID 83301

Sheet:
ELECTRICAL PANEL SCHEDULES

BID SET

PROFESSIONAL ENGINEER LICENSED 17703 02/27/2025 STATE OF IDAHO KYLE E. OLSON
Electrical

Revisions:

Project No: 23028
Drawn By: JS
Checked By: KO
Date: 02/27/2025

Sheet No: E4.02

Panel C4

Location:
Supply From: DP1
Mounting: Surface
Enclosure: Type 1

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

A.I.C. Rating: 18 KAIC
Mains Type: MLO
Bus Rating: 125 A

Circuit Notes:

Note	Circ...	Load	Type	Trip	Po...	A		B		C		Po...	Trip	Type	Load	Circ...	Note
	1	R-COMPUTER RM 19	--	20 A	1	0 VA	0 VA					1	20 A	--	R-COMPUTER RM 16	2	
	3	R-COMPUTER RM 19	--	20 A	1			0 VA	0 VA			1	20 A	--	R-COMPUTER RM 16	4	
	5	R-COMPUTER RM 21	--	20 A	1					0 VA	0 VA	1	20 A	--	R-COMPUTER RM 20	6	
	7	R-COMPUTER RM 21	--	20 A	1	0 VA	0 VA					1	20 A	--	R-COMPUTER RM 20	8	
	9	R-COMPUTER RM...	--	20 A	1			0 VA	0 VA			1	20 A	--	R-COMPUTER RM 17	10	
	11	HEAD END RACK	--	20 A	1					0 VA	0 VA	1	20 A	--	R-COMPUTER RM 17	12	
	13	SPARE	--	20 A	1	0 VA	0 VA					1	20 A	--	R-COMPUTER RM 18	14	
	15	SPARE	--	20 A	1			0 VA	0 VA			1	20 A	--	R-COMPUTER RM 18	16	
	17	SPARE	--	20 A	1					0 VA	0 VA	1	20 A	--	SPARE	18	
	19	SPARE	--	20 A	1	0 VA	0 VA					1	20 A	--	SPARE	20	
	21	SPARE	--	20 A	1			0 VA	0 VA			1	20 A	--	SPARE	22	
	23	SPARE	--	20 A	1					0 VA	0 VA	1	20 A	--	SPARE	24	
	25	SPARE	--	20 A	1	0 VA	0 VA					1	20 A	--	SPARE	26	
	27	SPARE	--	20 A	1			0 VA	0 VA			1	20 A	--	SPARE	28	
	29	SPARE	--	20 A	1					0 VA	0 VA	1	20 A	--	SPARE	30	
	31	SPACE	--	--	1	--	--					1	--	--	SPACE	32	
	33	SPACE	--	--	1			--	--			1	--	--	SPACE	34	
	35	SPACE	--	--	1					--	--	1	--	--	SPACE	36	
	37	SPACE	--	--	1	--	--					1	--	--	SPACE	38	
	39	SPACE	--	--	1			--	--			1	--	--	SPACE	40	
	41	SPACE	--	--	1					--	--	1	--	--	SPACE	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:

Panel C3

Location:
Supply From: DP1
Mounting: Surface
Enclosure: Type 1

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

A.I.C. Rating: 14 KAIC
Mains Type: MLO
Bus Rating: 125 A

Circuit Notes:

Note	Circ...	Load	Type	Trip	Po...	A		B		C		Po...	Trip	Type	Load	Circ...	Note
	1	R-COMPUTER RM 13	--	20 A	1	0 VA	0 VA					1	20 A	--	R-COMPUTER RM 15	2	
	3	R-COMPUTER RM 13	--	20 A	1			0 VA	0 VA			1	20 A	--	R-COMPUTER RM 15	4	
	5	R-COMPUTER RM 24	--	20 A	1					0 VA	0 VA	1	20 A	--	R-COMPUTER RM 22	6	
	7	R-COMPUTER RM 14	--	20 A	1	0 VA	0 VA					1	20 A	--	R-COMPUTER RM 22	8	
	9	R-COMPUTER RM 14	--	20 A	1			0 VA	0 VA			1	20 A	--	R-COMPUTER CONF	10	
	11	R-COMPUTER RM 23	--	20 A	1					0 VA	0 VA	1	20 A	--	R-COMPUTER CONF	12	
	13	R-COMPUTER RM 23	--	20 A	1	0 VA	0 VA					1	20 A	--	R-COMPUTER OFFICE	14	
	15							2500 VA	0 VA			1	20 A	--	R-COMPUTER OFFICE	16	
	17	EUH-1	M	20 A	3					2500 VA	0 VA	1	20 A	--	WATER SOFTENER	18	
	19					2500 VA	0 VA					1	20 A	--	SUMP PUMP	20	
	21	SPARE	--	20 A	1			0 VA	0 VA			1	20 A	--	SPARE	22	
	23	SPARE	--	20 A	1					0 VA	0 VA	1	20 A	--	SPARE	24	
	25	SPARE	--	20 A	1	0 VA	0 VA					2	30 A	--	SPARE	26	
	27	SPARE	--	20 A	1			0 VA	0 VA							28	
	29	SPARE	--	20 A	1					0 VA	0 VA	1	20 A	--	SPARE	30	
	31	SPARE	--	20 A	1	0 VA	0 VA					1	20 A	--	SPARE	32	
	33	SPARE	--	20 A	1			0 VA	0 VA			1	20 A	--	SPARE	34	
	35	SPARE	--	20 A	1					0 VA	0 VA	1	20 A	--	SPARE	36	
	37	SPACE	--	--	1	--	--					1	--	--	SPACE	38	
	39	SPACE	--	--	1			--	--			1	--	--	SPACE	40	
	41	SPACE	--	--	1					--	--	1	--	--	SPACE	42	
					Total Load:	2500 VA		2500 VA		2500 VA							
					Total Amps:	21 A		21 A		21 A							
					Phase Balance:	0 % A-B		0 % B-C		0 % 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	7500 VA	125.00%	9375 VA	Total Connected Load:	7500 VA
C	Continuous	0 VA	0.00%	0 VA	Total Connected Current:	21 A
G	General	0 VA	0.00%	0 VA		
K	Kitchen	0 VA	0.00%	0 VA	Total Demand Load:	9375 VA
E	Existing	0 VA	0.00%	0 VA	Total Demand Current:	26 A
O	Other	0 VA	0.00%	0 VA		

General Notes:

Panel C

Location:
Supply From: DP1
Mounting: Recessed
Enclosure: Type 1

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

A.I.C. Rating: 18 KAIC
Mains Type: MCB
Bus Rating: 100 A
MCB Rating: 100 A

Circuit Notes:

Note	Circ...	Load	Type	Trip	Po...	A		B		C		Po...	Trip	Type	Load	Circ...	Note
	1	L-RM 24	--	20 A	1	0 VA	0 VA					1	20 A	--	L-RM 24	2	
	3	L-RM 23	--	20 A	1			0 VA	0 VA			1	20 A	--	L-RM 23	4	
	5	L-BOOK RM	--	20 A	1					0 VA	0 VA	1	20 A	--	L-RM 25	6	
	7	L-RM 25	--	20 A	1	0 VA	0 VA					1	20 A	--	R-RM 23, 24	8	
	9	R-RM 25	--	20 A	1			0 VA	0 VA			1	20 A	--	R-25	10	
	11	L-TEACHERS RM...	--	20 A	1					0 VA	0 VA	1	20 A	--	HALL CEILING FANS	12	
	13	SPARE	--	20 A	1	0 VA	0 VA					1	20 A	--	FANS 22, 23, 24	14	
	15	SPARE	--	20 A	1			0 VA	0 VA			1	20 A	--	SPARE	16	
	17	SPARE	--	20 A	1					0 VA	0 VA	1	20 A	--	SPARE	18	
	19	SPARE	--	20 A	1	0 VA	0 VA					1	20 A	--	SPARE	20	
	21	SPARE	--	20 A	1			0 VA	0 VA			1	20 A	--	SPARE	22	
	23	SPARE	--	20 A	1					0 VA	0 VA	1	20 A	--	SPARE	24	
	25	SPARE	--	20 A	1	0 VA	0 VA					1	20 A	--	SPARE	26	
	27	SPARE	--	20 A	1			0 VA	0 VA			1	20 A	--	SPARE	28	
	29	SPARE	--	20 A	1					0 VA	0 VA	1	20 A	--	SPARE	30	
	31	SPACE	--	--	1	--	--					1	--	--	SPACE	32	
	33	SPACE	--	--	1			--	--			1	--	--	SPACE	34	
	35	SPACE	--	--	1					--	--	1	--	--	SPACE	36	
	37					1000 VA	1000 VA									38	
	39	ECUH-1	M	20 A	3			1000 VA	1000 VA			3	20 A	M	ECUH-1	40	
	41									1000 VA	1000 VA					42	
					Total Load:	2000 VA		2000 VA		2000 VA							
					Total Amps:	17 A		17 A		17 A							
					Phase Balance:	0 % A-B		0 % B-C		0 % 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	6000 VA	112.50%	6750 VA	Total Connected Load:	6000 VA
C	Continuous	0 VA	0.00%	0 VA	Total Connected Current:	17 A
G	General	0 VA	0.00%	0 VA		
K	Kitchen	0 VA	0.00%	0 VA	Total Demand Load:	6750 VA
E	Existing	0 VA	0.00%	0 VA	Total Demand Current:	19 A
O	Other	0 VA	0.00%	0 VA		

Panel B

Location:
Supply From: DP1
Mounting: Recessed
Enclosure: Type 1

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

A.I.C. Rating: 10 KAIC
Mains Type: MCB
Bus Rating: 100 A
MCB Rating: 100 A

Circuit Notes:

Note	Circ...	Load	Type	Trip	Po...	A		B		C		Po...	Trip	Type	Load	Circ...	Note
	1	EXISTING BLDG LOAD	--	20 A	1	0 VA	0 VA					1	20 A	--	EXISTING BLDG LOAD	2	
	3	EXISTING BLDG LOAD	--	20 A	1			0 VA	0 VA			1	20 A	--	EXISTING BLDG LOAD	4	
	5	EXISTING BLDG LOAD	--	20 A	1					0 VA	0 VA	1	20 A	--	EXISTING BLDG LOAD	6	
	7	EXISTING BLDG LOAD	--	20 A	1	0 VA	0 VA					1	20 A	--	EXISTING BLDG LOAD	8	
	9	EXISTING BLDG LOAD	--	20 A	1			0 VA	0 VA			1	20 A	--	EXISTING BLDG LOAD	10	
	11	EXISTING BLDG LOAD	--	20 A	1					0 VA	0 VA	1	20 A	--	EXISTING BLDG LOAD	12	
	13	EXISTING BLDG LOAD	--	20 A	1	0 VA	0 VA					1	20 A	--	EXISTING BLDG LOAD	14	
	15	EXISTING BLDG LOAD	--	20 A	1			0 VA	0 VA			1	20 A	--	EXISTING BLDG LOAD	16	
	17	EXISTING BLDG LOAD	--	20 A	1					0 VA	0 VA	1	20 A	--	EXISTING BLDG LOAD	18	
	19	EXISTING BLDG LOAD	--	20 A	1	0 VA	0 VA					1	20 A	--	EXISTING BLDG LOAD	20	
	21	EXISTING BLDG LOAD	--	60 A	2			0 VA	0 VA			1	20 A	--	EXISTING BLDG LOAD	22	
	23									0 VA	0 VA	1	20 A	--	EXISTING BLDG LOAD	24	
	25	F/S DAMPERS	G	20 A	1	600 VA	0 VA					1	20 A	--	SPARE	26	
	27	F/S DAMPERS	G	20 A	1			600 VA	0 VA			1	20 A	--	SPARE	28	
	29	SPARE	--	20 A	1					0 VA	0 VA	1	20 A	--	SPARE	30	
	31	SPACE	--	--	1	--	--					1	--	--	SPACE	32	
	33	SPACE	--	--	1			--	--			1	--	--	SPACE	34	
	35	SPACE	--	--	1					--	--	1	--	--	SPACE	36	
	37					1000 VA	1000 VA									38	
	39	ECUH-1	M	20 A	3			1000 VA	1000 VA			3	20 A	M	ECUH-1	40	
	41									1000 VA	1000 VA					42	
					Total Load:	2600 VA		2600 VA		2000 VA							
					Total Amps:	22 A		22 A		17 A							
					Phase Balance:	0 % A-B		35 % B-C		35 % 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	6000 VA	112.50%	6750 VA	Total Connected Load:	7200 VA
C	Continuous	0 VA	0.00%	0 VA	Total Connected Current:	20 A
G	General	1200 VA	100.00%	1200 VA		
K	Kitchen	0 VA	0.00%	0 VA	Total Demand Load:	7950 VA
E	Existing	0 VA	0.00%	0 VA	Total Demand Current:	22 A
O	Other	0 VA	0.00%	0 VA		

Panel A

Location:
Supply From: DP1
Mounting: Recessed
Enclosure: Type 1

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

A.I.C. Rating: 10 KAIC
Mains Type: MCB
Bus Rating: 100 A
MCB Rating: 100 A

Circuit Notes:

Note	Circ...	Load	Type	Trip	Po...	A		B		C		Po...	Trip	Type	Load	Circ...	Note
	1	AUDITORIUM MID ROW	--	20 A	1	0 VA	0 VA					1	20 A	--	AUDITORIUM RIGHT...	2	
	3	AUDITORIUM LEFT ROW	--	20 A	1			0 VA	0 VA			1	20 A	--	FROM ENTRANCE...	4	
	5	RM #15 INSIDE ROW	--	20 A	1					0 VA	0 VA	1	20 A	--	RM #15	6	
	7	RM #16	--	20 A	1	0 VA	0 VA					1	20 A	--	RM #16	8	
	9	HALLWAY POP COOLER	--	20 A	1			0 VA	0 VA			1	20 A	--	RM #17	10	
	11	RM #17	--	20 A	1					0 VA	0 VA	1	20 A	--	L-FRONT OFFICE HALL	12	
	13	R-RM 15, 16	--	20 A	1	0 VA	0 VA					1	20 A	--	BOYS TOILET, JANITOR	14	
	15	FANS ROOM 15,16	--	20 A	1			0 VA	0 VA			1	20 A	--	R-RM 16, HALL	16	
	17	HALLWAY POP COOLER	--	20 A	1					0 VA	0 VA	1	20 A	--	FAN ROOM 17	18	
	19	HALLWAY POP COOLER	--	20 A	1	0 VA	0 VA					1	20 A	--	FIRE ALARM SYSTEM	20	
	21	F/S DAMPERS	G	20 A	1			600 VA	0 VA			1	20 A	--	SPARE	22	
	23	F/S DAMPERS	G	20 A	1					600 VA	0 VA	1	20 A	--	SPARE	24	
	25	SPARE	--	20 A	1	0 VA	0 VA					1	20 A	--	SPARE	26	
	27	SPARE	--	20 A	1			0 VA	0 VA			1	20 A	--	SPARE	28	
	29	SPARE	--	20 A	1					0 VA	0 VA	1	20 A	--	SPARE	30	
	31	SPACE	--	--	1	--	1000 VA									32	
	33	SPACE	--	--	1			--	1000 VA			3	20 A	M	ECUH-1	34	
	35	SPACE	--	--	1					--	1000 VA					36	
	37					1000 VA	1000 VA									38	
	39	ECUH-1	M	20 A	3			1000 VA	1000 VA			3	20 A	M	ECUH-1	40	
	41									1000 VA	1000 VA					42	
					Total Load:	3000 VA		3600 VA		3600 VA							
					Total Amps:	25 A		31 A		31 A							
					Phase Balance:	23 % A-B		0 % B-C		23 % 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	9000 VA	108.33%	9750 VA	Total Connected Load:	10200 VA
C	Continuous	0 VA	0.00%	0 VA	Total Connected Current:	28 A
G	General	1200 VA	100.00%	1200 VA		
K	Kitchen	0 VA	0.00%	0 VA	Total Demand Load:	10950 VA
E	Existing	0 VA	0.00%	0 VA	Total Demand Current:	30 A
O	Other	0 VA	0.00%	0 VA		

Panel C5

Location:
Supply From: DP1
Mounting: Surface
Enclosure: Type 1

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

A.I.C. Rating: 18 KAIC
Mains Type: MLO
Bus Rating: 125 A

Circuit Notes:

Note	Circ...	Load	Type	Trip	Po...	A		B		C		Po...	Trip	Type	Load	Circ...	Note
	1	EXISTING BLDG LOAD	--	40 A	2	0 VA	0 VA					2	30 A	--	EXISTING BLDG LOAD	2	
	3							0 VA	0 VA							4	
	5	EXISTING BLDG LOAD	--	60 A	2					0 VA	0 VA	2	30 A	--	EXISTING BLDG LOAD	6	
	7					0 VA	0 VA									8	
	9	EXISTING BLDG LOAD	--	15 A	2			0 VA	0 VA			1	20 A	--	EXISTING BLDG LOAD	10	
	11									0 VA	0 VA					12	
	13	EXISTING BLDG LOAD	--	15 A	2	0 VA	0 VA					3	40 A	--	EXISTING BLDG LOAD	14	
	15							0 VA	0 VA							16	
	17	EXISTING BLDG LOAD	--	20 A	2					0 VA	0 VA	1	20 A	--	EXISTING BLDG LOAD	18	
	19					0 VA	0 VA					1	20 A	--	EXISTING BLDG LOAD	20	
	21	SPARE	--	20 A	1			0 VA	0 VA			1	20 A	--	SPARE	22	
	23	SPARE	--	20 A	1					0 VA	0 VA	1	20 A	--	EXISTING BLDG LOAD	24	
	25	EXISTING BLDG LOAD	--	20 A	1	0 VA	0 VA					1	20 A	--	EXISTING BLDG LOAD	26	
	27	EXISTING BLDG LOAD	--	20 A	1			0 VA	0 VA			2	60 A	--	EXISTING BLDG LOAD	28	
	29	EXISTING BLDG LOAD	--	20 A	1					0 VA	0 VA					30	
	31	EXISTING BLDG LOAD	--	20 A	1	0 VA	0 VA					1	20 A	--	EXISTING BLDG LOAD	32	
	33	EXISTING BLDG LOAD	--	20 A	1			0 VA	0 VA			1	20 A	--	EXISTING BLDG LOAD	34	
	35	EXISTING BLDG LOAD	--	20 A	1					0 VA	0 VA	1	20 A	--	EXISTING BLDG LOAD	36	
	37	EXISTING BLDG LOAD	--	20 A	1	0 VA	0 VA					1	20 A	--	EXISTING BLDG LOAD	38	
	39	EXISTING BLDG LOAD	--	20 A	2			0 VA	0 VA			1	20 A	--	EXISTING BLDG LOAD	40	
	41									0 VA	0 VA	1	20 A	--	EXISTING BLDG LOAD	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:

Panel FRZ

Location:
Supply From: DP1
Mounting: Surface
Enclosure: Type 1

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

A.I.C. Rating: 22 KAIC
Mains Type: MCB
Bus Rating: 100 A
MCB Rating: 100 A

Circuit Notes:

Note	Circ...	Load	Type	Trip	Po...	A		B		C		Po...	Trip	Type	Load	Circ...	Note
	1	STORAGE LIGHTS	--	20 A	1	0 VA	0 VA					2	20 A	--	WALK-IN FREEZER	2	
	3	WALK-IN LIGHTS	--	20 A	1			0 VA	0 VA							4	
	5	SPARE	--	20 A	1					0 VA	0 VA	2	30 A	--	WATER HEATER #1	6	
	7	WATER HEATER #3	--	30 A	2	0 VA	0 VA									8	
	9							0 VA	0 VA			2	40 A	--	KITCHEN STEAMER	10	
	11	SPARE	--	20 A	1					0 VA	0 VA					12	
	13	SPARE	--	20 A	1	0 VA	0 VA					1	20 A	--	SPARE	14	
	15	SPARE	--	20 A	1			0 VA	0 VA			1	20 A	--	SPARE	16	
	17	SPARE	--	20 A	1					0 VA	0 VA	1	20 A	--	SPARE	18	
	19	SPARE	--	20 A	1	0 VA	0 VA					1	20 A	--	SPARE	20	
	21	SPARE	--	20 A	1			0 VA	0 VA			1	20 A	--	SPARE	22	
	23	SPARE	--	20 A	1					0 VA	0 VA	1	20 A	--	SPARE	24	
	25	SPARE	--	20 A	1	0 VA	0 VA					1	20 A	--	SPARE	26	
	27	SPARE	--	20 A	1			0 VA	0 VA			1	20 A	--	SPARE	28	
	29	SPARE	--	20 A	1					0 VA	0 VA	1	20 A	--	SPARE	30	
	31	SPACE	--	--	1	--	--					1	--	--	SPACE	32	
	33	SPACE	--	--	1			--	--			1	--	--	SPACE	34	
	35	SPACE	--	--	1					--	--	1	--	--	SPACE	36	
	37	SPACE	--	--	1	--	--					1	--	--	SPACE	38	
	39	SPACE	--	--	1			--	--			1	--	--	SPACE	40	
	41	SPACE	--	--	1					--	--	1	--	--	SPACE	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		

Panel F

Location:
Supply From: DP1
Mounting: Recessed
Enclosure: Type 1

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

A.I.C. Rating: 10 KAIC
Mains Type: MCB
Bus Rating: 100 A
MCB Rating: 100 A

Circuit Notes:

Note	Circ...	Load	Type	Trip	Po...	A		B		C		Po...	Trip	Type	Load	Circ...	Note
	1	L-RM 19	--	20 A	1	0 VA	0 VA					1	20 A	--	L-RM 19	2	
	3	L-RM 20	--	20 A	1			0 VA	0 VA			1	20 A	--	L-HALL	4	
	5	L-YARD, BOYS TOILET	--	20 A	1					0 VA	0 VA	1	20 A	--	READING RM STORAGE	6	
	7	L-LIBRARY	--	20 A	1	0 VA	0 VA					1	20 A	--	L-LIBRARY	8	
	9	L-RM 11	--	20 A	1			0 VA	0 VA			1	20 A	--	L-RM 18	10	
	11	FANS RM 19, 20	--	20 A	1					0 VA	0 VA	1	20 A	--	SPARE	12	
	13	R-HALLWAY	--	20 A	1	0 VA	0 VA					1	20 A	--	L-RM 9, 22	14	
	15	SPARE	--	20 A	1			0 VA	0 VA			1	20 A	--	SPARE	16	
	17	SPARE	--	20 A	1					0 VA	0 VA	1	20 A	--	SPARE	18	
	19	SPARE	--	20 A	1	0 VA	0 VA					1	20 A	--	SPARE	20	
	21	SPARE	--	20 A	1			0 VA	0 VA			1	20 A	--	SPARE	22	
	23	SPARE	--	20 A	1					0 VA	0 VA	1	20 A	--	SPARE	24	
	25	SPARE	--	20 A	1	0 VA	0 VA					1	20 A	--	SPARE	26	
	27	SPARE	--	20 A	1			0 VA	0 VA			1	20 A	--	SPARE	28	
	29	SPARE	--	20 A	1					0 VA	0 VA	1	20 A	--	SPARE	30	
	31	SPACE	--	--	1	--	--					1	--	--	SPACE	32	
	33	SPACE	--	--	1			--	--			1	--	--	SPACE	34	
	35	SPACE	--	--	1					--	--	1	--	--	SPACE	36	
	37					1000 VA	1000 VA									38	
	39	ECUH-1	M	20 A	3			1000 VA	1000 VA			3	20 A	M	ECUH-1	40	
	41									1000 VA	1000 VA					42	
					Total Load:	2000 VA		2000 VA		2000 VA							
					Total Amps:	17 A		17 A		17 A							
					Phase Balance:	0 % A-B		0 % B-C		0 % 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	6000 VA	112.50%	6750 VA	Total Connected Load:	6000 VA
C	Continuous	0 VA	0.00%	0 VA	Total Connected Current:	17 A
G	General	0 VA	0.00%	0 VA		
K	Kitchen	0 VA	0.00%	0 VA	Total Demand Load:	6750 VA
E	Existing	0 VA	0.00%	0 VA	Total Demand Current:	19 A
O	Other	0 VA	0.00%	0 VA		

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 DISTRICT WIDE HVAC REPLACEMENT

LINCOLN ELEMENTARY SCHOOL
238 BUHL ST N
TWIN FALLS, ID 83301

Sheet:
ELECTRICAL PANEL SCHEDULES

BID SET

PROFESSIONAL ENGINEER LICENSED 17703 02/27/2025 STATE OF IDAHO KYLE E. OLSON
Electrical

Revisions:

Project No: 23028
Drawn By: JS
Checked By: KO
Date: 02/27/2025

Sheet No: E4.03

Panel R

Location:
Supply From: DP1
Mounting: Surface
Enclosure: Type 1

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

A.I.C. Rating: 18 KAIC
Mains Type: MLO
Bus Rating: 125 A

Circuit Notes:

Note	Circ...	Load	Type	Trip	Po...	A	B	C	Po...	Trip	Type	Load	Circ...	Note
	1	R-LUNCH RM	--	20 A	1	0 VA	0 VA		1	20 A	--	R-CORRIDOR	2	
	3	R-LUNCH RM	--	20 A	1		0 VA	0 VA	1	20 A	--	R-CORRIDOR	4	
	5	R-LUNCH RM	--	20 A	1			0 VA	1	20 A	--	R-BASEMENT	6	
	7	ASSEMBLY RM	--	20 A	1	0 VA	0 VA		1	20 A	--	R-BASEMENT	8	
	9	TEACHERS RM	--	20 A	1		0 VA	0 VA	1	20 A	--	L/R-BASEMENT MAINT	10	
	11	WAITING RM	--	20 A	1			0 VA	1	20 A	--	L/R-BASEMENT MAINT	12	
	13	16 SW COOLER	--	20 A	1	0 VA	0 VA		1	20 A	--	L/R-BASEMENT MAINT	14	
	15	SPARE	--	20 A	1		0 VA	0 VA	1	20 A	--	SPARE	16	
	17	SPARE	--	20 A	1			0 VA	1	20 A	--	SPARE	18	
	19	SPARE	--	20 A	1	0 VA	0 VA		1	20 A	--	SPARE	20	
	21	ELEVATOR CAR LIGHTS	--	20 A	1		0 VA	0 VA	1	20 A	--	19 SW COOLER	22	
	23	ELEVATOR A/C	--	20 A	1			0 VA	1	20 A	--	SPARE	24	
	25	ELEVATOR MACH RM	--	20 A	1	0 VA	0 VA		1	20 A	--	ELEVATOR PIT LTG &...	26	
	27	ELEVATOR FURNACE	--	20 A	1		0 VA	0 VA	1	20 A	--	ELEVATOR EXT LTG	28	
	29	ELEVATOR MACH RM	--	20 A	1			0 VA	1	20 A	--	L/R-MACHINE RM	30	
	31	SPARE	--	20 A	1	0 VA	0 VA		1	20 A	--	SPARE	32	
	33	SPARE	--	20 A	1		0 VA	0 VA	1	20 A	--	SPARE	34	
	35	SPARE	--	20 A	1			0 VA	1	20 A	--	SPARE	36	
	37	SPACE	--	--	1	--	--		1	--	--	SPACE	38	
	39	SPACE	--	--	1		--	--	1	--	--	SPACE	40	
	41	SPACE	--	--	1			--	1	--	--	SPACE	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:

Panel T

Location:
Supply From: DP1
Mounting: Recessed
Enclosure: Type 1

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

A.I.C. Rating: 10 KAIC
Mains Type: MCB
Bus Rating: 100 A
MCB Rating: 100 A

Circuit Notes:

Note	Circ...	Load	Type	Trip	Po...	A	B	C	Po...	Trip	Type	Load	Circ...	Note
	1	EXISTING LOAD	--	20 A	1	0 VA	0 VA		1	20 A	--	CLOSET	2	
	3	WHITE	--	20 A	1		0 VA	0 VA	1	20 A	--	BLUE	4	
	5	LIGHTS	--	20 A	1			0 VA	1	20 A	--	EXISTING LOAD	6	
	7	YESLLOW PLUG	--	20 A	1	0 VA	0 VA		1	20 A	--	EXISTING LOAD	8	
	9	EXISTING LOAD	--	20 A	1		0 VA	0 VA	1	20 A	--	EXISTING LOAD	10	
	11	SPARE	--	20 A	1			0 VA	1	20 A	--	SPARE	12	
	13	SPARE	--	20 A	1	0 VA	0 VA		1	20 A	--	SPARE	14	
	15	SPARE	--	20 A	1		0 VA	0 VA	1	20 A	--	SPARE	16	
	17	SPARE	--	20 A	1			0 VA	1	20 A	--	SPARE	18	
				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		

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Project:
TFSD DISTRICT WIDE HVAC REPLACEMENT

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TWIN FALLS, ID 83301

Sheet:
ELECTRICAL PANEL SCHEDULES

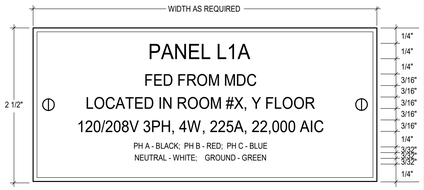
BID SET

PROFESSIONAL ENGINEER LICENSED 17708 02/27/2025 STATE OF IDAHO KYLE E. OLSON
Electrical

Revisions: △

Project No:	23028
Drawn By:	JS
Checked By:	KO
Date:	02/27/2025

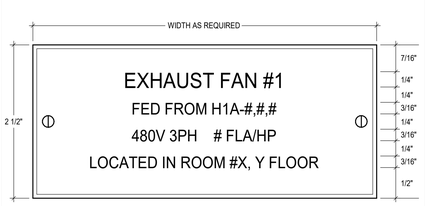
Sheet No:
E4.04



SUB-DISTRIBUTION CENTER AND BRANCH PANELBOARD NAMEPLATE DETAIL

SCALE: FULL

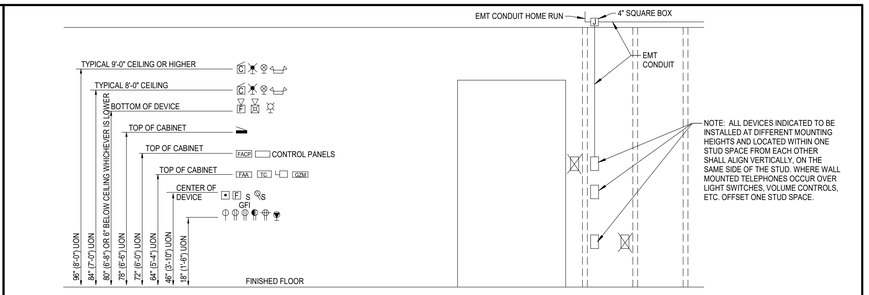
NOTES:
1. SEE SPECIFICATIONS FOR ADDITIONAL NAMEPLATE INFORMATION.
2. REWORD NAMEPLATE FOR FIELD CONDITIONS.
3. AMP RATING SHALL INDICATE BUS RATING.
4. CONFIRM ROOM NUMBER (X) AND FLOOR (Y) WITH OWNER AND ARCHITECT PRIOR TO PRINTING LABEL.
5. REFER TO SPECIFICATIONS FOR 277/480V PHASE CONDUCTOR COLOR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



UTILIZATION EQUIPMENT NAMEPLATE DETAIL

SCALE: FULL

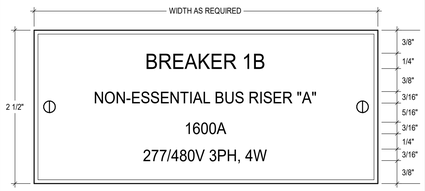
NOTES:
1. SEE SPECIFICATIONS FOR ADDITIONAL NAMEPLATE INFORMATION.
2. REWORD NAMEPLATE FOR FIELD CONDITIONS.
3. HP SHALL INDICATE HORSEPOWER; FLA SHALL INDICATE FULL LOAD AMPS.
4. CONFIRM ROOM NUMBER (X) AND FLOOR (Y) WITH OWNER AND ARCHITECT PRIOR TO PRINTING LABEL.



TYPICAL ELECTRICAL DEVICE MOUNTING HEIGHTS

NO SCALE

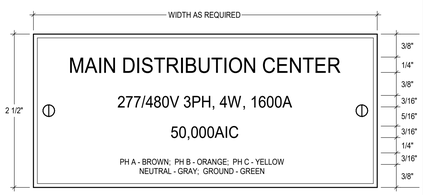
NOTES:
1. HEIGHTS SHOWN ARE TYPICAL TO CENTERLINE OF BOX UNLESS NOTED OTHERWISE.
2. WHERE EVER DEVICES ARE INDICATED TO BE ABOVE DOORS, DEVICE SHALL BE CENTERED BETWEEN TOP OF DOOR TRIM AND CEILING LINE.
3. MOUNTING HEIGHTS SHOWN ON ARCHITECTURAL ELEVATIONS SHALL GOVERN OVER THOSE SHOWN ABOVE. VERIFY 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 48" 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.



MAIN DISTRIBUTION CENTER COMPARTMENT NAMEPLATE DETAIL

SCALE: FULL

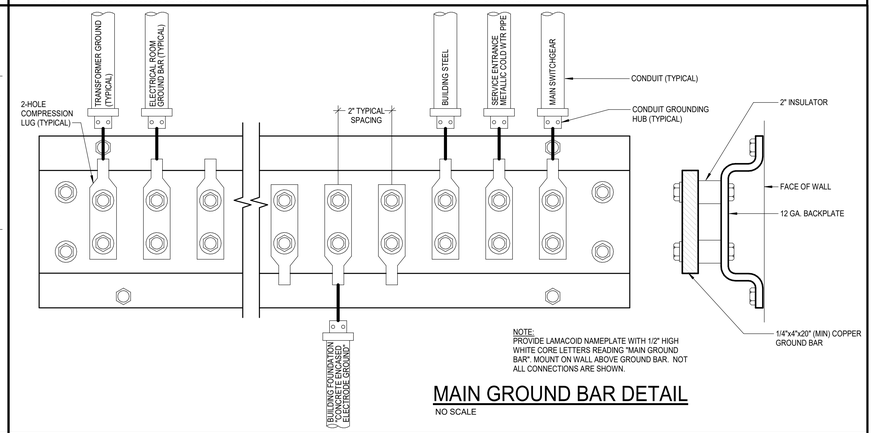
NOTES:
1. SEE SPECIFICATIONS FOR ADDITIONAL NAMEPLATE INFORMATION.
2. REWORD NAMEPLATE FOR FIELD CONDITIONS.



MAIN DISTRIBUTION CENTER NAMEPLATE DETAIL

SCALE: FULL

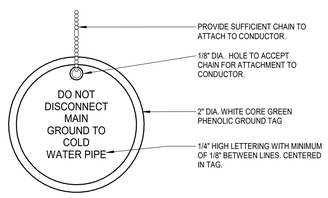
NOTES:
1. SEE SPECIFICATIONS FOR ADDITIONAL NAMEPLATE INFORMATION.
2. REWORD NAMEPLATE FOR FIELD CONDITIONS.
3. AMP RATING SHALL INDICATE BUS RATING.



NOTE:
PROVIDE LAMACOID NAMEPLATE WITH 1/2" HIGH WHITE CORE LETTERS READING "MAIN GROUND BAR". MOUNT ON WALL ABOVE GROUND BAR. NOT ALL CONNECTIONS ARE SHOWN.

MAIN GROUND BAR DETAIL

NO SCALE



GROUND CONDUCTOR TAG DETAIL

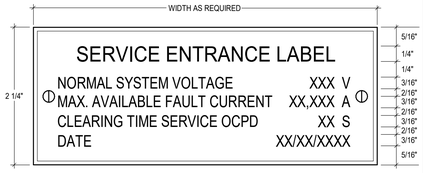
NO SCALE

ALL GROUNDING WORK DONE UNDER THIS CONTRACT SHALL INCLUDE THE FOLLOWING UNLESS SPECIFICALLY EXCLUDED:

A. TAG ALL GROUNDING ELECTRODE CONDUCTORS AND ASSOCIATED BONDING CONDUCTORS AT THEIR POINT OF ATTACHMENT TO GROUND BUS AND GROUNDING ELECTRODE (WHERE POSSIBLE) WITH A ROUND WHITE CORE. GREEN PHENOLIC NAMEPLATE AS SHOWN IN DETAIL 'A'.

B. IDENTIFY ABOVE REFERENCED CONDUCTORS WITH 6" BAND OF GREEN TAPE AT EACH END AND AT 10'INTERVALS WHERE RUN EXPOSED. STENCIL CONDUITS CONTAINING THESE CONDUCTORS "MAIN GROUND" IN GREEN KROY LETTERS. 1/2" DIAMETER OF CONDUIT IN HEIGHT.

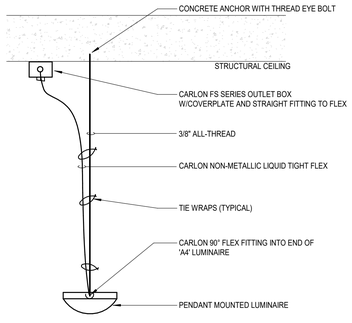
C. SHOW GROUNDING ELECTRODE SYSTEM CONNECTIONS BY IDENTIFYING (ON THE RECORD DRAWING MARK-UPS) WHERE (ROOM NO. AND/OR NAME) AND TO WHAT (ROD, WATER PIPE, GROUND BUS, ETC.) THEY TERMINATE.



SERVICE ENTRANCE LABEL SECONDARY NAME PLATE DETAIL MAX AVAILABLE FAULT CURRENT

SCALE: FULL

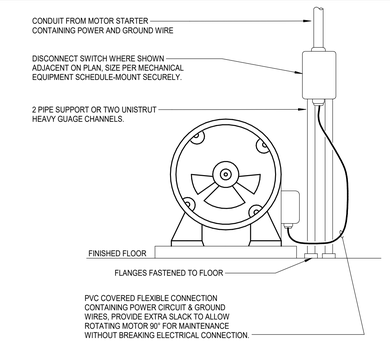
NOTES:
1. SEE SPECIFICATIONS FOR ADDITIONAL NAMEPLATE INFORMATION.



PENDANT LUMINAIRE MOUNTING DETAIL

NO SCALE

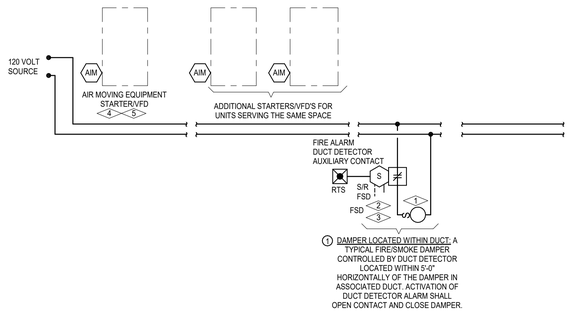
NOTE: SEE SPECIFICATIONS FOR ADDITIONAL SUPPORT, SEISMIC AND OTHER REQUIREMENTS.



CONNECTION TO FLOOR MOUNTED MOTORS

NO SCALE

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



TYPICAL FIRE/SMOKE DAMPER CONTROL WIRING DIAGRAM

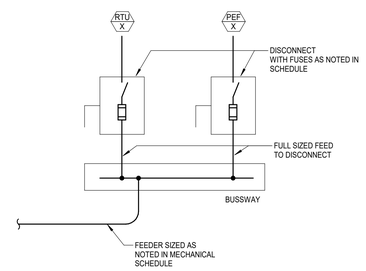
NO SCALE

TYPICAL FIRE/SMOKE DAMPER GENERAL NOTES:

1. SEE MECHANICAL PLAN DRAWING FOR ACTUAL LOCATION AND QUANTITIES OF DAMPERS.
2. PROVIDE OUTPUT MODULE AT EACH FSD DETECTOR DEVICE AS REQUIRED.

TYPICAL FIRE/SMOKE DAMPER DETAIL NOTES:

1. ELECTRIC/PNEUMATIC SWITCH OR ELECTRIC DAMPER OPERATOR(TYPICAL). EP SWITCH PROVIDED WITH DAMPEROPERATOR. PROVIDE LOCAL DISCONNECT.
2. CONNECT OUTPUT MODULES AND DETECTORS TO FACP FOR ALARM AND ANNUNCIATION SEPARATE FROM DAMPER CONTROL WIRING.
3. COORDINATE AND PROVIDE CEILING/WALL ACCESS DOORS TO DUCT DETECTORS WHERE REQUIRED.
4. PROVIDE CLOSURE OF ALL ASSOCIATED FIRE/SMOKE DAMPERS ON AIR MOVING EQUIPMENT SHUTDOWN. PROVIDE MONITOR MODULE AT EACH UNIT RELATED TO THE DAMPERS TO MONITOR RUN STATUS OF UNIT VIA AUXILIARY CONTACTS IN STARTER/VFD. PROVIDE CONDUIT, WIRING AND CONNECTIONS.
5. COORDINATE AND PROGRAM AIR MOVING EQUIPMENT SHUTDOWN TO AHU'S UPON CLOSURE OF AN ASSOCIATED FIRE/SMOKE DAMPER WHERE NOTED ON MECHANICAL DRAWINGS AND/OR IN SPECIFICATIONS.



ROOFTOP UNIT / POWERED EXHAUST FAN CONNECTION DETAIL

NO SCALE

BID SET

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Sheet:
ELECTRICAL DETAILS

PROFESSIONAL ENGINEER LICENSED 17708 02/27/2025 STATE OF IDAHO KYLE E. OLSON
Electrical

Revisions:

Project No:	23028
Drawn By:	JS
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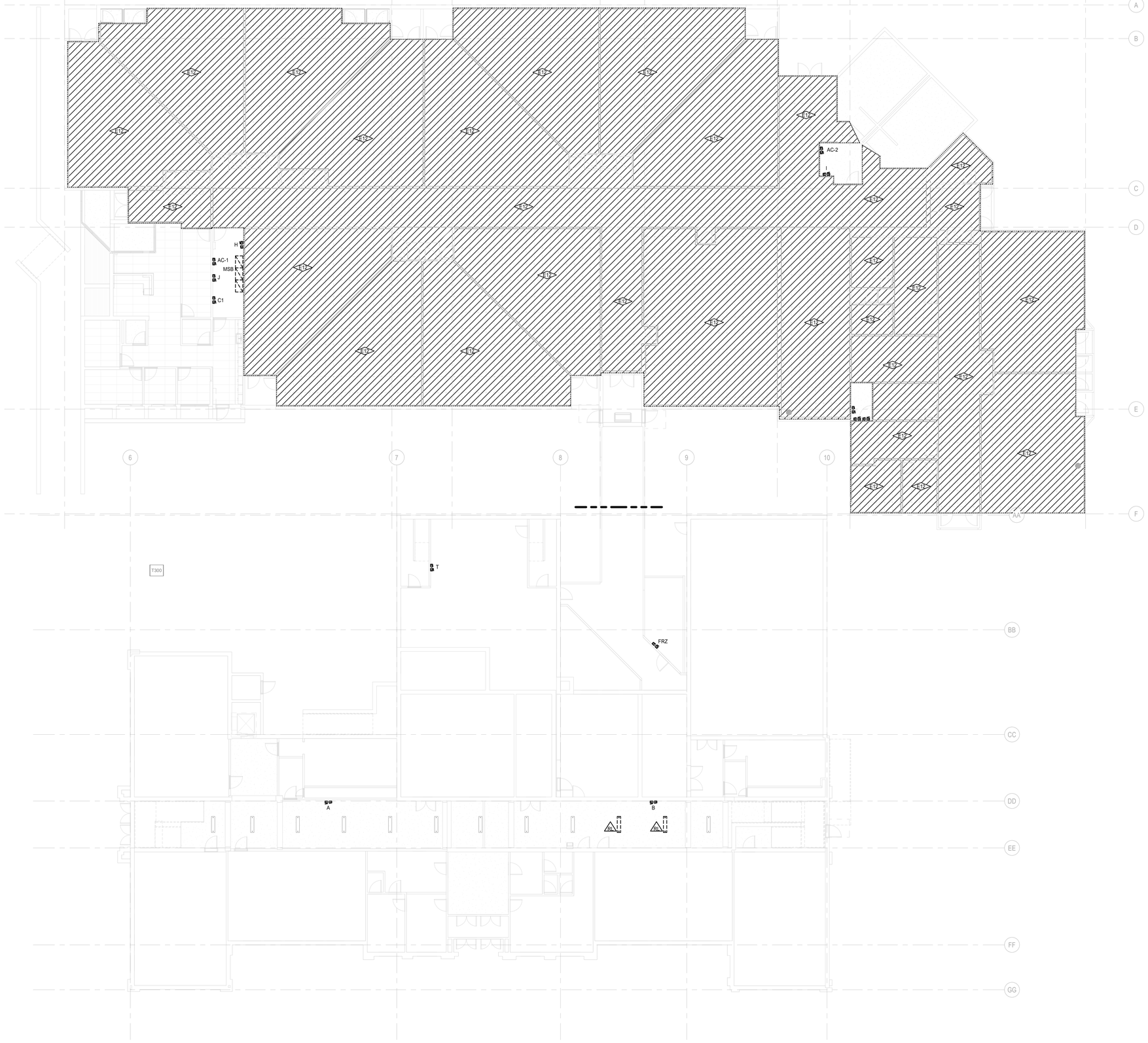
E5.01



KEYNOTES

E12	EXISTING LUMINAIRES TO BE REMOVED THROUGH DEMO. PRESERVE AND PROTECT EXISTING CIRCUITRY FOR RE-USE. ENSURE CIRCUIT CONTINUITY OF DOWNSTREAM DEVICES AND ADJACENT SPACES IS MAINTAINED THROUGHOUT WORK.

1"

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

LEVEL 01 - COMPOSITE LIGHTING DEMOLITION PLAN

SCALE: 1" = 10'-0"

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Sheet:
LEVEL 01 - COMPOSITE LIGHTING DEMOLITION PLAN

BID SET

Revisions:

PROFESSIONAL ENGINEER LICENSED 17703 02/27/2025 STATE OF IDAHO KYLE E. OLSON Electrical

Project No:	23028
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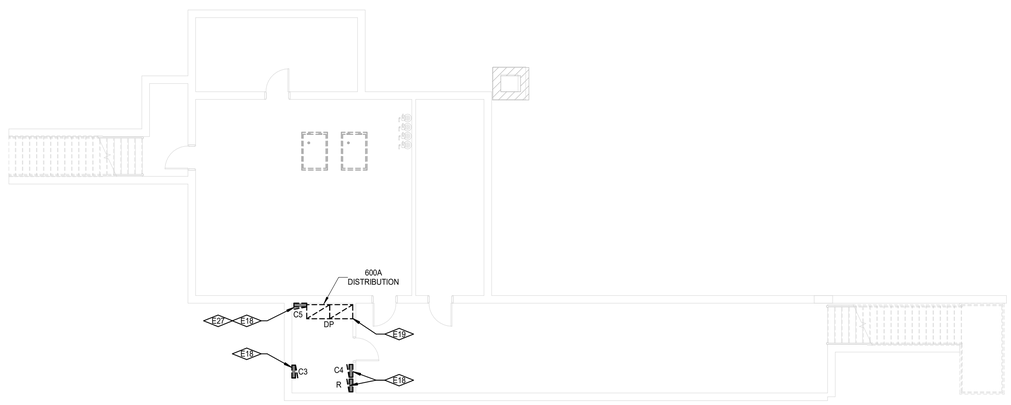
Checked By:	KO
Date:	02/27/2025

Sheet No:
ED2.01

KEYNOTES

E18	BID ALT: EXISTING EQUIPMENT TO BE REMOVED THROUGH DEMO. PRESERVE AND PROTECT EXISTING CIRCUITRY FOR RE-USE. ENSURE CIRCUIT CONTINUITY OF DOWNSTREAM DEVICES AND ADJACENT SPACES IS MAINTAINED THROUGHOUT WORK. PROVIDE HANDLE TIES OR MULTI-POLE BREAKERS WHERE EXISTING BRANCH CIRCUITS SHARE NEUTRALS.
E19	EXISTING EQUIPMENT TO BE REMOVED THROUGH DEMO. PRESERVE AND PROTECT EXISTING CIRCUITRY FOR RE-USE. ENSURE CIRCUIT CONTINUITY OF DOWNSTREAM DEVICES AND ADJACENT SPACES IS MAINTAINED THROUGHOUT WORK.
E27	PANEL NAME FOR INFORMATION ONLY. EXISTING PANEL IS NOT NAMED.



BASEMENT - COMPOSITE POWER DEMOLITION PLAN

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

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

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Sheet:
BASEMENT - COMPOSITE POWER DEMOLITION PLAN

BID SET

PROFESSIONAL ENGINEER LICENSED 17708 02/27/2025 STATE OF IDAHO KYLE E. OLSON
Electrical

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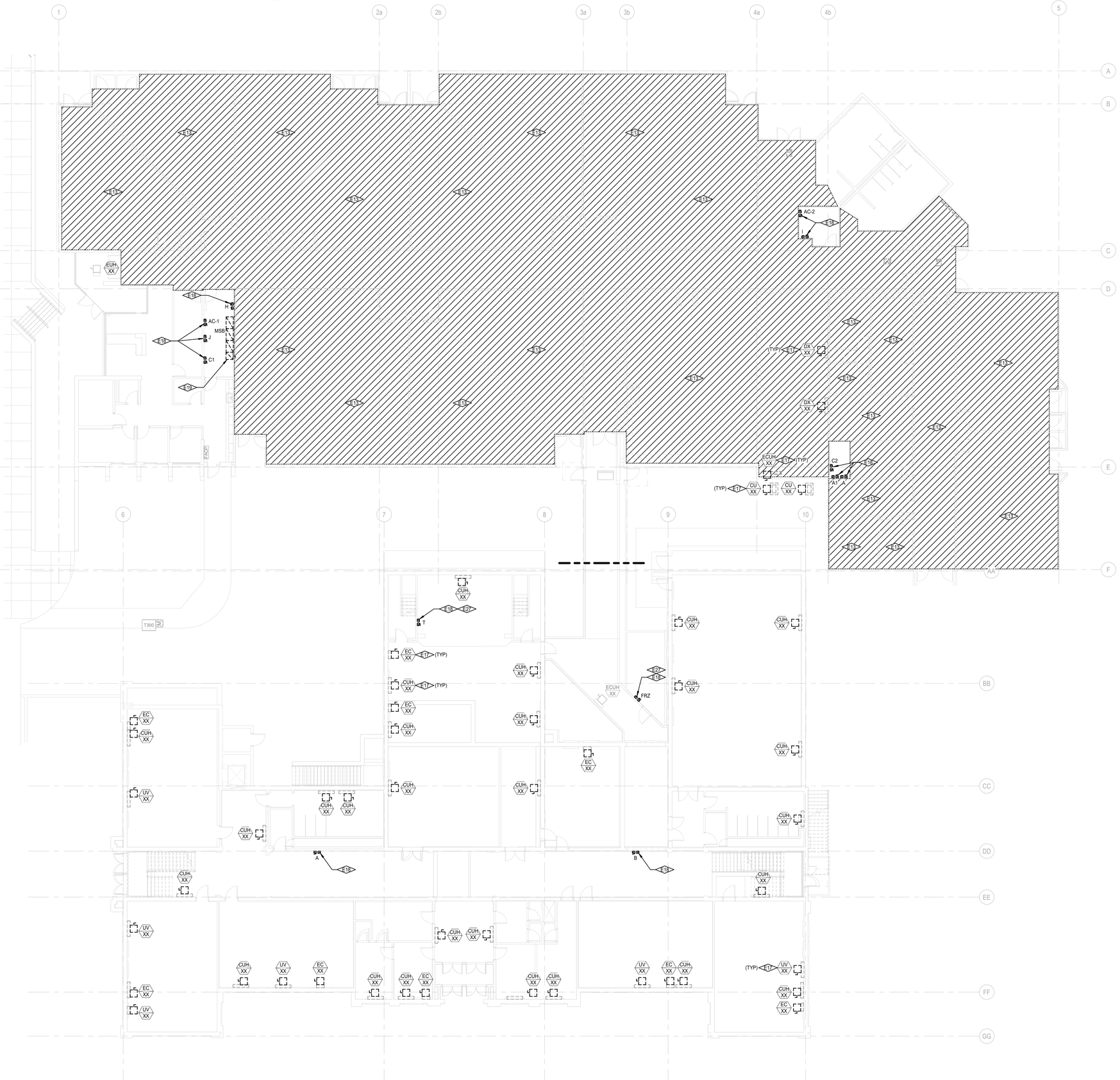

KEYNOTES

E13	EXISTING CEILING IN THIS ROOM TO BE REMOVED THROUGH DEMO. REMOVE ALL CEILING MOUNTED POWER, FIRE ALARM AND LOW VOLTAGE OUTLETS. PRESERVE AND PROTECT EXISTING CIRCUITRY FOR RE-USE. ENSURE CIRCUIT CONTINUITY OF DOWNSTREAM DEVICES AND ADJACENT SPACES IS MAINTAINED THROUGHOUT WORK.
E17	EXISTING EQUIPMENT TO BE REMOVED THROUGH DEMO PHASE. IF BID ALTERNATE IS NOT ACCEPTED, DEMO CONDUIT AND ASSOCIATED BRANCH CIRCUITRY BACK TO PANEL. TURN BREAKER TO OFF POSITION AND RE-LABEL AS SPARE. OTHERWISE, DEMO AS INDICATED.
E18	BID ALT: EXISTING EQUIPMENT TO BE REMOVED THROUGH DEMO. PRESERVE AND PROTECT EXISTING CIRCUITRY FOR RE-USE. ENSURE CIRCUIT CONTINUITY OF DOWNSTREAM DEVICES AND ADJACENT SPACES IS MAINTAINED THROUGHOUT WORK. PROVIDE HANDLE TIES OR MULTI-POLE BREAKERS WHERE EXISTING BRANCH CIRCUITS SHARE NEUTRALS.
E19	EXISTING EQUIPMENT TO BE REMOVED THROUGH DEMO. PRESERVE AND PROTECT EXISTING CIRCUITRY FOR RE-USE. ENSURE CIRCUIT CONTINUITY OF DOWNSTREAM DEVICES AND ADJACENT SPACES IS MAINTAINED THROUGHOUT WORK.
E27	PANEL NAME FOR INFORMATION ONLY. EXISTING PANEL IS NOT NAMED.

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

LEVEL 01 - COMPOSITE POWER DEMOLITION PLAN
SCALE: 1" = 10'-0"

BID SET

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Sheet:
LEVEL 01 - COMPOSITE POWER DEMOLITION PLAN

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Electrical

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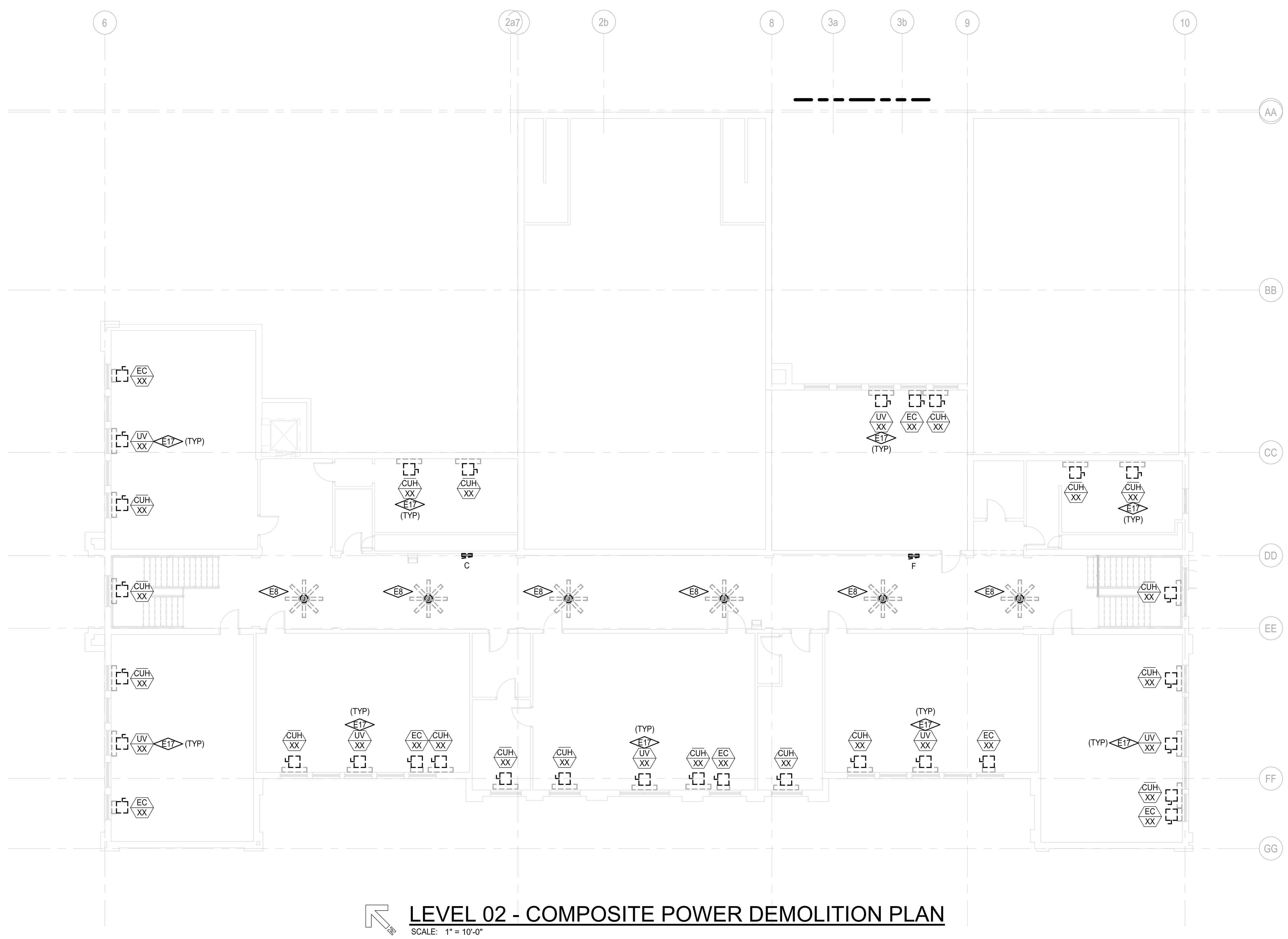
Date:	02/27/2025

Sheet No:
ED2.11

2/27/2025 10:44:57 AM P:\Idaho\2024\2024-333 TFSD Lincoln Elementary HVAC Upgrade\Cad

KEYNOTES

E8	EXISTING CEILING FAN TO BE REMOVED THROUGH DEMO PHASE. DEMO CONDUIT AND ASSOCIATED BRANCH CIRCUITRY BACK TO PANEL.
E17	EXISTING EQUIPMENT TO BE REMOVED THROUGH DEMO PHASE. IF BID ALTERNATE IS NOT ACCEPTED, DEMO CONDUIT AND ASSOCIATED BRANCH CIRCUITRY BACK TO PANEL. TURN BREAKER TO OFF POSITION AND RE-LABEL AS SPARE. OTHERWISE, DEMO AS INDICATED.



LEVEL 02 - COMPOSITE POWER DEMOLITION PLAN

SCALE: 1" = 10'-0"

1"

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

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LEVEL 02 - COMPOSITE POWER DEMOLITION PLAN

BID SET

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Electrical

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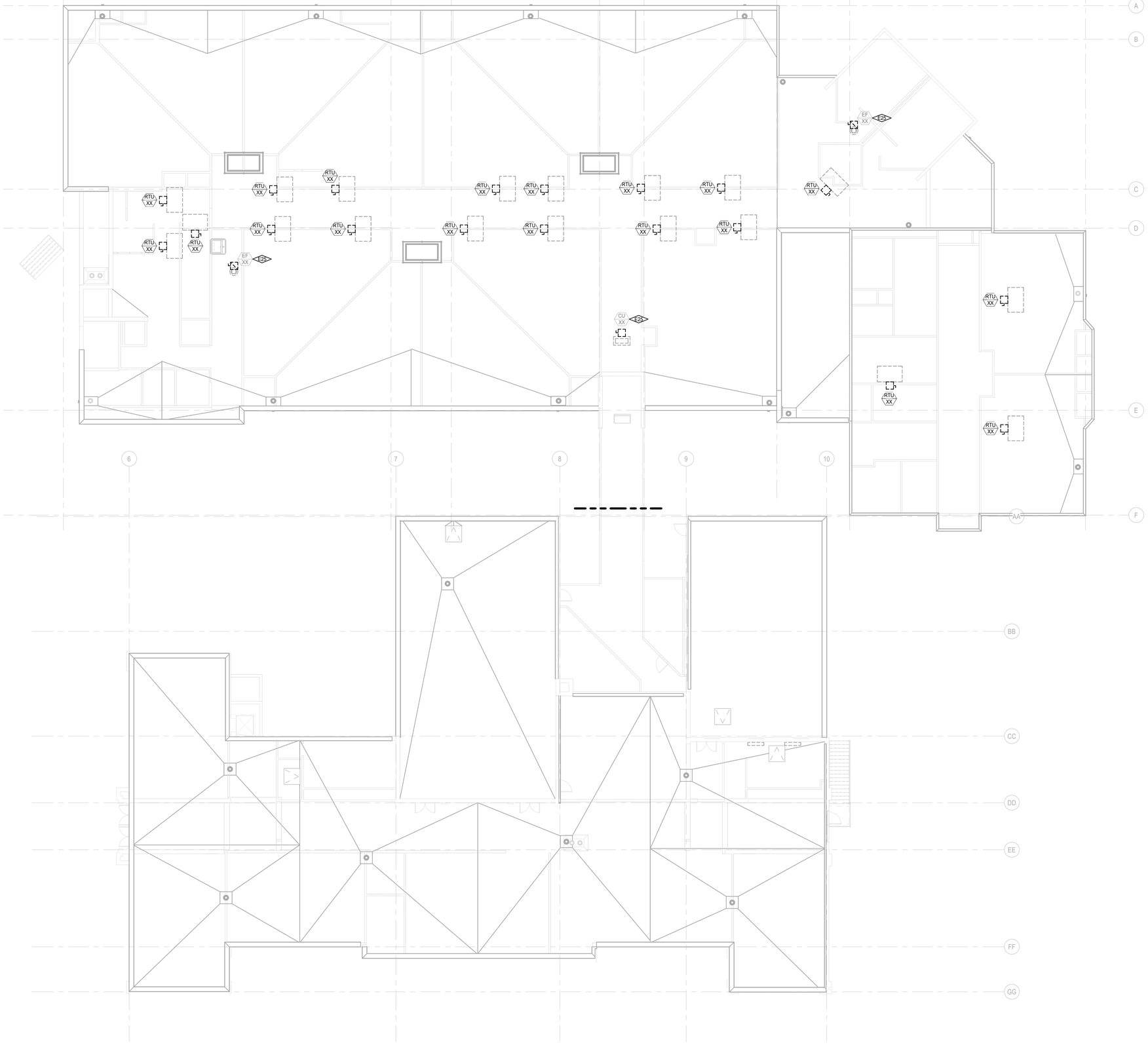
Sheet No:

ED2.12

KEYNOTES

E25	REINSTALL EXISTING ELECTRICAL CONNECTION TO FEED REINSTALLED MECHANICAL EQUIPMENT.



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

ROOF - COMPOSITE ELECTRICAL DEMOLITION PLAN
SCALE: 1" = 10'-0"

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Sheet:
ROOF - COMPOSITE POWER DEMOLITION PLAN

BID SET

Revisions:

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ED2.13