UNIVERSITY OF NORTH TEXAS

KERR HALL DINING RENOVATION

MEAN GREENS VEGAN DINING HALL

ISSUE FOR CONSTRUCTION

JANUARY 30, 2025

KERR HALL DINING RENOVATION
1410 West Maple St
Denton, TX 76201
JANUARY 30, 2025
ISSUE FOR CONSTRUCTION

UNIVERSITY OF NORTH TEXAS

KERR HALL DINING RENOVATION

ISSUE FOR CONSTRUCTION

JANUARY 30, 2025

OWNER

University of North Texas System
2204 W. Prairie Street
Denton, TX 76201

ARCHITECT

Treanor
2554 Elm Street, Suite 200
Dallas, TX 75225
(p) 214.310.1018

INTERIORS SUPPORT + FF&E

Edwards+Mulhausen
2301A E. Riverside Drive, Suite 80
Austin, TX 78741
(p) 512.291.6657

MEP ENGINEERS

Purdy-McGuire
17300 Dallas Parkway, Suite 3000
Dallas, TX 75248
(p) 972.239.5357

IT + SECURITY + A/V

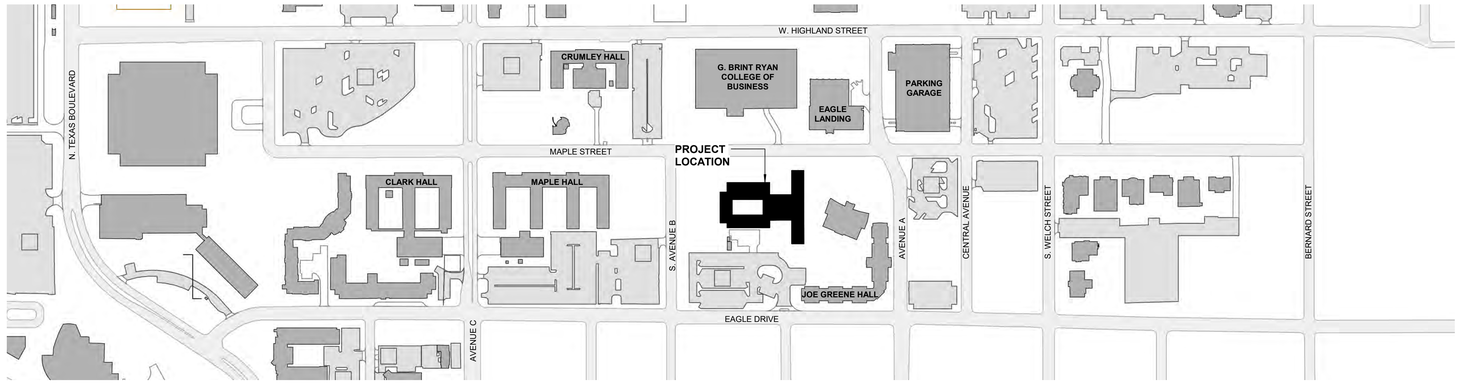
4B Technology Group
390 Glenborough Drive
Houston, TX 77067
(p) 832.249.9379

FOOD SERVICE EQUIPMENT

Foodservice Design Professionals
584 N Kimball Ave
Southlake, TX 76092
(p) 972.245.5300

COST ESTIMATING

Vermeulens
325 N. St. Paul Street, Suite 3100
Dallas, TX 75201
(p) 469.965.1333



SITE VICINITY MAP A1

SHEET INDEX

TREANOR
2554 Elm Street, Suite 200
Dallas, TX 75226
Office: 214.310.1018
www.treanor.design

01.30.2025

UNIVERSITY OF NORTH TEXAS
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Date: JANUARY 30, 2025

REVISIONS

NO	DESCRIPTION	DATE
1	ADDENDUM 2	05.23.25

G001

SITE VICINITY MAP, PROJECT TEAM, & SHEET INDEX

Treanor NO. HE0569.2302.01

ABBREVIATIONS

AA	AUTOMATICALLY ACTUATED	FLUOR	FLUORESCENT	PLWD	PLYWOOD
ABS	ABSOLUTE	FND	FOUNDATION	PNL	PANEL
ABV	ABOVE	FOC	FACE OF CONCRETE	PR	PAIR
AC	ABOVE COUNTER	FOF	FACE OF FINISH	PSF	POUNDS PER SQUARE FOOT
ACMU	ARCHITECTURAL CEMENTITIOUS MASONRY UNIT	FOM	FACE OF MASONRY	PSI	POUNDS PER SQUARE INCH
ACOUS	ACOUSTICAL	FOS	FACE OF STUCCO	PT	PAINT, PAINTED
ACT	ACOUSTICAL CEILING TILE	FP	FIREPROOF(ING)	PTR	PAPER TOWEL RECEPTOR
AD	AREA DRAIN	FR	FIRE RATED	PVC	POLYVINYL CHLORIDE
ADA	AMERICANS WITH DISABILITIES ACT	FRP	FIBERGLASS REINFORCED PLASTIC	PVMT	PAVEMENT
ADJ	ADJUSTABLE	FS	FLOOR SINK	QT	QUARRY TILE
AFF	ABOVE FINISHED FLOOR	FT	FEET	QTY	QUANTITY
AG	ACRYLIC GLAZING	FTG	FOOTING	R	RADIUS OR RISER
AHU	AIR HANDLING UNIT	FUR	FURRING	RA	RETURN AIR
ALT	ALTERNATE	FUT	FUTURE	RAD	RADIUS
ALUM	ALUMINUM	GA	GAUGE	RB	RUBBER BASE
ANCH	ANCHOR	GALV	GALVANIZED	RBT	RABBET
AP	ACCESS PANEL	GB	GRAB BAR	RCP	REFLECTED CEILING PLAN
APX	APPROXIMATE	GC	GENERAL CONTRACTOR	RD	ROOF DRAIN
ARCH	ARCHITECT(URAL)	GD	GRADE/GRADING	RE	REFERENCE
AUTO	AUTOMATIC	GF	GROUND FACE	RECEP	RECEPTACLE
BD	BOARD	GFRC	GLASS FIBER REINFORCED CONCRETE	REF	REFERENCE
BLDG	BUILDING	GR	GRADE, GRADING	REFR	REFRIGERATOR
BLK	BLOCK	GYP	GYPSUM	REG	REGISTER
BM	BENCH MARK	GYP BD	GYPSUM BOARD	REINF	REINFORCED(ING)
BO	BOTTOM OF	H	HIGH/HEIGHT	REM	REMOVE
BOD	BASIS OF DESIGN	HB	HOSE BIB	REQ	REQUIRE(D)
BOT	BOTTOM	HM	HOLLOW METAL	RES	RESILIENT
BR	BRICK	HO	HOLD OPEN	RET	RETURN
BRG	BEARING	HORZ	HORIZONTAL	REV	REVISION
BS	BOTH SIDES	HR	HOUR	RFG	ROOFING
BSMT	BASEMENT	HT	HEIGHT	RFL	REFLECT(ED), (IVE), (OR)
BUR	BUILT UP ROOFING	HVAC	HEATING/VENTILATING/AIR CONDITIONING	RFS	ROOM FINISH SCHEDULE
CA	CARD ACTUATED	HW	HOT WATER	RH	RIGHT HAND
CAB	CABINET	HWD	HARD WOOD	RM	ROOM
CB	CHALKBOARD	ID	INSIDE DIAMETER	RO	ROUGH OPENING
CCTV	CLOSED CIRCUIT TELEVISION	IN	INCHES	RTU	ROOF TOP UNIT
CF	CORK FLOORING	INCL	INCLUDE(D), (ING)	RVRS	REVERSE
CFCI	CONTRACTOR FURNISHED CONTRACTOR INSTALLED	INSUL	INSULATION, INSULATING	S	SOUTH
CG	CORNER GUARD	INT	INTERIOR	SA	SUPPLY AIR
CH	CONDUCTOR HEAD	INTM	INTERMEDIATE	SAM	SELF-ADHERED MEMBRANE
CI	CAST IRON	JB	JUNCTION BOX	SAN	SANITARY
CIP	CAST IN PLACE	JF	JOINT FILLER	SCHED	SCHEDULE
CJ	CONTROL JOINT	JST	JOIST	SD	STORM DRAIN
CL	CENTER LINE	JT	JOINT	SECT	SECTION
CLG	CEILING	KB	KEYBOARD	SF	SQUARE FEET
CLR	CLEAR	KIT	KITCHEN	SHT	SHEET
CMU	CONCRETE MASORY UNIT	KO	KNOCK OUT	SHTH	SHEATHING
CO	CLEAN OUT	KS	KNEE SPACE	SHWR	SHOWER
COL	COLUMN	L	LONG/LENGTH	SIM	SIMILAR
CONC	CONCRETE	LAM	LAMINATE	SLNT	SEALANT
COND	CONDITION	LAV	LAVATORY	SND	SANITARY NAPKIN DISPENSER
CONST	CONSTRUCTION	LH	LEFT HAND	SNR	SANITARY NAPKIN RECEPTACLE
CONT	CONTINUOUS, CONTINUE	LIN	LINOLEUM	SPC	SPACE
CORR	CORRIDOR	LLH	LONG LEG HORIZONTAL	SPCR	SPACER
CPT	CARPET	LLV	LONG LEG VERTICAL	SPEC	SPECIFICATION(S)
CR	CARD READER	LMS	LIMESTONE	SPKR	SPEAKER
CS	CUSTOM STEEL	LT	LIGHT	SQ	SQUARE
CT	CERAMIC TILE	LTL	LINTEL	SS	SOLID SURFACE
CTR	COUNTER	LW	LIGHT WEIGHT	SSK	SERVICE SINK
CTSK	COUNTERSUNK	LWC	LIGHT WEIGHT CONCRETE	SST	STAINLESS STEEL
CW	COLD WATER	LWCMU	LIGHT WEIGHT CONCRETE MASONRY UNIT	ST	SPECIAL TREATMENT
D	DEEP/DEPTH/DRAIN	M	METER(S)	STA	STATION
DBL	DOUBLE	MAS	MASONRY	STD	STANDARD
DF	DRINKING FOUNTAIN	MAT	MATERIAL(S)	STL	STEEL
DFS	DOOR AND FRAME SCHEDULE	MAX	MAXIMUM	STN	STONE
DIA	DIAMETER	MB	MARKERBOARD	STOR	STORAGE
DIM	DIMENSION	MDF	MEDIUM DENSITY FIBERBOARD	STP	STANDPIPE
DIV	DIVISION	MECH	MECHANICAL	STRUCT	STRUCTURAL
DN	DOWN	MED	MEDIUM	SUSP	SUSPENDED
DPR	DISPENSER	MEMB	MEMBRANE	SY	SQUARE YARD
DR	DOOR	MFR	MANUFACTURE/MANUFACTURER	SYM	SYMMETRICAL
DS	DOWNSPOUT	MH	MANHOLE	SYS	SYSTEM
DTL	DETAIL	MHO	MAGNETIC HOLD OPEN	T	TREAD
DWG	DRAWING	MIN	MINIMUM	T&G	TONGUE AND GROOVE
E	EAST	MIR	MIRROR	TBD	TO BE DETERMINED
EA	EACH	MISC	MISCELLANEOUS	TD	TRENCH DRAIN
EB	EXPANSION BOLT	MLD	MOLDING, MOULDING	TEL	TELEPHONE
ECUH	ELECTRIC CABINET UNIT HEATER	MO	MASONRY OPENING	THK	THICK(NESS)
EF	EACH FACE	MOD	MODULAR	THRU	THROUGH
EIFS	EXTERIOR INSUL. FINISH SYSTEM	MS	METAL STUDS	TLT	TOILET
EJ	EXPANSION JOINT	MT	MOUNT(ED), (ING)	TO	TOP OF
EL	ELEVATION	MTFR	METAL FURRING	TOC	TOP OF CONCRETE
ELEC	ELECTRIC(AL)	MTL	METAL	TOS	TOP OF STEEL, TOP OF SLAB
ELEV	ELEVATION/ELEVATOR	MTLR	METAL ROOF	TOW	TOP OF WALL
EMER	EMERGENCY	MULL	MULLION	TPD	TOILET PAPER DISPENSER
ENC	ENCLOSURE	N	NORTH	TPTN	TOILET PARTITION
EOS	EDGE OF SLAB	NIC	NOT IN CONTRACT	TS	TUBE STEEL
EP	ELECTRICAL PANEL	NO	NUMBER	TYP	TYPICAL
EPS	EXPANDED POLYSTYRENE	NOM	NOMINAL	TZ	TERRAZZO
EQ	EQUAL	NR	NOISE REDUCTION	UC	UNDER CONTRACT
EQUIP	EQUIPMENT	NRC	NOISE REDUCTION COEFFICIENT	UNF	UNFINISHED
EST	ESTIMATE	NTS	NOT TO SCALE	UNO	UNLESS NOTED OTHERWISE
ETR	EXISTING TO REMAIN	OC	ON CENTER	UR	URINAL
EWC	ELECTRIC WATER COOLER	OD	OUTSIDE DIAMETER (or) OVERFLOW DRAIN	US	URINAL SCREEN
EXIST	EXISTING	OFCI	OWNER FURNISHED CONTRACTOR INSTALLED	VB	VAPOR BARRIER
EXP	EXPANSION	OFOI	OWNER FURNISHED OWNER INSTALLED	VCT	VINYL COMPOSITE TILE
EXT	EXTERIOR	OFVI	OWNER FURNISHED VENDOR INSTALLED	VERT	VERTICAL
FA	FRESH AIR	OH	OVERHEAD	VEST	VESTIBULE
FAAP	FIRE ALARM ANNUNCIATOR PANEL	OPH	OPPOSITE HAND	VFCI	VENDOR FURNISHED CONTRACTOR INSTALLED
FACP	FIRE ALARM CONTROL PANEL	OPNG	OPENING	VFOI	VENDOR FURNISHED OWNER INSTALLED
FAS	FASTENER	OPP	OPPOSITE	VFVI	VENDOR FURNISHED VENDOR INSTALLED
FB	FACE BRICK	PAF	POWDER ACTUATED FASTENER	VIF	VERIFY IN FIELD
FBO	FURNISHED BY OTHERS	PAR	PARAPET	W	WIDE/WIDTH
FD	FLOOR DRAIN	PAV	PAVING	W/	WITH
FDC	FIRE DEPARTMENT CONECTION	PB	PUSH BUTTON	W/O	WITHOUT
FE	FIRE EXTINGUISHER	PC	PORTLAND CEMENT	WC	WATER CLOSET
FEB	FIRE EXTINGUISHER BRACKET	PCC	PRECAST CONCRETE	WD	WOOD
FEC	FIRE EXTINGUISHER CABINET\	PED	PEDESTRIAN	WDB	WOOD BASE
FF	FINISH FLOOR	PERIM	PERIMETER	WDO	WINDOW
FFCO	FLUSH FLOOR CLEANOUT	PERP	PERPENDICULAR	WG	WIRE GLASS
FFE	FINISHED FLOOR ELEVATION	PFB	PREFABRICATE(D)	WO	WHERE OCCURS
FFL	FINISHED FLOOR LINE	PIC	POLYISOCYANURATE	WPG	WATERPROOFING
FH	FLAT HEAD	PK	PARKING	WS	WRITABLE SURFACE
FHC	FIRE HOSE CABINET	PL	PLATE	WS	WATERSTOP
FHMS	FLAT HEAD MACHINE SCREW	PL	PROPERTY LINE	WSCT	WAINSCOT
FHWS	FLAT HEAD WOOD SCREW	PLAM	PLASTIC LAMINATE	WT	WEIGHT
FIN	FINISH	PLAS	PLASTER	WTW	WALL TO WALL
FL	FLOW LINE	PLBG	PLUMBING	WWF	WELDED WIRE FABRIC

MATERIALS

- FACE BRICK (PLAN/SECTION)
- CAST STONE (ELEVATION)
- RIGID INSULATION
- SPRAYED INSULATION
- CONCRETE MASONRY
- ASPHALT SHINGLES
- CONCRETE
- UNDISTURBED EARTH
- DISTURBED EARTH
- METAL STUD/STEEL
- GYPSUM BOARD
- DRAINAGE FILL
- PLYWOOD
- BLANKET OR LOOSE FILL INSULATION
- WOOD FINISH
- DEMOLITION
- EXISTING
- NEW PARTITION

SYMBOLS

DETAIL SECTION	DETAIL NUMBER; 1 / A101; SHEET NUMBER	ELEVATION LEVEL	NAME / ELEVATION
BUILDING SECTION	DETAIL NUMBER; 1 / A101 — 1 / A101; SHEET NUMBER	CEILING TAG W/ HEIGHT & MATERIAL	CL-1 / 1'-0"; CEILING TYPE, RE: FINISH SCHEDULE; HEIGHT ABOVE FINISH FLOOR, UNO
WALL SECTION	DETAIL NUMBER; 1 / A101; SHEET NUMBER	DOOR TAG	201A; UNIQUE ID; ROOM NUMBER
BUILDING ELEVATION / INTERIOR ELEVATION	1 — DETAIL NUMBER; 1 A101 1; 1; SHEET NUMBER	WINDOW TAGS	AA; 3'-0" — AFF (WIN. SILL)
PLAN DETAIL	DETAIL NUMBER; 1 / A101; SHEET NUMBER	GLAZING TAGS	?
GRID LINE - NEW	0		
GRID LINE - EXISTING	0		
NORTH ARROW		REVISION TAG	99 — REVISION NUMBER
PARTITION TYPE INDICATOR	PARTITION TYPE; DIMENSIONAL MODIFIER; TYPE MODIFIER; RATING - WHERE APPLIES; A321; PARTITION	ROOM TAG	ROOM NAME / 101 — ROOM NAME; ROOM NUMBER
		ROOM TAG W/ AREA	ROOM NAME / 101 / 150 SF — ROOM NAME; ROOM NUMBER; ROOM SF
CASEWORK TAG	# / 1'-0" / 1'-0" — AWI # or PRODUCT #; WIDTH; DEPTH	SPECIALTY EQUIPMENT TAG	1i
KEYNOTE TAG	000	GRAPHIC SCALE	0 4' 8' 16'

GENERAL NOTES

1. GENERAL NOTES APPLY TO WORK OF THIS PROJECT, INCLUDING CHANGES TO THE WORK APPROVED BY THE OWNER.
2. CONTRACT DOCUMENTS INDICATE THE DESIGN INTENT. PROVIDE MINOR MODIFICATIONS NECESSARY TO SUIT JOB CONDITIONS AS PART OF THE WORK, WITH ARCHITECT'S DIRECTION. REPORT ERRORS, OMISSIONS AND INCONSISTENCIES IMMEDIATELY TO THE ARCHITECT.
3. COMPLY WITH APPLICABLE CODES, ORDINANCES, REGULATIONS, AND AUTHORITIES HAVING JURISDICTION, AS A MINIMUM STANDARD.
4. COOPERATE WITH AUTHORITIES HAVING JURISDICTION AND SPECIAL INSPECTORS. PROVIDE TIMELY NOTIFICATION IN ADVANCE OF INSPECTIONS, AND ASSISTANCE AND FACILITIES TO ACCOMMODATE INSPECTIONS.
5. DO NOT PERFORM CHANGES TO THE WORK AFFECTING THE CONTRACT SUM OR CONTRACT TIME WITHOUT WRITTEN AUTHORIZATION FROM THE ARCHITECT.
6. MINIMIZE INTERFERENCE WITH USE OF PUBLIC WAYS AND ADJACENT FACILITIES. DO NOT CLOSE, BLOCK OR OTHERWISE OBSTRUCT USE OF PUBLIC WAYS OR FACILITIES WITHOUT CONSENT OF OWNER AND/OR AUTHORITIES HAVING JURISDICTION.
7. PROTECT EXISTING UTILITIES INDICATED TO REMAIN IN SERVICE. DO NOT INTERRUPT EXISTING UTILITIES UNLESS AUTHORIZED BY OWNER AND/OR AUTHORITIES HAVING JURISDICTION. WHEN REQUIRED, PROVIDE ALTERNATE TEMPORARY SERVICES ACCEPTABLE TO GOVERNING AUTHORITIES.
8. INSTALL MANUFACTURED ITEMS, MATERIALS AND EQUIPMENT IN ACCORDANCE WITH MANUFACTURER'S WRITTEN RECOMMENDATIONS, U.N.O.
9. WHERE A MANUFACTURER IS SPECIFIED, THE NAME OR PRODUCT LISTED IS A BASIS OF DESIGN. WHERE THE TERM "OR APPROVED EQUAL" OR "OR EQUIVALENT" IS USED, THE ARCHITECT SHALL DETERMINE EQUIVALENCE AND ACCEPTABILITY BASED UPON THE INFORMATION SUBMITTED, PRIOR TO USE.
10. KEEP THE WORK FREE OF ACCUMULATIONS OF WASTE MATERIALS AND DEBRIS. USE METHODS AGREEABLE TO THE OWNER FOR WASTE REMOVAL.
11. ARCHITECTURAL DIMENSIONS ARE TO FACE OF CONCRETE, FACE OF MASONRY, OR FACE OF EXISTING COLUMN, EXTERIOR WALL OR INTERIOR PARTITION DESIGNATED TO REMAIN, U.N.O.
12. DO NOT SCALE DRAWINGS. WRITTEN DIMENSIONS SHALL GOVERN. DETAILS SHALL GOVERN OVER PLANS AND ELEVATIONS; LARGE SCALE DETAILS SHALL GOVERN OVER SMALL SCALE DETAILS.
13. PROTECT EXISTING PROPERTY AND WORK FROM DAMAGE. REPAIR OR REPLACE ITEMS DAMAGED BY CONSTRUCTION ACTIVITY TO MATCH CONDITIONS PRIOR TO START OF WORK.
14. PROVIDE BLOCKING FOR SUPPORT OF CASEWORK, GRAB BARS, TOILET, BATH AND CLOSET ACCESSORIES, VISUAL DISPLAY SURFACES AND EQUIPMENT, DOOR STOPS, FIXTURES AND SPECIALTY ITEMS. INSTALL BLOCKING TO FIT SNUGLY BETWEEN STUDS AND TO FIT TIGHTLY AGAINST BACK OF GYPSUM BOARD. BLOCK CONTINUOUSLY AT TOP AND BOTTOM OF BASE, WALL AND TALL CABINETS. REFERENCE INTERIOR DETAILS.
15. NOT USED
16. PROTECT EXISTING CONSTRUCTION, MATERIALS AND FINISHES WITH ENCLOSURES AND OTHER SUITABLE MEASURES. COMPLY WITH GOVERNING REGULATIONS REGARDING ENVIRONMENTAL PROTECTION. REPAIR ANY DAMAGE TO MATCH CONDITIONS PRIOR TO START OF WORK.
17. REMOVE EXISTING ITEMS NOT SHOWN TO REMAIN AND AS REQUIRED TO ACCOMMODATE NEW WORK. SALVAGE ITEMS WHERE INDICATED ON DRAWINGS.
18. INFILL OR PATCH UNUSED OPENINGS IN FLOOR, WALL, CEILING AND ROOF ASSEMBLIES, AS REQUIRED TO MAINTAIN SMOKE, FIRE OR SOUND RATING, AND /OR STRUCTURAL CAPACITY. MATCH TEXTURE, COLOR AND FINISH OF ADJACENT SURFACE WHERE EXPOSED TO VIEW.
19. DIMENSIONS NOTED AS "FIELD VERIFY" OR "VIF" SHALL BE CHECKED AT THE SITE BY THE CONTRACTOR AND REVIEWED WITH THE ARCHITECT BEFORE INCORPORATING INTO THE WORK.
20. NOTES OR DIMENSIONS LABELED "TYPICAL" SHALL APPLY TO SITUATIONS THAT ARE THE SAME OR SIMILAR.
21. ANY EXPOSED PIPING OR CONDUITS SHALL BE INSTALLED TIGHT TO WALLS, COLUMNS IN AREAS WHERE CEILINGS ARE OPEN TO STRUCTURE.

01.30.2025

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UNT

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G002

GENERAL NOTES & ABBREVIATIONS

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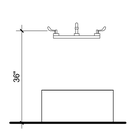
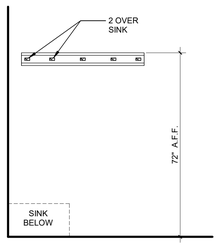
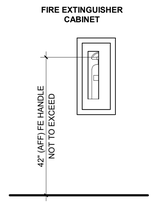


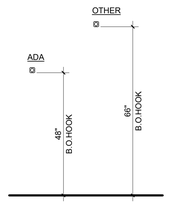
MOP SINK BASIN
1/2" = 1'-0"



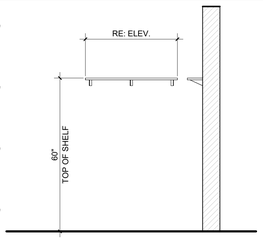
MOP/BROOM HOLDER
1/2" = 1'-0"



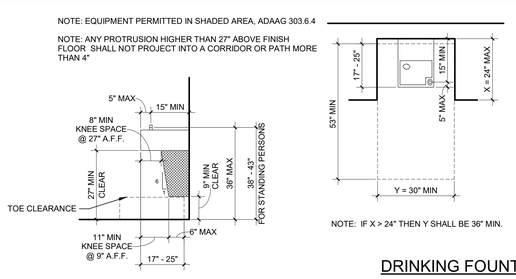
FIRE EXTINGUISHER
1/2" = 1'-0"



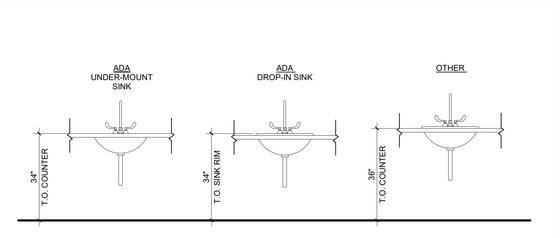
COAT/ROBE HOOKS
1/2" = 1'-0"



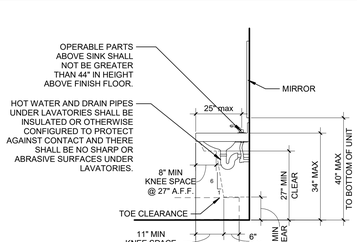
UTILITY SHELF
1/2" = 1'-0"



DRINKING FOUNTAIN
1/2" = 1'-0"



LAVATORY
1/2" = 1'-0"



LAVATORY
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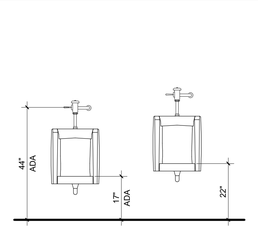
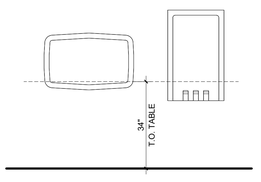
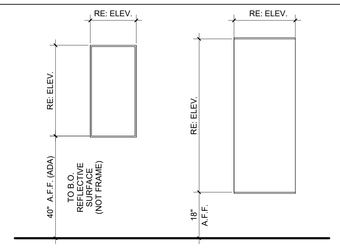


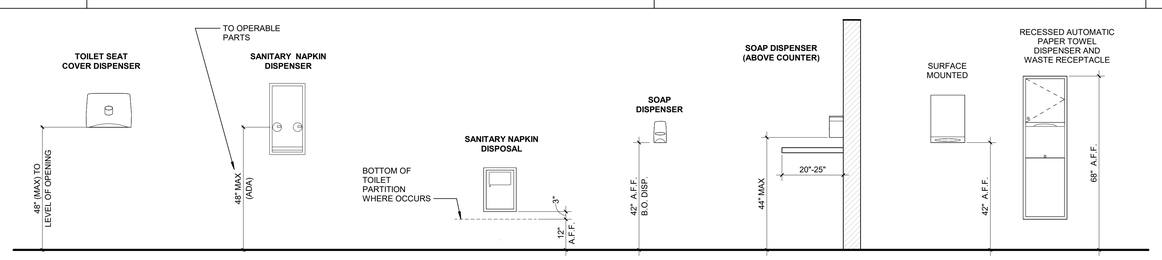
URINAL
1/2" = 1'-0"



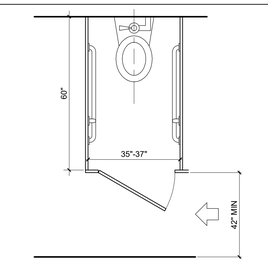
CHANGING STATION
1/2" = 1'-0"



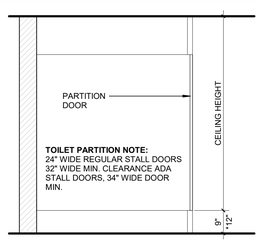
MIRRORS
1/2" = 1'-0"



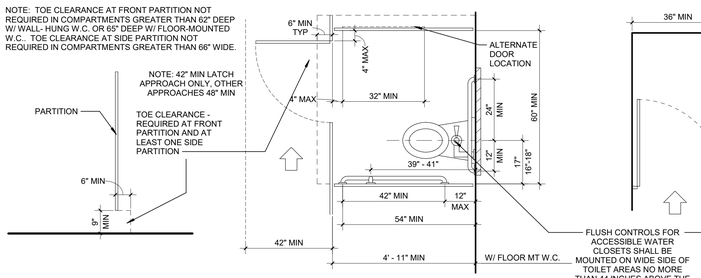
DISPENSERS/DISPOSALS
1/2" = 1'-0"



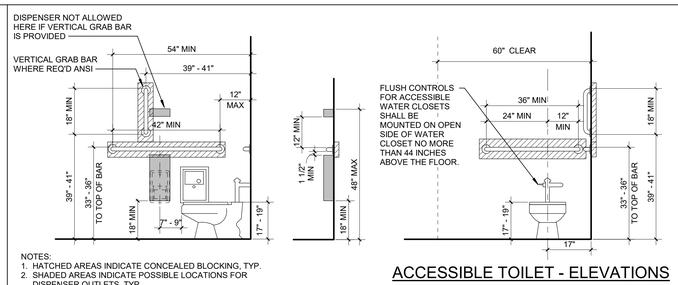
AMBULATORY STALL - PLAN
1/2" = 1'-0"



TOILET PARTITION
1/2" = 1'-0"

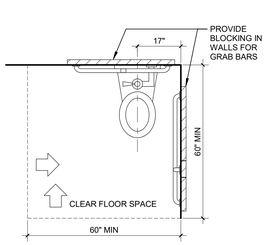


ACCESSIBLE STALL - PLAN
1/2" = 1'-0"

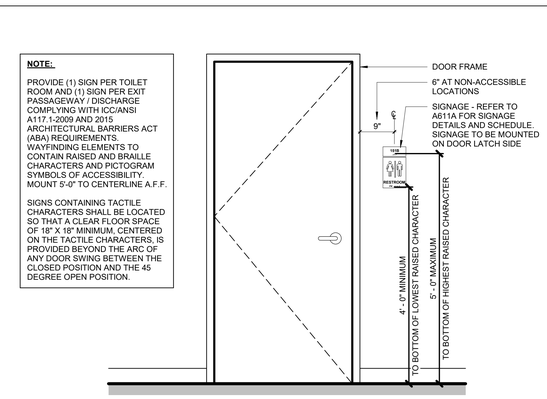


NOTES:
1. HATCHED AREAS INDICATE CONCEALED BLOCKING, TYP.
2. SHADED AREAS INDICATE POSSIBLE LOCATIONS FOR DISPENSER OUTLETS, TYP.

ACCESSIBLE TOILET - ELEVATIONS
1/2" = 1'-0"



ACCESSIBLE TOILET - PLAN
1/2" = 1'-0"



TYPICAL SIGNAGE MOUNTING LOCATION AT DOOR

TYPICAL SIGNAGE MOUNTING AT DOOR
3/4" = 1'-0"

REGISTERED ARCHITECT
NADIA ZAHIR
21737
STATE OF TEXAS
01.30.2025

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2554 Elm Street, Suite 200
Dallas, TX 75226
Office: 214.310.1018
www.TreanorHL.com

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Issue:	ISSUE FOR CONSTRUCTION
Date:	JANUARY 30, 2025

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NO	DESCRIPTION	DATE

G003

TYPICAL MOUNTING & ACCESSIBILITY REQUIREMENTS

TreanorHL NO. HE0569.2302.01

PARTITION SCHEDULE

TYPE	WALL CONSTRUCTION	DIM.	FIRE RATING	SOUND BATT?	UL NO.	STC RATING	COMMENTS
	Exterior - CMU_Brick	1' - 7 5/8"					
A3	A3 - 3-5/8" METAL STUD - SINGLE LAYER OF GYPSUM WALL BOARD EACH SIDE, TO STRUCTURE ABOVE	4 7/8"	-	-	-	-	
A6	A6 - 6" METAL STUD - SINGLE LAYER OF GYPSUM WALL BOARD EACH SIDE, TO STRUCTURE ABOVE	7 1/4"	-	-	-	-	
A6a	A6A - 6" METAL STUD - SINGLE LAYER OF GYPSUM WALL BOARD EACH SIDE, TO STRUCTURE ABOVE (STC-44)	7 1/4"	-	Y	-	44	
C2.1	C2.1 - 2-1/2" METAL STUD - HALF-HEIGHT DIVIDING WALLS 1 SIDE	3 1/8"	-	-	-	-	
C3.1	C3.1 - 3-5/8" METAL STUD - HALF-HEIGHT DIVIDING WALLS 1 SIDE	4 1/4"	-	-	-	-	
C3.2	C3.2 - 3-5/8" METAL STUD - HALF-HEIGHT DIVIDING WALLS 2 SIDES	4 7/8"	-	-	-	-	
C6.2	C6.2 - 6" METAL STUD - HALF-HEIGHT DIVIDING WALLS 2 SIDES	7 1/4"	-	-	-	-	
F1	F1 - 1-5/8" METAL STUD - SINGLE LAYER OF GYPSUM WALL BOARD, TO STRUCTURE ABOVE	2 1/4"	-	-	-	-	
F3	F3 - 3-5/8" METAL STUD - SINGLE LAYER OF GYPSUM WALL BOARD, TO STRUCTURE ABOVE	4 1/4"	-	-	-	-	
G	5/8" GYP SINGLE LAYER	5/8"					
K1a	K1a - CHASE, 10" METAL DOUBLE STUD - SINGLE LAYER OF GYPSUM WALL BOARD, TO STRUCTURE ABOVE (STC-44)	1' - 2 1/2"	-	Y	-	44	

NOTE: REFER TO INTERIOR ELEVATIONS, FINISH SCHEDULE, AND FINISH PLANS FOR WALL FINISHES

PARTITION TYPE MARK: A3z1
- PARTITION TYPE
- DIMENSIONAL MODIFIER
- TYPE MODIFIER
- RATING - WHERE APPLIES

PARTITION TYPE:

A. METAL STUD - SINGLE LAYER OF GYPSUM WALL BOARD EACH SIDE, TO STRUCTURE ABOVE

C. METAL STUD PONY WALL - SINGLE LAYER OF GYPSUM WALL BOARD EITHER ONE OR BOTH SIDES (AS DEFINED BY SUFFIX OF .1 OR .2), PARTIAL HEIGHT

F. METAL STUD OR FURRING CHANNELS - SINGLE LAYER OF GYPSUM WALL BOARD, TO STRUCTURE ABOVE

K. DOUBLE METAL STUD CHASE WALL - SINGLE LAYER OF GYPSUM WALL BOARD EACH SIDE, TO STRUCTURE ABOVE

DIMENSIONAL MODIFIER

METAL STUD / FURRING
0 - 7/8"
1 - 1 5/8"
2 - 2 1/2"
3 - 3 5/8"
6 - 6"

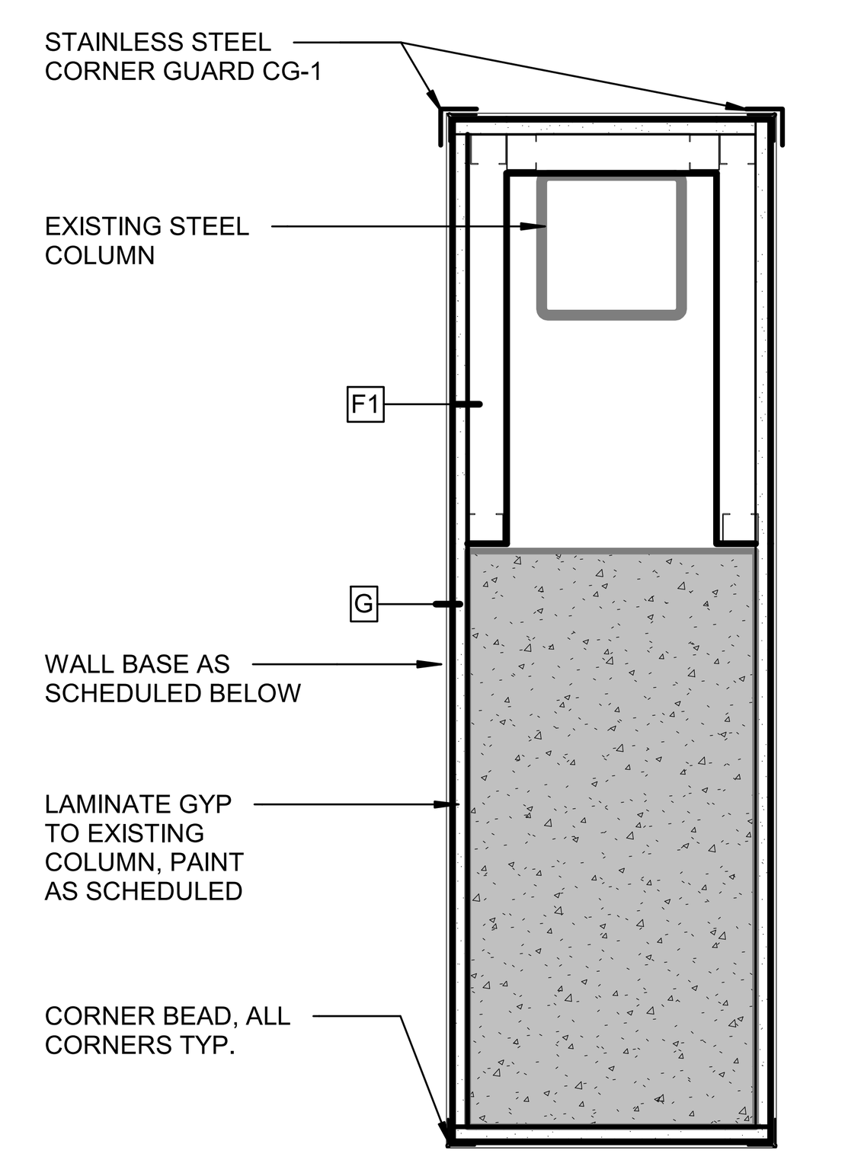
TYPE MODIFIER:

a. ACOUSTIC (STC-44)
b. TILE FINISH AS SCHEDULED
d. FIRE BARRIER
h. FIRE WALL
r. SMOKE BARRIER

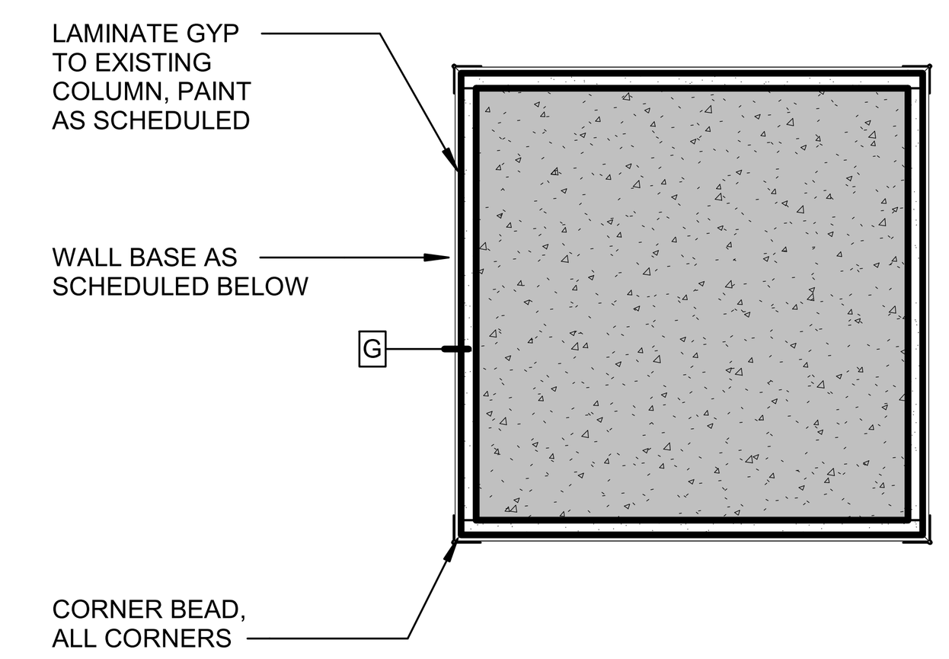
RATING:

0 - NON-RATED
1 - 1 HOUR
2 - 2 HOUR
3 - 3 HOUR

S - SMOKE

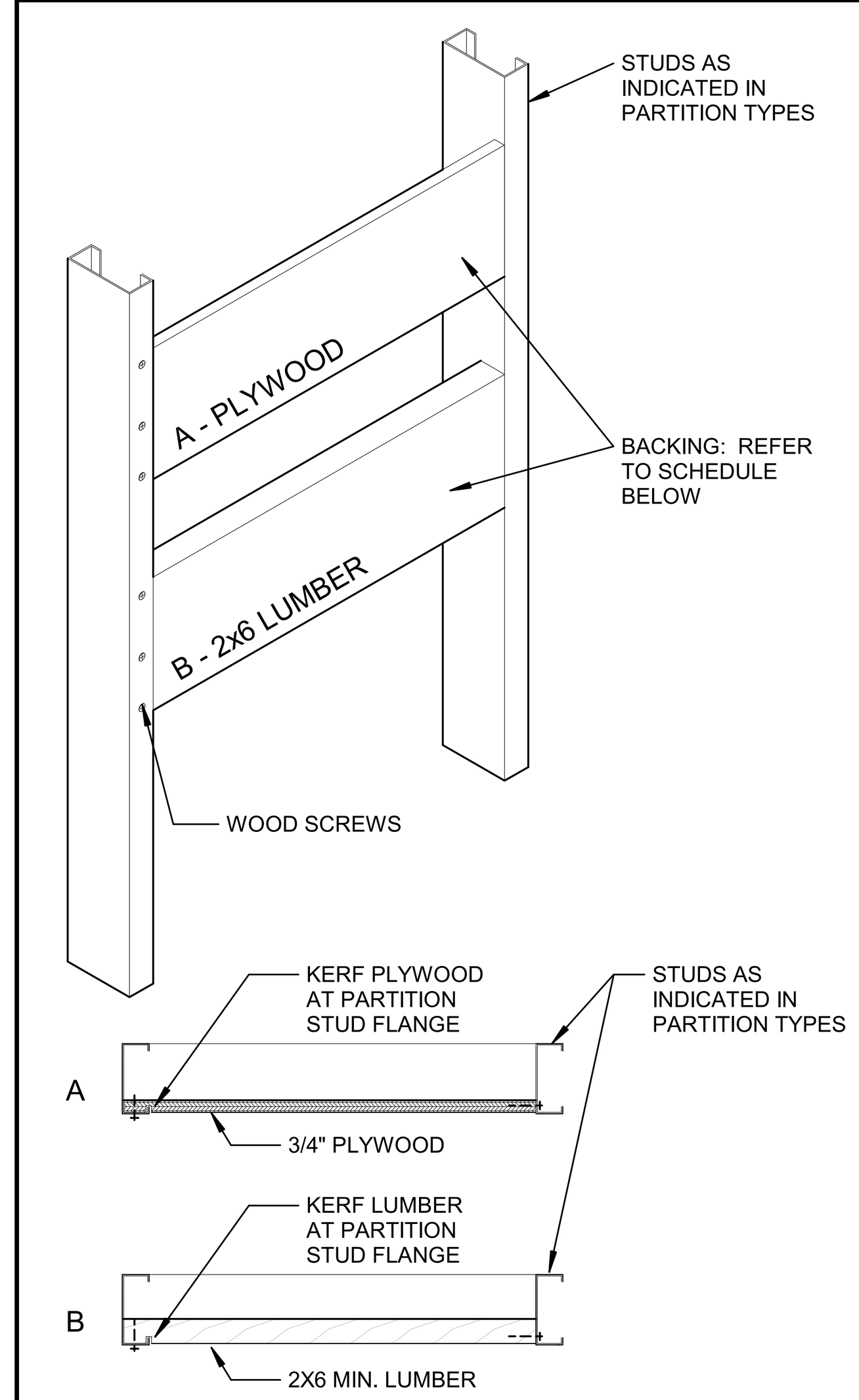


TYP. COLUMN WRAP - CONCRETE AND STEEL D3
1 1/2" = 1'-0"



TYP. COLUMN WRAP - CONCRETE C3
1 1/2" = 1'-0"

BACKING PLATE DETAIL



BACKING PLATE SCHEDULE

TYPE	A	B
DESCRIPTION	3/4" PLYWOOD	2X6 NOMINAL LUMBER

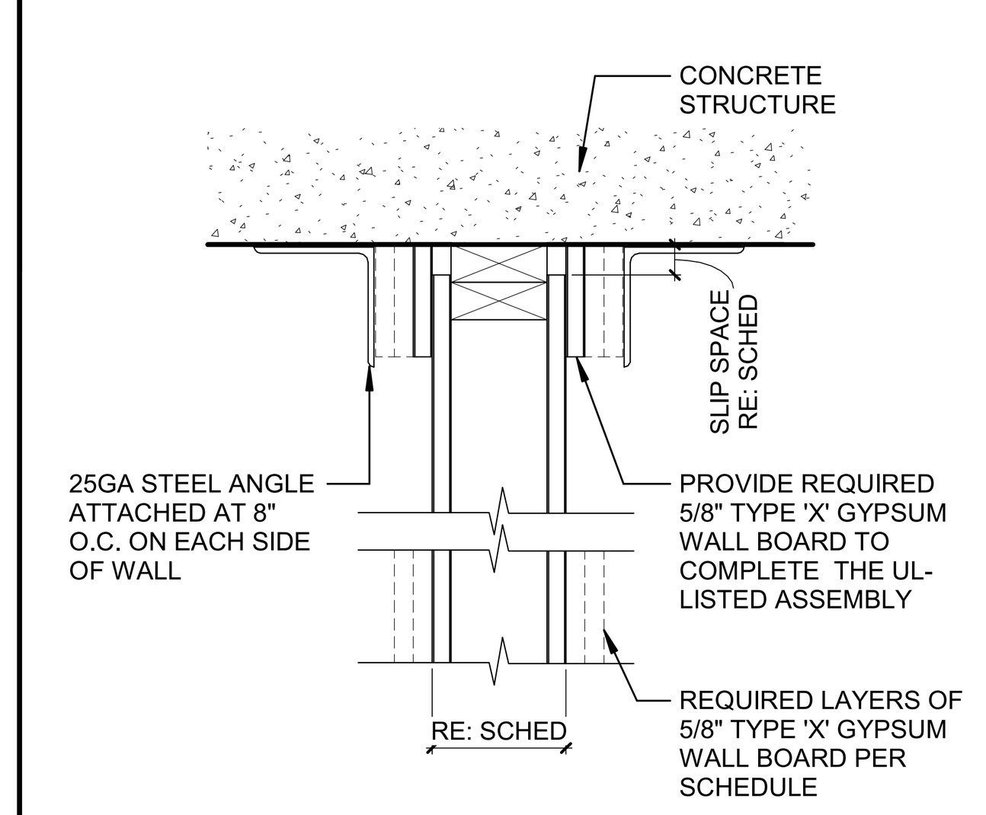
1. PROVIDE CONCEALED PLYWOOD OR LUMBER BACKING (FIRE-RETARDANT-TREATED WHERE REQUIRED) FOR SUPPORT OF WALL-MOUNTED GRAB BARS, HANDRAILS, FIXTURES, ACCESSORIES, SPECIALTIES, EQUIPMENT, TRIM AND CABINETS.
2. EXTEND BACKING TO NEXT STUD BEYOND ATTACHMENT LOCATION, BOTH DIRECTIONS.
3. ANCHOR BACKING SECURELY TO STUDS. KERF BACKING AT STUD FLANGES SO BACKING IS TIGHT TO BACK OF GYPSUM BOARD.

SLIP SPACE SCHEDULE

HORIZONTAL SPAN OF FLOOR BETWEEN BEAMS	OTHER FLOORS	ROOF
≤ 30 FEET	1.5 INCH	2 INCH
30 FEET TO ≤ 50 FEET	2.5 INCHES	3.3 INCHES
50 FEET TO ≤ 60 FEET	3 INCHES	4 INCHES
60 FEET TO ≤ 70 FEET	3.5 INCHES	4.7 INCHES

1. REFER TO STRUCTURAL DRAWINGS FOR BEAM SPANS.
2. SLIP SPACES GREATER THAN 1 1/2" SHALL USE PROPRIETARY DEEP LEG DEFLECTION TRACK.

OPTIONAL HEAD DETAIL



PARTITION NOTES:

A. STUD SPACING IS 16 INCHES ON CENTER MAX. UNLESS OTHERWIS INDICATED IN THE DRAWINGS, EXTEND PARTITIONS TO THE BOTT OF STRUCTURE ABOVE.

B. REFER TO WALL HATCHES ON THE CODE SUMMARY SHEET (G101) FIRE RATING LOCATIONS. PARTITIONS MUST CONFORM TO TESTE RATED ASSEMBLIES WHERE INDICATED TO BE RATED ON ARCHITECTURAL CODE PLANS. WHEN NO RATING IS INDICATED, CONSTRUCT PARTITION PER THE INDICATED TYPE AS A NON-RATE ASSEMBLY.

C. LABEL FIRE AND SMOKE WALLS AS FOLLOWS: LABEL BOTH SIDES; LABEL ALL SECTIONS; USE 4" HIGH STENCILS; USE FLUORESCENT ORANGE PAINT; LOCATE ABOUT 12" ABOVE THE FINISHED CEILING; SPACE STENCILS 10 FEET OC MAX; SPECIFIC LABELS TO READ "1HR", "2HR", "1HR SMOKE", "2HR SMOKE", "SMOKE", ETC AS IDENTIFIED IN LIFE SAFETY PLANS.

D. PROVIDE STENCIL WITH LABEL "SOUND" AS DESCRIBED IN NOTE 3 ON ALL SOUND RATED WALLS AND THAT EXTEND TO STRUCTURE.

E. PROVIDE FIRE STOP & SMOKE STOP SYSTEMS PER SPECIFICATION AT PENETRATIONS & OPENINGS (INCLUDING THE PERIMETER) THROUGH FIRE RATED WALLS.

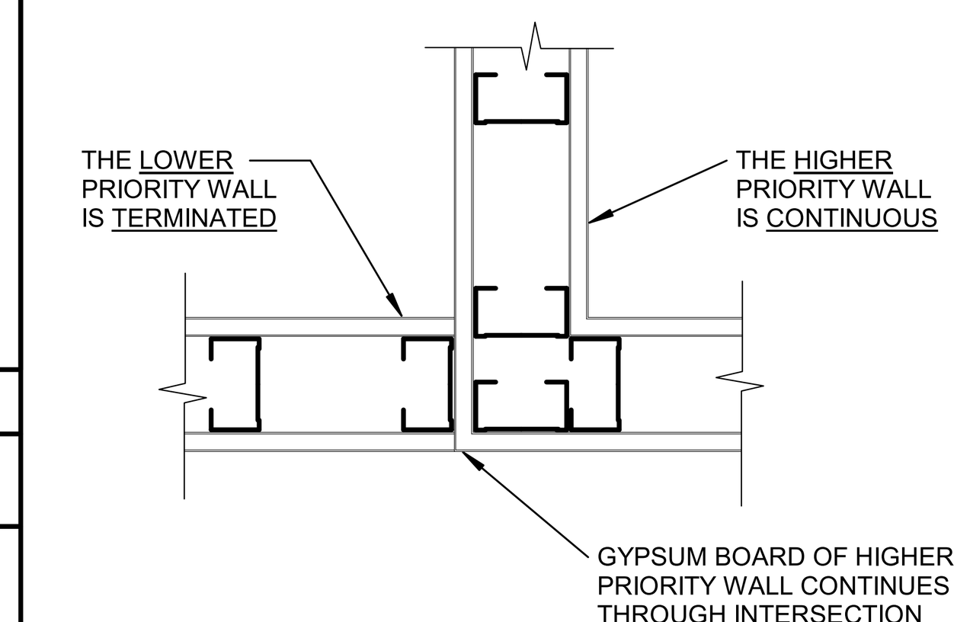
F. SEAL PENETRATIONS & OPENINGS (INCLUDING THE PERIMETER) IN SOUND RATED WALLS PER SPECIFICATIONS.

G. PARTITION TYPES INDICATE BASIC WALL CONSTRUCTION ONLY. REFER TO CONSTRUCTION DOCUMENTS FOR OTHER REQUIREMENTS INCLUDING: MECHANICAL, ELECTRICAL, PLUMBING, BLOCKING & BACKING, WALL BASE, WALL FINISH, AND RECESSED & SURFACE MOUNTED EQUIPMENT.

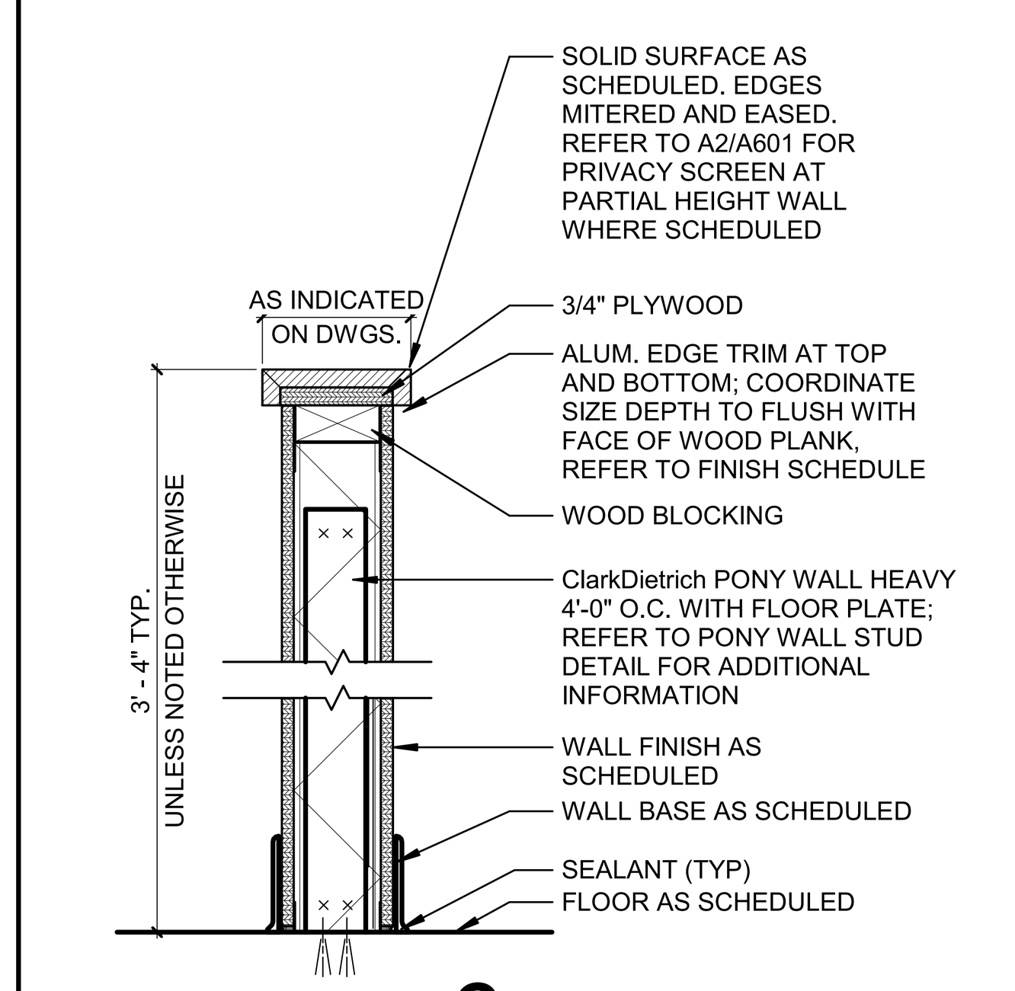
H. PROVIDE TESTED, RATED ASSEMBLIES AT TOP OF PARTITIONS INDICATED TO BE FIRE OR SMOKE RATED EXTEND TO BOTTOM OF STRUCTURE OR DECK ABOVE. ASSEMBLIES SHALL BE TESTED BY UNDERWRITERS LABORATORY OR OTHER TESTING FACILITY ACCEPTABLE TO AUTHORITY HAVING JURISDICTION. PROVIDE A FIRE AND SMOKE RATING CONSISTENT WITH PARTITION. ASSEMBLY SHALL ALLOW VERTICAL MOVEMENT PER THE SLIP SPACE SCHEDULE.

I. PROVIDE MOISTURE RESISTANT GYPSUM WALL BOARD AT WET LOCATIONS INCLUDING RESTROOMS AND LAUNDRY FACILITIES.

PARTITION PRIORITY:

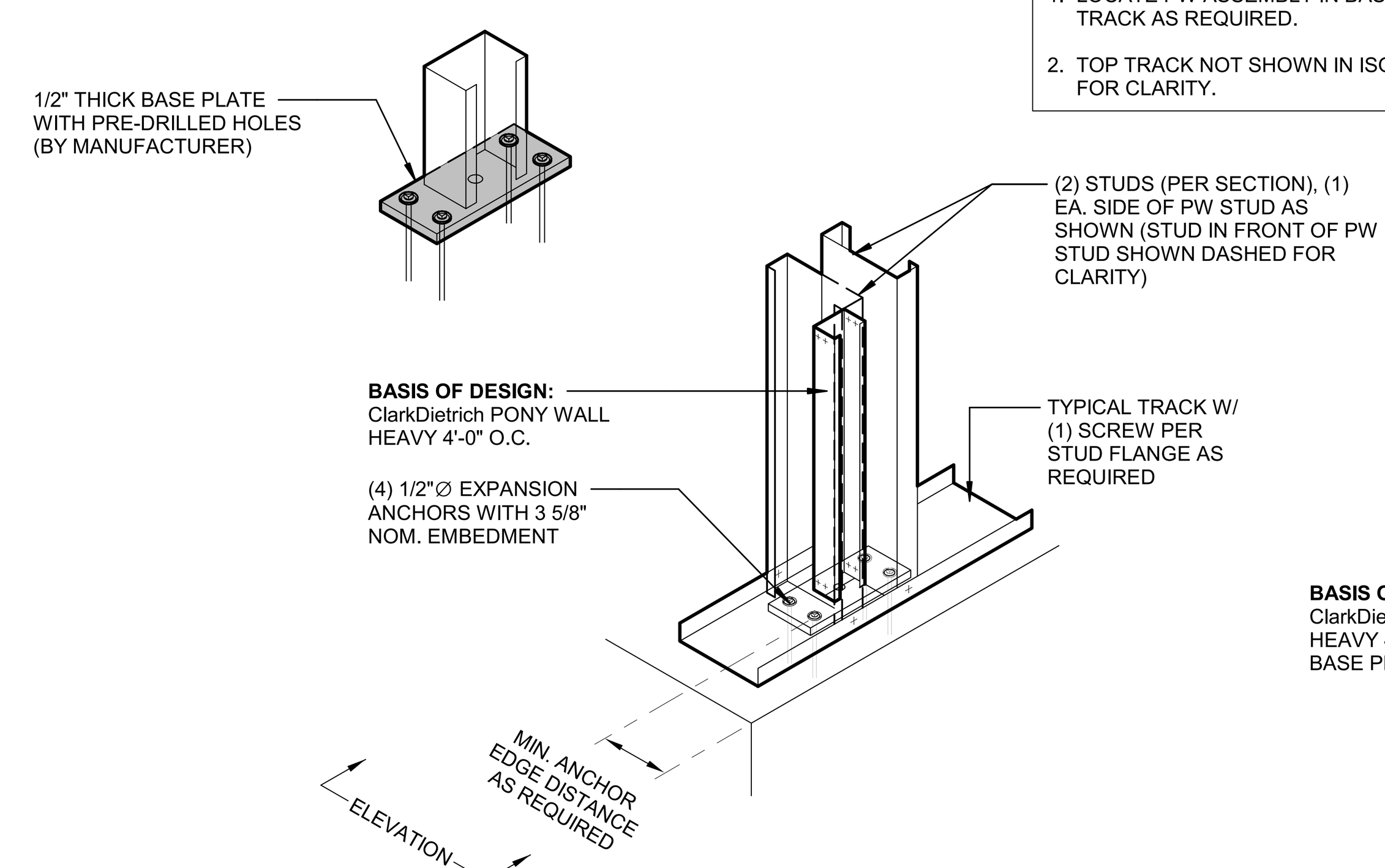


PARTITION TYPE	PRIORITY
3 HOUR FIRE	1 - HIGHEST
2 HOUR SHAFT	2
2 HOUR FIRE	3
1 HOUR SHAFT	4
1 HOUR	5
SMOKE	6
ACOUSTIC	7
NO FIRE OR ACOUSTIC RATING	8 - LOWEST



C

PARTIAL HEIGHT PONY WALL



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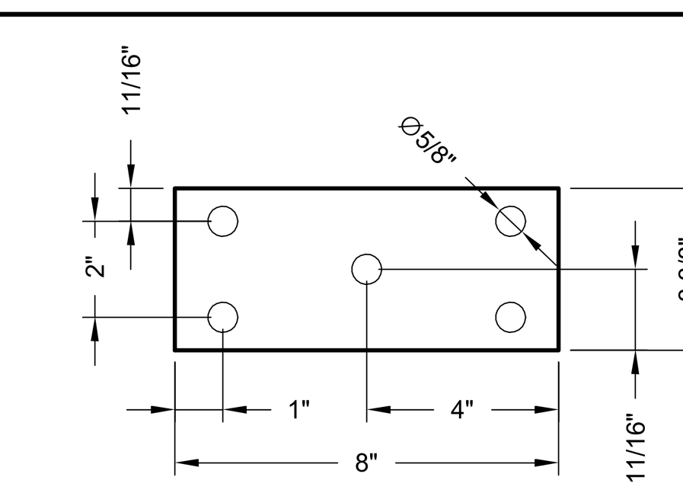
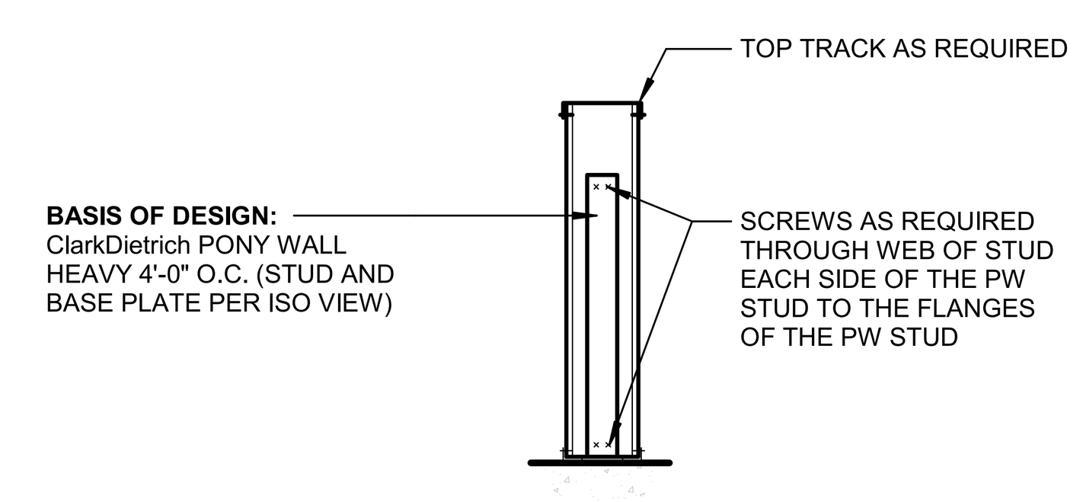
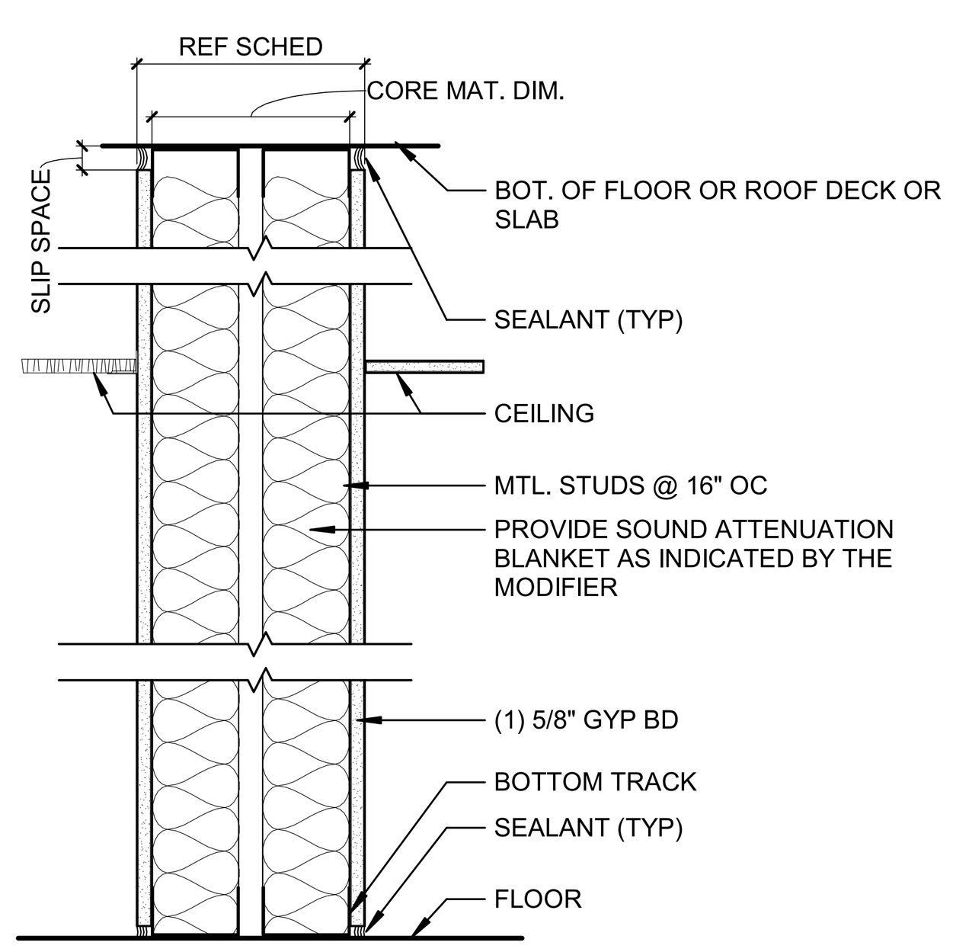


BASE PLATE HOLE LAYOUT



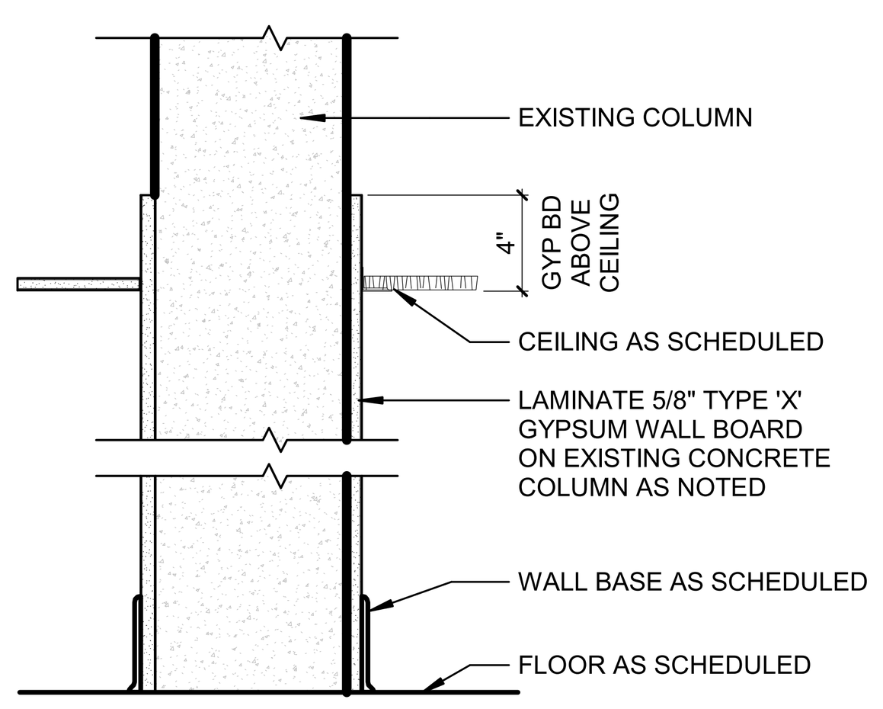
ELEVATION
(N.T.S.)

PONY WALL STUD DETAIL



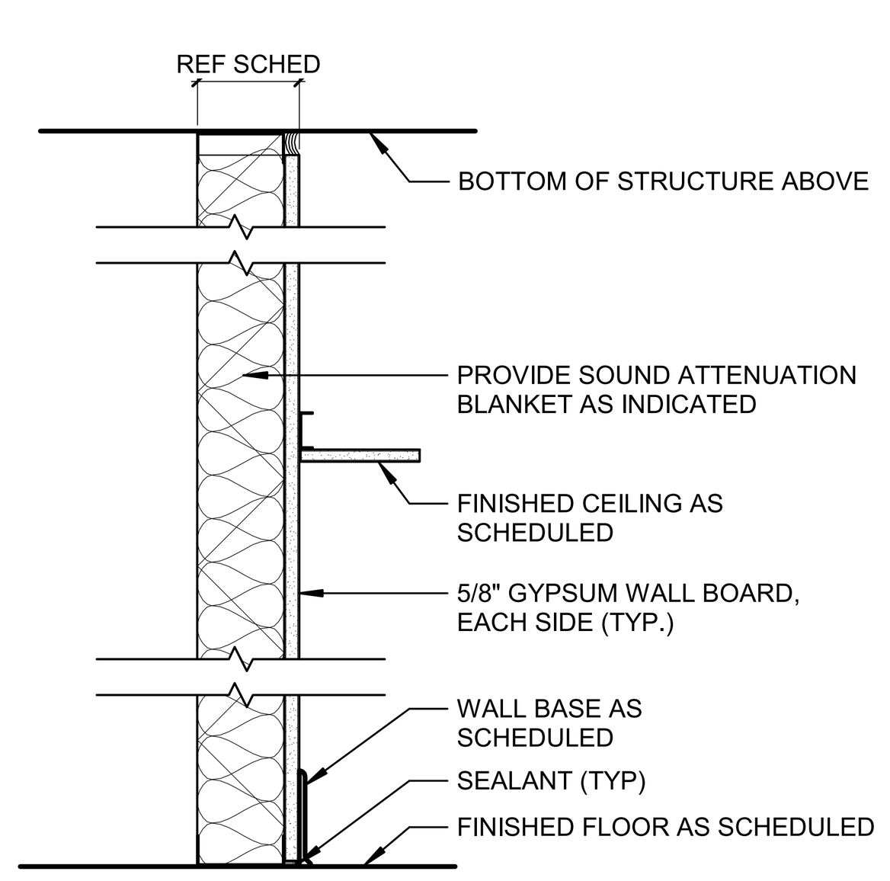
K

CHASE WALL



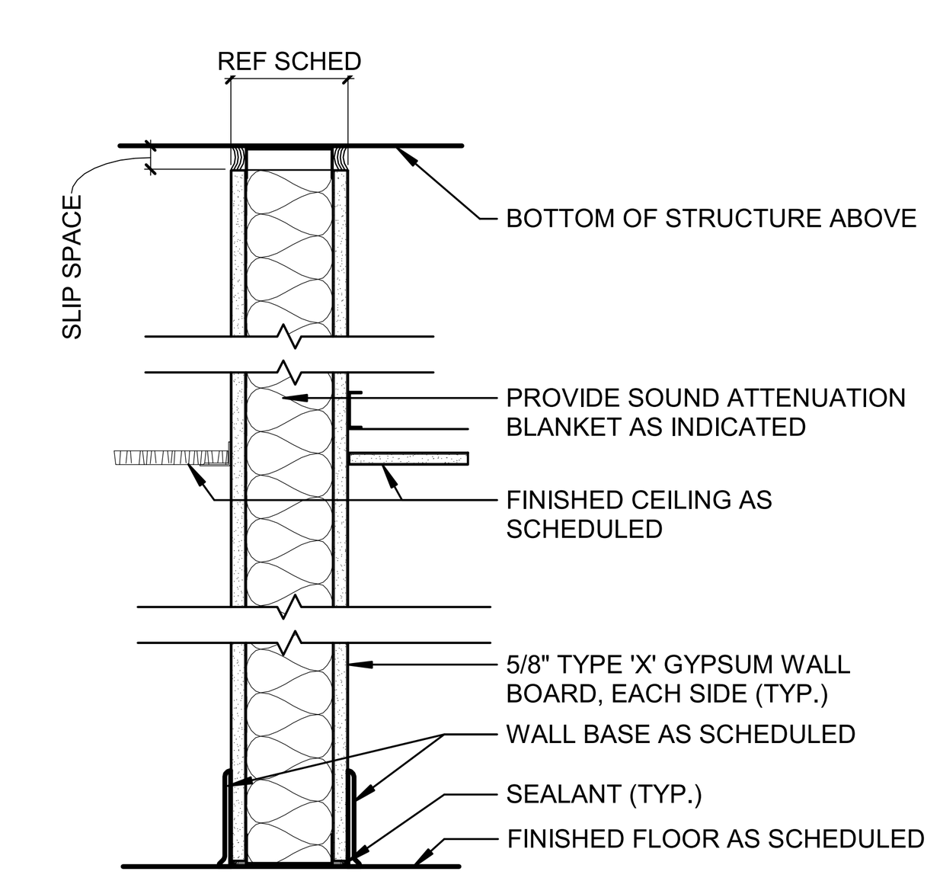
G

LAMINATED GYP. ON COLUMNS



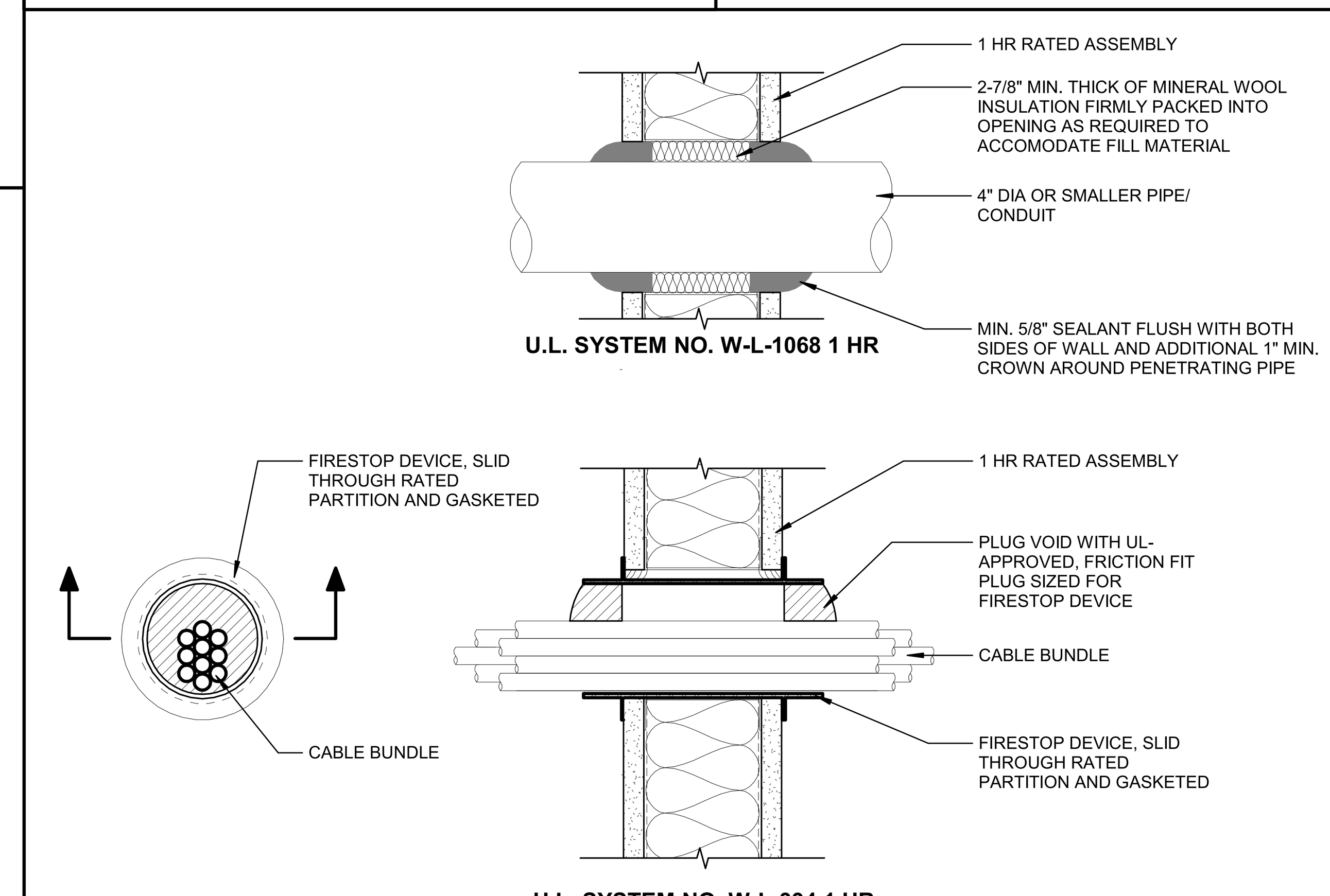
F

FURRING WALL



A

STANDARD WALL



RATED PARTITION CONDUIT AND PIPE PENETRATIONS A1

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2554 Elm Street, Suite 200
Dallas, TX 75226
Office: 214.310.1018
www.TreanorHL.com

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KERR HALL DINING RENOVATION
1413 West Maple St
Denton, TX 76201

01.30.2025

Issue: ISSUE FOR CONSTRUCTION

Date: JANUARY 30, 2025

REVISIONS

NO	DESCRIPTION	DATE

G004

PARTITION TYPES, DETAILS, & NOTES

TreanorHL NO. HE0569.2302.01

Autodesk Docs://HE0569.2302.01 UNT Kerr Hall Interior Renovation/R23_KERR-HALL-DINING_ARCH.rvt
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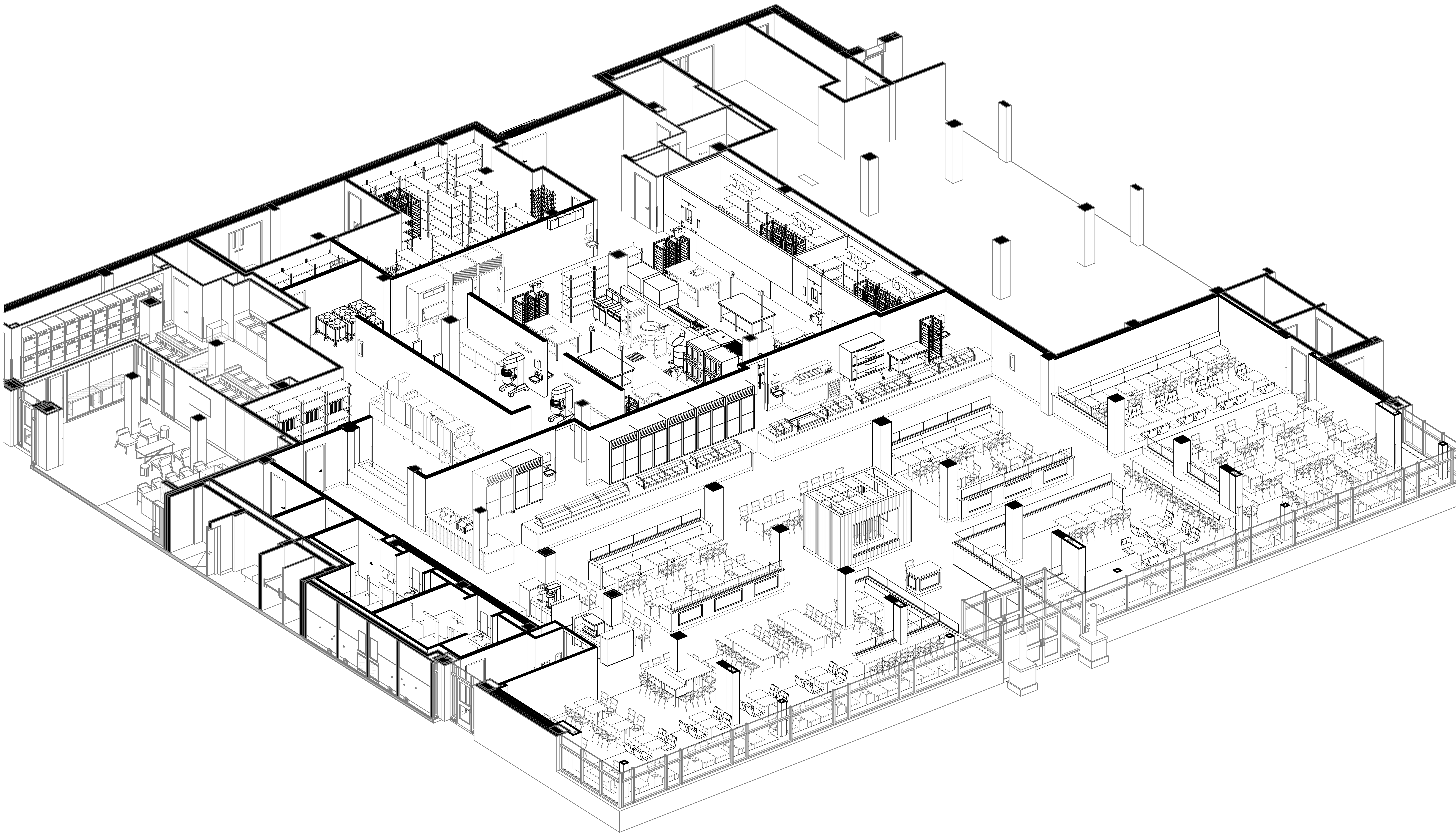

3D IMAGE (FOR REFERENCE ONLY) A1

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2554 Elm Street, Suite 200
Dallas, TX 75226
Office: 214.310.1018
www.TreanorHL.com

UNIVERSITY OF NORTH TEXAS
KERR HALL DINING RENOVATION

1413 West Maple St
Denton, TX 76201

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NO	DESCRIPTION	DATE

G005

OVERALL 3D VIEW

NOTE: 3D VIEW FOR REFERENCE ONLY.

TreanorHL NO. HE0569.2302.01

RENDERINGS - FOR REFERENCE ONLY A1

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Dallas, TX 75226
Office: 214.310.1018
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KERR HALL DINING RENOVATION
1413 West Maple St
Denton, TX 76201

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NO	DESCRIPTION	DATE

G006

RENDERINGS

TreanorHL NO. HE0569.2302.01

Autodesk Docs://HE0569.2302.01 UNT Kerr Hall Interior Renovation/R23_KERR-HALL-DINING_ARCH.rvt

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LIFE SAFETY LEGEND

USE DESIGNATION COLOR LEGEND

- BUSINESS AREA
- KITCHENS - COMMERCIAL
- ASSEMBLY
- ACCESSORY STORAGE / MECHANICAL
- LOCKER ROOM
- DORMITORIES

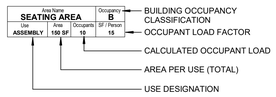
FIRE RATING DESIGNATIONS

- EXISTING 1-HR RATED WALL
- EXISTING 2-HR RATED WALL
- EXIT ACCESS TRAVEL DISTANCE
- COMMON PATH OF TRAVEL DECISION POINT
- 42' - 6" (300' - 0") — TOTAL TRAVEL DISTANCE / ALLOWABLE DISTANCE
- 25' - 0" (75' - 0") — COMMON PATH DISTANCE / MAX. COMMON PATH

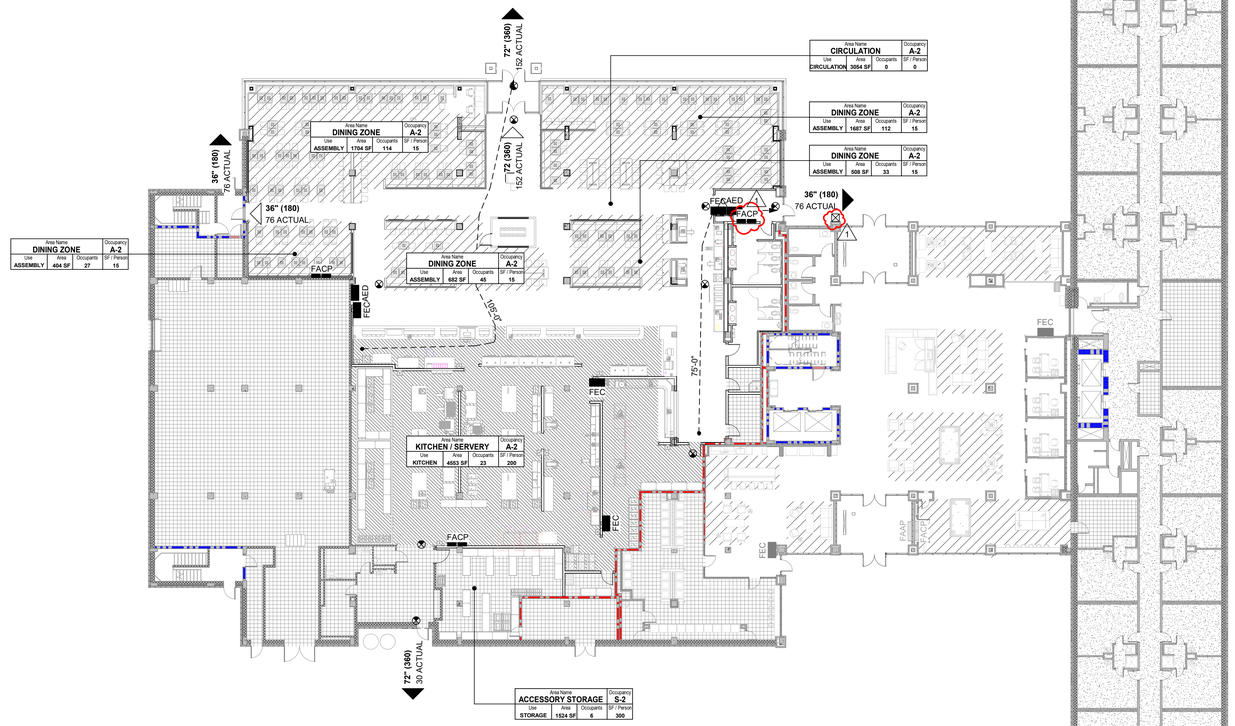
EGRESS COMPONENT CAPACITY

- ACTUAL EXIT WIDTH (CAPACITY) / ACTUAL OCCUPANT LOAD — EXTERIOR EXIT/ EXIT INFORMATION
- ACTUAL EXIT WIDTH (CAPACITY) / ACTUAL OCCUPANT LOAD — INTERIOR EXIT/ EXIT INFORMATION
- FEC — FIRE EXTINGUISHER & CABINET
- FE — FIRE EXTINGUISHER & WALL MOUNTING BRACKET
- AED — AED CABINET

USE DESIGNATION / OCCUPANT LOAD TAG



- KNOX BOX - FIRE DEPARTMENT KEEPS KEYS
- FACP — FIRE ALARM CONTROL PANEL PANEL (EXISTING PANEL TO REMAIN)
- FAAP — NEW SURFACE MOUNTED FIRE ALARM ANUNCIATOR PANEL



LIFE SAFETY PLAN - LOBBY, RESTROOMS, & LAUNDRY) A1

1/16" = 1'-0"

0 8' 16' 32'

PROJECT CODE SUMMARY

PROJECT NAME
Kerr Hall Lobby, Restroom, & Laundry Renovation

ADDRESS
1413 West Maple St
Denton, TX 76201

OWNER
University of North Texas

PROJECT DESCRIPTION
Full renovation of the existing Kerr Hall Dining facility. The renovation includes improvements to restroom facilities, new kitchen layout and new kitchen equipment. New lighting will be installed throughout the kitchen and dining hall. Dining hall will receive all new finishes and furnishings including a focal point for the Mean Greens Hydroponics display.

EXISTING GOVERNING CODES & STANDARDS

2020 NFPA 1 Fire Code
2020 NFPA 101 Life Safety Code
2021 International Building Code (IBC)
2021 International Mechanical Code (IMC)
2021 International Plumbing Code (IPC)
2021 International Fire Code (IFC)
2023 NFPA 70 National Electrical Code (NEC)
2013 NFPA 72 National Fire Alarm Signaling Code
Texas Accessibility Standards (TAS)
Americans With Disabilities Act (ADA)

EXISTING CONSTRUCTION TYPE

Type II-B Construction

EXISTING FIRE RESISTANCE RATINGS - BUILDING ELEMENTS

Primary Structural Frame	1-hr
Exterior Bearing Walls	1-hr
Interior Bearing Walls	1-hr
Nonbearing Walls & Partitions	0-hr
Mechanical Shafts	1-hr
Floor Construction	1-hr
Roof Construction	1-hr

EXISTING BUILDING HEIGHTS & AREAS

Height: 93'-0" / 8 stories / 227,138 SF

Level 1	39,909
Level 2-8	9,933 + 16,814

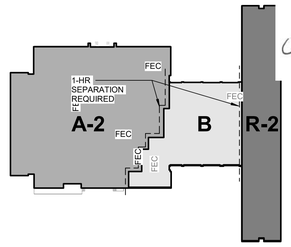
REQUIRED OCCUPANCY SEPARATIONS

A 1-hr separation is required between the A-2 and B occupancy per IBC Table 508.4.

FIRE PROTECTION SYSTEM

AUTOMATIC SPRINKLER SYSTEM
The building is fully sprinklered.

FIRE EXTINGUISHERS
Provided throughout per NFPA 10. Maximum travel distance to the nearest fire extinguisher location = 75'-0".



OCCUPANT LOAD CALCULATIONS

AREA	*OCCUPANT LOAD*
DINING (A-2)	380
LOBBY (B)	169
DORMITORY (R-2)	169

TOTAL LEVEL 1 OCCUPANT LOAD
718

COMMON PATH OF TRAVEL:
100-ft (B Occupancy), 75-ft (A Occupancy)

TOTAL TRAVEL DISTANCE:
300-ft (B Occupancy), 250-ft (A Occupancy)

PLUMBING FIXTURE COUNTS

REQUIRED

SPACE	OCCUPANTS	WATER CLOSETS M	WATER CLOSETS W	LAVATORIES M	LAVATORIES W	DRINKING FOUNTAINS	SERVICE SINKS
DINING	350	3	3	2	2	2	1
KITCHEN	30	1	1	1	1	1	1

PROVIDED

SPACE	OCCUPANTS	WATER CLOSETS M	WATER CLOSETS W	LAVATORIES M	LAVATORIES W	DRINKING FOUNTAINS	SERVICE SINKS
DINING	350	3	3	2	2	0**	1
KITCHEN	30	1*	1*	1*	1*	1	1

* (1) SINGLE OCCUPANT RESTROOM FOR KITCHEN STAFF USE IS PROVIDED.

** PER UNT REQUEST, NO DRINKING FOUNTAINS ARE PROVIDED. THE DINING HALL IS "ALL-YOU-CAN-EAT-AND-DRINK," MAKING THE REQUIREMENT UNNECESSARY.

REGISTERED ARCHITECT
NADIA ZHIRI
21737
STATE OF TEXAS
01.30.2025

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2554 Elm Street, Suite 200
Dallas, TX 75226
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REVISIONS

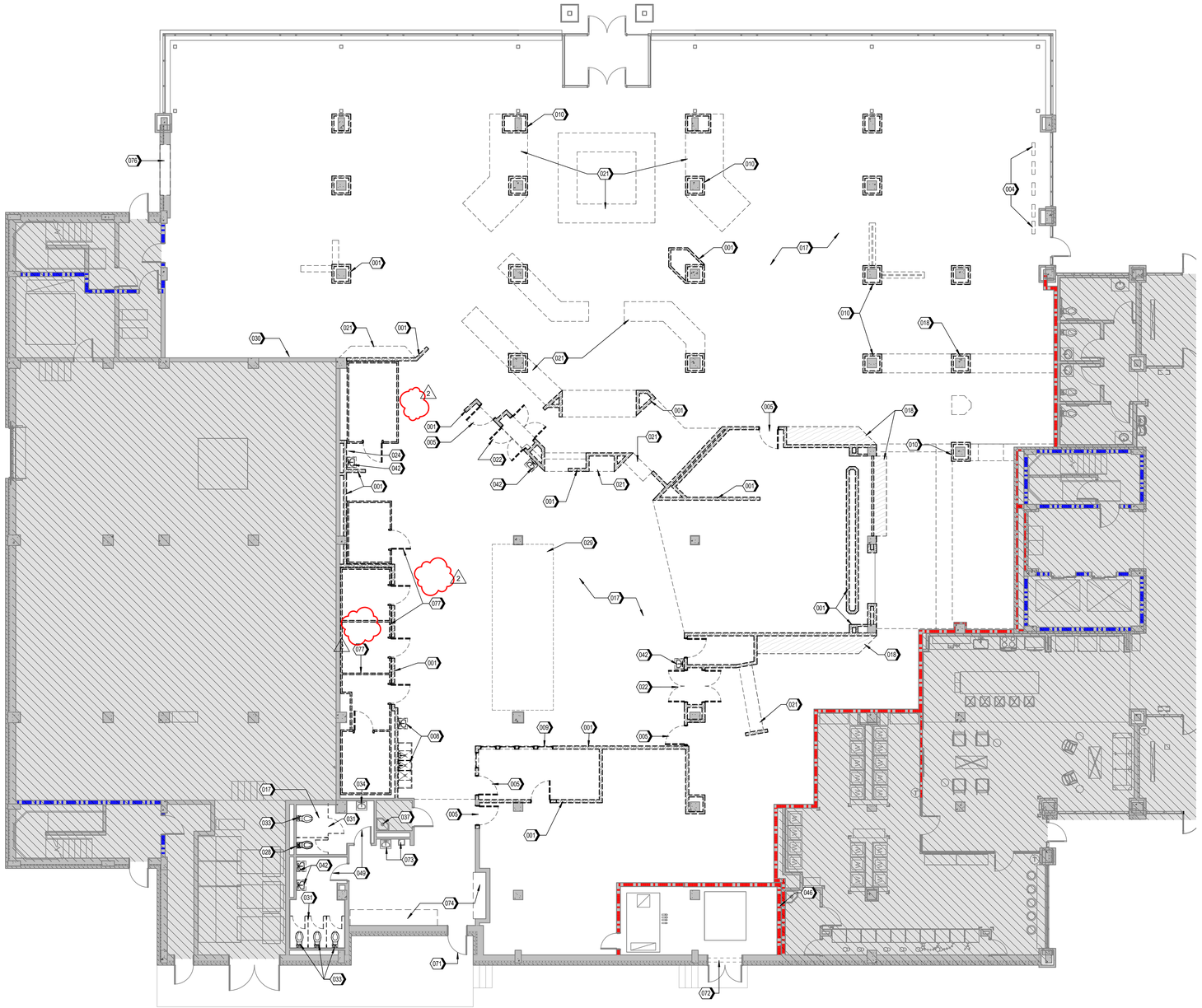
NO	DESCRIPTION	DATE
1	ADDENDUM 2	05.23.25

G101

CODE SUMMARY

TreanorHL NO. HE0569.2302.01

EXISTING CONDITIONS PHOTOGRAPHS



DEMOLITION PLAN (KITCHEN & DINING) A1
1/8" = 1'-0"
0 4' 8' 16'

DEMOLITION GENERAL NOTES

A. DO NOT SCALE DRAWINGS.

B. VERIFY EXISTING CONDITIONS AND DIMENSIONS PRIOR TO COMMENCING WORK.

C. RETURN ITEMS TO OWNER WHERE NOTED TO BE SALVAGED, OR IN NEW WORK WITHIN PROJECT SCOPE. DISPOSE OFFSITE PER L REGULATIONS DEMOLITION MATERIALS NOT CLAIMED BY OWNER NOTED TO BE REUSED.

D. PATCH AND REPAIR AREAS AFFECTED BY DEMOLITION AND SHOWN TO REMAIN, FOR NEW SCOPE OF WORK.

E. RETURN REMAINING FURNISHINGS AND EQUIPMENT TO OWNER PRIOR TO DEMOLITION.

F. EXISTING CONDITIONS INFORMATION WAS OBTAINED FROM DOCUMENTS AND INFORMATION SUPPLIED TO THE ARCHITECT. VERIFY EXISTING CONDITIONS PRIOR TO COMMENCING WORK.

G. REMOVE EXISTING CONSTRUCTION TO THE EXTENT INDICATED ON DRAWINGS. REMOVE ITEMS SHOWN DASHED ON DEMOLITION PLAN UNLESS NOTED OTHERWISE. SHOULD ANY DAMAGE OCCUR TO ANY EXISTING CONSTRUCTION TO REMAIN ON SITE, REPAIR THE DAMAGE AT NO COST TO THE OWNER.

H. PREPARE EXISTING CONCRETE SUBSTRATE FOR NEW FINISHES.

I. REFER TO ENGINEERING DEMOLITION DRAWINGS FOR ADDITIONAL ITEMS TO BE DEMOLISHED. REFER TO MEP DRAWINGS FOR DEMOLITION OF MEP SYSTEMS TO IDENTIFY WORK REQUIRED BY THIS CONTRACTOR WHICH MAY AFFECT DEMOLITION AND/OR REPAIRS OF ARCHITECTURAL ELEMENTS. COORDINATE WITH ALL RELEVANT SUBCONTRACTORS THE EXTENT OF ALL DEMOLITION WORK.

J. RETURN EXISTING TRASH AND RECYCLING RECEPTACLES TO OWNER.

K. THIS DEMOLITION PLAN OUTLINES THE SCOPE OF THE WORK INVOLVED FOR THE DEMOLITION PHASE OF THIS PROJECT. REFER TO THE DRAWINGS FOR NEW CONSTRUCTION FOR ADDITIONAL INFORMATION.

L. IF SUSPECTED HAZARDOUS MATERIALS ARE ENCOUNTERED, STOP WORK IMMEDIATELY AND NOTIFY OWNER. DO NOT RESUME WORK UNTIL DIRECTED BY THE OWNER.

M. REMOVE TRASH AND DEBRIS FROM THE SITE DAILY.

N. MAINTAIN THE INTEGRITY OF EXISTING RATED WALLS AND FIRE SEAL PENETRATIONS WITH A U.L. APPROVED ASSEMBLY.

O. EXISTING WALLS (OR PORTIONS OF WALLS) TO BE REMOVED FLUSH WHERE INTERSECTING WITH WALLS TO REMAIN. REMAINING WALLS AND FINISH SMOOTH.

P. REFER TO MEP DRAWINGS TO COORDINATE REQUIRED SLAB TRENCHING/CONCRETE INFILL TO ACCOMMODATE INSTALLATION AND/OR REPAIRS OF BELOW-SLAB UTILITIES.

Q. REMOVE REMAINING CEILING AND WALL ELEMENTS, INCLUDING BUT NOT LIMITED TO CEILING GRID, CEILING TILE, GYPSUM SOFFITS / BULKHEADS, ABANDONED MECHANICAL DUCTWORK AND EQUIPMENT, ABANDONED ELECTRICAL CONDUITS AND LIGHT FIXTURES, ABANDONED PIPING, AND ASSOCIATED WORK NOT SHOWN OR REQUIRED TO MAINTAIN. REFER TO MEP DEMOLITION DRAWINGS FOR ADDITIONAL INFORMATION.

KEYNOTES

001 REMOVE EXISTING WALLS AND WALL BASE
004 DEMO AND INFILL EXISTING FLOOR VENTS. PREP FLOOR FOR NEW TILE FINISH. REFER TO MECHANICAL.
005 REMOVE EXISTING DOOR AND FRAMES
008 REMOVE EXISTING CASEWORK, SINK AND ASSOCIATED PLUMBING; REFER TO PLUMBING
009 REMOVE EXISTING INTERIOR WINDOWS AND FRAMES
010 REMOVE EXISTING WOOD COLUMN WRAPS, TYPICAL; EXISTING CAST-IN-PLACE COLUMNS TO REMAIN
017 REMOVE EXISTING FLOORING, PREP SUBFLOOR FOR NEW FLOOR FINISH
018 REMOVE EXISTING CASEWORK / MILLWORK
021 REMOVE EXISTING SERVING EQUIPMENT AND ASSOCIATED COMPONENTS, TYPICAL
022 REMOVE EXISTING PASS-THROUGH FREEZER, DOORS, AND ASSOCIATED COMPONENTS
024 REMOVE EXISTING EYE WASH; REFER TO PLUMBING FOR ADDITIONAL SCOPE
028 EXISTING FLOOR-MOUNTED TOILET TO REMAIN
029 REMOVE EXISTING EXHAUST HOOD AND PREPARE EXISTING OVERHEAD DUCT CHASE FOR INSTALLATION OF NEW EXHAUST HOOD; REFER TO MECHANICAL
030 EXISTING LIGHTING CONTROL PANEL TO REMAIN, PROTECT FROM DAMAGE
031 REMOVE EXISTING TOILET PARTITION
033 REMOVE EXISTING FLOOR-MOUNTED TOILET, REFER TO PLUMBING
034 EXISTING WALL-MOUNTED SINK TO REMAIN
037 EXISTING MOP SINK TO REMAIN
042 REMOVE EXISTING WALL MOUNTED SINK
046 EXISTING BRICK TO REMAIN
049 EXISTING DOOR & FRAME TO REMAIN; REFER TO DOOR SCHEDULE FOR EXTENT OF SCOPE IN THIS AREA
071 EXISTING EXTERIOR DOOR AND TRANSOM WINDOW TO REMAIN
072 EXISTING EXTERIOR DOOR AND HOLLOW METAL FRAME TO REMAIN. REMOVE LOUVER FROM EXISTING HOLLOW METAL FRAME AND PREP OPENING TO RECEIVE NEW LOUVER CUSTOM FABRICATED FOR EXISTING FRAMED OPENING.
073 REMOVE EXISTING SINK AND DRINKING FOUNTAIN
074 REMOVE EXISTING LOCKERS AND CONCRETE CURB. PATCH AND REPAIR FLOORING TO RECEIVE NEW FINISH.
076 CUT OPENING IN EXISTING MASONRY TO ACCOMMODATE NEW LOUVER; REFER TO CM/A601 AND MECHANICAL FOR ADDITIONAL INFORMATION.
2 077 EXISTING FREEZER ASSEMBLY TO BE REMOVED IN ITS ENTIRETY. REMOVAL TO INCLUDE THE ARCHITECTURAL WALLS, FLOOR TILE, CONCRETE TOPPING SLAB, REDWOOD THERMAL BREAK AND FREEZER SLAB INSULATION. CONTRACTOR TO PROVIDE BORE TESTING TO CONFIRM PIT DEPTH AND LOCATION PRIOR TO REMOVING TOPPING SLAB. UPON REMOVAL OF EXISTING FREEZER FLOOR ASSEMBLY, EXISTING DEPRESSION TO BE CLEANED, DRIED AND REPAIR ANY EXISTING FOUNDATION DAMAGE IF EXISTING. FILL DEPRESSION WITH CONCRETE TOPPING, OVERALL HEIGHT TO MATCH EXISTING KITCHEN FLOOR. FINISHED FLOOR FROM KITCHEN TO NEW COLD STORAGE ASSEMBLY TO BE FLUSH AND LEVEL. NEW COLD STORAGE ASSEMBLY FACTORY FLOOR TO BE LOCATED ON TOP OF NEW FINISHED FLOOR.

DEMOLITION LEGEND

AREAS NOT IN SCOPE

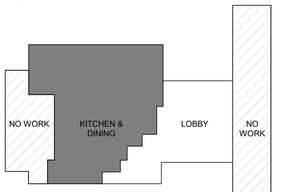
EXISTING WALL TO REMAIN; PROTECT IN PLACE

EXISTING FIRE-RATED WALL TO REMAIN

EXISTING DOOR, FRAME AND ASSOCIATED HARDWARE TO REMAIN; PROTECT IN PLACE

REMOVE EXISTING WALL IN ITS ENTIRETY

REMOVE DOOR AND FRAME IN ITS ENTIRETY U.N.O.; SALVAGE AND STORE EXISTING DOOR HARDWARE IN GOOD WORKING CONDITION



KEY PLAN

REGISTERED ARCHITECT
NADIA ZAHIR
21737
STATE OF TEXAS

TREANOR
2554 Elm Street, Suite 200
Dallas, Texas 75226
Office: 214.310.1018
www.TreanorHL.com

UNIVERSITY OF NORTH TEXAS
KERR HALL DINING RENOVATION
1413 West Maple St
Denton, TX 76201

UNT

Issue:	ISSUE FOR CONSTRUCTION
Date:	JANUARY 30, 2025

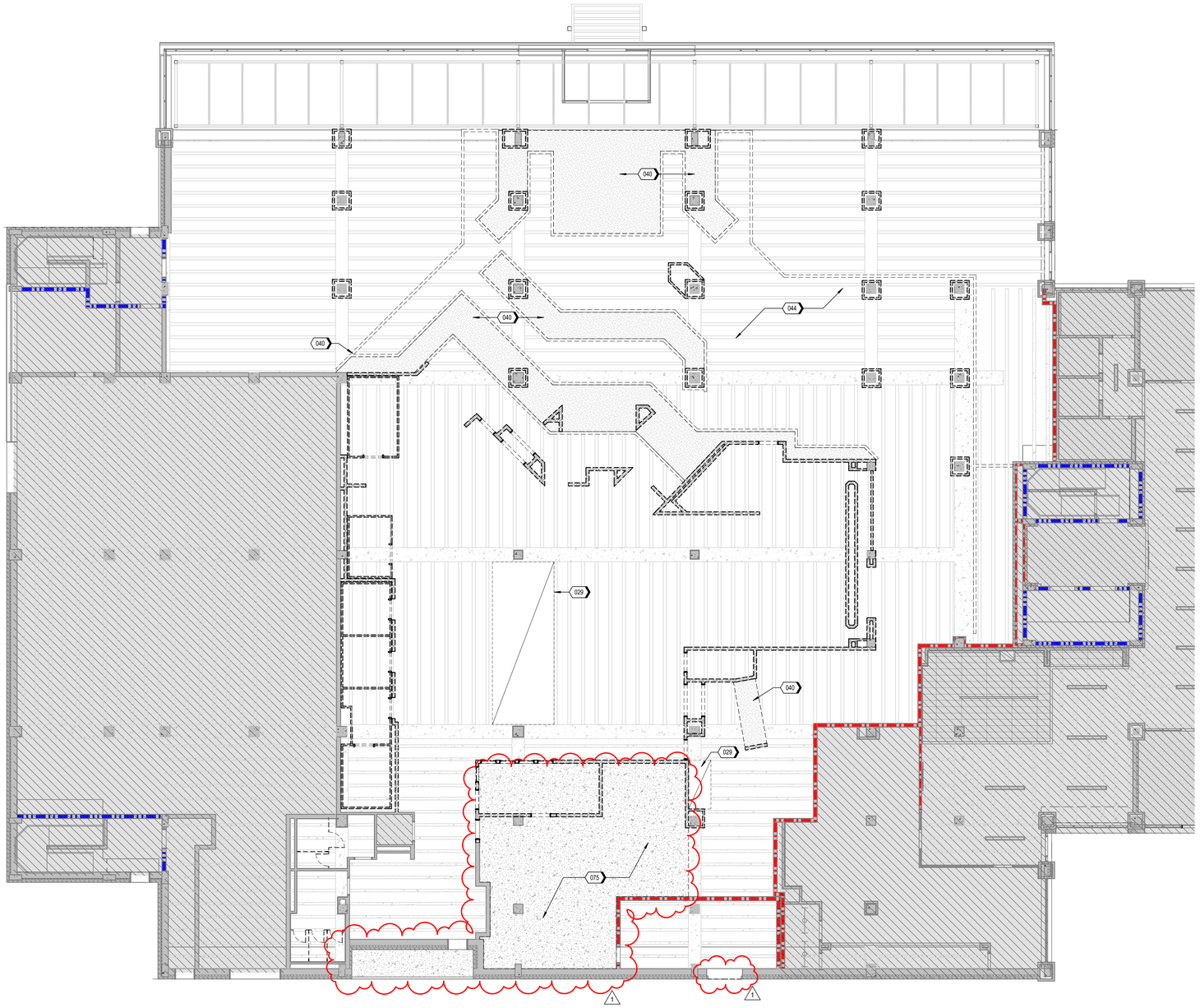
REVISIONS

NO	DESCRIPTION	DATE
1	ADDENDUM 2	05.23.25
2	ADDENDUM 3	05.28.25

AD101

DEMOLITION PLAN

TreanorHL NO. HE0569.2302.01



DEMO REFLECTED CEILING PLAN (DINING) A1
1/8" = 1'-0"
0 4' 8' 16'

DEMOLITION GENERAL NOTES

A. DO NOT SCALE DRAWINGS.

B. VERIFY EXISTING CONDITIONS AND DIMENSIONS PRIOR TO COMMENCING WORK.

C. RETURN ITEMS TO OWNER WHERE NOTED TO BE SALVAGED, OR IN NEW WORK WITHIN PROJECT SCOPE. DISPOSE OFFSITE PER LOCAL REGULATIONS DEMOLITION MATERIALS NOT CLAIMED BY OWNER NOTED TO BE REUSED.

D. PATCH AND REPAIR AREAS AFFECTED BY DEMOLITION AND SHOWN TO REMAIN, FOR NEW SCOPE OF WORK.

E. RETURN REMAINING FURNISHINGS AND EQUIPMENT TO OWNER PRIOR TO DEMOLITION.

F. EXISTING CONDITIONS INFORMATION WAS OBTAINED FROM DOCUMENTS AND INFORMATION SUPPLIED TO THE ARCHITECT. VERIFY EXISTING CONDITIONS PRIOR TO COMMENCING WORK.

G. REMOVE EXISTING CONSTRUCTION TO THE EXTENT INDICATED ON DRAWINGS. REMOVE ITEMS SHOWN DASHED ON DEMOLITION PLAN UNLESS NOTED OTHERWISE. SHOULD ANY DAMAGE OCCUR TO ANY EXISTING CONSTRUCTION TO REMAIN ON SITE, REPAIR THE DAMAGE AT NO COST TO THE OWNER.

H. PREPARE EXISTING CONCRETE SUBSTRATE FOR NEW FINISHES.

I. REFER TO ENGINEERING DEMOLITION DRAWINGS FOR ADDITIONAL ITEMS TO BE DEMOLISHED. REFER TO MEP DRAWINGS FOR DEMOLITION OF MEP SYSTEMS TO IDENTIFY WORK REQUIRED BY THIS CONTRACTOR WHICH MAY AFFECT DEMOLITION AND/OR REPAIRS OF ARCHITECTURAL ELEMENTS. COORDINATE WITH ALL RELEVANT SUBCONTRACTORS THE EXTENT OF ALL DEMOLITION WORK.

J. RETURN EXISTING TRASH AND RECYCLING RECEPTACLES TO OWNER.

K. THIS DEMOLITION PLAN OUTLINES THE SCOPE OF THE WORK INVOLVED FOR THE DEMOLITION PHASE OF THIS PROJECT. REFER TO THE DRAWINGS FOR NEW CONSTRUCTION FOR ADDITIONAL INFORMATION.

L. IF SUSPECTED HAZARDOUS MATERIALS ARE ENCOUNTERED, STOP WORK IMMEDIATELY AND NOTIFY OWNER. DO NOT RESUME WORK UNTIL DIRECTED BY THE OWNER.

M. REMOVE TRASH AND DEBRIS FROM THE SITE DAILY.

N. MAINTAIN THE INTEGRITY OF EXISTING RATED WALLS AND FIRE SEAL PENETRATIONS WITH A U.L. APPROVED ASSEMBLY.

O. EXISTING WALLS (OR PORTIONS OF WALLS) TO BE REMOVED FLUSH WHERE INTERSECTING WITH WALLS TO REMAIN. REMAINING WALLS AND FINISH SMOOTH.

P. REFER TO MEP DRAWINGS TO COORDINATE REQUIRED SLAB TRENCHING/CONCRETE INFILL TO ACCOMMODATE INSTALLATION AND/OR REPAIRS OF BELOW-SLAB UTILITIES.

Q. REMOVE REMAINING CEILING AND WALL ELEMENTS, INCLUDING BUT NOT LIMITED TO CEILING GRID, CEILING TILE, GYPSUM SOFFITS / BULKHEADS, ABANDONED MECHANICAL DUCTWORK AND EQUIPMENT, ABANDONED ELECTRICAL CONDUITS AND LIGHT FIXTURES, ABANDONED PIPING, AND ASSOCIATED WORK NOT SHOWN OR REQUIRED TO MAINTAIN. REFER TO MEP DEMOLITION DRAWINGS FOR ADDITIONAL INFORMATION.

KEYNOTES

029 REMOVE EXISTING EXHAUST HOOD AND PREPARE EXISTING OVERHEAD DUCT CHASE FOR INSTALLATION OF NEW EXHAUST HOOD; REFER TO MECHANICAL

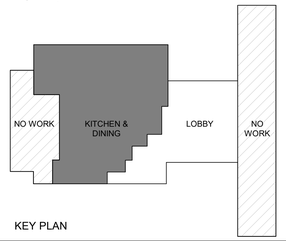
040 REMOVE GYP SOFFIT, AND ASSOCIATED FRAMED BULKHEAD

044 NO CEILING IS CURRENTLY PRESENT IN THE DINING ROOM SPACE. REMOVE REMNANTS OF EXISTING CEILING GRID AND TEMPORARY DUCTWORK.

075 REMOVE EXISTING PLASTER-ON-LATHE CEILING AND LIGHT FIXTURES

DEMOLITION LEGEND

- AREAS NOT IN SCOPE
- EXISTING WALL TO REMAIN; PROTECT IN PLACE
- EXISTING FIRE-RATED WALL TO REMAIN
- EXISTING DOOR, FRAME AND ASSOCIATED HARDWARE TO REMAIN; PROTECT IN PLACE
- REMOVE EXISTING WALL IN ITS ENTIRETY
- REMOVE DOOR AND FRAME IN ITS ENTIRETY U.N.O.; SALVAGE AND STORE EXISTING DOOR HARDWARE IN GOOD WORKING CONDITION



KEY PLAN

REGISTERED ARCHITECT
MADIA ZAHRA
21737
STATE OF TEXAS
01.30.2025

TREANOR
2554 Elm Street, Suite 200
Dallas, TX 75226
Office: 214.310.1018
www.TreanorHL.com

UNIVERSITY OF NORTH TEXAS
KERR HALL DINING RENOVATION
1413 West Maple St
Denton, TX 76201

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1	ADDENDUM 2	05.23.25

AD151

DEMOLITION RCP

TreanorHL NO. HE0569.2302.01

FLOOR PLAN GENERAL NOTES

A. DIMENSIONS ARE TO GRID LINE, FACE OF CONCRETE OR MASONRY, OR FACE OF FINISH WALL OR COLUMN, UNLESS OTHERWISE NOTED.

B. ANGLES SHOWN ON THE FLOOR PLANS ARE 90 DEGREES UNLESS OTHERWISE NOTED.

C. FURNITURE IS SHOWN FOR REFERENCE ONLY; REFER TO FURNITURE PLANS FOR COMPLETE SCOPE OF WORK.

D. WHERE NEW FLOOR DRAINS ARE SHOWN TO BE PROVIDED, INSTALL WITH TOP OF DRAIN FLUSH WITH, OR 1/8-INCH BELOW, FINISH SURFACE OF EXISTING CONCRETE FLOOR SLAB OR NEW FLOOR TILE.

E. COORDINATE FLOOR CORE DRILLING WITH EXISTING STRUCTURE.

F. PATCH AND LEVEL FLOOR SUBSTRATES TO RECEIVE NEW WORK AS SCHEDULED.

G. WHERE EXISTING CEILINGS ARE SHOWN TO REMAIN, REMOVE, SALVAGE AND REINSTALL CEILINGS AS REQUIRED TO ACCOMMODATE ABOVE-CEILING MEP WORK. PATCH AND REPAIR CEILINGS AS REQUIRED TO MATCH ADJACENT CONDITIONS.

H. PATCH WALLS AT REMOVED RECEPTACLE OPENINGS SO AS TO RECEIVE SUBSEQUENT WORK.

I. PATCH EXISTING FIRE-RATED FLOORS, WALLS & CEILINGS AS REQUIRED TO RESTORE OR MAINTAIN FIRE RATING. PROVIDE FIRESTOPPING AT PENETRATIONS. PROVIDE FIRE/SMOKE DAMPERS WHERE NEW DUCTS PENETRATE FIRE-RATED ASSEMBLIES.

J. PATCH EXISTING CONSTRUCTION SCHEDULED TO REMAIN. REPAIR SURFACES TO BE FLUSH WITH ADJACENT FINISH SURFACES. PATCH, SAND, AND TEXTURE EXISTING SURFACES TO SAME QUALITY AS NEW CONSTRUCTION PRIOR TO INSTALLING NEW FINISHES. REFER TO THE FINISH MANUFACTURER'S GUIDELINES FOR INSTALLATION.

K. REFER TO G003 FOR TYPICAL MOUNTING HEIGHTS AND LOCATIONS OF TOILET ACCESSORIES, TOILET PAPER DISPENSERS, PAPER TOWEL DISPENSERS, AND SOAP DISPENSERS ARE O.F.O.I.

L. EXISTING GRID LINES AND GRID DIMENSIONS ARE FOR REFERENCE ONLY.

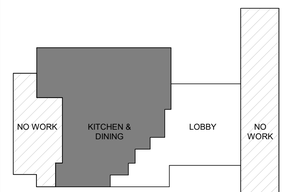
M. PROVIDE 2"X2"X48" STAINLESS STEEL CORNER GUARDS FROM TOP OF WALL BASE AT EXPOSED VERTICAL CORNERS OF GYPSUM BOARD WALL, TYP.

KEYNOTES

071 EXISTING EXTERIOR DOOR AND TRANSOM WINDOW TO REMAIN
108 SERVERY EQUIPMENT AND COUNTER, BY OTHERS; REFER TO FOODSERVICE EQUIPMENT DRAWINGS FOR ADDITIONAL INFORMATION
111 MOP SINK, REFER TO PLUMBING
117 WOOD WALL BLOCKING LOCATION, TYPICAL
121 AV/DATA RACK; REFER TO TA-SERIES DRAWINGS
127 PROVIDE (1) MOP/BROOM HOLDER AND (2) UTILITY SHELVES, MOUNTED IN ACCORDANCE WITH G003; COORDINATE LOCATION WITH OWNER
136 STAINLESS STEEL CORNER GUARD (CG-1), TYPICAL; REFER TO A700 FOR ADDITIONAL INFORMATION
147 SEMI-RECESSED STAINLESS STEEL FIRE EXTINGUISHER CABINET
148 SEMI-RECESSED STAINLESS STEEL AUTOMATED EXTERNAL DEFIBRILLATOR CABINET
158 NEW ELECTRICAL PANELS; REFER TO ELECTRICAL FOR ADDITIONAL INFORMATION
159 FIRE ALARM CONTROL PANELS FOR ANSUL SYSTEM; REFER TO QF1.0. TIE ANSUL SYSTEM INTO BUILDING FIRE ALARM SYSTEM
160 FIRE ALARM CONTROL PANEL AND ANNUNCIATOR PANEL
161 KNOX BOX (KNOX/VAULT 4400), MOUNTED PER AHJ REQUIREMENTS

FLOOR PLAN LEGEND

- AREAS NOT IN SCOPE
- EXISTING WALL TO REMAIN; PROTECT IN PLACE
- EXISTING FIRE-RATED WALL TO REMAIN
- EXISTING DOOR, FRAME AND ASSOCIATED HARDWARE TO REMAIN; PROTECT IN PLACE
- NEW DOOR, FRAME AND ASSOCIATED HARDWARE
- NEW WALL CONSTRUCTION
- 1-HR FIRE BARRIER
- 2-HR FIRE BARRIER
- FLOOR DRAIN; REFER TO PLUMBING
- WALL BLOCKING



KEY PLAN

LOUVER 1 A1
1/8" = 1'-0"

REGISTERED ARCHITECT
NADIA ZAIDI
21737
STATE OF TEXAS
01.30.2025

TREANOR
2554 Elm Street, Suite 200
Dallas, TX 75226
Office: 214.310.1018
www.TreanorHL.com

UNIVERSITY OF NORTH TEXAS
KERR HALL DINING RENOVATION
1413 West Maple St
Denton, TX 76201

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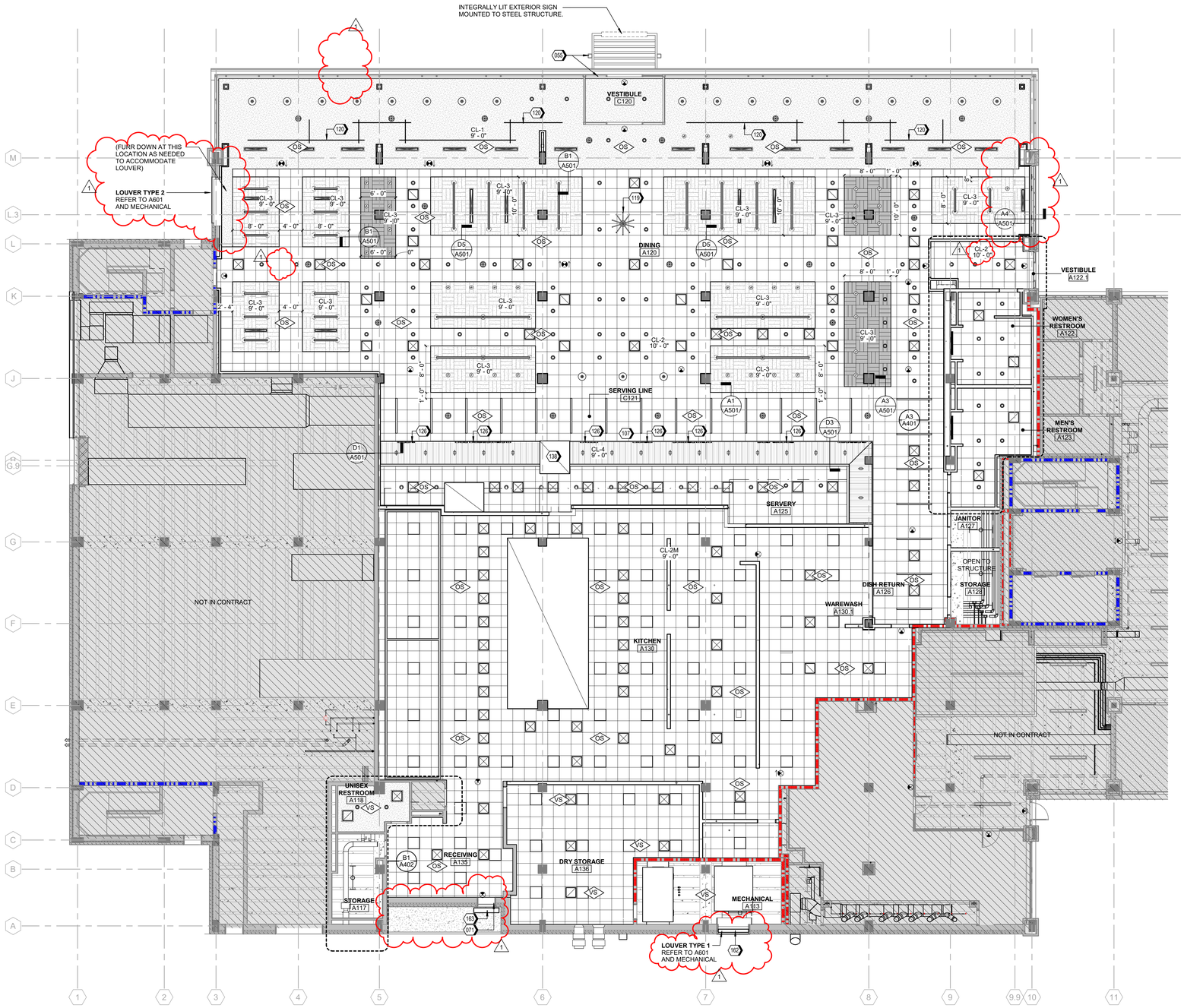
1	ADDENDUM 2	05.23.25

A101

FLOOR PLAN (KITCHEN & DINING)

TreanorHL NO. HE0569.2302.01



REFLECTED CEILING PLAN (DINING) A1

1/8" = 1'-0"

RCP GENERAL NOTES

A. DIMENSIONS INDICATED ARE TO THE CENTERLINE OF LIGHT FIXTURES OR DUCTWORK, AND FINISH FACE OF SOFFIT OR BULKHEAD UNLESS NOTED OTHERWISE.

B. SUSPEND PENDANT LIGHT FIXTURES NO LOWER THAN 7'-6" A.F.F. UNLESS NOTED OTHERWISE.

C. DIFFUSERS, EXIT SIGNS, SPEAKERS, SMOKE DETECTORS, FIRE ALARM SPEAKER STROBES, OCCUPANCY SENSORS, A/V DEVICES, AND OTHER CEILING MOUNTED EQUIPMENT SHALL BE CENTERED IN THE CEILING TILES IN WHICH THEY OCCUR UNLESS NOTED OTHERWISE. DIMENSIONED LOCATIONS OF CEILING MOUNTED EQUIPMENT IN THE ARCHITECTURAL REFLECTED CEILING PLAN GOVERN.

D. CENTER CEILING GRIDS IN EACH ROOM OR SPACE UNLESS OTHERWISE INDICATED WITH A GRID ORIGIN OR DIMENSION.

E. VERIFY LOCATIONS OF CEILING ACCESS PANELS WITH MEP DRAWINGS. COORDINATE LOCATIONS OF ACCESS PANELS WITH ARCHITECT PRIOR TO INSTALLATION. ACCESS PANEL FIRE RATINGS MUST MATCH CEILING ASSEMBLY FIRE RATINGS.

F. LIGHTING FIXTURES TO BE CENTERED AND SPACED EQUALLY, UNLESS NOTED OTHERWISE.

G. LIGHT FIXTURES ARE SHOWN FOR LOCATION AND COORDINATION PURPOSES. COORDINATE WITH ELECTRICAL DRAWINGS FOR FIXTURE DESIGNATIONS.

H. EXISTING GRID LINES AND GRID DIMENSIONS ARE FOR REFERENCE ONLY.

KEYNOTES

055 NEW BUILDING ENTRANCE VESTIBULE, STOREFRONT, AND HSS COLUMNS (BY OTHERS, PRIOR TO THIS PROJECT COMMENCING CONSTRUCTION)

071 EXISTING EXTERIOR DOOR AND TRANSOM WINDOW TO REMAIN

107 HYDROPONICS DISPLAY (BY OTHERS, PROVIDE POWER, WATER, AND DATA.

119 DECORATIVE PENDANT LIGHT FIXTURE (BASIS OF DESIGN PURE EDGE PIX STIX PIPELINE); REFER TO ELECTRICAL

120 MODULAR SURFACE-MOUNTED LINEAR LED FIXTURE (BASIS OF DESIGN PURE EDGE CIRRUS); REFER TO ELECTRICAL

126 INTEGRALLY-LIT ALUMINUM SIGNAGE WITH CONCEALED POST MOUNTING; BRUSHED CLEAR ANODIZED FINISH ON FACE AND RETURNS

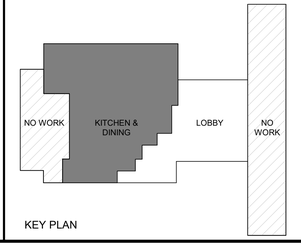
138 RANGE HOOD, REFER TO MECHANICAL AND FOODSERVICE EQUIPMENT

162 NEW LOUVER CUSTOM FABRICATED TO FIT WITHIN EXISTING HOLLOW METAL FRAME

163 AIR CURTAIN, CENTERED OVER OPENING, WALL-MOUNTED USING KEYHOLES INTEGRAL TO UNIT PER MANUFACTURER'S INSTALLATION INSTRUCTIONS. SIZE UNIT TO FIT EXISTING DOOR AND FRAME. DRILL MOUNTING HOLES INTO BRICK ON EITHER SIDE OF HOLLOW METAL DOOR FRAME. REFER TO FOODSERVICE EQUIPMENT SPECIFICATIONS ITEM 101 FOR UNIT BASIS OF DESIGN.

RCP LEGEND

- **AREAS NOT IN SCOPE**
- **GYPSUM CEILING ON METAL STUDS** (CL-1)
- **2X2 ACOUSTICAL PANEL CEILING** (CL-2) *MOISTURE RESISTANT WHERE DESIGNATED CL-2M
- **2X2 TECTUM CEILING** (CL-3) COLOR 1
- **2X2 TECTUM CEILING** (CL-3) COLOR 2
- **WOOD CEILING** (CL-4)
- **EXISTING PORTLAND CEMENT STUCCO CEILING**
- **RECESSED LINEAR LED LIGHT** (TYPE 'B')
- **LINEAR PENDANT DIRECT/INDIRECT** (TYPE 'C')
- **WALL-MOUNTED LINEAR LIGHT** (TYPE 'D')
- **RECESSED LINEAR LED LIGHT** (TYPE 'E')
- **SURFACE-MOUNTED LINEAR LED LIGHT** (TYPE 'F')
- **6" RECESSED CAN LIGHT** (TYPE 'H')
- **HIGH CRI LIGHT - IN WOOD GRILLE** (TYPE 'J')
- **INDUSTRIAL STRIP LIGHT** (TYPE 'K')
- **DECORATIVE PENDANT LIGHT** (TYPE 'P1')
- **DECORATIVE PENDANT LIGHT** (TYPE 'P2')
- **2X2 RECESSED TROFFER LIGHT** (TYPE 'V')
- **EDGE-LIT EXIT SIGN** (TYPE 'X')
- **SUPPLY DIFFUSER** (2X2 TYPICAL)
- **RETURN GRILLE** (2X2 TYPICAL)
- **LINEAR SUPPLY / RETURN** (4' TYPICAL)
- **RECESSED CEILING SPEAKER**; REFER TO AV
- **CEILING ACCESS PANEL**; REFER TO C2/A500
- **VACANCY SENSOR**; REFER TO ELECTRICAL
- **OCCUPANCY SENSOR**; REFER TO ELECTRICAL



KEY PLAN

REGISTERED ARCHITECT
MADIA ZAHRA
21737
STATE OF TEXAS
01.30.2025

TREANOR
2554 Elm Street, Suite 200
Dallas, TX 75226
Office: 214.310.1018
www.TreanorHL.com

UNIVERSITY OF NORTH TEXAS
KERR HALL DINING RENOVATION
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Denton, TX 76201

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1	ADDENDUM 2	05.23.25

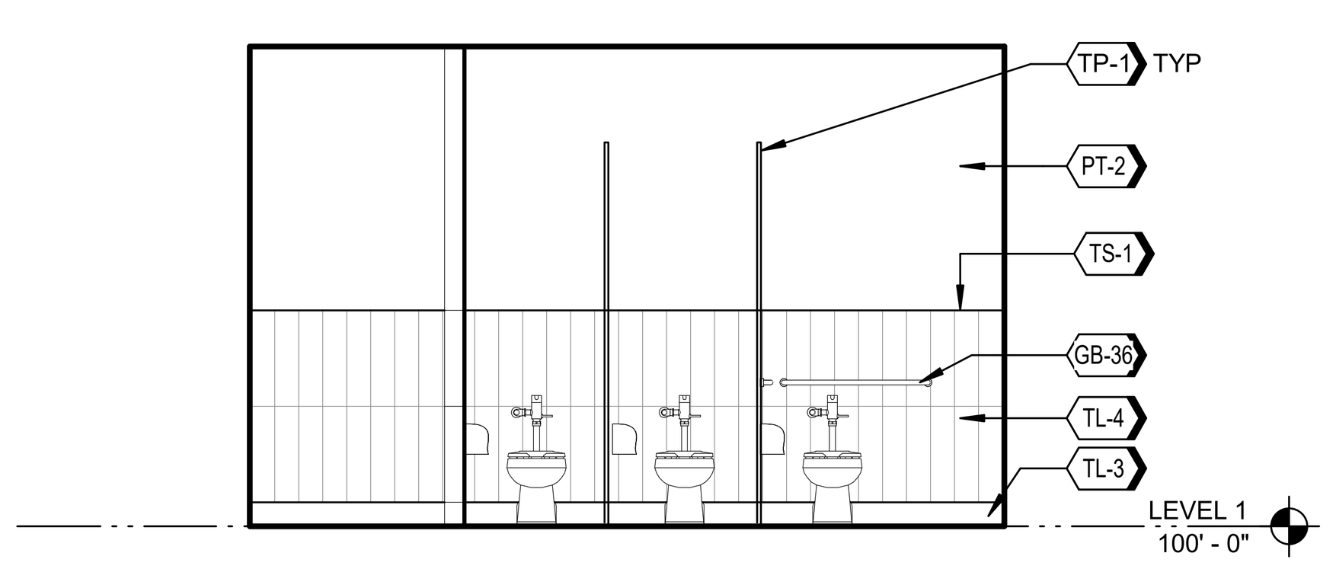
A151

REFLECTED CEILING PLAN (KITCHEN & DINING)

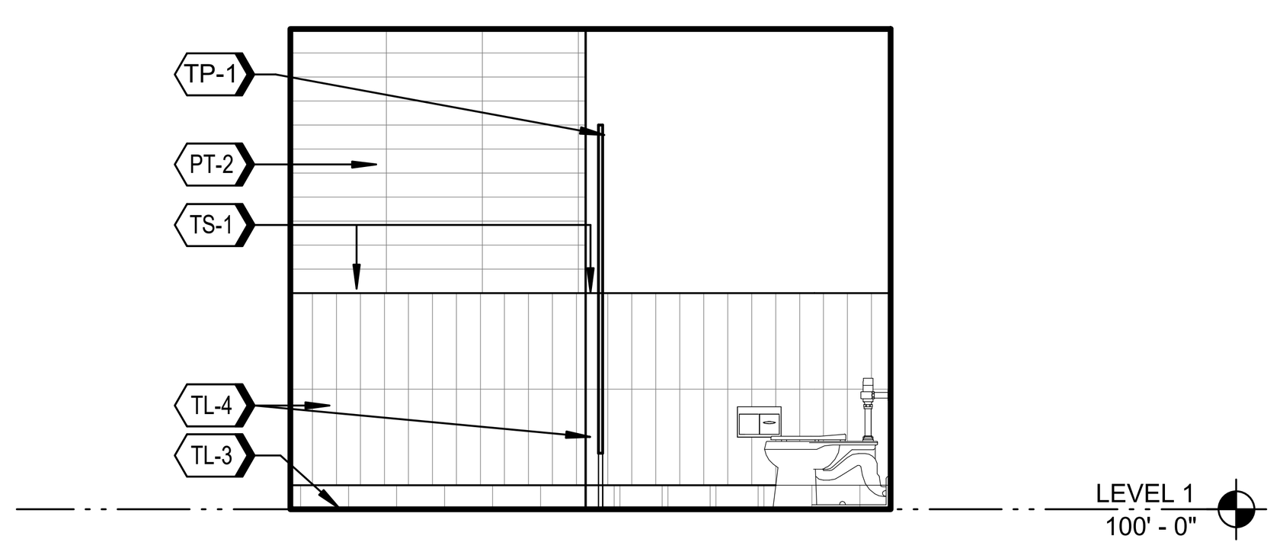
TreanorHL NO. HE0569.2302.01

KEYNOTES

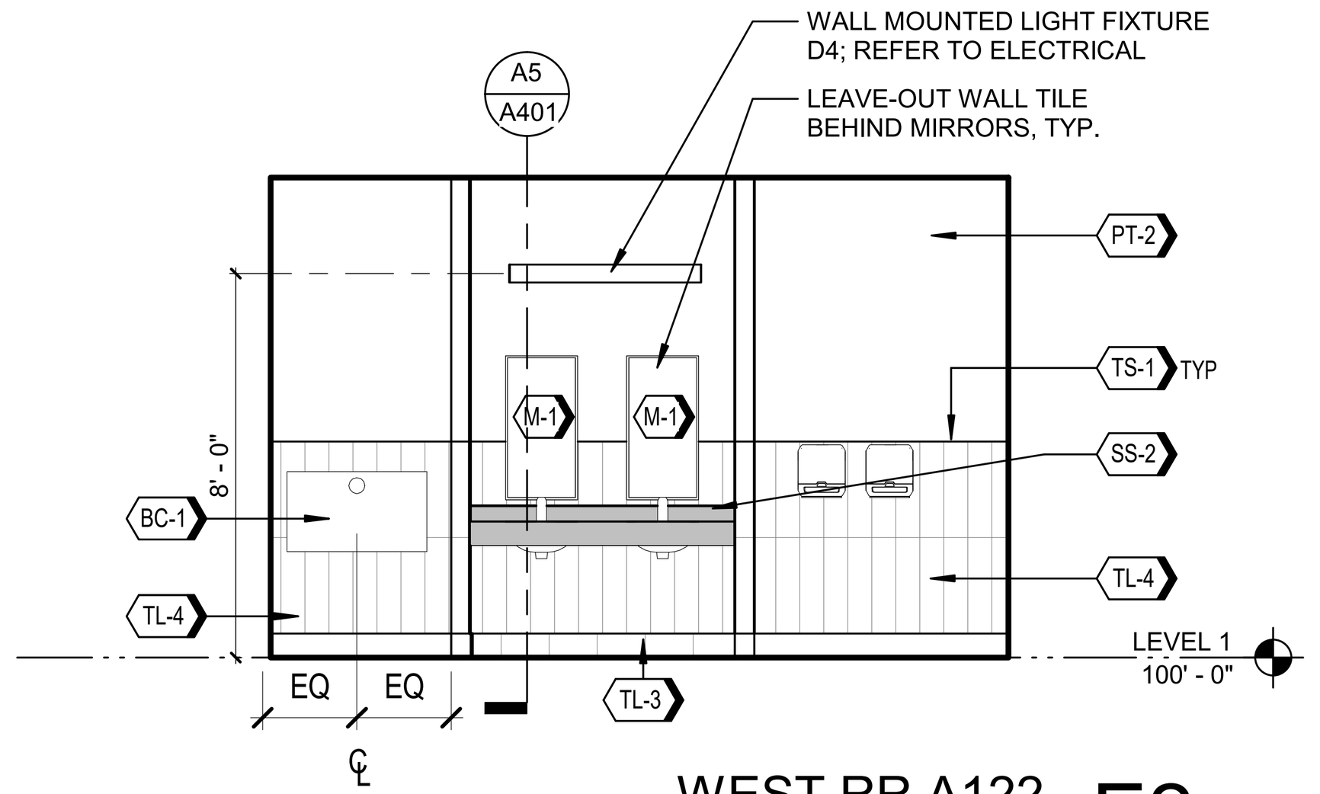
BC-1	SURFACE MOUNTED BABY CHANGING STATION, OFOI
GB-36	STAINLESS STEEL GRAB BAR, 36"
M-1	18"X36" STAINLESS STEEL CHANNEL FRAME MIRROR
PT-2	PAINT COLOR 2; REFER TO A700 FOR ADDITIONAL INFORMATION
PTW-1	PAPER TOWEL DISPENSER, OFOI
SS-2	CAMBRIA FIELDSTONE QUARTZ; REFER TO A700 FOR ADDITIONAL INFORMATION
TL-3	RESTROOM FLOOR TILE; REFER TO A700 FOR ADDITIONAL INFORMATION
TL-4	RESTROOM WALL TILE; REFER TO A700 FOR ADDITIONAL INFORMATION
TS-1	SCHLUTER JOLLY EDGE TRIM; REFER TO A700 FOR ADDITIONAL INFORMATION
TTD-1	TOILET TISSUE DISPENSER, OFOI



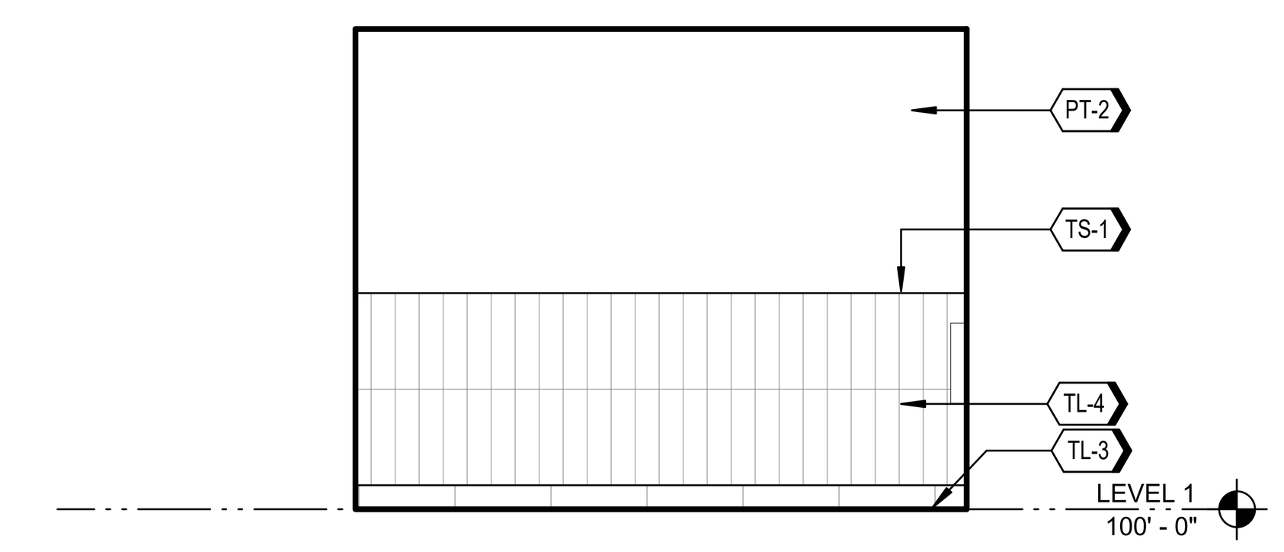
EAST RR A122 E5
1/4" = 1'-0"



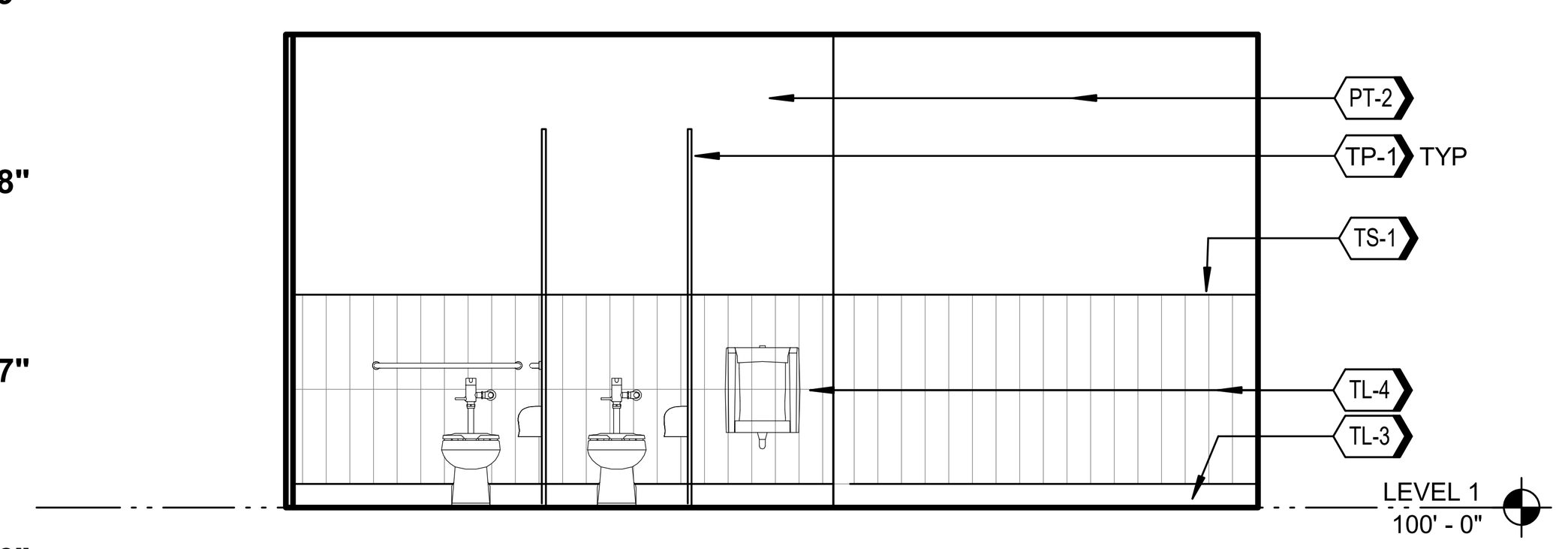
NORTH RR A122 E4
1/4" = 1'-0"



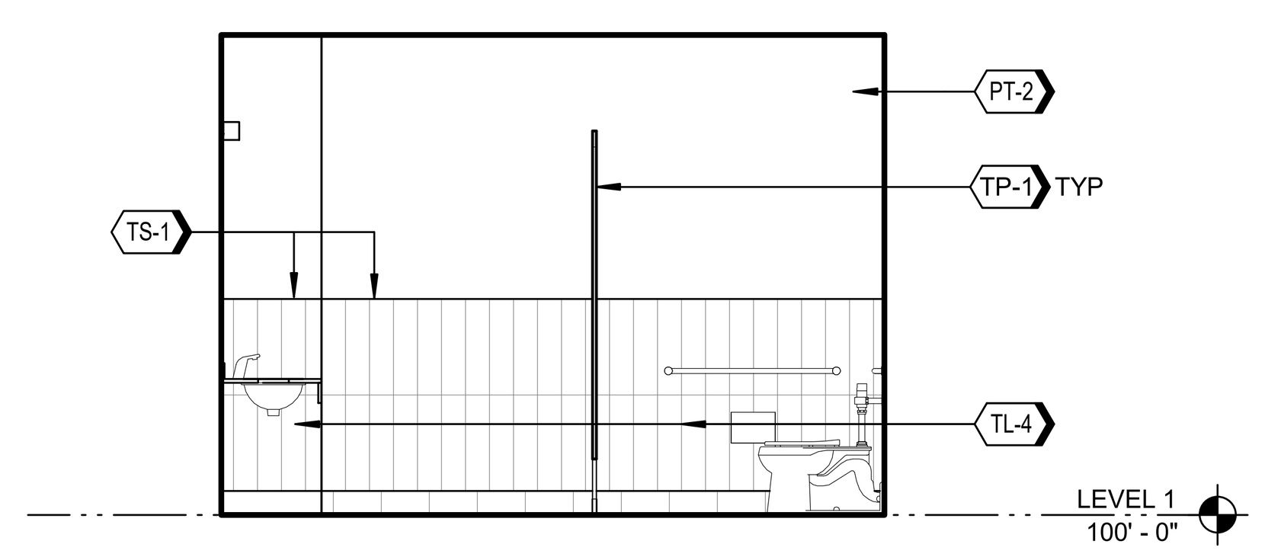
WEST RR A122 E2
1/4" = 1'-0"



SOUTH RR A122 E1
1/4" = 1'-0"



EAST RR A123 C5
1/4" = 1'-0"



NORTH RR A123 C4
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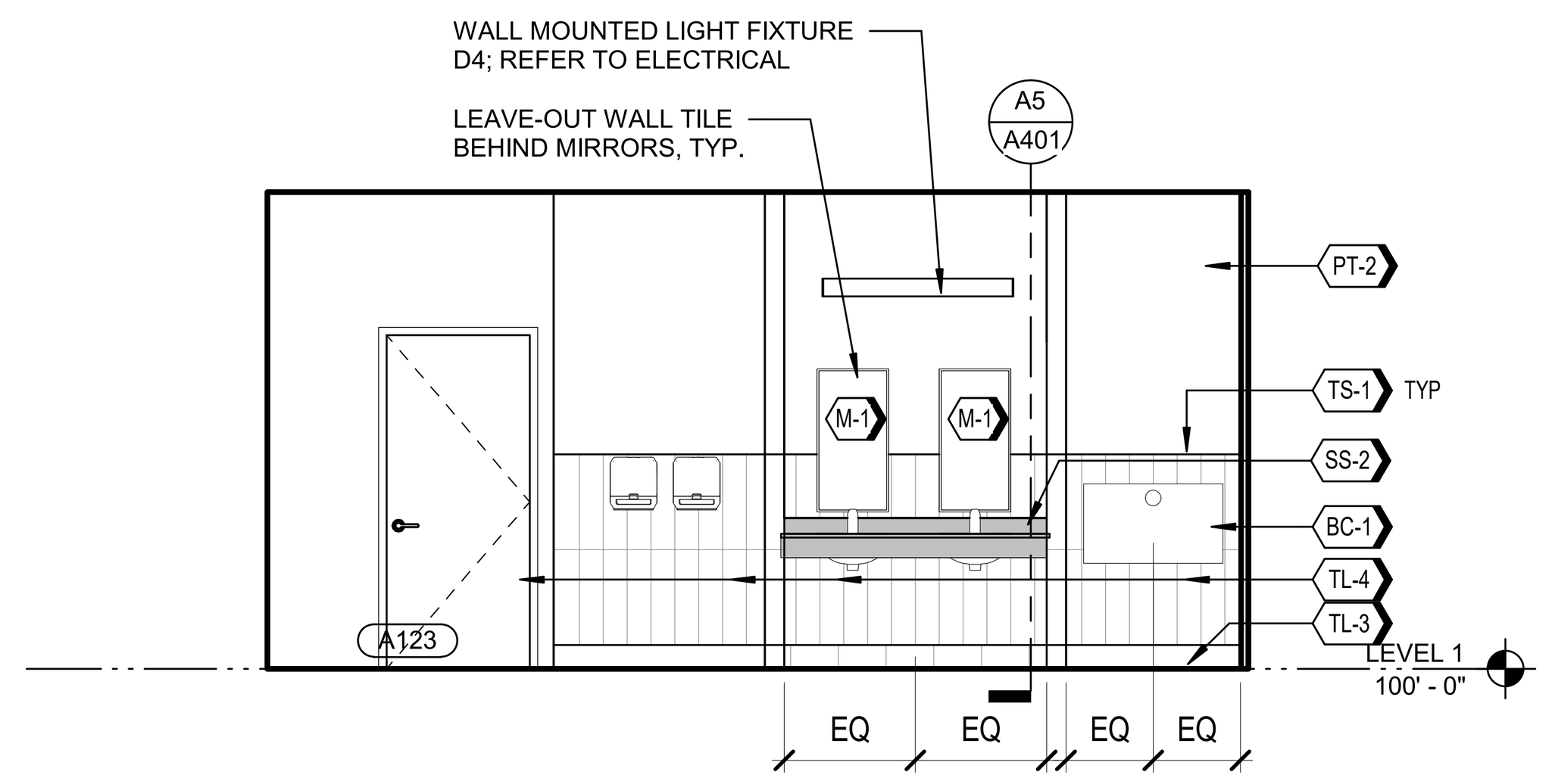

WEST RR A123 C2
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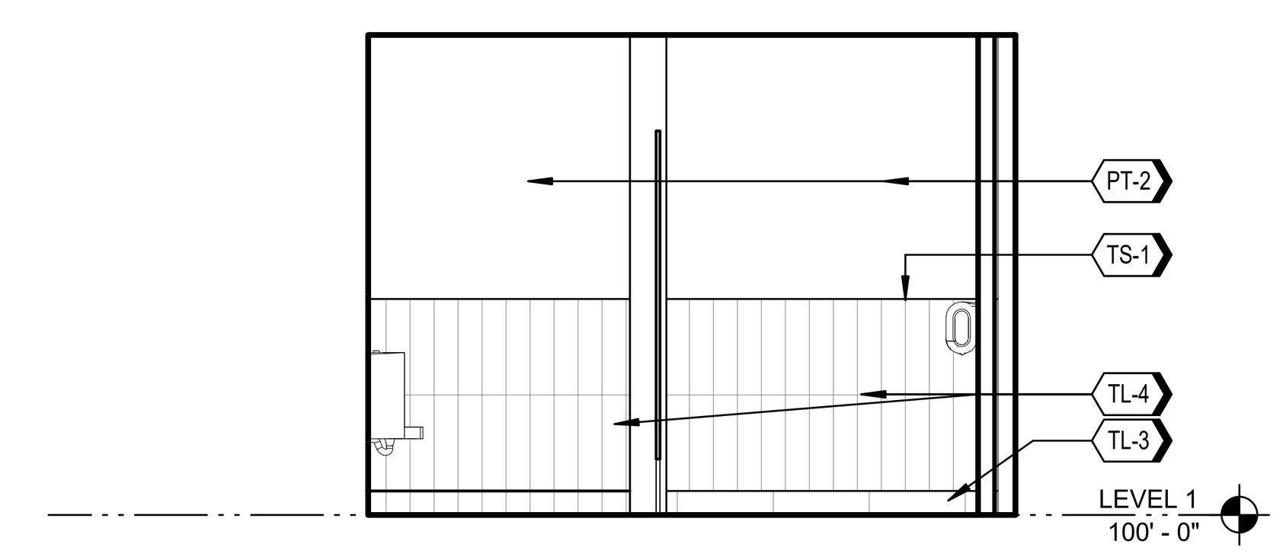

SOUTH RR A123 C1
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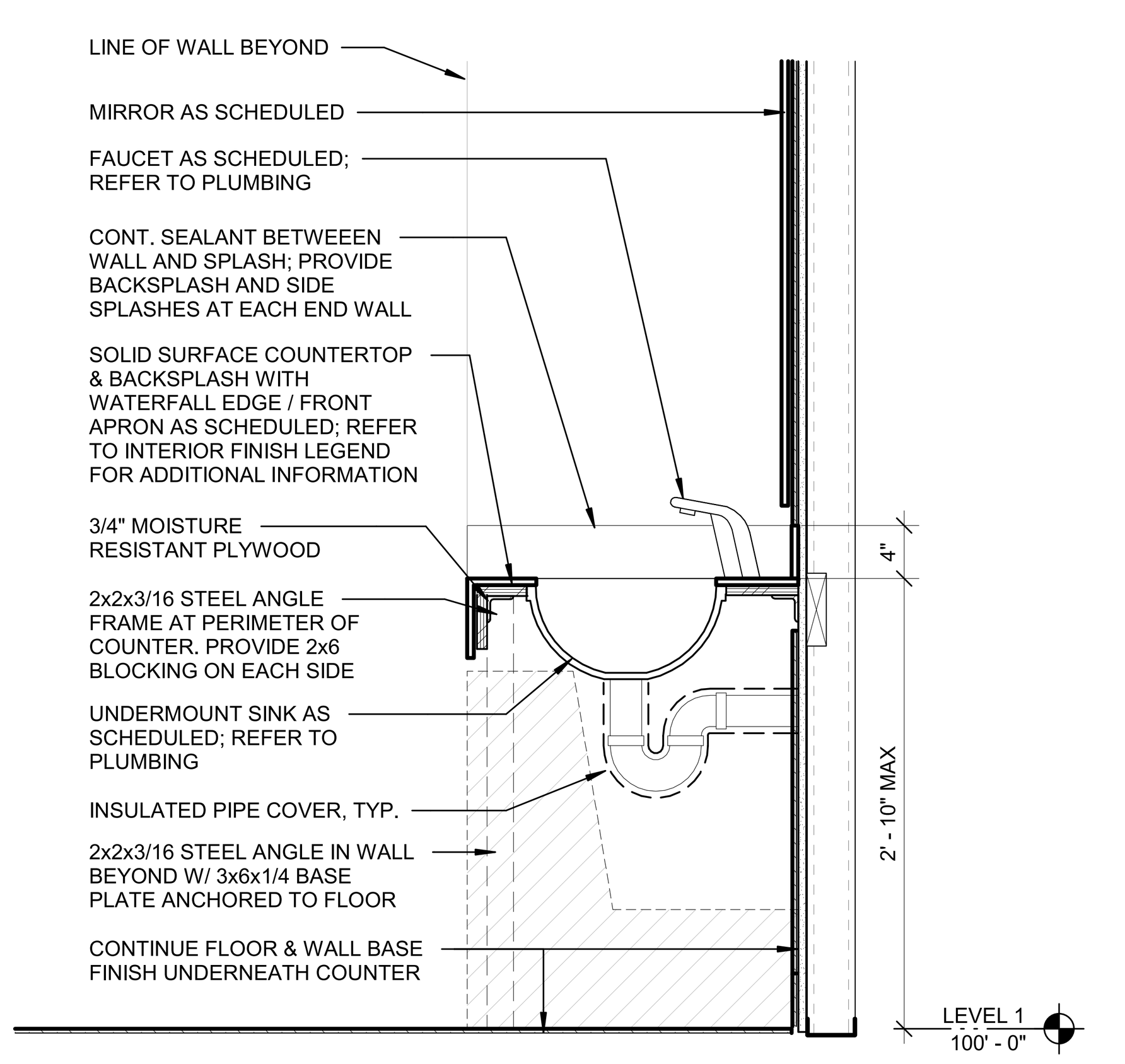
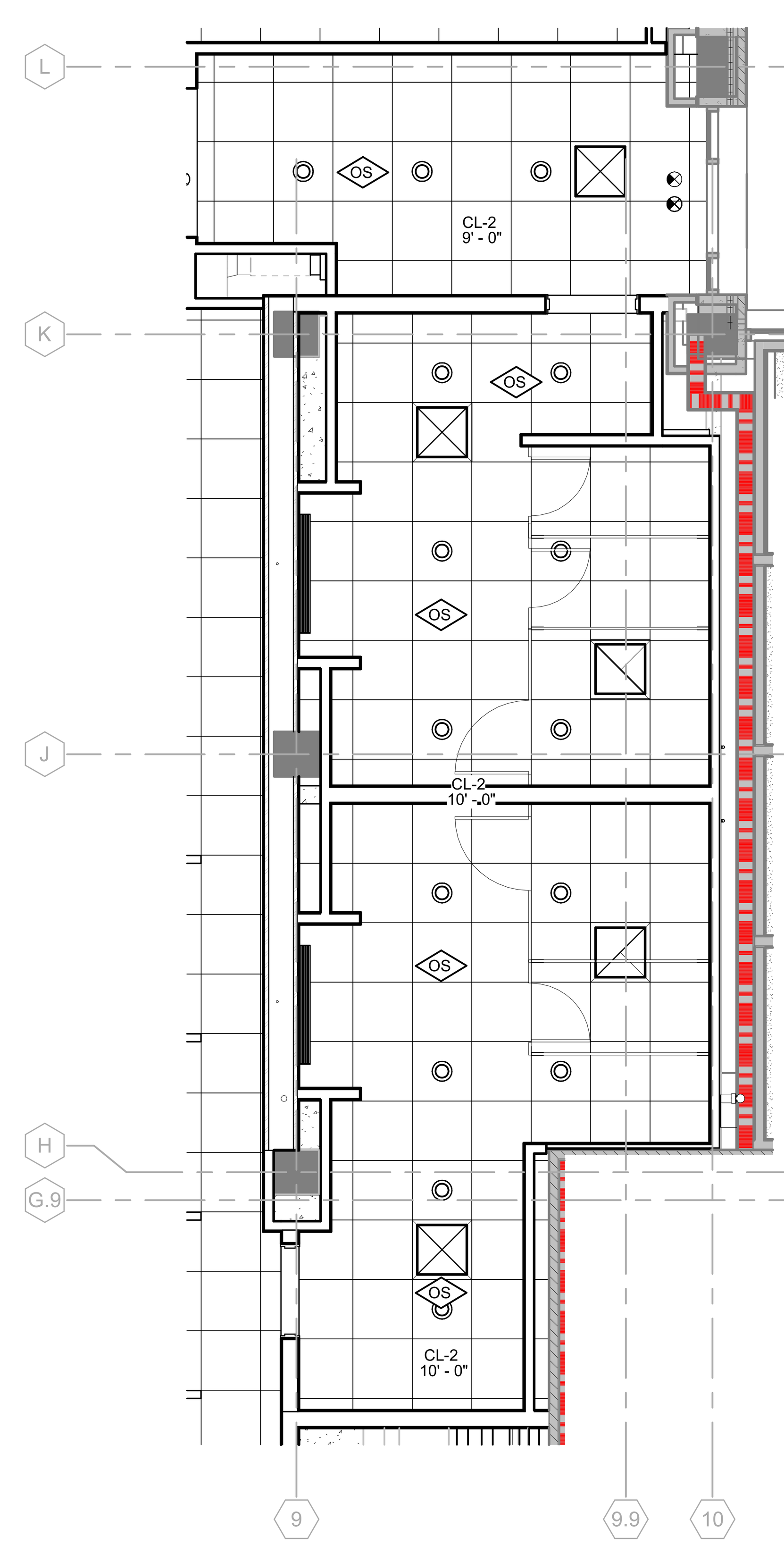
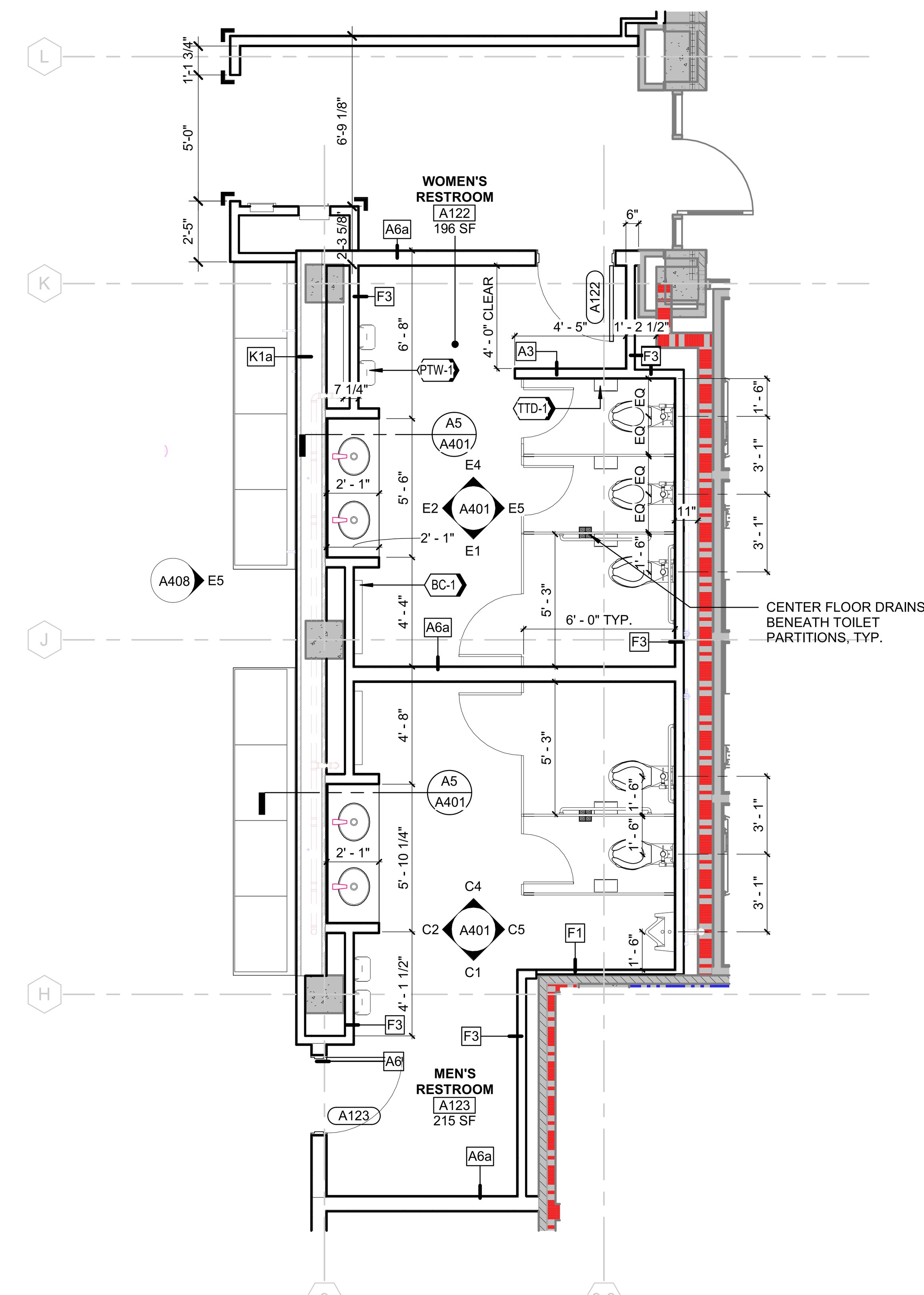


TYP. RESTROOM COUNTER A5
1" = 1'-0"



ENLARGED RCP (DINING RESTROOMS) A3
1/4" = 1'-0"



ENLARGED FLOOR PLAN (DINING RESTROOMS) A1
1/4" = 1'-0"

FLOOR PLAN GENERAL NOTES

A. DIMENSIONS ARE TO GRID LINE, FACE OF CONCRETE OR MASONRY, OR FACE OF FINISH WALL OR COLUMN, UNLESS OTHERWISE NOTED.

B. ANGLES SHOWN ON THE FLOOR PLANS ARE 90 DEGREES UNLESS OTHERWISE NOTED.

C. FURNITURE IS SHOWN FOR REFERENCE ONLY; REFER TO FURNITURE PLANS FOR COMPLETE SCOPE OF WORK.

D. WHERE NEW FLOOR DRAINS ARE SHOWN TO BE PROVIDED, INSTALL WITH TOP OF DRAIN FLUSH WITH, OR 1/8-INCH BELOW, FINISH SURFACE OF EXISTING CONCRETE FLOOR SLAB OR NEW FLOOR TILE.

E. COORDINATE FLOOR CORE DRILLING WITH EXISTING STRUCTURE.

F. PATCH AND LEVEL FLOOR SUBSTRATES TO RECEIVE NEW WORK AS SCHEDULED.

G. WHERE EXISTING CEILINGS ARE SHOWN TO REMAIN, REMOVE, SALVAGE AND REINSTALL CEILINGS AS REQUIRED TO ACCOMMODATE ABOVE-CEILING MEP WORK, PATCH AND REPAIR CEILINGS AS REQUIRED TO MATCH ADJACENT CONDITIONS.

H. PATCH WALLS AT REMOVED RECEPTACLE OPENINGS SO AS TO RECEIVE SUBSEQUENT WORK.

I. PATCH EXISTING FIRE-RATED FLOORS, WALLS & CEILINGS AS REQUIRED TO RESTORE OR MAINTAIN FIRE RATING. PROVIDE FIRESTOPPING AT PENETRATIONS, PROVIDE FIRE/SMOKE DAMPERS WHERE NEW DUCTS PENETRATE FIRE-RATED ASSEMBLIES.

J. PATCH EXISTING CONSTRUCTION SCHEDULED TO REMAIN. REPAIR SURFACES TO BE FLUSH WITH ADJACENT FINISH SURFACES. PATCH, SAND, AND TEXTURE EXISTING SURFACES TO SAME QUALITY AS NEW CONSTRUCTION PRIOR TO INSTALLING NEW FINISHES. REFER TO THE FINISH MANUFACTURER'S GUIDELINES FOR INSTALLATION.

K. REFER TO G003 FOR TYPICAL MOUNTING HEIGHTS AND LOCATIONS OF TOILET ACCESSORIES. TOILET PAPER DISPENSERS, PAPER TOWEL DISPENSERS, AND SOAP DISPENSERS ARE O.F.O.I.

L. EXISTING GRID LINES AND GRID DIMENSIONS ARE FOR REFERENCE ONLY.

M. PROVIDE 2"X2"X48" STAINLESS STEEL CORNER GUARDS FROM TOP OF WALL BASE AT EXPOSED VERTICAL CORNERS OF GYPSUM BOARD WALL, TYP.

RCP LEGEND

- AREAS NOT IN SCOPE
- GYPSUM CEILING ON METAL STUDS (CL-1)
- 2X2 ACOUSTICAL PANEL CEILING (CL-2) *MOISTURE RESISTANT WHERE DESIGNATED CL-2M
- 2X2 TECTUM CEILING (CL-3) COLOR 1
- 2X2 TECTUM CEILING (CL-3) COLOR 2
- WOOD CEILING (CL-4)
- RECESSED LINEAR LED LIGHT (TYPE 'B')
- LINEAR PENDANT DIRECT/INDIRECT (TYPE 'C')
- WALL-MOUNTED LINEAR LIGHT (TYPE 'D')
- RECESSED LINEAR LED LIGHT (TYPE 'E')
- SURFACE-MOUNTED LINEAR LED LIGHT (TYPE 'F')
- 6" RECESSED CAN LIGHT (TYPE 'H')
- HIGH CRI LIGHT - IN WOOD GRILLE (TYPE 'J')
- INDUSTRIAL STRIP LIGHT (TYPE 'K')
- DECORATIVE PENDANT LIGHT (TYPE 'P1')
- DECORATIVE PENDANT LIGHT (TYPE 'P2')
- 2X2 RECESSED TROFFER LIGHT (TYPE 'V')
- EDGE-LIT EXIT SIGN (TYPE 'X')
- SUPPLY DIFFUSER (2X2 TYPICAL)
- RETURN GRILLE (2X2 TYPICAL)
- LINEAR SUPPLY / RETURN (4' TYPICAL)
- RECESSED CEILING SPEAKER; REFER TO AV
- CEILING ACCESS PANEL; REFER TO C2/A500
- VS VACANCY SENSOR; REFER TO ELECTRICAL
- OS OCCUPANCY SENSOR; REFER TO ELECTRICAL

FLOOR PLAN LEGEND

- AREAS NOT IN SCOPE
- EXISTING WALL TO REMAIN; PROTECT IN PLACE
- EXISTING FIRE-RATED WALL TO REMAIN
- EXISTING DOOR, FRAME AND ASSOCIATED HARDWARE TO REMAIN; PROTECT IN PLACE
- NEW DOOR, FRAME AND ASSOCIATED HARDWARE
- NEW WALL CONSTRUCTION
- 1-HR FIRE BARRIER
- 2-HR FIRE BARRIER
- FLOOR DRAIN; REFER TO PLUMBING
- WALL BLOCKING

REGISTERED ARCHITECT · STATE OF TEXAS · 01.30.2025

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Office: 214.310.1018
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KERR HALL DINING RENOVATION

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Issue: ISSUE FOR CONSTRUCTION

Date: JANUARY 30, 2025

REVISIONS

NO	DESCRIPTION	DATE

A401

ENLARGED PLANS & INTERIOR ELEVATIONS

TreanorHL NO. HE0569.2302.01

KEYNOTES

028	EXISTING FLOOR-MOUNTED TOILET TO REMAIN
034	EXISTING WALL-MOUNTED SINK TO REMAIN
GB-36	STAINLESS STEEL GRAB BAR, 36"
GB-42	STAINLESS STEEL GRAB BAR, 42"
M-1	18"X36" STAINLESS STEEL CHANNEL FRAME MIRROR
PT-1	PAINT COLOR 1; REFER TO A700 FOR ADDITIONAL INFORMATION
PT-2	PAINT COLOR 2; REFER TO A700 FOR ADDITIONAL INFORMATION
PTW-1	PAPER TOWEL DISPENSER, OFOI
SD-1	SOAP DISPENSER, OFOI
TL-3	RESTROOM FLOOR TILE; REFER TO A700 FOR ADDITIONAL INFORMATION
TL-4	RESTROOM WALL TILE; REFER TO A700 FOR ADDITIONAL INFORMATION
TS-1	SCHLUTER JOLLY EDGE TRIM; REFER TO A700 FOR ADDITIONAL INFORMATION
TS-4	SCHLUTER SCHIENE; REFER TO A700 FOR ADDITIONAL INFORMATION

FLOOR PLAN GENERAL NOTES

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RCP LEGEND

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- **2X2 TECTUM CEILING** (CL-3) COLOR 1
- **2X2 TECTUM CEILING** (CL-3) COLOR 2
- **WOOD CEILING** (CL-4)
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- **LINEAR PENDANT DIRECT/INDIRECT** (TYPE 'C')
- **WALL-MOUNTED LINEAR LIGHT** (TYPE 'D')
- **RECESSED LINEAR LED LIGHT** (TYPE 'E')
- **SURFACE-MOUNTED LINEAR LED LIGHT** (TYPE 'F')
- **6" RECESSED CAN LIGHT** (TYPE 'H')
- **HIGH CRI LIGHT - IN WOOD GRILLE** (TYPE 'J')
- **INDUSTRIAL STRIP LIGHT** (TYPE 'K')
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- **SUPPLY DIFFUSER** (2X2 TYPICAL)
- **RETURN GRILLE** (2X2 TYPICAL)
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- **RECESSED CEILING SPEAKER**; REFER TO AV
- **CEILING ACCESS PANEL**; REFER TO C2/A500
- **VACANCY SENSOR**; REFER TO ELECTRICAL
- **OCCUPANCY SENSOR**; REFER TO ELECTRICAL

FLOOR PLAN LEGEND

- AREAS NOT IN SCOPE
- EXISTING WALL TO REMAIN; PROTECT IN PLACE
- EXISTING FIRE-RATED WALL TO REMAIN
- EXISTING DOOR, FRAME AND ASSOCIATED HARDWARE TO REMAIN; PROTECT IN PLACE
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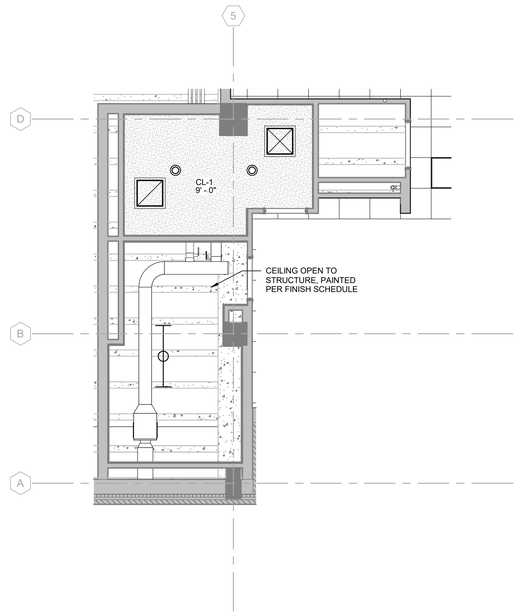
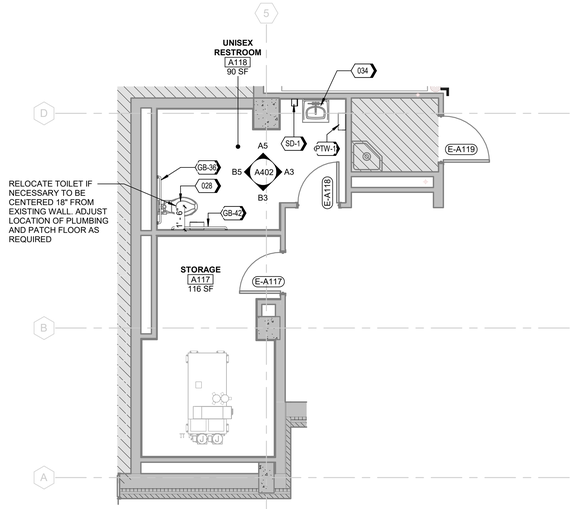
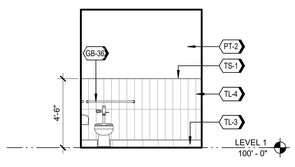
- NEW WALL CONSTRUCTION
- 1-HR FIRE BARRIER
- 2-HR FIRE BARRIER
- FLOOR DRAIN; REFER TO PLUMBING
- WALL BLOCKING



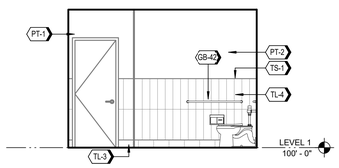
ENLARGED RCP (KITCHEN RESTROOMS) B1
1/4" = 1'-0"



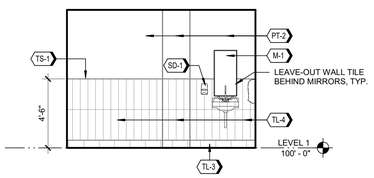
ENLARGED FLOOR PLAN (KITCHEN RESTROOMS) A1
1/4" = 1'-0"



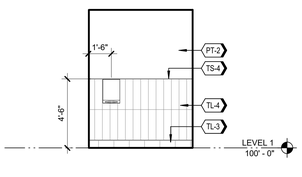
RESTROOM A118 - W B5
1/4" = 1'-0"



RESTROOM A118 - S B3
1/4" = 1'-0"



RESTROOM A118 - N A5
1/4" = 1'-0"



RESTROOM A118 - E A3
1/4" = 1'-0"

REGISTERED ARCHITECT
NADIA ZHIR
21737
STATE OF TEXAS
01.30.2025

TREANOR
2554 Elm Street, Suite 200
Dallas, TX 75226
Office: 214.310.1018
www.TreanorHL.com

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KERR HALL DINING RENOVATION
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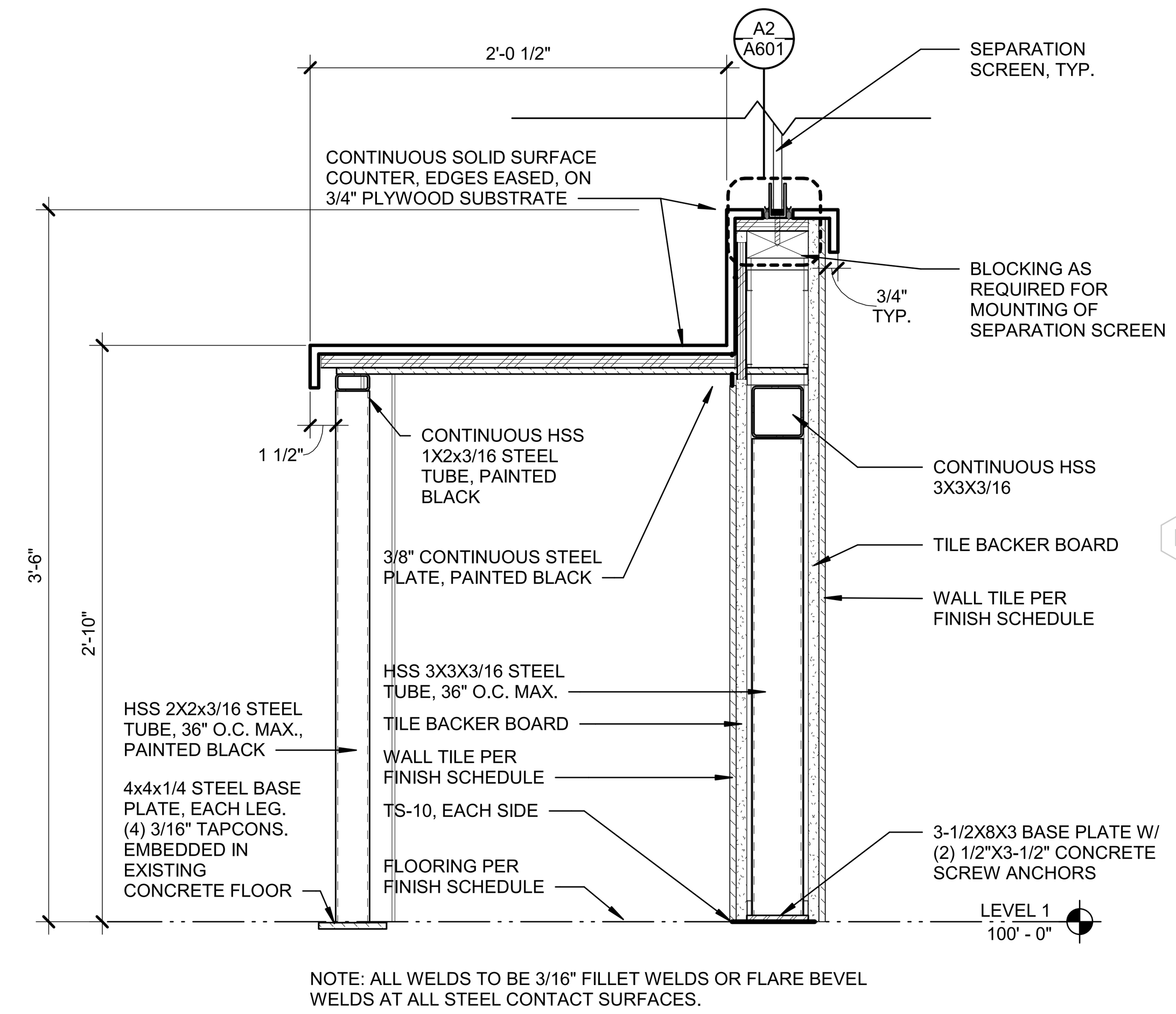
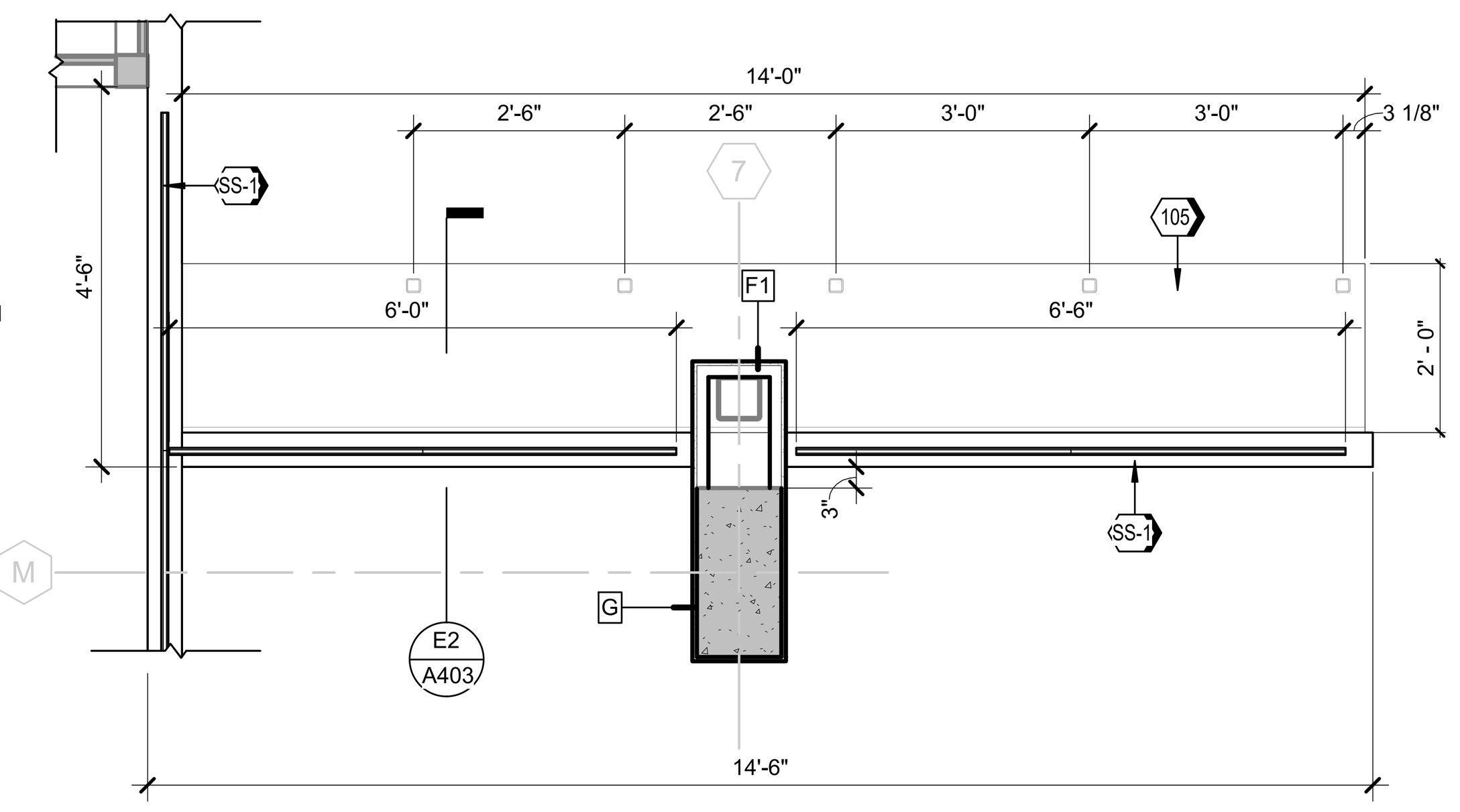
A402

ENLARGED PLANS & INTERIOR ELEVATIONS

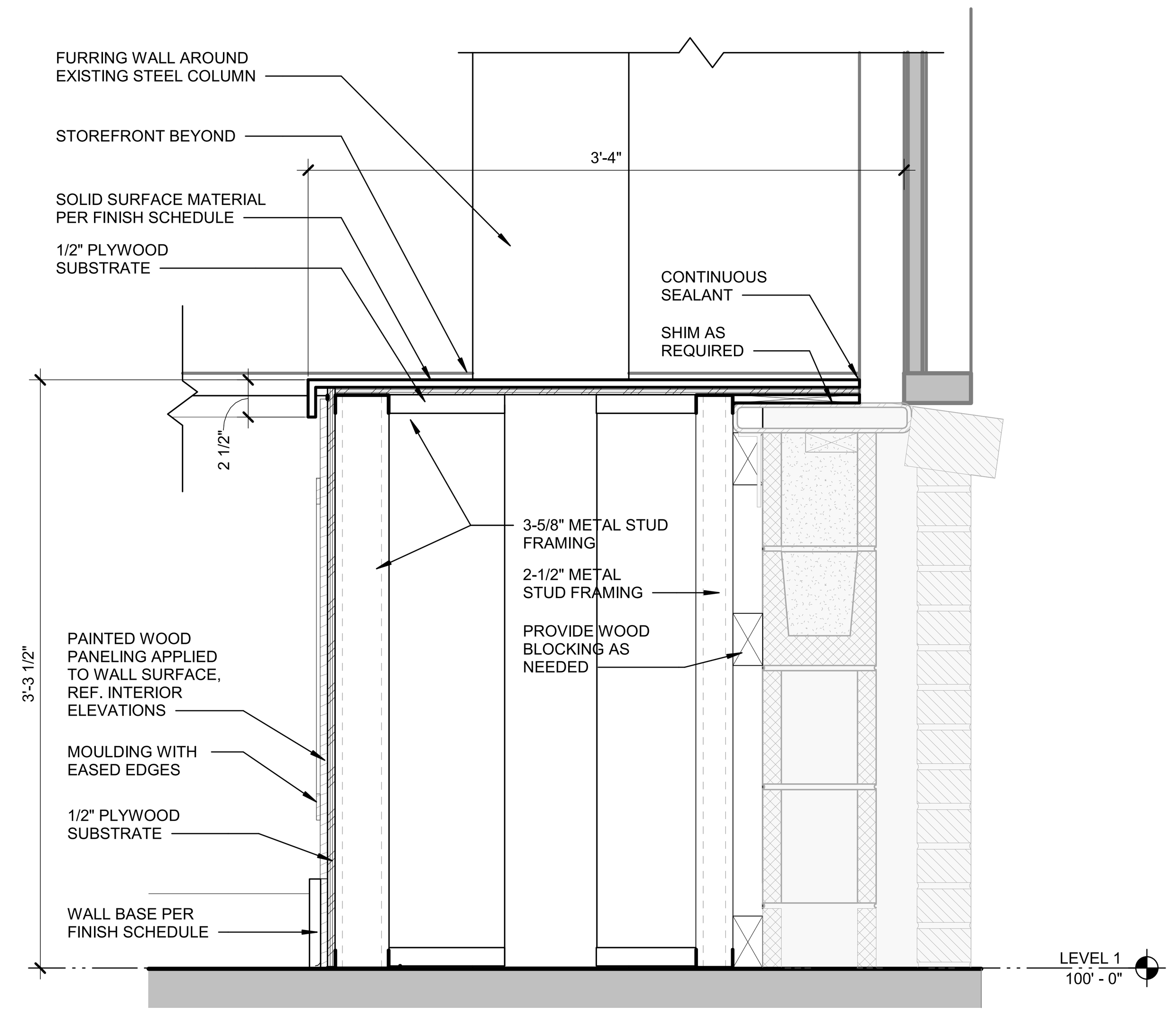
TreanorHL NO. HE0569.2302.01



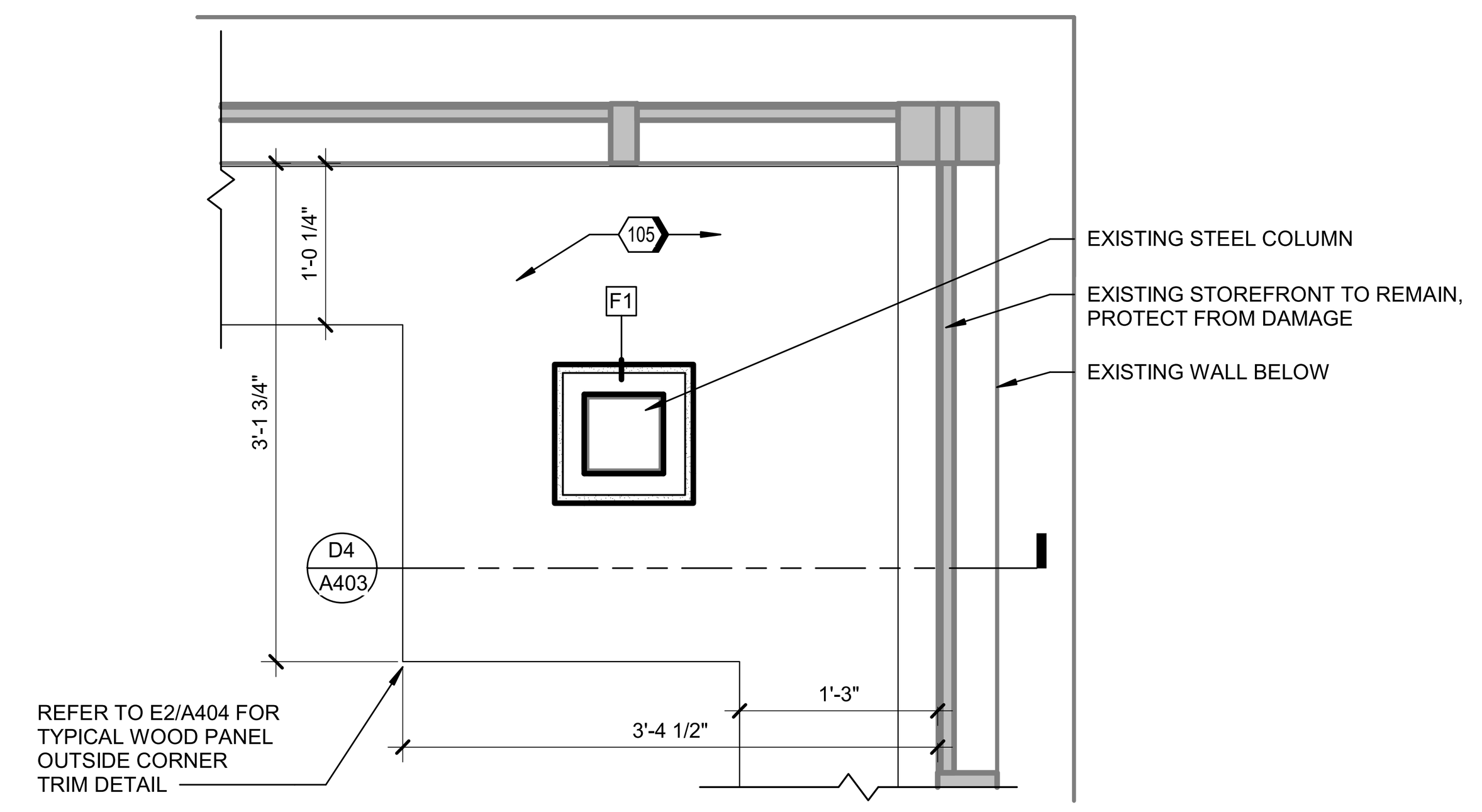
SINGLE COUNTER - DTL. A E2
1 1/2" = 1'-0"



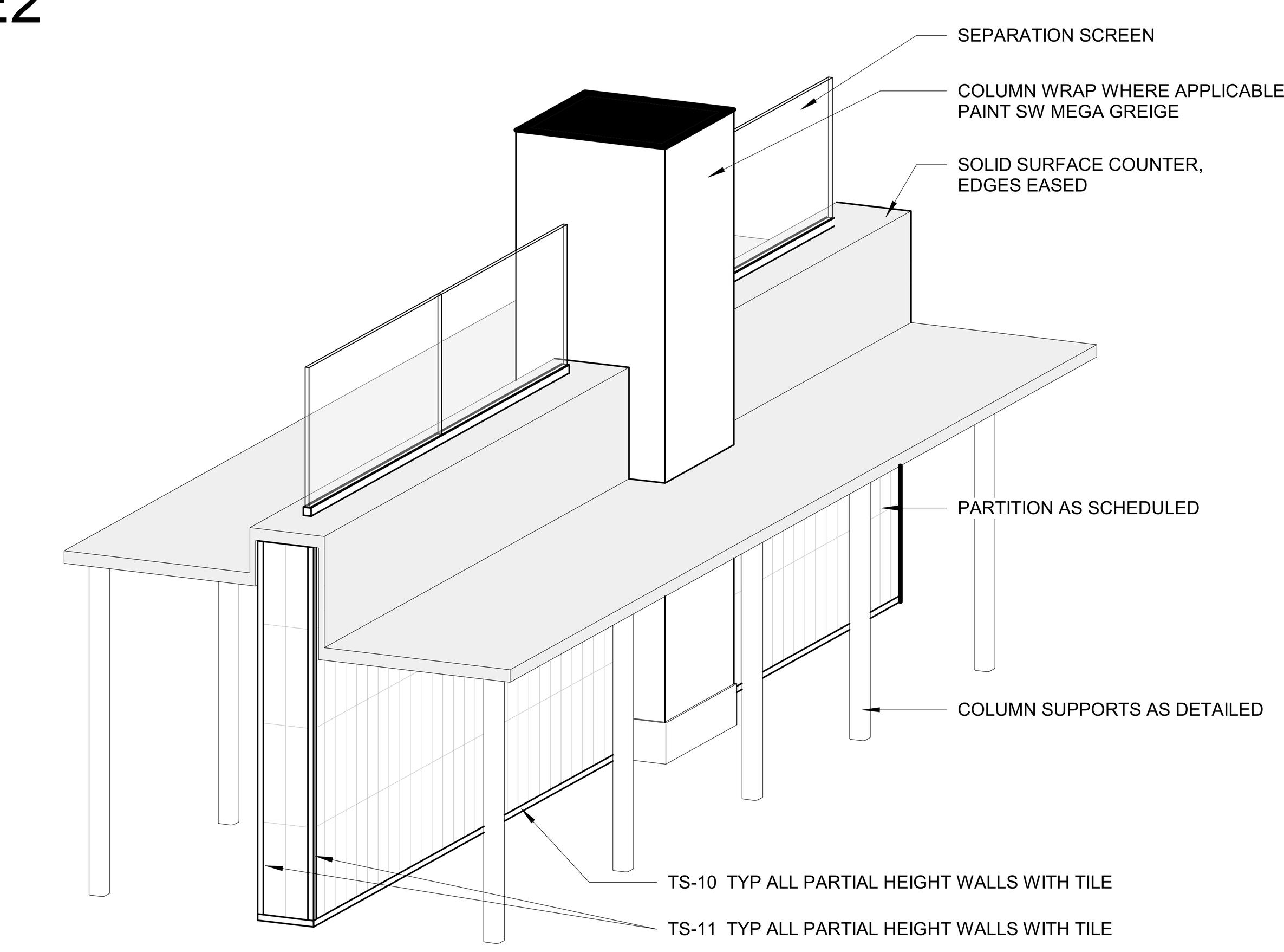
ENLARGED PLAN - SINGLE COUNTER E1
1/2" = 1'-0"



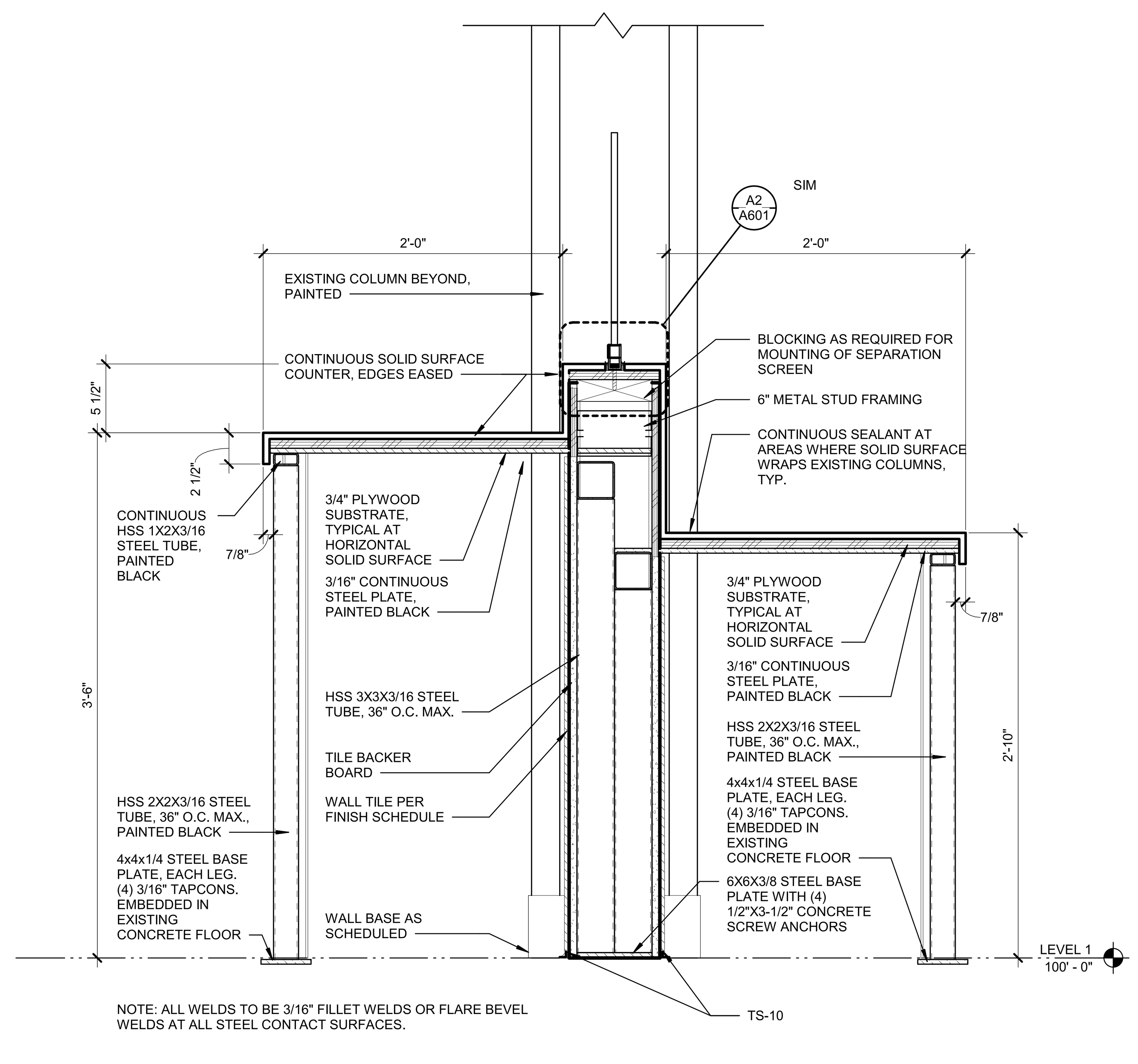
SECTION - WOOD PANEL COLUMN WRAP, TYP. D4
1 1/2" = 1'-0"



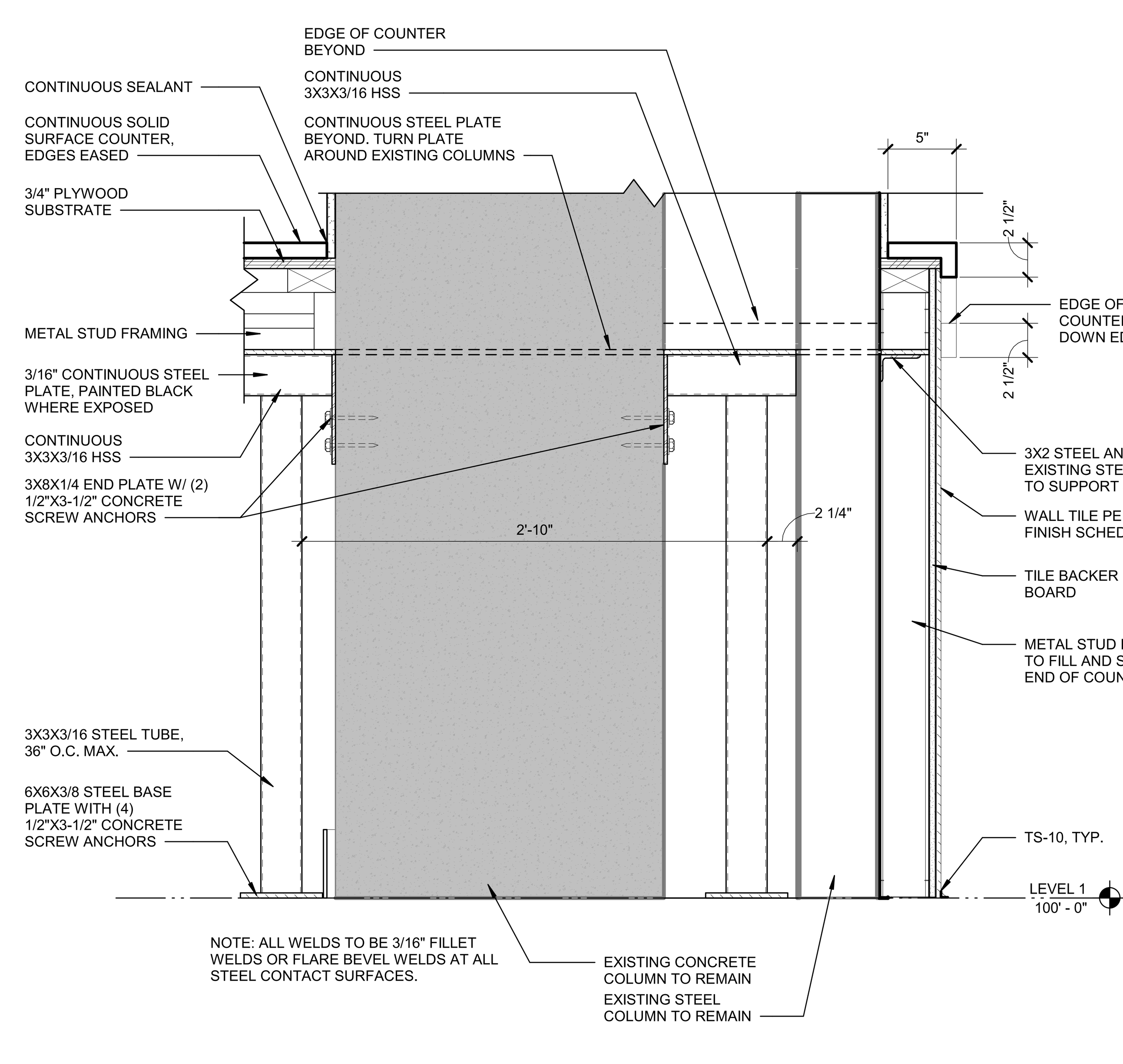
ENLARGED PLAN - WOOD PANEL COLUMN WRAP, TYP. D2
1" = 1'-0"



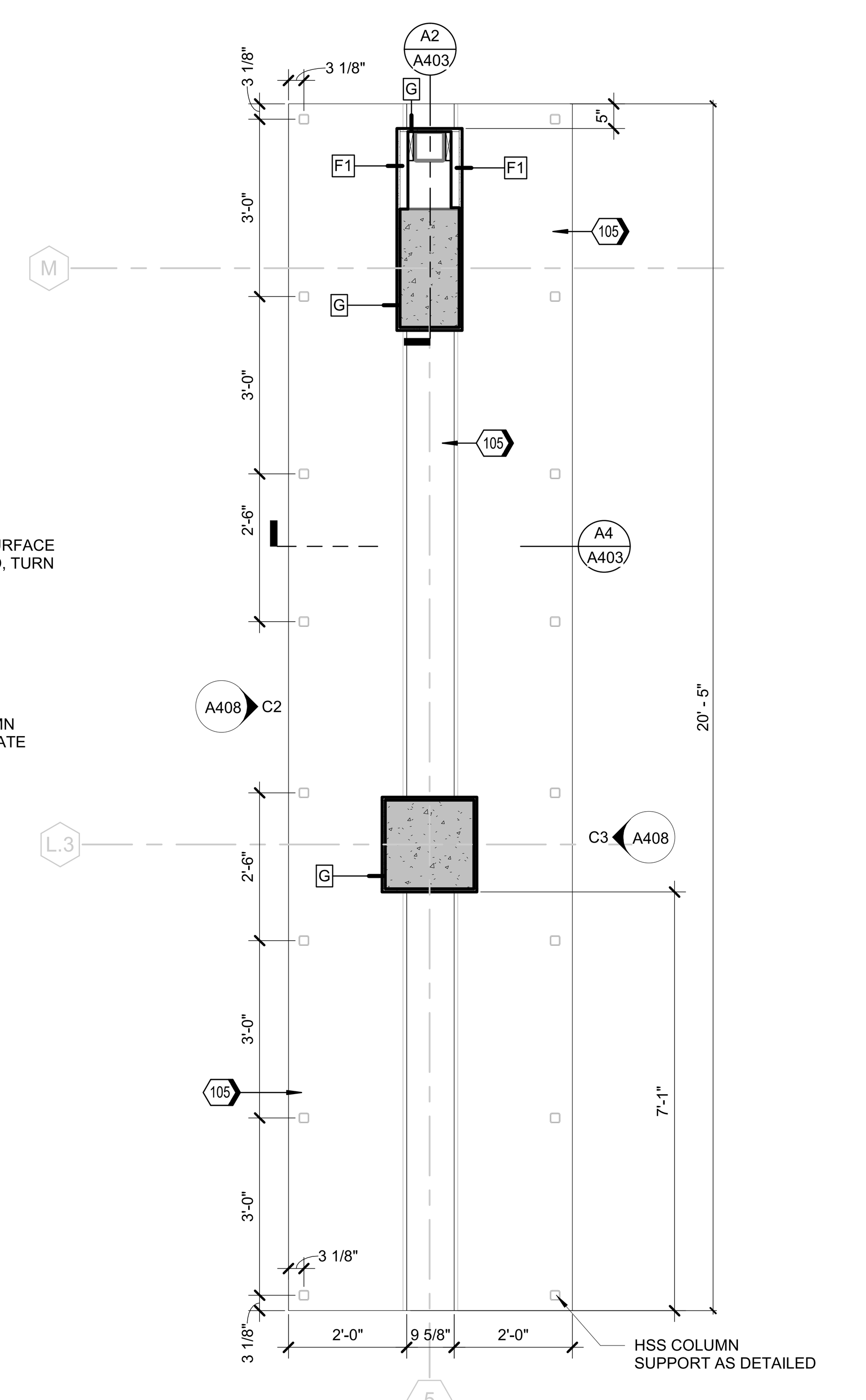
3D - BAR TO COUNTER HEIGHT TRANSITION, TYP. D1



BAR TO COUNTER - DTL. B A4
1 1/2" = 1'-0"



BAR TO COUNTER - DTL. A A2
1 1/2" = 1'-0"



ENLARGED PLAN - DINING BAR TO COUNTER A1
1/2" = 1'-0"

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ENLARGED PLAN & ELEVATION NOTES

105 COUNTER TOP
SS-1 STRATUS QUARTZ SOLID SURFACE COUNTERTOP; REFER TO A700 FOR ADDITIONAL INFORMATION

07.30.2025

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2554 Elm Street, Suite 200
Dallas, TX 75226
Office: 214.310.1018
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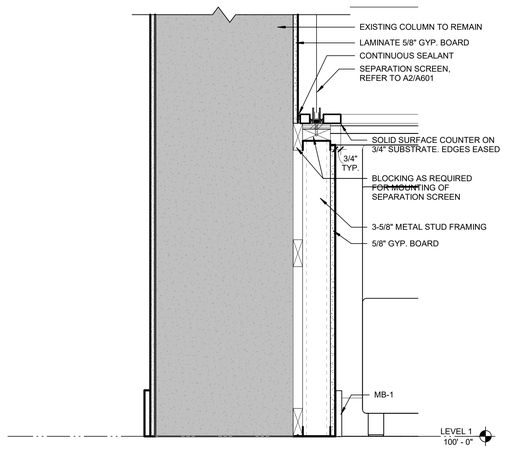
REVISIONS

NO	DESCRIPTION	DATE

A403

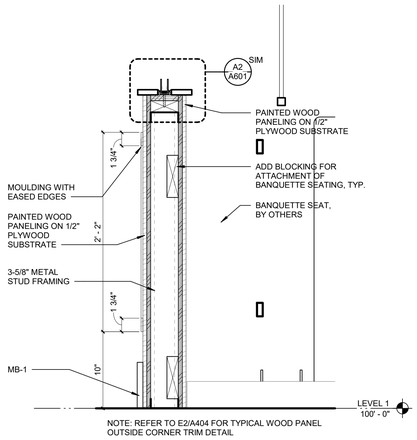
ENLARGED PLANS, INTERIOR ELEVATIONS, & DETAILS

TreanorHL NO. HE0569.2302.01



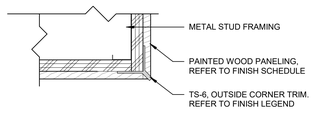
TYP. GYP COLUMN WRAP - DTL. A D5

1 1/2" = 1'-0"



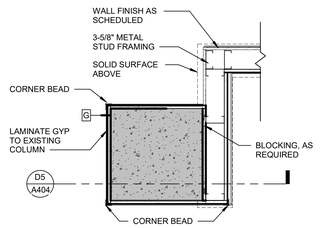
TYP. BANQUETTE BACK DTL. D4

1 1/2" = 1'-0"



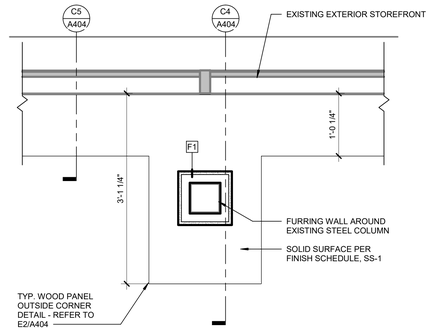
TYP. WOOD PANEL CORNER DETAIL E2

3" = 1'-0"



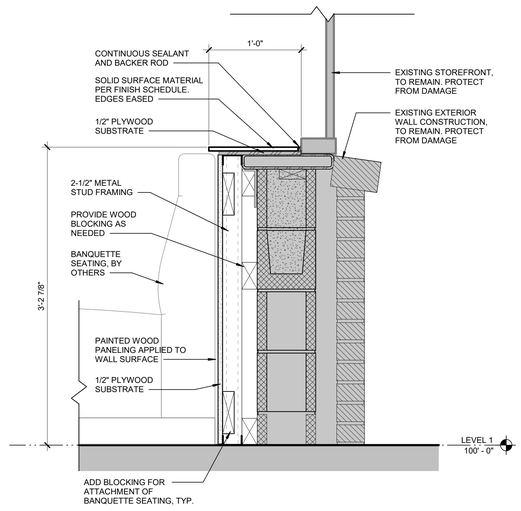
ENLARGED PLAN - TYPICAL GYP COLUMN WRAP D2

1" = 1'-0"



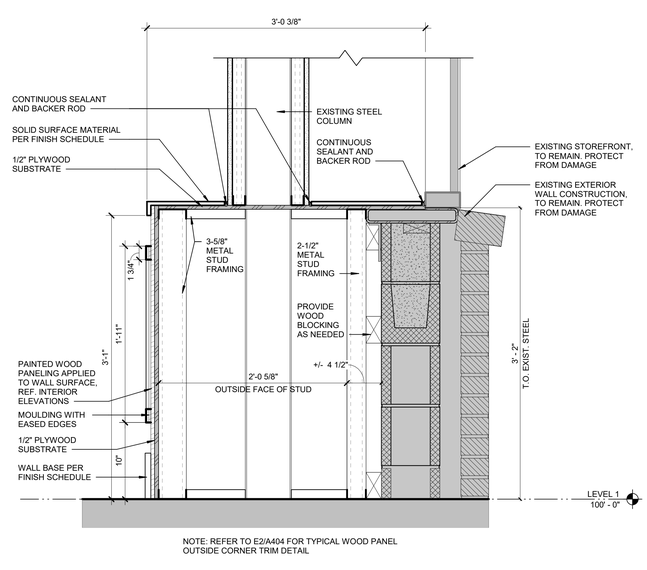
ENLARGED PLAN - TYP. WOOD PANEL COLUMN WRAP E1

1" = 1'-0"



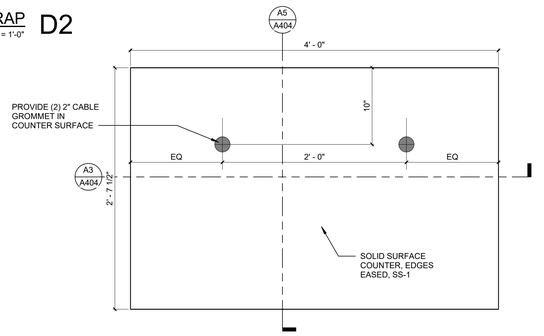
TYP. FURRING AT STOREFRONT C5

1 1/2" = 1'-0"



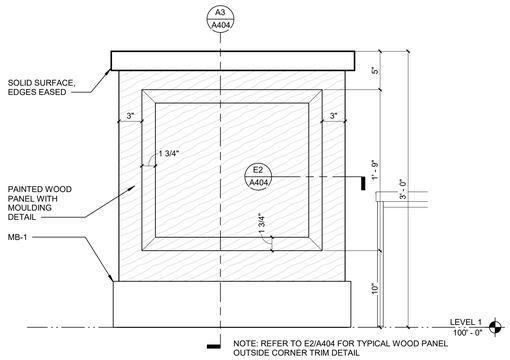
TYP. WOOD PANEL COLUMN WRAP SECTION C4

1 1/2" = 1'-0"



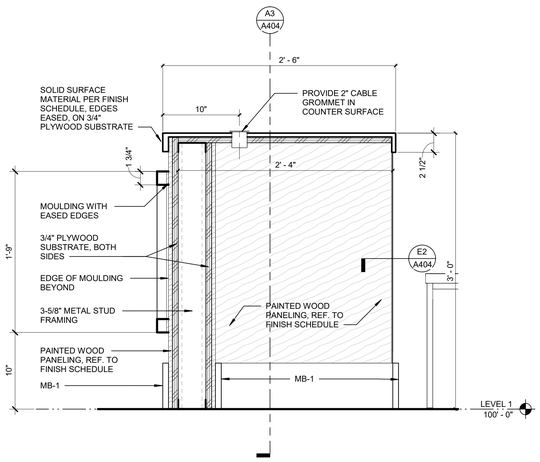
ENLARGED PLAN - POS MILLWORK D1

1 1/2" = 1'-0"



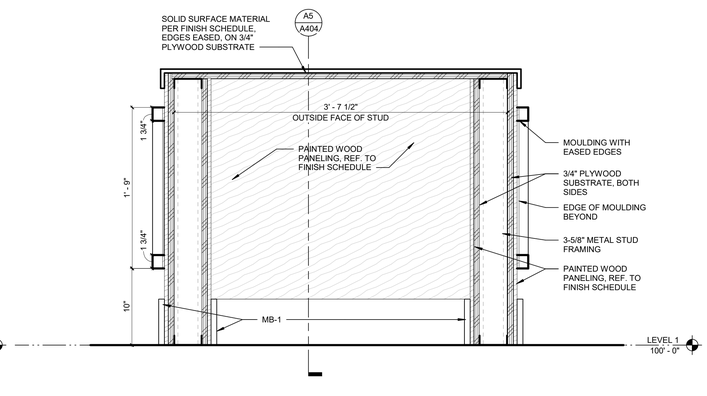
POS SIDE ELEVATION B1

1 1/2" = 1'-0"



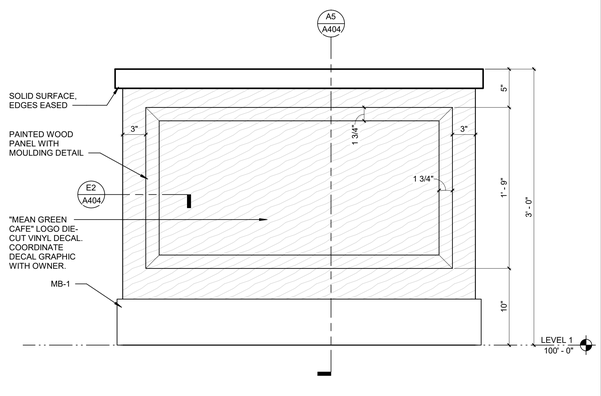
POS DTL. B A5

1 1/2" = 1'-0"



POS DTL. A A3

1 1/2" = 1'-0"



POS FRONT ELEVATION A1

1 1/2" = 1'-0"

FLOOR PLAN GENERAL NOTES

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B. ANGLES SHOWN ON THE FLOOR PLANS ARE 90 DEGREES UNLESS OTHERWISE NOTED.

C. FURNITURE IS SHOWN FOR REFERENCE ONLY; REFER TO FURNITURE PLANS FOR COMPLETE SCOPE OF WORK.

D. WHERE NEW FLOOR DRAINS ARE SHOWN TO BE PROVIDED, INSTALL WITH TOP OF DRAIN FLUSH WITH, OR 1/8-INCH BELOW, FINISH SURFACE OF EXISTING CONCRETE FLOOR SLAB OR NEW FLOOR TILE.

E. COORDINATE FLOOR CORE DRILLING WITH EXISTING STRUCTURE.

F. PATCH AND LEVEL FLOOR SUBSTRATES TO RECEIVE NEW WORK AS SCHEDULED.

G. WHERE EXISTING CEILINGS ARE SHOWN TO REMAIN, REMOVE, SALVAGE AND REINSTALL CEILINGS AS REQUIRED TO ACCOMMODATE ABOVE-CEILING MEP WORK. PATCH AND REPAIR CEILINGS AS REQUIRED TO MATCH ADJACENT CONDITIONS.

H. PATCH WALLS AT REMOVED RECEPTACLE OPENINGS SO AS TO RECEIVE SUBSEQUENT WORK.

I. PATCH EXISTING FIRE-RATED FLOORS, WALLS & CEILINGS AS REQUIRED TO RESTORE OR MAINTAIN FIRE RATING. PROVIDE FIRESTOPPING AT PENETRATIONS. PROVIDE FIRE/SMOKE DAMPERS WHERE NEW DUCTS PENETRATE FIRE-RATED ASSEMBLIES.

J. PATCH EXISTING CONSTRUCTION SCHEDULED TO REMAIN. REPAIR SURFACES TO BE FLUSH WITH ADJACENT FINISH SURFACES. PATCH, SAND, AND TEXTURE EXISTING SURFACES TO SAME QUALITY AS NEW CONSTRUCTION PRIOR TO INSTALLING NEW FINISHES. REFER TO THE FINISH MANUFACTURER'S GUIDELINES FOR INSTALLATION.

K. REFER TO G003 FOR TYPICAL MOUNTING HEIGHTS AND LOCATIONS OF TOILET ACCESSORIES. TOILET PAPER DISPENSERS, PAPER TOWEL DISPENSERS, AND SOAP DISPENSERS ARE O.F.O.I.

L. EXISTING GRID LINES AND GRID DIMENSIONS ARE FOR REFERENCE ONLY.

M. PROVIDE 2"X2"X48" STAINLESS STEEL CORNER GUARDS FROM TOP OF WALL BASE AT EXPOSED VERTICAL CORNERS OF GYPSUM BOARD WALL, TYP.

ENLARGED PLAN & ELEVATION NOTES

REGISTERED ARCHITECT
MADIA ZAHRA
21737
STATE OF TEXAS
01.30.2025

TREANOR
2554 Elm Street, Suite 200
Dallas, Texas 75226
Office: 214.310.1018
www.TreanorHL.com

UNIVERSITY OF NORTH TEXAS
KERR HALL DINING RENOVATION
1413 West Maple St
Denton, TX 76201

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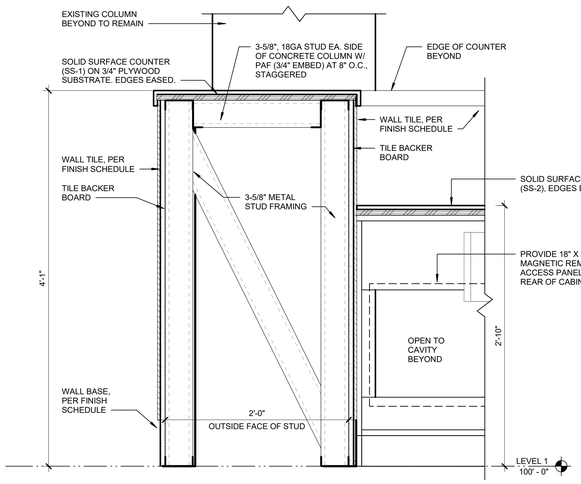
REVISIONS

NO	DESCRIPTION	DATE

A404

ENLARGED PLANS, INTERIOR ELEVATIONS, & DETAILS

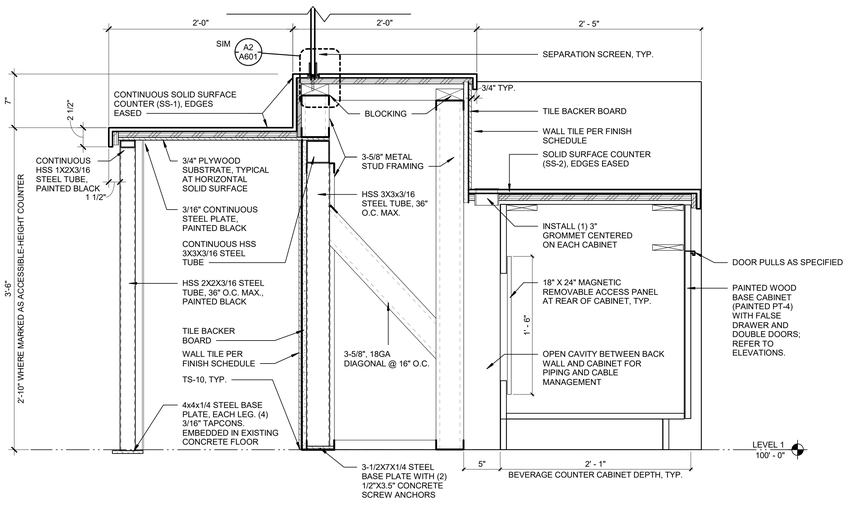
TreanorHL NO. HE0569.2302.01



NOTE: ALL WELDS TO BE 3/16" FILLET WELDS OR FLARE BEVEL WELDS AT ALL STEEL CONTACT SURFACES.

COUNTER DETAIL E4

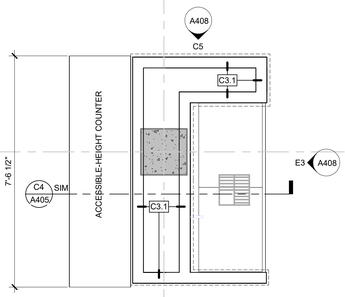
1 1/2" = 1'-0"



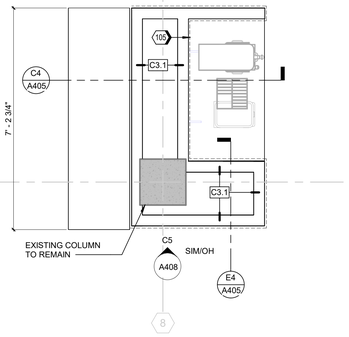
NOTE: ALL WELDS TO BE 3/16" FILLET WELDS OR FLARE BEVEL WELDS AT ALL STEEL CONTACT SURFACES.

THROUGH BEVERAGE BAR & COUNTER C4

1 1/2" = 1'-0"

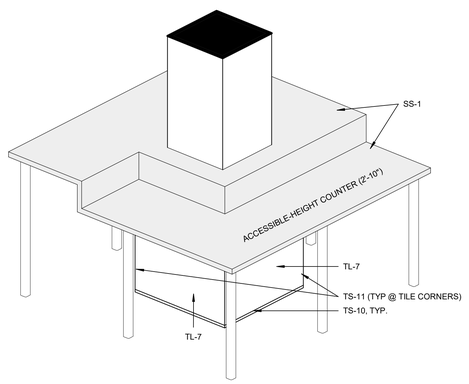


COUNTERTOP DEPICTED TRANSPARENT TO SHOW PARTITIONS BELOW



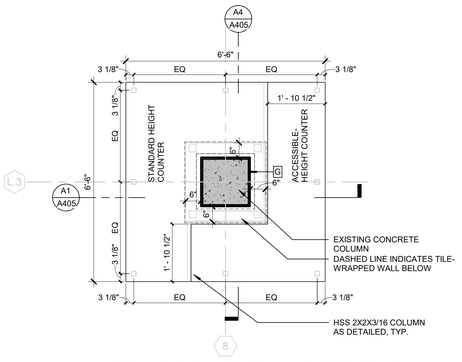
ENLARGED PLAN - BEVERAGE BAR & COUNTER C3

1/2" = 1'-0"



3D - BAR TO ACCESSIBLE-HEIGHT TIERED COUNTER E1

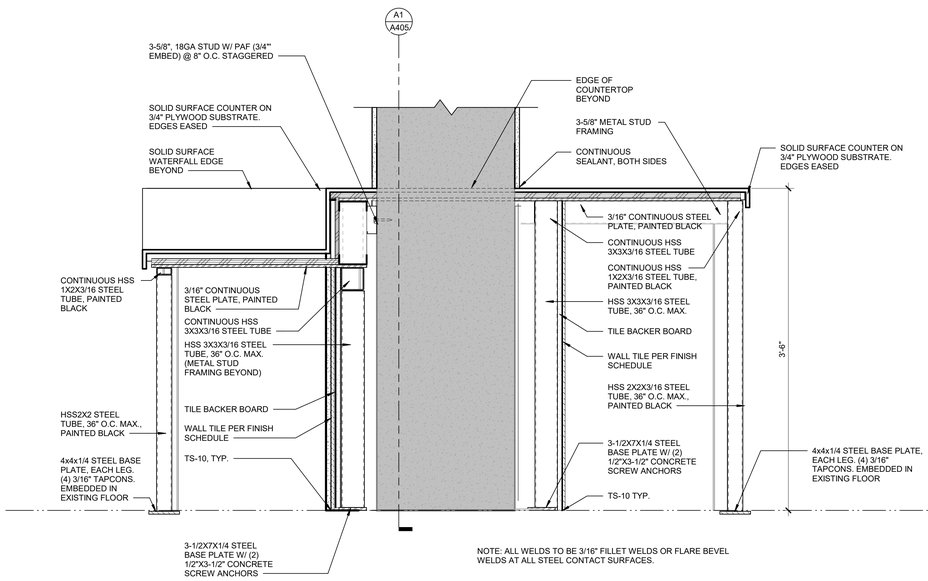
FOR REFERENCE ONLY - REFER TO C1/A405



COUNTERTOP DEPICTED AS TRANSPARENT TO SHOW COLUMNS BELOW

ENLARGED PLAN - TIERED COUNTER C1

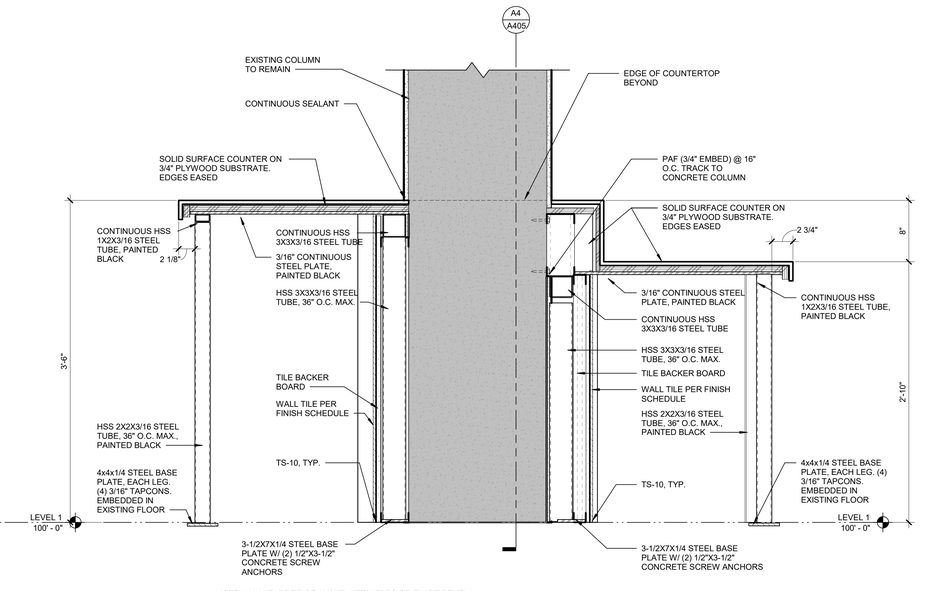
1/2" = 1'-0"



NOTE: ALL WELDS TO BE 3/16" FILLET WELDS OR FLARE BEVEL WELDS AT ALL STEEL CONTACT SURFACES.

TIERED COUNTER DTL. A A4

1 1/2" = 1'-0"



NOTE: ALL WELDS TO BE 3/16" FILLET WELDS OR FLARE BEVEL WELDS AT ALL STEEL CONTACT SURFACES.

TIERED COUNTER DTL. B A1

1 1/2" = 1'-0"

FLOOR PLAN GENERAL NOTES

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ENLARGED PLAN & ELEVATION NOTES

105 COUNTER TOP

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MADIA ZAHRA
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Dallas, TX 75226
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ENLARGED PLANS, INTERIOR ELEVATIONS, & DETAILS

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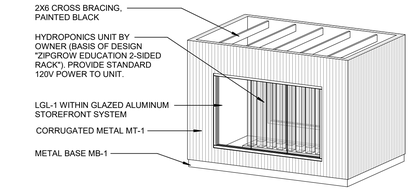
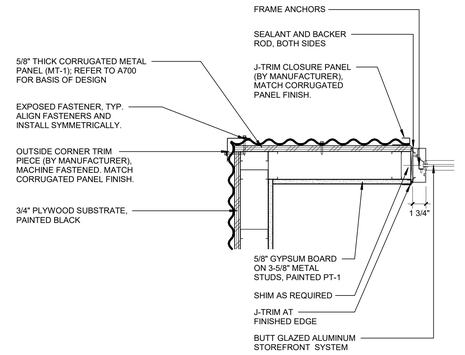
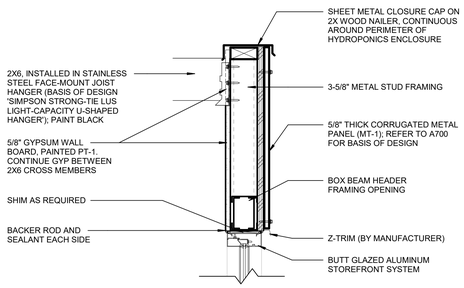


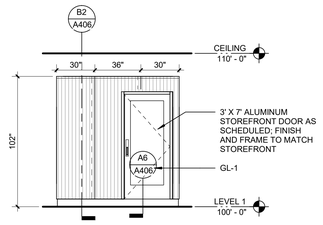
3D VIEW - HYDROPONICS ENCLOSURE D1



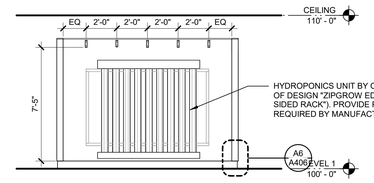
HYDROPONICS PLAN/JAMB DETAIL C1
1 1/2" = 1'-0"



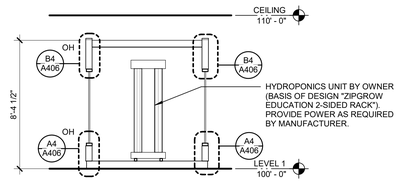
HYDROPONICS HEAD DETAIL (AT GLAZING) B4
1 1/2" = 1'-0"



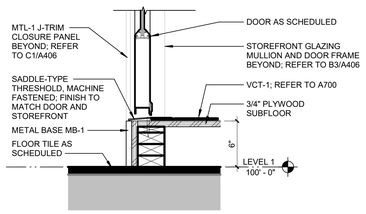
LEFT ELEVATION - HYDROPONICS B3
1/4" = 1'-0"



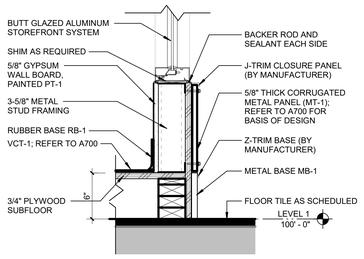
HYDROPONICS LONGITUDINAL SECTION B2
1/4" = 1'-0"



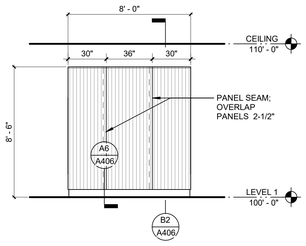
HYDROPONICS CROSS SECTION B1
1/4" = 1'-0"



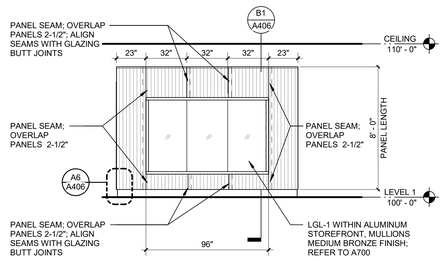
SILL - HYDROPONICS DOOR A6
1 1/2" = 1'-0"



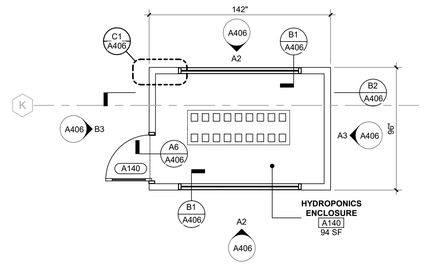
HYDROPONICS SILL DETAIL (AT GLAZING) A4
1 1/2" = 1'-0"



RIGHT ELEVATION - HYDROPONICS A3
1/4" = 1'-0"



FRONT/REAR ELEVATION - HYDROPONICS A2
1/4" = 1'-0"



ENLARGED FLOOR PLAN - HYDROPONICS A1
1/4" = 1'-0"

TREANOR
2554 Elm Street, Suite 200
Dallas, TX 75226
Office: 214.310.1018
www.TreanorHL.com

UNIVERSITY OF NORTH TEXAS
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A406

ENLARGED PLANS, INTERIOR ELEVATIONS, & DETAILS

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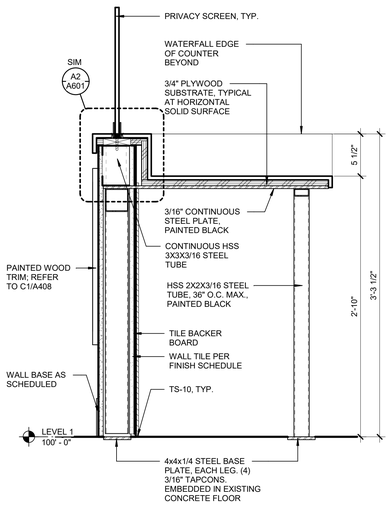
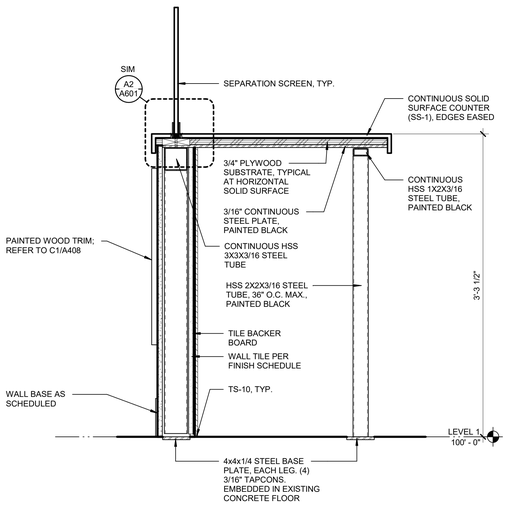
01.30.2025



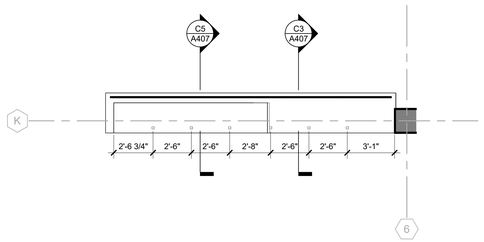
SECTION - TIERED COUNTER SEATING 2 C5

1 1/2" = 1'-0"



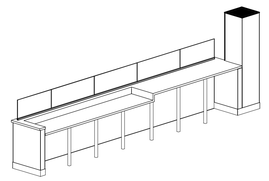
SECTION - TIERED COUNTER SEATING 1 C3

1 1/2" = 1'-0"

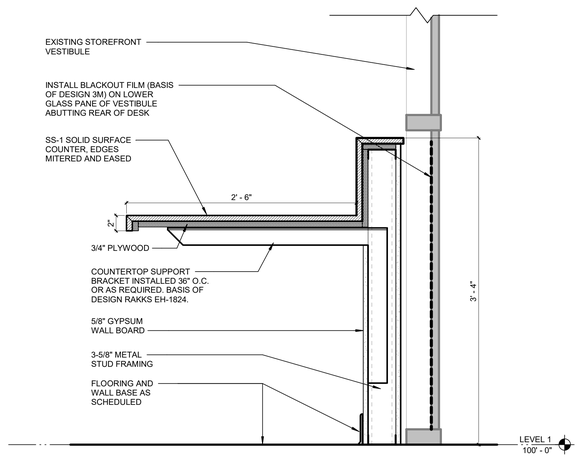


ENLARGED PLAN - TIERED COUNTER SEATING C2

1/4" = 1'-0"

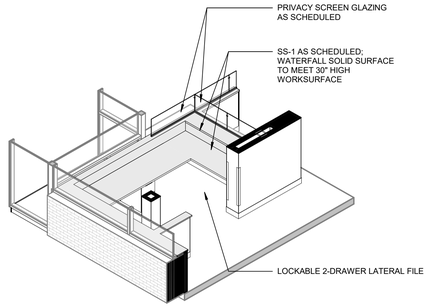


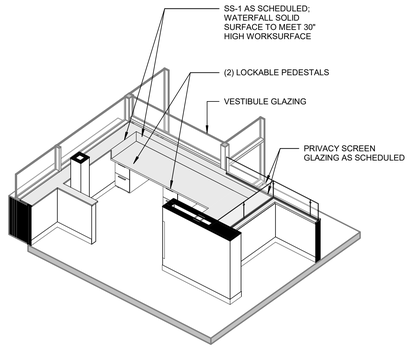
3D - TIERED COUNTER SEATING C1



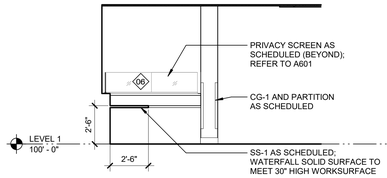
SECTION DETAIL - MANAGER'S DESK B4

1 1/2" = 1'-0"



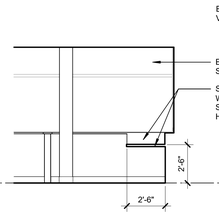


3D VIEWS - MANAGER'S DESK B1



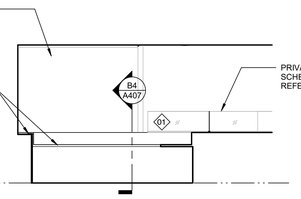
MANAGER'S DESK - SOUTH A4

1/4" = 1'-0"



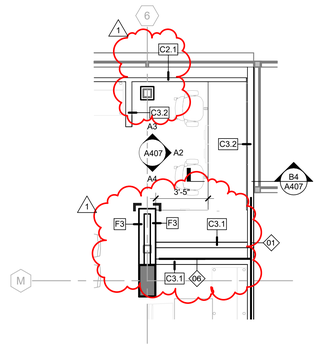
MANAGER'S DESK - NORTH A3

1/4" = 1'-0"



MANAGER'S DESK - EAST A2

1/4" = 1'-0"



ENLARGED PLAN - MANAGER'S DESK A1

1/4" = 1'-0"

REGISTERED ARCHITECT
NADIA ZAIDI
21737
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TREANOR
2554 Elm Street, Suite 200
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1	ADDENDUM 2	05.23.25

A407

ENLARGED PLANS, INTERIOR ELEVATIONS, & DETAILS

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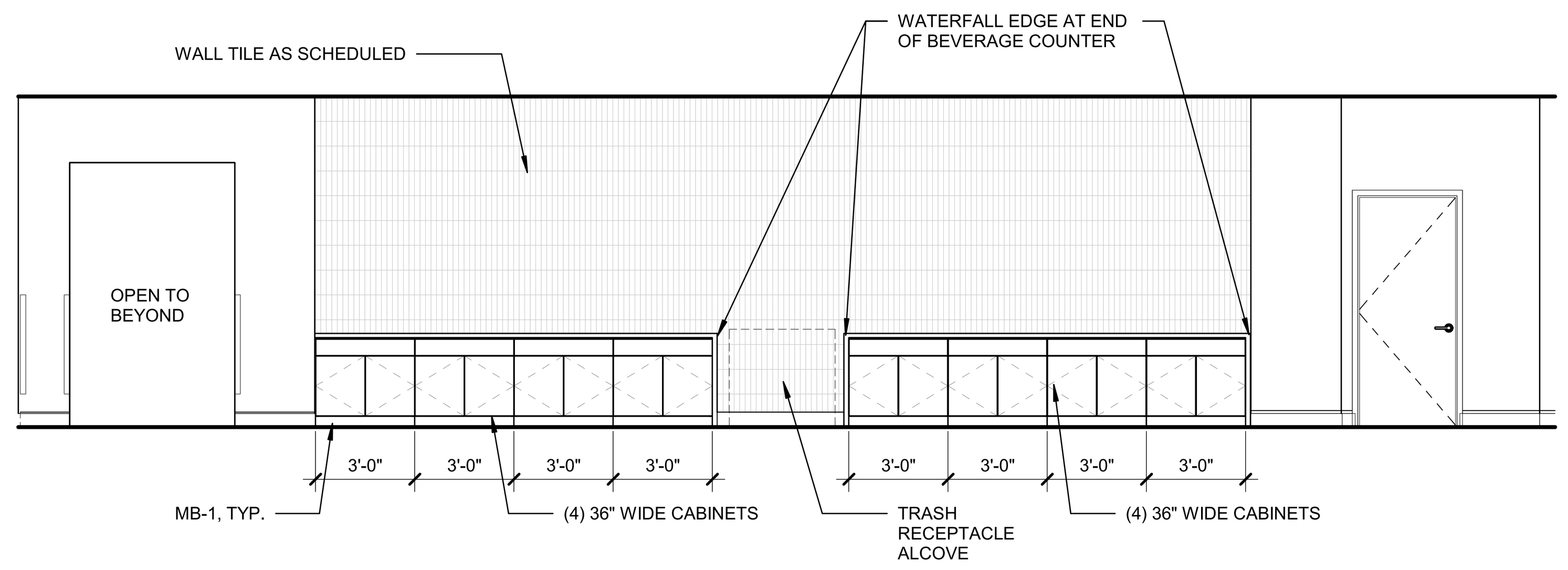
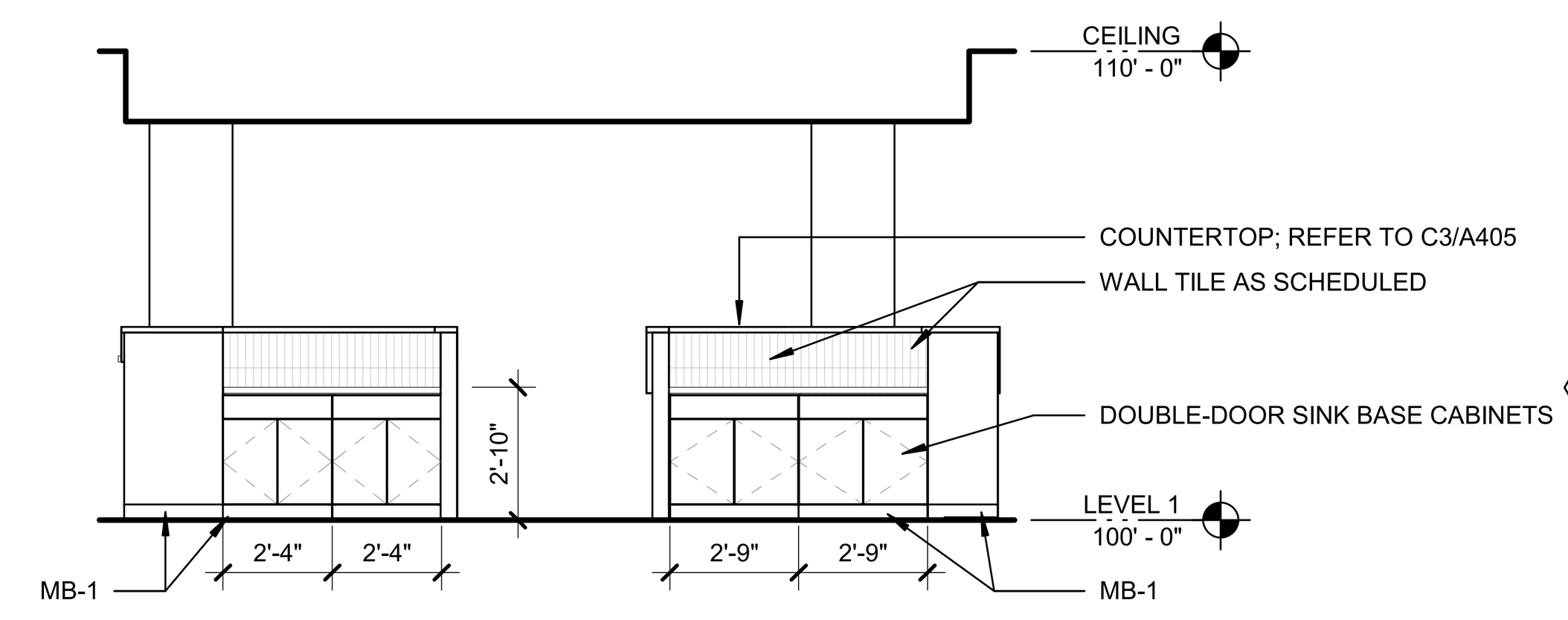
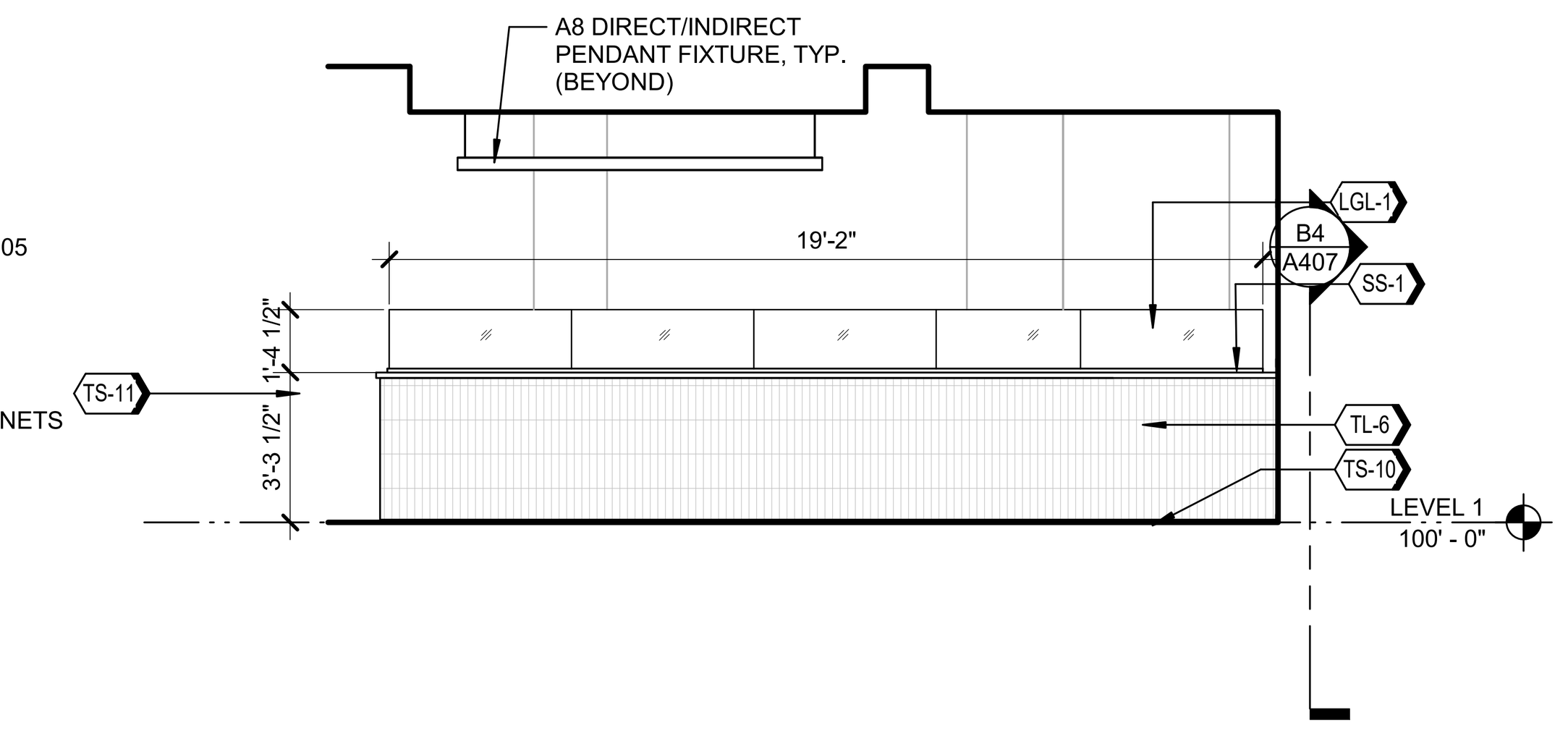


INTERIOR ELEVATION - BEVERAGE COUNTER E5
1/4" = 1'-0"



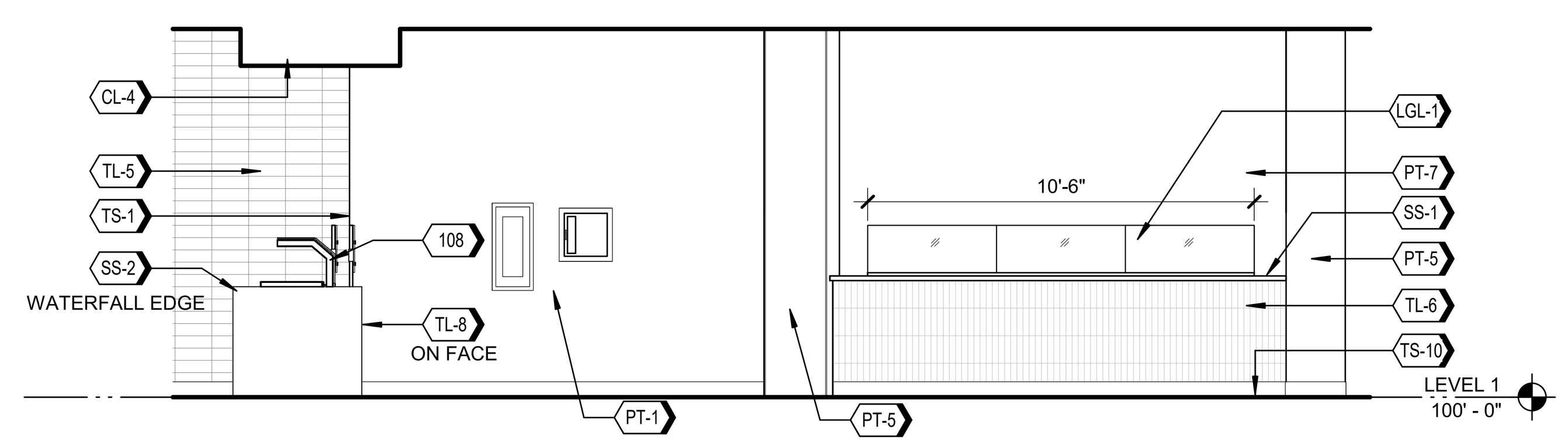
INTERIOR ELEVATION - BEVERAGE COUNTER E3
1/4" = 1'-0"



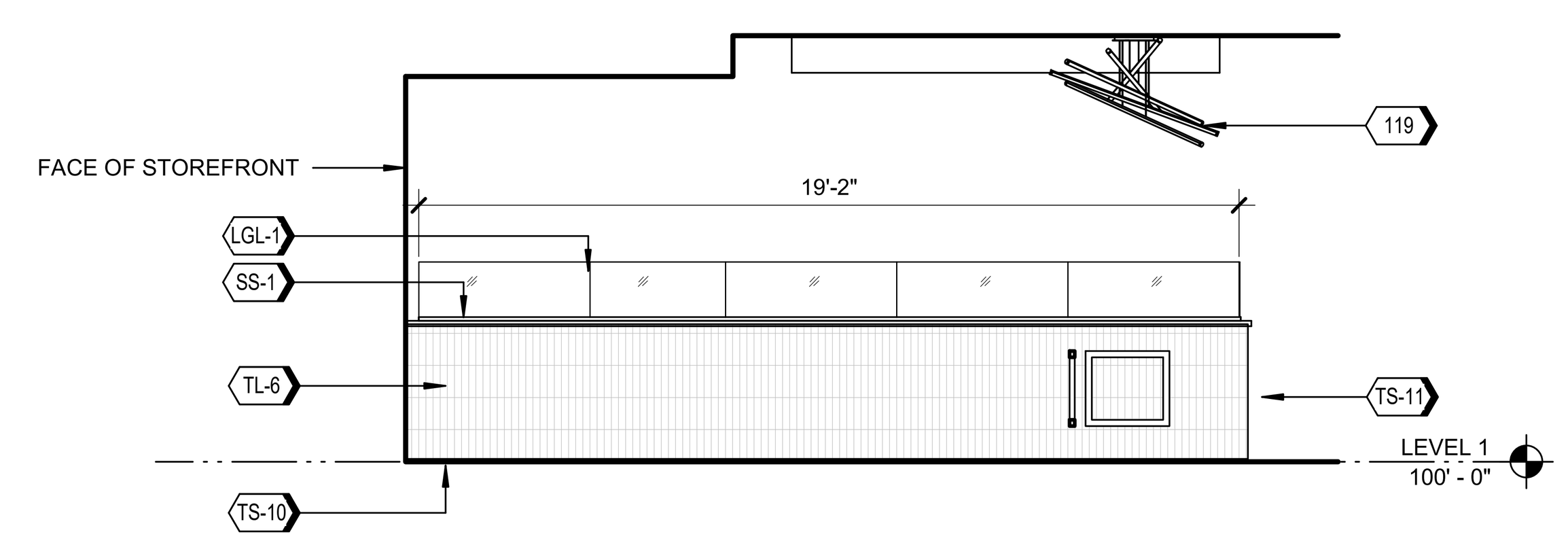
INTERIOR ELEVATION - PONY WALL AT ENTRY (WEST) E1
1/4" = 1'-0"

KEYNOTES

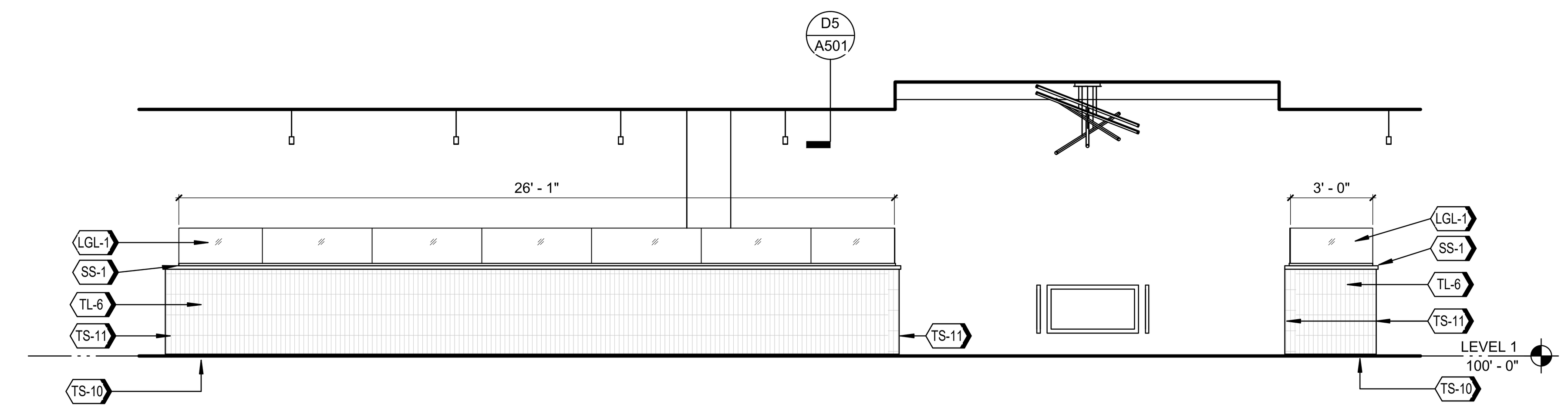
108	SERVERY EQUIPMENT AND COUNTER, BY OTHERS; REFER TO FOODSERVICE EQUIPMENT DRAWINGS FOR ADDITIONAL INFORMATION
119	DECORATIVE PENDANT LIGHT FIXTURE (BASIS OF DESIGN PURE EDGE PIX STIX PIPELINE); REFER TO ELECTRICAL
CL-4	DECORATIVE WOOD CEILING; REFER TO A700 FOR ADDITIONAL INFORMATION
LGL-1	LAMINATED VISION GLAZING; REFER TO A700 FOR ADDITIONAL INFORMATION
MB-1	METAL WALL BASE; REFER TO A700 FOR ADDITIONAL INFORMATION
PT-1	PAINT COLOR 1; REFER TO A700 FOR ADDITIONAL INFORMATION
PT-5	PAINT COLOR 5; REFER TO A700 FOR ADDITIONAL INFORMATION
PT-7	PAINT COLOR 7; REFER TO A700 FOR ADDITIONAL INFORMATION
RB-1	4" RUBBER BASE, TYP. REFER TO A700 FOR ADDITIONAL INFORMATION
SS-1	STRATUS QUARTZ SOLID SURFACE COUNTERTOP; REFER TO A700 FOR ADDITIONAL INFORMATION
SS-2	CAMBRIA FIELDSTONE QUARTZ; REFER TO A700 FOR ADDITIONAL INFORMATION
TL-5	SERVERY WALL TILE; REFER TO A700 FOR ADDITIONAL INFORMATION
TL-6	ACCENT WALL TILE; REFER TO A700 FOR ADDITIONAL INFORMATION
TL-7	ACCENT WALL TILE; REFER TO A700 FOR ADDITIONAL INFORMATION
TL-8	ACCENT WALL TILE; REFER TO A700 FOR ADDITIONAL INFORMATION
TL-10	TILE 10; REFER TO A700 FOR ADDITIONAL INFORMATION
TS-1	SCHLUTER JOLLY EDGE TRIM; REFER TO A700 FOR ADDITIONAL INFORMATION
TS-10	SCHLUTER DILEX-AHK COVE PROFILE AT FLOOR/WALL TRANSITION; REFER TO A700 FOR ADDITIONAL INFORMATION
TS-11	SCHLUTER QUADEC OUTSIDE CORNER; REFER TO A700 FOR ADDITIONAL INFORMATION
WD-1	PAINTED WOOD PANELING; REFER TO A700 FOR ADDITIONAL INFORMATION



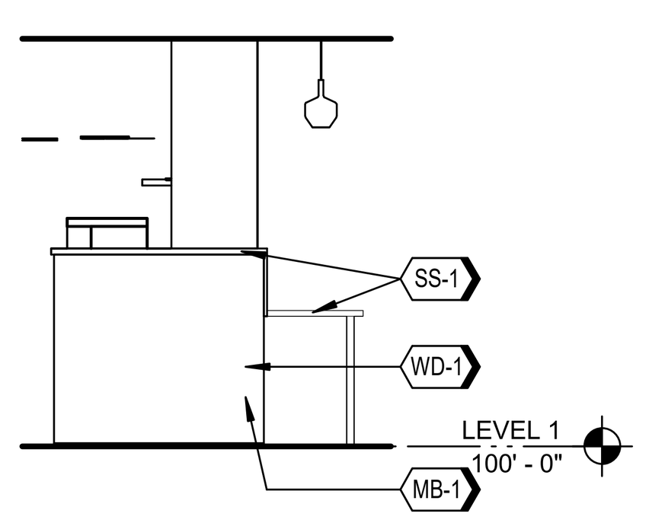
PONY WALL AT SERVING LINE D5
1/4" = 1'-0"



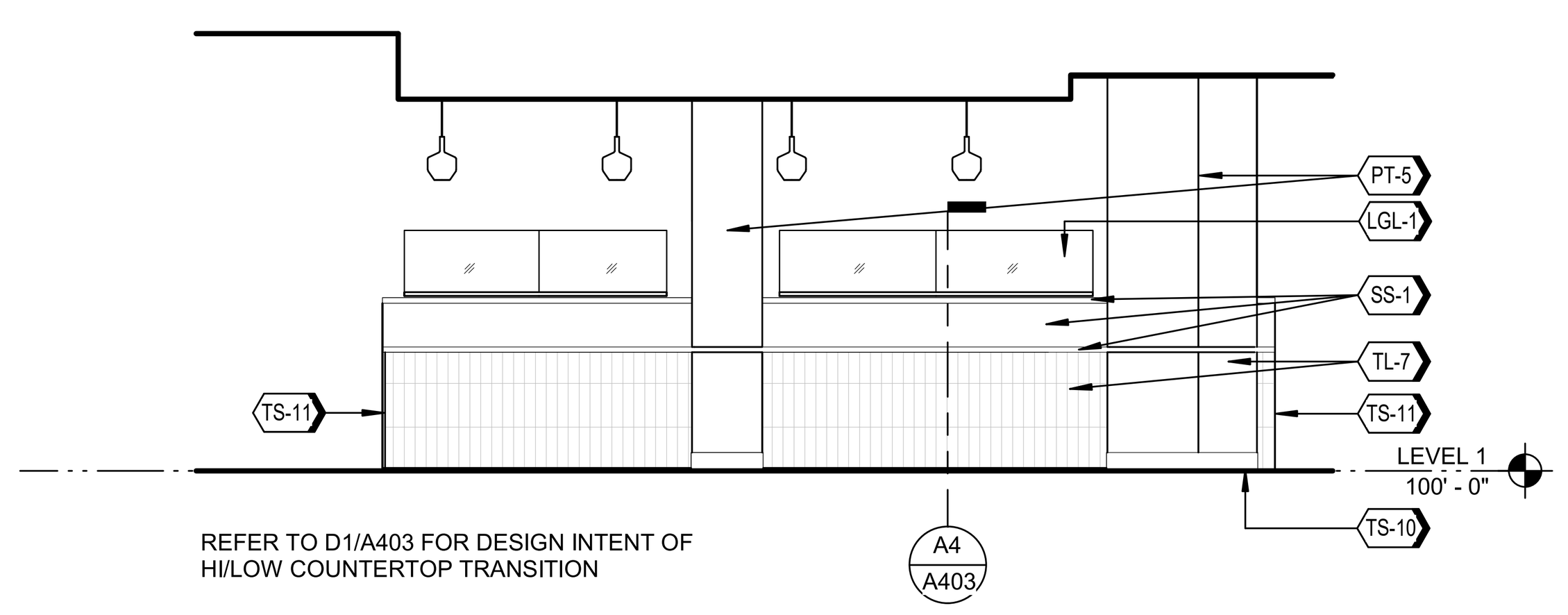
INTERIOR ELEVATION - PONY WALL AT ENTRY (EAST) D3
1/4" = 1'-0"



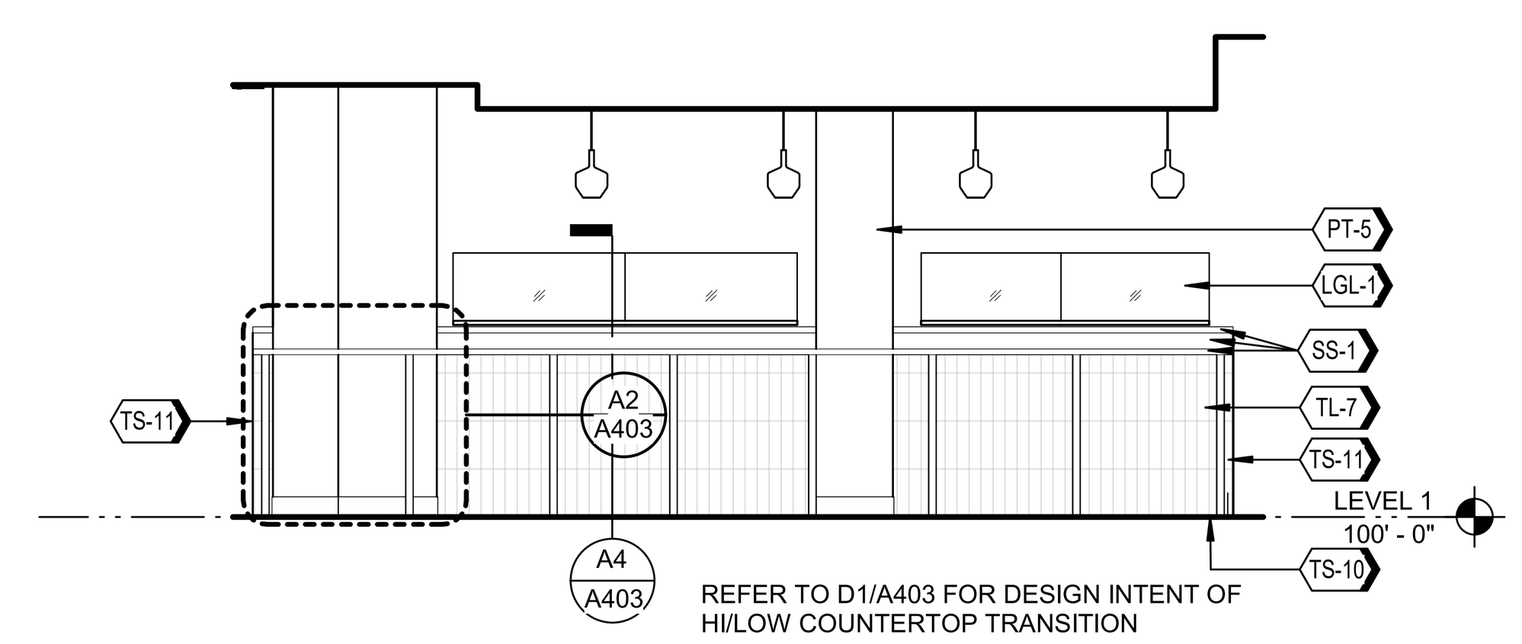
INTERIOR ELEVATION - PONY WALL D1
1/4" = 1'-0"



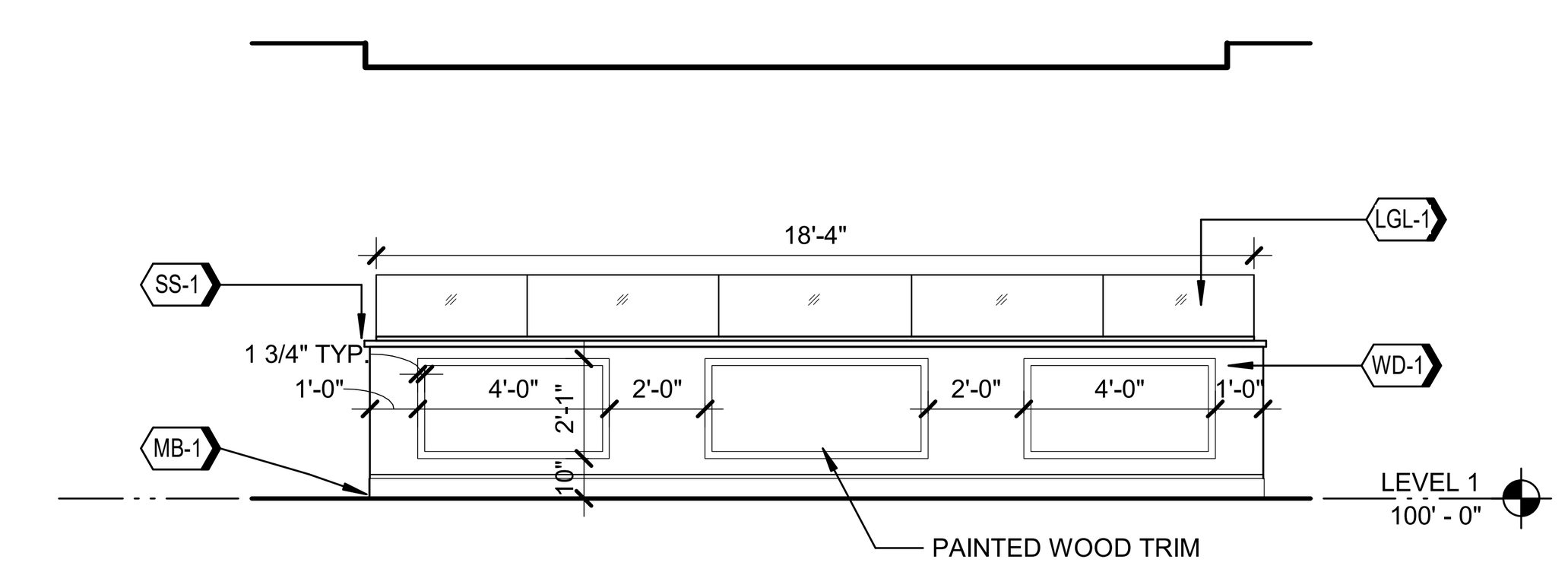
SIDE ELEVATION - AT BEVERAGE STATION C5
1/4" = 1'-0"



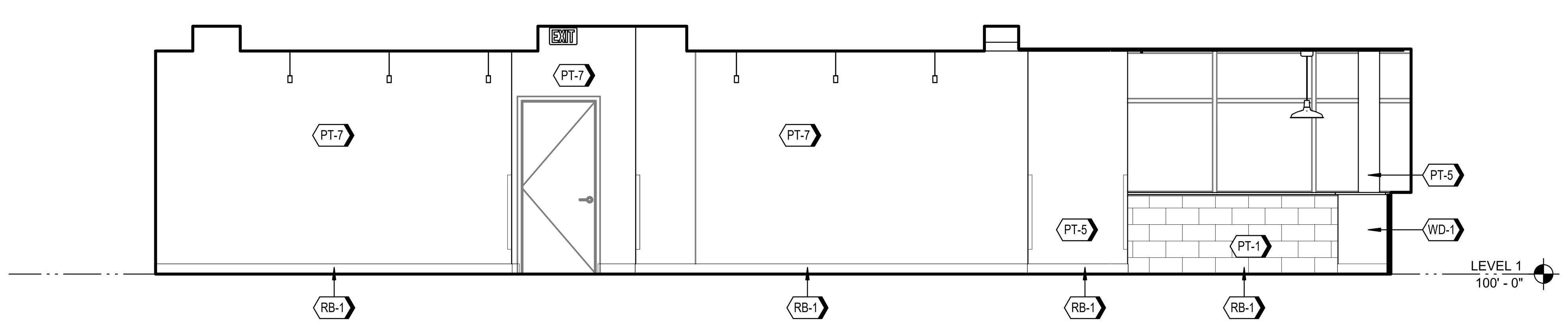
INTERIOR ELEVATION - HI/LOW AT ACCESSIBLE HEIGHT C3
1/4" = 1'-0"



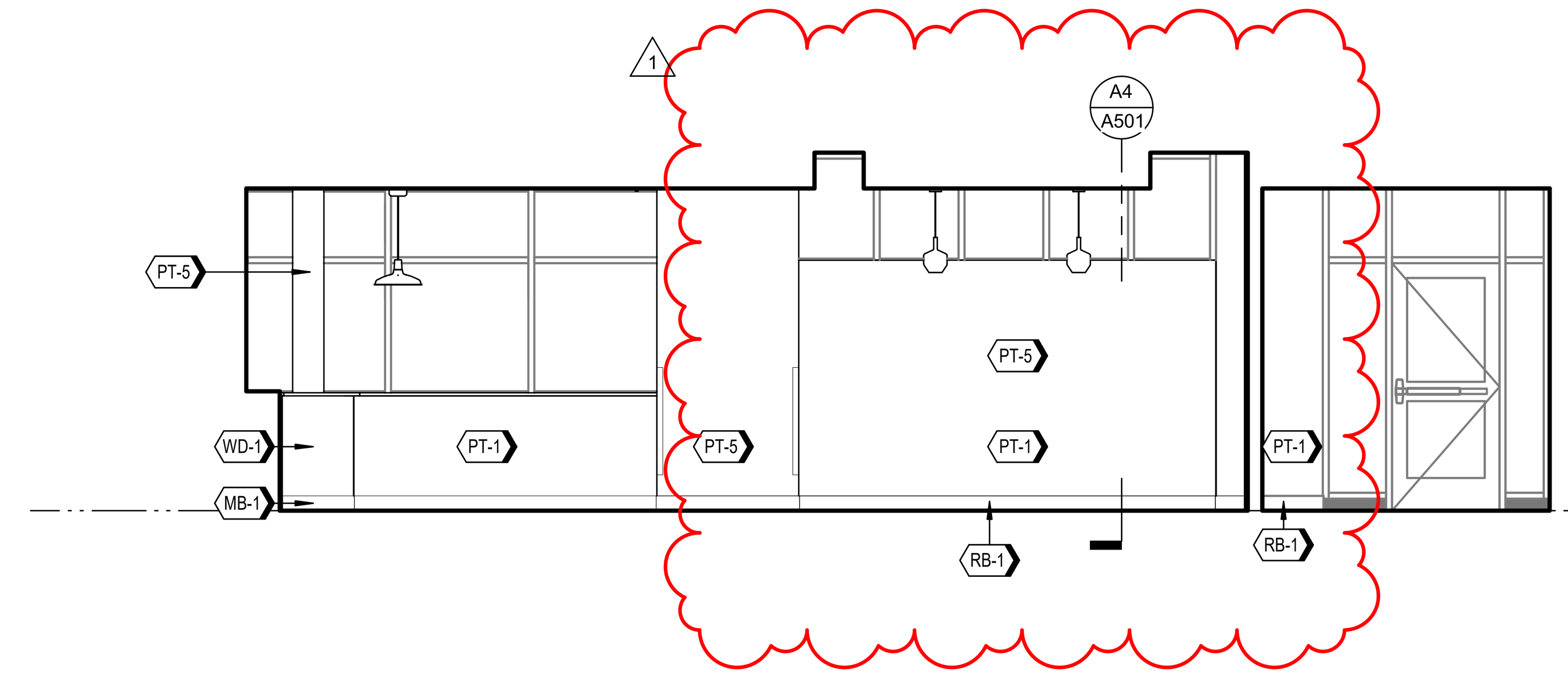
INTERIOR ELEVATION - HI/LOW AT BAR HEIGHT C2
1/4" = 1'-0"



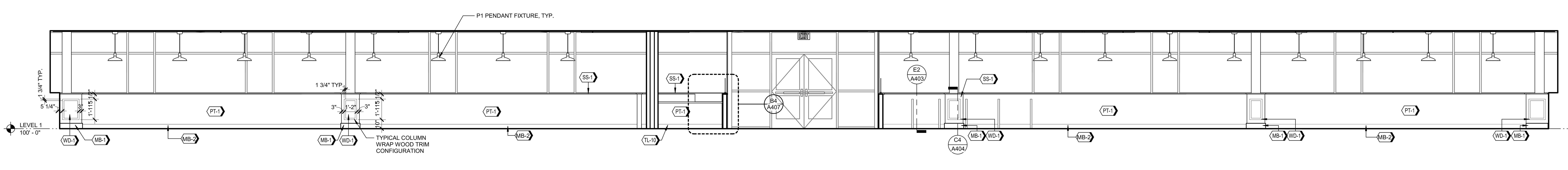
INTERIOR ELEVATION - PONY WALL C1
1/4" = 1'-0"



INTERIOR ELEVATION - DINING SEATING (WEST) B3
1/4" = 1'-0"



INTERIOR ELEVATION - DINING SEATING (EAST) B1
1/4" = 1'-0"



INTERIOR ELEVATION - DINING SEATING (NORTH) A1
1/4" = 1'-0"

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Office: 214.310.1018
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UNIVERSITY OF NORTH TEXAS
KERR HALL DINING RENOVATION
1413 West Maple St
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Issue: ISSUE FOR CONSTRUCTION

Date: JANUARY 30, 2025

REVISIONS

NO	DESCRIPTION	DATE
1	ADDENDUM 2	05.23.25

A408

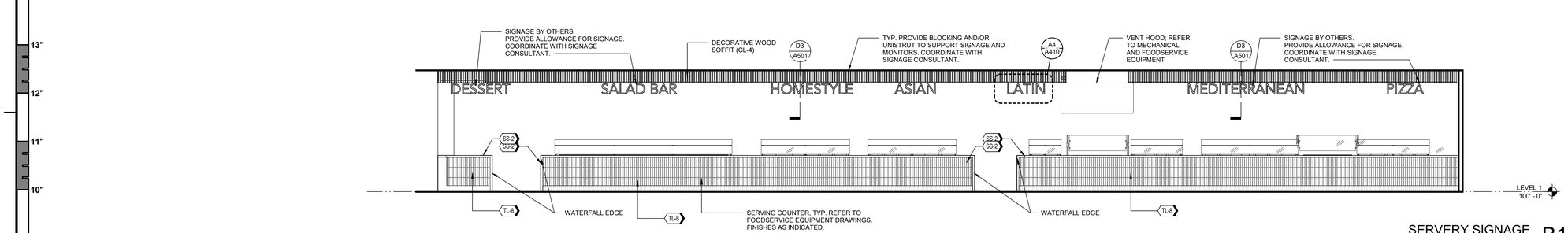
INTERIOR ELEVATIONS

TreanorHL NO. HE0569.2302.01

SIGNAGE GENERAL NOTES

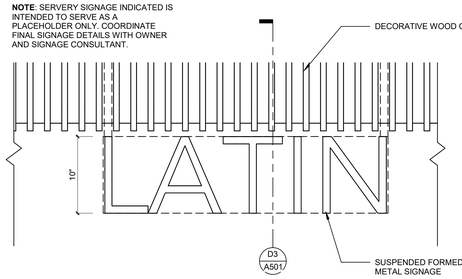
A. REFER TO G003 FOR TYPICAL SIGNAGE MOUNTING HEIGHT AND LOCATION.

B. COORDINATE SIGNAGE FABRICATION AND PROCUREMENT OF ALL ROOM SIGNAGE WITH OWNER.



SERVERY SIGNAGE B1
1/4" = 1'-0"

NOTE: SERVERY SIGNAGE INDICATED IS INTENDED TO SERVE AS A PLACEHOLDER ONLY. COORDINATE FINAL SIGNAGE DETAILS WITH OWNER AND SIGNAGE CONSULTANT.

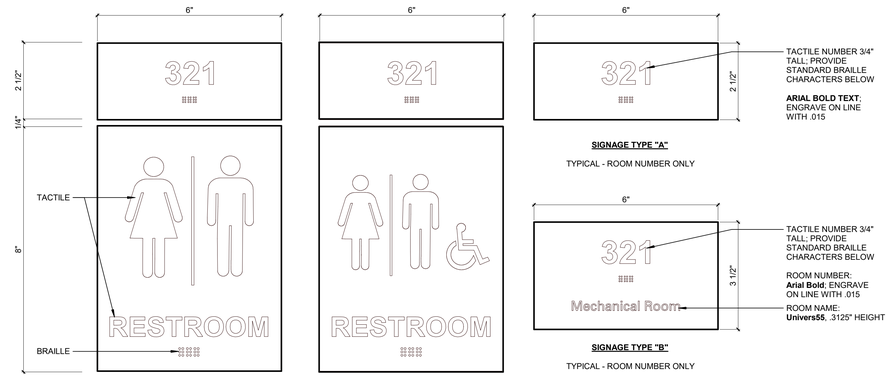


SUBSTRATE: ROWMARK (AVAILABLE AT JOHNSON PLASTICS)

COLOR: SATIN GREY / WHITE, 1/16" THICK (PN 122-32)

TACTILE APPLIQUE COLOR: WHITE 1/32" THICK (PN 311201A)

SERVERY SIGNAGE DETAIL A4
1 1/2" = 1'-0"



SIGNAGE TYPE "C"

RESTROOM SIGNS: 6" X 8"
ROOM SIGN (TYPE "A") MOUNTED ABOVE

UNT ROOM INDICATOR SIGNAGE, TYPICAL A1
6" = 1'-0"

REGISTERED ARCHITECT
NADIA ZHIR
21737
STATE OF TEXAS
01.30.2025

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Dallas, TX 75226
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www.TreanorHL.com

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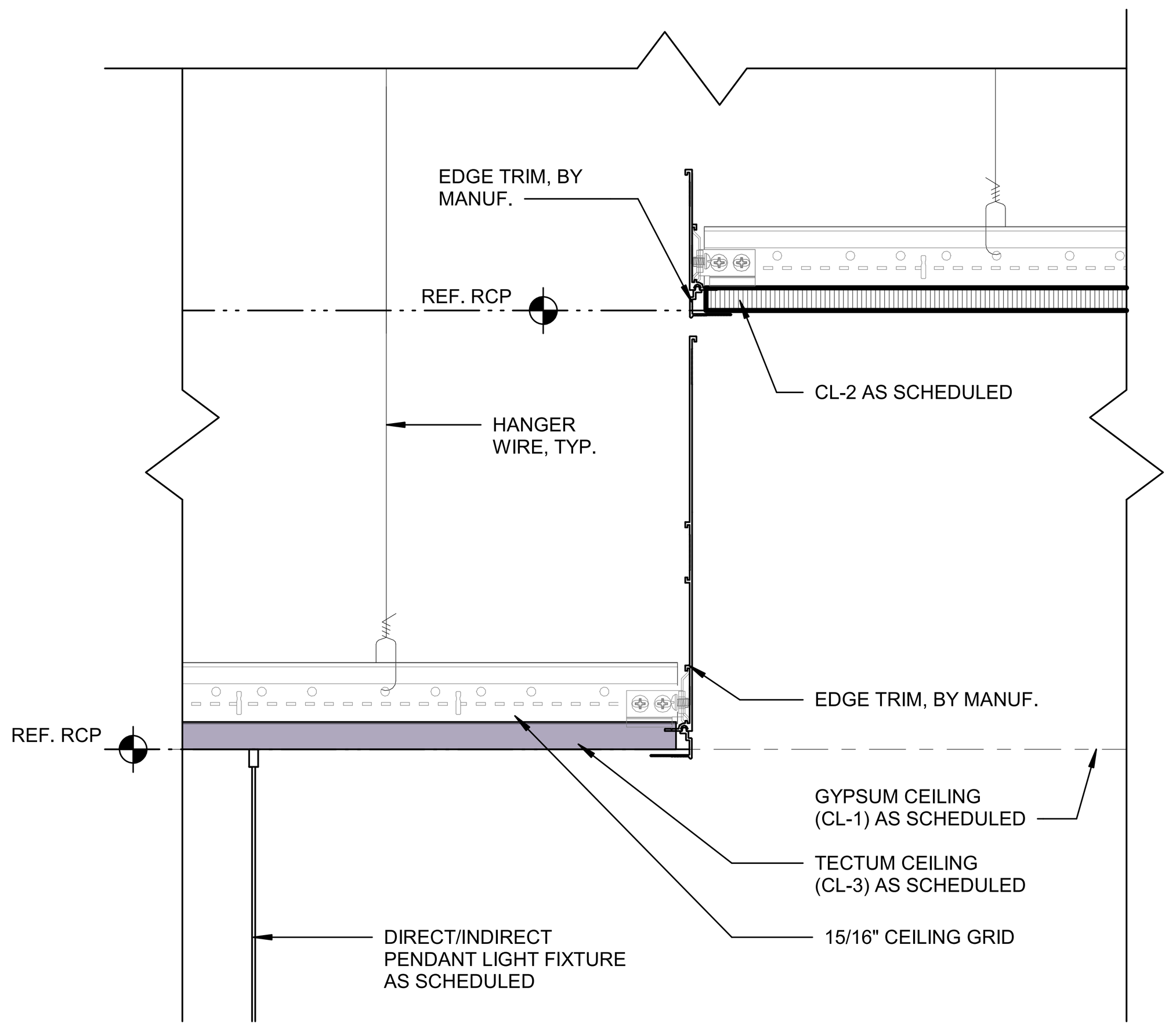
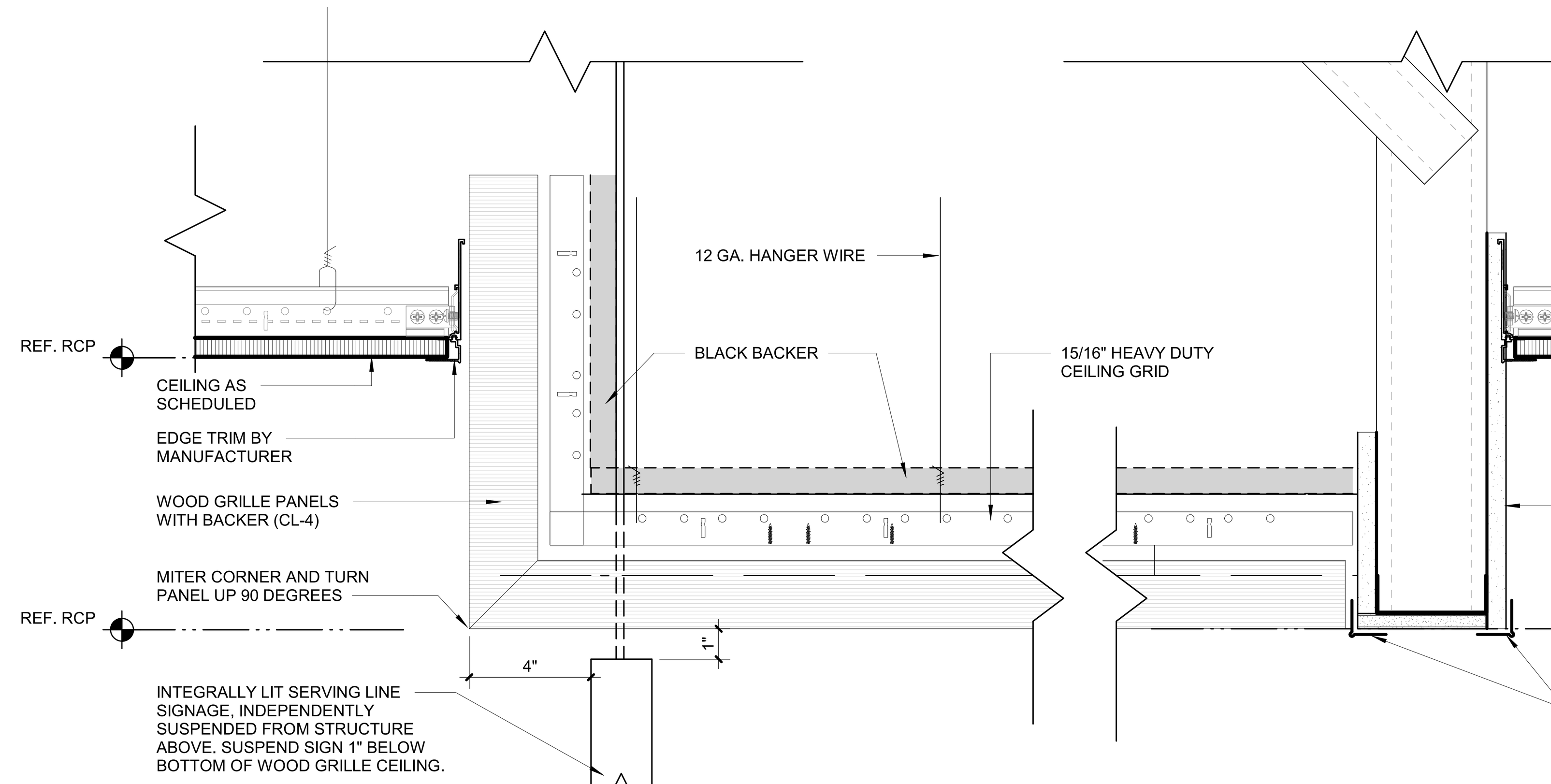
A410

INTERIOR ELEVATIONS, SIGNAGE SCHEDULE, & DETAILS

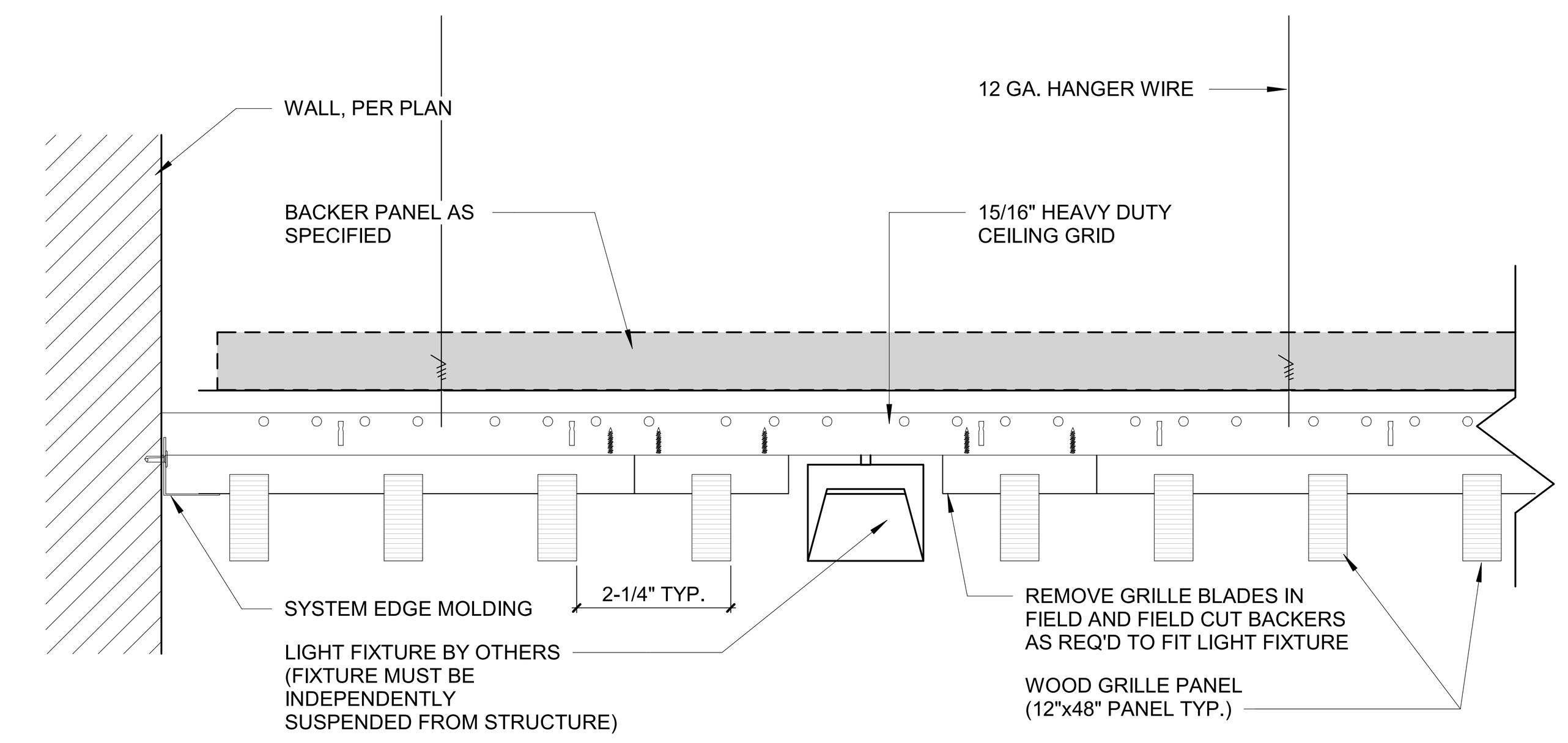
TreanorHL NO. HE0569.2302.01



TECTUM CLOUD (CL-3) PERIMETER DETAIL, TYP. D5
3" = 1'-0"

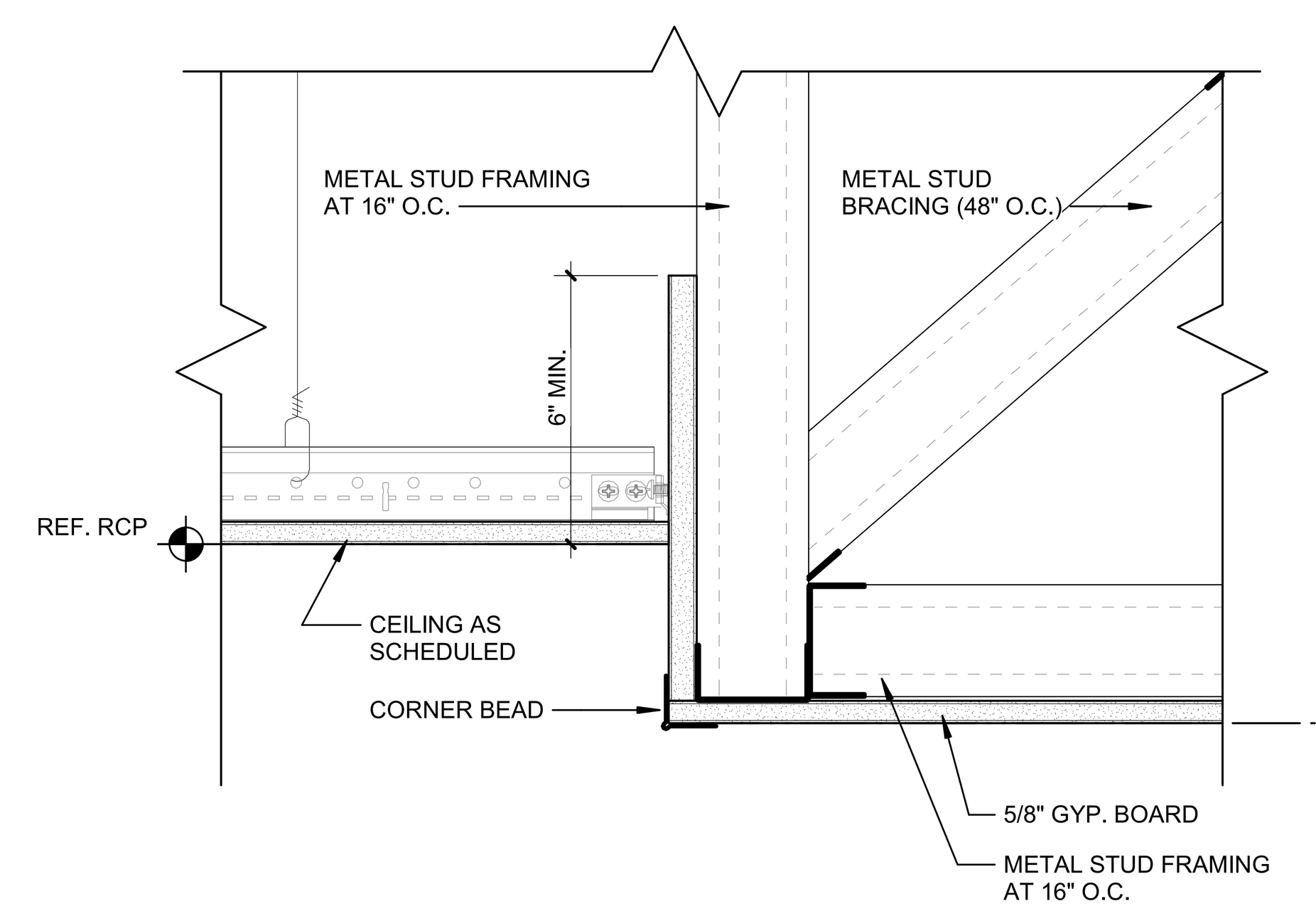


WOOD GRILLE CEILING D3
3" = 1'-0"

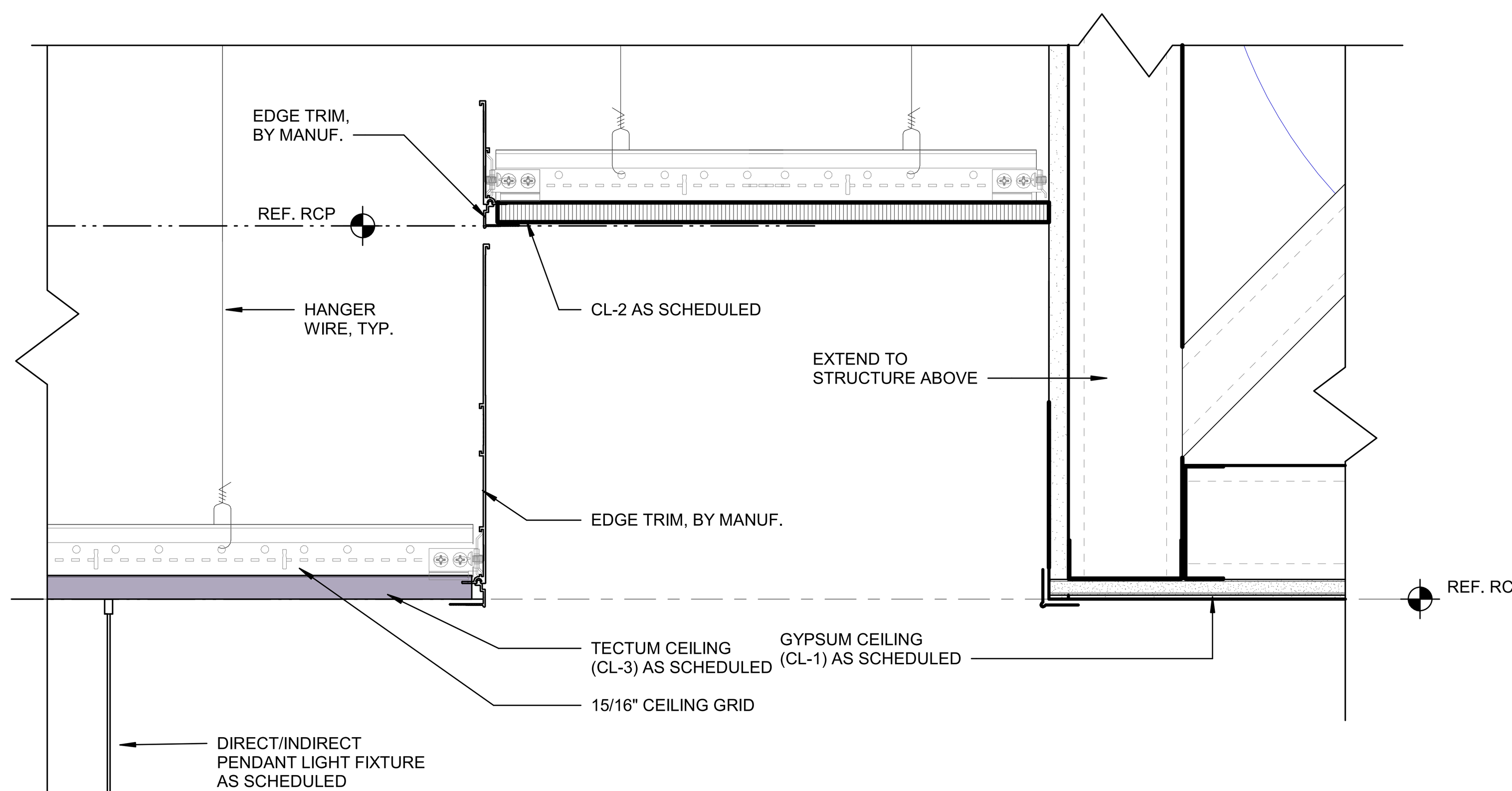


WOOD GRILLE CEILING (CL-4), TYP. D1
3" = 1'-0"

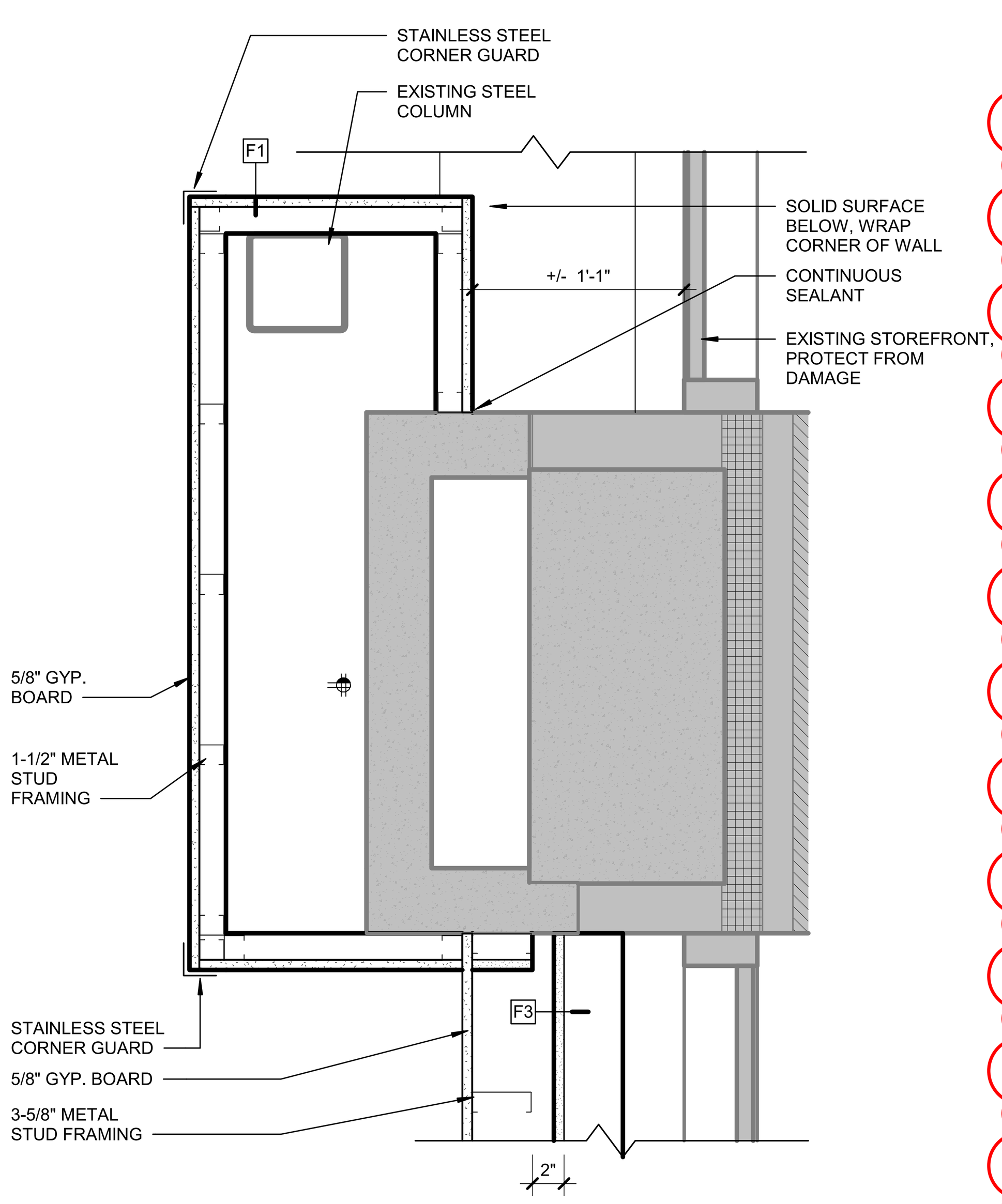
B5/A501 HAS BEEN REMOVED FROM THE PROJECT



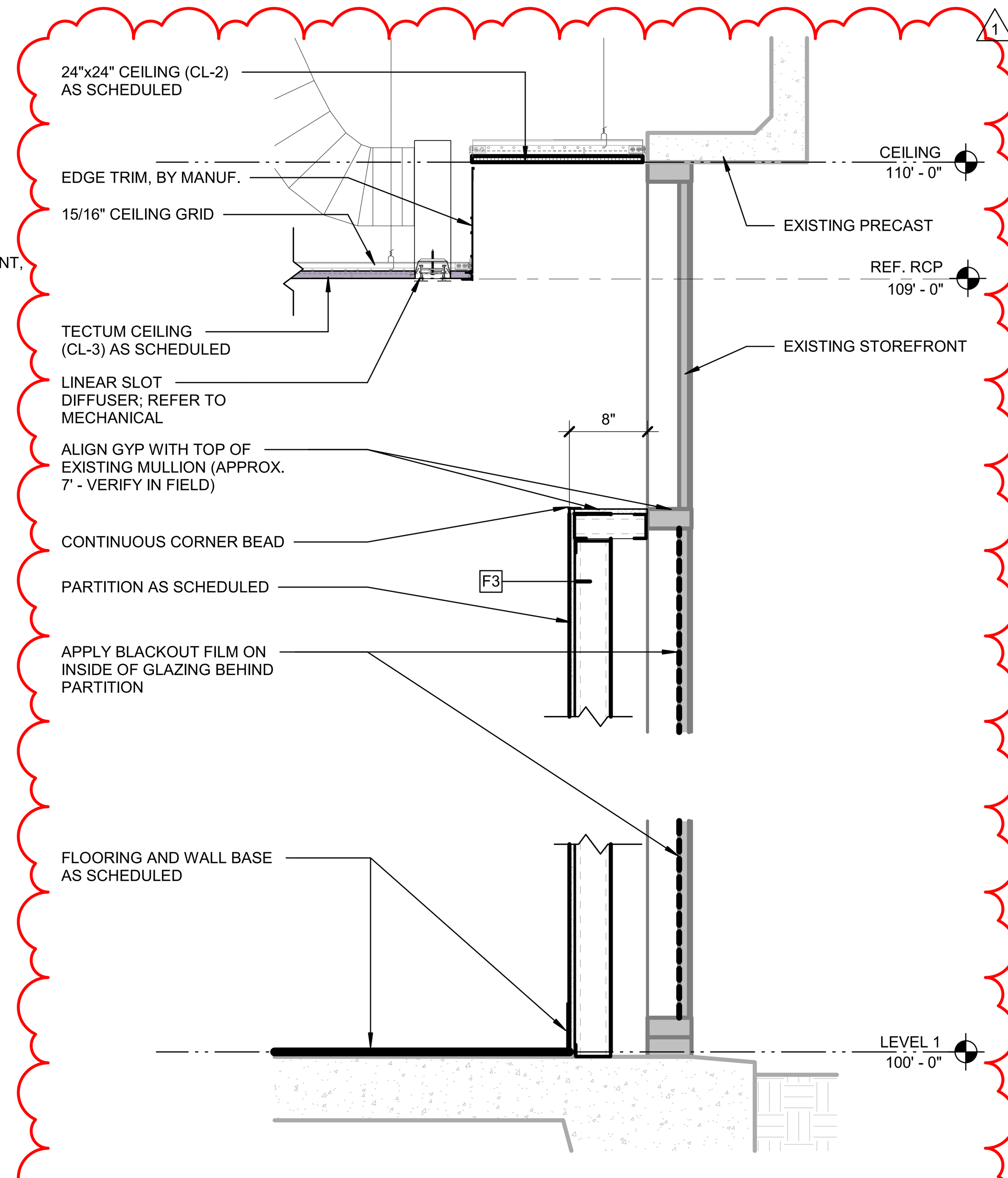
SUSPENDED GYPSUM BULKHEAD B3
3" = 1'-0"



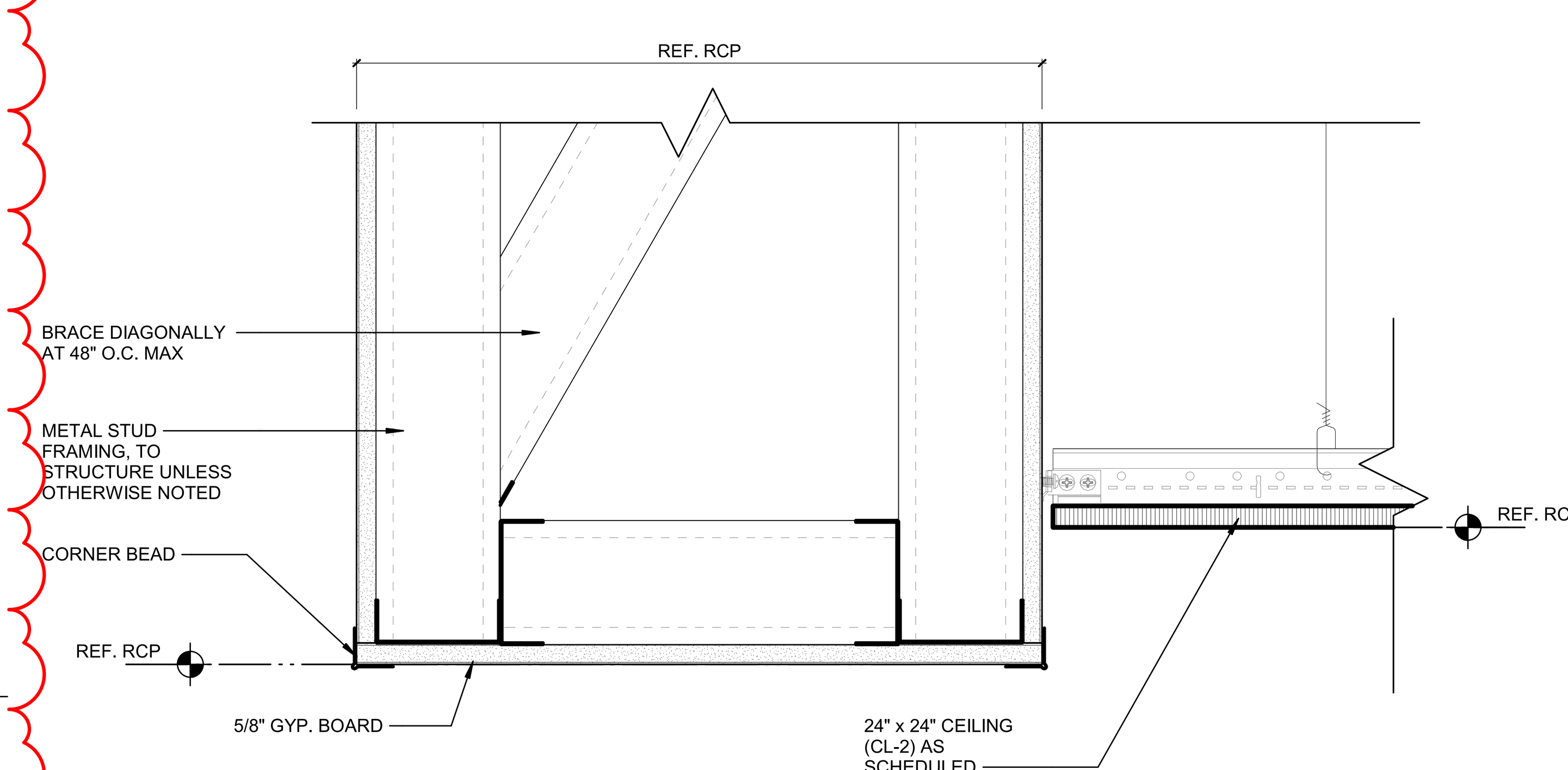
TECTUM CLOUD (CL-3) TO CL-2 AT BULKHEAD B1
3" = 1'-0"



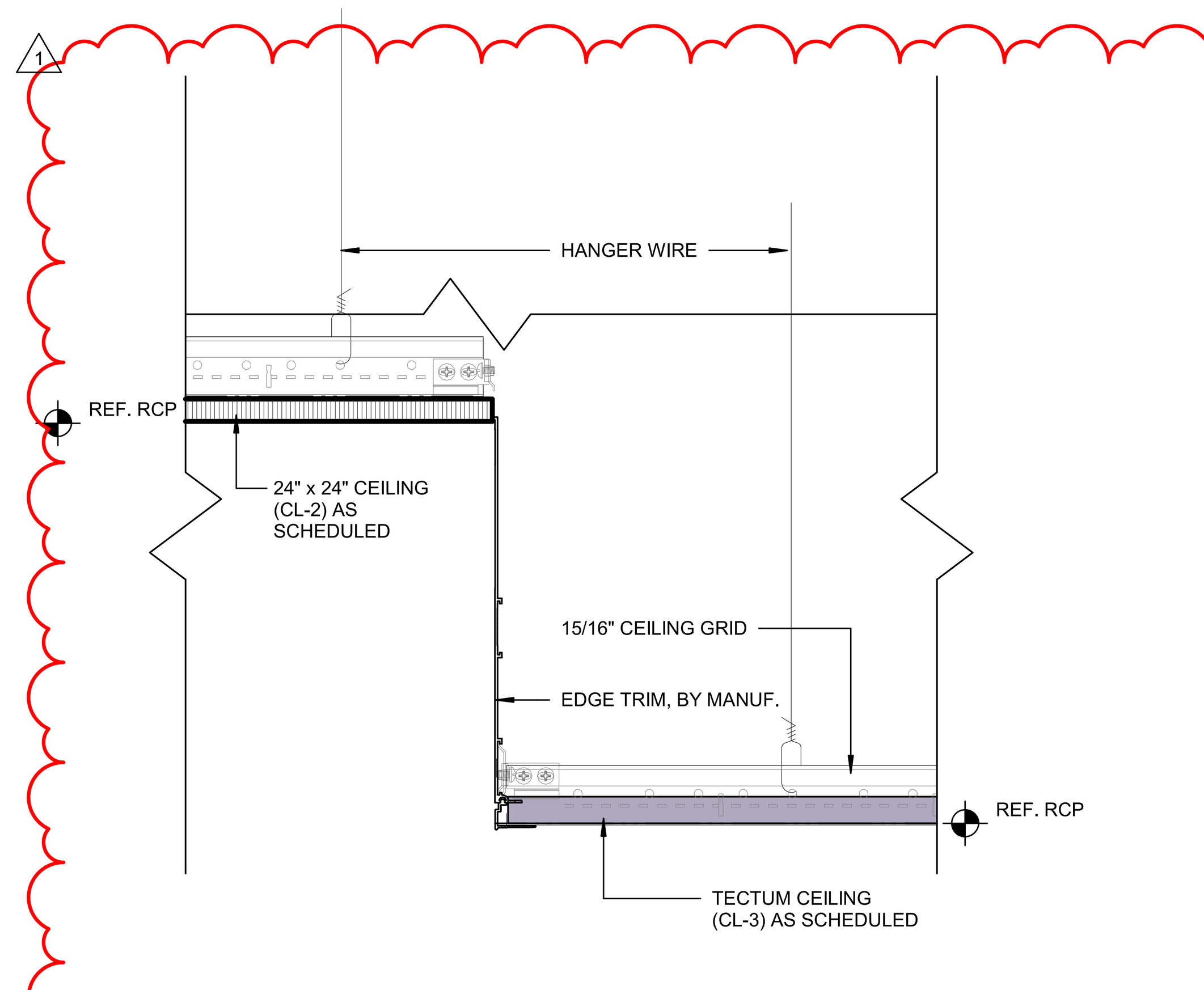
NEW WALL TO EXISTING WALL TRANSITION A6
1 1/2" = 1'-0"



SECTION DETAIL AT EXISTING SIDE GLAZING A4
1" = 1'-0"



CL-2 AT GYP SOFFIT A3
3" = 1'-0"



CL-2 AT TECTUM CLOUD (CL-3) A1
1" = 1'-0"

REGISTERED ARCHITECT NADIA ZHIRI 27272 STATE OF TEXAS 01.30.2025

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Office: 214.310.1018
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NO	DESCRIPTION	DATE
1	ADDENDUM 2	05.23.25

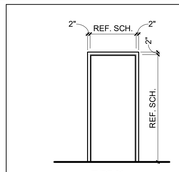
A501

INTERIOR DETAILS

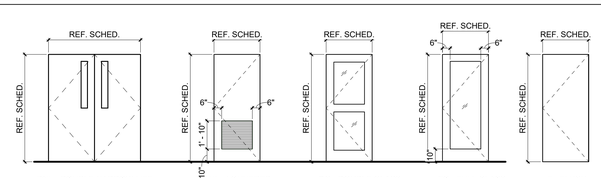
TreanorHL NO. HE0569.2302.01

DOOR AND FRAME SCHEDULE (KITCHEN & DINING)

MARK	DIMENSIONS WIDTH	DIMENSIONS HEIGHT	DOOR TYPE	DOOR MATERIAL	DOOR FINISH	FRAME TYPE	FRAME MATERIAL	FRAME FINISH	GLASS TYPE	DETAILS JAMB	DETAILS HEAD	DETAILS SILL	FIRE RATING	HARDWARE SET	REMARKS
A122	3' - 0"	7' - 0"	F	WOOD	PT-8	S2	HM	PT-8	-	A1/A601	B1/A601		-	401	
A123	3' - 0"	7' - 0"	F	WOOD	PT-8	S2	HM	PT-8	-	A1/A601	B1/A601		-	401	
A126	3' - 0"	7' - 0"	F	WOOD	PT-8	S2	HM	PT-8	-	A1/A601	B1/A601		-	701	
A127	3' - 0"	7' - 0"	F	WOOD	PT-8	S2	HM	PT-8	-	A1/A601	B1/A601		-	201	
A128	3' - 0"	7' - 0"	F	WOOD	PT-8	S2	HM	PT-8	-	A1/A601	B1/A601		-	207	
A136	3' - 6"	7' - 0"	F	HM	PT-8	S2	HM	PT-8	-	A1/A601	B1/A601		-	501W	
A137	3' - 0"	7' - 0"	F	HM	PT-8	S2	HM	PT-8	-	A1/A601	B1/A601		-	207	
A140	3' - 0"	6' - 10"	FG	ALUM	MED. BRONZE	-	ALUM	MED. BRONZE	GL-1	SIM C1/A406	SIM B4/A406	A6/A406	-	201AC	
E-A106	3' - 0"	7' - 0"	F	EXISTING	PT-8	EXISTING	EXISTING	PT-8	-	-	-	-	-	EX-711CR	
E-A117	2' - 8"	7' - 0"	F	EXISTING	PT-8	EXISTING	EXISTING	PT-8	-	-	-	-	-	EX-207	
E-A118	2' - 8"	7' - 0"	F	EXISTING	PT-8	EXISTING	EXISTING	PT-8	-	-	-	-	-	EX-341	
E-A119	3' - 0"	7' - 0"	F	EXISTING	PT-8	EXISTING	EXISTING	PT-8	-	-	-	-	-	EX-C201C	
E-A122	3' - 0"	6' - 11"	SG	EXISTING	-	EXISTING	EXISTING	-	EXISTING	-	-	-	-	EX-715A	
EC120.1	6' - 0"	6' - 11"	DG	EXISTING	-	EXISTING	EXISTING	-	EXISTING	-	-	-	-	EX-C714AM	
EC120.2	6' - 0"	6' - 11"	DG	EXISTING	-	EXISTING	EXISTING	-	EXISTING	-	-	-	-	EX-C710AM	



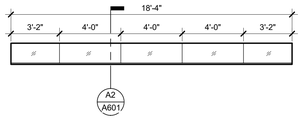
FRAME TYPES



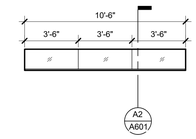
DOOR TYPES

DOOR / GLAZING NOTES:

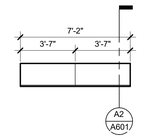
1. FIELD VERIFY OPENING SIZE FOR DOORS IN EXISTING FRAMES.
2. ALL INTERIOR GLAZING TO BE GL-1 UNLESS NOTED OTHERWISE. REFER TO A700A.



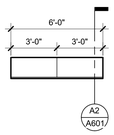
PRIVACY SCREEN - TYPE 09 — 09
1/4" = 1'-0"



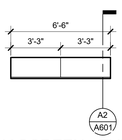
PRIVACY SCREEN - TYPE 08 — 08
1/4" = 1'-0"



PRIVACY SCREEN - TYPE 07 — 07
1/4" = 1'-0"

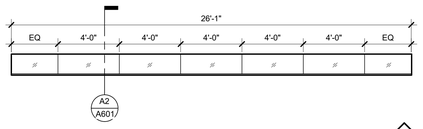


PRIVACY SCREEN - TYPE 06 — 06
1/4" = 1'-0"

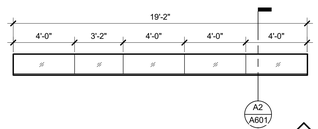


PRIVACY SCREEN - TYPE 05 — 05
1/4" = 1'-0"

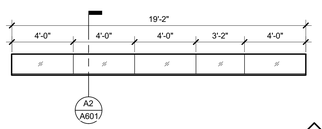
PRIVACY SCREEN - TYPE 04 — 04
1/4" = 1'-0"



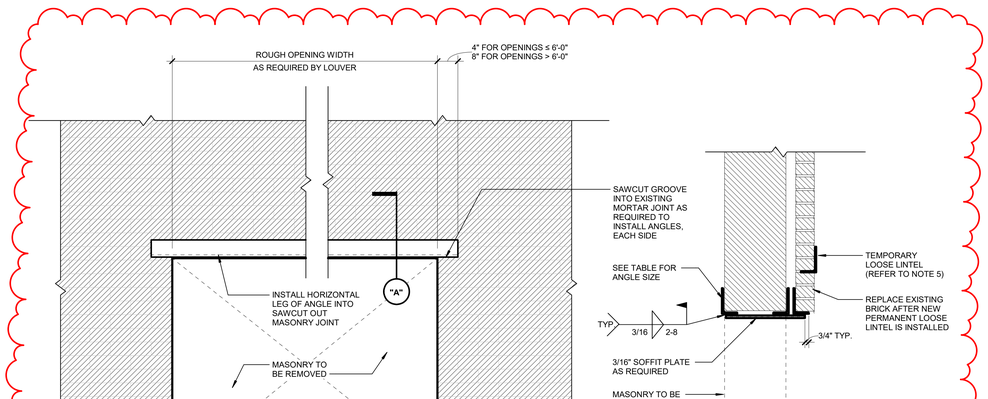
PRIVACY SCREEN - TYPE 03 — 03
1/4" = 1'-0"



PRIVACY SCREEN - TYPE 02 — 02
1/4" = 1'-0"



PRIVACY SCREEN - TYPE 01 — 01
1/4" = 1'-0"



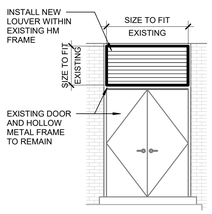
ELEVATION | **SECTION "A"**

NOTES:

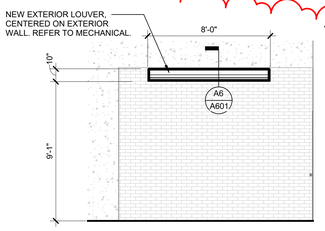
1. COORDINATE OPENING SIZES AND LOCATIONS WITH ARCHITECT PRIOR TO INSTALLATION.
2. SAWCUT AND INSTALL ANGLES PRIOR TO REMOVING MASONRY AT OPENING.
3. INSTALL SOFFIT PLATE AFTER MASONRY HAS BEEN REMOVED.
4. ANGLES AND PLATE SHALL BE HOT DIP GALVANIZED IF PERMANENTLY EXPOSED TO THE WEATHER. TOUCH UP WITH COLD GALVANIZING AFTER WELDING.
5. TEMPORARY LOOSE LINTEL TO BE INSTALLED AN REMOVED AFTER PERMANENT LOOSE LINTELS ARE INSTALLED.

OPENING WIDTH	ANGLE SIZE
UP TO 4'-0"	L3x3x1/4
4'-0" TO 6'-0"	L5x3x1/4 (LLV)
6'-0" TO 8'-0"	L6x3-1/2x5/16 (LLV)

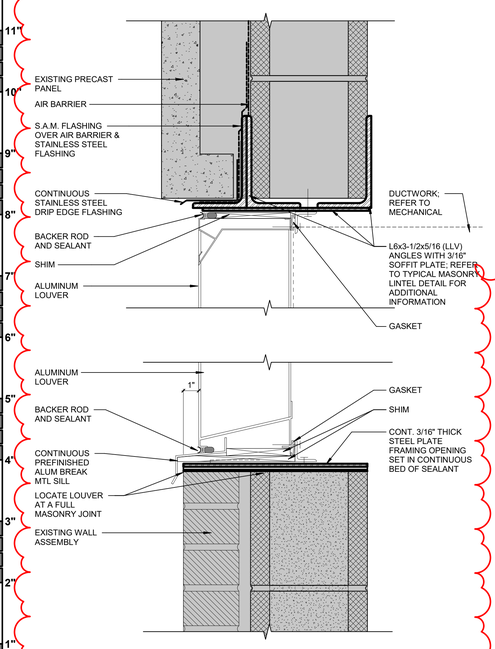
TYPICAL MASONRY LINTEL DETAIL AT EXISTING WALL — C6
1" = 1'-0"



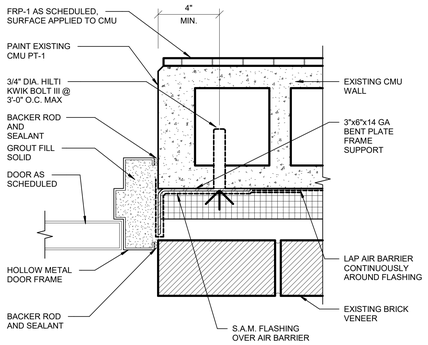
LOUVER TYPE 1 — B6
1/4" = 1'-0"



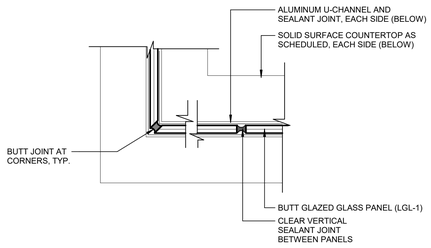
LOUVER TYPE 2 — B4
1/4" = 1'-0"



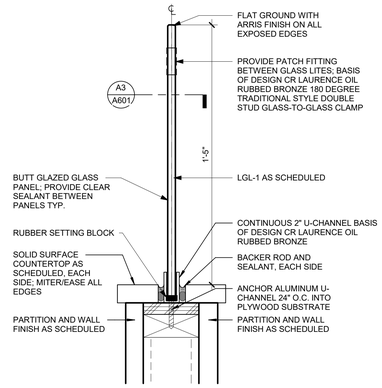
LOUVER HEAD/SILL DETAIL — A6
3" = 1'-0"



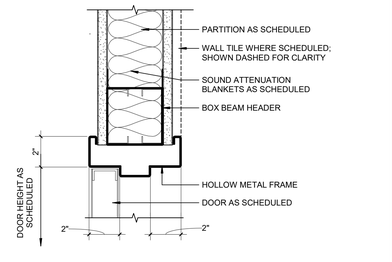
JAMB DETAIL - HM DOOR AT EXTERIOR WALL — A4
3" = 1'-0"



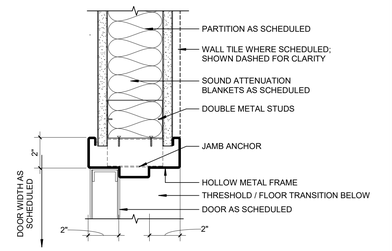
PRIVACY SCREEN PLAN, TYP. — A3
3" = 1'-0"



PRIVACY SCREEN SECTION, TYP. — A2
3" = 1'-0"



HEAD - INTERIOR HM FRAME — B1
3" = 1'-0"



JAMB - INTERIOR HM FRAME — A1
3" = 1'-0"

REGISTERED ARCHITECT
MADIA ZAHRA
21737
STATE OF TEXAS
01.30.2025

TREANOR
2554 Elm Street, Suite 200
Dallas, Texas 75226
Office: 214.310.1018
www.TreanorHL.com

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1	ADDENDUM 2	05.23.25

A601

DOOR & FRAME SCHEDULE, GLAZING, TYPES, LOUVER TYPES & DETAILS

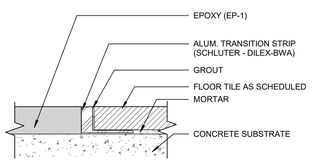
TreanorHL NO. HE0569.2302.01

FINISH LEGEND

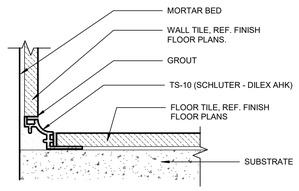
CODE	MANUFACTURER / PATTERN	PRODUCT NO.	COLOR	FINISH	DIMENSION	REMARKS
BASE & WALL PROTECTION						
CG-1	INPRO ARCHITECTURAL PRODUCTS - STAINLESS STEEL SURFACE MOUNT CORNER GUARDS	-	STAINLESS STEEL	NO. 4 SATIN FINISH	1-1/2" WINGS x 4' LENGTH	INSTALL TO 5'-0" AFF, TYPICAL. PROVIDE CORNER GUARDS AT ALL GYPSUM WALL OUTSIDE CORNERS.
MB-1	INPRO ARCHITECTURAL PRODUCTS - STAINLESS STEEL WALL BASE WITH TOE	SAS-CBT6-96	STAINLESS STEEL 304	-	96" W x 6" H SECTIONS	BASE AT WD-1 DINING PONY WALLS AND HYDROPONICS ENCLOSURE. INCLUDE INTERIOR AND EXTERIOR FORMED CORNERS.
MB-2	INPRO ARCHITECTURAL PRODUCTS - STAINLESS STEEL WALL BASE WITHOUT TOE	SAS-CBS-96	STAINLESS STEEL 304		96" W x 6" H SECTIONS	BASE AT FRONT OF DINING WALL. INCLUDE INTERIOR AND EXTERIOR FORMED CORNERS.
RB-1	NORA - NORAPLAN	ART. 820	BLACK - 6201	SMOOTH	4" H	TYP. RUBBER BASE, UNO. GYP WALLS AND COLUMNS.
CEILING						
CL-1	GYPSUM CEILING (PAINTED) - DRYFALL	-	MATCH PT-6, UNO	FLAT	-	TYP. GYP. BOARD CEILING
CL-2	ARMSTRONG - CALLA	2882	WHITE	-	24" W x 24" D	TYP. ACOUSTIC CEILING TILE. USE WITH PRELUDE XL SUSPENSION SYSTEM.
CL-2M	ARMSTRONG - KITCHEN ZONE	683	WHITE	-	24" W x 24" D	FOOD PREP AREAS - MEETS USDA/FSIS GUIDELINES. USE WITH PRELUDE XL15/16 SUSPENSION SYSTEM.
CL-3	ARMSTRONG TECTUM DESIGNART LINES TEGULAR CEILINGS	8186D08T10 TFS	COLOR 1: IVY, COLOR 2: SANDSTONE	PATTERN AS SPECIFIED BY ARCHITECT	24" W x 24" D	ACCENT CEILING IN DINING ROOM. USE WITH PRELUDE XL SUSPENSION SYSTEM. INCLUDE AXOIM TRIM TO MATCH FELDSPAR COLOR.
CL-4	RULON WOOD SLAT PANELS WITH BLACK BACKER FABRIC	PG 4-12-32	SOLID WHITE OAK - STAIN "CREME"	-	12" X 96" PANELS, 3/4" THICK X 1-3/8" HIGH SLATS, WITH 4 SLATS PER PANEL	DECORATIVE SUSPENDED WOOD CEILING AT SERVING LINE. USE WITH PRELUDE XL15/16 SUSPENSION SYSTEM INCLUDE BLACK ACOUSTICAL INFILL PANEL.
FIBER REINFORCED PLASTIC						
FRP-1	MARLITE / STANDARD P100	P100	WHITE	PEBBLED SURFACE	4'W x 8' or 10'H x 3/32" THK	FOOD PREP AREAS (BACK WALL OF SERVERY AND KITCHEN WALLS)
FLOORING						
CPT-1	WALK OFF CARPET - MOHAWK GROUP FIRST STEP II	GT315	989 OBSIDIAN	-	24" W x 24" D	WALK OFF CARPET AT ENTRY VESTIBULE
EP-1	STONHARD STONCLAD UT 1/4" NOMINAL EPOXY FLOORING	-	PEWTER	MEDIUM TEXTURE	-	KITCHEN FLOORING; PROVIDE INTEGRAL COVE BASE
SC-1	SCOFIELD CURESEAL-W SEALED CONCRETE	-	-	-	AS INDICATED ON DRAWINGS	STORAGE, JANITOR CLOSET, DRY STORAGE
TL-1	CROSSVILLE - NOTORIOUS	NTR04.11224UPS	SUSPENSE	UNPOLISHED	24"L x 12"W	DINING FLOOR FIELD TILE. USE GT-1
TL-2	CROSSVILLE - NOTORIOUS	NTR05.11224UPS	LEADING MAN	UNPOLISHED	24"L x 12"W	DINING FLOOR ACCENT TILE. USE GT-1
TL-3	DALTILE - VOLUME 1.0	VL70	AMPLIFY BLACK	MATTE	24"L x 12"W	RESTROOM FLOOR TILE. USE WITH 6X12 COVE BASE, GROUT CUSTOM BUILDING PRODUCTS #60 CHARCOAL PRODUCTS #60 CHARCOAL
VCT-1	ARMSTRONG FLOORING STANDARD EXCELON IMPERIAL TEXTURE	51910	CLASSIC BLACK	-	12" L x 12" D x 1/8"	FLOORING OF HYDROPONICS ENCLOSURE; REFER TOA406 FOR ADDITIONAL INFORMATION
GLAZING						
GF-1	3M DECORATIVE GLASS FILM	AS SELECTED BY ARCHITECT	AS SELECTED BY ARCHITECT	-	-	-
GL-1	PPG INDUSTRIES, INC. - STARPHIRE FULLY TEMPERED FLOAT GLASS	-	-	-	.24" THICK	SAFETY GLAZING REQUIRED
LGL-1	INTERIOR LOW-IRON LAMINATED SAFETY VISION GLAZING	ULTRAWHITE	-	-	3/8" LITE WITH PVB INTERLAYER WITH 1/4" LITE	-
MILLWORK						
MTL-1	MOZ VERTICAL CORRUGATED METAL PANEL	-	CUSTOM POWDERCOAT TO RGB 5-144-51	MATTE	.040" THICK PANELS, 44-1/2" X 120" PANELS W/ SEAM LOCATIONS AS INDICATED.	HYDROPONICS ENCLOSURE, TYPICAL (REFER TO A406). INSTALL WITH #8 X 1-1/4" FINISH / TRIM SCREW EXPOSED FASTENERS. USE MATCHING TRIM PROFILES FOR CORNERS, BASE, AND END CONDITIONS.
PL-1	WILSONART	-	AS SELECTED BY ARCHTECT FROM MANUFACTURER'S FULL COLOR RANGE	-	-	BASE CABINETRY AT MANAGER'S DESK AND BEVERAGE STATION
WD-1	PAINTED POPLAR	-	PT-4	PRIMED WOOD FINISH, PAINTED AS SPECIFIED	1/2" THICKNESS. SEE ELEVATIONS FOR DETAILS	WOOD PANELING AT DINING PONY WALLS. MITERED CORNERS.
WD-2	POPLAR	-	CUSTOM STAIN TO MATCH ARCHITECT'S SAMPLE	CUSTOM	1/2" THICKNESS. SEE ELEVATIONS FOR DETAILS	WOOD PANELING AT POS, MITERED CORNERS.
PAINT						
PT-1	SHERWIN WILLIAMS - SUPER PAINT	SW 7010	WHITE DUCK	EGGSHELL	-	FIELD PAINT
PT-2	SHERWIN WILLIAMS - SUPER PAINT	SW 7010	WHITE DUCK	SEMI-GLOSS	-	RESTROOM PAINT
PT-3	SHERWIN WILLIAMS - SUPER PAINT	SW 7047	PORPOISE	SEMI-GLOSS	-	ACCENT PAINT
PT-4	SCUFFMASTER SCRUBTOUGH MAX	CUSTOM TO MATCH SW0065	VOGUE GREEN	SEMI-GLOSS	-	ACCENT PAINT ON WOOD PANELING
PT-5	SHERWIN WILLIAMS - SUPER PAINT	SW 7031	MEGA GREIGE	EGGSHELL	-	ACCENT PAINT
PT-6	SHERWIN WILLIAMS - PRO INDUSTRIAL WATERBORNE ACRYLIC DRYFALL	SW 7004	SNOWBOUND	FLAT	-	CEILING DRYFALL PAINT
PT-7	SHERWIN WILLIAMS - SUPER PAINT	SW0065	VOGUE GREEN	EGGSHELL	-	ACCENT PAINT ON WALLS
PT-8	SHERWIN WILLIAMS - SUPER PAINT	SW7069	IRON ORE	SEMI-GLOSS		DOORS AND DOOR FRAMES
SOLID SURFACE						
SS-1	STRATUS QUARTZ - KENDALL CONCRETE	SQ4004	WARM GRAY	HONED	3 CM THICKNESS	DINING ROOM, MANAGER'S DESK, AND BEVERAGE COUNTERTOP MATERIAL. EASED EDGE.
SS-2	CAMBRIA FIELDSTONE QUARTZ	-	SLATE GRAY	MATTE	3 CM THICKNESS	SERVERY COUNTERTOP FINISH. EASED EDGE.
TILE						
TL-4	DALTILE - VOLUME 1.0	VL68	WILLOW	MATTE	24"L x 6"W	RESTROOM WALL TILE, GROUT GT-2 CHARCOAL
TL-5	DALTILE - COLOR WHEEL LINEAR	0190	ARCTIC WHITE 0190	GLOSSY	12" L x 4" W	SERVERY WALL TILE. GT-1
TL-6	DALTILE - INDOTERRA WALL TILE	IN43	RIVERBED	-	9" L x 2" W	ACCENT WALL TILE. 50/50 RANDOM MIX OF FLUTED AND FLAT TEXTURES. VERTICAL STACKED INSTALLATION. GT-2
TL-7	DALTILE - ARTCRAFTED	AC25	ALOE	GLOSSY	12" L x 3" W	ACCENT WALL TILE. GT-2
TL-8	DALTILE - REMEDY	RD21	HERBAL RD21	GLOSSY	10"L x 2"W	ACCENT WALL TILE. GT-1
TILE GROUT						
GT-1	CUSTOM BUILDING PRODUCTS CEG-IG 100% SOLIDS INDUSTRIAL GRADE EPOXY GROUT	644	SHADOW	-	-	
GT-2	CUSTOM BUILDING PRODUCTS CEG-IG 100% SOLIDS INDUSTRIAL GRADE EPOXY GROUT	543	DRIFTWOOD	-	-	
GT-3	CUSTOM BUILDING PRODUCTS CEG-IG 100% SOLIDS INDUSTRIAL GRADE EPOXY GROUT	60	CHARCOAL	-	-	
TOILET PARITION						
TP-1	ASI GLOBAL PARTITIONS SOLID PLASTIC (HDPE) FLOOR ANCHORED/OVERHEAD BRACED	-	CHARCOAL 9237	PEBBLE GRAINED	REFER TO DRAWINGS	TYP. RESTROOM TOILET PARITIONS
TRANSITION STRIP						
TS-1	SCHLUTER JOLLY EDGE TRIM	J60EB	STAINLESS STEEL	BRUSHED	AS REQUIRED	TYP. WALL TILE TRANSITION STRIP AT TOILET ROOM WALL TILE.
TS-2	SCHLUTER RENO-RAMP REDUCER	AERPK 125 B65	STAINLESS STEEL	BRUSHED	AS REQUIRED	TYP. FLOOR TILE TO SEALED CONCRETE TRANSITION STRIP
TS-3	SCHLUTER RENO-TK REDUCER	EBTK80	STAINLESS STEEL	BRUSHED	AS REQUIRED	TYP. CONCRETE TO CARPET TRANSITION STRIP
TS-4	SCHLUTER SCHIENE	E100EB	STAINLESS STEEL	BRUSHED	AS REQUIRED	TYP. INSIDE CORNER, WALL TILE
TS-6	FRY REGLET MILLWORK 1/4" POST OUTSIDE CORNER	MWPOSC25100	ALUMINUM	CLEAR ANODIZED	AS REQUIRED	TYP. OUTSIDE CORNER, AS NOTED ON DRAWINGS
TS-7	FRY REGLET MILLWORK 1/4" POST TERMINATION	MWPT25100	ALUMINUM	CLEAR ANODIZED	AS REQUIRED	TYP. OUTSIDE CORNER, AS NOTED ON DRAWINGS
TS-8	FRY REGLET MILLWORK REVEAL L-ANGLE	MWRL75	ALUMINUM	CLEAR ANODIZED	AS REQUIRED	TYP. INSIDE CORNER, AS NOTED ON DRAWINGS
TS-9	FRY REGLET DRYWALL J-MOLDING	JDM-625	ALUMINUM	CLEAR ANODIZED	AS REQUIRED	TYP. INSIDE CORNER, AS NOTED ON DRAWINGS
TS-10	SCHLUTER DILEX-AHK COVE SHAPED BASE	AHK 1S 100AE	ANODIZED ALUMINUM	SATIN	AS REQUIRED	COVE PROFILE AT TILED DINING DIVIDER WALLS
TS-11	SCHLUTER QUADEC EDGE PROFILE	Q 100 AE	ANODIZED ALUMINUM	SATIN	AS REQUIRED	CORNER PROFILE AT TILED DINING DIVIDER WALLS, PAIR WITH DILEX PRODUCT
TS-11	SCHLUTER DILEX-BWA PERIMETER JOINT PROFILE	BWA 80DA	DARK ANTHRACITE	-	AS REQUIRED	FLOOR TRANSITION BETWEEN EP-1 AND TILE

ROOM BY ROOM FINISH SCHEDULE

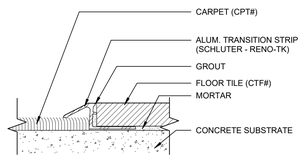
ROOM		FLOORS		WALLS				CEILING	MILLWORK		
ROOM #	ROOM NAME	FLOOR FINISH	BASE	NORTH	EAST	SOUTH	WEST	FINISH	MILLWORK	COUNTER	REMARKS
A117	STORAGE	SC-1	RB-1	PT-1	PT-1	PT-1	PT-1	OPEN TO STRUCTURE	-	-	
A118	UNISEX RESTROOM	TL-3	TL-3	TL-4, PT-2	TL-4, PT-2	TL-4, PT-2	TL-4, PT-2	CL-1	-	-	
A119	JANITOR (EXISTING)	EXISTING TO REMAIN	EXISTING TO REMAIN	EXISTING TO REMAIN	EXISTING TO REMAIN	EXISTING TO REMAIN	EXISTING TO REMAIN	EXISTING TO REMAIN	-	-	
A120	DINING	TL-1, TL-2	VARIES SEE ELEVATIONS	PT-1	PT-1 / PT-5 / TL-6 / TL-7	-	PT-1 / PT-5 / TL-6 / TL-7	CL-1, CL-2, CL-3	WD-1, WD-2	SS-1	
A122	WOMEN'S RESTROOM	TL-3	TL-3	TL-4, PT-2	TL-4, PT-2	TL-4, PT-2	TL-4, PT-2	CL-1	-	SS-2	
A123	MEN'S RESTROOM	TL-3	TL-3	TL-4, PT-2	TL-4, PT-2	TL-4, PT-2	TL-4, PT-2	CL-1	-	SS-2	
A125	SERVERY	TL-9	TL-9	-	-	TL-5	TL-5	CL-1/CL-4	-	SS-2	
A126	DISH RETURN	TL-1	RB-1	-	PT-1	PT-1	PT-1	CL-2	-	SS-2	
A127	JANITOR	SC-1	RB-1	PT-1	FRP-1	FRP-1	PT-1	OPEN TO STRUCTURE	-	-	EXTEND FRP TO 8' AFF
A128	STORAGE	SC-1	RB-1	PT-1	PT-1	PT-1	PT-1	OPEN TO STRUCTURE	-	-	
A130	KITCHEN	EP-1	EP-1	FRP-1	FRP-1	FRP-1	FRP-1	CL-2M	-	-	
A130.1	WAREWASH	EP-1	EP-1	FRP-1	FRP-1	FRP-1	FRP-1	CL-2M	-	-	
A135	RECEIVING	EP-1	EP-1	FRP-1	FRP-1	FRP-1	FRP-1	CL-2M	-	-	
A136	DRY STORAGE	EP-1	EP-1	FRP-1	FRP-1	FRP-1	FRP-1	OPEN TO STRUCTURE	-	-	
A137	NON-FOOD STORAGE	EP-1	EP-1	PT-1	PT-1	PT-1	PT-1	CL-2M	-	-	
A140	HYDROPONICS ENCLOSURE	VCT-1	MB-1	PT-1	PT-1	PT-1	PT-1	-	-	-	REFER TO A406 FOR ADDITIONAL INFORMATION
C120	VESTIBULE	CPT-1	-	EXISTING GLAZING	EXISTING GLAZING	EXISTING GLAZING	EXISTING GLAZING	CL-1	-	-	
C121	SERVING LINE	TL-1	VARIES SEE ELEVATIONS	-	-	-	PT-1 / PT-5	CL-1/CL-4	TL-8	SS-2	
C121.2	BEVERAGE / CONDIMENTS STATION	TL-1	RB-1, MB-1	TL-6	TL-6	-	TL-6	CL-1, CL-2	TL-6, PL-1	SS-2	



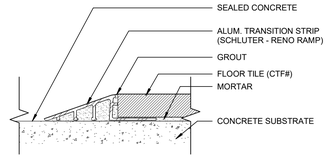
EPOXY TO TILE A5
12" = 1'-0"



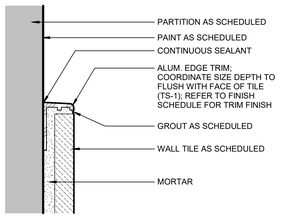
WALL TILE / FLOOR TILE TRANSITION A4
12" = 1'-0"



CARPET TO TILE A3
12" = 1'-0"



TILE TO SEALED CONCRETE, TYP. A2
12" = 1'-0"



TILE TERMINATION DETAIL A1
12" = 1'-0"

TREANOR
2554 Elm Street, Suite 200
Dallas, TX 75226
Office: 214.310.1018
www.TreanorHL.com

Edwards+Mulhausen
2207 E Cesar Chavez
Austin, TX 78702
(p) 512.291.6657

REGISTERED ARCHITECT
MADIA ZAHRA
21737
STATE OF TEXAS
01.30.2025

UNIVERSITY OF NORTH TEXAS
KERR HALL DINING RENOVATION
1413 West Maple St
Denton, TX 76201

UNT UNIVERSITY OF NORTH TEXAS

Issue:	DESIGN DEVELOPMENT
Date:	NOVEMBER 14, 2024

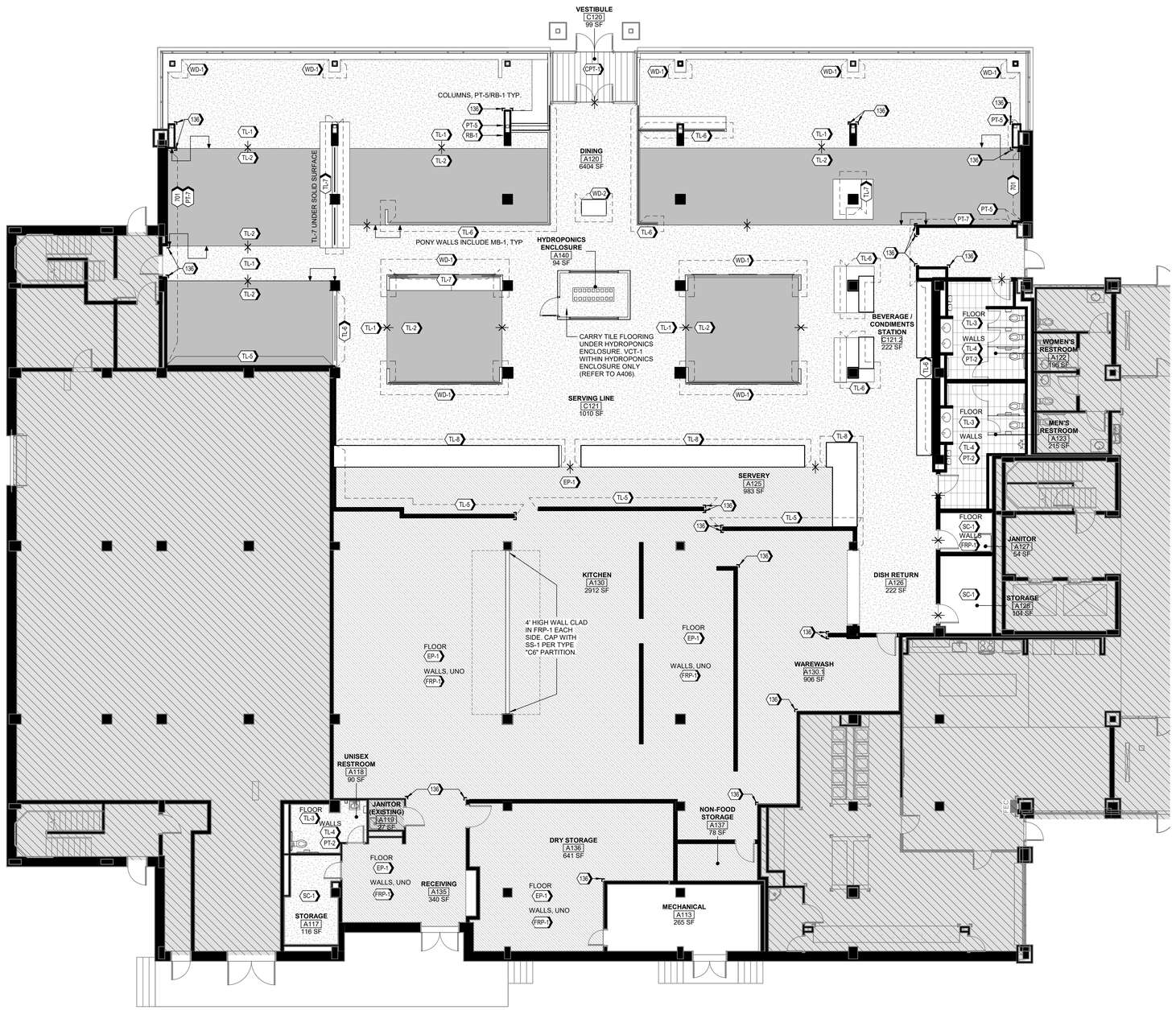
REVISIONS

NO	DESCRIPTION	DATE

A700

INTERIOR FINISH LEGEND, SCHEDULE, & DETAILS

TreanorHL NO. HE0569.2302.01



LEVEL 1 FINISH PLAN (DINING) A1

1/8" = 1'-0"

FINISH PLAN GENERAL NOTES

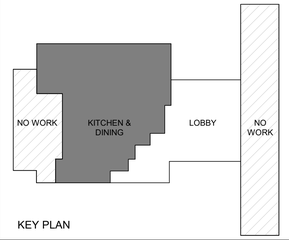
A. COORDINATE AND ALIGN FLOOR FINISH WITH CEILING SOFFITS AND/OR CLOUDS ABOVE.

KEYNOTES

136	STAINLESS STEEL CORNER GUARD (CG-1), TYPICAL; REFER TO A700 FOR ADDITIONAL INFORMATION
701	GRAPHICS LOCATION. PROVIDE LEVEL 5 FINISH ON GYP WALL.
CPT-1	MOHAWK GROUP FIRST STEP OBSIDIAN CARPET TILE; REFER TO A700 FOR ADDITIONAL INFORMATION
EP-1	EPOXY FLOORING; REFER TO A700 FOR ADDITIONAL INFORMATION
FRP-1	FIBER REINFORCED PLASTIC; REFER TO A700 FOR ADDITIONAL INFORMATION
PT-2	PAINT COLOR 2; REFER TO A700 FOR ADDITIONAL INFORMATION
PT-5	PAINT COLOR 5; REFER TO A700 FOR ADDITIONAL INFORMATION
PT-7	PAINT COLOR 7; REFER TO A700 FOR ADDITIONAL INFORMATION
RB-1	4" RUBBER BASE, TYP. REFER TO A700 FOR ADDITIONAL INFORMATION
SC-1	SEALED CONCRETE FINISH; REFER TO A700 FOR ADDITIONAL INFORMATION
TL-1	DINING FLOOR FIELD TILE; REFER TO A700 FOR ADDITIONAL INFORMATION
TL-2	DINING FLOOR ACCENT TILE; REFER TO A700 FOR ADDITIONAL INFORMATION
TL-3	RESTROOM FLOOR TILE; REFER TO A700 FOR ADDITIONAL INFORMATION
TL-4	RESTROOM WALL TILE; REFER TO A700 FOR ADDITIONAL INFORMATION
TL-5	SERVERY WALL TILE; REFER TO A700 FOR ADDITIONAL INFORMATION
TL-6	ACCENT WALL TILE; REFER TO A700 FOR ADDITIONAL INFORMATION
TL-7	ACCENT WALL TILE; REFER TO A700 FOR ADDITIONAL INFORMATION
TL-8	ACCENT WALL TILE; REFER TO A700 FOR ADDITIONAL INFORMATION
WD-1	PAINTED WOOD PANELING; REFER TO A700 FOR ADDITIONAL INFORMATION
WD-2	WOOD FINISH; REFER TO A700 FOR ADDITIONAL INFORMATION

FLOOR FINISH LEGEND

- CONCRETE - SEALED
- 12x24" FLOOR TILE TL-1
- 12X24" FLOOR TILE TL-2
- 12X24" FLOOR TILE TL-3
- KITCHEN TILE TL-9
- WALK OFF MAT CPT-4



KEY PLAN

REGISTERED ARCHITECT
NADIA ZAIDI
21737
STATE OF TEXAS
01.30.2025

TREANOR
2554 Elm Street, Suite 200
Dallas, TX 75226
Office: 214.310.1018
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Austin, TX 78702
(p) 512.291.6657

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KERR HALL DINING RENOVATION

1413 West Maple St
Denton, TX 76201

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Date:	NOVEMBER 14, 2024

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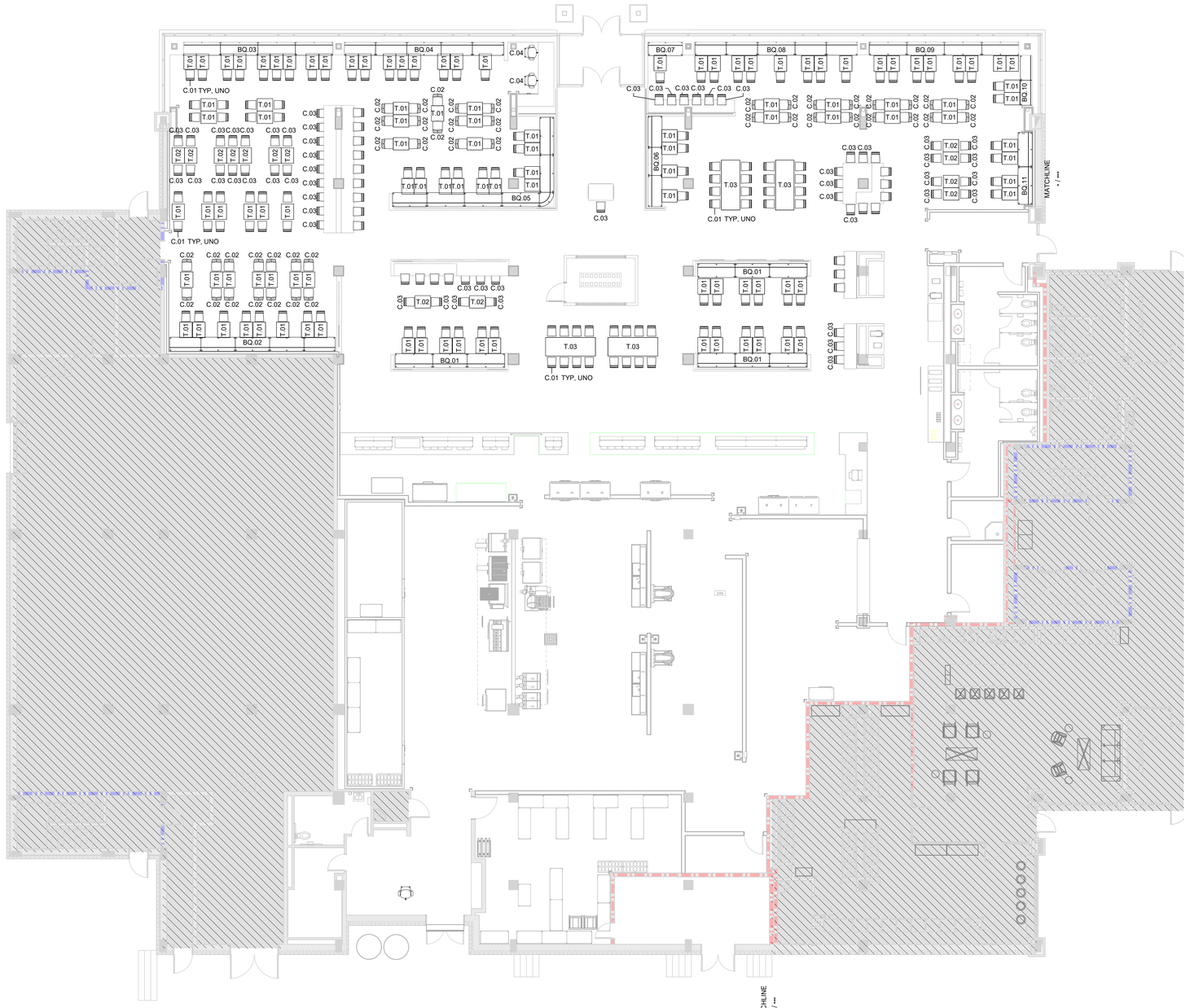
A701

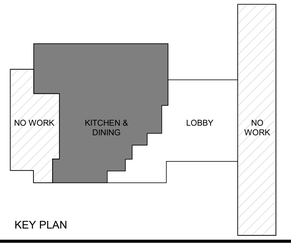
FINISH PLAN

TreanorHL NO. HE0569.2302.01



LEVEL 1 FURNITURE PLAN (DINING) A1

1/8" = 1'-0"



KEY PLAN

TREANOR
2554 Elm Street, Suite 200
Dallas, TX 75226
Office: 214.310.1018
www.TreanorHL.com

Edwards+Mulhausen
2207 E Cesar Chavez
Austin, TX 78702
(p) 512.291.6657

UNIVERSITY OF NORTH TEXAS
KERR HALL DINING RENOVATION

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Denton, TX 76201

Issue:	DESIGN DEVELOPMENT
Date:	NOVEMBER 14, 2024

REVISIONS

NO	DESCRIPTION	DATE

A711

FURNITURE PLAN

TreanorHL NO. HE0569.2302.01

REGISTERED ARCHITECT
NADIA ZAIDI
21737
STATE OF TEXAS
01.30.2025

REFER TO FOODSERVICE DESIGN PROFESSIONALS SPECIFICATIONS AND SUBSEQUENT SHEETS FOR ADDITIONAL COORDINATION INFORMATION

EXISTING EQUIPMENT NOTES (IF EXISTING EQUIPMENT IS FURNISHED IN THIS PROJECT):

1. EXISTING EQUIPMENT NOT SCHEDULED FOR RE-USE TO BE RELOCATED BY THE K.E.C. COORDINATE WITH OWNER FOR NEW LOCATION.
2. ALL UTILITIES NOT SCHEDULED FOR RE-USE TO BE CAPPED & COVERED BY REQUIRED DISCIPLINE.
3. K.E.C. TO VERIFY ALL EXISTING UTILITY LOCATIONS & COORDINATE WITH ALL EQUIPMENT AS REQUIRED.

8 EXISTING EQUIPMENT NOTES
NOT TO SCALE

ARCHITECT TO VERIFY/COORDINATE THE AESTHETIC OPTIONS BELOW (FOOD SERVICE COLOR, MATERIAL, OR SIGNAGE SELECTIONS) IF THESE ITEMS ARE FURNISHED IN THIS PROJECT:

1. COUNTERTOPS: STONE (STAINLESS STEEL IS FURNISHED UNLESS OTHERWISE SPECIFIED).
2. TRAY SLIDES: CORIAN OR STONE (STAINLESS STEEL IS FURNISHED UNLESS OTHERWISE SPECIFIED).
3. COUNTER FRONTS: CERAMIC TILE, 3 FORM, OR PLASTIC LAMINATE.
4. SNEEZE GUARDS: STONE INSETS.
5. GENERAL COLOR, MATERIAL AND GRAPHIC SELECTIONS:
   - A. DISPLAY AIR SCREEN MERCHANDISERS - COLOR SELECTION: POWDER COAT OR PLASTIC LAMINATE (S/S IS FURNISHED UNLESS OTHERWISE SPECIFIED).
   - B. BAKERY DISPLAY CASES - COLOR SELECTION: POWDER COAT OR PLASTIC LAMINATE (S/S IS FURNISHED UNLESS OTHERWISE SPECIFIED).
   - C. PASS THRU OR REACH IN HOLDING CABINETS - COLOR SELECTION: POWDER COAT (MFG.: TRUE) OR PLASTIC LAMINATE (MFG.: TRAULSEN) (S/S IS FURNISHED UNLESS OTHERWISE SPECIFIED).
   - D. HANGING HEAT LAMPS - TRACK AND FIXTURE COLOR SELECTION.
   - E. HEATED MERCHANDISERS.
   - F. PORTABLE GUIDE RAILS - STANCHION AND BELT COLOR SELECTION.
   - G. POPCORN MACHINE - SIGNAGE SELECTION.
   - H. BOTTLE COOLER - SIGNAGE SELECTION.
   - I. GRAPHICS PACKAGE INFORMATION.
   - J. HOT FOOD WELL COVERS.
6. ARCHITECT TO VERIFY/COORDINATE THE FINISHES BELOW:
   - A. WALLS: CERAMIC TILE, FLAT FRP, OR MOLDED FRP (SMOOTH, IMPERVIOUS, AND EASILY CLEANABLE AS APPROVED BY LOCAL JURISDICTION).
   - B. CEILINGS: REMOVABLE VINYL FACE TILE (SMOOTH, IMPERVIOUS, AND EASILY CLEANABLE AS APPROVED BY LOCAL JURISDICTION).
   - C. FLOORS: TILE, EPOXY, OR RUBBERIZED FLOORING SYSTEM (SMOOTH, IMPERVIOUS, EASILY CLEANABLE AND SLIP RESISTANT AS APPROVED BY LOCAL JURISDICTION) (COORDINATE FLOOR TILE TRANSITION AT SERVING LINES).
   - D. FLOORS: WALK-IN ASSEMBLY - EXTEND KITCHEN FLOOR FLUSH INTO WALK-IN ASSEMBLY WITH COVED BASE.
   - E. FURR DOWNS ABOVE SERVING COUNTERS.

5 ARCHITECTURAL COORDINATION NOTES
NOT TO SCALE

CRITICAL NOTES:

1. CONTRACTOR MUST COORDINATE AND VERIFY ALL DIMENSIONS WITH FOOD SERVICE EQUIPMENT SHOP DRAWINGS AND MANUFACTURER'S DATA. DIMENSIONS SHOWN ARE FOR DESIGN AND BIDDING PURPOSES ONLY.
2. WALK-IN ASSEMBLY DOORS MUST BE LEFT OPEN WHILE INTERIOR CONCRETE FLOOR CURES.
3. INSTALL PROTECTIVE COVER ON WALK-IN ASSEMBLY WALL PANELS BEFORE INSTALLING CONCRETE FLOORS AND CURBS.
4. REFER TO GENERAL SPECS - DIVISION 27 TO FURNISH CONDUIT, DATA, AND INTERCONNECT THE PANIC ALARM INSIDE FREEZER TO THE BUILDING AUTOMATION SYSTEM FOR NOTIFICATION TO DISTRICT PERSONNEL IN THE EVENT OF STAFF ENTRAPMENT.
5. PIPING AND DRAINAGE SYSTEMS (SANITARY AND GREASE-LADEN). SYSTEMS MUST BE CLEANED AND FLUSHED BEFORE THE FINAL CONNECTION WITH FOOD SERVICE EQUIPMENT - CRITICAL (DIV. 22).

7 CRITICAL NOTES
NOT TO SCALE

DIVISION 26 (ELECTRICAL) IS RESPONSIBLE FOR BUT NOT LIMITED TO:

1. **DO NOT ROUGH IN FROM FDP DRAWINGS. REFER TO THE KITCHEN EQUIPMENT CONTRACTOR'S DIMENSIONED SHOP DRAWINGS. DIMENSIONS INDICATED ARE TO BE VERIFIED BY KITCHEN EQUIPMENT CONTRACTOR AND ADJUSTED AS REQUIRED BY EQUIPMENT AND FIELD CONDITIONS.**
2. SECTION 11 40 00 TO VERIFY UTILITY REQUIREMENTS OF ANY EXISTING EQUIPMENT.
3. ALL CONNECTIONS SHALL BE MADE FOLLOWING LOCAL CODES AND NATIONAL STANDARDS, EXCEPT WHERE PLANS AND SPECIFICATIONS EXCEED THOSE CODES AND STANDARDS.
4. VERIFY ALL ELECTRICAL REQUIREMENTS WITH ENGINEERING DRAWINGS.
5. ROUGH-IN AND FINAL CONNECTION OF ELECTRICAL SYSTEMS TO FOOD SERVICE EQUIPMENT (INCLUDING MATERIALS AND LABOR). ACCESSORIES FURNISHED LOOSE WITH FOOD SERVICE EQUIPMENT BY SECTION 11 40 00 TO BE FIELD INSTALLED BY DIVISION 26.
6. EMPTY EMT CONDUIT WITH PULL-WIRE AND WIDE-SWEEP BENDS FOR REFRIGERANT PIPING TO REMOTE FOOD SERVICE EQUIPMENT REFRIGERATION SYSTEMS.
7. EMPTY EMT CONDUIT WITH PULL-WIRE AND WIDE-SWEEP BENDS FOR INTERCONNECT CABLES BETWEEN LAN AND POS TERMINALS, CHANGE-MAKERS, PRE-CHECK UNITS, PRINTERS, CPUS, ETC. DIVISION 26 TO VERIFY WHERE THE CONDUIT IS TO RUN FOR POS SYSTEM (I.E., MANAGER'S OFFICE OR IDF ROOM).
8. EMPTY EMT CONDUIT WITH PULL-WIRE AND WIDE-SWEEP BENDS FOR FIRE SUPPRESSION SYSTEMS. INTERCONNECT FIRE PROTECTION SYSTEM TO PANEL BOX SHUNT TRIPS AND BUILDING ALARM.
9. WALK-IN LIGHT FIXTURE INSTALLATION (FURNISHED LOOSE BY SECTION 11 40 00) (IF WALK-IN IS FURNISHED IN THIS PROJECT).
10. TABLE LIMIT SWITCH INSTALLATION (FURNISHED LOOSE BY SECTION 11 40 00) (IF DISHMACHINE IS FURNISHED IN THIS PROJECT).
11. ELECTRICAL MATERIALS AND DEVICES (SHUNT-TRIP BREAKERS, SURGE PROTECTORS, LIGHTING CONTROL DEVICES, CONDUIT, WIRE, ETC.).
12. SWITCHES AND STAINLESS STEEL DISCONNECTS AS REQUIRED (FURNISH, LOCATE, AND INSTALL – TO BE IN AN ACCESSIBLE LOCATION).
13. CHARGING STATIONS FOR FORKLIFTS, PALLET STACKERS, AND PALLET JACKS (SIZE, FURNISH, LOCATE, AND INSTALL) (IF EQUIPMENT IS FURNISHED IN THIS PROJECT).
14. INTERCONNECTION BETWEEN CONDENSATE FAN AND DISHMACHINE CONTROL PANEL (IF EQUIPMENT IS FURNISHED IN THIS PROJECT).
15. INTERCONNECTION BETWEEN EXHAUST HOOD FANS AND SWITCH (IF EQUIPMENT IS FURNISHED IN THIS PROJECT).
16. INTERCONNECTION BETWEEN EXHAUST HOOD LIGHTS AND SWITCH (IF EQUIPMENT IS FURNISHED IN THIS PROJECT).
17. DOOR HEATERS, LIGHTS, COILS, AND PRESSURE RELIEF PORTS PRE-WIRED TO JUNCTION BOX AT TOP OF WALK-IN ASSEMBLIES (IF EQUIPMENT IS FURNISHED IN THIS PROJECT) FURNISHED BY SECTION 11 40 00. FINAL CONNECTION BY DIV. 26.
18. IF ANY ELECTRICAL ACCESSORIES, FITTINGS, AND CORD/PLUGS ARE FURNISHED LOOSE WITH EQUIPMENT BY 11 40 00, DIV.26 IS TO ATTACH TO EQUIPMENT AND FURNISH FINAL CONNECTION.
19. FURNISH WATERPROOF RECEPTACLES IN WET AREAS.
20. ALL ELECTRICAL CONNECTIONS BENEATH EXHAUST HOODS (IF EQUIPMENT IS FURNISHED IN THIS PROJECT) TO EXTEND TO SHUNT TRIP BREAKERS WITH ELECTRICAL PANEL BOX FOR SHUTDOWN DURING FIRE MODE.
21. RECEPTACLES ARE TO BE PRE-WIRED TO THE JUNCTION BOX OR LOAD CENTER FOR FINAL CONNECTION BY DIVISION 26.
22. ALL ELECTRICAL LIGHTING, POWER, AND DISTRIBUTION SYSTEMS.
23. DO NOT INTERCONNECT MORE THAN THREE (3) CONVENIENCE OUTLETS ON ONE (1) BREAKER.
24. OTHER THAN CONVENIENCE OUTLETS, ALL ELECTRICAL CONNECTIONS SHOWN ON FOOD SERVICE PLANS ARE DEDICATED BREAKERS.
25. DOORBELL AT RECEIVING DOOR (FURNISH AND INSTALL – TO BE AUDIBLE THROUGHOUT KITCHEN, OFFICE, AND DRY STORAGE ROOM).
26. ADEQUATE LIGHTING AT RECEIVING DOOR.
27. FURNISH AND INSTALL TWO EMERGENCY STROBE BEACONS THAT INTERCONNECT TO PANIC ALARM IN WALK-IN FREEZER. ONE (1) IN KITCHEN ABOVE WALK-IN FREEZER DOOR ONE (1) IN CAFETORIUM (IF WALK-IN IS FURNISHED IN THIS PROJECT). REFER TO GENERAL SPECIFICATIONS FOR ADDITIONAL DETAILS.
27. DEDICATED CIRCUIT FOR HEATED DRAIN LINE CONNECTION IN WALK-IN FREEZER AT EACH COIL (IF WALK-IN IS FURNISHED IN THIS PROJECT).

NOTE: ELECTRICAL CONNECTIONS INDICATED ARE THOSE REQUIRED FOR THE FOOD SERVICE EQUIPMENT AND THOSE REQUIRED FOR SUPPORT EQUIPMENT FURNISHED BY DIVISION 26. FOR ADDITIONAL REQUIREMENTS, REFER TO THE ELECTRICAL ENGINEER'S DRAWINGS.

6 ELECTRICAL COORDINATION NOTES
NOT TO SCALE

DIVISION 22 (PLUMBING) RESPONSIBLE FOR BUT NOT LIMITED TO:

1. **DO NOT ROUGH-IN FROM FDP DRAWINGS. REFER TO THE KITCHEN EQUIPMENT CONTRACTOR'S DIMENSIONED SHOP DRAWINGS. DIMENSIONS INDICATED ARE TO BE VERIFIED BY KITCHEN EQUIPMENT CONTRACTOR AND ADJUSTED AS REQUIRED BY EQUIPMENT AND/OR FIELD CONDITIONS.**
2. SECTION 11 40 00 TO VERIFY UTILITY REQUIREMENTS OF ANY EXISTING EQUIPMENT.
3. ALL CONNECTIONS SHALL BE MADE IN ACCORDANCE WITH LOCAL CODES AND NATIONAL STANDARDS, EXCEPT WHERE PLANS AND SPECIFICATIONS EXCEED THOSE CODES AND STANDARDS.
4. VERIFY ALL PLUMBING REQUIREMENTS WITH ENGINEERING DRAWINGS.
5. EMPTY PVC CONDUIT WITH WIDE-SWEEP BENDS FOR REFRIGERANT PIPING TO BEVERAGE LINES, CO2 LINES, AND REMOTE FOOD SERVICE EQUIPMENT REFRIGERATION SYSTEMS.
6. ROUGH-IN AND FINAL PLUMBING CONNECTIONS TO FOOD SERVICE EQUIPMENT AND BETWEEN COMPONENTS (INCLUDING MATERIALS AND LABOR). ACCESSORIES FURNISHED LOOSE WITH FOOD SERVICE EQUIPMENT BY SECTION 11 40 00 TO BE FIELD INSTALLED BY DIVISION 22. THIS INCLUDES BUT IS NOT LIMITED TO INSTALLATION OF ALL FAUCETS (WATER FILL FAUCETS, PRE-RINSE FAUCETS, ETC.), HOSES, GAS DISCONNECTS, AND DRAINS FROM EQUIPMENT POINT OF CONNECTION TO BUILDING PLUMBING SYSTEMS. ALL DRAIN LINES ARE FURNISHED AND INSTALLED BY DIV. 22.
7. KITCHEN EQUIPMENT CONTRACTOR IS RESPONSIBLE FOR FURNISHING ALL FAUCETS (WATER FILL FAUCETS, PRE-RINSE FAUCETS, ETC.), DRAIN FITTINGS, MIXING VALVES, CONTROL VALVES, WATER PRESSURE REGULATORS, VACUUM BREAKERS, AND ALL ACCESSORIES FOR EQUIPMENT SPECIFIED UNDER 11 40 00. DIVISION 22 IS RESPONSIBLE FOR INSTALLATION.
8. INDIRECT DRAIN LINE RUNS FROM EQUIPMENT TO NEAREST DRAIN OR FLOOR SINK. LINES TO BE TYPE 'K' COPPER.
9. IF ANY PLUMBING ACCESSORIES OR FITTINGS ARE FURNISHED LOOSE WITH EQUIPMENT BY 11 40 00, DIV. 22 IS TO ATTACH TO EQUIPMENT AND FURNISH FINAL CONNECTION.
10. GAS SUPPLY SYSTEMS WITH ALL COMPONENTS AND FITTINGS AS REQUIRED FOR A COMPLETE SYSTEM.
11. WATER SUPPLY SYSTEMS WITH ALL COMPONENTS AND FITTINGS AS REQUIRED FOR A COMPLETE SYSTEM.
12. COMPRESSED AIR SYSTEMS WITH ALL COMPONENTS AND FITTINGS AS REQUIRED FOR A COMPLETE SYSTEM (IF REQUIRED FOR THIS PROJECT).
13. PIPING AND DRAINAGE SYSTEMS (SANITARY AND GREASE-LADEN). SYSTEMS MUST BE CLEANED AND FLUSHED BEFORE THE FINAL CONNECTION WITH FOOD SERVICE EQUIPMENT - CRITICAL.
14. FLOOR SINKS (FURNISH AND INSTALL). FLANGE AND GRATES TO BE FLUSH WITH FINISHED FLOOR.
15. FLOOR DRAINS (FURNISH AND INSTALL). FLANGE AND GRATES TO BE FLUSH WITH FINISHED FLOOR.
16. TRENCH DRAINS (FURNISH AND INSTALL). TRENCH LINERS FURNISHED BY 11 40 00. FLANGE AND LINERS TO BE FLUSH WITH FINISHED FLOOR.
17. GREASE TRAPS AS REQUIRED. VERIFY WITH LOCAL CODES TO BYPASS OR PIPE THRU GREASE TRAP AND/OR INTERCEPTOR.
18. P-TRAPS AS REQUIRED (INCLUDING ALL DISPOSERS).
19. INTERCONNECT WATER THRU WATER FILTER (FILTER FURNISHED BY 11 40 00 UNLESS OTHERWISE SPECIFIED) TO EQUIPMENT.
20. GAS QUICK DISCONNECT INSTALLATION (QUICK DISCONNECT FURNISHED BY 11 40 00).
21. SAFETY RESTRAINT CABLE INSTALLATION (SAFETY RESTRAINT CABLE FURNISHED BY 11 40 00).
22. SPECIFIED COUPLINGS AND PIPING TO ALL EQUIPMENT FURNISHED BY 11 40 00.
23. AIR COMPRESSORS (IF REQUIRED FOR THIS PROJECT) (SIZE, FURNISH, AND INSTALL, UNLESS OTHERWISE SPECIFIED).
24. WATER SOFTENERS (IF REQUIRED FOR THIS PROJECT) (SIZE, FURNISH, AND INSTALL, UNLESS OTHERWISE SPECIFIED).
25. PRESSURE BOILERS (IF REQUIRED FOR THIS PROJECT) (SIZE, FURNISH, AND INSTALL, UNLESS OTHERWISE SPECIFIED).
26. HAND SINKS (FURNISH (UNLESS OTHERWISE SPECIFIED) AND INSTALL). FURNISH HOT WATER TEMPERING VALVE IF REQUIRED. WATER TEMPERATURE TO BE AT LEAST 100 DEGREES AND FLOW FOR AT LEAST 20 SECONDS.
27. ICE BIN DRAIN INSULATION (IF ICE MACHINE IS FURNISHED IN THIS PROJECT) (FURNISH AND INSTALL).
28. UNIONS AT DISPOSER SOLENOID VALVES (IF DISPOSER IS FURNISHED IN THIS PROJECT) (FURNISH AND INSTALL).
29. BACK FLOW PREVENTION AS REQUIRED (FURNISH AND INSTALL - INCLUDING ALL DISPOSERS). BACK- SIPHONAGE SHALL BE INSTALLED AT ALL FIXTURES AND EQUIPMENT WHERE BACKFLOW AND/OR BACK-SIPHONAGE MAY OCCUR AND WHERE A MINIMUM AIR GAP CANNOT BE FURNISHED BETWEEN THE WATER TO THE FIXTURE OR EQUIPMENT AT ITS FLOOD/LEVEL RIM. VACUUM BREAKERS, WHEN FURNISHED WITH EQUIPMENT, SHALL OVERRIDE THE ABOVE, IF ACCEPTABLE WITH APPLICABLE CODES. DIVISION 22 RESPONSIBLE FOR VERIFYING REQUIREMENT WITH LOCAL CODES.
30. JANITOR SINK WITH FAUCET (FURNISH AND INSTALL).
31. FREEZE PROOF HOSE BIBB AT EXTERIOR OF BUILDING BY RECEIVING DOOR (IF SHOWN ON FOOD SERVICE PLANS) (FURNISH AND INSTALL).
32. REVERSE OSMOSIS SYSTEMS (SIZE, FURNISH (UNLESS OTHERWISE SPECIFIED), LOCATE AND INSTALL).
33. ALL PIPING WITHIN COUNTER BODY OR UNDER FABRICATED COUNTERS TO BE RUN TO A CONNECTION POINT BELOW COUNTER BODY BY SECTION 11 40 00. FINAL CONNECTION BY DIVISION 22.
34. EXHAUST HOOD CONDENSATE DRAIN CONNECTIONS (IF EXHAUST HOOD IS FURNISHED IN THIS PROJECT) (FURNISH AND INSTALL).
35. INTERCONNECTION OF 1/2" CW TO PRE-RINSE AND DISPOSERS CONE/BODY INLETS PIPED THROUGH SOLENOID AND VACUUM BREAKER (IF DISPOSER IS FURNISHED IN THIS PROJECT).
36. FIRE SYSTEM PIPING. EXPOSED PIPING TO BE CHROME PLATED.
37. PIPE 1/2" COLD WATER TO SWIRL INLETS AT DISPOSERS (IF DISPOSER IS FURNISHED IN THIS PROJECT).
38. WATER TREATMENT FOR ICE BUILDERS (NON-CHLORINATED WATER WITH A PH LEVEL OF 10 OR HIGHER) AND ANY DRAINS AND OVERFLOWS. PIPING FROM ICE BUILDERS TO TUMBLE CHILLERS BY DIV. 23 (IF ICE BUILDERS AND TUMBLE CHILLERS ARE FURNISHED IN THIS PROJECT).

NOTE: WATER AND DRAIN CONNECTIONS INDICATED ARE THOSE REQUIRED FOR THE FOOD SERVICE EQUIPMENT AND THOSE REQUIRED FOR SUPPORT EQUIPMENT FURNISHED BY DIVISION 22. FOR ADDITIONAL WATER AND DRAIN REQUIREMENTS REFER TO MECHANICAL DRAWINGS.

NOTE: REFER TO ELECTRICAL/MECHANICAL DRAWINGS FOR REQUIREMENTS OF EXHAUST FANS AND MAKE-UP AIR HANDLERS AND LOCATION OF AN INTERLOCK AND START/STOP CONTROLS TO BE LOCATED WITHIN FOOD SERVICE AREA BY DIVISION 26.

4 PLUMBING COORDINATION NOTES
NOT TO SCALE

DIVISION 23 (MECHANICAL) RESPONSIBLE FOR BUT NOT LIMITED TO:

1. **DO NOT ROUGH-IN FROM FDP DRAWINGS. REFER TO THE KITCHEN EQUIPMENT CONTRACTOR'S DIMENSIONED SHOP DRAWINGS. DIMENSIONS INDICATED ARE TO BE VERIFIED BY KITCHEN EQUIPMENT CONTRACTOR AND ADJUSTED AS REQUIRED BY EQUIPMENT AND/OR FIELD CONDITIONS.**
2. SECTION 11 40 00 TO VERIFY UTILITY REQUIREMENTS OF ANY EXISTING EQUIPMENT.
3. ALL CONNECTIONS SHALL BE MADE FOLLOWING LOCAL CODES AND NATIONAL STANDARDS, EXCEPT WHERE PLANS AND SPECIFICATIONS EXCEED THOSE CODES AND STANDARDS.
4. VERIFY ALL MECHANICAL REQUIREMENTS WITH ENGINEERING DRAWINGS.
5. EMPTY EMT CONDUIT WITH PULL-WIRE AND WIDE-SWEEP BENDS FOR REFRIGERANT PIPING TO REMOTE FOOD SERVICE EQUIPMENT REFRIGERATION SYSTEMS.
6. ROUGH-IN AND FINAL CONNECTION OF MECHANICAL SYSTEMS TO FOOD SERVICE EQUIPMENT, WALK-IN ASSEMBLIES, AND BETWEEN COMPONENTS (INCLUDING MATERIALS AND LABOR).
7. TESTING AND BALANCING FOR ROOMS AND EXHAUST HOODS TO BE PERFORMED BY MECHANICAL CONTRACTOR. BALANCE REPORT FOR FOOD SERVICE EXHAUST HOODS TO BE FURNISHED TO FOODSERVICE DESIGN PROFESSIONALS (FDP) IMMEDIATELY UPON COMPLETION (SEND TO HOUSTON.SUBMITTAL@FDP.ORG FOR HOUSTON OFFICE AND DALLAS.SUBMITTAL@FDP.ORG FOR DALLAS OFFICE) AND MUST BE SUBMITTED WITH O&M MANUALS.
8. EXHAUST HOODS, CONDENSATE HOODS, FIRE SUPPRESSION SYSTEMS, CONNECTIONS AND CONTROLS (FURNISH AND INSTALL – *UNLESS OTHERWISE SPECIFIED*). FURNISH TEMPERED AIR AT ALL SUPPLY DUCTS.
   - A. IF EXHAUST/CONDENSATE HOODS AND FIRE SUPPRESSION SYSTEMS ARE SPECIFIED UNDER SECTION 11 40 00, DIVISION 23 IS RESPONSIBLE FOR ALL EXHAUST AND CONDENSATE HOOD CONNECTIONS (FURNISH AND INSTALL).
9. VFD SYSTEM AND CONTROLLERS, WHEN REQUIRED BY CODE (FURNISH AND INSTALL).
10. FURNISH AND INSTALL ALL VENTILATION (DIRECT OR INDIRECT), AIR CONDITIONING AND HEATING SYSTEMS (UNLESS OTHERWISE SPECIFIED).
11. COORDINATE SUPPLY AND RETURN DUCTS ABOVE SERVING COUNTERS OR OPEN-AIR REFRIGERATED MERCHANDISERS. NO COLD AIR TO BLOW DIRECTLY ON HOT FOOD COUNTERS.
12. COORDINATE SUPPLY AND RETURN DUCTS AWAY FROM EQUIPMENT WITH TOP MOUNTED REFRIGERATION. NO COLD AIR TO BLOW DIRECTLY ON COMPRESSORS.
13. MECHANICAL CONTRACTOR TO LOCATE TEMPERATURE MONITORS WITHIN RETURN DUCTS.
14. CIRCULATING AIR ABOVE WALK-IN ASSEMBLIES (FURNISH AND INSTALL).
15. CIRCULATING AIR ABOVE AND IN AIR GAPS AT WAREHOUSE COLD STORAGE ASSEMBLIES (FURNISH AND INSTALL).
16. WATER CHILLERS AS REQUIRED (IF EQUIPMENT IS FURNISHED IN THIS PROJECT) (FURNISH, SIZE AND LOCATE).
17. PIPING FROM ICE BUILDERS TO TUMBLE CHILLERS (IF EQUIPMENT IS FURNISHED IN THIS PROJECT) (FURNISH, SIZE AND LOCATE).

3 MECHANICAL COORDINATION NOTES
NOT TO SCALE

GENERAL CONTRACTOR RESPONSIBLE FOR BUT NOT LIMITED TO:

1. ANY WALL PENETRATION REQUIRED FOR FOOD SERVICE EQUIPMENT UTILITIES. ESCUTCHEON PLATES OR S/S SLEEVES TO BE FURNISHED AND INSTALLED AS NEEDED.
2. BULK FREEZER VENTILATION PIPE (IF BULK FREEZER IS FURNISHED IN THIS PROJECT) (FURNISH AND INSTALL, UNLESS OTHERWISE SPECIFIED).
3. CORE DRILLING FOR GUIDE RAILS (IF GUIDE RAILS ARE FURNISHED IN THIS PROJECT).
4. REFRIGERATION ROOF CURBS / ROOF JACK (IF REFRIGERATION SYSTEM IS FURNISHED IN THIS PROJECT AND LOCATED ON ROOF).
5. INTERIOR BOLLARDS (IF REQUIRED FOR THIS PROJECT) – TO BE EPOXY PAINTED PER LOCAL CODES (FURNISH AND INSTALL).
6. FURNISH AND INSTALL 3/4" PLYWOOD BLOCKING IN THE WALL FOR MOUNTING EQUIPMENT FURNISHED BY SECTION 11 40 00 AS REQUIRED.
7. WALK-IN DEPRESSIONS (TO BE DEAD LEVEL) AND SAND LEVELING BED (IF WALK-IN IS FURNISHED IN THIS PROJECT AND RECESS IS SHOWN).
8. STRUCTURAL BRACING FOR BULK WALK-IN CEILING PANELS IF REQUIRED.
9. MENU SYSTEM VIDEO MONITORS IN SERVERY (UNLESS OTHERWISE SPECIFIED).
10. STRUCTURAL BRACING FOR MENU SYSTEM VIDEO MONITORS IF REQUIRED.
11. INTERIOR/EXTERIOR REFRIGERATION PENETRATIONS AND SLEEVES AT BUILDING PENETRATIONS.
12. DOORSCOPE VIEWER (PEEPHOLE) WITH WIDE VIEWING ANGLE AT RECEIVING DOOR.
13. CANOPY AT RECEIVING DOOR. COORDINATE HEIGHT WITH THE HEIGHT OF RECEIVING DOOR (8') AND THE MOUNTING HEIGHT OF AIR SCREEN ABOVE THE DOOR.
14. SOAP AND TOWEL DISPENSER FURNISHED BY OWNER. G.C. RESPONSIBLE FOR INSTALLATION.
15. WASHER AND DRYER (FURNISH AND INSTALL, UNLESS OTHERWISE SPECIFIED).
16. DWARF WALL AT EXPOSED FRONT/ENDS OF CAFETERIA SERVING COUNTERS WITH FINISH AS SELECTED BY ARCHITECT (IF REQUIRED IN THIS PROJECT).

2 GENERAL CONTRACTOR COORDINATION NOTES
NOT TO SCALE

HEALTH DEPARTMENT REQUIREMENTS (VERIFY WITH LOCAL JURISDICTIONS):

1. FLOORS: VERIFY WITH DIVISION 9. FLOORS TO BE SMOOTH, IMPERVIOUS, EASILY CLEANABLE AND SLIP RESISTANT.
2. WALLS: VERIFY WITH ARCHITECTURAL DOCUMENTS. WALLS TO BE SMOOTH, IMPERVIOUS, AND EASILY CLEANABLE.
3. CEILING: LAY-IN TILES. CEILING TILES TO BE SMOOTH, IMPERVIOUS, AND EASILY CLEANABLE.
4. EMPLOYEE TOILET: TO BE LOCATED OFF MAIN CORRIDOR AND ADJACENT TO MAIN KITCHEN. RESTROOM MUST HAVE A VESTIBULE AND NOT OPEN TO KITCHEN / PREP AREAS. TOILETS TO BE WELL VENTILATED.
5. LAVATORIES: WALL HUNG LAVATORIES LOCATED WITHIN ALL FUNCTIONAL WORKING AREAS.
6. UTENSIL CLEANING/SANITIZING: ACCOMPLISHED IN UTENSIL WASH AREA WITH (3) 2'-0" x 2'-2" x 15" MINIMUM DEEP SINKS AND WAREWASH MACHINE.
7. MECHANICAL CLEANING/SANITIZING OF TABLEWARE: ACCOMPLISHED BY WAREWASH MACHINE.
8. STOREROOMS: AMPLE DAILY STORAGE FURNISHED IN ENCLOSED STORE ROOMS. STORE ROOMS TO BE VENTILATED AND MAINTAIN PROPER TEMPERATURE.
9. WATER HEATER: LOCATED IN THE MECHANICAL ROOM ADJACENT TO KITCHEN. TO BE SIZED TO FURNISH AMPLE WATER TO MAINTAIN PROPER WATER TEMPERATURE THROUGHOUT HOURS OF OPERATION.
10. GREASE TRAP: LOCATED AT EXTERIOR OF BUILDING. REFER TO ENGINEER'S DRAWINGS.
11. FOOD SERVICE EQUIPMENT: ALL FLOOR-MOUNTED EQUIPMENT IS TO BE SEALED TO THE FLOOR TO FURNISH AN EASILY CLEANABLE SURFACE AND PREVENT SEEPAGE. EQUIPMENT NOT MOUNTED TO THE FLOOR IS TO BE WALL MOUNTED ON WALL CARRIERS, OR ELEVATED ON LEGS TO FURNISH AT LEAST A SIX-INCH CLEARANCE BETWEEN FLOOR AND EQUIPMENT.
12. MOP SINK: LOCATED IN JANITOR CLOSET OFF MAIN KITCHEN CORRIDOR, AND LOCATED IN CLOSE PROXIMITY TO THE SERVERY WAREWASH AREA.
13. EXHAUST HOODS: EXHAUST HOODS FURNISHED OVER COOKING EQUIPMENT WITH LIQUID CHEMICAL ANSUL FIRE EXTINGUISHING SYSTEM.
14. LIGHTING AND PROTECTIVE SHIELDING: RECESSED CEILING-MOUNTED FLUORESCENT LIGHT FIXTURES FITTED WITH CLEAR LEXAN DIFFUSERS.
15. GARBAGE AND REFUSE: CENTRAL TRASH COLLECTION FURNISHED FOR BUILDING LOCATED NEAR RECEIVING AREA ON SMOOTH CONCRETE SURFACE.
16. POISONOUS AND TOXIC MATERIAL STORAGE: LOCATED IN RESPECTIVE JANITOR CLOSETS WITH LOCKING HARDWARE.

1 HEALTH DEPARTMENT COORDINATION NOTES
NOT TO SCALE

FDP
FOODSERVICE DESIGN PROFESSIONALS

REGISTERED ARCHITECT · STATE OF TEXAS · 21727 · 01.30.2025

TREANOR
2554 Elm Street, Suite 200
Dallas, TX 75226
Office: 214.310.1818
www.TreanorHL.com

UNIVERSITY OF NORTH TEXAS
KERR HALL INTERIOR RENOVATION
1413 West Maple St
Denton, TX 76201

UNT

Issue: ISSUE FOR CONSTRUCTION

Date: APRIL 08, 2025

REVISIONS

NO	DESCRIPTION	DATE

QF1

FS GENERAL COORDINATION NOTES

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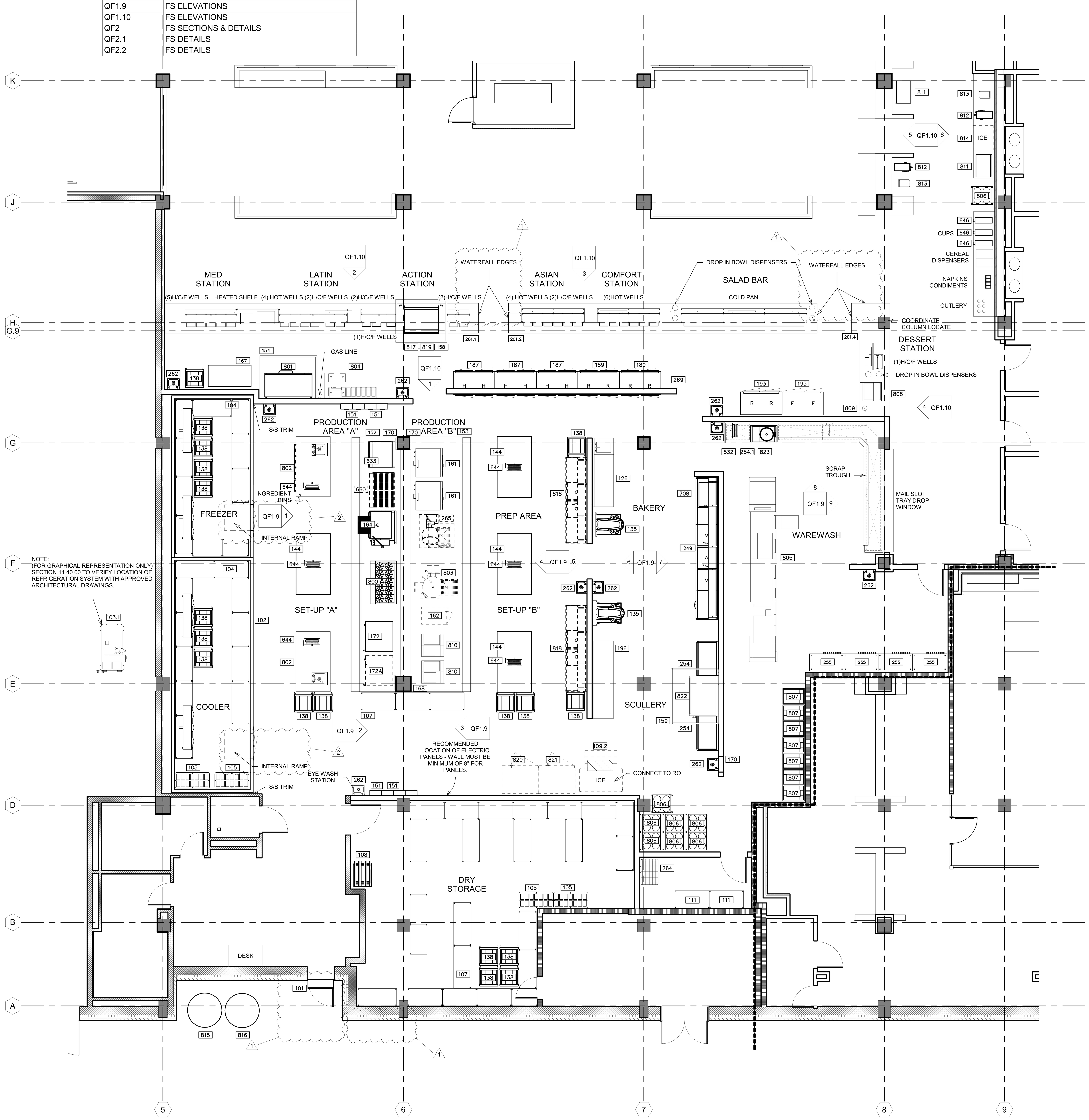
FOOD SERVICE DRAWING INDEX	
FDP SHEET NUMBER	FDP SHEET NAME
QF1	FS GENERAL COORDINATION NOTES
QF1.0	FS EQUIPMENT PLAN
QF1.1	FS FACILITY MODEL
QF1.2	FS EQUIPMENT MODEL
QF1.3	FS SPECIAL CONDITIONS & MECHANICAL PLAN
QF1.4	FS PLUMBING PLAN
QF1.5	FS ELECTRICAL PLAN
QF1.5.1	FS CONSTRUCTION DETAILS
QF1.6	FS EXHAUST HOODS
QF1.7	FS EXHAUST HOODS
QF1.8	FS CONDENSING UNITS
QF1.9	FS ELEVATIONS
QF1.10	FS ELEVATIONS
QF2	FS SECTIONS & DETAILS
QF2.1	FS DETAILS
QF2.2	FS DETAILS



1 FOOD SERVICE EQUIPMENT PLAN
3/16" = 1'-0"

FOOD SERVICE EQUIPMENT SCHEDULE - KITCHEN			
REFER TO SHEET QF1 FOR GENERAL CONTRACTOR & HEALTH DEPARTMENT COORDINATION NOTES			
FDP ITEM	FDP QTY	FDP DESCRIPTION	FDP REMARKS
101	1	AIR SCREEN	
102	1	COLD STORAGE ASSEMBLY	
103.1	1	COLD STORAGE REFRIGERATION SYSTEM	VERIFY LOCATION
104	2	COLD STORAGE SHELVING	OWNER FURNISHED
105	4	DUNNAGE RACK	OWNER FURNISHED
107	2	DRY STORAGE SHELVING	OWNER FURNISHED
108	1	CAN RACK	OWNER FURNISHED
109.2	1	ICE MACHINE	EXISTING / RELOCATE
111	2	CHEMICAL SHELF	OWNER FURNISHED
126	1	BACK COUNTER	
135	2	60 QUART MIXER	EXISTING / RELOCATE
138	18	PAN RACK	OWNER FURNISHED
144	4	WORKTABLE W/DBL.BAR UT.RACK	
151	4	FIRE PROTECTION SYSTEM	
152	1	EXHAUST HOOD	
153	1	EXHAUST HOOD	
154	1	EXHAUST HOOD	
158	1	ISLAND EXHAUST HOOD	
159	1	CONDENSATE HOOD	
161	2	CONVECTION OVEN	
162	1	DBL CONVECTION STEAMER - GAS	EXISTING / RELOCATE
164	1	40 GAL. TILT BRAISING PAN-GAS MANUAL TILT	
167	1	MOBILE PIZZA CUTTING TABLE	
168	1	S/S WALL CAP	
170	3	S/S WALL PANEL	
172	1	COMBI OVEN	
172A	1	COMBI OVEN	EXISTING / RELOCATE
187	3	PASS-THRU HEATED CABINET- 2DR	
189	2	PASS-THRU REFRIGERATOR - 2DR	
193	1	REACH-IN REFRIGERATOR - 2DR	
195	1	REACH-IN FREEZER - 2DR	
196	1	BACK COUNTER	
201.1	1	HOT ACTION COUNTER	
201.2	1	HOT SERVICE COUNTER	
201.4	1	DESSERT COUNTER	
249	1	THREE COMPARTMENT SINK W/DISPOSER	
254	2	SOILED & CLEAN DISHTABLE	
254.1	1	MAIL SLOT DISHTABLE	
255	4	MOBILE DRYING RACK	
262	10	HAND SINK	
264	1	REVERSE OSMOSIS SYSTEM & RACK	
265	1	40 GAL. TILT KETTLE	EXISTING / RELOCATE
269	1	S/S CORNER GUARDS	
532	1	HOSE REEL	
633	1	GRIDDLE W/ STAND	
644	6	ELECTRIC CORD REEL	PROVIDED BY DIV. 26
646	3	CUP DISPENSER	OWNER FURNISHED
660	1	CHARBROILER	EXISTING / RELOCATE
708	1	SCRAP COLLECTOR	
800	1	10 BURNER RANGE	
801	1	DECK OVEN	
802	2	WORKTABLE W-SINK	
803	1	KETTLE 60 GALLON	EXISTING / RELOCATE
804	1	MARBLE TOP PIZZA PREP TABLE	
805	1	FLIGHT TYPE DISHMACHINE	
806	8	POKER CHIP DOLLY	OWNER FURNISHED
807	7	GLASS RACK DOLLY	OWNER FURNISHED
808	1	ICE CREAM DIPPING CABINET	
809	1	DIPPER WELL	
810	2	FRYER BATTERY	
811	2	BEVERAGE DISPENSER	PURVEYOR PROVIDED
812	2	TEA & COFFEE BREWER	PURVEYOR PROVIDED
813	2	JUICE DISPENSER	PURVEYOR PROVIDED
814	1	ICE MACHINE	EXISTING / RELOCATE
815	1	CO2 BULK STORAGE TANK	PURVEYOR PROVIDED / PURVEYOR INSTALLED
816	1	OIL RECYCLE TANK	PURVEYOR PROVIDED / PURVEYOR INSTALLED
817	1	REFRIGERATED CHEF'S BASE	
818	2	POWER SOAK SINK	EXISTING / RELOCATE
819	1	COUNTER TOP GRIDDLE	
820	1	BLAST CHILLER	EXISTING / RELOCATE
821	1	BLAST CHILLER	EXISTING / RELOCATE
822	1	POT & PAN WASHER	
823	1	SCRAP COLLECTOR	

ADDENDUM 2 REVISIONS ON THIS SHEET

- **ADDED WATERFALL EDGES TO SERVING COUNTERS**
- **REMOVED CANOPY AT RECEIVING DOOR**
- **REMOVED HOSE BIBB AT LOADING DOCK**
- **REVISED SIZE OF AIR SCREEN AT RECEIVING DOOR**

ADDENDUM 3 REVISIONS ON THIS SHEET

- **REVISED COLD STORAGE ASSEMBLY TO INCLUDE IUNTERNAL RAMPS.**

TREANOR
2554 Elm Street, Suite 200
Dallas, TX 75226
Office: 214.310.1018
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KERR HALL INTERIOR RENOVATION
1413 West Maple St
Denton, TX 76201

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Issue: ISSUE FOR CONSTRUCTION

Date: APRIL 08, 2025

REVISIONS		
NO	DESCRIPTION	DATE
1	ADDENDUM 2	05.23.25
2	ADDENDUM 3	05.28.25

QF1.0

FS EQUIPMENT PLAN

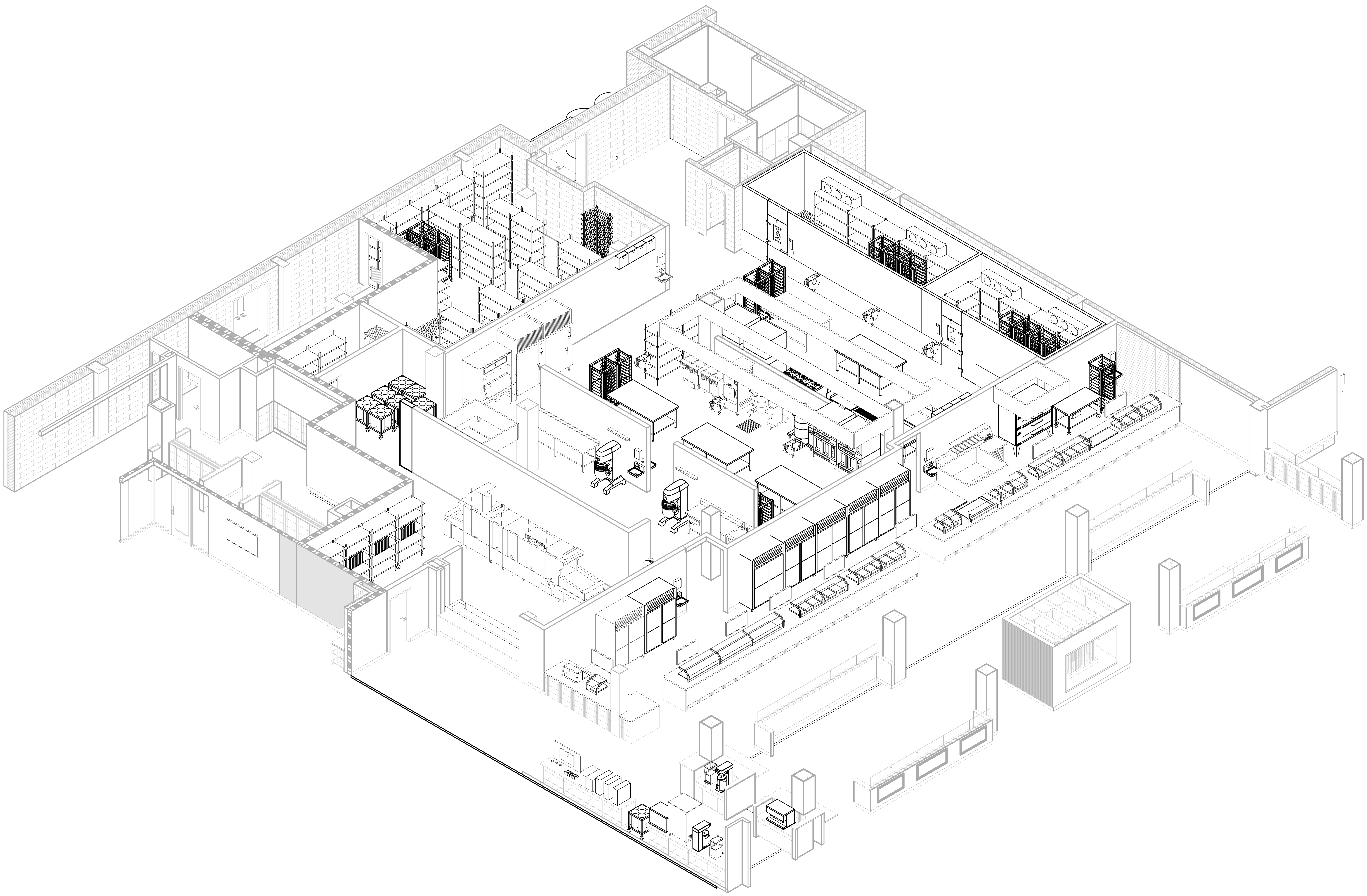
TreanorHL NO. HE0569.2302.01

FDP FOODSERVICE DESIGN PROFESSIONALS

Autodesk Docs://HE0569.2302.01 UNT Kerr Hall Interior Renovation/R23_KERR-HALL-DINING_FDP.rvt

5/28/2025 9:44:55 AM

ISOMETRIC VIEWS WITHIN THIS DRAWING ARE NOT TO SCALE AND ARE PROVIDED FOR REFERENCE PURPOSES ONLY. ISOMETRIC VIEWS ARE NOT INTENDED FOR REGULATORY APPROVAL, PERMITTING, NOR CONSTRUCTION. REFER TO FLOOR PLANS AND DETAILS FOR SPECIFIC PROJECT INFORMATION.



1 FS FACILITY MODEL

01.30.2025

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2554 Elm Street, Suite 200
Dallas, TX 75226
Office: 214.310.1018
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NO	DESCRIPTION	DATE

QF1.1

FS FACILITY MODEL

TreanorHL NO. HE0569.2302.01

FOODSERVICE DESIGN PROFESSIONALS

Autodesk Docs://HE0569.2302.01 UNT Kerr Hall Interior Renovation/R23_KERR-HALL-DINING_FDP.rvt
4/10/2025 1:17:16 PM

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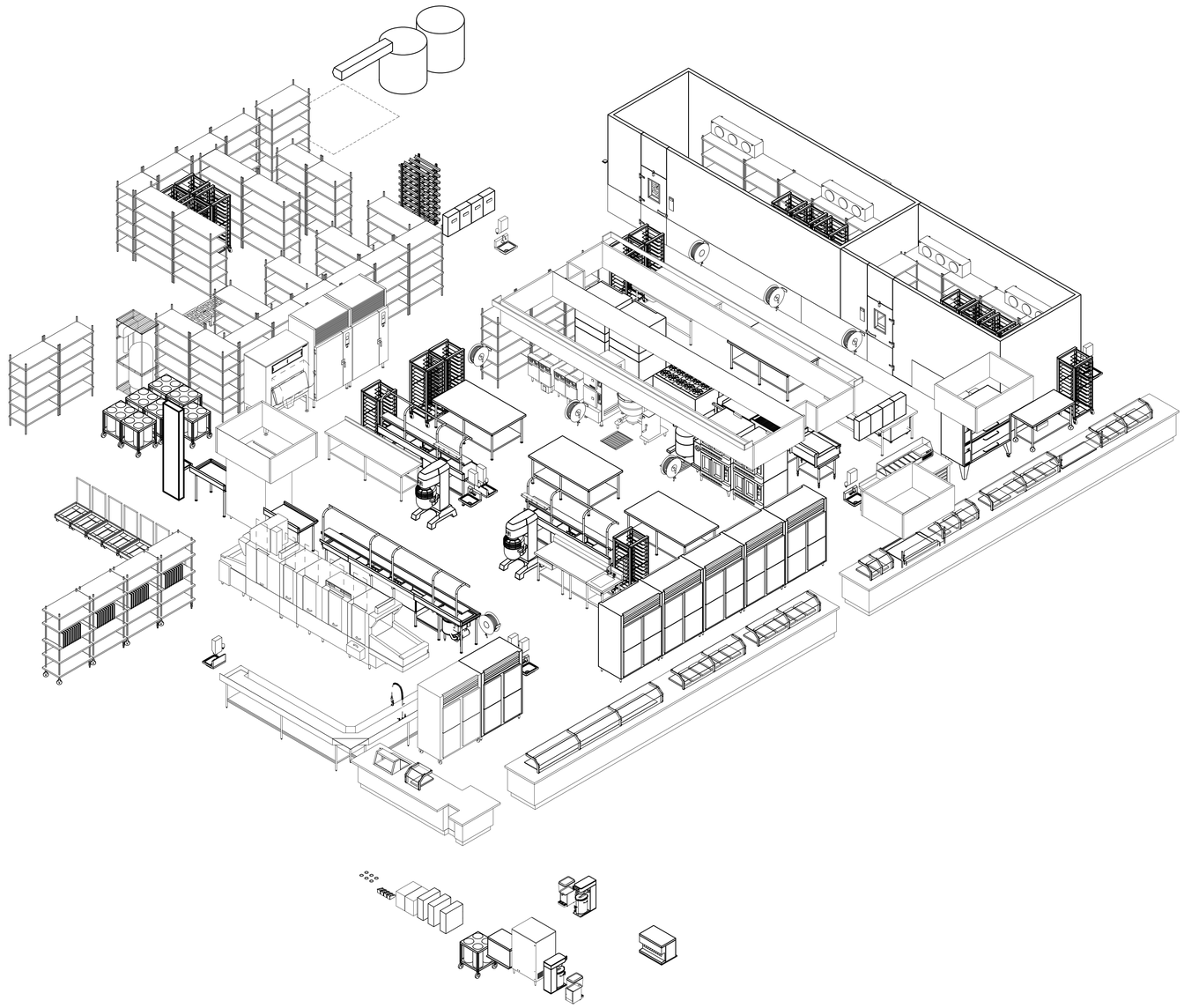

1 FS EQUIPMENT MODEL

REGISTERED ARCHITECT
NADIA ZAIDI
21737
STATE OF TEXAS
01.30.2025

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2554 Elm Street, Suite 200
Dallas, TX 75226
Office: 214.310.1018
www.TreanorHL.com

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Date:	APRIL 08, 2025

REVISIONS

NO	DESCRIPTION	DATE

QF1.2

FS EQUIPMENT MODEL

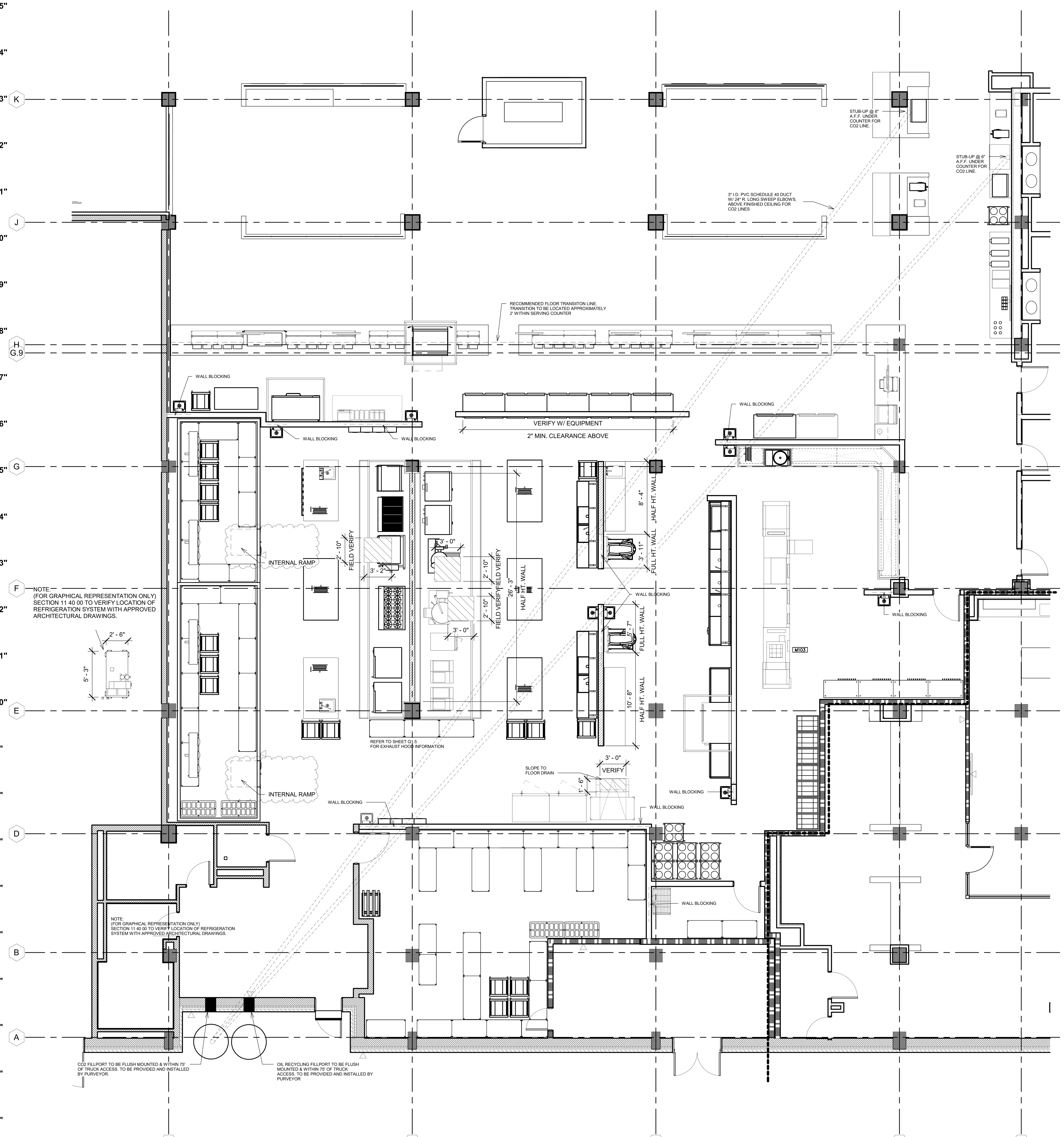
FDP FOODSERVICE DESIGN PROFESSIONALS

TreanorHL NO. HE0569.2302.01

FOOD SERVICE MECHANICAL SCHEDULE						
REFER TO SHEET QF1 FOR MECHANICAL COORDINATION NOTES						
FDP NO.	FDP QTY	FDP TYPE	FDP SIZE	FDP LOC	FDP CFM	FDP S.P.
M103	1	EXHAUST	18" SQUARE	VERIFY	1200	VERIFY

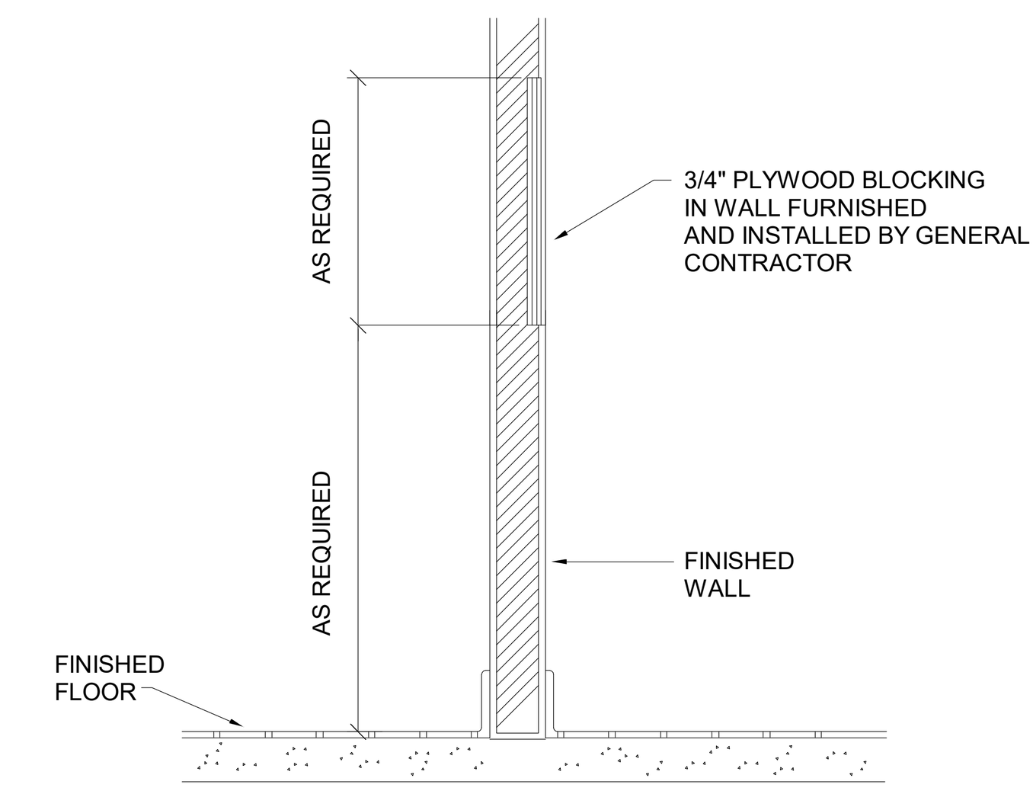
ADDENDUM 3 REVISIONS ON THIS SHEET

- **REVISED COLD STORAGE ASSEMBLY FLOOR DETAIL.**
- **REVISED COLD STORAGE ASSEMBLY TO INCLUDE IUNTERNAL RAMPS.**



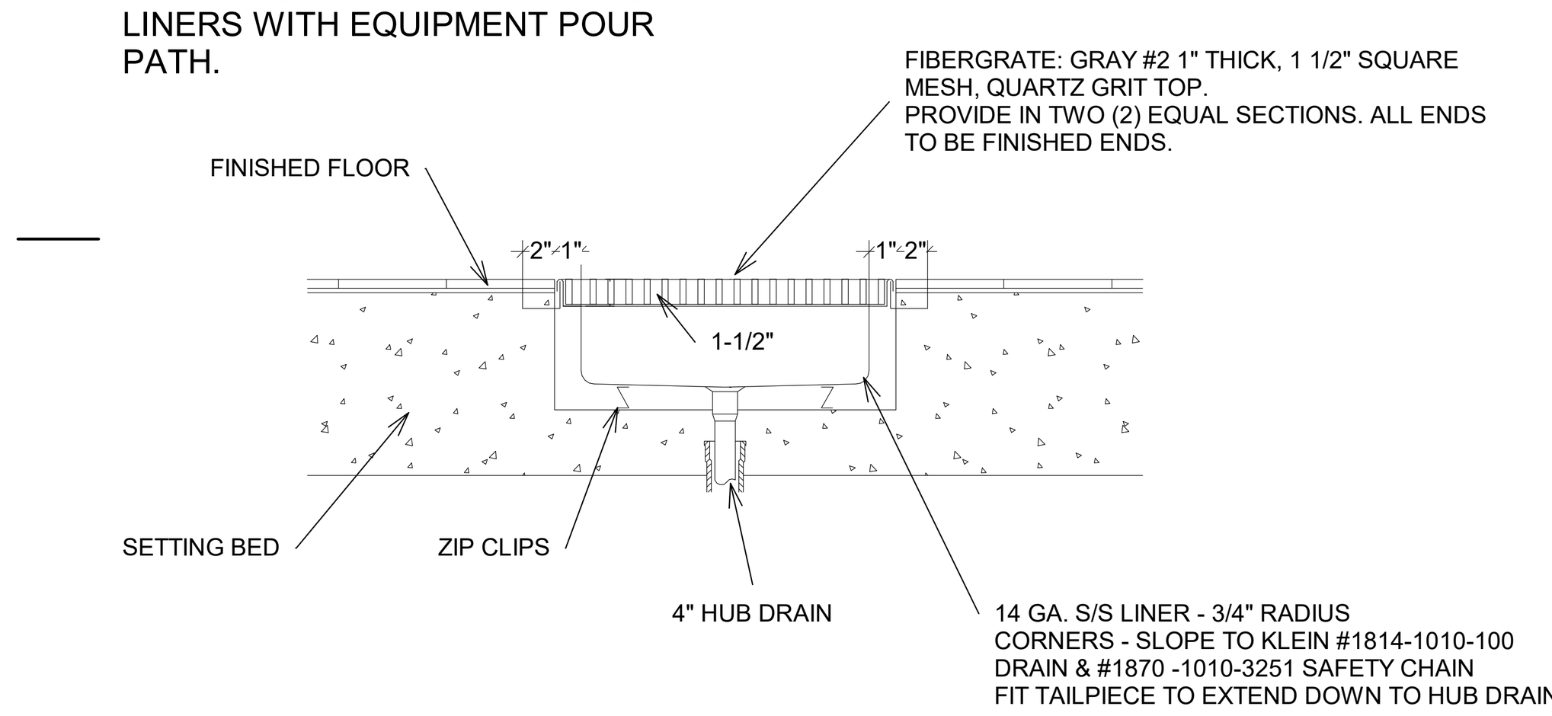
1 FOOD SERVICE SPECIAL CONDITIONS PLAN
3/16" = 1'-0"

NOTE:
SECTION 11 40 00 TO COORDINATE FINAL LOCATION AND SIZE OF WALL BLOCKING.

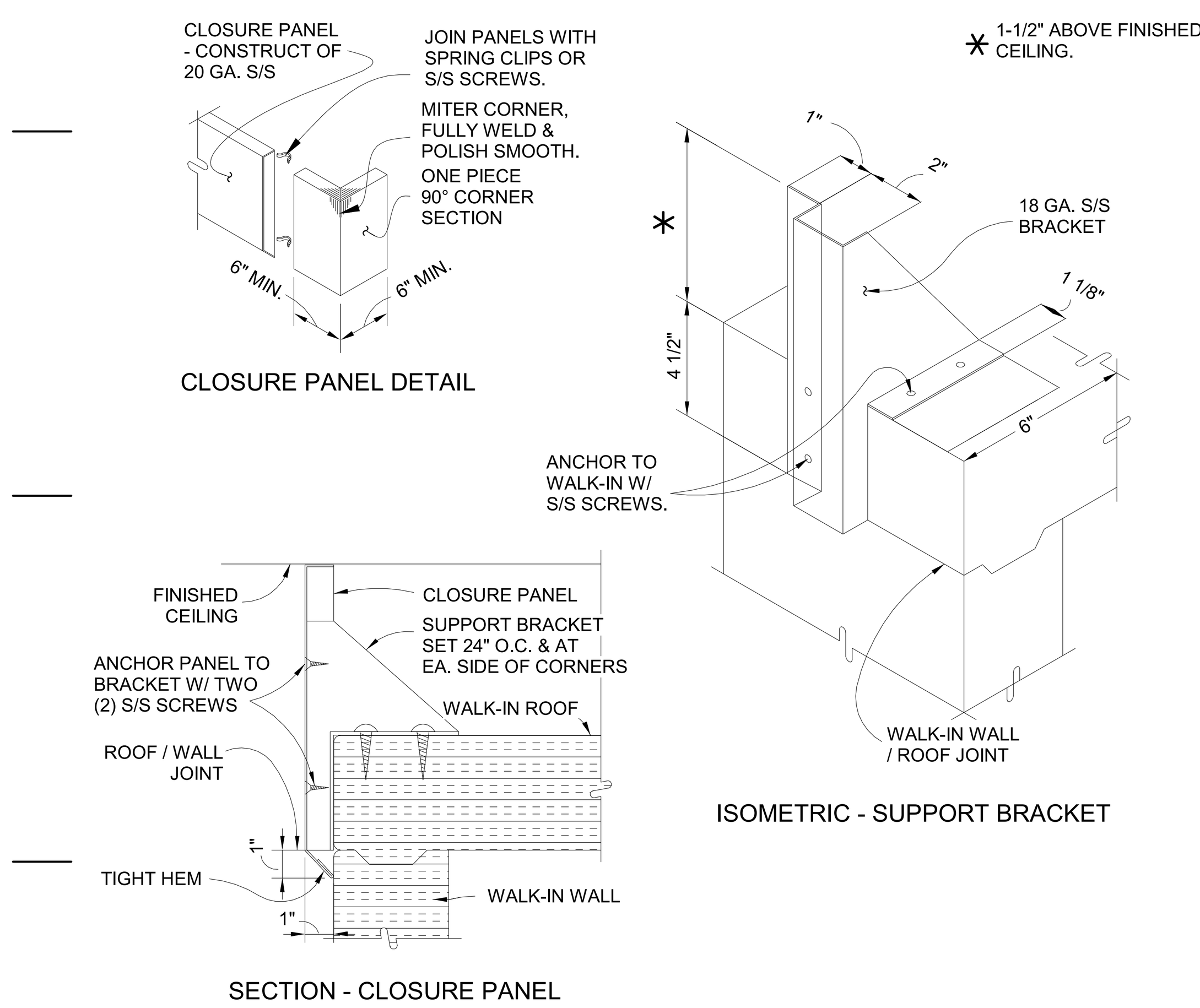


5 WALL BLOCKING DETAIL
NOT TO SCALE

NOTE:
SECTION 11 40 00 TO COORDINATE FINAL LOCATION OF ALL TRENCH LINERS WITH EQUIPMENT POUR PATH.

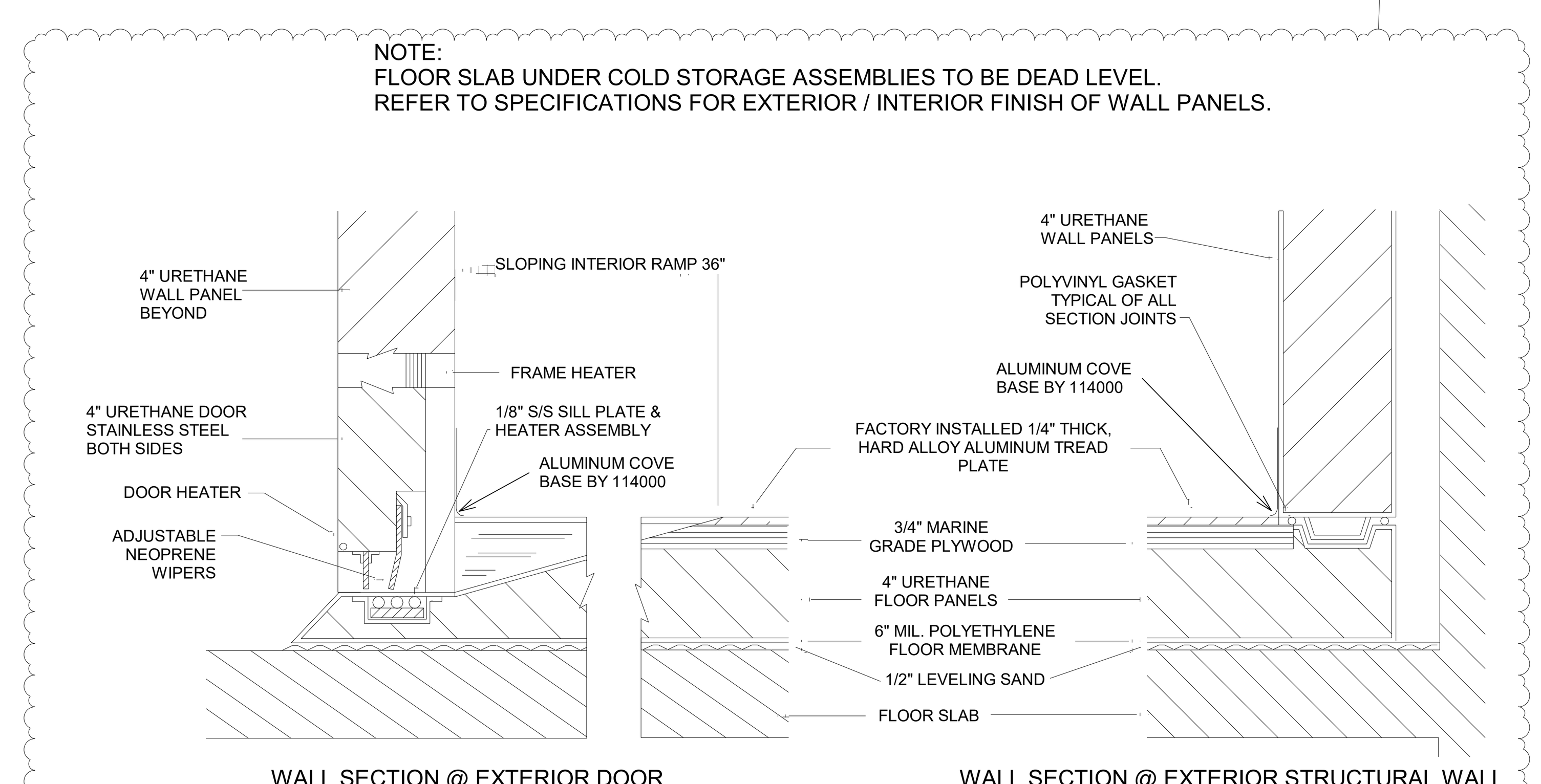


4 TRENCH LINER DETAIL
NOT TO SCALE



3 COLD STORAGE ASSEMBLY ENCLOSURE PANEL DETAIL
NOT TO SCALE

NOTE:
FLOOR SLAB UNDER COLD STORAGE ASSEMBLIES TO BE DEAD LEVEL.
REFER TO SPECIFICATIONS FOR EXTERIOR / INTERIOR FINISH OF WALL PANELS.



2 COLD STORAGE ASSEMBLY W/ INTERIOR RAMP DETAIL
NOT TO SCALE

0' 2' 4' 8' 16'

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Dallas, TX 75226
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REVISIONS		
NO	DESCRIPTION	DATE
2	ADDENDUM 3	05.28.25

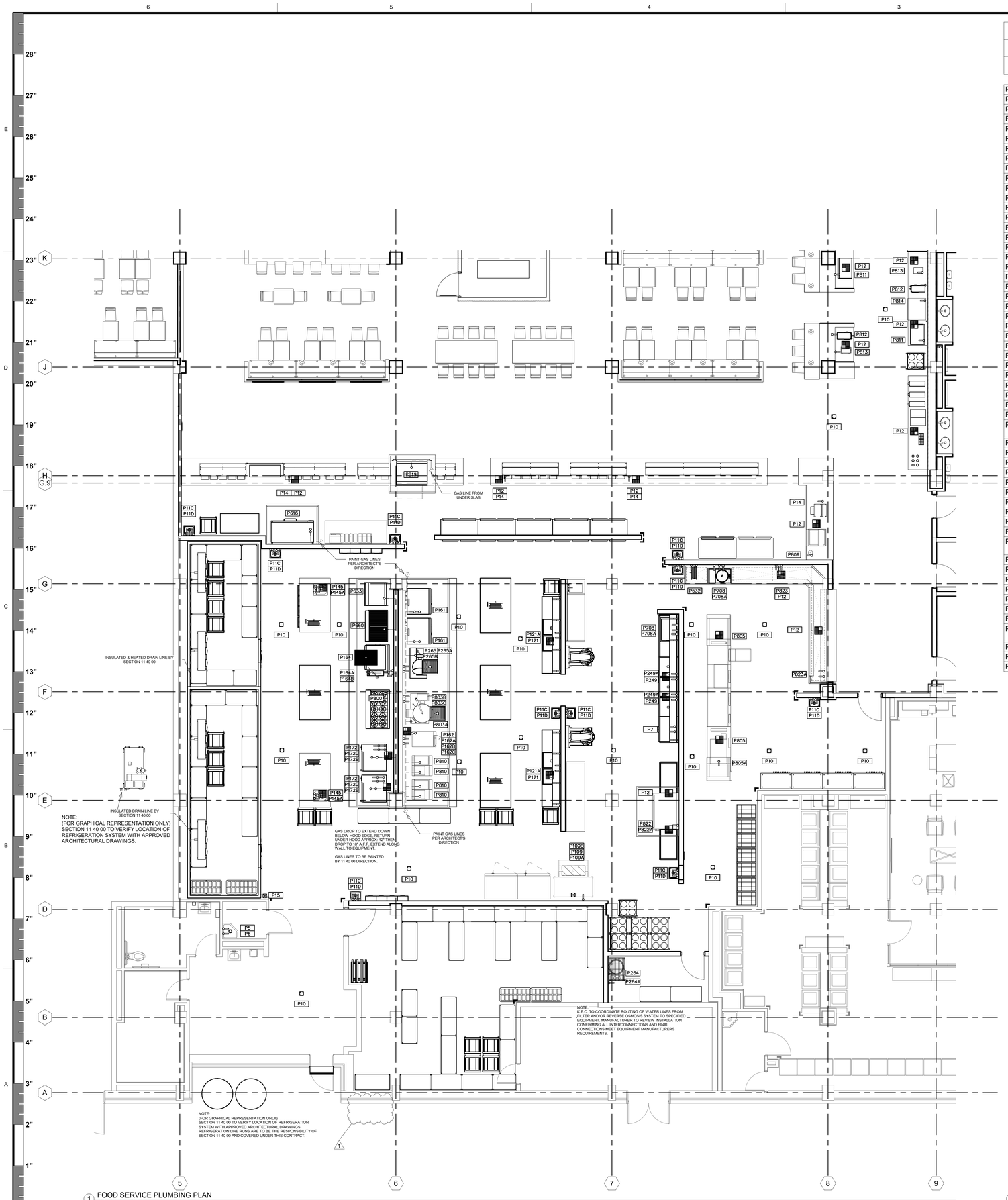
QF1.3

FS SPECIAL CONDITIONS & MECHANICAL PLAN

FDP FOODSERVICE DESIGN PROFESSIONALS

TreanorHL NO. HE0569.2302.01

Autodesk Docs://HE0569.2302.01 UNT Kerr Hall Interior Renovation/R23_KERR-HALL-DINING_FDP.rvt
5/28/2025 9:44:58 AM



1 FOOD SERVICE PLUMBING PLAN
3/16" = 1'-0"

FOOD SERVICE PLUMBING SCHEDULE						
REFER TO SHEET QF1 FOR PLUMBING COORDINATION NOTES						
FDP PNO	FDP PSIZE	FDP PCONN	FDP PSERVICE TO	FDP PLOC	FDP PAFF	FDP PREMARKS
P5	3/4"	H & C WATER	JANITOR SINK	WALL	48"	BTC
P6	4"	FLOOR DRAIN	JANITOR SINK	FLOOR	VERIFY	BTC
P7	3/4"	H & C WATER	HOSE BIBB	WALL	18"	BTC:
P10	VERIFY	FLOOR DRAIN	GENERAL AREA DRAIN	FLOOR	VERIFY	LOCATE PER ENGINEER'S DRAWING
P11C	1/2"	H & C WATER	FAUCET	WALL	18"	FURNISHED & INSTALLED BY DIV. 22
P11D	1 1/2"	DIRECT DRAIN	HAND SINK	WALL	15"	FURNISHED & INSTALLED BY DIV. 22
P12	12"SQ.	FLOOR SINK	EQUIPMENT	FLOOR	0"	3/4 GRATE
P14	1/2"	COLD WATER	FILL FAUCET	FLOOR	6"	BTC; S/S FLEX HOSE TO FILL FAUCET
P15	4"	FLOOR DRAIN	FUNNEL FLOOR DRAIN	FLOOR	0"	---
P109	3/4"	COLD WATER	WATER FILTER/ ICE	WALL	60"	BTC
P109A	12" SQ.	FLOOR DRAIN	ICE MACHINE	FLOOR	0"	3/4 GRATE
P109B	3"	HUB DRAIN	TRENCH LINER	FLOOR	-9"	BTC, CRITICAL LOCATION
P121	3/4"	H & C WATER	FAUCET	WALL	13"	BTC
P121A	12" SQ.	FLOOR SINK	SINK	FLOOR	0"	3/4 GRATE
P145	3/4"	H & C WATER	FAUCET	FLOOR	10"	BTC
P145A	12" SQ.	FLOOR SINK	SINK	FLOOR	0"	3/4 GRATE
P161	(2)3/4"	NATURAL GAS	CONVECTION OVEN	WALL	18"/36"	BTC: 60 MBTU/HR EACH
P162	12"SQ.	FLOOR SINK	CONVECTION STEAMER	FLOOR	0"	3/4 GRATE
P162A	(2) 3/4"	COLD WATER	CONVECTION STEAMER	WALL	18"/48"	BTC: INTERCONNECT THRU WATER FILTER
P162B	(2) 3/4"	COLD WATER	CONVECTION STEAMER	WALL	15"/45"	BTC:
P162C	(2) 3/4"	NATURAL GAS	CONVECTION STEAMER	WALL	24" / 60"	BTC: 72 MBTU/HR EA.
P164	4"	HUB DRAIN	TRENCH LINER	FLOOR	-9"	BTC: CRITICAL LOCATION
P164A	3/4"	NATURAL GAS	TILT BRAISING PAN	WALL	18"	BTC: RE: NOTE #3 & #9 - 144 MBTU/HR
P164B	3/4"	H & C WATER	TILT BRAISING PAN	WALL	36"	BTC:
P172	(2)3/4"	COLD WATER	COMBI OVEN	WALL	24"/48"	BTC: INTERCONNECT THRU FILTERS
P172B	12"SQ.	FLOOR SINK	EQUIPMENT	FLOOR	0"	3/4 GRATE
P172C	(2)3/4"	NATURAL GAS	COMBI OVEN	WALL	18"/36"	BTC: 98 MBTU/HR EACH
P249	3/4"	H & C WATER	FAUCET	WALL	13"	BTC:
P249A	12" SQ.	FLOOR SINK	SINK	FLOOR	0"	THREE QUARTER GRATE
P264	3/4"	INCOMING COLD WATER	REVERSE OSMOSIS SYSTEM	WALL	90"	BTC
P264A	3/4"	OUTGOING COLD WATER	RO TANK/REVERSE OSMOSIS SYSTEM	WALL	48"	BTC; INTERCONNECT TO EQUIPMENT
P265	4"	HUB DRAIN	KETTLE TRENCH LINER	FLOOR	-9"	BTC; CRITICAL LOCATION
P265A	3/4"	H & C WATER	KETTLE	WALL	13"	BTC
P265B	3/4"	NATURAL GAS	KETTLE	WALL	18"	BTC: 100MBTU/HR
P532	3/4"	H & C WATER	EQUIPMENT	WALL	18"	BTC: RE: NOTE #3 - COORDINATE INSTALLATION W/ MANUFACTURE'S REQUIREMENTS.
P616	(2)3/4"	NATURAL GAS	DECK OVEN	WALL	18"/36"	BTC: 70MBTU/HR EACH
P633	3/4"	NATURAL GAS	EQUIPMENT	WALL	18"	BTC: 130MBTU/HR
P660	3/4"	NATURAL GAS	CHARBROILER	WALL	18"	BTC: 116 MBTU/HR
P708	3/4"	H & C WATER	SCRAP COLLECTOR	WALL	18"	BTC
P708A	2"	DIRECT DRAIN	SCRAP COLLECTOR	WALL	4"	BTC
P800	3/4"	NATURAL GAS	RANGE / GRIDDLE	WALL	18"	BTC: 270 MBTU/HR
P803A	3/4"	NATURAL GAS	KETTLE 60 GALLON	WALL	18"	BTC: 150 MBTU/HR
P803B	3/4"	HOT & COLD WATER	KETTLE	WALL	24"	<varies>
P803C	4"	HUB DRAIN	TRENCH LINER	FLOOR	-9"	BTC, CRITICAL LOCATION
P805	12"	FLOOR SINK	FLIGHTTYPE DISHMACHINE	FLOOR	0"	BTC:
P805A	12"	COLD WATER	FLIGHTTYPE DISHMACHINE	FLOOR	0"	BTC: THRU FLITER TO BOOSTER HEATER DISHMACHINE - MIN: 140F:
P809	3/4"	HOT WATER	DIPPER WELL	FLOOR	18"	--
P810	3/4"	NATURAL GAS	FRYER	WALL	24"	BTC; 72.5 MBTUH
P811	3/4"	COD WATER	BEVERAGE DISPENSER	WALL	18"	BTC:
P812	1/2"	COLD WATER	TEA/COFFEE BREWER	WALL	18"	BTC:
P813	3/4"	COLD WATER	JUICE DISPENSER	WALL	18"	BTC:
P814	3/4"	COD WATER	ICE MACHINE	WALL	18"	BTC
P819	3/4"	NATURAL GAS	GAS GRIDDLE	FLOOR	18"	BTC:120MBTU/HR
P822	12"	COLD WATER	POT & PAN WASHER	WALL	24"	BTC: THRU WATER SOFTENER TO DISHMACHINE - MIN: 140F:
P822A	12" SQ.	FLOOR SINK	POT & PAN WASHER	FLOOR	0"	BTC
P823	3/4"	H & C WATER	FAUCET	WALL	13"	BTC: RE: NOTE #3
P823A	3/4"	H & C WATER	TROUGH MIXING VALVE	WALL	13"	BTC:

ADDENDUM 2 REVISIONS ON THIS SHEET

- **REMOVED HOSE BIBB PLUMBING AT LOADING DOCK**

HW	HOT WATER		FFD	FUNNEL FLOOR DRAIN
CW	COLD WATER		EVC	EXHAUST VENT CONNECTION
HTW	180 F HOT WATER		SVC	SUPPLY VENT CONNECTION
	CHILLED WATER		FR	DIRECT-CONNECTED FLUE RISER
W	DIRECT WASTE		PS	PIPE SLEEVE
IW	INDIRECT WASTE			COMPRESSED AIR
	GAS SUPPLY			CO2
	STEAM SUPPLY		AFF	ABOVE FINISHED FLOOR
CR	CONDENSATE RETURN		BTC	BRANCH TO CONN. ON EQUIP
DR	DRAIN		DFA	DROP FROM ABOVE
FD	FLOOR DRAIN		CLG	CEILING
FST	FLOOR SINK 3/4 GRATE			
FSH	FLOOR SINK 3/4 GRATE			

2 PLUMBING SYMBOLS
NOT TO SCALE

0' 2' 4' 8' 16'

FDP FOODSERVICE DESIGN PROFESSIONALS

REGISTERED ARCHITECT
NADIA ZHIRI
21737
STATE OF TEXAS
05.23.2025

TREANOR
2554 Elm Street, Suite 200
Dallas, TX 75226
Office: 214.310.1018
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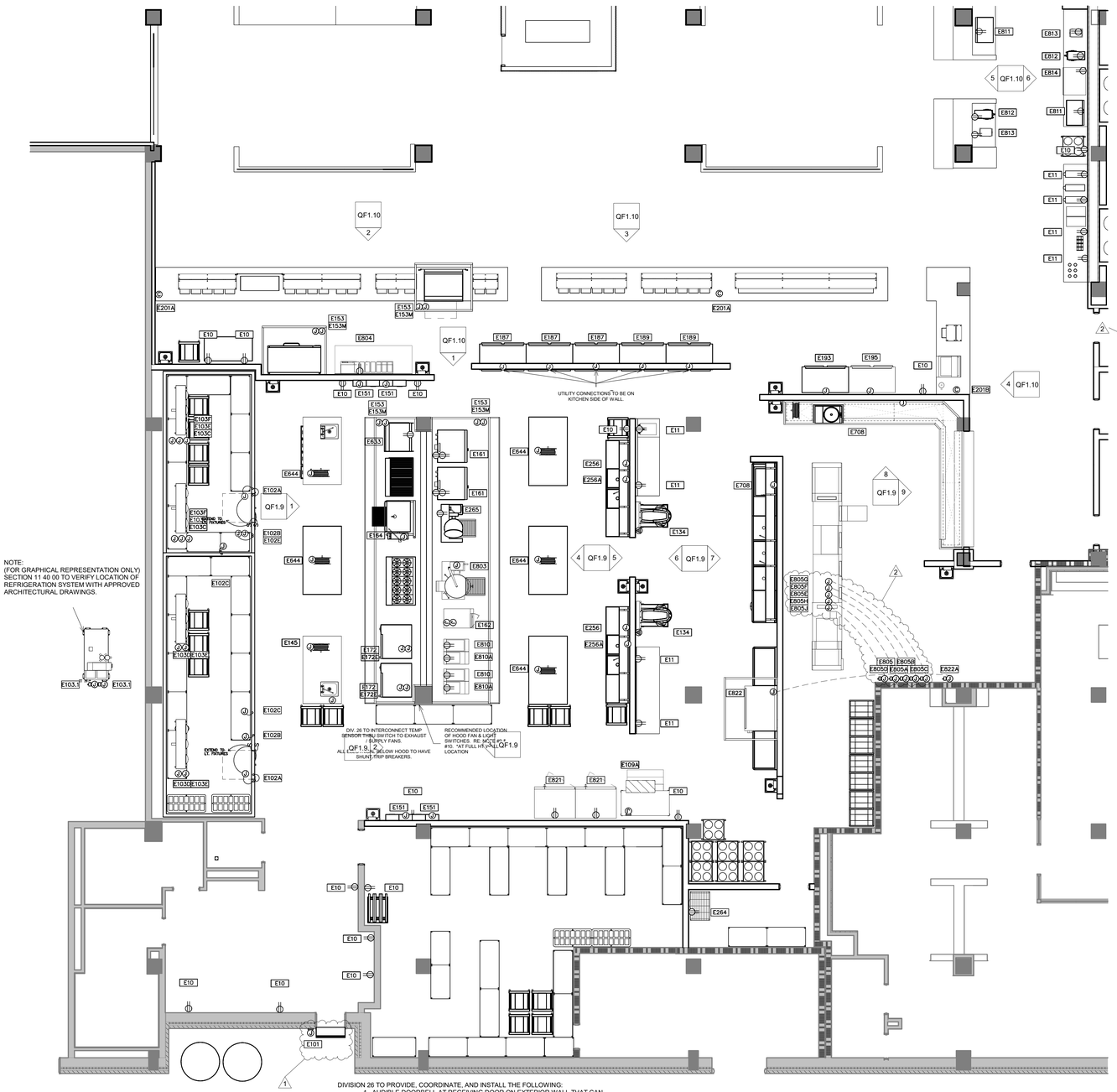
REVISIONS

NO	DESCRIPTION	DATE
1	ADDENDUM 2	05.23.25

QF1.4

FS PLUMBING PLAN

TreanorHL NO. HE0569.2302.01



NOTE:
(FOR GRAPHICAL REPRESENTATION ONLY)
SECTION 11 40 00 TO VERIFY LOCATION OF REFRIGERATION SYSTEM WITH APPROVED ARCHITECTURAL DRAWINGS.

DIVISION 26 TO PROVIDE, COORDINATE, AND INSTALL THE FOLLOWING:

1. AUDIBLE DOORBELL AT RECEIVING DOOR ON EXTERIOR WALL THAT CAN BE HEARD THROUGHOUT THE ENTIRE KITCHEN, OFFICE AND DRY STORAGE ROOM.
2. ADEQUATE LIGHTING AT RECEIVING DOOR.
3. EDWARDS 860 SERIES (OR EQUAL) RED LENS, SURFACE-MOUNTED XENON EMERGENCY STROBE BEACONS. ONE (1) TO BE LOCATED IN THE KITCHEN ABOVE WALK-IN FREEZER DOOR (OR COOLER DOOR WHEN FREEZER IS WITHIN COOLER IN AN 'INLINE' ASSEMBLY), AND ONE (1) TO BE LOCATED IN THE CAFETORIUM (COORDINATE LOCATION WITH OWNERS). PROVIDE CONDUIT, WIRING, AND INTERCONNECT THE ILLUMINATED PUSH BUTTON PANIC ALARM IN THE WALK-IN FREEZER TO BOTH STROBE BEACONS (***CRITICAL***).

DIVISION 27 TO PROVIDE THE FOLLOWING:

1. CONDUIT, DATA, AND INTERCONNECTION FROM THE ILLUMINATED PUSH BUTTON PANIC ALARM INSIDE THE WALK-IN FREEZER TO THE BUILDING AUTOMATION SYSTEM. WHEN ACTIVATED, FACILITY PERSONNEL TO BE NOTIFIED - COORDINATE NOTIFICATION REQUIREMENTS WITH THE OWNER (***CRITICAL***).

1 FOOD SERVICE ELECTRICAL PLAN
3/16" = 1'-0"

FOOD SERVICE ELECTRICAL SCHEDULE

REFER TO SHEET QF1 FOR ELECTRICAL COORDINATION NOTES

FDP ENO	FDP ECONN	FDP ELOAD	FDP EVOLT	FDP EPH	FDP ESERVICE TO	FDP ELOC	FDP EAFF	FDP EREMARKS
E10	DR	16.0A	120	1	CONVENIENCE OUTLET	WALL	24"	---
E11	DR	16.0A	120	1	CONVENIENCE OUTLET	WALL	47"	MOUNT HORIZONTAL
E101	JB	6.5A	120	1	AIR SCREEN	WALL	82"	BTC; MAGNETIC REED SWITCH ON DOOR JAMB & DOOR
E102A	JB	16.0A	120	1	DOOR HEATER/LIGHTS	CLG	DFA	BTC
E102B	JB	5.0A	120	1	TEMP. ALARM	CLG	DFA	BTC
E102C	JB	5.0A	120	1	PRESSURE RELIEF PORT	CLG	DFA	BTC
E102E	JB	10.0A	120	1	PANIC ALARM BUTTON	CLG	DFA	BTC-INTERCONNECT TO STROBE LIGHT/HORN ABOVE FREEZER DOOR AND IN CAFETORIUM
E103.1	JB/DS	25.5A	208	1	REFRIGERATION SYSTEM	VERIFY	VERIFY	VERIFY REQUIREMENTS
E103C	JB	15.2A	208	1	FREEZER COIL	CLG	DFA	BTC
E103D	JB	1.8A	120	1	COOLER COIL	CLG	DFA	BTC
E103E	JB	---	---	---	DATA CONNECTION	CLG	DFA	BTC; RUN TO NEAREST IDF / MDF ROOM
E103F	JB	16.0A	120	1	DRAIN LINE HEATER	CLG	DFA	BTC; DEDICATED CIRCUIT
E109A	JB	30.0A	208	1	ICE MACHINE	WALL	54"	---
E134	SR	5.6A	208	3	40 QT MIXER	WALL	54"	BTC;
E145	DCR	16.0A	120	1	TABLE RECEPTACLE	CLG	84"	TWISTLOCK PLUG & RECEPTACLE
E151	JB	1.0A	120	1	FIRE PROT. SYSTEM	CLG	DFA	BTC;
E153	JB	10.0A	120	1	HOOD LIGHTS	CLG	DFA	BTC;
E153M	JB	10.0A	120	1	HEAT SENSOR	CLG	DFA	BTC;
E161	(2)DR	6.0A EA.	120	1	CONVECTION OVEN	WALL	24"/48"	SHUNT TRIP BREAKER
E162	(2) JB	1.25A EA.	120	1	CONVECTION STEAMER	WALL	24" / 60"	SHUNT TRIP BREAKER
E164	DR	1.4A	120	1	TILT BRAISING PAN	WALL	24"	SHUNT TRIP BREAKER
E172	(2)JB	12.0A EA	120	1	COMBI OVEN	WALL	24"/48"	BTC; SHUNT TRIP BREAKER
E172E	JB	---	---	---	DATA CONNECTION	CLG	DFA	BTC; RUN TO NEAREST IDF / MDF ROOM
E187	JB	15.5A	120/208	1	HEATED CABINET	WALL	96"	BTC; MOUNT ON KITCHEN SIDE
E189	JB	8.6A	120	1	REFRIGERATOR	WALL	96"	BTC; MOUNT ON KITCHEN SIDE - OMIT PLUG. UNIT TO BE HARDWIRED.
E193	JB	8.2A	120	1	REFRIGERATOR	WALL	84"	BTC; OMIT PLUG. UNIT TO BE HARDWIRED.
E195	JB	14.9A	120	1	FREEZER	WALL	96"	BTC; OMIT PLUG, UNIT TO BE HARDWIRED
E201A	CS	100.0A	120/208	3	LOAD CENTER	FLOOR	6"	BTC;
E201B	CS	60.0A	120/208	3	LOAD CENTER	FLOOR	6"	BTC;
E256	JB/DS	<varies>	<varies>	<varies>	POWERWASH SINK	WALL	54"	<varies>
E256A	JB	---	---	--	POWERWASH SINK	WALL	24"	BTC; RE: NOTE #4 - CONNECT FROM E256THRU C.P. TO PUMP
E264	WPR	15.0A	120	1	REVERSE OSMOSIS SYSTEM	WALL	80"	BTC; DEDICATED CIRCUIT
E265	DR	5.0A	120	1	KETTLE	WALL	24"	SHUNT TRIP BREAKER
E633	DR	5.0A	120	1	GRIDDLE	WALL	24"	SHUNT TRIP BREAKER
E644	JB	16.0A	120	1	ELECTRIC CORD REEL	CLG	VERIFY	BTC; PROVIDED AND INSTALLED BY DIV. 26
E708	JB	3.2A	208	3	SCRAP COLLECTOR	WALL	24"	BTC - CONNECT THRU C.P. TO SCRAP COLLECTOR
E803	JB	5.0A	120	1	TILT BRAISING PAN	WALL	24"	SHUNT TRIP BREAKER
E804	DR	7.7A	120	1	PIZZA PREP TABLE	WALL	24"	---
E805	JB/DS-JB	23.1A	480	3	MOTOR & CONTROLS	WALL	66"	BTC;
E805A	JB/DS-JB	25.7A	480	3	TANK HEAT & POWER RINSE	WALL	66"	BTC;
E805B	JB/DS-JB	21.7A	480	3	TANK HEAT & WASH	WALL	66"	BTC;
E805C	JB/DS-JB	20.4A	480	3	TANK HEAT, DUAL RINSE, BLOWER DRYER HEAT & BLOWERS	WALL	66"	BTC;
E805D	JB/DS-JB	18.0A	480	3	ELECTRIC BOOSTER	WALL	66"	BTC;
E805E	JB	---	---	---	MOTOR & CONTROLS	WALL	66"	BTC; EXTEND FROM JB/DS AT NEAREST WALL
E805F	JB	---	---	---	TANK HEAT & POWER RINSE	WALL	66"	BTC; EXTEND FROM JB/DS AT NEAREST WALL
E805G	JB	---	---	---	TANK HEAT & WASH	WALL	66"	BTC; EXTEND FROM JB/DS AT NEAREST WALL
E805H	JB	---	---	---	TANK HEAT, DUAL RINSE, BLOWER DRYER HEAT & BLOWERS	WALL	66"	BTC; EXTEND FROM JB/DS AT NEAREST WALL
E805J	JB	---	---	---	ELECTRIC BOOSTER	WALL	66"	BTC; EXTEND FROM JB/DS AT NEAREST WALL
E810	DR	0.7A	120	1	FRYER	WALL	24"	BTC
E810A	DR	6.7A	120	1	FRYER	WALL	24"	BTC
E811	DR	12.0A	120	1	BEVERAGE DISPENSER	WALL	24"	---
E812	DR	14.0A	120	1	TEA/COFFEE BREWER	WALL	24"	MOUNT HORIZONTAL
E813	DR	2.8A	120	1	JUICE DISPENSER	WALL	24"	MOUNT HORIZONTAL
E814	DR	11.9A	120	1	ICE MACHINE	WALL	24"	---
E821	DR	24.0A	120/208	1	BLAST CHILLER	WALL	24"	
E822	JB/DS-JB	---	---	---	POT & PAN WASHER	WALL	66"	BTC; EXTEND FROM JB/DS AT NEAREST WALL
E822A	JB/DS-JB	35.0A	480	3	POT & PAN WASHER	WALL	66"	BTC; EXTEND FROM JB/DS AT NEAREST WALL

ADDENDUM 2 REVISIONS ON THIS SHEET

- **REVISED ELECTRICAL CONNECTION AT AIR SCREEN**

ADDENDUM 3 REVISIONS ON THIS SHEET

- **UPDATED ELECTRICAL INFORMATION FOR FLIGHT-TYPE DISHMACHINE.**

SCR	CONDUIT STUB BTC ON RECEPT FURNISH WITH EQUIPMENT		CC	CONDUIT FOR COMPUTER CABLES	
CS	CONDUIT STUB UP/OUT FOR DIRECT CONNECTION		BTC	BRANCH TO CONNECTION ON EQUIPMENT	
DR	DUPLEX RECEPTACLE		WPR	WATERPROOF RECEPTACLE (SPRING COVER)	
SR	SINGLE PURPOSE RECEPTACLE-1PH		FPB	FIRE PROTECTION BUZZER	
SR	SINGLE PURPOSE RECPTACLE-3PH		BSC	BEVERAGE SYSTEM CONDUIT	
FR	FLUSH FLOOR RECEPTACLE		DFA	DROP FROM ABOVE	
PMR	PEDESTAL MOUNTED RECEPTACLE		AFF	ABOVE FINISH FLOOR	
DCR	DROP CORD RECEPTACLE		CS/JB	JUNCTION BOX ON PEDESTAL	
JB	JUNCTION BOX ON CEILING		SW	SWITCH	
JB	JUNCTION BOX IN WALL		D	DATA	
JB/DS	JUNCTION BOX WITH DISCONNECT BY DIV.26				

2 ELECTRICAL SYMBOLS
NOT TO SCALE

0' 2' 4' 8' 16'

FDP FOODSERVICE DESIGN PROFESSIONALS

REGISTERED ARCHITECT
NADIA ZAIDI
21737
STATE OF TEXAS

TREANOR
2554 Elm Street, Suite 200
Dallas, TX 75226
Office: 214.310.1018
www.TreanorHL.com

UNIVERSITY OF NORTH TEXAS
KERR HALL INTERIOR RENOVATION
1413 West Maple St
Denton, TX 76201

UNT

Issue: ISSUE FOR CONSTRUCTION

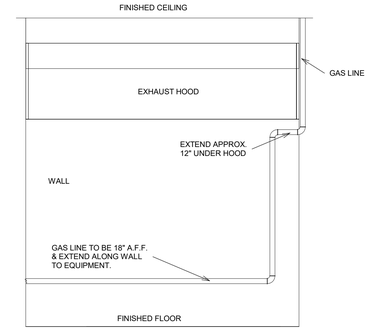
Date: APRIL 08, 2025

REVISIONS

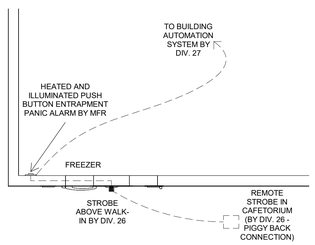
NO	DESCRIPTION	DATE
1	ADDENDUM 2	05.23.25
2	ADDENDUM 3	05.28.25

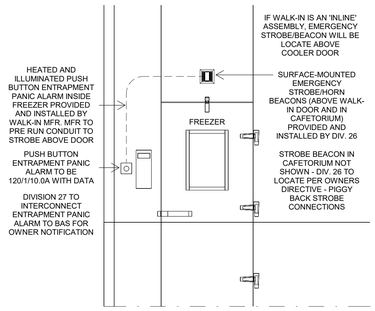
QF1.5
FS ELECTRICAL PLAN

TreanorHL NO. HE0569.2302.01

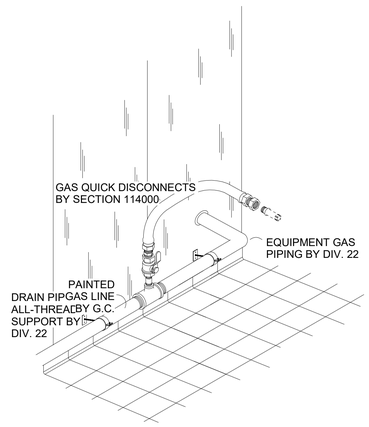


5 EXHAUST HOOD - GAS LINE ROUTING DETAIL
NOT TO SCALE

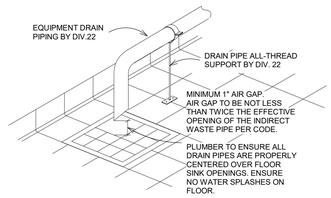




8 COLD STORAGE ASSEMBLY ENTRAPMENT PANIC ALARM DETAIL
NOT TO SCALE

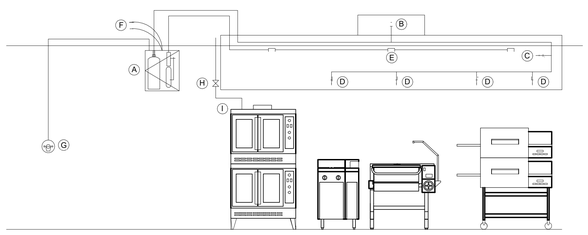


4 GAS DISCONNECT DETAIL
NOT TO SCALE



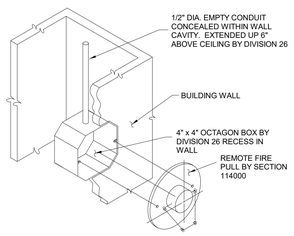
3 DRAIN PIPING FASTENER DETAIL
NOT TO SCALE

NOTE:
REFER TO FDP EQUIPMENT PLAN FOR SPECIFIC COMPONENTS UNDER HOOD. ALL EQUIPMENT SHOWN HERE FOR GRAPHICAL REPRESENTATION ONLY.



- A S/S ENCLOSURE W/AGENT TANK AND NITROGEN CARTRIDGE
- B DUCT NOZZLE(S)
- C PLENUM NOZZLE(S)
- D SURFACE PROTECTION NOZZLE(S)
- E FUSIBLE LINK(S)
- F (2) WIRES FROM FIRE SYSTEM TO SHUNT TRIP BREAKERS FOR SHUT DOWN OF ELECTRICAL CONNECTIONS LOCATED BENEATH EXHAUST HOOD DURING FIRE MODE
- G REMOTE FIRE PULL
- H GAS VALVE
- I GAS SUPPLY (AS REQUIRED)

7 FIRE PROTECTION SYSTEM TYPICAL DETAIL
NOT TO SCALE



6 FIRE PROTECTION SYSTEM RECESSED FIRE PULL DETAIL
NOT TO SCALE

SECTION 11 40 00 TO PROVIDE LOOSE WITH FOOD SERVICE EQUIPMENT. INSTALLATION BY DIV. 22 & 26.

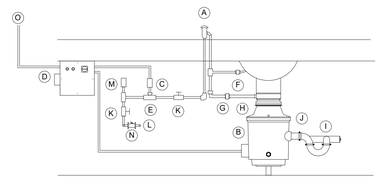
- A VACUUM BREAKER
- B DISPOSER
- C TIME DELAY
- D CONTROL PANEL
- E SOLENOID VALVE

DIVISION 22 TO PROVIDE AND INSTALL

- F 1/2" CW INLET
- G FLOW CONTROL
- H 1/2" CW
- I 2" DRAIN LINE WITH P-TRAP & Y ADAPTOR
- J 1-1/2" TAILPIECE
- K GATE VALVE
- L 1/2" CW SUPPLY
- M SHOCK STOP
- N RPZ BACK FLOW PREVENTOR

DIVISION 26 TO PROVIDE AND INSTALL

- O POWER SUPPLY



1 DISPOSER WITH VACUUM BREAKER DETAIL
NOT TO SCALE

REGISTERED ARCHITECT
NADIA ZHIR
21737
STATE OF TEXAS
01.30.2025

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2554 Elm Street, Suite 200
Dallas, TX 75226
Office: 214.310.1018
www.TreanorHL.com

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KERR HALL INTERIOR RENOVATION
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Issue:	ISSUE FOR CONSTRUCTION
Date:	APRIL 08, 2025

REVISIONS

NO	DESCRIPTION	DATE

QF1.5.1

FS CONSTRUCTION DETAILS

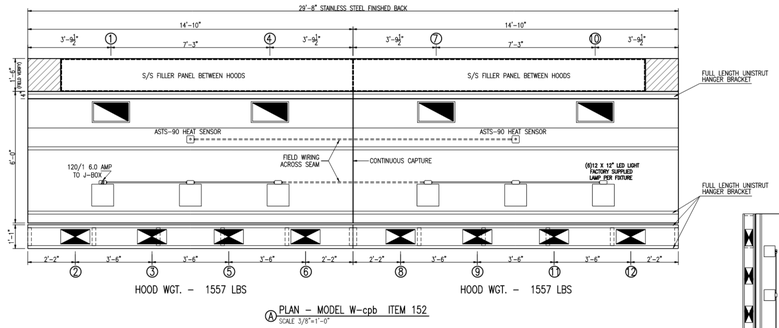
FDP FOODSERVICE DESIGN PROFESSIONALS

TreanorHL NO. HE0569.2302.01

304 STAINLESS STEEL USED FOR HOOD CONSTRUCTION AND ALL EXPOSED AREAS

HOODS DESIGNED TO MEET TO THE 2015 IECC C403.2.8 AND 2018 IECC C403.7.5 USING OPTION 1 PROVIDED BY THE CODES.

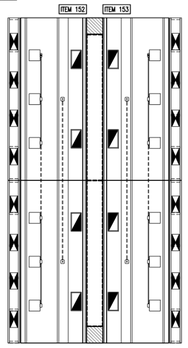
NOTE TO G.C. AND CEILING GRID INSTALLERS :
FASTENERS FOR CEILING GRID SURROUNDING KITCHEN HOOD MUST NOT PENETRATE HOOD CAPTURE AREA OR HOOD GREASE PLENUM. IMPROPER PENETRATIONS THROUGH HOOD IN THESE AREAS VIOLATE HOOD U.L. PROCEDURE AND LOCAL MECHANICAL CODE.

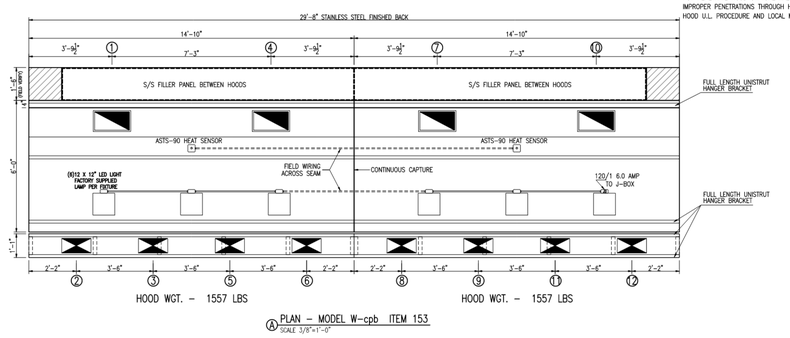


A PLAN – MODEL W-cpb ITEM 152
SCALE 3/8"=1'-0"

EXHAUST COLLAR CHART					
NO.	SIZE	CFM/FOOT	CFM EACH	FPM	S.P.
1	10" X 19"	280	2076	1573	.60"
4	10" X 19"	280	2076	1573	.60"
7	10" X 19"	280	2076	1573	.60"
10	10" X 19"	280	2076	1573	.60"

SUPPLY COLLAR CHART					
NO.	SIZE	CFM/FOOT	CFM EACH	FPM	S.P.
2	8" X 16"	134	497	559	.30"
3	8" X 16"	134	497	559	.30"
5	8" X 16"	134	497	559	.30"
6	8" X 16"	134	497	559	.30"
8	8" X 16"	134	497	559	.30"
9	8" X 16"	134	497	559	.30"
11	8" X 16"	134	497	559	.30"
12	8" X 16"	134	497	559	.30"





A PLAN – MODEL W-cpb ITEM 153
SCALE 3/8"=1'-0"

EXHAUST COLLAR CHART					
NO.	SIZE	CFM/FOOT	CFM EACH	FPM	S.P.
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4	10" X 19"	280	2076	1573	.60"
7	10" X 19"	280	2076	1573	.60"
10	10" X 19"	280	2076	1573	.60"

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2	8" X 16"	134	497	559	.30"
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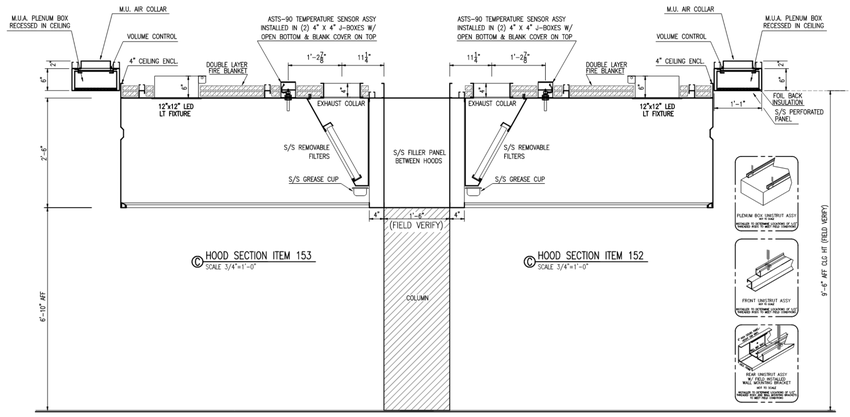
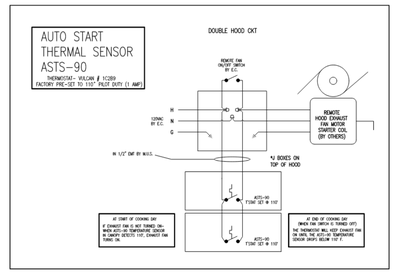
6	8" X 16"	134	497	559	.30"
8	8" X 16"	134	497	559	.30"
9	8" X 16"	134	497	559	.30"
11	8" X 16"	134	497	559	.30"
12	8" X 16"	134	497	559	.30"



C HOOD SECTION ITEM 153
SCALE 3/4"=1'-0"

C HOOD SECTION ITEM 152
SCALE 3/4"=1'-0"



UL FILE # MH 30031
MOD U SERVE
NSF Air Systems
2320 PEYTON ROAD
HOUSTON, TEXAS 77032
281 442 8001

UNT KERR HALL

FDP

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COMMERCIAL KITCHENS INC.

2320 PEYTON ROAD
HOUSTON, TEXAS 77032
281 442 8001

NO.	DATE	REVISION	BY
152	12.10.24	Hoods updated per request	JO
153	4.7.25	Condensate hood added to project per request	JO

DRAWING #
D23-2207-1.152rev1

DRAWN BY
JO

CHECKED BY
ADC

DATE
Dec. 12, 2023

SHEET
1
OF 2 SHEET

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Issue: ISSUE FOR CONSTRUCTION

Date: APRIL 08, 2025

REVISIONS

NO	DESCRIPTION	DATE

UNIVERSITY OF NORTH TEXAS
KERR HALL INTERIOR RENOVATION

1413 West Maple St
Denton, TX 76201

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QF1.6

FS EXHAUST HOODS

TreanorHL NO. HE0569.2302.01

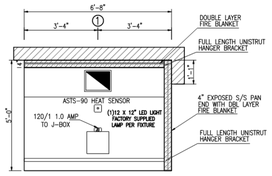
FOODSERVICE DESIGN PROFESSIONALS

304 STAINLESS STEEL USED FOR HOOD CONSTRUCTION AND ALL EXPOSED AREAS

HOODS DESIGNED TO MEET TO THE 2015 IECC C403.2.8 AND 2018 IECC C403.7.5 USING OPTION 1 PROVIDED BY THE CODES.

NOTE TO G.C. AND CEILING GRID INSTALLERS :

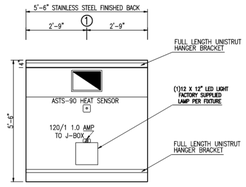
FASTENERS FOR CEILING GRID SURROUNDING KITCHEN HOOD MUST NOT PENETRATE HOOD CAPTURE AREA OR HOOD GREASE PLENUM. IMPROPER PENETRATIONS THROUGH HOOD IN THESE AREAS VIOLATE HOOD U.L. PROCEDURE AND LOCAL MECHANICAL CODE.



HOOD WGT. – 634 LBS

Ⓐ PLAN – MODEL W ITEM 154
SCALE 3/8"=1'-0"

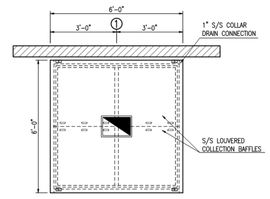
EXHAUST COLLAR CHART					
NO.	SIZE	CFM/FOOT	CFM EACH	FPM	S.P.
1	10" X 13"	210	1399	1550	.50"



HOOD WGT. – 523 LBS

Ⓐ PLAN – MODEL W ITEM 158
SCALE 3/8"=1'-0"

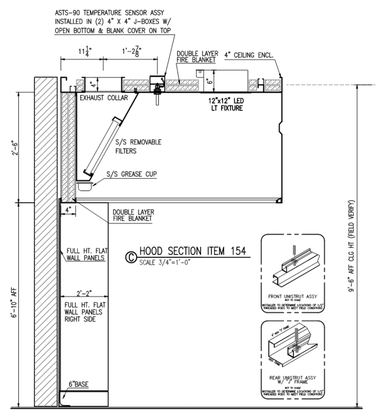
EXHAUST COLLAR CHART					
NO.	SIZE	CFM/FOOT	CFM EACH	FPM	S.P.
1	10" X 15"	300	1650	1584	.65"



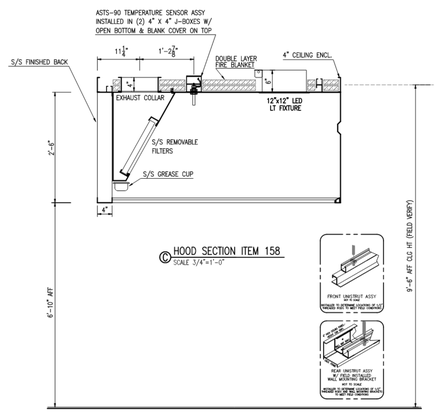
HOOD WGT. – 390 LBS

Ⓐ PLAN – MODEL CH – ITEM 159
SCALE 3/8"=1'-0"

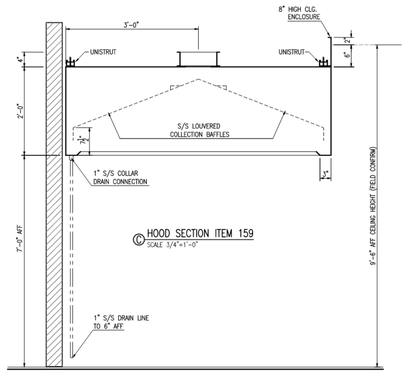
EXHAUST COLLAR CHART					
NO.	SIZE	CFM/FOOT	CFM EACH	FPM	S.P.
1	10" X 15"	200	1200	1152	.30"



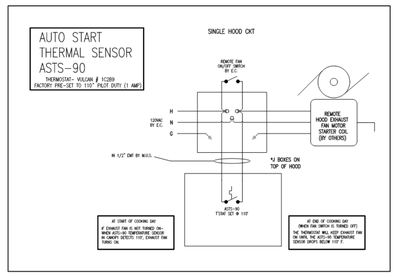
Ⓒ HOOD SECTION ITEM 154
SCALE 3/4"=1'-0"



Ⓒ HOOD SECTION ITEM 158
SCALE 3/4"=1'-0"



Ⓒ HOOD SECTION ITEM 159
SCALE 3/4"=1'-0"



UL FILE # MH 30031

MOD U SERVE Air Systems

2320 PEYTON ROAD
HOUSTON, TEXAS 77032
281 442 8001

UNT KERR HALL **FDP**

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COMMERCIAL KITCHENS INC.

2320 PEYTON ROAD
HOUSTON, TEXAS 77032
281 442 8001

NO.	DATE	REVISION	BY
154			
156	12.10.24	Hoods added to project per request	JO
154			
158	1.7.25	Hoods to be exhaust only per request	JO
159	4.7.25	Condensate hood added to project per request	

DRAWING # D23-2207-2.154rev1
DRAWN BY JO
CHECKED BY ADC
DATE Dec. 12, 2023

SHEET 2 OF 2 SHEET

REGISTERED ARCHITECT MADIA ZAHRA 21737 STATE OF TEXAS
01.30.2025

TREANOR
2554 Elm Street, Suite 200
Dallas, TX 75226
Office: 214.310.1018
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1413 West Maple St
Denton, TX 76201

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Issue: ISSUE FOR CONSTRUCTION

Date: APRIL 08, 2025

REVISIONS

NO	DESCRIPTION	DATE

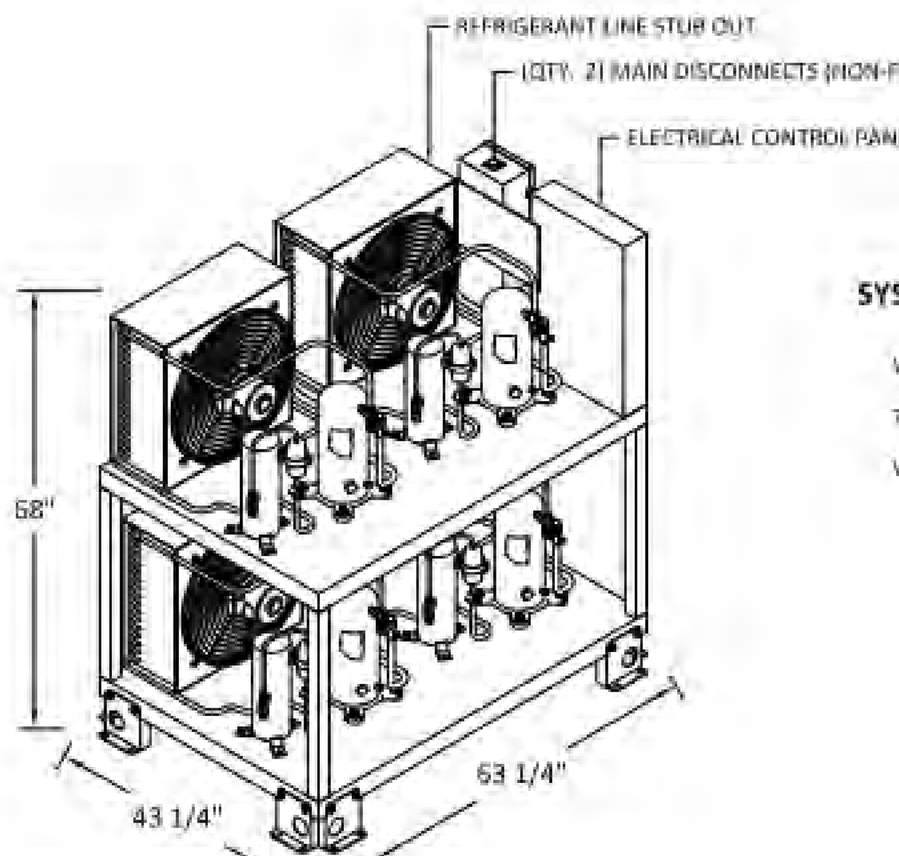
QF1.7

FS EXHAUST HOODS

TreanorHL NO. HE0569.2302.01

FDP FOODSERVICE DESIGN PROFESSIONALS

MODEL NO. IRP2-04Z-CT3-AST INDOOR AIR COOLED REFRIGERATION SYSTEM
ITEM NO. 103



SYSTEM DETAILS

WEIGHT: 800 LBS.

THR: 51,046 BTU/H

VENTILATION REQUIRED: 6.8 CFM

NOTE:
- FAN CYCLING
- (2) DOOR SWITCHES (SHIPPED LOOSE)
- 5-PORT DATA SWITCH (SHIPPED LOOSE)
- TWO SEPARATE DISCONNECTS
- SUCTION ACCUMULATOR (SYSTEMS B1 & B2)

RDT ENGINEERING SUMMARY

SYSTEMS A1 & B1	POWER SUPPLY: 208-230/60/3 CONNECTED LOAD: 29.5 AMPS	MOPD: 50 AMP MINIMUM CIRCUIT AMPACITY: 33.8	SYSTEMS A2 & B2	POWER SUPPLY: 208-230/60/3 CONNECTED LOAD: 29.5 AMPS	MOPD: 50 AMP MINIMUM CIRCUIT AMPACITY: 33.8

SYSTEM	FIXTURES: ITEM #	FIXTURES: DESCRIPTION	TEMP °F: FIXT.	TEMP °F: SUCT.	REQ'D FIXTURE BTU/H	REFRIG. R-	COMPRESSOR: MODEL NO.	H.P.	RATING @ 60 HZ: RLA	V	PH	BTU CAP @ AMB °F 90	TYPE	REC. CAP. (lbs)	CONDENSER	EVAP. ITEM #	EVAP. MODEL NO.	QTY	FAN MOTORS @ 60 HZ: RLA	V	PH	HEATERS @ 60 HZ: RLA	V	PH	DEFR. TYPE	DEFROST CONTROLLER TYPE	CONTROLLER QTY	ACCESSORIES: TSTAT	SOL. VALVE	EXP. VLV.	SIZES (IN): SUCT.	SUCT. LINE RISER	LIQUID	LINE RUN (FT)	TYPE	TOTAL SYSTEM LOAD
A1	102	WALK-IN COOLER	35	25	15526	448A	ZS13KAE	1.8	10.6	208	3	14900	Z	10.3	L2R	103	BEL0125	1	1.8	115	1				O.C.	ECOSMART	1	F	F	EF	7/8	7/8	3/8	100	M	10.6
B1	102	WALK-IN FREEZER	-10	-20	16124	448A	ZF15K4E	5.0	18.9	208	3	16400	Z	10.3	L3R	103	BEL0155	1	1.5	208	1	13.7	208	1	ELEC	ECOSMART	1	F	F	EF	1-3/8	1-1/8	3/8	100	M	18.9
A2	102	100% REDUNDANT (CLR)	35	25	15526	448A	ZS13KAE	1.8	10.6	208	3	14900	Z	10.3	L2R	103	BEL0125	1	1.8	115	1				O.C.	ECOSMART	1	F	F	EF	7/8	7/8	3/8	100	M	10.6
B2	102	100% REDUNDANT (FZR)	-10	-20	16124	448A	ZF15K4E	5.0	18.9	208	3	16400	Z	10.3	L3R	103	BEL0155	1	1.5	208	1	13.7	208	1	ELEC	ECOSMART	1	F	F	EF	1-3/8	1-1/8	3/8	100	M	18.9

ALL EVAPORATOR COILS WILL REQUIRE A HOUSE POWER SUPPLY

C UL US LISTED

NOTE:
IT IS THE INSTALLING CONTRACTORS RESPONSIBILITY TO FOLLOW ALL APPLICABLE CODES AND CURRENT REFRIGERATION INDUSTRY STANDARDS AND PRACTICES WHEN DETERMINING LINE SIZES, AND INSTALLING AND STARTING UP RDT EQUIPMENT.

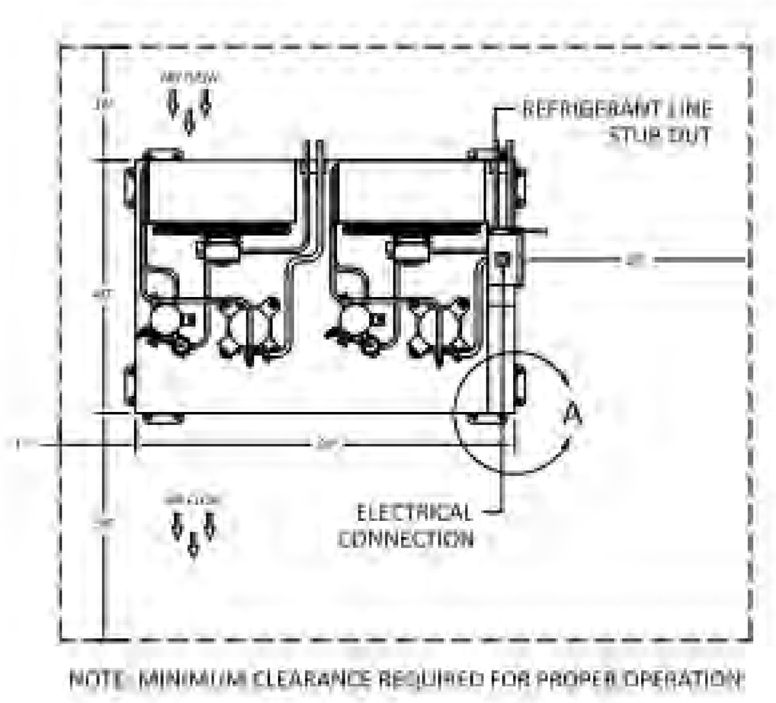
COMPRESSOR TYPE
Z SCROLL
H HERMETIC
S SEMI-HERMETIC
D DISCUS

DEFROST TYPE
O.C. OFF CYCLE
ELEC ELECTRIC

LINE TYPE
M MAIN - UP TO 100'
B BRANCH - UP TO 50'
T TRUNK - UP TO 200'

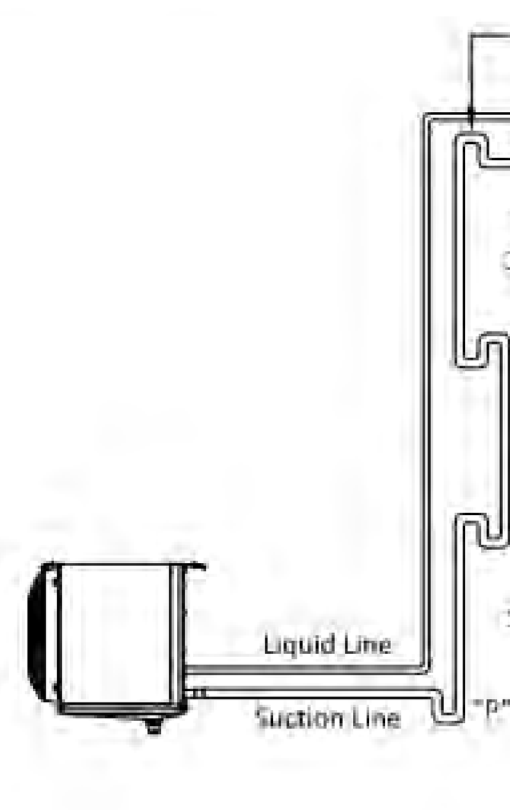
EVAPORATOR ACCESSORIES
EF EEV FACTORY EQUIPPED ON EVAP
TF TXV FACTORY EQUIPPED ON EVAP
F FACTORY EQUIPPED ON EVAP
O PROVIDED BY OTHERS
L LOOSE (FIELD INSTALLATION)

PLANVIEW/ CLEARANCE REQUIREMENTS



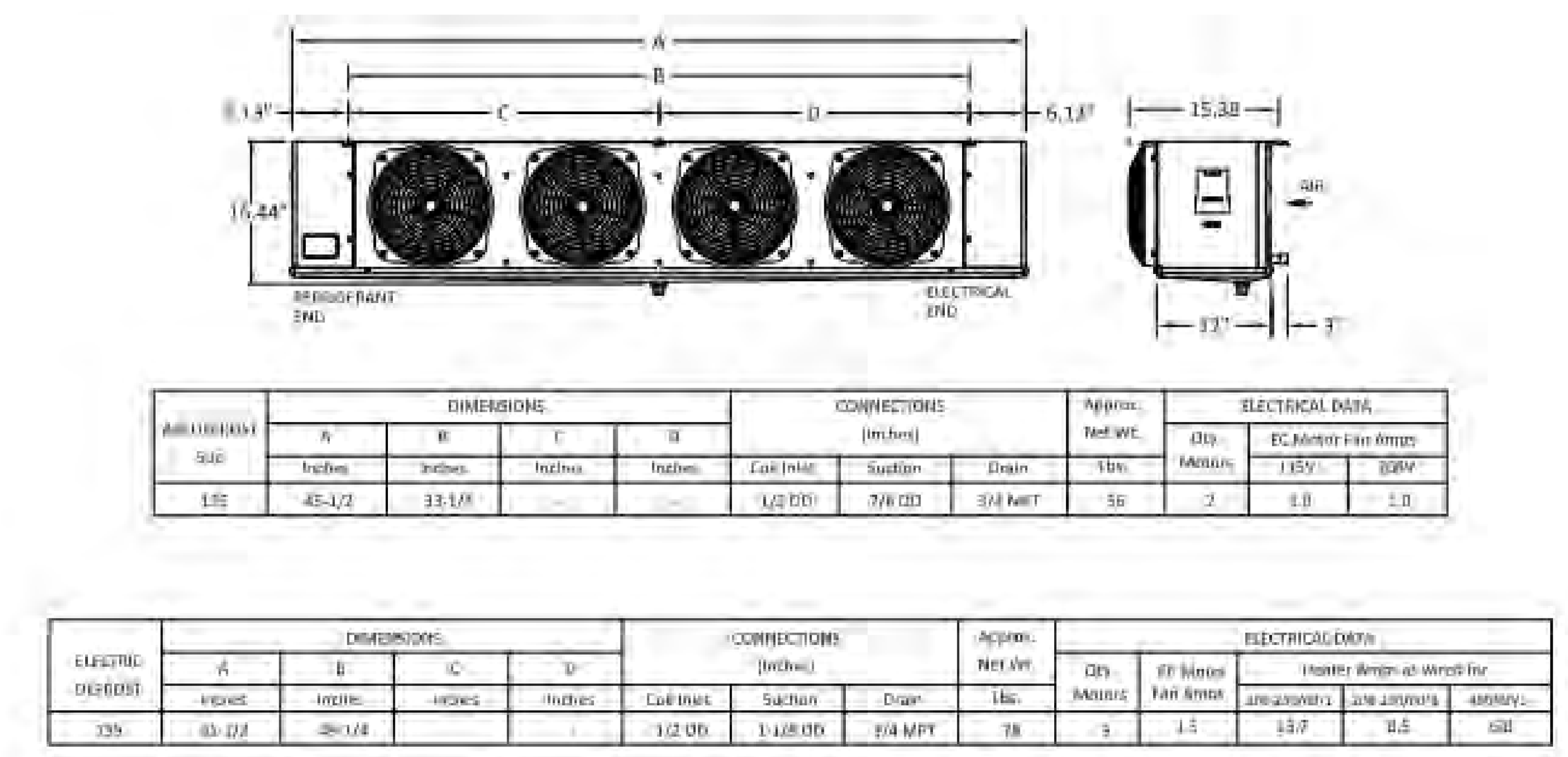
NOTE: MINIMUM CLEARANCE REQUIRED FOR PROPER OPERATION

SUCTION LINE VERTICAL RISE DETAIL



- Install trap every transition from horizontal to vertical.
- Insulate suction lines with 3/4" wall Armaflex insulation.
- All joints brazed with minimum 15% silver content brazing rod.
- Install "P" trap on suction line every 15' vertical rise.
- Not to exceed 45' vertically over all.
- *If compressor is above the evaporator, Install inverted trap on top of the rise to prevent oil from seeping down when fixture(s) is turned off.

EVAPORATOR DETAILS - MODEL BEL



IRP SERIES ENGINEERING SPECIFICATIONS

Multi compressor, indoor, air cooled. The refrigeration package shall be a pre-engineered and factory-assembled unit, trade name "IRP", as manufactured by Refrigeration Design Technologies, 1808 FM Road 66, P.O. Box 622, Waxahachie, Texas 75168. Phone: (972) 937-3215; Fax: (972) 937-0970.

1. Air-Cooled Refrigeration System
The RDT UL Listed "Air-Cooled" Refrigeration system shall be housed in a compact structural steel frame. The system shall include an air-cooled aluminum fin copper tube condenser designed to operate at 15 degrees TD. Entire frame shall be constructed using powder coated steel. Condenser fan motors shall be mounted to the frame.

Each unit shall be equipped with a ball-bearing fan motor, pre-set head pressure control suction filter, sight glass drier, liquid line inlet and outlet valve, defrost cycle, and high pressure super-hose connections.

Condensing units shall contain scroll, hermetic, semi-hermetic, and/or discus type compressor(s) assembled to operate with the refrigerant specified for both medium and low temperature applications.

2. Evaporator Coils
A. Evaporator coils shall be direct expansion type fabricated of copper tubes with aluminum fins.
B. All evaporator coils shall be provided with solenoid valve, thermostatic or electronic expansion valve and thermostat.

3. Pre-Piping
All refrigerant lines shall be extended to one side of the package in a neat and orderly manner. All tubing shall be securely supported and anchored with non-corrosive coated clamps.

All joints must be brazed, not soldered.

All piping and controls shall be factory pressure-tested with dry nitrogen.

4. Control Panel
The package shall have a factory-mounted and pre-wired control panel complete with main disconnect (non fused) where required, circuit breakers, contactors wired for single point power connection.

General Information
Contractors shall verify all dimensions onsite and coordinate with other trades.

General contractor shall prepare the platform, curbed openings and weatherproofing the unit after installation.

Refrigeration Contractor
All copper tubing to be refrigerant grade, A.C.R. or type "L".

Brazing should be used for all refrigerant piping. Silver solder or soft solder is not acceptable.

All piping to be pressure tested with nitrogen at 300 psi. After the condensing unit and coil have been connected the balance of the system shall be leak tested with the valves open at 200 psi.

The complete system shall be evacuated with a vacuum pump. Each unit should be charged tested and adjusted to assure operation.

Refrigeration contractor should provide and install the drain-line heater in freezer. Heater shall be connected by electrical contractor. Seal all penetrations through the walk-in with foam.

Electrical Contractor
Electrical contractor to provide power for refrigeration package and connect control and defrost system as called for in the wiring diagram.

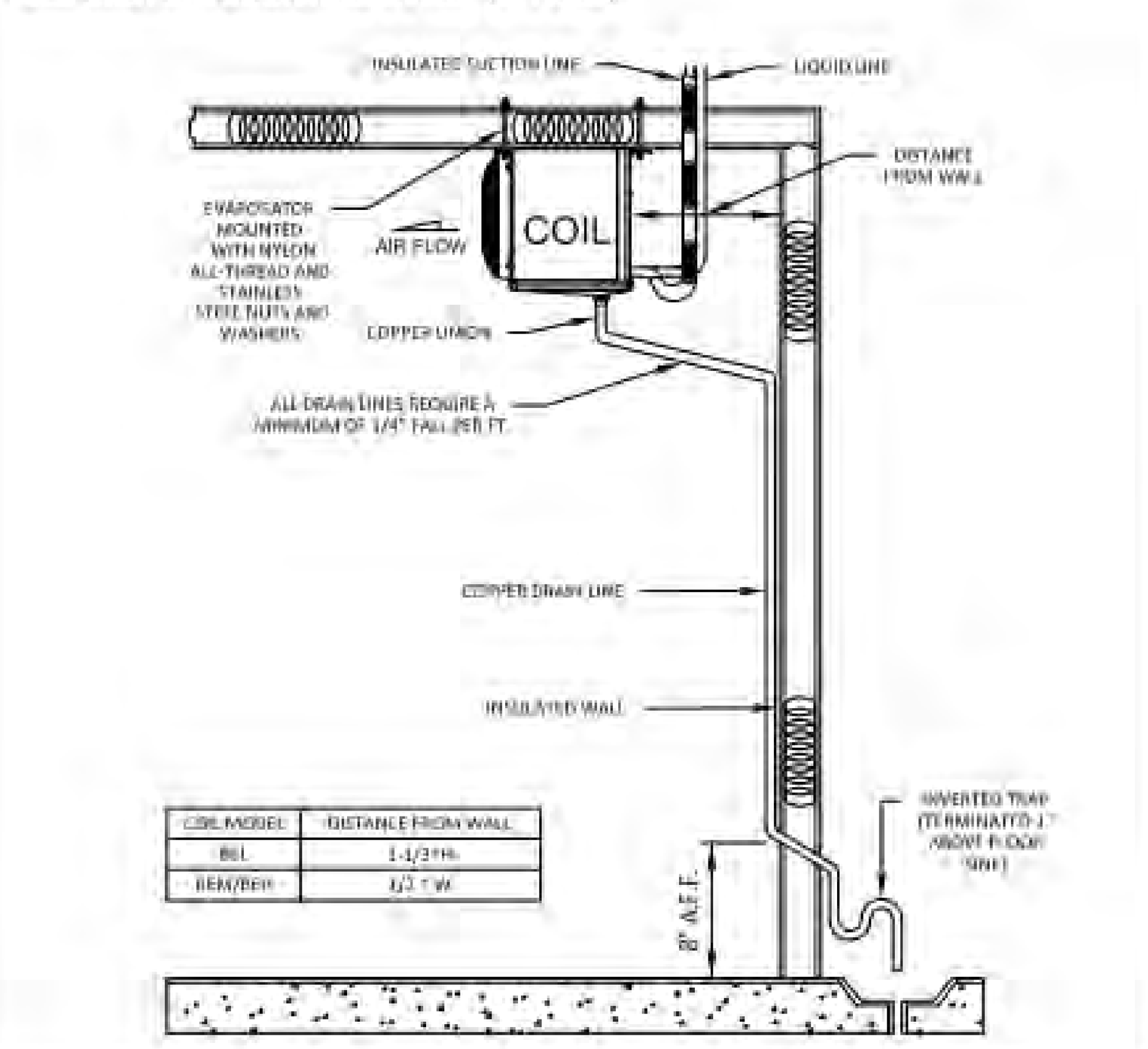
Electrical contractor to connect drain-line heater in the freezer. Seal all penetrations through the walk-in with foam.

All electrical wiring and installation shall be in accordance with the wiring diagram and local codes.

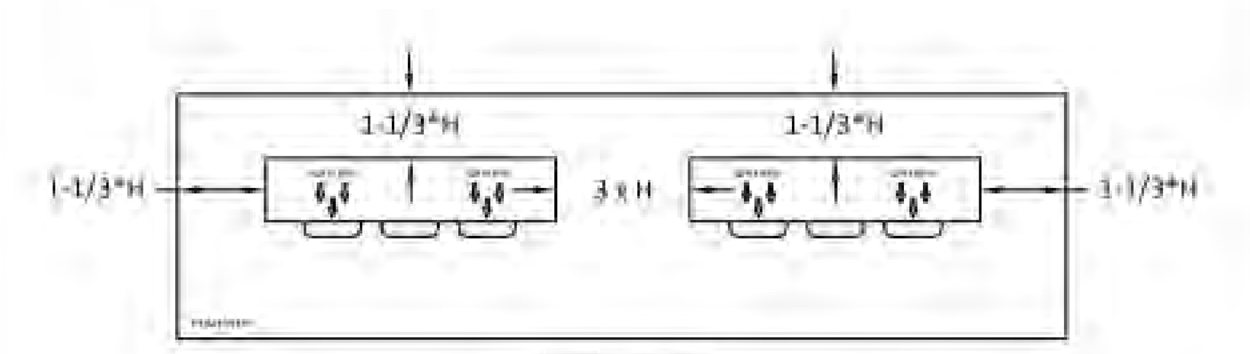
Plumbing Contractor
Plumbing contractor to provide copper drain lines for walk-in refrigerator and freezer, pitched 1/4" per foot of run. Trap drain line outside of refrigerated space to avoid entrance of warm, moist air. Seal all penetrations through the walk-in with foam.

All plumbing installation shall be in accordance with local codes.

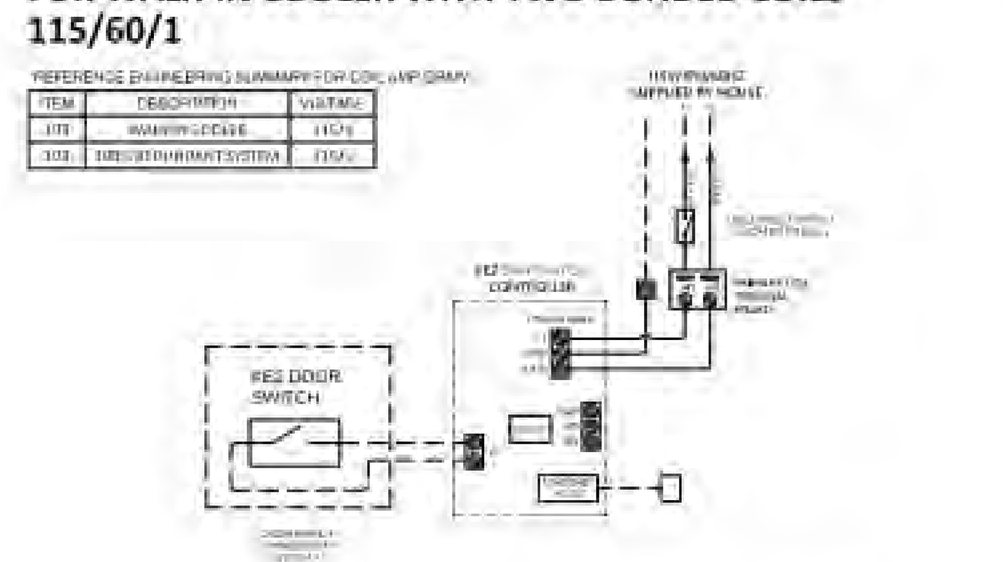
EVAPORATOR MOUNTING DETAIL (TYPICAL)



EVAPORATOR PLACEMENT & CLEARANCE REQUIREMENTS LOW PROFILE EVAPORATOR COILS (I.E. - BEL)



WIRING DIAGRAM - ECOSMART - AKEA1AE DEMAND DEFROST W/KE2 DOOR SWITCH FOR WALK-IN COOLER WITH TWO BONDED COILS 115/60/1



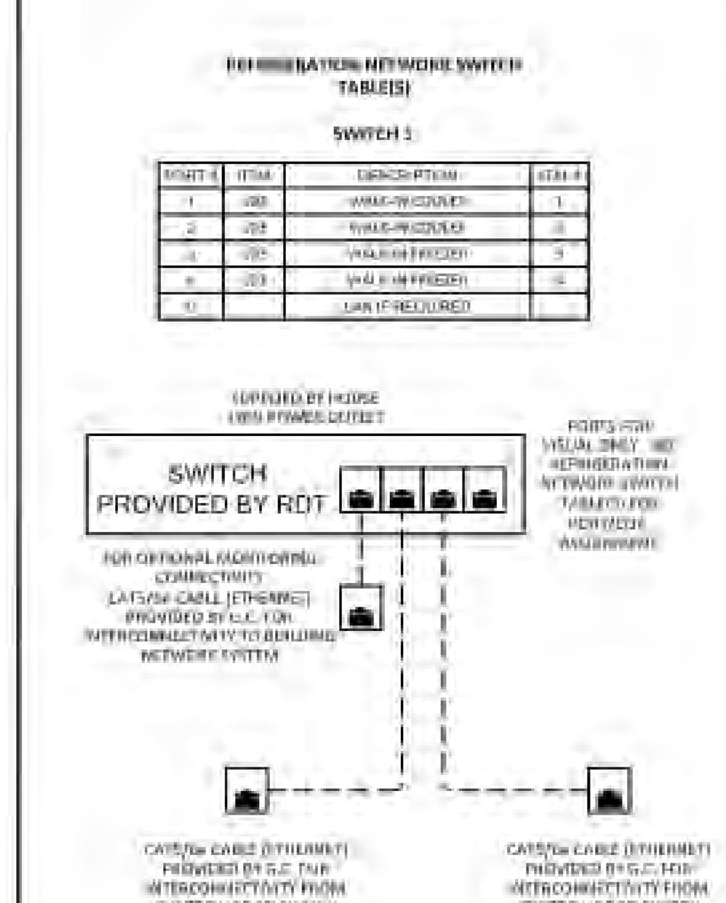
Note: Each evaporator equipped with a controller provided pre-mounted to housing of evaporator assembly.

Wiring Schedule for Electrical Contractor Requirements:

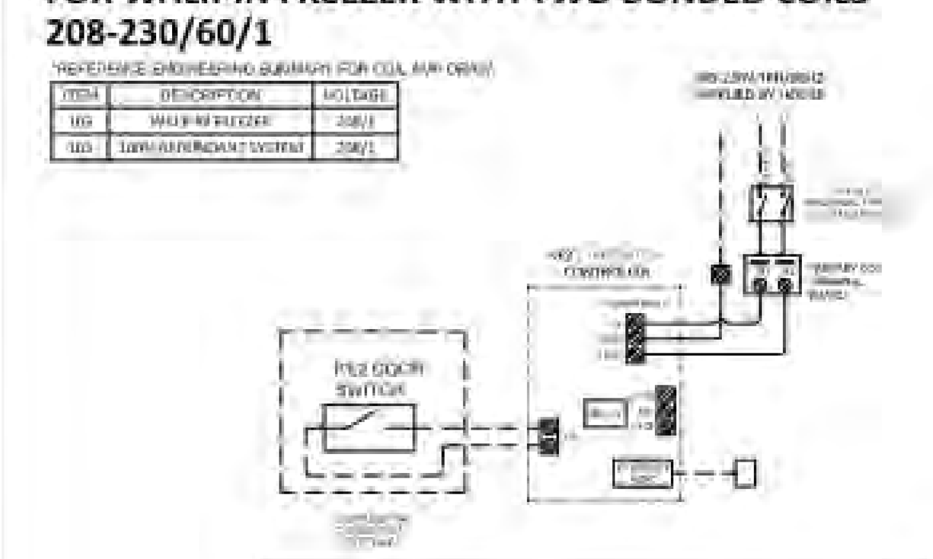
EACH COIL REQUIRES
(3) 115V 12AWG MIN. TO PROVIDE HOUSE POWER TO THE COIL (HOT, NEUTRAL, GROUND)

ALL COILS IN THE SAME ROOM MUST BE BONDED TO EACH OTHER AND CONNECTED TO DATA SWITCH

FACTORY WIRING ————
FIELD WIRING - - - - - -



WIRING DIAGRAM - ECOSMART - AKEB1EE DEMAND DEFROST W/KE2 DOOR SWITCH FOR WALK-IN FREEZER WITH TWO BONDED COILS 208-230/60/1



Note: Each evaporator equipped with a controller provided pre-mounted to housing of evaporator assembly.

Wiring Schedule for Electrical Contractor Requirements:

EACH COIL REQUIRES
(3) 208V (AWG SIZE ACCORDING TO HEATER LOAD AND LOCAL CODE) TO PROVIDE HOUSE POWER TO THE COIL (L1, L2 AND GROUND)

ALL COILS IN THE SAME ROOM MUST BE BONDED TO EACH OTHER AND CONNECTED TO DATA SWITCH

FACTORY WIRING ————
FIELD WIRING - - - - - -

APPROVAL STATUS

THIS DRAWING REPRESENTS OUR UNDERSTANDING OF THE SPECIFICATIONS. PLEASE REVIEW IT CAREFULLY FOR ACCURACY. CLEARLY AND IN DETAIL NOTE CHANGES REQUIRED.

MARK APPROPRIATE BOX, SIGN, AND DATE BELOW.

- ☐ APPROVED FOR FABRICATION NO CHANGES
- ☐ APPROVED FOR FABRICATION WITH CHANGES NOTED
- ☐ REVISE AND RE-SUBMIT DRAWING

BY: ____________ DATE: ____________

NOTICE

No.	Revision/Issue	Date
0	ORIGINAL ISSUE	12-14-23
1	REVISED PER UPDATED PLANS	04-29-24

RDT REFRIGERATION DESIGN TECHNOLOGIES
1806 FM Road 66 / P.O. Box 622
Waxahachie, Texas
(800) 736-9518
www.rdtonline.com

Consultant:
Foodservice Design Professionals
Southlake, TX

Dealer:

UNT Kerr Hall (Opt. 2B)
Denton, TX

Project No: 29988
Designed By: J. Beam
Drawn By: J. Beam
Sheet 1.1 of sheets

REGISTERED ARCHITECT STATE OF TEXAS 01.30.2025

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2554 Elm Street, Suite 200
Dallas, TX 75226
Office: 214.310.1018
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KERR HALL INTERIOR RENOVATION
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Issue: ISSUE FOR CONSTRUCTION
Date: APRIL 08, 2025

REVISIONS

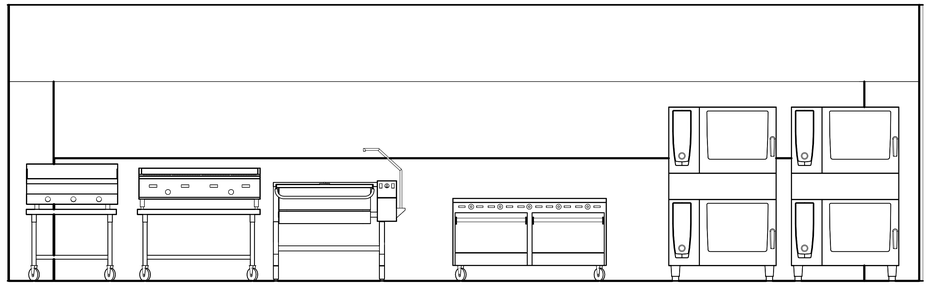
NO	DESCRIPTION	DATE

QF1.8

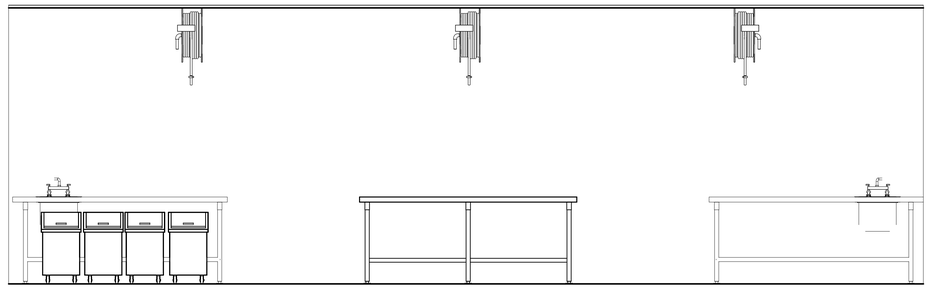
FS CONDENSING UNITS

TreanorHL NO. HE0569.2302.01

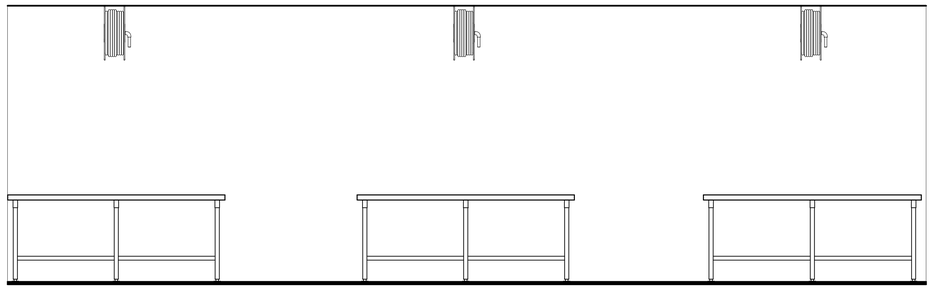
Autodesk Docs://HE0569.2302.01 UNT Kerr Hall Interior Renovation/R23_KERR-HALL-DINING_FDP.rvt
4/10/2025 1:17:42 PM



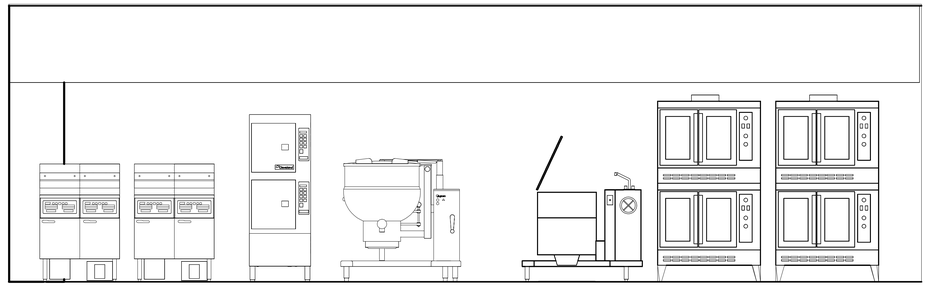
2 ELEVATION @ PRODUCTION AREA "A"
1/2" = 1'-0"



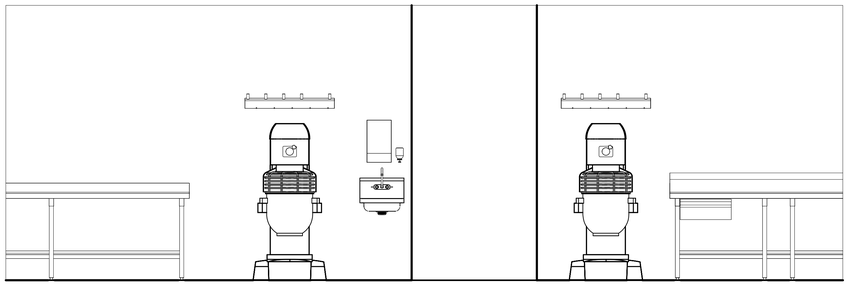
1 ELEVATION @ SET-UP "A"
1/2" = 1'-0"



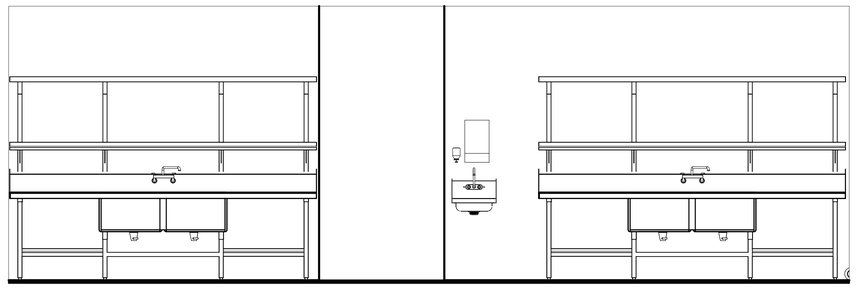
4 ELEVATION @ SET-UP "B"
1/2" = 1'-0"



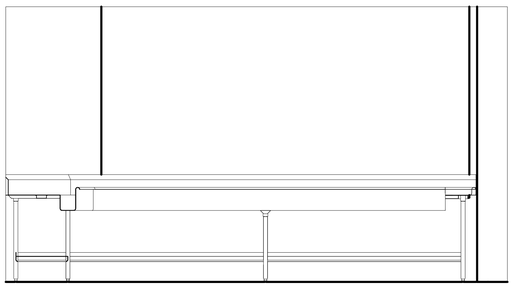
3 ELEVATION @ PRODUCTION AREA "B"
1/2" = 1'-0"



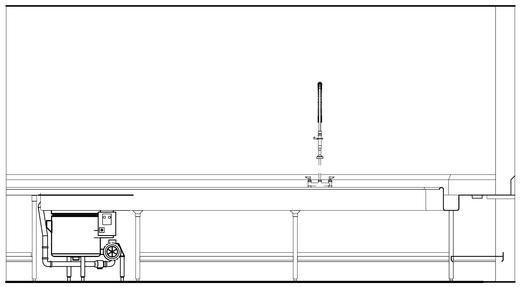
6 ELEVATION @ BAKERY
1/2" = 1'-0"



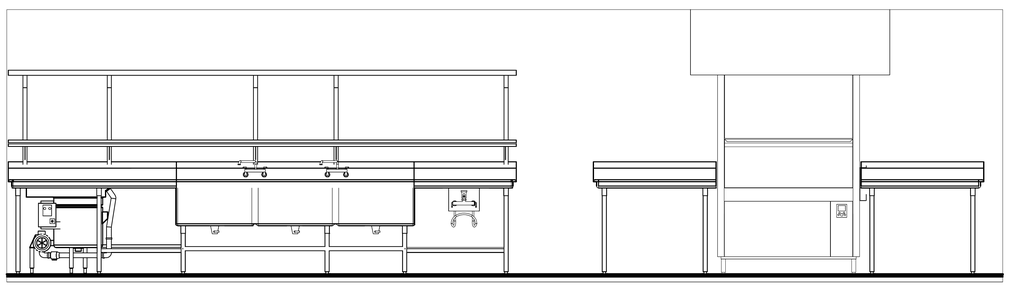
5 ELEVATION @ PREP AREA
1/2" = 1'-0"



9 ELEVATION @ WAREWASH DISH DROP
1/2" = 1'-0"



8 ELEVATION @ WAREWASH SOILED TABLE
1/2" = 1'-0"



7 ELEVATION @ SCULLERY
1/2" = 1'-0"

REGISTERED ARCHITECT
NADIA ZAIM
21737
STATE OF TEXAS
01.30.2025

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2554 Elm Street, Suite 200
Dallas, TX 75226
Office: 214.310.1018
www.TreanorHL.com

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KERR HALL INTERIOR RENOVATION
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Issue:	ISSUE FOR CONSTRUCTION
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REVISIONS

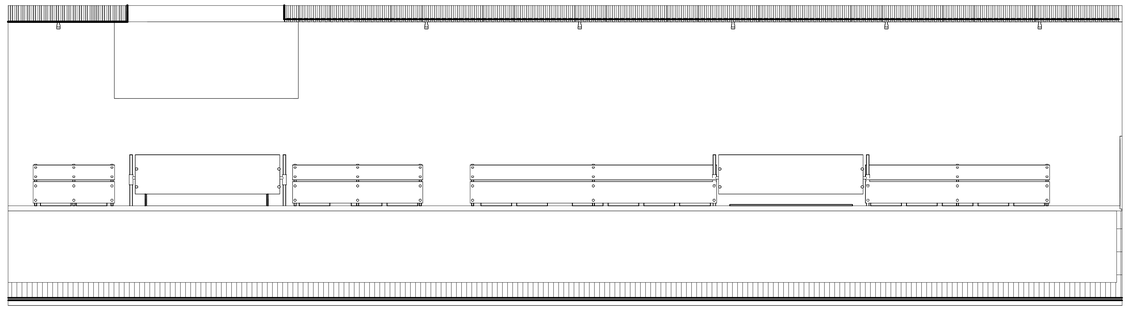
NO	DESCRIPTION	DATE

QF1.9

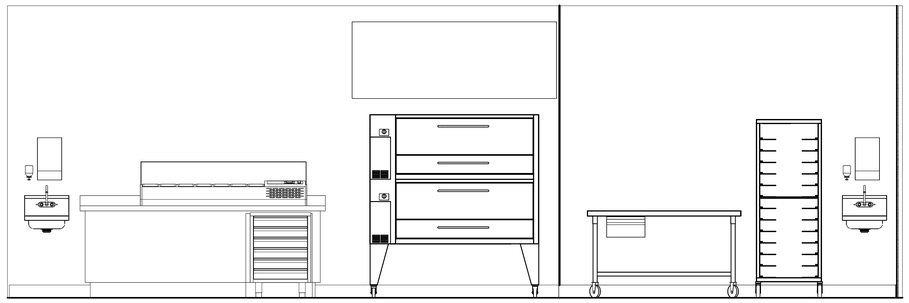
FS ELEVATIONS

TreanorHL NO. HE0569.2302.01

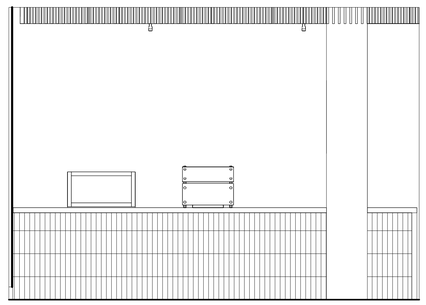
FDP FOODSERVICE DESIGN PROFESSIONALS



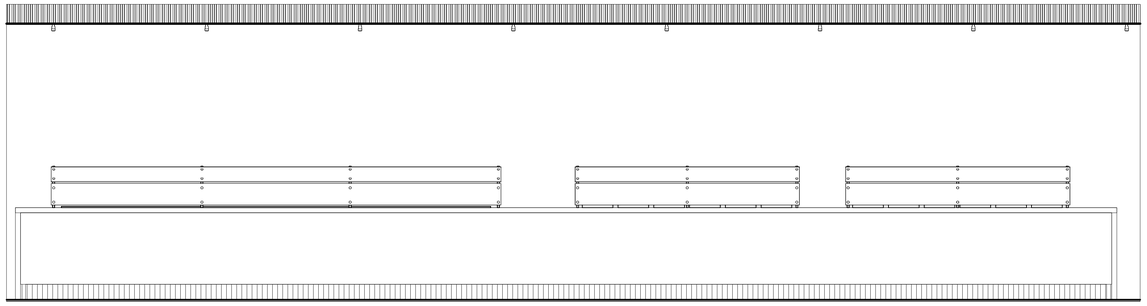
2 ELEVATION @ SERVING COUNTER
1/2" = 1'-0"



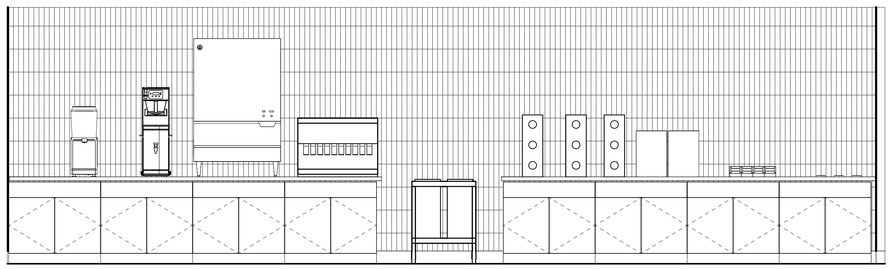
1 ELEVATION @ PIZZA PREP AREA
1/2" = 1'-0"



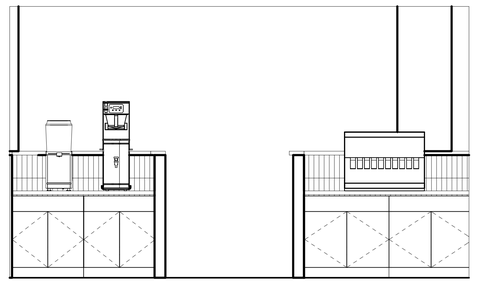
4 ELEVATION @ DESSERT STATION
1/2" = 1'-0"



3 ELEVATION @ SERVING COUNTER - SALAD
1/2" = 1'-0"



6 ELEVATION @ CONDIMENT COUNTER
1/2" = 1'-0"



5 ELEVATION @ BEVERAGE COUNTER
1/2" = 1'-0"

REGISTERED ARCHITECT
NADIA ZAIM
21737
STATE OF TEXAS
01.30.2025

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Dallas, TX 75226
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FS ELEVATIONS

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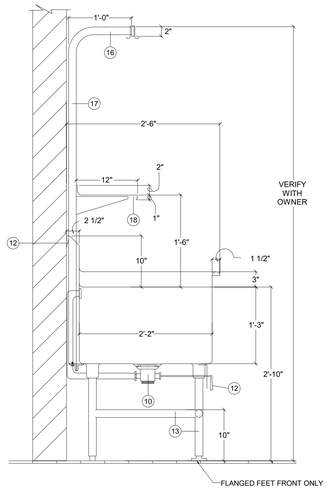
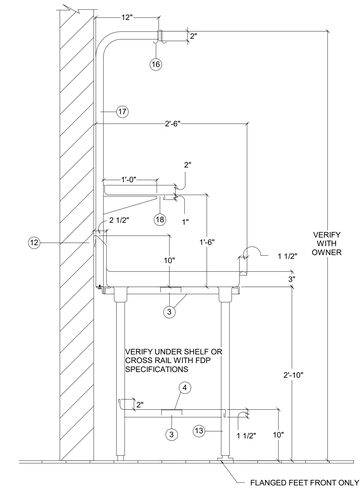
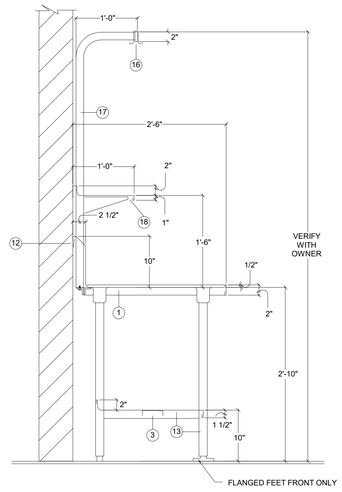


11 SINK - UTENSIL WASH SECTION
NOT TO SCALE



10 DRAINBOARD - UTENSIL WASH SECTION
NOT TO SCALE



9 DRAINBOARD - PREP SINK SECTION
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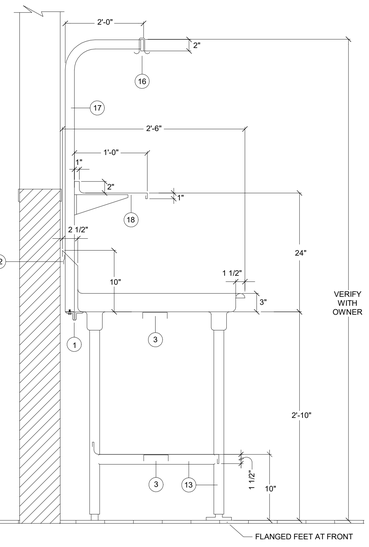

8 DISHTABLE SECTION
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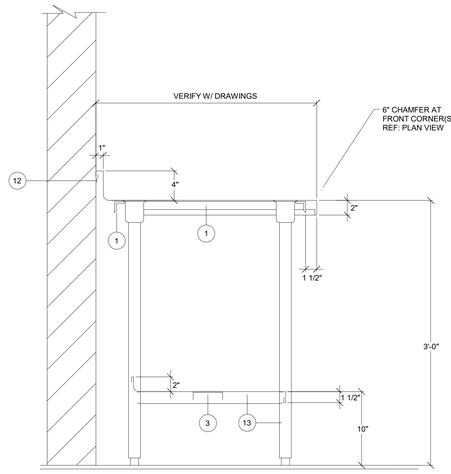
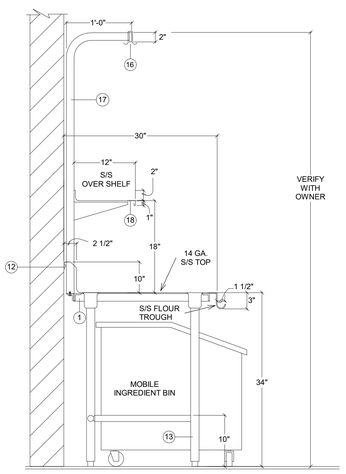
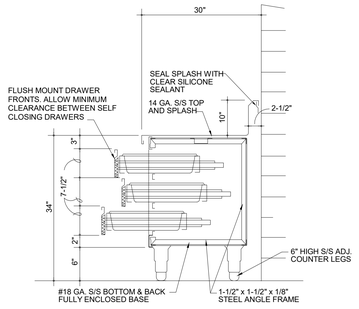


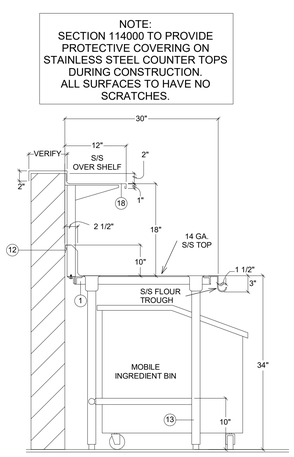
7 COUNTER - BACK OPEN BASE SECTION
NOT TO SCALE



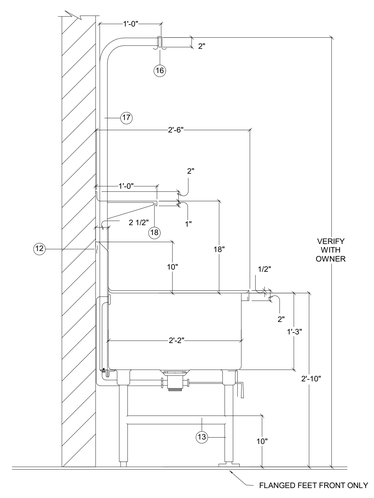
6 BAKER'S TABLE W/ S.S. TOP & UT. RACK SECTION
NOT TO SCALE



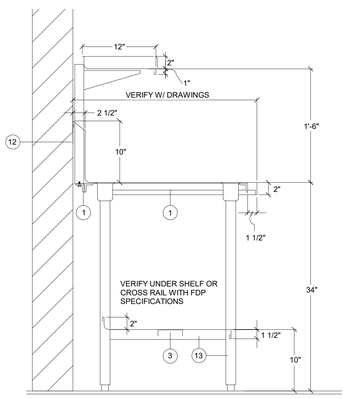
3 BAKER'S TABLE DRAWER BASE SECTION
NOT TO SCALE



5 BAKER'S TABLE W/ S.S TOP SECTION
NOT TO SCALE



4 SINK - PREP TABLE SECTION
NOT TO SCALE



2 WORKTABLE W/ OVER SHELF SECTION
NOT TO SCALE

SECTION DETAIL NOTES:

1. 1 1/2" X 1 1/2" X 1/8" GALVANIZED ANGLE IRON.
2. 1" X 4" 14 GAUGE STAINLESS STEEL HAT CHANNEL.
3. 16 GAUGE STAINLESS STEEL C-CHANNEL.
4. 16 GAUGE STAINLESS STEEL UNDER SHELF, COVE UP REAR 2", TURN DOWN FRONT 1 1/2".
5. 1/2" CEMENT BACKERBOARD WITH TILE FRONT BY TRADE CONTRACTOR OR COUNTER MANUFACTURER. VERIFY FINISH WITH ARCHITECTURAL DRAWINGS.
6. COLD PAN - 2" RIGID INSULATION WITH 1" C.P. DRAIN - 16 GAUGE STAINLESS STEEL SECTION FALSE BOTTOM. PERFORATE FALSE BOTTOM WITH 1/4" DIA. HOLES AT 3" O.C.
7. 18 GAUGE STAINLESS STEEL INSULATED DOUBLE PAN DOOR WITH RECESSED PULL.
8. MANIFOLD DRAINS AT HOT FOOD UNITS WITH 1" TYPE 'K' COPPER AND EXTEND TO VALVE IN PLUMBING COMPARTMENT.
9. FINISHED TRUE AND LEVEL MASONRY BASE BY DIVISION 09. CLOSE COUNTER BODY AT BASE AND SEAL BY SECTION 11 40 00.
10. FISHER #22314 DRAIN WITH TAILPIECE AND OVERFLOW.
11. 14 GAUGE STAINLESS STEEL BRACKET WITH DRAIN HANDLE BUSHING.
12. 16 GAUGE STAINLESS STEEL 'Z' CLIP TO WALL AND SEAL.
13. 1 5/8" DIA. 16 GAUGE STAINLESS STEEL LEGS AND CROSS RAILS.
14. 1/2" S/S TUBING DRAIN LINE - STRAP TO SHELF AND WALL - EXTEND DOWN TO TOP OF SPLASH.
15. 1 5/8" DIA. 16 GAUGE STAINLESS STEEL TUBING - SUPPORT FRONT OF SHELF WITH 1/2" ALL-THREAD INSIDE TUBING EXTENDING TO STRUCTURE ABOVE.
16. 1/4" S/S BAR STOCK WELDED TO TOP OF EACH POST - POT HOOKS TO BE COMPONENT HARDWARE #J77-4401 SPACED 8" O.C.
17. 1 5/8" 16 GAUGE STAINLESS STEEL TUBING - BOLT TO ANGLE IRON AND EXTEND UP THRU SPLASH TO 7'-0" A.F.F.
18. OVER SHELF - 16 GAUGE STAINLESS STEEL, COVE UP REAR 2", TURN FRONT AND ENDS DOWN 1", ENDS TO BE CAPPED WITH EASED CORNERS WHERE ADJACENT TO WALL / FIXTURE.
19. 18 GAUGE STAINLESS STEEL LOUVERED PANEL.
20. 18 GAUGE STAINLESS STEEL LOUVERED DOUBLE PAN DOOR WITH RECESSED PULL.
21. NUMBER NOT USED.
22. 18 GAUGE STAINLESS STEEL INSULATED DOUBLE PAN SLIDING DOOR WITH COMPONENT HARDWARE COMPONENTS
    - A. #B57 - (VERIFY LENGTH) EXTRUDED ALUMINUM TRACK.
    - B. #B58-5511 & #B58-5521 FRONT & REAR DOOR SHEAVES.
    - C. #B62-1093 DOOR GUIDE.
    - D. #B60-1086 DOOR STOPS WHERE NEEDED.
    - E. #P62-1010 RECESS PULLS.

1 SECTION DETAIL NOTES
NOT TO SCALE

FOODSERVICE DESIGN PROFESSIONALS

INTERIM REVIEW ONLY
Document Incomplete. Not intended for permit, bidding, or construction.

ARCHITECT: **NADIA ZHIRI**
REGISTRATION: **21727**
DATE: **11.14.2024**

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2554 Elm Street, Suite 200
Dallas, TX 75226
Office: 214.310.1018
www.TreanorHL.com

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NO	DESCRIPTION	DATE

QF2

FS SECTIONS & DETAILS

TreanorHL NO. HE0569.2302.01

Autodesk Docs://HE0569.2302.01 UNT Kerr Hall Interior Renovation/R23_KERR-HALL-DINING_FDP.rvt
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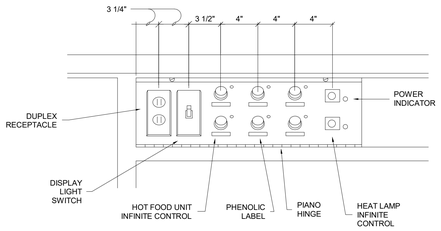
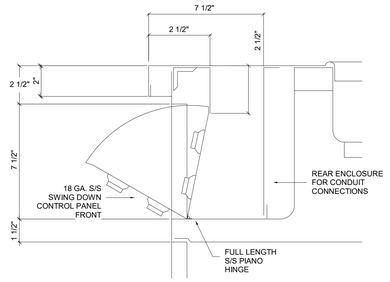
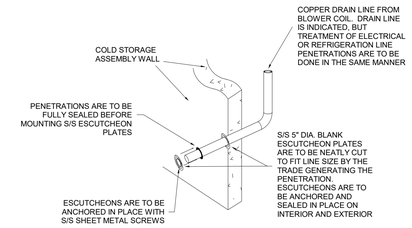


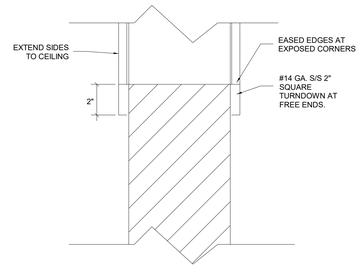
1 COUNTER - SERVING CONTROL PANEL LAYOUT DETAIL
NOT TO SCALE



2 COUNTER - SERVING CONTROL PANEL SECTION
NOT TO SCALE

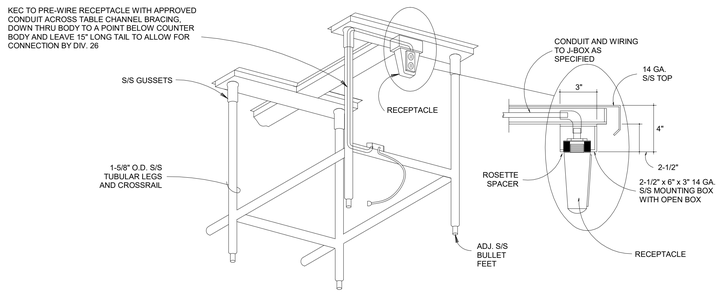


3 COLD STORAGE ASSEMBLY ESCUTCHEON & PENETRATION DETAIL
NOT TO SCALE



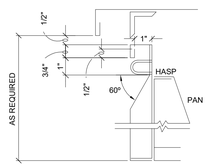
4 S/S WALL CAP DETAIL
NOT TO SCALE

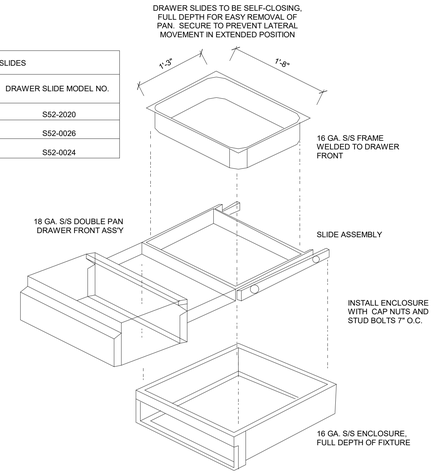
NOTE:
COORDINATE ALL RECEPTACLES WITH ELECTRICAL CONTRACT DRAWING REQUIREMENTS, REFER TO ELECTRICAL PLAN



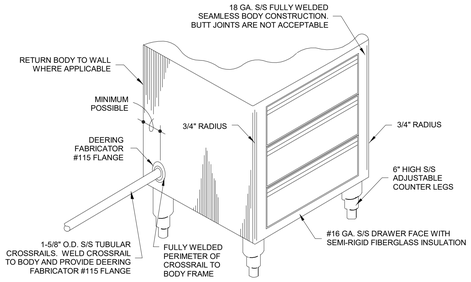
5 WORKTABLE - ELECTRICAL RECEPTACLE MOUNTED UNDER TOP DETAIL
NOT TO SCALE

COMPONENT HARDWARE DRAWER PAN AND SLIDES		
TYPE	DRAWER PAN MODEL NO.	DRAWER SLIDE MODEL NO.
UTILITY	S80-2020	S52-2020
BREAD	S83-2020	S52-0026
REFRIGERATOR	S81-1520	S52-0024

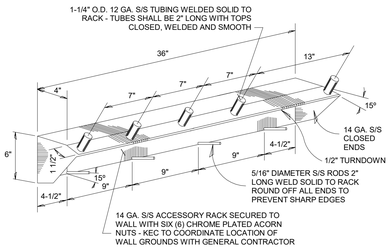




6 DRAWER ASSEMBLY DETAIL
NOT TO SCALE

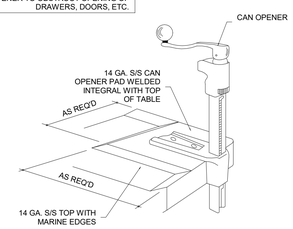


8 BAKER'S TABLE DRAWER BASE DETAIL
NOT TO SCALE

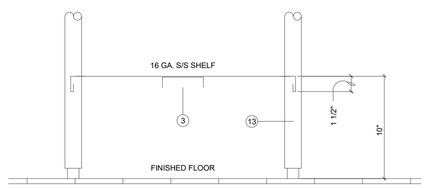


9 MIXER ACCESSORY RACK DETAIL
NOT TO SCALE

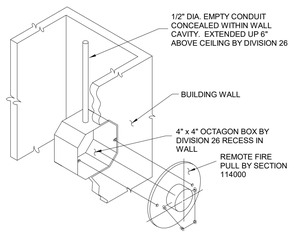
NOTE: DO NOT LOCATE CAN OPENER PAD IN A POSITION THAT WOULD ALLOW CAN OPENER TO OBSTRUCT OPENING OF DRAWERS, DOORS, ETC.



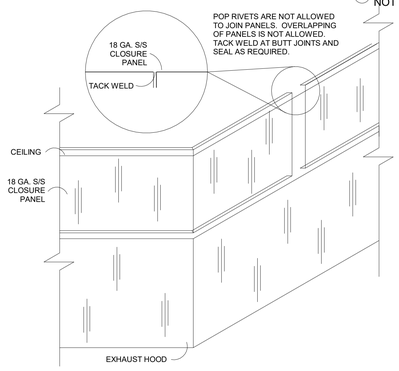
10 SINK - PREP MARINE EDGE CAN OPENER DETAIL
NOT TO SCALE



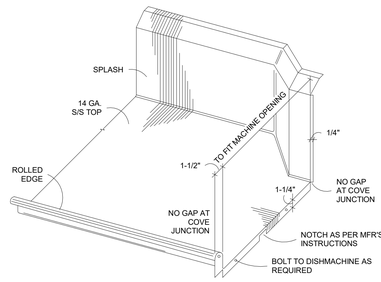
11 UNDER SHELF DETAIL
NOT TO SCALE



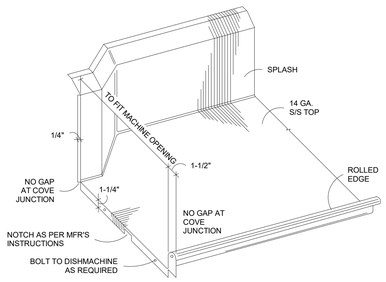
12 FIRE PROTECTION SYSTEM FIRE PULL DETAIL
NOT TO SCALE



13 EXHAUST HOOD CLOSURE PANEL DETAIL
NOT TO SCALE



14 DISHTABLE - SOILED & CLEAN CONNECTION DETAIL
NOT TO SCALE



REGISTERED ARCHITECT
MADIA ZAIDI
21737
STATE OF TEXAS
01.30.2025

TREANOR
2554 Elm Street, Suite 200
Dallas, TX 75226
Office: 214.310.1018
www.TreanorHL.com

UNIVERSITY OF NORTH TEXAS
KERR HALL INTERIOR RENOVATION
1413 West Maple St
Denton, TX 76201

UNT

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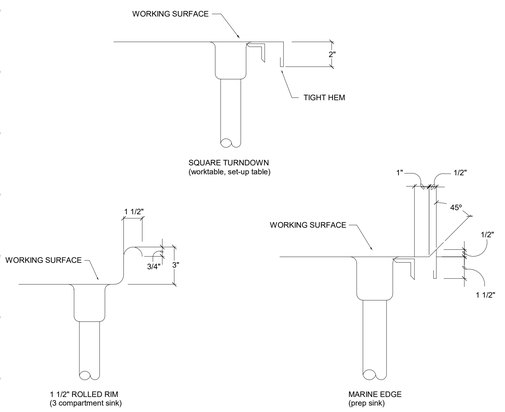
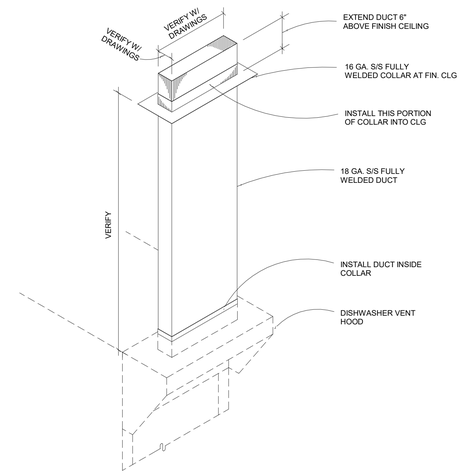
FS DETAILS

FDP
FOODSERVICE DESIGN PROFESSIONALS

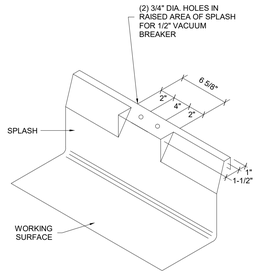
TreanorHL NO. HE0569.2302.01



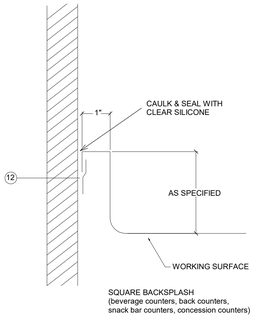
1 EDGE DETAILS
NOT TO SCALE

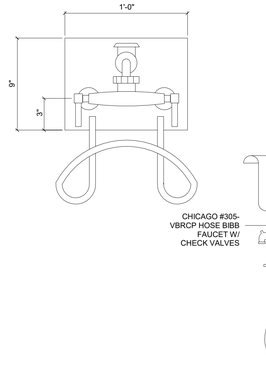


5 DISHMACHINE VENT RISER DETAIL
NOT TO SCALE

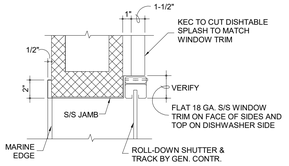


8 VACUUM BREAKER DETAIL
NOT TO SCALE

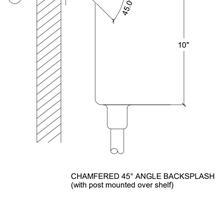




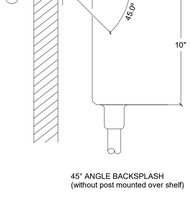
12 HOSE BIBB DETAIL
NOT TO SCALE



4 WAREWASH - TRAY DROP WINDOW SECTION
NOT TO SCALE

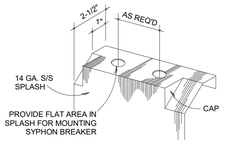


CHAMFERED 45° ANGLE BACKSPLASH
(with post mounted over shelf)

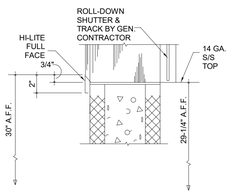


45° ANGLE BACKSPLASH
(without post mounted over shelf)

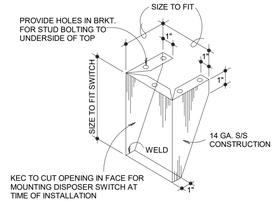
2 BACKSPLASH DETAILS
NOT TO SCALE



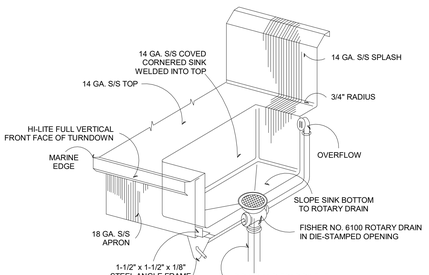
6 SPLASH @ SYPHON BREAKER
NOT TO SCALE



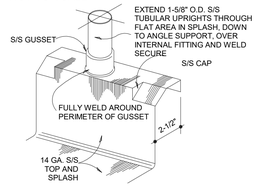
3 WAREWASH - TRAY DROP SECTION
NOT TO SCALE



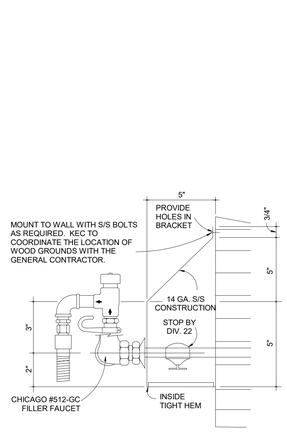
9 DISPOSER SWITCH BRACKET DETAIL
NOT TO SCALE



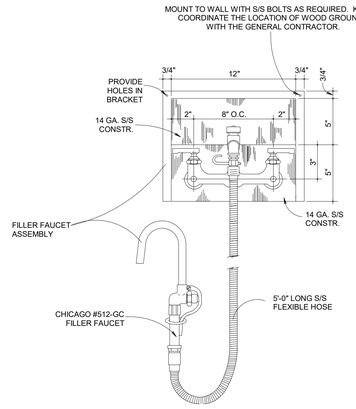
11 SINK ASSEMBLY DETAIL
NOT TO SCALE



7 SPLASH @ UPRIGHT (DISH TABLE) DETAIL
NOT TO SCALE



14 FILL FAUCET DETAIL
NOT TO SCALE



CUSTOM FABRICATION NOTES:

A. WORK SHALL BE DONE IN AN APPROVED WORKMANLIKE MANNER, TO COMPLETE SATISFACTION OF FOODSERVICE DESIGN PROFESSIONALS (FDP).

B. STAINLESS STEEL SHALL BE U.S. STANDARD GAUGES AS CALLED FOR. 18-8, TYPE 304, NOT OVER .012% MAXIMUM CARBON, NO. 4 FINISH.

C. GALVANIZED IRON SHALL BE ARMCO OR EQUAL. FRAMEWORK OF GALVANIZED IRON SHALL BE WELDED CONSTRUCTION, HAVING WELDS SMOOTH, AND WHERE GALVANIZING HAS BURNED OFF, TOUCHED UP WITH HIGH-GRADE ALUMINUM BRONZE.

D. LEGS AND CROSSRAIL SHALL BE CONTINUOUSLY WELDED, UNLESS OTHERWISE NOTED, AND GROUND SMOOTH.

E. BOTTOM OF LEGS AT FLOOR SHALL BE FITTED WITH SANITARY STAINLESS STEEL BULLET-TYPE FOOT, WITH NO LESS THAN 1/2" ADJUSTMENT.

F. LEGS SHALL BE FASTENED TO EQUIPMENT AS FOLLOWS:

01. TO SINKS BY MEANS OF CLOSED GUSSETS. GUSSETS SHALL BE S/S, REINFORCED WITH BUSHING, HAVING SET SCREWS FOR SECURING LEGS.

02. TO TABLES AND DRAINBOARDS WITH CLOSED GUSSETS WHICH SHALL BE WELDED TO GALVANIZED HAT SECTIONS OR CHANNELS, 14 GAUGE OR HEAVIER, EXPOSED HAT SECTIONS HAVING CLOSED ENDS. BRACING SHALL BE UNDERSIDE OF TOPS.

G. CLOSED GUSSETS SHALL BE 3" MINIMUM DIAMETER AT TOP, WELDED TO FRAME MEMBERS OR TO SINK BOTTOM.

H. ROLLS SHALL BE 1 1/2" DIAMETER, EXCEPT AS DETAILED TO THE CONTRARY, WITH CORNERS BULLNOSED, GROUND, AND POLISHED.

I. SEAMS AND JOINTS SHALL BE SHOP-WELDED WHERE POSSIBLE. WELDS TO BE GROUND AND POLISHED TO MATCH ORIGINAL FINISH. MATERIALS 18 GAUGE OR HEAVIER SHALL BE WELDED.

J. METAL TOPS SHALL BE ONE-PIECE WELDED CONSTRUCTION UNLESS SPECIFIED OTHERWISE, REINFORCED ON UNDERSIDE WITH GALVANIZED HAT SECTIONS OR CHANNELS WELDED IN PLACE. CROSSBRACE TO BE NOT MORE THAN 30" ON CENTERS.

K. HARDWARE SHALL BE SOLID MATERIALS AND EXCEPT WHERE EXPOSED OR SPECIFIED TO THE CONTRARY, OF CAST BRASS, CHROME-PLATED. IDENTIFY ALL HARDWARE WITH MANUFACTURER'S NAME AND NUMBER SO THAT BROKEN OR WORN PARTS MAY BE ORDERED AND REPLACED.

L. FABRICATE SINK COMPARTMENTS WITH 3/4" COVED VERTICAL AND HORIZONTAL CORNERS. MULTIPLE- COMPARTMENT PARTITIONS TO BE DOUBLE THICKNESS, CONTINUOUSLY WELDED WHERE SHEETS JOIN AT TOP. FRONT OF MULTIPLE-COMPARTMENT PARTITIONS TO BE CONTINUOUS ON EXTERIOR. BOTTOMS SHALL BE CREASED TO DRAIN.

M. ENDS OF FIXTURES, SPLASHBACKS, SHELVES, ETC., SHALL BE FINISHED FLUSH TO WALLS OR ADJOINING FIXTURES.

N. DISHTABLES, DRAINBOARDS, SPLASHBACKS, AND TURN-UP EDGES SHALL HAVE RADIUS BENDS IN ALL HORIZONTAL AND VERTICAL CORNERS, COVED AT INTERSECTIONS.

O. ROUNDED AND COVED CORNERS OR RADIUS BENDS SHALL BE 1/2" RADIUS OR LONGER.

P. UNDERSIDES OF TOPS TO BE COATED WITH HEAVY-BODIED RESINOUS MATERIAL COMPOUND FOR PERMANENT, NON-FLAKING ADHESION TO METAL, 1/8" THICK, APPLIED AFTER REINFORCING MEMBERS HAVE BEEN INSTALLED, DRYING WITHOUT DIRT-CATCHING CREVICES.

Q. SHELVES ARE TO BE TURNED UP 2" ON THE BACK EDGE. TURN OTHER EDGES DOWN 1 1/2" TO FORM OPEN CHANNELS. REINFORCE SHELF UNITS TO SUPPORT 40 LBS. PER SQUARE FOOT LOADING, PLUS 100% IMPACT LOADING.

R. TRIMWORK AND FRAMING AT MASONRY OPENINGS SHALL BE 18 GAUGE STAINLESS STEEL AND FORMED SO AS TO FIT SNUG TO WALLS AND ADJACENT SURFACES. FRAMING SHALL EXTEND A MINIMUM OF 2" ON EACH SURFACE. SEAL TRIMWORK TO WALLS. REFER TO DRAWINGS.

S. METAL COMPONENTS, UNLESS SPECIFIED OR NOTED OTHERWISE, TO BE THE FOLLOWING GAUGES:

TABLETOPS	14 GAUGE STAINLESS STEEL
WALL SHELVES	16 GAUGE STAINLESS STEEL
UNDER SHELVES	16 GAUGE STAINLESS STEEL
SINKS & DRAINBOARDS	14 GAUGE STAINLESS STEEL
EXHAUST DUCTS	18 GAUGE STAINLESS STEEL
LEGS - 1 5/8" DIA.	16 GAUGE STAINLESS STEEL

10 CUSTOM FAB NOTES
NOT TO SCALE

FOODSERVICE DESIGN PROFESSIONALS

REGISTERED ARCHITECT
NADIA ZHIRI
21737
STATE OF TEXAS
01.30.2025

TREANOR
2554 Elm Street, Suite 200
Dallas, TX 75226
Office: 214.310.1018
www.TreanorHL.com

UNIVERSITY OF NORTH TEXAS
KERR HALL INTERIOR RENOVATION
1413 West Maple St
Denton, TX 76201

UNT

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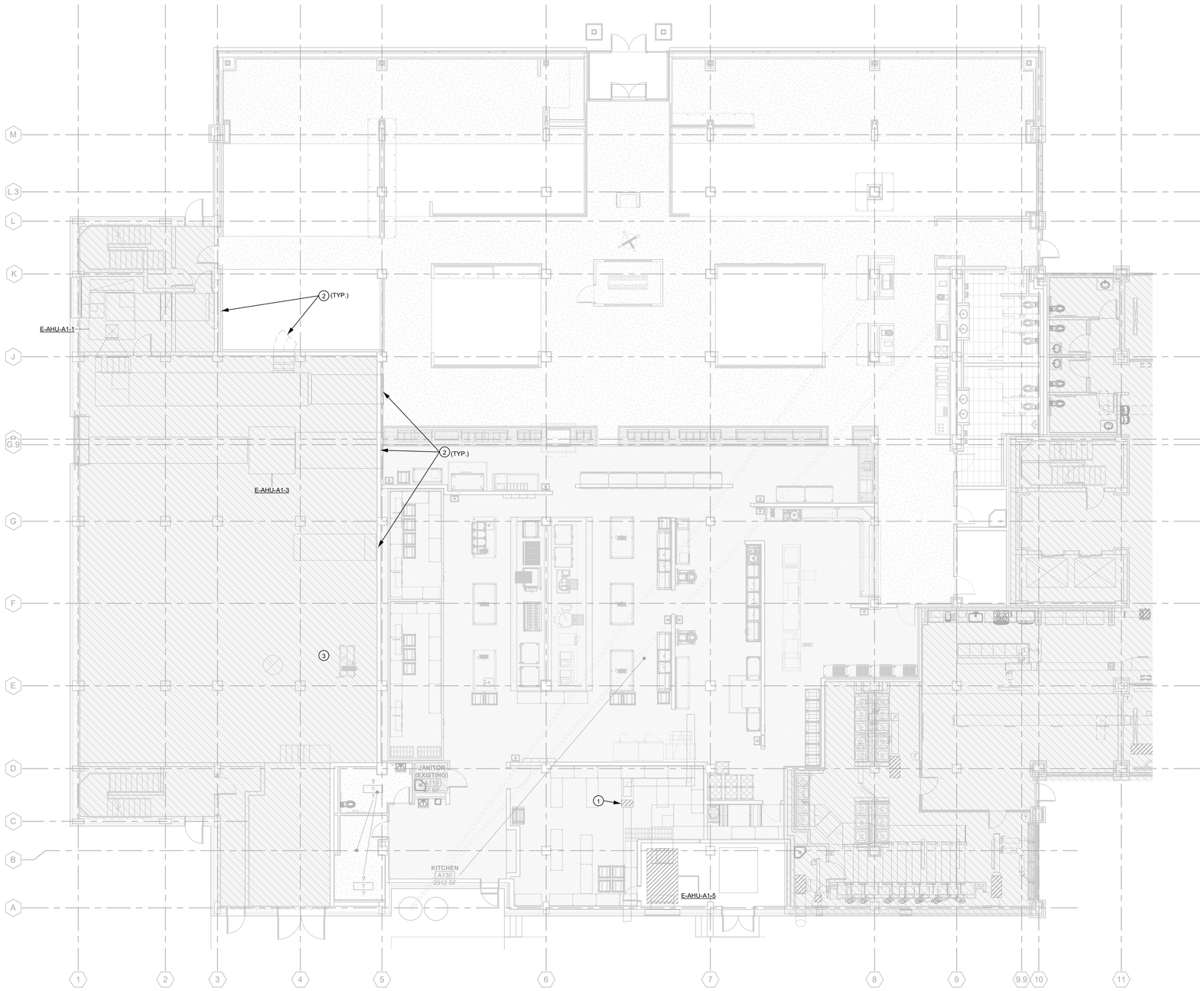
FS DETAILS

TreanorHL NO. HE0569.2302.01

KEYED NOTES - SHEET iMD201B

1 DEMO EXISTING DISHWASH EXHAUST FAN AND ALL ASSOCIATED DUCT WORK AND ACCESSORIES.

2 TEMPORARY COOLING WAS PROVIDED TO THE KITCHEN AND DINING AREA VIA FLEX DUCT TAPPED FROM THE EXISTING MAIN DUCTS SERVING THE SPACE. DEMO ALL FLEX DUCTS SERVING SPACE AND PATCH ALL TAPS IN THE MAIN DUCT RUNS. (TYPICAL)



1 LEVEL 1 MECHANICAL DEMO PLAN - DINING
1/8" = 1'-0"

REVISION SUMMARY:
- DEMO SHEET ADDED TO ELABORATE SCOPE.

D. SCOTT BROWN
89097
LICENSED
PROFESSIONAL ENGINEER
5-23-2025

TREANOR
2554 Elm Street, Suite 200
Dallas, TX 75226
Office: 214.310.1018
www.TreanorHL.com

Purdy - McGuire
Mechanical - Electrical Engineers
17300 North Dallas Parkway
Suite 3000
Dallas, TX 75248-1147
Firm Registration # F-1511
Tel: 972/239-5357
Fax: 972/239-5231
www.purdy-mcguire.com

PMI JOB NO.	23037.002
PROJECT MGR.	SCOTT BROWN MITCHELL HENTON
MECHANICAL	MITCHELL HENTON
PLUMBING	CHRIS WOODYARD
ELECTRICAL	JOSEPH RAMIREZ

UNIVERSITY OF NORTH TEXAS
KERR HALL INTERIOR RENOVATION

1413 West Maple St
Denton, TX 76201

UNT UNIVERSITY OF NORTH TEXAS

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1	ADDENDUM 2	05.23.25

1

iDM201B

LEVEL 1 MECHANICAL DEMOLITION PLAN - DINING

TreanorHL NO. HE0569.2302.01

MECHANICAL GENERAL NOTES:

A. GENERAL NOTES APPLY TO ALL MECHANICAL SHEETS.
B. ALL WORK SHALL COMPLY WITH APPLICABLE NATIONAL, STATE AND LOCAL CODES.
C. ALL WORK SHALL BE IN COMPLIANCE WITH THE TENANT/OWNER/CAMPUS DESIGN STANDARDS. CONTRACTOR SHOULD BE FAMILIAR WITH STANDARDS PRIOR TO BID.
D. CONTRACTOR SHALL SPECIFICALLY LIST ANY EXCEPTIONS TO THE CONSTRUCTION DOCUMENTS IN THEIR BID.
E. DRAWINGS ARE SCHEMATIC IN NATURE. EXACT LOCATIONS OF DUCTWORK, PIPING, AND EQUIPMENT, INCLUDING REQUIRED CLEARANCES, TO BE COORDINATED WITH BUILDING STRUCTURE AND WORK OF OTHER CONTRACTORS.
F. THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE SCOPE OF WORK SHOWN IN THE COMPLETE SET OF CONSTRUCTION DOCUMENTS, INCLUDING THE SPECIFICATIONS.
G. THIS CONTRACTOR IS RESPONSIBLE FOR FIRE STOPPING AT ALL MECHANICAL PENETRATIONS OF FIRE AND SMOKE RATED STRUCTURES, FLOORS AND PARTITIONS. REFER TO ARCHITECTURAL FLOOR PLANS FOR LOCATION OF ALL RATED STRUCTURES.
H. PROVIDE FIRE DAMPERS FOR ALL DUCT PENETRATIONS THRU FIRE RATED ASSEMBLIES. PROVIDE COMBINATION FIRE/SMOKE DAMPERS FOR ALL PENETRATIONS THRU SHAFT WALLS AND CORRIDOR WALLS.
I. THIS CONTRACTOR IS TO PROVIDE ALL ADDITIONAL STEEL, HANGER MATERIALS, RODS AND CLAMPS AS REQUIRED FOR INSTALLATION OF THE MECHANICAL SYSTEMS.
J. COORDINATE CEILING DIFFUSERS AND GRILLES WITH LIGHTING FIXTURES. REFER TO ARCHITECTURAL REFLECTED CEILING PLAN.
K. ALL SUPPLY, RETURN AND EXHAUST DUCT SIZES INDICATED ARE FREE AREA.
L. CONTRACTOR TO VERIFY ALL FIELD CONDITIONS PRIOR TO ORDERING MATERIALS AND/OR EQUIPMENT OR BEGINNING ANY WORK WITHOUT AUTHORIZATION. REPORT ANY DISCREPANCIES TO THE OWNER/ARCHITECT IMMEDIATELY.
M. CONTRACTOR TO FIELD VERIFY ALL WALLS TO DECK AND PROVIDE TRANSFER BOOTS THRU ALL WALLS TO DECK PER DETAILS. THERMOSTATS TO BE MOUNTED 48" ABOVE FINISHED FLOOR LEVEL UNLESS NOTED OTHERWISE ON THE PLANS. CONTRACTOR TO VERIFY ALL THERMOSTATS LOCATIONS WITH ARCHITECT PRIOR TO ROUGH IN.
N. ELECTRICAL CONTRACTOR TO PROVIDE J-BOX AND CONDUIT TO ACCESSIBLE CEILING FOR ALL T-STATS AND SENSORS. COORDINATE LOCATIONS OF T-STATS AND SENSORS WITH ELECTRICAL CONTRACTOR.
O. ALL MEDIUM PRESSURE DUCTS (BOTH SQUARE AND ROUND) SHALL HAVE RADIUS ELBOWS (45 DEG. AND 90 DEG.).
P. ALL MEDIUM PRESSURE DUCT WORK SHALL BE GALVANIZED SHEET METAL CONSTRUCTED TO SMACNA STANDARDS (MOST RECENT) AND SEAL CLASS A. MEDIUM PRESSURE DUCT SHALL BE 4 " W.G. AND LOW PRESSURE DUCT SHALL BE 2" W.G. MEDIUM PRESSURE DUCT SHALL BE LEAK TESTED IN ACCORDANCE WITH THE MOST CURRENT VERSION OF THE SMACNA AIR DUCT LEAKAGE TEST MANUAL.
Q. ALL SUPPLY AIR DUCT, OUTSIDE AIR INTAKE DUCT, AND GREASE EXHAUST DUCT SHALL BE INSULATED PER THE SPECIFICATIONS AND/OR SCHEDULES.
R. INDIVIDUAL DUCT RUN-OUTS TO EACH DIFFUSER SHALL BE SIZED IN ACCORDANCE TO THE DIFFUSER NECK SIZE FOUND IN THE GRILLES-REGISTERS-DIFFUSERS SCHEDULE.
S. PIPES AND DUCTS TO BE COORDINATED ON JOB WITH BUILDING STRUCTURE AND WORK OF OTHER CONTRACTORS. ROUTE AS HIGH AS PHYSICALLY POSSIBLE. OFFSET DUCTS INTO JOIST SPACE FOR CLEARANCE WHERE SPACE ABOVE CEILING IS NOT SUFFICIENT FOR DUCTS TO CROSS OTHER DUCTS OR WORK OF OTHER TRADES.
T. INSULATED FLEX DUCT IN THE MEDIUM PRESSURE SYSTEM SHALL BE UTILIZED AT INLET TO VAV BOX OR FAN POWERED BOX ONLY. LENGTH SHALL BE LIMITED TO AN OVERALL LENGTH OF TWO (2) FEET AND BE STRAIGHT RUN. INSULATED FLEX DUCT IN THE LOW PRESSURE SYSTEM SHALL BE LIMITED TO AN OVERALL LENGTH OF SIX (6) FEET WITH A MAXIMUM OF A 90 DEGREE CHANGE IN DIRECTION. SUPPORTS SHALL BE SADDLE BANDED TO STRUCTURE. SUPPORTING FROM FIRE PROTECTION PIPING, ELECTRICAL CONDUIT OR CEILING SUPPORT WIRES IS NOT ACCEPTABLE.
U. VAV BOXES AND FAN POWERED BOXES SHALL HAVE UNOBSTRUCTED CLEARANCE TO ALL VALVES AND ACCESS DOORS. SEE FAN POWERED BOX (FPB) AND/OR VARIABLE AIR VOLUME (VAV) BOX REQUIRED NATIONAL ELECTRIC CODE (NEC) CLEARENCE DETAILS FOR ADDITIONAL INFORMATION.
V. PROVIDE TEMPORARY HIGH EFFICIENCY FILTER MEDIA ON ALL RETURN AIR AND EXHAUST OPENINGS AT BEGINNING OF PROJECT AND REPLACED AT TWO (2) WEEK INTERVALS UNTIL PROJECT COMPLETION AT WHICH TIME THE FILTER MEDIA SHALL BE REMOVED.
W. CONTRACTOR SHALL PROVIDE YOUNG CONCEALED DAMPER REGULATORS WITH A DAMPER CABLE CONTROL KIT EQUAL TO BOWDEN MODEL 270-896P FOR ALL GYPSUM BOARD APPLICATIONS. COORDINATE SHAFT SIZE OF DAMPER WITH KIT FOR PROPER COMPATIBILITY. REFER TO ARCHITECTURAL DRAWINGS FOR ALL LOCATIONS INDICATED WITH GYPSUM BOARD CEILING AND COORDINATE WITH ARCHITECT FOR EXACT LOCATION OF INSTALLATION.
X. CONNECTIONS BETWEEN FERROUS AND NON-FERROUS PIPING SYSTEMS, AND BETWEEN FERROUS PIPING SYSTEMS AND NON-FERROUS CONNECTIONS TO EQUIPMENT SHALL BE MADE BY THE USE OF DIELECTRIC UNIONS, COUPLINGS OR FLANGES AS MANUFACTURED BY CRANE, EPCO, F.M. MALONEY, UNIVERSAL MANUFACTURING CO.
Y. MATERIALS USED FOR INSULATION, ACOUSTICAL LININGS, ADHESIVES, JACKETS AND COATINGS, AND COMBINATIONS OF THESE MATERIALS, SHALL EACH HAVE A FLAME SPREAD RATING OF 25 OR LESS, AND A SMOKE DEVELOPED RATING OF 50 OR LESS, AS DETERMINED BY AN INDEPENDENT TESTING LABORATORY IN ACCORDANCE WITH NFPA-255.
Z. IT WILL BE THE RESPONSIBILITY OF THE CONTRACTOR TO FIELD VERIFY THAT THE EXISTING DUCTWORK SIZE IS THE SAME AS INDICATED ON THE PLANS AND IS ADEQUATE FOR NO MORE THAN 0.30 OF STATIC PRESSURE PER 100 FEET FOR MEDIUM PRESSURE DUCTWORK BASED ON THE CFM'S INDICATED ON THE PLANS AND THAT EXISTING DIFFUSER NECK SIZES MEET THE REQUIREMENTS AS INDICATED FOR NEW DIFFUSERS.
AA. ALL EXISTING DUCTWORK SHALL BE FIELD VERIFIED TO BE INSULATED AND IN GOOD CONDITION, ANY TORN, DAMAGED OR MISSING INSULATION WILL BE REPLACED. EXISTING CONTROLS SHALL BE CONFIRMED TO BE IN WORKING CONDITION.
AB. FOR AHU'S, MECHANICAL CONTRACTOR SHALL INSTALL THE DUCTMOUNTED SMOKE DECTORS AND DIV 26 SHALL FURNISH AND CONNECT FOR SHUT DOWN OF UNIT AND OTHER CODE REQUIREMENTS.

BASE DESIGN CRITERIA LIST

OUTDOOR DESIGN CONDITIONS FOR CITY, STATE
SUMMER:
DRY BULB TEMPERATURE = 102 DEG F
WET BULB TEMPERATURE = 75 DEG F
WINTER:
DRY BULB TEMPERATURE = 10 DEG F

INDOOR DESIGN CONDITIONS FOR CITY, STATE
SUMMER:
DRY BULB TEMPERATURE = 75 DEG F
WET BULB TEMPERATURE = 63 DEG F
HUMIDITY = 50%
WINTER:
DRY BULB TEMPERATURE = 70 DEG F
HUMIDITY = NO MINIMUM

MECHANICAL APPLICABLE CODES

- 2021 INTERNATIONAL MECHANICAL CODE (IMC)
- 2021 INTERNATIONAL ENERGY CONSERVATION (IECC)

MECHANICAL INSULATION SCHEDULE

APPLICATION	INSULATION TYPE	THICKNESS	INSULATION FINISH: INDOOR CONCEALED	INSULATION FINISH: INDOOR EXPOSED INCL. MECH ROOMS	INSULATION FINISH: OUTDOOR
CHILLED WATER SUPPLY & RETURN PIPING					
INDOOR:					
1-1/4" & SMALLER:	FIBERGLASS-6i	1"	8F	5F	NA
	CELLULAR FOAM-4i	1"	0F	0F	NA
1-1/2" & LARGER:	FIBERGLASS-6i	1-1/2"	8F	5F	NA
	CELLULAR FOAM-4i	1-1/2"	0F	0F	NA
OUTDOOR:					
1-1/4" & SMALLER:	FIBERGLASS-6i	1"	NA	NA	3F
	CELLULAR FOAM-4i	1"	NA	NA	9F
1-1/2" & LARGER:	FIBERGLASS-6i	2"	NA	NA	3F
	CELLULAR FOAM-4i	2"	NA	NA	9F
HEATING WATER SUPPLY & RETURN					
INDOOR 1-1/4" & SMALLER:	FIBERGLASS-6i	1-1/2"	8F	5F	3F
INDOOR 1-1/2" & LARGER:	FIBERGLASS-6i	2"	8F	5F	3F
OUTDOOR - ALL:	FIBERGLASS-6i	3"	NA	NA	3F
CONDENSER WATER SUPPLY & RETURN PIPING					
INDOOR W/ WATER SIDE ECONOMIZER:	FIBERGLASS-6i	1-1/2"	8F	5F	NA
INDOOR W/O WATER SIDE ECONOMIZER:	NONE	0	NA	PAINT	NA
STEAM & STEAM CONDENSATE:	MINERAL-FIBER-7i	4-1/2"	10F	10F	NA
OUTDOOR:	FIBERGLASS-6i	2"	NA	NA	3F
REFRIGERANT SUCTION AND/OR HOT-GAS LINE PIPING					
INDOOR:	CELLULAR FOAM-4i	1"	0F	0F	NA
OUTDOOR:	CELLULAR FOAM-4i	1"	NA	NA	9F
				REFRIGERANT LIQUID LINES SO NOT NEED TO BE INSULATED	
MISCELLANEOUS PIPING					
AIR COND. CONDENSATION DRAIN PIPING:	CELLULAR FOAM-4i	1/2"	0F	0F	9F
DUCTWORK					
CONCEALED SUPPLY & OA DUCTS:	FIBERGLASS 3i	2"	6F	NA	NA
EXPOSED SUPPLY DUCTS AND OUTSIDE AIR DUCTS IN PUBLIC AREAS:	FIBERGLASS 5i	1.5"	NA	0F	NA
	FIBERGLASS 2i	2"	NA	6F	NA
EXPOSED SUPPLY/OA DUCTS, AND PLENUMS IN MECH ROOMS/ BOH AREAS:	FIBERGLASS 2i	1"	NA	6F	NA
SUPPLY, RETURN AND OUTSIDE AIR DUCTS LOCATED OUTDOORS:	FIBERGLASS 2i & 5i	TOTAL R-VALUE OF R-8	NA	NA	7F
KITCHEN HOOD EXHAUST:	FIREMASTER FASTWRAP	2 LAYERS OF 1-1/2"	NA	NA	NA

GENERAL NOTES (APPLIES TO ALL):
• NOT ALL PIPE AND DUCT TYPES MAY BE USED IN PLAN. REFER TO FLOOR PLANS FOR MORE INFORMATION.

INSULATION MATERIALS:
1i. CALCIUM SILICATE - MAXIMUM K FACTOR AT 500 DEGREES F SHALL BE 0.55, MUST ASTM C411 TO 1200 DEGREES F, AND MUST MEET NFPA 255 AND UL 723 FOR 0/0 FLAME SPREAD AND SMOKE DEVELOPED.
2i. FIBERGLASS BOARD - PROVIDE SEMI-RIGID FIBERGLASS BOARD WITH A DENSITY OF 3 LBS/FT3. MAXIMUM K FACTOR AT 75 DEGREES F SHALL BE 0.24 AND A TEMPERATURE LIMIT OF 250 DEGREES F (FACED) AND 450 DEGREES F (UNFACED). NFPA 255 AND UL 723 FOR 25/50 FLAME SPREAD AND SMOKE DEVELOPED.
3i. FIBERGLASS DUCT WRAP - MAXIMUM K FACTOR AT 75 DEGREES F SHALL BE 0.30, MUST PASS ASTM C411 TO 250 DEGREES F FACED. DENSITY SHALL BE 0.75 LBS/FT3. NFPA 255 AND UL 723 FOR 25/50 FLAME SPREAD AND SMOKE DEVELOPMENT.
4i. CELLULAR FOAM - EQUAL TO AP/ARMAFLEX TUBES OR SHEETS, AS APPLICABLE TO INSTALLATION. MAXIMUM K FACTOR AT 75 DEGREES F SHALL BE 0.28. MAXIMUM OPERATING TEMPERATURE OF 200 DEGREES F. MUST MEET NFPA 255 AND UL723 FOR 25/50 FLAME SPREAD AND SMOKE DEVELOPED AND MUST BE FREE OF ANY CFCS,HFCS, OR HCFCS
5i. FIBERGLASS DUCT LINER W/ ANTIMICROBIAL RESISTANT COATING OR CLOSED-CELL ELASTOMERIC DUCT LINER - REFER TO SECTION 23313 FOR ADDITIONAL INFORMATION
6i. FIBERGLASS PIPE INSULATION ONLY WHERE SPECIFICALLY CALLED FOR ON DRAWINGS OR IN SPECS - MAXIMUM K FACTOR AT 100 DEGREES F SHALL BE 0.24, MUST PASS ASTM C411 TO 850 DEGREES F. DENSITY SHALL BE 3.5 LBS/FT3/ NFPA 255 AND UL 7723 FOR 25/50 FLAME SPREAD AND SMOKE DEVELOPED.
7i. MINERAL-FIBER, PREFORMED PIPE INSULATION, TYPE I OR II.
NA. NOT APPLICABLE OR NONE REQUIRED.

FINISH TYPES:
0F. PAINT GRIP FINISH
1F. 0.010" T-304 STAINLESS STEEL JACKETING -- CORRUGATED. PROVIDE 3/16" CORRUGATED ROLL JACKETING FOR PIPING AND TANKS LESS THAN 6 FEET DIAMETER AND DEEP CORRUGATED SHEETS FOR DIAMETERS LARGER THAN 6 FEET.
2F. 0.010" T-304 STAINLESS STEEL JACKETING -- SMOOTH FINISH.
3F. CORRUGATED ALUMINUM -- 0.016" UP THROUGH 24" PIPE SIZE. 0.024" LARGER THAN 24".
4F. SMOOTH ALUMINUM -- 0.016" UP THROUGH 12" PIPE SIZE, 0.024" LARGER THAN 12".
5F. 20-MIL PVC (25 FLAME SPREAD AND 50 SMOKE DEVELOPED.)
6F. FOIL/REINFORCED/KRACT JACKET (VAPOR BARRIER).
7F. 1/4-INCH WEATHERPROOF MASTIC WITH GLASS MESH REINFORCEMENT. SLOPE TOP OF DUCT MINIMUM OF 1/4" PER FOOT TO PREVENT PONDING.
8F. WHITE ALL-SERVICE JACKET (VAPOR BARRIER).
9F. WATER BASED LATEX ENAMEL WEATHER RESISTANT AND UV RESISTANT FINISH EQUAL TO ARMAFLEX WB FINISH
10F. 125 MILS THICK EXTRUDED, BLACK, HIGH DENSITY POLYETHYLENE (HDPE). INNER SURFACE SHALL BE OXIDIZED BY MEANS OF CORONA OR FLAME TREATMENT.
NA. NOT APPLICABLE OR NONE REQUIRED.

MECHANICAL PIPING, FITTINGS, & JOINTS SCHEDULE

APPLICATION	MATERIAL	FITTINGS	JOINTS
HEATING WATER			
UNDERGROUND	PREINSULATED	WELDED	WELDED
ABOVEGROUND			
2" AND SMALLER	COPPER	WROUGHT-COPPER	BRAZED
		*PRESS FITTINGS ACCEPTED	
	SCHEDULE 40 BLACK STEEL	MALEABLE-IRON	THREADED
		CAST-IRON FLANGED	
2-1/2" THRU 10"	SCHEDULE 40 BLACK STEEL	WROUGHT STEEL	WELDED FLANGE
		FLANGE	
		MECHANICALLY GROOVED-END FITTINGS AND COUPLINGS MAY BE USED IN MECH ROOM ONLY	
12" AND LARGER	SCHEDULE 30 BLACK STEEL	GROOVED	GROOVED
		MECHANICAL JOINT COUPLINGS	
		GROOVED TYPE COUPLINGS AND FITTINGS MAY NOT BE USED AT RISERS OR CONCEALED AREAS	
CHILLED/ CONDENSER WATER			
UNDERGROUND			
OUTSIDE BUILDING FOOTPRINT	PREINSULATED	WELDED	WELDED
WITHIN BUILDING FOOTPRINT	COPPER	WROUGHT-COPPER	BRAZED
ABOVEGROUND			
2" AND SMALLER	COPPER	WROUGHT-COPPER	BRAZED
		*PRESS FITTINGS ACCEPTED	
	SCHEDULE 40 BLACK STEEL	MALEABLE-IRON	THREADED
		CAST-IRON FLANGED	
2-1/2" THRU 10"	SCHEDULE 40 BLACK STEEL	WROUGHT STEEL	WELDED FLANGE
		FLANGE	
		MECHANICALLY GROOVED-END FITTINGS AND COUPLINGS MAY BE USED IN MECH ROOM ONLY	
12" AND LARGER	SCHEDULE 30 BLACK STEEL	GROOVED	GROOVED
		MECHANICAL JOINT COUPLINGS	
		GROOVED TYPE COUPLINGS AND FITTINGS MAY NOT BE USED AT RISERS OR CONCEALED AREAS	
CONDENSATE			
	COPPER	WROUGHT COPPER	SOLDERED
REFRIGERANT			
	ACR	WROUGHT COPPER	BRAZED

1. *SHARKBITE IS NOT ACCEPTED. ACCEPTABLE PRESS FITTINGS MANUFACTURER ARE: NIBCO, VIEGA-PROPRESS, VIEGA MEGAPRESS, PARKER-ZOOMLOCK (REFRIGERANT PIPING ONLY).
2. REFER TO SPECIFICATIONS FOR ADDITIONAL INFORMATION.
3. NOT ALL PIPE TYPES MAY BE USED. REFER TO FLOOR PLANS FOR FURTHER DETAILS.

MEP SHARED SYSTEM COORDINATION SCOPE OF WORK MATRIX

SYSTEM OR COMPONENT	FURNISHED BY	INSTALLED BY
EXPOSED CEILINGS AND INACCESSIBLE CEILINGS		
Conduit for Fire Alarm Wiring	E	E
Conduit for Controls Wiring	TC	TC
EXPOSED CEILINGS AND INACCESSIBLE CEILINGS	M	M
Duct Mounted Smoke Detectors	FA	M
Area Type Smoke Detectors	FA	FA
Fire Alarm Shut-Down Interlock Modules	FA	TC
Motorized Control Dampers	MANUFACTURER	MANUFACTURER
24 Volt Power to Dampers	TC	TC
Damper Actuator	TC	M
VRV FAN COIL UNITS AND CONDENSING UNITS		
24 Volt DDC Controllers	TC AND MANUF.	MANUFACTURER
24 Volt Wiring from Transformer to all Controllers	MANUFACTURER	TC
Control Wiring Between FCU Box and Thermostat	MANUFACTURER	TC
FIRE ALARM		
Fire Alarm Panel (FAP) and Fire Alarm Boosters	FA	FA
Fire Alarm System Conduits	FA	FA
120 Volt Emergency Power (Dedicated Circuits) for Fire Alarm Panel	E	E
120 Volt Emergency Power (Dedicated Circuits) for Fire Alarm Boosters	E	E
MOTORIZED FIRE & COMBINATION FIRE/SMOKE DAMPERS		
Motorized Fire & Combination Fire/Smoke Dampers	M	M
Control Conduit	E	E
Control Wiring	FA	FA
Power Conduit	E	E
Power Wiring	E	E
LIGHTING CONTROL		
Lighting Control Panel	E	E
Lighting Control Panel to FMS Interface Card	MANUFACTURER	MANUFACTURER
Control Wiring to Master Lighting Control Panel Interface Card from FMS	TC	TC
Control Wiring Between Lighting Control Panels	E	E
Satellite Lighting Control Panels	E	E
Override Switch Wiring	E	E
Lighting Control Panel Override Switches	E	E
Lighting Control Panel Programming	E	E

M = MECHANICAL SUB-CONTRACTOR
E = ELECTRICAL SUB-CONTRACTOR
FA = FIRE ALARM SUB-CONTRACTOR
TC = TEMPERATURE CONTROLS/EMS SUB-CONTRACTOR
D= TELECOMMUNICATIONS CONTRACTOR

HVAC SYMBOLS

SYMBOL	DESCRIPTION
	ARROW INDICATES EXISTING TO BE RELOCATED AS INDICATED ON PLAN
150	REDISTRIBUTE AIR TO EXISTING DIFFUSER AS INDICATED ON PLAN
10X10 100,A	INDICATES SIZE, CFM, AND DIFFUSER TYPE
	NEW CEILING SUPPLY DIFFUSER
	NEW RETURN AIR/EXHAUST GRILLE
	EXISTING RETURN AIR/EXHAUST GRILLE
	NEW SLOT DIFFUSER
	EXISTING SLOT DIFFUSER
	POINT OF CONNECTION BETWEEN NEW AND EXISTING WORK
E	EXISTING TO REMAIN
	REMOVE EXISTING AS INDICATED
	CAP EXISTING DUCT
	MANUAL VOLUME CONTROL DAMPER
	DUCT TRANSITION
FD	FIRE (SMOKE) DAMPER (24V ACTUATOR)
(T)	NEW OR RELOCATED THERMOSTAT
(T)	EXISTING THERMOSTAT
	FLEXIBLE DUCT
	INDICATES A WALL TO DECK (FOR COORDINATION PURPOSE ONLY-REFER TO ARCHITECTS PLANS FOR REQUIREMENTS
	EXISTING DIFFUSER LOCATED ABOVE CEILINIG AND NOT INSTALLED IN CEILING
(M) NO	MOTORIZED DAMPER
150	REDISTRIBUTE AIR TO EXISTING LUMINAIRE AIR DIFFUSER AS INDICATED ON PLAN
	NEW CEILING LUMINAIRE AIR DIFFUSER
	SPIN-IN FITTING WITH DAMPER (RECTANGULAR TO ROUND)
	SPLIT BRANCH TAKE-OFF WITH RADIUS ELBOW MEDIUM PRESSURE DUCT
	DOUBLE THICKNESS TURNING VANES
CHS	CHILLED WATER SUPPLY PIPING
CHR	CHILLED WATER RETURN PIPING
CWS	CONDENSOR WATER SUPPLY PIPING
CWR	CONDENSOR WATER RETURN PIPING
C	CONDENSATE DRAIN PIPING
	PRESSURE REDUCING VALVE/FLOW CONTROL VALVE
	ASME TEMPERATURE & PRESSURE RELIEF VALVE
	THERMOMETER
	BLOCK VALVE, SHUT-OFF VALVE
	GATE VALVE
	BALL VALVE
	GLOBE VALVE
	BUTTERFLY VALVE
	PIPING DOWN
	PIPING UP - OR - PIPING UP & DOWN
	CAP ON END OF PIPE
	PETE'S PLUG
	GAS COCK
	PRESSURE GAUGE W/ COCK
	MEDIUM TO LOW PRESSURE GAS REGULATOR
	UNION
	STRAINER
CO2	CO2 MONITOR

MEDIUM PRESSURE DUCTWORK SHALL BE SIZED AT 2500 FEET PER MINUTE. LOW PRESSURE DUCTWORK SHALL SIZED FOR A FRICTION LOSS OF 0.08"/100'. TOILET AND GENERAL EXHAUST SIZED FOR A FRICTION LOSS OF 0.08"/100'. GREASE EXHAUST DUCTWORK SHALL BE SIZED AT 1500 FEET PER MINUTE. REFER TO IM5.02 FOR GREASE DUCT INSULATION AND DUCT CONSTRUCTION. DISHWASHER EXHAUST DUCT SHALL BE STAINLESS STEEL OR ALUMINUM.

FOR MEDIUM PRESSURE DUCTWORK ABOVE CEILINGS, MEDIUM PRESSURE DUCTWORK SHALL BE EXTERNALLY INSULATED. FOR LOW PRESSURE DUCTWORK ABOVE CEILINGS LOW PRESSURE DUCTS TO BE EXTERNALLY INSULATED. ALL RETURN DUCTS TO BE INTERNALLY LINED WITH NONFIBOROUS LINER.

IN EXPOSED CEILINGS, MEDIUM PRESSURE SUPPLY DUCTS TO BE TO BE INTERNALLY LINED FLAT OVAL DUCT WORK. IN EXPOSED CEILINGS, LOW PRESSURE SUPPLY DUCTS TO BE INTERNALLY LINED ROUND SPIRAL DUCT.

ALL DUCT WORK IN EXPOSED AREAS TO HAVE A PAINT GRIP FINISH. COORDIANTE THE COLOR THAT THE DUCT WORK IS TO BE PAINTED WITH THE ARCHITECT.

ALL NEW CHILLED AND HOT WATER PIPING TO BE DOMESTIC BLACK STEEL.

ROUTE CONDENSATE FOR AHU'S TO NEAREST FLOOR DRAIN.

TEST AND BALANCE TO BE CONTRACTED BY UNT.

CONTRACTOR SHALL PROVIDE YOUNG CONCEALED DAMPER REGULATORS WITH A DAMPER CABLE CONTROL KIT EQUAL TO YOUNG REGULATOR/BOWDEN FOR ALL INACCESSIBLE CEILING (GYPSUM BOARD, ETC.) APPLICATIONS, ADJUSTMENT DEVICE SHALL BE ACCESSIBLE AT FACE OF DIFFUSER AND NOT INSTALLED IN CEILING. COORDINATE WITH YOUNG REGULATOR REPRESENTATIVE AT TEXAS AIR SYSTEMS FOR DIFFUSER FACE ADJUSTABLE KIT REQUIRED FOR EACH TYPE OF DIFFUSER IN INACCESSIBLE CEILING. COORDINATE SHAFT SIZE OF DAMPER WITH KIT FOR PROPER COMPATIBILITY. ANY DEVICES AT CEILING SHALL BE CENTERED AND SYMMETRICAL WITHIN CEILING. COORDINATE ALL LOCATIONS WITH ARCHITECT.

ALL ENCLOSED ROOMS (INTERIOR AND PERIMETER) SHALL HAVE RETURN GRILLE AND A RETURN AIR PATH. ROOMS WITH ALL WALLS TO DECK SHALL HAVE LINED SHEET METAL RETURN AIR BOOTS PLACED IN WALL ABOVE CEILING SIZED FOR 500 FPM MAXIMUM. ENSURE RETURN AIR PATH FOR ALL ROOMS FROM ROOM TO UNIT SERVING ROOM. CUMULATIVELY ADD ALL RETURN AIR CFM AT EACH RETURN TRANSFER. FIRE RATED AND FIRE-SMOKE WALLS SHALL HAVE FIRE DAMPERS AND FIRE-SMOKE DAMPERS WITHIN THE DUCT PER LOCAL CODE REQUIREMENTS.

BUILDING AIR BALANCE

EQUIP NO.	SUPPLY CFM	MIN O.A. CFM	MAX O.A. CFM	MIN. EXHAUST CFM	MAX EXHAUST CFM	RELIEF CFM
E-AHU-A1-1	12,500	3750	7,250		--	
E-AHU-A1-4	14,000	2000	7,250		--	
E-AHU-A1-5	7,952	0	7,952		--	
					--	
REF-K-1						3705
GEF-1	--	--	--	0	19,657	--
KEF-1	--	--	--	0	750	--
TEF-K-1	--	--	--	200	200	--
TEF-K-2	--	--	--	700	700	--
TOTALS:	34,092	5750	22,452	900	21,307	3705

**** RELIEF FAN ONLY TO RUN WHEN GEF-1 IS NOT RUNNING.**
**** UNITS TO ONLY RUN MIN. OA WHEN GEF-1 IS NOT RUNNING.**

THE BUILDING IS 1145 CFM POSITIVE.

D. SCOTT BROWN 89097 LICENSED PROFESSIONAL ENGINEER
1-30-2025

TREANOR
2554 Elm Street, Suite 200
Dallas, Texas
Office: 214.310.1018
www.TreanorHL.com

Mechanical - Electrical Engineers
17300 North Dallas Parkway
Suite 3000
Dallas, TX 75248-1147
Firm Registration # F-1511
Tel: 972/239-5357
Fax: 972/239-5231
www.purdy-mcguire.com

PM/ JOB NO.	23037.002
PROJECT MGR.	SCOTT BROWN, MITCHELL HENTON
MECHANICAL	MITCHELL HENTON
PLUMBING	CHRIS WOODYARD
ELECTRICAL	JAMES MCGUIRE

UNIVERSITY OF NORTH TEXAS
KERR HALL INTERIOR RENOVATION

1413 West Maple St
Denton, TX 76201

UNT UNIVERSITY OF NORTH TEXAS

Issue:	ISSUE FOR CONSTRUCTION
Date:	JANUARY 30, 2025

REVISIONS

NO	DESCRIPTION	DATE

iM001

MECHANICAL NOTES & SYMBOLS

TreanorHL NO. HE0569.2302.01

Autodesk Docs://HE0569.2302.01 UNT Kerr Hall Interior Renovation/R23_KERR-HALL-DINING_MECH.rvt
1/30/2025 12:13:43 PM

KEYED NOTES - SHEET iM201B

1 PROVIDE A VERTICAL ORIENTATED GREASE EXHAUST HOOD BALANCING DAMPER EQUAL TO HALTON KBD. DAMPER TO CONNECT DIRECTLY TO EXHAUST COLLAR PER MANUFACTURER INSTALLATION RECOMMENDATIONS. DAMPER SIZE TO MATCH DUCT SIZE.

2 CONNECT 16"X8" MAKE-UP AIR DUCT TO CONNECTION PORT ON THE MAKE-UP AIR COLLAR OF THE KITCHEN EXHAUST HOOD.

3 DEMO EXISTING LOUVER AND RELIEF DUCTWORK. PROVIDE A 68"X30" STATIONARY LOUVER EQUAL TO RUSKIN ELF6350DMP. LOUVER IS TO SIT IN EXISTING FRAME ABOVE THE DOOR. LOUVER IS TO CONNECT TO A 70" WIDE BY 32" TALL X 18" DEEP PLENUM BOX AS SHOWN. COORDINATE EXACT LOUVER AND LOUVER FINISH WITH THE ARCHITECT.CONTRACTOR IS RESPONSIBLE FOR SIZING LOUVER FOR A PRESSURE DROP OF 0.15" PRESSURE LOSS IF A DIFFERENT LOUVER IS USED.

4 CHILLED WATER FAN COIL UNIT TO BE SUSPENDED FROM STRUCTURE WITH ISOLATION SPRINGS. PROVIDE WITH ONE HARTELL CONDENSATE PUMP A3X-115 FOR THE PRIMARY DRAIN AND PROVIDE LEAK DETECTION EQUAL TO LIEBERT (24V) IN SECONDARY PAN. PROVIDE A GALVANIZED SHEET METAL SECONDARY DRAIN PAN THAT IS A MINIMUM OF 3" LARGER (ON EACH SIDE) THAN ANY DIMENSION OF THE UNIT AND MUST EXTEND UNDER THE CONDENSATE PUMP. REFER TO DETAIL #7 ON SHEET iM502 FOR MANUAL DAMPER TO BE PROVIDED AT EACH FCU WITH OUTSIDE AIR DUCTED TO IT. ROUTE FAN COIL UNIT CONDENSATE PIPING TO NEAREST FLOOR DRAIN OR JANITOR'S CLOSET. REFER TO SHEET M-001 FOR CONDENSATE PIPE SIZING.

5 PROVIDE A 120"X10" STATIONARY LOUVER MODEL RUSKIN ELF815D30. LOUVER IS TO CONNECT TO A 122" WIDE BY 18" TALL X 18" DEEP PLENUM BOX AS SHOWN. COORDINATE LOUVER FINISH WITH THE ARCHITECT.

6 MECHANICAL CONTRACTOR TO FIELD VERIFY LOCATION OF THE EXISTING GREASE EXHAUST CHASE. EXISTING GREASE EXHAUST DUCT TO TAP INTO THE TOP OF THE NEW GREASE EXHAUST DUCT WORK.

KEYED NOTES - SHEET iM201B

7 DUCT UP TO TEF-2 ON THE LOW ROOF.

8 PROVIDE A 12"X12" STATIONARY LOUVER EQUAL TO RUSKIN ELF375DX. COORDINATE EXACT LOUVER AND LOUVER FINISH WITH THE ARCHITECT. CONTRACTOR IS RESPONSIBLE FOR SIZING LOUVER FOR A PRESSURE DROP OF 0.1" PRESSURE LOSS IF A DIFFERENT LOUVER IS USED.

9 DUCT RUNS TO BE STAINLESS STEEL.

10 TAP DUCT INTO DISHWASH EXHAUST COLLAR. TAB TO BALANCE AIR FOR 800 CFM.

11 TAP DUCT INTO DISHWASH EXHAUST COLLAR. TAB TO BALANCE AIR FOR 300 CFM.

12 CONNECT 15"X10" EXHAUST AIR DUCT TO CONNECTION PORT OF THE CONDENSATE HOOD.

13 PROPOSED CONDENSING UNIT LOCATION FOR THE WALK-IN FREEZER AND REFRIGERATOR. MECHANICAL CONTRACTOR IS TO REMOVE ALL ASSOCIATED EQUIPMENT IN THE MECHANICAL ROOM THAT SERVED THE OLD WALK-IN FREEZERS AND REFRIGERATORS.

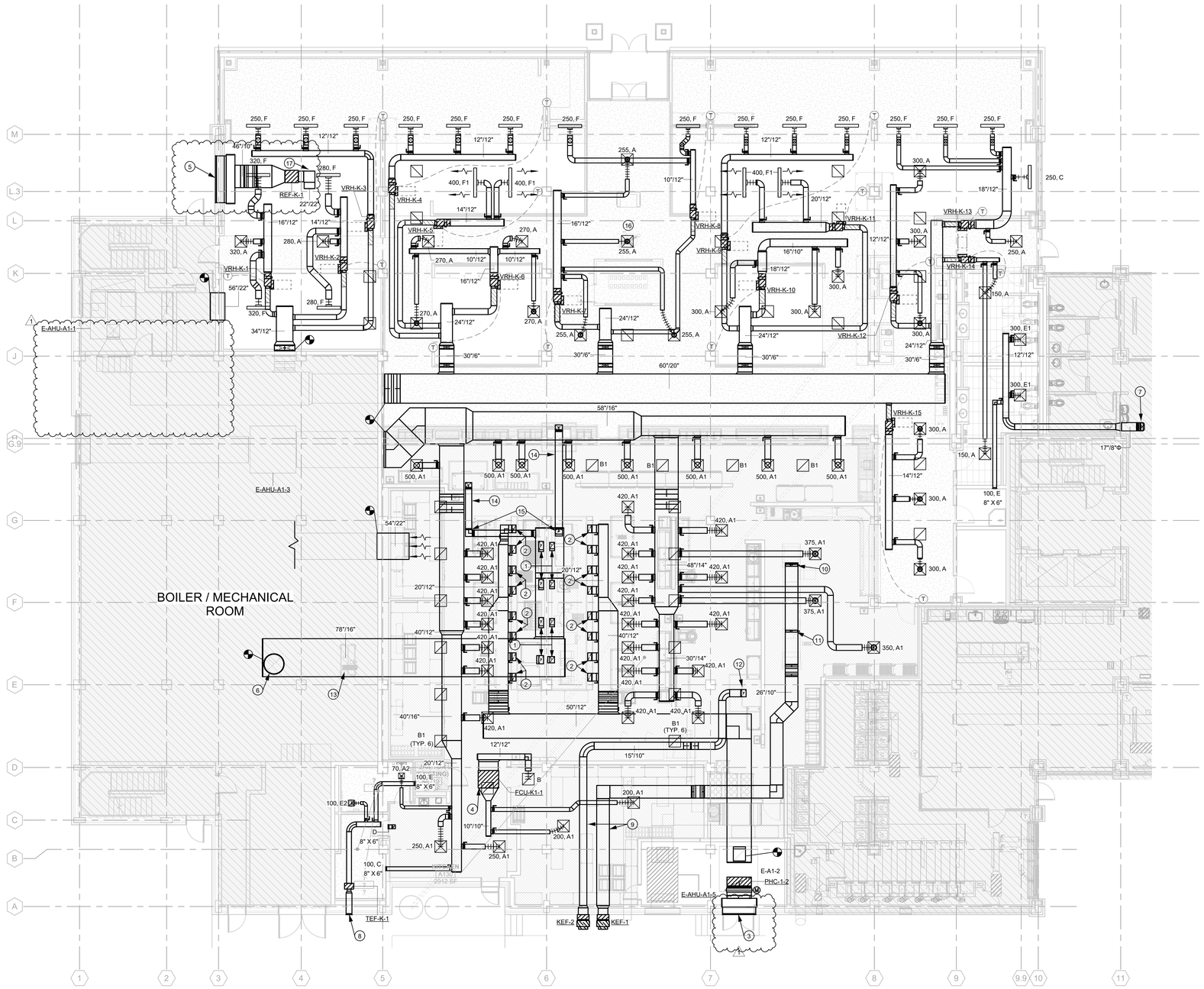
14 PROVIDE A HORIZONTAL ORIENTATED GREASE EXHAUST HOOD BALANCING DAMPER EQUAL TO HALTON KBD. DAMPER TO CONNECT DIRECTLY TO EXHAUST COLLAR PER MANUFACTURER INSTALLATION RECOMMENDATIONS. DAMPER SIZE TO MATCH DUCT SIZE.

14 PROVIDE A VERTICAL ORIENTATED GREASE EXHAUST HOOD BALANCING DAMPER EQUAL TO HALTON KBD. DAMPER TO CONNECT DIRECTLY TO EXHAUST COLLAR PER MANUFACTURER INSTALLATION RECOMMENDATIONS. DAMPER SIZE TO MATCH DUCT SIZE.

15 PROVIDE CLEANOUT AT THE ELBOW FOR THE GREASE DUCT. REFER TO DETAIL 2 ON SHEET iM503 FOR ADDITIONAL DETAILS.

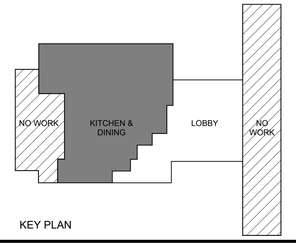
16 PROPOSED BUILDING PRESSURE SENSOR LOCATION FOR REF-K-1.

17 PROVIDE AN ACCOUSTICALLY LINED ELBOW.



1 LEVEL 1 MECHANICAL PLAN - DINING
1/8" = 1'-0"

REVISION SUMMARY:
- REVISED LOUVER SIZE AND TYPE.
- REVISED KEYED NOTE 3.
- REVISED RELIEF LOUVER SIZE AND LOCATION.
- REVISED REF-K-1 AND REVISED DUCT ROUTING.
- REVISED KEYED NOTE 5.
- ADDED KEYED NOTE 17.



KEY PLAN

D. SCOTT BROWN
89097
LICENSED
PROFESSIONAL ENGINEER
5-23-2025

TREANOR
2554 Elm Street, Suite 200
Dallas, Texas
Office: 214.310.1018
www.TreanorHL.com

Mechanical - Electrical Engineers
17300 North Dallas Parkway
Suite 3000
Dallas, TX 75248-1147
Firm Registration # F-1511
Tel: 972/239-5357
Fax: 972/239-5231
www.purdy-mcguire.com

PM/ JOB NO.	23037.002
PROJECT MGR.	SCOTT BROWN, MITCHELL HENTON
MECHANICAL	MITCHELL HENTON
PLUMBING	CHRIS WOODYARD
ELECTRICAL	MARK RAMIREZ

UNIVERSITY OF NORTH TEXAS
KERR HALL INTERIOR RENOVATION

1413 West Maple St
Denton, TX 76201

UNT UNIVERSITY OF NORTH TEXAS

Issue:	ISSUE FOR CONSTRUCTION
Date:	JANUARY 30, 2025

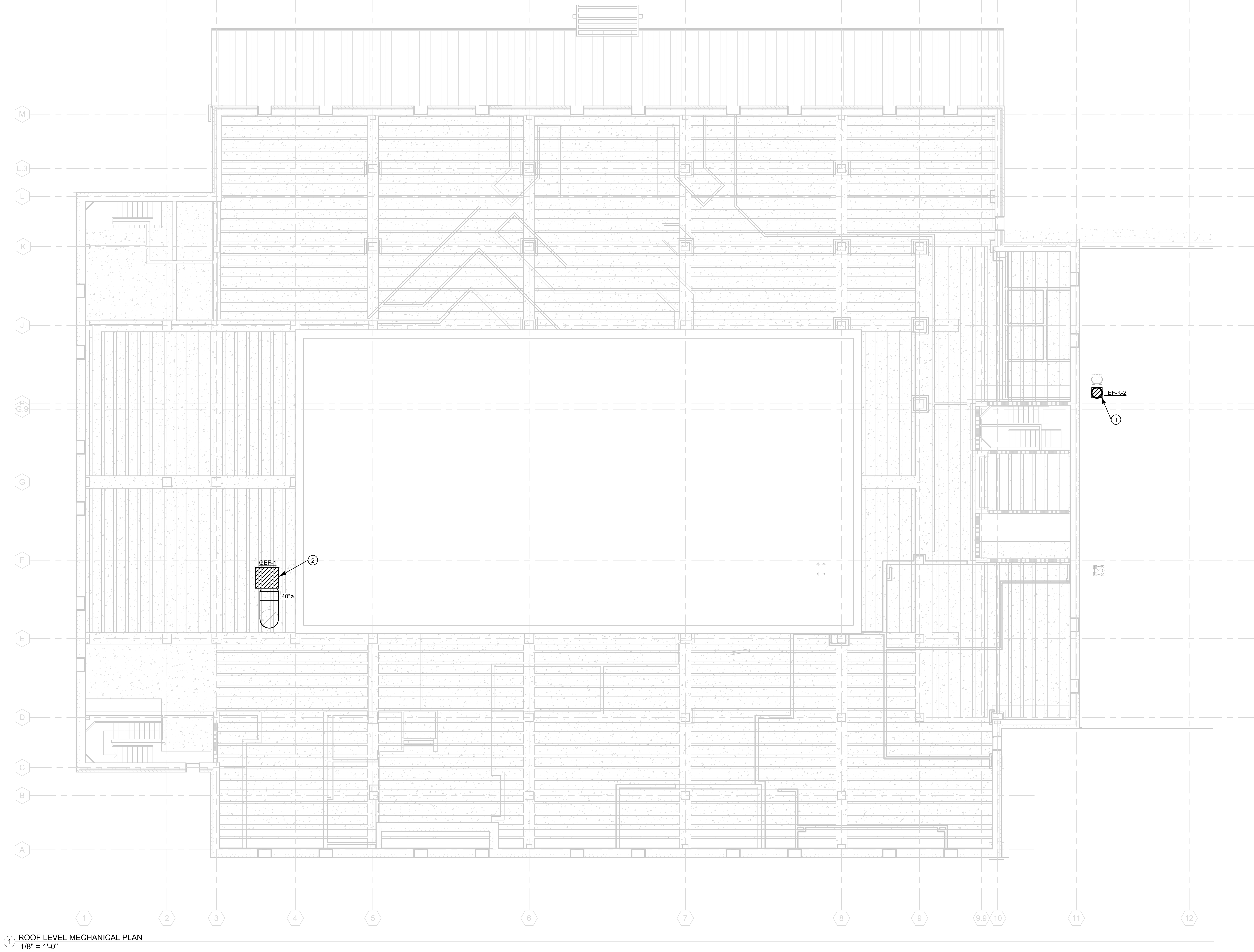
REVISIONS

NO	DESCRIPTION	DATE
1	ADDENDUM 2	05.23.25

iM201B

LEVEL 1 MECHANICAL PLAN - DINING

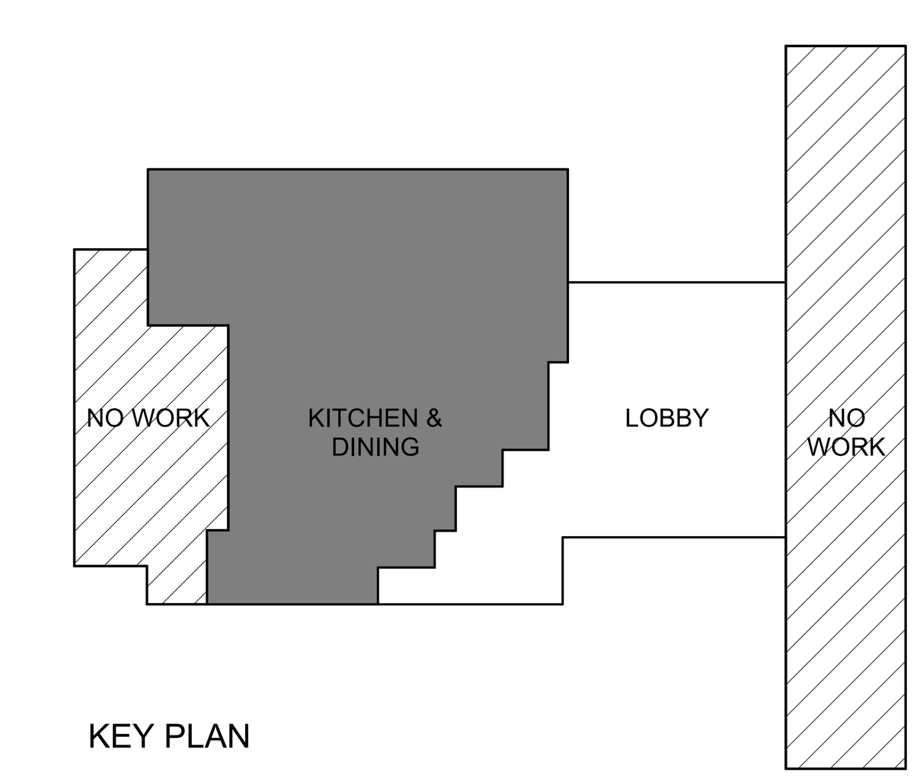
TreanorHL NO. HE0569.2302.01



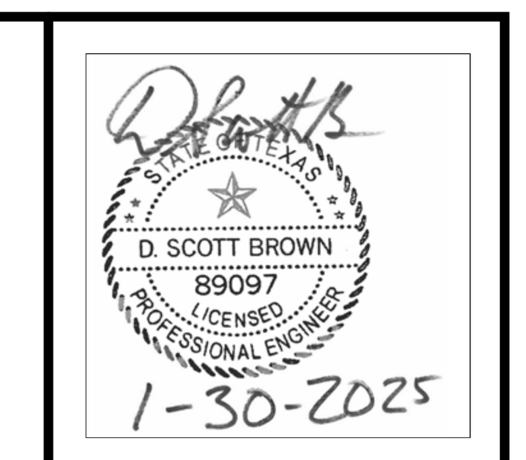
1 ROOF LEVEL MECHANICAL PLAN
1/8" = 1'-0"

KEYED NOTES - SHEET iM202

1. FAN LOCATED ON LOW ROOF ABOVE THE LOBBY.
2. DEMO EXISTING GREASE EXHAUST FAN AND REPLACE WITH NEW FAN SHOWN.



KEY PLAN



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iM202

ROOF LEVEL MECHANICAL PLAN

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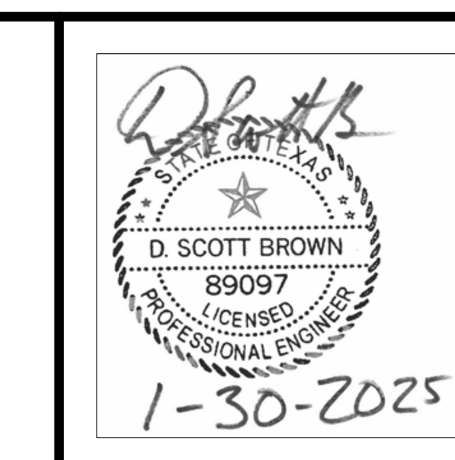
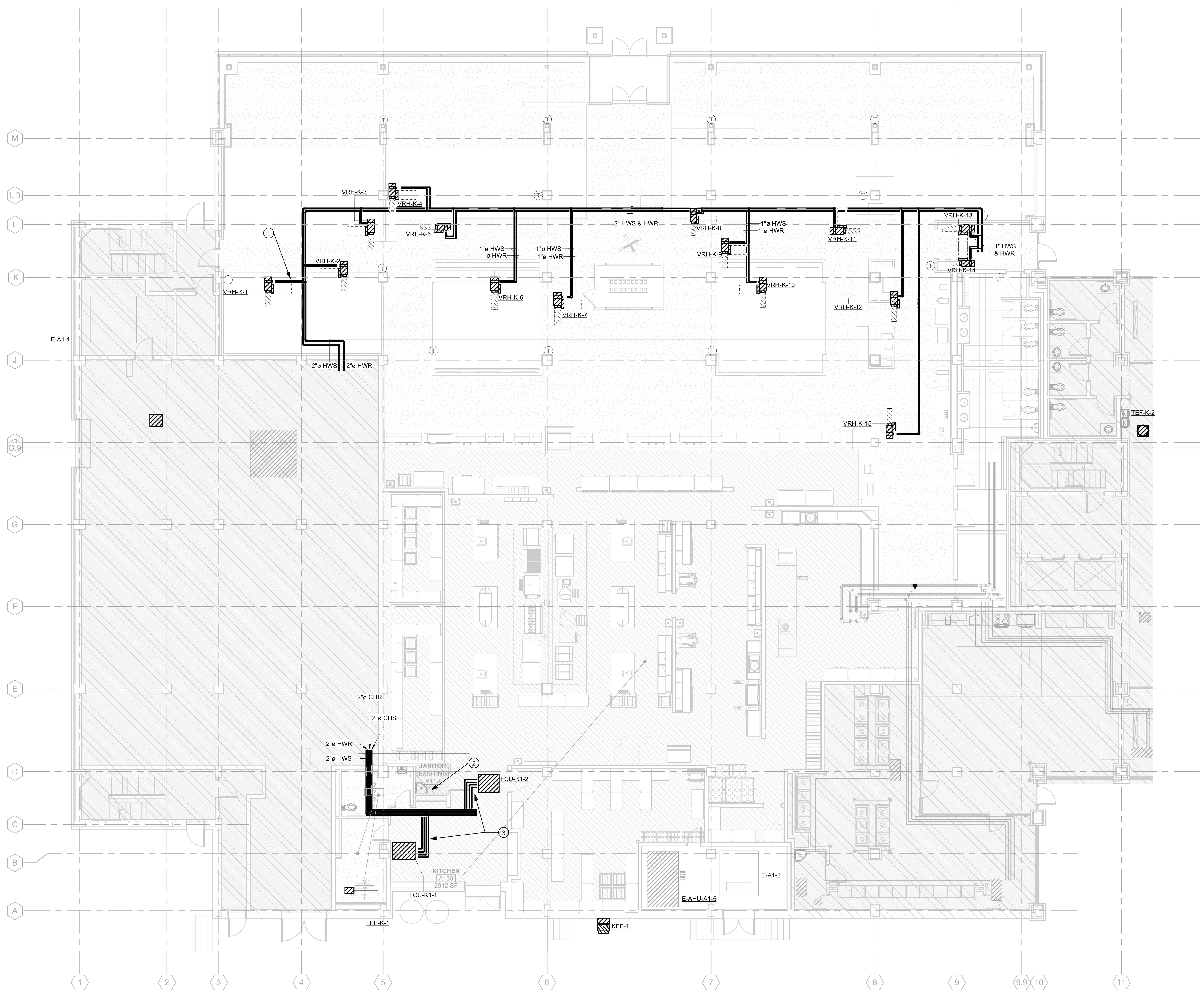


KEYED NOTES - SHEET iM211B

1. TYPICAL 3/4" HWS & HWR PIPING TO VRH BOXES UNLESS OTHERWISE NOTED (IF >3 GPM, USE 1" PIPE).
2. ROUTE CONDENSATE FROM FCU-K1-1 AND FCU-K1-2 TO MOP SINK LOCATED IN JANITOR CLOSET
3. CONNECT 3/4" CHWS AND CHWR AND 3/4" HWS AND HWR TO FAN COIL UNIT FROM NEW CHILLED AND HOT WATER LINES.



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

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iM211B

LEVEL 1 MECHANICAL PIPING PLAN - DINING

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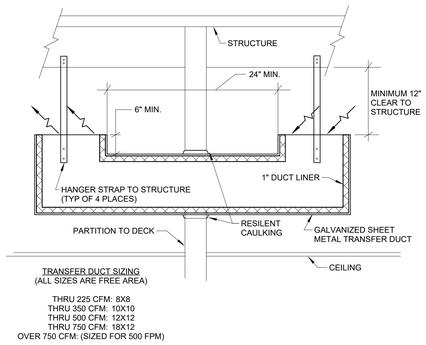
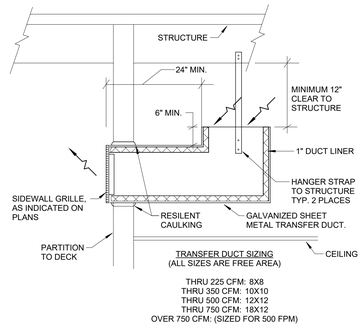
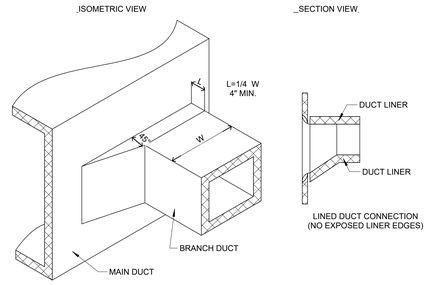


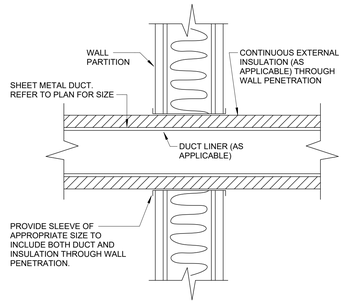
1 RETURN AIR TRANSFER BOOT U DETAIL
NOT TO SCALE



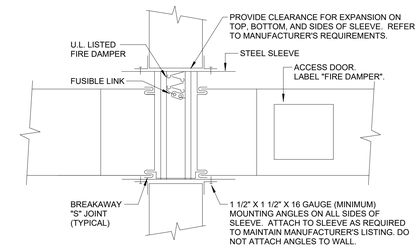
2 RETURN AIR TRANSFER BOOT L DETAIL
NOT TO SCALE



3 45 DEGREE BRANCH DUCT TAP
NOT TO SCALE

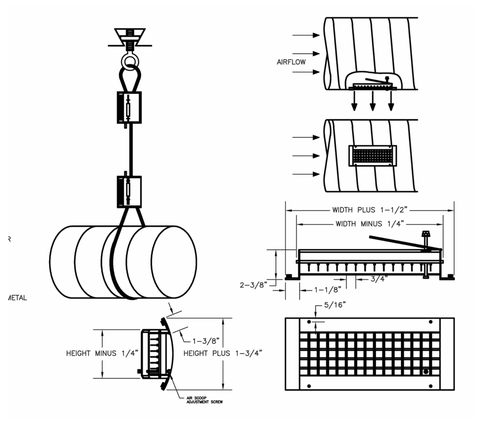


4 STANDARD DUCT WALL PENETRATION DETAIL
NOT TO SCALE



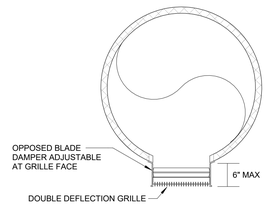
ALL FIRE DAMPERS SHALL BE INSTALLED IN STRICT ACCORDANCE WITH FIRE DAMPER MANUFACTURER'S WRITTEN INSTALLATION INSTRUCTIONS TO MAINTAIN U.L. LISTING.

5 VERTICAL FIRE DAMPER
NOT TO SCALE

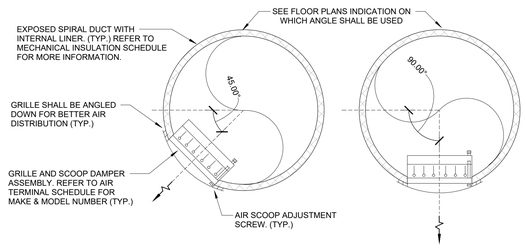


6 SPIRAL GRILLE DETAIL
NOT TO SCALE

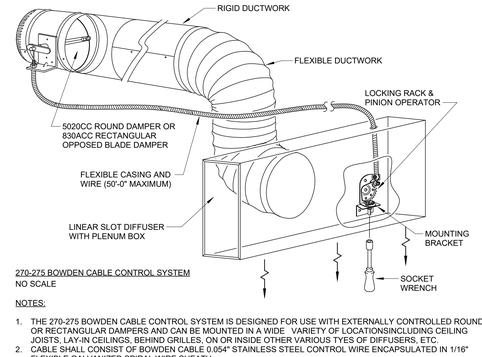
EXTENDED GRILLE MOUNTING



ROUND-PROFILE GRILLE MOUNTING



7 EXPOSED SPIRAL DUCT-MOUNTED DIFFUSER SECTION
NOT TO SCALE



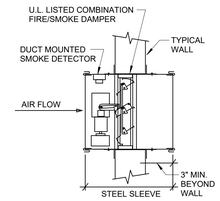
270-275 BOWDEN CABLE CONTROL SYSTEM
NO SCALE

NOTES:

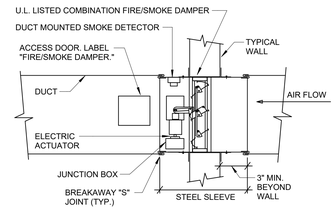
1. THE 270-275 BOWDEN CABLE CONTROL SYSTEM IS DESIGNED FOR USE WITH EXTERNALLY CONTROLLED ROUND OR RECTANGULAR DAMPERS AND CAN BE MOUNTED IN A WIDE VARIETY OF LOCATIONSINCLUDING CEILING JOISTS, LAY-IN CEILINGS, BEHIND GRILLES, ON OR INSIDE OTHER VARIOUS TYES OF DIFFUSERS, ETC.
2. CABLE SHALL CONSIST OF BOWDEN CABLE 0.054" STAINLESS STEEL CONTROL WIRE ENCAPSULATED IN 1/16" FLEXIBLE GALVANIZED SPIRAL WIRE SHEATH.
3. LOCKING RACK AND PINION GEAR DRIVE SHALL BE CONSTRUCTED OF 14 GAUGE STEEL AND SHALL BE USED TO CONVERT ROTARY MOTION INTO PUSH-PULL MOTION.
4. CONTROL SHAFT SHALL BE "D"-STYLE FLATTENED 1/4" DIAMETER WITH 265° ROTATION PROVIDING 1-1/2" LINEAR TRAVEL CAPABILITY.

8 CONCEALED DAMPER OPERATOR IN-DIFFUSER DETAIL
NOT TO SCALE

WITHOUT DUCTWORK



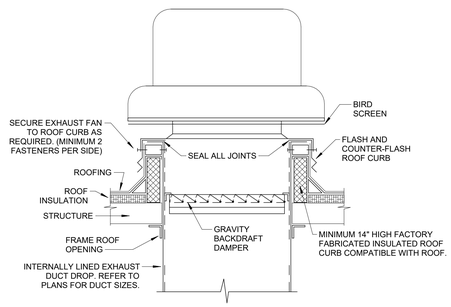
WITH DUCTWORK



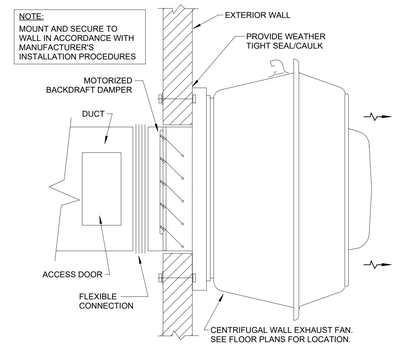
NOTES:

1. ALL FIRE DAMPERS SHALL BE INSTALLED IN STRICT ACCORDANCE WITH FIRE DAMPER MANUFACTURER'S WRITTEN INSTALLATION INSTRUCTIONS TO MAINTAIN U.L. LISTING.
2. HORIZONTAL MOUNT SIMILAR.

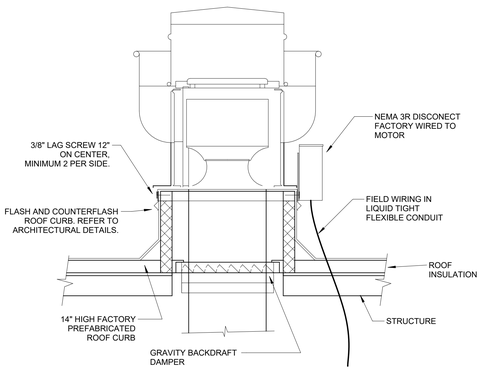
9 FIRE/SMOKE DAMPER DETAIL
NOT TO SCALE



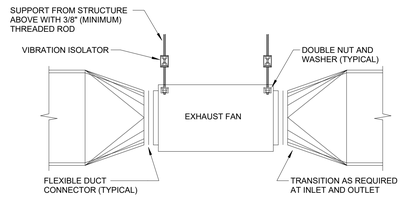
10 ROOF-MOUNTED DOWNBLAST GENERAL EXHAUST FAN DETAIL
NOT TO SCALE



11 SIDEWALL MUSHROOM EXHAUST FAN MOUNTING DETAIL
NOT TO SCALE



12 ROOF MOUNTED UPBLAST GENERAL EXHAUST FAN DETAIL
NOT TO SCALE



13 INLINE GENERAL EXHAUST FAN DETAIL
NOT TO SCALE

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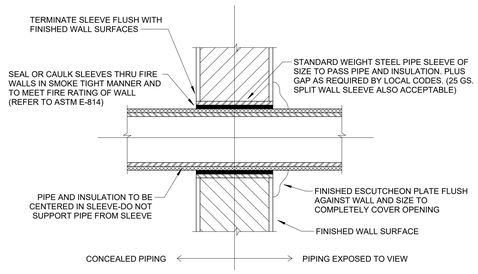
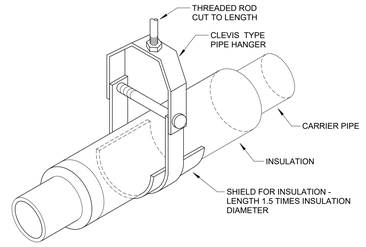
MECHANICAL DETAILS - DUCT

TreanorHL NO. HE0569.2302.01

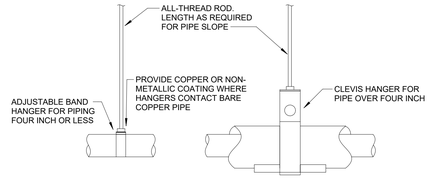


NOTE: PROVIDE FOR ALL MASONRY WALLS AND FIRE RATED WALLS

1 PIPE SLEEVE - INTERIOR WALLS
NOT TO SCALE



2 CLEVIS PIPE HANGER DETAIL
NOT TO SCALE



- PROVIDE UPPER ATTACHMENT AS REQUIRED FOR CASES NOT SHOWN HERE.
- DO NOT INSTALL HANGER INSIDE INSULATION OR OTHERWISE PENETRATE VAPOR BARRIER.
- DO NOT HANG ONE PIPE FROM ANOTHER EXCEPT IN CHASES.
- TRAPEZE HANGERS MAY BE USED FOR MULTIPLE PARALLEL PIPES.
- HANGER SPACING FOR PIPE SIZE:

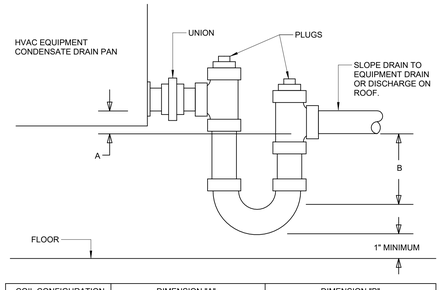
  COPPER: 4" = 12' 3" = 11' 2-1/2" = 10' 2" = 9' 1-1/2" = 7' 1" = 6' 3/4" = 6' 1/2" = 5'

  CAST IRON: 10' AND ONE NEAR ALL JOISTS.

  STEEL: 4" = 14' 3" = 12' 2-1/2" = 11' 2" = 10' 1-1/2" = 9' 1" = 7' 3/4" = 6' 1/2" = 5'

- LOCATE HANGERS AS CLOSE AS POSSIBLE TO TURNS AND TEES OF PIPE.
- PROVIDE SUPPLEMENTARY STEEL STRUTS BETWEEN JOISTS IF REQUIRED.
- LOCATE HANGERS TO TAKE LOAD OFF EQUIPMENT CONNECTIONS.
- ANCHOR WATER PIPE AGAINST SWAYING DUE TO CHANGES IN WATER VELOCITY.
- PROVIDE SEISMIC BRACING IF/AS REQUIRED BY LOCAL AUTHORITIES.
- CHAINS OR PERFORATED STRAP IRON OR STEEL IS NOT ACCEPTABLE.
- REFER TO CODES FOR FURTHER INFORMATION.

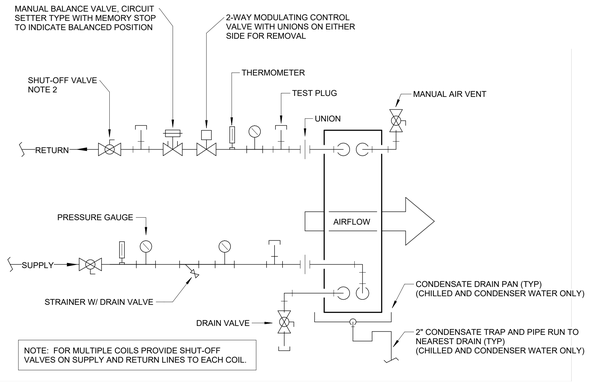
3 PIPE INSULATION/HANGER DETAIL
NOT TO SCALE



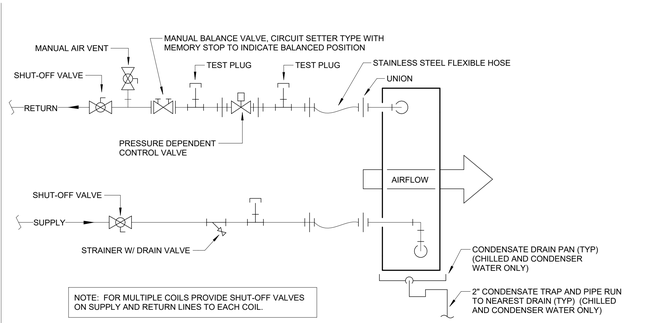
COIL CONFIGURATION	DIMENSION "A"	DIMENSION "B"
BLOW THROUGH COIL	1"	FAN DISCHARGE STATIC PRESSURE + 1"
DRAW THROUGH COIL	FAN SUCTION STATIC PRESSURE + 1"	2-1/2"

NOTE: MINIMUM "A" OR "B" DIMENSION SHALL NOT BE LESS THAN 1".

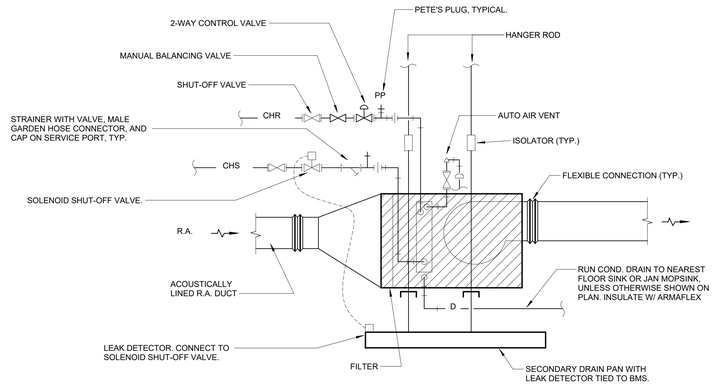
4 HVAC CONDENSATE TRAP DETAIL
NOT TO SCALE



5 AHU 2-WAY CHILLED AND HOT WATER COIL PIPING DETAIL
NOT TO SCALE



6 FCU COIL PIPING SCHEMATIC-PRESSURE DEPENDENT
NOT TO SCALE



7 2-PIPE FAN COIL UNIT PIPING DETAIL
NOT TO SCALE

D. SCOTT BROWN
89097
LICENSED
PROFESSIONAL ENGINEER
1-30-2025

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2554 Elm Street, Suite 200
Dallas, TX 75226
Office: 214.310.1018
www.TreanorHL.com

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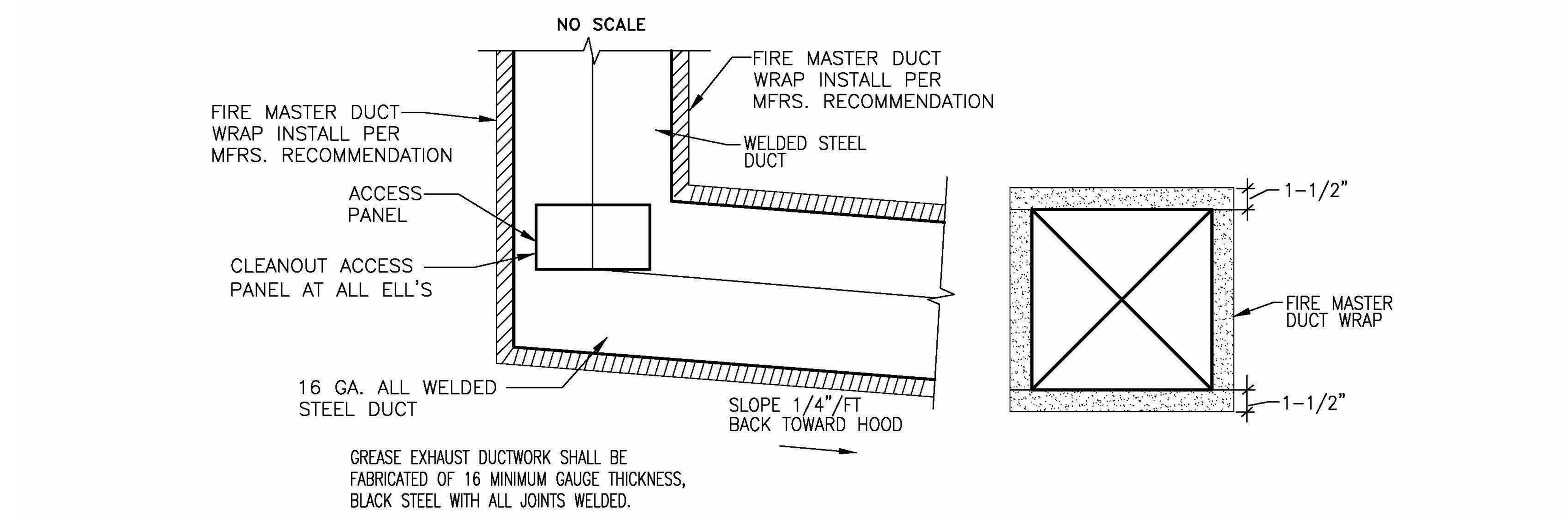
MECHANICAL DETAILS - PIPE

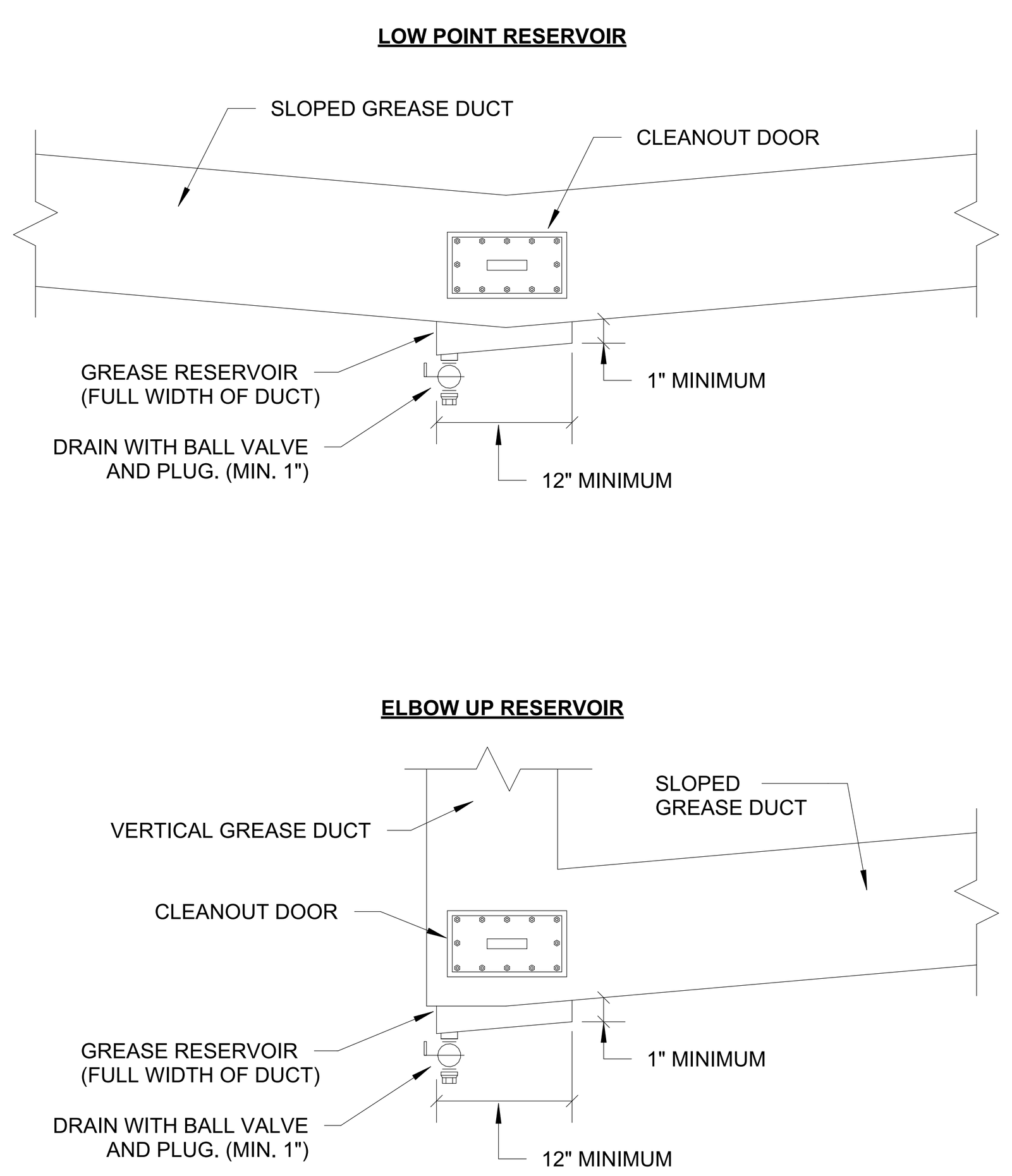
TreanorHL NO. HE0569.2302.01

GREASE EXHAUST NOTES:

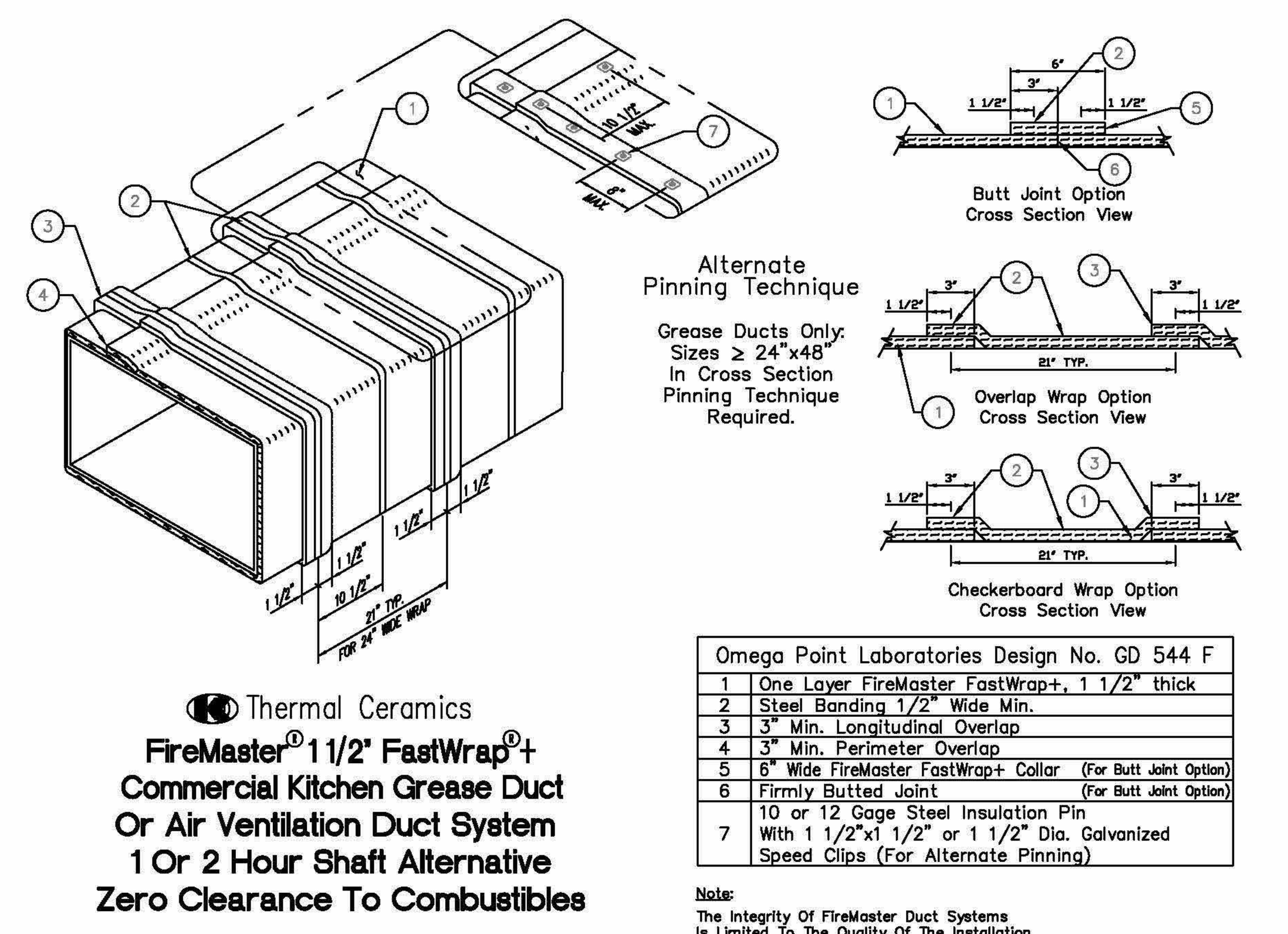
A. GREASE DUCT MATERIALS: GREASE DUCTS AND PLENUMS SERVING A TYPE I HOOD SHALL BE CONSTRUCTED OF AT LEAST 0.055-INCH-THICK (NO. 16 MANUFACTURER'S STANDARD GAGE) BLACK STEEL OR STAINLESS AT LEAST 0.044 INCH IN THICKNESS.
B. JOINTS AND SEAMS OF GREASE DUCTS: JOINTS AND SEAMS SHALL BE MADE WITH A CONTINUOUS LIQUID-TIGHT WELD OR BRAZE MADE ON THE EXTERNAL SURFACE OF THE DUCT SYSTEM. A VIBRATION ISOLATION CONNECTOR MAY BE USED, PROVIDED IT CONSISTS OF NON-COMBUSTIBLE PACKING IN A METAL SLEEVE JOINT OF APPROVED DESIGN.
C. GREASE DUCT SUPPORTS: DUCT BRACING AND SUPPORTS SHALL BE OF NON-COMBUSTIBLE MATERIAL SECURELY ATTACHED TO THE STRUCTURE AND DESIGNED TO CARRY GRAVITY AND LATERAL LOADS WITHIN THE STRESS LIMITATIONS OF THE BUILDING CODE. BOLTS, SCREWS, RIVETS AND OTHER MECHANICAL FASTENERS SHALL NOT PENETRATE DUCT WALLS.
D. PREVENTION OF GREASE ACCUMULATION: DUCT SYSTEMS SERVING A TYPE I HOOD SHALL BE SO CONSTRUCTED AND INSTALLED THAT GREASE CANNOT BECOME POCKETED IN ANY PORTION THEREOF, AND THE SYSTEM SHALL SLOPE NOT LESS THAN 1/4 UNIT VERTICAL IN 12 UNITS HORIZONTAL (2% SLOPE) TOWARD THE HOOD OR TOWARD AN APPROVED GREASE RESERVOIR. WHERE HORIZONTAL DUCTS EXCEED 75' IN LENGTH, THE SYSTEM SHALL SLOPE NOT LESS THAN 1 UNIT VERTICAL IN 12 UNITS HORIZONTAL (2% SLOPE) TOWARD THE HOOD OR TOWARD AN APPROVED GREASE RESERVOIR. WHEN A CENTRIFUGAL FAN IS USED IT SHALL BE POSITIONED SO THE DISCHARGE OUTLET IS EITHER VERTICAL OR BOTTOM HORIZONTAL WITH THE AIR SO DIVERTED THAT THERE WILL BE NO IMPINGEMENT ON THE ROOF, OTHER EQUIPMENT OR PARTS OF THE STRUCTURE. A VERTICAL DISCHARGE FAN SHALL BE MANUFACTURED WITH AN APPROVED DRAIN OUTLET AT THE BOTTOM OF THE HOUSING TO PERMIT DRAINAGE OF GREASE TO AN APPROVED COLLECTION DEVICE.
E. CLEANOUTS AND OTHER OPENINGS: GREASE DUCT SYSTEMS SHALL NOT HAVE OPENINGS THEREIN OTHER THAN THOSE REQUIRED FOR PROPER OPERATION AND MAINTENANCE OF THE SYSTEM. ANY PORTION OF SUCH SYSTEM HAVING SECTIONS INACCESSIBLE FROM THE DUCT ENTRY OR DISCHARGE SHALL BE PROVIDED WITH ADEQUATE CLEANOUT OPENINGS. CLEANOUT OPENINGS SHALL BE EQUIPPED WITH TIGHT FITTING DOORS CONSTRUCTED OF STEEL HAVING A THICKNESS NOT LESS THAN THAT REQUIRED FOR THE DUCT. DOORS SHALL BE EQUIPPED WITH A SUBSTANTIAL METHOD OF LATCHING, SUFFICIENT TO HOLD THE DOOR TIGHTLY CLOSED. DOORS SHALL BE SO DESIGNED THAT THEY CAN BE OPENED WITHOUT THE USE OF A TOOL. PROVIDE CLEANOUTS IN ALL KITCHEN EXHAUST DUCTWORK AT EVERY CHANGE OF DIRECTION AND AT EVERY 12' OF HORIZONTAL DUCT. PROVIDE CEILING ACCESS PANELS AT ALL GREASE DUCT CLEANOUTS. REFER TO DETAIL 02, SHEET M0.01.
F. DUCT ENCLOSURE: A GREASE DUCT SERVING TYPE I HOOD WHICH PENETRATES A CEILING, WALL OR FLOOR SHALL BE ENCLOSED IN A DUCT ENCLOSURE FROM THE POINT OF PENETRATION. A DUCT MAY ONLY PENETRATE EXTERIOR WALLS AT LOCATIONS WHERE UNPROTECTED OPENINGS ARE PERMITTED BY THE BUILDING CODE. DUCT ENCLOSURES SHALL BE CONSTRUCTED AS THE BUILDING CODE REQUIRES SHAFT ENCLOSURES TO BE CONSTRUCTED. DUCT ENCLOSURES SHALL BE OF AT LEAST ONE-HOUR FIRE-RESISTIVE CONSTRUCTION IN ALL BUILDINGS. THE DUCT ENCLOSURE SHALL BE SEALED AROUND THE DUCT AT THE POINT OF PENETRATION AND VENTED TO THE EXTERIOR THROUGH WEATHER-PROTECTED OPENINGS. THE ENCLOSURE SHALL BE SEPARATED FROM THE DUCT BY AT LEAST 3 INCHES AND NOT MORE THAN 12 INCHES AND SHALL SERVE A SINGLE GREASE EXHAUST DUCT SYSTEM. IF ALLOWED BY LOCAL CODE AUTHORITIES, TYPE I GREASE DUCTS MAY BE WRAPPED IN 2-HR UL RATED "FIREMASTER" OR APPROVED MANUFACTURERS GREASE DUCT FIRE PROTECTION SYSTEM, INSTALLED PER MANUFACTURER'S INSTRUCTIONS.
G. FIRE-RESISTIVE ACCESS OPENING: WHEN CLEANOUT OPENINGS ARE LOCATED IN DUCTS WITHIN A FIRE-RESISTIVE SHAFT OR ENCLOSURE, ACCESS OPENINGS SHALL BE PROVIDED IN THE SHAFT OR ENCLOSURE AT EACH CLEANOUT POINT. THESE ACCESS OPENINGS SHALL BE EQUIPPED WITH TIGHT-FITTING SLIDING OR HINGED DOORS WHICH ARE EQUAL TO FIRE-RESISTIVE PROTECTION TO THAT OF THE SHAFT OR ENCLOSURE.
H. AIR VELOCITY: GREASE DUCT SYSTEMS SERVING A TYPE I HOOD SHALL BE DESIGNED AND INSTALLED IN A MANNER TO PROVIDE AN AIR VELOCITY WITHIN THE DUCT SYSTEM OF NOT LESS THAN 1500 FEET PER MINUTE AND NOT TO EXCEED 2500 FEET PER MINUTE.
I. EXHAUST OUTLETS: EXHAUST OUTLETS FOR GREASE DUCTS SERVING COMMERCIAL FOOD HEAT-PROCESSING EQUIPMENT SHALL EXTEND THROUGH THE ROOF UNLESS OTHERWISE APPROVED BY THE BUILDING OFFICIAL. SUCH EXTENSION SHALL BE AT LEAST 2 FEET ABOVE THE ROOF SURFACE, AT LEAST 10 FEET FROM PARTS OF THE SAME OR CONTIGUOUS BUILDINGS, ADJACENT PROPERTY LINE OR AIR INTAKE OPENING INTO ANY BUILDING, AND SHALL BE LOCATED AT LEAST 10 FEET ABOVE THE ADJOINING GRADE LEVEL.
J. EXCEPTIONS: EXHAUST OUTLETS FOR GREASE DUCTS SERVING COMMERCIAL FOOD HEAT-PROCESSING EQUIPMENT MAY TERMINATE NOT LESS THAN 5 FEET FROM AN ADJACENT BUILDING, ADJACENT PROPERTY LINE OR AIR INTAKE OPENING INTO A BUILDING, IF THE AIR FROM THE EXHAUST OUTLET IS DISCHARGED AWAY FROM SUCH LOCATIONS.
K. KITCHEN EXHAUST HOODS INCLUDING EXHAUST FANS, MAKE-UP AIR FAN, MOTORS, STARTERS, HEATERS AND CURBS - CONTRACTOR SHALL PROVIDE AND INSTALL MOTOR STARTERS, DRAIN LINES, CONTROLLERS, LIGHT AND CONTROL WIRING, MECHANICAL ROUGH-IN AND CONNECTIONS, DUCTWORK, ELECTRICAL ROUGH-IN AND CONNECTIONS, PLACE IN OPERATION AND BALANCE THE SYSTEM. COORDINATE WORK WITH ALL TRADES INVOLVED.



1 GREASE DUCT DETAIL
1/8" = 1'-0"



2 IMC SEC. 506.3.7.1 GREASE DUCT RESERVOIR DETAIL
NOT TO SCALE



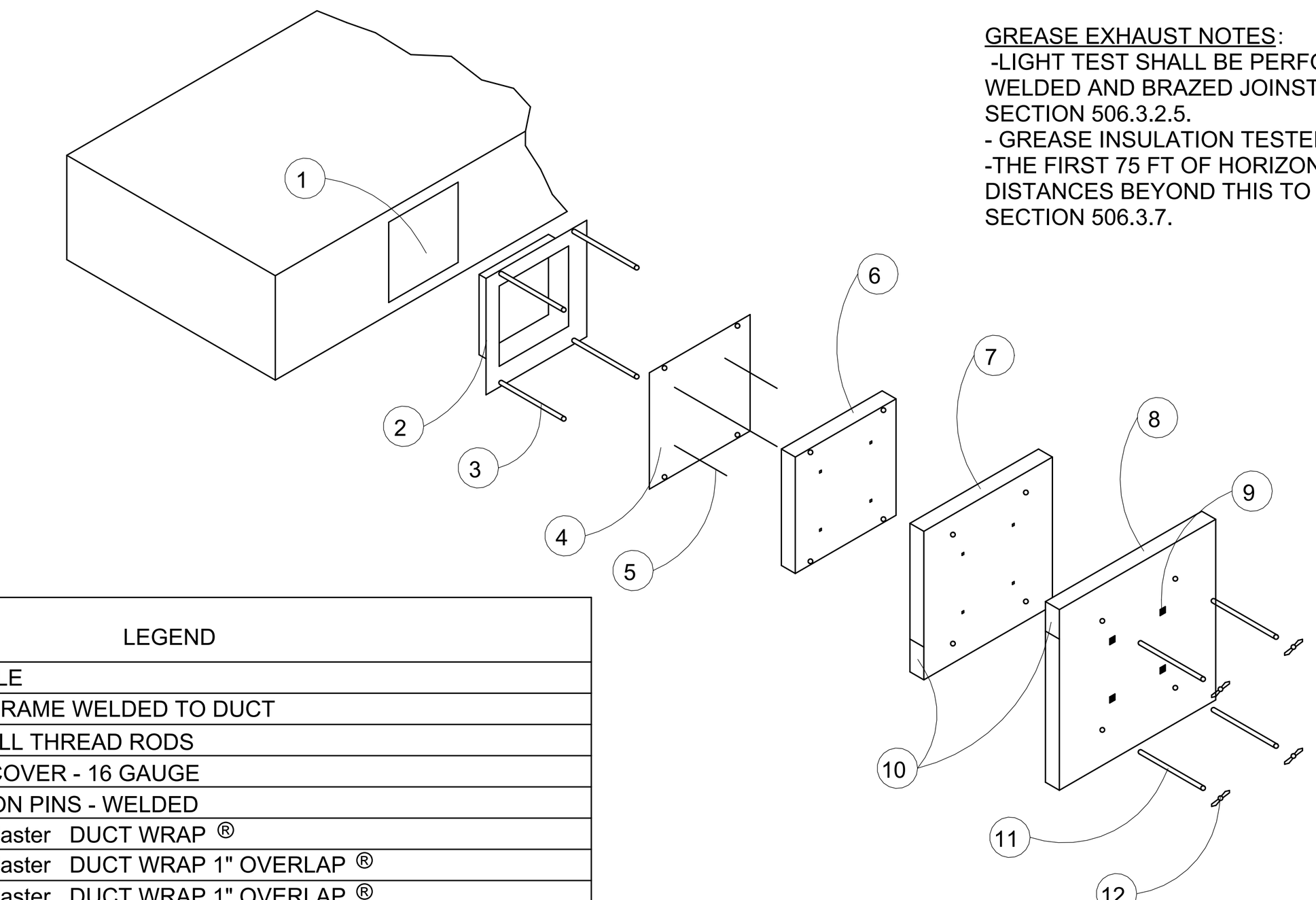
Omega Point Laboratories Design No. GD 544 F	
1	One Layer FireMaster FastWrap+, 1 1/2" thick
2	Steel Banding 1/2" Wide Min.
3	3" Min. Longitudinal Overlap
4	3" Min. Perimeter Overlap
5	6" Wide FireMaster FastWrap+ Collar (For Butt Joint Option)
6	Firmly Butted Joint (For Butt Joint Option)
7	10 or 12 Gage Steel Insulation Pin With 1 1/2"x1 1/2" or 1 1/2" Dia. Galvanized Speed Clips (For Alternate Pinning)

Note:
The Integrity Of FireMaster Duct Systems Is Limited To The Quality Of The Installation.

PROVIDE TWO LAYERS OF FIRE MASTER WRAP

4 FIRE MASTER DETAIL
1/8" = 1'-0"

GREASE EXHAUST NOTES:
-LIGHT TEST SHALL BE PERFORMED TO DETERMINE THAT ALL WELDED AND BRAZED JOINSTS ARE LIQUID TIGHT PER 2015 IMC SECTION 506.3.2.5.
- GREASE INSULATION TESTED PER ASTM E-2336
-THE FIRST 75 FT OF HORIZONTAL DUCT TO HAVE A 2% SLOPE. DISTANCES BEYOND THIS TO BE SLOPED AT 8%. RE: 2015 IMC SECTION 506.3.7.



LEGEND	
1	DOOR HOLE
2	ACCESS FRAME WELDED TO DUCT
3	1/4" DIA. ALL THREAD RODS
4	ACCESS COVER - 16 GAUGE
5	INSULATION PINS - WELDED
6	ONE FireMaster DUCT WRAP ®
7	ONE FireMaster DUCT WRAP 1" OVERLAP ®
8	ONE FireMaster DUCT WRAP 1" OVERLAP ®
9	SPEED CLIPS
10	ALUMINUM TAPE AT EDGES
11	SPOOL PIECES FOR THREADED RODS
12	1/4" DIA. WING NUTS

3 GREASE DUCT ACCESS DOOR
NOT TO SCALE

D. SCOTT BROWN 89097 LICENSED PROFESSIONAL ENGINEER
1-30-2025

TREANOR
2554 Elm Street, Suite 200
Dallas, TX 75226
Office: 214.310.1018
www.TreanorHL.com

Purdy - McGuire
Mechanical - Electrical Engineers
17300 North Dallas Parkway
Suite 3000
Dallas, TX 75248-1147
Firm Registration # F-1511
Tel: 972/239-5357
Fax: 972/239-5231
www.purdy-mcguire.com

PMI JOB NO. 23037.002
PROJECT MGR. SCOTT BROWN, MITCHELL HENTON
MECHANICAL MITCHELL HENTON
PLUMBING CHRIS WOODYARD
ELECTRICAL JOHN KNOWLES

UNIVERSITY OF NORTH TEXAS
KERR HALL INTERIOR RENOVATION

1413 West Maple St
Denton, TX 76201

UNT UNIVERSITY OF NORTH TEXAS

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Date: JANUARY 30, 2025

REVISIONS

NO	DESCRIPTION	DATE

iM503

MECHANICAL DETAILS - GREASE EXHAUST

TreanorHL NO. HE0569.2302.01

EXHAUST FAN SCHEDULE

DESIGNATION				MECHANICAL									ELECTRICAL			
											BASIS OF DESIGN					
TYPE	MARK	SERVICE	LOCATION	TYPE	CONTROL	CFM	ESP (IN W.G.)	DRIVE	ACCESSORIES (SEE BELOW)	WEIGHT (LBS)	MANUFACTURER	MODEL	HP	RPM	VOLT	PH
GEF	1	KITCHEN	TOWER ROOF	UTILITY	BMS	19660	1.75	DIRECT	E,J,K,L,N,O	1017	COOK	270CA-SWSI	20	1734	460	3
KEF	1	KITCHEN	DISHWASH MACHINE	UPBLAST	BMS	1100	0.75	DIRECT	D,K,M,O	82	COOK	150VH17D	1	1479	460	3
KEF	2	KITCHEN	CONDENSATE HOOD	UPBLAST	BMS	1200	0.75	DIRECT	D,K,M,O	82	COOK	150VH17D	1	1479	460	3
REF	K-1	DINING ROOM	MECHANICAL ROOM	INLINE	BMS	3705	0.65	DIRECT	A,E,O	108	COOK	165SQN17D	2	1628	460	3
TEF	K-1	KITCHEN RESTROOM	KITCHEN A130	INLINE	BMS	200	0.5	DIRECT	A,C,E, P	25	COOK	GN-422	0.1	1345	115	1
TEF	K-2	DINING RESTROOMS	ROOF ABOVE LOBBY	CENTRIFUGAL	BMS	700	0.5	DIRECT	A,B,D,G,P	15	COOK	101ACED (EC)	0.17	1721	208	1

ACCESSORIES:

(A) BACKDRAFT DAMPER
(B) BIRDSCREEN
(C) PRE-WIRED NON-FUSED SERVICE DISCONNECT
(D) PRE-WIRED NON-FUSED SERVICE DISCONNECT (NEMA 3R)
(E) SPRING ISOLATION
(F) INTERLOCK W/AHU SUPPLY FAN
(G) ROOF CURB 14" ABOVE FINISHED ROOF WITH HINGED COVER
(H) INSULATED AND VENTED ROOF CURB 14" ABOVE FINISHED ROOF W/HINGED COVER
(J) GREASE EXHAUST FAN SHALL BE UL-762 RATED FOR KITCHEN VENTILATION
(K) TEFC MOTOR ENCLOSURE FOR PROTECTION FROM GREASE-LADEN AIRTREAM
(L) GREASE CAPTURE TROUGH WITH REMOVABLE LID
(M)WALL MOOUNTING BRACKETS
(N) HINGED ACCESS PANEL
(O) VARIABLE FREQUENCY DRIVE
(P) EC MOTOR
(Q) FAN SPEED CONTROL

NOTES:

1) REFER TO SPECIFICATIONS FOR ADDITIONAL INFORMATION.
2) CONTROL DESCRIPTION (WHERE PROVIDED, REFER TO SEQUENCE OF OPERATION FOR ADDITIONAL INFORMATION)
   - BMS - BUILDING AUTOMATION SYSTEM
   - T-STAT - LINE VOLTAGE THERMOSTAT PROVIDED BY DIV 23.
   - H-STAT - HUMIDISTAT CONTROL
   - TCLOCK - TIMECLOCK FOR OPERATION (PROVIDED BY DIV. 23 AND INSTALLED BY DIV. 26)
   - SWITCH- MOTOR RATED SWITCH BY DIV. 26
   - CONT. - CONTINUOUS OPERATION
   - HOA - COMBINATION STARTER WITH HOA AND PILOT LIGHT IN COVER FURNISHED BY MANUFACTURER
   - BMS/DVS - BUILDING AUTOMATION SYSTEM / EXHAUST HOOD DEMAND CONTROL VENTILATION SYSTEM
3) ALL ROOF CURBS ARE STANDARD INSULATED TC-2 CURBS WITH GASKET, UNLESS OTHERWISE NOTED.
4) PROVIDE VFD RATED MOTOR WHEN FAN IS EQUIPPED WITH VFD. PROVIDE STARTER WHEN VFD IS NOT REQUIRED.
5) PROVIDE FANS WITH OSHA RATED GUARDS.
6) APPROVED MANUFACTURERS - COOK, GREENHECK, TWIN CITIES.
7) ALL SUBSTITUTIONS SHALL BE PRE-APPROVED, IN WRITING, PRIOR TO BID.
8) PROVIDE GREASE GUARD G2 XD CONTAINMENT PAD AND DRIP GUARD (OR EQUAL) FOR ALL KITCHEN EXHAUST FANS.
9) PROVIDE GEF-1 WITH SPRING ISOLATION RAILS.

VAV BOXES WITH HOT WATER REHEAT

DESIGNATION				HEATING WATER COIL PERFORMANCE								BASIS OF DESIGN	
TYPE	MARK	DESIGN COOLING CFM	MIN COOLING CFM	HEATING CFM	MIN. BTUH	EWT (°F)	LWT (°F)	GPM	EAT (°F)	LAT (°F)	INLET	MANUFACTURER	MODEL
VRH	K-1	960	195	675	29,159	180	160	3	55 °F	95	10"	TITUS	DESV
VRH	K-2	840	170	590	25,489	180	160	3	55 °F	95	10"	TITUS	DESV
VRH	K-3	750	150	525	22,679	180	160	2.5	55 °F	95	10"	TITUS	DESV
VRH	K-4	750	150	525	22,679	180	160	2.5	55 °F	95	10"	TITUS	DESV
VRH	K-5	800	160	560	24,199	180	160	2.5	55 °F	95	10"	TITUS	DESV
VRH	K-6	1080	220	760	32,839	180	160	3.5	55 °F	95	12"	TITUS	DESV
VRH	K-7	1020	205	715	30,889	180	160	3.5	55 °F	95	12"	TITUS	DESV
VRH	K-8	500	100	350	15,119	180	160	2	55 °F	95	8"	TITUS	DESV
VRH	K-9	750	150	525	22,679	180	160	2.5	55 °F	95	10"	TITUS	DESV
VRH	K-10	900	180	630	27,219	180	160	3	55 °F	95	10"	TITUS	DESV
VRH	K-11	800	160	560	24,199	180	160	2.5	55 °F	95	10"	TITUS	DESV
VRH	K-12	900	180	630	27,219	180	160	3	55 °F	95	10"	TITUS	DESV
VRH	K-13	1250	250	875	37,798	180	160	4	55 °F	95	12"	TITUS	DESV
VRH	K-14	300	60	210	9,080	180	160	1	55 °F	95	8"	TITUS	DESV
VRH	K-15	900	180	630	27,219	180	160	3	55 °F	95	10"	TITUS	DESV

NOTES:

1) REFER TO SPECIFICATIONS FOR ADDITIONAL REQUIREMENTS.
2) PROVIDE FIBER FREE LINER
3) ALL TERMINAL UNITS SHALL BE PROVIDED WITH SINGLE ROW COILS, UNLESS TWO ROWS ARE NEEDED TO ACHIEVE DESIRED BTUs.
4) BOXES SHALL BE DDC. REFER TO SPECIFICATIONS FOR ADDITIONAL REQUIREMENTS.
5) APPROVED MANUFACTURERS: JCI, PRICE, KRUEGER, GREENHECK, NAILOR, TITUS, & TRANE.
6) ALL SUBSTITUTIONS SHALL BE APPROVED, IN WRITING, PRIOR TO BID.
7) ALL TERMINAL UNIT COILS SHALL BE SELECTED WITH A PRESSURE DROP OF 1.0' (FT H2O) OR LESS.

GRILLES-REGISTERS-DIFFUSERS

DESIG.	DUTY	TYPE	MOUNTING LOCATION	MATERIAL	VOLUME CONTROL	FINISH	AIR PATTERN CONTROL	METHOD OF SUPPORT	EQUAL TO MANUFACTUER AND MODEL NO.	REMARKS
A	SUPPLY	SQ. PLAQUE	LAY-IN	STEEL	NO	SEE NOTE 8	YES	T-BAR	TITUS OMNI - 24"X24" FACE	SEE NOTE 1, 11
A1	SUPPLY	PERFORATED	LAY-IN	STAINLESS	NO	SEE NOTE 8	NO	T-BAR	CAPTIVE AIRE DI-PSP	SEE NOTE 1, 11
A2	SUPPLY	SQ. PLAQUE	LAY-IN	STEEL	NO	SEE NOTE 8	YES	T-BAR	TITUS OMNI - 12"X12" FACE	SEE NOTE 1, 11
B	RETURN	PERFORATED	LAY-IN	STEEL	NO	SEE NOTE 8	NO	T-BAR	TITUS PAR - 24"X24" FACE	SEE NOTE 11
B1	RETURN	PERFORATED	LAY-IN	ALUMINUM	NO	SEE NOTE 8	NO	T-BAR	TITUS PAR-AA	SEE NOTE 11
B2	RETURN	PERFORATED	LAY-IN	STEEL	NO	SEE NOTE 8	NO	T-BAR	TITUS PAR - 12"X12" FACE	SEE NOTE 11
C	SUPPLY	GRILLE	SIDEWALL	STEEL	NO	SEE NOTE 8	YES	SURFACE	TITUS 272RL	SEE NOTE 2
D	RETURN	GRILLE	SIDEWALL	STEEL	NO	SEE NOTE 8	YES	DUCT	TITUS 25RL	SEE NOTE 2
E	EXHAUST	GRILLE	SIDEWALL	STEEL	NO	SEE NOTE 8	YES	SURFACE	TITUS 25RL	SEE NOTE 2
E1	EXHAUST	PERFORATED	LAY-IN	STEEL	NO	SEE NOTE 8	YES	SURFACE	TITUS PAR - 24"X24" FACE	SEE NOTE 11
E2	EXHAUST	PERFORATED	LAY-IN	STEEL	NO	SEE NOTE 8	YES	SURFACE	TITUS PAR - 12"X12" FACE	SEE NOTE 11
F	SUPPLY	LINEAR SLOT	GYP BD CLG	ALUMINUM	NO	SEE NOTE 8	YES	SURFACE	TITUS FL-HT	SEE NOTE 1,5
F1	SUPPLY	LINEAR SLOT	GYP BD CLG	ALUMINUM	NO	SEE NOTE 8	YES	SURFACE	TITUS FL-HT	SEE NOTE 1,5

NOTES:

1) NECK SIZES AS FOLLOWS:

DESIGNATION "A"

CFM RANGE	NECK SIZE
000 - 250	8"Ø
251 - 400	10"Ø
401 - 550	12"Ø
551 - 700	14"Ø

DESIGNATION "F"

CFM RANGE	NECK SIZE / MODEL	LENGTH
000 - 100	6"Ø / FL-10	4'-0"
101 - 150	8"Ø / FL-10	4'-0"
151 - 210	8"Ø / FL-20	4'-0"
211 - 255	10"Ø / FL-30	4'-0"
256 - 350	12"Ø / FL-30	4'-0"

2) SIZE PER PLANS

3) SIZE PER PLANS. PROVIDE WITH OPPOSED BLADE DAMPER.

4) FOR TYPE A1 DIFFUSERS, PROVIDE WITH A 12" NECK.

5) PROVIDE WITH TRIM KIT FOR GYP-BOARD CEILINGS.

6) FOR TYPE F DIFFUSER, PROVIDE NUMBER OF 4' LONG SUPPLY AIR PLENUMS AS SHOWN WITH NECK FOR EACH PLENUM. REFER TO CHART FOR NECK SIZE. SUPPLY AIR PLENUMS TO BE FABRICATED BY TITUS. LEAVE UNUSED PORTION OPEN FOR RETURN AIR AND PROVIDE A LIGHT SHEILD. DIFFUSER TO HAVE A CONTINUOUS LOOK. CONFIRM BORDER TYPE AND FINISH WITH THE ARCHITECT AND COORDINATE WITH GENERAL CONTRACTOR TO MUDD AND PAINT BORDER, IF REQUIRED.

7) FOR TYPE F DIFFUSER, PROVIDE NUMBER OF 5' LONG SUPPLY AIR PLENUMS AS SHOWN WITH NECK FOR EACH PLENUM. SLOT WIDTH TO BE 2.5 INCHES WIDE AND PLENUMS ARE TO BE PROVIDED WITH A 10" NECK. SUPPLY AIR PLENUMS TO BE FABRICATED BY TITUS. LEAVE UNUSED PORTION OPEN FOR RETURN AIR AND PROVIDE A LIGHT SHEILD. DIFFUSER TO HAVE A CONTINUOUS LOOK. CONFIRM BORDER TYPE AND FINISH WITH THE ARCHITECT AND COORDINATE WITH GENERAL CONTRACTOR TO MUDD AND PAINT BORDER, IF REQUIRED.

8) COORDINATE FINISH WITH ARCHITECT.

CHILLED WATER FAN COIL UNIT SCHEDULE

DESIGNATION			MECHANICAL																									ELECTRICAL	
			SUPPLY FAN						COOLING COIL							PREHEAT COIL					FINAL FILTER		BASIS OF DESIGN					
											EAT °F		LAT °F																
TYPE	MARK	SERVES	CFM	ESP (IN W.G.)	FAN TYPE	TOTAL NUMBER OF FANS	HP OF EACH FAN	OA CFM	TOTAL MBH	SENSIBLE MBH	DB	WB	DB	WB	GPM	EWT (°F)	LWT (°F)	TOTAL MBH	EAT °F DB	LAT °F DB	GPM	EWT (°F)	LWT (°F)	DEPTH	MERV	MANUFACTURER	MODEL	ACCESSORIES (SEE BELOW)	WEIGHT (LBS)	VOLT	PH
FCU	K1-1	KITCHEN RESTROOM	400	0.35	ECM	1	0.5	65	12	10	79	64	55	54	2	45	57	10	61	85	1	180	160	2	8	PRICE	FCGH	SEE BELOW	75	208	1

NOTES:

1. PROVIDE NON-LOCKING FUSED DISCONNECT. VARIABLE SPEED ECM MOTOR - SPEED TO BE CONTROLLED BY BMS. 2-WAY CHILLED WATER AND HEATING WATER MODULATING CONTROL VALVE(24V) TO BE PROVIOED BY CONTROLS CONTRACTOR AND INSTALLED BY MECHANICAL CONTRACTOR. FAN COILS ARE TO BE CONCEALED PLENUM WITH CONNECTIONS FOR SUPPLY AND RETURN DUCTWORK. HOT WATER COIL TO BE IN PRE-HEAT POSITION.

EXISTING TAB AHU INFORMATION

DESIGNATION			MECHANICAL												
			SUPPLY FAN	COOLING COIL								REHEAT COIL			
				MIN OA CFM	MAX OA CFM	EAT °F		LAT °F							
TYPE	MARK	SERVES	CFM			DB	WB	DB	WB	GPM	EWT (°F)	LWT (°F)	EAT °F DB	LAT °F DB	GPM	EWT (°F)	LWT (°F)
E-AHU	A1-1	DINING ROOM	12500	3750	7250	102	75	55	54	132.6	45	57	40	55	10.1	180	140
E-AHU	A1-3	KITCHEN	14000	2000	7250	102	75	55	54	136.8	45	57	35	95	28.2	180	140
E-AHU	A1-5	HOOD MAKE-UP AIR	7952	7952	7952	102	75	65	63	58.5	45	57	40	65	12.6	180	140

Notes:

1. Provide AHU's with new VFDs.
2. Refer to controls sheets for additional components that are to be provided or replaced for these units.

OUTSIDE AIR PREHEAT COIL SCHEDULE

DESIGNATION				MECHANICAL						
				SUPPLY FAN	PREHEAT COIL					
TYPE	MARK	SERVES	LOCATION	CFM	TOTAL MBH	EAT °F DB	LAT °F DB	GPM	EWT (°F)	LWT (°F)
PHC	1-2	E-AHU-A1-5	OA DUCT	7952	235	7	40	11.8	180	140

NOTES:
1. MINIMUM TWO (2) ROW COIL.
2. DUCT MOUNTED FIN AND TUBE CONSTRUCTION.

D. SCOTT BROWN
89097
LICENSED
PROFESSIONAL ENGINEER
1-30-2025

TREANOR
2554 Elm Street, Suite 200
Dallas, TX 75226
Office: 214.310.1018
www.TreanorHL.com

Mechanical - Electrical Engineers
17300 North Dallas Parkway
Suite 3000
Dallas, TX 75248-1147
Firm Registration # F-1511
Tel: 972/239-5357
Fax: 972/239-5231
www.purdy-mcguire.com

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1413 West Maple St
Denton, TX 76201

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iM601

MECHANICAL SCHEDULES

TreanorHL NO. HE0569.2302.01

Autodesk Docs://HE0569.2302.01 UNT Kerr Hall Interior Renovation/R23_KERR-HALL-DINING_MECH.rvt
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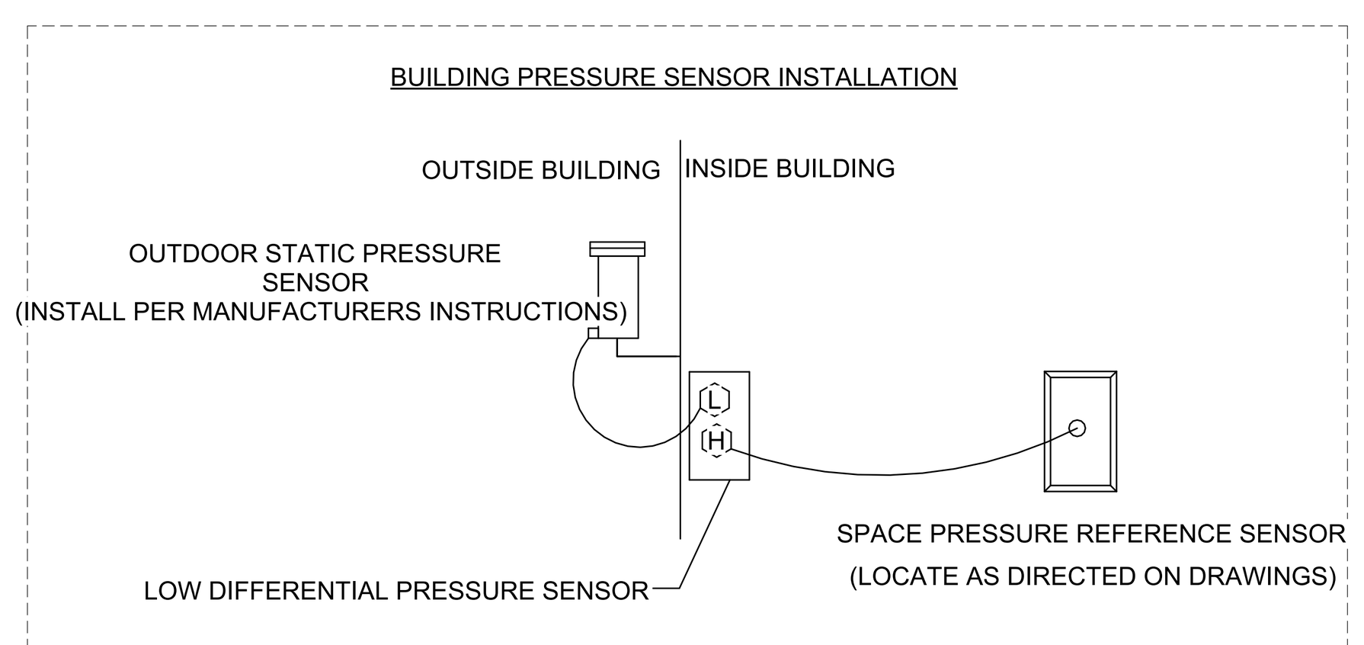
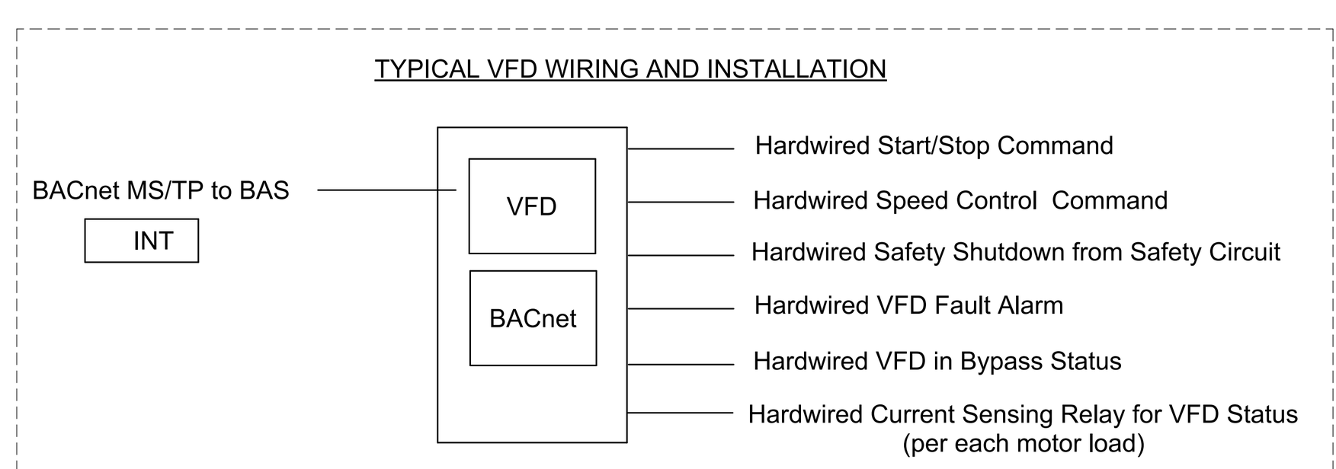
CONTROLS/BUILDING AUTOMATION SYMBOLS LEGEND

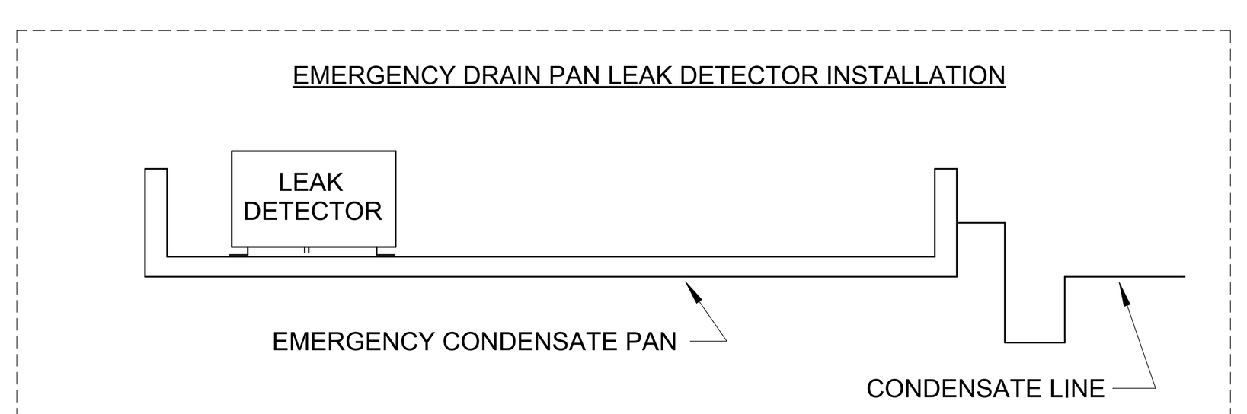
SYMBOL	DESCRIPTION
SP	STATIC PRESSURE SENSOR
CO	CARBON MONOXIDE SENSOR - WALL MOUNT
CO2	CARBON DIOXIDE SENSOR - WALL MOUNT
NO	NITROGEN OXIDE SENSOR
O2	OXYGEN SENSOR
T	TEMPERATURE SENSOR - WALL MOUNT OR THERMOSTAT
WT	WIRELESS TEMPERATURE SENSOR - WALL MOUNT OR THERMOSTAT
RH	HUMIDITY SENSOR - WALL MOUNT OR HUMIDISTAT
WRH	WIRELESS HUMIDITY SENSOR - WALL MOUNT OR HUMIDISTAT
WB	WETBULB SENSOR - WALL MOUNT
T	TEMPERATURE SENSOR -
SSD	SUPPLY SMOKE DECECTOR
RSD	RETURN SMOKE DECECTOR
OSD	OUTSIDE AIR SMOKE DECECTOR
AFMS	AIRFLOW MONITORING STATION - DUCT MOUNT
CO2	CARBON DIOXIDE SENSOR - DUCT MOUNT
CO	CARBON MONOXIDE SENSOR - DUCT MOUNT
MD	MANUAL BALANCING DAMPER
M	MOTORIZED DAMPER
BDD	BACKDRAFT DAMPER
DP	DIFFERENTIAL PRESSURE SENSOR
LTD	LOW TEMPERATURE DETECTOR / FREEZESTAT
FRZ	LOW TEMPERATURE DETECTOR / FREEZESTAT
GRD	GRAVITY RELIEF DAMPER

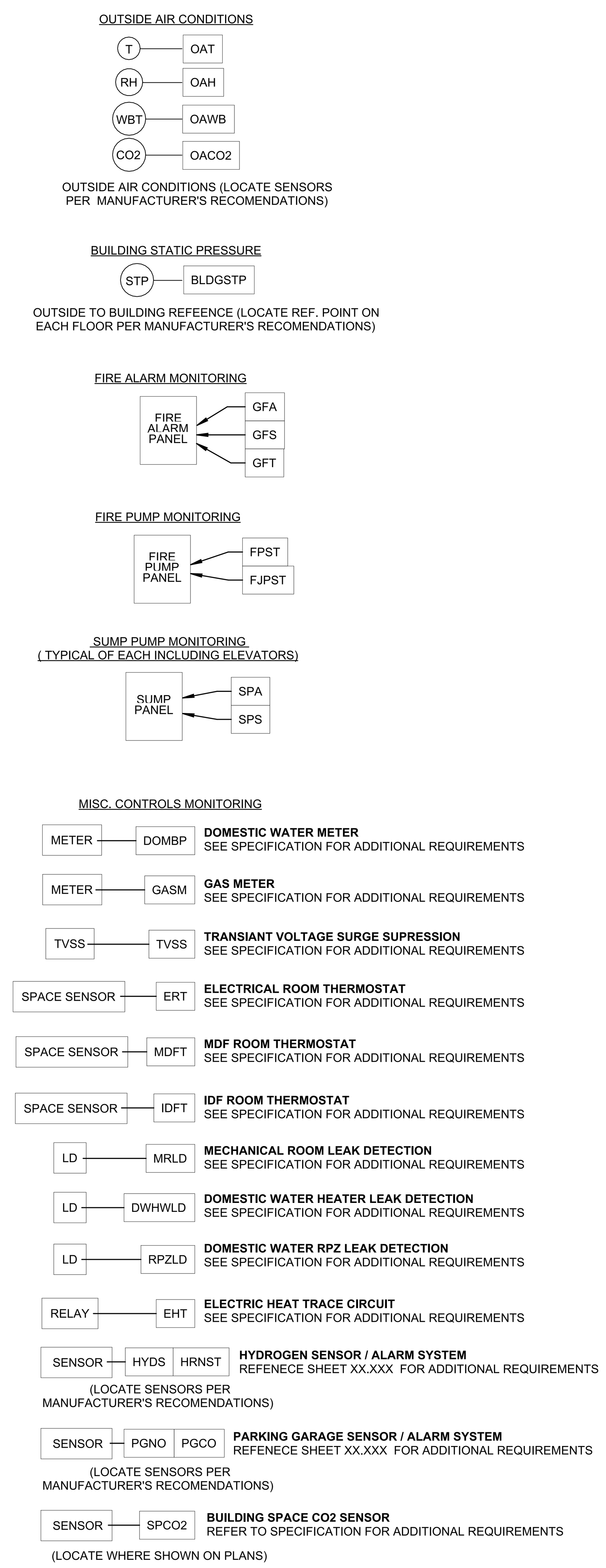
BUILDING AUTOMATION / CONTROLS GENERAL NOTES:

A. GENERAL NOTES APPLY TO ALL MECHANICAL CONTROLS SHEETS.
B. ALL WORK SHALL COMPLY WITH APPLICABLE NATIONAL, STATE AND LOCAL CODES, RULES & REGULATIONS.
C. MECHANICAL CONTROLSDRAWINGS ARE SCHEMATIC IN NATURE. EXACT LOCATIONS OF DUCTWORK, PIPING, AND EQUIPMENT, INCLUDING REQUIRED CLEARANCES FOR FLOWSTATIONS, TO BE COORDINATED WITH BUILDING STRUCTURE AND WORK OF OTHER CONTRACTORS.
D. THIS CONTRACTOR IS RESPONSIBLE FOR FIRE STOPPING AT ALL MECHANICAL PENETRATIONS OF FIRE AND SMOKE RATED STRUCTURES, FLOORS AND PARTITIONS. REFER TO ARCHITECTURAL FLOOR PLANS FOR LOCATIONS OF ALL RATED STRUCTURES.
E. CONTRACTOR TO VERIFY ALL FEILD CONDITIONS PRIOR TO ORDERING ANY MATERIALS AND/OR EQUIPMENT OR BEGINNING ANY WORK WITHOUT AUTHORIZATION.
F. THERMOSTATS TO BE MOUNTED 48" ABOVE FINISHED FLOOR LEVEL UNLESS NOTED OTHERWISE ON THE PLANS. CONTRACTOR TO VERIFY ALL THERMOSTATS LOCATIONS WITH ARCHITECT/ENGINEER PRIOR TO ROUGH IN.
G. ELECTRICAL DIVISION 26 CONTRACTOR TO PROVIDE J-BOX AND CONDUIT TO ACCESSIBLE CEILING FOR ALL T-STATS SHOWN ON PLANS. COORDINATE LOCATIONS OF T-STATS WITH ELECTRICAL DIVISION 26 CONTRACTOR.
H. IF CONTROLS POINTS LIST CALLS FOR TRENDING, SET THE ANALOG VALUES UP FOR 10MIN (ADJ.) TREND INTERVALS TRENDS AND THE BINARY VALUES TO BE TRENDED BY CHANGE OF VALUE.









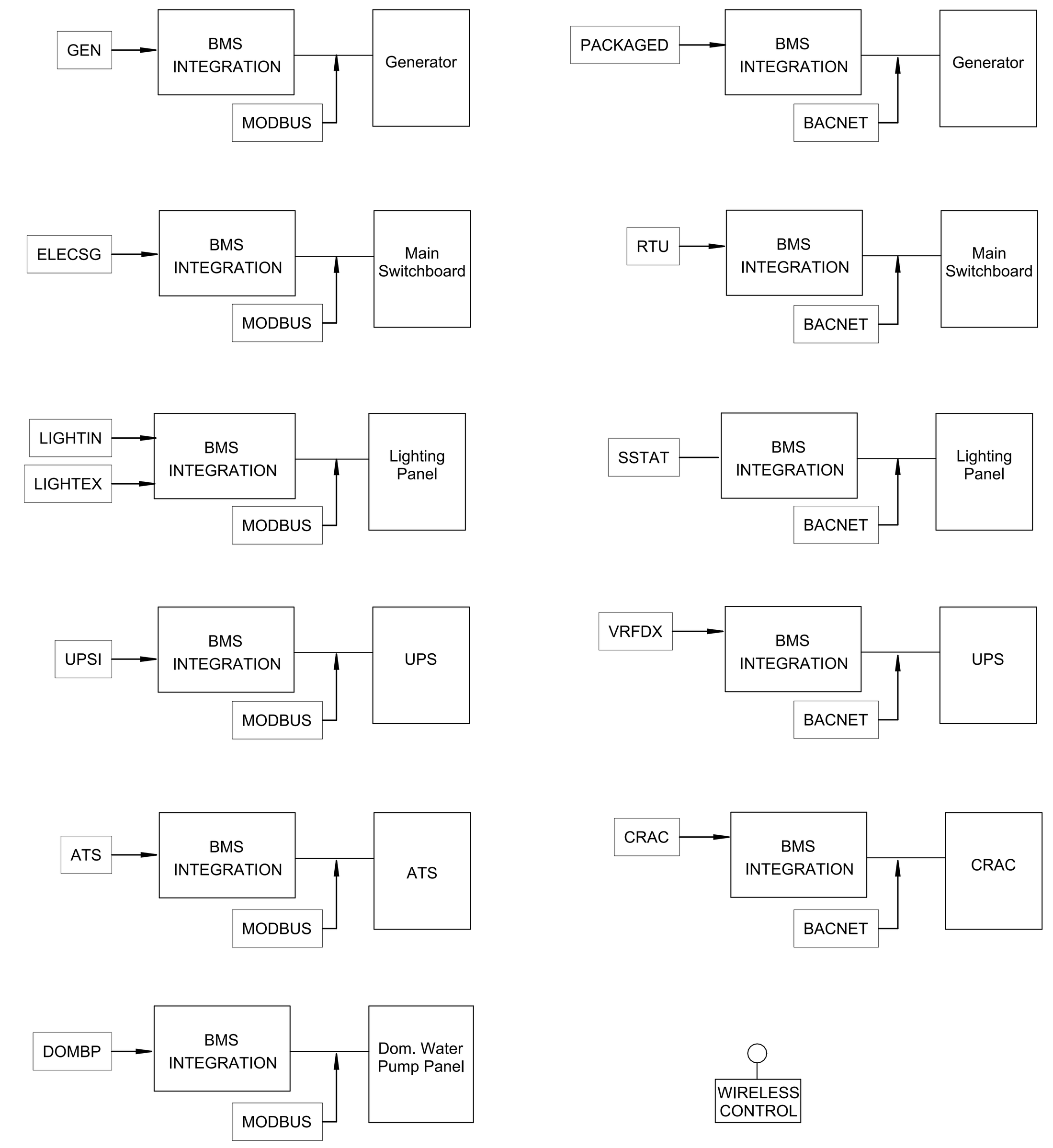
Integration to 3rd Party Systems to the BMS

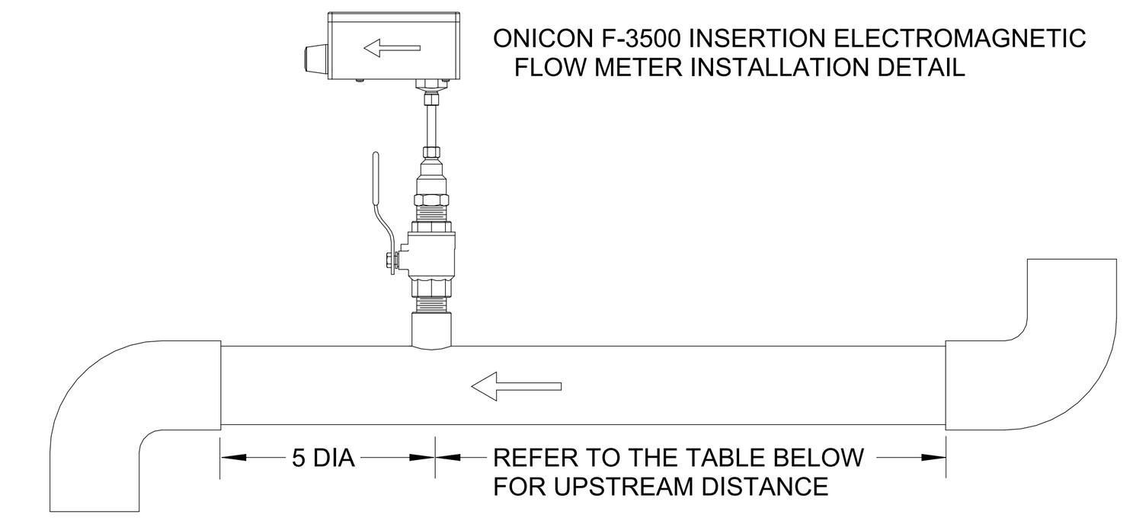
Integrate via BACnet or Modbus Protocols to each listed device below to monitor, trend, control, and alarm all mapable. Map every integrated point available from integrated equipment to the BMS, selective point mapping practices from a BMS contractor will not be acceptable. All setpoint/command control points shall have read/write priorities for analog and binary values. All multi-state integrated points shall have descriptive identifiers for each state. The use of numerical states and legends to identify the state of multi-state points on the BMS will not be acceptable. Provide a Full Graphics page on the BMS for each system with all mapped points. Graphics shall include all mapped points including consumption and alarm data for each system and be represented by animated graphics that closely resembles the specific system.

The BMS shall integrate to the following systems:
1. Air Handling Unit (integrate to each one)
2. Interior and Exterior Lighting Controls (integrate to each one)
3. Packaged Unit Controller (integrate to each one)
4. Fan Coil Units (integrate to each one)
5. RO system including water level
6. Kitchen water heaters and their leak detection.
7. Smart Thermostat (integrate to each one)

Miscellaneous Monitoring and Alarms:

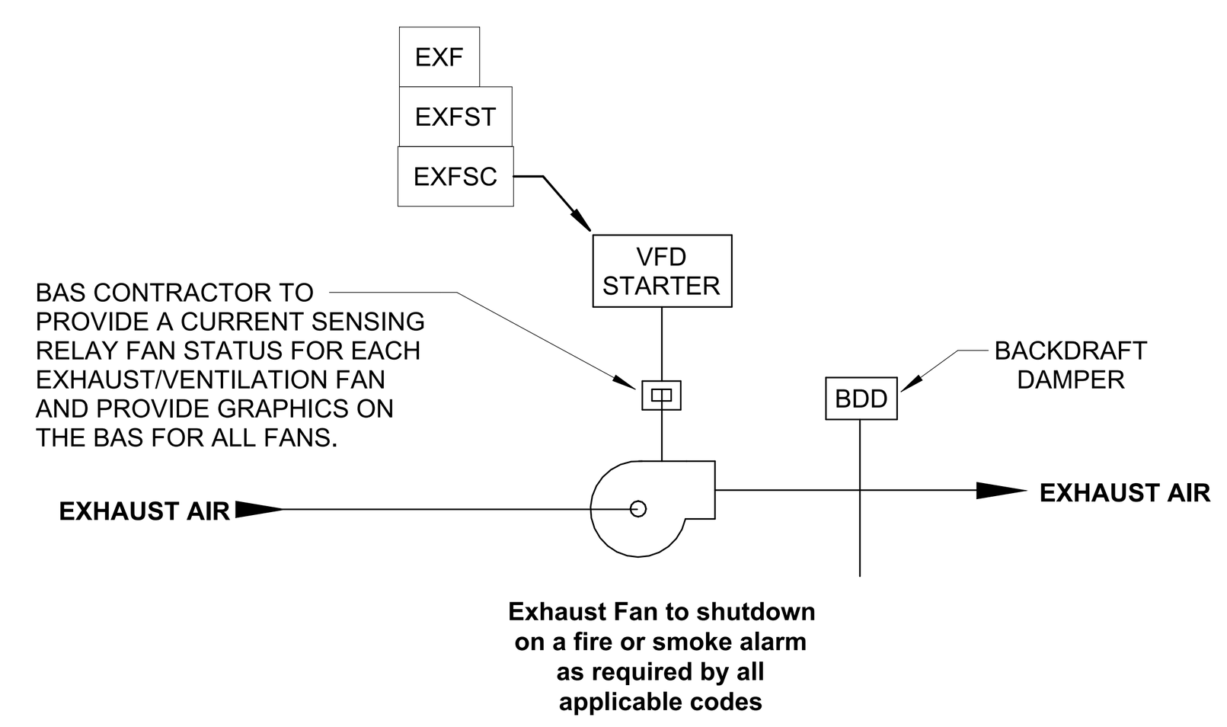
The BMS shall monitor/alarm the following points:
1. Humidity, CO_2, Enthalpy (calculated), and Wet Bulb Temperature of the Outside Air.
2. Building Static Pressure (one on each floor referencing space and outside conditions via proper sensing devices and surge dampeners as necessary)
3. Fire Pump ad Jockey Pump status via CSR provided by the BAS contractor.
4. ALL Sump Pump Run Status and High Level Alarms. (this includes Elevator Pit Sumps)
5. Domestic Water Consumption Meter. BAS contractor to provide meter.
6. Gas Consumption Meter. BAS contractor to provide meter.
7. Main TVSS Switch at Main Electrical Switchgear.
8. Electrical Room Temperature Monitoring and High Temperature Alarms for each room.
9. IDF Room Temperature Monitoring and High Temperature Alarms for each room.DF Room
10. Mechanical Room leak detectors (typical of each Mechanical Room)
11. Space CO2 Levels (sensors to be supplied as called out on the plans).





MINIMUM UPSTREAM STRAIGHT RUN REQUIRED

OBSTRUCTION	UPSTREAM
SINGLE BEND PRECEDED BY > 9 DIAMETERS OF STRAIGHT PIPE RUN	10 DIA
PIPE SIZE REDUCTION / EXPANSION IN STRAIGHT RUN	10 DIA
SINGLE BEND PRECEDED BY < 9 DIAMETERS OF STRAIGHT PIPE RUN	15 DIA
OUTFLOWING TEE / PUMP OUTFLOW	20 DIA
MULTIPLE BENDS OUT OF PLANE	30 DIA
INFLOWING TEE	30 DIA
CONTROL / MODULATING VALVE	30 DIA



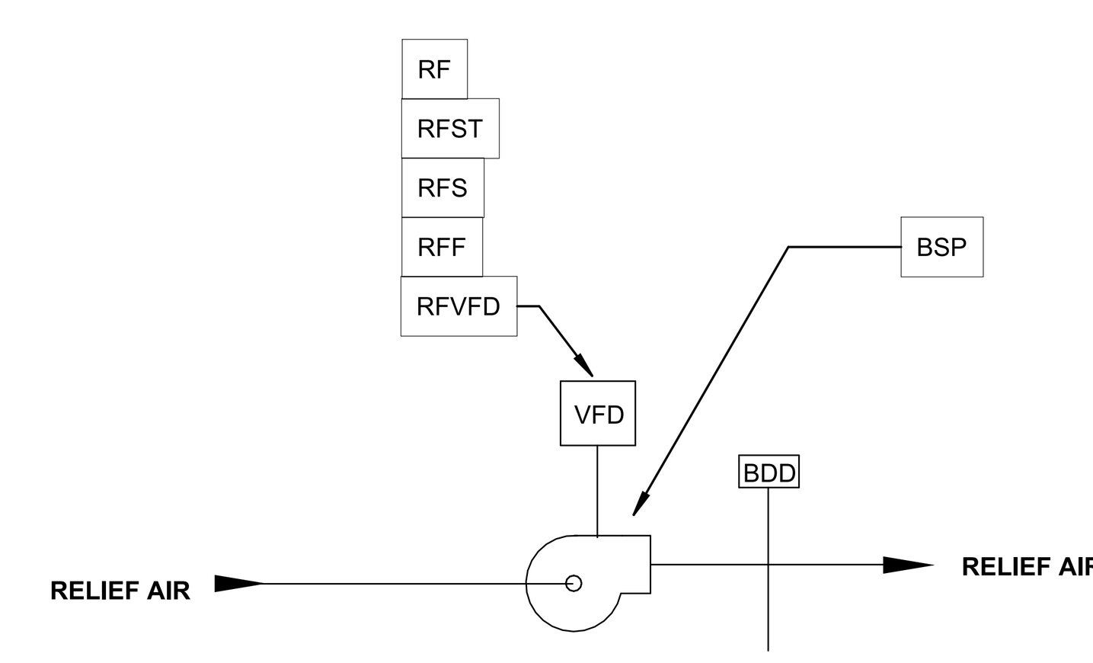
General and Toilet Exhaust Fans Sequence (typical of each):
The exhaust fans shall be started and stopped at the BAS via a building occupancy schedule.
The exhaust air fan shall shut down on a fire or smoke alarm event as determined by all applicable codes.
Alarms shall be provided as follows:
Fan Failure: Commanded on, but the status is off.
Fan in Hand: Commanded off, but the status is on.

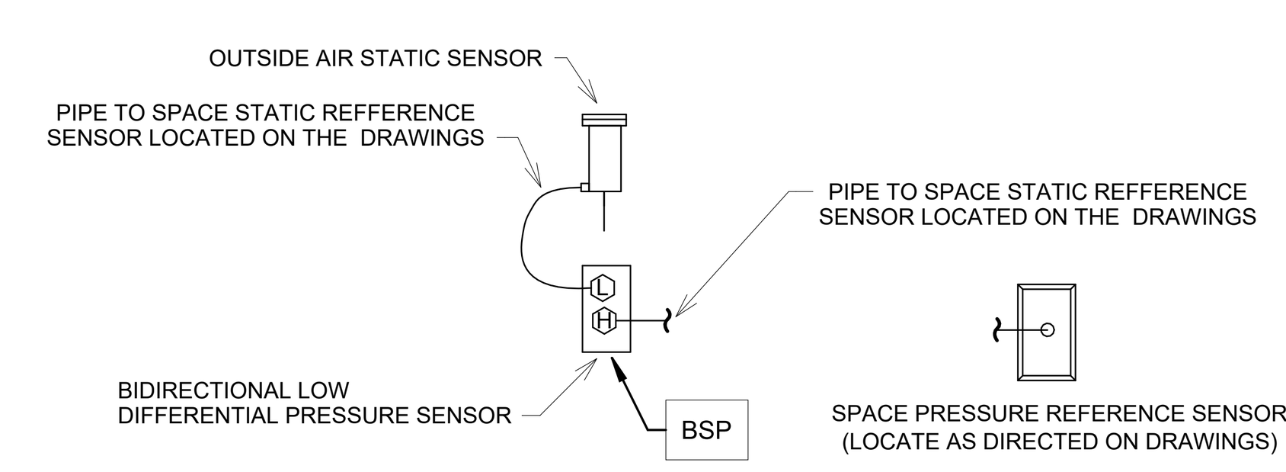
Dishmachine Exhaust Fan Sequence (KEF-1 and KEF-2):
The fan shall be interlocked to run anytime the dishmachine is in operation.
Fan shall operate with a 15 minute time delay to remain on for 15 minutes after the dishmachine is turned off (adj.)
The fan shall shut down on a fire or smoke alarm event as determined by all applicable codes.
Alarms shall be provided as follows:
Fan Failure: Commanded on, but the status is off.
Fan in Hand: Commanded off, but the status is on.

EXHAUST FAN CONTROL POINTS

Reference	Point Name
EXF	Exhaust Fan Start/Stop
EXF	Exhaust Fan Start/Stop
EXFSC	Exhaust Fan Speed Control
EXFSC	Exhaust Fan Speed Control
EXFST	Exhaust Fan Status
EXFST	Exhaust Fan Status

6 EXHAUST FAN WITH BACKDRAFT DAMPER CONTROLS (TYPICAL OF EACH)
NOT TO SCALE





Relief Fan Building Pressure Control:
The building management system shall monitor the kitchen grease exhaust fan, GEF-1, and shall only run the relief fan when GEF-1 is not running. The controller shall measure associated building static pressure and modulate the relief fan VFD speed to maintain a building static pressure setpoint of + 0.03 - 0.05 in H_2O (adj.). The relief fan VFD speed shall not drop below 20hz (adj.) when in operation.

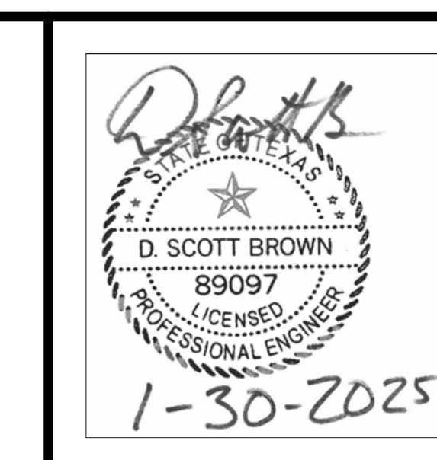
Alarms shall be provided as follows:
- Relief Fan Failure: Commanded on, but the status is off.
- Relief Fan in Hand: Commanded off, but the status is on.
- Relief Fan Runtime Exceeded for Maintenance: Status runtime exceeds a user definable limit (adj.).
- Relief Fan VFD Fault.

Seperate Relief Fan

Reference	Point Name
BSP	Building Static Pressure
RF	Relief Air Fan Start/Stop
RFF	Relief Air Fan VFD Fault
RFS	Relief Air Fan VFD Speed Command
RFST	Relief Air Fan Status
RFVFD	Variable Frequency Drive Control Integration

OUTSIDE STATIC AND SPACE STATIC REFERENCE SENSORS PROVIDED BY BAS CONTRACTOR AND INSTALLED BY THE BAS CONTRACTOR PER MANUFACTURERS RECOMMENDATIONS. BAS CONTRACTOR TO ENSURE PROPER TUBBING SIZES ARE USED PER EACH INSTALLATION.

7 RELIEF FAN WITH BACKDRAFT DAMPER CONTROLS (TYPICAL OF EACH)
NOT TO SCALE



TREANOR
2554 Elm Street, Suite 200
Dallas, TX 75226
Office: 214.310.1018
www.TreanorHL.com

Purdy - McGuire
Mechanical - Electrical Engineers
17300 North Dallas Parkway
Suite 3000
Dallas, TX 75248-1147
Firm Registration # F-1511
Tel: 972/239-5357
Fax: 972/239-5231
www.purdy-mcguire.com

PMI JOB NO. 23037.002
PROJECT MGR. SCOTT BROWN, MITCHELL HENTON
MECHANICAL MITCHELL HENTON
PLUMBING CHRIS WOODYARD
ELECTRICAL JOHN KNOWLES

UNIVERSITY OF NORTH TEXAS
KERR HALL INTERIOR RENOVATION
1413 West Maple St
Denton, TX 76201

UNT UNIVERSITY OF NORTH TEXAS

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CONTROLS DETAILS - FANS

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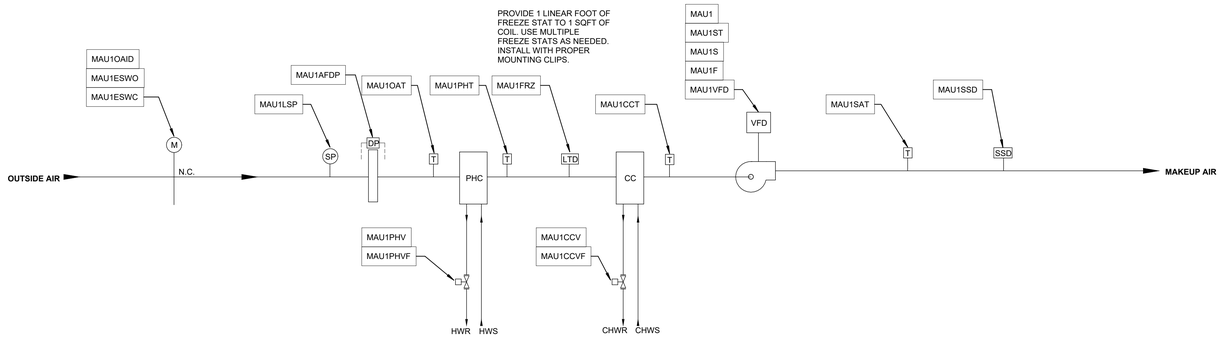
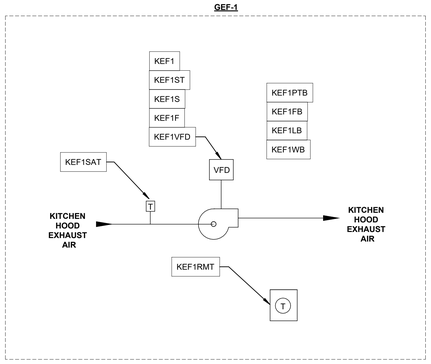
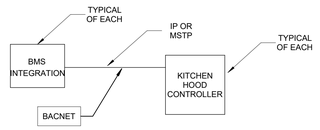


**** MONITOR EACH SMOKE DETECTOR AND PROVIDE SHUTDOWN OF EQUIPMENT AS EQUIPMENT REQUIRES SMOKE DETECTION PER ALL APPLICABLE CODES ****

GEF-1



DCV KITCHEN CONTROLS BACNET INTEGRATION



THE BAS CONTRACTOR SHALL INTEGRATE TO THE KITCHEN HOOD MANUFACTURER'S DCV CONTROL SYSTEM. IT IS THE RESPONSIBILITY OF THE BAS CONTRACTOR TO ENGAGE THE KITCHEN CONTROLS CONTRACTOR FOR FULL BACNET POINTS LIST FOR INTEGRATION. THE BAS CONTRACTOR, ELECTRICAL CONTRACTOR, MECHANICAL CONTRACTOR, GENERAL CONTRACTOR, OWNER, ENGINEER, AND KITCHEN HOOD REPRESENTATIVE SHALL MEET DURING THE SUBMITTAL PHASE OF THE PROJECT TO DISCUSS INSTALLATION AND ENSURE THAT ALL NECESSARY COMPONENTS ARE INCLUDED FOR INTEGRATION AND CONTROL.

FOR EXISTING CHILLED WATER MOTORIZED WATER VALVE AND EXISTING HOT WATER MOTORIZED WATER VALVE SHOWN ON THIS DIAGRAM, REPLACE WITH NEW MOTORIZED VALVES (24V) (WHOLE NEW VALVE INCLUDING VALVE HOUSING/BODY AND VALVE ACTUATOR). REPLACE EXISTING SUPPLY AIR FAN VFD WITH NEW VFD. VERIFY IF EXISTING RELIEF FAN HAS A VFD. IF SO REPLACE EXISTING RELIEF AIR FAN VFD WITH NEW VFD. IF EXISTING RELIEF FAN DOES NOT HAVE A VFD REPLACE RELIEF FAN MOTOR WITH A VFD COMPATIBLE MOTOR AND PROVIDE A VFD FOR RELIEF FAN.

FOR ALL OTHER DEVICES SHOWN ON THIS DIAGRAM, (SUCH AS BMS TEMPERATURE SENSORS, PRESURE SENSORS, THERMOSTATS, ETC), IF DEVICE SHOWN IS EXISTING, REPLACE WITH NEW DEVICE, AND IF DEVICE SHOWN DOES NOT EXIST FOR AHU, PROVIDE A NEW DEVICE FOR AHU. REPLACE ALL EXISTING DAMPER MOTORS WITH NEW DAMPER MOTORS.

DCV Laundry Room MAU Controls

Reference	Point Name
BACNET	BACnet Integration
BACNET	BACnet Integration
KEF1	KEF1 Fan Start/Stop
KEF1	KEF1 Fan Start/Stop
KEF1F	KEF1 Fan VFD Fault
KEF1F	KEF1 Fan VFD Fault
KEF1FB	KEF1 Fan Button
KEF1FB	KEF1 Fan Button
KEF1LB	KEF1 Lights Button
KEF1LB	KEF1 Lights Button
KEF1PTB	KEF1 Prep Time Button
KEF1PTB	KEF1 Prep Time Button
KEF1RMT	KEF1 Space/Room Temp
KEF1RMT	KEF1 Space/Room Temp
KEF1S	KEF1 Fan VFD Speed Command
KEF1S	KEF1 Fan VFD Speed Command
KEF1SAT	KEF1 Supply Air Temp
KEF1SAT	KEF1 Supply Air Temp
KEF1ST	KEF1 Fan VFD Fault
KEF1ST	KEF1 Fan VFD Fault
KEF1VFD	KEF1 Variable Frequency Drive Control Integration
KEF1VFD	KEF1 Variable Frequency Drive Control Integration
KEF1WB	KEF1 Wash Button
KEF1WB	KEF1 Wash Button
MAU1	MAU1 Fan Start/Stop
MAU1	MAU1 Fan Start/Stop
MAU1AFDP	MAU1 Air Filter Differential Pressure
MAU1AFDP	MAU1 Air Filter Differential Pressure
MAU1CCT	MAU1 Cooling Coil Air Temp
MAU1CCT	MAU1 Cooling Coil Air Temp
MAU1CCV	MAU1 Cooling Coil Valve
MAU1CCV	MAU1 Cooling Coil Valve
MAU1CCVF	MAU1 Cooling Coil Valve Feedback
MAU1CCVF	MAU1 Cooling Coil Valve Feedback
MAU1ESWC	MAU1 End Switch on Closed
MAU1ESWC	MAU1 End Switch on Closed
MAU1ESWO	MAU1 End Switch on Open
MAU1ESWO	MAU1 End Switch on Open
MAU1F	MAU1 Suply Air Fan VFD Fault
MAU1F	MAU1 Suply Air Fan VFD Fault
MAU1FRZ	MAU1 Freeze Stat Safety
MAU1FRZ	MAU1 Freeze Stat Safety
MAU1LSP	MAU1 Low Static Saftey
MAU1LSP	MAU1 Low Static Saftey
MAU1OAID	MAU1 Outside Air Isolation Damper
MAU1OAID	MAU1 Outside Air Isolation Damper
MAU1OAT	MAU1 Outside Air Temp
MAU1OAT	MAU1 Outside Air Temp
MAU1PHT	MAU1 Preheat Temp
MAU1PHT	MAU1 Preheat Temp
MAU1PHV	MAU1 Preheating Valve
MAU1PHV	MAU1 Preheating Valve
MAU1PHVF	MAU1 Preheating Valve Feedback
MAU1PHVF	MAU1 Preheating Valve Feedback
MAU1S	MAU1 Fan VFD Speed Command
MAU1S	MAU1 Fan VFD Speed Command
MAU1SAT	MAU1 Supply Air Temp
MAU1SAT	MAU1 Supply Air Temp
MAU1SSD	MAU1 Supply Air Smoke Detector
MAU1SSD	MAU1 Supply Air Smoke Detector
MAU1ST	MAU1 Fan VFD Fault
MAU1ST	MAU1 Fan VFD Fault
MAU1VFD	MAU1 Variable Frequency Drive Control Integration
MAU1VFD	MAU1 Variable Frequency Drive Control Integration

MAKE UP AIR UNIT CONTROL PERFORMED BY THE BAS CONTRACTOR AS FOLLOWS:
(CONTROLS FOR E-AHU-1-A5)

ZONE OCCUPANCY:
THE UNIT WILL RUN WHENEVER THE GREASE EXHAUST FAN, GEF-K1, TURNS ON. BOTH FANS ARE TO BE CONNECTED VIA MODBUS CONNECTION AND BE INTERLOCKED. SYSTEM TO BE MONITORED VIA BMS SYSTEM ON SITE. AHU FAN TO PROVIDE THE SAME CFM AS THE EXHAUST FAN TO MAINTAIN A NEUTRAL PRESSURE IN THE LAUNDRY ROOM.

SUPPLY AIR SMOKE DETECTION:
THE MAU SHALL SHUT DOWN AND THE BAS GENERATE AN ALARM ON THE BAS UPON RECEIVING A SUPPLY AIR SMOKE DETECTOR STATUS.

STATIC SAFETY:
THE MAU SHALL SHUT DOWN ON A LOW OR HIGH STATIC SAFTEY TRIP AND THE BAS GENERATE AN ALARM ON THE BAS. THE LOW STATIC SAFETY SHALL BE INITIALLY SET AT 2.0"W.C. (ADJ.) AND THE LOW STATIC SAFETY SHALL BE INITIALLY SET AT 2.0"W.C. (ADJ.). THE TAB CONTRACTOR SHALL FINAL ADJUST STATIC SAFETIES TO ADEQUATLEY PROTECT THE MAU AND ASSOCIATED DUCTWORK.

FREEZE PROTECTION:
THE MAKE UP AIR UNIT SHALL SHUT DOWN AND GENERATE AN ALARM UPON A FREEZESTAT TRIPPING. FREEZE STAT IS TO BE SET TO TRIP AT 38°F (ADJ.). IF THE BUILDING HEATING WATER PUMPS ARE OFF, THEY MUST BE INITIATED ON AND CONTROL SYSTEMS PRESSURES AS NORMAL WHEN A FREEZE STAT IS TRIPPED.

FILTER DIFFERENTIAL PRESSURE MONITOR:
THE CONTROLLER SHALL MONITOR THE DIFFERENTIAL PRESSURE ACROSS THE AIR FILTER.
ALARMS SHALL BE PROVIDED AS FOLLOWS:
FILTER CHANGE REQUIRED - FILTER DIFFERENTIAL PRESSURE EXCEEDS A USER DEFINABLE LIMIT (ADJ.) AS PER THE FILTER MANUFACTURER RECOMMENDATIONS.

SUPPLY AIR TEMPERATURE:
THE CONTROLLER SHALL MONITOR THE SUPPLY AIR TEMPERATURE.
ALARMS SHALL BE PROVIDED AS FOLLOWS:
HIGH SUPPLY AIR TEMP - IF THE SUPPLY AIR TEMPERATURE IS GREATER THAN 85°F (ADJ.).
LOW SUPPLY AIR TEMP - IF THE SUPPLY AIR TEMPERATURE IS LESS THAN 45°F (ADJ.)

SUPPLY AIR DUCT STATIC PRESSURE CONTROL:
THE CONTROLLER SHALL MEASURE DUCT STATIC PRESSURE AND MODULATE THE SUPPLY FAN VFD SPEED TO MAINTAIN A DUCT STATIC PRESSURE SETPOINT. THE SPEED SHALL NOT DROP BELOW 33% (ADJ.).
• THE INITIAL DUCT STATIC PRESSURE SETPOINT SHALL BE 1.0IN H2O (ADJ.).
ALARMS SHALL BE PROVIDED AS FOLLOWS:
• HIGH SUPPLY AIR STATIC PRESSURE: IF THE SUPPLY AIR STATIC PRESSURE IS 25% (ADJ.) GREATER THAN SETPOINT.
• LOW SUPPLY AIR STATIC PRESSURE: IF THE SUPPLY AIR STATIC PRESSURE IS 25% (ADJ.) LESS THAN SETPOINT.
• SUPPLY FAN VFD FAULT

CONTROL MODE - SUPPLY AIR TEMPERATURE SETPOINTS AND MODES
THE BAS SHALL MONITOR THE SUPPLY AIR TEMPERATURE AND SHALL MAINTAIN A SUPPLY AIR TEMPERATURE SETPOINT BASED ON THE MAU ENTERING OUTSIDE AIR TEMPERATURE. THE MAU CONTROL MODES SHALL BE AS FOLLOWS:
• SUPPLY AIR TEMPERATURE COOLING SETPOINT AND COOLING MODE WHEN THE OUTSIDE AIR TEMPERATURE IS GREATER THAN 65°F (ADJ.) THE SUPPLY TEMPERATURE SETPOINT SHALL BE IS 65°F (ADJ.).
• SUPPLY AIR TEMPERATURE HEATING SETPOINT AND HEATING MODE WHEN THE OUTSIDE AIR TEMPERATURE IS LESS THAN 60°F (ADJ.) THE SUPPLY TEMPERATURE SETPOINT SHALL BE 60°F (ADJ.).
• DEADBAND MODE - THERE SHALL BE A 5°F DEADBAND BETWEEN HEATING AND COOLING AT A MINIMUM. THIS SHALL BE THE DEADBAND WHEN THE OUTSIDE AIR IS BELOW 65°F AND ABOVE 60°F WHEN NO COOLING OR HEATING IS OPERABLE.

THE TAB CONTRACTOR SHALL CONFIRM PERFORMANCE OF THE MAU AND VALIDATE PROPER CONTROL WITH ALL DETERMINED SETPOINT'S. THE BAS CONTRACTOR SHALL SET THE COOLING AND HEATING SUPPLY AIR SETPOINT LIMITS ACCORDINGLY AND FINAL ADJUST PER THE NEEDS OF THE KITCHEN CONTROLS NEEDS DURING START UP AND COMMISSIONING.

COOLING MODE - COOLING COIL VALVE CONTROL THE CONTROLLER SHALL MEASURE THE SUPPLY AIR TEMPERATURE AND MODULATE THE COOLING COIL VALVE TO MAINTAIN ITS SUPPLY AIR COOLING TEMPERATURE SETPOINT. THE OWNER SHALL BE ABLE TO SELECT WHICH MODE THEY WOULD LIKE THE ENERGY VALVE TO OPERATE VIA THE BAS GRAPHICS, BEING FLOW CONTROL MODE, POWER CONTROL MODE, OR POSITON MODE. THE DEFAULT CONTROL MODE FOR THE BELIMO ENERGY VALVE SHALL BE PRESSURE INDEPENDENT FLOW CONTROL WITH DELTA T MANAGEMENT ENABLED. THE TAB, CX, AND BAS CONTRACTOR SHALL VERIFY THE ENERGY VALVE IS PROPERLY SET UP AND PERFORMING TO THE PRESSURE INDEPENDENT FLOW CONTROL WITH DELTA T MANAGEMENT ENABLED.

THE COOLING SHALL BE ENABLED WHENEVER:
· THE SUPPLY TEMPERATURE IS ABOVE SUPPLY AIR COOLING TEMPERATURE SETPOINT.
· AND THE FAN STATUS IS ON.
· AND THE HEATING COIL VALVE IS CLOSED.
THE COOLING COIL VALVE SHALL OPEN 100% WHENEVER THE FREEZESTAT IS ON, AND REMAIN 100% UNTIL THE ASSOCIATED FREEZE STAT ALARM IS CLEARED.

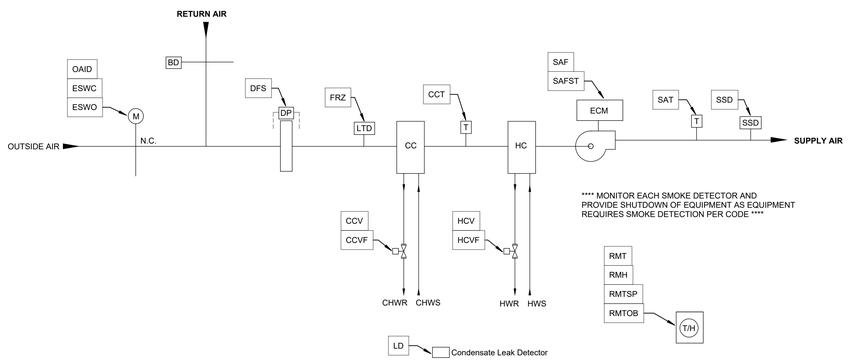
HEATING MODE - HEATING COIL CONTROL
THE CONTROLLER SHALL MEASURE THE SUPPLY AIR TEMPERATURE AND MODULATE THE HEATING COIL VALVE TO MAINTAIN ITS SUPPLY AIR HEATING TEMPERATURE SETPOINT.

THE HEATING COIL SHALL BE ENABLED WHENEVER:
· THE SUPPLY AIR TEMPERATURE IS BELOW SUPPLY AIR HEATING TEMPERATURE SETPOINT.
· AND THE FAN STATUS IS ON.
· AND THE COOLING COIL VALVE IS CLOSED.

THE HEATING COIL VALVE SHALL OPEN 100% WHENEVER THE FREEZESTAT IS ON, AND REMAIN 100% UNTIL THE ASSOCIATED FREEZE STAT ALARM IS CLEARED.

**NOTE THAT MAKEUP AIR FOR THE ACTION STATION KITCHEN HOODS IS SUPPLIED AS TRANSFER AIR FROM THE DINING AREA AND THERE IS NO MAKEUP AIR DUCTED TO THESE HOODS

1 DCV KITCHEN MAU AND KEF CONTROLS (TYPICAL OF EACH)
NOT TO SCALE



FAN COIL UNIT - HC/CC CONTROLS POINTS

Reference	Point Name
CCT	Supply Air Temp
CCVF	Cooling Coil Valve Feedback
HCVF	Heating Coil Valve Feedback
RMH	Space/Room Humidity
RMT	Space/Room Temp
RMTSP	Space/Room Temp Local Setpoint Adjust
SAT	Supply Air Temp
CCV	Cooling Coil Valve
HCV	Heating Coil Valve
DFS	Dirty Filter Switch Alarm
ESWC	End Switch on Closed
ESWO	End Switch on Open
FRZ	Freeze Stat Safety
LD	Leak Detector
RMTOB	Space/Room Temp OCC Override Button
SAFST	Suply Air Fan Status
SSD	Supply Air Smoke Detector
OAID	Outside Air Isolation Damper
SAF	Suply Air Fan Start/Stop

2 FAN COIL UNIT WITH REHEAT CONTROLS (TYPICAL OF EACH)
NOT TO SCALE

Fan Coil Unit - Heating and Cooling Coils (Typical of each)

Run Conditions - Scheduled:
The unit shall run according to a owner/operator definable time schedule in the following modes:
-Occupied Mode: The unit shall maintain
A 75°F (adj.) cooling setpoint.
A 70°F (adj.) heating setpoint.
-Unoccupied Mode (night setback): The unit shall maintain
A 85°F (adj.) cooling setpoint.
A 55°F (adj.) heating setpoint.

Alarms shall be provided as follows:
• High Zone Temp: If the zone temperature is greater than the cooling setpoint by 2°F (adj.).
• Low Zone Temp: If the zone temperature is less than the heating setpoint by 2°F (adj.).

The occupant shall be able to adjust the zone temperature heating and cooling setpoints at the zone sensor. The BAS shall be able to limit the setpoint adjustment range from the BAS. The initial local setpoint adjustment limits are +/- 4°F (adj.) from design setpoints listed above in the occupied mode.

Zone Unoccupied Override:
A timed local override control shall allow an occupant to override the schedule and place the unit into an occupied mode for an adjustable period of time. At the expiration of this time, control of the unit shall automatically return to the schedule.

Freeze Protection:
The unit shall shut down and generate an alarm upon receiving a freezestat status. Freeze Stat is to be set to trip at 38°F (adj.)

Smoke Detection:
The unit shall shut down and generate an alarm upon receiving a smoke detector status (as required by code).

Fan:
The fan shall run anytime the unit is commanded to run, unless shutdown on safeties.

Cooling Coil Valve:
The controller shall measure the zone temperature and modulate the cooling coil valve to maintain its cooling setpoint.

The cooling shall be enabled whenever:
• The zone temperature is above cooling setpoint.
• AND the fan is on.
The cooling coil valve shall open whenever the freezestat is on.

Heating Coil Valve:
The controller shall measure the zone temperature and modulate the heating coil valve to maintain its heating setpoint.
The heating shall be enabled whenever:
• The zone temperature is below heating setpoint.
• AND the fan is on.
The heating coil valve shall open whenever the freezestat is on.

Minimum Outside Air Ventilation:
The outside air damper shall be open to a position set by the TAB contractor (adj.) to maintain the design occupied OA cfm during building occupied hours and be closed during unoccupied hours. The TAB contract shall adjust the manual balancing damper as necessary to achieve design OA cfm requirements.

Filter Differential Pressure Monitor:
The controller shall monitor the differential pressure across the filter.
Alarms shall be provided as follows:
• Filter Change Required: Filter differential pressure exceeds the filer manufacturer's limit (adj.) for clean filter tolerances.

Discharge Air Temperature:
The controller shall monitor the discharge air temperature.
Alarms shall be provided as follows:
• Low Discharge Air Temp: If the discharge air temperature is less than 40°F (adj.).

Fan Status:
The controller shall monitor the fan status via a current sensing relay.
Alarms shall be provided as follows:
• Fan Failure: Commanded on, but the status is off.
• Fan in Hand: Commanded off, but the status is on.
• Fan Runtime Exceeded: Fan status runtime exceeds the manufacturer's limit (adj.) for proper maintenance intervals.

Leak Detection:
The controller shall monitor the leak detector and shutdown the Fan and close the HW and CHW valves upon sensing a leak. When leak detector is normal, the FCU shall go back to the scheduled operation.
Alarms shall be provided as follows:
• Leak Detection: Leak present and leak detector is tripped.

D. SCOTT BROWN 89097 LICENSED PROFESSIONAL ENGINEER
1-30-2025

TREANOR
2554 Elm Street, Suite 200
Dallas, TX 75226
Office: 214.310.1018
www.TreanorHL.com

 Purdy - McGuire
Mechanical - Electrical Engineers
17300 North Dallas Parkway
Suite 3000
Dallas, TX 75248-1147
Firm Registration # F-1511
Tel: 972/239-5357
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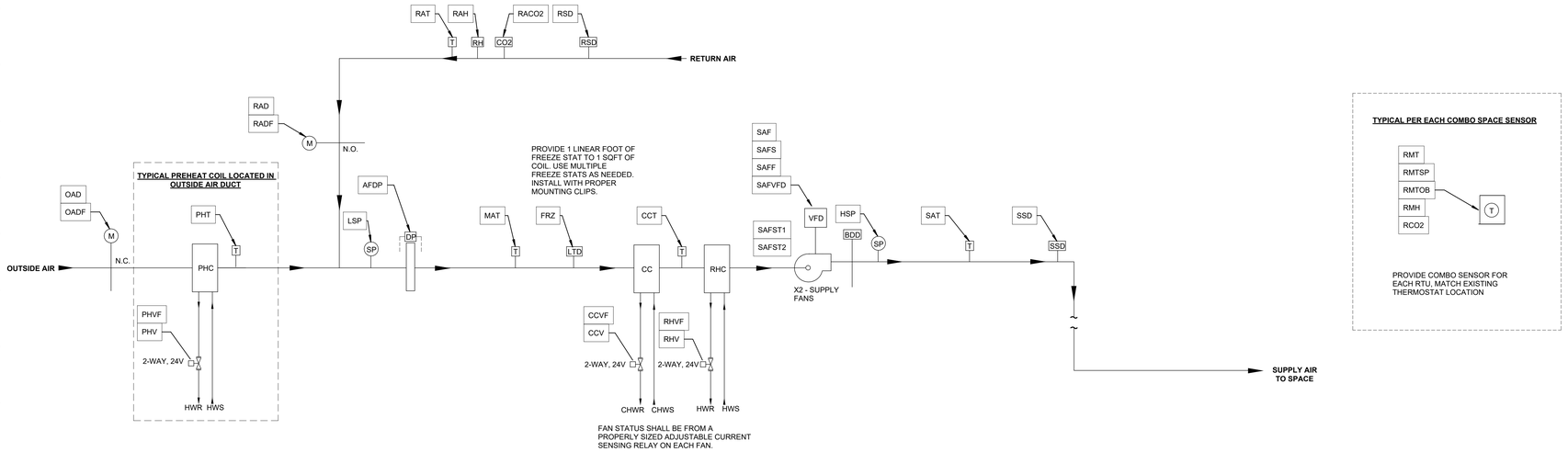
CONTROLS DETAILS - MAU & FCU

TreanorHL NO. HE0569.2302.01



Single Zone Air Handling Unit (Preheat/Chilled Water/Hot Water Reheat):

General:
- The unit is to have supply fan, hot water coil, chilled water coil and outside air damper. The Control System Contractor to provide a dedicated stand-alone DDC controller for each unit. Each DDC controller shall be located in a NEMA 1 enclosure near the unit in the corresponding mechanical room. Each DDC controller should have battery back-up sufficient to retain any controls databases or algorithm, and ensure controller uptime on a potential loss of primary power. Each DDC controller serving a AHU should have its own UPS to ensure smooth transitions to and from emergency power and allow for proper execution of programs and control.

Unit Enable/Disabling:
- The EMCS optimum start/stop schedule defines the occupied/unoccupied mode of operation.

Fan Control:
- The supply fan runs continuously in occupied Mode.
- Cooling mode: Supply fan shall operate at 50% of maximum airflow (VFD speed to be determined by TAB) at start up and if cooling set point temperature can not be maintained or acheived then the fan shall operate at 100% maximum airflow.
- Heating mode: Supply fan shall operate at 50% of maximum airflow (VFD speed to be determined by TAB) at start up and if heating set point temperature can not be maintained or acheived then the fan shall operate at 100% maximum airflow.

Temperature Control:
- Warm-up or Cool-down:
  - The EMCS determines the required warm-up or cool-down period based on the optimized start algorithm.
  - Upon enabling the unit, the unit heats and cools as required to maintain the occupied heating and cooling setpoints (initially 70°F heating, 74°F cooling) as sensed by a space temperature sensor.
  - During warm-up, the supply air discharge temperature is 90°F (adjustable). During cool-down, the supply air temperature is 55°F (adjustable).
  - Once the occupied setpoint temperature threshold has been reached, the EMCS switches the unit to the occupied mode.
- Occupied Mode:
  - ReHeating Coil: The heating valve modulates to maintain to maintain occupied mode heating space setpoint temperature. Heat coil disables when ambient outside air temperature is above 65°F (adj.) or if unit is not in dehumidification mode (reheat coil to be enabled if in dehumidification mode.)
  - Cooling Coil: The chilled water valve modulates to maintain occupied mode cooling space setpoint temperature.
- Unoccupied Mode:
  - ReHeating Coil: The heating valve modulates to maintain to maintain unoccupied modeheating space setpoint temperature. Heat coil disables when ambient outside air temperature is above 65°F (adj.) or if unit is not in dehumidification mode (reheat coil to be enabled if in dehumidification mode.)
  - Cooling Coil: The chilled water valve modulates to maintain unoccupied mode cooling space setpoint temperature.

Outside Air Damper Control:
- Warm-up or Cool-down: The outside air damper to be closed.
- Occupied mode:
  - When in the occupied mode AND when GEF-1 is running, the DDC controller shall open the OA damper(s) to the Design MAX Ventilation CFM position (adj.). TAB shall provide the damper position that matches the MAX Design Ventilation CFM required.
  - When in the occupied mode AND when GEF-1 is NOT running, the DDC controller shall back the OA damper(s) down to the Design MIN Ventilation CFM position (adj.). TAB shall provide the damper position that matches the MIN Design Ventilation CFM required. The OA damper shall not be allowed to drop below the minimum position when in occupied moad.
- Unoccupied mode:
  - The outside air damper shall close and the return air damper shall open when the unit is off oe in unoccupied mode.

Dehumidification Mode:
- Dehumidification mode activates when the return air relative humidity is above 60% (adjustable) or any associated room relative humiditysensor is above 60% (adj.).
- Dehumidification mode temporarily disables the cooling supply air temperature reset and maintains constant cooling coil discharge air temperature at 47°F (adj.). Economizer mode is disabled. Reheat coil is to be enabled.
- Dehumidification disables when return air relative humidity is 2% (adj.) below humidity setpoint.

Alarms shall be provided as follows:
- Relief Fan Failure: Commanded on, but the status is off.
- Relief Fan in Hand: Commanded off, but the status is on.
- Relief Fan Runtime Exceeded for Maintenance: Status runtime exceeds a user definable limit (adj.).
- Relief Fan VFD Fault.

Safeties:
- Freeze Protection:
  - When the outside air (OA) temperature drops below 36°F (adjustable), chilled water and hot water valves open to 20% if not already open. And At least one chilled water pump and one hot water pump shall run.
  - When the OA temperature rises 2°F above freeze protection setpoint for one (1) hour, the reverse occurs.
- Freeze Stat:
  - Provide a temperature low limit switch to disable the unit and close all dampers when it senses that the air temperature is below 36°F (adjustable).
- Low Static Shutdown:
  - The unit shall shut down and generate an alarm upon receiving a low static shutdown signal. Low static safety switches shall be initially set at 3"w.c (adj.) and verified by the TAB contractor.
- High Static Shutdown:
  - The unit shall shut down and generate an alarm upon receiving a high static shutdown signal. High static safety switches shall be initially set at 4"w.c (adj.) and verified by the TAB contractor.
- Return Air Smoke Detection:
  - The unit shall shut down and generate an alarm upon receiving a return air smoke detector status.
- Supply Air Smoke Detection:
  - The unit shall shut down and generate an alarm upon receiving a supply air smoke detector status.
- Return and Supply Fan VFD Fault Alarm:
  - The controller shall generate an alarm upon receiving a return or supply air VFD fault alarm. The VFD fault alarm shall be a hardwired input from the VFD to a DDC controller.

Alarms :
- Supply Fans Failure: Commanded on, but the status is off.
- Supply Fans in Hand: Commanded off, but the status is on.
- Supply Fans Runtime Exceeded for Maintenance: Status runtime exceeds a user definable limit (adj.).
- High Supply Air Static Pressure: If the supply air static pressure is 25% (adj.) greater than setpoint.
- Low Supply Air Static Pressure: If the supply air static pressure is 25% (adj.) less than setpoint.
- Supply Fan VFD Fault.
- Supply Fan VFD in Bypass Alarm.
- Filter Differential Pressure Monitor: The controller shall monitor the differential pressure across the final filter. Alarms shall be provided as follows:
  - Filter Change Required: Filter differential pressure exceeds a user definable limit (adj.) as per the filter manufacturer recommendations.
- Mixed Air Temperature: The controller shall monitor the mixed air temperature and use as required for economizer control. Alarms shall be provided as follows:
  - High Mixed Air Temp: If the mixed air temperature is greater than 90°F (adj.).
  - Low Mixed Air Temp: If the mixed air temperature is less than 45°F (adj.).
- Return Air Carbon Dioxide (CO2) Concentration Monitoring: The controller shall measure the return air CO2 levels. Alarms shall be provided as follows:
  - High Return Air Carbon Dioxide Concentration: If the return air CO2 concentration is greater than 1200ppm (adj.) when in the unit is running.
- Return Air Humidity: The controller shall monitor the return air humidity and use as required for economizer control. Alarms shall be provided as follows:
  - High Return Air Humidity: If the return air humidity is greater than 70% (adj.).
  - Low Return Air Humidity: If the return air humidity is less than 35% (adj.).
- Return Air Temperature: The controller shall monitor the return air temperature and use as required for setpoint control or economizer control. Alarms shall be provided as follows:
  - High Return Air Temp: If the return air temperature is greater than 90°F (adj.).
  - Low Return Air Temp: If the return air temperature is less than 45°F (adj.).
- Supply Air Temperature: The controller shall monitor the supply air temperature. Alarms shall be provided as follows:
  - High Supply Air Temp: If the supply air temperature is greater than 120°F (adj.).
  - Low Supply Air Temp: If the supply air temperature is less than 45°F (adj.)

BUILDING AUTOMATION CONTRACTOR TO INSTALL AND WIRE THE ROOM TEMP, ROOM HUMIDITY, AND RETURN AIR CO2 SENSOR. SEE DRAWING M-601 FOR EXISTING AHU SCHEDULE FOR ADDITIONAL INFORMATION.

FOR EXISTING CHILLED WATER MOTORIZED WATER VALVE AND EXISTING HOT WATER MOTORIZED WATER VALVE SHOWN ON THIS DIAGRAM, REPLACE WITH NEW MOTORIZED VALVES (24V) (WHOLE NEW VALVE INCLUDING VALVE HOUSING/BODY AND VALVE ACTUATOR). REPLACE EXISTING SUPPLY AIR FAN VFD WITH NEW VFD.

FOR ALL OTHER DEVICES SHOWN ON THIS DIAGRAM, (SUCH AS BMS TEMPERATURE SENSORS, PRESURE SENSORS, THERMOSTATS, ETC),, IF DEVICE SHOWN IS EXISTING, REPLACE WITH NEW DEVICE, AND IF DEVICE SHOWN DOES NOT EXIST FOR AHU, PROVIDE A NEW DEVICE FOR AHU. REPLACE ALL EXISTING DAMPER MOTORS WITH NEW DAMPER MOTORS.

PROVIDE UNIT WITH NEW MODULATING OUTSIDE AIR DAMPER.

ALL DAMPER MOTORS AND ALL MOTORIZED WATER VALVES SHOWN ON THIS SHEET ARE TO BE 24 V.

ALL POINTS SHOWN ON THIS DIAGRAM TO BE NEW POINTS. EXISTING BMS CONTROL SYSTEM IS BE REPLACED WITH NEW CONTROL SYSTEM.

CHILLED WATER AIR HANDLING UINIT CONTROLS SINGLE ZONE

REFERENCE	POINT NAME	ANALOG INPUT	ANALOG OUTPUT	BINARY INPUT	BINARY OUTPUT	INTEGRATION	TREND ON BAS	SHOW ON BAS GRAPHIC
AFDP	Filter Alarm			X			X	X
CCT	Cooling Coil Air Temperature	X					X	X
CCV	Chilled Water Valve	X					X	X
CCVF	Cooling Coil Valve Feedback	X					X	X
FRZ	Freeze Status Alarm			X			X	X
HSP	High Static Alarm			X			X	X
LSP	Low Static Saftey			X			X	X
MAT	Mixed Air Temp	X					X	X
OAD	Outside Air Damper		X				X	X
OADF	Minimum Outside Air Damper Feedback	X					X	X
PHT	Preheat Supply Air Temperature (PreCool)	X					X	X
PHV	Hot Water Valve		X				X	X
PHVF	Preheating Valve Feedback	X					X	X
RACO2	Return Air CO2	X					X	X
RAD	Return Air Damper		X				X	X
RADF	Return Air Damper Feedback	X					X	X
RAH	Return Air Humidity	X					X	X
RAT	Return Air Temp	X					X	X
RCO2	Room CO2	X					X	X
RHV	Reheat Hot Water Valve		X				X	X
RHVF	Reheating Valve Feedback	X					X	X
RMH	Space/Room humidity	X					X	X
RMT	Space/Room Temp	X					X	X
RMTSP	Space/Room Temp Local Setpoint Adjust	X					X	X
RSD	Return Air Smoke Detector			X			X	X
SAF	Fan Start/Stop Command				X		X	X
SAFF	Supply Fan VFD Fault			X			X	X
SAFS	Fan VFD Speed		X				X	X
SAFST1	Supply Air Fan 1 Amps Status	X					X	X
SAFST2	Supply Air Fan 2 Amps Status	X		X			X	X
SAFVFD	Supply Air Fan Variable Frequency Drive Control Integration					X	X	X
SAT	Unit Discharge Air temperature	X					X	X
SSD	Supply Air Smoke Detector			X			X	X
RMTOB	Space/Room Temp OCC Override Button			X			X	X

1 SINGLE-ZONE CHILLED WATER AHU
NOT TO SCALE

D. SCOTT BROWN
89097
LICENSED
PROFESSIONAL ENGINEER
1-30-2025

TREANOR
2554 Elm Street, Suite 200
Dallas, Texas 75226
Office: 214.310.1018
www.TreanorHL.com

PM/ JOB NO. 23037.002
PROJECT MGR. SCOTT BROWN,
MITCHELL HENTON
MECHANICAL MITCHELL HENTON
PLUMBING CHRIS WOODYARD
ELECTRICAL CHRIS WOODYARD

UNIVERSITY OF NORTH TEXAS
KERR HALL INTERIOR RENOVATION

1413 West Maple St
Denton, TX 76201

UNT UNIVERSITY OF NORTH TEXAS

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CONTROLS DETAILS - CHW AHU SINGLE-ZONE

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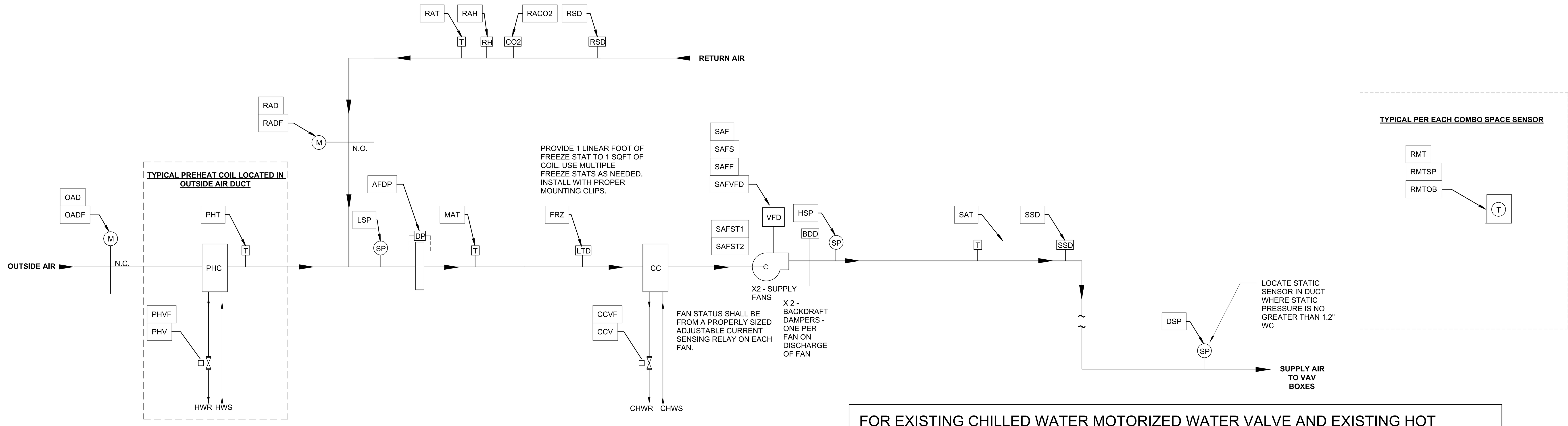


1 MULTI-ZONE CHILLED WATER VAV AHU
NOT TO SCALE

Variable Air Volume Air Handling Unit (Preheat/Chilled Water/ Hot Water Reheat):

General:
- The unit is to have supply fan, hot water coil, chilled water coil and outside air damper. The Control System Contractor to provide a dedicated stand-alone DDC controller for each unit. Each DDC controller shall be located in a NEMA 1 enclosure near the unit in the corresponding mechanical room. Each DDC controller should have battery back-up sufficient to retain any controls databases or algorithm, and ensure controller uptime on a potential loss of primary power. Each DDC controller serving a AHU should have its own UPS to ensure smooth transitions to and from emergency power and allow for proper execution of programs and control.

Unit Enable/Disabling:
- The EMCS optimum start/stop schedule defines the occupied/unoccupied mode of operation.
- During unoccupied times, a minimum number of associated VAV boxes, 40% (adjustable), to request the AHU before AHU operates.

Fan Control:
- The unit operates when the associated VAV boxes it serves are in occupied mode and operational.
- The supply fan VFD is controlled by a static pressure transducer 2/3rds the way down the longest supply duct run. If the static pressure is below setpoint, the supply fan speed increases. If the static pressure is above setpoint, the supply fan speed decreases.
- Provide a static pressure reset algorithm with minimum and maximum limits of 0.5 inches to 1.2 inches (adj.). VAV boxes to be polled for damper position. Static pressure slowly decreases until 25% (adj.) of the VAV box damper positions are at least 90% open.

Temperature Control:
- Warm-up or Cool-down:
  - The EMCS determines the required warm-up or cool-down period based on the optimized start algorithm.
  - Upon enabling the unit, the unit heats and cools as required to maintain the occupied heating and cooling setpoints (initially 70°F heating, 74°F cooling) as sensed by a space temperature sensor.
  - During warm-up, the supply air discharge temperature is 90°F (adj.). During cool-down, the supply air temperature is 55°F (adj.).
  - Once the occupied setpoint temperature threshold has been reached, the EMCS switches the unit to the occupied mode.
- Occupied Mode:
  - Preheat Coil: The preheat valve modulates to maintain preheat discharge air temperature of 40°F (adj.). Preheat coil disables when ambient outside air temperature is above 40°F (adj.).
  - ReHeating Coil: The heating valve modulates tomaintain unit discharge supply air temperature of 55°F (adj.). Heat coil disables when ambient outside air temperature is above 55°F (adj.) or if unit is not in dehumidification mode (reheat coil to be enabled if in dehumidification mode.)
  - Cooling Coil: The chilled water valve modulates to initially maintain unit discharge supply air temperature of 55°F (adj.). Provide a linear supply air temperature reset algorithm between:
    - 55°F (adj.) supply air temperature supply when outside air temperature is at or above 80°F (adj.).
    - 60°F (adj.) supply air temperature supply when outside air temperature is at or below 50°F (adj.).
- Unoccupied Mode:
  - The EMCS enables the unit as required to maintain the unoccupied heating and cooling setpoints (initially 60°F heating and 80°F cooling) as sensed by the VAV box space temperature sensors. A minimum number of associated VAV boxes, 40% (adj.), to request the AHU before AHU operates.

Outside Air Damper Control:
- Warm-up or Cool-down: The outside air damper to be closed.
- Occupied mode:
  - When in the occupied mode AND when GEF-1 is running, the DDC controller shall open the OA damper(s) to the Design MAX Ventilation CFM position (adj.). TAB shall provide the damper position that matches the MAX Design Ventilation CFM required.
  - When in the occupied mode AND when GEF-1 is NOT running, the DDC controller shall back the OA damper(s) down to the Design MIN Ventilation CFM position (adj.). TAB shall provide the damper position that matches the MIN Design Ventilation CFM required. The OA damper shall not be allowed to drop below the minimum position when in occupied moad.
- Unoccupied mode:
  - The outside air damper shall close and the return air damper shall open when the unit is off oe in unoccupied mode.

Dehumidification Mode:
- Dehumidification mode activates when the return air relative humidity is above 60% (adj.) or any associated room relative humiditysensor is above 60% (adj.).
- Dehumidification mode temporarily disables the cooling supply air temperature reset and maintains constant discharge air temperature at 47°F (adj.). Economizer mode is disabled.
- Dehumidification disables when return air relative humidity is 2% (adj.) below humidity setpoint.

Relief Fan Building Pressure Control:
- The relief fan shall run whenever the supply fan has a positive proof of run status on the BMS, and the unit is in economizer mode. The controller shall measure associated building static pressure and modulate the relief fan VFD speed to maintain a building static pressure setpoint of + 0.03 - 0.05 in H2O (adjustable). The relief fan VFD speed shall not drop below 20hz (adj.) when in operation.

Alarms shall be provided as follows:
- Relief Fan Failure: Commanded on, but the status is off.
- Relief Fan in Hand: Commanded off, but the status is on.
- Relief Fan Runtime Exceeded for Maintenance: Status runtime exceeds a user definable limit (adj.).
- Relief Fan VFD Fault.

Safeties:
- Freeze Protection:
  - When the outside air (OA) temperature drops below 36°F (adj.), chilled water and hot water valves open to 20% if not already open. And at least one chilled water pump and one hot water pump shall run.
  - When the OA temperature rises 2°F above freeze protection setpoint for one (1) hour, the reverse occurs.
- Freeze Stat:
  - Provide a temperature low limit switch to disable the unit and close all dampers when it senses that the air temperature is below 36°F (adj.).
- Low Static Shutdown:
  - The unit shall shut down and generate an alarm upon receiving a low static shutdown signal. Low static safety switches shall be initially set at 3”w.c (adj.) and verified by the TAB contractor.
- High Static Shutdown:
  - The unit shall shut down and generate an alarm upon receiving a high static shutdown signal. High static safety switches shall be initially set at 4”w.c (adj.) and verified by the TAB contractor.
- Return Air Smoke Detection:
  - The unit shall shut down and generate an alarm upon receiving a return air smoke detector status.
- Supply Air Smoke Detection:
  - The unit shall shut down and generate an alarm upon receiving a supply air smoke detector status.
- Return and Supply Fan VFD Fault Alarm:
  - The controller shall generate an alarm upon receiving a return or supply air VFD fault alarm. The VFD fault alarm shall be a hardwired input from the VFD to a DDC controller.

Alarms:
- Supply Fans Failure: Commanded on, but the status is off.
- Supply Fans in Hand: Commanded off, but the status is on.
- Supply Fans Runtime Exceeded for Maintenance: Status runtime exceeds a user definable limit (adj.).
- High Supply Air Static Pressure: If the supply air static pressure is 25% (adj.) greater than setpoint.
- Low Supply Air Static Pressure: If the supply air static pressure is 25% (adj.) less than setpoint.
- Supply Fan VFD Fault.
- Supply Fan VFD in Bypass Alarm.
- Filter Differential Pressure Monitor: The controller shall monitor the differential pressure across the final filter. Alarms shall be provided as follows:
  - Filter Change Required: Filter differential pressure exceeds a user definable limit (adj.) as per the filter manufacturer recommendations.
- Mixed Air Temperature: The controller shall monitor the mixed air temperature and use as required for economizer control. Alarms shall be provided as follows:
  - High Mixed Air Temp: If the mixed air temperature is greater than 90°F (adj.). Low Mixed Air Temp: If the mixed air temperature is less than 45°F (adj.).
- Return Air Carbon Dioxide (CO2) Concentration Monitoring: The controller shall measure the return air CO2 levels. Alarms shall be provided as follows:
  - High Return Air Carbon Dioxide Concentration: If the return air CO2 concentration is greater than 800ppm (adj.) when in the unit is running.
- Return Air Humidity: The controller shall monitor the return air humidity and use as required for economizer control. Alarms shall be provided as follows:
  - High Return Air Humidity: If the return air humidity is greater than 70% (adj.).
  - Low Return Air Humidity: If the return air humidity is less than 35% (adj.).
- Return Air Temperature: The controller shall monitor the return air temperature and use as required for setpoint control or economizer control. Alarms shall be provided as follows:
  - High Return Air Temp: If the return air temperature is greater than 90°F (adj.).
  - Low Return Air Temp: If the return air temperature is less than 45°F (adj.).
- Supply Air Temperature: The controller shall monitor the supply air temperature. Alarms shall be provided as follows:
  - High Supply Air Temp: If the supply air temperature is greater than 120°F (adj.).
  - Low Supply Air Temp: If the supply air temperature is less than 45°F (adj.)

FOR EXISTING CHILLED WATER MOTORIZED WATER VALVE AND EXISTING HOT WATER MOTORIZED WATER VALVE SHOWN ON THIS DIAGRAM, REPLACE WITH NEW MOTORIZED VALVES (24V) (WHOLE NEW VALVE INCLUDING VALVE HOUSING/BODY AND VALVE ACTUATOR). REPLACE EXISTING SUPPLY AIR FAN VFD WITH NEW VFD.

FOR ALL OTHER DEVICES SHOWN ON THIS DIAGRAM, (SUCH AS BMS TEMPERATURE SENSORS, PRESURE SENSORS, THERMOSTATS, ETC)., IF DEVICE SHOWN IS EXISTING, REPLACE WITH NEW DEVICE, AND IF DEVICE SHOWN DOES NOT EXIST FOR AHU, PROVIDE A NEW DEVICE FOR AHU. REPLACE ALL EXISTING DAMPER MOTORS WITH NEW DAMPER MOTORS.

PROVIDE UNIT WITH NEW MODULATING OUTSIDE AIR DAMPER.

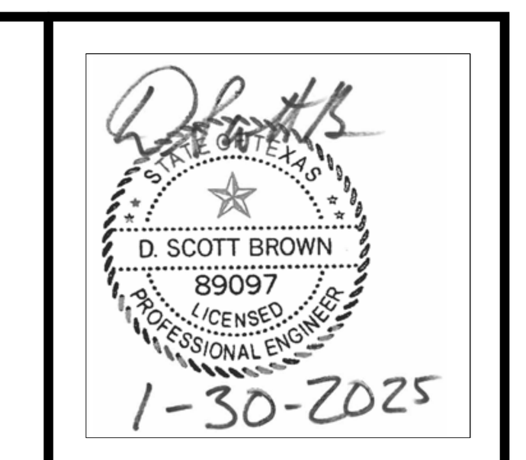
ALL POINTS SHOWN ON THIS DIAGRAM TO BE NEW POINTS. EXISTING BMS CONTROL SYSTEM IS BE REPLACED WITH NEW CONTROL SYSTEM.

BUILDING AUTOMATION CONTRACTOR TO INSTALL AND WIRE
THE ROOM TEMP, ROOM HUMIDITY, AND RETURN AIR CO2 SENSOR. SEE DRAWING M-601 FOR ROOFTOP UNIT SCHEDULE FOR
ADDITIONAL INFORMATION.

ALL DAMPER MOTORS AND ALL MOTORIZED WATER VALVES SHOWN ON THIS SHEET ARE TO BE 24 V.

CHILLED WATER AIR HANDLING UINIT CONTROLS MULTI-ZONE

REFERENCE	POINT NAME	ANALOG INPUT	ANALOG OUTPUT	BINARY INPUT	BINARY OUTPUT	INTEGRATION	TREND ON BAS	SHOW ON BAS GRAPHIC
AFDP	Filter Alarm			X			X	X
BSP	Building Static Pressure	X					X	X
CCV	Chilled Water Valve	X					X	X
CCVF	Cooling Coil Valve Feedback	X					X	X
DSP	Static Pressure Sensor			X			X	X
FRZ	Freeze Status Alarm			X			X	X
HSP	High Static Alarm			X			X	X
LSP	Low Static Saftey			X			X	X
MAT	Mixed Air Temp	X					X	X
OAD	Outside Air Damper		X				X	X
OADF	Minimum Outside Air Damper Feedback	X					X	X
PHT	Preheat Supply Air Temperature (PreCool)	X					X	X
PHV	Hot Water Valve		X				X	X
PHVF	Preheating Valve Feedback	X					X	X
RACO2	Return Air CO2	X					X	X
RAD	Return Air Damper		X				X	X
RADF	Return Air Damper Feedback	X					X	X
RAH	Return Air Humidity	X					X	X
RAT	Return Air Temp	X					X	X
RMT	Space/Room Temp	X					X	X
RMTSP	Space/Room Temp Local Setpoint Adjust	X					X	X
RSD	Return Air Smoke Detector			X			X	X
SAF	Fan Start/Stop Command				X		X	X
SAFF	Supply Fan VFD Fault			X			X	X
SAFS	Fan VFD Speed		X				X	X
SAFST1	Supply Air Fan 1 Amps Status	X					X	X
SAFST2	Supply Air Fan 2 Amps Status	X		X			X	X
SAFVFD	Supply Air Fan Variable Frequency Drive Control Integration					X	X	X
SAT	Unit Discharge Air temperature	X					X	X
SSD	Supply Air Smoke Detector			X			X	X
RMTOB	Space/Room Temp OCC Override Button			X			X	X



TREANOR
2554 Elm Street, Suite 200
Dallas, TX 75226
Office: 214.310.1018
www.TreanorHL.com

Purdy - McGuire
Mechanical - Electrical Engineers
17300 North Dallas Parkway
Suite 3000
Dallas, TX 75248-1147
Firm Registration # F-1511
Tel: 972/239-5357
Fax: 972/239-5231
www.purdy-mcguire.com

PMI JOB NO. 23037.002
PROJECT MGR. SCOTT BROWN, MITCHELL HENTON
MECHANICAL MITCHELL HENTON
PLUMBING CHRIS WOODYARD
ELECTRICAL JOHN KNOWLES

UNIVERSITY OF NORTH TEXAS
KERR HALL INTERIOR RENOVATION
1413 West Maple St
Denton, TX 76201

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REVISIONS

NO	DESCRIPTION	DATE

iM704

CONTROLS DETAILS - CHW AHU MULTI-ZONE

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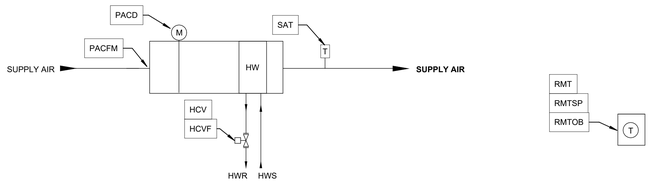


Variable Air Volume - VAV Box w/ Hot Water Reheat (Typical of each)

Run Conditions - Scheduled:
The unit shall run according to a user definable time schedule in the following modes:
Occupied Mode: The unit shall maintain
- A 75°F (adj.) cooling setpoint
- A 70°F (adj.) heating setpoint.

Day Unoccupied Mode: The unit shall maintain
- A 80°F (adj.) cooling setpoint
- A 65°F (adj.) heating setpoint.

Night Unoccupied Mode: The unit shall maintain
- A 85°F (adj.) cooling setpoint.
- A 55°F (adj.) heating setpoint.

Alarms shall be provided as follows:
- High Zone Temp: If the zone temperature is greater than the cooling setpoint by 2°F (adj.).
- Low Zone Temp: If the zone temperature is less than the heating setpoint by 2°F (adj.).

Zone Setpoint Adjust:
The occupant shall be able to adjust the zone temperature heating and cooling setpoints at the zone sensor.

Zone Unoccupied Override:
A timed local override control shall allow an occupant to override the schedule and place the unit into an occupied mode for an adjustable period of time. At the expiration of this time, control of the unit shall automatically return to the schedule.

Variable Volume Terminal Unit - Flow Control:
The unit shall maintain zone setpoints by controlling the airflow through one of the following:

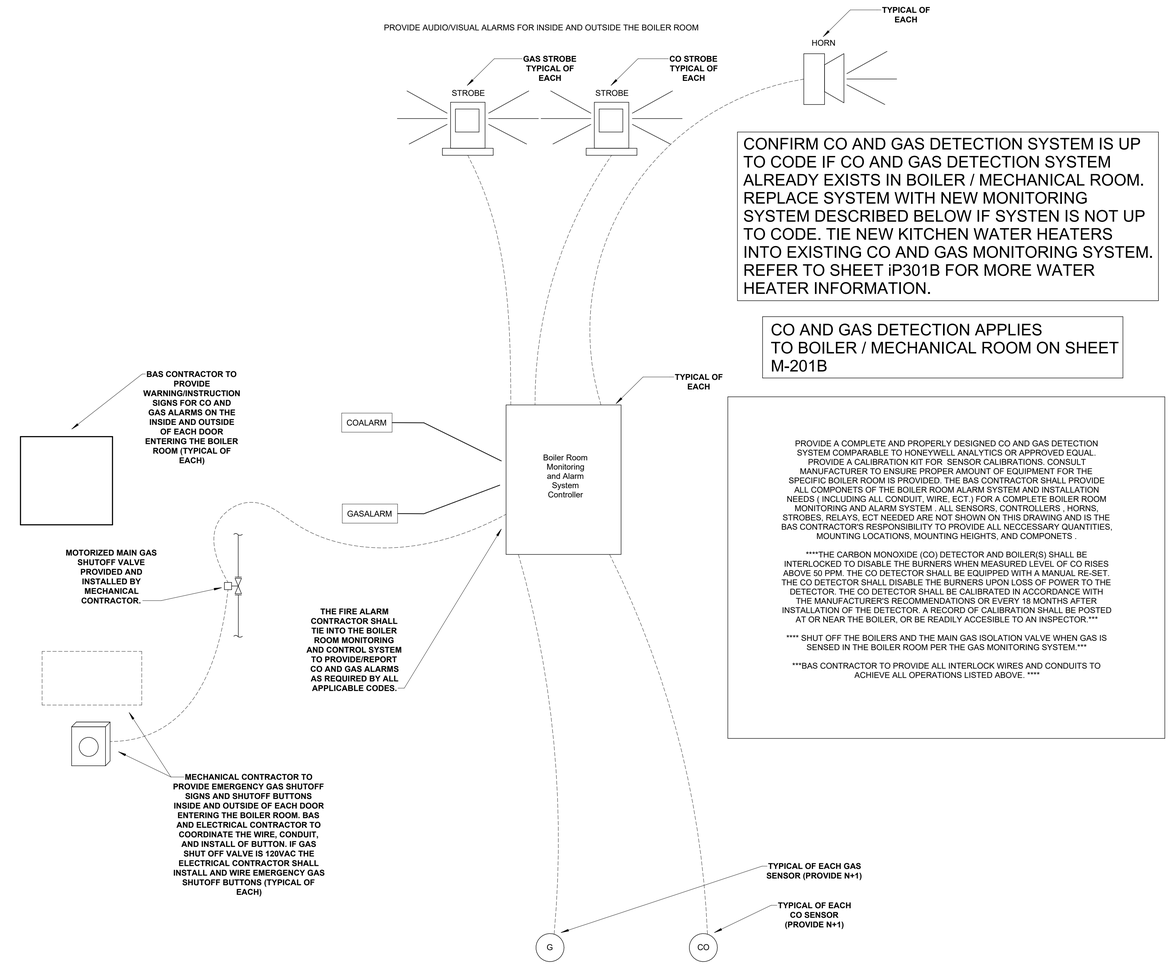
Occupied:
- When zone temperature is greater than its occupied cooling setpoint, the zone damper shall modulate between the minimum occupied airflow (adj.) and the maximum cooling airflow (adj.) until the zone is satisfied.
- When the zone temperature is less than the occupied cooling setpoint and above the occupied heating setpoint, the zone damper shall maintain the minimum required zone ventilation (adj.).
- When zone temperature is less than its occupied heating setpoint, the zone damper shall maintain the heating airflow (adj.) until the zone is satisfied.

Unoccupied:
- When zone temperature is greater than its unoccupied cooling setpoint, the zone damper shall modulate between the minimum occupied airflow (adj.) and the maximum cooling airflow (adj.) until the zone is satisfied.
- When the zone temperature is less than the unoccupied cooling setpoint and above the unoccupied heating setpoint, the zone damper shall maintain the minimum required zone ventilation (adj.).
- When zone temperature is less than its unoccupied heating setpoint, the zone damper shall maintain the heating airflow (adj.) until the zone is satisfied.

Heating Coil Valve:
The controller shall measure the zone temperature and modulate the heating coil valve to maintain its heating setpoint.
The heating shall be enabled whenever:
- The zone temperature is below heating setpoint.
- AND the fan is on.

Discharge Air Temperature:
The controller shall monitor the discharge air temperature.

1 VAV BOX W/ HEATING WATER REHEAT CONTROLS (TYPICAL OF EACH)
NOT TO SCALE



CO AND GAS DETECTION CONTROLS (TYPICAL OF EACH)
1/8" = 1'-0"

D. SCOTT BROWN
89097
LICENSED
PROFESSIONAL ENGINEER
1-30-2025

TREANOR
2554 Elm Street, Suite 200
Dallas, TX 75226
Office: 214.310.1018
www.TreanorHL.com

Mechanical - Electrical Engineers
17300 North Dallas Parkway
Suite 3000
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UNIVERSITY OF NORTH TEXAS
KERR HALL INTERIOR RENOVATION
1413 West Maple St
Denton, TX 76201

UNT UNIVERSITY OF NORTH TEXAS

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CONTROLS DETAILS - VAV & CO AND GAS DETECTION

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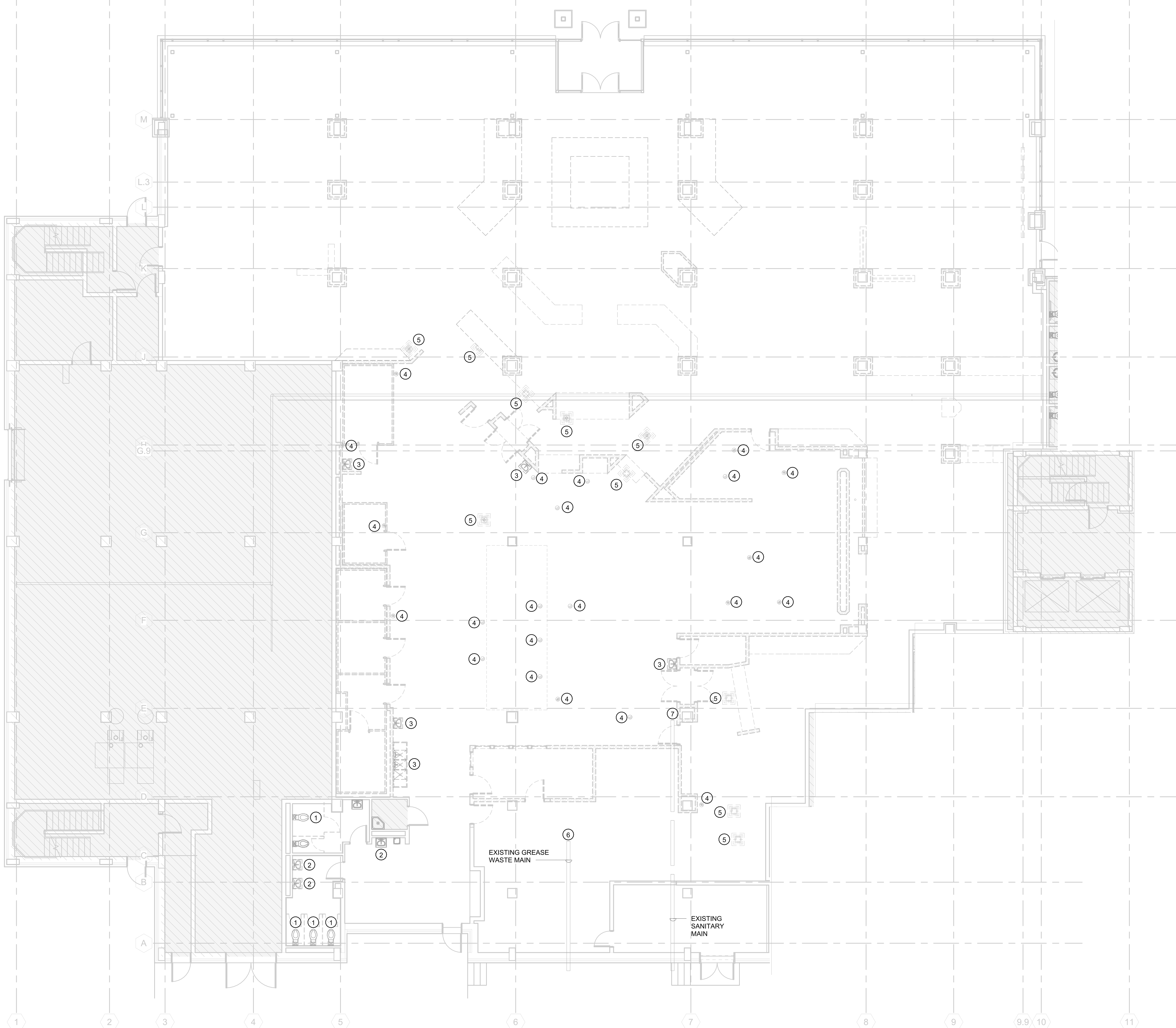


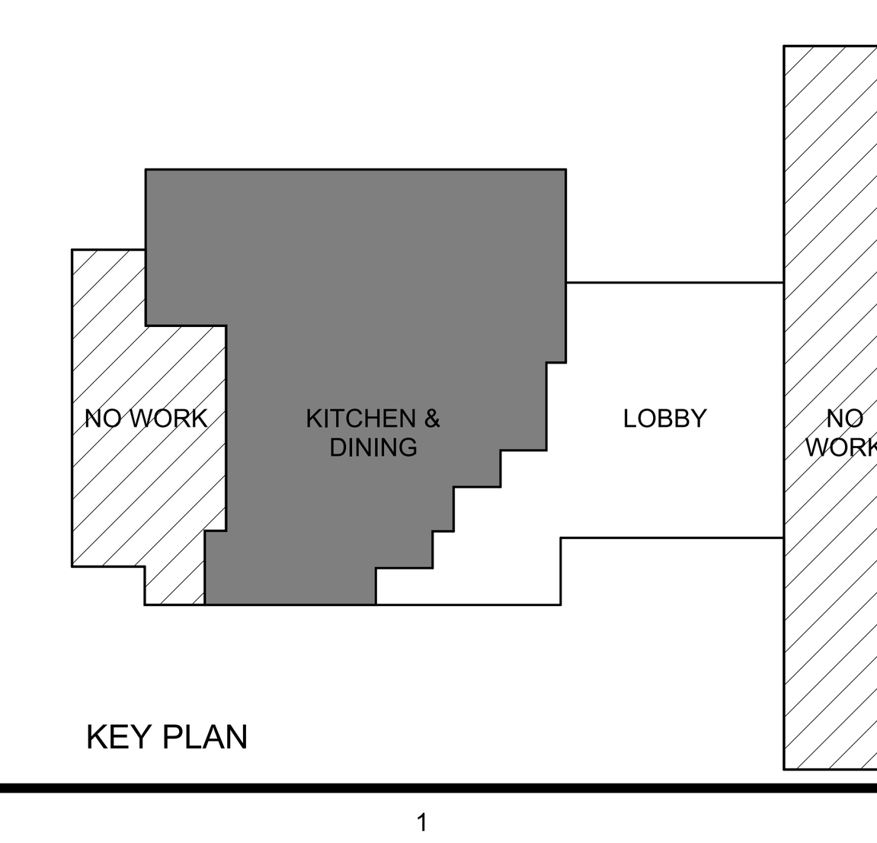
1 LEVEL 1 DEMO PLUMBING PLAN - DINING
1/8" = 1'-0"

KEYED NOTES - SHEET IPD2.01B

1. REMOVE EXISTING WATER COLEST/FLUSH VALVE AND STORE FOR RE-USE. ALL PIPING NOT BEING RE-USED SHALL BE REMOVED TO INSIDE WALL AND CAPPED.
2. REMOVE EXISTING LAVATORY/FAUCET AND ASSOCIATED PIPING. RETURN UNUSED FIXTURES TO BASE BUILDING STOCK. ALL PIPING NOT BEING RE-USED SHALL BE REMOVED TO INSIDE WALL AND CAPPED.
3. REMOVE EXISTING SINK/FAUCET AND ASSOCIATED PIPING. RETURN UNUSED FIXTURES TO BASE BUILDING STOCK. ALL PIPING NOT BEING RE-USED SHALL BE REMOVED AND CAPPED AT BRANCH CONNECTION TO EXISTING PLUMBING SERVING EXISTING FIXTURE.
4. CONTRACTOR TO DEMO THE EXISTING FLOOR DRAIN AND ASSOCIATED PIPING SERVING THE EXISTING DRAIN. CONTRACTOR TO FIELD VERIFY THE ROUTING OF EXISTING PIPING SERVING THE EXISTING DRAIN PRIOR TO DEMOLITION. ALL EXISTING PIPING NOT BEING RE-USED SHALL BE DEMO AND CAPPED AT THE EXISTING MAIN PLUMBING LINE SERVING THE EXISTING KITCHEN.
5. CONTRACTOR TO DEMO THE EXISTING FLOOR SINK AND ASSOCIATED PIPING SERVING THE EXISTING FLOOR SINK. CONTRACTOR TO FIELD VERIFY THE ROUTING OF EXISTING PIPING SERVING THE EXISTING FLOOR SINK PRIOR TO DEMOLITION. ALL EXISTING PIPING NOT BEING RE-USED SHALL BE DEMO AND CAPPED AT THE EXISTING MAIN PLUMBING LINE SERVING THE EXISTING KITCHEN.
6. CONTRACTOR TO DEMO ALL EXISTING GREASE WASTE PIPING SERVING THE EXISTING KITCHEN DRAINS UP TO THIS LOCATION AND CAP FOR FUTURE USE AT THE EXISTING GREASE WASTE MAIN PLUMBING LINE SERVING THE EXISTING KITCHEN.
7. CONTRACTOR TO DEMO ALL EXISTING SANITARY SEWER PIPING SERVING THE EXISTING KITCHEN DRAINS UP TO THIS LOCATION AND CAP FOR FUTURE USE AT THE EXISTING SANITARY SEWER MAIN PLUMBING LINE SERVING THE EXISTING KITCHEN.

REVISION SUMMARY:

- ADDED DEMO PLUMBING SHEET FOR FURTHER CLARIFICATION.



KEY PLAN

D. SCOTT BROWN
89097
LICENSED
PROFESSIONAL ENGINEER
5-23-2025

TREANOR
2554 Elm Street, Suite 200
Dallas, TX 75226
Office: 214.310.1018
www.TreanorHL.com

Purdy - McGuire
Mechanical - Electrical Engineers
17300 North Dallas Parkway
Suite 3000
Dallas, TX 75248-1147
Firm Registration # F-1511
Tel: 972/239-5357
Fax: 972/239-5231
www.purdy-mcguire.com

PMI JOB NO.	23037.002
PROJECT MGR.	SCOTT BROWN, MITCHELL HENTON
MECHANICAL	MITCHELL HENTON
PLUMBING	CHRIS WOODYARD
ELECTRICAL	JOHN KNOWLES

UNIVERSITY OF NORTH TEXAS
KERR HALL INTERIOR RENOVATION

1413 West Maple St
Denton, TX 76201

UNT UNIVERSITY OF NORTH TEXAS

Issue: ISSUE FOR CONSTRUCTION

Date: JANUARY 30, 2025

REVISIONS

NO	DESCRIPTION	DATE
1	ADDENDUM 2	05.23.25

iPD201B

LEVEL 1 DEMO PLUMBING PLAN - DINING

TreanorHL NO. HE0569.2302.01

PLUMBING GENERAL NOTES:

A. ALL WORK SHALL COMPLY WITH APPLICABLE NATIONAL, STATE AND LOCAL CODES, RULES, REGULATIONS AND REQUIREMENTS.
B. ALL WORK SHALL COMPLY WITH THE BUILDING TENANT CONSTRUCTION GUIDE. COORDINATE WITH BUILDING MANAGEMENT/OWNER FOR ACCESS TO ANY TENANT LEASE SPACES THAT MIGHT BE REQUIRED FOR THE INSTALLATION. UNLESS DIRECTED BY LANDLORD ALL EQUIPMENT AND WORKMANSHIP SHALL BE GUARANTEED FOR NO LESS THAN 1 YEAR.
C. EXISTING CONDITIONS ARE BASED ON INFORMATION PROVIDED BY SITE SURVEY AND PREVIOUS RECORD DRAWINGS DATED 12/30/1988. HOWEVER, IT IS NOT INTENDED TO BE A TRUE REPRESENTATION OF ACTUAL CONDITIONS. CONTRACTOR SHALL VISIT JOB SITE PRIOR TO BIDDING TO ASCERTAIN EXISTING CONDITIONS AND SHALL NOTIFY ARCHITECT OF ANY DISCREPANCIES PRIOR TO BID.
D. PIPING LAYOUT IS SCHEMATIC, EXACT LOCATION OF PIPES TO BE COORDINATED WITH BUILDING STRUCTURE AND WORK OF OTHER CONTRACTORS.
E. CONTRACTOR SHALL COORDINATE PLUMBING ROUGH-IN WITH ARCHITECTURAL DRAWINGS TO PROVIDE EXACT PLUMBING LOCATION FOR FIXTURES.
F. COORDINATE EXACT LOCATION OF ALL WATER AND DRAIN CONNECTIONS FOR EQUIPMENT PROVIDED BY OTHERS.
G. RUN ALL WATER LINES LEVEL.
H. THIS CONTRACTOR IS TO PROVIDE ALL ADDITIONAL STEEL, HANGER MATERIALS, RODS AND CLAMPS AS REQUIRED FOR COORDINATION WITH WORK OF OTHER TRADES.
I. SUPPORT CAST IRON SANITARY PIPING NOT IN EARTH, ON 5'-0" CENTERS, ALL STEEL PIPING ON 10'-0" CENTERS AND COPPER PIPING ON 8'-0" CENTERS.
J. THIS CONTRACTOR IS RESPONSIBLE FOR FIRESTOPPING AT ALL PLUMBING RELATED PENETRATIONS OF FIRE AND SMOKE RATED STRUCTURES, FLOORS AND PARTITIONS. REFER TO ARCHITECTURAL FLOOR PLANS FOR LOCATIONS OF ALL RATED STRUCTURES.
K. ALL FIXTURES TO BE EQUIPPED WITH STOP VALVE IN ACCESSIBLE LOCATION.
L. CONTRACTOR SHALL PROVIDE SHUT-OFF VALVE AT EACH BRANCH LINE CONNECTING TO THE MAIN. PROVIDE BRASS VALVE TAGS WITH DOCUMENTATION IN CLOSEOUT DOCUMENTS.
M. PROVIDE A SHUT-OFF VALVE ON THE TOP OF EVERY WATER DOWN-FEED PIPE PER IPC 606.1.
N. MAIN WATER SHUT-OFFS SHALL BE ACCESSIBLE.
O. PROVIDE ACCESSIBLE CLEANOUTS AT NOT MORE THAN 50 FEET APART IN HORIZONTAL SANITARY DRAINAGE LINES 4" SIZE OR LESS, AND NOT MORE THAN 100 FEET APART FOR LARGER PIPES.
P. PROVIDE ACCESSIBLE CLEANOUTS AT BASE OF ALL SANITARY STACKS AND OTHER PLACES AS REQUIRED BY CODE.
Q. WATER HEATER SHALL HAVE BOTH WATER AND ELECTRICAL SHUT-OFFS AT EASILY ACCESSIBLE LOCATIONS.
R. CONTRACTOR SHALL BE RESPONSIBLE FOR DEMOLITION AND REMOVAL OF ALL ABANDONED PLUMBING LINES.
S. PLUMBING CONTRACTOR SHALL X-RAY SLAB PRIOR TO ANY CORE-DRILLING. COORDINATE WITH BUILDING MANAGEMENT FOR AFTER-HOURS ACCESS TO SPACE. PRIOR TO CORE DRILLING ANY EXISTING FLOORS, OBTAIN APPROVAL FROM THE STRUCTURAL ENGINEER.
T. REFER TO PLUMBING RISER DIAGRAMS FOR PIPING SIZES NOT SHOWN ON PLAN.
U. IT IS THE INTENTION OF THESE DRAWINGS TO CALL FOR FINISHED WORK, TESTED AND READY FOR OPERATION, WHEREVER THE WORD 'PROVIDE' IS USED, IT SHALL MEAN 'FURNISH AND INSTALL, COMPLETE AND READY TO USE'.
V. MATERIALS USED FOR INSULATION, ACOUSTICAL LININGS, ADHESIVES, JACKETS AND COATINGS, AND COMBINATIONS OF THESE MATERIALS, SHALL EACH HAVE A FLAME SPREAD RATING OF 25 OR LESS, AND A SMOKE DEVELOPED RATING OF 50 OR LESS, AS DETERMINED BY AN INDEPENDENT TESTING LABORATORY IN ACCORDANCE WITH NFPA-255.
W. SINCE SANITARY AND DOMESTIC WATER CONNECTION POINTS ARE NOT KNOWN, UTILIZE CONCEPT ABOVE FOR MAGNITUDE ONLY. DO NOT INSTALL ANY OF THIS WORK UNTIL TIE-INS AND INVERTS ARE FIELD VERIFIED.

FIRE PROTECTION PERFORMANCE SPECIFICATION:

A. MODIFY THE EXISTING WET PIPE FIRE SPRINKLER SYSTEM AS REQUIRED FOR THE NEW TENANT LAYOUT INCLUDING RELOCATING PIPING TO CLEAR NEW DUCTWORK, ADDING NEW HEADS, RELOCATING EXISTING HEADS, AND LEAVING CERTAIN EXISTING HEADS IN PLACE. THE SPRINKLER DESIGN SHALL COMPLY WITH NFPA 13, THE REQUIREMENTS OF THE LOCAL AUTHORITIES HAVING JURISDICTION AND THE REQUIREMENTS OF THE OWNER'S INSURANCE COMPANY.

B. EXISTING SPRINKLER HEADS TO BE RELOCATED MAY BE REUSED. EXISTING PIPING WHICH IS REMOVED IN THE MODIFICATION WORK SHALL NOT BE REUSED. NEW SPRINKLER PIPING SHALL BE ROUTED AS REQUIRED TO CLEAR NEW DUCTWORK, EXISTING DUCTWORK TO REMAIN, LIGHT FIXTURES, STRUCTURAL INTERFERENCES, ETC.

C. THE NEW SPRINKLER HEADS SHALL MATCH EXISTING SPRINKLER HEADS.

D. IN ALL GYP. BOARD CEILING AREA, PROVIDE CONCEALED SPRINKLER HEADS WITH CAPS TO BE FACTORY PAINTED TO MATCH CEILING. ALL SPRINKLER HEADS IN LAY-IN CEILING SHALL BE LOCATED IN CENTER OF TILE AND ALIGNED WITH LIGHT FIXTURES.

E. SPRINKLER CONTRACTOR SHALL PROVIDE SHOP DRAWINGS OF CALCULATIONS AND SPRINKLER HEAD LOCATIONS FOR ARCHITECT TO REVIEW PRIOR TO ANY INSTALLATION. NO EXCEPTION TAKEN.

F. ALL SPRINKLER HEADS IN EXPOSED CEILING SHALL BE TURNED TO THE UPRIGHT POSITION AND REPLACE HEADS IF REQUIRED.

G. ALL PIPING SHALL BE U.S. DOMESTIC ONLY. FOREIGN MANUFACTURED PIPING WILL NOT BE ACCEPTED.

H. ALL PIPING SHALL BE SCHEDULE 40. SCHEDULE 10 WILL NOT BE ACCEPTED.

I. THE CONTRACTOR SHALL BE FAMILIAR WITH ALL APPLICABLE CODES, REQUIREMENTS BY THE LOCAL AUTHORITY HAVING JURISDICTION, AND OWNER STANDARDS FOR CONSTRUCTION AND OPERATION OF FIRE SUPPRESSION SYSTEMS. ANY CHANGES TO THE FINAL INSTALLATION DUE TO THE CONTRACTOR NOT HAVING BEEN AWARE OF ANY OF THE ABOVE, SHALL BE MADE AT NO COST TO THE OWNER.

PROJECT COMMISSIONING REQUIREMENTS:

1. ALL BUILDING MECHANICAL AND ELECTRICAL SYSTEMS SHALL BE COMMISSIONED BY A COMMISSIONING AGENT IN ACCORDANCE WITH ALL REQUIREMENTS OF THE INTERNATIONAL ENERGY CONSERVATION (IECC) SECTION C408. REFER TO THE APPLICABLE CODES NOTE ON THIS SHEET FOR THE REQUIRED CODE YEAR OF THE IECC. IT IS THE OWNER'S RESPONSIBILITY TO HIRE A COMMISSIONING AUTHORITY TO ENSURE ALL REQUIRED COMMISSIONING ACTIVITIES AND REQUIREMENTS ARE MET.
2. THE COMMISSIONING AGENT SHALL PERFORM ALL TASKS ACCORDING TO THE REQUIREMENTS OF IECC SECTION C408 AND ANY OTHER REQUIREMENTS OF THE PROJECT.
3. THE TESTING AND BALANCING (TAB), BUILDING AUTOMATION SYSTEMS (BAS), GENERAL CONTRACTOR, MECHANICAL, ELECTRICAL, AND PLUMBING CONTRACTORS SHALL PROVIDE FULL SUPPORT IN ALL COMMISSIONING ACTIVITIES AND PERFORM ALL NECESSARY COMMISSIONING TASKS ON THIS PROJECT AS REQUIRED BY IECC SECTION C408.
4. LEED PROJECTS HAVE ADDITIONAL COMMISSIONING REQUIREMENTS THAT VARY FROM THOSE LISTED ABOVE.

WATER HAMMER ARRESTOR SCHEDULE

PDI SIZE	PIPE SIZE	FIXTURE UNIT LOAD
A	½	1-11
B	¾"	12-32
C	1"	33-60
D	1¼"	61-113
E	1½"	114-154
F	2"	154-330

FIXTURE UNIT TABULATION		
FIXTURE	COLD	HOT
VALVE WATER CLOSET	10	--
TANK WATER CLOSET	5	--
URINAL	5	--
LAVATORY/SINK	1.5	1.5
JANITOR SINK	3	3
SHOWER/BATHTUB	2	2

NOTES:
PC TO PROVIDE WATER HAMMER ARRESTORS BY SIOUX CHIEF, PRECISION PLUMBING PRODUCTS, OR WATTS WITH PISTON AND O-RING CONSTRUCTION, HAVING PDI #WH-201, ASSE #1010 AND ANSI #A112.26.1M CERTIFICATION. INSTALL IN HORIZONTAL OR VERTICAL POSITION, BUT NEVER UPSIDE DOWN. INSTALL IN LINE WITH WATER FLOW DIRECTION IF POSSIBLE. SIZE THE UNITS AS SHOWN ON THE DRAWINGS AND/OR PER THE TABLES SHOWN ABOVE.

PLUMBING PIPING, FITTINGS, & JOINTS SCHEDULE

APPLICATION	MATERIAL	FITTINGS	JOINTS
DOMESTIC			
UNDERSLAB (4" AND SMALLER)	COPPER	SOLDER	BRAZED
	PVC		
ABOVEGROUND			
2" AND SMALLER	COPPER	FLANGES	BRAZED
		SOLDER	SOLDER
		*PRESS FITTINGS ACCEPTED	
	STAINLESS STEEL	STAINLESS STEEL	WELDED
LARGER THAN 2"	COPPER	FLANGES	BRAZED
		SOLDER	SOLDER
	STAINLESS STEEL	STAINLESS STEEL	WELDED
NATURAL GAS			
UNDERGROUND	PE PIPE	HEAT FUSION	
		MECHANICAL COUPLINGS	
	STEEL PIPE	WROUGHT-STEEL	WELDED
		MECHANICAL COUPLINGS	
		PRESS FITTINGS NOT ACCEPTED	
ABOVEGROUND			
2" AND SMALLER	STEEL	MALEABLE IRON	THREADED
LARGER THAN 2"	STEEL	WROUGHT STEEL IRON	WELDED
SANITARY WASTE & VENT			
UNDERGROUND	EXTRA-HEAVY CLASS, CAST IRON SOIL PIPE	EXTRA-HEAVY CLASS, CAST IRON SOIL FITTINGS, GASKETS	GASKETED
	SOLID WALL SCH 40 PVC	SOLID WALL SCH 40 PVC	SOLID WALL SCH 40 PVC
ABOVEGROUND	HUBLESS CAST IRON SOIL PIPE	HUBLESS CAST IRON SOIL FITTINGS	STANDARD COUPLINGS AND HUBLESS-COUPLING JOINTS
EXPOSED PIPING IN KITCHEN	DWV COPPER	WROUGHT COPPER	BRAZED
STORM			
UNDERGROUND	EXTRA-HEAVY CLASS, CAST IRON SOIL PIPE	EXTRA-HEAVY CLASS, CAST IRON SOIL FITTINGS, GASKETS	GASKETED
	SOLID WALL SCH 40 PVC	SOLID WALL SCH 40 PVC	SOLID WALL SCH 40 PVC
ABOVEGROUND	HUBLESS CAST IRON SOIL PIPE	HUBLESS CAST IRON SOIL FITTINGS	SHIELDED STAINLESS STEEL COUPLINGS & FITTINGS
MAKEUP-WATER PIPING			
	COPPER	WROUGHT COPPER	SOLDERED
CONDENSATE			
	COPPER	WROUGHT COPPER	SOLDERED

1. *SHARKBITE IS NOT ACCEPTED. ACCEPTABLE PRESS FITTINGS MANUFACTURER ARE: NIBCO, VIEGA-PROPRESS, VIEGA MEGAPRESS, PARKER-ZOOMLOCK (REFRIGERANT PIPING ONLY).
2. REFER TO SPECIFICATIONS FOR ADDITIONAL INFORMATION.
3. NOT ALL PIPE TYPES MAY BE USED. REFER TO FLOOR PLANS FOR FURTHER DETAILS.
4. ALL PIPING SHALL BE U.S. DOMESTIC ONLY. FOREIGN MANUFACTURED PIPING WILL NOT BE ACCEPTED.

PLUMBING SYMBOLS LEGEND

SYMBOL	DESCRIPTION
SAN	SANITARY SEWER
ST	STORM DRAIN
RD	ROOF DRAIN
OFD	OVERFLOW DRAIN
V	VENT
DCW	DOMESTIC COLD WATER
RO	REVERSE OSMOSIS
DI	DEIONIZED WATER
SCW	SOFT COLD WATER
DHW	DOMESTIC HOT WATER
DHWR	DOMESTIC HOT WATER RETURN
CD	CONDENSATE DRAIN PIPING
F	FIRE PROTECTION PIPING
	PIPING DOWN
	PIPING UP -OR- PIPING UP & DOWN
CO	CLEANOUT (CO) OR WALL CLEANOUT (WCO)
FCO	FLOOR (FCO) OR GRADE (GCO) CLEANOUT
	CAP ON END OF PIPE
	DIRECTION OF FLOW
	DIRECTION OF SLOPE
	ISOLATION / SHUT-OFF VALVE (SOV) / GAS COCK
	UNION
	BALANCING VALVE / CIRCUIT SETTER
	GAS REGULATOR
	PRESSURE REDUCING VALVE (PRV)
	CHECK VALVE
	CONNECT TO EXISTING
	*NOTE: NOT ALL SYMBOLS MAY BE USED IN PLAN.

PLUMBING ABBREVIATIONS

SYMBOL	DESCRIPTION
ABV	ABOVE
AFF	ABOVE FINISHED FLOOR
BFF	BELOW FINISHED FLOOR
BOP	BOTTOM OF PIPE
DFU	DRAIN FIXTURE UNIT
ER / er	EXISTING ITEM TO BE RELOCATED
ED / ed	EXISTING ITEM TO BE REMOVED
E / e	EXISTING ITEM TO REMAIN
FDC	FIRE DEPARTMENT CONNECTION
FU	FIXTURE UNITS
GPH	GALLONS PER HOUR
GPM	GALLONS PER MINUTE
IE	INVERT ELEVATION
N.C.	NORMALLY CLOSED
N.O.	NORMALLY OPEN
N/A	NOT APPLICABLE
NIC	NOT IN CONTRACT
NTS	NOT TO SCALE
PRV	PRESSURE REDUCING VALVE
QTY	QUANTITY
SOV	SHUT OFF VALVE
UNO	UNLESS NOTED OTHERWISE
VTR	VENT THROUGH ROOF

PLUMBING INSULATION SCHEDULE

APPLICATION	INSULATION TYPE	INSULATION THICKNESS	INSULATION FINISH (OR PIPE FINISH IF NO INSULATION PRESENT) INDOOR CONCEALED	INDOOR EXPOSED (C)	OUTDOOR (G)
DOMESTIC COLD WATER PIPING (F)					
INDOOR: PIPE DIAMETER 1-1/4" & SMALLER	6i	1/2"	8F	5F	NA
INDOOR: PIPE DIAMETER 1-1/2" & LARGER	6i	1"	8F	5F	NA
OUTDOOR: 2" & SMALLER	6i	2"	NA	NA	3F
OUTDOOR: 2-1/2" - 6"	6i	2"	NA	NA	3F
DOMESTIC HOT WATER PIPING					
INDOOR: PIPE DIAMETER 1-1/4" & SMALLER	6i	1"	8F	5F	NA
INDOOR: PIPE DIAMETER 1-1/2" & LARGER	6i	1-1/2"	8F	5F	NA
BELOW GRADE: ALL SIZES	4i	1-1/2"	NA	NA	NA
OUTDOOR: ALL SIZES	6i	2"	NA	NA	3F
STORM AND STORM OVERFLOW PIPING					
INDOOR: ALL SIZES	6i	1"	8F	5F	NA
OUTDOOR: ALL SIZES	NA	NA	NA	NA	NA
INDOOR: ROOF DRAIN AND OVERFLOW DRAIN BODIES	6i	1"	8F	8F	NA
SANITARY SEWER AND GREASE WASTE PIPING					
INDOOR: CONCEALED, ALL SIZES	NA	NA	NA	NA	NA
OUTDOOR: EXPOSED OR CONCEALED, ALL SIZES	NA	NA	NA	NA	NA
INDOOR: EXPOSED (C)(D), ALL SIZES	6i (A) (D)	1/2"	NA	5F (D)	NA
WITH HEAT TRACE - INDOOR: ALL SIZES	6i	1-1/2"	8F	5F	NA
WITH HEAT TRACE - OUTDOOR: ALL SIZES	6i	2"	NA	NA	3F
ABOVE GRADE: 1ST 10FT PIPING RECEIVING COLD CONDENSATE INCLUDING THE FLOOR DRAIN AND P-TRAP	6i (A)	1"	8F	5F	NA
BELOW GRADE: 1ST 10FT PIPING RECEIVING COLD CONDENSATE INCLUDING THE FLOOR DRAIN AND P-TRAP	NA	NA	NA	NA	NA
ABOVE GRADE: 1ST 25FT PIPING RECEIVING HOT WATER DISCHARGE INCLUDING THE FLOOR DRAIN AND P-TRAP (E)	6i (A)	1"	8F	5F	NA
BELOW GRADE: 1ST 25FT PIPING RECEIVING HOT WATER DISCHARGE INCLUDING THE FLOOR DRAIN AND P-TRAP	NA	NA	NA	NA	NA
COLD CONDENSATE DRAIN LINES					
INDOOR OR OUTDOOR: EXPOSED OR CONCEALED, ALL SIZES	6i (A)	1/2"	8F	5F	9F
VENT PIPING					
INDOOR: CONCEALED, ALL SIZES	NA	NA	NA	NA	NA
OUTDOOR: EXPOSED OR CONCEALED, ALL SIZES	NA	NA	NA	NA	NA
INDOOR: EXPOSED (C)(D), ALL SIZES	6i (A) (D)	1/2"	NA	5F (D)	NA
NATURAL GAS					
INDOOR: CONCEALED, ALL SIZES	NA	NA	NA	NA	NA
INDOOR: EXPOSED (C), ALL SIZES	NA	NA	NA	NA	NA
OUTDOOR: EXPOSED OR CONCEALED, ALL SIZES	NA	NA	NA	NA	9F

GENERAL NOTES (APPLIES TO ALL):
- NOT ALL PIPE TYPES MAY BE USED IN PLAN. REFER TO FLOOR PLANS FOR MORE INFORMATION.

NOTES:
A. CELLULAR FOAM MAY BE SUBSTITUTED
B. USE 9F FINISH FOR CELLULAR FOAM
C. THIS INCLUDES BUT IS NOT LIMITED TO, PIPING EXPOSED IN MECHANICAL ROOMS, PIPING IN OPEN CEILINGS EXPOSED TO THE PUBLIC OR PRIVATE PERSONNEL, OR EXPOSED PIPING DOWN KITCHENS WALLS, ETC.
D. INSULATION ON INDOOR EXPOSED SANITARY PIPING IS FOR AESTHETIC APPEAL ONLY AND ONLY PROVIDED AT THE DIRECTION OF THE ARCHITECT IN VERY LIMITED LOCATIONS. THE CONTRACTOR SHALL ONLY PROVIDE THIS INSULATION WHERE IT IS SPECIFICALLY CALLED OUT ON THE PLUMBING FLOOR PLANS. IF NOT INDICATED ON THE PLUMBING FLOOR PLANS, THE CONTRACTOR SHALL TREAT INDOOR EXPOSED SANITARY PIPING THE SAME WAY INDOOR CONCEALED SANITARY PIPING IS TREATED IN THIS SCHEDULE. REFER TO THE PLUMBING FLOOR PLANS FOR LOCATIONS. REFER TO THE ARCHITECTURAL PLANS FOR COLOR SELECTIONS.
E. DRAIN SERVING ANY WATER HEATING APPLIANCE (120 °F AND HIGHER). THIS INCLUDES BUT IS NOT LIMITED TO DRAINS BESIDE DOMESTIC WATER HEATERS, HEATING WATER BOILERS, AND DIRECT CONNECTIONS OR DRAINS RECEIVING WATER FROM DISHWASHERS, ETC.
F. ALL PROCESS WATER PIPES SHALL BE INSULATED TO THE SAME LEVEL AS THE DOMESTIC COLD WATER LISTED IN THE SCHEDULE ABOVE. THIS INCLUDES, BUT IS NOT LIMITED TO, DEIONIZED (DI) WATER, FILTERED WATER, REVERSE OSMOSIS (RO) WATER, ETC, IF PRESENT.
G. OUTDOORS INCLUDES ANY UNHEATED AREAS. REFER TO THE HEAT TRACE DETAIL FOR MORE DETAIL DESCRIPTIONS OF LOCATIONS CONSIDERED OUTDOORS.

INSULATION MATERIALS:
1i. CALCIUM SILICATE - MAXIMUM K FACTOR AT 500 DEGREES F SHALL BE 0.55, MUST ASTM C411 TO 1200 DEGREES F, AND MUST MEET NFPA 255 AND UL 723 FOR 0/0 FLAME SPREAD AND SMOKE DEVELOPED.
2i. FIBERGLASS BOARD - PROVIDE SEMI-RIGID FIBERGLASS BOARD WITH A DENSITY OF 3 LBS/FT3. MAXIMUM K FACTOR AT 75 DEGREES F SHALL BE 0.24 AND A TEMPERATURE LIMIT OF 250 DEGREES F (FACED) AND 450 DEGREES F (UNFACED). NFPA 255 AND UL 723 FOR 25/50 FLAME SPREAD AND SMOKE DEVELOPED.
3i. FIBERGLASS DUCT WRAP - MAXIMUM K FACTOR AT 75 DEGREES F SHALL BE 0.30, MUST PASS ASTM C411 TO 250 DEGREES F FACED. DENSITY SHALL BE 0.75 LBS/FT3. NFPA 255 AND UL 723 FOR 25/50 FLAME SPREAD AND SMOKE DEVELOPMENT.
4i. CELLULAR FOAM - EQUAL TO AP/ARMAFLEX TUBES OR SHEETS, AS APPLICABLE TO INSTALLATION. MAXIMUM K FACTOR AT 75 DEGREES F SHALL BE 0.28. MAXIMUM OPERATING TEMPERATURE OF 200 DEGREES F. MUST MEET NFPA 255 AND UL723 FOR 25/50 FLAME SPREAD AND SMOKE DEVELOPED AND MUST BE FREE OF ANY CFCS,HFCS, OR HCFCS
5i. FIBERGLASS DUCT LINER - REFER TO SECTION 23313 FOR ADDITIONAL INFORMATION
6i. FIBERGLASS PIPE INSULATION - MAXIMUM K FACTOR AT 100 DEGREES F SHALL BE 0.24, MUST PASS ASTM C411 TO 850 DEGREES F. DENSITY SHALL BE 3.5 LBS/FT3/ NFPA 255 AND UL 7723 FOR 25/50 FLAME SPREAD AND SMOKE DEVELOPED.
7i. MINERAL-FIBER, PREFORMED PIPE INSULATION, TYPE I OR II.
NA. NOT APPLICABLE OR NONE REQUIRED.

FINISH TYPES
1F. 0.010" T-304 STAINLESS STEEL JACKETING -- CORRUGATED. PROVIDE 3/16" CORRUGATED ROLL JACKETING FOR PIPING AND TANKS LESS THAN 6 FEET DIAMETER AND DEEP CORRUGATED SHEETS FOR DIAMETERS LARGER THAN 6 FEET.
2F. 0.010" T-304 STAINLESS STEEL JACKETING -- SMOOTH FINISH.
3F. CORRUGATED ALUMINUM -- 0.016" UP THROUGH 24" PIPE SIZE, 0.024" LARGER THAN 24".
4F. SMOOTH ALUMINUM -- 0.016" UP THROUGH 12" PIPE SIZE, 0.024" LARGER THAN 12".
5F. 20-MIL PVC (25 FLAME SPREAD AND 50 SMOKE DEVELOPED.)
6F. FOIL/REINFORCED/KRACT JACKET (VAPOR BARRIER).
7F. 1/4-INCH WEATHERPROOF MASTIC WITH GLASS MESH REINFORCEMENT. SLOPE TOP OF DUCT MINIMUM OF 1/4" PER FOOT TO PREVENT PONDING.
8F. WHITE ALL-SERVICE JACKET (VAPOR BARRIER).
9F. WATER BASED LATEX ENAMEL WEATHER RESISTANT AND UV RESISTANT FINISH EQUAL TO ARMAFLEX WB FINISH.
10F. 125 MILS THICK EXTRUDED, BLACK, HIGH DENSITY POLYETHYLENE (HDPE). INNER SURFACE SHALL BE OXIDIZED BY MEANS OF CORONA OR FLAME TREATMENT.
NA. NOT APPLICABLE OR NO FINISH REQUIRED.

PLUMBING DESIGN CRITERIA		
		NOTES
MINIMUM INCOMING WATER TEMPERATURE	50°F	
STARTING INVERT ELEVATION	24" BFF	TYPICAL UNLESS NOTED OTHERWISE
ENDING INVERT ELEVATION	REFER TO UNDERFLOOR PLANS	

PLUMBING APPLICABLE CODES

- 2021 INTERNATIONAL PLUMBING CODE (IPC)
- 2021 INTERNATIONAL FUEL GAS CODE (IFGC)
- 2021 INTERNATIONAL ENERGY CONSERVATION (IECC)
- CURRENT CAMPUS DESIGN GUIDELINES
- CITY OF DENTON LOCAL AMENDMENTS

FIRE SUPPRESSION APPLICABLE CODES

- FM GLOBAL
- 2021 INTERNATIONAL FIRE CODE (IFC)
- CURRENT CAMPUS DESIGN GUIDELINES
- CITY OF DENTON LOCAL AMENDMENTS

D. SCOTT BROWN 89097 LICENSED PROFESSIONAL ENGINEER 1-30-2025

TREANOR
2554 Elm Street, Suite 200
Dallas, Texas 75226
Office: 214.310.1018
www.TreanorHL.com

Purdy - McGuire
Mechanical - Electrical Engineers
17300 North Dallas Parkway
Suite 3000
Dallas, TX 75248-1147
Firm Registration # F-1511
Tel: 972/239-5357
Fax: 972/239-5231
www.purdy-mcguire.com

PM JOB NO. 23037.002
PROJECT MGR. SCOTT BROWN
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Denton, TX 76201

UNT UNIVERSITY OF NORTH TEXAS

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Issue: ISSUE FOR CONSTRUCTION
Date: JANUARY 30, 2025

REVISIONS

NO	DESCRIPTION	DATE

iP001

PLUMBING NOTES & SYMBOLS

TreanorHL NO. HE0569.2302.01

PLUMBING FIXTURE SCHEDULE WITH IMAGES

IMAGE	DESIGN.	FIXTURE	MANUFACTURER	MODEL NUMBER	ADDITIONAL COMPONENTS	GPF/GPM	ROUGH-IN CONNECTION SIZES				DESCRIPTION
							DCW	DHW	SAN	VENT	
	WCA	WATER CLOSET BODY	KOHLER	WELLCOMME ULTRA 15" HEIGHT, 1.1 GPF TO 1.6 GPF, ELONGATED BOWL, VITREOUS CHINA WITH EVERCLEAN FINISH, MODEL # 3451.001	PROVIDE WITH "FVW" FLUSH VALVE FOR WATER CLOSET, DEFINED ON THIS SCHEDULE.	-	REF: FVW	-	4"	2"	FLOOR MOUNTED, 15" HEIGHT, SIPHON JET, ELONGATED BOWL WITH CHURCH #9500C SEAT.
	WCB (ADA)	WATER CLOSET BODY	KOHLER	WELLCOMME ULTRA 16.5" HEIGHT, .1 GPF TO 1.6 GPF, ELONGATED WITH EVERCLEAN FINISH, MODEL #3461.001	PROVIDE WITH "FVW" FLUSH VALVE FOR WATER CLOSET, DEFINED ON THIS SCHEDULE.	-	REF: FVW	-	4"	2"	FLOOR MOUNTED, 16.5" ADA HEIGHT, SIPHON JET, ELONGATED BOWL, WITH CHURCH #9500C SEAT.
	FVW	MANUAL WATER CLOSET FLUSH VALVE	SLOAN	MODEL # ROYAL 111-1.28	-	1.28 GPF	1"	-	-	-	EXPOSED, MANUAL FLUSH VALVE, AND HIGH EFFICIENCY. IF INSTALLED ON ADA WATER CLOSET, CONFIRM ROUGH-IN HEIGHTS WITH ARCHITECTURAL DRAWINGS AND MANUFACTURER`S RECOMMENDED ADA INSTALLATION PRIOR TO ROUGH-IN. FIXTURE SHALL HAVE LEED WATERSENSE LABELING.
	URA / URB(ADA)	URINAL BODY	AMERICAN STANDARD	WASHBROOK FLOWISE UNIVERSAL URINAL, 0.125GPF TO 1.0GPF, ELONGATED RIM WITH EVERCLEAN FINISH, MODEL #6590.001	PROVIDE WITH "FVU" FLUSH VALVE FOR URINAL, DEFINED ON THIS SCHEDULE.	-	REF: FVU	-	2"	1-1/2"	WALL HUNG, WASHOUT FLUSH ACTION, WITH STAINLESS STEEL STRAINER AND JOSAM CARRIER. INSTALLED AT 24" MOUNTING HEIGHT FOR A STANDARD URINAL "URA" AND INSTALLED AT ADA MOUNTING HEIGHT OF 17" FROM FLOOR TO LIP OF URINAL BASIN FOR URINAL "URB".
	FVU	MANUAL URINAL FLUSH VALVE	SLOAN	MODEL # ROYAL 186-0.125	-	0.125 GPF	3/4"	-	-	-	EXPOSED, MANUAL FLUSH VALVE, AND HIGH EFFICIENCY. IF INSTALLED ON ADA URINAL, CONFIRM ROUGH-IN HEIGHTS WITH ARCHITECTURAL DRAWINGS AND MANUFACTURER`S RECOMMENDED ADA INSTALLATION PRIOR TO ROUGH-IN. FIXTURE SHALL HAVE LEED WATERSENSE LABELING.
	LA	LAVATORY BOWL	KOHLER	CAXTON, UNDER-MOUNT SINK, MODEL # K-2210	PROVIDE WITH "FTL" FAUCET FOR LAVATORY, DEFINED ON THIS SCHEDULE.	-	REF: FTL	REF:FTL	2"	1-1/2"	UNDERCOUNTER 19"X16" VITREOUS CHINA LAVATORY BOWL, GLAZED AND ADA COMPLIANT. PROVIDE WITH CHROME-PLATED CAST BRASS P-TRAP WITH CLEANOUT. CHROME PLATED GRIP TYPE SUPPLY WITH WALL ESCUTCHEON AND LOOSE-KEY WALL STOPS EQUAL TO MCGUIRE NO. H2. 15BLK. PROVIDE TRUEBRO INSULATION KIT FOR ADA COMPLIANCE.
	FTL	MANUAL LAVATORY FAUCET	KOHLER	HONESTY SERIES SINGLE-HANDLE BATHROOM SINK MODEL K099760-4N-CP	PROVIDE WITH "TMV" POINT OF USE THERMOSTATIC MIXING VALVE, DEFINED ON THIS SCHEDULE.	0.5 GPM	1/2"	1/2"	-	-	MULTIPLE LAMINAR SPRAY HEAD FAUCET WITH CHROME PLATED BRASS GRID STRAINER ASSEMBLY. CONFIRM ALL FINISH COLORS WITH ARCHITECT PRIOR TO ORDER.
	MS	MOP SINK	FLORESTONE	MODEL # 87	PROVIDE WITH "FTM" FAUCET FOR SERVICE OR MOP SINK, DEFINED ON THIS SCHEDULE.	-	REF: FTM	REF: FTM	3"	2"	36" X 36" X 12" TERRAZZO MOP SINK WITH STAINLESS STEEL BUMPER GUARD, STAINLESS STEEL BACK PANELS.
	FTM	FAUCET FOR MOP OR SERVICE SINK	CHICAGO FAUCETS	MODEL # 540-LD897SGXKCCP	PROVIDE WITH "TMV" POINT OF USE THERMOSTATIC MIXING VALVE, DEFINED ON THIS SCHEDULE, AND 5FT HOSE.	FULL FLOW	3/4"	3/4"	-	-	VANDAL PROOF LEVER, VACUUM BREAKER, CHROME PLATED, PAIL HOOK, HOSE THREADED OUTLET, ADA COMPLIANT. PROVIDE WITH 5FT HOSE AND COUPLING.
	EWC	ELECTRIC WATER COOLER WITH BOTTLE FILLER	HALSEY TAYLOR (ELKAY)	EZSTL8WSK	PROVIDE WITH "RPZ-S" (REDUCED PRESSURE ZONE SMALL) BACKFLOW PREVENTION DEVICE, DEFINED ON THIS SCHEDULE. MOUNT THE RPZ WITHIN THE WATER COOLER HOUSING, AND ABOVE THE LEVEL OF THE P-TRAP SO IT CAN GRAVITY DRAIN TO THE P-TRAP. ROUTE RPZ DRAIN TO THE TAILPIECE OF THE P-TRAP WITHIN THE WATER COOLER. TAP THE RPZ DRAIN LINE INTO THE SIDE OF THE TAILPIECE BEFORE THE P-TRAP. IF THE RPZ DOES NOT PHYSICALLY FIT WITHIN THE WATER COOLER HOUSING, PROVIDE THE RPZ IN THE CEILING JUST ABOVE THE WATER COOLER, OR IN THE WALL BESIDE THE WATER COOLER. ENSURE THE RPZ IS ACCESSIBLE AND PROVIDE ACCESS PANELS AS NEEDED IN THE WALL OR CEILING.	8 GPH	1/2"	-	2"	1-1/2"	BARRIER FREE, BI-LEVEL, REFRIGERATED, NON-FILTERED, WATER COOLER AND BOTTLE FILLING STATION WITH STAINLESS STEEL FINISH. PROVIDE WITH WALL CARRIER #MLP200. COOLER BI-LEVEL UNIT SHALL DELIVER 8.0 GPH OF 50˚F WATER AT 80˚F INLET TEMPERATURE. REFRIGERANT SHALL BE R134A. PROVIDE WITH FACTORY INSTALLED PLUG AND POWER CORD. COORDINATE WITH ELECTRICAL CONTRACTOR TO ENSURE A SIMPLEX, GFCI RECEPTACLE, OR GFCI CIRCUIT BREAKER IF THE RECEPTACLE IS INACCESSIBLE, ON A DEDICATED 120V/20A/1P CIRCUIT IS PROVIDED AT EACH WATER COOLER.
	HD	HUB DRAIN	JOSAM	SERIES 88600	-	-	-	-	REF: PLANS	REF: PLANS	OPEN CAST IRON DRAINAGE HUB. REFER TO PLANS FOR SIZE.
	FD	FLOOR DRAIN SQUARE	JOSAM	MODEL # 30000-S	-	-	-	-	3"	2"	SQUARE, COATED CAST IRON FLOOR DRAIN, TWO-PIECE BODY WITH DOUBLE DRAINAGE FLANGE, FLASHING COLLAR, WEEP-HOLES, AND BOTTOM OUTLET. PROVIDE CHROME PLATED STRAINER. DRAIN SHALL BE COVERED DURING CONSTRUCTION. PROVIDE WITH PROTECTIVE DEBRIS COVER.
	FS	FLOOR SINK	ZURN	1900-NH-ZN-KC-P-2-32	-	-	-	-	4"	2"	SQUARE CAST IRON FLOOR SINK WITH WHITE A.R.E. COATED INTERIOR, DOUBLE DRAINAGE FLANGE WITH WEEPHOLES, BOTTOM OUTLET., ALUMINUM INTERNAL DOME STRAINER, NON-TRAFFIC, ANTI-TILTING GRATE. 12" X 12" TOP SIZE WITH N.B. FRAME AND 1/2 GRATE. PROVIDE WITH TRAP GUARD, "W/TG" OR TRAP PRIMER "W/TP" AS INDICATED PER PLANS.
	FCO	FLOOR CLEANOUT	JOSAM	SERIES 55000-2-31	-	-	-	-	REF: PLANS	-	CAST IRON BODY WITH SATIN FINISH NIKOLAY TOP. CONFIRM FINISH COLOR WITH ARCHITECT. CONFIRM EXACT LOCATIONS WITH ARCHITECT PRIOR TO ROUGH-IN.
	WCO	WALL CLEANOUT	JOSAM	SERIES 58910	-	-	-	-	REF: PLANS	-	COATED CAST IRON CLEANOUT TEE WITH RECESSED, TAPPED PLUG AND POLISHED STAINLESS STEEL COVER (SERIES 58600).
	WMB	WASHING MACHINE BOX	OATEY	MODEL #38540	INSTALL WATER LINES WITH WATER HAMMER ARRESTORS.	-	1/2"	1/2"	2"	2"	QUATRO 1/4 TURN BRASS HAMMER BALL VALVE - COPPER SWEAT PACK.
	HSA	HYDRAULIC SHOCK ABSORBER	JOSAM	SERIES 75000	-	-	REF: PLANS	REF: PLANS	-	-	WROUGHT COPPER SHELL SIZE AND LOCATE IN ACCORDANCE WITH P.D.I. STANDARDS.
	VTR	VENT TO ROOF - TWO WAY CARBON FILTER	STUDOR	MAXI-FILTRA	-	-	-	-	-	REF: PLANS	PROVIDE CARBON FILTER ON ALL VENT TO ROOF LOCATIONS. INSTALL PER MANUFACTURERS RECOMMENDATIONS. CARBON FILTER SHALL BE EXTERIOR RATED, PROVIDED WITH ALUMINUM EXTERIOR COVER. IT SHALL BE A 2-WAY VENT, FILTERING AIR IN BOTH DIRECTIONS. CONTRACTOR SHALL PROVIDE (1) REPLACEMENT CARTRIDGE IN THE MANUFACTURER'S ORIGINAL PACKAGING FOR OWNER'S ATTIC STOCK. REFER TO VENT TO ROOF DETAIL FOR MORE INFORMATION.
	TG	TRAP GUARD	PRO-SET	TRAP GUARD	-	-	-	-	REF: FDx	-	INSTALL ON ALL FLOOR DRAINS, FLOOR SINKS, FLOOR TROUGHS AND HUB DRAINS THAT ARE INDICATED "W/TG" WITH TRAP GUARD. NOTE THAT ANY ALTERNATE TRAP GUARD SUBMITTED MUST BE OF THIS "LAMBS TONGUE" OR "CURLING FLAP" TYPE FORM. NO OTHER FORMS OF TRAP GUARDS WILL BE ACCEPTED.
	AG	DISHWASHER AIR GAP	DEARBORN BRASS	MODEL # DB-CD-3	-	-	-	-	REF: EQUIP MENT	-	COPPER BODY AIR GAP WITH POLISHED CHROME PLATED METAL CAP. PROVIDE WITH NECESSARY ACCESSORIES AND TUBING FOR A COMPLETE INSTALLATION. CONFIRM COLOR/FINISH WITH ARCHITECT.
	BFP	SMALL DUAL CHECK VALVE WITH ATMOSPHERIC PORT AND STRAINER FOR CARBONATED BEVERAGE MACHINE OR COFFEE MAKER, ETC	WATTS	MODEL # SD-3	-	-	REF: PLANS	REF: PLANS	VARIES	-	ASSE 1022 BACKFLOW PREVENTER FOR CARBONATED BEVERAGE MACHINES AND OTHER APPLIANCES. SHALL BE LEAD FREE. PROVIDE COPPER DRAIN PIPING (SIZE PER MANUFACTURER) FROM VALVE ASSEMBLY AND ROUTE TO NEAREST DRAIN (HUB DRAIN OR FLOOR SINK).
	RPZ-S	SMALL REDUCED PRESS RELIEF ASSEMBLY FOR MAKEUP WATER TO MECHANICAL EQUIPMENT, ICE MACHINE, OR WATER FILTER, ETC	WATTS	1/2" - 2" MODEL #LF009QT	-	-	REF: PLANS	REF: PLANS	-	-	ASSE 1013 COMPLIANT REDUCED PRESSURE ZONE ASSEMBLY. REFER TO SPECIFICATIONS FOR ADDITIONAL REQUIREMENTS. PROVIDE WITH SHUTOFF VALVES, LEAD FREE, FDA EPOXY COATED. PROVIDE FULL SIZE COPPER DRAIN PIPING FROM VALVE ASSEMBLY AND PROVIDE FLOOR SINK FOR DRAIN NEAR ASSEMBLY AS SHOWN ON DRAWINGS. ENSURE ASSEMBLY IS ACCESSIBLE PER LOCAL JURISDICTION`S GUIDELINES.
	TMV	POINT OF MIXING VALVE	LEONARD	S-170A-LF	-	-	REF: PLANS	REF: PLANS	-	-	POINT OF USE MIXING VALVE. VALVE SHALL BE ASSE 1070 CERTIFIED AND CAPABLE OF MEETING OR EXCEEDING ALL OF THE FOLLOWING CHARACTERISTICS; -MINIMUM FLOW: 0.25 GPM (0.95 L/MIN) CERTIFIED TO ASSE -MAXIMUM FLOW: 4 GPM -MAXIMUM PRESSURE: 125 PSI (8.6 BAR) -MAXIMUM HOT WATER TEMPERATURE: 180 DEG F (82 DEG C) -HOT WATER INLET TEMPERATURE RANGE:120-180 DEG F (49-82 DEG C) -COLD WATER INLET TEMPERATURE RANGE: 33-80 DEG F (1-27 DEG C) -TEMPERATURE ADJUSTMENT RANGE: 95-120 DEG F (35-49 DEG C) -NSF 61 CERTIFIED LEAD-FREE
	TMV ACCEPTABLE ALTERNATE	POINT OF MIXING VALVE	SLOAN	MODEL # MIX-135 0326045PK	-	-	REF: PLANS	REF: PLANS	-	-	-POINT OF USE MIXING VALVE. VALVE SHALL BE ASSE 1070 CERTIFIED AND CAPABLE OF MEETING OR EXCEEDING ALL OF THE FOLLOWING CHARACTERISTICS; -MINIMUM FLOW: 0.5 GPM (2.2 L/MIN) CERTIFIED TO ASSE 1016 [ONLY ALLOWED IF FAUCET IS 0.5 GPM OR GREATER. IF THE FAUCET IS LESS THEN 0.5 GPM THE CONTRACTOR SHALL PROVIDE THE LEONARD TMV.] -MAXIMUM FLOW: 4 GPM -MAXIMUM PRESSURE: 125 PSI (8.6 BAR) -MAXIMUM HOT WATER TEMPERATURE: 180 DEG F (82 DEG C) -HOT WATER INLET TEMPERATURE RANGE: 120-180 DEG F (49-82 DEG C) -COLD WATER INLET TEMPERATURE RANGE: 33-80 DEG F (1-27 DEG C) -TEMPERATURE ADJUSTMENT RANGE: 95-120 DEG F (35-49 DEG C) -NSF 61 CERTIFIED LEAD-FREE

GENERAL NOTES:

1 REFER TO SPECIFICATIONS FOR ADDITIONAL REQUIREMENTS.
2 EQUIPMENT SHALL BE INSTALLED TO MEET ALL RECOMMENDATIONS OF THE MANUFACTURERS, MANUFACTURERS PIPING DIAGRAM, ETC.
3 ALL WATER CLOSET FLUSH VALVES, URINAL FLUSH VALVES, PRIVATE LAVATORY FAUCETS, AND SHOWERHEAD FAUCETS SHALL BE LEED WATERSENSE LABELED. NO EXCEPTIONS. EVEN IF THE PROJECT IS NOT A LEED PROJECT PURDY-MCGUIRE STILL REQUIRES ALL THESE FIXTURE TYPES TO BE WATERSENSE LABELED.
4 REFER TO ARCHITECTURAL PLANS FOR ALL FINISH COLORS. FOR ALL VISIBLE FIXTURES, THE CONTRACTOR SHALL INCLUDE PRICING FOR A PREMIUM FINISH IN THE BASE BID TO BE SELECTED BY THE ARCHITECT DURING THE SUBMITTAL PHASE.
5 SUBJECT TO COMPLIANCE WITH ALL REQUIREMENTS LISTED IN THE SCHEDULE AND SPECIFICATIONS, EQUAL MANUFACTURERS INCLUDE THE FOLLOWING:
A. FLUSHOMETERS: SLOAN, AMERICAN STANDARD, TOTO AND ZURN.
B. FIXTURE SUPPORTS: JOSAM, MIFAB, JAY R. SMITH, TYLER PIPE WADE DIV., WATTS DRAINAGE PRODUCTS AND ZURN.
C. WATER CLOSETS AND URNIALS: AMERICAN STANDARD, KOHLER, SLOAN, TOTO, ZURN, AND CHURCH (SEATS).
D. LAVATORIES AND FAUCETS: AMERICAN STANDARD, ELKAY, KOHLER, SLOAN, TOTO, BRADLEY, AND ZURN.
E. SINKS AND FAUCETS: AMERICAN STANDARD, ELKAY, JUST, CHICAGO, ADVANCE TABCO, AND SYMMONS.
F. MOP SINKS: FIAT, FLORESTONE, AMERICAN STANDARD, ELKAY, ZURN, AND SPEAKMAN.
G. EMERGENCY SHOWERS AND EYE WASHES: GUARDIAN, BRADLEY, AND SPEAKMAN.
H. WATER METERS: MASTER METER, BADGER, NEPTUNE, AND EMON.
I. DRAINS AND CLEAN-OUTS: JOSAM, MIFAB, JAY R SMITH, WATTS, ZURN, AND SIOUX CHIEF.
J. TRAP GUARDS: PRO-SET. SEE THE TRAP GUARD DESCRIPTION ABOVE FOR OTHER EQUAL ALTERNATE MANUFACTURERS.
K. BACKFLOW PREVENTERS: WATTS, AND BEECO.

Plumbing Equipment Extended Warranty Schedule

Spec Section

	Product	Extended Warranty Description
Division 22 - Pumbing		
220513	Variable frequency drives	30 months parts and labor for all components
220533	Electric heating cables	2 years parts and labor
223300	Commercial electric water heaters - Instantaneous	5 years parts and labor for five years.
223300	Commercial electric water heaters - Tank type	5 years parts and labor resulting from tank leaks.
223400	Commercial fuel-fired water heaters - Tank type	Leaks and all components parts and labor for three years.
223400	Commercial fuel-fired water heaters - Instantaneous	Leaks and heat exchanger 5 years parts and labor; All other components 3 years parts and labor.
223500	DHW semi-instantaneous heat exchangers	5 years parts and labor for heat exchanger and pressure vessel; All other components 3 years parts and labor.

Notes:

1. All materials, equipment, and workmanship for all MEP systems are fully warranted for 1 year from the date of substantial completion. This warranty shall include required parts and labor.
2. Extended warranties listed above also begin at the date of substantial completion.
3. The most stringent requirements, from either this schedule or the specifications, shall be met by the contractor.

D. SCOTT BROWN
89097
LICENSED
PROFESSIONAL ENGINEER
1-30-2025

TREANOR
2554 Elm Street, Suite 200
Dallas, TX 75226
Office: 214.310.1018
www.TreanorHL.com

Mechanical - Electrical Engineers
17300 North Dallas Parkway
Suite 3000
Dallas, TX 75248-1147
Firm Registration # F-1511
Tel: 972/239-5357
Fax: 972/239-5231
www.purdy-mcguire.com

PM/ JOB NO. 23037.002
PROJECT MGR. SCOTT BROWN
MITCHELL HENTON
MECHANICAL MITCHELL HENTON
PLUMBING CHRIS WOODYARD
ELECTRICAL CHRIS WOODYARD

UNIVERSITY OF NORTH TEXAS
KERR HALL INTERIOR RENOVATION
1413 West Maple St
Denton, TX 76201

UNT UNIVERSITY OF NORTH TEXAS

Issue:	ISSUE FOR CONSTRUCTION
Date:	JANUARY 30, 2025

REVISIONS

NO	DESCRIPTION	DATE

iP002

PLUMBING FIXTURE SCHEDULE

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DIVISION 22 - PLUMBING

SECTION 220500 - COMMON WORK RESULTS

PART 1 - GENERAL

1.1 GENERAL NOTES

A. DRAWINGS AND GENERAL PROVISIONS OF THE CONTRACT, INCLUDING GENERAL AND SUPPLEMENTARY CONDITIONS AND ALL OTHER SPECIFICATION SECTIONS, APPLY TO THIS AND THE OTHER SECTIONS OF DIVISION 22.

B. THE CONTRACTOR FOR THIS DIVISION OF WORK IS REQUIRED TO OBTAIN A COMPLETE SET OF BID DOCUMENTS (DRAWINGS AND SPECIFICATIONS) AND FULLY REVIEW THEM. COORDINATE DIVISION 22 WORK WITH THAT OF ALL OTHER DIVISIONS OF WORK.

C. THE DRAWINGS AND SPECIFICATIONS ARE INTENDED TO SUPPLEMENT EACH OTHER. ANY LABOR OR MATERIAL CALLED FOR IN ONE SHALL BE FURNISHED AND INSTALLED EVEN THOUGH NOT SPECIFICALLY MENTIONED IN BOTH. ANY LABOR OR MATERIAL WHICH IS NEITHER SHOWN ON THE DRAWINGS OR CALLED FOR IN THE SPECIFICATIONS, BUT WHICH IS OBVIOUSLY REQUIRED TO COMPLETE THE WORK, AND WHICH IS NORMALLY INCLUDED IN WORK OF SIMILAR CHARACTER, SHALL BE FURNISHED AND INSTALLED AS PART OF THIS CONTRACT.

D. THE CONTRACTOR IS RESPONSIBLE FOR SCHEDULING THE COMPLETION AND INSPECTION OF THIS WORK TO COMPLY WITH THE OWNER'S SCHEDULE AND PROJECT COMPLETION DATE.

1.2 SCOPE OF WORK

A. THE DESCRIPTION OF GENERAL CONDITION WORK IN THIS DIVISION SHALL ALSO APPLY TO DIVISIONS 21 AND 23.

B. THIS CONTRACTOR SHALL PROVIDE ALL LABOR, MATERIALS, EQUIPMENT, TOOLS, TRANSPORTATION, INCIDENTALS AND DETAILS NECESSARY TO PROVIDE A COMPLETE FIRE PROTECTION, PLUMBING AND HVAC SYSTEM AS SHOWN ON THE DRAWINGS, CALLED FOR IN THE SPECIFICATIONS AND AS REQUIRED BY JOB CONDITIONS. WORK IS TO BE COMPLETE IN EVERY RESPECT, WHETHER SPECIFICALLY MENTIONED IN THE CONTRACT DOCUMENTS OR NOT.

C. ALL WORK NOT SPECIFICALLY NOTED AS BEING BY THE OWNER (BUILDING OWNER, LANDLORD OR TENANT), SHALL BE PROVIDED BY THIS CONTRACTOR.

D. THIS WORK, MATERIALS AND EQUIPMENT INCLUDES, BUT IS NOT LIMITED TO THE FOLLOWING ITEMS:

a. FIRE PROTECTION MODIFICATIONS AND ADDITIONS INCLUDING, BUT LIMITED TO PIPING, SPRINKLER HEADS AND CONTROL VALVES.

b. PLUMBING WORK INCLUDING, BUT NOT LIMITED TO WASTE AND VENT PIPING, DOMESTIC WATER SERVICE AND DISTRIBUTION, PLUMBING FIXTURES, WATER HEATERS AND ROUGH-IN/CONNECTION TO EQUIPMENT FURNISHED BY THE OWNER OR OTHER SECTIONS OF THE SPECIFICATIONS.

c. HEATING, VENTILATING AND AIR CONDITIONING SYSTEMS INCLUDING, BUT NOT LIMITED TO HEATING AND COOLING UNITS, VENTILATING SYSTEMS, COMPLETE DUCT SYSTEMS, GRILLES REGISTERS AND DIFFUSERS, INSULATION, ACCESSORIES AND TEMPERATURE CONTROL SYSTEMS.

1.3 CODES

A. ALL WORK SHALL CONFORM TO THE OWNER'S CRITERIA, STATE, COUNTY, CITY AND LOCAL CODES AND ORDINANCES, SAFETY AND HEALTH CODES, NFPA CODES, ENERGY CODES AND ALL OTHER APPLICABLE CODES AND REQUIREMENTS. THIS CONTRACTOR SHALL INQUIRE INTO AND COMPLY WITH ALL APPLICABLE CODES, ORDINANCES AND REGULATIONS. THIS CONTRACTOR SHALL INCLUDE ANY CHANGES REQUIRED BY CODES IN THE BID AND IF THESE CHANGES ARE NOT INCLUDED IN THE BID, THEY MUST BE QUALIFIED AS A SEPARATE LINE ITEM IN THE BID. AFTER CONTRACT IS AWARDED, CHANGE ORDERS FOR INCREASED COSTS DUE TO CODE ISSUES WILL NOT BE ACCEPTED UNLESS ALLOWANCES HAVE BEEN PREVIOUSLY AGREED UPON.

B. WHERE THE DRAWINGS AND SPECIFICATIONS CALL FOR ITEMS WHICH EXCEED CODE OR THE OWNER'S CRITERIA, THE CONTRACTOR IS RESPONSIBLE FOR FURNISHING AND INSTALLING THE SYSTEM WITH THE MORE STRINGENT REQUIREMENTS.

1.4 LICENSES, PERMITS, INSPECTIONS AND FEES

A. THIS CONTRACTOR SHALL OBTAIN AND PAY FOR ALL LICENSES, PERMITS, INSPECTIONS AND FEES REQUIRED OR RELATED TO THIS WORK. ALL COSTS ASSOCIATED WITH THESE SHALL BE PAID FOR BY THE CONTRACTOR AND INCLUDED AS PART OF THE BID.

B. FURNISH TO THE OWNER ALL CERTIFICATES OF INSPECTION AND FINAL INSPECTION APPROVAL AT THE COMPLETION OF THE PROJECT.

1.5 GUARANTEE

A. ALL MATERIALS, EQUIPMENT AND WORKMANSHIP SHALL BE GUARANTEED FOR A PERIOD OF 1 YEAR FROM THE DATE OF ACCEPTANCE (OFFICIAL DATE IN WRITING) OF THIS PROJECT. ALL WORK FOUND TO BE DEFECTIVE SHALL BE REPAIRED OR REPLACED BY THE CONTRACTOR AT NO COST TO THE OWNER.

B. WHERE SPECIFIC EQUIPMENT IS NOTED TO HAVE EXTENDED WARRANTIES, THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE PROPER REGISTRATION SO THE OWNER CAN MAKE ALL APPROPRIATE CLAIMS.

1.6 RECORD DRAWINGS

A. THIS CONTRACTOR SHALL MAINTAIN ONE SET OF DRAWINGS ON THE JOBSITE, UPDATED WEEKLY, TO RECORD ALL DEVIATIONS FROM THE CONTRACT DOCUMENTS SUCH AS:

a. LOCATIONS OF CONCEALED PIPING AND DUCTS

b. REVISIONS, ADDENDUMS AND CHANGE ORDERS

c. SIGNIFICANT DEVIATIONS MADE NECESSARY BY FIELD CONDITIONS, APPROVED EQUIPMENT SUBSTITUTIONS, AND CONTRACTOR'S COORDINATION WITH OTHER TRADES.

B. DELIVER RECORD DRAWINGS TO THE OWNER AT PROJECT COMPLETION.

1.7 DEMOLITION

A. THIS CONTRACTOR SHALL BE RESPONSIBLE FOR THE COORDINATION OF THE DEMOLITION OF EXISTING WORK AND THE DEMOLITION PROVIDED BY THE GENERAL CONTRACTOR. COORDINATE WITH THE GENERAL CONTRACTOR ALL EXISTING EQUIPMENT REQUIRED TO BE LEFT INTACT.

B. THIS CONTRACTOR SHALL INCLUDE AND BE RESPONSIBLE FOR THE REMOVAL OF ALL FIRE PROTECTION, PLUMBING AND HVAC SYSTEMS NOTED ON THE DRAWINGS OR REQUIRED TO ACCOMPLISH THE STATED WORK.

PART 2 - PRODUCTS

2.1 MATERIALS

A. MATERIALS UTILIZED IN THE CONSTRUCTION OF THIS PROJECT SHALL BE NEW AND CARRY UL LABELS WHERE APPLICABLE, UNLESS APPROVED BY THE OWNER.

B. ANY USED EQUIPMENT OR MATERIALS USED SHALL STILL CARRY THE SPECIFIED 1 YEAR GUARANTEE AND APPROVAL OF THE USE OF THIS EQUIPMENT OR MATERIALS DOES NOT RELIEVE THE CONTRACTOR FROM ENSURING EVERYTHING IS OPERATIONAL.

2.2 MANUFACTURERS

A. WHERE TRADE NAMES OR MANUFACTURERS ARE USED ON THE DRAWINGS OR IN THE SPECIFICATIONS, THE EXACT EQUIPMENT SHALL BE CONSIDERED THE BASIS OF DESIGN AND USED AS A MINIMUM FOR THE BASE BID. MANUFACTURERS CONSIDERED AS AN EQUAL OR BETTER IN ALL ASPECTS TO THAT SPECIFIED, WILL BE SUBJECT TO APPROVAL IN WRITING BY THE ENGINEER THROUGH THE SHOP DRAWING SUBMITTAL PROCESS, FOR ACCEPTANCE PRIOR TO INSTALLATION. THE USE OF ANY UNAUTHORIZED EQUIPMENT SHALL BE REPLACED AT THE CONTRACTOR'S EXPENSE.

2.3 SLEEVES

A. PROVIDE SLEEVES TO PROTECT EQUIPMENT OR FACILITIES IN THE INSTALLATION. EACH SLEEVE SHALL EXTEND THROUGH ITS RESPECTIVE FLOOR, WALL OR PARTITION AND SHALL BE CUT FLUSH WITH EACH SURFACE EXCEPT SLEEVES THAT PENETRATE THE FLOOR, WHICH SHALL EXTEND 2 INCHES ABOVE THE FLOOR.

B. CONTRACTOR SHALL COORDINATE THROUGH THE GENERAL CONTRACTOR AND OWNER ANY CORE DRILLING OR CUTTING OF OPENINGS IN MASONRY WALLS OR CONCRETE FLOORS.

C. ALL SLEEVES AND OPENINGS THROUGH FIRE RATED WALLS AND FLOORS SHALL BE FIRED SEALED. REFER TO “FIRE STOPPING.”

D. SLEEVES IN BEARING AND MASONRY WALLS, FLOORS AND PARTITIONS SHALL BE STANDARD WEIGHT STEEL PIPE FINISHED WITH SMOOTH EDGES. FOR OTHER THAN MASONRY PARTITIONS , THROUGH SUSPENDED CEILINGS, OR FOR CONCEALED VERTICAL PIPING, SLEEVES SHALL BE MINIMUM NO. 22 USG GALVANIZED STEEL.

2.4 FLAME SPREAD PROPERTIES OF MATERIALS

A. MATERIALS USED ON THIS PROJECT SHALL EACH HAVE A FLAME SPREAD RATING OF 25 OR LESS, AND A SMOKE DEVELOPED RATING OF 50 OR LESS, AS DETERMINED BY AN INDEPENDENT TESTING LABORATORY IN ACCORDANCE WITH NFPA-255.

2.5 FIRE STOPPING

A. PROVIDE FIRE STOPPING IN SEALING OF PENETRATIONS IN FIRE-RATED CONSTRUCTION, HORIZONTAL AND VERTICAL, INCLUDING THE FOLLOWING MATERIALS:

a. FOAM: DOW CORNING FIRESTOP SILICONE RTV FOAM, CAT #2001 LIQUID COMPONENT PART A (BLACK) AND LIQUID COMPONENT PART B (OFF-WHITE).

b. SEALANT: 3M 1000 NS AND 1003 SL SILICONE ADHESIVE SEALANT.

c. DAMMING MATERIALS: MINERAL FIBERBOARD, MINERAL FIBER MATTING, MINERAL FIBER PUTTY, PLYWOOD OR PARTICLE BOARD, AS SELECTED BY THE APPLICATOR.

B. MIXES SHALL CONFORM TO THE MANUFACTURER'S DIRECTIONS.

2.6 FLOOR, CEILING AND WALL PLATES

A. PROVIDE CHROME-PLATED, ONE-PIECE, ESCUTCHEONS ON PIPES AND HANGER RODS PENETRATING WALLS, FLOORS AND CEILINGS IN FINISHED AREAS OF THE BUILDING. SPLIT RING ESCUTCHEONS ARE NOT ACCEPTABLE.

2.7 DIELECTRIC CONNECTIONS

A. CONNECTIONS BETWEEN FERROUS AND NON-FERROUS PIPING SYSTEMS, AND BETWEEN FERROUS PIPING SYSTEMS AND NON-FERROUS CONNECTIONS TO EQUIPMENT SHALL BE MADE BY THE USE OF DIELECTRIC UNIONS, COUPLINGS OR FLANGES.

2.8 EQUIPMENT FOUNDATIONS AND SUPPORTS

A. PROVIDE FOUNDATIONS AND SUPPORTS FOR MECHANICAL EQUIPMENT AS REQUIRED. THESE SHALL INCLUDE REINFORCED CONCRETE HOUSEKEEPING PADS FOR ANY PUMPS OR AIR HANDLING UNITS INSTALLED INDOORS ON THE FLOOR. PADS SHALL EXTEND A MINIMUM OF 3 INCHES BEYOND EQUIPMENT IN ALL DIRECTIONS.

PART 3 - EXECUTION

3.1 SPACE AND EQUIPMENT ARRANGEMENT

A. EACH CONTRACTOR SHALL BE RESPONSIBLE TO SEE THAT THEIR PURCHASED EQUIPMENT WILL FIT THE SPACES AVAILABLE. IN CERTAIN INSTANCES NOTE THAT THE EQUIPMENT IS MENTIONED BY NAME IN THE EQUIPMENT SCHEDULES. IN THESE CASES IT IS THAT EQUIPMENT WHOSE DIMENSIONS AND CONNECTION ARRANGEMENTS HAVE BEEN USED FOR THE PREPARATION OF THE LAYOUTS SHOWN ON THE WORKING DRAWINGS. SHOULD THE USE OF EQUIPMENT BY OTHER APPROVED MANUFACTURERS OR OF OTHER PHYSICAL SHAPE THAN THOSE SHOWN ON THE DRAWINGS BE PROPOSED, THE CONTRACTOR SHALL CONFIRM THE EQUIPMENT WILL FIT WITHIN THE ALLOTTED SPACE WITHOUT ARCHITECTURAL MODIFICATIONS OR IMPACT ON OTHER TRADES.

B. ALL WORK SHALL BE INSTALLED SO AS TO BE READILY ACCESSIBLE FOR OPERATING, SERVICING, MAINTAINING, AND REPAIRING. PROVIDE SUFFICIENT SERVICE ACCESS TO ALL EQUIPMENT.

C. BEFORE STARTING WORK THIS CONTRACTOR SHALL EXAMINE THE ARCHITECTURAL, STRUCTURAL, POWER, LIGHTING AND FIRE ALARM PLANS, SHOP DRAWINGS AND SPECIFICATIONS TO SEQUENCE, COORDINATE AND INTEGRATE THE VARIOUS ELEMENTS OF THE MECHANICAL SYSTEMS TO AVOID INTERFERENCES AND CONFLICTS.

3.2 MANUFACTURER'S DIRECTIONS

A. THE MANUFACTURER'S PUBLISHED DIRECTIONS SHALL BE FOLLOWED IN THE DELIVERY, STORAGE, PROTECTION, INSTALLATION, PIPING AND WIRING OF ALL EQUIPMENT AND MATERIAL. THE CONTRACTOR SHALL PROMPTLY NOTIFY THE OWNER IN WRITING OF ANY CONFLICT BETWEEN THE REQUIREMENTS OF THE CONTRACT DOCUMENTS AND THE MANUFACTURER'S DIRECTIONS, AND SHALL OBTAIN INSTRUCTIONS BEFORE PROCEEDING WITH THE WORK. SHOULD THE CONTRACTOR PERFORM ANY WORK BEFORE RECEIVING SUCH INSTRUCTIONS, HE SHALL BEAR ALL COSTS ARISING IN CONNECTION WITH THE DEFICIENCIES.

3.3 CONSTRUCTION REQUIREMENTS

A. THE DRAWINGS AND SPECIFICATIONS SHOW PIPE AND DUCT SIZES, GENERAL ROUTING AND LOCATION, AND DESCRIBE THE VARIOUS SYSTEMS. THESE DOCUMENTS DESCRIBE AND SIZE EQUIPMENT, ITS GENERAL LOCATION, USAGE, SUPPORT AND AUXILIARY REQUIREMENTS. THEY DESCRIBE MOST, BUT NOT ALL OF THE MATERIALS AND THEIR USAGE FOR THIS PROJECT.

B. CONTRACT DOCUMENTS DO NOT DETAIL ALL JOB REQUIREMENTS. THEY DO NOT SHOW LAYOUTS, LOCATIONS OR ELEVATIONS OF DUCTS, ANCHORS, SLEEVES, HANGERS, UNDERFLOOR DRAINS, OR ACCESS DOORS. THEY DO NOT SHOW FINAL PRECISE LOCATIONS OF EQUIPMENT BY DIMENSIONS IN ALL INSTANCES.

C. THE EXACT LOCATION OF EACH ITEM SHALL BE DETERMINED BY REFERENCE TO THE PROJECT CONTRACT DRAWINGS, AND TO DETAILS, EQUIPMENT DRAWINGS, AND ROUGH-IN DRAWINGS, BY MEASUREMENTS AT THE BUILDING, AND IN COOPERATION WITH THE VARIOUS TRADES. MINOR RELOCATION NECESSITATED BY THE CONDITIONS AT THE SITE OR DIRECTED BY THE OWNER SHALL BE MADE WITHOUT ADDITIONAL COST TO THE OWNER. WHERE CONFLICTS OCCUR, WORK WITH ALL INVOLVED TRADES AND RESOLVE THE CONFLICT PRIOR TO ERECTION OF ANY WORK IN THE AREA INVOLVED.

3.4 FABRICATION OF PIPE

A. PIPING SHALL FOLLOW AS CLOSELY AS POSSIBLE THE ROUTES SHOWN ON THE DRAWINGS, TAKING INTO CONSIDERATION CONDITIONS TO BE MET AT THE SITE.

B. SHOULD ANY UNFORESEEN CONDITIONS ARISE, PIPING SHALL BE CHANGED OR REROUTED AS REQUIRED AFTER PROPER APPROVAL HAS BEEN OBTAINED BY OWNER.

C. PIPING SHALL BE CLEANED WHEN IT IS INSTALLED. BEFORE INSTALLATION IT SHALL BE CHECKED, UP ENDED, SWABBED IF NECESSARY, AND ANY RUST AND DIRT REMOVED.

3.5 EQUIPMENT FOUNDATIONS, HANGERS AND SUPPORTS

A. FOR FLOOR MOUNTED MECHANICAL EQUIPMENT, PROVIDE CONCRETE HOUSEKEEPING PADS NOT LESS THAN 3-1/2 INCH THICK REINFORCED WITH NO. 3 DOWELS AND NO. 3 BARS, 2 FEET-0 INCHES ON CENTER EACH WAY.

B. SUSPENDED EQUIPMENT SHALL HAVE SUPPORTS CONSISTING OF MANUFACTURED METAL FRAMING OR HANGERS CONFORMING TO SECTION 220529.

3.6 INSTRUCTIONS OF OWNER'S PERSONNEL

A. PROVIDE THE SERVICES OF COMPETENT ENGINEERS OR TECHNICIANS TO INSTRUCT REPRESENTATIVES OF THE OWNER IN COMPLETE AND DETAILED OPERATION AND MAINTENANCE OF EACH ITEM OF EQUIPMENT AND EACH SYSTEM.

B. THE CONTRACTOR SHALL BE FULLY RESPONSIBLE FOR PROPER MAINTENANCE OF EQUIPMENT AND SYSTEMS UNTIL THE INSTRUCTIONS HAVE BEEN GIVEN TO THE OWNER'S PERSONNEL AND THE LETTER OF RELEASE ACKNOWLEDGED.

C. PROVIDE OPERATION & MAINTENANCE MANUALS (3 COPIES), ALONG WITH AS-BUILT SET OF PRINTS PRIOR TO SUBSTANTIAL COMPLETION OF THE PROJECT.

3.7 ELECTRIC WIRING OF MOTORS AND EQUIPMENT

A. LOW VOLTAGE HVAC CONTROL WIRING WILL BE INSTALLED BY THE HVAC CONTRACTOR WITH FINAL CONNECTION TO THE HVAC EQUIPMENT BY THE HVAC CONTRACTOR. THE ELECTRICAL CONTRACTOR SHALL FURNISH ALL DISCONNECT SWITCHES AS REQUIRED FOR THE PROPER OPERATION OF THE EQUIPMENT UNLESS SUCH EQUIPMENT IS SPECIFIED TO BE PROVIDED WITH FACTORY MOUNTED DISCONNECT SWITCHES.

B. THE ELECTRICAL DESIGN AND DRAWINGS ARE BASED ON THE EQUIPMENT SCHEDULED AND SHOWN ON THE DRAWINGS, SHOULD ANY CONTRACTOR SUBMIT FOR APPROVAL EQUIPMENT REQUIRING CHANGES TO THE ELECTRICAL DESIGN FOR WHICH THE ELECTRICAL CONTRACTOR WILL REQUEST AN EXTRA, THIS EXTRA SHALL BE PAID BY THE CONTRACTOR PROVIDING THE ALTERNATE EQUIPMENT REQUIRING THE CHANGE.

3.8 QUIET OPERATION

A. THIS WORK SHALL BE INSTALLED IN SUCH A MANNER THAT UNDER ALL CONDITIONS OF LOAD IT SHALL OPERATE WITHOUT SOUND OR VIBRATION, WHICH IS OBJECTIONABLE IN THE OCCUPIED SPACES IN THE OPINION OF THE OWNER. IN THE CASE OF MOVING MACHINERY, SOUND OR VIBRATION ANNOYINGLY NOTICEABLE INSIDE ITS OWN ROOM CAN BE CONSIDERED AS OBJECTIONABLE. IN ANY CASE, SITUATION SHALL BE REMEDIED AT NOT COST TO THE OWNER.

3.9 CUTTING AND PATCHING

A. PROVIDE ALL CUTTING, CHASING AND CHANNELING REQUIRED FOR ANY WORK UNDER THIS DIVISION. CUTTING SHALL HAVE PRIOR APPROVAL FROM ARCHITECT AND OWNER.

B. ALL PATCHING SHALL BE BY GENERAL CONTRACTOR AND SHALL MATCH THE SURROUNDING SURFACES.

3.10 TESTS

A. THE CONTRACTOR INSTALLING THE PLUMBING SYSTEMS SHALL FOLLOW ALL TESTS AS REQUIRED TO PROVE COMPLIANCE WITH ALL LOCAL CODES. TESTS PERFORMED SHALL BE EQUAL TO OR EXCEED THAT HEREINAFTER SPECIFIED. ALL PIPING SYSTEMS SHALL BE TESTED BEFORE THEY ARE COVERED OR MADE UNAVAILABLE FOR THE COMPLETE INSPECTION OF ALL JOINTS. IN ADDITION TO THE ABOVE, EACH AND EVERY SYSTEM TO BE INSULATED SHALL BE THOROUGHLY TESTED BEFORE THE INSTALLATION IS APPLIED.

B. DOMESTIC WATER PIPING SYSTEM: UPON COMPLETION OF A SECTION OF THE ENTIRE WATER SUPPLY SYSTEM, IT SHALL BE TESTED AND PROVED TIGHT UNDER A WATER PRESSURE OF 125 PSIG, BUT NOT LESS THAN 10 PERCENT IN EXCESS OF THE WORKING PRESSURE UNDER WHICH IT IS TO BE USED. THE WATER USED FOR TESTS SHALL BE OBTAINED FROM A POTABLE SOURCE OF SUPPLY.

C. SANITARY SYSTEMS: ALL SANITARY SEWER SYSTEMS SHALL BE TESTED EITHER IN SECTIONS OR IN THEIR ENTIRETY IN ACCORDANCE WITH ALL THE REQUIREMENTS OF THE LOCAL PLUMBING CODE AND TO THE SATISFACTION OF THE LOCAL PLUMBING INSPECTOR. THESE TESTS SHALL BE EXAMINED IF DESIRED BY THE ARCHITECT OR HIS REPRESENTATIVE DURING THE TEST PERIOD AND AMPLE NOTICE OF PERFORMANCE OF THESE TESTS SHALL BE GIVEN.

END OF SECTION.

SECTION 220523 - GENERAL DUTY VALVES

PART 1 - GENERAL

1.1 SCOPE OF WORK

A. REFER TO SECTION 220500.

PART 2 - PRODUCTS

2.1 WATER SYSTEM VALVES

A. DOMESTIC, CHILLED, HOT, AND CONDENSER WATER SYSTEMS: PROVIDE VALVES, WHERE SHOWN ON THE DRAWINGS AND ELSEWHERE AS SPECIFIED OR REQUIRED, TO PROVIDE ISOLATION OF EQUIPMENT AND FIXTURES AND TO PROVIDE DRAINAGE OF LOW POINTS IN WATER LINES. VALVES SHALL BE IN ACCORDANCE WITH THE FOLLOWING DETAILED SPECIFICATIONS:

a. SIZES 2 INCH AND SMALLER: BALL VALVE: NIBCO 585-70, FULL PORT, BRONZE BODY WITH STAINLESS STEEL TRIM.

b. SIZES 2 INCH AND SMALLER: CHECK VALVE: NIBCO S-433 CLASS 150, BRONZE.

c. SIZES 2-1/2 INCH AND LARGER: BUTTERFLY VALVE: NIBCO LC2000 LUG STYLE, CAST IRON, 200 PSIG WITH STAINLESS STEEL TRIM AND EPDM SEAT.

d. SIZES 2-1/2 INCH AND LARGER: CHECK VALVE: NIBCO F-918-B CAST IRON, FLANGED, 200 PSIG WITH BRONZE TRIM.

PART 3 - EXECUTION

3.1 INSTALLATION

A. VALVES SHALL BE INSTALLED IN ACCORDANCE WITH THE MANUFACTURERS' RECOMMENDATIONS, AND IN SUCH MANNER AS TO PERMIT DISASSEMBLY, REMOVAL, REASSEMBLY AND REPLACEMENT.

END OF SECTION.

SECTION 220529 - HANGERS AND SUPPORTS

PART 1 - GENERAL

1.1 SCOPE OF WORK

A. REFER TO SECTION 220500.

PART 2 - PRODUCTS

2.1 GENERAL

A. PIPE HANGERS AND SUPPORTS SHALL CONFORM TO THE RECOMMENDATIONS OF ASHRAE, ASPE, ANSI AND MSS.

B. PROVIDE FACTORY-FABRICATED PIPE HANGERS AND SUPPORTS IN WHICH MATERIALS, DESIGN AND MANUFACTURE COMPLY WITH ANSI/MSS SP-58. SELECT AND APPLY PIPE HANGERS AND SUPPORTS IN COMPLIANCE WITH MSS SP-69, AND MANUFACTURER'S PUBLISHED PRODUCT INFORMATION. FABRICATE AND INSTALL PIPE HANGERS AND SUPPORTS IN COMPLIANCE WITH MSS SP-89.

C. USE ONLY ONE TYPE OF HANGER AND SUPPORT, BY ONE MANUFACTURER, FOR EACH PIPING SERVICE.

D. PROVIDE COPPER-PLATED HANGERS AND SUPPORTS FOR COPPER PIPING SYSTEMS WHERE HANGERS ARE IN CONTACT WITH BARE PIPE.

E. PROVIDE PROTECTIVE COATINGS ON HANGERS AND SUPPORTS WHEN LOCATED IN OUTDOOR AND/OR CORROSIVE ENVIRONMENTS. PROTECTIVE COATINGS SHALL BE AS RECOMMENDED BY THE COATING MANUFACTURER'S REQUIREMENTS.

2.2 HORIZONTAL PIPING HANGERS AND SUPPORTS

A. SELECT SIZE OF HANGERS AND SUPPORTS TO EXACTLY FIT PIPE SIZE FOR BARE PIPING, AND AROUND PIPING INSULATION WITH SADDLE OR SHIELD FOR INSULATED PIPING.

2.3 HANGER ROD ATTACHMENTS

A. SELECT SIZE OF HANGER ROD ATTACHMENTS TO SUIT HANGER RODS.

2.4 BUILDING ATTACHMENTS

A. SELECT SIZE AND TYPE OF BUILDING ATTACHMENTS TO SUIT HANGER RODS AND STRUCTURE.

2.5 PIPE INSULATION HANGER SHIELD INSERTS AND SHIELDS

A. THERMAL HANGER INSERTS SHALL BE DESIGNED TO PREVENT INSULATION FROM BEING CRUSHED BY THE WEIGHT OF THE PIPING AND CONTENTS.

B. SHIELDS SHALL BE FIELD OR FACTORY FABRICATED OF GALVANIZED SHEET METAL.

PART 3 - EXECUTION

3.1 PREPARATION

A. PROCEED WITH INSTALLATION OF HANGERS, SUPPORTS AND ANCHORS ONLY AFTER REQUIRED BUILDING STRUCTURAL WORK HAS BEEN COMPLETED IN AREAS WHERE THE WORK IS TO BE INSTALLED.

3.2 INSTALLATION OF BUILDING ATTACHMENTS

A. INSTALL BUILDING ATTACHMENTS AT REQUIRED LOCATIONS, ON STRUCTURE FOR PROPER SUPPORT. SPACE ATTACHMENTS WITHIN MAXIMUM PIPING SPAN LENGTH SPECIFIED IN THIS SECTION. INSTALL ADDITIONAL BUILDING ATTACHMENTS WHERE SUPPORT IS REQUIRED FOR ADDITIONAL CONCENTRATED LOADS, INCLUDING VALVES, FLANGES, GUIDES, STRAINERS AND EXPANSION JOINTS. ALSO PROVIDE ATTACHMENTS AT CHANGES IN DIRECTION OF PIPING AND WHERE REQUIRED BY A LIMITED CARRYING CAPACITY OF THE STRUCTURE.

3.3 INSTALLATION OF HANGERS AND SUPPORTS

A. INSTALL HANGERS, SUPPORTS, CLAMPS AND ATTACHMENTS TO SUPPORT PIPING PROPERLY FROM BUILDING STRUCTURE IN COMPLIANCE WITH MSS SP-69. ARRANGE THE GROUPING OF PARALLEL RUNS OF HORIZONTAL PIPING TO BE SUPPORTED TOGETHER IN TRAPEZE-TYPE HANGERS WHERE POSSIBLE. WHERE PIPING OF VARIOUS SIZES ARE TO BE SUPPORTED TOGETHER BY TRAPEZE HANGERS, SPACE HANGERS FOR SMALLEST PIPE SIZE OR INSTALL INTERMEDIATE SUPPORTS FOR SMALL DIAMETER PIPE. DO NOT USE WIRE OR PERFORATED METAL TO SUPPORT PIPING, AND DO NOT SUPPORT PIPING FROM OTHER PIPING.

B. INSTALL HANGER AND SUPPORTS COMPLETE WITH NECESSARY BOLTS, RODS, NUT WASHERS AND OTHER ACCESSORIES. EXCEPT AS OTHERWISE INDICATED FOR EXPOSED CONTINUOUS PIPE RUNS, INSTALL HANGERS AND SUPPORTS OF SAME TYPE AND STYLE AS INSTALLED FOR ADJACENT SIMILAR PIPING.

C. SUPPORT FIRE PROTECTION WATER PIPING INDEPENDENTLY OF OTHER PIPING.

3.4 PROVISIONS FOR MOVEMENT

A. INSTALL HANGERS AND SUPPORTS TO ALLOW MOVEMENT OF PIPING SYSTEMS AND TO PERMIT FREEDOM OF MOVEMENT BETWEEN PIPE ANCHORS, AND TO FACILITATE ACTION OF EXPANSION JOINTS, EXPANSION LOOPS, OFFSETS, EXPANSION BENDS AND SIMILAR UNITS.

B. INSTALL HANGERS AND SUPPORTS SO THAT PIPING, LOADING, AND STRESSES FROM MOVEMENT WILL NOT BE TRANSMITTED TO CONNECTED EQUIPMENT

3.5 INSULATED PIPING REQUIREMENTS

A. HANGERS FOR INSULATED COLD PIPING SHALL BE PLACED AROUND THE OUTSIDE OF THE INSULATION AND VAPOR BARRIER.

a. PROVIDE A 180 DEGREE THERMAL INSERT ON THE BOTTOM OF THE PIPE. EXTEND VAPOR BARRIER ON TOP OF INSERT AND INSULATION AND PROVIDE INSULATION SHIELD BETWEEN INSERT AND HANGER.

B. HANGERS FOR OTHER INSULATED PIPING MAY BE PLACED DIRECTLY AGAINST THE PIPING WITH INSULATION CARRIED COMPLETELY OVER AND AROUND HANGER AND ROD.

3.6 HANGER SPACING AND ROD SIZES

A. HANGERS SHALL BE SPACED SO AS TO SUPPORT PIPING PROPERLY. CAST IRON SOIL PIPES SHALL BE SUPPORTED ON HANGERS SPACED NOT MORE THAN PIPE LENGTH BEING EMPLOYED. HANGERS FOR ALL OTHER COPPER OR STEEL PIPING SHALL BE SPACED ACCORDING TO THE FOLLOWING SCHEDULE:

PIPE SIZE	MAXIMUM HANGER SPACING	MINIMUM ROD SIZE
1/2 INCH	5 FEET	3/8 INCH
3/4 INCH	5 FEET	3/8 INCH
1 INCH	6 FEET	3/8 INCH
1-1/4 INCH	6 FEET	3/8 INCH
1-1/2 INCH	8 FEET	3/8 INCH
2 INCH AND LARGER	8 FEET	1/2 INCH

B. AT NO TIME SHALL ANY SECTION OF PIPE HAVE LESS THAN TWO SUPPORTS.

END OF SECTION.

SECTION 220553 - IDENTIFICATION

PART 1 - GENERAL

1.1 SCOPE OF WORK

A. REFER TO SECTION 220500.

B. LABEL ALL NEW EQUIPMENT AND PIPING SYSTEMS.

PART 2 - PRODUCTS

2.1 PIPE LABELS

A. PRETENSION PIPE LABELS OF SEMI-RIGID PLASTIC FORMED TO COVER THE FULL CIRCUMFERENCE OF PIPE.

B. IDENTIFY THE SERVICE AND DIRECTION OF FLOW. LABELS SHALL CONTAIN AT LEAST ½ INCH HIGH LETTERING AND BE PLACED SO THEY ARE EASY TO READ.

2.2 VALVE TAGS

A. MULTILAYER, MULTICOLOR PLASTIC LABELS WITH MECHANICAL ENGRAVING AND CHAIN FOR ATTACHMENT TO VALVE.

2.3 EQUIPMENT LABELS

A. MULTILAYER, MULTICOLOR PLASTIC LABELS WITH MECHANICAL ENGRAVING AND HOLES FOR ATTACHMENT TO EQUIPMENT.

PART 3 - EXECUTION

3.1 PIPE LABELS

A. INSTALL PIPE LABELS WHERE PIPING IS EXPOSED OR ABOVE AN ACCESSIBLE CEILING AT MAXIMUM 20 FT. CENTERS.

3.2 VALVE TAGS

A. ATTACH TAGS TO VALVES USING CHAIN. PROVIDE A VALVE SCHEDULE FOR MOUNTING IN THE MECHANICAL ROOM.

3.3 EQUIPMENT LABELS

A. PERMANENTLY ATTACH LABELS TO EQUIPMENT. LOCATE WHERE LABEL CAN BE EASILY SEEN AND READ.

END OF SECTION.

SECTION 221116 - DOMESTIC WATER PIPING

PART 1 - GENERAL

1.1 SCOPE OF WORK

A. REFER TO SECTION 220500

PART 2 - PRODUCTS

2.1 COPPER PIPING

A. PROVIDE SOFT COPPER TUBE, TYPE “K”, WITH SOLDER-JOINT FITTINGS FOR UNDER SLAB INSTALLATIONS.

B. PROVIDE HARD COPPER TUBE, TYPE “L”, WITH SOLDER JOINT FITTINGS FOR ALL ABOVE GRADE INSTALLATIONS.

PART 3 - EXECUTION

3.1 INSTALLATION

A. CLEAN AND DISINFECT ALL NEW PIPING WITH WATER/CHLORINE SOLUTION.

B. INSTALL WATER PIPING LEVEL AND PLUMB. PROVIDE DRAIN VALVES AT ALL LOW POINTS.

C. PIPING BELOW SLAB SHALL BE INSTALLED WITHOUT JOINTS.

END OF SECTION.

SECTION 221316 - SANITARY WASTE AND VENT PIPING

PART 1 - GENERAL

1.1 SCOPE OF WORK

A. REFER TO SECTION 220500

PART 2 - PRODUCTS

2.1 EXISTING CONDITIONS

A. PROVIDE PIPING MATERIALS TO MATCH EXISTING IN ALL CASES.

2.2 CAST IRON PIPING

A. PROVIDE NO-HUB DWV PIPING FOR ALL ABOVE GRADE INSTALLATIONS WITH STANDARD COUPLINGS.

B. PROVIDE BELL AND SPIGOT CAST IRON PIPING BELOW GRADE WHERE REQUIRED TO MATCH EXISTING CONDITIONS.

2.3 PVC PIPING

A. WHERE ALLOWED BY CODE AND THE OWNER'S CRITERIA. PROVIDE SCHEDULE 40 PVC PIPING ABOVE GRADE WITH SOLVENT-CEMENTED JOINTS.

B. BELOW GRADE, PROVIDE SCHEDULE 40 PVC PIPING WITH SOLVENT-CEMENTED JOINTS.

PART 3 - EXECUTION

3.1 INSTALLATION

A. INSTALL WASTE PIPING AT 1/4 INCH PER FOOT SLOPE WHERE POSSIBLE. MINIMUM SLOPE SHALL BE 1/8 INCH PER FOOT.

B. PROVIDE CLEANOUTS AS REQUIRED BY CODE AND PROVIDE ADDITIONAL CLEANOUT LOCATIONS AS INDICATED ON THE DRAWINGS.

END OF SECTION.

D. SCOTT BROWN
89097
1-30-2025

TREANOR
2554 Elm Street, Suite 200
Dallas, TX 75226
Office: 214.310.1018
www.TreanorHL.com

Purdy - McGuire
Mechanical - Electrical Engineers
17300 North Dallas Parkway
Suite 3000
Dallas, TX 75248-1147
Firm Registration # F-1511

Tel: 972/239-5357
Fax: 972/239-5231
www.purdy-mcguire.com

PMI JOB NO.	23037.002
PROJECT MGR.	SCOTT BROWN, MITCHELL HENTON
MECHANICAL	MITCHELL HENTON
PLUMBING	CHRIS WOODYARD
ELECTRICAL	JOHN KNOWLES

THIS DRAWING SHALL NOT BE REPRODUCED FOR ANY PROJECT OTHER THAN THE PROJECT NOTED IN THE TITLE BLOCK, WITHOUT THE WRITTEN CONSENT OF PURDY-McGUIRE, INC. DALLAS, TX

UNIVERSITY OF NORTH TEXAS
KERR HALL INTERIOR RENOVATION
1413 West Maple St
Denton, TX 76201

UNT
UNIVERSITY OF NORTH TEXAS

Issue: ISSUE FOR CONSTRUCTION

Date: JANUARY 30, 2025

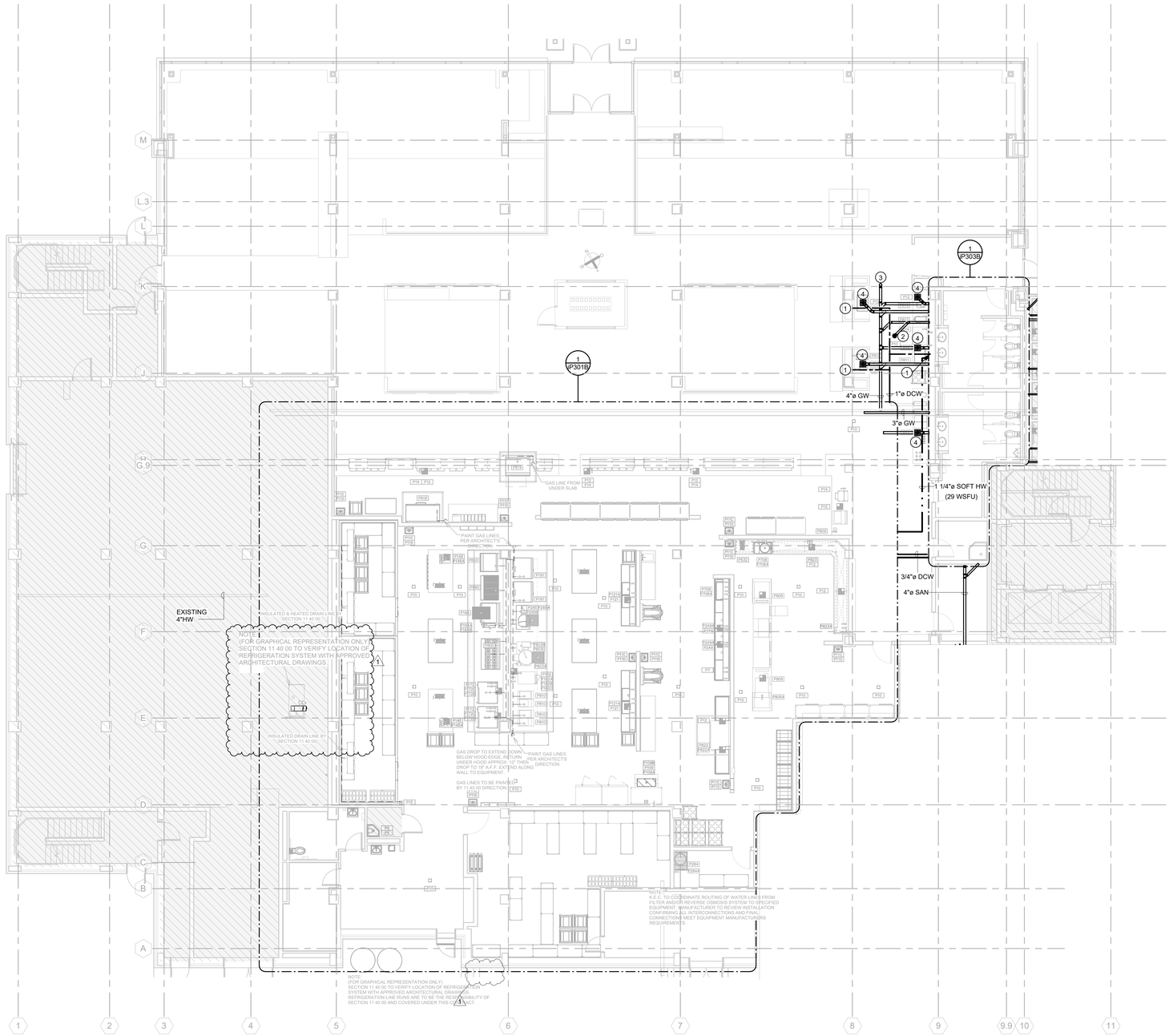
REVISIONS

NO	DESCRIPTION	DATE

iP101

PLUMBING SPECIFICATIONS

TreanorHL NO. HE0569.2302.01



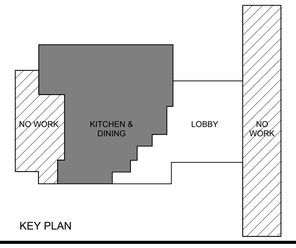
1 UNDERFLOOR PLUMBING PLAN - DINING
1/8" = 1'-0"

KEYED NOTES - SHEET IP2.00B

1 3/4" COLD WATER UP TO SERVE KITCHEN FIXTURES ON LEVEL ABOVE.
2 3" GREASE WASTE UP TO FLOOR DRAIN.
3 4" GREASE WASTE UP TO FLOOR CLEANOUT (FCO).
4 4" GREASE WASTE UP TO FLOOR SINK.

REVISION SUMMARY:

- PRINTED SHEET PER UPDATED TEXT LOCATIONS ON UPDATED FOOD SERVICE DRAWINGS. REFER TO FOOD SERVICE DRAWINGS FOR CHANGES REQUIRED.



KEY PLAN

D. SCOTT BROWN
89097
LICENSED
PROFESSIONAL ENGINEER
5-23-2025

TREANOR
2554 Elm Street, Suite 200
Dallas, TX 75226
Office: 214.310.1018
www.TreanorHL.com

Mechanical - Electrical Engineers
17300 North Dallas Parkway
Suite 3000
Dallas, TX 75248-1147
Firm Registration # F-1511
Tel: 972/239-5357
Fax: 972/239-5231
www.purdy-mcguire.com

PMI JOB NO.	23037.002
PROJECT MGR.	SCOTT BROWN
	MITCHELL HENTON
MECHANICAL	MITCHELL HENTON
PLUMBING	CHRIS WOODYARD
ELECTRICAL	MIKE RAMIREZ

UNIVERSITY OF NORTH TEXAS
KERR HALL INTERIOR RENOVATION
1413 West Maple St
Denton, TX 76201

UNT UNIVERSITY OF NORTH TEXAS

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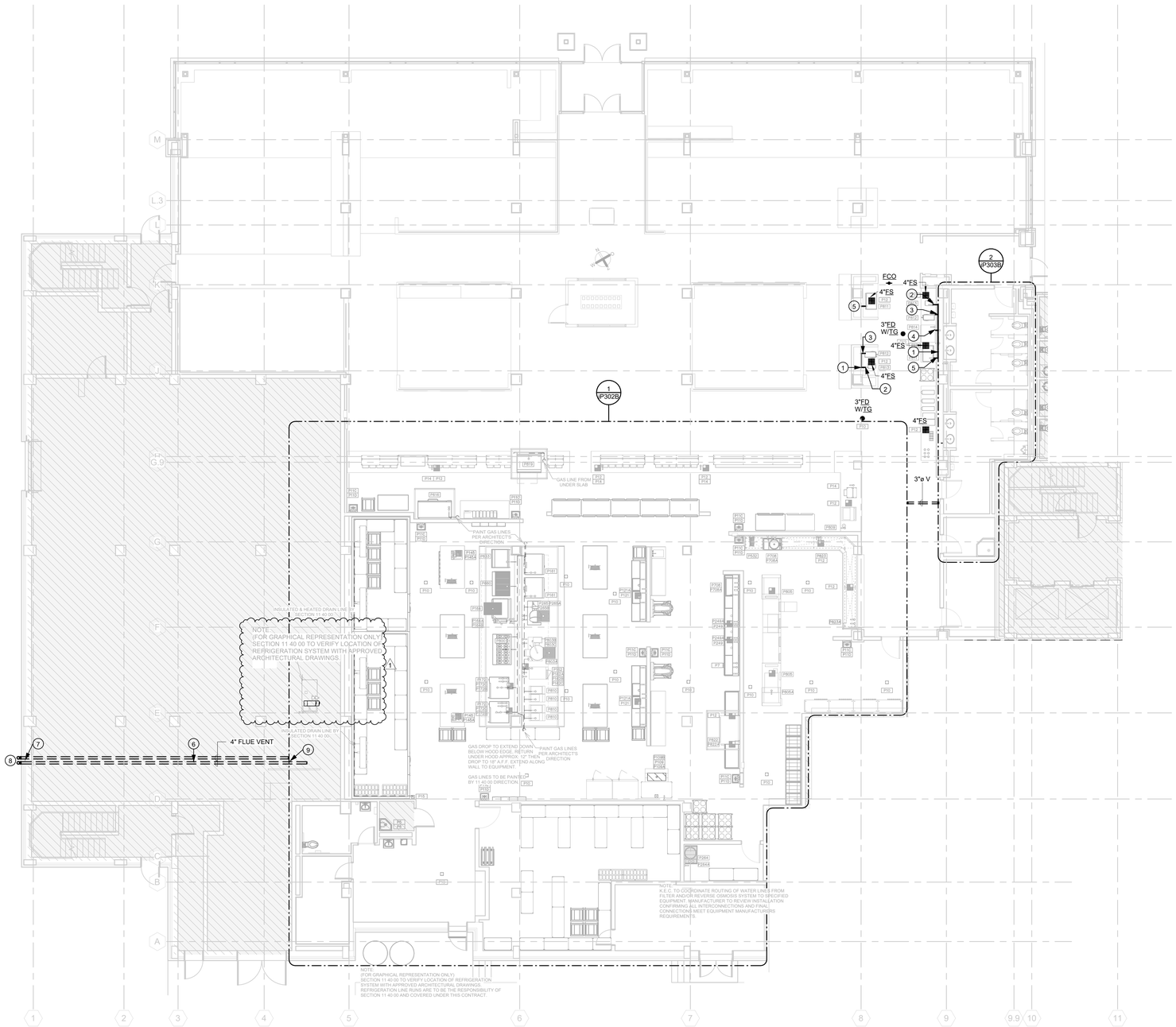
NO	DESCRIPTION	DATE
1	ADDENDUM 2	05.23.25

iP200B

UNDERFLOOR PLUMBING PLAN - DINING

TreanorHL NO. HE0569.2302.01



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

KEYED NOTES - SHEET IP2.01B

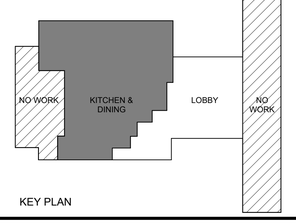
1 EXTEND NEW 3/4" COLD WATER FROM BELOW, UP TO SERVE KITCHEN FIXTURES. REFER TO FOOD SERVICE DRAWINGS FOR FIXTURE LOCATION, SPECIFICATIONS, AND PIPE CONNECTION REQUIREMENTS OF KITCHEN EQUIPMENT.
2 EXTEND NEW 3/4" COLD WATER UP TO JUICE DISPENSER KITCHEN FIXTURE. REFER TO FOOD SERVICE DRAWINGS FOR FIXTURE LOCATION, SPECIFICATIONS, AND PIPE CONNECTION REQUIREMENTS OF KITCHEN EQUIPMENT.
3 EXTEND NEW 3/4" COLD WATER WITH AN ASSE 1022 COMPLIANT BACKFLOW PREVENTER (BFP) UP TO TEA/COFFEE BREWER KITCHEN FIXTURE. REFER TO FOOD SERVICE DRAWINGS FOR FIXTURE LOCATION, SPECIFICATIONS, AND PIPE CONNECTION REQUIREMENTS OF KITCHEN EQUIPMENT.
4 EXTEND NEW 3/4" COLD WATER WITH AN ASEE 1013 COMPLIANT BACKFLOW PREVENTER (RPZ-S) UP TO ICE MACHINE KITCHEN FIXTURE. REFER TO FOOD SERVICE DRAWINGS FOR FIXTURE LOCATION, SPECIFICATIONS, AND PIPE CONNECTION REQUIREMENTS OF KITCHEN EQUIPMENT.
5 EXTEND NEW 3/4" COLD WATER WITH AN ASSE 1022 COMPLIANT BACKFLOW PREVENTER (BFP) UP TO BEVERAGE MACHINE KITCHEN FIXTURE. REFER TO FOOD SERVICE DRAWINGS FOR FIXTURE LOCATION, SPECIFICATIONS, AND PIPE CONNECTION REQUIREMENTS OF KITCHEN EQUIPMENT.
6 EXTEND (2) 4" FLUE VENTS THRU EXTERIOR SIDE WALL.
7 CONTRACTOR TO COORDINATE FLUE VENTS EXTENDING THRU EXTERIOR SIDE WALL WITH EXISTING OPENING AND OTHER EXISTING PIPING IN THIS LOCATION PRIOR TO INSTALLATION.
8 TURN FLUE VENT PIPING UP AND TERMINATE WITH FLUE VENT CAP. CONTRACTOR TO REFER TO FLUE VENT MANUFACTURER FOR PIPING INSTALLATION AND REQUIREMENTS PRIOR TO INSTALLATION.
9 REFER TO SHEET IP301B FOR CONTINUATION OF FLUE VENT PIPING.

PLUMBING GENERAL NOTES:

A. REFER TO FOOD SERVICE DRAWINGS FOR ALL PLUMBING CONNECTIONS, SIZES, AND REQUIREMENTS TO FOOD SERVICE EQUIPMENT.
B. INSTALL A THERMOSTATIC POINT OF USE MIXING VALVE (ASSE 1070 COMPLIANT) WITH INTEGRAL CHECK VALVE PRIOR TO CONNECTION OF HANDWASHING SINKS, LAVATORIES, AND SINKS IN PUBLIC USE SPACES, SET TO 120 DEG F.
C. ALL KITCHEN EQUIPMENT DRAIN LINES WILL BE INDIRECTLY CONNECTED TO THE WASTE LINES WITH A MINIMUM 2" OR 2X PIPE DIAMETER AIR GAP, WHICHEVER IS GREATER.
D. PROVIDE SHUT-OFF VALVES ON DOMESTIC HOT AND COLD WATER CONNECTIONS TO ALL FIXTURE IN AN ACCESSIBLE LOCATION.
E. IF PVC IS ALLOWED FOR UNDERGROUND PIPING, CAST IRON PIPE SHALL BE INSTALLED FOR THE FIRST 25 FT.,AFTER ANY DRAIN SERVING ANY WATER HEATING APPLIANCE (120 °F AND HIGHER) BEFORE TRANSITIONING BACK TO PVC. THIS INCLUDES BUT IS NOT LIMITED TO DRAINS ADJACENT TO AND DIRECT CONNECTIONS TO DOMESTIC WATER HEATERS, HEATING WATER BOILERS, DISHWASHERS, ETC.
F. PROVIDE AN APPROVED BACKFLOW PREVENTION DEVICE ON DISH WASHER RINSE LINES, PRIOR TO ANY FILTER, WATER SOFTENER, ICE MACHINES, SODA MACHINES, TEA/COFFEE URNS, INTEGRAL TO THE MOP SINK FAUCET, INTEGRAL TO ALL MIXING VALVES, AND INTEGRAL TO HOSE BIBS. LOCATE BACKFLOW PREVENTION DEVICE 6" ABOVE THE OVERFLOW RIM AND AFTER LAST SHUTOFF VALVE TO EQUIPMENT. ROUTE DRAIN LINE FROM BACKFLOW PREVENTION DEVICE TO NEAREST DRAIN WITH AN AIR GAP.
G. PROVIDE CHECK VALVE EQUAL TO WATTS SERIES LF601 CHECK VALVE ON THE HOT AND COLD WATER SUPPLY LINES TO THE FOLLOWING PIECES OF EQUIPMENT TO PREVENT MIGRATION OF HOT AND COLD WATER INTO OPPOSITE LINES: PRE-RINSE SPRAYER FAUCETS, MOP SINK, AND KETTLE FAUCETS. FEED WATER OVERHEAD AND MOUNT CHECK VALVE ABOVE ACCESSIBLE CEILING.
H. ALL NEW AND EXISTING PVC PIPING WITHIN THE PROJECT SCOPE EXTENTS SHALL BE FIRE WRAPPED BOTH ABOVE AND BELOW GRADE PER UNT STANDARDS.
I. ONCE NEW CIRCULATED HOT WATER LOOP IS INSTALLED, CONTRACTOR IS TO ENSURE PROPER BALANCE BETWEEN NEW AND EXISTING CIRCULATED HOT WATER LOOP SYSTEMS SERVING THE KITCHEN.

REVISION SUMMARY:

- PRINTED SHEET PER UPDATED TEXT LOCATIONS ON UPDATED FOOD SERVICE DRAWINGS. REFER TO FOOD SERVICE DRAWINGS FOR CHANGES REQUIRED.



KEY PLAN

D. SCOTT BROWN
89097
LICENSED
PROFESSIONAL ENGINEER
5-23-2025

TREANOR
2554 Elm Street, Suite 200
Dallas, TX 75226
Office: 214.310.1018
www.TreanorHL.com

Purdy - McGuire
Mechanical - Electrical Engineers
17300 North Dallas Parkway
Suite 3000
Dallas, TX 75248-1147
Firm Registration # F-1511
Tel: 972/239-5357
Fax: 972/239-5231
www.purdy-mcguire.com

PMI JOB NO.	23037.002
PROJECT MGR.	SCOTT BROWN
	MITCHELL HENTON
MECHANICAL	MITCHELL HENTON
PLUMBING	CHRIS WOODYARD
ELECTRICAL	MIKE RAMIREZ

UNIVERSITY OF NORTH TEXAS
KERR HALL INTERIOR RENOVATION
1413 West Maple St
Denton, TX 76201

UNT UNIVERSITY OF NORTH TEXAS

Issue:	ISSUE FOR CONSTRUCTION
Date:	JANUARY 30, 2025

REVISIONS

NO	DESCRIPTION	DATE
1	ADDENDUM 2	05.23.25

iP201B

LEVEL 1 PLUMBING PLAN - DINING

TreanorHL NO. HE0569.2302.01

Autodesk Docs://HE0569.2302.01 UNT Kerr Hall Interior Renovation/R23_KERR-HALL-DINING_PLUMB.rvt
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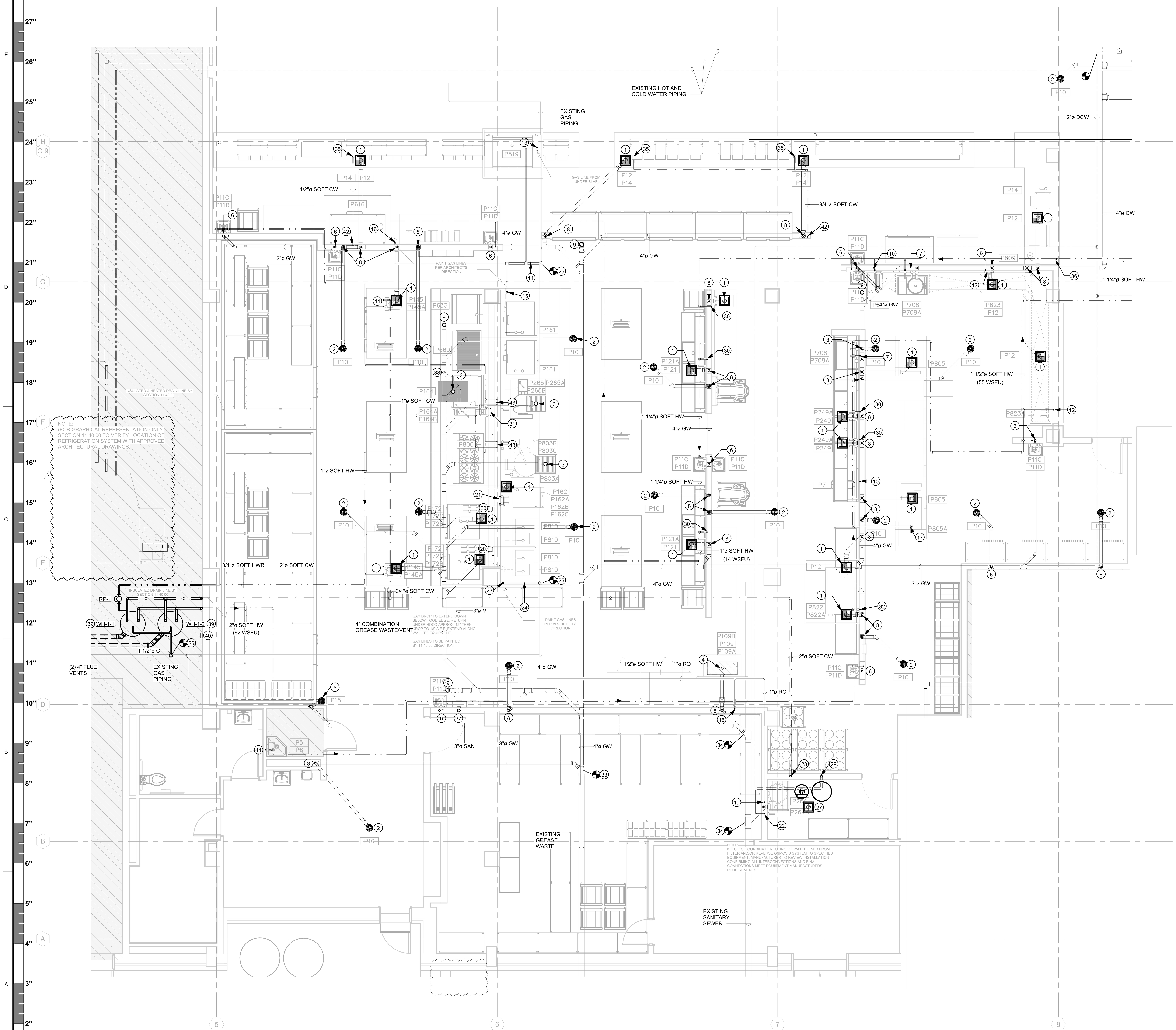

1 ENLARGED KITCHEN - UNDERFLOOR PLUMBING PLAN
1/4" = 1'-0"

KEYED NOTES - SHEET IP3.01B

1 4" GREASE WASTE UP TO FLOOR SINK.
2 3" GREASE WASTE UP TO FLOOR DRAIN.
3 4" GREASE WASTE UP TO TRENCH LINER DRAIN. REFER TO FOOD SERVICE CONSULTANT DRAWINGS FOR KITCHEN EQUIPMENT SPECIFICATION AND INSTALLATION.
4 3" SANITARY UP TO TRENCH LINER DRAIN. REFER TO FOOD SERVICE CONSULTANT DRAWINGS FOR KITCHEN EQUIPMENT SPECIFICATION AND INSTALLATION.
5 3" SANITARY UP TO FLOOR DRAIN.
6 2" GREASE WASTE, 1/2" SOFT HOT WATER UP TO HAND SINK FIXTURE.
7 2" GREASE WASTE, 3/4" SOFT HOT WATER UP TO SCRAP COLLECTOR FIXTURE.
8 2" VENT UP.
9 4" GREASE WASTE UP TO FLOOR CLEANOUT (FCO).
10 3/4" SOFT HOT WATER UP TO HOSE BIBB FIXTURE.
11 3/4" SOFT HOT AND COLD WATER UP TO SINK FAUCET FIXTURE.
12 3/4" SOFT HOT WATER UP TO FILL FAUCET FIXTURE.
13 1" LOW PRESSURE GAS (120 MBH) UP TO SERVE GAS KITCHEN FIXTURES.
14 EXTEND NEW 2" LOW PRESSURE GAS PIPING (EST. @ 1,280 MBH TOTAL @ 100 FT IN DEVELOPED LENGTH) TO SERVE KITCHEN EQUIPMENT.
15 2" LOW PRESSURE GAS (1,020 MBH) UP TO SERVE GAS KITCHEN FIXTURES.
16 1" LOW PRESSURE GAS (140 MBH) UP TO SERVE GAS KITCHEN FIXTURES.
17 3/4" FILTERED SOFT HOT WATER UP TO FLIGHT TYPE DISH MACHINE KITCHEN FIXTURE.
18 3/4" REVERSE OSMOSIS FILTERED COLD WATER UP TO ICE MACHINE KITCHEN FIXTURE.
19 1" REVERSE OSMOSIS FILTERED COLD WATER FROM REVERSE OSMOSIS FILTRATION EQUIPMENT ABOVE.
20 (2) 3/4" REVERSE OSMOSIS FILTERED COLD WATER UP TO COMBI-OVEN KITCHEN FIXTURE ABOVE.
21 (2) 3/4" REVERSE OSMOSIS FILTERED COLD WATER UP TO CONVECTION STEAMER KITCHEN FIXTURE ABOVE.
22 3/4" COLD WATER UP TO REVERSE OSMOSIS SYSTEM KITCHEN FIXTURE.
23 2" LOW PRESSURE GAS (1,005 MBH) UP TO SERVE GAS KITCHEN FIXTURES.
24 EXTEND NEW 2" LOW PRESSURE GAS PIPING (EST. @ 1,280 MBH TOTAL @ 100 FT IN DEVELOPED LENGTH) TO SERVE KITCHEN EQUIPMENT.
25 CONTRACTOR TO CONNECT NEW 2" LOW PRESSURE (7"-14" W.C.) GAS PIPING TO EXISTING GAS PIPING. CONTRACTOR TO FIELD VERIFY, THE SIZE, LOCATION, AND PRESSURE OF EXISTING GAS LINE TIE-IN PRIOR TO NEW INSTALLATION.
26 CONTRACTOR TO CONNECT NEW 1-1/2" LOW PRESSURE (7"-14" W.C.) GAS PIPING TO EXISTING GAS PIPING. CONTRACTOR TO FIELD VERIFY, THE SIZE, LOCATION, AND PRESSURE OF EXISTING GAS LINE TIE-IN PRIOR TO NEW INSTALLATION.
27 4" SANITARY UP TO FLOOR SINK.
28 2" SOFT COLD WATER FROM WATER SOFTENER EQUIPMENT ABOVE.
29 2" COLD WATER UP TO SERVE WATER SOFTENER ABOVE. REFER TO SHEET IP302B FOR CONTINUATION.
30 3/4" SOFT HOT WATER UP TO SINK FAUCET FIXTURE.
31 3/4" SOFT HOT AND COLD WATER UP TO TILT BRAISING PAN FIXTURE.
32 3/4" SOFT HOT WATER UP TO POT, PAN & UTENSIL FIXTURE.
33 CONTRACTOR TO CONNECT NEW 4" GREASE WASTE PIPING TO EXISTING GREASE WASTE PIPING. CONTRACTOR TO FIELD VERIFY, THE SIZE, LOCATION, AND ELEVATION OF EXISTING GREASE WASTE PIPING PRIOR TO NEW INSTALLATION.
34 CONTRACTOR TO CONNECT NEW 4" SANITARY PIPING TO EXISTING SANITARY PIPING. CONTRACTOR TO FIELD VERIFY, THE SIZE, LOCATION, AND ELEVATION OF EXISTING SANITARY PIPING PRIOR TO NEW INSTALLATION.
35 3/4" SOFT COLD WATER UP TO FILL FAUCET FIXTURE.
36 3/4" SOFT HOT WATER UP TO DIPPER WELL FIXTURE.
37 3" RELIEF VENT UP.
38 3" RELIEF VENT DOWN TO TOP OF GREASE WASTE PIPE TO SERVE COMBINATION GREASE WASTE VENT SYSTEM.
39 100 GALLON GAS WATER HEATER TO SERVE KITCHEN AND RESTROOM HOT WATER FIXTURES. REFER TO WATER HEATER SCHEDULE ON SHEET iP-601 FOR WATER HEATER SPECIFICATION. REFER TO DETAIL 5 ON SHEET iP-502 FOR WATER HEATER PIPING INSTALLATION DETAIL.
40 AMERICAN GAS SAFETY MODEL AGSCH4CO-50 MINI MERLIN COMBINED NATURAL GAS AND CARBON MONOXIDE MONITOR TO MONITOR THE GAS WATER HEATERS. CONTRACTOR TO COORDINATE ELECTRICAL REQUIREMENTS WITH THE ELECTRICAL CONTRACTOR PRIOR TO INSTALLATION.
41 3/4" SOFT HOT WATER UP TO SERVE EXISTING MOP SINK FIXTURE.
42 3/4" SOFT COLD WATER UP.
43 3/4" SOFT HOT AND COLD WATER UP TO KETTLE FIXTURE.

PLUMBING GENERAL NOTES:

A. REFER TO FOOD SERVICE DRAWINGS FOR ALL PLUMBING CONNECTIONS, SIZES, AND REQUIREMENTS TO FOOD SERVICE EQUIPMENT.
B. INSTALL A THERMOSTATIC POINT OF USE MIXING VALVE (ASSE 1070 COMPLIANT) WITH INTEGRAL CHECK VALVE PRIOR TO CONNECTION OF HANDWASHING SINKS, LAVATORIES, AND SINKS IN PUBLIC USE SPACES, SET TO 120 DEG F.
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D. SCOTT BROWN
89097
LICENSED PROFESSIONAL ENGINEER
5-23-2025

TREANOR
2554 Elm Street, Suite 200
Dallas, TX 75226
Office: 214.310.1018
www.TreanorHL.com

Purdy - McGuire
Mechanical - Electrical Engineers
17300 North Dallas Parkway
Suite 3000
Dallas, TX 75248-1147
Firm Registration # F-1511
Tel: 972/239-5357
Fax: 972/239-5231
www.purdy-mcguire.com

PMI JOB NO. 23037.002
PROJECT MGR. SCOTT BROWN, MITCHELL HENTON
MECHANICAL MITCHELL HENTON
PLUMBING CHRIS WOODYARD
ELECTRICAL JOHN KNOWLES

UNIVERSITY OF NORTH TEXAS
KERR HALL INTERIOR RENOVATION

1413 West Maple St
Denton, TX 76201

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Issue: ISSUE FOR CONSTRUCTION

Date: JANUARY 30, 2025

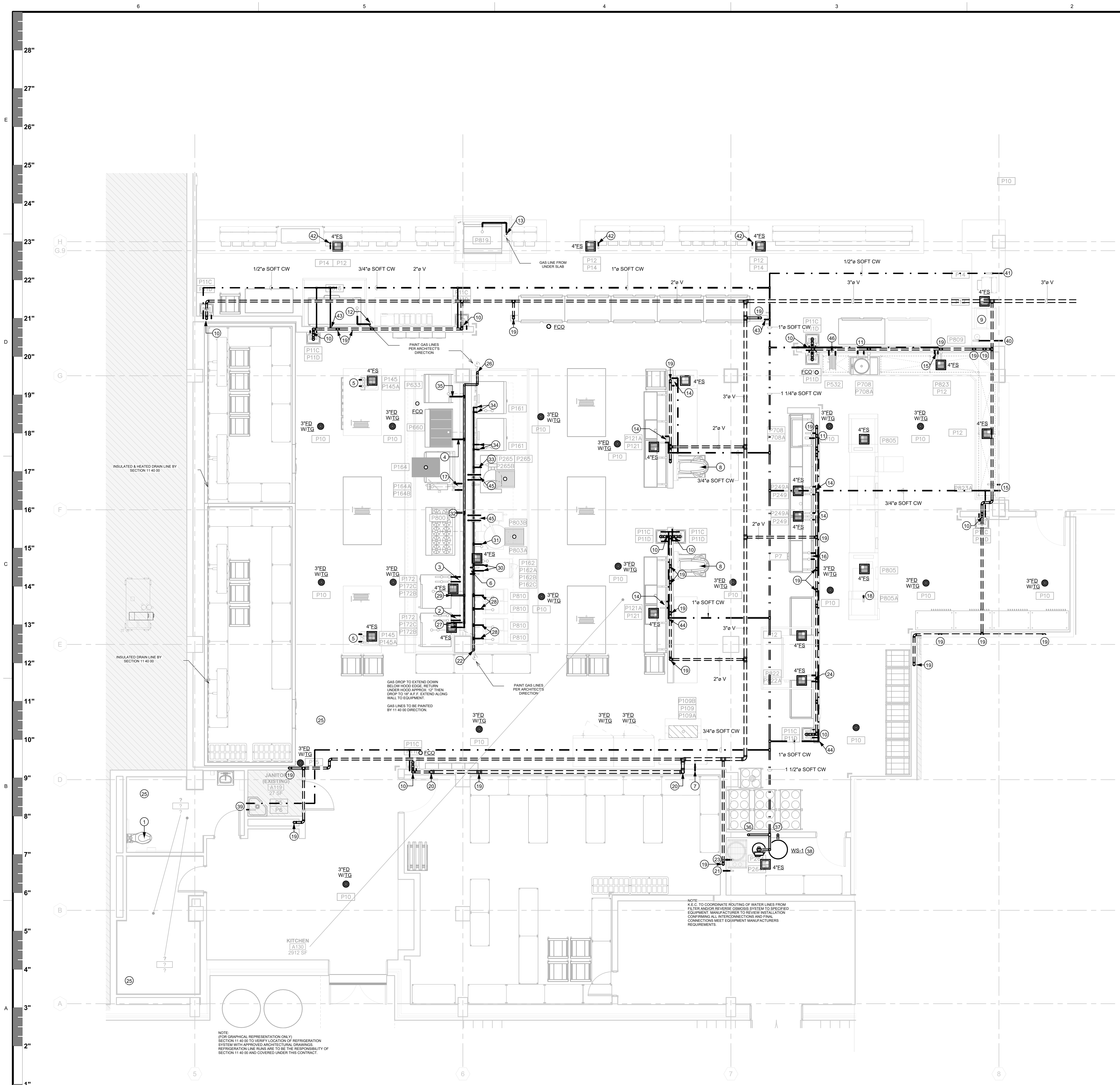
REVISIONS

NO	DESCRIPTION	DATE
1	ADDENDUM 2	05.23.25

iP301B

PLUMBING ENLARGED PLAN

TreanorHL NO. HE0569.2302.01



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

KEYED NOTES - SHEET IP3.02

1 EXISTING WATER CLOSET TO REMAIN.
2 EXTEND NEW (2) 3/4" REVERSE OSMOSIS FILTERED COLD WATER FROM BELOW UP TO RELOCATED COMBI-OVEN KITCHEN FIXTURE. REFER TO FOOD SERVICE DRAWINGS FOR FIXTURE LOCATION, SPECIFICATIONS AND PIPE CONNECTIONS OF KITCHEN EQUIPMENT.
3 EXTEND NEW (2) 3/4" REVERSE OSMOSIS FILTERED COLD WATER FROM BELOW UP TO RELOCATED CONVENTION OVEN KITCHEN FIXTURE. REFER TO FOOD SERVICE DRAWINGS FOR FIXTURE LOCATION, SPECIFICATIONS AND PIPE CONNECTIONS OF KITCHEN EQUIPMENT.
4 EXTEND NEW 3/4" LOW PRESSURE GAS (116 MBH) FROM GAS QUICK DISCONNECT UP TO RELOCATED EXISTING CHARBROILER KITCHEN FIXTURE. REFER TO FOOD SERVICE DRAWINGS FOR FIXTURE LOCATION, SPECIFICATIONS AND PIPE CONNECTIONS OF RELOCATED KITCHEN EQUIPMENT PRIOR TO NEW INSTALLATION.
5 EXTEND NEW 3/4" SOFT HOT AND COLD WATER FROM BELOW UP TO WASH SINK KITCHEN FIXTURE. REFER TO FOOD SERVICE DRAWINGS FOR FIXTURE LOCATION, SPECIFICATIONS AND PIPE CONNECTIONS OF KITCHEN EQUIPMENT.
6 EXTEND NEW (2) 3/4" REVERSE OSMOSIS FILTERED COLD WATER AND (2) 3/4" LOW PRESSURE GAS (ESTIMATED 72 MBH EACH @ 7"-14" W.C.) FROM BELOW UP TO EXISTING RELOCATED CONVECTION STEAMER KITCHEN EQUIPMENT. CONTRACTOR TO REFER TO FOOD SERVICE DRAWINGS FOR FIXTURE LOCATION, SPECIFICATIONS AND PIPE CONNECTIONS OF KITCHEN EQUIPMENT PRIOR TO NEW INSTALLATION.
7 EXTEND NEW 3/4" REVERSE OSMOSIS FILTERED COLD WATER FROM BELOW UP TO RELOCATED EXISTING ICE MACHINE KITCHEN EQUIPMENT. CONTRACTOR TO FIELD VERIFY EXISTING FILTERED COLD WATER LOCATION, SIZE AND EXISTING LOAD PRIOR TO NEW INSTALLATION. REFER TO FOOD SERVICE DRAWINGS FOR FIXTURE AND FILTRATION SYSTEM LOCATION, SPECIFICATIONS AND PIPE CONNECTIONS OF KITCHEN EQUIPMENT.
8 RELOCATED EXISTING MIXER. CONTRACTOR TO FIELD VERIFY PLUMBING CONNECTION REQUIREMENTS WITH THE EXISTING EQUIPMENT PRIOR TO NEW INSTALLATION.
9 RELOCATED EXISTING ICE CREAM DISPENSER. CONTRACTOR TO FIELD VERIFY PLUMBING CONNECTION REQUIREMENTS WITH THE EXISTING EQUIPMENT PRIOR TO NEW INSTALLATION.
10 EXTEND NEW 2" GREASE WASTE ,2" VENT, 1/2" SOFT HOT AND COLD WATER TO HAND SINK KITCHEN FIXTURE. PROVIDE ALL ASSOCIATED PIPING AND HARDWARE NECESSARY FOR COMPLETE INSTALLATION PER MANUFACTURER'S SPECIFICATIONS. CONTRACTOR TO REFER TO FOOD SERVICE DRAWINGS FOR FIXTURE LOCATION, SPECIFICATIONS AND PIPE CONNECTIONS OF RELOCATED KITCHEN EQUIPMENT.
11 EXTEND NEW 2" GREASE WASTE, 2" VENT, 3/4" SOFT HOT AND COLD WATER TO SCRAP COLLECTOR KITCHEN FIXTURE. REFER TO FOOD SERVICE DRAWINGS FOR FIXTURE LOCATION, SPECIFICATIONS AND PIPE CONNECTIONS OF RELOCATED KITCHEN EQUIPMENT.
12 1" LOW PRESSURE GAS (140 MBH) FROM BELOW UP TO SERVE GAS KITCHEN FIXTURE. CONTRACTOR TO REFER TO FOOD SERVICE DRAWINGS FOR FIXTURE LOCATION, SPECIFICATIONS AND PIPE CONNECTIONS OF KITCHEN EQUIPMENT. REFER TO THE FOOD SERVICE DRAWINGS FOR GAS FIXTURE LOCATION AND SPECIFICATIONS.
13 1" LOW PRESSURE GAS (120 MBH) FROM BELOW UP TO SERVE GAS KITCHEN FIXTURES. CONTRACTOR TO REFER TO FOOD SERVICE DRAWINGS FOR FIXTURE LOCATION, SPECIFICATIONS AND PIPE CONNECTIONS OF KITCHEN EQUIPMENT. REFER TO THE FOOD SERVICE DRAWINGS FOR GAS FIXTURE LOCATION AND SPECIFICATIONS.
14 EXTEND NEW 3/4" SOFT HOT AND COLD WATER TO WASH SINK KITCHEN FIXTURE. REFER TO FOOD SERVICE DRAWINGS FOR FIXTURE LOCATION, SPECIFICATIONS AND PIPE CONNECTIONS OF KITCHEN EQUIPMENT.
15 EXTEND NEW 3/4" SOFT HOT AND COLD WATER TO FILL FAUCET KITCHEN FIXTURE. REFER TO FOOD SERVICE DRAWINGS FOR FIXTURE LOCATION, SPECIFICATIONS AND PIPE CONNECTIONS OF KITCHEN EQUIPMENT.
16 EXTEND NEW 3/4" SOFT HOT AND COLD WATER TO HOSE BIBB KITCHEN FIXTURE. REFER TO FOOD SERVICE DRAWINGS FOR FIXTURE LOCATION, SPECIFICATIONS AND PIPE CONNECTIONS OF KITCHEN EQUIPMENT.
17 EXTEND NEW 3/4" HOT AND COLD WATER FROM BELOW UP TO TILT BRAISING PAN KITCHEN FIXTURE. REFER TO FOOD SERVICE DRAWINGS FOR FIXTURE LOCATION, SPECIFICATIONS AND PIPE CONNECTIONS OF KITCHEN EQUIPMENT.
18 3/4" FILTED SOFT HOT WATER FROM BELOW UP TO SERVE FLIGHT TYPE DISH MACHINE KITCHEN FIXTURE (P805A). REFER TO FOOD SERVICE DRAWINGS FOR FIXTURE LOCATION, SPECIFICATIONS AND PIPE CONNECTIONS OF KITCHEN EQUIPMENT.
19 2" VENT DOWN.
20 3" VENT DOWN.
21 EXTEND NEW 3/4" COLD WATER FROM BELOW UP TO REVERSE OSMOSIS SYSTEM KITCHEN FIXTURE. REFER TO FOOD SERVICE DRAWINGS FOR FIXTURE LOCATION, SPECIFICATIONS AND PIPE CONNECTIONS OF KITCHEN EQUIPMENT.
22 2" LOW PRESSURE GAS (1,005 MBH) FROM BELOW UP TO ANSUL AUTOMATIC GAS SHUT-OFF VALVE FOR MAIN GAS SUPPLY TO COOKING EQUIPMENT TO BE INTERLOCKED WITH HOOD FIRE SUPPRESSION SYSTEM SERVING GAS KITCHEN FIXTURES. REFER TO THE FOOD SERVICE DRAWINGS FOR GAS FIXTURE LOCATION AND SPECIFICATIONS.
23 EXTEND NEW 1" REVERSE OSMOSIS FILTERED COLD WATER FROM REVERSE OSMOSIS SYSTEM, DOWN BELOW GRADE TO SERVE REVERSE OSMOSIS FILTERED KITCHEN FIXTURES FROM BELOW. REFER TO SHEET IP301B FOR CONTINUATION.
24 EXTEND NEW 3/4" SOFT HOT AND COLD WATER TO POT, PAN & UTENSIL FIXTURE. CONTRACTOR TO REFER TO FOOD SERVICE DRAWINGS FOR FIXTURE LOCATION, SPECIFICATIONS AND PIPE CONNECTIONS OF KITCHEN EQUIPMENT.
25 REFER TO SHEET IPD201B FOR EXISTING FIXTURES TO BE DEMO SCOPE OF WORK AND ASSOCIATED KEYED NOTES.
26 2" LOW PRESSURE GAS (1,020 MBH) FROM BELOW UP TO ANSUL AUTOMATIC GAS SHUT-OFF VALVE FOR MAIN GAS SUPPLY TO COOKING EQUIPMENT TO BE INTERLOCKED WITH HOOD FIRE SUPPRESSION SYSTEM SERVING GAS KITCHEN FIXTURES. REFER TO THE FOOD SERVICE DRAWINGS FOR GAS FIXTURE LOCATION AND SPECIFICATIONS.
27 EXTEND 3/4" LOW PRESSURE GAS (98 MBH) FROM GAS QUICK DISCONNECT UP TO COMBI OVEN KITCHEN FIXTURE. REFER TO DETAIL 8 ON SHEET IP502 FOR GAS QUICK DISCONNECT PIPING DETAIL AND INSTALLATION REQUIREMENTS. REFER TO FOOD SERVICE DRAWINGS FOR FIXTURE LOCATION, SPECIFICATIONS AND PIPE CONNECTIONS OF KITCHEN EQUIPMENT.
28 EXTEND 1" LOW PRESSURE GAS (122 MBH) FROM GAS QUICK DISCONNECT UP TO FRYER KITCHEN FIXTURE. REFER TO DETAIL 8 ON SHEET IP502 FOR GAS QUICK DISCONNECT PIPING DETAIL AND INSTALLATION REQUIREMENTS. REFER TO FOOD SERVICE DRAWINGS FOR FIXTURE LOCATION, SPECIFICATIONS AND PIPE CONNECTIONS OF KITCHEN EQUIPMENT.
29 EXTEND 1" LOW PRESSURE GAS (304 MBH) FROM GAS QUICK DISCONNECT UP TO COMBI OVEN KITCHEN FIXTURE. REFER TO DETAIL 8 ON SHEET IP502 FOR GAS QUICK DISCONNECT PIPING DETAIL AND INSTALLATION REQUIREMENTS. REFER TO FOOD SERVICE DRAWINGS FOR FIXTURE LOCATION, SPECIFICATIONS AND PIPE CONNECTIONS OF KITCHEN EQUIPMENT.
30 EXTEND 3/4" LOW PRESSURE GAS (72 MBH) FROM GAS QUICK DISCONNECT UP TO CONVECTION STEAMER KITCHEN FIXTURE. REFER TO DETAIL 8 ON SHEET IP502 FOR GAS QUICK DISCONNECT PIPING DETAIL AND INSTALLATION REQUIREMENTS. REFER TO FOOD SERVICE DRAWINGS FOR FIXTURE LOCATION, SPECIFICATIONS AND PIPE CONNECTIONS OF KITCHEN EQUIPMENT.
31 EXTEND 1" LOW PRESSURE GAS (150 MBH) FROM GAS QUICK DISCONNECT UP TO KETTLE KITCHEN FIXTURE. REFER TO DETAIL 8 ON SHEET IP502 FOR GAS QUICK DISCONNECT PIPING DETAIL AND INSTALLATION REQUIREMENTS. REFER TO FOOD SERVICE DRAWINGS FOR FIXTURE LOCATION, SPECIFICATIONS AND PIPE CONNECTIONS OF KITCHEN EQUIPMENT.
32 EXTEND 1" LOW PRESSURE GAS (270 MBH) FROM GAS QUICK DISCONNECT UP TO RANGE/GRIDDLE KITCHEN FIXTURE. REFER TO DETAIL 8 ON SHEET IP502 FOR GAS QUICK DISCONNECT PIPING DETAIL AND INSTALLATION REQUIREMENTS. REFER TO FOOD SERVICE DRAWINGS FOR FIXTURE LOCATION, SPECIFICATIONS AND PIPE CONNECTIONS OF KITCHEN EQUIPMENT.
33 EXTEND 3/4" LOW PRESSURE GAS (100 MBH) FROM GAS QUICK DISCONNECT UP TO KETTLE KITCHEN FIXTURE. REFER TO DETAIL 8 ON SHEET IP502 FOR GAS QUICK DISCONNECT PIPING DETAIL AND INSTALLATION REQUIREMENTS. REFER TO FOOD SERVICE DRAWINGS FOR FIXTURE LOCATION, SPECIFICATIONS AND PIPE CONNECTIONS OF KITCHEN EQUIPMENT.
34 EXTEND 3/4" LOW PRESSURE GAS (60 MBH) FROM GAS QUICK DISCONNECT UP TO CONVECTION OVEN KITCHEN FIXTURE. REFER TO DETAIL 8 ON SHEET IP502 FOR GAS QUICK DISCONNECT PIPING DETAIL AND INSTALLATION REQUIREMENTS. REFER TO FOOD SERVICE DRAWINGS FOR FIXTURE LOCATION, SPECIFICATIONS AND PIPE CONNECTIONS OF KITCHEN EQUIPMENT.
35 EXTEND NEW 3/4" LOW PRESSURE GAS (130 MBH) FROM GAS QUICK DISCONNECT UP TO KITCHEN FIXTURE. REFER TO DETAIL 8 ON SHEET IP502 FOR GAS QUICK DISCONNECT PIPING DETAIL AND INSTALLATION REQUIREMENTS. REFER TO FOOD SERVICE DRAWINGS FOR FIXTURE LOCATION, SPECIFICATIONS AND PIPE CONNECTIONS OF KITCHEN EQUIPMENT PRIOR TO NEW INSTALLATION.
36 2" SOFT COLD WATER DOWN TO SERVE NEW WATER HEATERS AND ISLAND FIXTURES. REFER TO SHEET IP301B FOR CONTINUATON.
37 2" COLD WATER FROM BELOW UP TO SERVE WATER SOFTENER.
38 WATER CONTROL CORPORATION MODEL # LF-150-MR WATER SOFTENER SYSTEM TO SERVE SOFT WATER TO KITCHEN FIXTURES. REFER TO WATER SOFTENER SCHEDULE ON SHEET IP601 FOR WATER SOFTENER SPECIFICATION AND SCHEDULE NOTES.
39 1/2" SOFT HOT AND COLD WATER TO SERVE EXISTING MOP SINK.
40 EXTEND NEW 1/2" SOFT HOT WATER TO DIPPER WELL KITCHEN FIXTURE. REFER TO FOOD SERVICE DRAWINGS FOR FIXTURE LOCATION, SPECIFICATIONS AND PIPE CONNECTIONS OF KITCHEN EQUIPMENT.
41 EXTEND NEW 3/4" SOFT COLD WATER TO FILL FAUCET KITCHEN FIXTURE. REFER TO FOOD SERVICE DRAWINGS FOR FIXTURE LOCATION, SPECIFICATIONS AND PIPE CONNECTIONS OF KITCHEN EQUIPMENT.
42 EXTEND NEW 3/4" SOFT COLD WATER FROM BELOW UP TO FILL FAUCET KITCHEN FIXTURE. REFER TO FOOD SERVICE DRAWINGS FOR FIXTURE LOCATION, SPECIFICATIONS AND PIPE CONNECTIONS OF KITCHEN EQUIPMENT.
43 EXTEND NEW 3/4" SOFT COLD WATER DOWN BELOW GRADE TO SERVE FILL FAUCET KITCHEN FIXTURE IN ISLAND COUNTER. REFER TO FOOD SERVICE DRAWINGS FOR FIXTURE LOCATION, SPECIFICATIONS AND PIPE CONNECTIONS OF KITCHEN EQUIPMENT.
44 1" SOFT COLD WATER DOWN IN WALL TO SERVE KITCHEN FIXTURES.
45 EXTEND NEW 3/4" HOT AND COLD WATER FROM BELOW UP TO TILT KETTLE KITCHEN FIXTURE. REFER TO FOOD SERVICE DRAWINGS FOR FIXTURE LOCATION, SPECIFICATIONS AND PIPE CONNECTIONS OF RELOCATED KITCHEN EQUIPMENT.
46 EXTEND NEW 3/4" SOFT HOT AND COLD WATER TO HOSE REEL KITCHEN FIXTURE. REFER TO FOOD SERVICE DRAWINGS FOR FIXTURE LOCATION, SPECIFICATIONS AND PIPE CONNECTIONS OF KITCHEN EQUIPMENT.

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C. ALL KITCHEN EQUIPMENT DRAIN LINES WILL BE INDIRECTLY CONNECTED TO THE WASTE LINES WITH A MINIMUM 2" OR 2X PIPE DIAMETER AIR GAP, WHICHEVER IS GREATER.
D. PROVIDE SHUT-OFF VALVES ON DOMESTIC HOT AND COLD WATER CONNECTIONS TO ALL FIXTURE IN AN ACCESSIBLE LOCATION.
E. IF PVC IS ALLOWED FOR UNDERGROUND PIPING, CAST IRON PIPE SHALL BE INSTALLED FOR THE FIRST 25 FT AFTER ANY DRAIN SERVING ANY WATER HEATING APPLIANCE (120 °F AND HIGHER) BEFORE TRANSITIONING BACK TO PVC. THIS INCLUDES BUT IS NOT LIMITED TO DRAINS ADJACENT TO AND DIRECT CONNECTIONS TO DOMESTIC WATER HEATERS, HEATING WATER BOILERS, DISHWASHERS, ETC.
F. PROVIDE AN APPROVED BACKFLOW PREVENTION DEVICE ON DISH WASHER RINSE LINES, PRIOR TO ANY FILTER, WATER SOFTENER, ICE MACHINES, SODA MACHINES, TEA/COFFEE URNS, INTEGRAL TO THE MOP SINK FAUCET, INTEGRAL TO ALL MIXING VALVES, AND INTEGRAL TO HOSE BIBS. LOCATE BACKFLOW PREVENTION DEVICE 6" ABOVE THE OVERFLOW RIM AND AFTER LAST SHUTOFF VALVE TO EQUIPMENT. ROUTE DRAIN LINE FROM BACKFLOW PREVENTION DEVICE TO NEAREST DRAIN WITH AN AIR GAP.
G. PROVIDE CHECK VALVE EQUAL TO WATTS SERIES LF601 CHECK VALVE ON THE HOT AND COLD WATER SUPPLY LINES TO THE FOLLOWING PIECES OF EQUIPMENT TO PREVENT MIGRATION OF HOT AND COLD WATER INTO OPPOSITE LINES: PRE-RINSE SPRAYER FAUCETS, MOP SINK, AND KETTLE FAUCETS. FEED WATER OVERHEAD AND MOUNT CHECK VALVE ABOVE ACCESSIBLE CEILING.
H. ALL NEW AND EXISTING PVC PIPING WITHIN THE PROJECT SCOPE EXTENTS SHALL BE FIRE WRAPPED BOTH ABOVE AND BELOW GRADE PER UNT STANDARDS.
I. ONCE NEW CIRCULATED HOT WATER LOOP IS INSTALLED, CONTRACTOR IS TO ENSURE PROPER BALANCE BETWEEN NEW AND EXISTING CIRCULATED HOT WATER LOOP SYSTEMS SERVING THE KITCHEN.

D. SCOTT BROWN
89097
1-30-2025

TREANOR
2554 Elm Street, Suite 200
Dallas, TX 75226
Office: 214.310.1018
www.TreanorHL.com

Purdy - McGuire
Mechanical - Electrical Engineers
17300 North Dallas Parkway
Suite 3000
Dallas, TX 75248-1147
Firm Registration # F-1511
Tel: 972/239-5357
Fax: 972/239-5231
www.purdy-mcguire.com

PMI JOB NO. 23037.002
PROJECT MGR. SCOTT BROWN, MITCHELL HENTON
MECHANICAL MITCHELL HENTON
PLUMBING CHRIS WOODYARD
ELECTRICAL JOHN KNOWLES

UNIVERSITY OF NORTH TEXAS
KERR HALL INTERIOR RENOVATION

1413 West Maple St
Denton, TX 76201

UNT
UNIVERSITY OF NORTH TEXAS

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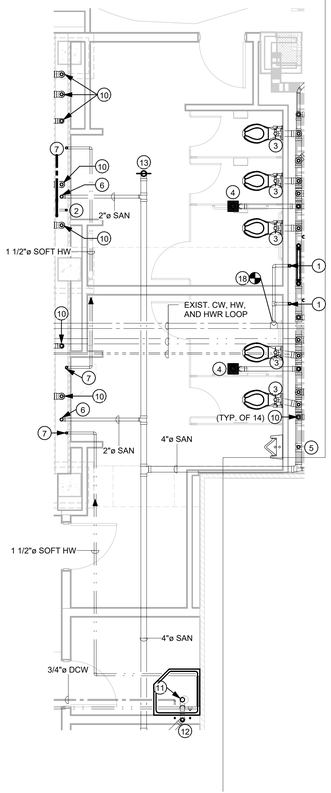
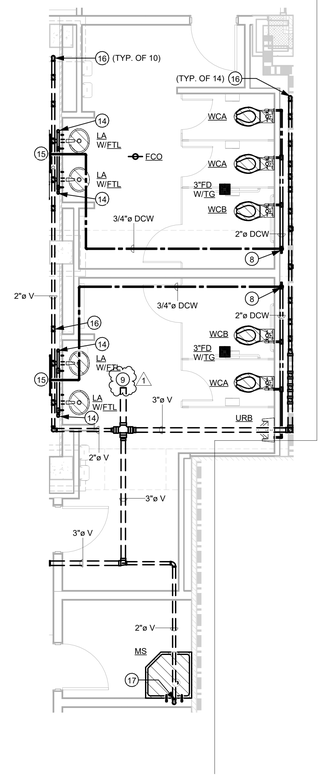
PLUMBING ENLARGED PLAN

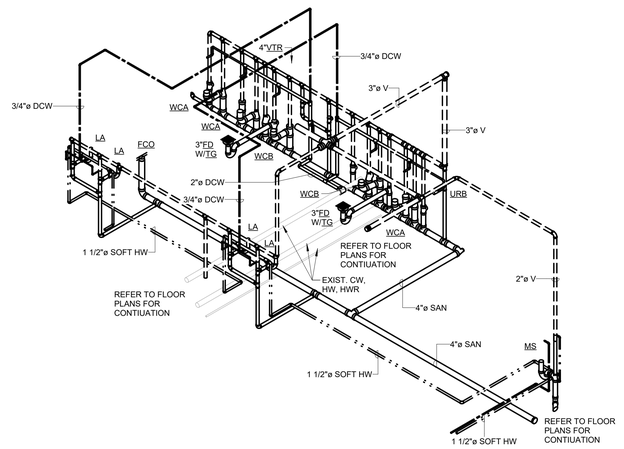
TreanorHL NO. HE0569.2302.01



1 ENLARGED DINING - RESTROOM - UNDERFLOOR PLUMBING PLAN
1/4" = 1'-0"



2 ENLARGED DINING - RESTROOM - PLUMBING PLAN
1/4" = 1'-0"



3 DINNING RESTROOMS - PLUMBING RISER

KEYED NOTES - SHEET IP3.03B

1 2" COLD WATER UP WITH ACCESSIBLE SHUT-OFF VALVE TO SERVE RESTROOM PLUMBING FIXTURES.
2 1-1/4" CIRCULATED HOT WATER LOOP UP TO SERVE LAVATORIES.
3 4" SANITARY UP TO FLOOR MOUNTED WATER CLOSET.
4 3" SANITARY UP TO FLOOR DRAIN.
5 2" SANITARY UP TO URINAL.
6 2" SANITARY UP TO SERVE LAVATORIES.
7 1-1/2" CIRCULATED HOT WATER LOOP UP TO SERVE LAVATORIES.
8 2" COLD WATER FROM BELOW, UP TO ACCESSIBLE SHUT-OFF VALVE AND EXTEND TO SERVE RESTROOM FIXTURES.
1 9 EXTEND NEW 4" VENT TO EXISTING VENT THRU ROOF. CONTRACTOR TO FIELD VERIFY SIZE AND LOCATION OF EXISTING VENT THRU ROOF PRIOR TO INSTALLATION. REFER TO DETAIL 11 ON SHEET IP501 FOR VENT THRU ROOF PIPING INSTALLATION REQUIREMENTS IF EXISTING VENT THRU ROOF SIZE AND CONDITIONS CAN NOT BE MET.
10 2" VENT UP.
11 3" SANITARY UP TO SERVE MOP SINK ON LEVEL ABOVE.
12 2" VENT, 3/4" HOT AND COLD WATER UP TO SERVE MOP SINK KITCHEN FIXTURE.
13 SANITARY UP TO FLOOR CLEANOUT (FCO).
14 2" CIRCULATED HOT WATER LOOP FROM BELOW, TO SERVE LAVATORIES.
15 3/4" COLD WATER DOWN TO SERVE LAVATORIES.
16 2" VENT DOWN.
17 2" VENT DOWN, 3/4" HOT AND COLD WATER FROM BELOW TO SERVE MOP SINK KITCHEN FIXTURE.
18 CONNECT NEW 2" COLD WATER TO EXISTING COLD WATER. CONTRACTOR TO FIELD VERIFY THE LOCATION, SIZE, ELEVATION OF EXISTING COLD WATER PRIOR TO NEW INSTALLATION.

PLUMBING GENERAL NOTES:

A. REFER TO FOOD SERVICE DRAWINGS FOR ALL PLUMBING CONNECTIONS, SIZES, AND REQUIREMENTS TO FOOD SERVICE EQUIPMENT.
B. INSTALL A THERMOSTATIC POINT OF USE MIXING VALVE (ASSE 1070 COMPLIANT) WITH INTEGRAL CHECK VALVE PRIOR TO CONNECTION OF HANDWASHING SINKS, LAVATORIES, AND SINKS IN PUBLIC USE SPACES, SET TO 120 DEG F.
C. PROVIDE SHUT-OFF VALVES ON DOMESTIC HOT AND COLD WATER CONNECTIONS TO ALL FIXTURE IN AN ACCESSIBLE LOCATION.
D. IF PVC IS ALLOWED FOR UNDERGROUND PIPING, CAST IRON PIPE SHALL BE INSTALLED FOR THE FIRST 25 FT,AFTER ANY DRAIN SERVING ANY WATER HEATING APPLIANCE (120 °F AND HIGHER) BEFORE TRANSITIONING BACK TO PVC. THIS INCLUDES BUT IS NOT LIMITED TO DRAINS ADJACENT TO AND DIRECT CONNECTIONS TO DOMESTIC WATER HEATERS, HEATING WATER BOILERS, DISHWASHERS, ETC.
E. ALL NEW AND EXISTING PVC PIPING WITHIN THE PROJECT SCOPE EXTENTS SHALL BE FIRE WRAPPED BOTH ABOVE AND BELOW GRADE PER UNT STANDARDS.
F. ONCE NEW CIRCULATED HOT WATER LOOP IS INSTALLED, CONTRACTOR IS TO ENSURE PROPER BALANCE BETWEEN NEW AND EXISTING CIRCULATED HOT WATER LOOP SYSTEMS SERVING THE KITCHEN.

REVISION SUMMARY:

- REVISED VENT PIPING AND ASSOCIATED KEYED NOTE TO CONNECT TO EXISTING VENT THRU ROOF PER GC COMMENTS AND RESPONSES.

PLUMBING ROUGH-IN SIZES

DESIGN.	ROUGH-IN CONNECTION SIZES			
	DCW	DHW	SAN	VENT
WCA	REF: FVW	-	4"	2"
WCB (ADA)	REF: FVW	-	4"	2"
FVW	1"	-	-	-
URA / URB(ADA)	REF: FVU	-	2"	1-1/2"
FVU	3/4"	-	-	-
LA	REF: FTL	REF:FTL	2"	1-1/2"
FTL	1/2"	1/2"	-	-
MS	REF: FTM	REF: FTM	3"	2"
FTM	3/4"	3/4"	-	-
EWC	1/2"	-	2"	1-1/2"
HD	-	-	REF: PLANS	REF: PLANS
FD	-	-	3"	2"
FS	-	-	4"	2"
FCO	-	-	REF: PLANS	-
WCO	-	-	REF: PLANS	-
WMB	1/2"	1/2"	2"	2"
HSA	REF: PLANS	REF: PLANS	-	-
VTR	-	-	-	REF: PLANS
TG	-	-	REF: FDx	-
AG	-	-	REF: EQUIP MENT	-
BFP	REF: PLANS	REF: PLANS	VARIES	-
RPZ-S	REF: PLANS	REF: PLANS	-	-
TMV	REF: PLANS	REF: PLANS	-	-
TMV ACCEPTABLE ALTERNATE	REF: PLANS	REF: PLANS	-	-

D. SCOTT BROWN
89097
LICENSED
PROFESSIONAL ENGINEER
5-23-2025

TREANOR
2554 Elm Street, Suite 200
Dallas, TX 75226
Office: 214.310.1018
www.TreanorHL.com

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Mechanical - Electrical Engineers
17300 North Dallas Parkway
Suite 3000
Dallas, TX 75248-1147
Firm Registration # F-1511
Tel: 972/239-5357
Fax: 972/239-5231
www.purdy-mcguire.com

PMI JOB NO.	23037.002
PROJECT MGR.	SCOTT BROWN, MITCHELL HENTON
MECHANICAL	MITCHELL HENTON
PLUMBING	CHRIS WOODYARD
ELECTRICAL	JOE RAMIREZ

UNIVERSITY OF NORTH TEXAS
KERR HALL INTERIOR RENOVATION
1413 West Maple St
Denton, TX 76201

UNT UNIVERSITY OF NORTH TEXAS

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1	ADDENDUM 2	05.23.25

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PLUMBING ENLARGED PLANS AND RISERS

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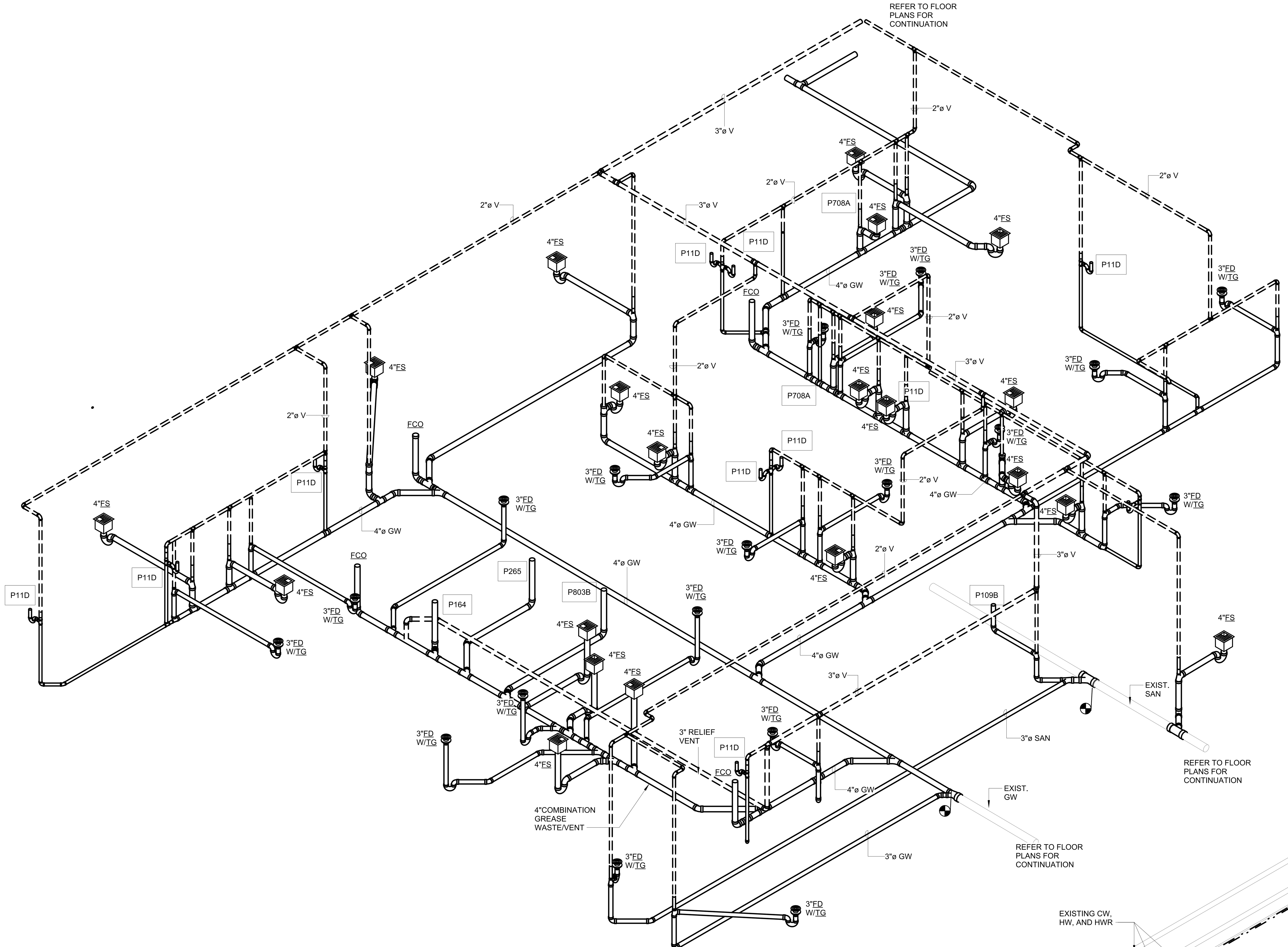
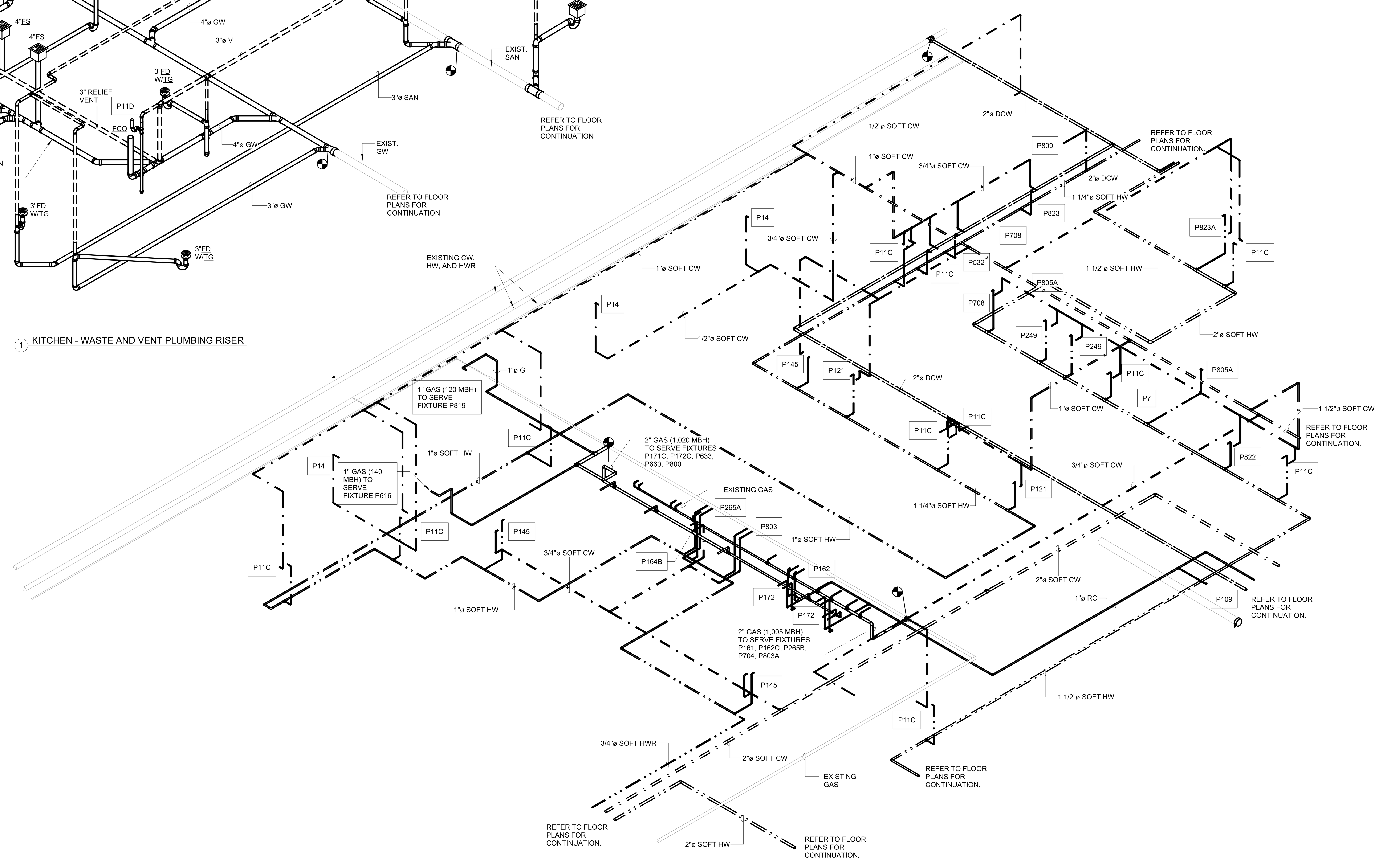


1 KITCHEN - WASTE AND VENT PLUMBING RISER



2 KITCHEN - WATER AND GAS PIPING PLUMBING RISER

GENERAL PLUMBING RISER NOTES:

1. NOT ALL P-TRAPS MAY BE SHOWN IN THE RISER DIAGRAMS, HOWEVER THE PLUMBING CONTRACTOR SHALL PROVIDE P-TRAPS FOR ALL FLOOR DRAINS, FLOOR SINKS, LAVATORIES, SINKS, MOP SINKS, ETC.
2. REFER TO PLUMBING ROUGH-IN SCHEDULE ON THIS SHEET AND/OR ON THE PLUMBING FIXTURE SCHEDULE FOR INDIVIDUAL SIZES TO FIXTURES, ONLY BRANCH SIZES ARE SHOWN ON THE PLANS AND RISERS.
3. REFER TO KITCHEN CONSULTANT DRAWINGS FOR PIPE SIZES TO ALL FIXTURES REPRESENTED BY [ ].

D. SCOTT BROWN 89097 LICENSED PROFESSIONAL ENGINEER
1-30-2025

TREANOR
2554 Elm Street, Suite 200
Dallas, TX 75226
Office: 214.310.1018
www.TreanorHL.com

Mechanical - Electrical Engineers
17300 North Dallas Parkway
Suite 3000
Dallas, TX 75248-1147
Firm Registration # F-1511
Tel: 972/239-5357
Fax: 972/239-5231
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ELECTRICAL JOHN KNOWLES

UNIVERSITY OF NORTH TEXAS
KERR HALL INTERIOR RENOVATION
1413 West Maple St
Denton, TX 76201

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PLUMBING RISERS

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Autodesk Docs://HE0569.2302.01 UNT Kerr Hall Interior Renovation/R23_KERR-HALL-DINING_PLUMB.rvt
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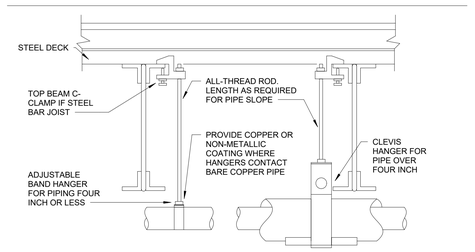
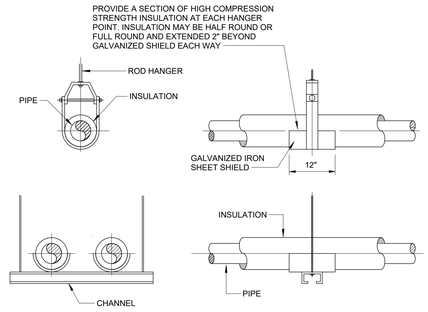


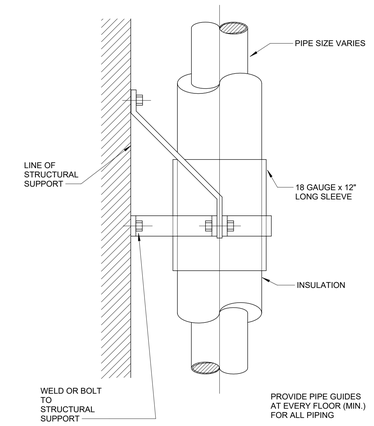
DETAIL NOTES:

A. PROVIDE UPPER ATTACHMENT AS REQUIRED FOR CASES NOT SHOWN HERE.
B. DO NOT INSTALL HANGER INSIDE INSULATION OR OTHERWISE PENETRATE VAPOR BARRIER.
C. DO NOT HANG ONE PIPE FROM ANOTHER EXCEPT IN CHASES.
D. TRAPEZE HANGERS MAY BE USED FOR MULTIPLE PARALLEL PIPES.
E. HANGER SPACING FOR PIPE SIZE:
   a. COPPER: 4"=12' 3"=11' 2-1/2"=10' 2"=9' 1"=7' 1"=6' 3/4"=6' 1/2"=5'.
   b. CAST IRON: 10' AND ONE NEAR ALL JOISTS.
   c. STEEL: 4"=14' 3"=12' 2-1/2"=11' 2"=10' 1-1/2"=9' 1"=7' 3/4"=6' 1/2"=5'.
F. LOCATE HANGERS AS CLOSE AS POSSIBLE TO TURNS AND TEES OF PIPE.
G. PROVIDE SUPPLEMENTARY STEEL STRUTS BETWEEN JOISTS IF REQUIRED.
H. LOCATE HANGERS TO TAKE LOAD OFF EQUIPMENT CONNECTIONS.
I. ANCHOR WATER PIPE AGAINST SWAYING DUE TO CHANGES IN WATER VELOCITY.
J. PROVIDE SEISMIC BRACING IF/AS REQUIRED BY LOCAL AUTHORITIES.
K. CHAINS OR PERFORATED STRAP IRON OR STEEL IS NOT ACCEPTABLE.
L. REFER TO CODES FOR FURTHER INFORMATION.

1 PIPE INSULATION/HANGER DETAIL
NOT TO SCALE



2 PIPE HANGING SUPPORT DETAILS
NOT TO SCALE



3 PIPING SUPPORT
NOT TO SCALE

SINGLE FIXTURE

PDI SIZE	PIPE SIZE	FIXTURE UNIT LOAD
A	1/2"	1-11
B	3/4"	12-32
C	1"	33-60
D	1-1/4"	61-113
E	1-1/2"	114-154
F	2"	154-330

MULTIPLE FIXTURES

FIXTURE UNIT TABULATION		
FIXTURE	COLD	HOT
VALVE WATER CLOSET	10	--
TANK WATER CLOSET	5	--
URINAL	5	--
LAVATORY/SINK	1.5	1.5
JANITOR SINK	3	3
SHOWER/BATHTUB	2	2

PC TO PROVIDE WATER HAMMER ARRESTORS BY SIOUX CHIEF, PRECISION PLUMBING PRODUCTS, WATTS OR APPROVED EQUIVALENT WITH PISTON AND 0-RING CONSTRUCTION, HAVING PDI #WH-201, ASSE #1010 AND ANSI #A112.26.1M CERTIFICATION. INSTALL IN HORIZONTAL OR VERTICAL POSITION, BUT NEVER UPSIDE DOWN. INSTALL IN LINE WITH WATER FLOW DIRECTION IF POSSIBLE. SIZE THE UNITS AS SHOWN ON THE DRAWINGS AND/OR PER THE TABLES SHOWN ABOVE.

4 WATER HAMMER ARRESTOR
NOT TO SCALE

5 PIPE SLEEVE DETAIL
NOT TO SCALE

NOTE: PROVIDE FOR ALL MASONRY WALLS AND FIRE-RATED WALLS.

6 PIPE SLEEVE INTERIOR WALLS
NOT TO SCALE

7 FIRE RATED PIPE SLEEVE DETAIL
NOT TO SCALE

8 TYPICAL FIRE RATED SLAB PENETRATION DETAIL
NOT TO SCALE

9 RISER CLAMP DETAIL
NOT TO SCALE

10 INDIRECT WASTE DETAIL
NOT TO SCALE

NOTE: LOCATE VENT TO ROOF A MINIMUM OF 3FT AWAY FROM ANY PROPERTY LINE, A MINIMUM OF 10FT HORIZONTAL OR 3FT VERTICAL ABOVE ANY BUILDING OPENING OR FRESH AIR INTAKE, A MINIMUM OF 18IN FROM ANY ADJACENT WALL, PARAPET, EXPANSION JOINT, ROOF DRAIN, EQUIPMENT CURB, OR OTHER ROOF FEATURE, OFFSET IN CEILING SPACE WHERE REQUIRED TO MEET THESE CONDITIONS. INSULATE LAST 6FT OF VENT PIPE INSIDE THE BUILDING PER SPECIFICATIONS. REFER TO LOCAL CODES FOR OTHER VENT TERMINATION REQUIREMENTS.

11 VENT THRU ROOF DETAIL
NOT TO SCALE

D. SCOTT BROWN
89097
LICENSED
PROFESSIONAL ENGINEER
1-30-2025

TREANOR
2554 Elm Street, Suite 200
Dallas, TX 75226
Office: 214.310.1018
www.TreanorHL.com

PMI JOB NO. 23037.002
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MECHANICAL MITCHELL HENTON
PLUMBING MITCHELL HENTON
ELECTRICAL CHRIS WOODYARD

UNIVERSITY OF NORTH TEXAS
KERR HALL INTERIOR RENOVATION
1413 West Maple St
Denton, TX 76201

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PLUMBING DETAILS

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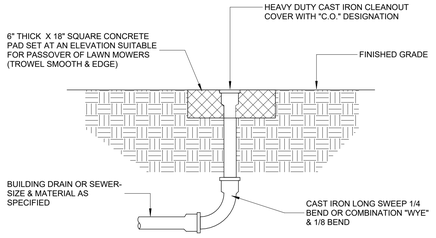
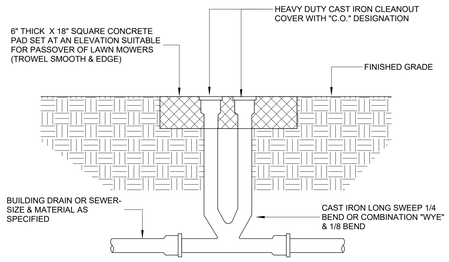
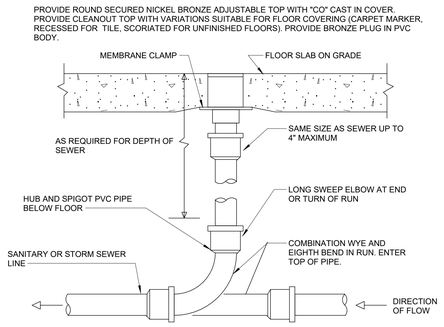


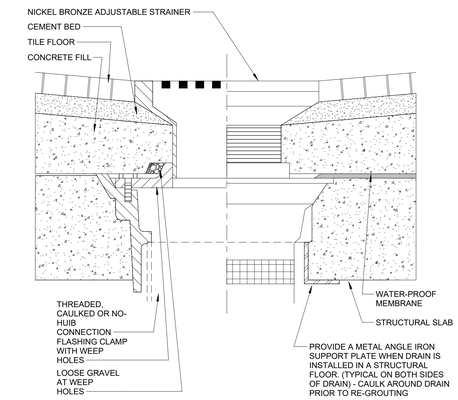
1 GRADE CLEANOUT DETAIL
NOT TO SCALE



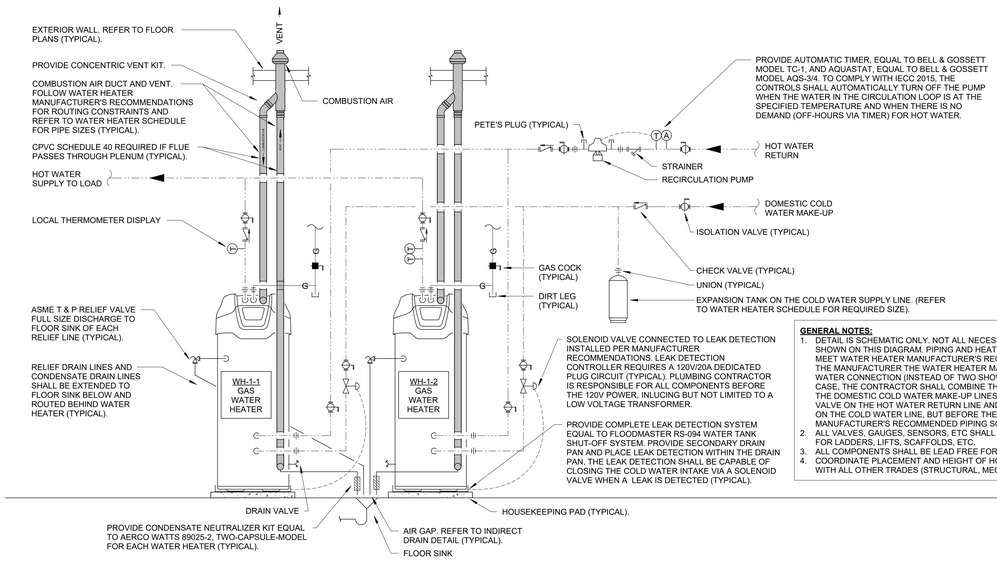
2 GRADE TWO-WAY CLEANOUT DETAIL
NOT TO SCALE



3 FLOOR CLEANOUT DETAIL
NOT TO SCALE



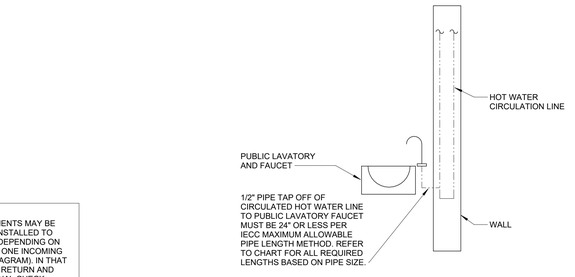
4 FLOOR DRAIN/SINK SUPPORT DETAIL
NOT TO SCALE



GENERAL NOTES:

1. DETAIL IS SCHEMATIC ONLY. NOT ALL NECESSARY COMPONENTS MAY BE SHOWN ON THIS DIAGRAM. PIPING AND HEATER SHALL BE INSTALLED TO MEET WATER HEATER MANUFACTURER'S REQUIREMENTS. DEPENDING ON THE MANUFACTURER THE WATER HEATER MAY ONLY HAVE ONE INCOMING WATER CONNECTION (INSTEAD OF TWO SHOWN ON THIS DIAGRAM). IN THAT CASE, THE CONTRACTOR SHALL COMBINE THE HOT WATER RETURN AND THE DOMESTIC COLD WATER MAKE-UP LINES AFTER THE FINAL CHECK VALVE ON THE HOT WATER RETURN LINE AND AFTER THE EXPANSION TANK ON THE COLD WATER LINE, BUT BEFORE THE SOLENOID VALVE. REFER TO MANUFACTURER'S RECOMMENDED PIPING SCHEMATIC.
2. ALL VALVES, GAUGES, SENSORS, ETC SHALL BE VISIBLE WITHOUT THE NEED FOR LADDERS, LIFTS, SCAFFOLDS, ETC.
3. ALL COMPONENTS SHALL BE LEAD FREE FOR DOMESTIC WATER USE.
4. COORDINATE PLACEMENT AND HEIGHT OF HOT AND COLD WATER PIPES WITH ALL OTHER TRADES (STRUCTURAL, MECHANICAL, ETC.).

5 WATER HEATER DETAIL - DOUBLE GAS UNIT
NOT TO SCALE

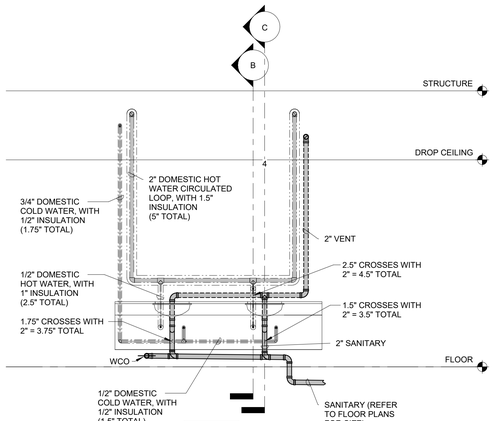


6 CIRCULATED HOT WATER LAVATORY TAP DETAIL
NOT TO SCALE

IECC 2015/2018, TABLE C404.5.1
PIPING VOLUME AND MAXIMUM PIPING LENGTHS

NOMINAL PIPE SIZE (inches)	VOLUME (liquid ounces per foot length)	MAXIMUM PIPING LENGTH (feet)	
		Public Lavatory Faucets	Other Fixtures and Appliances
1/4	0.33	6	50
5/16	0.5	4	50
3/8	0.75	3	50
1/2	1.5	2	43
5/8	2	1	32
3/4	3	0.5	21
7/8	4	0.5	16
1	5	0.5	13
1-1/4	8	0.5	8
1-1/2	11	0.5	6
2 or larger	18	0.5	4

For SI: 1 inch = 25.4mm, 1 foot = 304.8mm, 1 liquid ounce = 0.030L, 1 gallon = 128 ounces.



GENERAL NOTES:

A. THE PURPOSE OF THIS DETAIL IS TO SHOW HOW THE ENTIRE DOMESTIC HOT WATER RECIRCULATION LOOP CAN BE DROPPED DOWN AND FIT IN A LAVATORY WET WALL THAT IS ONLY 6" THICK. ALTERNATE PIPING ROUTES ARE ALLOWED AS LONG AS THE PIPING FITS WITH THE WET WALL SHOWN ON THE PLANS AND MEETS CODE.

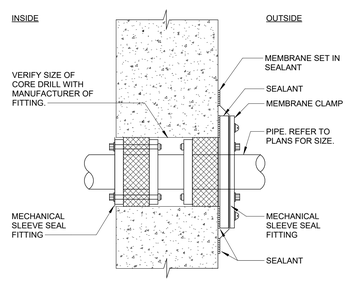
B. THE DOMESTIC HOT WATER RECIRCULATION LOOP MUST BE DROPPED DOWN IN THE WALL NEAR EACH LAVATORY BECAUSE IT IS REQUIRED IN THE INTERNATIONAL ENERGY CONSERVATION CODE. REFER TO DETAIL #6 ON THIS SHEET "CIRCULATED HOT WATER LAVATORY TAP DETAIL" FOR EXACT PIPE LENGTH RESTRICTIONS ON THE HOT WATER TAP.

C. REFER TO THE ARCHITECTURAL PLANS FOR THE EXACT DIMENSIONS OF THE WET WALL AT EACH LAVATORY LOCATION.

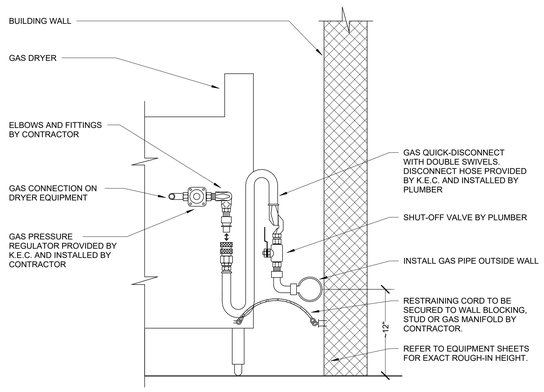
D. THIS DETAIL IS SCHEMATIC ONLY. THE CONTRACTOR SHALL COORDINATE EXACT PIPE ROUTING IN THE FIELD WITH ALL OTHER DISCIPLINES. ADDITIONAL FITTINGS AND PIPING MAY BE NECESSARY AT EACH LOCATION.

E. REFER TO FLOOR PLANS FOR ACTUAL BRANCH PIPE SIZES. REFER TO THE PLUMBING FIXTURE SCHEDULE FOR ACTUAL PIPE ROUGH-IN SIZES TO INDIVIDUAL FIXTURES.

9 CIRCULATED DOMESTIC HOT WATER LAVATORY PIPING DIAGRAM - 6" THICK WALL
NOT TO SCALE



7 PIPE PENETRATION BELOW GRADE
NOT TO SCALE



8 TYPICAL GAS QUICK DISCONNECT DETAIL
NOT TO SCALE

D. SCOTT BROWN
89097
LICENSED
PROFESSIONAL ENGINEER
1-30-2025

TREANOR
2554 Elm Street, Suite 200
Dallas, TX 75226
Office: 214.310.1018
www.TreanorHL.com

Mechanical - Electrical Engineers
17300 North Dallas Parkway
Suite 3000
Dallas, TX 75248-1147
Firm Registration # F-1511
Tel: 972/239-5357
Fax: 972/239-5231
www.purdy-mcguire.com

PMI JOB NO.	23037.002
PROJECT MGR.	SCOTT BROWN
MECHANICAL	MITCHELL HENTON
PLUMBING	MITCHELL HENTON
ELECTRICAL	CHRIS WOODYARD
DESIGNER	MITCHELL HENTON

UNIVERSITY OF NORTH TEXAS
KERR HALL INTERIOR RENOVATION

1413 West Maple St
Denton, TX 76201

UNT UNIVERSITY OF NORTH TEXAS

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PLUMBING DETAILS

TreanorHL NO. HE0569.2302.01

WATER HEATER SCHEDULE

DESIGNATION	TYPE	SERVES	STORAGE CAPACITY (GALLONS)	RECOVERY (GPH/GPM)	AVERAGE GROUND WATER (°F) (ENTERING WATER TEMPERATURE)	DEGREE RISE (°F)	MINIMUM SETPOINT (°F) (LEAVING WATER TEMPERATURE)	ELECTRICAL				NATURAL GAS				EFFICIENCY	PHYSICAL		BASIS OF DESIGN		NOTES
								INPUT (WATTS)	VOLTAGE	PHASE	FULL LOAD AMPS	INPUT (MBH)	OUTPUT (MBH)	FLUE SIZE (INCHES)	GAS CONNETION		DIMENSIONS	WEIGHT (LBS)	MANUFACTURER	MODEL	
WH-1-1	NATURAL GAS	KITCHEN AND DINNING RESTROOM HOT WATER FIXTURES	100	294 GPH	62 - 67	80	140	600	120	1	5	199	114	4	GAS INLET PIPE SIZE: 1-1/4" PRESSURE: 7-14" W.C.	97%	28" DIAMETER 76" HEIGHT	553	A.O. SMITH	BTH-199A MXI CYCLONE	NOTE 1,3,4 & 5
WH-1-2	NATURAL GAS	KITCHEN AND DINNING RESTROOM HOT WATER FIXTURES	100	294 GPH	62 - 67	80	140	600	120	1	5	199	114	4	GAS INLET PIPE SIZE: 1-1/4" PRESSURE: 7-14" W.C.	97%	28" DIAMETER 76" HEIGHT	553	A.O. SMITH	BTH-199A MXI CYCLONE	NOTE 1,3,4 & 5

GENERAL NOTES (APPLIES TO ALL):
- A REFER TO SPECIFICATIONS FOR ADDITIONAL REQUIREMENTS.
- B EQUIPMENT SHALL BE INSTALLED TO MEET ALL RECOMMENDATIONS OF THE MANUFACTURERS, MANUFACTURERS PIPING DIAGRAM, ETC.
- C WATER HEATER SHALL BE NSF61 CERTIFIED LEAD FREE, FOR USE IN A DOMESTIC WATER SYSTEM.
- D SUBJECT TO COMPLIANCE WITH ALL REQUIREMENTS LISTED IN THE SCHEDULE AND NOTES ABOVE, EQUAL MANUFACTURERS INCLUDE THE FOLLOWING:
  - A. CHRONOMITE LABORATORIES, INC.
  - B. EEMAX, INC.
  - C. RHEEM WATER HEATER DIV.; RHEEM MANUFACTURING COMPANY
  - D. RUUD WATER HEATER DIV., RUUD MANUFACTURING COMPANY
  - E. BRADFORD WHITE CORPORATION
  - F. A.O. SMITH WATER PRODUCTS
  - G. STATE INDUSTRIES
  - H. LOCHINVAR
  - I. PVI
- E ALL SUBSTITUTIONS MUST BE APPROVED, IN WRITING, PRIOR TO BID.

NOTES:
1. PROVIDE SOLENOID VALVE AND LEAK DETECTION. COORDINATE CONNECTION WITH ELECTRICAL CONTRACTOR.
2. FOR GAS WATER HEATERS, PACKAGED UNITS SHALL BE WITH ALL STANDARD FEATURES AND SHALL INCLUDE LOW-NOX OPERATION.
3. FOR GAS WATER HEATERS, FIRING CONTROL SYSTEM SHALL BE 5:1 TURNDOWN WITH CATEGORY IV VENTING.
4. FOR GAS WATER HEATERS, PROVIDE CONCENTRIC VENTING PIPING KIT TO MEET THE CAT IV VENTING REQUIREMENTS FOR THE UNITS.

DOMESTIC HOT WATER RECIRCULATION PUMP SCHEDULE

DESIG.	SERVES	TYPE	GPM	HEAD (FT)	MOTOR DATA				BASIS OF DESIGN		ELECTRICAL		NOTES
					EFF (%)	HP	RPM	VFD	MANUFACTURER	MODEL	VOLT	PH	
RP-1	WH-1-1 & WH-1-2	POTABLE WATER	6	30	XX	1/6	3300	YES	BELL & GOSSETT (B&G)	PL-36	120	1	ALL

GENERAL NOTES (APPLIES TO ALL):
1. REFER TO SPECIFICATIONS FOR ADDITIONAL INFORMATION AND REQUIREMENTS
2. SUBJECT TO COMPLIANCE WITH ALL REQUIREMENTS LISTED IN THE SCHEDULE AND SPECIFICATIONS, APPROVED MANUFACTURERS ARE: B&G, PACO/GRUNDFOS, TACO, ARMSTRONG.
3. ALL SUBSTITUTIONS SHALL BE APPROVED, IN WRITING, PRIOR TO BID.
4. ALL PUMPS IN POTABLE WATER APPLICATIONS SHALL BE NSF 61 CERTIFIED LEAD FREE AND OF ALL BRONZE OR STAINLESS STEEL CONSTRUCTION.
5. PROVIDE MOTOR RATED CONNECTION SWITCH (FOR HARDWIRED PUMPS) OR A RECEPTACLE (FOR PLUG-IN PUMPS) AT UNIT FOR LOCAL MEANS OF DISCONNECT. REFER TO ELECTRICAL PLANS FOR MORE INFORMATION.
6. PROVIDE AUTOMATIC TIMER KIT AND AQUASTAT TO MEET IECC 2015+ COMPLIANCE.

EXPANSION TANK SCHEDULE

DESIGNATION	TYPE	SERVES	TANK TOTAL VOLUME (GAL)	TANK ACCEPTANCE VOLUME (GAL)	MAXIMUM PRESSURE (PSI)	MAXIMUM OPPERATING TEMPERATURE (°F)	PHYSICAL		MOUNTING	BASIS OF DESIGN		NOTES
							DIMENSIONS	FILLED WEIGHT (LBS)		MANUFACTURER	MODEL	
ET-1	BLADDER	WH-1-1 & WH-1-2	15	10.0	150	240	16" DIAMETER 24" HEIGHT	64	FLOOR MOUNTED	WATTS	DELTA-30	

GENERAL NOTES (APPLIES TO ALL):
- A REFER TO SPECIFICATIONS FOR ADDITIONAL REQUIREMENTS.
- B EQUIPMENT SHALL BE INSTALLED TO MEET ALL RECOMMENDATIONS OF THE MANUFACTURERS, MANUFACTURERS PIPING DIAGRAM, ETC.
- C EXPANSION TANK SHALL BE ASME RATED.
- D EXPANSION TANK SHALL BE NSF61 CERTIFIED LEAD FREE, FOR USE IN A DOMESTIC WATER SYSTEM.
- E PLUMBING CONTRACTOR SHALL SET THE EXPANSION TANK PRESSURE CHARGE IN THE FIELD BASED ON THE PRESSURE OF THE COMPLETED SYSTEM FULLY INSTALLED WITH INCOMING CITY PRESSURE CONNECTED. PLUMBING CONTRACTOR SHALL FOLLOW MANUFACTURERS INSTRUCTIONS FOR SETTING THIS CHARGE IN THE FIELD. THE EXPANSION TANK SHALL NOT BE LEFT AT THE FACTORY PRE-CHARGE SETTING OF 40 PSI.
- F SUBJECT TO COMPLIANCE WITH ALL REQUIREMENTS LISTED IN THE SCHEDULE AND NOTES ABOVE, EQUAL MANUFACTURERS INCLUDE THE FOLLOWING:
  - A. WATTS
  - B. AMTROL
  - C. BELL & GOSSETT (B&G)
  - D. SAME MANUFACTURER AS THE SPECIFIED WATER HEATER
- G ALL SUBSTITUTIONS MUST BE APPROVED, IN WRITING, PRIOR TO BID.

NOTES:
1. NOT USED.

WATER SOFTENER SCHEDULE

DESIGNATION	SERVES	LOCATION	BASIS OF DESIGN		SYSTEM PERFORMANCE						PHYSICAL					ELECTRICAL				NOTES
			MANUFACTURER	MODEL	GALLONS PER DAY (ESTIMATED)	PEAK FLOW (ESTIMATED)	GRAIN EXTRACTING CAPACITY BETWEEN REGEN.	INCOMING WATER HARDNESS	VOLUME BETWEEN REGENERATION	DAYS BETWEEN REGENERATION	INLET / OUTLET PIPE SIZE	NUMBER / SIZE OF MINERAL TANKS	NUMBER / SIZE OF MINERAL TANKS	TOTAL SYSTEM DIMENSIONS	TOTAL WEIGHT OF SALT	FULL LOAD AMPS / WATTS	VOLTS	PHASE	CIRCUIT BREAKER SIZE	
WS-1	KITCHEN FIXTURES	KITCHEN STORAGE CLOSET	WATER CONTROL CORPORATION	LF-150-MR	1,750 GPD	40 GPM	150,000	12 GPG	11,250 G	6.4	2" / 2"	1 TANKS / 16" DIA.	1 TANK / 24" DIA.	44" W x 24" D X 78" H	625 LBS	1.3	120	1	(3) 20A/1P	1 - 6

GENERAL NOTES (APPLIES TO ALL):
- A REFER TO SPECIFICATIONS FOR ADDITIONAL REQUIREMENTS.
- B THE CONTRACTOR SHALL INCLUDE A WATER TEST IN THEIR SCOPE. THE WATER SOFTENER SELECTION SHOWN IN THIS SCHEDULE IS PRELIMINARY ONLY, PENDING THE RESULTS OF THE WATER TEST, AND SHALL NOT BE USED FOR CONSTRUCTION. THE WATER TEST SHALL BE PERFORMED AS SOON AS POSSIBLE, AFTER THE WATER MAIN HAS BEEN TAPPED INTO FOR THE NEW BUILDING DURING CONSTRUCTION. THE RESULTS OF THE WATER TEST SHALL BE GIVEN TO THE ENGINEER, ARCHITECT, OWNER, AND WATER TREATMENT MANUFACTURER`S REPRESENTATIVE FOR REVIEW AND UPDATED WATER SOFTENER SELECTION.
- C EQUIPMENT SHALL BE INSTALLED TO MEET ALL RECOMMENDATIONS OF THE MANUFACTURERS, MANUFACTURERS PIPING DIAGRAM, ETC.
- D WATER SOFTENER SYSTEM SHALL BE NSF61 CERTIFIED LEAD FREE, FOR USE IN A DOMESTIC WATER SYSTEM.
- E WATER SOFTENING SYSTEM SHALL MEET ALL THE REQUIREMENTS LISTED IN THE FOOD SERVICE DOCUMENTS.
- F WATER SOFTENER IS NOT DESIGNED FOR PRESSURES OVER 125 PSI AND TEMPERATURES OVER 120 DEGREES. IF WATER SOFTENER IS PLACED IN CONDITIONS OVER THE DESIGN LIMITS, NOTIFY ENGINEER IMMIDIATELY.
- G SUBJECT TO COMPLIANCE WITH ALL REQUIREMENTS LISTED IN THE SCHEDULE AND NOTES ABOVE, EQUAL MANUFACTURERS INCLUDE THE FOLLOWING:
  - A. CULLIGAN
  - B. QUANTROL
  - C. WATER CONTROL CORPORATION
  - D. WATER KING
  - E. WATTS
- H ALL SUBSTITUTIONS MUST BE APPROVED, IN WRITING, PRIOR TO BID.

NOTES:
1. PROVIDE COMPLETE FACTORY ASSEMBLED PRE-PLUMBED PACKAGE INSTALLED ON A LIFTABLE POWDER COATED STEEL SKID. PACKAGE TO INCLUDE ALL TANKS, PIPING, VALVES, CONTROLLERS, AND CORDS.
2. PROVIDE BRINE RECLAMATION SYSTEM TO EXTEND LIFE OR BRINE STORAGE AND REDUCE SALT AND WATER DRAINAGE.
3. PROVIDE A GFCI, 120V, NEMA 5-20R RECEPTACLE FOR EACH RESIN/MINERAL TANK AND AN ADDITIONAL GFCI RECEPTACLE FOR GENERAL MAINTENANCE. ALL RECEPTACLES SHALL BE ON A DEDICATED CIRCUIT. COORDINATE EXACT LOCATION REQUIRED WITH ELECTRICAL CONTRACTOR BASED ON INSTALLATION LOCATION AND CORD LENGTH.
4. PROVIDE COST TO OWNER AT BID FOR A 1 YEAR FULL MAINTENANCE CONTRACT BY SERVICE TECHNICIAN OF WATER SOFTENERS MANUFACTURER INCLUDING PREVENTATIVE MAINTENANCE AS REQUIRED FOR PROPER OPERATION OF EQUIPMENT.
5. AT PROJECT HANDOVER PLUMBING CONTRACTOR IS RESPONSIBLE TO FILL BRINE TANKS WITH WATER, SALT, AND ALL OTHER REQUIRED CONSUMABLES.
6. THE WATER SOFTENER SPECIFIED HAS A PRESSURE DROP OF 25 PSI AT PEAK FLOW.

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PLUMBING SCHEDULES

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POWER GENERAL NOTES:

A. ALL WORK SHALL COMPLY WITH APPLICABLE NATIONAL, STATE AND LOCAL CODES, RULES, REGULATIONS AND REQUIREMENTS OF THE SERVICE UTILITY COMPANY.
B. REFER TO ARCHITECTURAL DRAWINGS AND ELEVATIONS FOR DEVICE MOUNTING HEIGHTS AND DIMENSIONED LOCATIONS PRIOR TO ROUGH-IN.
C. REFER TO ARCHITECTURAL DRAWINGS FOR ADDITIONAL NOTES, SYMBOLS AND DETAILS.
D. EXISTING CONDITIONS ARE BASED ON INFORMATION PROVIDED BY SITE SURVEY AND EXISTING DRAWINGS. HOWEVER, IT IS NOT INTENDED TO BE AN EXACT REPRESENTATION OF ACTUAL CONDITIONS. ELECTRICAL CONTRACTOR TO FIELD VERIFY ALL EXISTING CONDITIONS (WHICH INCLUDE BUT ARE NOT LIMITED TO BREAKER SIZES, WIRE SIZES, CONDUIT SIZES, ETC.) PRIOR TO PURCHASING ANY ELECTRICAL EQUIPMENT. ELECTRICAL CONTRACTOR SHALL ALSO FIELD VERIFY PANELBOARDS TO MAKE SURE THE QUANTITY OF SPARES FOR CIRCUIT BREAKERS IS SUFFICIENT PER ENGINEERS DESIGN. ELECTRICAL CONTRACTOR SHALL VISIT JOB SITE PRIOR TO BIDDING TO ASCERTAIN EXISTING CONDITIONS AND SHALL NOTIFY ARCHITECT OF ANY DISCREPANCIES PRIOR TO BID.
E. CONTRACTOR SHALL COORDINATE WITH OTHER DISCIPLINES PRIOR TO ROUGH-IN.
F. NO CONDUCTORS SMALLER THAN AWG #12 SHALL BE USED FOR POWER CIRCUITS GREATER THAN 24 VOLTS AC.
G. WHERE CONDUCTOR SIZES ARE NOTED ON DRAWINGS, THAT WIRE SIZE SHALL BE THROUGH THE ENTIRE RUN UNLESS NOTED OTHERWISE.
H. ALL CONDUCTORS GREATER THAN 60' IN LENGTH SHALL BE SIZED FOR A MAXIMUM VOLTAGE DROP OF 3% OVER THE TOTAL LENGTH OF THE CIRCUIT CALCULATED AT 80% OF FULL LOAD OF THE OVERCURRENT DEVICE PROTECTING THE CONDUCTOR. CONTRACTOR SHALL PROVIDE PIG-TAIL OR ENCLOSED TERMINATION BLOCKS AS REQUIRED TO LAND CIRCUITS ON DEVICES OR EQUIPMENT.
I. ALL CONDUCTORS SHALL BE COPPER UNLESS NOTED OTHERWISE.
J. NEUTRAL CONDUCTORS SHALL NOT BE SHARED BETWEEN MULTIPLE SINGLE PHASE CIRCUITS. EACH SINGLE PHASE CIRCUIT SHALL HAVE A FULL SIZE DEDICATED NEUTRAL CONDUCTOR.
K. ALL INTERIOR ELECTRICAL HOMERUNS FROM PANELBOARD TO FIRST J-BOX OR DEVICE SERVED SHALL BE IN EMT CONDUIT. THE CONTRACTOR MUST OBTAIN WRITTEN APPROVAL FROM THE OWNER TO USE ANY AMOUNT OF MC CABLE (FLEXIBLE METAL CLAD CABLE). IF THE OWNER DOES ALLOW MC CABLE, IT IS ONLY ALLOWED FOR FINAL CONNECTIONS TO LIGHT FIXTURES IN THE PLENUM, OR FINAL CONNECTIONS TO 120V ELECTRICAL DEVICES IN THE WALLS. NO SEGMENT OF MC CABLE SHALL EVER EXCEED SIX FEET IN LENGTH. REFER TO SPECIFICATIONS FOR ADDITIONAL INFORMATION AND RESTRICTIONS.
L. ALL LOW VOLTAGE WIRING INSTALLED IN CEILING SPACE THAT IS ALSO USED IN AIR PLENUM SHALL BE PLENUM RATED CONDUCTOR. WHERE OWNER 'S CONSTRUCTION STANDARDS REQUIRE THAT LOW VOLTAGE WIRING BE RUN IN CONDUIT, CONDUIT SHALL BE PROPERLY LABELED AND SUPPORTED
M. FLEXIBLE CONDUIT SHALL ONLY BE USED FOR LIGHTING FIXTURE WHIPS AND MOTOR CONNECTION. ANY OTHER USE MUST FIRST BE ALLOWED IN WRITING BY THE ENGINEER PRIOR TO INSTALLATION.
N. FLEXIBLE CONDUIT LONGER THAN SIX FEET SHALL NOT BE ALLOWED EXCEPT WHERE SPECIFICALLY AUTHORIZED IN WRITING.
O. ALL SPARE CONDUITS AND EMPTY CONDUITS SHALL HAVE A PULL STRING INSTALLED FOR FUTURE USE. PULL STRING SHALL BE SECURED AT EACH END TO PREVENT ACCIDENTAL REMOVAL.
P. ELECTRICAL CONTRACTOR SHALL BE RESPONSIBLE FOR THE SELECTION OF OVERCURRENT/SHORT CIRCUIT PROTECTIVE DEVICES BASED ON CALCULATED PROSPECTIVE FAULT ENERGY AT EACH PANELBOARD PER SPECIFICATION SECTION 26 24 16 AND PROVIDE DEVICES MEETING REQUIRED SHORT CIRCUIT INTERRUPTING CAPACITIES (AIC RATING). PROVIDE OVERCURRENT PROTECTIVE DEVICE PER COORDINATION STUDY PER SPECIFICATION SECTION 26 24 16. THIS MAY BE DONE USING MANUAL METHODS FOR SIMPLE SYSTEMS; HOWEVER, THE USE OF RECOGNIZED COMPUTER PROGRAMS THAT HAVE BEEN VALIDATED SHOULD BE USED FOR LARGER SYSTEMS. THE RESULTS OF THESE COMPUTATIONS AND GRAPHICAL SOLUTIONS SHALL BE SUBMITTED TO THE ENGINEER WHEN DISTRIBUTION EQUIPMENT ARE SUBMITTED. ALL WORK SHALL COMPLY WITH APPLICABLE NATIONAL, STATE AND LOCAL CODES, RULES, REGULATIONS AND REQUIREMENTS OF THE SERVICE UTILITY COMPANY.
Q. PANELBOARD DIRECTORIES SHALL BE COMPLETELY FILLED OUT TO ACCURATELY IDENTIFY EACH CIRCUIT (EXISTING [IF APPLICABLE] AND NEW CIRCUITS) IN ALL PANELS WITHIN THE SCOPE OF WORK. OBTAIN BUILDING MANAGEMENT/OWNER'S APPROVAL OF IDENTIFICATION. DIRECTORIES SHALL BE TYPEWRITTEN.
R. ALL ELECTRICAL PANELS, TRANSFORMERS, SWITCH BOARDS, MOTOR CONTROL CENTERS AND ALL OTHER ELECTRICAL EQUIPMENT SHALL BE LABELED WITH AN ENGRAVED NAMEPLATE INDICATING THE EQUIPMENT DESIGNATION.
S. ELECTRIC CONNECTIONS TO PANELBOARDS AND BUS DUCTS SHALL BE MADE ONLY WHEN PANELBOARD OR BUS DUCT HAS BEEN DE-ENERGIZED. SCHEDULE DOWN TIME WITH BUILDING MANAGEMENT/OWNER.
T. JUNCTION BOXES AND/OR DEVICE BOXES SHALL NOT BE MOUNTED BACK TO BACK WHEN FLUSH MOUNTED IN A WALL. JUNCTION BOXES AND/OR DEVICE BOXES FLUSH MOUNTED ON OPPOSITE SIDES OF A WALL SHALL NOT BE INSTALLED IN THE SAME STUD SPACE.
U. ALL RECEPTACLES MOUNTED ABOVE OR BELOW KITCHEN COUNTERS OR COUNTERS WITH A SINK OR ANY OTHER WATER DISPENSING MECHANISM SHALL BE GFCI PROTECTED. ALL RECEPTACLES INSTALLED IN AN OUTDOOR LOCATION OR INTENDED TO PROVIDE POWER FOR VENDING MACHINES SHALL BE GFCI TYPE DEVICES.
V. ELECTRICAL CONTRACTOR SHALL PROVIDE A 4"x4"x2-5/8" STEEL JUNCTION BOX WITH SINGLE GANG MUD RING AND 1" METAL CONDUIT TO A MINIMUM OF 4" ABOVE FINISHED CEILING IN ACCESSIBLE CEILING FOR ALL TEL/DATA DEVICES SHOWN ON DRAWINGS. COORDINATE EXACT DEVICE LOCATION WITH OWNER'S I.T. REPRESENTATIVE AND ARCHITECT. PROVIDE A PULL STRING INSTALLED FOR FUTURE USE. PULL STRING SHALL BE SECURED AT EACH END TO PREVENT ACCIDENTAL REMOVAL.
W. ELECTRICAL CONTRACTOR SHALL PROVIDE A 4"x4"x2-5/8" STEEL JUNCTION BOX WITH SINGLE GANG MUD RING AND ¾" METAL CONDUIT TO A MINIMUM OF 4" ABOVE FINISHED CEILING IN AN ACCESSIBLE CEILING FOR ALL THERMOSTATS AND SENSORS. COORDINATE EXACT LOCATIONS WITH MECHANICAL CONTRACTOR AND ARCHITECT. PROVIDE A PULL STRING INSTALLED FOR FUTURE USE. PULL STRING SHALL BE SECURED AT EACH END TO PREVENT ACCIDENTAL REMOVAL.
X. WIRING FOR SYSTEMS FURNITURE SHALL BE COORDINATED WITH FURNITURE WIRING REQUIREMENTS PRIOR TO ROUGH IN. IF SYSTEM FURNITURE WIRING REQUIRES SHARING OF NEUTRAL CONDUCTORS, THE CONTRACTOR SHALL CONFIGURE THE OVERCURRENT PROTECTIVE DEVICE AT THE PANEL SUPPLYING POWER TO THE CIRCUITS SUCH THAT IF ONE CIRCUIT IS INTERRUPTED ALL CIRCUITS SHARING THAT SAME NEUTRAL CONDUCTOR ARE ALSO INTERRUPTED. THIS CAN BE DONE WITH MULTI-POLE CIRCUIT BREAKERS OR UL LABELED HANDLE TIES. THE PANEL SCHEDULE SHALL INDICATE WHERE CIRCUITS HAVE BEEN CONFIGURED TO TRIP TOGETHER.
Y. WIRING AT EXPOSED STRUCTURE: AT ALL LOCATIONS WHERE THERE IS NO CEILING, ALL WIRES / CABLES SHALL BE INSTALLED IN CONDUIT (INCLUDING ALL FIRE ALARM, TECHNOLOGY, SECURITY, BMS, ETC). ALL CONDUITS SHALL BE PROVIDED AS PART OF THIS CONTRACT. CONDUITS SHALL BE INSTALLED AS HIGH AS POSSIBLE IN A NEAT AND PROFESSIONAL MANNER, RUNNING LEVEL AND PARALLEL TO THE LINES OF THE BUILDING.
Z. ELECTRICAL AND FIRE ALARM CONTRACTOR SHALL REFERENCE THE MECHANICAL FRONT SHEET M0.01 FOR "MEP SHARED SYSTEM COORDINATION SCOPE OF WORK MATRIX".
AA. LOW VOLTAGE COORDINATION: REFER TO TECHNOLOGY DRAWINGS FOR ALL DIVISION 26 RESPONSIBILITIES REGARDING ROUGH-IN, POWER REQUIREMENTS, AND OTHER COORDINATION ITEMS FOR IT, SECURITY, A/V AND OTHER LOW VOLTAGE SYSTEMS.
AB. COORDINATE ALL CEILING MOUNTED ITEMS WITH ARCHITECTURAL REFLECTED PLANS (RCP). IF ARCHITECTURAL RCP DOES NOT INDICATE THE LOCATION FOR ANY CEILING MOUNTED ITEMS, CONFIRM WITH ARCHITECT THE EXACT LOCATION PRIOR TO INSTALLATION.
AC. REFER TO MECHANICAL SHEETS FOR EXACT LOCATIONS OF ALL MECHANICAL EQUIPMENT.
AD. ANY CONDUIT THAT IS ROUTED UNDERGROUND OR IN-SLAB SHALL BE A MINIMUM OF 1" CONDUIT.
AE. ALL EXISTING CIRCUITS WITHIN THE SCOPE OF WORK AREA THAT ARE NOT REUSED FOR THIS REMODEL SHALL BE REMOVED BACK TO THE PANELS AND THE PLACARDS SHALL INDICATE THE BREAKERS AS SPARES.
AF. CONTRACTOR SHALL RELOCATE ELECTRICAL CONNECTIONS ASSOCIATED WITH ALL RELOCATED MECHANICAL EQUIPMENT. REFER TO HVAC AND PLUMBING PLANS AND COORDINATE FINAL LOCATIONS WITH MECHANICAL CONTRACTOR IN THE FIELD.
AG. WHERE REQUIRED PER NEC 406.12(4), RECEPTACLES SHALL BE LISTED AS TAMPER-RESISTANT TYPE.
AH. CONTRACTOR SHALL PROVIDE A 120V CIRCUIT TO EACH VAV BOX INDICATED ON HVAC PLAN FOR CONNECTION OF CONTROLS. CIRCUIT NO MORE THAN FIVE (5) BOXES PER ONE (1) 20 AMP, 120V CIRCUIT.
AI. CONTRACTOR SHALL COORDINATE RELOCATION OF ELECTRICAL SERVICE TO ALL VAV AND FPB'S BEING RELOCATED UNDER THIS PROJECT, WITH ALL OTHER DISCIPLINES INVOLVED.
AJ. TELEPHONE/DATA SUBCONTRACTOR SHALL COORDINATE THE TELEPHONE/DATA INSTALLATION WITH ALL OTHER SUBCONTRACTORS AND SHALL BEAR ANY COST ASSOCIATED FOR THE RELOCATION OF ANY TELEPHONE/DATA INSTALL WHICH CONFLICTS WITH OTHER CONTRACTOR'S EQUIPMENT.
AK. FIRE ALARM CONTRACTOR SHALL PROVIDE 24V TRANSFORMER FOR UP TO 5 FIRE/SMOKE DAMPERS. PROVIDE CONTROL WIRE TO EACH DAMPER. REFER TO THE HVAC PLANS FOR LOCATIONS. FIRE/SMOKE DAMPERS SHALL INTERFACE WITH FIRE ALARM SYSTEM. UTILIZE CIRCUIT AS SHOWN ON PLANS.
AL. FIRE ALARM STROBE LIGHTS, SPEAKERS AND SMOKE DETECTORS SHALL BE TIED INTO EXISTING FIRE ALARM SYSTEM.

ELECTRICAL ALLOWANCES:

1

SECURITY
- PROVIDE JUNCTION BOX FOR CARD READER AT EACH EXTERIOR DOOR WITH 1" CONDUIT AND PULLSTRING UP TO ABOVE NEAREST ACCESSIBLE CEILING

TELECOM AND A/V
- PROVIDE (3) 4" CONDUITS FOR TELECOM INTO THE BUILDING. CONDUITS SHOULD EXTEND FROM FURTHEST EDGE OF SITE AND STUB UP IN MDF ROOM. IF MDF ROOM IS NOT SHOWN ON PLANS, CONDUITS SHOULD STUB UP IN MAIN ELECTRICAL ROOM. PROVIDE 4X8 PLYWOOD BACKBOARD AND A DEDICATED 120V/20A QUAD RECEPTACLE.
- PROVIDE (4) 4" PVC SLEEVES BETWEEN FLOORS LOCATED IN EACH IDF ROOM FOR FUTURE TELECOM BETWEEN FLOORS.
- PROVIDE POWER TO CEILING MOUNTED PROJECTOR AND MOTORIZED PROJECTION SCREEN WITH WALL MOUNTED SWITCH IN EACH CONFERENCE ROOM.
- PROVIDE POWER AND DATA CONDUIT FOR (4) TVS PER FLOOR.

FIRE ALARM
- FIRE ALARM ANNUNCIATOR PANEL SHALL BE LOCATED AT THE BUILDING MAIN ENTRANCE. FIRE ALARM CONTROL PANEL SHALL BE LOCATED AS SHOWN ON THE PLANS.
- PROVIDE (1) 120V/20A DEDICATED CIRCUIT IN EACH ELECTRICAL ROOM FOR FIRE ALARM BOOSTER PANEL.

FIRE SMOKE DAMPERS
- PROVIDE DEDICATED 120V/20A CIRCUIT IN EACH ELECTRICAL ROOM TO PROVIDE POWER FOR FIRE SMOKE DAMPERS. POWER SHOULD BE RUN FROM PANEL TO 24V TRANSFORMER (PROVIDED BY FIRE ALARM CONTRACTOR) TO SERVE FIRE SMOKE DAMPERS

LIGHTING
- ALL AREAS NOT DEFINED BELOW: PROVIDE ALL NEW LED LIGHTING THROUGHTOUT THE SCOPE AREA. REFER TO ARCHITECTURAL REFLECTED CEILING PLANS FOR LIGHTING INTENT.
- EXIT SIGNS: PROVIDE AND INSTALL EDGE LIT LED EXIT SIGNS WITHIN THE PATH OF EGRESS SUCH THAT ANY LOCATION WITHIN THE PATH OF EGRESS HAS TWO EXIT SIGNS WITHIN SIGHT AND THERE IS AN EXIT SIGN AT LEAST EVERY 100FT.
- MECHANICAL/ELECTRICAL ROOMS: PROVIDE 1X4 SUSPENDED STRIP FIXTURES AT 8' ON CENTER.
- STAIRWELLS: PROVIDE (2) 4FT [OR (1) 8FT] WALL MOUNTED LED FIXTURES AT EACH LANDING AND INTERMEDIATE LANDING. THE BACK OF EACH STAIR TREAD SHALL HAVE A MINIMUM OF 10 FC (PER NFPA1 14.12.1.3).

LIGHTING CONTROLS
- REFER TO LIGHTING CONTROLS NARRATIVE ON THIS SHEET.

CONTROLS POWER
- PROVIDE (1) 120V/20A DEDICATED CIRCUIT FOR BMS CONTROLS IN EACH ELECTRICAL ROOM. BMS CONTROLLER SHALL BE LOCATED IN EACH ELECTRICAL ROOM.
- PROVIDE (5) 120V/20A DEDICATED CIRCUITS FOR POWER TO VAV BOXES FOR EACH FLOOR. POWER SHOULD BE ROUTED TO 24V TRANSFORMERS NEAR EACH GROUP OF VAV BOXES

GENERAL FIRE ALARM NOTES

A. THE CONTRACTOR SHALL DESIGN, PROVIDE, AND INSTALL ADDITIONAL, DEVICES AND SYSTEM COMPONENTS TO THE EXISTING FIRE ALARM SYSTEM SO THAT THE TOTAL SYSTEM IS A COMPLETE FIRE ALARM SYSTEM THROUGHOUT THE CONTRACT AREA. THE CONTRACTOR SHALL BE A FIRM LICENSED TO DESIGN AND INSTALL FIRE ALARM SYSTEMS IN THE PHYSICAL JURISDICTION IN WHICH THE SYSTEM IS TO BE INSTALLED. THE FIRM SHALL HAVE ALL CREDENTIALS AND PROOF OF REQUIRED INSURANCE SUBMITTED WITH THE BID DOCUMENTS.

B. COMPLETE FIRE ALARM PLANS AND EQUIPMENT CUT SHEETS FOR ALL FIRE ALARM EQUIPMENT SHALL BE SUBMITTED TO THE LOCAL AUTHORITY HAVING JURISDICTION FOR REVIEW, APPROVAL AND PERMIT PRIOR TO INSTALLATION. SUBMITTAL DOCUMENTS SHALL INCLUDE VOLTAGE DROP CALCULATIONS FOR ALL FIRE ALARM CONDUCTORS. THESE SAME DOCUMENTS SHALL BE SUBMITTED TO THE ENGINEER FOR REVIEW TO ENSURE THE SYSTEM DOES NOT, WITHIN THE LIMITS OF APPLICABLE CODES AND REQUIREMENTS, CONFLICT WITH THE ARCHITECTURAL INTENT OF THE FACILITY.

C. THE COMPLETED FIRE ALARM SYSTEM SHALL BE AN INTELLIGENT ADDRESSABLE SYSTEM AND SHALL BE IN COMPLIANCE WITH ALL APPLICABLE CODES AND STANDARDS. ALL DEVICES AND EQUIPMENT INSTALLED AS PART OF THIS CONTRACT WORK SHALL MATCH AS CLOSELY AS POSSIBLE THE EXISTING SYSTEM AND SHALL BE INTEGRATED COMPLETELY INTO THE EXISTING SYSTEM. THE SYSTEM SHALL INCLUDE ALL DEVICES SUCH AS, BUT NOT LIMITED TO, FLOW AND TAMPER SWITCHES, CEILING MOUNTED SMOKE DETECTORS, CEILING MOUNTED HEAT DETECTORS, DUCT SMOKE DETECTORS IN THE SUPPLY AND/OR RETURN DUCTS AS REQUIRED BY CODE AND BY THE LOCAL AUTHORITY HAVING JURISDICTION, DETECTORS AT ALL FIRE/SMOKE DAMPERS, SHUNT/TRIP CONTROL OF ELEVATORS, NOTIFICATION DEVICES AS REQUIRED BY APPLICABLE CODE, LOCAL AUTHORITY HAVING JURISDICTION, AND OWNER'S DESIGN STANDARDS. NOTIFICATION DEVICES SHALL BE IN COMPLIANCE WITH THE AMERICANS WITH DISABILITIES ACT AND ALL OTHER SUCH LOCAL CODES.

D. ALL NEW DEVICES AND EQUIPMENT SHALL BE FULLY INTEGRATED INTO THE EXISTING FIRE ALARM SYSTEM AND THE FIRE ALARM CONTROL PANEL SHALL BE PROGRAMMED BY A FACTORY AUTHORIZED PROGRAMMER TO FUNCTION AS DESIGNED WITH THE NEW DEVICES AND EQUIPMENT.

E. THE CONTRACTOR SHALL BE FAMILIAR WITH ALL APPLICABLE CODES, REQUIREMENTS BY THE LOCAL AUTHORITY HAVING JURISDICTION, AND OWNER STANDARDS FOR CONSTRUCTION AND OPERATION OF FIRE ALARM SYSTEMS. ANY CHANGES TO THE FINAL INSTALLATION DUE TO THE CONTRACTOR NOT HAVING BEEN AWARE OF ANY OF THE ABOVE, SHALL BE MADE AT NO COST TO THE OWNER.

GENERAL DEMOLITION SCOPE:

A. THE EXISTING MAIN SERVICE SWITCHBOARD AND ALL DOWNSTREAM DISTRIBUTION PANELS NOT NOTED TO BE REMOVED ARE TO REMAIN.

B. ALL EXISTING LIGHT FIXTURES IN THE CONTRACT AREA SHALL BE REMOVED FROM ALL CEILING SPACES ALONG WITH ASSOCIATED CONDUITS, CONDUCTORS, AND CONTROLS.

C. ALL EXISTING "HARD-WIRED" EQUIPMENT IN THE EXISTING CONTRACT AREA THAT IS TO BE REMOVED SHALL BE DISCONNECTED FROM THE ELECTRICAL POWER SYSTEM AND RESPECTIVE CONDUITS AND CONDUCTORS SHALL BE REMOVED BACK TO THEIR RESPECTIVE SOURCE.

D. ALL WIRING DEVICES IN THE CONTRACT AREA SHALL BE REMOVED ALONG WITH ASSOCIATED CONDUITS AND CONDUCTORS BACK TO THEIR RESPECTIVE SOURCES. POWER SHALL BE RESTORED TO ANY REMAINING DEVICES ON THE SAME CIRCUIT AS THOSE BEING REMOVED.

E. THE ELECTRICAL CONTRACTOR SHALL COORDINATE WITH THE MECHANICAL CONTRACTOR TO REMOVE ANY CONDUITS, CONDUCTOR, SWITCHES, AND CONNECTIONS FOR ALL MECHANICAL EQUIPMENT TO BE REMOVED, BACK TO THE SOURCE OF THE RESPECTIVE ELECTRICAL SOURCE.

LIGHTING GENERAL NOTES:

A. MOUNT LIGHT SWITCHES AS INDICATED ON ARCHITECTURAL DRAWINGS (48" AFF UNLESS NOTED OTHERWISE).
B. ALL GANGED SWITCHES SHALL HAVE A COMMON SEAMLESS FACEPLATE. EACH MULTI-GANG BOX SHALL BE NO MORE THAN SIX (6) SWITCHES WIDE. WHERE MORE THAN SIX (6) SWITCHES ARE SHOWN AT ONE (1) LOCATION, ADDITIONAL MULTI-GANG BOXES SHALL BE STACKED VERTICALLY AND THE WIDTH OF THE MULTI-GANGS SHALL BE AS EVEN AS POSSIBLE.
C. EACH DIMMER SWITCH SHALL HAVE A WATTAGE RATING 25% HIGHER THAN THE TOTAL WATTAGE OF ALL LIGHTS TO BE CONTROLLED BY THE DIMMER.
D. WHERE FIXTURES ARE SHOWN TO BE DIMMED, THE DIMMERS SHALL HAVE THE DIMMING TYPE MATCHING THAT OF THE SPECIFIED FIXTURES.
E. ALL EMERGENCY LIGHT FIXTURES SHALL BE FED FROM EXISTING EMERGENCY LIGHTING CIRCUITS UNLESS NOTED OTHERWISE.
F. ALL EXIT SIGNS SHALL BE FED FROM EXISTING EXIT SIGN CIRCUITS EXCEPT AS OTHERWISE NOTED.
G. WHEN SPECIFIC LIGHT FIXTURE TYPE HAS BEEN SPECIFIED IN THE FIXTURE INFORMATION, ELECTRICAL CONTRACTOR SHALL PROVIDE COMPLETE ASSEMBLY INCLUSIVE OF ALL PARTS AND HARDWARE.
H. ALL EXIT SIGNS SHALL BE SELF TESTING. ALL EMERGENCY LIGHTING WITH INDIVIDUAL BATTERIES (IF PRESENT IN THE PROJECT) SHALL BE SELF TESTING.
I. ALL LIGHT FIXTURES SHALL HAVE SEPARATE GROUNDING CONDUCTORS. INTEGRAL GROUNDING IN LUMINAIRE IS NOT ACCEPTABLE.
J. COORDINATE ALL CEILING MOUNTED ITEMS WITH ARCHITECTURAL REFLECTED PLANS (RCP). IF ARCHITECTURAL RCP DOES NOT INDICATE THE LOCATION FOR ANY CEILING MOUNTED ITEMS, CONFIRM WITH ARCHITECT THE EXACT LOCATION PRIOR TO INSTALLATION.
K. FINAL MOUNTING LOCATION OF OCCUPANCY SENSORS WILL BE PROVIDED BY EQUIPMENT MANUFACTURER. DEVICES SHOWN ON PLAN ARE FOR REFERENCE AND DO NOT NECESSARILY INDICATE EXACT MOUNTING LOCATION.

LIGHTING CONTROL NARRATIVE:

THE FOLLOWING SUMMARY PROVIDES THE DESIGN INTENT FOR LIGHTING CONTROLS AND ZONES THAT COMPLIES WITH THE ENERGY CODE LISTED ON THIS SHEET UNDER THE "ELECTRICAL APPLICABLE CODE" NOTE. ALTHOUGH THE DESIGN IS AROUND A SPECIFIC MANUFACTURER'S SYSTEM, THE LIGHTING CONTROL SYSTEM IS NOT RESTRICTED TO BEING PROVIDED BY THAT MANUFACTURER REFER TO SPECIFICATIONS FOR OTHER ACCEPTABLE MANUFACTURERS. THE SPECIFIC MANUFACTURER'S SYSTEM IS SHOWN TO CONVEY THE INTENDED LEVEL OF QUALITY AND CAPABILITY OF THE SYSTEM:

GENERAL LIGHTING CONTROLS REQUIREMENTS:

SEQUENCE OF OPERATIONS -REQUIRED IN SUBMITTAL:
- A NARRATIVE DESCRIPTION OR MATRIX OF THE SEQUENCE OF OPERATIONS FOR EACH SPACE IN SHALL BE INCLUDED IN THE CONTROLS SUBMITTAL, IN ADDITION TO THE DIAGRAMS AND PRODUCT DATA. ANY CONTROLS SUBMITTAL WITHOUT CLEAR NARRATIVES OR A MATRIX OF THE CONTROLS IN EACH SPACE (THAT A LAY PERSON COULD UNDERSTAND) WILL BE REJECTED AND REQUIRED TO BE RESUBMITTED WITH NARRATIVES.

POWER COORDINATION:
- CONTRACTOR SHALL PROVIDE DEDICATED POWER TO LIGHTING CONTROL SYSTEM PROCESSORS, GATEWAYS, AND ALL NECESSARY ACCESSORIES AS REQUIRED BY SPECIFIC LIGHTING CONTROL MANUFACTURER.

PLUG LOAD CONTROLS:
- THIS PROJECT HAS PLUG LOAD CONTROLS THROUGHOUT THE SPACES LISTED BELOW AS REQUIRED PER IECC. REFER TO THE ELECTRICAL FLOOR PLANS FOR NUMBER AND LOCATION OF RECEPTACLES THAT NEED TO BE CONTROLLED VIA LIGHTING CONTROLS OCCUPANCY SENSORS.
  - PRIVATE OFFICES
  - CONFERENCE ROOMS
  - PRINT/COPY ROOMS
  - BREAKROOMS
  - CLASSROOMS
  - INDIVIDUAL WORKSTATIONS – INCLUDING THOSE INSTALLED IN MODULAR FURNITURE.

WIRELESS REQUIREMENTS:
  - BOTH WIRED AND WIRELESS LIGHTING CONTROLS ARE ACCEPTABLE, WITH CONDITIONS:
    a. ANY LIGHTING CONTROLS SYSTEM MUST FULLY COMPLY WITH THIS NARRATIVE SEQUENCE OF OPERATIONS TO BE ACCEPTABLE.
    b. IF THE SYSTEM IS WIRELESS, NO ONLY BATTERY POWERED DEVICES ARE ALLOWED. ALL ITEMS NEEDING POWER SHALL BE HARDWIRED TO THAT POWER. BATTERIES ARE ALLOWED AS BACKUP TO THE HARDWIRED POWER, BUT BATTERIES ALONE FOR POWER IS NOT ACCEPTABLE. ONLY THE COMMUNICATION BETWEEN DEVICES IS ALLOWED TO BE WIRELESS.

COMMISSIONING AGENT:
- THE LIGHT FIXTURES AND LIGHTING CONTROLS SHALL HAVE THE SAME MANUFACTURER REPRESENTATIVE TO ENSURE A SINGLE POINT OF CONTACT FOR THE TENANT AND OWNER DURING LIGHTING AND LIGHTING CONTROLS COMMISSIONING.

MINIMUM REQUIRED SEQUENCE OF OPERATIONS (SOO) BY SPACE TYPE:

ELECTRICAL, MECHANICAL, MDF/IDF/DATA ROOMS
- PROVIDE SINGLE POLE SWITCH ADJACENT TO DOOR. AUTOMATIC CONTROL SHALL NOT BE REQUIRED FOR SAFETY REASONS.

RESTROOMS
- PROVIDE DUAL TECHNOLOGY OCCUPANCY SENSOR AND LOW VOLTAGE SWITCH AS INDICATED ON ELECTRICAL PLANS.
- LIGHTING SHALL BE AUTOMATIC ON, AND AUTOMATIC OFF.
- ALL ZONES SHALL BE DIMMABLE.
- EMERGENCY LIGHTS SHALL ACT AS NIGHT LIGHTS AND SHALL BE UNSWITCHED.

LOBBIES AND CORRIDORS **IECC 2021**
- NORMAL HOURS (6AM-8PM): ALL LIGHTING ZONES SHALL AUTOMATICALLY TURN ON TO 100% WHEN THE CORRIDOR IS OCCUPIED AND DIM TO 50% AFTER 20 MINUTES OF NO ACTIVITY (UNOCCUPIED) AS SENSED FROM DUAL TECHNOLOGY VACANCY SENSORS.
- AFTER HOURS: ALL LIGHTING ZONES SHALL AUTOMATICALLY TURN ON TO 100% WHEN THE CORRIDOR IS OCCUPIED AND TURN OFF WHEN THE CORRIDOR IS UNOCCUPIED.
- THOSE TIMES AND DIM SETTINGS SHALL BE ADJUSTABLE BY THE TENANT OR OWNER.
- ALSO REFER TO THE DAYLIGHTING SECTION OF THIS NARRATIVE WHERE APPLICABLE.
- ALL ZONES SHALL BE DIMMABLE.
- SELECT EMERGENCY LIGHTS SHALL ACT AS NIGHT LIGHTS AND SHALL BE UNSWITCHED. ALL OTHER EMERGENCY LIGHTS SHALL BE CONTROLLED WITH ADJACENT LIGHTING VIA UL924 DEVICES. PROVIDE DIMMING TYPE UL924 DEVICES.

OPEN OFFICES **IECC 2021**
- PROVIDE DUAL TECHNOLOGY OCCUPANCY SENSORS AND LOW VOLTAGE KEYPADS (OR TOUCHSCREENS) AS INDICATED ON ELECTRICAL PLANS.
- ALL ZONES SHALL BE DIMMABLE.
- THERE SHALL BE A MANUAL USER OVERRIDE KEYPAD (OR TOUCHSCREEN) WITHIN THE OPEN OFFICE SPACE.
- THE OPEN OFFICE SHALL BE BROKEN UP INTO 600 SQFT OR LESS CONTROL ZONES WITH SEPARATE OCCUPANCY SENSORS FOR EACH ZONE.
- WHEN A ZONE IS OCCUPIED IT SHALL AUTOMATICALLY COME ON TO 100%. ALL OTHER SURROUNDING UNOCCUPIED OPEN OFFICE ZONES SHALL AUTOMATICALLY COME ON TO 20%.
- DURING OCCUPIED HOURS (6AM-8PM), WHEN ALL ZONES HAVE BEEN UNOCCUPIED FOR MORE THAN 20 MINUTES ALL ZONES SHALL AUTOMATICALLY REDUCE TO 20%.
- DURING AFTER HOURS, WHEN ALL ZONES HAVE BEEN UNOCCUPIED FOR MORE THAN 20 MINUTES ALL ZONES SHALL AUTOMATICALLY TURN OFF.
- SELECT EMERGENCY LIGHTS SHALL ACT AS NIGHT LIGHTS AND SHALL BE UNSWITCHED. ALL OTHER EMERGENCY LIGHTS SHALL BE CONTROLLED WITH ADJACENT LIGHTING VIA UL924 DEVICES. PROVIDE DIMMING TYPE UL924 DEVICES.

ENCLOSED ROOMS (CONFERENCE, CLASSROOM, STORAGE, OFFICE, ETC:)
- PROVIDE DUAL TECHNOLOGY OCCUPANCY SENSORS AND LOW VOLTAGE SWITCH AS INDICATED ON ELECTRICAL PLANS.
- LIGHTING SHALL BE AUTOMATIC ON TO 50%, MANUALLY DIMMABLE UP AND DOWN FROM THERE, AND AUTOMATIC OFF.
- ALL ZONES SHALL BE DIMMABLE.
- EMERGENCY LIGHTS SHALL BE CONTROLLED WITH ADJACENT LIGHTING VIA UL924 DEVICE. PROVIDE DIMMING TYPE UL924 DEVICE.

DAYLIGHT ZONES
- PROVIDE PHOTOCELL AND MANUAL OVERRIDE SWITCH AS INDICATED ON ELECTRICAL PLANS
- PHOTOCELL SHALL ENABLE AUTOMATIC DIMMING IN ACCORDANCE WITH ENERGY CODE REQUIREMENTS.
- MANUAL OVERRIDE SWITCH SHALL ENABLE MANUAL DIMMING & ON/OFF, AS WELL.

EXTERIOR LIGHTING
- EXTERIOR LIGHTING SHALL BE CONNECTED TO LIGHTING CONTROL SYSTEM. LIGHTING CONTROL SYSTEM SHALL CONTROL FIXTURES VIA TIME CLOCK AND PHOTOCELL.
- SITE LIGHTING NOT BEING USED FOR LIGHTING THE BUILDING FAÇADE OR LANDSCAPE FEATURES SHALL BE DIMMABLE AND CONTROLLED BY DIMMING RELAYS IN LIGHTING CONTROL PANEL. PROVIDE ADDITIONAL 1"C WITH LOW VOLTAGE WIRING TO EACH FIXTURE. FIXTURES SHALL DIM BY 50% BETWEEN MIDNIGHT AND 6AM.

CONFERENCE CENTER
- PROVIDE NEW DIMMING SYSTEM AS INDICATED ON THE ELECTRICAL PLANS WITH DUAL TECHNOLOGY OCCUPANCY SENSORS AND LOW VOLTAGE KEYPADS.
- NORMAL HOURS: ALL LIGHTING SHALL TURN ON AND OFF BASED ON A SCHEDULED INPUT VIA TIME OF DAY CONTROLS FROM LIGHTING CONTROL SYSTEM.
- AFTER HOURS: LIGHTING SHALL BE CONTROLLED ON/OFF VIA LOCAL OVERRIDE KEYPADS AND OCCUPANCY SENSORS. AFTER HOURS LIGHTING SHALL BE MANUAL ON, AUTO OFF.
- EMERGENCY LIGHTS SHALL BE CONTROLLED WITH ADJACENT LIGHTING VIA UL924 DEVICE. PROVIDE DIMMING TYPE UL924 DEVICE WHERE LIGHTING IS SHOWN TO BE DIMMABLE.

AVAILABLE CIRCUITS - POWER AND LIGHTING

CIRCUITS SHOWN ARE SCHEMATIC ONLY AND DO NOT NECESSARILY INDICATE THE ACTUAL PANEL CIRCUIT NUMBERS FOR USE. IT IS INTENDED TO FIRST REUSE EXISTING POWER CIRCUITS THAT ARE AVAILABLE AFTER DEMOLITION OF WALLS AND EQUIPMENT AND THEN USE AVAILABLE SPARES/SPACES AS NEEDED. CONTRACTOR SHALL VERIFY ACTUAL CIRCUIT AVAILABILITY AFTER DEMOLITION AND NOTIFY ARCHITECT IMMEDIATELY IF THE QUANTITY OF AVAILABLE CIRCUITS IS INADEQUATE OR OBTAIN APPROVAL FOR ADD ALTERNATE SOLUTION. MAXIMUM OF 16 AMP LOAD PER 20A CIRCUIT.

PROJECT COMMISSIONING REQUIREMENTS:

1. ALL BUILDING MECHANICAL AND ELECTRICAL SYSTEMS SHALL BE COMMISSIONED BY A COMMISSIONING AGENT IN ACCORDANCE WITH ALL REQUIREMENTS OF THE INTERNATIONAL ENERGY CONSERVATION (IECC) SECTION C408. REFER TO THE APPLICABLE CODES NOTE ON THIS SHEET FOR THE REQUIRED CODE YEAR OF THE IECC. IT IS THE OWNER'S RESPONSIBILITY TO HIRE A COMMISSIONING AUTHORITY TO ENSURE ALL REQUIRED COMMISSIONING ACTIVITIES AND REQUIREMENTS ARE MET.
2. THE COMMISSIONING AGENT SHALL PERFORM ALL TASKS ACCORDING TO THE REQUIREMENTS OF IECC SECTION C408 AND ANY OTHER REQUIREMENTS OF THE PROJECT.
3. THE TESTING AND BALANCING (TAB), BUILDING AUTOMATION SYSTEMS (BAS), GENERAL CONTRACTOR, MECHANICAL, ELECTRICAL, AND PLUMBING CONTRACTORS SHALL PROVIDE FULL SUPPORT IN ALL COMMISSIONING ACTIVITIES AND PERFORM ALL NECESSARY COMMISSIONING TASKS ON THIS PROJECT AS REQUIRED BY IECC SECTION C408.
4. LEED PROJECTS HAVE ADDITIONAL COMMISSIONING REQUIREMENTS THAT VARY FROM THOSE LISTED ABOVE.

ELECTRICAL APPLICABLE CODES

- 2020 NATIONAL ELECTRIC CODE
- 2021 INTERNATIONAL ENERGY CONSERVATION (IECC)
- CURRENT CAMPUS DESIGN GUIDELINES
- CITY OF DENTON LOCAL AMENDMENTS

FIRE ALARM APPLICABLE CODES

- FM GLOBAL
- 2021 INTERNATIONAL FIRE CODE (IFC)
- CURRENT CAMPUS DESIGN GUIDELINES
- CITY OF DENTON LOCAL AMENDMENTS

REVISION SUMMARY:
- REVISED SECURITY ELECTRICAL ALLOWANCES.

STATE OF TEXAS
D. SCOTT BROWN
89097
LICENSED PROFESSIONAL ENGINEER
5-23-2025

TREANOR
2554 Elm Street, Suite 200
Dallas, TX 75226
Office: 214.310.1018
www.TreanorHL.com

Purdy - McGuire
Mechanical - Electrical Engineers
17300 North Dallas Parkway
Suite 3000
Dallas, TX 75248-1147
Firm Registration # F-1511

Tel: 972/239-5357
Fax: 972/239-5231
www.purdy-mcguire.com

PMI JOB NO. 23037.002
PROJECT MGR. SCOTT BROWN, MITCHELL HENTON
MECHANICAL MITCHELL HENTON
PLUMBING CHRIS WOODYARD
ELECTRICAL JOHN KNOWLES

UNIVERSITY OF NORTH TEXAS
KERR HALL INTERIOR RENOVATION
1413 West Maple St
Denton, TX 76201

UNT
UNIVERSITY OF NORTH TEXAS

Issue: ISSUE FOR CONSTRUCTION
Date: JANUARY 30, 2025

REVISIONS

NO	DESCRIPTION	DATE
1	Addendum 2	05.23.25

iE001

ELECTRICAL NOTES & SYMBOLS

TreanorHL NO. HE0569.2302.01

ELECTRICAL SYMBOLS LEGEND

RECEPTACLES:

	SPECIAL RECEPTACLE AS NOTED
	SIMPLEX RECEPTACLE
	DUPLEX RECEPTACLE
	QUADRUPLEX RECEPTACLE
	DUPLEX RECEPTACLE ABOVE COUNTER
	QUADRUPLEX RECEPTACLE ABOVE COUNTER
GFI	GROUND FAULT CIRCUIT INTERRUPTER RECEPTACLE
GFI/WP	GROUND FAULT CIRCUIT INTERRUPTER DUPLEX RECEPTACLE IN WEATHER-PROOF ENCLOSURE WITH WHILE-IN-USE COVER
AFCI	ARC FAULT CIRCUIT INTERRUPTER RECEPTACLE
USB	DUPLEX RECEPTACLE WITH 2 USB PORTS
	HALF SWITCHED DUPLEX RECEPTACLE
	HALF SWITCHED QUADRUPLEX RECEPTACLE
	FULLY SWITCHED DUPLEX RECEPTACLE
	FULLY SWITCHED QUADRUPLEX RECEPTACLE
	ISOLATED GROUND DUPLEX RECEPTACLE
	ISOLATED GROUND QUADRUPLEX RECEPTACLE. REFER TO THE CIRCUIT TAGS ON THE FLOOR PLANS FOR ADDITIONAL INFORMATION. ONLY HALF OR ALL OF THE RECEPTACLE MAY BE ISOLATED GROUND.
	CEILING MOUNTED SIMPLEX RECEPTACLE
	CEILING MOUNTED DUPLEX RECEPTACLE
	CEILING MOUNTED QUADRUPLEX RECEPTACLE
	MULTI OUTLET ASSEMBLY • BASIS OF DESIGN: LEGRAND ___ SERIES • POWER CONDUIT: (1)1" • DATA CONDUIT: (1)1-1/4"

POWER:

J	CEILING MOUNTED JUNCTION BOX
J	WALL JUNCTION BOX
S M	SINGLE PHASE MANUAL MOTOR STARTER UP TO 1 HP
	MOTOR
V/W/X/Y/Z	COMBINATION MAGNETIC STARTER AND FUSED SWITCH V - SWITCH AMPERAGE RATING W - NUMBER OF POLES X - FUSE SIZE Y - NEMA RATING IF OTHER THAN NEMA 1 Z - STARTER SIZE EXAMPLE: 100/3/80/3R/3
	VARIABLE FREQUENCY DRIVE (VFD)
V/W/X/Y	FUSED HEAVY DUTY DISCONNECT SWITCH V - SWITCH AMPERAGE RATING W - NUMBER OF POLES X - FUSE SIZE OR NON-FUSED (NF) Y - NEMA RATING IF OTHER THAN NEMA 1 EXAMPLE: 100/3/80/3R
V/W/NF/Y	
M M	METER
	GROUND BAR
	TRANSFORMER - PLAN VIEW SOLID LINES INDICATE EQUIPMENT AND DASHED LINES INDICATE REQUIRED CLEARANCES.
	ELECTRICAL PANEL OR DISTRIBUTION BOARD - PLAN VIEW SOLID LINES INDICATE EQUIPMENT AND DASHED LINES INDICATE REQUIRED CLEARANCES.
	AUTOMATIC TRANSFER SWITCH - ON ONE-LINE OR RISER DIAGRAM ONLY
	GROUND - ON ONE-LINE OR RISER DIAGRAM ONLY
	DELTA-WYE TRANSFORMER - ON ONE-LINE OR RISER DIAGRAM ONLY
	STANDARD TRANSFORMER - ON ONE-LINE OR RISER DIAGRAM ONLY
	CIRCUIT BREAKER - ON ONE-LINE OR RISER DIAGRAM ONLY
	FUSE - ON ONE-LINE OR RISER DIAGRAM ONLY
SPD	SURGE PROTECTIVE DEVICE (SPD)

AUDIOVISUAL / DATA / IT:

TV	TV OUTLET REFER TO FLOOR PLAN NOTES ABOUT CEILING, WALL OR FLOOR MOUNTING.
CR	CARD READER
DC	DOOR CONTACT
ML	MAGNETIC LOCK
EPO	EMERGENCY POWER OFF PUSHBUTTON
	DATA / COMMUNICATION ROUGH-IN
J	CEILING MOUNTED JUNCTION BOX
J	WALL JUNCTION BOX
	CAMERA

TEXT LABELS:

E / e	INDICATES EXISTING ITEM TO REMAIN
ER / er	INDICATES EXISTING ITEM TO BE RELOCATED
ED / ed	INDICATES EXISTING ITEM TO BE REMOVED
N	"N", BOLD AND/OR BLANK/NOTHING - INDICATES NEW, BY CONTRACTOR
D	INDICATES RECEPTACLE SHALL BE ON DEDICATED CIRCUIT. IF CIRCUITING IS NOT YET INDICATED. RECEPTACLE MAY STILL BE DEDICATED WITHOUT "D" ANNOTATION IF IT IS SHOWN AS THE ONLY DEVICE ON A INDICATED CIRCUIT.
H-1,3,5	ONE (1) THREE-POLE CIRCUIT
L-1	ONE (1) SINGE-POLE CIRCUIT
L-1	UNDERLINE OF CIRCUIT NUMBER INDICATES ISOLATED GROUND CIRCUIT
	CONTINUATION
+XX"	INDICATES HEIGHT ABOVE FINISHED FLOOR ALL OUTLETS ARE 18" A.F.F. UNLESS NOTED OTHERWISE

CONDUIT:

	CONDUIT
	CONDUIT IN OR UNDER FLOOR
	HOMERUN TO PANEL
	CONDUIT STUBBED UP
	CONDUIT STUBBED DOWN

FLOOR DEVICES:

	FLUSH FLOOR POKE-THRU WITH DUPLEX POWER • BASIS OF DESIGN: LEGRAND 4AT SERIES • POWER CONDUIT: (1) 3/4"
	FLUSH FLOOR POKE-THRU WITH DUPLEX POWERPLUS COMMUNICATIONS • BASIS OF DESIGN: LEGRAND 4AT SERIES • POWER CONDUIT: (1) 3/4" • DATA CONDUIT: (1)1-1/4"
AV	FLUSH FLOOR POKE-THRU WITH DUPLEX POWER PLUS COMMUNICATIONS AND AV • BASIS OF DESIGN: LEGRAND 6AT SERIES • POWER CONDUIT: (1) 3/4" • DATA CONDUIT: (1) 1-1/4"
	FLUSH FLOOR POKE-THRU WITH QUADRAPLEX POWER • BASIS OF DESIGN: LEGRAND 4AT SERIES • POWER CONDUIT: (1) 3/4"
	FLUSH FLOOR POKE-THRU WITH QUADRAPLEX POWER PLUS COMMUNICATIONS • BASIS OF DESIGN: LEGRAND 6AT SERIES • POWER CONDUIT: (1) 3/4" • DATA CONDUIT: (1)1-1/4"
AV	FLUSH FLOOR POKE-THRU WITH QUADRAPLEX POWER PLUS COMMUNICATIONS AND AV • BASIS OF DESIGN: LEGRAND 8AT SERIES • POWER CONDUIT: (1) 3/4" • DATA & AV CONDUIT: (1) 1-1/4"
	FLUSH FLOOR DUPLEX IN 'POURED IN PLACE' BOX. BOX SHALL BE SUITABLE FOR ON-GRADE APPLICATIONS. • BASIS OF DESIGN: _____ • POWER CONDUIT: (1)1"
	FLUSH FLOOR 'POURED IN PLACE' BOX WITH DUPLEX PLUS COMMUNICATION. BOX SHALL BE SUITABLE FOR ON-GRADE APPLICATIONS. • BASIS OF DESIGN: _____ • POWER CONDUIT: (1)1" • DATA CONDUIT: (1)1-1/4"
AV	FLUSH FLOOR 'POURED IN PLACE' BOX WITH DUPLEX PLUS COMMUNICATION AND AV. BOX SHALL BE SUITABLE FOR ON-GRADE APPLICATIONS. • BASIS OF DESIGN: LEGRAND EFB45S-OG SERIES • POWER CONDUIT: (1)1" • DATA & AV CONDUIT: (1) 1-1/4"
	FLUSH FLOOR 'POURED IN PLACE' BOX WITH QUADRAPLEX. BOX SHALL BE SUITABLE FOR ON-GRADE APPLICATIONS. • BASIS OF DESIGN: _____ • POWER CONDUIT: (1)1"
	FLUSH FLOOR 'POURED IN PLACE' BOX WITH QUADRAPLEX PLUS COMMUNICATION. BOX SHALL BE SUITABLE FOR ON-GRADE APPLICATIONS. • BASIS OF DESIGN: LEGRAND EFB45S-OG SERIES • POWER CONDUIT: (1)1" • DATA CONDUIT: (1)1-1/4"
AV	FLUSH FLOOR 'POURED IN PLACE' BOX WITH QUADRAPLEX PLUS COMMUNICATION AND AV. BOX SHALL BE SUITABLE FOR ON-GRADE APPLICATIONS. • BASIS OF DESIGN: LEGRAND EFB45S-OG SERIES • POWER CONDUIT: (1)1" • DATA & AV CONDUIT: (1) 1-1/4"

POWERED FURNITURE:

FF	FURNITURE FEED FLUSH FLOOR POKE-THRU DEVICE WITH 8-WIRE POWER CONNECTION PLUS COMMUNICATIONS FEEDS TO SYSTEMS FURNITURE. • BASIS OF DESIGN: LEGRAND 4FFATC15 SERIES • POWER CONDUIT: (1)3/4" • DATA CONDUIT: (1)1-1/4"
FF	FURNITURE FEED FLUSH FLOOR 'POURED IN PLACE' BOX DEVICE WITH 8-WIRE POWER CONNECTION PLUS COMMUNICATIONS FEEDS TO SYSTEMS FURNITURE. BOX SHALL BE SUITABLE FOR ON-GRADE APPLICATIONS. • BASIS OF DESIGN: LEGRAND RFB2E-OG SERIES BOX WITH 6CFFTC COVER • POWER CONDUIT: (1)1" • DATA CONDUIT: (1)1-1/4"
P D	WALL MOUNTED DEVICE WITH 8-WIRE POWER CONNECTION PLUS COMMUNICATIONS FEEDS TO SYSTEMS FURNITURE. • BASIS OF DESIGN: (2) J-BOXES WITH FACEPLATES • POWER CONDUIT: (1)3/4" • DATA CONDUIT: (1)1-1/4"
PP	POWER POLE DEVICE WITH 8-WIRE POWER CONNECTION PLUS COMMUNICATIONS FEEDS TO SYSTEMS FURNITURE. • BASIS OF DESIGN: LEGRAND ____ SERIES

LEGEND NOTES:

1. NOT ALL SYMBOLS MAY BE USED IN PLANS.
2. DIMENSIONS MAY DIFFER FROM PLANS. REFER TO FLOOR PLANS AND ELECTRICAL SCHEDULES FOR ACTUAL SIZES.
3. IF ONLY THE ELECTRICAL OR LIGHTING SYMBOLS LEGEND IS PRESENT ON THIS SHEET, REFER TO THE OTHER SHEET (ELECTRICAL OR LIGHTING) FOR ADDITIONAL SYMBOLS.
4. CONTRACTOR IS RESPONSIBLE FOR PROVIDING ALL ACCESSORIES FOR PROPER MOUNTING OF ALL LIGHT FIXTURES AND ELECTRICAL DEVICES IN SPECIFIC CEILING OR WALL CONDITIONS. REFER TO ARCHITECTURAL PLANS FOR ADDITIONAL INFORMATION.
5. REFER TO ARCHITECTURAL PLANS FOR ALL FINISH COLORS.
6. FLOOR DEVICE AND POWERED FURNITURE NOTES:
   A. REFER TO SYMBOLS ON THE FLOOR PLANS FOR ADDITIONAL REQUIREMENTS FOR DEVICES (IG, USB, ETC).
   B. A/V AND DATA CONDUITS SHALL BE ROUTED TO ABOVE THE NEAREST ACCESSIBLE CEILING OR TO THE NEAREST IDF/ MDF/ IT ROOM.
   C. COORDINATE ALL LOW VOLTAGE CONDUIT REQUIREMENTS WITH TECHNOLOGY DRAWINGS AND TECHNOLOGY CONSULTANT.
   D. FOR FURNITURE FEEDS, COORDINATE WIRING CONFIGURATION WITH FURNITURE CONSULTANT (3+1 OR 2+2) PRIOR TO ORDER. CONFIGURATION SHOWN ON THESE DRAWINGS IS FOR PLACEHOLDER ONLY.
   E. REFER TO ARCHITECTURAL PLANS FOR ALL FINISH COLORS. CONTRACTOR SHALL INCLUDE PRICING FOR A PREMIUM FINISH IN THE BASE BID TO BE SELECTED BY THE ARCHITECT.
   F. SUBJECT TO COMPLIANCE WITH ALL REQUIREMENTS LISTED IN THE SCHEDULE AND NOTES ABOVE, EQUAL MANUFACTURERS INCLUDE THE FOLLOWING: LEGRAND, HUBBELL, FSR INC, LEVITON.
7. CONTRACTOR SHALL PROVIDE SUBMITTALS TO THE ENGINEER OF ALL LIGHTING FIXTURES AND ELECTRICAL DEVICES (NEW OR SUBSTITUTES).

LIGHTING SYMBOLS LEGEND

LIGHTING CONTROLS:

DS	DAYLIGHT SENSOR
	DAYLIGHT ZONE
VS OS	WALL MOUNTED VACANCY OR OCCUPANCY SENSORS ARE REQUIRED IN THIS SPACE. PROVIDE ALL POWER PACKS AND ACCESSORIES AS REQUIRED FOR A COMPLETE SYSTEM TO CONTROL ALL LIGHTS IN ROOM. THE PRESENCE OF THIS SYMBOL IN A ROOM ONLY INDICATES THAT THE ROOM SHALL HAVE VACANCY OR OCCUPANCY CAPABILITIES. THE CONTRACTOR SHALL FOLLOW MANUFACTURER'S RECOMMENDED SENSOR SPACING. SENSORS SHOWN ON THE FLOOR PLANS DO NOT NECESSARILY INDICATE ACTUAL PLACEMENT AND COUNT OF DEVICES, BUT RATHER ONLY SHOW WHICH ROOMS ARE REQUIRED TO BE COVERED BY VACANCY SENSORS. THE ACTUAL NUMBER OF SENSORS AND PLACEMENT IN EACH ROOM SHALL BE BY THE SENSOR MANUFACTURER'S RECOMMENDATIONS. THIS SENSOR SHALL BE CAPABLE OF SWITCHING PROGRAMMING FROM OCCUPANCY TO VACANCY AND VICE VERSA WITHOUT ANY ADDED PARTS.
	CEILING MOUNTED VACANCY OR OCCUPANCY SENSORS ARE REQUIRED IN THIS SPACE. PROVIDE ALL POWER PACKS AND ACCESSORIES AS REQUIRED FOR A COMPLETE SYSTEM TO CONTROL ALL LIGHTS IN ROOM. THE PRESENCE OF THIS SYMBOL IN A ROOM ONLY INDICATES THAT THE ROOM SHALL HAVE VACANCY OR OCCUPANCY CAPABILITIES. THE CONTRACTOR SHALL FOLLOW MANUFACTURER'S RECOMMENDED SENSOR SPACING. SENSORS SHOWN ON THE FLOOR PLANS DO NOT NECESSARILY INDICATE ACTUAL PLACEMENT AND COUNT OF DEVICES, BUT RATHER ONLY SHOW WHICH ROOMS ARE REQUIRED TO BE COVERED BY VACANCY SENSORS. THE ACTUAL NUMBER OF SENSORS AND PLACEMENT IN EACH ROOM SHALL BE BY THE SENSOR MANUFACTURER'S RECOMMENDATIONS. PROVIDE A SENSOR CAPABLE OF SWITCHING PROGRAMMING FROM OCCUPANCY TO VACANCY AND VICE VERSA WITHOUT ANY ADDED PARTS.
	VACANCY OR OCCUPANCY SENSOR ZONE
$	SINGLE POLE SWITCH
$LV	LOW VOLTAGE SWITCH
$VS $OS	VACANCY OR OCCUPANCY SENSOR SWITCH. PROVIDE A SENSOR CAPABLE OF SWITCHING PROGRAMMING FROM OCCUPANCY TO VACANCY AND VICE VERSA WITHOUT ANY ADDED PARTS.
Ø	DIMMING LINE VOLTAGE SWITCH
ØLV	DIMMING LOW VOLTAGE SWITCH
ØVS ØOS	DIMMING VACANCY OR OCCUPANCY SENSOR SWITCH. PROVIDE A SENSOR CAPABLE OF SWITCHING PROGRAMMING FROM OCCUPANCY TO VACANCY AND VICE VERSA WITHOUT ANY ADDED PARTS.
K	KEYPAD STATION (MULTIPLE BUTTONS OR TOUCH SCREEN). REFER TO LIGHTING CONTROLS PLANS AND NARRATIVE FOR MORE INFORMATION.
$K	KEY OPERATED SWITCH
$4	FOUR WAY SWITCH
$3	THREE WAY SWITCH
$DR	DOOR SWITCH
$P	PILOT SWITCH
$T	TIMER SWITCH

LIGHTING:

EM	INDICATES FIXTURE SHALL BE AN EMERGENCY
NL	INDICATES FIXTURE SHALL BE NIGHT LIGHT AND SHALL NOT BE SWITCHED
	SINGLE FACE EXIT SIGNS - REFER TO PLAN FOR DIRECTIONAL ARROWS AND WALL OR CEILING MOUNTING
	DOUBLE FACE EXIT SIGNS - REFER TO PLAN FOR DIRECTIONAL ARROWS AND WALL OR CEILING MOUNTING
X.x	CAPITAL LETTERS - LIGHT FIXTURE TYPE DESIGNATION
HA-XX	LOWER CASE LETTERS - SWITCH DESIGNATION PANEL & CIRCUIT DESIGNATION

LEGEND NOTES:

1. NOT ALL SYMBOLS MAY BE USED IN PLANS.
2. DIMENSIONS MAY DIFFER FROM PLANS. REFER TO FLOOR PLANS AND ELECTRICAL SCHEDULES FOR ACTUAL SIZES.
3. IF ONLY THE ELECTRICAL OR LIGHTING SYMBOLS LEGEND IS PRESENT ON THIS SHEET, REFER TO THE OTHER SHEET (ELECTRICAL OR LIGHTING) FOR ADDITIONAL SYMBOLS.
4. CONTRACTOR IS RESPONSIBLE FOR PROVIDING ALL ACCESSORIES FOR PROPER MOUNTING OF ALL LIGHT FIXTURES AND ELECTRICAL DEVICES IN SPECIFIC CEILING OR WALL CONDITIONS. REFER TO ARCHITECTURAL PLANS FOR ADDITIONAL INFORMATION.
5. CONTRACTOR SHALL PROVIDE SUBMITTALS TO THE ENGINEER OF ALL LIGHTING FIXTURES AND ELECTRICAL DEVICES (NEW OR SUBSTITUTES).

D. SCOTT BROWN 89097 LICENSED PROFESSIONAL ENGINEER
1-30-2025

TREANOR
2554 Elm Street, Suite 200
Dallas, Texas 75226
Office: 214.310.1018
www.TreanorHL.com

Purdy - McGuire
Mechanical - Electrical Engineers
17300 North Dallas Parkway
Suite 3000
Dallas, TX 75248-1147
Firm Registration # F-1511
Tel: 972/239-5357
Fax: 972/239-5231
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MECHANICAL	MITCHELL HENTON
PLUMBING	CHRIS WOODYARD
ELECTRICAL	SCOTT BROWN

UNIVERSITY OF NORTH TEXAS
KERR HALL INTERIOR RENOVATION
1413 West Maple St
Denton, TX 76201

UNT UNIVERSITY OF NORTH TEXAS

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iE002

ELECTRICAL NOTES & SYMBOLS

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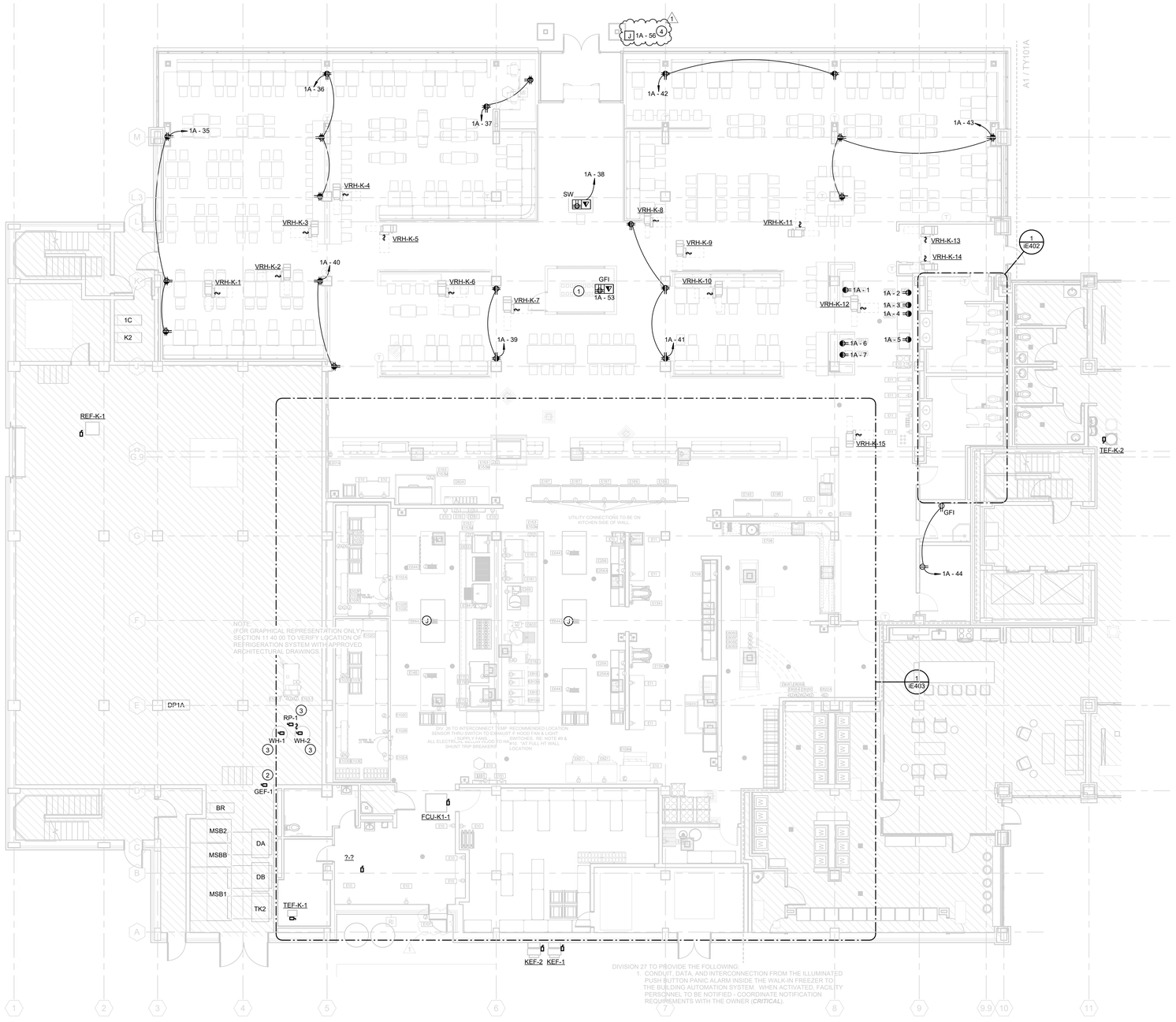


1 LEVEL 1 ELECTRICAL PLAN - DINING
1/8" = 1'-0"

KEYED NOTES - SHEET iE201B

1. INDICATED LOCATION TO BE FOR HYDROPONICS DISPLAY. COORDINATE ANY ELECTRICAL REQUIREMENTS WITH ARHITECT PRIOR TO INSTALLATION.
2. GEF-1 TO BE ON TOWER ROOF. REFER TO MECHANICAL PLANS FOR EXACT LOCATION. REFER TO SHEET iE701 FOR ADDITIONAL INFORMATION REGARDING ELECTRICAL REQUIREMENTS.
3. REFER TO PLUMBING DRAWINGS FOR ADDITIONAL INFORMATION REGARDING WATER HEATER LOCATIONS AND POWER REQUIREMENTS.
1 4. INDICATED CIRCUIT SHALL BE USED FOR INTEGRALLY-LIT EXTERIOR SIGN. COORDINATE EXACT LOCATION AND POWER REQUIREMENTS WITH ARCHITECT PRIOR TO INSTALLATION.

GFCI RECEPTACLES:
ALL RECEPTACLES WITHIN A KITCHEN AREA ARE TO BE GFCI PROTECTED. ALL RECEPTACLES MOUNTED ABOVE OR BELOW KITCHEN COUNTERS WITH A SINK OR ANY OTHER WATER DISPENSING MECHANISM SHALL BE GFCI PROTECTED. ALL RECEPTACLES INSTALLED IN AN OUTDOOR LOCATION AND PROVIDED IN RESTROOMS SHALL BE GFCI TYPE DEVICES.

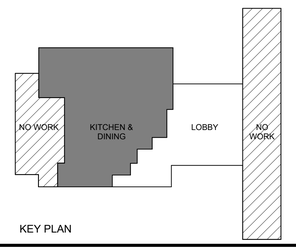
CRAWLSPACE SCOPE NOTE:
PROVIDE CRAWLSPACE GFCI/WP RECEPTACLES, CRAWLSPACE LIGHTING, CRAWLSPACE EXHAUST FANS, CRAWLSPACE SUMP PUMPS, AND CRAWLSPACE HEATERS. PROVIDE HEAT TRACE FOR ANY GREASE WASTE PIPE WITH RUN LENGTHS OVER 200FT.

FIRE SMOKE DAMPERS:
PROVIDE 120V POWER CIRCUITING FROM THE NEAREST 120V PANELBOARD FOR FIRE-SMOKE DAMPERS. SEE POWER GENERAL NOTE KK ON SHEET iE001 FOR ADDITIONAL INFORMATION. REFER TO THE HVAC PLANS FOR LOCATIONS AND QUANTITIES.

MOTORIZED DAMPERS:
FOR EACH MOTORIZED DAMPER SHOWN ON MECHANICAL PLANS, PROVIDE A 120V, 20A POWER CIRCUIT TO 24V TRANSFORMER, PROVIDED BY CONTROLS CONTRACTOR, FOR UP TO 5 MOTORIZED DAMPERS. PROVIDE CONTROL WIRE TO EACH DAMPER. REFER TO THE HVAC PLANS FOR LOCATIONS AND QUANTITIES.

EXISTING CIRCUIT NOTE:
ALL EXISTING CIRCUITS WITHIN THE SCOPE OF WORK AREA THAT ARE NOT REUSED FOR THIS REMODEL SHALL BE REMOVED BACK TO THE PANELS AND THE PLACARDS SHALL INDICATED THE BREAKERS AS SPARES.

REVISION SUMMARY:
- ADDED JUNCTION BOX FOR INTEGRALLY-LIT EXTERIOR SIGN.
- ADDED KEYED NOTE 4.



KEY PLAN

TREANOR
2554 Elm Street, Suite 200
Dallas, TX 75226
Office: 214.310.1018
www.TreanorHL.com

PMI JOB NO.	23037.002
PROJECT MGR.	SCOTT BROWN MITCHELL HENTON
MECHANICAL	MITCHELL HENTON
PLUMBING	CHRIS WOODYARD
ELECTRICAL	SCOTT BROWN

UNIVERSITY OF NORTH TEXAS
KERR HALL INTERIOR RENOVATION
1413 West Maple St
Denton, TX 76201

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iE201B

LEVEL 1 ELECTRICAL PLAN - DINING

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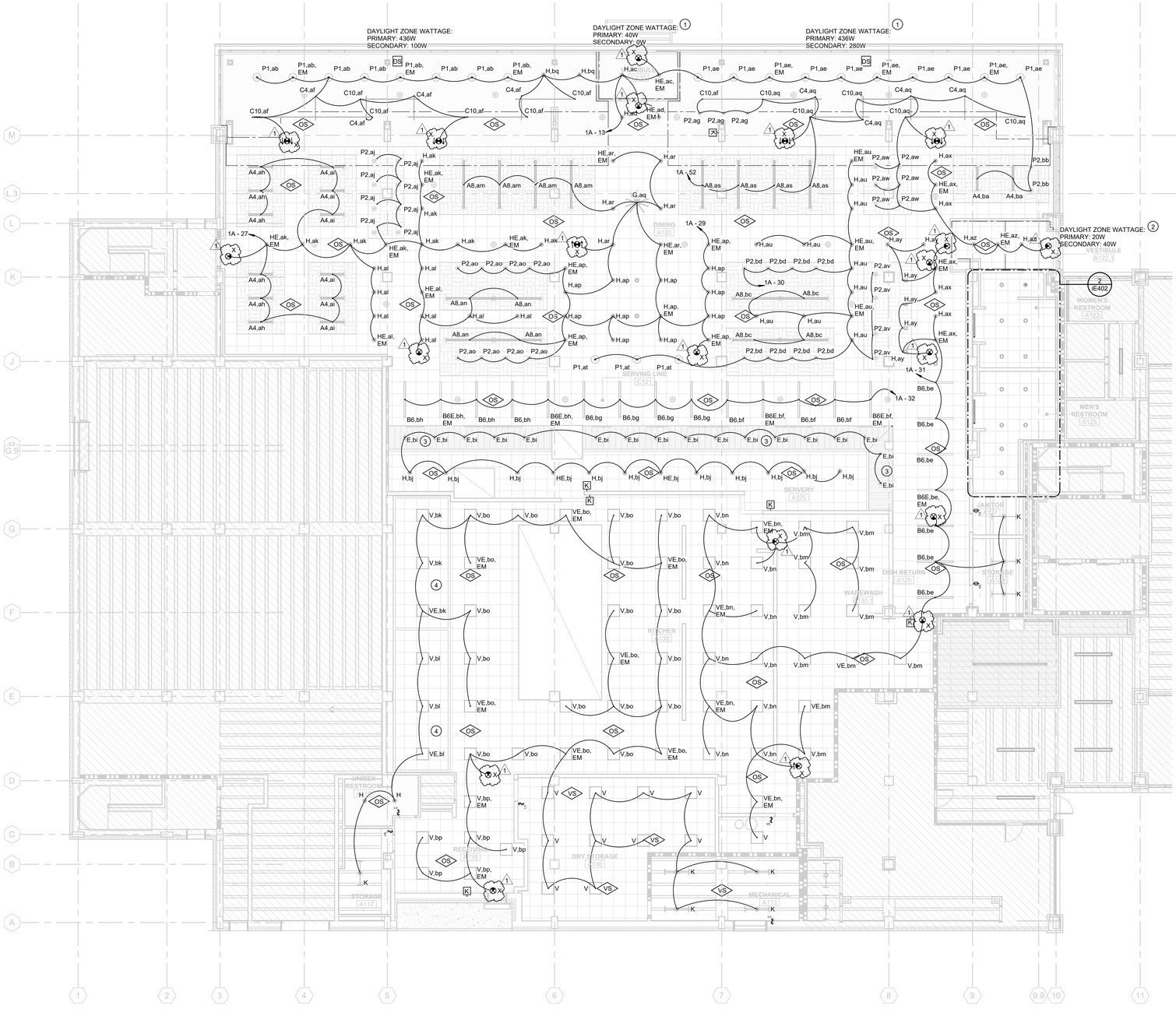


1 LEVEL 1 LIGHTING PLAN - DINING
1/8" = 1'-0"

LIGHTING GENERAL NOTES:

A REFER TO THE ELECTRICAL FRONT SHEET FOR ADDITIONAL APPLICABLE GENERAL NOTES.

B REFER TO LIGHTING CONTROLS NARRATIVE ON THE ELECTRICAL FRONT SHEET FOR ADDITIONAL REQUIREMENTS. INCLUDING BUT NOT LIMITED TO THE LIGHTING CONTROLS REQUIRED SEQUENCE OF OPERATIONS (SOO) FOR EACH SPACE, PLUG LOAD CONTROLS, ETC.

C PROVIDE EDGE LIT LED EXIT SIGNS WITHIN THE PATH OF EGRESS SUCH THAT ANY LOCATION WITHIN THE PATH OF EGRESS HAS TWO EXIT SIGNS WITHIN IT.

D REFER TO THE LIGHTING CONTROLS NARRATIVE ON SHEET IE001 FOR FURTHER INFORMATION ON CONTROLS INTENT.

E LIGHTING CONTROLS AND DRIVERS FOR LIGHT FIXTURES SHALL BE MOUNTED IN AN ACCESSIBLE LOCATION AND SHALL BE LABELED FOR EASE OF ACCESS.

F ALL LIGHTING SHALL BE CONTROLLED BY SWITCHES, NOT TOUCHPADS, PER UNT REQUEST.

REFER TO ARCHITECTS DRAWINGS FOR LIGHT FIXTURE SELECTIONS AND LAYOUT.

DEMO ALL EXISTING TEMPORARY LIGHTING IN THE DINING SPACE AND REPLACE WITH THE NEW LIGHTING LAYOUT SHOWN ON THIS SHEET.

1

KEYED NOTES - SHEET iE301B

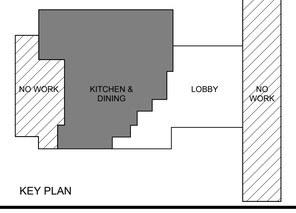
1 DAYLIGHT ZONE (TYPICAL). UNLESS NOTED OTHERWISE, LIGHTING WITHIN DAYLIGHT ZONE SHALL BE CONTROLLED INDEPENDENTLY OF SURROUNDING GENERAL LIGHTING. PROVIDE AUTOMATIC DAYLIGHT HARVESTING WITHIN THE DAYLIGHT ZONE IN WHICH LIGHTING IS AUTOMATICALLY DIMMED TO A CAPABILITY OF 15% IN RESPONSE TO SUNLIGHT LEVELS WITHIN THE DAYLIGHT ZONE. REFER TO KEYED NOTE 2 ON THIS SHEET FOR DAYLIGHT ZONES THAT ARE EXEMPT FROM DAYLIGHT RESPONSIVE CONTROLS.

2 WATTAGE WITHIN DAYLIGHT ZONES IN THIS SPACE TOTAL LESS THAN 150 WATTS. THEREFORE THE LIGHTING WITHIN THIS DAYLIGHT ZONE IS EXEMPT FROM DAYLIGHT RESPONSIVE CONTROLS.

3 REFER TO ARCHITECT AND FOOD SERVICE DRAWINGS FOR INFORMATION REGARDING SERVING LINE LIGHTS AND SIGNAGE. IF ADDITIONAL POWER IS REQUIRED, PROVIDE AND INSTALL 120V/1P POWER FROM PANELBOAD 1A FOR REQUIRED LIGHTING.

4 REFER TO SHEET iE403 AND FOOD SERVICE DRAWINGS FOR ADDITIONAL INFORMATION REGARDING LIGHTING CONTROLS IN WALK-IN FREEZER/COOLER.

REVISION SUMMARY:
- REVISED TYPE KE FIXTURES TO TYPE X.
- ADDED DEMO SCOPE NOTE.



KEY PLAN

TREANOR
2554 Elm Street, Suite 200
Dallas, TX 75226
Office: 214.310.1018
www.TreanorHL.com

Purdy - McGuire
Mechanical - Electrical Engineers
17300 North Dallas Parkway
Suite 3000
Dallas, TX 75248-1147
Firm Registration # F-1511
Tel: 972/239-5357
Fax: 972/239-5231
www.purdy-mcguire.com

PM/ JOB NO.	23037.002
PROJECT MGR.	SCOTT BROWN
MECHANICAL	MITCHELL HENTON
PLUMBING	CHRIS WOODYARD
ELECTRICAL	D. SCOTT BROWN

UNIVERSITY OF NORTH TEXAS
KERR HALL INTERIOR RENOVATION

1413 West Maple St
Denton, TX 76201

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iE301B

LEVEL 1 LIGHTING PLAN - DINING

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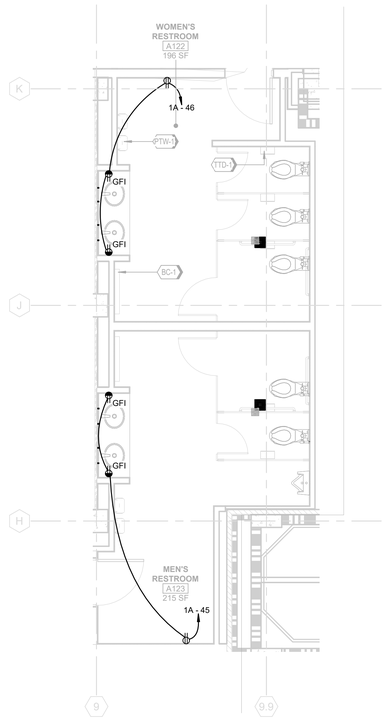
GFCI RECEPTACLES:
ALL RECEPTACLES WITHIN A KITCHEN AREA ARE TO BE GFCI PROTECTED. ALL RECEPTACLES MOUNTED ABOVE OR BELOW KITCHEN COUNTERS WITH A SINK OR ANY OTHER WATER DISPENSING MECHANISM SHALL BE GFCI PROTECTED. ALL RECEPTACLES INSTALLED IN AN OUTDOOR LOCATION AND PROVIDED IN RESTROOMS SHALL BE GFCI TYPE DEVICES.

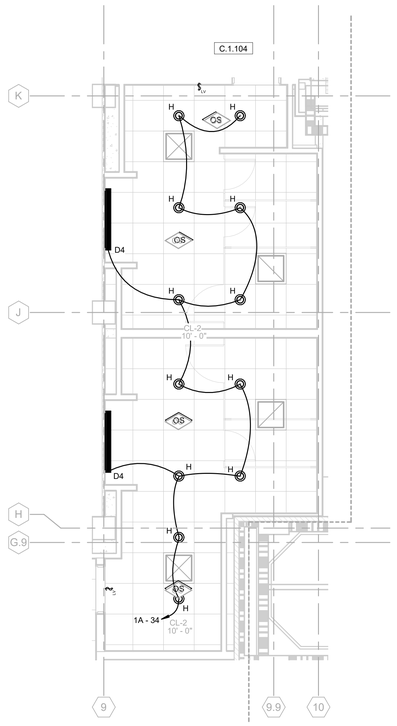
LIGHTING GENERAL NOTES:

A REFER TO THE ELECTRICAL FRONT SHEET FOR ADDITIONAL APPLICABLE GENERAL NOTES.
B REFER TO LIGHTING CONTROLS NARRATIVE ON THE ELECTRICAL FRONT SHEET FOR ADDITIONAL REQUIREMENTS. INCLUDING BUT NOT LIMITED TO THE LIGHTING CONTROLS REQUIRED SEQUENCE OF OPERATIONS (SOO) FOR EACH SPACE, PLUG LOAD CONTROLS, ETC.
C PROVIDE EDGE LIT LED EXIT SIGNS WITHIN THE PATH OF EGRESS SUCH THAT ANY LOCATION WITHIN THE PATH OF EGRESS HAS TWO EXIT SIGNS WITHIN IT.
D REFER TO THE LIGHTING CONTROLS NARRATIVE ON SHEEL IE001 FOR FURTHER INFORMATION ON CONTROLS INTENT.
E LIGHTING CONTROLS AND DRIVERS FOR LIGHT FIXTURES SHALL BE MOUNTED IN AN ACCESSIBLE LOCATION AND SHALL BE LABELED FOR EASE OF ACCESS.
F ALL LIGHTING SHALL BE CONTROLLED BY SWITCHES, NOT TOUCHPADS, PER UNT REQUEST.

REFER TO ARCHITECTS DRAWINGS FOR LIGHT FIXTURE SELECTIONS AND LAYOUT.



1 ENLARGED DINING - RESTROOM - ELECTRICAL PLAN
1/4" = 1'-0"



2 ENLARGED DINING - RESTROOM - LIGHTING PLAN
1/4" = 1'-0"

D. SCOTT BROWN
89097
LICENSED
PROFESSIONAL ENGINEER
1-30-2025

TREANOR
2554 Elm Street, Suite 200
Dallas, TX 75226
Office: 214.310.1018
www.TreanorHL.com

Mechanical - Electrical Engineers
17300 North Dallas Parkway
Suite 3000
Dallas, TX 75248-1147
Firm Registration # F-1511
Tel: 972/239-5357
Fax: 972/239-5231
www.purdy-mcguire.com

PMI JOB NO.	23037.002
PROJECT MGR.	SCOTT BROWN, MITCHELL HENTON
MECHANICAL	MITCHELL HENTON
PLUMBING	CHRIS WOODYARD
ELECTRICAL	SCOTT BROWN

UNIVERSITY OF NORTH TEXAS
KERR HALL INTERIOR RENOVATION
1413 West Maple St
Denton, TX 76201

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ELECTRICAL ENLARGED PLAN - RESTROOMS (KITCHEN)

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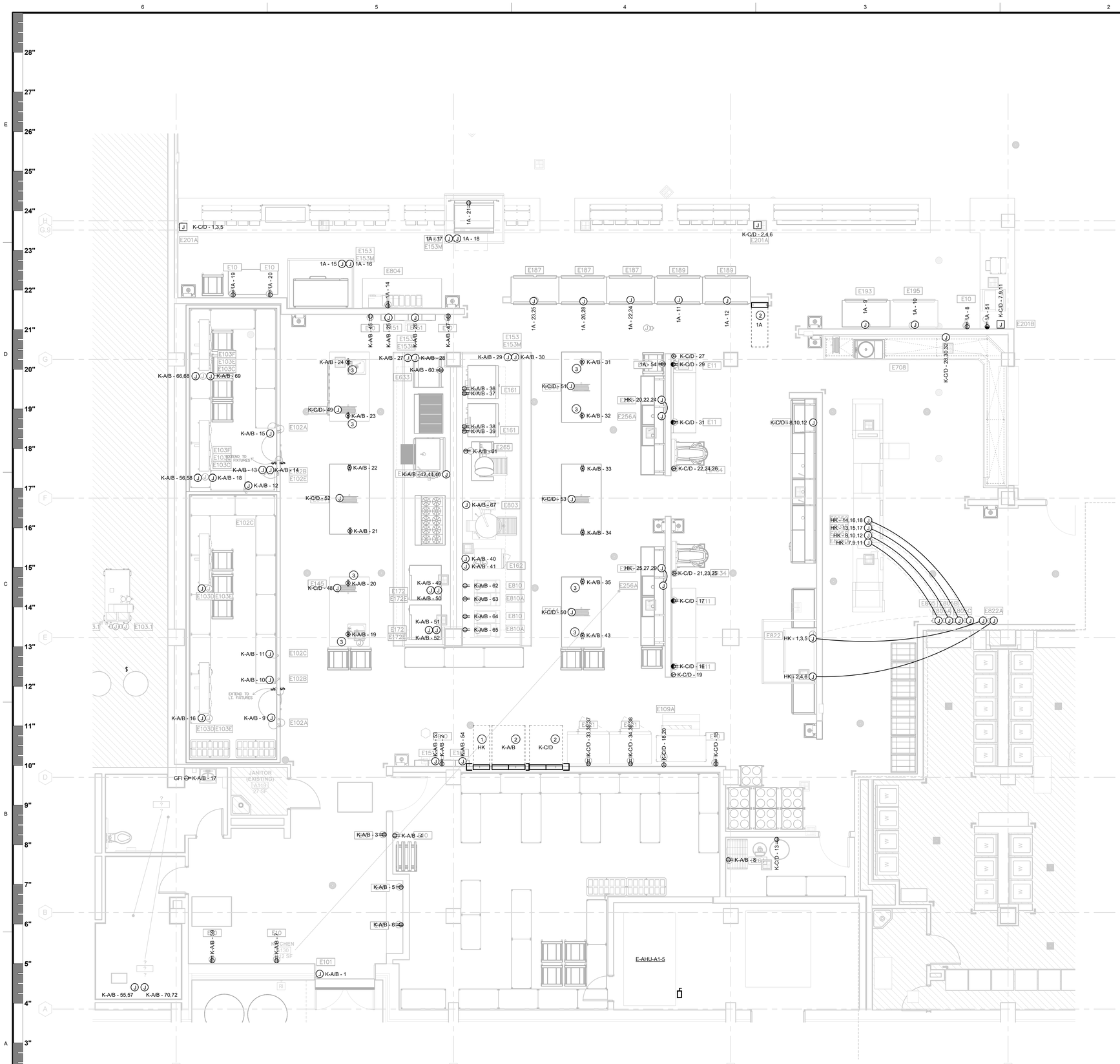

1 ENLARGED KITCHEN - ELECTRICAL PLAN
1/4" = 1'-0"

KEYED NOTES - SHEET iE403

1 INDICATED PANELBOARD SHALL BE A NEW 277/480V, 3PHASE, 225A PANELBOARD. REFER TO SHEETS iE501 AND iE803 FOR ADDITIONAL INFORMATION.

2 INDICATED PANELBOARDS ARE SHOWN AS NEW PANELBOARDS TO REPLACE EXISTING BOARDS IN THE SPACE. REFER TO SHEETS iE501 AND iE803 FOR PANELBOARD DETAILS. ALL FEEDERS SERVING THE EXISTING PANELBOARD SHALL BE REMOVED BACK TO THE SOURCE AND REPLACED WITH NEW FEEDERS.

3 ELECTRICAL CONTRACTOR SHALL PROVIDE AND INSTALL TWIST-LOCK RECEPTACLE AT INDICATED LOCATIONS. REFER TO FOOD SERVICE DRAWINGS AND SCHEDULES FOR ADDITIONAL INFORMATION.

GFCI RECEPTACLES:
ALL RECEPTACLES WITHIN A KITCHEN AREA ARE TO BE GFCI PROTECTED. ALL RECEPTACLES MOUNTED ABOVE OR BELOW KITCHEN COUNTERS WITH A SINK OR ANY OTHER WATER DISPENSING MECHANISM SHALL BE GFCI PROTECTED. ALL RECEPTACLES INSTALLED IN AN OUTDOOR LOCATION AND PROVIDED IN RESTROOMS SHALL BE GFCI TYPE DEVICES.

CRAWLSPACE SCOPE NOTE:
PROVIDE CRAWLSPACE GFCI/WP RECEPTACLES, CRAWLSPACE LIGHTING, CRAWLSPACE EXHAUST FANS, CRAWLSPACE SUMP PUMPS, AND CRAWLSPACE HEATERS. PROVIDE HEAT TRACE FOR ANY GREASE WASTE PIPE WITH RUN LENGTHS OVER 200FT.

FIRE SMOKE DAMPERS:
PROVIDE 120V POWER CIRCUITING FROM THE NEAREST 120V PANELBOARD FOR FIRE-SMOKE DAMPERS. SEE POWER GENERAL NOTE KK ON SHEET iE001 FOR ADDITIONAL INFORMATION. REFER TO THE HVAC PLANS FOR LOCATIONS AND QUANTITIES.

MOTORIZED DAMPERS:
FOR EACH MOTORIZED DAMPER SHOWN ON MECHANICAL PLANS, PROVIDE A 120V, 20A POWER CIRCUIT TO 24V TRANSFORMER, PROVIDED BY CONTROLS CONTRACTOR, FOR UP TO 5 MOTORIZED DAMPERS. PROVIDE CONTROL WIRE TO EACH DAMPER. REFER TO THE HVAC PLANS FOR LOCATIONS AND QUANTITIES.

EXISTING CIRCUIT NOTE:
ALL EXISTING CIRCUITS WITHIN THE SCOPE OF WORK AREA THAT ARE NOT REUSED FOR THIS REMODEL SHALL BE REMOVED BACK TO THE PANELS AND THE PLACARDS SHALL INDICATED THE BREAKERS AS SPARES.

FOOD SERVICE PRICING SCOPE NOTES:
REFER TO FOOD SERVICE DRAWINGS AND SCHEDULES FOR ELECTRICAL SCOPE AND POWER REQUIREMENTS.

ELECTRICAL CONTRACTOR SHALL PROVIDE AND INSTALL ALL INTERCONNECTION WIRING, CONDUIT, ETC. FOR A COMPLETE AND OPERABLE KITCHEN CONTROLS SYSTEM. THIS INCLUDED BUT NOT LIMITED TO HOOD CONTROL, POLLUTION CONTROL UNIT CONTROL, AND EXHAUST FAN CONTROL.

KITCHEN ELECTRICAL EQUIPMENT:
ALL ELECTRICAL EQUIPMENT INSTALLED WITHIN THE KITCHEN AREA SHALL BE NEMA 4X STAINLESS STEEL AND RATED FOR HOSE DOWN APPLICATION.

KITCHEN ELECTRICAL POWER:
DESIGN INTENT IS TO REUSE EXISTING POWER CIRCUITS FOR NEW KITCHEN EQUIPMENT WITH MATCHING POWER REQUIREMENTS WHENEVER POSSIBLE. FIELD COORDINATE EXISTING CONDITIONS FOR REUSING POWER CIRCUITS.

D. SCOTT BROWN
89097
LICENSED
PROFESSIONAL ENGINEER
1-30-2025

TREANOR
2554 Elm Street, Suite 200
Dallas, Texas 75226
Office: 214.310.1018
www.TreanorHL.com

Purdy - McGuire
Mechanical - Electrical Engineers
17300 North Dallas Parkway
Suite 3000
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UNIVERSITY OF NORTH TEXAS
KERR HALL INTERIOR RENOVATION
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Denton, TX 76201

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ELECTRICAL ENLARGED PLAN - KITCHEN

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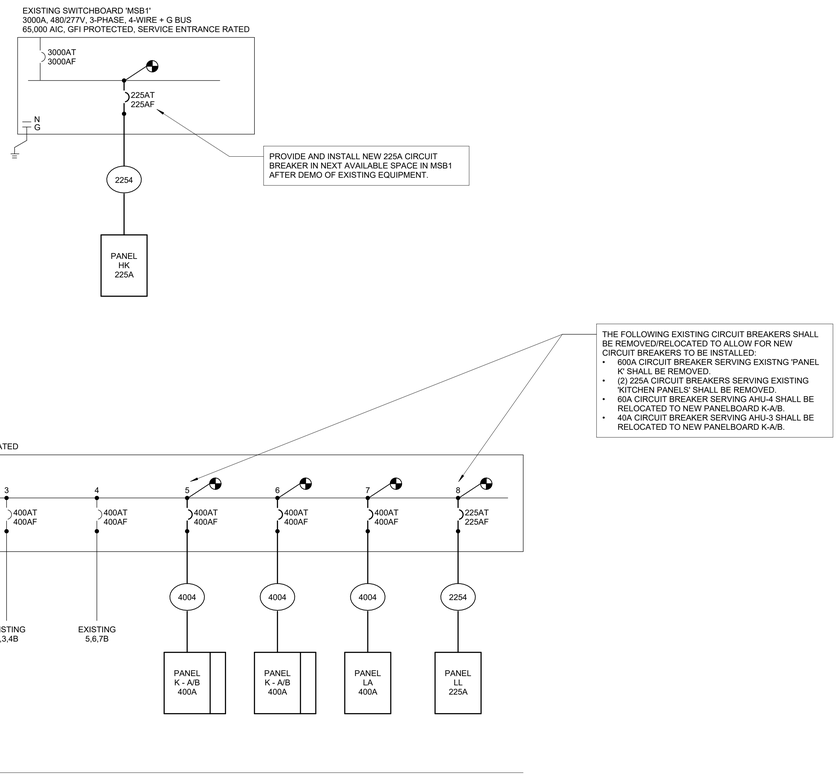
FEEDER SCHEDULE

REFER TO GROUNDING RISER DIAGRAM DETAIL FOR MORE INFORMATION ON THE ROUTING OF THE GROUNDS WITHIN EACH FEEDER BELOW.		
NOTE	**BKR**	**FEEDER SIZE**
3 PHASE, 4 WIRE		
2254	225/3	4#4/0, 1#4G, 2-1/2"C
4004	400/3	2 SETS: 4#3/0, 1#3G, 2"C

GENERAL NOTES:

A. EXISTING CONDITIONS ARE BASED ON INFORMATION PROVIDED BY SITE SURVEY AND RECORD DRAWINGS. HOWEVER, IT IS NOT INTENDED TO BE AN EXACT REPRESENTATION OF ACTUAL CONDITIONS. ELECTRICAL CONTRACTOR TO FIELD VERIFY ALL EXISTING CONDITIONS (WHICH INCLUDE BUT ARE NOT LIMITED TO BREAKER SIZES, WIRE SIZES, CONDUIT SIZES, ETC.) PRIOR TO PURCHASING ANY ELECTRICAL EQUIPMENT. ELECTRICAL CONTRACTOR SHALL ALSO FIELD VERIFY PANELBOARDS TO VERIFY THE QUANTITY OF SPARES FOR CIRCUIT BREAKERS IS SUFFICIENT PER ENGINEERS DESIGN. ELECTRICAL CONTRACTOR SHALL VISIT JOB SITE PRIOR TO BIDDING TO ASCERTAIN EXISTING CONDITIONS AND SHALL NOTIFY ARCHITECT OF ANY DISCREPANCIES PRIOR TO BID.
B. ALL CONDUCTORS SHALL BE COPPER UNLESS NOTED OTHERWISE.
C. ALL BUSING SHALL BE COPPER.
D. PROVIDE FULL HEIGHT VERTICAL BUS FOR ALL SWITCHBOARDS, DISTRIBUTION BOARDS AND PANELBOARDS.
E. ALL PANELBOARDS SHALL BE PROVIDED WITH 100% RATED FEED THROUGH LUGS.
F. ALL ELECTRICAL FEEDERS SERVING HVAC EQUIPMENT SHALL BE COPPER ONLY.
G. ALL BREAKERS RATED 1200A OR MORE SHALL BE PROVIDED WITH ARC ENERGY REDUCTION COMPLYING WITH NEC 240.87. ALL FUSES RATED 1200A OR MORE SHALL BE PROVIDED WITH ARC ENERGY REDUCTION COMPLYING WITH NEC 240.67. PROVIDE ENERGY-REDUCING MAINTENANCE SWITCH WITH LOCAL STATUS INDICATOR TO MEET REDUCTION METHOD.
H. ELECTRICAL CONTRACTOR SHALL BE RESPONSIBLE FOR THE SELECTION OF OVERCURRENT/SHORT CIRCUIT PROTECTIVE DEVICES BASED ON CALCULATED PROSPECTIVE FAULT ENERGY AT EACH BUS PER SPECIFICATIONS AND PROVIDE DEVICES MEETING REQUIRED SHORT CIRCUIT INTERRUPTING CAPACITIES (AIC) AND ARC FLASH STUDIES. PROVIDE OVERCURRENT PROTECTIVE DEVICE PER COORDINATION STUDY PER SPECIFICATIONS. THE USE OF RECOGNIZED COMPUTER PROGRAMS THAT HAVE BEEN VALIDATED SHALL BE USED. THE RESULTS OF THESE COMPUTATIONS AND GRAPHICAL SOLUTIONS SHALL BE SUBMITTED TO THE ENGINEER FOR APPROVAL AT THE TIME THE PANELBOARDS, SWITCHBOARDS, AUTOMATIC TRANSFER SWITCHES AND OTHER RELATED DISTRIBUTION EQUIPMENT ARE SUBMITTED.
I. WHERE SELECTIVE COORDINATION IS REQUIRED SEE THE SELECTIVE COORDINATION NOTE BLOCK ON THIS SHEET.
J. FEEDERS HAVE BEEN SIZED FOR TOTAL VOLTAGE DROP OF 5% ACROSS THE ENTIRE SYSTEM FROM THE UTILITY SERVICE POINT TO EACH END LOAD. THIS INCLUDES A MAXIMUM VOLTAGE DROP OF 2% BETWEEN THE SERVICE POINT AND THE LAST PANELBOARD (FEEDER[S]), AND A MAXIMUM VOLTAGE DROP OF 3% BETWEEN THE PANELBOARD AND THE END LOAD (BRANCH CIRCUIT). THE SYSTEM WAS DESIGNED PER NEC SECTION 210.19 INFORMATIONAL NOTE AND IECC SECTION C405.9. ANY CONTRACTOR PROPOSED MATERIAL CHANGE SHALL STILL MEET THESE SECTIONS AND IS REQUIRED TO BE SUBMITTED WITH A VOLTAGE DROP CALCULATION FOR ENGINEERS REVIEW.



1 ONE-LINE DIAGRAM
NOT TO SCALE

D. SCOTT BROWN
89097
LICENSED
PROFESSIONAL ENGINEER
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2554 Elm Street, Suite 200
Dallas, TX 75226
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Firm Registration # F-1511
Tel: 972/239-5357
Fax: 972/239-5231
www.purdy-mcguire.com

PM/ JOB NO.	23037.002
PROJECT MGR.	SCOTT BROWN, MITCHELL HENTON
MECHANICAL	MITCHELL HENTON
PLUMBING	CHRIS WOODYARD
ELECTRICAL	MITCHELL HENTON

UNIVERSITY OF NORTH TEXAS
KERR HALL INTERIOR RENOVATION

1413 West Maple St
Denton, TX 76201

UNT UNIVERSITY OF NORTH TEXAS

Issue: ISSUE FOR CONSTRUCTION

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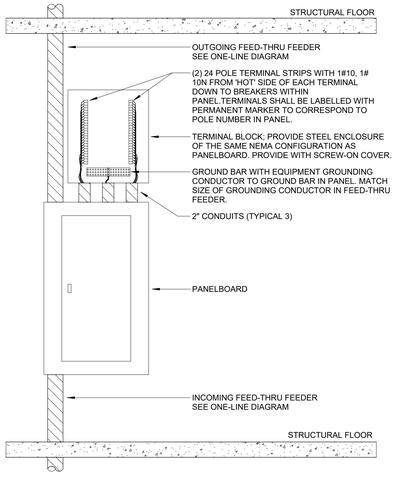
NO	DESCRIPTION	DATE

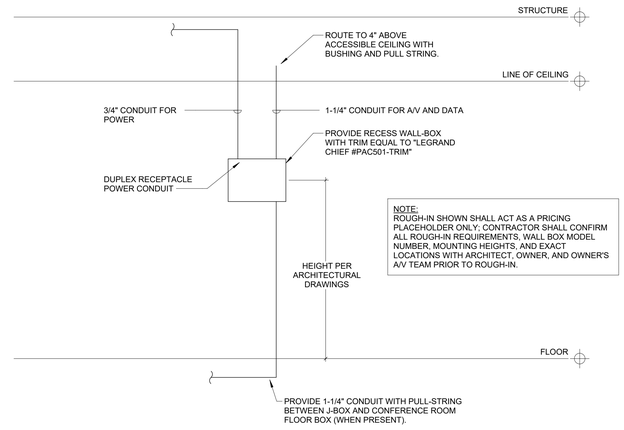
iE501

ELECTRICAL ONE-LINE DIAGRAM

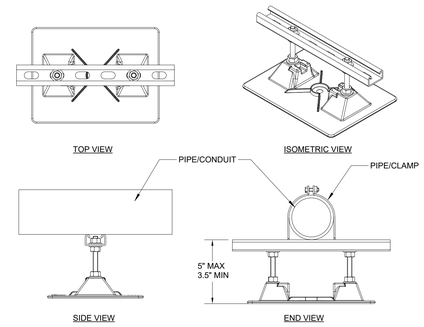
TreanorHL NO. HE0569.2302.01



1 TERMINAL BLOCK DETAIL
NOT TO SCALE

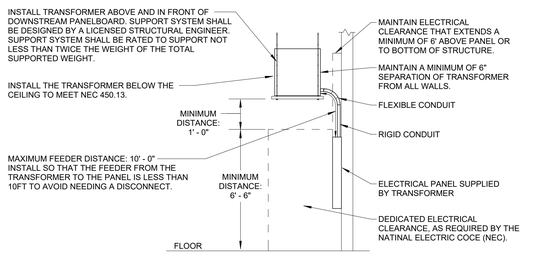


2 TV ROUGH-IN DETAIL - LARGE BACKBOX
NOT TO SCALE

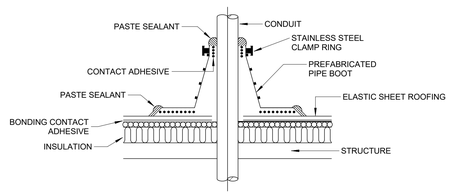


ADDITIONAL INFORMATION:
-ADJUSTABLE HEIGHT UP TO 5"
-SPACING NOT TO EXCEED 10' ON CENTER.
-ALL METAL PARTS TO BE EITHER STAINLESS STEEL OR HOT-DIP GALVANIZED

3 CONDUIT SUPPORT ON ROOF
NOT TO SCALE

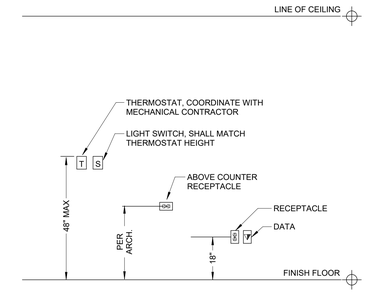


4 SUSPENDED TRANSFORMER DETAIL
NOT TO SCALE



COORDINATE WITH ROOFING CONTRACTOR AND REQUIREMENTS OF ROOFING SPEC. FLASHING ON METAL ROOF BY ROOFING CONTRACTOR.

5 CONDUIT ROOF PENETRATION DETAIL
NOT TO SCALE



6 TYPICAL DEVICE MOUNTING HEIGHTS
NOT TO SCALE

FLOOR RECEPTACLE QUANTITY IN A MEETING ROOM

ROOM AREA (SQFT)	MINIMUM FLOOR RECEPTACLES REQUIRED
AREA < 215	NONE *REQUIRED**
215 - 322.5	1
322.5 - 537.5	2
537.5 - 752.5	3
752.5 - 967.5	4
967.5 - 1000	5
AREA > 1000	NONE *REQUIRED**

*FLOOR RECEPTACLES ARE STILL ALLOWED, BUT THE NATIONAL ELECTRIC CODE DOES NOT REQUIRE A MINIMUM AMOUNT.

WALL RECEPTACLE QUANTITY IN A MEETING ROOM

ROOM PERIMETER (FT)	MINIMUM WALL RECEPTACLES REQUIRED
PERIMETER < 12	1
12 - 24	2
24 - 36	3
36 - 48	4
48 - 60	5
60 - 72	6
72 - 84	7
84 - 96	8
96 - 108	9
108 - 120	10
120 - 132**	11
132 - 144**	12
144 - 156**	13
156 - 168**	14

**CHECK YOUR TOTAL ROOM AREA. IF IT IS OVER 1000 SQFT, THIS CODE DOES NOT APPLY. WALL RECEPTACLES ARE STILL ALLOWED, BUT THE NATIONAL ELECTRIC CODE DOES NOT REQUIRE A MINIMUM AMOUNT.

210.71 Meeting Rooms (2017 NEC) and 210.65 Meeting Rooms (2020 NEC)

(A) General. Each meeting room of not more than 93 m2 (1000 ft2) in other than dwelling units shall have outlets for nonlocking-type, 125-volt, 15- or 20-ampere receptacles. The outlets shall be installed in accordance with 210.65(B) [210.71 for 2017 NEC]. Where a room or space is provided with movable partition(s), each room size shall be determined with the partition in the position that results in the smallest size meeting room.

Informational Note No. 1: For the purposes of this section, meeting rooms are typically designed or intended for the gathering of seated occupants for such purposes as conferences, deliberations, or similar purposes, where portable electronic equipment such as computers, projectors, or similar equipment is likely to be used.
Informational Note No. 2: Examples of rooms that are not meeting rooms include auditoriums, schoolrooms, and coffee shops.

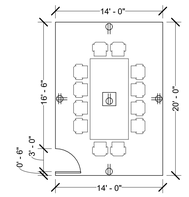
(B) Receptacle Outlets Required. The total number of receptacle outlets, including floor outlets and receptacle outlets in fixed furniture, shall not be less than as determined in (1) and (2).

(1) Receptacle Outlets in Fixed Walls. The required number of receptacle outlets shall be determined in accordance with 210.52(A) (1) through (A)(4). These receptacle outlets shall be permitted to be located as determined by the designer or building owner.
210.52(A)(1) Spacing. Receptacles shall be installed such that no point measured horizontally along the floor line of any wall space is more than 1.8 m (6 ft) from a receptacle outlet.
210.52(A)(2) Wall Space. As used in this section, a wall space shall include the following:
(1) Any space 600 mm (2 ft) or more in width (including space measured around corners) and unbroken along the floor line by doorways and similar openings, fireplaces, and fixed cabinets that do not have countertops or similar work surfaces
(2) The space occupied by fixed panels in walls, excluding sliding panels
(3) The space afforded by fixed room dividers, such as freestanding bar-type counters or railings
210.52(A)(3) Floor Receptacles. Receptacle outlets in or on floors shall not be counted as part of the required number of receptacle outlets unless located within 450 mm (18 in.) of the wall.
210.52(A)(4) Countertop and Similar Work Surface Receptacle Outlets. Receptacles installed for countertop and similar work surfaces as specified in 210.52(C) shall not be considered as the receptacle outlets required by 210.52(A).

(2) Floor Receptacle Outlets. A meeting room with any floor dimension that is 3.7 m (12 ft) or greater in any direction and that has a floor area of at least 20 m2 (215 ft2) shall have at least one floor receptacle outlet, or at least one floor outlet to service receptacle(s), located at a distance not less than 1.8 m (6 ft) from any fixed wall for each 20 m2 (215 ft2) or major portion of floor space.

NEC Commentary: These requirements apply to meeting rooms in a variety of occupancies, including office buildings and hotels. For most rooms in commercial buildings, there are no NEC requirements for spacing of wall and countertop receptacles. However, 210.65 recognizes that there is a need to provide receptacles to facilitate meetings in which attendees will be using computers. This section, which utilizes the same receptacle requires used in swelling units as a basis for the spacing of meeting room receptacles, was revised for the 2020 edition to apply to non-rectangular meeting rooms, such as those that are round. Means of compliance include floor receptacle outlets and floor outlets supplying hard-wired furniture that contains receptacles. The 6-foot distance from fixed walls is to allow for emergency egress without occupants having to cross over flexible cords.

Common Code Official Interpretations - Confirm with local Authority Having Jurisdiction (AHJ):
- We can locate wall receptacles wherever we like in the meeting room; we just have to meet the quantity based on 12ft OC. For example, if there is a glass wall all the receptacles can be located the other 3 walls.
- A quadraplex receptacle counts as (2) wall or floor receptacles.



EXAMPLE:

PERIMETER:
16.5 + 14 + 20 + 14 + 0.5= 65 FT =
- At LEAST 6 WALL RECEPTACLES REQUIRED

AREA:
14 * 20 = 280 SQFT =
- AT LEAST 1 FLOOR RECEPTACLE REQUIRED

7 MEETING ROOM RECEPTACLES REQUIRED
NOT TO SCALE

TREANOR
2554 Elm Street, Suite 200
Dallas, TX 75226
Office: 214.310.1018
www.TreanorHL.com

Mechanical - Electrical Engineers
17300 North Dallas Parkway
Suite 3000
Dallas, TX 75248-1147
Firm Registration # F-1511
Tel: 972/239-5357
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D. SCOTT BROWN
89097
LICENSED
PROFESSIONAL ENGINEER
1-30-2025

UNIVERSITY OF NORTH TEXAS
KERR HALL INTERIOR RENOVATION

1413 West Maple St
Denton, TX 76201

UNT UNIVERSITY OF NORTH TEXAS

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ELECTRICAL DETAILS - GENERAL

TreanorHL NO. HE0569.2302.01

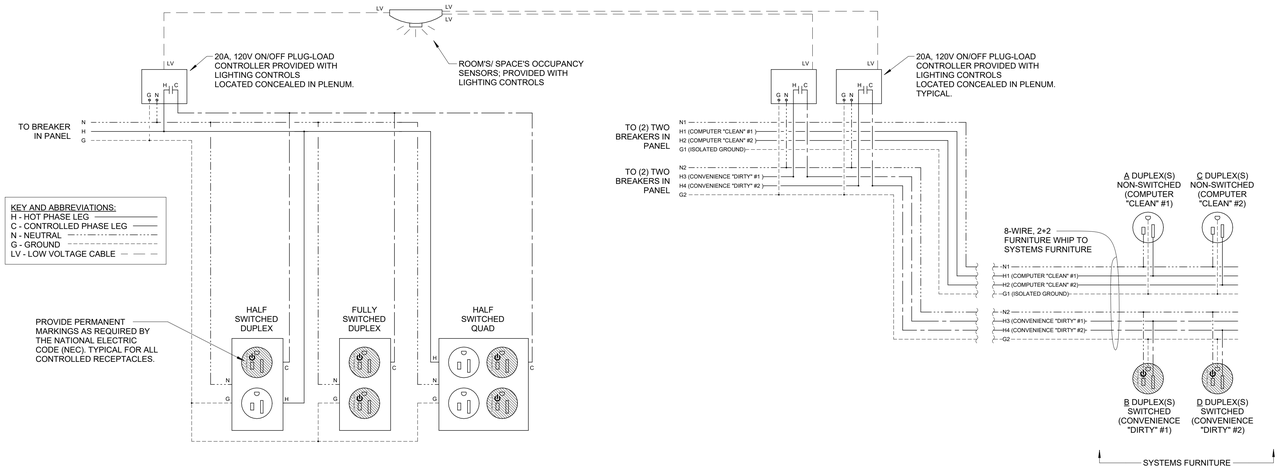
GENERAL METERING NOTES:

1. BASIS OF DESIGN METERING SYSTEM: MATCH ELECTRICAL GEAR MANUFACTURER.
2. REFERENCES:
   A. PROVIDE METERING TO MEET THE INTERNATIONAL ENERGY CONSERVATION CODE (IECC) ENERGY MONITORING REQUIREMENTS. THIS BUILDING SHALL BE EQUIPPED TO MEASURE, MONITOR AND REPORT ENERGY CONSUMPTION DATA PER IECC ENERGY MONITORING REQUIREMENTS.
   B. ALL METERS SHALL MEET THE REQUIREMENTS IN THE UNT TECHNICAL DESIGN GUIDELINES (TDGs). ALL METERS SHALL BE INTEGRATED INTO THE WHOLE CAMPUS POWER MONITORING SYSTEM. CONTRACTOR SHALL COORDINATE REQUIREMENTS DIRECTLY WITH THE OWNER. THE CONTRACTOR SHALL OBTAIN A COPY OF THE LATEST GUIDELINES PRIOR TO BIDDING.
   C. IF ANY ITEMS IN THE UNT TECHNICAL DESIGN GUIDELINES (TDGs) DIRECTLY CONTRADICT THE CODE IECC 2021 SECTION C405.12, THE CODE SHALL GOVERN AND THE OWNER, ARCHITECT, AND ENGINEER SHALL BE NOTIFIED BY THE CONTRACTOR.
3. PROVIDE A DATA ACQUISITION SYSTEM. THE DATA ACQUISITION SYSTEM SHALL HAVE THE CAPABILITY TO STORE DATA FROM THE REQUIRED METERS AND OTHER SENSING DEVICES FOR A MINIMUM OF 36 MONTHS. THE DATA ACQUISITION SYSTEM SHALL HAVE THE CAPABILITY TO STORE REAL-TIME ENERGY CONSUMPTION DATA AND PROVIDE HOURLY, DAILY, MONTHLY AND YEARLY LOGGED DATA FOR EACH END-USE CATEGORY.
4. MULTIPLE METERS ARE BEING USED TO MEASURE EACH END-USE CATEGORY; THE DATA ACQUISITION SYSTEM SHALL TOTAL ALL OF THE ENERGY USED BY EACH CATEGORY. NOT MORE THAN 5 PERCENT OF THE MEASURE LOAD FOR EACH OF THE END-USE CATEGORY SHALL BE PERMITTED TO BE FROM A LOAD THAT IS NOT WITHIN THAT CATEGORY. SEPARATELY, THE DATA ACQUISITION SYSTEM SHALL BE CAPABLE OF TOTALING EACH TENANT LOAD FOR OWNER BILLING USE.
5. ALL METERS SHOWN ABOVE ELECTRICAL PANELS ON THE ONE-LINE DIAGRAMS ON SHEETS SHALL BE CAPABLE OF METERING EACH INDIVIDUAL CIRCUIT WITHIN THE ELECTRICAL PANEL SEPARATELY, AS EACH CIRCUIT MAY BE A DIFFERENT END-USE CATEGORY.
6. ALL METERS SHALL BE CERTIFIED REVENUE GRADE AND MEET 0.5% CLASS REVENUE ACCURACY.
7. ALL METERS SHALL INTEGRATE INTO THE BUILDING MANAGEMENT SYSTEM (BMS).
8. INDIVIDUAL END-USE METERING SHALL NOT BE REQUIRED FOR FIRE PUMPS, STAIRWELL PRESSURIZATION FANS FOR ANY SYSTEM THAT OPERATES ONLY DURING TESTING OR EMERGENCY. HOWEVER, ALL OF THESE ITEMS AND THE OTHER GENERATOR LOADS SHALL BE MEASURED TOGETHER UNDER ONE TOTAL METER READING FOR THE GENERATOR LOAD.
9. ALL METERS OR OTHER MEASUREMENT DEVICES SHALL BE CONFIGURED TO AUTOMATICALLY COMMUNICATE ENERGY CONSUMPTION DATA TO THE DATA ACQUISITION SYSTEM. SOURCE METERS SHALL BE ALLOWED TO BE ANY DIGITAL-TYPE METER. LIGHTING, HVAC, OR OTHER BUILDING SYSTEMS THAT CAN MONITOR THEIR ENERGY CONSUMPTION SHALL BE PERMITTED INSTEAD OF METERS. CURRENT SENSORS SHALL BE PERMITTED, PROVIDED THAT THEY HAVE TESTED ACCURACY OF +-2 PERCENT.
10. THE METERING SYSTEM AND EQUIPMENT SHALL HAVE THE CAPABILITY TO PROVIDE AT LEAST HOURLY DATA THAT IS FULLY INTEGRATED INTO THE DATA ACQUISITION SYSTEM AND GRAPHICAL ENERGY REPORT.
11. A PERMANENT AND READILY ACCESSIBLE REPORTING MECHANISM SHALL BE PROVIDED IN THE BUILDING THAT IS ACCESSIBLE BY THE BUILDING OPERATION AD MANAGEMENT PERSONNEL. THE REPORTING MECHANISM SHALL HAVE THE CAPABILITY TO GRAPHICALLY PROVIDE THE ENERGY CONSUMPTION FOR EACH END USE CATEGORY AT LEASE EVERY HOUR, DAY, MONTH AND YEAR FOR THE PREVIOUS 36 MONTHS.

METERING END-USE CATEGORIES - CODE REQUIRED

TOTAL HVAC SYSTEM	HEATING, COOLING AND VENTILATION, INCLUDING BUT NOT LIMITED TO FANS, PUMPS, BOILERS, CHILLERS AND WATER HEATING.
INTERIOR LIGHTING	LIGHTING SYSTEMS LOCATED WITHIN THE BUILDING.
EXTERIOR LIGHTING	LIGHTING SYSTEMS LOCATED ON THE BUILDING SITE BUT NOT WITHIN THE BUILDING.
PLUG LOADS	DEVICES, APPLIANCES, AND EQUIPMENT CONNECTED TO CONVENIENCE RECEPTACLE OUTLETS.
PROCESS LOADS	ANY SINGLE LOAD THAT IS NOT INCLUDED IN HVAC, LIGHTING OR PLUG LOAD CATEGORY AND EXCEEDS 5 PERCENT OF THE PEAK CONNECTED LOAD OF THE WHOLE BUILDING INCLUDING, BUT NOT LIMITED TO DATA CENTERS, MANUFACTURING EQUIPMENT AND COMMERCIAL KITCHENS.
BUILDING OPERATIONS AND OTHER MISCELLANEOUS LOADS	THE REMAINING LOADS NOT INCLUDED ELSEWHERE IN THIS TABLE INCLUDING, BUT NOT LIMITED TO, VERTICAL TRANSPORTATION SYSTEMS, AUTOMATIC DOORS, MOTORIZED SHADING SYSTEMS, ORNAMENTAL FOUNTAINS, ORNAMENTAL FIREPLACES, SWIMMING POOLS, IN GROUND SPAS, SNOW-MELT SYSTEMS, CAR CHARGERS.
THESE CATEGORIES SHALL TOTAL UP TO 100% OF THE BUILDING LOAD.	

1 ELECTRICAL METERING
NOT TO SCALE



NOTES:

A. 50% OF RECEPTACLES (OTHER THAN THOSE REQUIRING CONTINUOUS OPERATION) ARE REQUIRED TO BE CONTROLLED AUTO OFF WITHIN 20 MINUTE TIME OUT.
   A. APPLIES IN:
      A. ENCLOSED OFFICES
      B. CONFERENCE ROOMS
      C. ROOMS PRIMARILY FOR COPY/PRINT FUNCTIONS
      D. BREAKROOMS
      E. CLASSROOMS
      F. MODULAR WORKSTATIONS (SYSTEM FURNITURE DIRTY CIRCUIT'S)

B. IF AN ENTIRE DUPLEX IS NON-CONTROLLED, THERE MUST BE A CONTROLLED DUPLEX WITHIN 12" OF THE NON-CONTROLLED DUPLEX.

C. SYSTEMS FURNITURE REQUIRE A NON-CONTROLLED RECEPTACLE WITHIN 72" OF A CONTROLLED RECEPTACLE.

D. CONTINUOUS OPERATION ARE EXEMPTED FROM AUTOMATIC CONTROL RECEPTACLES AND SHALL BE NOTED ON THE PLANS AS EXEMPT. EXAMPLES OF CONTINUOUS OPERATION ARE INCLUDING BUT NOT LIMITED TO:
   A. PC
   B. FRIDGE
   C. ICE MAKER
   D. SECURITY POWER
   E. COPIERS

E. AUTOMATIC RECEPTACLES SHALL BE TIED INTO THE ROOMS SENSOR. RECEPTACLES SHALL BE AUTO-ON, AND AUTO-OFF WITHIN 20 MINUTES.

2 SWITCHED RECEPTACLE WIRING DIAGRAM
NOT TO SCALE

D. SCOTT BROWN
89097
LICENSED
PROFESSIONAL ENGINEER
1-30-2025

TREANOR
2554 Elm Street, Suite 200
Dallas, TX 75226
Office: 214.310.1018
www.TreanorHL.com

Mechanical - Electrical Engineers
17300 North Dallas Parkway
Suite 3000
Dallas, TX 75248-1147
Firm Registration # F-1511
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Denton, TX 76201

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ELECTRICAL DETAILS - GENERAL

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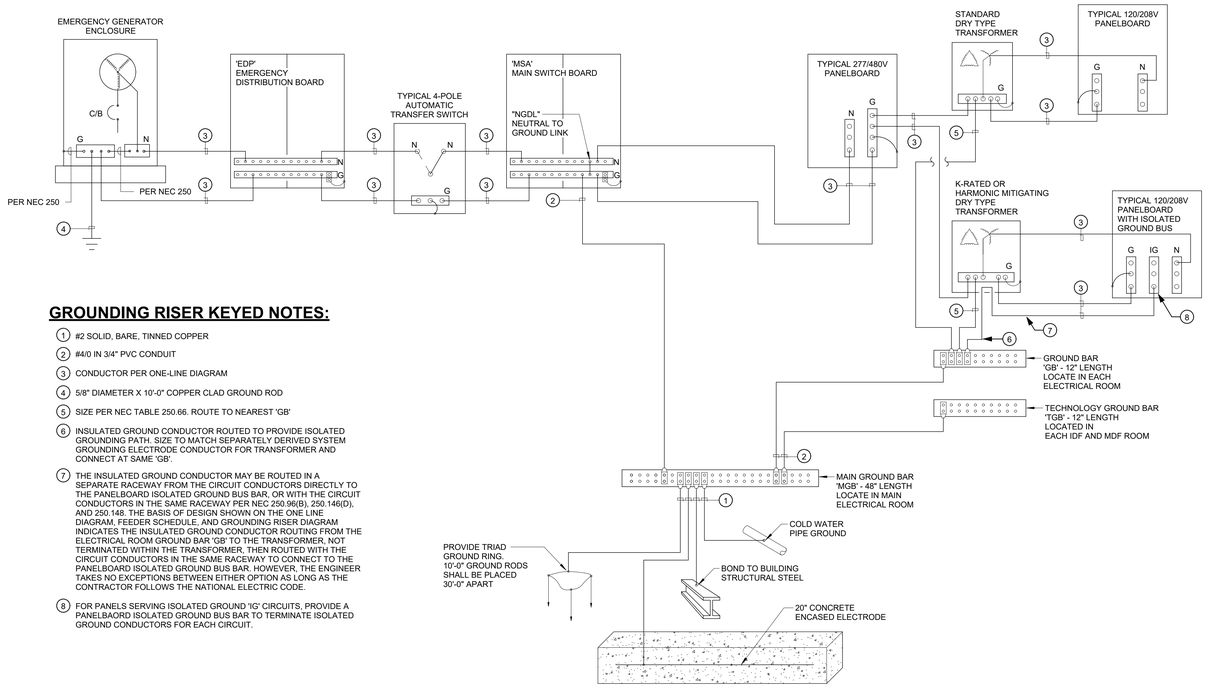
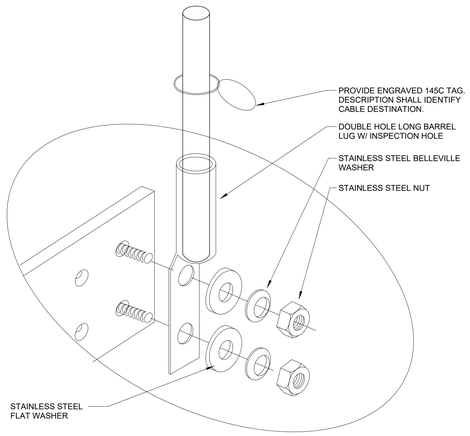


GROUNDING RISER KEYED NOTES:

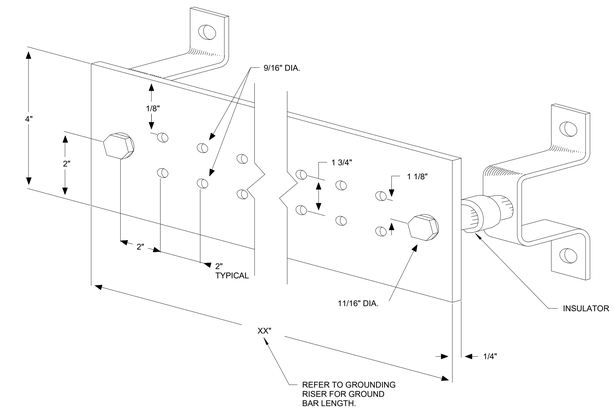
1. #2 SOLID, BARE, TINNED COPPER
2. #4/0 IN 3/4" PVC CONDUIT
3. CONDUCTOR PER ONE-LINE DIAGRAM
4. 5/8" DIAMETER X 10'-0" COPPER CLAD GROUND ROD
5. SIZE PER NEC TABLE 250.66. ROUTE TO NEAREST 'GB'
6. INSULATED GROUND CONDUCTOR ROUTED TO PROVIDE ISOLATED GROUNDING PATH. SIZE TO MATCH SEPARATELY DERIVED SYSTEM GROUNDING ELECTRODE CONDUCTOR FOR TRANSFORMER AND CONNECT AT SAME 'GB'.
7. THE INSULATED GROUND CONDUCTOR MAY BE ROUTED IN A SEPARATE RACEWAY FROM THE CIRCUIT CONDUCTORS DIRECTLY TO THE PANELBOARD ISOLATED GROUND BUS BAR, OR WITH THE CIRCUIT CONDUCTORS IN THE SAME RACEWAY PER NEC 250.96(B), 250.146(D), AND 250.148. THE BASIS OF DESIGN SHOWN ON THE ONE LINE DIAGRAM, FEEDER SCHEDULE, AND GROUNDING RISER DIAGRAM INDICATES THE INSULATED GROUND CONDUCTOR ROUTING FROM THE ELECTRICAL ROOM GROUND BAR 'GB' TO THE TRANSFORMER, NOT TERMINATED WITHIN THE TRANSFORMER, THEN ROUTED WITH THE CIRCUIT CONDUCTORS IN THE SAME RACEWAY TO CONNECT TO THE PANELBOARD ISOLATED GROUND BUS BAR. HOWEVER, THE ENGINEER TAKES NO EXCEPTIONS BETWEEN EITHER OPTION AS LONG AS THE CONTRACTOR FOLLOWS THE NATIONAL ELECTRIC CODE.
8. FOR PANELS SERVING ISOLATED GROUND 'IG' CIRCUITS, PROVIDE A PANELBAORD ISOLATED GROUND BUS BAR TO TERMINATE ISOLATED GROUND CONDUCTORS FOR EACH CIRCUIT.

1 GROUND RISER DIAGRAM
NOT TO SCALE



NOTES:
1. ALL CONNECTIONS TO BE DOUBLE COMPRESSION (CRIMP) TYPE. NO MECHANICAL CONNECTIONS, MINIMUM 4 CRIMPS FOR DOUBLE COMPRESSION FITTING.

2 GROUND BUS BAR CONNECTION
NOT TO SCALE



3 GROUND BUS BAR
NOT TO SCALE

D. SCOTT BROWN
89097
LICENSED
PROFESSIONAL ENGINEER
1-30-2025

TREANOR
2554 Elm Street, Suite 200
Dallas, TX 75226
Office: 214.310.1018
www.TreanorHL.com

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ELECTRICAL DETAILS - GROUNDING

TreanorHL NO. HE0569.2302.01

MECHANICAL EQUIPMENT POWER SCHEDULE

EQUIPMENT DESIGNATION	ELECTRICAL INFORMATION									DISCONNECT				REMARKS
	ELECTRIC LOAD			VOLT	PHASE	OCPD RATING	PANEL	CIRCUIT NO.	FEEDER	TYPE	SIZE	POLES	FUSE	
	CURRENT (AMPS)	LOAD (WATTS)	OTHER MISCELLANEOUS ELECTRIC LOAD INFORMATION											
FCU-K1-1	14 A	2808 VA	0.5 HP	208 V	1	20 A	K-C/D	41,43	2#12, #12G, 3/4"C	PROVIDED BY MECHANICAL	-	-	-	
FCU-K1-2	14 A	2808 VA	0.5 HP	208 V	1	20 A	K-C/D	44,46	2#12, #12G, 3/4"C	PROVIDED BY MECHANICAL	-	-	-	
GEF-1 (K)	48 A	39888 VA	20 HP	480 V	3	60 A		<unnamed>	4#4, #10G, 1 1/4"C	NEMA HEAVY DUTY	60	3	NF	SEE NOTE 5
KEF-1	1 A	1000 VA	1 HP	480 V	3	20 A	HK	26,28,30	4#12, #12G, 3/4"C	PROVIDED BY MECHANICAL	-	-	-	
KEF-2	1 A	1000 VA	1 HP	480 V	3	20 A	HK	31,33,35	4#12, #12G, 3/4"C	PROVIDED BY MECHANICAL	-	-	-	
KITCHEN SOFT WATER	15 A	1800 VA	-	120 V	1	20 A	K-C/D	13	2#12, #12G, 3/4"C	-	-	-	-	
REF-K-1	10 A	8310 VA	2 HP	480 V	3	20 A	HK	19,21,23	4#12, #12G, 3/4"C	NEMA HEAVY DUTY	30	3	NF	
RP-1 (K)	2 A	180 VA	1/6 HP	120 V	1	20 A	K-C/D	42	2#12, #12G, 3/4"C	NEMA HEAVY DUTY	30	2	NF	SEE NOTE 6
TEF-K-1	1 A	120 VA	0.1 HP	120 V	1	20 A	K-C/D	39	2#12, #12G, 3/4"C	PROVIDED BY MECHANICAL	-	-	-	
TEF-K-2	6 A	1200 VA	0.17 HP	208 V	1	20 A	K-C/D	45,47	2#12, #12G, 3/4"C	PROVIDED BY MECHANICAL	-	-	-	
VRG-K-5,6,7	3 A	300 VA	100VA EACH	120 V	1	20 A	1A	48	2#12, #12G, 3/4"C	MOTOR RATED SWITCH AT EACH	-	-	-	
VRH-K-1,2,3,4	3 A	400 VA	100VA EACH	120 V	1	20 A	1A	47	2#12, #12G, 3/4"C	MOTOR RATED SWITCH AT EACH	-	-	-	
VRH-K-8,9,10	3 A	300 VA	100VA EACH	120 V	1	20 A	1A	49	2#12, #12G, 3/4"C	MOTOR RATED SWITCH AT EACH	-	-	-	
VRH-K-11,12,13,14, 15	4 A	500 VA	100VA EACH	120 V	1	20 A	1A	50	2#12, #12G, 3/4"C	MOTOR RATED SWITCH AT EACH	-	-	-	
WH-1 (K)	2 A	180 VA	-	120 V	1	20 A	K-C/D	14	2#12, #12G, 3/4"C	-	-	-	-	
WH-2 (K)	2 A	180 VA	-	120 V	1	20 A	K-C/D	40	2#12, #12G, 3/4"C	-	-	-	-	

GENERAL NOTES (APPLIES TO ALL):
- A REFER TO HVAC AND PLUMBING PLANS FOR LOCATIONS OF EQUIPMENT. COORDINATE FINAL LOCATIONS IN FIELD.
- B DISCONNECT SWITCHES PROVIDED BY THE ELECTRICAL CONTRACTOR SHALL MATCH THE AIC VALVE OF THE UPSTREAM ELECTRICAL PANEL.
- C COORDINATE WITH MECHANICAL REGARDING RESPONSIBILITY OF MOTOR STARTERS, SO THAT DUPLICATE EQUIPMENT IS NOT PURCHASED.
- D WHERE VARIABLE FREQUENCY DRIVES (VFDS) AND SERVICE DISCONNECTS ARE SEPARATED, ELECTRICAL CONTRACTOR SHALL PROVIDE DISCONNECT SWITCH WITH AUXILIARY CONTACTS FOR CONNECTION TO VFD SAFETY INTERLOCK. ELECTRICAL CONTRACTOR SHALL CONNECT DISCONNECT SWITCH AUXILIARY CONTACT TO THE ASSOCIATED VFD SAFETY INTERLOCK VIA 3/4 " CONDUIT WITH 2#12 AND #12G STRANDED THHN CONDUCTORS.
- E CIRCUITS SHOWN ARE SCHEMATIC ONLY AND DO NOT NECESSARILY INDICATE THE ACTUAL PANEL CIRCUIT NUMBERS FOR USE. IT IS INTENDED TO FIRST REUSE EXISTING POWER CIRCUITS THAT ARE AVAILABLE AFTER DEMOLITION OF AND EQUIPMENT AND THEN USE AVAILABLE SPARES/SPACES AS NEEDED. CONTRACTOR SHALL VERIFY ACTUAL CIRCUIT AVAILABILITY AFTER DEMOLITION AND NOTIFY ARCHITECT IMMEDIATELY IF THE QUANTITY OF AVAILABLE CIRCUITS IS INADEQUATE OR OBTAIN APPROVAL FOR ADD ALTERNATE SOLUTION.

NOTES:
1. PROVIDE 120V CONTROLS CIRCUIT TO EACH 120V/24V CONTROLS TRANSFORMER (TRANSFORMER BY MECHANICAL CONTRACTOR). EACH TRANSFORMER SHALL FEED UP TO SIX (6) CONTROL MODULES. DO NOT EXCEED 1500VA PER 120V CONTROLS CIRCUIT. CONDUCTORS BETWEEN THE TRANSFORMERS AND THE CONTROLS SHALL BE BY MECHANICAL CONTRACTOR. REFER TO HVAC PLANS FOR EQUIPMENT LOCATIONS.
2. MECHANICAL CONTRACTOR TO PROVIDE VARIABLE FREQUENCY DRIVE (VFD) . ELECTRICAL CONTRACTOR TO INSTALL.
3. CIRCUIT CONVENIENCE OUTLET FROM CIRCUIT AS SHOWN ON PLANS.
4. FURNISH AND CONNECT DUCT MOUNTED SMOKE DETECTOR (INSTALLED BY MECHANICAL) TO FIRE ALARM PANEL.
5. GEF-1 SHALL BE LOCATED ON TOWER ROOF, REFER TO MECHANICAL PLANS FOR EXACT LOCATION OF EQUIPMENT. PROVIDE AND INSTALL POWER CIRCUIT FROM NEAREST 277/480V PANELBOARD WITH AVAILABLE CAPACITY. ELECTRICAL CONTRACTOR SHALL ENSURE FEEDERS ARE SIZED FOR VOLTAGE DROP.
6. PROVIDE POWER TO LEAK DETECTION, SOLENOID VALVE AND 'CO' MONITOR FOR WATER HEATER FROM SAME CIRCUIT AS RECIRCULATION PUMP. CIRCUIT LEAK DETECTION, SOLENOID VALVE AND 'CO' MONITOR UPSTREAM OF MOTOR RATED SWITCH FOR RECIRCULATION PUMP.

LIGHT FIXTURE SCHEDULE

TAG	DESCRIPTION	MANUFACTURER	MODEL NUMBER	LAMPS	VOLT	INPUT WATTS	DIMMING	REMARKS
A4	4' LED DIRECT/INDIRECT PENDANT	LUX ILLUMINARE	EOS 3.0-P-DI-LAM-500-4-30K-8-UNV-S1 (BRONZE FINISH)	LED	120 V	20 W	0-10V	SEE NOTE 3
A8	8' LED DIRECT/INDIRECT PENDANT	LUX ILLUMINARE	EOS 3.0-P-DI-LAM-500-8-30K-8-UNV-S1 (BRONZE FINISH)	LED	120 V	50 W	0-10V	SEE NOTES 1,3,4
B6	6' LED RECESSED LINEAR	LUX ILLUMINARE	EOS 3.0-R-FT-LAM-500-6-30K-8-UNV-S1	LED	120 V	28 W	0-10V	SEE NOTE 1
B6E	6' LED RECESSED LINEAR	LUX ILLUMINARE	EOS 3.0-R-FT-LAM-500-6-30K-8-UNV-S1-EB	LED	120 V	28 W	0-10V	SEE NOTE 1
C4	4' LED RECESSED LINEAR	T-3AR LED	TBSL-[TEMP]-[LENGTH]-[OPTIC]-[MOUNTING]	LED	120 V	32 W	0-10V	SEE NOTE 3
C10	10' DECORATIVE SURFACE MOUNT LED LINEAR	PURE EDGE	CCDSM-5W-120-30K	LED	120 V	50 W	0-10V	SEE NOTE 3
D4	4' WALL MOUNT ARCHITECTURAL LED	HE WILLIAMS	AX2WD-4-L33-S-UNV	LED	120 V	42 W	0-10V	SEE NOTES 3,4
E	MULTI-CELL DOWNLIGHT	USAI	0413H1-35KH-35-BL-BL-NCVS-UNV-D6E-UB44-C44-UA2	LED	120 V	18 W	0-10V	
F	HIGH CRI TAPE LIGHT (FOR SERVING COUNTER, 2.8 W/FT)	VLT	EFLEXW-2320-35-NL-WE1-[LENGTH AS REQUIRED]-UL	LED	120 V	3 W	NO	SEE NOTES 1,3
G	DECORATIVE PENDANT	PURE EDGE	PX3P-T1-7W-48-30K-BB	LED	120 V	15 W	0-10V	SEE NOTES 1,3,4
H	6" LED ROUND DOWNLIGHT	HE WILLIAMS	6DR-TL-30K-DIM-UNV	LED	120 V	20 W	0-10V	
HE	6" LED ROUND DOWNLIGHT	HE WILLIAMS	6DR-TL-30K-EM-DIM-UNV	LED	120 V	20 W	0-10V	
K	LED NARROW STRIP	HE WILLIAMS	75R/S-4'-[LUMES]-[TEMP]-DIM-UNV	LED	120 V	40 W	0-10V	SEE NOTE 1
P1	MARATHON WOODED TOP PENDANT	BARNLIGHT	BLE-C-WYDM16-600-ASH-SBK-NA-LED11-3000K-FL	LED	120 V	27 W	0-10V	SEE NOTE 3
P2	MINIMALIST CORDED PENDENT	BARNLIGHT	BLE-C-PINDY-CUP-600-SBK-7FT-STANDARD CANOPY-VORONOI II LED TALA LAMP TYP	LED	120 V	60 W	0-10V	SEE NOTE 3
V	2x2 LED TROFFER	HE WILLIAMS	PT-22-L26/830-RA-DIM-UNV	LED	120 V	22 W	0-10V	
VE	2x2 LED TROFFER	HE WILLIAMS	PT-22-L26/830-RA-EM-DIM-UNV	LED	120 V	22 W	0-10V	
1 X	EDGE LIT EXIT SIGN, WITH EMERGENCY BATTERY BACKUP.	LITHONIA	WHEN LOCATED IN AN OPEN EXPOSED CEILING: EDG-[FACE]-RMR-EL-SD-ELAUS12 WHEN LOCATED IN AN GYPSUM OR TILE CEILING: EDGR-[FACE]-RMR-EL-SD	LED	120 V	5 W	NO	SEE NOTE 2

GENERAL NOTES:
- A CONTRACTOR IS RESPONSIBLE FOR PROVIDING ALL ACCESSORIES FOR PROPER MOUNTING OF FIXTURES IN SPECIFIC CEILING PER LOCATION OF FIXTURES.
- B CONTRACTOR SHALL PROVIDE SUBMITTALS TO THE ENGINEER OF ALL LIGHTING FIXTURES (NEW OR SUBSTITUTES).
- C CONTRACTOR SHALL COORDINATE FINISH, MOUNTING HEIGHTS (IF SUSPENDED), LENSING, AND OTHER AESTHETIC FEATURES OF ALL FIXTURES WITH ARCHITECT.
- D CONTRACTOR SHALL PROVIDE INSTALLATION AND MATERIALS FOR AN ADDITIONAL 5 EXIT SIGNS OR 10%, WHICHEVER IS GREATER, AS ATTIC STOCK FOR FUTURE USE. ATTIC STOCK EXIT SIGN SPECIFICATION SHALL MATCH ALL THE OTHER EXIT SIGNS ON THIS PROJECT, AS SPECIFIED IN THE LIGHT FIXTURE SCHEDULE.

NOTES:
1. PROVIDE CONTINUOUS LENGTH AS SHOWN ON PLANS. CONFIRM EXACT LENGTH WITH ARCHITECTURAL DETAILS AND ARCHITECT. PROVIDE ALL ACCESSORIES FOR A FULLY FUNCTIONING SYSTEM.
2. PROVIDE NUMBER OF FACES AND CHEVRONS FOR EACH EXIT SIGN PER ELECTRICAL LIGHTING PLANS. REFER TO ARCHITECTURAL REFLECTED CEILING PLANS (RCP) FOR CEILING TYPES AT EACH EXIT SIGN LOCATION.
3. COORDINATE MOUNTING, LENGTH, AND OTHER DETAILS WITH ARCHITECT AS FIXTURE IS INCORPORATED INTO ARCHITECTURAL FEATURE.
4. FIXTURE REQUIRES REMOTE TRANSFORMER/ DRIVER. CONTRACTOR SHALL SIZE AND SPACE REMOTE TRANSFORMERS/ DRIVERS TO ELIMINATE VOLTAGE DROP. TRANSFORMERS/ DRIVERS SHALL BE VISUALLY AND ACOUSTICALLY CONCEALED.
5. PROVIDE LIGHT POLE WITH VIBRATION ISOLATION AS RECOMMENDED BY THE MANUFACTUER.

LIGHTING CONTROL PANEL 2 (LCP2)

CONTACT	VOLT	PHASE	GENERAL LOCATION ZONE	CIRCUIT	DESCRIPTION	CONTROL	REMARKS
1	120/277	1			SPARE		
2	120	1	ab	1A-13	NW DINING P1 FIXTURES	TIMECLOCK, PHOTOCELL, LOCAL ON/OFF, OCCUPANCY/VACANCY SENSOR	
3	120	1	ac	1A-13	N VESTIBULE H FIXTURES	TIMECLOCK, LOCAL ON/OFF, OCCUPANCY/VACANCY SENSOR	
4	120	1	ad	1A-13	N DINING H FIXTURES	TIMECLOCK, LOCAL ON/OFF, OCCUPANCY/VACANCY SENSOR	
5	120	1	ae	1A-13	NE DINING P1 FIXTURES	TIMECLOCK, PHOTOCELL, LOCAL ON/OFF, OCCUPANCY/VACANCY SENSOR	
6	120	1	af	1A-13	N DINING C FIXTURES	TIMECLOCK, PHOTOCELL, LOCAL ON/OFF, OCCUPANCY/VACANCY SENSOR	
7	120	1	ag	1A-30	NE DINING P2 FIXTURES	TIMECLOCK, PHOTOCELL, LOCAL ON/OFF, OCCUPANCY/VACANCY SENSOR	
8	120	1	ah	1A-27	W DINING A4 FIXTURES	TIMECLOCK, LOCAL ON/OFF, OCCUPANCY/VACANCY SENSOR	
9	120	1	ai	1A-27	W DINING A4 FIXTURES	TIMECLOCK, LOCAL ON/OFF, OCCUPANCY/VACANCY SENSOR	
10	120	1	aj	1A-27	W DINING P2 FIXTURES	TIMECLOCK, LOCAL ON/OFF, OCCUPANCY/VACANCY SENSOR	
11	120	1	ak	1A-27	W DINING H FIXTURES	TIMECLOCK, LOCAL ON/OFF, OCCUPANCY/VACANCY SENSOR	
12	120	1	al	1A-27	W DINING H FIXTURES	TIMECLOCK, LOCAL ON/OFF, OCCUPANCY/VACANCY SENSOR	
13	120	1	am	1A-29	W DINING A8 FIXTURES	TIMECLOCK, LOCAL ON/OFF, OCCUPANCY/VACANCY SENSOR	
14	120	1	an	1A-29	W DINING A8 FIXTURES	TIMECLOCK, LOCAL ON/OFF, OCCUPANCY/VACANCY SENSOR	
15	120	1	ao	1A-29	W DINING P2 FIXTURES	TIMECLOCK, LOCAL ON/OFF, OCCUPANCY/VACANCY SENSOR	
16	120	1	ap	1A-29	DINING H FIXTURES	TIMECLOCK, LOCAL ON/OFF, OCCUPANCY/VACANCY SENSOR	
17	120	1	aq	1A-52	N DINING C FIXTURES	TIMECLOCK, PHOTOCELL, LOCAL ON/OFF, OCCUPANCY/VACANCY SENSOR	
18	120	1	ar	1A-29	DINING ENTRY H FIXTURES	TIMECLOCK, LOCAL ON/OFF, OCCUPANCY/VACANCY SENSOR	
19	120	1	as	1A-30	E DINING C10 FIXTURES	TIMECLOCK, LOCAL ON/OFF, OCCUPANCY/VACANCY SENSOR	
20	120	1	at	1A-30	S DINING P1 FIXTURES	TIMECLOCK, LOCAL ON/OFF, OCCUPANCY/VACANCY SENSOR	
21	120	1	au	1A-30	E DINING H FIXTURES	TIMECLOCK, LOCAL ON/OFF, OCCUPANCY/VACANCY SENSOR	
22	120	1	av	1A-30	E DINING P2 FIXTURES	TIMECLOCK, LOCAL ON/OFF, OCCUPANCY/VACANCY SENSOR	
23	120	1	aw	1A-31	E DINING P2 FIXTURES	TIMECLOCK, LOCAL ON/OFF, OCCUPANCY/VACANCY SENSOR	
24	120	1	ax	1A-31	E DINING H FIXTURES	TIMECLOCK, LOCAL ON/OFF, OCCUPANCY/VACANCY SENSOR	
25	120	1	ay	1A-31	E DINING H FIXTURES	TIMECLOCK, LOCAL ON/OFF, OCCUPANCY/VACANCY SENSOR	
26	120	1	az	1A-31	E VESTIBULE H FIXTURES	TIMECLOCK, LOCAL ON/OFF, OCCUPANCY/VACANCY SENSOR	
27	120	1	ba	1A-13	E DINING A4 FIXTURES	TIMECLOCK, LOCAL ON/OFF, OCCUPANCY/VACANCY SENSOR	
28	120	1	bb	1A-13	E DINING P2 FIXTURES	TIMECLOCK, LOCAL ON/OFF, OCCUPANCY/VACANCY SENSOR	
29	120	1	bc	1A-30	SE DINING A8 FIXTURES	TIMECLOCK, LOCAL ON/OFF, OCCUPANCY/VACANCY SENSOR	
30	120	1	bd	1A-30	SE DINING P2 FIXTURES	TIMECLOCK, LOCAL ON/OFF, OCCUPANCY/VACANCY SENSOR	
31	120	1	be	1A-31	SERVING LINE B6 FIXTURES	TIMECLOCK, LOCAL ON/OFF, OCCUPANCY/VACANCY SENSOR	
32	120	1	bf	1A-32	SERVING LINE B6 FIXTURES	TIMECLOCK, LOCAL ON/OFF, OCCUPANCY/VACANCY SENSOR	
33	120	1	bg	1A-32	SERVING LINE B6 FIXTURES	TIMECLOCK, LOCAL ON/OFF, OCCUPANCY/VACANCY SENSOR	
34	120	1	bh	1A-32	SERVING LINE B6 FIXTURES	TIMECLOCK, LOCAL ON/OFF, OCCUPANCY/VACANCY SENSOR	
35	120	1	bi	1A-32	SERVERY E FIXTURES	TIMECLOCK, LOCAL ON/OFF, OCCUPANCY/VACANCY SENSOR	
36	120	1	bj	1A-32	SERVERY H FIXTURES	TIMECLOCK, LOCAL ON/OFF, OCCUPANCY/VACANCY SENSOR	
37	120	1	bk	1A-33	KITCHEN NW V FIXTURES	TIMECLOCK, LOCAL ON/OFF, OCCUPANCY/VACANCY SENSOR	
38	120	1	bl	1A-33	KITCHEN SW V FIXTURES	TIMECLOCK, LOCAL ON/OFF, OCCUPANCY/VACANCY SENSOR	
39	120	1	bm	1A-31	WAREWASH V FIXTURES	TIMECLOCK, LOCAL ON/OFF, OCCUPANCY/VACANCY SENSOR	
40	120	1	bn	1A-31	KITCHEN V FIXTURES	TIMECLOCK, LOCAL ON/OFF, OCCUPANCY/VACANCY SENSOR	
41	120	1	bo	1A-33	KITCHEN V FIXTURES	TIMECLOCK, LOCAL ON/OFF, OCCUPANCY/VACANCY SENSOR	
42	120	1	bp	1A-33	RECEIVING V FIXTURES	TIMECLOCK, LOCAL ON/OFF, OCCUPANCY/VACANCY SENSOR	
43	120	1	bq	1A-13	DINING H FIXTURES	TIMECLOCK, PHOTOCELL, LOCAL ON/OFF, OCCUPANCY/VACANCY SENSOR	
44	120/277	1			SPARE		
45	120/277	1			SPARE		
46	120/277	1			SPARE		
47	120/277	1			SPARE		
48	120/277	1			SPARE		

GENERAL NOTES (APPLIES TO ALL):
- A REFER TO THE LIGHTING CONTROLS NARRATIVE ON THE ELECTRICAL FRONT SHEET FOR FURTHER CONTROLS INFORMATION.
- B REFERENCE LIGHTING PLANS FOR LOCATION OF CONTROL ZONES.
- C LIGHTING CONTROL PANELS SHOWN ARE TO DEMONSTRATE DESIGN INTENT ONLY AND DOES NOT DEMONSTRATE THE EXACT AMOUNT OF CONTROL RELAYS REQUIRED.
- D CIRCUIT NUMBERS INDICATED ARE THE NORMAL CIRCUIT NUMBER ONLY. NOTE THAT ANY EMERGENCY LIGHTING THAT ARE NOTED TO BE CONTROLLED WITH THE NORMAL LIGHTING VIA A UL924 DEVICE WILL HAVE A DIFFERENT CIRCUIT NUMBER.
- E CONTRACTOR SHALL PROVIDE INSTALLATION AND MATERIALS FOR 20% ADDITIONAL CONTROL RELAYS FOR FUTURE USE.
- F LIGHTING CONTROL ZONE SCHEDULES AND LIGHTING CONTROLS NARRATIVE ON THE ELECTRICAL FRONT SHEET REPRESENT THE INTENT FOR CONTROL ZONES THROUGHOUT THE SCOPE OF WORK. ELECTRICAL CONTRACTOR SHALL PROVIDE AND INSTALL DEVICES AND COMPONENTS TO CREATE A COMPLETE SYSTEM AND TO ACHIEVE THE CODE REQUIREMENTS.
- G PROVIDE ALL RELAYS AS DIMMING TYPE DESPITE DIMMING OR NON-DIMMING FUNCTION OF CONTROL ZONE.
- H PROVIDE 0-10V WIRING TO ALL FIXTURES AND ZONES.
- I PROVIDE PHYSICAL BARRIERS TO SEPERATE 120V VS 277V RELAYS, AS WELL AS NORMAL POWER CIRCUITS VS. EMERGENCY EGRESS LIGHTING CIRCUITS.
- J CONTRACTOR SHALL FIELD VERIFY THE EXISTING CONDITIONS REGARDING LIGHTING CONTROL PANELS. IF LIGHTING CONTROL PANELS ARE NOT PRESENT ON THE PROJECT OR IF THE QUANTITY OF AVAILABLE RELAYS IS INADEQUATE, THE ELECTRICAL CONTRACTOR SHALL PROVIDE AND INSTALL NEW LIGHTING CONTROL PANELS MATCHING THE BUILDING 'S EXISTING LIGHTING CONTROL SYSTEM.
- K PROVIDE AN EXTERIOR PHOTOCELL AND CONNECT TO LIGHTING CONTROL SYSTEM FOR PROGRAMMING. LOCATE PER MANUFACTURER RECOMMENDATIONS.
- L PROVIDE INTERCONNECTION BETWEEN ALL LIGHTING CONTROL PANELS (IF THERE ARE MULTIPLE LIGHTING CONTROL PANELS ON THE PROJECT).

NOTES:
1. NOT USED.

REVISION SUMMARY:
- REVISED LIGHTING TYPE KE TO X IN LIGHTING SCHEDULE FOR EDGE LIT EXIT SIGN.

TREANOR
2554 Elm Street, Suite 200
Dallas, TX 75226
Office: 214.310.1018
www.TreanorHL.com

Purdy - McGuire
Mechanical - Electrical Engineers
17300 North Dallas Parkway
Suite 3000
Dallas, TX 75248-1147
Firm Registration # F-1511
Tel: 972/239-5357
Fax: 972/239-5231
www.purdy-mcguire.com

PM JOB NO. 23037.002
PROJECT MGR. SCOTT BROWN
MITCHELL HENTON
MECHANICAL MITCHELL HENTON
PLUMBING CHRIS WOODYARD
ELECTRICAL SCOTT BROWN

UNIVERSITY OF NORTH TEXAS
KERR HALL INTERIOR RENOVATION
1413 West Maple St
Denton, TX 76201

UNT UNIVERSITY OF NORTH TEXAS

Issue: ISSUE FOR CONSTRUCTION
Date: JANUARY 30, 2025

REVISIONS

NO	DESCRIPTION	DATE
1	Addendum 2	05.23.25

iE701

ELECTRICAL SCHEDULES

TreanorHL NO. HE0569.2302.01

KITCHEN EQUIPMENT POWER SCHEDULE

EQUIPMENT DESIGNATION	ELECTRICAL LOAD		VOLT	PHASE	OCPD RATING	PANEL	CIRCUIT NO.	FEEDER	CONNECTION TYPE	GFCI PROTECTION	DISCONNECT				REMARKS
	CURRENT (AMPS)	LOAD (WATTS)									TYPE	SIZE	POLES	FUSE	
E101 AIR SCREEN	5 A	610 VA	120 V	1	20 A	K-A/B	1	2#12, #12G, 3/4"C	JUNCTION BOX	GFCI BREAKER	-	-	-	-	
E102A DOOR HEATER/LIGHTS	16 A	1920 VA	120 V	1	20 A	K-A/B	9	2#12, #12G, 3/4"C	JUNCTION BOX	GFCI BREAKER	-	-	-	-	
E102A DOOR HEATER/LIGHTS	15 A	1820 VA	120 V	1	20 A	K-A/B	15	2#12, #12G, 3/4"C	JUNCTION BOX	GFCI BREAKER	-	-	-	-	
E102B TEMP. ALARM	5 A	600 VA	120 V	1	20 A	K-A/B	10	2#12, #12G, 3/4"C	JUNCTION BOX	GFCI BREAKER	-	-	-	-	
E102B TEMP. ALARM	5 A	600 VA	120 V	1	20 A	K-A/B	13	2#12, #12G, 3/4"C	JUNCTION BOX	GFCI BREAKER	-	-	-	-	
E102C PRESSURE RELIEF PORT	5 A	600 VA	120 V	1	20 A	K-A/B	11	2#12, #12G, 3/4"C	JUNCTION BOX	GFCI BREAKER	-	-	-	-	
E102C PRESSURE RELIEF PORT	5 A	600 VA	120 V	1	20 A	K-A/B	12	2#12, #12G, 3/4"C	JUNCTION BOX	GFCI BREAKER	-	-	-	-	
E102E PANIC ALARM BUTTON	10 A	1200 VA	120 V	1	20 A	K-A/B	14	2#12, #12G, 3/4"C	JUNCTION BOX	GFCI BREAKER	-	-	-	-	
E103.1 REFR. SYSTEM	26 A	5304 VA	208 V	1	35 A	K-A/B	55,57	2#8, #10G, 1"C	JUNCTION BOX	GFCI BREAKER	NEMA HEAVY DUTY	60	2	NF	
E103.1 REFR. SYSTEM	26 A	5304 VA	208 V	1	35 A	K-A/B	70,72	2#8, #10G, 1"C	JUNCTION BOX	GFCI BREAKER	NEMA HEAVY DUTY	60	2	NF	
E103C FREEZER COIL	15 A	3162 VA	208 V	1	20 A	K-A/B	56,58	2#12, #12G, 3/4"C	JUNCTION BOX	GFCI BREAKER	-	-	-	-	
E103C FREEZER COIL	15 A	3162 VA	208 V	1	20 A	K-A/B	66,68	2#12, #12G, 3/4"C	JUNCTION BOX	GFCI BREAKER	-	-	-	-	
E103D COOLER COIL	2 A	240 VA	120 V	1	20 A	K-A/B	16	2#12, #12G, 3/4"C	JUNCTION BOX	GFCI BREAKER	-	-	-	-	
E103D COOLER COIL	2 A	240 VA	120 V	1	20 A	K-A/B	48	2#12, #12G, 3/4"C	JUNCTION BOX	GFCI BREAKER	-	-	-	-	
E103F DRAIN LINE HEATER	16 A	1920 VA	120 V	1	20 A	K-A/B	18	2#12, #12G, 3/4"C	JUNCTION BOX	GFCI BREAKER	-	-	-	-	
E103F DRAIN LINE HEATER	16 A	1920 VA	120 V	1	20 A	K-A/B	69	2#12, #12G, 3/4"C	JUNCTION BOX	GFCI BREAKER	-	-	-	-	
E109A ICE MACHINE	19 A	3848 VA	208 V	1	25 A	K-C/D	18,20	2#10, #10G, 3/4"C	RECEPTACLE	GFCI BREAKER	-	-	-	-	
E134 40QT MIXER	6 A	2016 VA	208 V	3	20 A	K-C/D	21,23,25	4#12, #12G, 3/4"C	RECEPTACLE	GFCI BREAKER	-	-	-	-	
E134 40QT MIXER	6 A	2016 VA	208 V	3	20 A	K-C/D	22,24,26	4#12, #12G, 3/4"C	RECEPTACLE	GFCI BREAKER	-	-	-	-	
E139 INSUL. MOBILE PROOFER	15 A	1800 VA	120 V	1	20 A	K-C/D	19	2#12, #12G, 3/4"C	RECEPTACLE	GFCI RECEPTACLE	-	-	-	-	
E139 INSUL. MOBILE PROOFER	15 A	1800 VA	120 V	1	20 A	K-C/D	27	2#12, #12G, 3/4"C	RECEPTACLE	GFCI RECEPTACLE	-	-	-	-	
E151 FIRE PROT. SYSTEM	1 A	120 VA	120 V	1	20 A	K-A/B	25	2#12, #12G, 3/4"C	JUNCTION BOX	GFCI BREAKER	-	-	-	-	
E151 FIRE PROT. SYSTEM	1 A	120 VA	120 V	1	20 A	K-A/B	26	2#12, #12G, 3/4"C	JUNCTION BOX	GFCI BREAKER	-	-	-	-	
E151 FIRE PROT. SYSTEM	1 A	120 VA	120 V	1	20 A	K-A/B	53	2#12, #12G, 3/4"C	JUNCTION BOX	GFCI BREAKER	-	-	-	-	
E151 FIRE PROT. SYSTEM	1 A	120 VA	120 V	1	20 A	K-A/B	54	2#12, #12G, 3/4"C	JUNCTION BOX	GFCI BREAKER	-	-	-	-	
E153 HOOD LIGHTS	10 A	1200 VA	120 V	1	20 A	K-A/B	27	2#12, #12G, 3/4"C	JUNCTION BOX	GFCI BREAKER	-	-	-	-	
E153 HOOD LIGHTS	10 A	1200 VA	120 V	1	20 A	K-A/B	29	2#12, #12G, 3/4"C	JUNCTION BOX	GFCI BREAKER	-	-	-	-	
E153 HOOD LIGHTS	10 A	1200 VA	120 V	1	20 A	1A	15	2#12, #12G, 3/4"C	JUNCTION BOX	GFCI BREAKER	-	-	-	-	
E153 HOOD LIGHTS	10 A	1200 VA	120 V	1	20 A	1A	17	2#12, #12G, 3/4"C	JUNCTION BOX	GFCI BREAKER	-	-	-	-	
E153M HEAT SENSOR	10 A	1200 VA	120 V	1	20 A	K-A/B	28	2#12, #12G, 3/4"C	JUNCTION BOX	GFCI BREAKER	-	-	-	-	
E153M HEAT SENSOR	10 A	1200 VA	120 V	1	20 A	K-A/B	30	2#12, #12G, 3/4"C	JUNCTION BOX	GFCI BREAKER	-	-	-	-	
E153M HEAT SENSOR	10 A	1200 VA	120 V	1	20 A	1A	16	2#12, #12G, 3/4"C	JUNCTION BOX	GFCI BREAKER	-	-	-	-	
E153M HEAT SENSOR	10 A	1200 VA	120 V	1	20 A	1A	18	2#12, #12G, 3/4"C	JUNCTION BOX	GFCI BREAKER	-	-	-	-	
E161 CONVECTION OVEN	6 A	720 VA	120 V	1	20 A	K-A/B	36	2#12, #12G, 3/4"C	RECEPTACLE	GFCI RECEPTACLE	-	-	-	-	SEE NOTE 4
E161 CONVECTION OVEN	6 A	720 VA	120 V	1	20 A	K-A/B	37	2#12, #12G, 3/4"C	RECEPTACLE	GFCI RECEPTACLE	-	-	-	-	SEE NOTE 4
E161 CONVECTION OVEN	6 A	720 VA	120 V	1	20 A	K-A/B	38	2#12, #12G, 3/4"C	RECEPTACLE	GFCI RECEPTACLE	-	-	-	-	SEE NOTE 4
E161 CONVECTION OVEN	6 A	720 VA	120 V	1	20 A	K-A/B	39	2#12, #12G, 3/4"C	RECEPTACLE	GFCI RECEPTACLE	-	-	-	-	SEE NOTE 4
E162 CONVECTION STEAMER	2 A	200 VA	120 V	1	20 A	K-A/B	40	2#12, #12G, 3/4"C	JUNCTION BOX	GFCI BREAKER	-	-	-	-	SEE NOTE 4
E162 CONVECTION STEAMER	2 A	200 VA	120 V	1	20 A	K-A/B	41	2#12, #12G, 3/4"C	JUNCTION BOX	GFCI BREAKER	-	-	-	-	SEE NOTE 4
E164 TILT BRAISING PAN	32 A	11500 VA	208 V	3	40 A	K-A/B	42,44,46	4#8, #10G, 1"C	JUNCTION BOX	GFCI BREAKER	-	-	-	-	SEE NOTE 4
E171 COMBI OVEN	18 A	2200 VA	120 V	1	25 A	K-A/B	49	2#12, #12G, 3/4"C	RECEPTACLE	GFCI RECEPTACLE	-	-	-	-	
E171 COMBI OVEN	18 A	2200 VA	120 V	1	25 A	K-A/B	50	2#12, #12G, 3/4"C	RECEPTACLE	GFCI RECEPTACLE	-	-	-	-	
E172 COMBI OVEN	12 A	1440 VA	120 V	1	20 A	K-A/B	51	2#12, #12G, 3/4"C	RECEPTACLE	GFCI RECEPTACLE	-	-	-	-	SEE NOTE 4
E172 COMBI OVEN	12 A	1440 VA	120 V	1	20 A	K-A/B	52	2#12, #12G, 3/4"C	RECEPTACLE	GFCI RECEPTACLE	-	-	-	-	SEE NOTE 4
E187 HEATED CABINET	16 A	3224 VA	208 V	1	20 A	1A	22,24	2#12, #12G, 3/4"C	JUNCTION BOX	GFCI BREAKER	-	-	-	-	
E187 HEATED CABINET	16 A	3224 VA	208 V	1	20 A	1A	23,25	2#12, #12G, 3/4"C	JUNCTION BOX	GFCI BREAKER	-	-	-	-	
E187 HEATED CABINET	16 A	3224 VA	208 V	1	20 A	1A	26,28	2#12, #12G, 3/4"C	JUNCTION BOX	GFCI BREAKER	-	-	-	-	
E189 REFRIGERATOR	9 A	1032 VA	120 V	1	20 A	1A	11	2#12, #12G, 3/4"C	JUNCTION BOX	GFCI BREAKER	-	-	-	-	
E189 REFRIGERATOR	9 A	1032 VA	120 V	1	20 A	1A	12	2#12, #12G, 3/4"C	JUNCTION BOX	GFCI BREAKER	-	-	-	-	
E193 REFRIGERATOR	8 A	1000 VA	120 V	1	20 A	1A	9	2#12, #12G, 3/4"C	JUNCTION BOX	GFCI BREAKER	-	-	-	-	
E195 FREEZER	15 A	1800 VA	120 V	1	20 A	1A	10	2#12, #12G, 3/4"C	JUNCTION BOX	GFCI BREAKER	-	-	-	-	
E201A LOAD CENTER	60 A	21600 VA	208 V	3	80 A	K-C/D	2,4,6	4#3, #8G, 1-1/2"C	DIRECT	GFCI BREAKER	-	-	-	-	
E201A LOAD CENTER	60 A	21600 VA	208 V	3	80 A	K-C/D	7,9,11	4#3, #8G, 1-1/2"C	DIRECT	GFCI BREAKER	-	-	-	-	
E201A LOAD CENTER	60 A	21600 VA	208 V	3	100 A	K-C/D	1,3,5	4#1, #8G, 1-1/2"C	DIRECT	GFCI BREAKER	-	-	-	-	
E250 DISHMACHINE	28 A	23185 VA	480 V	3	35 A	HK	1,3,5	4#8, #10G, 1"C	JUNCTION BOX	GFCI BREAKER	NEMA HEAVY DUTY	60	3	NF	
E252 BOOSTER HEATER	29 A	24016 VA	480 V	3	40 A	HK	2,4,6	4#8, #10G, 1"C	JUNCTION BOX	GFCI BREAKER	NEMA HEAVY DUTY	60	3	NF	
E256 POWERWASH SINK	13 A	10803 VA	480 V	3	20 A	HK	20,22,24	4#12, #12G, 3/4"C	JUNCTION BOX	GFCI BREAKER	-	-	-	-	
E256 POWERWASH SINK	13 A	10803 VA	480 V	3	20 A	HK	25,27,29	4#12, #12G, 3/4"C	JUNCTION BOX	GFCI BREAKER	-	-	-	-	
E264 OSMOSIS SYSTEM	15 A	1800 VA	120 V	1	20 A	K-A/B	8	2#12, #12G, 3/4"C	RECEPTACLE	GFCI RECEPTACLE	-	-	-	-	
E265 KETTLE	5 A	600 VA	120 V	1	20 A	K-A/B	61	2#12, #12G, 3/4"C	RECEPTACLE	GFCI RECEPTACLE	-	-	-	-	SEE NOTE 4
E633 GRIDDLE	5 A	600 VA	120 V	1	20 A	K-A/B	60	2#12, #12G, 3/4"C	RECEPTACLE	GFCI RECEPTACLE	-	-	-	-	SEE NOTE 4
E704 FRYER	16 A	1920 VA	120 V	1	20 A	K-A/B	62	2#12, #12G, 3/4"C	RECEPTACLE	GFCI RECEPTACLE	-	-	-	-	SEE NOTE 4
E704 FRYER	16 A	1920 VA	120 V	1	20 A	K-A/B	63	2#12, #12G, 3/4"C	RECEPTACLE	GFCI RECEPTACLE	-	-	-	-	SEE NOTE 4
E704 FRYER	16 A	1920 VA	120 V	1	20 A	K-A/B	64	2#12, #12G, 3/4"C	RECEPTACLE	GFCI RECEPTACLE	-	-	-	-	SEE NOTE 4
E704 FRYER	16 A	1920 VA	120 V	1	20 A	K-A/B	65	2#12, #12G, 3/4"C	RECEPTACLE	GFCI RECEPTACLE	-	-	-	-	SEE NOTE 4
E708 SCRAP COLLECTOR	3 A	1152 VA	208 V	3	20 A	K-C/D	28,30,32	4#12, #12G, 3/4"C	JUNCTION BOX	GFCI BREAKER	-	-	-	-	
E708 SCRAP COLLECTOR	3 A	1152 VA	208 V	3	20 A	K-C/D	8,10,12	4#12, #12G, 3/4"C	JUNCTION BOX	GFCI BREAKER	-	-	-	-	
E803 TILT BRAISING PAN	5 A	600 VA	120 V	1	20 A	K-A/B	67	2#12, #12G, 3/4"C	JUNCTION BOX	GFCI BREAKER	-	-	-	-	SEE NOTE 4
E804 PIZZA PREP TABLE	8 A	900 VA	120 V	1	20 A	1A	14	2#12, #12G, 3/4"C	RECEPTACLE	GFCI RECEPTACLE	-	-	-	-	
E805 WASH HEATER	35 A	29417 VA	480 V	3	45 A	HK	7,9,11	4#6, #10G, 1"C	JUNCTION BOX	GFCI BREAKER	NEMA HEAVY DUTY	60	3	NF	
E805A POWER RINSE HEATER	39 A	32326 VA	480 V	3	50 A	HK	8,10,12	4#6, #10G, 1"C	JUNCTION BOX	GFCI BREAKER	NEMA HEAVY DUTY	60	3	NF	
E805B MOTORS/CONTROLS	6 A	5235 VA	480 V	3	20 A	HK	13,15,17	4#12, #12G, 3/4"C	JUNCTION BOX	GFCI BREAKER	NEMA HEAVY DUTY	60	3	NF	
E805C BOOSTER OPTION	32 A	27008 VA	480 V	3	45 A	HK	14,16,18	4#6, #10G, 1"C	JUNCTION BOX	GFCI BREAKER	NEMA HEAVY DUTY	60	3	NF	
E811 SODA DISPENSER	12 A	1440 VA	120 V	1	20 A	1A	1	2#12, #12G, 3/4"C	RECEPTACLE	GFCI RECEPTACLE	-	-	-	-	
E811 SODA DISPENSER	12 A	1440 VA	120 V	1	20 A	1A	5	2#12, #12G, 3/4"C	RECEPTACLE	GFCI RECEPTACLE	-	-	-	-	
E812 TEA/COFFEE BREWER	14 A	1680 VA	120 V	1	20 A	1A	6	2#12, #12G, 3/4"C	RECEPTACLE	GFCI RECEPTACLE	-	-	-	-	
E812 TEA/COFFEE BREWER	14 A	1680 VA	120 V	1	20 A	1A	3	2#12, #12G, 3/4"C	RECEPTACLE	GFCI RECEPTACLE	-	-	-	-	
E813 JUICE DISPENSER	3 A	360 VA	120 V	1	20 A	1A	7	2#12, #12G, 3/4"C	RECEPTACLE	GFCI RECEPTACLE	-	-	-	-	
E813 JUICE DISPENSER	3 A	360 VA	120 V	1	20 A	1A	2	2#12, #12G, 3/4"C	RECEPTACLE	GFCI RECEPTACLE	-	-	-	-	
E814 ICE MACHINE	12 A	1440 VA	120 V	1	20 A	1A	4	2#12, #12G, 3/4"C	RECEPTACLE	GFCI RECEPTACLE	-	-	-	-	
E819 GAS GRIDDLE	6 A	720 VA	120 V	1	20 A	1A	21	2#12, #12G, 3/4"C	RECEPTACLE	GFCI RECEPTACLE	-	-	-	-	SEE NOTE 4
E821 BLAST CHILLER	10 A	3600 VA	208 V	3	30 A	K-C/D	33,35,37	4#10, #10G, 3/4"C	RECEPTACLE	GFCI BREAKER	NEMA HEAVY DUTY	30	3	NF	
E821 BLAST CHILLER	10 A	3600 VA	208 V	3	30 A	K-C/D	34,36,38	4#10, #10G, 3/4"C	RECEPTACLE	GFCI BREAKER	NEMA HEAVY DUTY	30	3	NF	

NOTES:

1 SCHEDULE INFORMATION WAS COPIED FROM KITCHEN FOOD SERVICE SHEETS. IF THERE ARE ANY DISCREPANCIES BETWEEN THE ROUGH-IN SCHEDULE ON THE FOOD SERVICE SHEETS AND THIS SCHEDULE, THE FOOD SERVICE SCHEDULE SHALL GOVERN AND THE ENGINEER SHALL BE NOTIFIED.
2 REFER TO KITCHEN CONSULTANT PLANS FOR LOCATIONS AND HEIGHTS OF KITCHEN EQUIPMENT. COORDINATE FINAL LOCATIONS IN FIELD.
3 REFER TO HVAC AND PLUMBING PLANS FOR LOCATIONS OF MECHANICAL AND PLUMBING EQUIPMENT. COORDINATE FINAL LOCATIONS IN FIELD.
4 INDICATED EQUIPMENT SHALL BE INSTALLED WITH SHUNT TRIP BREAKER. REFER TO FOOD SERVICE DRAWINGS FOR ADDITINOAL INFORMATION.

D. SCOTT BROWN
89097
LICENSED
PROFESSIONAL ENGINEER
1-30-2025

TREANOR
2554 Elm Street, Suite 200
Dallas, Texas 75226
Office: 214.310.1018
www.TreanorHL.com

©2023 Purdy - McGuire
Mechanical - Electrical Engineers
17300 North Dallas Parkway
Suite 3000
Dallas, TX 75248-1147
Firm Registration # F-1511
Tel: 972/239-5357
Fax: 972/239-5231
www.purdy-mcguire.com

PMI JOB NO.	23037.002
PROJECT MGR.	SCOTT BROWN
	MITCHELL HENTON
MECHANICAL	MITCHELL HENTON
PLUMBING	CHRIS WOODYARD
ELECTRICAL	SCOTT BROWN

UNIVERSITY OF NORTH TEXAS
KERR HALL INTERIOR RENOVATION

1413 West Maple St
Denton, TX 76201

UNT UNIVERSITY OF NORTH TEXAS

Issue: ISSUE FOR CONSTRUCTION

Date: JANUARY 30, 2025

REVISIONS

NO	DESCRIPTION	DATE

iE702

ELECTRICAL SCHEDULES - KITCHEN

TreanorHL NO. HE0569.2302.01

SWITCHBOARD: MSBB

Mounting: EXISTING **Volts:** 120/208 Wye **Mains Type:** MCB
Enclosure: EXISTING **Phases:** 3 **Frame Rating:**
A.I.C. Rating: EXISTING **Wires:** 4 **MCB Rating:** 3000 A

CKT	Circuit Description	# of Poles	Frame Size	Trip Rating	Load	Remarks
1	EXISTING (STEAM OVEN)	3	100 A	100 A	0 VA	
2	EXISTING (STEAM OVEN)	3	100 A	100 A	0 VA	
3	EXISTING (2,3,4B PANELS)	3	400 A	400 A	0 VA	
4	EXISTING (5,6,7B PANELS)	3	400 A	400 A	0 VA	
5	KA/B	3	400 A	400 A	143661 VA	
6	KC/D	3	400 A	400 A	105860 VA	
7	1A	3	400 A	400 A	53476 VA	
8	LL	3	225 A	225 A	75842 VA	
				Total Conn. Load:	378839 VA	
				Total Amps:	1052 A	

Load Classification	Connected Load	Demand Factor	Estimated Demand	Panel Totals	
Lighting	9660 VA	125.00%	12075 VA		
Motor	12458 VA	100.00%	12458 VA	Total Conn. Load:	378839 VA
Power	2880 VA	100.00%	2880 VA	Total Est. Demand:	271188 VA
Receptacle	96600 VA	55.18%	53300 VA	Total Conn. Current:	1052 A
Spare	66480 VA	100.00%	66480 VA	Total Est. Demand Current:	753 A
Kitchen	190761 VA	65.00%	123995 VA		

Notes:
1. PANELBOARD SHALL BE EXISTING TO REMAIN.

PANELBOARD: DP1A

Mounting: EXISTING **Volts:** 480/277 Wye **Mains Type:** MCB
Enclosure: EXISTING **Phases:** 3 **Frame Rating:**
A.I.C. Rating: EXISTING **Wires:** 4 **MCB Rating:** 400 A
Supply From:

	Circuit Description	Trip (amps)	Poles	Wire Size	A Apparent Power (volt-amps)		B Apparent Power (volt-amps)		C Apparent Power (volt-amps)		Wire Size	Poles	Trip (amps)	Circuit Description	
1	AHU-A1-5	15	3	4#12, #12G, 3/4"C	803	2105					4#12, #12G, 3/4"C	3	20	LEF-L1-1	2
3	--	--	--	--			803	2105			--	--	--	--	4
5	--	--	--	--					803	2105	--	--	--	--	6
7	EXISTING	70	3	--	0	0					--	3	70	EXISTING	8
9	--	--	--	--			0	0			--	--	--	--	10
11	--	--	--	--					0	0	--	--	--	--	12
13	EXISTING	70	3	--	0	0					--	3	70	EXISTING	14
15	--	--	--	--			0	0			--	--	--	--	16
17	--	--	--	--					0	0	--	--	--	--	18
19	SPARE	20	3	--	0	0					--	3	60	EXISTING	20
21	--	--	--	--			0	0			--	--	--	--	22
23	--	--	--	--					0	0	--	--	--	--	24
25	EXISTING	30	3	--	0	0					--	3	30	EXISTING	26
27	--	--	--	--			0	0			--	--	--	--	28
29	--	--	--	--					0	0	--	--	--	--	30
31	EXISTING SPD	20	3	--	0	0					--	3	20	EXISTING	32
33	--	--	--	--			0	0			--	--	--	--	34
35	--	--	--	--					0	0	--	--	--	--	36
				Total Load:	2909 VA		2909 VA		2909 VA						
				Total Amps:	11 A		11 A		11 A						

Load Classification	Connected Load	Demand Factor	Estimated Demand	Panel Totals	
Motor	8726 VA	100.00%	8726 VA		
				Total Conn. Load:	8726 VA
				Total Est. Demand:	8726 VA
				Total Conn. Current:	10 A
				Total Est. Demand Current:	10 A

Notes:
1. PANELBOARD SHALL BE EXISTING TO REMAIN.

PANELBOARD: 1A

Mounting: RECESSED **Volts:** 120/208 Wye **Mains Type:** MCB
Enclosure: NEMA 4X **Phases:** 3 **Frame Rating:** 400 A
A.I.C. Rating: 45,000 **Wires:** 4 **MCB Rating:** 400 A
Supply From: MSBB

	Circuit Description	Trip (amps)	Poles	Wire Size	A Apparent Power (volt-amps)		B Apparent Power (volt-amps)		C Apparent Power (volt-amps)		Wire Size	Poles	Trip (amps)	Circuit Description	
1	E811 SODA DISPENSER	20	1	2#12, #12G, 3/4"C	1440	360					2#12, #12G, 3/4"C	1	20	E813 JUICE DISPENSER	2
3	E812 TEA/COFFEE BREWER	20	1	2#12, #12G, 3/4"C			1680	1440			2#12, #12G, 3/4"C	1	20	E814 ICE MACHINE	4
5	E811 SODA DISPENSER	20	1	2#12, #12G, 3/4"C					1440	1680	2#12, #12G, 3/4"C	1	20	E812 TEA/COFFEE BREWER	6
7	E813 JUICE DISPENSER	20	1	2#12, #12G, 3/4"C	360	720					2#12, #12G, 3/4"C	1	20	E10 CONV. RECEPT	8
9	E193 REFRIGERATOR	20	1	2#12, #12G, 3/4"C			1000	1800			2#12, #12G, 3/4"C	1	20	E195 FREEZER	10
11	E189 REFRIGERATOR	20	1	2#12, #12G, 3/4"C					1032	1032	2#12, #12G, 3/4"C	1	20	E189 REFRIGERATOR	12
13	N DINING LIGHTING	20	1	2#10, #10G, 3/4"C	1214	900					2#12, #12G, 3/4"C	1	20	E804 PIZZA PREP TABLE	14
15	E153 HOOD LIGHTS	20	1	2#12, #12G, 3/4"C			1200	1200			2#12, #12G, 3/4"C	1	20	E153M HEAT SENSOR	16
17	E153 HOOD LIGHTS	20	1	2#12, #12G, 3/4"C					1200	1200	2#12, #12G, 3/4"C	1	20	E153M HEAT SENSOR	18
19	E10 CONV. RECEPT	20	1	2#12, #12G, 3/4"C	720	720					2#12, #12G, 3/4"C	1	20	E10 CONV. RECEPT	20
21	E819 GAS GRIDDLE	20	1	2#12, #12G, 3/4"C			720	1612			2#12, #12G, 3/4"C	2	20	E187 HEATED CABINET	22
23	E187 HEATED CABINET	20	2	2#12, #12G, 3/4"C					1612	1612	--	--	--	--	24
25	--	--	--	--	1612	1612					2#12, #12G, 3/4"C	2	20	E187 HEATED CABINET	26
27	W DINING LIGHTING	20	1	2#10, #10G, 3/4"C			1250	1612			--	--	--	--	28
29	DINING LIGHTING	20	1	2#10, #10G, 3/4"C					1125	1241	2#10, #10G, 3/4"C	1	20	E DINING LIGHTING	30
31	E DINING LIGHTING	20	1	2#10, #10G, 3/4"C	1050	941					2#10, #10G, 3/4"C	1	20	SERVERY/KITCHEN...	32
33	KITCHEN LIGHTING	20	1	2#10, #10G, 3/4"C			1213	324			2#10, #10G, 3/4"C	1	20	RR LIGHTING	34
35	W DINING RECEPT	20	1	2#10, #10G, 3/4"C					1080	1080	2#10, #10G, 3/4"C	1	20	W DINING RECEPT	36
37	ENRTY RECEPT	20	1	2#10, #10G, 3/4"C	720	360					2#12, #12G, 3/4"C	1	20	ENTRY RECEPT	38
39	DINING RECEPT	20	1	2#12, #12G, 3/4"C			720	720			2#10, #10G, 3/4"C	1	20	DINING RECEPT	40
41	DINING RECEPT	20	1	2#12, #12G, 3/4"C					1080	720	2#10, #10G, 3/4"C	1	20	N DINING RECEPT	42
43	E DINING RECEPT	20	1	2#10, #10G, 3/4"C	1080	360					2#12, #12G, 3/4"C	1	20	JANITOR/STORAGE RECEPT	44
45	RR RECEPT	20	1	2#12, #12G, 3/4"C			540	540			2#10, #10G, 3/4"C	1	20	RR RECEPT	46
47	VRH-K-1,2,3,4	20	1	2#12, #12G, 3/4"C					400	300	2#12, #12G, 3/4"C	1	20	VRG-K-5,6,7	48
49	VRH-K-8,9,10	20	1	2#12, #12G, 3/4"C	300	500					2#12, #12G, 3/4"C	1	20	VRH-K-11,12,13,14, 15	50
51	CONV. RECEPT	20	1	2#12, #12G, 3/4"C			720	1303			2#12, #12G, 3/4"C	1	20	W DINING LIGHTING	52
53	HYDROPONICS POWER	20	1	2#12, #12G, 3/4"C					360	720	2#12, #12G, 3/4"C	1	20	E10 CONV. RECEPT	54
55	SPD-1A	30	3	--	0	0					2#10, #10G, 3/4"C	1	20	EXTERIOR SIGNAGE	56
57	--	--	--	--			0	0			--	1	20	SPARE	58
59	--	--	--	--					0	0	--	1	20	SPARE	60
				Total Load:	14969 VA		19594 VA		18914 VA						
				Total Amps:	125 A		168 A		163 A						

Load Classification	Connected Load	Demand Factor	Estimated Demand	Panel Totals	
Lighting	9660 VA	125.00%	12075 VA		
Motor	1500 VA	100.00%	1500 VA	Total Conn. Load:	53476 VA
Power	720 VA	100.00%	720 VA	Total Est. Demand:	43777 VA
Receptacle	17040 VA	79.34%	13520 VA	Total Conn. Current:	148 A
Kitchen	24556 VA	65.00%	15961 VA	Total Est. Demand Current:	122 A

Notes:
1. PANELBOARD SHALL BE A SINGLE SECTION PANELBOARD WITH ONE 60 SINGLE POLE SLOT SECTION.

PANELBOARD: K-A/B

Mounting: RECESSED **Volts:** 120/208 Wye **Mains Type:** MCB
Enclosure: NEMA 4X **Phases:** 3 **Frame Rating:** 400 A
A.I.C. Rating: 45,000 **Wires:** 4 **MCB Rating:** 400 A
Supply From: MSBB

	Circuit Description	Trip (amps)	Poles	Wire Size	A		B		C		Wire Size	Poles	Trip (amps)	Circuit Description	
1	E101 AIR SCREEN	20	1	2#12, #12G, 3/4"C	610	720					2#12, #12G, 3/4"C	1	20	E10 CONV. RECEPT	2
3	E10 CONV. RECEPT	20	1	2#12, #12G, 3/4"C			720	720			2#12, #12G, 3/4"C	1	20	E10 CONV. RECEPT	4
5	E10 CONV. RECEPT	20	1	2#12, #12G, 3/4"C					720	720	2#12, #12G, 3/4"C	1	20	E10 CONV. RECEPT	6
7	E10 CONV. RECEPT	20	1	2#12, #12G, 3/4"C	720	1800					2#12, #12G, 3/4"C	1	20	E264 OSMOSIS SYSTEM	8
9	E102A DOOR...	20	1	2#12, #12G, 3/4"C			1920	600			2#12, #12G, 3/4"C	1	20	E102B TEMP. ALARM	10
11	E102C PRESSURE RELIEF...	20	1	2#12, #12G, 3/4"C					600	600	2#12, #12G, 3/4"C	1	20	E102C PRESSURE RELIEF...	12
13	E102B TEMP. ALARM	20	1	2#12, #12G, 3/4"C	600	1200					2#12, #12G, 3/4"C	1	20	E102E PANIC ALARM...	14
15	E102A DOOR...	20	1	2#12, #12G, 3/4"C			1820	240			2#12, #12G, 3/4"C	1	20	E103D COOLER COIL	16
17	KITCHEN RR RECEPT	20	1	2#12, #12G, 3/4"C					720	1920	2#12, #12G, 3/4"C	1	20	E103F DRAIN LINE HEATER	18
19	E145 TABLE RECEPT	20	1	2#12, #12G, 3/4"C	180	180					2#12, #12G, 3/4"C	1	20	E145 TABLE RECEPT	20
21	E144 TABLE RECEPT	20	1	2#12, #12G, 3/4"C			180	180			2#12, #12G, 3/4"C	1	20	E144 TABLE RECEPT	22
23	E145 TABLE RECEPT	20	1	2#12, #12G, 3/4"C					180	180	2#12, #12G, 3/4"C	1	20	E145 TABLE RECEPT	24
25	E151 FIRE PROT. SYSTEM	20	1	2#12, #12G, 3/4"C	120	120					2#12, #12G, 3/4"C	1	20	E151 FIRE PROT. SYSTEM	26
27	E153 HOOD LIGHTS	20	1	2#12, #12G, 3/4"C			1200	1200			2#12, #12G, 3/4"C	1	20	E153M HEAT SENSOR	28
29	E153 HOOD LIGHTS	20	1	2#12, #12G, 3/4"C					1200	1200	2#12, #12G, 3/4"C	1	20	E153M HEAT SENSOR	30
31	E145 TABLE RECEPT	20	1	2#12, #12G, 3/4"C	180	180					2#12, #12G, 3/4"C	1	20	E145 TABLE RECEPT	32
33	E144 TABLE RECEPT	20	1	2#12, #12G, 3/4"C			180	180			2#12, #12G, 3/4"C	1	20	E144 TABLE RECEPT	34
35	E145 TABLE RECEPT	20	1	2#12, #12G, 3/4"C					180	720	2#12, #12G, 3/4"C	1	20	E161 CONVECTION OVEN	36
37	E161 CONVECTION OVEN	20	1	2#12, #12G, 3/4"C	720	720					2#12, #12G, 3/4"C	1	20	E161 CONVECTION OVEN	38
39	E161 CONVECTION OVEN	20	1	2#12, #12G, 3/4"C			720	200			2#12, #12G, 3/4"C	1	20	E162 CONVECTION...	40
41	E162 CONVECTION...	20	1	2#12, #12G, 3/4"C					200	3833	4#8, #10G, 1"C	3	40	E164 TILT BRAISING PAN	42
43	E145 TABLE RECEPT	20	1	2#12, #12G, 3/4"C	180	3833					--	--	--	--	44
45	E10 CONV. RECEPT	20	1	2#12, #12G, 3/4"C			720	3833			--	--	--	--	46
47	E10 CONV. RECEPT	20	1	2#12, #12G, 3/4"C					720	240	2#12, #12G, 3/4"C	1	20	E103D COOLER COIL	48
49	E171 COMBI OVEN	25	1	2#12, #12G, 3/4"C	2200	2200					2#12, #12G, 3/4"C	1	25	E171 COMBI OVEN	50
51	E172 COMBI OVEN	20	1	2#12, #12G, 3/4"C			1440	1440			2#12, #12G, 3/4"C	1	20	E172 COMBI OVEN	52
53	E151 FIRE PROT. SYSTEM	20	1	2#12, #12G, 3/4"C					120	120	2#12, #12G, 3/4"C	1	20	E151 FIRE PROT. SYSTEM	54
55	E103.1 REFR. SYSTEM	35	2	2#8, #10G, 1"C	2652	1581					2#12, #12G, 3/4"C	2	20	E103C FREEZER COIL	56
57	--	--	--	--			2652	1581			--	--	--	--	58
59	E10 CONV. RECEPT	20	1	2#12, #12G, 3/4"C					720	600	2#12, #12G, 3/4"C	1	20	E633 GRIDDLE	60
61	E265 KETTLE	20	1	2#12, #12G, 3/4"C	600	1920					2#12, #12G, 3/4"C	1	20	E704 FRYER	62
63	E704 FRYER	20	1	2#12, #12G, 3/4"C			1920	1920			2#12, #12G, 3/4"C	1	20	E704 FRYER	64
65	E704 FRYER	20	1	2#12, #12G, 3/4"C					1920	1581	2#12, #12G, 3/4"C	2	20	E103C FREEZER COIL	66
67	E803 TILT BRAISING PAN	20	1	2#12, #12G, 3/4"C	600	1581					--	--	--	--	68
69	E103F DRAIN LINE HEATER	20	1	2#12, #12G, 3/4"C			1920	2652			2#8, #10G, 1"C	2	35	E103.1 REFR. SYSTEM	70
71	SPARE	20	1	--					0	2652	--	--	--	--	72
73	SPARE	20	1	--	0	0					--	1	20	SPARE	74
75	SPARE	20	1	--			0	0			--	1	20	SPARE	76
77	SPARE	20	1	--					0	0	--	1	20	SPARE	78
79	SPARE	20	1	--	0	0					--	1	20	SPARE	80
81	SPARE	20	1	--			0	0			--	1	20	SPARE	82
83	SPARE	20	1	--					0	0	--	1	20	SPARE	84
85	SPARE	20	1	--	0	0					--	1	20	SPARE	86
87	SPARE	20	1	--			0	0			--	1	20	SPARE	88
89	SPARE	20	1	--					0	0	--	1	20	SPARE	90
91	SPARE	20	1	--	0	0					--	1	20	SPARE	92
93	SPARE	20	1	--			0	0			--	1	20	SPARE	94
95	SPARE	20	1	--					0	0	--	1	20	SPARE	96
97	SPARE	20	1	--	0	0					--	1	20	SPARE	98
99	SPARE	20	1	--			0	0			--	1	20	SPARE	100
101	SPARE	20	1	--					0	0	--	1	20	SPARE	102
103	SPARE	20	1	--	0	0					--	1	20	SPARE	104
105	SPARE	20	1	--			0	0			--	1	20	SPARE	106
107	SPARE	20	1	--					0	0	--	1	20	SPARE	108
109	AHU-4 (EXISTING MSBB)	60	3	--	13296	0					--	1	20	SPARE	110
111	--	--	--	--			13296	0			--	1	20	SPARE	112
113	--	--	--	--					13296	0	--	1	20	SPARE	114
115	SPD-K-A/B	30	3	--	0	8864					--	3	40	AHU-3 (EXISTING MSBB)	116
117	--	--	--	--			0	8864			--	--	--	--	118
119	--	--	--	--					0	8864	--	--	--	--	120
				Total Load:	47557 VA		52298 VA		43806 VA						
				Total Amps:	401 A		441 A		365 A						

Load Classification	Connected Load	Demand Factor	Estimated Demand	Panel Totals	
Power	2160 VA	100.00%	2160 VA		
Kitchen	75021 VA	65.00%	48764 VA	Total Conn. Load:	143661 VA
				Total Est. Demand:	117404 VA
				Total Conn. Current:	399 A
				Total Est. Demand Current:	326 A

Notes:
1. PANEL SHALL HAVE TWO SECTIONS WITH 60 SINGLE SLOT POLES IN EACH SECTION.
2. EXISTING AHU-3 AND AHU-4 FROM PANEL MSBB SHALL BE RELOCATED TO THIS PANELBOARD. ELECTRICAL CONTRACTOR SHALL EXTEND EXISTING FEEDERS TO NEW LOCATION.

PANELBOARD: K-C/D

Mounting: RECESSED **Volts:** 120/208 Wye **Mains Type:** MCB
Enclosure: NEMA 4X **Phases:** 3 **Frame Rating:** 400 A
A.I.C. Rating: 45,000 **Wires:** 4 **MCB Rating:** 400 A
Supply From: MSBB

	Circuit Description	Trip (amps)	Poles	Wire Size	A		B		C		Wire Size	Poles	Trip (amps)	Circuit Description	
1	E201A LOAD CENTER	100	3	4#1, #8G, 1-1/2"C	7200	7200					4#3, #8G, 1-1/2"C	3	80	E201A LOAD CENTER	2
3	--	--	--	--			7200	7200			--	--	--	--	4
5	--	--	--	--					7200	7200	--	--	--	--	6
7	E201A LOAD CENTER	80	3	4#3, #8G, 1-1/2"C	7200	384					4#12, #12G, 3/4"C	3	20	E708 SCRAP COLLECTOR	8
9	--	--	--	--			7200	384			--	--	--	--	10
11	--	--	--	--					7200	384	--	--	--	--	12
13	KITCHEN SOFT WATER	20	1	2#12, #12G, 3/4"C	1800	180					2#12, #12G, 3/4"C	1	20	WH-1 (K)	14
15	E10 CONV. RECEPT	20	1	2#12, #12G, 3/4"C			720	720			2#12, #12G, 3/4"C	1	20	E11 CONV. RECEPT	16
17	E11 CONV. RECEPT	20	1	2#12, #12G, 3/4"C					720	1924	2#10, #10G, 3/4"C	2	25	E109A ICE MACHINE	18
19	E139 INSUL. MOBILE...	20	1	2#12, #12G, 3/4"C	1800	1924					--	--	--	--	20
21	E134 40QT MIXER	20	3	4#12, #12G, 3/4"C			672	672			4#12, #12G, 3/4"C	3	20	E134 40QT MIXER	22
23	--	--	--	--					672	672	--	--	--	--	24
25	--	--	--	--	672	672					--	--	--	--	26
27	E139 INSUL. MOBILE...	20	1	2#12, #12G, 3/4"C			1800	384			4#12, #12G, 3/4"C	3	20	E708 SCRAP COLLECTOR	28
29	E11 CONV. RECEPT	20	1	2#12, #12G, 3/4"C					720	384	--	--	--	--	30
31	E11 CONV. RECEPT	20	1	2#12, #12G, 3/4"C	720	384					--	--	--	--	32
33	E821 BLAST CHILLER	30	3	4#10, #10G, 3/4"C			1200	1200			4#10, #10G, 3/4"C	3	30	E821 BLAST CHILLER	34
35	--	--	--	--					1200	1200	--	--	--	--	36
37	--	--	--	--	1200	1200					--	--	--	--	38
39	TEF-K-1	20	1	2#12, #12G, 3/4"C			120	180			2#12, #12G, 3/4"C	1	20	WH-2 (K)	40
41	FCU-K1-1	20	2	2#12, #12G, 3/4"C					1404	180	2#12, #12G, 3/4"C	1	20	RP-1 (K)	42
43	--	--	--	--	1404	1404					2#12, #12G, 3/4"C	2	20	FCU-K1-2	44
45	TEF-K-2	20	2	2#12, #12G, 3/4"C			600	1404			--	--	--	--	46
47	--	--	--	--					600	1200	2#12, #12G, 3/4"C	1	20	E644 CORD REEL	48
49	E644 CORD REEL	20	1	2#12, #12G, 3/4"C	1200	1200					2#12, #12G, 3/4"C	1	20	E644 CORD REEL	50
51	E644 CORD REEL	20	1	2#12, #12G, 3/4"C			1200	1200			2#12, #12G, 3/4"C	1	20	E644 CORD REEL	52
53	E644 CORD REEL	20	1	2#12, #12G, 3/4"C					1200	0	--	1	20	SPARE	54
55	SPARE	20	1	--	0	0					--	1	20	SPARE	56
57	SPARE	20	1	--			0	0			--	1	20	SPARE	58
59	SPARE	20	1	--					0	0	--	1	20	SPARE	60
61	SPARE	20	1	--	0	0					--	1	20	SPARE	62
63	SPARE	20	1	--			0	0			--	1	20	SPARE	64
65	SPARE	20	1	--					0	0	--	1	20	SPARE	66
67	SPARE	20	1	--	0	0					--	1	20	SPARE	68
69	SPARE	20	1	--			0	0			--	1	20	SPARE	70
71	SPARE	20	1	--					0	0	--	1	20	SPARE	72
73	SPARE	20	1	--	0	0					--	1	20	SPARE	74
75	SPARE	20	1	--			0	0			--	1	20	SPARE	76
77	SPARE	20	1	--					0	0	--	1	20	SPARE	78
79	SPD-K-C/D	30	3	--	0	0					--	1	20	SPARE	80
81	--	--	--	--			0	0			--	1	20	SPARE	82
83	--	--	--	--					0	0	--	1	20	SPARE	84
				Total Load:	37744 VA		34056 VA		34060 VA						
				Total Amps:	315 A		284 A		284 A						

Load Classification	Connected Load	Demand Factor	Estimated Demand	Panel Totals	
Motor	7476 VA	100.00%	7476 VA		
Receptacle	7200 VA	100.00%	7200 VA	Total Conn. Load:	105860 VA
Kitchen	91184 VA	65.00%	59270 VA	Total Est. Demand:	73946 VA
				Total Conn. Current:	294 A
				Total Est. Demand Current:	205 A

Notes:
PANEL SHALL HAVE TWO SECTIONS WITH 42 SINGLE SLOT POLES IN EACH SECTION.

PANELBOARD: HK

Mounting: RECESSED **Volts:** 480/277 Wye **Mains Type:** MCB
Enclosure: NEMA 4X **Phases:** 3 **Frame Rating:** 225 A
A.I.C. Rating: 45,000 **Wires:** 4 **MCB Rating:** 225 A
Supply From: MSB1

	Circuit Description	Trip (amps)	Poles	Wire Size	A Apparent Power (volt-amps)		B Apparent Power (volt-amps)		C Apparent Power (volt-amps)		Wire Size	Poles	Trip (amps)	Circuit Description	
1	E250 DISHMACHINE	35	3	4#8, #10G, 1"C	7728	8005					4#8, #10G, 1"C	3	40	E252 BOOSTER HEATER	2
3	--	--	--	--			7728	8005			--	--	--	--	4
5	--	--	--	--					7728	8005	--	--	--	--	6
7	E805 WASH HEATER	45	3	4#6, #10G, 1"C	9806	10775					4#6, #10G, 1"C	3	50	E805A POWER RINSE...	8
9	--	--	--	--			9806	10775			--	--	--	--	10
11	--	--	--	--					9806	10775	--	--	--	--	12
13	E805B MOTORS/CONTROLS	20	3	4#12, #12G, 3/4"C	1745	9003					4#6, #10G, 1"C	3	45	E805C BOOSTER OPTION	14
15	--	--	--	--			1745	9003			--	--	--	--	16
17	--	--	--	--					1745	9003	--	--	--	--	18
19	REF-K-1	20	3	4#12, #12G, 3/4"C	2770	3601					4#12, #12G, 3/4"C	3	20	E256 POWERWASH SINK	20
21	--	--	--	--			2770	3601			--	--	--	--	22
23	--	--	--	--					2770	3601	--	--	--	--	24
25	E256 POWERWASH SINK	20	3	4#12, #12G, 3/4"C	3601	333					4#12, #12G, 3/4"C	3	20	KEF-1	26
27	--	--	--	--			3601	333			--	--	--	--	28
29	--	--	--	--					3601	333	--	--	--	--	30
31	KEF-2	20	3	4#12, #12G, 3/4"C	333	0					--	1	20	SPARE	32
33	--	--	--	--			333	0			--	1	20	SPARE	34
35	--	--	--	--					333	0	--	1	20	SPARE	36
37	SPD-HK	30	3	--	0	0					--	1	20	SPARE	38
39	--	--	--	--			0	0			--	1	20	SPARE	40
41	--	--	--	--					0	0	--	1	20	SPARE	42
				Total Load:	57701 VA		57701 VA		57701 VA						
				Total Amps:	208 A		208 A		208 A						

Load Classification	Connected Load	Demand Factor	Estimated Demand	Panel Totals	
Motor	10310 VA	100.00%	10310 VA		
Kitchen	162793 VA	65.00%	105815 VA	Total Conn. Load:	173103 VA
				Total Est. Demand:	116125 VA
				Total Conn. Current:	208 A
				Total Est. Demand Current:	140 A

Notes:
1. PANELBOARD SHALL BE A SINGLE SECTION PANELBOARD WITH ONE 42 SINGLE POLE SLOT SECTION.

REVISION SUMMARY:
- ADDED EXTERIOR SIGNAGE TO PANELBOARD 1A SCHEDULE.

D. SCOTT BROWN
89097
LICENSED PROFESSIONAL ENGINEER
5-23-2025

TREANOR
2554 Elm Street, Suite 200
Dallas, TX 75226
Office: 214.310.1018
www.TreanorHL.com

Purdy - McGuire
Mechanical - Electrical Engineers
17300 North Dallas Parkway
Suite 3000
Dallas, TX 75248-1147
Firm Registration # F-1511
Tel: 972/239-5357
Fax: 972/239-5231
www.purdy-mcguire.com

PMI JOB NO.	23037.002
PROJECT MGR.	SCOTT BROWN, MITCHELL HENTON
MECHANICAL	MITCHELL HENTON
PLUMBING	CHRIS WOODYARD
ELECTRICAL	JOHN KNOWLES

THIS DRAWING SHALL NOT BE REPRODUCED FOR ANY PROJECT OTHER THAN THE PROJECT NOTED IN THE TITLE BLOCK, WITHOUT THE WRITTEN CONSENT OF PURDY-McGUIRE, INC. DALLAS, TX

UNIVERSITY OF NORTH TEXAS
KERR HALL INTERIOR RENOVATION

1413 West Maple St
Denton, TX 76201

Issue: ISSUE FOR CONSTRUCTION

Date: JANUARY 30, 2025

REVISIONS

NO	DESCRIPTION	DATE
1	Addendum 2	05.23.25

iE803

ELECTRICAL PANEL SCHEDULES - KITCHEN

TreanorHL NO. HE0569.2302.01

GENERAL NOTES

1. GENERAL CONDITIONS, SUPPLEMENTARY GENERAL CONDITIONS AND OTHER REQUIREMENTS OF DIVISION 1, AS WELL AS, THE ELECTRICAL, AUDIO VISUAL, AND SECURITY PLANS AND SPECIFICATIONS, MAY APPLY TO THE WORK SPECIFIED.
2. PROVIDE ALL MATERIALS, COMPONENTS, TOOLS, AND LABOR TO COMPLETE A TELECOMMUNICATIONS INFRASTRUCTURE AS SHOWN IN THE STRUCTURED CABLING SYSTEM DOCUMENTS, CONTRACTS AND DRAWINGS.
3. CAREFULLY EXAMINE THE SITE TO DETERMINE THE EXTENT OF WORK AND CONDITION UNDER WHICH IT WILL BE DONE.
4. REVIEW AND VERIFY CONTRACT DOCUMENTS IN RELATION TO FIELD CONDITIONS TO VERIFY ACCURACY, CONFIRMING WITH OWNER, OR THEIR DESIGNATED REPRESENTATIVE, THAT RELATED WORK HAS BEEN COMPLETED PRIOR TO PROCEEDING WITH INSTALLATION.
5. BRING DISCREPANCIES BETWEEN DESIGN DOCUMENTS AND ACTUAL FIELD CONDITIONS TO THE IMMEDIATE ATTENTION OF OWNER, OR THEIR DESIGNATED REPRESENTATIVE FOR CLARIFICATION.
6. REFER TO TECHNOLOGY, AUDIO VISUAL AND SECURITY CONTRACT DOCUMENTS, DRAWINGS AND SPECIFICATIONS AS A WHOLE IN THE BIDDING AND INSTALLATION OF THIS PROJECT.
7. NOTE AND REPORT TO GC, IF THE COMMUNICATION SYSTEM PATHWAY DO NOT COMPLY WITH COMMUNICATIONS SPECIFICATIONS AND DRAWINGS PRIOR TO INSTALLING CABLE.
8. TAKE NECESSARY MEANS TO ASSURE COMMUNICATION SYSTEM COMPONENTS ARE PROTECTED FROM MECHANICAL DAMAGE BEFORE, DURING AND AFTER CONSTRUCTION.
9. REFERENCE DIVISION 27 SPECIFICATIONS FOR ITEMIZED PRICING REQUIREMENTS.
10. ALL COMPONENTS AND DEVICES SHOWN ON THESE DRAWINGS ARE FOR APPROXIMATE LOCATION AND POSITIONING ONLY. VERIFY EXACT LOCATIONS WITH THE OWNER OR G.C. PRIOR TO INSTALLATION.
11. ADHERE TO ALL TELECOMMUNICATIONS CABLING STANDARDS SET FOURTH IN THE ANSI-TIA 568-C STANDARDS.

COMMUNICATIONS ROOMS

1. RACK ELEVATIONS AND NETWORK EQUIPMENT ARE SHOWN FOR COORDINATION AND INFORMATIONAL PURPOSES ONLY.
2. INSTALL 8'H X 4'W X ¾" T GRADE ACX PAINTED FIRE RATED PLYWOOD ON DESIGNATED WALLS OF THE TELECOM ROOMS. PLYWOOD SHALL BE PAINTED TWO COATS OF FIRE RETARDANT WHITE PAINT, LEAVING FIRE RATED STAMP EXPOSED.
3. GRAPHIC REPRESENTATION OF PATCH PANELS AND TERMINAL BLOCKS DO NOT REPRESENT EXACT QUANTITIES. CONTRACTOR SHALL PROVIDE SUFFICIENT QUANTITIES FOR ALL CABLING, PLUS 25%.
4. FURNISH AND INSTALL VELCRO CABLE SUPPORT, CABLE MANAGEMENT AND ASSOCIATED HARDWARE WITHIN TELECOMMUNICATIONS ROOMS.
5. PROVIDE FLOOR PLAN AS-BUILT ON "D" SIZE PAPER, LAMINATED WITH PLASTIC AND MOUNTED BEHIND CUT PLEXI-GLASS ON THE WALL IN EACH TELECOM ROOM.
   REFERENCE TELECOM ROOM ELEVATIONS FOR AS-BUILT PLACEMENT.

ELECTRICAL

1. FOR SPECIFIC POWER AND RECEPTACLE REQUIREMENTS IN THE PROJECT REFERENCE ELECTRICAL SPECIFICATIONS AND DRAWINGS AND VERIFY WITH COMMUNICATION SPECIFICATIONS AND DRAWINGS. REPORT TO GC DISCREPANCIES PRIOR TO PURCHASE OR INSTALLATION.
2. ELECTRICAL CONTRACTOR SHALL INSTALL NORMAL AND GENERATOR BACK-UP POWER AS REQUIRED

GROUNDING AND BONDING

1. BOND ALL METAL RACKS, FRAMES, CABINETS AND MISCELLANEOUS EQUIPMENT ENCLOSURES TOGETHER USING GREEN INSULATED COPPER WIRE SO THAT ALL EQUIPMENT AND STRUCTURED CABLING RACKS ARE AT THE SAME GROUND POTENTIAL. A VOLT-O-METER (VOM) MEASUREMENT BETWEEN ANY TWO POINTS ON METAL RACKS AND EQUIPMENT ENCLOSURES IN THE TELECOMMUNICATIONS ROOMS SHALL BE LESS THAN 1.25 VOLTS DC OR AC POTENTIAL.
2. BOND TOGETHER ALL GROUNDS TO FORM A SINGLE GROUNDING ELECTRODE SYSTEM AS REQUIRED IN ARTICLE 250 OF NFPA 70 - NATIONAL ELECTRICAL CODE.
3. PREPARE SURFACES TO PROVIDE A PROPER PATH TO GROUND. ANY SURFACE TO BE GROUNDED MUST BE FREE OF PAINT OR OTHER COATING THAT MIGHT PREVENT AN EFFECTIVE GROUND. PAINT SHOULD BE SCRAPED AWAY UNTIL METALLIC SURFACE HAS BEEN EXPOSED BEFORE THE ATTACHMENT OF GROUNDING OR BONDING WIRE.
4. INSTALL MANUFACTURER PROVIDED STAR WASHERS PER PANEL INSTALLED IN ORDER FOR PANELS TO BE BONDED TO RACK. ONLY ONE (1) STAR WASHER IS REQUIRED PER PANEL.
5. ADHERE TO ALL GROUNDING AND BONDING REQUIREMENTS SET FOURTH IN THE ANSI-J-STD-607-D COMMERCIAL GROUNDING AND BONDING STANDARDS.
6. TERMINATE ALL INCOMING/OUTGOING OSP VOICE CATEGORY BACKBONE CABLES ON WALL FIELD WITH BONDED PRIMARY PROTECTION BLOCKS AND SOLID STATE MODULES.
7. TERMINATE ALL INCOMING/OUTGOING OSP DATA OR POE UTILIZED CATEGORY CABLES ON WALL FIELD ON BONDED IN-LINE SURGE PROTECTOR RATED AT PROPER CLAMPING VOLTAGE FOR THE SPECIFIED DATA CABLING AND POE APPLICATION.

COMMUNICATIONS CABLE

1. CABLING CONTRACTOR MUST BE A CERTIFIED INSTALLER AND BE ABLE TO PROVIDE MANUFACTURER WARRANTY.
2. TERMINATE ALL CATEGORY JACK INSERTS TO 568-B WIRING SCHEME.
3. HORIZONTAL DATA CABLING SHALL CONSIST OF PLENUM 4PR UTP CABLES TO EACH DATA OUTLET.
   REFER TO 271500 SPECIFICATION SECTION FOR CABLE AND OUTLET TYPE.
4. WIRELESS OUTLET LOCATIONS SHALL CONSIST OF ONE (1) PLENUM 4PR UTP CABLE TO EACH ACCESS POINT. REFER TO 271500 SPECIFICATION SECTION FOR CABLE AND OUTLET TYPE.
5. NO HORIZONTAL CABLE SHALL BE LONGER THAN 100 METERS. IF THE CONTRACTOR BELIEVES ANY STATION CABLE WILL EXCEED THE 100 METERS (295 FEET) LIMIT WRITTEN APPROVAL FROM THE OWNER'S ARCHITECT/ENGINEER WILL BE REQUIRED PRIOR TO INSTALLATION.
6. TERMINATE HORIZONTAL DATA CABLING ON RACK MOUNTED PATCH PANELS. LOCATED IN TELECOM ROOM, AND ON JACK INSERTS AT THE OUTLET.
7. PROVIDE LACING BARS TO RESTRAIN CABLES AND TO PREVENT STRAINING CONNECTIONS.
8. COMMUNICATIONS CABLE SHALL NOT BE PAINTED.
9. PROVIDE ALL NECESSARY MEANS TO PROTECT ALL DATA/VOICE/FIBER CABLING AND JACKS/PORTS FROM MECHANICAL DAMAGE AND DUST DURING CONSTRUCTION. PROVIDE PAINTERS TAPE OVER PATCH PANEL PORTS, CAPS ON FIBER BULK HEADS AND BAG OUTLET JACK INSERT TERMINATIONS DURING CONSTRUCTION TO MINIMIZE DUST ON CONTACTS.
10. PROVIDE SELF-ADHESIVE VINYL OR VINYL-CLOTH WRAPAROUND TAPE MARKERS, MACHINE PRINTED WITH ALPHA NUMERIC CABLE DESIGNATIONS PER ANSI/TIA-607B STANDARDS WITH APPROVAL FROM OWNER IT.
11. PROVIDE PROPER RATED CABLE TYPE PER INSTALLATION TYPE: OSP, RISER OR PLENUM.
12. ALL CABLING INSTALLED UNDERGROUND IN CONCRETE SLABS, IN DIRECT CONTACT WITH THE EARTH, LOCATIONS SUBJECT TO SATURATION WITH LIQUIDS AND UNPROTECTED LOCATIONS EXPOSED TO WEATHER SHALL BE CONSTRUCTED WITH APPROPRIATE WEATHER PROOFING COMPOUNDS AND SHEATHING. PROVIDE INDOOR / OUTDOOR CABLING FOR FIBER OPTIC CABLING EXITING THE BUILDING
13. PROVIDE ONE (1) 4-PR UTP CABLE TO EACH IP CAMERA. COORDINATE WITH SECURITY CONTRACTOR AND TY-DRAWINGS ON CAMERA CABLING INSTALLATION. REFER TO 271500 SPECIFICATION SECTION FOR CABLE AND OUTLET TYPE.
14. PROVIDE TWO CATEGORY UTP PATCH CABLES, FOR EACH DATA OUTLET.
15. CONNECT WIRING IN A STRAIGHT PATTERN (NOT TURNED OVER) FROM ORIGINATION TO TERMINATION POINT. CABLE PAIRS SHALL BE ZIP TIED AND EACH CABLE LABELED ON THE BACK OF EACH PATCH PANEL.
16. TWISTED PAIRS MUST REMAIN TWISTED TO WITHIN 1/4" OF CONNECTOR. THIS IS REQUIRED FOR HIGH-SPEED DATA NETWORKS.
17. DO NOT INSTALL WIRING NEAR FLUORESCENT LIGHTING, HIGH-VOLTAGE SOURCES, ELECTRICAL MOTORS, OR OTHER SOURCES OF INTERFERENCE, REFERENCE SPECIFICATIONS FOR SEPARATION REQUIREMENTS.
18. SPLICES WITHIN HORIZONTAL CABLE RUNS ARE NOT ACCEPTABLE.
19. ALL CABLES BEING RUN FOR HORIZONTAL DISTRIBUTION WITHIN THE PLENUM AREAS MUST BE BUNDLED TOGETHER NEATLY AND UNTANGLED, WITH CABLE TIES EVERY 12 FEET. CABLING SHALL LIE FLAT WITHIN AND BE SUPPORTED BY CABLE TRAYS, AND/OR STRUCTURES ATTACHED DIRECTLY TO THE BUILDING STRUCTURE/UPPER DECKING IN THE PLENUM AREAS OR CRAWL SPACES.
20. ADHERE TO MANUFACTURERS' REQUIREMENTS FOR BENDING RADIUS AND PULLING TENSIONS FOR ALL CABLE RUN
21. OUTLET FACEPLATES MUST BE LABELED WITH THE JACK NUMBERS OF PATCH PANEL PORTS AND MDF/IDF ROOM NUMBERS PER ANSI/TIA-607B AND OWNER STANDARDS.

IT DRAWINGS INDEX

COMMUNICATIONS PATHWAYS

1. INSTALL ALL 4" BACKBONE CONDUITS WITH THREE (3) 3"-3 SLOTTED FABRIC MESH INNERDUCTS PER CONDUIT.
2. VERIFY CABLE J-HOOKS PATHWAY ROUTING PRIOR TO INSTALLATION OF HORIZONTAL CABLES TO ENSURE ABLE PATHWAY DOES NOT CAUSE CABLE LENGTHS TO EXCEED MAXIMUM DISTANCE.
3. BACK BOXES INSTALLED FOR COMMUNICATIONS DATA AND VOICE WIRING TERMINATION SHALL BE 4 11/16"X4 11/16"X2.5" DEEP BOXES TO ALLOW FOR THE REQUIRED WORKING CLEARANCE OF THE UTP CABLE.
4. INSTALL SINGLE GANG MUD RINGS ON ALL COMMUNICATIONS WALL BOXES.
5. CONDUITS TO COMMUNICATIONS WALL BOXES SHALL BE MINIMUM OF 1". DIAMETER AND SHALL BE COMPLETE WITH NYLON PULL STRING.
6. PROVIDE CABLE J-HOOKS RATED FOR SUPPORTING SPECIFIED CATEGORY DATA CABLING THAT IS NOT IN CONDUIT. COORDINATE WITH GC ON CABLE PATHS PRIOR TO INSTALLATION OF CABLING.
7. DO NOT EXCEED MANUFACTURERS OR NEC MAXIMUM RECOMMENDED FILL RATIO FOR ANY GIVEN PATHWAY.
8. SUPPLY SOLUTIONS AND SHOP DRAWINGS SUBMITTALS FOR CONDUIT SEALING MATERIALS AND SYSTEMS. ENSURE SYSTEMS ARE INSTALLED PER MANUFACTURERS UL LISTING .
9. PROPERLY FIRE STOP ALL TELECOM PATHWAY CONDUITS AND UNUSED "TELECOM INTENDED USE CONDUITS" PRIOR TO SUBSTANTIAL COMPLETION.
10. INSTALL CONDUIT RUNS WITH NO MORE THAN TWO (2) 90 DEG. BENDS AND NOT EXCEED 100 FEET. IF THESE CONDITIONS CAN NOT BE MET. J-BOX MUST BE PLACED IN THE RUN, WITH THE ABILITY TO ACCESS BOX THROUGH THE CEILING.
11. CONDUITS SHALL HAVE CONNECTORS, PROTECTIVE BUSHINGS, AND PULL STRINGS AND SHALL BE GROUNDED.
12. COORDINATE WITH ARCHITECT AND OWNER ON ENTRY, PATHWAYS AND OUTLET BOX PLACEMENT IN MODULAR FURNITURE AND CUSTOM MILLWORK.
13. ADHERE TO COMMERCIAL BUILDING STANDARD FOR TELECOMMUNICATIONS PATHWAYS SET FOURTH IN ANSI-TIA 569-E STANDARD.
14. PROVIDE CONDUIT FROM EACH OUTLET BOX TO ACCESSIBLE CEILING. OUTLETS IN OPEN OR NON-ACCESSIBLE CEILINGS SHALL HAVE CONDUIT ROUTED TO THE NEAREST ACCESSIBLE CEILING OR CORRIDOR TRAY PATHWAY.
15. CONDUIT RUNS THAT HAVE AN INTERNAL DIAMETER OF 2" OR LESS SHALL HAVE A BEND RADIUS SIX (6) TIMES THE INTERNAL CONDUIT RADIUS. IF CONDUIT RUNS HAS AN INTERNAL DIAMETER OF 2" OR MORE IT SHALL HAVE A BEND RADIUS TEN (10) TIMES THE INTERNAL CONDUIT RADIUS.
16. PROVIDE LONG RADIUS BENDS ON ALL 90 DEGREE TURNS. UTILIZE 45 DEGREE BENDS WHEN POSSIBLE AND PROVIDE ADDITIONAL PULL BOXES AS NEEDED TO ELIMINATE STRESS ON CABLE.
17. CONDUIT "SLEEVES" ARE REQUIRED FOR CABLE INGRESS/EGRESS IN ROOMS WHOSE WALLS EXTEND TO DECK (I.E FIREWALL, SOUND ABSORPTION, ETC) SLEEVE TO BE A MINIMUM 2" TO MAINTAIN A 30% FILL RATIO. COORDINATE SLEEVE SIZE REQUIREMENTS BASED ON CABLE TYPE BEING INSTALLED.
18. MARK WITH PERMANENT INK ALL WALL BOXES AND CONDUITS THAT ARE TO BE USED FOR DATA COMMUNICATIONS WITH THE WORD "DATA".
19. CORRIDOR TRAYS MUST HAVE CONTINUOUS RAIL SIDES.
20. PROVIDE CORRIDOR TRAYS WITH SLEEVED ACCESS THROUGH WALLS ALONG THE ROUTE.
21. INSTALL CORRIDOR TRAYS WITH MANUFACTURER APPROVED TRANSITIONS AND TURNS.
22. A MINIMUM OF 12" INCHES CLEARANCE MUST BE PROVIDED ABOVE THE TOP OF THE OVERHEAD TRAY.
23. PROVIDE MATERIALS, COMPONENTS, TOOLS, AND LABOR TO COMPLETE COMMUNICATIONS CABLING PATHWAY, ELECTRICAL POWER DISTRIBUTION AND GROUNDING SYSTEM AS SHOWN IN THE DIVISION 26 AND 27 DOCUMENTS.

TELECOM SYMBOLS LEGEND

△ xD	WALL MOUNTED DATA OUTLET MOUNT AT +18" AFF UNLESS NOTED OTHERWISE. (x) = QUANTITY OF CABLES PER LOCATION UNLESS NOTED OTHERWISE.
◬ WAP	CEILING MOUNTED WIRELESS ACCESS POINT DATA OUTLET (1) CATEGORY CABLE PER LOCATION.
◬ CAM	CEILING MOUNTED DATA OUTLET FOR IP SECURITY CAMERA (1) CATEGORY CABLE PER LOCATION.
△ CAM	WALL MOUNTED DATA OUTLET FOR IP SECURITY CAMERA (1) CATEGORY CABLE PER LOCATION.
△ xD TV	DATA OUTLET FOR FUTURE WALL MOUNTED AV SYSTEM DIGITAL SIGNAGE DISPLAY (x) = QUANTITY OF CABLE(S) PER LOCATION. TERMINATE AT +72" AFF UNLESS OTHERWISE NOTED. REFER TO AV DRAWINGS FOR AV DEVICE LOCATION(S) AND INSTALLATION DETAIL(S).
◬ xD TV	DATA OUTLET FOR FUTURE CEILING MOUNTED AV SYSTEM DIGITAL SIGNAGE DISPLAY (x) = QUANTITY OF CABLE(S) PER LOCATION. REFER TO AV DRAWINGS FOR AV DEVICE LOCATION(S) AND INSTALLATION DETAIL(S).
△ FP-xD	FLOOR POKE DEVICE (x) = QUANTITY OF CABLES PER LOCATION. WHEN LOCATED UNDER MODULAR FURNITURE, TERMINATE CABLES IN FURNITURE ASSEMBLY

ABBREVIATIONS

AFF	ABOVE FINISHED FLOOR
AP	ACCESS PANEL
AWG	AMERICAN WIRE GAUGE
CATV	COMMUNITY ANTENNA TELEVISION
CON	CONDUCTOR
DB	DECIBEL
DEMARC	DEMARCATION POINT
EMT	ELECTRIC METALLIC TUBING
ER	EQUIPMENT ROOM
GC	GENERAL CONTRACTOR
HH	HANDHOLE
IDF	INTERMEDIATE DISTRIBUTION FRAME
IO	INFORMATION OUTLET
IRC	INTERMEDIATE RIGID CONDUIT
ISP	INTERNET SERVICE PROVIDER
LAN	LOCAL AREA NETWORK
MDF	MAIN DISTRIBUTION FRAME
MH	MAINTENANCE HOLE
MM	MULTIMODE
OCP	OUTSIDE CABLE PLANT
OFOI	OWNER FURNISHED OWNER INSTALLED
OTDR	OPTICAL TIME DOMAIN REFLECTOMETER
PB	PULL BOX
PBB	PRIMARY BONDING BUSBAR
PBX	PRIVATE BRANCH EXCHANGE
PR	PAIR
PVC	POLYVINYL CHLORIDE
RBB	RACK BONDING BUSBAR
RF	RADIO FREQUENCY
RMC	RIGID METAL CONDUIT
SBB	SECONDARY BONDING BUSBAR
SM	SINGLEMODE
SP	SERVICE PROVIDER
STP	SHIELDED TWISTED PAIR
TB	TERMINAL BLOCK
TBB	TELECOMMUNICATIONS BONDING BACKBONE
TBC	TELECOMMUNICATIONS BONDING CONDUCTOR
TR	TELECOM ROOM
TS	TRADE SIZE
UPS	UNINTERRUPTIBLE POWER SUPPLY
UTP	UNSHIELDED TWISTED PAIR
WAP	WIRELESS ACCESS POINT

IT RESPONSIBILITY MATRIX

IT RESPONSIBILITY MATRIX	GC	IT CONTRACTOR	OWNER
NETWORK CABLING TO IDF		X	
CONDUITS	X		
J-BOXES	X		
POWER	X		
FLOOR BOXES/POKE-THRU'S	X		
DISPLAY BACK BOXES/BACKING	X		
ACCESS PANELS	X		
IDF/MDF BUILDOUT - RACKS, CABLE...		X	
DATA SWITCHES			X - (OFOI)
WIRELESS ACCESS POINT			X - (OFCI)
RACK MOUNTED UPS			X - (OFOI)
J-HOOK PATHWAY FOR DATA CABLING		X	
PHONES			X
COMPUTERS			X

BICSI REGISTERED COMMUNICATIONS DISTRIBUTION DESIGNER
NICKOLAS BARRERA
REG. NO. 362685
EXPIRES 13-31-2026
RCDD

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2554 Elm Street, Suite 200
Dallas, TX 75226
Office: 214.310.1018
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Houston, TX 77067
(p) 832.249.9379

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Issue: ISSUE FOR CONSTRUCTION

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NO	DESCRIPTION	DATE

T000B

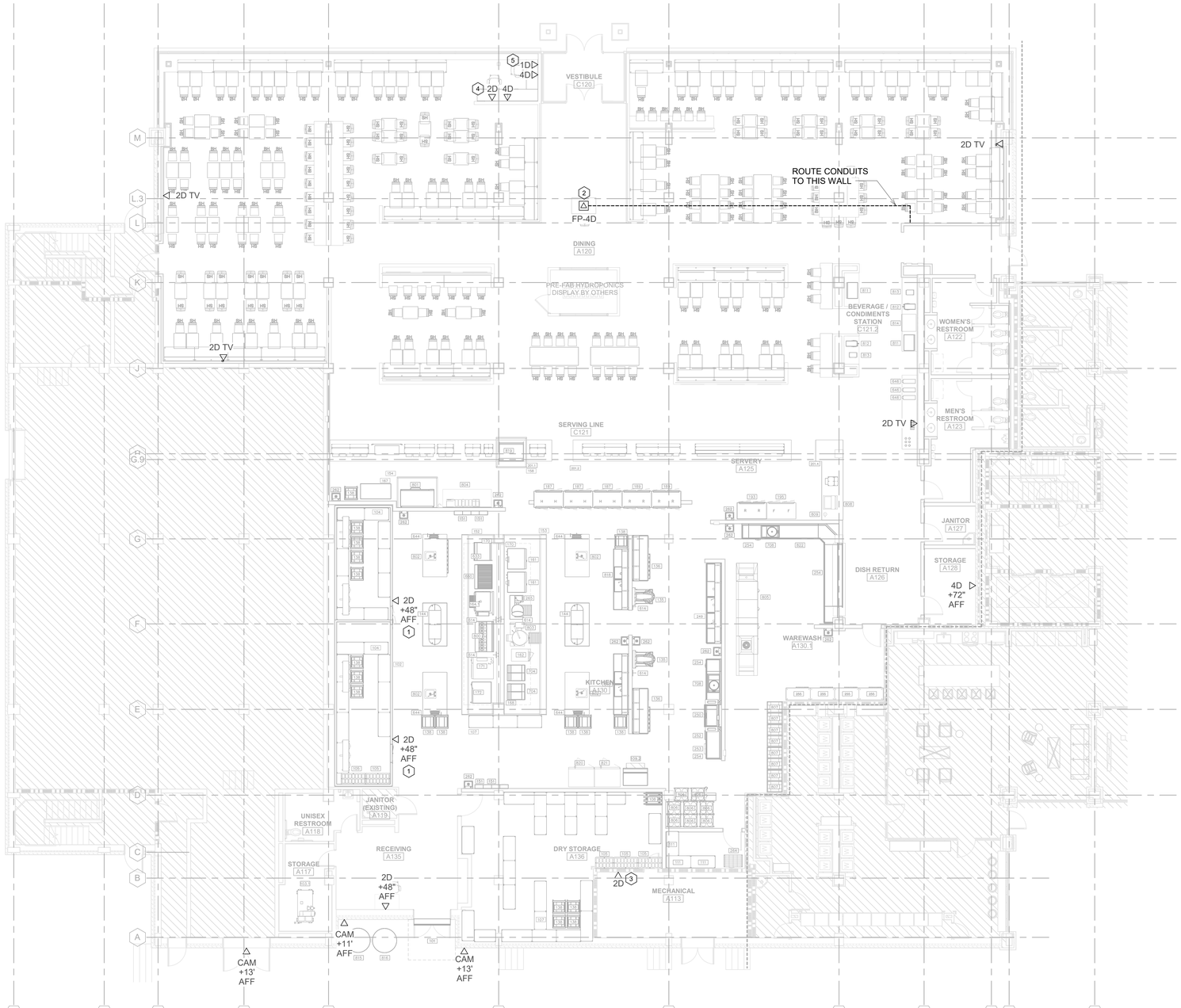
TELECOM - INDEX (KITCHEN & DINING)

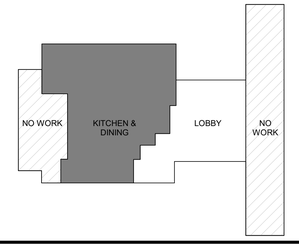
TreanorHL NO. HE0569.2302.01

KEYNOTE LEGEND	
1	DATA OUTLET FOR REFRIGERATION MONITORING.
2	DATA DESIGNATED FOR POS LOCATION. CONDUIT PATHWAY FROM FLOORBOX TO ROUTE TO THE NEAREST FIREWALL THEN TO ACCESSIBLE CEILING.
3	COORDINATE BAS, DDC AND FIRE ALARM DATA OUTLET LOCATIONS WITH ELECTRICAL AND MECHANICAL CONTRACTORS.
4	DATA OUTLET DESIGNATED FOR WEB CLOCK, COORDINATE DEVICE LOCATION PRIOR TO ROUGHING IN DATA.
5	DATA OUTLET DESIGNATED FOR PAGING MICROPHONE, COORDINATE DEVICE LOCATION PRIOR TO ROUGHING IN DATA.

GENERAL NOTES

FIRST FLOOR CATEGORY CABLING WILL ROUTE VIA J-HOOK PATHWAY TO SECOND FLOOR TELECOMMUNICATIONS ROOM A207.





TELECOM FLOOR PLAN (KITCHEN & DINING)
1/8" = 1'-0"

T1

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REG. NO. 362685
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Office: 214.310.1018
www.TreanorHL.com

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(p) 832.249.9379

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TELECOM - FLOOR PLAN (KITCHEN & DINING)

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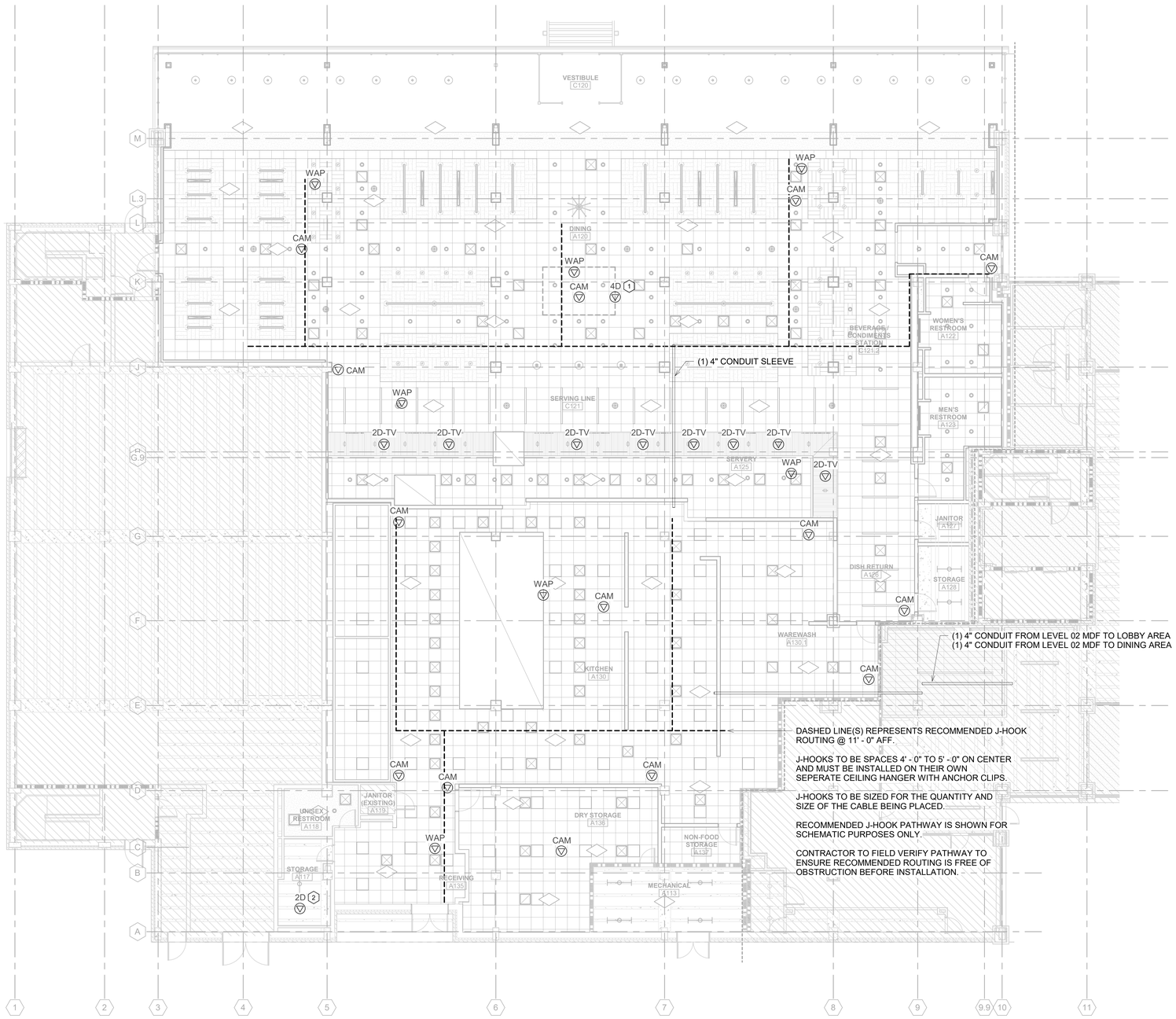
KEYNOTE LEGEND	
1	DATA DESIGNATED FOR HYDROPONICS ROOM (BY OTHERS), SUPPORT CABLING VIA J HOOK AND TERMINATE IN CEILING TO SURFACE MOUNT BOX CBXQ2IW-A.
2	DATA OUTLET FOR REFRIGERATION MONITORING. FIELD COORDINATE OUTLET MOUNTING LOCATION WITH ELECTRICAL AND MECHANICAL CONTRACTOR.

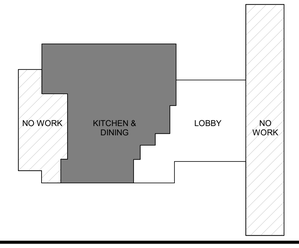
GENERAL NOTES

1. CONTRACTOR TO PROVIDE CONDUIT PATHWAY FOR CABLE TRAVELING THROUGH OPEN CEILING AREAS (AREAS EXPOSING CEILING STRUCTURE).
2. NEW J-HOOK TYPE PATHWAY REQUIRED TO SUPPORT CATEGORY CABLING.



TELECOM REFLECTED CEILING PLAN (KITCHEN & DINING) T1

1/8" = 1'-0"



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TELECOM - REFLECTED CEILING PLAN (KITCHEN & DINING)

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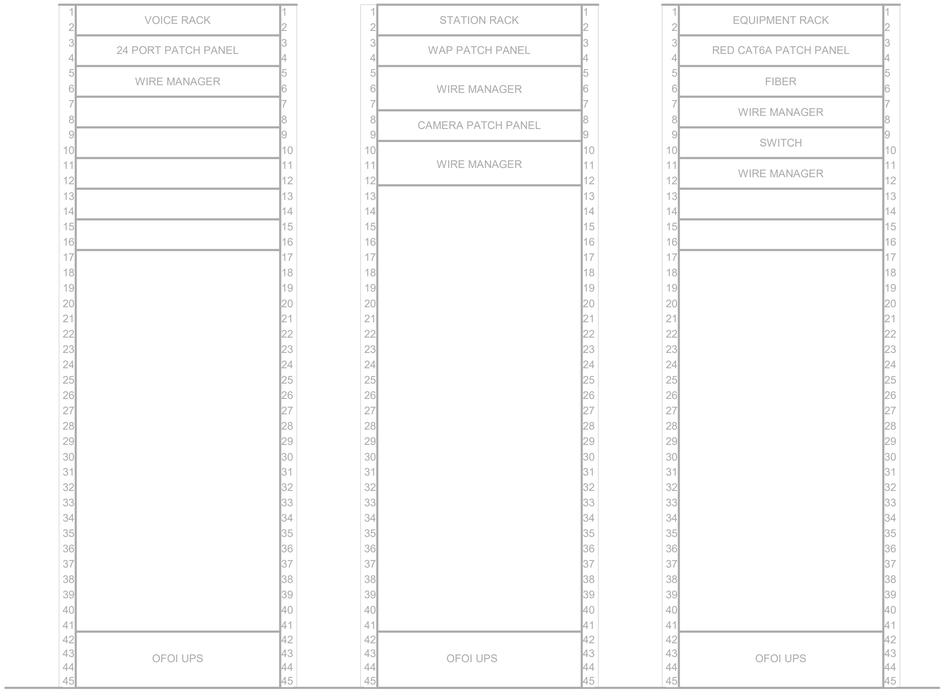
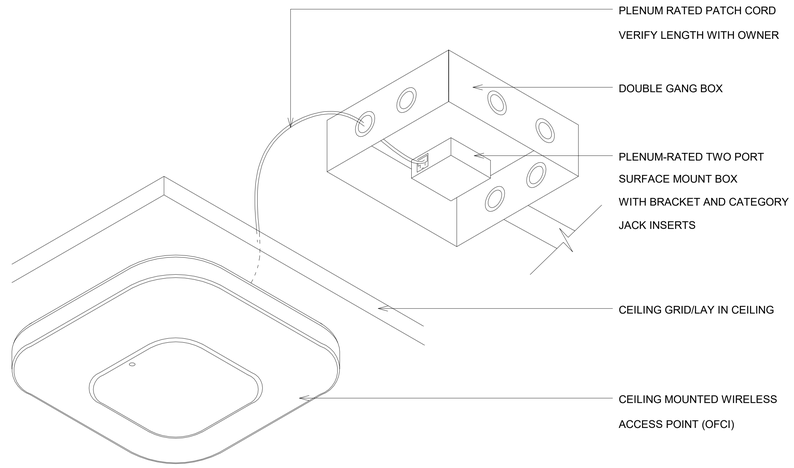


IT ROOM A207 EXISTING RACK LAYOUT 01
NTS

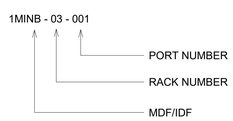


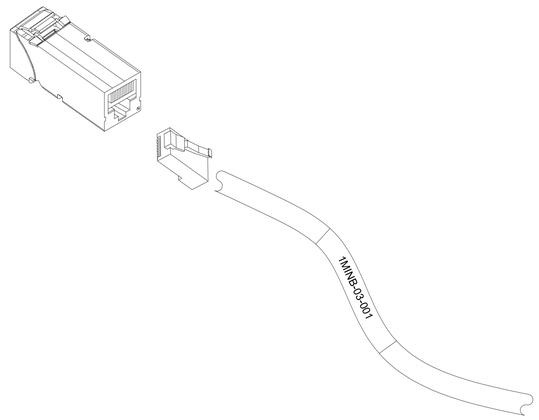
WIRELESS ACCESS POINT (WAP) ROUGH-IN 02
N.T.S.

GENERAL NOTES

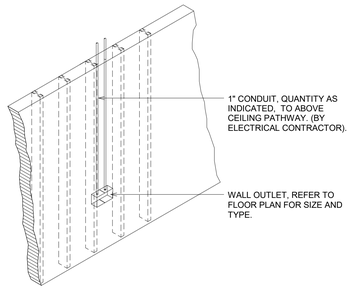
1. WRAP AROUND CABLE LABEL TO BE INSTALLED AT BOTH THE WORK AREA OUTLET AND CLOSET ENDS OF ALL CABLES. INSTALL LABEL 1" FROM THE END OF THE CABLE JACKET AT BOTH ENDS.
2. CABLE LABELING SHALL BE MACHINE GENERATED AND NOT LESS THAN .125" IN HEIGHT.

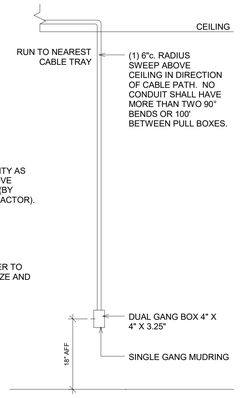
PLATE LABELING DETAIL

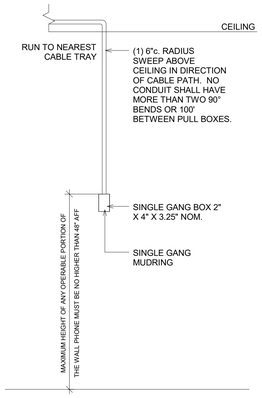


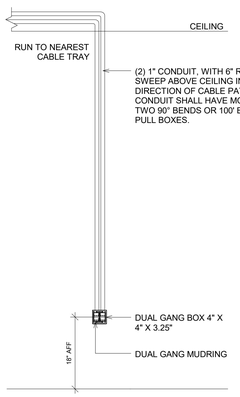


CABLE LABEL 03
N.T.S.









DATA OUTLET ROUGH-IN 04
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Houston, TX 77067
(p) 832.249.9379

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TELECOM - DETAILS (KITCHEN & DINING)

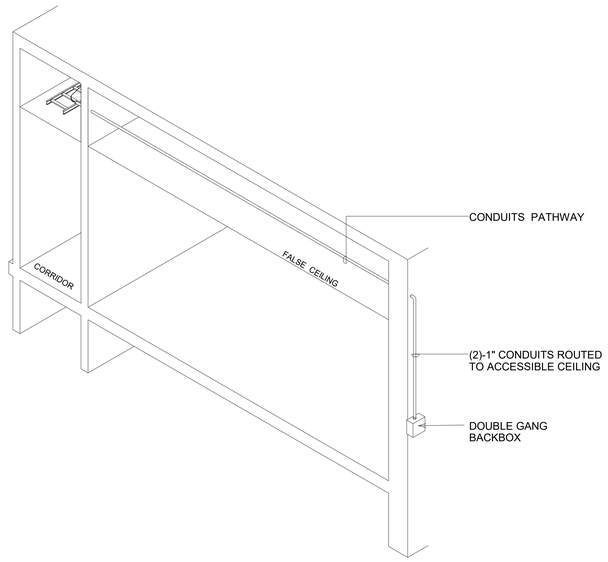
TreanorHL NO. HE0569.2302.01

GENERAL NOTES:

1. A MINIMUM OF ONE CONTINUOUS RUN OF CONDUIT SHALL BE PLACED FROM I/O TO ACCESSIBLE CEILING SPACE.
2. ALL CONDUIT SHALL BE MIN: 1"Ø, HAVE PROTECTIVE BUSHING, AND PULL STRINGS.
3. NO CABLE SHALL BE PLACED IN CONDUIT THAT DOES NOT HAVE PROTECTIVE INSULATING BUSHING PRESENT.
4. CONTRACTOR SHALL REPORT ANY DEVIATIONS FROM THIS OR ANY STANDARD TO THE GENERAL CONTRACTOR FOR REFIT BY RESPONSIBLE CONTRACTOR.

NOTES:

1. THIS DETAIL IS INTENDED TO ILLUSTRATE CABLE ROUTING FOR CABLE CONTRACTOR AND AS A GENERAL GUIDE FOR ELECTRICAL CONTRACTOR.



CONDUIT PATHWAY (HARD DECK CEILING) 01
N.T.S.

GENERAL NOTES:

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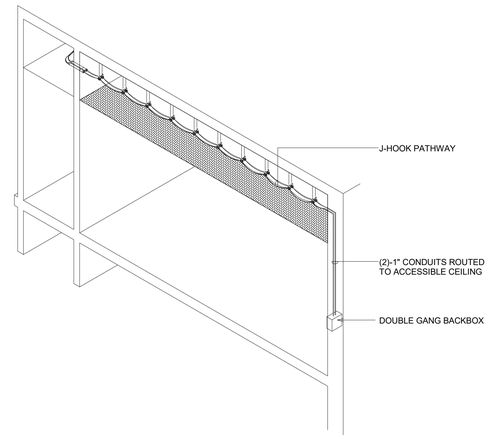
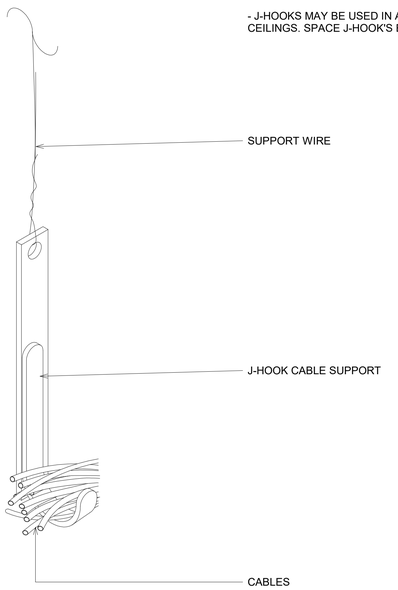


J-HOOK PATHWAY (DROP CEILING) 02
N.T.S.

NOTE:

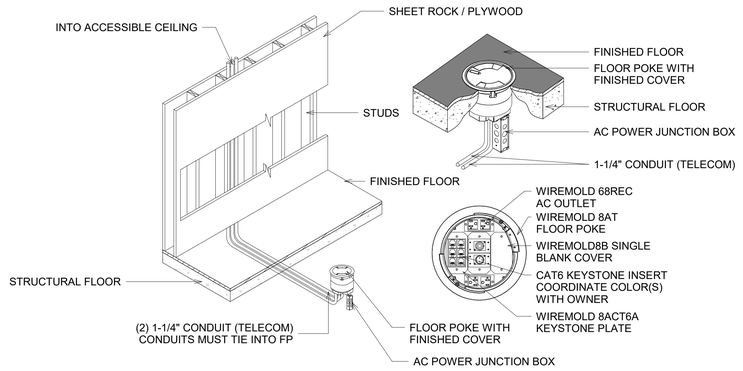
- J-HOOKS MAY BE USED IN ABOVE LAY-IN TILE CEILINGS. SPACE J-HOOK'S EVERY 3FT - 5FT.



J-HOOK 03
N.T.S.

GENERAL NOTES:

1. ALL FIRST FLOOR LOCATIONS REQUIRE FSR FL500-8 WITH CONCRETE FLOOR PAN.
2. FLOOR PLAN SHOWS INTENDED CONDUIT PATH WITH LINE TO NEAREST WALL.
3. "FP" ALSO REQUIRE AC POWER BY OTHERS (PATHWAY NOT SHOWN).
4. MOUNT TELECOM CONDUIT ABOVE CEILING TO CABLE TRAY.
5. PROVIDE BLANKS FOR ANY UNUSED CONNECTIVITY SPACES.



"FP" FLOOR POKE ROUGH-IN DETAIL 4
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TELECOM - DETAILS (KITCHEN & DINING)

TreanorHL NO. HE0569.2302.01

AUDIOVISUAL SYMBOL LEGEND

SYMBOL	TAG	DESCRIPTION	POWER REQUIREMENTS	DATA REQUIREMENTS	CONDUIT REQUIREMENTS	NOTES
	S1	IN-CEILING SPEAKER (70V)	N/A	N/A	N/A	DASHED LINE(S) AND TEXT ON PLAN REPRESENTS RECOMMENDED SPEAKER CABLING WIRING AND ZONE ASSIGNMENT(S).
	WR	WALL RACK	(1) DEDICATED 120VAC/20A QUAD OUTLET INSTALLED BEHIND RACK LOCATION.	REFER TO TELECOM PLANS.	2-GANG BOX INSTALLED BEHIND RACK LOCATION WITH (2) 1-1/4" CONDUIT STUB UP TO ACCESSIBLE CEILING.	N/A
	XX" DSD-C	DIGITAL SIGNAGE DISPLAY (CEILING MOUNTED) *INFRASRTUCTURE ONLY*	120VAC/20A DUPLEX OUTLET INSTALLED AT CEILING ABOVE FUTURE DISPLAY LOCATION.	REFER TO TELECOM PLANS.	N/A	DEVICES SHOWN ON PLAN TO INDICATE FUTURE DISPLAY LOCAITONS FOR POWER, DATA, AND PLYWOOD BACKING COORDINATION ONLY. REFER TO 2/TA700B FOR INSTALLATION ELEVATION DETAIL.
	XX" DSD-W	DIGITAL SIGNAGE DISPLAY (WALL MOUNTED) *INFRASRTUCTURE ONLY*	120VAC/20A DUPLEX OUTLET INSTALLED AT WALL BEHIND FUTURE DISPLAY LOCATION.	REFER TO TELECOM PLANS.	N/A	DEVICES SHOWN ON PLAN TO INDICATE FUTURE DISPLAY LOCAITONS FOR POWER, DATA, AND PLYWOOD BACKING COORDINATION ONLY. REFER TO 3/TA700B FOR INSTALLATION ELEVATION DETAIL.

AUDIOVISUAL DRAWINGS INDEX

AUDIOVISUAL RESPONSIBILITY MATRIX

ITEM	GC	AV CONTRACTOR	OWNER
NETWORK CABLING TO IDF/MFD/BDF	X	-	-
CONDUITS	X	-	-
ELECTRICAL & JUNCTION BOXES	X	-	-
POWER > 24VDC	X	-	-
FLOOR BOXES, FLOOR POKES, & POKE THROUGHS	X	-	-
ACCESS PANELS	X	-	-
CABLING (AUDIOVISUAL SYSTEMS)	-	X	-
BACKGROUND MUSIC MEDIA PLAYERS	-	-	OFCI
BACKGROUND MUSIC LICENSING, CONTENT, & SCHEDULING	-	-	OFOI
AUDIOVISUAL CONTROL SYSTEM INTERFACE	-	X	-
DIGITAL SIGNAL PROCESSORS	-	X	-
AUDIOVISUAL LOUDSPEAKERS & AMPLIFIERS	-	X	-
AUDIOVISUAL SYSTEM RACKS	-	X	-

GENERAL NOTES

1. THE ARCHITECTURAL PLANS AND SPECIFICATIONS, GENERAL CONDITIONS, SUPPLEMENTARY GENERAL CONDITIONS AND SPECIFICATIONS AND REQUIREMENTS OF OTHER DIVISIONS REQUIRE COORDINATION AND SHALL APPLY TO THE DIVISION 27 CONTRACTOR. ANY CONTRADICTING INFORMATION NEEDING CLARIFICATION SHALL BE SUBMITTED VIA A "REQUEST FOR INFORMATION" (RFI) TO THE GC.
2. AUDIOVISUAL CONTRACTOR, HEREAFTER REFERRED TO AS "CONTRACTOR", SHALL PROVIDE ALL MATERIALS, COMPONENTS, TOOLS AND LABOR TO INSTALL A COMPLETE AUDIOVISUAL SYSTEM AS SET FORTH IN THE AUDIOVISUAL SYSTEM DIVISION 27 SPECIFICATIONS, "T" DRAWINGS AND "E" DRAWINGS.
3. THE CONTRACTOR SHALL CAREFULLY EXAMINE THE SITE CONDITIONS TO DETERMINE THE EXTENT OF WORK AND CONDITIONS UNDER WHICH IT WILL NEED TO BE DONE. REVIEW AND VERIFY CONTRACT DOCUMENTS IN RELATION TO FIELD CONDITIONS TO VERIFY ACCURACY. THE OWNER AND DESIGN TEAM SHALL BE CONSULTED AS NEEDED FOR CLARIFICATION OR DIRECTION REGARDING ANY PROJECT RELATED QUESTIONS PRIOR TO PROCEEDING WITH THE WORK OR RELATED WORK IN QUESTION.
4. DISCREPANCIES BETWEEN THESE PLANS AND ACTUAL FIELD CONDITIONS MUST BE BROUGHT TO THE IMMEDIATE ATTENTION OF THE OWNER AND DESIGN TEAM FOR CLARIFICATION.
5. REFER TO AUDIOVISUAL CONTRACT DOCUMENTS, DRAWINGS AND SPECIFICATIONS AS A UNIT, AND IN WHOLE, IN THE BIDDING AND INSTALLATION OF THIS PROJECT.
6. CONTRACTOR SHALL NOTE AND REPORT TO THE GC, ANY WORK PERFORMED BY THE ELECTRICAL CONTRACTOR OR ANY OTHER TRADE, INTENDED FOR SUPPORTING THE AUDIOVISUAL SYSTEMS, WHICH DOES NOT COMPLY WITH AUDIOVISUAL SPECIFICATIONS AND DRAWINGS.
7. CONTRACTOR SHALL TAKE NECESSARY MEANS TO PROTECT AUDIOVISUAL SYSTEM COMPONENTS FROM MECHANICAL DAMAGE BEFORE, DURING AND AFTER CONSTRUCTION.
8. THE CONTRACTOR SHALL OBTAIN THE OWNER'S AND STRUCTURAL ENGINEER'S WRITTEN PERMISSION PRIOR TO PROCEEDING WITH ANY WORK NECESSITATING CUTTING INTO OR THROUGH ANY PART OF BUILDING STRUCTURES SUCH AS GIRDERS, BEAMS, CONCRETE OR TILE FLOORS, PARTITIONS AND/OR CEILINGS.
9. CONTRACTOR IS REQUIRED TO REFERENCE DIVISION 27 SPECIFICATIONS FOR ITEMIZED PRICING REQUIREMENTS.
10. AUDIOVISUAL CABLING SHALL BE ROUTED TO THE ASSOCIATED AUDIOVISUAL OUTLET IN CONDUIT, CABLE TRAY AND/OR J-HOOKS.
11. FPDS SHALL INCLUDE DISPLAY MOUNTS, ASSOCIATED HARDWARE, CONDUIT WITH BACK BOXES AND CABLING AS NOTED OR REQUIRED FOR A COMPLETE SYSTEM.
12. CONTRACTOR TO PROVIDE, APPROPRIATELY SIZED, MECHANICAL SLEEVES (STI EZ-PATH OR HILTI SPEED SLEEVE), THAT MATCH THE RATING OF THE WALL. FOR ANY WALL PENETRATIONS REQUIRED FOR CABLE ROUTING. CONTRACTOR SHALL COORDINATE WITH GC FOR ANY FRAMING OR OTHER IN-WALL PREPARATIONS.

COORDINATION NOTES

1. AUDIOVISUAL DRAWINGS CONTAIN INFORMATION RELATED TO MULTIPLE TRADES (FRAMING, ELECTRICAL, ETC.) AND REQUIRES COORDINATION WITH THE GENERAL CONTRACTOR.
2. CONTRACTOR SHALL COORDINATE ALL AV PLATE FINISHES WITH THE ARCHITECT.
3. IT IS THE CONTRACTOR'S RESPONSIBILITY TO COORDINATE FINAL LOCATIONS OF ALL SPEAKERS, PROJECTORS, CAMERAS AND MICROPHONES WITH MECHANICAL, ELECTRICAL AND PLUMBING (MEP) OVERHEAD LAYOUT. CONTACT ARCHITECT AND AV CONSULTANT OF ANY DISCREPANCIES.
4. CONTRACTOR TO INSTALL CEILING-MOUNTED SPEAKERS CENTERED IN CEILING TILE.
5. CONTRACT TO COORDINATE WITH THE OWNER ON ALL FINAL LOCATIONS FOR AUDIO-VIDEO CONTROL PLATES AND INTERCONNECT PLATES.
6. WALLS WITH DISPLAYS MOUNTED ON OPPOSING SIDES OF THE WALL MUST BE FRAMED OUT FOR BACK BOXES TO FIT BACK-TO-BACK.
7. THIS SHEET INCLUDES A RESPONSIBILITY MATRIX FOR ALL AV AND AV-RELATED ITEMS. ADDITIONAL COORDINATION FOR FURNITURE INSTALLATION WILL BE REQUIRED.
8. DATA AND FIBER OPTIC CABLING TO THE OWNER'S NETWORK MUST BE INSTALLED, TERMINATED, TESTED AND DOCUMENTED BY THE TELECOMMUNICATIONS CONTRACTOR.
9. AUDIOVISUAL CABLES SHALL NOT BE PAINTED.
10. GENERAL CONTRACTOR TO PROVIDE ¾" PLYWOOD IN-WALL BLOCKING FOR ALL WALL-MOUNTED FLAT PANEL DISPLAYS.
11. ALL AUDIOVISUAL CABLING PLACED IN CABLE TRAY MUST BE PLACED BY TELECOMMUNICATIONS CONTRACTOR.

ELECTRICAL NOTES

1. ELECTRICAL CONTRACTOR SHALL READ, IN THEIR ENTIRETY, ALL SECTIONS OF THE AUDIOVISUAL SYSTEM DOCUMENTS AND APPLY THEM AS APPROPRIATE FOR WORK IN THIS SECTION. REFERENCE DIVISION 27 SPECIFICATIONS, "T", AND "TA" DRAWINGS.
2. ELECTRICAL CONTRACTOR SHALL PROVIDE ALL MATERIALS, COMPONENTS, TOOLS AND LABOR REQUIRED TO COMPLETE COMMUNICATIONS CABLING PATHWAY, ELECTRICAL POWER DISTRIBUTION AND GROUNDING SYSTEM AS SET FORTH IN THE COMMUNICATIONS CABLING, AUDIOVISUAL SYSTEM AND THE ELECTRICAL DOCUMENTS, SPECIFICATIONS AND DRAWINGS.
3. ALL ELECTRICAL OUTLETS FOR AV DEVICES SHALL BE ON THE SAME PHASE AND SHALL NOT SHARE CIRCUITS WITH MOTORS.
4. ALL AV DEVICES LOCATED IN OPEN OR INACCESSIBLE CEILINGS REQUIRE CONDUIT BACK TO ACCESSIBLE CEILING SPACE.
5. ALL AV WALL PLATES, BACK BOXES AND PLENUM BOXES REQUIRE A CONDUIT ROUTED BACK TO THE NEAREST CORRIDOR SPACE OR ACCESSIBLE CEILING.
6. ALL AV FLOOR BOXES AND POKE-THRUS SHALL HAVE CONDUIT ROUTED UP TO THE LEVEL BEING SERVED AND TO THE NEAREST ACCESSIBLE CEILING.

BICSI REGISTERED COMMUNICATIONS DISTRIBUTION DESIGNER
NICKOLAS BARRERA
REG. NO. 362685
EXPIRES 13-31-2026
RCDD

TREANOR
2554 Elm Street, Suite 200
Dallas, TX 75226
Office: 214.310.1018
www.TreanorHL.com

4B Technology Group
390 Glenborough Drive
Houston, TX 77067
(p) 832.249.9379

UNIVERSITY OF NORTH TEXAS
KERR HALL INTERIOR RENOVATION

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Denton, TX 76201

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Issue:	ISSUE FOR CONSTRUCTION
Date:	JANUARY 30, 2025

REVISIONS

NO	DESCRIPTION	DATE

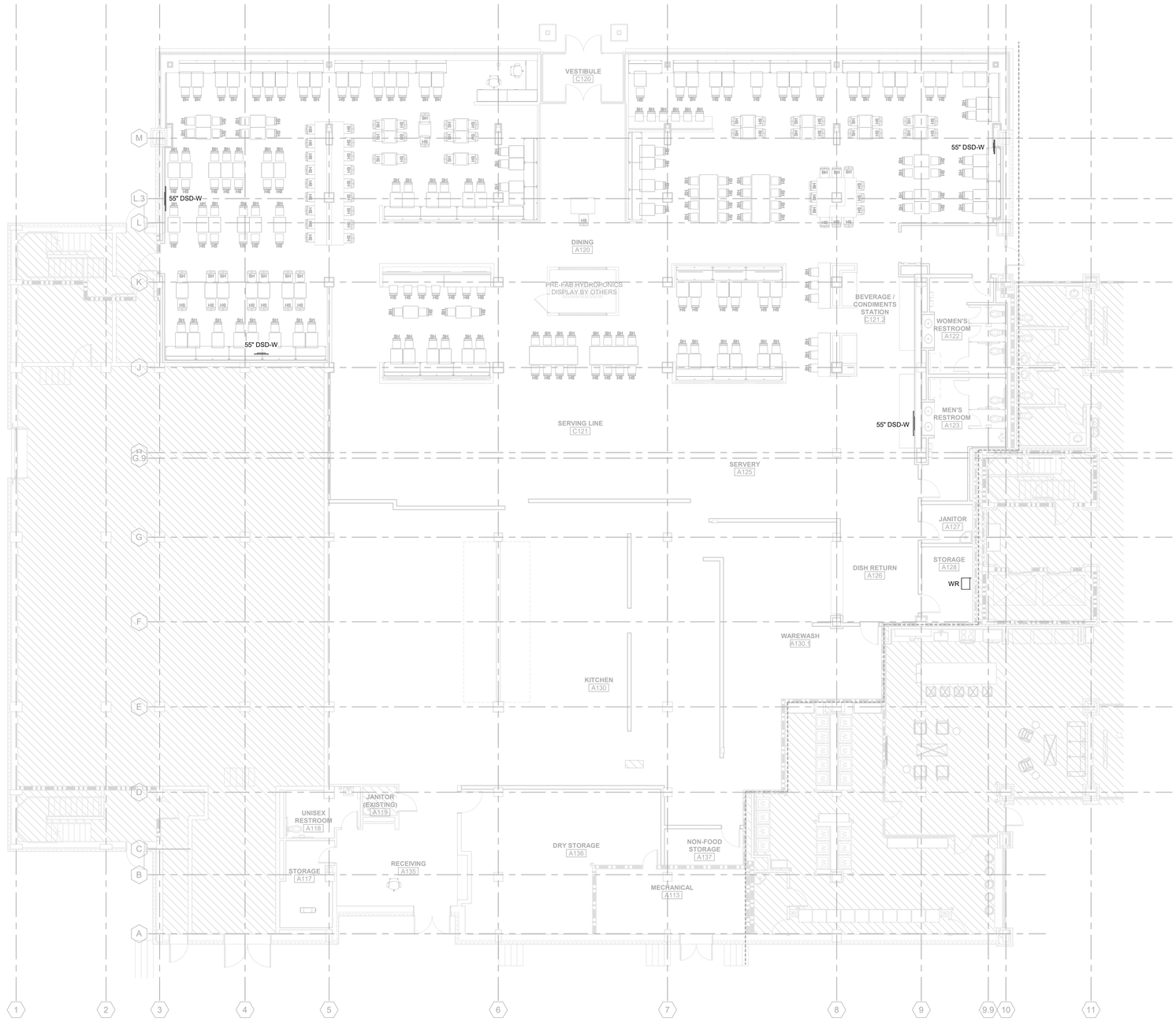
TA000B

AUDIOVISUAL - INDEX

TreanorHL NO. HE0569.2302.01

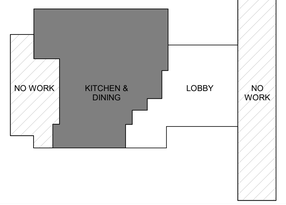
AUDIOVISUAL SCHEDULE

ROOM #	ROOM TYPE	SCHEMATIC	ELEVATION
A120 A128	BACKGROUND MUSIC SYSTEM	TA500/1	TA700/1



LEVEL 1 AUDIOVISUAL FLOOR PLAN (DINING) TA1

1/8" = 1'-0"



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390 Glenborough Drive
Houston, TX 77067
(p) 832.249.9379

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AUDIOVISUAL - FLOOR PLAN (KITCHEN & DINING)

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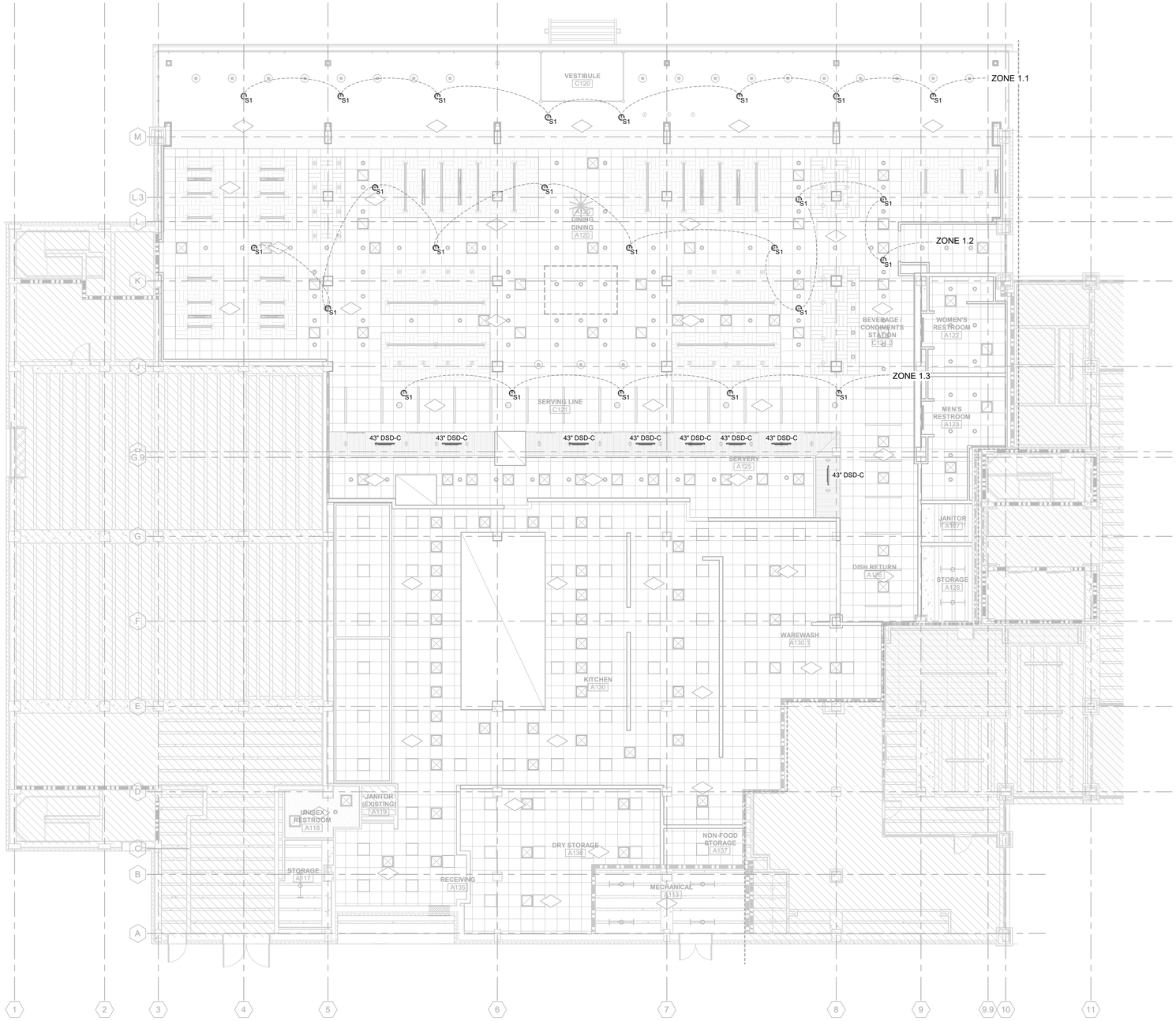
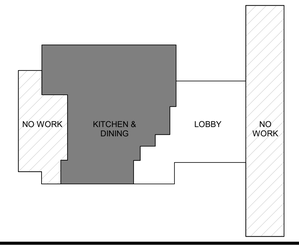
AUDIOVISUAL SCHEDULE

ROOM #	ROOM TYPE	SCHEMATIC	ELEVATION
A120 A128	BACKGROUND MUSIC SYSTEM	TA500/1	TA700/1





AUDIOVISUAL REFLECTED CEILING PLAN (DINING) TA1
1/8" = 1'-0"

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NICKOLAS BARRERA
REG. NO. 362685
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RCDD

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Dallas, Texas 75226
Office: 214.310.1018
www.TreanorHL.com

4B Technology Group
390 Glenborough Drive
Houston, TX 77067
(p) 832.249.9379

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AUDIOVISUAL - REFLECTED CEILING PLAN (KITCHEN & DINING)

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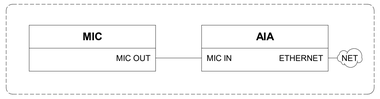
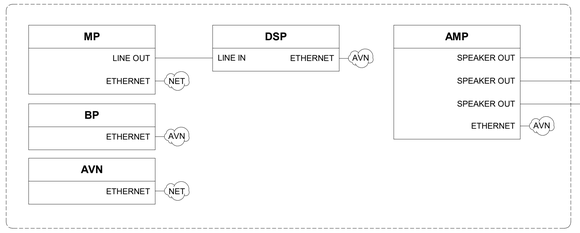
SYMBOL	DESCRIPTION	MAKE	MODEL	NOTES
AIA	AUDIO INPUT ADAPTER	AUDINATE	ADP-DAI-AU-1X0	POWERED VIA POE CONNECTION TO OWNER'S NETWORK.
AMP	AUDIO AMPLIFIER	YAMAHA	XMV4280-D	N/A
AVN / (AVN)	AUDIOVISUAL NETWORK SWITCH	NETGEAR	M4250 SERIES	PROVIDE PORT COUNT AND POE ALLOCATION REQUIRED TO ACCOMMODATE AUDIOVISUAL SYSTEM FUNCTIONALITY PLUS MINUMUM 20% HEADROOM IN BOTH CATAGORIES FOR FUTURE EXPANSION.
BP	BUTTON PAD (CONTROL INTERFACE)	BIAMP	TEC-X 1000	N/A
DSP	DIGITAL SIGNAL PROCESSOR	BIAMP	TESIRAFORTE DAN AI	N/A
MIC	DESKTOP MICROPHONE (PAGING OVERRIDE)	AKG	DST99 S	N/A
MP	MEDIA PLAYER (BACKGROUND MUSIC)	TBD	TBD	OWNER FURNISHED, CONTRACTOR INSTALLED.
S1	CEILING RECESSED SPEAKER	JBL	CONTROL 26CT	REFER TO PLANS FOR SPEAKER LOCATION, QUANTITY, AND ZONE ASSIGNMENT. WIRE ALL SPEAKERS WITHIN ZONE IN PARALLEL. CONFIGURE EACH SPEAKER TO 70V @ 15W.
WR	AUDIOVISUAL WALL RACK	MIDDLE ATLANTIC	DWR-16-22PD	PROVIDE THE FOLLOWING ACCESSORIES PER DEVICE LOCAITON: (1) MIDDLE ATLANTIC FWD-DWR-RR16 REAR RAIL KIT, (1) MIDDLE ATLANTIC DWRSR-6-FK FANK KIT, (1) ATLAS IED WPD-RP RACKMOUNT GANG PLATE, (1) MIDDLE ATLANTIC PDX920R SURGE PROTECTOR, (TBD) MIDDLE ATLANTIC RACK ACCESSORIES (SHELVES, LACING BARS, SCREWS, ETC.) AS NEEDED.

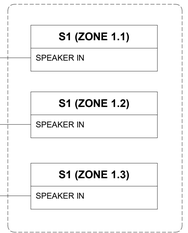
MANAGER'S DESK
(NEXT TO C120 - VESTIBULE)



WR (WALL RACK)



CEILING



BACKGROUND MUSIC SYSTEM
NTS

1

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4B Technology Group
390 Glenborough Drive
Houston, TX 77067
(p) 832.249.9379

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AUDIOVISUAL - SCHEMATICS

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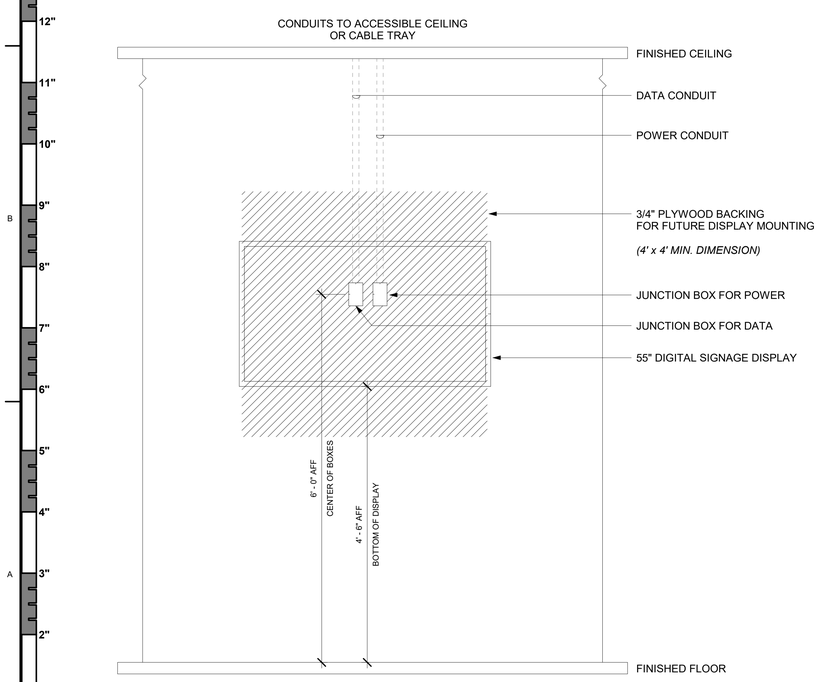
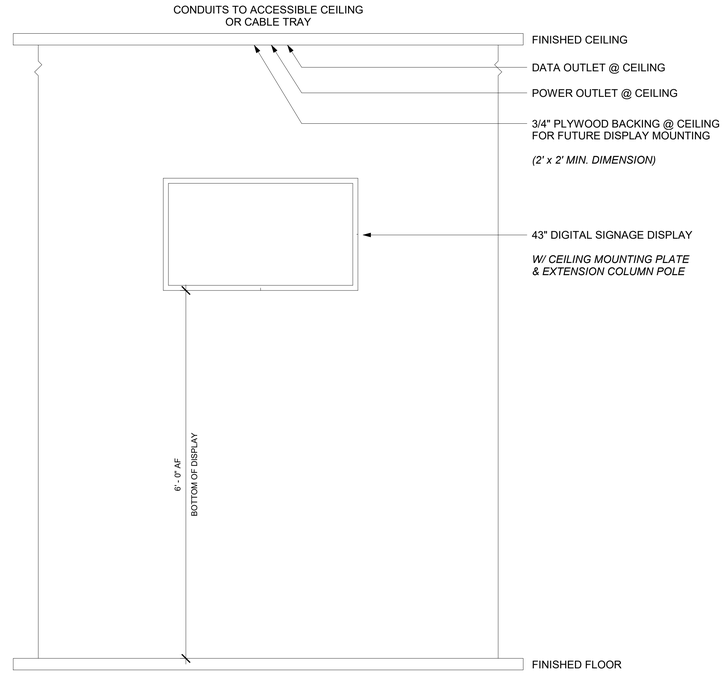


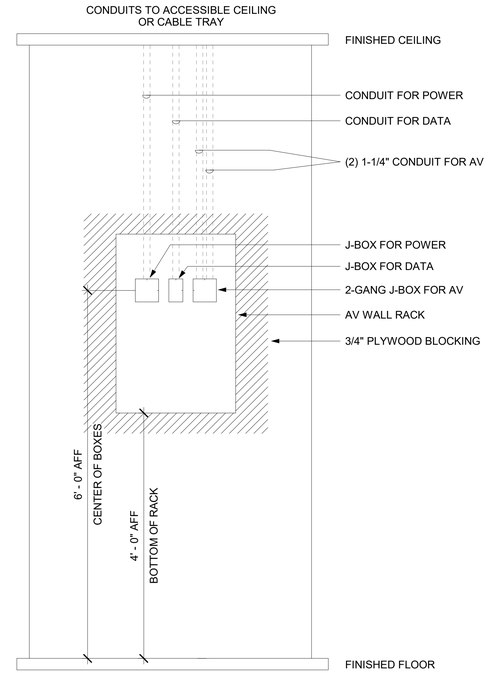
55" DSD-W
1" = 1'-0"

3



43" DSD-C
1" = 1'-0"

2



WR (WALL RACK)
1" = 1'-0"

1

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TA700B

AUDIOVISUAL - ELEVATIONS

TreanorHL NO. HE0569.2302.01

GENERAL NOTES

1. THE GENERAL CONDITIONS, SUPPLEMENTARY GENERAL CONDITIONS, SPECIFICATIONS AND REQUIREMENTS OF OTHER DIVISIONS REQUIRE COORDINATION AND SHALL APPLY TO THE DIVISION 28 CONTRACTOR. ANY CONTRADICTING INFORMATION NEEDING CLARIFICATION SHALL BE SUBMITTED VIA A "REQUEST FOR INFORMATION" (RFI) TO THE GC.
2. PROVIDE ALL MATERIALS, COMPONENTS, TOOLS AND LABOR TO INSTALL A COMPLETE VIDEO SURVEILLANCE AND ACCESS CONTROL SYSTEM AS SHOWN IN THE SAFETY AND SECURITY SYSTEM DIVISIONS 27/28 SPECIFICATIONS, "TY" DRAWINGS AND "E" DRAWINGS.
3. CAREFULLY EXAMINE THE SITE CONDITIONS TO DETERMINE THE EXTENT OF WORK AND CONDITIONS UNDER WHICH IT WILL NEED TO BE DONE.
4. REVIEW AND VERIFY CONTRACT DOCUMENTS IN RELATION TO FIELD CONDITIONS TO VERIFY ACCURACY, CONFIRMING WITH OWNER, OR THEIR DESIGNATED REPRESENTATIVE, THAT RELATED WORK HAS BEEN COMPLETED PRIOR TO PROCEEDING WITH INSTALLATION.
5. DISCREPANCIES BETWEEN THESE PLANS AND ACTUAL FIELD CONDITIONS MUST BE BROUGHT TO THE IMMEDIATE ATTENTION OF THE OWNER, OR THEIR DESIGNATED REPRESENTATIVE, FOR CLARIFICATION.
6. REFER TO SECURITY CONTRACT DOCUMENTS, DRAWINGS AND SPECIFICATIONS AS A WHOLE, IN THE BIDDING AND INSTALLATION OF THIS PROJECT.
7. NOTE AND REPORT TO THE GC, ANY WORK PERFORMED BY OTHERS, INTENDED FOR THE SECURITY SYSTEM, IF IT DOES NOT COMPLY WITH ELECTRONIC SAFETY AND SECURITY SYSTEM SPECIFICATIONS AND DRAWINGS.
8. TAKE NECESSARY MEANS TO PROTECT SECURITY SYSTEM COMPONENTS FROM MECHANICAL DAMAGE, DUST AND DIRT BEFORE, DURING AND AFTER CONSTRUCTION.
9. ALL COMPONENTS AND DEVICES SHOWN ON THESE DRAWINGS ARE FOR APPROXIMATE LOCATION AND POSITIONING ONLY. VERIFY EXACT LOCATIONS WITH THE OWNER OR GC PRIOR TO INSTALLATION.
10. REFERENCE DIVISION 28 SPECIFICATIONS FOR ITEMIZED PRICING REQUIREMENTS.

SECURITY PATHWAYS

1. ELECTRICAL CONTRACTOR TO PROVIDE AND INSTALL ALL CONDUITS, PULL STRINGS, CORES AND JUNCTION BOXES AS REQUIRED ON THE "TY" DRAWINGS.
2. CONDUIT RUNS SHALL NOT CONTAIN MORE THAN TWO (2) SWEEPING 90 DEGREE BENDS AND NOT EXCEED 100 FEET. IF THESE CONDITIONS CANNOT BE MET, A J-BOX MUST BE PLACED IN THE RUN WITH THE ABILITY TO ACCESS THROUGH THE CEILING.
3. PROPERLY FIRE STOP AND LABELED ALL SECURITY PATHWAY CONDUITS AND UNUSED "SECURITY INTENDED USE CONDUITS" PRIOR TO SUBSTANTIAL COMPLETION.
4. CONDUIT SIZES INDICATED ON THE DRAWINGS AND HOME RUN SIZES SHOWN ON DETAIL SHEETS ARE TO BE CONSIDERED THE MINIMUM SIZE TO BE INSTALLED. PROVIDE LARGER OR ADDITIONAL CONDUIT IF REQUIRED. CONDUIT SIZES INDICATE DEDICATED HOME RUNS BUT MAY BE COMBINED WITH OTHER LOCATIONS BY SYSTEM TYPE (VIDEO SURVEILLANCE, INTERCOM AND ACCESS CONTROL) AS LONG AS NEC MAXIMUM FILL REQUIREMENTS ARE MAINTAINED.
5. FURNISH AND INSTALL CABLE SUPPORT, CABLE MANAGEMENT AND ASSOCIATED CEILING MOUNTING HARDWARE WHERE REQUIRED FOR CABLING INSTALLED BY SECURITY CONTRACTOR.
6. ALL DOOR PREP TO INCLUDE CONDUIT, PULL STRINGS, PROTECTIVE BUSHINGS AND JUNCTION BOXES AS SHOWN ON THE "TY" DRAWINGS PRIOR TO THE SECURITY INSTALLATION.
7. ELECTRICAL CONTRACTOR SHALL READ, IN THEIR ENTIRETY, ALL SECTIONS OF THE ELECTRONIC SAFETY AND SECURITY SYSTEM DOCUMENTS AND APPLY THEM AS APPROPRIATE FOR WORK IN THIS SECTION. REFERENCE DIVISION 28 SPECIFICATIONS AND "TY" DRAWINGS
8. ELECTRICAL CONTRACTOR SHALL PROVIDE ALL MATERIALS, COMPONENTS, TOOLS AND LABOR REQUIRED TO COMPLETE SECURITY CABLING PATHWAY, ELECTRICAL POWER DISTRIBUTION AND GROUNDING SYSTEM AS SET FORTH IN THE ELECTRONIC SAFETY AND SECURITY SYSTEM DOCUMENTS AND THE ELECTRICAL DOCUMENTS, SPECIFICATIONS AND DRAWINGS.

COMMUNICATIONS ROOMS

1. RACK ELEVATIONS AND NETWORK EQUIPMENT ARE SHOWN FOR COORDINATION AND INFORMATIONAL PURPOSES ONLY.
1. FURNISH AND INSTALL CABLE SUPPORT, CABLE MANAGEMENT AND ASSOCIATED HARDWARE WITHIN TELECOMMUNICATIONS ROOMS.

ELECTRICAL

1. FOR SPECIFIC POWER AND RECEPTACLE REQUIREMENTS, REFERENCE ELECTRICAL DOCUMENTS AND VERIFY WITH SECURITY DOCUMENTS. REPORT ANY DISCREPANCIES TO THE GC PRIOR TO PURCHASE OR INSTALLATION.
2. ELECTRICAL CONTRACTOR SHALL INSTALL NORMAL AND GENERATOR BACK-UP POWER AS REQUIRED BY THE SECURITY SYSTEM AND COORDINATED BY THE SECURITY CONTRACTOR.
3. ELECTRICAL CONTRACTOR SHALL PROVIDE 120V AC FOR ELECTRIC LOCK POWER SUPPLIES, SECURITY DEVICE POWER SUPPLIES AND CAMERA POWER SUPPLIES AS REQUIRED. SECURITY AND DOOR CONTRACTORS SHALL IDENTIFY LOCATIONS ON SUBMITTALS.

GROUNDING AND BONDING

1. ADHERE TO ALL GROUNDING AND BONDING REQUIREMENTS SET FORTH IN THE ANSI-J-STD-607-B COMMERCIAL GROUNDING AND BONDING STANDARDS.
2. PREPARE SURFACES TO PROVIDE A PROPER PATH TO GROUND. ANY SURFACE TO BE GROUNDED MUST BE FREE OF PAINT OR OTHER COATING THAT MIGHT PREVENT AN EFFECTIVE GROUND. PAINT SHOULD BE SCRAPED AWAY UNTIL METALLIC SURFACE HAS BEEN EXPOSED BEFORE THE ATTACHMENT OF GROUNDING OR BONDING CONNECTOR.

VIDEO SURVEILLANCE

1. PROVIDE ALL REQUIRED DEVICES, MOUNTS, HARDWARE AND PERIPHERAL COMPONENTS AS SHOWN ON "TY" DRAWINGS FOR A COMPLETE AND FUNCTIONAL SYSTEM.
2. PROVIDE CAMERAS AT THE HEIGHT ABOVE GRADE OR ABOVE FINISHED FLOOR (AFF) AS INDICATED ON THE "TY" PLANS.
3. COORDINATE LOCATION OF CAMERAS WITH ALL CEILING MOUNTED ARCHITECTURAL AND MEP EQUIPMENT.
4. LOCATE CAMERAS AND CONFIGURE LENS SETTINGS TO OPTIMIZE CAMERA VIEWS.
5. VERIFY THERE ARE NO PHYSICAL OBSTRUCTIONS TO THE INTENDED CAMERA VIEWS PRIOR TO INSTALLATION. SHOULD ANY OBSTRUCTIONS BE PRESENT, IT IS THE CONTRACTORS RESPONSIBILITY TO NOTIFY THE OWNER AND ADJUST THE CAMERA POSITIONS AS NEEDED.
6. COORDINATE WITH THE COMMUNICATIONS CONTRACTOR WHO IS RESPONSIBLE FOR THE INSTALLATION OF ALL CABLING FOR IP CAMERAS.
7. PROVIDE SECURITY CAMERA POWER INJECTOR AS REQUIRED FOR PAN/TILT/ZOOM (PTZ) CAMERAS TO CONTROL PTZ FUNCTIONS.
8. CONTRACTOR IS RESPONSIBLE FOR CAMERA LICENSES, SOFTWARE REVISIONS, NETWORK VIDEO RECORDERS (NVR) AND CAMERA FIELD OF VIEWS AS WELL AS COORDINATION AND TRAINING WITH THE OWNER TO LEARN THE VIEWING AND RECORDING SYSTEM.
9. PROVIDE NETWORK STORAGE CALCULATIONS AS PART OF THE SUBMITTAL PACKAGES.
10. CONFIGURE MOTION DETECTION WINDOWS WITH THE INVOLVEMENT OF THE OWNER IN ORDER TO MINIMIZE FALSE MOTION EVENTS.

ACCESS CONTROL

1. DOOR CONTRACTOR SHALL PROVIDE ALL ELECTRIC LOCKS AS SHOWN ON "TY" DRAWINGS AND COMPLY WITH BUILDING HARDWARE SCHEDULE.
2. DOOR CONTRACTOR PROVIDE EXTERIOR KEY-BYPASS OPTION ON ALL ELECTRIC LOCK DOORS TO ALLOW MANUAL ENTRY. LOCKS TO BE THE SAME MANUFACTURER AS REQUIRED BY BUILDING HARDWARE SCHEDULE.
3. DOOR CONTRACTOR SHALL PROVIDE ALL ELECTRICAL TRANSFER HINGES AS SHOWN ON "TY" DRAWINGS AND COMPLY WITH BUILDING HARDWARE SCHEDULE.
4. FIRE ALARM CONTRACTOR SHALL PROVIDE FIRE ALARM SIGNAL INTERFACES AS REQUIRED AND COORDINATED BY THE SECURITY CONTRACTOR FOR RELEASE OF SECURITY CONTROLLED DOORS PER CURRENT LIFE SAFETY CODES.
5. HOME-RUN ALL SECURITY COMPOSITE CABLING TO DESIGNATED SECURITY PANEL PER FLOOR AND LEAVE 24-INCH SERVICE LOOP ABOVE DOOR AND ABOVE THE DESIGNATED SECURITY PANEL.
6. ALL DOORS ARE SET TO FAIL SECURE WITH PUSH BAR OR HANDLE ACTIVATED "REQUEST TO EXIT" EGRESS AND KEY LOCK INGRESS.
7. SIZE DOOR CONTROLLERS, ENCLOSURES, BOARDS AND POWER SUPPLIES TO ALLOW FOR A MINIMUM OF 20 PERCENT FUTURE GROWTH.
8. PROVIDE THE FOLLOWING:
   - A. CARD READERS
   - B. SUPERVISED RESISTORS
   - C. DOOR POSITION SWITCH
   - D. BOARD ENCLOSURE
   - E. CONTROLLER
   - F. EXPANSION BOARDS
   - G. POWER SUPPLIES
   - H. INTERCOM - MASTER STATION AND REMOTE STATION
   - I. LOW VOLTAGE CABLE
   - J. PROJECT MANAGEMENT AND CUSTOMER TRAINING.
9. COORDINATE WITH OWNER TO ENSURE SUCCESSFUL TIE INTO OWNERS ACCESS CONTROL SYSTEM.

SECURITY DRAWINGS INDEX

SECURITY SYMBOL LEGEND

	FIXED MEGAPIXEL DOME CAMERA
	360 DEGREE PANORAMIC DOME CAMERA (VIDEO SURVEILLANCE)

ABBREVIATIONS

ACS	ACCESS CONTROL SYSTEM
AFF	ABOVE FINISHED FLOOR
APS	ACCESS CONTROL POWER SUPPLY
AWG	AMERICAN WIRE GAUGE
CCTV	CLOSED CIRCUIT TELEVISION
CFCI	CONTRACTOR FURNISHED CONTRACTOR INSTALLED
CH	CHANNEL
CON	CONDUCTOR
CPS	CAMERA POWER SUPPLY
CPU	CENTRAL PROCESSING UNIT
CRT	CATHODE RAY TUBE
DB	DECIBEL
DGP	DATA GATHERING PANEL
DVR	DIGITAL VIDEO RECORDER
EL	ELECTRONIC LOCKSET
ESS	ELECTRONIC SAFETY & SECURITY
FC	FOOT CANDLE
FOV	FIELD OF VIEW
FPS	FRAMES PER SECONDS
FSD	FLAT SCREEN DISPLAY
GC	GENERAL CONTRACTOR
IDF	INTERMEDIATE DISTRIBUTION FRAME
IP	INTERNET PROTOCOL
IR	INFRARED
JPEG	JOINT PHOTOGRAPHIC EXPERTS GROUP
LPS	LOCK POWER SUPPLY
MDF	MAIN DISTRIBUTION FRAME
MPEG	MOTION PICTURE EXPERTS GROUP
NTSC	NATIONAL TELEVISION STANDARDS COMMITTEE
NVR	NETWORK VIDEO RECORDER
PIR	PASSIVE INFRARED
POE	POWER OVER ETHERNET
PP	PATCH PANEL
PPF	PIXELS PER FOOT
PTZ	PAN-TILT-ZOOM
REX	REQUEST TO EXIT
SMS	SOFTWARE MANAGEMENT SYSTEM
TP	TERMINATION POINT
TR	TELECOM ROOM
TS	TRADE SIZE
TY	SECURITY DISCIPLINE DESIGNATOR
UM	MICRON
UPS	UNINTERRUPTIBLE POWER SUPPLY
UTP	UNSHIELDED TWISTED PAIR
VMS	VIDEO MANAGEMENT SOFTWARE
WDR	WIDE DYNAMIC RANGE

SECURITY RESPONSIBILITY MATRIX

SECURITY RESPONSIBILITY MATRIX	GC	SEC	DOOR...	OWNER
NETWORK CABLING TO IDF CONDUITS	X			
CONDUITS	X			
J-BOXES	X			
POWER	X			
ACCESS PANELS	X			
SECURITY CABLING (NON IP)		X		
SECURITY PANELS		X		
CAMERAS		X		
CARD READERS		X		
DOOR CONTACTS		X		
DOOR LOCKS AND HARDWARE			X	
REX (INTEGRATED)			X	
REX (PIR)		X		
LOW VOLTAGE POWER DISTRIBUTION PANELS AND CABLING		X		
NETWORK VIDEO RECORDERS		X		
SECURITY SYSTEM LICENSES		X		
COMPUTERS				X

REGISTERED COMMUNICATIONS DISTRIBUTION DESIGNER
Bicsi
NICKOLAS BARRERA
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4B Technology Group
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Houston, TX 77067
(p) 832.249.9379

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1413 West Maple St
Denton, TX 76201

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Issue:	ISSUE FOR CONSTRUCTION
Date:	JANUARY 30, 2025

REVISIONS

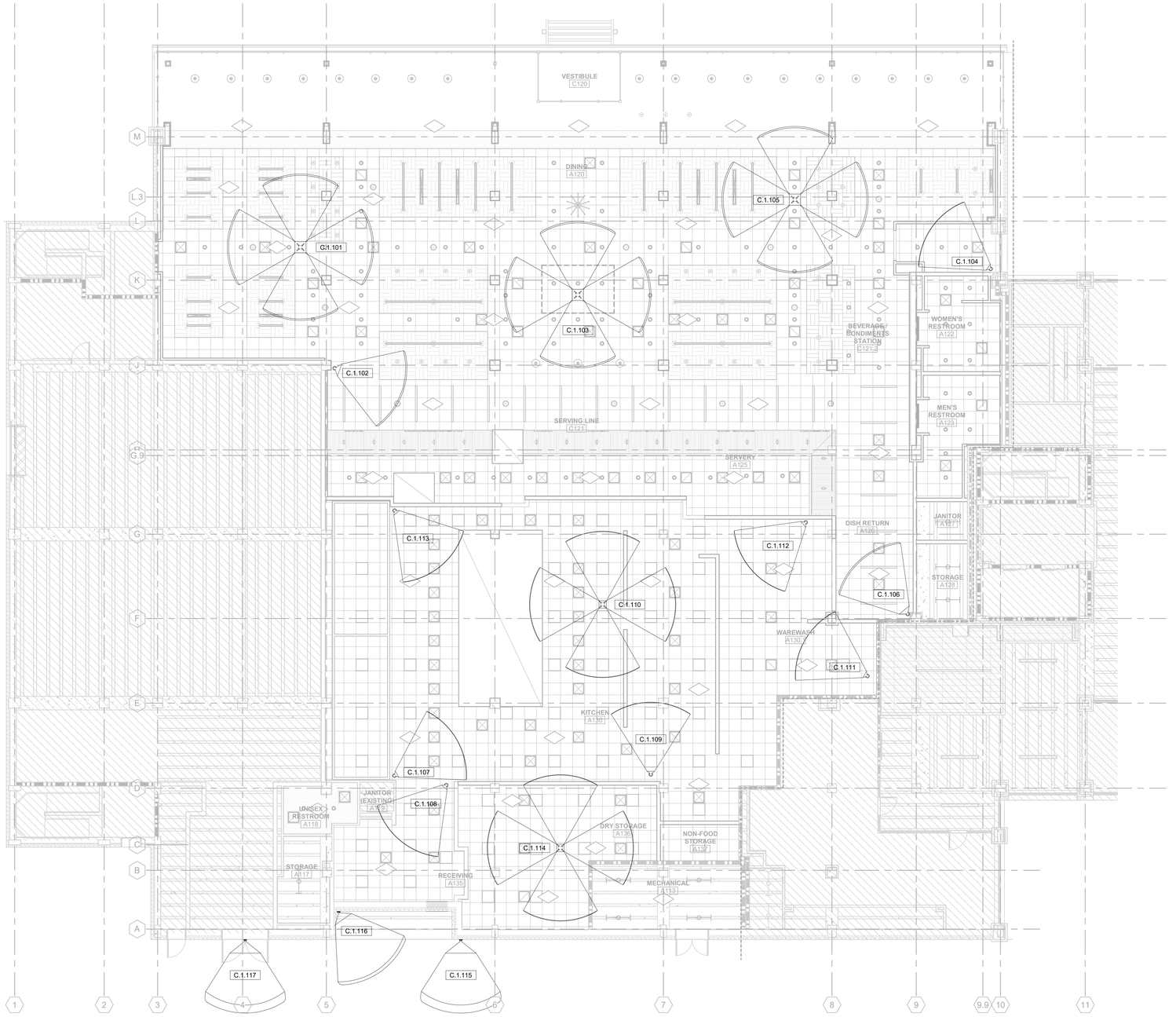
NO	DESCRIPTION	DATE

TY000B

SECURITY - INDEX (KITCHEN & DINING)

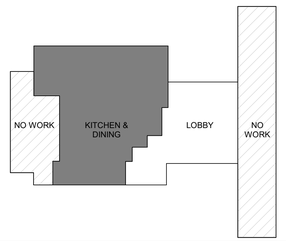
TreanorHL NO. HE0569.2302.01

CAMERA SCHEDULE				
CAMERA #	**MOUNT TYPE**	**CAMERA TYPE**	**HEIGHT**	**DETAILS**
C.1.101	CEILING MOUNT	INDOOR MULTISENSOR 360	10' - 0"	4 / TY500B
C.1.102	CEILING MOUNT	INDOOR FIXED DOME	10' - 0"	1 / TY500B
C.1.103	CEILING MOUNT	INDOOR MULTISENSOR 360	10' - 0"	4 / TY500B
C.1.104	CEILING MOUNT	INDOOR FIXED DOME	9' - 0"	1 / TY500B
C.1.105	CEILING MOUNT	INDOOR MULTISENSOR 360	10' - 0"	4 / TY500B
C.1.106	CEILING MOUNT	INDOOR FIXED DOME	10' - 0"	1 / TY500B
C.1.107	CEILING MOUNT	INDOOR FIXED DOME	9' - 0"	1 / TY500B
C.1.108	CEILING MOUNT	INDOOR FIXED DOME	9' - 0"	1 / TY500B
C.1.109	CEILING MOUNT	INDOOR FIXED DOME	9' - 0"	1 / TY500B
C.1.110	CEILING MOUNT	INDOOR MULTISENSOR 360	9' - 0"	4 / TY500B
C.1.111	CEILING MOUNT	INDOOR FIXED DOME	9' - 0"	1 / TY500B
C.1.112	CEILING MOUNT	INDOOR FIXED DOME	9' - 0"	1 / TY500B
C.1.113	CEILING MOUNT	INDOOR FIXED DOME	9' - 0"	1 / TY500B
C.1.114	CEILING MOUNT	INDOOR MULTISENSOR 360	9' - 0"	4 / TY500B
C.1.115	WALL MOUNT	OUTDOOR FIXED DOME	13' - 0"	3 / TY500B
C.1.116	WALL MOUNT	OUTDOOR FIXED DOME	11' - 0"	3 / TY500B
C.1.117	WALL MOUNT	OUTDOOR FIXED DOME	13' - 0"	3 / TY500B



SECURITY REFLECTED CEILING PLAN (KITCHEN & DINING) TY1

1/8" = 1'-0"



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SECURITY - REFLECTED CEILING PLAN (KITCHEN & DINING)

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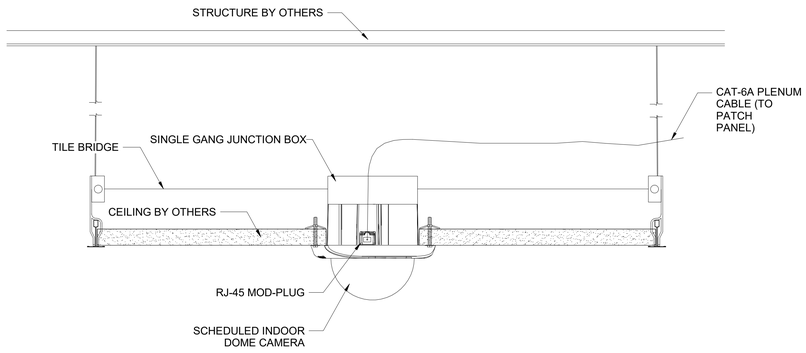
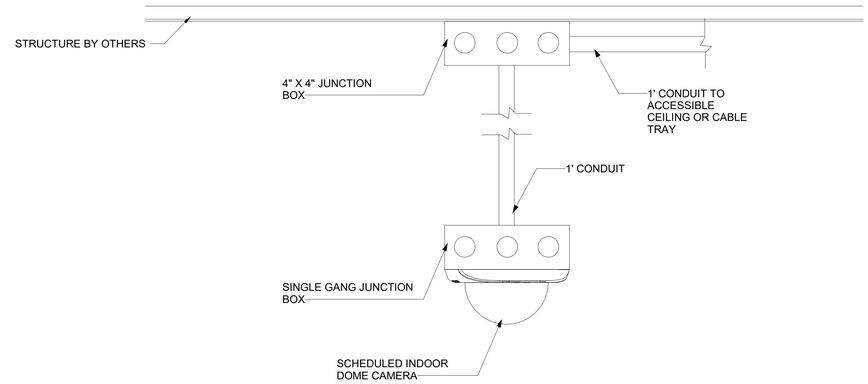
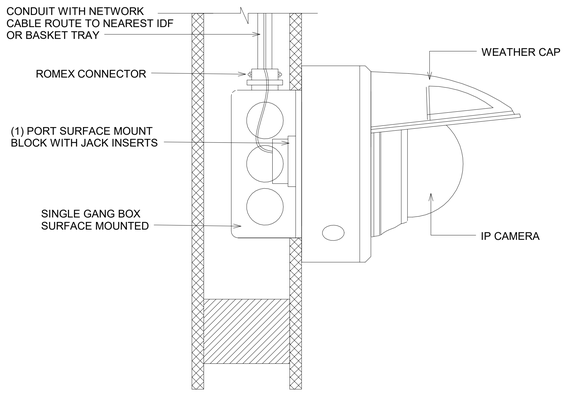


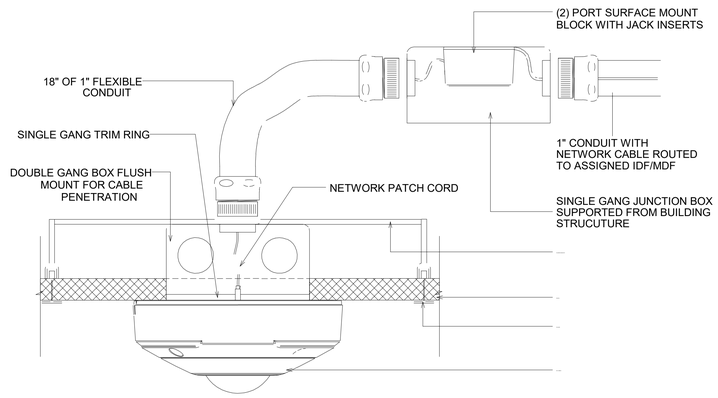
LAY-IN CEILING MOUNTED FIXED
N.T.S. 01



PENDANT MOUNT
N.T.S. 02



WALL-MOUNT RECESSED INTERIOR / EXTERIOR CAMERA
N.T.S. 03



360 CEILING SURFACE MOUNT
N.T.S. 04

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SECURITY - DETAILS (KITCHEN & DINING)

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