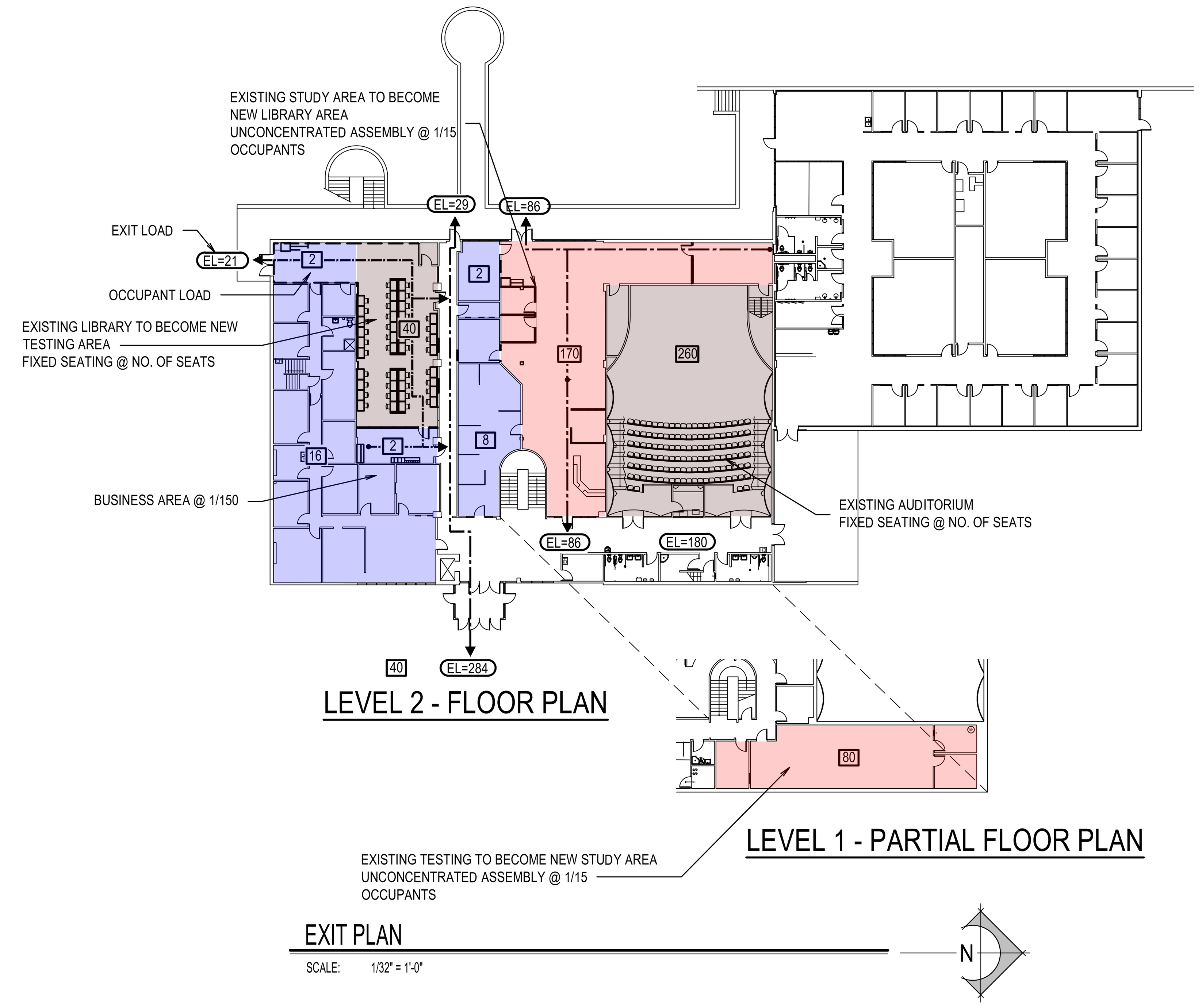
DPW PROJECT No. 2021 233

ISU–RELOCATE TESTING CENTER

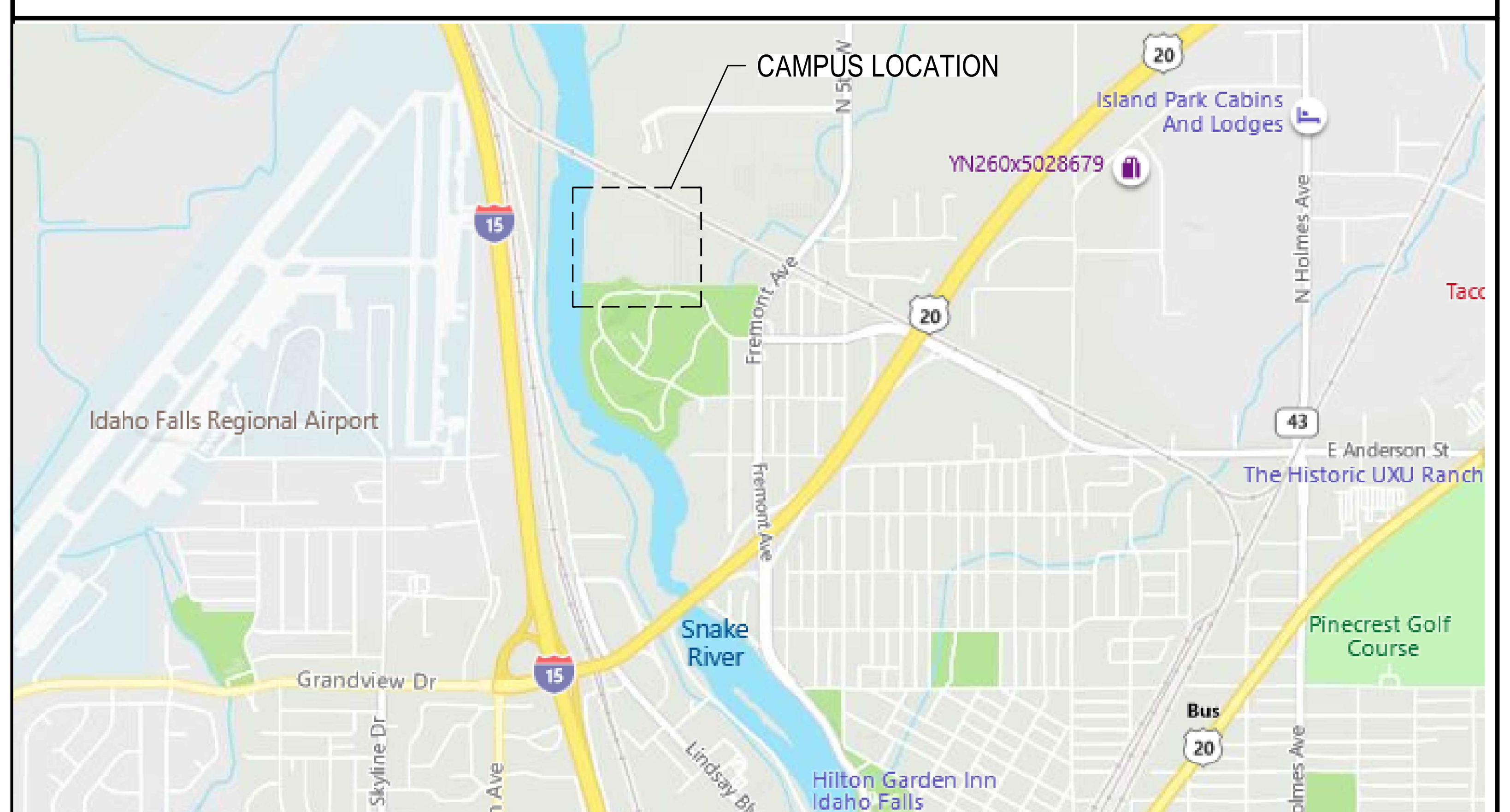
TINGEY ADMINISTRATION BUILDING

1776 SCIENCE CENTER DRIVE
IDAHO FALLS, IDAHO 83402



EXIT PLAN
SCALE: 1/32" = 1'-0"

VICINITY MAP



SYMBOLS LEGEND

DETAIL — SCALE: ?" = 1'-0" — DETAIL NUMBER / DETAIL TITLE TAG / PAGE NUMBER

HEAD — SCALE: ?" = 1'-0" — DETAIL NUMBER / HEAD DETAIL TAG / PAGE NUMBER

JAMB — SCALE: ?" = 1'-0" — DETAIL NUMBER / JAMB DETAIL TAG / PAGE NUMBER

SECTION — SCALE: ?" = 1'-0" — DETAIL NUMBER / SECTION TITLE TAG / PAGE NUMBER

SILL — SCALE: ?" = 1'-0" — DETAIL NUMBER / SILL DETAIL TAG / PAGE NUMBER

TITLE — SCALE: ?" = 1'-0" — MAIN TITLE TAG

ELEV. 100'-0" FINISHED FLOOR — ELEVATION HEIGHT TAG

BREAK LINE

SECTION NUMBER / BUILDING SECTION TAG / PAGE NUMBER

DETAIL NUMBER / DETAIL TAG / PAGE NUMBER

DRAWING NOTE

NORTH ARROW

REVISION TAG

ROOM — ROOM NAME / ROOM NAME TAG / ROOM NUMBER

DOOR TAG

WINDOW TAG

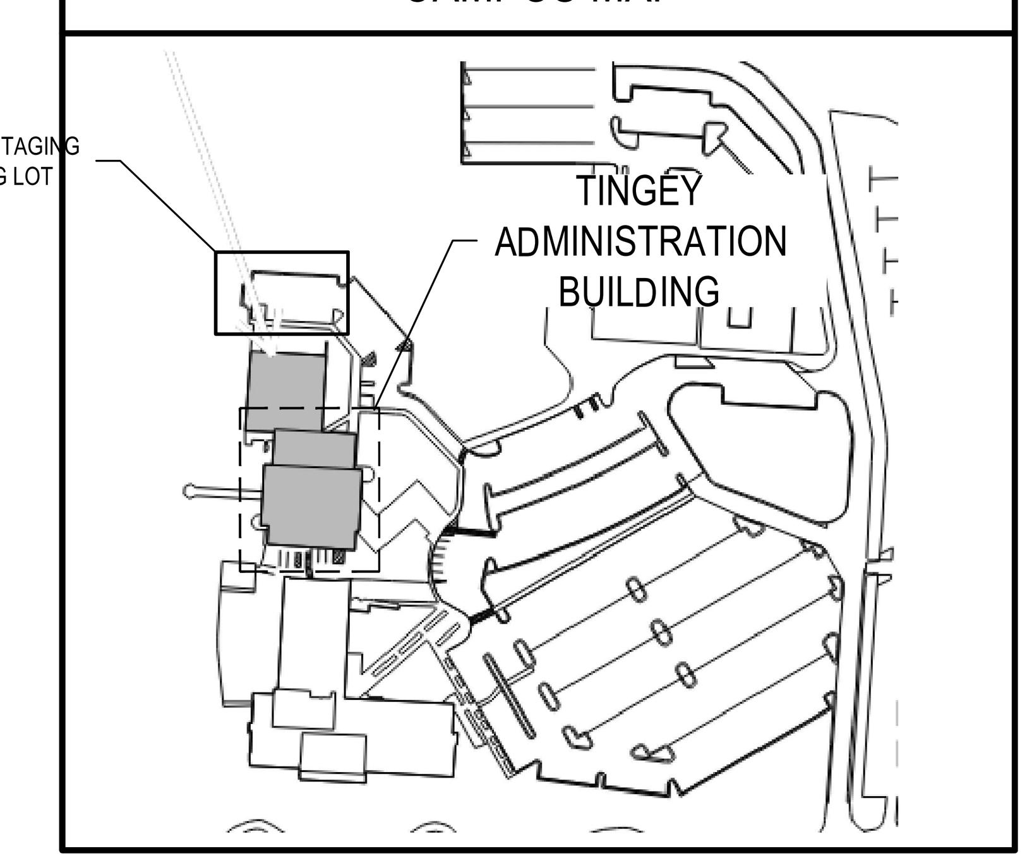
WALL TYPE

SITE NOTES

1. CONTRACTOR SHALL STAGE MATERIALS AND EQUIPMENT WHEN POSSIBLE WITHIN THE PROPOSED PROJECT AREA. MATERIALS NOT ABLE TO BE STAGED WITHIN THAT AREA SHALL BE STORED OFFSITE UNTIL READY TO INSTALL.
2. CONTRACTOR SHALL OBTAIN PARKING PASSES FROM ISU FACILITIES PERSONNEL AND UTILIZE THE PARKING AREA NORTH OF BUILDING.

CAMPUS MAP

CONTRACTOR STAGING NORTH PARKING LOT



CODE ANALYSIS

GOVERNING CODES:

BUILDING/STRUCTURAL:	2018 IBC
MECHANICAL:	2018 IMC
PLUMBING:	2017 ISPC
ELECTRICAL	2017 NEC

CONSTRUCTION TYPE:
TYPE V - B

BUILDING OCCUPANCY GROUP:
E, B

THE OCCUPANT LOAD IN THE AREAS OF RENOVATION HAVE NOT CHANGED.
EXITS FROM THE RENOVATION AREAS ARE EXISTING: NO ADDITIONAL LOAD WAS ADDED TO THE EXIT PASSAGE WAY.

Agency Construction Approval

CONSTRUCTION APPROVAL BY RESPONSIBLE CHIEF OFFICER OF INSTITUTION OR AGENCY

(IDAHO CODE 67-5710)

This is to indicate that I or my delegated staff have reviewed the final plans and specifications for:
2021233 ISU: Relocate Testing Center, Tingey

DPW Project No.
2021233

This project incorporates the required program elements within the funding limitations authorized, and authorize the Division of Public Works to proceed with bidding of the project. If acceptable bids are received, I will approve awarding a contract and construction of the facilities in accordance with the plans and specifications.

Agency:
ISU

Agency Signature Authority:
Cheryl Hansen

Approval **Approved** **Due:** 28-Jul-2021

	Name or Role	Status	Actions
1	Agency - Signature Authority	**Approved** Cheryl Hanson 20-Jul-2021 08:44 AM MST	
2	Project Manager	**Approved** Margie Kennedy 21-Jul-2021 08:23 AM MST	
3	Project Manager Senior	**Approved** Margie Kennedy (SR PM) 21-Jul-2021 08:25 AM MST	
4	DPW Administrator	**Approved** Pat Donaldson 21-Jul-2021 02:22 PM MST	

DRAWING INDEX

ARCHITECTURAL	
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A1.3	LEVEL 1 - DEMOLITION & RENOVATION PLANS
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A1.5	ALTERNATE CONDITIONS AND DETAILS
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M2.1	LEVEL 2 - HVAC DEMOLITION PLAN
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E2.0	LEVEL 2 - POWER DEMOLITION PLAN
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E3.0	LEVEL 2 - SPECIAL SYSTEMS DEMOLITION PLAN
E3.1.1	LEVEL 2 - SPECIAL SYSTEMS INSTALLATION PLAN
E4.0	LEVEL 2 - FIRE ALARM DEMOLITION PLAN
E4.1	LEVEL 2 - FIRE ALARM INSTALLATION PLAN
E5.0	ONE-LINE AND ELECTRICAL DETAILS
E5.1	ELECTRICAL DETAILS
E6.0	ELECTRICAL SCHEDULES
E7.0	LIGHTING DETAILS

DESIGN TEAM

ARCHITECT:
JAMES WYATT, A.I.A.
NBW ARCHITECTS, P.A.
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FAX: (208) 522-8785

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FAX: (208) 523-2864

ELECTRICAL ENGINEER:
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MUSGROVE ENGINEERING INC.
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FAX: (208) 523-2864

BLD2105-00098
BUILDING SAFETY
REVIEWED FOR CODE COMPLIANCE
This approval shall not be construed to be an approval of any violation of, or variance from, Idaho's adopted codes, standards, laws or rules applicable to this project.
SEPARATE BUILDING PERMIT REQUIRED FOR CONSTRUCTION

LICENSED ARCHITECT
AR-92339
[illegible]
06-14-21
JAMES WYATT
STATE OF IDAHO

nbw architects p.a.
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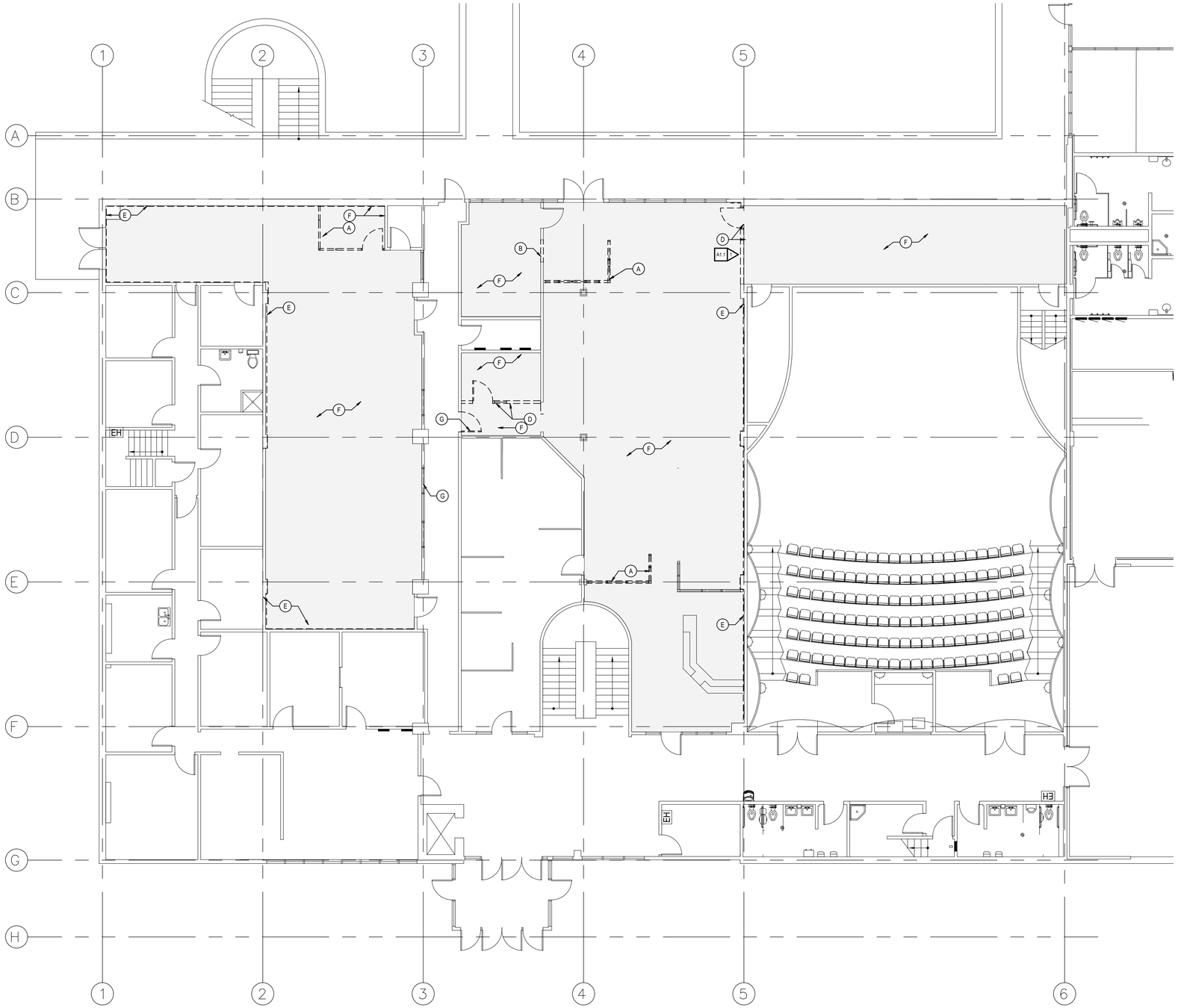
PROJECT:
DPW 21-233
ISU - RELOCATE TESTING CENTER
TINGEY ADMINISTRATIVE BUILDING
IDAHO FALLS, IDAHO

SHEET TITLE:
TITLE SHEET & GENERAL INFORMATION

REVISIONS

PROJECT NO.: NBW 20027
DATE: APRIL 2021
DRAWN BY: ???
CHECKED BY: JHW
DRAWING NO.:

TS0.1



LEVEL 2 - DEMOLITION FLOOR PLAN

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

GENERAL NOTES

1. ALL DEMOLISHED MATERIALS SHALL BE REMOVED FROM PROJECT SITE AND DISPOSED OF AS REQUIRED BY LOCAL AUTHORITY HAVING JURISDICTION.
2. CONTRACTOR SHALL TAKE STEPS TO LIMIT AIRBORNE CONSTRUCTION DEBRIS AND SOUND FROM ADJACENT OCCUPIED SPACES.

○ DEMOLITION KEYNOTES

A. REMOVE EXISTING CUBICLE WALL CONSTRUCTION. RETAIN COMPONENTS FOR RE-INSTALLATION AS DIRECTED. RETAIN REMAINING COMPONENTS FOR OWNER S USE.

B. REMOVE PORTION OF EXISTING PARTITION WALL CONSTRUCTION TO ACCOMMODATE INSTALLATION OF NEW WINDOW ASSEMBLY

C. NOT USED

D. REMOVE EXISTING PARTITION WALL AND DOOR ASSEMBLY CONSTRUCTION.

E. DASHED LINE INDICATES EXTENT OF EXISTING FULL HEIGHT CEDAR PLANK WALL COVERING TO BE REMOVED. ALTERNATE #3

F. REMOVE EXISTING CARPET AND WALL BASE TO ACCOMMODATE INSTALLATION OF NEW.

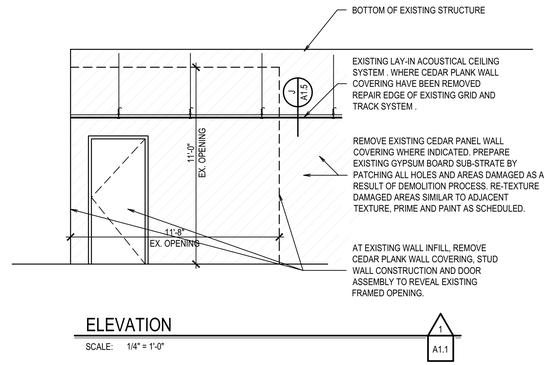
G. REMOVE EXISTING MAN DOOR ASSEMBLY TO ACCOMMODATE INSTALLATION OF INFILL WALL CONSTRUCTION.

SCHEDULE OF ALTERNATES:

ALTERNATE 1: PROVIDE TESTING CENTER MILLWORK 4,5,5A AND 6/A1.4.

ALTERNATE 2: PROVIDE ALUMINUM STORE FRONT ASSEMBLY IN LIEU OF THE STUD WALL AND HOLLOW METAL WINDOW FRAME ASSEMBLY.

ALTERNATE 3: REMOVE EXISTING CEDAR WALL PANELING AND REPAIR GYPSUM BOARD SUB-STRATE.



ELEVATION

SCALE: 1/4" = 1'-0"

BLD2105-00098

REVIEWED FOR CODE COMPLIANCE

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SEPARATE BUILDING PERMIT REQUIRED FOR CONSTRUCTION

LICENSED ARCHITECT AR-982639
06-14-21
JAMES WYATT
STATE OF IDAHO

nbw architects p.a.
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PROJECT:
DPW 21-233
ISU - RELOCATE TESTING CENTER
TINGEY ADMINISTRATIVE BUILDING
IDAHO FALLS, IDAHO

SHEET TITLE:
LEVEL 2 - DEMOLITION FLOOR PLAN

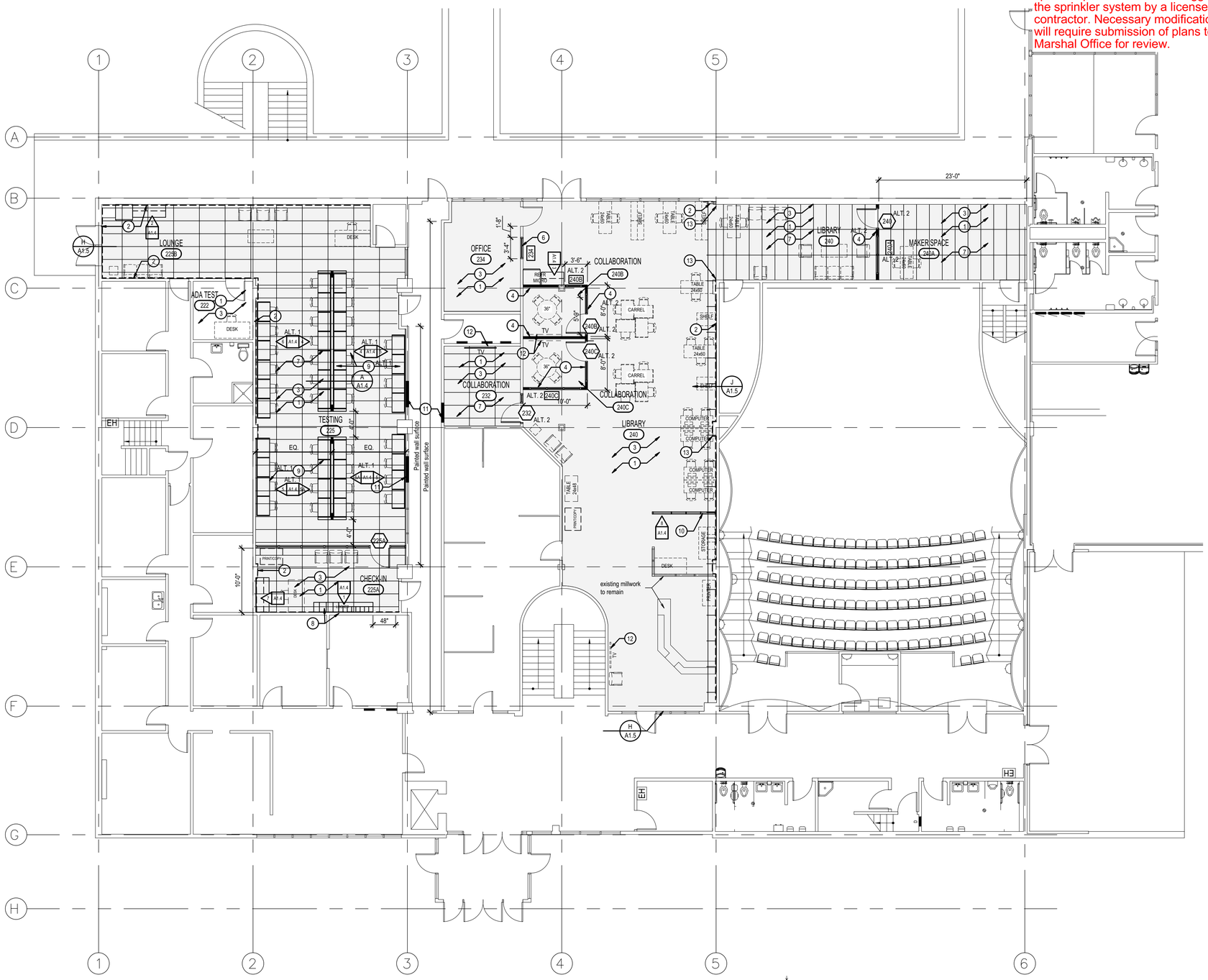
REVISIONS

PROJECT NO.: NBW 20027
DATE: APRIL 2021
DRAWN BY: CGK
CHECKED BY: JHW

DRAWING NO.:

A1.1

The installation/removal of walls may affect the fire sprinkler performance. We suggest evaluation of the sprinkler system by a licensed fire sprinkler contractor. Necessary modification of the system will require submission of plans to State Fire Marshal Office for review.



LEVEL 2 - RENOVATION FLOOR PLAN

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

GENERAL NOTES

1. WOOD STUD WALL PARTITION ARE TO BE FRAMED TO UNDERSIDE OF EXISTING LAY-IN CEILING SYSTEM. PROVIDE STUD FRAME BRACING ABOVE CEILING FOR ATTACHMENT. SEE DETAILS E.G/A1.5
2. GLASS WALL PARTITIONS ARE TO BE FRAMED TO UNDERSIDE OF EXISTING LAY-IN CEILING SYSTEM. PROVIDE STUD FRAME BRACING ABOVE CEILING FOR ATTACHMENT. SEE DETAIL E/A1.5
3. WHERE CARPET IS TO BE INSTALLED, CONTRACTOR SHALL RE-NAIL ALL LOOSE PLYWOOD SUB-FLOORING AND LEVEL ALL AREAS TO ACCOMMODATE INSTALLATION OF NEW FLOORING AS RECOMMENDED BY MANUFACTURE.
4. WHERE NEW PAINTING IS INDICATED TO BE APPLIED, CONTRACTOR SHALL PATCH ALL DAMAGED AREAS , FILL AND TEXTURE ALL HOLES, CRACKS AND OTHER DEFORMITIES.
5. WHERE ROOMS ARE INDICATED FOR WALL PAINT, STAIN AND URETHANE ALL EXISTING WOOD DOOR ASSEMBLES AND PAINT HOLLOW METAL FRAME ASSEMBLIES FINISHED ROOM SIDE ONLY.
6. HVAC ROOF PENETRATION FLASHING SHALL BE COORDINATED WITH ROOFING MANUFACTURE RECOMMENDATIONS. .
7. WHERE ELECTRICAL DEVICES HAVE BEEN REMOVED, CONTRACTOR SHALL PATCH , TAPE AND TEXTURE TO MATCH EXISTING AND PAINT AS SCHEDULED.
8. THE OWNER SHALL PROVIDE PORTABLE FIRE EXTINGUISHER AND SHALL MOUNT AND IDENTIFY THEM SO THAT THEY ARE READILY ACCESSIBLE TO THE PUBLIC WITHOUT SUBJECTING THEM TO POSSIBLE INJURY. THE TRAVEL DISTANCE TO ANY EXTINGUISHER SHALL BE 75 FEET OR LESS.

WALL LEGEND

- EXISTING CONSTRUCTION TO REMAIN
- DEMOLITION WALL CONSTRUCTION
- NEW WALL / INFILL CONSTRUCTION - 2x4 STUDS @ 16" o.c. & (1) LAYER 5/8" GYPSUM BOARD EACH SIDE

RENOVATION KEYNOTES

1. INSTALL NEW CARPET AND BASE AS SPECIFIED. PREPARE SUBSTRATE AS INDICATED ABOVE.
2. REPAIR EXISTING GYPSUM WALL BOARD SURFACES WHERE CEDAR PLANK WALL FINISH HAS BEEN REMOVED, TAPE, TEXTURE GYPSUM SURFACE AS REQUIRED AND PAINT. ALTERNATE #3.
3. PAINT ALL EXISTING GYPSUM WALL BOARD SURFACES. PREPARE SUBSTRATE AS REQUIRED ABOVE.
4. WALL CONSTRUCTION: 2x4 WOOD STUD @ 16" o.c. w/ (1) LAYER 5/8" GYPSUM BOARD EACH SIDE AND STUD WALL BRACING ABOVE EXISTING CEILING.
5. 3'-0" x 7'-0" WOOD DOOR AND HOLLOW METAL FRAME ASSEMBLY.
6. HOLLOW METAL WINDOW ASSEMBLY. PAINT.
7. INSTALL 2x4 SUSPENDED LAY-IN CEILING SYSTEM. EXTEND EXISTING FIRE SPRINKLER SYSTEM AS REQUIRED. SEE ELECTRICAL FOR EXTENT OF LIGHTING AND MECHANICAL FOR EXTENT OF HVAC AND FIRE SPRINKLER SYSTEM SCOPE OF WORK.
8. INSTALL NEW 12x12x18, MULTI TIER METAL STUDENT BACKPACK LOCKER, OWNER PROVIDED STUDENT PHONE LOCKERS AND NEW MILLWORK.
9. TESTING STATIONS SEE DETAIL AS INDICATED. ALTERNATE NO. 1
10. RE-CONSTRUCT PARTITION WALL ASSEMBLY AS INDICATED PER DETAIL 8/A1.4.
11. INFILL WALL OPENING WITH STUD WALL CONSTRUCTION AND (1) LAYER 5/8" GYPSUM BOARD EACH SIDE. TAPE, TEXTURE TO MATCH EXISTING AND PAINT EACH NEW AND/OR EXISTING WALL PLANE TO MATCH ADJACENT TEXTURED WALL.
12. PROVIDE STUD WALL BACKING FOR OWNER PROVIDED TV. SEE ELECTRICAL FOR ROUGH-INS.
13. WHERE CEDAR WALL PANELS HAVE BEEN REMOVED RE-CONSTRUCT EDGE OF EXISTING LAY-IN CEILING SYSTEM TO ACCOMMODATE NEW EDGE DETAIL. SEE J/A1.5. ALTERNATE #3

SCHEDULE OF ALTERNATES:

ALTERNATE 1: PROVIDE TESTING CENTER MILLWORK 4,5,5A AND 6/A1.4.

ALTERNATE 2: PROVIDE ALUMINUM STORE FRONT ASSEMBLY IN LIEU OF THE STUD WALL AND HOLLOW METAL WINDOW FRAME ASSEMBLY.

ALTERNATE 3: REMOVE EXISTING CEDAR WALL PANELING AND REPAIR GYPSUM BOARD SUB-STRATE.

BLD2105-00098

REVIEWED FOR CODE COMPLIANCE

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SEPARATE BUILDING PERMIT REQUIRED FOR CONSTRUCTION

LICENSED ARCHITECT AR-982639 James Wyatt 06-14-21 JAMES WYATT STATE OF IDAHO

nbw architects p.a.
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DPW 21-233

PROJECT: ISU - RELOCATE TESTING CENTER

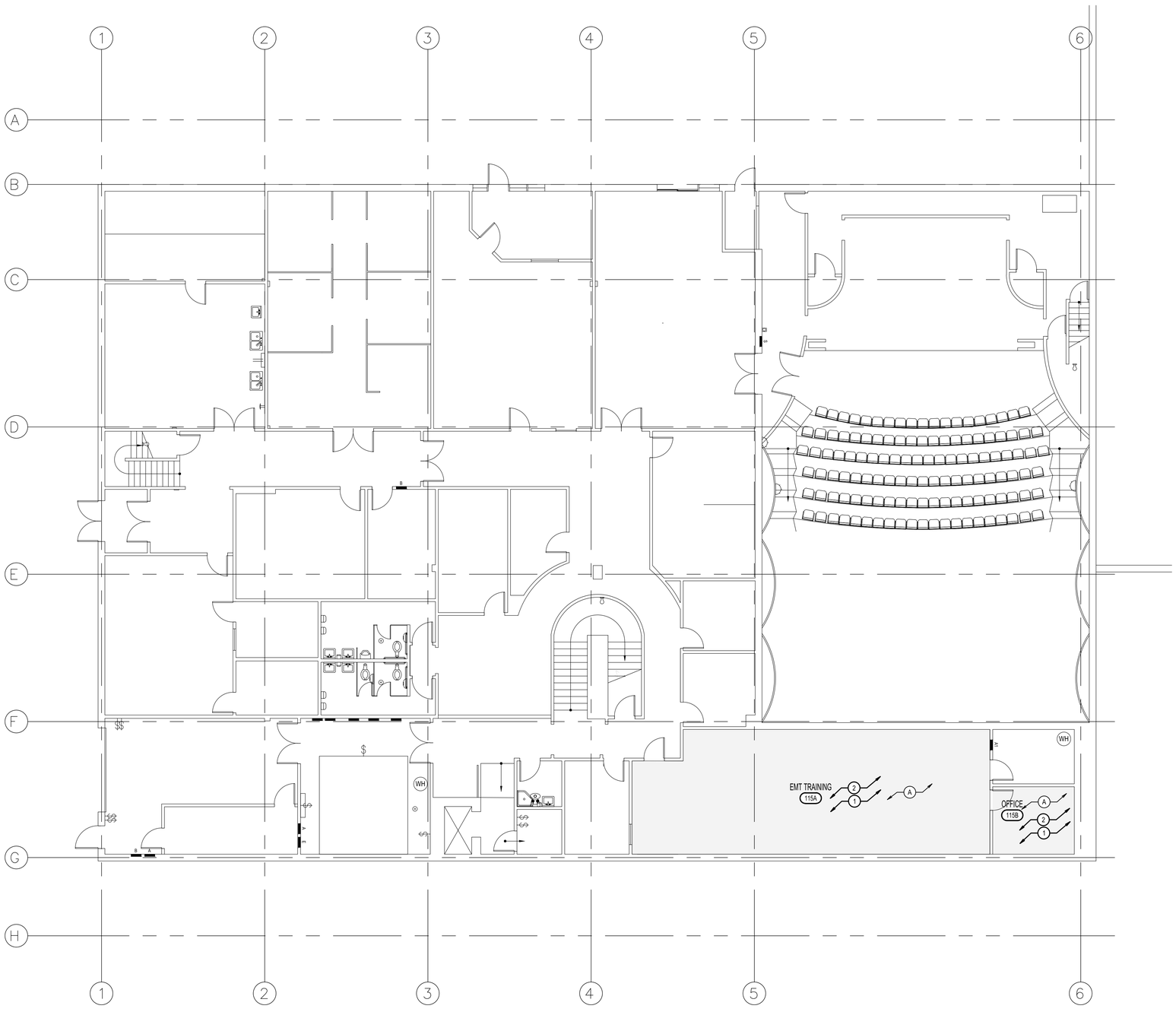
TINGEY ADMINISTRATIVE BUILDING
IDAHO FALLS, IDAHO

SHEET TITLE: LEVEL 2 - RENOVATION FLOOR PLAN

REVISIONS

PROJECT NO.: NBW 20027
DATE: APRIL 2021
DRAWN BY: CGK
CHECKED BY: JHW

DRAWING NO.: A1.2



LEVEL 1 - DEMOLITION & RENOVATION FLOOR PLAN

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

N

GENERAL NOTES

1. WHERE CARPET IS TO BE INSTALLED, CONTRACTOR SHALL RE-NAIL ALL LOOSE PLYWOOD SUB-FLOORING AND FLOAT ALL AREAS NOT LEVEL AND SMOOTH TO ACCOMMODATE INSTALLATION OF NEW FLOORING.
2. WHERE NEW PAINTING IS INDICATED TO BE APPLIED, CONTRACTOR SHALL PATCH ALL DAMAGED AREAS , FILL AND TEXTURE ALL HOLES, CRACKS AND OTHER DEFORMITIES.
3. WHERE ROOMS ARE INDICATED FOR WALL PAINT, STAIN AND URETHANE ALL EXISTING WOOD DOOR ASSEMBLES AND PAINT HOLLOW METAL FRAME ASSEMBLIES FINISHED ROOM SIDE ONLY

○ DEMOLITION KEYNOTES

A. REMOVE EXISTING CARPET AND WALL BASE TO ACCOMMODATE INSTALLATION OF NEW.

○ RENOVATION KEYNOTES

1. INSTALL NEW CARPET AND BASE AS SPECIFIED. PREPARE SUBSTRATE AS INDICATED ABOVE.
2. PAINT ALL EXISTING GYPSUM WALL BOARD SURFACES. PREPARE SUBSTRATE AS REQUIRED ABOVE.

SCHEDULE OF ALTERNATES:

ALTERNATE 1: PROVIDE TESTING CENTER MILLWORK 4,5,5A AND 6/A1.4.

ALTERNATE 2: PROVIDE ALUMINUM STORE FRONT ASSEMBLY IN LIEU OF THE STUD WALL AND HOLLOW METAL WINDOW FRAME ASSEMBLY.

ALTERNATE 3: REMOVE EXISTING CEDAR WALL PANELING AND REPAIR GYPSUM BOARD SUB-STRATE.

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PROJECT:
DPW 21-233
ISU - RELOCATE TESTING CENTER
TINGEY ADMINISTRATIVE BUILDING
IDAHO FALLS, IDAHO

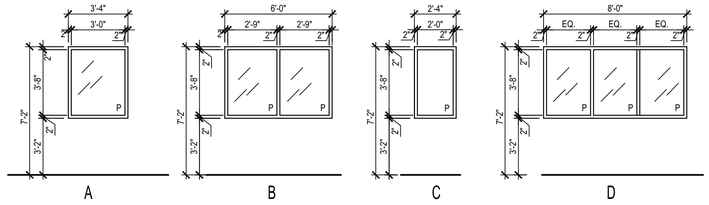
SHEET TITLE:
LEVEL 1 - DEMOLITION & RENOVATION FLOOR PLAN

REVISIONS

PROJECT NO.: NBW 20027
DATE: APRIL 2021
DRAWN BY: CGK
CHECKED BY: JHW

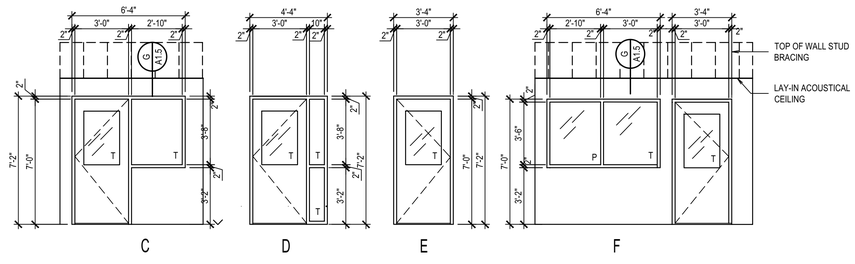
DRAWING NO.:

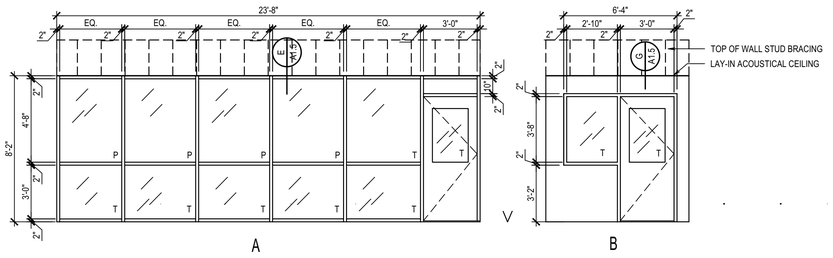
A1.3



WINDOW TYPES

SCALE: 1/4" = 1'-0"





DOOR TYPES

SCALE: 1/4" = 1'-0"

ROOM FINISH SCHEDULE

NO.	NAME	FLOOR: CARPET TILE	FLOOR: SEE DESIGNATED NOTE	BASE: 6" RESILIENT BASE	BASE: SEE DESIGNATED NOTE	WAINSCOT	WALLS: NORTH: TEXTURE & PAINT GYP BOARD	WALLS: NORTH: SEE DESIGNATED NOTE	WALLS: EAST: TEXTURE & PAINT GYP BOARD	WALLS: EAST: SEE DESIGNATED NOTE	WALLS: SOUTH: TEXTURE & PAINT GYP BOARD	WALLS: SOUTH: SEE DESIGNATED NOTE	WALLS: WEST: TEXTURE & PAINT GYP BOARD	WALLS: WEST: SEE DESIGNATED NOTE	CEILING: 2 x 4 LAY-IN ACOUSTICAL PANELS	CEILING: EXISTING 2 x 4 LAY-IN ACOUSTICAL PANELS	CEILING: SEE DESIGNATED NOTE	CLG. HT.
115A	EMT TRAINING	●		●			●		●		●		●			●		
115B	OFFICE	●		●			●		●		●		●			●		
222	ADA TESTING	●		●			●		●		●		●			●		
225	TESTING	●		●			●				●				●			8'-2"
225A	CHECK-IN	●		●			●		●		●		●		●			8'-2"
225B	LOUNGE	●		●			●				●				●			8'-2"
232	COLLABORATION	●		●			●		●		●		●		●			8'-2"
234	OFFICE	●		●			●		●		●		●			●		
240	LIBRARY	●		●			●		●		●		●		(4)	●	(1)	8'-2"
240A	MAKER SPACE	●		●			●		●		●		●		●			8'-2"
240B	COLLABORATION	●		●			●		●		●		●			●	(2)	
240C	COLLABORATION	●		●			●		●		●		●			●	(2)	

NOTES:

1. WHERE CEDAR PLANK WALL ASSEMBLY HAS BEEN REMOVED, MODIFY EXISTING LAY-IN ACOUSTIC CEILING ASSEMBLY AND SECURE TO ADJACENT WALL. SEE DETAILS J/A1.5. ALTERNATE #3
2. NEW 6" SOUND BATT INSULATION ABOVE EXISTING ACOUSTICAL PANEL CEILING.
3. PORTION OF LIBRARY 240 TO HAVE NEW CEILING SYSTEM SEE PLAN FOR GRAPHICS

DOOR SCHEDULE

DOOR NUMBER	LOCATION: FROM	LOCATION: TO	LOCATION: SIZE	SINGLE OR PAIR	TYPE	MATERIALS: DOOR	MATERIALS: FRAME	DETAILS: HEAD	DETAILS: JAMB	FIRE RATING	REMARKS
225A	CHECK-IN	TESTING	3'-0" x 7'-0" x 1 3/4"	●	A	WOOD	ALUM	E/A1.5	F/A1.5		
232	LIBRARY	COLLABORATION	3'-0" x 7'-0" x 1 3/4"	●	D	WOOD	H.M.	C/A1.5	D/A1.5		
240	LIBRARY	MAKER SPACE	3'-0" x 7'-0" x 1 3/4"	●	E	WOOD	H.M.	C/A1.5	D/A1.5		
240B	LIBRARY	COLLABORATION	3'-0" x 7'-0" x 1 3/4"	●	C	WOOD	H.M.	C/A1.5	D/A1.5		
240C	LIBRARY	COLLABORATION	3'-0" x 7'-0" x 1 3/4"	●	B	WOOD	H.M.	C/A1.5	D/A1.5		
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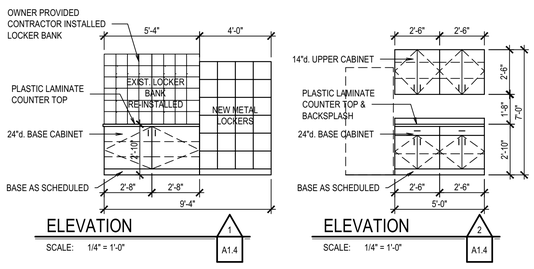
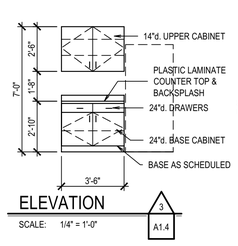
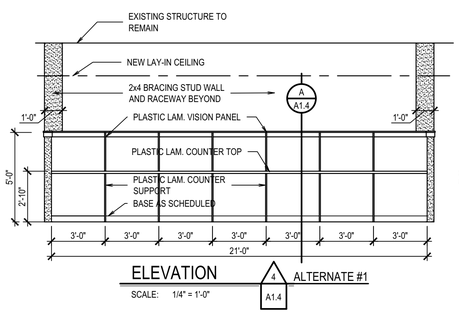
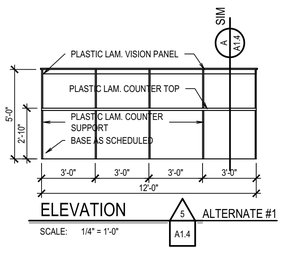
NOTES:



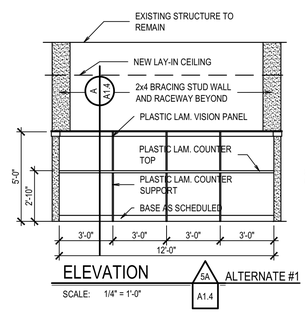


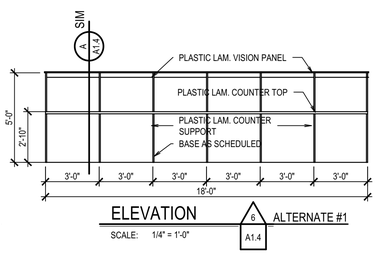


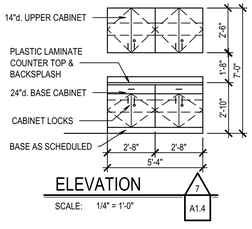


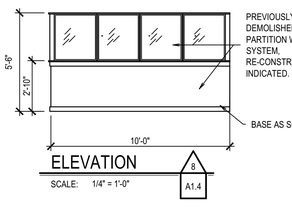
WINDOW SCHEDULE

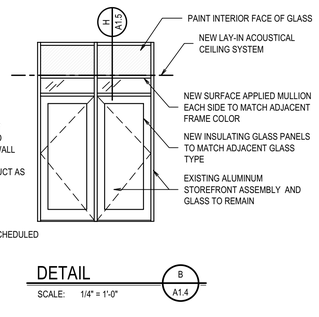
WINDOW MARK	SIZE	TYPE	DETAILS: HEAD	DETAILS: JAMB	DETAILS: SILL	GLAZING	BLINDS	REMARKS
234	3'-4" x 4'-0"	A	A/A1.5	B/A1.5	A/A1.5 SIM	SEE WINDOW TYPES	●	GLAZING NOTES: P - 1/4" CLEAR PLATE T - TEMPERED S - CLEAR SAFETY
240A	6'-0" x 4'-0"	B	A/A1.5	B/A1.5	A/A1.5 SIM	SEE WINDOW TYPES	●	
240B	2'-4" x 4'-0"	C	A/A1.5	B/A1.5	A/A1.5 SIM	SEE WINDOW TYPES	●	
240C	6'-0" x 4'-0"	D	A/A1.5	B/A1.5	A/A1.5 SIM	SEE WINDOW TYPES	●	

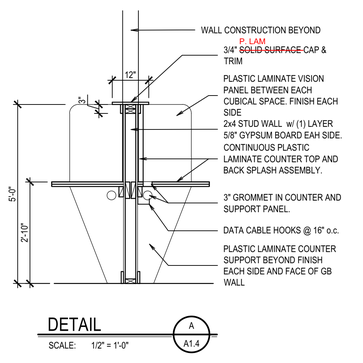












BLD2105-00098

REVIEWED FOR CODE COMPLIANCE

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SEPARATE BUILDING PERMIT REQUIRED FOR CONSTRUCTION

LICENSED ARCHITECT AR-982639
James Wyatt
06-14-21
JAMES WYATT
STATE OF IDAHO

nbw architects p.a.
ARCHITECTURE / PLANNING / INTERIORS
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990 JOHN ADAMS PARKWAY P.O. BOX 2212 - IDAHO FALLS, IDAHO 83402-2212
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PROJECT:
DPW 21-233
ISU - RELOCATE TESTING CENTER
TINGEY ADMINISTRATIVE BUILDING
IDAHO FALLS, IDAHO

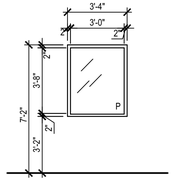
SHEET TITLE:
ROOM FINISH SCHEDULE DOOR & WINDOW SCHEDULE

REVISIONS

PROJECT NO.: NBW 20027
DATE: APRIL 2021
DRAWN BY: CGK
CHECKED BY: JHW

DRAWING NO.:

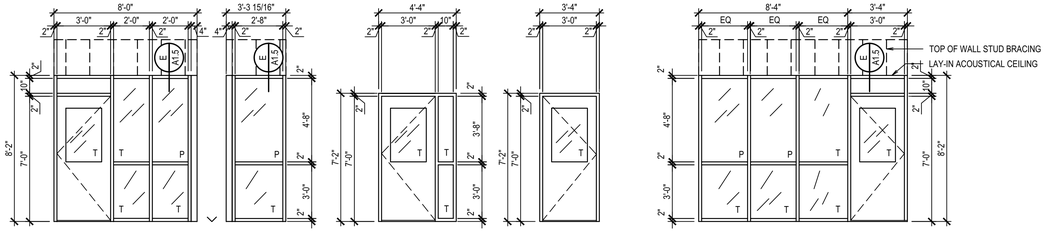
A1.4



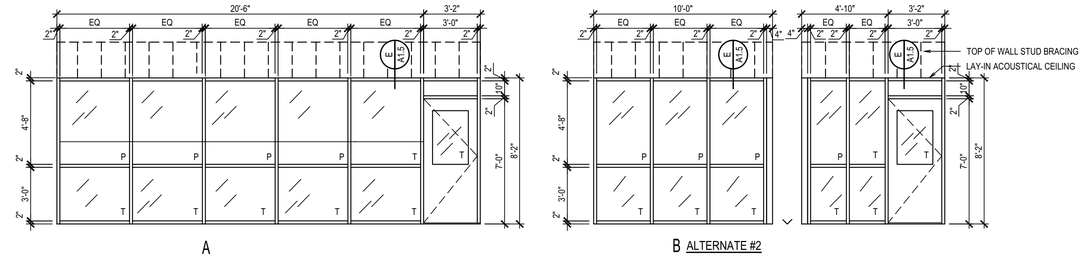
A

WINDOW TYPES

SCALE: 1/4" = 1'-0"



C ALTERNATE #2 D E F ALTERNATE #2



A B ALTERNATE #2

DOOR TYPES

SCALE: 1/4" = 1'-0"

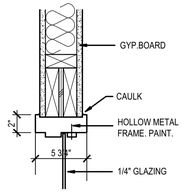
DOOR SCHEDULE

DOOR NUMBER	LOCATION FROM	LOCATION TO	SIZE	SINGLE OR PAIR	TYPE	MATERIALS DOOR	MATERIALS FRAME	DETAILS HEAD	DETAILS JAMB	FIRE RATING	REMARKS
225A	CHECK-IN	TESTING	3'-0" x 7'-0" x 1 3/4"	●	A	WOOD	ALUM	E/A1.5	F/A1.5		
232	LIBRARY	COLLABORATION	3'-0" x 7'-0" x 1 3/4"	●	D	WOOD	ALUM	E/A1.5	F/A1.5		ALTERNATE #2
240	LIBRARY	MAKER SPACE	3'-0" x 7'-0" x 1 3/4"	●	F	WOOD	ALUM	E/A1.5	F/A1.5		ALTERNATE #2
240B	LIBRARY	COLLABORATION	3'-0" x 7'-0" x 1 3/4"	●	C	WOOD	ALUM	E/A1.5	F/A1.5		ALTERNATE #2
240C	LIBRARY	COLLABORATION	3'-0" x 7'-0" x 1 3/4"	●	B	WOOD	ALUM	E/A1.5	F/A1.5		ALTERNATE #2
--											

NOTES:

WINDOW SCHEDULE

WINDOW MARK	SIZE	TYPE	DETAILS HEAD	DETAILS JAMB	DETAILS SILL	GLAZING	BLINDS	REMARKS
234	3'-4" x 4'-0"	A	A/A1.5	B/A1.5	A/A1.5 SIM	SEE WINDOW TYPES	●	GLAZING NOTES: P - 1/4" CLEAR PLATE T - TEMPERED S - CLEAR SAFETY



HEAD A A1.5
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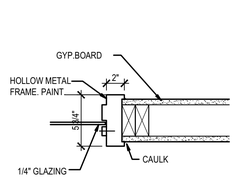

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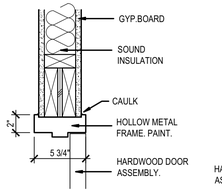

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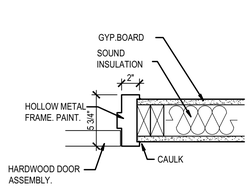

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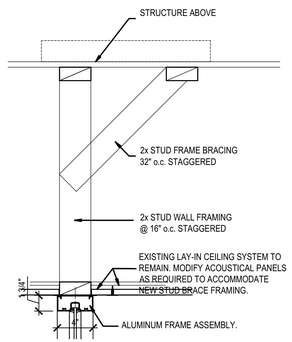

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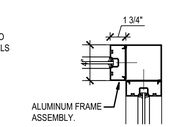
SCALE: 1 1/2" = 1'-0"



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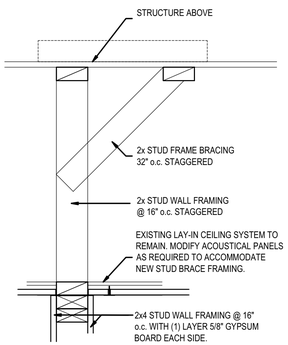

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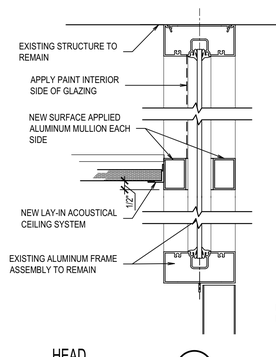
SCALE: 1 1/2" = 1'-0"



HEAD H A1.5
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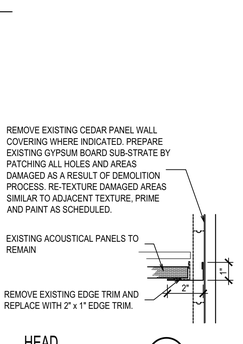

HEAD J A1.5
SCALE: 3" = 1'-0"

BLD2105-00098

REVIEWED FOR CODE COMPLIANCE

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SEPARATE BUILDING PERMIT REQUIRED FOR CONSTRUCTION

LICENSED ARCHITECT AR-982639
JAMES WYATT STATE OF IDAHO
06-14-21

nbw architects p.a.
ARCHITECTURE / PLANNING / INTERIORS
SCOTT L NIELSON, A.I.A. KEVIN R BODILY, A.I.A. JAMES H WYATT, A.I.A
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DPW 21-233

PROJECT: ISU - RELOCATE TESTING CENTER

TINGEY ADMINISTRATIVE BUILDING
IDAHO FALLS, IDAHO

SHEET TITLE: ALTERNATE CONDITIONS & DETAILS

REVISIONS

PROJECT NO.: NBW 20027
DATE: APRIL 2021
DRAWN BY: ???
CHECKED BY: JHW

DRAWING NO.: A1.5

MECHANICAL ABBREVIATIONS

A/C or AC	AIR CONDITIONING	KW	KILOWATT
AFF	ABOVE FINISHED FLOOR	KWH	KILOWATT HOUR
AHU	AIR HANDLING UNIT		
ASHRAE	AMERICAN SOCIETY OF HEATING, REFRIGERATION, AND AIR CONDITIONING ENGINEERS	LAT	LEAVING AIR TEMPERATURE
		LAV	LAVATORY
BTU	BRITISH THERMAL UNITS	LEED	LEADERSHIP IN ENERGY AND ENVIRONMENTAL DESIGN
BTUH	BTUS PER HOUR	LWT	LEAVING WATER TEMPERATURE
CA	COMBUSTION AIR	MAX	MAXIMUM
CC	COOLING COIL	MCA	MINIMUM CIRCUIT AMPS
CFM	AIR FLOW RATE (CUBIC FEET PER MINUTE)	MOCP	MAXIMUM OVERCURRENT PROTECTION
CHWR	CHILLED WATER RETURN	MIN	MINIMUM
CHWS	CHILLED WATER SUPPLY		
CLG	CEILING	NC	NOISE CRITERIA
CW	COLD WATER	NFPA	NATIONAL FIRE PROTECTION ASSOCIATION
		NTS	NOT TO SCALE
DEG or °	DEGREE		
DIA or Ø	DIAMETER	OSA	OUTSIDE AIR
DB	DRY BULB		
		PD	PRESSURE DROP
EA	EXHAUST AIR	PH or Ø	PHASE
EAT	ENTERING AIR TEMPERATURE	PRV	PRESSURE REDUCING VALVE
EER	ENERGY EFFICIENCY RATIO		
ESP	EXTERNAL STATIC PRESSURE	RA	RETURN AIR
EWT	ENTERING WATER TEMPERATURE	RPM	REVOLUTIONS PER MINUTE
		RTU	ROOFTOP UNIT
FCO	FLOOR CLEANOUT		
FD	FIRE DAMPER	SA	SUPPLY AIR
FLA	FULL LOAD AMPS	SEER	SEASONAL ENERGY EFFICIENCY RATIO
FLR	FLOOR	SFD	COMBINATION SMOKE/FIRE DAMPER
FPM	FEET PER MINUTE	SP	STATIC PRESSURE
FT	FEET	SYM	SYMBOL
GA	GAUGE	T & P	TEMPERATURE AND PRESSURE
GCO	GRADE CLEANOUT	TEMP	TEMPERATURE
GPM	WATER FLOW RATE (GALLONS PER MINUTE)	TYP	TYPICAL
HC	HEATING COIL	UMC	UNIFORM MECHANICAL CODE
HP	HORSE POWER	UPC	UNIFORM PLUMBING CODE
HVAC	HEATING, VENTILATING, AIR CONDITIONING	URL	URINAL
HW	HOT WATER		
HWR	HOT WATER RETURN	VTR	VENT THROUGH ROOF
HWS	HOT WATER SUPPLY	V	VOLTS
IBC	INTERNATIONAL BUILDING CODE	W/	WITH
IEEC	INTERNATIONAL ENERGY CONSERVATION CODE	WB	WET-BULB
IFC	INTERNATIONAL FIRE CODE	WC	WATER CLOSET
IFGC	INTERNATIONAL FUEL GAS CODE	WCO	WALL CLEANOUT
IMC	INTERNATIONAL MECHANICAL CODE	WH	WATER HEATER
IPC	INTERNATIONAL PLUMBING CODE		

NOTE: THIS IS A STANDARD LIST OF COMMONLY USED MECHANICAL ABBREVIATIONS. SOME OF THE ABBREVIATIONS SHOWN ABOVE MAY NOT BE USED IN THIS DRAWING PACKAGE.

MECHANICAL GENERAL NOTES

1. ALL MECHANICAL EQUIPMENT AND SYSTEMS SHALL BE INSTALLED IN ACCORDANCE WITH THE INTERNATIONAL MECHANICAL CODE (IMC) LATEST EDITION, AND ALL LOCAL & STATE CODES.
2. ALL PLUMBING EQUIPMENT AND SYSTEMS SHALL BE INSTALLED IN ACCORDANCE WITH THE LATEST ADOPTED PLUMBING CODE, AND ALL LOCAL & STATE CODES.
3. ALL MECHANICAL AND PLUMBING EQUIPMENT SHALL BE INSTALLED PER THE MANUFACTURER'S RECOMMENDATIONS.
4. MECHANICAL CONTRACTORS SHALL RECEIVE PRIOR APPROVAL FROM THE STRUCTURAL ENGINEER BEFORE MAKING CUTS THROUGH ANY STRUCTURAL MEMBER.
5. MECHANICAL CONTRACTORS SHALL COORDINATE INSTALLATION WITH CONSTRUCTION SUPERVISOR AND WITH ALL OTHER TRADES TO AVOID CONFLICTS.
6. THE MECHANICAL CONTRACTORS SHALL VERIFY MOTOR VOLTAGES WITH THE ELECTRICAL DRAWINGS BEFORE ORDERING MOTORIZED EQUIPMENT AND CONTROLS.
7. SEE MECHANICAL SCHEDULE SHEET FOR SCHEDULED CAPACITIES OF ALL MECHANICAL EQUIPMENT AND MATERIALS SPECIFIED.
8. DOMESTIC WATER SERVICE IS PROVIDED WITH A DOUBLE CHECK BACKFLOW PREVENTER.
9. ALL MECHANICAL EQUIPMENT TO BE PROPOSED MUST BE ON THE APPROVED LIST PRIOR TO SUBMITTALS. ALL APPROVED MANUFACTURERS MUST BE CAPABLE OF MEETING THE REQUIREMENTS OF THE SPECIFIED EQUIPMENT.
10. RUNOUT AND HOOKUP SIZES TO INDIVIDUAL PLUMBING FIXTURE CAN BE FOUND ON THE PLUMBING FIXTURE SCHEDULE.
11. PROVIDE REMOTE CEILING ACCESS BALANCE DAMPERS WITH CONCEALED CHROME PLATE COVERS FOR BALANCE DAMPERS LOCATED ABOVE HARD CEILINGS.
12. PAINT ALL VTR'S, FLUES, EXHAUST CAPS, AND OTHER MECHANICAL ITEMS ON THE ROOF TO MATCH THE ROOF COLOR.
13. INSULATED FLEXIBLE DUCTWORK MAY BE USED FOR RUNOUTS TO GRILLES AND DIFFUSERS, IN LENGTHS OF 6'-0" OR LESS.
14. MAINTAIN MINIMUM OF 10'-0" DISTANCE BETWEEN ALL FRESH AIR INTAKES AND EXHAUST OR GAS FLUE DISCHARGES.
15. THE PLUMBING CONTRACTOR IS RESPONSIBLE FOR ALL BACKFLOW DEVICES TO BE INSPECTED BY A CERTIFIED BACKFLOW TECHNICIAN BEFORE THE USE OF THE BUILDING POTABLE WATER SYSTEM.
16. LOCATE ACCESS HATCHES SO AS TO PROVIDE OPTIMUM SERVICEABILITY TO EQUIPMENT AND/OR VALVING. SEE ARCHITECTURAL SPECIFICATION FOR TYPE AND COLOR. COORDINATE LOCATION WITH STRUCTURAL & LIGHTING.
17. WHENEVER THERE IS A DISCREPANCY BETWEEN THE RUNOUT DUCT SIZE SHOWN ON THE PLANS AND THAT SHOWN IN THE SCHEDULE, ALWAYS USE THE LARGER OF THE TWO DUCT SIZES.
18. THE CONTRACTOR SHALL BE HELD RESPONSIBLE FOR VERIFICATION OF EXISTING JOB CONDITIONS PRIOR TO BID. NO ADDITIONAL COST SHALL BE AWARDED TO THE SUCCESSFUL CONTRACTOR (OR THEIR SUBCONTRACTORS) AFTER BIDS HAVE BEEN SUBMITTED AND CONTRACTS AWARDED FOR FAILURE TO VERIFY EXISTING FIELD CONDITIONS. DISCREPANCIES BETWEEN ACTUAL FIELD CONDITIONS AND CONTRACT DOCUMENTS SHALL BE BROUGHT TO THE ENGINEERS ATTENTION FOR ALTERNATIVE METHODS OF INSTALLATION PRIOR TO THE BIDDING OF THIS PROJECT.
19. UNLESS OTHERWISE NOTED ALL EXISTING MECHANICAL EQUIPMENT, PIPING, ETC, TO BE REMOVED SHALL BE DISPOSED OF BY THE CONTRACTOR UNDER THIS CONTRACT. THE OWNER SHALL RETAIN THE RIGHT TO KEEP ANY REMOVED ITEMS.
20. HOLES IN EXISTING WALL OR FLOORS SHALL BE PATCHED TO MATCH EXISTING WHERE PIPING, DUCTWORK, ETC. WERE REMOVED OR ADDED DURING THIS PROJECT.
21. DAMAGE TO THE EXISTING FACILITY DURING THE CONSTRUCTION SHALL BE REPAIRED OR REPLACED BY THE CONTRACTOR AT NO COST TO THE OWNER.

MECHANICAL AND PLUMBING DRAWINGS LEGEND

	FLEXIBLE DUCTWORK		THREE WAY CONTROL VALVE
	DUCTWORK		TWO WAY CONTROL VALVE
	DUCTWORK BREAK		PRESSURE REDUCING VALVE
	DUCTWORK OR PIPING RISE		GATE VALVE
	CONCENTRIC SQUARE TO ROUND TRANSITION		REDUCER
M	MOTORIZED DAMPER		GLOBE VALVE
	MANUAL VOLUME DAMPER		BALL VALVE
AIRFLOW	SPIN-IN FITTING W/ AIR EXTRACTOR AND HAND DAMPER		BUTTERFLY VALVE
AIRFLOW	HIGH EFFICIENCY FITTING W/ HAND DAMPER		BALANCE VALVE
$	SWITCH		CHECK VALVE
T	THERMOSTAT	FCO	FLOOR CLEANOUT
H	HUMIDISTAT	WCO	WALL CLEANOUT
S	TEMPERATURE SENSOR	GCO	GRADE CLEANOUT
CO_2	CARBON DIOXIDE SENSOR		WATER HAMMER ARRESTOR
CO	CARBON MONOXIDE SENSOR		FLOOR DRAIN
NO	NITROUS OXIDE SENSOR		FLOOR SINK
SD	DUCT SMOKE DETECTOR		GAS PRESSURE REGULATOR W/ GAS COCK
SFD	COMBINATION SMOKE/FIRE DAMPER		PRESSURE RELIEF VALVE
FD	FIRE DAMPER		VENT-THROUGH-ROOF
SD	SMOKE DAMPER		VENT
~ / #	EQUIPMENT CALLOUT		SOIL, WASTE, OR SANITARY SEWER
	TURNING VANES	AW	ACID WASTE LINE
	INTAKE OR EXHAUST	AV	ACID VENT LINE
	DIRECTION OF AIRFLOW	SD	STORM DRAIN
D-X CFM X"Ø	SUPPLY DIFFUSER	RD	ROOF DRAIN LINE
R-X X"Ø	RETURN GRILLE	OD	OVERFLOW DRAIN LINE
R-X CFM X"Ø	EXHAUST GRILLE	CD	CONDENSATE DRAIN LINE
G-X CFM X"Ø	FLOOR GRILLE	–	DOMESTIC COLD WATER (CW)
	CEILING EXHAUST FAN	– – –	DOMESTIC HOT WATER (HW)
	TEMPERATURE GAUGE	– – – –	DOMESTIC HOT WATER RETURN (HWR)
	PRESSURE GAUGE (LIQUID FILLED W/ ISOLATION VALVE)	TW	TEMPERED WATER (TW)
TS	TEMPERATURE SENSOR (DUCT OR PIPING)	MPG	MEDIUM PRESSURE NATURAL GAS
FS	FLOW SWITCH	G	LOW PRESSURE NATURAL GAS
	STAINLESS STEEL BRAIDED FLEX CONNECTION	F	FIRE SPRINKLER LINE
	ELASTOMETRIC FLEX CONNECTOR	GWS	GEOTHERMAL WATER SUPPLY
	SUCTION DIFFUSER	GWR	GEOTHERMAL WATER RETURN
	Y TYPE STRAINER (1 1/2" OR LARGER PROVIDED W/ BLOW DOWN VALVE)	CWS	CHILLED WATER SUPPLY
	FLOW DIRECTION	CWR	CHILLED WATER RETURN
	DEMOLITION / EQUIPMENT TO BE REMOVED	CS	CONDENSER WATER SUPPLY
	NEW TO EXISTING CONNECTION POINT	CR	CONDENSER WATER RETURN
(E)	EXISTING	HWS	HEATING WATER SUPPLY
(F)	FUTURE	HWR	HEATING WATER RETURN
(N)	NEW	L	LIQUID REFRIGERANT LINE
	REDUCED PRESSURE BACKFLOW PREVENTER	S	SUCTION REFRIGERANT LINE
	DOUBLE CHECK BACKFLOW PREVENTER		SLOPE PIPE IN DIRECTION OF ARROW
	UNION		PIPE ANCHOR
	AIR VENT		PIPE GUIDE
	TRIPLE DUTY VALVE		CAP

NOTE: THIS IS A LIST OF COMMONLY USED MECHANICAL AND PLUMBING SYMBOLS. SOME OF THE SYMBOLS SHOWN ABOVE MAY NOT BE USED IN THIS DRAWING PACKAGE.

ENERGY CODE COMPLIANCE

A. COMPLIANCE WITH THE LATEST ADOPTED EDITION OF THE INTERNATIONAL ENERGY CONSERVATION CODE IS REQUIRED FOR THIS PROJECT. THESE NOTES COVER MANDATORY REQUIREMENTS OF THE CODE. ADDITIONAL REQUIREMENTS ARE NOTED ON THE DRAWINGS AND IN THE SPECIFICATIONS.

B. MINIMUM REQUIREMENTS FOR SUPPLY AND RETURN DUCTWORK INSULATION:

1. R-6: DUCTS LOCATED IN UNCONDITIONED SPACES (SPACE NEITHER HEATED NOR COOLED SUCH AS ABOVE CEILING SPACES, WALL SPACES, DUCT CHASES, SOFFITS, ATTICS, CRAWL SPACES, UNHEATED BASEMENTS, AND UNHEATED GARAGES).
2. R-12: DUCTS LOCATED OUTSIDE OF THE BUILDING'S INSULATION ENVELOPE (SUCH AS ABOVE THE ATTIC INSULATION).

TYPICAL INSULATION THICKNESS REQUIRED TO MEET THESE REQUIREMENTS:

1. FIBERGLASS DUCT WRAP: R-6, R-12.
2. FIBERGLASS DUCT LINER: R-6, R-12.

C. CONTRACTOR SHALL VERIFY WITH THE MANUFACTURER, THE R-VALUES OF THE ACTUAL INSULATION USED. R-VALUES SHALL BE INSTALLED VALUES.

D. WHERE DUCTS USED FOR COOLING ARE EXTERNALLY INSULATED, THE INSULATION SHALL BE COVERED WITH A VAPOR RETARDER HAVING A MAXIMUM PERMEANCE OF 0.05 PERM OR ALUMINUM FOIL HAVING A MINIMUM THICKNESS OF 2 MILS. INSULATION HAVING A PERMEANCE OF 0.05 PERMS OR LESS SHALL NOT BE REQUIRED TO BE COVERED. ALL JOINTS AND SEAMS SHALL BE SEALED TO MAINTAIN THE CONTINUITY OF THE VAPOR RETARDER.

E. ALL DUCT JOINTS, SEAMS, AND CONNECTIONS SHALL BE FASTENED AND SEALED WITH WELDS, GASKETS, ADHESIVES, MASTIC-PLUS-EMBEDDED-FABRIC SYSTEMS, OR TAPES. TAPES AND MASTICS SHALL BE LISTED AND LABELED PER UL181A OR UL181B. DUCT TAPE IS NOT PERMITTED AS A SEALANT ON ANY METAL DUCTS. DUCT CONNECTIONS TO FLANGES OR EQUIPMENT SHALL BE SEALED AND MECHANICALLY FASTENED.

F. MINIMUM REQUIREMENTS (THICKNESS) FOR PIPING INSULATION SHALL BE AS FOLLOWS:

FLUID	NOMINAL PIPE DIAMETER		
	1/2" TO < 1 1/2"	1 1/2" TO < 4"	4" AND ABOVE
1. REFRIGERANT	SEE SPECIFICATIONS		

THE ABOVE INSULATION IS BASED ON HAVING A CONDUCTIVITY NOT EXCEEDING 0.27 BTU-INCH/HOUR-FT2-°F.

G. DOMESTIC HOT WATER PIPING SYSTEMS SHALL BE INSULATED WITH 1" INSULATION HAVING A CONDUCTIVITY NOT EXCEEDING 0.27 BTU-INCH/HOUR-FT2-°F.

H. DOMESTIC WATER HEATERS WHICH ARE NOT PROVIDED WITH INTEGRAL HEAT TRAPS AND SERVE NONCIRCULATING SYSTEMS SHALL BE PROVIDED WITH HEAT TRAPS ON THE SUPPLY AND DISCHARGE PIPING AT THE WATER HEATER.

I. DOMESTIC HOT WATER SYSTEMS WITH RECIRCULATION PUMPS OR ELECTRIC HEAT TRACE SHALL BE CONTROLLED WITH 7-DAY TIME CLOCKS.

J. AN OPERATING AND MAINTENANCE MANUAL SHALL BE PROVIDED PRIOR TO ISSUANCE OF A CERTIFICATE OF OCCUPANCY. THE O&M MANUAL SHALL CONTAIN THE FOLLOWING INFORMATION AS A MINIMUM:

1. EQUIPMENT CAPACITY (INPUT & OUTPUT).
2. EQUIPMENT OPERATING AND MAINTENANCE INSTRUCTIONS.
3. CONTROL SYSTEM MAINTENANCE AND CALIBRATION INFORMATION, INCLUDING WIRING DIAGRAMS, SCHEMATICS, AND CONTROL SEQUENCES.
4. CONTROL SYSTEM SETPOINTS SHALL BE SHOWN ON CONTROL DRAWINGS, AT CONTROL DEVICES, OR IN PROGRAMMING COMMENT ON DDC SYSTEMS.
5. A COMPLETE WRITTEN NARRATIVE ON HOW EACH MECHANICAL SYSTEM IS INTENDED TO OPERATE.

COMcheck Software Version 4.1.5.0
Mechanical Compliance Certificate

Project Information

Energy Code:	2018 IECC
Project Title:	ISU - Relocate Testing Center TA Building
Location:	Idaho Falls, Idaho
Climate Zone:	6b
Project Type:	Addition

Construction Site:
1776 Science Center Dr
Idaho Falls, ID 83402

Owner/Agent:

Designer/Contractor:
Musgrove Engineering
234 S Whisperwood Way
Boise, ID 83709
208-384-0585

Mechanical Systems List

Quantity	System Type & Description
2	HP-1A (Single Zone): Split System Heat Pump Heating Mode: Capacity = 24 kBtu/h, Proposed Efficiency = 8.20 HSPF, Required Efficiency = 8.20 HSPF Cooling Mode: Capacity = 34 kBtu/h, Proposed Efficiency = 21.70 SEER, Required Efficiency: 14.00 SEER Fan System: None

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 COMcheck Version 4.1.5.0 and to comply with any applicable mandatory requirements listed in the Inspection Checklist.

Samuel Holt — Name - Title
Signature
4/29/21 — Date

Project Title: ISU - Relocate Testing Center TA Building
Data filename: P:\Files\2021\21091\CALCS\MECH\21091 Mechanical_Compliance.cck
Report date: 04/29/21
Page 1 of 10

Mechanical Plan Review: APPROVED
Final approval shall be based upon HVAC inspection for adherence to the 2018 IMC, 2018 IFGC, 2018 IRC Parts V & VI, Idaho Statute Title 54 Chapter 50, stamped approved plans and manufacturers installation instructions.

BLD2105-00098
REVIEWED FOR CODE COMPLIANCE
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SEPARATE BUILDING PERMIT REQUIRED FOR CONSTRUCTION

MUSGROVE ENGINEERING, P.A.
234 S. Whisperwood Way
Boise, ID 83709
208.384.0585
645 West 25th Street
Idaho Falls, ID 83402
208.523.2662
www.musgrovepa.com

Project No. 21-091

PROFESSIONAL ENGINEER REGISTERED 9394 6/21/2021 STATE OF IDAHO WILLIAM A. CARTER

nbw architects p.a.
ARCHITECTURE / PLANNING / INTERIORS
SCOTT L NIELSON, A.I.A. KEVIN R BODILY, A.I.A. JAMES H WYATT, A.I.A
990 JOHN ADAMS PARKWAY P.O. BOX 2212 - IDAHO FALLS, IDAHO 83402-2212
(P) 208-522-8779 (F) 208-522-8795 (W) nbwarchitects.com

PROJECT: DPW 21-233
ISU - RELOCATE TESTING CENTER
TINGEY ADMINISTRATIVE BUILDING
IDAHO FALLS, IDAHO

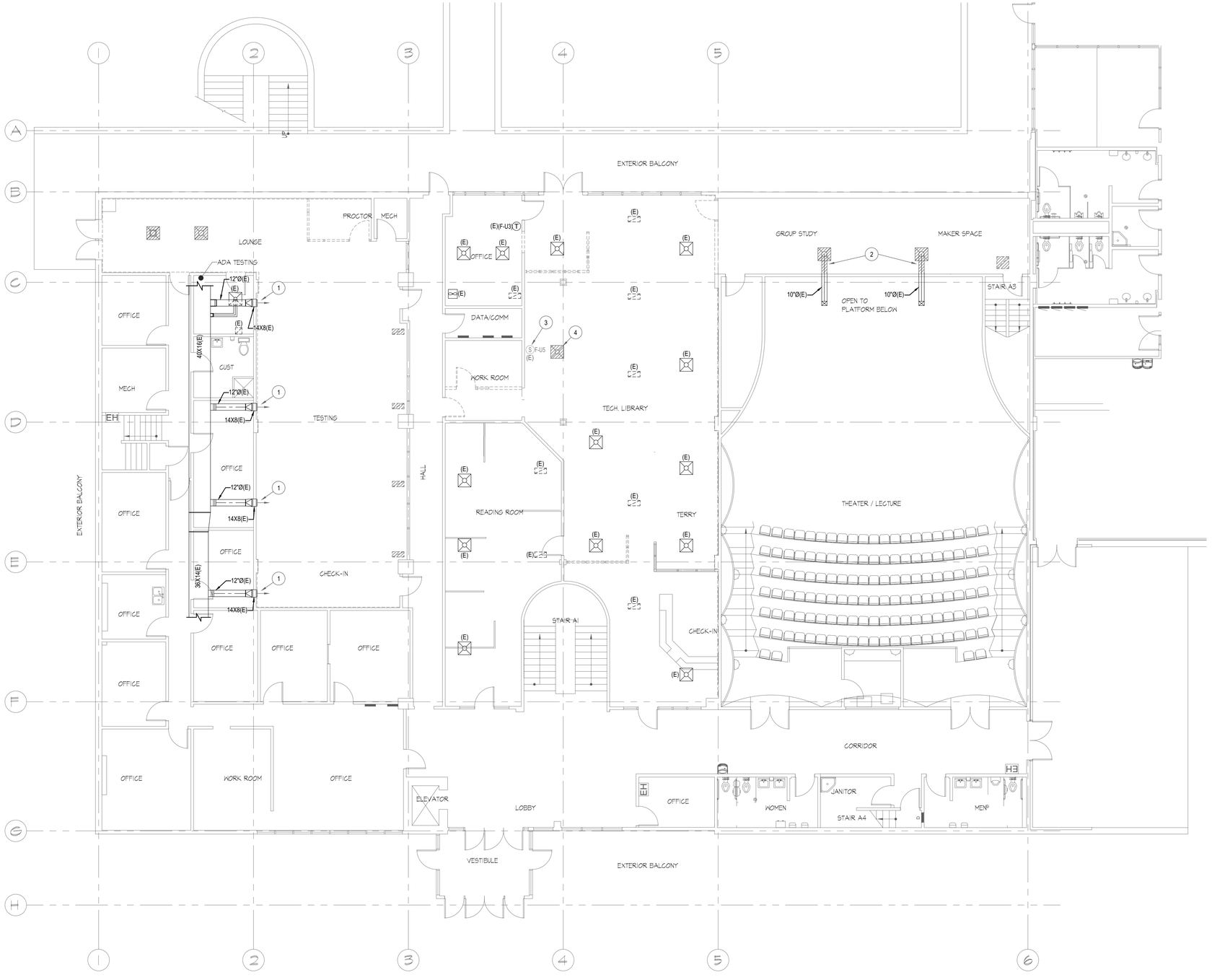
SHEET TITLE: MECHANICAL COVER SHEET

REVISIONS

PROJECT NO.: 20027
DATE: APRIL 2021
DRAWN BY: SH
CHECKED BY: BC

DRAWING NO.:

M0.0



KEYED NOTES:

(#) SYMBOL USED FOR NOTE CALLOUT.

1. REMOVE GRILLE. SEE NEW PLAN FOR CONTINUATION.
2. DEMO EXISTING DUCT/DIFFUSER AND CAP AS REQUIRED TO ALLOW FOR NEW CEILING. FIELD VERIFY EXISTING CONDITIONS.
3. REMOVE AND RELOCATE EXISTING SENSOR TO LOCATION SHOWN ON NEW PLAN. PATCH AND REPAIR WALL TO MATCH EXISTING.
4. DEMO EXISTING DIFFUSER AND EXTEND EXISTING DUCT TO COLLABORATION ROOM 240C, SEE NEW PLAN FOR NEW DIFFUSER LOCATION.

LEVEL 2 - HVAC DEMOLITION PLAN

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

BLD2105-00098

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DPW 21-233

ISU - RELOCATE TESTING CENTER

TINGEY ADMINISTRATIVE BUILDING
IDAHO FALLS, IDAHO

PROJECT:

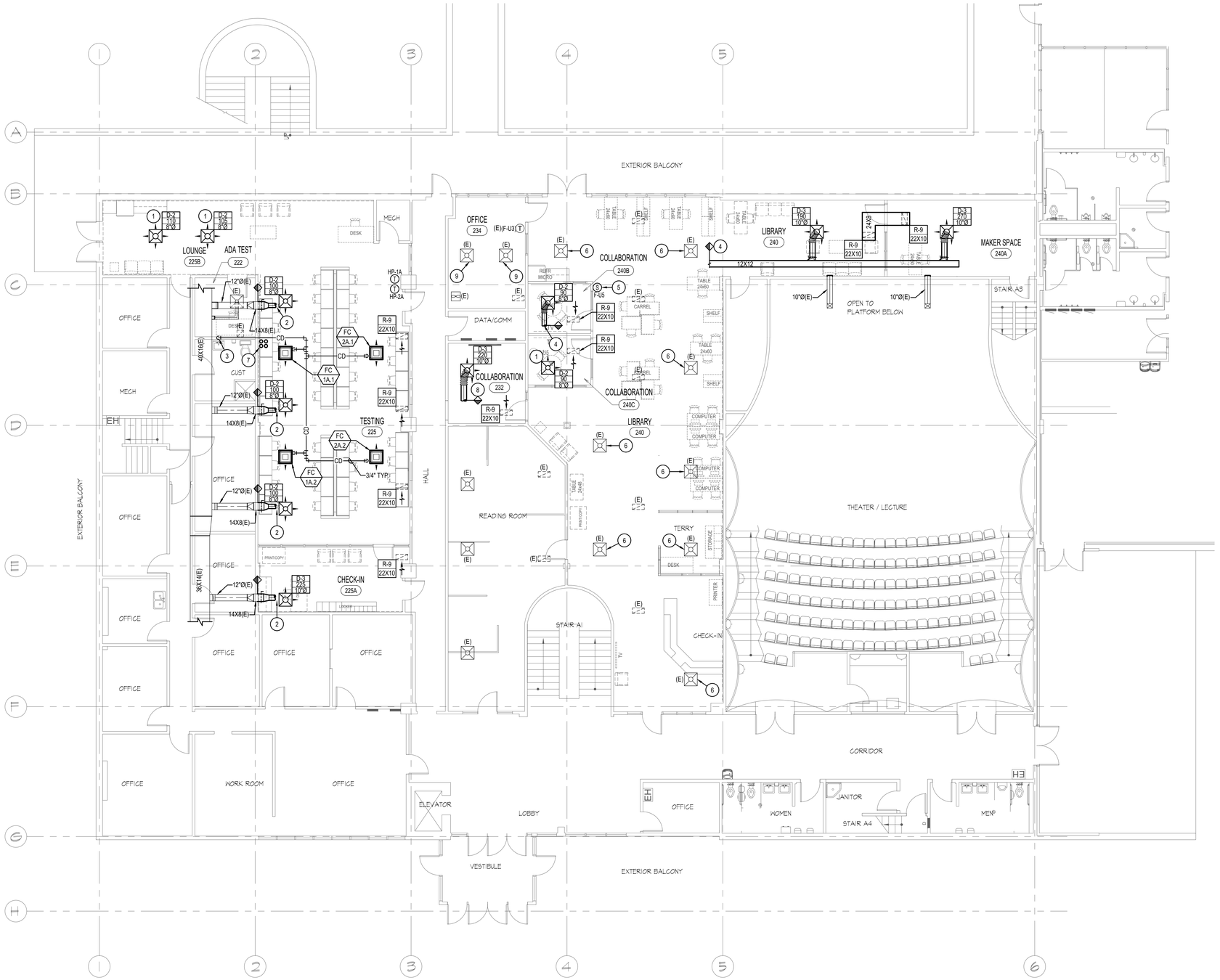
SHEET TITLE: LEVEL 2 - HVAC DEMOLITION PLAN

REVISIONS

PROJECT NO.: 20027
DATE: APRIL 2021
DRAWN BY: SH
CHECKED BY: BC

DRAWING NO.:

M2.1



LEVEL 2 - HVAC NEW PLAN

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

N

KEYED NOTES:

(#) SYMBOL USED FOR NOTE CALLOUT.

1. EXTEND EXISTING DUCT AND PROVIDE FLEXIBLE CONNECTION TO NEW DIFFUSER. FIELD VERIFY EXISTING CONDITIONS.
2. EXTEND EXISTING SIDEWALL GRILLE DUCT TO NEW DIFFUSER. SEE DUCT EXTENSION TO DIFFUSER DETAIL. FIELD VERIFY EXISTING CONDITIONS.
3. CONNECT 3/4" CONDENSATE PIPING TO EXISTING SINK DRAIN. SEE CONDENSATE DRAIN CONNECTION DETAIL.
4. CONNECT NEW DUCT TO EXISTING MAIN DUCT SERVED BY UNIT F-U5. FIELD VERIFY EXISTING CONDITIONS.
5. NEW LOCATION FOR RELOCATED SENSOR. SEE DEMO PLANS FOR ORIGINAL LOCATION.
6. RE-BALANCE TO 170 CFM.
7. ROUTE REFRIGERANT LINES FROM ROOF TO INDOOR FAN COIL UNITS PER MANUFACTURER'S RECOMMENDATIONS. VERIFY EXISTING FIELD CONDITIONS.
8. CONNECT NEW DUCT TO EXISTING MAIN DUCT SERVED BY UNIT F-U3. FIELD VERIFY EXISTING CONDITIONS.
9. RE-BALANCE TO 185 CFM.

FIRE SPRINKLER NOTES:

A. THE FIRE SPRINKLER CONTRACTOR SHALL MODIFY EXISTING FIRE SPRINKLER SYSTEM IN ORDER TO PROVIDE FULL COVERAGE OF SPACE DUE TO NEW WALL CONFIGURATIONS.

B. FIRE SPRINKLER CONTRACTORS SHALL BE LICENSED BY THE IDAHO STATE FIRE MARSHAL, AND SHALL HAVE IN HIS/HER EMPLOY AND WITHIN 50 MILES OF THE JOB SITE AN ENGINEERING TECHNICIAN (LEVEL III), CERTIFIED BY NICET (NATIONAL INSTITUTE FOR CERTIFICATION IN ENGINEERING TECHNOLOGIES). PROOF OF BOTH MUST BE SUBMITTED TO THE ENGINEER PRIOR TO THE START OF ANY FIRE SPRINKLING DESIGN AND/OR INSTALLATION, NO EXCEPTIONS.

C. ALL WORK REQUIRED FOR THE FIRE PROTECTION SYSTEM SHALL BE THE RESPONSIBILITY OF THE FIRE SPRINKLER CONTRACTOR. THE FIRE SPRINKLER SYSTEM SHALL BE INSTALLED BY THE FIRE SPRINKLER CONTRACTOR AS REQUIRED TO SATISFY THE REQUIREMENTS OF THE LOCAL JURISDICTION AND NFPA 13, LATEST EDITION. ARCHITECT/ENGINEER ASSUMES NO RESPONSIBILITY OR LIABILITY FOR THE DESIGN OF THE FIRE SPRINKLER SYSTEM.

D. REFER TO FIRE SPRINKLER SPECIFICATIONS FOR ADDITIONAL REQUIREMENTS.

E. PROVIDE RECESSED HEADS IN ALL AREAS EXCEPT WHERE ROOM IS OPEN TO STRUCTURE.

F. NO STANDOFF SPRINKLER HEADS (THOSE THAT DROP BELOW CEILING OR SOFFIT TO PROVIDE BETTER COVERAGE) ALLOWED. ALL SPRINKLER HEADS MUST BE FLUSH WITH CEILING OR EXTERIOR SOFFIT.

G. EXTEND EXISTING FIRE SPRINKLER HEADS TO ACCOMMODATE NEW CEILING HEIGHT.

BLD2105-00098

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SEPARATE BUILDING PERMIT REQUIRED FOR CONSTRUCTION

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208.384.0585
645 West 25th Street
Idaho Falls, ID 83402
208.523.2662
www.musgrovepa.com
Project No. 21-091

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PROJECT:
DPW 21-233
ISU - RELOCATE TESTING CENTER
TINGEY ADMINISTRATIVE BUILDING
IDAHO FALLS, IDAHO

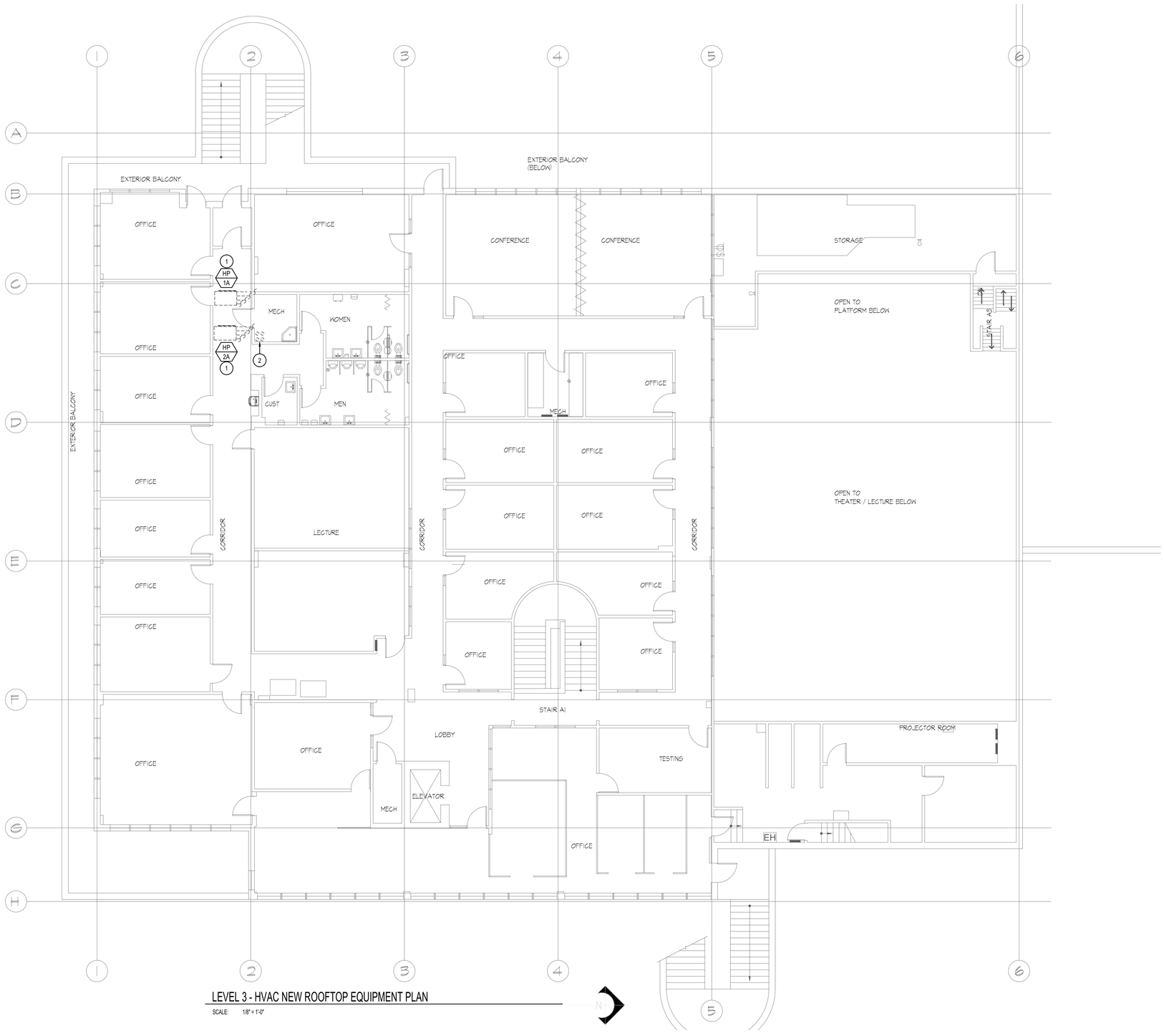
SHEET TITLE:
LEVEL 2 - HVAC NEW PLAN

REVISIONS

PROJECT NO.: 20027
DATE: APRIL 2021
DRAWN BY: SH
CHECKED BY: BC

DRAWING NO.:

M2.2



LEVEL 3 - HVAC NEW ROOFTOP EQUIPMENT PLAN

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

KEYED NOTES:

(#) SYMBOL USED FOR NOTE CALLOUT.

1. CONDENSING UNIT AND PLATFORM MOUNTED ON ROOF. SEE ROOFTOP HEAT PUMP UNIT PLATFORM DETAIL.
2. ROUTE REFRIGERATION LINES ACROSS ROOF AND THROUGH LEVEL 3 MECHANICAL ROOM TO DUCTLESS FAN COIL UNITS ON LEVEL 2, SEE EXTERIOR REFRIGERANT PIPE SUPPORT DETAIL. PROVIDE (QTY:4) ROOF PENETRATIONS, SEE TYPICAL PIPING THRU ROOF DETAIL. PROVIDE PENETRATIONS IN MECHANICAL ROOM AS REQUIRED. FIELD VERIFY EXISTING CONDITIONS.

BLD2105-00098

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DPW 21-233

PROJECT: ISU - RELOCATE TESTING CENTER

TINGEY ADMINISTRATIVE BUILDING

IDAHO FALLS, IDAHO

SHEET TITLE: LEVEL 3 - HVAC NEW ROOFTOP EQUIPMENT PLAN

REVISIONS

PROJECT NO.: 20027

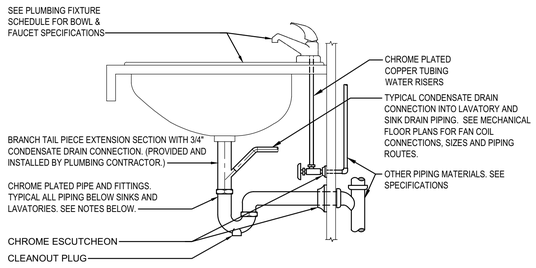
DATE: APRIL 2021

DRAWN BY: SH

CHECKED BY: BC

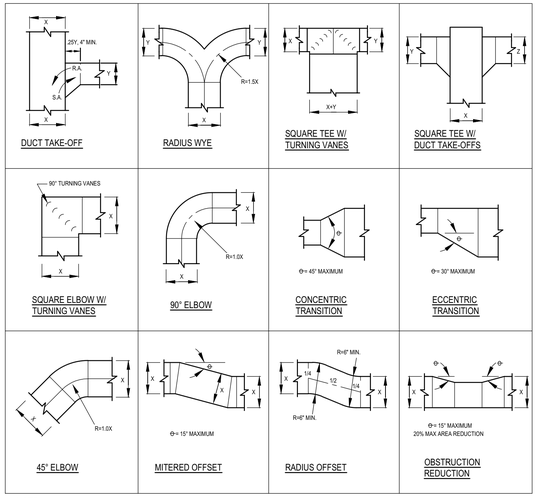
DRAWING NO.:

M2.3



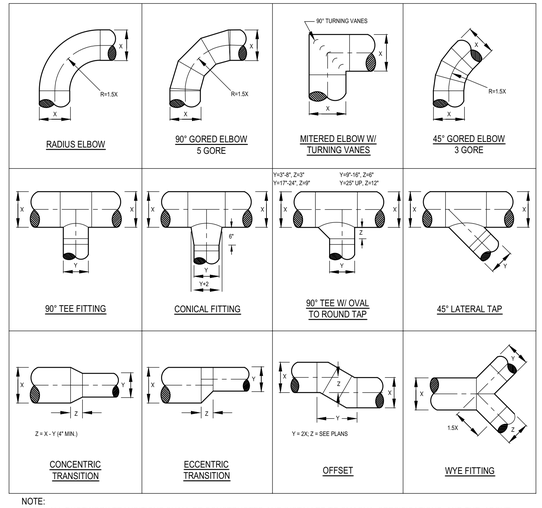
NOTES:
1. INTERIOR EXPOSED PIPE, VALVES AND FIXTURE TRIM, INCLUDING TRIM BEHIND CASEWORK DOORS, SHALL BE CHROME PLATED.
2. ALL PIPING PENETRATIONS THROUGH FINISHED WALLS SHALL BE PROVIDED WITH CHROME ESCUTCHEONS.
3. ALL SINK AND LAVATORY TRAPS SHALL BE PROVIDED WITH A CLEANOUT PLUG IN THE BOTTOM OF THE TRAP.
4. ALL PLUMBING FIXTURES SHALL BE CAULKED AND SEALED TO SURROUNDING SURFACES.
5. PLUMBING CONTRACTOR SHALL VERIFY THE LOCATION OF ALL LAVATORIES AND SINKS THAT NEED TO BE INSTALLED WITH THE BRANCH TAIL PIECE SECTION WITH 3/4" DRAIN CONNECTION. THE PLUMBING CONTRACTOR WILL BE RESPONSIBLE TO VERIFY THE PLUMBING ROUGH-IN DIMENSIONS AND SHALL TAKE INTO ACCOUNT THE TAIL PIECE EXTENSION DIMENSIONS.

1 SINK/LAVATORY TAILPIECE & TRAP DETAIL (WITH CONDENSATE DRAIN CONNECTION)
NOT TO SCALE



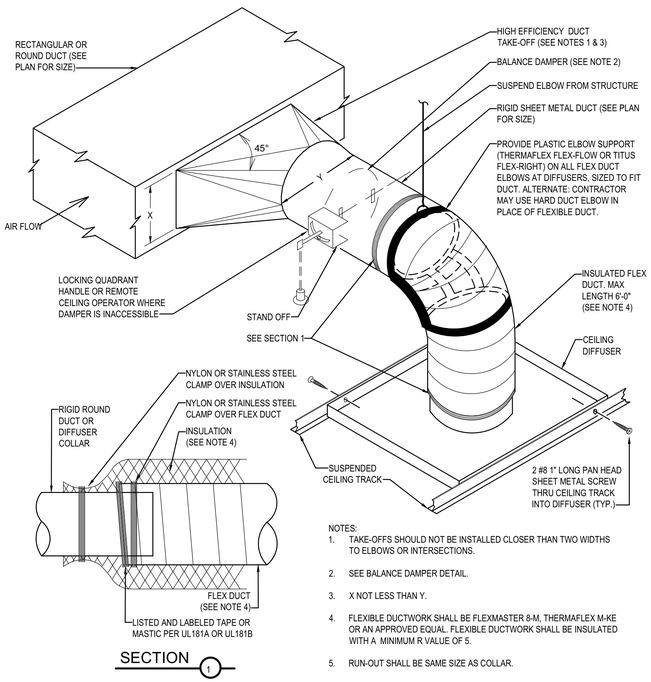
NOTE:
1. ALL DUCTWORK TRANSITIONS SHALL BE CONSTRUCTED AND INSTALLED TO SMACNA, SPECIFICATIONS AND THE ABOVE NOTED STANDARDS. ANY DEVIATIONS SHALL BE COORDINATED WITH THE ENGINEER.

2 RECTANGULAR DUCT FITTING DETAILS
NOT TO SCALE



NOTE:
1. ALL DUCTWORK TRANSITIONS SHALL BE CONSTRUCTED AND INSTALLED TO SMACNA, SPECIFICATIONS, AND THE ABOVE NOTED STANDARDS. ANY DEVIATIONS SHALL BE COORDINATED WITH THE ENGINEER.

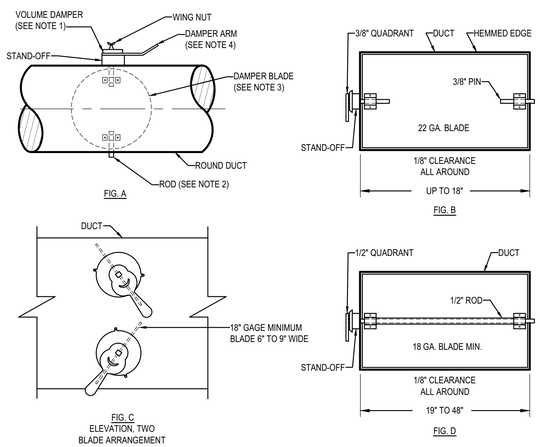
3 ROUND DUCT FITTING DETAILS
NOT TO SCALE



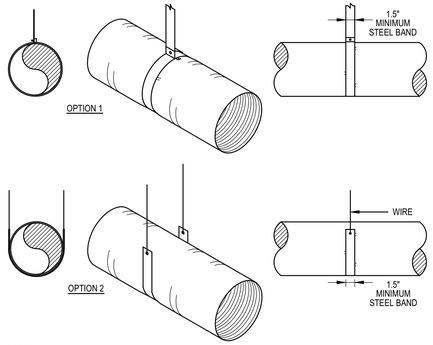
NOTES:
1. TAKE-OFFS SHOULD NOT BE INSTALLED CLOSER THAN TWO WIDTHS TO ELBOWS OR INTERSECTIONS.
2. SEE BALANCE DAMPER DETAIL.
3. X NOT LESS THAN Y.
4. FLEXIBLE DUCTWORK SHALL BE FLEXMASTER 8-M, THERMAFLEX M-KE OR AN APPROVED EQUAL. FLEXIBLE DUCTWORK SHALL BE INSULATED WITH A MINIMUM R VALUE OF 5.
5. RUN-OUT SHALL BE SAME SIZE AS COLLAR.

4 HIGH EFFICIENCY TAKE-OFF DETAIL
NOT TO SCALE

NOTES:
1. FOR TAKE-OFFS LARGER THAN 12" DIAMETER, USE A FACTORY MANUFACTURED DAMPER. LOUVERS & DAMPERS, INC. MODEL CD-600 WITH A LOCKING HAND QUADRANT OR EQUAL.
2. ROD CONTINUOUS ON 2" W.G. CLASS AND ON ALL DAMPERS OVER 12" DIAMETER.
3. BLADE 22 GAGE MIN., BUT NOT LESS THAN TWO GAGES MORE THAN THE DUCT GAGE.
4. PROVIDE REMOTE CEILING OPERATOR WHERE DAMPER IS INACCESSIBLE.
5. FOR DUCTS OVER 12" HIGH USE MULTIPLE BLADE DAMPERS (SEE FIG. C).
6. ALTERNATE MANUFACTURERS INCLUDE: AMERICAN WARMING, SAFE-AIR/DOWCO, J&J, LOUVERS & DAMPERS, RUSKIN, NAILOR, ARROW UNITED, POTTORFF, & CESCO.
7. PROVIDE STAND-OFF FOR DAMPER ARMS LOCATED W/EXTERNAL INSULATION.



5 BALANCE DAMPER DETAIL
NOT TO SCALE



NOTES:
1. SUPPORT SYSTEM SHALL NOT DAMAGE, CRIMP, OR INHIBIT DUCT FREE AREA IN ANY WAY.
2. FLEXIBLE DUCT MUST NOT EXCEED 6'-0" FROM CONNECTION TO TERMINATION.
3. MAXIMUM LENGTH BETWEEN SUPPORTS MUST NOT EXCEED 3'-0" ON CENTER.
4. ATTACH BANDS OR WIRES TO SUPPORT STRUCTURE ABOVE.
5. FLEXIBLE DUCTWORK SHALL BE FLEXMASTER 1-M OR APPROVED EQUAL.
6. FLEXIBLE DUCTWORK SHALL BE INSULATED WITH A MINIMUM R-VALUE OF 5.0.
7. FLEXIBLE DUCTWORK IS FOR INDOOR USE ONLY. DO NOT INSTALL OR STORE PRODUCT WHERE EXPOSURE TO DIRECT SUNLIGHT CAN OCCUR. PROLONGED EXPOSURE TO SUNLIGHT MAY CAUSE DETERIORATION OF VAPOR BARRIER.
8. TERMINAL DEVICES SHALL BE SUPPORTED INDEPENDENTLY OF THE FLEXIBLE DUCTWORK.
9. REPAIR TURN OR DAMAGED VAPOR BARRIER/JACKET WITH DUCT TAPE LISTED AND LABELED TO UL 181B. IF INTERNAL CORE IS PENETRATED, REPLACE FLEXIBLE DUCTWORK.
10. AVOID BENDING DUCT ACROSS SHARP CORNERS OR INCIDENTAL CONTACT WITH METAL FIXTURES, PIPES, OR CONDUITS.
11. FLEXIBLE DUCTWORK SHALL NOT BE INSTALLED WITHIN 4 INCHES OF HOT EQUIPMENT (FURNACES, BOILERS, STEAM PIPES, ETC.) THAT IS ABOVE 250°F.
12. FLEXIBLE DUCTWORK SHALL NOT BE INSTALLED IN CONCRETE, BURIED BELOW GRADE, OR IN CONTACT WITH THE GROUND.
13. DO NOT INSTALL FLEXIBLE DUCTWORK IN EXPOSED CEILING AREA.

6 FLEXIBLE DUCT SUPPORT
NOT TO SCALE

BLD2105-00098
REVIEWED FOR CODE COMPLIANCE
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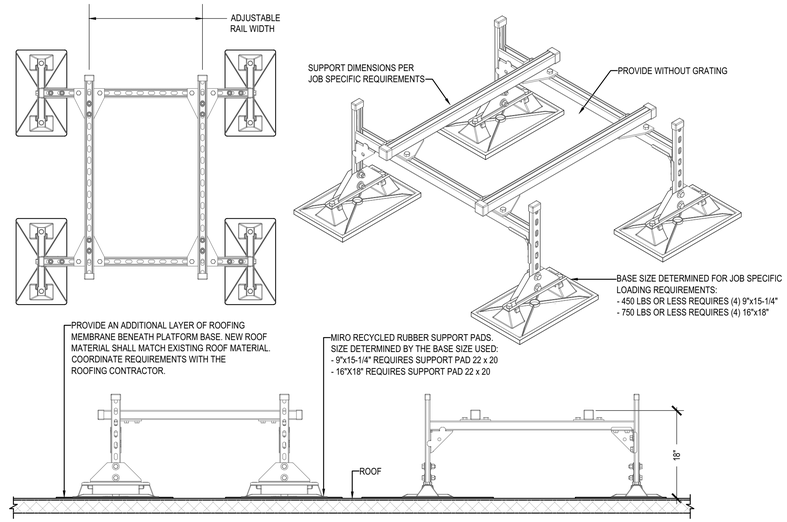
PROJECT:
DPW 21-233
ISU - RELOCATE TESTING CENTER
TINGEY ADMINISTRATIVE BUILDING
IDAHO FALLS, IDAHO

SHEET TITLE:
MECHANICAL DETAILS

REVISIONS

PROJECT NO.: 20027
DATE: APRIL 2021
DRAWN BY: SH
CHECKED BY: BC

DRAWING NO.:
M3.1

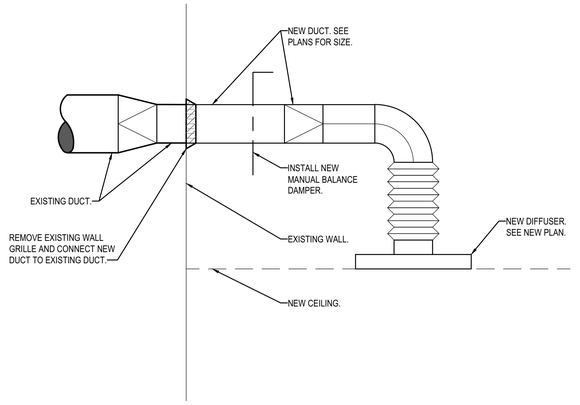


NOTES:

1. PROVIDE WITH MIRO INDUSTRIES MODEL HD, HEAVY DUTY MECHANICAL GALVANIZED ROOF SUPPORT WITH ADJUSTABLE SUPPORT LEGS AND RAIL WIDTH
2. BOLT EQUIPMENT TO MECHANICAL SUPPORT, A MINIMUM OF (4) LOCATIONS
3. APPROVED ALTERNATE MANUFACTURERS: UNISTRUT AND ROOF-PRO

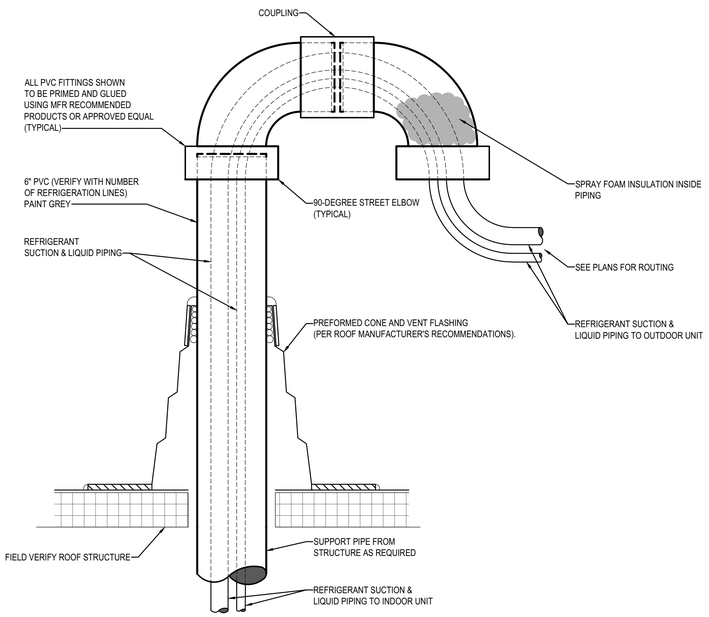
1 ROOFTOP HEAT PUMP UNIT PLATFORM DETAIL

NOT TO SCALE (EQUIPMENT WEIGHTS UP TO 750 LBS)



2 DUCT EXTENSION TO DIFFUSER DETAIL

NOT TO SCALE

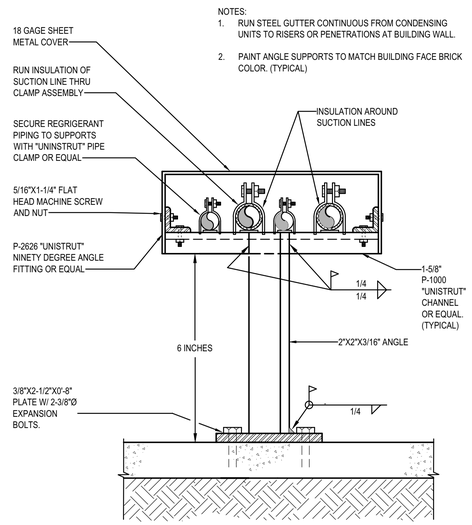


3 TYPICAL PIPING THRU ROOF DETAIL

NOT TO SCALE

NOTES:

1. RUN STEEL GUTTER CONTINUOUS FROM CONDENSING UNITS TO RISERS OR PENETRATIONS AT BUILDING WALL.
2. PAINT ANGLE SUPPORTS TO MATCH BUILDING FACE BRICK COLOR. (TYPICAL)



4 EXTERIOR REFRIGERANT PIPE SUPPORT

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Project No. 21-091

PROFESSIONAL ENGINEER REGISTERED 9394 6/21/2021 STATE OF IDAHO WILLIAM A. CARTER

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PROJECT: DPW 21-233
ISU - RELOCATE TESTING CENTER
TINGEY ADMINISTRATIVE BUILDING
IDAHO FALLS, IDAHO

SHEET TITLE: MECHANICAL DETAILS

REVISIONS

PROJECT NO.: 20027
DATE: APRIL 2021
DRAWN BY: SH
CHECKED BY: BC

DRAWING NO.:

M3.2

DUCTLESS MULTI-SPLIT SYSTEM HEAT PUMP UNIT SCHEDULE

OUTDOOR HEAT PUMP UNITS

SYMBOL	AREA SERVED	NOMINAL TONS	UNIT TYPE	COOLING REQUIRED AT 90°F EDB, 67°F EWB		HEATING REQUIRED AT -10°F OSA	ELECTRICAL			MINIMUM SEER	OPERATING WEIGHT (LBS)	MANUFACTURER AND MODEL	REMARKS
				TOTAL MBH	SENSIBLE MBH	TOTAL MBH	MCA	MOCP	V/Ø				
HP-1A	TESTING RM 225 / LOUNGE RM 225B	3	HEAT PUMP	34.3	28	24.2	32.5	35	208/1	21.7	320	DAIKIN MODEL 4MXL36TVJU	1 , 2 , 4 , 6
HP-2A	TESTING RM 225	3	HEAT PUMP	34.3	28	24.2	32.5	35	208/1	21.7	320	DAIKIN MODEL 4MXL36TVJU	1 , 2 , 4 , 6

INDOOR FAN COIL UNITS

HEAT PUMP SYMBOL	FAN COIL SYMBOL	AREA SERVED	NOMINAL TONS	UNIT TYPE	SUPPLY FAN	COOLING	HEATING	ELECTRICAL			OSA (CFM)	SOUND (dB)	OPERATING WEIGHT (LBS)	MANUFACTURER AND MODEL	REMARKS
					CFM H/L	MBH	MBH	MCA	MOCP	V/Ø					
HP-1A	FC-1A.1	LOUNGE RM 225B	1.5	CEILING	450/295	14	12	THROUGH OUTDOOR UNIT			N/A	44	40	DAIKIN MODEL FFQ18Q2VJU	1 , 3 , 5 , 6 , 7 , 8
	FC-1A.2	TESTING RM 225	1.5	CEILING	450/295	14	12	THROUGH OUTDOOR UNIT			N/A	44	40	DAIKIN MODEL FFQ18Q2VJU	1 , 3 , 5 , 6 , 7 , 8
HP-2A	FC-2A.1	TESTING RM 225	1.5	CEILING	450/295	14	12	THROUGH OUTDOOR UNIT			N/A	44	40	DAIKIN MODEL FFQ18Q2VJU	1 , 3 , 5 , 6 , 7 , 8
	FC-2A.2	TESTING RM 225	1.5	CEILING	450/295	14	12	THROUGH OUTDOOR UNIT			N/A	44	40	DAIKIN MODEL FFQ18Q2VJU	1 , 3 , 5 , 6 , 7 , 8

REMARKS:

1. APPROVED ALTERNATE MANUFACTURERS: LENNOX, MITSUBISHI, PANASONIC, SAMSUNG, LG, CARRIER, OR APPROVED EQUAL.
2. PROVIDE MANUFATURER'S CRANKCASE HEATER, LOW AMBIENT CONTROLS (TO 0°F), WIND BAFFLES, REFRIGERATION LINE SET AND TEES, SIZED BY MANUFACTURER, AND TAMPER PROOF PORT CAPS.
3. CONTROL UNIT WITH MANUFACTURER'S HARD-WIRED WALL MOUNTED 7 DAY PROGRAMMABLE NAVIGATION REMOTE CONTROLLER THERMOSTAT MODEL BRC1E73, 5 DEGREE DEADBAND WITH AUTO CHANGEOVER.
4. PROVIDE WITH MIRO INDUSTRIES HEAVY DUTY MECHANICAL GALVANIZED ROOF SUPPORT WITH ADJUSTABLE SUPPORT LEGS. SUPPORT SHALL EXTEND A MINIMUM OF 2" BEYOND EQUIPMENT IN EACH DIRECTION. BOLT EQUIPMENT TO MECHANICAL SUPPORT. PROVIDE HEAT TAPE ON PLATFORM TO NEAREST DRAIN.
5. PROVIDE WITH MANUFACTURER'S CONDENSATE PUMP. CONCEAL PUMP BEHIND UNIT WITHIN MOUNTING BRACKET ASSEMBLY.
6. ELECTRICAL TO PROVIDE DISCONNECT.
7. PROVIDE UNIT WITH MANUFACTURER'S DKN PLUS INTERFACE CONTROLLER MODEL AZAI6WSPDKC. CONNECT UNITS TO EXISTING DDC SYSTEM THROUGH BACNET INTERFACE.
8. PROVIDE UNIT WITH SEALING MEMBER KIT, SEE PLANS FOR DIRECTION OF AIRFLOW THROW.

SPLIT SYSTEM AIR CONDITIONING UNIT SCHEDULE (90%+ GAS)

SYMBOL	UNIT TYPE	NOMINAL TONS	SUPPLY FAN				COOLING CAPACITY AT 95° OSA, 80° EDB, 62° EWB		GAS HEATING CAPACITY		ELECTRICAL FOR CONDENSING UNIT			OSA CFM	MIN. SEER	FURNACE OPERATING WEIGHT (LBS)	MANUFACTURER AND MODEL	REMARKS
			CFM	ESP	HP	V/Ø	TOTAL MBH	SENSIBLE MBH	INPUT MBH	OUTPUT MBH	MCA	MOCP	V/Ø					
F-U5 , CU-U5 (EXISTING)	MULTIPOISE	5	2000	0.5	3/4	115/1	53.0	53.0	100.0	94.0	21.4	30	208/3	400	13.0	---	CARRIER 58MXB100-20 -- FURNACE CARRIER 24ABB3 -- CONDENSING UNIT	1

REMARKS:

1. EXISTING EQUIPMENT. RE-BALANCE OSA TO NEW CFM NOTED IN SCHEDULE.

DIFFUSER SCHEDULE

SYMBOL	NOMINAL SIZE	NECK / RUNOUT SIZE	CFM RANGE	REMARKS
D-1 CFM 6"Ø	6X6	6"Ø	0 - 90	1 , 2 , 3 , 4 , 5 , 6 , 7
D-2 CFM 8"Ø	9X9	8"Ø	90 - 200	1 , 2 , 3 , 4 , 5 , 6 , 7
D-3 CFM 10"Ø	12X12	10"Ø	200 - 350	1 , 2 , 3 , 4 , 5 , 6 , 7
D-4 CFM 12"Ø	15X15	12"Ø	300 - 500	1 , 2 , 3 , 4 , 5 , 6 , 7
D-5 CFM 14"Ø	15X15	14"Ø	400 - 650	1 , 2 , 3 , 4 , 5 , 6 , 7
D-6 CFM 16"Ø	18X18	16"Ø	600 - 900	1 , 2 , 3 , 4 , 5 , 6 , 7
D-7 CFM 21X21	21X21	21X21	900 - 1400	1 , 2 , 3 , 4 , 5 , 6 , 7

REMARKS:

1. SIZES BASED ON TITUS MODEL TDC SERIES. APPROVED ALTERNATE MANUFACTURERS INCLUDE ANEMOSTAT, J&J REGISTER, NAILOR, METAL-AIRE, TUTTLE & BAILEY, KRUEGER, PRICE, AND UNITED ENERTECH.
2. SIZES BASED ON A MAXIMUM NC LEVEL OF 25.
3. ALL DIFFUSERS LOCATED IN LAY-IN CEILING AREAS SHALL BE BORDER TYPE 3 AND BE MOUNTED IN MANUFACTURER PROVIDED 24"x24" PANELS. ALL DIFFUSERS LOCATED IN HARD CEILING AREAS SHALL BE BORDER TYPE 6 (BEVELED) SURFACE MOUNTED. SEE ARCHITECTURAL PLANS FOR LOCATIONS OF VARIOUS CEILING TYPES.
4. SEE HVAC FLOOR PLANS FOR DIRECTIONAL THROW REQUIREMENTS FOR EACH DIFFUSER.
5. ALL OF THE DIFFUSERS SHOWN IN THIS SCHEDULE MAY NOT BE USED. REFERENCE THE HVAC PLAN FOR DIFFUSER CALL-OUTS AND THE QUANTITY OF EACH SIZE REQUIRED.
6. WHENEVER THERE IS A DISCREPANCY BETWEEN THE RUNOUT DUCT SIZE SHOWN ON THE PLANS AND THAT SHOWN IN THE SCHEDULE, ALWAYS USE THE LARGER OF THE TWO DUCT SIZES.
7. WHITE FINISH.

RETURN & EXHAUST GRILLE SCHEDULE

SYMBOL	NOMINAL SIZE	NECK / RUNOUT SIZE	CFM RANGE	REMARKS
R-1 6"Ø	8X8	6"Ø	0-80	1 , 2 , 3 , 4 , 5 , 6
R-2 8"Ø	10X10	8"Ø	80-180	1 , 2 , 3 , 4 , 5 , 6
R-3 10"Ø	12X12	10"Ø	180-300	1 , 2 , 3 , 4 , 5 , 6
R-4 6"Ø	22X10	6"Ø	0-80	1 , 2 , 3 , 4 , 5 , 6
R-5 8"Ø	22X10	8"Ø	80-180	1 , 2 , 3 , 4 , 5 , 6
R-6 10"Ø	22X10	10"Ø	180-300	1 , 2 , 3 , 4 , 5 , 6
R-7 12"Ø	22X22	12"Ø	300-500	1 , 2 , 3 , 4 , 5 , 6
R-8 14"Ø	22X22	14"Ø	500-750	1 , 2 , 3 , 4 , 5 , 6
R-9 22X10	22X10	22X10	500-1100	1 , 2 , 3 , 4 , 5 , 6
R-10 22X22	22X22	22X22	1100-2000	1 , 2 , 3 , 4 , 5 , 6

REMARKS:

1. SIZES BASED ON TITUS MODEL 50F, ALUMINUM EGGCRATE RETURN GRILLE, 1/2" x 1/2" x 1" SPACING (SINGLE CORE). PROVIDE SQUARE TO ROUND TRANSITION (WHERE ROUND RUN-OUT INDICATED). APPROVED ALTERNATE MANUFACTURERS INCLUDE , ANEMOSTAT, CARNES, PRICE, NAILOR, METAL-AIRE, TUTTLE & BAILEY, KRUEGER, J&J REGISTER, AND UNITED ENERTECH.
2. SIZES BASED ON A MAXIMUM NC LEVEL OF 25.
3. ALL GRILLES LOCATED IN LAY-IN CEILING AREAS SHALL HAVE BORDER #3, UNLESS OTHERWISE INDICATED. ALL GRILLES LOCATED IN HARD CEILING AREAS SHALL HAVE BORDER #1, UNLESS OTHERWISE INDICATED. REFER TO ARCHITECTURAL PLANS FOR LOCATIONS OF VARIOUS CEILING TYPES. SHEET METAL DUCTWORK VISIBLE BEHIND GRILLE SHALL BE PAINTED FLAT BLACK.
4. ALL OF THE GRILLES SHOWN IN THIS SCHEDULE MAY NOT BE USED. REFERENCE THE HVAC PLAN FOR GRILLE CALL-OUTS AND THE QUANTITY OF EACH SIZE REQUIRED.
5. WHENEVER THERE IS A DISCREPANCY BETWEEN THE RUNOUT DUCT SIZE SHOWN ON THE PLANS AND THAT SHOWN IN THE SCHEDULE, ALWAYS USE THE LARGER OF THE TWO DUCT SIZES.
6. WHITE FINISH.

BLD2105-00098
REVIEWED FOR CODE COMPLIANCE
This approval shall not be construed to be an approval of any violation of, or variance from, Idaho's adopted codes, standards, laws or rules applicable to this project.
SEPARATE BUILDING PERMIT REQUIRED FOR CONSTRUCTION

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IDAHO FALLS, IDAHO

SHEET TITLE:
MECHANICAL SCHEDULES

REVISIONS

PROJECT NO.: 20027
DATE: APRIL 2021
DRAWN BY: SH
CHECKED BY: BC

DRAWING NO.:
M4.1

ELECTRICAL LEGEND - LIGHTING

REFERENCE FIXTURE SCHEDULE FOR MOUNTING TYPE, MOUNTING HEIGHT, AND FIXTURE TYPE.

- DOUBLE FACE EXIT SIGN, CEILING MOUNTED, PROVIDE UNSWITCHED CONDUCTOR.
- WALL MOUNTED DOUBLE FACE EXIT SIGN PROVIDE UNSWITCHED CONDUCTOR. MOUNT AT +8'-0" UNO.
- SINGLE FACE EXIT SIGN, CEILING MOUNTED PROVIDE UNSWITCHED CONDUCTOR.
- WALL MOUNTED SINGLE FACE EXIT SIGN PROVIDE UNSWITCHED CONDUCTOR. MOUNT AT +8'-0" UNO.
- ARROW INDICATES DIRECTION TO BE SHOWN ON SIGN.
- 1'X1' LIGHT FIXTURE.
- 1'X1' LIGHT FIXTURE, PROVIDE EMERGENCY BATTERY BACKUP CONNECTED TO AN UNSWITCHED CONDUCTOR.
- TRACK LIGHT
- 1'X4' LIGHT FIXTURE.
- 1'X4' LIGHT FIXTURE, PROVIDE EMERGENCY BATTERY BACKUP CONNECTED TO AN UNSWITCHED CONDUCTOR.
- 2'X4' LIGHT FIXTURE.
- 2'X4' LIGHT FIXTURE, PROVIDE EMERGENCY BATTERY BACKUP CONNECTED TO AN UNSWITCHED CONDUCTOR.
- 2'X2' LIGHT FIXTURE.
- 2'X2' LIGHT FIXTURE, PROVIDE EMERGENCY BATTERY BACKUP CONNECTED TO AN UNSWITCHED CONDUCTOR.
- DIRECT/INDIRECT LIGHT FIXTURE. SEE SCHEDULE FOR LENGTH.
- DIRECT/INDIRECT LIGHT FIXTURE. SEE SCHEDULE FOR LENGTH. PROVIDE EMERGENCY BATTERY BACKUP CONNECTED TO AN UNSWITCHED CONDUCTOR
- STRIP LIGHT FIXTURE. SEE SCHEDULE FOR LENGTH.
- STRIP LIGHT FIXTURE. SEE SCHEDULE FOR LENGTH. PROVIDE EMERGENCY BATTERY BACKUP CONNECTED TO AN UNSWITCHED CONDUCTOR
- WALL MOUNTED LIGHT FIXTURE.
- WALL MOUNTED LIGHT FIXTURE, PROVIDE EMERGENCY BATTERY BACKUP CONNECTED TO AN UNSWITCHED CONDUCTOR.
- RECESSED LIGHT FIXTURE
- RECESSED LIGHT FIXTURE. PROVIDE EMERGENCY BATTERY BACKUP CONNECTED TO AN UNSWITCHED CONDUCTOR.
- ROUND LIGHT FIXTURE
- ROUND EMERGENCY LIGHT FIXTURE. PROVIDE EMERGENCY BATTERY BACKUP CONNECTED TO AN UNSWITCHED CONDUCTOR.
- WALL MOUNTED LIGHT FIXTURE.
- WALL MOUNTED EMERGENCY LIGHT FIXTURE. PROVIDE EMERGENCY BATTERY BACKUP CONNECTED TO AN UNSWITCHED CONDUCTOR.
- POLE LIGHT 1 HEAD WITH POLE
- TIME CLOCK
- PHOTO CONTROL CELL LOCATED 12" ABOVE ROOF FACING NORTH.
- OCCUPANCY SENSOR. PROVIDE RELAYS AND POWER PACKS AS REQUIRED
- LED DRIVER
- EMERGENCY EGRESS LIGHTING WITH OUT FIXTURE HEADS. CONNECT TO AN UNSWITCHED CONDUCTOR.
- EMERGENCY EGRESS LIGHTING. CONNECT TO AN UNSWITCHED CONDUCTOR.
- XXX INDICATES FIXTURE TYPE. REFER TO FIXTURE SCHEDULE.
- EXTERIOR WALL PACK
- EMERGENCY EXTERIOR WALL PACK. PROVIDE EMERGENCY BATTERY BACKUP CONNECTED TO AN UNSWITCHED CONDUCTOR

DEVICES

- SX SWITCH, TYPE AS INDICATED. +46"AFF
  - 2 DOUBLE POLE
  - 3 3-WAY
  - 4 4-WAY
  - K KEYED
  - P PILOT LIGHT
  - D DIMMER
  - HP HORSEPOWER RATED
  - TO THERMAL OVERLOAD
  - LV LOW VOLTAGE
  - OS OCCUPANCY SENSOR
  - OR LOW VOLTAGE, MOMENTARY OVERRIDE
  - VS VACANCY SENSOR
  - a SUPERSCRIPT INDICATES LIGHTS TO BE SWITCHED TOGETHER
- DUAL LEVEL SWITCHING, INSIDE AND OUTSIDE LAMPS OF FIXTURE TO BE SWITCHED SEPARATELY.
- S^{D}_{OS} DUAL LEVEL SWITCHING WITH OCCUPANCY SENSOR, INSIDE AND OUTSIDE LAMPS OF FIXTURE TO BE SWITCHED SEPARATELY.
- S^{O}_{OS} OCCUPANCY SENSOR WITH MANUAL DIMMING, SET FOR 50% AUTOMATIC ON, AUTOMATIC OFF, WITH MANUAL DIMMING.
- SINGLE CONVENIENCE OUTLET, +18" AFF UNO
- FLOOR MOUNT SINGLE CONVENIENCE OUTLET
- DUPLEX CONVENIENCE OUTLET, +18" AFF UNO
- FLOOR MOUNT DUPLEX CONVENIENCE OUTLET
- EMERGENCY DUPLEX CONVENIENCE OUTLET, +18" AFF UNO
- SWITCHED DUPLEX CONVENIENCE OUTLET, +18" AFF UNO
- FLOOR MOUNTED SWITCHED DUPLEX CONVENIENCE OUTLET
- USB DUPLEX CONVENIENCE OUTLET, +18" AFF UNO
- USB FOURPLEX CONVENIENCE OUTLET, +18" AFF UNO
- FOURPLEX CONVENIENCE OUTLET. +18"AFF UNO
- FLOOR MOUNT FOURPLEX CONVENIENCE OUTLET
- CONNECTION POINT TO EQUIPMENT SPECIFIED, ELECTRICAL CONTRACTOR TO SUPPLY RACEWAY AND CONDUCTORS AND MAKE FINAL CONNECTION TO EQUIPMENT UNDER THIS SECTION. UNO
- FLOOR MOUNTED CONNECTION POINT, SEE NOTE ABOVE FOR REQUIREMENTS
- FLOOR MOUNTED JUNCTION BOX
- JUNCTION BOX
- WALL MOUNTED PUSH BUTTON, MOUNT AT SWITCH HEIGHT UNO
- MOTOR STARTER/CONTACTOR, SIZE/POLES NEMA 1 UNO AS INDICATED
- COMBINATION STARTER AND DISCONNECT, SIZE/POLES, STARTER SIZE AS INDICATED, NEMA 1 UNO
- FUSED DISCONNECT SWITCH, SIZE/POLES, FUSE SIZES AS INDICATED, NEMA 1 UNO
- NON-FUSED DISCONNECT SIZE/ POLES AS INDICATED, NEMA 1 UNO
- T XX THERMOSTAT, +46" AFF PROVIDE CONDUIT, J-BOX, CONDUCTORS AS REQUIRED TO CONTROL ASSOCIATED UNITS. UNO COORDINATE WITH DIVISION 15.
- POWER POLE - DUAL CHANNEL
- T TRANSFORMER
- PANELBOARD. SEE SCHEDULE FOR TYPE.
- EQUIPMENT CABINET, SURFACE MOUNTED
- EQUIPMENT CABINET FLUSH MOUNTED
- SURFACE MULTI-OUTLET RACEWAY
- # / # MECHANICAL EQUIPMENT CALL OUT
- # KITCHEN EQUIPMENT CALLOUT
- TV RECESSED ENTERTAINMENT BOX FOR TV
- FLOORBOX

ONE LINE

- DELTA WYE TRANSFORMER UNO
- # PANEL NAME VOLTAGE PHASE — PANEL BOARD, SEE SCHEDULE FOR TYPE AND SIZE
- ##A / #P — CIRCUIT BREAKER, SIZE AND POLES INDICATED
- ##A — FUSE, SIZE AND TYPE INDICATED, PROVIDE FUSE FOR EACH POLE
- ##A / #P — INTERRUPTER SWITCH, SIZE AND POLES INDICATED
- ##A / #P — FUSED SWITCH, SIZE/POLES AND FUSE SIZE INDICATED
- ##A / #P — DRAW OUT CIRCUIT BREAKER, SIZE AND POLES INDICATED
- ###A #P — INDIVIDUAL BREAKER WITH SHUNT TRIP, SIZE AND POLES INDICATED. NEMA 1 UNO
- ###A #P — INDIVIDUAL BREAKER, SIZE AND POLES INDICATED. NEMA 1 UNO
- GFP — GROUND FAULT PROTECTION
- TVSS — TRANSIENT VOLTAGE SURGE SUPPRESSION
- LSIGR — ADJUSTABLE BREAKER SETTINGS (PER SPECIFICATIONS): 'L'-LONG TIME; 'S'-SHORT TIME; 'I'-INSTANTANEOUS; 'G'-GROUND FAULT; 'R'-ENERGY REDUCING MAINTENANCE SWITCH W/STATUS INDICATOR
- GROUND
- ST — SHUNT TRIP COIL
- M — MOTOR
- 100A 3P — DISCONNECT SWITCH, SIZE AND POLES INDICATED. NEMA 1 UNO
- OVERHEAD SERVICE DROP
- ###A/3P GFP — GENERATOR SET, MAIN BREAKER SIZE INDICATED
- AUTOMATIC TRANSFER SWITCH (ATS)
- M — METER AND BASE
- N — NEUTRAL
- T — DRY TYPE TRANSFORMER
- PAD MOUNT TRANSFORMER

SECURITY

- CCTV CAMERA POWER SUPPLY
- CCTV SYSTEM POWER SUPPLY
- ADJUSTABLE CAMERA (PAN/TILT/ZOOM)
- FIXED CAMERA
- CAMERA IN OUTDOOR HOUSING
- ADJUSTABLE CAMERA (PAN/TILT/ZOOM) IN OUTDOOR HOUSING
- C — CCTV OUTLET, +18" UNO
- C — CEILING MOUNTED CCTV OUTLET
- K — SECURITY SYSTEM KEYPAD CONTROLLER COORDINATE BOX SIZE AND MUDRING WITH VENDOR
- CR — CARD READER
- M — CEILING MOUNTED MOTION SENSOR
- +80" M — WALL MOUNTED MOTION SENSOR, MOUNTING HEIGHT INDICATED
- PANIC BUTTON - MOUNTED UNDER COUNTER

NOTE: THIS IS A STANDARD LIST OF COMMONLY USED ELECTRICAL SYMBOLS. SOME OF THE SYMBOLS SHOWN MAY NOT HAVE BEEN USED IN THIS DRAWING PACKAGE.

FIRE ALARM

- F — PULL STATION, +44" AFF WITH PRE-ALARM COVER
- F — FIRE ALARM HORN, +84" AFF UNO
- F 15 — FIRE ALARM STROBE, +84" AFF UNO, STROBE INTENSITY INDICATED. 'C' INDICATES CEILING MOUNTED
- F 15 — FIRE ALARM HORN/STROBE +84" AFF, UNO, STROBE INTENSITY INDICATED. 'C' INDICATES CEILING MOUNTED
- F — FIRE ALARM BELL, +84" AFF UNO. 'C' INDICATES CEILING MOUNTED
- F — FIRE ALARM CHIME, +84" AFF UNO. 'C' INDICATES CEILING MOUNTED
- F 15 — FIRE ALARM CHIME/STROBE, +84" AFF UNO, STROBE INTENSITY INDICATED. 'C' INDICATES CEILING MOUNTED
- F — SPEAKER STROBE, +84" AFF UNO. 'C' INDICATES CEILING MOUNTED
- EOL — END OF LINE RESISTOR
- FS — FLOW SWITCH, PROVIDE MONITOR MODULE AS REQUIRED
- TS — TAMPER SWITCH, PROVIDE MONITOR MODULE AS REQUIRED
- PS — PRESSURE SWITCH, PROVIDE MONITOR MODULE AS REQUIRED
- FSA — FIRE SYSTEM ANNUNCIATOR, FLUSH MOUNTED +54"UNO
- PIV — POST INDICATOR VALVE, PROVIDE MONITOR MODULE AS REQUIRED
- DH — ELECTROMAGNETIC DOOR HOLDER
- R — RELAY
- ACM — CONTROL MODULE
- MM — MONITOR MODULE
- FIRE ALARM KNOX BOX
- FIRE ALARM CONTROL PANEL
- NAC EXTENDER PANEL
- F — FIRE/SMOKE DAMPER
- F — LED INDICATOR LIGHT, CEILING MOUNTED UNO
- F T — LED INDICATOR LIGHT WITH TEST SWITCH, CEILING MOUNTED UNO
- SD — DUCT-MOUNTED SMOKE DETECTOR
- F # — SMOKE DETECTOR, CEILING MOUNTED UNO
  - H HEAT
  - I IONIZATION
  - ID IN DUCT
  - P PHOTOELECTRIC
  - R RELAY
  - WG PROVIDE PROTECTIVE WIRE GUARD
- BS,BR BEAM DETECTOR, SENDER & RECEIVER

COMMUNICATIONS

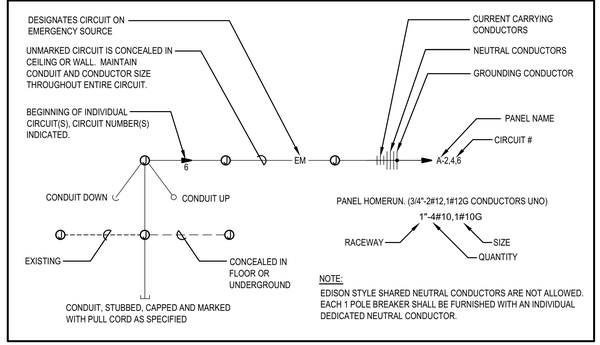
- JUNCTION BOX FOR FUTURE TELEPHONE/DATA OUTLET. MOUNT AT 18" A.F.F. UNO. PROVIDE SINGLE-GANG MUD RING WITH BLANK COVER PLATE. PROVIDE 1" CONDUIT TO NEAREST ACCESSIBLE CEILING SPACE.
- #D,#T — TELEPHONE/DATA OUTLET. MOUNT AT 18" A.F.F. UNO. PROVIDE 1" CONDUIT TO NEAREST ACCESSIBLE CEILING. INSTALL QUANTITY OF DATA (#D) AND TELEPHONE (#T) CABLES INDICATED TO THE NEAREST DATA RACK. PROVIDE (2) DATA CABLES IF A CABLE QUANTITY IS NOT INDICATED.
- FLOOR MOUNTED BOX FOR FUTURE TELEPHONE/DATA OUTLET. JUNCTION BOX WITH SINGLE-GANG MUD RING. PROVIDE 1" CONDUIT TO NEAREST ACCESSIBLE CEILING SPACE. PROVIDE BLANK COVER PLATE.
- #D,#T — FLOOR MOUNTED TELEPHONE/DATA OUTLET. PROVIDE 1" CONDUIT TO NEAREST ACCESSIBLE CEILING. INSTALL QUANTITY OF DATA (#D) AND TELEPHONE (#T) CABLES INDICATED TO THE NEAREST DATA RACK. PROVIDE (2) DATA CABLES IF A CABLE QUANTITY IS NOT INDICATED.
- IC — INTERCOM SYSTEM CALL BUTTON. +46" UNO.
- SP — CEILING MOUNTED SPEAKER WITH BACKBOX
- SP — WALL MOUNTED SPEAKER, WITH BACKBOX +80" UNO
- V — VOLUME CONTROL, +46" UNO
- TV — TELEVISION OUTLET, +18" AFF UNO. PROVIDE 1-1/4" CONDUIT TO NEAREST ACCESSIBLE CEILING SPACE
- TV — CEILING MOUNTED TELEVISION OUTLET
- TTB — TELEPHONE TERMINAL BOARD
- CT-XX — CABLE TRAY, 4" DEEP, WIRE BASKET STYLE, 'XX' INDICATES WIDTH PROVIDE ALL FITTINGS AND SUPPORT HARDWARE REQUIRED

ELECTRICAL ABBREVIATIONS

A	AMPERES
AC AFF	6" ABOVE BACKSPLASH ABOVE FINISHED FLOOR
AFG	ABOVE FINISHED GRADE
AF AIC AT ATS AWG	AMP FRAME AMPS INTERRUPTING CAPACITY AMP TRIP AUTOMATIC TRANSFER SWITCH AMERICAN WIRE GAUGE
BD BS	BOTTOM OF DECK BOTTOM OF STRUCTURE
C C CB	CEILING MOUNTED CONDUIT CIRCUIT BREAKER
CF	COMPACT FLUORESCENT
CKT	CIRCUIT
CO CT CTL	CONDUIT ONLY, PROVIDE PULL-LINE CURRENT TRANSFORMER CONTROL
DC (D) DEMO DET DTT	DIRECT CURRENT DEMOLITION DEMOLITION DETAIL DOUBLE TWIN TUBE
E (E) EC EL	EMERGENCY EXISTING ELECTRICAL CONTRACTOR EMERGENCY LIGHT
F (F) FACP	FUSE FUTURE FIRE ALARM CONTROL PANEL
G/GND GFCI GFI	GROUND GROUND FAULT CIRCUIT INTERRUPTER GROUND FAULT INTERRUPTER
HH HID HOA HPS	HAND HOLE HIGH INTENSITY DISCHARGE HAND-OFF-AUTO HIGH PRESSURE SODIUM
HVAC	HEATING, VENTILATION, & AIR CONDITIONING
IG IPCO	ISOLATED GROUND IDAHO POWER COMPANY
J-BOX	JUNCTION BOX
KA KVA KW KWH	KILOAMP KILO VOLT-AMP KILOWATT KILOWATT HOUR
LCP	LIGHTING CONTROL PANEL
MB MBR MCC MDP MLO MMC MH MSB MTG	MAIN BREAKER MAIN CIRCUIT BREAKER MOTOR CONTROL CENTER MAIN DISTRIBUTION PANEL MAIN LUGS ONLY MODULAR METERING CENTER METAL HALIDE MAIN SWITCH BOARD MOUNTING
N (N) NC NEC NIC NL NO NTS	NEUTRAL NEW NORMALLY CLOSED NATIONAL ELECTRICAL CODE NOT IN CONTRACT NIGHT LIGHT NORMALLY OPEN NOT TO SCALE
OH OS	OVERHEAD OCCUPANCY SENSOR
P PC PVC PWR	POLES PHOTO-CONTROL POLYVINYL CHLORIDE POWER
RE: REC (R)	REFERENCE RECEPTACLE RELOCATED
SF	SQUARE FEET
TBD TDR TK TSP TRT TTB (TYP.)	TO BE DETERMINED TIME DELAY RELAY TOE KICK TWISTED SHIELDED PAIR TRIPLE TUBE TELEPHONE TERMINAL BOARD TYPICAL
UC UG U.N.O.	UNDERCABINET UNDERGROUND UNLESS NOTED OTHERWISE
V VA	VOLT VOLT-AMPERE
W WG WP	WATT WIRE GUARD WEATHER PROOF/NEMA 3R
PROVIDED/ PROVIDE BY INSTALLED/ INSTALL	PROVIDE AND INSTALL / PROVIDED AND INSTALLED BY / PROVIDE AND INSTALL

NOTE: THIS IS A STANDARD LIST OF COMMONLY USED ELECTRICAL ABBREVIATIONS. SOME OF THE ABBREVIATIONS SHOWN ABOVE MAY NOT BE USED IN THIS DRAWING PACKAGE.

CIRCUITING SYMBOLS



NOTE:
EDISON STYLE SHARED NEUTRAL CONDUCTORS ARE NOT ALLOWED. EACH 1 POLE BREAKER SHALL BE FURNISHED WITH AN INDIVIDUAL DEDICATED NEUTRAL CONDUCTOR.

Electrical Plan Review: Approved with Conditions. The stamped documentation has been Reviewed for Compliance in accordance with the NEC as adopted by the State of Idaho by an Electrical Plan Review. This shall not be construed as an approval of any violation of, or variance from Idaho's adopted codes, laws, standards, or rules. Final approval will be based upon on-site electrical inspections to field verify compliance.

BLD2105-00098

REVIEWED FOR CODE COMPLIANCE

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SEPARATE BUILDING PERMIT REQUIRED FOR CONSTRUCTION

MUSGROVE ENGINEERING, P.A.
234 S. Whisperwood Way
Boise, ID 83709
208.384.0585
645 West 25th Street
Idaho Falls, ID 83402
208.523.2862
www.musgrovepa.com

Project No. 21-091

PROFESSIONAL ENGINEER REGISTERED 13299 STATE OF IDAHO MATTHEW N. BRADLEY 08/13/2021

nbw architects p.a.
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PROJECT: ISU - RELOCATE TESTING CENTER
DPW 21-233
TINGEY ADMINISTRATIVE BUILDING
IDAHO FALLS, IDAHO

SHEET TITLE: ELECTRICAL COVER SHEET

REVISIONS

PROJECT NO.: 20027
DATE: APRIL 2021
DRAWN BY: CJ
CHECKED BY: MNB
DRAWING NO.: E0.0

LEVEL 2 - LIGHTING DEMOLITION PLAN

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

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Project No. 21-091

DEMOLITION KEYED NOTES:

(#) SYMBOL USED FOR NOTE CALLOUT.

1. EXISTING LIGHTING FIXTURE TO BE REMOVED.
2. EXISTING WALL SWITCH TO BE REPLACED WITH DIMMER.
3. EXISTING WALL SWITCH TO BE REPLACED WITH WALL OCCUPANCY SENSOR.
4. EXISTING EMERGENCY FIXTURE TO REMAIN.
5. EXISTING WALL SWITCH TO BE REMOVED.
6. EXISTING LIGHTING IN ROOM TO REMAIN.

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PROJECT:
DPW 21-233
ISU - RELOCATE TESTING CENTER
TINGEY ADMINISTRATIVE BUILDING
IDAHO FALLS, IDAHO

SHEET TITLE:
LEVEL 2 - LIGHTING DEMOLITION PLAN

REVISIONS

PROJECT NO.: 20027
DATE: APRIL 2021
DRAWN BY: CJ
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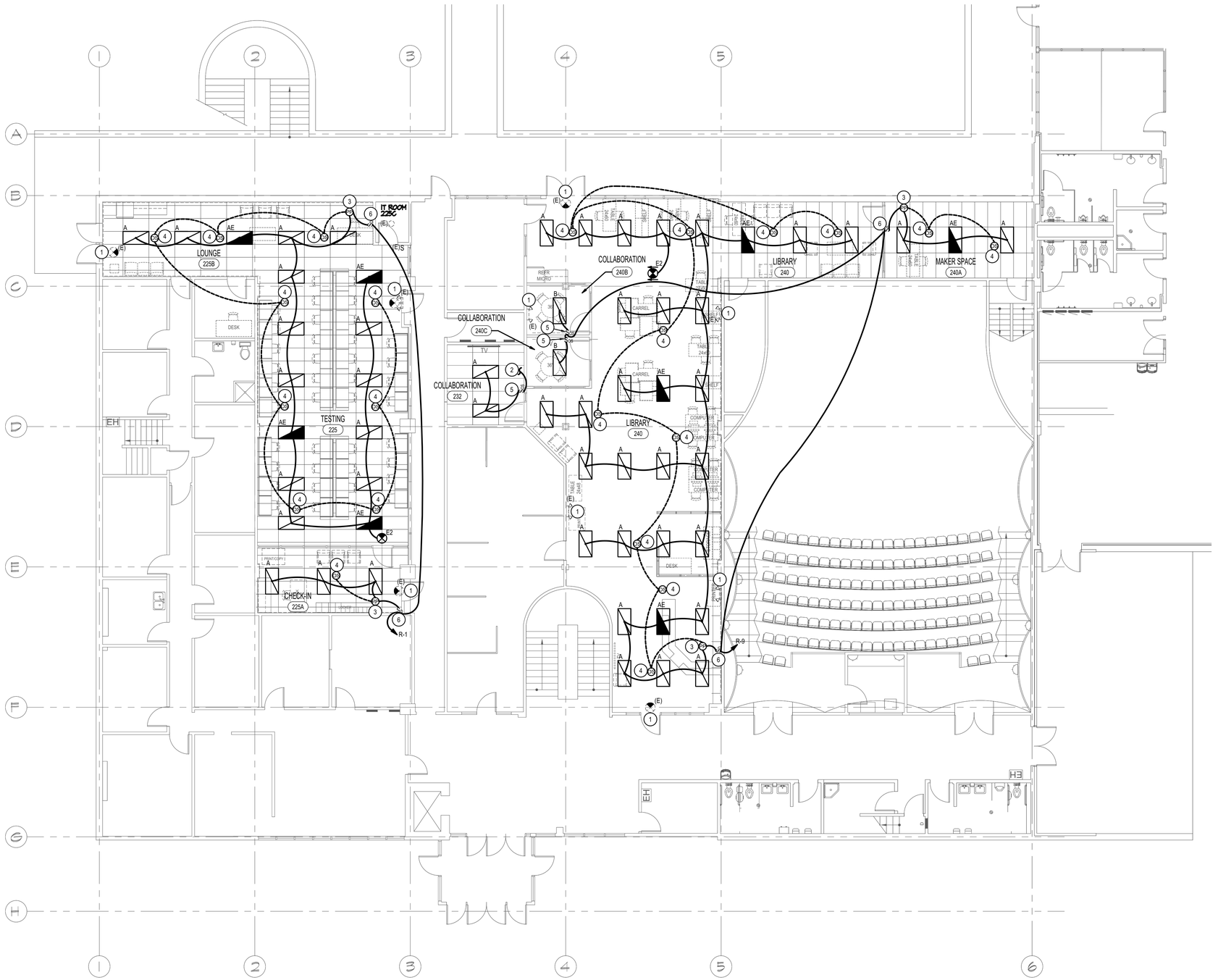
SEPARATE BUILDING PERMIT REQUIRED FOR CONSTRUCTION

DRAWING NO.: E1.0



LEVEL 2 - LIGHTING INSTALLATION PLAN

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

N

KEYED NOTES:

(#) SYMBOL USED FOR NOTE CALLOUT.

1. EXISTING EMERGENCY FIXTURE TO REMAIN.
2. CONNECT TO EXISTING LIGHTING CIRCUIT IN ROOM.
3. INSTALL POWER PACK COMPATIBLE WITH CEILING OCCUPANCY SENSOR.
4. INSTALL DUAL TECHNOLOGY CEILING MOUNT SMALL MOTION OCCUPANCY SENSOR AND CONNECT WITH LOW VOLTAGE CABLE AS RECOMMENDED BY THE MANUFACTURER.
5. INSTALL DUAL TECHNOLOGY OCCUPANCY SENSOR WITH PHASE DIMMING CONTROLS. INSTALL 0-10V DIMMING CONDUCTORS TO ALL LIGHTS CONTROLLED BY THIS SWITCH.
6. INSTALL 0-10V DIMMING CONDUCTORS TO ALL LIGHTS CONTROLLED BY THIS SWITCH.

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PROJECT:
DPW 21-233
ISU - RELOCATE TESTING CENTER
TINGEY ADMINISTRATIVE BUILDING
IDAHO FALLS, IDAHO

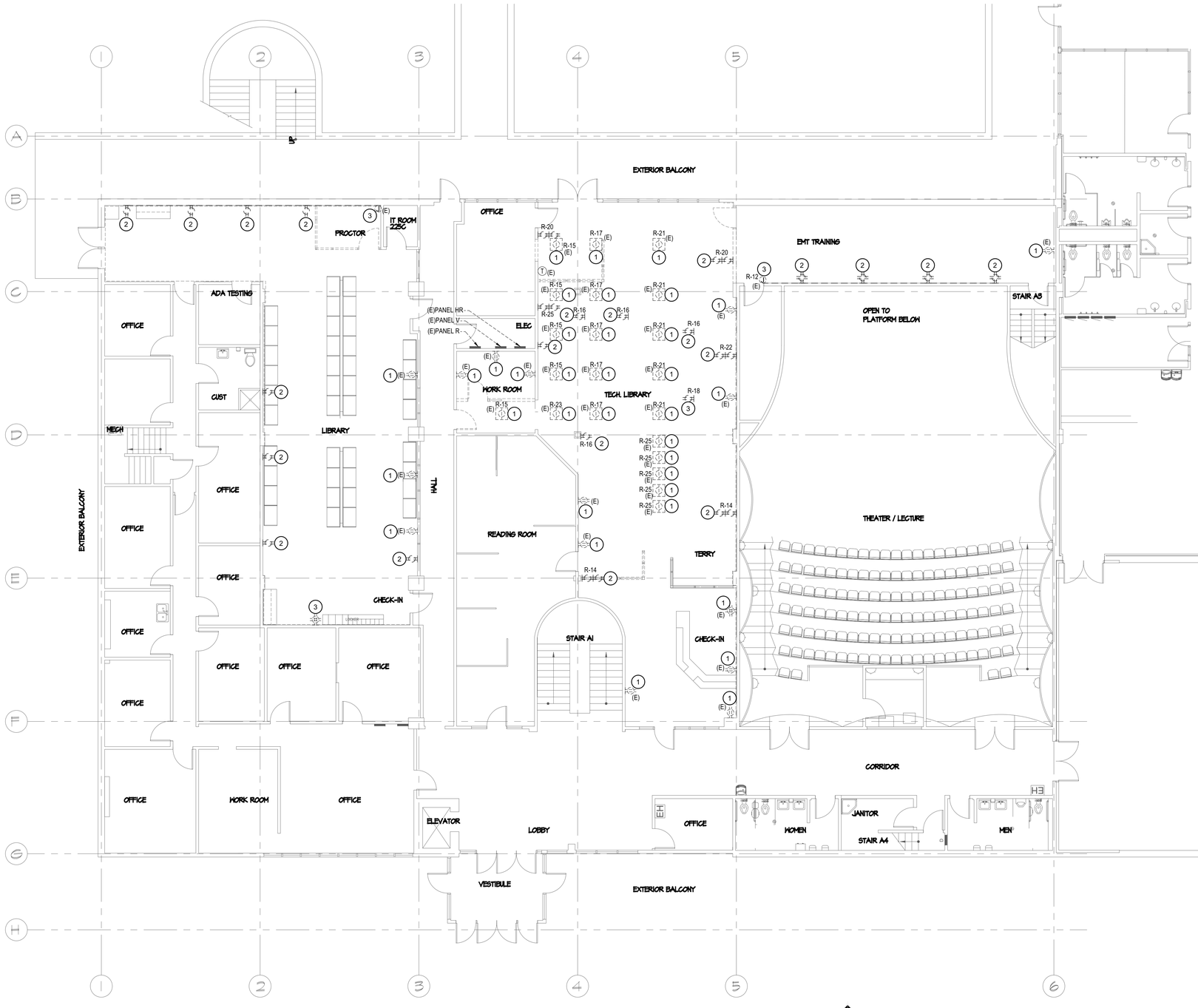
SHEET TITLE:
LEVEL 2 - LIGHTING INSTALLATION PLAN

REVISIONS

PROJECT NO.: 20027
DATE: APRIL 2021
DRAWN BY: CJ
CHECKED BY: MNB

DRAWING NO.:

E1.1



LEVEL 2 - POWER DEMOLITION PLAN

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

DEMOLITION KEYED NOTES:

(#) SYMBOL USED FOR NOTE CALLOUT.

1. EXISTING POWER DEVICE TO REMAIN.
2. EXISTING SURFACE RACEWAY AND RECEPTACLE TO BE REMOVED.
3. EXISTING RECEPTACLE BRANCH CIRCUIT TO REMAIN AND BE REUSED.

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DPW 21-233

ISU - RELOCATE TESTING CENTER

TINGEY ADMINISTRATIVE BUILDING
IDAHO FALLS, IDAHO

PROJECT:

SHEET TITLE: LEVEL 2 - POWER DEMOLITION PLAN

REVISIONS

PROJECT NO.: 20027
DATE: APRIL 2021
DRAWN BY: CJ
CHECKED BY: MNB

DRAWING NO.:

E2.0

BLD2105-00098

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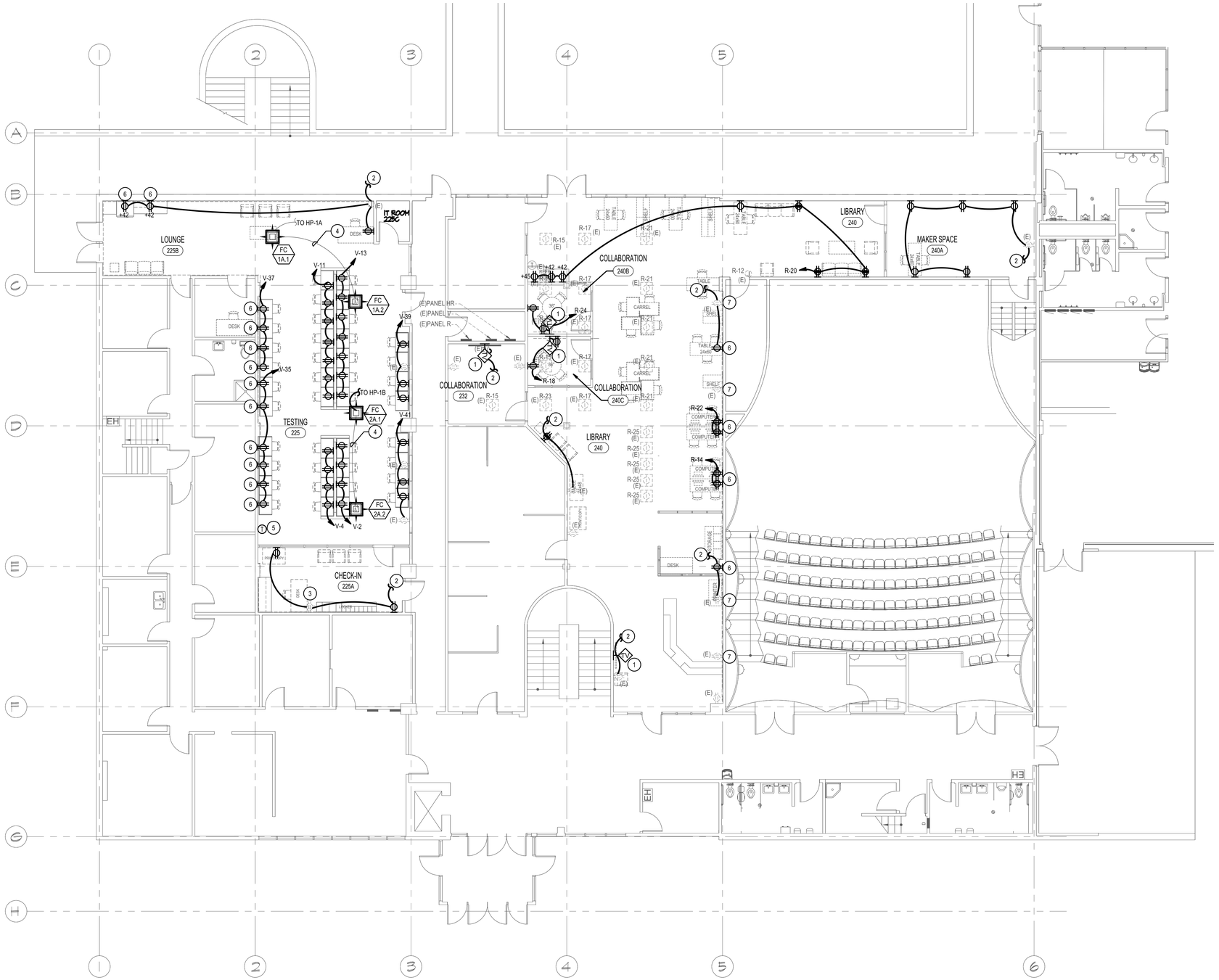

LEVEL 2 - POWER INSTALLATION PLAN

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

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Project No. 21-091

KEYED NOTES:

(#) SYMBOL USED FOR NOTE CALLOUT.

1. SEE SHEET E5.1 FOR RECESSED ENTERTAINMENT BOX ROUGH-IN ELEVATION DETAIL.
2. CONNECT TO EXISTING CIRCUIT. FIELD VERITY EXISTING CIRCUIT PRIOR TO CONSTRUCTION.
3. EXISTING RECEPTACLE AND BRANCH CIRCUIT TO REMAIN.
4. 3/4" C WITH POWER AND CONTROL CONDUCTORS TO OUTDOOR UNIT. VERIFY QUANTITY WITH ACTUAL EQUIPMENT PROVIDED.
5. 3/4"C WITH SINGLE GANG JUNCTION BOX 45° TO CENTER. STUB CONDUIT ABOVE CEILING FOR THERMOSTAT. SEE SHEET E5.1 FOR DETAIL.
6. ALTERNATE #3: RECEPTACLES SHALL BE INSTALLED CONCEALED IN WALL IF ALTERNATE #3 IS ACCEPTED.
7. ALTERNATE #3: RECESS RECEPTACLE FLUSH IN WALL IF ALTERNATE #3 IS ACCEPTED.

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PROJECT:
DPW 21-233
ISU - RELOCATE TESTING CENTER
TINGEY ADMINISTRATIVE BUILDING
IDAHO FALLS, IDAHO

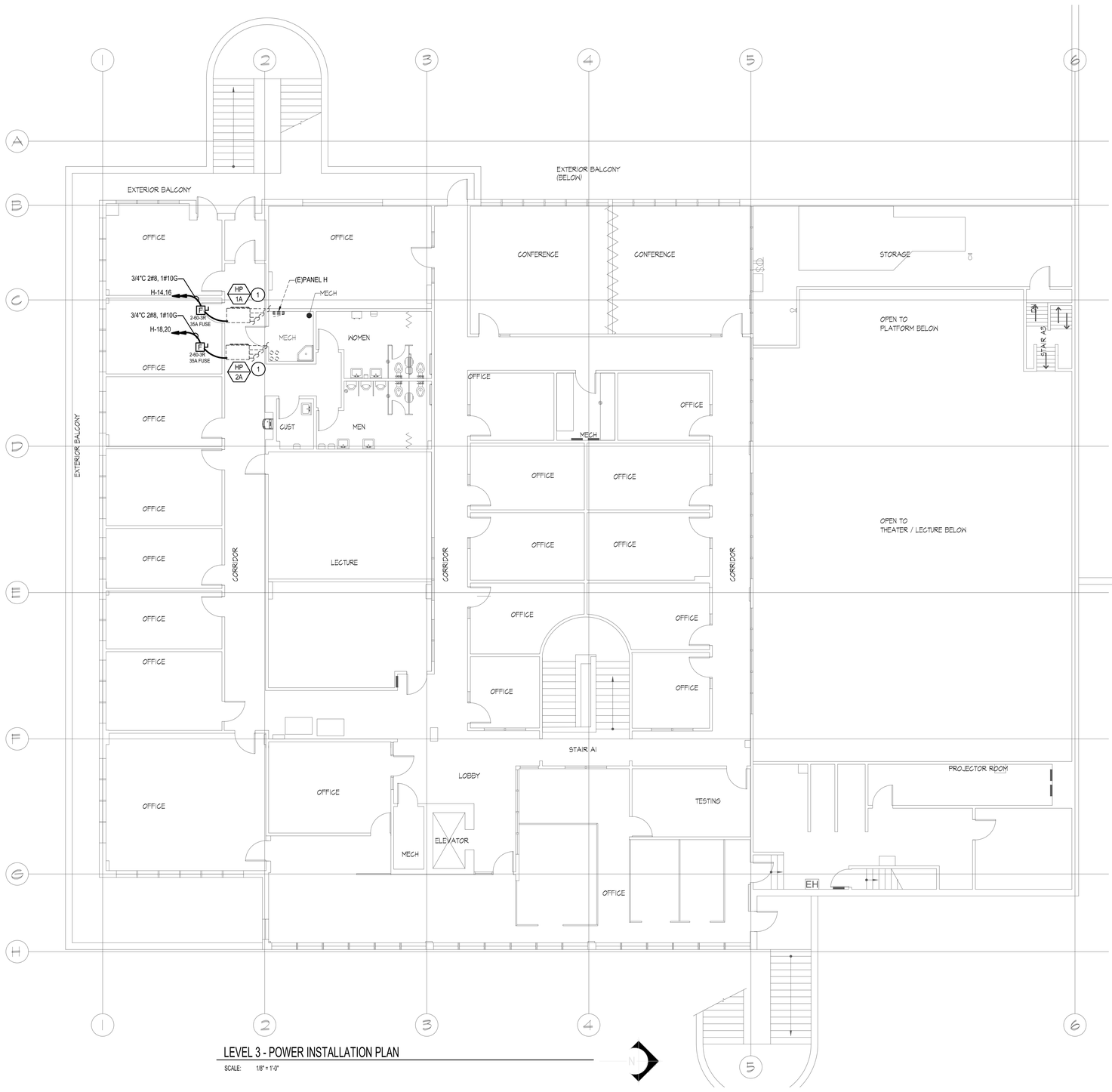
SHEET TITLE:
LEVEL 2 - POWER INSTALLATION PLAN

REVISIONS

PROJECT NO.: 20027
DATE: APRIL 2021
DRAWN BY: CJ
CHECKED BY: MNB

DRAWING NO.:

E2.1



LEVEL 3 - POWER INSTALLATION PLAN

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

KEYED NOTES:

(#) SYMBOL USED FOR NOTE CALLOUT.

1. HEAT PUMPS LOCATED ON ROOF.

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MATTHEW N. BRADLEY

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PROJECT:
DPW 21-233
ISU - RELOCATE TESTING CENTER
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IDAHO FALLS, IDAHO

SHEET TITLE:
LEVEL 3 - POWER INSTALLATION PLAN

REVISIONS

PROJECT NO.: 20027
DATE: APRIL 2021
DRAWN BY: CJ
CHECKED BY: MNB

DRAWING NO.:

E2.2

BUILDING SAFETY DIVISION

BLD2105-00098

REVIEWED FOR CODE COMPLIANCE

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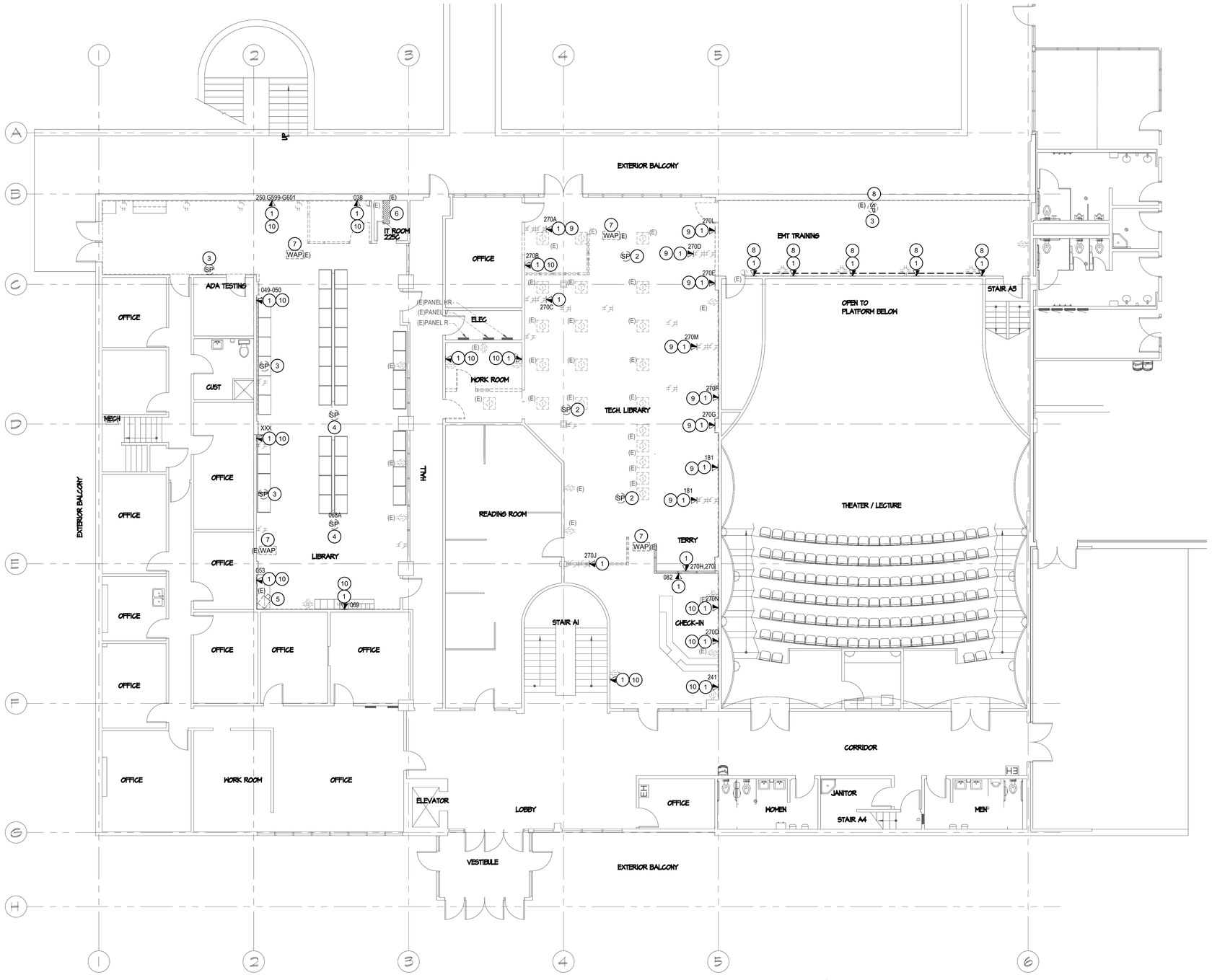
SEPARATE BUILDING PERMIT REQUIRED FOR CONSTRUCTION



LEVEL 2 - SPECIAL SYSTEMS DEMOLITION PLAN

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

DEMOLITION KEYED NOTES:

(#) SYMBOL USED FOR NOTE CALLOUT.

1. REMOVE EXISTING DATA JACK AND CABLE BACK TO IT RACK IN IT ROOM 225C.
2. EXISTING EMERGENCY NOTIFICATION SPEAKER TO REMAIN. CONTACT ROD JACKSON AT ISU PUBLIC SAFETY FOR REMOVAL PRIOR TO CONSTRUCTION AND REINSTALLATION.
3. EXISTING EMERGENCY NOTIFICATION SPEAKER TO BE RELOCATED INTO NEW ACCESSIBLE CEILING. CONTACT ROD JACKSON AT ISU PUBLIC SAFETY FOR REMOVAL PRIOR TO CONSTRUCTION AND REINSTALLATION. REMOVE SURFACE RACEWAY ASSOCIATED WITH SYSTEM.
4. ABANDONED INTERCOM SPEAKER TO BE REMOVED.
5. EXISTING CAMERA TO REMAIN.
6. EXISTING IT RACK. REMOVE ALL CABLES BACK TO THIS RACK.
7. EXISTING WIRELESS ACCESS POINT TO BE REMOVED AND REINSTALLED BY ISU.
8. REMOVE SURFACE RACEWAY AND ALL DEVICES.
9. REMOVE POWER POLE AND ALL DEVICES.
10. INSTALL BLANK COVER PLATE. MATCH EXISTING COLOR.

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REVIEWED FOR CODE COMPLIANCE

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SEPARATE BUILDING PERMIT REQUIRED FOR CONSTRUCTION

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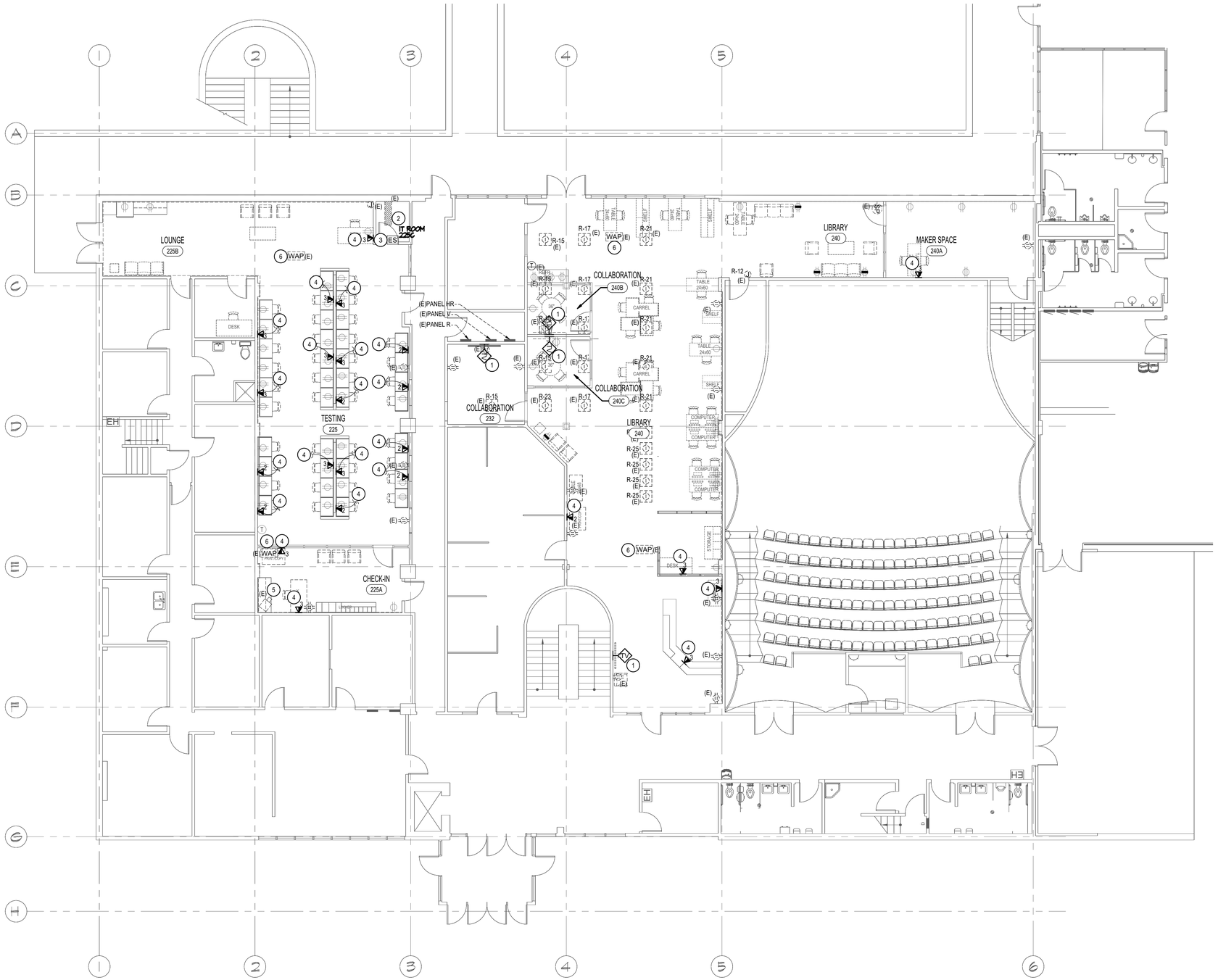
PROJECT: DPW 21-233
ISU - RELOCATE TESTING CENTER
TINGEY ADMINISTRATIVE BUILDING
IDAHO FALLS, IDAHO

SHEET TITLE: LEVEL 2 - SPECIAL SYSTEMS DEMOLITION PLAN

REVISIONS

PROJECT NO.: 20027
DATE: APRIL 2021
DRAWN BY: CJ
CHECKED BY: MNB

DRAWING NO.: E3.0



LEVEL 2 - SPECIAL SYSTEMS INSTALLATION PLAN

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

KEYED NOTES:

(#) SYMBOL USED FOR NOTE CALLOUT.

1. SEE SHEET E5.1 FOR RECESSED ENTERTAINMENT BOX ELEVATION DETAIL.
2. EXISTING IT RACK. INSTALL NEW CABLES TO THIS LOCATION.
3. NEW CARD READER ROUGH-IN TO BE INSTALLED. SEE DETAIL ACCESS CONTROL ROUGH-IN DETAIL ON DRAWING E5.1.
4. NETWORK JACK AND CABLE JACK TO IT RACK IN IT ROOM 225C SEE SPECIFICATION SECTION 271343. SEE SHEET E5.1 FOR DATA/TELEPHONE ROUGH-IN ELEVATION DETAIL.
5. EXISTING CAMERA TO REMAIN.
6. REINSTALL EXISTING WIRELESS ACCESS POINT BY ISU NETCOMM.

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SHEET TITLE:
LEVEL 2 - SPECIAL SYSTEMS INSTALLATION PLAN

REVISIONS

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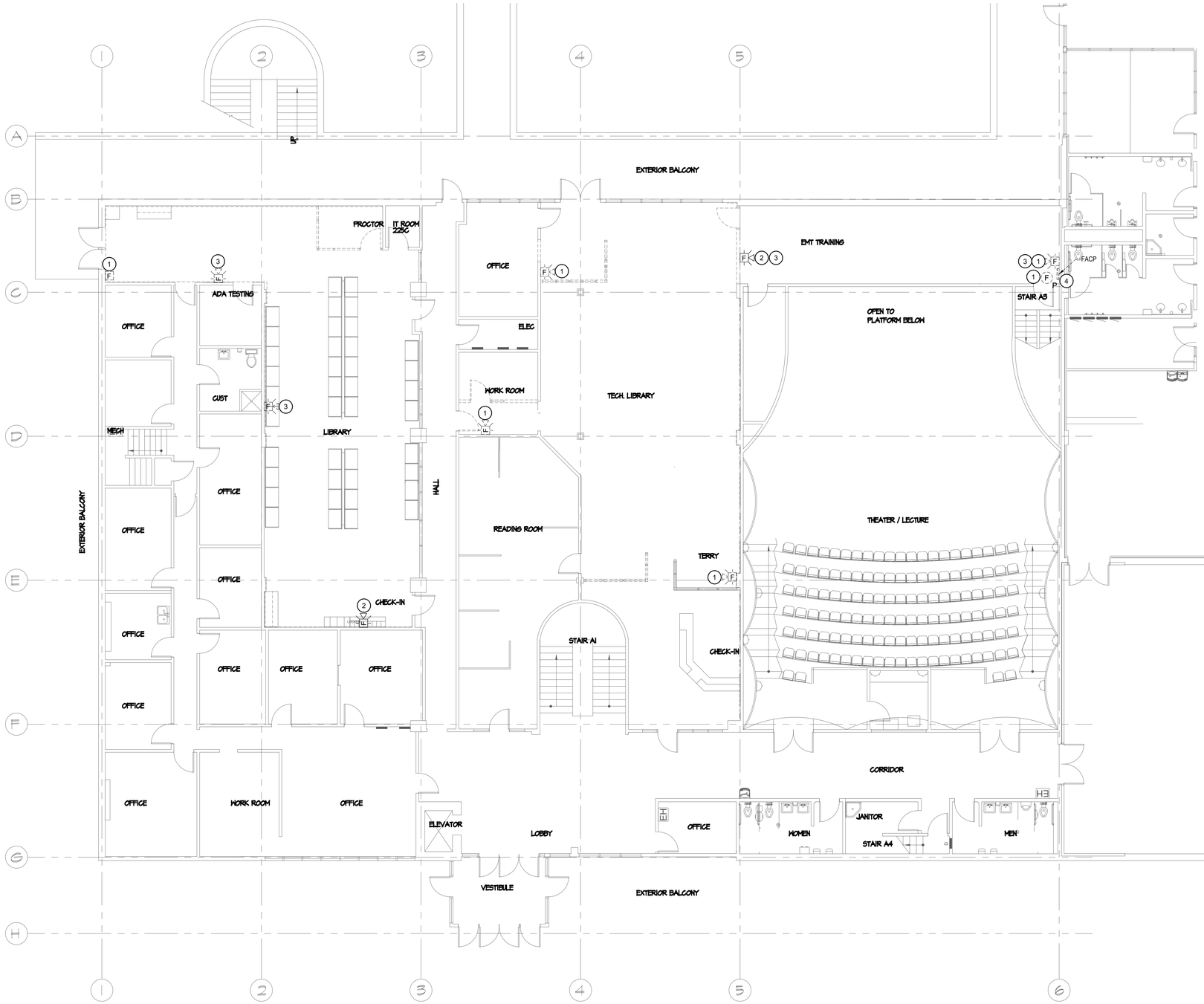

LEVEL 2 - FIRE ALARM DEMOLITION PLAN

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

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Project No. 21-091

DEMOLITION KEYED NOTES:

(#) SYMBOL USED FOR NOTE CALLOUT.

1. EXISTING FIRE ALARM DEVICE TO REMAIN.
2. EXISTING FIRE ALARM DEVICE TO BE RELOCATED.
3. REMOVE ALL SURFACE RACEWAY ASSOCIATED WITH FIRE ALARM SYSTEM. FIRE ALARM DEVICES TO REINSTALLED WITH CABLE, AND LINE VOLTAGE CIRCUITS CONCEALED IN WALLS.
4. RELOCATE FIRE ALARM AUXILIARY POWER SUPPLY ABOVE LAY-IN CEILING. REMOVE ALL ASSOCIATED SURFACE RACEWAY.

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ISU - RELOCATE TESTING CENTER

TINGEY ADMINISTRATIVE BUILDING
IDAHO FALLS, IDAHO

PROJECT:

SHEET TITLE: LEVEL 2 - FIRE ALARM DEMOLITION PLAN

REVISIONS

PROJECT NO.: 20027
DATE: APRIL 2021
DRAWN BY: CJ
CHECKED BY: MNB

DRAWING NO.: E4.0

BUILDING SAFETY

BLD2105-00098

REVIEWED FOR CODE COMPLIANCE

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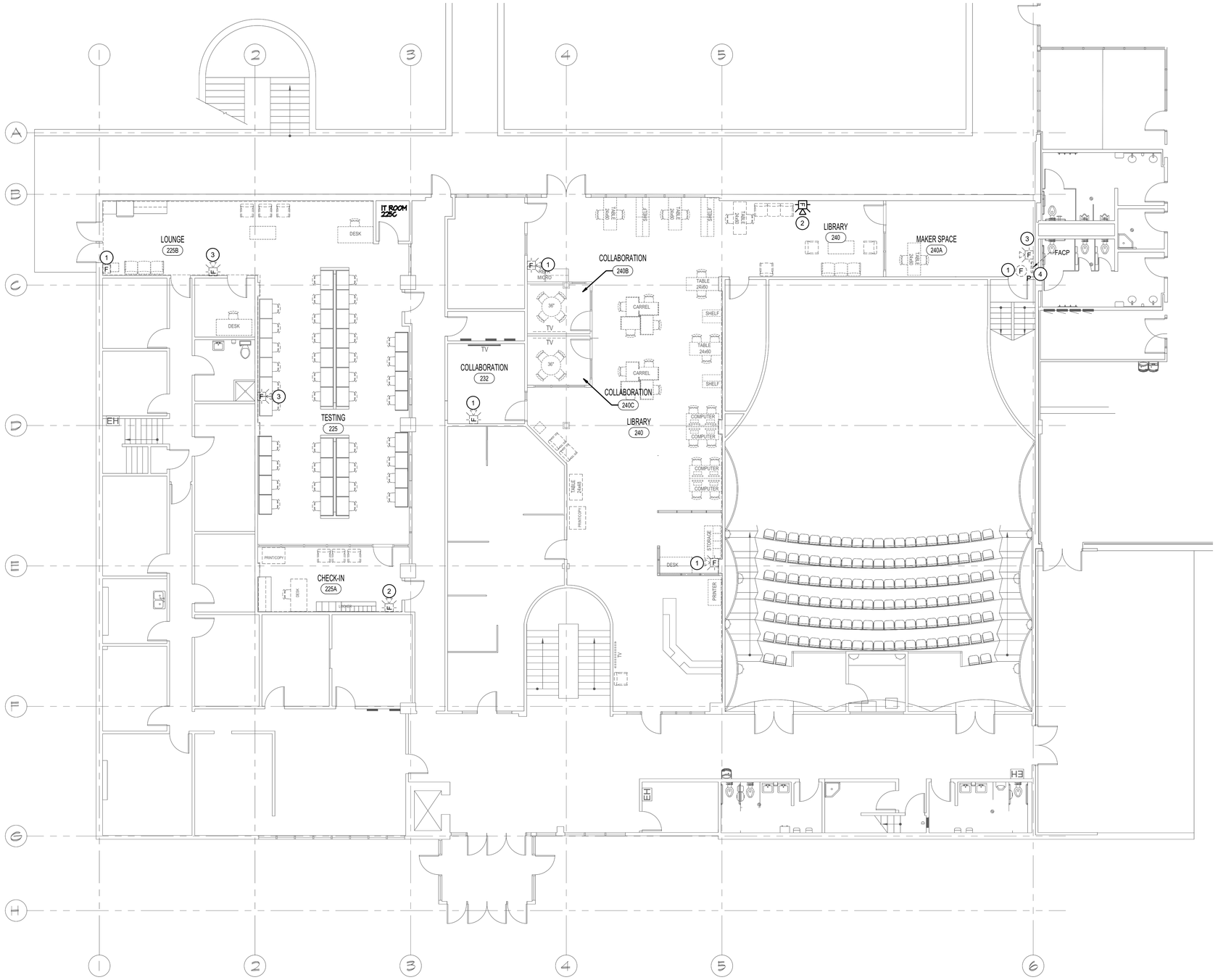

KEYED NOTES:

(#) SYMBOL USED FOR NOTE CALLOUT.

1. EXISTING FIRE ALARM DEVICE TO REMAIN.
2. NEW LOCATION FOR RELOCATED FIRE ALARM DEVICE.
3. REINSTALL EXISTING FIRE ALARM DEVICE.
4. REINSTALL FIRE ALARM AUXILIARY POWER SUPPLY ABOVE LAY-IN CEILING.

LEVEL 2 - FIRE ALARM INSTALLATION PLAN

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

BLD2105-00098

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SHEET TITLE:
LEVEL 2 - FIRE ALARM INSTALLATION PLAN

REVISIONS

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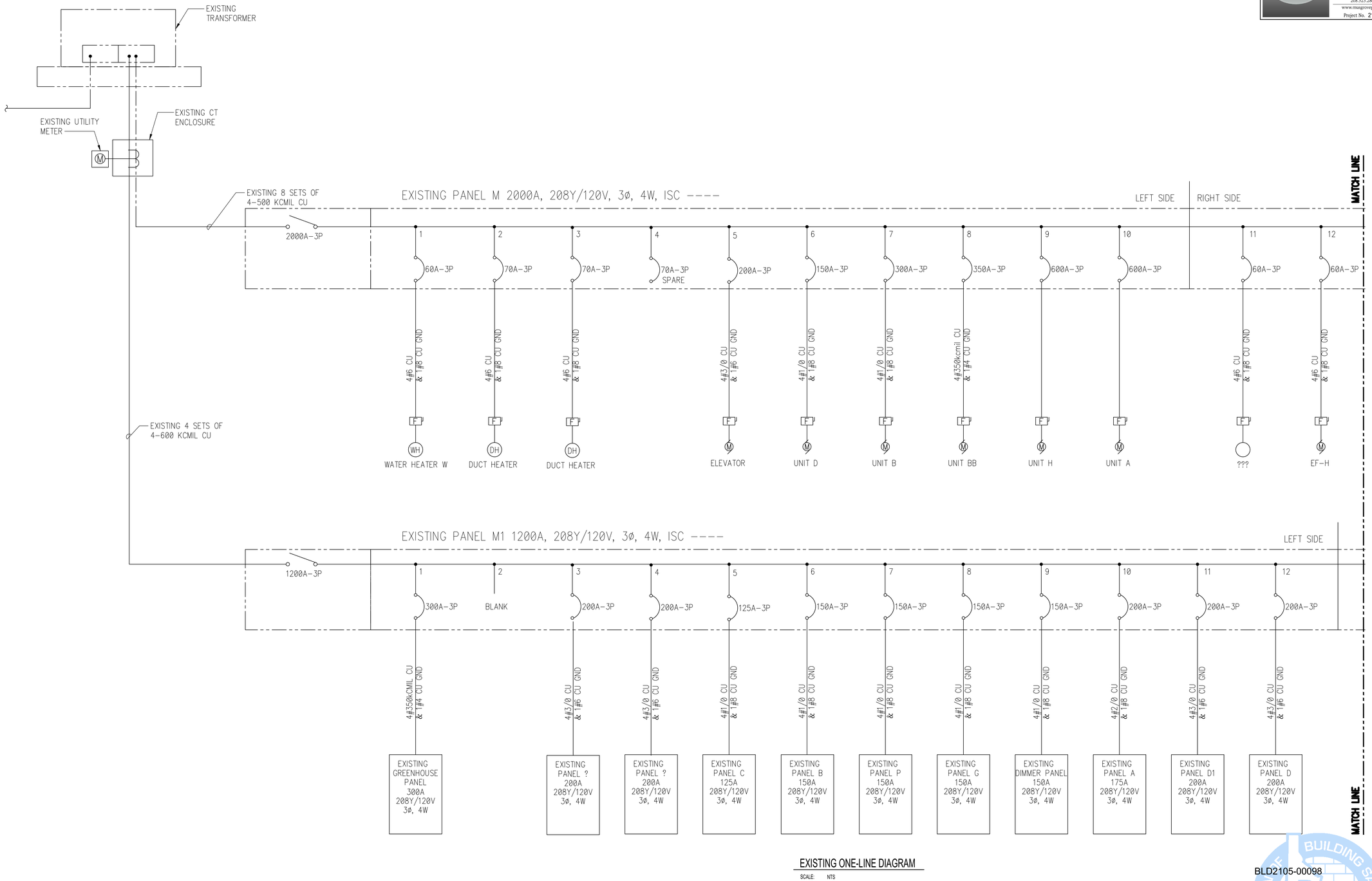


EXISTING ONE-LINE DIAGRAM

SCALE: NTS

BLD2105-00098

REVIEWED FOR CODE COMPLIANCE

This approval shall not be construed to be an approval of any violation of, or variance from, Idaho's adopted codes, standards, laws or rules applicable to this project.

SEPARATE BUILDING PERMIT REQUIRED FOR CONSTRUCTION

PROJECT:
DPW 21-233
ISU - RELOCATE TESTING CENTER
TINGEY ADMINISTRATIVE BUILDING
IDAHO FALLS, IDAHO

SHEET TITLE:
EXISTING ONE-LINE DIAGRAM

REVISIONS

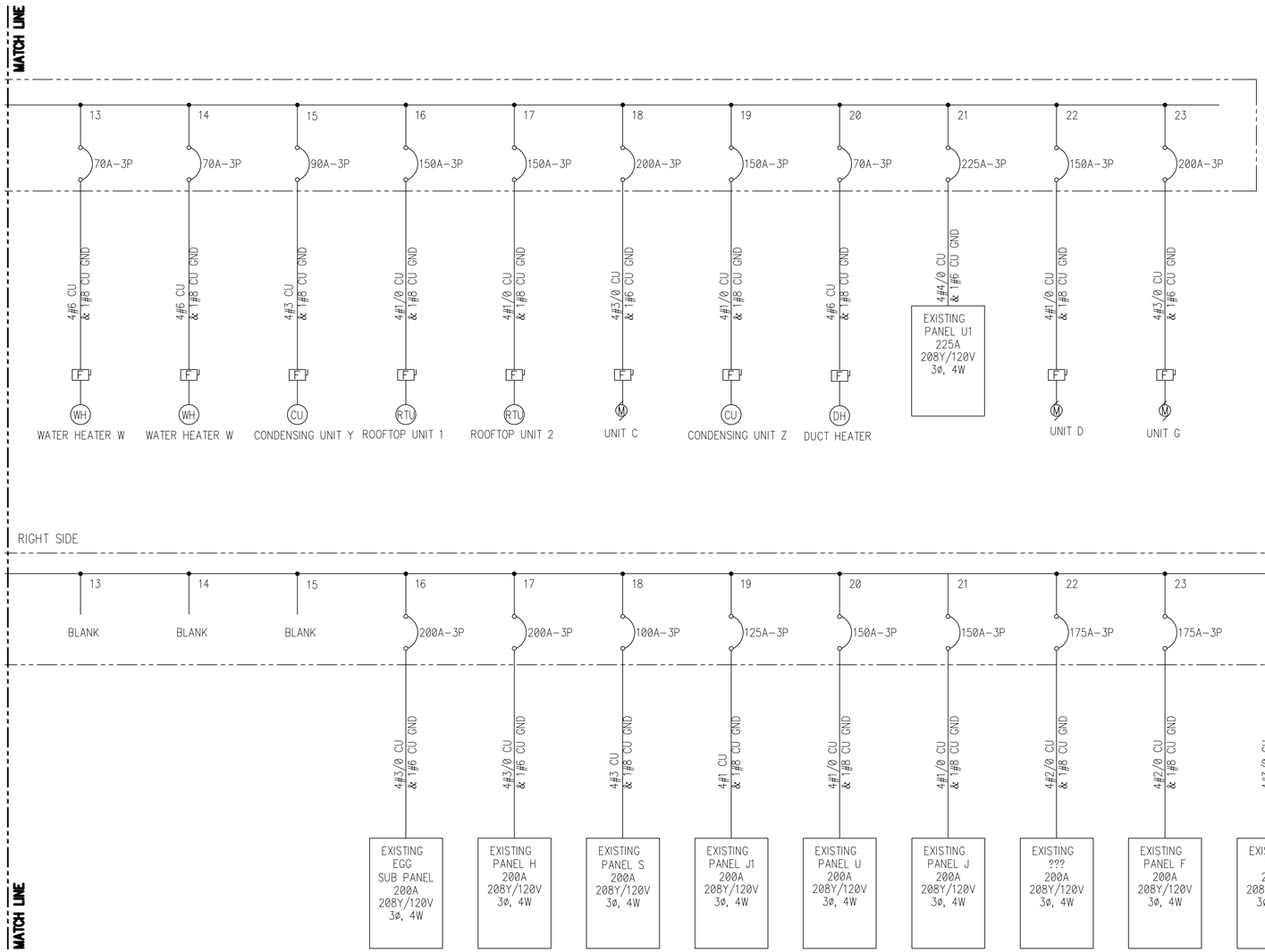
PROJECT NO.: 20027
DATE: APRIL 2021
DRAWN BY: CJ
CHECKED BY: MNB

DRAWING NO.:
E5.0

MUSGROVE
ENGINEERING, P.A.
234 S. Whisperwood Way
Boise, ID 83709
208.384.0585
645 West 25th Street
Idaho Falls, ID 83402
208.523.2862
www.musgrovepa.com
Project No. 21-091

PROFESSIONAL ENGINEER
REGISTERED
13299
08/13/2021
STATE OF IDAHO
MATTHEW N. BRADLEY

nbw architects p.a.
ARCHITECTURE / PLANNING / INTERIORS
SCOTT L NIELSON, A.I.A. KEVIN R BODILY, A.I.A. JAMES H WYATT, A.I.A
990 JOHN ADAMS PARKWAY P.O. BOX 2212 - IDAHO FALLS, IDAHO 83402-2212
(P) 208-522-8779 (F) 208-522-8765 (W) nbwarchitects.com



EXISTING ONE-LINE DIAGRAM CONTINUED

SCALE: NTS

BLD2105-00098

REVIEWED FOR CODE COMPLIANCE

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SEPARATE BUILDING PERMIT REQUIRED FOR CONSTRUCTION

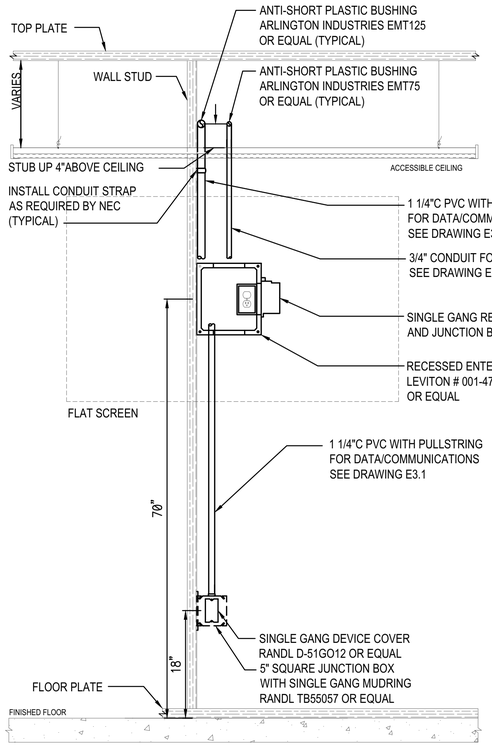
PROJECT:
DPW 21-233
ISU - RELOCATE TESTING CENTER
TINGEY ADMINISTRATIVE BUILDING
IDAHO FALLS, IDAHO

SHEET TITLE:
EXISTING ONE-LINE DIAGRAM CONTINUED

REVISIONS

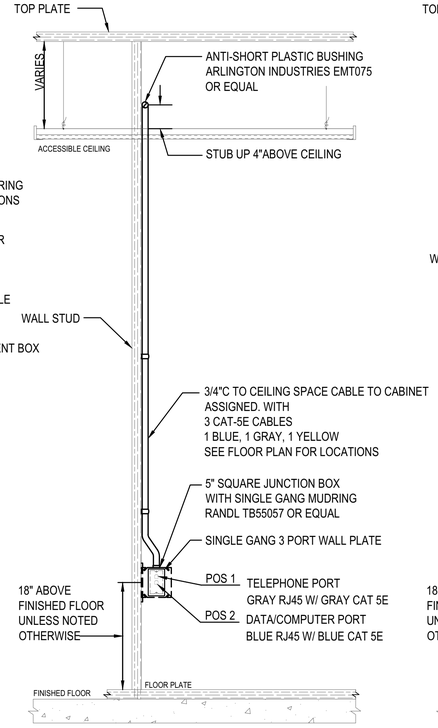
PROJECT NO.:
20027
DATE:
APRIL 2021
DRAWN BY:
CJ
CHECKED BY:
MNB

DRAWING NO.:
E5.1



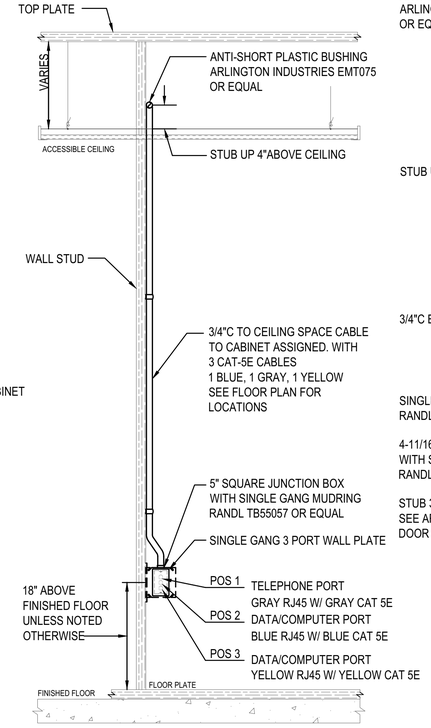
ELECTRICAL CONTRACTOR RESPONSIBLE FOR
INSTALLATION OF REB ROUGH-IN
TYPICAL DETAIL - ACTUAL INSTALLATION MAY VARY

TV RECESSED ENTERTAINMENT BOX ELEVATION
SCALE: 1" = 1'-0"



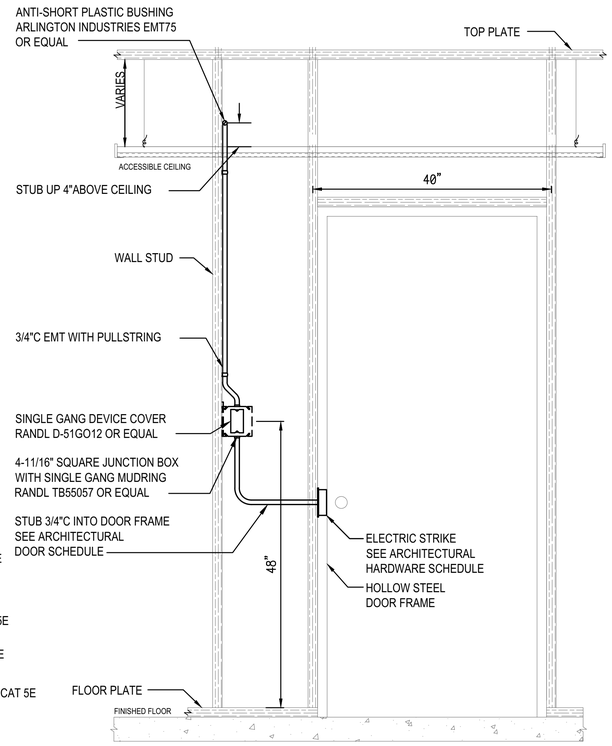
ELECTRICAL CONTRACTOR RESPONSIBLE FOR INSTALLATION OF ROUGH-IN.
CABLES PROVIDED AND BY NETWORKING CONTRACTOR.
TYPICAL DETAIL - ACTUAL INSTALLATION MAY VARY

DATA INSTALLATION ELEVATION
SCALE: 1" = 1'-0"



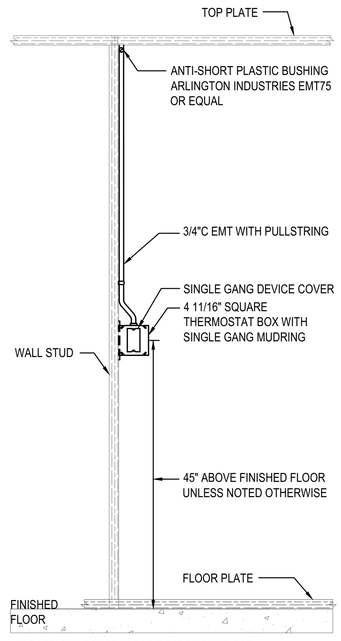
ELECTRICAL CONTRACTOR RESPONSIBLE FOR INSTALLATION OF ROUGH-IN.
CABLES PROVIDED AND BY NETWORKING CONTRACTOR.
TYPICAL DETAIL - ACTUAL INSTALLATION MAY VARY

DATA INSTALLATION ELEVATION
SCALE: 1" = 1'-0"



ELECTRICAL CONTRACTOR RESPONSIBLE FOR
INSTALLATION OF CARD READER ROUGH-IN
TYPICAL DETAIL - ACTUAL INSTALLATION MAY VARY

CR CARD READER ROUGH-IN ELEVATION
SCALE: 1" = 1'-0"



ELECTRICAL CONTRACTOR RESPONSIBLE FOR
INSTALLATION OF THERMOSTAT BOX ROUGH-IN
TYPICAL DETAIL - ACTUAL INSTALLATION MAY VARY

T THERMOSTAT ROUGH-IN ELEVATION
SCALE: 1" = 1'-0"

BLD2105-00098

REVIEWED FOR CODE COMPLIANCE

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645 West 25th Street
Idaho Falls, ID 83402
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Project No. 21-091

PROFESSIONAL ENGINEER REGISTERED 13299 STATE OF IDAHO MATTHEW N. BRADLEY 08/13/2021

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PROJECT:
DPW 21-233
ISU - RELOCATE TESTING CENTER
TINGEY ADMINISTRATIVE BUILDING
IDAHO FALLS, IDAHO

SHEET TITLE:
ELECTRICAL DETAILS

REVISIONS

PROJECT NO.: 20027
DATE: APRIL 2021
DRAWN BY: CJ
CHECKED BY: MNB

DRAWING NO.:
E5.2

MUSGROVE ENGINEERING, P.A.
234 S. Whisperwood Way
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Idaho Falls, ID 83402
208.523.2862
www.musgrovepa.com
Project No. 21-091

PANEL: A1 (E)

PROJECT: ISU - TINGEY ADMINSTRATIVE BUILDING

VOLTAGE: 208 / 120 V | 3 PH | 4 WIRE | AMPERE RATING: 225A | WITH 200A CB | MOUNTING: SURFACE
BASIS OF DESIGN PANEL TYPE: PANEL BOARD | NEMA ENCLOSURE TYPE: 1 | PANEL AIC RATING: 10000 AIC

CKT NOTES:
1. EXISTING BREAKER
2. NEW BREAKER
3. GFCI FOR PERSONNEL PROTECTION (5mA)

REMARKS:

CKT	DESCRIPTION	CKT NOTE	LOAD VA	LOAD AMPS	AMPS/ POLES	LOAD (VA) A	B	C	AMPS/ POLES	LOAD AMPS	LOAD VA	CKT NOTE	DESCRIPTION	CKT
1	LIGHTS BACK STAGE (AUDITORIUM)	1		0.0	20 1	0			20 1	0.0		1	RECEPTS 115 NW	2
3	LIGHTS CLOSET AND BREAK AREA 115A	1		0.0	20 1		0		20 1	0.0		1	RECEPTS 115 SW	4
5	LIGHTS 115	1		0.0	20 1			0	20 1	0.0		1	SPARE	6
7	RECEPTS 115A S (BREAK RM)	1		0.0	20 1	0			20 1	0.0		1	RECEPTS 270	8
9	RECEPTS 115A (BEHIND LOCKERS)	1		0.0	20 1		0		20 1	0.0		1	RECEPTS 115A GFCI	10
11	RECEPTS 115A (BEHIND LOCKERS)	1		0.0	20 1			0	20 1	0.0		1	LOBBY TV UPSTAIRS	12
13	RECEPTS 115 NE	1		0.0	20 1	0			20 1	0.0		1	LOBBY TV/COMP UPSTAIRS	14
15	REPECTS 115 S,SE	1		0.0	20 1		0		20 1	0.0		1	CIRCULATION PUMP HOT WATER (CLOSET)	16
17	CARD READER BOX	1		0.0	20 1			0	20 1	0.0		1	RECEPTS BACK STAGE (AUDITORIUM)	18
19	N POEWR TO DOOR	1		0.0	20 1	0			20 1	0.0		1	SPARE	20
21	LIGHTS 204 (A.V. OFFICE)	1		0.0	20 1		0		20 1	0.0		1	RECEPTS 115A GFCI W (MIDDLE)	22
23	RECEPTS 204 (A.V. OFFICE)	1		0.0	20 1			0	20 1	0.0		1	RECEPTS 115A GFCI W	24
25	RECEPTS LOBBY OUTISDE WALL RM 204	1		0.0	20 1	0			20 2	0.0		1	SPARE	26
27	SPARE	1		0.0	30 2		0		* **	0.0		1	***	28
29	***	1		0.0	** *			0	20 1	0.0		1	RECEPTS POP MACHINE W	30
31	SPARE	1		0.0	40 3	0			20 1	0.0		1	RECEPTS POP MACHINE E	32
33	***	1		0.0	** *		0		20 1	0.0		1	RECEPTS POP MACHINE MIDDLE	34
35	***	1		0.0	** *			0	20 1	0.0		1	SPARE	36
37	SPARE	1		0.0	40 3	0			20 3	0.0		1	AUDITORIUM FAN, A/C	38
39	***	1		0.0	** *		0		* **	0.0		1	***	40
41	***	1		0.0	** *			0	* **	0.0		1	***	42
						0.0	0.0	0.0	VA					
						0.0	0.0	0.0	AMPS				0 TOTAL VA	

PANEL: V (E)

PROJECT: ISU - TINGEY ADMINSTRATIVE BUILDING

VOLTAGE: 208 / 120 V | 3 PH | 4 WIRE | AMPERE RATING: 225A | WITH 200A CB | MOUNTING: SURFACE
BASIS OF DESIGN PANEL TYPE: PANEL BOARD | NEMA ENCLOSURE TYPE: 1 | PANEL AIC RATING: 10000 AIC

CKT NOTES:
1. EXISTING BREAKER
2. NEW BREAKER
3. GFCI FOR PERSONNEL PROTECTION (5mA)

REMARKS:

CKT	DESCRIPTION	CKT NOTE	LOAD VA	LOAD AMPS	AMPS/ POLES	LOAD (VA) A	B	C	AMPS/ POLES	LOAD AMPS	LOAD VA	CKT NOTE	DESCRIPTION	CKT
1	RECEPTS 150	1		0.0	20 1	720			20 1	6.0	720	2	RECEPTS TESTING 225	2
3	RECEPTS 150	1		0.0	20 1		720		20 1	0.0	720	2	RECEPTS TESTING 225	4
5	SPARE	1		0.0	20 1			0		0.0		1	BLANK	6
7	SPARE	1		0.0	20 1	0			20 1	0.0		1	RECEPT LIBRARY	8
9	RECEPT PHONE CLOSET LIBRARY	1		0.0	20 1		0		20 1	0.0		1	RECEPTS RICKS	10
11	RECEPTS TESTING 225	2	1260	10.5	20 1			1260	20 1	0.0		1	RECEPT SPARE	12
13	RECEPTS TESTING 225	2	1260	10.5	20 1	1260			20 1	0.0		1	RECEPT TESTING 216 214	14
15	LIGHTS CONF 207,209	1		0.0	20 1		0		20 1	0.0		1	RECEPT OFFICE 214,216	16
17	LIGHTS CONF 207,209	1		0.0	20 1			0	20 1	0.0		1	RECEPT OFFICE 213,212	18
19	LIGHTS OFFICE 213,214,216	1		0.0	20 1	0			20 1	0.0		1	RECEPT OFFICE 210,211	20
21	LIGHTS OFFICE 210,211,213	1		0.0	20 1		0		20 1	0.0		1	RECEPT OFFICE 211,212,222	22
23	LIGHTS CORR 205,215	1		0.0	20 1			0	20 1	0.0		1	RECEPT OFFICE 222,223	24
25	LIGHTS OFFICE 203,219,220	1		0.0	20 1	0			20 1	0.0		1	RECEPT OFFICE 222,221	26
27	LIGHTS OFFICE 221,222,223	1		0.0	20 1		0		20 1	0.0		1	RECEPT OFFICE 219,220	28
29	LIGHTS OFFICE 201	1		0.0	20 1			0	20 1	0.0		1	RECEPT OFFICE 221,220	30
31	LIGHTS OFFICE 201	1		0.0	20 1	0			20 1	0.0		1	RECEPT CONF 350 A+B	32
33	LIGHTS STAIRWAY	1		0.0	20 1		0		20 1	0.0		1	RECEPT CONF 350 A+B	34
35	RECEPTS TESTING 225	2	1080	9.0	20 1			1080		0.0		1	BLANK	36
37	RECEPTS TESTING 225	2	720	6.0	20 1	720			20 1	0.0		1	RECEPT OFFICE 201	38
39	RECEPTS TESTING 225	2	720	6.0	20 1		720		20 1	0.0		1	RECEPT OFFICE 201	40
41	RECEPTS TESTING 225	2	1080	9.0	20 1			1080	20 1	0.0		1	RECEPT OFFICE 201	42
						2700.0	1440.0	3420.0	VA					
						22.5	12.0	28.5	AMPS				7560 TOTAL VA	

PANEL: H (E)

PROJECT: ISU - TINGEY ADMINSTRATIVE BUILDING

VOLTAGE: 208 / 120 V | 3 PH | 4 WIRE | AMPERE RATING: 225A | WITH 200A CB | MOUNTING: SURFACE
BASIS OF DESIGN PANEL TYPE: PANEL BOARD | NEMA ENCLOSURE TYPE: 1 | PANEL AIC RATING: 10000 AIC

CKT NOTES:
1. EXISTING BREAKER
2. NEW BREAKER
3. GFCI FOR PERSONNEL PROTECTION (5mA)

REMARKS:

CKT	DESCRIPTION	CKT NOTE	LOAD VA	LOAD AMPS	AMPS/ POLES	LOAD (VA) A	B	C	AMPS/ POLES	LOAD AMPS	LOAD VA	CKT NOTE	DESCRIPTION	CKT
1	ROOF TOP A/C	1		0.0	50 2	0			30 3	0.0		1	ROOF TOP A/C	2
3	***	1		0.0	** *		0		** *	0.0		1	***	4
5	WATER HEATER IN CUSTODIAL COLOSET	1		0.0	30 2			0	** *	0.0		1	***	6
7	***	1		0.0	** *	0			40 3	0.0		1	ROOF TOP A/C	8
9	ROOF TOP A/C RM 320	1		0.0	30 3		0		* **	0.0		1	***	10
11	***	1		0.0	** *			0	* **	0.0		1	***	12
13	***	1		0.0	** *	2704			35 2	26.0	2704	2	HEAT PUMP HP-1A	14
15	RECEPTS N WALL RM 315	1		0.0	20 1		2704		** *	26.0	2704	2	***	16
17	RECEPTS IN FLOOR RM 315	1		0.0	20 1			2704	35 2	26.0	2704	2	HEAT PUMP HP-1B	18
19	BLANK	1		0.0		2704			** *	26.0	2704	2	***	20
21	BLANK	1		0.0			0			0.0		1	BLANK	22
23	BLANK	1		0.0				0		0.0		1	BLANK	24
25	BLANK	1		0.0		0				0.0		1	BLANK	26
27	BLANK	1		0.0			0			0.0		1	BLANK	28
29	BLANK	1		0.0				0		0.0		1	BLANK	30
						5408.0	2704.0	2704.0	VA					
						45.1	22.5	22.5	AMPS				10816 TOTAL VA	

PANEL: HR (E)

PROJECT: ISU - TINGEY ADMINSTRATIVE BUILDING

VOLTAGE: 208 / 120 V | 3 PH | 4 WIRE | AMPERE RATING: 225A | WITH 200A CB | MOUNTING: SURFACE
BASIS OF DESIGN PANEL TYPE: PANEL BOARD | NEMA ENCLOSURE TYPE: 1 | PANEL AIC RATING: 10000 AIC

CKT NOTES:
1. EXISTING BREAKER
2. NEW BREAKER
3. GFCI FOR PERSONNEL PROTECTION (5mA)

REMARKS:

CKT	DESCRIPTION	CKT NOTE	LOAD VA	LOAD AMPS	AMPS/ POLES	LOAD (VA) A	B	C	AMPS/ POLES	LOAD AMPS	LOAD VA	CKT NOTE	DESCRIPTION	CKT
1	CU-1	1		0.0	40 3	0			40 3	0.0		1	CU-U6	2
3	***	1		0.0	** *		0		* **	0.0		1	***	4
5	***	1		0.0	** *			0	* **	0.0		1	***	6
7	CU-U4	1		0.0	30 3	0			40 3	0.0		1	CU-U7	8
9	***	1		0.0	** *		0		* **	0.0		1	***	10
11	***	1		0.0	** *			0	* **	0.0		1	***	12
13	CU-U2	1		0.0	30 3	0			20 1	0.0		1	FURNACE FU3	14
15	***	1		0.0	** *		0		20 1	0.0		1	FURNACE FU5	16
17	***	1		0.0	** *			0	20 1	0.0		1	FURNACE FU4	18
19	CU-U5	1		0.0	30 3	0			20 1	0.0		1	FURNACE FU2	20
21	***	1		0.0	** *		0		20 1	0.0		1	FURNACE F7	22
23	***	1		0.0	** *			0	20 1	0.0		1	FURNACE F6	24
25	ROOF MOUNTED RECEPT	1		0.0	20 1	0			20 1	0.0		1	ROOF MOUNTED RECEPT	26
27	ROOF MOUNTED RECEPT	1		0.0			0			0.0		1	BLANK	28
29	FURNACE F5	1		0.0				0		0.0		1	BLANK	30
31	BLANK	1		0.0		0				0.0		1	BLANK	32
33	BLANK	1		0.0			0			0.0		1	BLANK	34
35	BLANK	1		0.0				0		0.0		1	BLANK	36
37	CU-U3	1		0.0	30 3	0				0.0		1	BLANK	38
39	***	1		0.0	** *		0			0.0		1	BLANK	40
41	***	1		0.0	** *			0	20 1	0.0		1	SPARE	42
						0.0	0.0	0.0	VA					
						0.0	0.0	0.0	AMPS				0 TOTAL VA	

PANEL: R (E)

PROJECT: ISU - TINGEY ADMINSTRATIVE BUILDING

VOLTAGE: 208 / 120 V | 3 PH | 4 WIRE | AMPERE RATING: 225A | WITH 200A CB | MOUNTING: SURFACE
BASIS OF DESIGN PANEL TYPE: PANEL BOARD | NEMA ENCLOSURE TYPE: 1 | PANEL AIC RATING: 10000 AIC

CKT NOTES:
1. EXISTING BREAKER
2. NEW BREAKER
3. GFCI FOR PERSONNEL PROTECTION (5mA)

REMARKS:

CKT	DESCRIPTION	CKT NOTE	LOAD VA	LOAD AMPS	AMPS/ POLES	LOAD (VA) A	B	C	AMPS/ POLES	LOAD AMPS	LOAD VA	CKT NOTE	DESCRIPTION	CKT
1	LIGHTS TESTING 225	2	752	6.3	20 1	752			20 1	0.0		1	RECEPT EG&G TECH LIBRARY	2
3	SPARE	2		0.0	20 1		0		20 1	0.0		1	RECEPT EG&G 270 BREAK RM	4
5	SPARE	2		0.0	20 1			0	20 1	0.0		1	RECEPT EG&G LIBRARY OFFICE	6
7	SPARE	2		0.0	20 1	0			20 1	0.0		1	SPARE	8
9	LIGHTS LIBRARY 240	2	1330.8	11.1	20 1		1330.8		20 1	0.0		1	WIRE MOLD	10
11	SPARE	2		0.0	20 1			0	20 1	0.0		1	TECH LIBRARY NORTH WALL RECEPT	12
13	LIGHTS ELECT ROOM	1		0.0	20 1	1440			20 1	12.0	1440	2	RECEPTS LIBRARY 240	14
15	FLOOR RECEPTS	1		0.0	20 1		900		20 1	7.5	900	2	SPARE	16
17	FLOOR RECEPTS	1		0.0	20 1			540	20 1	4.5	540	2	RECEPTS COLLAB 240C	18
19	SPARE	1		0.0	20 1	1260			20 1	10.5	1260	2	RECEPTS LIBRARY	20
21	FLOOR RECEPTS	1		0.0	20 1		1440		20 1	12.0	1440	2	RECEPTS LIBRARY 240	22
23	FLOOR RECEPTS	1		0.0	20 1			540	20 1	4.5	540	2	RECEPTS COLLAB 240B	24
25	SPARE	2		0.0	20 1	0			20 1	0.0		2	SPARE	26
27	SPARE	1		0.0	20 1		0		20 1	0.0		1	SPARE JBOX NETWORK	28
29	FLOOR RECEPTS	1		0.0	20 1			0	20 1	0.0		1	FLOOR RECEPTS	30
						3452.0	3670.8	1080.0	VA					
						28.8	30.6	9.0	AMPS				8203 TOTAL VA	

BUILDING SAFETY
BLD2105-00098
REVIEWED FOR CODE COMPLIANCE
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SEPARATE BUILDING PERMIT REQUIRED FOR CONSTRUCTION

PROFESSIONAL ENGINEER REGISTERED 13299 08/13/2021 STATE OF IDAHO MATTHEW N. BRADLEY

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PROJECT: ISU - RELOCATE TESTING CENTER
DPW 21-233
TINGEY ADMINISTRATIVE BUILDING
IDAHO FALLS, IDAHO

SHEET TITLE: ELECTRICAL SCHEDULES

REVISIONS

PROJECT NO.: 20027
DATE: APRIL 2021
DRAWN BY: CJ
CHECKED BY: MNB

DRAWING NO.: E6.0

SWITCH AND OCCUPANCY SENSOR LEGEND

$_{OS}$ OCCUPANCY SENSOR – WALL MOUNT, DUAL TECHNOLOGY, LINE VOLTAGE, SINGLE POLE, WHITE
SENSOR SWITCH WSX-PDT-D-VLP-XX

(OS) OCCUPANCY SENSOR – CEILING MOUNT, DUAL TECHNOLOGY, LOW VOLTAGE, SMALL MOTION
SENSOR SWITCH CM-PDT-9-VLP

(PP) POWER PACK – 120 VOLT, 15 VDC
SENSOR SWITCH PP20

$_{D}$ DIMMING SWITCH – WALL MOUNT, 120/277V, LED, ON/OFF/SLDE DIMMER SWITCH
SENSOR SWITCH SPODMRD-XX

XX=VERIFY COLOR WITH ARCHITECT PRIOR TO ORDER

LIGHTING FIXTURE SCHEDULE (21-091)

TYPE	DESCRIPTION	MTG.	LAMPS	WATTS	MFG. & CATALOG NUMBER	OR EQUAL BY	NOTES
A	2'X4' LED FLAT PANEL, 4240 LUMENS 0-10V DIMMING, MVOLT	RECESSED	LED 4000K	37.6	LITHONIA NO. EPANL-2x4-4000LM-80CRI-40K-MIN10-ZT-MVOLT	LIGHTOLIER METALUX H.E. WILLIAMS	1
AE	2'X4' LED FLAT PANEL, 4240 LUMENS 0-10V DIMMING, MVOLT 10W EMERGENCY SELF-DIAGNOSTIC BATTERY PACK	RECESSED	LED 4000K	37.6	LITHONIA NO. EPANL-2x4-4000LM-80CRI-40K-MIN10-ZT-MVOLT-E10WCP	LIGHTOLIER METALUX H.E. WILLIAMS	1
B	2'X4' LED FLAT PANEL, 5119 LUMENS 0-10V DIMMING, MVOLT	RECESSED	LED 4000K	45	LITHONIA NO. EPANL-2x4-4800LM-80CRI-40K-MIN10-ZT-MVOLT	LIGHTOLIER METALUX H.E. WILLIAMS	1
C	4' LED STRIP LIGHT 4500 LUMENS	SURFACE	LED	35	LITHONIA NO. MNSL-L48-2LL-MVOLT-40K-80CRI-M6	LIGHTOLIER METALUX H.E. WILLIAMS	1
E1	INTEGRATED EXIT/UNIT COMBO FIXTURE GREEN LED	SURFACE	LED	2.32	LITHONIA NO. ECBG LED M6	HE WILLIAMS EATON LIGHTOLIER	1
E2	CONTEMPORARY COMMERICAL LED EMERGENCY LIGHT	SURFACE	LED	3.3	LITHONIA NO. ELM4L	HE WILLIAMS EATON LIGHTOLIER	1

LIGHTING FIXTURE SCHEDULE NOTES:

1 SUBSTITUTIONS WILL BE ALLOWED IF SUBMITTED PRIOR TO BID DATE BY THE GREATER OF: 7 BUSINESS DAYS OR THE TIME PERIOD SPECIFIED BY DIVISION 1 SPECIFICATIONS, AND IF DEEMED EQUAL BY THE ENGINEER. THE CONTRACTOR IS RESPONSIBLE FOR ENSURING SUBSTITUTED FIXTURES MEET OR EXCEED THE SPECIFICATIONS OF THE FIXTURES SPECIFIED.

BLD2105-00098

REVIEWED FOR CODE COMPLIANCE

This approval shall not be construed to be an approval of any violation of, or variance from, Idaho's adopted codes, standards, laws or rules applicable to this project.

SEPARATE BUILDING PERMIT REQUIRED FOR CONSTRUCTION

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PROFESSIONAL ENGINEER REGISTERED 13299 08/13/2021 STATE OF IDAHO MATTHEW N. BRADLEY

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PROJECT:
DPW 21-233
ISU - RELOCATE TESTING CENTER
TINGEY ADMINISTRATIVE BUILDING
IDAHO FALLS, IDAHO

SHEET TITLE:
LIGHTING DETAILS

REVISIONS

PROJECT NO.: 20027
DATE: APRIL 2021
DRAWN BY: CJ
CHECKED BY: MNB

DRAWING NO.:

E7.0