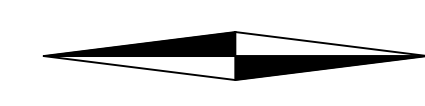




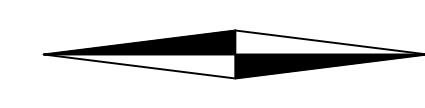
CITY OF KALAMAZOO, MICHIGAN KWRP BAC-T LAB AND OFFICE IMPROVEMENTS



LOCATION MAP

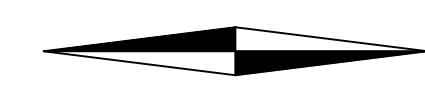


2022



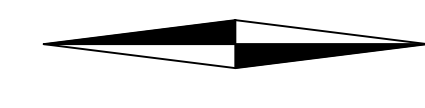
ADMINISTRATION

- JAMES RITSEMA - CITY MANAGER
- JAMES J. BAKER, PE - PUBLIC SERVICES DIRECTOR & CITY ENGINEER
- JIM CORNELL - WASTEWATER DIVISION MANAGER
- STEVE HELMER - TREATMENT OPERATIONS SUPERINTENDENT
- CHRIS NELSON - COLLECTIONS AND PLANT MAINTENANCE MANAGER
- RYAN STOUGHTON, PE - ASSISTANT CITY ENGINEER - WASTEWATER



MEMBERS OF COMMISSION

- DAVID ANDERSON - MAYOR
- DON COONEY - VICE MAYOR
- JEANNE HESS
- CHRIS PRAEDEL
- QIANNA DECKER
- STEPHANIE HOFFMAN
- ESTEVEN JUAREZ

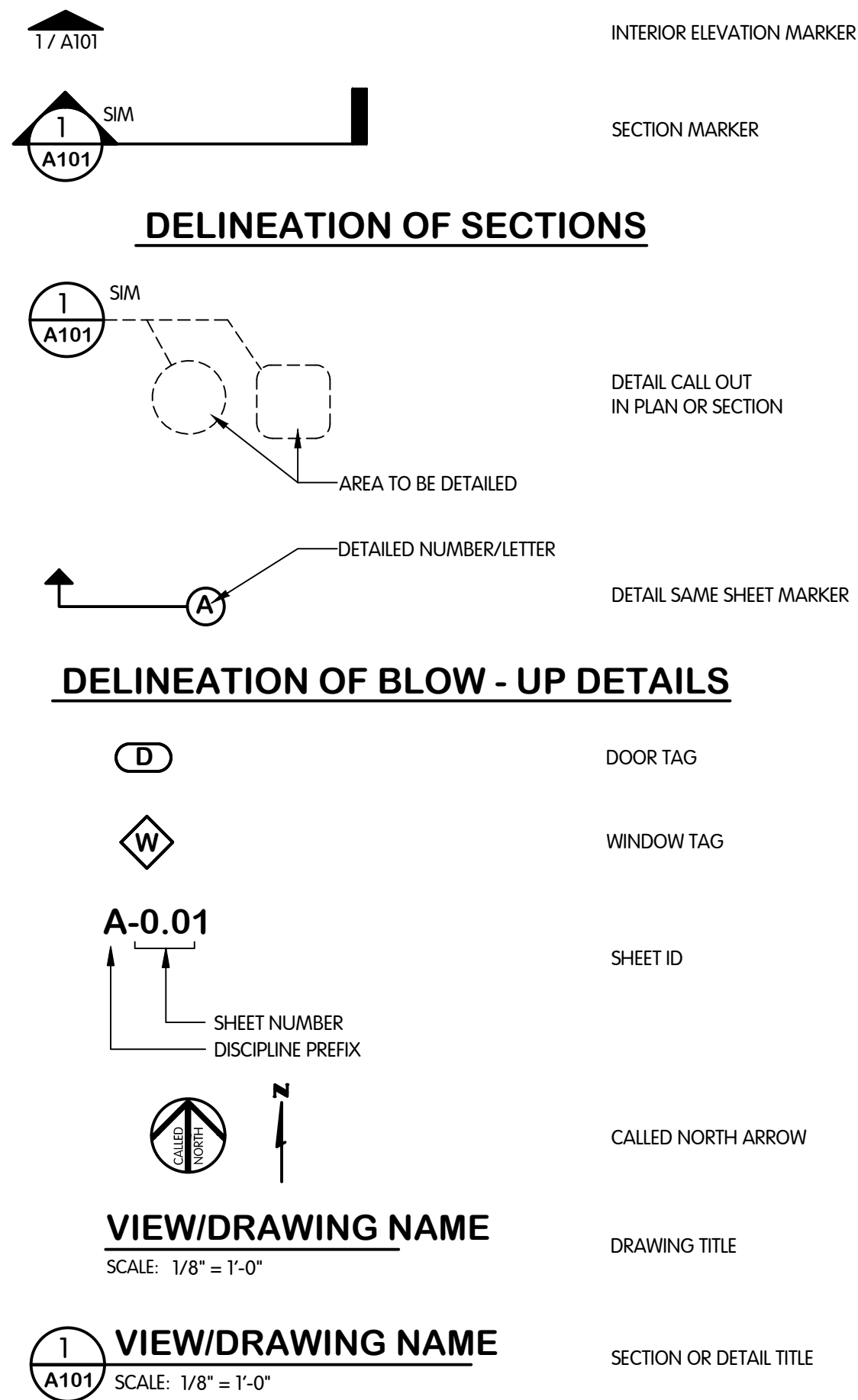


STANDARD ABBREVIATIONS

ALUM.	ALUMINIUM	MAX.	MAXIMUM
AVE.	AVENUE	MH	MANHOLE
BM	BENCH MARK	MJ	MECHANICAL JOINT
BF	BLIND FLANGE	MIN.	MINIMUM
BLDG.	BUILDING	N	NORTH
C/C	CENTER TO CENTER	NTS	NOT TO SCALE
CK'D PL.	CHECKERED PLATE	OC	ON CENTER
CONC.	CONCRETE	OD	OUTSIDE DIAMETER
DIA.	DIAMETER	PE	PLAIN END
DWG.	DRAWING	R	RADIUS
EMB.	EMBEDMENT	RR	RAILROAD
EW	EACH WAY	S	SOUTH
EF	EACH FACE	SCH.	SCHEDULE
ECC.	ECCENTRIC	SH.	SHEET
EL.	ELEVATION	SS	STAINLESS STEEL
E	EAST	ST.	STREET
EXIST.	EXISTING	STA.	STATION
F	FLANGE	T&B	TOP AND BOTTOM
* OR FT.	FEET OR FOOT	TYP.	TYPICAL
GAL.	GALLON	VERT.	VERTICAL
GR.	GRADE	W	WEST
HOR.	HORIZONTAL	W/	WITH
* OR IN.	INCH		
ID	INSIDE DIAMETER		
INV. EL.	INVERT ELEVATION		

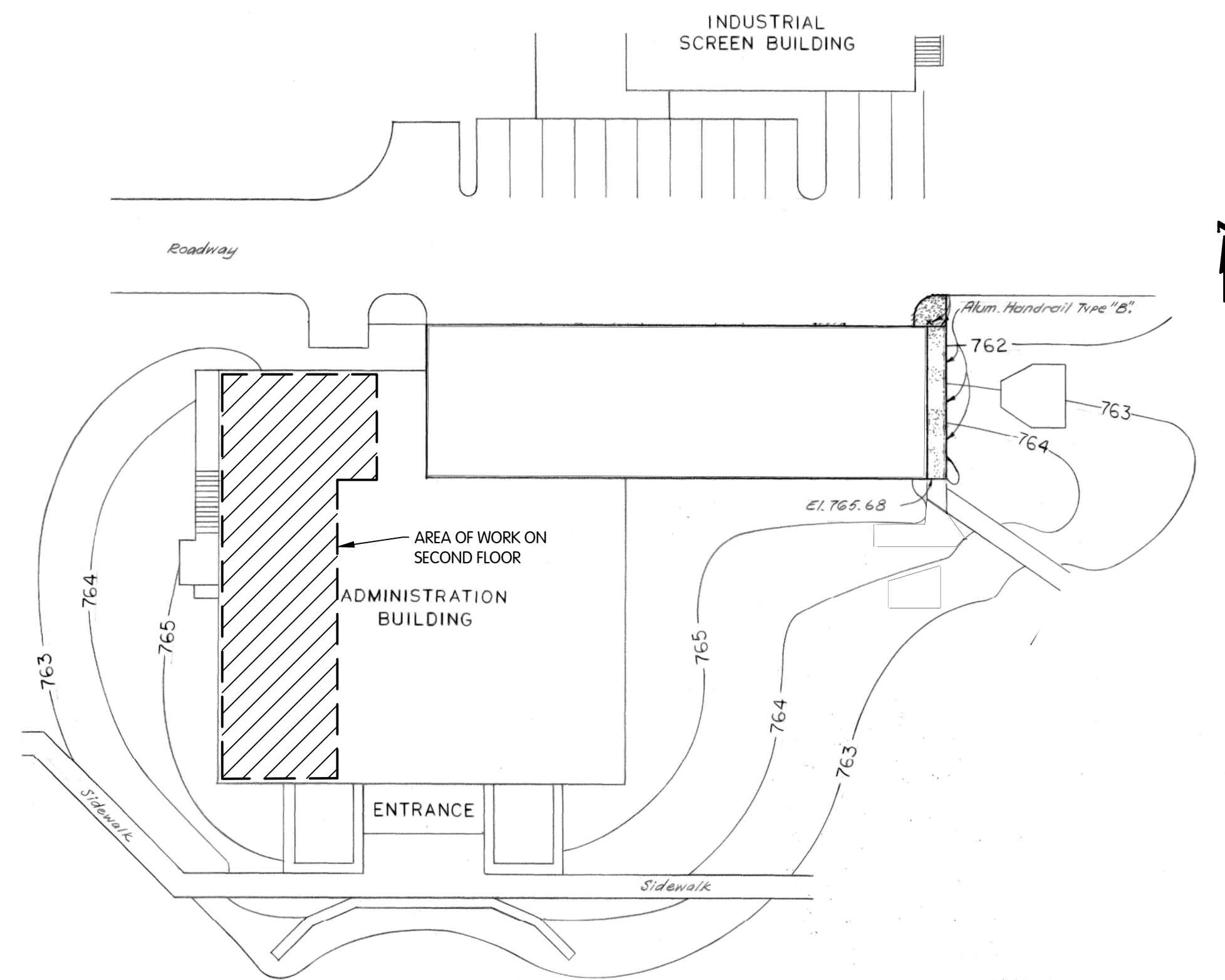
PIPING ABBREVIATIONS

MATERIAL		SERVICE	
ABS	ABS ACRYLONITRILE-BUTADIENE-STYRENE	AA	AERATION AIR
ABSC	ABS COMPOSITE SEWER PIPE (TRUSS PIPE)	AL	ALUM
BSP	BLACK STEEL PIPE	C	CABLE (UNDERGROUND)*
CIP	CAST IRON PIPE	CA	COMPRESSED AIR
CISP	CAST IRON SOIL PIPE	CL	CHLORINE SOLUTION
CMP	CORRUGATED METAL PIPE	CO	COMBINED SEWER
CPP	CONCRETE PRESSURE PIPE	CLG	CHLORINE GAS
CPT	CORRUGATED POLYETHYLENE TUBING	DG	DIGESTER GAS
CPVC	CHLORINATED POLYVINYL CHLORIDE PIPE	DS	DIGESTED SLUDGE
CU	COPPER TUBING OR PIPING	DW	DILUTION WATER
DIP	DUCTILE IRON PIPE	DCW	DOMESTIC COLD WATER
FRP	FIBERGLASS REINFORCED PIPE	DHW	DOMESTIC HOT WATER
GLDIP	GLASS-LINED DUCTILE IRON PIPE	EW	EFFLUENT WATER
GSP	GALVANIZED STEEL PIPE	E	ELECTRICAL (UNDERGROUND)*
HDPE	HIGH DENSITY POLYETHYLENE	FC	FERRIC/FERROUS CHLORIDE
PCP	PLAIN CONCRETE PIPE	FD	FOUNDATION DRAIN
PE	POLYETHYLENE	FE	FINAL EFFLUENT
PP	POLYPROPYLENE	FO	FIBER OPTIC
PPVC	PERFORATED POLYVINYL CHLORIDE PIPE	FU	FUEL OIL
PVC	POLYVINYL CHLORIDE PIPE	G	NATURAL GAS (OFF SITE)
PVCP	PERFORATED VITRIFIED CLAY PIPE	GR	GREASE
PVDF	POLYVINYLIDENE FLUORIDE (KYNAR)	HWR	HOT WATER RETURN
RCP	REINFORCED CONCRETE PIPE	HWS	HOT WATER SUPPLY
SP	STEEL PIPE	IC	IRON CHLORIDE
SSP	STAINLESS STEEL PIPE	ML	MIXED LIQUOR
SWIS	SPIRAL WELDED STEEL	NG	NATURAL GAS (ON SITE)
UPVC	UNPLASTICIZED POLYVINYL CHLORIDE PIPE	NPW	NON POTABLE WATER
VCP	VITRIFIED CLAY PIPE	P	POLYMER
		PE	PRIMARY EFFLUENT
		PS	PRIMARY SLUDGE
		RAS	RETURN ACTIVATED SLUDGE
		RD	ROOF DRAIN
		RS	RAW SEWAGE
		RW	RAW WATER
		SA	SANITARY SEWER
		SB	SECONDARY BYPASS
		SC	SCUM
		SE	SECONDARY EFFLUENT
		S	SIGNAL (UNDERGROUND)*
		SPA	SPARE
		ST	STORM SEWER
		SM	STEAM
		SP	DIGESTER SUPERNATANT
		TD	TANK DRAIN
		T	TELEPHONE (UNDERGROUND)*
		TE	THICKENER EFFLUENT
		TS	THICKENED SLUDGE
		TWAS	THICKENED WASTE ACTIVATED SLUDGE
		WAS	WASTE ACTIVATED SLUDGE



DRAWING INDEX

Sheet List Table		
Page Number	Sheet Number	Sheet Title
GENERAL		
1	G-1	SITE PLAN, INDEX, LEGENDS, ABBREVIATIONS AND GENERAL NOTES
REMOVALS		
2	R-1	ADMINISTRATION BUILDING - BAC-T LAB AND OFFICE - REMOVALS
3	R-2	ADMINISTRATION BUILDING - LABORATORY - REMOVALS
ARCHITECTURAL		
4	A-1	ADMIN BUILDING - BAC-T LAB - ARCHITECTURAL PLAN & ELEVATIONS
5	A-2	ADMIN BUILDING - OFFICE - ARCHITECTURAL PLAN & ELEVATIONS
6	A-3	ADMIN BUILDING - BAC-T LAB & OFFICE - ARCHITECTURAL SCHEDULES
MECHANICAL		
7	M-1	ADMIN BUILDING - BAC-T LAB & OFFICE - MECHANICAL PLAN
8	M-2	ADMIN BUILDING - LABORATORY - MECHANICAL PLAN
9	M-3	ADMIN BUILDING - BAC-T LAB & OFFICE - MECHANICAL SCHEDULES
ELECTRICAL		
10	E-1	ELECTRICAL LEGEND
11	E-2	ADMIN BUILDING - BAC-T LAB & OFFICE - ELECTRICAL PLAN



SITE PLAN
NTS

- NOTES:**
- ACCURACY OF EXISTING ELEVATIONS AND DIMENSIONS IS NOT GUARANTEED. FIELD VERIFY BEFORE CONSTRUCTION.
 - ALL NOTES ON THE DRAWINGS BEAR THE SAME IMPORTANCE. SOME NOTES AND DIMENSIONS ARE BOLD TO AID IN READING THE DRAWINGS IN AREAS OF HIGH GRAPHIC DENSITY.

KAL-79690001-SITE PLAN INDEX LEGENDS ABBREVIATIONS AND GENERAL NOTES
10/17/2022 11:41 AM - CFERRELL
10/12/2022 12:59 PM



SITE PLAN, INDEX, LEGENDS, ABBREVIATIONS AND GENERAL NOTES

CITY OF KALAMAZOO, MI KWRP BAC-T LAB AND OFFICE IMPROVEMENTS

Jones & Henry Engineers, Ltd.



Fluid thinking®
www.JHeng.com

JOB NO. 017-7969.001

SCALE NONE

THIS LINE SCALES IF WHEN PLOTTED TO NOTED SCALE

DESIGNED	DRAWN	CHECKED
BPW	CJAF	

STATUS: PRELIMINARY

DATE: OCTOBER 2022

SHEET NO.

G-1

1 OF 11

LEGEND

WALL, DOOR AND DOOR FRAME REMOVALS

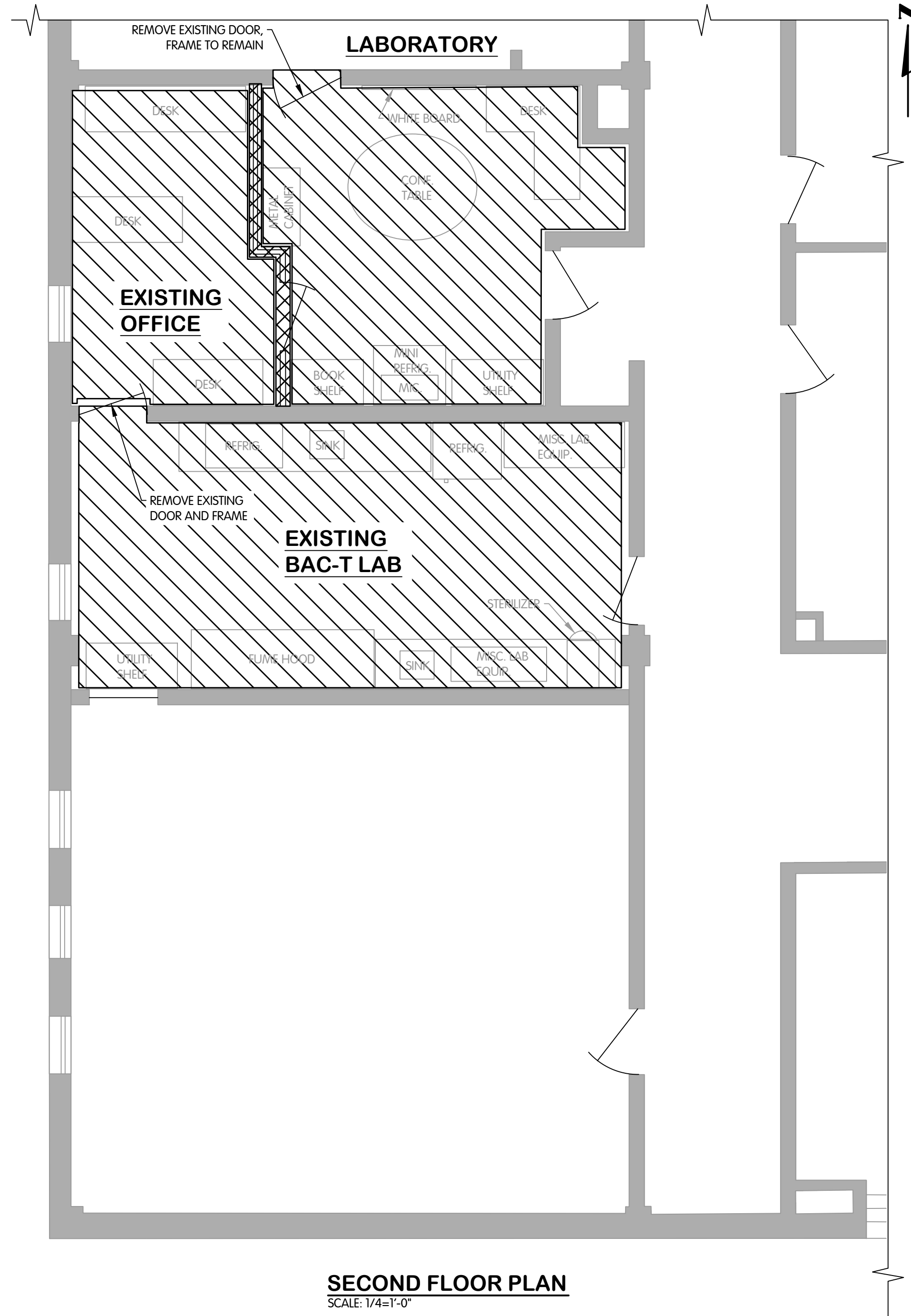
REMOVALS, SEE NOTES FOR DETAILS

GENERAL DEMOLITION NOTES:

- PATCH AND REPAIR ALL FLOOR AND WALL SURFACES LEFT DAMAGED OR INCOMPLETE FROM REMOVAL OF EXISTING PARTITIONS, MILLWORK, CASEWORK, OR OTHER FIXED ACCESSORIES AND EQUIPMENT WITH MATERIALS TO MATCH EXISTING, AS ACCEPTABLE TO THE ENGINEER.
- NOTATIONS ARE MADE IN VARIOUS PLACES ON THE DRAWINGS TO CALL ATTENTION TO DEMOLITION WHICH IS REQUIRED. HOWEVER, THESE DRAWINGS ARE NOT INTENDED TO SHOW EACH AND EVERY ITEM TO BE REMOVED. CONTRACTOR SHALL REMOVE ALL MATERIALS RELATED TO THEIR RESPECTIVE TRADES AS REQUIRED TO PERMIT THE CONSTRUCTION OF THE NEW WORK AS SHOWN.
- THE GENERAL CONTRACTOR SHALL COORDINATE THE EXTENT OF THE REQUIRED DEMOLITION OF THE EXISTING BUILDING AS REQUIRED TO FACILITATE THE CONSTRUCTION OF THE PROJECT AS SHOWN AS PART OF THIS WORK.
- THE GENERAL CONTRACTOR SHALL COORDINATE WITH MEP CONTRACTORS FOR REMOVAL AND DISPOSAL OF OTHER TRADES.
- ALL DEMOLITION SHALL BE APPROVED BY THE OWNER PRIOR TO COMMENCEMENT AND SHALL BE PERFORMED UNDER REQUIREMENTS AND APPROVAL OF THE LOCAL CODE JURISDICTIONS.
- DEMOLISH AND REMOVE ANY MATERIALS THAT WOULD HINDER THE INSTALLATION OF THE SCHEDULED WORK FOR THIS PROJECT.
- ASBESTOS ABATEMENT: CONTRACTORS SHALL NOTIFY BUILDING REPRESENTATIVE IMMEDIATELY WHEN AND IF ANY ITEMS ARE ENCOUNTERED THAT IN ANY WAY, SHAPE, OR FORM APPEAR TO BE HAZARDOUS OF NATURE. ASBESTOS ABATEMENT IS NOT PART OF THE SCOPE OF THE DEMOLITION CONTRACT NOR PART OF THE SCOPE OF THE DESIGN PROFESSIONALS DOCUMENTATION OR RESPONSIBILITY TO SURVEY, IDENTIFY, OR FOR CONSULTATION OF PROPER DISPOSAL.
- PROTECT ALL EXISTING WORK WHICH IS TO REMAIN AND RESTORE IN AN APPROVED MANNER ANY SUCH WORK WHICH BECOMES DAMAGED.
- RUBBISH AND DEBRIS RESULTING FROM THE WORK SHALL BE REMOVED IMMEDIATELY FROM THE SITE BY THE CONTRACTOR AND DISPOSED OF LEGALLY OFF OF SITE.

ARCHITECTURAL REMOVAL NOTES:

- ALL FURNITURE AND EQUIPMENT TO BE SALVAGED. COORDINATE STORAGE AND RE-USE WITH OWNER.
- REMOVE FLOORING IN OFFICE. PREPARE SUBSURFACE FOR EPOXY TYPE FLOOR. INVESTIGATE AND RE-INSTATE FLOOR DRAINS IF APPLICABLE, COORDINATE WITH PLUMBING CONTRACTOR.
- REMOVE THE EXISTING FLOORING IN BAC-T LAB AND PREPARE SUBSURFACE FOR CARPET TILES.
- REMOVE TILE CEILING, LIGHT FIXTURES, AND DIFFUSERS IN BOTH THE OFFICE AND BAC-T LAB SPACES.
- PREPARE ALL WALLS FOR PAINTING. SOME WALLS ARE GLAZED BLOCK AND WILL REQUIRE SPECIAL PREPARATIONS FOR NEW PAINT.
- REMOVE AND SALVAGE EXISTING LAB EQUIPMENT, COORDINATE WITH MECHANICAL AND ELECTRICAL CONTRACTORS. REFER TO A-1 FOR NEW LOCATIONS.
- REMOVE AND DISPOSE OF BASE CABINETS, WALL CABINETS AND COUNTER TOPS.



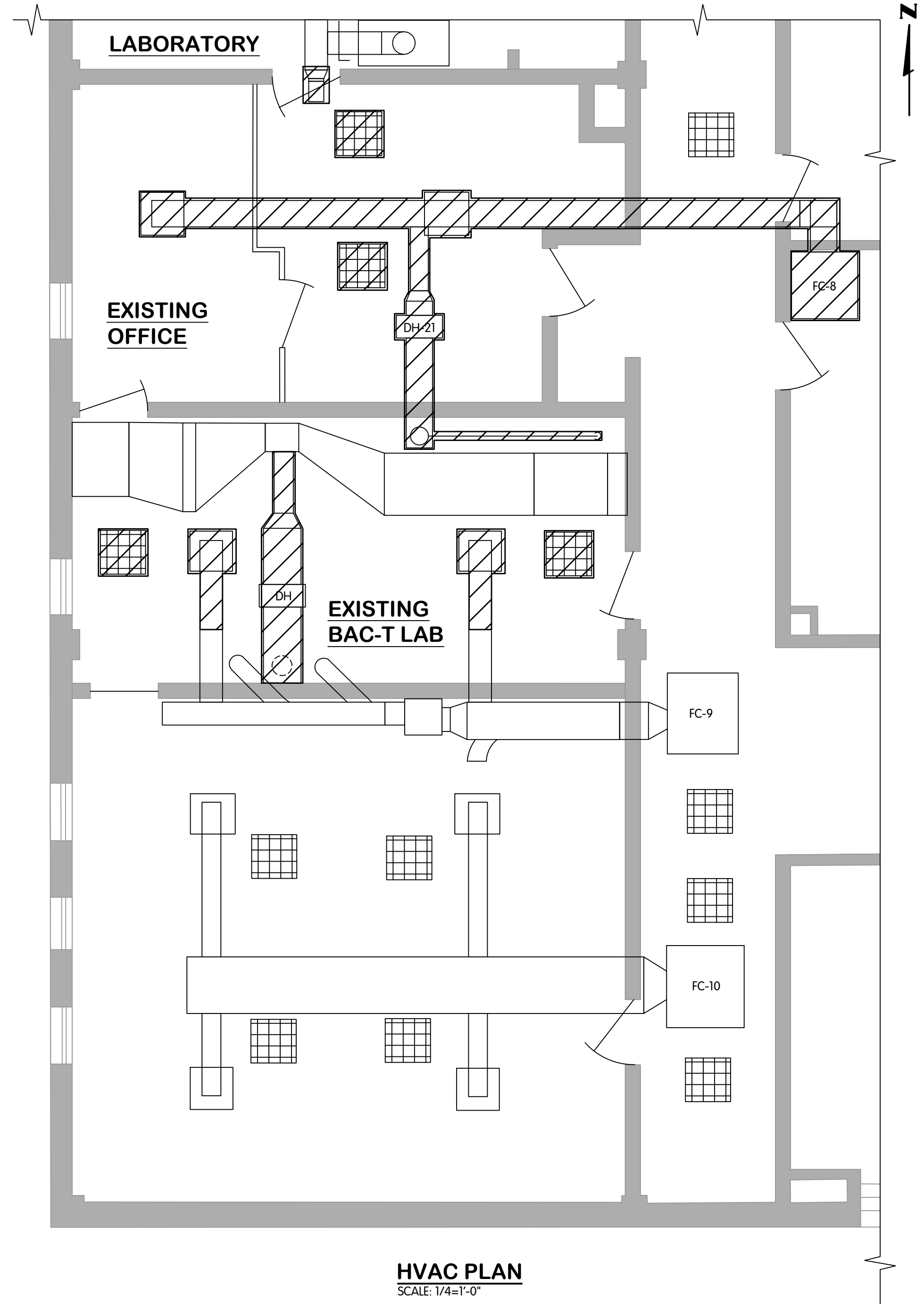
SECOND FLOOR PLAN
SCALE: 1/4"=1'-0"

LEGEND

HVAC DUCTING REMOVALS

MECHANICAL REMOVAL NOTES:

- REMOVE AND DISPOSE OF FAN COIL FC-8 AND ASSOCIATED DUCTWORK. CUT AND DISPOSE OF HEATING HOT WATER AND CHILLED WATER PIPING BACK TO ISOLATION VALVES AND CAP.
- REMOVE ALL REGISTERS, GRILLES, AND DIFFUSERS IN THE BAC-T LAB. PREPARE FOR NEW. REFER TO SHEET M-1 FOR NEW DUCT LAYOUT.
- REMOVE DUCT HEATER DH-21. PREPARE FOR NEW. COORDINATE WITH ELECTRICAL CONTRACTOR.
- REMOVE EXHAUST FAN AND DUCTWORK ASSOCIATED WITH THE EXISTING FUME HOOD. CAP EXHAUST FAN ROOF CURB.



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

KAL-79690010-ADMINISTRATION BUILDING - BAC-T LAB AND OFFICE - REMOVALS
10/12/2022 9:02 AM - CFERRELL
10/12/2022 1:00 PM



ADMINISTRATION BUILDING
BAC-T LAB AND OFFICE REMOVALS

CITY OF KALAMAZOO, MI KWRP BAC-T LAB AND OFFICE IMPROVEMENTS

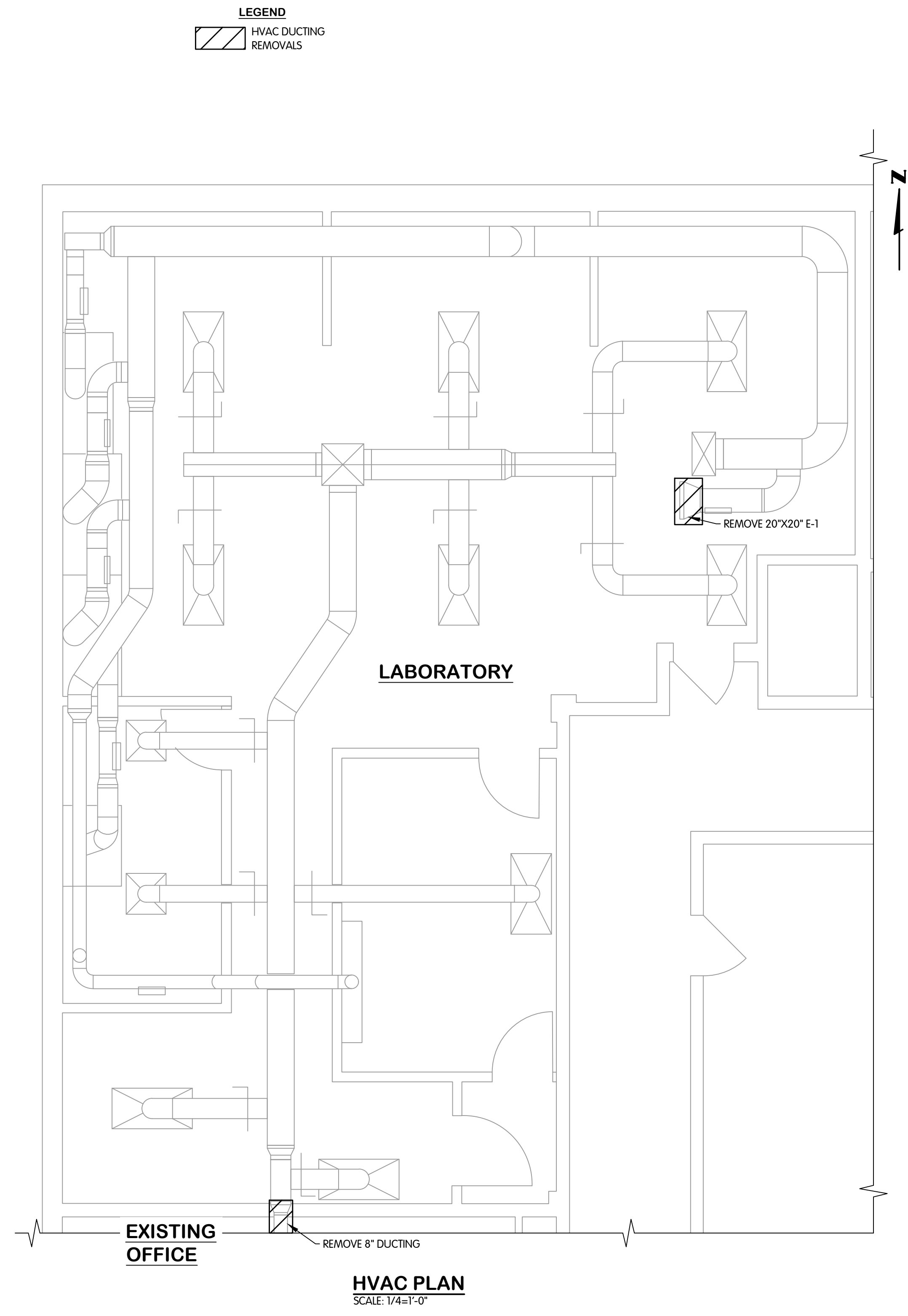
NO. 1
DATE
BY
REVISIONS AFTER ISSUED FOR BID

Jones & Henry
Engineers, Ltd.

Fluid thinking.[®]
www.JHeng.com

JOB NO.	017-7969.001	
SCALE	AS NOTED	
THIS LINE SCALES IF WHEN PLOTTED TO NOTED SCALE		
DESIGNED	DRAWN	CHECKED
BPW	CJAF	
STATUS: PRELIMINARY		
DATE: OCTOBER 2022		
SHEET NO.		
R-1		
2 OF 11		

KAL-796900R02-ADMINISTRATION BUILDING - LABORATORY - REMOVALS
 10/17/2022 11:45 AM - CFERRELL
 10/21/2022 1:00 PM



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



**ADMINISTRATION BUILDING
 LABORATORY REMOVALS**
 CITY OF KALAMAZOO, MI KWRP BAC-T LAB AND OFFICE IMPROVEMENTS

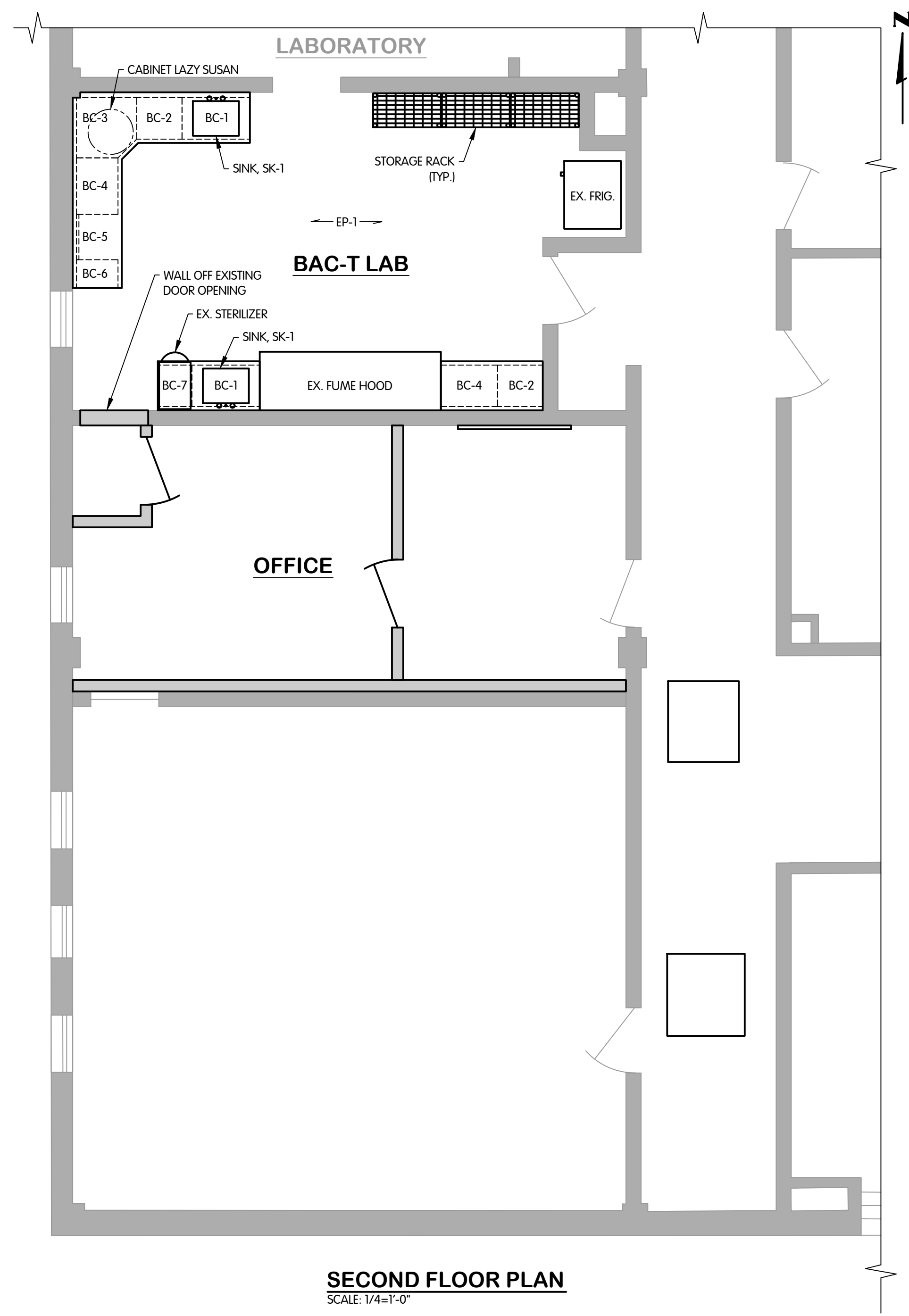
NO.	DATE	BY
1		
2		
3		
4		
5		

REVISIONS AFTER ISSUED FOR BID

Jones & Henry
 Engineers, Ltd.

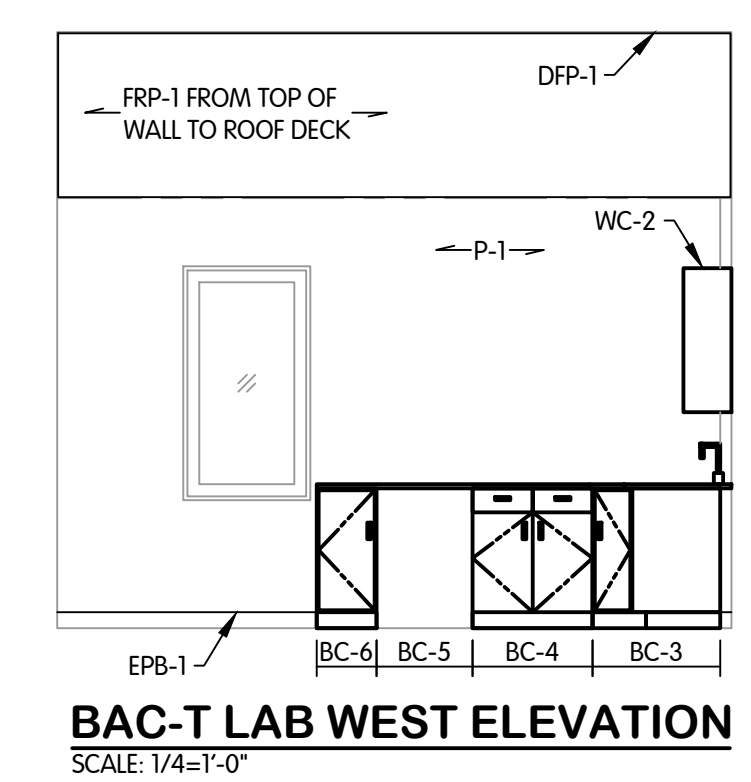
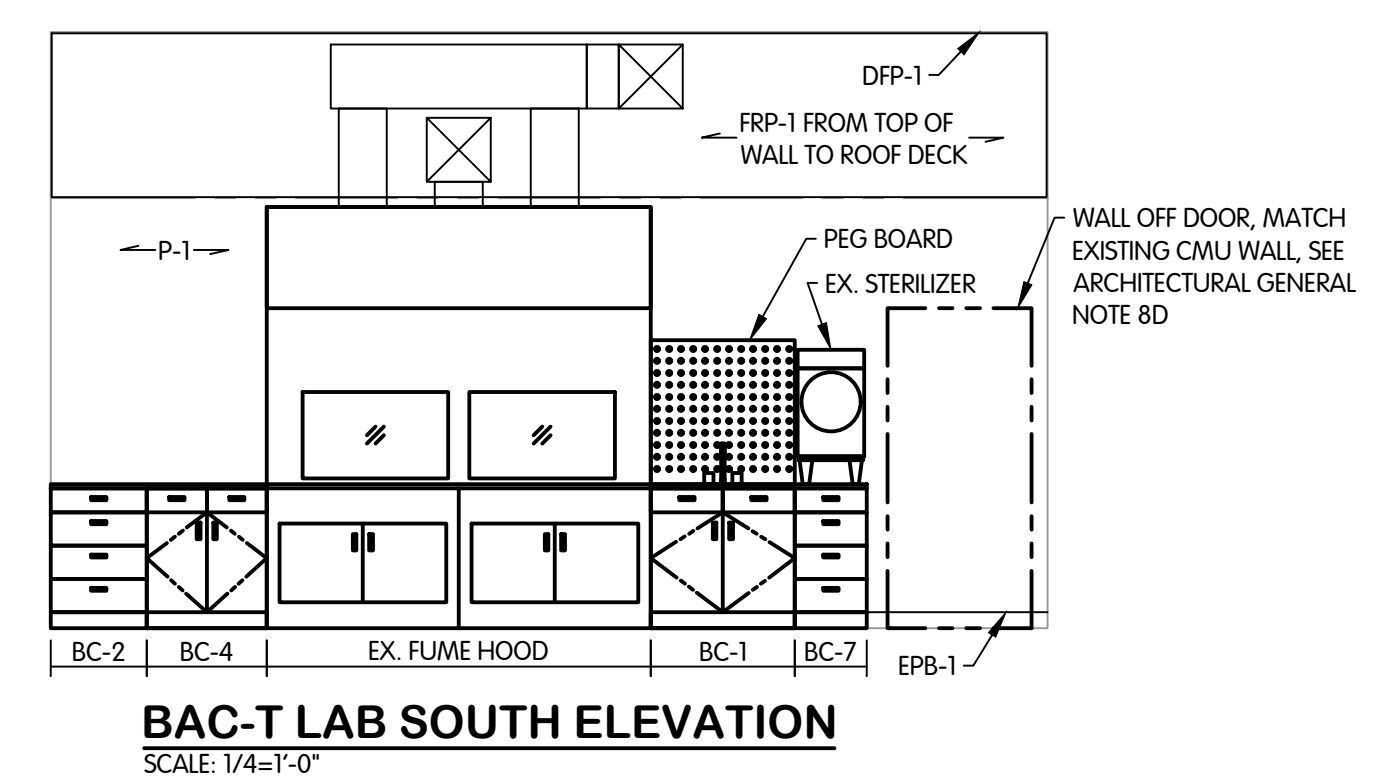
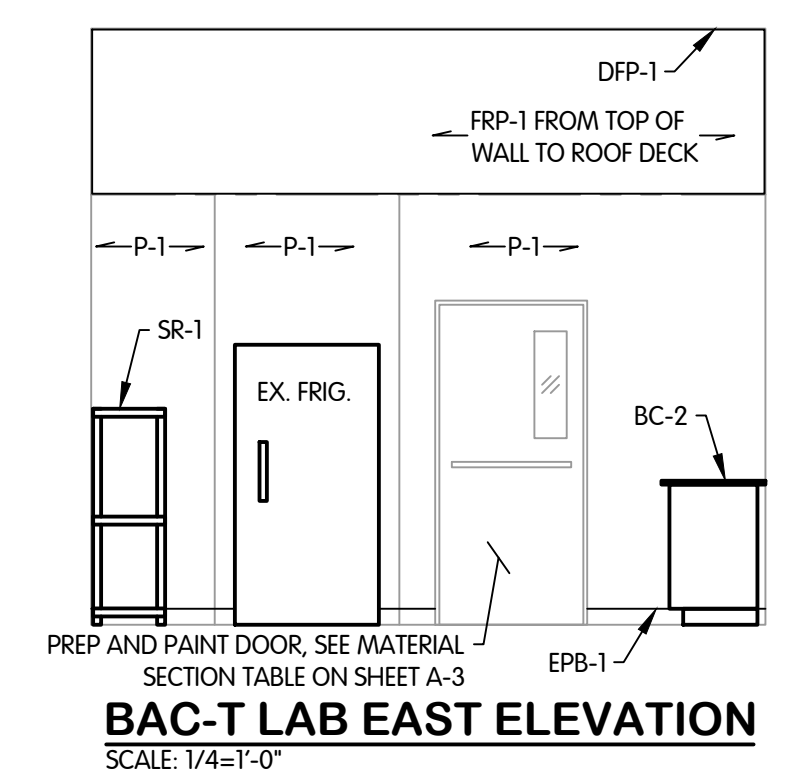
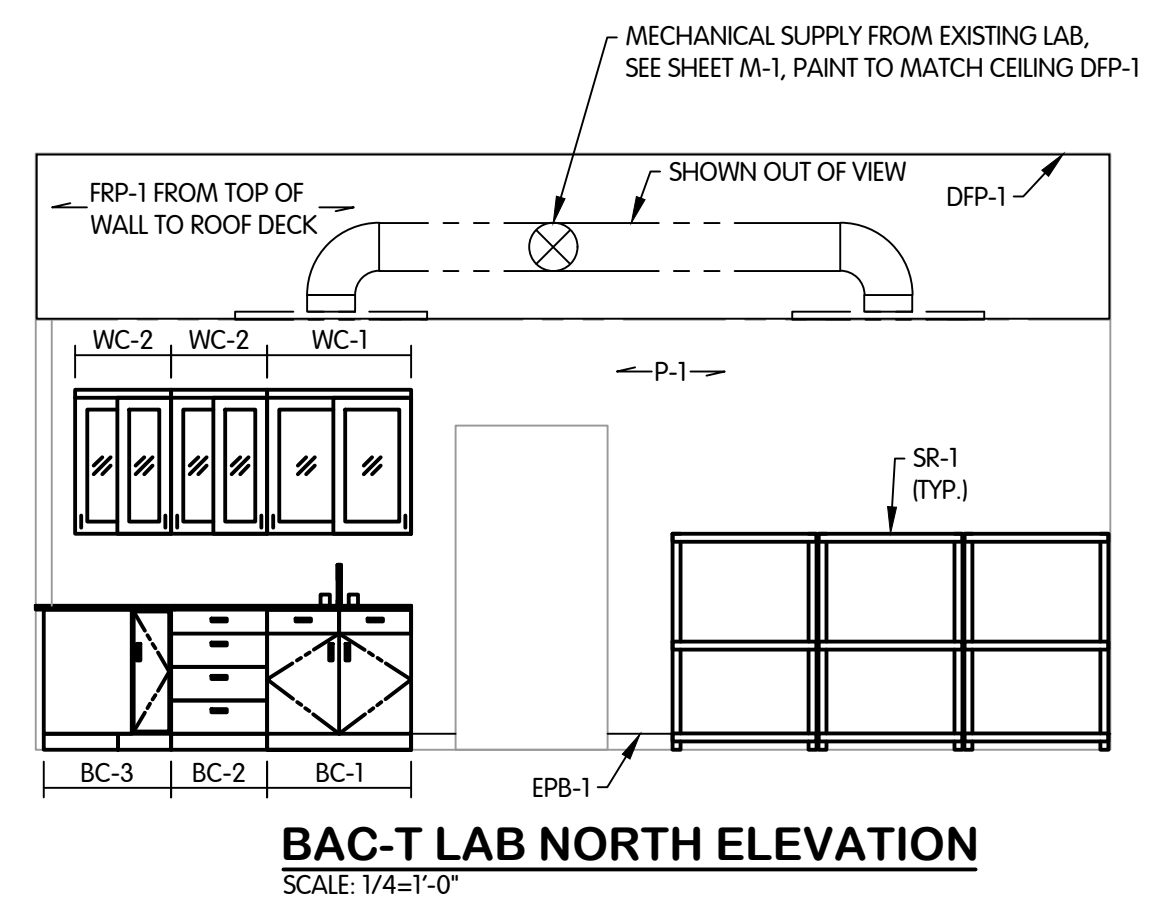
 Fluid thinking.[®]
 www.JHeng.com

JOB NO.	017-7969.001	
SCALE	AS NOTED	
THIS LINE SCALES IF WHEN PLOTTED TO NOTED SCALE		
DESIGNED	DRAWN	CHECKED
BPW	CJAF	
STATUS:	PRELIMINARY	
DATE:	OCTOBER 2022	
SHEET NO.	R-2	
	3 OF 11	

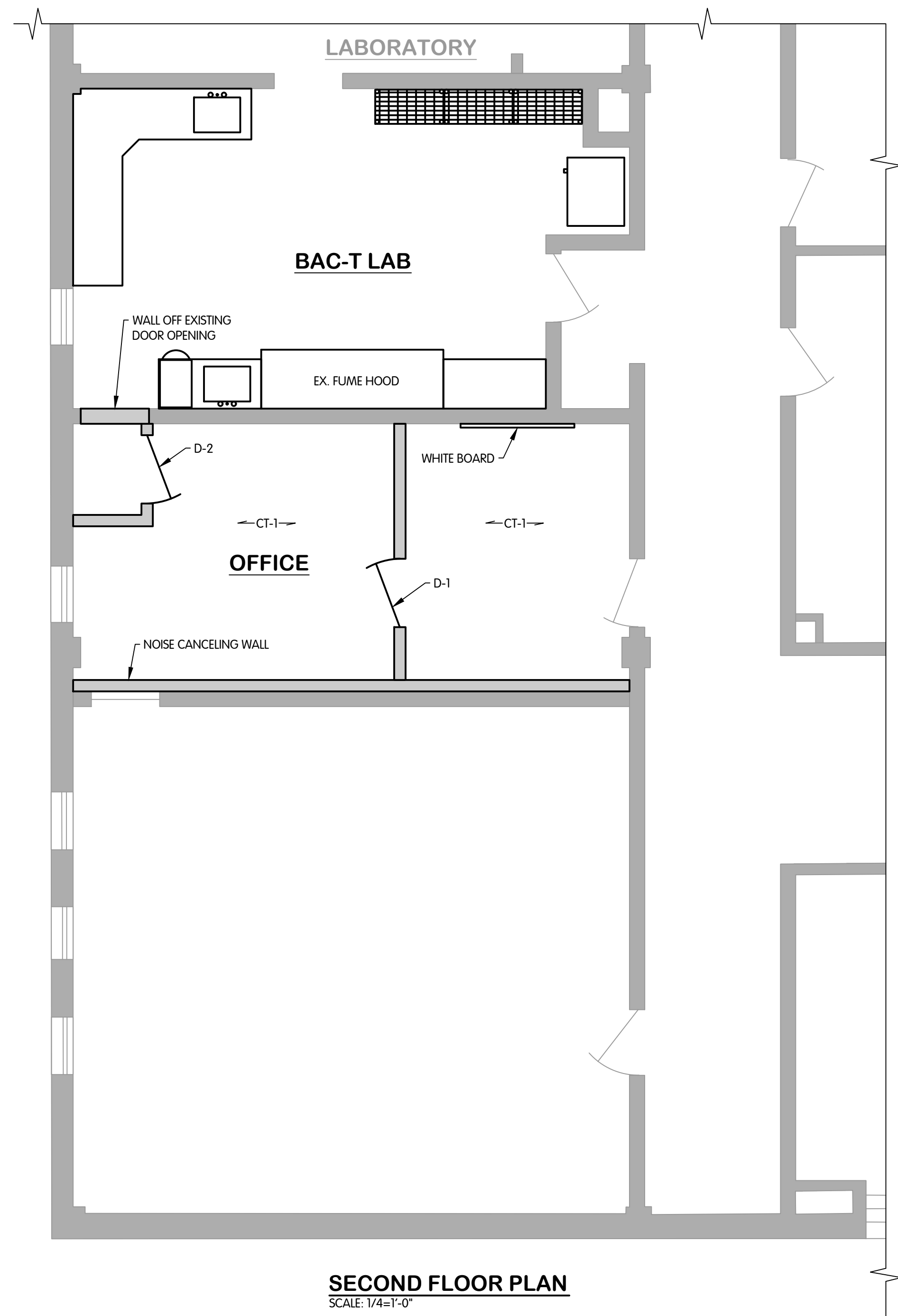


ARCHITECTURAL GENERAL NOTES:

- DRAWINGS ESTABLISH THE DESIGN INTENT OF WORK TO BE PERFORMED. ALL WORK SHALL BE PERFORMED IN ACCORDANCE WITH THE HIGHEST INDUSTRY STANDARDS. ALL PRODUCTS SHALL BE INSTALLED IN ACCORDANCE WITH THE MANUFACTURER'S RECOMMENDATIONS. ALL TRADES SHALL CAREFULLY COORDINATE WORK OF ALL OTHER TRADES. ANY DISCREPANCIES OR CONFLICTS SHALL BE BROUGHT TO THE IMMEDIATE ATTENTION OF THE ENGINEER AND THE OWNER PRIOR TO FABRICATION OR INSTALLATION.
- CONTRACTORS SHALL BE RESPONSIBLE FOR CHECKING DOCUMENTS FOR COORDINATION BETWEEN ALL DISCIPLINES INCLUDING BUT NOT RESTRICTED TO ARCHITECTURAL, STRUCTURAL, MECHANICAL, PLUMBING AND ELECTRICAL. CONTRACTORS SHALL BE RESPONSIBLE FOR FIELD VERIFYING EXISTING CONDITIONS AND FOR VERIFYING THEM WITH THE CONTRACT DOCUMENTS. ANY DISCREPANCY IN THE CONTRACT DRAWINGS AND SPECIFICATIONS SHALL BE BROUGHT TO THE NOTICE OF THE ENGINEERS PRIOR TO ANY FABRICATION OR CONSTRUCTION.
- COORDINATE SIZE AND LOCATION OF ALL EQUIPMENT SUPPORTS INCLUDING BUT NOT RESTRICTED TO CONCRETE HOUSEKEEPING PADS WITH APPROPRIATE EQUIPMENT MANUFACTURER.
- COORDINATE SIZE AND LOCATION OF ALL ACCESS PANELS WITH TRADES REQUIRING THE SAME. ACCESS PANELS ARE SPECIFIED ARCHITECTURALLY BUT ARE REQUIRED TO BE PROVIDED BY EACH TRADE. ALL LOCATIONS MUST BE COORDINATED AND APPROVED BY THE ENGINEERS FIELD REPRESENTATIVE.
- VERIFY QUANTITY, SIZE, AND LOCATION OF ALL FLOOR, ROOF, AND WALL OPENINGS FOR ALL DISCIPLINES INCLUDING BUT NOT RESTRICTED TO MECHANICAL AND ELECTRICAL WORK WITH THE APPROPRIATE TRADE. PROVIDE ALL OPENINGS SHOWN OR REQUIRED FOR THE COMPLETION OF THE WORK. PROVIDE ALL UNTELS REQUIRED FOR THESE OPENINGS PER SPECIFICATIONS.
- FLOOR PLANS ARE DIMENSIONED TO NOMINAL WALL THICKNESS - TYPICAL.
- DIMENSIONS FOLLOWED BY ± SHOULD BE REVIEWED AND ALL NECESSARY ADJUSTMENTS MADE PRIOR TO FABRICATION AND/OR INSTALLATION OF AFFECTED WORK. NOTIFY ENGINEERS REPRESENTATIVE IF DISCREPANCIES ARISE BEFORE PROCEEDING WITH THE WORK.
- PATCHING:
 - REFER TO DEMOLITION PLANS FOR ADDITIONAL PATCHING INFORMATION.
 - FOR ALL FLOOR SURFACES RECEIVING NEW FLOOR FINISHES, PREPARE SUBSTRATE BY PROVIDING LEVELING AND PATCHING COMPOUNDS RECOMMENDED BY FINISH FLOORING MANUFACTURERS. CONTRACTOR'S BASE BID PROPOSAL SHALL ASSUME THAT ALL AREAS, INDICATED TO RECEIVE NEW FINISHES, WILL REQUIRE FLOOR PREPARATION.
 - PATCH AND REPAIR ALL FLOOR AND WALL SURFACES LEFT UNFINISHED OR INCOMPLETE FROM REMOVAL OF EXISTING PARTITIONS, MILLWORK, CASEWORK, OR OTHER FIXED ACCESSORIES AND EQUIPMENT WITH MATERIALS TO MATCH EXISTING, AS ACCEPTABLE TO THE ENGINEER AND OWNER.
 - MATCH EXISTING MASONRY COURSING ADJACENT IN EACH AREA AND TOOTH NEW WORK INCLUDING JAMBS OF DOORS AND OTHER OPENINGS INTO EXISTING, UNLESS OTHERWISE NOTED.
- ALL NEW MASONRY CORNERS TO BE BULLNOSED.



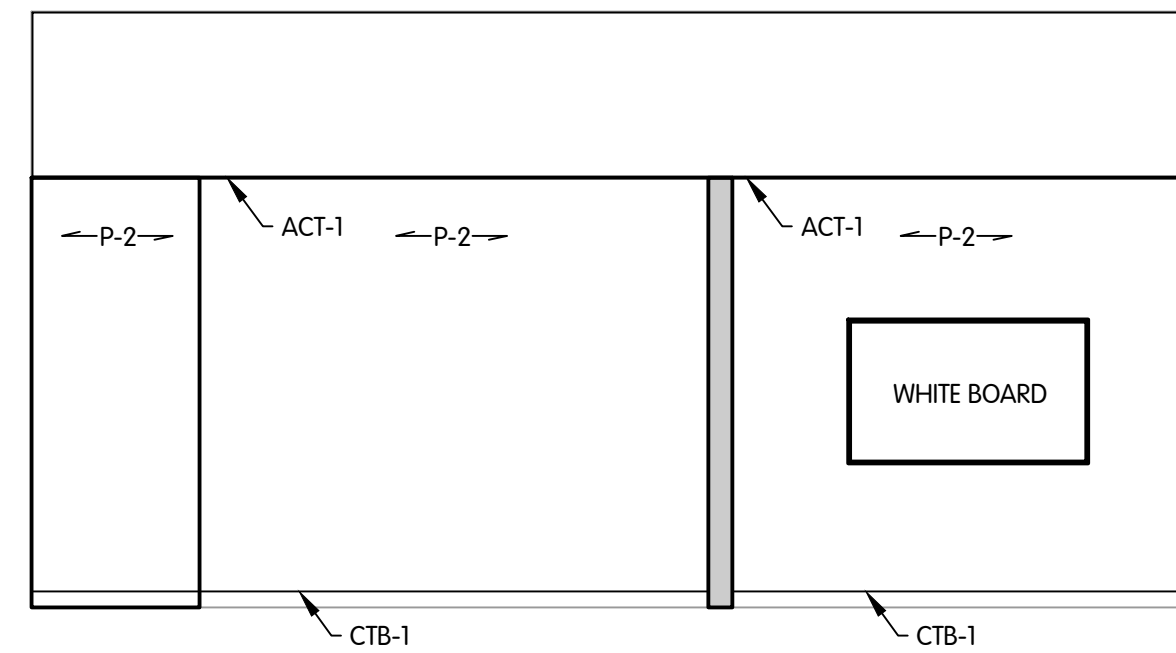
KAL-796900A02-ADMIN BUILDING - OFFICE - ARCHITECTURAL PLAN & ELEVATIONS
 10/17/2022 11:53 AM - CFERRELL
 10/12/2022 11:00 PM



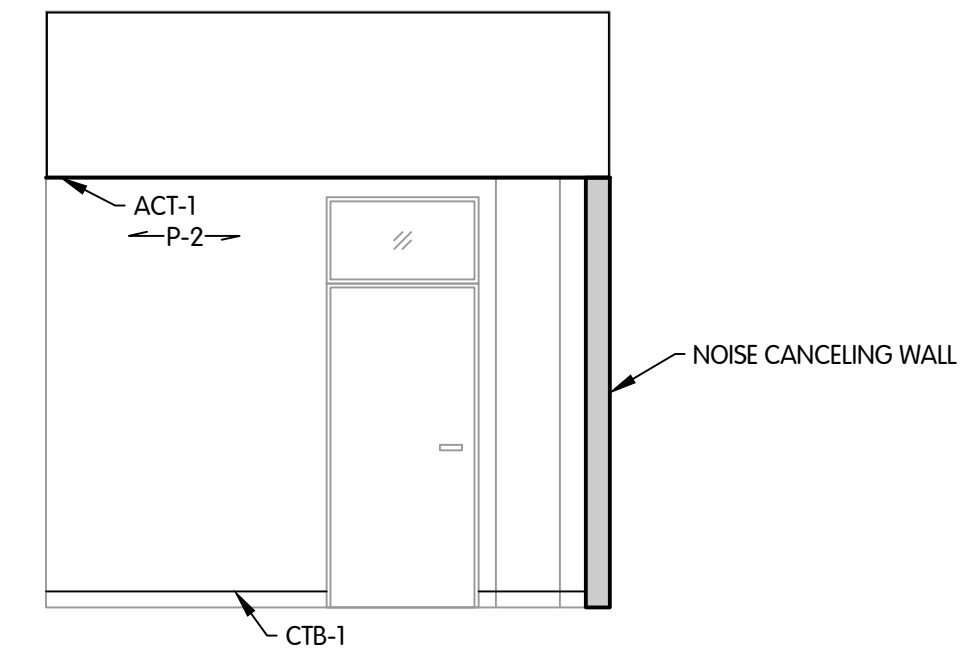
SECOND FLOOR PLAN
 SCALE: 1/4"=1'-0"

ARCHITECTURAL GENERAL NOTES:

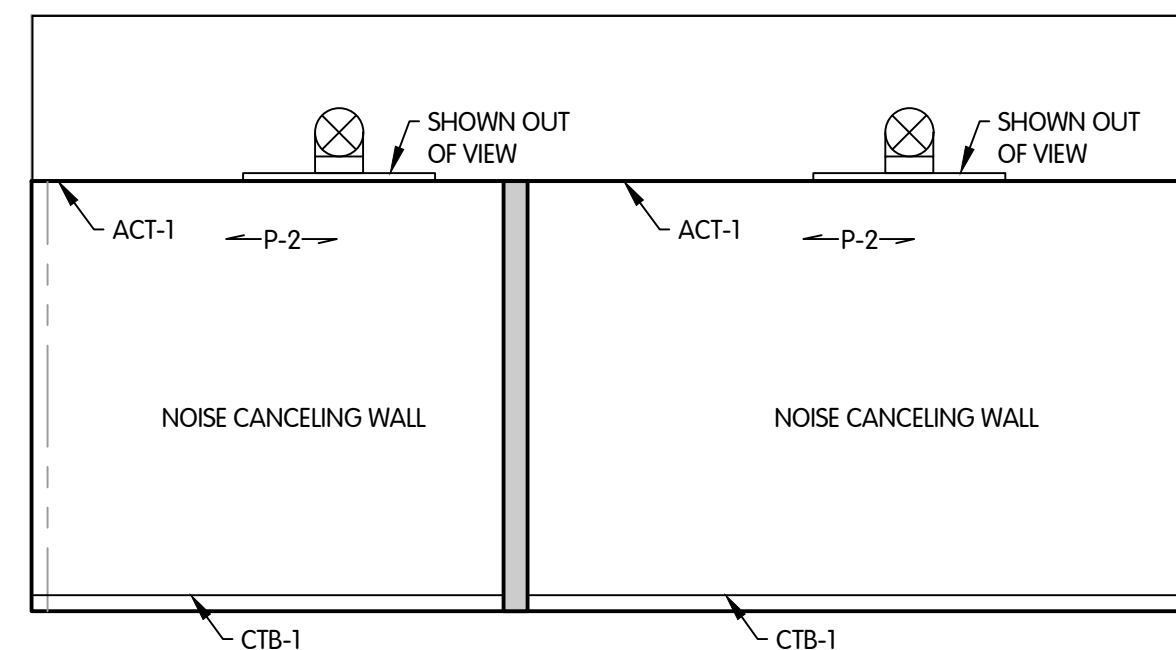
1. DRAWINGS ESTABLISH THE DESIGN INTENT OF WORK TO BE PERFORMED. ALL WORK SHALL BE PERFORMED IN ACCORDANCE WITH THE HIGHEST INDUSTRY STANDARDS. ALL PRODUCTS SHALL BE INSTALLED IN ACCORDANCE WITH THE MANUFACTURER'S RECOMMENDATIONS. ALL TRADES SHALL CAREFULLY COORDINATE WORK OF ALL OTHER TRADES. ANY DISCREPANCIES OR CONFLICTS SHALL BE BROUGHT TO THE IMMEDIATE ATTENTION OF THE ENGINEER AND THE OWNER PRIOR TO FABRICATION OR INSTALLATION.
2. CONTRACTORS SHALL BE RESPONSIBLE FOR CHECKING DOCUMENTS FOR COORDINATION BETWEEN ALL DISCIPLINES INCLUDING BUT NOT RESTRICTED TO ARCHITECTURAL, STRUCTURAL, MECHANICAL, PLUMBING AND ELECTRICAL. CONTRACTORS SHALL BE RESPONSIBLE FOR FIELD VERIFYING EXISTING CONDITIONS AND FOR VERIFYING THEM WITH THE CONTRACT DOCUMENTS. ANY DISCREPANCY IN THE CONTRACT DRAWINGS AND SPECIFICATIONS SHALL BE BROUGHT TO THE NOTICE OF THE ENGINEERS PRIOR TO ANY FABRICATION OR CONSTRUCTION.
3. COORDINATE SIZE AND LOCATION OF ALL EQUIPMENT SUPPORTS INCLUDING BUT NOT RESTRICTED TO CONCRETE HOUSEKEEPING PADS WITH APPROPRIATE EQUIPMENT MANUFACTURER.
4. COORDINATE SIZE AND LOCATION OF ALL ACCESS PANELS WITH TRADES REQUIRING THE SAME. ACCESS PANELS ARE SPECIFIED ARCHITECTURALLY BUT ARE REQUIRED TO BE PROVIDED BY EACH TRADE. ALL LOCATIONS MUST BE COORDINATED AND APPROVED BY THE ENGINEERS FIELD REPRESENTATIVE.
5. VERIFY QUANTITY, SIZE, AND LOCATION OF ALL FLOOR, ROOF, AND WALL OPENINGS FOR ALL DISCIPLINES INCLUDING BUT NOT RESTRICTED TO MECHANICAL AND ELECTRICAL WORK WITH THE APPROPRIATE TRADE. PROVIDE ALL OPENINGS SHOWN OR REQUIRED FOR THE COMPLETION OF THE WORK. PROVIDE ALL UNTELS REQUIRED FOR THESE OPENINGS PER SPECIFICATIONS.
6. FLOOR PLANS ARE DIMENSIONED TO NOMINAL WALL THICKNESS - TYPICAL.
7. DIMENSIONS FOLLOWED BY ± SHOULD BE REVIEWED AND ALL NECESSARY ADJUSTMENTS MADE PRIOR TO FABRICATION AND/OR INSTALLATION OF AFFECTED WORK. NOTIFY ENGINEERS REPRESENTATIVE IF DISCREPANCIES ARISE BEFORE PROCEEDING WITH THE WORK.
8. PATCHING:
 - A. REFER TO DEMOLITION PLANS FOR ADDITIONAL PATCHING INFORMATION.
 - B. FOR ALL FLOOR SURFACES RECEIVING NEW FLOOR FINISHES, PREPARE SUBSTRATE BY PROVIDING LEVELING AND PATCHING COMPOUNDS RECOMMENDED BY FINISH FLOORING MANUFACTURERS. CONTRACTOR'S BASE BID PROPOSAL SHALL ASSUME THAT ALL AREAS, INDICATED TO RECEIVE NEW FINISHES, WILL REQUIRE FLOOR PREPARATION.
 - C. PATCH AND REPAIR ALL FLOOR AND WALL SURFACES LEFT UNFINISHED OR INCOMPLETE FROM REMOVAL OF EXISTING PARTITIONS, MILLWORK, CASEWORK, OR OTHER FIXED ACCESSORIES AND EQUIPMENT WITH MATERIALS TO MATCH EXISTING, AS ACCEPTABLE TO THE ENGINEER AND OWNER.
 - D. MATCH EXISTING MASONRY COURSING ADJACENT IN EACH AREA AND TOOTH NEW WORK (INCLUDING JAMBS OF DOORS AND OTHER OPENINGS) INTO EXISTING, UNLESS OTHERWISE NOTED.
9. ALL NEW MASONRY CORNERS TO BE BULLNOSED.



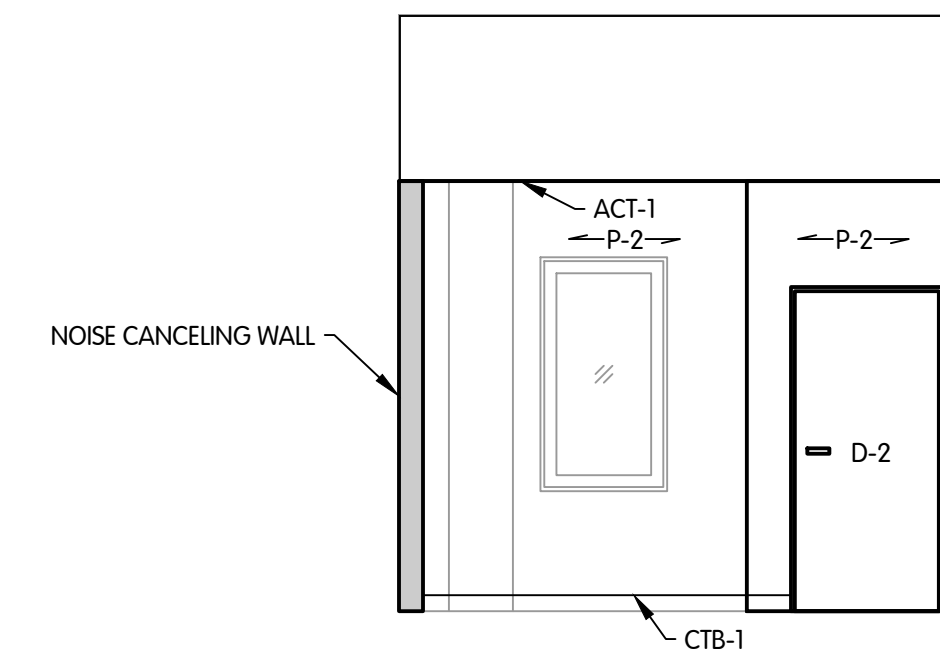
OFFICE NORTH ELEVATION
 SCALE: 1/4"=1'-0"



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



OFFICE SOUTH ELEVATION
 SCALE: 1/4"=1'-0"



OFFICE WEST ELEVATION
 SCALE: 1/4"=1'-0"



**ADMINISTRATION BUILDING
 OFFICE
 ARCHITECTURAL PLAN & ELEVATIONS**
 CITY OF KALAMAZOO, MI KWRP BAC-T LAB AND OFFICE IMPROVEMENTS

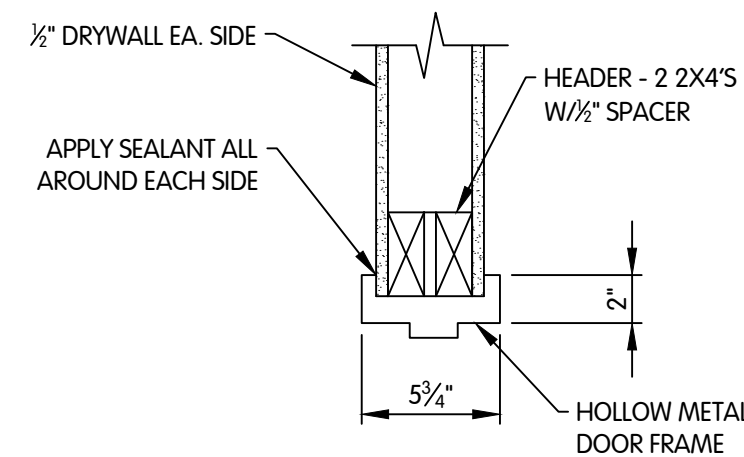
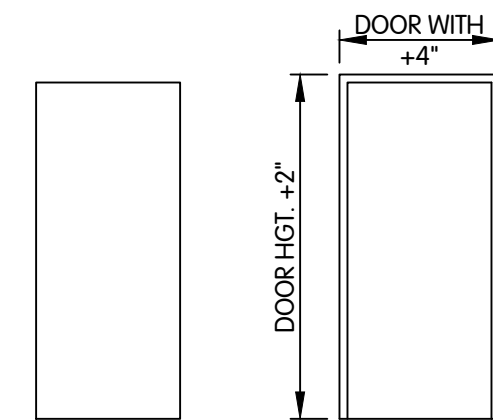
Jones & Henry
 Engineers, Ltd.

Fluid thinking®
 www.JHeng.com

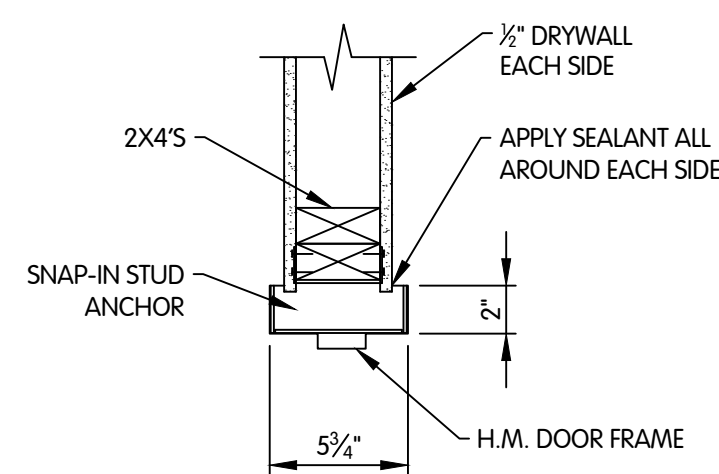
JOB NO.	017-7969.001	
SCALE	AS NOTED	
THIS LINE SCALES IF WHEN PLOTTED TO NOTED SCALE		
DESIGNED	DRAWN	CHECKED
BPW	CJAF	
STATUS: PRELIMINARY		
DATE: OCTOBER 2022		
SHEET NO.		
A-2		
5 OF 11		

REVISIONS AFTER ISSUED FOR BID
 NO. 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31 32 33 34 35 36 37 38 39 40 41 42 43 44 45 46 47 48 49 50 51 52 53 54 55 56 57 58 59 60 61 62 63 64 65 66 67 68 69 70 71 72 73 74 75 76 77 78 79 80 81 82 83 84 85 86 87 88 89 90 91 92 93 94 95 96 97 98 99 100

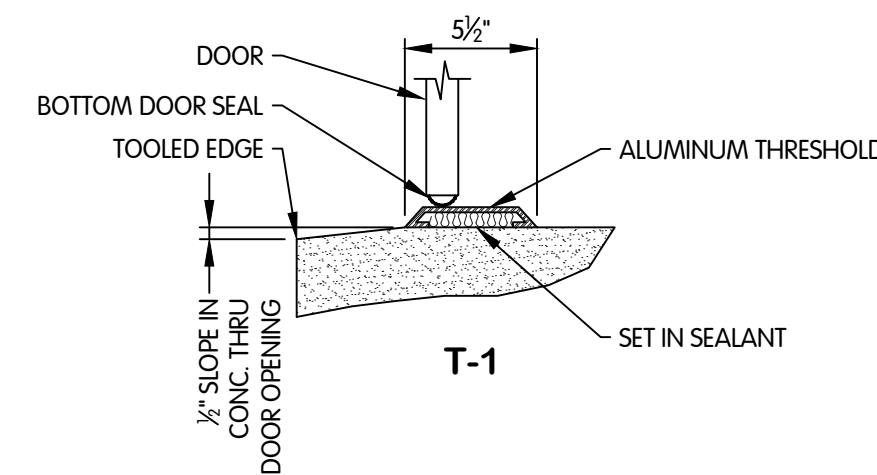
DOOR SCHEDULE										
TAG/ID	QNTY.	DOOR		THICKNESS	DOOR TYPE	DESCRIPTION	DOOR MATERIAL	DETAILS		
		WIDTH	HEIGHT					HEAD	JAMB	THRESH
D-1	1	36"	80"	1 3/4"	HM	SINGLE LEAF DOOR	ALUMINUM	H-1	J-1	NONE
D-2	1	36"	80"	1 3/4"	HM	SINGLE LEAF DOOR	ALUMINUM	H-1	J-1	NONE



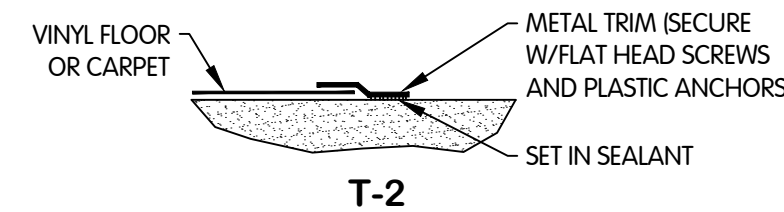
H-1
HEAD
1/2"=1'-0"



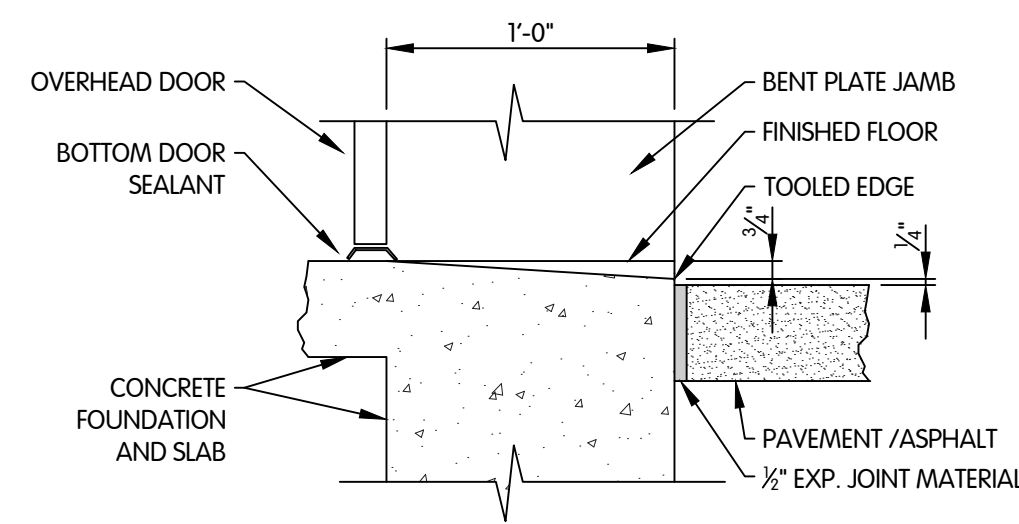
J-1
JAMB
1/2"=1'-0"



T-1



T-2



T-3

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

MATERIAL SELECTION SCHEDULE					
CODE	ITEMS	MANUFACTURER	STYLE/FINISH	COLOR/PATTERN	NOTES
FLOORS					
EP-1	EPOXY POURED FLOORING	SHERWIN WILLIAMS	DECORATIVE MOSAIC EPOXY COATING W/ "D" SIZE FLAKES	"D" FLAKE/ #TL-85	TOPCOAT SHALL BE SW #4685 POLY-COTE URETHANE
CT-1	CARPET TILE	SHAW	AREA TILE/ORGANIC ROOTS	COLOR TBD BY OWNER/24" X 24"	PROVIDE OWNER COMPLETE COLOR SAMPLE SELECTION PRIOR TO PROCUREMENT
EPB-1	EPOXY POURED BASE INTEGRAL COVE	SHERWIN WILLIAMS	DEC. MOSAIC EPOXY COATING W/ "D" SIZE FLAKES/ 4" HIGH INTEGRAL COVE		
CTB-1	CARPET TILE BASEBOARD	TARKETT	TRADITIONAL WALL BASE/RUBBER	COLOR TBD BY OWNER/4.5" HIGH	
WALLS					
P-1	PAINT	SHERWIN WILLIAMS	#K46-150 SW PRO PRECATALYZED EPOXY PAINT SYSTEM SEMI-GLOSS	COLOR TBD BY OWNER	PROVIDE OWNER COMPLETE COLOR SAMPLE SELECTION PRIOR TO PROCUREMENT
P-2	PAINT	SHERWIN WILLIAMS	#B66-650 SERIES SEMI-GLOSS	COLOR TBD BY OWNER	PROVIDE OWNER COMPLETE COLOR SAMPLE SELECTION PRIOR TO PROCUREMENT
CEILING					
ACT-1	ACOUSTIC CEILING TILE	ARMSTRONG	#1774 DUNE / 24" X 24"	WHITE W/ PRELUDE 15/16" SUSPENSION SYSTEM	
DFP-1	DRYFALL PAINT SYSTEM	SHERWIN WILLIAMS	#B42W81 SW PRO ACRYLIC/FLAT CEILING FINISH	MATCH EXISTING LABORATORY	
MILLWORK					
CAB-1	METAL LAB CABINETS	CIF LAB SOLUTIONS	S-LINE SERIES PREMIUM PAINTED METAL CASEWORK	COLOR TO MATCH LAB 215	PROVIDE WITH CIF LAB SOLUTIONS/ HAFELE STAINLESS STEEL BOW PULLS #156.60.602. SEE PLANS AND CABINET SCHEDULE FOR LOCATION AND MODEL INFORMATION
CAB-2	SOLID PLASTIC CABINETS	BMT/NELSON	SLIDING GLASS DOOR WALL CABINET	COLOR TO MATCH LAB 215 CASEWORK. COORDINATE WITH OWNER	
EPC-1	EPOXY RESIN COUNTERTOP	CIF LAB SOLUTIONS	DURCON - STANDARD STRAIGHT EDGE	BLACK	
MISC.					
SR-1	STORAGE RACK	MUSCLE RACK	5 TIER HEAVY DUTY STEEL STORAGE SHELVING UNIT/ 36" X 72" X 18"	BLACK/ COORDINATE SHELF HEIGHTS WITH OWNER	
FRP-1	SPECIAL-LITE	SPECLITE 30	SLATE GREY		

ROOM FINISH SCHEDULE											
MARK	ROOM/AREA NAME	FLOOR	BASE	WALLS				CEILING		MILLWORK	
				NORTH	EAST	SOUTH	WEST	MAT'L	FINISH	CAB.	TOP
-	BAC-T LAB	EP-1	EPB-1	P-1	P-1	P-1	P-1	DFP-1	MATCH EX.	CAB-1	EPC-1
205	OFFICE	CT-1	CTB-1	P-2	P-2	P-2	P-2	ACT-1	WHITE	-	-

CABINET SCHEDULE						
CABINET	MANUFACTURER	MODEL	WIDTH	HEIGHT	QTY.	
BC-1	CIF	B2200	36"	35"	2	
BC-2	CIF	B4550	24"	35"	2	
BC-3	CIF	X1260	14"	35"	1	
BC-4	CIF	B0100	30"	35"	2	
BC-5	CIF	R3300	24"	35"	1	
BC-6	CIF	B0110	15"	35"	1	
BC-7	CIF	B4550	18"	35"	1	
WC-1	BMT/NELSON	406-36	36"	36"	1	
WC-2	BMT/NELSON	406-24	24"	36"	2	

KAL-796900A03-ADMIN BUILDING - BAC-T LAB & OFFICE - ARCHITECTURAL SCHEDULES
10/12/2022 12:59 PM - CFERRELL
10/12/2022 1:00 PM



ADMINISTRATION BUILDING
BAC-T LAB AND OFFICE
ARCHITECTURAL SCHEDULES

CITY OF KALAMAZOO, MI KWRP BAC-T LAB AND OFFICE IMPROVEMENTS

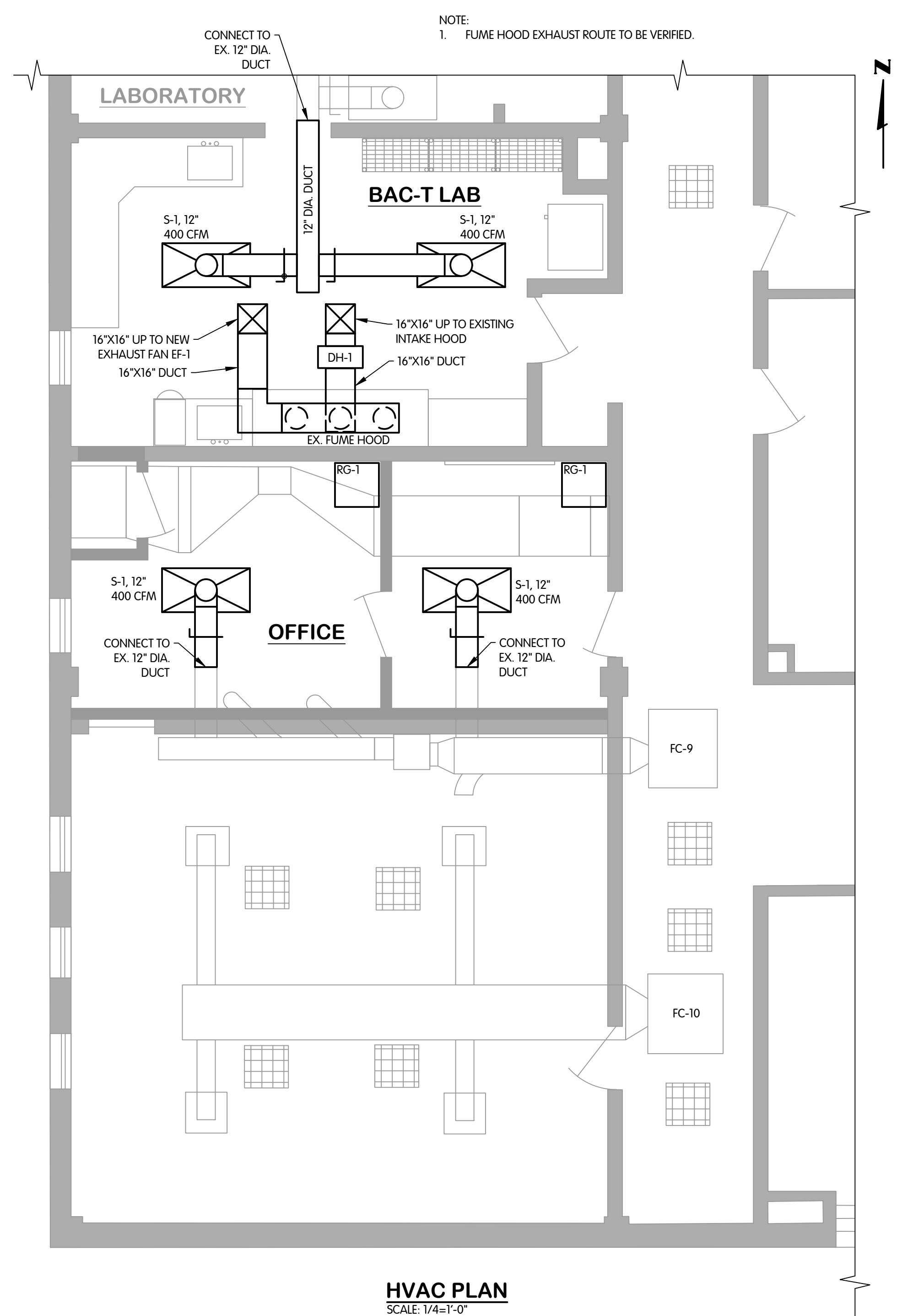
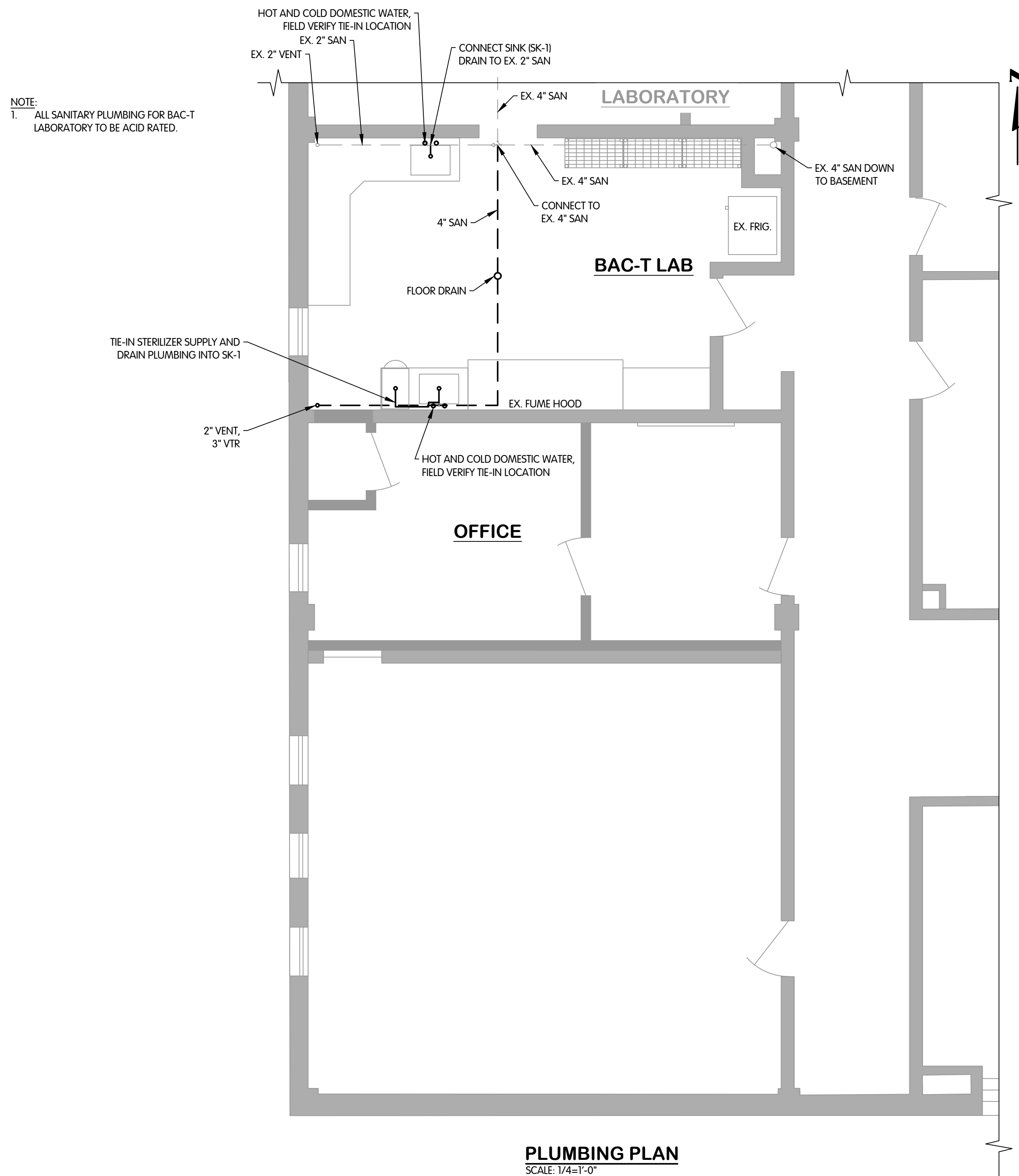
BY
NO.
DATE
REVISIONS AFTER ISSUED FOR BID

Jones & Henry
Engineers, Ltd.

Fluid thinking.[®]
www.JHeng.com

JOB NO.	017-7969.001	
SCALE	AS NOTED	
THIS LINE SCALES IF WHEN PLOTTED TO NOTED SCALE		
DESIGNED	DRAWN	CHECKED
BPW	CJAF	
STATUS:	PRELIMINARY	
DATE:	OCTOBER 2022	
SHEET NO.	A-3	
	6 OF 11	

KAL-796900100-ADMIN BUILDING - BAC-T LAB & OFFICE - MECHANICAL PLAN
 10/12/2022 11:23 AM - CFERRELL
 10/12/2022 11:00 PM



ADMINISTRATION BUILDING
 BAC-T LAB AND OFFICE
 MECHANICAL PLANS
 CITY OF KALAMAZOO, MI KWRP BAC-T LAB AND OFFICE IMPROVEMENTS

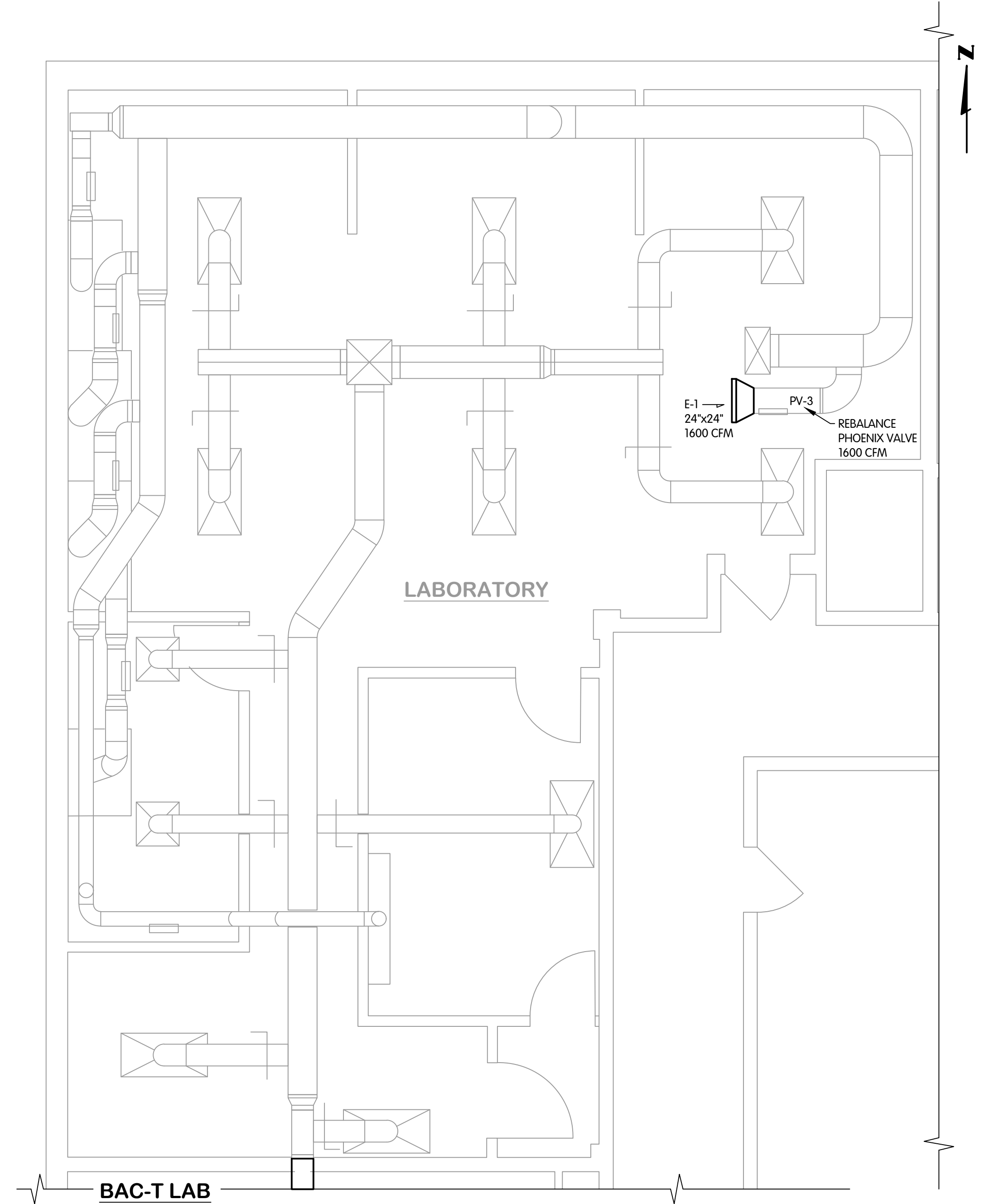
DESIGNED	DRAWN	CHECKED
BPW	CJAF	
STATUS: PRELIMINARY		
DATE: OCTOBER 2022		
SHEET NO. M-1		
7 OF 11		

Jones & Henry
 Engineers, Ltd.

 Fluid thinking.[®]
 www.JHeng.com

JOB NO.	017-7969.001	
SCALE	AS NOTED	
THIS LINE SCALES IF WHEN PLOTTED TO NOTED SCALE		
DESIGNED	DRAWN	CHECKED
BPW	CJAF	
STATUS: PRELIMINARY		
DATE: OCTOBER 2022		
SHEET NO. M-1		
7 OF 11		

KAL-796900M03-ADMIN BUILDING - LABORATORY - MECHANICAL PLAN
 10/17/2022 11:57 AM - CFERRELL
 10/21/2022 1:00 PM



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



ADMINISTRATION BUILDING
 LABORATORY MECHANICAL PLAN

CITY OF KALAMAZOO, MI KWRP BAC-T LAB AND OFFICE IMPROVEMENTS

NO.	DATE	REVISIONS AFTER ISSUED FOR BID	BY

Jones & Henry
 Engineers, Ltd.

Fluid thinking.[®]
 www.JHeng.com

JOB NO. 017-7969.001

SCALE AS NOTED

THIS LINE SCALES IF WHEN
 PLOTTED TO NOTED SCALE

DESIGNED	DRAWN	CHECKED
BPW	CJAF	

STATUS: PRELIMINARY
 DATE: OCTOBER 2022

SHEET NO.
M-2
 8 OF 11



ADMINISTRATION BUILDING
 BAC-T LAB AND OFFICE
 MECHANICAL SCHEDULES
 CITY OF KALAMAZOO, MI KWRP BAC-T LAB AND OFFICE IMPROVEMENTS

PLUMBING FIXTURE SCHEDULE										
MARK	FIXTURE	CW	HW	SAN	VNT	FIXTURE MODEL	FIXTURE MANUFACTURER	TRIM MODEL	TRIM MANUFACTURER	DESCRIPTION
FD-1	FLOOR DRAIN	-	-	2"	-	ZN415B-P	ZURN	OVAL FUNNEL, TRAP PRIMER CONNECTION, TRAP PRIMER MODEL: PR500SS	PRECISION PLUMBING PRODUCTS	DURA-COATED CAST IRON BODY WITH BOTTOM OUTLET, COMBINATION INVERTABLE MEMBRANE CLAMP, AND ADJUSTABLE COLLAR WITH SEEPAGE SLOTS AND TYPE "B" POLISHED NICKLE BRONZE, 8" LIGHT DUTY STRAINER, PROVIDE TRAP PRIMER CONNECTION AND 8-7/8"X1/4"X3-3/4" OVAL FUNNEL
SK-1	SINK-BARRIER FREE	1/2"	1/2"	2"	1-1/4"	U15C	CIFLAB SOLUTIONS	SF857	CIFLAB SOLUTIONS	24.4"X18.4"X16.8" EPOXY UNDERMOUNT SINK, DECK MOUNTED ONE HOLE MIXER WITH ADA-FRIENDLY BLADE HANDLES, VACCUM BREAKER GOOSENECK AND DETACHABLE NOZZLE

AIR INLETS AND OULETS				
MARK	MODEL	SIZE	COMMENTS	NOTES
E-1	350RL-SS	24X24	SINGLE DEFLECTION, SURFACE MOUNTED, STAINLESS STEEL, WHITE	1
RG-1	50F	24X24	EGGCRATE RETURN GRILLE, LAY-IN, ALUMINUM, WHITE	1
S-1	TRITEC-SS	24X48	2-WAY, LOW VELOCITY, HEMISPHERICAL FLOW PATTERN, STAINLESS STEEL, FACE AND BACKPAN	1
S-2	TRITEC-SS	24X48	1-WAY, LOW VELOCITY, HEMISPHERICAL FLOW PATTERN, STAINLESS STEEL, FACE AND BACKPAN	1

1. BASED ON TITUS

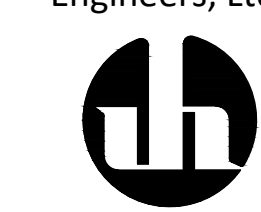
EXHAUST FAN SCHEDULE							
MARK	MODEL	CFM	ESP	RPM	HP	V/PH	NOTES
EF-1	CUE-120-VG	1200	0.5	1284	1/4	115/60	1,2,3,4

1. BASED ON GREENHECK
2. INSTALL ON EXISTING ROOF CURB. FIELD VERIFY DIMENSIONS
3. SOLID STATE SPEED CONTROL
4. PROVIDE WITH GREENHECKS LABCOAT

DUCT HEATER SCHEDULE							
MARK	MODEL	KW/FT ²	VOLTS	PH	DIM (W)	DIM (H)	NOTES
DH-1	IDHE	30	120	60	16	16	1

1. BASED ON GREENHECK

NO. 1
 2
 3
 4
 5
 DATE
 REVISIONS AFTER ISSUED FOR BID
 BY


 Jones & Henry
 Engineers, Ltd.
 Fluid thinking.[®]
 www.JHeng.com

JOB NO. 017-7969.001
 SCALE NONE
 THIS LINE SCALES IF WHEN PLOTTED TO NOTED SCALE
 DESIGNED BPW DRAWN CJAF CHECKED
 STATUS PRELIMINARY
 DATE OCTOBER 2022
 SHEET NO. M-3
 9 OF 11

SINGLE-LINE DIAGRAM LEGEND

	FUSED DISCONNECT SWITCH (SWITCH SIZE, FUSE TYPE AND FUSE SIZE AS SHOWN)		VACUUM CONTACTOR		POWER FACTOR CORRECTION CAPACITOR - (PFCC) (SIZE PER MOTOR MANUFACTURER RECOMMENDATIONS.)
	UNFUSED DISCONNECT SWITCH (SWITCH SIZE AS SHOWN)		THREE PHASE AC MOTOR (HORSEPOWER AS SHOWN)		HIGH OR MEDIUM VOLTAGE FUSED CUTOUT (SIZE AS SHOWN)
	THERMAL-MAGNETIC CIRCUIT BREAKER OR MOTOR CIRCUIT PROTECTOR-MCP (TRIP SIZE AS SHOWN)		CURRENT TRANSFORMER WITH AMMETER SWITCH, AND AMMETER (RATIO AS SHOWN)		CABLE LIMITER (SIZE AS SHOWN)
	HIGH OR MEDIUM VOLTAGE CIRCUIT BREAKER		CURRENT TRANSFORMER WITH SHORTING BLOCK (RATIO AS SHOWN)		STAND-BY GENERATOR (SIZE AS SHOWN) WITH FIELD PROTECTION CIRCUIT BREAKER (TRIP SIZE AS SHOWN)
	LIGHTING OR POWER TRANSFORMER, THREE PHASE UNLESS NOTED OTHERWISE (CONNECTION, SIZE & RATING AS SHOWN)		POTENTIAL TRANSFORMER WITH VOLTMETER SWITCH, AND VOLTMETER		VARIABLE FREQUENCY DRIVE WITH A BY-PASS OPTION (SHOWN WITH INTEGRAL EXTERNAL DISCONNECT HANDLE)
	FULL VOLTAGE NON-REVERSING MOTOR STARTER WITH OVERLOADS (FVNR)		LIGHTNING ARRESTER (VOLTAGE RATING AS SHOWN)		CP = CONTROL PANEL SSRVs = SOLID STATE REDUCED VOLTAGE STARTER (SHOWN WITH INTEGRAL EXTERNAL DISCONNECT HANDLE)
	FULL VOLTAGE REVERSING MOTOR STARTER WITH OVERLOADS (FVR)		TRANSIENT VOLTAGE SURGE SUPPRESSOR (TVSS)		DPM
	TWO SPEED MOTOR STARTER WITH OVERLOADS		GROUND CONNECTION		WHM
			LINE OR LOAD REACTOR		AUTOMATIC TRANSFER SWITCH (ATS)
			KIRK KEY (DASHED LINES TO INTERLOCKED DEVICES)		MANUAL TRANSFER SWITCH (MTS)
			DRAWOUT FOR SWITCHGEAR OR MOTOR CONTROL CENTER		

SCHEMATIC LEGEND

	OPEN CONTACTS WITH TIME-DELAY CLOSING		TEMPERATURE SWITCH CLOSING ON RISING TEMPERATURE		NORMALLY OPEN MOMENTARY ACTION PUSH-BUTTON SWITCH (SHOWN WITH ONLY 1 CIRCUIT)
	CLOSED CONTACTS WITH TIME-DELAY OPENING		TEMPERATURE SWITCH OPENING ON RISING TEMPERATURE		NORMALLY CLOSED MOMENTARY ACTION PUSH-BUTTON SWITCH (SHOWN WITH ONLY 1 CIRCUIT)
	OPEN CONTACTS WITH TIME-DELAY OPENING		LIMIT SWITCH NORMALLY OPEN		PUSH-TO-TEST PILOT LIGHT WITH COLORED LENS CAP R - RED G - GREEN A - AMBER W - WHITE B - BLUE CL - CLEAR
	CLOSED CONTACTS WITH TIME-DELAY CLOSING		LIMIT SWITCH NORMALLY CLOSED		ZERO SPEED SWITCH (NORMALLY OPEN)
	FLOW SWITCH CLOSING ON INCREASE IN FLOW		LIMIT SWITCH NORMALLY CLOSED - HELD OPEN		ZERO SPEED SWITCH (NORMALLY CLOSED)
	FLOW SWITCH OPENING ON INCREASE IN FLOW		FOOT SWITCH OPENS BY FOOT PRESSURE		
	LIQUID LEVEL SWITCH CLOSING ON RISING LEVEL		FOOT SWITCH CLOSING BY FOOT PRESSURE		
	LIQUID LEVEL SWITCH OPENING ON RISING LEVEL		MUSHROOM HEAD, MAINTAINED ACTION (PUSH-PULL) PUSH BUTTON SWITCH (SHOWN WITH ONLY 1 CIRCUIT)		
	PRESSURE OR VACUUM SWITCH CLOSING ON RISING PRESSURE		2 - POSITION, MAINTAINED ACTION SELECTOR SWITCH		
	PRESSURE OR VACUUM SWITCH OPENING ON RISING PRESSURE				

3 - POSITION, MAINTAINED ACTION SELECTOR SWITCH
 H - O - A: HAND-OFF-AUTOMATIC
 L - O - R: LOCAL-OFF-REMOTE
 PCS: PLANT CONTROL SYSTEM
 PLC: PROGRAMMABLE LOGIC CONTROLLER

INDICATES ITEMS IN A SEPARATE COMMON ENCLOSURE

CONTACTOR COIL
 M - MOTOR STARTER CONTACTOR
 MF - MOTOR STARTER FORWARD CONTACTOR
 MR - MOTOR STARTER REVERSE CONTACTOR
 ML - MOTOR STARTER LOW SPEED CONTACTOR
 MH - MOTOR STARTER HIGH SPEED CONTACTOR
 SC - MOTOR STARTER STARTING CONTACTOR
 RC - MOTOR STARTER RUN CONTACTOR
 BP - BYPASS CONTACTOR
 CC - CAPACITOR CONTACTOR
 LC - LIGHTING CONTACTOR
 IC - ISOLATION CONTACTOR
 C - GENERAL CONTACTOR

CONTROL RELAY COIL
 CR - INSTANTANEOUS CONTROL RELAY
 TR - TIME DELAY RELAY

MOTOR STARTER OVERLOAD RELAY N.C. CONTACT

SOLENOID COIL
 SV - SOLENOID VALVE

ELAPSED TIME METER

GENERAL ELECTRICAL ABBREVIATIONS

PVC - POLYVINYL CHLORIDE
 RGS - RIGID GALVANIZED STEEL
 PVC/RGS - PVC COATED RGS

MOTOR STARTER ABBREVIATIONS

FVNR - FULL VOLTAGE, NON-REVERSING
 FVR - FULL VOLTAGE REVERSING
 TS1W - TWO SPEED, ONE WINDING
 TS2W - TWO SPEED, TWO WINDING
 TS1WV - TWO SPEED REVERSING, ONE WINDING
 TS2WV - TWO SPEED REVERSING, TWO WINDING

ELECTRICAL PLAN LEGEND

	GROUND WIRE		THREE PHASE AC MOTOR (HORSEPOWER AS SHOWN)
	DIRECT BURIAL CABLE		MOTOR OPERATED VALVE, 3 PHASE, WITH MAGNETIC STARTER AND CONTROLS
	CONDUIT CONCEALED		MOTOR OPERATED VALVE, 1 PHASE, WITH MAGNETIC STARTER AND CONTROLS
	CONDUIT EXPOSED		GROUND ROD WITH CADWELD CONNECTION
	CONDUIT IN CONCRETE DUCT BANK		PP = POWER POLE, LP = LIGHT POLE
	HOMERUN		AIR TERMINAL (LIGHTNING PROTECTION)
	CONDUIT TURNS UP		STROBE LIGHT (F= FIRE ALARM, G=GAS ALARM)
	CONDUIT TURNS DOWN		HEAT DETECTOR - RATE OF RISE/FIXED TEMPERATURE
	CAPPED CONDUIT (FUTURE USE)		SMOKE DETECTOR - IP = PHOTOELECTRIC, I = IONIZATION
	CONDUIT TEE		PULL STATION - FIRE ALARM
	CADWELD CONNECTION		HORN, BELL, OR SIREN
	B = BUSWAY		HORN/STROBE COMBINATION
	C = CABLE TRAY		CAPACITOR
	S		CONTROL STATION
	S ₂		BOX - JUNCTION, TERMINAL, PULL OR HAND HOLE
	S ₃		ELECTRIC MANHOLE
	S ₄		TRANSFORMER (SEE SINGLE LINE FOR SIZE & TYPE)
	S _p		LIGHTING CONTACTOR
	S _k		FLOW TRANSMITTER
	5		LEVEL TRANSMITTER
	3		PRESSURE TRANSMITTER
	5		TEMPERATURE TRANSMITTER
	6, 8		ANALYSIS TRANSMITTER (I.E. OXYGEN, TURBIDITY)
	4, 6, 8		INDICATOR - PRESSURE, FLOW, LEVEL, DENSITY, ANALYSIS
			DENSITY TRANSMITTER
			LIMIT (POSITION) SWITCH
			PRESSURE SWITCH
			TEMPERATURE SWITCH (I.E. MOTOR THERMO PROTECTOR)
			CONVEYOR CABLE SWITCH
			SPEED SWITCH
			FLOW SWITCH
			LEVEL SWITCH
			MOISTURE SENSOR
			TORQUE SWITCH
	MCC		VIBRATION SWITCH
			LOAD CELL
			TRANSMITTER SENSING ELEMENT - LEVEL, FLOW, DENSITY, PRESSURE, ANALYSIS
	UPS		SOLENOID
	EPP		THERMOSTAT
	CP		HEATER IN MOTOR
			PHOTOELECTRIC CELL
			GAS DETECTOR WITH CONTROL PANEL (GAS TYPE AS SHOWN)
			THERMOCOUPLE
			PNEUMATIC VALVE OPERATOR
			CURRENT TO PRESSURE TRANSDUCER

ELECTRICAL NOTES

- STRUCTURAL MATERIALS ARE NOT SHOWN ON ELECTRICAL DRAWINGS. REFER TO ARCHITECTURAL AND STRUCTURAL DRAWINGS.
- ALL ELECTRICAL EQUIPMENT ELEVATIONS SHOWN ARE TO BOTTOM OF DEVICE OR PANEL, UNLESS OTHERWISE NOTED.
- NUMBER SHOWN (I.E. 11735), INDICATES A SPECIFICATION REFERENCE FOR ITEMS OTHER THAN DIVISION 16. THE ELECTRICAL ITEM UNDER THIS REFERENCE IS SUPPLIED BY ANOTHER PART OF THE CONTRACT. UNLESS OTHERWISE NOTED IN THAT SPECIFICATION, THE CONTRACTOR SHALL INSTALL AND WIRE THE ITEM PER THE DRAWINGS AND DIVISION 16 SPECIFICATIONS.
- CONTROL WIRING SHALL CONFORM TO ALL REQUIREMENTS AS SHOWN ON THE P & ID DRAWINGS WHETHER SHOWN ON THE ELECTRICAL DRAWINGS OR NOT.
- WHERE LINES ARE SHOWN CONNECTING ELECTRICAL EQUIPMENT, THEY ARE NOT INTENDED AS CONDUIT ROUTING. CONTRACTOR SHALL ROUTE ALL CONDUIT RUNS (SHOWN OR NOT) PER DIVISION 16 SPECIFICATIONS.
- WP INDICATES WATERPROOF. LETTER ON OR NEXT TO LIGHT FIXTURE INDICATES TYPE, PER SECTION 16510. NUMBER WITH LIGHT FIXTURE OR RECEPTACLE INDICATES CIRCUIT NUMBER.
- GFCI INDICATES A CIRCUIT BREAKER OR RECEPTACLE WITH A 6 MA GROUND FAULT CIRCUIT INTERRUPTER. GFEP INDICATES A CIRCUIT BREAKER OR RECEPTACLE WITH A 30 MA GROUND FAULT EQUIPMENT PROTECTION DEVICE.
- FOR BELOW GRADE CONDUIT PENETRATIONS THROUGH EXISTING EXTERIOR CONCRETE WALLS, PROVIDE TYPE A CONDUIT SLEEVE FOR PVC CONDUIT. FOR RGS OR PVC-COATED RGS CONDUIT, PROVIDE TYPE B CONDUIT SLEEVE THROUGH CONCRETE WALLS, AND TYPE C CONDUIT SLEEVE THROUGH EXISTING CONCRETE WALLS.
- FOR ABOVE GRADE CONDUIT PENETRATIONS THROUGH EXTERIOR CONCRETE WALLS, PROVIDE TYPE C CONDUIT SLEEVE. FOR MASONRY WALLS PROVIDE TYPE F CONDUIT SLEEVE.
- FOR CONDUIT PENETRATIONS THROUGH EXISTING CONCRETE FLOORS AND WALLS BETWEEN ADJACENT NON-HAZARDOUS AREAS, PROVIDE TYPE C CONDUIT SLEEVES FOR ALL CONDUIT TYPES. FOR SIMILAR PENETRATIONS THROUGH CONCRETE FLOORS AND WALLS, PROVIDE TYPE D CONDUIT SLEEVES FOR ALL CONDUIT TYPES.
- FOR CONDUIT PENETRATIONS THROUGH CONCRETE FLOORS AND WALLS SEPARATING CLASSIFIED (HAZARDOUS) AREAS FROM NON-CLASSIFIED NON-HAZARDOUS AREAS, PROVIDE TYPE G CONDUIT SLEEVES. FOR SIMILAR PENETRATIONS THROUGH MASONRY WALLS, PROVIDE TYPE H CONDUIT SLEEVE. FOLLOW MECHANICAL SEAL MANUFACTURER'S RECOMMENDATIONS TO MEET 3-HOUR FIRE RESISTANCE REQUIREMENTS.
- LEGENDS ARE FOR REFERENCE ONLY AND DOES NOT MEAN THAT ALL ITEMS ARE USED.



ELECTRICAL LEGEND
 CITY OF KALAMAZOO, MI KWRP BAC-T LAB AND OFFICE IMPROVEMENTS

Jones & Henry Engineers, Ltd.

Fluid thinking®
www.JHeng.com

JOB NO. 017-7969.001

SCALE NONE

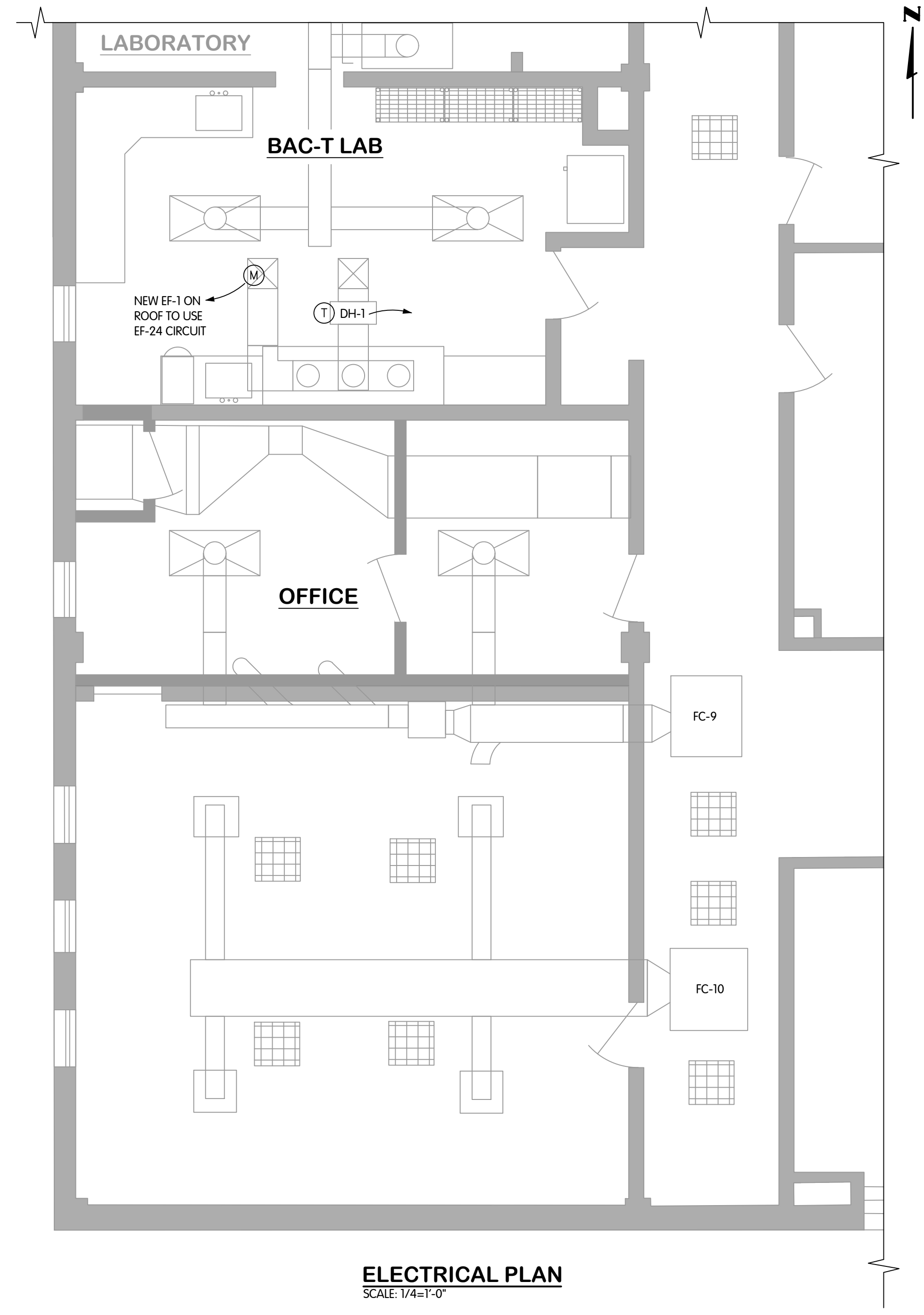
DESIGNED PEM DRAWN C.JAF CHECKED

STATUS: PRELIMINARY

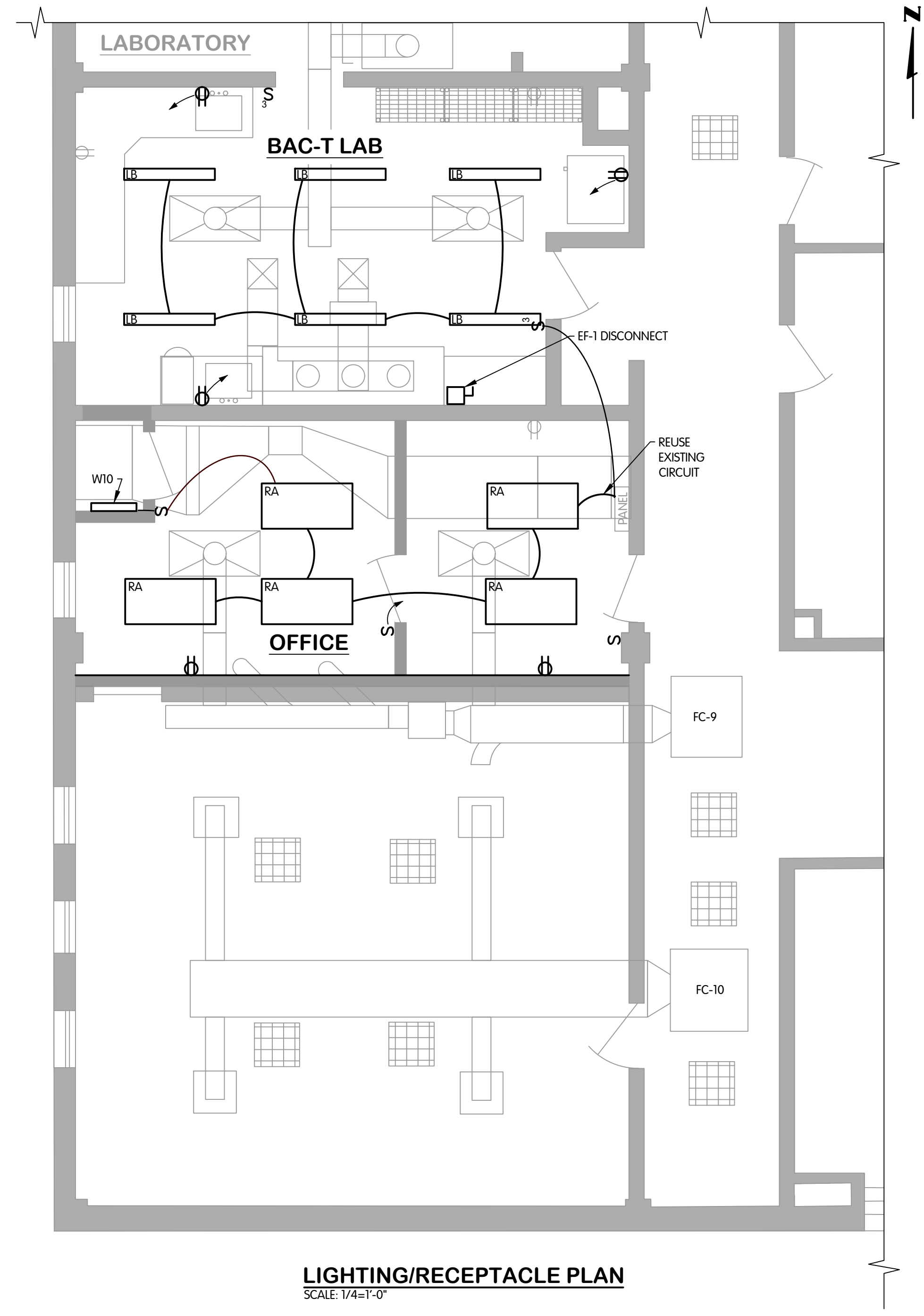
DATE: OCTOBER 2022

SHEET NO. E-1

10 OF 11



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



LIGHTING/RECEPTACLE PLAN
SCALE: 1/4"=1'-0"

LIGHT FIXTURE SCHEDULE					
SYMBOL	MARK	QTY	MANUFACTURER	CATALOG	DESCRIPTION
[Symbol]	LB	6	COOPER LIGHTING SOLUTIONS - METALUX (FORMER EATON)	4WSL-LD2-50-UPL15-UNV-L840-CD1-U	4FT LINEAR WAVESTREAM SYSTEM, 15% UPLIGHT, L840
[Symbol]	RA	5	COOPER LIGHTING SOLUTIONS - METALUX (FORMER EATON)	24EN-LD2-40-UNV-L840-CD1-U	METALUX ENCOUNTER 2X4 LED TROFFER STANDARD OPTION
[Symbol]	W10	1	COOPER LIGHTING SOLUTIONS - METALUX (FORMER EATON)	2BCLD-LD4-16SL-F-UNV-L840-CD1-U	

KAL-7969001002-ADMIN BUILDING - BAC-T LAB & OFFICE - ELECTRICAL PLAN
 10/12/2022 12:56 PM - CFERRELL
 10/12/2022 1:00 PM



**ADMINISTRATION BUILDING
 BAC-T LAB AND OFFICE
 ELECTRICAL PLAN**
 CITY OF KALAMAZOO, MI KWRP BAC-T LAB AND OFFICE IMPROVEMENTS

REVISIONS AFTER ISSUED FOR BID
 NO. 1 2 3 4 5 6 7 8 9 10
 DATE

Jones & Henry Engineers, Ltd.

 Fluid thinking.[®]
 www.JHeng.com
 JOB NO. 017-7969.001
 SCALE AS NOTED
THIS LINE SCALES IF WHEN PLOTTED TO NOTED SCALE

DESIGNED	DRAWN	CHECKED
ANS	CJAF	

 STATUS: PRELIMINARY
 DATE: OCTOBER 2022
 SHEET NO.
E-2
 II OF II