VICINITY MAP



University of Utah

BIOMEDICAL POLYMERS RESEARCH BUILDING - LEVEL 2

20 SOUTH 2030 EAST, SALT LAKE CITY, UTAH 84112

EDMS# UU22711

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PROFESSIONAL ENGINEER · 05/03/2024 · 6357704-2202 · TREVOR REED SPENCER · STATE OF UTAH

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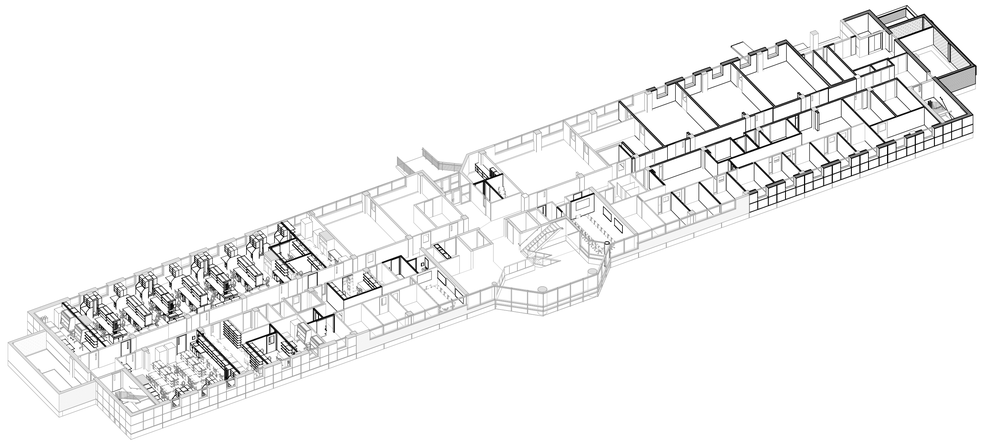

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GUIDING PRINCIPLES

PROJECT VISION:
This renovation will be the next step in the process of significantly increasing utilization of our existing research space on the Health Sciences Campus. The goal is to remodel the second floor of BPRB to create high quality research space that is comparable to that created by the recent remodels of floors 3 and 4. This project will provide a more functional BPRB building and will enhance biochemical research at the University.

PROJECT SCOPE:
This level 2 remodel scope includes aprox. 7000 sf. of laboratory, procedure, office, meeting spaces and the existing men's toilet room. An add-alternate will include the building's mail room, zoom room and the addition of a lactation room to round out this project at the University of Utah.

PROJECT GOALS:
1. Return research areas to standard universal open lab layout
2. Upgrade infrastructure to enable collaboration and communication
3. Upgrade infrastructure for high volume reliable data system
4. Update finishes in research and office area similar to levels 3 & 4

tsa

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PROJECT NO: 22287

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DATE	REVISION

REVIEWED FOR CODE COMPLIANCE
05/17/2024
Shums Coda Associates

BIOMEDICAL POLYMERS RESEARCH BUILDING - LEVEL 2

EDMS# UU22711

20 SOUTH 2030 EAST, SALT LAKE CITY, UTAH 84112

CONSTRUCTION DOCUMENTS

DATE: 05/03/2024 | PROJECT #: 23027

SHEET NAME: **TITLE SHEET**

SHEET #: **G001**

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GRAPHIC SYMBOL LEGEND

ANNOTATION REFERENCES

- Room name / XX000X — ROOM TAG w/ REFERENCE VIEW
- Room name / XX000X / 150 SF — ROOM TAG W/ SF
- ROOM NAME / A-3 | OcLd / AREA SF | OLF GSF — EXITING AND OCCUPANCY TAG
- Area Name / 150 SF — AREA TAG
- VIEW NAME / 1/8" = 1'-0" / AE000.0 / X — PRESENTATION VIEW TITLE W/ SCALE
- NORTH ARROW — PLAN NORTH; TRUE NORTH
- 0 — REVISION CLOUD WITH DELTA TAG
- BREAK LINE
- 0' 4' 8' 16' — GRAPHIC SCALES
- MATCH LINE / SEE A--- / SEE A--- — MATCH LINE REFERENCE

VIEW REFERENCES

- A3 / A2 A401 / A1 — INTERIOR ELEVATIONS; SHEET NUMBER; DETAIL NUMBER
- A1 / A201 — EXTERIOR ELEVATION REFERENCE; DETAIL NUMBER; SHEET NUMBER
- A1 / A501 — DETAIL REFERENCE; DETAIL NUMBER; SHEET NUMBER
- A1 / A302 — WALL SECTION REFERENCE; DETAIL NUMBER; SHEET NUMBER
- A1 / A301 — A1 / A301 — BUILDING SECTION REFERENCE; DETAIL NUMBER; SHEET NUMBER
- A1 / A301 — DETAIL REFERENCE; DETAIL NUMBER; SHEET NUMBER
- GRID — NEW GRID LINE
- GRID — EXISTING GRID LINE
- CENTERLINE

DIMENSION REFERENCES

- 1" — LINEAR DIMENSION
- 0' - 7" — RADIAL DIMENSION
- 45° — ANGULAR DIMENSION
- TO WALL / 100'-0" — ELEVATION INDICATOR; ELEVATION DESCRIPTION; PROJECT ELEVATION HT.
- 100'-0" — SPOT ELEVATION
- 12" / 1/2" / 1/2" / 12" — SLOPE INDICATOR; RISE; RUN
- 30 1/2" / 302M / 16" / 34" / Extra Shelf — AWS (MILLWORK) TAG w/ AWS STANDARD CDS NUMBERING SYSTEM; WIDTH; CDS NUMBER (M DENOTES MODIFICATION - SEE MILLWORK SHEET FOR MODIFIED ELEVATIONS AND DETAILS); DEPTH; HEIGHT; MODIFICATION DESCRIPTION

STANDARD TAGS

- CL-00 / XX-XX — CEILING TAG (TYPE AND ELEVATION)
- 0000 — DOOR TAG
- 00 — DOOR OCCUPANCY TAG
- *XX0.X X — WALL TAG
- W01 — WINDOW TAG
- 1.0 — GLAZING TAG
- 11-01 — EQUIPMENT TAG
- F-00 — FLOOR TAG
- X-00 — ROOF TAG
- KEYNOTE TAG; CSI DIVISION #; 04.001 — KEYNOTE; CPT-01 — MATERIAL TYPE KEYNOTE (COORD. W/ FINISH LEGEND)

LEGEND - FLOOR PLAN

- INDICATES FURNITURE & EQUIPMENT
- EXISTING WALL TO REMAIN
- WALL TO BE DEMOLISHED
- NEW WALL - SEE WALL TYPES - SEE RATED WALL GRAPHICS
- EXISTING DOOR TO REMAIN
- DOOR TO BE REMOVED
- NEW DOOR - SEE DOOR TYPES

TYPICAL ARCHITECTURAL SITE LINE TYPES

- SITE - SIDEWALK JOINTS
- SITE - SIDEWALK
- SITE - CURB
- SITE - FENCE
- SITE - BUILDING OVERHANG
- SITE - BUILDING
- SITE - PROPERTY SETBACK
- SITE - PROPERTY LINE
- MATCHLINE

MATERIALS LEGEND

- BATT INSULATION
- CAST-IN-PLACE CONCRETE
- PRECAST CONCRETE
- CONCRETE MASONRY UNIT
- STEEL STUDS
- WOOD STUDS
- WOOD FINISH
- BRICK VENEER
- RIGID INSULATION
- CONTINUOUS MATERIAL
- NON CONTINUOUS MATERIAL (BLOCKING)
- GYPSUM BOARD
- PLYWOOD
- EXTERIOR SHEATHING
- GRAVEL
- EARTH
- STONE

ABBREVIATIONS

A	
A/C	AIR CONDITIONING
AD	AREA DRAIN
AFF	ABOVE FINISHED FLOOR
AHU	AIR HANDLING UNIT
ALUM	ALUMINUM
ANOD	ANODIZED
ARCH	ARCHITECT
@	AT
B	
BD	BOARD
BLDG	BUILDING
BO	BOTTOM OF
C	
C	CELSIUS
CH	COAT HOOK
CFCI	CONTRACTOR FURNISHED, CONTRACTOR INSTALLED
CG	CORNER GUARD
CI	CONTINUOUS INSULATION
CJ	CONTROL JOINT
CL	CENTERLINE
CLG	CEILING
CLO	CLOSET
CLR	CLEAR
CMU	CONCRETE MASONRY UNIT
COL	COLUMN
CONC	CONCRETE
CONT	CONTINUOUS
CORR	CORRIDOR
CT	CERAMIC TILE
CTJ	CONSTRUCTION JOINT
CUH	CABINET UNIT HEATER
D	
D	DEEP
DEG	DEGREE
DEMO	DEMOLITION
DF	DRINKING FOUNTAIN
DIA	DIAMETER
DIM	DIMENSION
DN	DOWN
DS	DOWNSPOUT
DWGS	DRAWINGS

E	
EA	EACH
EJ	EXPANSION JOINT
EIFS	EXTERIOR INSULATION AND FINISH SYSTEM
EL	ELEVATION
ELEC	ELECTRICAL
ELEV	ELEVATOR
EOS	EDGE OF SLAB
ERD	EXISTING ROOF DRAIN
EQ	EQUAL
EQUIP	EQUIPMENT
EWC	ELECTRIC WATER COOLER
EXIST	EXISTING
EXP	EXPOSED
EXT	EXTERIOR
F	
F	FAHRENHEIT
FA	FIRE ALARM
FACP	FIRE ALARM CONTROL PANEL
FDC	FIRE DEPARTMENT CONNECTION
FD	FLOOR DRAIN
FEC	FIRE EXTINGUISHER CABINET
FE	FIRE EXTINGUISHER
FG	FINISH GRADE
FHC	FIRE HOSE CABINET
FIN	FINISH
FLR	FLOOR
FND	FOUNDATION
FO	FINISHED OPENING
FOC	FACE OF CONCRETE
FOM	FACE OF MASONRY
FOS	FACE OF STUD
FOW	FACE OF WALL
FRG	FIBER REINFORCED GYPSUM
FSP	FIRE STANDPIPE
FT	FEET
FV	FIELD VERIFY
G	
GA	GAUGE
GALV	GALVANIZED
GFRC	GLASS-FIBER-REINFORCED CONCRETE
GFRG	GLASS-FIBER-REINFORCED GYPSUM
GL	GLASS
GN	GENERAL NOTE
GWB	GYPSUM WALL BOARD
GYP	GYPSUM

H	
H	HIGH
HB	HOSE BIBB
HDR	HEADER
HM	HOLLOW METAL
HPT	HIGH POINT
HR	HOUR
HT	HEIGHT
I	
ID	INSIDE DIAMETER; INSIDE DIMENSION
IN	INCH
INFO	INFORMATION
INT	INTERIOR
ISA	INTERNATIONAL SYMBOL OF ACCESSIBILITY
J	
JAN	JANITOR
K	
KN	KEYNOTE
L	
LAB	LABORATORY
LAV	LAVATORY
LBS	POUNDS
LLH	LONG LEG HORIZONTAL
LLV	LONG LEG VERTICAL
LPT	LOW POINT
M	
MACH RM	MACHINE ROOM
MAX	MAXIMUM
MFR	MANUFACTURER
MECH	MECHANICAL
MEZZ	MEZZANINE
MIN	MINIMUM
MO	MASONRY OPENING
N	
NA	NOT APPLICABLE
NIC	NOT IN CONTRACT
NOM	NOMINAL
NTS	NOT TO SCALE
O	
OC	ON CENTER
OD	OUTSIDE DIAMETER; OUTSIDE DIMENSION
OFD	OVERFLOW DRAIN
OH DR	OVERHEAD DOOR
OPH	OPPOSITE HAND
OPP	OPPOSITE
ORIG	ORIGINAL

P	
P LAM	PLASTIC LAMINATE
PLAS	PLASTER
PLUMB	PLUMBING
PR	PAIR
PSI	POUNDS PER SQUARE INCH
PSF	POUNDS PER SQUARE FOOT
PVC	POLYVINYL CHLORIDE
Q	
QT	QUARRY TILE
R	
R	RISER OR RADIUS
RAD	RADIUS
RCP	REFLECTED CEILING PLAN
RD	ROOF DRAIN
REF	REFRIGERATOR
REQD	REQUIRED
REV	REVISION
RH	RELATIVE HUMIDITY
RM	ROOM
RO	ROUGH OPENING
RTU	ROOF TOP UNIT
RWL	RAIN WATER LEADER
S	
S	SMOKE DETECTOR
SAM	SELF ADHESIVE MEMBRANE
SCHED	SCHEDULE
SECT	SECTION
SIM	SIMILAR
SPEC	SPECIFICATION
SS	STAINLESS STEEL
STD	STANDARD
STRUCT	STRUCTURAL
T	
T	TREAD
TEL	TELEPHONE
TEMP	TEMPORARY
THK	THICK
TOC	TOP OF CONCRETE
TOM	TOP OF MASONRY
TOP	TOP OF PARAPET
TOS	TOP OF SLAB; TOP OF STEEL
TOW	TOP OF WALL
TYP	TYPICAL
TO	TOP OF
U	
UL	UNDERWRITER'S LABORATORIES
UNO	UNLESS NOTED OTHERWISE

V	
VCT	VINYL COMPOSITE TILE
VERT	VERTICAL
VEST	VESTIBULE
VIF	VERIFY IN FIELD
W	
W/	WITH
W/O	WITHOUT
WD	WOOD
WH	WALL HYDRANT
WP	WORKING POINT
WRB	WEATHER RESISTIVE BARRIER
X,Y,Z	(NOT USED)

THE PRECEDING LIST OF ABBREVIATIONS IS PRESENTED AS A GENERAL GUIDE AND DOES NOT NECESSARILY SHOW ALL ABBREVIATIONS USED. OTHER GENERALLY ACCEPTED ABBREVIATIONS MAY BE FOUND AMONG THE DRAWINGS - SOME ABBREVIATIONS SHOWN ABOVE MAY NOT BE USED WITHIN THIS DRAWING SET.

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#	DATE	REVISION

REVIEWED FOR CODE COMPLIANCE
05/17/2024
Shums Coda Associates

BIOMEDICAL POLYMERS RESEARCH BUILDING - LEVEL 2

20 SOUTH 2030 EAST, SALT LAKE CITY, UTAH 84112

CONSTRUCTION DOCUMENTS

SEAL: STATE OF UTAH · NO. 135781 · TRACY D. STOCKING · LICENSED ARCHITECT

DATE: **05/03/2024** | PROJECT #: **23027**

SHEET NAME: **GENERAL INFORMATION**

SHEET #: **G002**

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5/6/2024 9:42:31 AM

THE UNIVERSITY OF UTAH

PROJECT SCOPE:

The project scope will remodel the northern half of level 2 of the BPRB to update high quality research space that is comparable to that created by the recent remodels of floors 1, 3, and 4. This project will provide a more functional BPRB building and will enhance Neuro Biology and Biochemical research at the University.

Lab spaces will be upgraded with new casework, lab benches, plumbing fixtures, and floor finishes. Minor reconfiguration of space to create more open labs, tissue culture rooms, microscope rooms, and lab equipment space. Lab equipment includes biochemical safety cabinets, freezers, refrigerators, incubators, and a variety of common bench-top equipment. Other minor renovations and reconfigurations include offices, a new conference room and two unisex toilets. An add-alternate scope includes a new lactation room, zoom room and a remodel of the mail room.

PROJECT GOALS:

1. Return research areas to standard universal open lab layout
2. Upgrade infrastructure to enable collaboration and communication
3. Upgrade infrastructure for high volume reliable data system
4. Update finishes in research and office area similar to levels 3 & 4

CODE ANALYSIS

General Notes:
1. Room area is determined by Space Planning NASF pro-rated square footages.
2. GSF is determined by University Building Official and verified by field dimensions.

Note: This Code Analysis was received from the University Building Official as the existing code conditions / information pertaining to the existing building. The document has been modified only as required to provide documentation of changes being made relative to the scope of this remodel project. All other existing conditions are unchanged.

BUILDING IDENTIFICATION:
Building # 570 BPRB (20 S 2030 E)
The scope of this project includes remodel / alteration work on Level 2.
CODE ANALYSIS COMPLETION DATE: 02-29-2024
CONSTRUCTION TYPE: 1-B

Part 1

APPLICABLE CODES	YEAR	APPLICABLE CODES	YEAR
International Building Code (IBC)	2021	National Electrical Code	2020
International Existing Building Code	2021		
International Fire Code (IFC)	2021	ACCESSIBILITY CODE	
International Mechanical Code (IMC)	2021	ICC / ANSI A117.1	2009
International Energy Conservation Code (IECC)	2021		
International Plumbing Code (IPC)	2021		

BUILDING AREA G.S.F.

PART 2 - **ONLY THE LEVELS IMPACTED BY THE REMODEL WORK OF THIS PROJECT ARE SHOWN.**

OCCUPANCY GROUP	(CHAPTER 3)		(T601) CONST. TYPE (*1)	AREA			HEIGHT (T503)		STORIES (T503)		(508) MIXED USE TYPE (*3)	(508.4.2) AREA RATIO
FLOOR	NAME	GROUP		ACTUAL	TABULAR (T503)	AA	TABULAR (T503)	INCREASE (504.2)	TABULAR (T503)	INCREASE		
2ND FLOOR LAB	LAB/OFF/CONF	B-OCC.	1-B	6,874	UNL	UNL	160	N/A	11	N/A	NSO	N/A
2ND FLOOR TOTAL:			1-B	6,874	UNL	UNL	160	N/A	11	N/A	NSO	
BUILDING TOTALS			1-B			UNL	160	N/A	11	N/A	NSO	
BUILDING TOTAL (*)			1-B		UNL	UNL	160	N/A	11	N/A	NSO	
GSF*												

Part 3 - **AREA MODIFICATIONS - NO MODIFICATIONS**
〖 Frontage: I 〗 _(f^(=))[F/P – 0.25] W/30 = (Provide Analysis)
〖 Area: A 〗 _(a^(=)) A_t +(A_(t^)x I_(f^)) + ((A_(t^)x I_(s^)) = (Provide Analysis)
Type of Const. = I-B
Occupancy Groups = B- Occ. with A-3,F-1, IU, S-1 as accessory occupancies.
-Actual Area = 122,224 Sq. Ft.
-Tabular Area = Unlimited Area
-Frontage Increase = N/R
-S
-M
-Allowable Are
-Allowable Height = 160 feet (actual height 72'-9 1/2")
-Allowable Story = 11 (actual Story = 5)
- Type of Const. = I-B
- Occupancy Group = S-1
- Actual Area = 15,104 Sq. Ft.
- Tabular Area = 48,000 Sq. Ft.
- Frontage Increase = 36,000 Sq. Ft.
- Allowable Area = 180,000 Sq. Ft.

OCCUPANCY AND CONSTRUCTION TYPE ALLOW FOR UNLIMITED AREA

PART 4 - **GRADE PLANE ELEVATION & HEIGHT / STORIES (504) - NO MODIFICATIONS**

Building Wall	Grade Plane Elevation
North	4968.6' (4968'-7 1/4")
South	4967.55' (4967'- 6 1/2")
East	4972.14' (4972'-1 5/8")
West	4960.5' (4960'-6")

THIS REMODEL DOES NOT INCREASE THE HEIGHT OF THE EXISTING BUILDING OR THE GRADE PLANE ELEVATION

LEVEL"B"			
Level B-Mezz			
LEVEL "O"	4944'	NO	23'-2 1/2" Below G.P.E.
1ST FLOOR	4960'	YES**	7'-2 1/2" Below G.P.E.
2ND FLOOR	4976'	YES	8'-9 1/2" Above G.P.E.
3RD FLOOR	4992'	YES	24,-9 1/2" Above G.P.E.
4TH FLOOR	5008	YES	40'-9 1/2" Above G.P.E.
5TH FLOOR	5024'	YES	56'-9 1/2" Above G.P.E.
ROOF	5040'		72'-9 1/2" Above G.P.E.
TOTAL BUILDING	5040'	YES	72'-9 1/2"

PART 5 - **AUTOMATIC FIRE SPRINKLER (903.)**

ITEM	REFERENCE	COMMENTS
Required		yes
Area Increase		Unlimited Area Building
Height Increase		Not required
Fire-Resistance Substitution (T601)		Not required

PART 6 - **OCCUPANCY SEPARATIONS (T508.4)**

NO MODIFICATIONS

THE REMODEL AREA DOES NOT REQUIRE AN OCCUPANCY SEPARATION

IU

Part 9 - **Exit Requirements**
(Modify as needed for additional floors/areas)

FLOOR LEVEL	OCCUPANCY	ROOM AREA	OCCUPANT LOAD FACTOR (T1004.1.1)	# OF OCCUPANTS (1004)	# OF EXITS (1021/1015) REQ'D ACT	REQ'D EGRESS WIDTH (1005) REQ'D ACT	REQ'D STAIR WIDTH (1005)	REQ'D AISLE WIDTH (1017)	REQ'D COMMON PATH (ACTUAL) (1014.3)	TOTAL TRAVEL DISTANCE (ACTUAL) (1016)
2nd Floor	B-Occ.	6,874	150	48	2	96"	156"	36"	26'	104
Floor Total:		6,874		48	2	96"	156"	36"		
Building Total:		20,220		101						

PART 7 - **OTHER BUILDING ELEMENTS (T601 AND T602)**

ELEMENT	MATERIAL	RATING	IBC/UL DESIGN # (720.1)
Interior Bearing Wall	Reinforced Concrete/Masonry	3 hour	N/A
Interior Non-bearing Wall	Masonry/ Drywall on steel studs	0hours	U419
Structural Frame	Reinforced Concrete	3 hour	N/A
Exterior Structural Frame	Reinforced Concrete	3 hour	N/A
Shaft Enclosure (708)	Masonry / Drywall on steel studs	2 hour	N/A
Floor/Ceiling Assembly	Reinforced Concrete	2 hour	N/A
Roof/Ceiling Assembly	Reinforced Concrete	2 hour	N/A
Vertical Exit Enclosure (1022)	Reinforced Concrete/Masonry	2 hour	N/A
Exterior Bearing Wall	Reinforced Concrete	3 hour	N/A

PART 8 - **EXTERIOR WALL OPENING PROTECTION (T705.8)**

NO MODIFICATIONS

WALL LOCATION	PROTECTED	UNPROTECTED	PARAPET REQ'D (705.11)
North	No	YES	NO / Provided
South	No	YES	NO / Provided
East	No	YES	NO / Provided
West	No	YES	NO / Provided

PART 10 - **ADDITIONAL REQUIREMENTS (SPECIFY PROJECT REQUIREMENTS)**

Accessible Means of Egress (1007)	Yes
Accessible route (3411.7)	Yes
Special Occupancy Requirements (Chapter 4)	No
Atrium	No

An ADA Checklist for Readily Achievable Barrier Removal was performed for this building in July 2012 by an independent third party consultant. The Checklist indicates there are no ADA barriers related to this building except for the following:
1. The entrance door hardware to the primary function spaces.
2. The signage at the entrances to the primary function spaces.
3. The entrance door hardware to the public restrooms
4. The signage at the entrances to the public restrooms.

Upon TSA's review of these items, we found the entrance door hardware to the primary function spaces and the public restrooms to be in compliance with the ADA requirements and not an ADA barrier requiring removal.

PLUMBING FIXTURES (T 2902.1)

		A-3	B / IU	F-1	S-1	Total	MEN
Occupancy/load		80	1,054	9	14	1157	WOMEN
	Required	1	12	1	1	15	
Women W.C.	Required				1	15	
	Actual				1	15	
Urinals (IPC 419)	Required	0	0	0	0	0	
	Actual	0	5	0	0	5	
Men Sinks	Required	1	8	1	1	11	
	Actual	1	7	1	1	10	
Women's Sinks	Required	1	8	1	1	11	
	Actual	1	7	1	1	10	
Service Sinks	Required	0	1	0	0	1	
	Actual	0	1	0	0	1	
Drinking Fountains	Required	1	5	1	1	8	
	actual	1	9	0	0	10	

THE REMODEL AREA DOES NOT CHANGE THE # OF FIXTURES

PART 12 - **DEFERRED SUBMITTALS, NONSTRUCTURAL COMPONENTS CHECKLIST, & SPECIAL INSPECTIONS**
LIST:

PROVIDE THE FOLLOWING INFORMATION IN THE CODE ANALYSIS, DELETING INAPPLICABLE SECTIONS.

LIST OF DEFERRED SUBMITTALS

ITEM	DATE TO BE SUBMITTED	SPECIFICATION REFERENCE
FIRE SPRINKLER SYSTEM	MAY 2024	DIVISION 21 0000
FIRE ALARM SYSTEM	MAY 2024	DIVISION 28 0000
SEISMIC RESTRAINT OF NON-STRUCTURAL COMPONENTS	MAY 2024	DIVISION 22,26

IEBC

ALTERATION LEVEL: 2

COMPLAINCE METHOD: PRESCRIPTIVE

University of Utah – Nonstructural Component Checklist

ITEM DESCRIPTION	NOT REQUIRED	ON CONSTR. DOCUMENTS	DEFERRED SUBMITTAL	COMMENTS
Architectural Components:				
Interior Nonstructural Walls & Partitions		X		
Cantilever Elements (i.e. parapets, etc.)	X			
Exterior Nonstructural Wall Elements	X			
Veneer	X			
Penthouses	X			
Ceilings (i.e. suspended grid or hard-lip)		X		
Cabinets (i.e. storage cabinets, equip, etc)		X		
Access Floors	X			
Storage Racks	X			
Appendages & Ornamentations	X			
Signs & Billboards	X			
Other:				
Other:				
MEP Components:				
Fire Sprinklers			X	
Mechanical Equipment (i.e. HVAC, fans, air handlers, boilers, furnaces, tanks, chillers, water heaters, heat exchangers, evaporators, engines, turbines, pumps, compressors, MFR equipment, etc.)	X			
Electrical Equipment (i.e. generators, batteries, inverters, transformers, MCC, panel boards, switch gear, cabinets, etc.)	X			
Elevator & Escalator Components	X			
Communication Equipment, Computers, Instrumentation, and Controls	X			
Roof-mounted Chimneys, Stacks, Cooling & Electrical Towers	X			
Lighting Fixtures		X		
Vibration Isolated Components	X			
Piping & Conduit Systems		X		
Ductwork Including in-line components)		X		
Conveyors	X			
Cable Trays	X			
Other:				
Other:				

NOTES:

1. Deferred submittals for seismic restraint of nonstructural components must be submitted to the University of Utah Building Official a minimum of two weeks prior to the planned installation in order to allow for plan review and forwarding to inspectors. In the event that the submittal is deficient additional time may become necessary.
2. When seismic restraint of non-structural components is installed prior to receiving University of Utah approval it shall not be covered or concealed until receiving both plan review and inspection approval. Further, installers are proceeding at their own risk until plan review and inspection approval occurs.
3. The requirements for seismic restraint of nonstructural components cannot be satisfied by a general reference to industry-wide Design Manuals. The design professional may utilize these manuals as a basis of their design, but most provide all supporting documentation to ensure that the design conforms to the requirements of ASCE 7-05, Chapter 13.
4. Submittals must include details of the proposed seismic restraint of nonstructural components. These details must show specific information relating to the materials, type, size, and locations of anchorages; materials used for bracing; attachment requirements of bracing to structure and component; and locations of transverse and longitudinal sway bracing and rod stiffeners. Submittals also require structural calculations, engineering reports, test data, and/or specifications to ensure code compliance.

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#	DATE	REVISION

REVIEWED FOR CODE COMPLIANCE
05/17/2024
Shums Coda Associates

BIOMEDICAL POLYMERS RESEARCH BUILDING - LEVEL 2

20 SOUTH 2030 EAST, SALT LAKE CITY, UTAH 84112

CONSTRUCTION DOCUMENTS

SEAL: STATE OF UTAH NO. 135781 TRACY D. STOCKING LICENSED ARCHITECT

DATE: **05/03/2024** PROJECT #: **23027**

SHEET NAME:
GENERAL CODE REQUIREMENTS / CODE ANALYSIS

SHEET #: **G010**

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5/16/2024 7:29:56 AM

UNIVERSITY OF UTAH **BPRB LEVEL 2 LAB REMODEL** 5/1/2024

CHEMICAL INVENTORY & CLASSIFICATIONS

Inventory calculations are for the Level 2 entire floor. The current remodel project includes the north half of Level 2.

Hazardous Materials Posing a Physical Hazard (IBC Table 307.1(1))							Maximum Quantity per Control Area (IBC Table 307.1(1))									
		Storage					Storage			Use - Closed System			Use - Open System			
Material	Class	Solid pounds (cubic feet)	Liquid Gallons (pounds)	Gas cubic feet at NTP	Barricade Construction	Explosion Venting or Prevention Systems	Solid pounds (cubic feet)	Liquid Gallons (pounds)	Gas cubic feet at NTP	Solid pounds (cubic feet)	Liquid Gallons (pounds)	Gas cubic feet at NTP	Solid pounds (cubic feet)	Liquid Gallons (pounds)	Emergency or Stand-by Power Required	Comments
Combustible dust	NA	2.2125		n/a	NR	Required*	note q	n/a	n/a							
Combustible fiber	Loose Baled	n/a	n/a	n/a												
Combustible Liquid	II	n/a	116.37345	n/a			n/a	120			120			30		Per user no Open Systems will be used
	IIIA	n/a	n/a	n/a												
	IIIB	n/a	4.2	n/a				13,200			13,200			3300		Per user no Open Systems will be used
Consumer fireworks	1.4G	n/a	n/a	n/a												
Cryogenic flammable	NA	n/a	n/a	n/a												
Cryogenic inert	NA	n/a	n/a	n/a												
Cryogenic oxidizing	NA	n/a	n/a	n/a												
Explosives	Division 1.1	n/a	n/a	n/a												
	Division 1.2	n/a	n/a	n/a												
	Division 1.3	n/a	n/a	n/a												
	Division 1.4	n/a	n/a	n/a												
	Division 1.4G	n/a	n/a	n/a												
	Division 1.5	n/a	n/a	n/a												
	Division 1.6	n/a	n/a	n/a												
Flammable Gas	Gaseous Liquefied	n/a	n/a	n/a												
Flammable liquid	IA	n/a	2.019	n/a		Required*		30			30			10		Per user no Open Systems will be used
	IB and IC	n/a	111.3396	n/a		Required*		120			120			30	Required if containers exceed 6.5 gallons	Per user no Open Systems will be used and containers do not exceed 6.5 gallons
Flammable Liquid, Combination (IA, IB, IC)	NA	n/a	n/a	n/a												
Flammable Solid	NA	7.4085	n/a	n/a			125			125			25			Per user no Open Systems will be used
Inert gas	Gaseous Liquefied	n/a	n/a	n/a												
Organic Peroxide	UD	n/a	n/a	n/a												
	I	n/a	n/a	n/a												
	II	n/a	n/a	n/a												
	III	n/a	n/a	n/a												
	IV	n/a	n/a	n/a												
	V	n/a	n/a	n/a												
Oxidizer	4	n/a	n/a	n/a												
	3	n/a	n/a	n/a												
	2	n/a	n/a	n/a												
	1	n/a	n/a	n/a												
Oxidizing gas	Gaseous Liquified	n/a	n/a	n/a												
Pyrophoric	NA	1.653	n/a	n/a		Required*	4			4			0			Per user no Open Systems will be used
Unstable (reactive)	4	n/a	n/a	n/a												
	3	0.0825	n/a	n/a	Required*		5			5			1			Per user no Open Systems will be used
	2	n/a	n/a	n/a												
	1	n/a	n/a	n/a												
Water Reactive	3	0.081	n/a	n/a		Required*	5			5			1			Per user no Open Systems will be used
	2	n/a	n/a	n/a												
	1	n/a	n/a	n/a												

Hazardous Materials Posing a Health Hazard			
	Storage		
Material	Solid pounds (cubic feet)	Liquid Gallons (pounds)	Gas cubic feet at NTP
Corrosives	24.8667	13.15944	n/a
Highly Toxic	7.689	9.2667	n/a
Toxic	78.68808	81.66519	n/a

CONTROL AREAS: ENTIRE MAIN FLOOR QUALIFIES AS ONE CONTROL AREA - TOTAL QUANITY OF EACH MATERIAL IS LESS THAN MAXIMUM ALLOWED

		5000	500		5000	500					Per user no Open Systems will be used
		10	10		10	10					Per user no Open Systems will be used
		500	500		500	500					Per user no Open Systems will be used

* NOT required because quantities do not exceed allowable

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BIOMEDICAL POLYMERS RESEARCH BUILDING - LEVEL 2

20 SOUTH 2030 EAST, SALT LAKE CITY, UTAH 84112

CONSTRUCTION DOCUMENTS

SEAL:

STATE OF UTAH
NO. 135781
TRACY D. STOCKING
LICENSED ARCHITECT

DATE: **05/03/2024** PROJECT #: **23027**

SHEET NAME: **CHEMICAL INVENTORY**

SHEET #: **G011**

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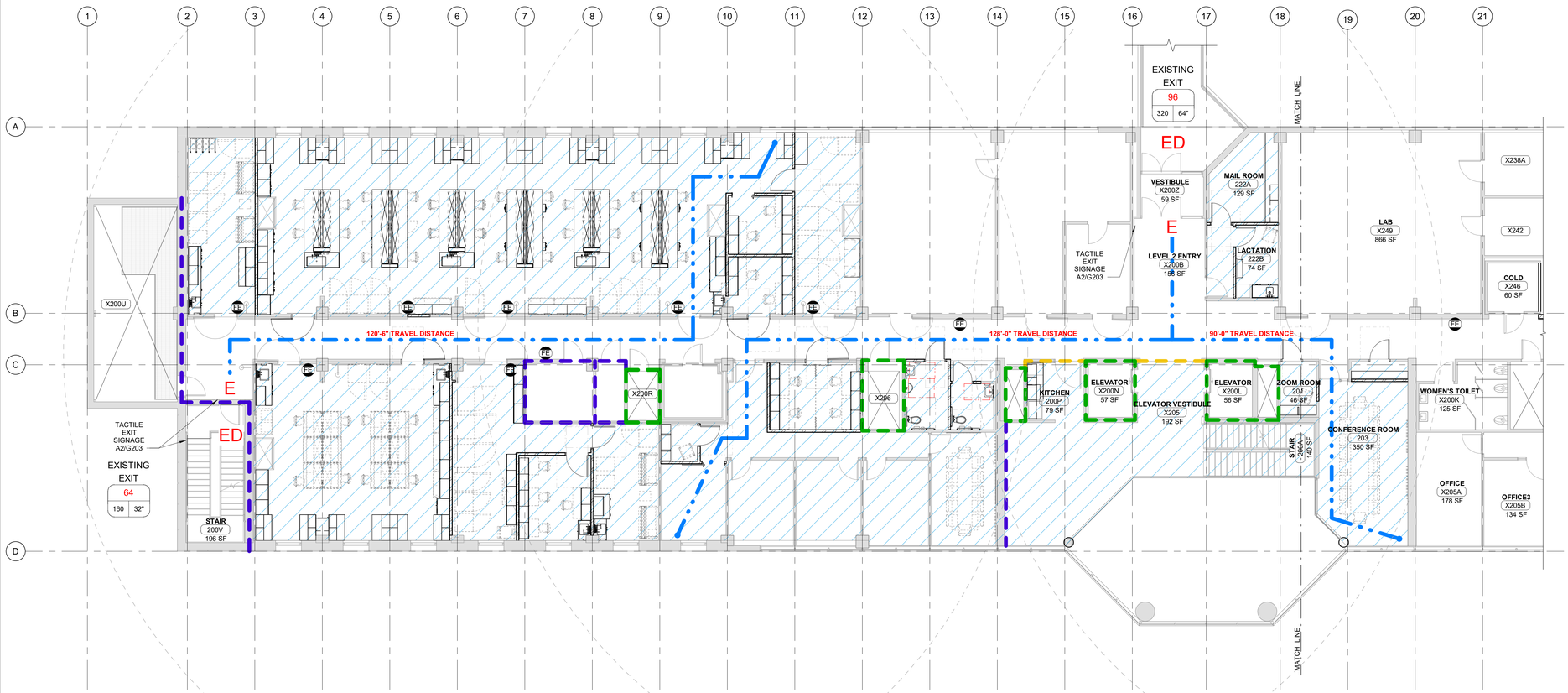
LEVEL 2 - OCCUPANCIES
3/32" = 1'-0" G101 2

OCCUPANCIES

B

OCCUPANCY SCHEDULE

NAME	AREA	OCCUPANT LOAD
CONFERENCE	426 SF	3
LAB	3719 SF	26
MAIL	258 SF	2
OFFICES	2471 SF	17
TOTALS	6874 SF	48



LEVEL 2 - LIFE SAFETY PLAN
1/8" = 1'-0" G101 1

N

GENERAL LIFE SAFETY NOTES

A. STENCIL "1 HOUR FIRE BARRIER" ON BOTH SIDES OF 1-HOUR RATED WALLS ABOVE CEILING AT 4'-0" INTERVALS.
B. STENCIL "2 HOUR FIRE BARRIER" ON BOTH SIDES OF 2-HOUR RATED WALLS ABOVE CEILING AT 4'-0" INTERVALS

LIFE SAFETY PLAN LEGEND

GRAPHIC DESIGNATION	DESCRIPTION
	PROJECT AREA
	SUITE BOUNDARY
	(N) 0 HR SMOKE PARTITION (IBC 710)
	(N) 1 HR SMOKE BARRIER (IBC 709)
	(N) 1 HR FIRE PARTITION (IBC 708)
	(N) 2 HR FIRE BARRIER (IBC 707)
	(N) 3 HR FIRE BARRIER (IBC 707)
	(N) 3 HR FIRE WALL (IBC 706)
	(E) 0 HR SMOKE PARTITION (IBC 710)
	(E) 1 HR SMOKE BARRIER (IBC 709)
	(E) 1 HR FIRE PARTITION (IBC 708)
	(E) 3 HR FIRE BARRIER (IBC 707)
	(E) 2 HR FIRE BARRIER (IBC 707)
	(E) 3 HR FIRE WALL (IBC 706)
	BUILDING SEPARATION
	TRAVEL DISTANCE
	(E) WALL
	(N) WALL
E	EXIT
ED	EXIT DISCHARGE
FE	(N) FIRE EXTINGUISHER W/ RADIUS
FE	(E) FIRE EXTINGUISHER W/ RADIUS
A-3	OCCUPANCY GROUP
AREA USE	
34	OCCUPANT LOAD
263 SF 7 NSF	OCCUPANT LOAD FACTOR GROSS: GSF NET: NSF
	SQUARE FOOTAGE
EXISTING EXIT	
183	EXIT LOAD
335 67"	EXIT WIDTH PROVIDED
	EXIT CAPACITY

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NO. 135781
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LICENSED ARCHITECT

DATE: 05/03/2024
PROJECT #: 23027

SHEET NAME:
LIFE SAFETY PLAN + OCCUPANCY CALCULATIONS

SHEET #: **G101**

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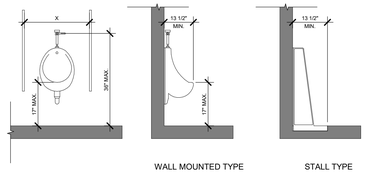
WHEN PARTITIONS ARE PROVIDED
AT ACCESSIBLE URINALS, X = 30" MIN.
TO PROVIDE FOR FORWARD
APPROACH CLEAR FLOOR SPACE

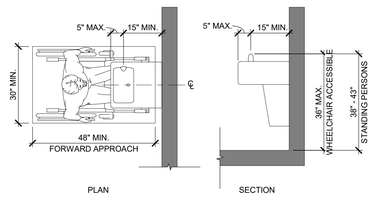


WALL MOUNTED TYPE STALL TYPE

ADA - PLUMBING - URINALS | 5

1/2" = 1'-0" G201

NOTES:
1. CLEAR FLOOR SPACE PER SECTION 305 ARE TO BE PROVIDED.
2. KNEE AND TOE CLEARANCE PER SECTION 306 ARE TO BE PROVIDED.
3. DRINKING FOUNTAINS PRIMARILY FOR CHILDREN'S USE SHALL BE PERMITTED WHERE THE SPOUT OUTLET IS 30" MAXIMUM ABOVE THE FLOOR AND IS 3 1/2" MAX. FROM THE FRONT EDGE OF UNIT. A PARALLEL APPROACH COMPLYING WITH SECTION 305 IS PROVIDED AND THE CLEAR FLOOR SPACE IS CENTERED ON THE DRINKING FOUNTAIN.

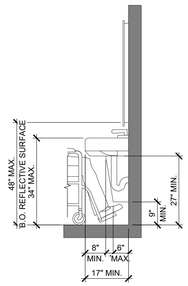


PLAN SECTION

ADA - PLUMBING - DRINKING FOUNTAINS | 4

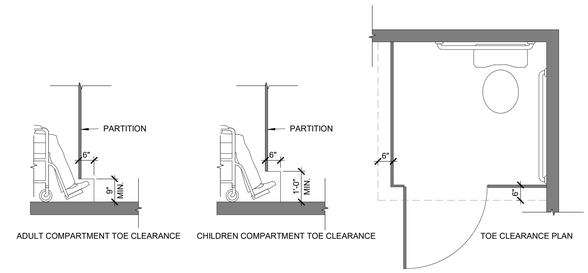
1/2" = 1'-0" G201

NOTES:
1. A CLEAR FLOOR SPACE (30" X 48") POSITIONED FOR FORWARD APPROACH SHALL BE PROVIDED.
2. KNEE AND TOE CLEARANCE SHALL BE PROVIDED. THE DIP OF THE OVERFLOW SHALL NOT BE CONSIDERED IN DETERMINING KNEE AND TOE CLEARANCE.
3. FAUCET CONTROLS SHALL BE OPERABLE WITH ONE HAND AND SHALL NOT REQUIRE TIGHT GRASPING, PINCHING OR TWISTING OF THE WRIST.
4. HAND-OPERATED METERING FACETS SHALL REMAIN OPEN FOR 10 SECONDS MIN.
5. WATER SUPPLY AND DRAINPIPES UNDER LAVATORIES AND SINKS SHALL BE INSULATED OR OTHERWISE CONFIGURED TO PROTECT AGAINST CONTACT. THERE SHALL BE NO SHARP OR ABRASIVE SURFACES UNDER LAVATORIES OR SINKS.
6. IF SOAP OR TOWEL DISPENSERS ARE PROVIDED, THEY MUST BE LOCATED WITHIN THE REACH RANGES IN 308 AND MUST BE PLACE CONVENIENTLY TO THE PERSON AT THE ACCESSIBLE LAVATORY.

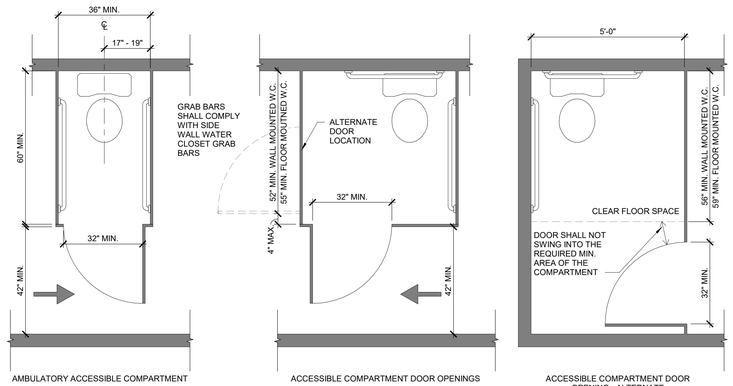


ADA - PLUMBING - LAVATORIES AND SINKS | 2

1/2" = 1'-0" G201

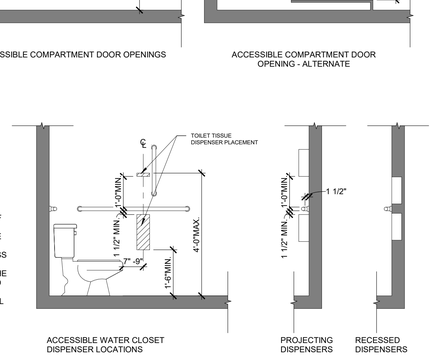


ADULT COMPARTMENT TOE CLEARANCE CHILDREN COMPARTMENT TOE CLEARANCE TOE CLEARANCE PLAN

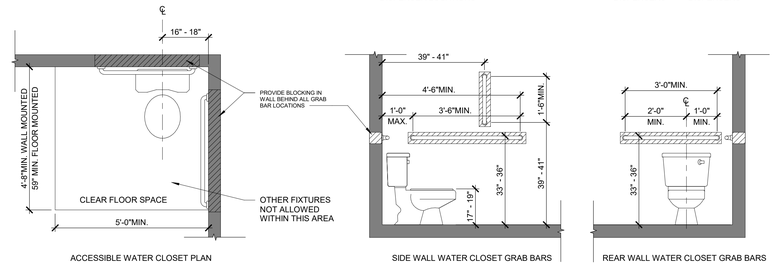


AMBULATORY ACCESSIBLE COMPARTMENT ACCESSIBLE COMPARTMENT DOOR OPENINGS ACCESSIBLE COMPARTMENT DOOR OPENING - ALTERNATE

NOTES:
1. TURNING SPACE PER SECTION 304 SHALL BE PROVIDED WITHIN TOILET AND BATHING ROOMS.
2. DOORS SHALL NOT SWING INTO THE CLEAR FLOOR SPACE FOR ANY FIXTURE WITHIN TOILET AND BATHING ROOMS. EXCEPTION: WHERE THE TOILET ROOM OR BATHING ROOM IS FOR INDIVIDUAL USE AND A CLEAR FLOOR SPACE (30" X 48") IS PROVIDED BEYOND THE ARC OF THE DOOR SWING.
3. WHERE MIRRORS ARE LOCATED ABOVE AN ACCESSIBLE LAVATORY OR COUNTER, THE BOTTOM EDGE OF THE REFLECTIVE SURFACE SHALL BE MOUNTED 40" MAX. ABOVE THE FLOOR.
4. FLUSH CONTROLS MAY BE HAND OPERATED OR AUTOMATIC. HAND OPERATED FLUSH CONTROLS SHALL BE LOCATED ON THE OPEN SIDE OF THE WATER CLOSET.
5. GRAB BARS WITH A CIRCULAR CROSS SECTION SHALL HAVE AN OUTSIDE DIAMETER OF 1 1/4" MIN. AND 2" MAX.
6. GRAB BARS WITH A NONCIRCULAR CROSS SECTION SHALL HAVE A CROSS SECTION OF 2" MAX. AND A PERIMETER DIMENSION OF 4" MIN. - 4.8" MAX.
7. THE SPACE BETWEEN THE GRAB BAR AND THE WALL SHALL BE 1 1/2". THE SPACE BETWEEN THE GRAB BAR AND PROTRUDING OBJECT BELOW AND AT THE ENDS OF THE GRAB BAR SHALL BE 1 1/2". THE SPACE BETWEEN THE GRAB BAR AND PROJECTING OBJECTS ABOVE THE GRAB BAR SHALL BE 12" MIN.
8. THE FRONT PARTITION AND AT LEAST ONE SIDE PARTITION SHALL PROVIDE 9" MIN. TOE CLEARANCE ABOVE THE FLOOR AND EXTEND 6" BEYOND THE COMPARTMENT SIDE FACE OF THE PARTITION.



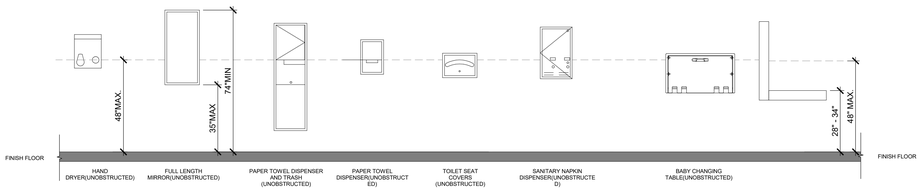
ACCESSIBLE WATER CLOSET DISPENSER LOCATIONS PROJECTING DISPENSERS RECESSED DISPENSERS



ACCESSIBLE WATER CLOSET PLAN SIDE WALL WATER CLOSET GRAB BARS REAR WALL WATER CLOSET GRAB BARS

WATER CLOSETS AND TOILET COMPARTMENTS | 3

1/2" = 1'-0" G201



OPERABLE PART/ACCESS POINT OF ACCESSORY SHALL BE AT 48" ABOVE FINISH FLOOR, TYPICAL UNLESS NOTED OTHERWISE

ADA - MOUNTING HEIGHT - RESTROOM ACCESSORIES | 1

3/8" = 1'-0" G201

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20 SOUTH 2030 EAST, SALT LAKE CITY, UTAH 84112

CONSTRUCTION DOCUMENTS

SEAL:
STATE OF UTAH
NO. 135781
TRACY D. STOCKING
LICENSED ARCHITECT

DATE: 05/03/2024
PROJECT #: 23027

SHEET NAME:
ACCESSIBILITY STANDARDS - PLUMBING & RESTROOMS

SHEET #: G201

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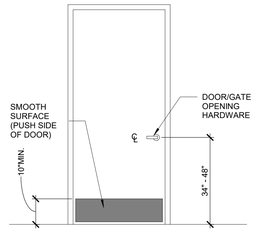
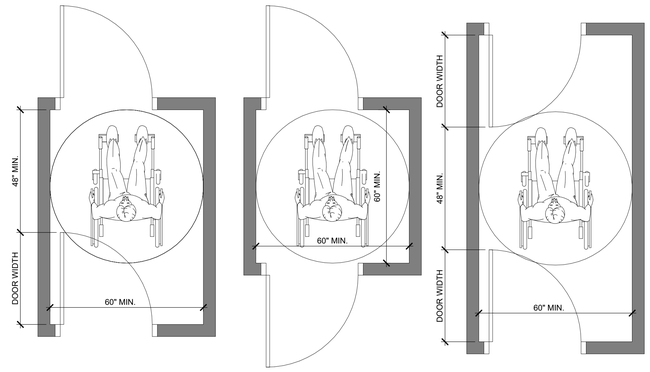
NOTES:
1. HANDLES, PULLS, LATCHES, LOCKS, AND OTHER OPERABLE PARTS ON ACCESSIBLE DOORS SHALL HAVE A SHAPE THAT IS EASY TO GRIP WITH ONE HAND AND DOES NOT REQUIRE TIGHT GRASPING, PINCHING, OR TWISTING OF THE WRIST TO OPERATE. WHERE SLIDING DOORS ARE IN THE FULLY OPEN POSITION, OPERATING HARDWARE SHALL BE EXPOSED AND USABLE FROM BOTH SIDES.
2. DOOR CLOSERS SHALL BE ADJUSTED SO THAT FROM AN OPEN POSITION OF 90º, THE TIME REQUIRED TO MOVE THE DOOR TO AN OPEN POSITION OF 12º SHALL BE 5 SECONDS MINIMUM.
3. DOOR SPRING HINGES SHALL BE ADJUSTED SO THAT FROM THE OPEN POSITION OF 70º, THE DOOR SHALL MOVE TO THE CLOSED POSITION IN 1.5 SECONDS MINIMUM, MEASURED UNDER AMBIENT CONDITIONS.
4. FIRE DOORS SHALL HAVE THE MINIMUM OPENING FORCE ALLOWED BY THE APPROPRIATE ADMINISTRATIVE AUTHORITY. THE MAXIMUM FORCE FOR PUSHING OPEN OR PULLING OPEN DOORS OTHER THAN FIRE DOORS SHALL BE: INTERIOR HINGED: 5 POUNDS. SLIDING OR FOLDING: 5 POUNDS. THESE FORCES DO NOT APPLY TO THE FORCE REQUIRED TO RETRACT LATCH BOLTS OR DISENGAGE OTHER DEVICES THAT HOLD THE DOOR IN A CLOSED POSITION.
5. DOOR SURFACES WITH 10" OF THE FLOOR SHALL BE A SMOOTH SURFACE ON THE PUSH SIDE EXTENDING THE FULL WIDTH OF THE DOOR. PARTS CREATING HORIZONTAL OR VERTICAL JOINTS IN SUCH SURFACE SHALL BE WITHIN 1/16" OF THE SAME PLANE AS THE OTHER. CAVITIES CREATED BY ADDED KICK PLATES SHALL BE CAPPED.

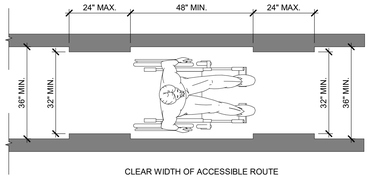


DOOR HARDWARE 1/2" = 1'-0" G202 | 4

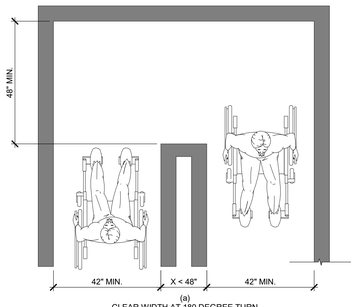


TWO DOORS IN SERIES 1/2" = 1'-0" G202 | 3

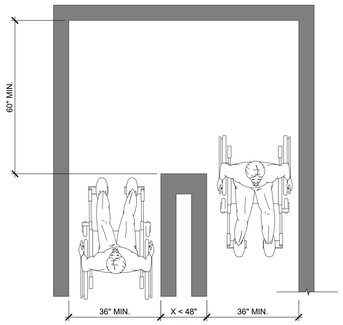
NOTES:
1. THE CLEAR WIDTH OF AN ACCESSIBLE ROUTE SHALL BE 36"; THE CLEAR WIDTH MAY BE REDUCED TO 32" MIN. FOR A LENGTH OF 24" MAX. PROVIDED THAT THE REDUCED WIDTH SEGMENTS ARE SEPARATED BY SEGMENTS THAT ARE 48" LONG MIN. AND 36" WIDE MIN.
2. THE RUNNING SLOPE OF WALKING SURFACES SHALL NOT BE STEEPER THAN 1:20 (5%).
3. THE CROSS SLOPE OF WALKING SURFACES SHALL NOT BE STEEPER THAN 1:48 (2%).



CLEAR WIDTH OF ACCESSIBLE ROUTE



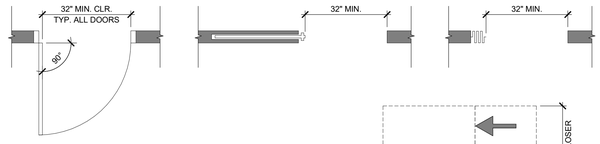
(a)
CLEAR WIDTH AT 180 DEGREE TURN



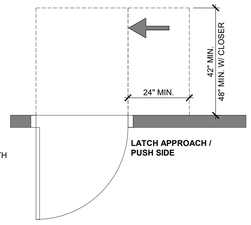
(b)
CLEAR WIDTH AT 180 DEGREE TURN (EXCEPTION)

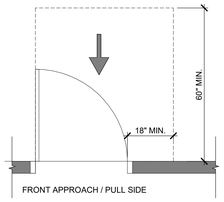
ACCESSIBLE ROUTES 1/2" = 1'-0" G202 | 2

HINGED DOOR | **SLIDING DOOR** | **FOLDING DOOR**

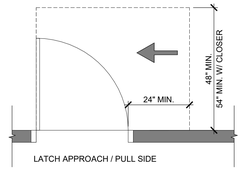


NOTE:
1. MANEUVERING CLEARANCES FOR FORWARD APPROACH SHALL BE PROVIDED WHEN ANY OBSTRUCTION WITHIN 18" OF THE LATCH SIDE OF A DOORWAY PROJECTS MORE THAN 8" BEYOND THE FACE OF THE DOOR, MEASURED PERPENDICULAR TO THE FACE OF THE DOOR OR GATE.
2. THE FLOOR OR GROUND SURFACE WITHIN THE REQUIRED MANEUVERING CLEARANCES SHALL SLOPE NO MORE THAN 1:48 (2%) AND CHANGES IN LEVEL WITHIN THIS AREA ARE NOT PERMITTED.
3. OPENINGS MORE THAN 24" DEEP SHALL PROVIDE A CLEAR OPENING OF 36" MINIMUM.
4. THERE SHALL BE NO PROJECTIONS INTO THE REQUIRED CLEAR OPENING WIDTH LOWER THAN 34" ABOVE THE FLOOR. PROJECTIONS INTO THE CLEAR OPENING WIDTH BETWEEN 34" AND 80" ABOVE THE FLOOR SHALL NOT EXCEED 4".
5. DOOR CLOSERS AND DOOR STOPS SHALL BE PERMITTED TO BE 78" MINIMUM ABOVE THE FLOOR.

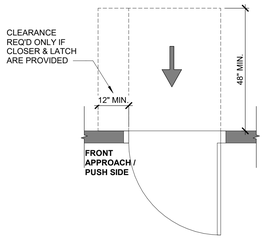


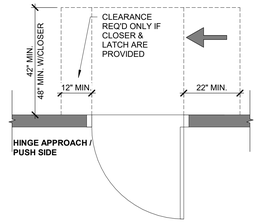


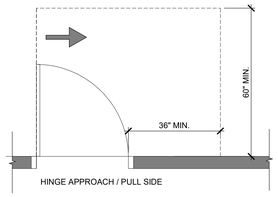
FRONT APPROACH / PULL SIDE



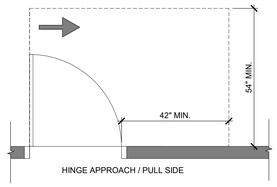
LATCH APPROACH / PULL SIDE







HINGE APPROACH / PULL SIDE



HINGE APPROACH / PULL SIDE

ADA - ACCESSIBLE - DOORS AND DOORWAYS 1/2" = 1'-0" G202 | 1

tsa
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1795 E. So. Campus Dr, RM 201
Salt Lake City, UT 84112-9403
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PROJECT NO: 22287

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#	DATE	REVISION

REVIEWED FOR CODE COMPLIANCE
05/17/2024
Shums Coda Associates

BIOMEDICAL POLYMERS RESEARCH BUILDING - LEVEL 2

20 SOUTH 2030 EAST, SALT LAKE CITY, UTAH 84112

CONSTRUCTION DOCUMENTS

SEAL:
STATE OF UTAH
NO. 135781
TRACY D. STOCKING
LICENSED ARCHITECT

DATE: 05/03/2024
PROJECT #: 23027

SHEET NAME:
ACCESSIBILITY STANDARDS - ROUTES & DOORS

SHEET #: **G202**

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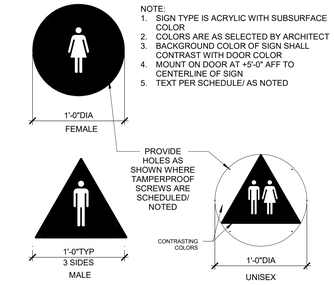
5/6/2024 9:42:41 AM



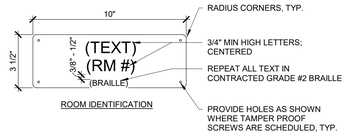
NOTE:
1. SIGN TYPE IS ACRYLIC WITH SUBSURFACE COLOR
2. COLORS ARE AS SELECTED BY ARCHITECT
3. BACKGROUND COLOR OF SIGN SHALL CONTRAST WITH DOOR COLOR
4. MOUNT ON DOOR AT +5'-0" AFF TO CENTERLINE OF SIGN
5. TEXT PER SCHEDULE/ AS NOTED

*FIGURES ON TOILET ROOM DOOR ARE NOT REQUIRED, BUT MAY BE PROVIDED AT OWNER'S PREFERENCE

RESTROOM DOOR SIGNAGE W/FIGURES | 8

1 1/2" = 1'-0" | G203

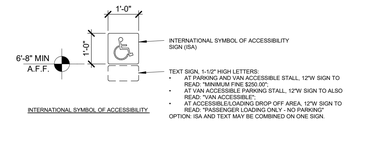
NOTE:
1. SIGN TYPE IS ENGRAVED LAMINATED ACRYLIC
2. ROOM NAMES AND NUMBERS PER SIGNAGE SCHEDULE.
3. MOUNT AT +5'-0" AFF TO CENTERLINE OF SIGN, TYPICAL.
4. FOR ROOM NAMES LONGER THAN SPACE ALLOWED, INCREASE SIGN HEIGHT IN 1-INCH INCREMENTS AND ADD LINES OF TEXT AS NEEDED.



ROOM IDENTIFICATION

SIGN ROOM IDENTIFICATION | 7

3" = 1'-0" | G203



INTERNATIONAL SYMBOL OF ACCESSIBILITY

INTERNATIONAL SYMBOL OF ACCESSIBILITY SIGN | 6

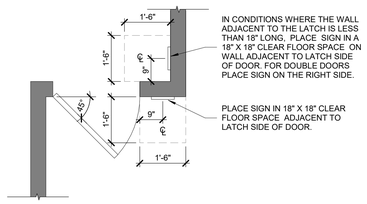
1/2" = 1'-0" | G203

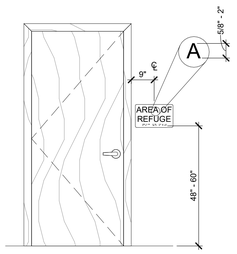
SYMBOLS

INTERNATIONAL SYMBOL OF ACCESSIBILITY | INTERNATIONAL TTY SYMBOL | VOLUME-CONTROLLED TELEPHONE | INTERNATIONAL SYMBOL OF ACCESS FOR HEARING LOSS

RESTROOM SIGNAGE

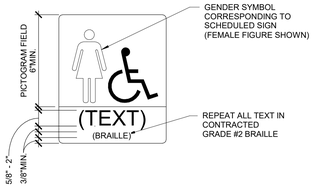






SIGN PLACEMENT

NOTES:
1. TACTILE SIGNS SHALL CONTAIN BOTH RAISED CHARACTERS AND BRAILLE.
2. WHERE SIGNS WITH BOTH VISUAL AND RAISED CHARACTERS ARE REQUIRED , EITHER ONE SIGN WITH BOTH VISUAL AND RAISED CHARACTERS, OR TWO SIGNS, ONE WITH VISUAL , AND ONE WITH RAISED CHARACTERS, SHALL BE PROVIDED.
3. CHARACTERS SHALL BE SANS SERIF. CHARACTERS SHALL BE UPPER CASE. CHARACTERS SHALL NOT BE ITALIC, OBLIQUE, SCRIPT, HIGHLY DECORATIVE, OR OF OTHER UNUSUAL FORMS.
4. MOUNTING HEIGHTS: BRAILLE SHALL BE 48" MINIMUM ABOVE THE FLOOR, MEASURED TO THE BASELINE OF THE BRAILLE CELLS. RAISED CHARACTERS SHALL BE 60" MAXIMUM ABOVE THE FLOOR, MEASURED TO THE BASELINE OF THE CHARACTERS.
5. DOOR MOUNTED SIGNS SHALL BE PERMITTED ON THE PUSH SIDE OF DOORS WITH CLOSERS AND WITHOUT HOLD OPEN DEVICES.
6. PICTOGRAM FIELD SHALL BE 6" MINIMUM IN HEIGHT (BRAILLE SHALL NOT BE IN PICTOGRAM FIELD). FINISH SHALL BE NON-GLARE WITH A CONTRAST IN PICTOGRAM AND FIELD.
7. MINIMUM CHARACTER HEIGHT OF 5/8" FOR VISUAL SIGN ACCOMPANIED BY GRADE II BRAILLE WITH DOMED OR ROUNDED SHAPES. THERE SHALL BE 3/8" SEPARATION FROM OTHER CHARACTERS OR RAISED ELEMENTS OR BORDERS OF THE SIGN OF THE BRAILLE CHARACTERS.
8. RAISED CHARACTERS SHALL BE 48 INCHES MINIMUM ABOVE THE FLOOR, MEASURED TO THE BASELINE OF THE LOWEST RAISED CHARACTER AND 60 INCHES MAXIMUM ABOVE THE FLOOR, MEASURED TO THE BASELINE TO THE HIGHEST RAISED CHARACTER.

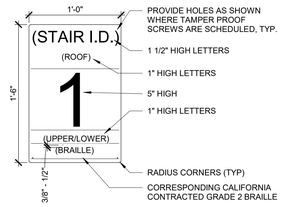


SIGN CHARACTERS

SIGNAGE REQUIREMENTS | 3

1/2" = 1'-0" | G203

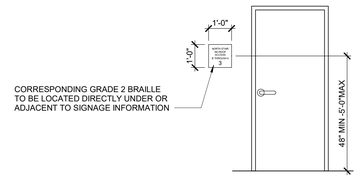
NOTE:
1. SIGN TYPE IS ACRYLIC WITH SUBSURFACE COLOR
2. COLORS ARE AS SELECTED BY ARCHITECT
3. CHARACTERS SHALL CONTRAST WITH BACKGROUND COLOR
4. MOUNT AT +5'-0" AFF TO CENTERLINE OF SIGN



STAIRWAY SIGNAGE | 5

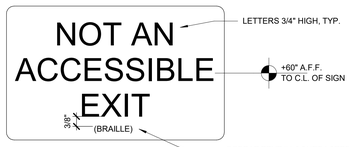
1 1/2" = 1'-0" | G203

APPROVED STAIRWAY IDENTIFICATION SIGNS SHALL BE LOCATED AT EACH FLOOR LEVEL IN ALL ENCLOSED STAIRWAYS IN BUILDINGS TWO OR MORE STORIES IN HEIGHT. THE SIGN SHALL IDENTIFY THE STAIRWAY, ROOF ACCESS, FLOOR LEVEL AND UPPER & LOWER TERMINUS OF THE STAIRWAY.

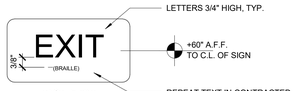


STAIRWAY SIGNAGE | 4

3/8" = 1'-0" | G203



TACTILE EXIT ROUTE

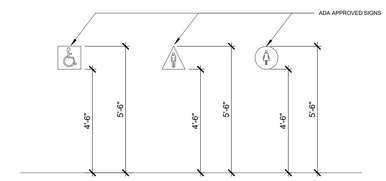


TACTILE EXIT

NOTE: SIGNS SHALL BE OF ENGRAVED LAMINATED ACRYLIC.

SIGN TACTILE EXIT | 2

6" = 1'-0" | G203



ADA SIGNS - TYPICAL MOUNTING HEIGHTS | 1

3/8" = 1'-0" | G203

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1795 E. So. Campus Dr, RM 201
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PROJECT NO: 22287

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#	DATE	REVISION

REVIEWED FOR CODE COMPLIANCE
05/17/2024
Shums Coda Associates

BIOMEDICAL POLYMERS RESEARCH BUILDING - LEVEL 2

20 SOUTH 2030 EAST, SALT LAKE CITY, UTAH 84112

CONSTRUCTION DOCUMENTS

SEAL: STATE OF UTAH NO. 156781 TRACY D. STOCKING LICENSED ARCHITECT

DATE:	PROJECT #:
05/03/2024	23027

SHEET NAME:
ACCESSIBILITY STANDARDS - SIGNAGE

SHEET #: **G203**

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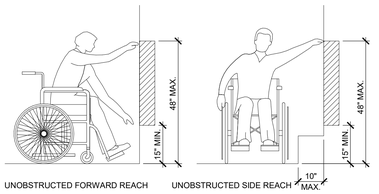
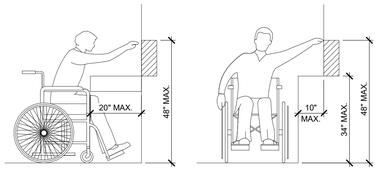
5/6/2024 9:42:44 AM

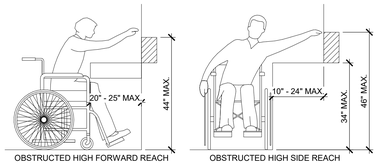


UNOBSTRUCTED FORWARD REACH UNOBSTRUCTED SIDE REACH



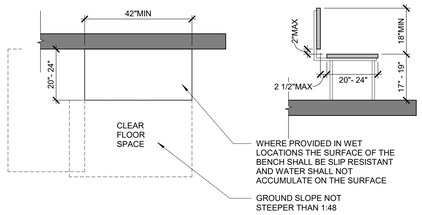
OBSTRUCTED HIGH FORWARD REACH OBSTRUCTED HIGH SIDE REACH

NOTE:
1. WASHING MACHINES AND CLOTHES DRYERS ARE PERMITTED TO BE 36" MAX. ABOVE THE FLOOR .
2. OPERABLE PARTS SHALL BE PLACED WITHIN ONE OR MORE OF THE REACHED RANGES SPECIFIED.

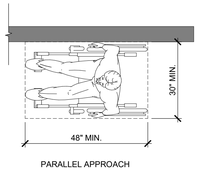


OBSTRUCTED HIGH FORWARD REACH OBSTRUCTED HIGH SIDE REACH

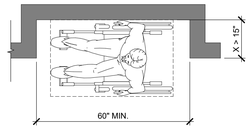
REACH RANGES
1/2" = 1'-0" G204 **7**



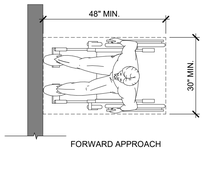
ACCESSIBLE BENCH
1/2" = 1'-0" G204 **5**



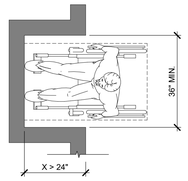
PARALLEL APPROACH



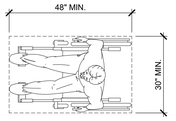
PARALLEL APPROACH IN ALCOVE



FORWARD APPROACH

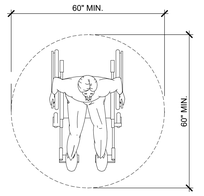


FORWARD APPROACH IN ALCOVE

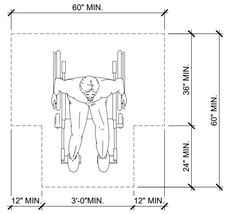


CLEAR FLOOR SPACE

NOTE:
1. TURNING SPACE SHALL BE PERMITTED TO INCLUDE KNEE & TOE CLEARANCE.
2. CLEAR FLOOR SPACE AND TURNING SPACE SHALL SLOPE NO MORE THAN 1:48 (2%) AND CHANGES IN LEVEL WITHIN THIS AREA ARE NOT PERMITTED.
3. WHERE TURNING SPACE IS REQUIRED, THE CIRCLE OR THE T-SHAPED SPACE MAY BE USED.
4. DOOR SWING SHALL BE PERMITTED TO SWING INTO TURNING SPACES.

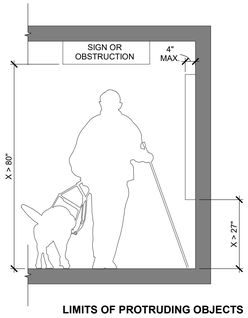


CIRCULAR TURNING SPACE

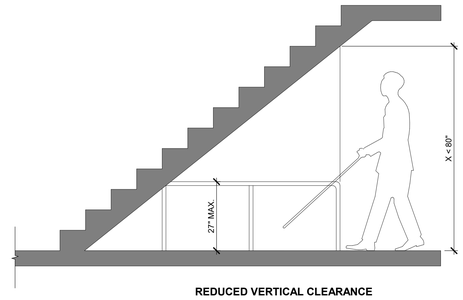


T-SHAPED TURNING SPACE

CLEAR FLOOR & TURNING SPACE
1/2" = 1'-0" G204 **6**

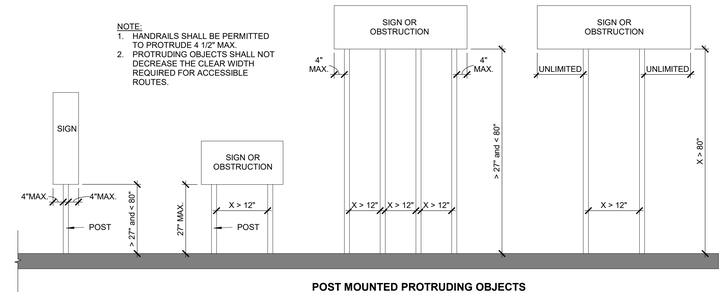


LIMITS OF PROTRUDING OBJECTS



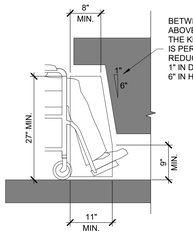
REDUCED VERTICAL CLEARANCE

NOTE:
1. HANDRAILS SHALL BE PERMITTED TO PROTRUDE 4 1/2" MAX.
2. PROTRUDING OBJECTS SHALL NOT DECREASE THE CLEAR WIDTH REQUIRED FOR ACCESSIBLE ROUTES.



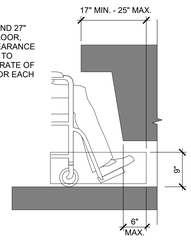
POST MOUNTED PROTRUDING OBJECTS

PROTRUDING OBJECTS
1/2" = 1'-0" G204 **4**



BETWEEN 9" AND 27" ABOVE THE FLOOR, THE KNEE CLEARANCE IS PERMITTED TO REDUCE AT A RATE OF 1" IN DEPTH FOR EACH 6" IN HEIGHT.

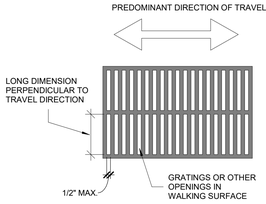
KNEE CLEARANCE



TOE CLEARANCE

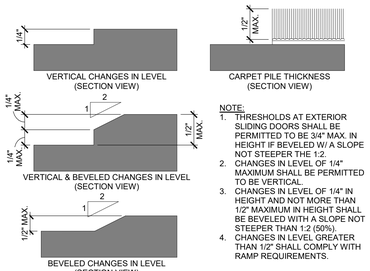
NOTE:
1. HOT WATER AND DRAIN PIPES MUST BE CONFIGURED AND PROTECTED AGAINST CONTACT. THERE SHALL BE NO SHARP ABRASIVE SURFACES UNDER LAVATORIES AND SINKS.
2. SPACE UNDER AN ELEMENT BETWEEN THE FINISH FLOOR AND 9" ABOVE THE FINISHED FLOOR SHALL BE CONSIDERED TOE CLEARANCE.
3. SPACE UNDER AN ELEMENT BETWEEN 9" AND 27" ABOVE THE FINISHED FLOOR SHALL BE CONSIDERED KNEE CLEARANCE.
4. KNEE AND TOE CLEARANCE SHALL BE MINIMUM 30" WIDE.
5. KNEE CLEARANCE SHALL BE PERMITTED TO EXTEND 25" MAX. UNDER AN ELEMENT AT 9" ABOVE THE FLOOR.

KNEE & TOE CLEARANCE
3/4" = 1'-0" G204 **3**



NOTE:
OPENINGS IN FLOOR OR GROUND SURFACES SHALL NOT ALLOW PASSAGE OF SPHERE MORE THAN 1/2" DIAMETER. ELONGATED OPENINGS SHALL BE PLACED SO THAT THE LONG DIMENSION IS PERPENDICULAR TO THE DOMINANT DIRECTION OF TRAVEL.

OPENINGS
1 1/2" = 1'-0" G204 **2**



NOTE:
1. THRESHOLDS AT EXTERIOR SLIDING DOORS SHALL BE PERMITTED TO BE 3/4" MAX. IN HEIGHT IF BEVELED W/ A SLOPE NOT STEEPER THE 1:2.
2. CHANGES IN LEVEL OF 1/4" MAXIMUM SHALL BE PERMITTED TO BE VERTICAL.
3. CHANGES IN LEVEL OF 1/4" IN HEIGHT AND NOT MORE THAN 1/2" MAXIMUM IN HEIGHT SHALL BE BEVELED WITH A SLOPE NOT STEEPER THAN 1:2 (50%).
4. CHANGES IN LEVEL GREATER THAN 1/2" SHALL COMPLY WITH RAMP REQUIREMENTS.

CHANGES IN LEVEL
12" = 1'-0" G204 **1**

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SALT LAKE CITY, UT 84105
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The Department of Campus Design and Construction
1795 E. So. Campus Dr, RM 201
Salt Lake City, UT 84112-9403
Phone: 801-581-6883
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PROJECT NO: 22287

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#	DATE	REVISION

REVIEWED FOR CODE COMPLIANCE
05/17/2024
Shums Coda Associates

BIOMEDICAL POLYMERS RESEARCH BUILDING - LEVEL 2

20 SOUTH 2030 EAST, SALT LAKE CITY, UTAH 84112

CONSTRUCTION DOCUMENTS

SEAL:
STATE OF UTAH
NO. 135781
TRACY D. STOCKING
LICENSED ARCHITECT

DATE: 05/03/2024
PROJECT #: 23027

SHEET NAME:
ACCESSIBILITY STANDARDS - GENERAL

SHEET #:
G204

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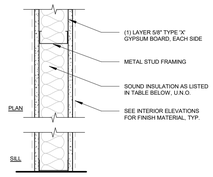
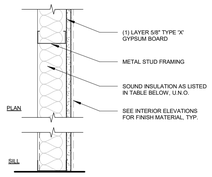
5/6/2024 9:42:47 AM

STEEL STUD



TYPE	STUD SIZE	WALL WIDTH	FIRE RATING	FIRE TEST	STC	SOUND TEST	INSULATION
S1A	1-5/8"	2-7/8"	-	-	-	-	-
S2A	2-1/2"	3-3/4"	1	UL U419	47	SA-831001	1-1/2" M.W. BATT
S3A	3-5/8"	4-7/8"	1	UL U419	49	SA-870717	3" M.W. BATT
S4A	4"	5-1/4"	1	UL U419	49	SA-870717	3" M.W. BATT
S6A	6"	7-1/4"	1	UL U419	49	SA-870717	3" M.W. BATT
S8A	8"	9-1/4"	1	UL U419	49	SA-870717	3" M.W. BATT

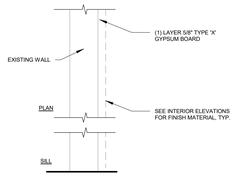
ASSEMBLY TYPE: A | **1-1/2" = 1'-0"**



TYPE	STUD SIZE	WALL WIDTH	FIRE RATING	FIRE TEST	STC	SOUND TEST	INSULATION
S0B	7/8"	1-1/2"	-	-	-	-	-
S1B	1-5/8"	2-1/4"	-	-	-	-	-
S2B	2-1/2"	3-1/8"	-	-	-	-	-
S3B	3-5/8"	4-1/4"	-	-	-	-	3" BATT
S4B	4"	4-5/8"	-	-	-	-	3" BATT
S6B	6"	6-5/8"	-	-	-	-	3" BATT
S8B	8"	8-5/8"	-	-	-	-	3" BATT

ASSEMBLY TYPE: B | **1-1/2" = 1'-0"**

EXISTING



TYPE	STUD SIZE	WALL WIDTH	FIRE RATING	FIRE TEST	STC	SOUND TEST	INSULATION
_C	(E)	(E) + 5/8"	-	-	-	-	-

ASSEMBLY TYPE: C | **1-1/2" = 1'-0"**

WALL TYPE - LEGEND

0K.S1A.XX

- XX — WALL ASSEMBLY MODIFIERS
- S1A — WALL ASSEMBLY TYPE
- K — APPROX. WIDTH OF STRUCT. MATERIAL
- S — STUCTURAL MATERIAL
- 0 — FIRE RATING MODIFIER
- 0 — FIRE RATING

FIRE RATING

- FIRE RATED WALLS ARE FIRE BARRIER CONSTRUCTION U.N.O.

0 — INDICATES 0 HOUR FIRE RESISTANCE
1 — INDICATES 1 HOUR FIRE RESISTANCE
2 — INDICATES 2 HOUR FIRE RESISTANCE
3 — INDICATES 3 HOUR FIRE RESISTANCE
4 — INDICATES 4 HOUR FIRE RESISTANCE

FIRE RATING MODIFIER

K — INDICATES SMOKE RESISTIVE WALL
F — INDICATES FIRE WALL CONSTRUCTION

STRUCTURAL MATERIAL - *SEE ASSEMBLY TYPE DETAIL*

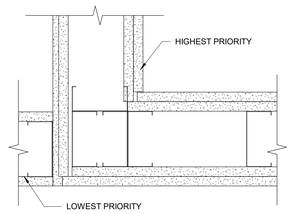
_ — INDICATES AN EXISTING WALL OR SURFACE
S — INDICATES STEEL STUD
T — INDICATES SHAFT WALL
C — INDICATES CONCRETE
M — INDICATES CMU
W — INDICATES WOOD STUD
B — INDICATES STRUCTURAL BRICK

WALL ASSEMBLY MODIFIER

- WALL TYPES BY DEFAULT HAVE INSULATION AND GO TO DECK U.N.O.

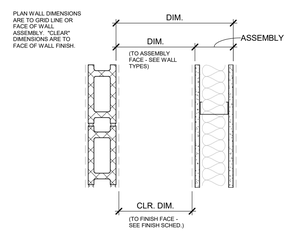
L — LEAD LINED - SEE SHIELDING PLAN FOR THICKNESS
N — NO INSULATION
0 — WALL HEAD TERMINATES AT CEILING
6 — WALL HEAD TERMINATES 6" ABOVE CEILING

PARTITION CONSTRUCTION PRIORITY LEGEND



2-HR FIRE AND SMOKE WALL	1ST PRIORITY
2-HR FIRE WALL OR 2-HR SHAFT WALL	2ND PRIORITY
1-HR FIRE AND SMOKE WALL	3RD PRIORITY
1-HR FIRE WALL	4TH PRIORITY
SMOKE BARRIER WALL	5TH PRIORITY
NON-RATED WALL	6TH PRIORITY

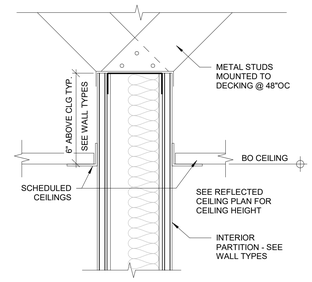
DIMENSIONING MODEL



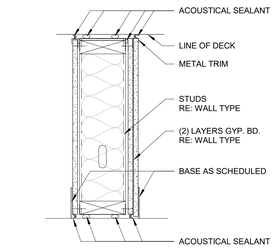
GENERAL NOTES - PARTITION

1. REFERENCE SPECIFICATIONS FOR ALL STUD GAUGES AND LIMITING HEIGHTS IN GYPSUM WALL BOARD.
2. REFERENCE SPECIFICATIONS FOR GYPSUM WALL BOARD ALTERNATE MATERIAL IN ALL WET AREAS.
3. THE FOLLOWING ROOMS (IF USED) SHALL HAVE THEIR PERIMETER PARTITIONS INSULATED USING MINERAL WOOL:
   - ALL ELECT. & MECH. ROOMS
   - A/V EQUIPMENT / LIGHTING ROOMS.
4. ALL RATED PARTITIONS TO EXTEND FROM TOP OF SLAB TO UNDERSIDE OF STRUCTURAL DECK. SEE TYP. FIRE RATED WALL HEAD CONDITIONS DETAIL.
5. NON-RATED PARTITIONS TO BE INSTALLED WITH ACOUSTICAL SEALANT. SEE TYP. SOUND RATED WALL HEAD & SEAL CONDITIONS.
6. ALL INTERIOR ROOF DRAINS AND OVERFLOW PIPES TO BE WRAPPED CONTINUOUSLY WITH SOUND ATTENUATION INSULATION.
7. REFER TO MECHANICAL DRAWINGS FOR DETAILS ON PIPE PENETRATIONS THROUGH ACOUSTICAL PARTITIONS AS WELL AS RATED PARTITIONS.
8. INSTALL FIRE RETARDANT TREATED BLOCKING IN PARTITIONS AS REQUIRED ON DRAWINGS.
9. WALL TYPES, BY DEFAULT, HAVE INSULATION AND GO TO DECK UNLESS NOTED OTHERWISE (U.N.O.)
10. SOME WALL ASSEMBLY TABLES SHOWN ON THIS SHEET MAY INDICATE A FIRE RATING. THE LISTED RATING DOES NOT NECESSARILY REQUIRE ALL WALLS OF THAT TYPE WITHIN THE PROJECT PARAMETERS TO BE FIRE RATED.
11. REFER TO G101 - LIFE SAFETY PLAN AND WALL TYPE CALLOUTS ON FLOOR PLANS FOR WALL ASSEMBLIES WITHIN THE PROJECT THAT ARE REQUIRED BY CODE TO BE RATED FOR SMOKE OR FIRE RESISTANCE.

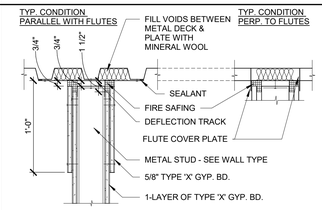
TYPICAL BRACED HEAD DETAIL



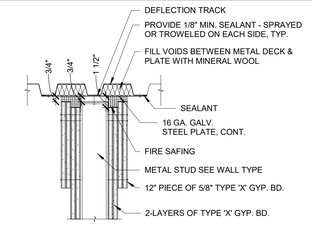
TYP. SOUND RATED WALL HEAD & SEAL CONDITIONS



TYP. FIRE RATED WALL HEAD CONDITIONS



METAL ROOF DECK W/ FLUTES ONE HOUR FIRE & SMOKE RESISTANT: UL-HW-D-0028



METAL ROOF DECK TWO HOUR FIRE & SMOKE RESISTANT: UL-HW-D-0264

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PROJECT NO: 22287

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#	DATE	REVISION

REVIEWED FOR CODE COMPLIANCE
05/17/2024
Shums Coda Associates

BIOMEDICAL POLYMERS RESEARCH BUILDING - LEVEL 2

20 SOUTH 2030 EAST, SALT LAKE CITY, UTAH 84112

CONSTRUCTION DOCUMENTS

SEAL:

STATE OF UTAH — NO. 135781 — TRACY D. STOCKING — LICENSED ARCHITECT

DATE:	PROJECT #:
05/03/2024	23027

SHEET NAME: **WALL TYPES**

SHEET #: **G501**

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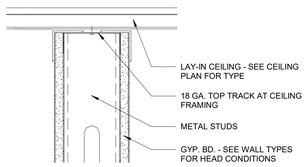
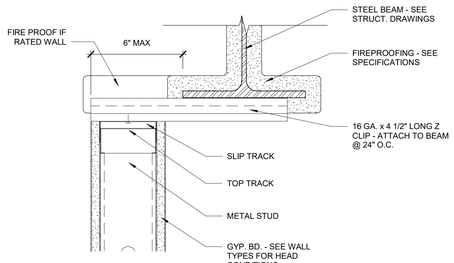
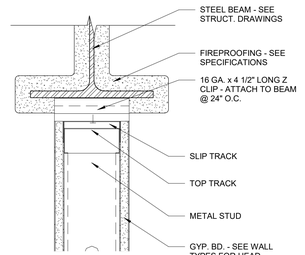
WALL TERMINATION AT CEILING



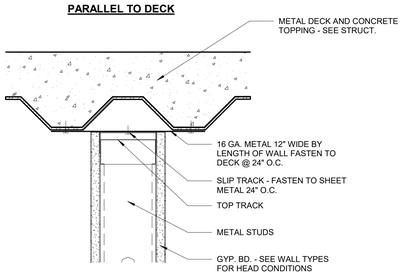
WALL HEAD OFFSET FROM BEAM



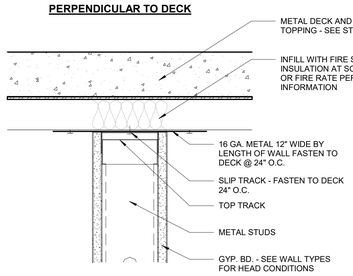
WALL CENTERED ON BEAM



PARALLEL TO DECK



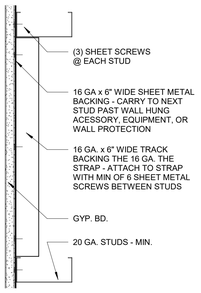
PERPENDICULAR TO DECK



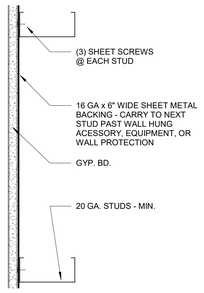
TYP. TOP OF WALL TO DECK DETAILS

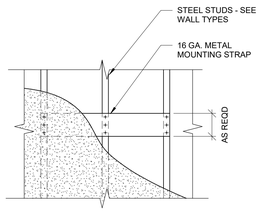
3" = 1'-0" G510 **C5**

NOTE: USE THIS BLOCKING DETAIL FOR LOCATIONS WHERE WALL HUNG EQUIPMENT WEIGHTS ARE BETWEEN 100 AND 500 POUNDS - FOR WEIGHTS BETWEEN 500 AND 700 POUNDS INCREASE SIDE WALL STUDS AND TRACKS TO 16 GA.



NOTE: USE THIS BLOCKING DETAIL FOR ALL ACCESSORIES AND WALL PROTECTION ITEMS - USE FOR WALL HUNG EQUIPMENT UNDER 100 POUNDS IN WEIGHT

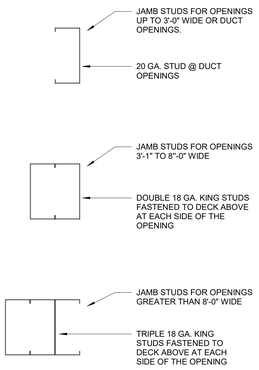




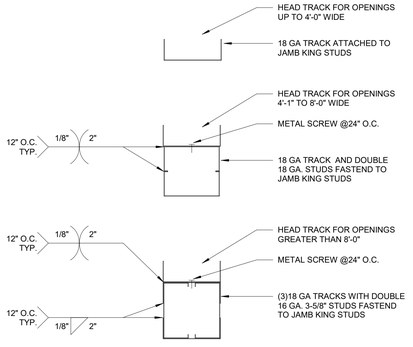
MOUNTING STRAP DETAIL - TYP.

3" = 1'-0" G510 **A5**

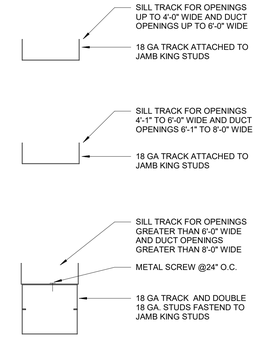
1 JAMB AT OPENINGS



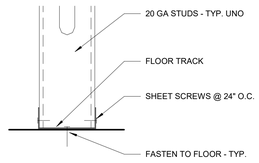
2 HEADER AT OPENINGS



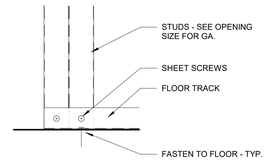
3 SILL AT OPENINGS



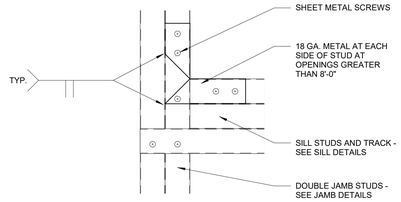
4 BASE TRACK



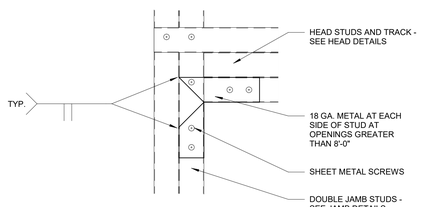
5 BASE TRACK AT OPENINGS

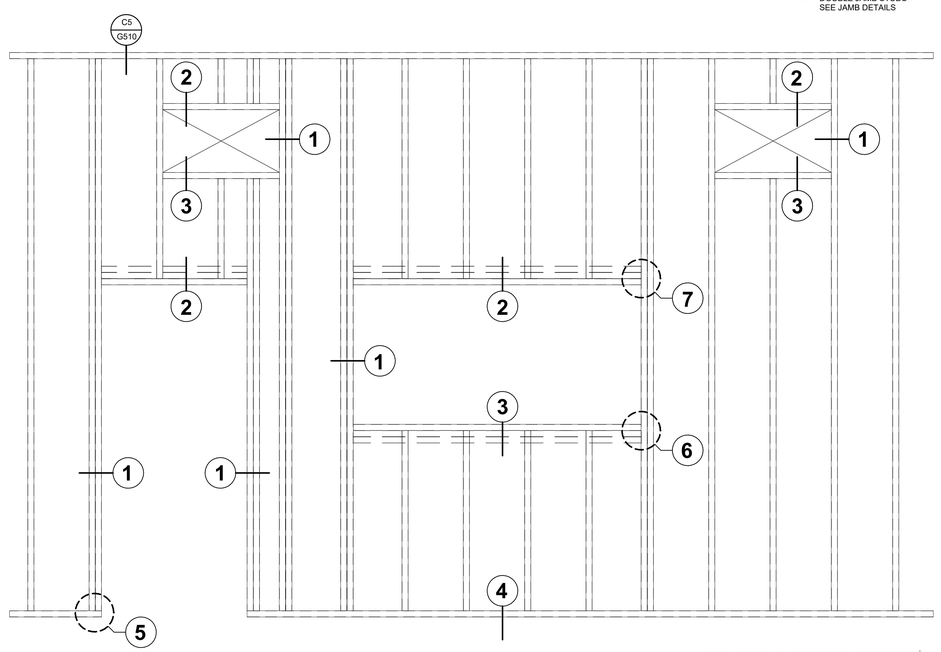


6 FRAMED OPENING AT SILL



7 FRAMED OPENING AT HEADER





TYP. WALL & OPENING FRAMING

3/4" = 1'-0" G510 **A1**

tsa
1486 SOUTH 1100 EAST
SALT LAKE CITY, UT 84105
TEL . (801) 463 - 7108

THE UNIVERSITY OF UTAH
The Department of Campus Design and Construction
1795 E. So. Campus Dr, RM 201
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PROJECT NO: 22287

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#	DATE	REVISION

REVIEWED FOR CODE COMPLIANCE
05/17/2024
Shums Coda Associates

BIOMEDICAL POLYMERS RESEARCH BUILDING - LEVEL 2

20 SOUTH 2030 EAST, SALT LAKE CITY, UTAH 84112

CONSTRUCTION DOCUMENTS

SEAL:
STATE OF UTAH
NO. 135781
TRACY D. STOCKING
LICENSED ARCHITECT

DATE: 05/03/2024
PROJECT #: 23027

SHEET NAME:
FRAMING DETAILS

SHEET #:
G510

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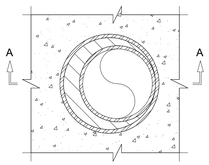
5/6/2024 9:42:52 AM

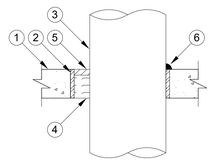
UL/cUL SYSTEM NO. F-A-1028
METAL PIPE THROUGH CONCRETE FLOOR OR CONCRETE FLOOR OVER METAL DECKING

F-RATING = 2-HR.
T-RATING = 0-HR.

TOP VIEW



SECTION A-A



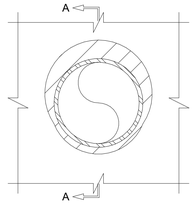
1. CONCRETE FLOOR ASSEMBLY (2-HR. FIRE-RATING):
   A. LIGHTWEIGHT OR NORMAL WEIGHT CONCRETE FLOOR (MINIMUM 2-1/2" THICK).
   B. STEEL FLOOR UNIT/FLOOR ASSEMBLY - NORMAL WEIGHT CONCRETE FLOOR (MIN. 2-1/2" THICK) OVER METAL DECKING.
2. [OPTIONAL] ANY OF THE FOLLOWING STEEL SLEEVES MAY BE USED :
   A. MAXIMUM 32" NOMINAL DIAMETER STEEL PIPE SLEEVE (SCHEDULE 40 OR HEAVIER).
   B. MAXIMUM 6" (MIN. 26 GA.) OR 12" (MIN. 24 GA.) DIAMETER GALVANIZED STEEL SLEEVE WITH SQUARE FLANGE SPOT WELDED TO BOTTOM OF SLEEVE AND SIZED MINIMUM 2" LARGER THAN SLEEVE DIAMETER. SLEEVE MAY EXTEND MAXIMUM 1" ABOVE TOP SURFACE OF FLOOR. WHEN USED ON METAL DECKS, STEEL FLANGE SPOT WELDED TO THE SLEEVE AT APPROXIMATE MID-HEIGHT AND MAY EXTEND A MAXIMUM OF 4" BELOW THE BOTTOM OF THE DECK.
3. PENETRATING ITEM TO BE ONE OF THE FOLLOWING:
   A. MAXIMUM 30" NOMINAL DIAMETER STEEL PIPE (SCHEDULE 10 OR HEAVIER).
   B. MAXIMUM 30" NOMINAL DIAMETER CAST IRON PIPE.
   C. MAXIMUM 6" NOMINAL DIAMETER COPPER PIPE.
   D. MAXIMUM 6" NOMINAL DIAMETER STEEL CONDUIT.
   E. MAXIMUM 4" NOMINAL DIAMETER EMT.
4. MINIMUM 2" THICKNESS MINERAL WOOL (MINIMUM 4 PCF DENSITY) TIGHTLY PACKED.
5. MINIMUM 1/2" DEPTH HILTI FS-ONE INTUMESCENT FIRESTOP SEALANT.
6. MINIMUM 1/2" BEAD HILTI FS-ONE INTUMESCENT FIRESTOP SEALANT AT POINT OF CONTACT.

NOTES : 1. MAXIMUM DIAMETER OF OPENING = 31-7/8".
2. ANNULAR SPACE = MINIMUM 0", MAXIMUM 1-7/8".

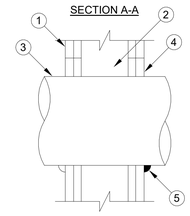
UL/cUL SYSTEM NO. W-L-1054
METAL PIPE THROUGH GYPSUM WALL ASSEMBLY

F-RATING = 1-HR. OR 2-HR.
T-RATING = 0-HR.
L-RATING AT AMBIENT = LESS THAN 1 CFM / SQ FT
L-RATING AT 400°F = LESS THAN 1 CFM / SQ FT

FRONT VIEW



SECTION A-A



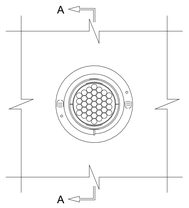
1. GYPSUM WALL ASSEMBLY (UL/cUL CLASSIFIED U300 OR U400 SERIES) (1-HR. OR 2-HR. FIRE-RATING) (2-HR. SHOWN).
2. [NOT SHOWN] WOOD STUDS TO CONSIST OF NOMINAL 2" x 4" LUMBER. STEEL STUDS TO BE MINIMUM 2-1/2" WIDE.
3. PENETRATING ITEM TO BE ONE OF THE FOLLOWING :
   A. MAXIMUM 30" DIAMETER STEEL PIPE (SCHEDULE 10 OR HEAVIER).
   B. MAXIMUM 30" DIAMETER CAST IRON PIPE.
   C. MAXIMUM 6" NOMINAL DIAMETER COPPER PIPE.
   D. MAXIMUM 6" NOMINAL DIAMETER STEEL CONDUIT.
   E. MAXIMUM 4" NOMINAL DIAMETER EMT.
4. MINIMUM 5/8" DEPTH HILTI FS-ONE INTUMESCENT FIRESTOP SEALANT.
5. MINIMUM 1/2" BEAD HILTI FS-ONE INTUMESCENT FIRESTOP SEALANT APPLIED AT POINT OF CONTACT.

NOTES : 1. MAXIMUM DIAMETER OF OPENING :
A. 32-1/4" FOR STEEL STUD WALLS.
B. 14-1/2" FOR WOOD STUD WALLS.
2. ANNULAR SPACE = MINIMUM 0", MAXIMUM 2-1/4".
3. PIPE MAY BE INSTALLED WITH CONTINUOUS POINT OF CONTACT.
4. PIPE MAY BE INSTALLED AT AN ANGLE NOT GREATER THAN 45° FROM PERPENDICULAR.

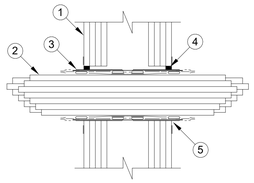
UL/cUL SYSTEM NO. W-L-3334
CABLE BUNDLE THROUGH GYPSUM WALL ASSEMBLY

F-RATING = 1-HR., 2-HR., 3-HR., OR 4-HR.
T-RATING = 0-HR., 1-HR., 1 3/4-HR., 2-HR., 3-HR., OR 4-HR.
L-RATING AT AMBIENT = LESS THAN 1 CFM (SEE TABLE)
L-RATING AT 400°F = 1 OR LESS THAN 1 CFM (SEE TABLE)

FRONT VIEW



SECTION A-A



1. GYPSUM WALL ASSEMBLY (UL/cUL CLASSIFIED U300, U400, OR V400 SERIES) (1-HR., 2-HR., 3-HR., OR 4-HR. FIRE-RATING) (4-HR. SHOWN) TO INCLUDE THE FOLLOWING CONSTRUCTION FEATURES :
   A. [NOT SHOWN] WOOD STUDS TO CONSIST OF NOMINAL 2" x 4" LUMBER (SPACED MAXIMUM 16" OC). STEEL STUDS TO BE MINIMUM 2-1/2" WIDE [FOR 1-HR. OR 2-HR. FIRE-RATING], MINIMUM 3-5/8" WIDE [FOR 3-HR. OR 4-HR. RATING], AND MINIMUM 3-1/2" WIDE [WHEN 3/4" THICK GYPSUM WALLBOARD IS USED] (SPACED MAXIMUM 24" OC).
   B. NOMINAL 5/8" THICK GYPSUM WALLBOARD, TYPE, NUMBER OF LAYERS, AND SHEET ORIENTATION AS SPECIFIED IN THE INDIVIDUAL UL DESIGN (FOR 1-HR. OR 2-HR. FIRE-RATING, MINIMUM ONE LAYER 3/4" THICK GYPSUM WALLBOARD MAY BE USED).
2. CABLE BUNDLE TO BE A COMBINATION OF ANY OF THE FOLLOWING :
   A. MAXIMUM 100 PAIR NO. 24 AWG TELEPHONE CABLE WITH PVC JACKET.
   B. MAXIMUM 7/C NO. 12 AWG COPPER CONDUCTOR CONTROL CABLE WITH PVC OR XLPE JACKET AND INSULATION.
   C. MAXIMUM 4/0 AWG TYPE RHH GROUND CABLE.
   D. MAXIMUM 4 PAIR NO. 22 AWG CAT 5 OR CAT 6 COMPUTER CABLE.
   E. MAXIMUM RG 6/U COAXIAL CABLE.
   F. MAXIMUM 1/2" DIAMETER FIBER-OPTIC CABLE (24 FIBER) WITH PVC OR PE JACKET AND INSULATION.
   G. MAXIMUM 20/C NO. 22 AWG SHIELDED PRINTER CABLE WITH PVC JACKET.
   H. MAXIMUM 2/C NO. 18 AWG POWER OR NON-POWER LIMITED FIRE ALARM CABLE WITH OR WITHOUT METAL JACKET (MANUFACTURED BY AFC CABLE SYSTEMS, INC.).
   I. MAXIMUM 1/4" DIAMETER S-VIDEO CABLE CONSISTING OF TWO MAXIMUM 24 AWG 75 OHM COAX OR TWISTED PAIR CABLE WITH PE INSULATION AND PVC JACKET.
   J. MAXIMUM 3/C NO. 12 AWG METAL CLAD CABLE.
   K. ANY CABLES, METAL-CLAD CABLES, OR ARMORED CABLES CURRENTLY LISTED UNDER THE THROUGH PENETRATING PRODUCTS CATEGORY.
3. HILTI CP 653 SPEED SLEEVE (2" OR 4") SLID INTO AND CENTERED WITHIN WALL. DEVICE FLANGES SPUN CLOCKWISE ONTO DEVICE THREADS, BUTTING TIGHTLY TO BOTH SIDES OF WALL (DEVICE FLANGES ARE OPTIONAL EXCEPT WHEN 3/4" GYPSUM WALLBOARD IS USED) (DEVICE FLANGES ARE REQUIRED WHEN L-RATING IS REQUIRED).
4. MINIMUM 1/2" DEPTH HILTI FS-ONE INTUMESCENT FIRESTOP SEALANT OR CP 606 FLEXIBLE FIRESTOP SEALANT FLUSH WITH BOTH SURFACES OF WALL (SEE NOTE NO. 5 BELOW).
5. MINIMUM 1/4" BEAD HILTI FS-ONE INTUMESCENT FIRESTOP SEALANT OR CP 606 FLEXIBLE FIRESTOP SEALANT APPLIED AROUND PERIPHERY OF DEVICE (SEE NOTE NO. 5 BELOW).

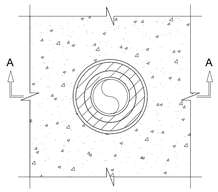
	-				

NOTES : 1. MAXIMUM DIAMETER OF OPENING = 2-1/2" (FOR 2" DEVICE) OR 4-1/2" (FOR 4" DEVICE).
2. CABLES MAY REPRESENT 0% TO 100% VISUAL FILL OF DEVICE.
3. ANNULAR SPACE BETWEEN DEVICE AND PERIPHERY OF OPENING = MINIMUM 0".
4. L-RATING APPLIES ONLY WHEN FLANGE AND HILTI FS-ONE OR CP 606 FIRESTOP SEALANT ARE USED, AND INNER FABRIC SEAL IS TWISTED CLOSED.
5. AS AN ALTERNATE TO HILTI FS-ONE OR CP 606 FIRESTOP SEALANT, WHEN DEVICE FLANGES ARE USED, GYPSUM DRYWALL COMPOUND MAY BE USED.
6. [OPTIONAL] INNER FABRIC MAY REMAIN OPEN WHEN L-RATING IS NOT REQUIRED.

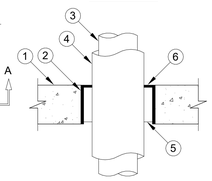
UL/cUL SYSTEM NO. C-AJ-5090
INSULATED METAL PIPE THROUGH CONCRETE FLOOR/WALL OR BLOCK WALL

F-RATING = 2-HR. OR 3-HR.
T-RATING = 0-HR.
L-RATING AT AMBIENT = 4 CFM/SQ. FT.
L-RATING AT 400°F = LESS THAN 1 CFM/SQ. FT.

FRONT VIEW



SECTION A-A



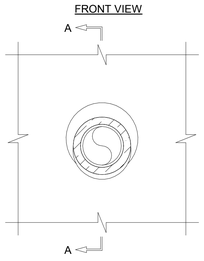
1. CONCRETE FLOOR OR WALL ASSEMBLY (2-HR. OR 3-HR. FIRE-RATING) :
   A. LIGHTWEIGHT OR NORMAL WEIGHT CONCRETE FLOOR OR WALL (MINIMUM 4-1/2" THICK).
   B. ANY UL/cUL CLASSIFIED CONCRETE BLOCK WALL.
2. OPTIONAL: MAXIMUM 18" NOMINAL DIAMETER STEEL PIPE SLEEVE (SCHEDULE 10 OR HEAVIER) MAY EXTEND MAXIMUM 3" ABOVE FLOOR, OR BOTH SURFACES OF WALL.
3. PENETRATING ITEM TO BE ONE OF THE FOLLOWING :
   A. MAXIMUM 4" NOMINAL DIAMETER STEEL PIPE (SCHEDULE 5 OR HEAVIER).
   B. MAXIMUM 4" NOMINAL DIAMETER COPPER PIPE OR TUBING.
4. MINIMUM 1/2" TO MAXIMUM 3/4" THICK AB/PVC PIPE INSULATION. NOMINAL 1" THICK AB/PVC PIPE INSULATION MAY BE USED ON 3" PIPES AND SMALLER FOR A MAXIMUM 2-HR. FIRE-RATING.
5. MINIMUM 4" THICKNESS MINERAL WOOL (MIN. 4 PCF DENSITY) TIGHTLY PACKED.
6. MINIMUM 1/4" DEPTH HILTI FS-ONE INTUMESCENT FIRESTOP SEALANT, WHEN MAXIMUM ANNULAR SPACE DOES NOT EXCEED 1-1/2". WHEN MAXIMUM ANNULAR SPACE DOES EXCEED 1-1/2", APPLY MINIMUM 1/2" DEPTH HILTI FS-ONE INTUMESCENT FIRESTOP SEALANT.

NOTES : 1. MAXIMUM DIAMETER OF OPENING = 18".
2. ANNULAR SPACE [FOR 2-HR. FIRE-RATING] = MINIMUM 1/2", MAXIMUM 12".
3. ANNULAR SPACE [FOR 3-HR. FIRE-RATING] = MINIMUM 1/2", MAXIMUM 1-1/2".
4. HILTI FS-ONE INTUMESCENT FIRESTOP SEALANT IS REQUIRED ON BOTH SIDES OF A WALL.

UL/cUL SYSTEM NO. W-L-5028
INSULATED METAL PIPE THROUGH GYPSUM WALL ASSEMBLY

F-RATING = 1-HR. OR 2-HR.
T-RATING = 0-HR., 3/4-HR., OR 1-HR.
L-RATING AT AMBIENT = LESS THAN 1 CFM / SQ FT
L-RATING AT 400°F = LESS THAN 1 CFM / SQ FT

FRONT VIEW



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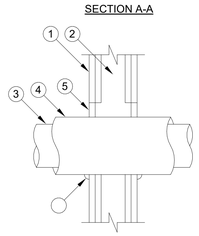


1. GYPSUM WALL ASSEMBLY (UL/cUL CLASSIFIED U300, U400, V400, OR W400 SERIES) (1-HR. OR 2-HR. FIRE-RATING) (2-HR. SHOWN).
2. [NOT SHOWN] WOOD STUDS TO CONSIST OF NOMINAL 2" x 4" LUMBER. STEEL STUDS TO BE MINIMUM 2-1/2" WIDE.
3. PENETRATING ITEM TO BE ONE OF THE FOLLOWING :
   A. MAXIMUM 4" NOMINAL DIAMETER STEEL PIPE (SCHEDULE 40 OR HEAVIER).
   B. MAXIMUM 2" NOMINAL DIAMETER COPPER PIPE OR TUBING.
4. MINIMUM 1/2" TO MAXIMUM 1" THICK AB/PVC FLEXIBLE FOAM PIPE INSULATION.
5. MINIMUM 5/8" DEPTH HILTI FS-ONE HIGH PERFORMANCE INTUMESCENT FIRESTOP SEALANT.
6. MINIMUM 1/2" BEAD HILTI FS-ONE INTUMESCENT FIRESTOP SEALANT APPLIED AT POINT OF CONTACT.

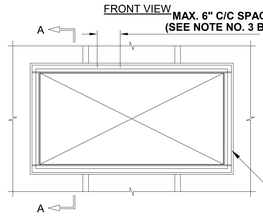
NOTES : 1. MAXIMUM DIAMETER OF OPENING = 7-1/2".
2. ANNULAR SPACE = MINIMUM 0", MAXIMUM 1-1/2".

UL/cUL SYSTEM NO. W-L-7040
METAL DUCT (WITHOUT DAMPER) THROUGH GYPSUM WALL ASSEMBLY

F-RATING = 1-HR. OR 2-HR.
T-RATING = 0-HR.
L-RATING AT AMBIENT = LESS THAN 1 CFM/SQ. FT.
L-RATING AT 400°F = LESS THAN 1 CFM/SQ. FT.

FRONT VIEW

MAX. 6" C/C SPACING (SEE NOTE NO. 3 BELOW)



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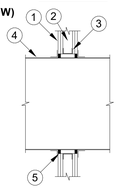


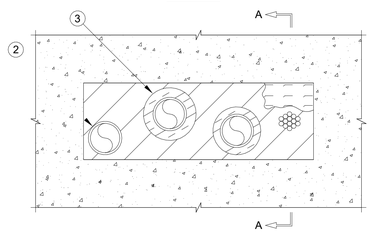
1. GYPSUM WALL ASSEMBLY (UL/cUL CLASSIFIED U300 OR U400 SERIES WALL) (1-HR. OR 2-HR. FIRE-RATING) (2-HR. SHOWN).
2. (NOT SHOWN). WOOD STUDS TO CONSIST OF NOMINAL 2" x 4" LUMBER. STEEL STUDS TO BE MINIMUM 2-1/2" WIDE.
3. OPENING TO BE "FRAMED OUT" WITH LIGHT GAUGE METAL FRAMING STUDS.
4. MAXIMUM 48" x 24" RECTANGULAR SHEET METAL DUCT (MIN. 24 GA.)
   NOTE : NOT FOR USE IN DUCT SYSTEMS CONTAINING A FIRE DAMPER
5. MINIMUM 5/8" DEPTH HILTI FS-ONE INTUMESCENT FIRESTOP SEALANT, HILTI CP 601S ELASTOMERIC FIRESTOP SEALANT, OR HILTI CP 606 FLEXIBLE FIRESTOP SEALANT AT POINT OF CONTACT PRIOR TO ATTACHING STEEL ANGLE.
6. [NOT SHOWN] APPLY MINIMUM 1/2" BEAD HILTI FS-ONE INTUMESCENT FIRESTOP SEALANT, HILTI CP 601S ELASTOMERIC FIRESTOP SEALANT, OR HILTI CP 606 FLEXIBLE FIRESTOP SEALANT AT POINT OF CONTACT PRIOR TO ATTACHING STEEL ANGLE.

NOTES : 1. MAXIMUM AREA OF OPENING = 1300 SQ. IN., WITH A MAXIMUM DIMENSION OF 50".
2. ANNULAR SPACE = MINIMUM 0", MAXIMUM 2".
3. AFTER SEALING SPACE BETWEEN DUCT AND GYPSUM WALL ASSEMBLY WITH HILTI FIRESTOP SEALANT, FASTEN STEEL ANGLE (MIN. 18 GA.) TO DUCT WITH MINIMUM NO. 8 x 3/4" LONG SHEET METAL SCREWS. STEEL ANGLE TO OVERLAP DUCT BY MINIMUM 2" AND GYPSUM WALL ASSEMBLY BY MINIMUM 1". ANGLE DOES NOT HAVE TO BE FASTENED TO GYPSUM WALL ASSEMBLY. WHEN DUCT IS AT POINT OF CONTACT, ANGLES TO BE INSTALLED PRIOR TO FULL MATERIAL CURING.

UL/cUL SYSTEM NO. C-AJ-8099
MULTIPLE PENETRATING ITEMS THROUGH CONCRETE FLOOR/WALL OR BLOCK WALL

F-RATING = 3-HR.
T-RATING = 0-HR. OR 3/4-HR.

TOP VIEW



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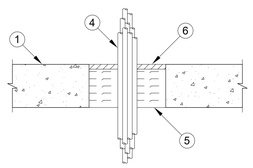

F-RATING = 3-HR.
T-RATING = 0-HR. OR 3/4-HR.

1. CONCRETE FLOOR OR WALL ASSEMBLY (3-HR. FIRE-RATING) :
   A. LIGHTWEIGHT OR NORMAL WEIGHT CONCRETE FLOOR (MINIMUM 4-1/2" THICK).
   B. LIGHTWEIGHT OR NORMAL WEIGHT CONCRETE WALL (MINIMUM 5" THICK).
   C. PRECAST (HOLLOW-CORE) CONCRETE FLOOR (MINIMUM 6" THICK).
   D. ANY UL CLASSIFIED CONCRETE BLOCK WALL.
2. ONE OR MORE OF THE FOLLOWING PIPES, AND IN ANY COMBINATION MAY BE INSTALLED WITHIN THE OPENING :
   A. MAXIMUM 3" NOMINAL DIAMETER STEEL PIPE (SCHEDULE 10 OR HEAVIER).
   B. MAXIMUM 3" NOMINAL DIAMETER CAST IRON PIPE.
   C. MAXIMUM 3" NOMINAL DIAMETER COPPER PIPE.
   D. MAXIMUM 3" NOMINAL DIAMETER STEEL CONDUIT OR EMT.
   E. MAXIMUM 1" NOMINAL DIAMETER FLEXIBLE STEEL CONDUIT.
   E. MAXIMUM 2" NOMINAL DIAMETER FLEXIBLE STEEL GAS PIPING (WITH OR WITHOUT PLASTIC COVERING) MANUFACTURED BY OMEGA FLEX, INC. OR WARD MFG., INC.
   F. MAXIMUM 1" NOMINAL DIAMETER FLEXIBLE STEEL GAS PIPING (WITH OR WITHOUT PLASTIC COVERING) MANUFACTURED BY GASTITE, DIVISION OF TITEFLEX.
3. [OPTIONAL] ANY OR ALL PIPES MAY BE INSULATED WITH MAXIMUM 1" THICK GLASS-FIBER OR MAXIMUM 3/4" THICK AB/PVC PIPE INSULATION.
4. MAXIMUM 2" DIAMETER CABLE BUNDLE TO CONSIST OF ANY OF THE FOLLOWING :
   A. MAXIMUM 300 PAIR NO. 24 AWG TELEPHONE CABLE WITH PVC JACKET.
   B. MAXIMUM 500 KCMIL POWER CABLE WITH PVC JACKET.
   C. MAXIMUM 7/C NO. 12 AWG POWER CABLE WITH PVC JACKET.
   D. MAXIMUM 1/2" DIAMETER FIBER-OPTIC CABLE (24 FIBER).
   E. MAXIMUM 3/C NO. 12 AWG METAL-CLAD CABLE.
5. MINIMUM 4" THICKNESS MINERAL WOOL (MIN. 4 PCF DENSITY) TIGHTLY PACKED. WHEN INSTALLED IN PRECAST (HOLLOW-CORE) CONCRETE FLOOR, MINERAL WOOL TO FILL FLOOR, FLUSH WITH BOTTOM AND RECESSED TO ACCOMMODATE SEALANT ON TOP SIDE.
6. MINIMUM 1/2" DEPTH HILTI FS-ONE INTUMESCENT FIRESTOP SEALANT.

NOTES : 1. MAXIMUM AREA OF SQUARE, RECTANGULAR, OR CIRCULAR OPENING IS 192 SQ. IN. WITH A MAXIMUM DIMENSION OF 24" IN NORMAL CONCRETE, 49 SQ. IN. WITH A MAXIMUM DIMENSION OF 7" IN PRECAST (HOLLOW-CORE) CONCRETE.
2. ANNULAR SPACE BETWEEN CABLE BUNDLE, PIPES, AND INSULATED PIPES = MINIMUM 1/2", MAXIMUM 3-1/8".
3. ANNULAR SPACE BETWEEN PIPES/INSULATED PIPES AND PERIPHERY OF OPENING = MINIMUM 1/2", MAXIMUM 5".
4. ANNULAR SPACE BETWEEN CABLE BUNDLE & PERIPHERY OF OPENING = MIN. 2", MAX. 4".
5. MINIMUM 1/2" DEPTH HILTI FS-ONE INTUMESCENT FIRESTOP SEALANT IS REQUIRED ON BOTH SIDES OF A WALL ASSEMBLY.

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PROJECT NO: 22287

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#	DATE	REVISION

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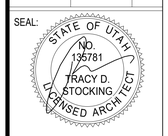
05/17/2024
Shums Coda Associates

BIOMEDICAL POLYMERS RESEARCH BUILDING - LEVEL 2

20 SOUTH 2030 EAST, SALT LAKE CITY, UTAH 84112

CONSTRUCTION DOCUMENTS

SEAL:



DATE:	PROJECT #:
05/03/2024	23027

SHEET NAME:
FIRE PENETRATION DETAILS

SHEET #:
G520

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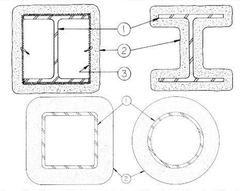
5/6/2024 9:42:54 AM

Design No. X790

Ratings — 1, 1-1/2, 2, 3 and 4 Hr.

When used in Canada it is required that all materials included within the UL design are also cUL certified.



1. **Steel Column, Steel Pipe or Steel Tube** — Wide flange steel column (W) or steel circular pipe (SP) or steel square or rectangular tube (ST), min sizes as shown in the tables below.
2. **Spray-Applied Fire Resistive Materials*** — Applied by mixing with water and spraying in one or more coats to the thicknesses shown below, to steel surfaces which are clean and free of dirt, loose scale, and oil. Min average and min individual density of 15 and 14 pcf. for Types 300, 300ES, 300HS, 300N, 300D, 3000ES and SB. For Types 400AC and 400ES min average and min individual density of 22 and 19 pcf, respectively. For method of density determination, see Design Information Section, Sprayed Material.
   The min thickness of Spray-Applied Fire Resistive Materials required for various fire resistance ratings of contour sprayed or boxed wide flange columns are shown in the table below:

Column Size	W/D	Min Thkns In. 1 Hr	1-1/2 Hr	2 Hr	3 Hr	4 Hr
W8x49	0.33	15/16	1-1/4	1-9/16	2-1/8	2-11/16
W8x12	0.43	11/16	1	1-7/16	2	2-9/16
W8x16	0.57	11/16	1	1-5/16	1-7/8	2-3/8
W8x28	0.68	5/8	15/16	1-1/4	1-13/16	2-5/16
W10x49	0.83	9/16	13/16	1-1/8	1-5/8	2-1/8
W12x106	1.46	3/8	9/16	13/16	1-1/4	1-11/16
W14x233	2.52	1/4	3/8	1/2	7/8	1-3/16
W14x730	6.68	1/4	1/4	1/4	3/8	1/2

As an alternate to the above table, the required thickness of Spray-Applied Fire Resistive Materials to be applied to all surfaces of the steel columns for all rating periods may be determined from the following equations:

$$h = \frac{R}{75\ (W/D)\ +\ 32}$$

(for column W/D range of 0.33 to 2.51)

$$h = \frac{R}{75\ (W/D)\ +\ 15}$$

(for column W/D range of 2.51 to 6.68)

Where:
h = Spray-Applied Fire Resistive Materials thickness in the range of 1/4 to 4-1/2 in. (rounded up to the nearest 1/16 in.)
R = Fire resistance rating period in minutes (60-240 mins.)
D = Heated perimeter of the steel column in inches.
W = Weight of the steel column in lbs per foot.

The thicknesses contained in the table below are applicable when the Spray-Applied Fire Resistive Materials applied to the column's flange tips are reduced to one-half that shown in the table below (for contour application):

Column Size In.	Min Thkns In. 1 Hr	1-1/2 Hr	2 Hr	3 Hr	4 Hr
W8x49	1	1-3/8	1-3/4	2-7/16	3-1/8
W8x12	7/8	1-1/4	1-5/8	2-5/16	3-1/16
W8x16	3/4	1-1/8	1-7/16	2-1/16	2-11/16
W8x28	11/16	1	1-5/16	1-15/16	2-1/2
W10x49	5/8	15/16	1-3/16	1-3/4	2-3/8
W12x106	3/8	5/8	7/8	1-3/8	1-13/16
W14x233	5/16	3/8	9/16	15/16	1-5/16
W14x730	5/16	5/16	5/16	7/16	5/8

The min thickness of Spray-Applied Fire Resistive Materials required for various fire resistance ratings of contour sprayed steel pipes or tubes are shown on the table below:

Min Column Size In.	A/P	1 Hr	1-1/2 Hr	Min Thkns In. 2 Hr	3 Hr	4 Hr
SP 6x0.237	0.22	11/16	1	1-3/8	2-1/16	2-3/4

Min Column Size In.	A/P	1 Hr	1-1/2 Hr	Min Thkns In. 2 Hr	3 Hr	4 Hr
ST 6x0.1875	0.18	3/4	1-1/16	1-7/16	2-1/16	2-11/16
ST 6x0.3125	0.29	1/2	15/16	1-1/8	1-3/4	2-5/16
ST 6x0.375	0.34	7/16	3/4	1	1-9/16	2-1/8
ST 6x0.625	0.44	3/8	9/16	7/8	1-3/8	1-7/8
ST20x20x0.75 in	0.72	5/16	1/2	11/16	1-1/16	1-7/16
ST20x20x1 in.	0.95	1/4	3/8	1/2	15/16	1-1/8
ST20x20x1.5 in.	1.39	1/4	1/4	3/8	5/8	13/16
ST20x20x1.75 in.	1.60	1/4	1/4	3/8	1/2	3/4
ST32x32x1.25 in.	1.20	1/4	5/16	7/16	11/16	15/16
ST 36x24x0.5	0.49	5/16	7/16	11/16	1-1/8	1-9/16

As an alternate to the table above, the required thickness of Spray-Applied Fire Resistive Materials to be applied to all surfaces of the steel pipes or tubes for all rating periods may be determined from the following equation:

$$h = \frac{R}{188\ (A/P)\ +\ 45}$$

Where:
h = Spray-Applied Fire Resistive Materials thickness in the range of 5/16 to 4-1/4 in. (rounded up to the nearest 1/16 in.)
R = Fire resistance rating in minutes (60-240 mins.)
A = Cross-sectional area of pipe or tube.
P = Heated perimeter of steel pipe or tube.
A / P = 0.18 to 0.49.
The A/P ratio of a circular pipe is determined by:

$$A/P = \frac{t\ (d\ —\ t)}{d}$$

Where:
d = the outer diameter of the pipe (in.)
t = the wall thickness of the pipe (in.)
The A/P ratio of a rectangular tube is determined by:

$$A/P = \frac{t\ (a\ +\ b—2t)}{a\ +\ b}$$

Where:
a = the outer width of the tube (in.)
b = the outer length of the tube (in.)
t = the wall thickness of the tube (in.)

ISOLATEK INTERNATIONAL — Types 300, 300ES, 300N or SB.

[redacted]

NEWKEM PRODUCTS CORP — Types 300, 300ES, 300N or SB.

2A. **(As an alternate to Item 2) Spray-Applied Fire Resistive Materials*** — Applied by mixing with water and spraying in one or more coats to the thicknesses shown below, to steel surfaces which are clean and free of dirt, loose scale, and oil. Min average and min individual density of 17.5 and 16 pcf, respectively, for Type 300TW. Min average and min individual density of 22 and 19 pcf, respectively, for Type 400. For method of density determination, see Design Information Section, Sprayed Material.
   The min thickness of Spray-Applied Fire Resistive Materials required for various fire resistance ratings is shown in Item 2.

BERLIN CO LTD — Type 400.

ISOLATEK INTERNATIONAL — Type 300TW or Type 400

[redacted]

NEWKEM PRODUCTS CORP — Type 400.

2B. **(As an alternate to Item 2 and 2A) — Spray-Applied Fire Resistive Materials*** — Prepared by mixing with water according to instructions on each bag of mixture and spray- or trowel-applied to steel surfaces which are free of dirt, oil or scale. Min average density of 17.5 pcf with min individual value of 17.0 pcf. For method of density determination, see Design Information Section, Sprayed Material.
   The min thickness of Spray-Applied Fire Resistive Materials required for various fire resistance ratings is shown in Item 2.

ISOLATEK INTERNATIONAL — Type 280.

3. **Metal Lath** — (Optional for contour application) — 3.4 lb/sq yd galv or painted expanded steel lath. Lath shall be lapped 1 in. and tied together with No. 18 SWG galv steel wire spaced vertically 6 in. O.C.

*Bearing the UL Classification Mark

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PROJECT NO: 22287

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05/17/2024
Shums Coda Associates

BIOMEDICAL POLYMERS RESEARCH BUILDING - LEVEL 2

20 SOUTH 2030 EAST, SALT LAKE CITY, UTAH 84112

CONSTRUCTION DOCUMENTS

SEAL:

STATE OF UTAH
NO. 136781
TRACY D. STOCKING
LICENSED ARCHITECT

DATE: 05/03/2024
PROJECT #: 23027

SHEET NAME:
FIRE PROOFING REQUIREMENTS

SHEET #:
G540

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5/6/2024 9:42:55 AM



LEVEL 2 - DEMOLITION PLAN 1
1/8" = 1'-0" AD101

N

GENERAL NOTES - DEMOLITION

A. DEMOLISH, REMOVE AND DISPOSE OF ALL ITEMS SHOWN DASHED ON DEMOLITION PLAN. INCLUDE ALL RELATED UTILITIES AND ACCESSORIES.
B. GENERAL CONTRACTOR SHALL VERIFY ALL EXISTING SITE AND BUILDING CONDITIONS INCLUDING BUT NOT LIMITED TO UNDERGROUND UTILITIES AND SERVICE LINES, IRRIGATION LINES AND SUB SURFACE STRUCTURES AND ALL OTHER EXISTING CONSTRUCTION BOTH ABOVE AND BELOW GRADE. NOTIFY ARCHITECT OF ANY DISCREPANCIES PRIOR TO COMMENCING WORK.
C. ADDITIONAL DEMOLITION MAY BE REQUIRED FOR ACCESS AND ROUTING OF UTILITIES. COORDINATE WITH APPROPRIATE PLANS.
D. SEE SITE DEMOLITION PLAN FOR RELATED REQUIREMENTS, IF ANY.
E. PROTECT ALL EXISTING CONSTRUCTION TO REMAIN FROM DAMAGE. REPAIR DAMAGE TO EXISTING CONSTRUCTION RESULTING FROM DEMOLITION OR CONSTRUCTION AND/OR REPLACE WITH NEW TO MATCH EXISTING.
F. PROTECT ADJACENT AREAS FROM DUST, DEBRIS AND DISRUPTION DURING DEMOLITION OPERATIONS. COORDINATE WITH ALL IMPACTED OCCUPANTS AS DIRECTED BY OWNER TO MINIMIZE DISRUPTION. RETURN ADJACENT AREAS TO PRE-EXISTING CONDITION AFTER DEMOLITION OPERATIONS ARE COMPLETE.
G. CONTRACTOR SHALL BE FULLY RESPONSIBLE TO PROTECT THE EXISTING BUILDINGS FROM ANY WATER PENETRATION OR ASSOCIATED DAMAGE DURING THE ENTIRE COURSE OF DEMOLITION AND CONSTRUCTION. INCLUDED ALL NECESSARY PRECAUTIONS & MEASURES IN THE BASE BID.
H. DEMOLITION AND CONSTRUCTION SHALL CONFORM TO THE REQUIREMENTS OF INTERNATIONAL FIRE CODE CHAPTER 33 AS ADOPTED.
I. SEE MECHANICAL, PLUMBING AND ELECTRICAL DRAWINGS FOR ADDITIONAL INFORMATION. COORDINATE DISCREPANCIES WITH ARCHITECT PRIOR TO COMMENCING WITH WORK
J. TEMPORARY PROTECT OR DISABLE EXISTING FIRE / SMOKE ALARM SYSTEM AS DIRECTED BY FIRE AUTHORITY OR FACILITY MANAGER.
K. COMMENCING PRIOR TO START OF DEMOLITION MEET W/ OWNER TO SELECT ALL ITEMS TO BE SALVAGED TO OWNER. ALL ITEMS TO BE SALVAGED FOR RE-USE OR TO OWNER, ARE TO BE PROTECTED AND REMOVED AND RE-INSTALLED WITHOUT DAMAGE.
L. CAP RETURN AND SUPPLY DUCT OPENINGS WITHIN AREA WORK UNTIL CONSTRUCTION HAS BEEN COMPLETED. COORDINATE WITH REQUIREMENTS IN MECHANICAL DOCUMENTS.
M. CONSTRUCTION BARRIERS ARE TO EXTEND FROM FLOOR TO (E) CEILING WITH FIRE RESISTANT MEMBRANE TO DECK. SEAL TIGHT ALL PENETRATIONS.
N. DEACTIVATE SPRINKLER HEADS IN CONSTRUCTION AREA. ONLY SPRINKLER HEADS OUTSIDE AREA TO REMAIN ACTIVE. COORDINATE WITH FIRE AUTHORITY AND FACILITY MANAGER.
O. TRANSPORT DEMOLISHED MATERIALS OFF OWNER'S PROPERTY AND LEGALLY DISPOSE OF DEBRIS. COMPLY WITH WASTE-STREAM DIVERSION PER CONTRACT.

KEYNOTES

02.01 DEMOLISH COMPLETE TO EXTENT SHOWN AND REQUIRED FOR NEW WORK ALL FLOOR FINISHES DOWN TO SLAB, WALL FINISHES, CASEWORK, CEILING, FINISHES, ACCESSORIES, SIGNAGE, WALL PROTECTION, HVAC COMPONENTS, PLUMBING COMPONENTS, ELECTRICAL FIXTURES AND DEVICES , ETC. UNLESS NOTED OTHERWISE.
02.03 DEMOLISH (E) VCT FLOORING, ADHESIVE, AND RUBBER BASE COMPLETE AND PREPARE FOR NEW FINISH, TYPICAL.
02.04 DEMOLISH (E) CARPET, ADHESIVE, AND BASE COMPLETE AND PREPARE FOR NEW FINISH
02.06 KITCHEN FLOOR, WALLS, CABINETS AND PLUMBING ARE TO REMAIN. PROTECT IN PLACE
02.07 DEMOLISH (E) CARPET, ADHESIVE, AND BASE COMPLETE UP TO, BUT NOT INCLUDING, THE 3RD LEVEL LANDING. PREPARE SURFACE FOR NEW FINISH
02.08 OWNER TO REMOVE EXISTING OFFICE FURNITURE PRIOR TO DEMOLISH AND COORDINATE REINSTALL BY OWNER AT LATER DATE
02.09 DEMOLISH EXISTING BOOKCASE
02.10 DEMOLISH EXISTING OFFICE FURNITURE
02.11 DEMOLISH BOLT IN SHELVING
02.26 DEMOLISH CURTAIN AND ROD
02.27 DEMOLISH ALL WINDOW COVERINGS AND REPLACE WITH NEW, TYPICAL ALL WINDOWS
02.28 DEMOLISH GYPSUM BOARD FROM BOTTOM OF WINDOW SILL TO FLOOR LEVEL AT GRIDLINE 'A-3' TO GRIDLINE 'A-10' AND GRIDLINE 'D-3' TO GRIDLINE 'D-6', TYPICAL.
02.29 EXISTING WINDOW SILL TO REMAIN - PROTECT DURING CONSTRUCTION, TYPICAL
02.32 (E) BLINDS TO REMAIN
02.74 SALVAGE (E) FIRE EXTINGUISHER, PROTECT DURING CONSTRUCTION AND RE-INSTALL WITH NEW MOUNT BRACKET IN SAME LOCATION. TYPICAL
11.05 EXISTING CHEMICAL HOOD TO BE DEMOLISHED, SALVAGE HOOD/PARTS FOR REUSE AND COORDINATE WITH OWNER- SEE MECHANICAL DRAWINGS
11.06 SALVAGE EXISTING CHEMICAL HOOD, PROTECT DURING CONSTRUCTION AND REINSTALL HOOD/PARTS IN BEST CONDITION. CONTRACTOR SHALL TEST AND RE-BALANCE HOOD AND SEND TAB REPORT TO EHS - SEE MECHANICAL DRAWINGS
21.01 (E) FIRE ALARM PANELS TO REMAIN, PROTECT IN PLACE

SCOPE LEGEND

SCOPE
NOT IN SCOPE

DEMOLITION LEGEND

EXISTING WALL TO REMAIN
WALL TO BE DEMOLISHED
EXISTING DOOR TO REMAIN
DOOR TO BE REMOVED
NEW DOOR - SEE DOOR TYPES

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BIOMEDICAL POLYMERS RESEARCH BUILDING - LEVEL 2

20 SOUTH 2030 EAST, SALT LAKE CITY, UTAH 84112

CONSTRUCTION DOCUMENTS

SEAL:
STATE OF UTAH
NO. 135781
TRACY D. STOCKING
LICENSED ARCHITECT

DATE: 05/03/2024
PROJECT #: 23027

SHEET NAME:
LEVEL 2
DEMOLITION PLAN

SHEET #: AD101

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NOTES:
1. BUILDING STRUCTURE IS A CONCRETE PAN JOIST SYSTEM. ALL INTERIOR WALLS ARE NON-BEARING.
2. ANY SPRAY-ON FIRE RESISTIVE COVERING OVER STRUCTURAL ELEMENTS WHERE DAMAGED OR REMOVED SHALL BE RESPRAYED WITH EQUAL PROTECTION.
3. CONTRACTOR TO ENSURE THAT ADA FUNCTION IS NOT COMPROMISED DURING DEMOLITION.



LEVEL 2 - DEMOLITION RCP
1/8" = 1'-0" AD141

GENERAL NOTES - DEMOLITION

A. DEMOLISH, REMOVE AND DISPOSE OF ALL ITEMS SHOWN DASHED ON DEMOLITION PLAN. INCLUDE ALL RELATED UTILITIES AND ACCESSORIES.
B. GENERAL CONTRACTOR SHALL VERIFY ALL EXISTING SITE AND BUILDING CONDITIONS INCLUDING BUT NOT LIMITED TO UNDERGROUND UTILITIES AND SERVICE LINES, IRRIGATION LINES AND SUB SURFACE STRUCTURES AND ALL OTHER EXISTING CONSTRUCTION BOTH ABOVE AND BELOW GRADE. NOTIFY ARCHITECT OF ANY DISCREPANCIES PRIOR TO COMMENCING WORK.
C. ADDITIONAL DEMOLITION MAY BE REQUIRED FOR ACCESS AND ROUTING OF UTILITIES. COORDINATE WITH APPROPRIATE PLANS.
D. SEE SITE DEMOLITION PLAN FOR RELATED REQUIREMENTS, IF ANY.
E. PROTECT ALL EXISTING CONSTRUCTION TO REMAIN FROM DAMAGE. REPAIR DAMAGE TO EXISTING CONSTRUCTION RESULTING FROM DEMOLITION OR CONSTRUCTION AND/OR REPLACE WITH NEW TO MATCH EXISTING.
F. PROTECT ADJACENT AREAS FROM DUST, DEBRIS AND DISRUPTION DURING DEMOLITION OPERATIONS. COORDINATE WITH ALL IMPACTED OCCUPANTS AS DIRECTED BY OWNER TO MINIMIZE DISRUPTION. RETURN ADJACENT AREAS TO PRE-EXISTING CONDITION AFTER DEMOLITION OPERATIONS ARE COMPLETE.
G. CONTRACTOR SHALL BE FULLY RESPONSIBLE TO PROTECT THE EXISTING BUILDINGS FROM ANY WATER PENETRATION OR ASSOCIATED DAMAGE DURING THE ENTIRE COURSE OF DEMOLITION AND CONSTRUCTION. INCLUDED ALL NECESSARY PRECAUTIONS & MEASURES IN THE BASE BID.
H. DEMOLITION AND CONSTRUCTION SHALL CONFORM TO THE REQUIREMENTS OF INTERNATIONAL FIRE CODE CHAPTER 33 AS ADOPTED.
I. SEE MECHANICAL, PLUMBING AND ELECTRICAL DRAWINGS FOR ADDITIONAL INFORMATION. COORDINATE DISCREPANCIES WITH ARCHITECT PRIOR TO COMMENCING WITH WORK
J. TEMPORARY PROTECT OR DISABLE EXISTING FIRE / SMOKE ALARM SYSTEM AS DIRECTED BY FIRE AUTHORITY OR FACILITY MANAGER.
K. COMMENCING PRIOR TO START OF DEMOLITION MEET W/ OWNER TO SELECT ALL ITEMS TO BE SALVAGED TO OWNER. ALL ITEMS TO BE SALVAGED FOR RE-USE OR TO OWNER, ARE TO BE PROTECTED AND REMOVED AND RE-INSTALLED WITHOUT DAMAGE.
L. CAP RETURN AND SUPPLY DUCT OPENINGS WITHIN AREA WORK UNTIL CONSTRUCTION HAS BEEN COMPLETED. COORDINATE WITH REQUIREMENTS IN MECHANICAL DOCUMENTS.
M. CONSTRUCTION BARRIERS ARE TO EXTEND FROM FLOOR TO (E) CEILING WITH FIRE RESISTANT MEMBRANE TO DECK. SEAL TIGHT ALL PENETRATIONS.
N. DEACTIVATE SPRINKLER HEADS IN CONSTRUCTION AREA. ONLY SPRINKLER HEADS OUTSIDE AREA TO REMAIN ACTIVE. COORDINATE WITH FIRE AUTHORITY AND FACILITY MANAGER.
O. TRANSPORT DEMOLISHED MATERIALS OFF OWNER'S PROPERTY AND LEGALLY DISPOSE OF DEBRIS. COMPLY WITH WASTE-STREAM DIVERSION PER CONTRACT.

KEYNOTES

02.31 DEMOLISH WALL AND ALL ASSOCIATED ELEMENTS TO DECK, TYPICAL
02.41 DEMOLISH PROJECTOR SCREEN AND ASSOCIATED ELECTRICAL
02.42 DEMOLISH (E) LIGHTING, TYPICAL - SEE ELECTRICAL DRAWINGS
02.43 DEMOLISH (E) HVAC REGISTERS AND GRILLES, TYPICAL - SEE MECHANICAL DRAWINGS
02.44 DEMO (E) CEILING TILE AND REPLACE, GRID TO REMAIN
02.72 (E) MECHANICAL DIFFUSER TO REMAIN
02.73 DEMOLISH (E) MEP ON HALLWAY WALLS AND REINSTALL

LEGEND - REFLECTED CEILING PLANS

EXISTING		DEMO	NEW
	2X4 LAY-IN TROFFER LIGHT FIXTURE		
	2X2 LAY-IN TROFFER LIGHT FIXTURE		
	SUSPENDED INDIRECT LIGHT FIXTURE		
	SUSPENDED INDIRECT LINEAR MOUNT LIGHT FIXTURE		
	LINEAR WALL MOUNT LIGHT FIXTURE		
	AIR TERMINAL		
	HVAC SUPPLY GRILLE		
	HVAC RETURN GRILLE		
	HVAC EXHAUST GRILLE		
	FIRE SPRINKLER HEAD		
	LIGHTED EXIT SIGN		
	RECESSED CAN LIGHT FIXTURE		
C	CAMERA	C	C
S	HEAT/SMOKE DETECTOR	S	S
	RECESSED SOUND SPEAKER		
	CEILING ACEES PANEL		
	CEILING SERVICE PANEL		
	2X4 SUSPENDED ACOUSTICAL CEILING SYSTEM		C1
	2X2 SUSPENDED ACOUSTICAL CEILING SYSTEM		C2
NON EXISTING	5/8" GYPSUM BOARD SUSPENDED CEILING SYSTEM	NON EXISTING	C3
	12X12 ACT ADHERED TO 5/8" GYPSUM BOARD		C4

SCOPE LEGEND

SCOPE
NOT IN SCOPE

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BIOMEDICAL POLYMERS RESEARCH BUILDING - LEVEL 2

20 SOUTH 2030 EAST, SALT LAKE CITY, UTAH 84112

CONSTRUCTION DOCUMENTS

SEAL:
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NO. 135781
TRACY D. STOCKING
LICENSED ARCHITECT

DATE: 05/03/2024
PROJECT #: 23027

SHEET NAME:
LEVEL 2
DEMOLITION RCP

SHEET #: **AD141**

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GENERAL NOTES - REMODEL

1. CONTRACTOR SHALL VERIFY ALL DIMENSIONS & CONDITIONS AT THE SITE BEFORE SUBMITTING A BID OR PROCEEDING WITH ANY PORTION OF THE WORK.
2. CUT AND PATCH EXISTING BUILDING CONSTRUCTION AS REQUIRED. CUTTING AND DRILLING OF STRUCTURAL MEMBERS NOT DETAILED REQUIRES THE WRITTEN PERMISSION OF THE STRUCTURAL ENGINEER.
3. WHENEVER QUESTIONS ARISE OR CONDITIONS ARE ENCOUNTERED WHICH ARE NOT COVERED BY OR ARE IN CONFLICT WITH THE CONTRACT DOCUMENTS, CONSULT WITH THE ARCHITECT PRIOR TO TAKING ANY FURTHER ACTION.
4. CONTRACTOR SHALL RELOCATE EXISTING MECHANICAL AND ELECTRICAL AS REQUIRED FOR INSTALLATION OF NEW WORK.
5. THE CONTRACTOR SHALL COORDINATE PHASING OF THE WORK WITH THE OWNER AND ARCHITECT TO MEET THE OWNERS SCHEDULE.
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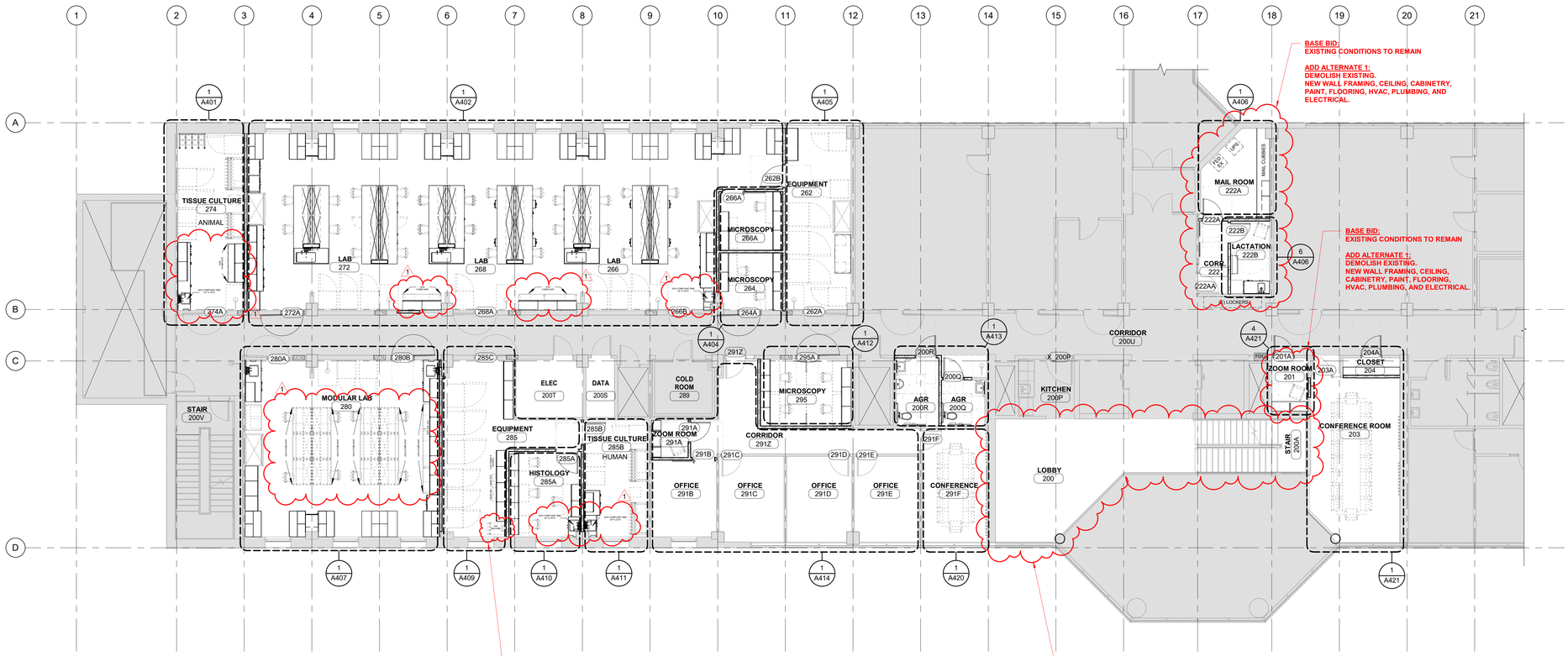
7. CONTRACTOR SHALL REPAIR OR REPLACE EXISTING CONSTRUCTION DAMAGED BY NEW CONSTRUCTION. MATCH EXISTING SURFACE FINISH OR MATERIAL.
8. SEE GENERAL CEILING NOTES ON A141.
9. ALL MECHCANICAL SHUTDOWNS MUST BE SCHEDULED WITH UNIVERSITY OF UTAH. - ADD TO FLOOR PLAN GENERAL NOTES.



LEVEL 2 - REMODEL FLOOR PLAN 1
1/8" = 1'-0" A101

N

SCOPE LEGEND

- SCOPE
- NOT IN SCOPE

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THE UNIVERSITY OF UTAH
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PROJECT NO: 22287

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#	DATE	REVISION
1	05/09/2024	DFCM - RD1

REVIEWED FOR CODE COMPLIANCE
05/17/2024
Shums Coda Associates

BIOMEDICAL POLYMERS RESEARCH BUILDING - LEVEL 2

20 SOUTH 2030 EAST, SALT LAKE CITY, UTAH 84112

CONSTRUCTION DOCUMENTS

SEAL:
STATE OF UTAH
NO. 135781
TRACY D. STOCKING
LICENSED ARCHITECT

DATE: 05/03/2024
PROJECT #: 23027

SHEET NAME:
LEVEL 2 FLOOR PLAN - REMODEL

SHEET #:
A101

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5/16/2024 7:30:02 AM

GENERAL NOTES - FLOOR PLAN

A. PLAN WALL DIMENSIONS ARE TO GRID LINE OR FACE OF WALL STRUCTURE. "CLEAR" DIMENSIONS ARE TO FACE OF WALL FINISH.
B. FIELD VERIFY ALL EXISTING CONDITIONS AND THEIR COMPATIBILITY WITH NEW CONSTRUCTION PRIOR TO THE COMMENCEMENT OF WORK. COORDINATE DISCREPANCIES WITH ARCHITECT.
C. DO NOT SCALE DRAWINGS.
D. SEE CIVIL, STRUCTURAL, MECHANICAL AND ELECTRICAL DRAWINGS FOR MORE INFORMATION.
E. SEE G SERIES SHEETS FOR WALL TYPES AND TYPICAL ACCESSIBILITY CLEARANCE AND ADA COMPLIANCE REQUIREMENTS.
F. WHERE WALL MOUNTED T.V./MONITORS/ELECT. BUILLETIN BOARDS/ ETC. OCCUR - INSTALL BACKING. IN WALL. PROVIDE (3) 18 GA. HORIZONTAL STUDS, CLIP TO FIT OVER WALL STUDS AND SECURELY ATTACH.
G. WHERE OTHER WALL MOUNTED ACCESSORIES OCCUR, EITHER CONTRACTOR OR OWNER FURNISHED, PROVIDE 18 GA. SHEET METAL BACKING ON FACE OF STUD BEHIND GYP BOARD.
H. ALL MAN-DOORS SHALL BE INSTALLED 4" FROM NEAREST PERPENDICULAR WALL U.N.O.
I. KEYNOTE DESCRIPTIONS CONTAINING (E) MEAN THE ITEM IS EXISTING. ALL OTHER KEYNOTE DESCRIPTIONS ARE CONSIDERED NEW.
J. SEE ROOM FINISH SCHEDULE AND FINISH FLOOR PLANS FOR ARCHITECTURAL FINISH.
K. CONTRACTOR SHALL REPAIR TO LIKE NEW CONDITION ANY EXISTING FINISH DAMAGED DURING DEMOLITION OR CONSTRUCTION.
L. PATCH AND REPAIR ALL (E) WALLS THAT ARE TO REMAIN WHERE HOLES OCCUR FROM REMOVED ACCESSORIES.
M. PATCH AND REPAIR (E) SURROUNDING WALLS WHERE NEW WALLS ARE BEING ATTACHED AND WHERE NEW DOORS ARE BEING ADDED. MATCH (E) SURROUNDING WALL FINISH AND PAINT WALL TO MATCH (E) COLOR AND SHEEN UNLESS A DIFFERENT FINISH IS INDICATED
N. REFER TO LIFE SAFETY SMOKE PLAN FOR INDICATION OF THE WALLS THAT ARE TO RECEIVE FIRE RATING.
O. FURNITURE IS NOT IN CONTRACT. SHOWN FOR SPACE PLANNING PURPOSES ONLY.

KEYNOTES

07.01 REPLACE EXISTING INSULATION WITH NEW AT EXTERIOR WALL AFTER ELECTRICAL WIRING IS INSTALLED
13.01 CONTRACTOR TO PROVIDE BACKING IN WALL FOR FUTURE CO2 RACK INSTALLATION, REF DETAIL 1/A570
13.02 CONTRACTOR TO PROVIDE BACKING IN BOTH SIDES OF WALL FOR FUTURE CO2 RACK INSTALLATION, REF DETAIL 1/A570
21.01 (E) FIRE ALARM PANELS TO REMAIN, PROTECT IN PLACE



LEVEL 2 - DIMENSION CONTROL
1/8" = 1'-0" A121 1

N

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BIOMEDICAL POLYMERS RESEARCH BUILDING - LEVEL 2

20 SOUTH 2030 EAST, SALT LAKE CITY, UTAH 84112

CONSTRUCTION DOCUMENTS

SEAL:
STATE OF UTAH
NO. 135781
TRACY D. STOCKING
LICENSED ARCHITECT

DATE: 05/03/2024
PROJECT #: 23027

SHEET NAME:
LEVEL 2 FLOOR PLAN - DIMENSION CONTROL

SHEET #: A121

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CEILING SUSPENSION SYSTEM NOTES:

1. SEE DETIALS ON A510
2. STRUCTURAL CLASSIFICATION SHALL BE "HEAVY DUTY."
3. MAIN RUNNERS AND CARRYING CHANNELS SHALL BE LEVEL TO WITHIN 1/8" IN 12'-0".
4. SUSPENSION WIRES SHALL BE NOT MORE THAN 1 IN 6 OUT OF PLUMB.
5. ALL CEILING MOUNTED LIGHT FIXTURES SHALL BE ATTACHED TO SUSPENDED CEILING GRID. IN ADDITION, 12 GA. HANGER WIRES SHALL BE ATTACHED TO THE GRID WITHIN 3" OF EACH CORNER OF THE FIXTURE. TWO ADDITIONAL WIRES SHALL BE CONNECTED TO THE LIGHT HOUSING AND TO THE STRUCTURE ABOVE (THESE WIRES MAY BE SLACK).
6. WIRES SHALL NOT ATTACH TO OR BEND AROUND INTERFERING MATERIAL OR EQUIPMENT, NOR SHALL THEY BE CLOSER THAN 6" FROM ANY UN-BRACED HORIZONTAL PIPING OR DUCTWORK. A TRAPEZE OR SIMILAR DEVICE SHALL BE USED WHERE OBSTRUCTIONS OCCUR.
7. NEW SUSPENDED CEILINGS SHALL BE INSTALLED AS PER CURRENT IBC REGARDING SEISMIC BRACING.
8. EXCEPT WHERE RIGID BRACES ARE USED TO LIMIT LATERAL DEFLECTION, SPRINKLER HEADS AND OTHER PENETRATIONS THROUGH THE CEILING TILE REQUIRE MINIMUM
9. 2-INCH RINGS, SLEEVES OR ADAPTERS THAT WILL ALLOW A MINIMUM 1-INCH CEILING MOVEMENT IN ALL HORIZONTAL DIRECTIONS. ALTERNATELY, A SWING JOING CAN BE PROVIDED AT THE TOP OF THE SPRINKLER HEAD EXTENSION TO ACCOMODATE THE 1-INCH MOVEMENT [ASCE 7, SEC. 13.5.6.2.2]

GENERAL NOTES - REFLECTED CEILING PLAN

A. SEE MECHANICAL AND ELECTRICAL DRAWINGS FOR ADDITIONAL LIGHTING AND DIFFUSER INFORMATION.
B. THE CEILING HEIGHT SHOWN IN THE ROOM TAG INDICATES THE HEIGHT OF THE DOMINANT CEILING FINISH. SEE ADDITIONAL CEILING FINISH CALLOUTS FOR OTHER CEILING HEIGHT OR FEATURES.
C. THE CONTRACTOR SHALL COORDINATE ALL TRADES TO ENSURE THAT DESIGNATED CEILING HEIGHTS CAN BE ACHIEVED. NOTIFY ARCHITECT OF ANY CONFLICTS OR CONDITIONS THAT PREVENT THIS FROM OCCURRING BEFORE PROCEEDING WITH THE WORK.
D. COLOR OF ALL CONCEALED SPRINKLER HEADS TO MATCH ADJACENT CEILING PAINT.
E. CONTRACTOR SHALL VERIFY ALL DIMENSIONS & CONDITIONS AT THE SITE BEFORE SUBMITTING A BID OR PROCEEDING WITH ANY PORTION OF THE WORK.
F. CUT AND PATCH EXISTING BUILDING CONSTRUCTION AS REQUIRED. CUTTING AND DRILLING OF STRUCTURAL MEMBERS NOT DETAILED REQUIRES THE WRITTEN PERMISSION OF THE STRUCTURAL ENGINEER.
G. WHENEVER QUESTIONS ARISE OR CONDITIONS ARE ENCOUNTERED WHICH ARE NOT COVERED BY OR ARE IN CONFLICT WITH THE CONTRACT DOCUMENTS, CONSULT WITH THE ARCHITECT PRIOR TO TAKING ANY FURTHER ACTION.
H. CONTRACTOR SHALL RELOCATE EXISTING MECHANICAL AND ELECTRICAL AS REQUIRED FOR INSTALLATION OF NEW WORK.
I. THE CONTRACTOR SHALL COORDINATE PHASING OF THE WORK WITH THE OWNER AND ARCHITECT TO MEET THE OWNERS SCHEDULE.
J. ALL CONSTRUCTION ACTIVITY IS TO BE CONTAINED W/IN CONSTRUCTION BARRICADES OR FENCES. CONTRACTORS SHALL PROTECT OWNER'S EXISTING CONSTRUCTION ADJACENCY TO NEW CONSTRUCTION. AFTER WORK OF THIS CONTRACT, CLEAN EXIST. AREAS EFFECTED BY THE WORK TO THE OWNER'S SATISFACTION.
K. CONTRACTOR SHALL REPAIR OR REPLACE EXISTING CONSTRUCTION DAMAGED BY NEW CONSTRUCTION. MATCH EXISTING SURFACE FINISH OR MATERIAL.
L. SEE ENLARGED FINISH PLANS FOR ADDITIONAL DETAIL
M. EXISTING ELECTRICAL, MECHANICAL, FIRE-SPRINKLERS, FIRE / SMOKE ALARM DEVICES - SEE RELATED MECHANICAL, ELECTRICAL AND PLUMBING SHEETS FOR SPECIFIC DETAILED DIRECTION.
N. TO THE GREATEST EXTENT POSSIBLE THE CONTRACTOR SHALL ELIMINATE SPLICING OR JOINING MAIN RUNNERS, AND CROSS TEES. USE FULL LENGTH WHERE EVER POSSIBLE.
O. FIRE SPRINKLER WORK SHALL BE BY DESIGN-BUILD. CONTRACTOR SHALL INCLUDE ALL ENGINEERING, DESIGN, AND DRAFTING REQUIRED BY CURRENT CODES. ALL WORK SHALL COMPLY WITH THE LATEST ADOPTED VERSIONS OF ALL APPLICABLE CODES. REVIEW SPRINKLER HEAD OPTIONS WITH BUILDING OWNER PRIOR TO BIDDING AND/OR INSTALLATION.
P. FIRE SPRINKLER SYSTEM SHALL BE A DIFFERED SUBMITTAL. FIRE SPRINKLERS SHALL MEET ALL APPLICABLE CODES. CONTRACTOR SHALL INCLUDE ALL ENGINEERING, DESIGN, AND DRAFTING ASSOCIATED WITH SYSTEM. CONTRACTOR SHALL SUBMIT PLANS AND OBTAIN FULL APPROVAL FROM LOCAL FIRE MARSHAL. HEADS SHALL MATCH BUILDING STANDARD. BEFORE SUBMITTAL SHOP DRAWINGS ARE INITIATED, CONTRACTOR SHALL MEET WITH ARCHITECT TO DISCUSS DESIGN INTENT.



LEVEL 2 - RCP
1/8" = 1'-0" A141 1 N

KEYNOTES

02.44 DEMO (E) CEILING TILE AND REPLACE, GRID TO REMAIN
23.03 (E) RADIANT HEAT PANEL TO REMAIN - PROTECT IN PLACE. PROVIDE SUPPORT DURING ACOUSTICAL CEILING DEMOLITION AND REBUILD, TYPICAL
23.04 SNORKEL VENT OPENING, FINAL LOCATION TO BE COORDINATED WITH OWNER

LEGEND - REFLECTED CEILING PLANS

EXISTING		DEMO	NEW
	2X4 LAY-IN TROFFER LIGHT FIXTURE		
	2X2 LAY-IN TROFFER LIGHT FIXTURE		
	SUSPENDED INDIRECT LIGHT FIXTURE		
	SUSPENDED INDIRECT LINEAR MOUNT LIGHT FIXTURE		
	LINEAR WALL MOUNT LIGHT FIXTURE		
	AIR TERMINAL		
	HVAC SUPPLY GRILLE		
	HVAC RETURN GRILLE		
	HVAC EXHAUST GRILLE		
	FIRE SPRINKLER HEAD		
	LIGHTED EXIT SIGN		
	RECESSED CAN LIGHT FIXTURE		
C	CAMERA	C	C
S	HEAT/SMOKE DETECTOR	S	S
	RECESSED SOUND SPEAKER		
	CEILING ACEES PANEL		
	CEILING SERVICE PANEL		
	2X4 SUSPENDED ACOUSTICAL CEILING SYSTEM		C1
	2X2 SUSPENDED ACOUSTICAL CEILING SYSTEM		C2
NON EXISTING	5/8" GYPSUM BOARD SUSPENDED CEILING SYSTEM	NON EXISTING	C3
	12X12 ACT ADHERED TO 5/8" GYPSUM BOARD		C4

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BIOMEDICAL POLYMERS RESEARCH BUILDING - LEVEL 2

20 SOUTH 2030 EAST, SALT LAKE CITY, UTAH 84112

CONSTRUCTION DOCUMENTS

SEAL: STATE OF UTAH · NO. 135781 · TRACY D. STOCKING · LICENSED ARCHITECT

DATE: 05/03/2024
PROJECT #: 23027

SHEET NAME: LEVEL 2 RCP - REMODEL

SHEET #: A141

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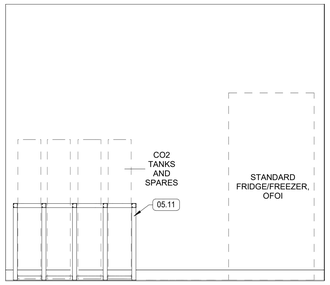
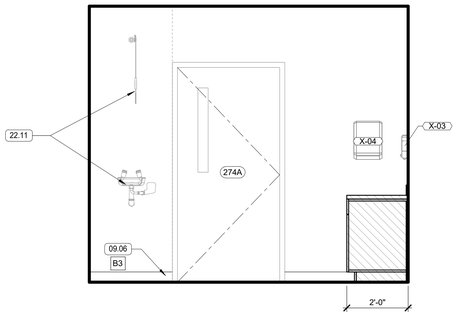
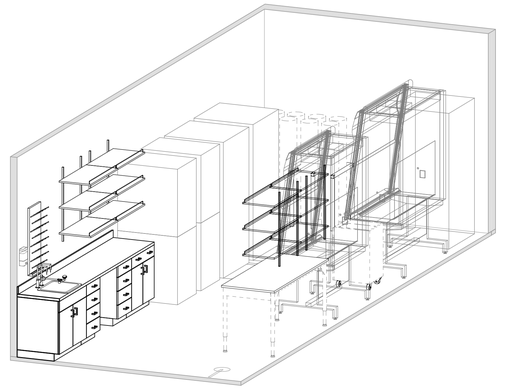


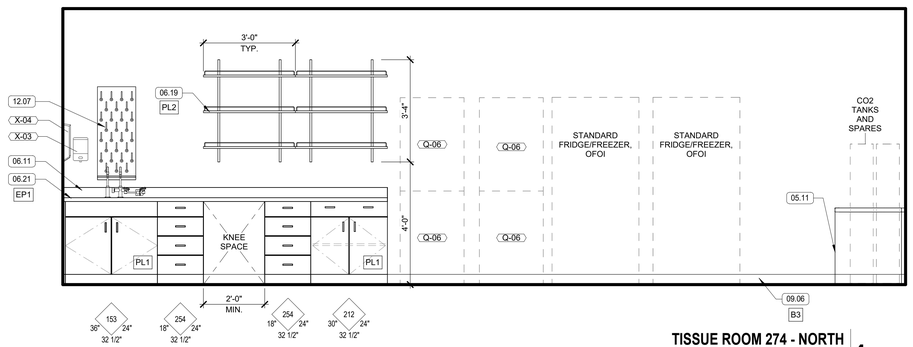
TISSUE ROOM 274 - EAST
1/2" = 1'-0" A401 7



TISSUE ROOM 274 - WEST
1/2" = 1'-0" A401 6



TISSUE ROOM 274 - NORTHWEST
A401 5



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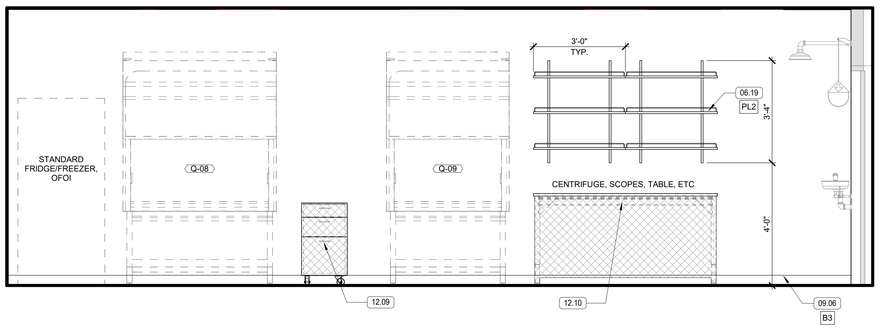
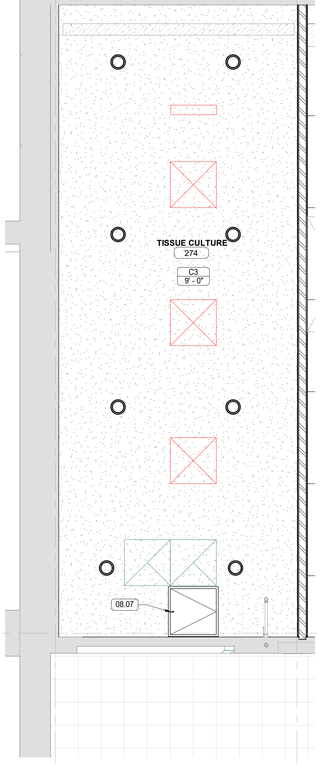
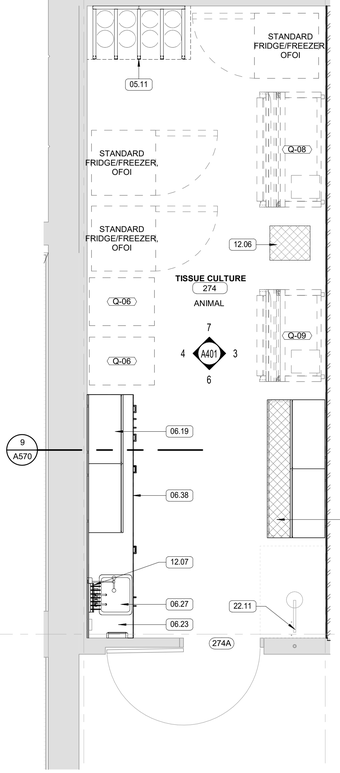
1/2" = 1'-0" A401 4



TISSUE ROOM 274 - SOUTH
1/2" = 1'-0" A401 3



TISSUE ROOM 274 - RCP
3/8" = 1'-0" A401 2 N



TISSUE ROOM 274 - FLOOR PLAN
3/8" = 1'-0" A401 1 N

GENERAL NOTES - FLOOR PLAN

A. PLAN WALL DIMENSIONS ARE TO GRID LINE OR FACE OF WALL STRUCTURE. "CLEAR" DIMENSIONS ARE TO FACE OF WALL FINISH.
B. FIELD VERIFY ALL EXISTING CONDITIONS AND THEIR COMPATIBILITY WITH NEW CONSTRUCTION PRIOR TO THE COMMENCEMENT OF WORK. COORDINATE DISCREPANCIES WITH ARCHITECT.
C. DO NOT SCALE DRAWINGS.
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F. WHERE WALL MOUNTED T.V./MONITORS/ELECT. BUILLETIN BOARDS/ ETC. OCCUR - INSTALL BACKING. IN WALL. PROVIDE (3) 18 GA. HORIZONTAL STUDS, CLIP TO FIT OVER WALL STUDS AND SECURELY ATTACH.
G. WHERE OTHER WALL MOUNTED ACCESSORIES OCCUR, EITHER CONTRACTOR OR OWNER FURNISHED, PROVIDE 18 GA. SHEET METAL BACKING ON FACE OF STUD BEHIND GYP BOARD.
H. ALL MAN-DOORS SHALL BE INSTALLED 4" FROM NEAREST PERPENDICULAR WALL U.N.O.
I. KEYNOTE DESCRIPTIONS CONTAINING (E) MEAN THE ITEM IS EXISTING. ALL OTHER KEYNOTE DESCRIPTIONS ARE CONSIDERED NEW.
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L. PATCH AND REPAIR ALL (E) WALLS THAT ARE TO REMAIN WHERE HOLES OCCUR FROM REMOVED ACCESSORIES.
M. PATCH AND REPAIR (E) SURROUNDING WALLS WHERE NEW WALLS ARE BEING ATTACHED AND WHERE NEW DOORS ARE BEING ADDED. MATCH (E) SURROUNDING WALL FINISH AND PAINT WALL TO MATCH (E) COLOR AND SHEEN UNLESS A DIFFERENT FINISH IS INDICATED
N. REFER TO LIFE SAFETY SMOKE PLAN FOR INDICATION OF THE WALLS THAT ARE TO RECEIVE FIRE RATING.
O. FURNITURE IS NOT IN CONTRACT. SHOWN FOR SPACE PLANNING PURPOSES ONLY.

GENERAL NOTES - REMODEL

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KEYNOTES

05.11 METAL GAS CYLINDER RACK - BASIS-OF-DESIGN: USA SAFETY - 8 CYLINDER (4X2) - BARRICADE - GAS CYLINDER RACK
06.11 4" BACKSPLASH TO MATCH COUNTER TOP MATERIAL
06.19 PLASTIC LAMINATE SHELVES W/ SEISMIC RODS AT FRONT AND SIDES ON 48" STANDARDS U.N.O.; SHELVES ARE 18" DEEP U.N.O.
06.21 EPOXY RESIN COUNTERTOP
06.23 EPOXY RESIN COUNTERTOP WITH MARINE EDGE AT SINK AREA
06.27 18" L X 15" W X 10.75 D - EPOXY RESIN DROP-IN SINK - FINISH TO MATCH COUNTERTOP
06.38 CUSTOM CASEWORK, TYPICAL - SEE INTERIOR ELEVATIONS
08.07 24X24 FLUSH METAL ACCESS PANEL WITH FLANGE
09.06 4" COVED INTEGRAL BASE. SEE DETAIL 2/AI501. TYPICAL
12.06 MODULAR LAB FURNITURE, CFCI- SEE INTERIOR ELEVATIONS
12.07 EPOXY DRYING RACK - BLACK PANEL WITH WHITE PEGS. PROVIDE DRIP TRAY AND DRAINAGE TUBE - CFCI
12.09 MODULAR LAB FURNITURE - ROLLING DRAWERS
12.10 MODULAR LAB FURNITURE - 6' TABLE - SINGLE SIDED, ADJUSTABLE HEIGHT
22.11 (E) EMERGENCY SHOWER AND EYEWASH TO REMAIN - PROTECT IN PLACE

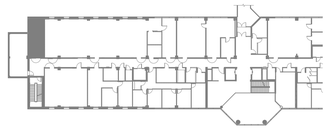
ACCESSORIES & EQUIPMENT SCHEDULE

MARK	DESCRIPTION	RESPONSIBILITY
Q-01	DISPLAY MONITOR 70	OFOI
Q-02	DISPLAY MONITOR 75	OFOI
Q-03	ICE MAKER	OFCI
Q-04	WHITE BOARD	OFCI
Q-06	(2) STACKED INCUBATORS	OFCI
Q-08	5'-0" BIOLOGICAL SAFETY CABINET	OFCI
Q-09	4'-0" BIOLOGICAL SAFETY CABINET	OFCI
Q-10	ULTRA PURE WATER SYSTEM	OFCI
Q-11	UNDER COUNTER REF. - ADD ALT 1	OFCI
X-01	STAINLESS STEEL FRAMED GLASS MIRROR - 24" X 42"	CFCI
X-02	GRAB BAR	OFCI
X-03	SOAP DISPENSER	OFCI
X-04	PAPER TOWEL DISPENSER	OFCI
X-05	SANITARY NAPKIN RECEPTACLE	OFCI
X-06	SANITARY SEAT COVER DISPENSER	OFCI
X-07	TOILET PAPER DISPENSER	OFCI
X-10	WALL-MOUNTED BABY CHANGING STATION	OFCI

AWS (CABINETRY) LEGEND

000M — CDS # (M DENOTES MODIFICATION - SEE MILLWORK SHEET)
WIDTH 00" 00" DEPTH
00" HEIGHT
MODIFICATION DESCRIPTION; WHERE OCCURS

KEY PLAN



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DATE: 05/03/2024
PROJECT #: 23027

SHEET NAME:
TISSUE ROOM 274 - STORYBOARD

SHEET #:
A401

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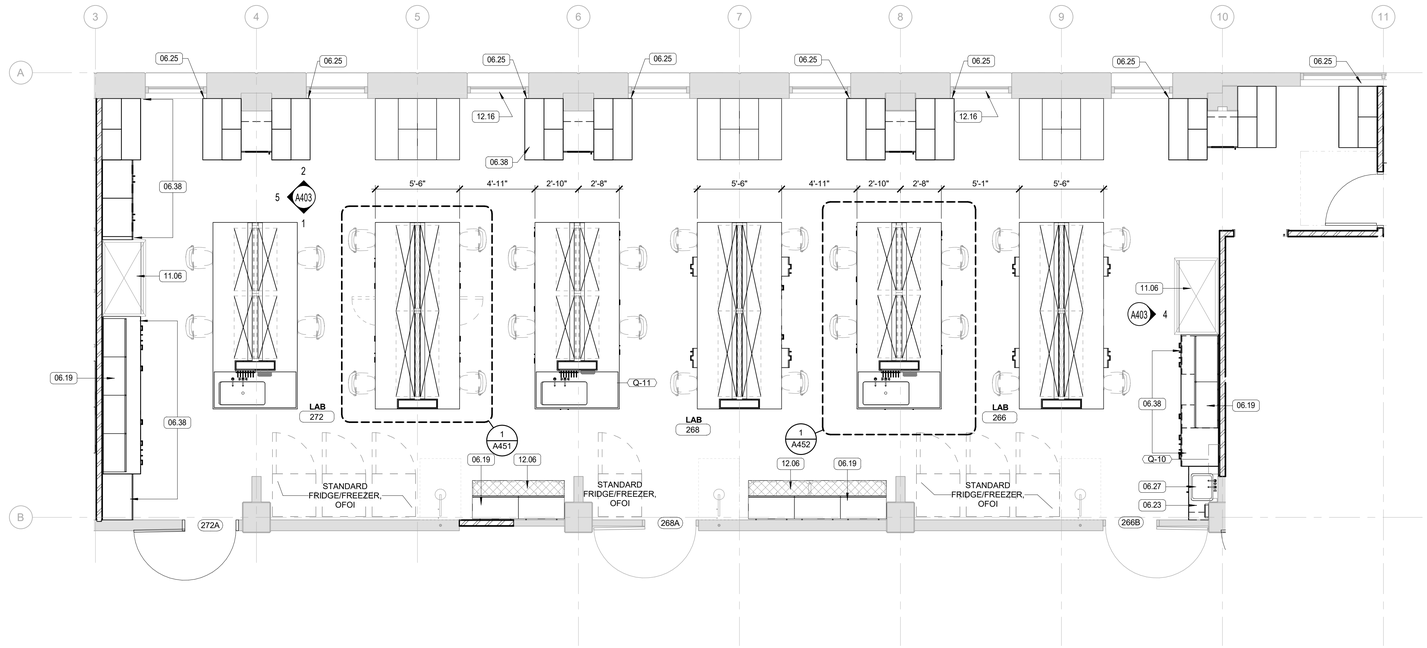
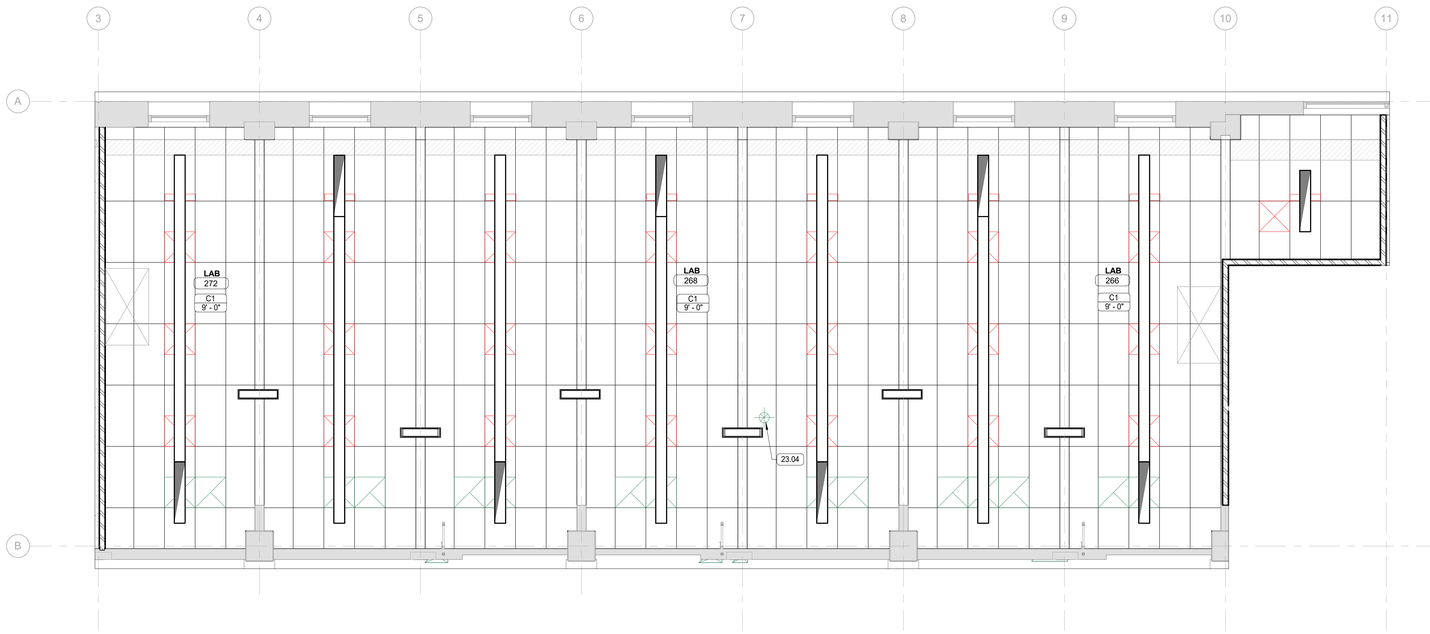
5/6/2024 9:43:19 AM



LAB ROOM 272, 268 & 266 - FLOOR PLAN
1/4" = 1'-0" A402 1

N



LAB ROOM 272, 268 & 266 - RCP
1/4" = 1'-0" A402 2

N

GENERAL NOTES - FLOOR PLAN

A. PLAN WALL DIMENSIONS ARE TO GRID LINE OR FACE OF WALL STRUCTURE. "CLEAR" DIMENSIONS ARE TO FACE OF WALL FINISH.
B. FIELD VERIFY ALL EXISTING CONDITIONS AND THEIR COMPATIBILITY WITH NEW CONSTRUCTION PRIOR TO THE COMMENCEMENT OF WORK. COORDINATE DISCREPANCIES WITH ARCHITECT.
C. DO NOT SCALE DRAWINGS.
D. SEE CIVIL, STRUCTURAL, MECHANICAL AND ELECTRICAL DRAWINGS FOR MORE INFORMATION.
E. SEE G SERIES SHEETS FOR WALL TYPES AND TYPICAL ACCESSIBILITY CLEARANCE AND ADA COMPLIANCE REQUIREMENTS.
F. WHERE WALL MOUNTED T.V./MONITORS/ELECT. BUILLETIN BOARDS/ ETC. OCCUR - INSTALL BACKING. IN WALL. PROVIDE (3) 18 GA. HORIZONTAL STUDS, CLIP TO FIT OVER WALL STUDS AND SECURELY ATTACH.
G. WHERE OTHER WALL MOUNTED ACCESSORIES OCCUR, EITHER CONTRACTOR OR OWNER FURNISHED, PROVIDE 18 GA. SHEET METAL BACKING ON FACE OF STUD BEHIND GYP BOARD.
H. ALL MAN-DOORS SHALL BE INSTALLED 4" FROM NEAREST PERPENDICULAR WALL U.N.O.
I. KEYNOTE DESCRIPTIONS CONTAINING (E) MEAN THE ITEM IS EXISTING. ALL OTHER KEYNOTE DESCRIPTIONS ARE CONSIDERED NEW.
J. SEE ROOM FINISH SCHEDULE AND FINISH FLOOR PLANS FOR ARCHITECTURAL FINISH.
K. CONTRACTOR SHALL REPAIR TO LIKE NEW CONDITION ANY EXISTING FINISH DAMAGED DURING DEMOLITION OR CONSTRUCTION.
L. PATCH AND REPAIR ALL (E) WALLS THAT ARE TO REMAIN WHERE HOLES OCCUR FROM REMOVED ACCESSORIES.
M. PATCH AND REPAIR (E) SURROUNDING WALLS WHERE NEW WALLS ARE BEING ATTACHED AND WHERE NEW DOORS ARE BEING ADDED. MATCH (E) SURROUNDING WALL FINISH AND PAINT WALL TO MATCH (E) COLOR AND SHEEN UNLESS A DIFFERENT FINISH IS INDICATED
N. REFER TO LIFE SAFETY SMOKE PLAN FOR INDICATION OF THE WALLS THAT ARE TO RECEIVE FIRE RATING.
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GENERAL NOTES - REMODEL

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8. SEE GENERAL CEILING NOTES ON A141.
9. ALL MECHCANICAL SHUTDOWNS MUST BE SCHEDULED WITH UNIVERSITY OF UTAH. - ADD TO FLOOR PLAN GENERAL NOTES.

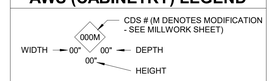
KEYNOTES

06.19 PLASTIC LAMINATE SHELVES W/ SEISMIC RODS AT FRONT AND SIDES ON 48" STANDARDS U.N.O.; SHELVES ARE 18" DEEP U.N.O.
06.23 EPOXY RESIN COUNTERTOP WITH MARINE EDGE AT SINK AREA
06.25 CUT BACK WINDOW SILL TO ACCOMMODATE NEW MILLWORK, COORDINATE WITH INSTALLER FOR FINAL LOCATION
06.27 18" L X 15" W X 10.75 D - EPOXY RESIN DROP-IN SINK - FINISH TO MATCH COUNTERTOP
06.38 CUSTOM CASEWORK, TYPICAL - SEE INTERIOR ELEVATIONS
11.06 SALVAGE EXISTING CHEMICAL HOOD, PROTECT DURING CONSTRUCTION AND REINSTALL HOOD/PARTS IN BEST CONDITION. CONTRACTOR SHALL TEST AND RE-BALANCE HOOD AND SEND TAB REPORT TO EHS - SEE MECHANICAL DRAWINGS
12.06 MODULAR LAB FURNITURE, CFCI- SEE INTERIOR ELEVATIONS
12.16 INSTALL NEW BLINDS AT ALL WINDOWS - U.N.O. - SEE FINISH SCHEDULE
23.04 SNORKEL VENT OPENING, FINAL LOCATION TO BE COORDINATED WITH OWNER

ACCESSORIES & EQUIPMENT SCHEDULE

MARK	DESCRIPTION	RESPONSIBILITY
Q-01	DISPLAY MONITOR 70	OFOI
Q-02	DISPLAY MONITOR 75	OFOI
Q-03	ICE MAKER	OFCI
Q-04	WHITE BOARD	CFCI
Q-06	(2) STACKED INCUBATORS	OFCI
Q-08	5'-0" BIOLOGICAL SAFETY CABINET	OFCI
Q-09	4'-0" BIOLOGICAL SAFETY CABINET	OFCI
Q-10	ULTRA PURE WATER SYSTEM	OFCI
Q-11	UNDER COUNTER REF. - ADD ALT 1	OFOI
X-01	STAINLESS STEEL FRAMED GLASS MIRROR - 24" X 42"	CFCI
X-02	GRAB BAR	CFCI
X-03	SOAP DISPENSER	OFCI
X-04	PAPER TOWEL DISPENSER	OFCI
X-05	SANITARY NAPKIN RECEPTACLE	OFCI
X-06	SANITARY SEAT COVER DISPENSER	OFCI
X-07	TOILET PAPER DISPENSER	OFCI
X-10	WALL-MOUNTED BABY CHANGING STATION	OFCI

AWS (CABINETRY) LEGEND



MODIFICATION DESCRIPTION; WHERE OCCURS

KEY PLAN



tsa
1486 SOUTH 1100 EAST
SALT LAKE CITY, UT 84105
TEL . (801) 463 - 7108

THE UNIVERSITY OF UTAH
The Department of Campus Design and Construction
1795 E. So. Campus Dr, RM 201
Salt Lake City, UT 84112-9403
Phone: 801-581-6883
Fax: 801-581-6081

PROJECT NO: 22287

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#	DATE	REVISION

REVIEWED FOR CODE COMPLIANCE
05/17/2024
Shums Coda Associates

BIOMEDICAL POLYMERS RESEARCH BUILDING - LEVEL 2

20 SOUTH 2030 EAST, SALT LAKE CITY, UTAH 84112

CONSTRUCTION DOCUMENTS

SEAL:
STATE OF UTAH
NO. 135781
TRACY D. STOCKING
LICENSED ARCHITECT

DATE: 05/03/2024
PROJECT #: 23027

SHEET NAME:
LAB ROOMS 272, 268 & 266 - STORYBOARD

SHEET #: **A402**

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5/6/2024 9:43:25 AM

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Q-04	WHITE BOARD	CFCI
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Q-08	5'-0" BIOLOGICAL SAFETY CABINET	OFCI
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X-05	SANITARY NAPKIN RECEPTACLE	OFCI
X-06	SANITARY SEAT COVER DISPENSER	OFCI
X-07	TOILET PAPER DISPENSER	OFCI
X-10	WALL-MOUNTED BABY CHANGING STATION	OFCI

KEYNOTES

06.05 FULL HEIGHT CASEWORK CABINET WITH GLAZING IN DOOR PANEL
06.10 PROVIDE FASCIA PANEL AT FRONT AND SIDES, AT FACE OF PANEL, ALIGN W/ FACE OF CABINET DOOR
06.11 4" BACKSPLASH TO MATCH COUNTER TOP MATERIAL
06.12 CUT CASEWORK CABINET AROUND COLUMN
06.19 PLASTIC LAMINATE SHELVES W/ SEISMIC RODS AT FRONT AND SIDES ON 48" STANDARDS U.N.O.; SHELVES ARE 18" DEEP U.N.O.
06.21 EPOXY RESIN COUNTERTOP
06.24 4" EPOXY BACKSPLASH TO MATCH COUNTERTOP
06.25 CUT BACK WINDOW SILL TO ACCOMMODATE NEW MILLWORK, COORDINATE WITH INSTALLER FOR FINAL LOCATION
06.34 FABRIC WRAPPED TACK BOARD
06.41 UPPER CABINET W/ ADJUSTABLE SHELVES
06.42 OPEN FULL HEIGHT CABINET W/ ADJUSTABLE SHELVES
09.17 4" RUBBER BASE - TYPICAL AT WALLS AND CABINET TOE KICK
10.13 WALL PROTECTION EXTENDS TO BOTTOM OF WINDOW SILL, TYPICAL AT ALL DESKS IN LAB AREAS
10.14 FULL HEIGHT STAINLESS STEEL CORNER GUARD, SEE INTERIOR FINISH PLAN AND FINISH SCHEDULE
12.09 MODULAR LAB FURNITURE - ROLLING DRAWERS
12.10 MODULAR LAB FURNITURE - 6' TABLE - SINGLE SIDED, ADJUSTABLE HEIGHT
12.11 MODULAR LAB FURNITURE - 5' TABLE - SINGLE SIDED, ADJUSTABLE HEIGHT
12.12 MODULAR LAB FURNITURE - 4' TABLE - SINGLE SIDED, ADJUSTABLE HEIGHT
22.11 (E) EMERGENCY SHOWER AND EYEWASH TO REMAIN - PROTECT IN PLACE
26.01 UNDER CABINET LIGHT - SEE ELECTRICAL

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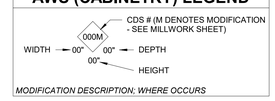
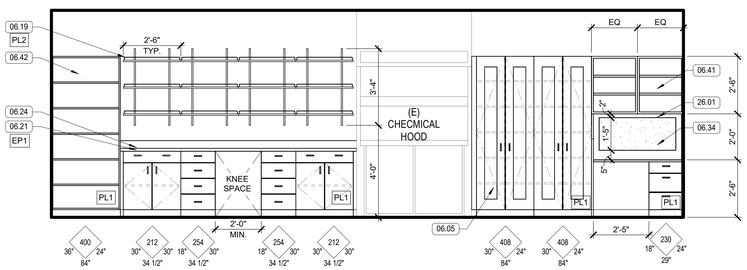
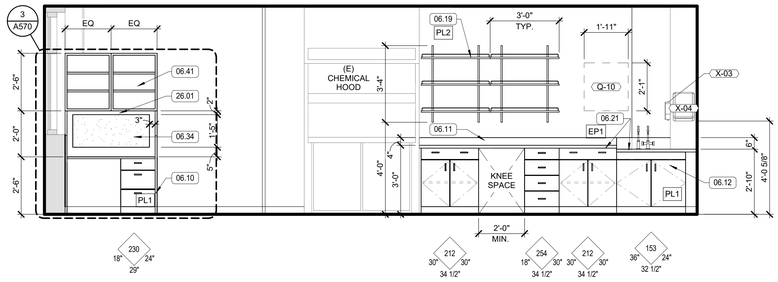


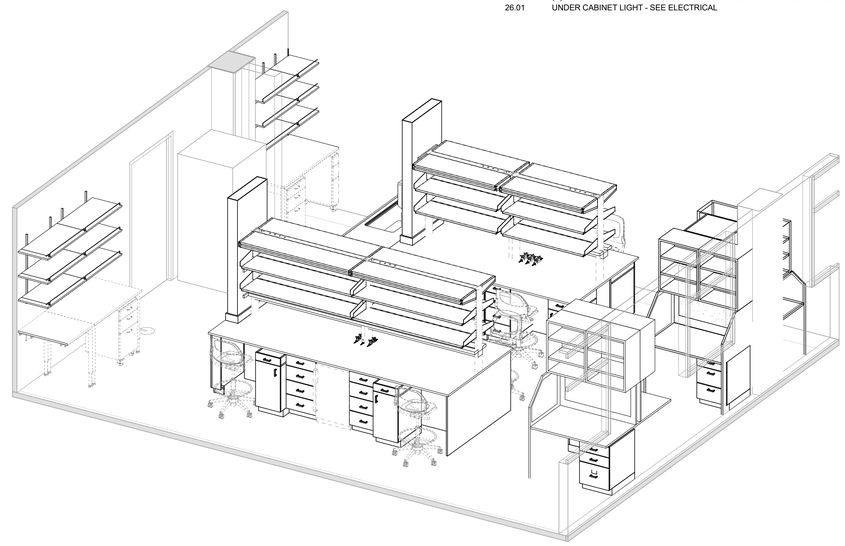
MODIFICATION DESCRIPTION: WHERE OCCURS



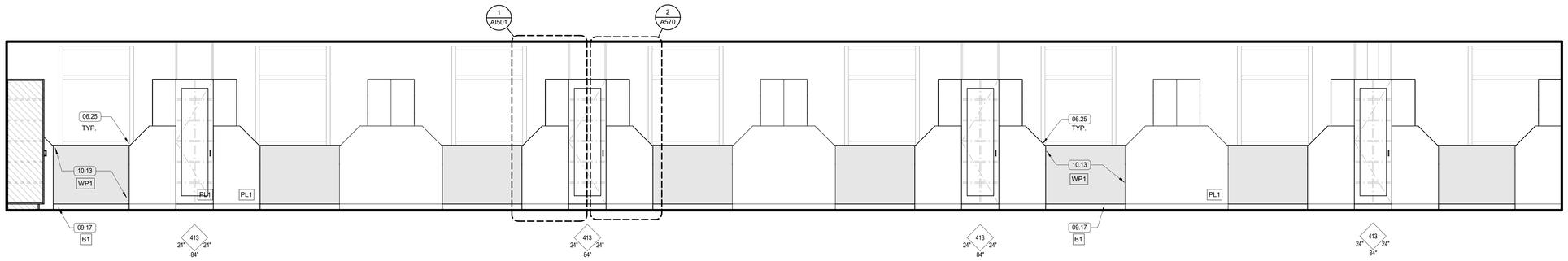
LAB ROOM 272 - NORTH
3/8" = 1'-0" A403 5



LAB ROOM 266 - SOUTH
3/8" = 1'-0" A403 4



LAB ROOM 268 - SOUTHEAST 3D
A403 3



LAB ROOM 272, 268, 266 - EAST
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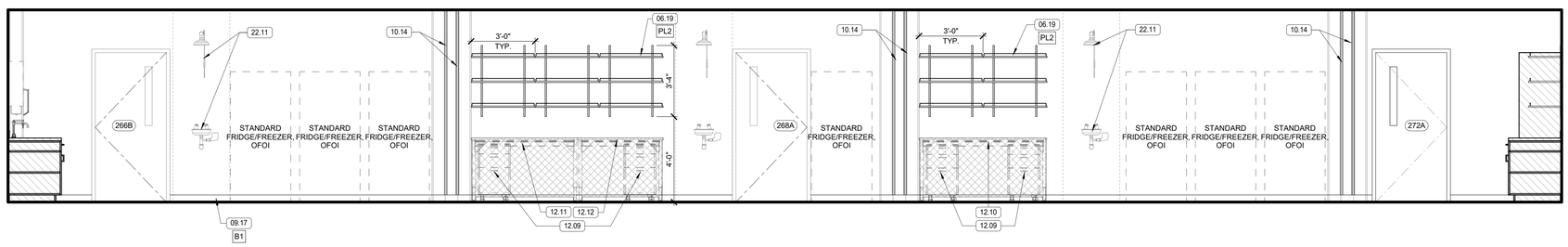
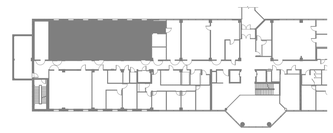


LAB ROOM 272, 268, 266 - WEST
3/8" = 1'-0" A403 1

KEY PLAN



tsa
1486 SOUTH 1100 EAST
SALT LAKE CITY, UT 84105
TEL . (801) 463 - 7108

THE UNIVERSITY OF UTAH
The Department of Campus Design and Construction
1795 E. So. Campus Dr, RM 201
Salt Lake City, UT 84112-9403
Phone: 801-581-6883
Fax: 801-581-6081

PROJECT NO: 22287

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05/17/2024
Shums Coda Associates

BIOMEDICAL POLYMERS RESEARCH BUILDING - LEVEL 2

20 SOUTH 2030 EAST, SALT LAKE CITY, UTAH 84112

CONSTRUCTION DOCUMENTS

SEAL:
STATE OF UTAH
NO. 135781
TRACY D. STOCKING
LICENSED ARCHITECT

DATE: 05/03/2024
PROJECT #: 23027

SHEET NAME:
LAB ROOMS 272,268 & 266 - STORYBOARD

SHEET #: **A403**

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5/6/2024 9:43:34 AM

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KEYNOTES

06.26 PLASTIC LAMINATE SHELVES W/ SEISMIC RODS AT FRONT AND SIDES ON STANDARDS AT MAX 30" O.C.; SEE ELEVATION FOR STANDARD DIMENSIONS.
08.07 24X24 FLUSH METAL ACCESS PANIEL WITH FLANGE
09.17 4" RUBBER BASE - TYPICAL AT WALLS AND CABINET TOE KICK
13.02 CONTRACTOR TO PROVIDE BACKING IN BOTH SIDES OF WALL FOR FUTURE CO2 RACK INSTALLATION, REF DETAIL1/A570

ACCESSORIES & EQUIPMENT SCHEDULE

MARK	DESCRIPTION	RESPONSIBILITY
Q-01	DISPLAY MONITOR 70	OFOI
Q-02	DISPLAY MONITOR 75	OFOI
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Q-04	WHITE BOARD	CFCI
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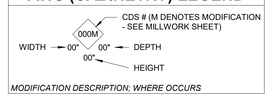

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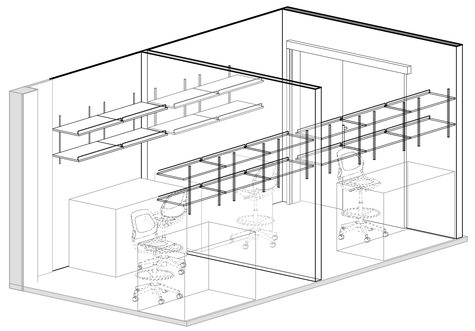
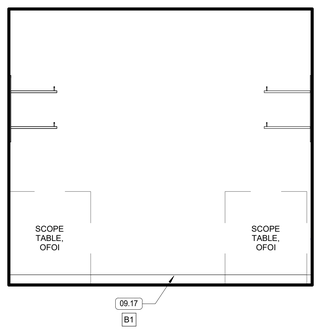
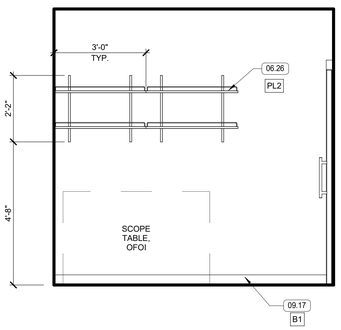


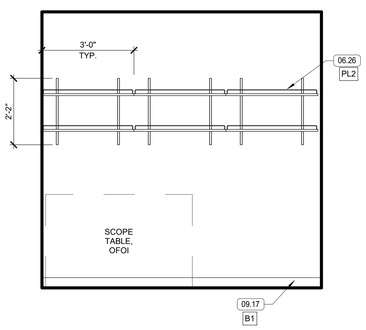
MICROSCOPY ROOMS 266A & 264 - SOUTHWEST
A404 7



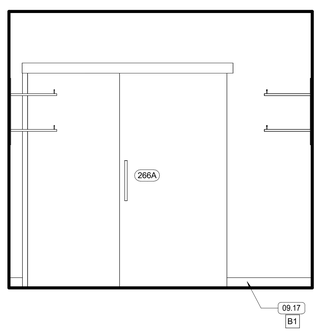
MICROSCOPY 266A - WEST
1/2" = 1'-0" A404 6



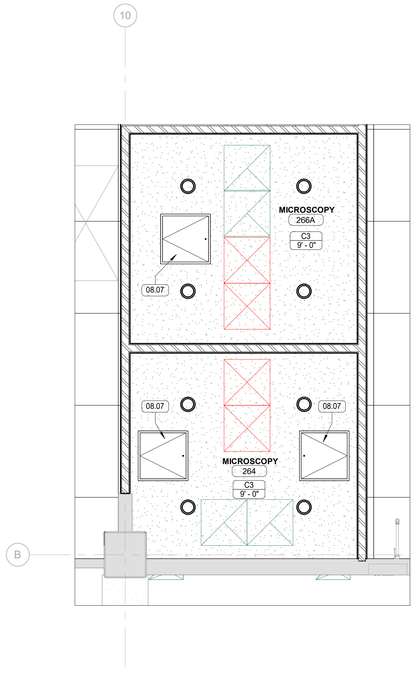
MICROSCOPY 266A - NORTH
1/2" = 1'-0" A404 5



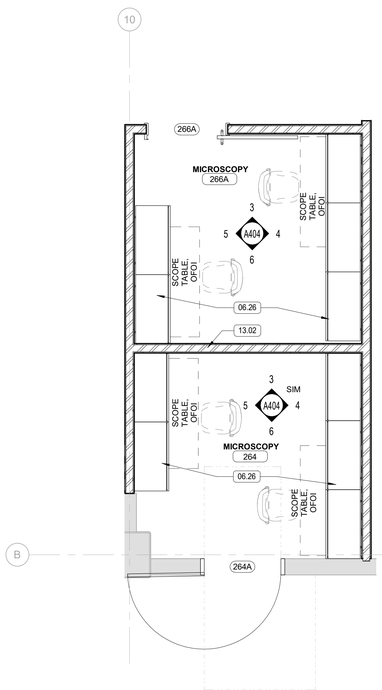
MICROSCOPY 266A - SOUTH
1/2" = 1'-0" A404 4



MICROSCOPY 266A - EAST
1/2" = 1'-0" A404 3

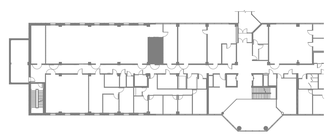


MICROSCOPY ROOMS 266A & 264 - RCP
3/8" = 1'-0" A404 2 N



MICROSCOPY ROOMS 266A & 264 - FLOOR PLAN
3/8" = 1'-0" A404 1 N

KEY PLAN



tsa
1486 SOUTH 1100 EAST
SALT LAKE CITY, UT 84105
TEL . (801) 463 - 7108

THE UNIVERSITY OF UTAH
The Department of
Campus Design and Construction
1795 E. So. Campus Dr, RM 201
Salt Lake City, UT 84112-9403
Phone: 801-581-6883
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PROJECT NO: 22287

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DATE	REVISION

REVIEWED FOR CODE COMPLIANCE
05/17/2024
Shums Coda Associates

BIOMEDICAL POLYMERS RESEARCH BUILDING - LEVEL 2

20 SOUTH 2030 EAST, SALT LAKE CITY, UTAH 84112

CONSTRUCTION DOCUMENTS

SEAL:
STATE OF UTAH
NO. 136781
TRACY D. STOCKING
LICENSED ARCHITECT

DATE: 05/03/2024
PROJECT #: 23027

SHEET NAME:
MICROSCOPY ROOMS 266A & 264 - STORYBOARD

SHEET #: A404

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5/6/2024 9:43:40 AM

GENERAL NOTES - FLOOR PLAN

A. PLAN WALL DIMENSIONS ARE TO GRID LINE OR FACE OF WALL STRUCTURE. "CLEAR" DIMENSIONS ARE TO FACE OF WALL FINISH.
B. FIELD VERIFY ALL EXISTING CONDITIONS AND THEIR COMPATIBILITY WITH NEW CONSTRUCTION PRIOR TO THE COMMENCEMENT OF WORK. COORDINATE DISCREPANCIES WITH ARCHITECT.
C. DO NOT SCALE DRAWINGS.
D. SEE CIVIL, STRUCTURAL, MECHANICAL AND ELECTRICAL DRAWINGS FOR MORE INFORMATION.
E. SEE G SERIES SHEETS FOR WALL TYPES AND TYPICAL ACCESSIBILITY CLEARANCE AND ADA COMPLIANCE REQUIREMENTS.
F. WHERE WALL MOUNTED T.V./MONITORS/ELECT. BUILLETIN BOARDS/ ETC. OCCUR - INSTALL BACKING. IN WALL. PROVIDE (3) 18 GA. HORIZONTAL STUDS, CLIP TO FIT OVER WALL STUDS AND SECURELY ATTACH.
G. WHERE OTHER WALL MOUNTED ACCESSORIES OCCUR, EITHER CONTRACTOR OR OWNER FURNISHED, PROVIDE 18 GA. SHEET METAL BACKING ON FACE OF STUD BEHIND GYP BOARD.
H. ALL MAN-DOORS SHALL BE INSTALLED 4" FROM NEAREST PERPENDICULAR WALL U.N.O.
I. KEYNOTE DESCRIPTIONS CONTAINING (E) MEAN THE ITEM IS EXISTING. ALL OTHER KEYNOTE DESCRIPTIONS ARE CONSIDERED NEW.
J. SEE ROOM FINISH SCHEDULE AND FINISH FLOOR PLANS FOR ARCHITECTURAL FINISH.
K. CONTRACTOR SHALL REPAIR TO LIKE NEW CONDITION ANY EXISTING FINISH DAMAGED DURING DEMOLITION OR CONSTRUCTION.
L. PATCH AND REPAIR ALL (E) WALLS THAT ARE TO REMAIN WHERE HOLES OCCUR FROM REMOVED ACCESSORIES.
M. PATCH AND REPAIR (E) SURROUNDING WALLS WHERE NEW WALLS ARE BEING ATTACHED AND WHERE NEW DOORS ARE BEING ADDED. MATCH (E) SURROUNDING WALL FINISH AND PAINT WALL TO MATCH (E) COLOR AND SHEEN UNLESS A DIFFERENT FINISH IS INDICATED
N. REFER TO LIFE SAFETY SMOKE PLAN FOR INDICATION OF THE WALLS THAT ARE TO RECEIVE FIRE RATING.
O. FURNITURE IS NOT IN CONTRACT. SHOWN FOR SPACE PLANNING PURPOSES ONLY.

GENERAL NOTES - REMODEL

1. CONTRACTOR SHALL VERIFY ALL DIMENSIONS & CONDITIONS AT THE SITE BEFORE SUBMITTING A BID OR PROCEEDING WITH ANY PORTION OF THE WORK.
2. CUT AND PATCH EXISTING BUILDING CONSTRUCTION AS REQUIRED. CUTTING AND DRILLING OF STRUCTURAL MEMBERS NOT DETAILED REQUIRES THE WRITTEN PERMISSION OF THE STRUCTURAL ENGINEER.
3. WHENEVER QUESTIONS ARISE OR CONDITIONS ARE ENCOUNTERED WHICH ARE NOT COVERED BY OR ARE IN CONFLICT WITH THE CONTRACT DOCUMENTS, CONSULT WITH THE ARCHITECT PRIOR TO TAKING ANY FURTHER ACTION.
4. CONTRACTOR SHALL RELOCATE EXISTING MECHANICAL AND ELECTRICAL AS REQUIRED FOR INSTALLATION OF NEW WORK.
5. THE CONTRACTOR SHALL COORDINATE PHASING OF THE WORK WITH THE OWNER AND ARCHITECT TO MEET THE OWNERS SCHEDULE.
6. ALL CONSTRUCTION ACTIVITY IS TO BE CONTAINED W/I CONSTRUCTION BARRICADES OR FENCES. CONTRACTORS SHALL PROTECT OWNER'S EXIST. CONSTRUCTION ADJ. TO NEW CONSTRUCTION. AFTER WORK OF THIS CONTRACT, CLEAN EXIST. AREAS EFFECTED BY THE WORK TO THE OWNER'S SATISFACTION.
7. CONTRACTOR SHALL REPAIR OR REPLACE EXISTING CONSTRUCTION DAMAGED BY NEW CONSTRUCTION. MATCH EXISTING SURFACE FINISH OR MATERIAL
8. SEE GENERAL CEILING NOTES ON A141.
9. ALL MECHANICAL SHUTDOWNS MUST BE SCHEDULED WITH UNIVERSITY OF UTAH. - ADD TO FLOOR PLAN GENERAL NOTES.

KEYNOTES

06.26	PLASTIC LAMINATE SHELVES W/ SEISMIC RODS AT FRONT AND SIDES ON STANDARDS AT MAX 30" O.C.; SEE ELEVATION FOR STANDARD DIMENSIONS.
09.17	4" RUBBER BASE - TYPICAL AT WALLS AND CABINET TOE KICK
11.06	SALVAGE EXISTING CHEMICAL HOOD, PROTECT DURING CONSTRUCTION AND REINSTALL HOOD/PARTS IN BEST CONDITION. CONTRACTOR SHALL TEST AND RE-BALANCE HOOD AND SEND TAB REPORT TO EHS - SEE MECHANICAL DRAWINGS
12.06	MODULAR LAB FURNITURE, CFCI- SEE INTERIOR ELEVATIONS
12.09	MODULAR LAB FURNITURE - ROLLING DRAWERS
12.10	MODULAR LAB FURNITURE - 6' TABLE - SINGLE SIDED, ADJUSTABLE HEIGHT
12.16	INSTALL NEW BLINDS AT ALL WINDOWS - U.N.O. - SEE FINISH SCHEDULE

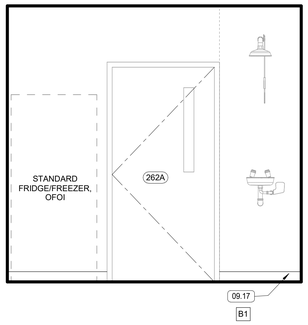
ACCESSORIES & EQUIPMENT SCHEDULE

MARK	DESCRIPTION	RESPONSIBILITY
Q-01	DISPLAY MONITOR 70	OFOI
Q-02	DISPLAY MONITOR 75	OFCI
Q-03	ICE MAKER	OFCI
Q-04	WHITE BOARD	CFCI
Q-06	(2) STACKED INCUBATORS	OFCI
Q-08	5'-0" BIOLOGICAL SAFETY CABINET	OFCI
Q-09	4'-0" BIOLOGICAL SAFETY CABINET	OFCI
Q-10	ULTRA PURE WATER SYSTEM	OFCI
Q-11	UNDER COUNTER REF. - ADD ALT 1	OFOI
X-01	STAINLESS STEEL FRAMED GLASS MIRROR - 24" X 42"	CFCI
X-02	GRAB BAR	CFCI
X-03	SOAP DISPENSER	OFCI
X-04	PAPER TOWEL DISPENSER	OFCI
X-05	SANITARY NAPKIN RECEPTACLE	OFCI
X-06	SANITARY SEAT COVER DISPENSER	OFCI
X-07	TOILET PAPER DISPENSER	OFCI
X-10	WALL-MOUNTED BABY CHANGING STATION	OFCI

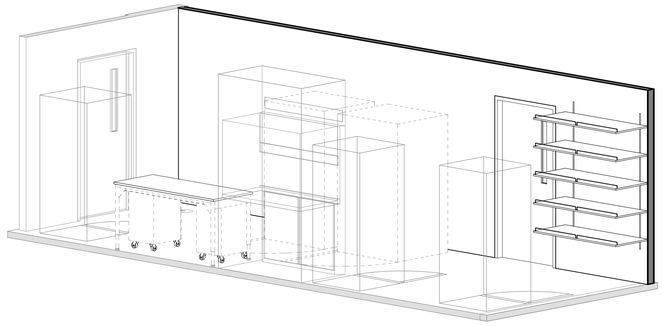
AWS (CABINETRY) LEGEND

000M — CDS # (M DENOTES MODIFICATION - SEE MILLWORK SHEET)
WIDTH 00" — 00" DEPTH
00" HEIGHT

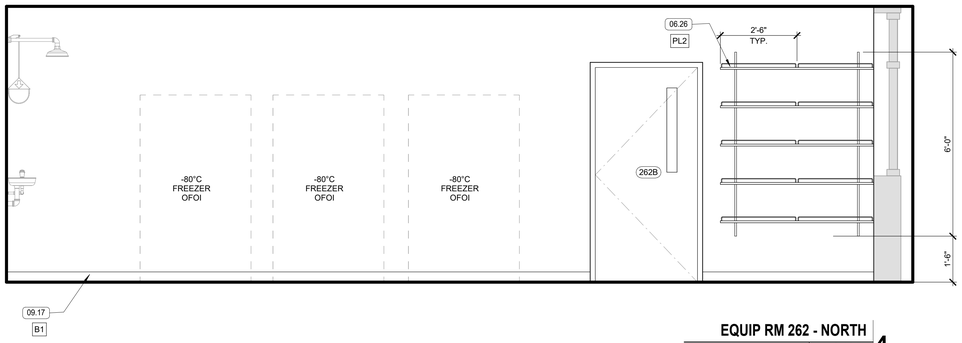
MODIFICATION DESCRIPTION; WHERE OCCURS



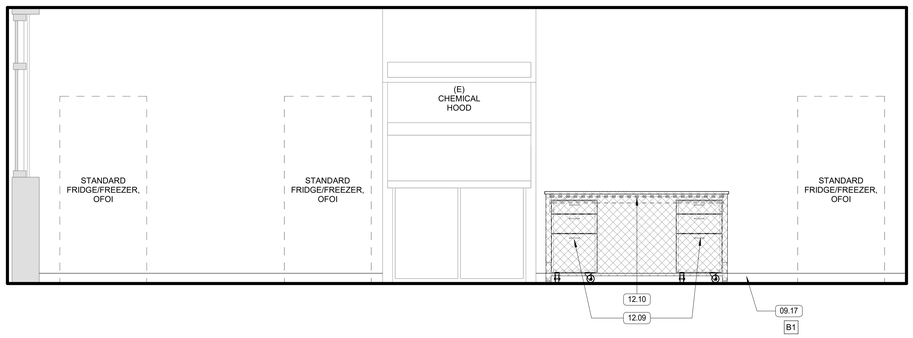
EQUIPMENT ROOM 262 - WEST 6
1/2" = 1'-0" A405



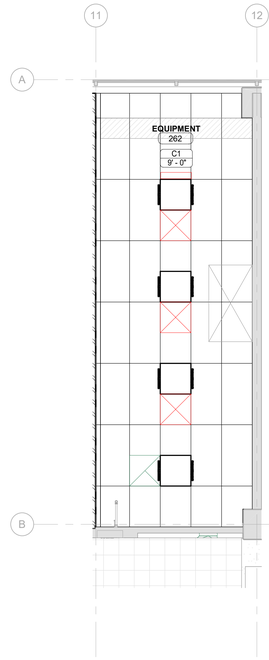
EQUIPMENT ROOM 262 - SOUTHEAST 5
A405



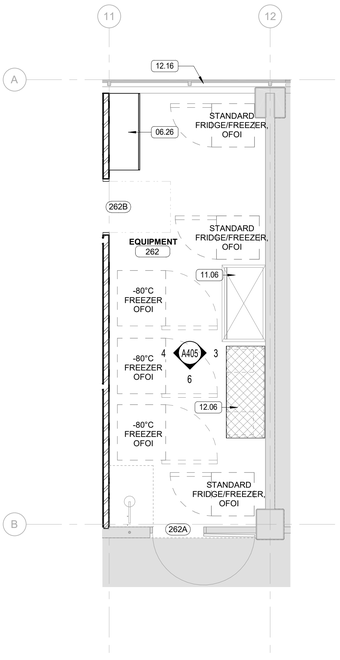
EQUIP RM 262 - NORTH 4
1/2" = 1'-0" A405



EQUIPMENT ROOM 262 - SOUTH 3
1/2" = 1'-0" A405

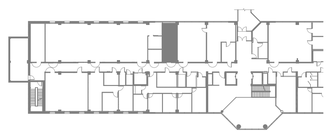


EQUIPMENT ROOM 262 - RCP 2 N
1/4" = 1'-0" A405



EQUIPMENT ROOM 262 - FLOOR PLAN 1 N
1/4" = 1'-0" A405

KEY PLAN



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THE UNIVERSITY OF UTAH
The Department of Campus Design and Construction
1795 E. So. Campus Dr, RM 201
Salt Lake City, UT 84112-9403
Phone: 801-581-6883
Fax: 801-581-6081

PROJECT NO: 22287

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	DATE	REVISION

REVIEWED FOR CODE COMPLIANCE
05/17/2024
Shums Coda Associates

BIOMEDICAL POLYMERS RESEARCH BUILDING - LEVEL 2

20 SOUTH 2030 EAST, SALT LAKE CITY, UTAH 84112

CONSTRUCTION DOCUMENTS

SEAL:
STATE OF UTAH
NO. 135781
TRACY D. STOCKING
LICENSED ARCHITECT

DATE: 05/03/2024
PROJECT #: 23027

SHEET NAME:
EQUIPMENT ROOM 262 - STORYBOARD

SHEET #: **A405**

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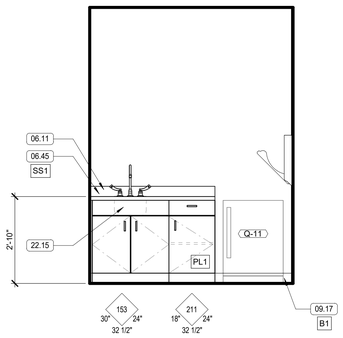
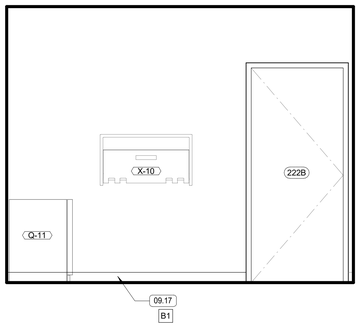
5/6/2024 9:43:47 AM

BASE BID:
EXISTING CONDITIONS TO REMAIN

ADD ALTERNATE 1:
DEMOLISH EXISTING.
NEW WALL FRAMING, CEILING, CABINETRY, PAINT, FLOORING, HVAC, PLUMBING, AND ELECTRICAL.



LACTATION ROOM - SOUTH 11
1/2" = 1'-0" A406



LACTATION ROOM - NORTH 10
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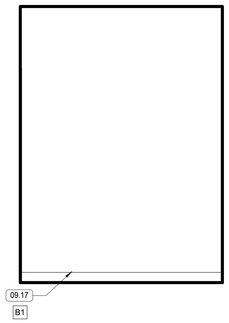
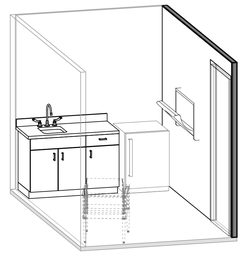
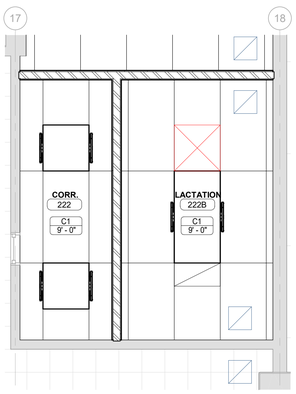


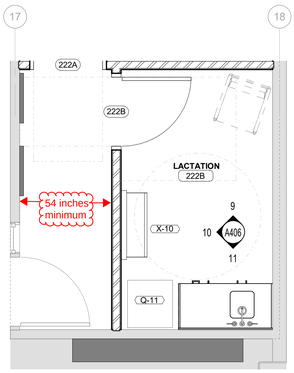
LACTATION ROOM - EAST 9
1/2" = 1'-0" A406



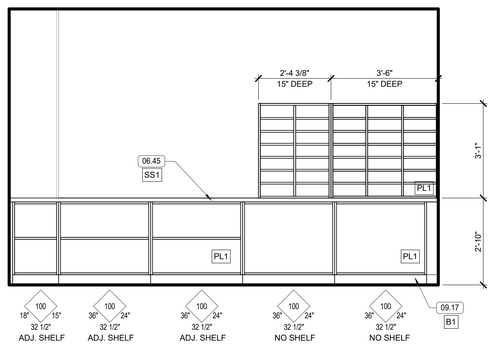
LACTATION ROOM - 3D 8
A406



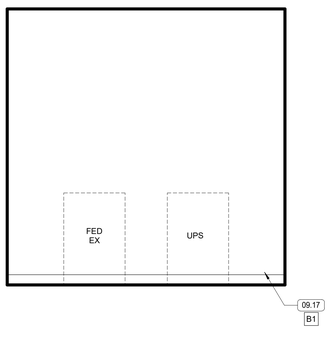
LACTATION ROOM - RCP 7 N
3/8" = 1'-0" A406



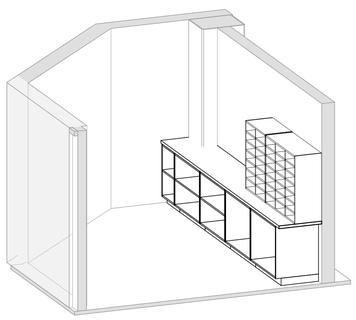
LACTATION ROOM - FLOOR PLAN 6 N
3/8" = 1'-0" A406



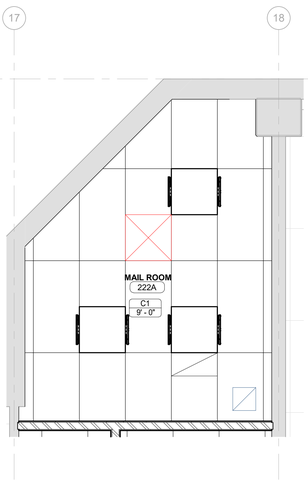
MAIL ROOM - SOUTH 5
1/2" = 1'-0" A406



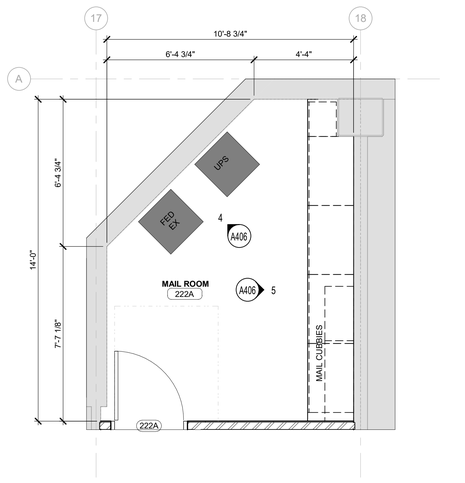
MAIL ROOM - NORTHEAST 4
1/2" = 1'-0" A406



MAIL ROOM - NORTHWEST 3
A406



MAIL ROOM - RCP 2 N
3/8" = 1'-0" A406



MAIL ROOM - FLOOR PLAN 1 N
3/8" = 1'-0" A406

GENERAL NOTES - FLOOR PLAN

A. PLAN WALL DIMENSIONS ARE TO GRID LINE OR FACE OF WALL STRUCTURE. "CLEAR" DIMENSIONS ARE TO FACE OF WALL FINISH.
B. FIELD VERIFY ALL EXISTING CONDITIONS AND THEIR COMPATIBILITY WITH NEW CONSTRUCTION PRIOR TO THE COMMENCEMENT OF WORK. COORDINATE DISCREPANCIES WITH ARCHITECT.
C. DO NOT SCALE DRAWINGS.
D. SEE CIVIL, STRUCTURAL, MECHANICAL AND ELECTRICAL DRAWINGS FOR MORE INFORMATION.
E. SEE G SERIES SHEETS FOR WALL TYPES AND TYPICAL ACCESSIBILITY CLEARANCE AND ADA COMPLIANCE REQUIREMENTS.
F. WHERE WALL MOUNTED T.V./MONITORS/ELECT. BUILLETIN BOARDS/ ETC. OCCUR - INSTALL BACKING. IN WALL. PROVIDE (3) 18 GA. HORIZONTAL STUDS, CLIP TO FIT OVER WALL STUDS AND SECURELY ATTACH.
G. WHERE OTHER WALL MOUNTED ACCESSORIES OCCUR, EITHER CONTRACTOR OR OWNER FURNISHED, PROVIDE 18 GA. SHEET METAL BACKING ON FACE OF STUD BEHIND GYP BOARD.
H. ALL MAN-DOORS SHALL BE INSTALLED 4" FROM NEAREST PERPENDICULAR WALL U.N.O.
I. KEYNOTE DESCRIPTIONS CONTAINING (E) MEAN THE ITEM IS EXISTING. ALL OTHER KEYNOTE DESCRIPTIONS ARE CONSIDERED NEW.
J. SEE ROOM FINISH SCHEDULE AND FINISH FLOOR PLANS FOR ARCHITECTURAL FINISH.
K. CONTRACTOR SHALL REPAIR TO LIKE NEW CONDITION ANY EXISTING FINISH DAMAGED DURING DEMOLITION OR CONSTRUCTION.
L. PATCH AND REPAIR ALL (E) WALLS THAT ARE TO REMAIN WHERE HOLES OCCUR FROM REMOVED ACCESSORIES.
M. PATCH AND REPAIR (E) SURROUNDING WALLS WHERE NEW WALLS ARE BEING ATTACHED AND WHERE NEW DOORS ARE BEING ADDED. MATCH (E) SURROUNDING WALL FINISH AND PAINT WALL TO MATCH (E) COLOR AND SHEEN UNLESS A DIFFERENT FINISH IS INDICATED
N. REFER TO LIFE SAFETY SMOKE PLAN FOR INDICATION OF THE WALLS THAT ARE TO RECEIVE FIRE RATING.
O. FURNITURE IS NOT IN CONTRACT. SHOWN FOR SPACE PLANNING PURPOSES ONLY.

GENERAL NOTES - REMODEL

1. CONTRACTOR SHALL VERIFY ALL DIMENSIONS & CONDITIONS AT THE SITE BEFORE SUBMITTING A BID OR PROCEEDING WITH ANY PORTION OF THE WORK.
2. CUT AND PATCH EXISTING BUILDING CONSTRUCTION AS REQUIRED. CUTTING AND DRILLING OF STRUCTURAL MEMBERS NOT DETAILED REQUIRES THE WRITTEN PERMISSION OF THE STRUCTURAL ENGINEER.
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7. CONTRACTOR SHALL REPAIR OR REPLACE EXISTING CONSTRUCTION DAMAGED BY NEW CONSTRUCTION. MATCH EXISTING SURFACE FINISH OR MATERIAL
8. SEE GENERAL CEILING NOTES ON A141.
9. ALL MECHANICAL SHUTDOWNS MUST BE SCHEDULED WITH UNIVERSITY OF UTAH. - ADD TO FLOOR PLAN GENERAL NOTES.

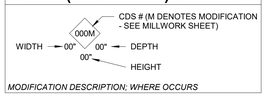
KEYNOTES

06.11 4" BACKSPLASH TO MATCH COUNTER TOP MATERIAL
06.45 SOLID SURFACE COUNTER TOP W/ (1) LAYER 3/4" SUBSTRATE
09.17 4" RUBBER BASE - TYPICAL AT WALLS AND CABINET TOE KICK
22.15 UNDER MOUNTED SINK WITH FAUCET - SEE PLUMBING DRAWING

ACCESSORIES & EQUIPMENT SCHEDULE

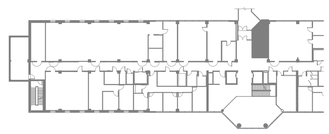
MARK	DESCRIPTION	RESPONSIBILITY
Q-01	DISPLAY MONITOR 70	OFOI
Q-02	DISPLAY MONITOR 75	OFOI
Q-03	ICE MAKER	OFCI
Q-04	WHITE BOARD	CFCI
Q-06	(2) STACKED INCUBATORS	OFCI
Q-08	5'-0" BIOLOGICAL SAFETY CABINET	OFCI
Q-09	4'-0" BIOLOGICAL SAFETY CABINET	OFCI
Q-10	ULTRA PURE WATER SYSTEM	OFCI
Q-11	UNDER COUNTER REF. - ADD ALT 1	OFOI
X-01	STAINLESS STEEL FRAMED GLASS MIRROR - 24" X 42"	CFCI
X-02	GRAB BAR	CFCI
X-03	SOAP DISPENSER	OFCI
X-04	PAPER TOWEL DISPENSER	OFCI
X-05	SANITARY NAPKIN RECEPTACLE	OFCI
X-06	SANITARY SEAT COVER DISPENSER	OFCI
X-07	TOILET PAPER DISPENSER	OFCI
X-10	WALL-MOUNTED BABY CHANGING STATION	OFCI

AWS (CABINETRY) LEGEND



MODIFICATION DESCRIPTION; WHERE OCCURS

KEY PLAN



1486 SOUTH 1100 EAST
SALT LAKE CITY, UT 84105
TEL . (801) 463 - 7108

THE UNIVERSITY OF UTAH
The Department of Campus Design and Construction
1795 E. So. Campus Dr, RM 201
Salt Lake City, UT 84112-9403
Phone: 801-581-6883
Fax: 801-581-6081
PROJECT NO: 22287

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#	DATE	REVISION

REVIEWED FOR CODE COMPLIANCE
05/17/2024
Shums Coda Associates

BIOMEDICAL POLYMERS RESEARCH BUILDING - LEVEL 2

20 SOUTH 2030 EAST, SALT LAKE CITY, UTAH 84112

CONSTRUCTION DOCUMENTS

SEAL:
STATE OF UTAH
NO. 135781
TRACY D. STOCKING
LICENSED ARCHITECT

DATE: 05/03/2024
PROJECT #: 23027

SHEET NAME:
MAIL & LACTATION ROOMS - STORYBOARD

SHEET #:
A406

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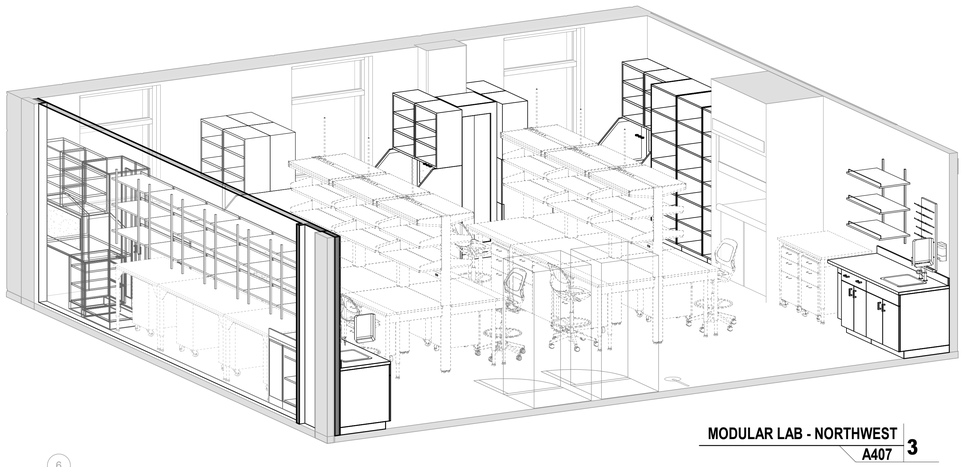
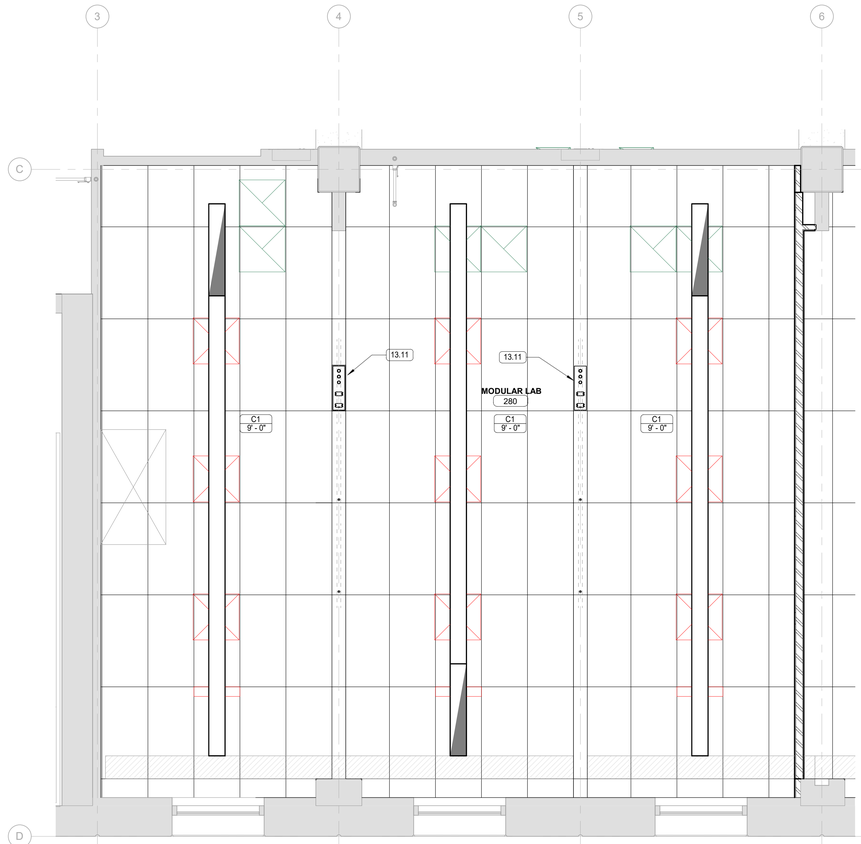
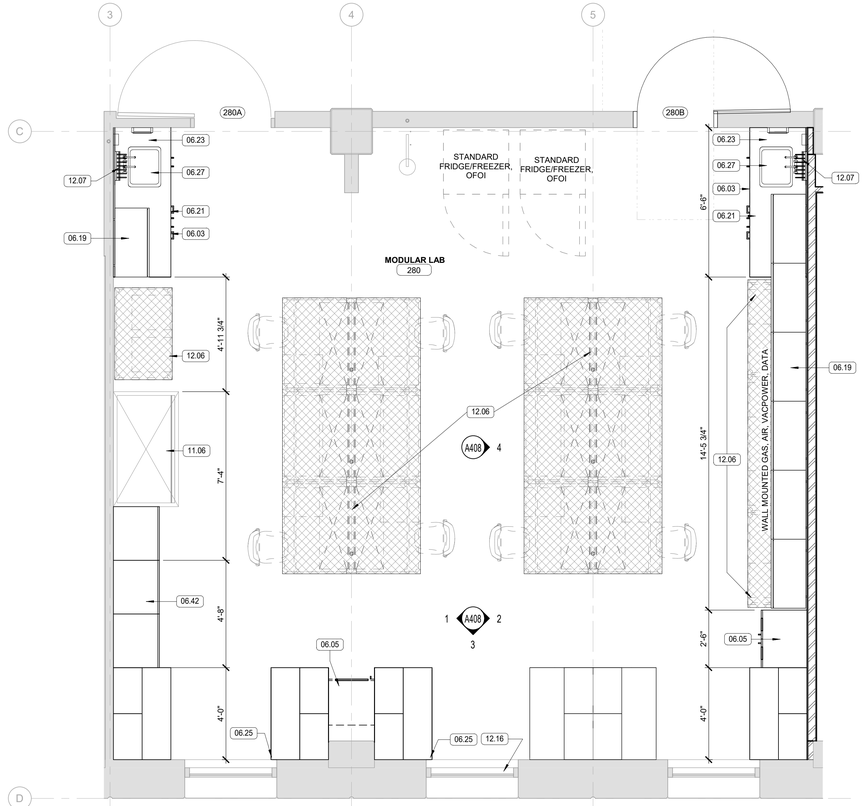


MODULAR LAB - NORTHWEST
A407 3



MODULAR LAB - RCP
3/8" = 1'-0" A407 2

N



MODULAR LAB - FLOOR PLAN
3/8" = 1'-0" A407 1

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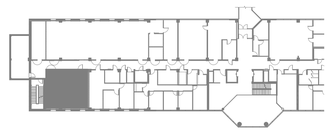
KEY PLAN



GENERAL NOTES - FLOOR PLAN

A. PLAN WALL DIMENSIONS ARE TO GRID LINE OR FACE OF WALL STRUCTURE. "CLEAR" DIMENSIONS ARE TO FACE OF WALL FINISH.
B. FIELD VERIFY ALL EXISTING CONDITIONS AND THEIR COMPATIBILITY WITH NEW CONSTRUCTION PRIOR TO THE COMMENCEMENT OF WORK. COORDINATE DISCREPANCIES WITH ARCHITECT.
C. DO NOT SCALE DRAWINGS.
D. SEE CIVIL, STRUCTURAL, MECHANICAL AND ELECTRICAL DRAWINGS FOR MORE INFORMATION.
E. SEE G SERIES SHEETS FOR WALL TYPES AND TYPICAL ACCESSIBILITY CLEARANCE AND ADA COMPLIANCE REQUIREMENTS.
F. WHERE WALL MOUNTED T.V./MONITORS/ELECT. BUILLETIN BOARDS/ ETC. OCCUR - INSTALL BACKING. IN WALL. PROVIDE (3) 18 GA. HORIZONTAL STUDS, CLIP TO FIT OVER WALL STUDS AND SECURELY ATTACH.
G. WHERE OTHER WALL MOUNTED ACCESSORIES OCCUR, EITHER CONTRACTOR OR OWNER FURNISHED, PROVIDE 18 GA. SHEET METAL BACKING ON FACE OF STUD BEHIND GYP BOARD.
H. ALL MAN-DOORS SHALL BE INSTALLED 4" FROM NEAREST PERPENDICULAR WALL U.N.O.
I. KEYNOTE DESCRIPTIONS CONTAINING (E) MEAN THE ITEM IS EXISTING. ALL OTHER KEYNOTE DESCRIPTIONS ARE CONSIDERED NEW.
J. SEE ROOM FINISH SCHEDULE AND FINISH FLOOR PLANS FOR ARCHITECTURAL FINISH.
K. CONTRACTOR SHALL REPAIR TO LIKE NEW CONDITION ANY EXISTING FINISH DAMAGED DURING DEMOLITION OR CONSTRUCTION.
L. PATCH AND REPAIR ALL (E) WALLS THAT ARE TO REMAIN WHERE HOLES OCCUR FROM REMOVED ACCESSORIES.
M. PATCH AND REPAIR (E) SURROUNDING WALLS WHERE NEW WALLS ARE BEING ATTACHED AND WHERE NEW DOORS ARE BEING ADDED. MATCH (E) SURROUNDING WALL FINISH AND PAINT WALL TO MATCH (E) COLOR AND SHEEN UNLESS A DIFFERENT FINISH IS INDICATED
N. REFER TO LIFE SAFETY SMOKE PLAN FOR INDICATION OF THE WALLS THAT ARE TO RECEIVE FIRE RATING.
O. FURNITURE IS NOT IN CONTRACT. SHOWN FOR SPACE PLANNING PURPOSES ONLY.

GENERAL NOTES - REMODEL

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7. CONTRACTOR SHALL REPAIR OR REPLACE EXISTING CONSTRUCTION DAMAGED BY NEW CONSTRUCTION. MATCH EXISTING SURFACE FINISH OR MATERIAL
8. SEE GENERAL CEILING NOTES ON A141.
9. ALL MECHANICAL SHUTDOWNS MUST BE SCHEDULED WITH UNIVERSITY OF UTAH. - ADD TO FLOOR PLAN GENERAL NOTES.

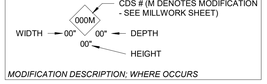
KEYNOTES

06.03 CASEWORK BASE CABINET WITH RUBBER BASE
06.05 FULL HEIGHT CASEWORK CABINET WITH GLAZING IN DOOR PANEL
06.19 PLASTIC LAMINATE SHELVES W/ SEISMIC RODS AT FRONT AND SIDES ON 48" STANDARDS U.N.O.; SHELVES ARE 18" DEEP U.N.O.
06.21 EPOXY RESIN COUNTERTOP
06.23 EPOXY RESIN COUNTERTOP WITH MARINE EDGE AT SINK AREA
06.25 CUT BACK WINDOW SILL TO ACCOMMODATE NEW MILLWORK, COORDINATE WITH INSTALLER FOR FINAL LOCATION
06.27 18" L X 15" W X 10.75 D - EPOXY RESIN DROP-IN SINK - FINISH TO MATCH COUNTERTOP
06.42 OPEN FULL HEIGHT CABINET W/ ADJUSTABLE SHELVES
11.06 SALVAGE EXISTING CHEMICAL HOOD, PROTECT DURING CONSTRUCTION AND REINSTALL HOOD/PARTS IN BEST CONDITION. CONTRACTOR SHALL TEST AND RE-BALANCE HOOD AND SEND TAB REPORT TO EHS - SEE MECHANICAL DRAWINGS
12.06 MODULAR LAB FURNITURE, CFCI- SEE INTERIOR ELEVATIONS
12.07 EPOXY DRYING RACK - BLACK PANEL WITH WHITE PEGS. PROVIDE DRIP TRAY AND DRAINAGE TUBE - CFCI
12.16 INSTALL NEW BLINDS AT ALL WINDOWS - U.N.O. - SEE FINISH SCHEDULE
13.11 CEILING SERVICE PANEL, SEE MEP

ACCESSORIES & EQUIPMENT SCHEDULE

MARK	DESCRIPTION	RESPONSIBILITY
Q-01	DISPLAY MONITOR 70	OFOI
Q-02	DISPLAY MONITOR 75	OFOI
Q-03	ICE MAKER	OFCI
Q-04	WHITE BOARD	CFCI
Q-06	(2) STACKED INCUBATORS	OFCI
Q-08	5'-0" BIOLOGICAL SAFETY CABINET	OFCI
Q-09	4'-0" BIOLOGICAL SAFETY CABINET	OFCI
Q-10	ULTRA PURE WATER SYSTEM	OFCI
Q-11	UNDER COUNTER REF. - ADD ALT 1	OFOI
X-01	STAINLESS STEEL FRAMED GLASS MIRROR - 24" X 42"	CFCI
X-02	GRAB BAR	CFCI
X-03	SOAP DISPENSER	OFCI
X-04	PAPER TOWEL DISPENSER	OFCI
X-05	SANITARY NAPKIN RECEPTACLE	OFCI
X-06	SANITARY SEAT COVER DISPENSER	OFCI
X-07	TOILET PAPER DISPENSER	OFCI
X-10	WALL-MOUNTED BABY CHANGING STATION	OFCI

AWS (CABINETRY) LEGEND



MODIFICATION DESCRIPTION; WHERE OCCURS

tsa
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TEL . (801) 463 - 7108

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PROJECT NO: 22287

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DATE	REVISION

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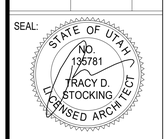
05/17/2024
Shums Coda Associates

BIOMEDICAL POLYMERS RESEARCH BUILDING - LEVEL 2

20 SOUTH 2030 EAST, SALT LAKE CITY, UTAH 84112

CONSTRUCTION DOCUMENTS

SEAL:



DATE:	PROJECT #:
05/03/2024	23027

SHEET NAME:
MODULAR LAB 280 - STORYBOARD

SHEET #:
A407

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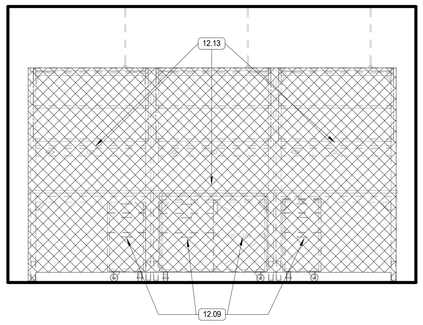
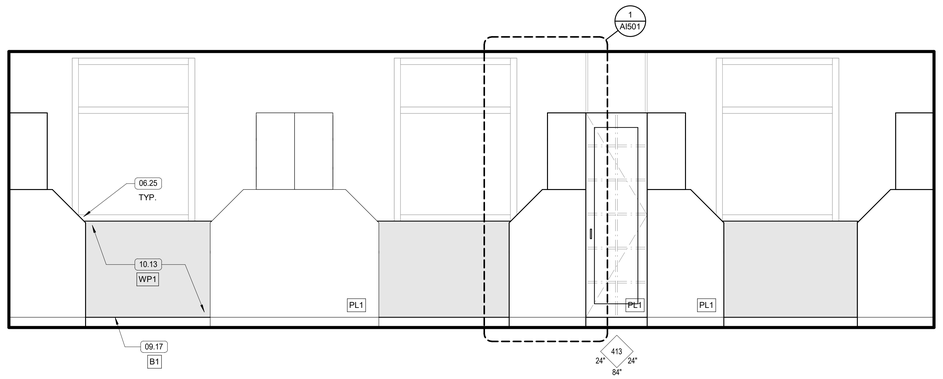
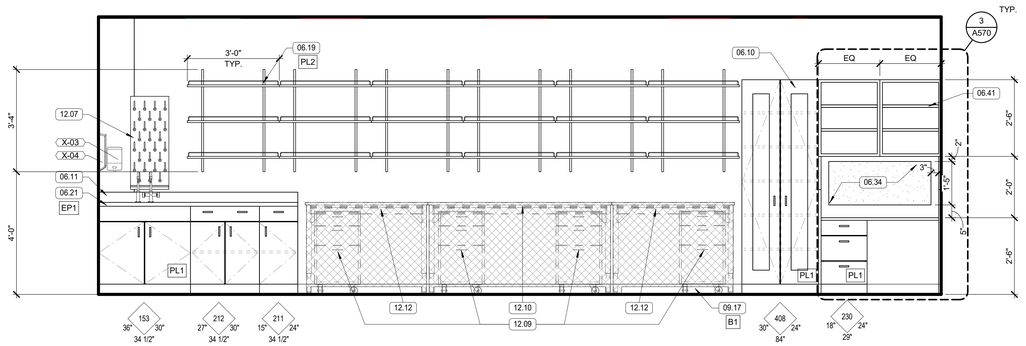


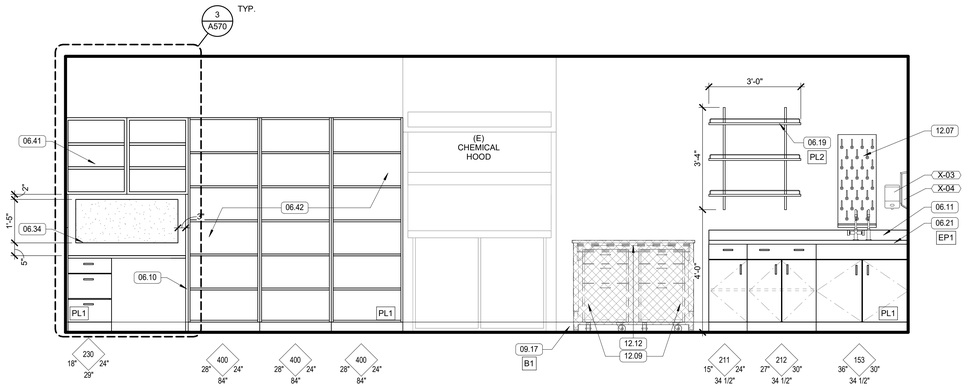
MODULAR BENCH ELEVATION 4
1/2" = 1'-0" A408



MODULAR LAB - WEST 3
1/2" = 1'-0" A408



MODULAR LAB - SOUTH 2
1/2" = 1'-0" A408



MODULAR LAB - NORTH 1
1/2" = 1'-0" A408

GENERAL NOTES - FLOOR PLAN

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9. ALL MECHANICAL SHUTDOWNS MUST BE SCHEDULED WITH UNIVERSITY OF UTAH. - ADD TO FLOOR PLAN GENERAL NOTES.

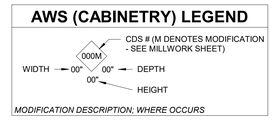
KEYNOTES

06.10 PROVIDE FASCIA PANEL AT FRONT AND SIDES, AT FACE OF PANEL, ALIGN W/ FACE OF CABINET DOOR
06.11 4" BACKSPLASH TO MATCH COUNTER TOP MATERIAL
06.19 PLASTIC LAMINATE SHELVES W/ SEISMIC RODS AT FRONT AND SIDES ON 48" STANDARDS U.N.O.; SHELVES ARE 18" DEEP U.N.O.
06.21 EPOXY RESIN COUNTERTOP
06.25 CUT BACK WINDOW SILL TO ACCOMMODATE NEW MILLWORK, COORDINATE WITH INSTALLER FOR FINAL LOCATION
06.34 FABRIC WRAPPED TACK BOARD
06.41 UPPER CABINET W/ ADJUSTABLE SHELVES
06.42 OPEN FULL HEIGHT CABINET W/ ADJUSTABLE SHELVES
09.17 4" RUBBER BASE - TYPICAL AT WALLS AND CABINET TOE KICK
10.13 WALL PROTECTION EXTENDS TO BOTTOM OF WINDOW SILL, TYPICAL AT ALL DESKS IN LAB AREAS
12.07 EPOXY DRYING RACK - BLACK PANEL WITH WHITE PEGS. PROVIDE DRIP TRAY AND DRAINAGE TUBE - CFCI
12.09 MODULAR LAB FURNITURE - ROLLING DRAWERS
12.10 MODULAR LAB FURNITURE - 6' TABLE - SINGLE SIDED, ADJUSTABLE HEIGHT
12.12 MODULAR LAB FURNITURE - 4' TABLE - SINGLE SIDED, ADJUSTABLE HEIGHT
12.13 MODULAR LAB FURNITURE - SINGLE-SIDED DISTRIBUTION FRAMEWORK AND ADJUSTABLE SHELVING WITH FRONT AND SIDE STAINLESS STEEL SEISMIC RETAINING RODS. DISTRIBUTION FRAMEWORK ATTACHED TO SINGLE-SIDED MODULAR LAB TABLE PER MANUFACTURER'S REQUIREMENTS. GAS AND ELECTRICAL SERVICES PROVIDED FROM CEILING SERVICE PANEL

ACCESSORIES & EQUIPMENT SCHEDULE

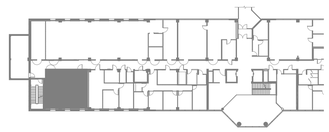
MARK	DESCRIPTION	RESPONSIBILITY
Q-01	DISPLAY MONITOR 70	OFOI
Q-02	DISPLAY MONITOR 75	OFOI
Q-03	ICE MAKER	OFCI
Q-04	WHITE BOARD	CFCI
Q-06	(2) STACKED INCUBATORS	OFCI
Q-08	5'-0" BIOLOGICAL SAFETY CABINET	OFCI
Q-09	4'-0" BIOLOGICAL SAFETY CABINET	OFCI
Q-10	ULTRA PURE WATER SYSTEM	OFCI
Q-11	UNDER COUNTER REF. - ADD ALT 1	OFOI
X-01	STAINLESS STEEL FRAMED GLASS MIRROR - 24" X 42"	CFCI
X-02	GRAB BAR	CFCI
X-03	SOAP DISPENSER	OFCI
X-04	PAPER TOWEL DISPENSER	OFCI
X-05	SANITARY NAPKIN RECEPTACLE	OFCI
X-06	SANITARY SEAT COVER DISPENSER	OFCI
X-07	TOILET PAPER DISPENSER	OFCI
X-10	WALL-MOUNTED BABY CHANGING STATION	OFCI

AWS (CABINETRY) LEGEND



MODIFICATION DESCRIPTION; WHERE OCCURS

KEY PLAN



tsa
1486 SOUTH 1100 EAST
SALT LAKE CITY, UT 84105
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THE UNIVERSITY OF UTAH
The Department of Campus Design and Construction
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Salt Lake City, UT 84112-9403
Phone: 801-581-6883
Fax: 801-581-6081

PROJECT NO: 22287

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#	DATE	REVISION

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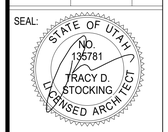
05/17/2024
Shums Coda Associates

BIOMEDICAL POLYMERS RESEARCH BUILDING - LEVEL 2

20 SOUTH 2030 EAST, SALT LAKE CITY, UTAH 84112

CONSTRUCTION DOCUMENTS

SEAL:



DATE: 05/03/2024
PROJECT #: 23027

SHEET NAME:
MODULAR LAB 280 - STORYBOARD

SHEET #:
A408

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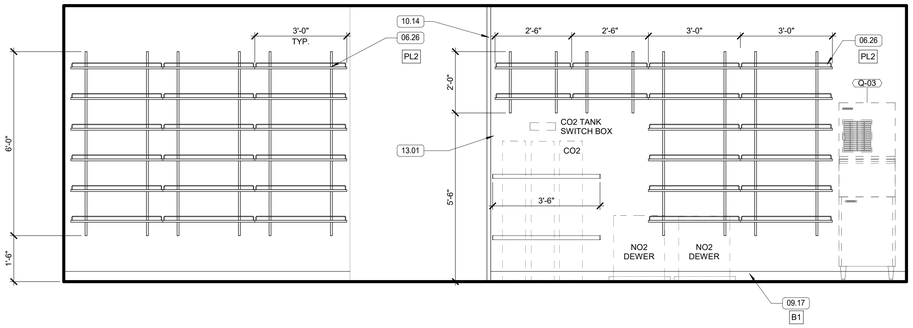
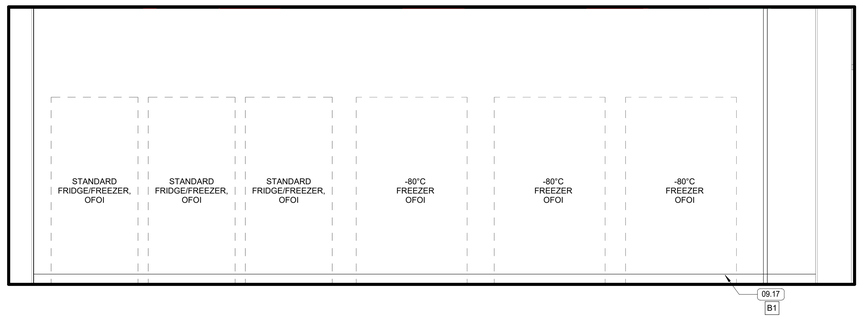
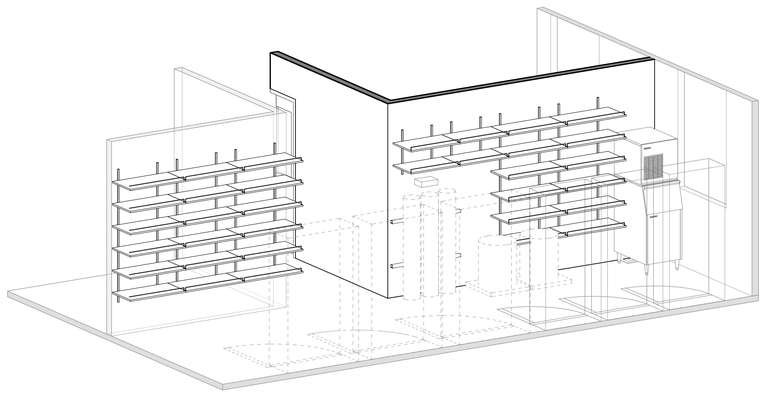


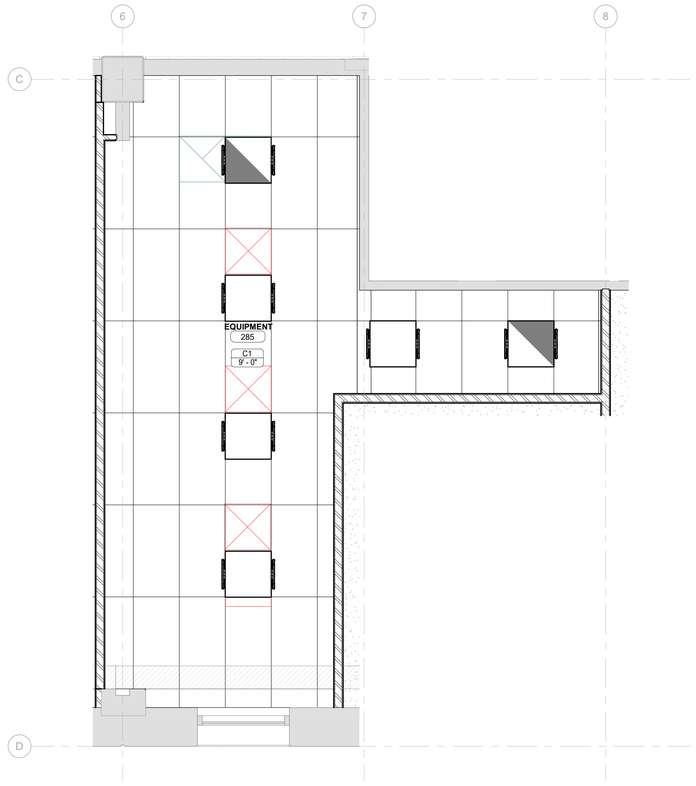
EQUIPMENT ROOM 285 - SOUTH
1/2" = 1'-0" A409 5



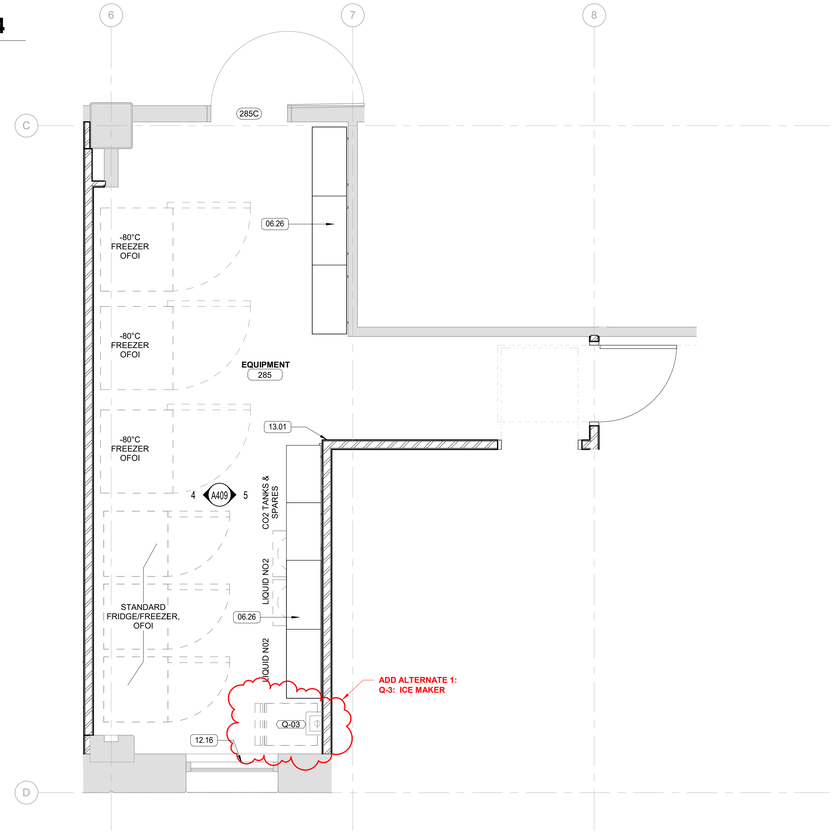
EQUIPMENT ROOM 285 - NORTH
1/2" = 1'-0" A409 4



EQUIPMENT ROOM 285 - NORTHWEST
A409 3



EQUIPMENT ROOM 285 - RCP
3/8" = 1'-0" A409 2 N



EQUIPMENT ROOM 285 - FLOOR PLAN
3/8" = 1'-0" A409 1 N

GENERAL NOTES - FLOOR PLAN

A. PLAN WALL DIMENSIONS ARE TO GRID LINE OR FACE OF WALL STRUCTURE. "CLEAR" DIMENSIONS ARE TO FACE OF WALL FINISH.
B. FIELD VERIFY ALL EXISTING CONDITIONS AND THEIR COMPATIBILITY WITH NEW CONSTRUCTION PRIOR TO THE COMMENCEMENT OF WORK. COORDINATE DISCREPANCIES WITH ARCHITECT.
C. DO NOT SCALE DRAWINGS.
D. SEE CIVIL, STRUCTURAL, MECHANICAL AND ELECTRICAL DRAWINGS FOR MORE INFORMATION.
E. SEE G SERIES SHEETS FOR WALL TYPES AND TYPICAL ACCESSIBILITY CLEARANCE AND ADA COMPLIANCE REQUIREMENTS.
F. WHERE WALL MOUNTED T.V./MONITORS/ELECT. BUILLETIN BOARDS/ ETC. OCCUR - INSTALL BACKING. IN WALL. PROVIDE (3) 18 GA. HORIZONTAL STUDS, CLIP TO FIT OVER WALL STUDS AND SECURELY ATTACH.
G. WHERE OTHER WALL MOUNTED ACCESSORIES OCCUR, EITHER CONTRACTOR OR OWNER FURNISHED, PROVIDE 18 GA. SHEET METAL BACKING ON FACE OF STUD BEHIND GYP BOARD.
H. ALL MAN-DOORS SHALL BE INSTALLED 4" FROM NEAREST PERPENDICULAR WALL U.N.O.
I. KEYNOTE DESCRIPTIONS CONTAINING (E) MEAN THE ITEM IS EXISTING. ALL OTHER KEYNOTE DESCRIPTIONS ARE CONSIDERED NEW.
J. SEE ROOM FINISH SCHEDULE AND FINISH FLOOR PLANS FOR ARCHITECTURAL FINISH.
K. CONTRACTOR SHALL REPAIR TO LIKE NEW CONDITION ANY EXISTING FINISH DAMAGED DURING DEMOLITION OR CONSTRUCTION.
L. PATCH AND REPAIR ALL (E) WALLS THAT ARE TO REMAIN WHERE HOLES OCCUR FROM REMOVED ACCESSORIES.
M. PATCH AND REPAIR (E) SURROUNDING WALLS WHERE NEW WALLS ARE BEING ATTACHED AND WHERE NEW DOORS ARE BEING ADDED. MATCH (E) SURROUNDING WALL FINISH AND PAINT WALL TO MATCH (E) COLOR AND SHEEN UNLESS A DIFFERENT FINISH IS INDICATED
N. REFER TO LIFE SAFETY SMOKE PLAN FOR INDICATION OF THE WALLS THAT ARE TO RECEIVE FIRE RATING.
O. FURNITURE IS NOT IN CONTRACT. SHOWN FOR SPACE PLANNING PURPOSES ONLY.

GENERAL NOTES - REMODEL

1. CONTRACTOR SHALL VERIFY ALL DIMENSIONS & CONDITIONS AT THE SITE BEFORE SUBMITTING A BID OR PROCEEDING WITH ANY PORTION OF THE WORK.
2. CUT AND PATCH EXISTING BUILDING CONSTRUCTION AS REQUIRED. CUTTING AND DRILLING OF STRUCTURAL MEMBERS NOT DETAILED REQUIRES THE WRITTEN PERMISSION OF THE STRUCTURAL ENGINEER.
3. WHENEVER QUESTIONS ARISE OR CONDITIONS ARE ENCOUNTERED WHICH ARE NOT COVERED BY OR ARE IN CONFLICT WITH THE CONTRACT DOCUMENTS, CONSULT WITH THE ARCHITECT PRIOR TO TAKING ANY FURTHER ACTION.
4. CONTRACTOR SHALL RELOCATE EXISTING MECHANICAL AND ELECTRICAL AS REQUIRED FOR INSTALLATION OF NEW WORK.
5. THE CONTRACTOR SHALL COORDINATE PHASING OF THE WORK WITH THE OWNER AND ARCHITECT TO MEET THE OWNERS SCHEDULE.
6. ALL CONSTRUCTION ACTIVITY IS TO BE CONTAINED W/I CONSTRUCTION BARRICADES OR FENCES. CONTRACTORS SHALL PROTECT OWNER'S EXIST. CONSTRUCTION ADJ. TO NEW CONSTRUCTION. AFTER WORK OF THIS CONTRACT, CLEAN EXIST. AREAS EFFECTED BY THE WORK TO THE OWNER'S SATISFACTION.
7. CONTRACTOR SHALL REPAIR OR REPLACE EXISTING CONSTRUCTION DAMAGED BY NEW CONSTRUCTION. MATCH EXISTING SURFACE FINISH OR MATERIAL
8. SEE GENERAL CEILING NOTES ON A141.
9. ALL MECHANICAL SHUTDOWNS MUST BE SCHEDULED WITH UNIVERSITY OF UTAH. - ADD TO FLOOR PLAN GENERAL NOTES.

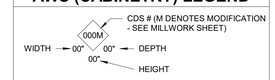
KEYNOTES

06.26 PLASTIC LAMINATE SHELVES W/ SEISMIC RODS AT FRONT AND SIDES ON STANDARDS AT MAX 30" O.C.; SEE ELEVATION FOR STANDARD DIMENSIONS.
09.17 4" RUBBER BASE - TYPICAL AT WALLS AND CABINET TOE KICK
10.14 FULL HEIGHT STAINLESS STEEL CORNER GUARD, SEE INTERIOR FINISH PLAN AND FINISH SCHEDULE
12.16 INSTALL NEW BLINDS AT ALL WINDOWS - U.N.O. - SEE FINISH SCHEDULE
13.01 CONTRACTOR TO PROVIDE BACKING IN WALL FOR FUTURE CO2 RACK INSTALLATION, REF DETAIL 1/A570

ACCESSORIES & EQUIPMENT SCHEDULE

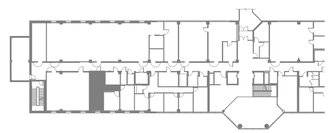
MARK	DESCRIPTION	RESPONSIBILITY
Q-01	DISPLAY MONITOR 70	OFOI
Q-02	DISPLAY MONITOR 75	OFOI
Q-03	ICE MAKER	OFCI
Q-04	WHITE BOARD	CFCI
Q-06	(2) STACKED INCUBATORS	OFCI
Q-08	5'-0" BIOLOGICAL SAFETY CABINET	OFCI
Q-09	4'-0" BIOLOGICAL SAFETY CABINET	OFCI
Q-10	ULTRA PURE WATER SYSTEM	OFCI
Q-11	UNDER COUNTER REF. - ADD ALT 1	OFOI
X-01	STAINLESS STEEL FRAMED GLASS MIRROR - 24" X 42"	CFCI
X-02	GRAB BAR	CFCI
X-03	SOAP DISPENSER	OFCI
X-04	PAPER TOWEL DISPENSER	OFCI
X-05	SANITARY NAPKIN RECEPTACLE	OFCI
X-06	SANITARY SEAT COVER DISPENSER	OFCI
X-07	TOILET PAPER DISPENSER	OFCI
X-10	WALL-MOUNTED BABY CHANGING STATION	OFCI

AWS (CABINETRY) LEGEND



MODIFICATION DESCRIPTION: WHERE OCCURS

KEY PLAN



tsa
1486 SOUTH 1100 EAST
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THE UNIVERSITY OF UTAH
The Department of
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1795 E. So. Campus Dr, RM 201
Salt Lake City, UT 84112-9403
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PROJECT NO: 22287

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#	DATE	REVISION

REVIEWED FOR CODE COMPLIANCE
05/17/2024
Shums Coda Associates

BIOMEDICAL POLYMERS RESEARCH BUILDING - LEVEL 2
20 SOUTH 2030 EAST, SALT LAKE CITY, UTAH 84112
CONSTRUCTION DOCUMENTS

SEAL:
STATE OF UTAH
NO. 135781
TRACY D. STOCKING
LICENSED ARCHITECT

DATE: 05/03/2024
PROJECT #: 23027

SHEET NAME:
EQUIPMENT ROOM 285 - STORYBOARD

SHEET #:
A409

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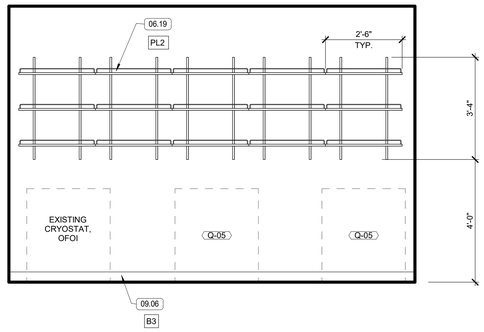
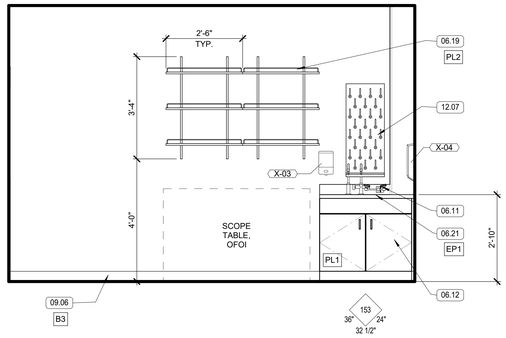
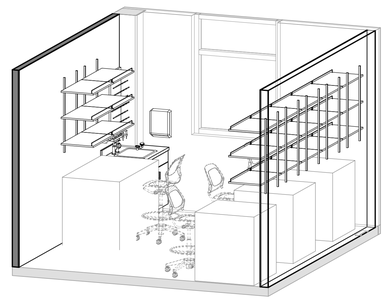
5/6/2024 9:44:27 AM



HISTOLOGY ROOM - NORTH
1/2" = 1'-0" A410 5



HISTOLOGY ROOM - SOUTH
1/2" = 1'-0" A410 4



HISTOLOGY ROOM - NORTHEAST
A410 3

GENERAL NOTES - FLOOR PLAN

A. PLAN WALL DIMENSIONS ARE TO GRID LINE OR FACE OF WALL STRUCTURE. "CLEAR" DIMENSIONS ARE TO FACE OF WALL FINISH.
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G. WHERE OTHER WALL MOUNTED ACCESSORIES OCCUR, EITHER CONTRACTOR OR OWNER FURNISHED, PROVIDE 18 GA. SHEET METAL BACKING ON FACE OF STUD BEHIND GYP BOARD.
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O. FURNITURE IS NOT IN CONTRACT. SHOWN FOR SPACE PLANNING PURPOSES ONLY.

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9. ALL MECHANICAL SHUTDOWNS MUST BE SCHEDULED WITH UNIVERSITY OF UTAH. - ADD TO FLOOR PLAN GENERAL NOTES.

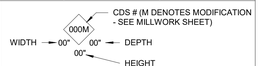
KEYNOTES

06.11 4" BACKSPLASH TO MATCH COUNTER TOP MATERIAL
06.12 CUT CASEWORK CABINET AROUND COLUMN
06.19 PLASTIC LAMINATE SHELVES W/ SEISMIC RODS AT FRONT AND SIDES ON 48" STANDARDS U.N.O.; SHELVES ARE 18" DEEP U.N.O.
06.21 EPOXY RESIN COUNTERTOP
06.23 EPOXY RESIN COUNTERTOP WITH MARINE EDGE AT SINK AREA
06.27 18" L X 15" W X 10.75 D - EPOXY RESIN DROP-IN SINK - FINISH TO MATCH COUNTERTOP
08.07 24X24 FLUSH METAL ACCESS PANEL WITH FLANGE
09.06 4" COVED INTEGRAL BASE. SEE DETAIL 2/AI501. TYPICAL
12.04 BLACKOUT/HEAVY FILTERING WINDOW COVERINGS
12.07 EPOXY DRYING RACK - BLACK PANEL WITH WHITE PEGS. PROVIDE DRIP TRAY AND DRAINAGE TUBE - CFCI

ACCESSORIES & EQUIPMENT SCHEDULE

MARK	DESCRIPTION	RESPONSIBILITY
Q-01	DISPLAY MONITOR 70	OFOI
Q-02	DISPLAY MONITOR 75	OFOI
Q-03	ICE MAKER	OFCI
Q-04	WHITE BOARD	CFCI
Q-06	(2) STACKED INCUBATORS	OFCI
Q-08	5'-0" BIOLOGICAL SAFETY CABINET	OFCI
Q-09	4'-0" BIOLOGICAL SAFETY CABINET	OFCI
Q-10	ULTRA PURE WATER SYSTEM	OFCI
Q-11	UNDER COUNTER REF. - ADD ALT 1	OFOI
X-01	STAINLESS STEEL FRAMED GLASS MIRROR - 24" X 42"	CFCI
X-02	GRAB BAR	CFCI
X-03	SOAP DISPENSER	OFCI
X-04	PAPER TOWEL DISPENSER	OFCI
X-05	SANITARY NAPKIN RECEPTACLE	OFCI
X-06	SANITARY SEAT COVER DISPENSER	OFCI
X-07	TOILET PAPER DISPENSER	OFCI
X-10	WALL-MOUNTED BABY CHANGING STATION	OFCI

AWS (CABINETRY) LEGEND



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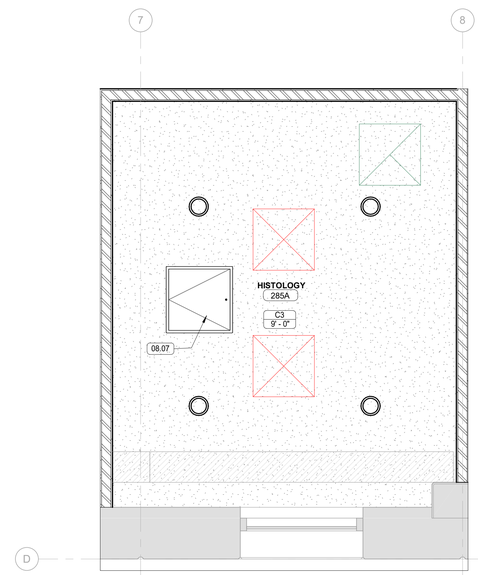

HISTOLOGY ROOM - RCP
1/2" = 1'-0" A410 2

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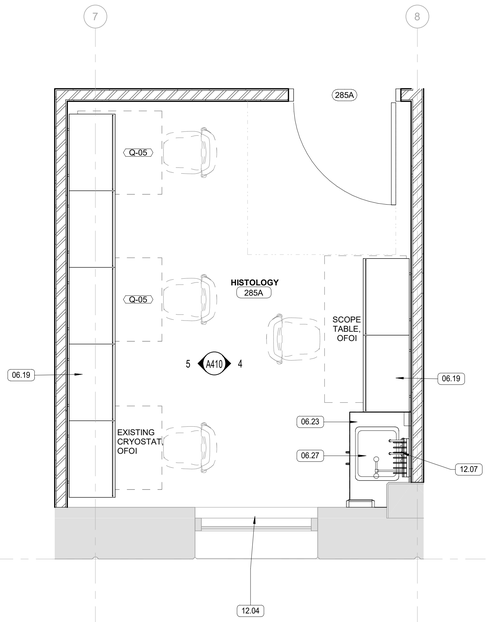

HISTOLOGY ROOM - FLOOR PLAN
1/2" = 1'-0" A410 1

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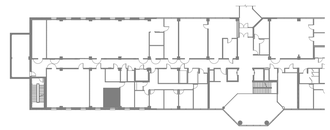
KEY PLAN



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PROJECT NO: 22287

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#	DATE	REVISION

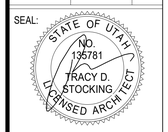
REVIEWED FOR CODE COMPLIANCE
05/17/2024
Shums Coda Associates

BIOMEDICAL POLYMERS RESEARCH BUILDING - LEVEL 2

20 SOUTH 2030 EAST, SALT LAKE CITY, UTAH 84112

CONSTRUCTION DOCUMENTS

SEAL:



DATE: 05/03/2024
PROJECT #: 23027

SHEET NAME: HISTOLOGY ROOM 285A - STORYBOARD

SHEET #: A410

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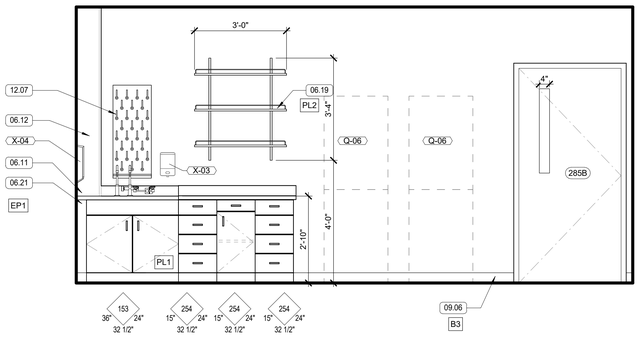
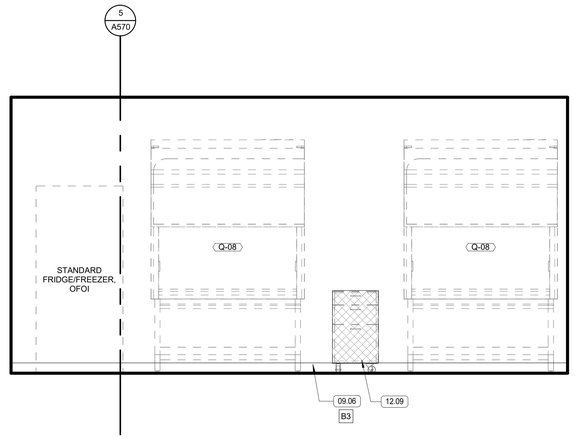
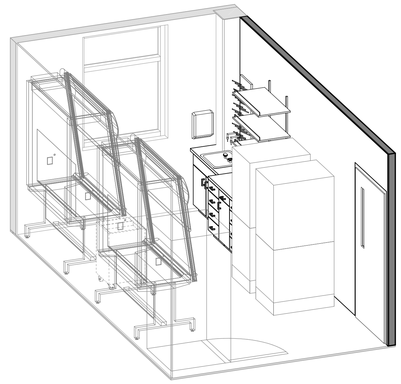


TISSUE CULTURE 285B- NORTH
1/2" = 1'-0" A411 5



TISSUE ROOM 285B - SOUTH
1/2" = 1'-0" A411 4



TISSUE ROOM 285B - SOUTHEAST
A411 3

GENERAL NOTES - FLOOR PLAN

A. PLAN WALL DIMENSIONS ARE TO GRID LINE OR FACE OF WALL STRUCTURE. "CLEAR" DIMENSIONS ARE TO FACE OF WALL FINISH.
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KEYNOTES

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06.12	CUT CASEWORK CABINET AROUND COLUMN
06.19	PLASTIC LAMINATE SHELVES W/ SEISMIC RODS AT FRONT AND SIDES ON 48" STANDARDS U.N.O.; SHELVES ARE 18" DEEP U.N.O.
06.21	EPOXY RESIN COUNTERTOP
06.23	EPOXY RESIN COUNTERTOP WITH MARINE EDGE AT SINK AREA
06.27	18" L X 15" W X 10.75 D - EPOXY RESIN DROP-IN SINK - FINISH TO MATCH COUNTERTOP
08.07	24X24 FLUSH METAL ACCESS PANEL WITH FLANGE
09.06	4" COVED INTEGRAL BASE. SEE DETAIL 2/AI501. TYPICAL
12.04	BLACKOUT/HEAVY FILTERING WINDOW COVERINGS
12.06	MODULAR LAB FURNITURE, CFCI- SEE INTERIOR ELEVATIONS
12.07	EPOXY DRYING RACK - BLACK PANEL WITH WHITE PEGS. PROVIDE DRIP TRAY AND DRAINAGE TUBE - CFCI
12.09	MODULAR LAB FURNITURE - ROLLING DRAWERS

ACCESSORIES & EQUIPMENT SCHEDULE

MARK	DESCRIPTION	RESPONSIBILITY
Q-01	DISPLAY MONITOR 70	OFOI
Q-02	DISPLAY MONITOR 75	OFOI
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Q-04	WHITE BOARD	OFCI
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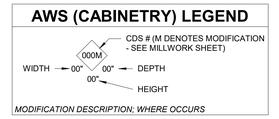
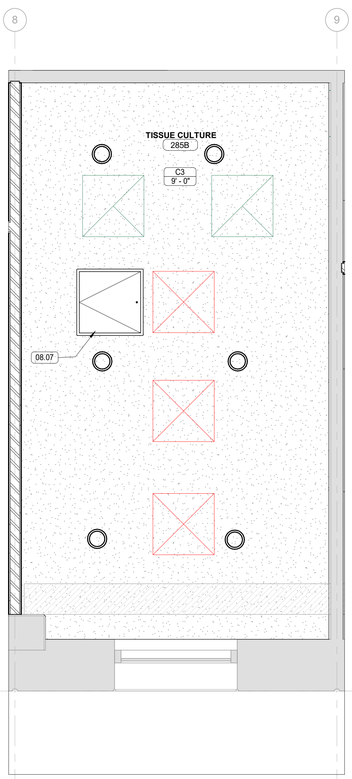
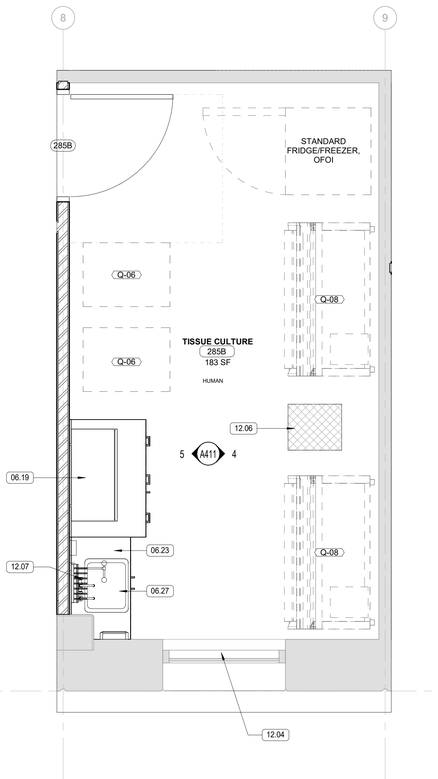
X-10	WALL-MOUNTED BABY CHANGING STATION	OFCI

AWS (CABINETRY) LEGEND



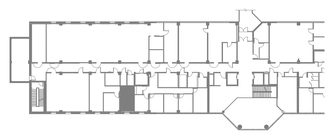


TISSUE ROOM 285B - RCP
1/2" = 1'-0" A411 2 N



TISSUE ROOM 285B - FLOOR PLAN
1/2" = 1'-0" A411 1 N

KEY PLAN



tsa
1486 SOUTH 1100 EAST
SALT LAKE CITY, UT 84105
TEL . (801) 463 - 7108

THE UNIVERSITY OF UTAH
The Department of
Campus Design and Construction
1795 E. So. Campus Dr, RM 201
Salt Lake City, UT 84112-9403
Phone: 801-581-6883
Fax: 801-581-6081
PROJECT NO: 22287

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#	DATE	REVISION

REVIEWED FOR CODE COMPLIANCE
05/17/2024
Shums Coda Associates

BIOMEDICAL POLYMERS RESEARCH BUILDING - LEVEL 2

20 SOUTH 2030 EAST, SALT LAKE CITY, UTAH 84112

CONSTRUCTION DOCUMENTS

SEAL:
STATE OF UTAH
NO. 136781
TRACY D. STOCKING
LICENSED ARCHITECT

DATE: 05/03/2024
PROJECT #: 23027

SHEET NAME:
TISSUE ROOM 285B - STORYBOARD

SHEET #: **A411**

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5/6/2024 9:44:47 AM

GENERAL NOTES - FLOOR PLAN

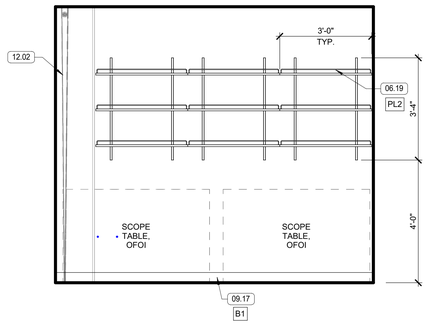
A. PLAN WALL DIMENSIONS ARE TO GRID LINE OR FACE OF WALL STRUCTURE. "CLEAR" DIMENSIONS ARE TO FACE OF WALL FINISH.
B. FIELD VERIFY ALL EXISTING CONDITIONS AND THEIR COMPATIBILITY WITH NEW CONSTRUCTION PRIOR TO THE COMMENCEMENT OF WORK. COORDINATE DISCREPANCIES WITH ARCHITECT.
C. DO NOT SCALE DRAWINGS.
D. SEE CIVIL, STRUCTURAL, MECHANICAL AND ELECTRICAL DRAWINGS FOR MORE INFORMATION.
E. SEE G SERIES SHEETS FOR WALL TYPES AND TYPICAL ACCESSIBILITY CLEARANCE AND ADA COMPLIANCE REQUIREMENTS.
F. WHERE WALL MOUNTED T.V./MONITORS/ELECT. BUILLETIN BOARDS/ ETC. OCCUR - INSTALL BACKING. IN WALL. PROVIDE (3) 18 GA. HORIZONTAL STUDS, CLIP TO FIT OVER WALL STUDS AND SECURELY ATTACH.
G. WHERE OTHER WALL MOUNTED ACCESSORIES OCCUR, EITHER CONTRACTOR OR OWNER FURNISHED, PROVIDE 18 GA. SHEET METAL BACKING ON FACE OF STUD BEHIND GYP BOARD.
H. ALL MAN-DOORS SHALL BE INSTALLED 4" FROM NEAREST PERPENDICULAR WALL U.N.O.
I. KEYNOTE DESCRIPTIONS CONTAINING (E) MEAN THE ITEM IS EXISTING. ALL OTHER KEYNOTE DESCRIPTIONS ARE CONSIDERED NEW.
J. SEE ROOM FINISH SCHEDULE AND FINISH FLOOR PLANS FOR ARCHITECTURAL FINISH.
K. CONTRACTOR SHALL REPAIR TO LIKE NEW CONDITION ANY EXISTING FINISH DAMAGED DURING DEMOLITION OR CONSTRUCTION.
L. PATCH AND REPAIR ALL (E) WALLS THAT ARE TO REMAIN WHERE HOLES OCCUR FROM REMOVED ACCESSORIES.
M. PATCH AND REPAIR (E) SURROUNDING WALLS WHERE NEW WALLS ARE BEING ATTACHED AND WHERE NEW DOORS ARE BEING ADDED. MATCH (E) SURROUNDING WALL FINISH AND PAINT WALL TO MATCH (E) COLOR AND SHEEN UNLESS A DIFFERENT FINISH IS INDICATED
N. REFER TO LIFE SAFETY SMOKE PLAN FOR INDICATION OF THE WALLS THAT ARE TO RECEIVE FIRE RATING.
O. FURNITURE IS NOT IN CONTRACT. SHOWN FOR SPACE PLANNING PURPOSES ONLY.

GENERAL NOTES - REMODEL

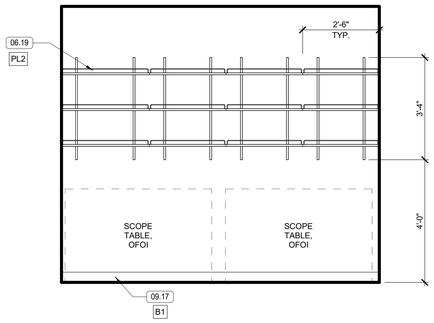
1. CONTRACTOR SHALL VERIFY ALL DIMENSIONS & CONDITIONS AT THE SITE BEFORE SUBMITTING A BID OR PROCEEDING WITH ANY PORTION OF THE WORK.
2. CUT AND PATCH EXISTING BUILDING CONSTRUCTION AS REQUIRED. CUTTING AND DRILLING OF STRUCTURAL MEMBERS NOT DETAILED REQUIRES THE WRITTEN PERMISSION OF THE STRUCTURAL ENGINEER.
3. WHENEVER QUESTIONS ARISE OR CONDITIONS ARE ENCOUNTERED WHICH ARE NOT COVERED BY OR ARE IN CONFLICT WITH THE CONTRACT DOCUMENTS, CONSULT WITH THE ARCHITECT PRIOR TO TAKING ANY FURTHER ACTION.
4. CONTRACTOR SHALL RELOCATE EXISTING MECHANICAL AND ELECTRICAL AS REQUIRED FOR INSTALLATION OF NEW WORK.
5. THE CONTRACTOR SHALL COORDINATE PHASING OF THE WORK WITH THE OWNER AND ARCHITECT TO MEET THE OWNERS SCHEDULE.
6. ALL CONSTRUCTION ACTIVITY IS TO BE CONTAINED W/I CONSTRUCTION BARRICADES OR FENCES. CONTRACTORS SHALL PROTECT OWNER'S EXIST. CONSTRUCTION ADJ. TO NEW CONSTRUCTION. AFTER WORK OF THIS CONTRACT, CLEAN EXIST. AREAS EFFECTED BY THE WORK TO THE OWNER'S SATISFACTION.
7. CONTRACTOR SHALL REPAIR OR REPLACE EXISTING CONSTRUCTION DAMAGED BY NEW CONSTRUCTION. MATCH EXISTING SURFACE FINISH OR MATERIAL
8. SEE GENERAL CEILING NOTES ON A141.
9. ALL MECHANICAL SHUTDOWNS MUST BE SCHEDULED WITH UNIVERSITY OF UTAH. - ADD TO FLOOR PLAN GENERAL NOTES.

KEYNOTES

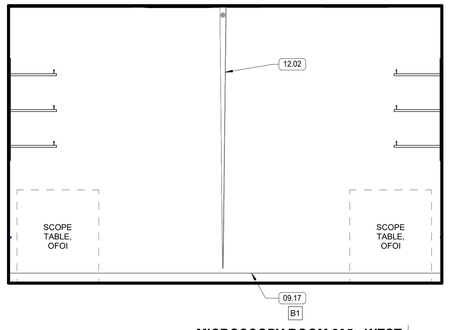
06.19	PLASTIC LAMINATE SHELVES W/ SEISMIC RODS AT FRONT AND SIDES ON 48" STANDARDS U.N.O.; SHELVES ARE 18" DEEP U.N.O.
08.07	24X24 FLUSH METAL ACCESS PANEL WITH FLANGE
09.17	4" RUBBER BASE - TYPICAL AT WALLS AND CABINET TOE KICK
12.02	BLACKOUT CURTAINS ON CEILING MOUNTED TRACK - COORDINATE EXACT LOCATION WITH USER PRIOR TO INSULATION.
13.01	CONTRACTOR TO PROVIDE BACKING IN WALL FOR FUTURE CO2 RACK INSTALLATION, REF DETAIL 1/A570



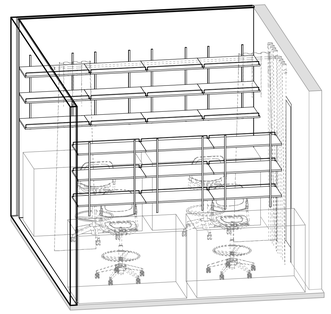
MICROSCOPY ROOM 295 - SOUTH 6
1/2" = 1'-0" A412



MICROSCOPY ROOM 295 - NORTH 5
1/2" = 1'-0" A412



MICROSCOPY ROOM 295 - WEST 4
1/2" = 1'-0" A412

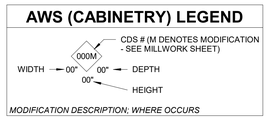


MICROSCOPY ROOM 295 - SOUTHWEST 3
A412

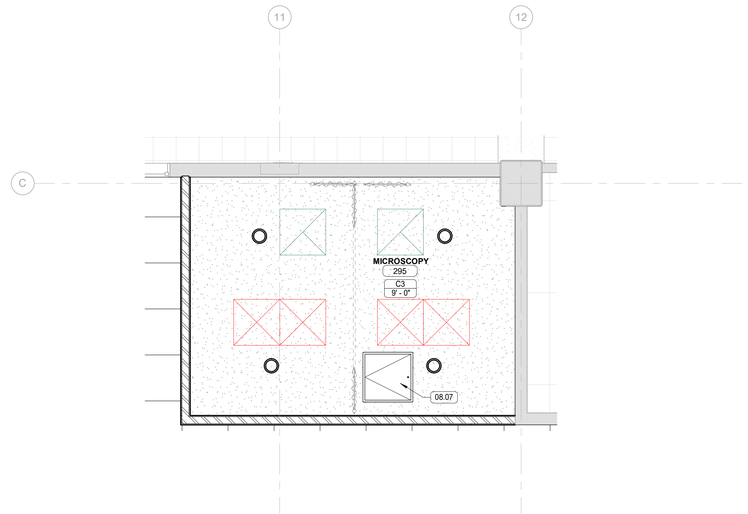
ACCESSORIES & EQUIPMENT SCHEDULE

MARK	DESCRIPTION	RESPONSIBILITY
Q-01	DISPLAY MONITOR 70	OFOI
Q-02	DISPLAY MONITOR 75	OFOI
Q-03	ICE MAKER	OFCI
Q-04	WHITE BOARD	CFCI
Q-06	(2) STACKED INCUBATORS	OFCI
Q-08	5'-0" BIOLOGICAL SAFETY CABINET	OFCI
Q-09	4'-0" BIOLOGICAL SAFETY CABINET	OFCI
Q-10	ULTRA PURE WATER SYSTEM	OFCI
Q-11	UNDER COUNTER REF. - ADD ALT 1	OFOI
X-01	STAINLESS STEEL FRAMED GLASS MIRROR - 24" X 42"	CFCI
X-02	GRAB BAR	CFCI
X-03	SOAP DISPENSER	OFCI
X-04	PAPER TOWEL DISPENSER	OFCI
X-05	SANITARY NAPKIN RECEPTACLE	OFCI
X-06	SANITARY SEAT COVER DISPENSER	OFCI
X-07	TOILET PAPER DISPENSER	OFCI
X-10	WALL-MOUNTED BABY CHANGING STATION	OFCI

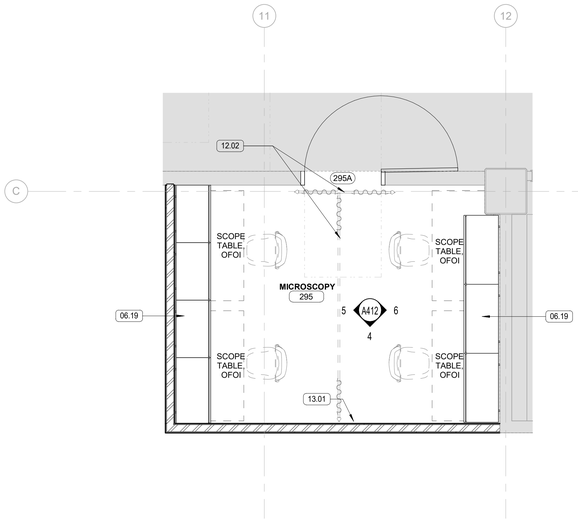
AWS (CABINETRY) LEGEND



MODIFICATION DESCRIPTION; WHERE OCCURS



MICROSCOPY ROOM 295 - RCP 2
3/8" = 1'-0" A412



MICROSCOPY ROOM 295 - FLOOR PLAN 1
3/8" = 1'-0" A412

KEY PLAN



1486 SOUTH 1100 EAST
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1795 E. So. Campus Dr, RM 201
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Phone: 801-581-6883
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PROJECT NO: 22287

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#	DATE	REVISION

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Shums Coda Associates

BIOMEDICAL POLYMERS RESEARCH BUILDING - LEVEL 2

20 SOUTH 2030 EAST, SALT LAKE CITY, UTAH 84112

CONSTRUCTION DOCUMENTS

SEAL:
STATE OF UTAH
NO. 135781
TRACY D. STOCKING
LICENSED ARCHITECT

DATE: 05/03/2024
PROJECT #: 23027

SHEET NAME:
MICROSCOPY ROOM 295 - STORYBOARD

SHEET #: A412

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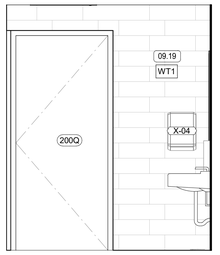
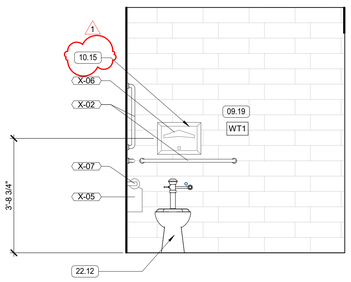


TOILET 2 - EAST
1/2" = 1'-0" A413 11



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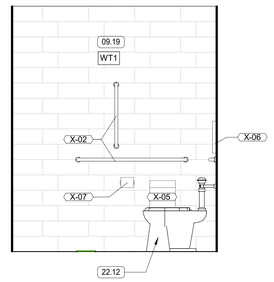

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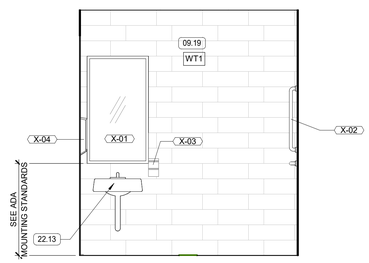
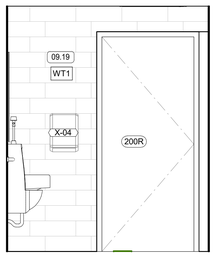


TOILET 2 - SOUTH
1/2" = 1'-0" A413 8



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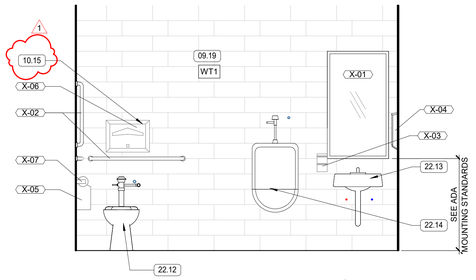
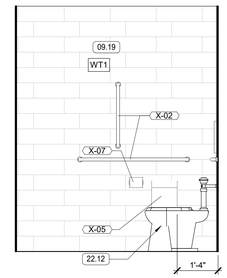
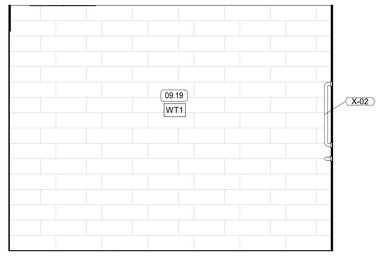
1/2" = 1'-0" A413 7



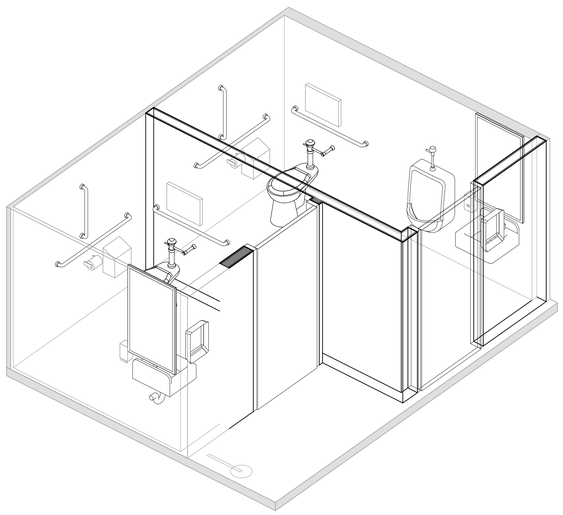
TOILET 1 - NORTH
1/2" = 1'-0" A413 6



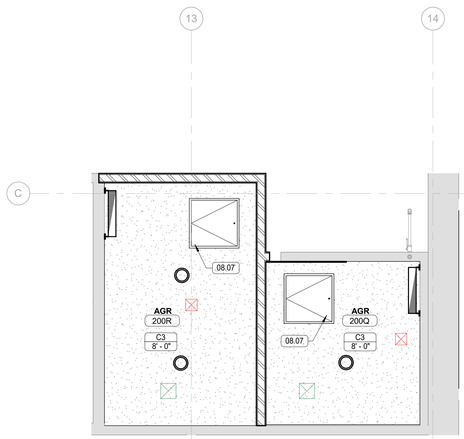
TOILET 1 - WEST
1/2" = 1'-0" A413 5



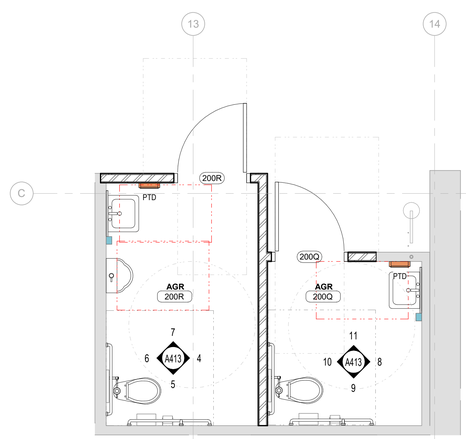
TOILET 1 - SOUTH
1/2" = 1'-0" A413 4



TOILET - SOUTHEAST
A413 3



TOILET - RCP
3/8" = 1'-0" A413 2 N



TOILETS - FLOOR PLAN
3/8" = 1'-0" A413 1 N

GENERAL NOTES - FLOOR PLAN

A. PLAN WALL DIMENSIONS ARE TO GRID LINE OR FACE OF WALL STRUCTURE. "CLEAR" DIMENSIONS ARE TO FACE OF WALL FINISH.
B. FIELD VERIFY ALL EXISTING CONDITIONS AND THEIR COMPATIBILITY WITH NEW CONSTRUCTION PRIOR TO THE COMMENCEMENT OF WORK. COORDINATE DISCREPANCIES WITH ARCHITECT.
C. DO NOT SCALE DRAWINGS.
D. SEE CIVIL, STRUCTURAL, MECHANICAL AND ELECTRICAL DRAWINGS FOR MORE INFORMATION.
E. SEE G SERIES SHEETS FOR WALL TYPES AND TYPICAL ACCESSIBILITY CLEARANCE AND ADA COMPLIANCE REQUIREMENTS.
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J. SEE ROOM FINISH SCHEDULE AND FINISH FLOOR PLANS FOR ARCHITECTURAL FINISH.
K. CONTRACTOR SHALL REPAIR TO LIKE NEW CONDITION ANY EXISTING FINISH DAMAGED DURING DEMOLITION OR CONSTRUCTION.
L. PATCH AND REPAIR ALL (E) WALLS THAT ARE TO REMAIN WHERE HOLES OCCUR FROM REMOVED ACCESSORIES.
M. PATCH AND REPAIR (E) SURROUNDING WALLS WHERE NEW WALLS ARE BEING ATTACHED AND WHERE NEW DOORS ARE BEING ADDED. MATCH (E) SURROUNDING WALL FINISH AND PAINT WALL TO MATCH (E) COLOR AND SHEEN UNLESS A DIFFERENT FINISH IS INDICATED
N. REFER TO LIFE SAFETY SMOKE PLAN FOR INDICATION OF THE WALLS THAT ARE TO RECEIVE FIRE RATING.
O. FURNITURE IS NOT IN CONTRACT. SHOWN FOR SPACE PLANNING PURPOSES ONLY.

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9. ALL MECHANICAL SHUTDOWNS MUST BE SCHEDULED WITH UNIVERSITY OF UTAH. - ADD TO FLOOR PLAN GENERAL NOTES.

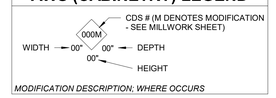
KEYNOTES

08.07	24X24 FLUSH METAL ACCESS PANEL WITH FLANGE
09.19	SCHEDULED WALL TILE, SEE FINISH SCHEDULE
10.15	CONTRACTOR TO RECESS SANITARY SEAT COVER IN TILE WALL. COVER SHALL NOT PROJECT FROM WALL MORE THAN 1/4"
22.12	TOILET - SEE PLUMBING DRAWING
22.13	WALL MOUNTED SINK - SEE PLUMBING
22.14	URINAL - SEE PLUMBING DRAWING

ACCESSORIES & EQUIPMENT SCHEDULE

MARK	DESCRIPTION	RESPONSIBILITY
Q-01	DISPLAY MONITOR 70	OFOI
Q-02	DISPLAY MONITOR 75	OFOI
Q-03	ICE MAKER	OFCI
Q-04	WHITE BOARD	CFCI
Q-06	(2) STACKED INCUBATORS	OFCI
Q-08	5'-0" BIOLOGICAL SAFETY CABINET	OFCI
Q-09	4'-0" BIOLOGICAL SAFETY CABINET	OFCI
Q-10	ULTRA PURE WATER SYSTEM	OFCI
Q-11	UNDER COUNTER REF. - ADD ALT 1	OFOI
X-01	STAINLESS STEEL FRAMED GLASS MIRROR - 24" X 42"	CFCI
X-02	GRAB BAR	CFCI
X-03	SOAP DISPENSER	OFCI
X-04	PAPER TOWEL DISPENSER	OFCI
X-05	SANITARY NAPKIN RECEPTACLE	OFCI
X-06	SANITARY SEAT COVER DISPENSER	OFCI
X-07	TOILET PAPER DISPENSER	OFCI
X-10	WALL-MOUNTED BABY CHANGING STATION	OFCI

AWS (CABINETRY) LEGEND



MODIFICATION DESCRIPTION; WHERE OCCURS

KEY PLAN



1486 SOUTH 1100 EAST
SALT LAKE CITY, UT 84105
TEL . (801) 463 - 7108

THE UNIVERSITY OF UTAH
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05/17/2024
Shums Coda Associates

BIOMEDICAL POLYMERS RESEARCH BUILDING - LEVEL 2

20 SOUTH 2030 EAST, SALT LAKE CITY, UTAH 84112

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TRACY D. STOCKING
LICENSED ARCHITECT

DATE: 05/03/2024
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SHEET NAME:
TOILETS - STORYBOARD

SHEET #:
A413

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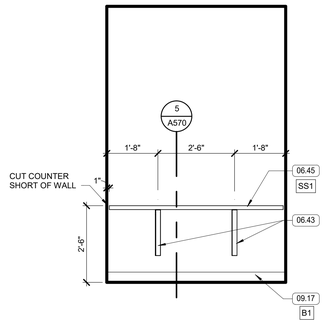
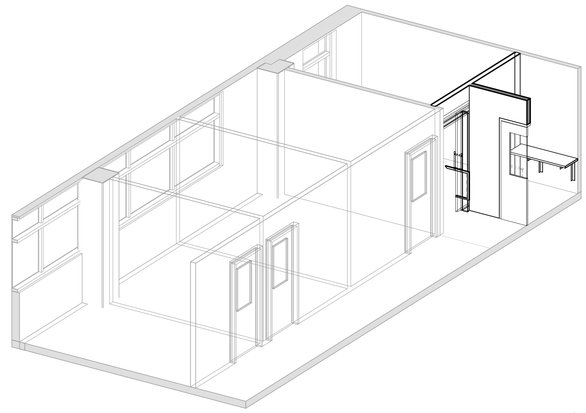
5/16/2024 7:30:18 AM



ZOOM ROOM - NORTH 4
1/2" = 1'-0" A414



ZOOM ROOM 291A & OFFICES - 3D 3
A414

GENERAL NOTES - FLOOR PLAN

A. PLAN WALL DIMENSIONS ARE TO GRID LINE OR FACE OF WALL STRUCTURE. "CLEAR" DIMENSIONS ARE TO FACE OF WALL FINISH.
B. FIELD VERIFY ALL EXISTING CONDITIONS AND THEIR COMPATIBILITY WITH NEW CONSTRUCTION PRIOR TO THE COMMENCEMENT OF WORK. COORDINATE DISCREPANCIES WITH ARCHITECT.
C. DO NOT SCALE DRAWINGS.
D. SEE CIVIL, STRUCTURAL, MECHANICAL AND ELECTRICAL DRAWINGS FOR MORE INFORMATION.
E. SEE G SERIES SHEETS FOR WALL TYPES AND TYPICAL ACCESSIBILITY CLEARANCE AND ADA COMPLIANCE REQUIREMENTS.
F. WHERE WALL MOUNTED T.V./MONITORS/ELECT. BUILLETIN BOARDS/ ETC. OCCUR - INSTALL BACKING. IN WALL. PROVIDE (3) 18 GA. HORIZONTAL STUDS, CLIP TO FIT OVER WALL STUDS AND SECURELY ATTACH.
G. WHERE OTHER WALL MOUNTED ACCESSORIES OCCUR, EITHER CONTRACTOR OR OWNER FURNISHED, PROVIDE 18 GA. SHEET METAL BACKING ON FACE OF STUD BEHIND GYP BOARD.
H. ALL MAN-DOORS SHALL BE INSTALLED 4" FROM NEAREST PERPENDICULAR WALL U.N.O.
I. KEYNOTE DESCRIPTIONS CONTAINING (E) MEAN THE ITEM IS EXISTING. ALL OTHER KEYNOTE DESCRIPTIONS ARE CONSIDERED NEW.
J. SEE ROOM FINISH SCHEDULE AND FINISH FLOOR PLANS FOR ARCHITECTURAL FINISH.
K. CONTRACTOR SHALL REPAIR TO LIKE NEW CONDITION ANY EXISTING FINISH DAMAGED DURING DEMOLITION OR CONSTRUCTION.
L. PATCH AND REPAIR ALL (E) WALLS THAT ARE TO REMAIN WHERE HOLES OCCUR FROM REMOVED ACCESSORIES.
M. PATCH AND REPAIR (E) SURROUNDING WALLS WHERE NEW WALLS ARE BEING ATTACHED AND WHERE NEW DOORS ARE BEING ADDED. MATCH (E) SURROUNDING WALL FINISH AND PAINT WALL TO MATCH (E) COLOR AND SHEEN UNLESS A DIFFERENT FINISH IS INDICATED
N. REFER TO LIFE SAFETY SMOKE PLAN FOR INDICATION OF THE WALLS THAT ARE TO RECEIVE FIRE RATING.
O. FURNITURE IS NOT IN CONTRACT. SHOWN FOR SPACE PLANNING PURPOSES ONLY.

GENERAL NOTES - REMODEL

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3. WHENEVER QUESTIONS ARISE OR CONDITIONS ARE ENCOUNTERED WHICH ARE NOT COVERED BY OR ARE IN CONFLICT WITH THE CONTRACT DOCUMENTS, CONSULT WITH THE ARCHITECT PRIOR TO TAKING ANY FURTHER ACTION.
4. CONTRACTOR SHALL RELOCATE EXISTING MECHANICAL AND ELECTRICAL AS REQUIRED FOR INSTALLATION OF NEW WORK.
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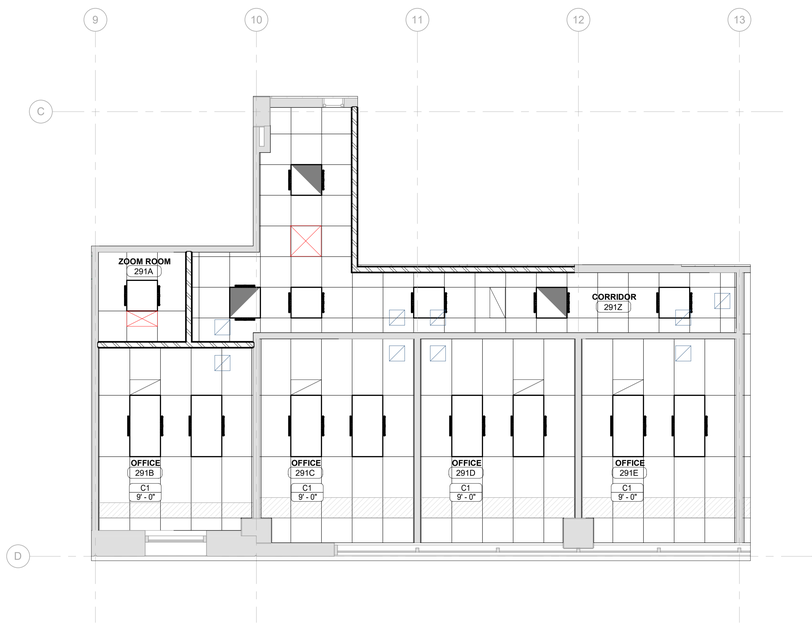
7. CONTRACTOR SHALL REPAIR OR REPLACE EXISTING CONSTRUCTION DAMAGED BY NEW CONSTRUCTION. MATCH EXISTING SURFACE FINISH OR MATERIAL
8. SEE GENERAL CEILING NOTES ON A141.
9. ALL MECHANICAL SHUTDOWNS MUST BE SCHEDULED WITH UNIVERSITY OF UTAH. - ADD TO FLOOR PLAN GENERAL NOTES.

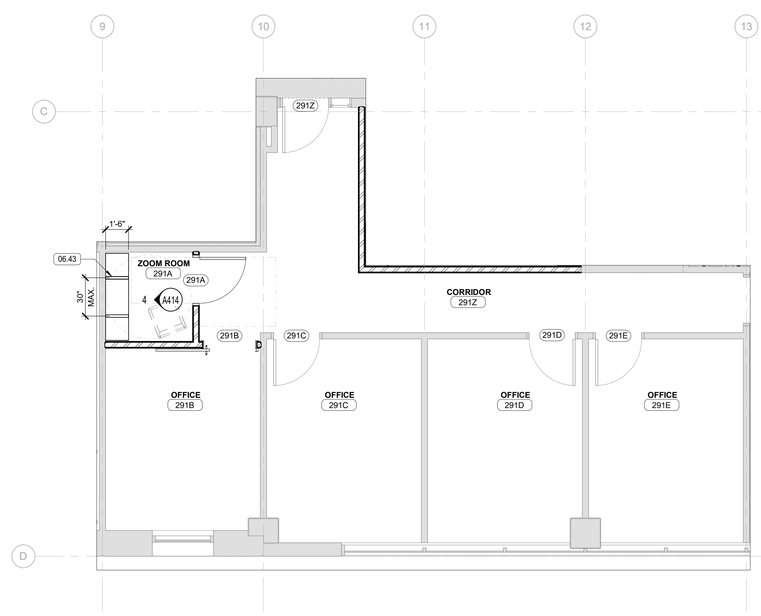
KEYNOTES

06.43 HEAVY DUTY FOLDING COUNTER BRACKETS
06.45 SOLID SURFACE COUNTER TOP W/ (1) LAYER 3/4" SUBSTRATE
09.17 4" RUBBER BASE - TYPICAL AT WALLS AND CABINET TOE KICK



ZOOM ROOM 291A & OFFICES - RCP 2
1/4" = 1'-0" A414

N



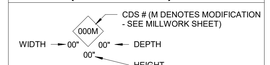
ZOOM ROOM 291A & OFFICES - STORYBOARD 1
1/4" = 1'-0" A414

N

ACCESSORIES & EQUIPMENT SCHEDULE

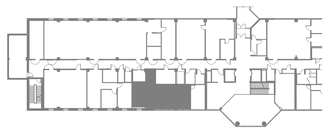
MARK	DESCRIPTION	RESPONSIBILITY
Q-01	DISPLAY MONITOR 70	OFOI
Q-02	DISPLAY MONITOR 75	OFOI
Q-03	ICE MAKER	OFCI
Q-04	WHITE BOARD	CFCI
Q-06	(2) STACKED INCUBATORS	OFCI
Q-08	5'-0" BIOLOGICAL SAFETY CABINET	OFCI
Q-09	4'-0" BIOLOGICAL SAFETY CABINET	OFCI
Q-10	ULTRA PURE WATER SYSTEM	OFCI
Q-11	UNDER COUNTER REF. - ADD ALT 1	OFOI
X-01	STAINLESS STEEL FRAMED GLASS MIRROR - 24" X 42"	CFCI
X-02	GRAB BAR	CFCI
X-03	SOAP DISPENSER	OFCI
X-04	PAPER TOWEL DISPENSER	OFCI
X-05	SANITARY NAPKIN RECEPTACLE	OFCI
X-06	SANITARY SEAT COVER DISPENSER	OFCI
X-07	TOILET PAPER DISPENSER	OFCI
X-10	WALL-MOUNTED BABY CHANGING STATION	OFCI

AWS (CABINETRY) LEGEND



MODIFICATION DESCRIPTION; WHERE OCCURS

KEY PLAN



tsa
1486 SOUTH 1100 EAST
SALT LAKE CITY, UT 84105
TEL . (801) 463 - 7108

THE UNIVERSITY OF UTAH
The Department of
Campus Design and Construction
1795 E. So. Campus Dr, RM 201
Salt Lake City, UT 84112-9403
Phone: 801-581-6883
Fax: 801-581-6081

PROJECT NO: 22287

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DATE	REVISION

REVIEWED FOR CODE COMPLIANCE
05/17/2024
Shums Coda Associates

BIOMEDICAL POLYMERS RESEARCH BUILDING - LEVEL 2

20 SOUTH 2030 EAST, SALT LAKE CITY, UTAH 84112

CONSTRUCTION DOCUMENTS

SEAL:
STATE OF UTAH
NO. 135781
TRACY D. STOCKING
LICENSED ARCHITECT

DATE: 05/03/2024
PROJECT #: 23027

SHEET NAME:
ZOOM ROOM 291A & OFFICES - STORYBOARD

SHEET #:
A414

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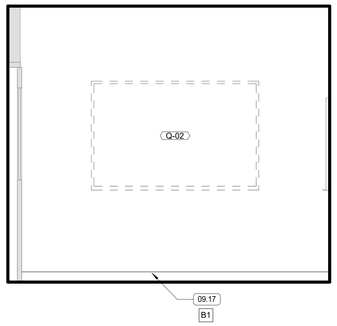
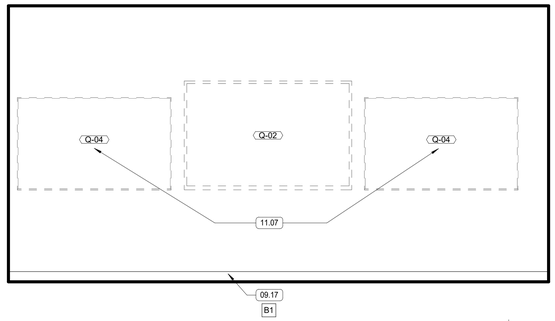
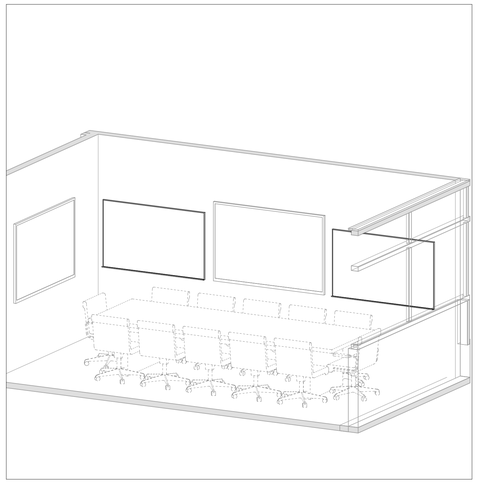


CONFERENCE ROOM 291F - EAST 5
1/2" = 1'-0" A420



CONFERENCE ROOM 291F - SOUTH 4
1/2" = 1'-0" A420



CONFERENCE ROOM 291F - NORTHWEST 3
A420

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KEYNOTES

09.17	4" RUBBER BASE - TYPICAL AT WALLS AND CABINET TOE KICK
11.07	CONTRACTOR TO CONFIRM FINAL PLACEMENT WITH OWNER
12.16	INSTALL NEW BLINDS AT ALL WINDOWS - U.N.O. - SEE FINISH SCHEDULE
26.12	LOCATION FOR DEPARTMENT DISPLAY TV, FLUSH MOUNT TO WALL - PROVIDE RECESSED POWER AND DATA AT 60" A.F.F. - SEE ELECTRICAL. CENTER ON WALL. PER CODE REQUIREMENTS, FRONT FACE OF TV SHALL NOT PROTRUDE MORE THAN 4" FROM WALL

ACCESSORIES & EQUIPMENT SCHEDULE

MARK	DESCRIPTION	RESPONSIBILITY
Q-01	DISPLAY MONITOR 70	OFOI
Q-02	DISPLAY MONITOR 75	OFOI
Q-03	ICE MAKER	OFCI
Q-04	WHITE BOARD	CFCI
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X-05	SANITARY NAPKIN RECEPTACLE	OFCI
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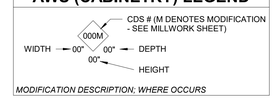
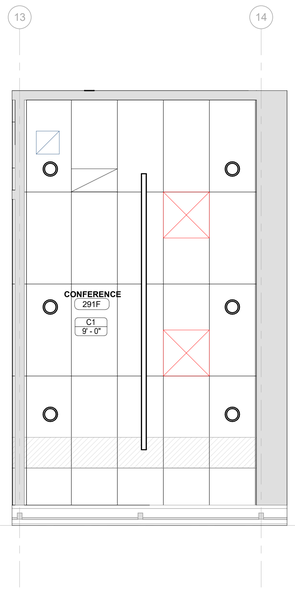
X-10	WALL-MOUNTED BABY CHANGING STATION	OFCI

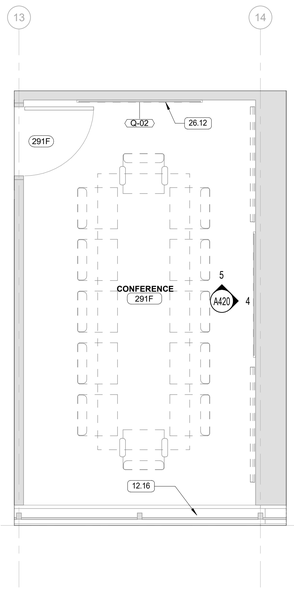
AWS (CABINETRY) LEGEND



MODIFICATION DESCRIPTION; WHERE OCCURS

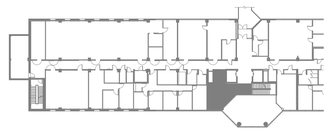


CONFERENCE ROOM 291F - RCP 2
3/8" = 1'-0" A420



CONFERENCE ROOM 291F - FLOOR PLAN 1
3/8" = 1'-0" A420

KEY PLAN



tsa
1486 SOUTH 1100 EAST
SALT LAKE CITY, UT 84105
TEL . (801) 463 - 7108

THE UNIVERSITY OF UTAH
The Department of
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1795 E. So. Campus Dr, RM 201
Salt Lake City, UT 84112-9403
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Fax: 801-581-6081

PROJECT NO: 22287

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	DATE	REVISION

REVIEWED FOR CODE COMPLIANCE
05/17/2024
Shums Coda Associates

BIOMEDICAL POLYMERS RESEARCH BUILDING - LEVEL 2

20 SOUTH 2030 EAST, SALT LAKE CITY, UTAH 84112

CONSTRUCTION DOCUMENTS

SEAL:
STATE OF UTAH
NO. 135781
TRACY D. STOCKING
LICENSED ARCHITECT

DATE: 05/03/2024
PROJECT #: 23027

SHEET NAME:
CONFERENCE ROOM 291F - STORYBOARD

SHEET #:
A420

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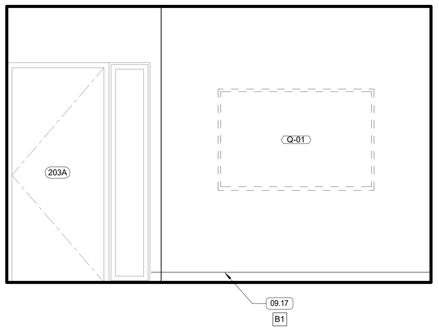
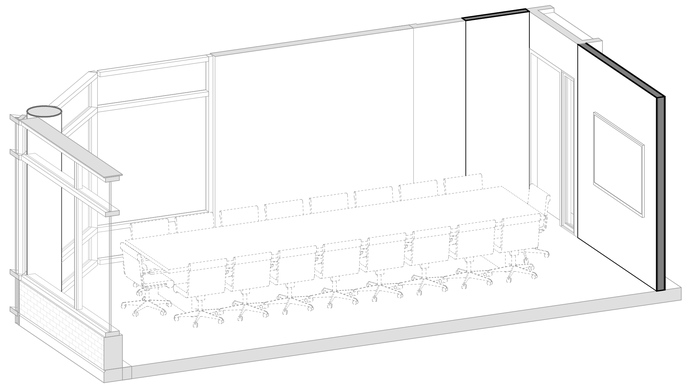


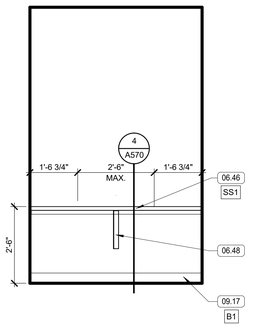
CONFERENCE ROOM 203 - EAST
1/2" = 1'-0" A421 8



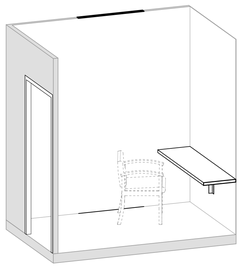
CONFERENCE ROOM 203 - SOUTHWEST
A421 3

BASE BID:
EXISTING CONDITIONS TO REMAIN

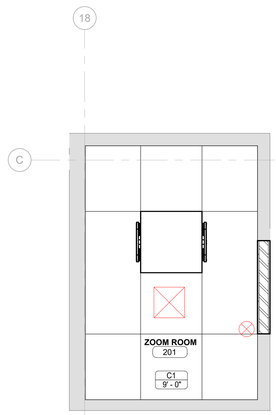
ADD ALTERNATE 1:
DEMOLISH EXISTING.
NEW WALL FRAMING, CEILING, CABINETRY, PAINT, FLOORING, HVAC, PLUMBING, AND ELECTRICAL.



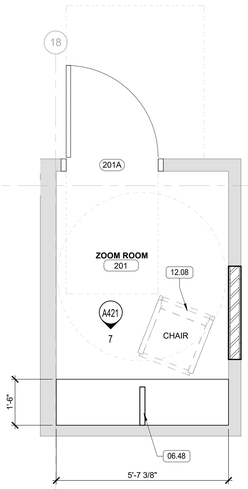
ZOOM ROOM 201 - WEST
1/2" = 1'-0" A421 7



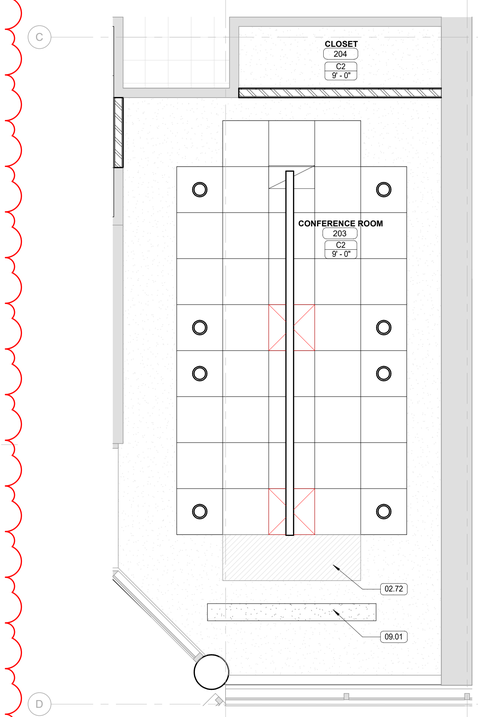
ZOOM ROOM 201 - NORTHEAST
A421 6



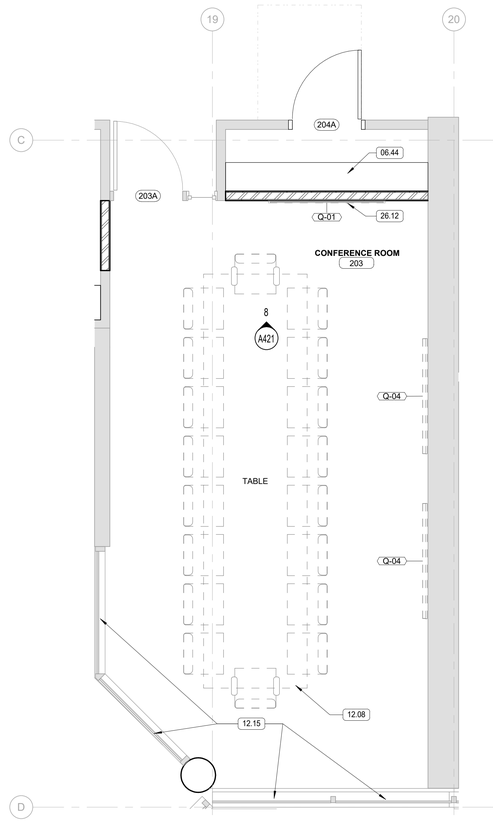
ZOOM ROOM 201 - RCP
1/2" = 1'-0" A421 5 N



ZOOM ROOM 201 - FLOOR PLAN
1/2" = 1'-0" A421 4 N



CONFERENCE ROOM 203 - RCP
3/8" = 1'-0" A421 2 N



CONFERENCE ROOM 203 - FLOOR PLAN
3/8" = 1'-0" A421 1 N

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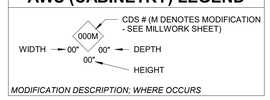
KEYNOTES

02.72	(E) MECHANICAL DIFFUSER TO REMAIN
06.44	ADJUSTABLE SHELVING AND STANDARD FROM 18" TO 7'-6" A.F.F
06.46	P-LAM COUNTER TOP
06.48	STEEL ANGLE SUPPORT BRACKET ANCHORED TO METAL BLOCKING
09.01	NEW GYPSUM BOARD INFILL AT EXISTING RECESSED CEILING. PATCH, REPAIR, AND PAINT TO MATCH ADJACENT FINISH
09.17	4" RUBBER BASE - TYPICAL AT WALLS AND CABINET TOE KICK
12.08	FURNITURE BY OWNER
12.15	INSTALL NEW ROLLER SHADES AT WINDOW OPENINGS. SEE FINISH SCHEDULE
26.12	LOCATION FOR DEPARTMENT DISPLAY TV, FLUSH MOUNT TO WALL - PROVIDE RECESSED POWER AND DATA AT 60" A.F.F. - SEE ELECTRICAL. CENTER ON WALL. PER CODE REQUIREMENTS, FRONT FACE OF TV SHALL NOT PROTRUDE MORE THAN 4" FROM WALL

ACCESSORIES & EQUIPMENT SCHEDULE

MARK	DESCRIPTION	RESPONSIBILITY
Q-01	DISPLAY MONITOR 70	OFOI
Q-02	DISPLAY MONITOR 75	OFOI
Q-03	ICE MAKER	OFCI
Q-04	WHITE BOARD	CFCI
Q-06	(2) STACKED INCUBATORS	OFCI
Q-08	5'-0" BIOLOGICAL SAFETY CABINET	OFCI
Q-09	4'-0" BIOLOGICAL SAFETY CABINET	OFCI
Q-10	ULTRA PURE WATER SYSTEM	OFCI
Q-11	UNDER COUNTER REF. - ADD ALT 1	OFOI
X-01	STAINLESS STEEL FRAMED GLASS MIRROR - 24" X 42"	CFCI
X-02	GRAB BAR	CFCI
X-03	SOAP DISPENSER	OFCI
X-04	PAPER TOWEL DISPENSER	OFCI
X-05	SANITARY NAPKIN RECEPTACLE	OFCI
X-06	SANITARY SEAT COVER DISPENSER	OFCI
X-07	TOILET PAPER DISPENSER	OFCI
X-10	WALL-MOUNTED BABY CHANGING STATION	OFCI

AWS (CABINETRY) LEGEND



MODIFICATION DESCRIPTION: WHERE OCCURS

KEY PLAN



tsa
1486 SOUTH 1100 EAST
SALT LAKE CITY, UT 84105
TEL . (801) 463 - 7108

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PROJECT NO: 22287

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Shums Coda Associates

BIOMEDICAL POLYMERS RESEARCH BUILDING - LEVEL 2

20 SOUTH 2030 EAST, SALT LAKE CITY, UTAH 84112

CONSTRUCTION DOCUMENTS

SEAL:
STATE OF UTAH
NO. 135781
TRACY D. STOCKING
LICENSED ARCHITECT

DATE: 05/03/2024
PROJECT #: 23027

SHEET NAME:
CONFERENCE ROOM 203 & ZOOM ROOM 201 - STORYBOARD

SHEET #: A421

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5/6/2024 9:46:26 AM

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06.24 4" EPOXY BACKSPLASH TO MATCH COUNTERTOP
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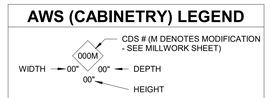
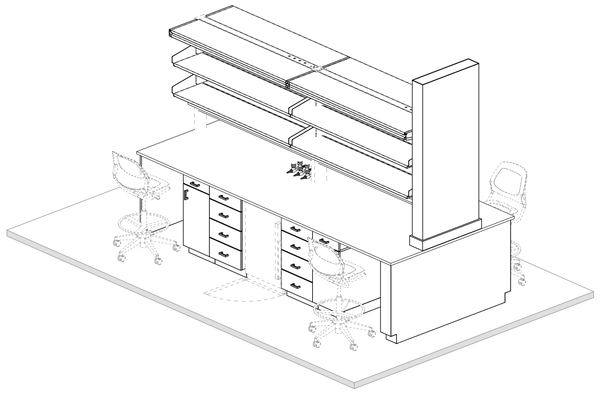
23.04 SNORKEL VENT OPENING, FINAL LOCATION TO BE COORDINATED WITH OWNER
26.02 TASK LIGHTING - SEE ELECTRICAL
26.03 SURFACE MOUNTED PLUG MOLD - SEE ELECTRICAL DRAWINGS

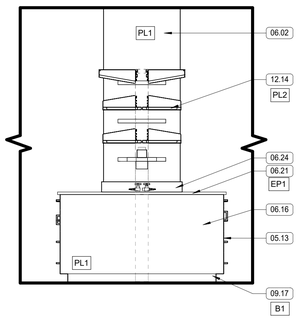
AWS (CABINETRY) LEGEND



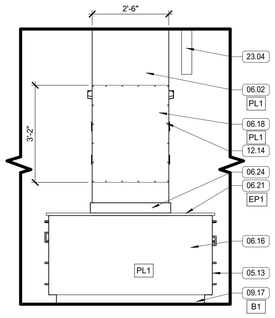
MODIFICATION DESCRIPTION; WHERE OCCURS



BENCH W/O SINK - 3D
A451 5



BENCH W/O SINK - EAST
1/2" = 1'-0" A451 4



BENCH W/O SINK - WEST
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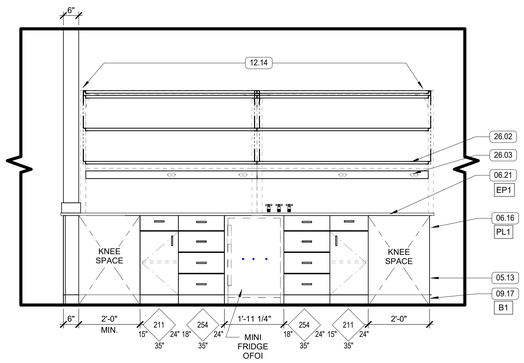
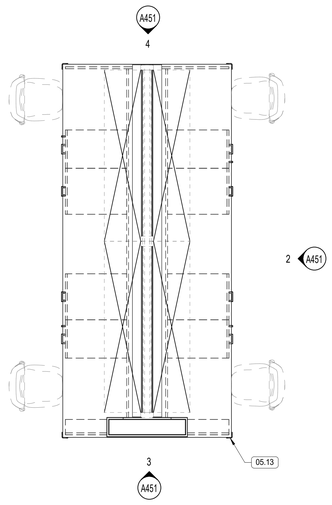


BENCH W/O SINK - SOUTH
1/2" = 1'-0" A451 2



BENCH W/O SINK - ENLARGED
1/2" = 1'-0" A451 1

tsa
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ENLARGED LAB BENCH

SHEET #:
A451

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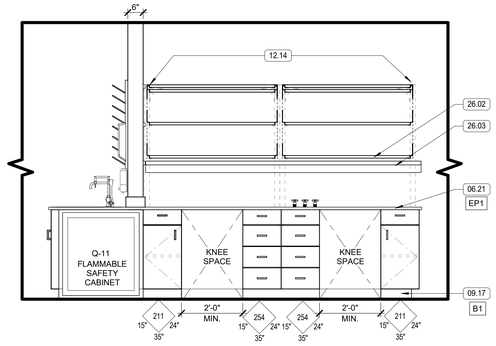
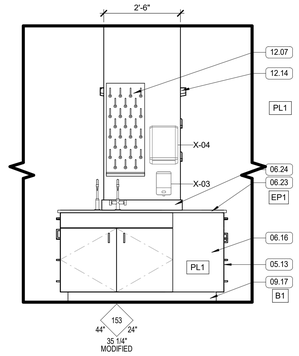
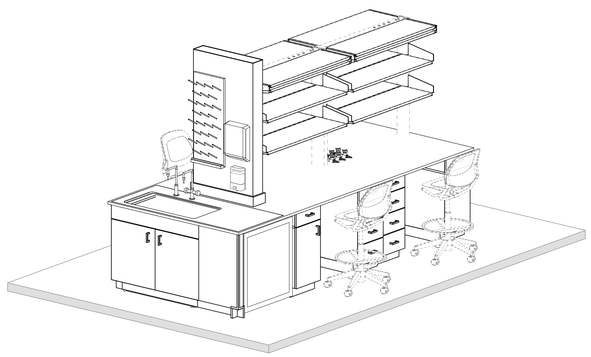


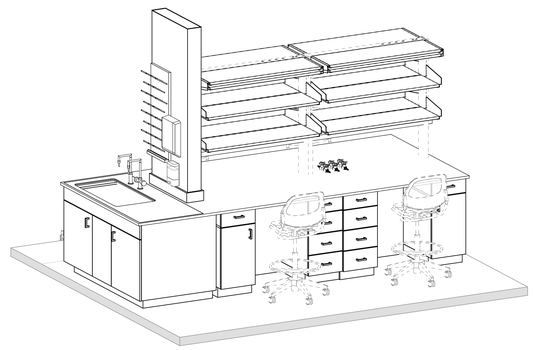
BENCH W/ SINK AND FLAMMABLE CABINET - SOUTH
1/2" = 1'-0" A452 **8**



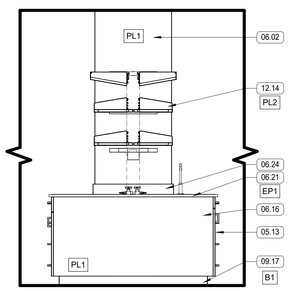
BENCH W/ SINK AND FLAMMABLE CABINET - EAST
1/2" = 1'-0" A452 **7**



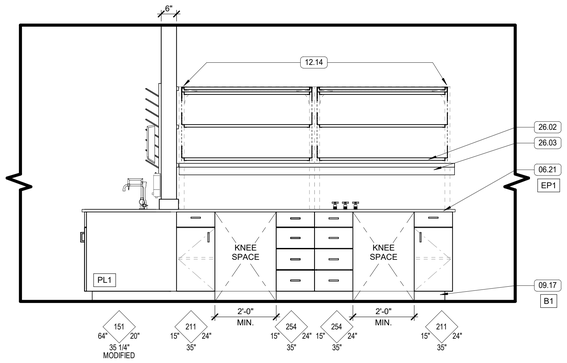
BENCH W/ SINK AND FLAMMABLE CABINET- 3D
A452 **6**



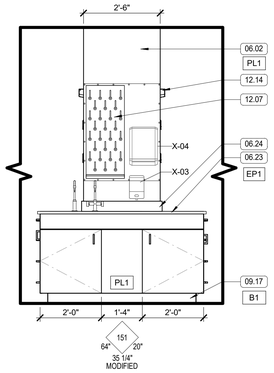
BENCH W/ SINK - 3D
A452 **5**



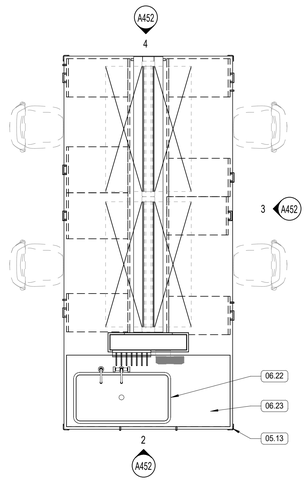
BENCH W/ SINK - EAST
1/2" = 1'-0" A452 **4**



BENCH W/ SINK - SOUTH
1/2" = 1'-0" A452 **3**



BENCH W/ SINK - WEST
1/2" = 1'-0" A452 **2**



BENCH W/ SINK - ENLARGED PLAN
1/2" = 1'-0" A452 **1**

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06.21 EPOXY RESIN COUNTERTOP
06.22 36" L X 18" W X 12" D - EPOXY RESIN DROP-IN SINK - FINISH TO MATCH COUNTERTOP
06.23 EPOXY RESIN COUNTERTOP WITH MARINE EDGE AT SINK AREA
06.24 4" EPOXY BACKSPLASH TO MATCH COUNTERTOP
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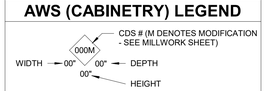
AWS (CABINETRY) LEGEND



MODIFICATION DESCRIPTION; WHERE OCCURS

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TEL . (801) 463 - 7108

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BIOMEDICAL POLYMERS RESEARCH BUILDING - LEVEL 2
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CONSTRUCTION DOCUMENTS

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NO. 135781
TRACY D. STOCKING
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DATE: 05/03/2024
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SHEET NAME:
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SHEET #:
A452

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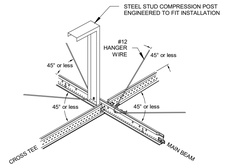
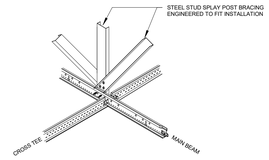
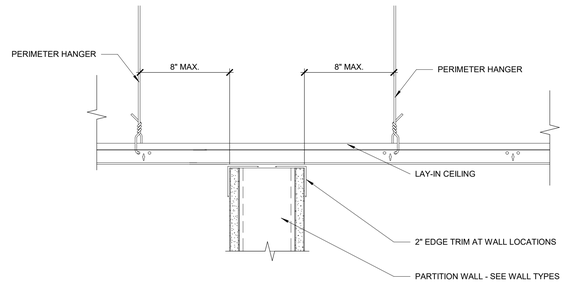


TYPICAL #12 WIRE SPLAY BRACING

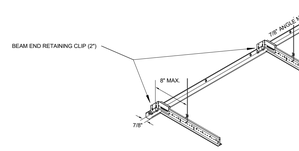


TYPICAL RIGIDSPLAY BRACING PER ASCE 7-05

SEISMIC ACT CEILING - BRACING 8
1/2" = 1'-0" A540

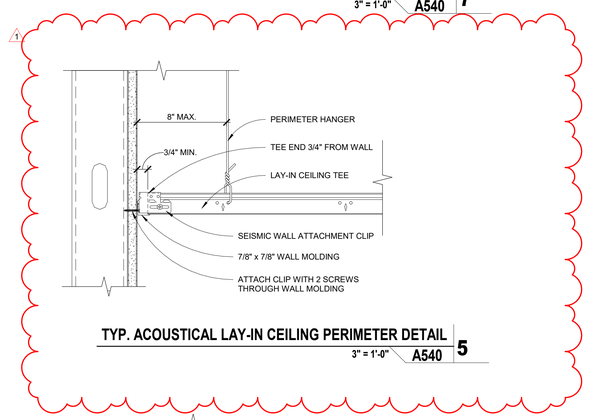


TYP. ACOUSTICAL LAY-IN CEILING AT PARTITION WALL 7
3" = 1'-0" A540

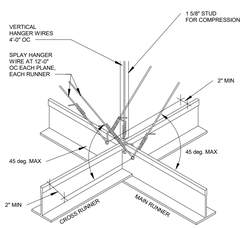


END TRIM - SEISMIC DETAIL (ESR 1308)

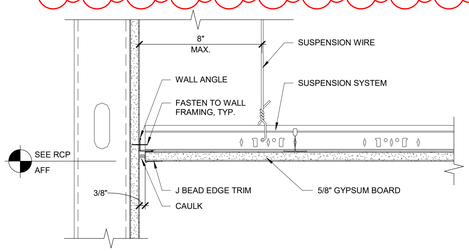
SEISMIC ACT CEILING - TRIM 6
1/2" = 1'-0" A540



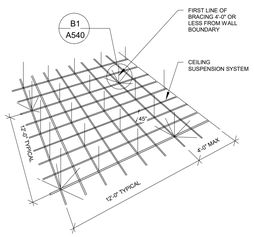
TYP. ACOUSTICAL LAY-IN CEILING PERIMETER DETAIL 5
3" = 1'-0" A540



SEISMIC BRACING DETAIL - TYP. 4
3" = 1'-0" A540



TYP. SUSPENDED GYP. BD. CEILING - PERIMETER DETAIL 2
3" = 1'-0" A540



SEISMIC BRACING DETAIL - TYP. 1
3" = 1'-0" A540

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PROJECT NO: 22287

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#	DATE	REVISION
1	05/09/2024	DFCM - RD1

REVIEWED FOR CODE COMPLIANCE
05/17/2024
Shums Coda Associates

BIOMEDICAL POLYMERS RESEARCH BUILDING - LEVEL 2

20 SOUTH 2030 EAST, SALT LAKE CITY, UTAH 84112

CONSTRUCTION DOCUMENTS

SEAL:
STATE OF UTAH
NO. 135781
TRACY D. STOCKING
LICENSED ARCHITECT

DATE: **05/03/2024**
PROJECT #: **23027**

SHEET NAME:
DETAILS - CEILING

SHEET #:
A540

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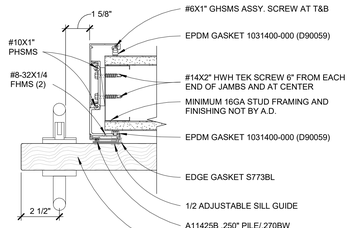
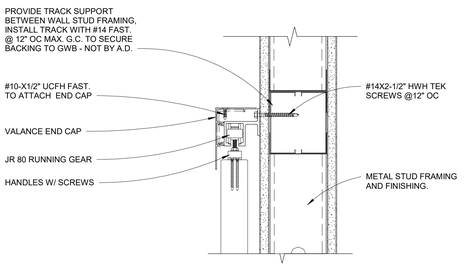
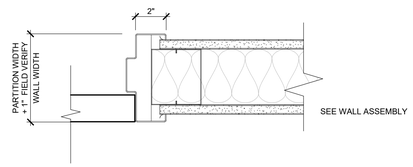
5/16/2024 7:30:21 AM



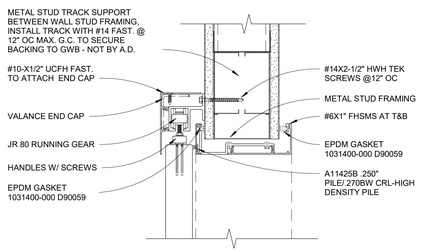
SLIDING BARNDOOR - JAMB 5
3" = 1'-0" A550



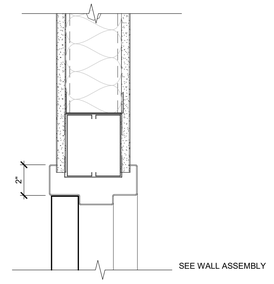
SLIDING BARNDOOR - HEAD @ MTL STUD WALL 4
3" = 1'-0" A550



TYPICAL HM FRAME - JAMB DETAIL 3
3" = 1'-0" A550



SLIDING BARNDOOR - HEAD @ OPENING 2
3" = 1'-0" A550



TYPICAL HM FRAME - HEAD DETAIL 1
3" = 1'-0" A550

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05/17/2024
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20 SOUTH 2030 EAST, SALT LAKE CITY, UTAH 84112

CONSTRUCTION DOCUMENTS

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STATE OF UTAH
NO. 135781
TRACY D. STOCKING
LICENSED ARCHITECT

DATE:	PROJECT #:
05/03/2024	23027

SHEET NAME:
DETAILS - DOOR

SHEET #:
A550

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CASEWORK NOTES

1. HEIGHT OF BASE CABINETS REFERS TO HEIGHT OF FINISHED BENCHTOP. SIZE CASEWORK HEIGHT TO ACHIEVE THIS DIMENSION.

2. USE FILLER PANELS, AS REQUIRED, FOR GAPS BETWEEN WALLS, CASEWORK, FUME HOODS, AT CORNER CONDITIONS, AT EXPOSED ENDS BETWEEN WALLS AND CASEWORK UNITS AND AT ALL OTHER AREAS TO FINISH THE ASSEMBLY.

3. WHERE KNEE SPACES ARE AT THE END OF A SECTION OF BENCH, PROVIDE A FULL END PANEL.

4. HINGE SIDE OF SWINGING DOORS SHALL BE TOWARDS BENCH END WHEN THE CABINET IS AT THE END OF THE BENCH. HINGE SIDE SHALL BE AT THE CORNER WHEN THE CABINET IS AT A CORNER CONDITION. THE HINGE MAY BE AT EITHER SIDE WHEN THE CABINET IS NOT AT AN END OR CORNER, UNLESS SWING IS NOTED ON PLANS. PULL SIDE OF SWINGING DOOR SHALL BE TOWARD KNEE SPACE WHEN CABINET IS NEXT TO A KNEE SPACE.

5. SINKS SHALL BE CENTERED (FROM SIDE TO SIDE) IN SINK BASE CABINETS, U.N.O.

6. AT REMOVEABLE CABINET PANELS, FASTENERS TO BE SCREWS WITH CUPPED FINISH WASHERS.

7. PROVIDE KNEE BRACES WHERE CALLED OUT ON PLANS

8. PROVIDE SHALLOW DEPTH CABINETS AT COLUMNS AS REQUIRED

WORKSURFACE NOTES

1. PROVIDE SIDESPLASH WHERE BENCH END ABUTS WALL, FUME HOOD OR FULL HEIGHT CABINET, OR WHERE COUNTERTOPS WITH DIFFERENT HEIGHTS ABUT EACH OTHER.

2. KEEP TOP OF SPLASH AT 40" A.F.F., WHEN 30" HIGH CASEWORK UNITS ARE ADJACENT TO 36" HIGH UNITS.

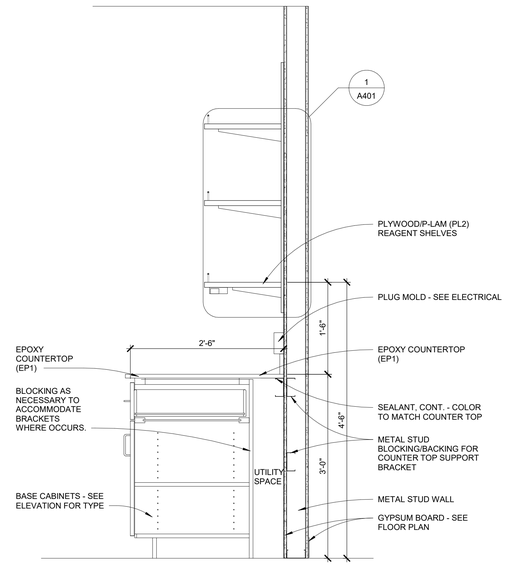
3. WORK SURFACES ARE EPOXY RESIN, SIZE AS SHOWN BY CASEWORK AND OTHER DIMENSIONS, U.O.N.

4. WORK SURFACES OVERHANG 1" AT THE FRONT EDGE AND SIDES OF CASEWORK, WITH DRIP EDGE (AT EPOXY AND PLASTIC LAMINATE WORK SURFACES) AT ALL EXPOSED EDGES.

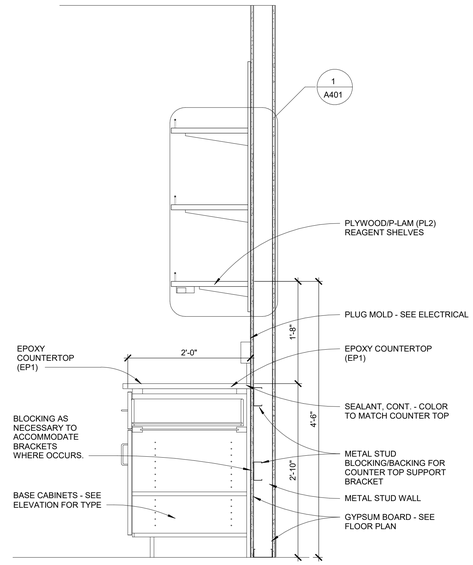
5. CAULK ALL JOINTS BETWEEN WORK SURFACES AND WHERE WORK SURFACES/SPLASHES ABUT WALLS.

6. WORK SURFACES ARE 30" DEEP (INCLUDING SPLASH) AND NOMINALLY 36" HIGH U.O.N.

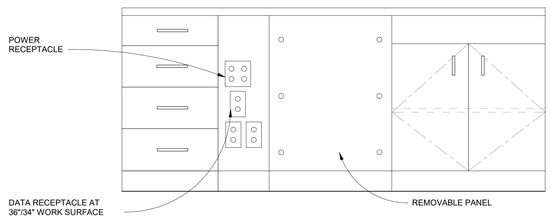
7. ALL GROMMETS ARE 3" DIAMETER, BLACK PLASTIC.



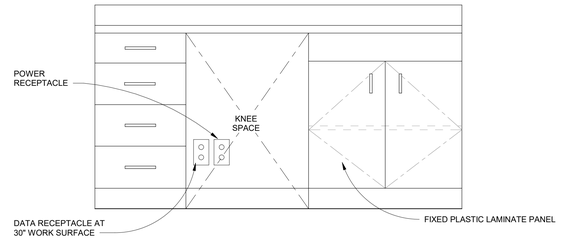
CABINET SECTION - TYPICAL 1" = 1'-0" A570 **10**



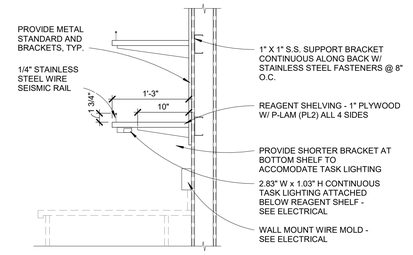
CABINET SECTION - ADA 1" = 1'-0" A570 **9**



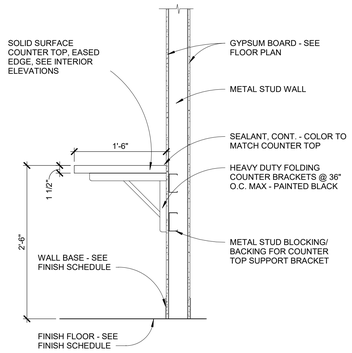
KNEE SPACE WITH BACK PANEL 1" = 1'-0" A570 **8**



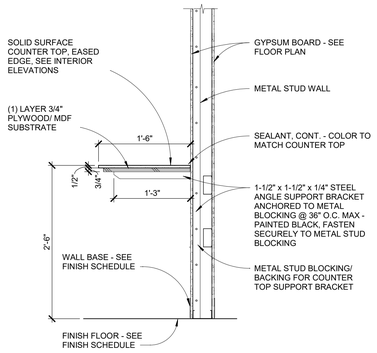
KNEE SPACE WITHOUT BACK PANEL - TYPICAL 1" = 1'-0" A570 **7**



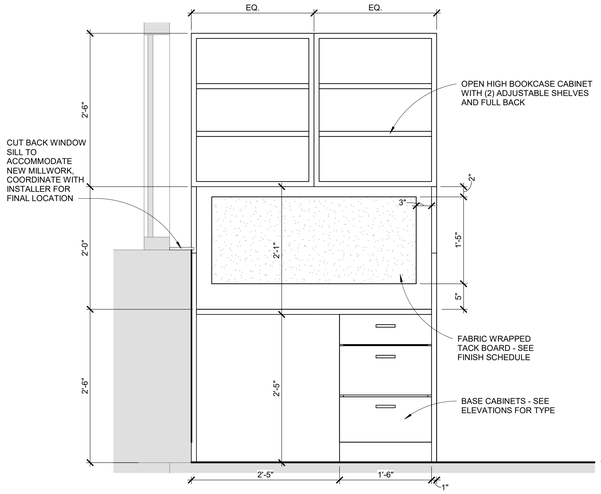
REAGENT SHELVES DETAIL 1" = 1'-0" A570 **6**



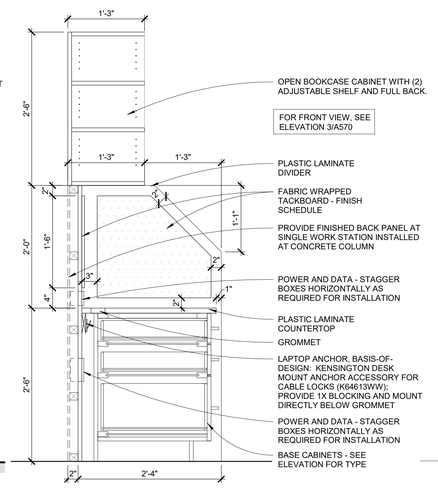
COLLAPSIBLE WALL MOUNTED COUNTERTOP 1" = 1'-0" A570 **5**



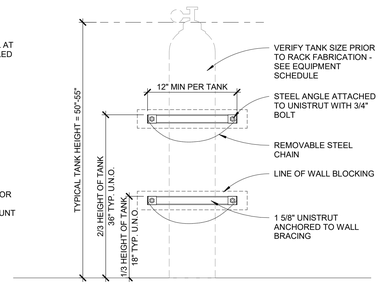
COUNTERTOP SECTION 1" = 1'-0" A570 **4**



DESK ELEVATION - TYPICAL 1" = 1'-0" A570 **3**



WORKSTATION SECTION 1" = 1'-0" A570 **2**



TANK RACK DETAIL NEW 1" = 1'-0" A570 **1**

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BIOMEDICAL POLYMERS RESEARCH BUILDING - LEVEL 2

20 SOUTH 2030 EAST, SALT LAKE CITY, UTAH 84112

CONSTRUCTION DOCUMENTS

SEAL:

STATE OF UTAH
NO. 135781
TRACY D. STOCKING
LICENSED ARCHITECT

DATE: 05/03/2024
PROJECT #: 23027

SHEET NAME:
DETAILS - MILLWORK

SHEET #:
A570

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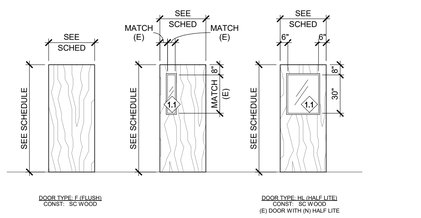
DOOR SCHEDULE

NUMBER	WIDTH	HEIGHT	DOOR		FRAME		DETAIL		HDWR.	FIRE RATING	COMMENTS
			DOOR TYPE	DOOR FINISH	FRAME TYPE	FRAME FINISH	HEAD	JAMB			
200Q	3' - 0"	7' - 0"	F	P2 / P7	FR1	P2 / P6	1/A550	3/A550	3	-	
200R	3' - 0"	7' - 0"	F	P2 / P7	FR1	P2 / P6	1/A550	3/A550	3	-	
201A	3' - 0"	7' - 0"	NL	P2 / P7	FR1	P2 / P6	1/A550	3/A550	8	-	ADD ALTERNATE 1
203A	3' - 0"	7' - 0"	F	P2 / P7	(E) FR2	P2 / P6	(E)	(E)	-	-	1, 2
204A	3' - 0"	7' - 0"	F	P7	FR1	P2 / P6	1/A550	3/A550	2	-	
222A	3' - 0"	7' - 0"	F	P2	FR1	P2	1/A550	3/A550	4	-	ADD ALTERNATE 1
222AA	3' - 0"	7' - 0"	F	P2 / P7	(E) FR1	P2 / P6	(E)	(E)	4.3	-	1, 2
222B	3' - 0"	7' - 0"	F	P2	FR1	P2	1/A550	3/A550	3	-	ADD ALTERNATE 1
262A	3' - 4"	7' - 0"	NL	P2 / P7	(E) FR1	P2 / P6	(E)	(E)	6	-	1, 2
262B	3' - 4"	7' - 0"	NL	P2	FR1	P2	1/A550	3/A550	4.1	-	
264A	3' - 4"	7' - 0"	F	P2 / P7	FR1	P2 / P6	1/A550	3/A550	8	-	
266A	3' - 4 1/2"	7' - 0"	F	P2	FR4	AL	2/A550	5/A550	5	-	4
266B	3' - 4"	7' - 0"	NL	P2 / P7	(E) FR1	P2 / P6	(E)	(E)	6	-	1, 2
268A	3' - 4"	7' - 0"	NL	P2 / P7	(E) FR1	P2 / P6	(E)	(E)	6	-	1, 2, 5
272A	3' - 4"	7' - 0"	NL	P2 / P7	FR1	P2 / P6	1/A550	3/A550	7	-	
274A	3' - 4"	7' - 0"	NL	P2 / P7	(E) FR1	P2 / P6	(E)	(E)	6	-	1, 2
280A	3' - 4"	7' - 0"	NL	P2 / P7	(E) FR1	P2 / P6	(E)	(E)	6	-	1, 2
280B	3' - 4"	7' - 0"	NL	P2 / P7	FR1	P2 / P6	1/A550	3/A550	7	-	
285A	3' - 4"	7' - 0"	HL	P2	FR1	P2	1/A550	3/A550	4.1	-	
285B	3' - 4"	7' - 0"	NL	P2	(E) FR1	P2	1/A550	3/A550	4.1	-	
285C	3' - 4"	7' - 0"	NL	P2 / P7	(E) FR1	P2 / P6	(E)	(E)	6	-	1, 2
291A	3' - 0"	7' - 0"	HL	P2	FR1	P2	1/A550	3/A550	3.1	-	
291B	3' - 4 1/2"	7' - 0"	F	P2	FR4	AL	2/A550	5/A550	5.1	-	4
291C	3' - 0"	7' - 0"	HL	P2	(E) FR3	P2	(E)	(E)	1	-	2, 3
291D	3' - 0"	7' - 0"	HL	P2	(E) FR3	P2	(E)	(E)	1	-	2, 3
291E	3' - 0"	7' - 0"	HL	P2	(E) FR3	P2	(E)	(E)	1	-	2, 3
291F	3' - 0"	7' - 0"	HL	P2	(E) FR3	P2	(E)	(E)	4.2	-	2, 3
291Z	3' - 0"	7' - 0"	F	P2 / P7	(E) FF2	P2 / P6	(E)	(E)	6	-	1, 2
295A	3' - 4"	7' - 0"	F	P2 / P7	FR1	P2 / P6	1/A550	3/A550	8	-	

COMMENTS:
1. EXISTING DOOR AND FRAME TO REMAIN
2. NEW CARD READER, SEE DOOR HARDWARE
3. EXISTING DOOR AND FRAME WITH TRANSOM ABOVE TO REMAIN. ADD NEW HALF LITE PANEL TO EXISTING FLUSH DOOR.
4. SLIDING DOOR
5. EXISTING DOOR HAS AN EXISTING KEYPAD LOCKSET. PROVIDE PUSH PLATE TO COVER HOLES. SEE DOOR HARDWARE SCHEDULE

GLAZING SCHEDULE

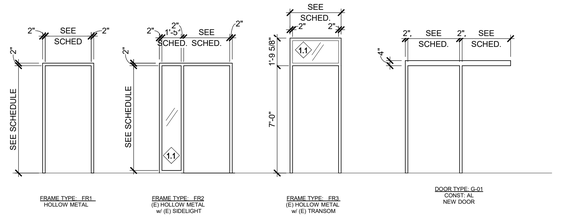
#	Description
1.1	1/4" CLEAR GLAZING, TEMPERED



DOOR TYPE: F (FLUSH)
CONST: SC WOOD

DOOR TYPE: HL (HALF LITE)
CONST: SC WOOD
(E) DOOR WITH (N) HALF LITE

DOOR TYPES - WOOD 1
1/4" = 1'-0" A601



FRAME TYPE: FR1
HOLLOW METAL

FRAME TYPE: FR2
(E) HOLLOW METAL
w/ (E) SIDELIGHT

FRAME TYPE: FR3
(E) HOLLOW METAL
w/ (E) TRANSOM

DOOR TYPE: G-01
CONST: AL
NEW DOOR

FRAME TYPES 2
1/4" = 1'-0" A601

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BIOMEDICAL POLYMERS RESEARCH BUILDING - LEVEL 2

20 SOUTH 2030 EAST, SALT LAKE CITY, UTAH 84112

CONSTRUCTION DOCUMENTS

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NO. 135781
TRACY D. STOCKING
LICENSED ARCHITECT

DATE: **05/03/2024**
PROJECT #: **23027**

SHEET NAME:
DOOR SCHEDULE AND TYPES

SHEET #: **A601**

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BPRB LEVEL 2 - EQUIPMENT SCHEDULE

ROOM NAME	ROOM NUMBER	EQUIPMENT NUMBER	MOVABLE EQUIPMENT LIST	VENDOR CAT#	QUANTITY:	(E) EXISTING (O) OWNER / USER (C) CONTRACTOR (UIT) UNIVERSITY IT DEPT FURNISHED BY:	INSTALLED BY:	FINAL CONNECTION BY:	NOTES
CONFERENCE ROOM	203	Q-01	DISPLAY MONITOR 70		1	O	UIT	UIT	
LACTATION	222	Q-11	MINI FRIDGE	BASIS-OF-DESIGN: MAGIC CHEF 4.5 CU. FT. MINI FRIDGE WITH TRUE FREEEZER IN STAINLESS LOOK	1	O	O	O	ADD ALT 1
EQUIPMENT	262								
MICROSCOPY	264								
MICROSCOPY	266A								
LAB	266, 268, 272	Q-10	ULTRAPURE WATER SYSTEM	ARIES CLS-3100	1	O	C	C	
		Q-11	FLAMMABLE SAFETY CABINET	BASIS-OF-DESIGN: GLOBAL INDUSTRIAL 30"W X 18 1/2" D X 32 1/2" SELF CLOSE, MODEL WBB1482260	1	C	C	C	
TISSUE	274	Q-06	STACKED INCUBATORS	THERMOSCIENTIFIC HERA VIOS 160i	2	O	O	O	
		Q-08	5'-0" BIOLOGICAL SAFETY CABINET	THERMOSCIENTIFIC 1300 SERIES	1	O	C	C	
		Q-09	4'-0" BIOLOGICAL SAFETY CABINET	THERMOSCIENTIFIC 1300 SERIES	1	O	C	C	
MODULAR LAB	280	Q-3	ICEMAKER	SCOTSMAN F0522 - 500 LB FLAKE ICE MAKER, SCOTSMAN B322S - MODULAR STORAGE BIN, OPTIPURE FX0-11 WATER TREATMENT SYSTEM	1	O	C	C	ADD ALT 1
EQUIPMENT	285								
HISTOLOGY	285A	Q-5	CRYOSTAT	LEICA CM3050S	2	O	C	C	
TISSUE CULTURE	285B	Q-06	STACKED INCUBATORS	THERMOSCIENTIFIC HERA VIOS 160i	2	O	C	C	
		Q-08	5'-0" BIOLOGICAL SAFETY CABINET	THERMOSCIENTIFIC 1300 SERIES	1	O	C	C	
		Q-09	4'-0" BIOLOGICAL SAFETY CABINET	THERMOSCIENTIFIC 1300 SERIES	1	O	C	C	
MICROSCOPY	295								
CONFERENCE ROOM	291F	Q-01	DISPLAY MONITOR 70		1	O	UIT	UIT	

tsa

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PROJECT NO: 22287

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	DATE	REVISION

REVIEWED FOR CODE COMPLIANCE
05/17/2024
Shums Coda Associates

BIOMEDICAL POLYMERS RESEARCH BUILDING - LEVEL 2

20 SOUTH 2030 EAST, SALT LAKE CITY, UTAH 84112

CONSTRUCTION DOCUMENTS

SEAL:

STATE OF UTAH
NO. 135781
TRACY D. STOCKING
LICENSED ARCHITECT

DATE: **05/03/2024**
PROJECT #: **23027**

SHEET NAME:
EQUIPMENT SCHEDULE

SHEET #: **A602**

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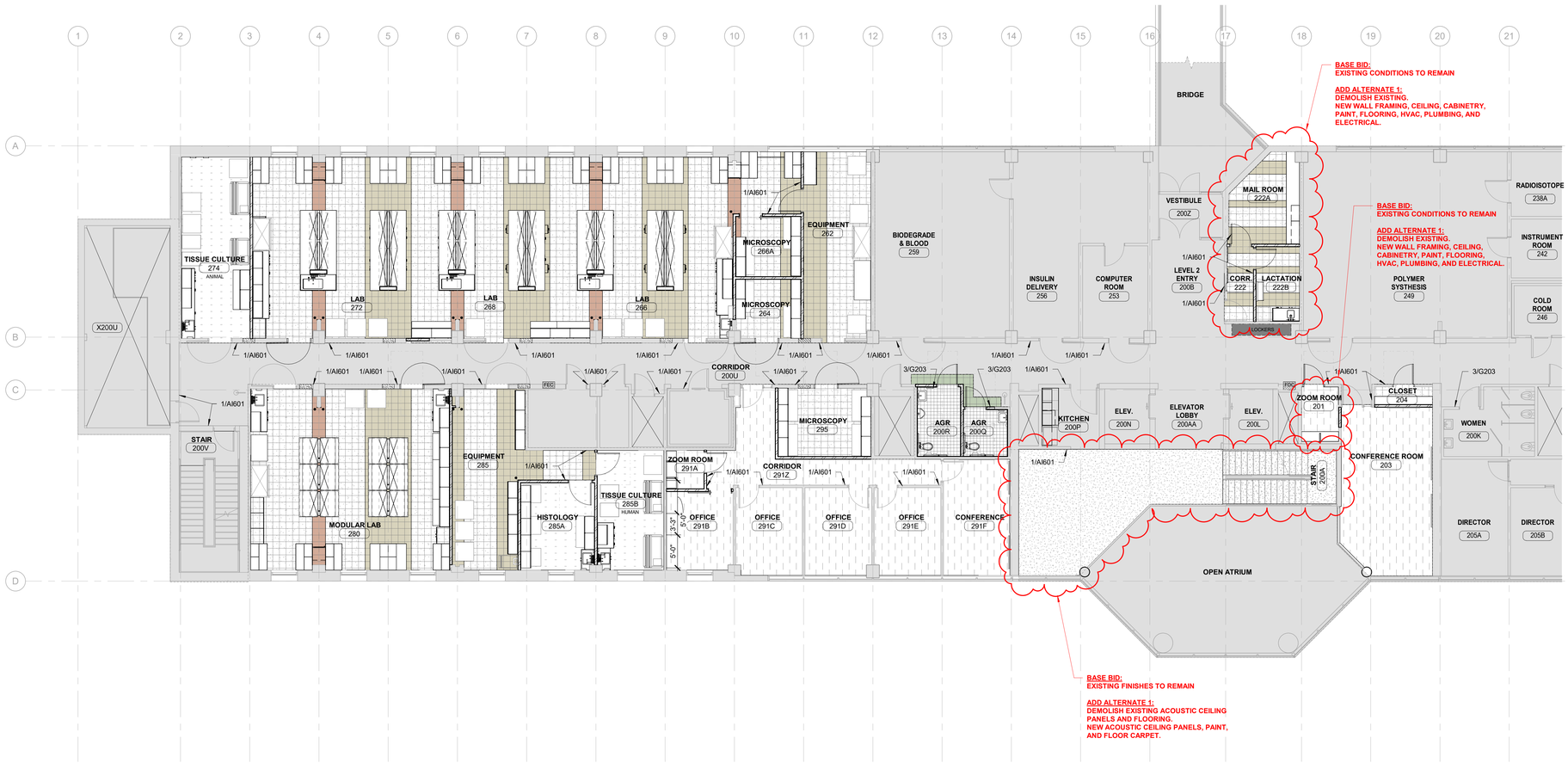
GENERAL NOTES

1. PROVIDE FINISHES AS INDICATED IN THE FINISH SCHEDULE. REFER TO INTERIOR ELEVATIONS, WHERE DRAWN, FOR CLARIFICATION, DIMENSIONS AND ADDITIONAL INFORMATION. THE ABSENCE OF AN INTERIOR ELEVATION DOES NOT OVERRIDE THE REQUIREMENT TO PROVIDE THE FINISH INDICATED IN THE SCHEDULE.
2. WHERE A FINISH IS PARTLY HIDDEN BY AN OBJECT, EXTEND THAT FINISH BEHIND OBJECT.
3. UNFINISHED METAL OR PRIME FINISHED METAL TO BE PAINTED, TBD.
4. FINISHES INDICATED AS (E) REFER TO EXISTING FINISH TO REMAIN.
5. FINISHES WITH AN * INDICATE THERE IS A COMMENT IN THE REMARKS COLUMN.
6. SEE FINISH SCHEDULE FOR PAINT COLORS NOT SHOWN IN FINISH PLAN.
7. COVED BASE COLOR VARIES TO COORDINATE WITH FLOOR PATTERN. COVE TO MATCH ADJACENT FLOOR PATTERN COLOR.



INTERIOR FINISHES PLAN 1
1/8" = 1'-0" AI101

FINISH FLOOR LEGEND

F1 F2 F3 F4 F5 F6 F7 F8

CORNER GUARD - CG1

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20 SOUTH 2030 EAST, SALT LAKE CITY, UTAH 84112

CONSTRUCTION DOCUMENTS

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DATE:	PROJECT #:
05/03/2024	23027

SHEET NAME: INTERIOR FINISHES PLAN

SHEET #: AI101

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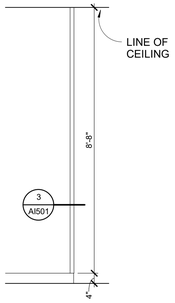
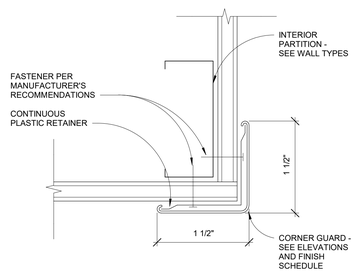
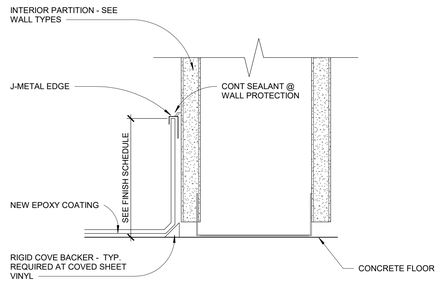


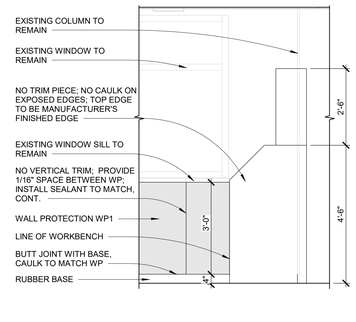
CORNER GUARD ELEVATION, TYP. 4
1/2" = 1'-0" AI501



CORNER GUARD DETAIL - TYP. 3
3" = 1'-0" AI501



COVED BASE DETAIL - TYP. 2
6" = 1'-0" AI501



WALL PROTECTION DETAIL AT DESK 1
1/2" = 1'-0" AI501

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LICENSED ARCHITECT

DATE: 05/03/2024
PROJECT #: 23027

SHEET NAME:
INTERIOR DETAILS

SHEET #:
AI501

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7. COVED BASE COLOR VARIES TO COORDINATE WITH FLOOR PATTERN. COVE TO MATCH ADJACENT FLOOR PATTERN COLOR.

ROOM FINISH SCHEDULE

ROOM	NAME	FLOOR	BASE	WALLS N	WALLS E	WALLS S	WALLS W	CEILING	CEILING HEIGHT	NOTES	ROOM
200	LOBBY	F1	B1	(E)	(E)	(E)	(E)	C2	(E)		200
200A	STAIR	F2	B1	(E)	(E)	(E)	(E)	(E)	(E)		200A
200P	KITCHEN	(E)	(E)	(E)	(E)	(E)	(E)	C2	9' - 0"		200P
200Q	AGR	F6	WT1	P1/ WT1	P1/ WT1	P1/ WT1	P1/ WT1	C3	8' - 0"		200Q
200R	AGR	F6	WT1	P1/ WT1	P1/ WT1	P1/ WT1	P1/ WT1	C3	8' - 0"		200R
200U	CORRIDOR	(E)	(E)	(E)	(E)	(E)	(E)	(E)	(E)		200U
200V	STAIR	(E)	(E)	(E)	(E)	(E)	(E)	(E)	(E)		200V
201	ZOOM ROOM	F1	B1	P1	P1	P1	P1	C1	9' - 0"		201
203	CONFERENCE ROOM	F1	B1	P1	P1	P5	P1	C2/C3	9' - 0"		203
204	CLOSET	F3	B1	P1	P1	P1	P1	C3	9' - 0"		204
222	CORR.	F3/ F4	B1	P1	P1	P1	P1	(E)	9' - 0"		222
222A	MAIL ROOM	F3/F4	B1	P1	P1	P1	P1	C1	9' - 0"		222A
222B	LACTATION	F3/ F4	B1	P1	P1	P1	P1	C1	9' - 0"		222B
262	EQUIPMENT	F3/ F4	B1	P1	P1	P1	P1	C1	9' - 0"		262
264	MICROSCOPY	F3/F4	B1	P1	P1	P1	P1	C3	9' - 0"		264
266	LAB	F3/F4/F5	B1	P1	P1/ WP1	P1	P1	C1	9' - 0"		266
266A	MICROSCOPY	F3/F4/F5	B1	P1	P1	P1	P1	C3	9' - 0"		266A
268	LAB	F3/F4/F5	B1	P1	P1/ WP1	P1	P1	C1	9' - 0"		268
272	LAB	F3/F4/F5	B1	P1	P1/ WP1	P1	P1	C1	9' - 0"		272
274	TISSUE CULTURE	F7	B3	P1	P1	P1	P1	C3	9' - 0"		274
280	MODULAR LAB	F3/F4/F5	B1	P1	P1	P1	P1/ WP1	C1	9' - 0"		280
285	EQUIPMENT	F3/F4	B1	P1	P1	P1	P1	C1	9' - 0"		285
285A	HISTOLOGY	F7	B3	P1	P1	P1	P1	C3	9' - 0"		285A
285B	TISSUE CULTURE	F7	B3	P1	P1	P1	P1	C3	9' - 0"		285B
291A	ZOOM ROOM	F1	B1	P1	P1	P1	P1	C1	9' - 0"		291A
291B	OFFICE	F1	B1	P5	P1	P1	P1	C1	9' - 0"		291B
291C	OFFICE	F1	B1	P1	P1	P5	P1	C1	9' - 0"		291C
291D	OFFICE	F1	B1	P5	P1	P1	P1	C1	9' - 0"		291D
291E	OFFICE	F1	B1	P1	P1	P5	P1	C1	9' - 0"		291E
291F	CONFERENCE	F1	B1	P1	P1	P5	P1	C1	9' - 0"		291F
291Z	CORRIDOR	F1	B1	P1	P1	P1	P1	(E)	(E)		291Z
295	MICROSCOPY	F3	B1	P1	P1	P1	P1	C3	9' - 0"		295

LEGEND - INTERIOR FINISH MATERIALS

FLOOR

CARPET

F1 CARPET TILE - OFFICES & CONFERENCE ROOMS - SHAW CONTRACT; STYLE: MEMORY TILE 5T263; COLOR: NEST 48760; SIZE: 24x24, INSTALL: MONOLITHIC

F2 CARPET BROADLOOM - STAIRS & LUNCH AREA - SHAW CONTRACT; STYLE: (TBD); COLOR: (TBD), (MATCH LEVEL 3)

VINYL COMPOSITION TILE

F3 VCT - ARMSTRONG FLOORING; STYLE: STANDARD EXCELON – IMPERIAL TEXTURE, COLOR:SANDY BEACH #51929; SIZE: 12 X 12 (FIELD COLOR)

F4 VCT - ARMSTRONG FLOORING; STYLE: STANDARD EXCELON – IMPERIAL TEXTURE, COLOR: WASHED LINEN #51810; SIZE: 12 X 12 (ACCENT COLOR)

F5 VCT - ARMSTRONG FLOORING; STYLE: STANDARD EXCELON – IMPERIAL TEXTURE, COLOR: NOUGAT #57501; SIZE: 12 X 12 (ACCENT COLOR)

F8 VCT - ARMSTRONG FLOORING; STYLE: STANDARD EXCELON – IMPERIAL TEXTURE, COLOR: TO MATCH OR BLEND WITH EXISTING CORRIDOR COLOR; SIZE: 12 X 12 (FIELD)

CERAMIC TILE

F6 FLOOR TILE - DALTILE; STYLE: KEYSTONES 2x2; COLOR: URBAN PUTTY SPECKLE; INSTALL: MONOLITHIC

RESILIENT VINYL SHEET FLOORING

F7 SHEET VINYL - ARMSTRONG FLOORING; STYLE: MEDINTONE COLOR: ALMOND TEA #H2002

WALL BASE

BASE

B1 RUBBER BASE - TYPICAL AT WALLS AND CABINET TOE KICK; JOHNSONITE; 4" TRADITIONAL WALL BASE; COLOR: (TBD), COILS

B2 RUBBER BASE - CORRIDOR TO MATCH EXISTING COLOR

B3 COVED INTEGRAL BASE - SHEET VINYL. ARMSTRONG FLOORING; 4" HIGH, MATCH ADJACENT FLOOR.

WALLS

PAINT

P1 SHERWIN WILLIAMS; #SW TBD "TBD"; FINISH: EGGSHELL; EPOXY PAINT@ FOOD SERVICE AREA & TOILETS; FINISH: LOW GLOSS WATER BASE EPOXY (TYPICAL WALL PAINT FINISH UNLESS NOTED OTHERWISE)

P2 INTERIOR LAB AND OFFICE DOORS & ALL HOLLOW METAL DOOR FRAMES; SHERWIN WILLIAMS; #SW TBD "TBD"; FINISH: SEMI-GLOSS

P3 NOT USED

P4 NOT USED

P5 SHERWIN WILLIAMS; #SW 6215 "ROCKY RIVER"; FINISH: EGGSHELL (ACCENT PAINT)

P6 CORRIDOR HOLLOW METAL DOOR FRAME; SHERWIN WILLIAMS; #SW TO MATCH EXISTING CORRIDOR FRAME; FINISH: SEMI-GLOSS

P7 CORRIDOR WALLS & CORRIDOR DOORS; SHERWIN WILLIAMS; #SW TO MATCH EXISTING CORRIDOR WALL FINISH ; FINISH: EGGSHELL

CERAMIC TILE

WT1 WALL TILE - WALL TILE. DALTILE; STYLE: "LINEAR COLOR WHEEL", COLOR: "BISCUIT", SIZE: 6"X18", INSTALL: STAGGERED BRICK-JOINT PATTERN (OVERLAP NOT TO SUCCEED 33%). GROUT: 1/16" MAPEI, COLOR: "#01 ALABASTER". USE STAINLESS STEEL SCHLUTER SCHIENE TRIM PIECE AT ALL EXPOSED EDGES, CORNERS, AND TRANSITIONS BETWEEN TILE TYPES

WALL PROTECTION

WP1 WALL PROTECTION: INPRO, STYLE: PALLADIUM RIGID SHEET WALL PROTECTION, COLOR: (TBD) , 0.060" GAUGE, W/ NO VERTICAL TRIM; PROVIDE1/16" SPACE BETWEEN WP'S AND INSTALL SEALANT TO VERTICAL SEAMS/INSIDE CORNERS MANUFACTURER MATCH, CONT. TOP/EXPOSED EDGES NO CAULK. HEIGHT: SEE INTERIOR ELEVATIONS AND INTERIOR DETAIL.

● CG1 CORNER GUARD - INPRO; SURFACE MOUNT STAINLESS STEEL CORNER GUARD, SIZE: 1-1/2" WING, FULL HEIGHT

CEILING

CEILING

C1 ACOUSTICAL CEILING PANEL - ARMSTRONG; STYLE: ULTIMA, SIZE 2' x 4'; GRID: 15/16" SQUARE LAY-IN, COLOR: WHITE

C2 ACOUSTICAL CEILING PANEL - ARMSTRONG; STYLE: ULTIMA, SIZE 2' x 2'; GRID: 15/16" SQUARE LAY-IN, COLOR: WHITE

C3 PAINTED SUSPENDED GYPSUM BOARD CEILING - P1

(E) C4 12X12 ACT ADHERED TO 5/8" GYPSUM BOARD - EXISTING TO REMAIN

OTHER FINISHES

PL1 WOOD VENEER - CABINETS - VENEER-ART; BLOND SYCAMORE 995-WG, FINISH: WEATHERED-GRAIN

PL2 PLASTIC LAMINATE - REAGENT SHELF & WORKSTATION COUNTERTOP - WILSONART STANDARD LAMINATE; "NORTH SEA" #D90-60, FINISH: MATTE

SS1 SOLID SURFACE - WILSONART; COLOR: HOT STONE #9201 GS

EP1 EPOXY - LAB BENCHES COUNTERTOP - BASIS-OF-DESIGN DURCON, WILSONART; STYLE: DURCON CLASSIC TOPFLAT-101, 1" THICK EPOXY RESIN, "GRAPHITE"

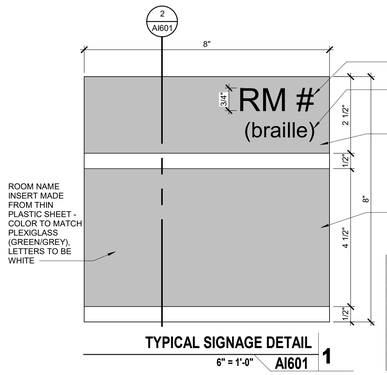
TB1 ACOUSTICAL PANEL TEXTILE (UNBACKED) AT WORKSTATION TACK BOARD - CARNEGIE XOREL ARTFORM; METEOR # 6427; COLOR: (TBD)

RS1 ROLLER SHADE - ROLLEASE, SINGLE ROLLER, MANUAL. STYLE: ALKENZ SUNSHADOW 3000, COLOR: WHITE/BEIGE, OPENNESS: 3%/1%; HOUSING: STEEL

WB1 WINDOW BLINDS - COMMERCIAL GRADE HORIZONTAL BLINDS, COLOR: WHITE . MATCH EXISTING WINDOW BLINDS IN THE BUIDLING

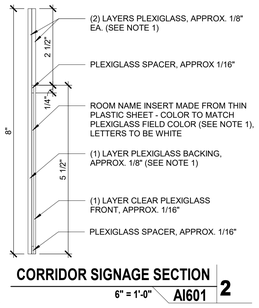






TYPICAL SIGNAGE DETAIL 1
6" = 1'-0" AI601

NOTES:
1. PLEXIGLASS COLORS:
PUBLIC CORRIDOR - MATCH GREEN PLEXIGLASS COLOR ON LEVEL 3 & 4 SIGNAGE
INTERIOR FACULTY OFFICES - PROVIDE GREY PLEXIGLASS TO MATCH SHERWIN WILLIAMS PAINT COLOR #SWW 7067 "CITY SCAPE"
2. MATCH LEVEL 3 AND 4 SIGNAGE STYLE, COLOR, THICKNESS, AND DIMENSIONS, TYP.
3. FABRICATOR TO PROVIDE MATERIALS, COLORS, AND FONT TYPE & SIZE FOR FUTURE REPRINTING OF ROOM INSERTS



CORRIDOR SIGNAGE SECTION 2
6" = 1'-0" AI601

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INTERIOR FINISH SCHEDULE

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GENERAL MECHANICAL SYMBOLS

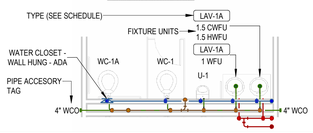
- REVISION NUMBER - SHOWN ON PLANS
- POINT WHERE NEW CONNECTS TO EXISTING
- POINT WHERE EXISTING IS TO BE DEMOLISHED
- NUMBER OF DETAIL ON SHEET
- NUMBER OF SHEET WHERE DETAIL APPEARS
- KEYNOTE
- CONTINUATION SYMBOL
- ROOM NAME AND NUMBER (Room 10)
- ITEM TO BE DEMOLISHED
- AREA NOT IN CONTRACT
- 2" — PIPE SIZE TAG (DIAMETER)
- ABOVE GROUND PIPING
- 2" VTR — PIPE SLOPE TAG
- BELOW GROUND PIPING
- INVERT: -105' - 1" — PIPE INVERT ELEVATION TAG
- (E) — EXISTING PIPE TAG
- PIPING BEING DEMOLISHED

ABBREVIATIONS

Ø	ROUND	LVR	LOUVER
ABV	ABOVE	LWT	LEAVING WATER TEMPERATURE
AC	AIR CONDITIONING	M/A	MIXED AIR
AD	AREA DRAIN	MAX	MAXIMUM
ADD	ADDENDUM	MBH	ONE THOUSAND BTU PER HOUR
AFF	ABOVE FINISHED FLOOR	MCF	ONE THOUSAND CUBIC FEET
AFUE	ANNUAL FUEL UTILIZATION EFFICIENCY	MD	MOTORIZED DAMPER
ALT	ALTERNATE	MECH	MECHANICAL
AP	ACCESS PANEL	MFR	MANUFACTURER
ARCH	ARCHITECT/ARCHITECTURAL	MIN	MINIMUM
BFF	BELOW FINISHED FLOOR	MISC	MISCELLANEOUS
BLW	BELOW	MTR	MOTOR
BTU	BRITISH THERMAL UNITS	MUA	MAKE-UP/AIR
BTUH	BRITISH THERMAL UNITS PER HOUR	NC	NOISE CRITERIA
CAP	CAPACITY	NC	NORMALLY CLOSED
CB	CATCH BASIN	NIC	NOT IN CONTRACT
CFM	CUBIC FEET PER MINUTE	NO	NUMBER
CLG	CEILING	NO	NORMALLY OPEN
CO	CLEAN OUT	NTS	NOT TO SCALE
CW	COLD WATER	O	OXYGEN
D	DEGREE	O/A	OUTSIDE AIR
DB	DRY BULB	ORD	OVERFLOW ROOF DRAIN
DIA	DIAMETER	PD	PRESSURE DROP
DN	DOWN	PIV	POST INDICATOR VALVE
DW	DISTILLED WATER	PLBG	PLUMBING
EA	EACH	PRESS	PRESSURE
EAT	ENTERING AIR TEMPERATURE	PRV	PRESSURE REDUCING VALVE
ELEC	ELECTRICAL	PSI	POUNDS PER SQUARE INCH
EQUIP	EQUIPMENT	PSIG	POUNDS PER SQUARE INCH GAUGE
EWC	ELECTRIC WATER COOLER	PWR	POWER
EWT	ENTERING WATER TEMPERATURE	R	DUCT RISER
E/A	EXHAUST AIR	R/A	RETURN AIR
EXIST	EXISTING	RCP	RADIANT CEILING PANEL
F	DEGREES FAHRENHEIT	RD	ROOF DRAIN
FCO	FLOOR CLEAN OUT	REC	RECESSED
FD	FLOOR DRAIN	RED	REDUCER
FD	FIRE DAMPER	RH	RELATIVE HUMIDITY
FDV	FIRE DEPARTMENT VALVE	RL/A	RELIEF AIR
FL	FLOOR	RM	ROOM
FO	FUEL OIL	RPM	REVOLUTIONS PER MINUTE
FOV	FUEL OIL VENT	RW	RAIN WATER
FOR	FUEL OIL RETURN	SF	SQUARE FOOT
FOS	FUEL OIL SUPPLY	S/A	SUPPLY AIR
FPM	FEET PER MINUTE	SAN	SANITARY
FS	FLOOR SINK	SF	SQUARE FOOT
FT	FOOT/FEET	SD	SMOKE DAMPER
FTR	FIN TUBE RADIATION	SM	SURFACE MOUNT
GAL	GALLON	SP	STANDPIPE
GC	GENERAL CONTRACTOR	SP	STATIC PRESSURE
GPM	GALLONS PER MINUTE	STM	STEAM
GW	GREASE WASTE	T	THERMOSTAT
HB	HOSE BIB	TD	TEMPERATURE DROP
HP	HORSE POWER	TDR	TRENCH DRAIN
HTG	HEATING	TEMP	TEMPERATURE
HTR	HEATER	TYP	TYPICAL
HW	HOT WATER	UG	UNDERGROUND
HYD	HYDRANT	VAC	VACUUM
ID	INDIRECT	V	VENT
IN	INCH	VAV	VARIABLE AIR VOLUME
INV	INVERT	VENT	VENTILATION
LB	POUND	VTR	VENT THROUGH ROOF
LB/HR	POUNDS PER HOUR	W	WASTE
LAT	LEAVING AIR TEMPERATURE	WB	WET BULB
LP	LOW PRESSURE	WCO	WALL CLEAN OUT
LPG	LIQUEFIED PETROLEUM GAS	WH	WALL HYDRANT

PLUMBING AND PIPING SYMBOLS

PLUMBING FIXTURE TAGS



PLUMBING AND PIPING SYMBOLS

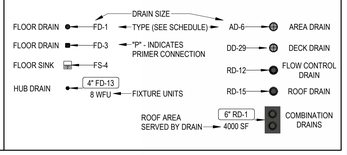
- CHWR — CHILLED WATER RETURN
- CHWS — CHILLED WATER SUPPLY
- CD — CONDENSATE DRAINAGE
- CWR — CONDENSER WATER RETURN
- CWS — CONDENSER WATER SUPPLY
- GWR — GEOTHERMAL WATER RETURN
- GWS — GEOTHERMAL WATER SUPPLY
- HWR — HEATING WATER RETURN
- HWS — HEATING WATER SUPPLY
- NG — NATURAL GAS
- PG — PROPANE GAS
- REF-L — REFRIGERANT-LIQUID
- REF-S — REFRIGERANT-SUCTION
- REF-HG — REFRIGERANT-HOT GAS
- STM — STEAM
- CDR — CONDENSATE RETURN
- CWV — COMBINATION WASTE & VENT
- CA — COMPRESSED AIR
- DCW — DOMESTIC COLD WATER
- ICW — NON-POTABLE COLD WATER
- S-CW — SOFT COLD WATER
- DI — DE-IONIZED WATER
- TW — TEPID WATER
- DHW — HOT WATER
- DHW 140° — HOT WATER 140°
- DHW-R — HOT WATER RECIRCULATION
- DHW-R 140° — HOT WATER RECIRCULATION 140°
- IHW — NON-POTABLE HOT WATER
- GV — GREASE VENT
- GW — GREASE WASTE
- IW — INDIRECT WASTE
- OV — OIL VENT
- OW — OIL WASTE
- PD — PUMP DISCHARGE
- V — SANITARY VENT
- W — SANITARY WASTE
- SHWR — SOLAR HOT WATER RETURN
- SHWS — SOLAR HOT WATER SUPPLY
- RD — ROOF DRAINAGE
- RDO — ROOF DRAIN OVERFLOW
- CO2 — CARBON DIOXIDE
- HE — HELIUM
- LA — INSTRUMENT AIR
- MA — MEDICAL AIR
- LV — MEDICAL VACUUM
- N2 — NITROGEN
- N2O — NITROUS OXIDE
- O2 — OXYGEN
- WAGD — WASTE ANESTHESIA GAS DISPOSAL



PIPE ACCESSORY TAGS

- 2" DOM. WM — DOMESTIC WATER METER
- 2" BALANCING — BALANCING VALVE
- 2" SHUTOFF — 1/4 TURN BALL VALVE
- 2" CHECK — CHECK VALVE
- 2" TMV — 3-WAY MIXING VALVE
- 2" M-CNTRL — MOTORIZED CONTROL VALVE
- 2" 3-WAY CNTRL — 3 WAY MOTORIZED CONTROL VALVE
- 2" PRV — PRESSURE REDUCING VALVE
- 3/8" SOLENOID — REFRIGERANT SOLENOID VALVE
- 2" BUTTERFLY — BUTTERFLY VALVE

DRAIN TAGS



PLUMBING GENERAL NOTES

1. UNLESS OTHERWISE NOTED, SLOPE PIPE AS FOLLOWS: WASTE BRANCHES: 1/4" PER FOOT; WASTE MAINS: 1/4" PER FOOT; ROOF DRAIN/ROOF DRAIN OVERFLOW: 1/8" PER FOOT. VERIFY ALL SLOPING WITH LOCAL CODES.
2. ALL WORK DONE SHALL BE PERFORMED WITH WATER CONTROL IN MIND. CONTAINMENT OF WATER IS NECESSARY TO PREVENT WATER FROM DAMAGING AREAS ON FLOORS BELOW.
3. PLUMBING DRAWINGS ARE SCHEMATIC IN NATURE. FIELD VERIFY EXACT PIPE ROUTING AND COORDINATE WITH ALL OTHER TRADES.
4. ALL PIPING IN PLUMBING CHASES SHALL BE ARRANGED TO ALLOW MAINTENANCE ACCESS.
5. NO PIPING TO RUN OVER ELECTRICAL PANELS, VFD'S OR MCC'S. PROTECT EQUIPMENT WITH A 42" DEEP ZONE IN FRONT OF PANELS, VFD'S, AND MCC'S.
6. COORDINATE FAN ROOM FLOOR DRAIN AND FLOOR SINK LOCATIONS WITH COOLING COIL, EVAPORATIVE SECTION, AND HEATING COIL LOCATIONS.
7. CONTRACTOR TO PROVIDE VALVE IDENTIFICATION AND LOCATION ON ALL CEILING TILES WHERE VALVES ARE LOCATED.
8. PIPING AND ROUTING SHOWN, INCLUDING ALL BELOW FLOOR DECK PIPING IS APPROXIMATE. IT IS UP TO THE CONTRACTOR TO FIELD VERIFY THE EXACT LOCATION AND SIZE OF ALL PIPING.
9. REFER TO ARCHITECTURAL DRAWINGS FOR FIXTURE MOUNTING HEIGHTS, DIMENSIONS AND OTHER REQUIREMENTS.
10. CONTRACTOR TO VERIFY CONNECTION SIDE OF ADA FIXTURES AND ADJUST ACCORDINGLY. INSTALL FLUSH VALVES HANDLES ON WIDE SIDE OF ALL FIXTURES.
11. LOCATE ALL VENTS MINIMUM 25' AWAY FROM AIR INTAKES.
12. INSTALL ALL DOMESTIC WATER LINES BELOW DUCTWORK.
13. INSTALL A 24" X 24" ACCESS DOOR BELOW ALL ISOLATION VALVES, BALANCING VALVES AND WATER HAMMER ARRESTORS WHERE MOUNTED ABOVE HARD CEILINGS.
14. MOUNT ALL ISOLATION VALVES, CONTROL VALVES, BALANCING VALVES, ETC. NEAR CEILING HEIGHT FOR ACCESSIBILITY.
15. INSTALL ALL EQUIPMENT WITH SUFFICIENT CLEARANCE FOR MAINTENANCE PER MANUFACTURERS RECOMMENDATION.
16. COORDINATE ALL FLOOR PENETRATIONS WITH STRUCTURAL AND PROVIDE SLEEVES AS NECESSARY.
17. COORDINATE THE LOCATION OF THE FLOOR DRAIN, SHOWER DRAIN, OR FLOOR SINK WITH ARCHITECTURAL AND STRUCTURAL, TYPICAL.
18. SEE PLUMBING FIXTURE SCHEDULE FOR PIPE SIZES OF WASTE, VENT AND DOMESTIC WATER TO/FROM SINGLE FIXTURE.
19. HOSE BIBBS SHOWN AT LAVATORIES ARE TO BE MOUNTED AT AN ACCESSIBLE LOCATION UNDER THE LAVATORY.
20. LOCATE CIRCUIT SETTERS, VALVES, WATER HAMMER ARRESTORS, ETC. IN ACCESSIBLE LOCATIONS. PROVIDE 24" X 24" ACCESS PANEL WHERE ITEM IS LOCATED ABOVE A HARD CEILING. PROVIDE APPROPRIATELY SIZED ACCESS DOORS TO ANY OF THESE ITEMS INSTALLED IN A WALL. COORDINATE ACCESS DOOR SIZE, LOCATION, AND STYLE WITH ARCHITECT.
21. FIELD VERIFY LOCATION AND INVERTS OF SITE UTILITIES PRIOR TO INSTALLATION.
22. FIELD VERIFY ALL NEW WATER, WASTE AND VENT PIPING CONNECTIONS AND PROVIDE NEW CONNECTIONS AS REQUIRED FOR PROPERLY OPERATING SYSTEMS.
23. WASTE AND VENT PIPING BELOW FLOOR AND THROUGH FLOOR TO BE 2" MINIMUM.
24. INSTALL CLEANOUTS IN DRAIN PIPING AS INDICATED, AND WHERE NOT INDICATED, ACCORDING TO THE FOLLOWING.
    A. SIZE SAME AS DRAINAGE PIPING UP TO 4" NPS. USE 4" NPS FOR LARGER. DRAINAGE PIPING UNLESS LARGER CLEANOUT IS INDICATED.
    B. LOCATE AT MINIMUM INTERVALS OF 50 FT FOR PIPING 4" NPS AND SMALLER AND 100 FT FOR LARGER PIPING.
    C. LOCATE AT THE BASE OF EACH VERTICAL STACK.

PROJECT GENERAL NOTES

1. THE PROJECT GENERAL NOTES APPLY TO ALL DISCIPLINES.
2. REMOVE ALL UNUSED PIPING, DUCTWORK, EQUIPMENT, AND ACCESSORIES.
3. THE MECHANICAL CONTRACTOR SHALL BE RESPONSIBLE FOR FIELD VERIFYING ALL EXISTING CONDITIONS FOR PLUMBING AND MECHANICAL SYSTEMS WITHIN THE TENANT SPACE AND WITHIN CLOSE PROXIMITY TO THE TENANT SPACE. THE CONTRACTOR WILL FIELD VERIFY AS MUCH AS IS REASONABLE BEFORE THE FINAL BID. AFTER THE FINAL BID THE CONTRACTOR WILL NOTIFY THE OWNER, ARCHITECT, AND MECHANICAL DESIGN ENGINEER IMMEDIATELY UPON DISCOVERY OF EXISTING CONDITIONS THAT MAY AFFECT THE DESIGN.
4. THE MECHANICAL CONTRACTOR SHALL PERFORM SERVICE AND REPAIR ON THE EXISTING EQUIPMENT AND ITS ACCESSORIES AS FOLLOWS: CLEAN ALL COILS, REPLACE THE FILTERS AND BELTS, INSPECT, REPAIR, OR REPLACE THE ECONOMIZERS, DRIVERS AND FAN BEARINGS, MOTORS, CONTROL COMPONENTS, VALVES, AND ANY OTHER ITEM NECESSARY FOR A COMPLETE AND PROPER OPERATING SYSTEM. THIS CONTRACTOR SHALL ALSO VISIT THE SITE, PRIOR TO FINAL BIDDING, AND VERIFY ALL EXISTING SITE CONDITIONS. PROVIDE ALL MATERIAL AND COMPONENTS AS NEEDED TO BRING THE UNITS TO FULL COMPLIANCE OF THE LANDLORD'S CRITERIA AND LOCAL AUTHORITY HAVING JURISDICTION.
5. WHERE FLOOR DRAINS OCCUR WITH THE LIMITS OF CONSTRUCTION, PREVENT CONSTRUCTION DEBRIS FROM ENTERING DRAIN BODY BY SEALING DRAIN OPENING PRIOR TO START OF WORK. UNSEAL DRAINS AT COMPLETION OF CONSTRUCTION.
6. COORDINATE INSTALLATION OF PIPING, DUCTWORK, CONDUIT, LIGHTS, CABLE TRAY, STRUCTURE, EQUIPMENT, CEILINGS, ARCHITECTURAL COMPONENTS, AND ANYTHING ELSE PERTAINING TO THE PROJECT TO PREVENT CONFLICTS.
7. THE CONTRACTOR SHALL BE FAMILIAR WITH ALL THE CONDITIONS BOTH EXISTING AND THOSE ILLUSTRATED BY THESE DOCUMENTS AND THOSE OF OTHER DISCIPLINES, INCLUDING, BUT NOT LIMITED TO ARCHITECTURAL, CIVIL, ELECTRICAL, VENTILATION, PLUMBING, AND OTHER SYSTEMS INVOLVED ON THIS PROJECT.
8. FINAL PRODUCT SHALL BE A COMPLETE AND FUNCTIONING SYSTEM, AND SHALL CONFORM TO ALL REQUIREMENTS OF APPLICABLE FEDERAL, STATE, AND LOCAL CODES, INCLUDING BUT NOT LIMITED TO THE INTERNATION BUILDING CODE, INTERNATIONAL MECHANICAL CODE, AND INTERNATIONAL PLUMBING CODE.
9. LOCATE EQUIPMENT REQUIRING ACCESS 2'-0" MAXIMUM ABOVE CEILING.
10. ALL ROOF MOUNTED EQUIPMENT SHALL BE A MINIMUM 10'-0" FROM EDGE OF ROOF.
11. COORDINATE INSTALLATION OF DUCTWORK, PIPING AND MECHANICAL EQUIPMENT WITH NEC CLEARANCES INCLUDING THE SPACE ABOVE ELECTRICAL PANELS, TRANSFORMERS AND OTHER ELECTRICAL EQUIPMENT. NO PIPING OR DUCTWORK TO RUN OVER ELECTRICAL PANELS, VFD'S OR MCC'S. PROTECT EQUIPMENT WITH A 42" DEEP ZONE IN FRONT OF PANELS, VFD'S AND MCC'S. PROVIDE PANS IF REQUIRED UNDER PIPING.
12. FIRE SEAL AROUND DUCT AND PIPING PENETRATIONS OF FIRE RATED WALLS. THE MECHANICAL CONTRACTOR SHALL BE RESPONSIBLE FOR CAULKING AND SEALING ALL PENETRATIONS IN FIRE AND SMOKE RATED PARTITIONS TO MAINTAIN RATINGS. REFER TO SPECIFICATION.
13. PROVIDE SLEEVES AND/OR OPENINGS TO RUN PIPES AND DUCTS THROUGH FOUNDATIONS, FLOORS, WALLS, AND ROOF.
14. TRANSITION PIPING AND DUCTWORK SIZES TO MATCH THE SIZE OF EQUIPMENT CONNECTION.
15. REFER TO PLUMBING SERIES DRAWINGS FOR GAS PIPING.
16. ALL PIPE AND DUCT SIZES SHOWN SHALL BE CONTINUED IN THE DIRECTION OF FLOW UNTIL ANOTHER SIZE IS SHOWN.
17. FOR DETAILS, EQUIPMENT CONNECTIONS, AND PIPE SIZES NOT SHOWN ON THE SEGMENTS, REFER TO DETAILS, SCHEDULES, AND SPECIFICATIONS.
18. INSTALL ALL EQUIPMENT IN ACCORDANCE WITH THE RESPECTIVE MANUFACTURER'S WRITTEN INSTALLATION INSTRUCTIONS, AT A LEVEL OF WORKMANSHIP CONSISTENT WITH THE SPECIFICATIONS.
19. MECHANICAL CONTRACTOR SHALL ENSURE THAT ALL EQUIPMENT IS PROVIDED AND INSTALLED WITH CLEARANCES PER MANUFACTURERS RECOMMENDATIONS. THE CONTRACTOR SHALL MAINTAIN PROPER SERVICE SPACE FOR COIL PULLS, BAS DEVICES, MAINTENANCE ACCESS, ETC.
20. INSTALL EXPOSED PIPING AND DUCTWORK AS HIGH AS PRACTICAL IN ROOMS WITHOUT CEILINGS.
21. LOCATIONS OF PIPING, DUCTWORK AND EQUIPMENT AS INDICATED ON THE DRAWING, ARE APPROXIMATE AND SUBJECT TO MINOR ADJUSTMENTS IN THE FIELD, INCLUDING, BUT NOT LIMITED TO, OFFSETS AND TRANSITIONS. NEW DUCTWORK, PIPING AND EQUIPMENT SHALL BE COORDINATED WITH STRUCTURE, LIGHTS, REFLECTED CEILING PLANS, CABLE TRAY, ELECTRICAL CONDUIT, PLUMBING, MECHANICAL AND FIRE PROTECTION PIPING, MEDICAL GASES, ALL OTHER TRADES AND ALL OTHER EXISTING CONDITIONS TO AVOID INTERFERENCE IN THE FIELD.
22. THE CONTRACTOR SHALL INFORM THE DESIGNER OF ANY PROPOSED DEVIATIONS FROM THE CONTRACT DOCUMENTS.
23. IF CONTRACTOR ENCOUNTERS MATERIAL WHICH MAY CONTAIN ASBESTOS, IMMEDIATELY STOP WORK IN THIS AREA AND NOTIFY THE OWNER.
24. DETAILS REFERENCE ALL SHEETS.
25. INSTALL ALL PIPING AND DUCTWORK WITHOUT FORCING OR SPRINGING.
26. ROUTE DOMESTIC WATER, FIRE PROTECTION, SANITARY WASTE, ROOF DRAIN, CAMPUS CHILLED OR HOT WATER, AND ANY OTHER UTILITY SERVICES TO SITE UTILITIES 5'-0" FROM BUILDING UNLESS NOTED OTHERWISE. REFER TO CIVIL PLANS.
27. LOCATE VALVING, ACCESSORIES, AND EQUIPMENT IN ACCESSIBLE LOCATIONS. WHERE LOCATED ABOVE HARD CEILING PROVIDE AN ACCESS DOOR IN CEILING. MINIMUM ACCESS DOOR SIZE OF 24" X 24". COORDINATE EXACT LOCATION AND STYLE WITH ARCHITECT. EQUIPMENT SHALL BE LOCATED IN THE CEILING CAVITY SO IT CAN BE SAFELY SERVICED FROM SOMEONE STAND ON A LADDER PLACED BELOW THE CEILING ACCESS.
28. WHERE VALVING, ACCESSORIES, OR EQUIPMENT IS LOCATED IN A WALL, PROVIDE AN APPROPRIATELY SIZED ACCESS DOOR. COORDINATE ACCESS DOOR SIZE, LOCATION, AND STYLE WITH ARCHITECT.
29. CONTRACTOR TO PROVIDE VALVE IDENTIFICATION AND LOCATION ON ALL CEILING TILES WHERE VALVES ARE LOCATED.

NOTE
ALL OF GENERAL NOTES ON THIS SHEET ARE TO BE APPLIED TO ALL OTHER DRAWINGS IN THIS SET.THE SYMBOLS AND ABBREVIATIONS SHOWN ON THIS SHEET MAY OR MAY NOT BE USED IN THIS SET OF DRAWINGS.

FIRE PROTECTION GENERAL NOTES

1. NO FIRE PROTECTION LINE SHALL BE DESIGNED OR INSTALLED PRIOR TO CLOSE COORDINATION WITH ALL OTHER DISCIPLINES.
2. ALL WORK DONE SHALL BE PERFORMED WITH WATER CONTROL IN MIND. CONTAINMENT OF WATER IS NECESSARY TO PREVENT WATER FROM DAMAGING SURROUNDING AREA.
3. COORDINATE EXACT LOCATION OF PIPING WITH STRUCTURAL MEMBERS, LIGHTS, REFLECTED CEILING PLANS, CABLE TRAY, ELECTRICAL CONDUITS, DUCTWORK, MECHANICAL AND PLUMBING PIPING, AND ALL OTHER TRADES AND ALL EXISTING CONDITIONS.
4. FIRE SUPPRESSION CONTRACTOR SHALL BE RESPONSIBLE TO REMOVE AND/OR REROUTE ANY AND ALL FIRE PROTECTION PIPING, VALVING, SUPPORTS OR SYSTEMS, OTHERWISE WITHIN THE FIRE SUPPRESSION DISCIPLINE REGARDLESS OF WHO INSTALLED THEM OR WHEN THEY WERE INSTALLED, IN ORDER TO ACCOMMODATE MECHANICAL, PLUMBING, ELECTRICAL OR OTHER SYSTEMS. COORDINATE WORK WITH MECHANICAL, ELECTRICAL, PLUMBING OR OTHER CONTRACTORS UNTIL SUBSTANTIAL COMPLETION OF PROJECT.
5. PROVIDE ALTERATIONS TO THE EXISTING FIRE PROTECTION SYSTEM AS REQUIRED TO ACCOMMODATE THE NEW FLOOR PLAN AND NEW CEILING TYPES. PROVIDE A COMPLETE WET TYPE SYSTEM INCLUDING NEW MAINS, BRANCHES, HEADS, VALVES, AND ACCESSORIES AS REQUIRED. REUSE EXISTING SYSTEM EQUIPMENT WHERE APPLICABLE. THE SYSTEM SHALL BE INSTALLED ACCORDING TO MANUFACTURER'S SPECIFICATIONS AND RECOMMENDATIONS AND AS PER REQUIREMENTS OF THE STATE BUILDING CODE, LOCAL FIRE DEPARTMENT, AND ALL FEDERAL, STATE, AND LOCAL AUTHORITIES, NFPA.
6. THE BUILDINGS COMPLETE OPERATIONAL FIRE PROTECTION SYSTEMS SHALL REMAIN IN PLACE. THIS CONTRACTOR SHALL REPAIR ANY DAMAGE TO THIS SYSTEM CREATED BY THE REMOVAL OF ANY OTHER MECHANICAL SYSTEMS OR COMPONENTS.
7. THIS CONTRACTOR SHALL COORDINATE PHASING OF SPRINKLER WORK WITH THE GENERAL CONTRACTOR PRIOR TO STARTING WORK.
8. THE SPRINKLER SYSTEM SHALL BE DESIGNED BASED UPON ACTUAL WATER FLOW TEST DATA OBTAINED AT OR NEAR THE JOB SITE.
9. REFER TO REFLECTED CEILING PLANS FOR ADDITIONAL INFORMATION REGARDING SPRINKLER HEAD LOCATION AND PIPE, UNLESS NOTED OTHERWISE.
10. DIVISION 21 CONTRACTOR SHALL COORDINATE WITH THE ELECTRICAL CONTRACTOR FOR PROPER INSTALLATION OF THE FIRE PROTECTION SYSTEMS ALARM DEVICES INVOLVED WITH FIRE SPRINKLER SYSTEM.
11. ALL SPRINKLER SYSTEM PIPING SHALL BE CONCEALED ABOVE THE SUSPENDED CEILING SYSTEM, UNLESS NOTED OTHERWISE. WRITTEN AUTHORIZATION SHALL BE OBTAINED FROM THE ARCHITECT PRIOR TO EXPOSING ANY PIPING IN ANY ROOM WHICH HAS A SUSPENDED CEILING.
12. THIS CONTRACTOR SHALL PROVIDE ALL ADDITIONAL SPRINKLER HEADS AS REQUIRED TO ENSURE AN APPROVED FIRE PROTECTION SYSTEM AT NO ADDITIONAL COST TO THE OWNER.
13. AUXILIARY DRAINS SHALL BE EXPOSED WITH 1" DRAIN VALVES. WHEN 5 OR MORE GALLONS ARE TRAPPED, THIS CONTRACTOR SHALL PROVIDE FIXED PIPING TO AN ADEQUATELY SIZED RECEPTOR WHICH IS CAPABLE OF ACCEPTING THE FULL FLOW OF THE DRAIN. WHEN LESS THAN 5 GALLONS ARE TRAPPED, A HOSE BIB SHALL BE PROVIDED AT THE DRAIN VALVE.
14. AUXILIARY DRAINS SHALL NOT BE LOCATED ABOVE PLASTER OR GYPSUM BOARD CEILING SYSTEMS. ONLY BY A SPECIFIC WRITTEN INSTRUCTION FROM THE ENGINEER WILL A VARIANCE BE PROVIDED.
15. SHOW ALL ROOM NUMBERS ON SHOP DRAWING PLANS.
16. A FIRE PROTECTION ENGINEER OR AN ENGINEER EXPERIENCED IN WATER FLOW TESTING SHALL PERFORM OR WITNESS THE REQUIRED FLOW TESTING AND SIGN THE REPORT PRIOR TO THE FIRST SPRINKLER SYSTEM SUBMITTAL.
17. ROUTE SPRINKLER PIPING SUCH THAT IT DOES NOT RUN ABOVE ELECTRICAL PANELS, SWITCHGEAR, OR SIMILAR EQUIPMENT. SPRINKLER MAINS SHALL NOT RUN THROUGH ELECTRICAL OR COMMUNICATION ROOMS. SPRINKLER HEADS IN THESE ROOMS SHALL BE SERVED BY A DEDICATED BRANCH LINE FOR EACH ROOM. BRANCH LINE TO ENTER ROOM ABOVE DOOR.
18. THIS CONTRACTOR SHALL PREPARE HYDRAULIC CALCULATIONS BASED UPON THE CONFIGURATION OF THE ACTUAL SYSTEM DESIGN AS SHOWN ON THIS CONTRACTOR'S SHOP DRAWINGS.

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#	DATE	REVISION

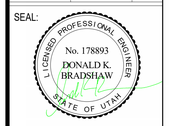
REVIEWED FOR CODE COMPLIANCE
05/17/2024
Shuma Coda Associates

BIOMEDICAL POLYMERS RESEARCH BUILDING - LEVEL 2

20 SOUTH 2030 EAST, SALT LAKE CITY, UTAH 84112

CONSTRUCTION DOCUMENTS

SEAL:



DATE:	PROJECT #:
05/03/2024	23027

SHEET NAME:
PLUMBING TITLE SHEET

SHEET #:
P000

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VBFA Project #: 23734

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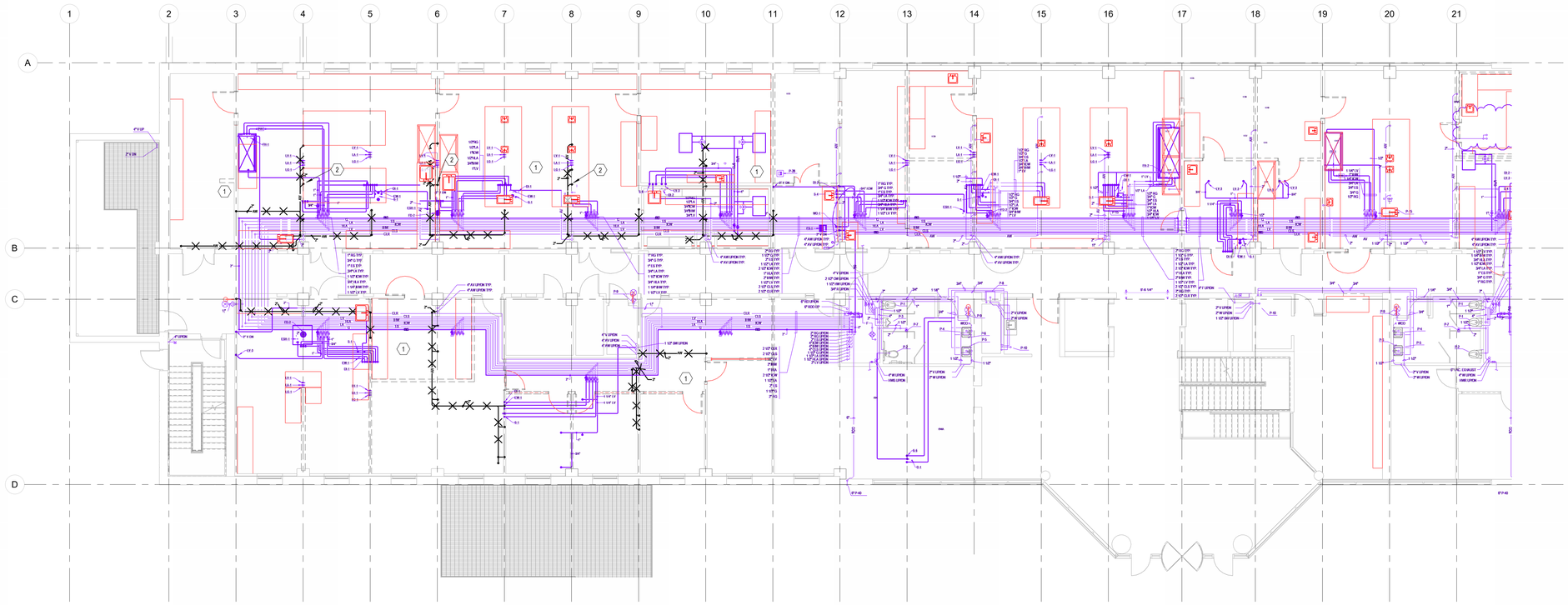
KEYNOTES

1 EXISTING SHOWN LIGHT TO REMAIN. ITEMS SHOWN DARK AND CROSSED OUT TO BE DEMOLISHED.

2 EXISTING DRAIN PANS AND WATERCOP SENSOR SERVING SECOND FLOOR SINK TO BE DEMOLISHED. PRESERVE AND PROTECT FOR FUTURE USE.



LEVEL 1 PLUMBING DEMOLITION PLAN
1/8" = 1'-0" PD101 1

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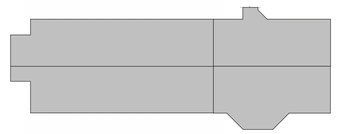
KEY PLAN



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	DATE	REVISION

REVIEWED FOR CODE COMPLIANCE
05/17/2024
Shums Coda Associates

BIOMEDICAL POLYMERS RESEARCH BUILDING - LEVEL 2

20 SOUTH 2030 EAST, SALT LAKE CITY, UTAH 84112

CONSTRUCTION DOCUMENTS

SEAL:

LICENSED PROFESSIONAL ENGINEER
No. 178893
DONALD K. BRADSHAW
STATE OF UTAH

DATE:	PROJECT #:
05/03/2024	23027

SHEET NAME:
LEVEL 1 PLUMBING DEMOLITION PLAN

SHEET #:
PD101

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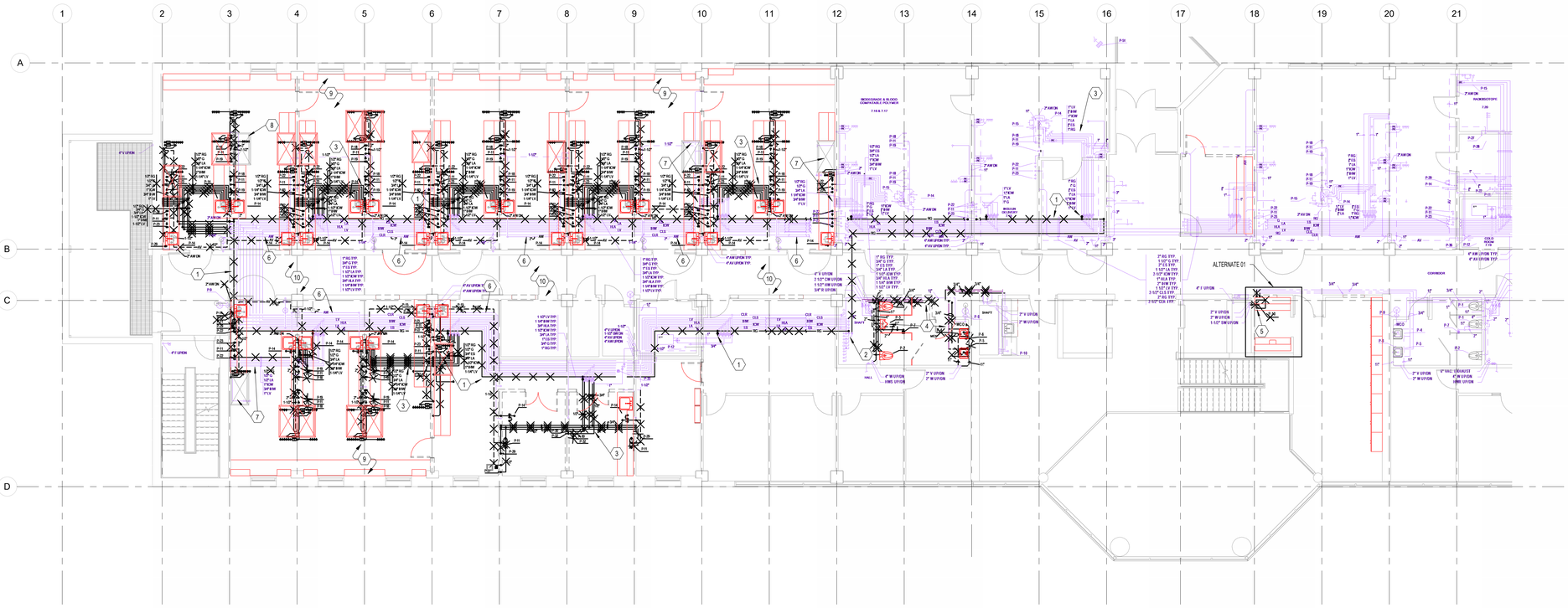
KEYNOTES

1. DEMOLISH ALL LEVEL 2 "RG" PURE WATER PIPING INCLUDING BRANCH TAKE-OFFS WITH ISOLATION VALVES SERVING LAB SPACES.
2. DEMOLISH "RG" LOOP BACK TO LEVEL 2 ISOLATION VALVES IN THE BUILDING PIPE SHAFTS. EXISTING LAB BRANCES SHALL BE DEMOLISHED AND REPLACED.
3. DEMOLISH ALL NON-PURE WATER (RG) LAB PIPING BACK TO ISOLATION VALVES. TYPICAL FOR ALL LAB SPACES WITHIN THE SCOPE OF THIS PROJECT.
4. DEMOLISH TOILET ROOM PLUMBING FIXTURES AND ASSOCIATED WATER, WASTE AND VENT PIPING. TYPICAL.
5. DEMOLISH EXISTING SINK AND ASSOCIATED WATER, WASTE AND VENT PIPING.
6. WASTE PIPING SERVING FIXTURES ON LEVEL ABOVE SHALL REMAIN.
7. EXISTING LAMINAR FLOW HOOD TO REMAIN. EXISTING PIPING SERVING HOOD TO REMAIN. CAP OPEN ENDS TO KEEP CLEAN DURING CONSTRUCTION.
8. EXISTING FUME HOOD TO BE REMOVED AND REUSED. PRESERVE AND PROTECT DURING CONSTRUCTION.
9. PENDENT FIRE PROTECTION SPRINKLERS IN ALL AREAS RETAINING EXISTING DROP DOWN TOTAL AIR DIFFUSERS ARE TO REMAIN.
10. COORDINATE AND SCHEDULE ALL MECHANICAL SHUTDOWNS WITH THE UNIVERSITY OF UTAH.



LEVEL 2 PLUMBING DEMOLITION PLAN
1/8" = 1'-0"
PD102 | 1

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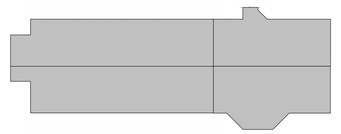
KEY PLAN



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Shums Coda Associates

BIOMEDICAL POLYMERS RESEARCH BUILDING - LEVEL 2

20 SOUTH 2030 EAST, SALT LAKE CITY, UTAH 84112

CONSTRUCTION DOCUMENTS

SEAL:

LICENSED PROFESSIONAL ENGINEER
No. 178893
DONALD K. BRADSHAW
STATE OF UTAH

DATE:	PROJECT #:
05/03/2024	23027

SHEET NAME:
LEVEL 2 PLUMBING DEMOLITION PLAN

SHEET #:
PD102

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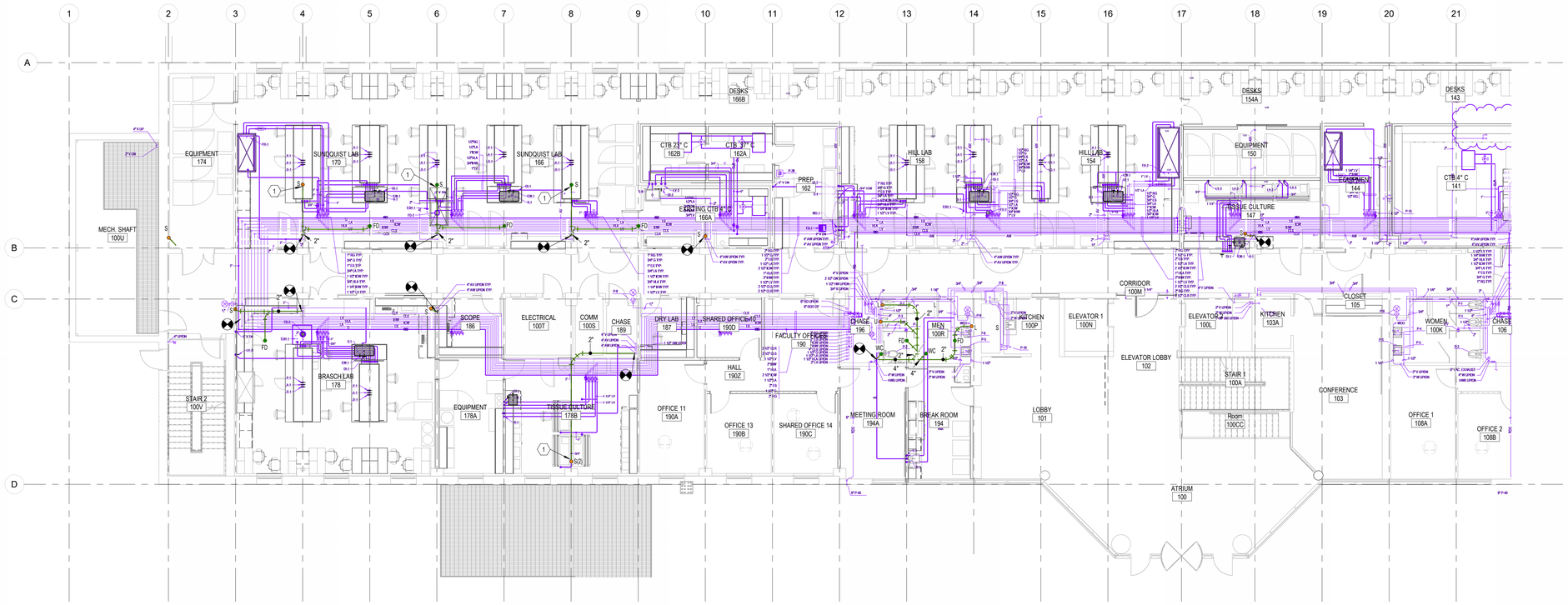
KEYNOTES

1 3' x 3' x 2" DEEP DRAIN PAN REUSED FROM SALVAGE. INSTALL IN CEILING SPACE BELOW DRAIN LINE FLOOR PENETRATION FROM LEVEL ABOVE. REINSTALL WATERCOP SENSOR FROM SALVAGE AND CONNECT INTO WATERCOP PRO CONTROL PANEL.



LEVEL 1 PLUMBING PLAN 1
1/8" = 1'-0" P101

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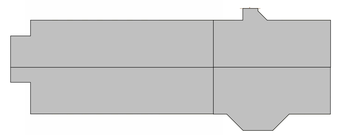
KEY PLAN



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DATE:	PROJECT #:
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SHEET NAME:
LEVEL 1 PLUMBING PLAN

SHEET #:
P101

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KEYNOTES

1. REPLACE ALL LEVEL 2 "RG" PURE WATER PIPING INCLUDING BRANCH TAKE-OFFS. PROVIDE ISOLATION VALVES AT BRANCH TAKE-OFF TO LAB SPACES.
2. ALL NEW LAB BRANCH TAKE-OFFS SHALL BE 1", SHALL HAVE AN ISOLATION VALVE AND SHALL BE CAPPED FOR FUTURE WHERE NO PIPING EXTENDS INTO LAB SPACE, TYPICAL.
3. DROP DOWN AND RUN THRU WALL TO SERVE AND REUSE EXISTING HOOD.
4. CONNECT LAB VAC AND LAB AIR PIPING IN WALL HERE.
5. COORDINATE FLOOR PENETRATIONS WITH STRUCTURAL PLANS.
6. BANK OF NEW CONNECTIONS: EACH NEW CONNECTION TO MATCH EXISTING PIPE SIZES UNLESS NOTED OTHERWISE. TYPICAL.
7. UNLESS OTHERWISE NOTED, FINAL PIPE SIZE TO FIXTURE CONNECTION SHALL MATCH PLUMBING FIXTURE SCHEDULE.
8. NEW CONNECTION TO EXISTING VENT RISER.
9. EXISTING FUME HOOD. NO NEW WORK ASSOCIATED WITH THIS EQUIPMENT.
10. CONNECT NEW SINK TO EXISTING WASTE LINE.
11. WASTE LINE SERVING REUSED FUME HOOD TO RUN HORIZONTALLY IN WALL. CONNECT INTO EXISTING WASTE RISER HERE.
12. PENDENT FIRE PROTECTION SPRINKLERS IN ALL AREAS RETAINING EXISTING DROP DOWN TOTAL AIR DIFFUSERS ARE TO REMAIN.
13. ALL NEW AREAS WITH DROP DOWN TOTAL AIR DIFFUSERS ARE TO HAVE NEW PENDENT SPRINKLERS INSTALLED. SPRINKLERS TO MATCH EXISTING AREAS.
14. ALL NEW AREAS WITHOUT DROP DOWN TOTAL AIR DIFFUSERS ARE TO HAVE NEW FLAT PLATE CONCEALED SPRINKLERS INSTALLED.
15. ALL NEW SPRINKLERS ARE TO BE INSTALLED IN LOCATIONS COORDINATED WITH OTHER CEILING ELEMENTS AND APPROVED BY THE ARCHITECT/OWNER.
16. MOUNT GAS OUTLETS AT 8' ABOVE FINISHED FLOOR. CONTRACTOR TO EXTEND LG AND LV TO BIO SAFETY HOOD AND CONNECT.
17. DROP OWN AND RUN IN CABINET TO DECK MOUNTED GAS TURRETS.
18. PROVIDE PRESSURE TYPE VACUUM BREAKER IN ACCESSIBLE LOCATION BELOW CEILING ON WATER LINE(S) SERVING FUME HOOD.
19. RUN WATER LINE DOWN INSIDE WALL. STUB OUT AT 18" AFF. PROVIDE STOP VALVE AND ESCUTCHEON FOR ICE MAKER SUPPLY LINE. REINSTALL COPPER SUPPLY LINE AND FILTER FROM EXISTING UNIT AND CONNECT TO ICE MAKER. RUN DRAIN LINE TO EXISTING FLOOR SINK.
20. IN ADDITION TO DI-1 FAUCET AT THE SINK, ON WALL, ROUGHLY 12" TO 18" ABOVE THE SINK, STUBB 1/2" PURE WATER LINE OUT OF WALL FOR CONNECTION TO DI POLISHER. PROVIDE WALL ESCHUTCHEON. PROVIDE 1/2" LXT BALL VALVE WITH THREADED 1/2" CAPPED LXT NIPPLE AT LINE TERMINATION.



LEVEL 2 PLUMBING PLAN
1/8" = 1'-0" P102 1

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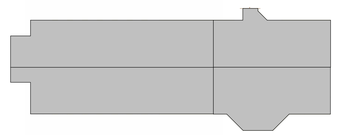
KEY PLAN



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BIOMEDICAL POLYMERS RESEARCH BUILDING - LEVEL 2

20 SOUTH 2030 EAST, SALT LAKE CITY, UTAH 84112

CONSTRUCTION DOCUMENTS

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No. 178893
DONALD K. BRADSHAW
STATE OF UTAH

DATE:	PROJECT #:
05/03/2024	**23027**

SHEET NAME:
LEVEL 2 PLUMBING PLAN

SHEET #:
P102

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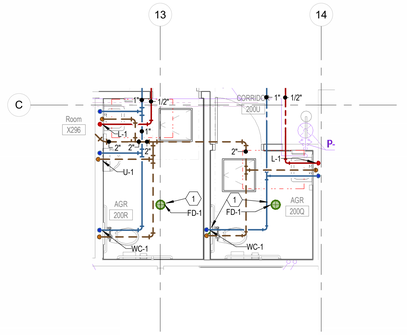
KEYNOTES

1 COORDINATE FLOOR PENETRATIONS WITH STRUCTURAL PLANS.



1 P401 ENLARGED PLUMBING PLAN
1/4" = 1'-0"

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20 SOUTH 2030 EAST, SALT LAKE CITY, UTAH 84112

CONSTRUCTION DOCUMENTS

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No. 178893
DONALD K. BRADSHAW
STATE OF UTAH

DATE: **05/03/2024**
PROJECT #: **23027**

SHEET NAME:
ENLARGED PLUMBING PLAN

SHEET #: **P401**

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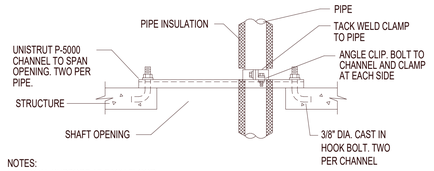
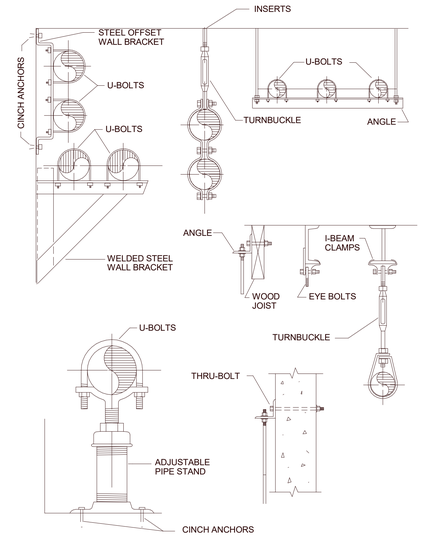
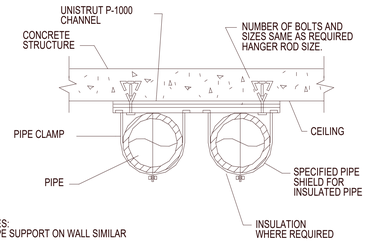


NOTES:
1. TYPICAL SUPPORT AT EACH FLOOR.
2. FOR MULTIPLE PIPES INSTALL CHANNELS IN PARALLEL AND PROVIDE ADDITIONAL FRAMING. SIZES OF FRAMING MEMBERS AS REQUIRED TO SUPPORT TOTAL WEIGHT OF PIPE.
3. INSULATE CLAMP AT CHILLED WATER PIPE ONLY.

5 PIPE RISER SUPPORT DETAIL
P501 NO SCALE

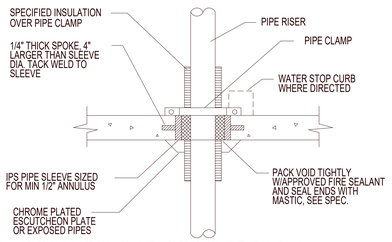


1 TYPICAL PIPE SUPPORT DETAIL
P501 NO SCALE

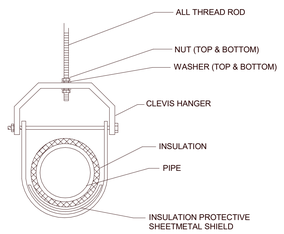


NOTES:
1. PIPE SUPPORT ON WALL SIMILAR

2 PIPE SUPPORT ON CEILING
P501 NO SCALE



3 PIPE THROUGH FLOOR SLAB DETAIL
P501 NO SCALE



4 TYPICAL CLEVIS HANGER DETAIL
P501 NO SCALE

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BIOMEDICAL POLYMERS RESEARCH BUILDING - LEVEL 2

20 SOUTH 2030 EAST, SALT LAKE CITY, UTAH 84112

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No. 178893
DONALD K. BRADSHAW
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DATE:	PROJECT #:
05/03/2024	**23027**

SHEET NAME:
PLUMBING DETAILS

SHEET #: **P501**

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PLUMBING FIXTURE SCHEDULE

ID	FIXTURE	CW (IN)	HW (IN)	W (IN)	V (IN)	ES (IN)	RG (IN)	NOTES
L-1	LAVATORY	1/2	1/2	1 1/2	1 1/2	-.-	-.-	LAVATORY: KOHLER K2030, GREENWICH, 20" X 18", VITREOUS CHINA, WITH FRONT OVERFLOW, 8" CENTERS. CHICAGO 786-GN8FCXKABCP FACUET, WITH WRIST BLADE HANDLES, GN8 RIGID/SWING GOOSENECK SPOUT WITH 0.5 GPM LAMINAR FLOW CONTROL IN SPOUT INLET. WATTS LFUSG-B-M2 THERMOSTATIC MIXING VALVE WITH SLOAN BASYS EFT-470-A. CHECK VALVES ON HOT AND COLD LINES. FLEXIBLE STAINLESS STEEL SUPPLIES WITH WITH LOOSE KEY ANGLE STOPS. CHICAGO 327-XCP OPEN-GRID STRAINER AND CAST BRASS P-TRAP WITH CLEAN OUT PLUG. SMITH 0700-Z CONCEALED ARM CHAIR CARRIER WITH FOOT SUPPORT. PROVIDE ADA COMPLIANT UNDER COUNTER PIPING WRAP BY TRUE-BRO, COLOR TO BE WHITE.
S-1	LAB SINK	1/2	1/2	2	1 1/2	-.-	-.-	SINK INTEGRAL WITH COUNTER TOP AND PROVIDED BY OTHERS. CHICAGO 930-XKCP FAUCET WITH 6" GOOSENECK SPOUT WITH VACUUM BREAKER, 4" WRISTBLADE HANDLE AND SERRATED NOZZLE OUTLET.
S-2	LAB SINK	1/2	1/2	2	1 1/2	-.-	-.-	SINK INTEGRAL WITH COUNTER TOP AND PROVIDED BY OTHERS. CHICAGO 930-XKCP FAUCET WITH 6" GOOSENECK SPOUT WITH VACUUM BREAKER, 4" WRISTBLADE HANDLE AND SERRATED NOZZLE OUTLET.
S-3*	LACTATION ROOM	1/2	1/2	1 1/2	1 1/2	-.-	-.-	SINK (STAINLESS STEEL, COUNTER MOUNTED, SINGLE COMPARTMENT): JUST SL-1921-A-GR 18 GA. TYPE 304 STAINLESS STEEL SINK 14" X 18" X 7-1/2" DEEP BASIN, SELF RIMMING, 8" CENTERS DRILLING WITH J-35 CUP STRAINER. SYMMONS S-23-1.5 KITCHEN FAUCET WITH 1.5 GPM AERATOR. FLEXIBLE STAINLESS STEEL SUPPLIES WITH LOOSE KEY ANGLE STOPS. CAST BRASS P-TRAP WITH CLEAN-OUT PLUG. INSINKERATOR MODEL C1300 HOT WATER DISPENSER WITH 2/3 GAL UNDERCOUNTER ELECTRIC WATER HEATER TANK: 115V, 1300 W, 11.3 A.
DI-1	PURE WATER FAUCET	-.-	-.-	-.-	-.-	-.-	1/2	CHICAGO 828-ACP DECK MOUNTED LABORATORY THREADED FAUCET ASSEMBLY, CHROME PLATED BRASS WITH POLYPROPYLENE HOSE LINER.
EW-1	EYEWASH	-.-	-.-	-.-	-.-	1/2	-.-	GUARDIAN MODEL G1849 DECK MOUNTED 90○ SWINGDOWN AUTOFLOW EYEWASH. USE HOUSE PROVIDED TEPID WATER SYSTEM. RIGHT HAND OR LEFT HAND MOUNTING MUST BE COORDINATE WITH ARCHTECTURAL PLANS.
FD-1	FLOOR DRAIN	-.-	-.-	2	1 1/2	-.-	-.-	FLOOR DRAIN: SMITH FIGURE 2006Y-P050 FLOOR DRAIN WITH CAST IRON BODY AND FLASHING COLLAR WITH 6-INCH ROUND NICKEL BRONZE ADJUSTABLE STRAINER HEAD WITH SECURED GRATE. PROVIDE WITH TRAP GUARD TYPE TRAP SEAL DEVICE.
FD-2	EMERGENCY FLOOR DRAIN	-.-	-.-	3	2	-.-	-.-	FLOOR DRAIN: SMITH FIGURE 2005Y-P050 FLOOR DRAIN WITH ACID RESISTANT COATED INTERIOR, CAST IRON BODY AND FLASHING COLLAR WITH 6-INCH ROUND STAINLESS STEEL ADJUSTABLE STRAINER HEAD WITH SECURED GRATE. PROVIDE WITH TRAP GUARD TYPE TRAP SEAL DEVICE AND ACID RESISTANT POLYPROPYLENE P-TRAP.

1. ALL UNDER GROUND WASTE AND VENT SHALL BE 2" OR GREATER PER DRAWINGS.
2. ALL SINKS SERVING LABORATORIES AND GLASS WASH AREA SHALL BE PROVIDED WITH AN ACID RESISTANT POLYPROPYLENE P-TRAP.
* ALTERNATE 01

LAB GAS FIXTURE SCHEDULE

ID	FIXTURE	LV (IN)	LA (IN)	G (IN)	NOTES
LA-1	DECK MOUNTED GAS TURRET	-.-	1/2	-.-	CHICAGO 980-909-957-3KAGV SINGLE OUTLET GAS TURRET BALL VALVE WITH SERRATED NOZZLE, LEVER HANDLE, AIR GAS AND VAC INDEX BUTTONS AND SHANK ASSEMBLY. CHROME PLATED FINISH.
LA-2	WALL MOUNTED GAS TURRET	-.-	1/2	-.-	CHICAGO 986-WSV909LEB SINGLE BALL VALVE WALL OUTLET WITH SERRATED NOZZLE AND LEVER HANDLE.
LV-1	DECK MOUNTED GAS TURRET	3/4	-.-	-.-	CHICAGO 980-909-957-3KAGV SINGLE OUTLET GAS TURRET BALL VALVE WITH SERRATED NOZZLE, LEVER HANDLE, AIR GAS AND VAC INDEX BUTTONS AND SHANK ASSEMBLY. CHROME PLATED FINISH.
LV-2	WALL MOUNTED GAS TURRET	3/4	-.-	-.-	CHICAGO 986-WSV909LEB SINGLE BALL VALVE WALL OUTLET WITH SERRATED NOZZLE AND LEVER HANDLE.
LG-1	DECK MOUNTED GAS TURRET	-.-	-.-	1/2	CHICAGO 980-909-957-3KAGV SINGLE OUTLET GAS TURRET BALL VALVE WITH SERRATED NOZZLE, LEVER HANDLE, AIR GAS AND VAC INDEX BUTTONS AND SHANK ASSEMBLY. CHROME PLATED FINISH.
LG-2	WALL MOUNTED GAS TURRET	-.-	-.-	1/2	CHICAGO 986-WSV909LEB SINGLE BALL VALVE WALL OUTLET WITH SERRATED NOZZLE AND LEVER HANDLE.
CSP-3	CEILING SERVICE PANEL	3/4	1/2	1/2	CEILING MOUNTED, ROUGH IN AND CONNECT, FURNISHED BY OTHERS, COORDINATE WITH ARCHITECT.

FUMEHOOD PLUMBING CONNECTION...

SYMBOL	LEVEL	ROOM NUMBER	LENGTH (FT)	ICW*	CUPSINK WASTE	VENT	LA	LV	LG
FH-1	1	272	5	1/2	1 1/2	1 1/2	1/2	3/4	1/2

* ICW AND IHW WATER PIPING SHALL HAVE AN ACCESSIBLE, BELOW CEILING SPILL PROOF VACUUM BREAKER BEFORE CONNECTING TO THE FUME HOOD.

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BIOMEDICAL POLYMERS RESEARCH BUILDING - LEVEL 2

20 SOUTH 2030 EAST, SALT LAKE CITY, UTAH 84112

CONSTRUCTION DOCUMENTS

SEAL:
LICENSED PROFESSIONAL ENGINEER
No. 178893
DONALD K. BRADSHAW
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DATE: **05/03/2024**
PROJECT #: **23027**

SHEET NAME:
PLUMBING SCHEDULES

SHEET #: **P601**

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GENERAL MECHANICAL SYMBOLS

- REVISION NUMBER - SHOWN ON PLANS
- POINT WHERE NEW CONNECTS TO EXISTING
- POINT WHERE EXISTING IS TO BE DEMOLISHED
- NUMBER OF DETAIL ON SHEET / NUMBER OF SHEET WHERE DETAIL APPEARS
- KEYNOTE
- CONTINUATION SYMBOL
- Room 11 — ROOM NAME AND NUMBER
- ITEM TO BE DEMOLISHED
- AREA NOT IN CONTRACT

- 2" — PIPE SIZE TAG (DIAMETER)
- ABOVE GROUND PIPING
- 2" VTR — PIPE SLOPE TAG
- BELOW GROUND PIPING
- INVERT: -105' - 1" — PIPE INVERT ELEVATION TAG
- (E) — EXISTING PIPE TAG
- PIPING BEING DEMOLISHED

ABBREVIATIONS

Ø	ROUND	LVR	LOUVER
ABV	ABOVE	LWT	LEAVING WATER TEMPERATURE
AC	AIR CONDITIONING	M/A	MIXED AIR
AD	AREA DRAIN	MAX	MAXIMUM
ADD	ADDENDUM	MBH	ONE THOUSAND BTU PER HOUR
AFF	ABOVE FINISHED FLOOR	MCF	ONE THOUSAND CUBIC FEET
AFUE	ANNUAL FUEL UTILIZATION EFFICIENCY	MD	MOTORIZED DAMPER
ALT	ALTERNATE	MECH	MECHANICAL
AP	ACCESS PANEL	MFR	MANUFACTURER
ARCH	ARCHITECT/ARCHITECTURAL	MIN	MINIMUM
BFF	BELOW FINISHED FLOOR	MISC	MISCELLANEOUS
BLW	BELOW	MTR	MOTOR
BTU	BRITISH THERMAL UNITS	MUA	MAKE-UP/AIR
BTUH	BRITISH THERMAL UNITS PER HOUR	NC	NOISE CRITERIA
CAP	CAPACITY	NC	NORMALLY CLOSED
CB	CATCH BASIN	NIC	NOT IN CONTRACT
CFM	CUBIC FEET PER MINUTE	NO	NUMBER
CLG	CEILING	NO	NORMALLY OPEN
CO	CLEAN OUT	NTS	NOT TO SCALE
D	DEGREE	O	OXYGEN
DB	DRY BULB	OA	OUTSIDE AIR
DCW	DOMESTIC COLD WATER	PD	PRESSURE DROP
DHW	DOMESTIC HOT WATER	PIV	POST INDICATOR VALVE
DIA	DIAMETER	PLBG	PLUMBING
DN	DOWN	PRESS	PRESSURE
DW	DISTILLED WATER	PRV	PRESSURE REDUCING VALVE
EA	EACH	PSI	POUNDS PER SQUARE INCH
EAT	ENTERING AIR TEMPERATURE	PSIG	POUNDS PER SQUARE INCH GAUGE
ELEC	ELECTRICAL	PWR	POWER
EQUIP	EQUIPMENT	R	DUCT RISER
EWC	ELECTRIC WATER COOLER	R/A	RETURN AIR
EWT	ENTERING WATER TEMPERATURE	RCP	RADIANT CEILING PANEL
E/A	EXHAUST AIR	RD	ROOF DRAIN
EXIST	EXISTING	RDO	ROOF DRAIN OVERFLOW
F	DEGREES FAHRENHEIT	REC	RECESSED
FCO	FLOOR CLEAN OUT	RED	REDUCER
FD	FLOOR DRAIN	RH	RELATIVE HUMIDITY
FD	FIRE DAMPER	RL/A	RELIEF AIR
FDV	FIRE DEPARTMENT VALVE	RM	ROOM
FL	FLOOR	RPM	REVOLUTIONS PER MINUTE
FO	FUEL OIL	RW	RAIN WATER
FOV	FUEL OIL VENT	SF	SQUARE FOOT
FOR	FUEL OIL RETURN	S/A	SUPPLY AIR
FOS	FUEL OIL SUPPLY	SAN	SANITARY
FPM	FEET PER MINUTE	SF	SQUARE FOOT
FS	FLOOR SINK	SD	SMOKE DAMPER
FT	FOOT/FEET	SM	SURFACE MOUNT
FTR	FIN TUBE RADIATION	SP	STANDPIPE
GAL	GALLON	SP	STATIC PRESSURE
GC	GENERAL CONTRACTOR	STM	STEAM
GPM	GALLONS PER MINUTE	T	THERMOSTAT
GW	GREASE WASTE	TD	TRENCH DRAIN
HB	HOSE BIB	TDR	TEMPERATURE DROP
HP	HORSE POWER	TEMP	TEMPERATURE
HTG	HEATING	TYP	TYPICAL
HTR	HEATER	UG	UNDERGROUND
HYD	HYDRANT	VAC	VACUUM
ID	INDIRECT	V	VENT
IN	INCH	VAV	VARIABLE AIR VOLUME
INV	INVERT	VENT	VENTILATION
LB	POUND	VTR	VENT THROUGH ROOF
LB/HR	POUNDS PER HOUR	W	WASTE
LAT	LEAVING AIR TEMPERATURE	WB	WET BULB
LP	LOW PRESSURE	WCO	WALL CLEAN OUT
LPG	LIQUEFIED PETROLEUM GAS	WH	WALL HYDRANT

HVAC SYMBOLS

DAMPER TAGS

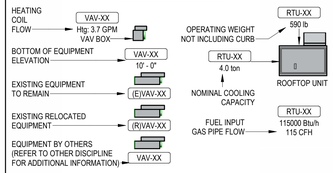
- FIRE DAMPER — FD
- SMOKE DAMPER — SD
- FIRE/SMOKE DAMPER — FSD
- BD — BALANCING DAMPER (MANUAL)
- BDD — BACKDRAFT DAMPER
- ATC — AUTOMATIC TEMPERATURE CONTROL DAMPER (MOTORIZED)

HVAC SYMBOLS

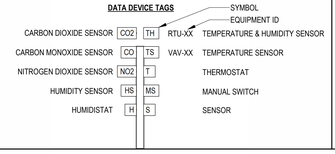
- 18"x8" — SQUARE DUCT SIZE TAG (WIDTH x HEIGHT)
- 18"/8"EO — OVAL DUCT SIZE TAG (WIDTH / HEIGHT)
- 18"Ø — ROUND DUCT SIZE TAG (DIAMETER)
- (E) — EXISTING DUCT TAG
- DUCT BEING DEMOLISHED
- SUPPLY AIR - LOW PRESSURE
- SUPPLY AIR - MEDIUM PRESSURE
- CONDITIONED OUTSIDE AIR
- OUTSIDE AIR
- RETURN AIR
- TRANSFER AIR
- EXHAUST AIR
- RELIEF AIR
- GREASE EXHAUST AIR
- SMOKE EXHAUST AIR
- EXHAUST GAS FLUE
- COMBUSTION AIR
- DROP — RECTANGULAR SUPPLY/OUTSIDE AIR DUCT RISE
- DROP — ROUND SUPPLY/OUTSIDE AIR DUCT RISE
- DROP — RECTANGULAR RETURN/TRANSFER AIR DUCT RISE
- DROP — ROUND RETURN/TRANSFER AIR DUCT RISE
- DROP — RECTANGULAR EXHAUST/RELIEF AIR DUCT RISE
- DROP — ROUND EXHAUST/RELIEF AIR DUCT RISE

GRILLES, REGISTERS & DIFFUSERS SYMBOLS AND TAGS

MECHANICAL EQUIPMENT TAGS



DATA DEVICE TAGS



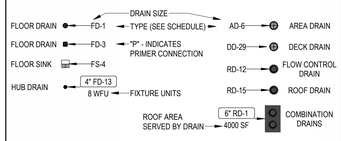
PIPING SYMBOLS

- CHWR — CHILLED WATER RETURN
- CHWS — CHILLED WATER SUPPLY
- CD — CONDENSATE DRAINAGE
- CWR — CONDENSER WATER RETURN
- CWS — CONDENSER WATER SUPPLY
- GWR — GEOTHERMAL WATER RETURN
- GWS — GEOTHERMAL WATER SUPPLY
- HWR — HEATING WATER RETURN
- HWS — HEATING WATER SUPPLY
- NG — NATURAL GAS
- PG — PROPANE GAS
- REF-L — REFRIGERANT-LIQUID
- REF-S — REFRIGERANT-SUCTION
- REF-HG — REFRIGERANT-HOT GAS
- STM — STEAM
- CDR — CONDENSATE RETURN
- CWV — COMBINATION WASTE & VENT
- CA — COMPRESSED AIR
- DCW — DOMESTIC COLD WATER
- S-CW — SOFT COLD WATER
- DI — FILTERED COLD WATER
- ICW — NON-POTABLE COLD WATER
- TW — REVERSE OSMOSIS WATER
- DHW — HOT WATER
- DHW 140° — HOT WATER 140°
- DHW-R — HOT WATER RECIRCULATION
- DHW-R 140° — HOT WATER RECIRCULATION 140°
- IHW — NON-POTABLE HOT WATER
- GV — GREASE VENT
- GW — GREASE WASTE
- IW — INDIRECT WASTE
- OV — OIL VENT
- OW — OIL WASTE
- PD — PUMP DISCHARGE
- V — SANITARY VENT
- W — SANITARY SEWER
- SHWR — SOLAR HOT WATER RETURN
- SHWS — SOLAR HOT WATER SUPPLY
- RD — ROOF DRAIN
- RDO — ROOF DRAIN OVERFLOW

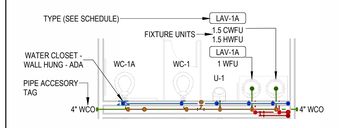
PIPE ACCESSORY TAGS

- DOMESTIC WATER METER
- BALANCING VALVE
- 1/4 TURN BALL VALVE
- CHECK VALVE
- 3-WAY MIXING VALVE
- MOTORIZED CONTROL VALVE
- 3 WAY MOTORIZED CONTROL VALVE
- PRESSURE REDUCING VALVE
- REFRIGERANT SOLENOID VALVE
- BUTTERFLY VALVE

DRAIN TAGS



PLUMBING FIXTURE TAGS



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PROJECT NO: 22287

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#	DATE	REVISION

REVIEWED FOR CODE COMPLIANCE
05/17/2024
Shums Coda Associates

BIOMEDICAL POLYMERS RESEARCH BUILDING - LEVEL 2

20 SOUTH 2030 EAST, SALT LAKE CITY, UTAH 84112

CONSTRUCTION DOCUMENTS

SEAL:

LICENSED PROFESSIONAL ENGINEER
No. 178893
DONALD K. BRADSHAW
STATE OF UTAH

DATE: 05/03/2024
PROJECT #: 23027

SHEET NAME:
MECHANICAL TITLE SHEET

SHEET #: **M000**

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5/1/2024 3:47:00 PM

FIRE PROTECTION GENERAL NOTES

1. NO FIRE PROTECTION LINE SHALL BE DESIGNED OR INSTALLED PRIOR TO CLOSE COORDINATION WITH ALL OTHER DISCIPLINES.
2. ALL WORK DONE SHALL BE PERFORMED WITH WATER CONTROL IN MIND. CONTAINMENT OF WATER IS NECESSARY TO PREVENT WATER FROM DAMAGING SURROUNDING AREA.
3. COORDINATE EXACT LOCATION OF PIPING WITH STRUCTURAL MEMBERS, LIGHTS, REFLECTED CEILING PLANS, CABLE TRAY, ELECTRICAL CONDUITS, DUCTWORK, MECHANICAL AND PLUMBING PIPING, AND ALL OTHER TRADES AND ALL EXISTING CONDITIONS.
4. FIRE SUPPRESSION CONTRACTOR SHALL BE RESPONSIBLE TO REMOVE AND/OR REROUTE ANY AND ALL FIRE PROTECTION PIPING, VALVING, SUPPORTS OR SYSTEMS, OTHERWISE WITHIN THE FIRE SUPPRESSION DISCIPLINE REGARDLESS OF WHO INSTALLED THEM OR WHEN THEY WERE INSTALLED, IN ORDER TO ACCOMMODATE MECHANICAL, PLUMBING, ELECTRICAL OR OTHER SYSTEMS. COORDINATE WORK WITH MECHANICAL, ELECTRICAL, PLUMBING OR OTHER CONTRACTORS UNTIL SUBSTANTIAL COMPLETION OF PROJECT.
5. PROVIDE ALTERATIONS TO THE EXISTING FIRE PROTECTION SYSTEM AS REQUIRED TO ACCOMMODATE THE NEW FLOOR PLAN AND NEW CEILING TYPES. PROVIDE A COMPLETE WET TYPE SYSTEM INCLUDING NEW MAINS, BRANCHES, HEADS, VALVES, AND ACCESSORIES AS REQUIRED. REUSE EXISTING SYSTEM EQUIPMENT WHERE APPLICABLE. THE SYSTEM SHALL BE INSTALLED ACCORDING TO MANUFACTURER'S SPECIFICATIONS AND RECOMMENDATIONS AND AS PER REQUIREMENTS OF THE STATE BUILDING CODE, LOCAL FIRE DEPARTMENT, AND ALL FEDERAL, STATE, AND LOCAL AUTHORITIES, NFPA.
6. THE BUILDINGS COMPLETE OPERATIONAL FIRE PROTECTION SYSTEMS SHALL REMAIN IN PLACE. THIS CONTRACTOR SHALL REPAIR ANY DAMAGE TO THIS SYSTEM CREATED BY THE REMOVAL OF ANY OTHER MECHANICAL SYSTEMS OR COMPONENTS.
7. THIS CONTRACTOR SHALL COORDINATE PHASING OF SPRINKLER WORK WITH THE GENERAL CONTRACTOR PRIOR TO STARTING WORK.
8. THE SPRINKLER SYSTEM SHALL BE DESIGNED BASED UPON ACTUAL WATER FLOW TEST DATA OBTAINED AT OR NEAR THE JOB SITE.
9. REFER TO REFLECTED CEILING PLANS FOR ADDITIONAL INFORMATION REGARDING SPRINKLER HEAD LOCATION AND PIPE, UNLESS NOTED OTHERWISE.
10. DIVISION 21 CONTRACTOR SHALL COORDINATE WITH THE ELECTRICAL CONTRACTOR FOR PROPER INSTALLATION OF THE FIRE PROTECTION SYSTEMS ALARM DEVICES INVOLVED WITH FIRE SPRINKLER SYSTEM.
11. ALL SPRINKLER SYSTEM PIPING SHALL BE CONCEALED ABOVE THE SUSPENDED CEILING SYSTEM, UNLESS NOTED OTHERWISE. WRITTEN AUTHORIZATION SHALL BE OBTAINED FROM THE ARCHITECT PRIOR TO EXPOSING ANY PIPING IN ANY ROOM WHICH HAS A SUSPENDED CEILING.
12. THIS CONTRACTOR SHALL PROVIDE ALL ADDITIONAL SPRINKLER HEADS AS REQUIRED TO ENSURE AN APPROVED FIRE PROTECTION SYSTEM AT NO ADDITIONAL COST TO THE OWNER.
13. AUXILIARY DRAINS SHALL BE EXPOSED WITH 1" DRAIN VALVES. WHEN 5 OR MORE GALLONS ARE TRAPPED, THIS CONTRACTOR SHALL PROVIDE FIXED PIPING TO AN ADEQUATELY SIZED RECEPTOR WHICH IS CAPABLE OF ACCEPTING THE FULL FLOW OF THE DRAIN. WHEN LESS THAN 5 GALLONS ARE TRAPPED, A HOSE BIB SHALL BE PROVIDED AT THE DRAIN VALVE.
14. AUXILIARY DRAINS SHALL NOT BE LOCATED ABOVE PLASTER OR GYPSUM BOARD CEILING SYSTEMS. ONLY BY A SPECIFIC WRITTEN INSTRUCTION FROM THE ENGINEER WILL A VARIANCE BE PROVIDED.
15. SHOW ALL ROOM NUMBERS ON SHOP DRAWING PLANS.
16. A FIRE PROTECTION ENGINEER OR AN ENGINEER EXPERIENCED IN WATER FLOW TESTING SHALL PERFORM OR WITNESS THE REQUIRED FLOW TESTING AND SIGN THE REPORT PRIOR TO THE FIRST SPRINKLER SYSTEM SUBMITTAL.
17. ROUTE SPRINKLER PIPING SUCH THAT IT DOES NOT RUN ABOVE ELECTRICAL PANELS, SWITCHGEAR, OR SIMILAR EQUIPMENT. SPRINKLER MAINS SHALL NOT RUN THROUGH ELECTRICAL OR COMMUNICATION ROOMS. SPRINKLER HEADS IN THESE ROOMS SHALL BE SERVED BY A DEDICATED BRANCH LINE FOR EACH ROOM. BRANCH LINE TO ENTER ROOM ABOVE DOOR.
18. THIS CONTRACTOR SHALL PREPARE HYDRAULIC CALCULATIONS BASED UPON THE CONFIGURATION OF THE ACTUAL SYSTEM DESIGN AS SHOWN ON THIS CONTRACTOR'S SHOP DRAWINGS.

PLUMBING GENERAL NOTES

1. UNLESS OTHERWISE NOTED, SLOPE PIPE AS FOLLOWS: WASTE BRANCHES: 1/4" PER FOOT; WASTE MAINS: 1/4" PER FOOT; ROOF DRAIN/ROOF DRAIN OVERFLOW: 1/8" PER FOOT. VERIFY ALL SLOPING WITH LOCAL CODES.
2. ALL WORK DONE SHALL BE PERFORMED WITH WATER CONTROL IN MIND. CONTAINMENT OF WATER IS NECESSARY TO PREVENT WATER FROM DAMAGING AREAS ON FLOORS BELOW.
3. PLUMBING DRAWINGS ARE SCHEMATIC IN NATURE. FIELD VERIFY EXACT PIPE ROUTING AND COORDINATE WITH ALL OTHER TRADES.
4. ALL PIPING IN PLUMBING CHASES SHALL BE ARRANGED TO ALLOW MAINTENANCE ACCESS.
5. NO PIPING TO RUN OVER ELECTRICAL PANELS, VFD'S OR MCC'S. PROTECT EQUIPMENT WITH A 42" DEEP ZONE IN FRONT OF PANELS, VFD'S, AND MCC'S.
6. COORDINATE FAN ROOM FLOOR DRAIN AND FLOOR SINK LOCATIONS WITH COOLING COIL, EVAPORATIVE SECTION, AND HEATING COIL LOCATIONS.
7. CONTRACTOR TO PROVIDE VALVE IDENTIFICATION AND LOCATION ON ALL CEILING TILES WHERE VALVES ARE LOCATED.
8. PIPING AND ROUTING SHOWN, INCLUDING ALL BELOW FLOOR DECK PIPING IS APPROXIMATE. IT IS UP TO THE CONTRACTOR TO FIELD VERIFY THE EXACT LOCATION AND SIZE OF ALL PIPING.
9. REFER TO ARCHITECTURAL DRAWINGS FOR FIXTURE MOUNTING HEIGHTS, DIMENSIONS AND OTHER REQUIREMENTS.
10. CONTRACTOR TO VERIFY CONNECTION SIDE OF ADA FIXTURES AND ADJUST ACCORDINGLY. INSTALL FLUSH VALVES HANDLES ON WIDE SIDE OF ALL FIXTURES.
11. LOCATE ALL VENTS MINIMUM 25' AWAY FROM AIR INTAKES.
12. INSTALL ALL DOMESTIC WATER LINES BELOW DUCTWORK.
13. INSTALL A 24" X 24" ACCESS DOOR BELOW ALL ISOLATION VALVES, BALANCING VALVES AND WATER HAMMER ARRESTORS WHERE MOUNTED ABOVE HARD CEILINGS.
14. MOUNT ALL ISOLATION VALVES, CONTROL VALVES, BALANCING VALVES, ETC. NEAR CEILING HEIGHT FOR ACCESSIBILITY.
15. INSTALL ALL EQUIPMENT WITH SUFFICIENT CLEARANCE FOR MAINTENANCE PER MANUFACTURERS RECOMMENDATION.
16. COORDINATE ALL FLOOR PENETRATIONS WITH STRUCTURAL AND PROVIDE SLEEVES AS NECESSARY.
17. COORDINATE THE LOCATION OF THE FLOOR DRAIN, SHOWER DRAIN, OR FLOOR SINK WITH ARCHITECTURAL AND STRUCTURAL, TYPICAL.
18. SEE PLUMBING FIXTURE SCHEDULE FOR PIPE SIZES OF WASTE, VENT AND DOMESTIC WATER TO/FROM SINGLE FIXTURE.
19. HOSE BIBBS SHOWN AT LAVATORIES ARE TO BE MOUNTED AT AN ACCESSIBLE LOCATION UNDER THE LAVATORY.
20. LOCATE CIRCUIT SETTERS, VALVES, WATER HAMMER ARRESTORS, ETC. IN ACCESSIBLE LOCATIONS. PROVIDE 24" X 24" ACCESS PANEL WHERE ITEM IS LOCATED ABOVE A HARD CEILING. PROVIDE APPROPRIATELY SIZED ACCESS DOORS TO ANY OF THESE ITEMS INSTALLED IN A WALL. COORDINATE ACCESS DOOR SIZE, LOCATION, AND STYLE WITH ARCHITECT.
21. FIELD VERIFY LOCATION AND INVERTS OF SITE UTILITIES PRIOR TO INSTALLATION.
22. FIELD VERIFY ALL NEW WATER, WASTE AND VENT PIPING CONNECTIONS AND PROVIDE NEW CONNECTIONS AS REQUIRED FOR PROPERLY OPERATING SYSTEMS.
23. WASTE AND VENT PIPING BELOW FLOOR AND THROUGH FLOOR TO BE 2" MINIMUM.
24. INSTALL CLEANOUTS IN DRAIN PIPING AS INDICATED, AND WHERE NOT INDICATED, ACCORDING TO THE FOLLOWING.
    A. SIZE SAME AS DRAINAGE PIPING UP TO 4" NPS. USE 4" NPS FOR LARGER. DRAINAGE PIPING UNLESS LARGER CLEANOUT IS INDICATED.
    B. LOCATE AT MINIMUM INTERVALS OF 50 FT FOR PIPING 4" NPS AND SMALLER AND 100 FT FOR LARGER PIPING.
    C. LOCATE AT THE BASE OF EACH VERTICAL STACK.

MECHANICAL GENERAL NOTES

1. COORDINATE EXACT PLACEMENT OF DIFFUSERS, GRILLES AND REGISTERS WITH ARCHITECTURAL REFLECTED CEILING PLAN, TYPICAL.
2. SEE DETAIL FOR DIFFUSER CONNECTIONS TO DUCTWORK, TYPICAL.
3. BRANCH DUCTWORK SHALL BE SIZED TO MATCH THE NECK INLET SIZE OF THE DIFFUSERS, REGISTER OR GRILLE IT SERVES UNLESS NOTED OTHERWISE, TYPICAL.
4. COORDINATE EXACT MOUNTING LOCATION OF ALL THERMOSTATS WITH LATEST REVISION OF ARCHITECTURAL ELEVATION AND FURNISHINGS PLANS, TYPICAL.
5. THE MECHANICAL CONTRACTOR SHALL PROVIDE FIRE, SMOKE OR COMBINATION FIRE/SMOKE DAMPERS AT ALL LOCATIONS SHOWN ON THE CONTRACT DOCUMENTS AND AS REQUIRED TO MEET THE INTEGRITY OF ALL SMOKE AND FIRE PARTITIONS. THE CONTRACTOR SHALL REFER TO THE LATEST ARCHITECTURAL LIFE SAFETY PLANS FOR ALL FIRE AND SMOKE PARTITION LOCATIONS. DAMPERS ARE TO BE PROVIDED WITH SHUTOFF/TEST SWITCH AT EACH LOCATION.
6. PROVIDE AND INSTALL TURNING VANES IN ALL SQUARE LOW PRESSURE DUCTWORK AT ELBOWS OR TEES, TYPICAL.
7. INSTALL ALL TERMINAL BOXES IN EASILY ACCESSIBLE AND SERVICEABLE LOCATIONS, MEETING ALL MANUFACTURERS REQUIRED CLEARANCES ON EACH SIDE, SEE DETAILS, TYPICAL.
8. DUCTWORK SIZES SHOWN ARE INSIDE CLEAR DIMENSIONS. REFER TO MECHANICAL SPECIFICATIONS FOR EXTENT OF DUCT INSULATION AND LINER AND ADJUST SHEET METAL DIMENSION.
9. PROVIDE AND INSTALL REMOTE DAMPER OPERATORS FOR ALL DAMPERS INSTALLED ABOVE INACCESSIBLE CEILING, SEE MECHANICAL SPECIFICATIONS FOR EQUIPMENT REQUIREMENTS, TYPICAL.
10. PROVIDE AND INSTALL HIGH EFFICIENCY TAKE-OFF FITTINGS AND BALANCING DAMPER AT ALL BRANCH CONNECTIONS TO LOW PRESSURE DUCTWORK. PROVIDE BALANCING DAMPERS AT EACH BRANCH TAKE OFF TO SERVE DIFFUSER OR GRILLE AS WELL AS WHERE INDICATED.
11. PROVIDE AND INSTALL HIGH EFFICIENCY OR CONICAL TAKE-OFFS AT ALL BRANCH CONNECTIONS TO MEDIUM PRESSURE DUCTWORK.
12. WHERE DUCTWORK CROSSES, SUPPLY DUCTWORK IS USUALLY BELOW RETURN AND EXHAUST DUCT. RETURN DUCTWORK IS USUALLY BELOW EXHAUST DUCTS.
13. AT LOCATIONS WHERE DIFFUSERS OR GRILLES ARE UNDER DUCTWORK, CONTRACTOR TO FABRICATE TRANSITION BOOT FROM FLEX CONNECTION TO DIFFUSER OR GRILLE WITH BALANCING DAMPER, TYPICAL.
14. THE MECHANICAL CONTRACTOR SHALL PROVIDE CEILING MOUNTED ACCESS DOORS FOR ALL FIRE, SMOKE AND COMBINATION FIRE/SMOKE DAMPERS INSTALLED ABOVE INACCESSIBLE CEILING. FIELD VERIFY EXACT INSTALLATION LOCATIONS PRIOR TO COMMENCING WORK AND COORDINATE INSTALLATIONS WITH LATEST ARCHITECTURAL REFLECTED CEILING PLANS.
15. ALL VAV BOXES TO HAVE REHEAT COILS, EXCEPT AS NOTED. PROVIDE EQUIPMENT TAG TO MATCH SCHEDULE. PROVIDE A MINIMUM OF TWO DUCT DIAMETERS OF STRAIGHT ROUND DUCT TO INLET OF VAV BOX. BOX SHALL BE HARD CONNECTED (CONICAL) TO MEDIUM PRESSURE DUCT, TYPICAL.
16. PROVIDE ACCESS DOORS TO ACCESS VAV BOX CONTROLS ABOVE HARD CEILINGS. PROVIDE MINIMUM 24" X 24".
17. FLEX DUCT IS REQUIRED FOR ALL DIFFUSERS AND GRILLES INSTALLED IN LAY-IN CEILINGS. FOR DIFFUSERS AND GRILLES IN HARD LID CEILINGS, THE DUCTWORK SHALL BE EXTENDED ALL THE WAY TO THE DIFFUSER AND SHALL BE CONNECTED WITH A HARD CONNECTION OR A FLEX DUCT CONNECTION WITH A MUD RING AND LAY-IN DIFFUSER AS SHOWN ON PLANS.
18. THE CONTRACTOR SHALL INFORM THE DESIGNER OF ANY PROPOSED DEVIATIONS FROM THE CONTRACT DOCUMENTS.
19. PROVIDE ACCESS TO ALL TEMPERATURE CONTROLS ABOVE CEILING. LOCATE IN ACCESSIBLE LOCATION. WHERE THERE ARE HARD CEILINGS THE CONTRACTOR SHALL PROVIDE 24" X 24" ACCESS DOOR.
20. SUPPLY AND RETURN PIPING TO COILS ARE THE SAME SIZE.
21. CONTRACTOR SHALL LOCATE THERMOSTATS AND TEMPERATURE SENSORS AT 5'-0" AFF. A MINIMUM OF 8" FROM LIGHT SWITCH, UNLESS OTHERWISE NOTED ON THE ARCHITECT'S ELEVATIONS. COORDINATE EXACT LOCATIONS WITH ARCHITECT.
22. REFER TO MECHANICAL PIPING OR ZONING DRAWINGS FOR THERMOSTAT AND TEMPERATURE SENSOR LOCATIONS.
23. CONDENSATE DRAINS SHALL BE SUPPLIED FOR ALL COOLING EQUIPMENT. CONTRACTOR SHALL ENSURE PROPER INSTALLATION AND DRAINAGE AS REQUIRED BY FEDERAL, STATE, AND LOCAL CODES. CONDENSATE PIPINE SHALL BE TYPE "L" COPPER UNLESS OTHERWISE NOTED IN THE SPECIFICATIONS.
24. PROVIDE A 4" HOUSEKEEPING PAD FOR EACH PIECE OF MECHANICAL EQUPMENT THAT IS FLOOR MOUNTED. COORDINATE SIZES WITH MECHANICAL EQUIPMENT SELECTED.
25. ALL SUPPLY, RETURN, AND EXHAUST DUCTWORK SHALL BE RATED FOR PRESSURE CLASS OF 2" W.G. UNLESS NOTED OTHERWISE ON THE PLANS OR IN THE SPECIFICATIONS.
26. THIS CONTRACTOR SHALL BE REQUIRED TO REPLACE FILTERS ON HVAC EQUIPMENT AFTER ALL DUST PRODUCING CONSTRUCTION HAS BEEN COMPLETED AND PRIOR TO THE FINAL PUNCH.

MECHANICAL PIPING GENERAL NOTES

1. PROVIDE ALL MATERIALS AND EQUIPMENT AND PERFORM ALL LABOR REQUIRED TO INSTALL COMPLETE AND OPERABLE PIPING SYSTEMS AS INDICATED ON THE DRAWINGS, AS SPECIFIED AND AS REQUIRED BY CODE.
2. UNLESS OTHERWISE NOTED: ALL MECHANICAL PIPING IS OVERHEAD TO RUN ABOVE DUCTWORK AND TIGHT TO UNDERSIDE OF STRUCTURE.
3. INSTALL PIPING SO THAT ALL VALVES, STRAINERS, UNIONS, TRAPS, FLANGES, AND OTHER APPURTENANCES REQUIRING ACCESS ARE ACCESSIBLE.
4. ALL VALVES SHALL BE INSTALLED SO THAT VALVES REMAINS IN SERVICE WHEN EQUIPMENT OR PIPING ON EQUIPMENT SIDE OF VALVE IS REMOVED.
5. PROVIDE AIR VENT AT HIGH POINT OF EACH DROP IN THE HEATING AND CHILLED WATER PIPING SYSTEM.
6. ALL VALVES SHALL BE ADJUSTED FOR SMOOTH AND EASY OPERATION AND TAGGED.
7. PROVIDE ISOLATION VALVES AT EACH EXIST/ENTRANCE INTO SHAFT WHETHER OR NOT SHOWN.
8. COORDINATE LOCATION OF THERMOSTAT WITH ARCHITECTURAL FURNISHING PLANS. MOUNT THERMOSTAT AT HEIGHT AS SPECIFIED ON ARCHITECTURAL PLANS OR SPECIFICATIONS.

PROJECT GENERAL NOTES

1. THE PROJECT GENERAL NOTES APPLY TO ALL DISCIPLINES.
2. REMOVE ALL UNUSED PIPING, DUCTWORK, EQUIPMENT, AND ACCESSORIES.
3. THE MECHANICAL CONTRACTOR SHALL BE RESPONSIBLE FOR FIELD VERIFYING ALL EXISTING CONDITIONS FOR PLUMBING AND MECHANICAL SYSTEMS WITHIN THE TENANT SPACE AND WITHIN CLOSE PROXIMITY TO THE TENANT SPACE. THE CONTRACTOR WILL FIELD VERIFY AS MUCH AS IS REASONABLE BEFORE THE FINAL BID. AFTER THE FINAL BID THE CONTRACTOR WILL NOTIFY THE OWNER, ARCHITECT, AND MECHANICAL DESIGN ENGINEER IMMEDIATELY UPON DISCOVERY OF EXISTING CONDITIONS THAT MAY AFFECT THE DESIGN.
4. THE MECHANICAL CONTRACTOR SHALL PERFORM SERVICE AND REPAIR ON THE EXISTING EQUIPMENT AND ITS ACCESSORIES AS FOLLOWS: CLEAN ALL COILS, REPLACE THE FILTERS AND BELTS, INSPECT, REPAIR, OR REPLACE THE ECONOMIZERS, DRIVERS AND FAN BEARINGS, MOTORS, CONTROL COMPONENTS, VALVES, AND ANY OTHER ITEM NECESSARY FOR A COMPLETE AND PROPER OPERATING SYSTEM. THIS CONTRACTOR SHALL ALSO VISIT THE SITE, PRIOR TO FINAL BIDDING, AND VERIFY ALL EXISTING SITE CONDITIONS. PROVIDE ALL MATERIAL AND COMPONENTS AS NEEDED TO BRING THE UNITS TO FULL COMPLIANCE OF THE LANDLORD'S CRITERIA AND LOCAL AUTHORITY HAVING JURISDICTION.
5. WHERE FLOOR DRAINS OCCUR WITH THE LIMITS OF CONSTRUCTION, PREVENT CONSTRUCTION DEBRIS FROM ENTERING DRAIN BODY BY SEALING DRAIN OPENING PRIOR TO START OF WORK. UNSEAL DRAINS AT COMPLETION OF CONSTRUCTION.
6. COORDINATE INSTALLATION OF PIPING, DUCTWORK, CONDUIT, LIGHTS, CABLE TRAY, STRUCTURE, EQUIPMENT, CEILINGS, ARCHITECTURAL COMPONENTS, AND ANYTHING ELSE PERTAINING TO THE PROJECT TO PREVENT CONFLICTS.
7. THE CONTRACTOR SHALL BE FAMILIAR WITH ALL THE CONDITIONS BOTH EXISTING AND THOSE ILLUSTRATED BY THESE DOCUMENTS AND THOSE OF OTHER DISCIPLINES, INCLUDING, BUT NOT LIMITED TO ARCHITECTURAL, CIVIL, ELECTRICAL, VENTILATION, PLUMBING, AND OTHER SYSTEMS INVOLVED ON THIS PROJECT.
8. FINAL PRODUCT SHALL BE A COMPLETE AND FUNCTIONING SYSTEM, AND SHALL CONFORM TO ALL REQUIREMENTS OF APPLICABLE FEDERAL, STATE, AND LOCAL CODES, INCLUDING BUT NOT LIMITED TO THE INTERNATION BUILDING CODE, INTERNATIONAL MECHANICAL CODE, AND INTERNATIONAL PLUMBING CODE.
9. LOCATE EQUIPMENT REQUIRING ACCESS 2'-0" MAXIMUM ABOVE CEILING.
10. ALL ROOF MOUNTED EQUIPMENT SHALL BE A MINIMUM 10'-0" FROM EDGE OF ROOF.
11. COORDINATE INSTALLATION OF DUCTWORK, PIPING AND MECHANICAL EQUIPMENT WITH NEC CLEARANCES INCLUDING THE SPACE ABOVE ELECTRICAL PANELS, TRANSFORMERS AND OTHER ELECTRICAL EQUIPMENT. NO PIPING OR DUCTWORK TO RUN OVER ELECTRICAL PANELS, VFD'S OR MCC'S. PROTECT EQUIPMENT WITH A 42" DEEP ZONE IN FRONT OF PANELS, VFD'S AND MCC'S. PROVIDE PANS IF REQUIRED UNDER PIPING.
12. FIRE SEAL AROUND DUCT AND PIPING PENETRATIONS OF FIRE RATED WALLS. THE MECHANICAL CONTRACTOR SHALL BE RESPONSIBLE FOR CAULKING AND SEALING ALL PENETRATIONS IN FIRE AND SMOKE RATED PARTITIONS TO MAINTAIN RATINGS. REFER TO SPECIFICATION.
13. PROVIDE SLEEVES AND/OR OPENINGS TO RUN PIPES AND DUCTS THROUGH FOUNDATIONS, FLOORS, WALLS, AND ROOF.
14. TRANSITION PIPING AND DUCTWORK SIZES TO MATCH THE SIZE OF EQUIPMENT CONNECTION.
15. REFER TO PLUMBING SERIES DRAWINGS FOR GAS PIPING.
16. ALL PIPE AND DUCT SIZES SHOWN SHALL BE CONTINUED IN THE DIRECTION OF FLOW UNTIL ANOTHER SIZE IS SHOWN.
17. FOR DETAILS, EQUIPMENT CONNECTIONS, AND PIPE SIZES NOT SHOWN ON THE SEGMENTS, REFER TO DETAILS, SCHEDULES, AND SPECIFICATIONS.
18. INSTALL ALL EQUIPMENT IN ACCORDANCE WITH THE RESPECTIVE MANUFACTURER'S WRITTEN INSTALLATION INSTRUCTIONS, AT A LEVEL OF WORKMANSHIP CONSISTENT WITH THE SPECIFICATIONS.
19. MECHANICAL CONTRACTOR SHALL ENSURE THAT ALL EQUIPMENT IS PROVIDED AND INSTALLED WITH CLEARANCES PER MANUFACTURERS RECOMMENDATIONS. THE CONTRACTOR SHALL MAINTAIN PROPER SERVICE SPACE FOR COIL PULLS, BAS DEVICES, MAINTENANCE ACCESS, ETC.
20. INSTALL EXPOSED PIPING AND DUCTWORK AS HIGH AS PRACTICAL IN ROOMS WITHOUT CEILINGS.
21. LOCATIONS OF PIPING, DUCTWORK AND EQUIPMENT AS INDICATED ON THE DRAWING, ARE APPROXIMATE AND SUBJECT TO MINOR ADJUSTMENTS IN THE FIELD, INCLUDING, BUT NOT LIMITED TO, OFFSETS AND TRANSITIONS. NEW DUCTWORK, PIPING AND EQUIPMENT SHALL BE COORDINATED WITH STRUCTURE, LIGHTS, REFLECTED CEILING PLANS, CABLE TRAY, ELECTRICAL CONDUIT, PLUMBING, MECHANICAL AND FIRE PROTECTION PIPING, MEDICAL GASES, ALL OTHER TRADES AND ALL OTHER EXISTING CONDITIONS TO AVOID INTERFERENCE IN THE FIELD.
22. THE CONTRACTOR SHALL INFORM THE DESIGNER OF ANY PROPOSED DEVIATIONS FROM THE CONTRACT DOCUMENTS.
23. IF CONTRACTOR ENCOUNTERS MATERIAL WHICH MAY CONTAIN ASBESTOS, IMMEDIATELY STOP WORK IN THIS AREA AND NOTIFY THE OWNER.
24. DETAILS REFERENCE ALL SHEETS.
25. INSTALL ALL PIPING AND DUCTWORK WITHOUT FORCING OR SPRINGING.
26. ROUTE DOMESTIC WATER, FIRE PROTECTION, SANITARY WASTE, ROOF DRAIN, CAMPUS CHILLED OR HOT WATER, AND ANY OTHER UTILITY SERVICES TO SITE UTILITIES 5'-0" FROM BUILDING UNLESS NOTED OTHERWISE. REFER TO CIVIL PLANS.
27. LOCATE VALVING, ACCESSORIES, AND EQUIPMENT IN ACCESSIBLE LOCATIONS. WHERE LOCATED ABOVE HARD CEILING PROVIDE AN ACCESS DOOR IN CEILING. MINIMUM ACCESS DOOR SIZE OF 24" X 24". COORDINATE EXACT LOCATION AND STYLE WITH ARCHITECT. EQUIPMENT SHALL BE LOCATED IN THE CEILING CAVITY SO IT CAN BE SAFELY SERVICED FROM SOMEONE STAND ON A LADDER PLACED BELOW THE CEILING ACCESS.
28. WHERE VALVING, ACCESSORIES, OR EQUIPMENT IS LOCATED IN A WALL, PROVIDE AN APPROPRIATELY SIZED ACCESS DOOR. COORDINATE ACCESS DOOR SIZE, LOCATION, AND STYLE WITH ARCHITECT.
29. CONTRACTOR TO PROVIDE VALVE IDENTIFICATION AND LOCATION ON ALL CEILING TILES WHERE VALVES ARE LOCATED.

NOTE
ALL OF THE GENERAL NOTES ON THIS SHEET ARE TO BE APPLIED TO ALL OTHER DRAWINGS IN THIS SET.

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BIOMEDICAL POLYMERS RESEARCH BUILDING - LEVEL 2

20 SOUTH 2030 EAST, SALT LAKE CITY, UTAH 84112

CONSTRUCTION DOCUMENTS

SEAL:

LICENSED PROFESSIONAL ENGINEER
No. 178893
DONALD K. BRADSHAW
STATE OF UTAH

DATE: 05/03/2024
PROJECT #: 23027

SHEET NAME:
MECHANICAL GENERAL NOTES

SHEET #: **M001**

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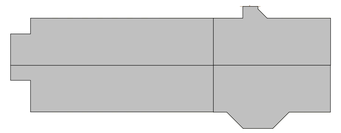
KEYNOTES

1. SHADED REGIONS INDICATE INDIVIDUALLY CONTROLLED THERMAL ZONE BOUNDARIES.
2. EXISTING THERMOSTAT TO REMAIN. VERIFY FUNCTIONALITY AND PROTECT DURING CONSTRUCTION. REPLACE IF DAMAGED.
3. NEW THERMOSTAT. COORDINATE EXACT PLACEMENT OF THERMOSTAT WITH ARCHITECTURAL ELEVATIONS. THERMOSTAT MOUNTING HEIGHT SHALL NOT EXCEED 48" AFF.
4. NEW VAV BOX ALL AIR CONTROL VALVE CONTROLLED TO MATCH THERMOSTAT ZONE SHOWN ON NEW PLANS.



LEVEL 2 THERMAL ZONE DIAGRAM 1/8" = 1'-0" — M012 — 1 — N

KEY PLAN



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SHEET NAME:
LEVEL 2 THERMAL ZONE PLAN

SHEET #: **M012**

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KEYNOTES

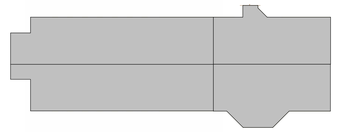
1. EXISTING SHOWN LIGHT TO REMAIN. ITEMS CROSSED OUT TO BE REMOVED. CAP ALL UNUSED DUCTWORK. ALL SHUT DOWNS MUST BE COORDINATED WITH UNIVERSITY. FIELD VERIFY EXISTING CONDITIONS. TYPICAL.
2. PRESERVE DIFFUSERS IN LOBBY DURING CONSTRUCTION.
3. DEMOLISH EXISTING CHEMICAL HOOD EXHAUST VALVE AND ASSOCIATED DUCTWORK.
4. PRESERVE EXISTING EXHAUST VALVE AND DUCTWORK DURING CONSTRUCTION.
5. RETURN ALL REMOVED AIR CONTROL VALVES AND VAV BOXES TO UNIVERSITY.
6. COORDINATE ALL MECHANICAL SHUTDOWNS WITH UNIVERSITY.



LEVEL 2 HVAC DEMOLITION PLAN
1/8" = 1'-0" MD102 1

N

KEY PLAN



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DATE:	PROJECT #:
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SHEET NAME:
LEVEL 2 MECHANICAL DEMOLITION PLAN

SHEET #: **MD102**

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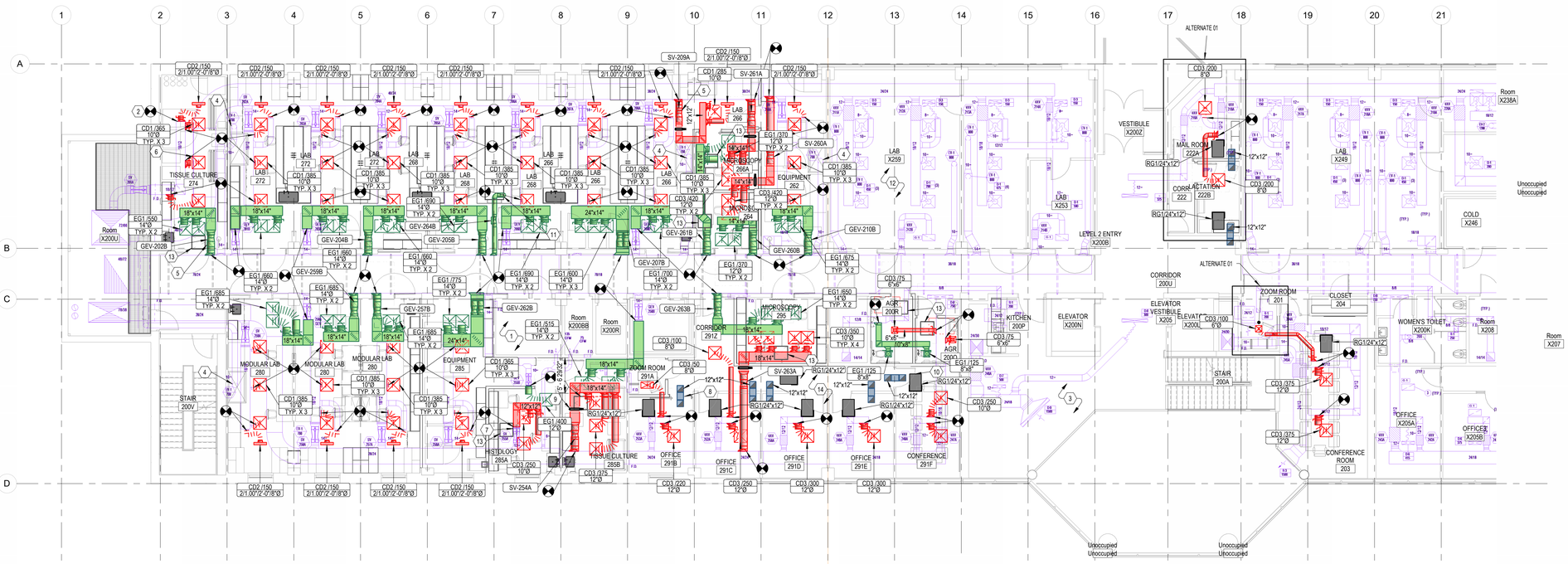
KEYNOTES

1. EXISTING SHOWN LIGHT TO REMAIN. NEW WORK SHOWN DARK. FIELD VERIFY EXISTING CONDITIONS. TYPICAL.
2. CONNECT TO EXISTING DUCT AT APPROXIMATELY THIS POINT. FIELD VERIFY EXISTING CONDITIONS. TYPICAL.
3. PRESERVE DIFFUSERS IN LOBBY DURING CONSTRUCTION.
4. EXISTING FUME HOOD VALVE AND EXHAUST DUCTWORK TO REMAIN IN PLACE. VERIFY CONDITION AND FUNCTIONALITY. RECONNECT TO SALVAGED FUME HOOD.
5. INSTALL NEW AIR CONTROL VALVE TO MATCH EXISTING VALVE CONFIGURATION. FIELD VERIFY EXISTING CONDITIONS. SEE MECHANICAL SCHEDULES FOR DETAILS. TYPICAL.
6. INSTALL NEW DIFFUSER/GRILLE IN NEW CEILING GRID. TYPICAL.
7. EXISTING REHEAT COIL TO REMAIN. CONNECT TO EXISTING DUCT DOWNSTREAM OF COIL.
8. NEW TRANSFER AIR BOOT. SEE MECHANICAL DETAILS. TYPICAL.
9. NEW DUCT MOUNTED REHEAT COIL. SEE MECHANICAL DETAILS. TYPICAL.
10. NEW RETURN GRILLE WITH SOUND BOOT. SEE MECHANICAL DETAILS. TYPICAL.
11. CONNECT TO SNORKEL EXHAUST VENT AT APPROXIMATELY THIS LOCATION. COORDINATE FINAL LOCATION WITH UNIVERSITY.
12. REBALANCE ALL DIFFUSERS/GRILLES ON NORTH HALF OF FLOOR INCLUDING AREAS NOT BEING REMODELED.
13. PROVIDE NEW ACCESS PANEL. PROVIDE REMOTE BALANCE DAMPERS FOR ALL DAMPERS ABOVE HARD LID CEILING. ROUTE IRE REMOTE CONROL WIRING TO ACCESS PANEL.
14. MODIFY VAV BOX SETPOINTS TO MATCH NEW MECHANICAL LAYOUT.



LEVEL 2 HVAC PLAN 1/8" = 1'-0" M102 1

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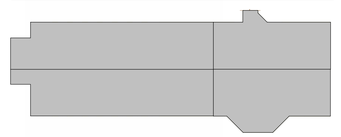
KEY PLAN



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SHEET NAME:
LEVEL 2 HVAC PLAN

SHEET #: **M102**

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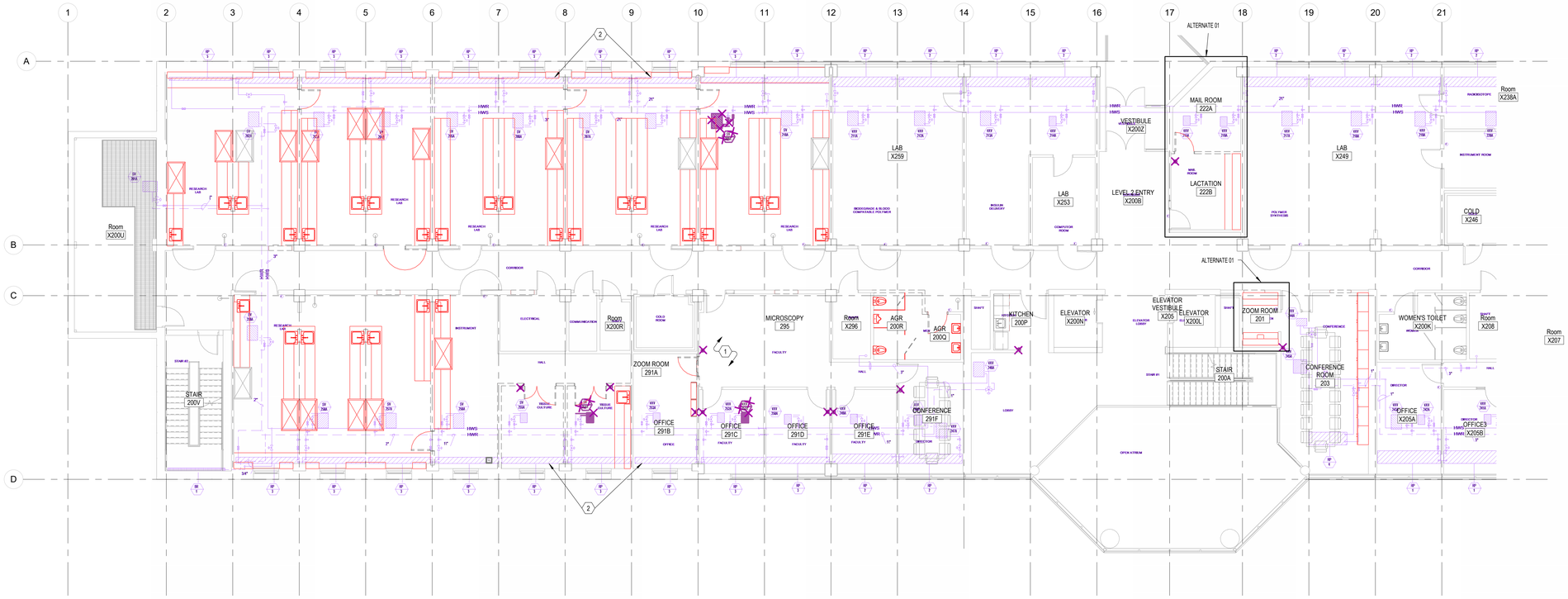
KEYNOTES

1 EXISTING SHOWN LIGHT TO REMAIN. ITEMS CROSSED OUT TO BE REMOVED. CAP ALL UNUSED PIPING. FIELD VERIFY EXISTING CONDITIONS. TYPICAL.

2 PRESERVE ALL EXISTING RADIANT PANELS DURING CONSTRUCTION. SUPPORT PANELS IN PLACE DURING CEILING REMOVAL AND REPLACEMENT. TYPICAL.



LEVEL 2 MECHANICAL PIPING DEMOLITION PLAN
1/8" = 1'-0" MD112 1

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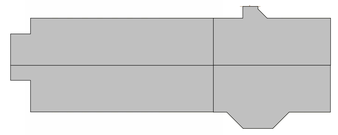
KEY PLAN



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SHEET NAME:
LEVEL 2 MECHANICAL PIPING DEMOLITION PLAN

SHEET #:
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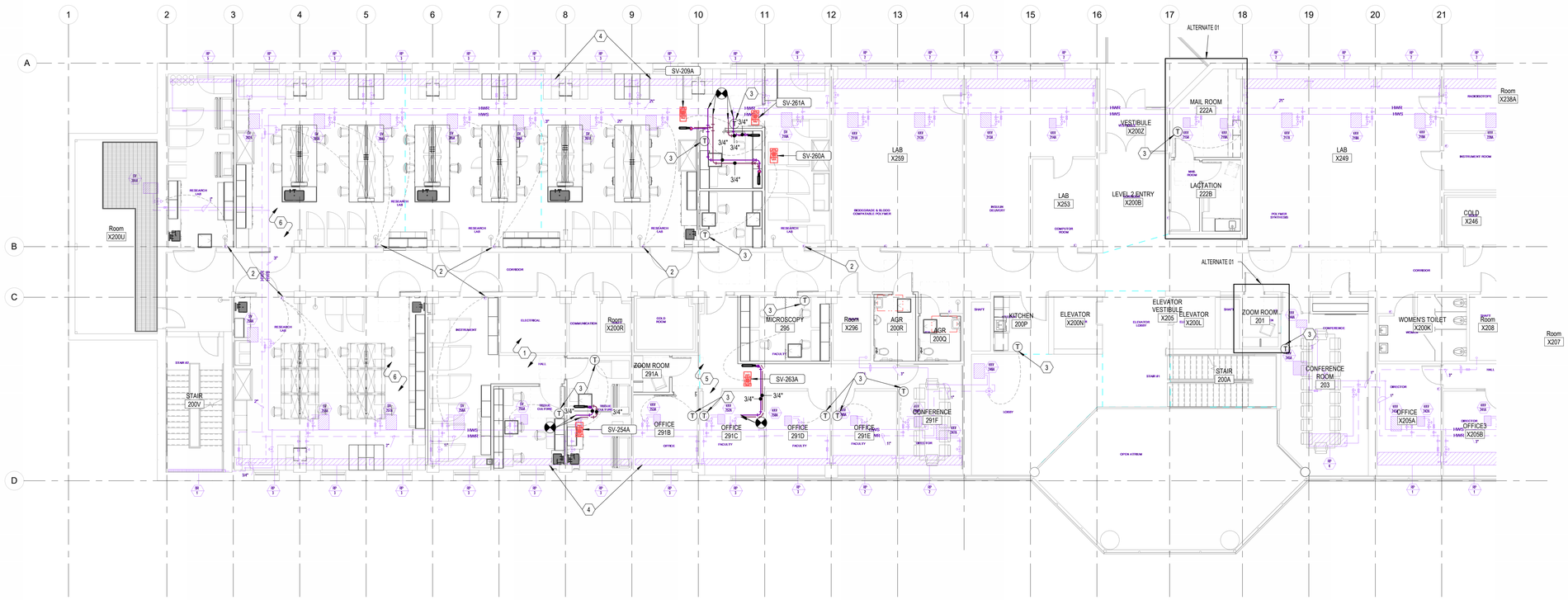
KEYNOTES

1. EXISTING SHOWN LIGHT TO REMAIN. NEW WORK SHOWN DARK. FIELD VERIFY EXISTING CONDITIONS. TYPICAL.
2. EXISTING THERMOSTAT TO REMAIN. VERIFY FUNCTIONALITY AND PROTECT DURING CONSTRUCTION. TYPICAL.
3. NEW THERMOSTAT. COORDINATE EXACT PLACEMENT OF THERMOSTAT WITH ARCHITECTURAL ELEVATIONS. THERMOSTAT MOUNTING HEIGHT SHALL NOT EXCEED 48" AFF.
4. PROTECT ALL EXISTING CEILING PANELS DURING CONSTRUCTION. REUSE PANELS IN PLACE DURING CEILING REMOVAL AND REPLACEMENT. TYPICAL.
5. REPLACE VAV BOX CONTROLLER ON ALL EXISTING VAV BOXES TO REMAIN IN SCOPE OF PROJECT.
6. VERIFY/MODIFY ALL AIR CONTROL VALVE CONTROLLERS TO MATCH THERMOSTAT ZONE SHOWN ON NEW PLANS.



LEVEL 2 MECHANICAL PIPING PIPING PLAN
1/8" = 1'-0" M112 1

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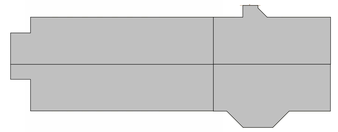
KEY PLAN



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CONSTRUCTION DOCUMENTS

SEAL:

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No. 178893
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DATE:	PROJECT #:
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SHEET NAME:
LEVEL 2 MECHANICAL PIPING PLAN

SHEET #: **M112**

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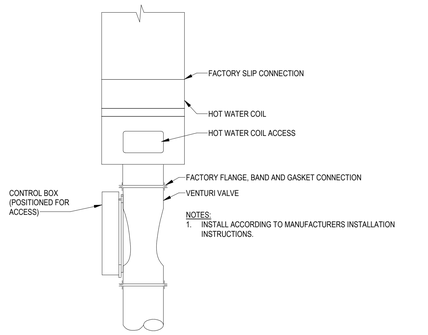
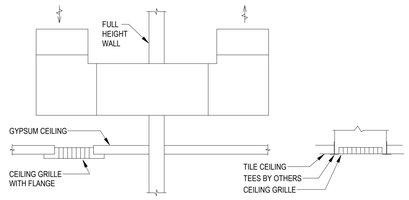
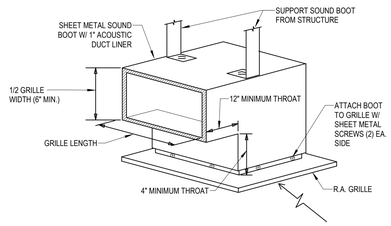


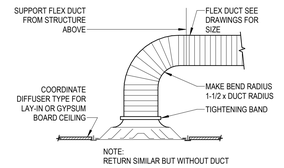
6 M501 VENTURI VALVE AND HW COIL CONNECTION
NOT TO SCALE



7 M501 TRANSFER DUCT DETAIL II
NOT TO SCALE



8 M501 RA GRILLE WITH SOUND BOOT DETAIL
NOT TO SCALE



1 M501 DIFFUSER CONNECTION DETAIL
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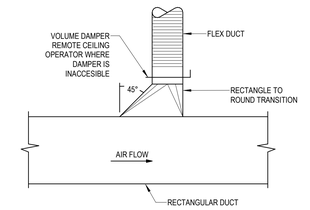
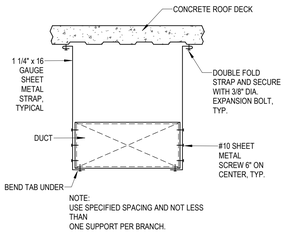
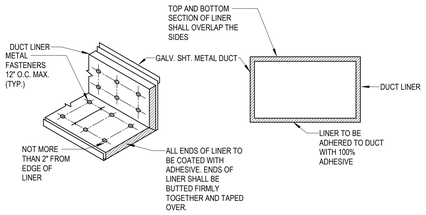


2 M501 FLEX DUCT WITH HIGH EFFICIENCY FITTING DETAIL
NOT TO SCALE



3 M501 RECTANGULAR DUCT DETAIL
NOT TO SCALE



4 M501 RECTANGULAR DUCT LINER DETAIL
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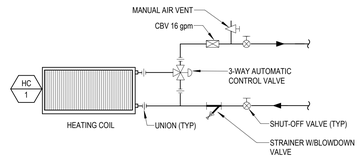

5 M501 HEATING COIL PIPING DETAIL
NOT TO SCALE

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05/17/2024
Shums Coda Associates

BIOMEDICAL POLYMERS RESEARCH BUILDING - LEVEL 2

20 SOUTH 2030 EAST, SALT LAKE CITY, UTAH 84112

CONSTRUCTION DOCUMENTS

SEAL:
LICENSED PROFESSIONAL ENGINEER
No. 178893
DONALD K. BRADSHAW
STATE OF UTAH

DATE: **05/03/2024**
PROJECT #: **23027**

SHEET NAME:
MECHANICAL DETAILS

SHEET #: **M501**

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5/1/2024 3:47:46 PM

AIR CONTROL VALVE SCHEDULE

			SUPPLY AIR							FLUID					COIL				GENERAL EXHAUST					
AREA SERVED	ID	MANUFACTURER AND MODEL NUMBER	INLET DIA. (IN)	COOLING MAXIMUM AIRFLOW (CFM)	HEATING MAXIMUM AIRFLOW (CFM)	MINIMUM AIRFLOW (CFM)	UNOCCUPIED MINIMUM AIRFLOW (CFM)	AIRFLOW DRIVING FACTOR	ENTERING AIR TEMP. DB (DEG. F)	MINIMUM LEAVING AIR TEMP. (DEG. F)	S.P. LOSS AT MAX CFM (IN H20)	HEAT LOAD (MBH)	TOTAL FLUID FLOW (GPM)	ENTERING/ LEAVING FLUID TEMP. (DEG. F)	WORKING FLUID	MAX. FLUID PRESSURE DROP (FT)	MIN. COIL ROWS	MIN. FINS (FPI)	COIL SIZE H x W (IN)	PIPE SIZE (IN)	INLET DIA. (IN)	MAXIMUM AIRFLOW (CFM)	MINIMUM AIRFLOW (CFM)	UNOCCUPIED MINIMUM AIRFLOW (CFM)	S.P. LOSS AT MAX CFM (IN H20)	NOTES
Tissue Culture 274	SV-201A	EXISTING	14	1305	652.5	255	200	COOLING	50	70	0.3	12.0	0.8	130/100	WATER	1	2	8	12x18	3/4	---	---	---	---	---	(1)(2)(5)
	GEV-202B	PRICE VV VAV 114HL	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	14	1100	200	200	0.3	(1)(2)
Lab 272	SV-202A	EXISTING	14	1305	652.5	255	200	COOLING	50	70	0.3	12.0	0.8	130/100	WATER	1	2	8	12x18	3/4	---	---	---	---	---	(1)(2)(5)
	GEV-201B	EXISTING	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	14	1320	200	200	0.3	(1)(2)
Lab 272	SV-203A	EXISTING	14	1305	652.5	255	200	COOLING	50	70	0.3	12.0	0.8	130/100	WATER	1	2	8	12x18	3/4	---	---	---	---	---	(1)(2)(5)
	GEV-203B	EXISTING	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	14	1320	200	200	0.3	(1)(2)
Lab 272	SV-204A	EXISTING	12	1305	652.5	255	200	COOLING	50	70	0.3	12.0	0.8	130/100	WATER	1	2	8	12x18	3/4	---	---	---	---	---	(1)(2)(5)
	GEV-204B	PRICE VV VAV 114HL	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	14	1320	200	200	0.3	(1)(2)
Lab 268	SV-205A	EXISTING	14	1305	652.5	255	200	COOLING	50	70	0.3	12.0	0.8	130/100	WATER	1	2	8	12x18	3/4	---	---	---	---	---	(1)(2)(5)
	GEV-205B	PRICE VV VAV 114HL	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	14	1380	200	200	0.3	(1)(2)
Lab 268	SV-206A	EXISTING	14	1305	652.5	255	200	COOLING	50	70	0.3	12.0	0.8	130/100	WATER	1	2	8	12x18	3/4	---	---	---	---	---	(1)(2)(5)
	GEV-206B	EXISTING	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	14	1380	200	200	0.3	(1)(2)
Lab 266	SV-207A	EXISTING	14	1305	652.5	255	200	COOLING	50	70	0.3	12.0	0.8	130/100	WATER	1	2	8	12x18	3/4	---	---	---	---	---	(1)(2)(5)
	GEV-207B	PRICE VV VAV 212HL	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	2x12	1800	200	200	0.3	(1)(2)
Lab 266	SV-208A	EXISTING	14	1305	652.5	255	200	COOLING	50	70	0.3	12.0	0.8	130/100	WATER	1	2	8	12x18	3/4	---	---	---	---	---	(1)(2)(5)
	GEV-208B	EXISTING	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	14	1400	200	200	0.3	(1)(2)
Lab 266	SV-209A	PRICE VV VAV 112HL	12	435	217.5	170	115	COOLING	50	70	0.3	4.0	0.3	130/100	WATER	1	2	8	12x12	3/4	---	---	---	---	---	(1)(2)(5)
Equipment 262	SV-210A	EXISTING	14	1305	652.5	255	200	COOLING	50	70	0.3	12.0	0.8	130/100	WATER	1	2	8	12x18	3/4	---	---	---	---	---	(1)(2)(5)
	GEV-210B	PRICE VV VAV 114HL	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	14	1355	200	200	0.3	(1)(2)
Microscopy 264	SV-260A	PRICE VV VAV 112HL	12	840	420	255	200	COOLING	50	70	0.3	7.7	0.5	130/100	WATER	1	2	8	14x14	3/4	---	---	---	---	---	(1)(2)(5)
	GEV-260B	PRICE VV VAV 112HL	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	12	740	90	90	0.3	(1)(2)
Microscopy 266A	SV-261A	PRICE VV VAV 112HL	12	840	420	255	200	COOLING	50	70	0.3	7.7	0.5	130/100	WATER	1	2	8	14x14	3/4	---	---	---	---	---	(1)(2)(5)
	GEV-261B	PRICE VV VAV 112HL	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	12	740	90	90	0.3	(1)(2)
Modular Lab 280	SV-259A	EXISTING	14	1305	652.5	255	200	COOLING	50	70	0.3	12.0	0.8	130/100	WATER	1	2	8	12x18	3/4	---	---	---	---	---	(1)(2)(5)
	GEV-258B	EXISTING	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	14	1370	200	200	0.3	(1)(2)
Modular Lab 280	SV-258A	EXISTING	14	1305	652.5	255	200	COOLING	50	70	0.3	12.0	0.8	130/100	WATER	1	2	8	12x18	3/4	---	---	---	---	---	(1)(2)(5)
	GEV-259B	PRICE VV VAV 114HL	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	14	1370	200	200	0.3	(1)(2)
Modular Lab 280	SV-257A	EXISTING	12	1305	652.5	255	200	COOLING	50	70	0.3	12.0	0.8	130/100	WATER	1	2	8	12x18	3/4	---	---	---	---	---	(1)(2)(5)
	GEV-257B	PRICE VV VAV 114HL	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	14	1370	200	200	0.3	(1)(2)
Equipment 285	SV-256A	EXISTING	14	1305	652.5	255	200	COOLING	50	70	0.3	12.0	0.8	130/100	WATER	1	2	8	12x18	3/4	---	---	---	---	---	(1)(2)(5)
	GEV-262B	PRICE VV VAV 212HL	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	2x12	1550	200	200	0.3	(1)(2)
Histology 285A	SV-255A	EXISTING	12	500	250	170	115	COOLING	50	70	0.3	4.6	0.3	130/100	WATER	1	2	8	12x12	3/4	---	---	---	---	---	(1)(2)(5)
	GEV-255B	EXISTING	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	12	400	90	90	0.3	(1)(2)
Tissue Culture 285B	SV-254A	PRICE VV VAV 114HL	14	1125	562.5	255	200	COOLING	50	70	0.3	10.4	0.7	130/100	WATER	1	2	8	12x18	3/4	---	---	---	---	---	(1)(2)(5)
	GEV-256B	EXISTING	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	14	1025	200	200	0.3	(1)(2)
Microscopy 295	SV-263A	PRICE VV VAV 114HL	14	1400	700	255	200	COOLING	50	70	0.3	12.9	0.9	130/100	WATER	1	2	8	12x18	3/4	---	---	---	---	---	(1)(2)(5)
	GEV-263B	PRICE VV VAV 114HL	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	14	1300	200	200	0.3	(1)(2)
Snorkel	GEV-264B	PRICE VV VAV 108HL	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	8	100	100	100	0.3	(1)(2)

(1) ALL CAPACITIES AT 4,226 FT ELEVATION.
(2) PRESSURE INDEPENDENT CONTROL VALVE. VALVE SHALL BE EQUIPPED WITH PRESSURE SWITCH. VALVE SHALL BE LOW PRESSURE VALVE WITH PRESSURE RANGE OF 0.3" W.C. - 3.0" W.C.
(5) COIL AIR PRESSURE DROP RATED AT HEATING AIRFLOW. SUBMITTAL SHALL INCLUDE AIR PRESSURE DROP AT MAXIMUM SPECIFIED AIRFLOW. AIR PRESSURE DROP NOT TO EXCEED 0.4" W.G.; WATER PRESSURE DROP NOT TO EXCEED 5 FT HD (EXCEPT WHERE NOTED OTHERWISE).

GRILLES, REGISTERS AND DIFFUSERS

ID	MANUFACTURER	MODEL	DESCRIPTION	
CD-1	KRUEGER	TAD	FACE STYLE: RADIAL FLOW DIFFUSER FACE SIZE: 24" x 24" APPLICATION: CRITICAL ENVIRONMENT MATERIAL: ALUMINUM FINISH: BRITISH WHITE	MOUNTING-FRAME: DROP FACE (C/W CEILING TYPE.) PATTERN: 180° AIR PATTERN DAMPER: OPPOSED BLADE MAX NC - 30 DAMPER: NONE REMOVABLE FACE
CD-2	EH PRICE	SDS 100	FACE STYLE: LINEAR 2-SLOT DIFFUSER APPLICATION: ENGINEERED VAV SYSTEMS MATERIAL: BORDER AND FRAME; ALUMINUM FINISH: FACE; B12 WHITE POWDERCOAT FINISH: PATTERN CONTROLLER; B17 BLACK... DAMPER: NONE	MOUNTING-FRAME: SURFACE OR LAY-IN, (C/W CEILING TYPE.) PATTERN: 360° RADIAL HORIZONTAL AIR PATTERN DAMPER: OPPOSED BLADE MAX NC - 30 DAMPER: NONE REMOVABLE FACE
CD-3	EH PRICE	SPD	FACE STYLE: SQUARE PLAQUE DIFFUSER FACE SIZE: 24" x 24", 24" x 12" OR 12" x 12" AS REQUIRED TO FIT CEILING TILE SPACE AVAILABLE APPLICATION: ENGINEERED VAV SYSTEMS MATERIAL: STEEL FINISH: B12 WHITE POWDERCOAT	WIDTH OF SLOT: 1" MOUNTING-FRAME: SURFACE OR LAY-IN, CURVED FOR EXPOSED DUCT MOUNTING AS... PATTERN: ONE OR TWO WAY, FULLY ADJUSTABLE VANES: CURVED FLOW CONTROL MAX NC - 30 INSULATED PLENUM ROUND DUCT CONNECTION
RG-1	EH PRICE	PDDR	FACE STYLE: PERFORATED RETURN AIR UNIT FACE SIZE: 24" x 24", 24" x 12" OR 12" x 12" AS REQUIRED TO FIT CEILING TILE SPACE... APPLICATION: AIR RETURN MATERIAL: STEEL FINISH: B12 WHITE POWDERCOAT	MOUNTING-FRAME: SURFACE OR LAY-IN, (C/W CEILING TYPE.) DAMPER: NONE MAX NC - 30 REMOVABLE FACE & CORE
EG-1	EH PRICE	80	FACE STYLE: CRATE RETURN AIR UNIT FACE SIZE: 24" x 24", 24" x 12" OR 12" x 12" AS REQUIRED TO FIT CEILING TILE SPACE... APPLICATION: PRESSURIZED AIR RETURN MATERIAL: ALUMINUM FINISH: B12 WHITE POWDERCOAT	MOUNTING-FRAME: SURFACE OR LAY-IN, (C/W CEILING TYPE.) DAMPER: OPPOSED BLADE MAX NC - 30 REMOVABLE FACE & CORE

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DATE	REVISION

REVIEWED FOR CODE COMPLIANCE
05/17/2024
Shums Coda Associates

BIOMEDICAL POLYMERS RESEARCH BUILDING - LEVEL 2

20 SOUTH 2030 EAST, SALT LAKE CITY, UTAH 84112

CONSTRUCTION DOCUMENTS

SEAL:
LICENSED PROFESSIONAL ENGINEER
No. 178893
DONALD K. BRADSHAW
STATE OF UTAH

DATE:	PROJECT #:
05/03/2024	**23027**

SHEET NAME:
MECHANICAL SCHEDULES

SHEET #: **M601**

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LIGHTING SYMBOLS

1. LIGHT FIXTURE SYMBOLS ARE GENERAL IN NATURE AND MAY BE SHOWN ON THE DRAWINGS IN VARIOUS SIZES AND SHAPES. REFER TO THE LIGHT FIXTURE SCHEDULE FOR SPECIFICATION INFORMATION.
2. ARROWS INDICATE AIMING DIRECTION.

SYMBOL	DESCRIPTION	MOUNTING	REMARKS
	ARM-MOUNTED SINGLE-HEAD LIGHT FIXTURE AND POLE	AS SPECIFIED OR DETAILED	
	ARM-MOUNTED DOUBLE-HEAD LIGHT FIXTURE AND POLE	AS SPECIFIED OR DETAILED	
	POST-TOP SINGLE-HEAD, LIGHT FIXTURE AND POLE	AS SPECIFIED OR DETAILED	
	WALL-MOUNTED FIXTURE	AS SPECIFIED OR DETAILED	REFER TO ARCHITECTURAL EXTERIOR ELEVATIONS FOR MOUNTING HEIGHT
	LIGHT BOLLARD	AS SPECIFIED OR DETAILED	
	FLOOD LIGHT	AS SPECIFIED OR DETAILED	
	RECESSED WALL FIXTURE OR STEP LIGHT	AS SPECIFIED OR DETAILED	REFER TO ARCHITECTURAL EXTERIOR ELEVATIONS FOR MOUNTING HEIGHT
	LIGHT FIXTURES	AS SPECIFIED OR DETAILED	
	WALL-MOUNTED LINEAR LIGHT FIXTURE	AS SPECIFIED OR DETAILED	
	LINEAR WALL WASHER	AS SPECIFIED OR DETAILED	
	RECESSED DOWN LIGHT	AS SPECIFIED OR DETAILED	
	RECESSED WALL-WASHER OR DIRECTIONAL DOWNLIGHT	AS SPECIFIED OR DETAILED	
	SURFACE OR PENDANT-MOUNTED LIGHT FIXTURE	AS SPECIFIED OR DETAILED	
	TRACK OR MONO-POINT LIGHT FIXTURE	AS SPECIFIED OR DETAILED	
	WALL SCONCE	AS SPECIFIED OR DETAILED	
	LINEAR PENDANT LIGHT FIXTURE	CEILING	
	EGRESS LIGHT FIXTURE	AS SPECIFIED OR DETAILED	THIS IS AN EXAMPLE OF AN EGRESS LIGHT FIXTURE. EGRESS LIGHT FIXTURES ARE HALF-SHADED DIAGONALLY
	EMERGENCY (NON-EGRESS) LIGHT FIXTURE	AS SPECIFIED OR DETAILED	THIS IS AN EXAMPLE OF AN EMERGENCY (NON-EGRESS) LIGHT FIXTURE. EMERGENCY FIXTURES ARE FULLY-SHADED.
	CEILING MOUNTED EXIT SIGN	CEILING	DARKENED PORTION OF SIGN INDICATES FACE(S); ARROW(S) INDICATE CHEVRON DIRECTION(S)
	WALL-MOUNTED EXIT SIGN	WALL ABOVE DOOR	
	WALL-MOUNTED EXIT SIGN W/ EMERGENCY LIGHT FIXTURE	WALL ABOVE DOOR	
IN	CEILING MOUNTED IN USE SIGN	CEILING	
IN	WALL-MOUNTED IN USE SIGN	WALL ABOVE DOOR	
TC	TIME CLOCK		
	EMERGENCY LIGHT FIXTURE	AS NOTED	
P	ELECTRIC PHOTOCELL	N/A	MOUNT ON ROOF FACING NORTH SKY
XXXX	LIGHT FIXTURE CALLOUT (LETTER DENOTES FIXTURE TYPE)		

FIRE ALARM SYMBOLS

SYMBOL	DESCRIPTION	MOUNTING	REMARKS
T	BEAM DETECTOR - TRANSMITTER	4" BELOW CEILING TO TOP OF DETECTOR	
R	BEAM DETECTOR - RECEIVER	4" BELOW CEILING TO TOP OF DETECTOR	
EOL	END OF LINE RESISTOR	PER MANUF. REC.	
T	TAMPER SWITCH	AT VALVE	
W	WATER FLOW INDICATOR	ON FIRE RISER	
FSD	FIRE/SMOKE DAMPER		
X	HEAT DETECTOR	CEILING	SUBSCRIPT INDICATES SPECIFIC REQUIREMENTS/OPTIONS:
CO X	CARBON MONOXIDE DETECTOR		
X	SMOKE DETECTOR		'SB' DEVICE WITH SOUNDER BASE
X	HEAT DETECTOR	WALL MOUNTED: MAX 12" FROM BOTTOM OF CEILING	'R' DEVICE WITH ADDRESSABLE RELAY
CO X	CARBON MONOXIDE DETECTOR		'RES' DEVICE HAS 120V. SMOKE ALARM W/BATTERY BACKUP
X	SMOKE DETECTOR		
D	DUCT SMOKE DETECTOR	SIDE OF DUCT	
F	FIRE ALARM MANUAL STATION		
Z	CONTROL MODULE	AT DEVICE(S) TO BE CONTROLLED	
I	MONITOR MODULE	AT DEVICE(S) TO MONITOR	
R	FAN SHUTDOWN RELAY	AT CONTROL PANEL	
D	MAGNETIC DOOR HOLDER	COORDINATE WITH DOOR INSTALLER	COORDINATE WITH DOOR INSTALLER; SUBSCRIPT 'F' INDICATES TO MOUNT AT FLOOR LEVEL
WF	WATER FLOOD CONTROL	FLOOR	
H	AUDIO HORN	INDOOR - 96" FROM FINISH FLOOR TO TOP OF DEVICE. OUTDOOR - 120" FROM FINISH FLOOR TO TOP OF DEVICE.	SUBSCRIPT 'WP' INDICATES THAT A WEATHER PROOF BACK BOX IS REQ. NUMERIC SUBSCRIPT INDICATES CANDELA RATING OF STROBE (I.E. - 15, 75, 110)
	FIRE ALARM VISUAL STROBE		
	CONCEAL FIRE ALARM VISUAL STROBE		
	FIRE ALARM AUDIO/VISUAL HORN/STROBE		
	CONCEAL FIRE ALARM AUDIO/VISUAL HORN/STROBE		
	CEILING MOUNTED FIRE ALARM AUDIO/VISUAL HORN/STROBE		
S	FIRE ALARM AUDIO SPEAKER		
S	CEILING MOUNTED FIRE ALARM AUDIO SPEAKER		
	FIRE ALARM AUDIO/VISUAL SPEAKER/STROBE		
	CONCEAL FIRE ALARM AUDIO/VISUAL SPEAKER/STROBE		
	CEILING MOUNTED FIRE ALARM AUDIO/VISUAL SPEAKER/STROBE		
F	FIRE FIGHTERS TELEPHONE JACK	+48"	
	FIRE PROTECTION SPRINKLER RISER BELL	+90"	FURNISHED BY FIRE PROTECTION CONTRACTOR AND INSTALLED AND CONNECTED BY DIV. 26
FACP	FIRE ALARM CONTROL PANEL		
ASD	FIRE ALARM CONTROL PANEL		

WIRING DEVICE SYMBOLS

SYMBOL	DESCRIPTION	MOUNTING	REMARKS
	SPLIT-WIRED DUPLEX RECEPTACLE	+18"	
	SIMPLEX RECEPTACLE	+18"	
	DUPLEX RECEPTACLE	+18"	
	FOURPLEX RECEPTACLE	+18"	
	125/250V RECEPTACLE	+18"	RANGE -- NEMA 14-50R DRYER -- NEMA 14-30R
	GROUND FAULT CIRCUIT INTERRUPTER DUPLEX RECEPTACLE	+18"	
	GROUND FAULT CIRCUIT INTERRUPTER FOURPLEX RECEPTACLE	+18"	
	EMERGENCY DUPLEX RECEPTACLE	+18"	
	EMERGENCY FOURPLEX RECEPTACLE	+18"	
	DUPLEX RECEPTACLE W/(2) 3.1A, 5VDC USB PORTS	+18"	
J	MULTI-OUTLET ASSEMBLY	4" ABOVE BACKSPLASH	
	POWER / TELEPHONE POLE	FLOOR/CEILING	
(4-PLEX)	CORD DROP	REFER TO FLOOR PLANS	REFER TO DETAIL. REFER TO PLANS.
(4-PLEX)	CORD REEL	REFER TO FLOOR PLANS	REFER TO DETAIL. REFER TO PLANS.
(5-20R)	SPECIAL PURPOSE OUTLET	+18"	SUBSCRIPT IN PARENTHESIS INDICATES NEMA CONFIGURATION IF SHOWN. REFER TO DRAWINGS AND/OR EQUIPMENT SCHEDULES. CONFIRM EXACT CONFIGURATION WITH OWNER PRIOR TO INSTALLATION.

FLOOR BOX DEVICES

SYMBOL	DESCRIPTION	MOUNTING
B#	FLOOR BOX - REFER TO SUBSCRIPT AND FLOOR BOX SCHEDULE FOR MORE INFORMATION	
P	PROVIDE 4" SQUARE DEEP OUTLET BOX AND ELECTRICAL CONNECTIONS TO SYSTEMS FURNITURE. COORDINATE SYSTEM FURNITURE WIRING REQUIREMENTS AND OUTLET BOX LOCATIONS WITH SYSTEM FURNITURE SUPPLIER/INSTALLER PRIOR TO ROUGH-IN. WHIP FROM OUTLET BOX TO SYSTEMS FURNITURE TO BE PROVIDED BY SYSTEM FURNITURE INSTALLER.	
C	PROVIDE BOX WITH GROMMETTED COVER PLATE FOR COMMUNICATION CABLING SIZE BOX PER NEC. COORDINATE PLACEMENT OF OUTLET BOXES IN WALLS AND COLUMNS WITH SYSTEM FURNITURE SUPPLIER/INSTALLER PRIOR TO ROUGH-IN. EXTEND CONDUIT WITH NYLON PULL ROPE TO ACCESSIBLE CEILING SPACE. REFER TO TELECOM RISER DIAGRAM FOR CONDUIT SIZING TERMINATE CONDUIT IN CEILING SPACE WITH A NYLON BUSHING.	
P#	POKE THROUGH - REFER TO SUBSCRIPT AND FLOOR BOX SCHEDULE FOR MORE INFORMATION.	
	MULTI-SERVICE POKE-THRU WITH FURNITURE FEED CONNECTIONS. (POWER, COMMUNICATIONS AND A/V)	FLOOR
P	"TOMBSTONE" (LEGRANDE 525) OUTLET BOX WITH FURNITURE FEED CONNECTIONS. (POWER ONLY)	FLOOR
C	"TOMBSTONE" (LEGRANDE 525) OUTLET BOX WITH FURNITURE FEED CONNECTIONS. (COMMUNICATIONS ONLY)	FLOOR

LIGHTING CONTROLS

SYMBOL	DESCRIPTION	MOUNTING	REMARKS
$\$$	SINGLE-POLE TOGGLE SWITCH	+48"	
$\$^{a}$	SINGLE-POLE TOGGLE SWITCH	+48"	SUBSCRIPT KEYS SWITCH TO FIXTURES CONTROLLED.
$\$_{2}$	DOUBLE-POLE TOGGLE SWITCH	+48"	
$\$_{3}$	THREE-WAY TOGGLE SWITCH	+48"	
$\$_{4}$	FOUR-WAY TOGGLE SWITCH	+48"	
$\$_{K}$	KEY-OPERATED SINGLE-POLE TOGGLE SWITCH	+48"	
$\$_{P}$	SINGLE-POLE TOGGLE SWITCH WITH PILOT LIGHT	+48"	
$\$_{DIM}$	DIMMER SWITCH	+48"	RATE DIMMER SWITCH FOR MAXIMUM POSSIBLE WATTAGE
$\$_{TIM}$	TIMER SWITCH	+48"	
$\$^{x}_{OS}$	OCCUPANCY SENSOR	+48"	REFER TO OCCUPANCY SENSOR SCHEDULE FOR MORE INFORMATION "#" SPECIFIES TYPE
$\$\$$	(2) SINGLE-POLE TOGGLE SWITCH	+48"	DUAL LEVEL SWITCH OUTBOARD LAMPS SEPARATELY FROM INBOARD LAMPS.
$\$^{\#}_{LV}$	LOW VOLTAGE SWITCH	+48"	REFER TO LOW VOLTAGE SWITCH SCHEDULE FOR MORE INFORMATION "#" SPECIFIES TYPE
$\$_{3PM}$	3-POSITION MOMENTARY CONTACT SWITCH	+48"	REFER TO DETAIL UP-ON; CENTER-NEUTRAL; DOWN-OFF
$\$_{3PN}$	3-POSITION MAINTAINED CONTACT SWITCH	+48"	UP-ON; CENTER-OFF; DOWN-ON
a #	OCCUPANCY SENSOR	CEILING	"a" LOWER CASE SPECIFIES ZONE "#" SPECIFIES TYPE
1	DIGITAL DAYLIGHT SENSOR	CEILING	"a" LOWER CASE LETTER SPECIFIES ZONE "#" SPECIFIES THE FOOTCANDLE SETTING THE SENSOR SHALL BE SET TO
TP	WALL MOUNT GRAPHIC TOUCH PAD CONTROLLER	+48"	
EC	EMERENCY CONTROLLER	ACCESSIBLE ABOVE CEILING	
LC	LOAD CONTROLLER	ACCESSIBLE ABOVE CEILING	
PP	POWER PACK	ACCESSIBLE ABOVE CEILING	
RC	ROOM CONTROLLER	ACCESSIBLE ABOVE CEILING	

ACCESS CONTROL SYMBOLS

SYMBOL	DESCRIPTION	MOUNTING	REMARKS
REX	REQUEST-TO-EXIT MOTION DETECTOR	CEILING	
S	ELECTROMAGNETIC DOOR STRIKE	DOOR	
SS	SEISMIC SENSOR	DOOR	
D	MAGNETIC DOOR CONTACT SWITCH	DOOR	
M	MAGNETIC LOCK	DOOR	
OHS	OVERHEAD SECURITY	DOOR	
OHD	OVERHEAD DOOR CONTACT	DOOR	
EH	ELECTRIFIED HINGE	DOOR	
EL	ELECTRIFIED LEVER	DOOR	
EP	ELECTRIFIED PANIC HARDWARE	DOOR	
G	GLASS BREAK HARDWARE	CEILING/WALL	
PS	POWER SUPPLY	CEILING/WALL	
IL	INTEGRATED LOCK	+46"	
PP	PUSH PLATE FOR AUTOMATIC DOOR OPERATOR	+46"	
ADO	AUTOMATIC DOOR OPERATOR	DOOR	
KP	KEYPAD	+48"	
CK	CARD READER / KEYPAD	+48"	
MK	MAGNETIC STRIP CARD READER / KEYPAD	+48"	
CR	CARD READER	+48"	
MR	MAGNETIC STRIP CARD READER	+48"	
AUTO	AUTOMATIC SLIDING DOOR	DOOR	

GENERAL SYMBOLS

SYMBOL	DESCRIPTION	REMARKS
XX	KEYED NOTE	
1 / E-1	DETAIL REFERENCE	TOP NUMBER INDICATES DETAIL NUMBER; BOTTOM LETTER-NUMBER INDICATES DRAWING SHEET WHERE DETAIL IS SHOWN; WHERE NOT SPECIFICALLY REFERENCED, DETAIL IS GENERAL IN NATURE AND SHALL APPLY WHERE APPLICABLE.
2 / E-2	ELEVATION REFERENCE	TOP NUMBER INDICATES ELEVATION NUMBER; BOTTOM LETTER-NUMBER INDICATES WHERE ELEVATION IS SHOWN.
3 / E-2	SECTION REFERENCE	TOP NUMBER INDICATES ELEVATION NUMBER; BOTTOM LETTER-NUMBER INDICATES WHERE ELEVATION IS SHOWN.
100	ARCHITECTURAL ROOM NUMBER	
AHU / 1	EQUIPMENT NAME / NUMBER	TOP NUMBER ABBREVIATES EQUIPMENT NAME OR TYPE; BOTTOM NUMBER INDICATES EQUIPMENT NUMBER. REFER TO EQUIPMENT SCHEDULE.
1	REVISION NUMBER	USED TO DENOTE CHANGES EITHER ISSUED BY ADDENDUM OR DURING CONSTRUCTION AND TO DENOTE RECORD DRAWING CHANGES.
	REVISION CLOUD	USED TO DENOTE AREAS, DEVICES, EQUIPMENT DETAILS, ETC. AFFECTED BY THE REVISION.
	BREAKLINE	USED TO BREAK DRAWINGS.
LCD-###	LIGHTING CONTROL WIRING DIAGRAM CALLOUT	

BRANCH CIRCUITING SYMBOLS

SYMBOL	DESCRIPTION	REMARKS
	BRANCH CIRCUIT HOME RUN TO PANEL	ARROWS: NUMBER OF ARROWS INDICATES NUMBER OF CIRCUITS REQUIRED.
	BRANCH CIRCUITING (U.N.O.) CONTINUATION	
	CONDUIT STUB-IN	CAP AND MARK
	INCOMING SERVICE	
	UNDERGROUND FEEDER	
J	JUNCTION BOX	MOUNT AS NOTED. SUBSCRIPT 'F' INDICATES TO PROVIDE A FLOOR BOX WITH BLANK COVERPLATE.
	BRANCH CIRCUITING (U.N.O.) TURNED UP OR TOWARDS OBSERVER.	
	BRANCH CIRCUITING (U.N.O.) TURNED DOWN OR AWAY FROM OBSERVER.	
	2 CIRCUIT, BRANCH CIRCUIT HOME RUN TO PANEL	ARROWS: NUMBER OF ARROWS INDICATES NUMBER OF CIRCUITS REQUIRED.
	3 CIRCUIT, 4 WIRE BRANCH CIRCUIT HOME RUN TO PANEL	ARROWS: NUMBER OF ARROWS INDICATES NUMBER OF CIRCUITS REQUIRED.

ELECTRONIC SYSTEM GENERAL SYMBOLS

SYMBOL	DESCRIPTION	MOUNTING	REMARKS
PANEL NAME	ELECTRONIC SYSTEM PANELBOARD (SURFACE MOUNT)	TOP AT 72"	ELECTRONIC SYSTEMS MAY INCLUDE BUT ARE NOT SPECIFICALLY LIMITED TO, TELEPHONE, DATA, TELEVISION, LIGHTING CONTROL, CLOCKS, FIRE ALARM, ACCESS CONTROL, SECURITY, CCTV, SOUND SYSTEM, NURSE CALL, OR INTERCOM.
PANEL NAME	ELECTRONIC SYSTEM PANELBOARD (FLUSH MOUNT)	TOP AT 72"	
	ELECTRONIC SYSTEM TERMINAL BOARD	TOP AT 72"	
	TWO POST DATA RACK		
	FOUR POST DATA RACK		
	FLOOR MOUNTED DATA CABINET		
	LARGE DATA CABINET		
	WALL MOUNTED DATA CABINET		

ELECTRICAL SYMBOL SCHEDULE GENERAL NOTES

1. MOUNT ALL OUTLETS, DEVICES, AND EQUIPMENT AT HEIGHTS INDICATED BELOW, UNLESS NOTED OTHERWISE ON THE DRAWINGS. UNLESS NOTED OTHERWISE, HEIGHTS ARE GIVEN FROM FINISHED FLOOR TO CENTER OF OUTLET BOX.
2. WHERE OUTLETS, DEVICES, AND EQUIPMENT ARE NOTED BY SUBSCRIPTS, REFER TO ABBREVIATION SCHEDULE FOR DEFINED REQUIREMENTS.
3. WHERE OUTLETS, DEVICES AND EQUIPMENT ARE NOTED BY THE SUBSCRIPT 'A', MOUNT AT 4" ABOVE COUNTER. IF COUNTER HAS A BACK SPLASH, MOUNT AT 4" ABOVE BACK SPLASH. REFER TO ARCHITECTURAL INTERIOR ELEVATIONS AND COORDINATE WITH CASEWORK SUPPLIER.
4. NOT ALL ELECTRICAL SYMBOLS MAY BE USED.

ABBREVIATION SCHEDULE

NOTE: NOT ALL ABBREVIATIONS MAY BE USED.

A	ABOVE COUNTER	LSI	LONG-TIME, SHORT-TIME INSTANTANEOUS
A	AMP OR AMPS	LSIG	LONG-TIME, SHORT-TIME INSTANTANEOUS GROUND FAULT
ACC	ACCESS CONTROL	LTG	LIGHTING
ADJ	ADJACENT	MBJ	MAIN BONDING JUMPER
AFF	ABOVE FINISHED FLOOR	MCA	MINIMUM CIRCUIT AMPS
AHJ	AUTHORITY HAVING JURISDICTION	MCB	MAIN CIRCUIT BREAKER
AL	ALUMINUM	MLO	MAIN LUGS ONLY
ATS	AUTOMATIC TRANSFER SWITCH	MV	MEDIUM VOLTAGE
AUX	AUXILIARY	MW	MICROWAVE
AWG	AMERICAN WIRE GAUGE	NC	NORMALLY CLOSED
BAS	BUILDING AUTOMATION SYSTEM	NEC	NATIONAL ELECTRIC CODE
BLDG	BUILDING	NIC	NOT IN CONTRACT
C	CONDUIT	NL	NIGHT LIGHT
CB	CIRCUIT BREAKER	NO	NORMALLY OPEN
CKT	CIRCUIT	OC	ON CENTER(S)
CLG	CEILING	OCP	OVER CURRENT PROTECTION
CO	CONVENIENCE OUTLETS	OCPD	OVER CURRENT PROTECTION DEVICE
COMM	COMMUNICATIONS	PA	PUBLIC ADDRESS
CU	COPPER	PH	PHASE
DAS	DISTRIBUTED ANTENNA SYSTEM	PV	PHOTOVOLTAIC
(E)	EXISTING	PWR	POWER
EA	EACH	QTY	QUANTITY
EG	EQUIPMENT GROUND	R	REMOVE
EGC	EQUIPMENT GROUNDING CONDUCTOR	REF	REFRIGERATOR
ELEC	ELECTRICAL	REQ	REQUIREMENTS
EM	EMERGENCY	RGC	RIGID GALVANIZED METALLIC CONDUIT
EMT	ELECTRIC METALLIC TUBING	RMC	RIGID METAL CONDUIT
ENT	ELECTRIC NONMETALLIC TUBING	RMP	ROCKY MOUNTAIN POWER
EQUIP	EQUIPMENT	RNC	RIGID NONMETALLIC CONDUIT
EWC	ELECTRIC WATER COOLER	RR	REMOVE AND RELOCATE
EXP	EXPLOSION PROOF	S	SURFACE MOUNTED
FA	FIRE ALARM	SBJ	SYSTEM BONDING JUMPER
FACP	FIRE ALARM CONTROL PANEL	SCP	SECURITY CONTROL PANEL
FLA	FULL LOAD AMPS	SFL	SUB-FEED LUGS
FMC	FLEXIBLE METAL CONDUIT	SPD	SURGE PROTECTIVE DEVICE
FO	FIBER OPTIC	SS	SURGE SUPPRESSION
FOB	FREIGHT ON BOARD	SSBJ	SUPPLY SIDE BONDING JUMPER
FTL	FEED-THROUGH LUGS	TGB	TELECOMMUNICATION GROUNDING BUS BAR
GEC	GROUNDING ELECTRODE CONDUCTOR	TMGB	TELECOMMUNICATION MAIN GROUNDING BUS BAR
GND	GROUND CONDUCTOR	TR	TAMPER RESISTANT
H	HOSPITAL GRADE	TTB	TELEPHONE TERMINAL BOARD
HOA	HAND-OFF-AUTO	TYP	TYPICAL
HP	HORSE POWER	UF	UNDER FLOOR
HZ	HORIZONTALLY MOUNTED	UG	UNDERGROUND
IBT	INTERSYSTEM BONDING TERMINATION BAR	UNO	UNLESS NOTED OTHERWISE
ID	INTRUSION DETECTION	USB	UNIVERSAL SERIAL BUS
IG	ISOLATED GROUND	VSS	VIDEO SURVEILLANCE SYSTEM
IMC	INTERMEDIATE METAL CONDUIT	W/	WITH
INS	INSULATED	WO/	WITHOUT
ISO	ISOLATED	WP	WEATHER PROOF
KCMIL	KILO CIRCULAR MIL	WR	WEATHER RESISTANT
KVA	KILO VOLT AMPERES	XFMR	TRANSFORMER
KW	KILOWATTS		
LFNC	LIQUID-TIGHT NONMETAL CONDUIT		
LS	LONG-TIME, SHORT-TIME		

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GENERAL PROJECT NOTES:

1. DIVISION 26 CONTRACTOR IS RESPONSIBLE FOR READING AND APPLYING WHAT IS IN THE SPECIFICATIONS TO THIS PROJECT. ANYTHING THAT IS NOT INCLUDED ON THE PROJECT THAT IS CALLED OUT IN THE SPECIFICATION SHALL BE LISTED ON THE SUBSTANTIAL COMPLETION PUNCHLIST. THE CONTRACTOR WILL BE REQUIRED TO REMEDY THESE DEFICIENCIES. THERE WILL BE NO EXCEPTIONS.
2. THE CONTRACTOR MAY SCHEDULE A PRE-CONSTRUCTION MEETING , AT THEIR DISCRETION WITH THE ELECTRICAL ENGINEER AND REVIEW THE DRAWINGS AND SPECIFICATIONS. THE MEETING SHALL BE A MAXIMUM OF ONE HOUR AND SHALL TAKE PLACE AT THE ENGINEER'S OFFICE.
3. THE FOLLOWING ITEMS ARE SOME OF THE REQUIREMENTS THAT ARE LISTED IN THE SPECIFICATIONS, THESE ITEMS DO NOT REPRESENT ALL ITEMS AND THE CONTRACTOR IS RESPONSIBLE FOR MEETING ALL REQUIREMENTS OF THE SPECIFICATIONS:
   A. INSULATED THROAT CONNECTORS OR PLASTIC BUSHINGS SHALL BE UTILIZED FOR ALL CONDUIT SIZES USED ON THIS PROJECT.
   B. A DEDICATED NEUTRAL CONDUCTOR WILL BE PROVIDED FOR ALL LIGHTING AND POWER CIRCUITS.
   C. THE CONTRACTOR SHALL LABEL ALL ELECTRICAL EQUIPMENT AS IT IS CALLED OUT IN THE SPECIFICATIONS.
   D. THE CONTRACTOR SHALL PROVIDE SEISMIC SUPPORT AND BRACING FOR ALL ELECTRICAL EQUIPMENT AS REQUIRED BY LOCAL AND NATIONAL CODE.
4. THE CONTRACTOR SHALL FOLLOW THE PANELBOARD SCHEDULES AS INDICATED IN THE DRAWINGS. EACH CIRCUIT BREAKER HAS BEEN ASSIGNED A SPECIFIC AREA OF THE BUILDING. NO DEVIATION WILL BE ALLOWED WITHOUT THE APPROVAL FROM THE ELECTRICAL ENGINEER.
5. THE CONTRACTOR SHALL INSTALL THE WIRE SIZES AS CALLED OUT ON THE ONE-LINE DIAGRAM, EQUIPMENT SCHEDULES, VOLTAGE DROP TABLES, AND ELECTRICAL SPECIFICATIONS. HOWEVER, THE CONTRACTOR IS RESPONSIBLE TO ENSURE THE WIRE IS SIZED LARGE ENOUGH TO ALLOW FOR VOLTAGE DROP.
6. THE CONTRACTOR SHALL VERIFY ALL MECHANICAL OVERCURRENT DEVICES FOR THE ACTUAL MECHANICAL EQUIPMENT SUPPLIED ON THE JOB, PRIOR TO RELEASE OF ANY ELECTRICAL DISTRIBUTION EQUIPMENT. CONTACT THE ELECTRICAL ENGINEER WITH ANY DISCREPANCIES.
7. THE CONTRACTOR SHALL VISIT THE SITE BEFORE SUBMITTING THE BID, AND SHALL EXAMINE ALL PHYSICAL CONDITIONS WHICH MAY BE MATERIAL TO THE PERFORMANCE OF HIS WORK. NO EXTRA PAYMENTS WILL BE ALLOWED TO THE CONTRACTOR AS A RESULT OF EXTRA WORK MADE NECESSARY BY HIS FAILURE TO DO SO. ANY CASE OF DISCREPANCY OR LACK OF CLARITY SHALL BE PROMPTLY IDENTIFIED TO THE OWNER'S REPRESENTATIVE AND THE ENGINEER FOR CLARIFICATION.
8. THE CONTRACTOR SHALL MAKE SURE THAT ALL BRANCH CIRCUITS THAT ARE AFFECTED BY THIS PROJECT ARE NOT OVERLOADED. PROVIDE ADDITIONAL BRANCH CIRCUITS FROM ELECTRICAL PANELS AS NECESSARY TO COMPLY WITH THE BRANCH CIRCUIT LOADING REQUIREMENTS. PROVIDE ALL MATERIAL AND LABOR AS NECESSARY FOR A COMPETE AND OPERATING SYSTEM.
9. PROVIDE UPDATED, TYPED PANELBOARD SCHEDULE(S) TO REFLECT ALL THE CHANGES MADE INCLUDING EXISTING LOADS. THE EXISTING LOADS SHALL BE NAMED THE SAME AS LISTED ON THE EXISTING PANELBOARD SCHEDULE.

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BIOMEDICAL POLYMERS RESEARCH BUILDING - LEVEL 2

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CONSTRUCTION DOCUMENTS

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05/03/2024
8357784-2202
EXP. 03/31/2025
TREVOR REED SPENCER
STATE OF UTAH

DATE: 05/03/2024
PROJECT #: 22711

SHEET NAME:
GENERAL NOTES AND SYMBOLS LISTS

SHEET #: **EG001**

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EQUIPMENT AND CONTROL SYMBOLS

SYMBOL	DESCRIPTION	MOUNTING	REMARKS
	MANUAL STARTER WITH THERMAL OVERLOAD(S)	AT EQUIPMENT	
	ELECTRIC MOTOR		
	NON-FUSED DISCONNECT SWITCH	+60"	
F	FUSED DISCONNECT SWITCH	+60"	
	CIRCUIT BREAKER AND ENCLOSURE	+60"	
	MAGNETIC STARTER	+60"	
	COMBINATION MAGNETIC STARTER / FUSED DISCONNECT	+60"	
	COMBINATION MAGNETIC STARTER / NON-FUSED DISCONNECT	+60"	
	COMBINATION MAGNETIC STARTER / MOTOR CIRCUIT PROTECTOR (MCP)	+60"	
VFD	COMBINATION VARIABLE FREQUENCY DRIVE / MOTOR CIRCUIT PROTECTOR (MCP)	FLOOR OR WALL AS SPECIFIED	TOP AT +72" IF WALL MOUNTED
	LOAD CENTER (SURFACE-MOUNTED)	TOP AT +72"	14"W X 3"D
	LOAD CENTER (FLUSH-MOUNTED)	TOP AT +72"	14"W X 3"D
	LIGHTING AND APPLIANCE PANELBOARD (SURFACE-MOUNTED)	TOP AT +72"	20"W X 6"D
	LIGHTING AND APPLIANCE PANELBOARD (FLUSH-MOUNTED)	TOP AT +72"	20"W X 6"D
	POWER DISTRIBUTION PANELBOARD	WALL	THESE SYMBOLS ARE GENERAL IN NATURE AND MAY VARY IN SIZE AND SHAPE TO SUIT APPLICATION. CROSS HATCHING INDICATES "MAIN PANELBOARD OR SWITCHBOARD" NAME IS INDICATED IN SEMI-QUOTES (I.E. 'L2A', 'MDP')
	SWITCHBOARD	FLOOR	
T-#	WET TYPE TRANSFORMER	PAD MOUNT	
T-#	DRY TYPE TRANSFORMER	PAD MOUNT	
T-#	DRY TYPE TRANSFORMER	WALL MOUNT	
	METER BASE	TOP AT +72"	
PB	PULL BOX		
	UTILITY POLE		
	OPEN - STOP - CLOSE SWITCH	+60"	FURNISH SWITCH UNLESS FURNISHED BY ANOTHER DIVISION. INSTALL AND CONNECT COMPLETE. REFER TO RELATED SPECIFICATION SECTIONS.
T	HVAC THERMOSTAT	+60"	PROVIDED BY DIVISION 23
	HAND - OFF - AUTO SWITCH	+60"	
GF	GROUND FAULT PROTECTION		
E	ELECTRIC VEHICLE CAR CHARGING STATION	FLOOR	
S	PAD MOUNTED UTLITY SWITCHGEAR		
SE	PAD MOUNTED UTILITY SECTIONALIZER		

TELEPHONE / DATA SYMBOLS

SYMBOL	DESCRIPTION	MOUNTING	REMARKS
	TELEPHONE OUTLET	+18"	
	DATA OUTLET	+18"	
	COMBINATION TELEPHONE/DATA OUTLET	+18"	
	TELEPHONE TERMINAL BOARD	TOP AT 72"	
	WIRELESS ACCESS POINT	CEILING	
W	WIRELESS ACCESS POINT	SEE PLANS	
	EMERGENCY PHONE	SEE PLANS	

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CONSTRUCTION DOCUMENTS

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STATE OF UTAH

DATE:	PROJECT #:
05/03/2024	**22711**

SHEET NAME:
SYMBOL LISTS

SHEET #:
EG002

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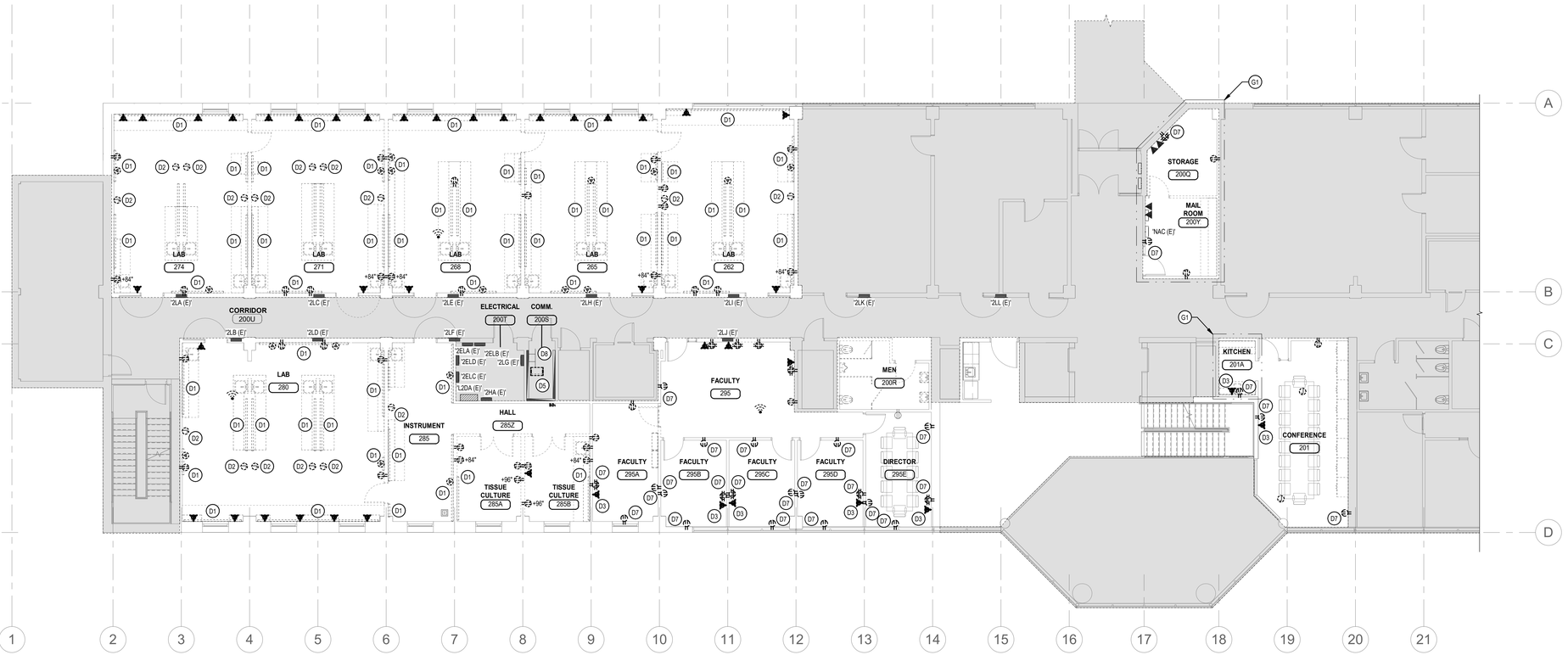
GENERAL DEMOLITION NOTES:

1. UNLESS SPECIFICALLY NOTED OTHERWISE, REMOVE ALL ELECTRICAL ITEMS SHOWN IN DARK AND DASHED LINES. LIGHT AND SOLID ITEMS ARE TO REMAIN. DEMOLITION ITEMS ARE SHOWN TO GIVE A BASIC DESCRIPTION OF THE EXTENT OF DEMOLITION WORK, BUT MAY NOT BE INCLUSIVE. PROVIDE DEMOLITION WORK IN ACCORDANCE WITH THE FOLLOWING REQUIREMENTS:
   - A. DISCONNECT AND REMOVE ANY/ALL FIXTURES, DEVICES, EQUIPMENT, ETC. REQUIRED FOR PROPER COMPLETION OF THE WORK WHETHER SHOWN OR NOT.
   - B. RELOCATE, REWIRE, AND/OR RECONNECT ANY/ALL FIXTURES, DEVICES, EQUIPMENT, ETC. THAT FOR ANY REASON OBSTRUCTS CONSTRUCTION.
   - C. LEAVE ALL EXISTING FIXTURES, DEVICES, EQUIPMENT, ETC. IN PORTIONS OF THE BUILDING NOT BEING REMODELED, IN WORKING CONDITION. RESTORE ALL INTERRUPTED BRANCH CIRCUITS, FEEDERS, ETC.
   - D. REMOVE AND DISPOSE OF ALL RACEWAYS, CONDUCTORS, BOXES, DEVICES, EQUIPMENT, ETC. THAT ARE NOT TO BE REUSED. TERMINATE AT ACCESSIBLE JUNCTION BOX BY PROVIDING PROPER KNOCK-OUT CLOSURE, TAPE CONDUCTORS, LABEL AS "SPARE" WITH CIRCUIT NO., ZONE NO, OR OTHER CHARACTERISTIC IDENTIFYING SOURCE.
   - E. EXISTING RACEWAYS MAY BE REUSED, IF IN PLACE, WHERE POSSIBLE, AND WHERE IN COMPLIANCE WITH THE SPECIFICATIONS AND THE INTENT OF THE CONTRACT DOCUMENTS. UPGRADE AND OR PROVIDE NEW CONDUIT SUPPORTS WHERE NECESSARY FOR ALL RACEWAYS BEING REUSED. ENSURE INTEGRITY OF EXISTING RACEWAYS BEFORE REUSE.
   - F. CONCEAL ALL RACEWAY AND WIRING IN EXISTING WALLS, CEILINGS, FLOORS, ETC. THE USE OF WIREMOLD IS PERMITTED ONLY WHERE SPECIFICALLY NOTED ON DRAWING.
   - G. DO NOT PENETRATE STRUCTURAL ELEMENTS OF FLOORS, WALLS, CEILINGS, ROOFS, ETC.
   - H. COORDINATE WITH OWNER WHAT EQUIPMENT SHOULD BE DISPOSED OF AND WHAT EQUIPMENT IS TO BE RETURNED TO OWNER.
   - I. FIRE ALARM SYSTEM MUST REMAIN OPERATIONAL DURING ALL PHASES OF CONSTRUCTION.

KEYED NOTES (#)

D1	DEMOLISH EXISTING WIREMOLD AND ALL ASSOCIATED DEVICES. DEMOLISH ALL CONDUIT AND WIRE BACK TO SOURCE COMPLETE.
D2	DISCONNECT ELECTRICAL CONNECTIONS TO CHEMICAL HOOD. DEMOLISH CONDUIT AND WIRE BACK TO SOURCE COMPLETE.
D3	DEMOLISH EXISTING DATA DEVICE AND FACEPLATE ALONG WITH ALL WIRING BACK TO SOURCE COMPLETE. NEW DEVICE TO BE INSTALLED IN SAME LOCATION.
D5	DEMOLISH EXISTING RACK AND ALL ASSOCIATED CABLE AND EQUIPMENT. COORDINATE ALL WORK WITH U.I.T.
D7	DEMOLISH EXISTING RECEPTACLE AND FACEPLATE ALONG WITH ALL CIRCUITING BACK TO SOURCE COMPLETE. NEW DEVICE TO BE INSTALLED IN SAME LOCATION WITH NEW CIRCUITING.
D8	PROTECT AND MAINTAIN EXISTING GROUND BUS BAR.
G1	ALL WORK IN THIS AREA TO BE INCLUDED AS PART OF ALTERNATE #1.



1 LEVEL 2 - DEMOLITION ELECTRICAL PLAN
SCALE: 1/8" = 1'-0"

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STATE OF UTAH

DATE:	PROJECT #:
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SHEET NAME:
LEVEL 2 - DEMOLITION ELECTRICAL PLAN

SHEET #:
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GENERAL DEMOLITION NOTES:

1. UNLESS SPECIFICALLY NOTED OTHERWISE, REMOVE ALL ELECTRICAL ITEMS SHOWN IN DARK AND DASHED LINES. LIGHT AND SOLID ITEMS ARE TO REMAIN. DEMOLITION ITEMS ARE SHOWN TO GIVE A BASIC DESCRIPTION OF THE EXTENT OF DEMOLITION WORK, BUT MAY NOT BE INCLUSIVE. PROVIDE DEMOLITION WORK IN ACCORDANCE WITH THE FOLLOWING REQUIREMENTS:
   - A. DISCONNECT AND REMOVE ANY/ALL FIXTURES, DEVICES, EQUIPMENT, ETC. REQUIRED FOR PROPER COMPLETION OF THE WORK WHETHER SHOWN OR NOT.
   - B. RELOCATE, REWIRE, AND/OR RECONNECT ANY/ALL FIXTURES, DEVICES, EQUIPMENT, ETC. THAT FOR ANY REASON OBSTRUCTS CONSTRUCTION.
   - C. LEAVE ALL EXISTING FIXTURES, DEVICES, EQUIPMENT, ETC. IN PORTIONS OF THE BUILDING NOT BEING REMODELED, IN WORKING CONDITION. RESTORE ALL INTERRUPTED BRANCH CIRCUITS, FEEDERS, ETC.
   - D. REMOVE AND DISPOSE OF ALL RACEWAYS, CONDUCTORS, BOXES, DEVICES, EQUIPMENT, ETC. THAT ARE NOT TO BE REUSED. TERMINATE AT ACCESSIBLE JUNCTION BOX BY PROVIDING PROPER KNOCK-OUT CLOSURE, TAPE CONDUCTORS, LABEL AS "SPARE" WITH CIRCUIT NO., ZONE NO, OR OTHER CHARACTERISTIC IDENTIFYING SOURCE.
   - E. EXISTING RACEWAYS MAY BE REUSED, IF IN PLACE, WHERE POSSIBLE, AND WHERE IN COMPLIANCE WITH THE SPECIFICATIONS AND THE INTENT OF THE CONTRACT DOCUMENTS. UPGRADE AND OR PROVIDE NEW CONDUIT SUPPORTS WHERE NECESSARY FOR ALL RACEWAYS BEING REUSED. ENSURE INTEGRITY OF EXISTING RACEWAYS BEFORE REUSE.
   - F. CONCEAL ALL RACEWAY AND WIRING IN EXISTING WALLS, CEILINGS, FLOORS, ETC. THE USE OF WIREMOLD IS PERMITTED ONLY WHERE SPECIFICALLY NOTED ON DRAWING.
   - G. DO NOT PENETRATE STRUCTURAL ELEMENTS OF FLOORS, WALLS, CEILINGS, ROOFS, ETC.
   - H. COORDINATE WITH OWNER WHAT EQUIPMENT SHOULD BE DISPOSED OF AND WHAT EQUIPMENT IS TO BE RETURNED TO OWNER.
   - I. FIRE ALARM SYSTEM MUST REMAIN OPERATIONAL DURING ALL PHASES OF CONSTRUCTION.

KEYED NOTES (#)

G1 ALL WORK IN THIS AREA TO BE INCLUDED AS PART OF ALTERNATE #1.



1 LEVEL 2 - DEMOLITION LIGHITNG PLAN
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1795 E. So. Campus Dr, RM 201
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PROJECT NO: 22711

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REVIEWED FOR CODE COMPLIANCE
05/17/2024
Shums Coda Associates

BIOMEDICAL POLYMERS RESEARCH BUILDING - LEVEL 2

20 SOUTH 2030 EAST, SALT LAKE CITY, UTAH 84112

CONSTRUCTION DOCUMENTS

SEAL:
PROFESSIONAL ENGINEER
05/03/2024
9357784-2202
REGISTERED
TREVOR REED SPENCER
STATE OF UTAH

DATE:	PROJECT #:
05/03/2024	22711

SHEET NAME:
LEVEL 2 - DEMOLITION LIGHTING PLAN

SHEET #:
ED102

ENVISION ENGINEERING
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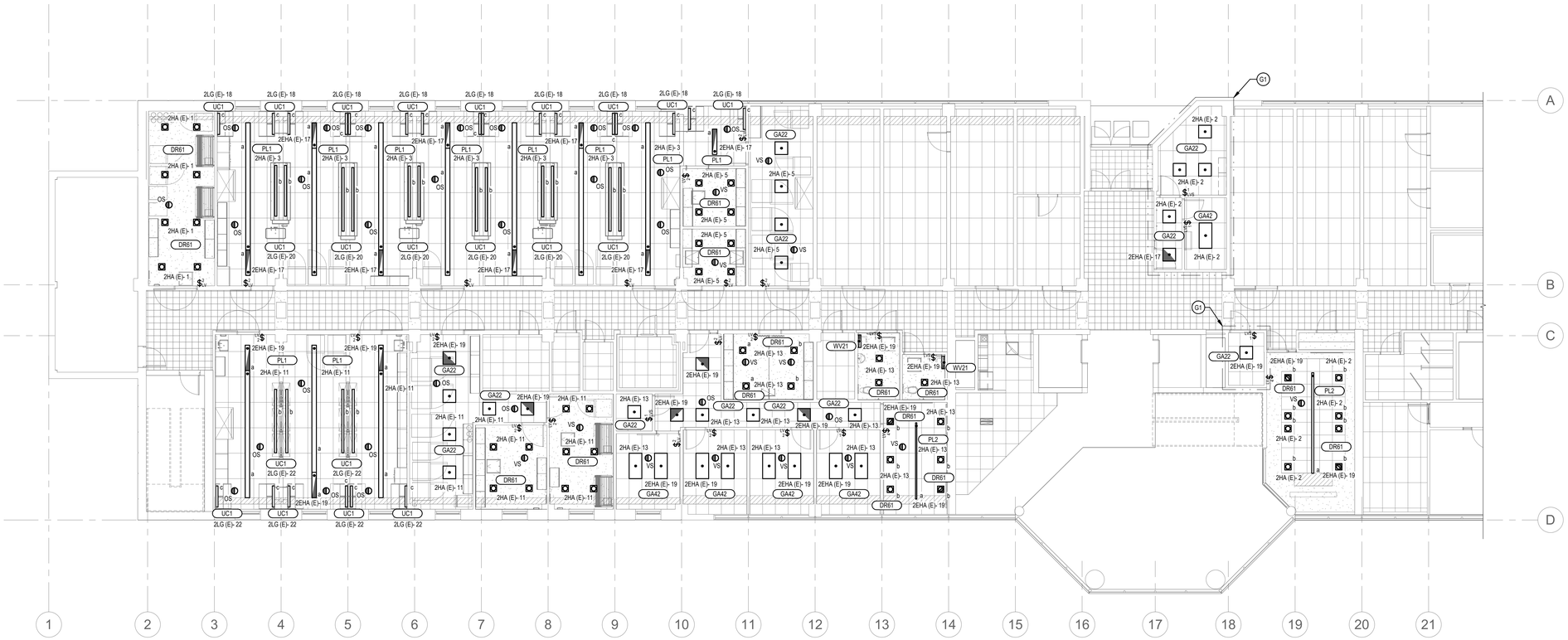
LIGHTING GENERAL NOTES:

1. REFER TO LIGHTING DETAILS SHEETS FOR TYPICAL CONTROL WIRING DIAGRAMS. PROVIDE COMPLETE SYSTEM WITH ALL REQUIRED CONDUIT, WIRING, SWITCHES, SENSORS, POWER PACK, ETC.
2. LOCATE POWER PACKS AND ROOM CONTROLLERS ABOVE ACCESSIBLE CEILING NEAR ROOM ENTRANCES.
3. CONFIRM ALL LOCATIONS OF LIGHT FIXTURES WITH ARCHITECT PRIOR TO INSTALLATION.
4. PROVIDE UNSWITCHED HOT FOR ALL EMERGENCY LIGHTS AND BATTERY PACKS.
5. ALL UNDERCABINET LIGHTING IN THE LABS, BOTH THOSE AT LAB BENCHES AS WELL AS THOSE AT WORK STATIONS. SHALL HAVE AUTOMATIC ON/OFF CONTROL VIA OCCUPANCY SENSORS IN THE SPACE. UNDERCABINET LIGHTS SHALL HAVE A LOCAL MANUAL ON/OFF SWITCH ON THE FIXTURE.



1 LEVEL 2 - LIGHTING PLAN
SCALE: **1/8" = 1'-0"**

tsa
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SALT LAKE CITY, UT 84105
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20 SOUTH 2030 EAST, SALT LAKE CITY, UTAH 84112

CONSTRUCTION DOCUMENTS

SEAL:
PROFESSIONAL ENGINEER
05/03/2024
6357784 - 2202
TREVOR REED SPENCER
STATE OF UTAH

DATE:	PROJECT #:
05/03/2024	**22711**

SHEET NAME:
LEVEL 2 - LIGHTING PLAN

SHEET #:
EL101

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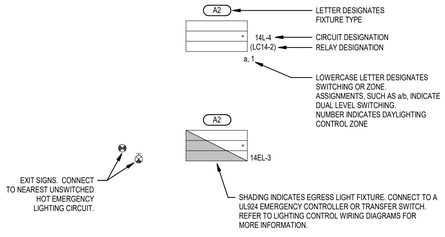
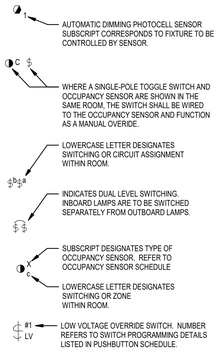


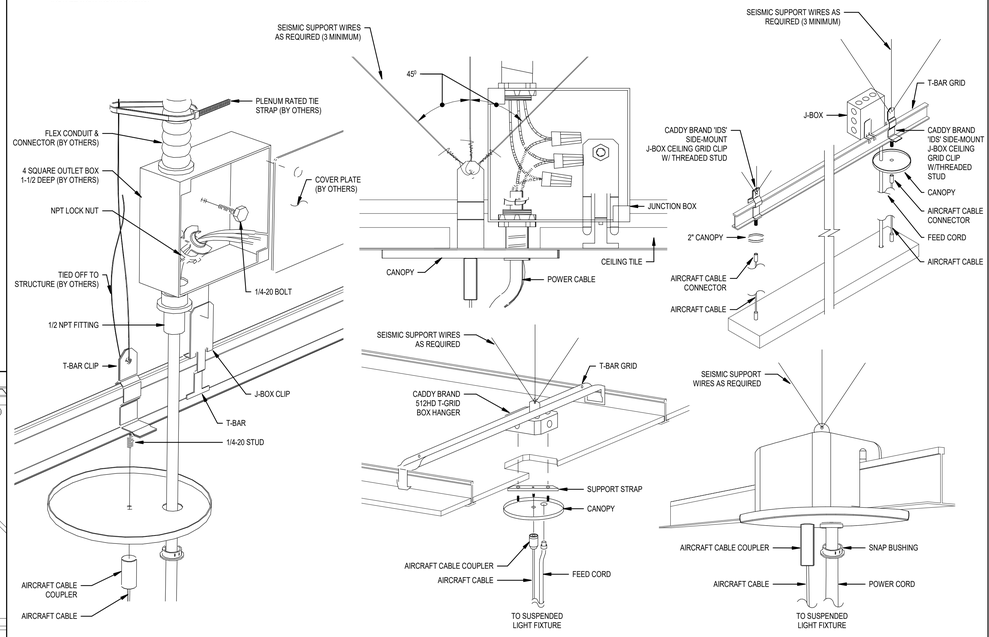
8 TYPICAL LIGHT FIXTURE LABELING AND CIRCUITING CONVENTION DETAIL
SCALE: NTS



4 TYPICAL SWITCHING CONVENTION
SCALE: NTS

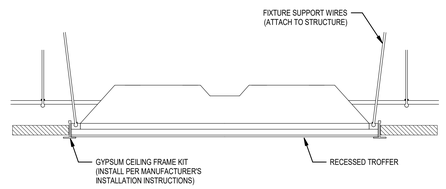
NOTES:

1. INSTALL PER MANUFACTURER'S INSTALLATION INSTRUCTIONS.

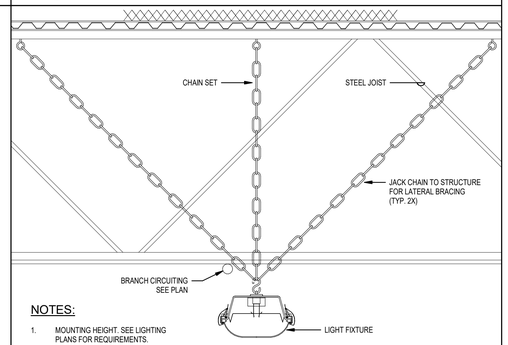


NOTE:
SIMILAR CONSTRUCTION/MOUNTING TO BE USED ON NON-POWER FEED SUPPORT

1 TYPICAL SUSPENDED LIGHT FIXTURE MOUNTING DETAIL
SCALE: NTS



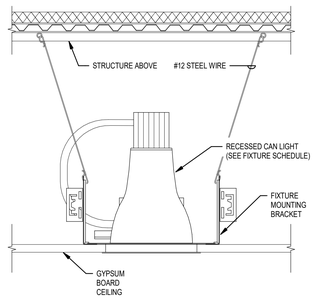
9 TYPICAL GYPSUM CEILING RECESSED TROFFER MOUNTING DETAIL
SCALE: NTS



NOTES:

1. MOUNTING HEIGHT. SEE LIGHTING PLANS FOR REQUIREMENTS.

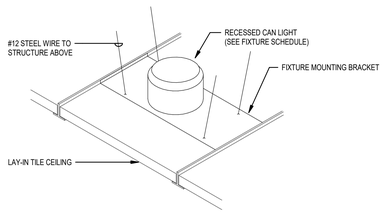
3 TYPICAL CHAIN HUNG LIGHT FIXTURE MOUNTING DETAIL
SCALE: NTS



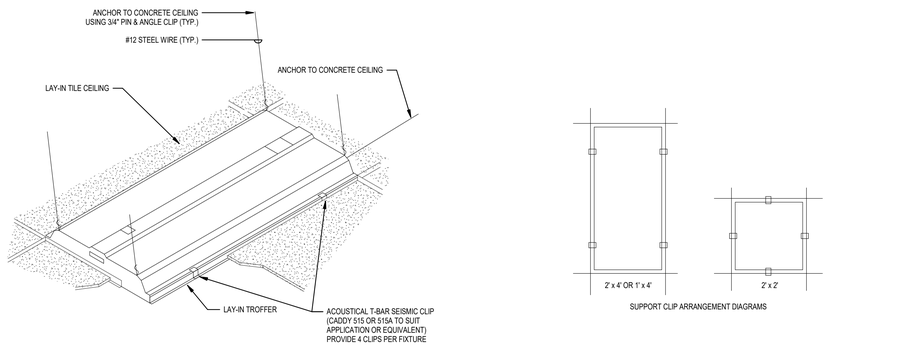
6 TYPICAL RECESSED CAN GYPSUM CEILING MOUNTING DETAIL
SCALE: NTS

NOTES:

1. FIXTURE SHALL BE CENTERED IN CEILING TILE.
2. COORDINATE WITH MECHANICAL DUCTWORK AND EQUIPMENT.



5 TYPICAL RECESSED CAN LAY-IN GRID CEILING MOUNTING DETAIL
SCALE: NTS



2 TYPICAL LAY-IN GRID LIGHT FIXTURE MOUNTING DETAIL
SCALE: NTS

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BIOMEDICAL POLYMERS RESEARCH BUILDING - LEVEL 2
20 SOUTH 2030 EAST, SALT LAKE CITY, UTAH 84112
CONSTRUCTION DOCUMENTS

SEAL:
PROFESSIONAL ENGINEER
05/03/2024
6357784-2202
TREVOR REED SPENCER
STATE OF UTAH

DATE: 05/03/2024
PROJECT #: 22711

SHEET NAME:
LIGHTING DETAILS - TYPICAL

SHEET #:
EL501

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LIGHTING CONTROL SYSTEM REQUIREMENTS:

NETWORKED LOW-VOLTAGE LIGHTING CONTROL SYSTEMS: PROVIDE A DIGITAL, DISTRIBUTED INTELLIGENT, NETWORKED LOW-VOLTAGE LIGHTING CONTROL SYSTEM FOR ALL AREAS UNLESS NOTED DIFFERENT.

THE SYSTEM SHALL INCLUDE, BUT IS NOT LIMITED TO CEILING-MOUNTED OCCUPANCY SENSORS, LIGHT LEVEL SENSORS, LOW VOLTAGE CONTROL WALL SWITCHES, RELAY PACKS/ROOM CONTROLLERS, GATEWAYS, BRIDGES, EQUIPMENT, LOW VOLTAGE CABLES, INTERNET CONNECTION, SOFTWARE, PROGRAMMING, ETC.

PROVIDE SOFTWARE FOR THE ABILITY TO REMOTELY CONFIGURE AND MONITOR EVERY NETWORKED SYSTEM DEVICE. PROVIDE BACNET SOFTWARE PLUG-IN TO ENABLE SOFTWARE TO ACT AS A BACNET IP "GATEWAY" BETWEEN THE NETWORK AND THE OWNER'S BUILDING MANAGEMENT SYSTEM. THE SOFTWARE SHALL HAVE A SIMPLE AND QUICK SETUP TOOL FOR CREATING CUSTOM CONFIGURATION PROFILES THAT CAN EITHER BE SCHEDULED OR RUN ON DEMAND. THE SOFTWARE SHALL ALLOW FOR:

- VIEWING DEVICE PROPERTIES
- CUSTOMIZING ALL DEVICE NAMES
- CONFIGURING ALL DEVICE DEFAULT SETTINGS
- EDITING DEVICE CURRENT SETTINGS
- OBSERVING REAL-TIME DEVICE OPERATIONAL STATUSES
- VIEWING ENERGY CONSUMPTION
- UPDATING DEVICE FIRMWARE
- GROUPING NETWORK DEVICES
- CREATING LIGHTING PROFILES THAT OUTLINE DEVICE OPERATION
- SCHEDULING PROFILES TO RUN AT PRESCRIBED TIMES WITH OPTIONAL RECURRENCES
- MANAGING USER ACCESS OF GATEWAYS AND THE SOFTWARE PROGRAM
- PRINTING REPORTS ON THE NETWORK INVENTORY AND PROFILES
- REMOTE TECHNICAL SUPPORT VIA THE INTERNET

PROVIDE RELAY PACKS/ROOM CONTROLLERS IN TYPES AND RATINGS AS MAY BE REQUIRED FOR A COMPLETE AND FULLY FUNCTIONAL SYSTEM WHETHER SHOWN ON THE DRAWINGS OR NOT. WHERE RELAY PACKS/ROOM CONTROLLERS ARE SERVING LOADS IN HIGH CEILING AREAS, LOCATE RELAY PACKS/ROOM CONTROLLERS IN THE ELECTRICAL ROOM WHERE LINE VOLTAGE WIRING IS ORIGINATING FROM.

THE SYSTEM SHALL METER EACH POINT OF CONTROL AND PROVIDE ENERGY USAGE AND POWER DEMAND DATA BACK TO THE OWNER'S BUILDING MANAGEMENT SYSTEM

OCCUPANCY SENSORS SHALL BE SET FOR "MANUAL ON - AUTO OFF" IN THE FOLLOWING SPACES:

- SMALLER ENCLOSED LABS
- OFFICES
- CONFERENCE ROOMS
- LACTATION ROOM
- MAIL ROOM

OCCUPANCY SENSORS SHALL BE SET FOR "AUTO ON - AUTO OFF" IN THE FOLLOWING SPACES:

- LARGER OPEN LABS
- RESTROOMS
- CORRIDORS

ALL CEILING-MOUNTED OCCUPANCY SENSORS SHALL BE PROVIDED WITH AN AUXILIARY CONTACT FOR HVAC CONTROL.

SKYLIGHTS AND BLINDS SHALL BE CONTROLLED VIA THE NETWORKED LOW VOLTAGE LIGHTING CONTROL SYSTEM.

ALL LOW VOLTAGE LIGHTING CONTROL SWITCHES SHALL HAVE EACH SCENE NAME SILKSCREENED ONTO THE FRONT OF THE SWITCH IN BLACK LETTERS AS MAY BE REQUESTED BY THE ARCHITECT. COORDINATE SCENE NAME WITH ARCHITECT/OWNER.

PROVIDE LIGHTING CONTROL RELAY PANELS AS INDICATED ON THE ELECTRICAL DRAWINGS. RELAY PANELS SHALL BE TIED INTO THE NETWORKED LOW VOLTAGE LIGHTING CONTROL SYSTEM.

OCCUPANCY SENSORS: PLEASE NOTE THAT ELECTRICAL DRAWINGS INDICATE LOCATIONS OF OCCUPANCY SENSORS IN APPROXIMATE LOCATIONS AND QUANTITIES. PROVIDE OCCUPANCY SENSORS IN LOCATIONS, QUANTITIES, AND TYPES AS RECOMMENDED BY THE MANUFACTURE. PROVIDE COMPLETE PRODUCT DATA AND SHOP DRAWINGS INDICATING THE PROPOSED TYPES, COVERAGE PATTERNS, LOCATIONS, AND QUANTITIES. COORDINATE THE LOCATION OF ALL DEVICES WITH CEILING GRIDS, LIGHT FIXTURES, CEILING DIFFUSERS, SPRINKLER HEADS, ETC.

LIGHT LEVEL SENSORS: PLEASE NOTE THAT THE ELECTRICAL DRAWINGS INDICATED LOCATIONS OF LIGHT LEVEL SENSOR IN APPROXIMATE LOCATIONS ONLY. PROVIDE LIGHT LEVEL SENSORS IN LOCATIONS AND TYPES AND RECOMMENDED BY THE MANUFACTURER. PROVIDE COMPLETE PRODUCT DATA AND SHOP DRAWINGS INDICATING THE PROPOSED TYPES AND LOCATIONS. COORDINATE THE LOCATION OF ALL DEVICES WITH CEILING GRIDS, LIGHT FIXTURES, CEILING DIFFUSERS, SPRINKLER HEADS, ETC.

ZONING REQUIREMENTS: IT IS PERMISSIBLE FOR ZONES OF LIGHT FIXTURES TO BE CONTROLLED BY COMMON POWER PACKS IN LIEU OF INDIVIDUAL POWER PACKS FOR EACH LIGHT FIXTURE EXCEPT AS FOLLOWS:

1. EGRESS LIGHT FIXTURES IN EACH ZONE SHALL BE PROVIDED WITH A RELAY PACK/ROOM CONTROLLER UL 924 LISTED FOR EMERGENCY OPERATIONS. SEE EMERGENCY OPERATIONS BELOW.
2. EACH ROOM OR AREA SHALL BE CONSIDERED A SEPARATE ZONE, UNLESS NOTED OTHERWISE. PLEASE NOTE THAT SOME ROOMS HAVE MULTIPLE ZONES. REFER TO THE LIGHTING PLANS FOR DELINEATED LIGHTING ZONES.
3. DIFFERENT LIGHT FIXTURE TYPES IN EACH ZONE SHALL HAVE SEPARATE POWER PACKS.
4. POWER PACKS SHALL BE RATED IN AMPERAGES AND VOLTAGES AS MAY BE REQUIRED TO SUIT APPLICATION.
5. PROVIDE A MINIMUM OF AT LEAST 10% EXTRA POWER PACKS OF EACH SIZE AND TYPE UTILIZED AND ZONE AS MAY BE DIRECTED BY THE ELECTRICAL ENGINEER.

TASK TUNING:

SET THE DEFAULT (MAXIMUM) LIGHT LEVELS TO SUIT THE PARTICULAR TASK OR USE OF A WORKSPACE AS FOLLOWS:

FUNCTION / SPACE ILLUMINANCE (AVG. FOOTCANDLES)	
LABS	50 FC (AMBIENT)
OFFICES	35 FC
CONFERENCE ROOMS	30 FC
WORK ROOMS/MAIL ROOMS	30 FC
CORRIDORS	10 FC
LARGE RESTROOMS:	15 FC
SMALL TOILET ROOMS/LACTATION ROOMS:	15 FC

VALUES INDICATED ABOVE ARE AVERAGE FOOTCANDLE LEVELS ON THE TASK SURFACE. TAKE METER READING AT THE COMPLETION OF THE PROJECT AS MAY BE REQUIRED TO APPROPRIATELY TUNE EACH SPACE; METER TO BE FURNISHED BY LIGHTING CONTROL SUPPLIER.

LUMEN MAINTENANCE: WHERE AVAILABLE AS A STANDARD FEATURE, PROVIDE LIGHT FIXTURES WITH AN 80% LUMEN MAINTENANCE FEATURE. IF THIS FEATURE IS NOT AVAILABLE, PLEASE INDICATE THIS IS AN EXCEPTION ON THE BID FORM.

DIMMING LEADS: PROVIDE DIMMING LEADS TO ALL FIXTURES THAT HAVE THE FOLLOWING:
1. NETWORK LOW-VOLTAGE LIGHTING CONTROL SYSTEMS.
2. STAND ALONE LOW-VOLTAGE LIGHTING CONTROL SYSTEMS.
3. ANYWHERE TASK TUNING IS REQUIRED.

EMERGENCY OPERATION (GENERATOR/INVERTER): PROVIDE A UL 924 LISTED METHOD FOR OPERATING EGRESS LIGHT FIXTURES. THIS SHALL INCLUDE UL 924 LISTED POWER PACKS/ROOM CONTROLLERS FOR GROUPS OF LIGHT FIXTURES OR PROVIDE GENERATOR TRANSFER DEVICES EQUIVALENT TO BODINE GTD OR ITOA ETS FOR EACH INDIVIDUAL OR GROUPS OF LIGHT FIXTURES DEPENDING UPON THE APPLICATION. REFER TO FLOOR PLANS, LIGHTING DETAILS, AND LIGHT FIXTURES SCHEDULE. ALL EGRESS LIGHT FIXTURES SHALL BE SWITCHED OFF WITH OTHER NORMAL-POWERED LIGHT FIXTURES DURING NORMAL OPERATION, BUT POWERED "FULL ON" DURING AN EMERGENCY OPERATION.

LOW VOLTAGE CABLES: PROVIDE CABLES IN TYPES AND SIZES IN ACCORDANCE WITH ALL MANUFACTURER'S WRITTEN INSTRUCTIONS AND RECOMMENDATIONS. CABLES SHALL BE PLENUM RATED AND SUPPORTED BY J-HOOKS ATTACHED TO LIGHT FIXTURE DROP WIRES AT 12" ABOVE RECESSED LAY-IN LIGHT FIXTURES. SECURE CABLES AT A SPACING OF NOT MORE THAN 60" ON CENTERS. PROVIDE J-HOOKS SUPPORTED FROM ALL-THREAD AS MAY BE REQUIRED TO MEET SPACING CRITERIA. INSTALLATION SHALL MEET ALL APPLICABLE REQUIREMENTS OF THE NEC 300.11. ALL CABLES SHALL BE ROUTED IN A NEAT WORKMANLIKE MANNER PARALLEL AND/OR PERPENDICULAR TO CEILING GRIDS.

SHOP DRAWINGS AND PRODUCT DATA:

PRODUCT DATA: PROVIDE PRODUCT DATA FOR ALL SYSTEM COMPONENTS CLEARLY DELINEATING THE DEVICES WHICH ARE TO BE PROVIDED.

SHOP DRAWINGS: PROVIDE 1/8" SCALED 30" X 42" AUTOCAD DRAWINGS SHOWING THE LIGHTING CONTROL SYSTEM DEVICES PLACED ON THE CEILING AND FLOOR PLANS. OBTAIN FLOOR AND CEILING PLANS FROM THE ARCHITECT. DRAWINGS SHALL INCLUDE COMPLETE LINE AND LOW VOLTAGE INTERCONNECTION REQUIREMENTS. PROVIDE SEPARATE LINE AND LOW VOLTAGE DRAWINGS AS MAY BE REQUIRED FOR CLARITY. LOW VOLTAGE DRAWING SHALL INCLUDE LENGTHS OF ALL CABLES. INCLUDE COMPLETE WIRING DIAGRAMS, ONE-LINE DIAGRAMS, DETAILS, ETC.

PROGRAMMING SCHEDULES: PROVIDE COMPLETE SEQUENCING AND PROGRAMMING SCHEDULES FOR ALL DEVICES, ZONES, AND SCENES.

RECORD DRAWINGS: AT THE COMPLETION OF THE PROJECT, PROVIDE UPDATED SHOP DRAWINGS INCLUDING ALL CHANGES MADE DURING CONSTRUCTION. INDICATE EXACT LOCATION BY DIMENSION OF ALL POWER PACKS AND OTHER DEVICES MOUNTED ABOVE ACCESSIBLE CEILINGS.

WARRANTY: WARRANTY ALL WORK INCLUDING PARTS AND LABOR FOR A PERIOD OF ONE YEAR.

PROGRAMMING: PROGRAMING ALL SYSTEMS AS DIRECTED BY THE ELECTRICAL ENGINEER. MEET WITH THE ELECTRICAL ENGINEER AT THEIR OFFICE PRIOR TO PREPARATION OF SHOP DRAWINGS TO DISCUSS SPECIFIC PROGRAMMING AND ZONING REQUIREMENTS. EACH NETWORKED OR STANDALONE SYSTEM SHALL BE PROGRAMMED TO REVERT BACK TO ITS NORMAL "ON" POSITION ONE HOUR AFTER SELECTING A SCENE OR RAISING OR LOWERING A LIGHTING ZONE.

COMMISSIONING: COMMISSION EACH PORTION OF THE LIGHTING CONTROL SYSTEMS AT THE COMPLETION OF THE PROJECT TO VERIFY THAT THE SYSTEM PERFORMS AS INTENDED. COORDINATE COMMISSION SERVICES WITH COMMISSIONING AGENT. ASSIST THE OWNER IN PROGRAMMING AND MAPPING THE SYSTEM FOR INTEGRATION INTO THE BACNET BUILDING MANAGEMENT SYSTEM TO THEIR SATISFACTION.

RETRO - COMMISSIONING: DURING THE ONE YEAR WARRANTY PERIOD, PROVIDE RETRO-COMMISSIONING SERVICES AT THREE MONTH, SIX MONTH, NINE MONTH, AND ONE YEAR MARKS. PROVIDE AT LEAST 8 HOURS OF COMMISSIONING SERVICE FOR EACH OF THE FOUR RETRO-COMMISSIONING PERIODS. THIS WILL INCLUDE MEETING WITH THE OWNER TO RECEIVE FEEDBACK ON THE SYSTEM AND MAKING CHANGES TO THE SYSTEM INCLUDING PROGRAMMING, TASK TUNING, ETC.

TRAINING: PROVIDE EIGHT HOURS OF TRAINING FROM A FACTORY TRAINED AND CERTIFIED TECHNICIAN AT THE COMPLETION OF THE PROJECT. SCHEDULE TRAINING WITH THE OWNER.

BIDDING REQUIREMENTS (OWNER SPECIFIC MANUFACTURERS): BIDDERS SHALL BREAK OUT THE LIGHT FIXTURE PACKAGE SEPARATE FROM THE LIGHTING CONTROL SYSTEM. ALL SPECIAL FEATURES PERTAINING TO LIGHTING CONTROLS ASSOCIATED WITH THE LIGHT FIXTURES SHALL BE CONSIDERED LIGHTING CONTROLS. BIDDERS WHO DO NOT CONFORM TO THIS REQUIREMENT MAY BE DISQUALIFIED.

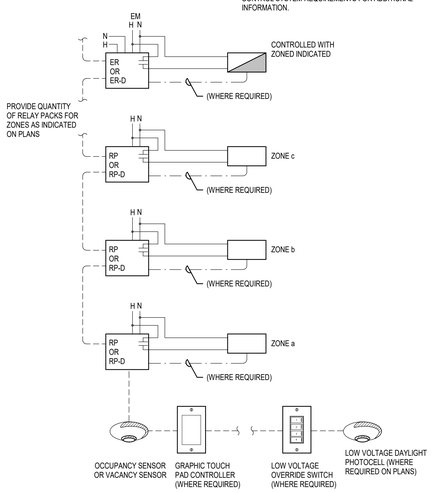
LIGHTING WIRING DIAGRAMS

SYMBOL	DESCRIPTION	MOUNTING	REMARKS
	LIGHT SWITCH	+48"	
	LOW VOLTAGE LIGHT SWITCH	+48"	
	WALL MOUNT GRAPHIC TOUCH PAD CONTROLLER	+48"	
	OCCUPANCY SENSOR OR VACANCY SENSOR (AS NOTED ON PLANS)	CEILING	
	DIGITAL DAYLIGHT SENSOR	CEILING	
a	NORMAL POWER LIGHTING LOAD	CEILING	"a" LOWER CASE LETTER SPECIFIES ZONE
a	EMERGENCY POWER LIGHTING LOAD	CEILING	"a" LOWER CASE LETTER SPECIFIES ZONE
H N / XX	RP: RELAY PACK RP-D: DIMMING RELAY PACK LC: RECEPTACLE LOAD CONTROLLER	ABOVE ACCESSIBLE CEILING	RELAYS MAY BE COMBINED IN ROOM CONTROLLER OR POWER PACKS.
EM H N / N H / EXX	ER: EMERGENCY RELAY PACK ER-D: EMERGENCY DIMMING RELAY PACK	ABOVE ACCESSIBLE CEILING	RELAYS MAY BE COMBINED IN ROOM CONTROLLER OR POWER PACKS. MUST BE UL 924 RATED FOR EMERGENCY LOADS.
———	3/4"C WITH LIGHTING BRACH CIRCUIT WIRING		
— · — · — · —	3/4"C WITH 0-10V DIMMING WIRING		
– – – – – –	3/4"C WITH CAT 5 CABLING		

LIGHTING CONTROL NOTES

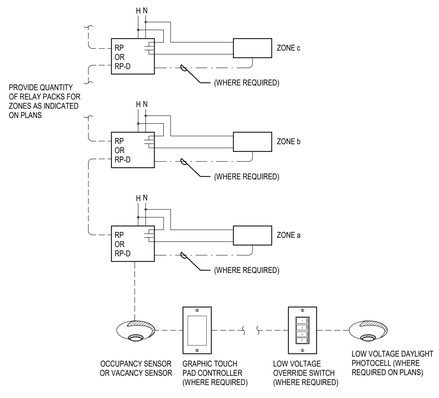
1. PROGRAMMING SHALL BE COMPLETED BY THE CONTRACTOR PRIOR TO SUBSTANTIAL COMPLETION.
2. CONTRACTOR SHALL MODIFY PROGRAMMING AND PRESET SCENES AS REQUESTED BY OWNER.
3. PROVIDE FINE TUNING PROGRAMMING MODIFICATIONS AS REQUESTED BY THE OWNER WITHIN 6 MONTHS AFTER BUILDING OCCUPANCY.
4. IN ADDITION TO PRESET SCENES PROVIDE INDIVIDUAL CONTROL FOR EACH ZONE.
5. ALL WIRING DIAGRAMS ARE GENERAL IN NATURE. SPECIFIC CONFIGURATION AND QUANTITIES DUE TO MANUFACTURER AVAILABILITY WILL VARY. CONTRACTOR MUST PROVIDE ALL REQUIRED PARTS OF THE SYSTEM TO PERFORM AS INTENDED.
6. REFER TO FLOOR PLANS FOR EXACT DEVICE COUNT, DEVICE TYPE, QUANTITY OF POWER PACKS, AND PHOTOCELL SETTINGS.

1. ROOM CONTROLLERS OR POWER PACKS WITH MULTIPLE RELAYS INCLUDED MAY BE PROVIDED IN LIEU OF SEPARATE RELAYS SHOWN.
2. LIGHTING SHALL NOT DIM BELOW 1 FC OF ILLUMINATION PER IBC 1008.2.1 DURING NORMAL OPERATION. UPON POWER LOSS, REFER TO LIGHTING CONTROL SYSTEM REQUIREMENTS FOR ADDITIONAL INFORMATION.



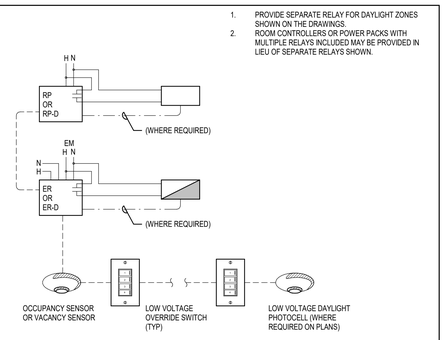
5 LCP TYPICAL ZONED LOW-VOLTAGE WITH EGRESS WIRING DIAGRAM
SCALE: NTS

1. ROOM CONTROLLERS OR POWER PACKS WITH MULTIPLE RELAYS INCLUDED MAY BE PROVIDED IN LIEU OF SEPARATE RELAYS SHOWN.

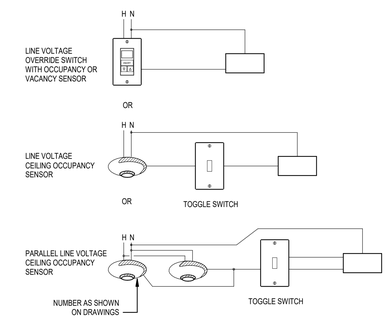


2 LCP TYPICAL ZONED LOW-VOLTAGE WIRING DIAGRAM
SCALE: NTS

1. PROVIDE SEPARATE RELAY FOR DAYLIGHT ZONES SHOWN ON THE DRAWINGS.
2. ROOM CONTROLLERS OR POWER PACKS WITH MULTIPLE RELAYS INCLUDED MAY BE PROVIDED IN LIEU OF SEPARATE RELAYS SHOWN.

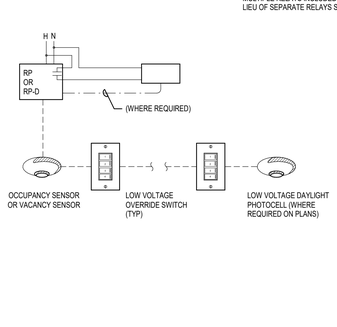


4 LCP TYPICAL LOW-VOLTAGE WITH EGRESS WIRING DIAGRAM
SCALE: NTS



8 LCP TYPICAL LINE VOLTAGE WIRING DIAGRAM
SCALE: NTS

1. PROVIDE SEPARATE RELAY FOR DAYLIGHT ZONES SHOWN ON THE DRAWINGS.
2. ROOM CONTROLLERS OR POWER PACKS WITH MULTIPLE RELAYS INCLUDED MAY BE PROVIDED IN LIEU OF SEPARATE RELAYS SHOWN.



7 LCP TYPICAL LOW-VOLTAGE WIRING DIAGRAM
SCALE: NTS

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0357704-2202
TREVOR REED SPENCER
STATE OF UTAH

DATE:	PROJECT #:
05/03/2024	22711

SHEET NAME:
LIGHTING DETAILS - TYPICAL

SHEET #:
EL502

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LIGHTING LOW VOLTAGE PUSHBUTTON SWITCH SCHEDULE

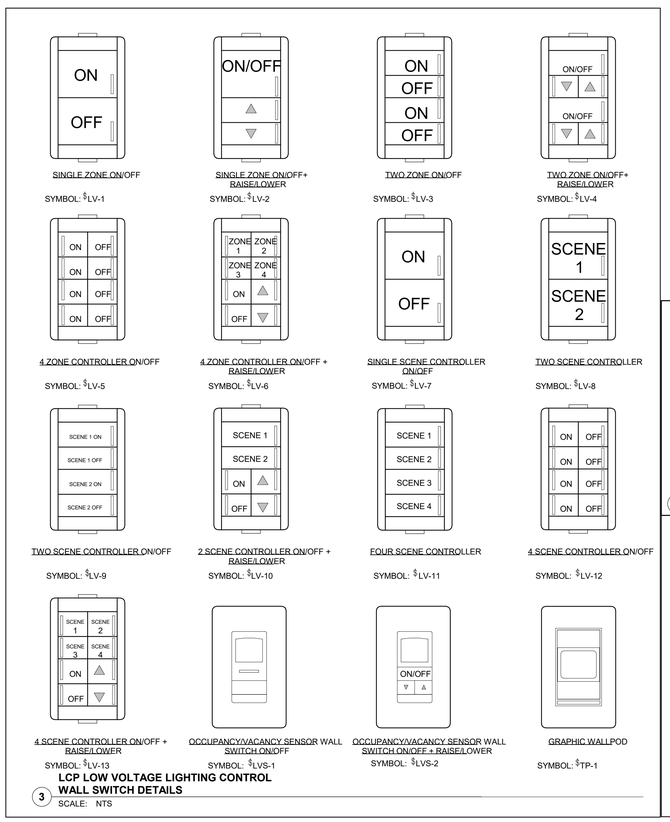
SWITCH ID	BUTTON QUANTITY	SENSOR	MODEL #	FUNCTION	DESCRIPTION
LV-1	2		nLight nPODM	ON/OFF	ON/OFF, ONE ZONE OR MULTIPLE ZONES ALL CONTROLLED TOGETHER
LV-2	3		nLight nPODM DX	ON/OFF, MANUAL RAISE/LOWER	ON/OFF WITH MANUAL RAISE/LOWER, ONE ZONE OR MULTIPLE ZONES ALL CONTROLLED TOGETHER
LV-2E	3		nLight nPODM DX LT	ON/OFF, MANUAL RAISE/LOWER	ON/OFF WITH MANUAL RAISE/LOWER, ONE ZONE OR MULTIPLE ZONES ALL CONTROLLED TOGETHER RATED FOR EXTERIOR USE
LV-3	4		nLight nPODM 2P	ON/OFF	ON/OFF, TWO ZONES WITH INDIVIDUAL CONTROL
LV-4	6		nLight PODM 2P DX	ON/OFF, MANUAL RAISE/LOWER	ON/OFF WITH MANUAL RAISE/LOWER, TWO ZONES WITH INDIVIDUAL CONTROL
LV-5	8		nLight nPODM 4P	ON/OFF, SCENE CONTROL	ON/OFF, FOUR ZONES WITH INDIVIDUAL CONTROL
LV-6	8		nLight nPODM 4P DX	ON/OFF, MANUAL RAISE/LOWER	ON/OFF WITH MANUAL RAISE/LOWER, FOUR ZONES WITH INDIVIDUAL CONTROL
LV-7	2		nLIGHT nPODM 1SB	ON/OFF, SCENE CONTROL	ON/OFF, ONE SCENE, SINGLE OR MULTIPLE ZONES ALL CONTROLLED TOGETHER
LV-8	2		nLIGHT nPODM 2S	ON/OFF, SCENE CONTROL	ON/OFF, TWO SCENES
LV-9	4		nLIGHT nPODM 2SB	ON/OFF, SCENE CONTROL	ON/OFF, TWO SCENES WITH INDIVIDUAL CONTROL
LV-10	6		nLIGHT nPODM 2S DX	ON/OFF, MANUAL RAISE/LOWER, SCENE CONTROL	ON/OFF WITH MANUAL RAISE/LOWER, TWO SCENES WITH INDIVIDUAL CONTROL
LV-11	4		nLIGHT nPODM 4S	ON/OFF, SCENE CONTROL	ON/OFF, FOUR SCENES
LV-12	8		nLIGHT nPODM 4SB	ON/OFF, SCENE CONTROL	ON/OFF, FOUR SCENES WITH INDIVIDUAL CONTROL
LV-13	8		nLIGHT nPODM 4S DX	ON/OFF, MANUAL RAISE/LOWER, SCENE CONTROL	ON/OFF WITH MANUAL RAISE/LOWER, FOUR SCENES WITH INDIVIDUAL CONTROL
LV-14	4		nLIGHT nPODM 4S EDUTW	COLOR TEMPERATURE CONTROL (TUNABLE WHITE)	TUNABLE WHITE SET AT 2700K, 3000K, 3500K, AND 4000K. SECOND SWITCH TO BE PROVIDED FOR CONTROL OF ON/OFF AND MANUAL RAISE/LOWER FOR INDIVIDUAL ZONES.
LVS-1	1	DUAL TECHNOLOGY, PHOTOCELL	nLIGHT nWSX PDT LV	ON/OFF	ON/OFF, VACANCY SENSOR AND PHOTOCELL CONTROL
LVS-2	3	DUAL TECHNOLOGY, PHOTOCELL	nLIGHT nWSX PDT LV DX	ON/OFF, MANUAL RAISE/LOWER	ON/OFF WITH MANUAL RAISE/LOWER, VACANCY SENSOR AND PHOTOCELL CONTROL

LIGHTING LOW VOLTAGE TOUCH SCREEN SWITCH SCHEDULE

SWITCH ID	BUTTON QUANTITY	SENSOR	MODEL #	FUNCTION	DESCRIPTION
TP-1	TOUCH SCREEN		nLIGHT nPOD GFX	ON/OFF, MANUAL RAISE/LOWER, SCENE CONTROL	PROGRAMMABLE GRAPHICAL 3.5" TOUCH SCREEN COLOR DISPLAY (AND 120/277V POWER SUPPLY) DISPLAY UP TO 16 CONTROL BUTTONS INCLUDING ON/OFF, MANUAL RAISE/LOWER, SCENE CONTROL, ETC. CONTROL UP TO 8 ZONES
TP-2	TOUCH SCREEN		ACUITY FRESCO FCS 7TSN FCS PS10	ON/OFF, MANUAL RAISE/LOWER, ZONE AND SCENE CONTROL	PROGRAMMABLE GRAPHICAL 7" X 5" CAPACITIVE LCD BACKLIT TOUCH SCREEN, COLOR, MULTI TOUCH DISPLAY (AND 120/277V POWER SUPPLY). DISPLAY MULTIPLE SCREENS OF CONTROL BUTTONS INCLUDING ON/OFF, MANUAL RAISE/LOWER, SCENE CONTROL, ETC. 36 INDIVIDUAL CHANNELS AND SCENES. PARTITION STATUS CONTROL.

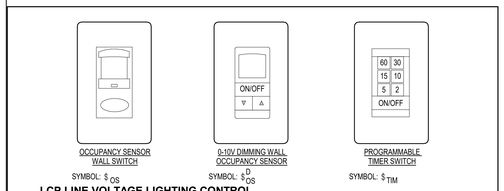
LIGHTING LINE VOLTAGE PUSHBUTTON SWITCH SCHEDULE

SWITCH ID	BUTTON QUANTITY	SENSOR	MODEL #	FUNCTION	DESCRIPTION
TIM	7		Sensor Switch PTS 720	ON/OFF PRESET COUNTDOWN TIMERS	TIMED ON/OFF, ONE ZONE OR MULTIPLE ZONES ALL CONTROLLED TOGETHER INDIVIDUAL BUTTONS FOR 30 MIN, 1, 2, 4, 8, AND 12 HOURS
WS-1	2		Sensor Switch sPODM	ON/OFF,	ON/OFF, ONE ZONE OR MULTIPLE ZONES ALL CONTROLLED TOGETHER
WS-2	3		Sensor Switch nPODMD	ON/OFF, MANUAL RAISE/LOWER	ON/OFF WITH MANUAL RAISE/LOWER, ONE ZONE OR MULTIPLE ZONES ALL CONTROLLED TOGETHER
WS-3	1	DUAL TECHNOLOGY, PHOTOCELL	Sensor Switch WSX PDT SA	ON/OFF	ON/OFF, VACANCY SENSOR AND PHOTOCELL CONTROL
WS-4	3	DUAL TECHNOLOGY, PHOTOCELL	Sensor Switch WSX PDT D SA	ON/OFF, MANUAL RAISE/LOWER	ON/OFF WITH MANUAL RAISE/LOWER, VACANCY SENSOR AND PHOTOCELL CONTROL
WS-5	2	DUAL TECHNOLOGY, PHOTOCELL	Sensor Switch WSX 2P FAN	ON/OFF	ON/OFF. 2 ZONES CONTROLLED SEPARATELY (1 LABELED FOR LIGHTS 1 LABELED FOR FAN), VACANCY SENSOR AND PHOTOCELL CONTROL. EACH ZONE TO BE SEPARATELY PROGRAMMABLE FOR TIME DELAY, MINIMUM ON TIME, ETC.



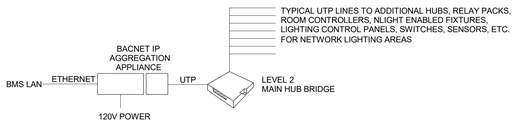
SINGLE ZONE ON/OFF — SYMBOL: ^{S}LV-1
SINGLE ZONE ON/OFF+ RAISE/LOWER — SYMBOL: ^{S}LV-2
TWO ZONE ON/OFF — SYMBOL: ^{S}LV-3
TWO ZONE ON/OFF+ RAISE/LOWER — SYMBOL: ^{S}LV-4
4 ZONE CONTROLLER ON/OFF — SYMBOL: ^{S}LV-5
4 ZONE CONTROLLER ON/OFF + RAISE/LOWER — SYMBOL: ^{S}LV-6
SINGLE SCENE CONTROLLER ON/OFF — SYMBOL: ^{S}LV-7
TWO SCENE CONTROLLER — SYMBOL: ^{S}LV-8
TWO SCENE CONTROLLER ON/OFF — SYMBOL: ^{S}LV-9
2 SCENE CONTROLLER ON/OFF + RAISE/LOWER — SYMBOL: ^{S}LV-10
FOUR SCENE CONTROLLER — SYMBOL: ^{S}LV-11
4 SCENE CONTROLLER ON/OFF — SYMBOL: ^{S}LV-12
4 SCENE CONTROLLER ON/OFF + RAISE/LOWER — SYMBOL: ^{S}LV-13
OCCUPANCY/VACANCY SENSOR WALL SWITCH ON/OFF — SYMBOL: ^{S}LVS-1
OCCUPANCY/VACANCY SENSOR WALL SWITCH ON/OFF + RAISE/LOWER — SYMBOL: ^{S}LVS-2
GRAPHIC WALLPOD — SYMBOL: ^{S}TP-1

3 LCP LOW VOLTAGE LIGHTING CONTROL WALL SWITCH DETAILS
SCALE: NTS



OCCUPANCY SENSOR WALL SWITCH — SYMBOL: $^{S}_{OS}$
0-10V DIMMING WALL OCCUPANCY SENSOR — SYMBOL: $^{S^{D}}_{OS}$
PROGRAMMABLE TIMER SWITCH — SYMBOL: $^{S}_{TIM}$

2 LCP LINE VOLTAGE LIGHTING CONTROL WALL SWITCH DETAILS
SCALE: NTS



4 LIGHTING CONTROL NETWORK RISER DIAGRAM
SCALE: NTS

LIGHT FIXTURE SCHEDULE

TYPE	DESCRIPTION	SOURCE	ELECTRICAL VOLTAGE	ELECTRICAL LOAD	APPROVED MANUFACTURERS	CATALOG INFORMATION CATALOG NUMBER / SERIES	COMMENTS / NOTES
DR61	OPEN REFLECTOR ROUND LED RECESSED DOWNLIGHT WITH 6" APERTURE. SEMI-SPECULAR, MATTE-DIFFUSE REFLECTOR.	LAMP TYPE: LED, 80CRI LUMENS: 1500 DIMMING: 0-10, 1% COLOR TEMP: 4000K	277 V	18	LITHONIA (OR APPROVED EQUIVALENT)	LDN6 40/15 L06 AR LSS MVOLT GZ1	
GA22	2X2 LOW GLARE BACK-LIT PANEL, METAL FRAME, SATIN WHITE LENS, LOW PROFILE. SATIN WHITE LENS. LOW-PROFILE. DIMENSION: MOUNTING: MATERIAL: COLOR: LENS MATERIAL: LENS REFLECTOR DISTRIBUTION TYPE:	LAMP TYPE: LED, 80CRI LUMENS: 3659 DIMMING: 0-10V, 10% COLOR TEMP: 4000K	277 V	32	LITHONIA (OR APPROVED EQUIVALENT)	CPX 2X2 3200LM 40K M4	
GA42	4X2 LOW GLARE BACK-LIT PANEL, METAL FRAME, SATIN WHITE LENS, LOW PROFILE. SATIN WHITE LENS. LOW-PROFILE. DIMENSION: MOUNTING: MATERIAL: COLOR: LENS MATERIAL: LENS REFLECTOR DISTRIBUTION TYPE:	LAMP TYPE: LED, 80CRI LUMENS: 4692 DIMMING: 0-10V, 10% COLOR TEMP: 4000K	277 V	39	LITHONIA (OR APPROVED EQUIVALENT)	CPX 2X4 4000LM 40K M4	
PL1	LINEAR PENDANT LED WITH INDIRECT/DIRECT LIGHT. FORMED STEEL HOUSING. ALUMINUM FINISH. ACRYLIC LENS AND ACRYLIC DUST COVER FOR INDIRECT PORTION. T-BAR CEILING MOUNTED WITH INTEGRATED J-BOX. 39' ADJUSTABLE AIRCRAFT CABLE. FLAT ENDCAPS. MATCHING CANOPIES AT SUPPORTS. LENGTH SHOWN ON PLANS (IN 4' SECTIONS).	LAMP TYPE: LED, 80CRI LUMENS: 1000 LMF INDIRECT 200 LMF DIRECT DIMMING: 0-10V, 1% COLOR TEMP: 4000K	277 V	6	LITHONIA (OR APPROVED EQUIVALENT)	GRD LSL 24FT MSL4 80CRI 40K ID1000LMF 80/20 MIN1 ZT 277 SCT 1EC FA/12F C110	
PL2	LINEAR PENDANT LED WITH INDIRECT/DIRECT LIGHT. FORMED STEEL HOUSING. ACRYLIC LENS AND ACRYLIC DUST COVER FOR INDIRECT PORTION.	LAMP TYPE: LED, 80CRI LUMENS: 400 LMF INDIRECT 100 LMF DIRECT DIMMING: 0-10, 1% COLOR TEMP: 4000K	277 V	10	MARK (OR APPROVED EQUIVALENT)	S2PID LSL 6FT MSL6 80CRI 40K 1000LMF I80CRI I40K I400LMF SCT MIN1 FLL DC 277 WHTT NS	
UC1	40"X4" CABINET LIGHT WITH ADJUSTABLE KELVIN. CONTINUOUS RUN OPTION WITH COUPLER INCLUDED. ALUMINUM HOUSING, INTEGRATED HIGH/LOW/OFF SWITCH.	LAMP TYPE: LED, 90 CRI LUMENS: 1060 DIMMING: 0-10V, HIGH/LOW SWITCH COLOR TEMP: 3000K/3500K/4000K	120 V	8	KELVIX (OR APPROVED EQUIVALENT)	UC40 3040 010V 120277 WH	ADJUSTABLE COLOR TEMP
WV21	2' SQUARE VANITY FIXURE. BRUSHED NICKEL FINISH. WHITE ACRYLIC LENS.	LAMP TYPE: LED, 90CRI LUMENS: 1550/1725/1740 DIMMING: TRIAC, 0-10V COLOR TEMP: 3000K/3500K/4000K	277 V	27	LITHONIA (OR APPROVED EQUIVALENT)	FMVCSLS 24IN MVOLT 30K35K40K 90CRI BZ	

LIGHT FIXTURE GENERAL NOTES

1. REFER TO THE ARCHITECTURAL REFLECTED CEILING PLANS FOR LOCATIONS OF LIGHT FIXTURES. BRING ALL DISCREPANCIES OF LOCATIONS AND QUANTITIES TO THE ATTENTION OF THE ARCHITECT PRIOR TO BIDDING.
2. CONFIRM MOUNTING HEIGHTS AND LOCATIONS OF ALL LIGHT FIXTURES WITH ARCHITECTURAL ELEVATIONS AND / OR ARCHITECT.
3. REFER TO THE SPECIFICATIONS FOR OTHER LIGHT FIXTURE REQUIREMENTS.
4. CONFIRM AVAILABLE MOUNTING DEPTHS OF ALL LIGHT FIXTURES AND COMPARE WITH DEPTHS SHOWN ON SHOP DRAWINGS. BRING ALL POTENTIAL CONFLICT AREAS TO THE ATTENTION OF THE ARCHITECT AND ELECTRICAL ENGINEER PRIOR TO RELEASE.
5. ALL LIGHT FIXTURES ARE TO BE 3500K FOR INTERIOR APPLICATIONS AND 4000K FOR EXTERIOR APPLICATIONS, UNLESS OTHERWISE NOTED IN THE FIXTURE DESCRIPTION.
6. ALL LIGHT FIXTURES ARE TO BE A MINIMUM OF 80 CRI UNLESS OTHERWISE NOTED IN THE FIXTURE DESCRIPTION.
7. ALL LED SOURCES MUST MEET L80 AT 50,000 HRS MINIMUM UNLESS OTHERWISE NOTED.
8. CONFIRM ALL MOUNTING REQUIREMENTS WITH ARCHITECT PRIOR TO RELEASE.
9. ALL LIGHT FIXTURES ARE TO HAVE AN EFFICACY OF 80 LUMENS PER WATT MINIMUM.

BIDDING REQUIREMENTS

1. BID ONLY PRODUCTS THAT ARE SPECIFIED OR APPROVED BY ADDENDUM.
2. PACKAGING OF LIGHT FIXTURES WITH OTHER SYSTEMS IS NOT ALLOWED AND MUST BE BID SEPARATELY. I.E. LIGHT FIXTURES, THEATRICAL LIGHTING, SPORTS LIGHTING AND ALL LIGHTING CONTROLS.
3. WHEN ONLY ONE PRODUCT IS APPROVED FOR BIDDING, THE PRICE FOR THAT ITEM SHALL BE BROKEN OUT SEPARATELY WHEN SUBMITTING PRICING TO VARIOUS DISTRIBUTORS AND / OR CONTRACTOR.
4. WHEN A CONTRADICTION EXISTS BETWEEN A SPECIFIC MODEL NUMBER AND THE DESCRIPTION, THE DESCRIPTION SHALL GOVERN.

LIGHT FIXTURE PRIOR APPROVAL REQUIREMENTS

1. PRIOR APPROVAL IS REQUIRED BEFORE BIDDING THIS PROJECT.
2. PRIOR APPROVALS SHALL BE SUBMITTED TO THE ELECTRICAL ENGINEER'S OFFICE AT LEAST (8) WORKING DAYS BEFORE BID TIME. PRIOR APPROVALS RECEIVED AFTER THIS TIME PERIOD SHALL BE REJECTED.
3. ITEMS THAT ARE SUBMITTED AND HAVE BEEN APPROVED WILL BE LISTED IN THE ADDENDUM(S). VERBAL APPROVALS WILL NOT BE GIVEN ON ANY ITEM.
4. IT IS NOT THE RESPONSIBILITY OF THE ELECTRICAL ENGINEER TO NOTIFY THE SUBMITTING PARTY OF ERRORS IN THE SUBMITTAL. NOTIFICATION OF ERRORS BY THE ELECTRICAL ENGINEER PRIOR TO ISSUANCE OF THE ADDENDUM(S) MAY NOT BE GIVEN.
5. PRIOR APPROVALS SHALL CONSIST OF CUT SHEETS DESCRIBING THE PRODUCTS BEING SUBMITTED AS EQUIVALENTS. ALL SPECIFICATION INFORMATION SHALL BE CLEARLY MARKED. PRODUCTS WITHOUT PHOTOMETRIC DATA WILL NOT BE APPROVED.
6. LIGHTING PACKAGES WILL BE REVIEWED FOR GENERAL PROJECT COMPLIANCE ONLY. AN IN-DEPTH REVIEW OF ANY ALTERNATE FIXTURES WILL BE DONE DURING THE SUBMITTAL REVIEW PROCESS. ANY FIXTURES THAT ARE NOT TRULY EQUAL, AND / OR DO NOT COMPLY WITH ALL OF THE REQUIREMENTS CONTAINED IN THE CONTRACT DOCUMENTS, WILL NOT BE APPROVED. IF EQUIMENT IS DISAPPROVED FOR BIDDING, CONTRACTOR SHALL SUPPLY SPECIFIED EQUIPMENT AT NO EXTRA COST TO THE OWNER.

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DATE: 05/03/2024
PROJECT #: 22711

SHEET NAME:
LIGHT FIXTURE SCHEDULE

SHEET #:
EL601

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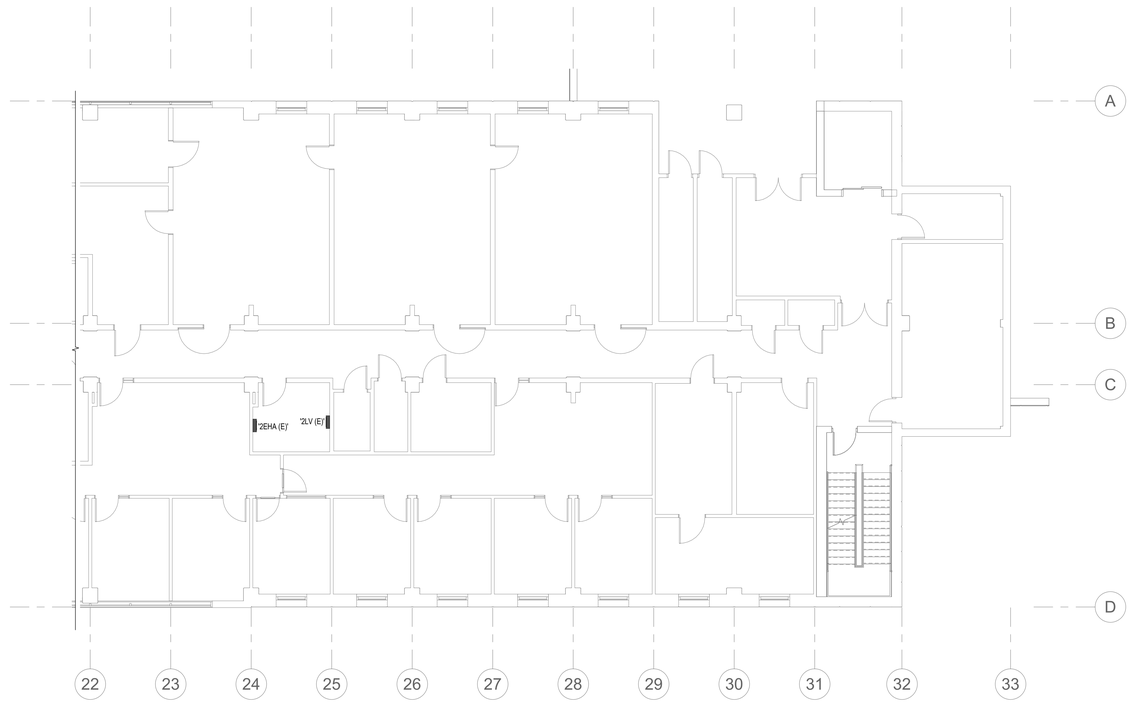
1 **LEVEL 2 NORTH - POWER PLAN**
SCALE: **1/8" = 1'-0"**



2 **LEVEL 2 SOUTH - POWER PLAN**
SCALE: **1/8" = 1'-0"**

POWER GENERAL NOTES:

1. ALL 120V, 20AMP OUTLETS THAT ARE WITHIN 6' OF ANY SINK SHALL BE GFCI.
2. THE DIVISION 26 CONTRACTOR SHALL DETERMINE THE EXACT ROUTING OF ALL CONDUITS IN THE FIELD. THIS PLAN REPRESENTS A SCHEMATIC REPRESENTATION OF DEVICE LOCATIONS AND CONDUIT RUNS.

KEYED NOTES (#)

G1 ALL WORK IN THIS AREA TO BE INCLUDED AS PART OF ALTERNATE #1.

P6 PROVIDE POWER, DATA, AND HDMI CONNECTIONS FOR DISPLAY. REFER TO DETAIL 7/EC501 FOR ROUGH-IN REQUIREMENTS. PROVIDE 1-1/2" CONDUIT FOR HDMI FROM DISPLAY BACKBOX TO POKE-THRU BENEATH TABLE.

P7 CORE DRILL POKE-THRU PER ALL MANUFACTURER'S RECOMMENDATIONS. POKE-THRU SHALL HAVE (2) DUPLEX RECEPTACLES, (2) DATA PORTS AND AN HDMI CONNECTOR. COORDINATE EXACT LOCATION WITH ARCHITECT PRIOR TO ROUGH-IN.

P10 REUSE EXISTING BACKBOX AND PROVIDE ALL NEW RECEPTACLE, FACEPLATE, AND CIRCUITING. REUSE CONDUIT WHERE POSSIBLE, PROVIDE NEW WHERE NECESSARY..

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BIOMEDICAL POLYMERS RESEARCH BUILDING - LEVEL 2

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CONSTRUCTION DOCUMENTS

SEAL:

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05/03/2024
8357784-2202
TREVOR REED SPENCER
STATE OF UTAH

DATE: **05/03/2024**
PROJECT #: **22711**

SHEET NAME:
LEVEL 2 - POWER PLAN

SHEET #: **EP101**

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POWER GENERAL NOTES:

1. ALL 120V, 20AMP OUTLETS THAT ARE WITHIN 6' OF ANY SINK SHALL BE GFCI.
2. THE DIVISION 26 CONTRACTOR SHALL DETERMINE THE EXACT ROUTING OF ALL CONDUITS IN THE FIELD. THIS PLAN REPRESENTS A SCHEMATIC REPRESENTATION OF DEVICE LOCATIONS AND CONDUIT RUNS.

KEYED NOTES

P1 PROVIDE 2-CHANNEL (PG LABLINK #RW250 SERIES OR APPROVED EQUIVALENT) WITH POWER AND DATA DEVICES AS SHOWN FOR POWER AND DATA AT LAB BENCH. TO BE MOUNTED ON UNDERSIDE OF SHELVING ABOVE LAB BENCH. PROVIDE MINIMUM OF (1) 1.5" CONDUIT WITH PULL STRING AND PLASTIC BUSHING ON END OF CONDUIT FROM DATA RACEWAY CHANNEL TO ACCESSIBLE CEILIG SPACE. REFER TO ARCHITECTURAL DETAILS FOR EXACT PLACEMENT OF RACEWAY.

P2 PROVIDE RECEPTACLE MOUNTED IN LEG SPACE BELOW LAB BENCH. COORDINATE EXACT LOCATION PRIOR TO ROUGH-IN.

P3 PROVIDE 2-CHANNEL (PG LABLINK #RW250 SERIES OR APPROVED EQUIVALENT) WITH POWER AND DATA DEVICES AS SHOWN. TO BE WALL MOUNTED ABOVE COUNTER . PROVIDE MINIMUM OF (1) 1.5" CONDUIT WITH PULL STRING AND PLASTIC BUSHING ON END OF CONDUIT FROM DATA RACEWAY CHANNEL TO ACCESSIBLE CEILIG SPACE. REFER TO ARCHITECTURAL DETAILS FOR EXACT PLACEMENT OF RACEWAY.

P4 PROVIDE POWER FOR BIOLOGICAL SAFETY CABINET. MAKE ALL REQUIRED CONNECTIONS. COORDINATE WITH MECHANICAL PRIOR TO ROUGH-IN.

P5 PROVIDE 1-CHANNEL (PG LABLINK #RW155 SERIES OR APPROVED EQUIVALENT) WITH POWER DEVICES AS SHOWN. TO BE WALL MOUNTED ABOVE COUNTER. REFER TO ARCHITECTURAL DETAILS FOR EXACT PLACEMENT OF RACEWAY.

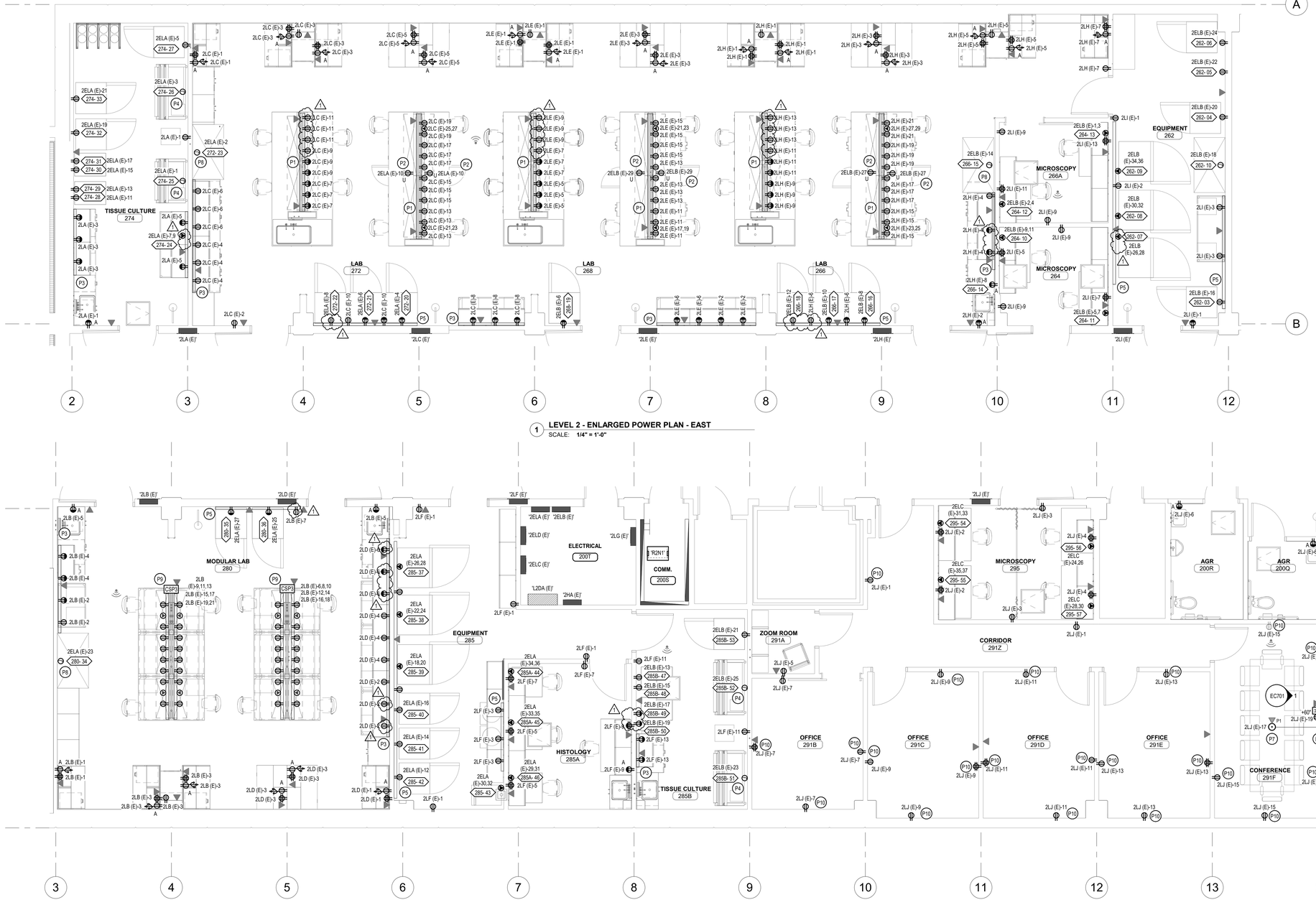
P6 PROVIDE POWER, DATA, AND HDMI CONNECTIONS FOR DISPLAY. REFER TO DETAIL 7/EC501 FOR ROUGH-IN REQUIREMENTS. PROVIDE 1-1/2" CONDUIT FOR HDMI FROM DISPLAY BACKBOX TO POKE-THRU BENEATH TABLE.

P7 CORE DRILL POKE-THRU PER ALL MANUFACTURER'S RECOMMENDATIONS. POKE-THRU SHALL HAVE (2) DUPLEX RECEPTACLES, (2) DATA PORTS AND AN HDMI CONNECTOR. COORDINATE EXACT LOCATION WITH ARCHITECT PRIOR TO ROUGH-IN.

P8 PROVIDE POWER TO EXISTING CHEMICAL HOOD. EXTEND CONDUIT AND WIRING AS REQUIRED FOR A FULLY FUNCTIONAL SYSTEM.

P9 PROVIDE POWER CONNECTIONS FOR LAB BENCH IN CEILING SERVICE PANEL. PROVIDE (1) NEMA L21-20 FOR ALL THREE CIRCUITS OF DUPLEX RECEPTACLES, PLUS (2) NEMA L14-20 FOR THE 2 SPECIALTY RECEPTACLES. COORDINATE WITH LAB SYSTEMS FURNITURE INSTALLER.

P10 REUSE EXISTING BACKBOX AND PROVIDE ALL NEW RECEPTACLE, FACEPLATE, AND CIRCUITING. REUSE CONDUIT WHERE POSSIBLE, PROVIDE NEW WHERE NECESSARY..



1 LEVEL 2 - ENLARGED POWER PLAN - EAST
SCALE: 1/4" = 1'-0"

2 LEVEL 2 - ENLARGED POWER PLAN - WEST
SCALE: 1/4" = 1'-0"

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1	05/09/2024	DFCM - RD1

REVIEWED FOR CODE COMPLIANCE
05/17/2024
Shums Coda Associates

BIOMEDICAL POLYMERS RESEARCH BUILDING - LEVEL 2

20 SOUTH 2030 EAST, SALT LAKE CITY, UTAH 84112

CONSTRUCTION DOCUMENTS

SEAL:
PROFESSIONAL ENGINEERS
05/03/2024
#9357784 - 2202
TREVOR REED SPENCER
STATE OF UTAH

DATE: 05/03/2024
PROJECT #: 22711

SHEET NAME:
ENLARGED POWER PLANS

SHEET #:
EP401

ENVISION ENGINEERING
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ENV:2023-248.00

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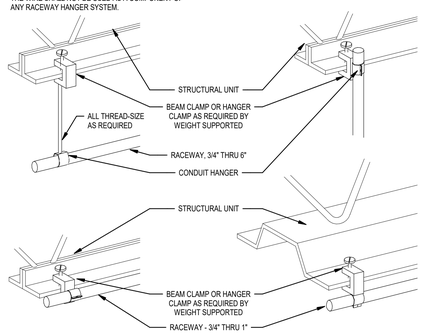
NOTES:

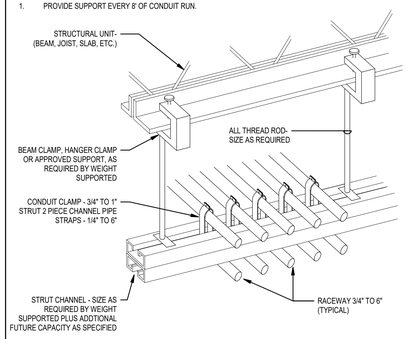
1. THE WIRE SHALL NOT BE USED AS A COMPONENT OF ANY RACEWAY HANGER SYSTEM.



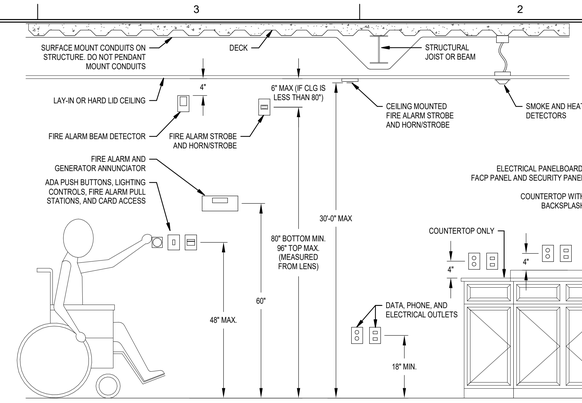
3 TYPICAL SINGLE RACEWAY SUPPORT DETAILS
SCALE: NTS

NOTES:

1. PROVIDE SUPPORT EVERY 8' OF CONDUIT RUN.



2 TYPICAL MULTIPLE RACEWAY SUPPORT DETAIL
SCALE: NTS



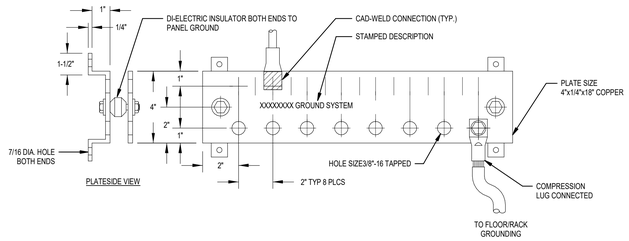
NOTES:

1. MOUNT ALL OUTLETS, DEVICES, AND EQUIPMENT AT HEIGHTS INDICATED BELOW, UNLESS NOTED OTHERWISE ON THE DRAWINGS. UNLESS NOTED OTHERWISE, HEIGHTS ARE GIVEN FROM FINISHED FLOOR TO CENTER OF OUTLET BOX.
2. WHERE OUTLETS, DEVICES AND EQUIPMENT ARE NOTED BY THE SUBSCRIPT 'A', MOUNT AT 4" ABOVE COUNTER. IF COUNTER HAS A BACK SPLASH, MOUNT AT 4" ABOVE BACK SPLASH. REFER TO ARCHITECTURAL INTERIOR ELEVATIONS AND COORDINATE WITH CASEWORK SUPPLIER.

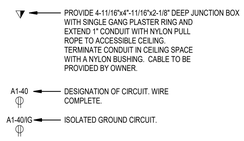
1 TYPICAL ADA AND EQUIPMENT MOUNTING HEIGHT DETAIL
SCALE: NTS

NOTES:

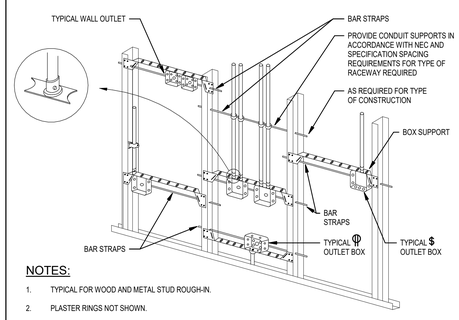
1. SUPPORT FROM WALL 12 INCHES ABOVE FINISHED GRADE, UNLESS NOTED OTHERWISE.
2. PROVIDE IN EACH NEW ELECTRICAL AND IT ROOM.
3. EXTEND ALL BUILDING MAIN GROUNDING CONDUCTOR TO THE MAIN BUILDING GROUNDING BUS.
4. SEE SPECIFICATION SECTION 260452 FOR DETAILS.



6 GROUNDING BUS DETAIL
SCALE: NTS



5 TYPICAL OUTLET CONVENTION
SCALE: NTS



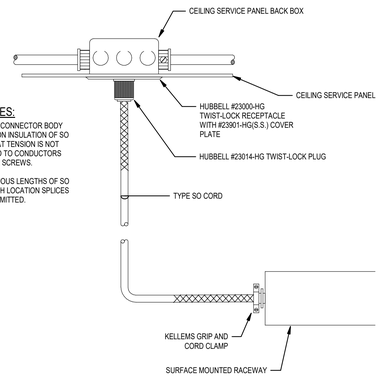
NOTES:

1. TYPICAL FOR WOOD AND METAL STUD ROUGH-IN.
2. PLASTER RINGS NOT SHOWN.
3. LOCATE ALL OUTLET BOXES IN ACCORDANCE WITH ARCHITECTURAL AND MECHANICAL DRAWINGS, AND WITH ALL APPLICABLE SHOP DRAWINGS.
4. OUTLETS ON OPPOSITE SIDES OF FIRE RATED WALLS OR PARTITIONS IN THE SAME STUD SPACE MUST BE SEPARATED BY A MINIMUM OF 24" HORIZONTAL DISTANCE.

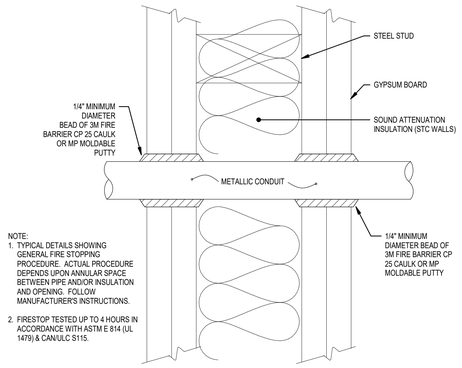
4 TYPICAL ROUGH-IN REQUIREMENTS
SCALE: NTS

GENERAL NOTES:

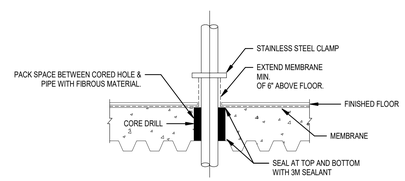
1. USE TYPE OF CONNECTOR BODY THAT GRIPS ON INSULATION OF SO CORD SO THAT TENSION IS NOT TRANSMITTED TO CONDUCTORS OR TERMINAL SCREWS.
2. USE CONTINUOUS LENGTHS OF SO CORD AT EACH LOCATION SPLICES ARE NOT PERMITTED.



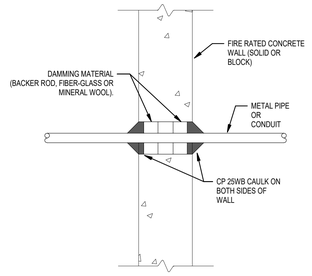
7 TYPICAL CSP CORD DROP DETAIL
SCALE: 6" = 1'-0"



10 TYPICAL GYPBOARD WALL PENETRATION DETAIL
SCALE: 6" = 1'-0"



8 TYPICAL UPPER LEVEL PIPE/CONDUIT FLOOR PENETRATION
SCALE: 6" = 1'-0"



9 TYPICAL CONCRETE WALL PENETRATION DETAIL
SCALE: 6" = 1'-0"

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05/17/2024
Shums Coda Associates

BIOMEDICAL POLYMERS RESEARCH BUILDING - LEVEL 2

20 SOUTH 2030 EAST, SALT LAKE CITY, UTAH 84112

CONSTRUCTION DOCUMENTS

SEAL:



DATE: 05/03/2024
PROJECT #: 22711

SHEET NAME: **POWER DETAILS - TYPICAL**

SHEET #: **EP501**

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EQUIPMENT SCHEDULE

UNIT NAME TYPE	No.	DESCRIPTION	ELECTRICAL INPUT LOAD	TYPE	VOLTS	PHASE	AMPS	Panel	Circuit Number	REMARKS
222	02	UNDER COUNTER REFRIDGERATOR	12.5	FLA	120 V	1	13 A	2LV (E)	14	5-20
262	03	STANDARD REFRIDGERATOR/FREEZER	12.5	FLA	120 V	1	13 A	2ELB (E)	16	5-20
262	04	STANDARD REFRIDGERATOR/FREEZER	12.5	FLA	120 V	1	13 A	2ELB (E)	20	5-20
262	05	STANDARD REFRIDGERATOR/FREEZER	12.5	FLA	120 V	1	13 A	2ELB (E)	22	5-20
262	06	STANDARD REFRIDGERATOR/FREEZER	12.5	FLA	120 V	1	13 A	2ELB (E)	24	5-20
262	07	-80C FREEZER	10	FLA	208 V	1	10 A	2ELB (E)	26,28	L6-20
262	08	-80C FREEZER	10	FLA	208 V	1	10 A	2ELB (E)	30,32	L6-20
262	09	-80C FREEZER	10	FLA	208 V	1	10 A	2ELB (E)	34,36	L6-20
262	10	4' HOOD BIOLOGICAL SAFETY CABINET	8.3	FLA	120 V	1	8 A	2ELB (E)	18	DIRECT CONNECT PER MANUFACTURER
264	10	MICROSCOPE	2.1	KVA	208 V	1	10 A	2ELB (E)	9,11	L14-30P
264	11	MICROSCOPE	2.1	KVA	208 V	1	10 A	2ELB (E)	5,7	L14-30P
264	12	MICROSCOPE	2.1	KVA	208 V	1	10 A	2ELB (E)	2,4	L14-30P
264	13	MICROSCOPE	2.1	KVA	208 V	1	10 A	2ELB (E)	1,3	L14-30P
266	14	ULTRAPURE WATER SYSTEM	5	FLA	120 V	1	5 A	2LH (E)	8	5-20
266	15	4' HOOD BIOLOGICAL SAFETY CABINET	8.3	FLA	120 V	1	8 A	2ELB (E)	14	DIRECT CONNECT PER MANUFACTURER
266	16	STANDARD REFRIDGERATOR/FREEZER	12.5	FLA	120 V	1	13 A	2ELB (E)	8	5-20
266	17	STANDARD REFRIDGERATOR/FREEZER	12.5	FLA	120 V	1	13 A	2ELB (E)	10	5-20
266	18	STANDARD REFRIDGERATOR/FREEZER	12.5	FLA	120 V	1	13 A	2ELB (E)	12	5-20
268	19	STANDARD REFRIDGERATOR/FREEZER	12.5	FLA	120 V	1	13 A	2ELB (E)	6	5-20
272	20	STANDARD REFRIDGERATOR/FREEZER	12.5	FLA	120 V	1	13 A	2ELA (E)	4	5-20
272	21	STANDARD REFRIDGERATOR/FREEZER	12.5	FLA	120 V	1	13 A	2ELA (E)	6	5-20
272	22	STANDARD REFRIDGERATOR/FREEZER	12.5	FLA	120 V	1	13 A	2ELA (E)	8	5-20
272	23	4' HOOD BIOLOGICAL SAFETY CABINET	8.3	FLA	120 V	1	8 A	2ELA (E)	2	DIRECT CONNECT PER MANUFACTURER
274	24	ULTRASPEED CENTRIFUGE	24	FLA	208 V	1	24 A	2ELA (E)	7,9	L6-30
274	25	4' HOOD BIOLOGICAL SAFETY CABINET	8	FLA	120 V	1	8 A	2ELA (E)	1	DIRECT CONNECT PER MANUFACTURER
274	26	4' HOOD BIOLOGICAL SAFETY CABINET	8	FLA	120 V	1	8 A	2ELA (E)	3	DIRECT CONNECT PER MANUFACTURER
274	27	STANDARD REFRIDGERATOR/FREEZER	12.5	FLA	120 V	1	13 A	2ELA (E)	5	5-20
274	28	STACKED INCUBATORS	5	FLA	120 V	1	5 A	2ELA (E)	11	5-20
274	29	STACKED INCUBATORS	5	FLA	120 V	1	5 A	2ELA (E)	13	5-20
274	30	STACKED INCUBATORS	8.3	FLA	120 V	1	8 A	2ELA (E)	15	5-20
274	31	STACKED INCUBATORS	8.3	FLA	120 V	1	8 A	2ELA (E)	17	5-20
274	32	STANDARD REFRIDGERATOR/FREEZER	12.5	FLA	120 V	1	13 A	2ELA (E)	19	5-20
274	33	STANDARD REFRIDGERATOR/FREEZER	12.5	FLA	120 V	1	13 A	2ELA (E)	21	5-20
280	34	4' HOOD BIOLOGICAL SAFETY CABINET	8	FLA	120 V	1	8 A	2ELA (E)	23	DIRECT CONNECT PER MANUFACTURER
280	35	STANDARD REFRIDGERATOR/FREEZER	12.5	FLA	120 V	1	13 A	2ELA (E)	27	5-20
280	36	STANDARD REFRIDGERATOR/FREEZER	12.5	FLA	120 V	1	13 A	2ELA (E)	25	5-20
285	37	-80C FREEZER	10	FLA	208 V	1	10 A	2ELA (E)	26,28	L6-20
285	38	-80C FREEZER	10	FLA	208 V	1	10 A	2ELA (E)	22,24	L6-20
285	39	-80C FREEZER	10	FLA	208 V	1	10 A	2ELA (E)	18,20	L6-20
285	40	STANDARD REFRIDGERATOR/FREEZER	12.5	FLA	120 V	1	13 A	2ELA (E)	16	5-20
285	41	STANDARD REFRIDGERATOR/FREEZER	12.5	FLA	120 V	1	13 A	2ELA (E)	14	5-20
285	42	STANDARD REFRIDGERATOR/FREEZER	12.5	FLA	120 V	1	13 A	2ELA (E)	12	5-20
285	43	ICE MACHINE	16	FLA	208 V	1	16 A	2ELA (E)	30,32	5-20
285A	44	CRYSTAT	1.8	KVA	208 V	1	9 A	2ELA (E)	34,36	6-20
285A	45	CRYSTAT	1.8	KVA	208 V	1	9 A	2ELA (E)	33,35	6-20
285A	46	CRYSTAT	1.8	KVA	208 V	1	9 A	2ELA (E)	29,31	6-20
285B	47	STACKED INCUBATORS	8.3	FLA	120 V	1	8 A	2ELB (E)	13	5-20
285B	48	STACKED INCUBATORS	8.3	FLA	120 V	1	8 A	2ELB (E)	15	5-20
285B	49	STACKED INCUBATORS	8.3	FLA	120 V	1	8 A	2ELB (E)	17	5-20
285B	50	STACKED INCUBATORS	8.3	FLA	120 V	1	8 A	2ELB (E)	19	5-20
285B	51	4' HOOD BIOLOGICAL SAFETY CABINET	5	FLA	120 V	1	5 A	2ELB (E)	23	DIRECT CONNECT PER MANUFACTURER
285B	52	4' HOOD BIOLOGICAL SAFETY CABINET	5	FLA	120 V	1	5 A	2ELB (E)	25	DIRECT CONNECT PER MANUFACTURER
285B	53	STANDARD REFRIDGERATOR/FREEZER	12.5	FLA	120 V	1	13 A	2ELB (E)	21	5-20
295	54	MICROSCOPE	2.1	KVA	208 V	1	10 A	2ELC (E)	31,33	L14-30P
295	55	MICROSCOPE	2.1	KVA	208 V	1	10 A	2ELC (E)	35,37	L14-30P
295	56	MICROSCOPE	2.1	KVA	208 V	1	10 A	2ELC (E)	24,26	L14-30P
295	57	MICROSCOPE	2.1	KVA	208 V	1	10 A	2ELC (E)	28,30	L14-30P

NOTES:
1. ALL EQUIPMENT RECEPTACLES SHALL BE MOUNTED AT +48" UNLESS NOTED OTHERWISE ON PLANS.
2. CONTRACTOR SHALL PROVIDE A CONTINGENCY TO REPLACE RECEPTACLES PER MANUFACTURER'S RECOMMENDATIONS.
3. VERIFY ELECTRICAL REQUIREMENTS BASED ON ACTUAL EQUIPMENT INSTALLED AND IN ACCORDANCE WITH THE MANUFACTURER'S RECOMMENDATIONS.
4. PROVIDE AN EXTRA NEUTRAL WIRE FOR ALL 208V RECEPTACLES (FOR FUTURE 120V EQUIPMENT CONNECTION).

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#	DATE	REVISION

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05/17/2024
Shums Coda Associates

BIOMEDICAL POLYMERS RESEARCH BUILDING - LEVEL 2

20 SOUTH 2030 EAST, SALT LAKE CITY, UTAH 84112

CONSTRUCTION DOCUMENTS

SEAL:
PROFESSIONAL ENGINEER
05/03/2024
6357784-2202
TREVOR REED SPENCER
STATE OF UTAH

DATE: **05/03/2024**
PROJECT #: **22711**

SHEET NAME:
EQUIPMENT SCHEDULE

SHEET #: **EP600**

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PANELBOARD SCHEDULE

PANEL NAME: 2EHA (E)

MOUNTING: SURFACE
ENCLOSURE: NEMA 1
DOOR TYPE: STANDARD
VOLTAGE: 480/277 Wye
PHASE: 3
WIRES: 4
Min. A.I.C. RATING:
LOCATION: Space 276
MAIN TYPE:
BUS RATING: 125 A
MCB RATING:
BUS MATERIAL: COPPER
FEED FROM:
SPD:
NEUTRAL RATING:
ISOLATED GROUND:

BRANCH BREAKERS

KEYED NOTE	CIRCUIT DESCRIPTION	AMP	POLE	Load Type	CKT #	A		B		C		CKT #	Load Type	POLE	AMP	CIRCUIT DESCRIPTION	KEYED NOTE
9	N. HALL LIGHTS (E)	20 A	1	--	1	0 VA	0 VA					2	--	1	20 A	-SPARE-	9
9	S. ELEC. LIGHTS (E)	20 A	1	--	3			0 VA	0 VA			4	--	1	20 A	-SPARE-	9
9	N. ELEC LIGHTS (E)	20 A	1	--	5					0 VA	0 VA	6	--	1	20 A	-SPARE-	9
9	S. HALL LIGHTS (E)	20 A	1	--	7	0 VA	0 VA					8	--	1	20 A	-SPARE-	9
9	E. RMS LIGHTS (E)	20 A	1	--	9			0 VA	0 VA			10	--	1	20 A	-SPARE-	9
9	SPD (E)	20 A	3	--	11					0 VA	0 VA	12	--	1	20 A	-SPARE-	9
--	--	--	--	--	13	0 VA	--					14	--	1	--	-SPACE ONLY-	
--	--	--	--	--	15			0 VA	--			16	--	1	--	-SPACE ONLY-	
8	LAB EMERGENCY LIGHTING	20 A	1	L	17					220 VA	--	18	--	1	--	-SPACE ONLY-	
8	WEST LAB EM. LIGHTING	20 A	1	L	19	540 VA	--					20	--	1	--	-SPACE ONLY-	
	-SPACE ONLY-	--	1	--	21			--	--			22	--	1	--	-SPACE ONLY-	
	-SPACE ONLY-	--	1	--	23					--	--	24	--	1	--	-SPACE ONLY-	
	TOTAL CONNECTED LOAD PER PHASE (VA)					540 VA		0 VA		220 VA							
	TOTAL CONNECTED CURRENT PER PHASE (AMPS)					2 A		0 A		1 A							

TYPE	LOAD CLASSIFICATION	CONNECTED LOAD	DEMAND FACTOR	ESTIMATED DEMAND	PANEL TOTALS	
P	Panel	0 VA	0.00%	0 VA		
R	Receptacle	0 VA	0.00%	0 VA	Total Conn. Load:	760 VA
L	Lighting	760 VA	125.00%	950 VA	25% OF LARGEST MOTOR:	
C	Continuous	0 VA	0.00%	0 VA	Total Est. Demand:	950 VA
E	Equipment	0 VA	0.00%	0 VA	Total Conn. Current:	1 A
M	Motor	0 VA	0.00%	0 VA	Total Est. Demand Current:	1 A
K	Kitchen	0 VA	0.00%	0 VA		
O	Other	0 VA	0.00%	0 VA		

PANELBOARD SCHEDULE

PANEL NAME: 2ELA (E)

MOUNTING: SURFACE
ENCLOSURE: NEMA 1
DOOR TYPE: STANDARD
VOLTAGE: 120/208 Wye
PHASE: 3
WIRES: 4
Min. A.I.C. RATING: 22K
LOCATION: Space 411
MAIN TYPE: MLO
BUS RATING: 400 A
MCB RATING:
BUS MATERIAL: COPPER
FEED FROM:
SPD:
NEUTRAL RATING:
ISOLATED GROUND:

BRANCH BREAKERS

KEYED NOTE	CIRCUIT DESCRIPTION	AMP	POLE	Load Type	CKT #	A		B		C		CKT #	Load Type	POLE	AMP	CIRCUIT DESCRIPTION	KEYED NOTE
8	274-21 4' HOOD	20 A	1	E	1	960 VA	996 VA					2	E	1	20 A	272-20 4' HOOD	8
8	274-22 4' HOOD	20 A	1	E	3			960 VA	1500 VA			4	E	1	20 A	272-17...	8
8	274-23 FRIDGE/FREEZER	20 A	1	E	5					1500 VA	1500 VA	6	E	1	20 A	272-18...	8
8	274-24 CENTRIFUGE	30 A	2	E	7	2496 VA	1500 VA					8	E	1	20 A	272-19...	8
--	--	--	--	--	9			2496 VA	360 VA			10	R	1	20 A	LAB BENCH LAB 272 RECEPT.	8
8	274-28 STACKED INCUBATORS	20 A	1	E	11					600 VA	1500 VA	12	E	1	20 A	285-31 FRIDGE/FREEZER	8
8	274-29 STACKED INCUBATORS	20 A	1	E	13	600 VA	1500 VA					14	E	1	20 A	285-32 FRIDGE/FREEZER	8
8	274-30 STACKED INCUBATORS	20 A	1	E	15			996 VA	1500 VA			16	E	1	20 A	285-33 FRIDGE/FREEZER	8
8	274-31 STACKED INCUBATORS	20 A	1	E	17					996 VA	1040 VA	18	E	2	20 A	285-34 -80C FREEZER	8
8	274-25 FRIDGE/FREEZER	20 A	1	E	19	1500 VA	1040 VA					20	--	--	--	--	--
8	274-24 FRIDGE/FREEZER	20 A	1	E	21			1500 VA	1040 VA			22	E	2	20 A	285-35 -80C FREEZER	8
8	280-28 4' HOOD	20 A	1	E	23					960 VA	1040 VA	24	--	--	--	--	--
8	280-29 FRIDGE/FREEZER	20 A	1	E	25	1500 VA	1040 VA					26	E	2	20 A	285-36 -80C FREEZER	8
8	280-30 FRIDGE/FREEZER	20 A	1	E	27			1500 VA	1040 VA			28	--	--	--	--	--
8	285A-38 CRYOSTAT	25 A	2	E	29					900 VA	1664 VA	30	E	2	20 A	285-37 ICE MACHINE	8
--	--	--	--	--	31	900 VA	1664 VA					32	--	--	--	--	--
8	285A-39 CRYOSTAT	25 A	2	E	33			900 VA	900 VA			34	E	2	25 A	285A-40 CRYOSTAT	8
--	--	--	--	--	35					900 VA	900 VA	36	--	--	--	--	--
8	-SPARE-	20 A	1	--	37	0 VA	0 VA					38	--	3	20 A	SPD (E)	9
9	-SPARE-	20 A	1	--	39			0 VA	0 VA			40	--	--	--	--	--
9	-SPARE-	20 A	1	--	41					0 VA	0 VA	42	--	--	--	--	--
	TOTAL CONNECTED LOAD PER PHASE (VA)					15696 VA		14692 VA		13500 VA							
	TOTAL CONNECTED CURRENT PER PHASE (AMPS)					132 A		124 A		113 A							

TYPE	LOAD CLASSIFICATION	CONNECTED LOAD	DEMAND FACTOR	ESTIMATED DEMAND	PANEL TOTALS	
P	Panel	0 VA	0.00%	0 VA		
R	Receptacle	360 VA	100.00%	360 VA	Total Conn. Load:	43888 VA
L	Lighting	0 VA	0.00%	0 VA	25% OF LARGEST MOTOR:	
C	Continuous	0 VA	0.00%	0 VA	Total Est. Demand:	43888 VA
E	Equipment	43528 VA	100.00%	43528 VA	Total Conn. Current:	122 A
M	Motor	0 VA	0.00%	0 VA	Total Est. Demand Current:	122 A
K	Kitchen	0 VA	0.00%	0 VA		
O	Other	0 VA	0.00%	0 VA		

PANELBOARD SCHEDULE

PANEL NAME: 2ELC (E)

MOUNTING: SURFACE
ENCLOSURE: NEMA 1
DOOR TYPE: STANDARD
VOLTAGE: 120/208 Wye
PHASE: 3
WIRES: 4
Min. A.I.C. RATING: 22K
LOCATION: Space 411
MAIN TYPE: MLO
BUS RATING: 225 A
MCB RATING:
BUS MATERIAL: COPPER
FEED FROM:
SPD:
NEUTRAL RATING:
ISOLATED GROUND:

BRANCH BREAKERS

KEYED NOTE	CIRCUIT DESCRIPTION	AMP	POLE	Load Type	CKT #	A		B		C		CKT #	Load Type	POLE	AMP	CIRCUIT DESCRIPTION	KEYED NOTE
9	HOOD-BIOGRADE (E)	20 A	1	--	1	0 VA	0 VA					2	--	1	30 A	HOOD-INSULIN (E)	9
9	HOOD-BIOGRADE (E)	20 A	1	--	3			0 VA	0 VA			4	--	1	30 A	HOOD-INSULIN (E)	9
9	HOOD-BIOGRADE (E)	30 A	1	--	5					0 VA	0 VA	6	--	1	30 A	HOOD-INSULIN (E)	9
9	220V RECEPTACLE (E)	30 A	2	--	7	0 VA	0 VA					8	--	1	20 A	RECEPTACLE (E)	9
--	--	--	--	--	9			0 VA	0 VA			10	--	1	20 A	RECEPTACLE (E)	9
9	-SPARE-	20 A	1	--	11					0 VA	0 VA	12	--	1	20 A	PHONE BOARD (E)	9
9	RECEPTACLE (E)	20 A	1	--	13	0 VA	0 VA					14	--	1	20 A	PHONE BOARD (E)	9
9	208V RECEP RM 285 (E)	20 A	2	--	15			0 VA	0 VA			16	--	1	20 A	PHONE BOARD (E)	9
--	--	--	--	--	17					0 VA	0 VA	18	--	1	20 A	PHONE BOARD (E)	9
9	-SPARE-	20 A	1	--	19	0 VA	0 VA					20	--	1	20 A	PHONE BOARD (E)	9
9	-SPARE-	20 A	1	--	21			0 VA	0 VA			22	--	1	20 A	PHONE BOARD (E)	9
9	-SPARE-	20 A	1	--	23					0 VA	1050 VA	24	E	2	30 A	295-56 MICROSCOPE	8
9	SPD	20 A	3	--	25	0 VA	1050 VA					26	--	--	--	--	--
--	--	--	--	--	27			0 VA	1050 VA			28	E	2	30 A	295-57 MICROSCOPE	8
--	--	--	--	--	29					0 VA	1050 VA	30	--	--	--	--	--
8	295-54 MICROSCOPE	30 A	2	E	31	1050 VA						32					
--	--	--	--	--	33			1050 VA	--			34	--	1	--	-SPACE ONLY-	
8	295-55 MICROSCOPE	30 A	2	E	35					1050 VA	--	36	--	1	--	-SPACE ONLY-	
--	--	--	--	--	37	1050 VA	--					38	--	1	--	-SPACE ONLY-	
	-SPACE ONLY-	--	1	--	39			--	--			40	--	1	--	-SPACE ONLY-	
	-SPACE ONLY-	--	1	--	41					--	--	42	--	1	--	-SPACE ONLY-	
	TOTAL CONNECTED LOAD PER PHASE (VA)					3150 VA		2100 VA		3150 VA							
	TOTAL CONNECTED CURRENT PER PHASE (AMPS)					28 A		18 A		28 A							

TYPE	LOAD CLASSIFICATION	CONNECTED LOAD	DEMAND FACTOR	ESTIMATED DEMAND	PANEL TOTALS	
P	Panel	0 VA	0.00%	0 VA		
R	Receptacle	0 VA	0.00%	0 VA	Total Conn. Load:	8400 VA
L	Lighting	0 VA	0.00%	0 VA	25% OF LARGEST MOTOR:	
C	Continuous	0 VA	0.00%	0 VA	Total Est. Demand:	8400 VA
E	Equipment	8400 VA	100.00%	8400 VA	Total Conn. Current:	23 A
M	Motor	0 VA	0.00%	0 VA	Total Est. Demand Current:	23 A
K	Kitchen	0 VA	0.00%	0 VA		
O	Other	0 VA	0.00%	0 VA		

PANELBOARD SCHEDULE

PANEL NAME: 2ELB (E)

MOUNTING: SURFACE
ENCLOSURE: NEMA 1
DOOR TYPE: STANDARD
VOLTAGE: 120/208 Wye
PHASE: 3
WIRES: 4
Min. A.I.C. RATING: 22K
LOCATION: Space 411
MAIN TYPE: MLO
BUS RATING: 400 A
MCB RATING:
BUS MATERIAL: COPPER
FEED FROM:
SPD:
NEUTRAL RATING:
ISOLATED GROUND:

BRANCH BREAKERS

KEYED NOTE	CIRCUIT DESCRIPTION	AMP	POLE	Load Type	CKT #	A		B		C		CKT #	Load Type	POLE	AMP	CIRCUIT DESCRIPTION	KEYED NOTE
8	264-13 MICROSCOPE	30 A	2	E	1	1050 VA	1050 VA					2	E	2	30 A	264-12 MICROSCOPE	8
--	--	--	--	--	3			1050 VA	1050 VA			4	--	--	--	--	--
8	264-10 MICROSCOPE	30 A	2	E	5					1050 VA	1500 VA	6	E	1	20 A	268-16...	8
--	--	--	--	--	7	1050 VA	1500 VA					8	E	1	20 A	266-13...	8
8	264-10 MICROSCOPE	30 A	2	E	9			1050 VA	1500 VA			10	E	1	20 A	266-14...	8
--	--	--	--	--	11					1050 VA	1500 VA	12	E	1	20 A	266-15...	8
8	285B-47 STACKED INCUBATORS	20 A	1	E	13	996 VA	996 VA					14	E	1	20 A	266-12 4' HOOD	8
8	285B-48 STACKED INCUBATOR	20 A	1	E	15			996 VA	1500 VA			16	E	1	20 A	262-04 FRIDGE/FREEZER	8
8	285B-49 STACKED INCUBATORS	20 A	1	E	17					996 VA	996 VA	18	E	1	20 A	262-11 HOOD	8
8	285B-50 STACKED INCUBATORS	20 A	1	E	19	996 VA	1500 VA					20	E	1	20 A	262-05 FRIDGE/FREEZER	8
8	285B-53 -80C FREEZER	20 A	1	E	21			1500 VA	1500 VA			22	E	1	20 A	262-06 FRIDGE/FREEZER	8
8	285B-51 4' HOOD	20 A	1	E	23					600 VA	1500 VA	24	E	1	20 A	262-07 FRIDGE/FREEZER	8
8	285B-52 4' HOOD	20 A	1	E	25	600 VA	1040 VA					26	E	2	20 A	262-08 -80C FREEZER	8
8	LAB BENCH LAB 266 RECEPT	20 A	1	R	27			360 VA	1040 VA			28	--	--	--	--	--
8	LAB BENCH 268 RECEPT.	20 A	1	R	29					360 VA	1040 VA	30	E	2	20 A	262-09 -80C FREEZER	8
8	-SPARE-	20 A	1	--	31	0 VA	1040 VA					32	--	--	--	--	--
8	-SPARE-	20 A	1	--	33			0 VA	1040 VA			34	E	2	20 A	262-10 -80C FREEZER	8
8	-SPARE-	20 A	1	--	35					0 VA	1040 VA	36	--	--	--	--	--
9	COLD RM 8 (E)	20 A	3	--	37	0 VA	0 VA					38	--	--	--	SPD (E)	9
--	--	--	--	--	39			0 VA	0 VA			40	--	--	--	--	--
--	--	--	--	--	41					0 VA	0 VA	42	--	--	--	--	--
	TOTAL CONNECTED LOAD PER PHASE (VA)					11818 VA		12586 VA		11632 VA							
	TOTAL CONNECTED CURRENT PER PHASE (AMPS)					99 A		105 A		97 A							

TYPE	LOAD CLASSIFICATION	CONNECTED LOAD	DEMAND FACTOR	ESTIMATED DEMAND	PANEL TOTALS	
P	Panel	0 VA	0.00%	0 VA		
R	Receptacle	720 VA	100.00%	720 VA	Total Conn. Load:	36036 VA
L	Lighting	0 VA	0.00%	0 VA	25% OF LARGEST MOTOR:	
C	Continuous	0 VA	0.00%	0 VA	Total Est. Demand:	36036 VA
E	Equipment	35316 VA	100.00%	35316 VA	Total Conn. Current:	100 A
M	Motor	0 VA	0.00%	0 VA	Total Est. Demand Current:	100 A
K	Kitchen	0 VA	0.00%	0 VA		
O	Other	0 VA	0.00%	0 VA		

PANELBOARD SCHEDULE

PANEL NAME: 2HA (E)

MOUNTING: SURFACE
ENCLOSURE: NEMA 1
DOOR TYPE: STANDARD
VOLTAGE: 480/277 Wye
PHASE: 3
WIRES: 4
Min. A.I.C. RATING:
LOCATION: Space 411
MAIN TYPE: MLO
BUS RATING: 125 A
MCB RATING:
BUS MATERIAL: COPPER
FEED FROM:
SPD:
NEUTRAL RATING:
ISOLATED GROUND:

BRANCH BREAKERS

KEYED NOTE	CIRCUIT DESCRIPTION	AMP	POLE	Load Type	CKT #	A		B		C		CKT #	Load Type	POLE	AMP	CIRCUIT DESCRIPTION	KEYED NOTE
8	TISSURE. 274 - LIGHTING	20 A	1	L	1	140 VA	428 VA					2	L	1	20 A	RM. 222, 222A, 222B, 203...	8
8	LAB 272, 268, 266 - LIGHTING	20 A	1	L	3			826 VA	0 VA			4	--	1	20 A	-SPARE-	9
8	EQUIP 262, 264, 266 - LIGHTING	20 A	1	L	5					266 VA	0 VA	6	--	1	20 A	-SPARE-	9
8	LIGHTING (E)	20 A	1	--	7	0 VA	0 VA					8	--	1	20 A	-SPARE-	9
8	-SPARE-	20 A	1	--	9			0 VA	0 VA			10	--	1	20 A	-SPARE-	9
8	MODULAR LAB 280 LIGHTING	20 A	1	L	11					655 VA	0 VA	12	--	3	50 A	-SPARE-	9
8	FACULTY OFFICES - LIGHTING	20 A	1	L	13	595 VA	0 VA					14	--	--	--	--	--
9	LIGHTING (E)	20 A	1	--	15			0 VA	0 VA			16	--	--	--	--	--
9	LIGHTING (E)	20 A	1	--	17					0 VA	--	18	--	1	--	-SPACE ONLY-	
9	LIGHTING (E)	20 A	1	--	19	0 VA	--					20	--	1	--	-SPACE ONLY-	
	-SPACE ONLY-	--	1	--	21			--	--			22	--	1	--	-SPACE ONLY-	
	-SPACE ONLY-	--	1	--	23					--	--	24	--	1	--	-SPACE ONLY-	
	-SPACE ONLY-	--	1	--	25	--	--					26	--	1	--	-SPACE ONLY-	
	-SPACE ONLY-	--	1	--	27			--	--			28	--	1	--	-SPACE ONLY-	
	-SPACE ONLY-	--	1	--	29					--	--	30	--	1	--	-SPACE ONLY-	
	TOTAL CONNECTED LOAD PER PHASE (VA)					1163 VA		826 VA		921 VA							
	TOTAL CONNECTED CURRENT PER PHASE (AMPS)					4 A		3 A		3 A							

TYPE	LOAD CLASSIFICATION	CONNECTED LOAD	DEMAND FACTOR	ESTIMATED DEMAND	PANEL TOTALS	
P	Panel	0 VA	0.00%	0 VA		
R	Receptacle	0 VA	0.00%	0 VA		
L	Lighting	2910 VA	125.00%	3637 VA	25% OF LARGEST MOTOR:	
C	Continuous	0 VA	0.00%	0 VA	Total Est. Demand:	3637 VA
E	Equipment	0 VA	0.00%	0 VA	Total Conn. Current:	3 A
M	Motor	0 VA	0.00%	0 VA	Total Est. Demand Current:	4 A
K	Kitchen	0 VA	0.00%	0 VA		
O	Other	0 VA	0.00%	0 VA		

PANELBOARD SCHEDULE

PANEL NAME: 2LA (E)

MOUNTING: RECESSED
ENCLOSURE: NEMA 1
DOOR TYPE: DOOR-IN-DOOR
VOLTAGE: 120/208 Wye
PHASE: 3
WIRES: 4
Min. A.I.C. RATING: 22K
LOCATION: Space 419
MAIN TYPE:
BUS RATING: 225 A
MCB RATING:
BUS MATERIAL:
FEED FROM: L2DA (E)
SPD: NONE
NEUTRAL RATING: N/A
ISOLATED GROUND: NONE

BRANCH BREAKERS

KEYED NOTE	CIRCUIT DESCRIPTION	AMP	POLE	Load Type	CKT #	A		B		C		CKT #	Load Type	POLE	AMP	CIRCUIT DESCRIPTION	KEYED NOTE
8	TISSURE CULTURE 274 RECEPT	20 A	1	R	1	360 VA	0 VA					2	--	1	20 A	-SPARE-	8
8	T.C. 274 W/REMOLD RECEPT	20 A	1	R	3			540 VA	0 VA			4	--	1	20 A	-SPARE-	9
8	TC 274 W/REMOLD RECEPT	30 A	1	R	5					360 VA	0 VA	6	--	1	20 A	-SPARE-	9
8	-SPARE-	20 A	1	--	7	0 VA	0 VA					8	--	1	20 A	-SPARE-	9
8	-SPARE-	20 A	1	--	9			0 VA	0 VA			10	--	1	20 A	-SPARE-	9
8	-SPARE-	20 A	1	--	11					0 VA	0 VA	12	--	1	20 A	-SPARE-	9
8	-SPARE-	20 A	1	--	13	0 VA	0 VA					14	--	1	20 A	-SPARE-	9
8	-SPARE-	20 A	1	--	15			0 VA	0 VA			16	--	1	20 A	-SPARE-	9
8	-SPARE-	20 A	1	--	17					0 VA	0 VA	18	--	1	20 A	-SPARE-	9
9	-SPARE-	20 A	1	--	19	0 VA	0 VA					20	--	1	20 A	-SPARE-	9
9	-SPARE-	20 A	1	--	21			0 VA	0 VA			22	--	1	20 A	-SPARE-	9
9	-SPARE-	20 A	1	--	23					0 VA	0 VA	24	--	1	20 A	-SPARE-	9
9	-SPARE-	20 A	1	--	25	0 VA	0 VA					26	--	1	20 A	-SPARE-	9
9	-SPARE-	20 A	1	--	27			0 VA	0 VA			28	--	1	20 A	-SPARE-	9
9	-SPARE-	20 A	1	--	29					0 VA	0 VA	30	--	1	20 A	-SPARE-	9
	-SPACE ONLY-	--	1	--	31	--	--					32	--	1	--	-SPACE ONLY-	
	-SPACE ONLY-	--	1	--	33			--	--			34	--	1	--	-SPACE ONLY-	
	-SPACE ONLY-	--	1	--	35					--	--	36	--	1	--	-SPACE ONLY-	
	-SPACE ONLY-	--	1	--	37	--	--					38	--	1	--	-SPACE ONLY-	
	-SPACE ONLY-	--	1	--	39			--	--			40	--	1	--	-SPACE ONLY-	
	-SPACE ONLY-	--	1	--	41					--	--	42	--	1	--	-SPACE ONLY-	
	TOTAL CONNECTED LOAD PER PHASE (VA)					360 VA		540 VA		360 VA							
	TOTAL CONNECTED CURRENT PER PHASE (AMPS)					3 A		5 A		3 A							

TYPE	LOAD CLASSIFICATION	CONNECTED LOAD	DEMAND FACTOR	ESTIMATED DEMAND	PANEL TOTALS	
P	Panel	0 VA	0.00%	0 VA		
R	Receptacle	1260 VA	100.00%	1260 VA	Total Conn. Load:	1260 VA
L	Lighting	0 VA	0.00%	0 VA	25% OF LARGEST MOTOR:	
C	Continuous	0 VA	0.00%	0 VA	Total Est. Demand:	1260 VA
E	Equipment	0 VA	0.00%	0 VA	Total Conn. Current:	3 A
M	Motor	0 VA	0.00%	0 VA	Total Est. Demand Current:	3 A
K	Kitchen	0 VA	0.00%	0 VA		
O	Other	0 VA	0.00%	0 VA		

PANELBOARD SCHEDULE

PANEL NAME: 2LB (E)

MOUNTING: RECESSED
ENCLOSURE: NEMA 1
DOOR TYPE: DOOR-IN-DOOR
VOLTAGE: 120/208 Wye
PHASE: 3
WIRES: 4
Min. A.I.C. RATING: 22K
LOCATION: Space 419
MAIN TYPE:
BUS RATING: 225 A
MCB RATING:
BUS MATERIAL:
FEED FROM: L2DA (E)
SPD: NONE
NEUTRAL RATING: N/A
ISOLATED GROUND: NONE

BRANCH BREAKERS

KEYED NOTE	CIRCUIT DESCRIPTION	AMP	POLE	Load Type	CKT #	A		B		C		CKT #	Load Type	POLE	AMP	CIRCUIT DESCRIPTION	KEYED NOTE
8	WORKSTATION LAB 280...	20 A	1	R	1	460 VA	360 VA					2	R	1	20 A	MOD. LAB 280 WIREMOLD	8
8	WORKSTATION LAB 280...	20 A	1	R	3			1100 VA	360 VA			4	R	1	20 A	MOD. LAB 280 WIREMOLD	8
8	MOD. LAB 280 RECEPT.	20 A	1	R	5					360 VA	0 VA	6	E	3	20 A	CSP SOUTH LAB BENCH	8
8	MOD LAB 280 WIREMOLD	20 A	1	R	7	180 VA	0 VA					8	--	--	--	--	--
8	CSP - NORTH LAB BENCH	20 A	3	R	9			0 VA	0 VA			10	--	--	--	--	--
--	--	--	--	--	11					0 VA	0 VA	12	R	2	20 A	CSP SOUTH LAB BENCH	8
--	--	--	--	--	13	0 VA	0 VA					14	--	--	--	--	--
8	CSP - NORTH LAB BENCH	20 A	2		15			0 VA	0 VA			16	R	2	20 A	CSP SOUTH LAB BENCH	8
--	--	--	--	--	17					0 VA	0 VA	18	--	--	--	--	--
8	CSP - NORTH LAB BENCH	20 A	2		19	0 VA	0 VA					20	--	1	20 A	-SPARE-	9
--	--	--	--	--	21			0 VA	0 VA			22	--	1	20 A	-SPARE-	9
9	-SPARE-	20 A	1	--	23					0 VA	0 VA	24	--	1	20 A	-SPARE-	9
9	-SPARE-	20 A	1	--	25	0 VA	0 VA					26	--	1	20 A	-SPARE-	9
9	-SPARE-	20 A	1	--	27			0 VA	0 VA			28	--	1	20 A	-SPARE-	9
9	-SPARE-	20 A	1	--	29					0 VA	0 VA	30	--	1	20 A	-SPARE-	9
	-SPACE ONLY-	--	1	--	31	--	--					32	--	1	--	-SPACE ONLY-	
	-SPACE ONLY-	--	1	--	33			--	--			34	--	1	--	-SPACE ONLY-	
	-SPACE ONLY-	--	1	--	35					--	--	36	--	1	--	-SPACE ONLY-	
	-SPACE ONLY-	--	1	--	37	--	--					38	--	1	--	-SPACE ONLY-	
	-SPACE ONLY-	--	1	--	39			--	--			40	--	1	--	-SPACE ONLY-	
	-SPACE ONLY-	--	1	--	41					--	--	42	--	1	--	-SPACE ONLY-	
	TOTAL CONNECTED LOAD PER PHASE (VA)					1000 VA		1460 VA		360 VA							
	TOTAL CONNECTED CURRENT PER PHASE (AMPS)					9 A		13 A		3 A							

TYPE	LOAD CLASSIFICATION	CONNECTED LOAD	DEMAND FACTOR	ESTIMATED DEMAND	PANEL TOTALS	
P	Panel	0 VA	0.00%	0 VA		
R	Receptacle	2520 VA	100.00%	2520 VA	Total Conn. Load:	2820 VA
L	Lighting	0 VA	0.00%	0 VA	25% OF LARGEST MOTOR:	
C	Continuous	0 VA	0.00%	0 VA	Total Est. Demand

PANELBOARD SCHEDULE

PANEL NAME: 2LD (E)

MOUNTING: RECESSED
ENCLOSURE: NEMA 1
DOOR TYPE: DOOR-IN-DOOR
VOLTAGE: 120/208 Wye
PHASE: 3
WIRES: 4
Min. A.I.C. RATING: 22K
LOCATION: Space 419
MAIN TYPE:
BUS RATING: 225 A
MCB RATING:
BUS MATERIAL:
FEED FROM: L2DA (E)
SPD: NONE
NEUTRAL RATING: N/A
ISOLATED GROUND: NONE

BRANCH BREAKERS

KEYED NOTE	CIRCUIT DESCRIPTION	AMP	POLE	Load Type	CKT #	A		B		C		CKT #	Load Type	POLE	AMP	CIRCUIT DESCRIPTION	KEYED NOTE
8	WORKSTATION LAB 280...	20 A	1	R	1	460 VA	540 VA					2	R	1	20 A	MOD. LAB 280 WIREMOLD	8
8	WORKSTATION LAB 280...	20 A	1	R	3			920 VA	540 VA			4	R	1	20 A	MOD. LAB 280 WIREMOLD	8
8	-SPARE-	20 A	1	--	5					0 VA	540 VA	6	R	1	20 A	MOD. LAB 280 WIREMOLD	8
8	-SPARE-	20 A	1	--	7	0 VA	0 VA					8	--	1	20 A	-SPARE-	9
8	-SPARE-	20 A	1	--	9			0 VA	0 VA			10	--	1	20 A	-SPARE-	9
8	-SPARE-	20 A	1	--	11					0 VA	0 VA	12	--	1	20 A	-SPARE-	9
8	-SPARE-	20 A	1	--	13	0 VA	0 VA					14	--	1	20 A	-SPARE-	9
8	-SPARE-	20 A	1	--	15			0 VA	0 VA			16	--	1	20 A	-SPARE-	9
9	-SPARE-	20 A	1	--	17					0 VA	0 VA	18	--	1	20 A	-SPARE-	9
9	-SPARE-	20 A	1	--	19	0 VA	0 VA					20	--	1	20 A	-SPARE-	9
9	-SPARE-	20 A	1	--	21			0 VA	0 VA			22	--	1	20 A	-SPARE-	9
9	-SPARE-	20 A	1	--	23					0 VA	0 VA	24	--	1	20 A	-SPARE-	9
9	-SPARE-	20 A	1	--	25	0 VA	0 VA					26	--	1	20 A	-SPARE-	9
9	-SPARE-	20 A	1	--	27			0 VA	0 VA			28	--	1	20 A	-SPARE-	9
9	-SPARE-	20 A	1	--	29					0 VA	0 VA	30	--	1	20 A	-SPARE-	9
	-SPACE ONLY-	--	1	--	31	--	--					32	--	1	--	-SPACE ONLY-	
	-SPACE ONLY-	--	1	--	33			--	--			34	--	1	--	-SPACE ONLY-	
	-SPACE ONLY-	--	1	--	35					--	--	36	--	1	--	-SPACE ONLY-	
	-SPACE ONLY-	--	1	--	37	--	--					38	--	1	--	-SPACE ONLY-	
	-SPACE ONLY-	--	1	--	39			--	--			40	--	1	--	-SPACE ONLY-	
	-SPACE ONLY-	--	1	--	41					--	--	42	--	1	--	-SPACE ONLY-	
	TOTAL CONNECTED LOAD PER PHASE (VA)					1000 VA		1460 VA		540 VA							
	TOTAL CONNECTED CURRENT PER PHASE (AMPS)					9 A		13 A		5 A							

TYPE	LOAD CLASSIFICATION	CONNECTED LOAD	DEMAND FACTOR	ESTIMATED DEMAND	PANEL TOTALS	
P	Panel	0 VA	0.00%	0 VA		
R	Receptacle	2700 VA	100.00%	2700 VA	**Total Conn. Load:**	3000 VA
L	Lighting	0 VA	0.00%	0 VA	**25% OF LARGEST MOTOR:**	
C	Continuous	0 VA	0.00%	0 VA	**Total Est. Demand:**	3000 VA
E	Equipment	300 VA	100.00%	300 VA	**Total Conn. Current:**	8 A
M	Motor	0 VA	0.00%	0 VA	**Total Est. Demand Current:**	8 A
K	Kitchen	0 VA	0.00%	0 VA		
O	Other	0 VA	0.00%	0 VA		

PANEL NAME: 2LE (E)

MOUNTING: RECESSED
ENCLOSURE: NEMA 1
DOOR TYPE: DOOR-IN-DOOR
VOLTAGE: 120/208 Wye
PHASE: 3
WIRES: 4
Min. A.I.C. RATING: 22K
LOCATION: Space 419
MAIN TYPE:
BUS RATING: 225 A
MCB RATING:
BUS MATERIAL:
FEED FROM: L2DA (E)
SPD: NONE
NEUTRAL RATING: N/A
ISOLATED GROUND: NONE

BRANCH BREAKERS

KEYED NOTE	CIRCUIT DESCRIPTION	AMP	POLE	Load Type	CKT #	A		B		C		CKT #	Load Type	POLE	AMP	CIRCUIT DESCRIPTION	KEYED NOTE
8	WORKSTATION LAB 268...	20 A	1	R	1	1100 VA	360 VA					2	R	1	20 A	LAB 268 WIREMOLD SOUTH	8
8	WORKSTATION LAB 268...	20 A	1	R	3			920 VA	0 VA			4	--	1	20 A	CONTROL XFMR (E)	9
8	LAB BENCH LAB 268 RECEPT.	20 A	1	R	5					540 VA	360 VA	6	R	1	20 A	LAB 268 WIREMOLD SOUTH	8
8	LAB BENCH LAB 268 RECEPT.	20 A	1	R	7	540 VA	0 VA					8	--	1	20 A	-SPARE-	9
8	LAB BENCH LAB 268 RECEPT.	20 A	1	R	9			540 VA	0 VA			10	--	1	20 A	-SPARE-	9
8	LAB BENCH LAB 268 RECEPT.	20 A	1	R	11					540 VA	0 VA	12	--	1	20 A	-SPARE-	9
8	LAB BENCH LAB 268 RECEPT.	20 A	1	R	13	720 VA	0 VA					14	--	1	20 A	-SPARE-	9
8	LAB BENCH LAB 268 RECEPT.	20 A	1	R	15			720 VA	0 VA			16	--	1	20 A	-SPARE-	9
8	LAB BENCH 268 RECEPT.	20 A	2	R	17					250 VA	0 VA	18	--	1	20 A	-SPARE-	9
--	--	--	--	--	19	250 VA	0 VA					20	--	1	20 A	-SPARE-	9
8	LAB BENCH 268 RECEPT.	20 A	2	R	21			250 VA	0 VA			22	--	1	20 A	-SPARE-	9
--	--	--	--	--	23					250 VA	0 VA	24	--	1	20 A	-SPARE-	9
9	-SPARE-	20 A	1	--	25	0 VA	0 VA					26	--	1	20 A	-SPARE-	9
9	-SPARE-	20 A	1	--	27			0 VA	0 VA			28	--	1	20 A	-SPARE-	9
9	-SPARE-	20 A	1	--	29					0 VA	0 VA	30	--	1	20 A	-SPARE-	9
	-SPACE ONLY-	--	1	--	31	--	--					32	--	1	--	-SPACE ONLY-	
	-SPACE ONLY-	--	1	--	33			--	--			34	--	1	--	-SPACE ONLY-	
	-SPACE ONLY-	--	1	--	35					--	--	36	--	1	--	-SPACE ONLY-	
	-SPACE ONLY-	--	1	--	37	--	--					38	--	1	--	-SPACE ONLY-	
	-SPACE ONLY-	--	1	--	39			--	--			40	--	1	--	-SPACE ONLY-	
	-SPACE ONLY-	--	1	--	41					--	--	42	--	1	--	-SPACE ONLY-	
	TOTAL CONNECTED LOAD PER PHASE (VA)					2970 VA		2430 VA		1940 VA							
	TOTAL CONNECTED CURRENT PER PHASE (AMPS)					25 A		21 A		16 A							

TYPE	LOAD CLASSIFICATION	CONNECTED LOAD	DEMAND FACTOR	ESTIMATED DEMAND	PANEL TOTALS	
P	Panel	0 VA	0.00%	0 VA		
R	Receptacle	5940 VA	100.00%	5940 VA	**Total Conn. Load:**	7340 VA
L	Lighting	0 VA	0.00%	0 VA	**25% OF LARGEST MOTOR:**	
C	Continuous	0 VA	0.00%	0 VA	**Total Est. Demand:**	7340 VA
E	Equipment	400 VA	100.00%	400 VA	**Total Conn. Current:**	20 A
M	Motor	0 VA	0.00%	0 VA	**Total Est. Demand Current:**	20 A
K	Kitchen	1000 VA	100.00%	1000 VA		
O	Other	0 VA	0.00%	0 VA		

PANEL NAME: 2LF (E)

MOUNTING: RECESSED
ENCLOSURE: NEMA 1
DOOR TYPE: DOOR-IN-DOOR
VOLTAGE: 120/208 Wye
PHASE: 3
WIRES: 4
Min. A.I.C. RATING: 65K
LOCATION: Space 419
MAIN TYPE:
BUS RATING: 225 A
MCB RATING:
BUS MATERIAL:
FEED FROM: L2DA (E)
SPD: NONE
NEUTRAL RATING: N/A
ISOLATED GROUND: NONE

BRANCH BREAKERS

KEYED NOTE	CIRCUIT DESCRIPTION	AMP	POLE	Load Type	CKT #	A		B		C		CKT #	Load Type	POLE	AMP	CIRCUIT DESCRIPTION	KEYED NOTE
8	EQUIPMENT 285 RECEPT	20 A	1	R	1	720 VA	0 VA					2	--	1	20 A	-SPARE-	8
8	EQUIP 285 WIREMOLD	20 A	1	R	3			540 VA	0 VA			4	--	1	20 A	-SPARE-	8
8	HIST. 285A WORKSTATION	20 A	1	R	5					720 VA	0 VA	6	--	1	20 A	-SPARE-	8
8	HIST. 285A WORKSTATION	20 A	1	R	7	540 VA	0 VA					8	--	1	20 A	-SPARE-	8
8	HIST. 285A WORKSTATION	20 A	1	R	9			540 VA	0 VA			10	--	1	20 A	-SPARE-	8
8	T.C. 285B RECEPT.	20 A	1	R	11					360 VA	0 VA	12	--	1	20 A	-SPARE-	8
8	T.C. 285B WIREMOLD	20 A	1	R	13	360 VA	0 VA					14	--	1	20 A	-SPARE-	8
8	-SPARE-	20 A	1	--	15			0 VA	0 VA			16	--	1	20 A	-SPARE-	8
8	-SPARE-	20 A	1	--	17					0 VA	0 VA	18	--	1	20 A	-SPARE-	8
8	-SPARE-	20 A	1	--	19	0 VA	0 VA					20	--	1	20 A	-SPARE-	8
8	-SPARE-	20 A	1	--	21			0 VA	0 VA			22	--	1	20 A	-SPARE-	8
8	-SPARE-	20 A	1	--	23					0 VA	0 VA	24	--	1	20 A	-SPARE-	8
8	-SPARE-	20 A	1	--	25	0 VA	0 VA					26	--	1	20 A	-SPARE-	8
9	-SPARE-	20 A	1	--	27			0 VA	0 VA			28	--	1	20 A	-SPARE-	9
9	-SPARE-	20 A	1	--	29					0 VA	0 VA	30	--	1	20 A	-SPARE-	9
9	-SPARE-	20 A	1	--	31	0 VA	0 VA					32	--	1	20 A	-SPARE-	9
9	-SPARE-	20 A	1	--	33			0 VA	0 VA			34	--	1	20 A	-SPARE-	9
9	-SPARE-	20 A	1	--	35					0 VA	0 VA	36	--	1	20 A	-SPARE-	9
9	-SPARE-	20 A	1	--	37	0 VA	0 VA					38	--	1	20 A	-SPARE-	9
9	-SPARE-	20 A	1	--	39			0 VA	0 VA			40	--	1	20 A	-SPARE-	9
9	-SPARE-	20 A	1	--	41					0 VA	0 VA	42	--	1	20 A	-SPARE-	9
	TOTAL CONNECTED LOAD PER PHASE (VA)					1620 VA		1080 VA		1080 VA							
	TOTAL CONNECTED CURRENT PER PHASE (AMPS)					14 A		9 A		9 A							

TYPE	LOAD CLASSIFICATION	CONNECTED LOAD	DEMAND FACTOR	ESTIMATED DEMAND	PANEL TOTALS	
P	Panel	0 VA	0.00%	0 VA		
R	Receptacle	3780 VA	100.00%	3780 VA	**Total Conn. Load:**	3780 VA
L	Lighting	0 VA	0.00%	0 VA	**25% OF LARGEST MOTOR:**	
C	Continuous	0 VA	0.00%	0 VA	**Total Est. Demand:**	3780 VA
E	Equipment	0 VA	0.00%	0 VA	**Total Conn. Current:**	10 A
M	Motor	0 VA	0.00%	0 VA	**Total Est. Demand Current:**	10 A
K	Kitchen	0 VA	0.00%	0 VA		
O	Other	0 VA	0.00%	0 VA		

PANELBOARD SCHEDULE

PANEL NAME: 2LG (E)

MOUNTING: SURFACE
ENCLOSURE: NEMA 1
DOOR TYPE: STANDARD
VOLTAGE: 120/208 Wye
PHASE: 3
WIRES: 4
Min. A.I.C. RATING:
LOCATION: Space 411
MAIN TYPE: MLO
BUS RATING: 400 A
MCB RATING:
BUS MATERIAL: COPPER
FEED FROM: L2DA (E)
SPD:
NEUTRAL RATING:
ISOLATED GROUND:

BRANCH BREAKERS

KEYED NOTE	CIRCUIT DESCRIPTION	AMP	POLE	Load Type	CKT #	A		B		C		CKT #	Load Type	POLE	AMP	CIRCUIT DESCRIPTION	KEYED NOTE
9	RECEPTACLE (E)	--	1	--	1	--	--					2	--	1	--	VENDING (E)	9
9	RECEPTACLE (E)	--	1	--	3			--	--			4	--	1	--	VENDING (E)	9
9	RECEPTACLE (E)	--	1	--	5					--	--	6	--	1	--	-SPACE ONLY-	9
9	V.A.V. BOXES (E)	--	1	--	7	--	--					8	--	1	--	-SPACE ONLY-	9
9	V.A.V. BOXES (E)	--	1	--	9			--	--			10	--	1	--	-SPACE ONLY-	9
9	V.A.V. BOXES (E)	--	1	--	11					--	--	12	--	1	--	-SPACE ONLY-	9
9	V.A.V. BOXES (E)	--	1	--	13	--	--					14	--	1	--	-SPACE ONLY-	9
9	V.A.V. BOXES (E)	--	1	--	15			--	--			16	--	1	--	MICROWAVE (E)	9
9	V.A.V. BOXES (E)	--	1	--	17					--	427 VA	18	L	1	20 A	E. WORK BENCH U.C. LIGHTING	8
9	V.A.V. BOXES (E)	--	1	--	19	--	864 VA					20	L	1	20 A	E. LAB BENCH U.C. LIGHTING	8
9	V.A.V. BOXES (E)	--	1	--	21			--	480 VA			22	L	1	20 A	W. LAB U.C. LIGHTING	8
9	WATER COOLER (E)	--	1	--	23					--	0 VA	24	--	1	20 A	-SPARE-	9
	-SPACE ONLY-	--	1	--	25	--	--					26	--	1	--	-SPACE ONLY-	
	-SPACE ONLY-	--	1	--	27			--	--			28	--	1	--	-SPACE ONLY-	
	-SPACE ONLY-	--	1	--	29					--	--	30	--	1	--	-SPACE ONLY-	
	-SPACE ONLY-	--	1	--	31	--	--					32	--	1	--	-SPACE ONLY-	
	-SPACE ONLY-	--	1	--	33			--	--			34	--	1	--	-SPACE ONLY-	
	-SPACE ONLY-	--	1	--	35					--	--	36	--	1	--	-SPACE ONLY-	
	-SPACE ONLY-	--	1	--	37	--	--					38	--	1	--	-SPACE ONLY-	
	-SPACE ONLY-	--	1	--	39			--	--			40	--	1	--	-SPACE ONLY-	
	-SPACE ONLY-	--	1	--	41					--	--	42	--	1	--	-SPACE ONLY-	
	TOTAL CONNECTED LOAD PER PHASE (VA)					864 VA		480 VA		427 VA							
	TOTAL CONNECTED CURRENT PER PHASE (AMPS)					7 A		4 A		4 A							

TYPE	LOAD CLASSIFICATION	CONNECTED LOAD	DEMAND FACTOR	ESTIMATED DEMAND	PANEL TOTALS	
P	Panel	0 VA	0.00%	0 VA		
R	Receptacle	0 VA	0.00%	0 VA	**Total Conn. Load:**	1771 VA
L	Lighting	1771 VA	125.00%	2213 VA	**25% OF LARGEST MOTOR:**	
C	Continuous	0 VA	0.00%	0 VA	**Total Est. Demand:**	2213 VA
E	Equipment	0 VA	0.00%	0 VA	**Total Conn. Current:**	5 A
M	Motor	0 VA	0.00%	0 VA	**Total Est. Demand Current:**	6 A
K	Kitchen	0 VA	0.00%	0 VA		
O	Other	0 VA	0.00%	0 VA		

PANEL NAME: 2LH (E)

MOUNTING: RECESSED
ENCLOSURE: NEMA 1
DOOR TYPE: DOOR-IN-DOOR
VOLTAGE: 120/208 Wye
PHASE: 3
WIRES: 4
Min. A.I.C. RATING: 22K
LOCATION: Space 419
MAIN TYPE:
BUS RATING: 225 A
MCB RATING:
BUS MATERIAL:
FEED FROM: L2DA (E)
SPD: NONE
NEUTRAL RATING: N/A
ISOLATED GROUND: NONE

BRANCH BREAKERS

KEYED NOTE	CIRCUIT DESCRIPTION	AMP	POLE	Load Type	CKT #	A		B		C		CKT #	Load Type	POLE	AMP	CIRCUIT DESCRIPTION	KEYED NOTE
8	WORKSTATION LAB 266...	20 A	1	R	1	1100 VA	180 VA					2	R	1	20 A	LAB 266 RECEPT.	8
8	WORKSTATION LAB 266...	20 A	1	R	3			920 VA	540 VA			4	R	1	20 A	LAB 266 WIREMOLD	8
8	WORKSTATION LAB 266...	20 A	1	R	5					1100 VA	360 VA	6	R	1	20 A	LAB 266 WIREMOLD SOUTH	8
8	LAB BENCH LAB 266 RECEPT	20 A	1	R	7	640 VA	600 VA					8	E	1	20 A	266-14 WATER FILTER SYSTEM	8
8	LAB BENCH LAB 266 RECEPT	20 A	1	R	9			540 VA	0 VA			10	--	1	20 A	-SPARE-	9
8	LAB BENCH LAB 266 RECEPT	20 A	1	R	11					540 VA	0 VA	12	--	1	20 A	-SPARE-	9
8	LAB BENCH LAB 266 RECEPT	20 A	1	R	13	540 VA	0 VA					14	--	1	20 A	-SPARE-	9
8	LAB BENCH LAB 266 RECEPT	20 A	1	R	15			540 VA	0 VA			16	--	1	20 A	-SPARE-	9
8	LAB BENCH LAB 266 RECEPT	20 A	1	R	17					540 VA	0 VA	18	--	1	20 A	-SPARE-	9
8	LAB BENCH LAB 266 RECEPT	20 A	1	R	19	540 VA	0 VA					20	--	1	20 A	-SPARE-	9
8	LAB BENCH LAB 266 RECEPT	20 A	1	R	21			360 VA	0 VA			22	--	1	20 A	-SPARE-	9
8	LAB BENCH LAB 266 RECEPT	20 A	2	R	23					250 VA	0 VA	24	--	1	20 A	-SPARE-	9
--	--	--	--	--	25	250 VA	0 VA					26	--	1	20 A	-SPARE-	9
8	LAB BENCH LAB 266 RECEPT	20 A	2	R	27			250 VA	0 VA			28	--	1	20 A	-SPARE-	9
--	--	--	--	--	29					250 VA	0 VA	30	--	1	20 A	-SPARE-	9
9	-SPARE-	20 A	1	--	31	0 VA	0 VA					32	--	1	20 A	-SPARE-	8
9	-SPARE-	20 A	1	--	33			0 VA	0 VA			34	--	1	20 A	-SPARE-	8
	-SPACE ONLY-	--	1	--	35					--	--	36	--	1	--	-SPACE ONLY-	
	-SPACE ONLY-	--	1	--	37	--	--					38	--	1	--	-SPACE ONLY-	
	-SPACE ONLY-	--	1	--	39			--	--			40	--	1	--	-SPACE ONLY-	
	-SPACE ONLY-	--	1	--	41					--	--	42	--	1	--	-SPACE ONLY-	
	TOTAL CONNECTED LOAD PER PHASE (VA)					3850 VA		3150 VA		3040 VA							
	TOTAL CONNECTED CURRENT PER PHASE (AMPS)					32 A		26 A		25 A							

TYPE	LOAD CLASSIFICATION	CONNECTED LOAD	DEMAND FACTOR	ESTIMATED DEMAND	PANEL TOTALS	
P	Panel	0 VA	0.00%	0 VA		
R	Receptacle	7740 VA	100.00%	7740 VA	**Total Conn. Load:**	10040 VA
L	Lighting	0 VA	0.00%	0 VA	**25% OF LARGEST MOTOR:**	
C	Continuous	0 VA	0.00%	0 VA	**Total Est. Demand:**	10040 VA
E	Equipment	1300 VA	100.00%	1300 VA	**Total Conn. Current:**	28 A
M	Motor	0 VA	0.00%	0 VA	**Total Est. Demand Current:**	28 A
K	Kitchen	1000 VA	100.00%	1000 VA		
O	Other	0 VA	0.00%	0 VA		

PANEL NAME: 2LI (E)

MOUNTING: RECESSED
ENCLOSURE: NEMA 1
DOOR TYPE: DOOR-IN-DOOR
VOLTAGE: 120/208 Wye
PHASE: 3
WIRES: 4
Min. A.I.C. RATING: 22k
LOCATION: Space 419
MAIN TYPE:
BUS RATING: 225 A
MCB RATING:
BUS MATERIAL:
FEED FROM: L2DA (E)
SPD: NONE
NEUTRAL RATING: N/A
ISOLATED GROUND: NONE

BRANCH BREAKERS

KEYED NOTE	CIRCUIT DESCRIPTION	AMP	POLE	Load Type	CKT #	A		B		C		CKT #	Load Type	POLE	AMP	CIRCUIT DESCRIPTION	KEYED NOTE
8	EQUIPMENT 262 RECEPT.	20 A	1	R	1	360 VA	180 VA					2	R	1	20 A	EQUIPMENT 262 WIREMOLD	8
8	EQUIPMENT 262 WIREMOLD	20 A	1	R	3			360 VA	0 VA			4	--	1	20 A	-SPARE-	9
8	MICROSCOPY 264 RECEPT	20 A	1	R	5					360 VA	0 VA	6	--	1	20 A	-SPARE-	9
8	MICROSCOPY 264 RECEPT	20 A	1	R	7	360 VA	0 VA					8	--	1	20 A	-SPARE-	9
8	MICRO 264, 266A RECEPT.	20 A	1	R	9			720 VA	0 VA			10	--	1	20 A	-SPARE-	9
8	MICRO 266A WORKSTATION	20 A	1	R	11					360 VA	0 VA	12	--	1	20 A	-SPARE-	9
8	MICRO 266A WORKSTATION	20 A	1	R	13	360 VA	0 VA					14	--	1	20 A	-SPARE-	9
8	-SPARE-	20 A	1	--	15			0 VA	0 VA			16	--	1	20 A	-SPARE-	9
8	-SPARE-	20 A	1	--	17					0 VA	0 VA	18	--	1	20 A	-SPARE-	9
9	-SPARE-	20 A	1	--	19	0 VA	0 VA					20	--	1	20 A	-SPARE-	9
9	-SPARE-	20 A	1	--	21			0 VA	0 VA			22	--	1	20 A	-SPARE-	9
9	-SPARE-	20 A	1	--	23					0 VA	0 VA	24	--	1	20 A	-SPARE-	9
9	-SPARE-	20 A	1	--	25	0 VA	0 VA					26	--	1	20 A	-SPARE-	9
9	-SPARE-	20 A	1	--	27			0 VA	0 VA			28	--	1	20 A	-SPARE-	9
9	-SPARE-	20 A	1	--	29					0 VA	0 VA	30	--	1	20 A	-SPARE-	9
	-SPACE ONLY-	--	1	--	31	--	--					32	--	1	--	-SPACE ONLY-	
	-SPACE ONLY-	--	1	--	33			--	--			34	--	1	--	-SPACE ONLY-	
	-SPACE ONLY-	--	1	--	35					--	--	36	--	1	--	-SPACE ONLY-	
	-SPACE ONLY-	--	1	--	37	--	--					38	--	1	--	-SPACE ONLY-	
	-SPACE ONLY-	--	1	--	39			--	--			40	--	1	--	-SPACE ONLY-	
	-SPACE ONLY-	--	1	--	41					--	--	42	--	1	--	-SPACE ONLY-	
	TOTAL CONNECTED LOAD PER PHASE (VA)					1260 VA		1080 VA		720 VA							
	TOTAL CONNECTED CURRENT PER PHASE (AMPS)					11 A		9 A		6 A							

TYPE	LOAD CLASSIFICATION	CONNECTED LOAD	DEMAND FACTOR	ESTIMATED DEMAND	PANEL TOTALS	
P	Panel	0 VA	0.00%	0 VA		
R	Receptacle	3060 VA	100.00%	3060 VA	**Total Conn. Load:**	3060 VA
L	Lighting	0 VA	0.00%	0 VA	**25% OF LARGEST MOTOR:**	
C	Continuous	0 VA	0.00%	0 VA	**Total Est. Demand:**	3060 VA
E	Equipment	0 VA	0.00%	0 VA	**Total Conn. Current:**	8 A
M	Motor	0 VA	0.00%	0 VA	**Total Est. Demand Current:**	8 A
K	Kitchen	0 VA	0.00%	0 VA		
O	Other	0 VA	0.00%	0 VA		

PANELBOARD SCHEDULE

PANEL NAME: 2LJ (E)

MOUNTING: RECESSED
ENCLOSURE: NEMA 1
DOOR TYPE: DOOR-IN-DOOR
VOLTAGE: 120/208 Wye
PHASE: 3
WIRES: 4
Min. A.I.C. RATING: 22K
LOCATION: Space 419
MAIN TYPE:
BUS RATING: 225 A
MCB RATING:
BUS MATERIAL:
FEED FROM: L2DA (E)
SPD: NONE
NEUTRAL RATING: N/A
ISOLATED GROUND: NONE

BRANCH BREAKERS

KEYED NOTE	CIRCUIT DESCRIPTION	AMP	POLE	Load Type	CKT #	A		B		C		CKT #	Load Type	POLE	AMP	CIRCUIT DESCRIPTION	KEYED NOTE
8	CORRIDOR 291 RECEPT. (E)	20 A	1	R	1	360 VA	720 VA					2	R	1	20 A	MICRO. 295 WORKSTATION	8
8	MICROSCOPY 295 RECEPT	20 A	1	R	3			360 VA	720 VA			4	R	1	20 A	MICRO. 295 WORKSTATION	8
8	ZOOM RM. 291A RECEPT.	20 A	1	R	5					180 VA	360 VA	6	R	1	20 A	AGR 200R, 200Q	8
8	OFFICE 291B (E)	20 A	1	R	7	900 VA	0 VA					8	--	1	20 A	-SPARE-	9
8	OFFICE 291C (E)	20 A	1	R	9			900 VA	0 VA			10	--	1	20 A	-SPARE-	9
8	OFFICE 291D (E)	20 A	1	R	11					900 VA	0 VA	12	--	1	20 A	-SPARE-	9
8	OFFICE 291E (E)	20 A	1	R	13	900 VA	0 VA					14	--	1	20 A	-SPARE-	9
8	CONF. RM. 291F RECEPT. (E)	20 A	1	R	15			1080 VA	0 VA			16	--	1	20 A	-SPARE-	9
8	CONF. RM. 291F POKE-THRU	20 A	1	E	17					180 VA	0

KEYED NOTES

C1 PROVIDE AND INSTALL NEW 18"X4" BASKET TRAY ABOVE CEILING.

C6 PROVIDE CAT-6A CABLE FOR COMMUNICATION DEVICE AT THIS LOCATION. REFER TO TELECOM CABLE SCHEDULE ON EC601.

G1 ALL WORK IN THIS AREA TO BE INCLUDED AS PART OF ALTERNATE #1.

TELECOMMUNICATION GENERAL NOTES:

1. NO EXPOSED COMMUNICATIONS CONDUIT ALLOWED IN BUILDING UNLESS APPROVED IN ADVANCED BY OWNER/ARCHITECT.
2. ALL TELECOMMUNICATIONS OUTLETS SHALL BE LABELED IN ACCORDANCE WITH TIA/EIA 606-B. LABELING SHALL BE PROVIDED AT BOTH THE OUTLET AND THE TERMINATING END IN THE COMMUNICATIONS ROOM.
3. ALL DATA OUTLETS SHALL COMPLY WITH TIA/EIA 568. 1-D, AND TIA/EIA 569-D, AND BE WIRED IN ACCORDANCE WITH TIS/EIA T568-C.2.
4. ALL CONDUIT FOR TELECOMMUNICATIONS PURPOSES SHALL BE EMT AND SHALL BE SIZED PER ANSI/TIA/EIA 569-D. MINIMUM CONDUIT SIZE FOR ANY TELECOMMUNICATIONS CABLE SHALL BE 1". CONDUIT SHALL NOT BE FILLED TO GREATER THAN 50% OF IT'S MAXIMUM CABLE CARRYING CAPACITY.
5. THE DIVISION 27 CONTRACTOR SHALL DETERMINE THE EXACT ROUTING OF ALL CONDUITS IN THE FIELD. THIS PLAN REPRESENTS A SCHEMATIC REPRESENTATION OF DEVICE LOCATIONS. CONDUIT, AND CABLE TRAY RUNS.



1 LEVEL 2 - COMMUNICATION PLAN
SCALE: 1/8" = 1'-0"

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BIOMEDICAL POLYMERS RESEARCH BUILDING - LEVEL 2

20 SOUTH 2030 EAST, SALT LAKE CITY, UTAH 84112

CONSTRUCTION DOCUMENTS

SEAL:
PROFESSIONAL ENGINEER
05/03/2024
9357784-2202
TREVOR REED SPENCER
STATE OF UTAH

DATE:	PROJECT #:
05/03/2024	22711

SHEET NAME:
LEVEL 2 - COMMUNICATION PLAN

SHEET #:
EC101

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KEYED NOTES

C3 DATA IN THIS LOCATION TO BE PROVIDED FOR OWNER PROVIDED/INSTALLED FRIDGE/FREEZER TEMPERATURE MONITORING SYSTEM.

C4 REUSE EXISTING BACKBOX AND PROVIDE ALL NEW DATA CABLING, JACKS AND FACEPLATE.

C5 PROVIDE AND INSTALL NEW 9' (58RU) TWO-POST RACK IN SAME LOCATION AS DEMOLISHED RACK. PROVIDE ALL NEW PATCH PANELS, VERTICAL AND HORIZONTAL CABLE MANAGEMENT, ETC. FOR COMPLETE INSTALLATION. RE-TERMINATE ANY EXISTING TO REMAIN CABLES ON NEW PATCH PANELS AND NEW EQUIPMENT IS BONDING TO EXISTING GROUND BAR.

C6 PROVIDE CAT-6A CABLE FOR COMMUNICATION DEVICE AT THIS LOCATION. REFER TO TELECOM CABLE SCHEDULE ON EC601.

TELECOMMUNICATION GENERAL NOTES:

1. NO EXPOSED COMMUNICATIONS CONDUIT ALLOWED IN BUILDING UNLESS APPROVED IN ADVANCED BY OWNER/ARCHITECT.
2. ALL TELECOMMUNICATIONS OUTLETS SHALL BE LABELED IN ACCORDANCE WITH TIA/EIA 606-B. LABELING SHALL BE PROVIDED AT BOTH THE OUTLET AND THE TERMINATING END IN THE COMMUNICATIONS ROOM.
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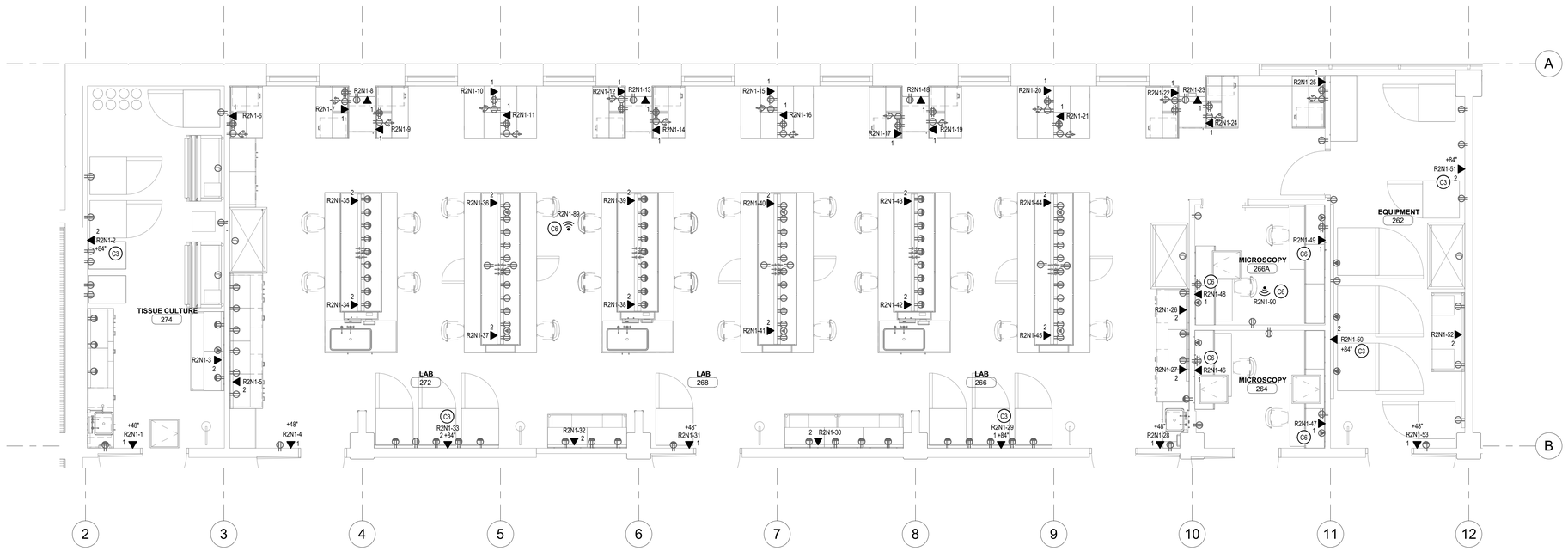
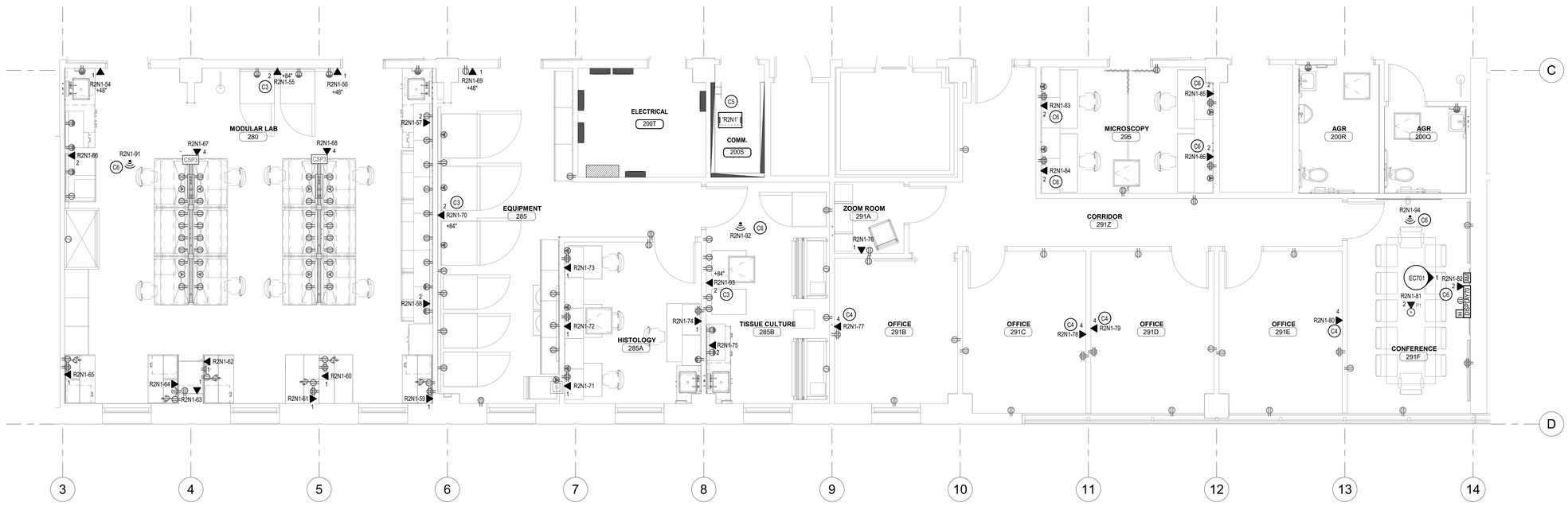
4. ALL CONDUIT FOR TELECOMMUNICATIONS PURPOSES SHALL BE EMT AND SHALL BE SIZED PER ANSI/TIA/EIA 569-D. MINIMUM CONDUIT SIZE FOR ANY TELECOMMUNICATIONS CABLE SHALL BE 1". CONDUIT SHALL NOT BE FILLED TO GREATER THAN 50% OF IT'S MAXIMUM CABLE CARRYING CAPACITY.
5. THE DIVISION 27 CONTRACTOR SHALL DETERMINE THE EXACT ROUTING OF ALL CONDUITS IN THE FIELD. THIS PLAN REPRESENTS A SCHEMATIC REPRESENTATION OF DEVICE LOCATIONS. CONDUIT, AND CABLE TRAY RUNS.



1 LEVEL 2 - ENLARGED COMMUNICATION PLAN - EAST
SCALE: 1/4" = 1'-0"



2 LEVEL 2 - ENLARGED COMMUNICATION PLAN - WEST
SCALE: 1/4" = 1'-0"

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SEAL:

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TREVOR REED SPENCER
STATE OF UTAH
05/03/2024

DATE:	PROJECT #:
05/03/2024	22711

SHEET NAME:
ENLARGED COMMUNICATION PLANS

SHEET #:
EC401

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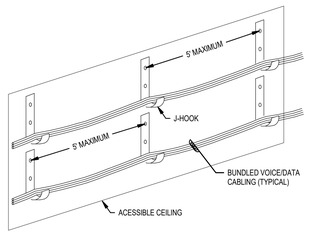
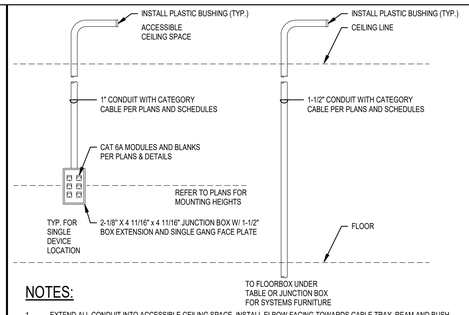


NOTE:

1. MOUNT J-HOOKS SUCH THAT CABLE IS A MINIMUM OF 3" ABOVE FINISHED CEILING.

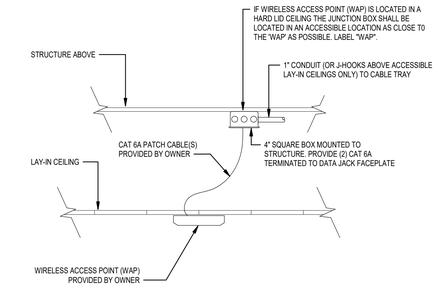
6 TYPICAL WALL MOUNTED J-HOOK DETAIL
SCALE: NTS



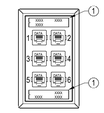
NOTES:

1. EXTEND ALL CONDUIT INTO ACCESSIBLE CEILING SPACE, INSTALL ELBOW FACING TOWARDS CABLE TRAY. REAM AND BUSH ALL CONDUIT ENDS TO PREVENT CABLE DAMAGE DURING PULL. ROUTE CONDUIT DIRECTLY TO CABLE TRAY UNLESS ABOVE ACCESSIBLE LAY-IN CEILING.
2. IF PATHWAY GOES IN OR BELOW GROUND FLOOR SLAB, PROVIDE WITH CABLING SUITABLE FOR WET LOCATION INSTALLATIONS.
3. CONDUIT SIZES MAY NEED TO BE INCREASED DEPENDING ON TOTAL NUMBER OF CABLES INSTALLED. SEE CONDUIT SIZING CHART TO DETERMINE IF LARGER CONDUIT IS REQUIRED. SIZES INDICATED ARE MINIMUMS.

3 VOICE/DATA ROUGH-IN DETAIL
SCALE: NTS



2 LAY-IN DROPPED CEILING MOUNTED WAP DETAIL
SCALE: NTS



WHERE:
X - NUMBER OF DROPS (CABLES) AND COMPLETED JACKS.

KEYED NOTES: (#)

1. PROVIDE A MACHINE PRINTED LABEL PERMANENTLY FIXED TO THE FACEPLATE. FORMAT SHALL BE "FA-AN" WHERE THE LABEL MATCHES THE PATCH PANEL/IDC LABEL FOR EXAMPLE "IA-B01" = TELECOM ROOM A, PATCH PANEL B, PORT 01.

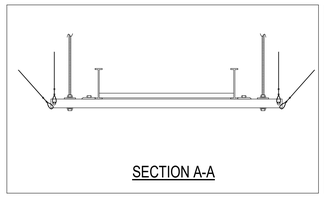
GENERAL NOTES:

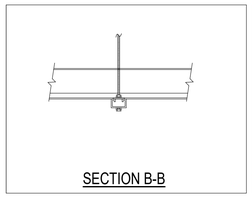
1. THE DETAILS INDICATED ON THE DRAWINGS ARE NOT INTENDED TO IMPLY SPECIFIC MANUFACTURERS OR OUTLET TYPES. THEY ARE MERELY INTENDED TO DESCRIBE THE DESIGN INTENT. THOSE MANUFACTURERS LISTED IN THE SPECIFICATIONS MAY BE USED. IT IS UNDERSTOOD THAT EQUIPMENT MAY VARY SLIGHTLY BY MANUFACTURER.
2. REFER TO OUTLET DETAILS FOR ALL PORT QUANTITIES AND FACEPLATE TYPES.

1 OUTLET LABELING REQUIREMENTS KEY PLAN
SCALE: NTS

NOTES:

1. PROVIDE SEISMIC CONTROLS FOR CABLE TRAY PER SPECIFICATION SECTION 260548 AND MANUFACTURER RECOMMENDATIONS. THE MORE STRINGENT REQUIREMENTS SHALL APPLY.
2. SEE SPECIFICATIONS FOR APPROVED FITTINGS FOR ATTACHMENT TO STRUCTURE.
3. COORDINATE ROUTING OF CABLE TRAYS AND SUPPORT SYSTEM WITH ALL DIVISIONS.
4. DO NOT SUPPORT FROM BOTTOM OF CORD OF TRUSSES.
5. WHERE CABLE TRAYS ARE ROUTED ABOVE SUSPENDED CEILINGS, INSTALL TRAY NO MORE THAN 6" FROM CEILING TO BOTTOM OF TRAY.


SECTION A-A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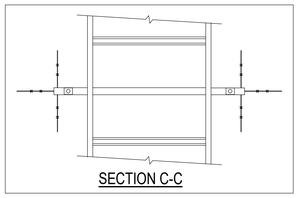
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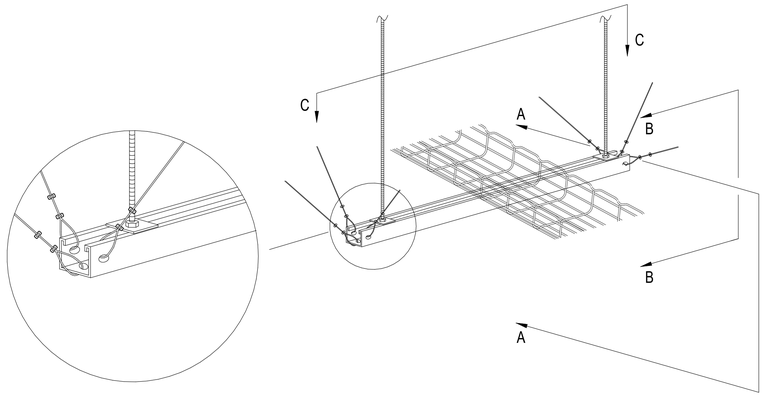
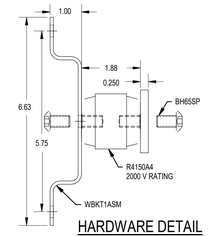


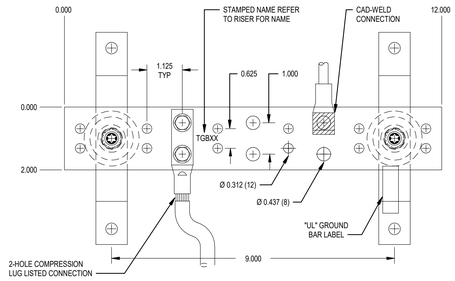
5 SEISMIC BRACING CABLE TRAY/CABLES
SCALE: NTS

NOTES:

1. SUPPORT FROM WALL 12 INCHES ABOVE FINISHED GRADE, UNLESS NOTED OTHERWISE.
2. PROVIDE IN EACH TELECOMMUNICATIONS ROOM.
3. EXTEND BONDING CONDUCTOR BACK TO 'TMGB' AND CONNECT TO TELECOMMUNICATIONS BONDING BACKBONE.
4. SEE SPECIFICATION SECTION 260452 FOR DETAILS. PROVIDE MANUFACTURER AND PART NUMBER INDICATED OR APPROVED EQUIVALENT.



HARDWARE DETAIL



HCAJC1/2

HARGER
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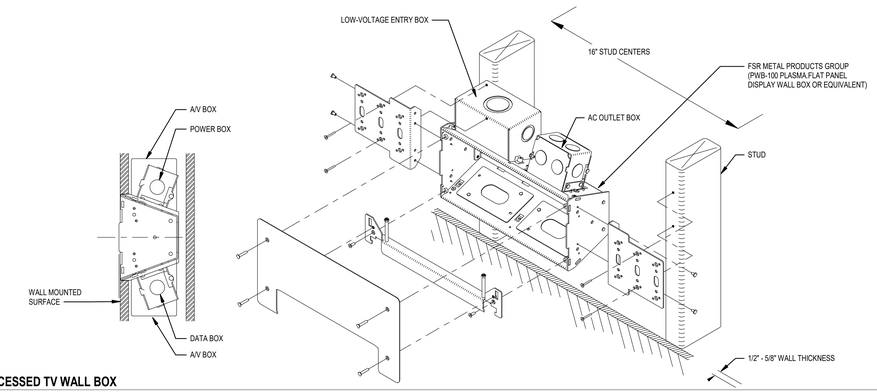
GRAYSLAKE, IL 60030
(847) 548-8700

PART NO. GBI14212TGB
BICSI CU GROUND BAR ASSEMBLY

4 TELECOMMUNICATIONS GROUNDING BUS BAR - TGB
SCALE: NTS



7 RECESSED TV WALL BOX
SCALE: NTS

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CONSTRUCTION DOCUMENTS

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DATE:	PROJECT #:
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SHEET NAME:
COMMUNICATION DETAILS - TYPICAL

SHEET #:
EC501

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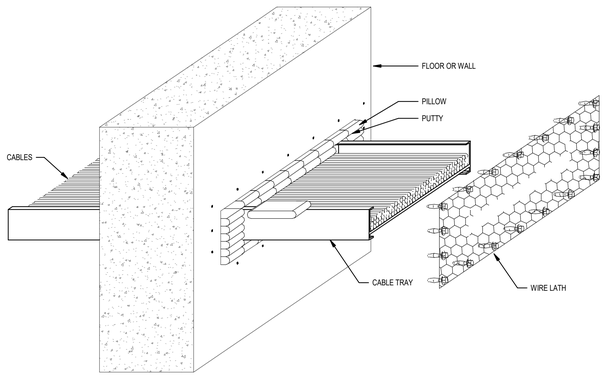


FIRESTOP BARRIER SHALL EQUAL "3M" FSP-SLP LOCKING PILLOWS, UL LISTING #W-L-4037 FOR GYPSUM WALLS.

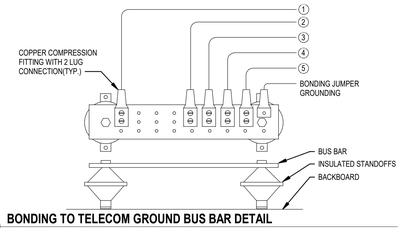
5 TYPICAL CABLE TRAY PENETRATION DETAIL
SCALE: NTS

NOTE:

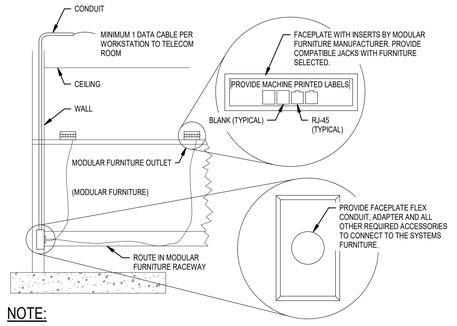
1. THE GROUND BUS BAR WILL BE PROVIDED AS PART OF THE BASE PROJECT.
2. THIS DETAIL SHOWS WHAT IS TYPICAL TO BOND TO THE GROUND BUS BAR IN EACH COMMUNICATIONS CLOSET OR DISTRIBUTION ROOM.
3. PROVIDE CONNECTION TO GROUND BUS BAR WITH DOUBLE HOLE TERMINAL BLOCKS.
4. PROVIDE GROUND WIRE ACCORDING TO GROUND WIRE LENGTH CHART.
5. PROVIDE GREEN STRANDED GROUND CONDUCTORS WITH SIZES AS INDICATED.

KEYED NOTES:

1. 6 AWG OR LARGER BONDING CONDUCTOR TO EACH CONDUIT, WATER PIPE, AND DUCT ENTERING ROOM.
2. 6 AWG OR LARGER BONDING CONDUCTOR TO EACH COMPUTER OR TELECOMMUNICATIONS CABINET, RACK, OR FRAME. DO NOT BOND RACKS, CABINETS, AND FRAMES SERIALLY.
3. 6 AWG OR LARGER BONDING CONDUCTOR TO EACH LADDER, CABLE TRAY, AND CABLE WIREWAY IN OR ENTERING THE ROOM.
4. 4 AWG OR LARGER BONDING CONDUCTOR TO EXPOSED BUILDING STEEL IN THE ROOM.
5. 6 AWG OR LARGER BONDING CONDUCTOR TO HVAC EQUIPMENT.



3 BONDING TO TELECOM GROUND BUS BAR DETAIL
SCALE: NTS



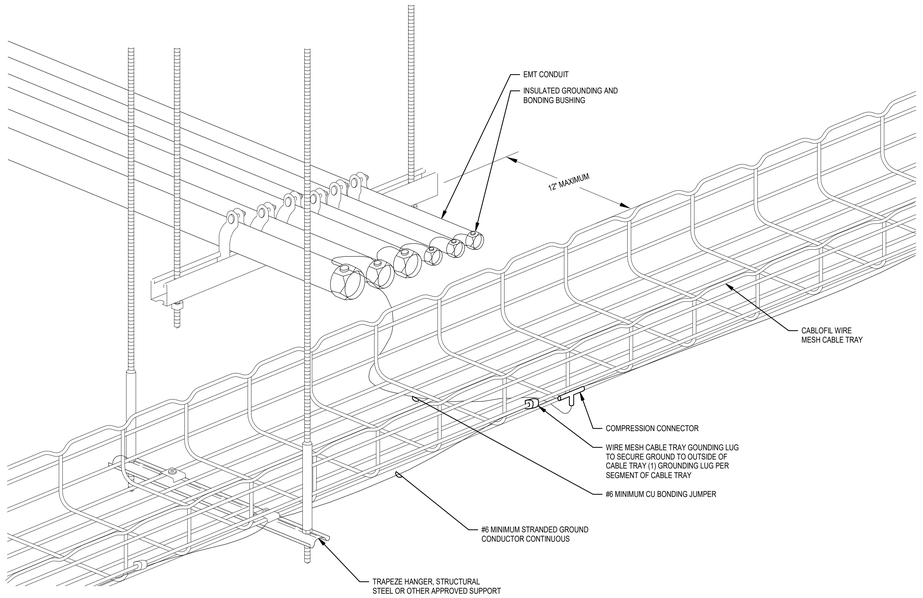
NOTE:

1. MANUFACTURER OF CABLING SYSTEM SHALL WARRANTY STRUCTURE CABLING CHANNEL THROUGH MODULAR FURNITURE AS DEPICTED IN THIS DETAIL FOR PERFORMANCE AS REQUIRED IN DIVISION 27. FAILURE TO OBTAIN A WRITTEN WARRANTY OF STRUCTURED CABLING CHANNEL SHALL RESULT IN DEFAULT OF PERFORMANCE REQUIREMENTS.

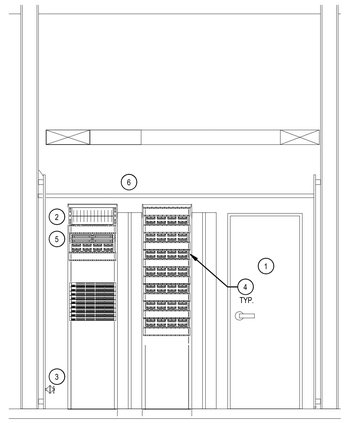
2 COMMUNICATIONS BOX - WALL SYSTEMS FURNITURE DATA CONNECTIONS
SCALE: NTS

NOTES:

1. ALL CABLE TRAY SHALL BE INSTALLED WITH A CONTINUOUS COPPER GROUND SIZED AND SECURED TO THE OUTSIDE OF THE CABLE TRAY IN ACCORDANCE WITH THE DETAIL SHOWN BELOW.
2. EXTEND BONDING CONDUCTOR BACK TO NEAREST 'TMGB' AND/OR 'TGB' INSIDE TELECOM ROOMS.
3. SEE SPECIFICATION SECTION 260526, 270526, AND 270536 FOR DETAILS.



1 WIRE BASKET CABLE TRAY BONDING
SCALE: NTS



KEYED NOTES:

1. ROOM IDENTIFIER - PROVIDE A PLASTIC ENGRAVED LABEL WITH TEXT 2" HIGH. FORMAT SHALL BE "FS" - F - NUMERIC CHARACTER IDENTIFYING THE TS (TELECOM SPACE) ON RESPECTIVE FLOOR. S - ALPHA CHARACTER IDENTIFYING THE TS ON RESPECTIVE FLOOR FOR EXAMPLE: "1A" = FIRE FLOOR, TSA.
2. BACKBONE CABLE - PROVIDE A MACHINE PRINTED LABEL SECURED WITH SHRINK WRAP TO EACH BACKBONE CABLE. FORMAT SHALL BE "FS1/FS2-N" WHERE FS1 IS THE ORIGINATION TS AND FS2 IS THE TERMINATION TS AND N IS THE CABLE NUMBER. FOR EXAMPLE: "1A/2A-1" = CABLE 1 ROUTED BETWEEN TS A ON FIRST FLOOR AND TS A ON THE SECOND FLOOR.
3. GROUND BUS - PROVIDE A MACHINE PRINTED LABEL PERMANENTLY FIXED TO THE BUS BAR. FORMAT SHALL BE "FS-TGB" WHERE FS IS THE TS THAT CONTAINS THE TGB. FOR EXAMPLE: "1A-TGB" = FIRST FLOOR, TS A, TELECOM GROUNDING BUS BAR.
4. PATCH PANELS - PROVIDE MACHINE PRINTED LABELS PERMANENTLY FIXED TO THE PATCH PANEL. FORMAT SHALL BE "AN" WHERE A IS THE PATCH PANEL ALPHA NUMERIC ID AND N IS THE PATCH PANEL'S PORT NUMBER. FOR EXAMPLE "A07" = PATCH PANEL A PORT POSITION 07.
5. IDC PUNCH DOWN BLOCK - PROVIDE MACHINE PRINTED LABELS THAT MOUNT IN THE IDC LABEL HOLDERS AN SNAP INTO IDC BLOCK. FORMAT SHALL BE "AN" WHERE A IS THE IDC BLOCK AND N IS THE 4 PAIR POSITION. FOR EXAMPLE "B04" = IDC BLOCK B POSITION 04.
6. HORIZONTAL CABLE - PROVIDE MACHINE PRINTED LABEL SECURED WITH SHRINK WRAP TO EACH END OF EVERY HORIZONTAL CABLE. FORMAT SHALL "FS-AN". WHERE FS IS THE TS IDENTIFIER AND AN IS THE TERMINATION LOCATION. FOR EXAMPLE "1A-B01" = TS A, PATCH PANEL B, PORT 01.

NOTE:

1. EQUIPMENT LOCATION AND SIZE ARE OUT OF SCALE FOR CLARITY. PORTIONS OF CABLE MANAGEMENT NOT SHOWN FOR CLARITY. THIS DETAILS FOR LABELING ONLY AND NOT INTENDED TO BE INTERPRETED FOR CABLING INSTALLATION REQUIREMENTS. SEE APPLICABLE DIV 27 SPECIFICATION SECTIONS FOR ADDITIONAL REQUIREMENTS.

4 LABELING REQUIREMENTS
SCALE: NTS

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CONSTRUCTION DOCUMENTS

SEAL:
PROFESSIONAL ENGINEER
05/03/2024
8357784-2202
REGISTERED
TREVOR REED SPENCER
STATE OF UTAH

DATE: **05/03/2024**
PROJECT #: **22711**

SHEET NAME:
COMMUNICATION DETAILS - TYPICAL

SHEET #: **EC502**

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5/2/2024 2:50:13 PM

TELECOM CABLE SCHEDULE

CONNECTION TYPE	Load Name	ROOM NAME	CABLE QTY	LENGTH	TOTAL LENGTH
R2N1					
DATA	DATA	TISSUE CULTURE 274	1	88'	98'
DATA	EQUIPMENT	TISSUE CULTURE 274	2	104'	227'
DATA	DATA	TISSUE CULTURE 274	2	87'	194'
DATA	DATA	LAB 272	1	76'	86'
DATA	WIREMOLD	LAB 272	2	85'	189'
DATA	WORKSTATION	LAB 272	1	105'	115'
DATA	WORKSTATION	LAB 272	1	98'	108'
DATA	WORKSTATION PRINTER	LAB 272	1	97'	107'
DATA	WORKSTATION	LAB 272	1	94'	104'
DATA	WORKSTATION	LAB 272	1	88'	98'
DATA	WORKSTATION	LAB 272	1	86'	96'
DATA	WORKSTATION	LAB 268	1	78'	88'
DATA	WORKSTATION PRINTER	LAB 268	1	76'	86'
DATA	WORKSTATION	LAB 268	1	73'	83'
DATA	WORKSTATION	LAB 268	1	65'	75'
DATA	WORKSTATION	LAB 268	1	63'	73'
DATA	WORKSTATION	LAB 268	1	54'	64'
DATA	WORKSTATION PRINTER	LAB 268	1	55'	65'
DATA	WORKSTATION	LAB 268	1	52'	62'
DATA	WORKSTATION	LAB 266	1	61'	71'
DATA	WORKSTATION	LAB 266	1	59'	69'
DATA	WORKSTATION	LAB 266	1	72'	82'
DATA	WORKSTATION PRINTER	LAB 266	1	73'	83'
DATA	WORKSTATION	LAB 266	1	71'	81'
DATA	WORKSTATION	LAB 266	1	82'	92'
DATA	WIREMOLD	LAB 266	2	54'	129'
DATA	WIREMOLD	LAB 266	2	50'	120'
DATA	DOOR	LAB 266	1	42'	52'
DATA	EQUIPMENT MONITOR	LAB 266	1	27'	37'
DATA	WIREMOLD	LAB 268	2	35'	91'
DATA	EQUIPMENT MONITOR	LAB 268	1	45'	55'
DATA	WIREMOLD	LAB 268	2	54'	128'
DATA	EQUIPMENT MONITOR	LAB 272	2	61'	141'
DATA	LAB BENCH	LAB 272	2	81'	182'
DATA	LAB BENCH	LAB 272	2	89'	197'
DATA	LAB BENCH	LAB 272	2	78'	176'
DATA	LAB BENCH	LAB 272	2	68'	156'
DATA	LAB BENCH	LAB 268	2	60'	140'
DATA	LAB BENCH	LAB 268	2	68'	155'
DATA	LAB BENCH	LAB 268	2	57'	134'
DATA	LAB BENCH	LAB 268	2	47'	114'
DATA	LAB BENCH	LAB 266	2	39'	98'
DATA	LAB BENCH	LAB 266	2	47'	113'
DATA	LAB BENCH	LAB 266	2	52'	124'
DATA	LAB BENCH	LAB 266	2	42'	104'
CAT 6A	WORKSTATION	MICROSCOPY 264	1	53'	63'
CAT 6A	WORKSTATION	MICROSCOPY 264	2	59'	138'
CAT 6A	WORKSTATION	MICROSCOPY 266A	1	59'	69'
CAT 6A	WORKSTATION	MICROSCOPY 266A	1	73'	83'
DATA	EQUIPMENT MONITOR	EQUIPMENT 262	2	61'	141'
DATA	EQUIPMENT MONITOR	EQUIPMENT 262	2	84'	187'
DATA	WIREMOLD	EQUIPMENT 262	2	76'	173'
DATA	DOOR	EQUIPMENT 262	1	62'	72'
DATA	DOOR	MODULAR LAB 280	1	70'	80'
DATA	EQUIPMENT MONITOR	MODULAR LAB 280	2	52'	125'
DATA	DOOR	MODULAR LAB 280	1	50'	60'
DATA	WIREMOLD	MODULAR LAB 280	2	38'	96'
DATA	WIREMOLD	MODULAR LAB 280	2	53'	126'
DATA	WORKSTATION	MODULAR LAB 280	1	62'	72'
DATA	WORKSTATION	MODULAR LAB 280	1	69'	79'
DATA	WORKSTATION	MODULAR LAB 280	1	72'	82'
DATA	WORKSTATION	MODULAR LAB 280	1	78'	88'
DATA	WORKSTATION PRINTER	MODULAR LAB 280	1	81'	91'
DATA	WORKSTATION	MODULAR LAB 280	1	82'	92'
DATA	WORKSTATION	MODULAR LAB 280	1	92'	102'
DATA	WIREMOLD	MODULAR LAB 280	2	71'	162'
DATA	CSP-LAB BENCH	MODULAR LAB 280	4	65'	298'
DATA	CSP-LAB BENCH	MODULAR LAB 280	4	45'	219'
DATA	DOOR	EQUIPMENT 285	1	36'	46'
DATA	EQUIPMENT MONITOR	EQUIPMENT 285	2	43'	105'
DATA	WORKSTATION	HISTOLOGY 285A	1	52'	62'
DATA	WORKSTATION	HISTOLOGY 285A	1	47'	57'
DATA	WORKSTATION	HISTOLOGY 285A	1	42'	52'
DATA	WORKSTATION	HISTOLOGY 285A	1	35'	45'
DATA	WIREMOLD	TISSUE CULTURE 285B	2	34'	87'
DATA	DATA	ZOOM ROOM 291A1	1	37'	47'
DATA	DATA	OFFICE 291B	4	39'	196'
DATA	DATA	OFFICE 291C	4	60'	281'
DATA	DATA	OFFICE 291D	4	60'	280'
DATA	DATA	OFFICE 291E	4	80'	360'
DATA	FLOORBOX	CONFERENCE ROOM 291F	2	89'	198'
CAT 6A	TV	CONFERENCE ROOM 291F	2	88'	195'
CAT 6A	WORKSTATION	MICROSCOPY 295	2	43'	106'
CAT 6A	WORKSTATION	MICROSCOPY 295	2	46'	112'
CAT 6A	WORKSTATION	MICROSCOPY 295	2	58'	136'
CAT 6A	WORKSTATION	MICROSCOPY 295	2	59'	138'
CAT 6A	TV	CONFERENCE ROOM 203	2	134'	287'
DATA	FLOORBOX	CONFERENCE ROOM 203	2	146'	312'
CAT 6A	WAP	LAB 272	1	67'	77'
CAT 6A	WAP	MICROSCOPY 266A	1	57'	67'
CAT 6A	WAP	MODULAR LAB 280	1	62'	72'
CAT 6A	WAP	TISSUE CULTURE 285B	1	19'	29'
DATA	EQUIPMENT MONITOR	TISSUE CULTURE 285B	2	26'	73'
CAT 6A	WAP	CONFERENCE ROOM 291F	1	73'	83'
CAT 6A	WAP	LAB 256	1	108'	118'
CAT 6A	WAP	MAIL ROOM 222A	1	138'	148'
CAT 6A	WAP	CONFERENCE ROOM 203	1	123'	133'
R2N1			154		11546'
GRAND TOTAL			154		11546'

TELECOM CABLE SUMMARY SCHEDULE

TELECOM RACK	CABLE QTY	TOTAL LENGTH
R2N1	154	13085' - 11"
GRAND TOTAL: 97	154	13085' - 11"

TELECOMMUNICATIONS SCOPE COORDINATION TABLE

ITEM	FURNISHED BY		INSTALLED AND TESTED BY	
	UofU	CONTRACTOR	UofU	CONTRACTOR
FIBER CABLING TO STRUCTURE	X		X	
COPPER CABLING TO STRUCTURE	X		X	
SECURITY GRATE FOR MANHOLES	X		X	
COORDINATE WITH UTILITY VENDORS (CENTURY LINK, ETC.) & CONNECTIONS TO DEMARK	X		X	
COPPER BACKBONE CABLING BETWEEN TELECOM ROOMS	X		X	
FIBER BACKBONE CABLING BETWEEN TELECOM ROOMS	X		X	
WIRELESS ACCESS POINT EQUIPMENT	X		X	
WIRELESS ACCESS POINT TESTING	X		X	
SERVERS, SWITCHES, ACTIVE EQUIPMENT	X		X	
RACK MOUNTED UPS	X		X	
RACK PDUS (POWER DISTRIBUTION UNITS)	X		X	
RACKS AND VERTICAL/HORIZONTAL RACK CABLE MANAGEMENT	X		X	
WORK AREA AND TELECOM ROOM PATCH CORDS	X		X	
ACTIVE EQUIPMENT BILL OF MATERIALS LIST	X		X	
PASSIVE EQUIPMENT, FACEPLATES, JACKS, CABLING, ETC.	X		X	
PASSIVE EQUIPMENT, FACEPLATES, JACKS, CABLING, ETC. BILL OF MATERIAL LIST	X		X	
COPPER PATCH PANELS	X		X	
FIBER PATCH PANELS	X		X	
ALL 4-PAIR HORIZONTAL CABLING	X		X	
BUILDING ENTRANCE PROTECTORS (SURGE SUPPRESSION DEVICES)	X		X	
ALL CONSUMABLES (TAPE, STRING, TIE-WRAPS, VELCRO, ANCHORS, BOLTS, NUTS, SCREWS, WRAP LABELS, PRINTED LABELS, ETC.)	X		X	
PRINTED LABELING OF ALL PATCH PANELS, DEVICE FACEPLATES, WRAPS, ETC.	X		X	
COMMUNICATION MANHOLES, DUCTBANKS TO STRUCTURE		X		X
FIBER MICRODUCTS/INNER DUCTS INSIDE CONDUITS (EXTERIOR OSP)		X		X
CABLE TRAY & CABLE RUNWAY INSIDE TELECOM ROOMS		X		X
CABLE TRAY BETWEEN TELECOM ROOMS		X		X
RISER/BACKBONE CONDUITS BETWEEN TELECOM ROOMS/ROOF		X		X
FIBER MICRODUCTS INSIDE CONDUITS / CABLE TRAY (INTERIOR BUILDING BACKBONE)		X		X
RACEWAY - CONDUIT, CABLE TRAY, J-HOOKS, BACKBOXES, ETC.		X		X
GROUNDING AND BONDING (BUS BARS, WIRE, ETC.)		X		X
FIRE TREATED PLYWOOD TELEPHONE BOARD		X		X

COMMUNICATIONS CABLING SCHEDULE

DATA DEVICE DESCRIPTION	ANSI/TIA CATEGORY	# OF CABLES PER OUTLET	JACKET COLOR	JACK COLOR	CABLE TYPE	CABLE RATING	APPROVED PRODUCT	
							MANUFACTURER	PORTFOLIO
WIRELESS ACCESS POINT (WAP)	CAT 6A	1	WHITE	GRAY	UTP	PLENUM	COMMSCOPE	SYSTIMAX
CCTV IP CAMERA INTERIOR	CAT 6A	1	PINK	GRAY	UTP	PLENUM	COMMSCOPE	SYSTIMAX
CCTV IP CAMERA EXTERIOR	CAT 6A	1	BLACK	GRAY	UTP	OUTDOOR/FILLED	COMMSCOPE	SYSTIMAX
AV HDTV	CAT 6A	1	WHITE	WHITE	UTP	PLENUM	COMMSCOPE	SYSTIMAX
MICROSCOPES	CAT 6A	2	WHITE	WHITE	UTP	PLENUM	COMMSCOPE	SYSTIMAX
AV PROJECTOR	CAT 6	1	WHITE	WHITE	UTP	PLENUM	COMMSCOPE	UNIPRISE
AV EQUIPMENT RACK	CAT 6	3-5	WHITE	WHITE	UTP	PLENUM	COMMSCOPE	UNIPRISE
FLOOR BOX / POKE-THRU DEVICE	CAT 6	2-8	WHITE	WHITE	UTP	PLENUM	COMMSCOPE	UNIPRISE
SYSTEM FURNITURE WALL BOX	CAT 6	1-8	WHITE	WHITE	UTP	PLENUM	COMMSCOPE	UNIPRISE
WORKSTATION OUTLET	CAT 6	1	WHITE	WHITE	UTP	PLENUM	COMMSCOPE	UNIPRISE
MISC. DATA DROP	CAT 6	1	WHITE	WHITE	UTP	PLENUM	COMMSCOPE	UNIPRISE
MISC. ANALOG PHONE	CAT 6	1	WHITE	BLUE	UTP	PLENUM	COMMSCOPE	UNIPRISE
		1	WHITE	WHITE	UTP	PLENUM	COMMSCOPE	UNIPRISE
MULTI-FUNCTION PRINTER/FAX	CAT 6	1	BLUE (ANALOG)	BLUE	UTP	PLENUM	COMMSCOPE	UNIPRISE
BACKBONE COPPER	CAT 3	PER DRAWINGS	GRAY	N/A	UTP	PLENUM	MOHAWK/CDT	M56XXX

CONDUIT SIZING SCHEDULE

TRADE SIZE	TOTAL AREA	TOTAL INTERNAL DIAMETER (IN.)	CABLE OUTSIDE DIAMETER (INCHES) AND MAXIMUM CABLES PER CONDUIT								
INCHES	100%		0.13	0.18	0.22	0.24	0.29	0.31	0.37	0.53	0.62
1/2" (SEE NOTE 2)	0.304	0.622	6	3	2	2	1	1	1	0	0
3/4" (SEE NOTE 2)	0.533	0.824	11	6	4	3	2	2	1	1	0
1"	0.864	1.049	18	10	6	5	4	3	2	1	1
1-1/4"	1.496	1.38	32	16	11	9	6	6	4	2	1
1-1/2"	2.036	1.61	43	22	15	13	9	8	5	3	2
2"	3.356	2.067	71	37	25	21	14	12	9	4	3
2-1/2"	5.858	2.731	124	64	43	36	25	22	15	7	5
3"	8.846	3.356	187	97	65	55	37	33	23	11	8
3-1/2"	11.545	3.834	244	127	85	71	49	43	30	15	11
4"	14.753	4.334	311	162	109	91	63	55	38	19	14

1. CHART IS BASED UPON ELECTRICAL METALLIC TUBING (EMT).
2. 1" CONDUIT IS THE MINIMUM SIZE ACCEPTABLE ON THIS PROJECT.
3. CONTRACTOR SHALL ADJUST CONDUIT SIZE BASED UPON APPROVED CABLE TYPE, SIZE AND QUANTITY TO BE INSTALLED.
4. PROVIDE FOR 50% FUTURE CAPACITY IN EACH CONDUIT.
5. NO MORE THAN THREE WORK AREA OUTLETS SHALL BE FED FROM A SINGLE CONDUIT RUN. PROVIDE SEPRATE CONDUIT FOR MORE THAN THREE.
6. THIS TABLE ASSUMES A FILL FACTOR OF 40% AND A MAXIMUM OF (2) 90 DEGREES BENDS BETWEEN PULL POINTS.
7. 0.24 CABLE OUTSIDE DIAMETER IS TYPICAL FOR CAT 6 CABLES, .29 IS TYPICAL FOR CAT 6A CABLES. VERIFY WITH APPROVED PRODUCTS.

tsa

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PROJECT NO: 22711

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#	DATE	REVISION

REVIEWED FOR CODE COMPLIANCE
05/17/2024
Shums Coda Associates

BIOMEDICAL POLYMERS RESEARCH BUILDING - LEVEL 2

20 SOUTH 2030 EAST, SALT LAKE CITY, UTAH 84112

CONSTRUCTION DOCUMENTS

SEAL:

PROFESSIONAL ENGINEERS
05/03/2024
9357784-2202
TREVOR REED SPENCER
STATE OF UTAH

DATE:	PROJECT #:
05/03/2024	**22711**

SHEET NAME:
COMMUNICATION - SCHEDULES AND NOTES

SHEET #:
EC601

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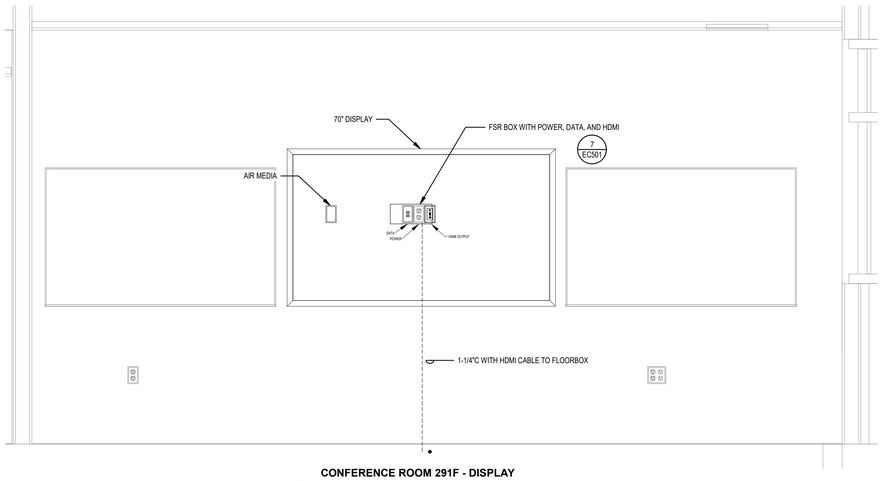
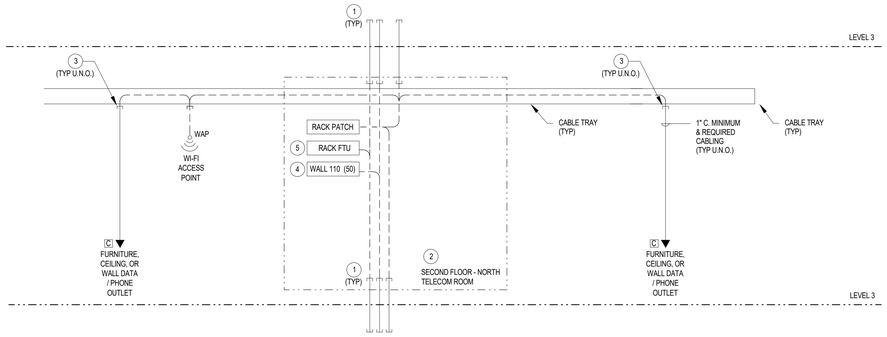


CONFERENCE ROOM 291F - DISPLAY MONITOR ELEVATION
1 SCALE: NTS





TELECOM RISER KEYED NOTES: (#)

1. EXISTING CONDUIT TO ADJACENT FLOOR SHALL REMAIN. CAP OR PLUG ALL UNUSED CONDUIT.
2. CAP OR PLUG ALL UNUSED SERVICE CONDUITS. TO PREVENT ENTRY OF WATER AND/OR DEBRIS.
3. STUB CONDUIT TO NEAREST CABLE TRAY AND PROVIDE BUSHING. J-HOOKS MAY ONLY BE USED FOR CAT CABLING ABOVE LAY-IN CEILINGS WHERE ACCESSIBLE.
4. EXISTING CAT. 3 BACKBONE CABLES IN WALL MOUNTED 110 BLOCKS. VERIFY TERMINATION LOCATION WITH THE OWNER PRIOR TO ANY ROUGH-IN.
5. OWNER WILL TERMINATE FIBER OPTIC CABLE AT THE RACK MOUNTED FIBER TERMINATION UNITS (FTU). VERIFY WITH THE OWNER'S IT REPRESENTATIVE. OWNER WILL PROVIDE SC/APC TYPE CONNECTORS AND LEAVE 20FT OF COILED SLACK AT EACH END.

TELECOM RISER BLOCK DEFINITIONS

FTU	RACK MOUNTED FIBER TERMINATION UNIT	BEP	WALL MOUNTED BUILDING ENTRANCE PROTECTOR (SURGE PROTECTION)
110 BLOCK (#)	RACK MOUNTED 110 BLOCK, (#) = PAIR QTY	RACK PATCH	RACK MOUNTED PATCH PANELS
		SUMITOMO ABF TDU 16"X16"X4"	SUMITOMO AIR BLOWN FIBER TERMINATION DISTRIBUTION UNIT

NOTE: ALL ITEMS NOTED ABOVE ARE PROVIDED BY CONTRACTOR.

NOTE: ALL NETWORK CABLING INSTALLED BY UIT.

TELECOMMUNICATIONS STANDARDS/GUIDELINES:

CONTRACTOR SHALL FOLLOW ALL OF THE STANDARDS/REQUIREMENTS BELOW. U OF U ABIDES BY ALL BICSI AND TIA STANDARDS AND INSTALLATION PRACTICES. THESE GUIDELINES ARE MEANT AS A REFERENCE ONLY AND NOT AS A COMPLETE SET OF STANDARDS. CONTRACTOR SHALL FOLLOW ALL SPECIFICATIONS AND STANDARDS IN UIT DESIGN GUIDELINES. IF THERE ARE ANY QUESTIONS OR CONCERNS PLEASE CONTACT DESIGN ENGINEER OR UIT.

GENERAL ITEMS
1) ALL TELECOM ROOMS SHALL BE LINED WITH ¾" A/C OR BETTER PLYWOOD EXTENDING 8' HIGH WITH OUTLETS EXTENDING FLUSH WITH THE SURFACE OF THE WOOD AT 6 FT ABOVE FINISHED FLOOR. THE PLYWOOD MUST BE FIRE RATED AND PAINTED WHITE.
2) ALL CONDUITS EXTENDING FROM THE FLOOR SHOULD EXTEND 1-3" AFF AND NO MORE THAN 2" OFF ANY WALL.
3) CONDUIT ROWS SHOULD NOT EXCEED TWO DEEP
4) CONDUITS THAT ENTER A TELECOM ROOM SHOULD TERMINATE NEAR THE CORNERS TO ALLOW FOR PROPER RACKING.
5) ALL PATHWAYS MUST NOT EXCEED 295' FROM THE TELECOM RACK TO THE DATA OUTLET.
6) ALL PENETRATIONS THROUGH FIRE RATED WALL SHALL BE PROVIDED WITH FIRE RATED PATHWAYS AND FIRE CAULKING SUCH THAT THE WALL RATING IS MAINTAINED. SEE SPECIFICATIONS FOR ADDITIONAL REQUIREMENTS.
7) REFER TO DRAWINGS AND SPECIFICATIONS FOR ALL OUTLET/DEVICE INSTALLATION REQUIREMENTS AND LOCATIONS.
8) ACCESS CONTROL WIRING SHALL TERMINATE AT WALL MOUNTED ACCESS CONTROL / SECURITY PANELS INSIDE TELECOM ROOMS, NOT AT TELECOM RACKS.
6) UNLESS OTHERWISE NOTED, ALL CABLE SHALL BE INSTALLED IN CONDUIT OR SUPPORTED BY J-HOOKS AT ACCESSIBLE LAY-IN CEILING LOCATIONS ONLY, WITH THE EXCEPTION OF PATCH CABLES. PROVIDE CONTINUOUS CONDUIT AT OPEN CEILINGS AND FOR CCTV CAMERA CABLING.

ACCEPTABLE CONDUIT RUNS
1) MUST NOT HAVE A BEND OVER 90 DEGREES OR AN AGGREGATE OF BENDS IN EXCESS OF 180 DEGREES BETWEEN PULL POINTS.
2) CONDUIT SEGMENTS SHALL NOT EXCEED 100' WITHOUT A PULL POINT.
3) CONDUIT RUNS SHOULD BE LIMITED TO LESS THAN 150'
4) ALL EMPTY CONDUITS SHALL BE EQUIPPED WITH A PULL CORD THAT HAS A MINIMUM RATING OF 200LBS.
5) ALL CONDUIT LOCATED BELOW GRADE OR IN THE SLAB SHALL BE 1" MINIMUM. CATEGORY CABLING RUN BELOW GRADE OR IN THE SLAB SHALL BE OF THE WET LOCATION LISTED TYPE.
6) ALL CONDUIT RUNS SHALL BE SINGLE CONTINUOUS RUNS FROM THE VOICE/DATA OUTLET TO THE NEAREST CABLE TRAY. JUNCTION BOXES ARE ALLOWED IN ACCESSIBLE LOCATIONS ONLY.
7) FLEXIBLE METALLIC AND FLEXIBLE NONMETALLIC CONDUIT ARE PROHIBITED.
8) CONDUIT INSTALLATIONS SHALL COMPLY WITH ALL DFCM AND U OF U REQUIREMENTS.

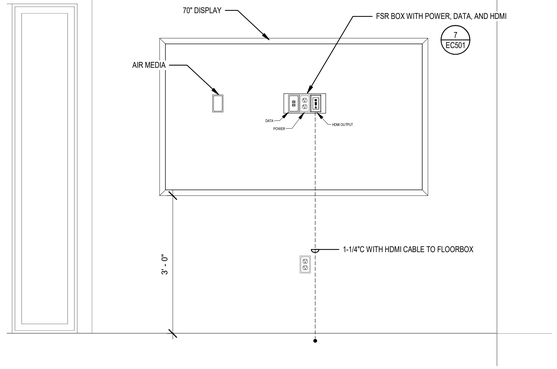
PATHWAYS AND CABLE SUPPORT
1) PATHWAYS MUST HAVE ADEQUATE SUPPORT TO WITHSTAND PULLING THE CABLES
2) PATHWAYS SHOULD BE INSTALLED AT LEAST 3" OF CLEAR VERTICAL SPACE ABOVE THE CEILING TILES AND T-BARS TO ENSURE ACCESSIBILITY. AND SHOULD AT NO POINT REST OR BE SUPPORTED BY ANY COMPONENT OF THE SUSPENDED CEILING
3) J-HOOKS SHOULD AT NO POINT EXCEED 5' FOR ADEQUATE SUPPORT
4) PROVIDE CABLE TRAYS AS INDICATED ON THE DRAWINGS. FOR AREAS EXCEEDING 75 DATA CABLES, NOT WITH CABLE TRAY, ADDITIONAL CABLE TRAY SHALL BE PROVIDED FOR ADEQUATE SUPPORT.

CABLE TRAYS / BASKET TRAY
1) ALL CABLE TRAYS MUST BE INSTALLED TO MEET NATIONAL AND LOCAL BUILDING CODES
2) THE INSIDE OF A CABLE TRAY MUST BE FREE OF BURRS, SHARP EDGES, OR PROJECTIONS THAT CAN DAMAGE THE CABLE DURING INSTALLATION
3) ELEVATION CHANGES AND OFFSETS MUST BE KEPT TO A MINIMUM
4) TRAY SHOULD EXTEND AT LEAST 1" INTO THE TELECOM ROOM THEN WATERFALL TO LOWER CABLE RUNWAY SYSTEM TO ACCOMMODATE INTERNAL RACKING
5) CONDUIT SHOULD EXTEND FROM THE TELECOM OUTLET LOCATED IN THE WORK AREA WITH A 90 DEGREE BEND AT TOP OF WALL DIRECTED TOWARDS NEAREST CABLE TRAY. CONDUIT SHALL BE USED AT ALL INACCESSIBLE AND OPEN CEILING LOCATIONS. CONDUIT SLEEVES SHALL BE PROVIDED THROUGH ALL WALL PENETRATIONS BETWEEN WHERE CONDUIT ENTERS CEILING FROM OUTLET BELOW TO NEAREST CABLE TRAY. ACCOUNT FOR TOTAL NUMBER OF CABLES PLUS 50% FUTURE CAPACITY WITH SLEEVES.
6) TRAYS SHOULD BE SUPPORTED EVERY 5' AND WITHIN 24" ON EACH SIDE OF A FITTING (UNLESS OTHERWISE NOTED BY THE MANUFACTURE)
7) ALL METALLIC CABLE TRAYS MUST BE GROUNDED, MARKED AND ALL SECTIONS BONDED IN ACCORDANCE WITH APPLICABLE CODES, STANDARDS AND REGULATIONS
8) PATHWAYS SHOULD BE KEPT IN COMMON AREAS AS MUCH AS POSSIBLE TO AVOID FUTURE MAINTENANCE OCCURRING IN PRIVATE WORK AREAS OR CLASSROOMS OR CONFERENCE ROOMS.
9) CABLE TRAYS SHOULD BE SIZED TO BE AT 40% FILL MAXIMUM AT THE END OF THE INSTALL, AND NO MORE THAN 60% FILL AT PROJECT COMPLETION. LARGER OR ADDITIONAL CABLE TRAY SHALL BE PROVIDED AS NECESSARY TO MEET THESE REQUIREMENTS.

GROUNDING AND BONDING
1) IF THERE IS A CONFLICT BETWEEN LOCAL SAFETY CODE, OWNER, OR THE MANUFACTURES REQUIREMENTS, THE CONFLICT SHOULD BE RESOLVED WITH THE AHJ BEFORE PROCEEDING
2) ENTRANCE FACILITY (EF) MUST CONTAIN THE TMGB (4" WIDE 1/4 " THICK AND NO LESS THAN 12"IN LENGTH) THIS WILL SERVE AS THE DEDICATED EXTENSION OF THE BUILDING AC GROUNDING ELECTRODE SYSTEM FOR THE TELECOM INFRASTRUCTURE
3) THE PLACEMENT OF THIS BUS-BAR MUST BE IN CLOSE PROXIMITY TO THE PRIMARY/ SECONDARY SURGE PROTECTION, CABLE SHEATHS, AND ENTRANCE CONDUITS.
4) TELECOM ROOMS MUST CONTAIN TGBS (2" WIDE 1/4" THICK AND NO LESS THAN 12" IN LENGTH)
5) EACH TGB OR TMGB MUST HAVE AN EFFECTIVE BONDING CONNECTION TO THE NEAREST APPROVED BUILDING GROUNDING ELECTRODE AND THE EQUIPMENT GROUNDING SYSTEM.
6) THE INSTALLATION OF THE TELECOM BONDING BACKBONE (CONNECTS THE TMGB TO TGB'S AND SHOULD BE RUN AS SHORT AND STRAIGHT AS POSSIBLE

OUTSIDE PLANT
1) OUTSIDE COMMUNICATIONS RACEWAYS SHOULD NOT EXCEED 600' BETWEEN MANHOLES OR PULL POINTS.
2) ALL SPARE COMM. RACEWAYS SHALL HAVE A PULL ROPE INSTALLED DURING INITIAL INSTALLATION (200LB)
3) UNDERGROUND OR BURIED ENTRANCES MUST BE PIPED DIRECTLY TO THE ENTRANCE FACILITY.
4) CONDUIT STUBS ENTERING A BUILDING MUST EXTEND NO LESS THAN 6' INTO UNDISTURBED EARTH
5) SEPARATION FROM POWER OR OTHER FOREIGN CONDUIT (3" IF ENCASED IN CONCRETE OR 12" IF DIRECT BURIED
6) SEPARATION FROM GAS, OIL, WATER, (6" WHEN CROSSING AND 12" WHEN PARALLEL
7) WHEN OUTSIDE COMM. PATHWAYS CROSS ANY ROAD (PAVED OR DIRT) A MINIMUM DEPTH OF 40" MUST BE MAINTAINED
8) UNDERGROUND ENTRANCES SHOULD NOT HAVE MORE THAN 2 -90 DEGREE BENDS BETWEEN PULL POINTS

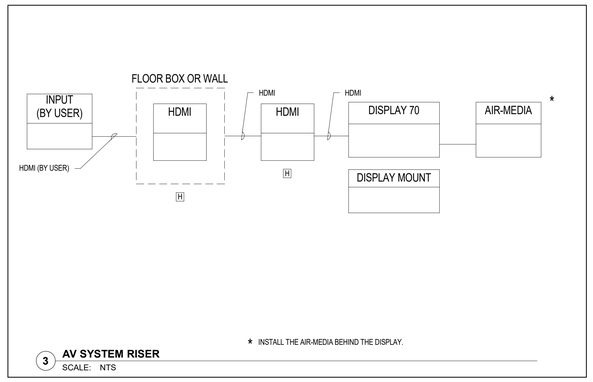
LABELING
1) ALL CABLES MUST HAVE A PRINTED LABEL THAT WRAPS AROUND THE CABLE AT THE PATCH PANEL AND OUTLET.
2) ALL PATCH PANELS SHALL BE LABELED WITH A PRINTED LABEL SECURED TO PATCH PANEL.
3) ALL COPPER BACKBONE CABLES SHALL HAVE LABELS THAT WRAP AROUND THEM DESIGNATING THEIR DESTINATION AND SOURCE. SEE SPECIFICATION SECTION 270553 - "IDENTIFICATION SYSTEMS FOR COMMUNICATION SYSTEMS.
4) ALL 110 BLOCKS SHALL BE TYPED LABELED EVERY 4 PAIR FOR HORIZONTAL CABLE, AND EVERY 5 PAIR FOR MULTI-PAIR DISTRIBUTION CABLE.



CONFERENCE ROOM 203 - DISPLAY MONITOR ELEVATION
2 SCALE: **3/4" = 1'-0"**

AUDIO/VIDEO EQUIPMENT LIST						
SYMBOL	DESCRIPTION	QTY/RM	SUPPLIER	MODEL	ROUGH-IN	CABLE
	DISPLAY MOUNT, FIXED WALL MOUNT, TILT	A/R	CHIEF			
H	HDMI INPUT OUTLET HEIGHT	A/R	MIDDLE ATLANTIC	CG39710 OR EQUIVALENT	DEEP 2-GANG, 1-1/4" C. TO HDMI OUTPUT AT POKE-THRU	CRESTRON HDMI CABLE
H*	HDMI OUTPUT	A/R	MIDDLE ATLANTIC	CG39710 OR EQUIVALENT	IN FSR BOX	CRESTRON HDMI CABLE
AM	AIR-MEDIA	A/R	CRESTRON	AM-3200		CRESTRON HDMI CABLE
DISPLAY70	DISPLAY, 70", CONSUMER GRADE, 4K, IR CONTROL, 3 OR MORE HDMI INPUTS.	A/R	SAMSUNG		FSR PWB-100 WITH (2) 54406 SINGLE GANG BOXES	CRESTRON HDMI CABLE

A/R = AS REQUIRED
* PROVIDE ALL DEVICES SHOWN IN EACH DISPLAY LOCATION. REFER TO DETAILS FOR ADDITIONAL INFORMATION.



AV SYSTEM RISER
3 SCALE: NTS

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Shums Coda Associates

BIOMEDICAL POLYMERS RESEARCH BUILDING - LEVEL 2
20 SOUTH 2030 EAST, SALT LAKE CITY, UTAH 84112
CONSTRUCTION DOCUMENTS

SEAL:
PROFESSIONAL ENGINEER
05/03/2024
9357704 - 2202
TREVOR REED SPENCER
STATE OF UTAH

DATE: **05/03/2024**
PROJECT #: **22711**

SHEET NAME:
COMMUNICATIONS RISER DIAGRAM

SHEET #: **EC701**

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SYSTEMS GENERAL NOTES:

1. COORDINATE ALL WALL MOUNTED LOCATIONS WITH THE ARCHITECT.
2. DO NOT LOCATE ANY FIRE ALARM DEVICES BEHIND DOORS OR SHELVING. REFER TO THE ARCHITECTURAL DRAWINGS FOR SHELVING LOCATIONS.
3. THE DIVISION 28 CONTRACTOR SHALL DETERMINE THE EXACT ROUTING OF ALL CONDUITS IN THE FIELD. THIS PLAN REPRESENTS A SCHEMATIC REPRESENTATION OF DEVICE LOCATIONS, AND CONDUIT RUNS.
4. ALL CONDUITS THAT TERMINATE ABOVE THE CEILING SHALL TERMINATE WITH NYLON BUSHING.
5. CONTRACTOR SHALL COORDINATE ALL CEILING MOUNTED DEVICES WITH THE LIGHTING PLANS. RELOCATE DEVICES AS NECESSARY. RELOCATED DEVICES SHALL COMPLY WITH ALL NFPA SPACING REQUIREMENTS.
6. ALL FIRE ALARM DEVICE LOCATIONS, EQUIPMENT LOCATIONS, RISER DIAGRAM, ETC., ARE SCHEMATIC IN NATURE AND ARE SHOWN TO PROVIDE INTENT OF THE FIRE ALARM SYSTEM TO BE PROVIDED. FIRE ALARM SYSTEM SUPPLIER SHALL PROVIDE BID AND SHOP DRAWINGS THAT INCLUDE A FULL CODE COMPLIANT DESIGN INCLUDING ALL NOTIFICATION AND INITIATION DEVICES REQUIRED WHETHER SHOWN OR NOT.

KEYED NOTES (#)

G1 ALL WORK IN THIS AREA TO BE INCLUDED AS PART OF ALTERNATE #1.

Y1 PROVIDE AND INSTALL NEW FIRE ALARM DEVICE AND CONNECT TO EXISTING NEARBY NOTIFICATION/INITIATION CIRCUIT.

Y2 ACCESS CONTROLLED DOOR ON UNIVERSITY'S CCURE SYSTEM. REFER TO ARCHITECTURAL DOOR HARDWARE SCHEDULE FOR ADDITIONAL INFORMATION.



1 **LEVEL 2 - SYSTEMS PLAN**
SCALE: **1/8" = 1'-0"**

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BIOMEDICAL POLYMERS RESEARCH BUILDING - LEVEL 2

20 SOUTH 2030 EAST, SALT LAKE CITY, UTAH 84112

CONSTRUCTION DOCUMENTS

SEAL:
PROFESSIONAL ENGINEER
05/03/2024
6357784-2202
TREVOR REED SPENCER
STATE OF UTAH

DATE:	PROJECT #:
05/03/2024	**22711**

SHEET NAME:
LEVEL 2 - SYSTEMS PLAN

SHEET #:
EY101

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FIRE ALARM SYSTEM GENERAL NOTES:

1. PROVIDE ADDRESSABLE FIRE ALARM SYSTEM. REFER TO THE SPECIFICATIONS FOR ADDITIONAL INFORMATION.
2. THE SYSTEM SHALL BE PROGRAMMED SO THAT IF ANY INITIATION DEVICE IS ACTUATED, AN ALARM SIGNAL WHICH IS AUDIBLE THROUGHOUT THE BUILDING ZONES AS REQUIRED BY THE FIRE MARSHAL WILL BE ACTIVATED.
3. WIRING SHALL BE CONTINUOUS FROM ONE DEVICE TO ANOTHER. NO SPLICING IS ALLOWED. REFER TO THE SPECIFICATIONS FOR THE OWNER CABLING REQUIREMENTS.
4. PROVIDE FIRE ALARM MAP OF THE BUILDING SHOWING ALL FIRE ALARM SYSTEM DEVICES. MAP TO INCLUDE BUT NOT LIMITED TO THE FOLLOWING:
   - A. EXACT LOCATIONS OF ALL DEVICES, FIRE ALARM CONTROL PANEL AND NAC PANELS.
   - B. ROOM NAMES
   - C. ALL DEVICE ADDRESS SHALL BE INDICATED ON THE DRAWINGS.
   - D. ALL MAPS SHALL BE 11"X17". PROVIDE ONE SET IN A SLEEVED 3 RING BINDER. DELIVER 3 RING BINDER WITH MAPS TO THE ELECTRICAL ENGINEER FOR REVIEW AND APPROVAL AS PART OF THE CLOSE DOCUMENTS. REFER TO THE SPECIFICATIONS FOR ADDITIONAL INFORMATION.
5. FIRE ALARM RISER CABLING SHALL BE RUN IN CONDUIT. MINIMUM CONDUIT SIZE SHALL BE 3/4". ALL CONDUIT, JUNCTION BOXES AND FITTINGS SHALL BE RED IN COLOR AND LABELED PER ALL OWNER STANDARDS. ALL CABLING SHALL BE RATED FOR USE IN A FIRE ALARM SYSTEM PER ALL NFPA AND NEC REQUIREMENTS.
6. THE FIRE ALARM SYSTEM SUPPLIER SHALL PROVIDE COMPUTER DRAFTED SHOP DRAWINGS OF THE ENTIRE FIRE ALARM SYSTEM USING FLOOR PLANS PROVIDED BY THE ENGINEER. SHOP DRAWINGS TO INCLUDE BATTERY CALCULATIONS, VOLTAGE DROP CALCULATIONS, PLANS, SECTIONS, ELEVATIONS, FINAL DEVICE LOCATIONS AND ADDRESS, CONDUIT SIZE AND ROUTING AND ALL CONDUCTOR SIZES (SEE SPEC FOR OWNER STANDARDS). TYPICAL RISERS AND CALCULATIONS WILL NOT BE ACCEPTED. ALL SHOP DRAWINGS SHALL BE PREPARED AND APPROVED BY A NICET CERTIFIED FIRE ALARM TECHNICIAN, LEVEL III OR GREATER.
7. ALL NOTIFICATION DEVICE CIRCUIT VOLTAGE DROP CALCULATIONS SHALL BE DONE IN COMPLIANCE WITH NFPA 72. THE FIRE ALARM SYSTEM SUPPLIER TO DETERMINE THE AMOUNT NOTIFICATION DEVICE CIRCUITS THAT ARE REQUIRED BASED ON THE NUMBER OF THE NOTIFICATION DEVICES SHOWN ON THE DRAWINGS. THE FIRE ALARM SUPPLIER SHALL DETERMINE THE AMOUNT OF 'NAC' PANELS THAT WILL BE REQUIRED BASED ON THE QUANTITY OF NOTIFICATION DEVICE CIRCUITS.
8. FAN SHUT DOWN RELAY(S) IN THE AIR HANDLING EQUIPMENT SHALL BE NORMALLY ENERGIZED, AND CONNECTED THROUGH AND CONTROLLED BY A NORMALLY CLOSED CONTACT IN THE FIRE ALARM PANEL, OR A NORMALLY CLOSED CONTACT OF A REMOTE RELAY UNDER SUPERVISION BY THE MAIN PANEL. THE RELAYS WILL TRANSFER ON ALARM, AND SHALL NOT RESTORE UNTIL THE PANEL IS RESET.
9. AUDIBLE ANNUNCIATION DEVICES SHALL BE SILENCE-ABLE VIA THE FACP FRONT PANEL WHILE ALLOWING VISUAL ANNUNCIATION DEVICES TO REMAIN IN ALARM.
10. SUBMIT TO THE LOCAL AUTHORITY HAVING JURISDICTION, A MINIMUM OF TWO SETS OF PLANS, COMPLETE WITH MANUFACTURER CUT SHEETS, AND BATTERY CALCULATIONS AND FIRE COMMAND CENTER LAYOUT. PLANS MUST BE INK SIGNED BY A NICET LEVEL III OR BETTER IN FIRE ALARM SYSTEMS.
11. VERIFY AND COMPLY WITH ALL CURRENT STATE, LOCAL AND NATIONAL CODES. COMPLY WITH ALL NEC AND NFPA REQUIREMENTS.
12. UPON CLOSE OUT OF THE PROJECT THE FIRE ALARM SYSTEM SUPPLIER TO PROVIDE A CD(S) WITH CAD AND PDF DRAWINGS OF THE BUILDING FIRE ALARM MAP. CAD AND PDF AS-BUILT DRAWINGS, GENERAL PROGRAMMING, SITE SPECIFIC PROGRAMMING, O&M MANUALS FOR THE FIRE ALARM SYSTEM AND A TUTORIAL ON PROGRAMMING THE SYSTEM. REFER TO THE SPECIFICATIONS FOR ADDITIONAL INFORMATION.
13. CONTRACTOR IS RESPONSIBLE FOR MAKING AND OBTAINING APPROVAL FOR ALL NECESSARY ADJUSTMENTS IN CIRCUITRY AS REQUIRED ACCOMMODATING THE RELOCATION OF EQUIPMENT AND/OR DEVICES WHICH ARE AFFECTED BY ANY AUTHORIZED CHANGE. ALL CHANGES SHALL BE CLEARLY INDICATED ON THE RECORD DRAWINGS.
14. FIRE RATINGS SHALL BE MAINTAINED FOR ALL PENETRATIONS THROUGH FIRE-RATED CONSTRUCTION.
15. THE POWER CIRCUIT TO THE FACP AND TO THE FIRE ALARM POWER SUPPLIES SHALL BE ON A DEDICATED 120V, 20A BRANCH CIRCUIT BREAKER, AND SHALL HAVE A RED MARKING, LOCK-ON PROVISION AND SHALL BE IDENTIFIED AS FIRE ALARM CIRCUIT CONTROL. THE LOCATION OF THE CIRCUIT DISCONNECT MEANS (CIRCUIT BREAKER) SHALL BE PERMANENTLY IDENTIFIED AT THE FIRE ALARM CONTROL UNIT.
16. POWER-LIMITED AND NONPOWER-LIMITED CIRCUIT WIRING MUST REMAIN SEPARATED IN CABINET. ALL POWER-LIMITED CIRCUIT WIRING MUST REMAIN AT LEAST 0.25 AWAY FROM ANY NON POWER-LIMITED CIRCUIT WIRING. FURTHERMORE, ALL POWER-LIMITED AND NONPOWER-LIMITED CIRCUIT WIRING MUST ENTER AND EXT THE CABINET THROUGH DIFFERENT KNOCKOUTS AND/OR SEPARATE CONDUITS.
17. MAINTAIN 40 PERCENT CONDUIT FILL RATIO AS PER NEC REGULATIONS.
18. WHEN UTILIZING SHIELDED CABLES, TIE SHIELDS THROUGH AND INSULATE AT EACH JUNCTION BOX. INSULATE AND TAPE BACK TO BACK END OF JUNCTION BOX.
19. WHEN UTILIZING CLASS A CIRCUITS, SEPARATE OUTGOING AND RETURN CONDUCTORS BY A MINIMUM OF 12" WHERE RUN VERTICALLY AND 48" WHERE RUN HORIZONTALLY.
20. ALL FIRE ALARM CABLING SHALL BE ACCEPTABLE TO THE FIRE ALARM EQUIPMENT MANUFACTURER FOR THE INTENDED PURPOSE.
21. FIRE ALARM CABLE INSTALLED IN DUCTS, PLENUMS, AND OTHER SPACES USED FOR ENVIRONMENTAL AIR SHALL BE TYPE FPLP.
22. FIRE ALARM CABLES INSTALLED IN VERTICAL RUNS AND PENETRATE MORE THAN ONE FLOOR OR CABLES INSTALLED IN VERTICAL SHAFTS SHALL BE TYPE FPLR.
23. SMOKE DETECTORS SHALL NOT BE INSTALLED UNTIL AFTER CONSTRUCTION CLEAN-UP IS COMPLETED AND FINAL.
24. LOCATE SMOKE DETECTORS A MINIMUM OF THREE(3) FEET FROM MECHANICAL DIFFUSERS.
25. PROVIDE SYNCHRONIZATION OF ALL VISUAL NOTIFICATION APPLIANCE CIRCUITS.
26. UPON COMPLETION OF THE FIRE ALARM SYSTEM INSTALLATION AND PROGRAMMING, THE INSTALLING CONTRACTOR SHALL PERFORM FINAL TESTING OF THE ENTIRE SYSTEM, PER ALL APPLICABLE CODES, AND SHALL COORDINATE AND PERFORM A FINAL FIRE ALARM INSPECTION.
27. INSTALLING CONTRACTOR SHALL PHYSICALLY, LABEL ALL INITIATING DEVICES. THESE LABELS SHALL BE IN PLACE PRIOR TO START-UP AND TESTING.

SYSTEMS GENERAL NOTES:

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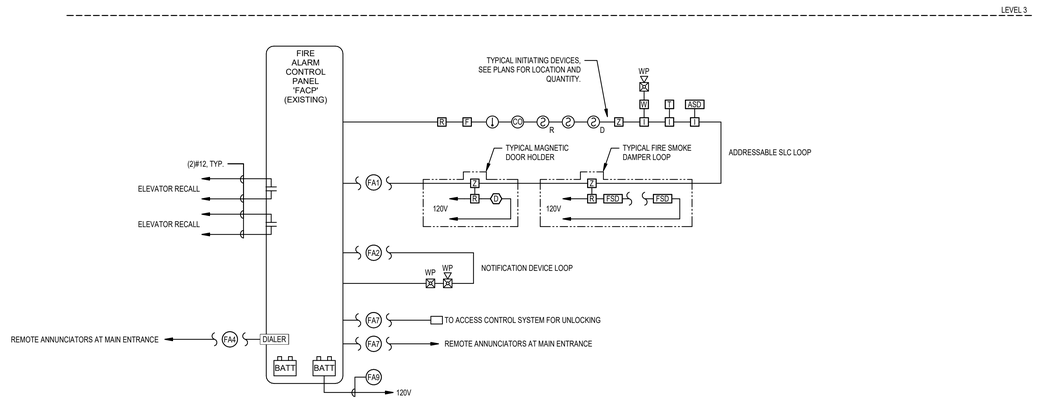
KEYED NOTES (#)

- FA1 EXTEND COMMUNICATION CABLES TO ADDRESSABLE FIRE ALARM DEVICES INCLUDING SMOKE AND HEAT DETECTORS, DUCT SMOKE DETECTORS, MONITOR MODULES, CONTROL MODULES, AND MANUAL PULL STATIONS. REFER TO THE FIRE ALARM PLANS FOR QUANTITIES, DEVICE TYPES AND LOCATIONS. INCLUDE 24VDC POWER WIRING AS REQUIRED FOR CONTROL MODULES AND DUCT SMOKE DETECTORS. PROVIDE A MINIMUM OF 20% SPARE CAPACITY, PER ADDRESSABLE LOOP, FOR FUTURE USE.
- FA2 EXTEND NOTIFICATION CABLES TO FIRE ALARM HORN/STROBES AND STROBES. REFER TO THE FIRE ALARM PLANS FOR QUANTITIES, DEVICE TYPES AND LOCATIONS. PROVIDE SYNC MODULES FOR STROBES AS REQUIRED TO COMPLY WITH ALL APPLICABLE ADA CODES. CIRCUIT PER ALL MANUFACTURERS RECOMMENDATIONS. PROVIDE A MINIMUM OF 20% SPARE CAPACITY, IN FACP AND EACH NAC PANEL, FOR FUTURE USE.
- FA4 EXTEND A 3/4" CONDUIT WITH TWO (2) CAT.6 CABLES TO THE TELEPHONE TERMINAL BOARD.
- FA7 EXTEND 3/4" CONDUIT WITH CABLING PER ALL MANUFACTURERS RECOMMENDATIONS.
- FA9 EXTEND A 3/4" CONDUIT WITH 2#12 AND 1#12 GND. TO PANEL SHOWN ON PLANS, IDENTIFY BREAKER WITH RED LABEL STATING "FIRE ALARM CIRCUIT".



1 **FIRE RISER DIAGRAM HORN ALARM SYSTEM**
SCALE: NTS

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BIOMEDICAL POLYMERS RESEARCH BUILDING - LEVEL 2

20 SOUTH 2030 EAST, SALT LAKE CITY, UTAH 84112

CONSTRUCTION DOCUMENTS

SEAL:

PROFESSIONAL ENGINEER
05/03/2024
#557784-2202
TREVOR REED SPENCER
STATE OF UTAH

DATE: **05/03/2024**
PROJECT #: **22711**

SHEET NAME:
FIRE RISER DIAGRAM HORN ALARM SYSTEM

SHEET #: **EY701**

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