WICHITA STATE UNIVERSITY CAMPUS OF APPLIED SCIENCES AND TECHNOLOGY

EAST HIGH SNAP ON LAB

301 S. Grove, Wichita, KS 67211

CERTIFIED FINAL

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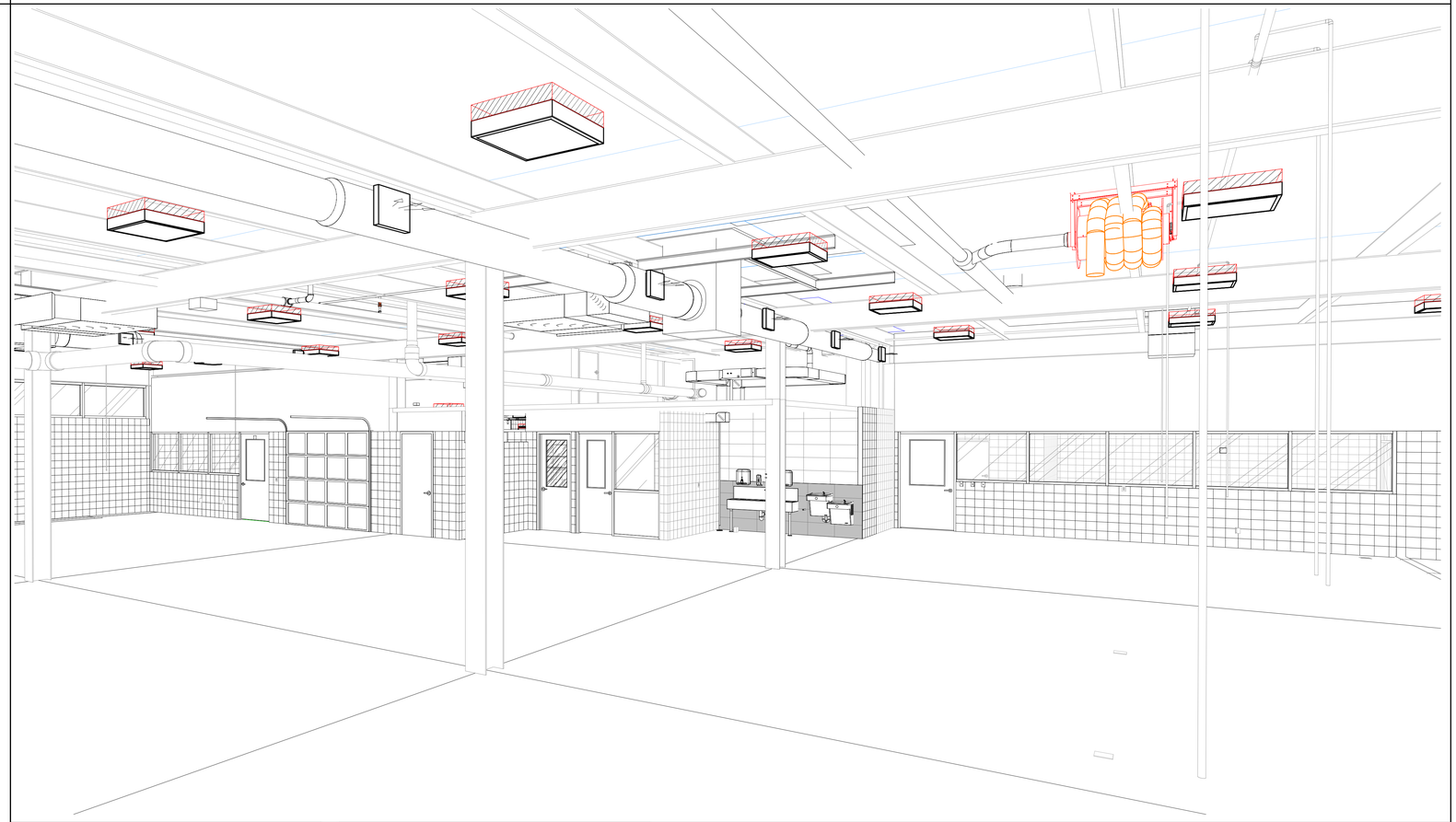
LOCATION MAP

GENERAL NOTES

1. DRAWINGS AND SPECIFICATIONS SHALL REMAIN THE PROPERTY OF THE ARCHITECT AND MAY NOT BE REPRODUCED IN ANY MANNER WITHOUT EXPRESSED WRITTEN CONSENT.
2. ALL SUBSTITUTIONS AND CHANGES TO THESE DRAWINGS MUST BE SUBMITTED TO THE ARCHITECT FOR APPROVAL.
3. THE GENERAL CONTRACTOR SHALL INVESTIGATE ALL FIELD CONDITIONS RELEVANT TO THE PROJECT, INCLUDING BUT NOT LIMITED TO DIMENSIONS, ELEVATIONS, GENERAL CONDITIONS AND OTHER MISCELLANEOUS EXISTING CONDITIONS AND SHALL PROMPTLY NOTIFY THE ARCHITECT OF ANY WHICH DO NOT AGREE WITH THOSE IN THESE DRAWINGS.
4. THE GENERAL CONTRACTOR IS RESPONSIBLE FOR SUPPLYING AND INSTALLING ALL COMPONENTS AND ACCESSORIES, EQUIPMENT, MATERIALS, HARDWARE, AND OTHER ITEMS NECESSARY (UNLESS NOTED OTHERWISE) FOR A COMPLETE AND FINISHED JOB CONSISTENT WITH THE DESIGN INTENT PRESENTED IN THESE DRAWINGS.
5. THE GENERAL CONTRACTOR IS RESPONSIBLE FOR OBTAINING ALL THE APPLICABLE BUILDING PERMITS.
6. THE GENERAL CONTRACTOR IS RESPONSIBLE FOR COMPLIANCE WITH ALL CODES AND REGULATIONS ADOPTED BY THE AUTHORITIES HAVING JURISDICTION OVER THE LOCATION OF THE PROJECT, WHICH ARE APPLICABLE AT THE TIME OF ISSUANCE OF THE BUILDING PERMITS.
7. THE GENERAL CONTRACTOR SHALL NOT REPRODUCE ANY PORTION OF THE CONTRACT DRAWINGS FOR USE IN ANY PORTION OF A SUBMITTAL.
8. ALL ABBREVIATIONS INCLUDED FOLLOW INDUSTRY STANDARDS. CONTACT ARCHITECT IF ANY ABBREVIATIONS ARE NOT CLEAR.
9. GRAPHIC AND WRITTEN INFORMATION ON DRAWINGS SHALL BE COORDINATED WITH ALL TRADES PRIOR TO INSTALLATION.
10. REFERENCE SPECIFICATION FOR ALL MATERIALS NOTED ON DRAWINGS.
11. THE GENERAL CONTRACTOR SHALL COORDINATE ACCESS TO/AND STORAGE ON SITE WITH THE OWNER. THE GENERAL CONTRACTOR SHALL ALSO REPAIR DAMAGE TO ALL ADJACENT AREAS OCCURRING DURING CONSTRUCTION. THE GENERAL CONTRACTOR WILL BE RESPONSIBLE FOR THE REMOVAL OF ALL EXCESS TRASH AND OTHER MISCELLANEOUS MATERIALS FROM THE SITE DAILY.
12. PATCH ALL FLOORS, WALLS AND CEILINGS ALTERED DURING CONSTRUCTION AS REQUIRED TO MATCH EXISTING. PATCH ANCHOR HOLES IN MASONRY WALL WHERE ACCESSORIES HAVE BEEN MOVED AND/OR OMITTED.
13. IN ALL EXISTING AREAS, RENOVATION WORK SHALL BE ACCOMPLISHED WITH MINIMAL DISRUPTION TO OPERATIONS. IF REQUIRED, THE OWNER RESERVES THE RIGHT TO TEMPORARILY STOP WORK OF SPECIFIC CONSTRUCTION OPERATIONS SHOULD THE OWNER IDENTIFY AN EMERGENCY OR DANGER EXISTS TO THE WELFARE OF THE OCCUPANTS ON ACCOUNT OF SUCH WORK OR OPERATIONS.
14. ERECT AND MAINTAIN DUST PARTITIONS AS REQUIRED FOR ALL PHASES OF CONSTRUCTION TO PREVENT DIRT, DUST OR WET SURFACES/FINISHES FROM ENTERING ADJACENT OCCUPIED SPACES.
15. SCHEDULE ALL WORK PRODUCING EXCESS NOISE OR VIBRATIONS WITH OWNER TO MINIMIZE DISRUPTION TO BUILDING TENANTS. ALL WORK FOUND TO BE DISRUPTIVE SHALL BE SUSPENDED IMMEDIATELY UPON NOTICE FROM OWNER AND RESCHEDULED IN ADVANCE TO ALLOW ADVANCE NOTICE AND ALTERNATE ACCOMMODATIONS FOR TENANTS. THE CONTRACTOR IS RESPONSIBLE FOR SCHEDULING THE WORK IN ADVANCE SO AS NOT TO DELAY THE PROGRESS OF THE WORK.
16. MAINTAIN ALL EXIT PATHS FOR THE DURATION OF THE CONSTRUCTION.
17. SCHEDULE WITH OWNER ALL WORK REQUIRING THE DISABLING OF ALL BUILDING SAFETY SYSTEMS, INCLUDING BUT NOT LIMITED TO, STANDPIPES, SPRINKLERS, FIRE ALARMS, AND SECURITY SYSTEMS. THE WORK SHALL BE SCHEDULED IN ADVANCE TO ALLOW ADVANCE NOTICE AND ALTERNATE ACCOMMODATIONS FOR TENANTS. THE CONTRACTOR IS RESPONSIBLE FOR SCHEDULING THE WORK IN ADVANCE SO AS NOT TO DELAY THE PROGRESS OF THE WORK.
18. SCHEDULE WITH OWNER ALL UTILITY SHUTDOWNS AFFECTING AREAS OF THE BUILDING BEYOND THE PROJECT LIMITS OF WORK. THE WORK SHALL BE SCHEDULED IN ADVANCE TO ALLOW ADVANCE NOTICE AND ALTERNATE ACCOMMODATIONS FOR TENANTS. THE CONTRACTOR IS RESPONSIBLE FOR SCHEDULING THE WORK IN ADVANCE SO AS NOT TO DELAY THE PROGRESS OF THE WORK.
19. ERECT AND MAINTAIN APPROPRIATE SAFETY BARRIERS AND PATHWAYS TO PROTECT AND SEPARATE PUBLIC/TENANTS FROM HAZARDOUS CONDITIONS. BARRIERS SHALL BE MAINTAINED THROUGH DURATION OF THE PROJECT TO PROHIBIT UNAUTHORIZED PERSONNEL FROM ENTERING THE CONSTRUCTION AREA/SITE.
20. OWNER SHALL BE RESPONSIBLE FOR RELOCATION, INSTALLATION AND STORAGE OF EXISTING FURNITURE.
21. CONTRACTOR SHALL NOT REPRODUCE ANY PORTION OF A CONTRACT DRAWING FOR USE IN ANY PORTION OF A SUBMITTAL.
22. ALL DIMENSIONS ARE FROM THE FACE OF STUD FRAMING, FACE OF MASONRY, FACE OF CONCRETE, OR CENTER LINE OF STRUCTURAL STEEL, U.N.O..
23. ALL DOORS ARE LOCATED 4 INCHES FROM THE ADJACENT PERPENDICULAR STUD WALL FRAMING AND 4 INCHES FROM THE ADJACENT PERPENDICULAR CMU WALL FRAMING TO THE HINGE SIDE OF THE DOOR OPENING, U.N.O..
24. COORDINATE THE LOCATION AND INSTALLATION OF ALL MECHANICAL AND ELECTRICAL DEVICES, REGISTERS, FIXTURES, ETC. PRIOR TO INSTALLATION OF FINISH MATERIAL.
25. ALL A.D.A. ACCESSIBLE WATER CLOSETS MUST BE LOCATED 18 INCHES MINIMUM FROM THE FINISHED FACE OF THE NEAREST ADJACENT WALL TO THE CENTER LINE OF THE FIXTURE, U.N.O..
26. PROVIDE CONTROL JOINTS ON CONTINUOUS GYPSUM BOARD SURFACES IN EXCESS OF 30'-0", AT A MAXIMUM INCREMENT OF 30'-0" ON CENTER, U.N.O..
27. PROVIDE SEALANT IN FLOOR JOINTS OF EXPOSED FINISHES PER FLOOR COATING MANUFACTURER'S RECOMMENDATIONS.
28. SEE SHEET A-601 FOR PARTITION TYPES; SEE ARCHITECTURAL FLOOR PLANS FOR ADDITIONAL PARTITION IDENTIFICATION.
29. REFER TO STRUCTURAL NOTES FOR ALL CAST-IN-PLACE CONCRETE AND MASONRY CONTROL JOINTS.

RENDERING



SHEET INDEX

SHEET INDEX

ALTERNATE SCHEDULE:

1. HVAC REPLACEMENT FOR NEW RTUS 1, 2, 4 AND ASSOCIATED WORK, INCLUDING DUCTWORK, PIPING, SUPPORT, AND POWER CONNECTIONS TO THESE RTUS AS SHOWN ON THE DRAWINGS.

2. MODERNFOLD OPERABLE PARTITIONS AT CLASSROOMS. HEADER (REF. 1/A-541) TO REMAIN AS PART OF BASE BID.

PEC PROJECT NUMBER: 228090-042
PEC
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MATTHEW F. COSTES
6117
11.15.2023
KANSAS
ARCHITECT

DESCRIPTION | DATE

PROJECT NUMBERS:
GLMV # - 2228DR23002

PROJECT TYPE:
Renovation

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WICHITA STATE UNIVERSITY CAMPUS OF APPLIED SCIENCES AND TECHNOLOGY
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301 S. Grove, Wichita, KS 67211

DATE: 11/17/2023 DRAWN BY:HL CHECKED BY: MFC

COVER SHEET

G-001

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CODE ANALYSIS

SUMMARY OF GOVERNING REGULATIONS:

JURISDICTION
AUTHORITY HAVING JURISDICTION: **LOCAL: CITY OF WICHITA, KS**
SEDGWICK COUNTY

CODE	TITLE	EDITION
BUILDING CODE	INTERNATIONAL BUILDING CODE (IBC)	2018
ACCESSIBILITY CODE	ADA STANDARDS FOR ACCESSIBLE DESIGN	2010
MECHANICAL CODE	INTERNATIONAL MECHANICAL CODE (IMC)	2021
	INTERNATIONAL FUEL GAS CODE (IFGC)	2021
PLUMBING CODE	UNIFORM PLUMBING CODE (UPC)	2021
ELECTRICAL CODE	NFPA 70 - NATIONAL ELECTRICAL CODE (NEC)	2020
ENERGY CODE	INTERNATIONAL ENERGY CONSERVATION CODE (IECC) OR ASHRAE 90.1-2013	2018
FIRE PREVENTION	INTERNATIONAL BUILDING FIRE CODE (IFC)	2018
LIFE SAFETY	NFPA 10 - PORTABLE FIRE EXTINGUISHER	2018
	NFPA 13 - INSTALLATION OF SPRINKLER SYSTEMS	2016
	NFPA 14 - INSTALLATION OF STANDPIPE AND HOSE SYSTEMS	2016
	NFPA 20 - INSTALLATION OF STATIONARY PUMPS FOR FIRE PROT	2016
	NFPA 25 - INSPECTION, TESTING, AND MAINTENANCE OF WATER-BASED FIRE PROTECTION SYSTEMS	2017
	NFPA 72 - NATIONAL FIRE ALARM CODE	2016
	NFPA 110 - EMERGENCY AND STANDBY POWER SYSTEMS	2016
	NFPA 241 - STANDARD ON TYPES OF BUILDING CONSTRUCTION	2013
KAR22-1	KANSAS FIRE PREVENTION CODE	

USE AND OCCUPANCY:

USE GROUP	OCCUPANCY CLASSIFICATION	IBC
GROUP 'B'	BUSINESS (ACCESSORY)	Sect 304
GROUP 'F-1'	FACTORY	Sect 306
GROUP 'S-1'	STORAGE (ACCESSORY)	Sect 311

GENERAL BUILDING HEIGHTS AND AREAS:

BUILDING HEIGHT	ALLOWABLE(ft)	ACTUAL(ft)	IBC
TYPE II-B	75 FT	16'-9"	Table 504.3
	4 STORIES	1 STORY	Table 504.4

BUILDING AREA	ALLOWABLE(sf)	ACTUAL(sf)	IBC
TYPE II-B	15,500 SF	24,400SF	Sect 507.5

BUILDING AREA MODIFICATIONS — IBC Sect 506

Aa=[At + (NS x If)]

FRONTAGE INCREASE: W=30

AMOUNT OF INCREASE: If=[(F/P-0.25) x W/30
If=[704/704-0.25)/1
If= 75

ALLOWABLE AREA = [15,500+(15,500x.75)]
= **27,125 SF**

INCIDENTAL USES (TABLE 509)

ROOM OR AREA	SEPARATION/PROTECTION	IBC
No incidental uses per table 509 or required separations per Section 508.4		

TYPE OF CONSTRUCTION:

CONSTRUCTION CLASSIFICATON — IBC
TYPE II-B — Table 601

BUILDING ELEMENT	FIRE-RESISTANCE RATING(hr) TYPE II-B	IBC Table 601
PRIMARY STURCTURAL FRAME	0	
BEARING WALLS		
EXTERIOR	0	
INTERIOR	0	
NONBEARING WALLS & PARTITIONS		
EXTERIOR	0 (PER TABLE 602)	
NONBEARING WALLS & PARTITIONS		
INTERIOR	0	
FLOOR CONSTRUCTION AND ASSOCIATED SECONDARY MEMBERS	0	
ROOF CONSTRUCTION AND ASSOCIATED SECONDARY MEMBERS	0	

FIRE-RESISTANCE RATING REQUIREMENTS FOR EXTERIOR WALLS BASED ON

FIRE SEPARATION DISTANCE	FIRE-RESISTANCE RATING(hr)	IBC
GROUP 'B,' 'F-1,' AND 'S-1' OCCUPANCY		Table 602
X > 30'	0	

COMBUSTIBLE MATERIALS — IBC
COMBUSTIBLE MATERIALS PERMITTED AS INDICATED — Sect 603.1

FIRE AND SMOKE PROTECTION:

FIRE BARRIERS	FIRE-RESISTANCE RATING (hr)	IBC
NONE REQUIRED		

PENETRATIONS — IBC
THROUGH FIRE-RESISTANCE RATED PARTITIONS — Sect 714.3

OPENING PROTECTIVES	FIRE-RESISTANCE RATING (hr)	IBC
FIRE DOOR RATINGS	FIRE BARRIERS = 3/4 hr FIRE BARRIERS AT EXIT STAIRS= 1 hr	Table 716.1(2)
DOOR VISION PANEL SIZE	MAX. SIZE TESTED	Table 716.1(2)

THERMAL AND SOUND INSULATING MATERIALS		IBC
CONCEALED INSULATION	FLAME SPREAD INDEX < 25 SMOKE DEVELOPED < 450	Sect 720.2

INTERIOR FINISHES:

INTERIOR WALL AND CEILING FINISH REQUIREMENTS BY OCCUPANCY

GROUP	CONDITION	CLASS	IBC
GROUP 'B' NONSPRINKLERED BUILDING			Sect 803
	INTERIOR EXIT STAIRWAYS	B	Table 803.13
	CORRIDORS & ENCLOSURE FOR INTERIOR EXIT STAIRWAY	C	Table 803.13
	ROOMS & ENCLOSED SPACES	C	Table 803.13
GROUP 'F-1' NONSPRINKLERED BUILDING			Sect 803
	INTERIOR EXIT STAIRWAYS	C	Table 803.13
	CORRIDORS & ENCLOSURE FOR INTERIOR EXIT STAIRWAY	C	Table 803.13
	ROOMS & ENCLOSED SPACES	C	Table 803.13
GROUP 'S-1' NONSPRINKLERED BUILDING			Sect 803
	INTERIOR EXIT STAIRWAYS	B	Table 803.13
	CORRIDORS & ENCLOSURE FOR INTERIOR EXIT STAIRWAY	C	Table 803.13
	ROOMS & ENCLOSED SPACES	C	Table 803.13

FIRE PROTECTION SYSTEMS:

AUTOMATIC SPRINKLER SYSTEMS — IBC
EXISTING FACILITY IS NOT SPRINKLERED. — [F] Sect 903.3.1.1

PORTABLE FIRE EXTINGUISHERS — IBC
CLASS 'A' FIRE CLASSIFICATION — [F] Table 906.3(1)
'LIGHT' HAZARD OCCUPANCY
EXTINGUISHER RATING:
MINIMUM RATING: 2A — NFPA 10-Table 6.2.1.1
MAX. FLOOR AREA / UNIT OF 'A': 3000 SF
MAX. FLOOR AREA / EXTINGUISHER: 11,250 SF
MAX. TRAVEL DISTANCE TO EXITING: 75 FEET
PROVIDED: 2A-10B:C, 5 LBS.

FIRE ALARM AND DETECTION SYSTEMS — IBC

FIRE ALARM SYSTEM: SUPERVISED INTELLIGENT ADDRESSABLE FIRE ALARM SYSTEM IS INSTALLED THOUGHOUT THE BUILDING. MANUAL FIRE ALARM BOXES NOT REQUIRED. — Sect 907.2.2 / 907.2.4 Except.
EXIT SIGNS: EXIT SIGNS W/ BATTERY PACKS INSTALLED THROUGHOUT THE BUILDING.
EMERGENCY LIGHTS: EMERGENCY LIGHTS INSTALLED W/ BATTERY PACKS THROUGHOUT THE BUILDING.

CODE ANALYSIS CONTINUED

MEANS OF EGRESS:

FUNCTION OF SPACE	OCCUPANT LOAD FACTOR	IBC
MAXIMUM FLOOR AREA ALLOWANCES PER OCCUPANT		Table 1004.5
ACCESSORY STORAGE/MECH/EQUIP.	500sf (GROSS)/OCCUPANT	
BUSINESS AREA	150sf (GROSS)/OCCUPANT	
CLASSROOM	20sf (NET)/OCCUPANT	
CLASSROOM (LAB)	50sf (NET)/OCCUPANT	
INDUSTRIAL	100sf (GROSS)/OCCUPANT	

FIRST FLOOR OCCUPANT LOAD:

545 OCCUPANTS TOTAL

MEANS OF EGRESS SIZING — IBC
OTHER EGRESS COMPONENTS: — Sect 1005.3.2 Except. 1
545 OCC. x 0.3 WIDTH FACTOR = 164" of WIDTH

BUILDING IS NOT SPRINKLERED

TOTAL EGRESS WIDTH PROVIDED: 204" of WIDTH

MEANS OF EGRESS ILLUMINATION — IBC
ILLUMINATION REQUIRED — 1008

ACCESSIBLE MEANS OF EGRESS — IBC
ACCESSIBLE MEANS OF EGRESS REQUIRED — 1009

DOORS, GATES, AND TURNSTILES — IBC
DOORS — 1010

EXIT SIGNS — IBC
WHERE REQUIRED — 1013

COMMON PATH OF EGRESS TRAVEL

OCCUPANCY	ALLOWABLE(ft)	ACTUAL(ft)	IBC
GROUP B	100 FT	XX'-X" (MAXIMUM)	1006.2.1
GROUP F-1	100 FT	XX'-X" (MAXIMUM)	1006.2.1
GROUP S-1	100 FT	XX'-X" (MAXIMUM)	1006.2.1

EXIT ARRANGEMENT — IBC
EXIT SEPARATION DISTANCE — 1/2 THE DIAGONAL DIMENSION OF BLDG. 89'-4" / 2 = 44'-8" MIN. ALLOWED — 1007.1.1

ACTUAL SEPARATION DISTANCE: 83'-6" (COMPLIES)

EXIT AND EXIT ACCESS DOOR

MINIMUM	ACTUAL	IBC
2	2	Table 1006.3.2

EXIT ACCESS TRAVEL DISTANCE

OCCUPANCY	ALLOWABLE (ft)	ACTUAL (ft)	IBC
GROUP 'B', NOT SPRINKLERED	200 ft	XXX ft (MAXIMUM)	Table 1017.2
GROUP 'F-1', NOT SPRINKLERED	200 ft	XXX ft (MAXIMUM)	Table 1017.2
GROUP 'S-1', NOT SPRINKLERED	200 ft	XXX ft (MAXIMUM)	Table 1017.2

MINIMUM CORRIDOR WIDTH

OCCUPANCY	WIDTH (MINIMUM)	IBC
GROUP 'B'	44 INCHES	Table 1020.2
GROUP 'F-1'	44 INCHES	Table 1020.2
GROUP 'S-1'	44 INCHES	Table 1020.2

DEAD ENDS

OCCUPANCY	LENGTH (MAXIMUM)	IBC
GROUP 'B', NOT SPRINKLERED	20 FT	1020.4
GROUP 'F-1', NOT SPRINKLERED	20 FT	1020.4
GROUP 'S-1', NOT SPRINKLERED	20 FT	1020.4

ACTUAL DEAD END LENGTH = XX FT

EXIT DISCHARGE — IBC
SEE CODE PLAN AND CODE SITE PLAN — 1028

PLUMBING SYSTEMS:

MINIMUM NUMBER OF REQUIRED PLUMBING FIXTURES

GROUP B OCCUPANCY	REQUIRED	PROVIDED	IBC
WATER CLOSETS	MALE/FEMALE	MALE/FEMALE	Table 2902.1
	1 PER 100	3 EACH REQUIRED 4 MALE / 3 FEMALE PROVIDED	
LAVATORIES	MALE/FEMALE	MALE/FEMALE	Table 2902.1
	1 PER 100	3 EACH REQUIRED 3 MALE / 3 FEMALE PROVIDED	
DRINKING FOUNTAINS	1 PER 100	6 REQUIRED 2 EXISTING 4 NEW PROVIDED	Table 2902.1
SERVICE SINK	1 SERVICE SINK	1 PROVIDED (EXISTING)	Table 2902.1

GLMVArchitecture

PEC PROJECT NUMBER: 228090-042
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MATTHEW F. CONTRERAS — 6117 — 11.15.2023 — KANSAS — ARCHITECT

DESCRIPTION | DATE

PROJECT NUMBERS:
GLMV # - 2228GRS2302
PROJECT TYPE:
Renovation

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WICHITA STATE UNIVERSITY CAMPUS OF APPLIED SCIENCES AND TECHNOLOGY

EAST HIGH SNAP ON LAB

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DATE: 11/17/2023 DRAWN BY:HL CHECKED BY: MFC

CODE SUMMARY

G-101

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CODE PLAN LEGEND

FIRE PROTECTION SYSTEMS:

FEC	FIRE EXTINGUISHER CABINET FIRE EXTINGUISHER RATING 2-A
K	FIRE DEPARTMENT KEY BOX
	EXIT SIGN, CEILING MOUNTED WITH DIRECTIONAL ARROW
	EXIT SIGN, WALL MOUNTED
	FIRE ALARM MANUAL PULL STATION
FACP	FIRE ALARM CONTROL PANEL
FAA	FIRE ALARM ANNUNCIATOR PANEL

MEANS OF EGRESS:

OCCUPANT LOAD (IBC SECTION 1004)

NAME	ROOM NAME
101	ROOM NUMBER (OMITTED AT AREAS)
100SF	AREA OF ROOM OR AREA
100/OCC	OCCUPANT LOAD FACTOR
1 OCC	NUMBER OF OCCUPANTS

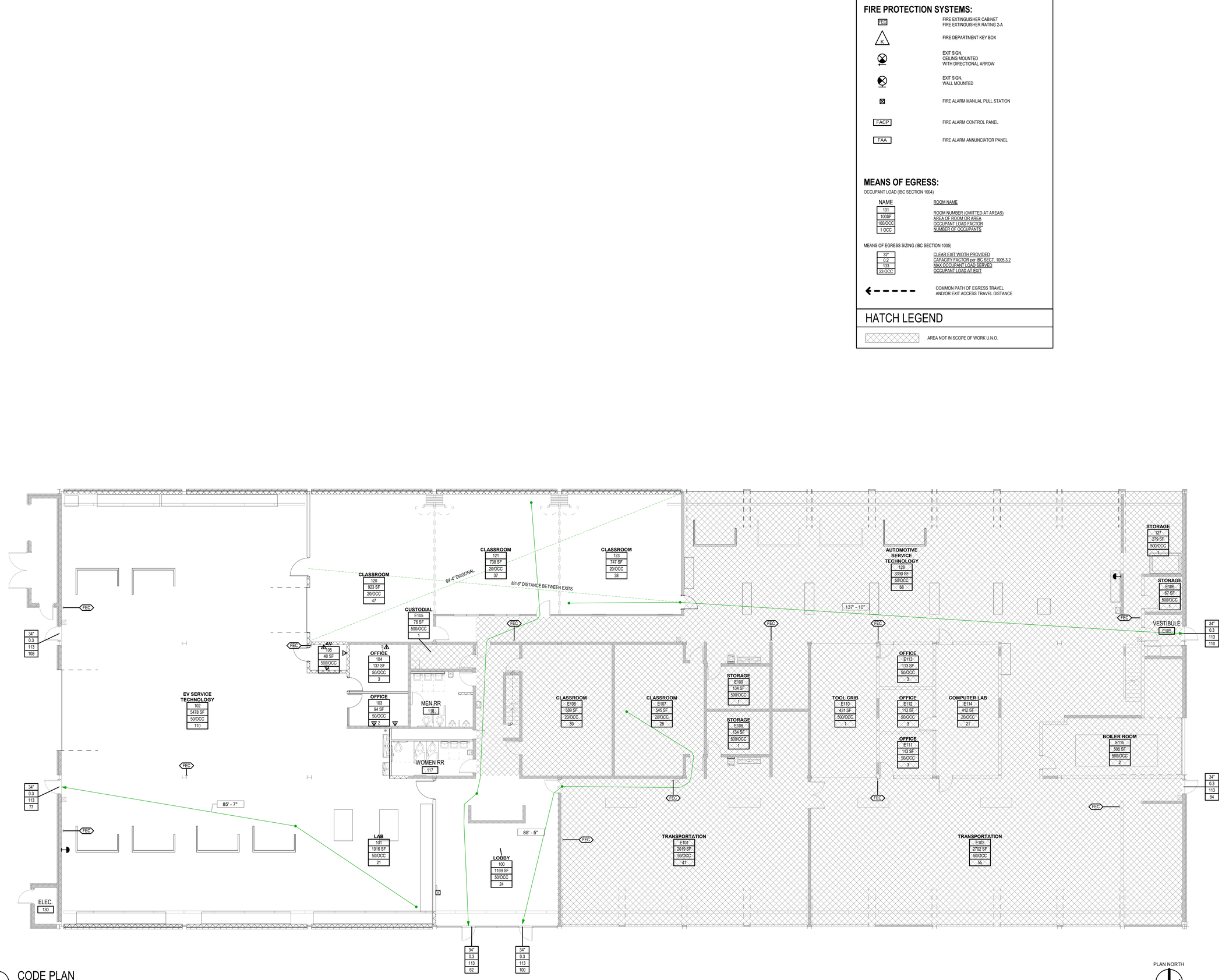
MEANS OF EGRESS SIZING (IBC SECTION 1005)

32"	CLEAR EXIT WIDTH PROVIDED
0.2	CAPACITY FACTOR per IBC SECT. 1005.3.2
133	MAX OCCUPANT LOAD SERVED
23 OCC	OCCUPANT LOAD AT EXIT

COMMON PATH OF EGRESS TRAVEL AND/OR EXIT ACCESS TRAVEL DISTANCE

HATCH LEGEND

AREA NOT IN SCOPE OF WORK U.N.O.



A CODE PLAN

1/8" = 1'-0"

PLAN NORTH

PLOT DATE: 11/17/2023 9:29:56 AM
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GLMVArchitecture

PEC PROJECT NUMBER: 228090-042

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MATTHEW F. CORTEZ
LICENSED
6117
11.15.2023
KANSAS
ARCHITECT

DESCRIPTION	DATE

PROJECT NUMBERS:
GLMV # - 2320GR23002

PROJECT TYPE:
Renovation

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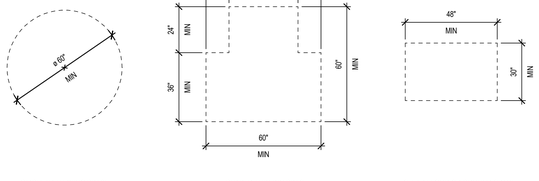
DATE: 11/17/2023 DRAWN BY: HL CHECKED BY: MFC

CODE FLOOR PLAN

G-102

CERTIFIED FINAL

CLEAR FLOOR AND GROUND SPACE

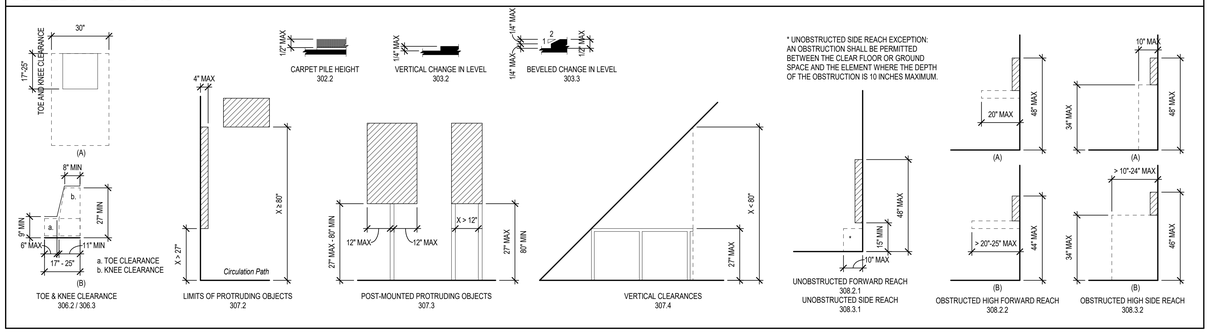


CIRCULAR TURNING SPACE
304.3.1

T-SHAPED TURNING SPACE
304.3.2

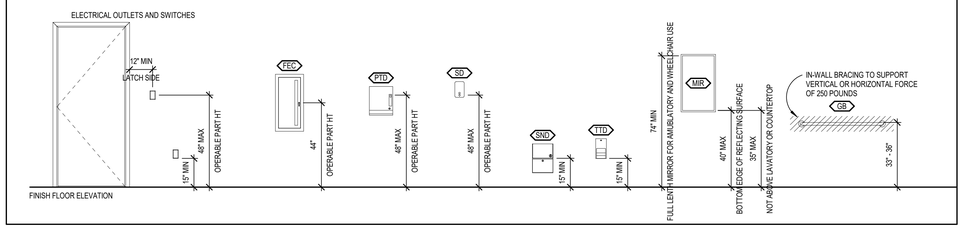
CLEAR FLOOR OR GROUND SPACE
305.3

BUILDING BLOCKS

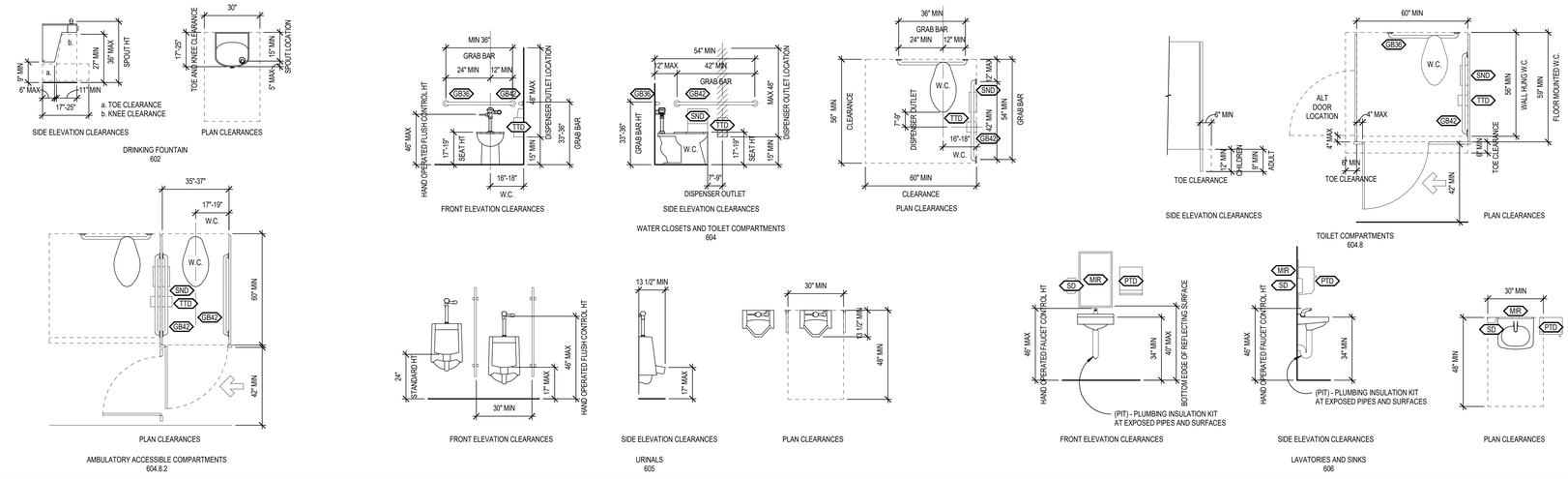


TOE & KNEE CLEARANCE
306.2 / 306.3

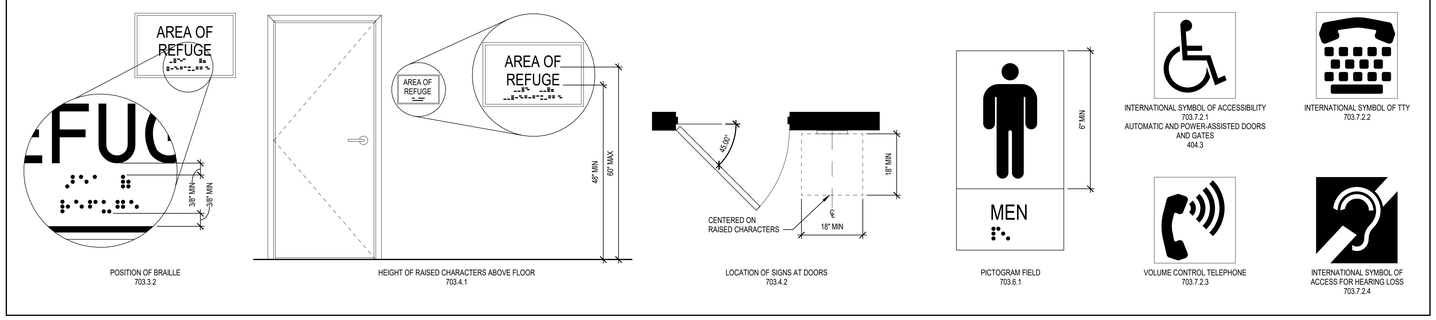
TYPICAL MOUNTING HEIGHTS



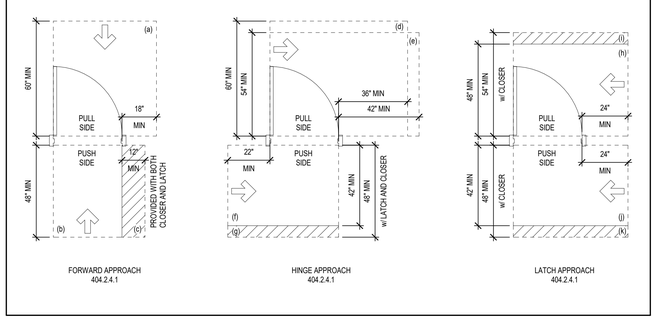
PLUMBING ELEMENTS AND FACILITIES



SYMBOLS OF ACCESSIBILITY



DOOR MANEUVERING CLEARANCES



PEC PROJECT NUMBER: 228090-042
PEC PROFESSIONAL ENGINEERING CONSULTANTS, P.A.
303 SOUTH TOPEKA WICHITA, KS 67202
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MATTHEW F. CORTEZ
REGISTERED
6117
11.15.2023
KANSAS
ARCHITECT

DESCRIPTION	DATE

PROJECT NUMBERS:
GLMV # - 22305R2302

PROJECT TYPE:
Renovation

WSU TECH
WICHITA STATE UNIVERSITY
CAMPUS OF APPLIED SCIENCES AND TECHNOLOGY
1845 Fairmount
Wichita, KS 67260-0258
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www.wichita.edu

WICHITA STATE UNIVERSITY CAMPUS OF APPLIED SCIENCES AND TECHNOLOGY

EAST HIGH SNAP ON LAB

301 S. Grove, Wichita, KS 67211

DATE: 11/17/2023 DRAWN BY: CHECKED BY:

TYPICAL MOUNTING HEIGHTS AND CLEARANCES

G-111

CERTIFIED FINAL

PLOT DATE: 11/17/2023 9:29:58 AM
FILE PATH: Autodesk Docs://2023R0000937911 WSUTech_EastHighSnaponLab/22606R2002_A_WSUTech_EastHighSnaponLab_V23.rvt

DESIGN CRITERIA

1. BUILDING CODE: INTERNATIONAL BUILDING CODE (IBC), 2018 EDITION, INCLUDING LOCAL SUPPLEMENTS. THE STRUCTURE IS CLASSIFIED AS A RISK CATEGORY II FACILITY.

2. LIVE LOADS:

LOCATION	UNIFORM LIVE LOAD*
ROOF	30 PSF
SLAB ON GRADE	60 PSF

*PER ORIGINAL DRAWINGS DATED 05/08/1967.

3. SNOW LOADS

GROUND SNOW LOAD, P_g:	15 PSF
FLAT ROOF SNOW LOAD, P_f:	15.5 PSF
SNOW EXPOSURE FACTOR, C_e:	1.0
SNOW IMPORTANCE FACTOR, I_s:	1.0
THERMAL FACTOR, C_t	1.0
ROOF SLOPE FACTOR, C_s	1.0

4. WIND*:

BASIC WIND SPEED, V:	110 MPH (3 SECOND GUST)
ALLOWABLE STRESS DESIGN WIND SPEED, V_{asd}:	85.2 MPH (3 SECOND GUST)
WIND EXPOSURE:	C
INTERNAL PRESSURE COEF.:	+/-0.18

COMPONENTS AND CLADDING PRESSURE SHALL BE USED FOR DESIGN OF EXTERIOR WALLS, WINDOWS, DOORS, AND MISCELLANEOUS MATERIALS NOT SPECIFICALLY SHOWN ON THE PLANS. FOR COMPONENTS AND CLADDING DESIGN WIND PRESSURES, REFERENCE COMPONENT AND CLADDING TABLE.

5. SEISMIC*:

SITE CLASS:	D
SEISMIC DESIGN CATEGORY:	B
SEISMIC IMPORTANCE FACTOR:	1.0
S_S:	0.091
S_1:	0.055
S_{DS}:	0.097
S_{D1}:	0.088

*LATERAL CRITERIA PROVIDED FOR INFORMATION ONLY. EXISTING LATERAL SYSTEMS ARE NOT TO BE MODIFIED.

6. RAIN INTENSITY (DURATION/100 YEAR MEAN RECURRENCE):

15 MINUTE: 6.73 INCHES PER HOUR
60 MINUTE: 3.43 INCHES PER HOUR

PLAN MARKS

GB# — GRADE BEAM MARK, REF. GRADE BEAM SCHEDULE

WF# — WALL FOOTING MARK, REF. WALL FOOTING SCHEDULE

F# — SPREAD FOOTING MARK, REF. SPREAD FOOTING SCHEDULE

HSS6X6X1/4 — COLUMN SIZE

BP-1, P-1 — PILASTER TYPE, REF. PILASTER DETAILS; BASE PLATE TYPE, REF. BASE PLATE DETAILS

BRACED FRAME ABOVE, REF. FRAMING ELEVATIONS & BRACED FRAME SCHEDULE

BRACED FRAME BELOW, REF. FRAMING ELEVATIONS & BRACE FRAME SCHEDULE

MOMENT CONN., REF. FRAMING ELEVATIONS & MOMENT CONN. SCHEDULE

W16X26 (20) <3/4"> — BEAM SIZE; # OF HEADED SHEAR CONNECTORS (3/4" DIA. U.N.O.); CAMBER

J# — JOIST MARK, REF. JOIST SCHEDULE

L# — LINTEL MARK AND SYMBOL, REF. LINTEL SCHEDULE

1 / 8' - 0" — SHEAR WALL MARK, REF. SHEAR WALL SCHEDULE (POINTS TO SHEATHED SIDE); SHEAR WALL LENGTH

H# — HEADER MARK, REF. HEADER SCHEDULE

STEP IN SURFACE ELEVATION

SLOPE IN SURFACE ELEVATION

MATERIAL LEGEND

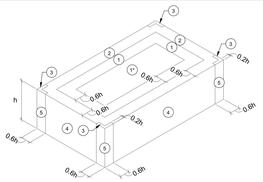
	LOAD BEARING CMU (NON-LOAD BEARING CMU HALFTONED)
	EARTH
	EXISTING
	GROUT/SAND/GRANULAR FILL
	PRECAST CONCRETE
	CONCRETE
	NOT IN SCOPE (E.G. VENEER, PAVING, ETC.)
	STEEL (IN SECTION)
	GRATING

ABBREVIATIONS

#	NUMBER OR POUNDS	I.J.	ISOLATION JOINT
(E)	EXISTING	IN	INCH(ES)
@	AT	INT.	INTERIOR
ADD'L	ADDITIONAL	K	KIPS
ALT.	ALTERNATE	L(L)	LIVE (LOAD)
APPROX.	APPROXIMATE	LBS	POUNDS
ARCH.	ARCHITECTURAL	LLH	LONG LEG HORIZONTAL
B.O.	BOTTOM OF	LLV	LONG LEG VERTICAL
BLDG.	BUILDING	LOC.	LOCATION
BOT.	BOTTOM	MANUF.	MANUFACTURER
BRG.	BEARING	MAX.	MAXIMUM
C.J.	CONTROL JOINT	MECH.	MECHANICAL
CFS	COLD-FORMED STEEL	MIN.	MINIMUM
CL	CENTERLINE	MISC.	MISCELLANEOUS
CLR.	CLEAR	MTL.	METAL
CMU	CONCRETE MASONRY UNIT	N.A.	NOT APPLICABLE
COL.	COLUMN	N.S.	NEAR SIDE
COMP.	COMPOSITE	N.T.S.	NOT TO SCALE
CONC.	CONCRETE	O.C.	ON CENTER
CONN.	CONNECTION	O.D.	OUTSIDE DIAMETER
CONST.	CONSTRUCTION	O.H.	OVERHEAD
CONT.	CONTINUOUS	OPP.	OPPOSITE
COORD.	COORDINATE	P.A.F.	POWDER ACTUATED FASTENER
CTR.	CENTER	PCF	POUNDS PER CUBIC FOOT
D(L)	DEAD (LOAD)	PEMB	PRE-ENGINEERED METAL BUILDING
DBA	DEFORMED BAR ANCHOR	PERP.	PERPENDICULAR
DEMO.	DEMOLITION / DEMOLISH	PL.	PLATE
DIA.	DIAMETER	PLF	POUNDS PER LINEAR FOOT
DIM.	DIMENSION	PSF	POUNDS PER SQUARE FOOT
DWG.	DRAWING	PSI	POUNDS PER SQUARE INCH
DWL.	DOWEL	QTY.	QUANTITY
E(L)	EARTHQUAKE/SEISMIC (LOAD)	RAD.	RADIUS
E.G.	FOR EXAMPLE	REF.	REFERENCE
E.J.	EXPANSION JOINT	REINF.	REINFORCING
E.O.R.	ENGINEER OF RECORD	REQ'D	REQUIRED
EA.	EACH	REV.	REVISION/REVISED
EL.	ELEVATION	S.J.	SAWN JOINT
ELEC.	ELECTRICAL	S.S.	STAINLESS STEEL
ELEV.	ELEVATOR	SCHED.	SCHEDULE
EQ.	EQUAL	SF	SQUARE FEET/FOOT
EQUIP.	EQUIPMENT	SIM.	SIMILAR
ETC.	ET CETERA	SPA.	SPACE(S)
EXIST.	EXISTING	SQ.	SQUARE
EXP.	EXPANSION	SSE	SPECIALTY STRUCTURAL ENGINEER
EXT.	EXTERIOR	STD.	STANDARD
F.S.	FAR SIDE	STIFF.	STIFFENER
F.V.	FIELD VERIFY	STRUCT.	STRUCTURAL
FDN.	FOUNDATION	T.O.	TOP OF
FT	FEET / FOOT	T/C	TENSION/COMPRESSION
FTG.	FOOTING	TEMP.	TEMPORARY
G.C.	GENERAL CONTRACTOR	TYP.	TYPICAL
GA.	GAUGE	U.N.O.	UNLESS NOTED OTHERWISE
GALV.	GALVANIZED	VERT.	VERTICAL
GEN.	GENERAL	W(L)	WIND (LOAD
H.D.G.	HOT-DIP GALVANIZED	W/	WITH
HD. ST.	HEADED STUD	W/C	WATER / CEMENT RATIO
HORIZ.	HORIZONTAL	WP	WORKING POINT
I.D.	INSIDE DIAMETER	WT.	WEIGHT
I.E.	INVERT ELEVATION	WWF	WELDED WIRE FABRIC

STRUCTURAL SHEET INDEX

COMPONENTS AND CLADDING TABLE



NOTES:

1. ALL WIND PRESSURES AND LOAD COMBINATIONS SHALL BE PROVIDED AND APPLIED PER ASCE 7-16.
2. PRESSURES SHOWN ARE APPLIED NORMAL TO THE SURFACE.
3. PLUS AND MINUS SIGNS SIGNIFY PRESSURES ACTING TOWARD AND AWAY FROM THE SURFACES, RESPECTIVELY.
4. FOR EFFECTIVE WIND AREAS BETWEEN THOSE GIVEN, STRAIGHT LINE INTERPOLATION MAY BE USED; OTHERWISE, USE THE VALUE ASSOCIATED WITH THE LOWER EFFECTIVE WIND AREA.
5. IF OVERHANGS EXIST, THE LESSER HORIZONTAL DIMENSION OF THE BUILDING SHALL NOT INCLUDE ANY OVERHANG DIMENSION, BUT THE EDGE DISTANCE, 'a', SHALL BE MEASURED FROM THE OUTSIDE EDGE OF THE OVERHANG.
6. h = MEAN ROOF HEIGHT IN FT., EXCEPT THAT EAVE HEIGHT SHALL BE USED FOR ROOF ANGLES < 10°.
7. A NET ROOF DEAD LOAD OF 15 PSF MAY BE ASSUMED TO RESIST JOIST UPLIFT FORCES.
8. C&C LOADS SHALL BE USED BY THE STEEL JOIST SUPPLIER AND ANY OTHER MANUFACTURER TO DETERMINE WALL DESIGNS, ROOF DESIGNS, CONNECTION DESIGNS, ETC.

PRESSURE (PSF)	WALL AND ROOF C&C PRESSURE												PARAPET C&C PRESSURE			
	KEY AREA 1		KEY AREA 1*		KEY AREA 2		KEY AREA 3		KEY AREA 4		KEY AREA 5		INTERIOR ZONE		CORNER ZONE	
	< 10 SF	> 100 SF	< 10 SF	> 100 SF	< 10 SF	> 100 SF	< 10 SF	> 100 SF	< 10 SF	> 100 SF	< 10 SF	> 100 SF	< 10 SF	> 100 SF	< 10 SF	> 100 SF
POSITIVE	16.0	16.0	16.0	16.0	16.0	16.0	16.0	16.0	24.7	21.0	24.7	21.0	N/A	N/A	N/A	N/A
NEGATIVE	-43.0	-33.5	-24.7	-24.7	-56.7	-44.6	-77.2	-53.0	-26.7	-23.1	-32.9	-25.6	N/A	N/A	N/A	N/A

PEC PROJECT NUMBER: 228090-042
PEC PROFESSIONAL ENGINEERING CONSULTANTS, P.A.
303 SOUTH TOPEKA WICHITA, KS 67202
316-262-2691 www.pec1.com

WADE A. GRAHAM LICENSED 26319 11/16/2023 KANSAS PROFESSIONAL ENGINEER

DESCRIPTION	DATE

PROJECT NUMBERS:
GLMV # - 22SB0R025002
PROJECT TYPE:
Renovation

WICHITA STATE UNIVERSITY CAREER ACADEMY FOR APPLIED SCIENCES AND TECHNOLOGY
1845 N. Fairmount
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WICHITA STATE UNIVERSITY CAMPUS OF APPLIED SCIENCES AND TECHNOLOGY
EAST HIGH SNAP ON LAB
301 S. Grove, Wichita, KS 67211

DATE: 11/17/2023 DRAWN BY:DJE CHECKED BY: WAG

STRUCTURAL COVER SHEET

S-000

CERTIFIED FINAL

PLOT DATE: 11/16/2023 3:02:08 PM
FILE PATH: Autodesk Docs://2023R000003791 WSUTech_EastHighSnaponLab/228090-042_STRUCT_R23.rvt

CONSTRUCTION DETAILS FOR STRUCTURAL MOVEMENT

1. IT IS THE CONTRACTOR'S RESPONSIBILITY TO PROVIDE ACCOMMODATIONS IN GLAZING, ARCHITECTURAL FINISHES, PLUMBING, HVAC, AND ELECTRICAL ELEMENTS TO PREVENT DAMAGE DUE TO DEFLECTION OF ROOF, WALL AND FLOOR MEMBERS.
2. VERTICAL DEFLECTIONS DUE TO GRAVITY LOADS:

WIDE FLANGE ROOF BEAMS & GIRDERS	LENGTH IN INCHES/240

3. HORIZONTAL DEFLECTIONS DUE TO WIND (W) OR SEISMIC (E):

CONVENTIONAL GIRTS	LENGTH IN INCHES/180*

   *LENGTH IN INCHES/600 FOR BRICK VENEER

CONCRETE

1. ALL CONCRETE HAS BEEN DESIGNED IN ACCORDANCE WITH ACI 318 AND THE BUILDING CODE, AND IN CONFORMANCE WITH THE CURRENT "ACI MANUAL OF CONCRETE PRACTICE."
2. THE CONCRETE REQUIREMENTS ARE:
   A. CEMENT SHALL BE TYPE I OR II CONFORMING TO ASTM C150 OR TYPE 1L CONFORMING TO ASTM C595. FLY ASH CONFORMING TO ASTM C618 TYPE C OR F MAY BE USED TO REPLACE A MAXIMUM OF 20% OF THE CEMENT BY WEIGHT.
   B. FINE AGGREGATE FOR NORMAL WEIGHT CONCRETE SHALL MEET ASTM C33.
   C. COARSE AGGREGATES FOR NORMAL WEIGHT CONCRETE SHALL CONFORM TO ASTM C33, GRADE 67 OR LARGER. COARSE AGGREGATES SHALL BE NO LESS THAN 50% OF THE TOTAL AGGREGATE BY WEIGHT, UNLESS APPROVED BY THE ENGINEER PRIOR TO MIX DESIGN SUBMITTAL.
   D. MIX REQUIREMENTS ARE:

LOCATION	MINIMUM F'c (PSI)	MINIMUM CEM. (PCY)	MAX. W/C RATIO	AIR CONTENT	SLUMP INCHES§
INTERIOR SLAB*	4,000	564	0.42	3%MAX.	2-5
LEAN CONC. FILL	250	N/A	N/A	5%±2%	N/A

   § PRIOR TO THE ADDITION OF WATER REDUCING ADMIXTURES. IF APPROVED BY ENGINEER, SLUMP MAY NOT EXCEED 8" WITH THE ADDITION OF WATER REDUCING ADMIXTURES
   *SLAB ON GRADE SHALL HAVE A FLEXURAL STRENGTH OF 650 PSI WHERE SUBJECT TO VEHICLE TRAFFIC.
3. ADMIXTURES, HARDENERS, & CURING COMPOUNDS
   A. ALL CONCRETE ADMIXTURES SHALL, WHEN MIXED INTO CONCRETE, BE NON-CHLORIDE AND NON-CHLORIDE FORMING.
   B. ALL ADMIXTURES MUST CONFORM TO ASTM C-494 AND C-260.
   C. CONCRETE CURING COMPOUND AND SEALERS SHALL MEET ASTM C-309 TYPE 1 OR 1D.
   D. USE OF "SELF CONSOLIDATING" CONCRETE MUST BE SUBMITTED FOR APPROVAL WITH THE CONCRETE MIX DESIGN.
   E. CONCRETE PENETRATING HARDENER SEALERS SHALL BE USED ON ALL EXPOSED CONCRETE FLOORS UNLESS OTHER COATINGS ARE REQUIRED BY THE ARCHITECT.
4. MISCELLANEOUS CONCRETE DETAILS:
   A. ALL EXPOSED EDGES OF CONCRETE SHALL BE CHAMFERED 3/4" INSIDE THE FORMS OR TOOLED TO 3/4" RADIUS UNLESS NOTED OTHERWISE.
   B. SLABS ON GRADE SHALL HAVE CONSTRUCTION JOINTS AND/OR CONTROL JOINTS (SAWN JOINTS) TO DIVIDE THE SLAB INTO PANELS, NOT TO EXCEED 256 SQUARE FEET. THE LONG DIMENSION SHALL NOT EXCEED THE SHORT DIMENSION BY MORE THAN 20%. CONTRACTOR TO SUBMIT PROPOSED LOCATIONS FOR APPROVAL.
   C. THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE DESIGN OF ALL FORMING AND SHORING.
   D. NO ALUMINUM SHALL BE EMBEDDED IN CONCRETE. CONDUITS AND PIPING EMBEDDED IN CONCRETE WALLS, SLABS, OR BEAMS SHALL BE SPACED A MINIMUM OF FOUR DIAMETERS AND THE OUTSIDE DIAMETER SHALL BE LESS THAN 30% OF THE MEMBER THICKNESS AND PLACED BETWEEN LAYERS OF REINFORCING.
   E. SAW CUTTING OF EXISTING STRUCTURAL CONCRETE.
      a. THE CONTRACTOR SHALL HAVE ALL STRUCTURAL CONCRETE INTENDED TO BE CORED OR CUT INVESTIGATED WITH GROUND PENETRATING RADAR (GPR) PRIOR TO CUTTING/CORING. LOCATION OF REINFORCING SHALL BE REPORTED TO THE ENGINEER OF RECORD (EOR). THE EOR MAY DIRECT THE CONTRACTOR TO ADJUST THE OPENING LOCATION TO REDUCE THE QUANTITY OF EXISTING REINFORCING THAT WILL BE CUT.
      b. ALL NEW CIRCULAR OPENINGS SHALL BE CORE DRILLED. ALL NEW RECTANGULAR OPENINGS SHALL BE CORE DRILLED IN EACH CORNER TO PREVENT OVERCUTTING BEYOND THE INTENDED CORNERS. THE CONTRACTOR SHALL APPLY APPROPRIATE PRESSURE TO THE EQUIPMENT TO PREVENT SPALLING OVER 1/2" ON THE BACK SIDE OF THE OPENING.

CONCRETE REINFORCING

1. MATERIALS — ASTM — GRADE

REINFORCING STEEL:	A615	60

2. DETAILS:
   A. WELDING OF REINFORCING STEEL IS PROHIBITED UNLESS NOTED OTHERWISE. WHEN WELDING IS APPROVED, WELDING SHALL BE IN ACCORDANCE WITH AWS D1.4 "WELDING REINFORCING STEEL, ETC."
   B. SHOP DRAWINGS SHALL BE SUBMITTED WITH REINFORCING STEEL IN ACCORDANCE WITH ACI 315.
3. PLACEMENT:
   A. ALL REINFORCING AND EMBEDMENTS SHALL BE SUPPORTED ON CHAIRS/BOLSTERS TO THE DESIGN DIMENSIONS. SPACING SHALL BE SUFFICIENTLY CLOSE TO PREVENT DISPLACEMENT OR PERMANENT DEFORMATION DUE TO CONCRETE PLACEMENT, FOOT TRAFFIC, OR VIBRATION. "PUDDLING IN" OR "PULLING UP" REINFORCING IS NOT AN ACCEPTABLE METHOD FOR PLACING REINFORCING. CHAIRS/BOLSTERS SHALL HAVE PLASTIC COATED FEET OR BE MADE OF STAINLESS STEEL. CHAIRS/BOLSTERS IN CONTACT WITH EARTH SHALL HAVE BOTTOM PLATES AND BE COATED TO PREVENT CORROSION. ANCHOR RODS SHALL BE HELD IN PLACE WITH TEMPLATES SUFFICIENTLY STRONG TO PREVENT DISPLACEMENT OR TILTING.
   B. MAINTAIN ACI CLEAR COVER ON REINFORCING AS LISTED BELOW UNLESS NOTED OTHERWISE.

SLABS ON GRADE (FROM TOP OF SLAB):	1.5"

   C. PROVIDE CORNER BARS OF THE SAME SIZE AND SPACING AS ADJACENT REINFORCING.
   D. REINFORCING STEEL SHALL BE LAPPED PER ACI.

MASONRY

1. MASONRY HAS BEEN DESIGNED IN ACCORDANCE WITH THE TMS 402/602 AND THE BUILDING CODE USING THE ORDINARY REINFORCED METHOD.
2. MATERIALS:
   A. ALL CONCRETE MASONRY UNITS (CMU) SHALL BE TWO-CELL, LIGHTWEIGHT AGGREGATE UNITS WITH A SPECIFIED MINIMUM COMPRESSIVE STRENGTH OF 2000 PSI ON NET AREA AT 28 DAYS CONFORMING TO ASTM C90.
   B. ALL MORTAR SHALL BE TYPE "S" CONFORMING TO ASTM C270.
   C. THE MINIMUM COMPRESSIVE STRENGTH (f'm) OF A PRISM ASSEMBLED OF CMU AND FULL MORTAR BEDDING SHALL BE 2000 PSI AT 28 DAYS ON THE NET AREA.
   D. GROUT SHALL CONFORM TO ASTM C476 WITH 3/8" AGGREGATE WITH TYPE I CEMENT, A MAXIMUM WATER/CEMENT RATION OF 0.65, AND A SLUMP OF 5" TO 9". THE MINIMUM GROUT COMPRESSIVE STRENGTH (f'c) SHALL BE 2500 PSI.
   E. REINFORCING STEEL SHALL MEET THE REQUIREMENTS OF ASTM A615, GR. 60.
   F. CMU LOCATED BELOW GRADE SHALL BE NORMAL-WEIGHT AGGREGATE UNITS WITH ALL CELLS GROUTED SOLID.
3. HORIZONTAL WALL REINFORCING:
   A. PROVIDE CONTINUOUS HORIZONTAL REINFORCING AT THE TOP OF THE WALL AND AT A MAXIMUM OF 4'-0" ON CENTER IN KNOCK-OUT BOND BEAMS UNLESS NOTED OTHERWISE. REINFORCING STEEL SHALL LAP PER TABLE.
   B. PROVIDE HORIZONTAL REINFORCING AT THE HEAD OF ALL OPENINGS IN A "U" SHAPED SOLID BOTTOM LINTEL BLOCK. CUT OFF THE BOTTOM SHELL OF THE LINTEL BLOCKS AT VERTICAL REINFORCING LOCATION FOR JAMBS. PROVIDE HORIZONTAL REINFORCING AT THE SILL OF ALL OPENINGS IN A KNOCK-OUT BOND BEAM. REINFORCING STEEL SHALL EXTEND BEYOND OPENING PER DETAILS.
   C. MINIMUM HORIZONTAL REINFORCING IN ALL LINTELS AND BOND BEAMS SHALL BE AS FOLLOWS UNLESS NOTED OTHERWISE:

THICKNESS	REINFORCING
8"	(2) #5

4. VERTICAL REINFORCING:
   A. PROVIDE VERTICAL REINFORCING (NORMAL REINFORCING) IN FULLY GROUTED CELLS, CENTERED AND HELD IN PLACE BY REINFORCING STEEL GUIDES IN ALL WALLS AS FOLLOWS, UNLESS NOTED OTHERWISE:

THICKNESS	INTERIOR NON-LOAD BRG. WALLS	EXTERIOR & LOAD BRG. WALLS
8"	#5 AT 48" O.C.	#5 AT 48" O.C.

   B. PROVIDE VERTICAL FULLY GROUTED REINFORCED CELLS AT EACH SIDE OF AN ISOLATION JOINT, AT INTERSECTIONS OF WALLS, EACH SIDE OF A WALL OPENING, AT EACH BEAM BEARING, AND AT THE END OF A WALL.
   C. VERTICAL REINFORCING SHALL EXTEND CONTINUOUSLY FROM THE TOP OF THE SUPPORTING MEMBER TO THE TOP BOND BEAM. THERE SHALL BE A DOWEL, CAST INTEGRAL WITH THE SUPPORTING MEMBER, FOR EACH VERTICAL REINFORCING BAR EXCEPT AS NOTED. ALL VERTICAL REINFORCING STEEL SHALL BE HOOKED INTO TOP BOND BEAM. ALL HOOKS, STRAIGHT EMBEDMENTS AND LAPS SHALL BE PER TABLE.
5. LOCATION AND DETAILS OF CONTROL AND ISOLATION JOINTS IN MASONRY WALLS SHALL BE PER THE ARCHITECTURAL DRAWINGS. IF NOT SHOWN OR NOTED ON THE ARCHITECTURAL DRAWINGS, THE MAXIMUM SPACING OF CONTROL OR ISOLATION JOINTS SHALL BE AT A LENGTH TO HEIGHT RATIO OF 2:1 OR 30'-0" O.C., WHICHEVER IS LESS. REINFORCING IN ALL BOND BEAMS, INCLUDING THE TOP BOND BEAM, SHALL BE DISCONTINUOUS AT CONTROL AND ISOLATION JOINTS. CONTRACTOR SHALL SUBMIT A JOINT LAYOUT PLAN FOR APPROVAL PRIOR TO CONSTRUCTION.
6. CONTRACTOR SHALL BE RESPONSIBLE FOR PROVIDING WALL ELEVATIONS AS PART OF THE SUBMITTAL. WALL ELEVATIONS SHALL INCLUDE HORIZONTAL AND VERTICAL REINFORCING, EMBEDS, CONTROL JOINTS, OPENINGS, ETC. IT IS THE CONTRACTOR'S RESPONSIBILITY TO COORDINATE WITH THE ARCHITECTURAL, MECHANICAL AND ELECTRICAL DRAWINGS FOR ALL OPENING LOCATION.
7. EMBEDDED CONDUIT, PIPES OR SLEEVES SHALL BE NO CLOSER THAN 3 DIAMETER ON CENTER OR DISPLACE MORE THAN 2% OF THE NET AREA.
8. LINTELS SUPPORTING CMU WALLS OVER OPENINGS, UNLESS NOTED OTHERWISE, SHALL BE:

OPENING WIDTH	LINTEL
< 4'-0"	8"X8" CMU "U" SHAPED BOND BEAM W/ (2) #5
> 4'-0"	REF. PLANS

9. LOOSE LINTELS SUPPORTING MASONRY VENEERS, UNLESS NOTED OTHERWISE, SHALL BE:

OPENING WIDTH	LINTEL
< 4'-0"	L3 1/2"X3 1/2"X5/16"
> 4'-0"	REF. PLANS

   ALL LINTELS SHALL BEAR A MINIMUM OF 8" ON EACH END. EXTERIOR LINTELS SHALL BE GALVANIZED UNLESS NOTED OTHERWISE BY ARCHITECT.

STRUCTURAL STEEL

1. STRUCTURAL STEEL SHALL MEET THE LATEST "CODE OF STANDARD PRACTICE FOR STEEL BUILDINGS AND BRIDGE," AND HAS BEEN DESIGNED IN ACCORDANCE WITH THE BUILDING CODE AND THE LATEST EDITION OF AISC "MANUAL OF STEEL CONSTRUCTION".
2. STRUCTURAL STEEL SHALL BE NEW AND MEET THE FOLLOWING REQUIREMENTS UNLESS NOTED OTHERWISE ON THE DRAWINGS:

TYPE	ASTM	GRADE
PLATES, CHANNELS, & ANGLES	A36	-----
RECTANGULAR HSS SECTIONS	A500	C (F_y=50 KSI)
HEADED ANCHOR STUDS	A108	1015/1025

3. ALL CONNECTIONS NOT DETAILED OR OTHERWISE NOTED SHALL BE PROVIDED BY THE FABRICATOR AND HIGHLIGHTED FOR THE ENGINEER OF RECORD'S REVIEW.
4. ALL WELDING SHALL BE IN ACCORDANCE WITH LATEST AWS CODE, SECTION D1.1. ALL WELD MATERIAL SHALL BE 70 KSI TENSILE STRENGTH.
5. STEEL FRAMING MEMBERS SHALL NOT BE SPLICED.
6. OPENINGS SHALL NOT BE FIELD-CUT IN THE FLANGE OR WEBS OF STEEL MEMBERS.

POST INSTALLED ANCHORING SYSTEMS

1. SUBSTITUTION OF POST INSTALLED ANCHORS FOR EMBEDDED ANCHORS SHOWN ON THE DRAWINGS WILL NOT BE PERMITTED UNLESS APPROVED BY THE ENGINEER IN ADVANCE.
2. ANCHORS SHALL BE INSTALLED IN ACCORDANCE WITH THE MANUFACTURER'S PRINTED INSTALLATION INSTRUCTIONS (MPII) AND THE EVALUATION REPORT (ER/ESR) SPECIFIED INCLUDING HOLE PREPARATION, TEMPERATURE AND MOISTURE CONDITIONS.
3. ADHESIVE ANCHORS:
   A. THE CONTRACTOR SHALL ARRANGE AN ANCHOR MANUFACTURER'S REPRESENTATIVE TO PROVIDE ONSITE INSTALLATION TRAINING FOR ALL ANCHOR PRODUCTS SPECIFIED. THE CONTRACTOR MUST MAINTAIN TRAINING RECORDS OF ALL CONTRACTOR PERSONNEL INSTALLING ANCHORS AND SUBMIT TO THE ENGINEER OF RECORD PRIOR TO INSTALLING ANCHORS UPON REQUEST.
   B. ADHESIVE ANCHORS SHALL BE USED IN CONJUNCTION WITH THE APPROPRIATE ADHESIVE SYSTEM. STANDARD REINFORCING STEEL ANCHORED IN CONCRETE SHALL BE IN ACCORDANCE WITH ASTM A615 GRADE 60 UNLESS NOTED OTHERWISE.
   C. APPROVED ADHESIVE ANCHORS FOR PREVIOUSLY CAST CONCRETE:

MANUFACTURER/PRODUCT	REPORT NUMBER
HILTI HIT-HY200 SSS* WITH HIT-Z ROD	ICC-ES ESR-3187
HILTI HIT-HY200 SSS* WITH HOLLOW BIT & HAS-E ROD	ICC-ES ESR-3187
HILTI HIT-HY200 SSS* WITH HOLLOW BIT & STEEL REINFORCING *SAFE SET SYSTEM	ICC-ES ESR-3187

CONTRACT/CONSTRUCTION DOCUMENTS

1. THE CONTRACTOR SHALL BE RESPONSIBLE TO OBTAIN A FULL SET OF THE MOST RECENT REVISIONS OF EACH DOCUMENT INCLUDING ALL PLANS, SPECIFICATIONS, ADDENDA, AND SUPPLEMENTAL INSTRUCTIONS.
2. THE CONTRACTOR SHALL REVIEW THE DOCUMENTS PRIOR TO FABRICATION AND/OR INSTALLATION OF ANY MATERIALS FOR CONFLICTS. IF CONFLICTS OCCUR THE CONTRACTOR SHALL USE THE MOST STRINGENT REQUIREMENT OR REQUEST A CLARIFICATION THROUGH A REQUEST FOR INFORMATION (RFI).
3. THE DOCUMENTS MAY NOT BE REPRODUCED IN WHOLE OR IN PART FOR USE ON PROJECTS OTHER THAN IDENTIFIED IN THE TITLE BLOCK. SHOULD THE CONTRACTOR USE THE DOCUMENTS AS A PORTION OF A SHOP DRAWING SUBMITTAL, THE CONTRACTOR SHALL BE RESPONSIBLE FOR ANY CONSEQUENCES RESULTING FROM ERRORS IN THE REPRODUCED DOCUMENTS.
4. DETAILS LABELED TYPICAL ARE INTENDED TO REPRESENT A CONDITION THAT OCCURS AT SEVERAL LOCATIONS IN THE PLANS WHETHER OR NOT THE DETAIL IS REFERENCED.
5. DO NOT SCALE THE PLANS AND DETAILS FOR THE PURPOSE OF ESTABLISHING DIMENSIONS.

CONTRACTOR'S RESPONSIBILITY

1. THE CONTRACTOR SHALL BE RESPONSIBLE FOR REVIEWING ALL SUB-CONTRACTOR SUBMITTALS AND NOTING ALL DEVIATIONS FROM THE CONSTRUCTION DOCUMENTS PRIOR TO SUBMITTING TO THE ENGINEER FOR REVIEW.
2. SUBSTITUTION REQUESTS SHALL BE SUBMITTED IN WRITING. A COMPARISON OF THE DATA WITH THE MATERIAL SPECIFIED INCLUDING CODE APPROVALS SHALL BE PROVIDED.
3. REQUESTS FOR INFORMATION (RFI) SHALL BE SUBMITTED IN WRITING WITH SUGGESTED SOLUTION INCLUDED.
4. DEFECTIVE WORK REPORT (DWR) SHALL BE SUBMITTED TO THE ENGINEER. THE DWR SHALL REPORT THE DEFECT AND PROPOSE A REMEDIATION OF THE DEFECT. THE CONTRACTOR SHALL BE RESPONSIBLE FOR ALL COSTS ASSOCIATED WITH THE REMEDIATION OF THE DEFECT INCLUDING ENGINEERING COSTS, IF ANY.
5. WHEN THE CONTRACTOR BECOMES AWARE OF WHAT MAY BE AN UNFORESEEN CONDITION THAT COULD AFFECT COST OR SCHEDULE, THE CONTRACTOR SHALL NOTIFY THE ENGINEER IN WRITING. AFTER REVIEW AND ENGINEER'S DETERMINATION THAT AN UNFORESEEN CONDITION EXISTS; THE CONTRACTOR SHALL SUBMIT A CHANGE ORDER REQUEST FOR APPROVAL WITH BOTH COST AND SCHEDULE IMPACT ATTACHED.
6. THE CONTRACTOR WILL BE SOLELY RESPONSIBLE FOR SITE SAFETY. THE ENGINEER IS RESPONSIBLE FOR FOLLOWING THE CONTRACTOR'S CONSTRUCTION SITE SAFETY INSTRUCTIONS PROVIDED IN WRITING. ALTERNATELY, THE CONTRACTOR SHALL ASSIGN AN ESCORT TO ADVISE THE ENGINEER OF SITE SAFETY ISSUES DURING SITE VISITS. THE ENGINEER'S PURPOSE OF A SITE VISIT IS SOLELY TO BECOME FAMILIAR WITH THE GENERAL PROGRESS AND QUALITY OF THE PROJECT. THE ENGINEER'S SITE VISIT IS NOT A QUALITY CONTROL FUNCTION.

CONSTRUCTION MEANS AND METHODS ISSUES

1. SLAB ON GRADE AND ELEVATED SLABS ARE NOT DESIGNED TO SUPPORT CRANES, FORKLIFTS, TRUCKS, MANLIFTS, OR OTHER CONSTRUCTION RELATED EQUIPMENT UNLESS NOTED AS SUCH. IT IS THE CONTRACTOR'S RESPONSIBILITY TO DETERMINE IF CONSTRUCTION EQUIPMENT CAN BE SAFELY OPERATED ON THESE SLABS AND TO REPAIR ANY DAMAGE THE EQUIPMENT MAY CAUSE.
2. THE CONSTRUCTION DOCUMENTS REPRESENT A STABLE STRUCTURE IN THE COMPLETED FORM. THE CONTRACTOR SHALL PROVIDE ANY TEMPORARY BRACING AND/OR SHORES TO SAFELY CONSTRUCT THE BUILDING AND PREVENT DAMAGE DURING CONSTRUCTION.
3. THE CONTRACTOR SHALL VERIFY ALL DIMENSIONS AND ELEVATIONS OF EXISTING CONSTRUCTION THAT MAY AFFECT THE PROJECT AND REPORT DISCREPANCIES TO THE ENGINEER. ANY DIMENSIONS FOR ELEVATIONS THAT IMPACT NEW WORK SHALL BE VERIFIED PRIOR TO FABRICATION OF ANY MATERIAL. EXISTING BUILDING ELEMENTS THAT ARE TO BE ABANDONED THAT INTERFERE WITH NEW CONSTRUCTION SHALL BE REMOVED.
4. WHEN A PIECE OF EQUIPMENT (HVAC, ELECTRICAL, KITCHEN, ETC.) IS PROVIDED THAT IS DIFFERENT THAN THE EQUIPMENT THAT THE STRUCTURE WAS DESIGNED FOR EITHER BY SIZE, WEIGHT OR CONFIGURATION, THE CONTRACTOR SHALL BE RESPONSIBLE FOR ALL COSTS ASSOCIATED WITH THE REMEDY OF THE SITUATION. THOSE COSTS SHALL INCLUDE THE ENGINEERING COSTS TO REDESIGN PORTIONS OF THE STRUCTURE TO ACCOMMODATE THE SUBSTITUTED EQUIPMENT.
5. THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE STRUCTURAL DESIGN AND MATERIALS FOR ATTACHING NON-STRUCTURAL ELEMENTS TO ANY PORTION OF THE STRUCTURE TO RESIST ALL LOADS, INCLUDING SEISMIC, IN A WAY THAT DOES NOT OVERSTRESS STRUCTURAL MEMBERS. NON-STRUCTURAL ELEMENTS CAN BE FOUND IN EACH OF THE OTHER DISCIPLINES (ARCHITECTURAL, MECHANICAL, ELECTRICAL, ETC.).

STRUCTURAL TESTS, INSPECTIONS, AND QUALITY ASSURANCE

1. ALL STRUCTURAL TESTS AND INSPECTIONS SHALL BE PERFORMED PER CHAPTER 17 OF THE BUILDING CODE WITH LOCAL SUPPLEMENTS, UNLESS MORE STRINGENT REQUIREMENTS ARE SPECIFIED.

PLOT DATE: 11/16/2023 3:02:08 PM
FILE PATH: Autodesk Docs://2020R20000379 1_WSUTech_EastHighSnapOnLab/226890-042_STRUCT_R23.rvt

PEC PROJECT NUMBER: 226890-042
PEC
PROFESSIONAL ENGINEERING CONSULTANTS, P.A.
303 SOUTH TOPEKA, WICHITA, KS 67202
316-262-2691 www.pec1.com

WADE A. GRAHAM LICENSED 26319 11/16/2023 KANSAS PROFESSIONAL ENGINEER

DESCRIPTION	DATE

PROJECT NUMBERS:
GLMV # - 22689042502
PROJECT TYPE:
Renovation

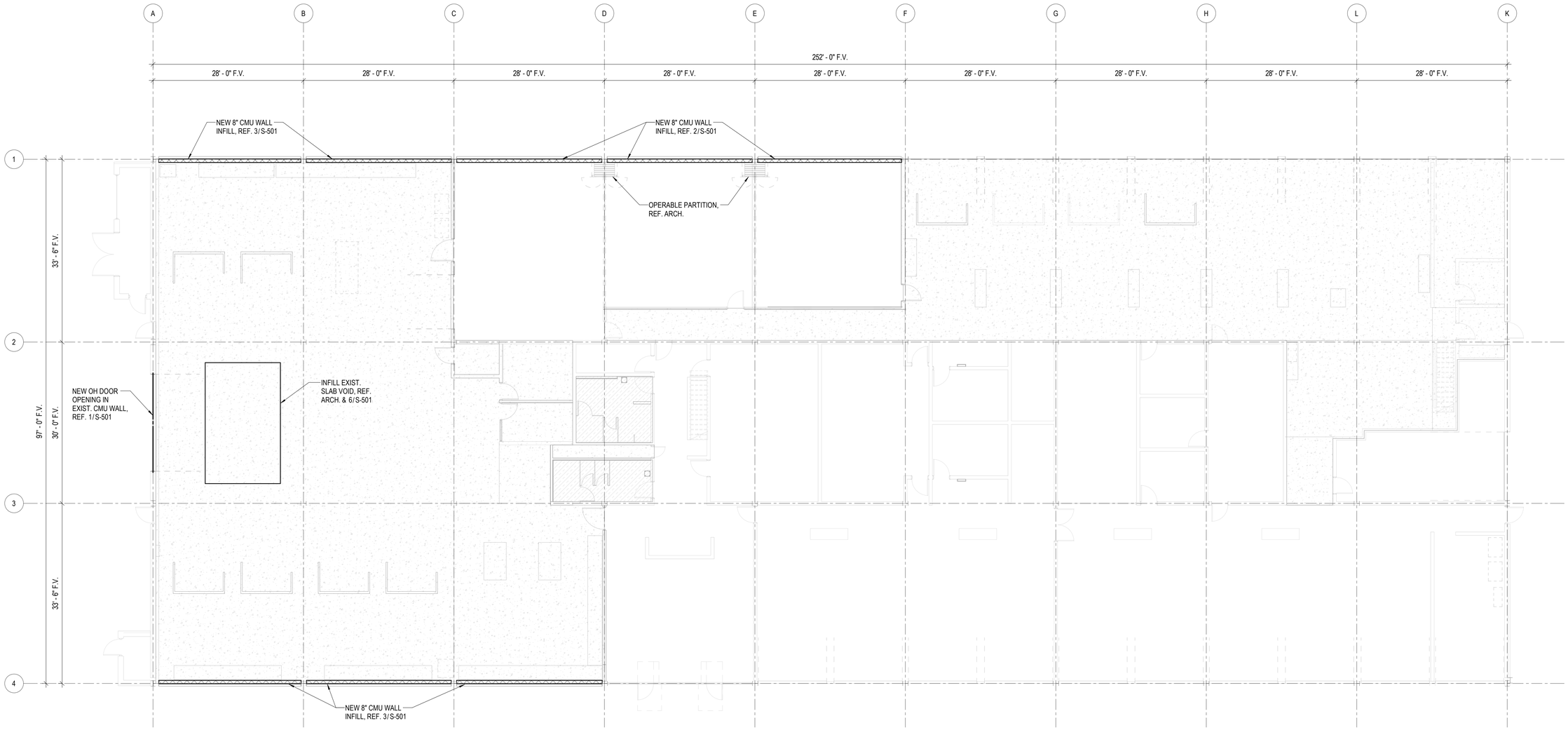
WSU TECH
WICHITA STATE UNIVERSITY CAMPUS OF APPLIED SCIENCES AND TECHNOLOGY
4004 N. Webb Rd.
Wichita, KS 67226
Tel: (316) 978-3444
www.wichita.edu

WICHITA STATE UNIVERSITY CAMPUS OF APPLIED SCIENCES AND TECHNOLOGY
EAST HIGH SNAP ON LAB
301 S. Grove, Wichita, KS 67211
DATE: 11/17/2023 DRAWN BY: DJE CHECKED BY: WAG

STRUCTURAL GENERAL NOTES

S-001

CERTIFIED FINAL



A FOUNDATION PLAN
1/8" = 1'-0"

PLAN NORTH

PLOT DATE: 11/16/2023 3:02:09 PM
FILE PATH: Autodesk Docs://2023\PROJ0003791_WSUTech_EastHighSnaponLab\228090-042_STRUCT_R23.rvt

PEC PROJECT NUMBER: 228090-042
PEC PROFESSIONAL ENGINEERING CONSULTANTS, P.A.
303 SOUTH TOPEKA WICHITA, KS 67202
316-262-2691 www.pec1.com

WADE A. GRAHAM LICENSED 26319 11/16/2023 KANSAS PROFESSIONAL ENGINEER

DESCRIPTION	DATE

PROJECT NUMBERS:
GLMV # - 2226OR23502
PROJECT TYPE:
Renovation

WSU TECH
WICHITA STATE UNIVERSITY
CAMPUS OF APPLIED
SCIENCES AND TECHNOLOGY
1845 N. Fairmount
Wichita, KS 67260-0258
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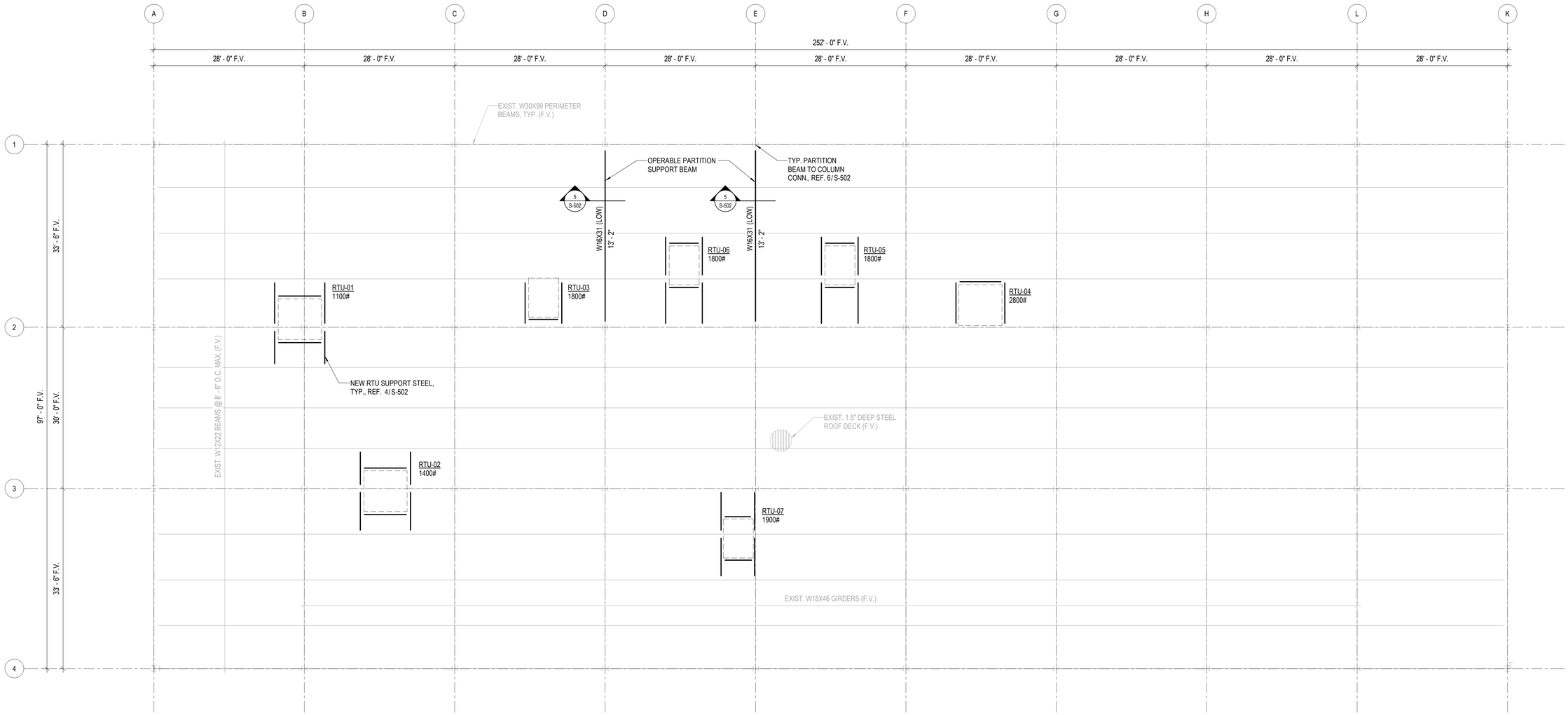
301 S. Grove, Wichita, KS 67211

DATE: 11/17/2023 DRAWN BY: DJE CHECKED BY: WAG

FOUNDATION PLAN

S-101

CERTIFIED FINAL



A ROOF FRAMING PLAN

1/8" = 1'-0"

0 4' 8' 16'

PLAN NORTH

PLOT DATE: 11/16/2023 3:02:09 PM
FILE PATH: Autodesk Docs://2022BR20000379 1_WSUTech_EastHighSnaponLab/228090-042_S1TRUCT_R23.rvt

GLMVArchitecture

PEC PROJECT NUMBER: 228090-042
PEC
PROFESSIONAL ENGINEERING CONSULTANTS, P.A.
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316-262-2691 www.pec1.com

WADE A. GRAHAM LICENSED 26319 11/16/2023 KANSAS PROFESSIONAL ENGINEER

DESCRIPTION	DATE

PROJECT NUMBERS:
GLMV # - 2228090523002
PROJECT TYPE:
Renovation

WSUTECH
WICHITA STATE UNIVERSITY CAMPUS OF APPLIED SCIENCES AND TECHNOLOGY
1845 N. Fairmount
Wichita, KS 67260-0258
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EAST HIGH SNAP ON LAB

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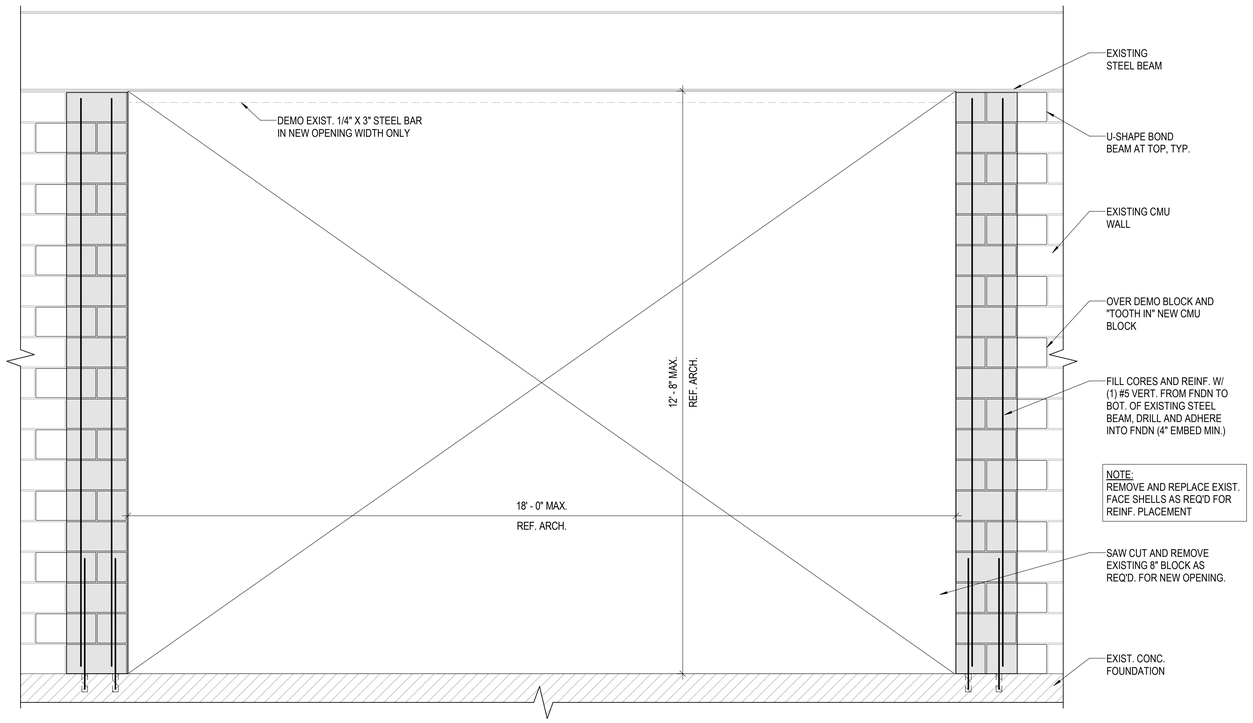
DATE: 11/17/2023 DRAWN BY: DJE CHECKED BY: WAG

ROOF FRAMING PLAN

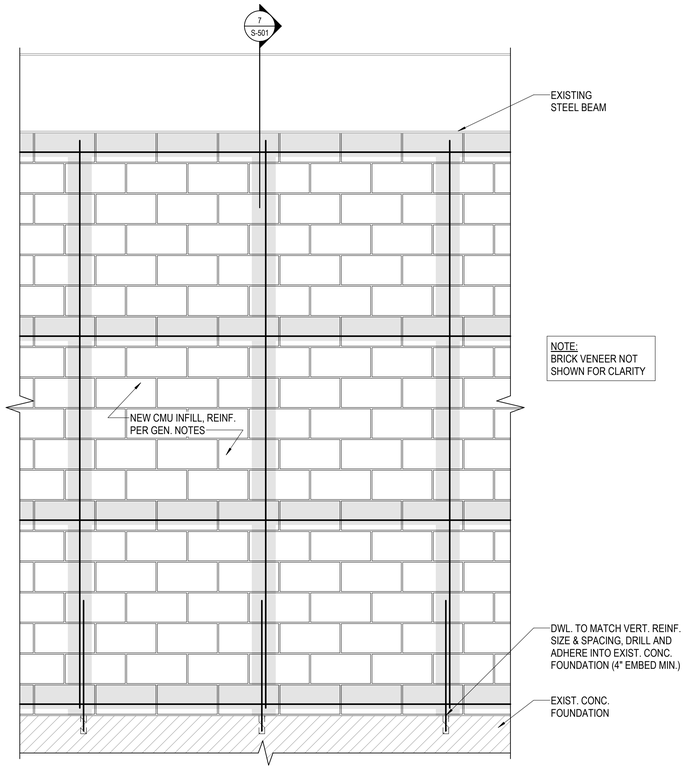
S-102

CERTIFIED FINAL



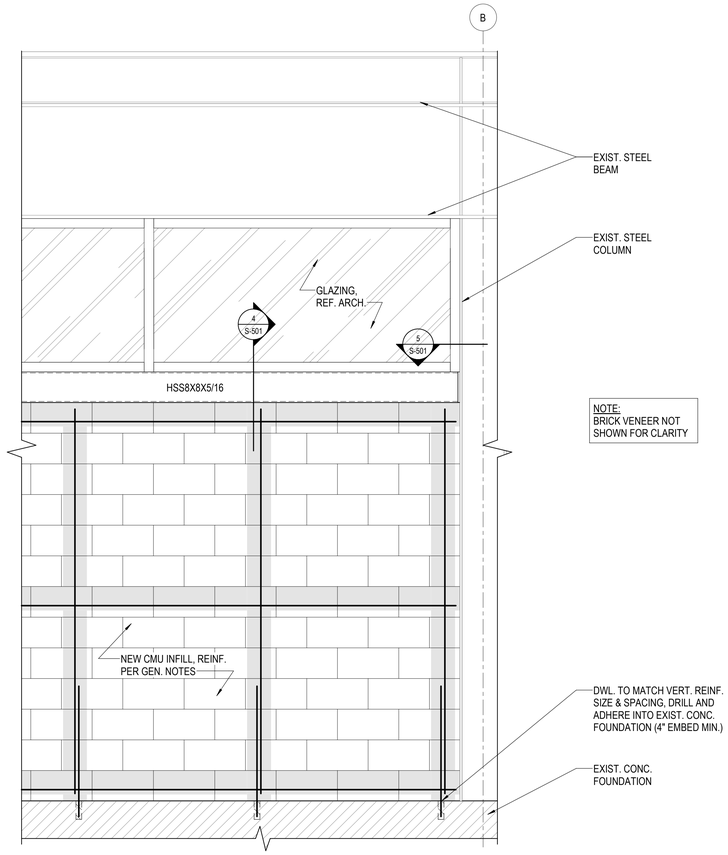
1 NEW OPENING IN EXISTING CMU WALL

3/4" = 1'-0"



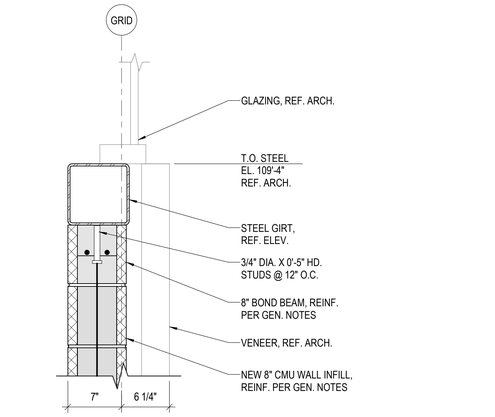
2 NEW CMU WALL INFILL

3/4" = 1'-0"



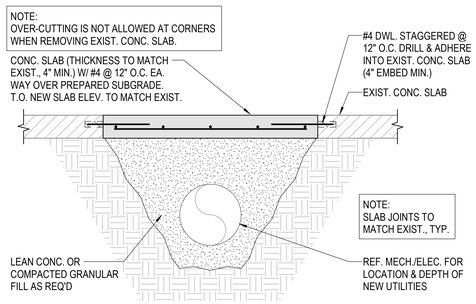
3 NEW CMU WALL WITH GLAZING INFILL

3/4" = 1'-0"



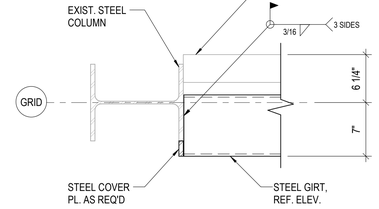
4 CMU WALL INFILL CONNECTION

1 1/2" = 1'-0"



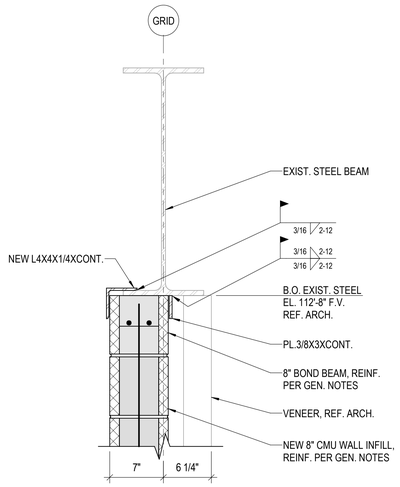
6 TYP. SLAB REPAIR AT EXIST.

NOT TO SCALE



5 GIRT TO EXIST. COLUMN CONN.

1 1/2" = 1'-0"



7 CMU WALL INFILL CONNECTION

1 1/2" = 1'-0"

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PEC
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316-262-2691 www.pec1.com

WADE A. GRAHAM LICENSED 26319 11/16/2023 KANSAS PROFESSIONAL ENGINEER

DESCRIPTION	DATE

PROJECT NUMBERS:
GLMV # - 2208GR23502
PROJECT TYPE:
Renovation

WSU TECH
WICHITA STATE UNIVERSITY CAMPUS OF APPLIED SCIENCES AND TECHNOLOGY
4004 N. Webb Rd.
Wichita, KS 67226
Tel: (316) 978-3444
www.wichita.edu

WICHITA STATE UNIVERSITY CAMPUS OF APPLIED SCIENCES AND TECHNOLOGY

EAST HIGH SNAP ON LAB

301 S. Grove, Wichita, KS 67211

DATE: 11/17/2023 DRAWN BY: DJE CHECKED BY: WAG

DETAILS

S-501

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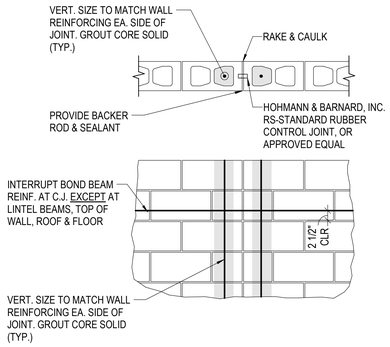
FILE PATH: Autodesk Docs://2023R0003791_WSuTech_EastHighSnaponLab/228090-042_STRUCT_R23.rvt

CMU REINFORCEMENT LAP LENGTHS

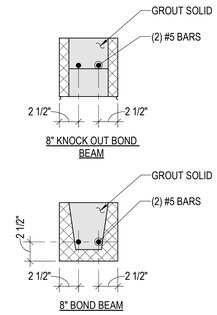
fy = 60,000 PSI **f'm = 1,500 PSI**

NOTES:
1. THE LAP LENGTH LISTED IS THE SAME FOR HORIZ. & VERT. BARS.
2. MULTIPLY LAP LENGTHS GIVEN BY 1.5 FOR EPOXY COATED BARS.
3. FOR CMU W/ (2) BARS PER CELL, d' ASSUMED AS 2-1/2".

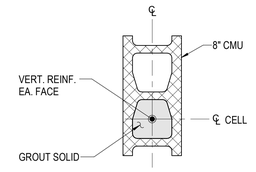
BAR SIZE (d)	8" CMU W/ (1) BAR PER CELL (IN)	8" CMU W/ (2) BAR PER CELL (IN)	12" CMU W/ (2) BAR PER CELL (IN)	CMU HOOK (IN)
3	18	18	18	5
4	24	24	25	6
5	30	36	31	8
6	43	70	53	9
7	60	98	61	11
8	92	151	75	12
9	118	198	90	14



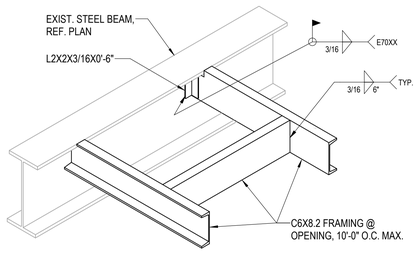
1 TYP. CMU CONTROL JOINT
NOT TO SCALE



2 TYP. CMU BOND BEAM REINF.
NOT TO SCALE

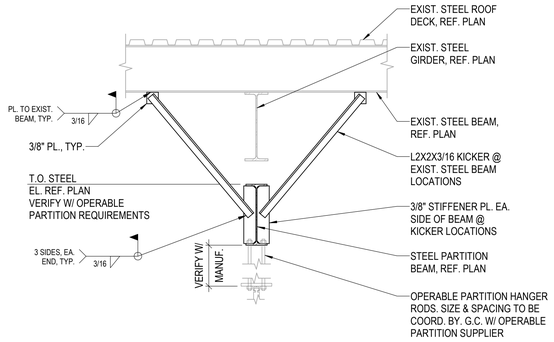


3 TYP. CMU VERTICAL CELL REINF.
NOT TO SCALE

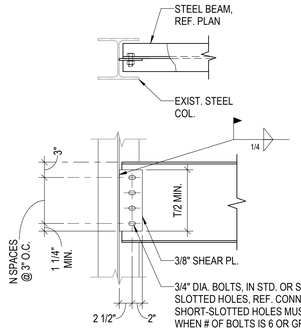


NOTE:
USE THIS DETAIL FOR ANY OPENING LARGER THAN 24" IN ANY DIRECTION OR EQUIP. WEIGHING IN EXCESS OF 50 POUNDS.

4 TYP. ROOF OPENING DETAIL
NOT TO SCALE



5 OPERABLE PARTITION SUPPORT DETAIL
3/4" = 1'-0"

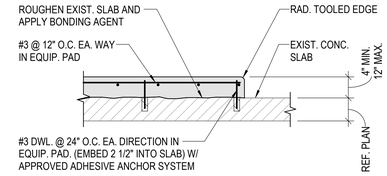


CONN. SCHEDULE	
BEAM DEPTH	# OF BOLT LINES
W8	2
W10	
W12	3
W14	
W16	
W18	4
W21	5
W24	6
W27	7
W30	8
W33	9

NOTE:
3/4" DIA. BOLT, U.N.O.

6 BEAM TO EXIST. COL. CONN.
NOT TO SCALE

NOTE:
REF. MECH. AND ELEC. FOR THE REQ'D PAD THICKNESS AND EQUIP. SIZE



7 TYP. INTERIOR EQUIP. PAD
NOT TO SCALE

GLMVArchitecture

PEC PROJECT NUMBER: 228090-042
PEC PROFESSIONAL ENGINEERING CONSULTANTS, P.A.
303 SOUTH TOPEKA WICHITA, KS 67202
316-262-2691 www.pec1.com

WADE A. GRAHAM LICENSED 26319 11/16/2023 KANSAS PROFESSIONAL ENGINEER

DESCRIPTION	DATE

PROJECT NUMBERS:
GLMV # - 2228090423502
PROJECT TYPE:
Renovation

WSU TECH
WICHITA STATE UNIVERSITY CAMPUS OF APPLIED SCIENCES AND TECHNOLOGY
4004 N. Webb Rd.
Wichita, KS 67226
Tel: (316) 978-3444
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WICHITA STATE UNIVERSITY CAMPUS OF APPLIED SCIENCES AND TECHNOLOGY

EAST HIGH SNAP ON LAB

301 S. Grove, Wichita, KS 67211

DATE: 11/17/2023 DRAWN BY: DJE CHECKED BY: WAG

DETAILS

S-502

CERTIFIED FINAL

PLOT DATE: 11/16/2023 3:02:10 PM
FILE PATH: Autodesk Docs://2022R20003791_WSUTech_EastHighSnaporLab/228090-042_STRUCT_R23.rvt

TERMS AND ABBREVIATIONS

ABBREVIATION	TERMINOLOGY
A	
ABV / ABV.	ABOVE
AFF / A.F.F.	ABOVE FINISH FLOOR
ACS PNL	ACCESS PANEL
ACT / A.C.T.	ACOUSTICAL CEILING PANEL
ADJ / ADJ.	ADJACENT
A/C / A.C.	AIR CONDITIONING
ALT / ALT.	ALTERNATE
ALUM / ALUM.	ALUMINUM
AIA	AMERICAN INSTITUTE OF ARCHITECTS
ADA	AMERICANS WITH DISABILITIES ACT
ANOD / ANOD.	ANODIZED
APPROX / APPROX.	APPROXIMATE
ARCH / ARCH.	ARCHITECT (URAL)
AUTO	AUTOMATIC
AVG / AVG.	AVERAGE
B	
BSMT / BSMT.	BASEMENT
BATH	BATHROOM
BRG / BRNG.	BEARING
BLW / BLW.	BELOW
BTWN / BTWN.	BETWEEN
BLK / BLK.	BLOCK, ICK
BLKG / BLKG.	BLOCKING
BD / BD.	BOARD
B.O.	BOTTOM OF
BLDG / BLDG.	BUILDING
BIM / B.I.M.	BUILDING INFORMATION MODEL
C	
CIP / C.I.P.	CAST IN PLACE
CLK	CAULK (ING)
CLG	CEILING
CL / C.L.	CENTER LINE
C/C	CENTER TO CENTER
CO / C.O.	CLEAN OUT
CLR	CLEAR (ANCE)
CLO / CLOS.	CLOSET
COL / COL.	COLUMN
CONC / CONC.	CONCRETE
CMU / C.M.U.	CONCRETE MASONRY UNIT
CONST / CONST.	CONSTRUCTION
CJ / C.J.	CONSTRUCTION JOINT / CONTROL JOINT
CONT / CONT.	CONTINUE (CONTINUOUS)
CI / C.I.	CONTINUOUS INSULATION
CG / C.G.	CORNER GUARD
CORR / CORR.	CORRIDOR
CU FT.	CUBIC FEET
CU YD	CUBIC YARD
D	
DEMO / DEMO.	DEMOLTION
DTL / DTL.	DETAIL
DIA / DIA.	DIAMETER
DIM / DIM.	DIMENSION
DW / D.W.	DISH WASHER
DBL / DBL.	DOUBLE
DN	DOWN
DS / D.S.	DOWNSPOUT
DWG / DWG.	DRAWING (S)
DF/ D.F.	DRINKING FOUNTAIN
E	
EA / EA.	EACH
ELEC / ELEC.	ELECTRIC (AL)
ELEV / ELEV.	ELEVATION / ELEVATOR
EQ / EQ.	EQUAL
EQUIP / EQUIP.	EQUIPMENT
EPDM	ETHYLENE PROPYLENE DIENE MONOMER
EXIST / EXIST.	EXISTING
EXP / EXP.	EXPANSION / EXPOSED
EJ / E.J.	EXPANSION JOINT
EXT / EXT.	EXTERIOR
EIFS / E.I.F.S.	EXTERIOR INSULATION AND FINISH SYSTEM
F	
FAB / FAB.	FABRICATE / FABRICATION
FOW / F.O.W.	FACE OF WALL
F/F	FACE TO FACE
FRP / F.R.P.	FIBERGLASS REINFORCED PANEL
FV / F.V.	FIELD VERIFY
FIN / FIN.	FINISH
FF / F.F.	FINISH FLOOR
FDC / F.D.C.	FIRE DEPARTMENT CONNECTION
FE / F.E.	FIRE EXTINGUISHER
FEC / F.E.C.	FIRE EXTINGUISHER CABINET
FH / F.H.	FIRE HYDRANT
FRT / F.R.T.	FIRE RETARDANT TREATED
FCO / F.C.O.	FLOOR CLEAN OUT
FD / F.D.	FLOOR DRAIN
FT / FT. / (')	FOOT
FTG	FOOTING
FDTN	FOUNDATION
FR / F.R.	FRAME (D) (ING) / FIRE RATED
F.O.	FRONT OF / FACE OF
FURN / FURN.	FURNITURE
G	
GA / GA.	GAGE / GAUGE
GALV / GALV.	GALVANIZED
GC / G.C.	GENERAL CONTRACTOR
GEN / GEN.	GENERATOR
GLZ	GLAZING
GLULAM	GLUE LAMINATED LUMBER
GB / G.B.	GRAB BAR
GSF / G.S.F	GROSS SQUARE FEET
GYP / GYP.	GYPSUM
GWB / G.W.B. / GYP. BD.	GYPSUM WALL BOARD
H	
HW / H.W.	HARDWARE
HDWD	HARDWOOD
HDR	HEADER
HVAC / H.V.A.C.	HEATING, VENTILATIN AND AIR CONDITIONING
HT	HEIGHT
HC / H.C.	HOLLOW CORE / HANDICAP
HM / H.M.	HOLLOW METAL
HORIZ / HORIZ.	HORIZONTAL
HR	HOUR
HYD / HYD.	HYDRANT
I	
ID / I.D.	IDENTIFICATION / INSIDE DIAMTER (DIMENSION)
IN / IN. / (")	INCH
INSUL / INSUL.	INSULATION
INT / INT.	INTERIOR
IBC / I.B.C.	INTERNATIONAL BUILDING CODE
J	
JAN / JAN.	JANITORS CLOSET
JT / J.T.	JOINT
JST / JST.	JOIST
L	
LAM / LAM.	LAMINATE (D)
LVL / L.V.L.	LAMINATED VENEER LUMBER
LAV / LAV.	LAVATORY
LH / L.H.	LEFT-HAND
LHR / L.H.R.	LEFT-HAND REVERSE
LF / L.F.	LINEAR FEET (FOOT)
LKR / LKR.	LOCKER

TERMS AND ABBREVIATIONS

ABBREVIATION	TERMINOLOGY
M	
MFD / MFD.	MANUFACTURED
MFR / MFR.	MANUFACTURER
MAS / MAS.	MASONRY
MATL / MATL.	MATERIAL
MAX / MAX.	MAXIMUM
MECH / MECH.	MECHANICAL
MDF / M.D.F.	MEDIUM-DENSITY FIBERBOARD
MEMB / MEMB.	MEMBRANE
MTL / MTL.	METAL
MIN / MIN.	MINIMUM
MIR / MIR.	MIRROR
MISC / MISC.	MISCELLANEOUS
MOD / MOD.	MODULAR / MODIFY
MR / M.R.	MOISTURE RESISTANT
MTD / MTD.	MOUNTED
N	
NFPA / N.F.P.A.	NATIONAL FIRE PREVENTION ASSOCIATION
NRC / N.R.C.	NOISE REDUCTION COEFFICIENT
NOM / NOM.	NOMINAL
NA / N/A / N.A.	NOT APPLICABLE
NIC / N.I.C.	NOT IN CONTRACT
NTS / N.T.S.	NOT TO SCALE
NO / NO.	NUMBER
O	
OCC / OCC.	OCCUPANT (S)
OSFM / O.S.F.M.	OFFICE OF STATE MARSHALL
OC / O.C.	ON CENTER (S)
OPNG / OPNG.	OPENING
OPP / OPP.	OPPOSITE
OD / O.D.	OUTSIDE DIAMETER (DIMENSION)
ORD / O.R.D.	OVERFLOW ROOF DRAIN
OH / OVHD	OVERHEAD
P	
PNT / PNT.	PAINT
PR / PR.	PAIR / PIPE RAIL
PTN / PTN.	PARTITION
PVMT / PVMT.	PAVEMENT
PERF / PERF.	PERFORATED / PERFORM
PERIM / PERIM.	PERIMETER
PH / P.H.	PHASE
PLBG. / PLUMB.	PLUMBING
PLYWD / PLYWD.	PLYWOOD
POLYISO / POLYISO.	POLYISOCYANURATE
PVC / P.V.C.	POLYVINYL CHLORIDE
LBS / lb / #	POUNDS
PCF / P.C.F.	POUNDS PER CUBIC FOOT
PLF / P.L.F.	POUNDS PER LINEAR FOOT
PSF / P.S.F.	POUNDS PER SQUARE FOOT
PSI / P.S.I.	POUNDS PER SQUARE INCH
PREFIN / PREFIN.	PREFINISHED
PT / P.T.	PRESSURE-TREATED
PROJ / PROJ.	PROJECT / PROJECTOR
PL / P.L.	PROPERTY LINE
Q	
QTY / QTY.	QUANTITY
R	
REF / REF.	REFERENCE / REFRIGERATOR
RCP / R.C.P.	REFLECTED CEILING PLAN
REINF / REINF.	REINFORCE (MENT)
REQ / REQ. / REQ'D	REQUIRE (D)
REQMT (S)	REQUIREMENT (S)
RESIST / RESIST.	RESISTANT
REV / REV.	REVISE (D) / REVISION / REVERSE
RH / R.H.	RIGHT HAND / ROOF HATCH
RHR / R.H.R.	RIGHT-HAND REVERSE
ROW / R.O.W.	RIGHT-OF-WAY
RD / R.D.	ROOF DRAIN / ROAD
RTU / R.T.U.	ROOF TOP UNIT
RM / RM.	ROOM
RO / R.O.	ROUGH OPENING
S	
SAN / SAN.	SANITARY
SCHED / SCHED.	SCHEDULE
SECT / SECT.	SECTION
SHT / SHT.	SHEET
SIM / SIM.	SIMILAR
SC / S.C.	SOLID CORE
STC / S.T.C.	SOUND TRANSMISSION CLASS
SPEC / SPEC.	SPECIFICATION
SB / S.B.	SPLASH BLOCK
SQ / SQ.	SQUARE
SF / S.F.	SQUARE FOOT / SUPPLY FAN
SS / S.S.	STAINLESS STEEL
ST / ST.	STAIRS
STD / STD.	STANDARD
STL / STL.	STEEL
STOR / STOR.	STORAGE
SD / S.D.	STORM DRAIN / SMOKE DETECTOR
STRUC. / STRUCT.	STRUCTURAL / STRUCTURE
SUSP / SUSP.	SUSPEND (ED)
T	
TV / TV.	TELEVISION
TEMP / TEMP.	TEMPORARY / TEMPERATURE
TERM / TERM.	TERMINATE
TPO / T.P.O.	THERMOPLASTIC POLYOLEFIN
THK / THK.	THICK
TLT / TLT.	TOILET
T&G	TONGUE AND GROOVE
T.O.	TOP OF
TOC / T.O.C.	TOP OF CURB (CONCRETE)
TOS / T.O.S.	TOP OF STEEL
TOW / T.O.W.	TOP OF WALL
TJI / T.J.I.	TRUSS JOIST / I-JOIST
TYP / TYP.	TYPICAL
U	
UGND / UGND.	UNDERGROUND
UL / U.L.	UNDERWRITER'S LABORATORIES
UNO / U.N.O.	UNLESS NOTED OTHERWISE
V	
VTR / V.T.R.	VENT THROUGH ROOF
VIF / V.I.F.	VERIFY IN FIELD
VERT / VERT.	VERTICAL
VEST / VEST.	VESTIBULE
W	
WC / W.C.	WATER CLOSET / WALL COVERING / WHEELCHAIR
WH / W.H.	WATER HEATER / WEEP HOLE / WALL HUNG
WT / W.T.	WEIGHT / WINDOW TREATMENT
WWF / W.W.F.	WELDED WIRE FABRIC
WWM / W.W.M.	WELDED WIRE MESH
WNDW / WN	WINDOW
W/	WITH
W/O	WITHOUT
WD / WD.	WOOD
X, Y, & Z	
YD / YD.	YARD

GRAPHIC SYMBOLS LEGEND

FLOOR PLAN REFERENCE INDICATORS

NAME
NO
150 SF — ROOM TAG

101
101 — DOOR TAG

ID — REVISION TAG

ID — WINDOW TAG

ID — PARTITION TAG

1 — KEYNOTE TAG

100'-0" — SPOT ELEVATION TAG

℄ — CENTER LINE

ID — EQUIPMENT TAG

NORTH INDICATOR

PLAN NORTH
PROJECT NORTH LINE
TRUE NORTH LINE

COLUMN LINE GRID INDICATOR

ID — GRID IDENTIFICATION
ID

DRAWING BLOCK TITLE

VIEW NUMBER
C4
DRAWING BLOCK TITLE
1/8" = 1'-0"
VIEW SCALE
0 4' 8' 16'
GRAPHIC SCALE
VIEW NAME

DETAIL/CALLOUT IDENTIFICATION

DETAIL NUMBER
NO
SIM
SHT
SHEET NUMBER

LEVEL IDENTIFICATION

LEVEL NAME
LEVEL NAME
ELEVATION
ELEVATION

BUILDING SECTION IDENTIFICATION

SECTION NUMBER
NO
SIM
SHT
SHEET NUMBER
NO
SIM
SHT

EXTERIOR ELEVATION IDENTIFICATION

Ref
ELEVATION NUMBER
Ref
ELEVATION
SHEET
Ref
SHEET NUMBER
Ref

WALL SECTION IDENTIFICATION

SECTION NUMBER
NO
SIM
SHT
SHEET NUMBER

INTERIOR ELEVATION IDENTIFICATION

ELRef
ELEVATION NUMBER
IRef
IRef
SHEET
SHEET NUMBER
ELRef

MATERIAL SYMBOLS LEGEND

- CONCRETE, CAST-IN-PLACE
- BRICK/CUT STONE COMMON/FACE
- CONCRETE MASONRY UNIT
- ALUMINUM
- STEEL AND OTHER METALS
- INSULATION, LOOSE FILL OR BLANKET
- INSULATION, RIGID BOARD
- PLASTER, GYPSUM, SAND, MORTAR OR PORTLAND CEMENT
- GLASS, ELEVATION
- EARTH, CRUSHED ROCK GRAVEL
- EARTHWORK, COMPACTED FILL
- PLYWOOD
- CMU BOND BEAM LINTEL
- CMU, END
- WOOD BLOCKING OR SHIM
- WOOD FRAMING, CONTINUOUS

GENERAL NOTES

#	NOTES
A	TERMS AND ABBREVIATIONS SHOWN ON THIS SHEET FOLLOW INDUSTRY STANDARDS. TERMS AND ABBREVIATIONS MAY DIFFER ON DRAWING SHEETS AND SHALL FOLLOW THE ASSOCIATED SHEET LEGENDS U.N.O.
B	MATERIAL SYMBOLS LEGEND SHOWN ON THIS SHEET FOLLOWS INDUSTRY STANDARDS. MATERIAL SYMBOLS MAY DIFFER ON DRAWING SHEETS AND SHALL FOLLOW THE ASSOCIATED SHEET LEGENDS U.N.O.

GLMVArchitecture

PEC PROJECT NUMBER: 228090-042
PEC
PROFESSIONAL ENGINEERING CONSULTANTS, P.A.
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MATTHEW F. CURTIS
6117
11-15-2023
KANSAS
ARCHITECT

DESCRIPTION | DATE

PROJECT NUMBERS:
GLMV # - 22260R23002
PROJECT TYPE:
Renovation

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WICHITA STATE UNIVERSITY CAMPUS OF APPLIED SCIENCES AND TECHNOLOGY
EAST HIGH SNAP ON LAB
301 S. Grove, Wichita, KS 67211

DATE: 11/17/2023 | DRAWN BY: | CHECKED BY:

LEGENDS, SYMBOLS, & ABREVIATIONS

A-001

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PLOT DATE: 11/17/2023 9:29:59 AM
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SHEET KEYNOTES

#	DESCRIPTION
1	PREPARE FLOOR SUBSTRATE FOR NEW FINISH.
2	REMOVE EXISTING WALL CONSTRUCTION AS SHOWN DASHED.
3	REMOVE PLUMBING FIXTURES.
4	REMOVE METAL CAGING.
5	REMOVE EXISTING OVERHEAD DOOR AND TRACK AND SALVAGE FOR RELOCATION.
6	REMOVE EXISTING OVERHEAD DOOR AND TRACK AND PREP FOR RELOCATED DOOR.
7	REMOVE EXISTING OVERHEAD DOOR AND TRACK.
8	REMOVE PAINT BOOTH, CONCRETE PAD, AND MECHANICAL AND PLUMBING COMPONENTS ASSOCIATED WITH THE PAINT BOOTH. THE CONTRACTOR SHALL PATCH AND MATCH OPENINGS IN METAL DECK AND ROOF ASSEMBLY WHERE DUCTWORK WAS REMOVED. THE CONTRACTOR SHALL PATCH AND MATCH CONCRETE WHERE PAD WAS REMOVED. ANY NEW CONCRETE ASSOCIATED WITH THE PATCH SHALL MATCH THE FLATNESS AND FINISH OF ADJACENT CONCRETE.
9	REMOVE PAINT BOOTH, CONCRETE PAD AND MECHANICAL AND PLUMBING COMPONENTS ASSOCIATED WITH THE PAINT BOOTH. SALVAGE PAINT BOOTH AND RETURN TO OWNER. PATCH OPENINGS IN METAL DECK AND ROOF ASSEMBLY WHERE DUCTWORK WAS REMOVED.
10	REMOVE TRENCH DRAIN AS SHOWN. PREP AREA TO RECEIVE NEW CONCRETE INFILL.
11	REMOVE DOOR AND FRAME.
12	REMOVE THE CEILING FINISH, LIGHT FIXTURES, AND ANY MECHANICAL IN THE CEILING.
13	REMOVE PORTION OF WALL TO ALLOW FOR INSTALLATION OF A NEW DOOR AND FRAME. REFER TO ARCHITECTURAL FLOOR PLAN FOR DIMENSION OF WALL TO REMOVE.
14	VEHICLE LIFT TO BE RELOCATED, REFERENCE FLOOR PLAN.
15	REMOVE AND DISPOSE OF ALL LOCKERS.
16	REMOVE CARPET, PREP SLAB FOR REFINISHING.
18	REMOVE EYEWASH STATION AND SPIGOT AND ASSOCIATED PLUMBING.
19	REMOVE ACCESS PANEL AND TANK, PREPARE TO INFILL WITH CONCRETE.
20	SALVAGE OVERHEAD DOOR TRACK, OPERATOR, AND CHAIN. RETURN TO OWNER.

GENERAL NOTES

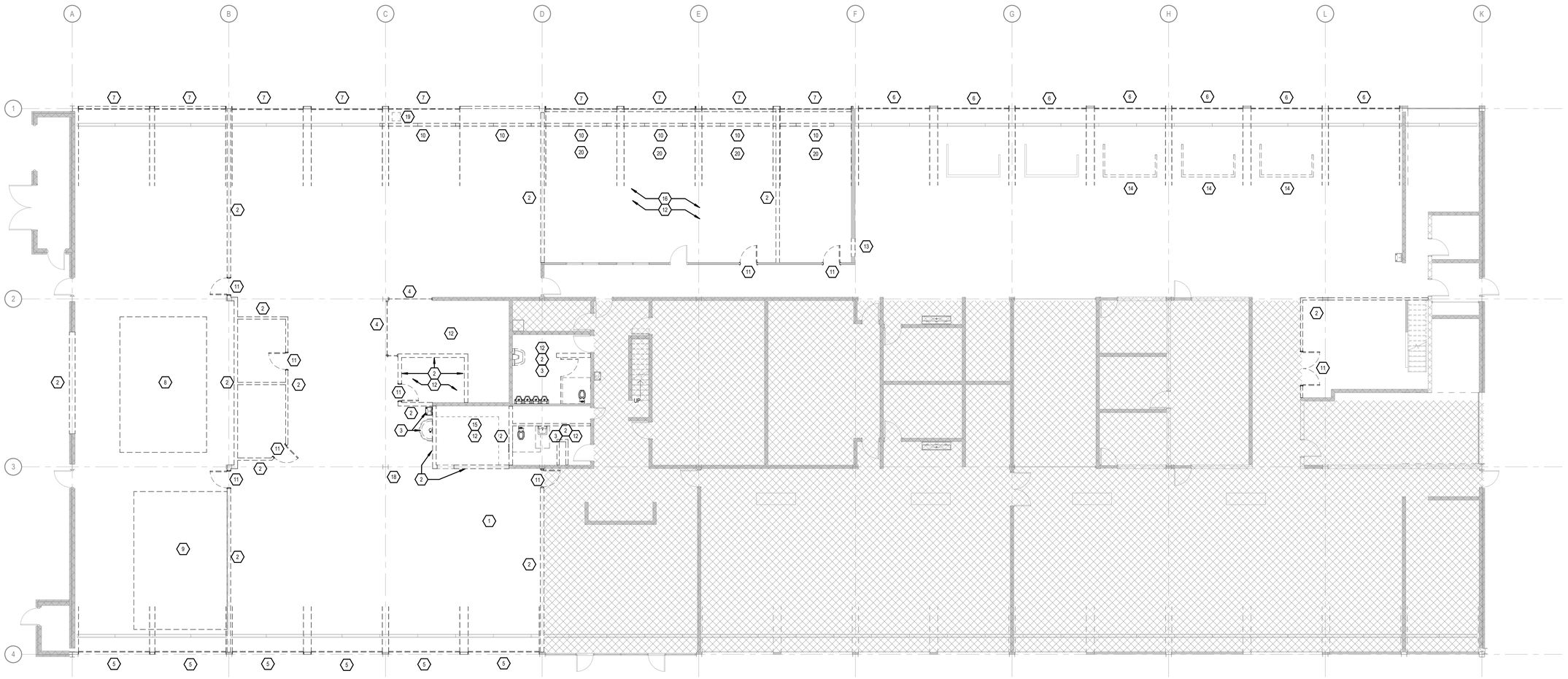
#	NOTES
1	PATCH/REPAIR EXISTING WALLS TO REMAIN. PATCHING/REPAIR SHALL BE DONE BY WORKERS SKILLED IN THAT TRADE.
2	DEMOLITION SHALL BE DONE IN SUCH A MANNER TO REDUCE THE AMOUNT OF DAMAGE TO ADJACENT MATERIALS THAT REMAIN. THE CONTRACTOR SHALL BE RESPONSIBLE FOR PATCHING AND REPAIR OF DAMAGE TO ADJACENT MATERIALS DUE TO DEMOLITION ACTIVITIES.
3	REMOVE ALL EXCESS TRASH AND DEMOLITION DEBRIS DAILY. CONTRACTOR SHALL BE RESPONSIBLE FOR ALL REMOVAL OF ALL DEBRIS OFF SITE WHICH ORIGINATES AT THE CONSTRUCTION SITE. DISPOSE OF AS DIRECTED BY OWNERS.
4	GENERAL CONTRACTOR SHALL INVESTIGATE ALL FIELD CONDITIONS RELEVANT TO DEMOLITION, AND SHALL PROMPTLY NOTIFY THE ARCHITECT OF CONDITIONS THAT DO NOT AGREE WITH THOSE SHOWN IN THESE DRAWINGS.
5	REFERENCE MECHANICAL, ELECTRICAL AND FIRE PROTECTION DRAWINGS FOR ADDITIONAL DEMOLITION FOR RESPECTIVE TRADES.
6	IN ALL EXISTING & ADJACENT AREAS, RENOVATION WORK SHALL BE ACCOMPLISHED WITH MINIMAL DISRUPTION TO OPERATIONS. IF REQUIRED, THE OWNER RESERVES THE RIGHT TO TEMPORALLY STOP WORK OF SPECIFIC CONSTRUCTION OPERATIONS SHOULD THE OWNER IDENTIFY AN EMERGENCY OR DANGER EXIST TO THE WELFARE OF THE OCCUPANTS ON ACCOUNT OF SUCH WORK OR OPERATIONS.
7	FIELD VERIFY EXISTING CONDITIONS AND COMPARE WITH ALL DRAWINGS TO DETERMINE EXACT EXTENT OF DEMOLITION REQUIRED. REPORT ALL DISCREPANCIES TO OWNER, ARCHITECT, OR RESPECTIVE ENGINEER PRIOR TO START OF WORK.
8	CONTRACTOR SHALL REMOVE AND DISPOSE OF ALL MATERIAL IN A LEGAL MANNER NOT SCHEDULED FOR REUSE UNDER THIS PROJECT. FOR ALL MATERIAL, IF ANY, OWNER WISHES TO RETAIN, CONTRACTOR SHALL DELIVER TO LOCATION DETERMINED BY OWNER.
9	PROTECT EXISTING MATERIAL THAT WILL REMAIN DURING DEMOLITION AND CONSTRUCTION.
10	COORDINATE THE EXTENTS OF SALVAGEABLE MATERIAL, FIXTURES, ETC. WITH OWNER.
11	REF. NEW CONSTRUCTION DRAWINGS FOR EXTENTS OF NEW FLOOR FINISHES, WALLS, AND CEILINGS.
12	EXISTING FLOOR FINISHES, WALL BASES AND CEILINGS TO BE REMOVED IN THEIR ENTIRETY WHERE NOTED.
13	EXISTING WALL FINISHES REMAINING TO HAVE SURFACES PREPPED FOR NEW FINISHES. REF. IMPROVEMENT PLANS.
14	ALL LIGHT FIXTURES, HVAC COMPONENTS, AND OTHER CEILING MOUNTED DEVICES TO BE REMOVED IN THEIR ENTIRETY WHERE CEILING IS BEING REMOVED.
15	CEILINGS TO BE REMOVED IN THEIR ENTIRETY IN AREAS WITH DEMOLISHED WALLS U.N.O.
16	G.C. TO COORDINATE WITH OWNER ABOUT SALVAGEABLE ITEMS.
17	WHERE DOORS ARE BEING REMOVED, THE DOOR PANEL, FRAME, AND THRESHOLD SHALL BE REMOVED IN THEIR ENTIRETY, U.N.O.

LINETYPE LEGEND

- HALFTONE LINE INDICATES EXISTING ELEMENT TO REMAIN
- SOLID BLACK LINE INDICATES NEW ELEMENT
- HEAVY DASHED LINE INDICATES EXISTING ELEMENT TO BE REMOVED IN ITS ENTIRETY

HATCH LEGEND

- AREA NOT IN SCOPE OF WORK U.N.O.
- EXISTING WALL / PARTITION TO REMAIN U.N.O.
- NEW WALL / PARTITION CONSTRUCTION U.N.O.



A DEMOLITION PLAN
1/8" = 1'-0"

PLAN NORTH

PEC PROJECT NUMBER 226900-042
PEC PROFESSIONAL ENGINEERING CONSULTANTS, P.A.
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MATTHEW F. CORTE
6117
11.15.2023
KANSAS
ARCHITECT

DESCRIPTION	DATE

PROJECT NUMBERS:
GLMV # - 2226DR23002

PROJECT TYPE:
Renovation

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EAST HIGH SNAP ON LAB

301 S. Grove, Wichita, KS 67211

DATE: 11/17/2023 DRAWN BY: HL CHECKED BY: MFC

DEMOLITION PLAN

AD101

CERTIFIED FINAL

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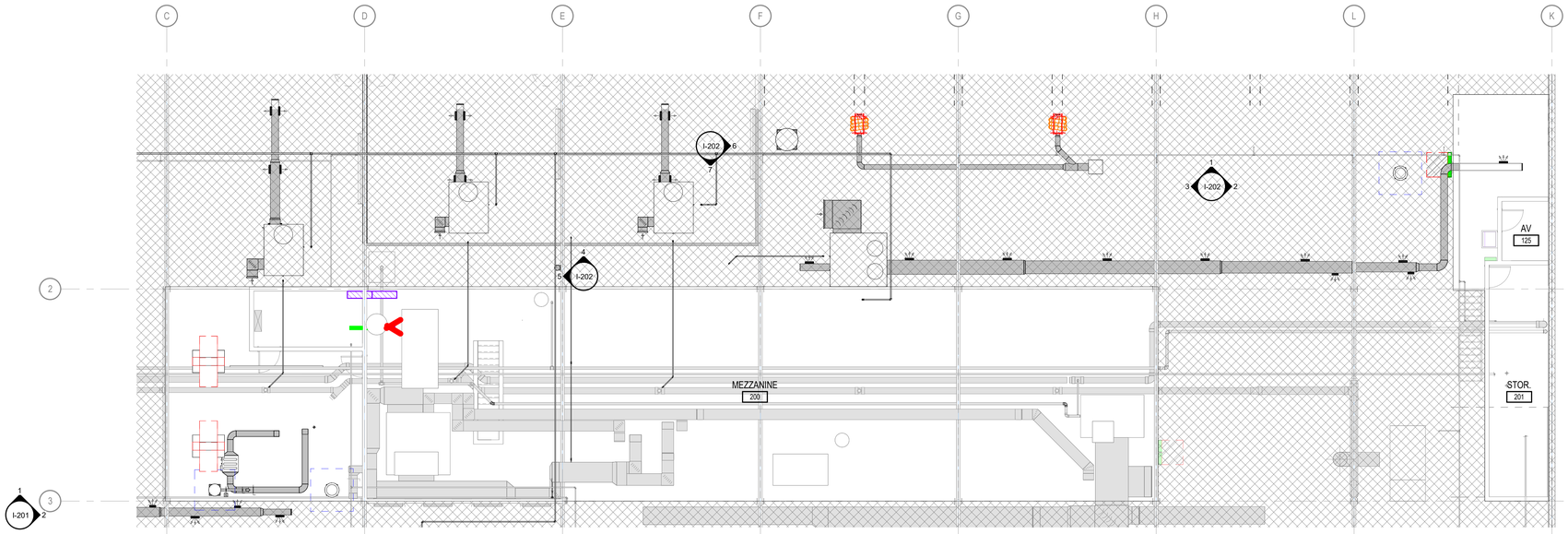
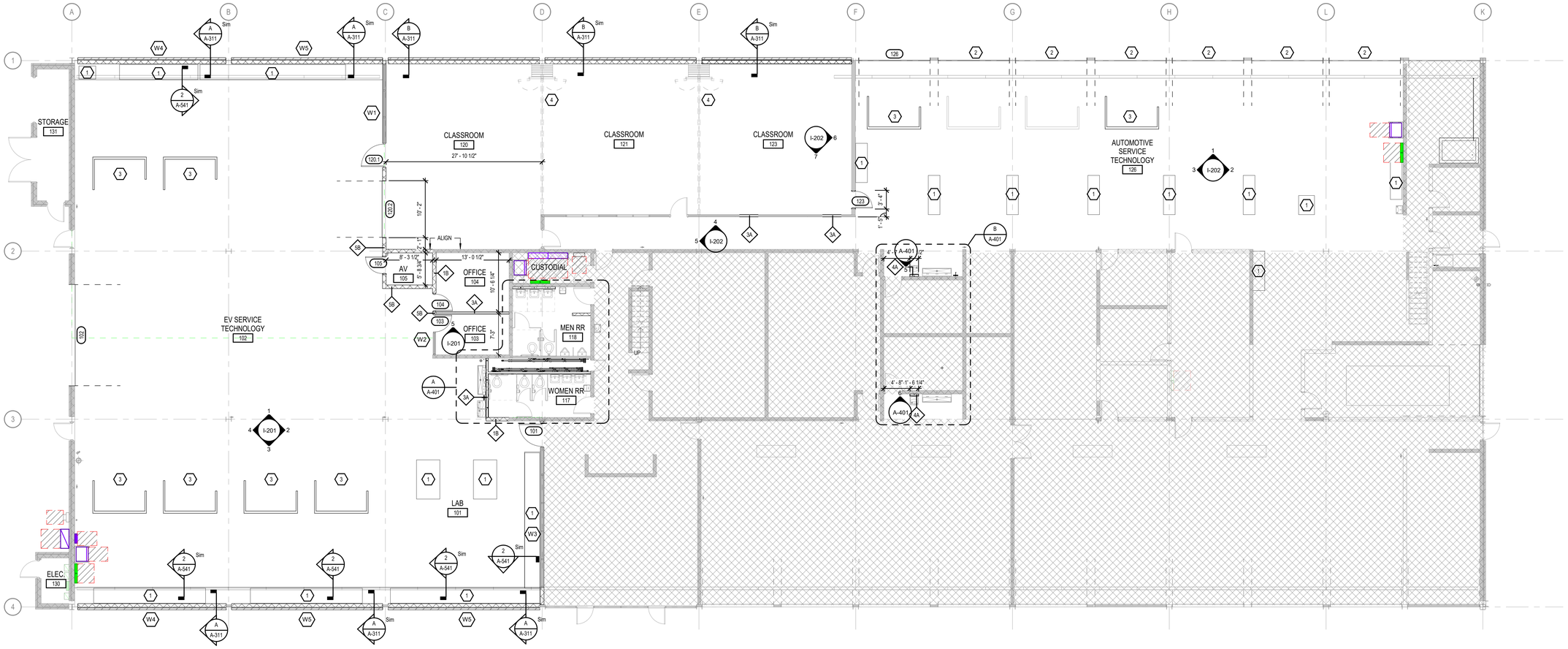


B MEZZANINE PLAN

1/8" = 1'-0"



A FLOOR PLAN

1/8" = 1'-0"

PLAN NORTH

LINETYPE LEGEND

- HALFTONE LINE INDICATES EXISTING ELEMENT TO REMAIN
- SOLID BLACK LINE INDICATES NEW ELEMENT
- HEAVY DASHED LINE INDICATES EXISTING ELEMENT TO BE REMOVED IN ITS ENTIRETY

HATCH LEGEND

- AREA NOT IN SCOPE OF WORK U.N.O.
- EXISTING WALL / PARTITION TO REMAIN U.N.O.
- NEW WALL / PARTITION CONSTRUCTION U.N.O.

GENERAL NOTES

#	NOTES
A	DIMENSIONS ARE TO FACE OF STUD UNLESS NOTED OTHERWISE. WHERE PARTITION TYPES CHANGE, FACE OF GYPSUM BOARD MUST ALIGN WITH ADJACENT FACE OF GYPSUM BOARD.
B	CENTER ALL CEILING-MOUNTED EQUIPMENT/DEVICES AT CENTER OF CEILING TILES UNLESS NOTED OTHERWISE. COORDINATE WITH MECHANICAL/ELECTRICAL DRAWINGS.
C	PROVIDE CORNER GUARDS AT ALL OUTSIDE CORNERS AND ENDWALL CONDITIONS. REF. INTERIOR DRAWINGS FOR MORE INFORMATION.
D	ALL DIMENSIONS FROM EXISTING WALLS ARE FROM FINISHED FACE OF WALL.
E	ALL DIMENSIONS ON REFLECTED CEILINGS PLANS ARE TO FINISHED FACES U.N.O.

SHEET KEYNOTES

#	DESCRIPTION
1	SNAP-ON UNITS PROVIDED BY OWNER. REFER TO EQUIPMENT PLAN A-801 FOR ADDITIONAL INFORMATION.
2	INSTALL SALVAGED OVERHEAD DOOR AND ASSOCIATED RAILS, MOTOR, ETC AS NEEDED.
3	RELOCATED VEHICLE LIFT. REFER TO EQUIPMENT PLAN A-801 FOR ADDITIONAL INFORMATION.
4	NEW OPERABLE PARTITION. REFER TO SHEET A-541 FOR DETAILS.

GLMVArchitecture

PEC PROJECT NUMBER: 228090-042
PEC PROFESSIONAL ENGINEERING CONSULTANTS, P.A.
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MATTHEW F. CORTZ
6117
11-15-2023
KANSAS
ARCHITECT

DESCRIPTION	DATE

PROJECT NUMBERS:
GLMV # - 2208DR23002
PROJECT TYPE:
Renovation

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301 S. Grove, Wichita, KS 67211

DATE: 11/17/2023 DRAWN BY: HL CHECKED BY: MFC

ARCHITECTURAL FLOOR PLAN

A-101

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CEILING PLAN LEGEND

GYPSUM BOARD	LIGHT FIXTURE 2x2 / 2x4
ACOUSTICAL CEILING TILE 24"x24"	LIGHT FIXTURE SUSPENDED, LINEAR
1' - 0" CEILING HEIGHT TAG	LIGHT FIXTURE CAN LIGHT (RECESSED)
AIR TERMINAL SUPPLY DIFFUSER	EXIT SIGN CEILING MOUNTED
AIR TERMINAL RETURN GRILLE	EXIT SIGN WALL MOUNTED
AIR TERMINAL EXHAUST GRILLE	

GENERAL NOTES

#	NOTES
A	DIMENSIONS ARE TO FACE OF STUD UNLESS NOTED OTHERWISE. WHERE PARTITION TYPES CHANGE, FACE OF GYPSUM BOARD MUST ALIGN WITH ADJACENT FACE OF GYPSUM BOARD.
B	CENTER ALL CEILING-MOUNTED EQUIPMENT/DEVICES AT CENTER OF CEILING TILES UNLESS NOTED OTHERWISE. COORDINATE WITH MECHANICAL/ELECTRICAL DRAWINGS.
C	PROVIDE CORNER GUARDS AT ALL OUTSIDE CORNERS AND ENDWALL CONDITIONS. REF. INTERIOR DRAWINGS FOR MORE INFORMATION.
D	ALL DIMENSIONS FROM EXISTING WALLS ARE FROM FINISHED FACE OF WALL.
E	ALL DIMENSIONS ON REFLECTED CEILINGS PLANS ARE TO FINISHED FACES U.N.O.

SHEET KEYNOTES

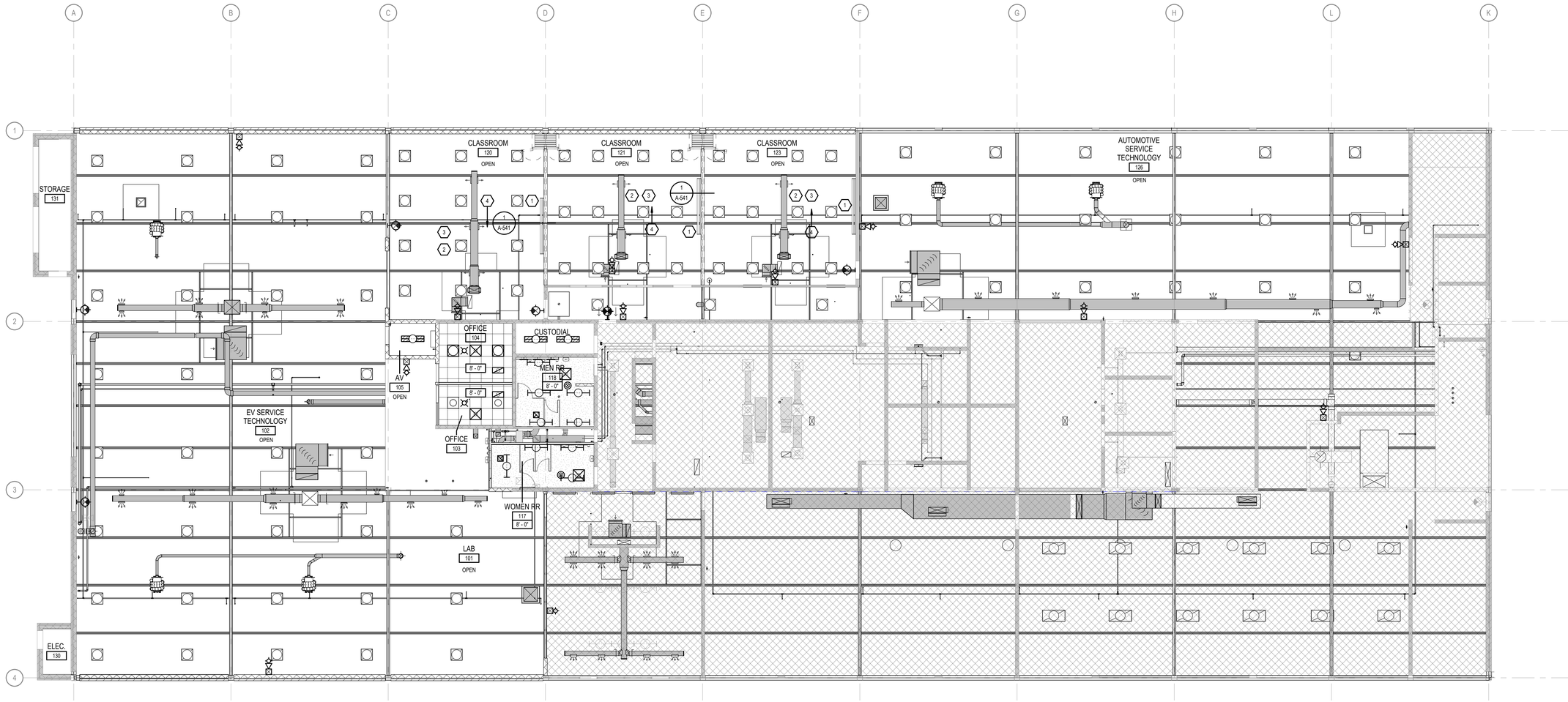
#	DESCRIPTION
1	OWNER PROVIDED AND INSTALLED PROJECTION SCREEN IN THIS LOCATION.
2	EXPOSED DUCTWORK IN THIS ROOM TO BE PAINTED PNT3.
3	EXPOSED ROOF DECK AND STRUCTURE TO BE PAINTED FIELD COLOR.
4	ELECTRICAL FOR OWNER PROVIDE AND OWNER INSTALLED PROJECTOR TO BE LOCATED HERE. COORDINATE LOCATION IN FIELD WITH OWNER.

LINETYPE LEGEND

- HALFTONE LINE INDICATES EXISTING ELEMENT TO REMAIN
- SOLID BLACK LINE INDICATES NEW ELEMENT
- HEAVY DASHED LINE INDICATES EXISTING ELEMENT TO BE REMOVED IN ITS ENTIRETY

HATCH LEGEND

- AREA NOT IN SCOPE OF WORK U.N.O.
- EXISTING WALL / PARTITION TO REMAIN U.N.O.
- NEW WALL / PARTITION CONSTRUCTION U.N.O.



A REFLECTED CEILING PLAN - NEW CONSTRUCTION

1/8" = 1'-0"

PLAN NORTH

GLMVArchitecture

PEC PROJECT NUMBER: 228090-042

PEC PROFESSIONAL ENGINEERING CONSULTANTS, P.A.
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MATTHEW F. CORTEZ LICENSED 6117 11.15.2023 KANSAS ARCHITECT

DESCRIPTION | DATE

PROJECT NUMBERS:
GLMV # - 2230RR023502

PROJECT TYPE:
Renovation

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DATE: 11/17/2023 DRAWN BY: HL CHECKED BY: MFC

REFLECTED CEILING PLAN

A-111

CERTIFIED FINAL

PLOT DATE: 11/17/2023 9:30:13 AM
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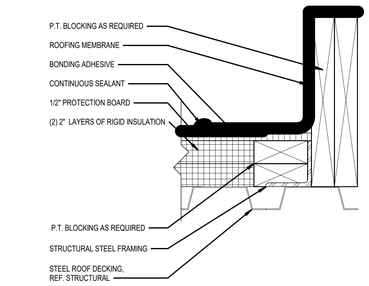
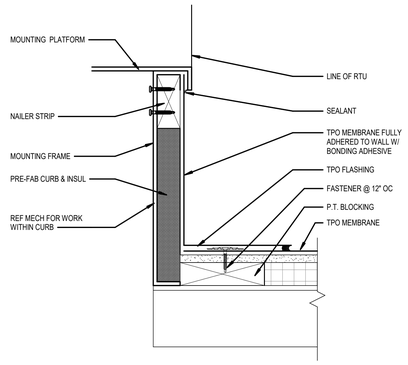


1 ROOF DTL - BUILT-UP CURB



2 ROOF DTL - PRE-FAB CURB

ROOF LEGEND

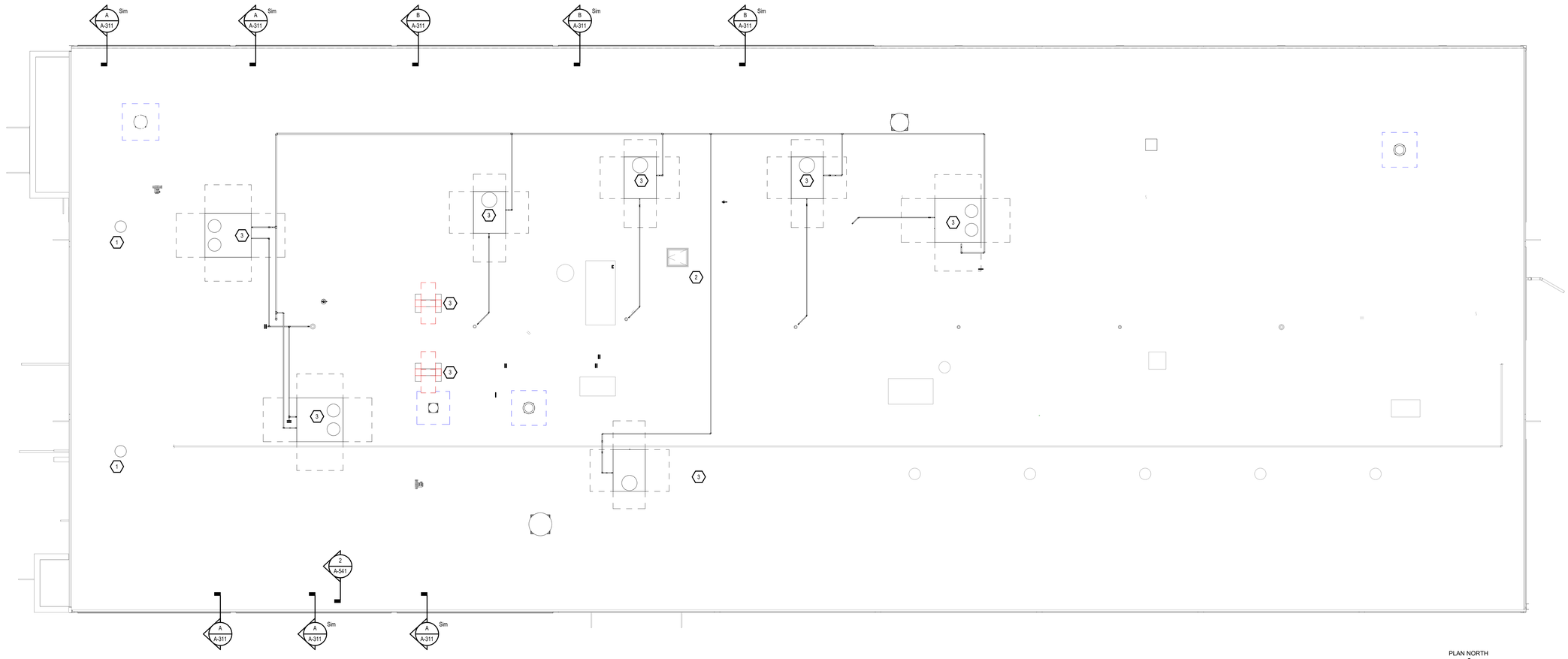
	AREA NOT IN SCOPE OF WORK U.N.O.
	ROOF CRICKET
	EXPANSION JOINT LOCATION
	INDICATES DIRECTION OF FLOW / ROOF SLOPE

GENERAL NOTES

#	NOTES
A	ALL NEW CONSTRUCTION TO BE IN ACCORDANCE WITH THE MANUFACTURER'S REQUIREMENTS, ACCEPTED CONSTRUCTION STANDARDS, AND CONFROM TO ALL BUILDING CODES AND REGULATIONS.
B	ALL ROOFS TO SLOPE 1/4" PER FOOT MIN, U.N.O.. ALL CRICKETS TO SLOPE 90 DEGRESS TO ROOF PLANE AND SLOPE 1/2" PER FOOT MIN, U.N.O..
C	CONTRACTOR TO PROVIDE ALL NECESSARY FLASHINGS AND CAULKING TO PROVIDE A WATER-TIGHT BUILDING. ALL FLASHING CONCEALED FROM VIEW TO BE GALVANIZED METAL. ALL VISIBLE FLASHING TO BE PRE-FINISHED METAL, U.N.O.. ALL VISIBLE CAULKING TO MATCH COLOR OF ADJACENT SURFACES.
D	ALL PARAPET, CURBS, PENETRATIONS, FLASHINGS, ETC. TO BE PER MANUFACTURER'S STANDARD DETAIL REQUIREMENTS.
E	SEE MECHANICAL PLANS FOR HVAC UNIT LOCATIONS, EXHAUST FAN LOCATIONS, PIPE PENETRATIONS, ETC.. SEE ELECTRICAL PLANS FOR ALL ELECTRICAL CONDUIT PENETRATIONS. FLASH ALL PENETRATIONS PER ROOFING MANUFACTURER'S STANDARD ROOF FLASHING DETAILS.
F	ALL ROOFING AND FLASHING SHALL FORM A WATER TIGHT SYSTEM AND SHALL BE WARRENTED BY ROOFING MANUFACTURER FOR 20 YEARS (LABOR AND MATERIALS).
G	PROVIDE RUBBER ROOF WALKING TREADS (FULLY ADHERED TO ROOF) AS APPROVED BY ROOFING MANUFACTURER. INSTALL FROM ROOF HATCH TO EACH HVAC UNIT.
H	PAINT UNDERSIDE OF PARAPET CAP FLASHING WITH FACTORY BONDED PAINT GRIP OR PRIMER.
I	EXHAUST FANS MIN 10'-0" AWAY FROM ALL AIR INTAKE/SUPPLY.

SHEET KEYNOTES

#	DESCRIPTION
1	PATCH AND MATCH ROOF WHERE ASSOCIATED PIPING AND DUCTWORK PENETRATED ROOF FOR PAINT BOOTHS.
2	EXISTING ROOF HATCH TO REMAIN.
3	NEW MECHANICAL UNIT, REF. MECH.



A ROOF PLAN

1/8" = 1'-0"

0 4' 8' 16'

NOTE: FULL REROOF BEING PERFORMED SIMULTANEOUSLY TO THIS PROJECT AND IS NOT INCLUDED AS PART OF THIS PROJECT'S SCOPE OF WORK. ALL PATCHING SHOULD BE COORDINATED BY GC TO BE COMPATIBLE WITH NEW ROOFING SYSTEM.

PEC PROJECT NUMBER 228090-042
PEC PROFESSIONAL ENGINEERING CONSULTANTS, P.A.
303 SOUTH TOPEKA WICHITA, KS 67202
316-262-2691 www.pec1.com

MATTHEW F. CORTEZ LICENSED 6117 11.15.2023 KANSAS ARCHITECT

DESCRIPTION DATE

PROJECT NUMBERS:
GLMV # - 22SB0R23002

PROJECT TYPE:
Renovation

WICHITA STATE UNIVERSITY
CAMPUS OF APPLIED
SCIENCES AND TECHNOLOGY
1845 N. Fairmount
Wichita, KS 67260-0258
Tel: (316) 978-3444
www.wichita.edu

WICHITA STATE UNIVERSITY CAMPUS OF APPLIED SCIENCES AND TECHNOLOGY

EAST HIGH SNAP ON LAB

301 S. Grove, Wichita, KS 67211

DATE: 11/17/2023 DRAWN BY: HIL CHECKED BY: MFC

ROOF PLAN

A-121

CERTIFIED FINAL

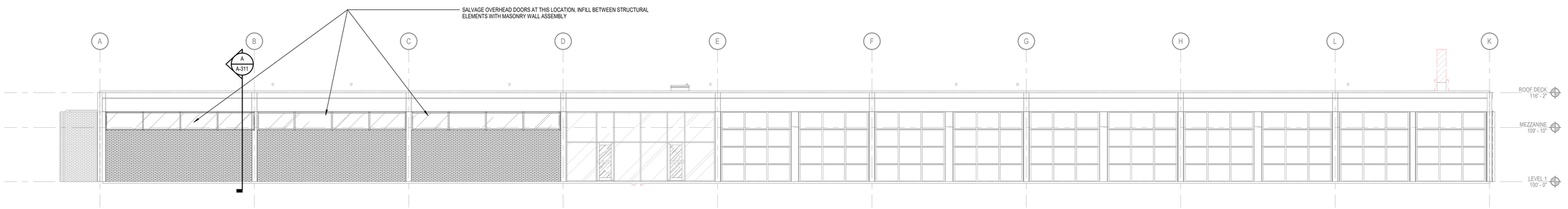
PLOT DATE: 11/17/2023 9:30:16 AM
FILE PATH: Autodesk Docs://2023R0003791_WSUTech_EastHighSnaponLab/23306R23002_A_WSUTech_EastHighSnaponLab_V23.rvt

HATCH LEGEND

	AREA NOT IN SCOPE OF WORK U.N.O.

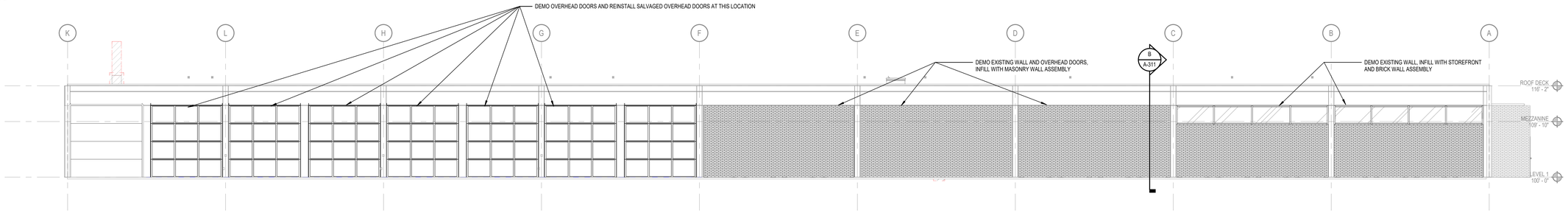
SHEET KEYNOTES

#	DESCRIPTION



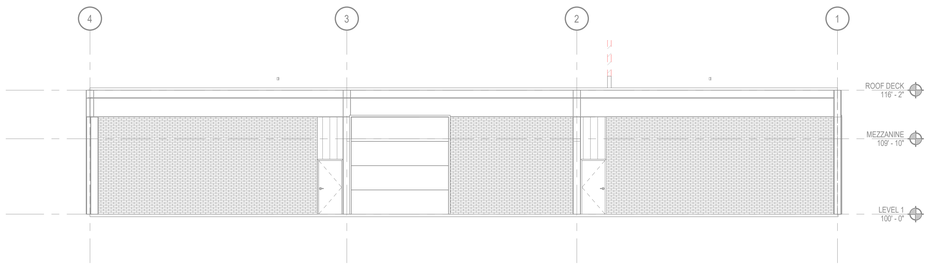
1 EAST ELEVATION

1/8" = 1'-0"



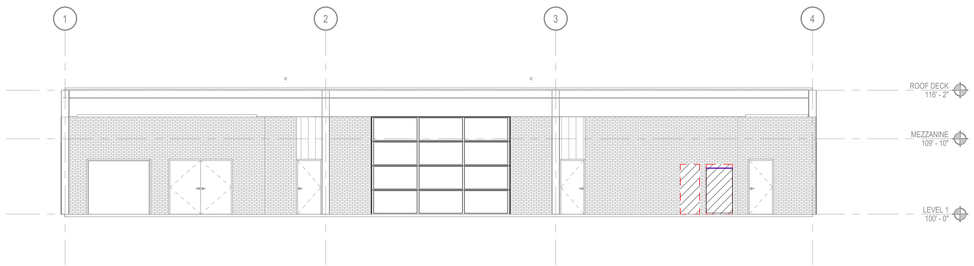
2 WEST ELEVATION

1/8" = 1'-0"



3 NORTH ELEVATION

1/8" = 1'-0"



4 SOUTH ELEVATION

1/8" = 1'-0"

PEC PROJECT NUMBER: 228090-042
PEC
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MATTHEW F. CORTEZ
REGISTERED
6117
11-15-2023
KANSAS
ARCHITECT

DESCRIPTION	DATE

PROJECT NUMBERS:
GLMV # - 22050R23002

PROJECT TYPE:
Renovation

WSU TECH
WICHITA STATE UNIVERSITY CAMPUS OF APPLIED SCIENCES AND TECHNOLOGY
Wichita, KS 67226
Tel: (316) 978-3444
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WICHITA STATE UNIVERSITY CAMPUS OF APPLIED SCIENCES AND TECHNOLOGY

EAST HIGH SNAP ON LAB

301 S. Grove, Wichita, KS 67211

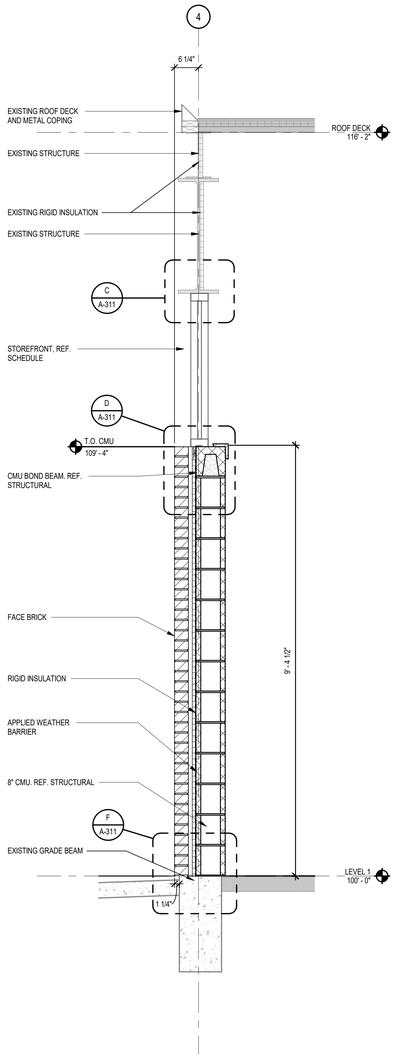
DATE: 11/17/2023 DRAWN BY: HL CHECKED BY: MFC

EXTERIOR ELEVATIONS

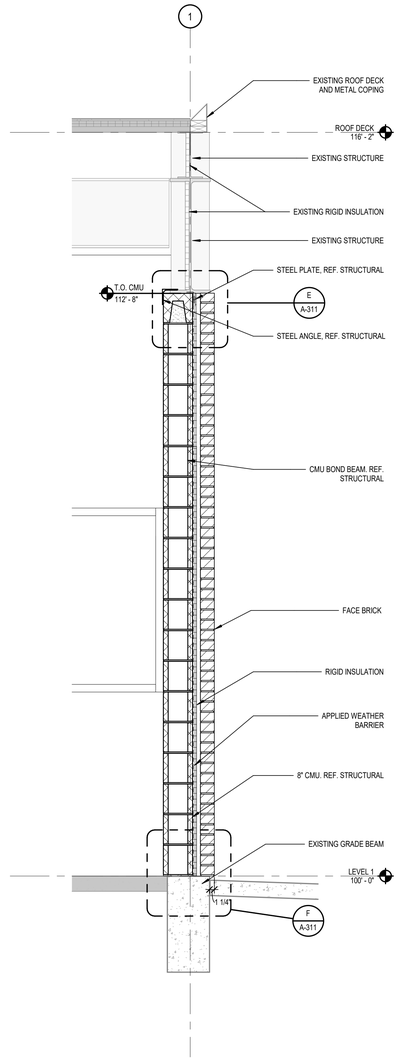
A-201

CERTIFIED FINAL

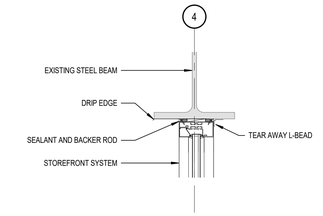
PLOT DATE: 11/17/2023 9:30:18 AM
FILE PATH: Autodesk Docs://2023R0003791_WSUTech_EastHighSnaponLab/23560R23002_A_WSUTech_EastHighSnaponLab_V23.rvt



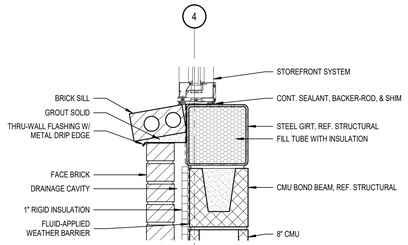
A WALL SECTION - CLERESTORY GLAZING
3/4" = 1'-0"



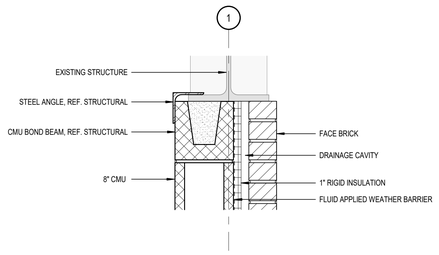
B WALL SECTION - FULL HEIGHT INFILL
3/4" = 1'-0"



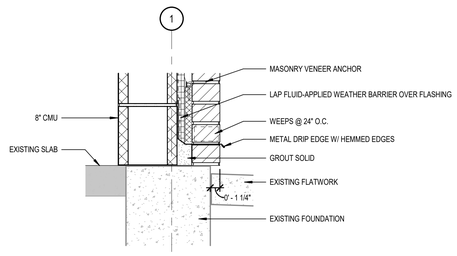
C STOREFRONT HEAD
1 1/2" = 1'-0"



D STOREFRONT SILL
1 1/2" = 1'-0"



E WALL INFILL HEAD DETAIL
1 1/2" = 1'-0"



F WALL INFILL BASE
1 1/2" = 1'-0"

GLMVArchitecture

PEC PROJECT NUMBER: 228090-042
PEC
PROFESSIONAL ENGINEERING CONSULTANTS, P.A.
303 SOUTH TOPEKA WICHITA, KS 67202
316-262-2691 www.pec1.com

DESCRIPTION	DATE

PROJECT NUMBERS:
GLMV # - 22050R23002

PROJECT TYPE:
Renovation

WSU TECH
WICHITA STATE UNIVERSITY
CAMPUS OF APPLIED
SCIENCES AND TECHNOLOGY
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301 S. Grove, Wichita, KS 67211

DATE: 11/17/2023 DRAWN BY:HL CHECKED BY: MFC

WALL SECTIONS

A-311

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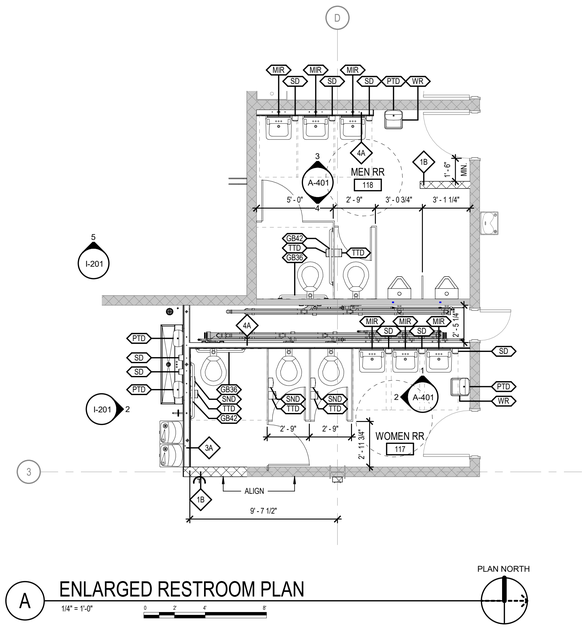
PLOT DATE: 11/17/2023 9:30:23 AM
FILE PATH: Autodesk Docs://2023R00003791 | WSUTech_EastHighSnaponLab/22606R2002_A_WSUTech_EastHighSnaponLab_V23.rvt

SPECIALTIES/ACCESSORIES SCHEDULE

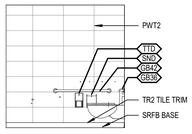
MARK	ITEM	BASIS OF DESIGN	
FEC	FIRE EXTINGUISHER CABINET		CONTRACTOR PROVIDED AND INSTALLED
GB36	GRAB BAR, 36"	BOBRICK/STRAIGHT GRAB BAR/B-6806/STAINLESS STEEL/SATIN	CONTRACTOR PROVIDED AND INSTALLED
GB42	GRAB BAR, 42"	BOBRICK/STRAIGHT GRAB BAR/B-6806/STAINLESS STEEL/SATIN	CONTRACTOR PROVIDED AND INSTALLED
MIR	MIRROR	BOBRICK/CHANNEL-FRAME MIRROR/B-165 1830/18"W X 30"H	CONTRACTOR PROVIDED AND INSTALLED
PTD	PAPER TOWEL DISPENSER		OWNER PROVIDED AND INSTALLED
SD	SOAP DISPENSER		OWNER PROVIDED AND INSTALLED
SND	SANITARY NAPKIN DISPOSAL	BOBRICK/CONTURA SERIES/SURFACE-MOUNTED SANITARY NAPKIN DISPOSAL/B-270/STAINLESS STEEL/SATIN	CONTRACTOR PROVIDED AND INSTALLED
TTD	TOILET TISSUE DISPENSER	BOBRICK/CONTURA SERIES/SURFACE-MOUNTED MULTI-ROLL TOILET TISSUE DISPENSER/B-4288/STAINLESS STEEL/SATIN	CONTRACTOR PROVIDED AND INSTALLED
WR	WASTE RECEPTACLE	BOBRICK/FLOOR-STANDING WASTE RECEPTACLE WITH OPEN TOP/B-2280/21 GAL/14-7/8"W X 14-7/8"D X 29-1/4"H/ STAINLESS STEEL/SATIN	CONTRACTOR PROVIDED AND INSTALLED



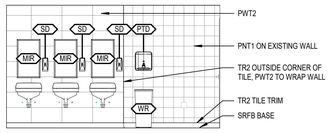
A ENLARGED RESTROOM PLAN
1/4" = 1'-0"

PLAN NORTH

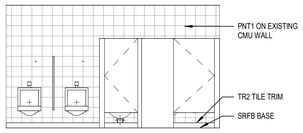
1 WOMEN RR - SINK WALL ELEV.
1/4" = 1'-0"



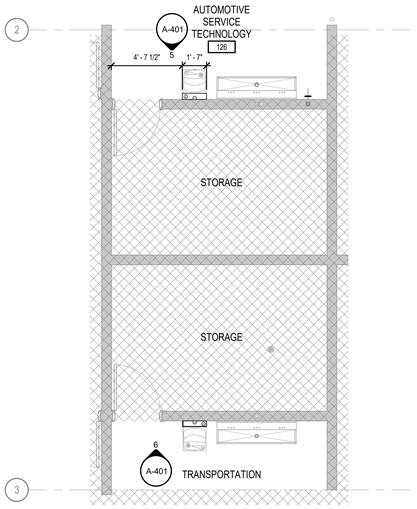
2 WOMEN RR - PLAN WEST ELEV.
1/4" = 1'-0"



3 MEN RR - SINK WALL ELEV.
1/4" = 1'-0"

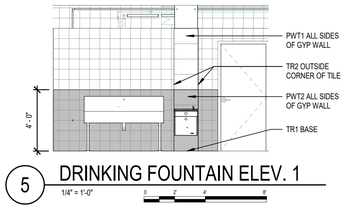


4 MEN RR - PLAN SOUTH ELEV.
1/4" = 1'-0"

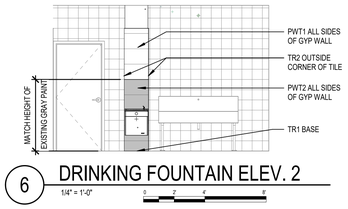


B DRINKING FOUNTAIN LOCATIONS - ENLARGED PLAN

PLAN NORTH



5 DRINKING FOUNTAIN ELEV. 1
1/4" = 1'-0"



6 DRINKING FOUNTAIN ELEV. 2
1/4" = 1'-0"

GLMV Architecture

PEC PROJECT NUMBER: 228090-042
PEC
PROFESSIONAL ENGINEERING CONSULTANTS, P.A.
303 SOUTH TOPEKA WICHITA, KS 67202
316-262-2691 www.pec1.com

DESCRIPTION DATE

PROJECT NUMBERS:
GLMV #: 22280R23002

PROJECT TYPE:
Renovation

WICHITA STATE UNIVERSITY
CAMPUS OF APPLIED
SCIENCES AND TECHNOLOGY
1845 N. Fairmount
Wichita, KS 67260-0258
Tel: (316) 978-3444
www.wichita.edu

WICHITA STATE UNIVERSITY CAMPUS OF APPLIED SCIENCES AND TECHNOLOGY

EAST HIGH SNAP ON LAB

301 S. Grove, Wichita, KS 67211

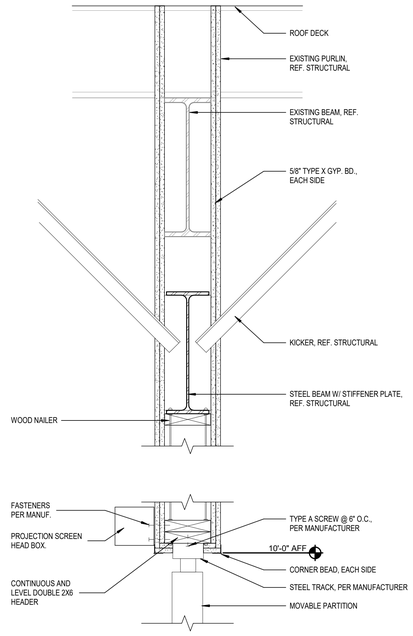
DATE: 11/7/2023 DRAWN BY: RTL CHECKED BY: MSA

ENLARGED PLANS AND ELEVATIONS

A-401

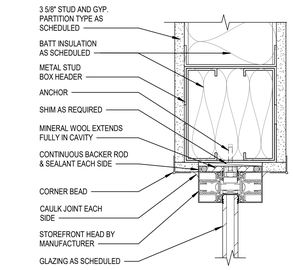
CERTIFIED FINAL

PLOT DATE: 11/7/2023 9:30:26 AM
FILE PATH: Autodesk Docs://2023R20003791 | WSUTech_EastHighSnaponLab/22280R23002_A_WSUTech_EastHighSnaponLab_V23.rvt



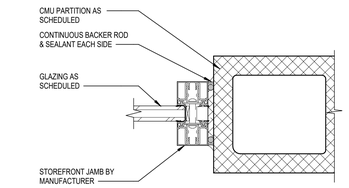
1 OPERABLE PARTITION HEADER

1 1/2" = 1'-0"



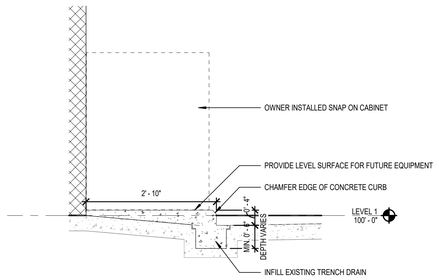
3 FR STOREFRONT HEAD DTL

3" = 1'-0"



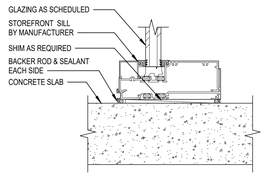
4 FR STOREFRONT JAMB DTL

3" = 1'-0"



2 CURB SECTION

3/4" = 1'-0"



5 STOREFRONT SILL DTL

3" = 1'-0"

PEC PROJECT NUMBER: 228090-042
PEC PROFESSIONAL ENGINEERING CONSULTANTS, P.A.
303 SOUTH TOPEKA WICHITA, KS 67202
316-262-2691 www.pec1.com

MATTHEW F. CONTRERAS
REGISTERED
6117
11.15.2023
KANSAS
ARCHITECT

DESCRIPTION	DATE

PROJECT NUMBERS:
GLMV #: 22305R23002

PROJECT TYPE:
Renovation

WSU TECH
WICHITA STATE UNIVERSITY
CAMPUS OF APPLIED
SCIENCES AND TECHNOLOGY
4004 N. Webb Rd.
Wichita, KS 67226
Tel: (316) 978-3444
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EAST HIGH SNAP ON LAB

301 S. Grove, Wichita, KS 67211

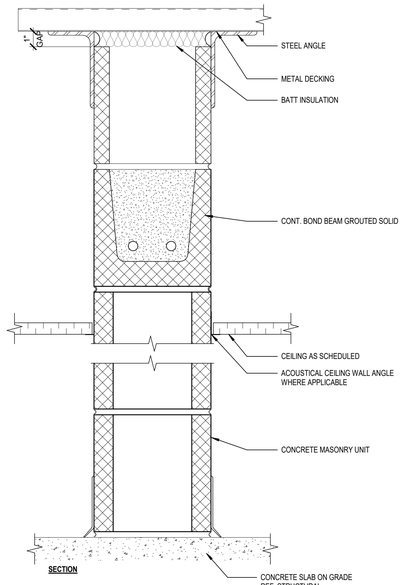
DATE: 11/17/2023 DRAWN BY: HL CHECKED BY: MFC

DETAILS

A-541

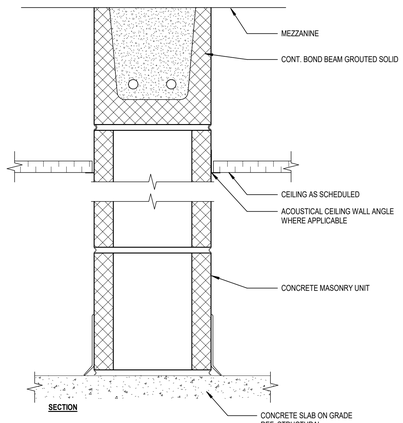
CERTIFIED FINAL

PLOT DATE: 11/17/2023 9:30:29 AM
FILE PATH: Autodesk Docs://2023R0003791_WSUTech_EastHighSnaponLab/23306R23002_A_WSUTech_EastHighSnaponLab_V23.rvt



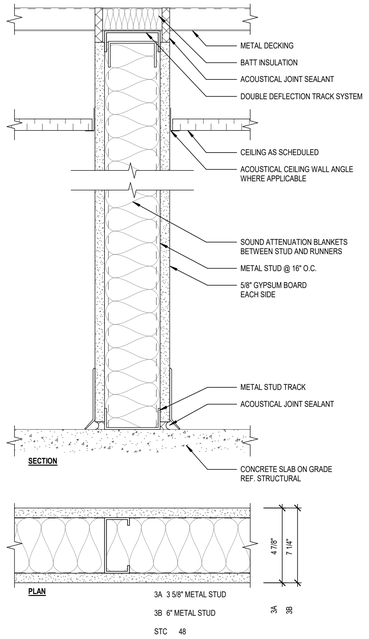
1 SERIES 1 PARTITION - CMU

3" = 1'-0"



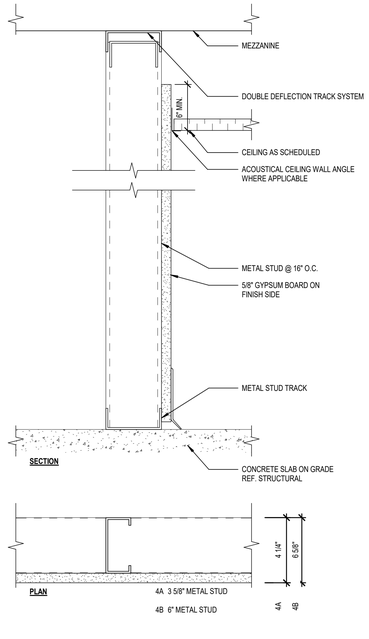
4 SERIES 2 PARTITION - CMU

3" = 1'-0"



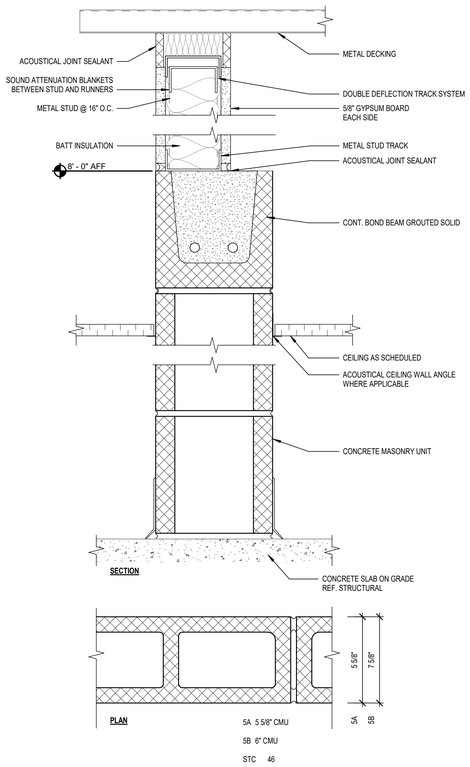
2 SERIES 3 PARTITION - NR

3" = 1'-0"



3 SERIES 4 PARTITION - NR

3" = 1'-0"



5 SERIES 5 PARTITION - CMU STUD

3" = 1'-0"

UNBRACED STUD LENGTHS

UNBRACED LENGTH/LIMITING HEIGHTS FOR INTERIOR STUDS - 1 HR FIRE-RATED PARTITIONS AND NON-RATED PARTITIONS

STUD SIZE	STUD GAUGE	LIMITING HEIGHT
2 1/2"	25	9' - 9"
2 1/2"	22	10' - 6"
2 1/2"	20	11' - 6"
3 5/8"	25	12' - 9"
3 5/8"	22	14' - 0"
3 5/8"	20	15' - 0"
6"	25	18' - 9"
6"	22	20' - 9"
6"	20	23' - 3"
8"	25	25' - 9"
8"	22	28' - 3"
8"	20	30' - 3"

UNBRACED LENGTH/LIMITING HEIGHT FOR NON-RATED PARTITIONS

STUD SIZE	STUD GAUGE	LIMITING HEIGHT
1 5/8"	25	9' - 8"
1 5/8"	20	8' - 4"

UNBRACED LENGTH/LIMITING HEIGHTS FOR INTERIOR STUDS - 2, 3, AND 4 HOUR FIRE-RATED PARTITIONS

STUD SIZE	STUD GAUGE	LIMITING HEIGHT
3 5/8"	20	10' - 3"
3 5/8"	18	11' - 3"
3 5/8"	16	12' - 3"
3 5/8"	14	13' - 3"
4"	20	11' - 3"
4"	18	12' - 3"
4"	16	13' - 3"
4"	14	14' - 3"
6"	20	15' - 6"
6"	18	17' - 0"
6"	16	18' - 6"
6"	14	19' 9"
8"	--	--
8"	18	21' - 6"
8"	16	23' - 3"
8"	14	25' - 0"

STUD GAUGE NOTES

#	NOTES
1	USE THESE CHARTS TO DETERMINE THE REQUIRED STUD GAUGE FOR THE VARIOUS PARTITION TYPES. REFER TO STRUCTURAL DRAWINGS AND SPECIFICATIONS FOR EXTERIOR WALL AND/OR LIGHT GAUGE (CFMF) REQUIREMENTS.
2	REFER TO STRUCTURAL FOR ADDITIONAL REQUIREMENTS.
3	AT GENERAL CONTRACTORS OPTION STUD GAUGES MAY BE ENGINEERED BY A REGISTERED PROFESSIONAL IN THE STATE OF THIS PROJECT.
4	ABOVE CEILING BRACING (@ NOT LESS THAN 4' - 0" OC) IS PERMITTED FOR NON-FIRE RATED PARTITIONS TO HELP REDUCE THE UNBRACED LENGTH OF PARTITON. PROVIDE HORIZONTAL STUD CHANNEL STRONGBACK.

PARTITION NOTES

#	NOTES
1	STUD SPACINGS SHALL BE 16" O.C. UNLESS NOTED OTHERWISE.
2	REFER TO HNBRACED LENGTHLIMITING HEIGHT CHARTS FOR STUD GAUGE REQUIREMENTS. REFER TO SPECIFICATIONS FOR ADDITIONAL REQUIREMENTS FOR USE OF HEAVIER LIGHT GAUGE METAL FRAMING IN LIEU OF THOSE SHOWN.
3	REFER TO STRUCTURAL DRAWINGS FOR ADDITIONAL REQUIREMENTS FOR CONCRETE MASONRY UNIT REINFORCING AND GROUTING.
4	REFER TO STRUCTURAL DRAWINGS FOR MASONRY DETAILS FOR ANCHORAGE OF TOP OF MASONRY WALLS TO STRUCTURE.
5	REFERENCE THE BUILDING CODE PLAN SHEETS FOR FIRE RATED AND SMOKE PARTITION INFORMATION.
6	PENETRATIONS, INCLUDING BUT NOT LIMITED TO PIPING, ELECTRICAL ACCESS, OR AIR DISTRIBUTION, SHALL MEET THE REQUIREMENTS OF UL DESIGN REQUIREMENTS FOR WALLS AND PENETRATION OF RATED WALLS. REFERENCE THE BUILDING CODE PLANS FOR ADDITIONAL INFORMATION
7	FOR ALL INSULATED CONCRETE FORM PARTITIONS, PROVIDE TYPE X GYPSUM BOARD ON EACH SIDE PER CHAPTER 26 OF THE INTERNATIONAL BUILDING CODE.
8	FOR AIR BARRIER SYSTEM REQUIREMENTS, REFER SPECIFICATIONS SECTION 07 25 00.00 06.
9	REFERENCE ENLARGED INTERIOR ELEVATIONS FOR ADDITIONAL WALL FINISH INFORMATION.
10	REFERENCE ROOM FINISH SCHEDULE FOR WALL SUBSTRATE INFORMATION.

GLMVArchitecture

PEC PROJECT NUMBER: 226900-042
PEC
PROFESSIONAL ENGINEERING CONSULTANTS, P.A.
303 SOUTH TOPEKA WICHITA, KS 67202
316-262-2691 www.pec1.com

DESCRIPTION DATE

PROJECT NUMBERS:
GLMV # - 2226WSU2302
PROJECT TYPE:
Renovation

WSU TECH
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www.wichita.edu

WICHITA STATE UNIVERSITY CAMPUS OF APPLIED SCIENCES AND TECHNOLOGY

EAST HIGH SNAP ON LAB

301 S. Grove, Wichita, KS 67211

DATE: 11/17/2023 DRAWN BY: HL CHECKED BY: MFC

PARTITION/EXTERIOR WALL TYPES

A-601

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PLOT DATE: 11/17/2023 9:30:30 AM
FILE PATH: Autodesk Docs://2023/R00003791_WSUTech_EastHighSnaponLab/23560R23002_A_WSUTech_EastHighSnaponLab_V23.rvt

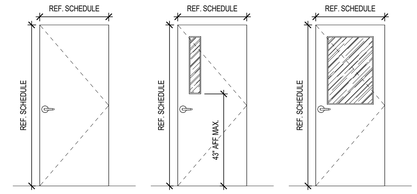
DOOR AND FRAME SCHEDULE

MARK	PANEL								FRAME							HW SET NO.	NOTES
	SIZE												DETAIL				
	WIDTH	HEIGHT	PAIR	THICKNESS	TYPE	MATERIAL	FINISH	GLAZING	TYPE	MATERIAL	FINISH	GLAZING	HEAD	JAMB	SILL		
101	4' - 0"	7' - 10"		1 3/4"	G	HM	PAINT	G1		HM	PAINT						2
102	18' - 0"	12' - 8"		1 1/2"	OH	ALUM											1
103	3' - 0"	7' - 10"		1 3/4"	G	HM	PAINT	G1		HM	PAINT						2
104	3' - 0"	7' - 10"	-	1 3/4"	G	HM	PAINT	G1		HM	PAINT						2
105	3' - 0"	7' - 10"	-	1 3/4"	F	HM	PAINT	-	1	HM	PAINT	-					2
120.1	4' - 0"	7' - 10"		1 3/4"	G	HM	PAINT	G1		HM	PAINT						2
120.2	10' - 0"	8' - 0"		1 1/2"	OH	ALUM											1
123	3' - 0"	7' - 10"	-	1 3/4"	N	WD	PAINT	G1		HM	PAINT						2
126	12' - 8"	12' - 8"		1 1/2"	OH	ALUM											1

DOOR SCHEDULE NOTES

#	NOTES
1	SEGMENTED GLASS OVERHEAD DOOR. GC SHALL VERIFY OPENING SIZE FOR OVERHEAD DOOR.
2	PROVIDE LOW VOLTAGE WIRING AT FRAME FOR FUTURE ACCESS CONTROL DEVICE

DOOR ELEVATION

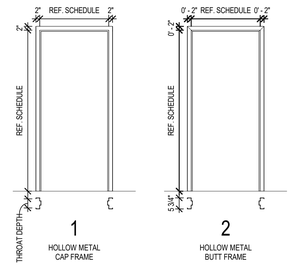


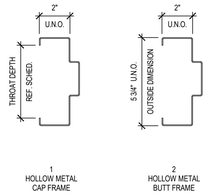
F
FLUSH

N
NARROW VISION LITE

G
HALF GLASS

DOOR FRAME ELEVATION





*** THROAT DEPTH MEASURED FROM INSIDE DIMENSION OF FRAME (TOTAL WALL THICKNESS)**
*** BUTT FRAMES TO BE 5-3/4" OUTSIDE DIMENSION UNLESS NOTED OTHERWISE (U.N.O.)**

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PEC PROJECT NUMBER: 228090-042
PEC
PROFESSIONAL ENGINEERING CONSULTANTS, P.A.
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MATTHEW F. CORNETT
REGISTERED
6117
11-15-2023
KANSAS
ARCHITECT

DESCRIPTION	DATE

PROJECT NUMBERS:
GLMV # - 2226DRS2502
PROJECT TYPE:
Renovation

WSU TECH
WICHITA STATE UNIVERSITY
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WICHITA STATE UNIVERSITY CAMPUS OF APPLIED SCIENCES AND TECHNOLOGY

EAST HIGH SNAP ON LAB

301 S. Grove, Wichita, KS 67211

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DOOR SCHEDULE

A-611

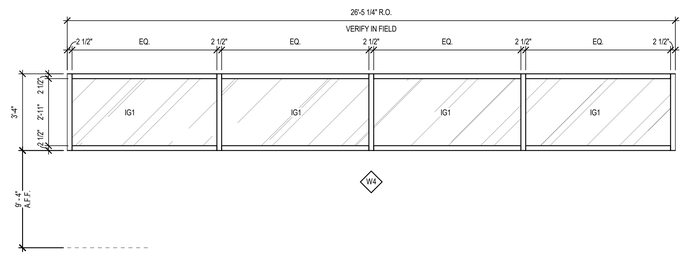
CERTIFIED FINAL

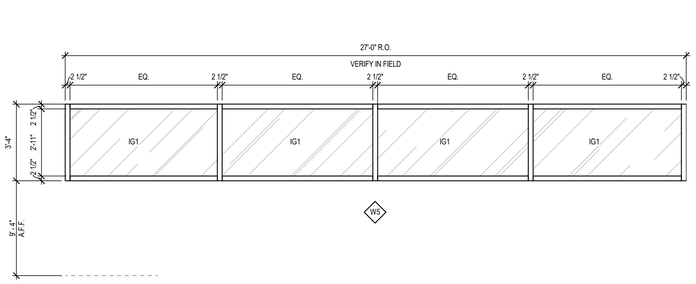
PLOT DATE: 11/17/2023 9:30:30 AM
FILE PATH: Autodesk Docs://2023R00003791 | WSUTech_EastHighSnaponLab/23206R2002_A_WSUTech_EastHighSnaponLab_V23.rvt

STOREFRONT GLAZING SYSTEMS - ELEVATIONS

GLAZING SCHEDULE

MARK	DESCRIPTION
G1	1/4" TEMPERED GLASS
IG1	1" INSULATED GLASS, TEMPERED
IP	1" INSULATED PANEL
MP	METAL PANEL

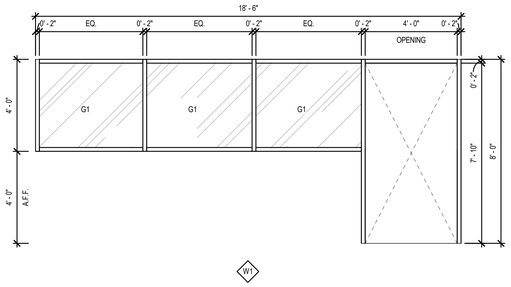


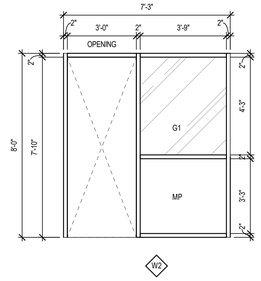


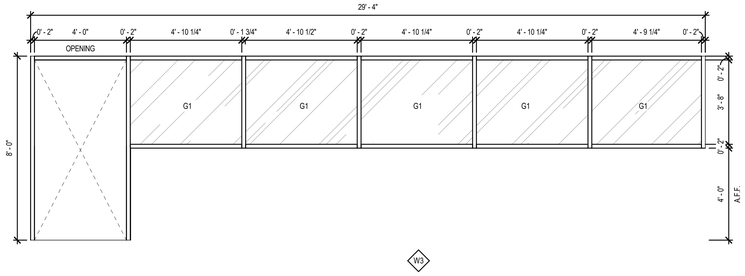
HOLLOW METAL GLAZING SYSTEMS - ELEVATIONS

GLAZING SCHEDULE

MARK	DESCRIPTION
G1	1/4" TEMPERED GLASS
IG1	1" INSULATED GLASS, TEMPERED
IP	1" INSULATED PANEL
MP	METAL PANEL







PEC PROJECT NUMBER: 228090-042

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MATTHEW F. CORTEZ
LICENSED
6117
11.15.2023
KANSAS
ARCHITECT

DESCRIPTION | DATE

PROJECT NUMBERS:
GLMV # - 2226DR023002

PROJECT TYPE:
Renovation

WSU TECH
WICHITA STATE UNIVERSITY
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GLAZING/WINDOW SCHEDULE

A-621

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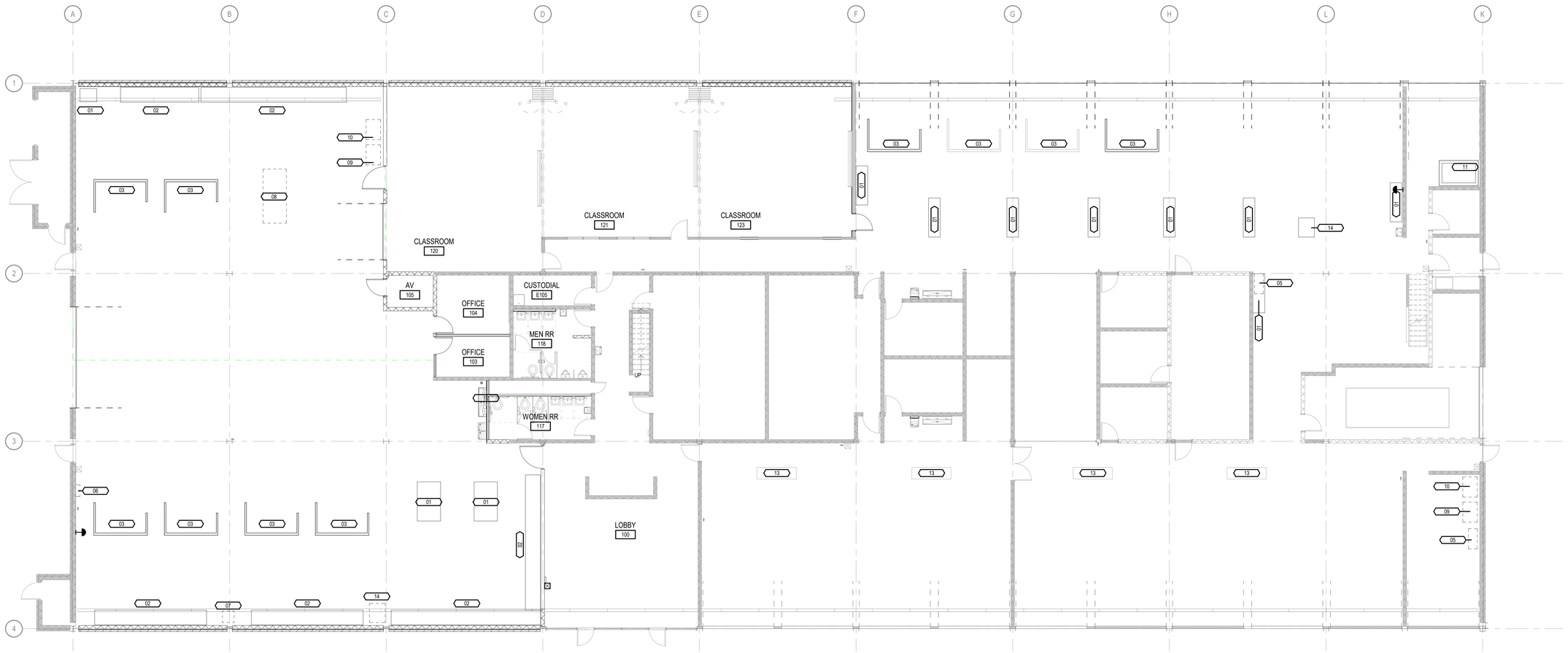
PLOT DATE: 11/17/2023 9:30:31 AM
FILE PATH: Autodesk Docs://2023R20003791 | WSUTech_EastHighSnaponLab/23260R23002_A_WSUTech_EastHighSnaponLab_V23.rvt

EQUIPMENT SCHEDULE

MARK	DESCRIPTION	COMMENTS	PHASE	ELEC. REQ.
01	WORKBENCH, SNAP-ON	OWNER PROVIDED AND INSTALLED	NEW	NO
02	WORKBENCH, SNAP-ON	OWNER PROVIDED AND INSTALLED	NEW	YES
03	VEHICLE LIFT, ROTARY SPOA10	OWNER PROVIDED AND INSTALLED	EXISTING	YES
04	BATTERY CHARGER, SNAP-ON D-TAC ELITE	OWNER PROVIDED AND INSTALLED	EXISTING	YES
05	BRAKE LATHE, PRO-CUT USA PFM 9.2	OWNER PROVIDED AND INSTALLED	EXISTING	YES
06	EV CHARGING STATION, ENPHASE	OWNER PROVIDED, CONTRACTOR INSTALLED	NEW	YES
07	REFRIGERANT, SNAP-ON POLARTEK HYBRID	OWNER PROVIDED AND INSTALLED	EXISTING	YES
08	LIFT TABLE, CHALLENGER LIFTS BT3300	OWNER PROVIDED AND INSTALLED	EXISTING	YES
09	TIRE CHARGER, HUNTER REVOLUTION	OWNER PROVIDED AND INSTALLED	EXISTING	YES
10	WHEEL BALANCER	OWNER PROVIDED AND INSTALLED	EXISTING	YES
11	AIR COMPRESSOR	OWNER PROVIDED, CONTRACTOR INSTALLED	EXISTING	YES
12	UTILITY SINK	CONTRACTOR PROVIDED, CONTRACTOR INSTALLED	NEW	NO
13	WORKBENCH, SNAP-ON	OWNER PROVIDED AND INSTALLED	EXISTING	YES
14	MIG WELDER, MILLER	OWNER PROVIDED AND INSTALLED	EXISTING	YES

NOTE: FURNITURE LAYOUT FOR REFERENCE ONLY



1 EQUIPMENT PLAN

PLAN NORTH

PEC PROJECT NUMBER: 228090-042

PEC
PROFESSIONAL ENGINEERING CONSULTANTS, P.A.
303 SOUTH TOPEKA WICHITA, KS 67202
316-262-2691 www.pec1.com

MATTHEW F. CORTEZ
LICENSED
6117
11.15.2023
KANSAS
ARCHITECT

DESCRIPTION | DATE

PROJECT NUMBERS:
GLMV # - 2230GR23002

PROJECT TYPE:
Renovation

WSU TECH
WICHITA STATE UNIVERSITY
CAMPUS OF APPLIED
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WICHITA STATE UNIVERSITY CAMPUS OF APPLIED SCIENCES AND TECHNOLOGY

EAST HIGH SNAP ON LAB

301 S. Grove, Wichita, KS 67211

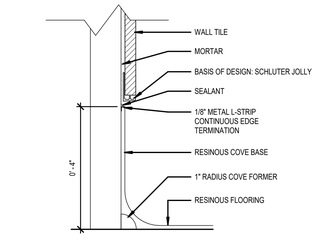
DATE: 11/17/2023 DRAWN BY: HL CHECKED BY: MFC

EQUIPMENT PLAN

A-801

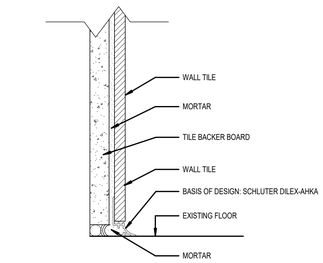
CERTIFIED FINAL

PLOT DATE: 11/17/2023 9:30:32 AM
FILE PATH: Autodesk Docs://2023R20003791 | WSUTech_EastHighSnaponLab/23280R23002_A_WSUTech_EastHighSnaponLab_V23.rvt



1 SEAMLESS RESINOUS FLOORING BASE

6" = 1'-0"



2 TILE TRANSITION DETAIL

6" = 1'-0"

FLOOR FINISH LEGEND

- CONC1 - EXISTING CONCRETE CLEANED AND BUFFED
- CONC2 - POLISHED CONCRETE
- EPOX - EPOXY FLOORING

REFER TO INTERIOR ELEVATIONS FOR ACCENT PAINT DESIGN & LOCATIONS

- MPAR - MB — MODERNFOLD/ACOUSTI-SEAL/PREMIER/FULL HEIGHT MARKERBOARD
- MPAR - LAM — MODERNFOLD/ACOUSTI-SEAL/PREMIER/ WILSONART/LAMINATE/STEEL MESH/4679-38/FINE VELVET FINISH

A FLOOR FINISH PLAN

1/8" = 1'-0"

PLAN NORTH

PEC PROJECT NUMBER: 228090-042
PEC
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MATTHEW F. CORTEZ REGISTERED 6117 11.15.2023 KANSAS ARCHITECT

DESCRIPTION	DATE

PROJECT NUMBERS:
GLMV # - 22305#023502

PROJECT TYPE:
Renovation

WSU TECH
WICHITA STATE UNIVERSITY CAMPUS OF APPLIED SCIENCES AND TECHNOLOGY
1845 N. Fairmount
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EAST HIGH SNAP ON LAB

301 S. Grove, Wichita, KS 67211

DATE: 11/17/2023 DRAWN BY: RTL CHECKED BY: MSA

FLOOR FINISH PLAN

I-101

CERTIFIED FINAL

PLOT DATE: 11/7/2023 9:30:33 AM
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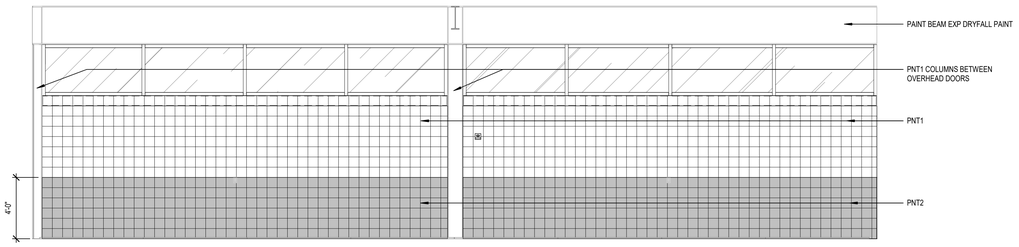
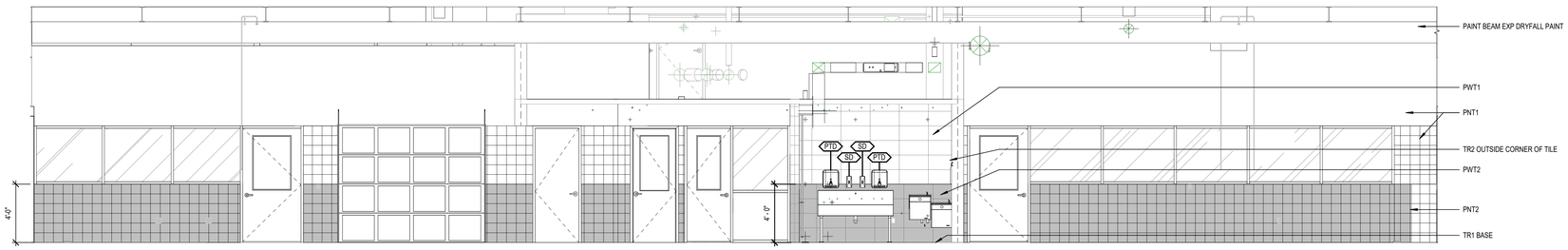


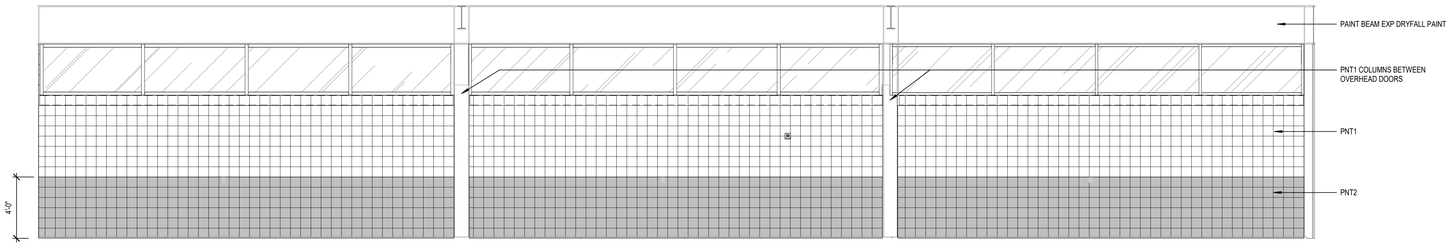
1 EV SERVICE TECHNOLOGY - PLAN NORTH INTERIOR ELEV.

1/4" = 1'-0"



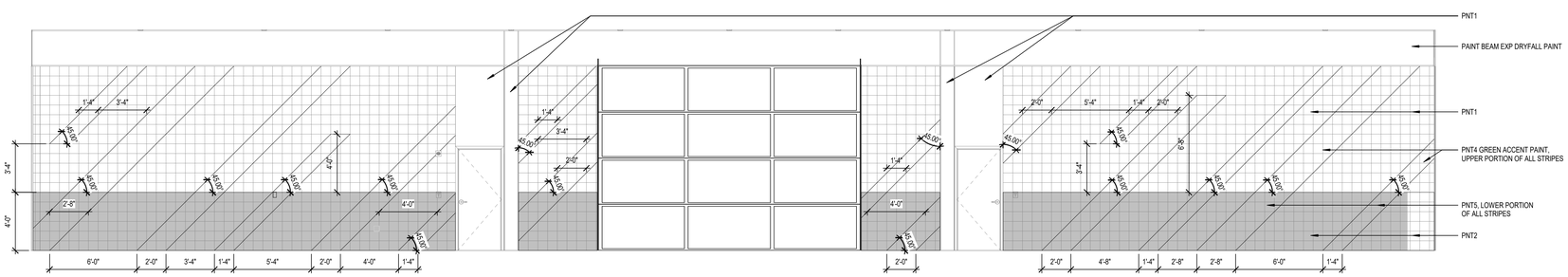
2 EV SERVICE TECNOLOGY - PLAN EAST INTERIOR ELEV.

1/4" = 1'-0"



3 EV SERVICE TECHNOLOGY - PLAN SOUTH INTERIOR ELEV.

1/4" = 1'-0"



4 EV SERVICE TECHNOLOGY - PLAN WEST INTERIOR ELEV.

1/4" = 1'-0"

NOTE: ALL OFFICE WALLS TO BE PAINTED PNT1 & PNT2 AS SHOWN.

5 OFFICE WALL PAINT

1/4" = 1'-0"

SPECIALTIES/ACCESSORIES SCHEDULE

MARK	ITEM	BASIS OF DESIGN	
FEC	FIRE EXTINGUISHER CABINET		CONTRACTOR PROVIDED AND INSTALLED
GB36	GRAB BAR, 36"	BOBRICK/STRAIGHT GRAB BAR/B-6806/STAINLESS STEEL/SATIN	CONTRACTOR PROVIDED AND INSTALLED
GB42	GRAB BAR, 42"	BOBRICK/STRAIGHT GRAB BAR/B-6806/STAINLESS STEEL/SATIN	CONTRACTOR PROVIDED AND INSTALLED
MIR	MIRROR	BOBRICK/CHANNEL-FRAME MIRROR/B-165 1830/18"W X 30"H	CONTRACTOR PROVIDED AND INSTALLED
PTD	PAPER TOWEL DISPENSER		OWNER PROVIDED AND INSTALLED
SD	SOAP DISPENSER		OWNER PROVIDED AND INSTALLED
SND	SANITARY NAPKIN DISPOSAL	BOBRICK/CONTURA SERIES/SURFACE-MOUNTED SANITARY NAPKIN DISPOSAL/B-270/STAINLESS STEEL/SATIN	CONTRACTOR PROVIDED AND INSTALLED
TTD	TOILET TISSUE DISPENSER	BOBRICK/CONTURA SERIES/SURFACE-MOUNTED MULTI-ROLL TOILET TISSUE DISPENSER/B-4288/STAINLESS STEEL/SATIN	CONTRACTOR PROVIDED AND INSTALLED
WR	WASTE RECEPTACLE	BOBRICK/FLOOR-STANDING WASTE RECEPTACLE WITH OPEN TOP/B-2280/21 GAL/14-7/8"W X 14-7/8"D X 29-1/4"H/ STAINLESS STEEL/SATIN	CONTRACTOR PROVIDED AND INSTALLED

GLMVArchitecture

PEC PROJECT NUMBER: 228090-042
PEC
PROFESSIONAL ENGINEERING CONSULTANTS, P.A.
303 SOUTH TOPEKA, WICHITA, KS 67202
316-262-2691 www.pec1.com

DESCRIPTION | DATE

PROJECT NUMBERS:
GLMV # - 22050R23002

PROJECT TYPE:
Renovation

WICHITA STATE UNIVERSITY
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WICHITA STATE UNIVERSITY CAMPUS OF APPLIED SCIENCES AND TECHNOLOGY

EAST HIGH SNAP ON LAB

301 S. Grove, Wichita, KS 67211

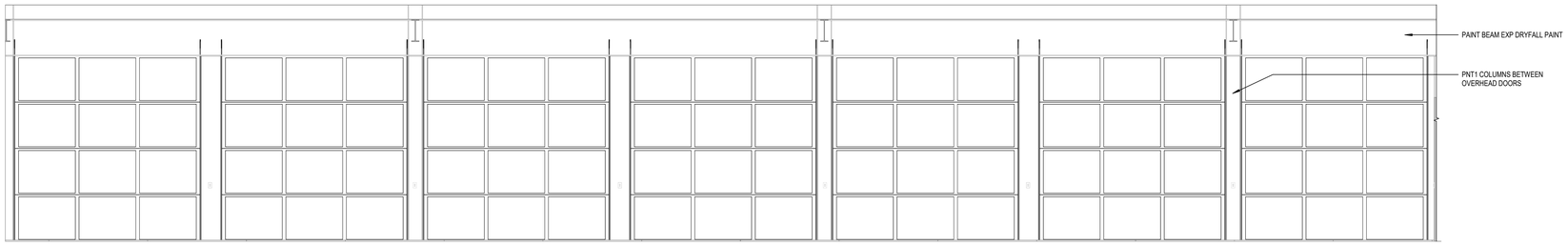
DATE: 11/17/2023 DRAWN BY: RTL CHECKED BY: MSA

INTERIOR ELEVATIONS

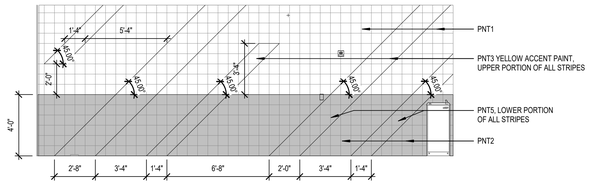
I-201

CERTIFIED FINAL

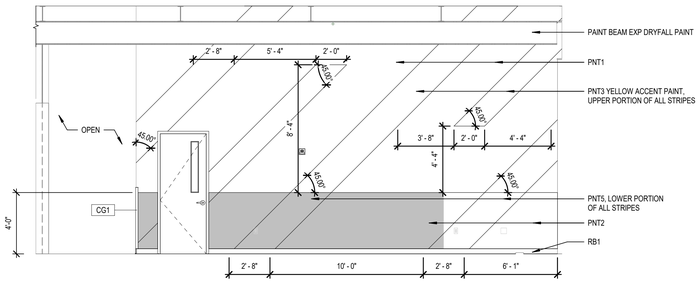
PLOT DATE: 11/17/2023 9:30:36 AM
FILE PATH: Autodesk Docs://2023R00003791 WSUTech_EastHighSnaponLab/22050R23002_A_WSUTech_EastHighSnaponLab_V23.rvt



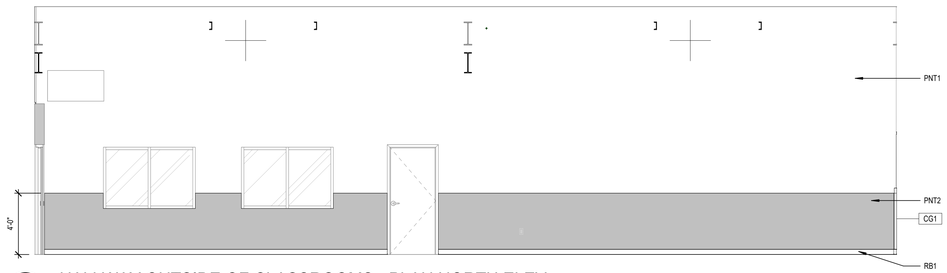
1 AUTOMOTIVE SERVICE TECHNOLOGY - PLAN NORTH INTERIOR ELEV.
1/4" = 1'-0"



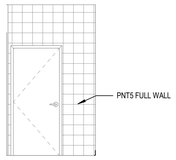
2 AUTOMOTIVE SERVICE TECHNOLOGY - PLAN EAST INTERIOR ELEV.
1/4" = 1'-0"



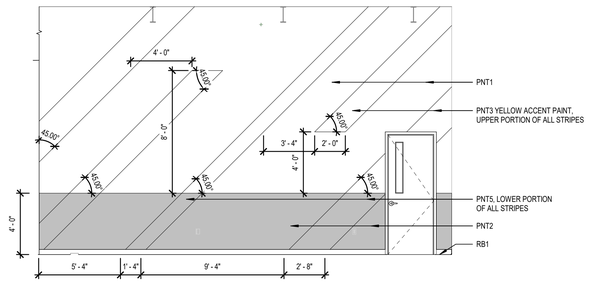
3 AUTOMOTIVE SERVICE TECHNOLOGY - PLAN WEST INTERIOR ELEV.
1/4" = 1'-0"



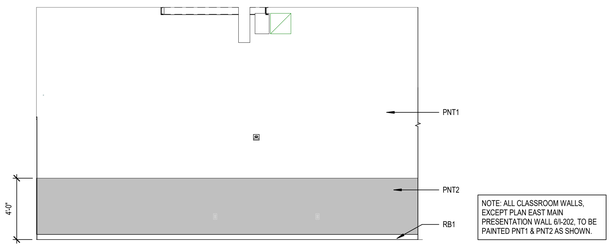
4 HALLWAY OUTSIDE OF CLASSROOMS - PLAN NORTH ELEV.
1/4" = 1'-0"



5 HALLWAY OUTSIDE OF CLASSROOMS - PLAN WEST ELEV.
1/4" = 1'-0"



6 CLASSROOM MAIN PRESENTATION WALL
1/4" = 1'-0"



7 CLASSROOM WALL PAINT
1/4" = 1'-0"

PEC PROJECT NUMBER: 228090-042
PEC
PROFESSIONAL ENGINEERING CONSULTANTS, P.A.
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MATTHEW F. CORTEZ
REGISTERED
6117
11.15.2023
KANSAS
ARCHITECT

DESCRIPTION	DATE

PROJECT NUMBERS:
GLMV # - 22B0NR23002

PROJECT TYPE:
Renovation

WICHITA STATE UNIVERSITY CAMPUS OF APPLIED SCIENCES AND TECHNOLOGY
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EAST HIGH SNAP ON LAB

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INTERIOR ELEVATIONS

I-202

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ROOM FINISH SCHEDULE

ROOM NO	ROOM NAME	FINISHES / MATERIALS							COMMENTS
		FLOOR	BASE	WALLS				CEILING	
				NORTH	EAST	SOUTH	WEST		
101	LAB	CONC1		PNT1/PNT2	PNT1/PNT2	PNT1/PNT2		EXP	1
102	EV SERVICE TECHNOLOGY	CONC1	TR1	PNT1/PNT2	PNT1/PNT2	PNT1/PNT2	PNT1/PNT2/PNT4/ PNT5	EXP	1, 4, 8
103	OFFICE	CONC1	RB1	PNT1/PNT2	PNT1/PNT2	PNT1/PNT2	PNT1/PNT2	ACT	1
104	OFFICE	CONC1	RB1	PNT1/PNT2	PNT1/PNT2	PNT1/PNT2	PNT1/PNT2	ACT	1
105	AV	CONC1	RB1	PNT1	PNT1	PNT1	PNT1	EXP	1
117	WOMEN RR	EPOX	SRFB	PWT2	PNT1	PNT1	PWT2	GWB	1, 9
118	MEN RR	EPOX	SRFB	PNT1/PWT2	PNT1	PNT1	PNT1	GWB	1, 9
120	CLASSROOM	CONC2	RB1	PNT1/PNT2	MPAR/PNT1/PNT2	PNT1/PNT2	PNT1/PNT2	EXP	1, 11
121	CLASSROOM	CONC2	RB1	PNT1/PNT2	MPAR/PNT1	PNT1/PNT2	MPAR/PNT1	EXP	1, 10, 11
123	CLASSROOM	CONC2	RB1	PNT1/PNT2	PNT1/PNT2/PNT3/ PNT5	PNT1/PNT2	MPAR/PNT1	EXP	1, 4, 10, 11
126	AUTOMOTIVE SERVICE TECHNOLOGY	CONC1	TR1	PNT1	PNT1/PNT2/PNT3/ PNT5/PNT6	EXIST/PWT1/PWT2	PNT1/PNT2/PNT3/ PNT5/PNT6	EXP	1, 4, 8

INTERIOR FINISH NOTES

#	NOTES
1	ALL FINISHES INDICATED ON SCHEDULE ARE BASED OFF OF PLAN NORTH.
2	SEE SHEET I-101 FOR FLOOR FINISH PLAN.
3	COLUMNS AND ALL EXPOSED SIDES TO RECEIVE PNT1. UNO.
4	ACCENT PAINT COLOR LOCATIONS TO BE DETERMINED BY CLIENT/ARCHITECT. ACCENT WALLS TO HAVE A LEVEL 5 FINISH. RENDERED ELEVATIONS WILL BE PROVIDED w/ PAINT SUBMITTAL.
5	HM DOORS AND FRAMES TO BE PAINTED, COLOR TO BE SELECTED BY ARCHITECT.
6	COORDINATE ALL FINISHES WITH PARTITION TYPES ON SHEET A-601.
7	REFER TO RCP AND CEILING DETAILS FOR CEILING MATERIAL TRANSITIONS.
8	REFER TO INTERIOR ELEVATIONS FOR TR1 BASE LOCATION.
9	EPOXY (EPOX) FLOOR FINAL FINISH TOP COAT TEXTURE TO BE COORDINATED WITH OWNER.
10	REFER TO SHEET I-101 FOR LOCATION OF MOVABLE PARTITION (MPAR) FINISHES.
11	CLASSROOM EXPOSED CEILING DUCTWORK TO BE PAINTED PNT3 YELLOW.

GENERAL NOTES

#	NOTES
A	ALL FLOOR FINISH CHANGES AT DOORWAYS TO OCCUR UNDER CENTERLINE OF DOOR, UNLESS NOTED OTHERWISE
B	REFER TO REFLECTED CEILING PLAN FOR CEILING HEIGHTS.
C	ALL METAL DOORS & FRAMES TO BE FACTORY PRIMED AND FIELD PAINTED, COLOR TO BE SELECTED BY ARCHITECT, UNLESS NOTED OTHERWISE.
D	ALL MATERIALS TO BE INSTALLED PER MANUFACTURERS WRITTEN INSTRUCTIONS.
E	ALL DIMENSIONS FROM FINISH TO COMPONENT, UNLESS NOTED OTHERWISE.
F	ALL RESILIENT BASE CORNERS TO BE (PREFORMED) OR (FIELD FORMED).
G	ALL METAL WINDOW FRAMES & SIDELIGHTS SHALL BE PAINTED, COLOR TO BE SELECTED BY ARCHITECT, UNO.
H	ALL EXPOSED CEILINGS TO HAVE DRYFALL PAINT, COLOR TO BE SELECTED BY ARCHITECT. PAINT EXPOSED CEILING, STRUCTURE, ROOF DECK, DUCTWORK, AND CONDUIT, UNO.

FINISH CODES

MARK	MATERIAL	DESCRIPTION
BASE		
RB1	RESILIENT BASE	MATCH EXISTING BASE
SRFB	SEAMLESS RESINOUS FLOORING BASE	SHERWIN WILLIAMS/RESUFLOR/DECO FLAKE/1/4" FLAKE/CRESCENT MOON/4" COVE BASE WITH L-STRIP/METAL/GRAY METALLIC
CEILING		
ACT	ACOUSTICAL CEILING TILE	ARMSTRONG/OPTIMA/24X24/PRELUDE 15/16" GRID
EXP	EXPOSED TO STRUCTURE	STRUCTURE PAINTED SHERWIN WILLIAMS/SW 7069/ARGOS/DRYFALL
GWB	GYPSUM WALL BOARD	SHERWIN WILLIAMS/CEILING BRIGHT WHITE/SW 7007
FLOORS		
CONC1	CONCRETE	EXISTING CONCRETE TO BE CLEANED AND BUFFED
CONC2	CONCRETE (POLISHED)	POLISHED, REF. SPECS
EPOX	EPOXY	SHERWIN WILLIAMS/RESUFLOR/DECO FLAKE/1/4" FLAKE/CRESCENT MOON/PROVIDE SLIP RESISTANT FINISH
MISCELLANEOUS		
MPAR	MOVABLE PARTITION	MODERNFOLD/ACOUSTI-SEAL PREMIER/PAIRED PANEL SYSTEM FINISH: ONE SIDE FULL HEIGHT MARKER BOARD, ONE SIDE WILSONART/LAMINATE/STEEL MESH/4878-38/FINE VELVET FINISH
TPAR	TOILET PARTITION	SCRANTON/HINY HIDERS/STANDARD HEIGHT/FLOOR MOUNTED OVERHEAD BRACED/CONTINUOUS HINGE/BLACK ORANGE PEEL
TR1	TILE TRIM (COVE TRANSITION)	SCHLUTER/DILEX-AHKA/SATIN ANODIZED ALUMINUM
TR2	TILE TRIM	SCHLUTER/JOLLY/SATIN ANODIZED ALUMINUM
SURFACE		
CG1	CORNER GUARD	INPRO/SURFACE MOUNT STAINLESS STEEL/2" WING/4' HEIGHT/16 GAUGE
WALLS		
PNT1	PAINT	SHERWIN WILLIAMS/SW 7065/ARGOS/EG-SHEL
PNT2	PAINT	SHERWIN WILLIAMS/SW 7067/CITYSCAPE/EG-SHEL
PNT3	PAINT (ACCENT)	SHERWIN WILLIAMS/COLOR TO MATCH YELLOW SNAP-ON UNITS FROM MANUFACTURER/EG-SHEL DITZLER WET SPRAY CODE: 84199
PNT4	PAINT (ACCENT)	SHERWIN WILLIAMS/COLOR TO MATCH GREEN SNAP-ON UNITS FROM MANUFACTURER/EG-SHEL DITZLER WET SPRAY CODE: 906120
PNT5	PAINT (ACCENT)	SHERWIN WILLIAMS/SW 7069/IRON ORE/EG-SHEL
PNT6	PAINT (HM DOORS AND FRAMES)	MATCH EXISTING HM DOORS AND FRAMES
PWT1	PORCELAIN WALL TILE	VIRGINIA TILE/AMERICAN OLEAN/COLORSTORY FLOOR/12X24/MATTE BALANCE 0034/STRAIGHT STACK INSTALLATION GROUT: MAPEI/5019 PEARL GRAY
PWT2	PORCELAIN WALL TILE	VIRGINIA TILE/AMERICAN OLEAN/COLORSTORY FLOOR/12X24/MATTE STORM GRAY 0017/STRAIGHT STACK INSTALLATION MAPEI/5019 PEARL GRAY

GLMVArchitecture

PEC PROJECT NUMBER: 228090-042
PEC
PROFESSIONAL ENGINEERING CONSULTANTS, P.A.
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MATTHEW F. CORTEZ
REGISTERED
6117
11.15.2023
KANSAS
ARCHITECT

DESCRIPTION	DATE

PROJECT NUMBERS:
GLMV # - 22260R2302

PROJECT TYPE:
Renovation

WSU TECH
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EAST HIGH SNAP ON LAB

301 S. Grove, Wichita, KS 67211

DATE: 11/17/2023 DRAWN BY: RTL CHECKED BY: MSA

FINISH SCHEDULE AND CODES

I-601

CERTIFIED FINAL

PLOT DATE: 11/17/2023 9:30:38 AM
FILE PATH: Autodesk Docs://2023R00003791 | WSUTech_EastHighSnaponLab/23260R2002_A_WSUTech_EastHighSnaponLab_V23.rvt

PEC PROJECT NUMBER: 2236090-042
PROFESSIONAL ENGINEERING CONSULTANTS, P.A.
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KATHLEEN F. CONTEZ
No. 24455
11-15-2023
LICENSED PROFESSIONAL ENGINEER
STATE OF KANSAS

△	DESCRIPTION	DATE

PROJECT NUMBERS:
GLMV # - 2320RZ3002
PROJECT TYPE:
Renovation

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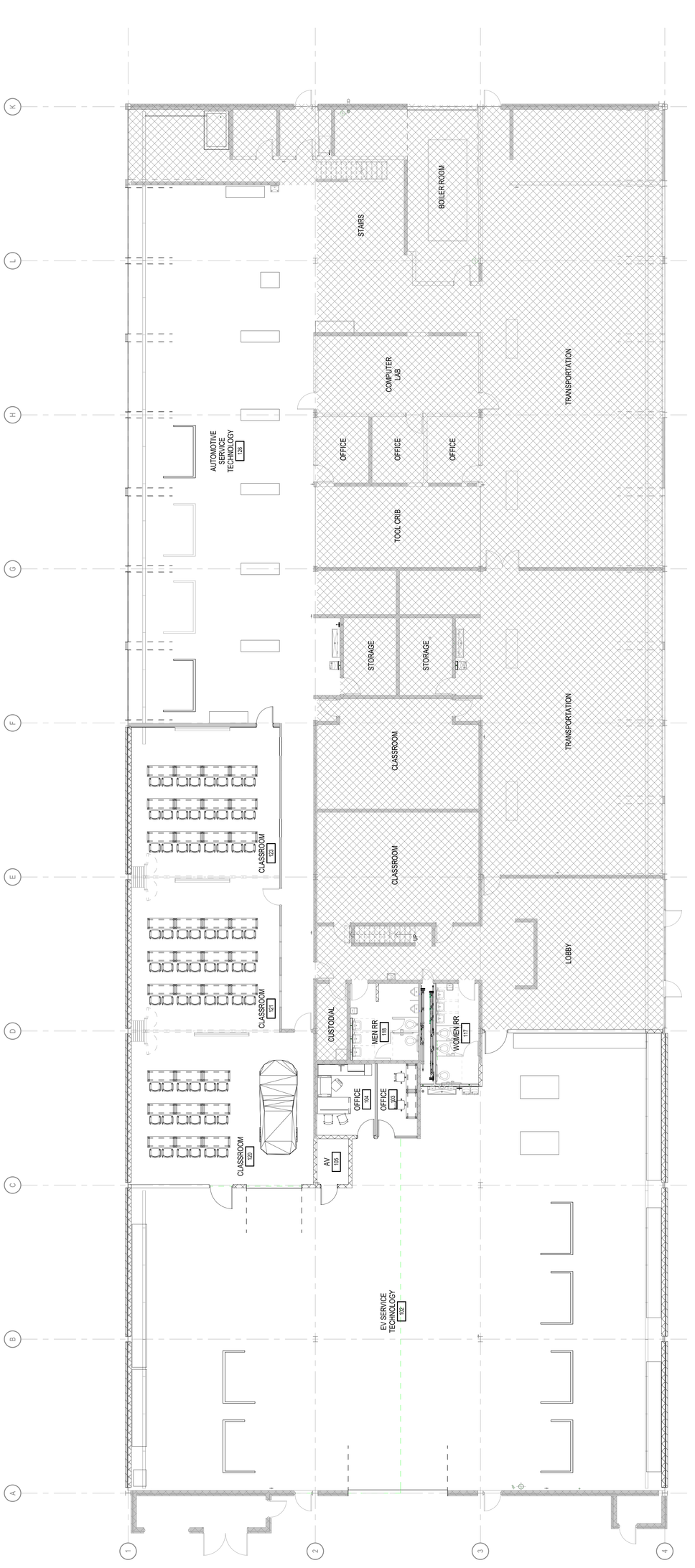
DATE: 11/17/2023 DRAWN BY: RTL CHECKED BY: MSA

FURNITURE REFERENCE PLAN

IF101

CERTIFIED FINAL



PLAN NORTH

A FURNITURE PLAN - FOR REFERENCE ONLY
1/8" = 1'-0"

PLOT DATE: 11/17/2023 9:30:40 AM
FILE PATH: Autodesk Docs://2023R0000379.1_WSUTech_EastHighSnaponLab/2326OR2300Z_A_WSUTech_EastHighSnaponLab_V23.rvt

HVAC & PLUMBING SYMBOL SCHEDULE

SYMBOL	DESCRIPTION	SYMBOL	DESCRIPTION
(#) (#) (#)	REFER TO PLAN NOTES	111	ROOM CALLOUT
(E)	EXISTING EQUIPMENT OR MATERIAL DESIGNATION		REVISION NUMBER
	EXISTING COMPONENT PEN WEIGHT		CONNECT NEW TO EXISTING. VERIFY EXACT LOCATION.
	DEMOLITION PEN WEIGHT - COMPONENT MAY ALSO BE SHADED		DISCONNECT FROM EXISTING. VERIFY EXACT LOCATION.
TCC	TEMPERATURE CONTROL CONTRACTOR	GC	GENERAL CONTRACTOR
EC	ELECTRICAL CONTRACTOR	MC	MECHANICAL CONTRACTOR
PC	PLUMBING CONTRACTOR	TYP. / (TYP)	TYPICAL ALL INSTANCES
UNO	UNLESS NOTED OTHERWISE	ETR	EXISTING TO REMAIN
24x12	(UP)DUCT SEC., POSITIVE PRESSURE-FIRST SIZE IS TOP DIM.(TYP.)		BALANCING DAMPER W/ MANUAL LOCKING QUADRANT
24x12	(DOWN) DUCT SECTION, POSITIVE PRESSURE		RECTANGULAR - OPPOSED BLADE / ROUND - BUTTERFLY
24x12	(UP) DUCT SECTION, NEGATIVE PRESSURE		BALANCING DAMPER W/ MOTORIZED LOCKING QUADRANT
24x12	(DOWN) DUCT SECTION, NEGATIVE PRESSURE		RECTANGULAR - OPPOSED BLADE / ROUND - BUTTERFLY
	SUPPLY DUCT DROP / RETURN DUCT DROP	18x12	DUCT SIZE, FIRST FIGURE IS SIDE SHOWN-CLEAR INSIDE DIM.
	SUPPLY DUCT RISER	R	DUCT CHANGE OF ELEVATION RISE(R) DROP(D)
	RETURN DUCT RISER		FLEXIBLE CONNECTION
	FLEXIBLE DUCT		SIDE WALL SUPPLY REGISTER
	TURNING VANES	RTU / AHU	ROOFTOP UNIT / AIR HANDLING UNIT
OBD	OPPOSED BLADE DAMPER	VAV	VARIABLE AIR VOLUME UNIT
BOD	BOTTOM OF DUCT ELEVATION ABOVE FLOOR	SF	SUPPLY AIR FAN
BOS	BOTTOM OF STEEL	EF / RG	EXHAUST FAN / RETURN GRILLE
TOD	TOP OF DUCT ELEVATION ABOVE FLOOR	SR	SUPPLY REGISTER
VFD	VARIABLE FREQUENCY DRIVE	SA / OA	SUPPLY AIR / OUTSIDE AIR
M	MOTOR	RA / EA	RETURN AIR / EXHAUST AIR
T	TEMPERATURE SENSOR	FD	FIRE DAMPER IN WALL
H	HUMIDITY SENSOR	FD	FIRE DAMPER IN FLOOR
Ⓗ	ELECTRIC OR DDC HUMIDISTAT (HSTAT)	SD	SMOKE DAMPER
Ⓣ	ELECTRIC OR DDC THERMOSTAT (TSTAT)	FSD	COMBINATION FIRE/SMOKE DAMPER IN WALL
		FSD	COMBINATION FIRE/SMOKE DAMPER IN FLOOR
	DOUBLE CHECK BACKFLOW ASSEMBLY		BALL VALVE
	REDUCED PRESSURE ZONE BACKFLOW ASSEMBLY		CIRCUIT SETTER - CALIBRATED BALANCE VALVE
	GAS COCK / GLOBE VALVE		BUTTERFLY VALVE
	VALVE IN DROP / VALVE IN RISER		2-WAY / 3-WAY CONTROL VALVE (PNEUMATIC)
	GATE VALVE - SHUT OFF VALVE		2-WAY / 3-WAY CONTROL VALVE (ELECTRIC)
	3 PIECE BALL VALVE / HYDRAULIC VALVE		CHECK VALVE
	EMERGENCY VALVE WITH FIRE LINK		PRESSURE REDUCING VALVE (PRV) / WAFER CHECK VALVE
	STRAINER / UNION OR FLANGE CONNECTION		AUTOMATIC FLOW CONTROL VALVE
	PLUG VALVE		CALIBRATED ORIFICE PLATE FLOW METER
	SPRING HANGER / PIPE HANGER		THERMOMETER / PRESSURE GAUGE
	CAP / CAPPED OUTLET		CONCENTRIC REDUCER OR INCREASER / ECCENTRIC REDUCER
	PIPE DROP / PIPE RISE		TOP CONNECTION, 45° OR 90° / BOTTOM CONNECTION, 45° OR 90°
	DIRECTION OF FLOW / ANCHOR		SIDE CONNECTION
	DOMESTIC COLD WATER LINE (CW)		ABOVE FLOOR WASTE LINE (W)
	DOMESTIC HOT WATER LINE (HW)		BELOW FLOOR WASTE LINE (W)
	HOT WATER RECIRC LINE (HWC)		PLUMBING VENT LINE (V)
F	FIRE PROTECTION LINE (F)	RL ORL	RAIN LEADER (RL) / OVERFLOW RAIN LEADER (ORL)
CA	COMPRESSED AIR (CA)	TOP / BOP	TOP OF PIPE / BOTTOM OF PIPE ELEVATION ABOVE FLOOR
G	NATURAL GAS LINE (G)	RD / ORD	ROOF DRAIN / OVERFLOW ROOF DRAIN
CD	COOLING COIL CONDENSATE DRAIN LINE (CD)	CI	CAST IRON
VTR	VENT THROUGH ROOF	PVC	POLYVINYL CHLORIDE PIPE
FS	FLOOR SINK	WH	WALL HYDRANT
FD / TD	FLOOR DRAIN / TRENCH DRAIN	WH-#	WATER HEATER CALLOUT
CO CO	CLEANOUT (FLOOR) / 2-WAY CLEANOUT (FLOOR)	F/S	FILTER-SEPARATOR
WCO CO	WALL CLEANOUT / END OF LINE CLEANOUT	FHC	FIRE HOSE CABINET
P-#	PLUMBING FIXTURE CALLOUT	DHWP	DOMESTIC HOT WATER PUMP
WHA#	WATER HAMMER ARRESTOR - PDI SIZE	HR / HB	HOSE REEL / HOSE BIBB
FL	FLOW LINE ELEVATION	TMV	THERMOSTATIC MIXING VALVE

GENERAL NOTES

1. VERIFY JOB SITE CONDITIONS AND DIMENSIONS BEFORE BEGINNING WORK. PLANS ARE SCHEMATIC IN NATURE. LAYOUT IS BASED ON BEST AVAILABLE INFORMATION. CONTRACTOR SHALL FIELD VERIFY EXISTING CONDITIONS AND DIMENSIONS.
2. NO PIPING, DUCTWORK, ETC. SHALL PENETRATE STRUCTURAL MEMBERS.
3. PROVIDE MISCELLANEOUS CUTTING, PATCHING AND REPAIRING OF FINISHES, ROOF, WALLS, ETC., AS REQUIRED TO ACCOMMODATE THE NEW WORK.
4. G.C. IS TO PATCH ANY OPENINGS IN CORRIDORS REQUIRED TO BE CONSTRUCTED TO LIMIT THE TRANSFER OF SMOKE AND IN SMOKE BARRIERS AS REQUIRED TO MEET CODE REQUIREMENTS. SEE ARCHITECTURAL DRAWINGS FOR LOCATIONS.
5. IT IS THE CONTRACTOR'S RESPONSIBILITY TO FIELD VERIFY EXACT LOCATION, CONFIGURATION AND ROUTING OF EXISTING SYSTEMS REQUIRED TO REMAIN IN OPERATION DURING THE PROJECT TO PREVENT DAMAGE DURING DEMOLITION AND PHASING.
6. REMOVE ALL EXISTING EQUIPMENT, DUCTWORK AND PIPING THAT IS NOT REQUIRED FOR A WORKING INSTALLATION.
7. COORDINATE ALL WORK WITH OTHER TRADES PRIOR TO INSTALLATION.
8. UNLESS OTHERWISE INDICATED, INSTALL ALL SPACE THERMOSTATS AND OTHER OCCUPANT ADJUSTABLE CONTROL DEVICES SAME HEIGHT AS ADJACENT LIGHT SWITCHES, BUT IN NO CASE HIGHER THAN 48 INCHES ABOVE FINISHED FLOOR PER ADA REQUIREMENTS. COORDINATE EXACT HEIGHT WITH ARCHITECT PRIOR TO INSTALLATION.
9. ALL CUTTING AND PATCHING SHALL BE CLOSELY COORDINATED WITH THE G.C.
10. COORDINATE ROUTING OF PLUMBING, AND HVAC PIPING WITH DUCTWORK, LIGHTS, ARCHITECTURAL CEILING AND STRUCTURAL ELEMENTS. PIPING SHALL RISE AND DROP, JOG OR OFFSET AS REQUIRED TO AVOID CONFLICTS. DUCTWORK SHALL TAKE PRECEDENCE OVER ALL PIPING, EXCEPT WHERE GRADE MUST BE MAINTAINED FOR DRAINAGE. REWORK OF INSTALLED WORK TO RESOLVE CONFLICTS RISING FROM LACK OF COORDINATION SHALL NOT JUSTIFY AN INCREASE IN THE CONTRACT AMOUNT.
11. ALL DIFFUSERS ARE 4-WAY BLOW UNLESS INDICATED OTHERWISE ON THE DRAWINGS.
12. FLEXIBLE DUCTWORK IS ALLOWED ON RUNOUTS TO SUPPLY DIFFUSERS ONLY. UTILIZE ONLY ABOVE LAY-IN ACCESSIBLE CEILINGS. DO NOT INSTALL FLEX DUCT ABOVE HARD CEILINGS OR WHERE EXPOSED. A MAXIMUM LENGTH OF 6'-0" MAY BE USED AT EACH CONNECTION.
13. SEAL TRANSVERSE AND LONGITUDINAL JOINTS OF ALL DUCTWORK USING HARDCAST DT TAPE AND FTA-20 ADHESIVE OR HARDCAST AFG-1402 "FOIL GRIP" PER MANUFACTURERS INSTRUCTIONS.
14. INSTALL BALANCE DAMPER WITH STANDOFF AND LOCKING QUADRANT IN AN ACCESSIBLE LOCATION AT EACH RUNOUT TO SUPPLY DIFFUSERS, EXHAUST GRILLES, AND RETURN GRILLES WHERE AIRFLOW IS INDICATED, OR AS INDICATED OTHERWISE.
15. ALL PENETRATIONS THROUGH FIRE RATED ASSEMBLIES SHALL BE FIRE STOPPED BY THE TRADE MAKING THE PENETRATION. REFER TO ARCHITECTURAL DRAWINGS AND SPECIFICATIONS FOR REQUIREMENTS.
16. DO NOT ROUTE PIPING OR DUCTWORK OVER ELECTRICAL PANELS OR EQUIPMENT. PIPING OR DUCTWORK SHALL NOT BE ROUTED THROUGH ELECTRICAL ROOMS, TELECOM ROOMS OR ELEVATOR EQUIPMENT ROOMS UNLESS SPECIFICALLY SERVING THAT ROOM. COORDINATE WITH E.C. PROVIDE WATERTIGHT DRIP PAN WITH DRAIN TO NEAREST APPROVED RECEPTOR WHERE REQUIRED.
17. COORDINATE SIZE AND LOCATION OF ACCESS DOORS IN CONSTRUCTION REQUIRED FOR ACCESS TO MECHANICAL EQUIPMENT WITH G.C.
18. COORDINATE SIZE AND LOCATION OF MECHANICAL EQUIPMENT PADS WITH G.C.
19. ALL WORK IS TO CONFORM WITH APPLICABLE CODES AND STANDARDS.
20. DUCT SIZES SHOWN ARE ACTUAL INSIDE CLEAR DIMENSIONS. INCREASE SHEET METAL DIMENSIONS AS REQUIRED TO ACCOMMODATE DUCT LINER WHERE LINER IS SPECIFIED.
21. ALL EQUIPMENT SUPPORT STANDS SHALL BE PRIMED AND PAINTED WITH EPOXY ENAMEL.
22. REFER TO ARCHITECTURAL REFLECTED CEILING PLANS FOR EXACT LOCATION OF ALL CEILING MOUNTED AIR DISTRIBUTION DEVICES.
23. PAINT INSIDE OF DUCTWORK BLACK ANYWHERE VISIBLE THROUGH FACE OF GRILLE OR DIFFUSER.
24. TEMPERATURE CONTROLS CONTRACTOR (T.C.C.) SHALL FURNISH AND INSTALL ALL LOW VOLTAGE WIRING AND ASSOCIATED CONDUIT REQUIRED FOR MECHANICAL CONTROL SYSTEM. WIRING SHALL BE IN CONDUIT INSIDE WALLS, IN ROOMS WITH EXPOSED CEILINGS, AND ABOVE HARD CEILINGS. LINE VOLTAGE WIRING AND ASSOCIATED CONDUIT SHALL BE PROVIDED AND INSTALLED BY E.C. CONTROL SYSTEM SHALL BE INSTALLED IN ACCORDANCE WITH SPECIFICATIONS.
25. ALL CONTROL DAMPERS SHALL BE FURNISHED BY T.C.C. AND INSTALLED BY THE M.C. MOTOR OPERATORS SHALL BE FURNISHED AND INSTALLED BY THE T.C.C.
26. COORDINATE ACCESS TO EQUIPMENT AND VALVES INSTALLED ABOVE 'HARD' CEILINGS AND IN MASONRY CHASES WITH GENERAL CONTRACTOR. PROVIDE LOCKING ACCESS DOORS FOR INSTALLATION BY CONTRACTOR AS REQUIRED TO SERVICE CONCEALED DAMPERS, VALVES AND EQUIPMENT. CEILING ACCESS DOORS FOR FIRE DAMPERS, SMOKE DAMPERS AND FIRE SMOKE DAMPERS FURNISHED AND INSTALLED BY CONTRACTOR.
27. CONTRACTOR TO INSTALL TEMPORARY FILTERS OVER ALL RETURN AND EXHAUST GRILLES IN WORK AREA DURING CONSTRUCTION.
28. THESE DRAWINGS ARE ACCOMPANIED BY SPECIFICATIONS. REFER TO SPECIFICATIONS FOR FURTHER INFORMATION.
29. EQUIPMENT THAT REQUIRES MAINTENANCE SHALL BE LOCATED A MINIMUM OF 10'-0" FROM THE BUILDING ROOF EDGE WHERE REQUIRED BY CODE.
30. REFER TO ARCHITECTURAL DRAWINGS FOR LOCATIONS OF TEMPORARY PARTITIONS.
31. SQUARE THROAT NOT ALLOWED ON RADIUS ELBOWS.
32. MANUAL BALANCE DAMPERS, PLUMBING VALVES, CIRCUIT SETTERS AND OTHER ACCESSORIES REQUIRING ACCESS SHALL BE ACCESSIBLE VIA A STANDARD LADDER SO COMPONENTS MAY BE REPLACED, REPAIRED, OR UTILIZED WITHOUT THE NEED FOR EXTENSIVE CEILING REMOVAL, SCAFFOLDING OR A MAN LIFT. WHERE POSSIBLE NO MORE THAN 48" ABOVE THE FINISHED CEILING.

PRESSURE CLASS SCHEDULE

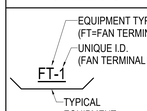
AIR SYSTEM	PRESSURE CLASS	SEAL CLASS	LEAKAGE CLASS	
			ROUND	RECT
GENERAL EXHAUST	2 INCH WG (500 PA)	A	3	6
LOW-PRESSURE SUPPLY	2 INCH WG (500 PA)	A	6	12
RETURN AND RELIEF	2 INCH WG (500 PA)	A	6	12
VEHICLE EXHAUST	6 INCH WG (1500 PA)	A	3	6

GENERAL DEMOLITION NOTES

1. VERIFY ALL EXISTING CONDITIONS PRIOR TO BEGINNING WORK. BRING ANY DISCREPANCIES FROM THE DRAWINGS AND NOTES TO THE ARCHITECT IMMEDIATELY. MINOR CHANGES IN THE SCOPE OF THE DEMOLITION WORK SHALL NOT JUSTIFY AN ADDITIONAL COST.
2. REMOVAL OF EXISTING FIXTURES AND EQUIPMENT WILL REQUIRE ISOLATING THE PIPING RISERS OR MAINS VIA SHUT-OFF VALVES. INSTALL NEW ISOLATION VALVES WHERE REQUIRED FOR COMPLETION OF WORK.
3. REMOVAL OF EXISTING PLUMBING FIXTURES AND EQUIPMENT, ETC. WILL REQUIRE CAPPING AND SEALING EXISTING MAINS OR BRANCHES AS NECESSARY AND REQUIRED TO ALLOW THE REMAINING SYSTEMS TO FULLY OPERATE WITHOUT DEGRADATION.
4. CONTRACTOR SHALL PROVIDE PROTECTIVE PLASTIC DROP CLOTHS TO PROTECT THE EXISTING OCCUPIED AREAS AND EQUIPMENT FROM DUST AND DEBRIS DURING THE CONSTRUCTION WORK, AND SHALL CLEAN THE AREAS OF ALL CONSTRUCTION DIRT DAILY, AND UPON COMPLETION OF THE WORK.
5. ALL DRAINED PIPING RISERS AND MAINS SHALL BE REFILLED WITH PROPER FLUID AND PROPERLY VENTED BY THIS CONTRACTOR, ONCE NEW WORK HAS BEEN INSTALLED.
6. COORDINATE WITH GENERAL CONTRACTOR THE REMOVAL AND REPLACEMENT OF ALL EXISTING CEILINGS, WALLS, ETC. AS REQUIRED FOR MECHANICAL DEMOLITION WORK.
7. EXISTING PIPING AND EQUIPMENT, ETC., NOT TO BE UTILIZED IN THE COMPLETED BUILDING SHALL BE DISCONTINUED OR REMOVED AS REQUIRED. ALL ENDS OF DISCONTINUED PIPING SHALL BE CAPPED IN THE NEAREST WALL, CEILING OR FLOOR SO THAT THEY ARE COMPLETELY CONCEALED. OPENINGS LEFT IN WALLS, CEILINGS, ETC., WHERE EQUIPMENT AND PIPE, ETC., ARE REMOVED AND NOT REPLACED, SHALL BE PATCHED NEATLY WITH SIMILAR MATERIAL TO ADJACENT CONSTRUCTION. REFER TO DRAWINGS DELINEATING NEW WORK FOR ADDITIONAL INFORMATION REGARDING SYSTEMS OR PORTIONS OF SYSTEMS WHERE USE IS TO BE DISCONTINUED.
8. EXISTING PIPING, FIXTURES AND EQUIPMENT THAT ARE NOT TO BE REUSED SHALL BE REMOVED AND SHALL REMAIN THE PROPERTY OF THE OWNER IF THEY WISH TO RETAIN OWNERSHIP OF SAME. IF NOT, EQUIPMENT SHALL BECOME THE PROPERTY OF THIS CONTRACTOR AND SHALL BE REMOVED FROM THE SITE AS SOON AS PRACTICAL AND DISPOSED OF IN ACCORDANCE WITH APPLICABLE LAWS AND REGULATIONS.
9. ALL CUTTING AND CHANNELING OF EXISTING BUILDING SHALL BE ACCOMPLISHED IN A NEAT AND WORKMANLIKE MANNER WITHOUT REMOVAL OF EXCESS MATERIALS. THIS CONTRACTOR SHALL PATCH AND REPLACE WITH MATERIAL SIMILAR TO ADJACENT CONSTRUCTION.
10. PORTIONS OF EXISTING SYSTEMS MAY BE SHOWN FOR CLARITY EVEN THOUGH IT MAY NOT BE NECESSARY TO MODIFY OR REVISE THEM. ALL EXISTING SYSTEMS ARE SHOWN BASED ON ORIGINAL OR REMODEL BUILDING DRAWINGS. CONTRACTOR TO VERIFY ALL EXISTING CONDITIONS.
11. ALL WORK MUST BE COORDINATED AND SCHEDULED WITH THE OWNER AND OCCUPANTS OF THIS BUILDING SO AS TO PROVIDE THE LEAST AMOUNT OF DISRUPTION OF BUILDING ACTIVITIES AS POSSIBLE. MAINTAIN CONDITIONED SPACE FOR ALL OWNER OCCUPIED AREAS DURING CONSTRUCTION.
12. ALL ACCESSIBLE ABANDONED PIPING AND DUCTWORK SHALL BE REMOVED AND PROPERLY DISPOSED OF.
13. CAP ALL EXISTING PIPING AND DUCTWORK SHOWN TO BE DISCONNECTED AND NOT REUSED AT MAIN. ALL ACCESSIBLE PIPING SHALL BE REMOVED.
14. RELOCATE EXISTING DUCTWORK, PIPING, ELECTRICAL CONDUITS, AND CABLING AS NECESSARY TO ACCOMPLISH FINAL INSTALLATION AS SHOWN. ALERT ENGINEER TO ANY MAJOR RELOCATIONS REQUIRED.

DRAWING SYMBOLS

EQUIPMENT CALLOUT



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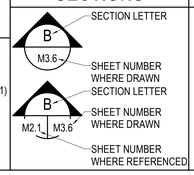
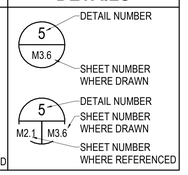


DETAILS



HVAC DESIGN CONDITIONS

REMARKS:
1. RELATIVE HUMIDITY IS NOT MAINTAINED IN THE COOL, DRY WINTER MONTHS.

SPACE OR AREA	OUTDOOR AIR		INDOOR HEATING °F	INDOOR COOLING °F	RELATIVE HUMIDITY %RH	REMARKS
	SUMMER DB/WB °F	WINTER DB °F				
CLASSROOMS / OFFICES	100 / 73	0	72	74	50	1
SHOP AREAS (VEHICLE BAYS / WORKSHOP)	100 / 73	0	68	78	--	1

MECHANICAL SHEET INDEX

PEC PROJECT NUMBER 228090-042
PEC PROFESSIONAL ENGINEERING CONSULTANTS, P.A.
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BRANDON W. CLARK LICENSED PROFESSIONAL ENGINEER 19365 11/16/2023 KANSAS

DESCRIPTION DATE

PROJECT NUMBERS: GLMV # - 2228WSU0502
PROJECT TYPE: Renovation

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EAST HIGH SNAP ON LAB

301 S. GROVE, WICHITA, KS 67211

DATE: 11/06/2023 DRAWN BY: AMB CHECKED BY: KEH

MECHANICAL COVER SHEET

MP001

CERTIFIED FINAL

PLOT DATE: 11/16/2023 3:12:03 PM
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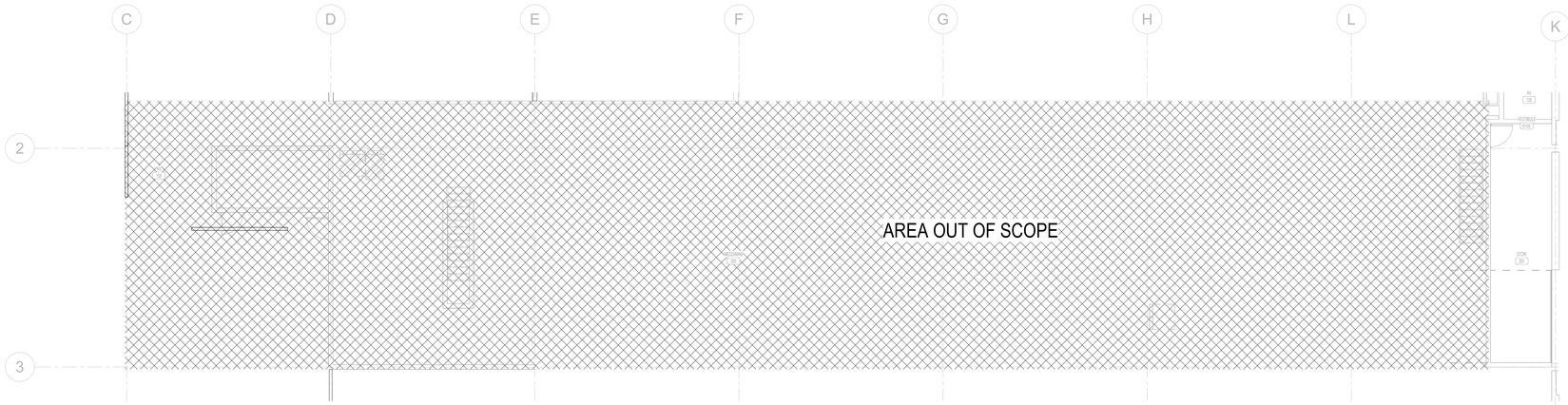

B SECOND FLOOR FIRE PROTECTION PLAN - AREA A

1/8" = 1'-0"

PLAN NORTH

A FIRST FLOOR FIRE PROTECTION PLAN

1/8" = 1'-0"

PLAN NORTH

FIRE PROTECTION NOTES

1. PIPING TO BE BLACK IRON WITH SCREWED MALLEABLE IRON FITTINGS OR MECHANICAL GROOVE FITTINGS. SEE SPECIFICATIONS FOR DETAILS AND APPLICATIONS.
2. PIPE HANGERS TO BE U.L. LISTED AND MOUNTED IN ACCORDANCE WITH NFPA-13.
3. DO NOT OBSTRUCT SPRINKLERS WITH OTHER UTILITIES.
4. SEE SPECIFICATIONS FOR SPRINKLER HEAD TYPES AND APPLICATIONS. ALL SPRINKLER HEADS TO BE QUICK-RESPONSE TYPE. ALL SPRINKLER HEADS SHALL BE LOCATED IN EXACT CENTER OF CEILING TILES.
5. FIRE SPRINKLER DESIGN IS THE RESPONSIBILITY OF THE FIRE SPRINKLER CONTRACTOR. FINAL DESIGN SHALL BE SEALED BY A REGISTERED LICENSED ENGINEER IN THIS STATE. FIRE MARSHALL APPROVED SHOP DRAWINGS SHALL BE SUBMITTED TO THE DESIGN ENGINEER FOR APPROVAL.
6. COORDINATE PIPE ROUTING AND HEAD LOCATIONS WITH OTHER TRADES. PIPING AND HEADS NOT COORDINATED SHALL BE MOVED AT THE CONTRACTOR'S EXPENSE TO ACCOMPLISH CEILING HEIGHTS AS CALLED OUT ON THE ARCHITECT'S DRAWINGS.
7. COORDINATE CLOSELY WITH ALL OTHER TRADES PRIOR TO CONSTRUCTION AND PROVIDE BIM MODEL TO CONSTRUCTION MANAGER FOR COORDINATION AMONG DISCIPLINES IF APPLICABLE.
8. FIRE PROTECTION ENGINEER OF RECORD SHALL DETERMINE HAZARD CLASSIFICATIONS.

HATCH LEGEND:

- NO HATCH — LIGHT HAZARD
- ORDINARY HAZARD, GROUP 1
- ORDINARY HAZARD, GROUP 2

NOTE:
FIRE PROTECTION ENGINEER TO VERIFY ALL HAZARD CLASSIFICATIONS.

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PEC PROJECT NUMBER: 228090-042
PEC
PROFESSIONAL ENGINEERING CONSULTANTS, P.A.
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316-262-2691 www.pec1.com

BRANDON W. CLASS LICENSED 19365 11/16/2023 KANSAS PROFESSIONAL ENGINEER

DATE | DESCRIPTION

PROJECT NUMBERS:
GLMV # - 2226/GE0502
PROJECT TYPE:
Renovation

WSU TECH
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EAST HIGH SNAP ON LAB

301 S. GROVE, WICHITA, KS 67211

DATE: 11/06/2023 DRAWN BY: AMB CHECKED BY: KEH

FIRE PROTECTION PLAN

F101

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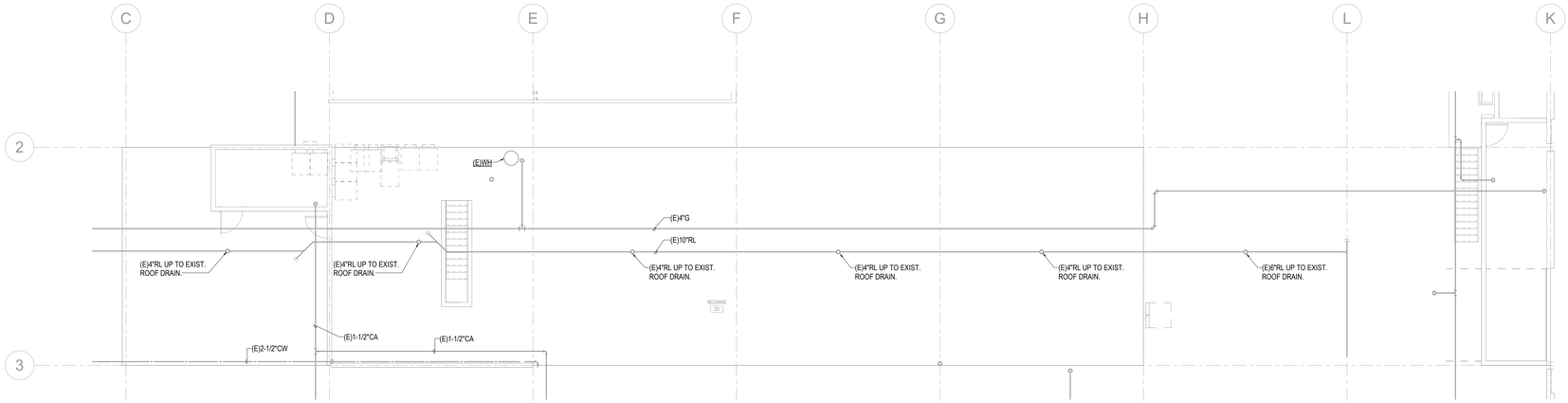


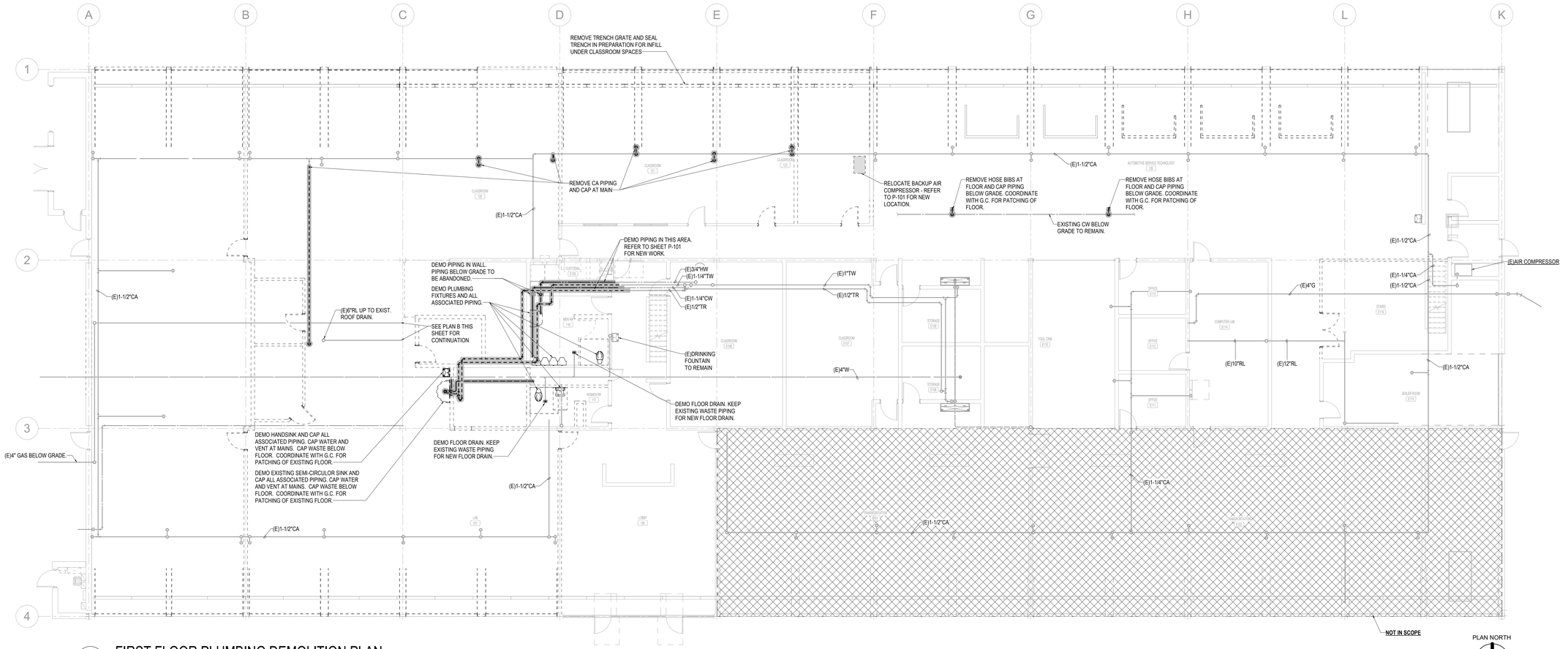
B MEZZANINE PLUMBING DEMOLITION PLAN

1/8" = 1'-0"

PLAN NORTH

PLUMBING DEMO NOTES

1. PLANS ARE SCHEMATIC IN NATURE, LAYOUT IS BASED ON BEST AVAILABLE INFORMATION. CONTRACTOR SHALL FIELD VERIFY EXISTING CONDITIONS AND DIMENSIONS. BRING ANY DISCREPANCIES FROM THE DRAWINGS AND NOTES TO THE OWNER'S REPRESENTATIVE IMMEDIATELY. MINOR CHANGES IN THE SCOPE OF THE DEMOLITION WORK SHALL NOT JUSTIFY AN ADDITIONAL COST.
2. CONTRACTOR SHALL CLEAN ALL EXISTING PLUMBING FIXTURES TO REMAIN OR BE REUSED IN AREA OF WORK TO LIKE-NEW CONDITION AND PROVIDE A LIST OF ANY DEFICIENCIES TO OWNER'S REPRESENTATIVE.
3. DEMOLISH ALL DUCTWORK, PIPING AND EQUIPMENT SHOWN SHADED AND DASHED IN A DARK LINE WEIGHT.



A FIRST FLOOR PLUMBING DEMOLITION PLAN

1/8" = 1'-0"

PLAN NORTH

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BRANDON W. CLASSEN LICENSED 19365 11/16/2023 KANSAS PROFESSIONAL ENGINEER

DESCRIPTION	DATE

PROJECT NUMBERS:
GLMV # - 2228/PD5002

PROJECT TYPE:
Renovation

WSU TECH
WICHITA STATE UNIVERSITY CAMPUS OF APPLIED SCIENCES AND TECHNOLOGY
Wade N. Kistler Hall
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WICHITA STATE UNIVERSITY CAMPUS OF APPLIED SCIENCES AND TECHNOLOGY

EAST HIGH SNAP ON LAB

301 S. GROVE, WICHITA, KS 67211

DATE: 11/06/2023 DRAWN BY: AMB CHECKED BY: KEH

PLUMBING DEMOLITION PLAN

PD101

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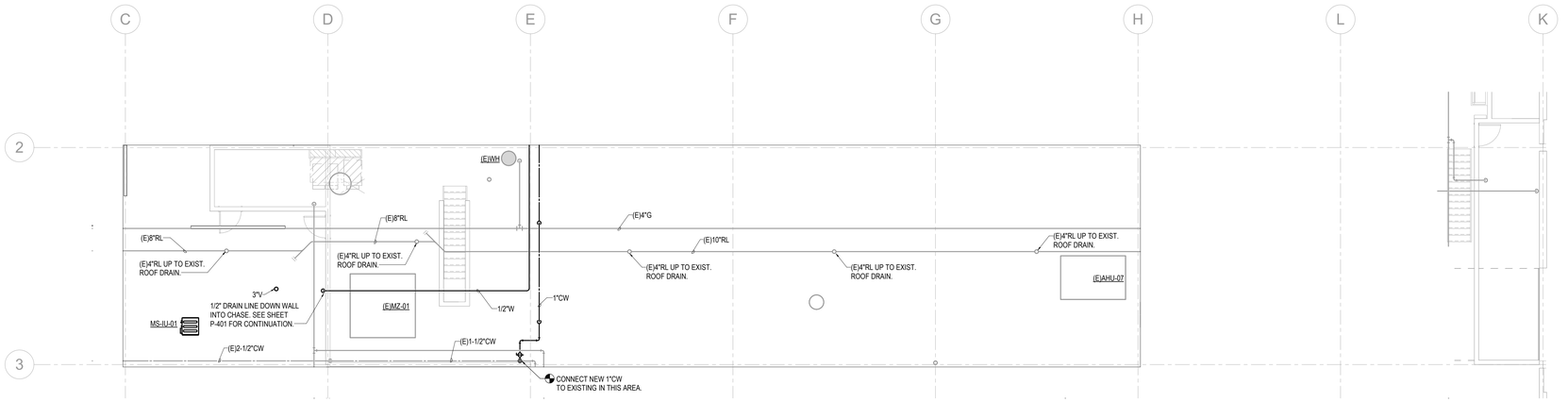
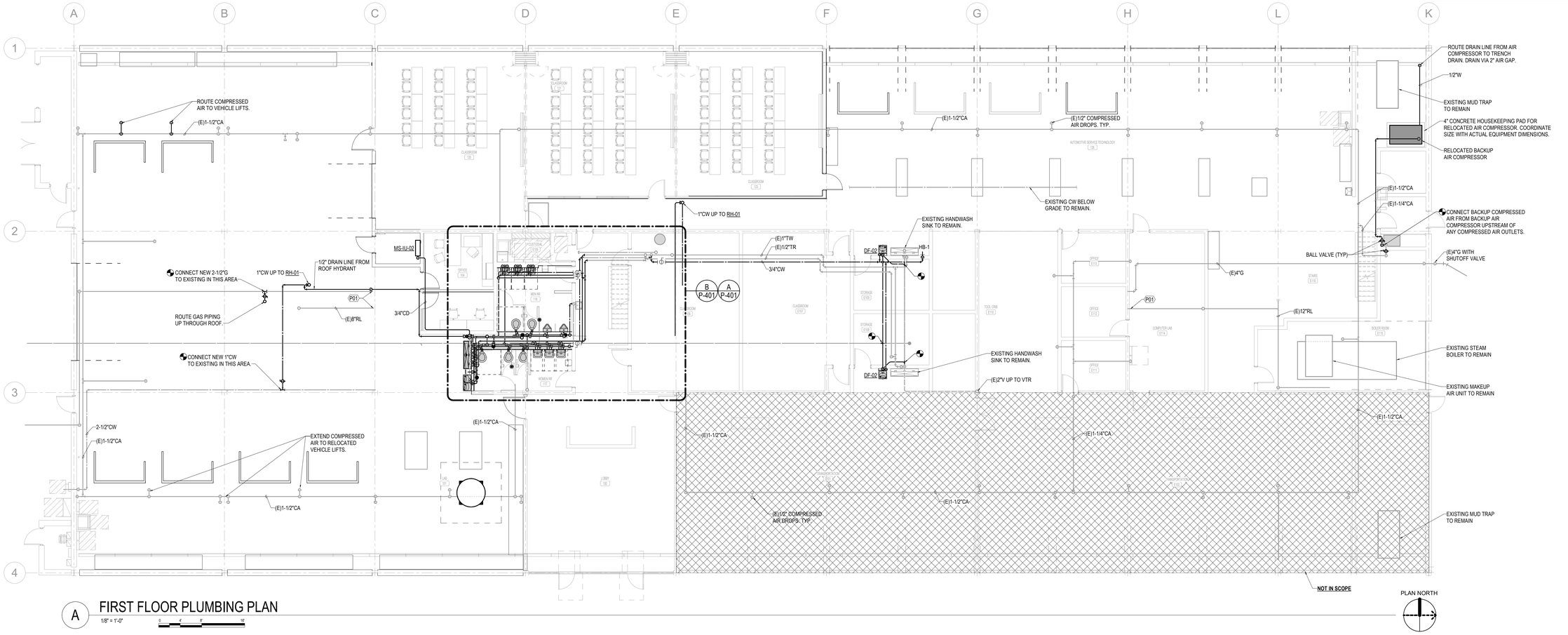


B MEZZANINE PLUMBING PLAN

1/8" = 1'-0"

PLAN NORTH



A FIRST FLOOR PLUMBING PLAN

1/8" = 1'-0"

PLAN NORTH

PLUMBING GENERAL NOTES

1. REFER TO THE PLUMBING FIXTURE SCHEDULE FOR PIPE SIZES TO INDIVIDUAL FIXTURES.
2. NOT ALL REQUIRED CLEANOUTS ARE NECESSARILY SHOWN ON THESE PLANS. PROVIDE CLEANOUTS ON WASTE, VENT AND STORM PIPING AS REQUIRED BY CODE AND FOR REASONABLE MAINTENANCE BASED ON ACTUAL FIELD INSTALLATION.
3. PIPING ON EXTERIOR WALLS OR PRE-CAST WALLS TO BE ROUTED IN FRAMED WALL ON INTERIOR SIDE OF INSULATION.
4. TERMINATE PLUMBING VENTS NOT LESS THAN 12" ABOVE ROOF AND A MINIMUM OF 10'-0" FROM MECHANICAL OUTDOOR AIR INTAKES.
5. AVOID ROUTING OVER ELECTRICAL ROOMS AND ELECTRICAL PANELS; MAINTAIN N.E.C. CLEARANCES. COORDINATE ROUTING WITH ELECTRICAL CONTRACTOR.
6. ROUTE DOMESTIC HOT WATER RECIRCULATION PIPES DOWN THE WALL TO WITHIN 2' OF ALL PUBLIC LAVATORIES WITH A ½" RUNOUT. IF TWO OR MORE LAVATORIES SHARE A ½" OR LARGER BRANCH PIPE, THE HOT WATER RECIRCULATION PIPE SHALL CONNECT TO WITHIN 6" OF EACH LAVATORY.
7. ALL VALVES SHALL BE INSTALLED ABOVE DROP-IN CEILINGS IN ACCESSIBLE LOCATIONS, OR WITH ACCESS PANELS IN HARD LID CEILINGS.
8. ACCESS PANELS SHALL BE 24x24, UNLESS NOTED OTHERWISE. LOCATIONS SHOWN ARE APPROXIMATE, EXACT LOCATIONS SHALL BE COORDINATED WITH THE ARCHITECTURAL DRAWINGS AND EQUIPMENT LOCATIONS. PROVIDE RATED ACCESS PANELS WHEREVER REQUIRED BY APPLICABLE CODES.
9. ALL PIPING SHALL BE ROUTED AS HIGH AS POSSIBLE IN THE CEILING SPACE. UTILIZE JOIST SPACE WHEN POSSIBLE, ESPECIALLY WHERE CROSSING OTHER PIPES, DUCTS AND ELECTRICAL.
10. PROVIDE ACCESSIBLE SHUT-OFF VALVES TO ALL APPLIANCES AND EQUIPMENT.
11. TRAP PRIMERS OR TRAP GUARDS SHALL BE INSTALLED AT ALL FLOOR RECEPTORS. INSTALL IN ACCORDANCE WITH IPC.
12. CEILING PLENUM IS USED AS A RETURN AIR PATH. KEEP PLENUM FREE OF COMBUSTIBLES. PVC PIPING AND ANY OTHER MATERIALS NOT ALLOWED BY THE IFC.
13. COORDINATE ROUTING OF CONDENSATE DRAIN LINES WITH OTHER TRADES PRIOR TO INSTALLATION TO ENSURE SLOPE CAN BE MET.
14. VERIFY AND REFER TO ARCHITECTURAL DIMENSIONAL FLOOR PLAN FOR EXACT LOCATIONS OF ALL FIXTURES AND EQUIPMENT.

SHEET KEYNOTES

P01 SEE B/P-101 FOR CONTINUATION OF PIPING.

PEC PROJECT NUMBER: 228090-042
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BRANDON W. CLARK LICENSED 19365 11/16/2023 KANSAS PROFESSIONAL ENGINEER

DATE	DESCRIPTION

PROJECT NUMBERS:
GLMV # - 2208/5805002
PROJECT TYPE:
Renovation

WSU TECH
WICHITA STATE UNIVERSITY CAMPUS OF APPLIED SCIENCES AND TECHNOLOGY
1845 N. Fairmount
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WICHITA STATE UNIVERSITY CAMPUS OF APPLIED SCIENCES AND TECHNOLOGY
EAST HIGH SNAP ON LAB
301 S. GROVE, WICHITA, KS 67211

DATE: 11/06/2023 DRAWN BY: AMB CHECKED BY: KEH

PLUMBING PLAN

P-101

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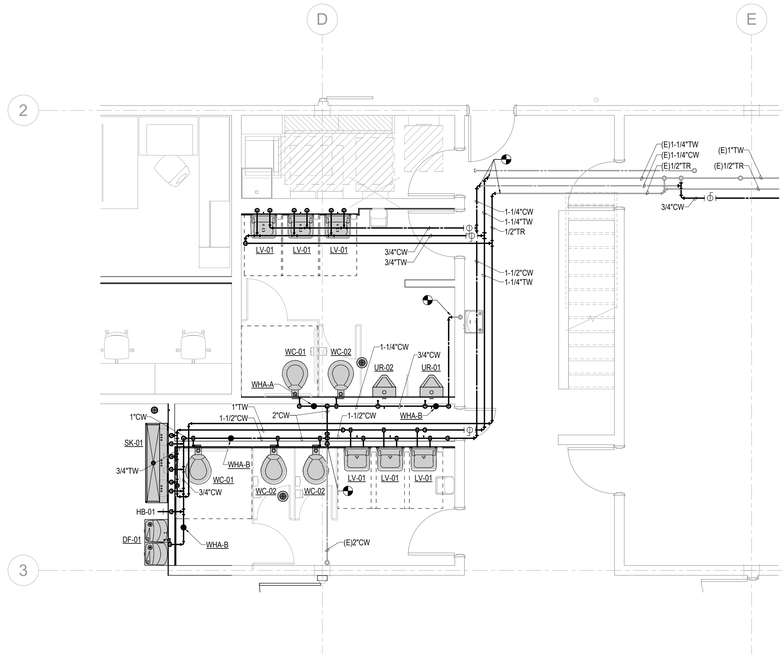
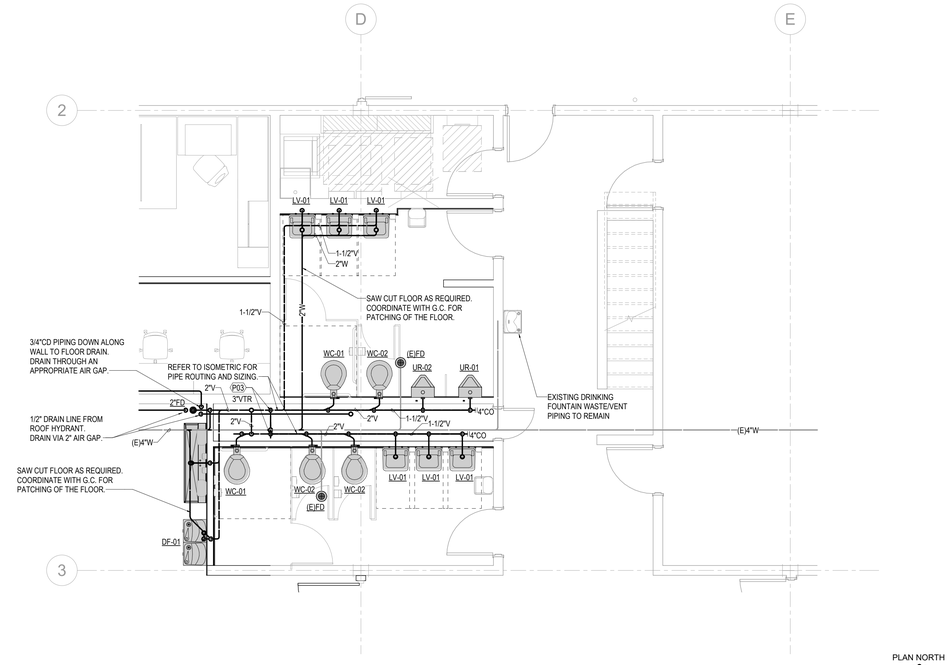


A ENLARGED PLUMBING PLAN - DOMESTIC WATER

1/4" = 1'-0"

PLAN NORTH



B ENLARGED PLUMBING PLAN - WASTE & VENT

1/4" = 1'-0"

PLAN NORTH

PLUMBING GENERAL NOTES

1. REFER TO THE PLUMBING FIXTURE SCHEDULE FOR PIPE SIZES TO INDIVIDUAL FIXTURES.
2. NOT ALL REQUIRED CLEANOUTS ARE NECESSARILY SHOWN ON THESE PLANS. PROVIDE CLEANOUTS ON WASTE, VENT AND STORM PIPING AS REQUIRED BY CODE AND FOR REASONABLE MAINTENANCE BASED ON ACTUAL FIELD INSTALLATION.
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5. AVOID ROUTING OVER ELECTRICAL ROOMS AND ELECTRICAL PANELS; MAINTAIN N.E.C. CLEARANCES. COORDINATE ROUTING WITH ELECTRICAL CONTRACTOR.
6. ROUTE DOMESTIC HOT WATER RECIRCULATION PIPES DOWN THE WALL TO WITHIN 2' OF ALL PUBLIC LAVATORIES WITH A ½" RUNOUT. IF TWO OR MORE LAVATORIES SHARE A ½" OR LARGER BRANCH PIPE, THE HOT WATER RECIRCULATION PIPE SHALL CONNECT TO WITHIN 6" OF EACH LAVATORY.
7. ALL VALVES SHALL BE INSTALLED ABOVE DROP-IN CEILINGS IN ACCESSIBLE LOCATIONS, OR WITH ACCESS PANELS IN HARD LID CEILINGS.
8. ACCESS PANELS SHALL BE 24x24, UNLESS NOTED OTHERWISE. LOCATIONS SHOWN ARE APPROXIMATE, EXACT LOCATIONS SHALL BE COORDINATED WITH THE ARCHITECTURAL DRAWINGS AND EQUIPMENT LOCATIONS. PROVIDE RATED ACCESS PANELS WHEREVER REQUIRED BY APPLICABLE CODES.
9. ALL PIPING SHALL BE ROUTED AS HIGH AS POSSIBLE IN THE CEILING SPACE. UTILIZE JOIST SPACE WHEN POSSIBLE, ESPECIALLY WHERE CROSSING OTHER PIPES, DUCTS AND ELECTRICAL.
10. PROVIDE ACCESSIBLE SHUT-OFF VALVES TO ALL APPLIANCES AND EQUIPMENT.
11. TRAP PRIMERS OR TRAP GUARDS SHALL BE INSTALLED AT ALL FLOOR RECEPTORS. INSTALL IN ACCORDANCE WITH IPC.
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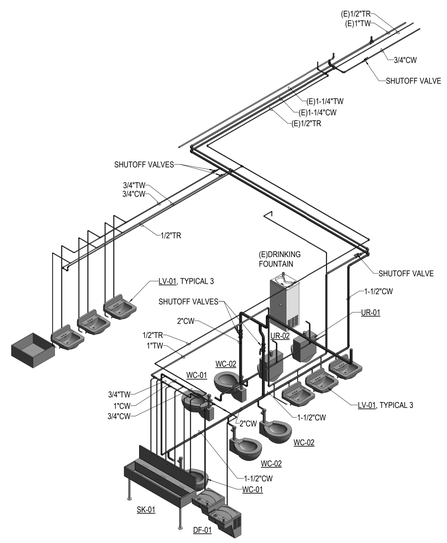
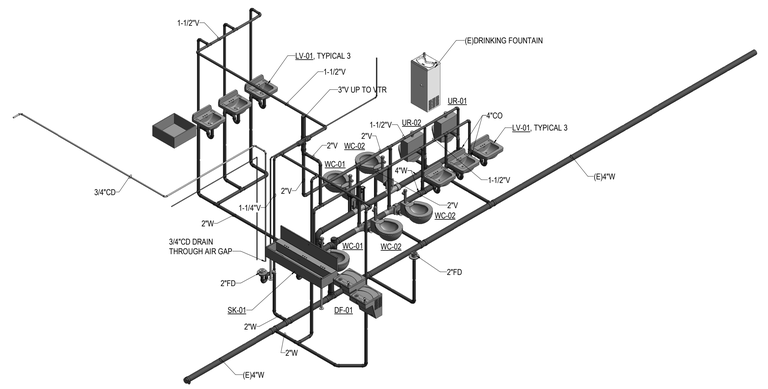
13. COORDINATE ROUTING OF CONDENSATE DRAIN LINES WITH OTHER TRADES PRIOR TO INSTALLATION TO ENSURE SLOPE CAN BE MET.
14. VERIFY AND REFER TO ARCHITECTURAL DIMENSIONAL FLOOR PLAN FOR EXACT LOCATIONS OF ALL FIXTURES AND EQUIPMENT.

SHEET KEYNOTES

P03 4"W DOWN. CONNECT TO EXISTING MAIN.



1 PLUMBING RISER - DOMESTIC WATER



2 PLUMBING RISER - WASTE & VENT

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303 SOUTH TOPEKA, WICHITA, KS 67202
316-262-2691 www.pec1.com

BRANDON W. CLARK LICENSED PROFESSIONAL ENGINEER 19365 11/16/2023 KANSAS

DESCRIPTION	DATE

PROJECT NUMBERS:
GLMV # - 2226/PEC6002
PROJECT TYPE:
Renovation

WICHITA STATE UNIVERSITY CAMPUS OF APPLIED SCIENCES AND TECHNOLOGY
1845 N. Fairmount
Wichita, KS 67260-0258
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WICHITA STATE UNIVERSITY CAMPUS OF APPLIED SCIENCES AND TECHNOLOGY
EAST HIGH SNAP ON LAB
301 S. GROVE, WICHITA, KS 67211
DATE: 11/06/2023 DRAWN BY: AMB CHECKED BY: KEH

ENLARGED PLUMBING PLAN

P-401

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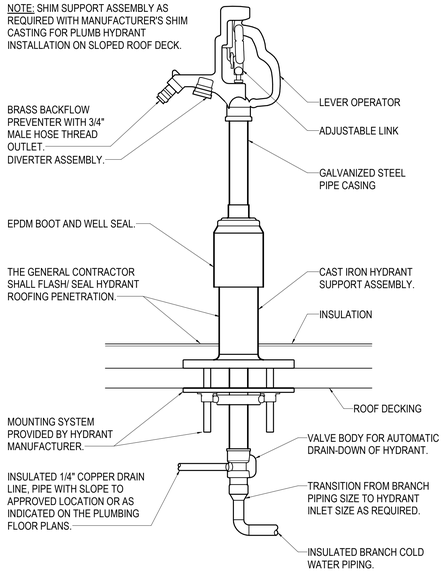
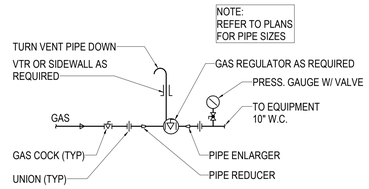
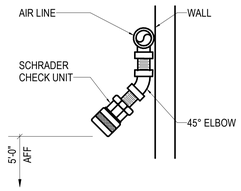


1 ROOF HYDRANT DETAIL



2 GAS REGULATOR DETAIL



3 COMPRESSED AIR OUTLET DETAIL - SIMPLEX ON WALL

4 AIR COMPRESSOR DETAIL - HORIZONTAL

ALL GAS PIPING RUN ON THE ROOF SHALL BE INSTALLED ON MIRO INDUSTRIES MODEL 5-RAH-8 PIPE SUPPORTS OR PRE-APPROVED EQUAL. PIPE SUPPORTS TO BE PROVIDED AND INSTALLED BY THE MECHANICAL/PLUMBING SUB-CONTRACTOR. VERIFY INSTALLATION REQUIREMENTS WITH THE ROOFING MANUFACTURER.

5 ROOF PIPE SUPPORT DETAIL - GAS

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BRANDON W. CLARK LICENSED 19365 11/16/2023 KANSAS PROFESSIONAL ENGINEER

DESCRIPTION	DATE

PROJECT NUMBERS:
GLMV # - 2228/052502
PROJECT TYPE:
Renovation

WICHITA STATE UNIVERSITY CAMPUS OF APPLIED SCIENCES AND TECHNOLOGY
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WICHITA STATE UNIVERSITY CAMPUS OF APPLIED SCIENCES AND TECHNOLOGY

EAST HIGH SNAP ON LAB

301 S. GROVE, WICHITA, KS 67211

DATE: 11/06/2023 DRAWN BY: AMB CHECKED BY: KEH

PLUMBING DETAILS

P-501

CERTIFIED FINAL

PLOT DATE: 11/16/2023 3:12:28 PM
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PLUMBING FIXTURE SCHEDULE

MARK	DESCRIPTION	MANUFACTURER	MODEL	DIMENSIONS	ADA COMPLIANT	MATERIAL DESCRIPTION AND FINISH	TRIM				FLOW		PIPE RUNOUT SIZES				SPECIFICATION
							MANUFACTURER	MODEL	CONTROL TYPE	POWER	GALLONS PER MINUTE (GPM)	GALLONS PER FLUSH (GPF)	COLD WATER	HOT WATER	WASTE	VENT	
DF-01	WATER COOLER - DUAL HEIGHT	ELKAY	EZSTL8WSSK	--	YES	GALVANIZED STEEL	--	--	--	--	--	--	1/2"	--	2"	1-1/2"	WALL MOUNTED WHEELCHAIR ACCESSIBLE ELECTRIC WATER COOLER WITH STAINLESS STEEL TOPS AND PANELS, SELF-CLOSING FRONT AND SIDE PUSHBAR OPERATED VANDAL-RESISTANT BUBBLERS, SENSOR ACTIVATED BOTTLE FILLING STATION, CAPACITY OF 8 GPH OF 50 DEGREE WATER AT ARI CONDITIONS, 5.0 FLA, 120/60/1 COMPRESSOR – 5 YEAR REFRIGERATION WARRANTY – COLD WATER SUPPLY WITH QUARTER-TURN STOP – 1-1/4"CAST BRASS P-TRAP. MOUNT UNIT PER MANUFACTURER'S RECOMMENDATIONS TO MEET ADA REQUIREMENTS.
DF-02	WATER COOLER - SINGLE	ELKAY	EZS8WSVRSK	--	YES	GALVANIZED STEEL	--	--	--	--	--	--	1/2"	--	2"	1-1/2"	WALL MOUNTED WHEELCHAIR ACCESSIBLE ELECTRIC WATER COOLER WITH STAINLESS STEEL TOPS AND PANELS, SELF-CLOSING FRONT AND SIDE PUSHBAR OPERATED VANDAL-RESISTANT BUBBLERS, SENSOR ACTIVATED BOTTLE FILLING STATION, CAPACITY OF 8 GPH OF 50 DEGREE WATER AT ARI CONDITIONS, 5.0 FLA, 120/60/1 COMPRESSOR – 5 YEAR REFRIGERATION WARRANTY – COLD WATER SUPPLY WITH QUARTER-TURN STOP – 1-1/4"CAST BRASS P-TRAP. MOUNT UNIT PER MANUFACTURER'S RECOMMENDATIONS TO MEET ADA REQUIREMENTS.
WC-01	WATER CLOSET - FLUSH VALVE - WALL MOUNTED	KOHLER	K-84325 "KINGSTON ULTRA"	17" MIN. - 19" MAX. SEAT HEIGHT	YES	WHITE VITREOUS CHINA	SLOAN	ROYAL 111-1.28	MANUAL	--	--	1.28	1-1/4"	--	3"	2"	ELONGATED BOWL - 1-1/2" TOP SPUD - CARRIER - MANUAL OPERATED FLUSH VALVE WITH DUAL FILTERED BYPASS - WHITE, SOLID PLASTIC ELONGATED OPEN FRONT SEAT, LESS COVER
WC-02	WATER CLOSET - FLUSH VALVE - WALL MOUNTED	KOHLER	K-84325 "KINGSTON ULTRA"	--	NO	WHITE VITREOUS CHINA	SLOAN	ROYAL 111-1.28	MANUAL	--	--	1.28	1-1/4"	--	3"	2"	ELONGATED BOWL - 1-1/2" TOP SPUD - CARRIER - MANUAL OPERATED FLUSH VALVE WITH DUAL FILTERED BYPASS - WHITE, SOLID PLASTIC ELONGATED OPEN FRONT SEAT, LESS COVER
UR-01	URINAL - WALL MOUNTED	KOHLER	K-4991-ET "BARDON"	17" MAX RIM HEIGHT	YES	WHITE VITREOUS CHINA	SLOAN	ROYAL 186-0.5	MANUAL	--	--	0.5	1"	--	2"	1-1/2"	3/4" TOP SPUD - CARRIER - MANUAL OPERATED FLUSH VALVE WITH DUAL FILTERED BYPASS
UR-02	URINAL - WALL MOUNTED	KOHLER	K-4991-ET "BARDON"	24" MAX RIM HEIGHT	NO	WHITE VITREOUS CHINA	SLOAN	ROYAL 186-0.5	MANUAL	--	--	0.5	1"	--	2"	1-1/2"	3/4" TOP SPUD - CARRIER - MANUAL OPERATED FLUSH VALVE WITH DUAL FILTERED BYPASS
LV-01	LAVATORY - WALL HUNG	KOHLER	K-2005 "KINGSTON"	21-1/4" x 18-1/8", 16" x 10" BOWL	YES	WHITE VITREOUS CHINA	ZURN	Z744-XL	MANUAL	--	0.5	--	1/2"	1/2"	2"	1-1/2"	LAVATORY WITH 2 HOLES ON 4" CENTERS - DRILLED FOR CONCEALED ARM CARRIER - SINGLE LEVER HANDLE FAUCET - ASSE 1070 THERMOSTATIC MIXING VALVE SET TO 105°F - DRAIN WITH GRID SRAINER - CHROME PLATED WALL SUPPLIES WITH LOOSE KEY QUARTER TURN STOPS - 1-1/4" CHROME PLATED CAST BRASS P-TRAP - FLOOR-MOUNTED CONCEALED ARM CARRIER - INSULATE P-TRAP AND HOT WATER SUPPLY
SK-01	HANDWASH SINK	ELKAY	EWMA7220C	72"Wx20"Lx25-3/4"D	YES	STAINLESS STEEL	ELKAY	LK940GN05T4H	MANUAL	--	1.5	--	1/2"	1/2"	2"	1-1/2"	STAINLESS STEEL SINK WITH 8" ON CENTER DRILLING FOR 3 8" GOOSENECK FAUCETS, INSULATE P-TRAP AND EXPOSED HOT WATER SUPPLY PIPING.
HB-1	INDOOR WALL HYDRANT	JAY R SMITH	5670(H)	--	--	BRASS	--	--	MANUAL	--	--	--	3/4"	--	--	--	LEAD FREE HOSE BIB WITH VACUUM BREAKER - INSTALL 30" ABOVE GRADE (VERIFY MOUNTING HEIGHT WITH ARCHITECT)
RH-1	ROOF HYDRANT	WOODFORD	RHY2-MS	--	--	STEEL	--	--	MANUAL	--	--	--	1"	--	1/2"	--	DOUBLE CHECK BACKFLOW PREVENTER - FREEZELESS - DIVERTER ASSEMBLY. ROUTE 1/2" DRAIN LINE TO NEAREST FLOOR DRAIN OR MOP BASIN.

GAS CONNECTION SCHEDULE

NOTES:

1. SIZING BASED ON 670' LONGEST RUN, 7"WC INLET PRESSURE, AND 0.5 IN. W.C. OF PRESSURE DROP.

EQUIPMENT MARK	LOCATION	DESCRIPTION	GAS LOAD (MBH)	REMARKS
RTU-01	ROOF	ROOFTOP UNIT	75	1
RTU-02	ROOF	ROOFTOP UNIT	150	1
RTU-03	ROOF	ROOFTOP UNIT	80	1
RTU-04	ROOF	ROOFTOP UNIT	200	1
RTU-05	ROOF	ROOFTOP UNIT	80	1
RTU-06	ROOF	ROOFTOP UNIT	80	1
RTU-07	ROOF	ROOFTOP UNIT	80	1
			745	

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PEC PROJECT NUMBER: 238090-042
PEC
PROFESSIONAL ENGINEERING CONSULTANTS, P.A.
303 SOUTH TOPEKA WICHITA, KS 67202
316-262-2691 www.pec1.com

BRANDON W. CLASS LICENSED 19365 11/16/2023 KANSAS PROFESSIONAL ENGINEER

DESCRIPTION	DATE

PROJECT NUMBERS:
GLMV # - 2238/G8502
PROJECT TYPE:
Renovation

WICHITA STATE UNIVERSITY CAMPUS OF APPLIED SCIENCES AND TECHNOLOGY
1845 N. Fairmount
Wichita, KS 67260-0258
Tel: (316) 978-3444
www.wichita.edu

WICHITA STATE UNIVERSITY CAMPUS OF APPLIED SCIENCES AND TECHNOLOGY

EAST HIGH SNAP ON LAB

301 S. GROVE, WICHITA, KS 67211

DATE: 11/06/2023 DRAWN BY: AMB CHECKED BY: KEH

PLUMBING SCHEDULES

P-601

CERTIFIED FINAL

PLOT DATE: 11/16/2023 3:12:28 PM
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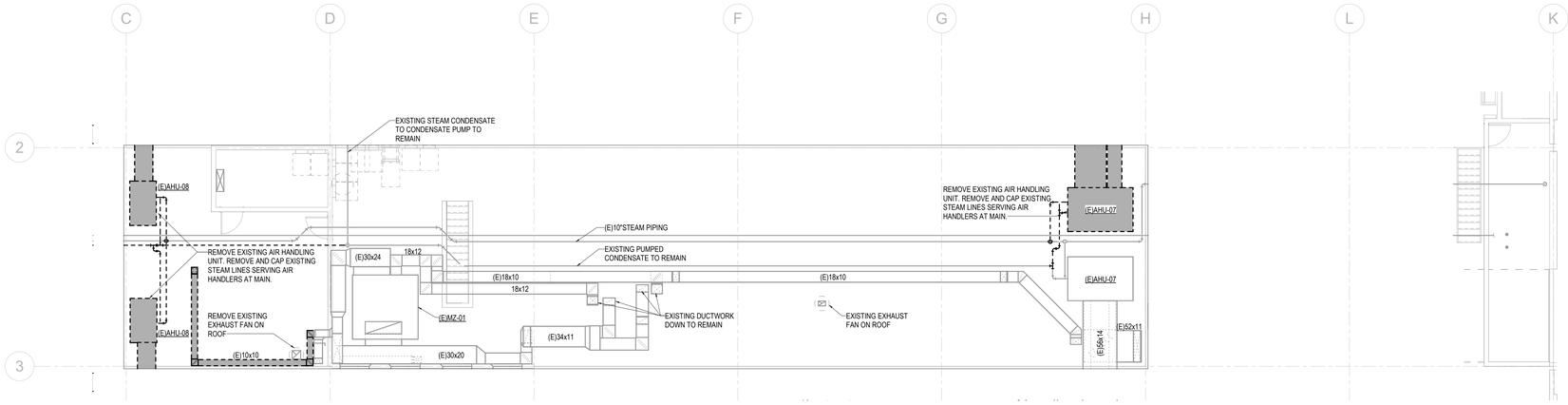
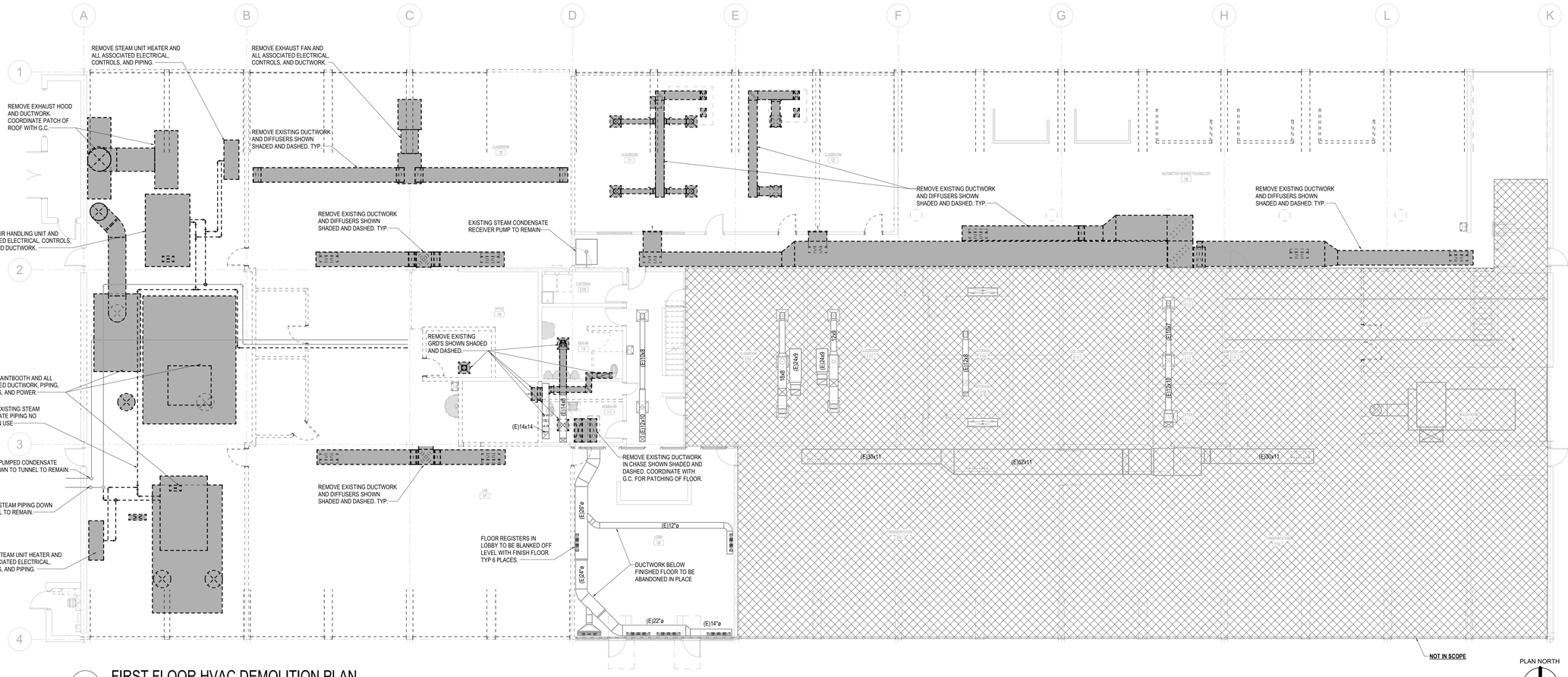


B MEZZANINE HVAC DEMOLITION PLAN

1/8" = 1'-0"

PLAN NORTH



A FIRST FLOOR HVAC DEMOLITION PLAN

1/8" = 1'-0"

PLAN NORTH

HVAC DEMO NOTES

1. PLANS ARE SCHEMATIC IN NATURE. LAYOUT IS BASED ON BEST AVAILABLE INFORMATION. CONTRACTOR SHALL FIELD VERIFY EXISTING CONDITIONS AND DIMENSIONS. BRING ANY DISCREPANCIES FROM THE DRAWINGS AND NOTES TO THE OWNER'S REPRESENTATIVE IMMEDIATELY. MINOR CHANGES IN THE SCOPE OF THE DEMOLITION WORK SHALL NOT JUSTIFY AN ADDITIONAL COST.
2. DEMOLISH ALL DUCTWORK, PIPING, AND EQUIPMENT SHOWN SHADED, DASHED AND IN A DARK LINE WEIGHT.

GLMVArchitecture

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BRANDON W. CLASSEN LICENSED PROFESSIONAL ENGINEER 19365 11/16/2023 KANSAS

DESCRIPTION	DATE

PROJECT NUMBERS:
GLMV # - 2226FD5002

PROJECT TYPE:
Renovation

WSU TECH
WICHITA STATE UNIVERSITY
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Wade N. Kistler Hall
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EAST HIGH SNAP ON LAB

301 S. GROVE, WICHITA, KS 67211

DATE: 11/06/2023 DRAWN BY: AMB CHECKED BY: KEH

HVAC DEMOLITION PLAN

MD101

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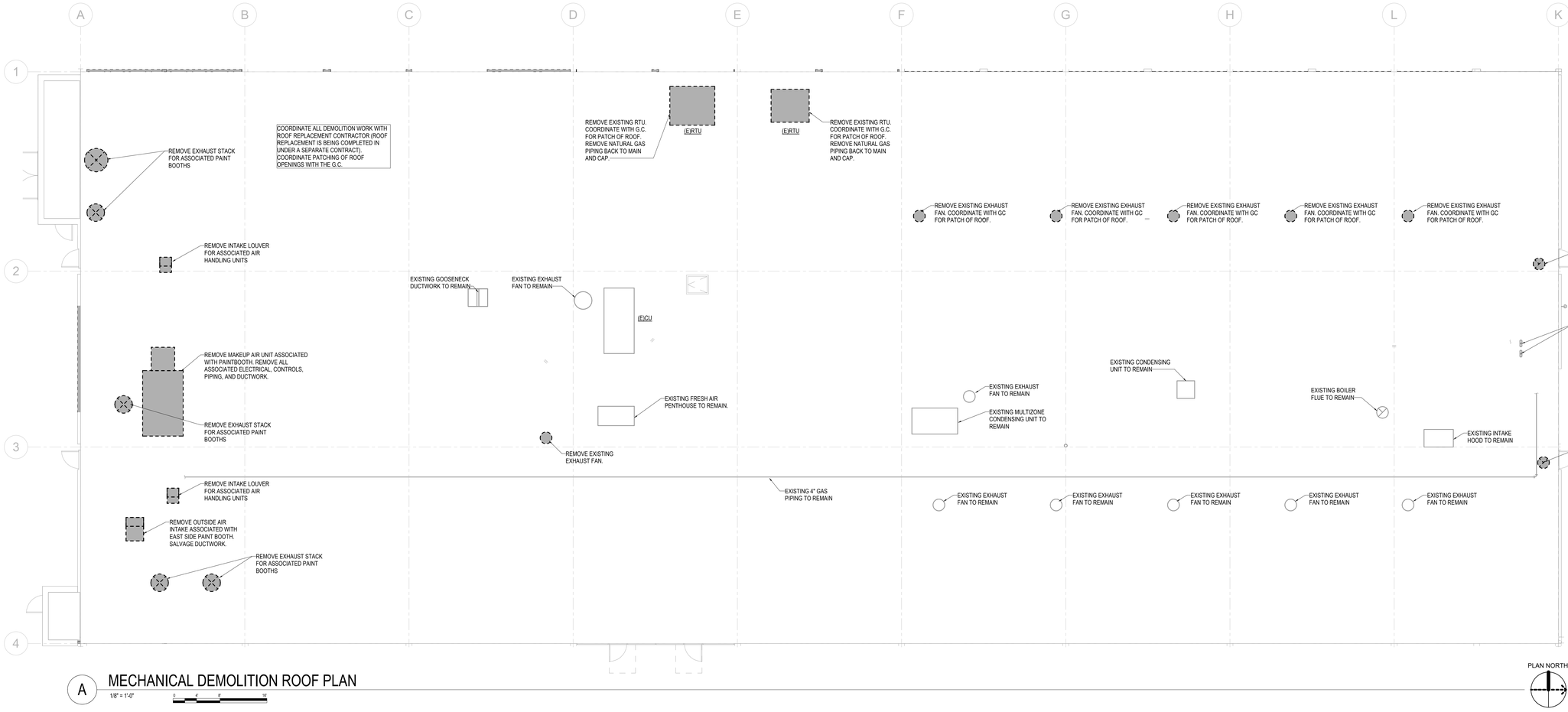

A MECHANICAL DEMOLITION ROOF PLAN

1/8" = 1'-0"

HVAC DEMO NOTES

1. PLANS ARE SCHEMATIC IN NATURE. LAYOUT IS BASED ON BEST AVAILABLE INFORMATION. CONTRACTOR SHALL FIELD VERIFY EXISTING CONDITIONS AND DIMENSIONS. BRING ANY DISCREPANCIES FROM THE DRAWINGS AND NOTES TO THE OWNER'S REPRESENTATIVE IMMEDIATELY. MINOR CHANGES IN THE SCOPE OF THE DEMOLITION WORK SHALL NOT JUSTIFY AN ADDITIONAL COST.
2. DEMOLISH ALL DUCTWORK, PIPING, AND EQUIPMENT SHOWN SHADED, DASHED AND IN A DARK LINE WEIGHT.

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PEC PROJECT NUMBER: 228090-042
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BRANDON W. CLASSEN LICENSED 19365 11/16/2023 KANSAS PROFESSIONAL ENGINEER

DESCRIPTION	DATE

PROJECT NUMBERS:
GLMV # - 2226/5502

PROJECT TYPE:
Renovation

WSUTECH
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EAST HIGH SNAP ON LAB

301 S. GROVE, WICHITA, KS 67211

DATE: 11/06/2023 DRAWN BY: AMB CHECKED BY: KEH

ROOF DEMOLITION PLAN

MD120

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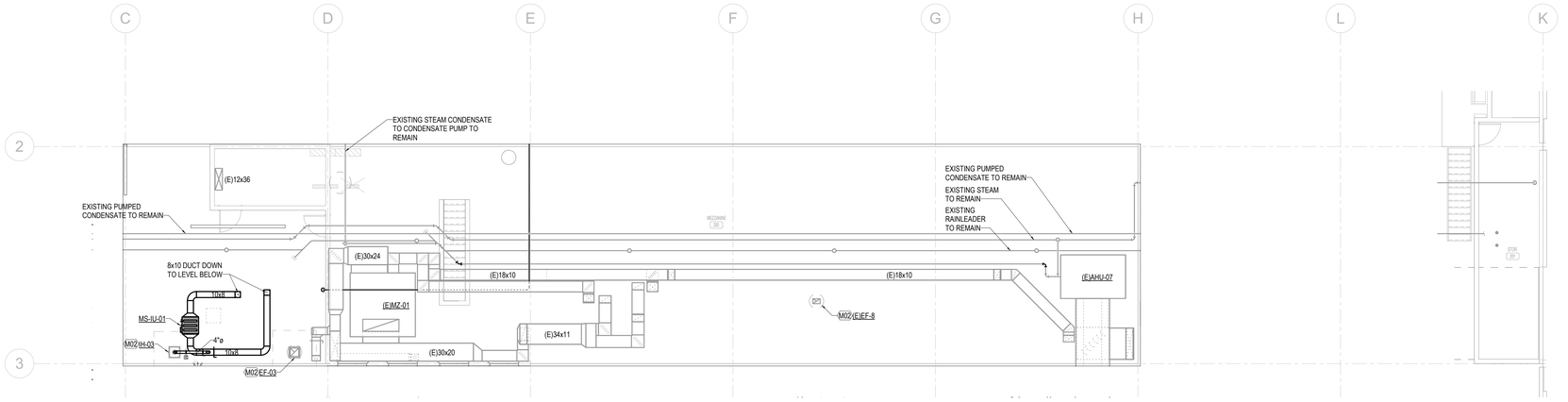
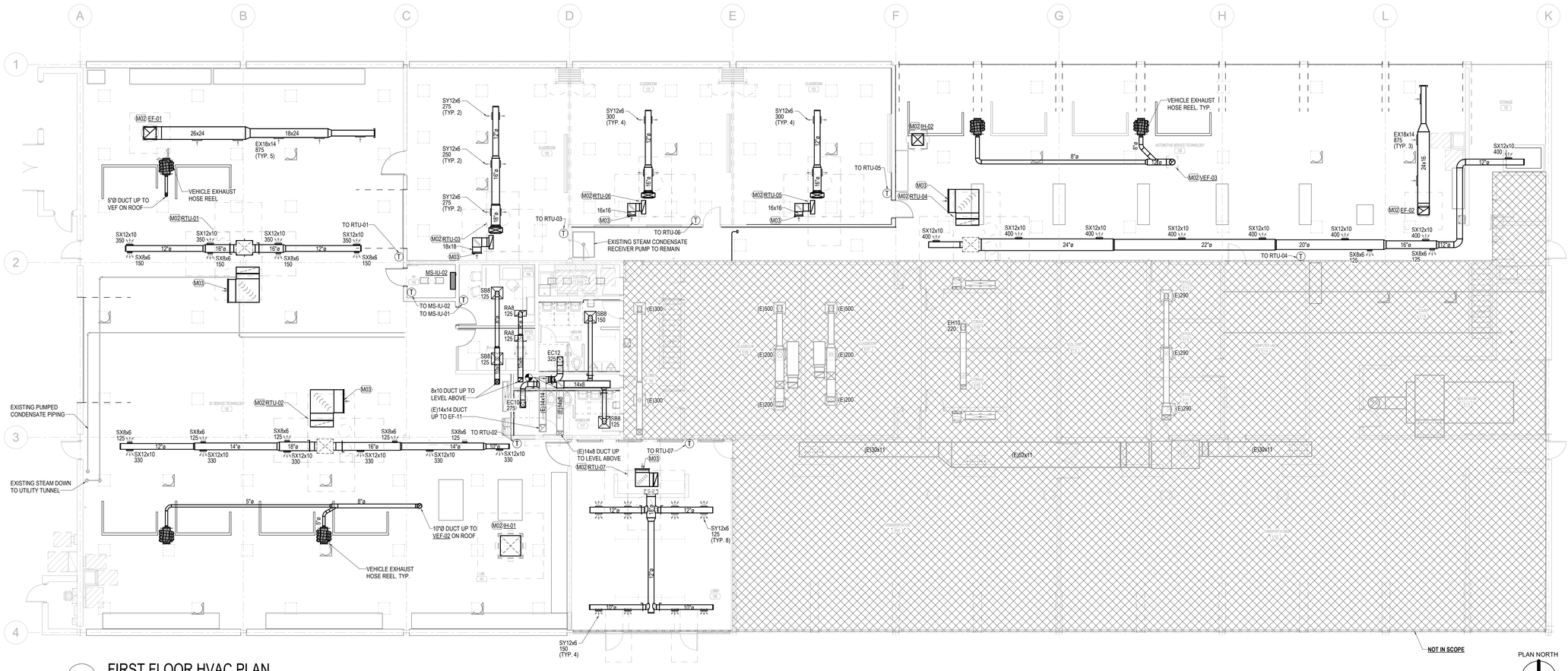


B MEZZANINE HVAC PLAN

1/8" = 1'-0"

PLAN NORTH



A FIRST FLOOR HVAC PLAN

1/8" = 1'-0"

PLAN NORTH

HVAC GENERAL NOTES

1. DUCT SIZES SHOWN ARE ACTUAL INSIDE CLEAR DIMENSIONS. INSULATION THICKNESS HAS NOT BEEN ACCOUNTED FOR. DUCTWORK EXPOSED TO SPACE SHALL NOT HAVE EXTERIOR INSULATION.
2. THE SPACE ABOVE THE CEILING IS BEING UTILIZED AS A RETURN AIR PLENUM. ALL RETURN GRILLES SHALL BE PROVIDED WITH SOUND BOOTS AND A DIRECT PATH TO THE AIR HANDLING SYSTEM RETURN AIR DUCT SHALL BE PROVIDED. WHERE FULL HEIGHT WALLS ARE BEING USED AND THE RETURN AIR PATH IS COMPROMISED, THE SOUND BOOT SHALL EXTEND THROUGH THE WALL OR TRANSFER DUCTS SHALL BE PROVIDED.
3. T-STATS, HUMIDISTATS AND CO2 SENSORS SHALL BE LOCATED NEXT TO LIGHT SWITCH WITHIN THE ROOM SHOWN. COORDINATE WITH GC AND ELECTRICAL CONTRACTOR TO MATCH HEIGHT AND LOCATION.
4. AVOID ROUTING DUCTWORK OVER ELECTRICAL ROOMS AND ELECTRICAL PANELS. MAINTAIN N.E.C. CLEARANCES. COORDINATE ROUTING WITH ELECTRICAL CONTRACTOR.
5. ALL SUPPLY AIR BRANCHES FOR SUPPLY DIFFUSERS TO HAVE MANUAL BALANCE DAMPERS, NOT ALL SHOWN FOR CLARITY. WHERE HARD LID CEILINGS PREVENT BALANCE DAMPER ACCESS, CONFIRM WITH GRD SCHEDULE OR ENGINEER TO USE OBD'S OR REMOTE BALANCE DAMPERS.
6. ALL DUCTWORK SHALL BE ROUTED AS HIGH AS POSSIBLE WITHIN THE CEILING SPACE. UTILIZE JOIST SPACE WHERE POSSIBLE, ESPECIALLY WHEN CROSSING OTHER DUCT, PIPE AND ELECTRICAL.
7. PROVIDE FLEXIBLE DUCT AND PIPE CONNECTIONS TO ALL MOTORIZED EQUIPMENT.
8. COORDINATE FINISH OF ALL EXPOSED DUCT WITH ARCHITECT. DUCTWORK THAT IS TO BE PAINTED SHALL HAVE A PAINT GRIP FINISH ACCEPTABLE FOR PAINTING.
9. EXPOSED SPIRAL DUCT GRILLES SHALL BE INSTALLED AT A 30 DEGREE ANGLE DOWNWARD BELOW HORIZONTAL.
10. REFER TO GRD SCHEDULE FOR DUCT CONNECTION SIZES.
11. CEILING COORDINATION OF ALL MEP SYSTEMS (LIGHTING, DUCTWORK, DIFFUSERS, ELECTRICAL, ETC.) MUST BE COMPLETED BY THE CONTRACTOR PRIOR TO THE START OF ANY NEW INSTALLATION.

SHEET KEYNOTES

M02	MECHANICAL EQUIPMENT ON ROOF.
M03	COVER RETURN OPENING WITH EXPANDED SHEET METAL WITH 70% FREE AREA.

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BRANDON W. CLARK LICENSED 19365 11/16/2023 KANSAS PROFESSIONAL ENGINEER

DATE	DESCRIPTION

PROJECT NUMBERS:
GLMV # - 2228/GS502
PROJECT TYPE:
Renovation

WICHITA STATE UNIVERSITY
CAMPUS OF APPLIED SCIENCES AND TECHNOLOGY
1845 N. Fairmount
Wichita, KS 67260-0258
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WICHITA STATE UNIVERSITY CAMPUS OF APPLIED SCIENCES AND TECHNOLOGY

EAST HIGH SNAP ON LAB

301 S. GROVE, WICHITA, KS 67211

DATE: 11/06/2023 DRAWN BY: AMB CHECKED BY: KEH

HVAC PLAN

M-101

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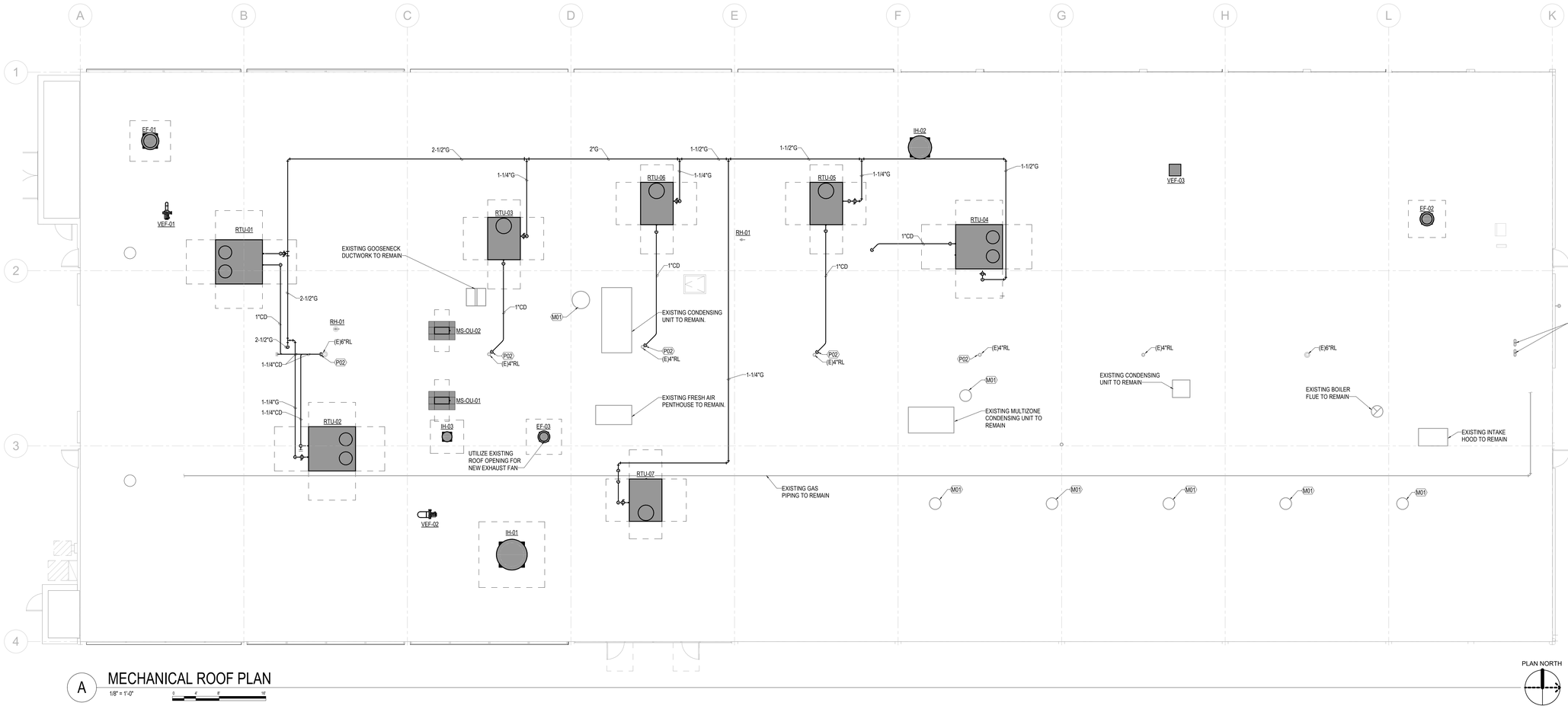
ROOF PLAN NOTES

1. MAINTAIN 10'-0" MINIMUM IN ANY DIRECTION FROM OUTDOOR AIR INTAKES ANY EXHAUST FAN, PLUMBING VENT, DRIVE, ALLEY OR LOADING DOCK.
2. EQUIPMENT THAT REQUIRES MAINTENANCE SHALL NOT BE WITHIN 10' OF THE BUILDING EDGE.
3. ALL EXTERIOR DUCTWORK INCLUDING SOUND ATTENUATORS SHALL BE INSULATED SHEETMETAL WITH MINIMUM OF 4" EXTERIOR INSULATION (R-11.2 MIN) WITH ALUMAGUARD 60 MEMBRANE INSTALLED PER MANUFACTURER'S REQUIREMENTS.
4. PROVIDE AND INSTALL NEW LINE SIZE GAS COCK, UNION, REGULATOR, AND DIRT LEG AT ALL GAS CONNECTIONS TO ROOFTOP EQUIPMENT. REDUCE LINE SIZE AT CONNECTION.

SHEET KEYNOTES

M01 EXISTING EXHAUST FAN TO REMAIN.
P02 ROUTE CONDENSATE TO ROOF DRAIN. TERMINATE VIA A 2" AIR GAP.



A MECHANICAL ROOF PLAN
1/8" = 1'-0"

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BRANDON W. CLASSEN LICENSED 19365 11/16/2023 KANSAS PROFESSIONAL ENGINEER

DESCRIPTION	DATE

PROJECT NUMBERS:
GLMV # - 2226/G2502
PROJECT TYPE:
Renovation

WICHITA STATE UNIVERSITY CAMPUS OF APPLIED SCIENCES AND TECHNOLOGY
1845 N. Fairmount
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DATE: 11/06/2023 DRAWN BY: AMB CHECKED BY: KEH

ROOF MECHANICAL PLAN

M-120

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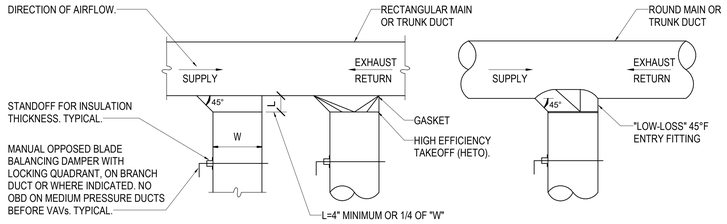
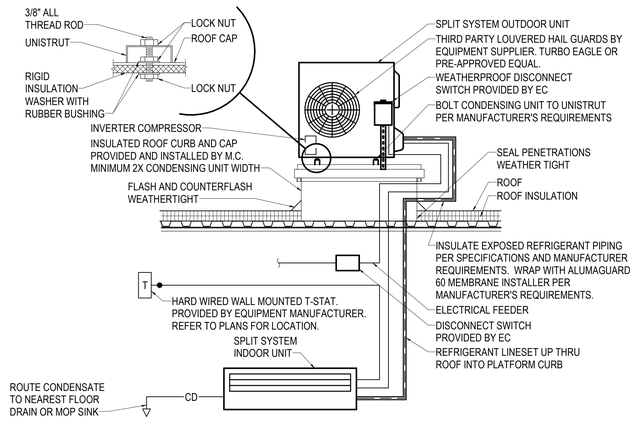
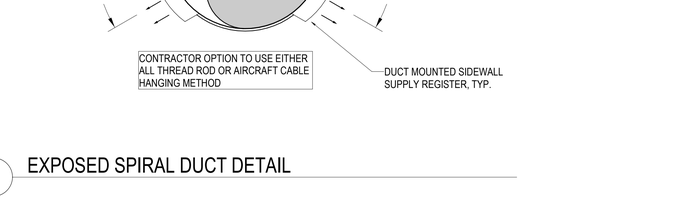


1 DUCT TAKEOFF DETAILS

NOTE:
1. LOW AMBIENT TO 5 DEG F.
2. UNIT SHALL BE CAPABLE OF AUTO CHANGEOVER BETWEEN HEATING AND COOLING.
3. PROVIDE CONDENSATE PUMP WHERE REQUIRED.
4. VERIFY MAX REFRIGERANT LINE LENGTH WITH. MANF. SCHEDULE CONDESATE PUMPS WHEN REQUIRED.
5. COORDINATE PAD DETAIL WITH CIVIL.
6. PROVIDE ADDITIONAL STRUCTURAL DETAIL FOR EQUIPMENT EXCEEDING 150 LBS.

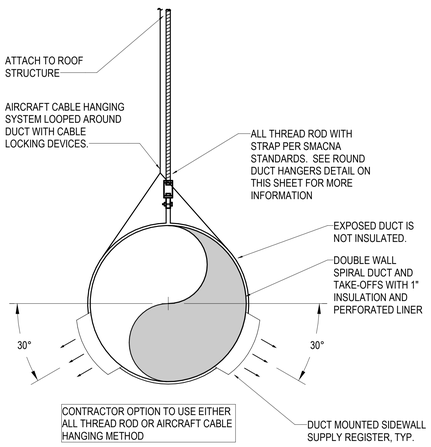


2 MINI SPLIT SYSTEM



3 DIFFUSER INSTALLATION DETAIL

4 ROOF CURB DETAIL



5 EXPOSED SPIRAL DUCT DETAIL

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BRANDON W. CLARK LICENSED 19365 11/16/2023 KANSAS PROFESSIONAL ENGINEER

DESCRIPTION	DATE

PROJECT NUMBERS:
GLMV # - 2226/2650/2
PROJECT TYPE:
Renovation

WSU TECH
WICHITA STATE UNIVERSITY
CAMPUS OF APPLIED SCIENCES AND TECHNOLOGY
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Tel: (316) 978-3444
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EAST HIGH SNAP ON LAB
301 S. GROVE, WICHITA, KS 67211

DATE: 11/06/2023 DRAWN BY: AMB CHECKED BY: KEH

HVAC DETAILS

M-501

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PACKAGED RTU SCHEDULE - DX COOL GAS HEAT

REMARKS:

1. COOLING CAPACITIES ARE NET VALUES THAT INCLUDE INFILTRATION AND FAN HEAT AT SPECIFIED FLOW RATE AND STATIC.
2. TOTAL STATIC IS BASED ON UNIT PRESSURE DROP INCLUDING FILTER PRESSURE DROP AT MIDLIFE AND WET COOLING COIL WITH DAMPERS POSITIONED IN FULL OUTSIDE AIR POSITION. TSP SHALL NOT EXCEED DESIGN TSP BY MORE THAN 10%. ANY TSP RESULTING IN AN INCREASE IN MOTOR HP SHALL BE THE RESPONSIBILITY OF THE MC TO COORDINATE WITH EC AND INCUR ANY REQUIRED COST IMPACTS.
3. MAXIMUM COIL FACE VELOCITY IS THE LEAST OF MANUFACTURER'S MAXIMUM RECOMMENDED MOISTURE CARRYOVER RATES OR 550 FPM.
4. UNIT WEIGHT INCLUDES ROOF CURB AND SPECIFIED ACCESSORIES.
5. ALL MOTOR SELECTIONS ARE INTENDED TO BE NON-OVERLOADING AND HP SHALL BE NO LESS THAN 20% GREATER THAN NON-OVERLOADING BHP. VOLTAGE AND PHASE LISTED ARE APPLICABLE TO BOTH MOTORS.
6. COMPRESSOR STAGING/MODULATION SHALL BE AS FOLLOWS: RTU-01 SHALL HAVE SINGLE STAGE FIXED SPEED COMPRESSOR. RTU-02 SHALL HAVE A 2-STAGE COMPRESSOR. RTU-04 SHALL HAVE A FIXED SPEED AND AN INVERTER COMPRESSOR. RTU-03, RTU-05, RTU-06 SHALL HAVE INVERTER COMPRESSORS.
7. APD OVER HEAT EXCHANGER SHALL BE CALCULATED BASED ON TOTAL SUPPLY FAN AIRFLOW. HEATING AIRFLOW MAY BE LESS THAN TOTAL AIRFLOW DEPENDING ON IF UNIT IS VAV OR CV AND PROJECT APPLICATION.
8. PROVIDE WITH HOT GAS REHEAT ON-OFF CONTROL, 2-STAGE GAS HEAT WITH STAINLESS STEEL HEAT EXCHANGER, COMPARATIVE ENTHALPY ECONOMIZER WITH BAROMETRIC RELIEF, 14" MANUFACTURER ROOF CURB, DUCT MOUNTED HUMIDITY SENSOR, HINGED ACCESS DOORS, AND PROGRAMMABLE 7-DAY THERMOSTAT.
9. PROVIDE WITH VARIABLE SPEED SUPPLY FAN, VARIABLE SPEED COMPRESSORS, MODULATING HOT GAS REHEAT, GAS HEAT WITH STAINLESS STEEL HEAT EXCHANGER, COMPARATIVE ENTHALPY ECONOMIZER WITH BAROMETRIC RELIEF, 14" MANUFACTURER ROOF CURB, DUCT MOUNTED HUMIDITY SENSOR, HINGED ACCESS DOORS, AND PROGRAMMABLE 7-DAY THERMOSTAT.

MARK	MFR	MODEL	SUPPLY FAN					DX COOLING						CONDENSER								SEER (IEER)	GAS HEAT						FILTER		ELECTRICAL				UNIT WT (LBS)	REMARKS
			MIN OA (CFM)	FLOW (CFM)	ESP (IN WC)	DESIGN TSP (IN WC)	MOTOR HP	MOTOR BHP	EAT DB (°F)	EAT WB (°F)	LAT DB (°F)	LAT WB (°F)	COOLING CAPACITY TOTAL (MBH)	COOLING CAPACITY SENS (MBH)	AMBIENT TEMP (°F)	COMPRESSOR TYPE	COMPRESSOR RLA	COMPRESSOR NO	COMPRESSOR RLA	COMPRESSOR NO	COMPRESSOR CAP STEPS	COND FAN FLA	COND FAN NO		AIRFLOW (CFM)	INPUT (MBH)	OUTPUT (MBH)	EAT DB (°F)	LAT DB (°F)	GAS PRESSURE (IN WC)	MERV	MIN AREA (SQ FT)	VOLT	PHASE	MCA	MOP		
RTU-01	DAIKIN	MPSA05D	250	2000	0.7	1.0	1.0	--	80	65	55	55	53.0	46.0	105	SCROLL	7.9	1	--	--	1	0.7	1	14.0	1930	75	60.7	65	94	7	8	7.0	460	3	15.0	20.0	1000	1-7, 8, ALTERNATE BID
RTU-02	DAIKIN	MPSA07H	250	2600	0.7	1.0	3.0	1.4	80	65	55	55	81.7	72.5	105	SCROLL	9.6	1	--	--	2	0.8	2	(14.6)	2600	150	121.5	65	108	7	8	11.1	460	3	19.0	25.0	1250	1-7, 8, ALTERNATE BID
RTU-03	DAIKIN	DPS004A	350	1600	0.7	1.4	4.0	0.7	80	65	55	55	44.2	44.0	105	INVRT	4.5	1	--	--	MOD	0.4	1	16.2	1600	80	64.0	65	102	7	8	7.1	460	3	10.5	15	1750	1-7, 9, BASE BID
RTU-04	DAIKIN	DPS010A	400	4000	0.7	1.3	8.0	1.3	80	65	55	55	109.7	102.0	105	INVRT	4.5	1	7.9	1	MOD+FIXED	1.8	2	(18.8)	4000	200	160	65	102	7	8	18.0	460	3	23.0	30	2750	1-7, 9, ALTERNATE BID
RTU-05	DAIKIN	DPS003A	225	1200	0.7	1.2	4.0	1.2	80	65	55	55	33.0	32.3	105	INVRT	3.5	1	--	--	MOD	0.4	1	16.5	1200	80	64	65	114	7	8	7.1	460	3	9.5	15	1750	1-7, 9, BASE BID
RTU-06	DAIKIN	DPS003A	225	1200	0.7	1.2	4.0	1.2	80	65	55	55	33.0	32.3	105	INVRT	3.5	1	--	--	MOD	0.4	1	16.5	1200	80	64	65	114	7	8	7.1	460	3	9.5	15	1750	1-7, 9, BASE BID
RTU-07	DAIKIN	DPS004A	240	1600	0.7	1.6	4.0	0.64	80	65	55	55	44.3	38.5	105	INVRT	4.5	1	--	--	MOD	0.4	1	16.2	1600	80	64	61	97.9	7	8	7.1	460	3	10.5	15	1700	1-7, 9, BASE BID

EXHAUST FAN SCHEDULE

REMARKS:

1. ALL EXHAUST FANS SHALL HAVE PERMANENTLY LUBRICATED BEARINGS AND DISCONNECT SWITCH PROVIDED AND INSTALLED BY EC.
2. DOWNBLAST AND UPBLAST EXHAUST FANS SHALL BE PROVIDED WITH ECM MOTOR, FAN SPEED CONTROLLER, BACKDRAFT DAMPER, BIRDSCREEN, INTERNAL WIRING PIGTAIL AND ROOF CURB. VFD PROVIDED BY EQUIPMENT MANUFACTURER WHERE APPLICABLE.
3. PROVIDE VEHICLE EXHAUST FAN WITH WEATHER COVER, GRAVITY SHUTTER, VIBRATION PADS, AND BELT GUARD. PROVIDE WITH SPRING ACTIVATED HOSE REELS WITH INTEGRAL VISE GRIP CLAMP, INTEGRAL STOP BAR, AND TELESCOPIC LIFTING POLE. VEHICLE EXHAUST FAN SHALL BE EQUIPPED WITH A PRESSURE SWITCH THAT WILL AUTOMATICALLY ACTIVATE THE FAN WHEN THE HOSE IS PULLED DOWN. THE CONTROL BOX SHALL BE PROVIDED WITH AN ON/OFF SWITCH TO CONTROL THE FAN.

MARK	LOC. AT ROOM	MFR.	MODEL	TYPE	MIN CAP. FLOW (CFM)	MIN CAP. SP (IN WC)	FAN RPM	DRIVE	MOTOR (BY M.C.) HP	RPM	SPEED	ELEC.	START.	UNIT WT. (LBS.)	REMARKS
EF-01	ROOF	GREENHECK	G-180-VG	DN	4,875	0.5	1325	DIRECT	2	1725	VAR	208/1	BY MFR	150	1, 2
EF-02	ROOF	GREENHECK	G-140-VG	DN	2,600	0.5	1574	DIRECT	1	1725	VAR	208/1	BY MFR	78	1, 2
EF-03	ROOF	GREENHECK	G-098-VG	DN	600	0.65	1346	DIRECT	1/4	1725	VAR	115/1	BY MFR	38	1, 2
VEF-01	ROOF	MONOXIVENT	BI-150	UTILITY	1,000	5.0	2255	DIRECT	3	1725	VAR	480/3	BY EC	400	1, 3
VEF-02	ROOF	MONOXIVENT	BI-165	UTILITY	2,000	5.0	2255	DIRECT	5	1725	VAR	480/3	BY EC	400	1, 3
VEF-03	ROOF	MONOXIVENT	BI-180	UTILITY	4,400	5.3	2255	BELT	7.5	1725	VAR	480/3	BY EC	437	1, 3

ROOF HOOD SCHEDULE

REMARKS:

1. PROVIDE WITH INTEGRAL ALUMINUM BIRD AND ALUMINUM INSECT SCREEN. PROVIDE STANDARD MANUFACTURER'S ROOF CURB.
2. MOTORIZED DAMPER TO OPEN WHEN EF-01 IS ENERGIZED.
3. MOTORIZED DAMPER TO OPEN WHEN EF-02 IS ENERGIZED.

MARK	MFR	MODEL	SERVES	INTAKE OR RELIEF	HOOD SIZE (IN) THROAT SIZE	HOOD SIZE (IN) HOOD SIZE	HOOD SIZE (IN) HEIGHT	CAPACITY CFM	CAPACITY MAX PD (IN WC)	MAXIMUM VELOCITY (FPM)	UNIT WT (LBS)	REMARKS
IH-01	GREENHECK	GRSI-42	EV SERVICE TECH (102)	INTAKE	42.5"	63.25"	38"	4875	0.062	499	100	1, 2
IH-02	GREENHECK	GRSI-30	AUTO SERVICE TECH (126)	INTAKE	305."	48"	32.5"	2800	0.077	557	60	1, 3
IH-03	GREENHECK	GRSI-8	OFFICE (104)	INTAKE	8"	20.5"	19.25"	40	0.002	108	7	1

MINI SPLIT INDOOR UNIT SCHEDULE

REMARKS:

1. PROVIDE INDOOR UNIT WITH MANUFACTURER'S HARD-WIRED THERMOSTAT.
2. INDOOR UNIT IS POWERED THROUGH OUTDOOR UNIT.
3. PROVIDE WITH CONDENSATE PUMP. REFER TO DRAWINGS FOR CONDENSATE ROUTING.

MARK	LOCATION	MATCH WITH MARK	MFR	MODEL	COOLING CFM (MAX)	COOLING NOMINAL CAPACITY (MBH)	COOLING EAT DB (°F)	COOLING EAT WB (°F)	COOLING AMB (°F)	SEER	EER	HEATING TOT (MBH)	HEATING EAT DB (°F)	HEATING AMB (°F)	ELECTRICAL VOLT	PH	MCA	MOP	UNIT WT (LBS)	REMARKS
MS-IU-01	MEZZANINE	MS-OU-01	LG	LDN097HV4	318	9.0	79	64	105	18.5	12.7	14.0	58.8	0	208	1	11.9	15	39	1, 2, 3
MS-IU-02	AV (105)	MS-OU-02	LG	LSN120HSV5	459	12.0	80	67	105	22	12.5	13.6	70	0	208	1	10	15	19	1, 2, 3

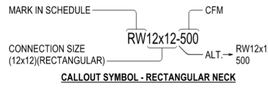
MINI SPLIT OUTDOOR UNIT SCHEDULE

REMARKS

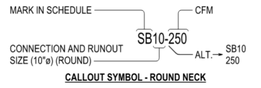
1. PROVIDE CONDENSING UNIT WITH THIRD PARTY HAIL GUARD (TURBO EAGLE OR PRE-APPROVED EQUAL) AND PROVIDE UNIT WITH INVERTER DRIVEN COMPRESSOR. SIZE AND ROUTE REFRIGERANT PIPING PER MANUFACTURER'S INSTRUCTIONS. PROVIDE ALUMINUM JACKETING FOR ALL EXPOSED REFRIGERANT LINE-SETS.

MARK	LOCATION	MATCH WITH MARK	MFR	MODEL	COOLING NOM CAPACITY (MBH)	COOLING AMB (°F)	COOLING SEER	COOLING EER	HEATING CAPACITY @ 17°F	HEATING CAPACITY @ 47°F	FANS QTY	FANS TYPE	ELECTRICAL VOLT	ELECTRICAL PH	ELECTRICAL MCA	ELECTRICAL MOP	UNIT WT (LBS)	REMARKS
MS-OU-01	ROOF	MS-IU-01	LG	LUU097HV	9.0	105	18.5	12.7		14.0	1	PROP	208	1	11.9	15	82	1
MS-OU-02	ROOF	MS-IU-02	LG	LSU120HSV5	12.0	105	22	12.5	13.8	13.6	1	PROP	208	1	10	15	75	1

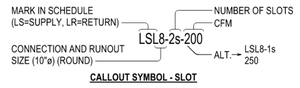
GRILLE, REGISTER, AND DIFFUSER SCHEDULE



CALLOUT SYMBOL - RECTANGULAR NECK



CALLOUT SYMBOL - ROUND NECK



CALLOUT SYMBOL - SLOT

FIRST LETTER IN MARK:

S = SUPPLY DIFFUSER
R = RETURN GRILLE
P = PLENUM RETURN GRILLE
E = EXHAUST GRILLE
L = SLOT DIFFUSER
M = LAMINAR FLOW SUPPLY DIFFUSER
C = SECURITY GRILLE
U = FLOOR MOUNTED SUPPLY GRILLE

NOTES:

1. PROVIDE SQUARE TO ROUND ADAPTERS AS REQUIRED TO ACCOMODATE ROUND RUNOUTS.
2. PROVIDE ALL LAY-IN GRDs WITH 24x24 LAY-IN PANEL AS REQUIRED.
3. FINISH TO BE WHITE UNLESS OTHERWISE SPECIFIED. COORDINATE AND VERIFY ALL FINISHES WITH ARCHITECT.
4. ALL SELECTIONS ARE BASED ON A MAXIMUM NC OF 25 UNLESS NOTED OTHERWISE.
5. CONTRACTOR SHALL VERIFY ALL CEILING TYPES AND ASSOCIATED BORDER TYPES.
6. MARKS USED MAY NOT BE IN SEQUENCE.
7. LOUVERED GRILLES TO HAVE FRONT BLADES PARALLEL TO LONG DIMENSION UNLESS WALL MOUNTED.
8. WALL MOUNTED LOUVERED GRILLES TO HAVE FRONT BLADES PARALLEL TO FLOOR.

MARK	TYPE	IMAGE	BASED ON MFR	BASED ON MODEL	MOUNT	PANEL SIZE (FACE SIZE)	MATERIAL	BLADE SPACING / SLOT WIDTH	DEFLECTION	COLOR	REMARKS
SB	SUPPLY DIFFUSER		TITUS	TDC-AA	LAY-IN	24x24 (9x9)	ALUMINUM	--	--	WHITE	LOUVERED FACE
SX	DUCT MOUNTED SUPPLY		TITUS	300FS	DUCT	SEE PLANS	ALUMINUM	3/4"	DOUBLE	MATCH DUCT	--
SY	DUCT MOUNTED SUPPLY		TITUS	S300FS	DUCT	SEE PLANS	ALUMINUM	3/4"	DOUBLE	MATCH DUCT	AIR SCOOP DAMPER
RA	RETURN GRILLE		TITUS	350FL	LAY-IN	24x12 (22x10)	ALUMINUM	3/4"	35°	WHITE	--
EC	EXHAUST GRILLE		TITUS	350FL	SURFACE	12x12 (10x10)	ALUMINUM	3/4"	35°	WHITE	--
EX	DUCT MOUNTED EXHAUST		TITUS	350FL	DUCT	SEE PLANS	ALUMINUM	3/4"	35°	MATCH DUCT	--

GLMVArchitecture

PEC PROJECT NUMBER: 228090-042
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BRANDON W. CLARK LICENSED PROFESSIONAL ENGINEER 19365 11/16/2023 KANSAS

DESCRIPTION | DATE

PROJECT NUMBERS:
GLMV # - 2208/G8502
PROJECT TYPE:
Renovation

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EAST HIGH SNAP ON LAB

301 S. GROVE, WICHITA, KS 67211

DATE: 11/06/2023 DRAWN BY: AMB CHECKED BY: KEH

MECHANICAL SCHEDULES

M-601

CERTIFIED FINAL

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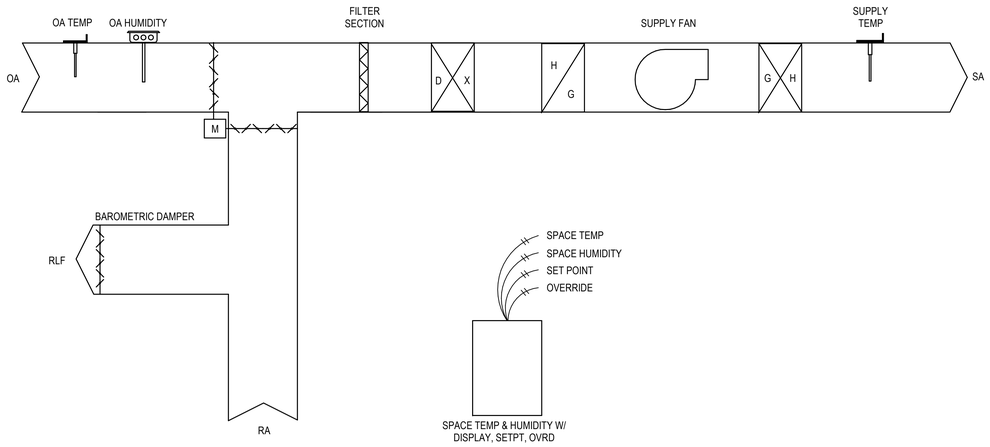


1 RTU CONTROL - SINGLE ZONE CV SEQUENCE OF OPERATION (RTU-01, RTU-02, RTU-04)

SEQUENCE OF OPERATION: SINGLE-ZONE CV
(RTU-01, RTU-02, AND RTU-04)

ZONE OCCUPANCY:
RTU SHALL BE ENABLED DURING OCCUPIED HOURS DETERMINED BY THE 7-DAY PROGRAMMABLE THERMOSTAT.

COOLING MODE:
WHEN THE UNIT IS IN COOL MODE, THE UNIT SHALL ENABLE THE FIRST STAGE OF COOLING TO MAINTAIN A DISCHARGE AIR TEMPERATURE OF 55 DEG F, IF THERE IS STILL A REQUEST FOR COOLING AND AFTER A SHORT TIME DELAY, THE UNIT SHALL ENABLE THE SECOND STAGE OF COOLING. THE SUPPLY FAN SHALL OPERATE BASED ON THE STAGE OF COOLING.

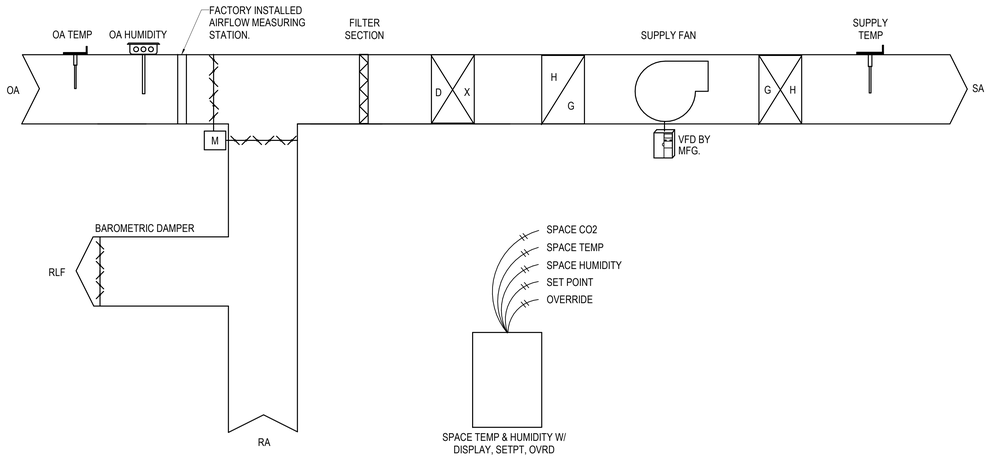
DEHUMIDIFICATION MODE:
IF THE SPACE HUMIDITY RISES ABOVE 60%RH (ADJ), THE UNIT SHALL ENTER INTO A DEHUMIDIFICATION MODE. DURING THIS TIME, THE HOT GAS REHEAT SHALL BE ENABLED. ONCE THE SPACE HUMIDITY DROPS TO 55%RH (ADJ), THE NORMAL COOLING MODE SHALL BE ENABLED.

ECONOMIZER MODE:
THE UNIT SHALL MONITOR OUTSIDE AIR TEMPERATURE AND HUMIDITY TO DETERMINE WHEN THE ENTHALPY IS LOW ENOUGH TO ENTER THE ECONOMIZER MODE. WHEN THE UNIT IS IN ECONOMIZER MODE, THE MIXED AIR DAMPERS SHALL MODULATE TO MAINTAIN THE SUPPLY AIR TEMPERATURE SETPOINT OF 55 DEG F (ADJ). THE DX COOLING SHALL BE DISABLED.

HEATING MODE
WHEN THE UNIT IS IN HEAT MODE, THE GAS HEATING IS ENABLED AND SHALL MODULATE TO MAINTAIN A DISCHARGE AIR SETPOINT OF 90 DEG F (ADJ).

ZONE UNOCCUPIED:
WHEN THE ZONE IS SCHEDULED TO BE UNOCCUPIED VIA ITS TIME-OF-DAY SCHEDULE, THE SUPPLY FAN, DX, AND GAS HEAT SHALL BE DISABLED AND THE OUTSIDE AIR DAMPER SHALL CLOSE.

UNOCCUPIED HEATING AND COOLING:
IF THE SPACE TEMPERATURE RISES ABOVE THE UNOCCUPIED COOLING SETPOINT, 85 F (ADJ), OR FALLS BELOW THE UNOCCUPIED HEATING SETPOINT, 60 F (ADJ), THE UNIT SHALL OPERATE PER ITS OCCUPIED SEQUENCE OF OPERATIONS TO MAINTAIN SPACE TEMPERATURE SET POINT. THE OUTSIDE AIR DAMPER SHALL REMAIN CLOSED DURING UNOCCUPIED HEATING AND COOLING. ONCE THE ROOM IS BACK WITHIN SETPOINT, THE UNIT SHALL BE DISABLED.



2 RTU CONTROL - SINGLE ZONE VAV SEQUENCE OF OPERATION (RTU-03, RTU-05, RTU-06)

SEQUENCE OF OPERATION: SINGLE-ZONE VAV WITH DEMAND CONTROL VENTILATION
(RTU-03, RTU-05, AND RTU-06)

ZONE OCCUPANCY:
RTU SHALL BE ENABLED DURING OCCUPIED HOURS DETERMINED BY THE 7-DAY PROGRAMMABLE THERMOSTAT.

COOLING MODE:
WHEN THE UNIT IS IN COOL MODE, THE DX COOLING SHALL BE ENABLED AND MODULATE DX CAPACITY TO MAINTAIN A DISCHARGE AIR SETPOINT OF 55 DEG F (ADJ) WHILE THE SUPPLY FAN MODULATES FAN SPEED TO MAINTAIN THE SPACE TEMPERATURE SETPOINT 72 DEG F, (ADJ). THE SUPPLY FAN SPEED SHALL NOT BE ALLOWED TO MODULATE BELOW 30% FAN SPEED TO ALLOW FOR PROPER AIRFLOW. IF THE FAN SPEED DROPS TO 30% AND THE SPACE TEMPERATURE IS BELOW SETPOINT, THE MODULATING HOT GAS REHEAT SHALL BE ENABLED AND MODULATE TO MAINTAIN SPACE TEMPERATURE SETPOINT.

DEHUMIDIFICATION MODE:
IF THE SPACE HUMIDITY RISES ABOVE 60%RH (ADJ), THE UNIT SHALL ENTER INTO A DEHUMIDIFICATION MODE. DURING THIS TIME, THE FAN SPEED SHALL INCREASE TO 100% FLOW, THE DX COOLING SHALL MAINTAIN A DISCHARGE AIR SETPOINT OF 55 DEG F (ADJ), AND THE MODULATING HOT GAS REHEAT SHALL BE ENABLED AND MODULATE TO MAINTAIN A DISCHARGE AIR TEMPERATURE OF 70 DEG F. ONCE THE SPACE HUMIDITY DROPS TO 55%RH (ADJ), THE NORMAL COOLING MODE SHALL BE ENABLED.

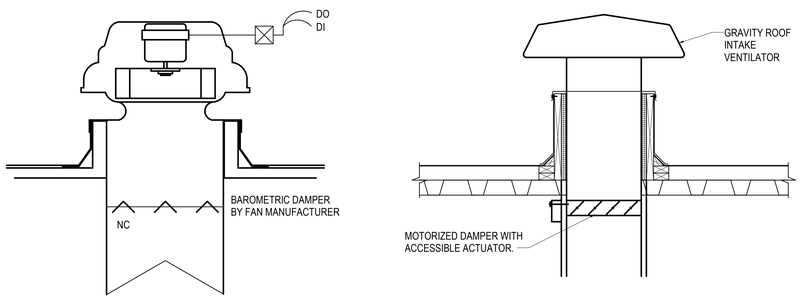
ECONOMIZER MODE:
THE UNIT SHALL MONITOR OUTSIDE AIR TEMPERATURE AND HUMIDITY TO DETERMINE WHEN THE ENTHALPY IS LOW ENOUGH TO ENTER THE ECONOMIZER MODE. WHEN THE UNIT IS IN ECONOMIZER MODE, THE MIXED AIR DAMPERS SHALL MODULATE TO MAINTAIN THE SUPPLY AIR TEMPERATURE SETPOINT OF 55 DEG F (ADJ) WHILE THE SUPPLY FAN VFD MODULATES FAN SPEED TO MAINTAIN THE SPACE TEMPERATURE SETPOINT 72 DEG F (ADJ). THE DX COOLING SHALL BE DISABLED.

HEATING MODE
WHEN THE UNIT IS IN HEAT MODE, THE GAS HEATING IS ENABLED AND SHALL MODULATE TO MAINTAIN A DISCHARGE AIR SETPOINT OF 90 DEG F (ADJ) WHILE THE SUPPLY FAN VFD MODULATES FAN SPEED TO MAINTAIN THE SPACE TEMPERATURE SETPOINT 70 DEG F (ADJ) THE SUPPLY FAN SPEED SHALL NOT BE ALLOWED TO MODULATE BELOW 50% FAN SPEED TO ALLOW FOR PROPER AIRFLOW. IF THE FAN SPEED DROPS TO 50% AND THE SPACE TEMPERATURE IS ABOVE SETPOINT, THE DISCHARGE AIR TEMPERATURE SETPOINT SHALL BE RESET BETWEEN 90 DEG F AND 70 DEG F (ADJ).

ZONE UNOCCUPIED:
WHEN THE ZONE IS SCHEDULED TO BE UNOCCUPIED VIA ITS TIME-OF-DAY SCHEDULE, THE SUPPLY FAN, DX, AND GAS HEAT SHALL BE DISABLED AND THE OUTSIDE AIR DAMPER SHALL CLOSE.

UNOCCUPIED HEATING AND COOLING:
IF THE SPACE TEMPERATURE RISES ABOVE THE UNOCCUPIED COOLING SETPOINT, 78 F (ADJ), OR FALLS BELOW THE UNOCCUPIED HEATING SETPOINT, 65 DEG F (ADJ), THE UNIT SHALL OPERATE PER ITS OCCUPIED SEQUENCE OF OPERATIONS TO MAINTAIN SPACE TEMPERATURE SET POINT. THE OUTSIDE AIR DAMPER SHALL REMAIN CLOSED DURING UNOCCUPIED HEATING AND COOLING. ONCE THE ROOM IS BACK WITHIN SETPOINT, THE UNIT SHALL BE DISABLED.

SEQUENCE OF OPERATIONS: EXHAUST FAN CONTROL
FAN OPERATION SHALL BE INTERLOCKED TO THE ASSOCIATED DAMPER AT THE INTAKE HOODS (EF-01 WITH IH-01 DAMPER AND EF-02 WITH IH-02 DAMPER). THE EXHAUST FAN SHALL BE ENABLED WHENEVER THE SPACE IS OCCUPIED.



3 CONTROL SCHEMATIC EXHAUST - EF-01/IH-01 AND EF-02/IH-02

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GLMVArchitecture

PEC PROJECT NUMBER: 229890-042
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BRANDON W. CLARK LICENSED 19365 11/16/2023 KANSAS PROFESSIONAL ENGINEER

DESCRIPTION	DATE

PROJECT NUMBERS:
GLMV # - 2228/DB5002
PROJECT TYPE:
Renovation

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301 S. GROVE, WICHITA, KS 67211

DATE: 11/06/2023 DRAWN BY: AMB CHECKED BY: KEH

CONTROL DETAILS

M-701

CERTIFIED FINAL

GENERAL NOTES

1. ALL ELECTRICAL WORK SHALL COMPLY WITH THE LATEST EDITION OF THE NATIONAL ELECTRICAL CODE (NEC) & THE AMERICANS WITH DISABILITIES ACT (ADA).
2. REFER TO RELATED ARCHITECTURAL, MECHANICAL, STRUCTURAL, AND CIVIL DRAWINGS FOR RELATED INFORMATION.
3. REFER TO THE SPECIFICATIONS FOR DATA NOT ON THE DRAWINGS.
4. E.C. SHALL REFER TO MECHANICAL DRAWINGS AND SPECIFICATIONS FOR THE REQUIREMENTS ASSOCIATED WITH WIRING AND CONNECTION OF INTERLOCKING AND CONTROLS OF MECHANICAL UNITS AND THERMOSTAT LOCATIONS.
5. COORDINATE OUTLET BOX LOCATIONS WITH MASONRY TO MINIMIZE CUTTING OF BRICK OR BLOCK.
6. ALL MOUNTING HEIGHTS TO CENTERLINE OF ITEM UNLESS OTHERWISE NOTED. VERIFY ALL OUTLET LOCATIONS ON THE JOB PRIOR TO ROUGH-IN.
7. CONDUIT RUN W/CONDUCTORS AS INDICATED & GROUND WIRE SIZED PER N.E.C. 250.122. CONDUIT SIZE AS REQUIRED.
8. WHEN INCREASED CONDUCTOR SIZES ARE SHOWN ON THE PLANS, THE LARGER CONDUCTOR SIZE SHALL BE USED THROUGHOUT THE LENGTH OF THE CIRCUIT, INCLUDING NEUTRAL AND GROUND.
9. E.C. SHALL REFERENCE ARCHITECTURAL FINISH DRAWINGS FOR LOCATIONS AND HEIGHTS OF RIGID WALL COVERINGS, TILE, CHAIR RAIL, WAINSCOATING, ETC. AND ADJUST ELECTRICAL BOX ROUGH-IN HEIGHTS SO THAT COVERPLATES DO NOT PARTIALLY OVERLAP THESE ITEMS.
10. BRANCH CIRCUITS ARE INDICATED AS ONE CIRCUIT HOME RUNS WITH INDIVIDUAL NEUTRALS. A MAXIMUM OF THREE CIRCUITS (MAXIMUM OF THREE PHASE CONDUCTORS) MAY BE GROUPED IN A SINGLE CONDUIT. WHERE MULTIPLE CIRCUITS ARE LOCATED IN THE SAME RACEWAY, JUNCTION BOX OR ENCLOSURE, NEUTRALS SHALL BE MARKED OR LABELED TO INDICATE WHICH CIRCUIT THEY ARE ASSOCIATED WITH. SEE SPECIFICATION SECTION "LOW VOLTAGE ELECTRICAL POWER CONDUCTORS AND CABLES" FOR ADDITIONAL INFORMATION.
11. JUNCTION BOX OR RECEPTACLE FOR DRINKING FOUNTAINS SHALL BE LOCATED BEHIND THE EQUIPMENT SKIRT UNLESS OTHERWISE NOTED. COORDINATE CONNECTION TYPE AND LOCATION WITH EQUIPMENT PROVIDED.
12. LABEL THE FRONT OF EACH RECEPTACLE COVERPLATE WITH PANEL DESIGNATION AND CIRCUIT NUMBER USING CLEAR THERMAL TRANSFER (ELECTRONIC DYMO) LABELS WITH 1/8" HIGH BLACK LETTERS (OR CONTRASTING COLOR IF COVERPLATES ARE BLACK OR BROWN). LABELS SHALL BE SUITABLE FOR INDOOR/OUTDOOR USE. LABEL THE BACK OF EACH LIGHT SWITCH COVERPLATE WITH PANEL DESIGNATION AND CIRCUIT NUMBER USING A FINE BLACK PERMANENT MARKER.
13. PROVIDE 18" LONG (MIN.) CONDUIT SLEEVES THRU ALL WALLS WHERE CABLES ARE INDICATED OR REQUIRED TO PASS THRU WALLS. PROVIDE BUSHINGS ON BOTH ENDS. SIZE CONDUIT FOR CABLES INSTALLED. AT CABLE TRAYS, PROVIDE ONE 4" CONDUIT SLEEVE FOR EACH 4" WIDTH OF CABLE TRAY. MAXIMUMS SHALL BE:
    1"C. = 10 CABLES
    2 1/2"C. = 20 CABLES
    3"C. = 30 CABLES
    4"C. = 50 CABLES
14. LOCATE CABLE TRAYS 6" ABOVE CEILING. OFFSET TRAY UP AND OVER LIGHT FIXTURES AND DUCTWORK (FIELD VERIFY AND PROVIDE AS REQUIRED). IF PHYSICALLY IMPOSSIBLE TO RUN CABLE TRAY UP AND OVER, THEN PROVIDE CABLE SUPPORT HOOKS FROM STRUCTURE ABOVE, SIZED AND RATED FOR INSTALLED CABLES PLUS 25% SPARE.
15. PROVIDE DIMMER PER THE SPECIFICATIONS. COORDINATE DIMMER TYPE AND WIRING WITH ASSOCIATED LIGHT FIXTURE DIMMING REQUIREMENTS (I.E. 3-WIRE, 0-10V, ELECTRONIC OR MAGNETIC LOW VOLTAGE, ETC.) OR WITH LIGHTING CONTROL SYSTEM PROPRIETARY REQUIREMENTS (I.E. LUTRON, nLIGHT, DALI, ETC.) AS NECESSARY. 3-WIRE DIMMERS SHALL BE PROVIDED WITH A DEDICATED NEUTRAL FOR EACH CONTROL ZONE. 0-10V DIMMERS SHALL BE PROVIDED WITH DIMON/OFF CONTROL. COORDINATE PHASE CONTROL OF LED DRIVERS (I.E. REVERSE PHASE, FORWARD PHASE, ETC.) WITH LIGHT FIXTURE MANUFACTURER'S RECOMMENDATIONS. LOW VOLTAGE CONTROL WIRING IS NOT SHOWN ON PLANS FOR CLARITY, BUT SHALL BE PROVIDED AS REQUIRED.
16. "CT" INDICATED ADJACENT TO DEVICE INDICATES DEVICE MOUNTED ABOVE BACKSPLASH OF COUNTER TOP. VERIFY EXACT HEIGHT WITH ARCHITECTURAL PLANS AND ELEVATIONS.

COMMUNICATION / DATA

T1. EACH DATA, TELEPHONE, VIDEO, OR OTHER SYSTEMS OUTLET REQUIRES 1"C. WITH PULL ROPE STUBBED 6" ABOVE NEAREST ACCESSIBLE CEILING UNLESS OTHERWISE NOTED ON PLANS. CONDUITS STUBBED UP ABOVE CEILINGS SHALL BE TURNED OUT 90 DEGREES. PROVIDE INSULATED BUSHINGS ON ALL CONDUITS. LABEL CONDUIT TO IDENTIFY ITS INTENDED USE (I.E. TELEPHONE, DATA, ETC.).

FIRE ALARM

F1. THE FIRE ALARM SYSTEM SHOWN HAS BEEN DESIGNED PER THE REQUIREMENTS OF NFPA 72, 2013 EDITION. DEVICES SHOWN INDICATE DESIGN INTENT AND SHALL BE THE MINIMUM PROVIDED. SYSTEM SUPPLIER SHALL PROVIDE ANY ADDITIONAL CODE REQUIRED DEVICES OR DEVICES REQUIRED BY THE AUTHORITY HAVING JURISDICTION.

F2. FIELD VERIFY LOCATIONS OF AREA SMOKE DETECTORS AND HEAT DETECTORS. DO NOT LOCATE WITHIN 36" OF A HVAC DIFFUSER (SUPPLY OR RETURN), IN A DIRECT AIR FLOW, WITHIN 36" OF A SPRINKLER HEAD, OR WITHIN 36" OF THE TIP OF A CEILING FAN BLADE. SMOKE DETECTORS FOR DOOR RELEASE SHALL BE LOCATED ON THE CENTER LINE OF THE DOOR AND A MAXIMUM OF 5 FEET FROM THE DOOR. THE MINIMUM DISTANCE FROM THE DOOR IS THE DEPTH OF THE WALL SECTION ABOVE THE DOOR, BUT NOT LESS THAN 12".

F3. FAN SHUTDOWN RELAY WIRING SHALL BE LOCATED WITHIN 3 FEET OF THE FAN CONTROLS AND THE WIRING TO THE RELAY SHALL BE MONITORED.

F4. LABEL REMOTE ALARM INDICATOR FOR DUCT MOUNTED SMOKE DETECTORS (I.E. RTU-=1 SUPPLY, RTU-2 RETURN, FIRE/SMOKE DAMPER, ETC.). DUCT DETECTORS SHOULD BE LOCATED IN THE AREA BETWEEN 6 AND 10 DUCT EQUIVALENT DIAMETERS OF STRAIGHT, UNITERRUPTED DUCTWORK. DUCT DETECTORS FOR FIRE/SMOKE DAMPERS SHOULD BE LOCATED BETWEEN THE LAST INLET OR OUTLET UPSTREAM OF THE DAMPER AND THE FIRST INLET OR OUTLET DOWNSTREAM OF THE DAMPER.

F5. PROVIDE 120V POWER AND FUSTAT FOR EACH FIRE/SMOKE DAMPER. INTERLOCK WITH FIRE ALARM CONTROL PANEL TO CLOSE THE FIRE/SMOKE DAMPER UPON ANY ALARM AT THE FIRE ALARM CONTROL PANEL AND TO SHUTDOWN THE ASSOCIATED MECHANICAL UNIT.

SPECIAL OUTLETS

MARK	DESCRIPTION
BL	BRAKE LATHE. PROVIDE 120V, 1PH, NEMA 5-20R RECEPTACLE. BRANCH CIRCUIT TO BE (3)#12, #12G, IN 1/2"C. VERIFY CONNECTION REQUIREMENTS WITH EQUIPMENT PROVIDED PRIOR TO ROUGH-IN.
EV	DUAL HEAD WALL MOUNT ELECTRIC VEHICLE CHARGER. 208V/1PH, 50A CONNECTION ENPHASE HCS-D50-EVSE OR EQUAL. VERIFY CONNECTION REQUIREMENTS WITH EQUIPMENT PROVIDED PRIOR TO ROUGH-IN.
FB	FLOOR BOX: "SYSTEM ONE" NON-METALLIC FLOOR BOX BY HUBBELL OR EQUAL BY WIREMOLD/LEGRAND. #S1PFB WITH (2) 20A., 125V., DUPLEX RECEPTACLE NEMA 5-20R #S1SP & #HBL2162GY, AND (2) DATA JACKS IN 3 PORT MODULE #IISF3BK. DATA JACKS TO BE "MX" KEYSTONE SERIES. PROVIDE 1-1/2" CONDUIT WITH PULL ROPE TO ABOVE NEAREST ACCESSIBLE CEILING FOR LOW VOLTAGE CABLING ROUTED ABOVE CEILING TO THE AV ROOM. CONTRACTOR SHALL VERIFY EXACT LOCATION PRIOR TO ROUGH-IN TRENCHING.
PJ	POWER FOR CEILING MOUNTED PROJECTOR. PROVIDE WITH (1) 120V., 20A., NEMA 5-20R RECEPTACLE AND (2) DATA JACKS MOUNTED AT STRUCTURE. PROVIDE 1-1/2" CONDUIT WITH PULLROPE TO ABOVE NEAREST ACCESSIBLE CEILING FOR LOW VOLTAGE CABLING ROUTED ABOVE CEILING TO THE AV ROOM. COORDINATE RECEPTACLE LOCATION WITH OWNER PROVIDED PROJECTOR PRIOR TO ROUGH-IN. PROVIDE STEM MOUNTING FOR RECEPTACLE IF REQUIRED.
RL-D	EXISTING ROTARY LIFT CONNECTION, CORD REEL, AND DISCONNECT TO BE REMOVED. REMOVE ALL CONDUIT AND WIRING BACK TO POINT OF SUPPLY. SUPPLY BREAKER TO BE PUT IN OFF POSITION AND LABELED AS 'SPARE' IF NO EXISTING TO REMAIN LOADS ARE SERVED.
RL-E	EXISTING ROTARY LIFT CONNECTION, CORD REEL, AND DISCONNECT TO REMAIN.
RL-R	EXISTING ROTARY LIFT CONNECTION, CORD REEL, AND DISCONNECT TO BE RELOCATED.
TC	TIRE CHANGER. PROVIDE 208V, 1PH, NEMA L6-30R RECEPTACLE. BRANCH CIRCUIT TO BE (4)#10, #10G, IN 3/4"C. VERIFY CONNECTION REQUIREMENTS WITH EQUIPMENT PROVIDED PRIOR TO ROUGH-IN.
W	WELDER OUTLET: 50A, 125/250V, 3P, 4W SINGLE GROUNDED RECEPTACLE (NEMA 14-50R) WITH MATCHING STAINLESS STEEL COVERPLATE.
WB	POWER CONNECTION FOR WORKBENCH. POWER CONDUIT TO STUB UP THROUGH FLOOR AT BASE OF WORKBENCH AND CONDUIT TO RUN WITHIN CASEWORK TO POWER RECEPTACLES INTEGRAL TO WORKBENCH. ALL CONDUIT TO BE CONCEALED. VERIFY CONNECTION REQUIREMENTS WITH EQUIPMENT PROVIDED PRIOR TO ROUGH-IN. CONTRACTOR TO COORDINATE RECEPTACLE REQUIREMENTS AND CONNECT AS REQUIRED.
WH	WHEEL BALANCE. PROVIDE 208V, 1PH, NEMA L6-20R RECEPTACLE. VERIFY CONNECTION REQUIREMENTS WITH EQUIPMENT PROVIDED PRIOR TO ROUGH-IN

SYMBOL LIST

SYMBOL	DESCRIPTION	MOUNTING	SYMBOL	DESCRIPTION	MOUNTING
ABBREVIATIONS					
NL	NIGHT LIGHT - WIRE AHEAD OF CONTROLS		AFF	ABOVE FINISHED FLOOR	
			AFG	ABOVE FINISHED GRADE	
EM	ON EMERGENCY POWER		DF	DRINKING FOUNTAIN - SEE GENERAL NOTE 11	
WP	WEATHERPROOF				
CT	COUNTERTOP (SEE GEN. NOTE 16)		GAP	GENERATOR ANNUNCIATOR PANEL	
UON	UNLESS OTHERWISE NOTED				
W	WALL				
CONDUIT AND WIRING					
	EMERGENCY CIRCUIT	CLG/WALL		CONDUIT HOME RUN, 1 CIRCUIT. 2#12 & 1#12 GRD. - 1/2"C.	CLG/WALL
	MASTER/SLAVE FIXTURE WHIP	CEILING		CONDUIT HOME RUN, 2 CIRCUITS. 4#12 & 1#12 GRD. - 1/2"C.	CLG/WALL
	LOW VOLTAGE WIRING	CLG/WALL		CONDUIT HOME RUN, 3 CIRCUITS. 6#12 & 1#12 GRD. - 1/2"C.	CLG/WALL
	CDT RUN 2#12 & 1#12 GRD.- 1/2"C. OR CDT RUN AS NOTED ON PLAN	CLG/WALL		CONDUIT HOME RUN, 2 CIRCUITS PHASE CONDUCTORS/ NEUTRAL CONDUCTOR (#12 UON) SWITCH LEGS (#12 UON) GROUND CONDUCTOR (#12 UON)	CLG/WALL
	CDT RUN 2#12 & 1#12 GRD.- 3/4"C. OR CDT RUN AS NOTED ON PLAN	EARTH/ FLOOR			
#10	CONDUIT HOME RUN, 1 CIRCUIT. 2#10 & 1#10 GRD. (GEN. NOTES 7 & 8)	CLG/WALL			
	CONDUIT RUN PARTIAL CIRCUIT. 2#12 & 1#12 GRD. - 1/2"C.	CLG/WALL			
	MISC. EQUIPMENT CONNECTION				
	CONDUIT SEAL OFF				
LIGHTING, SWITCHES AND SENSORS					
A	LIGHT FIXTURE & FIXTURE LETTER	CLG SURF/ RECESSED	$ $2 $3 $4	SWITCHES (1-POLE, 2-POLE, 3-WAY, 4-WAY)	46" AFF
A	STRIP LIGHT FIXTURE & FIXT LETTER	CEILING	$K $P $T	SWITCHES (KEYED, PILOT, TIMER)	46" AFF
A	LIGHT FIXTURE & FIXTURE LETTER	CLG SURF/ RECESSED	a, b, c	INDICATES SWITCHING SCHEME	
			M	1 RELAY OCCUPANCY SENSOR SW	46" AFF
A	LIGHT FIXTURE & FIXTURE LETTER	WALL	2M	2 RELAY OCCUPANCY SENSOR SW	46" AFF
A	EXIT SIGN (SHADING DENOTES EXIT FACE SIDE)	CEIL/WALL	1D	1 RELAY OCCUPANCY SENSOR/ DIMMER SWITCH (GEN NOTE 15)	46" AFF
A	LIGHT FIXTURE & FIXTURE LETTER	WALL	D	DIMMER SWITCH (GEN NOTE 15)	46" AFF
A	FIXTURE WITH SHADED LAMP(S) ON EMERGENCY POWER	CLG SURF/ RECESSED	$	LOW VOLTAGE SWITCH	46" AFF
			$1	ON/OFF SWITCH	46" AFF
A	EMERGENCY BATTERY LIGHT FIXT	CEIL/WALL	$2	ON/OFF/0-10V DIMMING SWITCH	46" AFF
A	COMB EXIT SIGN/EM BATTERY LIGHT	WALL	$3	DUAL TECH ON/OFF SENSOR	46" AFF
A	LIGHT FIXTURE & FIXTURE LETTER	POLE	$4	16-SCENE WALL CONTROLLER	46" AFF
A	LIGHTING TRACK, TRACK FIXTURES, & FIXTURE LETTERS	CEILING	$5	DUAL TECH ON/OFF/0-10V DIM SW	46" AFF
				OCCUPANCY SENSOR	CLG/WALL
PC	PHOTOCELL		LP	LIGHTING CONTROL POWER PACK	
			EP	UL-924 LISTED POWER PACK	
			AU	AV SYSTEM/LIGHTING INTERFACE	
				DAYLIGHT SENSOR	CEILING
POWER					
	SINGLE GROUNDED RECEPTACLE	18" AFF	A	BRANCH CIRCUIT PANEL AND PANEL DESIGNATION	72" TO TOP
	DUPLEX GROUNDED RECEPTACLE	18" AFF		ELECTRICAL DISTRIBUTION EQUIP	
	DUPLEX GROUNDED RECEPTACLE	CEILING	XX XX	EQUIPMENT - SEE EQUIPMENT CONNECTION SCHEDULE	
	DOUBLE DUPLEX GROUNDED REC	18" AFF		CONDUIT SLEEVE (GEN NOTE 13)	
	GROUND FAULT DUPLEX REC	18" AFF		CABLE TRAY - WIRE BASKET,	
	GRD FAULT DOUBLE DUPLEX REC	18" AFF		LADDER (GEN NOTE 14)	
	DUPLEX GRD REC BOTTOM SWITCHD	18" AFF	M	MOTOR	
	TAMPER-PROOF DUPLEX REC	18" AFF		DISCONNECT SWITCH	
	TAMPER-PROOF GFCI DUPLEX REC	18" AFF	M	MANUAL STARTER	
A A	SPECIAL OUTLET (SEE SCHEDULE OR AS NOTED)	FLOOR/WALL		CIRCUIT BREAKER	
	SPECIAL DEVICE (AS NOTED)			STARTER OR ATS (AS NOTED)	
2	FEEDER DESIGNATION			COMBINATION STARTER/DISC	
IJ	JUNCTION BOX - 1-GANG		R	RELAY	
J	JUNCTION BOX - 2-GANG			PUSHBUTTON (1-, 2-, 3-BUTTON)	46" AFF
F	FUSTAT BUSS #SSY		T	BOX MOUNTED TRANSFORMER	
TS	THERMOSTAT/TEMP SENSOR	46" AFF	C	CONTACTOR	
P	PLUG LOAD SENSOR	CEILING		METER	
H	HANDICAP DOOR PUSHBUTTON	36" AFF		PLUGMOLD SURFACE RACEWAY	WALL
				BUSDUCT PLUG	
SECURITY					
	DURESS			DOOR POSITION SWITCH	
	DOOR RELEASE BUTTON			DOOR LOCK & POSITION SWITCH	
	CCTV CAMERA - PAN/TILT/ZOOM	CEILING	E	ELECTRIC DOOR STRIKE	
W	CCTV CAMERA - PAN/TILT/ZOOM	WALL	M	MAGNETIC LOCK	
	CCTV CAMERA - FIXED	CEILING		GLASS BREAK SENSOR	
W	CCTV CAMERA - FIXED	WALL	B	SECURITY BEAM DETECTOR	
CR	CARD READER			SEC ROOM MOTION DETECTOR	WALL/CLG
K	KEY PAD			SEC ROOM MOTION DETECTOR	CEILING
RD	REQUEST TO EXIT DEVICE (MOTION)			SEC CORRIDOR MOTION DETECTOR	
RE	REQUEST TO EXIT DEVICE (PSHBTN)	WALL			

- - - SYMBOL LIST IS FOR REFERENCE ONLY. ALL SYMBOLS MAY NOT BE USED ON THIS PROJECT. - - -

SYMBOL LIST

SYMBOL	DESCRIPTION	MOUNTING	SYMBOL	DESCRIPTION	MOUNTING
COMMUNICATION / DATA					
	1-DATA OUTLET & JACK (GEN NOTE T1)	18"AFF		2-DATA OUTLETS & JACKS (GEN NOTE T1)	18"AFF
	1-VOICE OUTLET & JACK (GEN NOTE T1)	18"AFF		3-DATA OUTLETS & JACKS (GEN NOTE T1)	18"AFF
	1-VOICE/1-DATA OUTLET & JACKS (GEN NOTE T1)	18"AFF		4-DATA OUTLETS & JACKS (GEN NOTE T1)	18"AFF
	1-VOICE/2-DATA OUTLETS & JACKS (GEN NOTE T1)	18"AFF		2-VOICE/2-DATA OUTLETS & JACKS (GEN NOTE T1)	18"AFF
	CABLE TV OR VIDEO OUTLET & CONNECTOR (GEN NOTE T1)	18"AFF		1-VOICE/3-DATA OUTLETS & JACKS (GEN NOTE T1)	18"AFF
FIRE ALARM					
'FACP'	FIRE ALARM CONTROL PANEL	WALL	'FAAP'	FIRE ALARM REMOTE ANNUNCIATOR	WALL
	FIRE ALARM MANUAL STATION	46"AFF		FIRE ALARM SPEAKER	WALL
	FIRE ALARM HORN	BOTTOM 80"		COMB FA SPEAKER & VISUAL SIGNAL	BOTTOM 80"
	FIRE ALARM VISUAL SIGNAL	BOTTOM 80"		COMB FA HORN & VISUAL SIGNAL	CEILING
	COMB. F.A. HORN & VISUAL SIGNAL	BOTTOM 80"		FIRE ALARM VISUAL SIGNAL	CEILING
CH	CHIME	WALL	C	FIRE ALARM CONTROL MODULE	
	FIRE SPRINKLER ALARM BELL	WALL	M	FIRE ALARM MONITOR MODULE	
R	F.A. RELAY (GEN NOTE F3)		P	FIRE SPRINKLER PRESSURE SWITCH	
	IONIZATION AREA SMOKE DETECTOR (GEN NOTE F2)			FIRE ALARM SPEAKER	CEILING
				FIRE ALARM SPEAKER	WALL
	PHOTO ELECTRIC AREA SMOKE DETECTOR (GEN NOTE F2)		H	HEAT DETECTOR (GEN NOTE F2)	
			T	FIRE SPRINKLER TAMPER SWITCH	SPRKLR RSR
	DUCT SMOKE DETECTOR (GEN NOTE F4)	DUCTWORK	W	FIRE SPRINKLER WATER FLOW SW	SPRKLR RSR
			DH	ELECTROMAGNETIC DOOR HOLDER	WALL
FSD	DUCT SMOKE DETECTOR & FIRE/ SMOKE DAMPER (GEN NOTES F4 & F5)	DUCTWORK			
ONE-LINE					
LSIG GFI ST K	CIRCUIT BREAKER ACCESSORIES: LSIG = LONG TIME, SHORT TIME, INSTANTANEOUS, GROUND FAULT GFI = GROUND FAULT ST = SHUNT TRIP K = KIRK KEY INTERLOCK		# A A 2P	FUSIBLE SWITCH (CIRCUIT NUMBER / SWITCH SIZE / FUSE SIZE / # OF POLES) (# OF POLES IF OTHER THAN 3)	
	INDICATOR LIGHT(G=GREEN, R=RED)		# A A 2P ST	STARTER WITH FUSIBLE SWITCH (CIRCUIT NUMBER / SWITCH SIZE / FUSE SIZE / # OF POLES / STARTER SIZE) (# OF POLES IF OTHER THAN 3)	
	ERMS INDICATING LIGHT & SWITCH)				
	CONTACTS (N.O., N.C.)				
	FUSE				
	CIRCUIT BREAKER		# # A AF AT 2P 2P	CIRCUIT BREAKER (MOLDED CASE NON-ADJUSTABLE TRIP / ADJUSTABLE TRIP) (CIRCUIT NUMBER / TRIP SIZE / # OF POLES) (FRAME SIZE / TRIP SIZE) (# OF POLES IF OTHER THAN 3)	
	OVERLOADS				
	DRAWOUT CONTACTS				
	DISCONNECT SWITCH (SEE EQUIP CONN SCHED) (VOLTAGE / SWITCH SIZE / FUSE SIZE / # OF POLES - NOTED IF EQUIPMENT NOT SCHEDULED)				
				3Ø TRANSFORMER (DELTA PRIMARY / WYE SECONDARY)	
	STARTER (SEE EQUIP CONN SCHED) (VOLTAGE / STARTER SIZE / # OF POLES - NOTED IF EQUIPMENT NOT SCHEDULED)			1Ø TRANSFORMER	
			PANEL SPD	PANELBOARD (BUILT-IN SPD)	
	GROUND CONNECTION				
	LIGHTNING ARRESTOR				
1	FEEDER DESIGNATION		N E ATS	TRANSFER SWITCH (ATS = AUTOMATIC, MTS = MANUAL) (AMP SIZE / VOLTAGE / POLES / AIC RATING / NEMA RATING) (NEMA RATING IF OTHER THAN NEMA-1)	
SPD	SURGE PROTECTIVE DEVICE				
M	METER (UTILITY / PANEL MOUNTED)				
HP KW	EQUIPMENT (SINGLE MOTOR / MULTI-MOTOR OR OTHER TYPE AS NOTED)		'1' RV AT	MOTOR STARTER [SINGLE SPEED ACROSS-THE-LINE (UON)] (NEMA SIZE / RV AT= REDUCED VOLTAGE / AUTO-TRANSFORMER / SS = SOLID STATE)	
VFD	VARIABLE FREQUENCY DRIVE (HP SIZE IF NOT SCHEDULED)				
COLOR CODING					
	MISCELLANEOUS			EQUIPMENT BRANCH	
	120/208V			LIFE SAFETY BRANCH	
	277/480V			UPS POWER	
	EMERGENCY/CRITICAL BRANCH				
PEN WEIGHT LEGEND					
ALL DEVICES, LIGHT FIXTURES, ETC., DRAWN IN DARK SOLID LINES ARE NEW TO BE INSTALLED			ALL DEVICES, LIGHT FIXTURES, ETC., DRAWN IN DARK DASHED LINES ARE EXISTING TO BE REMOVED		
	NEW DUPLEX GROUNDED RECEPTACLE			DUPLEX GROUNDED REC TO BE REMOVED	
	NEW LIGHT FIXTURE			LIGHT FIXTURE TO BE REMOVED	
ALL DEVICES, LIGHT FIXTURES, ETC., DRAWN IN HALFTONE SOLID LINES ARE EXISTING TO REMAIN			ALL DEVICES, LIGHT FIXTURES, ETC., DRAWN IN LIGHT DASHED LINES ARE EXISTING TO BE RELOCATED		
	EXISTING DUPLEX GROUNDED REC TO REMAIN			DUPLEX GROUNDED REC TO BE RELOCATED	
	EXISTING LIGHT FIXTURE TO REMAIN			LIGHT FIXTURE TO BE RELOCATED	

- - - SYMBOL LIST IS FOR REFERENCE ONLY. ALL SYMBOLS MAY NOT BE USED ON THIS PROJECT. - - -

ELECTRICAL SHEET INDEX

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PEC PROJECT NUMBER: 228090-042
PEC
PROFESSIONAL ENGINEERING CONSULTANTS, P.A.
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316-262-2691 www.pec1.com

KELBY ANN EMERSON LICENSED 28390 11/16/2023 KANSAS PROFESSIONAL ENGINEER

DESCRIPTION	DATE

PROJECT NUMBERS: GLMV # - 228090-042
PROJECT TYPE: Renovation

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301 S. Grove, Wichita, KS 67211

DRAWN BY: ERB CHECKED BY: KAE
DATE: 11/06/2023

ELECTRICAL GENERAL NOTES AND SYMBOLS

E-001

CERTIFIED FINAL

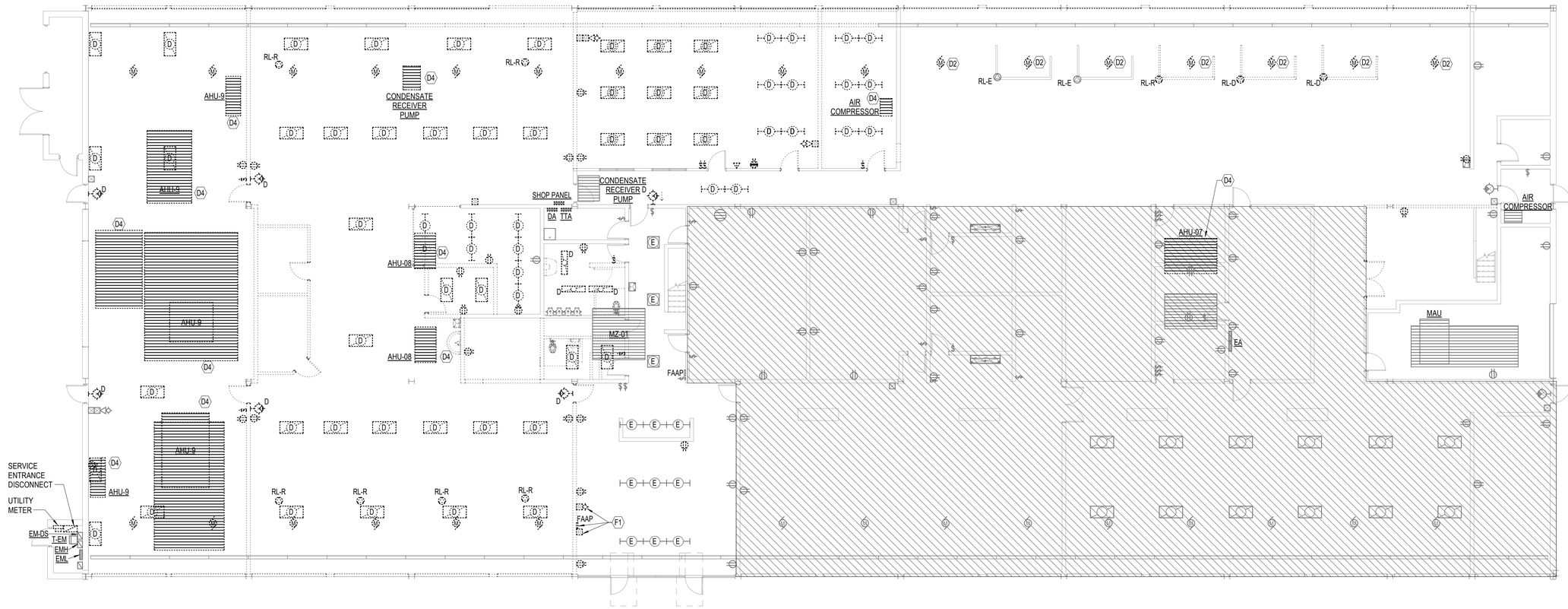
PLOT DATE: 11/7/2023 10:09:33 AM
FILE PATH: Autodesk Docs://2022R0003791_WSUTech_EastHighSnaponLab/228090-042_ELEC_R23.rvt

KEYNOTES

#	
D2	POWER FOR EXISTING OVERHEAD DOOR TO BE REMOVED AND RELOCATED. EXTEND AND REWORK EXISTING CONDUIT AND CONDUCTORS AS REQUIRED.
D4	EXISTING MECHANICAL EQUIPMENT TO BE REMOVED. REMOVE ALL CONDUIT AND WIRING AS REQUIRED. PLACE BREAKER IN 'OFF' POSITION AND LABEL AS 'SPARE'.
F1	EXISTING DEVICE TO BE REMOVED AND REINSTALLED IN NEW WALL IN SIMILAR LOCATION. EXISTING CABLING TO BE REUSED AS APPLICABLE. IF EXISTING CABLE LENGTH DOES NOT ALLOW FOR RECONNECTION, CONTRACTOR TO PROVIDE NEW CABLING AS REQUIRED.

DEMOLITION GENERAL NOTES

1. DEMOLITION PLANS SHOW THE GENERAL EXTENT OF THE ELECTRICAL DEMOLITION WORK. THE ELECTRICAL CONTRACTOR SHALL DISCONNECT ELECTRICAL SERVICES TO ALL EQUIPMENT BEING REMOVED, SEE MECHANICAL PLANS. OWNER SHALL HAVE THE OPTION TO RETAIN REUSABLE ITEMS, SUCH AS COVERPLATES, RECEPTACLES, LIGHTS, PANELS, ETC. NOT BEING USED IN THE FINISHED WORK. COORDINATE WITH OWNER PRIOR TO STARTING DEMOLITION. PROPERLY AND LEGALLY DISPOSE OF ALL EQUIPMENT AND MATERIALS BEING REMOVED.
2. REMOVE ALL CONDUIT LEFT EXPOSED BY REMOVAL OF WALLS AND CEILINGS IN REMODELED AREAS. PLUG BOTH ENDS OF REMAINING CONDUIT IN WALL OR FLOOR WHERE CUT.
3. ELECTRICAL OUTLETS, ETC. POSSIBLY CONCEALED BY STORAGE SHELVING, CASEWORK, FURNITURE, ETC. ARE NOT SHOWN AND MAY REQUIRE REMOVAL.
4. GENERAL CONTRACTOR SHALL BE RESPONSIBLE FOR PATCHING ALL OPENINGS IN EXISTING CONSTRUCTION AFTER REMOVAL OF EQUIPMENT, RACEWAY SYSTEMS, OUTLET BOXES, ETC.
5. WHERE EQUIPMENT AND OTHER DEVICES ARE BEING REMOVED, THE CIRCUITING SHALL BE REMOVED, IF POSSIBLE, BACK TO POINT OF SUPPLY. WHERE REQUIRED, CIRCUITING SHALL BE EXTENDED TO MAINTAIN CONTINUITY OF THE CIRCUIT OR OPERATION OF THE SYSTEM.
6. ALL DEVICES SHOWN DASHED ON THE DEMOLITION PLAN(S) SHALL BE REMOVED, UNLESS NOTED OTHERWISE.
7. PROVIDE MATCHING BLANK COVERPLATES WHERE DEVICES ARE BEING REMOVED FROM FLUSH-MOUNTED OUTLET BOXES IN EXISTING WALLS TO REMAIN.
8. FIELD VERIFY ALL EXISTING CONDITIONS AND DIMENSIONS PRIOR TO BEGINNING WORK.



A ELECTRICAL DEMOLITION PLAN - 1ST FLOOR
1/8" = 1'-0"

PLAN NORTH

GLMVArchitecture

PEC PROJECT NUMBER: 228090-042
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PROJECT NUMBERS:
GLMV # - 228090-042
PROJECT TYPE:
Renovation

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DATE: 11/06/2023 DRAWN BY: ERB CHECKED BY: KAE

ELECTRICAL DEMOLITION PLAN - 1ST FLOOR

E-101

CERTIFIED FINAL

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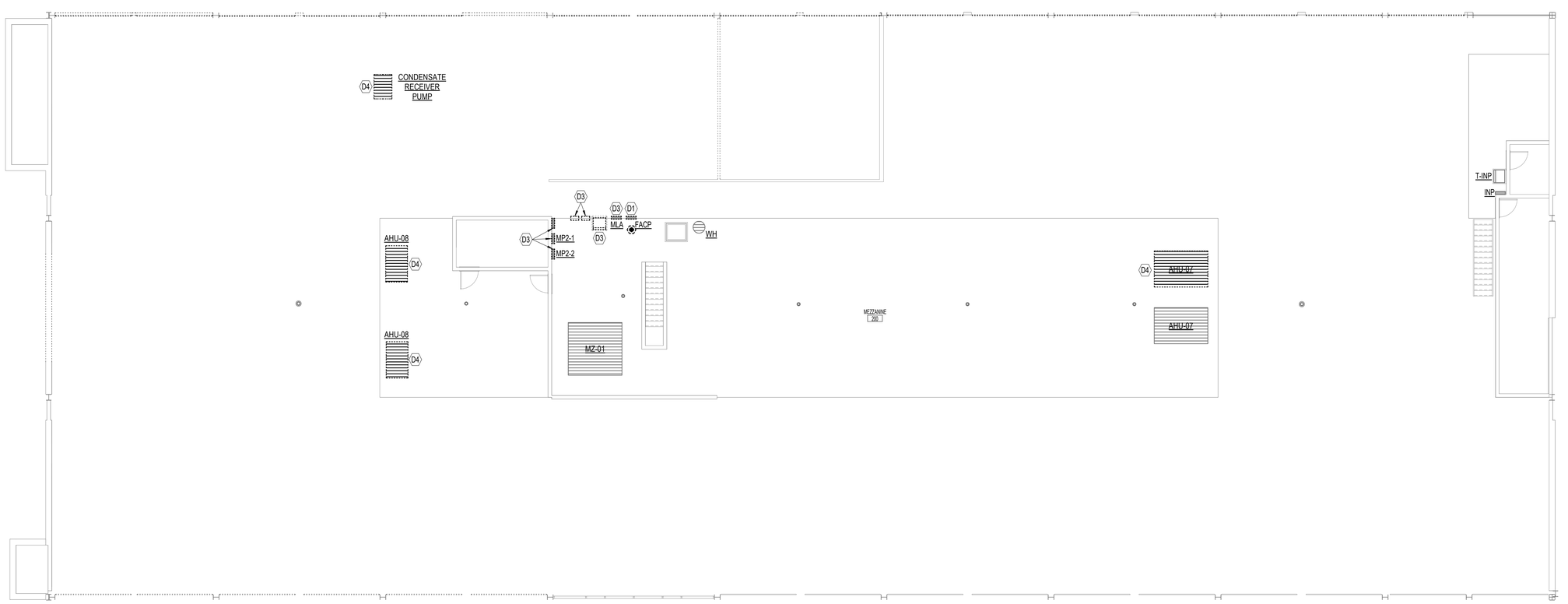
FILE PATH: Autodesk Docs://2020/R00003791 - WSUTech_EastHighSnaponLab/228090-042_ELEC_R23.rvt

DEMOLITION GENERAL NOTES

1. DEMOLITION PLANS SHOW THE GENERAL EXTENT OF THE ELECTRICAL DEMOLITION WORK. THE ELECTRICAL CONTRACTOR SHALL DISCONNECT ELECTRICAL SERVICES TO ALL EQUIPMENT BEING REMOVED, SEE MECHANICAL PLANS. OWNER SHALL HAVE THE OPTION TO RETAIN REUSABLE ITEMS, SUCH AS COVERPLATES, RECEPTACLES, LIGHTS, PANELS, ETC. NOT BEING USED IN THE FINISHED WORK. COORDINATE WITH OWNER PRIOR TO STARTING DEMOLITION. PROPERLY AND LEGALLY DISPOSE OF ALL EQUIPMENT AND MATERIALS BEING REMOVED.
2. REMOVE ALL CONDUIT LEFT EXPOSED BY REMOVAL OF WALLS AND CEILINGS IN REMODELED AREAS. PLUG BOTH ENDS OF REMAINING CONDUIT IN WALL OR FLOOR WHERE CUT.
3. ELECTRICAL OUTLETS, ETC. POSSIBLY CONCEALED BY STORAGE SHELVING, CASEWORK, FURNITURE, ETC. ARE NOT SHOWN AND MAY REQUIRE REMOVAL.
4. GENERAL CONTRACTOR SHALL BE RESPONSIBLE FOR PATCHING ALL OPENINGS IN EXISTING CONSTRUCTION AFTER REMOVAL OF EQUIPMENT, RACEWAY SYSTEMS, OUTLET BOXES, ETC.
5. WHERE EQUIPMENT AND OTHER DEVICES ARE BEING REMOVED, THE CIRCUITING SHALL BE REMOVED, IF POSSIBLE, BACK TO POINT OF SUPPLY. WHERE REQUIRED, CIRCUITING SHALL BE EXTENDED TO MAINTAIN CONTINUITY OF THE CIRCUIT OR OPERATION OF THE SYSTEM.
6. ALL DEVICES SHOWN DASHED ON THE DEMOLITION PLAN(S) SHALL BE REMOVED, UNLESS NOTED OTHERWISE.
7. PROVIDE MATCHING BLANK COVERPLATES WHERE DEVICES ARE BEING REMOVED FROM FLUSH-MOUNTED OUTLET BOXES IN EXISTING WALLS TO REMAIN.
8. FIELD VERIFY ALL EXISTING CONDITIONS AND DIMENSIONS PRIOR TO BEGINNING WORK.

KEYNOTES

#	
D1	EXISTING FACP TO BE REMOVED AND RELOCATED. EXTEND ALL CABLING TO PROPOSED LOCATION.
D3	EXISTING ELECTRICAL EQUIPMENT TO BE DEMOLISHED. REMOVE ALL ASSOCIATED CONDUIT AND WIRING BACK TO SOURCE. SUPPLY BREAKER TO BE PUT IN OFF POSITION AND LABELED AS 'SPARE' IF NO EXISTING TO REMAIN LOADS ARE SERVED. EXISTING LOADS TO REMAIN TO BE RECONNECTED TO PROPOSED PANELS AS SHOWN IN PANEL SCHEDULES. EXTEND AND REWORK ALL CONDUIT AND WIRING AS REQUIRED TO MAINTAIN CIRCUIT CONTINUITY.
D4	EXISTING MECHANICAL EQUIPMENT TO BE REMOVED. REMOVE ALL CONDUIT AND WIRING AS REQUIRED. PLACE BREAKER IN 'OFF' POSITION AND LABEL AS 'SPARE'.



A ELECTRICAL DEMOLITION PLAN - MEZZANINE
1/8" = 1'-0"

PLAN NORTH

GLMVArchitecture
PEC PROJECT NUMBER: 228090-042
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DESCRIPTION	DATE

PROJECT NUMBERS:
GLMV # - 228090-042
PROJECT TYPE:
Renovation

WSU TECH
228090-042 WSU TECH AUTO
301 S. Grove, Wichita, KS 67211
DATE: 11/06/2023 DRAWN BY: ERB CHECKED BY: KAE

ELECTRICAL DEMOLITION PLAN - MEZZANINE

E-102

CERTIFIED FINAL

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DEMOLITION GENERAL NOTES

1. DEMOLITION PLANS SHOW THE GENERAL EXTENT OF THE ELECTRICAL DEMOLITION WORK. THE ELECTRICAL CONTRACTOR SHALL DISCONNECT ELECTRICAL SERVICES TO ALL EQUIPMENT BEING REMOVED, SEE MECHANICAL PLANS. OWNER SHALL HAVE THE OPTION TO RETAIN REUSABLE ITEMS, SUCH AS COVERPLATES, RECEPTACLES, LIGHTS, PANELS, ETC. NOT BEING USED IN THE FINISHED WORK. COORDINATE WITH OWNER PRIOR TO STARTING DEMOLITION. PROPERLY AND LEGALLY DISPOSE OF ALL EQUIPMENT AND MATERIALS BEING REMOVED.
2. REMOVE ALL CONDUIT LEFT EXPOSED BY REMOVAL OF WALLS AND CEILINGS IN REMODELED AREAS. PLUG BOTH ENDS OF REMAINING CONDUIT IN WALL OR FLOOR WHERE CUT.
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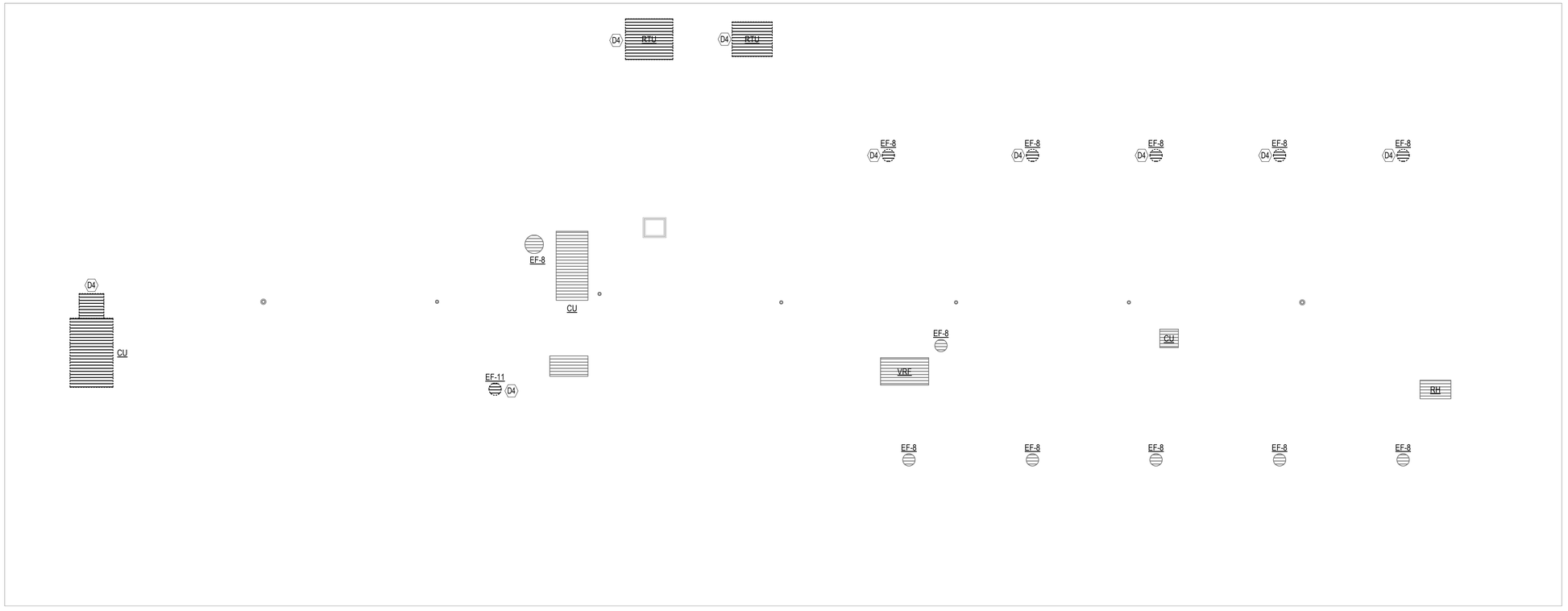
6. ALL DEVICES SHOWN DASHED ON THE DEMOLITION PLAN(S) SHALL BE REMOVED, UNLESS NOTED OTHERWISE.
7. PROVIDE MATCHING BLANK COVERPLATES WHERE DEVICES ARE BEING REMOVED FROM FLUSH-MOUNTED OUTLET BOXES IN EXISTING WALLS TO REMAIN.
8. FIELD VERIFY ALL EXISTING CONDITIONS AND DIMENSIONS PRIOR TO BEGINNING WORK.

KEYNOTES

#	
D4	EXISTING MECHANICAL EQUIPMENT TO BE REMOVED. REMOVE ALL CONDUIT AND WIRING AS REQUIRED. PLACE BREAKER IN 'OFF' POSITION AND LABEL AS 'SPARE'.



A ELECTRICAL DEMOLITION PLAN - ROOF
1/8" = 1'-0"

PLAN NORTH

GLMVArchitecture
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DESCRIPTION	DATE

PROJECT NUMBERS:
GLMV # - 228090-042
PROJECT TYPE:
Renovation

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301 S. Grove, Wichita, KS 67211
DATE: 11/16/2023 DRAWN BY:ERB CHECKED BY: KAE

ELECTRICAL DEMOLITION PLAN - ROOF

E-103

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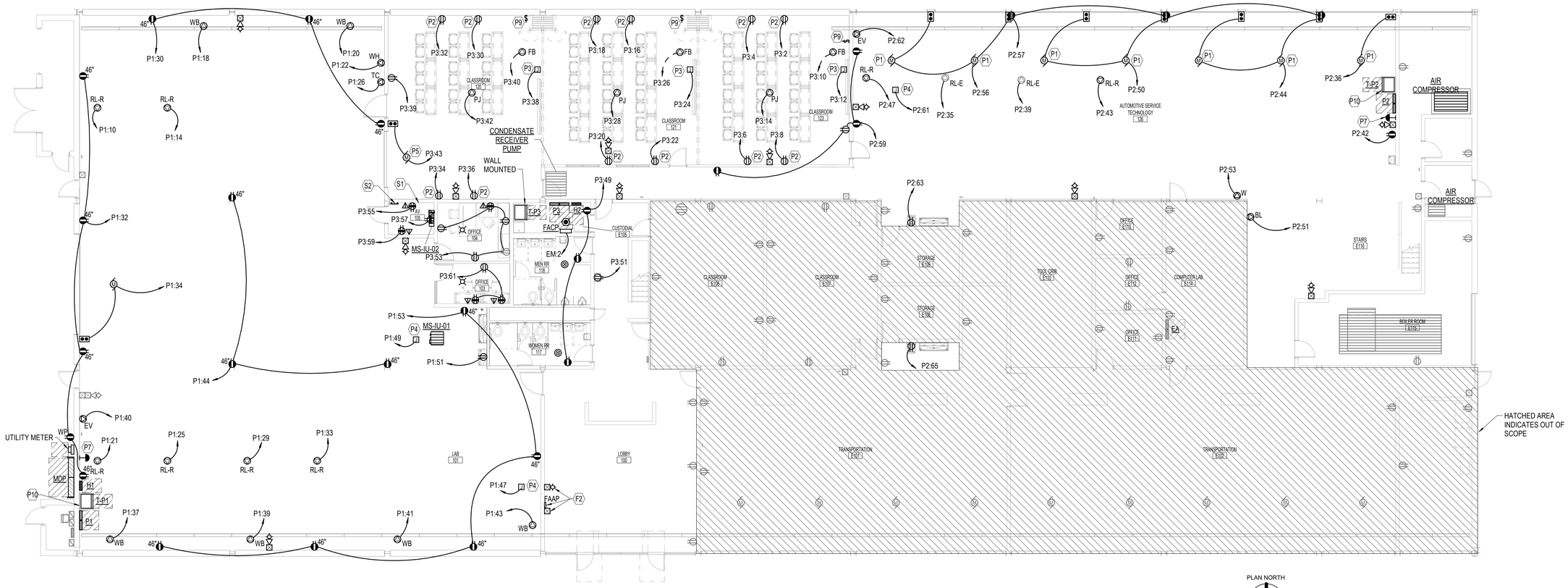
KEYNOTES

#	
F2	EXISTING DEVICE RELOCATED IN PROPOSED WALL.
P1	RELOCATED OVERHEAD DOOR POWER. PROVIDE INTERLOCKING WITH CONTROLLER AS REQUIRED.
P2	RECEPTACLE FOR MOVEABLE POWER POLE. POWER POLE TO BE THREAD POWER HUB OR EQUAL. VERIFY CONNECTION REQUIREMENTS WITH EQUIPMENT PROVIDED PRIOR TO ROUGH-IN.
P3	FUSTAT FOR LOCAL DISCONNECTING MEANS FOR POWERED SCREEN PROVIDED BY OTHERS. VERIFY CONNECTION REQUIREMENTS AND LOCATIONS WITH EQUIPMENT PRIOR TO ROUGH-IN.
P4	POWER FOR MOTORIZED DAMPER. PROVIDE INTERLOCKING WITH ASSOCIATED EXHAUST FAN AS REQUIRED. SEE MECHANICAL SCHEDULES FOR MORE INFORMATION.
P5	POWER FOR OVERHEAD DOOR. PROVIDE INTERLOCKING WITH CONTROLLER AS REQUIRED.
P7	EPO. EMERGENCY POWER OFF MUSHROOM PUSHBUTTON TO BE INTERLOCKED WITH ADJACENT PANEL (P1 OR P2 RESPECTIVELY). PROVIDE NAMEPLATE TO INDICATE USAGE AND ASSOCIATED PANEL.
P9	SWITCH FOR CONTROL OF MOTORIZED SCREEN.
P10	TRANSFORMER MOUNTED ON STAND AT 24" AFF. REFERENCE DETAIL X/XXX.
S1	CONTRACTOR TO PROVDE 3/4" X 4'W. X 8'H. AC GRADE PLYWOOD IN THIS LOCATION FOR MOUNTING OF TELECOMMUNICATIONS EQUIPMENT AND COMPONENTS. BACKBOARD SHALL BE PAINTED WITH 2 COATS OF WHITE, FIRE RETARDANT PAINT.
S2	TELECOMMUNICATIONS PRIMARY BONDING BUSBAR. REFERENCE DETAIL 5/E-501.

POWER GENERAL NOTES

1. BRANCH CIRCUITS ARE INDICATED AS ONE CIRCUIT HOME RUNS WITH INDIVIDUAL NEUTRALS. A MAXIMUM OF THREE CIRCUITS (MAXIMUM OF THREE PHASE CONDUCTORS) MAY BE GROUPED IN A SINGLE CONDUIT. WHERE MULTIPLE CIRCUITS ARE LOCATED IN THE SAME RACEWAY, JUNCTION BOX OR ENCLOSURE, NEUTRALS SHALL BE MARKED OR LABELED TO INDICATE WHICH CIRCUIT THEY ARE ASSOCIATED WITH. SEE SPECIFICATION SECTION "LOW VOLTAGE ELECTRICAL POWER CONDUCTORS AND CABLES" FOR ADDITIONAL INFORMATION.
2. A GROUND CONDUCTOR SIZED PER N.E.C. ARTICLE 250 IS REQUIRED IN ALL CONDUITS.
3. FOR CONNECTION REQUIREMENTS TO MECHANICAL UNITS, SEE MECHANICAL EQUIPMENT CONNECTION SCHEDULE.
4. REFER TO THE ARCHITECTURAL DRAWINGS AND SPECIFICATIONS FOR LOCATIONS OF FIRE RATED WALLS AND CEILINGS AND THE ASSOCIATED U.L. ASSEMBLY NUMBERS.
5. FOR ALL PENETRATIONS IN FIRE RATED WALLS AND CEILINGS, PROVIDE AN ASTM E814 COMPLIANT, U.L. LISTED THROUGH PENETRATION FIRE STOPPING SYSTEM THAT IS SPECIFIC TO THE WALL OR CEILING CONSTRUCTION ASSEMBLY. INSTALL SYSTEM IN STRICT COMPLIANCE WITH THE U.L. ASSEMBLY INDICATED IN THE ARCHITECTURAL DRAWINGS AND SPECIFICATIONS.
6. ALL PIPING, CONDUIT, AND OUTLET BOXES (ELECTRIC, TELEPHONE, COMPUTER, ETC.) IN FIRE RATED WALLS OR CEILINGS SHALL BE CONSTRUCTED OF NON-COMBUSTIBLE MATERIAL.
7. OUTLET BOXES (ELECTRIC, TELEPHONE, COMPUTER, ETC.) ON OPPOSITE SIDES OF FIRE RATED WALLS SHALL BE SEPARATED BY A HORIZONTAL DISTANCE OF 24 INCHES OR PROTECTED BY OTHER MEANS ALLOWED BY THE SPECIFIC U.L. ASSEMBLY.
8. REFER TO ARCHITECTURAL DRAWINGS FOR LOCATIONS OF STC RATED WALLS. OUTLET BOXES (ELECTRIC, TELEPHONE, COMPUTER, ETC.) ON OPPOSITE SIDES OF STC RATED WALLS SHALL BE LIMITED TO TWO OUTLET BOXES PER STUD SPACE AND COVERED WITH "PUTTY PAD" TYPE MOLDABLE FIRE BARRIER.
9. FIELD VERIFY THE EXACT LOCATION OF ALL FLOOR BOXES AND WITH ARCHITECT PRIOR TO ROUGH-IN.

HAZARDOUS CLASSIFICATION:
ROOMS 101 AND 126 ARE CLASS 1 DIVISION 2 UP TO 18" AFF. PROVIDE ALL CONDUIT SEAL OFF'S AS REQUIRED PER N.E.C. FOR ALL CONDUIT ENTERING AND EXITING THE SPACES.



A POWER & SYSTEMS PLAN - 1ST FLOOR
1/8" = 1'-0"

PLOT DATE: 11/17/2023 10:09:53 AM
FILE PATH: Autodesk Docs://2023R0003791_WSUTech_ElevHighSnapon/Lab/228090-042_ELEC_R23.rvt

GLMVArchitecture

PEC PROJECT NUMBER: 228090-042
PEC
PROFESSIONAL ENGINEERING CONSULTANTS, P.A.
303 SOUTH TOPEKA WICHITA, KS 67202
316-262-2691 www.pec1.com

KELBY ANN EMERSON LICENSED 28390 11/16/2023 KANSAS PROFESSIONAL ENGINEER

DESCRIPTION	DATE

PROJECT NUMBERS:
GLMV #: 228090-042
PROJECT TYPE:
Renovation

WSU TECH
WICHITA STATE UNIVERSITY
CAMPUS OF APPLIED
SCIENCES AND TECHNOLOGY
4004 N. Webb Rd.
Wichita, KS 67226
Tel: (316) 978-3444
www.wichita.edu

WSU TECH
228090-042 WSU TECH AUTO
301 S. Grove, Wichita, KS 67211

DATE: 11/06/2023 DRAWN BY: ERB CHECKED BY: AAE

POWER & SYSTEMS PLAN - 1ST FLOOR

E-131

CERTIFIED FINAL

POWER GENERAL NOTES

1. BRANCH CIRCUITS ARE INDICATED AS ONE CIRCUIT HOME RUNS WITH INDIVIDUAL NEUTRALS. A MAXIMUM OF THREE CIRCUITS (MAXIMUM OF THREE PHASE CONDUCTORS) MAY BE GROUPED IN A SINGLE CONDUIT. WHERE MULTIPLE CIRCUITS ARE LOCATED IN THE SAME RACEWAY, JUNCTION BOX OR ENCLOSURE, NEUTRALS SHALL BE MARKED OR LABELED TO INDICATE WHICH CIRCUIT THEY ARE ASSOCIATED WITH. SEE SPECIFICATION SECTION "LOW VOLTAGE ELECTRICAL POWER CONDUCTORS AND CABLES" FOR ADDITIONAL INFORMATION.
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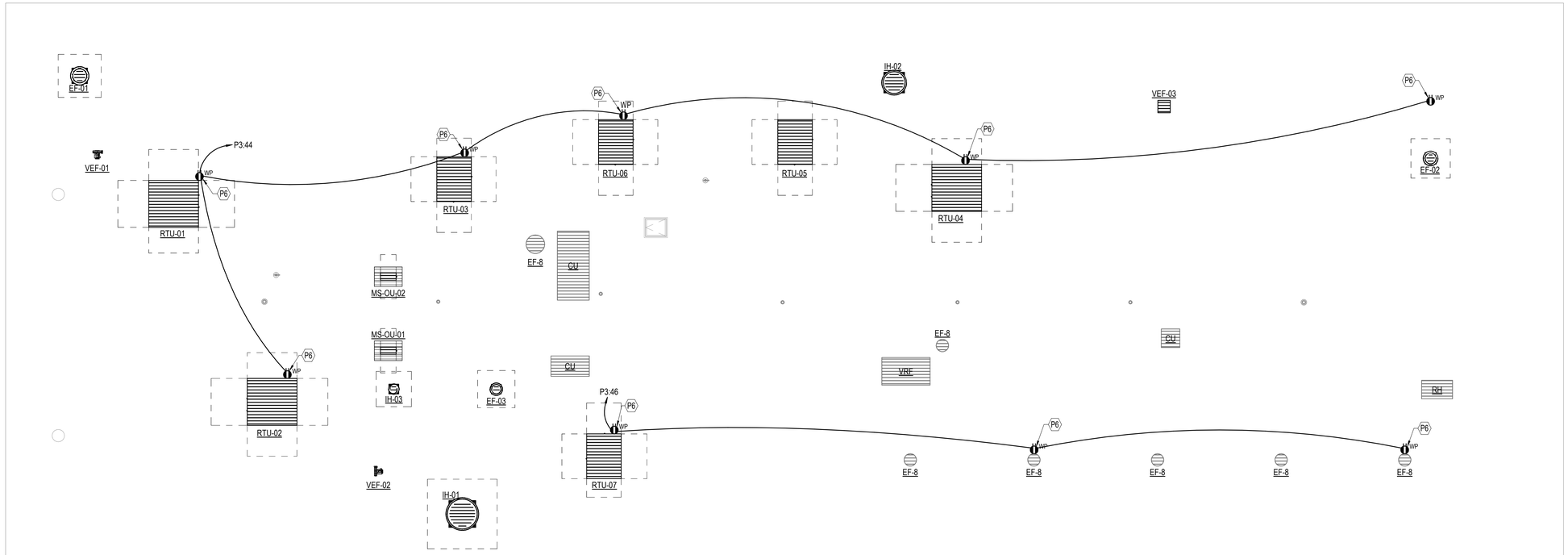
7. OUTLET BOXES (ELECTRIC, TELEPHONE, COMPUTER, ETC.) ON OPPOSITE SIDES OF FIRE RATED WALLS SHALL BE SEPARATED BY A HORIZONTAL DISTANCE OF 24 INCHES OR PROTECTED BY OTHER MEANS ALLOWED BY THE SPECIFIC U.L. ASSEMBLY.
8. REFER TO ARCHITECTURAL DRAWINGS FOR LOCATIONS OF STC RATED WALLS. OUTLET BOXES (ELECTRIC, TELEPHONE, COMPUTER, ETC.) ON OPPOSITE SIDES OF STC RATED WALLS SHALL BE LIMITED TO TWO OUTLET BOXES PER STUD SPACE AND COVERED WITH "PUTTY PAD" TYPE MOLDABLE FIRE BARRIER.
9. FIELD VERIFY THE EXACT LOCATION OF ALL FLOOR BOXES AND WITH ARCHITECT PRIOR TO ROUGH-IN.

KEYNOTES

#	
P6	MOUNT RECEPTACLE ON UNIT. COORDINATE LOCATION WITH UNIT ACCESS PANELS.



A POWER & SYSTEMS PLAN - ROOF

1/8" = 1'-0"

PLAN NORTH

PLOT DATE: 11/17/2023 10:09:57 AM
FILE PATH: Autodesk Docs://2023R0000037911_WSUTech_EastHighSnaponLab/228090-042_ELEC_R23.rvt

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KELBY ANN EMERSON
LICENSED
28390
11/16/2023
KANSAS
REGISTERED PROFESSIONAL ENGINEER

DESCRIPTION	DATE

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GLMV # - 228090-042
PROJECT TYPE:
Renovation

WICHITA STATE UNIVERSITY
CAREER ACADEMY OF APPLIED SCIENCES AND TECHNOLOGY
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www.wichita.edu

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228090-042 WSU TECH AUTO
301 S. Grove, Wichita, KS 67211

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POWER & SYSTEMS PLAN - ROOF

E-132

CERTIFIED FINAL

LIGHTING GENERAL NOTES

1. BRANCH CIRCUITS ARE INDICATED AS ONE CIRCUIT HOME RUNS WITH INDIVIDUAL NEUTRALS. A MAXIMUM OF THREE CIRCUITS (MAXIMUM OF THREE PHASE CONDUCTORS) MAY BE GROUPED IN A SINGLE CONDUIT. WHERE MULTIPLE CIRCUITS ARE LOCATED IN THE SAME RACEWAY, JUNCTION BOX OR ENCLOSURE, NEUTRALS SHALL BE MARKED OR LABELED TO INDICATE WHICH CIRCUIT THEY ARE ASSOCIATED WITH. SEE SPECIFICATION SECTION "LOW VOLTAGE ELECTRICAL POWER CONDUCTORS AND CABLES" FOR ADDITIONAL INFORMATION.
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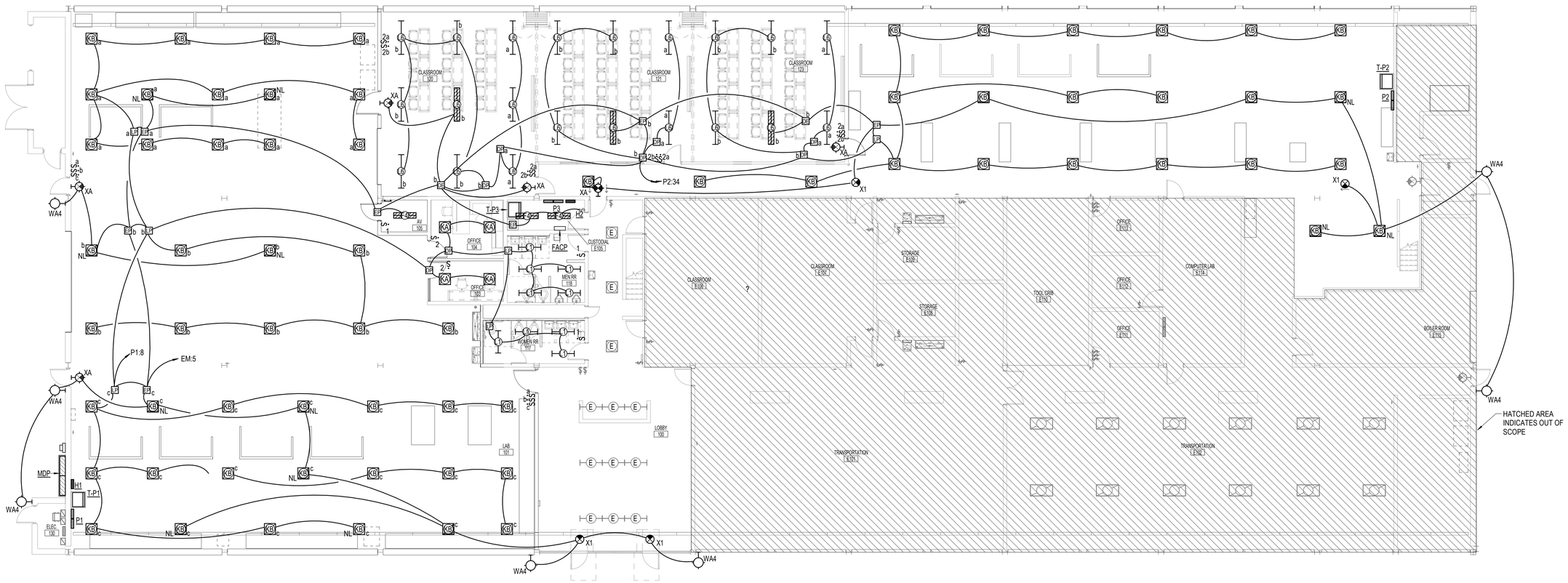
8. REFER TO ARCHITECTURAL REFLECTED CEILING PLANS FOR EXACT LIGHT FIXTURE LOCATIONS. VERIFY ALL DISCREPANCIES WITH ARCHITECT PRIOR TO ROUGH-IN.



A LIGHTING PLAN - 1ST FLOOR

1/8" = 1'-0"

PLOT DATE: 11/17/2023 10:10:04 AM
FILE PATH: Autodesk Docs://2023R0003791_WSUTech_EastHighSnaponLab/228090-042_ELEC_R23.rvt

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KELBY ANN EMERSON
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28390
11/16/2023
KANSAS
PROFESSIONAL ENGINEER

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228090-042 WSU TECH AUTO
301 S. Grove, Wichita, KS 67211

DATE: 11/06/2023 DRAWN BY: ERB CHECKED BY: KAE

LIGHTING PLAN - 1ST FLOOR

E-141

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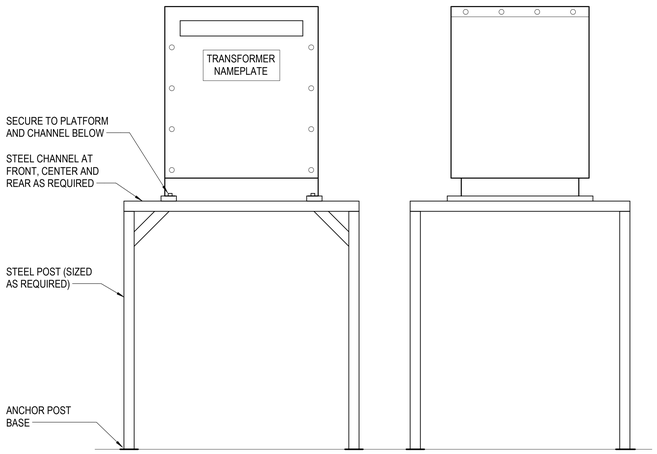
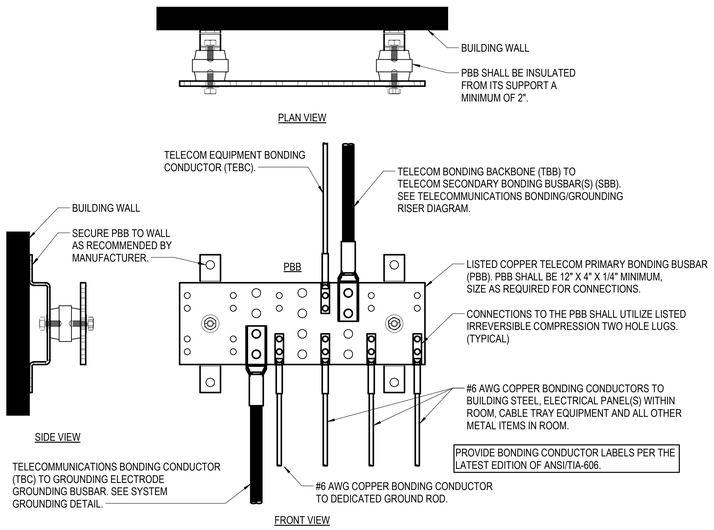
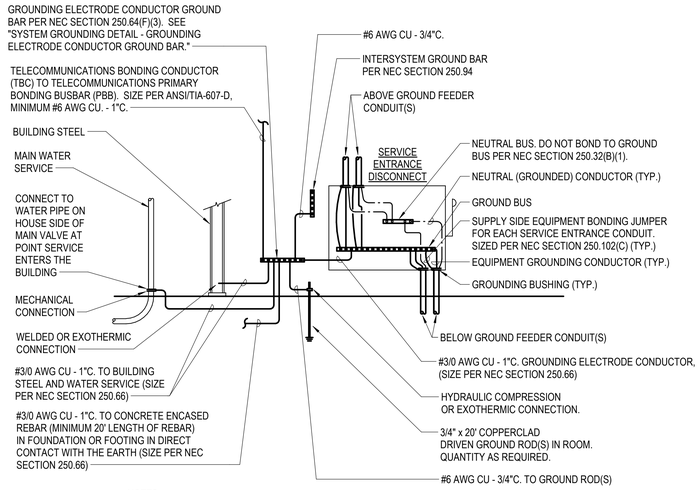


NOTE: VERIFY REQUIREMENTS WITH SUPPORT SYSTEM MANUFACTURER'S ENGINEER. USE WEIGHTS AND DIMENSIONS OF TRANSFORMERS PROVIDED TO SIZE POSTS, CHANNELS, SUPPORTS, AND ANCHORS.

7 STACKED TRANSFORMER DETAIL
NOT TO SCALE



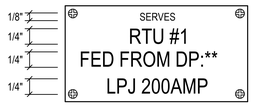
6 TELECOMMUNICATIONS PRIMARY BONDING BUSBAR (PBB) DETAIL
NOT TO SCALE



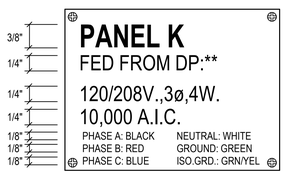
NOTES:
1. PROVIDE OTHER GROUNDING CONNECTIONS AS SPECIFIED IN NEC SECTION 250.50.
2. LABEL EACH GROUNDING ELECTRODE CONDUCTOR AND BONDING JUMPER.
3. WHERE CONDUCTORS ARE ROUTED IN FERROUS CONDUIT, BOND BOTH ENDS OF THE CONDUIT TO THE CONDUCTOR.

5 REMOTE BUILDING SYSTEM GROUNDING DETAIL - DISCONNECT
NOT TO SCALE

SWITCHBOARD/DISTRIBUTION PANEL/MOTOR CONTROL CENTER BREAKER/SWITCH



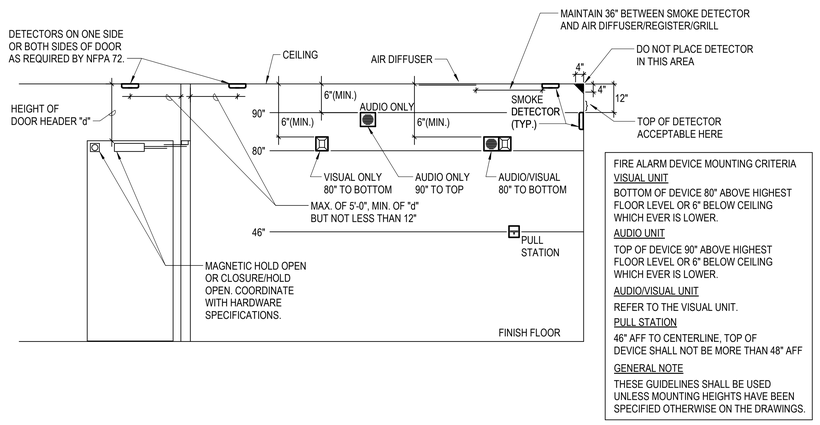
DISCONNECT SWITCH



BRANCH CIRCUIT/DISTRIBUTION PANEL

NOTE:
SEE SPECIFICATION SECTION 260500 FOR NAMEPLATE COLOR REQUIREMENTS

4 TYPICAL NAMEPLATES
NOT TO SCALE



FIRE ALARM DEVICE MOUNTING CRITERIA

VISUAL UNIT
BOTTOM OF DEVICE 80" ABOVE HIGHEST FLOOR LEVEL OR 6" BELOW CEILING WHICH EVER IS LOWER.

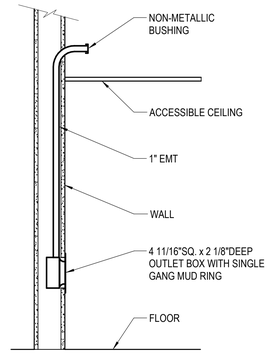
AUDIO UNIT
TOP OF DEVICE 90" ABOVE HIGHEST FLOOR LEVEL OR 6" BELOW CEILING WHICH EVER IS LOWER.

AUDIO/VISUAL UNIT
REFER TO THE VISUAL UNIT.

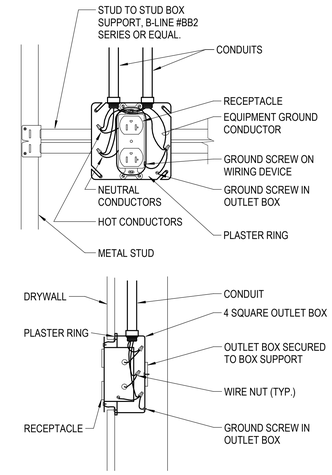
PULL STATION
46" AFF TO CENTERLINE, TOP OF DEVICE SHALL NOT BE MORE THAN 48" AFF

GENERAL NOTE
THESE GUIDELINES SHALL BE USED UNLESS MOUNTING HEIGHTS HAVE BEEN SPECIFIED OTHERWISE ON THE DRAWINGS.

3 FIRE ALARM DEVICE MOUNTING DETAIL
NOT TO SCALE



2 TYPICAL TELECOM OUTLET MOUNTING DETAIL
NOT TO SCALE



1 TYPICAL RECEPTACLE MOUNTING DETAIL
NOT TO SCALE

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PEC PROFESSIONAL ENGINEERING CONSULTANTS, P.A.
303 SOUTH TOPEKA WICHITA, KS 67202
316-262-2691 www.pec1.com
KELBY ANN EMERSON LICENSED 28390 11/16/2023 KANSAS REGISTERED PROFESSIONAL ENGINEER

DESCRIPTION | DATE

PROJECT NUMBERS:
GLMV # - 228090-042
PROJECT TYPE:
Renovation

WICHITA STATE UNIVERSITY
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WSU TECH
228090-042 WSU TECH AUTO
301 S. Grove, Wichita, KS 67211
DATE: 11/06/2023 DRAWN BY:ERB CHECKED BY: KAE

ELECTRICAL DETAILS

E-501

CERTIFIED FINAL

PLOT DATE: 11/17/2023 10:10:05 AM
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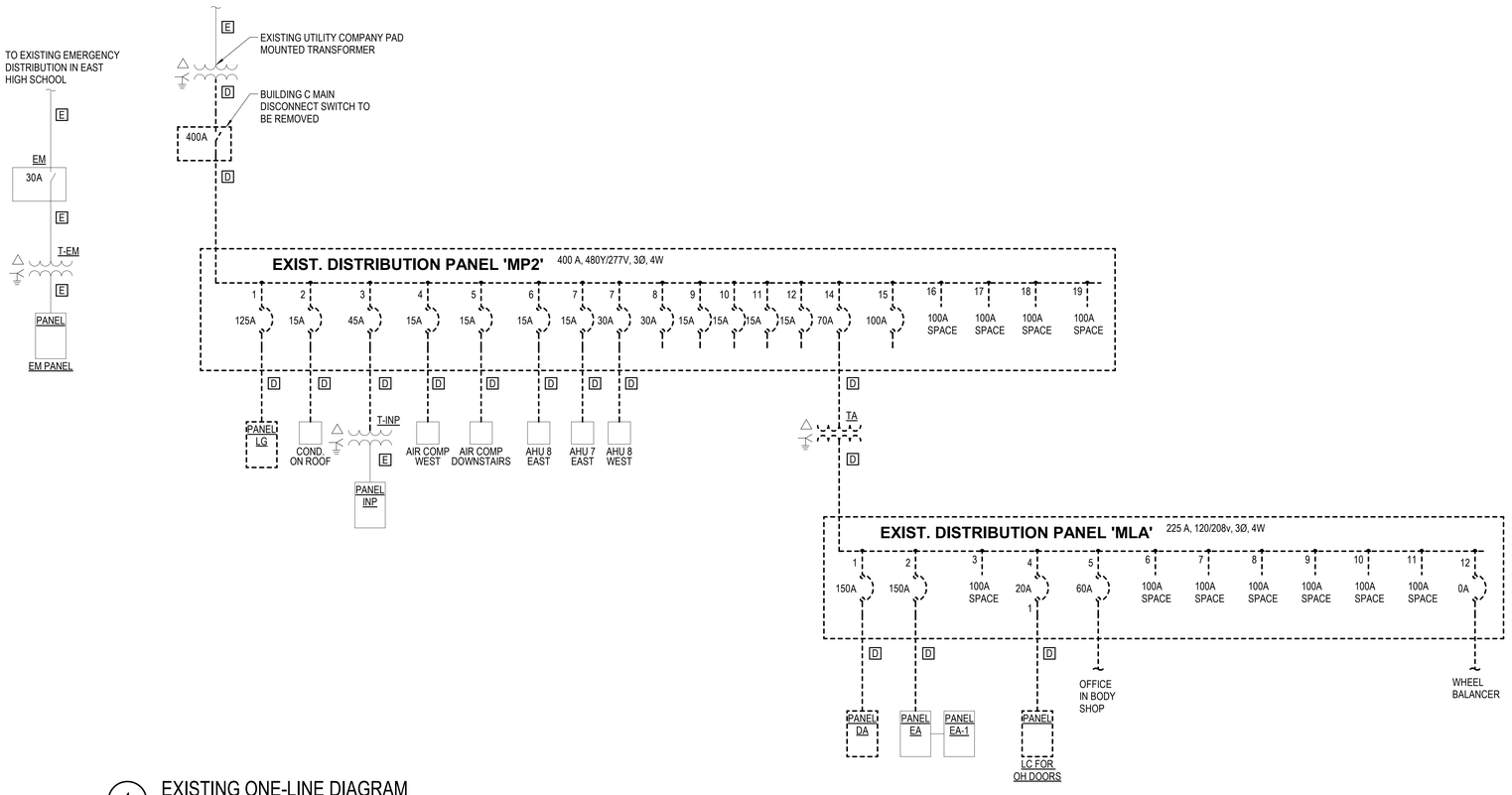
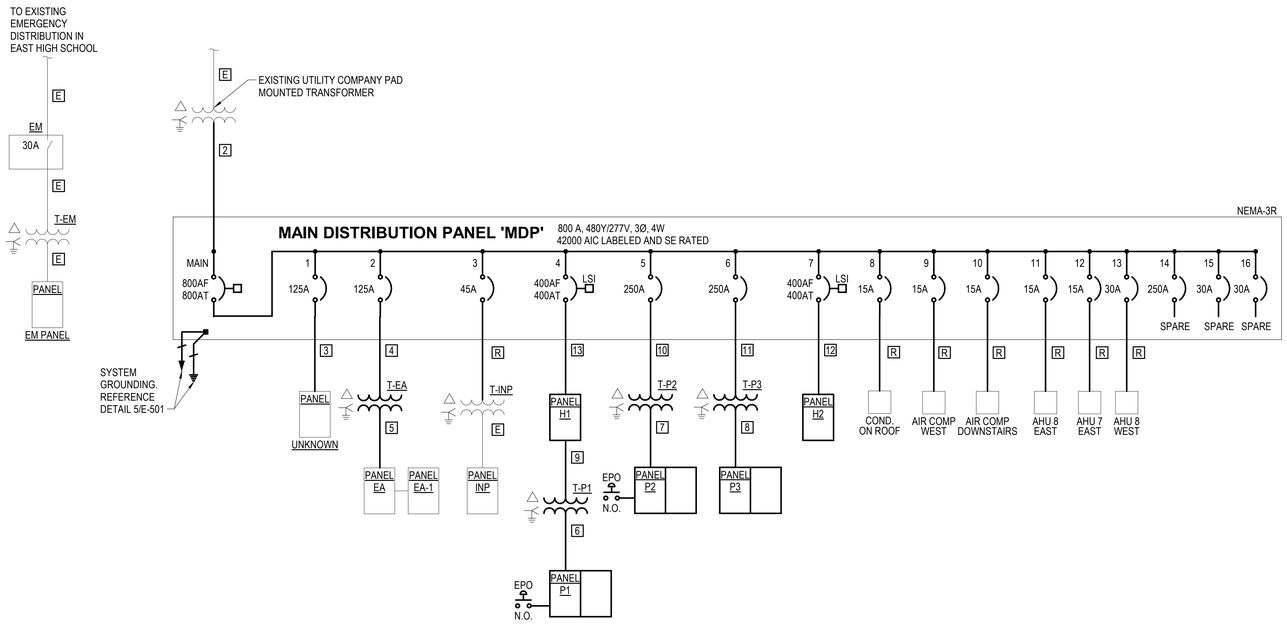
ONE-LINE DIAGRAM GENERAL NOTES

1. UNLESS OTHERWISE NOTED, ALL CIRCUIT BREAKERS AND/OR SWITCHES ARE THREE POLE.
2. ALL ELECTRICAL EQUIPMENT AND WIRING SHOWN IN A LIGHT LINE, IS EXISTING TO REMAIN.
3. ALL ELECTRICAL EQUIPMENT AND WIRING SHOWN IN A DARK LINE, IS NEW WORK UNDER THIS CONTRACT.
4. ALL ELECTRICAL EQUIPMENT AND WIRING SHOWN IN A DARK DASHED LINE, IS TO BE REMOVED UNDER THIS CONTRACT.



1 EXISTING ONE-LINE DIAGRAM
NOT TO SCALE



2 ONE-LINE DIAGRAM PROPOSED
NOT TO SCALE

TRANSFORMER SCHEDULE

TRANSFORMER DESIGNATION	EQUIPMENT TYPE	KVA SIZE	PRIMARY VOLTAGE	SECONDARY VOLTAGE	GRNDING ELECTR COND	NOTES
T-EA	DRY-TYPE DOE 2016	75	480/3Ph/3W	208/120/3Ph/4W	#2 CU	
T-P1	DRY-TYPE DOE 2016	112.5	480/3Ph/3W	208/120/3Ph/4W	#2 CU	W/GRD. TERMINAL BAR,FLOOR MTD.
T-P2	DRY-TYPE DOE 2016	112.5	480/3Ph/3W	208/120/3Ph/4W	#2 CU	W/GRD. TERMINAL BAR
T-P3	DRY-TYPE DOE 2016	112.5	480/3Ph/3W	208/120/3Ph/4W	#2 CU	W/GRD. TERMINAL BAR,FLOOR MTD.

FEEDER SCHEDULE

DESIG.	EQUIPMENT SERVED	CONDUCTORS SETS	CONDUCTORS NO.	CONDUCTORS SIZE	GROUND SIZE PER SET	ISOLATED GROUND SIZE	CONDUIT SIZE PER SET	SPARE CONDUIT
E	EXIST FEEDER TO REMAIN	--	--	--	--	--	--	--
R	REWORKED CONDUIT	--	--	--	--	--	--	--
0	SEE EQUIP CONN SCHED	--	--	--	--	--	--	--
1	DISCONNECT:D-MS	3	4	#300 kcmil CU	--	--	4"C.	--
2	DISTRIBUTION PANEL:MDP	3	4	#300 kcmil CU	#1/0	--	4"C.	--
3	EXIST. PANEL:UNKNOWN	1	4	#1 AWG CU	#6	--	2"C.	--
4	XFMR:T-EA	1	3	#1 AWG CU	#6	--	1-1/2"C.	--
5	EXIST. PANEL:EA	1	4	#250 kcmil CU	#2	--	3"C.	--
6	PANELBOARD:P1	2	4	#3/0 AWG CU	#2	--	2-1/2"C.	--
7	PANELBOARD:P2	2	4	#3/0 AWG CU	#2	--	2-1/2"C.	--
8	PANELBOARD:P3	2	4	#3/0 AWG CU	#2	--	2-1/2"C.	--
9	XFMR:T-P1	1	3	#250 AWG CU	#4	--	2-1/2"C.	--
10	XFMR:T-P2	1	3	#250 AWG CU	#4	--	2-1/2"C.	--
11	XFMR:T-P3	1	3	#250 AWG CU	#4	--	2-1/2"C.	--
12	H2	1	4	#4/0 AWG CU	#4	--	2-1/2"C.	--
13	H1	1	4	#4/0 AWG CU	#4	--	2-1/2"C.	--

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KELBY ANN EMERSON
LICENSED
28390
11/16/2023
KANSAS
PROFESSIONAL ENGINEER

DESCRIPTION	DATE

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228090-042 WSU TECH AUTO
301 S. Grove, Wichita, KS 67211

DATE: 11/06/2023 DRAWN BY:ERB CHECKED BY: KAE

ELECTRICAL ONE-LINE DIAGRAM

E-601

CERTIFIED FINAL

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①②③ EQUIPMENT CONNECTION SCHEDULE

MECHANICAL EQUIPMENT CONNECTIONS

UNIT DESIG	UNIT VOLTAGE	LOAD H.P.	LOAD FLA	LOAD KVA	PANEL DEVICE CIRCUIT NUMBER	PANEL DEVICE BKR AMPS	PANEL DEVICE SW AMPS	PANEL DEVICE FUSE AMPS	PANEL DEVICE O/L NEMA SIZE	DEVICE AT UNIT BKR AMPS	DEVICE AT UNIT SW AMPS	DEVICE AT UNIT FUSE AMPS	DEVICE AT UNIT O/L NEMA SIZE	DEVICE AT UNIT OTHER	STES	FEEDER DESCRIPTION OR SEE THE FEEDER SCHEDULE	REMARKS OR SEE THE INDICATED NOTES BELOW
EF	EXHAUST FAN																
01	208/1	2	13.2	2.746	P1:9	25		2		30	20	2		NEMA-3R	1	2 #10 AWG THWN, #10 AWG GRD, 1/2"C.	
02	208/1	1	8.8	1.83	P2:66	20		2		30	15	2		NEMA-3R	1	2 #12 AWG THWN, #12 AWG GRD, 1/2"C.	
03	120/1	0.25	5.8	0.696	P2:32	20		1		30	10	1		NEMA-3R	1	2 #12 AWG THWN, #12 AWG GRD, 1/2"C.	
VEF	VEHICLE EXHAUST FAN																
⑤ 01	480/3	1.5	3.0	2.494	H1:2	15		3						NEMA-3R	1	3 #12 AWG THWN, #12 AWG GRD, 1/2"C.	
⑤ 02	480/3	3	4.8	3.991	H1:8	15		3						NEMA-3R	1	3 #12 AWG THWN, #12 AWG GRD, 1/2"C.	
⑤ 03	480/3	7.5	11.0	9.145	H2:2	20		3						NEMA-3R	1	3 #12 AWG THWN, #12 AWG GRD, 1/2"C.	
IU	INDOOR UNIT																
⑧ 01	208/1	0.65A	1.3	0.27	OU-01:OU-01	15		2		20		2		TOGGLE	1	2 #12 AWG THWN, #12 AWG GRD, 1/2"C.	
⑧ 02	208/1	0.65A	1.3	0.27	OU-02:OU-02	15		2		20		2		TOGGLE	1	2 #12 AWG THWN, #12 AWG GRD, 1/2"C.	
OU	OUTDOOR UNIT																
⑧ 01	208/1	9A	11.0	2.278	P1:13	20		2		30	17.5	2		NEMA-3R	1	2 #12 AWG THWN, #12 AWG GRD, 1/2"C.	
⑧ 02	208/1	9A	11.0	2.278	P1:17	20		2		30	17.5	2		NEMA-3R	1	2 #12 AWG THWN, #12 AWG GRD, 1/2"C.	
RTU	ROOF TOP UNIT																
④ 01	480/3	3KVA	6.4	5.328	H2:1	20		3		30	9	3		NEMA-3R	1	3 #12 AWG THWN, #12 AWG GRD, 1/2"C.	
④ 02	480/3	9.6A	16.0	13.30	H2:7	30		3		30	20	3		NEMA-3R	1	3 #10 AWG THWN, #10 AWG GRD, 3/4"C.	
03	480/3	4.5A	8.9	7.394	H2:13	20		3		30	12	3		NEMA-3R	1	3 #12 AWG THWN, #12 AWG GRD, 1/2"C.	
④ 04	480/3	7.9A	22.8	18.95	H2:19	30		3		30	25	3		NEMA-3R	1	3 #10 AWG THWN, #10 AWG GRD, 3/4"C.	
05	480/3	4.5A	8.4	6.984	H2:25	20		3		30	10	3		NEMA-3R	1	3 #12 AWG THWN, #12 AWG GRD, 1/2"C.	
06	480/3	4.5A	8.4	6.984	H2:31	20		3		30	10	3		NEMA-3R	1	3 #12 AWG THWN, #12 AWG GRD, 1/2"C.	
07	480/3	4.5A	8.4	6.984	H2:37	20		3		30	10	3		NEMA-3R	1	3 #12 AWG THWN, #12 AWG GRD, 1/2"C.	

① ALL CONNECTIONS AND ELECTRICAL EQUIPMENT LISTED IN SCHEDULE SHALL BE PROVIDED AND INSTALLED BY THE ELECTRICAL CONTRACTOR. FIELD VERIFY CONNECTION REQUIREMENTS AND EQUIPMENT PROVIDED BY OTHERS PRIOR TO ROUGH-IN.

② REFER TO MECHANICAL DRAWINGS AND SPECIFICATIONS FOR THE REQUIREMENTS ASSOCIATED WITH WIRING AND CONNECTIONS OF INTERLOCKING, THERMOSTAT LOCATIONS, EXHAUST FAN CONTROL SWITCHES, AND OTHER CONTROLS OF MECHANICAL EQUIPMENT.

③ SIZE FUSES FOR MOTOR FUSTATS BASED ON 125% OF MANUFACTURER'S NAMEPLATE FULL LOAD AMPERAGE UNLESS OTHERWISE NOTED ON THE DRAWINGS.

④ PROVIDE DUCT MOUNTED SMOKE DETECTORS IN THE SUPPLY AND RETURN DUCTS. VERIFY THE REQUIRED QUANTITY OF DUCT SMOKE DETECTORS FOR EACH UNIT WITH THE FINAL INSTALLED DUCTWORK LAYOUT TO MEET NFPA REQUIREMENTS. PROVIDE FAN SHUT DOWN RELAY TO SHUT DOWN MECHANICAL UNIT UPON ANY ALARM AT THE FIRE ALARM CONTROL PANEL.

⑤ DISCONNECT AND OVERLOAD PROTECTION INCLUDED IN CONTROL PANEL PROVIDED WITH MECHANICAL EQUIPMENT.

⑥ PROVIDE A 30A., 1 POLE, 125V. HORSEPOWER RATED TOGGLE SWITCH WITH A 125V., 3/4 HP RATED FUSTAT (EQUAL TO BUSSMAN #SOY), SIZE FUSE PER MANUFACTURER'S RECOMMENDATION.

⑧ MINI-SPLIT SYSTEM: INDOOR UNIT IS FED FROM THE OUTDOOR UNIT, PROVIDE INTERCONNECTING WIRING AS REQUIRED. PROVIDE A 3-POLE MANUAL MOTOR STARTING SWITCH WITHOUT OVERLOADS FOR INDOOR LOCAL DISCONNECTING MEANS. PROVIDE WITH APPROPRIATE COVERPLATE. FIELD VERIFY ALL CONNECTION REQUIREMENTS PRIOR TO ROUGH-IN WITH EQUIPMENT PROVIDED.

① PANELBOARD: P1

208Y/120 VOLTS, 3 PHASE, 4 WIRE
400 AMP MAIN BKR, SURFACE MTD.
22000 AIC LABELED

MULTI. SECTION W/FEED THRU LUGS, W/GRD. BUS

CIRC NO.	LOAD V. A.	LOAD TYPE	LOAD DESCRIPTION	P.	AMP SIZE	PHASE	AMP SIZE	P.	LOAD DESCRIPTION	LOAD TYPE	LOAD V. A.	CIRC NO.
1		EXST	CAR LIFTS - SOUTH EAST	2	40	A	20	1	EXISTING REC	EXST		2
3	----	--	----------	--	|	B	20	1	EXISTING REC	EXST		4
5		EXST	CAR LIFTS - SOUTH WEST	2	40	C	15	1	POWERLOGIC DATA SWITCH	EXST		6
7	----	--	----------	--	|	A	20	1	LIGHTING - LAB 101	LGHT	1349	8
9	2746	MOTR	EF-01	2	25	B	40	2	CAR LIFT - LAB NW	POWR	6000	10
11	----	--	----------	--	|	C	|	--	----------	---	----	12
13	2278	C/M	OU-01	2	20	A	40	2	CAR LIFT - LAB NE	POWR	6000	14
15	----	--	----------	--	|	B	|	--	----------	---	----	16
17	2278	C/M	OU-02	2	20	C	20	1	WORKBENCH LAB - NW	RCPT	1200	18
19	----	--	----------	--	|	A	20	1	WORKBENCH LAB - NE	RCPT	1200	20
21	6000	POWR	CAR LIFT - LAB SW	2	40	B	20	2	WHEEL BALANCER - LAB N	EQPT	2000	22
23	----	--	----------	--	|	C	|	--	----------	---	----	24
25	6000	POWR	CAR LIFT - LAB SW CENTRAL	2	40	A	30	2	TIRE CHANGER - LAB N	EQPT	3000	26
27	----	--	----------	--	|	B	|	--	----------	---	----	28
29	6000	POWR	CAR LIFT - LAB SE CENTRAL	2	40	C	20	1	REC - LAB N	RCPT	600	30
31	----	--	----------	--	|	A	20	1	REC - LAB W	RCPT	600	32
33	6000	POWR	CAR LIFT - LAB SE	2	40	B	20	3	OVERHEAD DOOR - LAB W	MOTR	3819	34
35	----	--	----------	--	|	C	|	--	----------	---	----	36
37	1200	RCPT	WORKBENCH - LAB SW	1	20	A	|	--	----------	---	----	38
39	1200	RCPT	WORKBENCH - LAB S CENTRAL	1	20	B	50	2	EV CHARGER - LAB W	POWR	8000	40
41	1200	RCPT	WORKBENCH - LAB SE	1	20	C	|	--	----------	---	----	42
43	2000	EQPT	WHEEL BALANCER - LAB SE	2	20	A	20	1	SPARE			44
45	----	--	----------	--	|	B	20	1	SPARE			46
47	400	POWR	MOTORIZED DAMPER - LAB	1	20	C	20	1	SPARE			48
49	400	POWR	MOTORIZED DAMPER - LAB	1	20	A	20	1	SPARE			50
GFCI 51	1200	EQPT	DRINKING FOUNTAIN - LAB E	1	20	B	20	1	SPARE			52
53	1000	RCPT	REC - LAB E	1	20	C	20	1	SPARE			54
55			SPARE	1	20	A	20	1	SPARE			56
57			SPARE	1	20	B	20	1	SPARE			58
59			SPARE	1	20	C	20	1	SPARE			60
61			SPARE	1	20	A	20	1	SPARE			62
63			SPARE	1	20	B	20	1	SPARE			64
65			SPARE	1	20	C	20	1	SPARE			66
67			SPARE	1	20	A	20	1	SPARE			68
69			SPARE	1	20	B	20	1	SPARE			70
71			SPARE	1	20	C	20	1	SPARE			72
73			SPARE	1	20	A	20	1	SPARE			74
75			SPARE	1	20	B	20	1	SPARE			76
77			SPARE	1	20	C	20	1	SPARE			78
79			SPARE	1	20	A	20	1	SPARE			80
81			SPARE	1	20	B	20	1	SPARE			82
83			SPARE	1	20	C	20	1	SPARE			84

① PANEL TO BE PROVIDED WITH A SHUNT TRIP MAIN CIRCUIT BREAKER.

PANELBOARD: P1	CONNECTED KVA: PH-A	PH-B	PH-C	TOTAL	DEMAND FACTOR	DEMAND KVA	CONT. FACT	SIZING AMPS: TOTAL	PH-A	PH-B	PH-C
Lighting	1.3	0.0	0.0	1.3	1	1.3	1.25	4.7	14.0	0.0	0.0
Receptacle	3.0	1.2	4.0	8.2	1	8.2	1	22.8	25.0	10.0	33.3
Largest Motor	0.0	0.0	0.0	0.0	1	0.0	0.25	2.6	2.6	2.6	2.6
Cooling	1.9	0.9	0.9	3.7	1	3.7	1	10.4	15.6	7.8	7.8
Motor	1.7	2.8	2.8	7.4	1	7.4	1	20.5	14.0	23.7	23.7
Equipment	2.5	4.7	1.0	8.2	1	8.2	1	22.8	20.8	39.2	8.3
Power	9.4	19.0	16.4	44.8	1	44.8	1	124.4	78.3	158.3	136.7
Spare					0.2	14.7	1	40.9	40.9	40.9	40.9
TOTAL KVA:	19.8	28.7	25.2	73.7		88.4		TOTAL AMPS:	PH-A	PH-B	PH-C
TOTAL AMPS:	165.0	239.0	209.9	204.5				249.0	211.4	282.6	253.5

① PANELBOARD: P2

208Y/120 VOLTS, 3 PHASE, 4 WIRE
400 AMP MAIN BKR, SURFACE MTD.
10000 AIC LABELED

MULTI. SECTION W/FEED THRU LUGS, W/GRD. BUS

CIRC NO.	LOAD V. A.	LOAD TYPE	LOAD DESCRIPTION	P.	AMP SIZE	PHASE	AMP SIZE	P.	LOAD DESCRIPTION	LOAD TYPE	LOAD V. A.	CIRC NO.
1		EXST	OVERHEAD DOOR - AUTO SERVICE TECH	1	20	A	20	2	EXISTING ROTARY LIFT	EXST		2
3		EXST	OVERHEAD DOOR - AUTO SERVICE TECH	1	20	B	|	--	----------	---	----	4
5		EXST	OVERHEAD DOOR - AUTO SERVICE TECH	1	20	C	15	2	WHEEL BALANCER	EXST	2080	6
7		EXST	OVERHEAD DOOR - AUTO SERVICE TECH	1	20	A	|	--	----------	---	----	8
9		EXST	OVERHEAD DOOR - AUTO SERVICE TECH	1	20	B	20	2	EXISTING ROTARY LIFT	EXST		10
11		EXST	OVERHEAD DOOR - AUTO SERVICE TECH	1	20	C	|	--	----------	---	----	12
13		EXST	OVERHEAD DOOR - AUTO SERVICE TECH	1	20	A	20	2	EXISTING ROTARY LIFT	EXST		14
15		EXST	CONVENIENCE REC - AUTO SERVICE TECH	1	20	B	|	--	----------	---	----	16
17		EXST	OUTSIDE LIGHTS - WEST	1	20	C	20	2	EXISTING ROTARY LIFT	EXST		18
19		EXST	HYDRAULIC HOIST	1	20	A	|	--	----------	---	----	20
21		EXST	FIRE ALARM PANEL - MEZZANINE	1	20	B	20	2	EXISTING ROTARY LIFT	EXST		22
23		EXST	EXISTING CAR LIFTS - WEST	2	20	C	|	--	----------	---	----	24
25	----	--	----------	--	|	A	20	2	EXISTING ROTARY LIFT	EXST		26
27		EXST	EXISTING CAR LIFTS - NE	2	20	B	|	--	----------	---	----	28
29	----	--	----------	--	|	C						30
31		EXST	EXISTING CAR LIFTS - SE	2	20	A	20	1	EF-03	MOTR	696	32
33	----	--	----------	--	|	B	20	1	LTG - CLASSROOMS, SERVICE	LGHT	1069	34
35	6000	POWR	CAR LIFT - AUTO SERV TECH W	2	40	C	20	3	OVERHEAD DOOR - AUTO SERV TECH E	MOTR	3819	36
37	----	--	----------	--	|	A	|	--	----------	---	----	38
39	6000	POWR	CAR LIFT - AUTO SERV TECH CENTRAL	2	40	B	|	--	----------	---	----	40
41	----	--	----------	--	|	C	20	1	REC - AUTO SERV TECH E	RCPT	200	42
43	6000	POWR	CAR LIFT - AUTO SERV TECH	2	40	A	30	3	OVERHEAD DOOR - AUTO SERV TECH E CENTR	MOTR	7638	44
45	----	--	----------	--	|	B	|	--	----------	---	----	46
47	6000	POWR	CAR LIFT - AUTO SERV TECH W	2	40	C	|	--	----------	---	----	48
49	----	--	----------	--	|	A	30	3	OVERHEAD DOOR - AUTO SERV TECH CENTRAL	MOTR	7638	50
51	1200	POWR	BRAKE LATHE - AUTO SERV TECH	1	20	B	|	--	----------	---	----	52
53	8000	WELD	WELDER - AUTO SERV TECH	2	50	C	|	--	----------	---	----	54
55	----	--	----------	--	|	A	30	3	OVERHEAD DOOR - AUTO SERV TECH W	MOTR	7638	56
57	600	RCPT	REC - AUTO SERV TECH N	1	20	B	|	--	----------	---	----	58
59	800	RCPT	REC - AUTO SERV TECH W	1	20	C	|	--	----------	---	----	60
61	400	POWR	MOTORIZED DAMPER - AUTO SERV TECH	1	20	A	50	2	EV CHARGER - AUTO SERV TECH W	POWR	8000	62
GFCI 63	1200	EQPT	DRINKING FOUNTAIN - AUTO SERV TECH	1	20	B	|	--	----------	---	----	64
GFCI 65	1200	EQPT	DRINKING FOUNTAIN - TRANSPORTATION	1	20	C	20	1	EF-02	MOTR	1830	66
67			SPARE	1	20	A	20	1	SPARE			68
69			SPARE	1	20	B	20	1	SPARE			70
71			SPARE	1	20	C	20	1	SPARE			72
73			SPARE	1	20	A	20	1	SPARE			74
75			SPARE	1	20	B	20	1	SPARE			76
77			SPARE	1	20	C	20	1	SPARE			78
79			SPARE	1	20	A	20	1	SPARE			80
81			SPARE	1	20	B	20	1	SPARE			82
83			SPARE	1	20	C	20	1	SPARE			84

① PANEL TO BE PROVIDED WITH A SHUNT TRIP MAIN CIRCUIT BREAKER.

PANELBOARD: P2	CONNECTED KVA: PH-A	PH-B	PH-C	TOTAL	DEMAND FACTOR	DEMAND KVA	CONT. FACT	SIZING AMPS: TOTAL	PH-A	PH-B	PH-C
Lighting	0.0	1.1	0.0	1.1	1	1.1	1.25	3.7	0.0	11.1	0.0
Receptacle	0.0	0.6	1.0	1.6	1	1.6	1	4.4	0.0	5.0	8.3
Largest Motor	0.0	0.0	0.0	0.0	1	0.0	0.25	5.3	5.3	5.3	5.3
Motor	10.5	8.9	9.8	29.3	1	29.3	1	81.2	87.7	74.2	81.9
Equipment	0.0	1.2	1.2	2.4	1	2.4	1	6.7	0.0	10.0	10.0
Power	13.4	11.2	9.0	33.6	1	33.6	1	93.3	111.7	93.3	75.0
Welder	4.0	0.0	4.0	8.0	1	8.0	1	22.2	33.3	0.0	33.3
Existing	1.0	0.0	1.0	2.1	1	2.1	1.25	7.2	10.8	0.0	10.8
Spare					0.2	15.6	1	43.3	43.3	43.3	43.3
TOTAL KVA:	29.0	23.0	26.1	78.0		93.6		TOTAL AMPS:	PH-A	PH-B	PH-C
TOTAL AMPS:	241.3	191.5	217.2	216.5				267.3	292.2	242.4	268.0

EXIST. PANEL: EM

120/240 VOLTS, 1 PHASE, 3 WIRE
100 AMP MAIN BKR, SURFACE MTD.
65000 AIC LABELED

W/GRD. BUS

CIRC NO.	LOAD V. A.	LOAD TYPE	LOAD DESCRIPTION	P.	AMP SIZE	PHASE	AMP SIZE	P.	LOAD DESCRIPTION	LOAD TYPE	LOAD V. A.	CIRC NO.
1		EXST	EM LIGHTING		20	A	20	1	FIRE ALARM	EXST	400	2
3		EXST	FIRE ALARM	1	20	B	20	1	EXIT LIGHTING	EXST		4
5	663	LGHT	EM LIGHTING - LAB 101	1	20	A	20	1	EM LIGHTING	EXST		6
7			SPACE			B			SPACE			8
9			SPACE			A			SPACE			10
11			SPACE			B			SPACE			12
13			SPACE			A			SPACE			14
15			SPACE			B			SPACE			16
17			SPACE			A			SPACE			18
19			SPACE			B			SPACE			20
21			SPACE			A			SPACE			22
23			SPACE			B			SPACE			24

EXIST. PANEL: EM	CONNECTED KVA: PH-A	PH-B	PH-C	TOTAL	DEMAND FACTOR	DEMAND KVA	CONT. FACT	SIZING AMPS: TOTAL	PH-A	PH-B	PH-C
Lighting	0.7	0.0	0.0	0.7	1	0.7	1.25	3.4	6.9	0.0	0.0
Existing	0.4	0.0	0.0	0.4	1	0.4	1.25	2.1	4.2	0.0	0.0
Spare					0.2	0.2	1	0.9	0.9	0.9	0.0
TOTAL KVA:	1.1	0.0	0.0	1.1		1.3		TOTAL AMPS:	PH-A	PH-B	PH-C
TOTAL AMPS:	8.9	0.0	0.0	4.4				6.4	12.0	0.9	0.0

PANELBOARD: P3

208Y/120 VOLTS, 3 PHASE, 4 WIRE
400 AMP MAIN BKR, SURFACE MTD.
10000 AIC LABELED

MULTI. SECTION W/FEED THRU LUGS, W/GRD. BUS

CIRC NO.	LOAD V. A.	LOAD TYPE	LOAD DESCRIPTION	P.	AMP SIZE	PHASE	AMP SIZE	P.	LOAD DESCRIPTION	LOAD TYPE	LOAD V. A.	CIRC NO.
1		EXST	REC SOUTH EAST, LOBBY	1	20	A	20	1	DEDICATED REC - CLASS 123 NE	RCPT	400	2
3		EXST	EXHAUST FANS	1	20	B	20	1	DEDICATED REC - CLASS 123 NW	RCPT	400	4
5		EXST	REC S EAST LOBBY	1	20	C	20	1	DEDICATED REC - CLASS 123 SW	RCPT	400	6
7		EXST	REC - S EAST	1	20	A	20	1	DEDICATED REC - CLASS 123 SE	RCPT	400	8
9		EXST	PLUG MOLD - LOBBY	1	20	B	20	1	FB - CLASS 123	RCPT	400	10
11		EXST	REC - RM 203, 205	1	20	C	20	1	MOTORIZED SCREEN - CLASS 123	POWR	800	12
13		EXST	PLUG MOLD LOBBY	1	20	A	20	1	PROJECTOR - CLASS 123	POWR	800	14
15		EXST	GREEN MACHINE	1	20	B	20	1	DEDICATED REC - CLASS 121 NE	RCPT	400	16
17		EXST	LIGHTS ON MEZZANINE	1	20	C	20	1	DEDICATED REC - CLASS 121 NW	RCPT	400	18
19		EXST	REC RM 210, 211	1	20	A	20	1	DEDICATED REC - CLASS 121 SW	RCPT	400	20
21		EXST	HOT WATER CIRC. PUMP	1	20	B	20	1	DEDICATED REC - CLASS 121 SE	RCPT	400	22
23		EXST	LIGHTS COMP RM 3P TIME CLOCK	1	20	C	20	1	MOTORIZED SCREEN - CLASS 121	POWR	800	24
25		EXST	EXHAUST FAN COMP ROOM	1	20	A	20	1	FB - CLASS 121	RCPT	400	26
27		EXST	TEMP CONT COMP	1	20	B	20	1	PROJECTOR - CLASS 121	POWR	800	28
29		EXST	REC TOOL RM	1	20	C	20	1	DEDICATED REC - CLASS 120 NE	RCPT	400	30
31		EXST	TEMP CONT AIR DRYER	1	20	A	20	1	DEDICATED REC - CLASS 120 NW	RCPT	400	32
33		EXST	220V RECEPTACLE	2	20	B	20	1	DEDICATED REC - CLASS 120 SW	RCPT	400	34
35	----	--	----------	--	|	C	20	1	DEDICATED REC - CLASS 120 SE	RCPT	400	36
37		EXST	220V REC S EAST	1	20	A	20	1	MOTORIZED SCREEN - CLASS 120	POWR	800	38
39	200	RCPT	REC - CLASS 120	1	20	B	20	1	FB - CLASS 120	RCPT	400	40
41			SPARE	1	20	C	20	1	PROJECTOR - CLASS 120	POWR	800	42
43	3819	MOTR	OVERHEAD DOOR - CLASS 120	3	20	A	20	1	REC - ROOF	RCPT	1200	44
45	----	--	----------	--	|	B	20	1	REC - ROOF	RCPT	600	46
47	----	--	----------	--	|	C	20	1	SPARE			48
49	600	RCPT	REC - ELEC, RR	1	20	A	20	1	SPARE			50
GFCI 51	800	RCPT	DRINKING FOUNTAIN	1	20	B	20	1	SPARE			52
53	1200	RCPT	REC - OFFICE 104	1	20	C	20	1	SPARE			54
55	400	RCPT	REC - AV N	1	20	A	20	1	SPARE			56
57	400	RCPT	REC - AV E	1	20	B	20	1	SPARE			58
59	400	RCPT	REC - AV S	1	20	C	20	1	SPARE			60
61	1000	RCPT	REC - OFFICE 103	1	20	A	20	1	SPARE			62
63			SPARE	1	20	B	20	1	SPARE			64
65			SPARE	1	20	C	20	1	SPARE			66
67			SPARE	1	20	A	20	1	SPARE			68
69			SPARE	1	20	B	20	1	SPARE			70
71			SPARE	1	20	C	20	1	SPARE			72
73			SPARE	1	20	A	20	1	SPARE			74
75			SPARE	1	20	B	20	1	SPARE			76
77			SPARE	1	20	C	20	1	SPARE			78
79			SPARE	1	20	A	20	1	SPARE			80
81			SPARE	1	20	B	20	1	SPARE			82
83			SPARE	1	20	C	20	1	SPARE			84

PANELBOARD: P3	CONNECTED KVA: PH-A	PH-B	PH-C	TOTAL	DEMAND FACTOR	DEMAND KVA	CONT. FACT	SIZING AMPS: TOTAL	PH-A	PH-B	PH-C
Receptacle	5.2	4.4	3.2	10.0	1	10.0	> 1	31.6	38.6	32.7	23.8
(First 10000VA at 1 < remainder at 0.5)				2.8	0.5	1.4					
Largest Motor	0.0	0.0	0.0	0.0	1	0.0	0.25	2.6	2.6	2.6	2.6
Motor	1.3	1.3	1.3	3.8	1	3.8	1	10.6	10.6	10.6	10.6
Power	1.6	0.8	2.4	4.8	1	4.8	1	13.3	13.3	6.7	20.0
Spare					0.2	4.0	1	11.1	11.1	11.1	11.1
TOTAL KVA:	8.1	6.5	6.9	21.4		24.0		TOTAL AMPS:	PH-A	PH-B	PH-C
TOTAL AMPS:	67.3	53.9	57.3	59.5				69.3	76.3	63.7	68.1

PEC PROJECT NUMBER: 228090-042
PEC PROFESSIONAL ENGINEERING CONSULTANTS, P.A.
303 SOUTH TOPEKA, WICHITA, KS 67202
316-262-2691 www.pec1.com

KELBY ANN EMERY LICENSED 28390 11/16/2023 KANSAS PROFESSIONAL ENGINEER

DESCRIPTION	DATE

PROJECT NUMBERS: GLMV # - 228090-042
PROJECT TYPE: Renovation

WICHITA STATE UNIVERSITY CAMPUS OF APPLIED SCIENCES AND TECHNOLOGY
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WSU TECH
228090-042 WSU TECH AUTO
301 S. Grove, Wichita, KS 67211
DATE: 11/06/2023 DRAWN BY: ERB CHECKED BY: KAE

ELECTRICAL SCHEDULES

E-602

CERTIFIED FINAL

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(1)(2)(3)(4) (P.E.C. - TULSA)

LIGHTING FIXTURE SCHEDULE

1. GENERAL CONTRACTOR SHALL PROVIDE FIREPROOFING AROUND RECESSED FIXTURES INSTALLED IN FIRE RATED CEILING PER U.L. REQUIREMENTS. ELECTRICAL CONTRACTOR WILL COORDINATE.
2. MANUFACTURERS LISTED IN THIS SCHEDULE OR APPROVED BY WRITTEN ADDENDUM WILL BE THE ONLY APPROVED MANUFACTURERS TO BID THE LIGHTING FIXTURES FOR THIS PROJECT. CONTRACTORS AND SUPPLIERS USING PRICING FROM MANUFACTURERS NOT LISTED ON SCHEDULE OR BY ADDENDUM DO SO AT THEIR OWN RSK.
3. LIGHT FIXTURE SELECTIONS ARE BASED ON THE MANUFACTURER IN THE LEFT MOST COLUMN AS LISTED IN THE SCHEDULE. FIXTURES APPROVED AS EQUALS IN THIS SCHEDULE OR BY ADDENDUM SHALL BE EQUAL TO THE UNIT SPECIFIED IN THE LEFT MOST COLUMN, IE: SPRING LOADED LATCHES, POST PAINTED FINISH, PHOTOMETRICS.
4. ALL LIGHT FIXTURES SHALL BE SECURED TO THE CEILING FRAMING SYSTEM BY MECHANICAL MEANS (SUCH AS BOLTS, SCREWS, OR RIVETS) OR BY CLIPS IDENTIFIED FOR USE WITH THE TYPE OF CEILING FRAMING MEMBER AND LIGHT FIXTURE.
5. LIGHT FIXTURES SHALL BE PROVIDED WITH 0-10V DIMMING DRIVERS. DRIVERS SHALL BE CAPABLE OF DIMMING TO A MINIMUM OF 10% TOTAL LIGHT OUTPUT. LED DRIVERS SHALL HAVE A DISCONNECTING MEANS MEETING THE REQUIREMENTS OF NEC SECTION 410.130(G), EXCEPT FOR THOSE INSTALLED IN CORD AND PLUG CONNECTED FIXTURES. WHERE APPLICABLE, WHEN DIMMING SWITCHES ARE NOT PROVIDED AS PART OF THE DESIGN, CONTRACTOR SHALL CAP OFF THE 0-10V DIMMING WIRES FOR FUTURE EXTENSION BY THE OWNER.
6. PROVIDE ARROWS AND FACES AS INDICATED ON THE DRAWINGS.
7. TO COMPLY WITH NEC SECTION 410.130(G), ALL EXISTING OR RELOCATED LIGHT FIXTURES WITHOUT A BALLAST OR DRIVER DISCONNECTING MEANS SHALL HAVE A BALLAST OR DRIVER DISCONNECTING MEANS INSTALLED UNDER ANY OF THE FOLLOWING CONDITIONS:
   a. WHEN AN EXISTING BALLAST OR DRIVER IS REPLACED.
   b. WHEN AN EXISTING LIGHT FIXTURE IS RELOCATED.
   c. WHEN AN EXISTING LIGHT FIXTURE IS RECIRCUITED.
8. UNLESS OTHERWISE NOTED, PROVIDE WITH [30' ROUND STRAIGHT STEEL] [____] POLE WITH HANDHOLE & BOLT COVERS. POLE TO MEET TOTAL FIXTURE EPA REQUIREMENTS AT 110MPH WITH 1.3 GUST FACTOR.

MARK	DESCRIPTION	MANUFACTURER 1 CATALOG NUMBER	MANUFACTURER 2 CATALOG NUMBER	MANUFACTURER 3 CATALOG NUMBER	MANUFACTURER 4 CATALOG NUMBER	LIGHT SOURCE #	TYPE	WATTS	VOLTS	LENS/LOUVER/FINISH	DIMENSIONS W	L	D	REF. NOTE	REMARKS
D	EXISTING FIXTURE TO BE REMOVED					0		0			<varies>	<varies>	<varies>		
E	EXISTING FIXTURE TO REMAIN					<varies>	<varies>	0			<varies>	<varies>	<varies>	<varies>	
F4	4' STRIP	LITHONIA ZL1N L48 5000LM FST MVOLT 35K 80CRI WH	WILLIAMS 7SS-4-L50/835-DIM-UNV	DAY-BRITE FSS455L835-UNV-DIM	METALUX 4SNLED-LD5-53SL-LN-UNV-L835-CD1	1	LED	45	UNV	ACRYLIC				8	5000LM; 3500K; 80CRI
KA	2X2 LAY-IN	HE WILLIAMS AT1-22-L40-8-35-D-DIM-UNV	OR PREPPROVED EQUAL			1	LED	18	UNV	ACRYLIC	2.0	2.0	0.33	5	2000LM; 3500K; 80CRI
KB	2X2 LAY-IN	LITHONIA GH-2-L240-835-FA	OR PREAPPROVED EQUAL			1	LED	29	UNV	ACRYLIC	2.0	2.0	0.33	5	8000LM; 3500K; 80CRI
L1	4' RECESSED LINEAR	ALCON LIGHTING 12100-10-R-4-L93-35K-FR-WH	OR PREPPROVED EQUAL			1	LED	45	UNV	ACRYLIC					3720LM; 3500K; 80CRI
L6	6' SUSPENDED LINEAR	LUMENWERX VIA4P-DI-HLO-FH-CLO-SW-80CRI-1000LMF-350LMF-35K-6FT-UNV-D1	OR PREPPROVED EQUAL			1	LED	45	UNV	ACRYLIC					4000LM; 3500K; 80CRI
WA4	WALL PACK - TYPE IV	LITHONIA WDGE4 LED-P2-40K-80CRI-RFT-M VOLT-SRM-DDBXD	OR PREAPPROVED EQUAL			1	LED	49	UNV	DARK BRONZE	1.15	1.25	0.77		4000LM; 4000K; 70CRI
X1	PENDANT MOUNTED EXIT SIGN	DUAL LITE SESRBN	HIGH-LITES ZCLED-2-R	LITHONIA LE-S-1-R	SURE-LITES CX-6-1-R	1	LED	5		CAST ALUMINUM					RED W/OUT BAT.; PENDANT MOUNTED
XA	1 FACE/EM EXIT	MULE MD-B-U-R-BA	DUAL-LITE SESRBNE	LITHONIA LE S 1 R EL N	SURE-LITES CX71	1	LED	5	UNV	CAST ALUMINUM	0.71	1.06	0.17	6	RED W/BATTERY

PANELBOARD: H1

480Y/277 VOLTS, 3 PHASE, 4 WIRE
225 AMP MLO, SURFACE MTD.
42000 AIC LABELED

W/GRD. BUS

CIRC NO.	LOAD V. A.	LOAD TYPE	LOAD DESCRIPTION	P	AMP SIZE	PHASE	AMP SIZE	P	LOAD DESCRIPTION	LOAD TYPE	LOAD V. A.	CIRC NO.
1		EXST	LIGHTS - 213, 216, 218, 220		20	A	20	3	VEF-01	MOTR	2494	2
3		EXST	LIGHTS - 211		20	B	|	|	----------	---	----	4
5		EXST	LIGHTS - 214, 217, 219, 222, 221		20	C	|	|	----------	---	----	6
7		EXST	LIGHTS - 210		20	A	20	3	VEF-02	MOTR	3991	8
9		EXST	LTS - 203-208, 210		20	B	|	|	----------	---	----	10
11		EXST	LIGHTS - EAST NORTH		20	C	|	|	----------	---	----	12
13		EXST	NIGHT LIGHTS - NORTH EAST		20	A	20	1	SPARE			14
15		EXST	LIGHTS - NORTH CENTER		20	B	20	1	SPARE			16
17		EXST	BATTERY EM LIGHTS		20	C	20	1	SPARE			18
19		EXST	LIGHTS - SOUTH EAST		20	A	20	1	SPARE			20
21		EXST	LIGHTS - SOUTH CENTER		20	B	20	1	SPARE			22
23		EXST	LIGHTS - SOUTH WEST		20	C	20	1	SPARE			24
25		EXST	LIGHTS - SOUTH EAST		20	A	20	1	SPARE			26
27		EXST	LIGHTS - SOUTH WEST		20	B	20	1	SPARE			28
29		EXST	LIGHTS - NORTH WEST		20	C	20	1	SPARE			30
31		EXST	LIGHTS - NORTH WEST		20	A	20	1	SPARE			32
33		EXST	LIGHTS - WEST CENTER		20	B	20	1	SPARE			34
35		EXST	LIGHTS - LOBBY		20	C	20	1	SPARE			36
37		EXST	OUTSIDE MV LIGHTS		20	A	20	1	SPARE			38
39			SPARE	1	20	B	20	1	SPARE			40
41			SPARE	1	20	C	20	1	SPARE			42

PANELBOARD: H1	CONNECTED KVA: PH-A	PH-B	PH-C	TOTAL	DEMAND FACTOR	KVA	CONT. FACT	SIZING AMPS: TOTAL	PH-A	PH-B	PH-C
Largest Motor	0.0	0.0	0.0	0.0	1	0.0	0.25	1.2	1.2	1.2	1.2
Motor	2.2	2.2	2.2	6.5	1	6.5	1	7.8	7.8	7.8	7.8
Spare					0.2	1.3	1	1.6	1.6	1.6	1.6
TOTAL KVA:	2.2	2.2	2.2	6.5		7.8		TOTAL AMPS:	PH-A	PH-B	PH-C
TOTAL AMPS:	7.8	7.8	7.8	7.8				10.6	10.6	10.6	10.6

PANELBOARD: H2

480Y/277 VOLTS, 3 PHASE, 4 WIRE
225 AMP MLO, SURFACE MTD.
42000 AIC LABELED

W/GRD. BUS

CIRC NO.	LOAD V. A.	LOAD TYPE	LOAD DESCRIPTION	P	AMP SIZE	PHASE	AMP SIZE	P	LOAD DESCRIPTION	LOAD TYPE	LOAD V. A.	CIRC NO.
1	5328	C/M	RTU-01	3	20	A	20	3	VEF-03	MOTR	9145	2
3	----	--	----------	--	|	B	|	--	----------	---	----	4
5	----	--	----------	--	|	C	|	--	----------	---	----	6
7	13302	C/M	RTU-02	3	25	A	20	3	SPARE			8
9	----	--	----------	--	|	B	|	--	----------	---	----	10
11	----	--	----------	--	|	C	|	--	----------	---	----	12
13	7394	M/C	RTU-03	3	20	A	20	3	SPARE			14
15	----	--	----------	--	|	B	|	--	----------	---	----	16
17	----	--	----------	--	|	C	|	--	----------	---	----	18
19	18956	C/M	RTU-04	3	30	A	20	3	SPARE			20
21	----	--	----------	--	|	B	|	--	----------	---	----	22
23	----	--	----------	--	|	C	|	--	----------	---	----	24
25	6984	M/C	RTU-05	3	20	A	20	3	SPARE			26
27	----	--	----------	--	|	B	|	--	----------	---	----	28
29	----	--	----------	--	|	C	|	--	----------	---	----	30
31	6984	M/C	RTU-06	3	20	A	20	3	SPARE			32
33	----	--	----------	--	|	B	|	--	----------	---	----	34
35	----	--	----------	--	|	C	|	--	----------	---	----	36
37	6984	M/C	RTU-07	3	20	A	20	3	SPARE			38
39	----	--	----------	--	|	B	|	--	----------	---	----	40
41	----	--	----------	--	|	C	|	--	----------	---	----	42

PANELBOARD: H2	CONNECTED KVA: PH-A	PH-B	PH-C	TOTAL	DEMAND FACTOR	KVA	CONT. FACT	SIZING AMPS: TOTAL	PH-A	PH-B	PH-C
Largest Motor	0.0	0.0	0.0	0.0	1	0.0	0.25	2.8	2.8	2.8	2.8
Cooling	11.1	11.1	11.1	33.3	1	33.3	1	40.1	40.1	40.1	40.1
Motor	13.9	13.9	13.9	41.7	1	41.7	1	50.2	50.2	50.2	50.2
Spare					0.2	15.0	1	18.1	18.1	18.1	18.1
TOTAL KVA:	25.0	25.0	25.0	75.1		90.1		TOTAL AMPS:	PH-A	PH-B	PH-C
TOTAL AMPS:	90.3	90.3	90.3	90.3				111.1	111.2	111.2	111.2

GLMVArchitecture

PEC PROJECT NUMBER 228090-042
PEC PROFESSIONAL ENGINEERING CONSULTANTS, P.A.
303 SOUTH TOPEKA WICHITA, KS 67202
316-262-2691 www.pec1.com
KELBY ANN EMERTH LICENSED 28390 11/16/2023 KANSAS PROFESSIONAL ENGINEER

DATE	DESCRIPTION

PROJECT NUMBERS:
GLMV # - 228090-042
PROJECT TYPE:
Renovation

WSU TECH
WICHITA STATE UNIVERSITY CAMPUS OF APPLIED SCIENCES AND TECHNOLOGY
4004 N. Webb Rd.
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301 S. Grove, Wichita, KS 67211

DATE: 11/06/2023 DRAWN BY: ERB CHECKED BY: KAE

ELECTRICAL SCHEDULES

E-611

CERTIFIED FINAL

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