

KELLEY ENGINEERING CENTER PARTIAL REMODEL

OREGON STATE UNIVERSITY

ISSUED FOR PERMIT AND BID / 07/27/2023
19-0016
OSU PROJECT NUMBER: 2214-20

INTEGRUS
A COLLABORATION OF YGH & INTEGRUS ARCHITECTURE
707 SW Washington Street | Suite 1200 | Portland, OR 97205
1 503 221 0150 | 1 503 295 0640



SYMBOLS LEGEND

GRID TAG: 0 (LETTERS HORIZONTAL, NUMBERS VERTICAL, GRID LINE)

DOOR TAG: 101 (DOOR NUMBER, KEYNOTE NUMBER)

KEYNOTE: 9 (ROOM NAME, ROOM NUMBER, ROOM SQ FT)

ROOM TAG: ROOM NAME, ROOM NUMBER, ROOM SQ FT

WINDOW TAG: 11 (WINDOW ID)

WALL TAG: N.13C2S (WALL ID)

LEVEL TAG: 10'-0" (LEVEL NAME, LEVEL HEIGHT)

CEILING TAG: BO GYP BD (DESCRIPTION, HEIGHT)

FIRE LIFE SAFETY TAG: ROOM SQ FT, ROOM OCCUPANT LOAD, ROOM OCCUPANT TYPE, OCCUPANT LOAD FACTOR, NUMBER OF EXITS REQ'D

REVISION TAG: REVISION BUBBLE, REVISION NUMBER

BUILDING ELEVATION TAG: A1.01 (SHEET NUMBER, ELEVATION NUMBER)

BUILDING SECTION TAG: 1 (DETAIL NUMBER, REFERENCE TYPE, SHEET NUMBER)

WALL ELEVATION TAG: A1.01 (SHEET NUMBER, ELEVATION NUMBER)

WALL SECTION TAG: 1 (DETAIL NUMBER, REFERENCE TYPE, SHEET NUMBER)

DETAIL TAG: 1 (DETAIL NUMBER, REFERENCE TYPE, SHEET NUMBER)

CALLOUT: 1 (DETAIL NUMBER, REFERENCE TYPE, SHEET NUMBER, AREA OF ENLARGEMENT)

TITLE LINE: 88 (DRAWING NUMBER, DRAWING NAME, DRAWING PARENT VIEW, DRAWING SCALE)

NORTH ARROW: N (TRUE NORTH DIRECTION, PROJECT NORTH DIRECTION, ANGLE TO TRUE NORTH)

WORK DESIGNATION: - (EXISTING TO REMAIN), - - - (EXISTING TO BE DEMOLISHED), - - - - (NEW CONSTRUCTION)

MATCHLINE: - - - (MATCHLINE), - - - - (CONTINUED VIEW LOCATION)

PROPERTY LINE: - - - - (PROPERTY LINE)

SCOPE OF WORK: - - - - (SCOPE OF WORK)

LOCATION MAP



VICINITY MAP

ABBREVIATIONS

&	AND
∠	ANGLE
@	AT
CL	CENTERLINE
Ø	DIAMETER
±	PLUS OR MINUS
°	DEGREE
#	POUND OR NUMBER
(E)	EXISTING
AB	ANCHOR BOLT
AC	AIR CONDITIONING
ACST	ACOUSTICAL
ACM	ALUMINUM COMPOSITE MATERIAL PANELS
ACT	ACOUSTICAL CEILING TILE
ACW	ALUMINUM CURTAIN WALL
AD	AREA DRAIN
ADJ	ADJUSTABLE OR ADJACENT
AF	ACCESS FLOOR
AFF	ABOVE FINISHED FLOOR
AGGR	AGGREGATE
AHU	AIR HANDLING UNIT
ALLUM	ALUMINUM
APPROX	APPROXIMATE
ARCH	ARCHITECTURAL
ASPH	ASPHALT
AWP	ACOUSTICAL WALL PANEL
BCS	BABY CHANGING STATION
BD	BOARD
BLDG	BUILDING
BLKG	BLOCKING
BM	BEAM
BOT	BOTTOM
CAB	CABINET
CB	CATCH BASIN OR CHALKBOARD
CBG	CEMENT BACKER BOARD
CEM	CEMENT
CER	CERAMIC
CFCI	CONTRACTOR FURNISHED CONTRACTOR INSTALLED
CG	CORNER GUARD
CI	CAST IRON
CIP	CAST-IN-PLACE
CJ	CONSTRUCTION OR CONTROL JOINT
CLG	CEILING
CLO	CLOSET
CLR	CLEAR
CMP	COMPOSITE METAL PANEL
CMU	CONCRETE MASONRY UNIT
CNTR	COUNTER
CO	CLEANOUT
COL	COLUMN
CONC	CONCRETE
CONN	CONNECTION
CONSTR	CONSTRUCTION
CONT	CONTINUOUS
CORR	CORRIDOR
CPT	CARPET OR CARPET TILE
CSK	COUNTERSUNK
CT	CERAMIC TILE
CTR	CENTER
CV	CONDOM VENDOR
DBL	DOUBLE
DEPT	DEPARTMENT
DET	DETAIL
DF	DRINKING FOUNTAIN
DIA	DIAMETER
DIM	DIMENSION
DISP	DISPENSER
DIV	DIVISION OR DIVIDE
DN	DOWN
DR	DOOR
DS	DOWNSPOUT
DWG	DRAWING
DWR	DRAWER
EA	EACH
EF	EACH FACE
EJ	EXPANSION JOINT
EL	ELEVATION
ELEC	ELECTRICAL
ELEV	ELEVATOR
EOS	EDGE OF SLAB
EP	ELECTRICAL PANEL
EQ	EQUAL
EQUIP	EQUIPMENT
ESCAL	ESCALATOR
EST	ESTIMATE
EWC	ELECTRIC WATER COOLER
EWV	ELECTRIC WATER HEATER
EXH	EXHAUST
EXIST	EXISTING
EXP	EXPOSED OR EXPANSION
EXT	EXTERIOR
FA	FIRE ALARM
FB	FLAT BAR
FD	FLOOR DRAIN
FDTN	FOUNDATION
FE	FIRE EXTINGUISHER
FEC	FIRE EXTINGUISHER CABINET
FHC	FIRE HOSE CABINET
FIN	FINISH
FIN FLR	FINISH FLOOR
FLR	FLOOR
FLOUR	FLUORESCENT
FMT	FORMED METAL TRIM
FOC	FACE OF CONCRETE OR CURB
FOF	FACE OF FINISH
FOS	FACE OF STUD
FP	FIREPROOF
FT	FOOT OR FEET
FTG	FOOTING
FUS	FOLDING UTILITY SHELF
G	GROUND
GA	GAGE
GALV	GALVANIZED
GB	GRAB BAR
GL	GLASS
GL BK	GLASS BLOCK
GLZ CMU	GLAZED CMU
GR	GRADE
GWB	GYPSUM WALL BOARD
GWB-AR	GYPSUM WALL BOARD - ABUSE RESISTANT
GWB-IR	GYPSUM WALL BOARD - IMPACT RESISTANT
GWB-WR	GYPSUM WALL BOARD - WATER RESISTANT
HB	HOSE BIBB
HC	HOLLOW CORE
HD	HAND DRYER
HDWD	HARDWOOD
HGT	HEIGHT
HM	HOLLOW METAL
HORIZ	HORIZONTAL
HR	HOUR
HVAC	HEATING, VENTILATION, AIR CONDITIONING

ABBREVIATIONS

ID	INSIDE DIAMETER
INSUL	INSULATION
INT	INTERIOR
JS	JOINT SEALANT
JT	JOINT
LAB	LABORATORY
LAM	LAMINATE
LAV	LAVATORY
LINO	LINOLEUM
LKR	LOCKER
LS	INTERIOR LIGHT SHELF ASSEMBLY
LT	LIGHT
MATL	MATERIAL
MAX	MAXIMUM
MB	MARKER BOARD
MECH	MECHANICAL
MEMB	MEMBRANE
MFR	MANUFACTURER
MH	MANHOLE
MIN	MINIMUM
MIRR	MIRROR
MISC	MISCELLANEOUS
MO	MASONRY OPENING
MTD	MOUNTED
MTL	METAL
MU	MIRROR UNIT
MULL	MULLION
NIC	NOT IN CONTRACT
NO	NUMBER
NOM	NOMINAL
MTS	NOT TO SCALE
OA	OVERALL
OC	ON CENTER
OD	OUTSIDE DIAMETER
OFCI	OWNER FURNISHED CONTRACTOR INSTALLED
OFD	OWNER FLOW DRAIN
OFF	OFFICE
OFOI	OWNER FURNISHED OWNER INSTALLED
OPNG	OPENING
OPP	OPPOSITE
P-7	PAINT COLOR
PBD	PARTICLEBOARD
PCC	PRECAST CONCRETE
PERF	PERFORATED
PL	PROPERTY LINE
PLAM	PLASTIC LAMINATE
PLAS	PLASTER
PLYWD	PLYWOOD
PNL	PANEL
PR	PAIR
PS	PROJECTION SCREEN
PT	POINT
PTD	PAPER TOWEL DISPENSER
PTN	PARTITION
QT	QUARRY TILE
R	RADIUS OR RISER
RA	RETURN AIR
RB	RESILIENT BASE
RH	ROBE HOOK
RK	ROOF DRAIN
REF	REFRIGERATOR - FREEZER
REINF	REINFORCED
REQD	REQUIRED
RESIL	RESILIENT ROOM
RM	ROOM
RO	ROUGH OPENING
RVS	REVERSED
RWL	RAIN WATER LEADER
SC	SOLID CORE
SCD	SEAT COVER DISPENSER
SCHED	SCHEDULE
SD	STORM DRAIN OR SOAP DISPENSER
SECT	SECTION
SHR	SHOWER
SHT	SHEET
SIM	SIMILAR
SKLT	SKYLIGHT
SNDU	SANITARY NAPKIN DISPOSAL UNIT
SNV	SANITARY NAPKIN VENDOR
SPEC	SPECIFICATION
SQ	SQUARE
SS	EXTERIOR SUNSCREEN ASSEMBLY
SST	STAINLESS STEEL
ST	STONE
STA	STATION
STD	STANDARD
STL	STEEL
STOR	STORAGE
STRUCT	STRUCTURAL
SUSP	SUSPEND
SYMM	SYMMETRICAL
T	TREAD
T&G	TONGUE & GROOVE
TB	TACK BOARD
TEL	TELEPHONE
THX	THICKNESS
THRU	THROUGH
TO	TOP OF
TOC	TOP OF CURB
TOL	TOLERANCE
TOS	TOP OF STEEL
TOW	TOP OF WALL
TPD	TOILET PAPER DISPENSER
TPTN	TOILET PARTITION
TYP	TYPICAL
UNFIN	UNFINISHED
UNL	UNLESS OTHERWISE INDICATED
UR	URINAL
US	UTILITY SHELF
VERT	VERTICAL
VEST	VESTIBULE
VIF	VERIFY IN FIELD
W	WITH
WC	WATER CLOSET or WOOD CEILING
WD	WOOD
WDF	WOOD FLOORING
WDP	WOOD VENEER FACED PANELING
WM	WIRE MESH
WR	WASTE RECEPTACLE
W/O	WITHOUT
WOM	WALK OFF MAT
WP	WATERPROOF
WS	WINDOW SHADE
WSCOT	WAINSCOT
WWF	WELDED WIRE FABRIC

TEAM DIRECTORY

CLIENT	ARCHITECT:
OREGON STATE UNIVERSITY - CAPITAL PLANNING AND DEVELOPMENT 850 SW 35th Street Corvallis, Oregon 97333 USA Tel: 503-313-8401 Contact: Julie Drolet	INTEGRUS ARCHITECTURE 707 SW Washington St, Suite 1200 Portland, OR, 97205 USA Tel: 503-221-0150 Contact: Steve Neiger

BUILDING/PLANNING AUTHORITY	MEP ENGINEER
CITY OF CORVALLIS 501 SW Madison Ave. Corvallis, OR, 97333 USA Tel: 541-766-6900	GLUMAC ENGINEERS 900 SW Fifth Ave, Suite 1600 Portland, OR, 97204 USA Tel: 503-227-5280 Contact: Phillip Cunningham

PROJECT DESCRIPTION

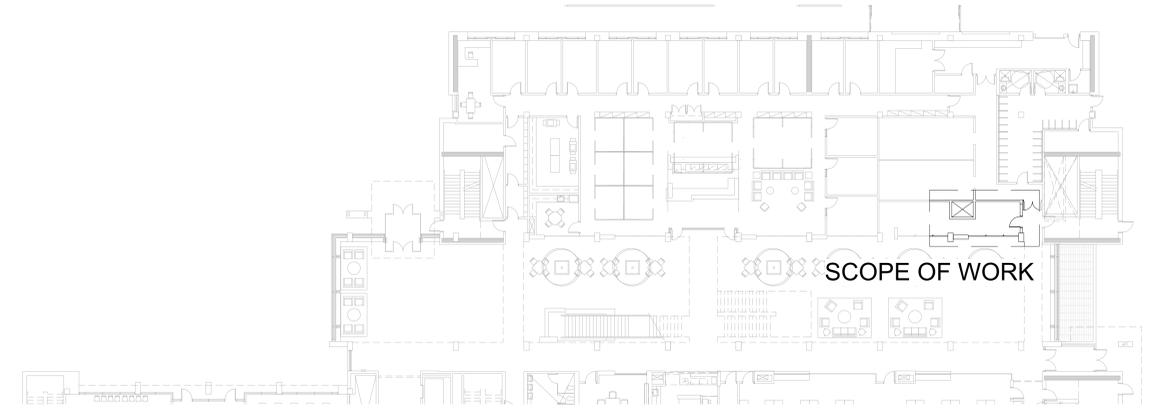
MINOR REMODEL ON THE SECOND FLOOR, ADDING A DRY LAB.
MINOR REMODEL ON THE FIRST FLOOR, ADDING A SINGLE-USER TOILET ROOM.

GENERAL NOTES

DESIGN AND DOCUMENTS BASED ON OSU DESIGN AND CONSTRUCTION STANDARDS

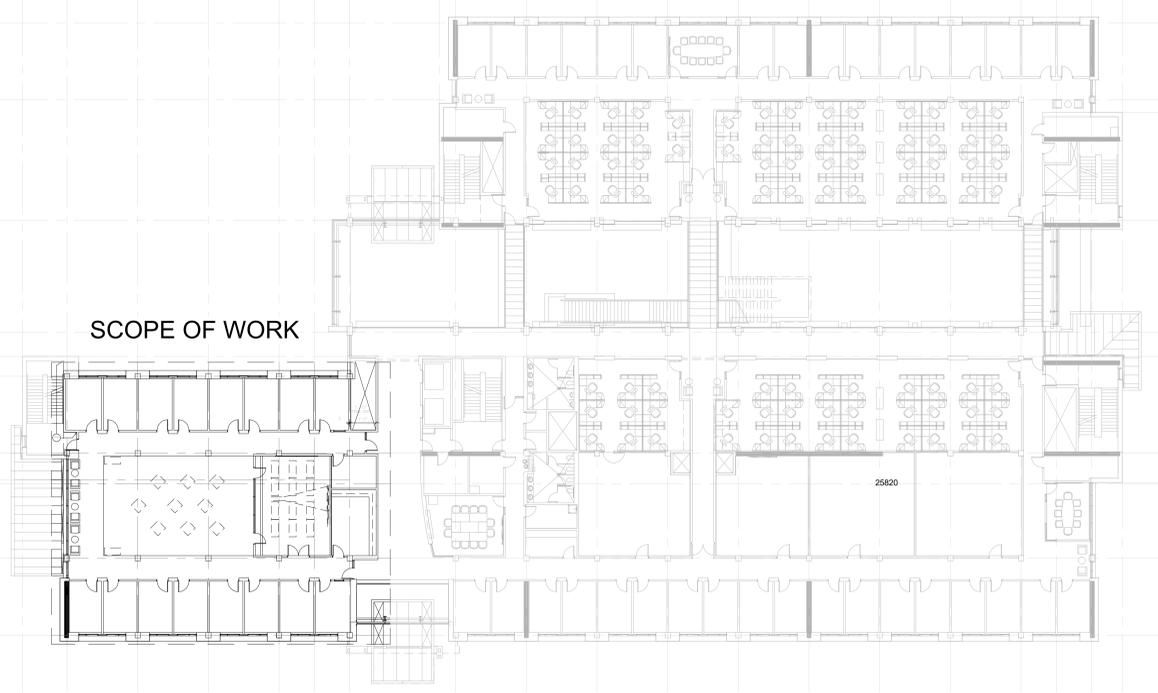
DRAWING LIST

GENERAL	
G0.00	COVER SHEET
G0.10	DRAWING INDEX, SYMBOLS, ABBREVIATIONS
GENERAL: 2	
ARCHITECTURAL	
A0.02	PARTIAL 2ND FLOOR LIFE SAFETY PLAN
A1.02	PARTIAL 2ND FLOOR DEMO PLAN
A2.02	PARTIAL 2ND FLOOR PLAN
A5.01	SINGLE-USER RESTROOM
A7.02	PARTIAL 2ND FLOOR CEILING PLAN
A9.01	DETAILS, ELEVATIONS, SCHEDULES
A9.02	DETAILS
A9.03	EXISTING PHOTOS
ARCHITECTURAL: 8	
MECHANICAL	
M0.0	MECHANICAL LEGEND AND ABBREVIATIONS
M0.1	MECHANICAL SPECIFICATIONS
M1.1	FIRST FLOOR MECHANICAL PLAN
M2.2	SECOND FLOOR MECHANICAL PLAN
M3.2	SECOND FLOOR MECHANICAL CEILING PLAN
MECHANICAL: 5	
ELECTRICAL	
E0.0	ELECTRICAL LEGEND AND ABBREVIATIONS
E0.1	BASIS OF DESIGN, GENERAL NOTES, AND SCHEDULES
E0.2	ELECTRICAL SPECIFICATIONS
E2.1	FIRST FLOOR POWER & LIGHTING PLAN
E2.2	SECOND FLOOR LIGHTING PLAN
E3.2	SECOND FLOOR POWER PLAN
E5.3	PANELBOARD SCHEDULES
E9.1	ELECTRICAL DETAILS
ED2.2	ELECTRICAL DEMOLITION PLAN
ELECTRICAL: 9	
PLUMBING	
P0.0	PLUMBING LEGEND AND ABBREVIATIONS
P6.1	FIRST FLOOR ENLARGED PLAN
PLUMBING: 2	
GRAND TOTAL: 26	



LEVEL 1 - SCOPE OF WORK

1" = 20' - 0"



LEVEL 2 - SCOPE OF WORK

1" = 20' - 0"

ISSUED FOR PERMIT AND BID



Consultant



Owner OREGON STATE UNIVERSITY

Project KELLEY ENGINEERING CENTER PARTIAL REMODEL

110 SW Park Terrace Corvallis, OR 97331

Sheet Title DRAWING INDEX, SYMBOLS, ABBREVIATIONS

Drawing No. G0.10

Scale As indicated

Date 07/27/2023

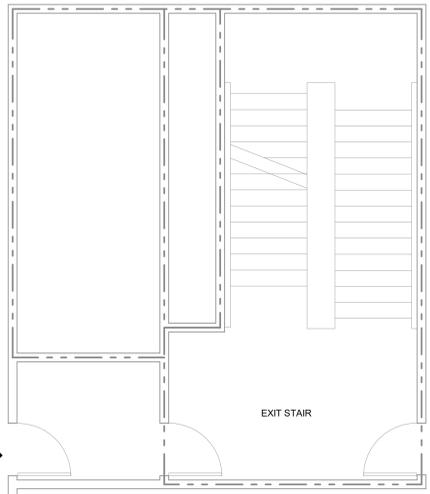
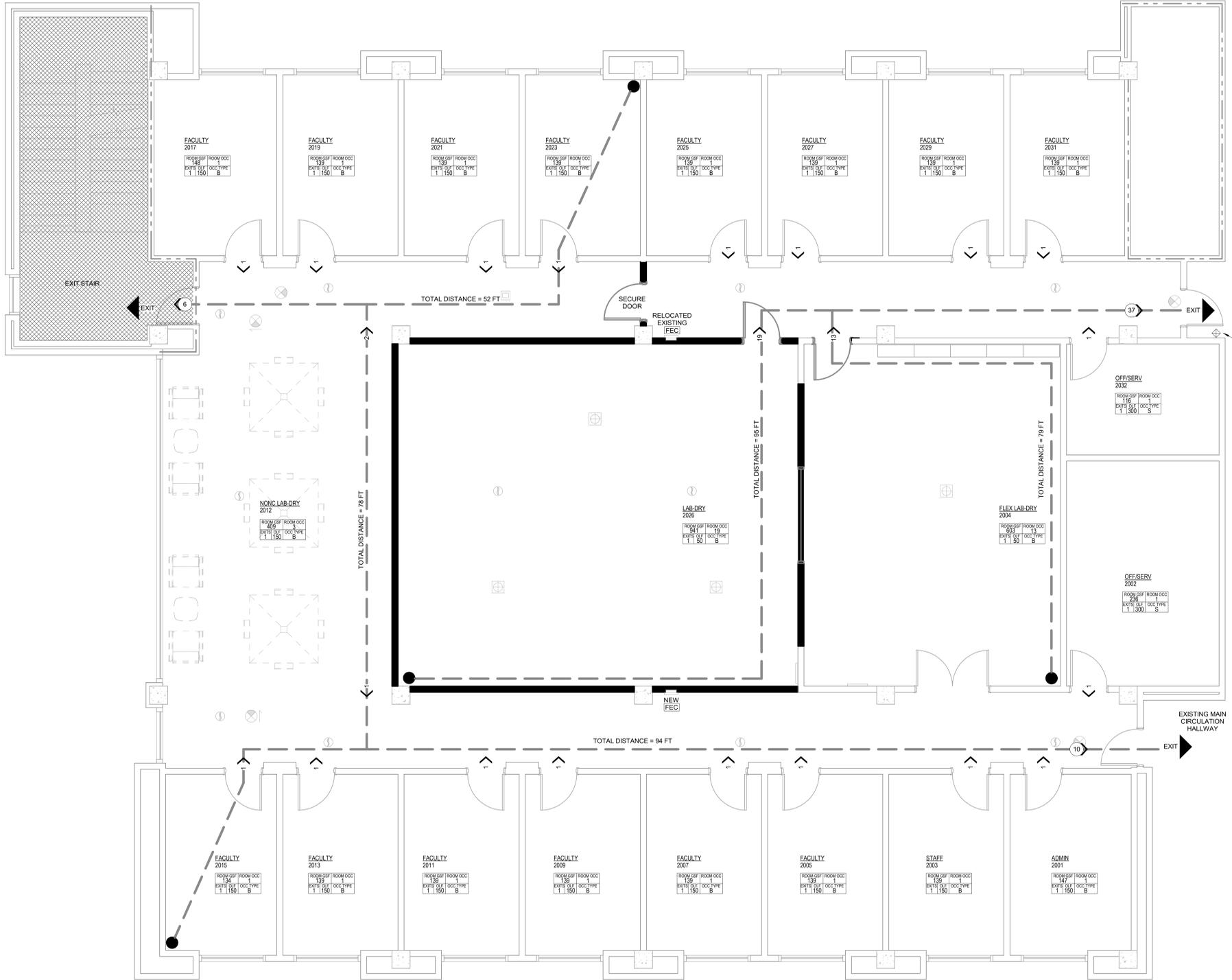
Project No. 19-0016

THIS MINOR INTERIOR REMODEL IS DESIGNED UNDER THE 2022 OSSC. THERE ARE NO CHANGES TO THE FOLLOWING:

- BUILDING AREA
- OCCUPANCY TYPE
- RATED WALLS
- BUILDING STRUCTURE
- BUILDING ENVELOPE

MINOR INTERIOR REMODEL SCOPE CONSISTS OF:

- ADDING 3 WALLS TO CREATE A NEW INTERIOR SPACE, WITHIN AN EXISTING OPEN OFFICE SPACE.
- ADDITION OF 2 NEW DOORS, ONE INTO THE NEW SPACE, AND ONE NEW SECURITY DOOR.
- REMOVAL OF AN EXISTING INTERIOR WINDOW AND 2 DOORS, AND REPLACING IT WITH A NEW INTERIOR WINDOW.
- ASSOCIATED PATCHING AND REPAIRING OF FLOOR, WALLS, CEILING, LIGHTING AND MECHANICAL SYSTEMS.
- ADDING A SINGLE-USER TOILET ROOM ON THE FIRST FLOOR, WHICH WILL ADD ONE TOILET AND ONE LAVATORY.



EXISTING EXIT STAIR IS DIRECTLY ACROSS EXISTING MAIN CIRCULATION HALLWAY

NEW MAGNETIC DOOR HOLD-OPEN

GENERAL NOTES

1. CODE REVIEW IS BASED ON 2022 OREGON STRUCTURAL SPECIALTY CODE.
2. GENERAL CONTRACTOR IS TO MAINTAIN THE INTEGRITY OF ALL FIRE RESISTIVE AREA AND OCCUPANCY SEPARATIONS.
3. PROVIDE ONE NEW PORTABLE FIRE EXTINGUISHER FOR LIGHT HAZARD OCCUPANCY TO MATCH EXISTING EXTINGUISHERS WITHIN THE EXISTING SPACE.

SHEET NOTES

ALL EMERGENCY LIGHTING, SPRINKLERS, SMOKE DETECTORS, FIRE ALARM DEVICES AND ALL OTHER REQUIREMENTS TO CONFORM TO OREGON STATE BUILDING AND LIFE SAFETY CODES.

NEW AND RELOCATED VISIBLE ALARMS TO BE MOUNTED AT THE SAME HEIGHT AS EXISTING VISIBLE ALARMS. ALARM APPLIANCE TO MATCH EXISTING WHITE WITH RED LETTERS.

ALL WOOD BACKING TO BE FIRE RETARDANT.

MAINTAIN MEANS OF EGRESS LIGHTING PER OSSC SECTION 1008.

MAINTAIN FULL SMOKE DETECTION, FIRE SPRINKLER AND ALARM COVERAGE.

REWORK OF VISIBLE ALARMS SHALL BE IN ACCORDANCE WITH OSSC SECTION 907.

MODIFICATIONS TO SPRINKLER HEAD LAYOUT ARE TO BE BIDDER DESIGNED IN ACCORDANCE WITH OSSC SECTION 903.

THIS REMODEL MAKES NO MODIFICATIONS TO EXISTING PLUMBING SYSTEMS OR RATED ASSEMBLIES.

LEGEND

- EXISTING WALL
- NEW WALL
- 2 HR. RATED CONSTRUCTION
- EXIT STAIR
- FIRE LIFE SAFETY TAG
 - ROOM SQ FT
 - ROOM OCCUPANT LOAD
 - ROOM OCCUPANT TYPE
 - OCCUPANT LOAD FACTOR
 - NUMBER OF EXITS REQ'D
- FIRE LIFE SAFETY SYMBOLS
 - EXISTING EXIT SIGN
 - MAGNETIC HOLD-OPENS
 - FIRE EXTINGUISHER CABINET
 - OCCUPANT LOAD AT OPENING
 - CUMULATIVE OCCUPANT LOAD AT OPENING
 - EGRESS PATH
 - END POINT
 - PATH
 - START POINT

ORIGINAL BUILDING

ORIGINAL BUILDING CONSTRUCTION WAS PERMITTED UNDER THE 1998 OSSC. CONSTRUCTION WAS COMPLETED IN 2006.

OCCUPANCY TYPES B EDUCATION ABOVE THE 12TH GRADE
A-3 ADMINISTRATION, OFFICES
A-S ASSEMBLY

CONSTRUCTION TYPE TYPE II FR

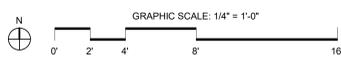
FIRE EXTINGUISHERS LIGHT HAZARD OCCUPANCY

FULLY SPRINKLERED

OCCUPANT LOAD

EXISTING DEPARTMENT		
EDUCATION	(20 OLF)	31 OCCUPANTS
BUSINESS	(150 OLF)	25 OCCUPANTS
STORAGE	(300 OLF)	2 OCCUPANTS
TOTAL:		58 OCCUPANTS
PROPOSED REMODELED DEPARTMENT		
EDUCATION	(20 OLF)	31 OCCUPANTS
BUSINESS	(150 OLF)	25 OCCUPANTS
STORAGE	(300 OLF)	2 OCCUPANTS
TOTAL:		58 OCCUPANTS

2 PARTIAL 2ND FLOOR LIFE SAFETY PLAN
1/4" = 1'-0"



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Sheet Title
PARTIAL 2ND FLOOR LIFE SAFETY PLAN

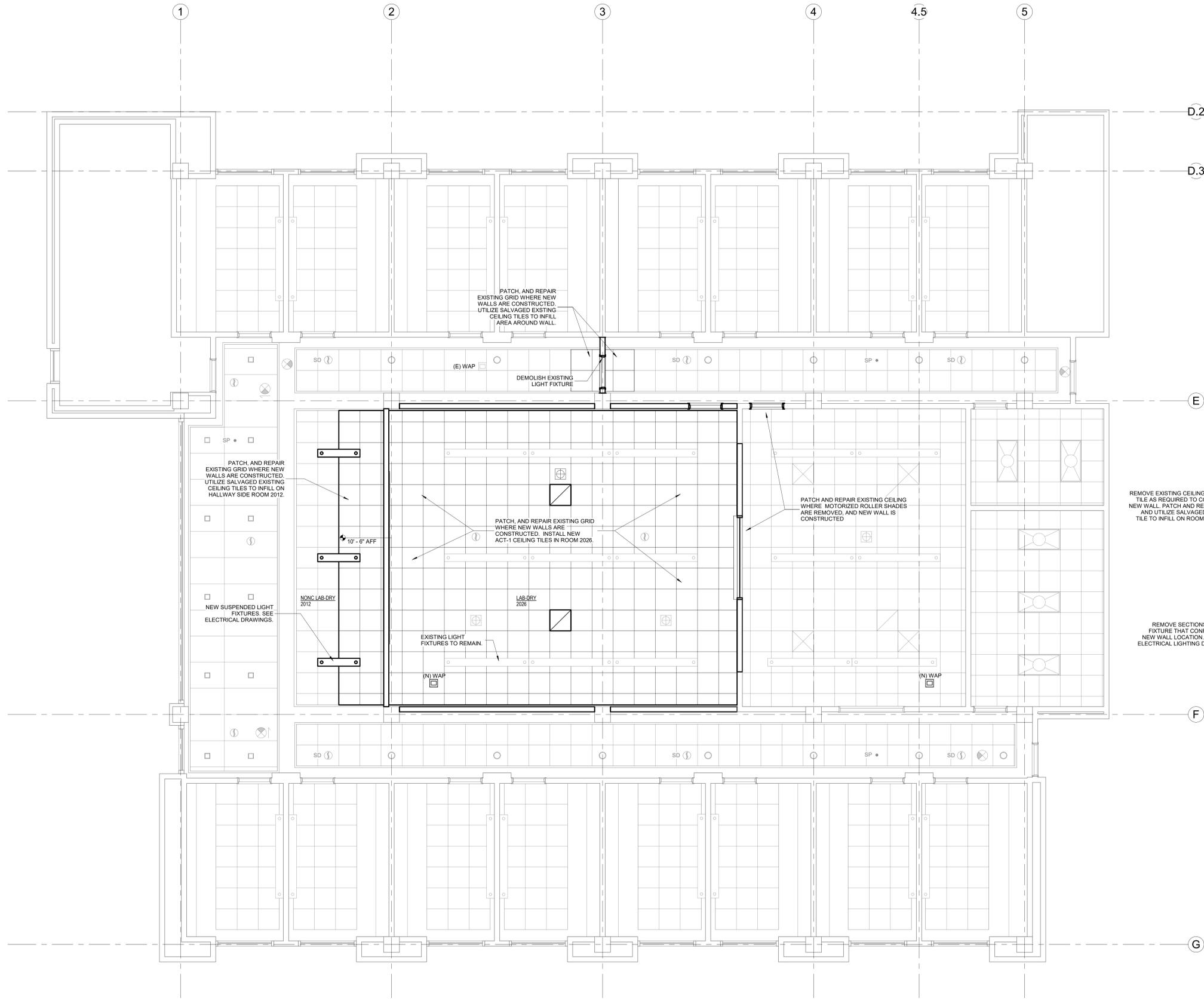
Drawing No.
A0.02

Scale As indicated

Date 07/27/2023

Project No. 19-0016

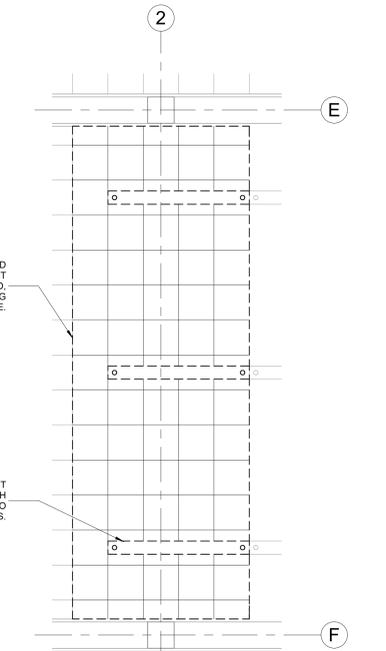
ISSUED FOR PERMIT AND BID



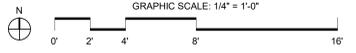
1 PARTIAL 2ND FLOOR REFLECTED CEILING PLAN
1/4" = 1'-0"

LEGEND

- EXISTING LIGHT FIXTURE
- EXISTING PENDANT LIGHT FIXTURE
- NEW PENDANT LIGHT FIXTURE
- EXISTING DIFFUSER
- EXISTING SUPPLY
- NEW DIFFUSER, SEE MECHANICAL
- EXISTING ACOUSTIC CEILING TILE
- NEW ACOUSTIC CEILING TILE
- EXISTING GYPSUM WALLBOARD CEILING
- EXISTING SPRINKLER
- EXISTING SMOKE DETECTOR
- EXISTING OCCUPANCY SENSOR
- NEW OCCUPANCY SENSOR, SEE ELECTRICAL DRAWINGS
- WIRELESS ACCESS POINT



2 PARTIAL 2ND FLOOR DEMOLITION RCP
1/4" = 1'-0"



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KELLEY ENGINEERING CENTER PARTIAL REMODEL
110 SW Park Terrace
Corvallis, OR 97331

Sheet Title
PARTIAL 2ND FLOOR CEILING PLAN

Drawing No.

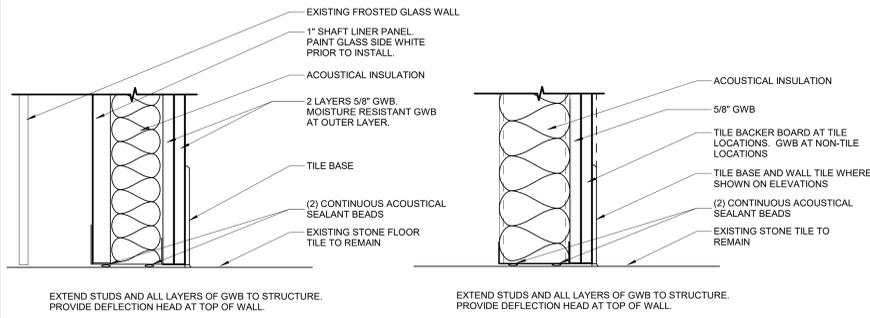
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Scale As indicated

Date 07/27/2023

Project No. 19-0016

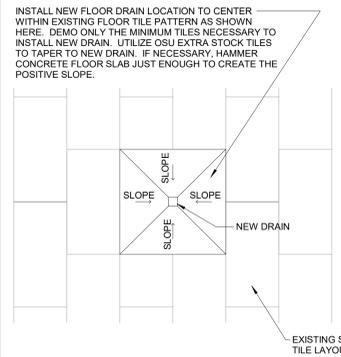
ISSUED FOR PERMIT AND BID



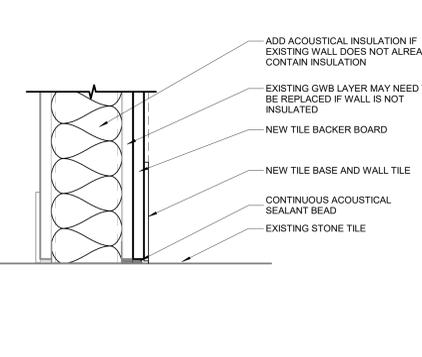
21 PARTITION TYPE - SHAFTWALL
3" = 1'-0"

17 PARTITION TYPE
3" = 1'-0"

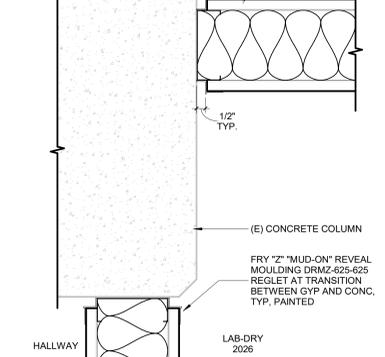
13 WINDOW HEAD/JAMB/SILL
3" = 1'-0"



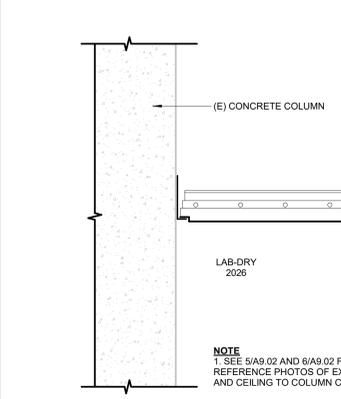
22 FLOOR DRAIN LOCATION
3/4" = 1'-0"



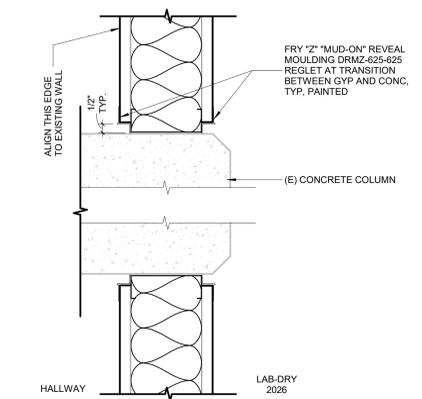
18 PARTITION TYPE - AT EXISTING PARTITION
3" = 1'-0"



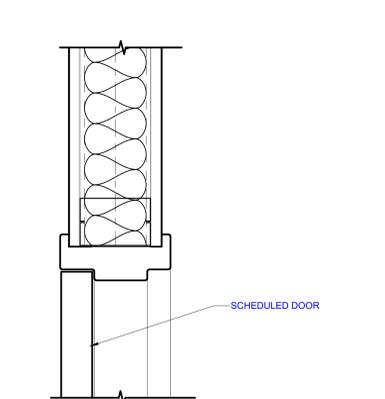
14 COLUMN TO WALL CORNER TRANSITION
3" = 1'-0"



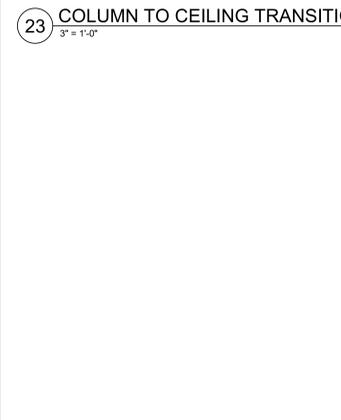
23 COLUMN TO CEILING TRANSITION
3" = 1'-0"



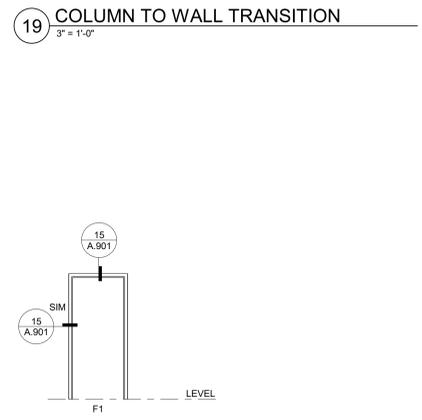
19 COLUMN TO WALL TRANSITION
3" = 1'-0"



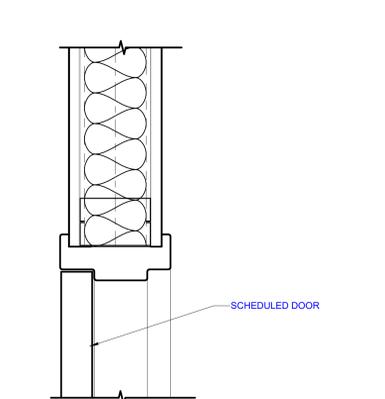
15 DOOR HEAD/JAMB CONDITION
3" = 1'-0"



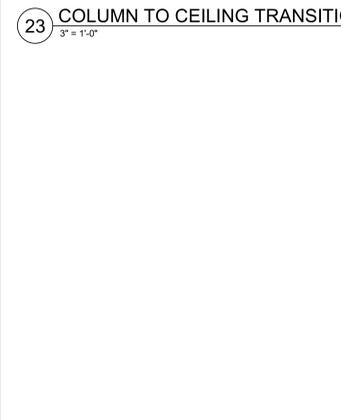
20 LEGEND - DOOR FRAME TYPE
1/4" = 1'-0"



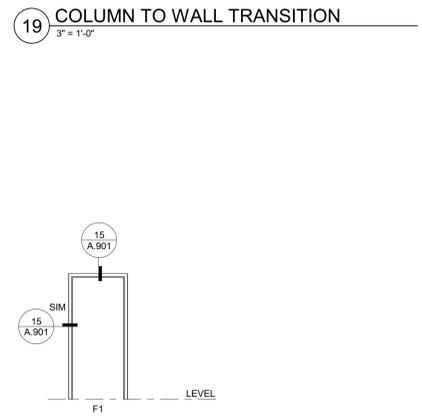
21 LEGEND - DOOR PANEL TYPE
1/4" = 1'-0"



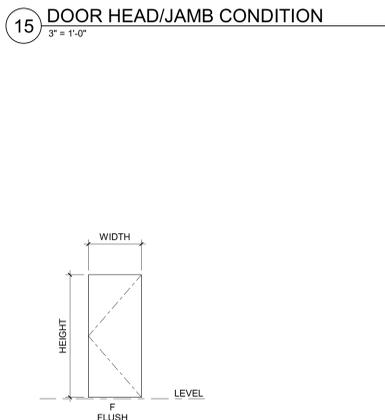
10 EXISTING TO NEW WALL TRANSITION
3" = 1'-0"



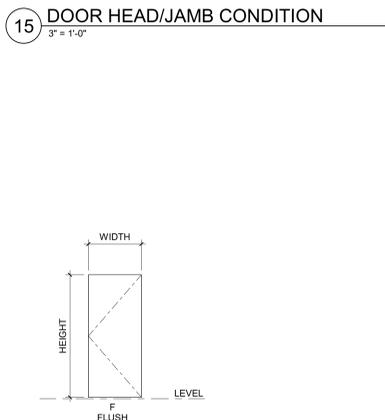
5 HEAD CONDITION TYPE A
3" = 1'-0"



6 BASE CONDITION W/ ACCESS FLOOR
3" = 1'-0"



PARTITION TYPE SYMBOL
SEE PLAN FOR LOCATIONS



PARTITION HEAD CONDITION
A

FINISH SCHEDULE											COMMENTS
ROOM IDENTITY NUMBER	NAME	FLOOR	WALL				CEILING				
			BASE	NORTH	EAST	SOUTH	WEST				
LEVEL 1											
1174	SINGLE-USER RESTROOM	EXISTING TILE	TILE	TILE	P-1	P-1	TILE	P-1			
LEVEL 2											
2001	ADMIN	-	-	-	-	-	-	-	THERE ARE NO MODIFICATIONS IN THIS SPACE		
2002	OFF/SERV	-	-	-	-	-	-	-	THERE ARE NO MODIFICATIONS IN THIS SPACE		
2003	STAFF	-	-	-	-	-	-	-	THERE ARE NO MODIFICATIONS IN THIS SPACE		
2004	FLEX LAB-DRY	EXISTING OPT	RB-1/ EXISTING	P-1/ EXISTING	EXISTING	EXISTING	P-1	EXISTING	REMOVE AND REINSTALL EXISTING CARPET AND CEILING WHERE NEW WALLS ARE INSTALLED. MATCH EXISTING RUBBER BASE.		
2005	FACULTY	-	-	-	-	-	-	-	THERE ARE NO MODIFICATIONS IN THIS SPACE		
2007	FACULTY	-	-	-	-	-	-	-	THERE ARE NO MODIFICATIONS IN THIS SPACE		
2009	FACULTY	-	-	-	-	-	-	-	THERE ARE NO MODIFICATIONS IN THIS SPACE		
2011	FACULTY	-	-	-	-	-	-	-	THERE ARE NO MODIFICATIONS IN THIS SPACE		
2012	NONC LAB-DRY	EXISTING OPT	RB-1/ EXISTING	EXISTING	P-2	EXISTING	EXISTING	EXISTING	REMOVE AND REINSTALL EXISTING CARPET AND CEILING WHERE NEW WALLS ARE INSTALLED. MATCH EXISTING RUBBER BASE.		
2013	FACULTY	-	-	-	-	-	-	-	THERE ARE NO MODIFICATIONS IN THIS SPACE		
2015	FACULTY	-	-	-	-	-	-	-	THERE ARE NO MODIFICATIONS IN THIS SPACE		
2017	FACULTY	-	-	-	-	-	-	-	THERE ARE NO MODIFICATIONS IN THIS SPACE		
2019	FACULTY	-	-	-	-	-	-	-	THERE ARE NO MODIFICATIONS IN THIS SPACE		
2021	FACULTY	-	-	-	-	-	-	-	THERE ARE NO MODIFICATIONS IN THIS SPACE		
2023	FACULTY	-	-	-	-	-	-	-	THERE ARE NO MODIFICATIONS IN THIS SPACE		
2025	FACULTY	-	-	-	-	-	-	-	THERE ARE NO MODIFICATIONS IN THIS SPACE		
2026	LAB-DRY	CPT-1	RB-1	P-1	P-1	P-1	P-2	ACT-1			
2027	FACULTY	-	-	-	-	-	-	-	THERE ARE NO MODIFICATIONS IN THIS SPACE		
2029	FACULTY	-	-	-	-	-	-	-	THERE ARE NO MODIFICATIONS IN THIS SPACE		
2031	FACULTY	-	-	-	-	-	-	-	THERE ARE NO MODIFICATIONS IN THIS SPACE		
2032	OFF/SERV	-	-	-	-	-	-	-	THERE ARE NO MODIFICATIONS IN THIS SPACE		
H2000B	HALL	EXISTING OPT	RB-1/ EXISTING	EXISTING	EXISTING	P-1/ EXISTING	P-1/ EXISTING	EXISTING	REMOVE AND REINSTALL EXISTING CARPET AND CEILING WHERE NEW WALLS ARE INSTALLED. MATCH EXISTING RUBBER BASE.		
H2000C	HALL	EXISTING OPT	RB-1/ EXISTING	EXISTING	P-1/ EXISTING	P-1/ EXISTING	EXISTING	EXISTING	REMOVE AND REINSTALL EXISTING CARPET AND CEILING WHERE NEW WALLS ARE INSTALLED. MATCH EXISTING RUBBER BASE.		
H2000D	HALL	EXISTING OPT	RB-1/ EXISTING	P-1	EXISTING	EXISTING	EXISTING	EXISTING	REMOVE AND REINSTALL EXISTING CARPET AND CEILING WHERE NEW WALLS ARE INSTALLED. MATCH EXISTING RUBBER BASE.		
S2001	STAIR	-	-	-	-	-	-	-	THERE ARE NO MODIFICATIONS IN THIS SPACE		

DOOR SCHEDULE													COMMENTS
MARK	TO ROOM	TYPE	WIDTH	HEIGHT	MATERIAL	FINISH	RATING	HARDWARE	TYPE	MATERIAL	FINISH		
LEVEL 1													
1174	SINGLE-USER RESTROOM	F	3'-0"	8'-0"	WD	EXISTING CLEAR FINISH	NR	E-05	F1	HM	EXISTING	EXISTING DOOR AND FRAME. ADD NEW AUTO DOOR OPERATOR. REMOVE EXISTING CARD ACCESS AND ADD NEW CAMDEN ENTRY SYSTEM.	
LEVEL 2													
2000B-A	HALL	-	3'-0"	8'-0"	WD EXISTING	EXISTING CLEAR FINISH	-	E-01	-	HM	EXISTING	EXISTING DOOR AND FRAME. ADD NEW MAGNETIC HOLD OPEN AND EXTENSION	
2000B-B	HALL	F	3'-0"	8'-0"	WD	CLEAR FINISH	NR	E-02	F1	HM	PAINT TO MATCH EXISTING	NEW WOOD DOOR AND HOLLOW METAL FRAME TO MATCH EXISTING	
2004	FLEX LAB-DRY	F	3'-0"	8'-0"	WD	CLEAR FINISH	NR	E-04	F1	HM	PAINT TO MATCH EXISTING	NEW WOOD DOOR AND HOLLOW METAL FRAME TO MATCH EXISTING	
2026	HALL	F	3'-0"	8'-0"	WD	CLEAR FINISH	NR	E-03	F1	HM	PAINT TO MATCH EXISTING	NEW WOOD DOOR AND HOLLOW METAL FRAME TO MATCH EXISTING. PROVIDE RESILIENT CARPET TO CARPET ADAPTER.	

SHEET NOTES

- PERMANENT PARTITIONS ARE TO BE ONE HOUR RATED IN ACCORDANCE WITH OSCE TABLE 601 FOR TYPE I AND TYPE II FR CONSTRUCTION.
- PARTITION TYPE SYMBOLS ARE INDICATED ON PLANS.
- STUD SIZE, GAUGE AND SPACING INDICATED IN THE SPAN TABLE SUPERCEDE SIZES INDICATED IN THE PARTITION TYPE SYMBOL. VERIFY ALL VERTICAL STUD SPANS.
- ALL GWB TO BE 5/8" TYPE "X" UNLESS OTHERWISE INDICATED.
- ALL STEEL HEAD TRACKS 20 GA UNLESS OTHERWISE INDICATED.
- ALL DOOR AND RELIGHT JAMBS TO BE (1) 20 GA STUD OR (2) 25 GA STUDS.
- ALL INTERIOR WALL AND CEILING FINISHES TO BE MINIMUM OF CLASS II FLAME SPREAD.



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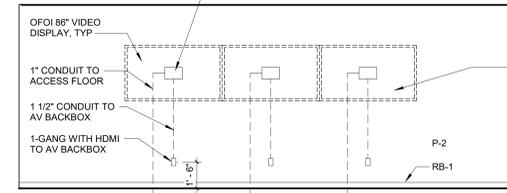
Owner
OREGON STATE UNIVERSITY

Project
KELLEY ENGINEERING CENTER PARTIAL REMODEL
110 SW Paik Terrace
Convallis, OR 97331

Sheet Title
DETAILS, ELEVATIONS, SCHEDULES
Drawing No.
A9.01
Scale As indicated
Date 07/27/2023
Project No. 19-0016

ISSUED FOR PERMIT AND BID

AV BACKBOX (PAC526 FW) WITH
DUPEX OUTLET, 2 NETWORK
JACKS TERMINATED TO A BISCUIT
BOX. OSU STANDARD
ORTRONICS FACEPLATE.

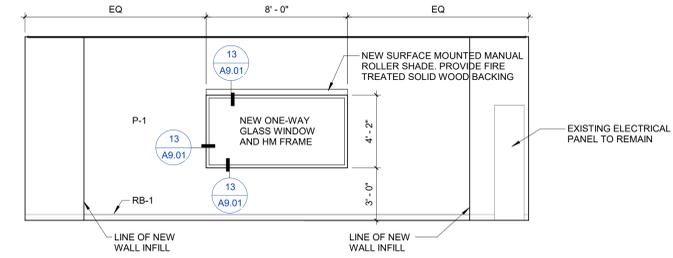


SCOPE RESPONSIBILITY
VIDEO DISPLAYS OFOI
DISPLAY MOUNTING BRACKETS OFOI
AV BACKBOX CFCI
HDMI CABLING AND TERMINATION OFOI
POWER RECEPTACLE AND BACKBOX CFCI
NETWORK JACKS AND BACKBOX CFCI
CONDUIT CFCI

AT TIME OF CONSTRUCTION, COORDINATE WITH
OWNER, THE MOUNTING HEIGHT FOR THE
DISPLAYS IN RELATION TO THE RECESSED AV
BACK-BOXES FOR EACH SCREEN TO ALIGN WITH
BRACKETS.

GC TO PROVIDE/COORDINATE FIRE TREATED
SOLID WOOD BACKING/BLOCKING IN WALL
COVERING FULL AREA OF OWNER SUPPLIED
VIDEO DISPLAYS.

1 LAB-DRY 2026 - MONITOR WALL
1/4" = 1'-0"



2 LAB-DRY 2026 - EAST WALL
1/4" = 1'-0"



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NO. DATE DESCRIPTION

Sheet Title
DETAILS

Drawing No.

A9.02

Scale 1/4" = 1'-0"

Date 07/27/2023

Project No. 19-0016

ISSUED FOR PERMIT AND BID

NOTE:
THIS SHEET CONTAINS PHOTOS OF THE EXISTING SPACE THAT ARE BEING PROVIDED AS REFERENCE ONLY AND ARE NOT FOR CONSTRUCTION. THE PURPOSE OF THESE PHOTOS IS TO CLARIFY EXISTING CONDITIONS AND TO SHOW EXISTING ACCESSORIES FOR THE PURPOSE OF MATCHING NEW ACCESSORIES.



4 EXISTING ELECTRICAL PANEL
3" = 1'-0"



3 EXISTING FIRE EXTINGUISHER CABINET
3" = 1'-0"



2 EXISTING ROOM NAME SIGNAGE
3" = 1'-0"



1 EXISTING ROOM NUMBER SIGNAGE
3" = 1'-0"



8 EXISTING FLOOR VENT
3" = 1'-0"



7 EXISTING FLOOR GRATE AND RECEPTACLE
3" = 1'-0"



6 EXISTING COLUMN CONNECTION 2
3" = 1'-0"



5 EXISTING COLUMN CONNECTION 1
3" = 1'-0"



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Sheet Title
EXISTING PHOTOS

Drawing No.
A9.03
Scale 3" = 1'-0"
Date 07/27/2023
Project No. 19-0016

ABBREVIATIONS

Table of abbreviations with columns for symbol, description, and full name. Includes terms like AAV, ABV, AC, ACCEPT, etc.

HVAC LEGEND

NOTE: NOT ALL SYMBOLS OR ABBREVIATIONS ARE APPLICABLE TO THIS PROJECT. REFER TO DETAILS AND NOTES FOR MOUNTING HEIGHTS.

HVAC Legend table with columns for Symbol, Description, and Diagram. Divided into General, Ductwork, and Controls sections.

BASIS OF DESIGN

- Mechanical Basis of Design
A. THIS PROJECT INVOLVES A PARTIAL RENOVATION OF THE FIRST AND SECOND FLOORS OF THE KELLEY ENGINEERING CENTER ON THE CAMPUS OF OREGON STATE UNIVERSITY. THE RENOVATION INCLUDES:
1. REPROGRAMMING OF 114 SF OF SPACE FROM SHARED OFFICE TO AN ENCLOSED SPACE WITH FUNCTION OF ALL USER TOILET ROOM, SHARED OFFICE REDUCED TO 21 SF.
2. REPROGRAMMING OF 940 SF OF OPEN SPACE FROM ROOM 2012 TO AN ENCLOSED SPACE WITH THE FUNCTION OF DRY LAB.

HVAC DRAWING LIST

Table with columns for Sheet Number and Sheet Name. Lists sheets M0.0 through M3.2.



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Project: KELLEY ENGINEERING CENTER PARTIAL REMODEL
ANNO DATE DESCRIPTION

Sheet Title: MECHANICAL LEGEND AND ABBREVIATIONS
Drawing No.: M0.0
Scale: NONE
Date: 07/27/2023
Project No.: 19-0016

MECHANICAL SPECIFICATIONS

PART 1 - GENERAL

1.1 GENERAL REQUIREMENTS

- A. Definitions- "Contractor" means "Mechanical Contractor" when referenced anywhere in the mechanical construction documents unless work and equipment has been coordinated between mechanical and General Contractors to be provided by others. "Needed," "Provide," and "Install" means all items called out in the contract documents and any additional items not called out but required to make a complete and operational system.
- B. Plans are diagrammatic. Do not scale for material quantities. All scaling should be referenced to architectural plans only. Furnish and install all components needed whether indicated or not to provide a complete and operating system.
- C. Contractor shall visit site and verify all connections to existing work prior to bidding.
- D. Scope - The intent of the specifications and the drawings is to provide a complete and fully operational mechanical system. The Mechanical Contractor shall furnish and install all labor, material and equipment necessary to complete the mechanical work. The Contractor shall be responsible for the proper fitting of material into the building as indicated on drawings, without interference with other work, and shall make reasonable modifications in the layouts needed to prevent conflict with other trades, to provide access and for the proper execution of the work.
- E. Permits and Fees - The Mechanical Contractor shall procure and pay for all permits, fees and inspections necessary to complete the mechanical scope of work.
- F. Warranty - The Mechanical Contractor shall unconditionally warrant all work to be free of defects in material and workmanship for a period of one (1) year from the date of final acceptance by Owner's Representative and will repair or replace any defective work promptly and without charge and restore any other existing work damaged in the course of repairing defective materials and workmanship.
- G. Codes - All work shall be performed in strict accordance with all applicable local codes and ordinances, in case of conflict between the drawings and the specifications and the codes and ordinances, the highest standard shall apply. The Mechanical Contractor shall satisfy code requirements as a minimum standard without extra cost.
- H. Standards - Equipment and materials shall conform with appropriate provisions of CSA, ULC, ARL, ASME, ASTM, UL, NEMA, ANSI SMACNA, ASHRAE, and NFPA, as applicable to each individual unit or assembly.
- I. LEED - The work, materials and equipment are to be provided to meet specific LEED credit requirements as stated on schedules and plans.
- J. Substitutions - All proposed substitutions shall be submitted prior to bidding and preapproved in writing. All coordination associated with substituted materials or equipment is the responsibility of the contractor.
- K. Submittals - The contractor shall submit shop drawings and technical data for all equipment and materials scheduled and specified including air distribution and piping systems.
- L. Operating and Maintenance Instructions - At the conclusion of the project, the contractor shall provide three (3) copies of operating and maintenance instructions for each piece of equipment requiring periodic service.

1.2 COORDINATION WITH EXISTING CONDITIONS AND OTHER TRADES

- A. This project involves construction inside an existing structure. Contractors, by submitting a bid are deemed to be completely familiar with the existing conditions of the building as it influences the work described. No claims for extra compensation will be considered for existing conditions visible or reasonably inferable from a careful examination of the existing building conditions.
- B. Contractor shall inspect the existing field conditions at the site and the "as built" contract documents prior to the start of any work to determine what affect the existing conditions will have on the work potential. Problem areas shall be brought to the attention of the Owner's Representative immediately.
- C. Contractor shall connect their work to the existing piping, ductwork, and control systems. New work shall be compatible with the existing system materials, and construction methods. Coordinate all work with other trades and install all work in coordination with architectural and structural members. Except for necessary connections to associated equipment, no piping or ductwork is to be in contact with equipment.
- D. Coordinate all cutting and patching with general contractor and other disciplines. Contractor shall be responsible for all cutting and patching related to his work.
- E. Obtain written permission of structural engineer before proceeding with any cutting or patching of structural systems. Do not cut roof framing.
- F. Care shall be taken during installation of the work to not damage or interrupt the existing building systems and services installed. Damage to existing systems and equipment caused by Contractor during the installation of their work shall be repaired and/or replaced at Contractor's expense to the satisfaction of the building owner.
- G. Notifications and Compliance with Building Standards and Rules:
 - 1. Obtain a copy of any applicable building tenant development and building construction standards and comply with these standards.
 - 2. Shutdown of existing systems for connection to existing services shall be coordinated with the Owner's Representative. Contractor shall submit requests where they affect the operation of the building systems at least one (1) week in advance of any required shutdown. The actual shutdown period shall be as short as possible and at a time agreed to by the Owner's Representative.
- H. Demolition shall be coordinated with Owner's Representative, Architect and General Contractor.
- I. Contractor shall provide the following services as applicable, on all existing HVAC equipment indicated to remain: filter changes; balancing; lubrication of applicable moving components; clean all coils; calibrate unit control components; verify fan rotation and operation; verify controls operation; clean condensate pan and trap; and verify pitch of condensate drain.
- J. Contractor shall report any equipment deficiencies found to the Owner's Representative within five (5) days of discovery.

1.3 MECHANICAL - GENERAL

- A. All materials and equipment are to be new unless otherwise designated in these documents.
- B. The Mechanical Contractor shall coordinate HVAC work with other trades. The architectural drawings shall take precedence over all other drawings. See architectural drawings for dimensioned diffuser locations and mounting heights where exposed.
- C. All HVAC ductwork and equipment shall be supported from structure (confirm) and not from other ducts, piping, conduits or ceiling supports.

1.4 TESTING, ADJUSTING, BALANCING

- A. Independent air balance contractor or qualified Mechanical Contractor shall accurately balance the air (supply, return, ventilation air, and exhaust air) and hydronic systems (heating water, chilled water, condenser water), where applicable, to provide air and water quantities indicated on the drawings and in this specification. Balancer shall be qualified for TAB work per NEBB or AABC standards. Operate automatic controls system and verify set points. Submit two (2) copies of the balance report to the Owner's Representative for review and approval.

PART 2 - PRODUCTS AND EXECUTION

2.1 DUCTWORK AND ACCESSORIES

- A. Sheetmetal Ductwork - All ductwork shall be rigid sheetmetal constructed from galvanized sheet steel in accordance with SMACNA Low Velocity Duct Construction Standards. Fiberglass ductboard is not allowed. All exposed ductwork shall be round, flat, oval, spiral, or rectangular lock-seam type, as shown on HVAC plan. Assemble and install ductwork in accordance with recognized industry practice for achieving air tight (5% leakage) and noiseless (no objectionable noise) systems, capable of performing each indicated service. Furnish all required dampers, transitions, connections to air terminals, and other accessories necessary for a complete operating system. No variation of duct configuration or sizes will be permitted except by permission from the engineer.
 - 1. All medium pressure supply ductwork upstream of air terminal devices shall be 4-inch w.g. pressure class.
 - 2. All low pressure supply ductwork distribution shall be 2-inch w.g. pressure class.
 - 3. All return and exhaust ductwork shall be 2-inch pressure class.
 - 4. Ductwork crossing over corridors shall be not less than 26-gauge.
 - 5. Commercial kitchen grease hood exhaust duct shall be a minimum of 16-gauge carbon steel with continuous external welded joints fabricated in accordance with SMACNA and ASTM A569.
 - 6.
 - 7. Ductwork carrying moisture laden air including dishwasher and shower rooms shall be aluminum or A304 stainless steel where concealed and 316 stainless steel where exposed. Ductwork shall be sealed watertight and sloped to point of origin.
- B. Flexible Ductwork - Flexible ductwork shall only be installed as shown in plan and not above hard lid ceilings. Flexible ductwork shall not exceed 5' in length with one elbow. Flexible ductwork shall be pulled taut and appropriately fastened to rigid branch duct and diffuser. Bends shall be minimized and where needed be a full radius bend. Support bands shall be installed so as to not crimp flex duct. Flexible ductwork shall be UL 181 listed as a Class 1 air duct.
- C. Duct Sealant - Seal longitudinal and transverse joints with non-hardening, non-mitigating mastic or liquid elastic sealant, with VOC content no greater than 250g/L and of a type recommended by the manufacturer for sealing joints and seams in sheet metal ductwork. Cover all field joints, joints around spin-in fittings and fastening screws with mastic.
- D. Supports - Provide hot-dipped galvanized steel, fasteners, anchors, rods, straps, trim and angles for support of ductwork.
- E. Dampers - Furnish and install opposed-blade, multi-leaf volume control dampers where indicated on drawings. Provide manual volume dampers where branches are taken from larger ducts and in all branch ducts to individual diffusers, grilles, and registers. Provide UL listed fire dampers and/or combination fire smoke dampers where needed and in accordance with NFPA and local codes. Coordinate with General Contractor and electrical for fire alarm interface and power. Provide conveniently located access doors of ample size and quantity for servicing the dampers. Where required by code or AHJ, F&I motorized dampers for GSA (not necessarily shown).
- F. Grilles, Registers and Diffusers - Grilles, registers and diffusers shall be indicated on the drawings and schedules. Provide all miscellaneous items necessary for a complete and proper installation in the type of walls and ceilings used in this project.
- G. Thermal Insulation - Provide external thermal insulation with an integral vapor barrier facing of sufficient thickness to meet local energy code requirements and ASHRAE 90.1, whichever is more stringent. Provide insulation on exhaust and outside air ducts, and on concealed portions of supply and return air ducts. Do not externally insulate exposed ductwork and portions of ductwork that are internally lined with code required thickness. Thermal insulation to comply with an NFPA flame spread of 25 or less, and smoke developed to greater than 50. Internally insulate exterior ductwork per code.
- H. Access Provisions - Provide access doors in hard walls and ceilings for all equipment and ductwork requiring service. Provide access doors in ductwork as required access.

2.2 INSULATION

- A. Insulate ductwork and piping systems to meet local energy code requirements. Insulation materials to meet flame spread and smoke development rating of 25/50 or less. Where systems are exposed to damage the insulation shall be protected with a sheet metal or plastic cover. Where ductwork is installed exposed to the outside, insulation is to be executed using lined ductwork.



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KELLEY ENGINEERING CENTER PARTIAL REMODEL
 110 SW Park Terrace
 Conavills, OR 97331

NO.	DATE	DESCRIPTION

Sheet Title
MECHANICAL SPECIFICATIONS

Drawing No.

MO.1

Scale

Date 07/27/2023

Project No. 19-0016

DIFFUSER AND GRILLE SCHEDULE									
TAG	MANUFACTURER	MODEL	DESCRIPTION	FACE TYPE	FACE SIZE	COLOR	MATERIAL	OBD	NOTES
E	TITUS	PAR-AA	SQUARE CEILING EXHAUST	PERFORATED	12"x12"	WHITE	ALUMINUM	NO	ALL
S	TITUS	PAS-AA	SQUARE CEILING SUPPLY	PERFORATED MODULAR CORE	12"x12"	WHITE	ALUMINUM	NO	ALL

NOTES:
 1. MAXIMUM TOTAL PRESSURE DROP SHALL NOT EXCEED 0.1" WG WITH DUCT TRANSITION.
 2. MAXIMUM NO. LEVEL SHALL BE 30.
 3. ALL VISIBLE SURFACES AND DUCTWORK BEHIND FACE SHALL BE PAINTED FLAT BLACK.
 4. COORDINATE WITH ARCHITECTURAL REFLECTED CEILING PLANS FOR BORDER TYPES.
 5. NECK SIZE AND CFM SHOWN ARE ON PLANS (EXAMPLE: SA12x12-400 REFERS TO TAG "SA" WITH 12x12 NECK AND 400 CFM).
 6. PROVIDE RECTANGULAR/SQUARE TO ROUND TRANSITION AS REQUIRED AND SIZED FOR MAXIMUM 0.01" WG TOTAL PRESSURE DROP.

- KEYED NOTES** #
1. RELOCATE EXISTING SUPPLY DIFFUSER AND DEMO DUCT BACK TO SOUND LINED SECTION. PROVIDE END CAP.
 2. PROVIDE NEW SUPPLY TAPS AS SHOWN. REBALANCE TERMINAL UNIT TO 290 CFM.
 3. POINT OF NEW CONNECTION INTO EXISTING EXHAUST DUCT.
 4. EXHAUST UP TO EF-1 ON ROOF. REBALANCE FAN TO 1375 CFM.

EDWISS: 12/21/23
 REGISTERED PROFESSIONAL ENGINEER
 992332PE
 Phillip Cunningham
 P. CUNNINGHAM
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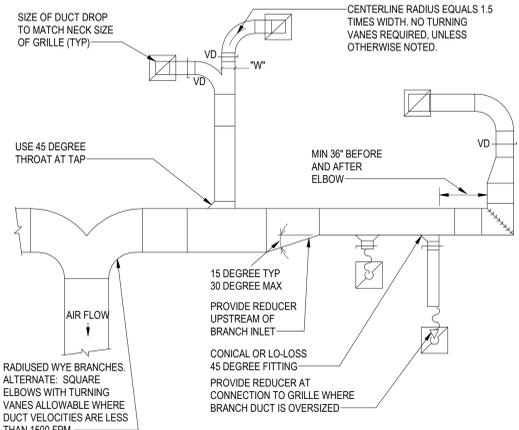
OWNER
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PROJECT
KELLEY ENGINEERING CENTER PARTIAL REMODEL
 110 SW Park Terrace
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Sheet Title
 FIRST FLOOR MECHANICAL PLAN

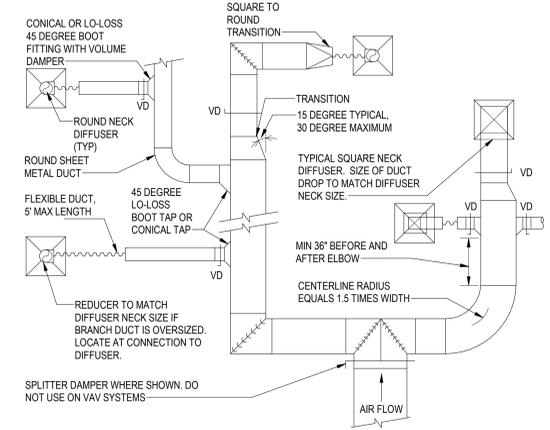
Drawing No.
M1.1

Scale As indicated
Date 07/27/2023
Project No. 19-0016



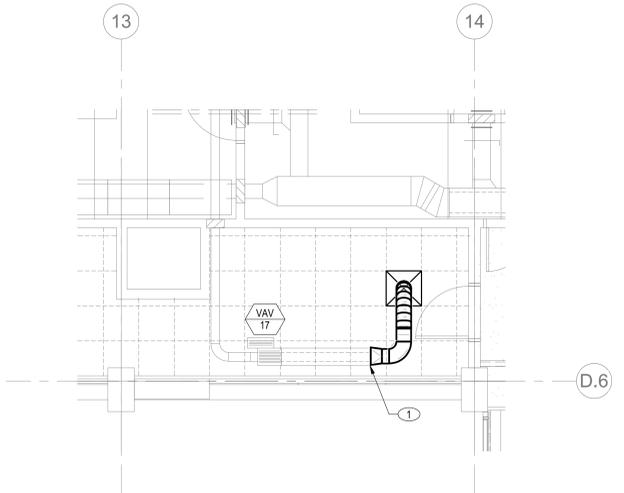
- NOTES:
 1. PROVIDE DUCT LINER AND/OR EXTERNAL DUCT INSULATION AS NOTED ON PLANS OR IN SPECIFICATIONS.
 2. PROVIDE HANGERS AND SEISMIC BRACING PER SMACNA AND BUILDING CODE.
 3. LOCATE MANUAL BALANCING DAMPERS IMMEDIATELY DOWNSTREAM OF EACH DUCT TAP.
 4. MAINTAIN MINIMUM 36" CLEARANCE BETWEEN LEADING OR TRAILING ELBOW JOINT AND DUCT TAP FITTINGS.
 5. TURNING VANES REQUIRED ON RECTANGULAR DUCT SYSTEM ELBOWS. SINGLE THICKNESS VANES UP TO 25" HEIGHT AND DOUBLE THICKNESS VANES IN DUCTS GREATER THAN 25" HEIGHT. RADIUSSED ELBOWS MAY BE USED AS AN ALTERNATE.
 6. NO TURNING VANES REQUIRED ON DUCT SIZES LESS THAN 180 SQ. IN. IF DUCT VELOCITY IS LESS THAN 1500 FPM.

4 RETURN EXHAUST DUCT FITTINGS
 SCALE: NONE

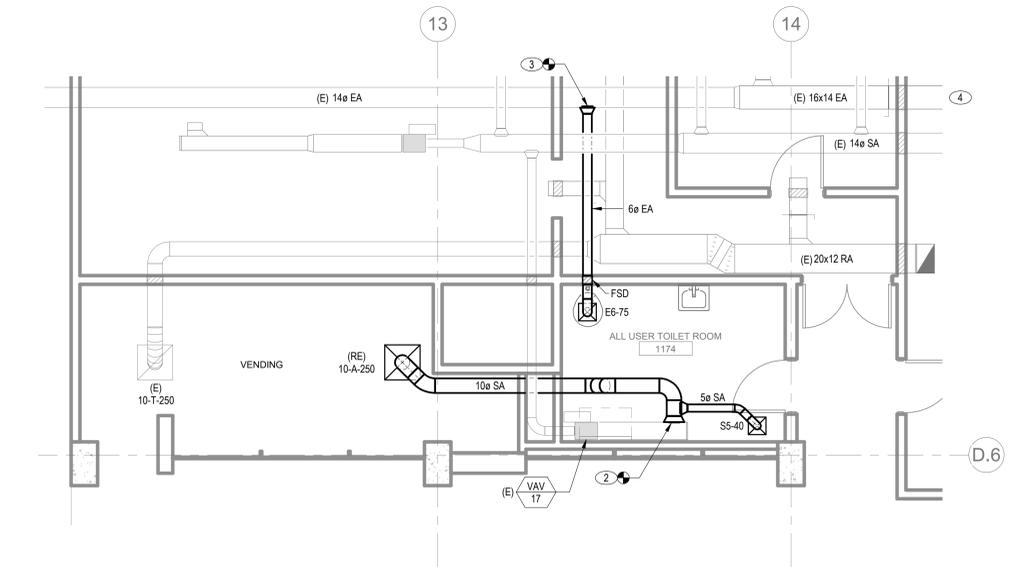


- NOTES:
 1. PROVIDE DUCT LINER AND/OR EXTERNAL DUCT INSULATION AS NOTED ON PLANS OR IN SPECIFICATIONS.
 2. PROVIDE HANGERS AND SEISMIC BRACING PER SMACNA AND BUILDING CODE REQUIREMENTS.
 3. LOCATE MANUAL BALANCING DAMPERS IMMEDIATELY DOWNSTREAM OF EACH DUCT TAP.
 4. CUSHION HEADS OR BULLHEAD TEES ARE NOT ALLOWED.
 5. MAINTAIN MINIMUM 36" CLEARANCE BETWEEN LEADING OR TRAILING ELBOW JOINT AND DUCT TAP FITTINGS.
 6. RADIUSSED ELBOWS OR TURNING VANES REQUIRED ON RECTANGULAR DUCT SYSTEM ELBOWS. SINGLE THICKNESS VANES UP TO 25" HEIGHT AND DOUBLE THICKNESS VANES IN DUCTS GREATER THAN 25" HEIGHT.

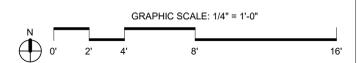
3 SUPPLY DUCT FITTINGS
 SCALE: NONE



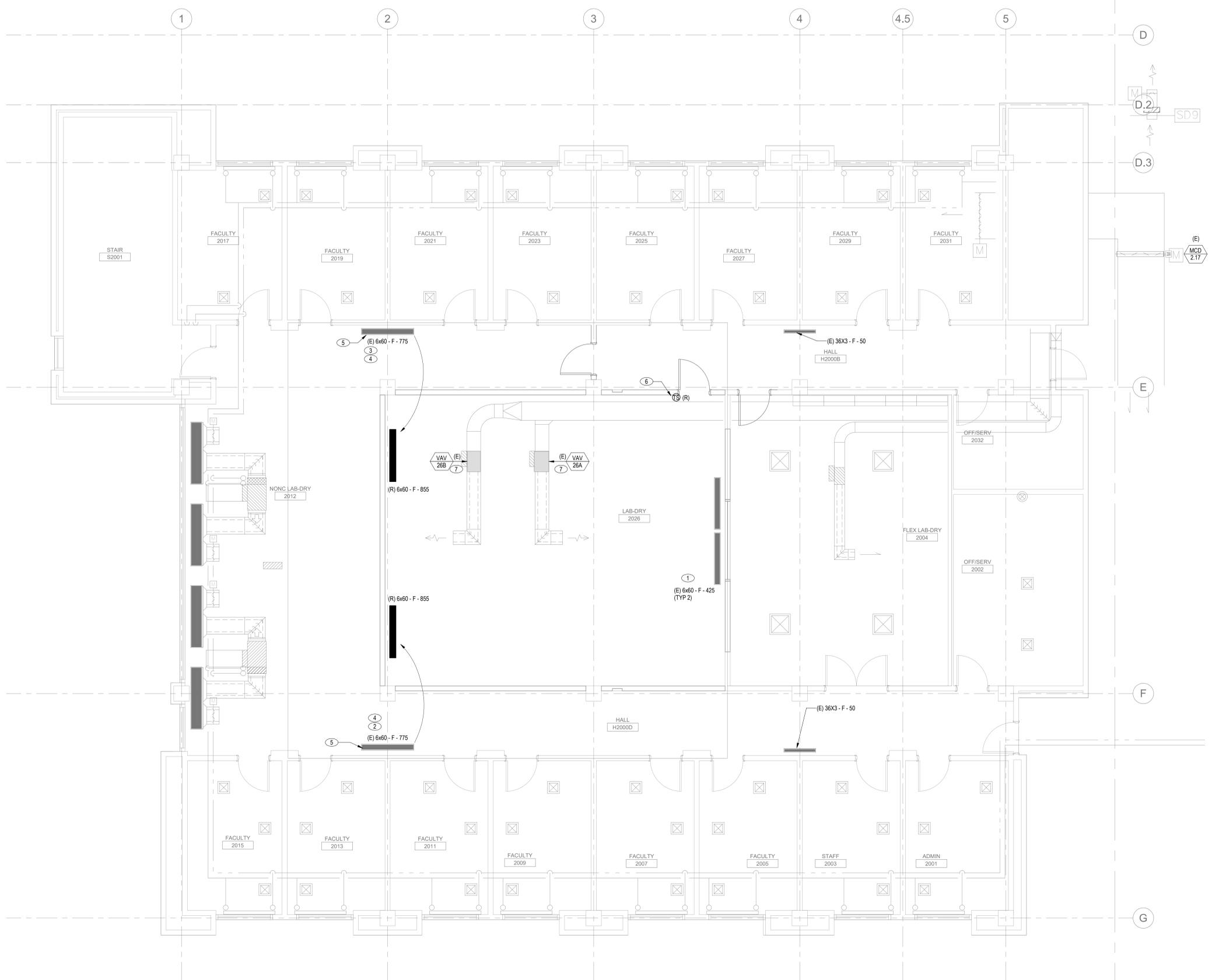
2 LEVEL 1 - CEILING PLAN - MECHANICAL DEMOLITION
 SCALE: 1/4" = 1'-0"



1 LEVEL 1 - CEILING PLAN - MECHANICAL
 SCALE: 1/4" = 1'-0"



ISSUED FOR PERMIT AND BID



- KEYED NOTES** #
- BALANCE FLOOR GRILLE TO 855 CFM (TYP 3)
 - RELOCATE EXISTING GRILLE NORTH TO LOCATION SHOWN WITHIN CONTROL ROOM
 - RELOCATE EXISTING GRILLE SOUTH TO LOCATION SHOWN WITHIN CONTROL ROOM
 - GRILLE TO BE THOROUGHLY CLEANED PRIOR TO RELOCATION:
CAP AND SEAL EXISTING PENETRATION AIRTIGHT. COVER INFILL WITH SALVAGED EXISTING CARPET.
 - RELOCATE EXISTING TEMPERATURE SENSOR SERVING VAV 26A & VAV 26B.
 - BALANCE EXISTING VAV BOX TO 1280 CFM MAX, 480 CFM MIN.



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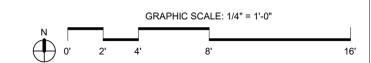
NO.	DATE	DESCRIPTION

Sheet Title
 SECOND FLOOR MECHANICAL PLAN

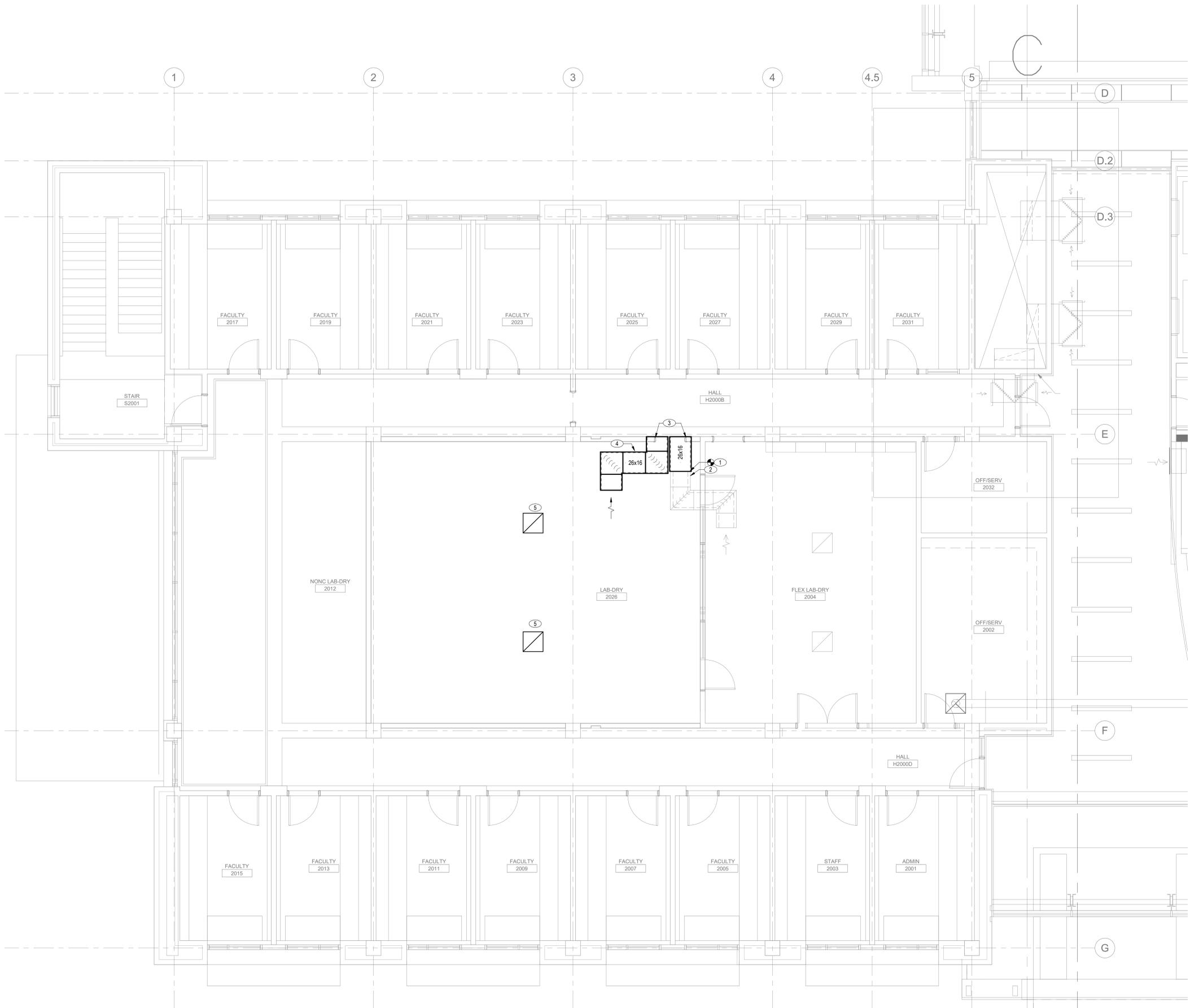
Drawing No.
M2.2

Scale 1/4" = 1'-0"
Date 07/27/2023
Project No. 19-0016

1 LEVEL 2 - FLOOR PLAN - MECHANICAL HVAC
 SCALE: 1/4" = 1'-0"

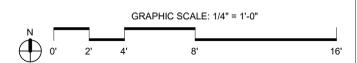


ISSUED FOR PERMIT AND BID



- KEYED NOTES**
- 1 EXTEND EXISTING TRANSFER BOOT DUCT TO CORRIDOR PLENUM.
 - 2 INTERNALLY CLEAN DUCTWORK.
 - 3 PROVIDE 1" ACOUSTICAL LINING.
 - 4 LINED ACOUSTIC TRANSFER BOOT. PROVIDE ADEQUATE LENGTH TO ENSURE NO CLEAR SIGHTLINE THROUGH DUCT.
 - 5 24"X24" CEILING RETURN GRILLE. MATCH EXISTING STYLE AND COLOR OF EXISTING RETURN AIR GRILLES.

1 LEVEL 2 - CEILING PLAN - MECHANICAL HVAC
SCALE: 1/4" = 1'-0"



ISSUED FOR PERMIT AND BID



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MARK	DATE	DESCRIPTION

Sheet Title
SECOND FLOOR
MECHANICAL
CEILING PLAN

Drawing No.
M3.2

Scale 1/4" = 1'-0"

Date 07/27/2023

Project No. 19-0016

ELECTRICAL LEGEND

NOTE: NOT ALL SYMBOLS OR ABBREVIATIONS ARE APPLICABLE TO THIS PROJECT. REFER TO DETAILS AND NOTES FOR MOUNTING HEIGHTS.

ABBREVIATIONS

Table with 2 columns: SYMBOL, DESCRIPTION. Contains symbols for recessed and surface mounted luminaires, wall wash, track lighting, and emergency equipment.

Table with 2 columns: SYMBOL, DESCRIPTION. Contains symbols for branch circuit panelboards, transformers, disconnect switches, and busway risers.

Table with 2 columns: SYMBOL, DESCRIPTION. Contains symbols for simplex and duplex receptacles, switches, and electrical connection methods.

Table with 2 columns: SYMBOL, DESCRIPTION. Contains symbols for keynotes, branch circuits, and mechanical equipment identification tags.

Table with 2 columns: SYMBOL, DESCRIPTION. Contains symbols for fire alarm control panels, annunciators, bells, and various detectors.

Table with 2 columns: SYMBOL, DESCRIPTION. Contains symbols for fire alarm output, release abort, and agent discharge switches.

Table with 2 columns: SYMBOL, DESCRIPTION. Contains symbols for single and two pole switches, dimmer switches, and occupancy sensors.

Table with 2 columns: SYMBOL, DESCRIPTION. Contains symbols for automatic transfer switches, overloads, contactors, and surge protection devices.

Table with 2 columns: SYMBOL, DESCRIPTION. Contains symbols for signal system equipment enclosures, telephone outlets, and data outlets.

Table with 2 columns: SYMBOL, DESCRIPTION. Contains symbols for ground symbols, grounding conductors, and grounding grid bond points.

Table with 2 columns: SYMBOL, DESCRIPTION. Contains symbols for CCTV security cameras, card readers, and door motor control outputs.

Table with 2 columns: SYMBOL, DESCRIPTION. Contains symbols for duress pushbutton stations, emergency door release, and glass break sensors.

ELECTRICAL EQUIPMENT NAMING CONVENTION LEGEND

Table with 4 columns: EXAMPLES/LEGEND, EQUIPMENT TYPE, POWER SYSTEMS, VOLTAGE, ADDITIONAL DESIGNATION, FLOOR. Provides naming conventions for various electrical components.

Professional Engineer seal for Paul Lennett, Integrus Architecture logo, and project information for Kelley Engineering Center Partial 2nd Floor Remodel.

ISSUED FOR PERMIT

ELECTRICAL GENERAL NOTES - DEMOLITION

- A REFER TO ARCHITECTURAL DRAWINGS FOR FULL EXTENT OF DEMOLITION.
B CONTRACTOR SHALL VERIFY CIRCUITS WITH TRACING DEVICE AND LABEL CIRCUITS AVAILABLE AT EACH J-BOX, MODIFY DRAWINGS AS REQUIRED TO DOCUMENT ACTUAL CIRCUITING.
C FOR WALL, COLUMNS, CASEWORK, SOFFITS, ISLANDS, ETC. SHOWN EXISTING TO REMAIN PERFORM THE FOLLOWING:
1. OPEN WALL AS REQUIRED TO ALLOW FOR INSTALLATION IN NEW SCOPE OF WORK.
2. REMOVE RECEPTACLES AND COVERPLATES, INSTALL NEW DEVICES AND COVERPLATES IN THE NEW SCOPE OF WORK, EXISTING CONDUIT AND WIRING TO REMAIN IF IN GOOD CONDITION.
3. REMOVE LIGHT SWITCHES AND COVERPLATES, INSTALL NEW DEVICES AND COVERPLATES IN THE NEW SCOPE OF WORK, EXISTING CONDUIT AND WIRING TO REMAIN IF IN GOOD CONDITION.
4. FOR LIGHT SWITCHES THAT SERVE EXISTING LIGHTING TO BE REMOVED, REMOVE LIGHT SWITCHES INCLUDING THEIR J-BOXES, CONDUIT AND WIRE.
5. REMOVE FIRE ALARM DEVICES AND COVERPLATES, INSTALL NEW DEVICES, COVERPLATES AND WIRING IN THE NEW SCOPE OF WORK, EXISTING J-BOX AND CONDUIT TO REMAIN.
6. REMOVE EXIT SIGNS, EXISTING J-BOX AND CONDUIT TO REMAIN.
D WHERE REMODELING INTERFERES WITH EXISTING CIRCUITS AND EQUIPMENT WHICH IS NOT TO BE REMOVED, SUCH CIRCUITS AND EQUIPMENT SHALL BE REWORKED AND RELOCATED AS REQUIRED TO MAINTAIN SERVICE TO ITEM. REFER ALL QUESTIONABLE SITUATIONS TO THE ENGINEER. DO NOT LOCATE J-BOXES ON WALLS, EXCEPT ONES REQUIRED TO MOUNT THE ITEM, I.E. AT THE COMPLETION OF THE PROJECT THERE SHALL BE NO J-BOXES WITH BLANK COVERPLATES ON WALLS OR CEILINGS, THE PROJECT SHALL APPEAR AS NEW CONSTRUCTION.
E REMOVE ALL EXISTING BRANCH CIRCUIT CONDUCTORS AND CONDUITS ASSOCIATED WITH REMOVED ELECTRICAL EQUIPMENT AND DEVICES BACK TO THE EXISTING HOMERUN FROM WHICH THEY ARE FED OR THE NEAREST ACTIVE DEVICE THAT IS TO REMAIN, REMOVE ALL OLD TYPE WIRING IF IT IS NOT RATED FOR 90 C.
F IF POSSIBLE, EXISTING BRANCH CIRCUIT HOMERUN CONDUITS AND WIRES ARE TO REMAIN AND BE REUSED IN THE NEW CONSTRUCTION PHASE OF WORK, DOWNSTREAM BRANCH CIRCUIT CONDUITS AND WIRING SERVING EXISTING-TO-BE-REMOVED EQUIPMENT, RECEPTACLES AND LUMINAIRES ARE TO BE REMOVED. INTENT IS TO REUSE THE MAIN INFRASTRUCTURE AND REMOVE ALL THE BRANCH CIRCUITING THAT WILL NO LONGER BE USED. REMOVE EXISTING HOMERUNS BACK TO PANEL IF THEY WILL NOT BE USED AT THE COMPLETION OF THE PROJECT.
G CONTRACTOR SHALL VERIFY CIRCUITS WITH TRACING DEVICE AND LABEL CIRCUITS AVAILABLE AT EACH J-BOX, MODIFY DRAWINGS AS REQUIRED TO DOCUMENT ACTUAL CIRCUITING.
H DO NOT REMOVE ANY CONDUITS SERVING EXISTING TO REMAIN ITEMS, ESPECIALLY TO:
1. FAN POWERED BOXES AND OTHER MECHANICAL EQUIPMENT TO REMAIN, REFER TO MECHANICAL DRAWINGS FOR SCOPE OF WORK.
2. PANELS, DISTRIBUTION PANELS, TRANSFORMERS, ETC., UNON
3. HVAC CONTROLS AND CONTROL PANELS, UNLESS THE PIECE OF HVAC EQUIPMENT IS TO BE REMOVED, REFER TO MECHANICAL DRAWINGS AND SPECS. FOR SCOPE OF WORK.
4. CONDUITS AND J-BOXES TO FIRE ALARM DEVICES ON EXISTING TO REMAIN WALLS.
5. BRANCH CIRCUIT WORK SERVING THE EXISTING CORE AND EXTERIOR LIGHTING.
6. DOOR HOLDERS, ROLL-DOWN FIRE DOORS, ROLL-UP DOORS AND THEIR ASSOCIATED POWER AND CONTROL WIRING, UNON.
7. EXTERIOR LIGHTING AND ASSOCIATED LIGHTING CONTROL WIRING.
8. CONTROL, POWER WIRING AND TELECOM WIRING ASSOCIATED WITH ALL ELEVATORS.
9. SECURITY DEVICES, EQUIPMENT, CONDUIT AND WIRING, UNON.
I DO NOT REMOVE ANY TELECOM INFRASTRUCTURE, I.E. CONDUITS CONNECTING TELECOM CLOSETS, CABLE TRAYS, BRIDAL RINGS IN AREAS THAT WILL BE ABOVE SUSPENDED CEILINGS.
J ALL REMOVED ELECTRICAL MATERIAL INCLUDING WIRING, RACEWAYS, OUTLETS, DEVICES, SUPPORTS SHALL BECOME THE PROPERTY OF THE CONTRACTOR AND SHALL BE REMOVED FROM THE JOB SITE.
K ALL SALVAGED LUMINAIRES SHALL REMAIN THE PROPERTY OF THE OWNER, DELIVER TO OWNER'S STORAGE SITE, IF NOT TO BE RETAINED THEN THEY SHALL BECOME THE PROPERTY OF THE OWNER UNLESS OWNER DIRECTS OTHERWISE.
L COORDINATE STORAGE LOCATION AND PROTECTION OF SALVAGED LUMINAIRES THAT ARE TO BE REUSED WITH GENERAL CONTRACTOR.
M DAMAGE TO OTHER TRADES WORK AS A RESULT OF THIS WORK IS TO BE PROMPTLY REPAIRED AT NO EXPENSE TO THE OWNER AND TO THE COMPLETE SATISFACTION OF THE OWNER.
N CONTRACTOR SHALL VISIT THE JOB SITE PRIOR TO SUBMISSION OF BID AND FIELD VERIFY ALL EXISTING CONDITIONS AND THE EXTENT OF THE DEMOLITION WORK. ALL ASSOCIATED DEMOLITION COSTS SHALL BE INCLUDED IN THE BID PRICE, NO EXTRA PAYMENT WILL BE ALLOWED FOR WORK REQUIRED BECAUSE OF DISCREPANCY CONDITIONS, WHETHER OR NOT SPECIFICALLY SHOWN ON THESE DRAWINGS.
O THE EXISTING BUILDING INCLUDING PORTIONS OF THE RENOVATED AREA SHALL REMAIN IN SERVICE DURING THE CONSTRUCTION PHASE OF THIS PROJECT, ANY MODIFICATIONS TO THE EXISTING ELECTRICAL SYSTEMS THAT MAY REQUIRE THE TEMPORARY INTERRUPTION OF EXISTING SERVICES SHALL BE COMPLETED AFTER NORMAL WORKING HOURS, PRE-SCHEDULE ANY SERVICE INTERRUPTIONS WITH THE OWNER PRIOR TO STARTING ANY WORK, DO NOT DISTURB THE EXISTING DEPARTMENTS IN THE EXISTING BUILDING COMPLEX.
P UTILITY OUTAGES: NOT LESS THAN TEN (10) WORKING DAYS PRIOR TO A REQUIRED UTILITY (POWER, TELE, NET) OUTAGE, NOTIFY AND OBTAIN APPROVAL IN WRITING OF SAID OUTAGE FROM THE FACILITY, NO OUTAGE SHALL BE ACCOMPLISHED PRIOR TO THE RECEIPT OF APPROVAL, CONTRACTOR SHALL LOCK-OUT AND RED-TAG THE APPROPRIATE CIRCUIT BREAKER, SWITCH, ETC. RED-TAG SHALL INDICATE WHEN THE OUTAGE WILL BE TERMINATED, AND A TELEPHONE NUMBER TO CONTACT REGARDING THIS OUTAGE, THE TAG SHALL ALSO WARN PEOPLE NOT TO RE-ENERGIZE THE CIRCUIT SYSTEM BECAUSE OF POTENTIAL DANGER TO PERSONNEL AND EQUIPMENT, ALL WORK ASSOCIATED WITH ANY POWER OUTAGES SHALL BE COMPLETED AFTER NORMAL WORKING HOURS.
Q EXISTING WIRING WHERE SHOWN ON THE DRAWINGS IS BASED ON AVAILABLE AS-BUILT DRAWINGS AND FIELD INFORMATION, CONTRACTOR SHALL VERIFY EXISTING CONDITIONS.

ELECTRICAL GENERAL NOTES - POWER

- A WHERE POSSIBLE, BOXES SHALL BE IN SEPARATE STUD SPACES FROM BOXES SERVING OTHER ROOMS TO MINIMIZE SOUND TRANSFER.
B COORDINATE EXACT MECHANICAL EQUIPMENT LOCATIONS AND REQUIREMENTS WITH MECHANICAL CONTRACTOR PRIOR TO ROUGH-IN. COORDINATE CONDUIT REQUIREMENTS FOR ALL HVAC EQUIPMENT WITH CONTROLS CONTRACTOR.
C REFER TO DETAIL DRAWINGS FOR ADDITIONAL INFORMATION, ALL DETAILS APPLY FOR ALL APPLICABLE SITUATIONS WHETHER REFERENCED OR NOT, UNON.
D REFER TO ARCHITECTURAL FLOOR PLANS, INTERIOR ELEVATIONS AND DETAIL DRAWINGS PRIOR TO ROUGH-IN FOR EXACT LOCATION OF RECEPTACLES, FLOOR BOXES AND OUTLETS, INFORM ENGINEER OF CONFLICTS.
E CONTRACTOR IS RESPONSIBLE TO REVIEW ARCHITECTURAL DRAWINGS TO CONFIRM CEILING TYPES IN ALL ROOMS (ACCESSIBLE, EXPOSED, OR "HARD") AND TO USE THE APPROPRIATE WIRING METHOD FOR EACH TYPE, INSURE ALL J-BOXES ARE ACCESSIBLE AFTER ALL OTHER TRADES WORK IS COMPLETED, DO NOT LOCATE ANY J-BOXES ON "HARD" CEILINGS, ALL WIRING MUST BE ACCESSIBLE THROUGH DEVICE ONLY IN "DAGGY CHAIN" METHOD OR WITH DEDICATED HOMERUNS TO EACH DEVICE, J-BOXES MAY BE LOCATED ABOVE OTHER TRADES ACCESS DOORS IF FEASIBLE AND DOES NOT INTERFERE WITH ACCESS.
F CIRCUIT SIZES ARE NOT SHOWN ON THE PLANS, CONTRACTOR SHALL USE CIRCUIT SIZES INDICATED IN NOTES OR RESPECTIVE SCHEDULES (PNL, MCC, ETC.) AND INFORMATION IN THE FEEDER AND BRANCH CIRCUIT SCHEDULES.
G INSTALL ALL EQUIPMENT PER MANUFACTURER'S RECOMMENDATIONS AND INSTRUCTIONS, THESE DRAWINGS ARE DIAGRAMMATIC.
H ALL NEW RACEWAYS AND CONDUCTORS SHALL BE INSTALLED CONCEALED, CUT AND PATCH EXISTING WALLS TO ACCOMMODATE NEW RACEWAY INSTALLATION, ALL CONDUITS TO BE INSTALLED 90° TO BUILDING LINES.
I FOR ELECTRICAL CONNECTIONS AND CIRCUITING TO MECHANICAL EQUIPMENT SHOWN ON THIS SHEET, REFER TO MECHANICAL-ELECTRICAL EQUIPMENT SCHEDULE.
J THE EXISTING BUILDING INCLUDING PORTIONS OF THE RENOVATED AREA SHALL REMAIN IN SERVICE DURING THE CONSTRUCTION PHASE OF THIS PROJECT, ANY MODIFICATIONS TO THE EXISTING ELECTRICAL SYSTEMS THAT MAY REQUIRE THE TEMPORARY INTERRUPTION OF EXISTING SERVICES SHALL BE COMPLETED AFTER NORMAL WORKING HOURS, PRE-SCHEDULE ANY SERVICE INTERRUPTIONS WITH THE OWNER PRIOR TO STARTING ANY WORK, DO NOT DISTURB THE EXISTING DEPARTMENTS IN THE EXISTING BUILDING COMPLEX.
K UTILITY OUTAGES: NOT LESS THAN TEN (10) WORKING DAYS PRIOR TO A REQUIRED UTILITY (POWER, TELE, NET) OUTAGE, NOTIFY AND OBTAIN APPROVAL IN WRITING OF SAID OUTAGE FROM THE FACILITY, NO OUTAGE SHALL BE ACCOMPLISHED PRIOR TO THE RECEIPT OF APPROVAL, CONTRACTOR SHALL LOCK-OUT AND RED-TAG THE APPROPRIATE CIRCUIT BREAKER, SWITCH, ETC. RED-TAG SHALL INDICATE WHEN THE OUTAGE WILL BE TERMINATED, AND A TELEPHONE NUMBER TO CONTACT REGARDING THIS OUTAGE, THE TAG SHALL ALSO WARN PEOPLE NOT TO RE-ENERGIZE THE CIRCUIT SYSTEM BECAUSE OF POTENTIAL DANGER TO PERSONNEL AND EQUIPMENT, ALL WORK ASSOCIATED WITH ANY POWER OUTAGES SHALL BE COMPLETED AFTER NORMAL WORKING HOURS.
L EXISTING WIRING WHERE SHOWN ON THE DRAWINGS IS BASED ON AVAILABLE AS-BUILT DRAWINGS AND FIELD INFORMATION, CONTRACTOR SHALL VERIFY EXISTING INSTALLATIONS AND THE TIME FOR DOING SO SHALL BE INCLUDED IN THIS BID.
M WHERE NOTED AS OWNER-SUPPLIED ON DRAWINGS, CONTRACTOR SHALL RECEIVE, INSTALL, AND CONNECT EQUIPMENT PER MANUFACTURER'S REQUIREMENTS, PRIOR TO INSTALLATION OF OWNER-SUPPLIED EQUIPMENT, CONTRACTOR SHALL INSPECT/TEST EQUIPMENT AND INFORM PROJECT MANAGER OF ANY DEFECTS, FAILURE TO DO SO SHALL MEAN THAT THE EQUIPMENT IS IN GOOD WORKING CONDITION, CONTRACTOR SHALL BE RESPONSIBLE FOR INSTALLATION AND TESTING OF SUCH EQUIPMENT.
N IN ADDITION TO ALL STATUTORY CODES ENFORCED BY THE AUTHORITY HAVING JURISDICTION, PROJECT SHALL COMPLY WITH LATEST EDITION OF OSU CONSTRUCTION STANDARDS.

COPPER FEEDER SCHEDULE

Table with columns: FEEDER TAG, CONDUITS (MET, SETS, RNC), CONDUCTORS PER SET (PHASE/NEUTRAL, GROUND), NOTES, FEEDER TAG, CONDUITS (MET, SETS, RNC), CONDUCTORS PER SET (PHASE/NEUTRAL, GROUND), NOTES. Lists various feeder tags and their specifications.

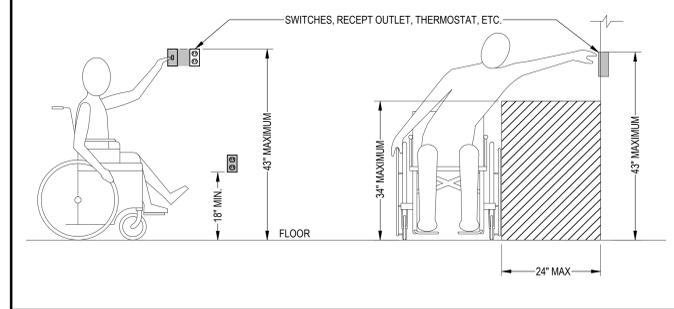
- NOTES:
1. CONDUCTORS AND CONDUITS SHOWN IN THIS SCHEDULE ARE BASED ON COPPER CONDUCTORS WITH THHN/THWN INSULATION.
2. THIS SCHEDULE SHALL BE USED ON ALL FEEDERS SERVING LOADS WHERE THE CIRCUIT BREAKER SIZE MATCHES THE AMPACITY OF ITS FEEDER, USE THE "MOTOR CIRCUIT SCHEDULE" FOR LOADS, SUCH AS MOTORS, PUMPS, FANS, CHILLERS, ETC., WHERE THE CIRCUIT BREAKER SIZE IS LARGER THAN THE AMPACITY OF ITS FEEDER.
3. PROVIDE GROUND WIRE NOTED ABOVE IN ALL FEEDERS AND BRANCH CIRCUITS, WHERE MULTIPLE CONDUITS ARE INDICATED PROVIDE NOTED GROUND WIRE IN EACH CONDUIT.
4. NOT ALL FEEDERS ARE NECESSARILY USED ON THIS PROJECT.
5. NOMINAL AMPACITIES GREATER THAN 100 AMPS ARE FOR 75 DEG. C TERMINALS.
6. "MET"= EMT, IMC, GRC, RAC, OR PVC COATED GRC TYPE CONDUITS, "RNC"= PVC 40, PVC 80 OR FIBERGLASS TYPE CONDUITS ROUTED UNDERGROUND, REFER TO SIZING ON DRAWINGS IF "RNC" CONDUITS ARE ROUTED ABOVEGROUND, CONDUIT SIZES NOTED ON SINGLE-LINE DIAGRAM OR ON PLANS SUPERSEDE SIZES NOTED ABOVE IF LARGER.
7. OVERSIZED (173% MIN.) NEUTRAL FOR FEEDERS CONNECTED TO A K-4 OR HIGHER RATED TRANSFORMER.
8. REFER TO TRANSFORMER SCHEDULE FOR STANDARD PRIMARY AND SECONDARY FEEDER SIZES.
9. REFER TO MCC OR PANEL SCHEDULES FOR FEEDER SIZES TO EQUIPMENT NOTED WITH THIS TAG.

BRANCH CIRCUIT SCHEDULE

Table with columns: CIRCUIT TAG, CONDUITS (MET, SETS, RNC), CONDUCTORS PER SET (PHASE/NEUTRAL, GROUND), WIRING CONFIG., NOTES. Lists branch circuit tags and their specifications.

- NOTES:
1. CONDUCTORS AND CONDUITS SHOWN IN THIS SCHEDULE ARE BASED ON COPPER CONDUCTORS WITH THHN/THWN INSULATION.
2. THIS SCHEDULE SHALL BE USED ON ALL BRANCH CIRCUITS SERVING LOADS WHERE THE CIRCUIT BREAKER SIZE MATCHES THE AMPACITY OF ITS FEEDER, USE THE "MOTOR CIRCUIT SCHEDULE" FOR LOADS, SUCH AS MOTORS, PUMPS, FANS, CHILLERS, ETC., WHERE THE CIRCUIT BREAKER SIZE IS LARGER THAN THE AMPACITY OF ITS FEEDER.
3. PROVIDE GROUND WIRE NOTED ABOVE IN ALL BRANCH CIRCUITS.
4. NOT ALL BRANCH CIRCUITS SHOWN ABOVE ARE NECESSARILY USED ON THIS PROJECT.
5. "MET"= EMT, IMC, GRC, RAC, OR PVC COATED GRC TYPE CONDUITS, "RNC"= PVC 40, PVC 80 OR FIBERGLASS TYPE CONDUITS ROUTED UNDERGROUND, REFER TO SIZING ON DRAWINGS IF "RNC" CONDUITS ARE ROUTED ABOVEGROUND, CONDUIT SIZES NOTED ON SINGLE-LINE DIAGRAM OR ON PLANS SUPERSEDE SIZES NOTED ABOVE IF LARGER.
6. THIS SCHEDULE APPLIES TO STANDARD LENGTH CIRCUITS ONLY, CONTRACTOR TO UPSIZE WIRING AS REQUIRED TO MEET MINIMUM VOLTAGE DROP REQUIREMENTS INDICATED IN SPECIFICATIONS, GROUND CONDUCTOR WILL ALSO NEED TO BE INCREASED PROPORTIONATELY AS REQUIRED BY NEC.
7. THESE BRANCH CIRCUITS TAGS ARE TYPICALLY NOT SHOWN ON PLANS FOR CLARITY REASONS, CONTRACTOR SHALL USE THIS INFORMATION AS IT APPLIES FOR ALL CONDUITS CONTAINING ONE OR MORE 20A/1P CIRCUITS.
8. CONTRACTOR MAY COMBINE 20A 1 AND 2-POLE CIRCUITS, UP TO A MAXIMUM OF (3) PHASE CONDUCTORS, IN ONE CONDUIT, ALL 3-PHASE AND CIRCUITS LARGER THAN 20A SHALL BE IN DEDICATED CONDUITS, UNON, PROVIDE DEDICATED NEUTRALS FOR EACH 1-POLE CIRCUIT.
9. ALL HOMERUNS SHALL USE 0.75" CONDUIT SIZE MINIMUM.

ACCESSIBLE OUTLET MOUNTING HEIGHTS



MECHANICAL AND PLUMBING EQUIPMENT - ELECTRICAL CONNECTION SCHEDULE

Table with columns: TAG, NAME, #, DESCRIPTION, HP, KVA, FLA, LOAD CLASS, VOLTS, Ø, PANEL, CIRCUITING INFORMATION (CIRCUIT, OCP, POLES, FEEDER), DISCONNECT, STARTER, LOCATION (DIV, TYPE, LEVEL), NOTES. Lists mechanical and plumbing equipment with electrical connection details.

LUMINAIRE SCHEDULE

Table with columns: TAG, DESCRIPTION, FINISH, LAMP (TYPE, LUMENS, CRI, CCT), MANUFACTURER, MODEL, DIMMING TYPE, VOLTAGE, LOAD, MOUNTING (TYPE, HEIGHT), COMMENTS. Lists luminaire specifications.

- A. PROVIDE DOCUMENTATION ON DRIVER USED, MODULES ARE TO BE REPLACED WITH ONE FROM SAME MANUFACTURER ONLY.

COMcheck Software Version COMcheckWeb Interior Lighting Compliance Certificate

Project Information

Energy Code: 90.1 (2019) Standard
Project Title: OSU KELLY HALL - ENGINEERING LAB
Project Type: Alteration

Construction Site: 1310 SW Park Terrace, Corvallis, Oregon 97331
Owner/Agent: Larry Hengesh, OREGON STATE UNIVERSITY (c/o Glumac), 707 SW Washington Street - Suite 1200, Portland, Oregon 97205
Designer/Contractor: Larry Hengesh, OREGON STATE UNIVERSITY (c/o Glumac), 707 SW Washington Street - Suite 1200, Portland, Oregon 97205

Allowed Interior Lighting Power

Table with columns: Area Category, Floor Area (ft2), Allowed Watts / ft2, Allowed Watts. Lists allowed lighting power for Engineering Lab and Handicap Restroom.

Proposed Interior Lighting Power

Table with columns: Fixture ID, Description / Lamp / Wattage Per Lamp / Ballast, Lamps / Fixture, # of Fixture, Watt. Lists proposed lighting power for Engineering Lab and Handicap Restroom.

Interior Lighting Passes

Interior Lighting Compliance Statement

Compliance Statement: The proposed interior lighting alteration project represented in this document is consistent with the building plans, specifications, and other calculations submitted with this permit application. The proposed interior lighting systems have been designed to meet the 90.1 (2019) Standard requirements in COMcheck Version COMcheckWeb and to comply with any applicable mandatory requirements listed in the Inspection Checklist.

Larry Hengesh, Name - Title, Signature, Date: 7/14/22

Project Title: OSU KELLY HALL - ENGINEERING LAB
Data filename: Report date: 07/14/22
Page: 1 of 5



Paul Hengesh, Professional Engineer, License No. 78483, State of Oregon.

Consultant: GLUMAC, A TRULIA TECH COMPANY, 500 SW 15th Ave., Suite 1000, Portland, OR 97205

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OREGON STATE UNIVERSITY, 707 SW Washington Street | Suite 1200 | Portland, OR 97205

KELLEY ENGINEERING CENTER PARTIAL 2ND FLOOR REMODEL, 1110 SW Park Terrace, Corvallis, OR 97331

Sheet Title: BASIS OF DESIGN, GENERAL NOTES, AND SCHEDULES

Drawing No. E0.1

Scale: NONE

Date: 07/27/2023

Project No. 19-0016

ISSUED FOR PERMIT

ELECTRICAL SPECIFICATIONS

A. GENERAL

- THE "GENERAL CONDITIONS" AND "GENERAL REQUIREMENTS" OF THE ARCHITECTURAL SPECIFICATIONS GOVERN WORK UNDER ELECTRICAL.
- ALL WORK SHALL BE IN COMPLIANCE WITH THE OREGON STATE UNIVERSITY DESIGN & CONSTRUCTION STANDARDS.
- PROVIDE ALL LABOR, MATERIALS, EQUIPMENT AND SERVICES TO CONSTRUCT AND INSTALL COMPLETE NEW ELECTRICAL SYSTEMS AND SERVICE AS DESCRIBED HEREIN AND SHOWN ON THE DRAWINGS.
- ANY APPARATUS, APPLIANCE, MATERIAL OR WORK NOT SHOWN ON DRAWINGS BUT MENTIONED IN THE SPECIFICATIONS, OR VICE VERSA, OR ACCESSORIES NECESSARY TO MAKE THE WORK COMPLETE IN ALL RESPECTS AND READY FOR OPERATION, EVEN IF NOT PARTICULARLY SPECIFIED, SHALL BE FURNISHED AND INSTALLED BY THE CONTRACTOR WITHOUT ADDITIONAL EXPENSE TO THE OWNER.
- DESIGN DRAWINGS ARE DIAGRAMMATIC AND DO NOT SHOW ALL OFFSETS, BENDS, ELBOWS OR OTHER SPECIFIC ELEMENTS WHICH MAY BE REQUIRED FOR PROPER INSTALLATION OF WORK. SUCH WORK SHALL BE VERIFIED AT THE JOB SITE AND THE REQUIRED ACCESSORIES AND ROUTING SHALL BE PROVIDED TO COMPLETE THE WORK AT NO ADDITIONAL COST TO THE OWNER. THE RIGHT IS RESERVED TO MAKE ANY REASONABLE CHANGES IN OUTLET, LIGHTING OR EQUIPMENT LOCATIONS, PRIOR TO ROUGH-IN WITHOUT ANY ADDITIONAL COST TO THE OWNER. "REASONABLE CHANGE" SHALL BE INTERPRETED AS INCLUDING ANY CHANGES OF UP TO SIX FEET FROM THE LOCATIONS INDICATED ON THE DRAWINGS.
- CONTRACTOR SHALL GIVE ALL NECESSARY NOTICES, OBTAIN ALL PERMITS AND PAY ALL TAXES, FEES AND OTHER COSTS IN CONNECTION WITH THIS WORK. CONTRACTOR SHALL OBTAIN ALL REQUIRED CERTIFICATES OF INSPECTION FOR THIS WORK AND DELIVER SAME TO THE OWNER BEFORE REQUEST FOR ACCEPTANCE AND FINAL PAYMENT FOR THE WORK.
- WORKS AND MATERIALS SHALL CONFORM TO THE LATEST RULES OF THE NATIONAL BOARD OF FIRE UNDERWRITERS' CODE, REGULATIONS OF THE STATE FIRE MARSHAL, AND WITH APPLICABLE LOCAL AND STATE CODES. NOTHING IN THESE SPECIFICATIONS SHALL BE CONSTRUED TO PERMIT WORK NOT CONFORMING TO THE MOST STRINGENT APPLICABLE CODES.
- THE NATIONAL ELECTRICAL CODE, UNIFORM BUILDING CODE PLUS ANY APPLICABLE LOCAL AMENDMENTS TO THE FOREGOING CODES, AND ELECTRICAL REQUIREMENTS ESTABLISHED BY THE STATE AND LOCAL FIRE MARSHALS ARE HEREBY MADE PART OF THESE SPECIFICATIONS. THE CONTRACTOR SHALL NOTIFY THE OWNER OF ANY PART OF THE WORK BELIEVED TO BE IN CONFLICT WITH THESE CODES AND REGULATIONS.
- ELECTRICAL DRAWINGS ARE ARRANGED FOR CONVENIENCE ONLY AND DO NOT NECESSARILY DETERMINE WHICH TRADE PERFORMS THE VARIOUS PORTIONS OF THE WORK. THE CONTRACTOR SHALL PERFORM ALL NECESSARY WORK TO JOIN WITH OR RECEIVE WORK OF OTHER TRADES. WORK SHALL BE COORDINATED WITH ALL TRADES TO PROVIDE ADEQUATE CLEARANCE AND ELIMINATE CONFLICTS.
- THE CONTRACTOR SHALL VISIT THE JOB SITE PRIOR TO SUBMITTING PROPOSAL AND BE FAMILIAR WITH EXISTING SITE CONDITIONS. INFORMATION ON DRAWINGS RELATIVE TO EXISTING SITE CONDITIONS IS APPROXIMATE. DURING THE PROGRESS OF CONSTRUCTION, DEVIATIONS FOUND NECESSARY TO CONFORM TO ACTUAL CONDITIONS SHALL BE REPORTED TO THE OWNER. CONTRACTOR IS RESPONSIBLE FOR ANY DAMAGE CAUSED TO EXISTING UTILITIES. BY SUBMITTING THE BID IT IS UNDERSTOOD THAT THE CONTRACTOR HAS REVIEWED THE DOCUMENTS, UNDERSTANDS THE INTENT AND HAS INCLUDED ALL SITE CONSTRAINTS IN THE BID ACCORDINGLY.
- SHOP DRAWINGS SHALL BE SUBMITTED TO OWNER ON ALL MAJOR PIECES OF ELECTRICAL EQUIPMENT INCLUDING LIGHT FIXTURES, STARTERS, CIRCUIT BREAKERS, PANELBOARDS AND DEVICES. EACH ITEM OF THE SHOP DRAWINGS SHALL BE PROPERLY LABELED, INDICATING THE INTENDED SERVICE OF THE MATERIAL, THE PROJECT NAME AND THE ELECTRICAL CONTRACTOR'S NAME. WHEN AN ERROR IN THE SHOP DRAWINGS IS NOT DETECTED IN THE REVIEW, THIS DOES NOT GRANT THE CONTRACTOR PERMISSION TO PROCEED IN ERROR. REGARDLESS OF ANY INFORMATION CONTAINED IN THE SHOP DRAWINGS, THE REQUIREMENTS OF THE DRAWINGS AND SPECIFICATIONS MUST BE FOLLOWED AND ARE NOT WAIVED OR SUPERSEDED IN ANY WAY BY THE SHOP DRAWING REVIEW.
- THE ELECTRICAL CONTRACTOR SHALL MAINTAIN A SET OF DRAWINGS AT THE JOB SITE FOR THE EXCLUSIVE PURPOSE OF MAINTAINING A RECORD OF ALL WORK INSTALLED AND TO SHOW ANY DEVIATIONS FROM THE WORK INDICATED ON THE DRAWINGS. ONE SET OF REPRODUCIBLE DRAWINGS, SHOWING ALL AS-BUILT CONDITIONS, SHALL BE DELIVERED TO THE OWNER FOR ACCEPTANCE PRIOR TO FINAL PAYMENT AT THE COMPLETION OF THE PROJECT.
- THE RIGHT IS RESERVED TO INSPECT AND TEST ANY PORTION OF THE EQUIPMENT AND/OR MATERIALS DURING THE PROGRESS OF ITS INSTALLATION. THE CONTRACTOR SHALL TEST ALL WIRING AND CONNECTIONS FOR CONTINUITY AND GROUNDS BEFORE CONNECTING ANY FIXTURES OR EQUIPMENT. A FULL-SCALE WORKING TEST WITH ALL LIGHTS, EQUIPMENT, SPEAKERS, APPLIANCES, ETC., IN OPERATION SHALL BE MADE, IN THE PRESENCE OF THE BUILDING ENGINEER OR REPRESENTATIVE, AND THE ELECTRICAL SYSTEMS PROVEN SATISFACTORY FOR OPERATION AND FREE FROM DEFECTS. ANY DEFECTS FOUND SHALL BE REMEDIED IMMEDIATELY BY THE CONTRACTOR.
- THE CONTRACTOR SHALL PARTICIPATE IN AND PROVIDE STANDBY LABOR FOR REQUIRED LIFE SAFETY TESTS INCLUDING AFTER HOUR TESTING IF REQUIRED BY LANDLORD OR AUTHORITIES HAVING JURISDICTION.
- ON COMPLETION OF THE ENTIRE INSTALLATION, THE APPROVAL OF THE OWNER SHALL BE SECURED. THE CONTRACTOR SHALL OBTAIN AND PAY FOR A CERTIFICATE OF APPROVAL FROM THE PUBLIC AUTHORITIES HAVING JURISDICTION. A FINAL INSPECTION CERTIFICATE SHALL BE SUBMITTED TO THE OWNER PRIOR TO FINAL PAYMENT. ANY AND ALL COST INCURRED FOR FEES SHALL BE PAID FOR BY THE CONTRACTOR.
- COORDINATE ALL OUTAGES AND CUT-OVERS WITH THE LANDLORD. POWER SHALL NOT BE INTERRUPTED TO THE OCCUPIED PORTIONS OF THE BUILDING DURING BUSINESS HOURS, EXCEPT BY PERMISSION OF THE OWNER.
- PROVIDE UNDERWRITERS' LABORATORIES, INC. OR ETL TESTING LABORATORIES, INC. LISTED AND LABELED EQUIPMENT FOR ALL ITEMS FOR WHICH UL CARRIES A LISTING OR LABELING, UNLESS ITEMS ARE SPECIFICALLY EXEMPTED.

B. RACEWAYS AND FITTINGS

- APPLY RACEWAY PRODUCTS FOR OUTDOOR LOCATIONS AS SPECIFIED BELOW UNLESS OTHERWISE INDICATED.
 - EXPOSED CONDUIT: GRC OR IMC.
 - ABOVE GROUND CONCEALED CONDUIT: GRC, IMC, OR EMT.
 - CONNECTION TO VIBRATING EQUIPMENT, INCLUDING TRANSFORMERS, SOLENOIDS, OR MOTOR-DRIVEN EQUIPMENT: LFMC.
- APPLY RACEWAY PRODUCTS FOR INDOOR LOCATIONS AS SPECIFIED BELOW UNLESS OTHERWISE INDICATED.
 - EXPOSED CONDUIT, NOT SUBJECT TO PHYSICAL DAMAGE: EMT.
 - EXPOSED CONDUIT, NOT SUBJECT TO SEVERE PHYSICAL DAMAGE: EMT.
 - EXPOSED CONDUIT, SUBJECT TO SEVERE PHYSICAL DAMAGE: GRC OR IMC.
 - CONCEALED CONDUIT IN CEILINGS AND INTERIOR WALLS AND PARTITIONS: EMT.
 - CONNECTION TO LIGHTING FIXTURES AND VIBRATING EQUIPMENT, INCLUDING TRANSFORMERS, SOLENOIDS, OR MOTOR-DRIVEN EQUIPMENT: LFMC, EXCEPT USE LFMC IN DAMP OR WET LOCATIONS. MAX. 6' LENGTH.
 - CONDUIT IN DAMP OR WET LOCATIONS: GRC OR IMC.
 - BOXES AND ENCLOSURES: NEMA 250, TYPE 1. USE NEMA 250, TYPE 4 STAINLESS STEEL OR NONMETALLIC IN INSTITUTIONAL AND COMMERCIAL KITCHENS AND DAMP OR WET LOCATIONS.
- RIGID CONDUIT SHALL BE OF THREADED TYPE, HOT DIP GALVANIZED STEEL OR ALUMINUM. ELECTRICAL METALLIC TUBING SHALL BE GALVANIZED STEEL. ALL STEEL CONDUIT SHALL BE PROTECTED BY AN OVERALL ZINC COATING. FLEXIBLE CONDUIT SHALL BE STEEL, MINIMUM 3/4" SIZE.
- EMT CONNECTORS AND COUPLINGS SHALL BE STEEL SET SCREW OR COMPRESSION TYPE; CRIMP-ON TYPE IS NOT ACCEPTABLE. CONNECTORS IN PLENUMS SHALL BE COMPRESSION TYPE. TERMINATE THREADED CONDUITS INTO THREADED HUBS OR WITH LOCKNUTS ON INSIDE AND OUTSIDE OF BOXES OR CABINETS. INSULATING BUSHING AND INSULATED THROAT FITTINGS SHALL BE USED THROUGHOUT EMT INSTALLATION.
- CONCEAL ALL CONDUIT WHEREVER POSSIBLE EXCEPT IN MECHANICAL OR ELECTRICAL EQUIPMENT AREAS. EXPOSED CONDUIT SHALL BE RUN PARALLEL OR AT RIGHT ANGLES TO THE LINES OF THE BUILDING. CONDUIT CONCEALED IN CEILING SPACES SHALL BE RUN PARALLEL TO BUILDING LINES WHERE POSSIBLE.
- CONDUIT SHALL BE SUPPORTED FROM THE BUILDING STRUCTURE; SUPPORTS FROM AIR CONDITIONING DUCTS OR PIPING SHALL NOT BE PERMITTED. RIGID CONDUITS AFTER THREADS ARE CUT, ENDS SHALL BE CUT SQUARE AND SHALL BUTT SOLIDLY INTO COUPLINGS AND CONNECTORS.
- VERTICAL CONDUIT RUNS SHALL BE SUPPORTED AT EVERY FLOOR WITH SUPPORT INTERVALS NOT EXCEEDING 10 FEET. ALL HORIZONTAL CONDUIT AND BOXES SHALL BE SECURELY SUPPORTED BY MEANS OF CLAMPS, HANGERS, TRAPEZE SUPPORTS OR WALL BRACKETS.
- ANNULAR SPACE IN AND AROUND SLEEVES THAT PASS THROUGH FIRE RESISTIVE OR FIRE RATED PARTITIONS, FLOORS, OR CEILINGS SHALL BE CLOSED BY PACKING WITH A FIRE RESISTIVE MATERIAL THAT WILL MAINTAIN THE RATING OF THE BARRIER PENETRATED.
- CONDUITS SHALL BE CONTINUOUS FROM OUTLET TO OUTLET AND FROM OUTLETS TO CABINETS, JUNCTION OR PULL BOXES, AND SHALL ENTER AND BE SECURED AT ALL BOXES SO THAT EACH SYSTEM SHALL BE ELECTRICALLY CONTINUOUS THROUGHOUT.
- A NYLON PULL CORD SHALL BE LEFT IN ALL CONDUITS IN WHICH PERMANENT WIRING IS NOT INSTALLED.
- PROVIDE SLEEVES FOR ALL TELECOM CABLING WHICH PENETRATES SLABS AND FULL HEIGHT PARTITIONS.
- MINIMUM CONDUIT SIZE FOR POWER AND LIGHTING CIRCUITS SHALL BE 3/4-INCH FOR HOME-RUNS, MINIMUM CONDUIT SIZED FOR CONTROL WIRING SHALL BE 1/2-INCH.

C. WIRE AND CABLE

- CONDUCTORS SHALL BE COPPER AND RATED AT NOT LESS THAN 600 VOLTS, EXCEPT FOR SIGNAL CABLE SPECIFICALLY RATED LOWER. POWER AND LIGHTING CONDUCTORS SHALL BE MINIMUM #12 AWG. SIGNAL CABLE QUANTITY AND SIZE SHALL BE AS INDICATED. ALL WIRE #12 AWG OR LARGER SHALL BE STRANDED.
- FIXTURE EXTENSIONS SHALL BE #12 AWG EXCEPT THOSE INDIVIDUAL FIXTURE EXTENSIONS THAT DO NOT EXCEED 4 FEET IN LENGTH MAY BE #14 AWG. FIXTURE EXTENSIONS SHALL HAVE TEMPERATURE RATING TO CONFORM TO INDIVIDUAL FIXTURE REQUIREMENTS.
- WIRING SHALL BE TYPE THWN OR THHN, MINIMUM 75 DEGREE C INSULATION. FEEDERS SIZED #2 AWG AND ABOVE SHALL BE TYPE THW, 75 DEGREE C INSULATION, OR THHN, 90 DEGREE C INSULATION.
- SPECIAL PRE-MANUFACTURED CABLING SYSTEMS, SUCH AS MODULAR WIRING AND MC TYPE CABLE MAY BE USED FOR FINAL TERMINATIONS TO FIXTURES AND DEVICES WITHIN THE ROOM WHERE PERMITTED BY BUILDING OWNER. ALL HOMERUNS SHALL BE IN EMT OR RIGID.
- LIFE SAFETY SYSTEM WIRING SHALL BE COLOR CODED TO MATCH BASE BUILDING SYSTEM WIRING.
- ALL WIRING SHALL BE COLOR CODED AS FOLLOWS: 120/208 VOLT SYSTEM PHASE "A" - BLACK; PHASE "B" - RED; PHASE "C" - BLUE; NEUTRAL - WHITE; GROUNDING CONDUCTOR - GREEN. 277/480 VOLT SYSTEM PHASE "A" - BROWN; PHASE "B" - ORANGE; PHASE "C" - YELLOW; NEUTRAL - GRAY WITH BROWN OR BLACK STRIPES.
- ALL WIRE AND CABLE SHALL BE INSTALLED IN RACEWAY EXCEPT AS SPECIFICALLY PERMITTED OTHERWISE. VERTICAL RUNS OF CABLE SHALL BE SUPPORTED AT JUNCTION AND PULL BOXES PER CODE REQUIREMENTS.
- ALL LIFE SAFETY (FIRE ALARM, PUBLIC ADDRESS) SYSTEM WIRING SHALL BE INSTALLED IN RACEWAY. RACEWAY AND J-BOX COVERS SHALL BE RED.
- AT EACH FIXTURE OUTLET A LOOP OR END OF WIRE NOT LESS THAN 8" LONG SHALL BE LEFT FOR CONNECTION TO FIXTURES.

D. SPLICES AND INSULATION

- JOINTS IN BRANCH CIRCUITS SHALL OCCUR ONLY WHERE SUCH CIRCUITS DIVIDE AND SHALL CONSIST OF ONE THROUGH CIRCUIT TO WHICH SHALL BE SPLICED THE BRANCH FROM THE CIRCUIT. NO SPLICES SHALL BE MADE IN CONDUCTORS EXCEPT AT OUTLET BOXES, JUNCTION BOXES AND SPLICE BOXES.
- ALL JOINTS FOR POWER WIRING #10 AWG OR SMALLER SHALL BE MADE WITH WIRE NUTS. JOINTS IN SIGNAL CABLES SHALL BE MADE ONLY WITH COMPRESSION TYPE CONNECTORS.
- ALL JOINTS OR SPLICES FOR #8 AWG OR LARGER SHALL BE MADE WITH A MECHANICAL COMPRESSION CONNECTOR. AFTER THE CONDUCTORS HAVE BEEN MADE MECHANICALLY AND ELECTRICALLY SECURE, THE ENTIRE JOINT OR SPLICE SHALL BE COVERED WITH TAPE TO MAKE THE INSULATION OF THE JOINT OR SPLICE EQUAL TO THE INSULATION OF THE CONDUCTORS.

E. WIRING DEVICES AND OUTLET BOXES

- WALL RECEPTACLE OUTLETS SHALL BE NEMA 5-20R, SPECIFICATION GRADE UNLESS OTHERWISE NOTED.
- SWITCHES PROVIDED FOR ALL USES SHALL BE 20A SPECIFICATION GRADE. COLOR SCHEME SHALL MATCH RECEPTACLES.
- ALL WIRING DEVICES COLOR SHALL MATCH THE EXISTING COLOR SCHEME THAT IS PREVALENT THROUGHOUT THE BUILDING.
- COVER PLATES SHALL MATCH THE MAJORITY OF THE EXISTING DEVICES. COVER PLATES SHALL BE IDENTIFIED AS TO SOURCE (PANEL AND CIRCUIT NUMBER).
- OUTLET BOXES FOR CONCEALED WORK SHALL BE ONE PIECE, PRESSED STEEL, KNOCKOUT TYPE WITH ZINC OR CADMIUM COATING. BOXES SHALL NOT BE SMALLER THAN 4" SQUARE NOMINAL, SIZE EXCEPT WHERE INDICATED. PROVIDE EXTENSION RINGS, PLASTER RINGS AND COVERS NECESSARY FOR FLUSH FINISH.
- PROVIDE 3/4" CONDUIT FROM ALL DATA OUTLETS STUBBED UP INTO ACCESSIBLE CEILING SPACE, UNLESS OTHERWISE NOTED.
- MOUNT DEVICES IN APPROVED OUTLET BOXES AT MOUNTING HEIGHTS DETERMINED BY ARCHITECTS. WHERE MORE THAN ONE WALL SWITCH IS INDICATED AT ONE LOCATION, SWITCHES SHALL BE GANGED UNDER A COMMON WALL PLATE. MORE THAN 6 SWITCHES AT ONE LOCATION SHALL BE GANGED IN TWO ROWS, ONE ABOVE THE OTHER.
- BEFORE LOCATING OUTLET BOXES, CHECK ALL ARCHITECTURAL DRAWINGS FOR TYPE OF CONSTRUCTION AND TO MAKE SURE THAT THERE ARE NO CONFLICTS WITH OTHER EQUIPMENT.
- BAR HANGERS SHALL BE USED TO SUPPORT OUTLET BOXES IN STUD OR FURRED PARTITIONS AND CEILINGS. SCREWS SHALL BE USED WITH EXPANSION SHIELDS FOR FASTENING TO CONCRETE OR MASONRY. PROVIDE APPROVED KNOCKOUT SEALS ON UNUSED OPEN KNOCKOUT HOLES.

F. CIRCUIT BREAKERS

- MOLDED CASE CIRCUIT BREAKERS SHALL BE BY PANELBOARD MANUFACTURER TO MATCH EXISTING WITH FRAME, TRIP AND SHORT CIRCUIT RATING AS INDICATED ON THE DRAWINGS.
- CIRCUIT BREAKERS SHALL BE OF THE BOLT-ON TYPE MOUNTING. MULTI-POLE BREAKERS SHALL BE SINGLE DEVICES, IN ONE ENCLOSURE, WITH ONE OPERATING HANDLE AND COMMON TRIP.
- MINIMUM RMS SYMMETRICAL RATING OF CIRCUIT BREAKERS SHALL MATCH PANEL RATING.
- CIRCUIT BREAKER TERMINATIONS SHALL NOT BE DOUBLE LUGGED TO TAP OFF FOR ADDITIONAL CIRCUIT RUNS. ALL BRANCH CIRCUIT TAPS SHALL BE MADE OUTSIDE OF PANELS IN APPROPRIATE JUNCTION BOXES.
- PROVIDE FULLY RATED ELECTRICAL EQUIPMENT. SERIES RATED EQUIPMENT IS NOT ALLOWED.

G. GROUNDING

- PROVIDE ALL GROUNDING FOR ELECTRICAL SYSTEMS AND EQUIPMENT IN ACCORDANCE WITH ARTICLE 250 OF THE N.E.C. GROUNDING LUGS MAY BE USED WHERE PROVIDED AS STANDARD MANUFACTURER'S ITEMS ON EQUIPMENT FURNISHED.
- PROVIDE SEPARATE GREEN INSULATED EQUIPMENT GROUND CONDUCTOR IN ALL NON-METALLIC AND FLEXIBLE ELECTRICAL RACEWAYS. EFFECTIVELY GROUND ALL FIXTURES, PANELS, CONTROLS, MOTORS, DISCONNECT SWITCHES, AND NON-CURRENT CARRYING METALLIC ENCLOSURES. USE BONDING JUMPERS, GROUNDING BUSHINGS, LUGS, BUSES, ETC. FOR THIS PURPOSE. PROVIDE GROUNDING BUSHINGS ON ALL FEEDER CONDUIT ENTRANCES TO PANELS AND EQUIPMENT ENCLOSURES AND BOND BUSHINGS TO ENCLOSURES WITH MINIMUM #10 AWG CONDUCTOR. CONNECT THE EQUIPMENT GROUND TO THE BUILDING SYSTEM GROUND. USE THE SAME SIZE EQUIPMENT GROUND CONDUCTORS AS PHASE CONDUCTORS, UP THROUGH #10 AWG. USE N.E.C. TABLE 250-95 FOR CONDUCTOR SIZE WITH PHASE CONDUCTORS #8 AND LARGER, IF NOT SHOWN ON THE DRAWINGS.
- RECEPTACLES: PERMANENTLY CONNECT THE GROUND TERMINAL ON EACH RECEPTACLE TO THE GREEN GROUND CONDUCTOR OR GROUNDED METAL RACEWAY SYSTEM WITH A GROUND WIRE.
- MOTORS: CONNECT THE GROUND CONDUCTOR TO THE CONDUIT WITH AN APPROVED GROUNDING BUSHING, AND TO THE METAL FRAME WITH A BOLTED SOLDERLESS LUG. BOLTS, SCREWS AND WASHERS SHALL BE BRONZE OR CADMIUM PLATED STEEL.
- GROUND CONDUCTORS SHALL BE 600 VOLT - #12 AWG STRANDED COPPER MINIMUM, WITH GREEN INSULATION; AND SHALL BE CONTINUOUS FROM TERMINAL TO TERMINAL WITHOUT SPLICE.

H. JUNCTION AND PULL BOXES

- DRAWINGS DO NOT NECESSARILY SHOW EVERY PULL BOX REQUIRED. ADDITIONAL BOXES MAY BE ADDED WHEN DESIRABLE TO SAVE LABOR AND AVOID DIFFICULTIES, AND WHEN CODE REQUIREMENTS LIMIT THE NUMBER OF BENDS BETWEEN BOXES. ADDITIONAL BOXES SHALL BE PROVIDED WITHOUT ADDED COST TO THE OWNER. BOXES SHALL BE SIZED ACCORDING TO CODE AND SHALL BE UNDERWRITERS' LABORATORIES LISTED. BOXES SHALL BE ACCESSIBLE AT THE TIME OF COMPLETION AND IN FINISHED AREAS SHALL BE LOCATED ONLY AFTER APPROVAL OF ARCHITECT DUE TO APPEARANCE CONSIDERATIONS.
- ALL JUNCTION BOXES IN CEILING SPACES SHALL BE MARKED WITH BLACK MARKING PEN AS TO THE PANEL AND CIRCUITS PASSING THROUGH THE BOX.

I. LABELS

- WHITE CORE BLACK ENGRAVED PLASTIC NAMEPLATES SHALL BE ATTACHED TO ALL NEW EQUIPMENT (PANELBOARDS, TRANSFORMERS, STARTERS, ETC.) INDICATING EQUIPMENT, DESIGNATION AND VOLTAGES.
- SELF-ADHESIVE COMPUTER-GENERATED TYPE LABELS WITH BLACK LETTERING ON CLEAR BACKGROUND SHALL BE PROVIDED FOR EACH LIGHT SWITCH, POWER AND SIGNAL OUTLET COVER PLATE. LABEL TO INDICATE PANEL AND BRANCH CIRCUIT OR DATA CABLE(S) NUMBER SERVING THE RECEPTACLE/OUTLET. CONTROLS WITH FLIP UP COVER SHALL BE LABELED UNDER THE COVER.

G. LIGHTING FIXTURES

- VERIFY ALL CEILING TYPES AND COORDINATE FIXTURE TRIM AND ACCESSORIES BEFORE ORDERING FIXTURES. COORDINATE WITH CEILING INSTALLER.
- ALL NEW LIGHT FIXTURES SHALL BE SECURELY FASTENED TO EITHER SLAB, CEILING OR WALL. RECESSED FIXTURES IN SUSPENDED CEILING SHALL BE INDEPENDENTLY SUPPORTED FROM BUILDING STRUCTURE WITH MINIMUM 2 #12 WIRES AT DIAGONAL CORNERS AND CLIPPED TO CEILING GRID FOR BRACING.
- ALL FIXTURES WITH LAMP POSITION, SHUTTERS, ROTATION OR OTHER TYPES OF ADJUSTMENTS SHALL BE ROUGH-ADJUSTED BY THE CONTRACTOR AT THE TIME OF INSTALLATION. ARCHITECT WILL DETERMINE FINAL AIMING AND/OR ADJUSTMENT DURING FINAL INSPECTION.
- ALL LED LIGHT FIXTURES SHALL HAVE A 10-YEAR WARRANTY.

K. FIRE ALARM

- THE FIRE ALARM SYSTEM SHALL BE DESIGN / BUILD BY THE FIRE ALARM SYSTEM VENDOR.
- FIRE ALARM SYSTEM DESIGN SHALL BE SUBMITTED SEPARATELY FOR DEFERRED PLAN CHECK AND PERMITTING.
- PROVIDE FIRE ALARM INITIATION AND NOTIFICATION DEVICES AND CONNECT TO EXISTING FIRE ALARM SYSTEM.
- ALL FIRE ALARM DEVICES SHALL MATCH BUILDING STANDARD DEVICES.
- SCHEDULE AND COORDINATE ALL LIFE SAFETY WORK WITH THE BUILDING ENGINEER.
- CONTRACTOR SHALL PROVIDE CERTIFICATION OF THE LIFE SAFETY SYSTEM COMPLETION AND VERIFY PROPER.

EXPIRE: 12/31/2024

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Sheet Title
ELECTRICAL SPECIFICATIONS

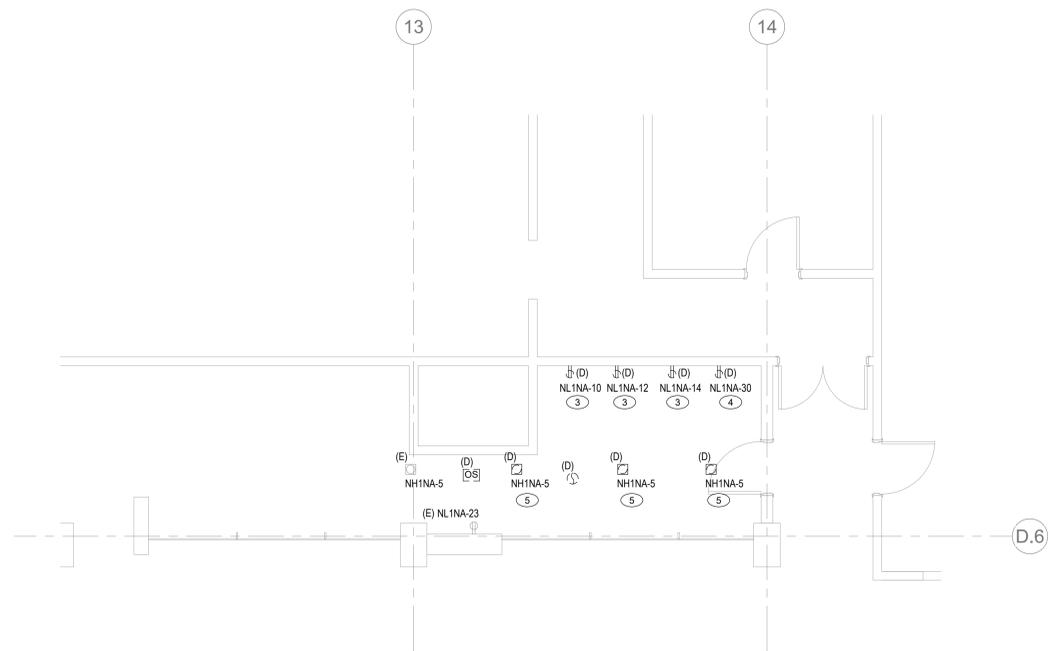
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E0.2

Scale

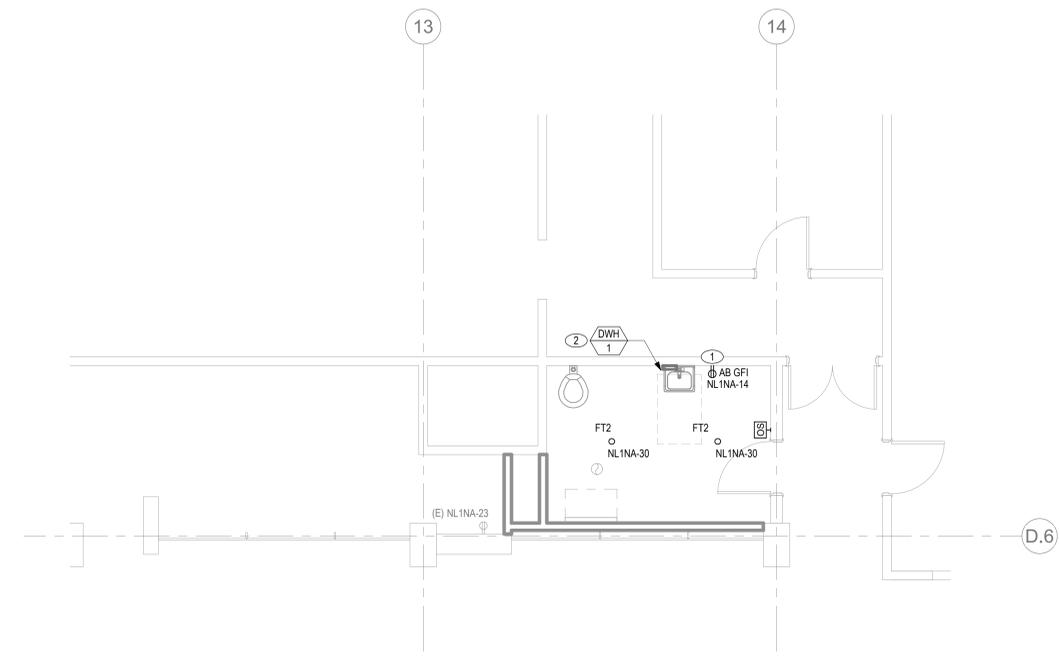
Date 07/27/2023

Project No. 19-0016

2 LEVEL 1 - FLOOR PLAN - DEMOLITION
SCALE: 1/4" = 1'-0"



1 LEVEL 1 - FLOOR PLAN - POWER AND SIGNAL
SCALE: 1/4" = 1'-0"



KEYED NOTES

1. REUSE EXISTING CIRCUIT MADE AVAILABLE DURING DEMOLITION.
2. REPLACE EXISTING (2) 120V, 1P BREAKER MADE SPARE DURING DEMOLITION WITH (1) 208V, 2P, 20A BREAKER AND FEED DWH-1. THE NEW CIRCUITS TO BE USED IS NL1NA-10,12.
3. REMOVE EXISTING RECEPTACLES AS INDICATED. RETAIN AND REUSE EXISTING CIRCUIT FOR NEW WORK.
4. REMOVE EXISTING RECEPTACLE AS INDICATED. REMOVE EXISTING CONDUIT AND WIRING TO SOURCE OF SUPPLY OR LAST DEVICE ON CIRCUIT TO REMAIN.
5. REMOVE EXISTING LIGHT FIXTURE AS INDICATED. RETAIN AND REUSE EXISTING CIRCUIT FOR NEW WORK.

SHEET NOTES

- A. EXISTING DEVICES OUTSIDE OF SCOPE OF WORK AREA ARE NOT SHOWN.
- B. REFER TO SHEET E0.1 FOR DEMOLITION NOTES AND GENERAL NOTES.
- C. NEW LIGHTING CONTROL DEVICES TO MATCH EXISTING. IF MATCHING EXISTING SYSTEM IS NOT POSSIBLE, USE PRODUCTS FROM COOPER LIGHTING CONTROLS.



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MARK	DATE	DESCRIPTION

Sheet Title
FIRST FLOOR POWER & LIGHTING PLAN

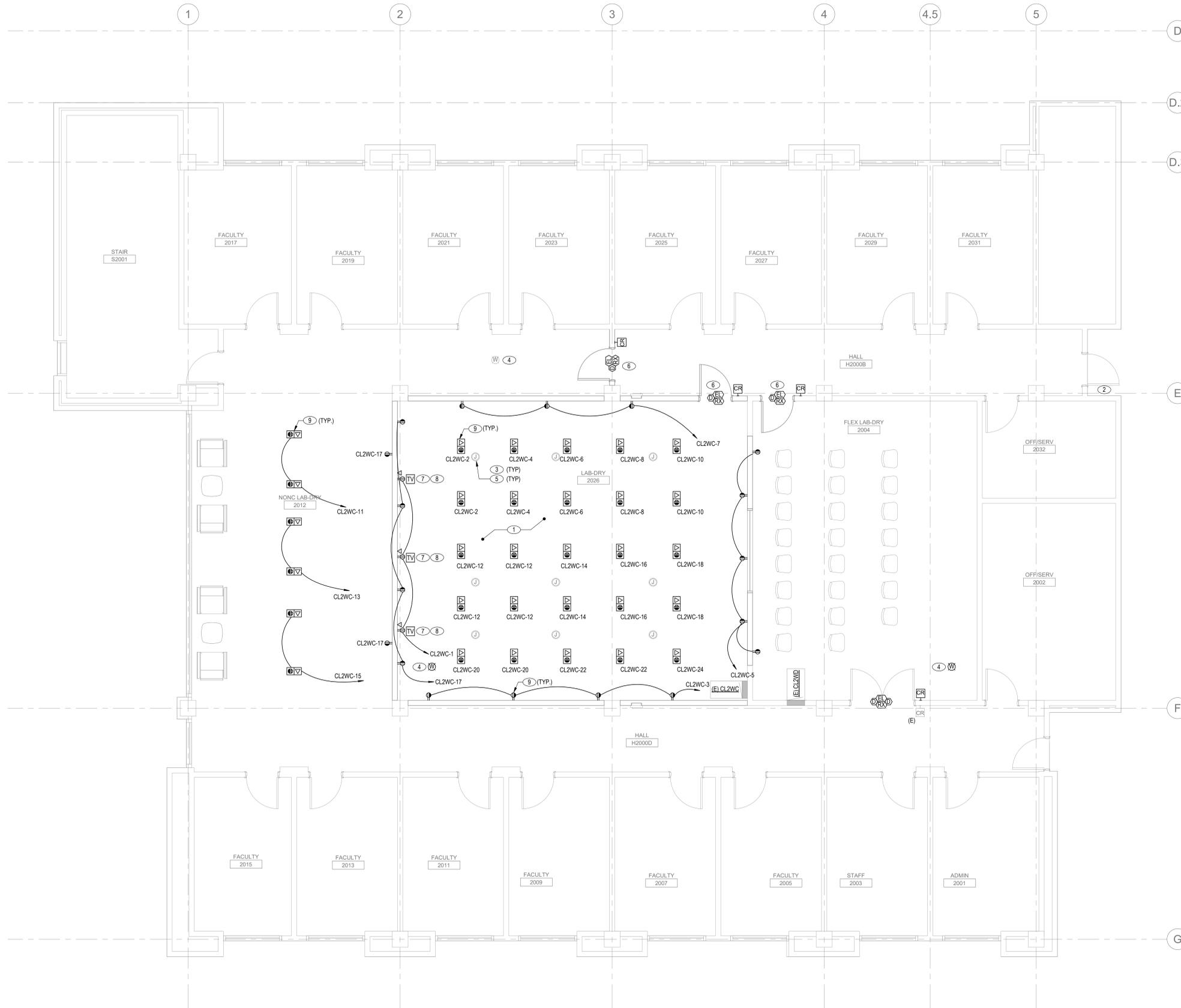
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E2.1

Scale 1/4" = 1'-0"

Date 07/27/2023

Project No. 19-0016

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SHEET NOTES

- A. ALL EQUIPMENT CIRCUITED TO PANEL CL2WC, UNLESS OTHERWISE NOTED. REUSE EXISTING 20A/1P BREAKERS WHERE POSSIBLE. OTHERWISE, CIRCUIT TO NEXT AVAILABLE 20A/1P SPARE BREAKER.
- B. BASIS OF DESIGN FOR FLOOR BOXES IS LEGRAND CAF3 SHALLOW THREE-GANG RAISED FLOOR BOX.
- C. COORDINATE LOCATIONS OF FLOOR BOXES WITH OWNER-PROVIDED FURNITURE SELECTION AND PLACEMENT.
- D. FIRE ALARM IS DESIGN-BUILD BY ELECTRICAL CONTRACTOR. DEVICES SHOWN FOR COORDINATION ONLY.
- E. IT SCOPE IS LIMITED TO PATHWAYS, CABLING, AND POWER ACTIVE NETWORK EQUIPMENT (SWITCHES, ROUTERS, ETC.) SHALL BE SPECIFIED BY OWNERS I.T. REPRESENTATIVE.
- F. CONTRACTOR TO MATCH EXISTING CARD READER HARDWARE. EXISTING SYSTEM TO BE EXPANDED AS NECESSARY TO INTEGRATE ADDITIONAL CARD READERS.
- G. CONTRACTOR TO VERIFY AVAILABILITY SPACE WITHIN (E) IDF FOR ADDITION OF DOOR CONTROLLER AND ADDITIONAL DATA CABLING.
- H. FOR HALF-SWITCHED RECEPTACLES AND FLOOR BOXES, REFER TO WIRING DIAGRAM DETAILS ON SHEET E9.2.
- I. LAB-DRY 2026 PROVIDED WITH RAISED FLOOR GROUNDING. CONTRACTOR TO VERIFY PRESENCE OF GROUND RING AROUND THE ROOM PERIMETER.
- J. EXISTING DEVICES OUTSIDE OF SCOPE OF WORK AREA ARE NOT SHOWN.
- K. COORDINATE ALL CEILING MOUNTED EQUIPMENT AND APPURTENANCES (GRILLES, REGISTERS, LIGHTS, AREA DETECTORS, LIGHTING CONTROLS, ETC) WITH THE CEILING GRID, SUPPORTS, STRUCTURAL ELEMENTS, AND SPRINKLER HEADS. ANY MODIFICATIONS TO SPRINKLER HEAD LAYOUT, IF REQUIRED, SHALL BE PERFORMED BY A QUALIFIED DESIGN BUILD CONTRACTOR.
- L. REFER TO SHEET E0.1 FOR GENERAL NOTES.
- M. RECEPTACLES TO BE LEVATON, LEGRAND, OR APPROVED EQUAL.

KEYED NOTES

- 1. PROVIDE NEW POWER AND DATA FLOOR BOXES. LEGRAND 3-GANG.
- 2. PROVIDE 120V/1P, 20A CIRCUIT FROM PANEL CL2WC FOR MAGNETIC HOLD-OPEN FOR EXISTING DOOR. USE FLOOR-MOUNTED VARIETY DUE TO DISTANCE FROM WALL (SEM 7820, OR APPROVED OTHER).
- 3. REFER TO DETAIL 5/E9.1 FOR FLOOR BOX AND J-BOX CONNECTION DETAILS.
- 4. WIRELESS ACCESS POINT LAYOUT SHOWN FOR SCOPE OF PATHWAYS ONLY. FINAL LAYOUT SHALL BE PROVIDED BY THE OWNERS I.T. REPRESENTATIVE.
- 5. REPURPOSE EXISTING JUNCTION BOXES BENEATH THE FLOOR AS NEEDED FOR NEW CIRCUITING.
- 6. SEE 4/E9.1 FOR SINGLE DOOR ACCESS CONTROL DETAIL.
- 7. PROVIDE 1" CONDUIT FROM THE TV BACK BOX TO ACCESS FLOOR. PROVIDE 1-1/2" CONDUIT BETWEEN TV BACK BOX AND HDMI BACK BOX.
- 8. REFER TO ARCHITECTURAL ELEVATION PLAN FOR MOUNTING HEIGHT AND CONDUIT ROUTING. PROVIDE 1-1/2" CONDUIT BETWEEN TV BACK BOX AND HDMI BACK BOX.
- 9. RECEPTACLES TO BE CONTROLLED VIA THE OCCUPANCY SENSORS FOR LIGHT FIXTURES.



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NO.	DATE	DESCRIPTION

Sheet Title
 SECOND FLOOR POWER PLAN

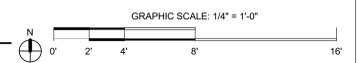
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Date 07/27/2023

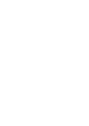
Project No. 19-0016

1 LEVEL 2 - FLOOR PLAN - POWER AND SIGNAL
 SCALE: 1/4" = 1'-0"



ISSUED FOR PERMIT

1



PANEL: (E) CL2WC

VOLTAGE: 208Y120V, 3PH, 4W
 MOUNTING: SURFACE
 BUS RATING: 225 A
 MAIN AMPS: 225 A MLO
 AIC RATING: 10 kAIC

NEMA RATING: Type 1
 INTEGRAL SPD: No
 ISOL GROUND BAR: No
 FEED-THRU LUGS: No
 DOUBLE LUGS: No

LOCATION: LAB-DRY 2026
 SUPPLY FROM:

CKT	TRIP	POLE	DESCRIPTION	TYPE	A (kVA)	B (kVA)	C (kVA)	TYPE	DESCRIPTION	POLE	TRIP	CKT
1	20 A	1	(NL) TVS - WEST WALL	C	0.9	0.72			N (NL) FLOOR QUAD - DRY-LAB 2026	1	20 A	2
3	20 A	1	(NL) CONV RECEPPTS - SOUTH WALL	R		0.72	0.72		N (NL) FLOOR QUAD - DRY-LAB 2026	1	20 A	4
5	20 A	1	(NL) CONV RECEPPTS - EAST WALL	R			0.9	0.72	N (NL) FLOOR QUAD - DRY-LAB 2026	1	20 A	6
7	20 A	1	(NL) CONV RECEPPTS - NORTH WALL	R	0.54	0.72			N (NL) FLOOR QUAD - DRY-LAB 2026	1	20 A	8
9	20 A	1	(NL) CONV RECEPPTS - WEST WALL	R		0.72	0.72		N (NL) FLOOR QUAD - DRY-LAB 2026	1	20 A	10
11	20 A	1	(NL) OPEN AREA WORKSTATION	N			0.72	1.44	N (NL) FLOOR QUAD - DRY-LAB 2026	1	20 A	12
13	20 A	1	(NL) OPEN AREA WORKSTATION	N	0.72	0.72			N (NL) FLOOR QUAD - DRY-LAB 2026	1	20 A	14
15	20 A	1	(NL) OPEN AREA WORKSTATION	N		0.72	0.72		N (NL) FLOOR QUAD - DRY-LAB 2026	1	20 A	16
17	20 A	1	(NL) RECEPPTS - NONC-LAB DRY 2012	R			0.36	0.72	N (NL) FLOOR QUAD - DRY-LAB 2026	1	20 A	18
19	20 A	1	(RL) SPARE	--	0	0.72			N (NL) FLOOR QUAD - DRY-LAB 2026	1	20 A	20
21	20 A	1	(RL) SPARE	--		0	0.72		N (NL) FLOOR QUAD - DRY-LAB 2026	1	20 A	22
23	20 A	1	(RL) SPARE	--			0	0.36	N (NL) FLOOR QUAD - DRY-LAB 2026	1	20 A	24
25	20 A	1	SPARE	--	0	0			-- SPARE	1	20 A	26
27	20 A	1	SPARE	--		0	0		-- SPARE	1	20 A	28
29	20 A	1	SPARE	--			0	0	-- SPARE	1	20 A	30
31	--	1	SPACE	--	--	--	--	--	-- SPARE	1	--	32
33	--	1	SPACE	--	--	--	--	--	-- SPARE	1	--	34
35	--	1	SPACE	--	--	--	--	--	-- SPARE	1	--	36
37	--	1	SPACE	--	--	--	--	--	-- SPARE	1	--	38
39	--	1	SPACE	--	--	--	--	--	-- SPARE	1	--	40
41	--	1	SPACE	--	--	--	--	--	-- SPARE	1	--	42

SPECIAL PANEL FEATURES
 5.04 kVA 5.04 kVA 5.22 kVA

CIRCUIT NOTES
 (NL) = NEW LOAD ON EXISTING BREAKER
 (NB) = NEW BREAKER
 (RL) = LOAD REMOVED

LOAD TYPE	CONNECTED	DEMAND FACTOR	DEMAND LOAD	LOAD TYPE KEY	PANEL TOTALS	
C	0.9 kVA	125%	1.13 kVA	C = CONTINUOUS	KVA	AMPS
N	11.16 kVA	100%	11.16 kVA	E = ELEVATOR	TOTAL CONNECTED LOAD:	15.3 kVA 42.5 A
R	3.24 kVA	100%	3.24 kVA	K = KITCHEN	TOTAL DEMAND LOAD:	15.53 kVA 43.1 A
				L = LIGHTING	SPARE CAPACITY:	25% 25%
				M = MOTOR	DESIGNED CAPACITY:	19.41 kVA 54 A
				MOTOR = LARGEST MOTOR		
				N = NON-CONTINUOUS		
				R = RECEPTACLE		



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Project
KELLEY ENGINEERING CENTER PARTIAL 2ND FLOOR REMODEL
 110 SW Park Terrace
 Conavallis, OR 97331

NO. DATE DESCRIPTION

Sheet Title
 PANELBOARD SCHEDULES

Drawing No.
E5.3

Scale
Date 07/27/2023

Project No. 19-0016

ISSUED FOR PERMIT

ABBREVIATIONS table listing various abbreviations and their corresponding descriptions, such as ABV ABOVE, ADA ACCESS DOOR, AFF AMERICANS WITH DISABILITIES ACT, etc.

Table with columns for SYMBOL and DESCRIPTION, listing plumbing symbols and their descriptions, such as TRAP PRIMER, BALL VALVE, GATE VALVE, etc.

Table with columns for SYMBOL and DESCRIPTION, listing plumbing symbols and their descriptions, such as DIRECTION OF SLOPE, COLD WATER, HOT WATER, etc.

PLUMBING - SPECIFICATIONS

220000 PLUMBING SHEET SPECIFICATIONS PART 1 - GENERAL. 1.1 GENERAL REQUIREMENTS. A. DEFINITIONS - "CONTRACTOR" MEANS "PLUMBING CONTRACTOR" WHEN REFERENCED ANYWHERE IN THE PLUMBING CONSTRUCTION DOCUMENTS...

PLUMBING BASIS OF DESIGN

1.1 PLUMBING BASIS OF DESIGN. A. CODES AND STANDARDS (LATEST EDITIONS UNLESS OTHERWISE REQUIRED BY AHJ). 1. OREGON BUILDING CODES ENFORCED BY THE AUTHORITY HAVING JURISDICTION (AHJ): A) 2022 OREGON STRUCTURAL SPECIALTY CODE (OSSC) BASED ON THE 2021 INTERNATIONAL BUILDING CODE WITH STATE AMENDMENTS...

PLUMBING DRAWING LIST

Table with columns SHEET NUMBER and SHEET NAME, listing drawing sheets such as P0.0 PLUMBING LEGEND AND ABBREVIATIONS, P6.1 FIRST FLOOR ENLARGED PLAN.

2.3 INSULATION. A. INSTALL NO-SCALD SAFETY COVERS WITH INSULATED FOAM LINER AND TAMPER PROOF STRAP AT FEET PIPING UNDER ADA SINKS AS FURNISHED BY STARBUCKS.

2.4 PIPING. A. SOIL, WASTE AND VENT PIPING. 1. SOIL, WASTE AND VENT PIPING 10" AND SMALLER SHALL BE SERVICE WEIGHT, DRAIN LINES, IN AREAS WITH CERAMIC TILE OR CARPETING PROVIDE CLEANOUTS WITH SQUARE, ADJUSTABLE, NICKEL BRONZE TOP. IN AREAS WITH RESILIENT FLOORING, PROVIDE CLEANOUTS WITH SQUARE, ADJUSTABLE, NICKEL BRONZE TOP WITH TILE RECESS...

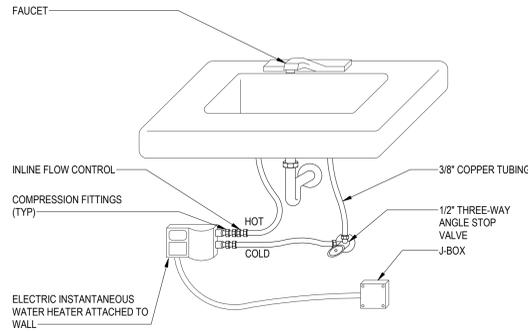
2.5 VALVES. A. GENERAL - PLUMBING CONTRACTOR TO PROVIDE VALVES WHERE INDICATED ON PLANS AND AS NECESSARY FOR PROPER SYSTEM OPERATION AND COMPONENT ISOLATION. INSTALL VALVES FOR EACH FIXTURE AND ITEM OF EQUIPMENT. PROVIDE BRAIDED STAINLESS STEEL HOSE (UNLESS OTHERWISE NOTED) BETWEEN VALVE AND EQUIPMENT IN ACCORDANCE WITH MANUFACTURER'S SPECIFICATIONS...

2.6 TESTING. 1. WATER DISTRIBUTION PIPING TEST: BEFORE FIXTURES ARE SET, SUBJECT THE HOT AND COLD WATER PIPING SYSTEMS TO A HYDROSTATIC PRESSURE TEST OF 150 POUNDS PER SQUARE INCH WITH WATER FOR NOT LESS THAN 8 HOURS IN ORDER TO PERMIT INSPECTION OF ALL JOINTS WITH NO EVIDENCE OF LEAKAGE...

DEFERRED SUBMITTALS

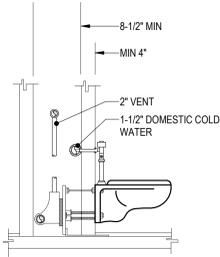
- 1. FIRE SPRINKLER DESIGN. 2. SEISMIC BRACING FOR MECHANICAL AND PLUMBING SYSTEMS, INCLUDE EQUIPMENT, PIPING, AND DUCKWORK. 3. PIPING SYSTEM CERTIFICATION AND ANALYSIS. A. DESIGN, DESIGN AND CALCULATE REQUIREMENTS FOR THERMAL EXPANSION OF PIPING SYSTEMS AND FOR THE SELECTING AND DESIGNING EXPANSION JOINTS AND LOOPS...

Professional Engineer Seal for Phillip C. Cunniff, License No. 992336. Consultant: INTEGRUS ARCHITECTURE. Project: KELLEY ENGINEERING CENTER PARTIAL REMODEL. Drawing No. P0.0. Scale: NONE. Date: 07/27/2023. Project No. 19-0016. ISSUED FOR PERMIT AND BID.



- NOTES:
- REFER TO PLANS FOR SCHEDULE AND LOCATION. INSTALL PER MANUFACTURER'S INSTRUCTIONS.
 - FOR ADA COMPLIANCE INSULATE EXPOSED WATER PIPES, DRAIN PIPE, VALVES AND FITTINGS. THERE SHALL BE NO SHARP OR ABRASIVE SURFACES UNDER THE SINK.

3 UNDER SINK INSTANTANEOUS WATER HEATER
SCALE: NONE



- NOTES:
- CHASE DIMENSIONS ARE BASED OFF THE PLUMBING AND DRAINAGE INSTITUTES MINIMUMS. ACTUAL MINIMUM DIMENSIONS MAY DIFFER PER MANUFACTURER. ALWAYS REFER TO MANUFACTURE MINIMUM REQUIREMENTS.
 - REFER TO PLANS FOR CONTINUATION.

2 PIPE CHASE WALL HUNG CLOSETS
SCALE: NONE

PLUMBING FIXTURE SCHEDULE										
TAG	FIXTURE	MANUFACTURER	MODEL	ADA (Y/N)	FLOW (GPF/GPM)	CONNECTION SIZE				REMARKS
						W	V	HW	CW	
HB-1	HOSE BIBB	J.R. SMITH	5609QT		5				3/4"	WALL FAUCET WITH VACUUM BREAKER, CHROME FINISH, TEE-KEY HANDLE. MOUNT AT 24" AFG.
LV-1	LAVATORY - WALL HUNG	AMERICAN STANDARD	0356.041	YES	0.35	2"	2"	1/2"	1 1/2"	VITREOUS CHINA, WALL MOUNTED, 20-1/2"X18-1/4" AMERICAN STANDARD 6114.114.002 LEVER FAUCET WITH AMERICAN STANDARD 605XTM/1070 THERMOSTATIC MIXING VALVE, OR EQUAL. PROVIDE K-7131-A OFFSET DRAIN WITH FIXED GRID STRAINER. PROVIDE PLUMBEREX 'PRO-EXTREME' P-TRAP AND SUPPLY PROTECTION.
WC-1	WATER CLOSET, WALL HUNG	AMERICAN STANDARD	3351.101	YES	1.28	4"	2"		1 1/4"	VITREOUS CHINA, WALL MOUNT, ELONGATED BOWL, FLUSH VALVE, 1.28 GPF. PROVIDE AMERICAN STANDARD 6047121.002 MANUAL FLUSH VALVE. VALVE HANDLE TO BE ON RIGHT SIDE OF BOWL FOR EASE OF ADA ACCESS. PROVIDE OLSONITE #95SS OPEN FRONT SEAT. MOUNT RIM AT 17" AFF. COORDINATE FLUSH VALVE MOUNTING HEIGHT WITH GRAB BAR MOUNTING AND ADJUST FLUSH VALVE AS REQUIRED. PROVIDE OFFSET OUTLET TUBE ON FLUSH VALVE. COORDINATE WITH ARCHITECTURAL DETAILS. FIXTURE RATED FOR 1000-LBS STATIC WEIGHT.
DRAINS										
(2")FD-1	FLOOR DRAIN	JR SMITH	2005-B			2"	0"		1/2"	8" DIAMETER CAST IRON BODY, 5"x5" NICKEL BRONZE STRAINER HEAD, TRAP PRIMER CONNECTION. PROVIDE PRO-SET TRAP GUARD.
TP-1	TRAP PRIMER	PPP	PR-500						1/2"	PRESSURE DROP ACTIVATED AT 10 PSI.

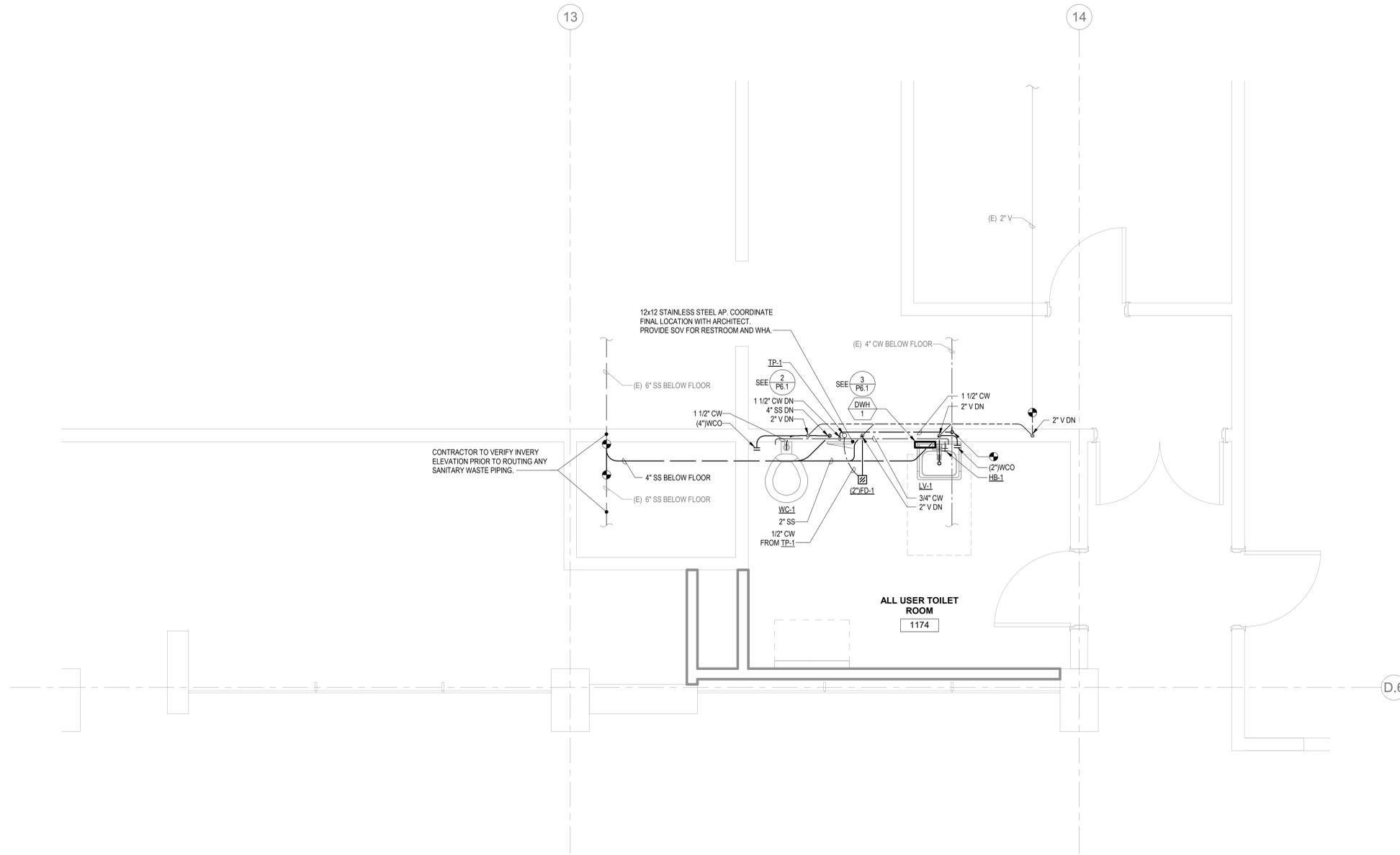
- NOTES:
- COMPLY WITH ALL MANUFACTURER INSTALLATION REQUIREMENTS TO PROVIDE COMPLETE AND OPERATIONAL FIXTURES.
 - PROVIDE TRANSITION FITTING AS REQUIRED TO CONNECT TO BRANCH PIPING, WHICH MAY BE A DIFFERENT SIZE, AND AS SHOWN ON DRAWINGS.
 - PROVIDE STOP VALVES, BACKFLOW PREVENTERS AND SUPPORTS AS REQUIRED BY THE MANUFACTURER AND PLUMBING CODE.
 - COORDINATE WITH ELECTRICAL DESIGN FOR POWER SUPPLY AND LOCATIONS.
 - HOT WATER SHALL BE LIMITED TO ALL FIXTURES IN ACCORDANCE WITH ASSE STANDARDS. PUBLIC LAVATORIES SHALL BE LIMITED TO 110 F (ASSE 1070)

INSTANT HOT DOMESTIC WATER HEATER SCHEDULE																					
TAG	#	MANUFACTURER	MODEL	LOCATION	VOL (GAL)	RECOV (GPH)	EMT (°F)	LWT (°F)	CONNECTION SIZE				NATURAL GAS		ELECTRICAL			UNIT SIZE (L"xW"xH")	OPER. WT. (LBS)	NOTES	
									CW (IN)	HW (IN)	NG (IN)	FLUE (IN)	INPUT (MBH)	EFF (AFUE%)	KW	VOLTS	PH				MCA
DWH	1	CHRONOMITE	CM-15U/208	ALL USER TOILET ROOM 1174	-	-	50	110	3/8"	3/8"	-	-	-	-	3.21	208	1	15	9-5/8x2-3/4x6-1/4	5	1,2

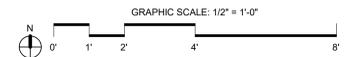
- NOTES:
- PROVIDE Z-S1616D CASE WITH PRE-WIRED ELECTRICAL DISCONNECT. COORDINATE WITH ELECTRICAL FOR POWER AND DISCONNECT AS REQUIRED.
 - INSTANTANEOUS ELECTRIC TANKLESS, THERMOSTATIC CONTROL, LOW PRESSURE MODEL, 0.2 GMP ACTIVATION FLOW RATE, 61°F RISE AT 0.35 GPM FLOW RATE. MOUNT BELOW LAVATORY. MAXIMUM ALLOWABLE TEMPERATURE: 110°F.

SHEET NOTES

- ALL EXISTING PIPING IS BASED OFF OWNER PROVIDED AS-BUILT DRAWINGS. CONTRACTOR IS RESPONSIBLE FOR IN-FIELD VERIFICATION AND INSPECTION OF SITE. REPORT ANY DISCREPANCIES TO ARCHITECT AND ENGINEER OF RECORD UPON DISCOVERY.
- NO WORK SHALL BE APPROVED OR BEGIN UNTIL CONTRACTOR HAS IN-FIELD VERIFIED THE SITE.
- COORDINATE ALL UTILITY SHUT-OFFS WITH OWNER SO AS NOT TO DISRUPT NORMAL BUSINESS HOURS.



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



ISSUED FOR PERMIT AND BID



REGISTERED PROFESSIONAL ENGINEER
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Phillip C. Cunniff
Project Manager: L. Britt Cunningham
Job No.: 19-001028

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NO. DATE DESCRIPTION

Sheet Title
FIRST FLOOR ENLARGED PLAN

Drawing No.
P6.1

Scale As indicated

Date 07/27/2023

Project No. 19-0016