111 SE M291 HIGHWAY
SUITE 100
LEES SUMMIT, MO 64081

11/10/2020
PERMIT SET

ARCHITECT

CURRAN
ARCHITECTURE

5719 LAWTON LOOP E. DR. #212
INDIANAPOLIS, IN 46216
O : 317 . 288 . 0681
CONTACT : SHAWN CURRAN

FIREHOUSE SUBS LEES SUMMIT, MO
Project # 190230

SCOPE NOTES

IN THE EVENT OF QUESTIONS REGARDING THE CONTRACT DOCUMENTS, SPECIFICATIONS, EXISTING CONDITIONS OR DESIGN INTENT, THE CONTRACTOR SHALL BE RESPONSIBLE FOR OBTAINING CLARIFICATION FROM THE ARCHITECT PRIOR TO BID SUBMITTAL AND PROCEEDING WITH ANY WORK IN QUESTION.

THESE CONTRACT DOCUMENTS ARE INTENDED TO DESCRIBE ONLY THE SCOPE AND APPEARANCE OF THE REAL PROPERTY IMPROVEMENTS, INCLUDING THE PERFORMANCE AND LEVEL OF QUALITY EXPECTED OF OF ITS COMPONENTS. IT IS THE CONTRACTOR'S RESPONSIBILITY TO INSURE THAT ALL WORK COMPLETED AND MATERIALS INSTALLED BE IN FULL COMPLIANCE AT A MINIMUM, WITH ALL APPLICABLE CODES, REGULATIONS, AND ORDINANCES HAVING JURISDICTIONAL AUTHORITY OVER THE PROJECT.

THESE CONTRACT DOCUMENTS DO NOT ATTEMPT TO INSTRUCT THE CONTRACTOR IN THE DETAILS OF HIS TRADE. THEY ARE PERFORMANCE SPECIFICATIONS IN THAT THEY DO REQUIRE THAT ALL MANUFACTURED ITEMS, MATERIALS AND EQUIPMENT BE INSTALLED IN STRICT CONFORMANCE TO THE MANUFACTURER'S RECOMMENDED SPECIFICATIONS, EXCEPT IN THE CASE WHERE THE CONTRACT DOCUMENTS ARE MORE STRINGENT. ANY MISCELLANEOUS ITEMS OR MATERIALS NOT SPECIFICALLY NOTED, BUT REQUIRED FOR PROPER INSTALLATION SHALL BE FURNISHED AND INSTALLED BY THE CONTRACTOR.

ALL WORK SHALL BE WARRANTED SATISFACTORY, IN MATERIALS AND WORKMANSHIP FOR A PERIOD OF ONE (1) YEAR, OR FOR THE PERIOD OF WARRANTY CUSTOMARY, OR STIPULATED FOR THE TRADE, CRAFT, OR PRODUCT, WHICHEVER IS LONGER. ONLY COMPETENT MECHANICS CAPABLE OF PRODUCING GOOD WORKMANSHIP CUSTOMARY TO THE TRADE SHOULD BE USED. COMMENCING WORK BY A CONTRACTOR OR SUBCONTRACTOR CONSTITUTES ACCEPTANCE OF THE CONDITIONS AND SURFACES CONCERNED. IF ANY SUCH CONDITIONS ARE UNACCEPTABLE, THE GENERAL CONTRACTOR SHALL BE NOTIFIED IMMEDIATELY, AND NO WORK SHALL BE PERFORMED UNTIL THE CONDITIONS ARE CORRECTED.

THE CONTRACTOR SHALL BE RESPONSIBLE FOR FAMILIARIZING HIMSELF WITH THE PROJECT SCOPE OF WORK, BUILDING STANDARDS, SCHEDULE AND DEADLINES. THE CONTRACTOR SHALL FURTHER BE RESPONSIBLE FOR ADVISING THE OWNER OF ALL LONG LEAD ITEMS AFFECTING THE PROJECT SCHEDULE AND SHALL, UPON REQUEST FROM THE OWNER, SUBMIT ORDER CONFIRMATIONS AND DELIVERY DATES FOR SUCH LONG LEAD ITEMS TO THE OWNER.

ALL CONTRACTOR OR SUPPLIER REQUESTS FOR SUBSTITUTIONS OF SPECIFIED ITEMS SHALL BE SUBMITTED, IN WRITING, ACCOMPANIED BY THE ALTERNATIVE PRODUCT INFORMATION, TO THE ARCHITECT, NO LATER THAT TEN (10) BUSINESS DAYS, PRIOR TO BID OPENING DATE. SUBSTITUTIONS SHALL ONLY BE CONSIDERED IF THEY DO NOT SACRIFICE QUALITY, FUNCTIONALITY, APPEARANCE OR WARRANTY. UNDER NO CIRCUMSTANCES WILL THE OWNER BE REQUIRED TO PROVE THAT A PRODUCT PROPOSED FOR SUBSTITUTION IS OR IS NOT OF EQUAL QUALITY TO THE PRODUCT SPECIFIED. UNDER NO CIRCUMSTANCES SHALL THE CONTRACTOR SCALE THE DRAWINGS TO DETERMINE DIMENSIONS. REFER TO PLANS, SECTIONS AND DETAILS FOR ALL DIMENSIONAL INFORMATION.

THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE INSTALLATION OF ALL SELECTED MATERIALS WHICH SHALL BE COMPLETE IN ALL RESPECTS PRIOR TO THE FINAL ACCEPTANCE, UNLESS OTHERWISE NOTED.

THE CONTRACTOR SHALL PRESERVE ALL PRINTED INSTRUCTIONS AND WARRANTY INFORMATION THAT IS PROVIDED WITH EQUIPMENT OR MATERIALS USED, AND DELIVER SAID PRINTED MATTER TO THE OWNER AT THE TIME OF SUBSTANTIAL COMPLETION. THE CONTRACTOR SHALL INSTRUCT THE OWNER IN THE PROPER USE OF THE EQUIPMENT FURNISHED BY THEIR TRADE.

GENERAL CONTRACTOR SHALL PROVIDE A THOROUGH CONSTRUCTION CLEANING AT PROJECT CLOSE OUT, PRIOR TO PUNCH LIST WALK THROUGH.

THE CONTRACTOR SHALL SUBMIT SHOP DRAWINGS OF ALL FABRICATED ITEMS, AND PHYSICAL SAMPLES OF ALL FINISH MATERIALS SPECIFIED TO THE ARCHITECT FOR REVIEW.

REVIEWED SHOP DRAWINGS AND SUBMITTALS BY OTHERS SHALL NOT BE CONSIDERED AS PART OF THE CONTRACT DOCUMENTS. THE ARCHITECT ASSUMES NO RESPONSIBILITY FOR DRAWINGS, SCHEDULES, AND/OR SPECIFICATIONS FOR WORK ON THE PROJECT PREPARED BY OTHERS.

THE ARCHITECT WILL REVIEW ALL SHOP DRAWINGS, SUBMITTALS AND SAMPLES FOR CONFORMITY WITH THE CONTRACT DOCUMENTS AND RETURN THEM TO THE CONTRACTOR WITHIN SEVEN (7) WORKING DAYS EXCEPT AS MAY OTHERWISE BE PROVIDED FOR BY THE OWNER.

THE CONTRACTOR SHALL NOT REPRODUCE AND MARK UP ANY PART OF THE CONTRACT DOCUMENTS FOR SUBMITTAL AS A SHOP DRAWING. ANY SUCH SUBMITTAL WILL BE REJECTED.

ANY SUBMITTAL REQUIRED TO BE REVIEWED MORE THAN THE INITIAL REVIEW AND ONE (1) ADDITIONAL REVIEW, WILL BE CONSIDERED TO BE IN EXCESS OF THE SCOPE OF THE PROJECT. THE TIME REQUIRED FOR THIRD AND SUBSEQUENT REVIEWS OF A SUBMITTAL WILL BE PAID FOR BY THE CONTRACTOR TO THE ARCHITECT AT THE ARCHITECT'S STANDARD BILLING RATES, PLUS REIMBURSABLE EXPENSES.

THE CONTRACTOR SHALL BE RESPONSIBLE FOR VERIFICATION OF ANY EXISTING CONDITIONS AND ALL CRITICAL DIMENSIONS ASSOCIATED WITH THE PROPOSED WORK. THE CONTRACTOR SHALL CONFIRM THAT ALL WORK OUTLINED WITHIN THE CONTRACT DOCUMENTS CAN BE ACCOMPLISHED AS SHOWN, PRIOR TO BID OPENING. THE CONTRACTOR SHALL NOTIFY THE ARCHITECT OF ANY CONDITIONS ENCOUNTERED WHICH MAY AFFECT BUILDING CODE COMPLIANCE, LIFE SAFETY, ISSUANCE OF CERTIFICATE OF OCCUPANCY, OR COMPLETION OF THE PROJECT AS DIRECTED IN THE CONTRACT DOCUMENTS.

NO ADDITIONAL FUNDS WILL BE APPROVED FOR WORK OMITTED FROM THE CONTRACTOR'S BID DUE TO LACK OF VERIFICATION BY THE CONTRACTOR, EXCEPT AS OTHERWISE APPROVED BY THE OWNER FOR WORK ASSOCIATED WITH HIDDEN CONDITIONS WHICH ARE NOT ACCESSIBLE PRIOR TO CONSTRUCTION.

REFER TO PROJECT MANUAL (WHEN APPLICABLE) FOR ADDITIONAL REQUIREMENTS AND DIRECTIONS.

ALL INTERIOR FINISHES SHALL COMPLY WITH CHAPTER EIGHT (8) OF THE 2012 INTERNATIONAL BUILDING CODE WITH INDIANA AMENDMENTS.

LIGHT GAGE METAL STUDS; STUDS, THEIR COMPONENTS AND THEIR CONNECTIONS SHALL BE ENGINEERED BY A PROFESSIONAL ENGINEER LICENSED IN THE STATE WHERE THE PROJECT IS LOCATED. THE ENGINEER SHALL AFFIX THEIR SEAL AND SIGNATURE TO SHOP DRAWINGS AND CALCULATIONS SUBMITTED FOR REVIEW.

STEEL REQUIRED TO TRANSMIT GRAVITY AND/OR LATERAL LOADS TO THE STRUCTURE NOT DETAILED ON THE STRUCTURAL DRAWINGS IS THE RESPONSIBILITY OF THE METAL STUD SUPPLIER TO DESIGN, DETAIL, PROVIDE AND INSTALL.

METAL STUDS SHALL BE DESIGNED TO SUPPORT THE LOADS SHOWN IN THE DESIGN DATA IN ADDITION TO THE WEIGHT OF THE MATERIALS ATTACHED TO THE METAL STUDS. METAL STUDS SHALL BE DESIGNED USING THE LOAD COMBINATIONS IN SECTION 1605.3.1 OF THE INTERNATIONAL BUILDING CODE, 2012 EDITION. NO INCREASE IN ALLOWABLE STRESS IS ALLOWED.

DEFLECTION DUE TO LATERAL LOAD SHALL BE LIMITED TO $\frac{h}{240}$ OF THE STUD SPAN. FOR CANTILEVERS, THE DEFLECTION DUE TO LATERAL LOAD AT THE END OF THE CANTILEVER SHALL BE LIMITED TO $\frac{l}{180}$ OF THE CANTILEVER DIMENSION.

METAL STUD MANUFACTURER SHALL DETERMINE FINAL LAYOUT AND GAUGE OF STUDS TO MEET THE ARCHITECTURAL AND STRUCTURAL REQUIREMENTS.

WHERE ROUGH CARPENTRY IS IN CONTACT WITH THE GROUND, EXPOSED TO WEATHER OR IN AREAS OF HIGH RELATIVE HUMIDITY PROVIDE FASTENERS AND ANCHORAGES WITH A HOT DIP ZINC COATING OF G90 COMPLYING WITH ASTM A153 OR PROVIDE FASTENERS AND ANCHORAGES OF TYPE 304 STAINLESS STEEL.

ALL WOOD SHEATHING TO BE FIRE TREATED UNLESS NOTED OTHERWISE.

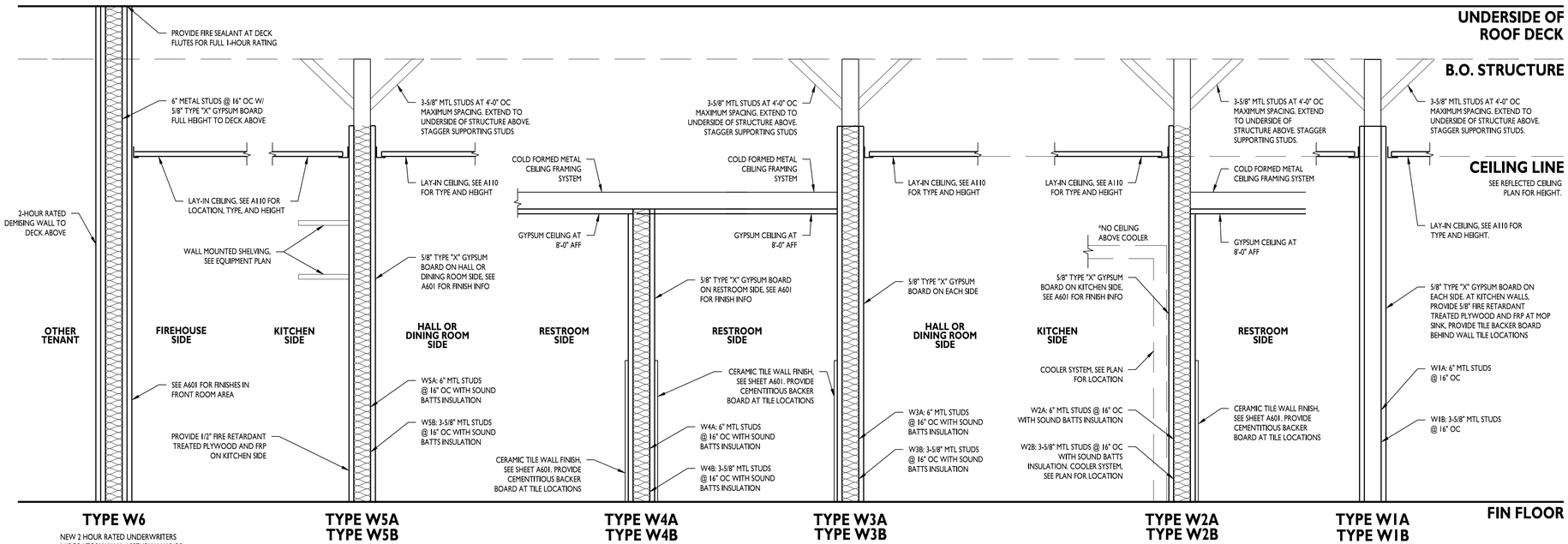
ABBREVIATIONS

ACT	ACOUSTICAL CEILING TILE
ADDL	ADDITIONAL
AFF	ABOVE FINISHED FLOOR
ALUM	ALUMINUM
ANOD	ANODIZED
APP	APPROXIMATE
ARCH	ARCHITECT
AWT	ACOUSTICAL WALL TREATMENT
BLDG	BUILDING
BLKG	BLOCKING
B.O.	BOTTOM OF
BOT	BOTTOM
BRG	BEARING
CAB	CABINET
CJ	CONTROL JOINT
CL	CENTER LINE
CLR	CLEAR
CMU	CONCRETE MASONRY UNIT
CONST	CONSTRUCTION
COL	COLUMN
CONC	CONCRETE
CONT	CONTINUOUS
CPT	CARPET
CT	CERAMIC TILE
CW	COLD WATER
DET, DTL	DETAIL
DF	DRINKING FOUNTAIN
DIA	DIAMETER
DIM	DIMENSION
DWG(S)	DRAWING(S)
EA	EACH
EC	EXPOSED CEILING
EIFS	EXTERIOR INSULATION FINISH SYSTEM
EJ	EXPANSION JOINT
EL	ELEVATION
ENG	ENGINEER
EQ	EQUAL
EQUIP	EQUIPMENT
EXIST	EXISTING
EXP	EXPANSION
EXT	EXTERIOR
FD	FLOOR DRAIN
FE	FIRE EXTINGUISHER
FEC	FIRE EXTINGUISHER CABINET
FIN	FINISH
FLR	FLOOR
FR	FIRE RETARDANT
FT	FEET
GA	GAUGE
GB	GRAB BAR
GC	GENERAL CONTRACTOR
GYP BD	GYPSUM BOARD
HDWR	HARDWARE
HGT	HEIGHT
HM	HOLLOW METAL
HORIZ	HORIZONTAL
HP	HIGH POINT
HVAC	HEATING, VENTILATING, AIR CONDITIONING
HW	HOT WATER
INSUL	INSULATION
JAN	JANITOR
JST	JOIST
JT	JOINT
KD	KNOCKDOWN
KIT	KITCHEN
LAM	LAMINATE
LAV	LAVATORY
LLH	LONG LEG HORIZONTAL
LLV	LONG LEG VERTICAL
MAS	MASONRY
MAT	MATERIAL
MAX	MAXIMUM
MB	MARKER BOARD
MECH	MECHANICAL
MEZZ	MEZZANINE
MFR	MANUFACTURER
MIN	MINIMUM
MO	MASONRY OPENING
MTL	METAL
NIC	NOT IN CONTRACT
OC	ON CENTER
OD	OUTSIDE DIAMETER
OH	OPPOSITE HAND
OPNG	OPENING
OPP	OPPOSITE
OTO	OUT TO OUT
PLAS LAM	PLASTIC LAMINATE
PLWD	PLYWOOD
PS	PROJECTION SCREEN
QT	QUARRY TILE
R	RISER
RA	RETURN AIR
RB	RESILIENT BASE
REF	REFERENCE
REFR	REFRIGERATOR
REQD	REQUIRED
RO	ROUGH OPENING
SA	SUPPLY AIR
SCHED	SCHEDULE
SCMD	SOLID CORE METAL DOOR
SCWD	SOLID CORE WOOD DOOR
SEC	SECTION
SF	SQUARE FOOT
SIM	SIMILAR
SPECS	SPECIFICATIONS
SQ	SQUARE
SS	STAINLESS STEEL
STD	STANDARD
STL	STEEL
STOR	STORAGE
STRUCT	STRUCTURAL
SUSP	SUSPENDED
TB	TACK BOARD
TEL	TELEPHONE
TLT	TOILET
T.O.	TOP OF
TRTD	TREATED
TV	TELEVISION
TYP	TYPICAL
UNO	UNLESS NOTED OTHERWISE
UR	URINAL
VCT	VINYL COMPOSITION TILE
VERT	VERTICAL
VIF	VERIFY IN FIELD
VT	VINYL TILE
W/	WITH
W/O	WITHOUT
WB	WOOD BASE
WC	WATER CLOSET
WD	WOOD
WH	WATER HEATER
WP	WORKING POINT

SYMBOLS

(NOT ALL MAY APPLY)

- KEYED NOTE
- WINDOW OR GLAZED OPENING TAG
  IF WINDOW - W#
  IF STOREFRONT - SF#
  IF CURTAINWALL - CW#
- ACCESSORY TAG
- EQUIPMENT TAG
- FINISH TAG
- ROOM TAG (ROOM NAME)
- ELEVATION TAG - INTERIOR OR EXTERIOR (X / XXXX)
- SECTION CUT AT AREAS SHOWN SMALL SCALE (X / XXXX)
- ENLARGED PLAN (X/XXXX)
- ELEVATION TARGET. FINISHED FLOOR = 0'-0" UNO (XXX' - X" / XXX)
- REVISION (#)
- PLAN OR TRUE NORTH
- BATT INSULATION - WIDTH OF FRAMING UNO
- FE — FIRE EXTINGUISHER IN SEMI-RECESSED CABINET PROVIDED / INSTALLED BY GC
- FE — SURFACE MOUNTED FIRE EXTINGUISHER PROVIDED / INSTALLED BY GC
- 100 — DOOR WITH DOOR NUMBER
- WINDOW OR GLAZED OPENING
- STUD FRAMED WALL - REFER TO INDEX SHEET FOR INFORMATION
- CMU WALL - REFER TO SECTIONS AND DETAILS
- BRICK WALL - REFER TO SECTIONS AND DETAILS
- EIFS OVER SUBSTRATE - REFER TO SECTIONS FOR WIDTH AND PROFILE
- EXISTING DOOR - REFER TO DOOR SCHEDULE
- EXISTING FRAMED WALL
- EXISTING WINDOW WITH SILL AND / OR STOOL
- DEMO'D DOOR
- DEMO'D WALL
- W# / 12" — WALL TYPE
  WALL HEIGHT IF DESIGNATED ON PLANS. IF NOT, SEE WALL TYPES THIS SHEET



WALL TYPE GENERAL NOTES

A. NOTE: WALL HEIGHT AS MARKED ON PLANS IN CONJUNCTION WITH WALL TYPE SYMBOL WILL SUPERCEDE WALL HEIGHTS AS SHOWN ABOVE. SEE SYMBOLS LEGEND THIS SHEET.

B. PROVIDE DEEP LEG DEFLECTION TRACK AT TOP OF ALL METAL STUD WALLS WHERE STUDS EXTEND TO UNDERSIDE OF ROOF DECK OR STRUCTURE ABOVE.

C. USE MOLD AND MILDEW RESISTANT GYPSUM WALLBOARD ON ALL PLUMBING WALLS. USE 5/8" CEMENT BOARD INSTEAD OF GYP BOARD BEHIND ALL TILE FINISHES.

D. BRACE METAL STUD WALLS TO TOP OF STRUCTURAL STEEL ELEMENTS-ABOVE CEILING PLANE. COORDINATE REQUIRED BRACE SPACING WITH STRUCTURAL ENGINEER PRIOR TO BEGINNING CONSTRUCTION.

E. REFER TO ROOM FINISH SCHEDULE FOR ALL FINISH SELECTIONS; CEILING TYPES AND HEIGHTS; AND TYPES, SIZES AND LOCATIONS ETC.

F. ALL STUD WALLS CREATING A CONCEALED WALL SPACE TO HAVE FIREBLOCKING AT INTERVALS NOT EXCEEDING 10'-0" PER 718.2.2 IBC 2012

DRAWINGS

CURRAN
ARCHITECTURE
5719 LAWTON LOOP E. DR. #212
INDIANAPOLIS, IN 46216
O :: 317 . 288 . 0681
F :: 317 . 288 . 0753

CERTIFICATION

PROJECT INFORMATION

FIREHOUSE SUBS

FIREHOUSE SUBS
111 SE M291 HWY
STE. 100
LEES SUMMIT, MO 64081

ISSUE DATES

ISSUE	DATE
BID SET	11/13/20

190230

INDEX

A001

TYPICAL ADA INFO

WATER CLOSET: WATER CLOSETS SHALL BE 17" TO 19" AFF WHEN MEASURED TO THE TOP OF THE TOILET SEAT AND THE CENTER FOR THE FIXTURE SHALL BE 18" FROM ONE WALL WITH A CLEAR FLOOR SPACE OF 60" WIDE AND 59" DEEP FOR FLOOR MOUNT AND 56" DEEP FOR WALL MOUNT. FLUSH CONTROLS SHALL BE LOCATED ON THE OPEN SIDE OF THE WATER CLOSET.

SINK: SINK SHALL BE MOUNTED WITH THE RIM OR COUNTER NO HIGHER THAN 34" AFF PROVIDE A CLEARANCE OF AT LEAST 29" TO THE BOTTOM OF THE APRON WITH AN 8"X27" KNEE SPACE AND 6"X9" TOE SPACE. EXPOSED HOT WATER AND DRAIN PIPES UNDER SINKS SHALL BE INSULATED. FAUCETS SHALL BE LEVER-OPERATED, PUSH-TYPE AND MOTION SENSOR.

URINALS: URINALS SHALL BE STALL-TYPE OR WALL HUNG WITH THE RIM AT A MAXIMUM OF 17" AFF AND A 30" X 48" CLEAR FLOOR SPACE.

GRAB BARS: GRAB BARS SHALL BE 33" TO 36" AFF THE GRAB BAR BEHIND THE WATER CLOSET SHALL BE 36" LONG AND NO MORE THAN 6" OF OF THE SIDE WALL. THE SIDE WALL GRAB BAR SHALL BE 42" LONG AND 12" OFF THE BACK WALL.

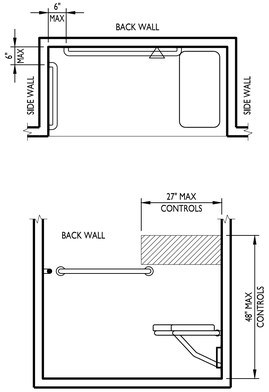
MIRROR: MIRRORS SHALL BE MOUNTED SO THE BOTTOM OF THE REFLECTING SURFACE IS NO MORE THAN 40" AFF.

PAPER TOWEL/DRYER: PAPER TOWEL/ DRYERS SHALL BE MOUNTED NO HIGHER THAN 48" AFF.

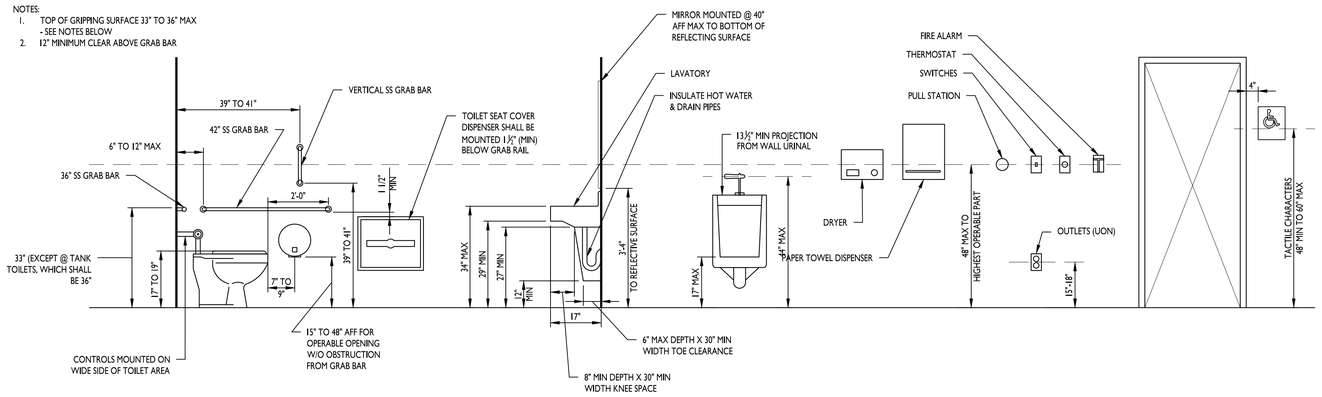
SOAP DISPENSER: SOAP DISPENSERS SHALL BE MOUNTED NO HIGHER THAN 48" AFF.

TOILET PAPER: TOILET PAPER DISPENSERS SHALL BE INSTALLED WITHIN 36" MAX OF THE BACK WALL.

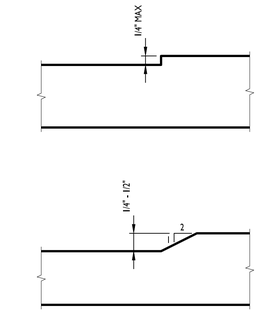
CURRAN
ARCHITECTURE
5719 LAWTON LOOP E. DR. #212
INDIANAPOLIS, IN 46216
O :: 317 . 288 . 0681
F :: 317 . 288 . 0753



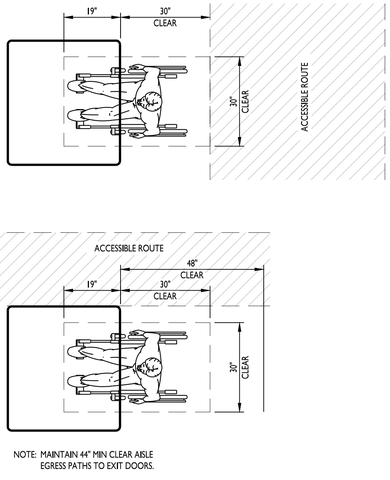
SHOWER STALL DIMENSIONS 8
1/2" = 1'-0"



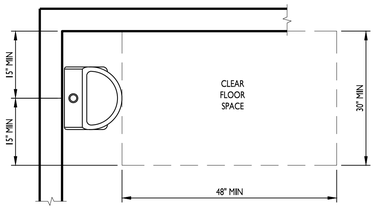
TYPICAL MOUNTING HEIGHTS 1
1/2" = 1'-0"



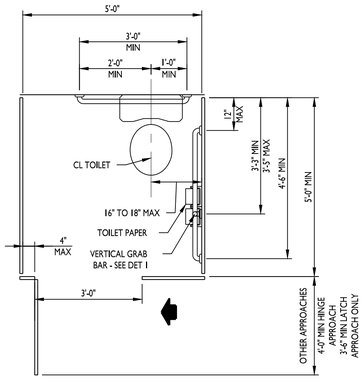
FLOOR TRANSITIONS 9
6" = 1'-0"



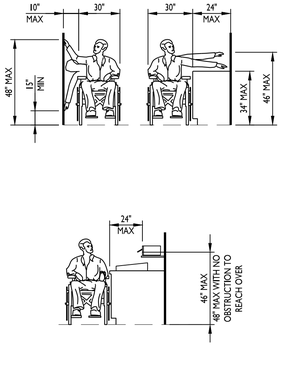
ACCESSIBLE ROUTES 6
1/2" = 1'-0"



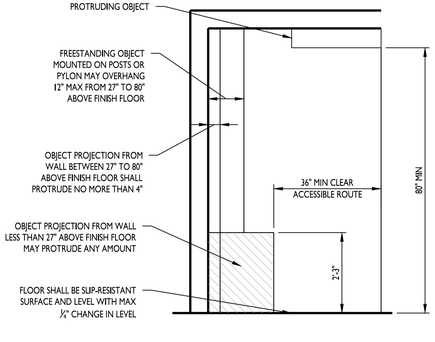
URINAL CLEAR SPACE 4
3/4" = 1'-0"



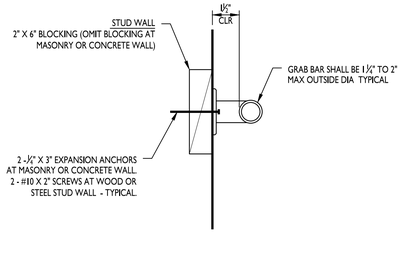
TOILET STALL DIMENSIONS 2
1/2" = 1'-0"



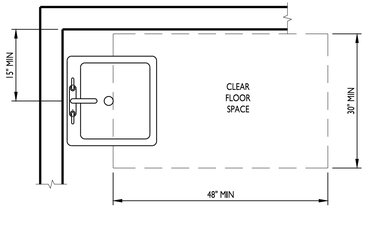
REACH RANGES 10
1/4" = 1'-0"



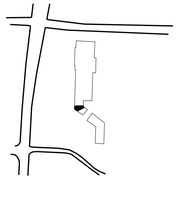
VERTICAL CLEARANCES 7
1/2" = 1'-0"



GRAB BAR DIMENSIONS 5
3" = 1'-0"



SINK CLEAR SPACE 3
3/4" = 1'-0"



CERTIFICATION

STATE OF MISSOURI · SHAWN M. CURRAN · NUMBER A-8207 · REGISTERED ARCHITECT

PROJECT INFORMATION

FIREHOUSE SUBS

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111 SE M291 HWY
STE. 100
LEES SUMMIT, MO 64081

ISSUE DATES

ISSUE	DATE
BID SET	11/13/20

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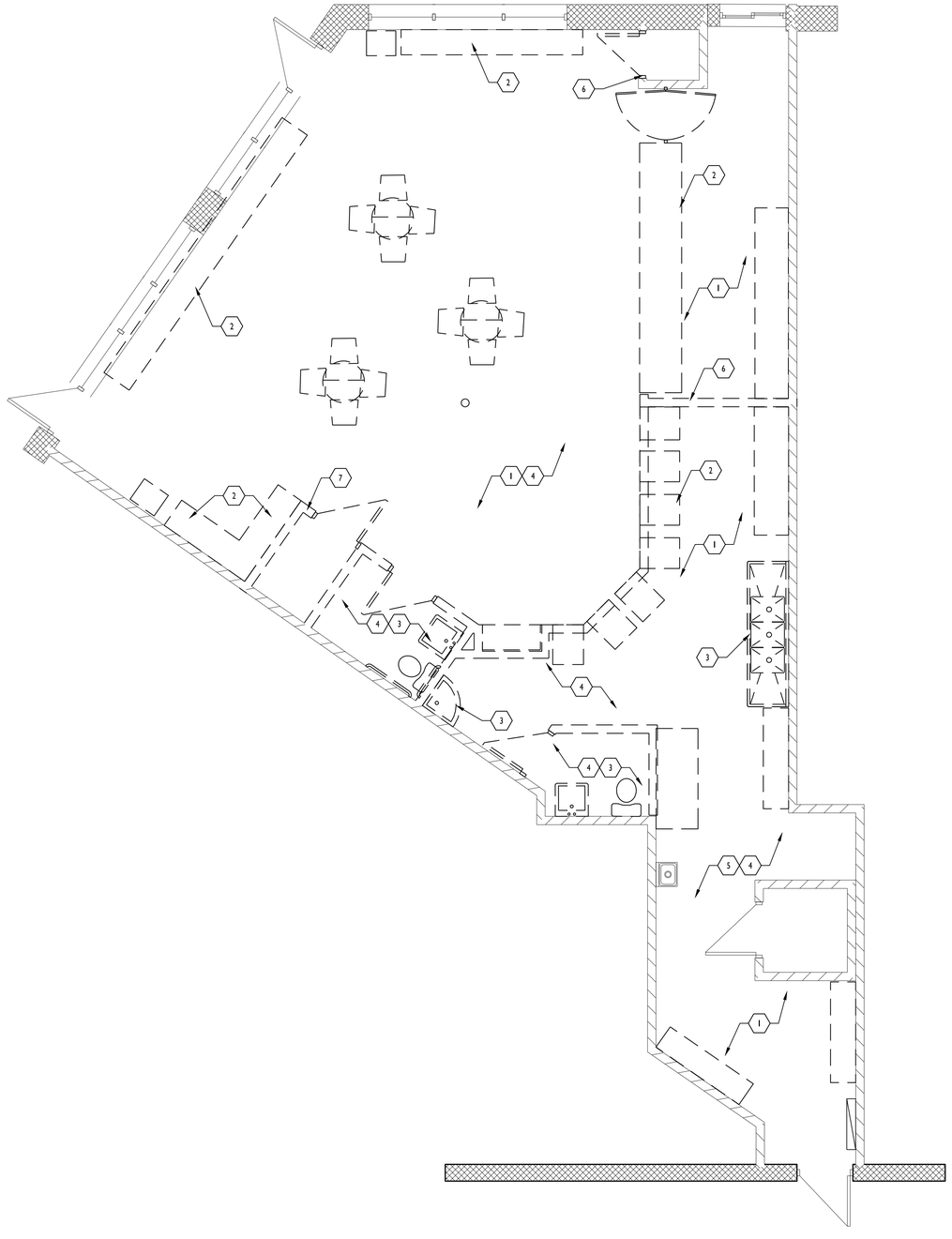
TYPICAL ACCESSIBILITY DETAILS

A002



DEMOLITION PLAN 1
1/4" = 1'-0"

N

GENERAL DEMO NOTES

A. DASHED LINES INDICATE EXISTING ITEMS TO BE REMOVED. UNLESS NOTED OTHERWISE CONTRACTOR SHALL BE RESPONSIBLE FOR THE OFF-SITE DISPOSAL OF ALL DEMOLITION ITEMS.

B. RELOCATED ITEMS SHALL BE CLEANED AND PLACED IN STORAGE, PER OWNERS DIRECTIONS UNTIL ITEMS ARE READY TO BE REINSTALLED. IF ITEM IS DAMAGED DURING DEMOLITION OR RELOCATION IT SHALL BE REPAIRED OR REPLACED WITH NEW ITEM AS APPROVED BY OWNER AT NO EXPENSE TO OWNER.

C. DEMOLITION SHALL BE DONE WITHOUT DAMAGE TO EXISTING CONSTRUCTION TO REMAIN. WHERE SUCH DAMAGE OCCURS PATCH, REPAIR, OR RESTORE WALLS, FLOORS, CEILINGS, ETC., TO MATCH EXISTING. PROVIDE SHORING, BRACING, OR SUPPORT AS REQUIRED TO PREVENT MOVEMENT OR SETTLEMENT OF EXISTING CONSTRUCTION.

D. CONTRACTOR SHALL BE RESPONSIBLE FOR THE COORDINATION OF DEMOLITION ITEMS WITH THE OTHER TRADES PRIOR TO THE START OF DEMO WORK.

E. REMOVE ALL EXISTING CONSTRUCTION, ITEMS AND FINISHES MADE OBSOLETE BY, OR IN CONFLICT WITH NEW CONSTRUCTION, VERIFY WITH ARCHITECT. REMOVE WIRING BACK TO SOURCE AT ALL OUTLETS ETC., MADE OBSOLETE BY WALL REMOVAL OR ANY OTHER NEW CONSTRUCTION.

F. WHERE EXISTING WALLS, BULKHEADS, OR FINISHES ARE REMOVED OR PARTIALLY DEMOLISHED, EACH TRADE SHALL BE RESPONSIBLE FOR PATCHING OR REFINISHING OF EXISTING CONSTRUCTION REQUIRED BY THAT TRADES WORK ON THIS PROJECT. THIS WORK MUST BE DONE IN A MANNER WHICH WILL ACCEPT NEW FINISHES.

G. ALL CONTRACTORS ARE RESPONSIBLE FOR REMOVAL AND REPLACEMENT OF CEILING GRID AND/OR TILES IN ANY AREA WHERE THEY NEED ACCESS AND THE EXISTING CEILING IS TO REMAIN. UNLESS OTHERWISE NOTED, CONTRACTOR SHALL REPLACE ANY CEILING TILES OR GRID DAMAGED IN THIS PROCESS.

H. AT THE OWNER'S REQUEST SALVAGED ITEMS SHALL BE TURNED OVER TO THE OWNER OR STORED IN AN AREA DESIGNATED BY THE OWNER.

I. DIMENSIONS SHOWN FOR EXISTING CONSTRUCTION TO BE DEMOLISHED ARE APPROXIMATE AND ARE INTENDED TO GIVE A GENERAL IDEA OF WORK TO BE REMOVED OR WORK TO BE TEMPORARILY REMOVED IN ORDER TO COMPLETE NEW CONSTRUCTION. COORDINATE DEMOLITION WORK WITH DESIGN INTENT OF NEW CONSTRUCTION TO PROVIDE ADEQUATE AREA FOR THIS WORK.

J. CONTRACTOR MUST FIELD VERIFY ALL AREAS AND/OR WORK TO BE DEMOLISHED PRIOR TO BEGINNING WORK. CONTRACTOR MUST COORDINATE WITH ARCHITECT ANY DIFFERENCES BETWEEN FIELD VERIFIED CONDITIONS AND/OR CONSTRUCTION, AND WHAT IS SHOWN ON DEMOLITION DRAWINGS.

K. PRIOR TO BEGINNING DEMOLITION, DUST CONTROL BARRIERS SHALL BE CONSTRUCTED TO PREVENT THE SPREAD OF DUST INTO SURROUNDING AREAS.

L. EXITING FROM STRUCTURE, IF REQUIRED TO PASS THROUGH DEMOLITION AREA(S), SHALL HAVE APPROVED BARRIERS ETC., TO INSURE SAFETY OF PUBLIC.

M. WHEN APPLICABLE, REFER TO STRUCTURAL, MECHANICAL, ELECTRICAL AND PLUMBING DEMO DRAWINGS FOR ADDITIONAL DEMOLITION REQUIREMENTS AND INFORMATION.

N. REMOVE AND REINSTALL ALL EQUIPMENT OR CONSTRUCTION ON WALLS REQUIRING NEW FINISHES.

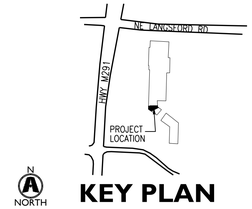
O. REFINISH ENTIRE SURFACES AS NECESSARY TO PROVIDE AN EVEN FINISH. REFINISH ENTIRE ASSEMBLIES. CONTINUOUS SURFACES WILL BE TAKEN TO THE NEAREST INTERSECTION.

P. REMOVE ALL DIRT, DUST, DEBRIS ETC., DAILY. DO NOT ALLOW REFUSE TO BLOCK CORRIDORS, STAIRS, OR ANY OTHER TRAFFIC AREA.

Q. ALL ABANDONED PLUMBING LINES TO BE CAPPED OFF AND TERMINATED BELOW FINISH FLOOR.

KEYED NOTES

1. DEMO CEILING AND BULKHEADS.
2. REMOVE EXISTING CABINET/ CASEWORK/ COUNTERS.
3. REMOVE EXISTING PLUMBING FIXTURES, CAP ALL LINES BELOW FLOOR.
4. REMOVE ALL CEILING, WALLS, FLOOR FINISHES THROUGHOUT.
5. REMOVE FLOOR FINISHES AND WALL FINISHES THROUGHOUT, PATCH AND REPAIR WALLS AS REQUIRED, TYPICAL ALL WALLS.
6. REMOVE EXISTING WALL & DOOR



N
NORTH

KEY PLAN

CURRAN
ARCHITECTURE
5719 LAWTON LOOP E. DR. #212
INDIANAPOLIS, IN 46216
O :: 317 . 288 . 0681
F :: 317 . 288 . 0753

CERTIFICATION

STATE OF MISSOURI
SHAWN M. CURRAN
NUMBER A-8207
REGISTERED ARCHITECT

PROJECT INFORMATION

FIREHOUSE SUBS

FIREHOUSE SUBS
111 SE M291 HWY
STE. 100
LEES SUMMIT, MO 64081

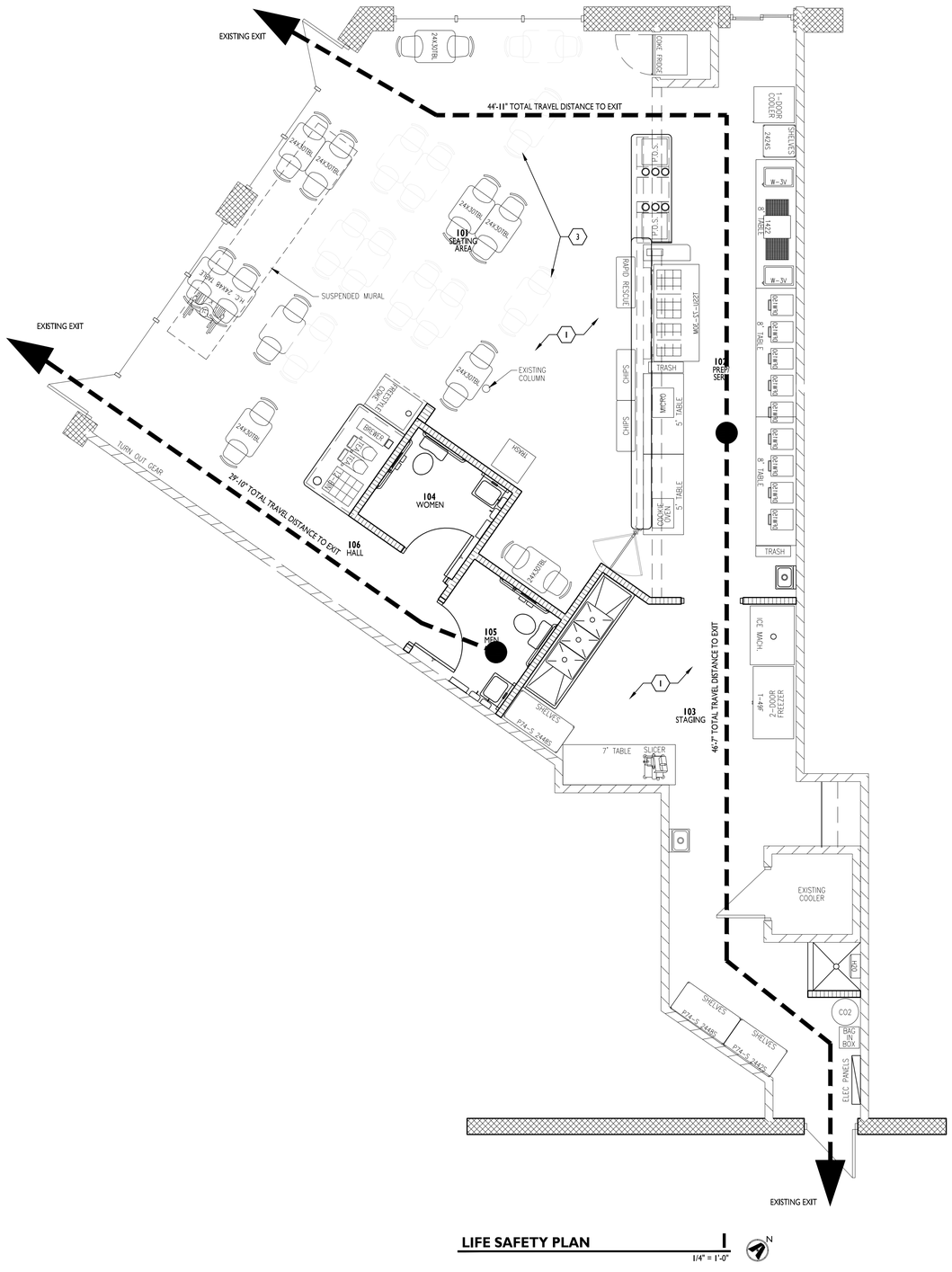
ISSUE DATES

ISSUE	DATE
BID SET	11/13/20

190230

DEMOLITION PLAN

D101



LIFE SAFETY PLAN

1/4" = 1'-0"

KEYED NOTES

1. SEE REFLECTED CEILING PLAN, SHEET A110, FOR EXIT SIGN LOCATIONS AND EMERGENCY LIGHTING. CONFIRM FINAL LOCATION WITH LOCAL OFFICIAL.
2. SEE SHEET A601 FOR DOOR AND LATCH INFORMATION.
3. TABLES SHOWN FOR SOCIAL DISTANCING PURPOSES. TABLES THAT ARE SUGGESTED CAN BE ADDED BACK ONCE SOCIAL DISTANCING IS NOT LONGER REQUIRED IN RESTAURANT SEATING

CODE ANALYSIS

APPLICABLE CODES

BUILDING CODE

2018 INTERNATIONAL BUILDING CODE

2018 INTERNATIONAL PLUMBING CODE

2018 INTERNATIONAL MECHANICAL CODE

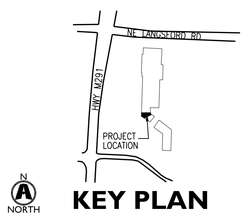
2018 INTERNATIONAL FUEL AND GAS CODE

2018 INTERNATIONAL FIRE CODE

2017 NATIONAL ELECTRICAL CODE

ICC/ANSI A117.1-2009, ACCESSIBLE AND USABLE BUILDINGS AND FACILITIES

OCCUPANCY (OVERALL BUILDING)	
CLASSIFICATION (302.1):	A-2, B, M
OCCUPANCY (TENANT SPACE)	
CLASSIFICATION (302.1):	A-2
ACCESSORY USES (508.2.1):	N/A
NON-SEPARATED USES (508.3.2):	N/A
SEPARATED USES (508.3.3):	N/A
CONSTRUCTION	
CLASSIFICATION (602)	II-B
AUTOMATIC SPRINKLER SYSTEM	
SPRINKLER SYSTEM REQUIRED (903):	YES
SPRINKLER SYSTEM PROVIDED:	YES
ALLOWABLE BUILDING HEIGHT	
TABULAR HEIGHT (503):	40'
ALLOWABLE BUILDING AREA	
TABULAR AREA (503):	9,500
BUILDING AREA INCREASE	
INCREASE FOR SPRINKLERED BUILDING (506.3):	300%
UNLIMITED AREA (507):	N/A
FRONTAGE INCREASE (506.2):	N/A
If = (F/P - .25) x W / 30	
TOTAL ALLOWABLE AREA WITH INCREASES:	28,500
As = At + (At x If) + (At x Is)	
As = FILL IN	
ACTUAL BUILDING HEIGHT AND AREA	
BUILDING AREA:	EXISTING
BUILDING HEIGHT (FEET / # FLOORS):	23' / 1 STORY
TABULAR OCCUPANT LOAD (1004.1.2)	
OCCUPANT LOAD FACTOR:	1 / 15
ACTUAL OCCUPANT LOAD (1004.1.2)	
RESTAURANT: 1 / 15 (763 SF/15)	51
KITCHEN: 1 / 200 (646 SF/200)	4
TOTAL OCCUPANTS:	55
INTERIOR WALL AND CEILING FINISH REQUIREMENTS (803)	
SEE FINISH SCHEDULE FOR MATERIALS	
ALL MATERIALS ARE CLASS A RATED	
FIRE PROTECTION SYSTEMS	
STANDPIPE SYSTEM (905):	N/A
PORTABLE FIRE EXTINGUISHERS (906.1):	SEE PLANS
FIRE ALARM AND DETECTION SYSTEMS (907):	SEE PLANS
SMOKE CONTROL SYSTEMS (909):	SEE PLANS
SMOKE AND HEAT VENTS (910):	N/A
EGRESS	
MINIMUM WIDTH FACTOR (1005.1):	0.2" PER/OCC
REQUIRED MINIMUM WIDTH FROM SPACE (1005.1):	11"
MINIMUM NUMBER OF EXITS (1015):	2
ACTUAL NUMBER OF EXITS:	3
ACTUAL WIDTH OF EXITS:	108"
ALLOWABLE TRAVEL DISTANCE (1016.2):	250'
CORRIDOR CONSTRUCTION (1018.1):	NOT RATED
MINIMUM CORRIDOR WIDTH (1018.2):	44"
MAXIMUM DEAD END CORRIDOR (1018.4):	75'



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NORTH

CURRAN
ARCHITECTURE
5719 LAWTON LOOP E. DR. #212
INDIANAPOLIS, IN 46216
O :: 317 . 288 . 0681
F :: 317 . 288 . 0753

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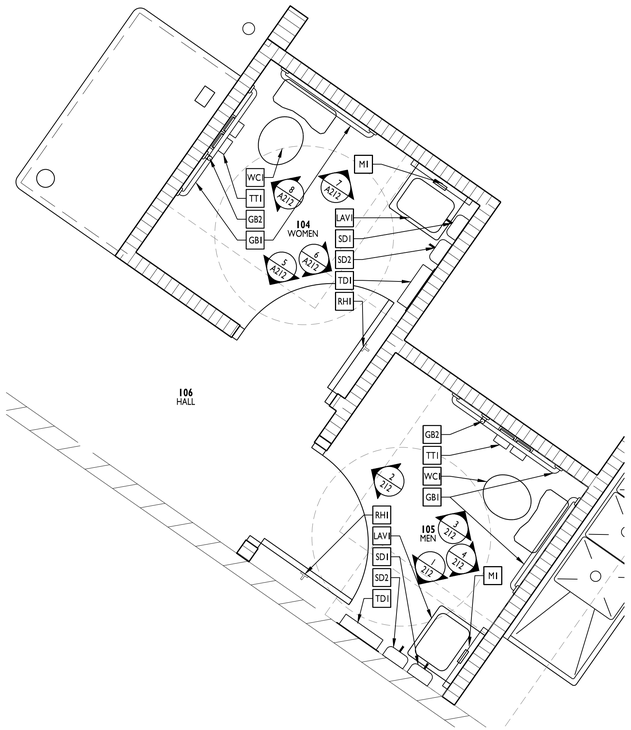
LIFE SAFETY PLAN

A100

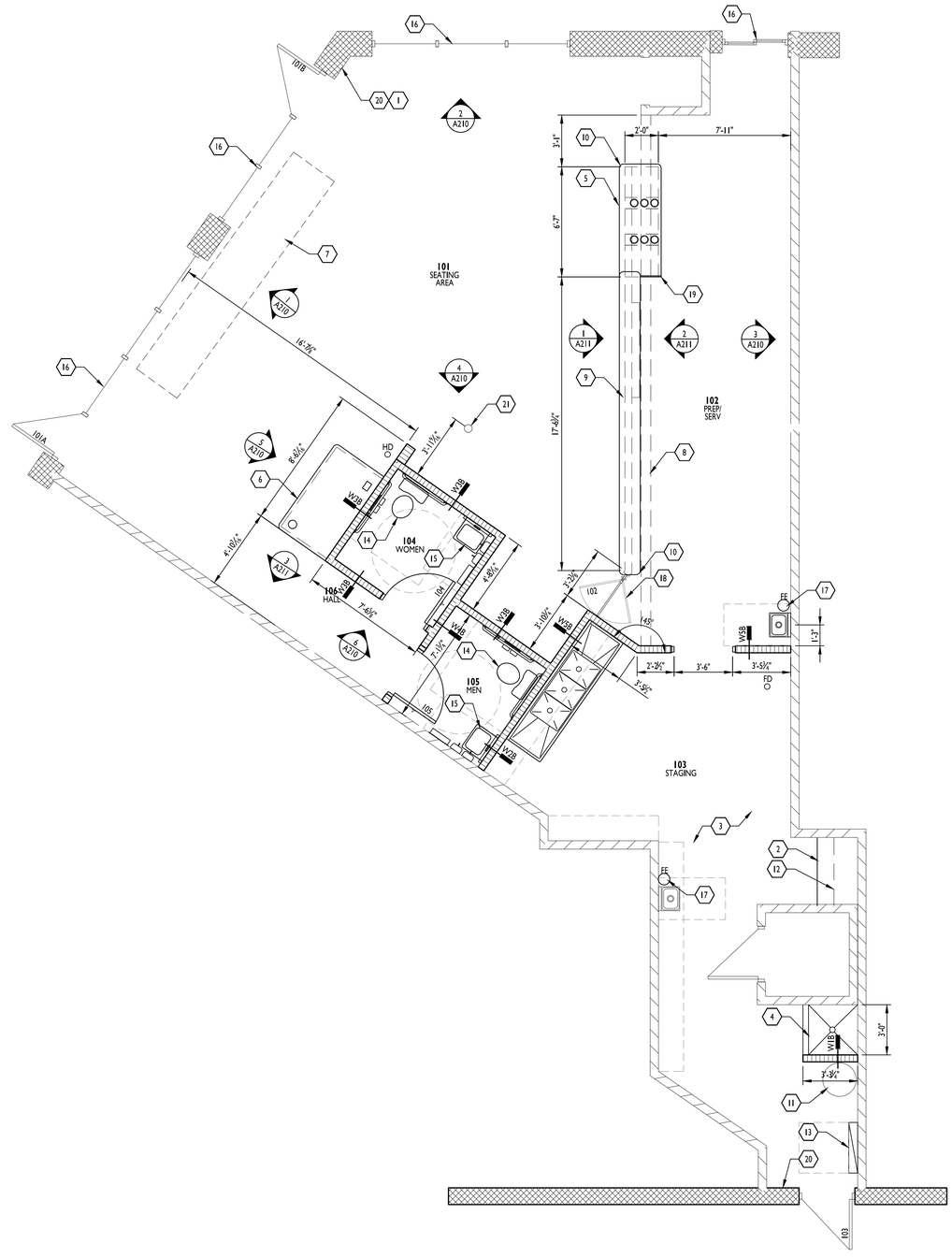


ENLARGED RESTROOM PLAN **2**

1/2" = 1'-0"

TOILET ACCESSORY LEGEND

MARK	SYMBOL	MODEL #	DESCRIPTION
TT1		BY VENDOR	MULTI-ROLL TOILET TISSUE DISPENSER
GB1		BOBRICK #B5806	36" AND 42" GRAB BARS FOR TOILET
GB2		BOBRICK # B-812 X 18	INCLUDE 18" VERTICAL GRAB BAR
M1		BOBRICK #B-165	MIRROR
TD1		BY VENDOR (OPTIONAL) HAND DRYER EXCEL MODEL XL-SI ELERATOR	TOWEL DISPENSER (OPTIONAL) HAND DRYER W/ SPECIAL IMAGE COVER. 1 PER RESTROOM.
SD1		BY VENDOR	SOAP DISPENSER
SD2		BY VENDOR	HAND SANITIZER PROVIDED BY TENANT, INSTALLED BY GC
ND1		BOBRICK #B-353 OR #B-270	SANITARY NAPKIN DISPOSAL UNIT AT GWB LOCATIONS SURFACE MOUNT SANITARY NAPKIN DISPOSAL UNIT AT PARTITIONS
MH1		BOBRICK #B-239X34	SHELF WITH MOP AND BROOM HOLDERS. IF APPLICABLE, MOUNT ITEM SO MOPS ETC. DO NOT INTERFERE WITH FLOOR SINK.
RH1		HOUSE OF ANTIQUE HARDWARE #R-010JW-419	IRON HARNESS DOUBLE HOOK WITH LACQUER FINISH. MOUNT 48" AFF, MAX.
CH1		KOALA	SURFACE MOUNTED VERTICAL BABY CHANGING STATION
LAV1		PROFLO LAVATORY: PF5518WH FAUCET: PFWS1002M	ADA COMPLIANT WHITE VITREOUS CHINA WALL HUNG LAVATORY WITH TWO-HANDLE FAUCET, OR APPROVED EQUAL
WC1		PROFLO BOWL: PF1603PAWH TANK: PF1612PAWH	ADA COMPLIANT WHITE VITREOUS CHINA HIGH EFFICIENCY PRESSURE ASSISTED 1.0 GPF, OR APPROVED EQUAL



FLOOR PLAN **1**

1/4" = 1'-0"

GENERAL NOTES

A. CONTRACTOR SHALL BE RESPONSIBLE FOR VERIFICATION OF ALL DIMENSIONS AND JOB CONDITIONS. ANY DEVIATION FROM WHAT IS NOTED IN DRAWINGS SHALL BE BROUGHT TO THE ATTENTION OF THE ARCHITECT IMMEDIATELY.

B. ALL DIMENSIONS SHOWN ARE FACE OF BRICK, MASONRY OR METAL STUD FRAMING, UNLESS NOTED OTHERWISE.

C. PROVIDE DEEP LEG DEFLECTION TRACK AT ALL METAL STUD CONNECTIONS WITH STRUCTURE ABOVE, TYPICAL.

D. PROVIDE FIRE RATED WOOD BLOCKING IN METAL STUD WALLS FOR ANY WALL SUPPORTED ITEMS.

E. PROVIDE APPROVED FIRE RATED STOPPING MATERIALS IN ANY OPENINGS IN FIRE RATED ASSEMBLIES.

F. REFER TO DOOR SCHEDULE FOR ALL MATERIALS, FINISHES AND HARDWARE INFORMATION.

G. REFER TO EXTERIOR ELEVATIONS FOR ALL BRICK MASONRY AND OTHER EXPANSION JOINT LOCATIONS.

H. ALL MATERIALS LOCATED IN CEILING PLENUM SHALL BE RATED FOR SUCH INSTALLATION OR PROTECTED TO PROVIDE COMPLIANCE. THIS INCLUDES BUT IS NOT LIMITED TO INSULATION (FHC 25/50) POWER AND LOW VOLTAGE WIRING, TELECOMMUNICATIONS CABLING, PLUMBING SUPPLY AND DRAIN LINES AND SUPPORTING BRACKETS AND/OR BLOCKING FOR CEILING HUNG ITEMS.

I. PRIOR TO ORDERING ANY PRODUCTS, CONTRACTOR SHALL SUBMIT SAMPLES TO THE ARCHITECT OF ALL FINISH MATERIALS TO BE USED ON THE PROJECT. THE CONTRACTOR SHALL BEAR SOLE RESPONSIBILITY FOR ANY MATERIALS ORDERED INCORRECTLY WHEN THAT MATERIAL WAS NOT REVIEWED BY THE ARCHITECT.

J. PROVIDE CONCRETE FILLED STEEL PIPE BOLLARDS AT ALL REQUIRED UTILITY EQUIPMENT LOCATIONS SUCH AS GAS METERS, ELECTRICAL TRANSFORMERS, PANELS, ETC. COORDINATE WITH UTILITY COMPANY AND CONTRACTORS, WHEN APPLICABLE, FOR NECESSARY LOCATIONS. REFER TO CIVIL DRAWINGS FOR BOLLARD SPECIFICATIONS AND ADDITIONAL INFORMATION.

K. ALL DOORS, UNLESS OTHERWISE NOTED, TO HAVE HINGE SIDE SET 4" FROM CORNER SHOWN TO OUTSIDE OF FRAME.

L. UNLESS SPECIFIED ELSEWHERE, ALL INTERIOR SLABS AND SLAB INFILLS TO BE FF-50/FL-35 OVERALL AND FF-35/FL-25 LOCAL.

M. ALL EXIT DOORS TO HAVE TACTILE EXIT SIGNAGE PER 703.4 OF THE ANSI 117.1 2009

KEYED NOTES

1. PROVIDE AND INSTALL OCCUPANT LOAD SIGNAGE PER 2018 IBC. COORDINATE EXACT LOCATION NEAR MAIN EXIT OR EXIT ACCESS DOORWAYS. CONFIRM WITH LOCAL FIRE DEPARTMENT PRIOR TO INSTALLATION.
2. PLASTIC LAMINATE MANAGER'S DESK, SEE 9/A212.
3. PROVIDE FIRE RATED PLYWOOD IN LIEU OF GYPSUM BOARD ON ALL WALLS IN ROOM '103 STAGING', TO BE USED AS BLOCKING FOR ALL APPLICABLE EQUIPMENT.
4. MOP SINK CONSTRUCTED WITH SHOWER DAM COVERED WITH QUARRY TILE FLOORING AND WALLS UP TO 5'-0" AFF. PROVIDE 4" TALL X 4" WIDE CURB AT FRONT SIDE OF SINK. PROVIDE SS REDUCED PRESSURE ZONE ASSEMBLY.
5. PLASTIC LAMINATE CASH REGISTER COUNTER, SEE DETAILS.
6. PLASTIC LAMINATE DRINK CABINET WITH STAINLESS STEEL TOP AND DIAMOND PLATE DOORS, SEE 9/A502.
7. CEILING HUNG MURAL, SEE INTERIOR ELEVATIONS AND DETAILS 2/A502 FOR ADDITIONAL INFORMATION. MURAL PROVIDED BY TENANT, INSTALLED BY CONTRACTOR.
8. 3-5/8" STUD AND GWB DROP SOFFIT. SEE REFLECTED CEILING PLAN A110
9. PLASTIC LAMINATE FRONT COUNTER ON PARTIAL HEIGHT WALL, SEE DETAILS. PROVIDE FRP ON UNDERSIDE OF COUNTERTOP.
10. 3" RADIUS, TYPICAL.
11. CO2 TANK BY VENDOR, COORDINATE LOCATION WITH VENDOR.
12. MELAMINE SHELVES ON HEAVY DUTY ADJUSTABLE BRACKETS. SEE DETAIL 8/A501.
13. 42 CIRCUIT ELECTRICAL PANELS. PAINT SAFETY RED (P-1). SEE ELECTRICAL PLANS FOR ADDITIONAL INFORMATION.
14. NEW ADA COMPLIANT LAVATORY, SEE TOILET ACCESSORY LEGEND FOR ADDITIONAL INFORMATION.
15. NEW ADA COMPLIANT TOILET, SEE TOILET ACCESSORY LEGEND FOR ADDITIONAL INFORMATION.
16. EXISTING STOREFRONT DOORS AND WINDOWS.
17. TYPE 2A-10BC FIRE EXTINGUISHERS MOUNTED BETWEEN 3'-0" AND 4'-0" ABOVE FINISH FLOOR. VERIFY LOCATIONS WITH LOCAL FIRE OFFICIAL.
18. ELIASON P-11 PLUS GATE. FINISH TO BE ORDERED RED. POST HEIGHT TO BE 48".
19. PROVIDE PLASTIC LAMINATE END PANEL AT END OF POS COUNTER UP TO TOP OF HIGH COUNTER. SEE FIXTURE DETAIL SHEETS FOR PROFILE. FINISH TO MATCH COUNTERTOP.
20. TACTILE EXIT SIGN SHALL BE SUPPLIED AND MOUNTED IN ACCORDANCE WITH 703.3.11 ANSI A117.1 AND IBC SECTION 1011.4
21. GRIND POLE SMOOTH, PAINT SAFETY RED P-1.

N NORTH **KEY PLAN**

CURRAN
ARCHITECTURE
5719 LAWTON LOOP E. DR. #212
INDIANAPOLIS, IN 46216
O :: 317 . 288 . 0681
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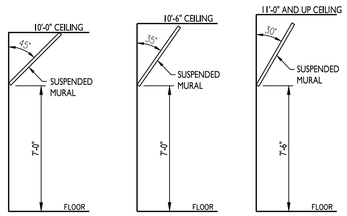
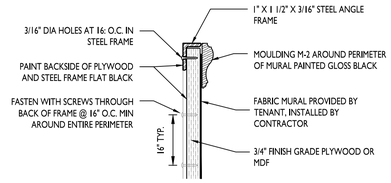
FLOOR PLAN & ENLARGED RESTROOM PLAN

A101



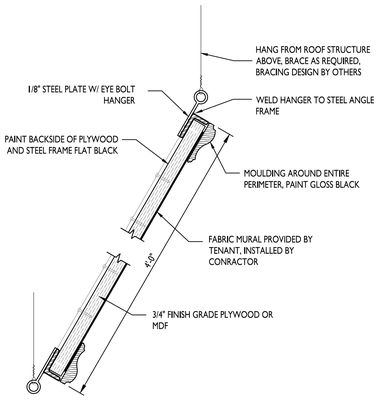
MURAL HANGING DIAGRAM 2

1/4" = 1'-0"



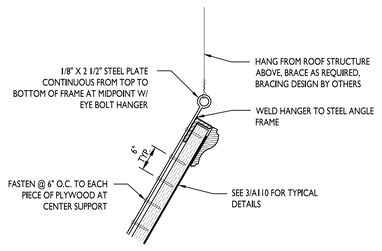
MURAL EDGE DETAIL 3

3" = 1'-0"



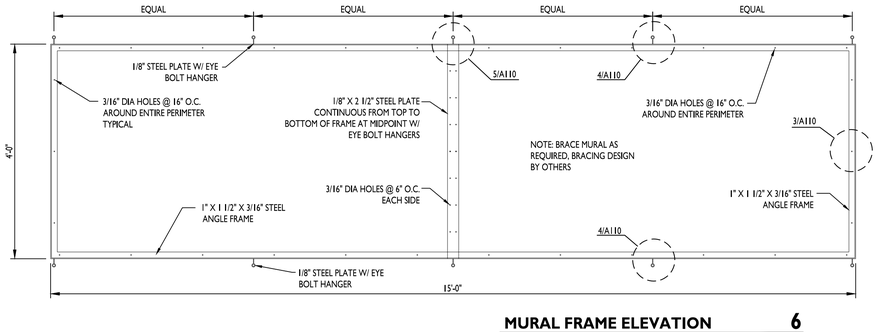
MURAL HANGER DETAIL 4

3" = 1'-0"



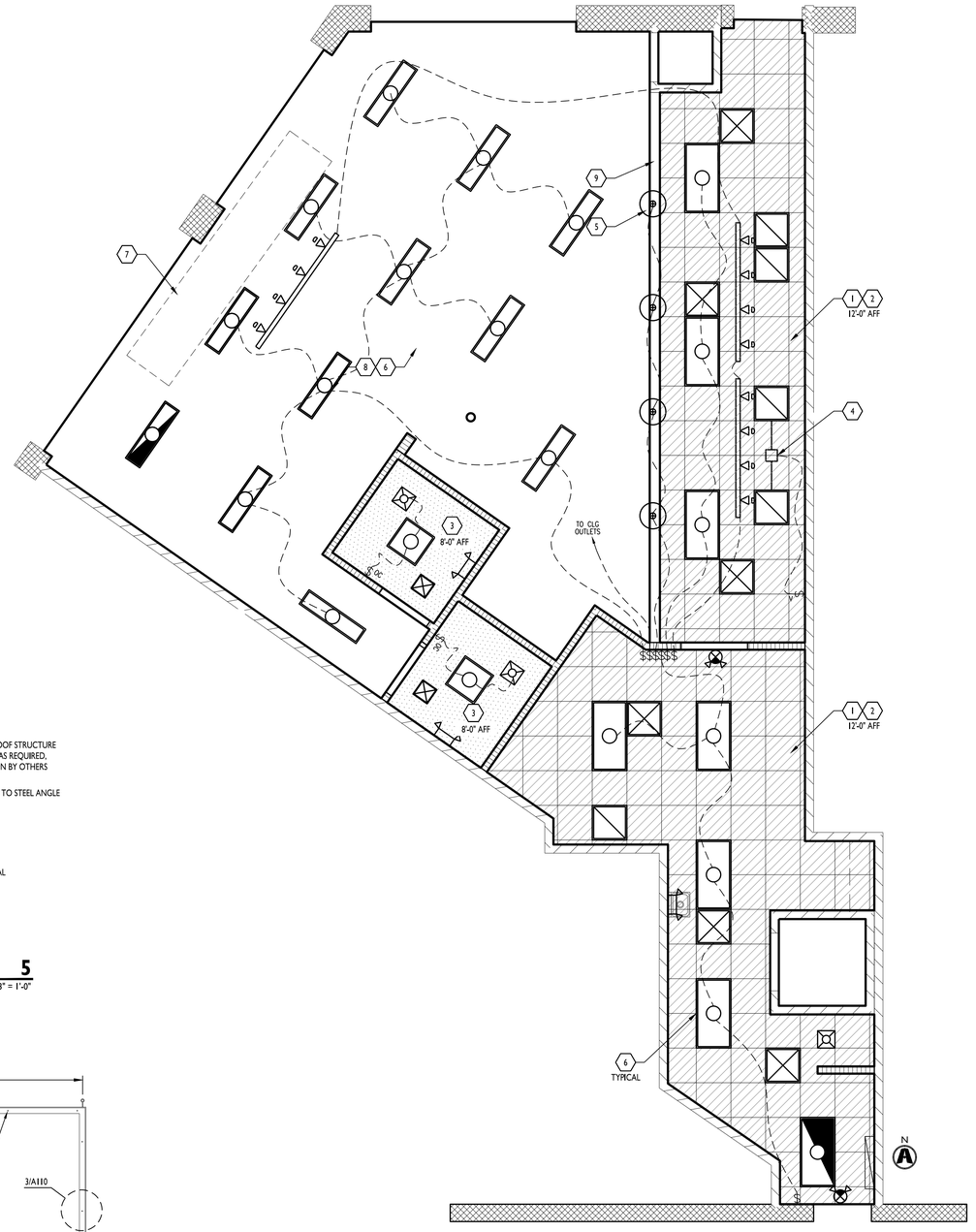
MURAL HANGER DETAIL 5

3" = 1'-0"



MURAL FRAME ELEVATION 6

3/4" = 1'-0"



REFLECTED CEILING PLAN 1

1/4" = 1'-0"

GENERAL NOTES

A. ALL LAMPS IN THE FOOD PREP ARES SHALL BE SHIELDED AND/OR SHATTERPROOF. VERIFY EXACT REQUIREMENTS WITH LOCAL HEALTH DEPARTMENT.

B. CIRCUIT DESIGNATIONS AND SWITCHING ARE SHOWN FOR REFERENCE ONLY. SEE ELECTRICAL DRAWINGS FOR ADDITIONAL INFORMATION.

C. ARCHITECTURAL CEILING PLAN TAKES PRECEDENCE OVER ELECTRICAL PLANS WITH REGARD TO LIGHT FIXTURE QUANTITY AND LOCATIONS. PLEASE CONTACT ARCHITECT WITH ANY QUESTIONS REGARDING LIGHT PLACEMENT OR QUANTITIES.

D. CONTRACTOR SHALL BE RESPONSIBLE FOR RELOCATING EXISTING SPRINKLER HEADS AS REQUIRED TO ACCOMMODATE NEW LAYOUT. SPRINKLER CONTRACTOR SHALL PROVIDE ALL REQUIRED DRAWINGS FOR LOCAL JURISDICTIONAL REVIEW AND APPROVAL.

E. ENTRY AREA NOTE: ALL DUCTWORK IN THE ENTRY AREA SHALL BE EXPOSED (MIN 26 GAGE) SPIRAL WOUND GALVANIZED DUCTWORK - PRIMED & PAINTED RED. BOT OF DUCTWORK VARIES PER LOCATION.

KEYED NOTES

1. ACOUSTICAL TILE CEILING AREA DENOTED WITH HATCH PATTERN IS TO BE ACT-2. REMAINDER OF ACOUSTICAL TILE CEILING TO BE ACT-1.
2. 2X2 LAY-IN CEILING.
3. GYPSUM CEILING.
4. EXHAUST FAN WIRED TO VARIABLE SPEED SWITCH IN LOCATION AS SHOWN. SEE MECHANICAL DRAWINGS FOR FAN SIZE AND CIRCUIT DESIGNATIONS.
5. THIS LIGHT TO BE CENTERED ON POS COUNTER.
6. GENERAL LIGHTING SHALL BE ON DIMMERS AND CIRCUITED SEPARATELY FROM ACCENT LIGHTING .
7. CEILING MOUNTED MURAL, SEE INTERIOR ELEVATIONS AND DETAILS THIS SHEET FOR ADDITIONAL INFORMATION. MURAL PROVIDED BY TENANT, INSTALLED BY CONTRACTOR.
8. OPEN TO STRUCTURE, PAINT CEILING AND STRUCTURE BLACK, PAINT EXPOSED DUCTWORK SAFETY RED P-1.
9. 3-5/8" STUD AND GWB SOFFIT. BOTTOM TO BE @ 9'-0" A.F.F.

CEILING LEGEND

(NOT ALL MAY APPLY)

- 2X4 FLAT PANEL LIGHT - LED. SEE ELECTRICAL DRAWINGS FOR ADDITIONAL INFO.
- DENOTES LIGHT FIXTURE WIRED TO 24 HOUR CIRCUIT (NIGHT LIGHT)
- 2X2 FLAT PANEL LIGHT - LED. SEE ELECTRICAL DRAWINGS FOR ADDITIONAL INFO.
- 1X4 HIGHBAY SUSPENDED VIA AIR CRAFT CABLE AND GRIPPLE TYPE CONNECTORS, BOTTOM AT 12'-0" AFF. SEE ELECTRICAL DRAWINGS FOR ADDITIONAL INFO.
- PENDANT HUNG LIGHT FIXTURE. CENTER ON COUNTER OR AS SHOWN. MOUNT WITH BOTTOM OF FIXTURE AT 7'-2" AFF, COORDINATE W/ MANUFACTURER FOR REQUIRED CORD LENGTH.
- SURFACE MOUNTED LIGHT FIXTURE.
- TRACK LIGHT - LED. BLACK SINGLE CIRCUIT TRACK WITH BLACK CYLINDER LIGHT. SEE ELECTRICAL DRAWINGS FOR LENGTH AND ADDITIONAL INFO.
- FLUORESCENT CAN LIGHT WITH WHITE TRIM RING AND CLEAR ALZAK REFLECTOR. SEE ELECTRICAL DRAWINGS FOR ADDITIONAL INFO.
- WALL MOUNTED EMERGENCY LIGHT WITH BATTERY BACKUP. SEE ELECTRICAL DRAWINGS FOR ADDITIONAL INFO.
- EXTERIOR EMERGENCY EXIT LIGHT. FEED FROM EXIT SIGN INSIDE SPACE. SEE ELECTRICAL DRAWINGS FOR ADDITIONAL INFO.
- WALL OR CEILING MOUNTED EXIT SIGN WITH BATTERY BACKUP. SEE ELECTRICAL DRAWINGS FOR ADDITIONAL INFO.
- EMERGENCY EXIT SIGN WITH BATTERY BACKUP AND EMERGENCY LIGHTS. SEE ELECTRICAL DRAWINGS FOR ADDITIONAL INFO.
- EXHAUST FAN DUCTED TO EXTERIOR. SEE MECHANICAL PLANS FOR ADDITIONAL INFO.
- ACOUSTICAL TILE CEILING / GRID. REFER TO FINISH SCHEDULE.
- GYPSUM BOARD BULKHEAD OR CEILING. HEIGHT AS NOTED ON SCHEDULE OR KEYNOTES.
- DIFFUSER - SUPPLY. SEE MECHANICAL DRAWINGS FOR ADDITIONAL INFO.
- DIFFUSER - RETURN. SEE MECHANICAL DRAWINGS FOR ADDITIONAL INFO.
- $ WALL MOUNTED LIGHT SWITCH
  3 = 3 WAY SWITCH
  4 = 4 WAY SWITCH
  OC = MOTION ACTIVATED OCCUPANCY SENSOR

KEY PLAN

CURRAN
ARCHITECTURE
5719 LAWTON LOOP E. DR. #212
INDIANAPOLIS, IN 46216
O :: 317 . 288 . 0681
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REFLECTED CEILING PLAN

A110

EQUIPMENT SCHEDULE

MARK	DESCRIPTION	MANUFACTURER	MODEL NUMBER	UTILITY REQUIREMENTS	NOTES
101	48" REFRIGERATED SANDWICH UNIT	TRUE FOOD SERVICE	TSSU-48-18M8	115V-60Hz, 1 PHASE, 8.6A, 1/3 HP, NEMA 5-20P	-
102	72" REFRIGERATED SANDWICH UNIT	TRUE FOOD SERVICE	TSSU-72-30M8	115V-60Hz, 1 PHASE 15.0A, NEMA 5-15	--
103	36" SS WORK TABLE	EAGLE	T3036SB	--	--
104	48" SS WORK TABLE	EAGLE	T3048SB	-	-
105	60" SS WORK TABLE	EAGLE	T3060SB	--	--
106	72" SS WORK TABLE	EAGLE	T3072SB	--	--
107	84" SS WORK TABLE	EAGLE	T3084SB	--	--
108	96" SS WORK TABLE	EAGLE	T3096SB	--	--
109	1 DOOR REACH-IN COOLER	TRUE	T-23	115V-60Hz, 1 PHASE, 7.6A, 1/3 HP, NEMA 5-15	--
110	3 DOOR REACH-IN COOLER	TRUE	T-72	115V-60Hz, 1 PHASE, 9.6A, 1/2 HP, NEMA 5-15	--
111	1 DOOR REACH-IN FREEZER	ARCTIC AIR	AF-23	115V-60Hz, 1 PHASE, 7.2A, 1/3 HP, NEMA 5-15	--
112	2 DOOR REACH-IN FREEZER	TRUE	T-49F	115V-60Hz, 1 PHASE, 11.0A, 3/4 HP, NEMA 5-15P	--
113	WALK-IN COOLER	BY VENDOR	--	--	--
114	24" x 24" WIRE SHELVING	B&J	LGS2424 (SHELF) LGP74 (POSTS)	--	--
115	24" x 36" WIRE SHELVING	B&J	LGS2436 (SHELF) LGP74 (POSTS)	--	--
116	24" x 42" WIRE SHELVING	B&J	LGS2442 (SHELF) LGP74 (POSTS)	--	--
117	24" x 48" WIRE SHELVING	B&J	LGS2448 (SHELF) LGP74 (POSTS)	--	--
118	24" x 60" WIRE SHELVING	B&J	LGS2460 (SHELF) LGP74 (POSTS)	--	--
119	TOASTER	HOLMAN	314HXETB	208V, SINGLE PHASE, 26.4/15.2A, 5400W NEMA 6-50P	--
120	STEAMER	ANTUNES	DFW150 - FHS PART# 9100169	208V, SINGLE PHASE, 60Hz, 1800W, 15A	8, 9
121	FOOD WARMER	NEMCO	6055A	120V,1200W,10.0A	--
122	SLICER	BIZERBA	GSP HD	120V/6.6A	--
123	FREESTYLE COKE MACHINE	BY VENDOR	--	PROVIDE ROUGH-IN ONLY FOR FUTURE INSTALLATION	3
124	COFFEE/TEA BREWER	BY VENDOR	ITCB	COORDINATE WITH VENDOR	12
125	COOKIE OVEN	CADCO	OV-003	120V,12.5A,1500W,NEMA5-15P	--
126	MICROWAVE	PANASONIC	NE1022	115V-60Hz, 1 PHASE, 15.0A, NEMA 5-15P	--
127	MOBILE SLICER TABLE	DELI PRO	DP-B4-4-GCW	AVAILABLE THROUGH BIZERBA	--
128	TRASH RECEPTACLES	BY VENDOR	--	--	--
129	ICE MAKER	HOSHIZAKI	KM-901MAH	208/230/60/1MCA:16.0 VERIFY W/ PLUMBING REQ.	--
130	SYRUP RACK AND PUMP	BY VENDOR	--	--	3, 4, 12
131	CO2 BOTTLE	BY VENDOR	--	--	2, 3, 5
132	WATER HEATER	SEE PLUMBING DRAWINGS	--	SEE PLUMBING DRAWINGS	6
133	REMOTE PRINTER	BY VENDOR	--	2.5A / DATA PROVIDED THRU CASH REGISTER	--
134	PRINTER SHELF	BY GENERAL CONTRACTOR	--	--	15
135	18" DEEP WALL MOUNTED SHELVES	ADVANCE TABCO	--	GREEN EPOXY COATED	14
136	1 COMPARTMENT SINK	JOHN BOOS	E1S18-1215 18	1/2"CW & HW, 3" DRAIN	--
137	3 COMPARTMENT SINK	JOHN BOOS	E3S8-1824-14-T24	1/2"CW & HW, 3" DRAIN	7
138	HAND SINK W/ SPLASH GUARD EACH SIDE AND FAUCET	JOHN BOOS	PBHS-W-1410-P-SSLR	1/2" CW & HW, 2" DRAIN	--
139	GREASE TRAP	TBD	TBD	--	7
140	CARBON MONOXIDE SENSOR	PROVIDED BY GENERAL CONTRACTOR	C0910	--	SEE A110 FOR MORE INFO
141	HAND DRYER W/ SPECIAL IMAGE COVER	EXCEL	XL-SI XLERATOR	1500 WATTS-SEE MFR SPEC. SHEETS	OPTIONAL, SEE SHEET A101
142	BEVERAGE CENTER	BY GENERAL CONTRACTOR	SEE 7/A502	--	--
143	MENU BOARDS	BY VENDOR	--	--	--
144	CASH REGISTER	BY VENDOR	--	COORDINATE WITH VENDOR	--
145	CUP DISPENSER (ONE SIZE FITS ALL)	SAN JAMAR	C2410C	--	--
146	MOBILE CHIP RACK	BY VENDOR	30X24X60	--	--
147	SS HOT SAUCE RACK	B&J	3-TIER	VERIFY W/ FRANCHISEE	10, 11 SEE ALTERNATE
148	ICE & WATER DISPENSER	LANCER	ID 4400	115V/60Hz/1PH 3/8" COLD WATER	--
149	TEA DISPENSERS	BY VENDOR	--	--	--
150	CHAIR	BY VENDOR	--	--	--
151	BAR STOOLS	B&J	--	RED BAR STOOL FRAME	--
152	24X30 TABLE	BY VENDOR	--	--	--
153	24X48 TABLE (ADA ACCESSIBLE)	BY VENDOR	--	--	--
154	COKE FRIDGE	BY VENDOR	--	--	--

EQUIPMENT NOTES:

1. PURCHASED AND INSTALLED BY PLUMING CONTRACTOR - HOOK UP TO NEW PLUMBING AND VERIFY PROPER WORKING ORDER.

2. PROVIDE SERVICEABLE METAL HOLD DOWN STRAP FOR CO2 BOTTLE.

3. PROVIDE 4" DIAMETER PVC PIPING SYSTEM FROM BAG-IN-BOX TO COKE FREESTYLE MACHINE. ROUTE THROUGH WALL INTO CABINET

4. VERIFY SIZE WITH VENDOR, RACK SIZE TO ENSURE PROPER SPACE ALLOCATION.

5. VERIFY WITH FRANCHISEE FOR EXACT CO2 SYSTEM INSTALLATION AND OPERATION REQUIREMENTS.

6. PURCHASED AND INSTALLED BY PLUMBING CONTRACTOR PROVIDE OVERFLOW PAN (APPLICABLE FOR TANK TYPE ONLY) AND DRAIN SYSTEM (APPLICABLE TO TANK OR TANKLESS).

7. GREASE INTERCEPTOR CAPACITY CALCULATION:
   3 COMPARTMENT SINK (18X18X12X3) = 11,664 CUBIC INCHES = 50.5 GALLON.
   CAPACITY = 75% = 37.9 GALLONS PER MINUTE BASED ON 1 MINUTE DRAIN. SINK TO HAVE ROUNDED INTERNAL CORNERS OR ANGLES.

8. SELF CONTAINED UNIT, NO WATER CONNECTION REQUIRED.

9. PROVIDE DUAL PRESSURE REGULATOR KITS.

10. SEE DESIGN MANUAL FOR ADDITIONAL INFORMATION.

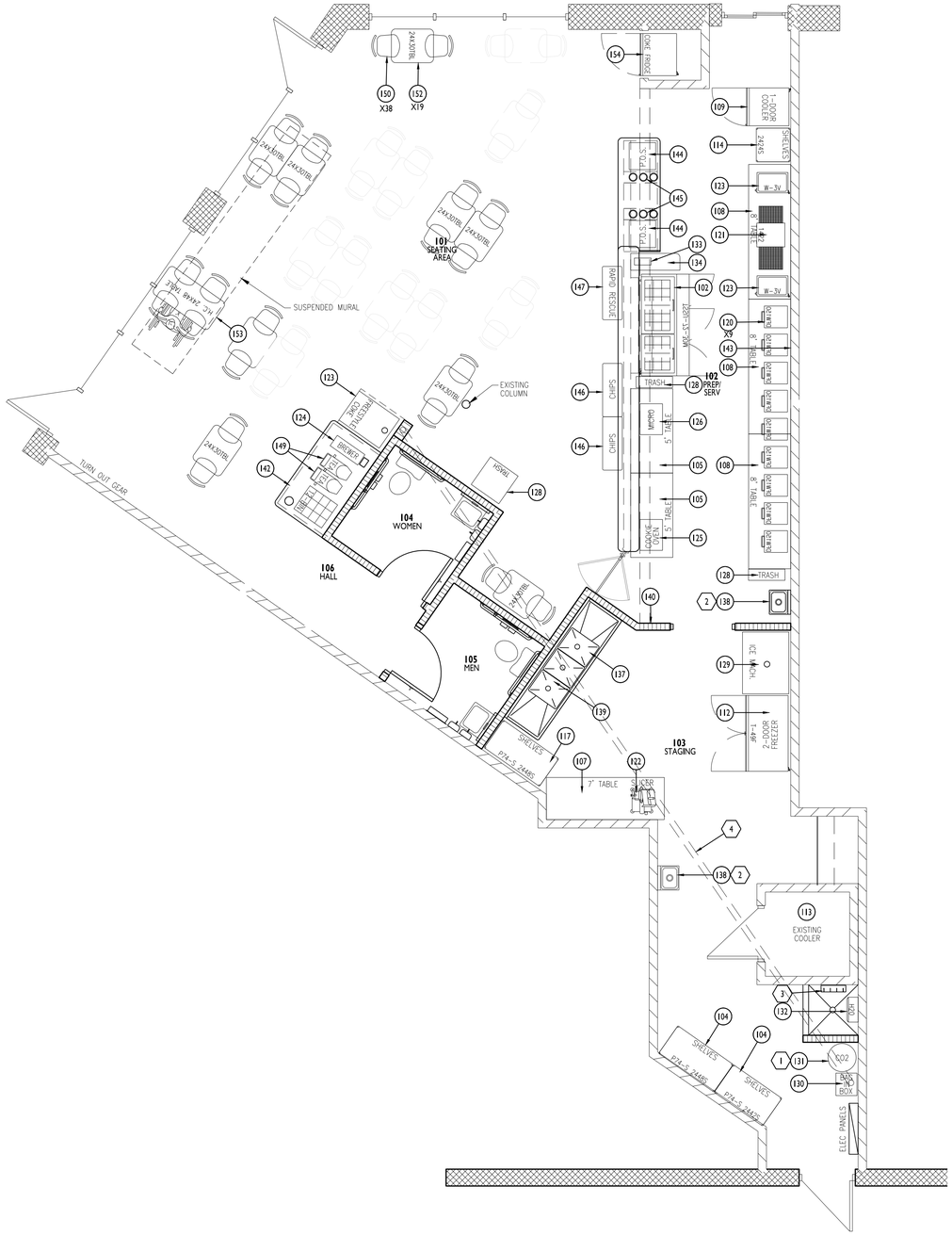
11. COORDINATE MOUNTING LOCATION WITH TENANT.

12. PROVIDE SS REDUCED PRESSURE ZONE ASSEMBLY.

13. ICE MACHINE TO SIT ON BIN HOSHIZAKI ITEM #B-800SF.

14. SHELVING ALONG ENTIRE WALL AS SHOWN ON EQUIPMENT PLAN, COORDINATE WITH TENANT FOR MOUNTING HEIGHTS.

15. 12" X 26" SHELF W/ ANGLE BRACKETS TO THE WALL. PROVIDE (1) 1-1/2" DIAMETER GROMMET AND 3" RADIUS ON CORNER AT POS COUNTER. TRASH CAN TO SIT BELOW. REMOTE PRINTER TO SIT ON SHELF.



EQUIPMENT PLAN **1**

1/4" = 1'-0"

KEYED NOTES

1. CO2 TANK. COORDINATE PENETRATION REQUIREMENTS WITH VENDOR AND LANDLORD.
2. PROVIDE SOAP DISPENSER (SD1), HAND SANITIZER (SD2), AND A TOWEL DISPENSER (TD2) ADJACENT TO HAND SINK. TYPICAL OF 2 LOCATIONS. REFER TO TOILET ACCESSORY LEGEND ON A101 FOR INFORMATION. COORDINATE WITH TENANT ON MOUNTING LOCATIONS.
3. MOP HOLDER. REFER TO TOILET ACCESSORY LEGEND ON A101 FOR INFORMATION.
4. 4" PVC CONDUIT FROM BAG-IN-BOX RACK TO COKE FREESTYLE MACHINE. CONDUIT TO RUN VERTICALLY IN 6" STUD WALL AND HORIZONTALLY ABOVE CEILING.

KEY PLAN

CURRAN
ARCHITECTURE
5719 LAWTON LOOP E. DR. #212
INDIANAPOLIS, IN 46216
O :: 317 . 288 . 0681
F :: 317 . 288 . 0753

CERTIFICATION

STATE OF MISSOURI
SHAWN M. CURRAN
NUMBER A-8207
REGISTERED ARCHITECT

PROJECT INFORMATION

FIREHOUSE SUBS

FIREHOUSE SUBS
111 SE M291 HWY
STE. 100
LEES SUMMIT, MO 64081

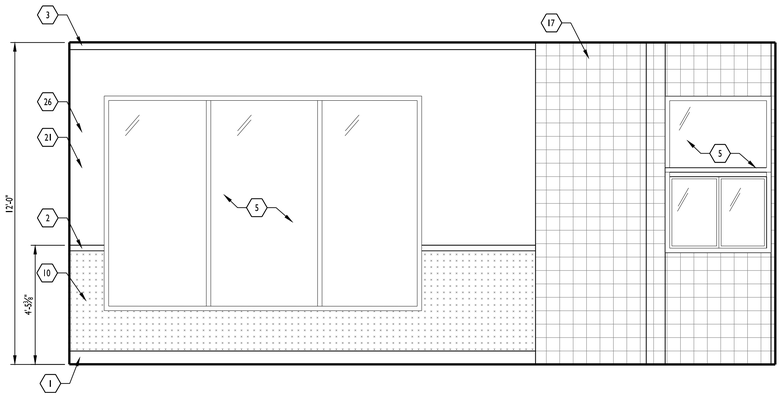
ISSUE DATES

ISSUE	DATE
BID SET	11/13/20

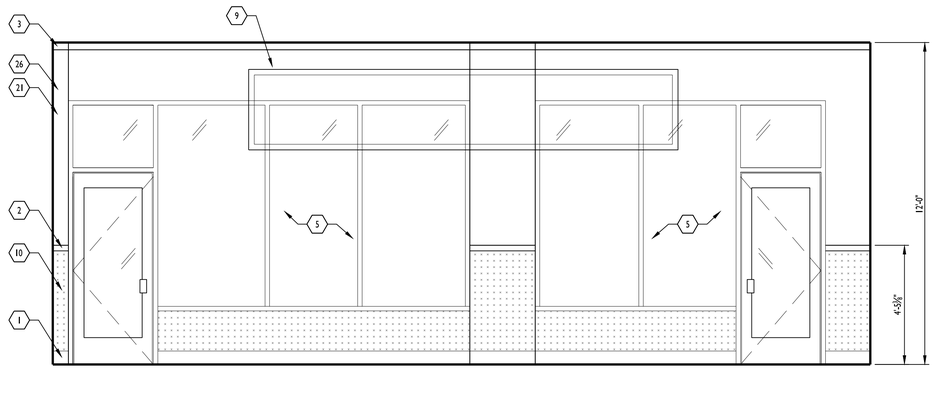
190230

EQUIPMENT PLAN

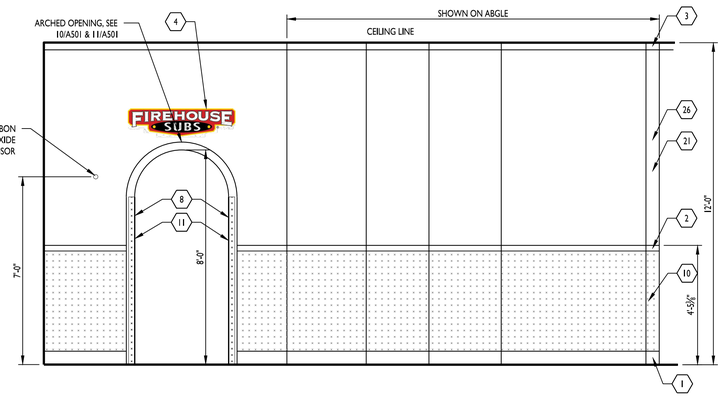
A130



ELEVATION 2
3/8" = 1'-0"



ELEVATION 1
3/8" = 1'-0"



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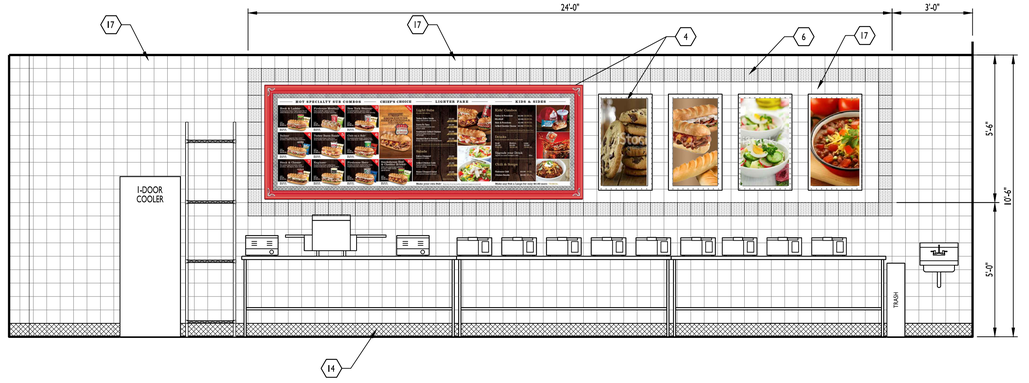
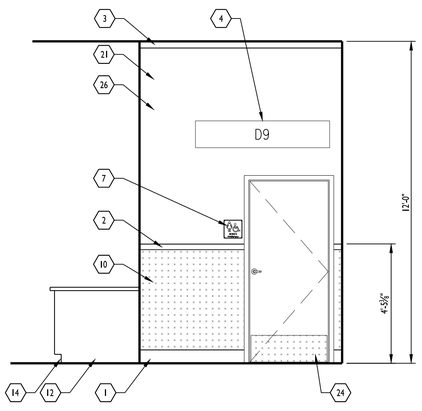
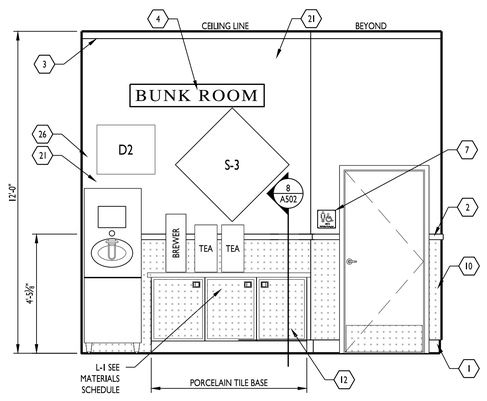
3/8" = 1'-0"



ELEVATION 3
3/8" = 1'-0"



ELEVATION 6
3/8" = 1'-0"



ELEVATION 5
3/8" = 1'-0"

GENERAL NOTES

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KEYED NOTES

1. BASE MOLDING, B-1.
2. CHAIR RAIL MOLDING, M-2.
3. CROWN MOLDING, M-3.
4. SIGNAGE, PROVIDED BY TENANT, INSTALLED BY GC. REFER TO CORPORATE DESIGN MANUAL FOR MORE INFORMATION.
5. EXISTING STOREFRONT WINDOW SYSTEM TO REMAIN.
6. TILE BORDER, T-3.
7. ADA COMPLIANT RESTROOM SIGNAGE. SEE SHEET A002 FOR ADDITIONAL REQUIREMENTS.
8. DIAMOND PLATE "U" SHAPED CORNER GUARD TRIM FORM FROM CT-3, FROM FLOOR TO 6'-3" AFF. LEGS TO BE 2-1/2" LONG, AND SECURED WITH LOCTITE 375 ADHESIVE. SEAL EDGES WITH ALUMINUM GRAY SEALANT, SEE 11/A501.
9. MURAL, SEE 2/A502.
10. CUTS METAL PANEL, CT-4, SECURED TO WALL WITH LOCTITE 375 ADHESIVE. PROVIDE ALUMINUM GRAY SEALANT JOINT WHERE REQUIRED. PROVIDE SMOOTH FINISHED GYPSUM BOARD BEHIND METAL PLATE.
11. TRIM OUT ARCH WITH MDF. REFER TO DETAILS 10/A501 AND 11/A501. PROVIDE SEALANT JOINT BETWEEN MDF TRIM AND TOP OF DIAMOND PLATE.
12. BEVERAGE CABNET, SEE 7/A502. PROVIDE FINISHED PLASTIC LAMINATE END PANEL AT EACH SIDE OF DRINK STATION COUNTER. SEE DESIGN MANUAL.
13. FRP FINISH (SEE MATERIAL SCHEDULE). TERMINATE AT TOP OF QUARRY TILE BASE. **DO NOT** EXTEND FRP BEHIND TILE BASE.
14. QUARRY TILE BASE, F-2.
15. TILE BASE, TA-3.
16. PLASTIC LAMINATE COUNTERS, SEE DETAILS ON A502 FOR ADDITIONAL INFORMATION.
17. CERAMIC TILE, T-2.
18. WALLS AND CEILING IN RESTROOM ABOVE TILE TO HAVE SMOOTH, PAINTED FINISH. PROVIDE EPOXY PAINT ON WALL. P-4
19. BULLNOSE TILE, TA-1.
20. ACCENT TILE, T-3. RANDOM LAYOUT WITH (1) ACCENT COLOR PER VERTICAL ROW OF TILE. VERIFY EXACT LAYOUT IN FIELD.
21. SMOOTH DRYWALL FINISH
22. BUILT-UP WOOD COLUMN, STAINED, ST-1. SEE DETAIL 1/A502.
23. 1/4" TEMPERED GLASS WITH 3M FROSTED FILM ON SERVICE SIDE OF GLASS.
24. DIAMOND PLATE PANEL, CT-3. SECURE TO WALL WITH LOCTITE 375 ADHESIVE. PROVIDE ALUMINUM GRAY SEALANT JOINT WHERE REQUIRED. PROVIDE SMOOTH FINISHED GYPSUM BOARD BEHIND DIAMOND PLATE.
25. PAINT P-1
26. PAINT P-3
27. PLASTIC LAMINATE COUNTER SEATING, SEE DETAIL 6/A502
28. ELIASON P-11 PLUS GATE, FINISH TO BE RED. POST HEIGHT 48". NOTE ON MANUFACTURER ORDER

SIGNAGE

MARK	ITEM #	DESCRIPTION	SIZE	COLOR
D3	I20	BUNK ROOM	10 X 60	--
D5	FIRE 106	DEFINITION: HOOK & LADDER	30 X 16	PARCHMENT
D6	FIRE 107	ARE YOU HUNGRY?	28 X 24	TRUE BLACK
D8	FIRE 109	FIRE ENGINE NO. (PERS)	12 X 60	TRUE RED
D9	FIRE 110	HOOK & LADDER NO. (PERS)	12 X 60	TRUE RED
D16	--	PSF POSTER	24 X 36	--
D17	--	FRANCHISE RECRUITMENT POSTER	22 X 40	--
D19	FIRE 200	FIRE TRUCK ALUMINUM SIGN	--	--
D20	FIRE 201	FIRE STATION ALUMINUM SIGN	--	--
D21	FIRE 202	NO PARKING ALUMINUM SIGN	--	--
D22	--	FHS MISSION STATEMENT	--	--
D23	--	THE FOUNDATION LOGO SIGN	36 X 31	--
S1	R7-0	NO PARKING FIRE LANE	12 X 18	--
S2	W11-8P	FIRE STATION	24 X 18	--
S3	W11-8	FIRE TRUCK	VERIFY	--

DECOR

MARK	ITEM #	DESCRIPTION	SIZE	COLOR
D11	DUOWP8	PIKE POLL - WOOD	--	--
D12	CT60P	PICK HEAD AXE - WOOD	--	--
D13[##]	368969144 429	FIRECOAT RACK & PILLTOP HOOK RAIL (BOTH FROM LOWES)	27" LONG	BLACK & SATIN NICKEL
D14	--	FIRE HELMET	--	--
D15	--	AIR PACK - NOTE 2	--	--
D18	FIRE 119	FIRE CALL BOX	--	--

NOTES:
1. ALL WALL SIGNS & DECOR TO BE PROVIDED BY TENANT AND INSTALLED BY GC. FINAL TYPES & LOCATIONS TO BE VERIFIED BY FIREHOUSE SUBS.
2. AIR PACK SHALL HAVE PRESSURE REGULATOR REMOVED OS AIR CANNOT BE STORED IN AIR PACK.
3. [##] PRODUCT ALSO FOUND AT AMAZON.COM (LIBERTY 129852 FOUR HOOK 27-INCH WIDE HAT AND COAT RAIL/RACK).

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CERTIFICATION

STATE OF MISSOURI
SHAWN M. CURRAN
NUMBER A-8207
REGISTERED ARCHITECT

PROJECT INFORMATION

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111 SE M291 HWY
STE. 100
LEES SUMMIT, MO 64081

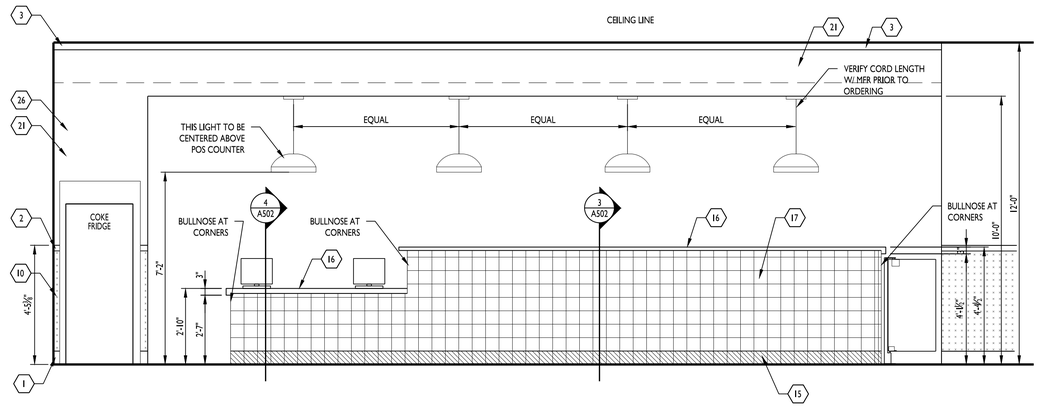
ISSUE DATES

ISSUE	DATE
BID SET	11/13/20

190230

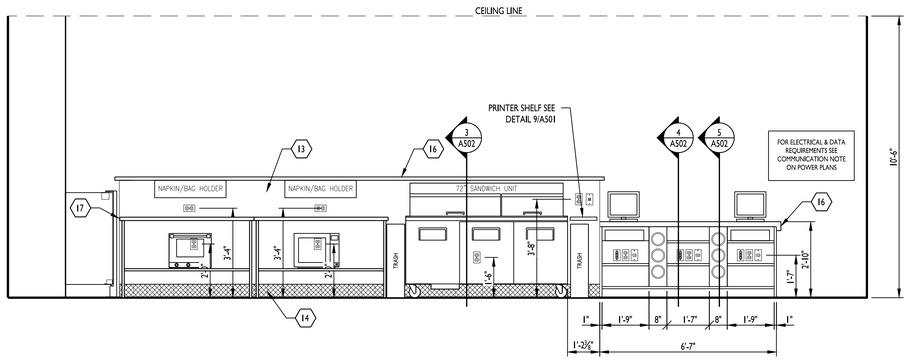
INTERIOR ELEVATIONS

A210



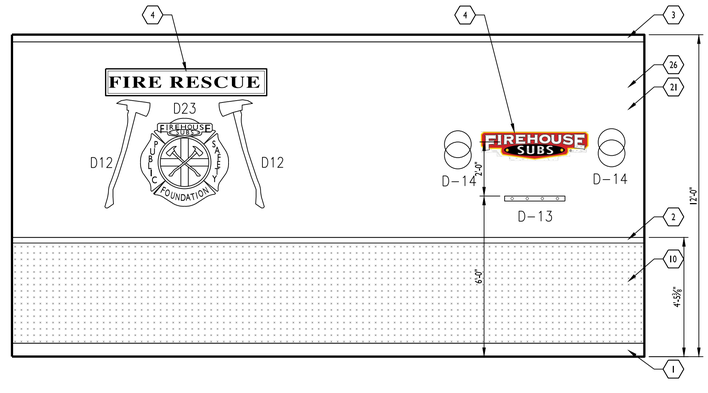
ELEVATION 1

3/8" = 1'-0"



ELEVATION (CONT.) 2

3/8" = 1'-0"



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D19	FIRE 200	FIRE TRUCK ALUMINUM SIGN	--	--
D20	FIRE 201	FIRE STATION ALUMINUM SIGN	--	--
D21	FIRE 202	NO PARKING ALUMINUM SIGN	--	--
D22	--	FHS MISSION STATEMENT	--	--
D23	--	THE FOUNDATION LOGO SIGN	36 X 31	--
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D14	--	FIRE HELMET	--	--
D15	--	AIR PACK - NOTE 2	--	--
D18	FIRE 119	FIRE CALL BOX	--	--

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FIREHOUSE SUBS

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111 SE M291 HWY
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LEES SUMMIT, MO 64081

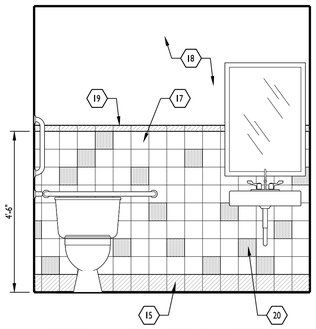
ISSUE DATES

ISSUE	DATE
BID SET	11/13/20

190230

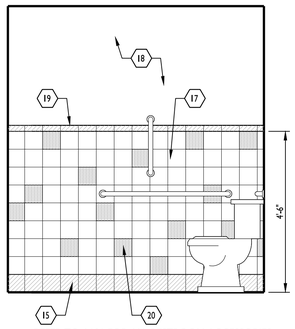
INTERIOR ELEVATIONS

A211



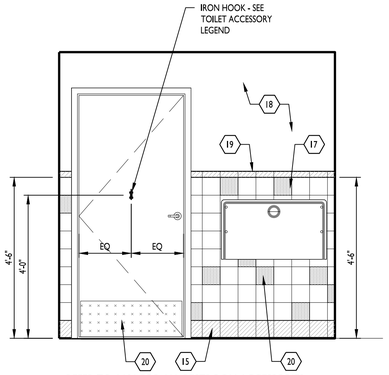
REFER TO A101 FOR ALL RESTROOM ACCESSORIES

ELEVATION - MEN'S RESTROOM 4
1/2" = 1'-0"



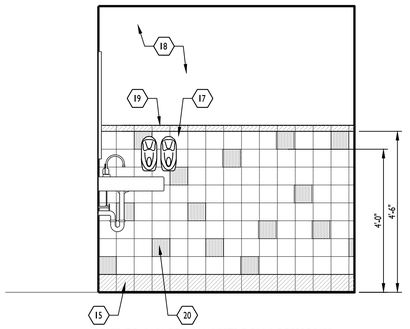
REFER TO A101 FOR ALL RESTROOM ACCESSORIES

ELEVATION - MEN'S RESTROOM 3
1/2" = 1'-0"



REFER TO A101 FOR ALL RESTROOM ACCESSORIES

ELEVATION - MEN'S RESTROOM 2
1/2" = 1'-0"



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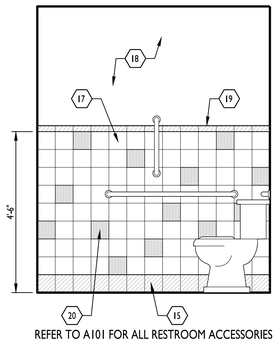
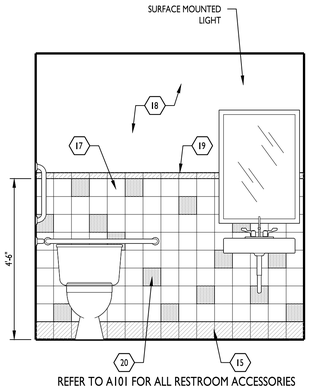
ELEVATION - MEN'S RESTROOM 1
1/2" = 1'-0"



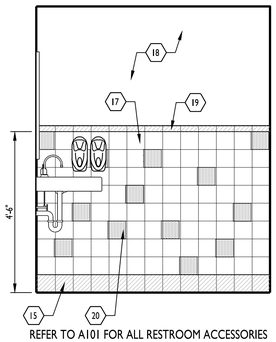
REFER TO A101 FOR ALL RESTROOM ACCESSORIES

ELEVATION - WOMEN'S RESTROOM 8
1/2" = 1'-0"



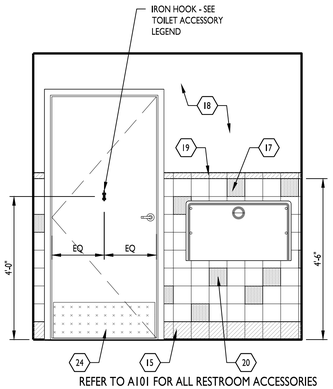
REFER TO A101 FOR ALL RESTROOM ACCESSORIES

ELEVATION - WOMEN'S RESTROOM 7
1/2" = 1'-0"



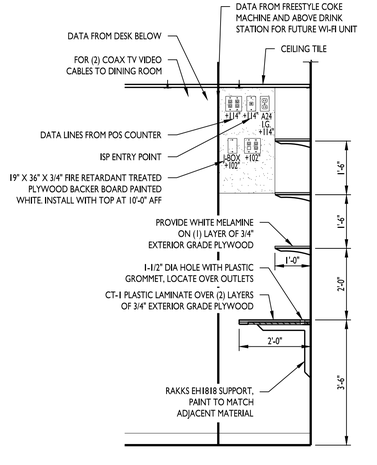
REFER TO A101 FOR ALL RESTROOM ACCESSORIES

ELEVATION - WOMEN'S RESTROOM 6
1/2" = 1'-0"

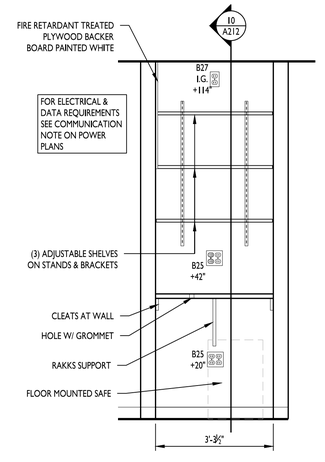


REFER TO A101 FOR ALL RESTROOM ACCESSORIES

ELEVATION - WOMEN'S RESTROOM 5
1/2" = 1'-0"



SECTION - MANAGERS DESK 10
1/2" = 1'-0"



ELEVATION - MANAGERS DESK 9
1/2" = 1'-0"

GENERAL NOTES

A. THE ARCHITECT SHALL COORDINATE WITH THE FRANCHISEE AND AREA REPRESENTATIVE ON ALL GRAPHICS, SIGMA, AND DECOR ITEMS TO BE USED BASED ON STORE SIZE, LAYOUT AND CONFIGURATIONS. DEVIATIONS FROM CORPORATE STANDARDS WILL NOT BE APPROVED UNLESS PRIOR WRITTEN APPROVAL IS RECEIVED FROM THE CORPORATE OFFICERS.

KEYED NOTES

1. BASE MOLDING, B-1.
2. CHAIR RAIL MOLDING, M-2.
3. CROWN MOLDING, M-3.
4. SIGNAGE, PROVIDED BY TENANT, INSTALLED BY GC. REFER TO CORPORATE DESIGN MANUAL FOR MORE INFORMATION.
5. EXISTING STOREFRONT WINDOW SYSTEM TO REMAIN.
6. TILE BORDER, T-3.
7. ADA COMPLIANT RESTROOM SIGNAGE. SEE SHEET A002 FOR ADDITIONAL REQUIREMENTS.
8. DIAMOND PLATE "U" SHAPED CORNER GUARD TRIM FORM FROM CT-3, FROM FLOOR TO 6'-3" AFF. LEGS TO BE 2-1/2" LONG, AND SECURED WITH LOCTITE 375 ADHESIVE. SEAL EDGES WITH ALUMINUM GRAY SEALANT, SEE 11/A501.
9. MURAL, SEE 2/A502.
10. CUTS METAL PANEL, CT-4, SECURED TO WALL WITH LOCTITE 375 ADHESIVE. PROVIDE ALUMINUM GRAY SEALANT JOINT WHERE REQUIRED. PROVIDE SMOOTH FINISHED GYPSUM BOARD BEHIND METAL PLATE.
11. TRIM OUT ARCH WITH MDF. REFER TO DETAILS 10/A501 AND 11/A501. PROVIDE SEALANT JOINT BETWEEN MDF TRIM AND TOP OF DIAMOND PLATE.
12. BEVERAGE CABNET, SEE 7/A502. PROVIDE FINISHED PLASTIC LAMINATE END PANEL AT EACH SIDE OF DRINK STATION COUNTER. SEE DESIGN MANUAL.
13. FRP FINISH (SEE MATERIAL SCHEDULE). TERMINATE AT TOP OF QUARRY TILE BASE. **DO NOT** EXTEND FRP BEHIND TILE BASE.
14. QUARRY TILE BASE, F-2.
15. TILE BASE, TA-3.
16. PLASTIC LAMINATE COUNTERS, SEE DETAILS ON A502 FOR ADDITIONAL INFORMATION.
17. CERAMIC TILE, T-2.
18. WALLS AND CEILING IN RESTROOM ABOVE TILE TO HAVE SMOOTH, PAINTED FINISH. PROVIDE EPOXY PAINT ON WALL. P-4
19. BULLNOSE TILE, TA-1.
20. ACCENT TILE, T-3. RANDOM LAYOUT WITH (1) ACCENT COLOR PER VERTICAL ROW OF TILE. VERIFY EXACT LAYOUT IN FIELD.
21. SMOOTH DRYWALL FINISH
22. BUILT-UP WOOD COLUMN, STAINED, ST-1. SEE DETAIL 1/A502.
23. 1/4" TEMPERED GLASS WITH 3M FROSTED FILM ON SERVICE SIDE OF GLASS.
24. DIAMOND PLATE PANEL, CT-3. SECURE TO WALL WITH LOCTITE 375 ADHESIVE. PROVIDE ALUMINUM GRAY SEALANT JOINT WHERE REQUIRED. PROVIDE SMOOTH FINISHED GYPSUM BOARD BEHIND DIAMOND PLATE.
25. PAINT P-1
26. PAINT P-3
27. PLASTIC LAMINATE COUNTER SEATING, SEE DETAIL 6/A502
28. ELIASON P-11 PLUS GATE, FINISH TO BE RED. POST HEIGHT 48". NOTE ON MANUFACTURER ORDER

SIGNAGE

MARK	ITEM #	DESCRIPTION	SIZE	COLOR
D3	120	BUNK ROOM	10 X 60	--
D5	FIRE 106	DEFINITION: HOOK & LADDER	30 X 16	PARCHMENT
D6	FIRE 107	ARE YOU HUNGRY?	28 X 24	TRUE BLACK
D8	FIRE 109	FIRE ENGINE NO. (PERS)	12 X 60	TRUE RED
D9	FIRE 110	HOOK & LADDER NO. (PERS)	12 X 60	TRUE RED
D16	--	PSF POSTER	24 X 36	--
D17	--	FRANCHISE RECRUITMENT POSTER	22 X 40	--
D19	FIRE 200	FIRE TRUCK ALUMINUM SIGN	--	--
D20	FIRE 201	FIRE STATION ALUMINUM SIGN	--	--
D21	FIRE 202	NO PARKING ALUMINUM SIGN	--	--
D22	--	FHS MISSION STATEMENT	--	--
D23	--	THE FOUNDATION LOGO SIGN	36 X 31	--
S1	R7-0	NO PARKING FIRE LANE	12 X 18	--
S2	W11-8P	FIRE STATION	24 X 18	--
S3	W11-8	FIRE TRUCK	VERIFY	--

DECOR

MARK	ITEM #	DESCRIPTION	SIZE	COLOR
D11	DUOWP8	PIKE POLL - WOOD	--	--
D12	CT60P	PICK HEAD AXE - WOOD	--	--
D13**	368969144429	FIRECOAT RACK & PILLTOP HOOK RAIL (BOTH FROM LOWES)	27" LONG	BLACK & SATIN NICKEL
D14	--	FIRE HELMET	--	--
D15	--	AIR PACK - NOTE 2	--	--
D18	FIRE 119	FIRE CALL BOX	--	--

NOTES:
1. ALL WALL SIGNS & DECOR TO BE PROVIDED BY TENANT AND INSTALLED BY GC. FINAL TYPES & LOCATIONS TO BE VERIFIED BY FIREHOUSE SUBS.
2. AIR PACK SHALL HAVE PRESSURE REGULATOR REMOVED OS AIR CANNOT BE STORED IN AIR PACK.
3. ** PRODUCT ALSO FOUND AT AMAZON.COM (LIBERTY 129852 FOUR HOOK 27-INCH WIDE HAT AND COAT RAIL/RACK).

CURRAN
ARCHITECTURE
5719 LAWTON LOOP E. DR. #212
INDIANAPOLIS, IN 46216
O :: 317 . 288 . 0681
F :: 317 . 288 . 0753

CERTIFICATION

STATE OF MISSOURI
SHAWN M. CURRAN
NUMBER A-8207
REGISTERED ARCHITECT

PROJECT INFORMATION

FIREHOUSE SUBS

FIREHOUSE SUBS
111 SE M291 HWY
STE. 100
LEES SUMMIT, MO 64081

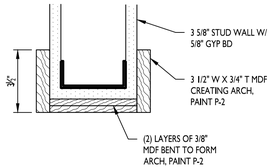
ISSUE DATES

ISSUE	DATE
BID SET	11/13/20

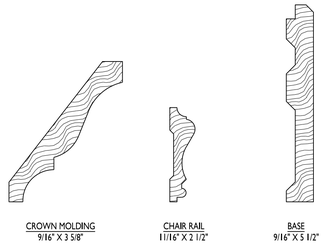
190230

INTERIOR ELEVATIONS

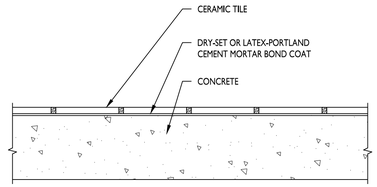
A212



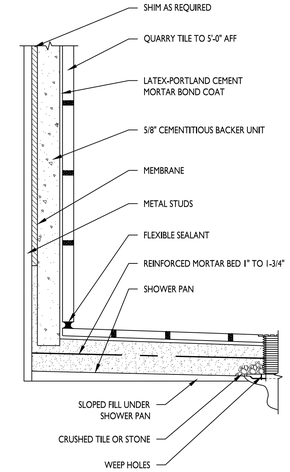
ARCHED OPENING HEAD DETAIL 10
3" = 1'-0"



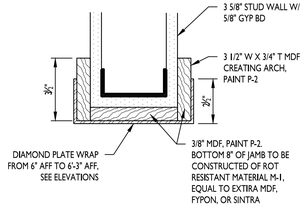
TYPICAL WOOD DETAIL 7
NOT TO SCALE



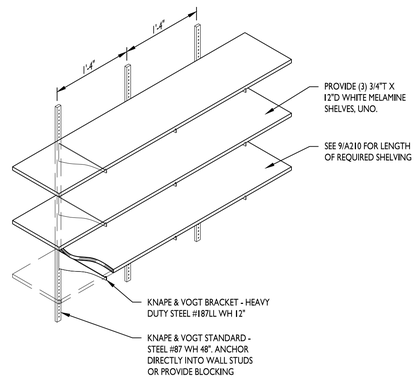
TYPICAL TILE DETAIL 4
NOT TO SCALE



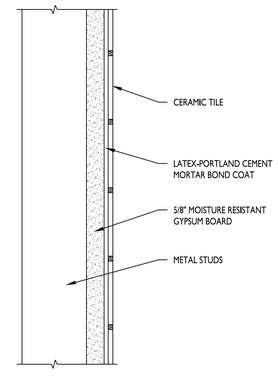
TYPICAL TILE DETAIL 1
NOT TO SCALE



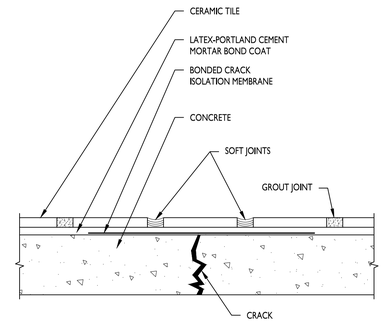
ARCHED OPENING JAMB DETAIL 11
3" = 1'-0"



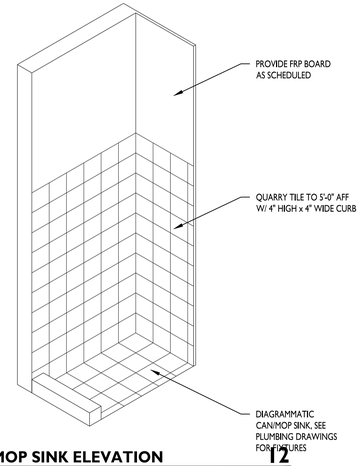
ADJUSTABLE SHELF DETAIL 8
3/4" = 1'-0"



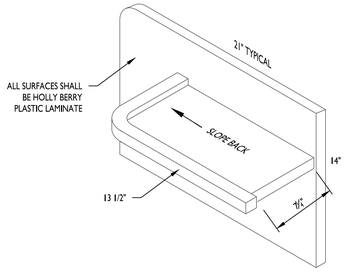
TYPICAL TILE DETAIL 5
NOT TO SCALE



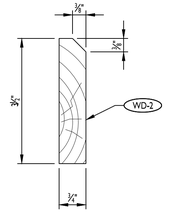
TYPICAL TILE DETAIL 2
NOT TO SCALE



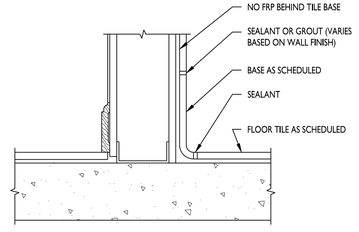
MOP SINK ELEVATION 12
NOT TO SCALE



PRINTER SHELF DETAIL 9
1 1/2" = 1'-0"



CHAIR RAIL SECTION 6
6" = 1'-0"



TYPICAL TILE DETAIL 3
NOT TO SCALE

CURRAN
ARCHITECTURE
5719 LAWTON LOOP E. DR. #212
INDIANAPOLIS, IN 46216
O :: 317 . 288 . 0681
F :: 317 . 288 . 0753

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111 SE M291 HWY
STE. 100
LEES SUMMIT, MO 64081

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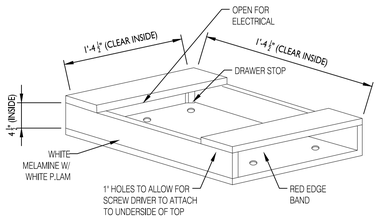
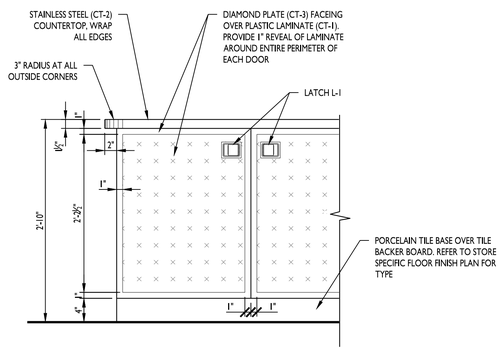
SECTIONS AND DETAILS

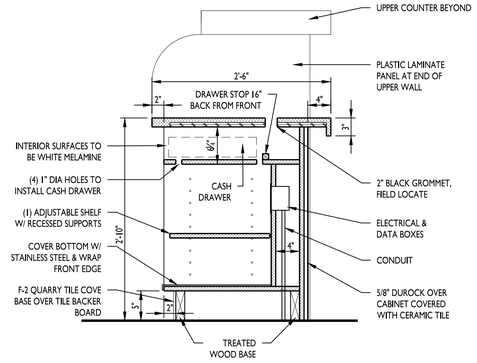
A501



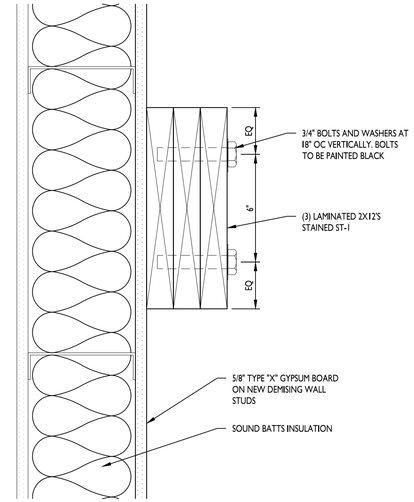
CASH DRAWER DETAIL 10
1" = 1'-0"



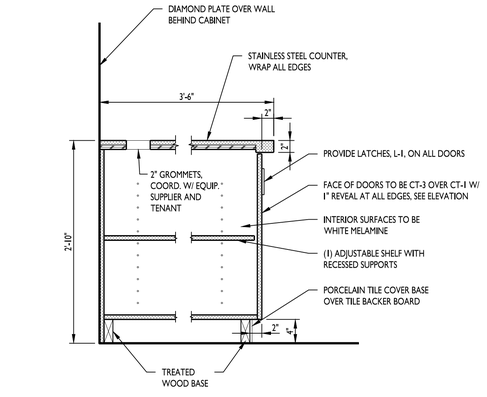
TYPICAL BEVERAGE COUNTER 7
1" = 1'-0"



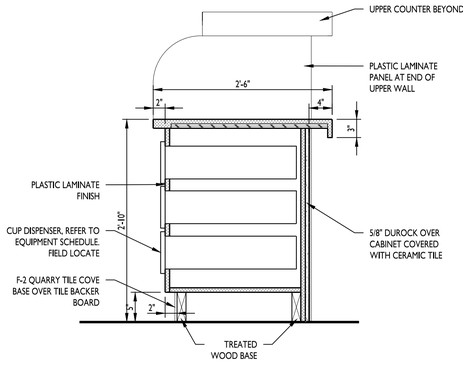
COUNTER DETAIL 4
1" = 1'-0"



WOOD COLUMN DETAIL 1
3" = 1'-0"



BEVERAGE COUNTER DETAIL 8
1" = 1'-0"



COUNTER DETAIL 5
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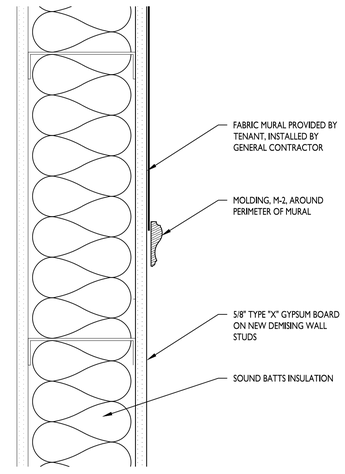
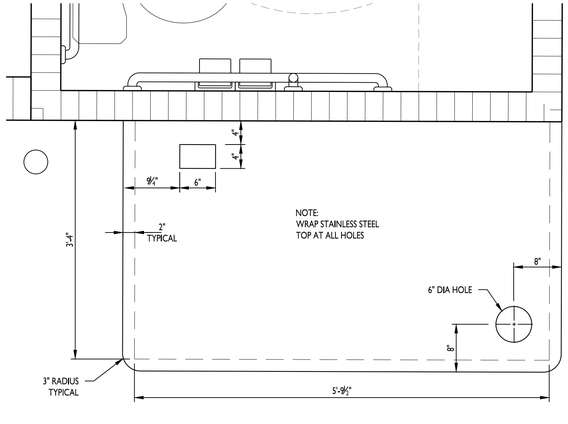
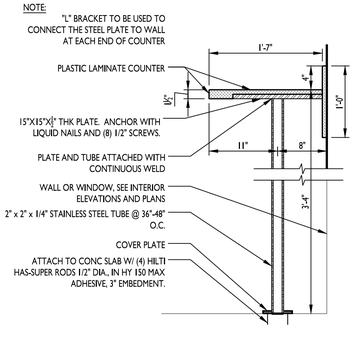


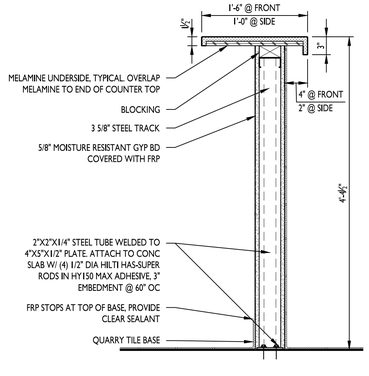
MURAL INSTALLATION DETAIL 2
3" = 1'-0"



BEVERAGE COUNTER DETAIL 9
1" = 1'-0"



COUNTER SEATING DETAIL (NOT USED) 6
1" = 1'-0"



COUNTER DETAIL 3
1" = 1'-0"

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ARCHITECTURE
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SECTIONS AND DETAILS

A502

MATERIALS SCHEDULE

MARK	MATERIAL	MANUFACTURER	COLOR	PATTERN / TEXTURE	NUMBER	REMARKS
B-1	BASE MOLDING	LOWES / HOME DEPOT	GLOSS BLACK	1x6 PAINT GRADE WOOD	--	BASE THROUGHOUT STORE
F-1	QUARRY FLOOR TILE	DAL TILE	DIABLO RED	8x8	0T0188IP	3/8" JOINTS, SEE FINISH PLAN FOR PATTERNS
F-2	COVE BASE	DAL TILE	DIABLO RED	5x8	0T0IQ3585UIP	SANDED GROUT "CUSTOM BUILDING PRODUCTS" - SURECOLOR #60 CHARCOAL 3/8" JOINTS, SEE FINISH PLAN FOR PATTERNS
F-3	COVE BASE	DAL TILE	DIABLO RED	5x8	0T0IQCRL3565UIP	SANDED GROUT "CUSTOM BUILDING PRODUCTS" - SURECOLOR #60 CHARCOAL 3/8" JOINTS, SEE FINISH PLAN FOR PATTERNS
F-4	COVE BASE	DAL TILE	DIABLO RED	5x8	0T0IQBRL3565UIP	SANDED GROUT "CUSTOM BUILDING PRODUCTS" - SURECOLOR #60 CHARCOAL 3/8" JOINTS, SEE FINISH PLAN FOR PATTERNS
F-5	PORCELAIN FLOOR TILE	CREATIVE MATERIALS CORP	ESTATE VINEYARD	6x24	CONTACT: JESSICA SHELDON 518.713.5368	SANDED GROUT "CUSTOM BUILDING PRODUCTS" - SURECOLOR #60 CHARCOAL 3/16" JOINTS, 30% OFFSET SEE FINISH PLAN FOR ORIENTATION
W-1	GYPSUM BOARD W/ DOUBLE KNOCK DOWN FINISH	--	--	--	--	REFER TO INTERIOR ELEVATIONS
W-2	GYPSUM BOARD W/ SMOOTH FINISH	--	--	--	--	REFER TO INTERIOR ELEVATIONS
W-3	FRP BOARD	CRANE COMPOSITES	WHITE	EMBOSSED W/ SUFASEAL FINISH	.090 WHITE (85)	EXTEND ABOVE CEILING, DO NOT EXTEND BEHIND TILE WALL BASE. ("OR EQUAL" MANUFACTURER AND LOOK WILL ALSO BE EXPECTED)
W-4	SMOOTH FINISH GYPSUM BOARD	--	SEE PAINT COLOR	LEVEL 4 FINISH	--	SMOOTH FINISH ON GYPSUM BOARD. SEE INTERIOR ELEVATIONS
M-1	BASE MOLDING	LOWES / HOME DEPOT	BLACK	--	--	WATERPROOF MATERIAL. EACH SIDE FOR MINIMUM 6" ABOVE FINISH FLOOR MATERIAL, SHALL BE A SMOOTH PAINTABLE PRODUCT. SUGGESTED FYPON, SINTRA, OR EQUAL. ARCHED OPENING AND BACK OF HOUSE.
M-2	CHAIR RAIL	LOWES #27215 HOME DEPOT #369-594	BLACK	--	--	CHAIR RAIL
M-3	CROWN MOLDING	LOWES #82051 HOME DEPOT #734-072	BLACK	--	--	CROWN MOLDING
P-1	PAINT	SHER-CRYL	GLOSS SAFETY RED	--	B66R00300	--
P-2	PAINT	SHER-CRYL	GLOSS BLACK	--	B66B00300	--
P-3	PAINT	PROMAR 200	SEMI GLOSS WHITE	--	B31W12651	--
P-4	PANT	--	WHITE	WATER BASED CATALYZED	B70W200	--
P-5	PAINT	--	BLACK	PROFESSIONAL DRYFALL EGGSHELL	--	--
P-6	PAINT	ULTRA SPEC 500	GRAY HUSKIE	SATIN	#1473	ALL WALLS WITH PAINT
T-1	THIN BRICK	MARION BRICK & CLAY	TAVERN FLASH	2 1/4" x 7 5/8" CORNERS AND FACE - STANDARD	300	TYPE S PORTLAND CEMENT SANDED MORTAR, CONCRETE GREY
T-2	CERAMIC WALL TILE	DAL TILE	WHITE	6x6	D190	DRY WHITE GROUT-UNSANDED, #381
T-3	CERAMIC WALL TILE	DAL TILE	VERMILLION RED	6x6	DM1	DRY WHITE GROUT-UNSANDED, #381
TA-1	CERAMIC WALL TILE	DAL TILE	BLACK	2x6 BULLNOSE	S4269	DRY WHITE GROUT-UNSANDED, #381
TA-2	CERAMIC WALL TILE	DAL TILE	BLACK	2x2 BULLNOSE CORNER	SN4269	DRY WHITE GROUT-UNSANDED, #381
TA-3	CERAMIC WALL TILE	DAL TILE	BLACK	6x6 SQUARE TOP COVE	A3601	CHARCOAL-SANDED, #60
TA-4	CERAMIC WALL TILE	DAL TILE	ARCTIC WHITE	2x6 BULLNOSE	S4269	DRY WHITE GROUT-UNSANDED, #381
TA-5	CERAMIC WALL TILE	DAL TILE	ARCTIC WHITE	SINKRAIL TILE	WA8262	DRY WHITE GROUT-UNSANDED, #381
TA-6	CERAMIC WALL TILE	DAL TILE	BLACK	SCR TILE	WA8262	DRY WHITE GROUT-UNSANDED, #381
TA-7	CERAMIC WALL TILE	DAL TILE	BLACK	SCR TILE	LA3602 R / L / ET	DRY WHITE GROUT-UNSANDED, #381
CT-1	PLASTIC LAMINATE	WILSONART	HOLLYBERRY RED	MATTE FINISH	D307-60	--
CT-2	STAINLESS STEEL	--	#4 FINISH	18 GA	--	--
CT-3	ALUMINUM DIAMOND PLATE	--	--	1/16" TREAD BRITE	--	SECURE TO WALL W/ LOCTITE 375 ADHESIVE, PROVIDE ALUMINUM GRAY SEALANT AROUND PERIMETER AND JOINTS.
CT-4	ALUMINUM DIAMOND PLATE	CUTS METAL	GUNMETAL GRAY	WAINSCOTT	--	CUTS METAL 970-800-3173: WWW.CUTSMETAL.NET. GRAY SEALANT AROUND PERIMETER AND JOINTS.
ACT-1	ACOUSTICAL CEILING TILE	USG	WHITE	RADAR	2220 SLT EDGE	CLIMA-PLUS PANELS DX GRID
ACT-2	ACOUSTICAL CEILING TILE	USG	WHITE	CLEAN ROOM	3260 SQ EDGE	CLIMA-PLUS PANELS DXLA GRID
ST-1	WOOD STAIN	RUSTOLEUM	KONA	--	--	--
	WOOD STAIN	MINWAX	DARK WALNUT	--	--	ALTERNATE
TP-1	TOILET PARTITIONS	ATLANTA SUNBELT	HOLLYBERRY RED	--	--	REFER TO FLOOR PLAN
L-1	PUSH-TO-CLOSE LATCH	SOUTHCO	SILVER	BEVERAGE COUNTER LATCH	MEDIUM #64-21-10	SEE BEVERAGE COUNTER DETAILS
UV-1	CLEAR GLAZING	NATIONAL GLAZING SOLUTIONS	CLEAR	WINDOW	CX60-TSER 38% VLT 60%	OPTIONAL
BL-1	BLINDS	GRABAR	CHARCOAL	LIGHT WEAVES	3% SCREEN	OPTIONAL

ROOM FINISH SCHEDULE

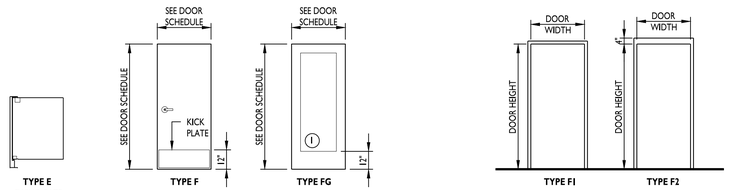
ROOM #	ROOM NAME	FLOORING	BASE	NORTH WALL	EAST WALL	SOUTH WALL	WEST WALL	CABINETS / COUNTERTOPS	CEILING MAT / HEIGHT	REMARKS
101	SEATING AREA	F-5	B-1	SEE A210	SEE A210	SEE A211	SEE A211	--	SEE A110	--
102	PREP/SERV	F-1	F-2	SEE A210	SEE A210	SEE A211	SEE A210	--	SEE A110	DO NOT INSTALL FRP BEHIND WALL BASE. TERMINATE FRP AT TOP OF BASE AND PROVIDE SEALANT JOINT. ALL ELEVATIONS ARE BASED ON PLAN NORTH, SEE A101.
103	STAGING	F-1	F-2	W-3	W-3	W-3	W-3	--	SEE A110	DO NOT INSTALL FRP BEHIND WALL BASE. TERMINATE FRP AT TOP OF BASE AND PROVIDE SEALANT JOINT. ALL ELEVATIONS ARE BASED ON PLAN NORTH, SEE A101.
104	WOMEN	F-5	TA-3	SEE A212	SEE 212	SEE A212	SEE A212	--	SEE A110	--
105	MEN	F-5	TA-3	SEE A212	SEE A212	SEE A212	SEE A212	--	SEE A110	--
106	HALL	F-5	B-1	SEE A210	--	SEE A211	SEE A211	--	SEE A110	--

DOOR SCHEDULE

MARK	TYPE	SIZE	MATERIAL	FINISH	RATING	FRAME	MATERIAL	FINISH	RATING	HARDWARE	REMARKS
101A	EXIST FG	3'-0" X 7'-0"	AL	EXIST	--	EXIST	EXIST	EXIST	--	2	DOOR AND HARDWARE BY LANDLORD
101B	EXIST FG	3'-0" X 7'-0"	AL	EXIST	--	EXIST	EXIST	EXIST	--	2	DOOR AND HARDWARE BY LANDLORD
102	E	3'-0: X 7'-0"	N/A	N/A	--	N/A	N/A	N/A	N/A	N/A	CUSTOM SWING GATE, RED
103	EXISTING F	3'-0" X 7'-0"	AL	P-1	--	EXIST	EXIST	P-1	--	2	PANIC HARDWARE WHERE REQUIRED
104	F	3'-0" X 7'-0"	SCWD	P-1	--	F1	HM	P-1	--	1	KICK PLATE ON BOTH SIDES OF DOOR
105	F	3'-0" X 7'-0"	SCWD	P-1	--	F1	HM	P-1	--	1	KICK PLATE ON BOTH SIDES OF DOOR

DOOR AND FRAME ELEVATIONS

GLAZING TYPES:
1. 1/4" TEMPERED
2. 1" INSULATED
3. 1/4" PLEXI-GLASS



TYPE E
SWING GATE

TYPE F

TYPE FG

TYPE F1
PAINTED METAL

TYPE F2
PAINTED METAL

DOOR HARDWARE

HARDWARE SET #01
- 3 HINGES
- 1 CLOSER
- 1 PRIVACY LOCKSET
- 1 PERIMETER SEAL
- 2 KICK PLATE 34X12
- 1 WALL STOP

HARDWARE SET #02
EXISTING HARDWARE

HARDWARE SET #03
- 3 HINGES
- 1 CLOSER
- 1 PASSAGE SET
- 3 MUTES
- 2 KICK PLATE 34X12
- 1 WALL STOP

HARDWARE SET #04
- 3 HINGES
- 1 STOREROOM LOCKSET
- 3 MUTES
- 2 KICK PLATE 34X12
- 1 WALL STOP

GENERAL DOOR HARDWARE NOTES

A. ALL DOOR HARDWARE SHALL BE HEAVY DUTY, GRADE 1, COMMERCIAL QUALITY.

B. WHERE "EXIT DEVICE" IS SPECIFIED, AN ADA COMPLIANT PANIC EXIT DEVICE EQUAL TO VON DURPIN SERIES 98/99 SHALL BE PROVIDED.

C. ALL HARDWARE TO HAVE SATIN ALUMINUM ANODIZED FINISH.

D. DOOR HARDWARE SHALL MEET THE REQUIREMENTS OF IBC 1008.1.9.1. HARDWARE SHALL NOT REQUIRE PINCHING, TIGHT GRASPING, OR TWISTING OF THE WRIST IN ORDER TO OPERATE.

E. DOOR HARDWARE MOUNTING HEIGHT IN ACCORDANCE WITH IBC 1008.1.9.2. ALL LOCKS, DOOR HANDLES, PULLS, LATCHES, OR OTHER OPERATING HARDWARE IS REQUIRED TO BE LOCATED BETWEEN 36 AND 48 INCHES ABOVE FINISHED FLOOR.

KEY PLAN

CURRAN
ARCHITECTURE
5719 LAWTON LOOP E. DR. #212
INDIANAPOLIS, IN 46216
O :: 317 . 288 . 0681
F :: 317 . 288 . 0753

CERTIFICATION

STATE OF MISSOURI
SHAWN M. CURRAN
NUMBER A-8207
REGISTERED ARCHITECT

PROJECT INFORMATION

FIREHOUSE SUBS

FIREHOUSE SUBS
111 SE M291 HWY
STE. 100
LEES SUMMIT, MO 64081

ISSUE DATES

ISSUE	DATE
BID SET	11/13/20

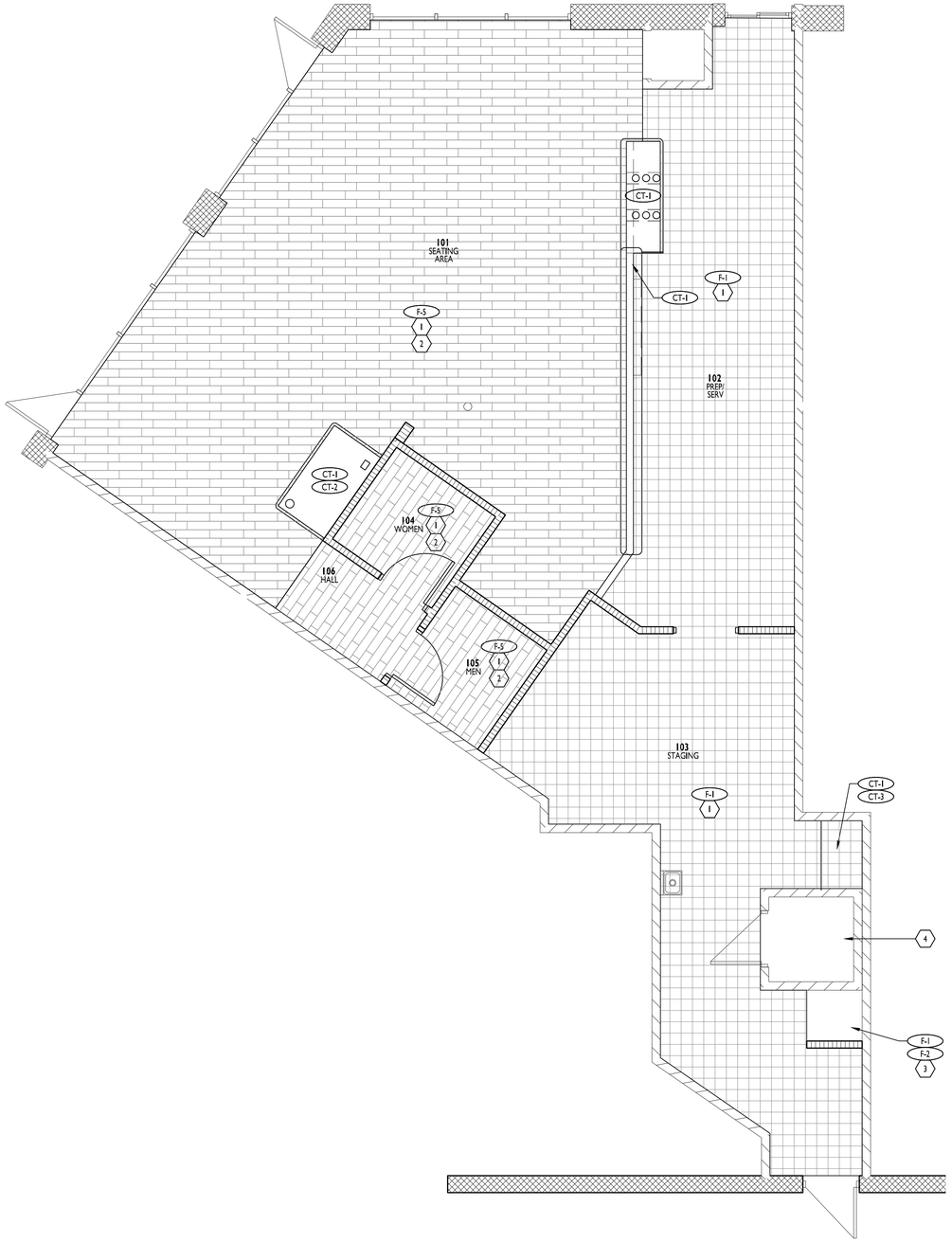
190230

DOOR & FINISH SCHEDULES

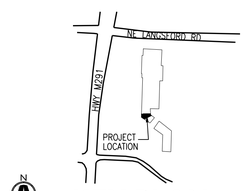
A601

KEYED NOTES

1. PROVIDE MASONITE FLOOR PROTECTION AFTER INSTALLATION OF FLOOR TILE.
2. PORCELAIN PLANK TILES INSTALLED W/ 30% OFFSET AND 3/16" JOINT SPACING. SEE MATERIAL SCHEDULE.
3. MOP SINK TO BE FINISHED WITH QUARRY TILE. SEE DETAILS FOR ADDITIONAL INFORMATION.
4. G.C. TO COORDINATE COOLER FLOOR WITH COOLER MANUFACTURER



FLOOR FINISH PLAN 1
1/4"=1'-0"



NORTH

KEY PLAN

CURRAN
ARCHITECTURE
5719 LAWTON LOOP E. DR. #212
INDIANAPOLIS, IN 46216
O :: 317 . 288 . 0681
F :: 317 . 288 . 0753

CERTIFICATION

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FIREHOUSE SUBS

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111 SE M291 HWY
STE. 100
LEES SUMMIT, MO 64081

ISSUE DATES

ISSUE	DATE
BID SET	11/13/20

190230

FLOOR FINISH PLAN

A801

DEMOLITION NOTES:

1. EXISTING HVAC PIPING, DUCTWORK AND EQUIPMENT SHOWN IS BASED ON EXISTING AND FIELD OBSERVATION WITHOUT DEMOLITION. DURING DEMOLITION, ANY CLARIFICATION REQUIRED TO DETERMINE SCOPE OF WORK SHALL BE BROUGHT TO THE ATTENTION OF THE ARCHITECT/ENGINEER.
2. THE CONTRACTOR SHALL VISIT THE JOB SITE AND THOROUGHLY FAMILIARIZE HIMSELF WITH EXISTING CONDITIONS, PRIOR TO STARTING DEMOLITION.
3. DRAWINGS DO NOT SHOW EVERY EXISTING PIPE, CONDUIT, DUCT, ETC. CONTRACTOR SHALL TAKE CARE TO REMOVE ONLY ITEMS REQUIRED TO BE REMOVED AND VERIFY PIPES, DUCTS, ETC. BEFORE REMOVAL.

SHEET METAL GENERAL NOTES

1. INSTALL CEILING REGISTERS A MINIMUM OF 12" FROM EXTERIOR WALL.
2. PROVIDE A MINIMUM OF THREE TIMES THE FAN DIAMETER OF STRAIGHT DUCTWORK OFF THE SUPPLY AIR DISCHARGE BEFORE ANY TAKEOFFS OR ELBOWS.
3. PROVIDE LOCKING QUADRANT VOLUME BALANCING DAMPERS AT ALL BRANCH TAKEOFFS TO CEILING/SIDEWALL SUPPLY AND EXHAUST DEVICES
4. SPACE ABOVE CEILING IS TO BE USED AS A RETURN AIR PLENUM WHERE DUCTWORK IS NOT INDICATED ABOVE RETURN AIR GRILLES.
5. PROVIDE ACCESS DOORS IN DUCTWORK WHERE INDICATED OR REQUIRED FOR ACCESS TO SYSTEM COMPONENTS INCLUDING THE FOLLOWING: DAMPER MOTORS AND/OR MOTOR OPERATED DAMPERS, FIRE DAMPERS AND SMOKE DAMPERS.
6. DUCT DIMENSIONS SHOWN ON DRAWINGS ARE NET FREE INTERIOR, NOT INCLUDING LINING OR INSULATION.
7. CONTRACTOR MAY RESIZE DUCTWORK SHOWN ON DRAWINGS IF REQUIRED PROVIDED RESIZED DUCTWORK HAS SAME CROSS SECTIONAL AREA AS SPECIFIED DUCT SIZE

VENTILATION REQUIREMENTS

ZONE: DINING AREA
SYSTEM: NEW ROOFTOP UNIT RTU-1
ZONE FLOOR AREA: 976 sf
ZONE DESIGN POPULATION: 68 occ
OA REQ'D PER UNIT AREA: 0.18 cfm/sf
OA REQ'D PER PERSON: 7.5 cfm/occ
SYSTEM VENTILATION EFFECTIVENESS RATIO: 0.8
OUTSIDE AIR REQUIRED FOR ZONE =857 cfm

ZONE: SERVING AREA
SYSTEM: NEW ROOFTOP UNIT RTU-1
ZONE FLOOR AREA: 332 sf
ZONE DESIGN POPULATION: 7 occ
OA REQ'D PER UNIT AREA: 0.18 cfm/sf
OA REQ'D PER PERSON: 7.5 cfm/occ
SYSTEM VENTILATION EFFECTIVENESS RATIO: 0.8
OUTSIDE AIR REQUIRED FOR ZONE = 140 cfm

ZONE: STAGING AREA
SYSTEM: NEW ROOFTOP UNIT RTU-1
ZONE FLOOR AREA: 395 sf
ZONE DESIGN POPULATION: 8 occ
OA REQ'D PER UNIT AREA: 0.18 cfm/sf
OA REQ'D PER PERSON: 7.5 cfm/occ
SYSTEM VENTILATION EFFECTIVENESS RATIO: 0.8
OUTSIDE AIR REQUIRED FOR ZONE = 164 cfm

GENERAL NOTES:

1. GENERAL NOTES ON THIS DRAWING ARE APPLICABLE TO EACH MECHANICAL DRAWING OF THIS SET. SEE EACH DRAWING FOR SPECIFIC NOTES APPLICABLE TO THAT DRAWING.
2. OUTSIDE AIR INTAKE OPENINGS FOR VENTILATION AIR SHALL BE LOCATED 10 FEET MEASURED IN ANY DIRECTION FROM ANY FLUES, VENTS, CHIMNEYS, GAS METERS, GAS REGULATORS, PLUMBING VENTS UNLESS TOP OF SUCH INTAKE OPENING IS 2 FEET BELOW ANY OF THE LISTED ITEMS.
3. OVERHEAD PIPING IN SPACES WITHOUT HUNG CEILINGS SHALL BE RUN AS CLOSE TO ROOF DECK AS PRACTICABLE, AS CLOSE TO PARALLEL JOISTS AS POSSIBLE AND ABOVE LIGHTING FIXTURES TO CONCEAL PIPING.
4. OVERHEAD DUCTWORK AND PIPING IN SPACES WITH CEILINGS SHALL BE CONCEALED UNLESS OTHERWISE NOTED.
5. COORDINATE LOCATION OF GRILLES, REGISTERS, DIFFUSERS, THERMOSTATS AND OTHER WALL OR CEILING MOUNTED HVAC ACCESSORIES WITH REFLECTED CEILING PLAN. COORDINATE LIGHTING FIXTURE LAYOUT AND ACCESSORIES INSTALLED BY OTHER TRADES SO AS TO PRESENT A NEAT AND ATTRACTIVE INSTALLATION THROUGHOUT THE ENTIRE BUILDING. IT IS THE INTENT FOR CEILING MOUNTED GRILLES, REGISTERS AND DIFFUSERS TO BE INSTALLED IN THE CENTER OF CEILING PANELS.
6. ARRANGE PIPING AND DUCTWORK, PARTICULARLY ABOVE CEILING, AS REQUIRED TO CLEAR STRUCTURE, DUCTS, CONDUIT, ETC., ALLOWING SPACE FOR PIPE HANGERS, EXPANSION LOOPS AND ACCESS TO VALVES, FILTERS AND MAINTENANCE OF EQUIPMENT.
7. THE DIAMETER OF THE SUPPLY PIPE AT ANY GAS FIRED EQUIPMENT SHALL NOT BE OF A SMALLER SIZE THAN THE INLET CONNECTION TO THE EQUIPMENT.
8. EQUIPMENT WITH FILTERS SHALL BE INSTALLED SO THAT FILTERS CAN BE EASILY REMOVED AND REPLACED.
9. CONTRACTOR SHALL VERIFY REFRIGERANT PIPE SIZES WITH EQUIPMENT MANUFACTURER FOR THE INDICATED INSTALLATION.
10. COORDINATE LOCATION AND INSTALLATION OF EQUIPMENT WITH OTHER TRADES.
11. THERMOSTATS SHALL BE LOCATED IN THE ROOMS INDICATED. INSTALL AT 4'-0" ABOVE FINISH FLOOR.
12. VALVES AND SPECIALTIES SHALL BE LINE SIZE, EXCEPT FOR CONTROL & BALANCING VALVES OR UNLESS NOTED OTHERWISE.
13. EXTEND DRAIN LINES TO NEAREST FLOOR DRAIN OR AS INDICATED. ROUTING SHALL NOT INTERFERE WITH PASSAGEWAYS AND MAINTENANCE. DRAINS FROM AIR CONDITIONING CONDENSATE DRAIN PANS SHALL BE TRAPPED. SLOPE SUSPENDED CONDENSATE DRAIN PIPING AT 1/8" PER FOOT (1 PER 100).
14. PIPING AND DUCTWORK INSULATION SHALL BE RUN CONTINUOUSLY THROUGH NON-RATED FLOORS, WALLS AND PARTITIONS, UNLESS OTHERWISE NOTED.
15. NO PIPING SHALL BE SMALLER THAN ½" UNLESS OTHERWISE NOTED.
16. RUN-OUTS SHALL PITCH DOWN IN DIRECTION OF FLOW A MINIMUM OF 1/8" PER FOOT (1PER 100).
17. FOR PIPE SIZES NOT INDICATED ON PLANS SEE EQUIPMENT CONNECTION DETAILS, FLOW DIAGRAMS, RISER DIAGRAMS AND SCHEDULES.
18. PROVIDE UNION OR FLANGED CONNECTIONS AT EACH PIECE OF EQUIPMENT AND ON BOTH SIDES OF CONTROL VALVES AND PRESSURE REGULATING VALVES. PROVIDE SHUT-OFF VALVES ON BOTH SIDES OF AUTOMATIC VALVES.
19. RELIEF VALVE DRAIN PIPING SHALL BE EXTENDED TO 6" ABOVE FINISHED FLOOR UNLESS OTHERWISE NOTED.
20. FLOOR MOUNTED EQUIPMENT IN THE MECHANICAL ROOM SHALL BE LOCATED ON 6" THICK CONCRETE PADS WITH CHAMFERED EDGES UNLESS OTHERWISE NOTED.
21. PIPING SHALL BE SUPPORTED IN ACCORDANCE WITH THE SPECIFICATION. ADDITIONAL SUPPORTS OR HANGERS SHALL BE ADJACENT TO ELBOWS, TO PREVENT WEIGHT OF PIPING BEING PLACED ON THE EQUIPMENT.
22. CORRECT SETTING ON BALANCING FITTINGS SHALL BE PERMANENTLY MARKED.
23. LOCATE AND SIZE CONCRETE PADS AND CURBS FOR MECHANICAL EQUIPMENT IN ACCORDANCE WITH ACTUAL EQUIPMENT PURCHASED.
24. FOR LOCATION OF MOTOR STARTERS, SEE ELECTRICAL DRAWINGS.

HVAC LEGEND

NOT ALL ITEMS LISTED BELOW ARE USED ON THIS SET OF DRAWINGS

PIPING SYMBOLS

SYMBOL	DESCRIPTION
	ARROW IN LINE INDICATES DIRECTION OF FLOW
	INDICATES PIPE SLOPE DOWN
XXXXXXXXXXX	REMOVE EXISTING
	BOTTOM PIPE CONNECTION
	PIPING UP
	PIPING DOWN
	PIPING CAP OR PLUG
	PUMP

HVAC PIPING

SYMBOL	DESCRIPTION
HWS	HOT WATER SUPPLY
HWR	HOT WATER RETURN
CHS	CHILLED WATER SUPPLY
CHR	CHILLED WATER RETURN
CS	CONDENSER SUPPLY
CR	CONDENSER RETURN
LPS	LOW PRESSURE STEAM
LPC	LOW PRESSURE CONDENSATE
HPS	HIGH PRESSURE STEAM
HPC	HIGH PRESSURE CONDENSATE
PC	PUMPED CONDENSATE
D	EQUIPMENT DRAIN
RL	REFRIGERANT LIQUID
RS	REFRIGERANT SUCTION
RHG	REFRIGERANT HOT GAS
FOS	FUEL OIL SUPPLY
FOR	FUEL OIL RETURN
FOV	FUEL OIL VENT

GENERAL

SYMBOL	DESCRIPTION
*, #	REFERENCE BUBBLE * DETAIL NUMBER OR SECTION LETTER # REFERENCE DRAWING NUMBER
#, SHT.#	RISER BUBBLE DESIGNATION
EQUIP-X	MECHANICAL / PLUMBING EQUIPMENT DESIGNATION
	POINT OF DISCONNECT (DEMO)
	CONNECT NEW TO EXISTING

CONTROL DEVICES AND DAMPERS

SYMBOL	DESCRIPTION
H	HUMIDISTAT
PS	PRESSURE SENSOR
S	SENSOR
T	WALL MOUNTED THERMOSTAT
	UNIT MOUNTED THERMOSTAT
SD	DUCT SMOKE DETECTOR
$x	SWITCH (" INDICATES EQ.)
	FIRE DAMPER
	COMBINATION FIRE AND SMOKE DAMPER
	MANUAL VOLUME DAMPER W/LOCKING QUADRANT
M	MOTORIZED DAMPER

PIPING SYMBOLS

SYMBOL	DESCRIPTION
	BALANCING VALVE/ FLOW MEASURING DEVICE
	BALL VALVE
	OS&Y GATE VALVE
	SHUT-OFF VALVE
	GLOBE VALVE
	CHECK VALVE
	BUTTERFLY VALVE
	FLOW SWITCH
	SOLENOID VALVE
	PRESSURE REDUCING VALVE
	GAS VALVE
	MIXING VALVE
RBFP	REDUCED PRESSURE BACKFLOW PREVENTER
	ATMOSPHERIC VACUUM BREAKER
	RELIEF VALVE
	STRAINER
	STRAINER WITH BLOW-OFF VALVE
	UNION
	PRESSURE GAUGE
	THERMOMETER
P/T	PRESSURE AND TEMPERATURE TAP
	CONCENTRIC REDUCER
	ECCENTRIC REDUCER
	FLEXIBLE CONNECTOR
	AREA/FLOOR DRAIN
	EXPANSION JOINT
	PIPE ANCHOR
	ALIGNMENT GUIDE
	PLUG VALVE
	AUTOMATIC 2-WAY TEMPERATURE CONTROL VALVE
	AUTOMATIC 3-WAY TEMPERATURE CONTROL VALVE
	FLOW SWITCH
	THERMOSTATIC STEAM TRAP
	FLOAT & THERMOSTATIC STEAM TRAP
B	INVERTED BUCKET STEAM TRAP
	MANUAL AIR VENT

DOUBLE LINE DUCTWORK

	RECTANGULAR SUPPLY AIR DUCT UP
	RECTANGULAR SUPPLY AIR DUCT DOWN
	RECT RETURN/EXH AIR DUCT UP
	RECT RETURN/EXH AIR DUCT DOWN
	ROUND DUCT UP
	ROUND DUCT DOWN
	BRANCH DUCT 45 °TAKE-OFF
	RECTANGULAR DUCT ELBOW WITH TURNING VANES
	RADIUS ELBOW RECTANGULAR/ROUND DUCT
	DUCT TRANSITION
	FLEX CONNECTION
	MANUAL VOLUME DAMPER W/LOCKING QUADRANT

SINGLE LINE DUCTWORK

	RECTANGULAR SUPPLY AIR DUCT UP
	RECTANGULAR SUPPLY AIR DUCT DOWN
	RECT RETURN/EXH AIR DUCT UP
	RECT RETURN/EXH AIR DUCT DOWN
	ROUND DUCT UP
	ROUND DUCT DOWN
	BRANCH DUCT 45 °TAKE-OFF
	RECTANGULAR DUCT ELBOW WITH TURNING VANES
	RADIUS ELBOW RECTANGULAR/ROUND DUCT
	DUCT TRANSITION
	CONICAL SPIN-IN FITTING
	CONICAL SPIN-IN FITTING W/DAMPER
	FLEXIBLE DUCT

ABBREVIATIONS

AFF	ABOVE FINISHED FLOOR	(E)	EXISTING	LCO	LINE CLEAN OUT	PRV	PRESSURE REDUCING VALVE
AFG	ABOVE FINISHED GRADE	EC	ELECTRICAL CONTRACTOR	MC	MECHANICAL CONTRACTOR	POC	POINT OF CONNECTION
ALP	ALARM PANEL	EL	ELEVATION	MH	MANHOLE	PSCO	PUBLIC SERVICE COMPANY
AP	ACCESS PANEL	FCO	FLOOR CLEAN OUT	(N)	NEW	SCO	SURFACE CLEAN OUT
BFP	BACKFLOW PREVENTER	FPC	FIRE PROT. CONTRACTOR	NC	NORMALLY CLOSED	SRV	SAFETY RELIEF VALVE
CB	CATCH BASIN	GC	GENERAL CONTRACTOR	NIC	NOT IN CONTRACT	TMV	THERMOSTATIC MIXING VALVE
℄	CENTERLINE	IE	INVERT ELEVATION	NO	NORMALLY OPEN	TYP	TYPICAL
DNZ	DOWNSPOUT NOZZLE	KEC	KIT. EQ. CONTRACTOR	NTS	NOT TO SCALE	WCO	WALL CLEAN OUT
						VTR	VENT THROUGH ROOF

CURRAN
ARCHITECTURE
5719 LAWTON LOOP E. DR. #212
INDIANAPOLIS, IN 46216
O :: 317 . 288 . 0681
F :: 317 . 288 . 0753

ARWIN PRIEST P.E., P.Eng.
MECHANICAL ▪ ENGINEER ▪ ELECTRICAL
242 Mountain Cloud Circle
Highlands Ranch, Colorado 80126
Email: arwin@pedenver.com / apriest@thompson-eng.com
Ph: (303) 947-6394 & (303) 773-8773

CERTIFICATION

PROJECT INFORMATION

FIREHOUSE SUBS

FIREHOUSE SUBS
111 SE M291 HWY
STE. 100
LEES SUMMIT, MO 64081

ISSUE DATES

ISSUE	DATE
PERMIT/CONSTRUCTION	12.01.2020
1 BD COMMENTS	12.11.2020

PROJECT NUMBER:

M-001

HVAC SPECIFICATIONS

BASIC REQUIREMENTS:
ALL OF THE DRAWINGS AND SPECIFICATIONS ARE CONSIDERED A PART OF THE CONTRACT DOCUMENTS. THE CONTRACTOR SHALL BE RESPONSIBLE FOR SEARCHING ALL CONTRACT DOCUMENTS TO DETERMINE THE SCOPE OF WORK REQUIRED IN FINAL CONNECTIONS TO EQUIPMENT PROVIDED BY OTHER CONTRACTS OR CONTRACTORS. IT IS THE INTENT OF THE DRAWINGS TO PROVIDE AS MUCH INFORMATION AS POSSIBLE ON EQUIPMENT PROVIDED BY OTHERS. HOWEVER, THE EXTENT OF FINAL CONNECTIONS AND TYPE OF FINAL CONNECTIONS SHALL BE DETERMINED BY THE ACTUAL EQUIPMENT SUPPLIED BY OTHERS. THIS CONTRACTOR SHALL INCLUDE IN HIS BASE BID, REASONABLE COST FOR THE INSTALLATION OF EQUIPMENT PROVIDED BY OTHERS. HE SHALL NOT BE AWARDED EXTRA COSTS AFTER THE CONTRACT IS AWARDED UNLESS THE EQUIPMENT SO INSTALLED IS NOT SHOWN ON ANY OF THE CONTRACT DOCUMENTS.

WORK INCLUDED UNDER THIS DIVISION SHALL CONSIST OF FURNISHING ALL MATERIALS, SUPPLIES, EQUIPMENT, TOOLS, INSURANCE, TRANSPORTATION AND FACILITIES, AND PERFORMING ALL LABOR AND SERVICES NECESSARY FOR COMPLETE INSTALLATION OF THE NEW MECHANICAL SYSTEM(S).

ARRANGE FOR PIPE SPACES, CHASES, SLOTS, AND OPENINGS IN BUILDING STRUCTURE DURING PROGRESS OF CONSTRUCTION, TO ALLOW FOR MECHANICAL INSTALLATIONS. COORDINATE REQUIREMENTS FOR ACCESS PANELS AND DOORS FOR MECHANICAL ITEMS REQUIRING ACCESS THAT ARE CONCEALED BEHIND
FINISHED SURFACES.

ALL WORK SHALL BE PERFORMED IN ACCORDANCE WITH CURRENT INTERNATIONAL BUILDING, FIRE, PLUMBING, MECHANICAL, ENERGY CONSERVATION CODES AND LOCAL JURISDICTION AMMENDMENTS. PAY FOR ALL FEES AND PERMITS AS ARE NECESSARY FOR THE COMPLTE INSTALLATION OF MECHANICAL SYSTEMS.

DRAWINGS ARE DIAGRAMMATIC, INDICATING ONLY APPROXIMATE LOCATIONS OF SERVICES, DUCTWORK, APPARATUS, AND PIPING UNLESS NOTED OTHERWISE, AND ARE NOT TO BE SCALED. ACTUAL INSTALLATION MUST CONFORM TO ACTUAL BUILDING CONDITIONS, AND VERIFIED IN THE FIELD. THE ARCHITECT/ ENGINEER RESERVES THE RIGHT TO EFFECT REASONABLE CHANGES IN THE LOCATION OF EQUIPMENT UP TO THE TIME OF ROUGH-IN WITHOUT ADDITIONAL COST TO THE OWNER. ANY AND ALL CHANGES SHALL BE APPROVED BY THE ARCHITECT/ ENGINEER. MAINTAIN MANUFACTURERS RECOMMENDED CLEARANCES AROUND ALL EQUIPMENT.

PROJECT SHALL BE COORDINATED WITH THE EXISTING BUIDING SERVICES AND SHALL INCLUDE ALL ITEMS NECESSARY FOR COMPLETE AND FULLY OPERATIONAL TENANT MECHANICAL SYSTEMS. MAKE CONNECTIONS TO AND EXTEND SYSTEMS INSTALLED BY OTHERS AND/OR FURNISHED BY OTHERS. PROVIDE ACCESSORIES AND INCIDENTAL ITEMS AS REQUIRED FOR A COMPLETE AND FULLY OPERATIONAL SYSTEM WHETHER OR NOT SPECIFICALLY SPECIFIED AND/OR SHOWN ON THE PLANS.

DO NOT SCALE DRAWINGS. COORDINATE WITH OTHER TRADES FOR A COORDINATED INSTALLATION WITHIN THE AVAILABLE SPACE. WHERE CROWDED CONDITIONS EXIST, PREPARE COORDINATION DRAWINGS SHOWING ALL TRADE CONFLICTS AND SUBMIT TO THE ARCHITECT FOR APPROVAL AND DIRECTION PRIOR TO ROUGH-IN OR INSTALLATION. RELOCATION OF INLETS, OUTLETS, AND/OR APPARATUS MADE PRIOR TO ROUGH-IN OR REQUIRED BY FIELD CONDITIONS FOR COORDINATION SHALL BE DONE AT NO ADDITIONAL COST TO THE OWNER OR HIS AGENTS.

ALL WORK SHALL BE PERFORMED BY PROPERLY LICENSED MECHANICS OR UNDER THEIR DIRECT SUPERVISION. ALL MATERIALS AND EQUIPMNT SHALL MEET THE REQUIREMENTS OF THE APPLICABLE STANDARDS OF UL AND SHALL BEAR THE UL LABEL AS EVIDENCE THAT THE MATERIAL AND/OR EQUIPMNT MEETS THIS REQUIREMENT.

INSTALL ALL EQUIPMENT PER MANUFACTURER'S RECOMMENDATIONS AND DETAILS UNLESS OTHERWISE NOTED IN THESE PLANS.

ALL EQUIPMENT START UP AND TESTING SHALL BE PERFORMED BY THE EQUIPMENT MANUFACTURER TRAINED SERVICE TECHNICIAN.

SUBMIT MANUFACTURER'S LITERATURE (SHOP DRAWINGS) FOR MATERIALS AND EQUIPMENT. SUBMITTAL SHALL INCLUDE EQUIPMENT PERFORMANCE DATA AT ELEVATION AND/OR LOCAL CONDITIONS. EQUIPMENT CUTSHEETS OR CATALOG COPIES ARE NOT ACCEPTABLE.

SUBMITTAL SHALL BEAR THE APPROVAL OF THE GENERAL CONTRACTOR FOR COMPLIANCE WITH COORDINATION AND THESE SPECIFICATIONS PRIOR TO SUBMITTAL TO ARCHITECT AND/OR HIS AGENCIES.

ANY EQUIPMENT SUBSTITUTED FOR WHAT IS SCHEDULED SHALL BE EQUAL TO THAT SCHEDULED IN CONTROLS, ACCESSORIES, AND PERFORMANCE REGARDLESS OF MANUFACTURER.

SEPARATE PDF FILE PACKAGES SHALL BE SUPPLIED FOR EACH SECTION AND EACH SUBMITTAL TYPE, EACH PDF SAHLL REPRESENT A SINGLE STANDALONE SUBMITTAL.

SUBMITTAL AND SHOP DRAWINGS SHALL INDENTIFY EACH SUBMITTED ITEM WITH NUMBERS OF LETTERS IDENTIAL TO THOSE LISTED OR SCHEDULED ON THE DRAWINGS OR SPECIFICATIONS, SUBMITTALS NOT INCLUDING SUCH MARKINGS WILL BE RETURNED NOT REVIEWED.

SUBMITTING SUBCONTRACTOR SHALL ALLOW FIFTEEN (15) DAYS, FOR REVIEW AND COMMENT.

FIELD LABEL ALL MECHANICAL EQUIPMENT AND PIPING AS INDICATED ON THE PLANS PER MECHANICAL AND LOCAL CODE REQUIREMENTS. INDICATE DIRECTION OF FLOW ON PIPING.

PROVIDE 2" DEEP AUXILIARY DRAIN PAN WITH SEPARATE DRAIN LINE UNDER HEATING AND COOLING COILS (AIR HANDLING UNITS, FAN COIL UNITS, INLINE PUMPS, ETC.) WHERE CONDENSATION OR LEAKAGE CAN OCCUR.

BASIC MATERIALS:

PROVIDE MECHANICAL SYSTEM CONTROLS, CONTROLLERS, CONTROL TRANSFORMER, DISCONNECTS, STARTERS, CONTROL WIRING, ASSOCIATED CONTROL POWER WIRING, AND ALL WORK NECESSARY FOR A COMPLETE AND OPERATIONAL MECHANICAL SYSTEM.

PROVIDE SUPPLEMENTAL STEEL AND SUPPORTS AS REQUIRED FOR INSTALLATION OF MECHANICAL MATERIALS, EQUIPMENT, AND APPARATUS.

PROVIDE VIBRATION ISOLATION ON ALL MECHANICAL EQUIPMENT. INSTALL FLEXIBLE DUCT CONNECTORS ON ALL AIR HANDLING UNIT SUPPLY OUTLET AND RETURN INLET.

ALL WORK IN FINISHED AREAS SHALL BE CONCEALED UNLESS SPECIFICALLY NOTED AS EXPOSED ON THE PLANS. PRIOR TO THE INSTALLATION OF ANY EXPOSED WORK THIS CONTRACTOR SHALL VERIFY AND OBTAIN ARCHITECTURAL APPROVAL OF LOCATION AND EXTENT.

BALANCE ALL SUPPLY AND EXHAUST OUTLETS TO AIRFLOW SHOWN. FINAL BALANCE MAY HAVE UP TO 10% DISCREPANCY OF THE CFM INDICATED ON THE PLANS. IF THERE IS AN AIR BALANCE DISCREPANCY GREATER THAN 10%, BALANCE CONTRACTOR SHALL CONTACT ENGINEER. PROVIDE MANUAL DAMPERS ON DIRECT DRIVE UNITS AS REQUIRED TO MEET SPECIFIED AIR QUANITITIES.

CERTIFIED TEST AND BALANACE REPORT SHALL BE PROVIDED TO ENGINEER FOR REVIEW AND AVALIABLE ON-SITE PRIOR TO FINAL MECHANICAL INSPECTIONS

CONFIRM ACTUAL VOLTAGES, PHASE AND CHARACTERISTICS OF EXISTING EQUIPMENT AND APPARATUS FURNISHED BY TENANT, OTHER TRADES, AND/OR DIVISIONS. CONFIRM PRIOR TO ROUGH-IN. IF DISCREPANCIES ARE NOTED TO THE INSTRUCTIONS OF THESE PLANS AND SPECIFICATIONS, SUBMIT THE NOTED DISCREPANCIES TO THE ARCHITECT FOR DIRECTION PRIOR TO PROCEEDING.

PROVIDE DUCT SMOKE DETECTORS FOR AUTOMATIC EQUIPMENT SHUTOFF IN AIR-MOVING SYSTEMS THAT RETURN IN EXCESS OF 2000 CFM TO ENCLOSED SPACES WITHIN BUILDING PER MECHANICAL HAVING JURISDICTION. MECHANICAL CONTRACTOR SHALL BE RESPONSIBLE FOR THE AIR HANDLING UNIT AUTOMATIC SHUT-DOWN WIRING AND DUCT/SMOKE DETECTOR WIRING WHEN REQUIRED. DETECTORS SHALL BE COMPATIBLE WITH BUILDING FIRE ALARM SYSTEM.

SMOKE, FIRE AND COMBINATION FIRE/SMOKE DAMPERS SHALL BE FURNISHED AND INSTALLED BY THE MECHANICAL CONTRACTOR. UNITS SHALL BE 120V AND ALL 120V WIRING SHALL BE RESPONSIBILITY OF THE ELECTRICAL CONTRACTOR. SMOKE, FIRE AND COMBINATION FIRE/SMOKE DAMPERS FURNISHED SHALL BE COMPATIBLE WITH BUILDING FIRE ALARM SYSTEM.

FIRE/SMOKE DAMPERS SHALL BE FURNISHED WITH REMOTE COMMAND STATION EQUIPPED WITH TEST SWITCH, THERMAL TEST RESET SWITCH, OPEN/CLOSE PILOT LIGHT INDICATORS. FIRE/SMOKE DAMPERS FURNISHED BY MECHANICAL CONTRACTOR AND WIRED BY ELECTRICAL CONTRACTOR.

THE CONTRACTOR SHALL LOCATE AND FURNISH FOR INSTALLATION BY OTHERS, ALL ACCESS PANELS AS REQUIRED FOR ACCESS TO VALVES, DAMPERS, MOTORS, ETC. AND THE PROPER SERVICING OF EQUIPMENT AND LINES INSTALLED UNDER THIS CONTRACT.

ALL MATIRIAL LOCATED IN CEILING PLENUMS SHALL BE SUITABLE FOR RETURN AIR PLENUM.

PIPING

HEATING AND CHILLED WATER PIPING SHALL BE SCHEDULE 40 BLACK STEEL WITH THREADDED OR WELDED JOINTS

REFRIGERATION PIPING SHALL BE TYPE ACR COPPER WITH SILVER SOLDERED JOINTS.

FIRE STOP ALL PIPING MATERIALS PASSING THROUGH FIRE RATED STRUCTURES OR FIRE RATED ASSEMBLIES IN ACCORDANCE WITH THE REQUIREMENTS OF AUTHORITIES HAVING JURISDICTION. USE CURRENTLY LISTED U.L. CLASSIFIED PRODUCTS, TESTED BY ASTM E814. USE FOR ALL APPLICABLE PIPE PENETRATIONS THROUGH FIRE RATED FLOORS, WALLS, OR FLOOR CEILING ASSEMBLIES IN ACCORDANCE WITH LOCAL CODE REQUIREMENTS.

DUCTWORK

DUCTWORK SHALL BE GALVANIZED SHEET METAL INSTALLED IN ACCORDANCE WITH SMACNA STANDARDS. INSTALL TURNING VANES IN ALL ELBOWS. ALL SPIN-IN FITTINGS SHALL BE PROVIDED WITH MANUAL VOLUME DAMPERS. ALL EXPOSED ROUND DUCTWORK SHALL BE SPIRAL DUCT.

DUCT SIZES SHOWN ON THE DRAWINGS ARE NET INSIDE FREE AREA.

EQUIPMENT FLEXIBLE DUCTWORK CONNECTION NOT TO EXCEED 5 INCHES IN LENGTH WITH A MAX. 25 FLAME/50 SMOKE INDEX.

FLEXIBLE DUCTWORK TO AIR DEVICES SHALL HAVE A MAXIMUM STRETCHED LENGTH OF 5 FEET. SUITABLE FOR RETURN AIR PLENUM.

LOW PRESSURE (<2" STATIC PRESSURE) SHEETMETAL DUCTWORK SHALL BE SEALED WITH WELDS, GASKETS, MASTIC ADHESIVES, MASTIC-PLUS-EMBEDED FABRIC. OR TAPES.

MEDIUM PRESSURE (>2" AND <3" STATIC PRESSURE) SHEETMETAL DUCTWORK SHALL BE SEALED WITH SMACNA SEAL CLASS "A" DUCT SEALANT

ALL FLUE GAS DUCTWORK TO BE METALBESTOS TYPE B VENTING OR EQUAL UNLESS OTHERWISE NOTED ON PLANS.

INSULATION

ALL ROUND CONCEALED RIGID SUPPLY DUCTWORK SHALL BE EXTERNALLY WRAPPED IN 1.5" THICK GLASS FIBER INSULATION WITH FIRE RETARDANT VAPOR BARRIER (MINIMUM R-8)

ALL RECTANGULAR DUCTWORK SHALL BE LINED WITH 1.5" THICK 2 POUND DENSITY (MINIMUM R-8) GLASS FIBER ACOUSTIC DUCT LINER.

ALL DUCTWORK EXPOSED TO OUTDOOR AMBIENT TYPE CONDITIONS SHALL BE EXTERNALLY WRAPPED IN 3" RIGID INSULATION (MINIMUM R-12) AND COVERED WITH MINIMUM 24 GAGE SHEET METAL COVER.

ALL DUCTWORK LOCATED IN RETURN AIR PLENUM OR UNCONDITIONED SPACE SHALL BE WRAPPED IN 1.5" THICK INSULATION (MINIMUM R-8).

ALL COLD AND HOT WATER PIPING SHALL HAVE A MINIMUM CONDUCTANCE VALUE BETWEEN 0.21 AND 0.28

CHILLED WATER PIPING SHALL BE INSULATED WITH 1 INCH THICK FIBER GLASS INSULATION WITH AN ALL-SERVICE JACKET.

CONDENSATE DRAIN PIPING SHALL BE INSULATED WITH ½-INCH THICK FIBER GLASS INSULATION WITH AN ALL-SERVICE JACKET.

REFRIGERATION SUCTION LINES SHALL BE INSULATED WITH ½ INCH FOAM PLASTIC CLOSED CELL INSULATION. SEAL ALL JOINTS.

AIR INLETS AND OUTLETS

FURNISH AND INSTALL AIR INLETS AND OUTLETS AS SCHEDULED ON THE PLANS. ACCEPTABLE MANUFACTURERS ARE CARNES, METALAIRE, PRICE, OR TITUS.

OUTLETS SHALL HAVE A WHITE BAKED ENAMEL FINISH TO MATCH CEILING OR WALL.

FURNISH AND INSTALL ROOF CURBS AND BACKDRAFT DAMPERS.

EXHAUST FANS

FURNISH AND INSTALL CENTRIFUGAL EXHAUST FANS AS SCHEDULED ON THE PLANS. ACCEPTABLE MANUFACTURERS ARE ACME, COOK, CARNES, GREENHECK, OR TWIN CITY.

FURNISH AND INSTALL UNITS COMPLETE WITH ALL OPERATIONAL AND SAFETY CONTROL NECESSARY FOR PROPER OPERATION.

PACKAGE GAS/ELECTRIC SINGLE ZONE ROOFTOP UNITS

FURNISH AND INSTALL PACKAGE GAS/ELECTRIC SINGLE ZONE ROOFTOP UNITS AS SCHEDULED ON THE PLANS. ACCEPTABLE MANUFACTURERS ARE TRANE, CARRIER, LENNOX OR YORK.

FURNISH AND INSTALL UNIT COMPLETE WITH ALL OPERATIONAL AND SAFETY CONTROLS FOR SATISFACTORY OPERATION.

FURNISH AND INSTALL FACTORY FURNISHED PROGRAMMABLE THERMOSTAT. MOUNT AT +48-INCHES AFF.

FURNACES AND SPLIT SYSTEM DX COOLING UNITS

FURNISH AND INSTALL NATURAL GAS FURNACE UNITS AS SCHEDULED ON THE PLANS. ACCEPTABLE MANUFACTURERS ARE TRANE, CARRIER, LENNOX OR YORK.

FURNISH AND INSTALL ELECTRIC DIRECT EXPANSION CONDENSING UNITS AND MATCHING INDOOR EVAPORATOR COILS OF THE SAME MANUFACTURER AS THE MATCHING FURNACE UNIT. PROVIDE REFRIGERANT LINE SETS SIZED PER MANUFACTURER'S RECOMMENDATIONS.

FURNISH AND INSTALL UNIT COMPLETE WITH ALL OPERATIONAL AND SAFETY CONTROLS FOR SATISFACTORY OPERATION.

FURNISH AND INSTALL FACTORY FURNISHED PROGRAMMABLE THERMOSTAT. MOUNT AT +45-INCHES AFF.

INSPECT AND REPORT ANY DISCREPANCIES TO THE ARCHITECT PRIOR TO ATTEMPTING TO SET UNITS. PROVIDE 4-INCH THICK CONCRETE PAD FOR CONDENSING UNIT.

PROVIDE SECONDARY DRAIN PAN FOR HORIZONTAL MOUNTED FURNACE/COOLING COIL UNIT. TERMIANTE DRAIN TO NEAREST APPROVED RECEPTOR.

GAS UNIT HEATERS

FURNISH AND INSTALL NATURAL GAS FIRED HORIZONTAL UNIT HEATERS AS SCHEDULED ON THE PLANS. UNIT HEATERS SHALL BE AS MANUFACTURED BY TRANE, REZNOR, OR STERLING.

HEATERS SHALL BE AGA CERTIFIED AND INSTALLED IN ACCORDANCE WITH MANUFACTURER'S REQUIREMENTS.

FURNISH AND INSTALL UNITS COMPLETE WITH ALL OPERATIONAL AND SAFETY CONTROLS FOR SATISFACTORY OPERATION.

FURNISH AND INSTALL FACTORY FURNISHED SPACE THERMOSTAT WITH AUTO ON AND HEAT, OFF SELECTION. MOUNT AT +45-INCHES AFF.

MAKE UP AIR UNITS

FURNISH AND INSTALL NATURAL GAS FIRED MAKE UP AIR UNITS AS SCHEDULED ON THE PLANS. MAKE UP AIR UNIT SHALL BE AS MANUFACTURED BY CAPTIVEAIRE, TRANE, REZNOR, OR STERLING.

FURNISH AND INSTALL UNIT COMPLETE WITH ALL OPERATIONAL AND SAFETY CONTROLS FOR SATISFACTORY OPERATION.

FURNISH AND INSTALL FACTORY FURNISHED DISCHARGE OPERATIONAL THERMOSTAT AND OPERABLE 100% OUTDOOR AIR INTAKE DAMPER.

CONTROL SYSTEM

FURNSIH AND INSTALL A COMPLETE SYSTEM OF ELECTRIC/ELECTRONIC CONTROL FOR THE SYSTEMS INSTALLED TO PROVIDE THE FOLLOWING SEQUENCES OF OPERATION.

SYSTEMS SHALL BE INDEPENDENT AND STAND ALONE IN OPERATION AND SEQUENCE.

SINGLE ZONE ROOFTOP UNITS AND FURNACE/CONDENSING UNITS
A 7-DAY PROGRAMMABLE THERMOSTAT SHALL CONTROL THE OPERATION OF THE UNIT. DESIRED OCCUPIED AND UNOCCUPIED HEATING AND COOLING SETPOINTS ARE PROGRAMMED VIA THE TERMOSTAT. FAN OPERATION IS DETERMINED BY THE POSITION OF THE FAN 'ON-AUTO' SWICH. AS WELL AS BY THE MODE OF OCCUPANCEY, FAN SHALL RUN CONTINUOULSY IN OCCUPIED MODE. HEATING AND COOLING OPERATION AS DESCRIBED HEREIN ASSUMES THE SYSTEM 'HEAT-AUTO-COOL-OFF' SWITCH IS IN THE 'AUTO' POSITION

ELECTRIC HEAT
LOCAL ELECTRIC UNIT HEATERS SHALL BE CONTROLLED BY LOCAL SPACE THERMOSTATS WITH HEAT OFF, FAN AUTO AND CONTINUOUS SWITCHES OR SELF CONTAINED UNIT SPACE THERMOSTATS AS APPROPRIATE.

MINI-SPLIT SYSTEMS
UNIT SHALL BE CONTROLLED THROUGH REMOTE THERMOSTAT.

EXHAUST FANS
TOILET AND JANITOR ROOM EXHAUST FANS SHALL BE INTERLOCKED WITH LIGHT SWITCH.
KITCHEN HOOD EXHAUST FANS SHALL BE INTERLOCKED WITH MAKE-UP AIR UNITS, PROVIDE PACKAGE EXHAUST/MAKE-UP AIR CONTROL PANEL MOUNTED ON WALL IN KITCHEN

GAS UNIT HEATERS
UNIT SHALL BE CONTROLLED BY UNIT MOUNTED ELECTRIC HEATING THERMOSTAT.

MAKEUP AIR UNIT
UNIT SHALL BE CONTROLLED PACKAGE EXHAUST/MAKE-UP AIR CONTOL PANEL MONTED ON WALL IN KITCHEN, SUPPLY DUCT MOUNTED DISCHARGE AIR THERMOSTAT SHALL CONTROL THE MODULATING GAS BURNER AND EVAPORATIVE COOLER TO MAINTAIN DISCHARGE TEMPERATURE, SET AT 65 DEGREE F ADJUSTABLE.

COMPLETION:
CLEAN INSULATION COVERING, DUCTS, PIPES, EQUIPMENT AND ACCESSORIES TO RECEIVE PRIME COAT OF PAINT. CLEAN EQUIPMENT RECIVED WITH PRIME COAT TO RECEIVE FINAL COAT.
REPLACE AIR FILTERS IF UNITS WERE OPERATED DURING CONSTRUCTION. CLEAN DUCTS. BLOWERS, AND COILS IF UNITS WERE OPERAED WITHOUT FILTERS DURING CONSTRUCTION.

INSTRUT OWNER IN OPERATION AND MAINTENANCE OF MECHANICAL SYSTEMS. MINIMUM PARTICIPANTS SHALL INCLUDE MECHANICAL CONTRACTOR AND CONTROLS CONTRACTOR REPRESENTATIVES.

AFTER TESTS AND ADJUSTMENTS HAVE BEEN MADE AND SYSTEM IS PRONOUNCED SATISFACTORY FOR PERMANENT OPERATION, REFINISH DAMAGED FINISHES AND LEAVE EVERYTHING IN PROPER WORKING ORDER AND APPEARANCE.

ON COMPLETION OF WORK. REMOVE TOOLS, SCAFFOLDING, DEBRIS. ETC. FROM GROUNDS AND LEAVE PREMISES CLEAN.

OPERATION AND MAINTENANCE MANUALS:
PRIOR TO COMPLTION OF PROJECT, SUBMIT THREE (3) SETS OF MAINTENANCE MANUALS COVERING OPERATION AND MAINTENANCE OF MECHANICAL EQUIPMENT WITH MOVING OR MOVABLE PARTS, INCLUDING PLUMBING SYSTEMS INSTRUCTIONS SHALL BE IN PAMPHLET OR TYPEWRITTEN FORM IN THREE RING BINDERS. INSTRUCTIONS FOR EACH UNIT SHALL BE INDICATED BY SEPARATE TAB.

INCLUDE CERTIFIED TEST AND BALANCE REPORT.

INCLUDE STARTING. TOPPING. LUBRICATION. PREVENTATIVE MAINTENANCE SCHEDULE. AND ADJUSTMENT INFORMATION FOR EACH PIECE OF EQUIPMENT.
INCLUDE GUARANTEES AND WARRANTIES OF ALL EQUIPMENT.

INCLUDE AS-BUILT DRAWINGS OF COMPLETED HVAC AND PLUMBING SYSTEMS

CURRAN
ARCHITECTURE
5719 LAWTON LOOP E. DR. #212
INDIANAPOLIS, IN 46216
O :: 317 . 288 . 0681
F :: 317 . 288 . 0753

ARWIN PRIEST P.E., P.Eng.
MECHANICAL ▪ ENGINEER ▪ ELECTRICAL
242 Mountain Cloud Circle
Highlands Ranch, Colorado 80126
Email: arwin@pedenver.com / apriest@thompson-eng.com
Ph: (303) 947-6394 & (303) 773-8773

CERTIFICATION

PROJECT INFORMATION

FIREHOUSE SUBS
111 SE M291 HWY
STE. 100
LEES SUMMIT, MO 64081

ISSUE DATES

	ISSUE	DATE
	PERMIT/CONSTRUCTION	12.01.2020
1	BD COMMENTS	12.11.2020

PROJECT NUMBER:

M-002

PACKAGED ROOFTOP HEAT PUMP UNIT SCHEDULE

SYMBOL	MFR	MODEL	SUPPLY FAN DATA					RETURN/EXHAUST FAN DATA				COIL DATA							NO. COMPR	ELEC	MCA/ MOCP AMP	MIN. EER	FILTER DATA			APPROX ROOF CURB DIM	APPROX OPER WT LB	REMARKS
			CFM TOTAL @ 4500'	CFM OA @4500'	ESP IN WC @ SL	APPROX RPM	MIN FAN HP	CFM @ SL	ESP IN WC @ SL	APPROX RPM	MIN FAN HP	COIL SERVICE	FACE AREA SQ FT	MBH HEATING @ SL	MBH OUTPUT @ 3,200	MBH COOL TOTAL @ SL	KW	NO STEPS					TYPE	QUANT/ SIZE	EFF %			
RTU-1	CARRRIE	48TCFD014 (12.5-TON)	5,000	1,200	0,8	1,080	3,75	---	---	---	---	HEATING	---	250.0	205.0	---	---	2	2	208V-3Ø	65.0/80.0	10.8	PLEATED	4/ 20"x25"x2"	MERV 13	88"x59"	1,300	1,2,3,4,5,7
												COOLING	11.1	---	---	140.0	---	2										

1. COOLING COIL CAPACITY BASED ON ARI STANDARD CONDITIONS: 80 FDB/67 FWB, 95 F AMBIENT AT CONDENSER.
2. EXTERNAL STATIC PRESSURE DOES NOT INCLUDE LOSSES FOR UNIT CASING, FILTERS, OR COILS.
3. BURNER SHALL BE DESIGNED TO FIRE ON NATURAL GAS, 6" WC. 830 BTU/CF.
4. PROVIDE 100% OUTDOOR AIR ECONOMIZER
5. PROVIDE RETURN AIR DUCT SMOKE DETECTOR INSTALLED PER IMC 606.2.1 w/SUPERVISORY INDICATORS
6. HIGH HEATING CAPACTIY BASED ON 70 FDB EAT, 37 F AMBIENT AT CONDENSER
7. PROVIDE CONDENSER COIL HAIL GUARDS

FAN SCHEDULE

SYMBOL	FAN TYPE	SERVICE	MFR	MODEL	WHEEL DIA IN	CFM @ SL	SP IN WC @ SL	APPROX RPM	TIP SPEED FPM	SONES	MIN HP	ELEC	DRIVE TYPE	DAMPER TYPE	APPROX ROOF OPENING	REMARKS
EF-1	CEILING CABINET	TOILET	ACME	VQ150	---	100	0.5	710	--	3.1	100 WATTS	120V-1Ø	DIRECT	BACKDRAFT	7"Ø	4
EF-2	CEILING CABINET	TOILET	ACME	VQ150	---	100	0.5	710	--	3.1	100 WATTS	120V-1Ø	DIRECT	BACKDRAFT	7"Ø	4
EF-3	CEILING CABINET	MOP SINK	ACME	VQ150	---	100	0.5	710	--	3.1	100 WATTS	120V-1Ø	DIRECT	BACKDRAFT	7"Ø	4
EF-4	ROOF MTD UPBLAST	STEAM TBL	ACME	PNUHP100	---	800	0.5	1,765	--	9.5	1/3 HP	120V-1Ø	BELT	BACKDRAFT	16.5"x16.5"	5

1. ACME MODEL 611 FLAT ROOF JACK
2. 12" HIGH PRE-FAB CURB
3. PROVIDE MANUAL VARIABLE SPEED CONTROLLER FOR WALL MOUNTING BY EC
4. intelock fan with room light switch
5. PROVIDE WALL SWITCH W/PILOT FOR FAN CONTROL RE: ELECTRICAL

SUPPLY DIFFUSER SCHEDULE

A — DESIGNATES LABEL FOR DIFFUSER TYPES
100 — DESIGNATES CFM QUANTITY FOR DIFFUSER

ALL DIFFUSERS ARE TO BE PROVIDED WITH OPPOSED BLADE DAMPERS UNLESS OTHERWISE SPECIFIED ON PLANS

LABEL	MANUFACTURER & MODEL NO.	NECK SIZE	CFM RANGE	REMARKS
A	HART & COOLEY RZ-2153	6"Ø	0-125	12X12 REZZIN 4-WAY LOUVERED
B	HART & COOLEY RZ-2153	6"Ø	0-125	24X24 REZZIN 4-WAY LOUVERED
C	HART & COOLEY RZ-2153	8"Ø	130-200	24X24 REZZIN 4-WAY LOUVERED
D	HART & COOLEY RZ-2153	10"Ø	205-355	24X24 REZZIN 4-WAY LOUVERED
E	HART & COOLEY RZ-2153	12"Ø	360-550	24X24 REZZIN 4-WAY LOUVERED
S	HART & COOLEY 92VHV	18"x8"	250-400	STEEL DOUBLE DEFLECTION
ALTERNATE				
F	HAVACO TECHNOLOGIES	6"Ø	0-125	HT-2X2-SPL6
G	HAVACO TECHNOLOGIES	8"Ø	130-200	HT-2X2-SPL8
H	HAVACO TECHNOLOGIES	10"Ø	205-355	HT-2X2-SPL10
I	HAVACO TECHNOLOGIES	12"Ø	360-550	HT-2X2-SPL12
J	HAVACO TECHNOLOGIES	6"Ø	0-125	HT-2X2-PSPL6
K	HAVACO TECHNOLOGIES	8"Ø	130-200	HT-2X2-PSPL8
L	HAVACO TECHNOLOGIES	10"Ø	205-355	HT-2X2-PSPL10
M	HAVACO TECHNOLOGIES	12"Ø	360-550	HT-2X2-PSPL12
N	HAVACO TECHNOLOGIES	6"Ø	0-125	HT-2X2-BSPL6
O	HAVACO TECHNOLOGIES	8"Ø	130-200	HT-2X2-BSPL8
P	HAVACO TECHNOLOGIES	10"Ø	205-355	HT-2X2-BSPL10
R	HAVACO TECHNOLOGIES	12"Ø	360-550	HT-2X2-BSPL12

RETURN GRILLE SCHEDULE

A — DESIGNATES LABEL FOR DIFFUSER TYPES
100 — DESIGNATES CFM QUANTITY FOR DIFFUSER

ALL GRILLES ARE TO BE PROVIDED WITH OPPOSED BLADE DAMPERS UNLESS OTHERWISE SPECIFIED ON PLANS

LABEL	MANUFACTURER & MODEL NO.	NECK SIZE	CFM RANGE	REMARKS
1	HART & COOLEY ROBF-T	6"Ø	0-125	12X12 CURVED BLADE
2	HART & COOLEY ROBF-T	6"Ø	0-125	24X24 CURVED BLADE
3	HART & COOLEY ROBF-T	8"Ø	130-200	24X24 CURVED BLADE
4	HART & COOLEY ROBF-T	10"Ø	225-360	24X24 CURVED BLADE
5	HART & COOLEY ROBF-T	12"Ø	365-600	24X24 CURVED BLADE
6	HART & COOLEY ROBF-T	14"Ø	605-850	24X24 CURVED BLADE
7	HART & COOLEY ROBF-T	16"Ø	855-1395	24X24 CURVED BLADE
8	HART & COOLEY ROBF-T	24"x24"	1400-2000	24X24 CURVED BLADE
11	HART & COOLEY 94A	48"x12"	700-850	STEEL 35-DEG FIXED BLADE
ALTERNATE				
9	HAVACO TECHNOLOGIES	6"Ø-16"Ø	---	HT-2X2-RTN
10	HAVACO TECHNOLOGIES	6"Ø-16"Ø	---	HT-2X2-ERTN

CURRAN
ARCHITECTURE
5719 LAWTON LOOP E. DR. #212
INDIANAPOLIS, IN 46216
O :: 317 . 288 . 0681
F :: 317 . 288 . 0753

ARWIN PRIEST P.E., P.Eng.
MECHANICAL ▪ ENGINEER ▪ ELECTRICAL
242 Mountain Cloud Circle
Highlands Ranch, Colorado 80126
Email: arwin@pedenver.com / apriest@thompson-eng.com
Ph: (303) 947-6394 & (303) 773-8773

CERTIFICATION

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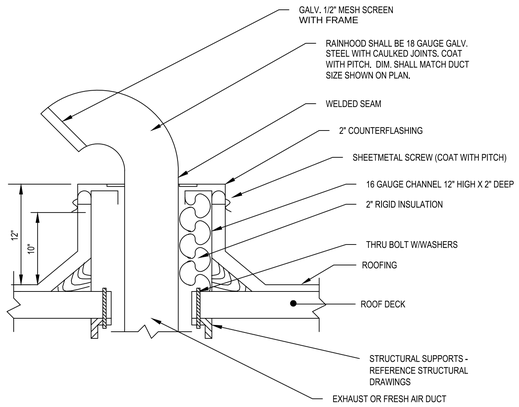
111 SE M291 HWY
STE. 100
LEES SUMMIT, MO 64081

ISSUE DATES

ISSUE	DATE
PERMIT/CONSTRUCTION	12.01.2020
1 BD COMMENTS	12.11.2020

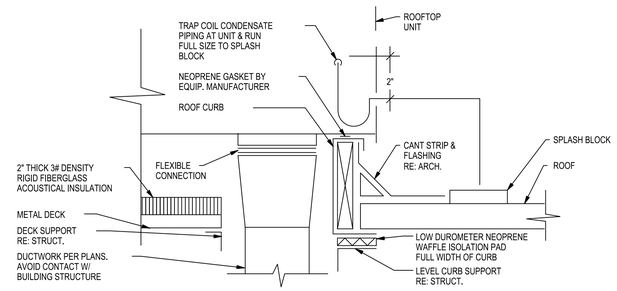
PROJECT NUMBER:

M-003



ROOF JACK DETAIL

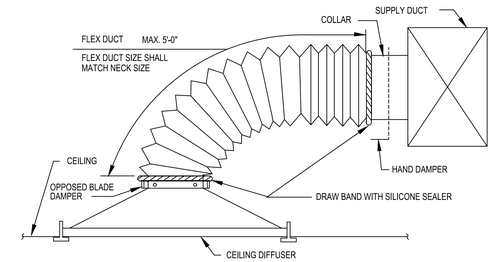
N.T.S.



ROOFTOP CURB INSTALLATION DETAIL

NOT TO SCALE

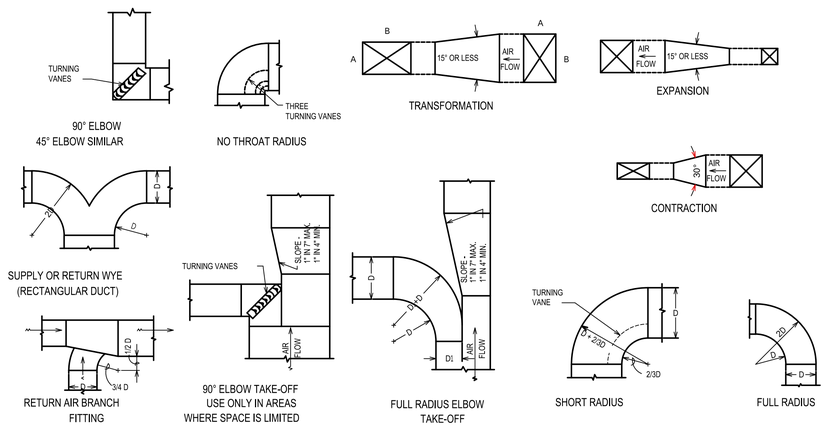
CONTRACTORS CAUSING ANY AND ALL ROOF PENETRATIONS ARE TO USE AXIOM CONTRACTORS, INC. (904) 981-9882



TYPICAL DIFFUSER CONNECTION

(SIDE OF DUCT CONNECTION)

NOT TO SCALE



DETAILS OF THE LOW VELOCITY DUCT LAYOUT

NO SCALE

CURRAN
ARCHITECTURE
5719 LAWTON LOOP E. DR. #212
INDIANAPOLIS, IN 46216
O :: 317 . 288 . 0681
F :: 317 . 288 . 0753

ARWIN PRIEST P.E., P.Eng.
MECHANICAL + ENGINEER + ELECTRICAL
242 Mountain Cloud Circle
Highlands Ranch, Colorado 80126
Email: arwin@pedenver.com / apriest@thompson-eng.com
Ph: (303) 947-6394 & (303) 773-8773

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FIREHOUSE SUBS

111 SE M291 HWY
STE. 100
LEES SUMMIT, MO 64081

ISSUE DATES

ISSUE	DATE
PERMIT/CONSTRUCTION	12.01.2020
1 BD COMMENTS	12.11.2020

PROJECT NUMBER:

M-004

COMcheck Software Version 4.1.1.0

Mechanical Compliance Certificate

Project Information

Energy Code:	2018 IECC
Project Title:	Firehouse Subs
Location:	Lees Summit, Missouri
Climate Zone:	4a
Project Type:	Addition

Construction Site: Lees Summit, MO

Owner/Agent:

Designer/Contractor:

Mechanical Systems List

Quantity **System Type & Description**

1 HVAC System 1 (Single Zone):
Heating: 1 each - Central Furnace, Gas, Capacity = 250 kBtu/h
Proposed Efficiency = 80.00% Et, Required Efficiency: 80.00 % Et
Cooling: 1 each - Single Package DX Unit, Capacity = 140 kBtu/h, Air-Cooled Condenser, Air Economizer
Proposed Efficiency = 10.80 EER, Required Efficiency: 10.80 EER + 12.2 IEER
Fan System: RTU-1 -- Compliance (Motor nameplate HP method) : Passes

Fans:
FAN 1 Supply, Constant Volume, 5000 CFM, 3.8 motor nameplate hp, 70.0 fan efficiency grade

1 Water Heater 1:
Gas Instantaneous Water Heater, Capacity: 1 gallons, Input Rating: 380 kBtu/h
No minimum efficiency requirement applies

Mechanical Compliance Statement

Compliance Statement: The proposed mechanical design represented in this document is consistent with the building plans, specifications, and other calculations submitted with this permit application. The proposed mechanical systems have been designed to meet the 2018 IECC requirements in COM*check* Version 4.1.1.0 and to comply with any applicable mandatory requirements listed in the Inspection Checklist.

Name - Title _____ Signature _____ Date _____

COMcheck Software Version 4.1.1.0

Inspection Checklist

Energy Code: 2018 IECC

Requirements: 0.0% were addressed directly in the COM*check* software

Text in the "Comments/Assumptions" column is provided by the user in the COMcheck Requirements screen. For each requirement, the user certifies that a code requirement will be met and how that is documented, or that an exception is being claimed. Where compliance is itemized in a separate table, a reference to that table is provided.

Section # & Req.ID	Plan Review	Complies?	Comments/Assumptions
C103.2 [PR2][1]	Plans, specifications, and/or calculations provide all information with which compliance can be determined for the mechanical systems and equipment and document where exceptions to the standard are claimed. Load calculations per acceptable engineering standards and handbooks.	☐Complies ☐Does Not ☐Not Observable ☐Not Applicable	
C103.2 [PR3][1]	Plans, specifications, and/or calculations provide all information with which compliance can be determined for the service water heating systems and equipment and document where exceptions to the standard are claimed. Hot water system sized per manufacturer's sizing guide.	☐Complies ☐Does Not ☐Not Observable ☐Not Applicable	
C406 [PR9][1]	Plans, specifications, and/or calculations provide all information with which compliance can be determined for the additional energy efficiency package options.	☐Complies ☐Does Not ☐Not Observable ☐Not Applicable	

Additional Comments/Assumptions:

1 High Impact (Tier 1) 2 Medium Impact (Tier 2) 3 Low Impact (Tier 3)

Section # & Req.ID	Footing / Foundation Inspection	Complies?	Comments/Assumptions
C403.12.2 C403.12.3 [FO9][3]	Snow/ice melting system and freeze protection systems have sensors and controls configured to limit service for pavement temperature and outdoor temperature. future connection to controls.	☐Complies ☐Does Not ☐Not Observable ☐Not Applicable	

Additional Comments/Assumptions:

1 High Impact (Tier 1) 2 Medium Impact (Tier 2) 3 Low Impact (Tier 3)

Section # & Req.ID	Plumbing Rough-In Inspection	Complies?	Comments/Assumptions
C404.5, C404.5.1, C404.5.2 [PL6][3]	Heated water supply piping conforms to pipe length and volume requirements. Refer to section details.	☐Complies ☐Does Not ☐Not Observable ☐Not Applicable	
C404.5, C404.5.1, C404.5.2 [PL6][3]	Heated water supply piping conforms to pipe length and volume requirements. Refer to section details.	☐Complies ☐Does Not ☐Not Observable ☐Not Applicable	
C404.6.3 [PL7][3]	Pumps that circulate water between a heater and storage tank have controls that limit operation from startup to <= 5 minutes after end of heating cycle.	☐Complies ☐Does Not ☐Not Observable ☐Not Applicable	
C404.6.3 [PL7][3]	Pumps that circulate water between a heater and storage tank have controls that limit operation from startup to <= 5 minutes after end of heating cycle.	☐Complies ☐Does Not ☐Not Observable ☐Not Applicable	
C404.7 [PL8][3]	Demand recirculation water systems have controls that start the pump upon receiving a signal from the action of a user of a fixture or appliance and limits the temperature of the water entering the cold-water piping to 104°F.	☐Complies ☐Does Not ☐Not Observable ☐Not Applicable	
C404.7 [PL8][3]	Demand recirculation water systems have controls that start the pump upon receiving a signal from the action of a user of a fixture or appliance and limits the temperature of the water entering the cold-water piping to 104°F.	☐Complies ☐Does Not ☐Not Observable ☐Not Applicable	

Additional Comments/Assumptions:

1 High Impact (Tier 1) 2 Medium Impact (Tier 2) 3 Low Impact (Tier 3)

Section # & Req.ID	Mechanical Rough-In Inspection	Complies?	Comments/Assumptions
C402.2.6 [ME41][3]	Thermally ineffective panel surfaces of sensible heating panels have insulation >= R-3.5.	☐Complies ☐Does Not ☐Not Observable ☐Not Applicable	
C403.8.4 [ME142][2]	Motors for fans that are not less than 1/12 hp and less than 1 hp are electronically commutated motors or have a minimum motor efficiency of 70 percent. These motors have the means to adjust motor speed.	☐Complies ☐Does Not ☐Not Observable ☐Not Applicable	
C403.8.5 [ME143][2]	Each DX cooling system > 65 kBtu and chiller water/evaporative cooling system with fans > 1/4 hp are designed to vary the indoor fan airflow as a function of load and comply with detailed requirements of this section.	☐Complies ☐Does Not ☐Not Observable ☐Not Applicable	
C403.12.1 [ME71][2]	Systems that heat outside the building envelope are radiant heat systems controlled by an occupancy sensing device or timer switch.	☐Complies ☐Does Not ☐Not Observable ☐Not Applicable	
C403.2.3 [ME55][2]	HVAC equipment efficiency verified.	☐Complies ☐Does Not ☐Not Observable ☐Not Applicable	*See the Mechanical Systems list for values.*
C403.5.5 [ME113][2]	Fault detection and diagnostics installed with air-cooled unitary DX units having economizers.	☐Complies ☐Does Not ☐Not Observable ☐Not Applicable	
C403.2.2 [ME59][1]	Natural or mechanical ventilation is provided in accordance with International Mechanical Code Chapter 4. Mechanical ventilation has capability to reduce outdoor air supply to minimum per IMC Chapter 4.	☐Complies ☐Does Not ☐Not Observable ☐Not Applicable	
C403.7.1 [ME59][1]	Demand control ventilation provided for spaces >500 ft2 and >25 people/1000 ft2 occupant density and served by systems with air side economizer, auto modulating outside air damper control, or design airflow >3,000 cfm.	☐Complies ☐Does Not ☐Not Observable ☐Not Applicable	
C403.7.2 [ME115][3]	Enclosed parking garage ventilation has automatic contaminant detection and capacity to stage or modulate fans to 50% or less of design capacity.	☐Complies ☐Does Not ☐Not Observable ☐Not Applicable	
C403.7.6 [ME141][3]	HVAC systems serving guestrooms in Group R-1 buildings with > 50 guestrooms: Each guestroom is provided with controls that automatically manage temperature setpoint and ventilation (see sections C403.7.6.1 and C403.7.6.2).	☐Complies ☐Does Not ☐Not Observable ☐Not Applicable	
C403.7.4 [ME57][1]	Exhaust air energy recovery on systems meeting Table C403.7.4(1) and C403.7.4(2).	☐Complies ☐Does Not ☐Not Observable ☐Not Applicable	

1 High Impact (Tier 1) 2 Medium Impact (Tier 2) 3 Low Impact (Tier 3)

Section # & Req.ID	Mechanical Rough-In Inspection	Complies?	Comments/Assumptions
C403.7.5 [ME116][3]	Kitchen exhaust systems comply with replacement air and conditioned supply air limitations, and satisfy hood rating requirements and maximum exhaust rate criteria.	☐Complies ☐Does Not ☐Not Observable ☐Not Applicable	
C403.11.1, C403.11.2 [ME60][2]	HVAC ducts and plenums insulated in accordance with C403.11.1 and constructed in accordance with C403.11.2, verification may need to occur during Foundation Inspection.	☐Complies ☐Does Not ☐Not Observable ☐Not Applicable	
C403.5, C403.5.1, C403.5.2 [ME62][1]	Air economizers provided where required, meet the requirements for design capacity, control signal, ventilation controls, high-limit shut-off, integrated economizer control, and provide a means to relieve excess outside air during operation.	☐Complies ☐Does Not ☐Not Observable ☐Not Applicable	
C403.5.3.3 [ME124][1]	Air economizers automatically reduce outdoor air intake to the design minimum outdoor air quantity when outdoor air intake will not reduce cooling energy usage. See Table C403.5.3.3 for applicable device types and climate zones.	☐Complies ☐Does Not ☐Not Observable ☐Not Applicable	
C403.5.3.4 [ME125][1]	System capable of relieving excess outdoor air during air economizer operation to prevent overpressurizing the building. The relief air outlet located to avoid recirculation into the building.	☐Complies ☐Does Not ☐Not Observable ☐Not Applicable	
C403.5.3.5 [ME126][1]	Return, exhaust/relief and outdoor air dampers used in economizers have motorized dampers that automatically shut when not in use and meet maximum leakage rates. Reference section C403.7.7 for details.	☐Complies ☐Does Not ☐Not Observable ☐Not Applicable	
C403.4.1.4 [ME63][2]	Heating for vestibules and air curtains with integral heating include automatic controls that shut off the heating system when outdoor air temperatures > 45F. Vestibule heating and cooling systems controlled by a thermostat in the vestibule with heating setpoint <= 60F and cooling setpoint >= 80F.	☐Complies ☐Does Not ☐Not Observable ☐Not Applicable	
C403.3.3 [ME35][1]	Hot gas bypass limited to: <=240 kBtu/h – 50% >240 kBtu/h – 25%	☐Complies ☐Does Not ☐Not Observable ☐Not Applicable	
C408.2.2.1 [ME53][3]	Air outlets and zone terminal devices have means for air balancing.	☐Complies ☐Does Not ☐Not Observable ☐Not Applicable	
C403.5, C403.5.1, C403.5.2 [ME123][3]	Refrigerated display cases, walk-in coolers or walk-in freezers served by remote compressors and remote condensers not located in a condensing unit, have fan-powered condensers that comply with Sections C403.5.1 and refrigeration compressor systems that comply with C403.5.2..	☐Complies ☐Does Not ☐Not Observable ☐Not Applicable	

1 High Impact (Tier 1) 2 Medium Impact (Tier 2) 3 Low Impact (Tier 3)

CURRAN
ARCHITECTURE
5719 LAWTON LOOP E. DR. #212
INDIANAPOLIS, IN 46216
O :: 317 . 288 . 0681
F :: 317 . 288 . 0753

ARWIN PRIEST P.E., P.Eng.
MECHANICAL ▪ ENGINEER ▪ ELECTRICAL
242 Mountain Cloud Circle
Highlands Ranch, Colorado 80126
Email: arwin@pedenver.com / apriest@thompson-eng.com
Ph: (303) 947-6394 & (303) 773-8773

CERTIFICATION

PROJECT INFORMATION

FIREHOUSE SUBS

FIREHOUSE SUBS
111 SE M291 HWY
STE. 100
LEES SUMMIT, MO 64081

ISSUE DATES

ISSUE	DATE
PERMIT/CONSTRUCTION	12.01.2020
1 BD COMMENTS	12.11.2020

PROJECT NUMBER:

M-005

Additional Comments/Assumptions:

1 High Impact (Tier 1) | 2 Medium Impact (Tier 2) | 3 Low Impact (Tier 3)

Section # & Req.ID	Rough-In Electrical Inspection	Complies?	Comments/Assumptions
C405.6 [EL26][2]	Low-voltage dry-type distribution electric transformers meet the minimum efficiency requirements of Table C405.6.	☐Complies ☐Does Not ☐Not Observable ☐Not Applicable	
C405.7 [EL27][2]	Electric motors meet the minimum efficiency requirements of Tables C405.7(1) through C405.7(4). Efficiency verified through certification under an approved certification program or the equipment efficiency ratings shall be provided by motor manufacturer (where certification programs do not exist).	☐Complies ☐Does Not ☐Not Observable ☐Not Applicable	
C405.8.2, C405.8.2.1 [EL28][2]	Escalators and moving walks comply with ASME A17.1/CSA B44 and have automatic controls configured to reduce speed to the minimum permitted speed in accordance with ASME A17.1/CSA B44 or applicable local code when not conveying passengers.	☐Complies ☐Does Not ☐Not Observable ☐Not Applicable	
C405.9 [EL29][2]	Total voltage drop across the combination of feeders and branch circuits <= 5%.	☐Complies ☐Does Not ☐Not Observable ☐Not Applicable	

Additional Comments/Assumptions:

1 High Impact (Tier 1) | 2 Medium Impact (Tier 2) | 3 Low Impact (Tier 3)

Section # & Req.ID	Final Inspection	Complies?	Comments/Assumptions
C303.3, C408.2.5.3 [FI8][3]	Furnished O&M manuals for HVAC systems within 90 days of system acceptance.	☐Complies ☐Does Not ☐Not Observable ☐Not Applicable	
C403.2.2 [FI27][3]	HVAC systems and equipment capacity does not exceed calculated loads.	☐Complies ☐Does Not ☐Not Observable ☐Not Applicable	
C403.2.4.1 [FI47][3]	Heating and cooling to each zone is controlled by a thermostat control. Minimum one humidity control device per installed humidification/dehumidification system.	☐Complies ☐Does Not ☐Not Observable ☐Not Applicable	
C403.4.1.2 [FI38][3]	Thermostatic controls have a 5 °F deadband.	☐Complies ☐Does Not ☐Not Observable ☐Not Applicable	
C403.2.4.1.3 [FI20][3]	Temperature controls have setpoint overlap restrictions.	☐Complies ☐Does Not ☐Not Observable ☐Not Applicable	
C403.2.4.2 [FI39][3]	Each zone equipped with setback controls using automatic time clock or programmable control system.	☐Complies ☐Does Not ☐Not Observable ☐Not Applicable	
C403.2.4.2.1, C403.2.4.2.2 [FI40][3]	Automatic Controls: Setback to 55°F (heat) and 85°F (cool); 7-day clock, 2-hour occupant override, 10-hour backup	☐Complies ☐Does Not ☐Not Observable ☐Not Applicable	
C403.2.4.2.3 [FI41][3]	Systems include optimum start controls.	☐Complies ☐Does Not ☐Not Observable ☐Not Applicable	
C404.3 [FI11][3]	Heat traps installed on supply and discharge piping of non-circulating systems.	☐Complies ☐Does Not ☐Not Observable ☐Not Applicable	
C404.4 [FI25][2]	All piping insulated in accordance with section details and Table C403.11.3.	☐Complies ☐Does Not ☐Not Observable ☐Not Applicable	
C408.1.1 [FI57][1]	Building operations and maintenance documents will be provided to the owner. Documents will cover manufacturers' information, specifications, programming procedures and means of illustrating to owner how building, equipment and systems are intended to be installed, maintained, and operated.	☐Complies ☐Does Not ☐Not Observable ☐Not Applicable	

1 High Impact (Tier 1) | 2 Medium Impact (Tier 2) | 3 Low Impact (Tier 3)

Section # & Req.ID	Final Inspection	Complies?	Comments/Assumptions
C408.2.1 [FI28][1]	Commissioning plan developed by registered design professional or approved agency.	☐Complies ☐Does Not ☐Not Observable ☐Not Applicable	
C408.2.3.1 [FI31][1]	HVAC equipment has been tested to ensure proper operation.	☐Complies ☐Does Not ☐Not Observable ☐Not Applicable	
C408.2.3.2 [FI10][1]	HVAC control systems have been tested to ensure proper operation, calibration and adjustment of controls.	☐Complies ☐Does Not ☐Not Observable ☐Not Applicable	
C408.2.3.3 [FI32][1]	Economizers have been tested to ensure proper operation.	☐Complies ☐Does Not ☐Not Observable ☐Not Applicable	
C408.2.4 [FI29][1]	Preliminary commissioning report completed and certified by registered design professional or approved agency.	☐Complies ☐Does Not ☐Not Observable ☐Not Applicable	
C408.2.5.1 [FI7][3]	Furnished HVAC as-built drawings submitted within 90 days of system acceptance.	☐Complies ☐Does Not ☐Not Observable ☐Not Applicable	
C408.2.5.3 [FI43][1]	An air and/or hydronic system balancing report is provided for HVAC systems.	☐Complies ☐Does Not ☐Not Observable ☐Not Applicable	
C408.2.5.4 [FI30][1]	Final commissioning report due to building owner within 90 days of receipt of certificate of occupancy.	☐Complies ☐Does Not ☐Not Observable ☐Not Applicable	

Additional Comments/Assumptions:

1 High Impact (Tier 1) | 2 Medium Impact (Tier 2) | 3 Low Impact (Tier 3)

CURRAN
ARCHITECTURE
5719 LAWTON LOOP E. DR. #212
INDIANAPOLIS, IN 46216
O :: 317 . 288 . 0681
F :: 317 . 288 . 0753

ARWIN PRIEST P.E., P.Eng.
MECHANICAL ▪ ENGINEER ▪ ELECTRICAL
242 Mountain Cloud Circle
Highlands Ranch, Colorado 80126
Email: arwin@pedenver.com / apriest@thompson-eng.com
Ph: (303) 947-6394 & (303) 773-8773

CERTIFICATION

PROJECT INFORMATION

FIREHOUSE SUBS
111 SE M291 HWY
STE. 100
LEES SUMMIT, MO 64081

ISSUE DATES

ISSUE	DATE
PERMIT/CONSTRUCTION	12.01.2020
1 BD COMMENTS	12.11.2020

PROJECT NUMBER:

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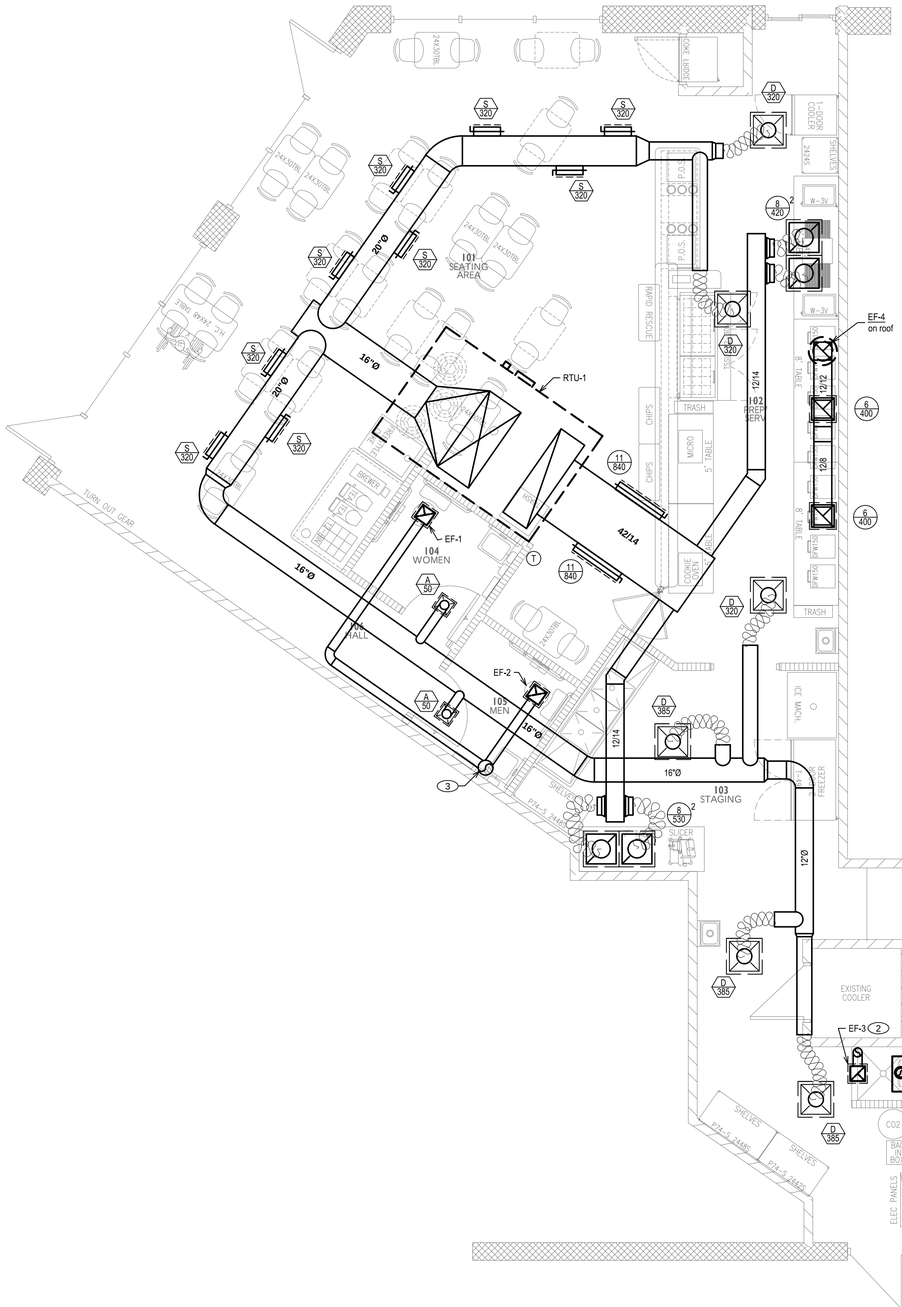

FLOOR PLAN - HVAC

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

SHEET NOTES (X)

1. 8"Ø CONCENTRIC WATER HEATER VENT FROM HEAT UP THROUGH ROOF TO FLAT ROOF TERMINATION PER MANUFACTURE
2. 6"Ø EXHAUST DUCT FROM EXHAUST FAN UP THROUGH ROOF TO FLAT ROOF JACK MINIMUM 12" ABOVE ROOF DECK
3. 8"Ø EXHAUST DUCT UP THROUGH ROOF TO FLAT ROOF JACK MINIMUM 12" ABOVE ROOF DECK

CURRAN
ARCHITECTURE
5719 LAWTON LOOP E. DR. #212
INDIANAPOLIS, IN 46216
O :: 317 . 288 . 0681
F :: 317 . 288 . 0753

ARWIN PRIEST P.E., P.Eng.
MECHANICAL ▪ ENGINEER ▪ ELECTRICAL
242 Mountain Cloud Circle
Highlands Ranch, Colorado 80126
Email: arwin@pedenver.com / apriest@thompson-eng.com
Ph: (303) 947-6394 & (303) 773-8773

CERTIFICATION

PROJECT INFORMATION

FIREHOUSE SUBS

FIREHOUSE SUBS
111 SE M291 HWY
STE. 100
LEES SUMMIT, MO 64081

ISSUE DATES

	ISSUE	DATE
1	PERMIT/CONSTRUCTION	12.01.2020
1	BD COMMENTS	12.11.2020

PROJECT NUMBER:

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PLUMBING GENERAL NOTES

1. MAKE PROPER PIPING CONNECTIONS TO ALL FIXTURES AND EQUIPMENT EVEN THOUGH ALL BRANCH MAINS, ELBOWS AND CONNECTIONS ARE NOT SHOWN.
2. COORDINATE WITH ARCHITECTURAL WORKING DRAWINGS BEFORE ROUGHING-IN PLUMBING FIXTURES.
3. UNLESS OTHERWISE NOTED, PIPING SHALL BE RUN AS HIGH AS POSSIBLE, CONCEALED ABOVE CEILINGS, IN WALLS AND PARTITIONS, AND IN PIPE CHASES.
4. SLOPES AND INVERT ELEVATIONS SHALL BE ESTABLISHED BEFORE ANY PIPING IS INSTALLED IN ORDER THAT PROPER SLOPES WILL BE MAINTAINED.
5. SANITARY WASTE PIPING SHALL BE SLOPED AT ¼-INCH PER FOOT MINIMUM FOR ALL PIPING 4-INCH AND LARGER AND AND AT 1/4-INCH PER FOOT FOR ALL PIPING 3-INCH AND SMALLER
6. ALL PIPING SHALL BE LOCATED AND DETERMINED WHERE TO BE RUN TO AVOID CONFLICT WITH OTHER TRADES.
7. ALL WALL HYDRANTS SHALL BE MOUNTED 24" ABOVE FINISHED GRADE UNLESS OTHERWISE SPECIFIED.
8. ALL HOSE BIBBS SHALL BE MOUNTED 18" ABOVE FINISHED FLOOR UNLESS OTHERWISE SPECIFIED.
9. COORDINATE WORK WITH OTHER TRADES SO AS NOT TO DISTURB NEW OR REPAIRED FINISHES.
10. ALL PLUMBING VENTS IN EXTERIOR WALLS SHALL BE OFF-SET A MINIMUM OF 3'-0" AT ROOF BEFORE ROOF PENETRATION.
11. ALL PLUMBING VENTS WITHIN A 10'-0" RADIUS OF EXHAUST VENTS SHALL BE EXTENDED TO A HEIGHT OF 2'-0" ABOVE EXHAUST VENT CROWN.
12. ALL HOT AND COLD WATER PIPING INDICATED TO BE RUN ABOVE FINISHED CEILINGS OR IN EXTERIOR WALLS SHALL BE INSTALLED ON THE CONDITIONED SPACE SIDE OF THE BUILDING INSULATION.
13. SLOPES AND INVERT ELEVATIONS OF EXTERIOR SEWERS, MANHOLES, ETC. SHALL BE ESTABLISHED AND VERIFIED BY THE CONTRACTOR BEFORE ANY PIPING IS INSTALLED IN ORDER THAT PROPER SLOPES WILL BE MAINTAINED AND NECESSARY INVERT ELEVATION OBTAINED.
14. PROVIDE DEEP SEAL P-TRAPS (4" MAX) WITH TRAP SEAL PRIMERS FOR ALL FLOOR DRAINS.
15. INDIRECT WASTE FROM FIXTURES AND SPECIALTIES, AND EQUIPMENT DRAIN LINES TERMINATING AT FLOOR DRAINS, OR APPROVED RECEPTACLES SHALL HAVE A MINIMUM 2" AIR GAP. SUPPORT PIPING SO INDIRECT WASTE CANNOT BE DEFLECTED FROM DRAIN OPENING.
16. PLUMBING CONTRACTOR TO PROVIDE AND INSTALL NAIL PLATES WHERE PIPING PASSES THROUGH STUD(S) WITHIN 2" OF HAILING SURFACE TO PROTECT PIPE FOR MAINLS OR DRYWALL SCREWS
17. PLUMBING CONTRACTOR SHALL INSTALL APPROVED WATER HAMMER ARRESTORS IN WATER LINES, BOTH HOT AND COLD, SERVING BATTERY AND BACK TO BACK FIXTURE INSTALLATIONS IN PIPE SPACE AND PIE CHASES AND SHALL BE ACCESSIBLE

DEMOLITION NOTES:

1. EXISTING HVAC PIPING, DUCTWORK AND EQUIPMENT SHOWN IS BASED ON EXISTING AND FIELD OBSERVATION WITHOUT DEMOLITION. DURING DEMOLITION, ANY CLARIFICATION REQUIRED TO DETERMINE SCOPE OF WORK SHALL BE BROUGHT TO THE ATTENTION OF THE ARCHITECT/ENGINEER.
2. THE CONTRACTOR SHALL VISIT THE JOB SITE AND THOROUGHLY FAMILIARIZE HIMSELF WITH EXISTING CONDITIONS, PRIOR TO STARTING DEMOLITION.
3. DRAWINGS DO NOT SHOW EVERY EXISTING PIPE, CONDUIT, DUCT, ETC. CONTRACTOR SHALL TAKE CARE TO REMOVE ONLY ITEMS REQUIRED TO BE REMOVED AND VERIFY PIPES, DUCTS, ETC. BEFORE REMOVAL.

GENERAL NOTES:

1. GENERAL NOTES ON THIS DRAWING ARE APPLICABLE TO EACH MECHANICAL DRAWING OF THIS SET. SEE EACH DRAWING FOR SPECIFIC NOTES APPLICABLE TO THAT DRAWING.
2. OUTSIDE AIR INTAKE OPENINGS FOR VENTILATION AIR SHALL BE LOCATED 10 FEET MEASURED IN ANY DIRECTION FROM ANY FLUES, VENTS, CHIMNEYS, GAS METERS, GAS REGULATORS, PLUMBING VENTS UNLESS TOP OF SUCH INTAKE OPENING IS 2 FEET BELOW ANY OF THE LISTED ITEMS.
3. OVERHEAD PIPING IN SPACES WITHOUT HUNG CEILINGS SHALL BE RUN AS CLOSE TO ROOF DECK AS PRACTICABLE, AS CLOSE TO PARALLEL JOISTS AS POSSIBLE AND ABOVE LIGHTING FIXTURES TO CONCEAL PIPING.
4. OVERHEAD DUCTWORK AND PIPING IN SPACES WITH CEILINGS SHALL BE CONCEALED UNLESS OTHERWISE NOTED.
5. COORDINATE LOCATION OF GRILLES, REGISTERS, DIFFUSERS, THERMOSTATS AND OTHER WALL OR CEILING MOUNTED HVAC ACCESSORIES WITH REFLECTED CEILING PLAN. COORDINATE LIGHTING FIXTURE LAYOUT AND ACCESSORIES INSTALLED BY OTHER TRADES SO AS TO PRESENT A NEAT AND ATTRACTIVE INSTALLATION THROUGHOUT THE ENTIRE BUILDING. IT IS THE INTENT FOR CEILING MOUNTED GRILLES, REGISTERS AND DIFFUSERS TO BE INSTALLED IN THE CENTER OF CEILING PANELS.
6. ARRANGE PIPING AND DUCTWORK, PARTICULARLY ABOVE CEILING, AS REQUIRED TO CLEAR STRUCTURE, DUCTS, CONDUIT, ETC., ALLOWING SPACE FOR PIPE HANGERS, EXPANSION LOOPS AND ACCESS TO VALVES, FILTERS AND MAINTENANCE OF EQUIPMENT.
7. THE DIAMETER OF THE SUPPLY PIPE AT ANY GAS FIRED EQUIPMENT SHALL NOT BE OF A SMALLER SIZE THAN THE INLET CONNECTION TO THE EQUIPMENT.
8. EQUIPMENT WITH FILTERS SHALL BE INSTALLED SO THAT FILTERS CAN BE EASILY REMOVED AND REPLACED.
9. CONTRACTOR SHALL VERIFY REFRIGERANT PIPE SIZES WITH EQUIPMENT MANUFACTURER FOR THE INDICATED INSTALLATION.
10. COORDINATE LOCATION AND INSTALLATION OF EQUIPMENT WITH OTHER TRADES.
11. THERMOSTATS SHALL BE LOCATED IN THE ROOMS INDICATED. INSTALL AT 4'-0" ABOVE FINISH FLOOR.
12. VALVES AND SPECIALTIES SHALL BE LINE SIZE, EXCEPT FOR CONTROL & BALANCING VALVES OR UNLESS NOTED OTHERWISE.
13. EXTEND DRAIN LINES TO NEAREST FLOOR DRAIN OR AS INDICATED. ROUTING SHALL NOT INTERFERE WITH PASSAGEWAYS AND MAINTENANCE. DRAINS FROM AIR CONDITIONING CONDENSATE DRAIN PANS SHALL BE TRAPPED. SLOPE SUSPENDED CONDENSATE DRAIN PIPING AT 1/8" PER FOOT (1 PER 100).
14. PIPING AND DUCTWORK INSULATION SHALL BE RUN CONTINUOUSLY THROUGH NON-RATED FLOORS, WALLS AND PARTITIONS, UNLESS OTHERWISE NOTED.
15. NO PIPING SHALL BE SMALLER THAN ½" UNLESS OTHERWISE NOTED.
16. RUN-OUTS SHALL PITCH DOWN IN DIRECTION OF FLOW A MINIMUM OF 1/8" PER FOOT (1PER 100).
17. FOR PIPE SIZES NOT INDICATED ON PLANS SEE EQUIPMENT CONNECTION DETAILS, FLOW DIAGRAMS, RISER DIAGRAMS AND SCHEDULES.
18. PROVIDE UNION OR FLANGED CONNECTIONS AT EACH PIECE OF EQUIPMENT AND ON BOTH SIDES OF CONTROL VALVES AND PRESSURE REGULATING VALVES. PROVIDE SHUT-OFF VALVES ON BOTH SIDES OF AUTOMATIC VALVES.
19. RELIEF VALVE DRAIN PIPING SHALL BE EXTENDED TO 6" ABOVE FINISHED FLOOR UNLESS OTHERWISE NOTED.
20. FLOOR MOUNTED EQUIPMENT IN THE MECHANICAL ROOM SHALL BE LOCATED ON 6" THICK CONCRETE PADS WITH CHAMFERED EDGES UNLESS OTHERWISE NOTED.
21. PIPING SHALL BE SUPPORTED IN ACCORDANCE WITH THE SPECIFICATION. ADDITIONAL SUPPORTS OR HANGERS SHALL BE ADJACENT TO ELBOWS, TO PREVENT WEIGHT OF PIPING BEING PLACED ON THE EQUIPMENT.
22. CORRECT SETTING ON BALANCING FITTINGS SHALL BE PERMANENTLY MARKED.
23. LOCATE AND SIZE CONCRETE PADS AND CURBS FOR MECHANICAL EQUIPMENT IN ACCORDANCE WITH ACTUAL EQUIPMENT PURCHASED.
24. FOR LOCATION OF MOTOR STARTERS, SEE ELECTRICAL DRAWINGS.

PLUMBING LEGEND

NOT ALL ITEMS LISTED BELOW ARE USED ON THIS SET OF DRAWINGS

PLUMBING PIPING

SYMBOL	ABBV.	DESCRIPTION
CW	CW	DOMESTIC COLD WATER
HW	HW	DOMESTIC HOT WATER
HWC	HWC	DOMESTIC HOT WATER CIRCULATING
140° HW	HW	DOMESTIC HOT WATER AT TEMP. SHOWN
W	W	SOIL OR WASTE
BD	BD	BUILDING DRAIN
BS	BS	BUILDING SEWER
V	V	SANITARY VENT
SD	SD	STORM DRAIN ABOVE FLOOR
SD	SD	STORM DRAIN BELOW FLOOR
OD	OD	OVERFLOW DRAIN ABOVE FLOOR
OD	OD	OVERFLOW DRAIN BELOW FLOOR
SS	SS	STORM SEWER
AW	AW	ACID WASTE ABV. FLOOR
AW	AW	ACID WASTE BEL. FLOOR
AV	AV	ACID VENT
GW	GW	GREASE WASTE
SOD	SOD	SEDIMENT & OIL DRAIN
G	G	NATURAL GAS
MPG	MPG	NATURAL GAS MEDIUM PRESSURE
LPG	LPG	PROPANE GAS
CA	CA	COMPRESSED AIR
T	T	TEMPERED WATER
TR	TR	TEMPERED WATER CIRCULATION
FD	FD	FOOTING DRAIN
IW	IW	INDIRECT WASTE
PD	PD	PUMP DISCHARGE LINE
FM	FM	FORCE MAIN
LI	LI	LAWN IRRIGATION

FIRE PROTECTION PIPING

SYMBOL	DESCRIPTION
F	FIRE SPRINKLER
SPK	AUTO. SPRINKLER LINE
DSP	DRY STANDPIPE
WSP	WET STANDPIPE
CSP	COMBINED STANDPIPE
FDC	FIRE DEPT. CONNECTION
D	DRAIN
	POST INDICATOR VALVE
	EXISTING SPRINKLER HEAD
	UPRIGHT SPRINKLER HEAD
	PENDANT SPRINKLER HEAD
	DRY PENDANT SPRINKLER HEAD
	REMOVE EXISTING SPRINKLER HEAD
	REMOVE & RELOCATE EXISTING SPRINKLER HEAD
	NEW LOCATION EXISTING SPRINKLER HEAD
ANGLE VALVE W/ DRAIN	PUMP TEST HEADER
SIDEWALL SPRINKLER	SECTIONAL VALVE W/ DRAIN
DOUBLE CHECK VALVE	FIRE HOSE/VALVE CABINET
FIRE DEPT. CONNECTION	FIRE HYDRANT

PIPING SYMBOLS

SYMBOL	DESCRIPTION
	WALL HYDRANT
	HOSE BIBB
	YARD HYDRANT
	BALANCING VALVE/ FLOW MEASURING DEVICE
	BALL VALVE
	OS&Y GATE VALVE
	SHUT-OFF VALVE
	GLOBE VALVE
	CHECK VALVE
	BUTTERFLY VALVE
	FLOW SWITCH
	SOLENOID VALVE
	PRESSURE REDUCING VALVE
	GAS VALVE
	MIXING VALVE
RBFP	REDUCED PRESSURE BACKFLOW PREVENTER
	ATMOSPHERIC VACUUM BREAKER
	WATER HAMMER ARRESTER
	RELIEF VALVE
	STRAINER
	STRAINER WITH BLOW-OFF VALVE
	UNION
	PRESSURE GAUGE
	THERMOMETER
P/T	PRESSURE AND TEMPERATURE TAP
	CONCENTRIC REDUCER
	ECCENTRIC REDUCER
	FLEXIBLE CONNECTOR
	AREAFLOOR DRAIN
	WALL CLEANOUT
	LINE CLEANOUT
	LINE CLEANOUT
	DOWNSPOUT NOZZLE
	EXPANSION JOINT
	PIPE ANCHOR
	ALIGNMENT GUIDE
	PLUG VALVE
	AUTOMATIC 2-WAY TEMPERATURE CONTROL VALVE
	AUTOMATIC 3-WAY TEMPERATURE CONTROL VALVE
	FLOW SWITCH
	THERMOSTATIC STEAM TRAP
	FLOAT & THERMOSTATIC STEAM TRAP
B	INVERTED BUCKET STEAM TRAP
	MANUAL AIR VENT

PIPING SYMBOLS

SYMBOL	DESCRIPTION
	GATE VALVE WITH CURB BOX
M	WATER METER
	GAS METER
	THRUST BLOCK
	MANHOLE
	CATCH BASIN
	FLOOR SINK
	ROOF DRAIN OR OVERFLOW DRAIN
	FLOOR CLEANOUT

MEDICAL GAS

SYMBOL	ABBV.	DESCRIPTION
IA	IA	INSTRUMENT AIR (DENTAL)
VAC(L)	VAC-L	VACUUM LOW PRESSURE
VAC(H)	VAC-H	VACUUM HIGH PRESSURE
O_2	O_2	OXYGEN
N	N	NITROGEN
N2O	N2O	NITROUS OXIDE
CO2	CO2	CARBON DIOXIDE
MA	MA	MEDICAL AIR
DI	DI	DISTILLED WATER
DE	DE	DEIONIZED WATER
MV	MV	MEDICAL VACUUM
CV	CV	CENTRAL VACUUM
LV	LV	LAB. VACUUM
LA	LA	LAB. COMPRESSED AIR
ALP	ALP	ALARM PANEL
ZV	ZV	ZONE VALVE

GENERAL

SYMBOL	DESCRIPTION
' / #	REFERENCE BUBBLE ' DETAIL NUMBER OR SECTION LETTER # REFERENCE DRAWING NUMBER
# / SHT.#	RISER BUBBLE DESIGNATION
EQUIP-X	MECHANICAL / PLUMBING EQUIPMENT DESIGNATION
	POINT OF DISCONNECT /DEMO
	CONNECT NEW TO EXISTING

PIPING SYMBOLS

SYMBOL	DESCRIPTION
	ARROW IN LINE INDICATES DIRECTION OF FLOW
	INDICATES PIPE SLOPE DOWN
	REMOVE EXISTING
	BOTTOM PIPE CONNECTION
	PIPING UP
	PIPING DOWN
	FIXTURE OR DRAIN TRAP
	PIPING CAP OR PLUG
	PUMP

ABBREVIATIONS

AFF	ABOVE FINISHED FLOOR	(E)	EXISTING	LCO	LINE CLEAN OUT	PRV	PRESSURE REDUCING VALVE
AFG	ABOVE FINISHED GRADE	EC	ELECTRICAL CONTRACTOR	MC	MECHANICAL CONTRACTOR	POC	POINT OF CONNECTION
ALP	ALARM PANEL	EL	ELEVATION	MH	MANHOLE	PSCO	PUBLIC SERVICE COMPANY
AP	ACCESS PANEL	FCO	FLOOR CLEAN OUT	(N)	NEW	SCO	SURFACE CLEAN OUT
BFP	BACKFLOW PREVENTER	FPC	FIRE PROT. CONTRACTOR	NC	NORMALLY CLOSED	SRV	SAFETY RELIEF VALVE
CB	CATCH BASIN	GC	GENERAL CONTRACTOR	NIC	NOT IN CONTRACT	TMV	THERMOSTATIC MIXING VALVE
℄	CENTERLINE	IE	INVERT ELEVATION	NO	NORMALLY OPEN	TYP	TYPICAL
DNZ	DOWNSPOUT NOZZLE	KEC	KIT. EQ. CONTRACTOR	NTS	NOT TO SCALE	WCO	WALL CLEAN OUT
						VTR	VENT THROUGH ROOF

CURRAN
ARCHITECTURE
5719 LAWTON LOOP E. DR. #212
INDIANAPOLIS, IN 46216
O :: 317 . 288 . 0681
F :: 317 . 288 . 0753

ARWIN PRIEST P.E., P.Eng.
MECHANICAL ▪ ENGINEER ▪ ELECTRICAL
242 Mountain Cloud Circle
Highlands Ranch, Colorado 80126
Email: arwin@pedenver.com / apriest@thompson-eng.com
Ph: (303) 947-6394 & (303) 773-8773

CERTIFICATION

PROJECT INFORMATION

FIREHOUSE SUBS

FIREHOUSE SUBS
111 SE M291 HWY
STE. 100
LEES SUMMIT, MO 64081

ISSUE DATES

	ISSUE	DATE
	PERMIT/CONSTRUCTION	12.01.2020
1	BD COMMENTS	12.11.2020

PROJECT NUMBER:

P-001

PLUMBING SPECIFICATIONS

BASIC REQUIREMENTS:
ALL OF THE DRAWINGS AND SPECIFICATIONS ARE CONSIDERED A PART OF THE CONTRACT DOCUMENTS. THE CONTRACTOR SHALL BE RESPONSIBLE FOR SEARCHING ALL CONTRACT DOCUMENTS TO DETERMINE THE SCOPE OF WORK REQUIRED IN FINAL CONNECTIONS TO EQUIPMENT PROVIDED BY OTHER CONTRACTS OR CONTRACTORS. IT IS THE INTENT OF THE DRAWINGS TO PROVIDE AS MUCH INFORMATION AS POSSIBLE ON EQUIPMENT PROVIDED BY OTHERS. HOWEVER, THE EXTENT OF FINAL CONNECTIONS AND TYPE OF FINAL CONNECTIONS SHALL BE DETERMINED BY THE ACTUAL EQUIPMENT SUPPLIED BY OTHERS. THIS CONTRACTOR SHALL INCLUDE IN HIS BASE BID, REASONABLE COST FOR THE INSTALLATION OF EQUIPMENT PROVIDED BY OTHERS. HE SHALL NOT BE AWARDED EXTRA COSTS AFTER THE CONTRACT IS AWARDED UNLESS THE EQUIPMENT SO INSTALLED IS NOT SHOWN ON ANY OF THE CONTRACT DOCUMENTS.

WORK INCLUDED UNDER THIS DIVISION SHALL CONSIST OF FURNISHING ALL MATERIALS, SUPPLIES, EQUIPMENT, TOOLS, INSURANCE, TRANSPORTATION AND FACILITIES, AND PERFORMING ALL LABOR AND SERVICES NECESSARY FOR COMPLETE INSTALLATION OF THE NEW PLUMBING SYSTEM(S).

ARRANGE FOR PIPE SPACES, CHASES, SLOTS, AND OPENINGS IN BUILDING STRUCTURE DURING PROGRESS OF CONSTRUCTION, TO ALLOW FOR PLUMBING INSTALLATIONS. COORDINATE REQUIREMENTS FOR ACCESS PANELS AND DOORS FOR PLUMBING ITEMS REQUIRING ACCESS THAT ARE CONCEALED BEHIND
FINISHED SURFACES.

ALL WORK SHALL BE PERFORMED IN ACCORDANCE WITH CURRENT INTERNATIONAL BUILDING, FIRE, PLUMBING, MECHANICAL, ENERGY CONSERVATION CODES AND LOCAL JURISDICTION AMMENDMENTS. PAY FOR ALL FEES AND PERMITS AS ARE NECESSARY FOR THE COMPLTE INSTALLATION OF PLUMBING SYSTEMS.

DRAWINGS ARE DIAGRAMMATIC, INDICATING ONLY APPROXIMATE LOCATIONS OF SERVICES, DUCTWORK, APPARATUS, AND PIPING UNLESS NOTED OTHERWISE, AND ARE NOT TO BE SCALED. ACTUAL INSTALLATION MUST CONFORM TO ACTUAL BUILDING CONDITIONS, AND VERIFIED IN THE FIELD. THE ARCHITECT/ ENGINEER RESERVES THE RIGHT TO EFFECT REASONABLE CHANGES IN THE LOCATION OF EQUIPMENT UP TO THE TIME OF ROUGH-IN WITHOUT ADDITIONAL COST TO THE OWNER. ANY AND ALL CHANGES SHALL BE APPROVED BY THE ARCHITECT/ ENGINEER. MAINTAIN MANUFACTURERS RECOMMENDED CLEARANCES AROUND ALL EQUIPMENT.

PROJECT SHALL BE COORDINATED WITH THE EXISTING BUIDING SERVICES AND SHALL INCLUDE ALL ITEMS NECESSARY FOR COMPLETE AND FULLY OPERATIONAL TENANT PLUMBING SYSTEMS. MAKE CONNECTIONS TO AND EXTEND SYSTEMS INSTALLED BY OTHERS AND/OR FURNISHED BY OTHERS. PROVIDE ACCESSORIES AND INCIDENTAL ITEMS AS REQUIRED FOR A COMPLETE AND FULLY OPERATIONAL SYSTEM WHETHER OR NOT SPECIFICALLY SPECIFIED AND/OR SHOWN ON THE PLANS.

DO NOT SCALE DRAWINGS. COORDINATE WITH OTHER TRADES FOR A COORDINATED INSTALLATION WITHIN THE AVAILABLE SPACE. WHERE CROWDED CONDITIONS EXIST, PREPARE COORDINATION DRAWINGS SHOWING ALL TRADE CONFLICTS AND SUBMIT TO THE ARCHITECT FOR APPROVAL AND DIRECTION PRIOR TO ROUGH-IN OR INSTALLATION. RELOCATION OF INLETS, OUTLETS, AND/OR APPARATUS MADE PRIOR TO ROUGH-IN OR REQUIRED BY FIELD CONDITIONS FOR COORDINATION SHALL BE DONE AT NO ADDITIONAL COST TO THE OWNER OR HIS AGENTS.

ALL WORK SHALL BE PERFORMED BY PROPERLY LICENSED MECHANICS OR UNDER THEIR DIRECT SUPERVISION. ALL MATERIALS AND EQUIPMNT SHALL MEET THE REQUIREMENTS OF THE APPLICABLE STANDARDS OF UL AND SHALL BEAR THE UL LABEL AS EVIDENCE THAT THE MATERIAL AND/OR EQUIPMNT MEETS THIS REQUIREMENT.

INSTALL ALL EQUIPMENT PER MANUFACTURER'S RECOMMENDATIONS AND DETAILS UNLESS OTHERWISE NOTED IN THESE PLANS.

ALL EQUIPMENT START UP AND TESTING SHALL BE PERFORMED BY THE EQUIPMENT MANUFACTURER TRAINED SERVICE TECHNICIAN.

SUBMIT MANUFACTURER'S LITERATURE (SHOP DRAWINGS) FOR MATERIALS AND EQUIPMENT. SUBMITTAL SHALL INCLUDE EQUIPMENT PERFORMANCE DATA AT ELEVATION AND/OR LOCAL CONDITIONS. EQUIPMENT CUTSHEETS OR CATALOG COPIES ARE NOT ACCEPTABLE.

SUBMITTAL SHALL BEAR THE APPROVAL OF THE GENERAL CONTRACTOR FOR COMPLIANCE WITH COORDINATION AND THESE SPECIFICATIONS PRIOR TO SUBMITTAL TO ARCHITECT AND/OR HIS AGENCIES.

ANY EQUIPMENT SUBSTITUTED FOR WHAT IS SCHEDULED SHALL BE EQUAL TO THAT SCHEDULED IN CONTROLS, ACCESSORIES, AND PERFORMANCE REGARDLESS OF MANUFACTURER.

SEPARATE PDF FILE PACKAGES SHALL BE SUPPLIED FOR EACH SECTION AND EACH SUBMITTAL TYPE, EACH PDF SAHLL REPRESENT A SINGLE STANDALONE SUBMITTAL.

SUBMITTAL AND SHOP DRAWINGS SHALL INDENTIFY EACH SUBMITTED ITEM WITH NUMBERS OF LETTERS IDENTIAL TO THOSE LISTED OR SCHEDULED ON THE DRAWINGS OR SPECIFICATIONS, SUBMITTALS NOT INCLUDING SUCH MARKINGS WILL BE RETURNED NOT REVIEWED.

SUBMITTING SUBCONTRACTOR SHALL ALLOW FIFTEEN (15) DAYS, FOR REVIEW AND COMMENT.

FIELD LABEL ALL PLUMBING EQUIPMENT AND PIPING AS INDICATED ON THE PLANS PER PLUMBING AND LOCAL CODE REQUIREMENTS. INDICATE DIRECTION OF FLOW ON PIPING.

BASIC MATERIALS:.

PROVIDE SUPPLEMENTAL STEEL AND SUPPORTS AS REQUIRED FOR INSTALLATION OF PLUMBING MATERIALS, EQUIPMENT, AND APPARATUS.

PROVIDE VIBRATION ISOLATION ON ALL PLUMBING EQUIPMENT. INSTALL FLEXIBLE DUCT CONNECTORS ON ALL AIR HANDLING UNIT SUPPLY OUTLET AND RETURN INLET.

ALL WORK IN FINISHED AREAS SHALL BE CONCEALED UNLESS SPECIFICALLY NOTED AS EXPOSED ON THE PLANS. PRIOR TO THE INSTALLATION OF ANY EXPOSED WORK THIS CONTRACTOR SHALL VERIFY AND OBTAIN ARCHITECTURAL APPROVAL OF LOCATION AND EXTENT.

CONFIRM ACTUAL VOLTAGES, PHASE AND CHARACTERISTICS OF EXISTING EQUIPMENT AND APPARATUS FURNISHED BY TENANT, OTHER TRADES, AND/OR DIVISIONS. CONFIRM PRIOR TO ROUGH-IN. IF DISCREPANCIES ARE NOTED TO THE INSTRUCTIONS OF THESE PLANS AND SPECIFICATIONS, SUBMIT THE NOTED DISCREPANCIES TO THE ARCHITECT FOR DIRECTION PRIOR TO PROCEEDING.

PROVIDE PRESSURE REDUCING VALVE ASSEMBLY AT BUILDING WATER SERVICE ENTRY WHERE PRESSURE EXCEEDS 65 PSI. PRESSURE REDUCING VALVE TO BE SET TO 65 PSI.

PROVIDE SANITARY SEWER SYSTEM CLEANOUTS AS REQUIRED BY LOCAL CODES.

PROVIDE BRANCH SHUT-OFF VALVES ON ALL WATER LINES EXTENDING FROM MAINS.

THE CONTRACTOR SHALL LOCATE AND FURNISH FOR INSTALLATION BY OTHERS, ALL ACCESS PANELS AS REQUIRED FOR ACCESS TO VALVES, DAMPERS, MOTORS, ETC. AND THE PROPER SERVICING OF EQUIPMENT AND LINES INSTALLED UNDER THIS CONTRACT.

ALL MATIRIAL LOCATED IN CEILING PLENUMS SHALL BE SUITABLE FOR RETURN AIR PLENUM.

PIPING

SANITARY AND STORM PIPING ABOVE GRADE SHALL BE CAST IRON HUBLESS WITH STAINLESS STEEL BANDS OR SCHEDULE 40 PVC WITH SOLVENT JOINTS.

SANITARY AND STORM PIPING BELOW GRADE SHALL BE CAST IRON HUBLESS WITH STAINLESS STEEL BANDS OR SCHEDULE 40 PVC WITH SOLVENT JOINTS.

DOMESTIC WATER PIPING ABOVE GRADE SHALL BE TYPE L COPPER WITH SOLDERED JOINTS OR PEX WITH MANUFACTURE APPROVED JOINING METHOUD.

DOMESTIC WATER PIPING BELOW GRADE SHALL BE TYPE K COPPER WITH SILVER SOLDERED JOINTS.

CONDENSATE DRAIN PIPING SHALL BE TYPE M COPPER WITH SOLDERED JOINTS OR SCHEDULE 40 PVC WITH SOLVENT JOINTS.

COMPRESSED AIR PIPING SHALL BE TYPE L COPPER WITH SOLDERED JOINTS OR SCHEDULE 40 BLACK STEEL WITH MALLEABLE THREADED FITTINGS

GAS PIPING 2-1/2" INCHES AND LARGER SHALL BE SCHEDULE 40 STEEL WITH WELDED JOINTS.

GAS PIPING 2 INCHES AND SMALLER SHALL BE SCHEDULE 40 STEEL WITH MALLEABLE THREADED FITTINGS.

DENTAL GAS PIPING (OXYGEN, NITROUS OXIDE, NITROGEN) SHALL BE TYPE L OR K COPPER MEDICAL GAS TUBE IDENTIFIED WITH MANUFACTURE MAKINGS
FOR "OXY", "MED", "OXY/MED", "OXY/ACR" OR "ACR/MED" IN BLUE (TYPE L), OR GREEN (TYPE K) WITH BRAZED JOINTS

DENTAL VACUUM PIPING SHALL BE TYPE L COPPER WITH SOLDERED JOINTS OR AS SPECIFIED BY DENTAL EQUIPMENT SUPPLIER

GAS PIPING BELOW GRADE SHALL BE WRAPPED WITH PROTECTIVE PIPE COVERING AND VENTED IN ACCORDANCE WITH LOCAL JURISDICTIONS HAVING AUTHORITY.

FIRE STOP ALL PIPING MATERIALS PASSING THROUGH FIRE RATED STRUCTURES OR FIRE RATED ASSEMBLIES IN ACCORDANCE WITH THE REQUIREMENTS OF AUTHORITIES HAVING JURISDICTION. USE CURRENTLY LISTED U.L. CLASSIFIED PRODUCTS, TESTED BY ASTM E814. USE FOR ALL APPLICABLE PIPE PENETRATIONS THROUGH FIRE RATED FLOORS, WALLS, OR FLOOR CEILING ASSEMBLIES IN ACCORDANCE WITH LOCAL CODE REQUIREMENTS.

INSULATION

ALL COLD AND HOT WATER PIPING SHALL HAVE A MINIMUM CONDUCTANCE VALUE BETWEEN 0.21 AND 0.28

COLD WATER PIPING SHALL BE INSULATED WITH 1/2 INCH THICK FIBER GLASS INSULATION WITH AN ALL-SERVICE JACKET.
COLD WATER PIPING EXPOSED TO WEATHER SHALL BE INSULATED WITH 1 1/2" FIBERGLASS INSULATION.
HOT WATER PIPING 2" OR LESS SHALL BE INSULATED WITH 1-INCH FIBERGLASS INSULATION.
HOT WATER PIPING GREATER THAN 2-INCHES SHALL BE INSULATED WITH 1 ½ " FIBERGLASS INSULATION.
RUNOUTS, NOT EXCEEDING 12 FEET, UP TO 2-INCHES SHALL BE INSULATED WITH ½-INCH THICK FIBER GLASS INSULATION WITH AN ALL-SERVICE JACKET.

STORM DRAIN PIPING ABOVE GRADE SHALL BE INSULATED WITH ½-INCH THICK FIBER GLASS INSULATION WITH AN ALL-SERVICE JACKET.

CONDENSATE DRAIN PIPING SHALL BE INSULATED WITH ½-INCH THICK FIBER GLASS INSULATION WITH AN ALL-SERVICE JACKET..

WATER PIPING IN UNCONDITIONED SPACE AND EXTERIOR WALLS SHALL BE INSULATED WITH 2" FIBERGLASS INSULATION.

PLUMBING FIXTURES

FURNISH AND INSTALL PLUMBING FIXTURES AS SCHEDULED ON THE PLANS.

PROVIDE CHROME PLATED ANGLE STOPS AND ESCUTCHEON PLATES ON ALL EXPOSED FIXTURE RUNOUTS.

PROVIDE INSULATION AND ROUGH-IN AS REQUIRED FOR COMPLIANCDE WITH ADA REQUIREMENTS.

PROVIDE ALL ACCESSORIES AND SPECIALTY ITEMS AS REQUIRED FOR A COMPLETE FIXTURE INSTALLATION.

REDUCED PRESSURE BACKFLOW PREVENTERS

FURNISH AND INSTALL REDUCED PRESSURE BACKFLOW PREVENTER FOR THE PRIMARY DOMESTIC COLD WATER SERVICE IN ACCORDANCE WITH STATE, LOCAL, AND JURISDICTIONAL WATER DISTRICT REQUIREMENTS.

FURNISH AND INSTALL REDUCED PRESSURE BACKFLOW PREVENTERS FOR PLUMBING EQUIPMENT REQUIRED OF THIS OR OTHER SECTIONS OF THESE SPECIFICATIONS.

ELECTRIC WATER HEATERS

FURNISH AND INSTALL A GLASS LINED ELECTRIC WATER HEATER AS SCHEDULED ON THE PLANS. ACCEPTABLE MANUFACTURERS ARE A.O. SMITH, BRADFORD WHITE, RHEEM, OR STATE.

FURNISH HEATER WHICH ARE CSA INTERNATIONAL CERTIFIED AND MEET THE REQUIREMENTS OF LOCAL MUNICIPALITIES.

WATER HEATER LOCATED IN CEILING SHALL BE PROVIDED WITH 2 ½ " DEEP DRAIN PAN. TERMINATE DRAIN TO NEAREST FLOOR DRAIN, FLOOR SINK OR LAV TRAP.

GAS WATER HEATERS

FURNISH AND INSTALL A GLASS LINED HIGH EFFICIENCY WATER HEATER AS SCHEDULED ON THE PLANS. ACCEPTABLE MANUFACTURERS ARE A.O. SMITH, BRADFORD WHITE, RHEEM, OR STATE.

FURNISH HEATER WHICH ARE UL LABELED AND MEET THE REQUIREMENTS OF LOCAL MUNICIPALITIES.

COMPLETION.
CLEAN INSULATION COVERING, DUCTS, PIPES, EQUIPMENT AND ACCESSORIES TO RECEIVE PRIME COAT OF PAINT. CLEAN EQUIPMENT RECIVED WITH PRIME COAT TO RECEIVE FINAL COAT.
REPLACE AIR FILTERS IF UNITS WERE OPERATED DURING CONSTRUCTION. CLEAN DUCTS. BLOWERS, AND COILS IF UNITS WERE OPERAED WITHOUT FILTERS DURING CONSTRUCTION.

INSTRUT OWNER IN OPERATION AND MAINTENANCE OF PLUMBING SYSTEMS. MINIMUM PARTICIPANTS SHALL INCLUDE PLUMBING CONTRACTOR AND CONTROLS CONTRACTOR REPRESENTATIVES.

AFTER TESTS AND ADJUSTMENTS HAVE BEEN MADE AND SYSTEM IS PRONOUNCED SATISFACTORY FOR PERMANENT OPERATION, REFINISH DAMAGED FINISH AND LEAVE EVERYTHING IN PROPER WORKING ORDER AND APPEARANCE.

ON COMPLETION OF WORK. REMOVE TOOLS, SCAFFOLDING, DEBRIS. ETC. FROM GROUNDS AND LEAVE PREMISES CLEAN.

OPERATION AND MAINTENANCE MANUALS:
PRIOR TO COMPLTION OF PROJECT, SUBMIT THREE (3) SETS OF MAINTENANCE MANUALS COVERING OPERATION AND MAINTENANCE OF PLUMBING EQUIPMENT WITH MOVING OR MOVABLE PARTS, INCLUDING PLUMBING SYSTEMS INSTRUCTIONS SHALL BE IN PAMPHLET OR TYPEWRITTEN FORM IN THREE RING BINDERS. INSTRUCTIONS FOR EACH UNIT SHALL BE INDICATED BY SEPARATE TAB.

INCLUDE CERTIFIED TEST AND BALANCE REPORT.

INCLUDE STARTING. TOPPING. LUBRICATION, PREVENTATIVE MAINTENANCE SCHEDULE. AND ADJUSTMENT INFORMATION FOR EACH PIECE OF EQUIPMENT.
INCLUDE GUARANTEES AND WARRANTIES OF ALL EQUIPMENT.

INCLUDE AS-BUILT DRAWINGS OF COMPLETED HVAC AND PLUMBING SYSTEMS

CURRAN
ARCHITECTURE
5719 LAWTON LOOP E. DR. #212
INDIANAPOLIS, IN 46216
O :: 317 . 288 . 0681
F :: 317 . 288 . 0753

ARWIN PRIEST P.E., P.Eng.
MECHANICAL ▪ ENGINEER ▪ ELECTRICAL
242 Mountain Cloud Circle
Highlands Ranch, Colorado 80126
Email: arwin@pedenver.com / apriest@thompson-eng.com
Ph: (303) 947-6394 & (303) 773-8773

CERTIFICATION

PROJECT INFORMATION

FIREHOUSE SUBS

FIREHOUSE SUBS
111 SE M291 HWY
STE. 100
LEES SUMMIT, MO 64081

ISSUE DATES

ISSUE	DATE
1 PERMIT/CONSTRUCTION	12.01.2020
BD COMMENTS	12.11.2020

PROJECT NUMBER:

P-002

PLUMBING EQUIPMENT SCHEDULE

KEY	DESCRIPTION	BASIS OF DESIGN
WCO-1	WALL CLEANOUT	JAY R. SMITH FIG 4710-U, S.S. SHALLOW COVER W/ VANDAL PROOF CENTER SCREW.
FCO-1	FLOOR CLEANOUT	JAY R. SMITH FIG 4023-U-PB, DUCO C.I. W/ ROUND ADJ. SCORIATED VANDAL PROOF, POLISHED BRONZE TOP AND TAPER THREAD BRONZE PLUG.
DCP-1	DOMESTIC CIRC. PUMP	TACO SERIES 003-IFC IN-LINE CIRCULATING PUMP, 2.0 GPM @ 4.0 FT. HEAD, 120V-1Ø, 1/20 HP, INTEGRAL FLOW CHECK VALVE, AQUASTAT
SCO-1	GRADE CLEANOUT	JAY R. SMITH FIG 4253-U-G. GALVANIZED C.I. W/ DOUBLE FLANGED HOUSING, HEAVY DUTY SECURED SCORIATED COVER W/ LIFTING DEVICE, VANDAL PROOF SCREWS AND TAPER THREAD BRONZE PLUG.
1		

KEY	DESCRIPTION	BASIS OF DESIGN
FD-1	FLOOR DRAIN	JAY R. SMITH FIG 2010-A-U-PB, DUCO C.I. BODY AND FLASHING COLLAR W/ POLISHED BRONZE, ROUND STRAINER AND VANDAL PROOF SCREWS.
FS-1	FLOOR SINK	JAY R. SMITH FIG 3140-C-15-U, C.I. FLANGED RECEPTOR, 12 1/2" SQ. TOP, 6" DEEP W/ FLASHING CLAMP, DOME BOTTOM STRAINER, NICKEL BRONZE RIM AND ALUMINUM RECESSED GRATE SECURED W/ V.P. SCREWS.
GI-1	GREASE INTERCEPTOR	JAY R. SMITH FIG. 8050 GREY DUCO C.I. BODY AND COVER 50 GPM MAXIMUM FLOW RATE, 100 LB GREASE CAPACITY/W 50 GPM FLOW CONTROL FITTING, LIFT OUT SEDIMENT BUCKET
SCO-2	GRADE CLEANOUT 2-WAY	SAME AS SCO-1, PROVIDE TYLER PIPE #5460 SERIES 2-WAY CLEANOUT AND #5626 45 DEGREE OFFSETS. (2) COVERS REQUIRED.

PLUMBING FIXTURE SCHEDULE

KEY	DESCRIPTION	MANUF	MODEL	CONNECTIONS TRAP	W	V	CW	H/TW	REMARKS
HS-1	HANDSINK	BY KITCHEN EQ. SUPPLIER		1 1/2"	2"	2"	1/2"	1/2"	1,15
L-1	WALL HUNG LAVATORY FAUCET STRAINER/OFFSET TAILPIECE SUPPORT CARRIER	PROFLO PROFLO KOHLER J.R. SMITH	PF5518WH PFWS1002M K-13885 700	1 1/4"	2"	2"	--	1/2"	1,15
MSB-1	MOP BASIN FAUCET HOSE & HOSE BRACKET	FIAT FIAT FIAT	MSB-2424 830-AA 832-AA	3"	3"	2"	1/2"	1/2"	5

KEY	DESCRIPTION	MANUF	MODEL	CONNECTIONS TRAP	W	V	CW	H/TW	REMARKS
WC-1	FLR. MTD. WATER CLOSET TANK SEAT	PROFLO PROFLO PROFLO	PF1603PAWH PF1612PAWH WHITE	INT.	4"	2"	1/2"	--	1,12
TS-1	3-COMP SINK	BY KITCHEN EQ. SUPPLIER		---	2"	--	1/2"	1/2"	INDIRECT WASTE
PS-1	PREP SINK	BY KITCHEN EQ. SUPPLIER		---	2"	--	1/2"	1/2"	INDIRECT WASTE

GENERAL SCHEDULE NOTES:

A. REFER TO ARCHITECTURAL DRAWINGS AND ELEVATIONS FOR EXACT LOCATION AND MOUNTING HEIGHT ELEVATIONS OF ALL PLUMBING FIXTURES PRIOR TO INSTALLATION
B. PROVIDE ALL FIXTURES WITH CHROME PLATED CAST BRASS, ADJUSTABLE 'P' TRAPS WITH CLEANOUT PLUGS, TUBING OUTLETS AND WALL FLANGES UNLESS FIXTURE IS FURNISHED WITH AN INTEGRAL TRAP OR IS PROVIDED ONE AS A STANDARD ACCESSORY
C. PROVIDE ALL FIXTURES WITH CHROME PLATED SUPPLIES WITH ANGLE OR STRAIGHT PATTERN LOOSE KEY STOPS UNLESS FIXTURE IS FURNISHED WITH INTEGRAL STOPS OR STOPS ARE PROVIDED AS STANDARD ACCESSORIES
D. ALL FLUSH VALVES SHALL HAVE A.D.A COMPLIANT HANDLES
E. ALL EXPOSED PIPING SHALL BE POLISHED CHROME
F. COORDINATE ALL CASEWORK MOUNTED FIXTURES WITH BASE CABINET DIMENSIONS PRIOR TO ORDERING FIXTURES. NOTIFY ARCHITECT/ENGINEER IMMEDIATELY IF A CONFLICT EXISTS
G. ACCESSIBLE WATER CLOSETS SHALL BE OPERABLE FROM THE WIDE SIDE OF THE STALL

SCHEDULE REMARKS: (NOT ALL REMARKS MAY BE APPLICABLE TO THIS PROJECT)

1. FIXTURE DESIGNATED TO BE IN COMPLIANCE WITH THE AMERICANS WITH DISABILITIES ACT (A.D.A)
2. REFRIGERATION SYSTEM CHARGED WITH R-134A REFRIGERANT
3. FAUCET COMPLETE WITH RIGID GOOSENECK SPOUT, E3-VP AERATOR AND 317 WRIST BLADE HANDLES. INSULATE TRAP AND WATER SUPPLIES
4. EXTEND CHROME PLATED TAILPIECE TO PLASTER TRAP
5. FAUCET TO HAVE ROUGH CHROME FINISH AND SHALL BE MOUNTED 3'-6" A.F.F. PROVIDE SHORT SPOUT W/VACUUM BREAKER AND RPZA ASSEMBLY
6.
7. FAUCET LEDGE SHALL BE PUNCHED FOR SINGLE HOLE FAUCET SPECIFIED
8. PROVIDE CHROME PLATED TAILPIECE EXTENSION AND TURN DOWN TO ALLOW FOR KNEE-SPACE CLEARANCE.
9. INSTALL DISPOSER IN RIGHT-HAND COMPARTMENT AND DRAIN STRAINER IN LEFT-HAND COMPARTMENT
10. ROUGH-IN AND CONNECT TO SINK BASIN FURNISHED AND INSTALLED BY CASEWORK SUPPLIER
11. MOUNT SHOWER HEAD AT 6'-0" A.F.F.
12. 1.28 GALLONS PER FLUSH
13. 0.5 GALLONS PER FLUSH
14. COORDINATE FLUSH VALVE ROUGH-IN ELEVATION WITH GRAB BAR MOUNTING HEIGHT PRIOR TO INSTALLATION
15. PROVIDE WATTS SERIES LFMMV THERMOSTATIC MIXING VALVE SET AT 105°F - ASSE 1070 LISTED

GAS WATER HEATER SCHEDULE

SYMBOL	MFR	MODEL	STORAGE TANK GAL	MBH INPUT @ SL	INLET WATER TEMP F	OUTLET WATER TEMP F	RECOVERY RATE GPM	ELEC	REMARKS
GWH-1	TAKAGI	T-M50	---	380.0	40	140	7.5	120V-1Ø	1,2

1. DIRECT VENT KIT
2. BURNER SHALL BE DESIGNED TO FIRE ON NATURAL GAS, 6" W.C., 1,000 BTU/CF

TOTAL CONNECTED GAS LOAD SCHEDULE

EQUIPMENT	QTY	INPUT EACH (BTUH)	INPUT TOTAL (BTUH)	REMARKS
RTU-1	1	250,000	250,000	XXX
GWH-1	1	380,000	380,000	XXX
		TOTAL CONNECTED LOAD =	630,000	XXX

NOTES:
INSTALLATION OF GAS METER AND SERVICE PIPING TO BE PERFORMED BY LOCAL GAS UTILITY COMPANY
GAS DISTRIBUTION PRESSURE SHALL BE 7" W.C.
GAS DISTRIBUTION SYSTEM PIPE SIZING BASED ON TOTAL DEVELOPED LENGTH OF 150 FT.

REMARKS:
1. XXX
2. XXX
3. XXX

CURRAN
ARCHITECTURE
5719 LAWTON LOOP E. DR. #212
INDIANAPOLIS, IN 46216
O :: 317 . 288 . 0681
F :: 317 . 288 . 0753

ARWIN PRIEST P.E., P.Eng.
MECHANICAL ▪ ENGINEER ▪ ELECTRICAL
242 Mountain Cloud Circle
Highlands Ranch, Colorado 80126
Email: arwin@pedenver.com / apriest@thompson-eng.com
Ph: (303) 947-6394 & (303) 773-8773

CERTIFICATION

PROJECT INFORMATION

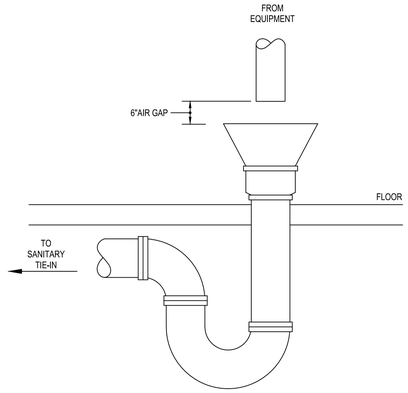
FIREHOUSE SUBS
111 SE M291 HWY
STE. 100
LEES SUMMIT, MO 64081

ISSUE DATES

ISSUE	DATE
PERMIT/CONSTRUCTION	12.01.2020
1 BD COMMENTS	12.11.2020

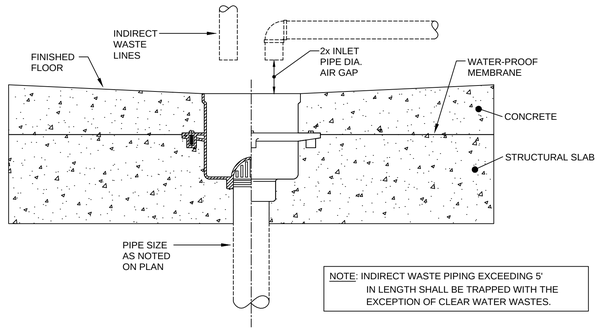
PROJECT NUMBER:

P-003



HUB DRAIN WITH FUNNEL DETAIL

NOT TO SCALE



FLOOR SINK DETAIL

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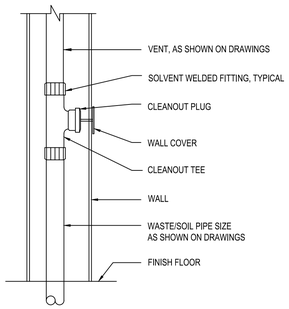
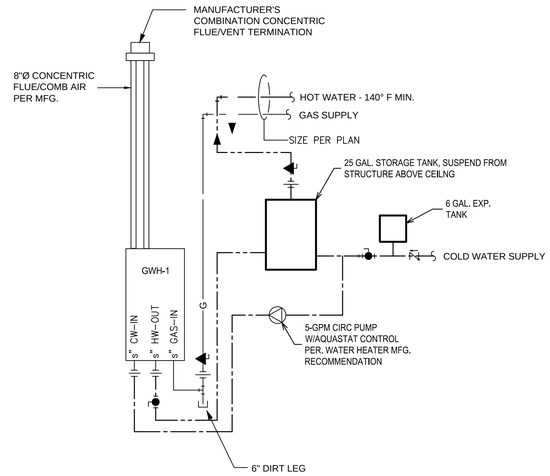


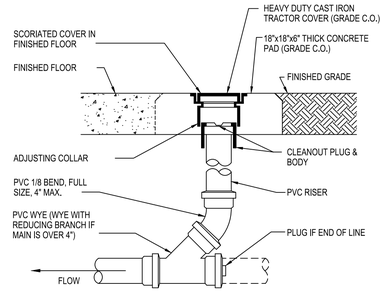
WALL CLEANOUT DETAIL

NOT TO SCALE



GAS FIRED WATER HEATER DETAIL

NOT TO SCALE



CLEANOUT DETAIL

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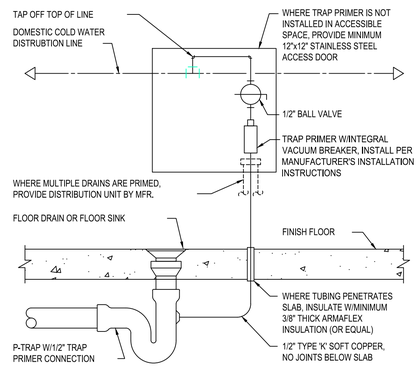

TRAP PRIMER DETAIL

NOT TO SCALE

CURRAN
ARCHITECTURE
5719 LAWTON LOOP E. DR. #212
INDIANAPOLIS, IN 46216
O :: 317 . 288 . 0681
F :: 317 . 288 . 0753

ARWIN PRIEST P.E., P.Eng.
MECHANICAL ▪ ENGINEER ▪ ELECTRICAL
242 Mountain Cloud Circle
Highlands Ranch, Colorado 80126
Email: arwin@pedenver.com / apriest@thompson-eng.com
Ph: (303) 947-6394 & (303) 773-8773

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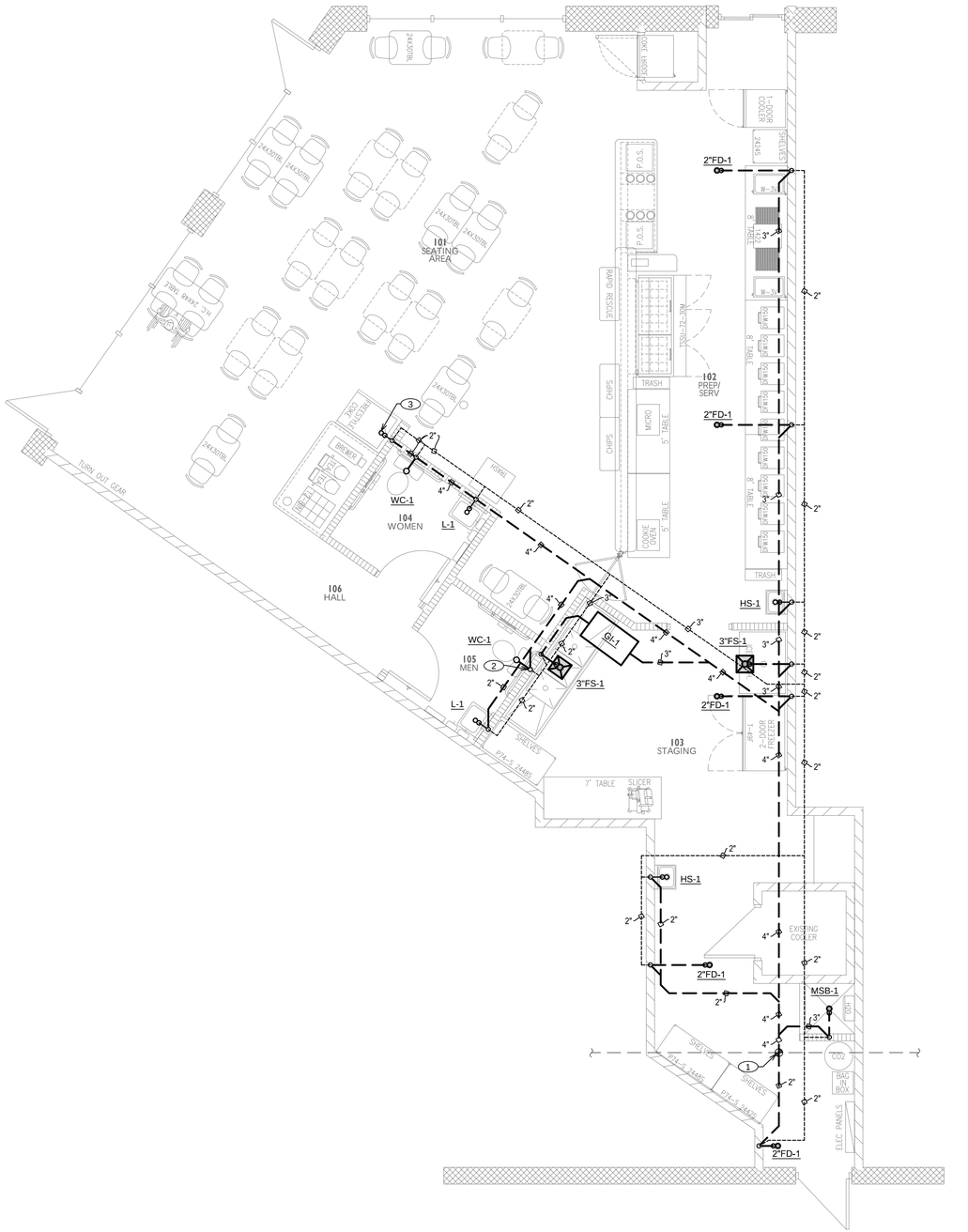
111 SE M291 HWY
STE. 100
LEES SUMMIT, MO 64081

ISSUE DATES

ISSUE	DATE
PERMIT/CONSTRUCTION	12.01.2020
1 BD COMMENTS	12.11.2020

PROJECT NUMBER:

P-004



FLOOR PLAN - PLUMBING WASTE & VENT

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

SHEET NOTES (X)

1. CONNECT TO EXISTING 4" OR LARGER BUILDING DRAIN LINE IN LOWER LEVEL.VERIFY EXACT LOCATION, SIZE, DEPTH AND FLOW DIRECTION IN FIELD PRIOR TO START OF WORK
2. 3" VENT UP TO 3" VENT THROUGH ROOF, OFF-SET AS REQUIRED TO MAINTAIN MINIMUM 10'-0" CLEARANCE FROM ROOFTOP UNIT OUTSIDE AIR INTAKE
3. 3" HUB DRAIN, RE: DETAIL

CURRAN
ARCHITECTURE
5719 LAWTON LOOP E. DR. #212
INDIANAPOLIS, IN 46216
O :: 317 . 288 . 0681
F :: 317 . 288 . 0753

ARWIN PRIEST P.E., P.Eng.
MECHANICAL ▪ ENGINEER ▪ ELECTRICAL
242 Mountain Cloud Circle
Highlands Ranch, Colorado 80126
Email: arwin@pedenver.com / apriest@thompson-eng.com
Ph: (303) 947-6394 & (303) 773-8773

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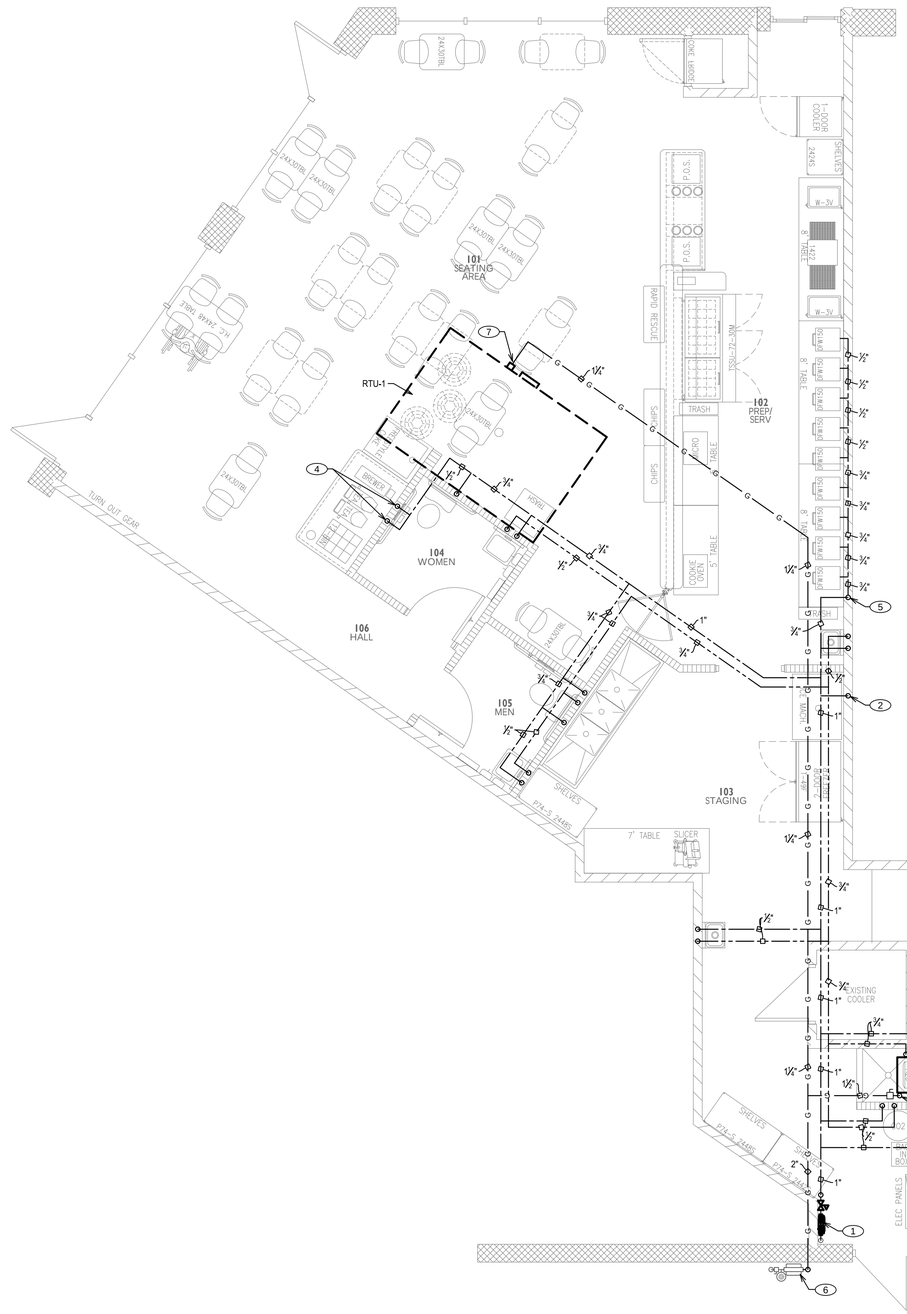
	ISSUE	DATE
1	PERMIT/CONSTRUCTION	12.01.2020
1	BD COMMENTS	12.11.2020

PROJECT NUMBER:

P-101


24X30TBL
COOKE TABLE
1-DOOR COOLER
SHELVES
P.O.S.
P.O.S.
W-2"
1412 TABLE
W-2"
POS/W
POS/W
POS/W

EQUIPMENT KEY NOTES:

1. PURCHASED AND INSTALLED BY P.C. – HOOK UP TO NEW PLUMBING AND VERIFY PROPER WORKING ORDER

2. PROVIDE SERVICEABLE METAL HOLD DOWN STRAP FOR CO2 BOTTLE.

3. PROVIDE 4" DIA PVC PIPING SYSTEM FROM BAG-IN-BOX TO COKE FREESTYLE MACHINE. ROUTE THROUGH WALL INTO CABINET

4. VERIFY SIZE WITH VENDOR, RACK SIZE TO ENSURE PROPER SPACE ALLOCATION.

5. VERIFY WITH FRANCHISEE FOR EXACT CO2 SYSTEM INSTALLATION AND OPERATION REQUIREMENTS.

6. PURCHASED AND INSTALLED BY P.C. PROVIDE OVERFLOW PAN (APPLICABLE FOR TANK TYPE ONLY) AND DRAIN SYSTEM (APPLICABLE TO TANK OR TANKLESS)

7. GREASE INTERCEPTOR CAPACITY CALCULATION:
3 COMP. SINK (18X18X12X3) = 11,664 CI = 50.5 GAL.
CAPACITY = .75% = .37.9 GALLONS PER MINUTE BASED ON 1 MINUTE DRAIN. SINK TO HAVE ROUNDED INTERNAL CORNERS OR ANGLES

8. SELF CONTAINED UNIT, NO WATER CONNECTION REQUIRED.

9. PROVIDE DUAL PRESSURE REGULATOR KITS.

10. SEE DESIGN MANUAL FOR ADDITIONAL INFORMATION.

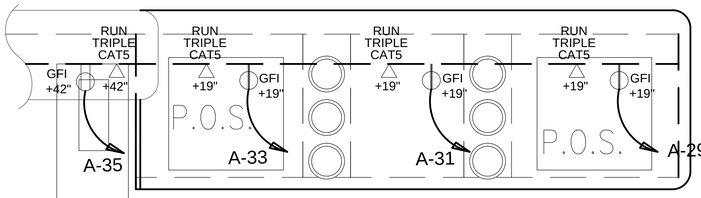
11. COORDINATE MOUNTING LOCATION WITH TENANT.

12. PROVIDE S.S. REDUCED PRESSURE ZONE ASSEMBLY

13. ICE MACHINE TO SIT ON BIN HOSHIZAKI Item #B-800SF.

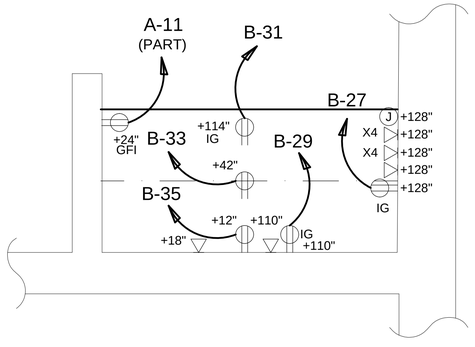
14. SHELVING ALONG ENTIRE WALL AS SHOWN ON EQUIPMENT PLAN, COORDINATE WITH TENANT FOR MOUNTING HEIGHTS.

15. 12" X 26" SHELF W/ ANGLE BRACKETS TO THE WALL. PROVIDE (1) 1-1/2" DIA. GROMMET AND 3" RADIUS ON CORNER AT POS COUNTER. TRASH CAN TO SIT BELOW. REMOTE PRINTER TO SIT ON SHELF.



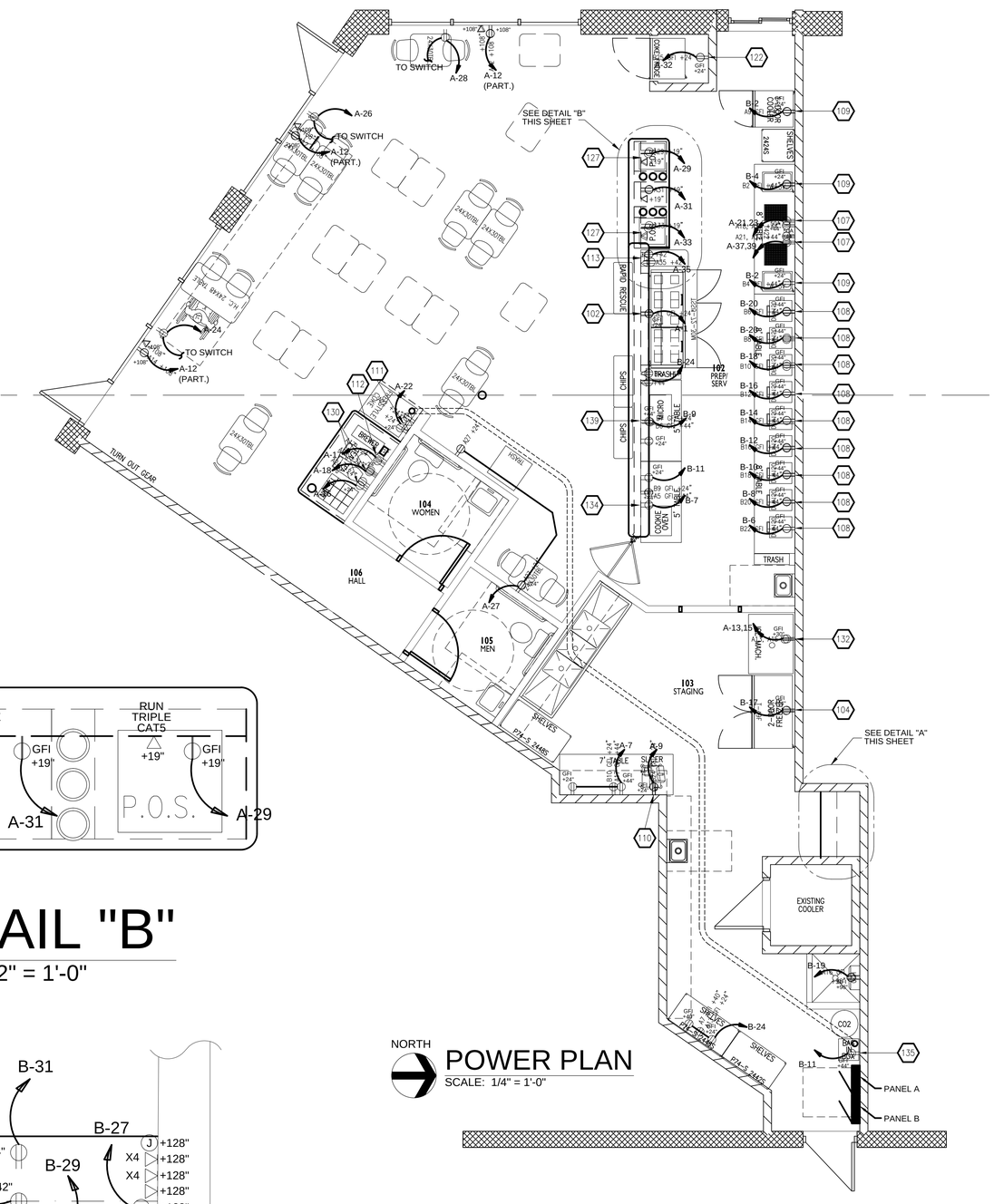
DETAIL "B"

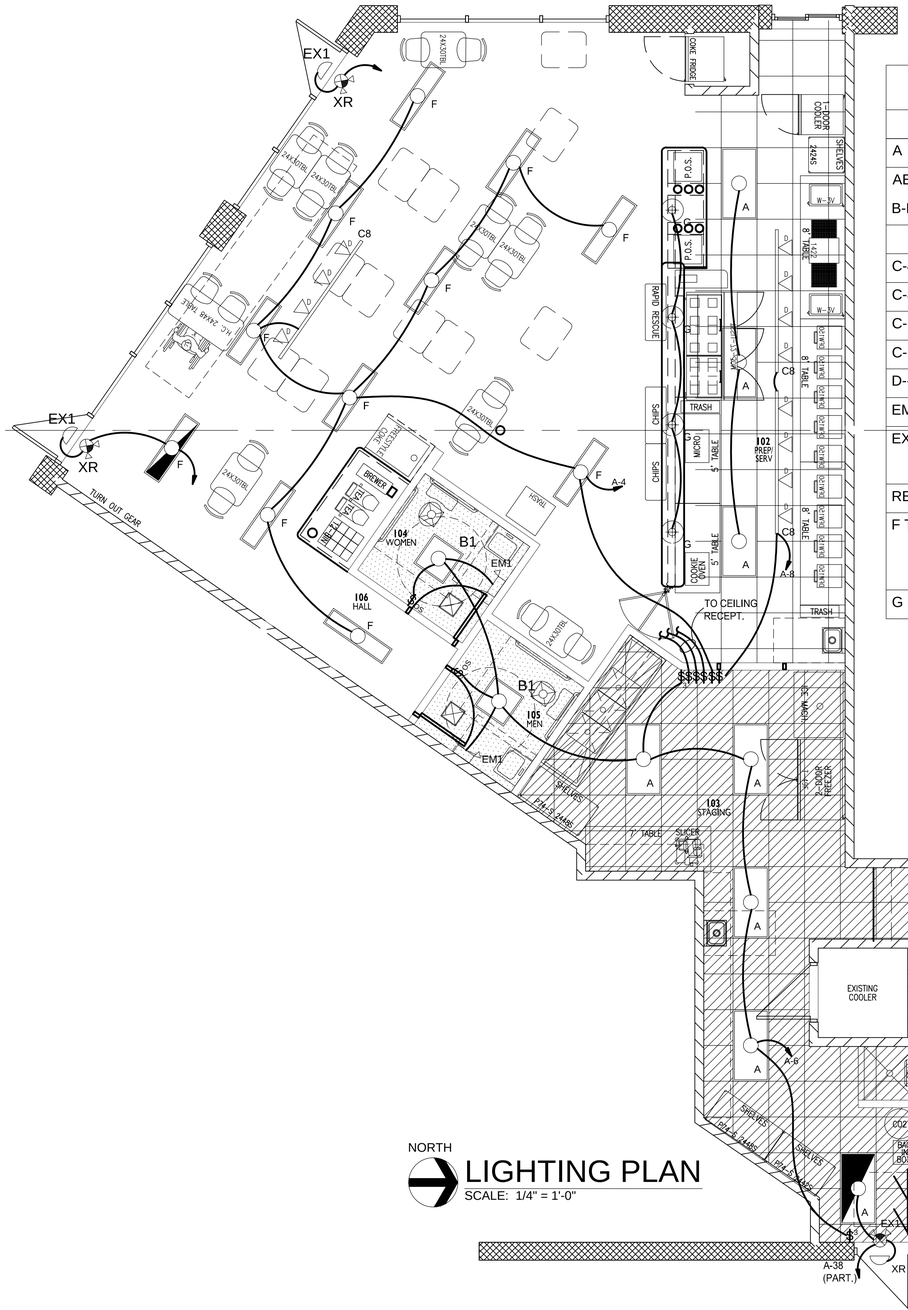
SCALE: 1/2" = 1'-0"



DETAIL "A"

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





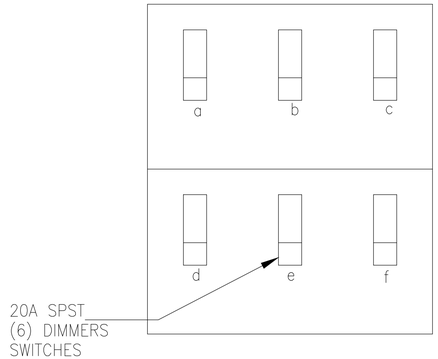
NORTH

LIGHTING PLAN

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

LIGHTING PACKAGE FOR FIRE HOUSE SUBS

Type	MFR	MFR PART#	DESCRIPTION
A	ABL-Lithonia Lighting	EPANL 24 40L 40K	Lithonia 4350 Lumens 2X4 Flat Panel LED 40K
AEM B-Drywall	ABL-Lithonia Lighting	EPANL 24 40L 40K	Lithonia 4350 Lumens 2X4 Flat Panel LED 40K w/ EM external inverter
	ABL-Lithonia Lighting	EPANL 22 40L 40K DGA22	Lithonia 3500 Lumens 2X2 Flat Panel LED 40K
C-4	Juno	R4BL	Black 4 FT ALPHA TRACK SECTION JUNO
C-8	Juno	R8BL	Black 8 FT ALPHA TRACK SECTION JUNO
C-LIVE END FEED	Juno	RCLF11BL	LIVE END FEED JUNO
C-LEF BREAKER	Juno	TCL2BL	TRACK CIRCUIT BREAKER JUNO
D--	Juno	R512B-BL	Black Track Head w/ PAR30FL10/B/940/LED
EM1	Progress Lighting	PE012-30	EMER Dual Head fixture Battery Backup ALL EM LIGHTS
EX1 Remote Capable	Progress Lighting	PECUE-UR30-RC	EXIT/EMERGENCY LIGHT COMBO w/ REMOTE SINGLE HEAD CAP
REMOTE HEAD	Progress Lighting	PERHC-SG-OD-30	SINGLE REMOTE OUTDOOR EMERGENCY HEAD
F T5 LED	Select Lighting	HBA454M23MV WG	High Bay|High Bay, 4L T5HO, MV|MFR:Select Lighting With Wire Guard supplied with 4 T5 LED Lamps, Maxlite L27T5DF440-CG 27 watts ea 96 watts total
G	Seagull Lighting	651991S-21	Red Pendant Light LED



SWITCH ELEVATION

KEY PLAN

CURRAN
ARCHITECTURE
5719 LAWTON LOOP E. DR. #212
INDIANAPOLIS, IN 46216
O :: 317 . 288 . 0681
F :: 317 . 288 . 0753

ARWIN PRIEST P.E., P.Eng.
MECHANICAL ENGINEER ELECTRICAL
8242 Mountain Cloud Circle
Littleton, Colorado 80126
Email: arwin@pedenver.com
Ph: (303) 898-2664

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FIREHOUSE SUBS

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111 SE M291 HWY
STE. 100
LEES SUMMIT, MO 64081

ISSUE DATES

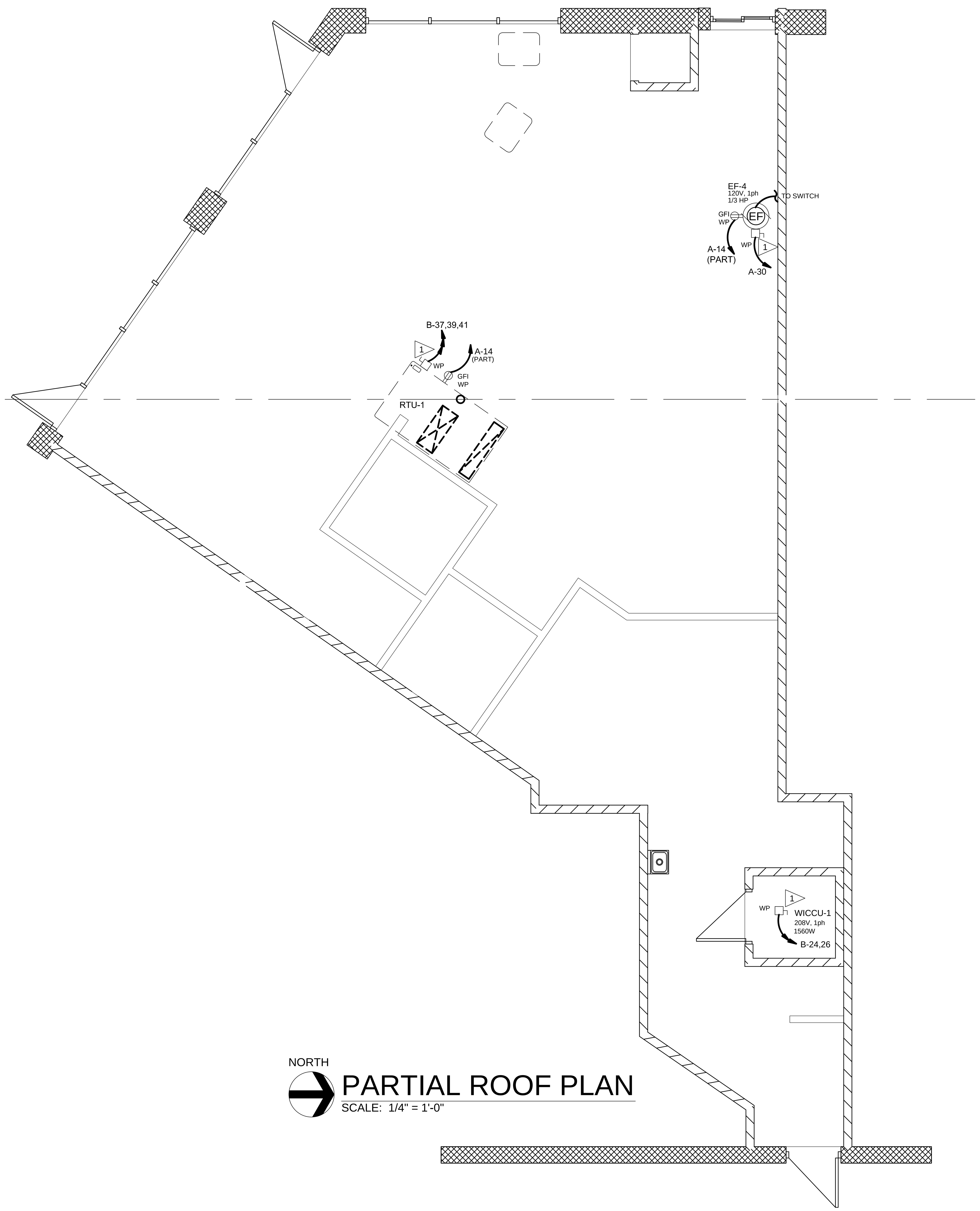
ISSUE	DATE

PROJECT NUMBER:

E1.1

MECHANICAL EQUIPMENT SCHEDULE

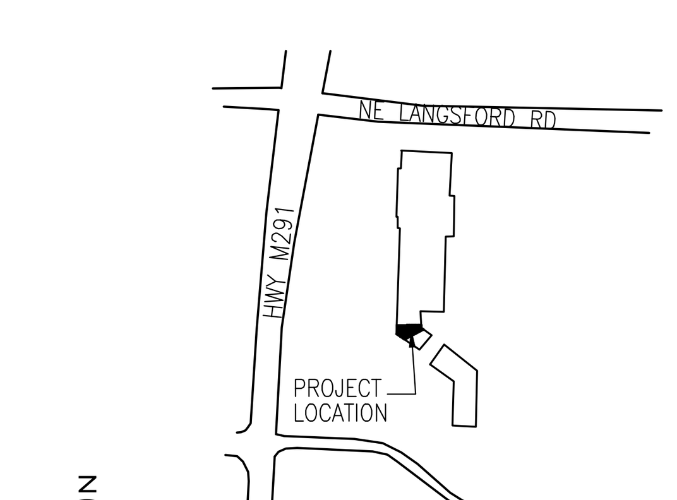
DESIGNATION	DESCRIPTION	QUAN	VOLT	PH	FLA	MCA	HP	KVA	CONDUCTORS	CONDUIT	SW	CB	FUSE SIZE/TYPE	REMARKS
RTU-1	ROOF TOP UNIT	1	208	3		65.0			3#6,#10 GND (CU)	3/4"	60/3	80/3	80 AMP	
EF-1	EXHAUST FAN	1	120	1				0.01	2-#12,#12 GND (CU)	1/2"		20/1		INTERLOCAK FAN WITH ROOM LIGHT SWITCH
EF-2	EXHAUST FAN	1	120	1				0.01	2-#12,#12 GND (CU)	1/2"		20/1		INTERLOCAK FAN WITH ROOM LIGHT SWITCH
EF-3	EXHAUST FAN	1	120	1				0.01	2-#12,#12 GND (CU)	1/2"		20/1		INTERLOCAK FAN WITH ROOM LIGHT SWITCH
EF-4	EXHAUST FAN	1	120	1	7.2		1/3		2-#12,#12 GND (CU)	1/2"	STO	20/1		INTERLOCAK FAN WITH ROOM LIGHT SWITCH



NORTH

PARTIAL ROOF PLAN

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



KEY PLAN

CURRAN
ARCHITECTURE
5719 LAWTON LOOP E. DR. #212
INDIANAPOLIS, IN 46216
O :: 317 . 288 . 0681
F :: 317 . 288 . 0753

ARWIN PRIEST P.E., P.Eng.
MECHANICAL * ENGINEER * ELECTRICAL
242 Mountain Cloud Circle
Highlands Ranch, Colorado 80126
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111 SE M291 HWY
STE. 100
LEES SUMMIT, MO 64081

ISSUE DATES

ISSUE	DATE

PROJECT NUMBER:

E2.0

GENERAL NOTES

THE SUB-CONTRACTOR SHALL VISIT THE JOB SITE AND BECOME FAMILIARIZED WITH ALL REQUIREMENTS OF THE CONTRACT PRIOR TO SUBMISSION OF BID. THE SUB-CONTRACTOR SHALL NOTIFY THE ARCHITECT/ENGINEER OF ANY CONFLICTS PRIOR TO BID OR START OF INSTALLATION.

THE SUB-CONTRACTOR SHALL ARRANGE FOR ALL INSPECTIONS WHEN THEY BECOME DUE, AND SHALL NOT COVER ANY WORK UNTIL APPROVED BY THE INSPECTION AUTHORITY.

ANY AND ALL FEES ASSOCIATED WITH THE ELECTRICAL WORK, INCLUDING CONSTRUCTION AND INSPECTIONS SHALL BE PAID FOR BY THE SUB-CONTRACTOR IN ORDER TO DELIVER A COMPLETE AND FINISHED BUILDING, READY FOR OCCUPANCY AND 100% USAGE.

THE SUBMISSION OF A PROPOSAL WILL BE CONSTRUED AS EVIDENCE THAT THE SUB-CONTRACTOR HAS FAMILIARIZED HIMSELF/HERSELF WITH THE PLANS AND BUILDING SITE. CLAIMS MADE SUBSEQUENT TO THE PROPOSAL FOR MATERIALS AND LABOR BECAUSE OF DIFFICULTIES ENCOUNTERED, WILL NOT BE RECOGNIZED IF THEY COULD HAVE BEEN FORESEEN HAD PROPER EXAMINATION BEEN MADE.

ANY COSTS DUE TO THE LACK OF COOPERATION AMONG TRADES SHALL BE BORNE BY THE SUB-CONTRACTOR.

THE INFORMATION PRESENTED ON THESE DRAWINGS IS DIAGRAMMATIC IN NATURE. IT DOES INDICATE THE GENERAL DESIGN AND ARRANGEMENT OF CIRCUITS, OUTLETS, EQUIPMENT, SYSTEMS, ETC. PROVIDE ALL MATERIALS AND LABOR FOR COMPLETELY FINISHED AND OPERATIONAL SYSTEMS. EXACT ROUTING MAY VARY AND MAY REQUIRE ADDITIONAL J-BOXES/PULL-BOXES AND/OR SPECIAL FITTINGS.

REFER TO LATEST ARCHITECTURAL DRAWINGS FOR: EXACT WALL LOCATIONS, DIMENSIONS, AND CONFIGURATIONS, DOOR SWINGS FOR SWITCH LOCATION VERIFICATION, REFLECTED CEILING PLANS FOR VERIFICATION OF LIGHT FIXTURE LOCATIONS.

ELECTRICAL CONTRACTOR SHALL FIELD VERIFY ALL ELECTRICAL EQUIPMENT LOADS PRIOR TO ROUGH-IN AND SHALL NOTIFY ENGINEER IF ANY DISCREPANCIES EXIST.

ALL EQUIPMENT SHALL BE NEW AND SHALL HAVE APPROPRIATE UNDERWRITERS LABORATORIES, INC. (U.L.) LABEL AND SHALL CONFORM TO LATEST INDUSTRY STANDARDS.

ELECTRICAL CONTRACTOR SHALL SUBMIT SHOP DRAWINGS FOR ALL EQUIPMENT INCLUDING: LIGHT FIXTURES, ELECTRICAL APPARATUS, WIRING DEVICES, ETC. FOR REVIEW/APPROVAL (5) DAYS PRIOR TO BID. EQUIPMENT IS NOT TO BE ORDERED WITHOUT SUBMITTAL TO ARCHITECT/OWNER/ENGINEER.

ELECTRICAL CONTRACTOR SHALL MAINTAIN ALL WORKING CLEARANCES FOR ALL ELECTRICAL EQUIPMENT PER N.E.C. REQUIREMENTS.

ALL WORK SHALL COMPLY WITH LATEST EDITION OF NATIONAL ELECTRICAL CODE (N.E.C.) AND ALL LOCAL AND STATE BUILDING CODES AND ADOPTED ORDINANCES, AND REQUIREMENTS OF THE UTILITY COMPANY.

ALL DISCONNECT SWITCHES SHALL BE HEAVY DUTY WITH DUAL ELEMENT TIME DELAY FUSES AS NOTED ON THE ONE LINE DIAGRAM. ENCLOSURE AND FUSE SIZE AS SHOWN OR AS REQUIRED TO MATCH INSTALLATION LOCATION AND LOAD CONDITIONS.

AT THE COMPLETION OF THE WORK, THE ELECTRICAL CONTRACTOR SHALL PROVIDE COMPLETE, ACCURATE, TYPED PANEL DIRECTORIES.

REFER TO MECHANICAL DRAWINGS FOR LOCATION OF THERMOSTAT(S), EXHAUST FAN(S), AND OTHER SPECIAL EQUIPMENT OR CONTROLS. ELECTRICAL CONTRACTOR IS RESPONSIBLE FOR INSTALLATION OF ALL CONDUIT, JUNCTION BOXES, WIRING, AND DISCONNECT SWITCHES AND THERMOSTAT JUNCTION BOXES.

ALL WIRING SHALL BE INSTALLED IN APPROVED RACEWAY SYSTEM IN ACCORDANCE WITH N.E.C. AND LOCAL ORDINANCES. THE USE OF TYPE MC CABLE SHALL BE INSTALLED IN ACCORDANCE WITH N.E.C. ARTICLE 330.

GROUNDING: SYSTEM GROUND SHALL BE IN ACCORDANCE WITH N.E.C. AND TABLE 250.122. THE SYSTEM SHALL BE FURNISHED WITH A CONTINUOUS GROUND FOR RECEPTACLES, LIGHTS, AND EQUIPMENT IN ACCORDANCE WITH N.E.C. TABLE 250.122.

CONDUIT RUNS INSIDE THE BUILDING SHALL BE CONCEALED, CONDUIT BELOW FLOOR SLAB SHALL BE INSTALLED BELOW THE SLAB AND INSTALLED PRIOR TO POUR. RUNS TO BE STRAIGHT AS POSSIBLE FROM POINT OF OUTLET TO POINT OF OUTLET.

SWITCHBOARDS, PANELBOARDS, INDUSTRIAL CONTROL PANELS, METER SOCKET ENCLOSURES, AND MOTOR CONTROL CENTERS THAT ARE IN OTHER THAN DWELLING OCCUPANCIES AND ARE LIKELY TO REQUIRE EXAMINATION, ADJUSTMENT, SERVICING, OR MAINTENANCE WHILE ENERGIZED. SHALL BE FIELD MARKED TO WARN QUALIFIED PERSONS OF POTENTIAL ELECTRIC ARC FLASH HAZARDS. THE MARKING SHALL BE LOCATED SO AS TO BE CLEARLY VISIBLE TO QUALIFIED PERSONS BEFORE EXAMINATION, ADJUSTMENT, SERVICING, OR MAINTENANCE OF THE EQUIPMENT PER N.E.C. 110.16

LEGEND

48" GFI	DUPLEX RECEPTACLE MOUNT @ 18" [450mm] A.F.F. UNLESS OTHERWISE NOTED 48" - MOUNT AT 48" [1219mm] A.F.F. IG - ISOLATED GROUND +6" - MOUNT AT 6" [152mm] ABOVE COUNTERTOP GFI - GROUND FAULT INTERRUPTER
	SINGLE RECEPTACLE MOUNT @ 18" [450mm] A.F.F. UNLESS OTHERWISE NOTED
	4-PLEX RECEPTACLE MOUNT @ 18" [450mm] A.F.F. UNLESS OTHERWISE NOTED
OR	208V. RECEPTACLE
	FLUSH FLOOR MOUNTED DUPLEX RECEPTACLE - USE BRASS COVERPLATE
J	NOTE: MARK ALL J BOXES WITH BRANCH JUNCTION BOX CIRCUIT PANEL DESIGNATION & CIRCUIT NUMBER(S)
J	WALL MOUNTED JUNCTION BOX
	TELEVISION OUTLET
2D	TELEPHONE OUTLET MOUNT @ 18"A.F.F. [450mm] UNLESS OTHERWISE NOTED - STUB 3/4"C. [21mm] INTO ACCESSIBLE LOCATION ABOVE CEILING. PROVIDE BLANK COVER PLATE. 2D-DOUBLE
	FLUSH FLOOR MOUNTED TELEPHONE OUTLET - USE BRASS COVERPLATES - STUB 3/4"C. [21mm] INTO ACCESSIBLE LOCATION ABOVE CEILING
2D	DATA TERMINAL OUTLET MOUNT @ 18"A.F.F. [450mm] UNLESS OTHER- WISE NOTED - STUB 3/4"C. [21mm] INTO ACCESSIBLE LOCATION ABOVE CEILING. PROVIDE BLANK COVER PLATE. 2D-DOUBLE
	FLUSH FLOOR MOUNTED DATA TERMINAL - USE BRASS COVERPLATES - STUB 3/4"C. [21mm] INTO ACCESSIBLE LOCATION ABOVE CEILING
	FUSIBLE DISCONNECT — NON-FUSIBLE DISCONNECT
	PANELBOARD -NOTE: PROVIDE TYPEWRITTEN DIRECTORIES AT COMPLETION OF WORK
D	SWITCH MOUNT @ 48" A.F.F. [1219mm] UNLESS OTHERWISE NOTED D - DIMMER SWITCH — T - TIMER — L - LIMIT 3 - THREE-WAY SWITCHING — K - KEYED — M - MANUAL STARTER OS - OCCUPANCY SENSOR
A a	RECESS MOUNTED FIXTURE A - FIXTURE TYPE a - SWITCHING DESIGNATION
OR	RECESSED DOWNLIGHT
	SURFACE / CHAIN MOUNTED FIXTURE
AA	WALL / POLE MOUNTED FIXTURE AA - FIXTURE TYPE
	WALL MOUNTED EXIT SIGN ARROW INDICATED
	CEILING MOUNTED EXIT SIGN
A–1,3,5 (#10)	CIRCUIT HOME-RUN (ARROWS INDICATE NUMBER OF CIRCUITS) A-1,3,5 - PANEL A, CIRCUITS 1, 3, & 5 (#10) - USE 10 GAUGE COPPER WIRE (6mm²)

NOTE: - NOT ALL SYMBOLS MAY APPLY TO ALL SHEETS

- ALL WIRE SHALL BE COPPER (MIN. #12 AWG) (4mm ²) UNLESS OTHERWISE NOTED.
- FEEDERS SHALL CONFORM TO N.E.C. 215.2. BRANCH CIRCUIT WIRING AND VOLTAGE DROP REQUIREMENTS SHALL CONFORM TO N.E.C. 210.19(A).
- ALL SUPPORTS FOR EQUIPMENT AND DEVICES SHALL CONFORM SEISMIC ZONE REQUIREMENTS AND LOCAL AUTHORITY HAVING JURISDICTION. LIGHT FIXTURES SHALL BE SUPPORTED IN ACCORDANCE WITH N.E.C. ARTICLE 300 SPECIFICALLY PARAGRAPH 300.11(A)

NOTES: KITCHEN EQUIPMENT

THE SUB-CONTRACTOR SHALL COORDINATE WITH AND CONFORM TO: APPROVED ELECTRICAL KITCHEN EQUIPMENT SHOP DRAWINGS, WITH THE EQUIPMENT SUPPLIER, EQUIPMENT INSTALLER, AND THE WIRING DIAGRAMS, DETAILS, ETC., PRIOR TO ANY ROUGH-INS. THIS SHALL INCLUDE THE FOLLOWING BUT IS NOT NECESSARILY LIMITED TO:

PROVIDE ALL POWER CIRCUITS, WIRING, CONDUIT, OUTLETS, DISCONNECT SWITCHES, ETC., AND PROVIDE FINAL ELECTRICAL CONNECTIONS TO ALL EQUIPMENT. ALL EQUIPMENT SHALL HAVE APPROVED DISCONNECTING MEANS IN ACCORDANCE WITH N.E.C. ARTICLE 422.

PROVIDE ALL POWER CIRCUITS, WIRING, CONDUIT, OUTLETS, DISCONNECT SWITCHES, ETC., FOR ALL REFRIGERATION EQUIPMENT EXCLUDING COMPRESSORS, SOLENOIDS, ETC. WHICH ARE FURNISHED BY REFRIGERATION CONTRACTOR. MAGNETIC CONTACTORS, TIME CLOCKS, ETC. ARE FURNISHED AND INSTALLED BY THE ELECTRICAL SUB-CONTRACTOR.

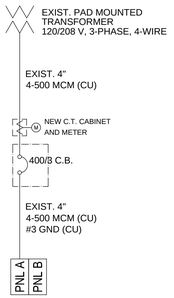
PROVIDE MATCHING RECEPTACLES AND CONNECTORS IF CORD IS SUPPLIED WITH EQUIPMENT. SPLICE CONNECTORS TO CORD IS NECESSARY.

MAKE ALL FINAL HARD WIRED CONNECTIONS TO EQUIPMENT AFTER EQUIPMENT IS INSTALLED.

VERIFY ALL ELECTRICAL CHARACTERISTICS WITH THE KITCHEN EQUIPMENT SUPPLIER, RECOMMENDATIONS, AND CONTROL WIRING DIAGRAMS, EQUIPMENT CONNECTIONS, MOUNTING HEIGHTS, LOCATIONS ETC.

PROVIDE MATCHING RECEPTACLES AND CONNECTORS IF CORD IS SUPPLIED WITH EQUIPMENT. PROVIDE CORD CAP IF NOT PROVIDED WITH EQUIPMENT.

FOR ADDITIONAL INFORMATION, REFER TO FOOD SERVICE EQUIPMENT DRAWINGS.



ONE LINE DIAGRAM

NO SCALE

NOTE:
E.C. SHALL VERIFY TENANT ELECTRICAL SERVICE EQUIPMENT WITH LANDLORD PRIOR TO INSTALLATION.

LOAD CALCULATIONS:

LIGHTING	2.2@	125%	=	2.8 kVA
RECEPTACLE	5.2@	100%	=	5.2 kVA
MECHANICAL	23.9@	100%	=	23.9 kVA
25% OF LARGEST			=	2.9 kVA
SPECIAL	44.1@	65%	=	28.7 kVA
MISC.	6.9@	100%	=	6.9 kVA
TOTAL			=	67.5 kVA
				187.5 AMPS)

SHORT CIRCUIT CALCULATIONS

POINT TO POINT METHOD FOR SHORT CIRCUIT CALCULATIONS ILLUSTRATED IN BUSSMAN MANUFACTURING PUBLICATION FORM SPD90.

SERVICE: 120/208 V., 3-PHASE, 4-WIRE

AVAILABLE SHORT CIRCUIT CURRENT FROM UTILITY = 52,000 A.

FIND FACTOR f = $\frac{1.73 \times \text{(length in feet)} \times \text{(short circuit current)}}{\text{(constant from Table C)} \times \text{(line-to-line voltage)}}$

X1 = AVAILABLE FAULT FOR A 150 KVA TRANSFORMER PER UTILITY CO. = 26,000 AMPS

X2 $\frac{1.73 \times 50 \times 26{,}000}{2 \times 22185 \times 208} = 0.244$ Isc = $\frac{26{,}000}{1.244} =$ **20,906** AMPS

X3 $\frac{1.73 \times 15 \times 20{,}906}{2 \times 12844 \times 208} = 0.102$ Isc = $\frac{20{,}906}{1.102} =$ **18,979** AMPS

SCHEDULE – PANEL A

NOTE: ALL BREAKERS 20A. UNLESS NOTED OTHERWISE.

MFG. AS APPROVED
TYPE PANELBOARD
LUG LOC. TOP - W/ FEED THRU LUGS
AMPS 400 A. BUSS
VOLTAGE 120/208V, 3ph, 4W
MOUNTING FLUSH
BRACING 22,000 A.I.C.

LIGHT.	2.1	KVA @ 125% =	2.6	KVA			
RECEPT.	13.0	KVA @ 100% =	11.5	KVA			
MECH.	19.8	KVA @ 100% =	19.8	KVA			
25% LARGEST MOTOR			4.6	KVA			
KITCHEN	45.8	KVA @ 65% =	29.7	KVA			
MISC.	6.9	KVA @ 100%	6.9	KVA			
TOTAL		(208.6 A)	75.1	KVA			

72" SANDWICH UNIT #102	1176	1	2	1200	SIGN		
SPARE		3	4	420	LIGHTING - DINING / HALL		
SPARE		5	6	224	LIGHTING - STAGING/TOILETS		
RECEPT	360	7	8	150	LIGHTING - PREP		
SLICER #110	795	9	10		SPARE		
BAG IN BOX #135	200	11	12	1000	RECEPT - CEILING MOUNTED T.V.		
ICE MAKER #132	1331	13	14	360	RECEPT - (ON ROOF)		
- - -	1331	15 / 20	16	200	TEA URN #130		
COFFEE/TEA BREWER #112	1500	17	18	200	TEA URN #130		
SPARE		19	20		SPARE		
TOASTER #107	2700	21	22	830	FREE STYLE COKE #111		
- - -	2700	23 / 50	24	1200	RECEPT - SHOW WINDOW		
EF-1, EF-2 & EF-3	300	25	26	1200	RECEPT - SHOW WINDOW		
RECEPT - GENERAL	720	27	28	1200	RECEPT - SHOW WINDOW		
CASH REGISTER #127	900	29	30	830	EF-4 (ON ROOF)		
RECEPT - GENERAL	360	31	32	830	COKE FRIDGE #122		
CASH REGISTER #127	720	33	34		SPARE		
PRINTER #113	500	35	36		SPARE		
TOASTER #107	2700	37 / 50	38	78	EM. LIGHTING		
- - -	2700	39 / 50	40	720	CASH REGISTER #127		
SPARE		41	42	720	CASH REGISTER #127		

A phase = 26,205 VA | B phase = 29,132 VA | C phase = 25,400 VA | Total = 80,737 VA

SCHEDULE – PANEL B

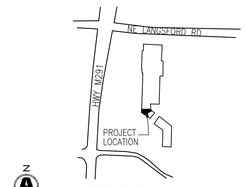
NOTE: ALL BREAKERS 20A. UNLESS NOTED OTHERWISE.

MFG. AS APPROVED
TYPE PANELBOARD
LUG LOC.
AMPS 400 A. BUSS
VOLTAGE 120/208V, 3ph, 4W
MOUNTING FLUSH
BRACING 22,000 A.I.C.

LIGHT.	KVA @ 125% =	KVA					
RECEPT.	KVA @ 100% =	KVA					
MECH.	KVA @ 100% =	KVA					
25% LARGEST MOTOR		KVA					
SPECIAL	KVA @ 65% =	KVA					
SPARE		KVA					
TOTAL		KVA					

SPARE		1	2	1200	FOOD WARMER #109		
WALK-IN FREEZER	876	3	4	1200	FOOD WARMER #109		
WALK-IN COOLER	876	5	6	1800	STEAMER #108		
COOKIE OVEN (FRONT) #134	1500	7	8	1800	STEAMER #108		
MICROWAVE (FRONT) #139	1800	9	10	1800	STEAMER #108		
RECEPT	360	11	12	1800	STEAMER #108		
SPARE		13	14	1800	STEAMER #108		
SPARE		15	16	1800	STEAMER #108		
TWO DOOR FREEZER #104	1320	17	18	1800	STEAMER #108		
GWH-1	100	19	20	1800	STEAMER #108		
SPARE		21	22	1800	STEAMER #108		
SPARE		23	24	150	KVS MONITOR		
SPARE		25	26	180	RECEPT.		
TELEPHONE BOARD	360	27	28	360	RECEPT.		
COMPUTER	1000	29	30		SPARE		
COMPUTER	1000	31	32		SPARE		
RECEPT - DESK	500	33	34	780	EXIST WALK-IN COOLER		
RECEPT - DESK	500	35 / 15	36	780	- - -		
RTU-1	4291	37	38	3081	RTU-2		
- - -	4291	39	40	3081	- - -		
- - -	4291	41 / 60	42	3081	- - -		

A phase = VA | B phase = VA | C phase = VA | Total = VA



KEY PLAN

CURRAN
ARCHITECTURE
5719 LAWTON LOOP E. DR. #212
INDIANAPOLIS, IN 46216
O :: 317 . 288 . 0681
F :: 317 . 288 . 0753

ARWIN PRIEST P.E., P.Eng.
MECHANICAL ENGINEER ELECTRICAL
6242 Mountain Cloud Circle
Loveland, Colorado 80126
Email: arwinpe@denver.com
Ph: (303) 898-2664

CERTIFICATION

PROJECT INFORMATION

FIREHOUSE SUBS

FIREHOUSE SUBS
111 SE M291 HWY
STE. 100
LEES SUMMIT, MO 64081

ISSUE DATES

ISSUE	DATE

PROJECT NUMBER:

E3.0

COMcheck Software Version 4.1.4.0

Interior Lighting Compliance Certificate

Project Information

Energy Code:	2018 IECC
Project Title:	Firehouse Subs
Project Type:	Addition

Construction Site:
111SE M291 HWY
Suite 100
Lees Summit, MO 64081

Owner/Agent:
Firehouse Subs
111SE M291 HWY
Suite 100
Lees Summit, MO 64081

Designer/Contractor:
Richard E. Rowley
R.E. Design, Inc.
800 Westwood Drive
Park Hills, MO 63601
720-635-2324
rsquared@redesigninc.net

Allowed Interior Lighting Power

A Area Category	B Floor Area (ft2)	C Allowed Watts / ft2	D Allowed Watts (B X C)
1-Common Space Types:Dining Area - Family Restaurant	868	0.71	616
2-Common Space Types:Food Preparation	717	1.06	760
3-Common Space Types:Restrooms	108	0.85	92
4-Common Space Types:Corridor/Transition <8 ft wide	37	0.66	24
		Total Allowed Watts =	1493

Proposed Interior Lighting Power

A Fixture ID : Description / Lamp / Wattage Per Lamp / Ballast	B Lamps/ Fixture	C # of Fixtures	D Fixture Watt.	E (C X D)
1-Common Space Types:Dining Area - Family Restaurant				
Track lighting 1: D: LED Track Light: Wattage based on current limiting device capacity	0	0	70	70
LED 1: LED Linear 22W:	1	11	27	297
2-Common Space Types:Food Preparation				
LED 2: A: 2x4 LED: LED Panel 38W:	1	5	39	195
Track lighting 2: D: LED Track Light: Wattage based on 16 feet of track	0	0	128	128
LED 3: G: Pendant Light: LED A Lamp 13W:	1	4	13	52
3-Common Space Types:Restrooms				
LED 4: B1: 2x2 LED: LED Panel 33W:	1	2	34	68
4-Common Space Types:Corridor/Transition <8 ft wide				
Track lighting 3: D: LED Track Light: Wattage based on current limiting device capacity	0	0	40	40
			Total Proposed Watts =	850

Interior Lighting PASSES: Design 43% better than code

Interior Lighting Compliance Statement

Compliance Statement: The proposed interior lighting design represented in this document is consistent with the building plans, specifications, and other calculations submitted with this permit application. The proposed interior lighting systems have been designed to meet the 2018 IECC requirements in COM*check* Version 4.1.4.0 and to comply with any applicable mandatory requirements listed in the Inspection Checklist.

Richard E. Rowley / Electrical Designer — Name - Title
Signature
11-23-2020 — Date

COMcheck Software Version 4.1.4.0

Inspection Checklist

Energy Code: 2018 IECC

Requirements: 100.0% were addressed directly in the COM*check* software

Text in the "Comments/Assumptions" column is provided by the user in the COMcheck Requirements screen. For each requirement, the user certifies that a code requirement will be met and how that is documented, or that an exception is being claimed. Where compliance is itemized in a separate table, a reference to that table is provided.

Section # & Req.ID	Plan Review	Complies?	Comments/Assumptions
C103.2 [PR4][1]	Plans, specifications, and/or calculations provide all information with which compliance can be determined for the interior lighting and electrical systems and equipment and document where exceptions to the standard are claimed. Information provided should include interior lighting power calculations, wattage of bulbs and ballasts, transformers and control devices.	■Complies ☐Does Not ☐Not Observable ☐Not Applicable	Requirement will be met. **Location on plans/spec:** SEE ELECTRICAL PLANS
C406 [PR9][1]	Plans, specifications, and/or calculations provide all information with which compliance can be determined for the additional energy efficiency package options.	■Complies ☐Does Not ☐Not Observable ☐Not Applicable	Requirement will be met. **Location on plans/spec:** SEE ELECTRICAL PLANS

Additional Comments/Assumptions:

Section # & Req.ID	Rough-In Electrical Inspection	Complies?	Comments/Assumptions
C405.2.2.2 [EL22][1]	Spaces required to have light-reduction controls have a manual control that allows the occupant to reduce the connected lighting load in a reasonably uniform illumination pattern >= 50 percent.	■Complies ☐Does Not ☐Not Observable ☐Not Applicable	Requirement will be met. **Location on plans/spec:** SEE ELECTRIAL PLANS
C405.2.1, C405.2.1.1 [EL18][1]	Occupancy sensors installed in classrooms/lecture/training rooms, conference/meeting/multipurpose rooms, copy/print rooms, lounges/breakrooms, enclosed offices, open plan office areas, restrooms, storage rooms, locker rooms, warehouse storage areas, and other spaces <= 300 sqft that are enclosed by floor-to-ceiling height partitions. Reference section language C405.2.1.2 for control function in warehouses and section C405.2.1.3 for open plan office spaces.	■Complies ☐Does Not ☐Not Observable ☐Not Applicable	Requirement will be met. **Location on plans/spec:** SEE ELECTRICAL PLANS
C405.2.1.2 [EL19][1]	Occupancy sensors control function in warehouses: In warehouses, the lighting in aisleways and open areas is controlled with occupant sensors that automatically reduce lighting power by 50% or more when the areas are unoccupied. The occupant sensors control lighting in each aisleway independently and do not control lighting beyond the aisleway being controlled by the sensor.	☐Complies ☐Does Not ☐Not Observable ■Not Applicable	**Exception:** Requirement does not apply.
C405.2.1.3 [EL20][1]	Occupant sensor control function in open plan office areas: Occupant sensor controls in open office spaces >= 300 sq.ft. have controls 1) configured so that general lighting can be controlled separately in control zones with floor areas <= 600 sq.ft. within the space, 2) automatically turn off general lighting in all control zones within 20 minutes after all occupants have left the space, 3) are configured so that general lighting power in each control zone is reduced by >= 80% of the full zone general lighting power within 20 minutes of all occupants leaving that control zone, and 4) are configured such that any daylight responsive control will activate space general lighting or control zone general lighting only when occupancy for the same area is detected.	☐Complies ☐Does Not ☐Not Observable ■Not Applicable	**Exception:** Requirement does not apply.
C405.2.2, C405.2.2.1, C405.2.2.2 [EL21][2]	Each area not served by occupancy sensors (per C405.2.1) have time-switch controls and functions detailed in sections C405.2.2.1 and C405.2.2.2.	■Complies ☐Does Not ☐Not Observable ☐Not Applicable	Requirement will be met. **Location on plans/spec:** SEE ELECTRICAL PLANS

Section # & Req.ID	Rough-In Electrical Inspection	Complies?	Comments/Assumptions
C405.2.3, C405.2.3.1, C405.2.3.2 [EL23][2]	Daylight zones provided with individual controls that control the lights independent of general area lighting. See code section C405.2.3 Daylight-responsive controls for applicable spaces, C405.2.3.1 Daylight responsive control function and section C405.2.3.2 Sidelit zone.	☐Complies ☐Does Not ☐Not Observable ■Not Applicable	**Exception:** Requirement does not apply.
C405.2.4 [EL26][1]	Separate lighting control devices for specific uses installed per approved lighting plans.	■Complies ☐Does Not ☐Not Observable ☐Not Applicable	Requirement will be met. **Location on plans/spec:** SEE ELECTRIAL PLANS
C405.2.4 [EL27][1]	Additional interior lighting power allowed for special functions per the approved lighting plans and is automatically controlled and separated from general lighting.	■Complies ☐Does Not ☐Not Observable ☐Not Applicable	Requirement will be met. **Location on plans/spec:** SEE ELECTRIAL PLANS
C405.3 [EL6][1]	Exit signs do not exceed 5 watts per face.	■Complies ☐Does Not ☐Not Observable ☐Not Applicable	Requirement will be met. **Location on plans/spec:** SEE ELECTRICAL PLANS
C405.6 [EL26][2]	Low-voltage dry-type distribution electric transformers meet the minimum efficiency requirements of Table C405.6.	☐Complies ☐Does Not ☐Not Observable ■Not Applicable	**Exception:** Requirement does not apply.
C405.7 [EL27][2]	Electric motors meet the minimum efficiency requirements of Tables C405.7(1) through C405.7(4). Efficiency verified through certification under an approved certification program or the equipment efficiency ratings shall be provided by motor manufacturer (where certification programs do not exist).	■Complies ☐Does Not ☐Not Observable ☐Not Applicable	Requirement will be met. **Location on plans/spec:** SEE ELECTRICAL PLANS
C405.8.2, C405.8.2.1 [EL28][2]	Escalators and moving walks comply with ASME A17.1/CSA B44 and have automatic controls configured to reduce speed to the minimum permitted speed in accordance with ASME A17.1/CSA B44 or applicable local code when not conveying passengers.	☐Complies ☐Does Not ☐Not Observable ■Not Applicable	**Exception:** Requirement does not apply.
C405.9 [EL29][2]	Total voltage drop across the combination of feeders and branch circuits <= 5%.	■Complies ☐Does Not ☐Not Observable ☐Not Applicable	Requirement will be met. **Location on plans/spec:** SEE ELECTRICAL PLANS

Additional Comments/Assumptions:

Section # & Req.ID	Final Inspection	Complies?	Comments/Assumptions
C303.3, C408.2.5.2 [FI17][3]	Furnished O&M instructions for systems and equipment to the building owner or designated representative.	☐Complies ☐Does Not ■Not Observable ☐Not Applicable	Requirement will be met.
C405.4.1 [FI18][1]	Interior installed lamp and fixture lighting power is consistent with what is shown on the approved lighting plans, demonstrating proposed watts are less than or equal to allowed watts.	■Complies ☐Does Not ☐Not Observable ☐Not Applicable	*See the Interior Lighting fixture schedule for values.*
C408.1.1 [FI57][1]	Building operations and maintenance documents will be provided to the owner. Documents will cover manufacturers' information, specifications, programming procedures and means of illustrating to owner how building, equipment and systems are intended to be installed, maintained, and operated.	☐Complies ☐Does Not ■Not Observable ☐Not Applicable	Requirement will be met.
C408.2.5.1 [FI16][3]	Furnished as-built drawings for electric power systems within 90 days of system acceptance.	☐Complies ☐Does Not ■Not Observable ☐Not Applicable	Requirement will be met.
C408.3 [FI33][1]	Lighting systems have been tested to ensure proper calibration, adjustment, programming, and operation.	☐Complies ☐Does Not ■Not Observable ☐Not Applicable	Requirement will be met. **Location on plans/spec:** NOT OBSERVABLE

Additional Comments/Assumptions:

CURRAN
ARCHITECTURE
5719 LAWTON LOOP E. DR. #212
INDIANAPOLIS, IN 46216
O :: 317 . 288 . 0681
F :: 317 . 288 . 0753

ARWIN PRIEST P.E., P.Eng.
MECHANICAL ENGINEER ELECTRICAL
8420 Mountain Cloud Circle
Lone Tree, Colorado 80126
Email: arwin@pedenver.com
Ph: (303) 898-2664

CERTIFICATION

PROJECT INFORMATION

FIREHOUSE SUBS

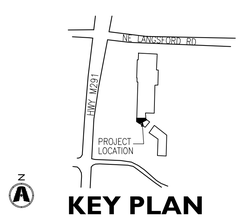
FIREHOUSE SUBS
111 SE M291 HWY
STE. 100
LEES SUMMIT, MO 64081

ISSUE DATES

ISSUE	DATE

PROJECT NUMBER:

E4.0



KEY PLAN