ADRIAN TACOS BUILD OUT

701 PIN OAK ROAD - KATY , TX 77494

SUITE 103

DRAWING INDEX

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A B	A-000	COVER SHEET
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	A-002	ACCESSIBILITY STANDARDS
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		ARCHITECTURAL
A	A1.0	FLOOR PLAN
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A B	P1.2	RISER DIAGRAM & SCHEDULE
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A B	P1.4	GAS SYSTEM PLAN, DETAILS & CALCULATIONS
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A B	E1.0	ELECTRICAL POWER PLAN
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A B	E1.2	ELECTRICAL LIGHTING PLAN
A B	E1.3	RISER DIAGRAM & LOAD ANALYSIS

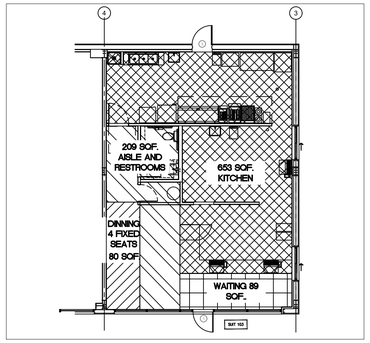
GENERAL CONSTRUCTION NOTES

1. ALL WORK SHALL COMPLY WITH APPLICABLE NATIONAL AND LOCAL CODES AND ORDINANCES, AS WELL AS UNDERWRITERS REGULATIONS HAVING JURISDICTION. THE CONTRACTORS SHALL ALSO COMPLY WITH ALL RULES AND REGULATIONS OF THE BUILDING OWNER, IF APPLICABLE.
2. ALL CONTRACTORS SHALL VISIT THE SITE TO DETERMINE THE EXISTING CONDITIONS. NOTIFY THE ARCHITECT IMMEDIATELY IF THERE ARE ANY DISCREPANCIES BETWEEN EXISTING CONDITIONS AND THE CONSTRUCTION DOCUMENTS.
3. THE OWNER AND/OR THE TENANT OR THEIR APPOINTED REPRESENTATIVE SHALL PROCURE ALL PERMITS AND CERTIFICATES OF OCCUPANCY OR LOCAL EQUIVALENT.
4. THE WORK INCLUDES THE FURNISHING OF ALL LABOR, MATERIALS AND EQUIPMENT AND SERVICES NECESSARY FOR, AND REASONABLY INCIDENTAL TO THE COMPLETION, IN PLACE, OF ALL WORK ILLUSTRATED AND DESCRIBED IN THE DRAWINGS AND SPECIFICATIONS.
5. CONDITIONS DEPICTED ON THESE DRAWINGS HAVE BEEN COMPILED FROM AVAILABLE INFORMATION AND MUST BE VERIFIED WITH ON-SITE CONDITIONS. WRITTEN DIMENSIONS ON DRAWINGS SHALL HAVE PRECEDENCE OVER SCALED DIMENSIONS. CONTRACTORS SHALL VERIFY, AND BE RESPONSIBLE FOR ALL DIMENSIONS AND CONDITIONS AT THE BUILDING SITE AND SHALL REPORT ANY DISCREPANCIES TO THE ARCHITECT PRIOR TO PROCEEDING WITH THE WORK.
6. THE CONTRACTORS SHALL RECEIVE, HANDLE, STORE(IF NECESSARY) AND BE RESPONSIBLE FOR ALL MATERIALS PROVIDED BY OTHERS. ALL MATERIALS SHALL BE ACCOUNTED FOR UPON RECEIPT AND ANY MISSING OR DAMAGED PARTS SHALL BE REPORTED TO THE ARCHITECT AND/OR OWNER IMMEDIATELY.
7. SHOP DRAWINGS PREPARED BY THE CONTRACTORS, SUPPLIERS, ETC. SHALL BE REVIEWED BY THE ARCHITECT ONLY AS TO CONFORMANCE WITH THE DESIGN CONCEPT. NO WORK SHALL START WITHOUT SUCH REVIEW.
8. THE CONTRACTORS SHALL REMOVE RUBBISH AND DEBRIS FROM THE BUILDING SITE PROMPTLY UPON ACCUMULATION AND IN NO EVENT LESS FREQUENTLY THAN EVERY FRIDAY AFTERNOON.
9. THE CONTRACTORS SHALL PROTECT ADJACENT PROPERTY DURING CONSTRUCTION. CONTRUCTION WORK SHALL NOT DISTURB TRAFFIC OR ON-GOING BUSINESS, EXCEPT BY SPECIFIC AGREEMENT WITH OWNER.
10. MODIFICATIONS TO THE BUILDING SHALL BE COORDINATED WITH THE BUILDING OWNER AND ARCHITECT, IF APPLICABLE.
11. MINOR ITEMS AND ACCESSORIES REASONABLY INFERRED AS NECESSARY TO COMPLETE AND PROPERLY OPERATE ANY SYSTEM, SHALL BE PROVIDED BY THE RESPECTIVE CONTRACTOR AT NO ADDITIONAL COST TO THE OWNER AND/OR TENANT.
12. THE CONTRACTORS SHALL INSTALL ALL MANUFACTURED ITEMS, MATERIALS AND EQUIPMENT IN STRICT ACCORDANCE WITH THE MANUFACTURER'S SPECIFICATION RECOMMENDATIONS.
13. ALL REQUESTS FOR SUBSTITUTION OF ANY ITEMS SPECIFIED SHALL BE SUBMITTED IN WRITING TO THE OWNER'S AND/OR TENANT'S REPRESENTATIVE AND WILL BE CONSIDERED ONLY IF BETTER SERVICE, MORE ADVANTAGEOUS DELIVERY DATE OR CREDIT TO THE CONTRACT PRICE WILL BE PROVIDED WITHOUT SACRIFICE OF QUALITY, APPEARANCE AND FUNCTION.
14. CONTRACTORS SHALL SUBMIT CONFIRMATIONS WITH DELIVERY DATES ON ORDERS OF MATERIALS AND EQUIPMENT WITH LONG LEAD TIMES.
15. THE CONTRACTORS SHALL SUBMIT SAMPLES OF ALL FINISHES TO THE ARCHITECT OR OWNER/TENANT REPRESENTATIVE PRIOR TO CONSTRUCTION.
16. CONTRACTORS SHALL VERIFY WITH THE OWNER AND/OR TENANT ALL FIXTURES AND EQUIPMENT TO BE FURNISHED BY OTHERS.
17. STATEMENT OF COMPLIANCE: THE ATTACHED PLANS AND SPECIFICATIONS HAVE BEEN PREPARED, OR CAUSED TO BE PREPARED, UNDER THE ARCHITECT'S DIRECT SUPERVISION. TO THE BEST OF THE ARCHITECT'S KNOWLEDGE AND BELIEF, AND TO THE EXTENT OF CONTRACTURAL OBLIGATION, THEY ARE IN COMPLIANCE WITH THE AMERICANS WITH DISABILITIES ACT, ACCESSIBILITY GUIDELINES (PUBLIC LAW 101-336, JULY 26, 1991).

PROJECT INFORMATION

SCOPE OF WORK:

NEW INTERIOR BUILD OUT OF 1,149 SQF TO GO RESTAURANT, WITH 4 FIXED SEATS



SUITE 103 DATA: OCCUPANCY CLASSIFICATION B

TABLE 1004.1.2 PER 2015IBC

MAXIMUM FLOOR AREA ALLOWANCES PER OCCUPANT

TOTAL SPACE AREA = 1,149 SQF.

FUNCTION OF SPACE	ALLOWANCE	AREA	OCCUPANTS
WAITING AREA	15 GROSS	89	5.9
DINNING WITH FIXED SEATS	--	80	4 SEATS/OCC
KITCHEN / FOOD PREP. AREA	200 GROSS	653	4
AISLE AND RESTROOM	--	209	0
WALLS	--	118	0
TOTAL AREA		1,149	
PROPOSED TOTAL OCCUPANCY			14

APPLICABLE BUILDING CODES:

2015 EDITION – INTERNATIONAL BUILDING CODE
2015 EDITION – INTERNATIONAL ENERGY CONSERVATION CODE
2015 EDITION – INTERNATIONAL EXISTING BUILDING CODE
2015 EDITION – INTERNATIONAL FIRE CODE
2015 EDITION – INTERNATIONAL FUEL AND GAS CODE
2015 EDITION – INTERNATIONAL MECHANICAL CODE
2015 EDITION – INTERNATIONAL PLUMBING CODE
2015 EDITION – INTERNATIONAL PROPERTY MAINTENANCE CODE
2015 EDITION – NFPA 101 LIFE SAFETY CODE
2020 EDITION – NATIONAL ELECTRICAL CODE

PARKING CALCULATIONS:

SUITE NO.	SQF.	USE	PER SECTION 18.4 CITY OF KATY CODE OF ORDINANCES:
SUITE 100	1150 SQF.	RETAIL/ NOT IN SCOPE OF WORK	1 FOR 200 SQ. FT. FLOOR AREA = 6 PARKING SPACES NEEDED
SUITE 101	776 SQF.	FUTURE OFFICE TENANT/NOT IN SCOPE OF WORK	1 FOR 400 SQ. FT. FLOOR AREA = 2 PARKING SPACES NEEDED
SUITE 102	1,120 SQF.	FUTURE RETAIL TENANT/NOT IN SCOPE OF WORK	1 FOR 200 SQ. FT. FLOOR AREA = 6 PARKING SPACES NEEDED
SUITE 103	1,149 SQF.	FOOD SERVICE	1 FOR 50 SQ. FT. DINNING AREA FLOOR SPACE = 4 PARKING SPACES NEEDED
SUITE 200	792 SQF.	FUTURE OFFICE TENANT/NOT IN SCOPE OF WORK	1 FOR 400 SQ. FT. FLOOR AREA = 2 PARKING SPACES NEEDED
SUITE 201	798 SQF.	FUTURE OFFICE TENANT/NOT IN SCOPE OF WORK	1 FOR 400 SQ. FT. FLOOR AREA = 2 PARKING SPACES NEEDED
SUITE 202	778 SQF.	FUTURE OFFICE TENANT/NOT IN SCOPE OF WORK	1 FOR 400 SQ. FT. FLOOR AREA = 2 PARKING SPACES NEEDED
SUITE 203	887 SQF.	FUTURE OFFICE TENANT/NOT IN SCOPE OF WORK	1 FOR 400 SQ. FT. FLOOR AREA = 3 PARKING SPACES NEEDED
SUITE 204	930 SQF.	FUTURE OFFICE TENANT/NOT IN SCOPE OF WORK	1 FOR 400 SQ. FT. FLOOR AREA = 3 PARKING SPACES NEEDED
SUITE 205	718 SQF.	FUTURE OFFICE TENANT/NOT IN SCOPE OF WORK	1 FOR 400 SQ. FT. FLOOR AREA = 2 PARKING SPACES NEEDED
			35 EXISTING PARKING SPACES 32 PARKING SPACES NEEDED A

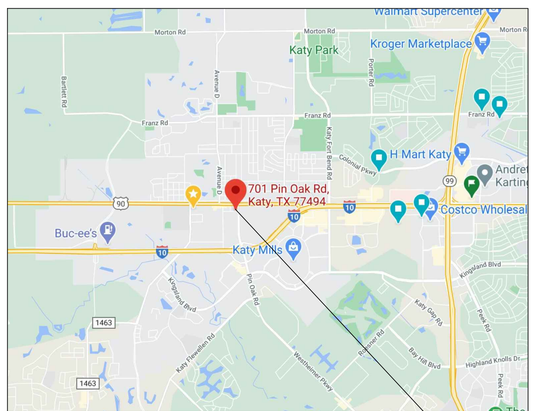
VICINITY MAP

NOT TO SCALE

PROJECT LOCATION

NORTH

LOCATION MAP



NOT TO SCALE

PROJECT LOCATION

GRAPHIC LEGEND

GENERAL GRAPHIC LEGEND

SYMBOL	DESCRIPTION
LEVEL X'-X"	LEVEL TAG
A	WINDOW TAGS
X'-X"	WALL TYPES
XX	DOOR TAG
XXX	NOTE TAG
X'/X"-X'X	EXTERIOR ELEVATION TAGS
U L(X"-XX")R D	INTERIOR ELEVATION TAGS
1 A-1.0	SECTION TAGS
ROOM NAME #	ROOM TAGS
CPT-1	FINISH TAGS
A	EQUIPMENT AND ACCESSORY TAGS
REF	COLUMN BUBBLE
1	REVISION DELTA

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REV.	DESCRIPTION	DATE:
	PERMIT SET	01/15/22
A	CITY COMMENTS	04/03/22
B	CITY COMMENTS	05/31/22

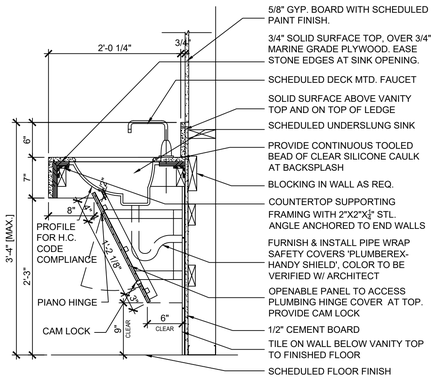
SHEET CONTENTS

COVER SHEET

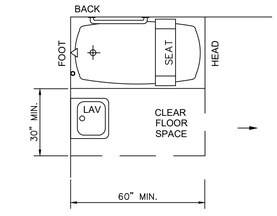
SHEET NUMBER

A-000

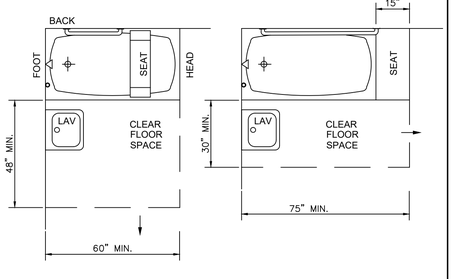
DATE: 05/31/22



R.R. VANITY SECTION

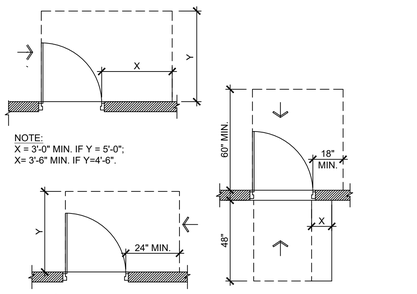


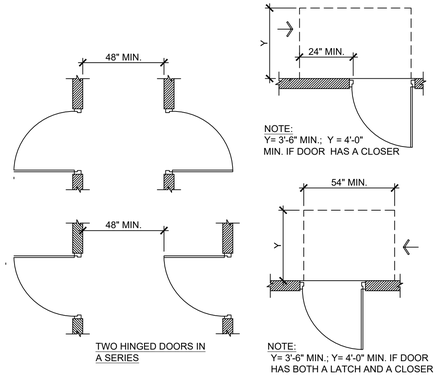
SYMBOL KEY
- SHOWER CONTROLS
- SHOWER HEAD
- DRAIN



CLEAR FLOOR SPACE AT BATHTUBS

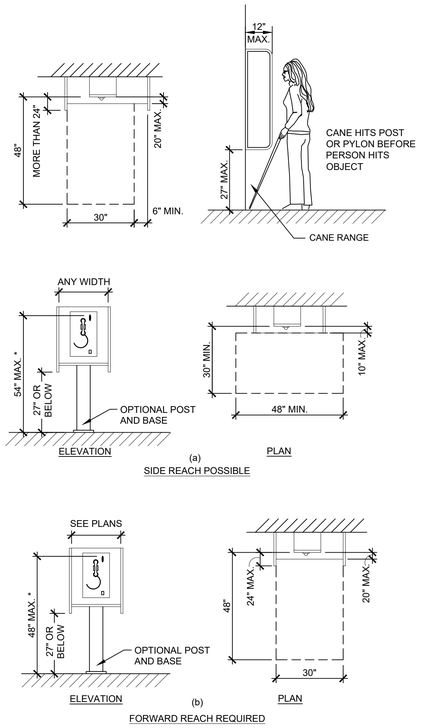
SCALE 3/8" = 1'-0" | 9





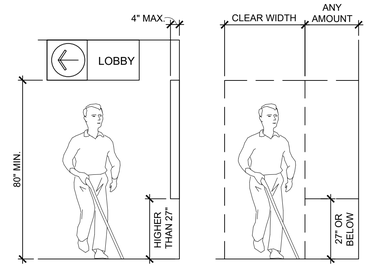
DOOR CLEARANCES

SCALE 3/8" = 1'-0" | 8



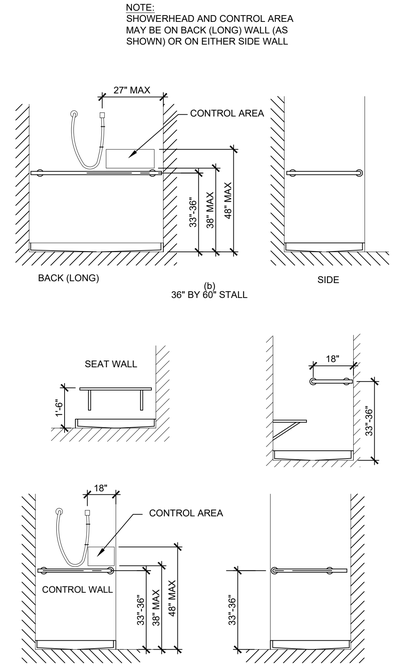
PHONE MOUNTING HEIGHTS

SCALE 3/8" = 1'-0" | 7



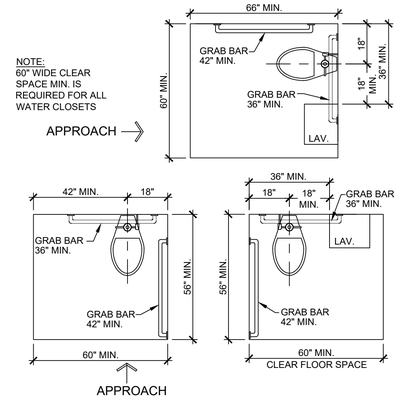
PROTUDING OBJECTS

SCALE 3/8" = 1'-0" | 6



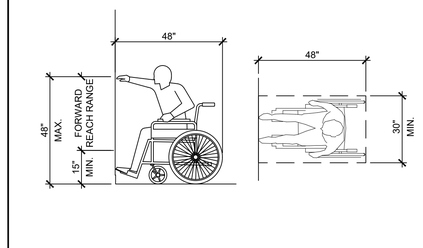
SHOWER STALLS

SCALE 3/8" = 1'-0" | 5



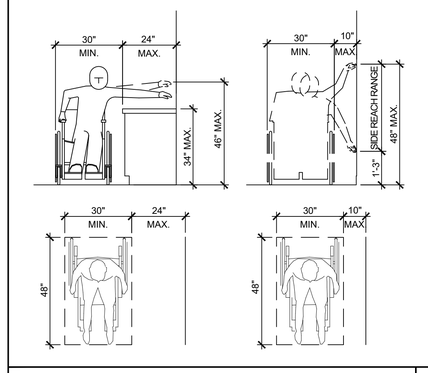
SINGLE USER TOILET

SCALE 3/8" = 1'-0" | 4



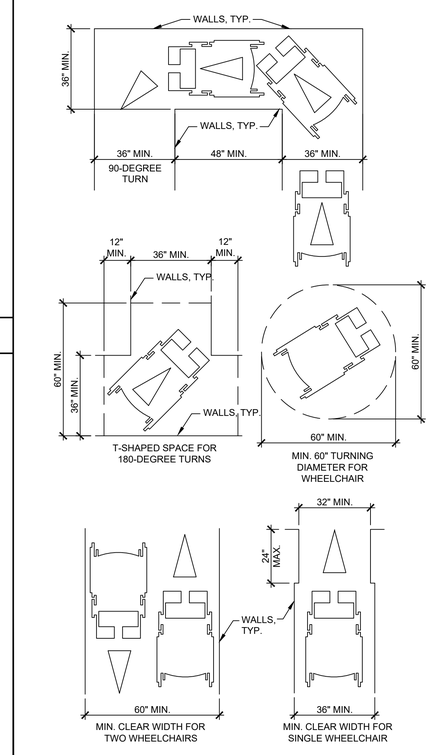
FORWARD REACH RANGE

SCALE 3/8" = 1'-0" | 3



SIDE REACH RANGE

SCALE 3/8" = 1'-0" | 2



WHEELCHAIR CLEARANCES

SCALE 3/8" = 1'-0" | 1

ACCESSIBILITY NOTES

1. IN BUILDINGS AND FACILITIES, FLOORS OF A GIVEN STORY SHALL BE A COMMON LEVEL THROUGHOUT, OR SHALL BE CONNECTED BY PEDESTRIAN RAMPS, PASSENGER ELEVATORS, OR SPECIAL ACCESS LIFTS.
2. FLOOR SURFACES SHALL BE SLIP-RESISTANT.
3. EVERY CORRIDOR AND AISLE SERVING AN OCCUPANT LOAD OF 10 OR MORE SHALL BE NOT LESS THAN 44" IN CLEAR WIDTH.
4. ABRUPT CHANGES IN LEVEL ALONG ANY ACCESSIBLE ROUTE SHALL NOT EXCEED ¼" IN HEIGHT. LEVEL CHANGES NOT EXCEEDING ½" MAY BE VERTICAL. BEVEL OTHERS WITH A SLOPE OF NO GRATER THAN 1:2.
5. LATCHING AND LOCKING DOORS THAT ARE HAND ACTIVACTED AND WHICH ARE IN A PATH OF TRAVEL SHALL BE OPERABLE WITH A SINGLE EFFORT BY LEVER TYPE HARDWARE, PANIC BARS, PUSH ACTIVATING BARS, OR OTHER HARDWARE DESIGNED TO PROVIDE PASSAGE WITHOUT REQUIRING THE ABILITY TO GRASP THE OPENING HARDWARE. MOUNT DOOR OPENING HARDWARE BETWEEN 30" AND 44" ABOVE THE FLOOR FINISH.
6. CENTER HAND ACTIVATED DOOR OPENING HARDWARE 30" AND 44" ABOVE FINISHED FLOOR.
7. MAXIMUM PULL OR PUSH EFFORT TO OPERATE DOORS SHALL NOT EXCEED 8.5 POUNDS FOR EXTERIOR DOORS, AND 5 POUNDS FOR INTERIOR DOORS, MEASURED AT RIGHT ANGLES TO HINGED DOORS AND AT CENTER PLAN OF SLIDING OR FOLDING DOORS. CORRESPONDING DEVICES OR AUTOMATIC DOOR OPENERS MAY BE UTILIZED TO MEET THE ABOVE STANDARDS. MAXIMUM EFFORT TO OPERATE REQUIRED FIRE DOORS MAY BE INCREASED NOT TO EXCEED 15 POUNDS.
8. THE BOTTOM 10" OF ALL DOORS, (EXCEPT SLIDING AND AUTOMATIC) SHALL HAVE A SMOOTH UNINTERRUPTED SURFACE TO ALLOW THE DOOR TO BE OPENED USING A WHEELCHAIR FOOTREST WITHOUT CREATING A TRAP OR HAZARDOUS CONDITION. PROVIDE A 10" SMOOTH PANEL ON THE PUSH SIDE OF NARROW FRAME DOORS.
9. EVERY REQUIRED ENTRANCE OR PASSAGE DOORWAY SHALL BE NOT LESS THAN 3' IN WIDTH AND NOT LESS THAN 6'-8" IN HEIGHT. DOORS SHALL BE CAPABLE OF OPENING AT LEAST 90 DEGREES AND SHALL BE MOUNTED SO THAT THE CLEAR WIDTH OF THE DOORWAY IS NOT LESS THAN 32".
10. WHERE A PAIR OF DOORS IS UTILIZED, AT LEAST ONE OF THE DOORS SHALL PROVIDE A CLEAR, UNOBSTRUCTED OPENING WIDTH OF 32" WITH THE LEAF POSITIONED AT AN ANGLE OF 90 DEGREES FROM ITS CLOSED POSITION.
11. IDENTITFY ACCESSIBLE ENTRANCES WITH AT LEAST ONE STANDARD SIGN AND WITH ADDITIONAL DIRECTIONAL SIGNS AS REQUIRED, VISIBLE FROM APPROACHING PEDESTRAIN WAYS.
12. THE FLOOR OR LANDING ON EACH SIDE OF AN ENTRANCE OR PASSAGE DOOR SHALL BE LEVEL AND CLEAR. THE LEVEL AND CLEAR AREA SHALL HAVE A LENGTH IN THE DIRECTION OF DOOR SWING OF AT LEAST 60", AND THE LENGTH OPPOSITE THE DIRECTION OF DOOR SWING OF 44" AS MEASURED AT RIGHT ANGLES TO THE PLANE OF THE DOOR IN ITS CLOSED POSITION.
13. FLOORS OR LANDINGS SHALL BE NOT MORE THAN ½" LOWER THAN THE THRESHOLD OF THE DOORWAY. CHANGE IN LEVEL BETWEEN ¼" AND ½" SHALL BE BEVELED, WITH A SLOPE NO GREATER THAN 1:2.
14. TO ALERT THE VISUALLY IMPAIRED, MARK THE UPPER APPROACH AND THE LOWER TREAD OF EACH INTERIOR STAIR WITH A STRIP OF CLEARLY CONTRASTING COLOR AT LEAST 2" WIDE, PLACED PARALLEL TO AND NOT MORE THAN 1" FROM THE NOSE OF THE STEP OR LANDING. THE STRIP SHALL BE OF A MATERIAL THAT IS AS LEAST AS SLIP RESISTANT AS THE OTHER TREADS OF THE STAIR.
15. CENTER ELECTRICAL RECEPTACLES NOT MORE THAN 15" ABOVE THE FLOOR OR WORKING PLATFORM.

ACCESSIBLE NOTES

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REV.	DESCRIPTION	DATE:
	PERMIT SET	01/15/22
A	CITY COMMENTS	04/03/22
B	CITY COMMENTS	05/31/22

SHEET CONTENTS
ACCESSIBILITY STANDARDS

SHEET NUMBER
A-001

DATE: 05/31/22

NOTES:
1. MAXIMUM OPENING FORCE FOR EXTERIOR DOORS SHALL BE 8 POUNDS.
2. MAXIMUM OPENING FORCE FOR INTERIOR DOORS SHALL BE 5 POUNDS.
3. DOOR WITH LEVER HANDLE SHALL BE INSTALLED AT MAXIMUM 42" A.F.F.
4. ALL EXTERIOR DOOR HARDWARE SHALL BE "SCHALGE" OR APPROVED EQUAL.

HARDWARE:

HARDWARE #1 RESTROOM DOORS (TIGHT FITTING)
1. CLOSER: 4031-LCN PULL SIDE MOUNTED
2. HINGES: HAGER BB1279 US 26D 4 1/2" x 4 1/2" – 1-1/2 PAIR OR EQUAL.
3. PUSH & PULL PLATE: PUSH – HAGER 30S 4X16 US 28;
   PULL – HAGER H-33E 4X16 PLATE US 28
4. WALL STOP: HAGER 236W
5. KICK PLATES: US28D SATIN, ALUM. 8" x 34" x 18 GA. (2) PER DOOR
6. DOOR SILENCERS: HAGER, QUANTITY = 3
7. SAFETY GUARDS: FINGER SAFE MKIA OPEN HINGE SIDE AND MKIB CLOSED HINGE SIDE OF DOOR.
8. UNDERCUT DOOR BY 1/2"

GENERAL NOTES:

1. FURNISH AND INSTALL ALL INTERIOR WOOD DOORS AS SCHEDULED IN ALUMINUM FRAMES

2. DOORS SHALL BE PLASTIC LAMINATE CLAD SOLID CORE PARTICLE BOARD WITH ONE AND THREE-EIGHTHS INCHES WIDE, HARDWOOD STILES EQUAL TO SERIES 303 DOOR, MADE BY VT INDUSTRIES, 1000 INDUSTRIAL PARK, HOLSTEIN, IOWA 51025 OR EQUAL.

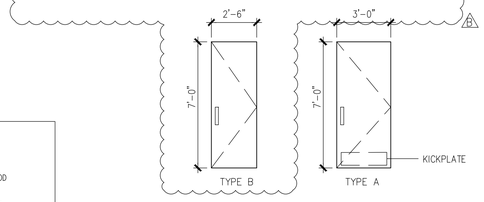
3. FURNISH AND INSTALL VERSATRAC ALUMINUM WINDOW AND DOOR FRAMES AT ALL INTERIOR WINDOWS AND DOORS SCHEDULED AS ALUMINUM FRAMES. VERSATRAC FRAMES ARE A DIVISION OF AMERICAN DOOR PRODUCTS, INC., HOUSTON, TEXAS.

4. DOOR AND SIDELITE FRAMES: FREESTANDING, PRE-FINISHED ALUMINUM DOOR AND SIDELITE FRAMES TO ACCOMMODATE ALL WALL THICKNESSES INDICATED ON PLANS. DRYWALL SHALL BE FIVE-EIGHTHS INCHES (5/8") AND GLASS SHALL BE ONE-QUARTER INCH (1/4").

5. VERSATRAC FRAME FINISH SHALL BE BLACK ANODIZED

DOOR SCHEDULE

No.	TYPE	SIZE (W • H)	THK.	DESCRIPTION	HARDWARE	FRAME
1	EXISTING FRONT DOOR					
2	A	3'-0" x 6'-8"	1 3/4"	SOLID WOOD CORE	1	ALUMINUM
3	EXISTING EXIT DOOR					
4	B	2'-6" x 6'-8"	1 3/4"	SOLID WOOD CORE	1	ALUMINUM



DOOR SCHEDULE AND NOTES — NOT TO SCALE — 03

TABLE 803.9 INTERIOR WALL AND CEILING FINISH REQUIREMENTS BY OCCUPANCY

SPRINKLERS			NON-SPRINKLERS		
EXISTS ENCLOSURES AND EXIST PASSAGEWAYS	CORRIDORS	ROOMS AND ENCLOSED SPACES	EXISTS ENCLOSURES AND EXIST PASSAGEWAYS	CORRIDORS	ROOMS AND ENCLOSED SPACES
B	B	C	A	B	C

For SI: 1 inch = 25.4 mm, 1 square foot = 0.0929m^2.

a. Class C interior finish materials shall be permitted for wainscotting or paneling of not more than 1,000 square feet of applied surface area in the grade lobby where applied directly to a noncombustible base or over furring strips applied to a noncombustible base and fireblocked as required by Section 803.11.1.
b. In other than Group I-3 occupancies in buildings less than three stories above grade plane, Class B interior finish for nonsprinklered buildings and Class C interior finish for sprinklered buildings shall be permitted in interior exit stairways and ramps.
c. Requirements for rooms and enclosed spaces shall be based upon spaces enclosed by partitions. Where a fire-resistance rating is required for structural elements, the enclosing partitions shall extend from the floor to the ceiling. Partitions that do not comply with this shall be considered enclosing spaces and the rooms or spaces on both sides shall be considered one. In determining the applicable requirements for rooms and enclosed spaces, the specific occupancy thereof shall be the governing factor regardless of the group classification of the building or structure.
d. Lobby areas in Group A-1, A-2 and A-3 occupancies shall not be less than Class B materials.
e. Class C interior finish materials shall be permitted in places of assembly with an occupant load of 300 persons or less.
f. For places of religious worship, wood used for ornamental purposes, trusses, paneling or chancel furnishing shall be permitted.
g. Class B material is required where the building exceeds two stories.
h. Class C interior finish materials shall be permitted in administrative spaces.
i. Class C interior finish materials shall be permitted in rooms with a capacity of four persons or less.
j. Class B materials shall be permitted as wainscotting extending not more than 48 inches above the finished floor in corridors and exit access stairways and ramps.
k. Finish materials as provided for in other sections of this code.
l. Applies when protected by an automatic sprinkler system installed in accordance with Section 903.3.1.1 or 903.3.1.2.

1. GC, CONSULT WITH OWNER FOR DECOR PACKAGE REQUIREMENTS PRIOR TO BIDDING AND CONSTRUCTION.
2. ALL WALLS AND FLOOR FINISHES TO COMPLY WITH SECTION 803 AND 804 OF 2015 IBC.
3. G.C. REFER TO DECOR DRAWINGS, PROVIDED BY OTHERS, FOR APPROVED FINISHES.
4. ALL RESTROOM FLOORS TO BE OF NON-ABSORBENT CERAMIC TILE WITH TILE BASE EXTENDING UP TO CERAMIC TILE WALLS ON NEW CONCRETE CEMENT BOARD. ALL WALLS TO HAVE 4' CERAMIC TILE HEIGHT APPLIED OVER CEMENT BOARD.
5. WALLS AND CEILINGS IN RESTROOMS, STORAGE, CUSTOMER SERVICE, UTENSIL WASHING AND UTENSIL STORAGE TO BE SMOOTH, NONABSORBENT, EASILY CLEANABLE AND LIGHT COLORED, PER CITY REQUIREMENT.
6. FINISHES TO BE LIGHTER THAN DOVE GRAY OR 40% OR HIGHER LRV. REFER TO DECOR DRAWINGS FOR PRODUCT SPECIFICATIONS.
7. ALL SCHEDULE FRP TO BE COLOR: WHITE. REFER TO ATTACHED FRP SPECS BY PANOLAM INDUSTRIES.
8. WALL TILE LOCATED AT RESTROOM WALLS TO BE NO DARKER THAN DOVE GRAY PER CITY REQUIRMENT.
9. THE TOPS OF DINING SURFACES AND WORK SURFACES SHALL BE 28 INCHES (710 MM) MINIMUM AND 34 INCHES (865 MM) MAXIMUM ABOVE THE FINISH FLOOR OR GROUND.

FINISH SCHEDULE

NR.	ROOM NAME	FLOOR: CERAMIC TILE	FLOOR: PLYWOOD FLOORING	FLOOR: POLISHED CONCRETE	BASE: 4" VINYL BASE	BASE: CERAMIC BASE	WALL: NONE	WALL: PAINTED GYP. BOARD	WALL: CERAMIC TILE (4' from floor)	WALL: CERAMIC TILE	WALL: STAINLESS STEEL	CLG.: 2x4 CEILING TILE	CLG.: GYP. BOARD	CLG.: OPEN CEILING	COMMENTS
100	CUSTOMER SERVICE	●				●		●				●			
101	WAITING AREA	●				●		●				●			
102	UNISEX RESTROOM	●				●		●		●		●			
103	KITCHEN	●				●		●				●			
104	STORAGE	●				●		●				●			

FINISH SCHEDULE AND NOTES — NOT TO SCALE — 02

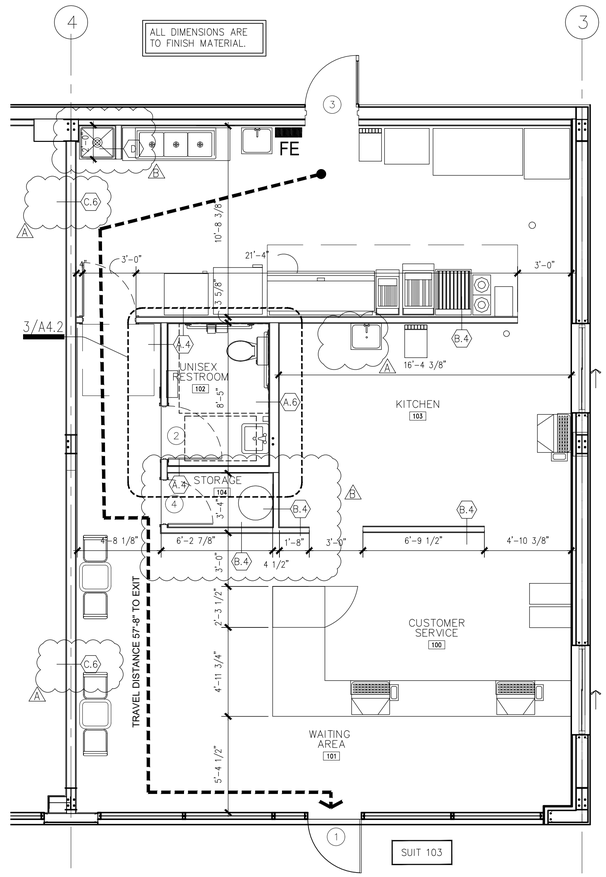
FLOOR PLAN LEGEND

TRAVEL DISTANCE IN L.F.

FE FIRE EXTINGUISHER: FIRE EXTINGUISHER AGENT = WATER, SURFACE MOUNTED 5 LB , CLASS K, TYPE A/B/C FIRE EXTINGUISHER CENTERED AT 48" max ABOVE THE FLOOR LOCATED AT A MAX SPACING OF 75' PER IBC 2012 MAX. TRAVEL DISTANCE ALLOWED = 200' LF PROVIDED = 124' LF

GENERAL NOTE

SUITE IDENTIFICATION NUMBERS A MINIMUM 4 INCH HIGH NUMBERS WITH A .5 INCH STROKE, ALL NUMBERING SHALL BE LEGIBLE AND EASILY DISTINGUISHABLE ON A CONTRASTING BACKGROUND. SUITE 103 NUMBER SHALL BE POSTED AT THE FRONT ENTRANCE DOORS



NORTH

FIRST FLOOR PLAN — SCALE 1/4"=1'-0" — 01

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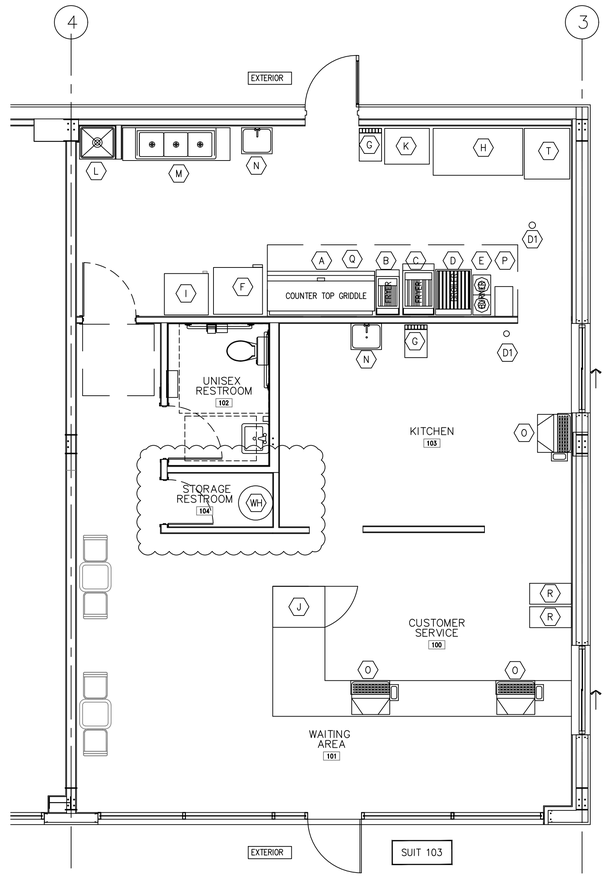
REV.	DESCRIPTION	DATE:
	PERMIT SET	01/15/22
A	CITY COMMENTS	04/03/22
B	CITY COMMENTS	05/31/22

SHEET CONTENTS
FLOOR PLAN
&
DOOR AND FINISH SCHEDULE

SHEET NUMBER
A1.0

DATE: 05/31/22



- (A) COOKING PERFORMANCE GROUP CF2T-NG(CPG) 72" GAS COUNTERTOP GRIDDLE WITH THERMOSTATIC CONTROLS – 180,000 BTU
- (B) MAIN STREET EQUIMPENT LIQUID PROPANE 40LB. STAINLESS STEEL FLOOR FRYER – 90,000 BTU
- (C) MAIN STREET EQUIMPENT NATURAL GAS 70-100 LB STAINLESS STEEL FLOOR FRYER – 150,000 BTU
- (D) AVANTCO CHEF SERIES CAC24RC 24" GAS COUNTERTOP RADIANT CHARBROILER – 60,000 BTU
- (E) COOKING PERFORMANCE GROUP HP212 2 BURNER GAS COUNTERTOP RANGE / HOT PLATE – 44,000 BTU
- (F) GARAGE READY 21.3 CU. FT. FROST-FREE UPRIGHT FREEZER IN WHITE, ENERGY STAR
- (G) SERVEND 2709836 DI-1522 6 VALVE SANITARY LEVER DROP-IN BEVERAGE DISPENSER WITH 60 LB. ICE STORAGE AND INTERNAL CARBONATOR (FOUNTAIN MACHINE)
- (H) AVANTCO SSIPT1-260 60" 2 DOOR REFRIGERATED PIZZA PREP TABLE
- (I) BEVOX BVRFF18SS 18CU. FT. TOP MOUNT FREEZER REFRIGERATOR STAINLESS STEEL
- (J) AVANTCO APT-27M-HC 27" 1 DOOR MEGA TOP REFRIGERATED SANDWICH PREP TABLE
- (K) AVANTCO ICE MC-500-30-HA 30" AIR COOLED MODULAR HALF CUBE ICE MACHINE- 500LB
- (L) MOP SINK
- (M) REGENCY 70" 16-GAUGE STAINLESS STEEL THREE COMPARTMENT COMMERCIAL SINK WITH STAINLESS STEEL LEGS, CROSS BRACING, AND 2 DRAINBOARDS – 14" X 16" X 12" BOWLS
- (N) HAND SINK
- (O) POS
- (R) CRATHCO, MP SERIES CRATHCO SINGLE BARREL FREEZER (MARGARITA MACHINE)
- (T) AVANTCO_ICE_MACHINES_1194MC500L3F
- (P) INFRARED STRIP HEATERS, NEMCO, 66089, 66099
- (Q) NEW HOOD
- (D1) DRAIN
- (WH) WATER HEATER

EQUIPMENT KEY NOTES — NOT TO SCALE — 02

FIRST FLOOR PLAN — SCALE 1/4"=1'-0" — 01

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SHEET CONTENTS
EQUIPMENT PLAN

SHEET NUMBER
A1.1

DATE: 05/31/22

609 GRAB BARS

609.2 Cross Section. Grab bars shall have a cross section complying with 609.2.1 or 609.2.2.

609.2.1 Circular Cross Section. Grab bars with circular cross sections shall have an outside diameter of 1 1/4 inches minimum and 2 inches maximum.

609.2.2 Non-Circular Cross Section. Grab bars with non-circular cross sections shall have a cross-section dimension of 2 inches maximum and a perimeter dimension of 4 inches minimum and 4.8 inches maximum

609.3 Spacing. The space between the wall and the grab bar shall be 1 1/2 inches. The space between the grab bar and projecting objects below and at the ends shall be 1 1/2 inches minimum. The space between the grab bar and projecting objects above shall be 12 inches minimum.

EXCEPTION: The space between the grab bars and shower controls, shower fittings, and other grab bars above shall be permitted to be 1 1/2 inches minimum.

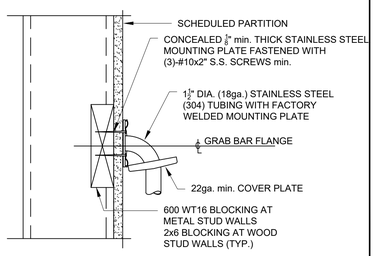
609.4 Position of Grab Bars. Grab bars shall be installed in a horizontal position, 33 inches minimum and 36 inches maximum above the finish floor measured to the top of the gripping surface, except that at water closets for children's use complying with 604.9, grab bars shall be installed in a horizontal position 18 inches minimum and 27 inches maximum above the finish floor measured to the top of the gripping surface.

609.5 Surface Hazards. Grab bars and any wall or other surfaces adjacent to grab bars shall be free of sharp or abrasive elements and shall have rounded edges.

609.6 Fittings. Grab bars shall not rotate within their fittings.

609.7 Installation. Grab bars shall be installed in any manner that provides a gripping surface at the specified locations and that does not obstruct the required clear floor space.

609.8 Structural Strength. Allowable stresses shall not be exceeded for materials used when a vertical or horizontal force of 250 pounds is applied at any point on the grab bar, fastener, mounting device, or supporting structure.



ALL WOOD BLOCKING TO BE FIRE-RETARDANT TREATED WOOD CONNECTION DETAIL TYPICAL AT EACH GRAB BAR FLANGE

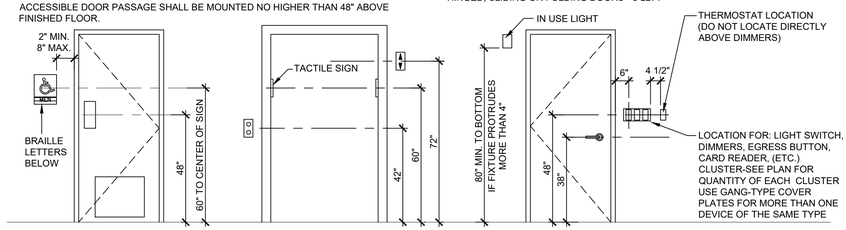
GRAB BAR — SCALE 3/8" = 1'-0" — 5

1) DOOR HARDWARE -HANDLES, PULLS, LATCHES, LOCKS, AND OTHER OPERATING DEVICES ON ACCESSIBLE DOORS SHALL HAVE A SHAPE THAT IS EASY TO GRASP WITH ONE HAND AND DOES NOT REQUIRE TIGHT GRASPING, TIGHT PINCHING, OR TWISTING OF LEVER-OPERATED MECHANISMS; U-SHAPED HANDLES ARE ACCEPTABLE DESIGNS.

2) WHEN SLIDING DOORS ARE FULLY OPEN, OPERATING HARDWARE SHALL BE EXPOSED AND USEABLE FROM BOTH SIDES. HARDWARE REQUIRED FOR ACCESSIBLE DOOR PASSAGE SHALL BE MOUNTED NO HIGHER THAN 48" ABOVE FINISHED FLOOR.

3) ALL CLOSERS SHALL BE ADJUSTED SO THAT FROM AN OPEN POSITION OF 70 DEGREES, THE DOOR WILL TAKE AT LEAST 3 SECONDS TO MOVE TO A POINT 3 IN. FROM THE LATCH, MEASURED TO THE LEADING EDGE OF THE DOOR.

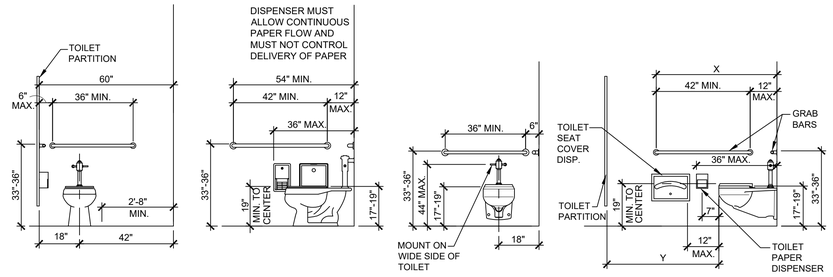
4) DOOR OPENING FORCE: THE MAXIMUM FORCE FOR PUSHING OR PULLING OPEN A DOOR SHALL BE AS FOLLOWS; FIRE DOORS - MINIMUM OPENING FORCE ALLOWED BY THE APPROPRIATE ADMINISTRATIVE AUTHORITY. INTERIOR HINGED, SLIDING OR FOLDING DOORS - 5 LBF.



ACCESSIBLE MOUNTING HEIGHTS — SCALE 3/8" = 1'-0" — 4

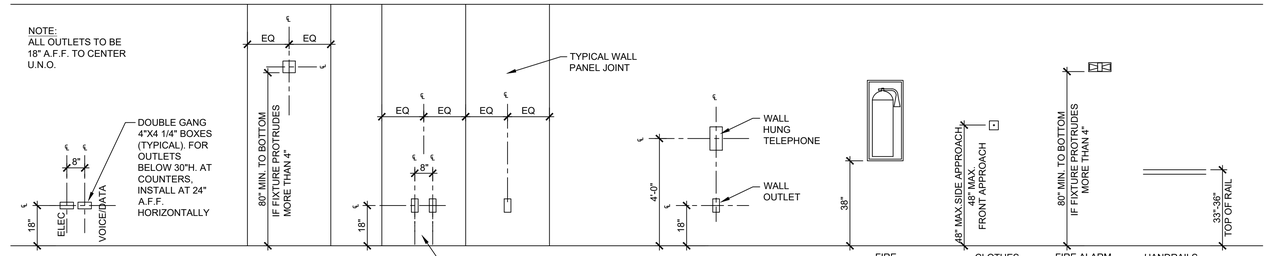
NOTE:
FLUSH VALVE OPERATION SHALL BE OPERABLE WITH ONE HAND AND SHALL NOT REQUIRE GRASPING, PINCHING OR TWISTING OF THE WRIST. THE FORCE REQUIRED TO ACTIVATE SHALL BE NO GREATER THAT 5LBF.

NOTE:
X=54" MINIMUM WHEN WATER CLOSETS ARE NOT IN STALLS (I.E. SINGLE ACCOMMODATION ROOMS OR OPEN TOILETING SITUATIONS)
Y=48" MINIMUM WHEN DOOR OPENING IS AT FRONT OF STALL
Y=60" MINIMUM WHEN DOOR OPENING IS AT SIDE OF STALL



TOILET AND ACCESSORY HEIGHTS — SCALE 3/8" = 1'-0" — 3

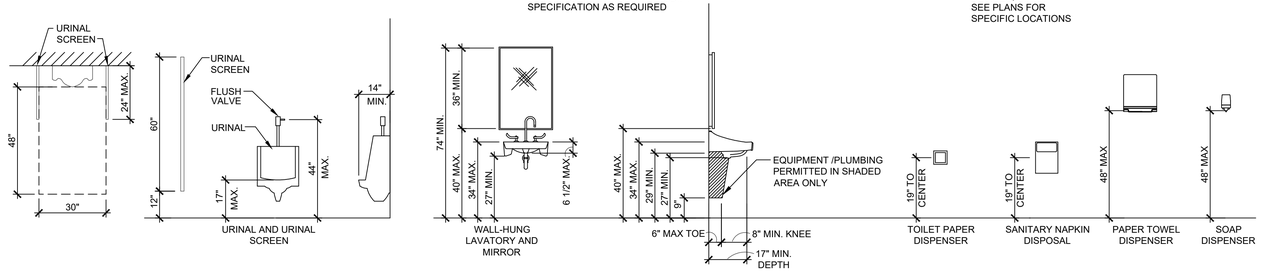
NOTE:
ALL OUTLETS TO BE 18" A.F.F. TO CENTER U.N.O.



DEVICE MOUNTING HEIGHTS — SCALE 3/8" = 1'-0" — 2

NOTE:
MAXIMUM DEPTH FOR AN ACCESSIBLE SINK IS TO BE 6 1/2". VERIFY WITH PLUMBING DRAWINGS AND MODIFY SPECIFICATION AS REQUIRED

NOTE:
ALL DIMENSIONS TO CENTER LINE OF DEVICES, U.N.O. SEE PLANS FOR SPECIFIC LOCATIONS



FIXTURE AND ACCESSORY MOUNTING HEIGHTS — SCALE 3/8" = 1'-0" — 1

NOT USED

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REV.	DESCRIPTION	DATE:
	PERMIT SET	01/15/22
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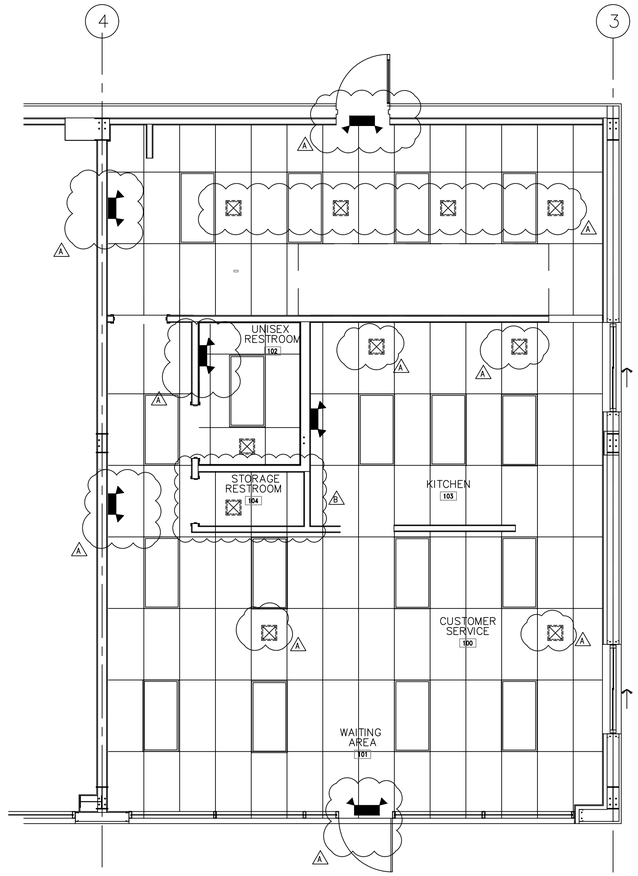
SHEET CONTENTS
ACCESSIBILITY STANDARDS

SHEET NUMBER
A-002

DATE: 05/31/22

CEILING LEGEND	
SYMBOL	DESCRIPTION
	SUSPENDED ACOUSTICAL LAY-IN CEILING MOUNTED AT AS SCHEDULED. RE: 03/A2.1

SYMBOL	DESCRIPTION
A	2'x4' RECESSED LIGHT FIXTURE
	2'x2' RECESSED LIGHT FIXTURE
	RECESSED DOWN LIGHT FIXTURE
	WALL-MOUNTED LIGHT FIXTURE
	PENDANT LIGHT FIXTURE
	CEILING-MOUNTED EXIT SIGN WITH BATTERY AND TWO EMERGENCY LIGHT FIXTURES
A	WALL-MOUNTED EMERGENCY LIGHT FIXTURE, RE: MEP DWGS.
X	TWO-HEADED WALL OR CEILING MOUNTED EMERGENCY LIGHT WITH BATTERY PACK
	WALL-MOUNTED LIGHT FIXTURE
F	FAN



REFLECTED CEILING PLAN — SCALE 3/16"=1'-0" — 01

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B	CITY COMMENTS	05/31/22

SHEET CONTENTS

REFLECTED CEILING PLAN

SHEET NUMBER

A2.0

DATE: 05/31/22

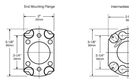
BOBRICK

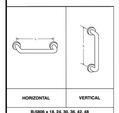
Technical Data

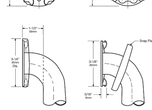
1½" (32mm) DIAMETER STAINLESS STEEL GRAB BARS WITH SNAP FLANGE

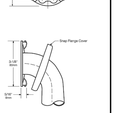
B-5806 SERIES

Specify Finish Required: ❑ Satin finish ❑ Satin finish with peened gripping surface; add suffix .99 to model number



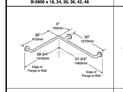






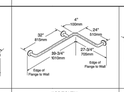
HORIZONTAL	VERTICAL

B-5806 x 18, 24, 30, 36, 42, 48



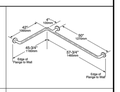
TWO-WALL TUB ENCLOSURE TOILET COMPARTMENT BAR

B-5857



HORIZONTAL TUB ENCLOSURE TOILET COMPARTMENT BAR 24 x 36

B-58816



TWO-WALL TOILET COMPARTMENT BAR 42 x 54

B-5857

continued ...

Rev. 7/29/19** Printed in U.S.A.

MATERIALS:

Grab Bar — 18-8, type-304, 18-gauge (1.2mm) stainless steel tubing with satin-finish. 1-1/4" (32mm) outside diameter. Ends are hollaw: welded to concealed mounting flanges. Clearance between the grab bar and wall is 1-1/2" (38mm).

Concealed Mounting Flanges — 18-8, type-304, 11-gauge (3.2mm) thick, stainless steel plate; end flanges 2" x 3-1/8" (50 x 80mm) with holes for attachment to wall. Intermediate flanges 2-1/8" x 3-1/8" (55 x 80mm) with a 3-1/8" (80mm) diameter.

Snap Flange Covers — 18-8, type-304, 22-gauge (0.8mm) drawn stainless steel with satin-finish. 3-1/4" (83mm) diameter x 5/8" (16mm) deep. Each cover snaps over mounting flange to conceal mounting screws.

STRENGTH:

Bobrick grab bars that have provide 1-1/2" (38mm) clearance from wall can support loads in excess of 900 pounds (408kg) if properly installed. Other grab bar configurations can support loads in excess of 250 pounds (113kg) if properly installed, complying with accessible design (including ADAAG in the U.S.A.) for structural strength.

Safety Warning: Grab bars are no stronger than the anchors and walls to which they are attached and, therefore, must be firmly secured in order to support the loads for which they are intended. To avoid potential injury, the building owner or maintenance personnel should remove the grab bar from service if the grab bar is not adequately secured to wall or if there is any observed damage to the welds.

INSTALLATION:

Provide concealed anchor device or backing as specified or required in accordance with local building codes before wall is finished. Fasten concealed mounting flanges to anchor device or backing with at least two screws opposing each other in each flange. Snap flange covers over each mounting flange to conceal mounting screws. Concealed anchor devices and mounting screws are not included with Bobrick grab bars and must be specified as an accessory.

For Grab Bars with an Intermediate Flange(s), Pull Snap-Flange Covers away from mounting flanges. Place grab bar in desired mounting location. Use intermediate flange as a template to mark location of mounting screws at intermediate flange only. Mark screw locations at the center of the slot in the middle of the double-keyhole shaped mounting holes (2) in the intermediate flange. Remove grab bar from wall. Drive the intermediate flange mounting screws into wall at marked locations. **Note:** Make sure to leave a space of just over 1/8" (3.17mm) between the underside of the screw head and the wall. Install grab bar on the wall by placing the round ends of the intermediate flange double-keyhole shaped mounting holes over the mounting screws (2) are located in the middle of the flange slots. Install the mounting screws into the wall at the end flanges and secure tightly. Tighten the mounting screws at the intermediate flange. Press all snap-flange covers into place to conceal mounting flanges.

Note: Recommend use of 1/4" or #14 sheet metal or wood screws to install Intermediate Flange. #12 screws may also be used.

Important Notes:

1. **Mounting Kits** — Bobrick offers a mounting kit for installing grab bars; **one Bobrick mounting kit is required for each flange.**

Mounting Kit No.	Description
292-30	Consists of (3) #14 x 2½" type-304 stainless steel, Phillips round-head, sheet-metal screws.

2. **Grab Bar Fastener** — Bobrick offers a grab bar fastening system that secures all Bobrick grab bar series; **one Bobrick fastener is required for each flange.** Install grab bar without backing in wall requires minimum 5/9" (16mm) thick painted or tiled drywall.

Wright™ Fastener No.	Description
251-4	Consists of 10-32 x 5/16" round-head, Phillips 18/8 stainless steel screws. (1) Wright grab bar fastener.

3. **Optional Anchor Device** — Bobrick grab bar anchor device includes stainless steel machine screws to be used for attaching grab bars to anchors. **one Bobrick concealed anchor device is required for each flange.**

Optional Anchor No.	Description
2065	Anchor for 3/4" to 1" (19-25mm) panel 1 anchor required for each flange.
2066	Anchor for 1.0" to 1.1"(26mm) panel 1 anchor required for each flange.

SPECIFICATION:

Grab bar shall be type-304 stainless steel with satin-finish. Grab bar shall have 18-gauge (1.2mm) wall thickness and 1-1/4" (32mm) outside diameter. Clearance between the grab bar and wall shall be 1-1/2" (38mm). Concealed mounting flanges shall be 11-gauge (3.2 mm) thick stainless steel plate, 2" x 3-1/8" (50 x 80mm), and equipped with at least two screw holes for attachment to wall. Flange covers shall be 22-gauge (0.8mm) stainless steel, 3-1/4" (83mm) diameter, and shall snap over mounting flanges to conceal mounting screws and/or Wright fasteners. Ends of grab bar shall pass through concealed mounting flanges and be hollaw welded to form one structural unit. Grab bar shall comply with accessible design (including ADAAG in the U.S.A.) for structural strength.

Grab Bar shall be Model _____ (insert model number) of Bobrick Washroom Equipment, Inc., Clifton Park, New York; Jackson, Tennessee; and Los Angeles, California; Bobrick Washroom Equipment Company, Scarborough, Ontario; Bobrick Washroom Equipment Pty. Ltd., Australia; and Bobrick Washroom Equipment Limited, United Kingdom.

The illustrations and descriptions herein are applicable to production as of the date of this Technical Data Sheet. The manufacturer reserves the right to, and does from time to time, make changes and improvements in designs and dimensions.

B-5806 7/29/19** Printed in U.S.A.

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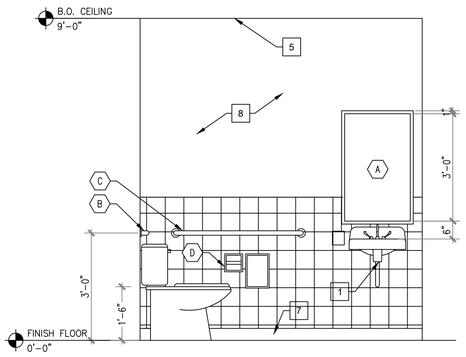
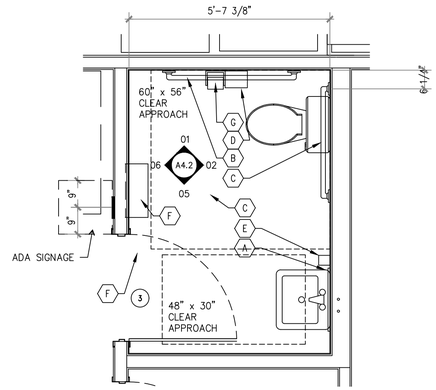
DETAIL N.T.S. 09



INTERIOR ELEVATION SCALE 1/2"=1'-0" 06



RESTROOM ENLARGE SCALE 1/2"=1'-0" 03

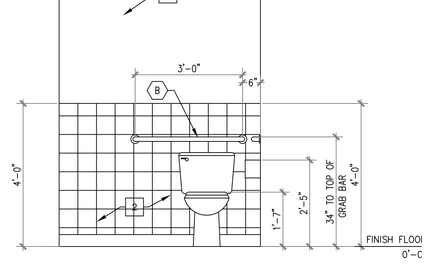
GENERAL NOTES

NO.	DESCRIPTION
1	INSULATE ALL PLUMBING TRAPS.
2	4' HEIGHT 6" X 6" CERAMIC TILE OR FRP
3	WATER CLOSET
4	PLUMBING FIXTURES, REFER TO M.E.P. DRAWINGS.
5	SCHEDULED CEILING
6	NOT IN USE
7	CERAMIC TILE BASE OR VINYL
8	PAINTED GYPSUM BOARD

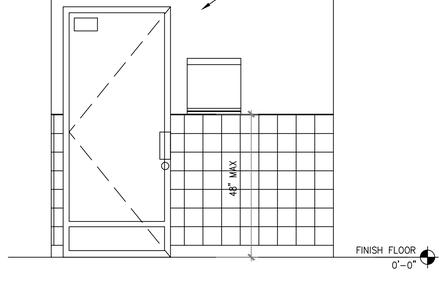
NOTE:
ALL FIXTURES TO BE MANUAL OPERATED (RE: M.E.P. DRAWINGS)

NOTE:
ALL DIMENSIONS ARE FINISH TO FINISH

GENERAL NOTES N.T.S. 08



INTERIOR ELEVATION SCALE 1/2"=1'-0" 05



INTERIOR ELEVATION SCALE 1/2"=1'-0" 02

RESTROOM SCHEDULE

SYMBOL	DESCRIPTION	TOTAL
A	MIRROR	1
B	36" GRAB BAR	1
C	42" GRAB BAR	1
D	TOILET PAPER HOLDER	1
E	SOAP DISPENSER	1
F	PAPER TOWEL DISPENSER	1
G	SANITARY DISPOSAL	

RESTROOM FIXTURE LEGEND N.T.S. 07

LATERAL BRACING SCHEDULE

PARTITION LENGTH MINIMUM	PARTITION LENGTH MAXIMUM	NUMBER OF BRACES REQUIRED
0'–0"	12'–0"	0
12'–0"	18'–0"	1
18'–0"	24'–0"	2
24'–0"	30'–0"	3

ADD ONE BRACE PER EACH ADDITIONAL 6'–0" OF PARTITION LENGTH,

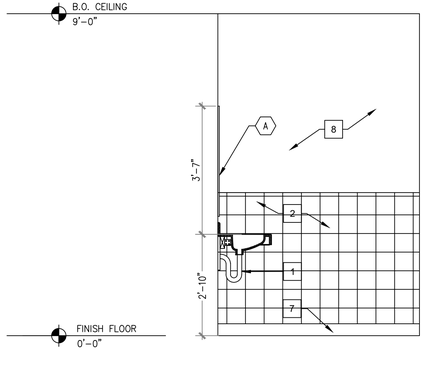
PARTITION LENGTH BETWEEN LATERAL SUPPORT PROVIDED BY LATERAL SUPPORT OR INTERSECTING PERPENDICULAR PARTITIONS.

PROVIDE LATERAL BRACING AT UNSUPPORTED PARTITION ENDS.

PROVIDE LATERAL BRACING FOR ALL PARTITIONS WHICH DO NOT EXTEND TO STRUCTURE.

NOTE:
DO NOT ATTACH LATERAL BRACING TO ROOF DECK. ATTACH ONLY TO STRUCTURE.

LATERAL BRACING SCHEDULE N.T.S. 04



INTERIOR ELEVATION SCALE 1/2"=1'-0" 01

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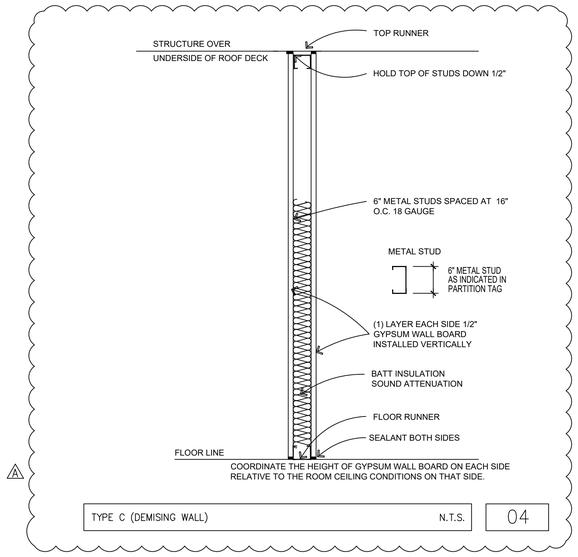
REV.	DESCRIPTION	DATE:
	PERMIT SET	01/15/22
A	CITY COMMENTS	04/03/22
B	CITY COMMENTS	05/31/22

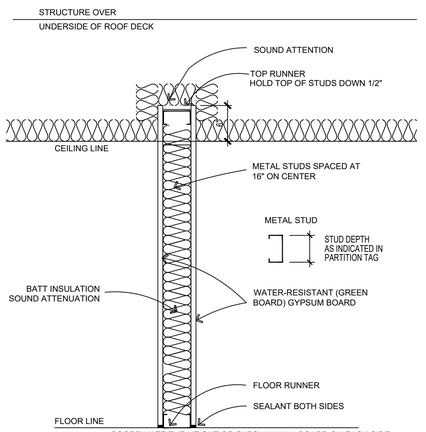
SHEET CONTENTS
ENLARGE RESTROOM

SHEET NUMBER
A3.0

DATE: 05/31/22



TYPE C (DEMISING WALL) N.T.S. 04



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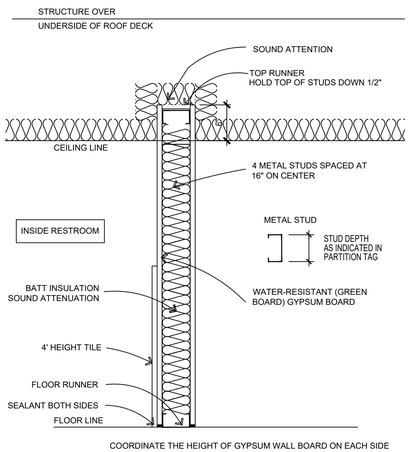

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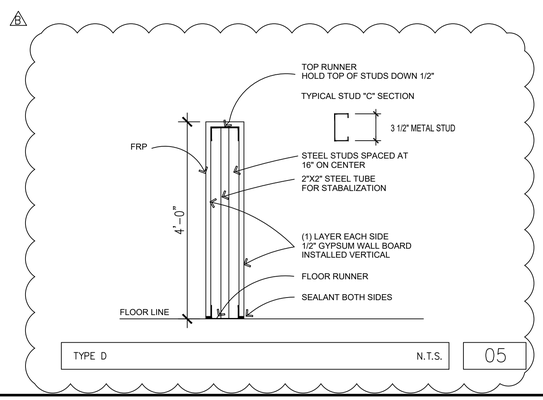


TYPE D N.T.S. 05

PARTITION NOTES

PARTITION TAG LEGEND

PARTITIONS REQUIRED FOR THIS PROJECT ARE INDICATED BY TAG REFERENCES SHOWN ON THE ARCHITECTURAL FLOOR PLANS. UNTAGGED PARTITIONS SHALL BE TYPE "A3". THIS PARTITION SCHEDULE MAY CONTAIN A PARTITION TYPE OR STUD OPTION THAT IS NOT REFERENCED FROM THE PLANS. ONLY REFERENCED TYPES ARE REQUIRED.

STUD SCHEDULE

STUD OPTION	STUD DEPTH	MINIMUM GAUGE	HEIGHT LIMIT	STUD OPTION	STUD DEPTH	MINIMUM GAUGE	HEIGHT LIMIT
1	1 5/8"	25	9'-6"	5	7/8"	25	4'-0"
2	2 1/2"	25	12'-6"	6	6	25	20'-0"
3	3 5/8"	25	16'-0"	7	NOT USED		
4	4	25	17'-3"	8	NOT USED		

STUD SECTIONS AND HEIGHT LIMITS ARE BASED ON U.S. GYPSUM PRODUCT DATA. "C" STUDS MAY BE TYPE "ST" OR "SJ". HEIGHT LIMIT IS FOR A TYPICAL CASE WITH STUDS 16" ON CENTER, 1 LAYER GYPSUM WALL BOARD EACH SIDE, A 5 PSF LIVE LOAD ACTING NORMAL TO THE FACE OF THE PARTITION AND A DEFLECTION LIMIT OF 1/240 OF THE UNBRACED HEIGHT. REFER TO U.S. GYPSUM PRODUCT DATA FOR OTHER CONDITIONS.

GENERAL NOTES

PARTITION TYPE DRAWINGS ARE NOT TO SCALE.

WALLS AND PARTITIONS ARE INTERIOR NON-BEARING SYSTEMS AND ARE NOT REQUIRED OR INTENDED TO RESIST WIND LOADS OR SUPPORT FLOOR LOADS.

LOAD-BEARING DIMENSION LUMBER FOR STUDS, PLATES AND HEADERS SHALL BE IDENTIFIED BY A GRADE MARK OF A LUMBER GRADING OR INSPECTION AGENCY THAT HAS BEEN APPROVED BY AN ACCREDITATION BODY THAT COMPLIES WITH DOC PS 20. IN LIEU OF AGRADE MARK, A CERTIFICATION OF INSPECTION ISSUED BY A LUMBER GRADING OR INSPECTION AGENCY MEETING THE REQUEREMENTS OF 2012 IRC CHAPTER 6.

TOP PLATES: WOOD STUDS WALLS SHALL BE CAPPED WITH A DOUBLE TOP PLATE INSTALLED TO PROVIDE OVERLAPPING AT CORNERS AND INTERSECTIONS WITH BEARING PARTITIONS. END JOINTS IN TOP PLATES SHALL BE OFFSET AT LEAST 24 INCHES. JOINTS IN PLATES NEED NOT OCCUR OVER STUDS. PLATES SHALL BE NOT LESS THAN 2 INCHES NOMINAL THICKNESS AND HAVE A WIDTH LEAST EQUAL TO THE WIDTH OF THE STUDS.

STUDS SHALL BE CONTINUOUS FROM SUPPORT AT THE SOLE PLATE TO A SUPPORT AT THE TOP PLATE TO RESIST LOADS PERPENDICULAR TO THE WALL. THE SUPPORT SHALL BE A FOUNDATION OR FLOOR, CEILING OR ROOF DIAPHRAGM OR SHALL BE DESIGNED IN ACCORDANCE WITH ACCEPTED ENGINEERING PRATICE.

PARTITIONS ARE CONTINUOUS ACROSS DOORWAYS, OPENINGS AND ABUTTING PARTITIONS. A TAG SHOWN IN ONE SEGMENT OF A PARTITION APPLIES TO ALL UNMARKED SEGMENTS THAT ARE IN LINE WITH AND CONTINUOUS WITH THE TAGGED SEGMENT.

RATED WALLS AND PARTITIONS EXTEND THRU THE CEILING TO THE STRUCTURE OVER. PARTITIONS SHALL EXTEND TO THE DECK AND BE PROFILED TO FIT NEATLY AROUND FRAMING MEMBERS WITHIN 1/2". JOINTS TO BE SEALED ALONG THE ENTIRE LENGTH. PORTIONS OF THE PARTITION ABOVE THE CEILING ARE CONTINUOUS, WITHOUT OPENINGS OTHER THAN THOSE REQUIRED FOR PENETRATION OF SERVICES.

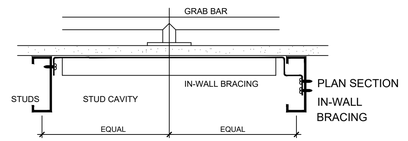
WHERE WALLS OR PARTITIONS WITH DISIMILAR RATINGS INTERSECT, ASSEMBLIES WITH HIGHER RATINGS HAVE PRIORITY. SMOKE PARTITIONS HAVE PRIORITY OVER FIRE PARTITIONS WITH EQUAL RATING. FIRE RATINGS HAVE PRIORITY OVER ACOUSTIC RATINGS. CONSTRUCT PARTITION SUCH THAT THE HIGHER RATED ASSEMBLY IS CONTINUOUS THRU THE INTERSECTION.

REQUIREMENTS TO LABEL WALLS ABOVE CEILINGS AND IN CONCEALED SPACES APPLY ONLY TO PROJECTS UNDER STANDARD BUILDING CODE JURISDICTION. IF A PARTITION IS DESIGNATED AS A "SMOKE" PARTITION, THE WORD SMOKE SHALL BE INCORPORATED INTO THE LABEL; EG "2 HOUR FIRE WALL" BECOMES "2 HOUR SMOKE AND FIRE WALL".

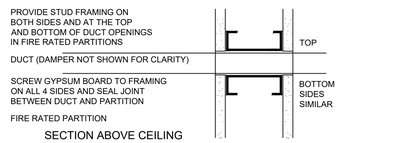
PROVIDE IN-WALL BRACING IN ALL PARTITIONS OR EXTERIOR WALLS WHERE GRAB BARS, HANDRAILS, SHOWER SEATS OR OTHER EQUIPMENT ANCHORS TO METAL STUD WALLS AND IN OTHER LOCATIONS AS NOTED ON THE DRAWINGS.

CENTER STUDS ABOUT THE LOCATION OF THE DEVICE ANCHOR POINT.

GRAB BAR BRACKET SHOWN, OTHER DEVICES SIMILAR



IN-WALL BRACING SHALL BE NO LESS THAN A 6" x 1 1/4" x 14 GUAGE CHANNEL. STEEL Fy = 50ksi, AND SHALL SUPPORT A 250 POUND GRAVITY LOAD CONCENTRATED AT ANY POINT ON THE DEVICE BEING ANCHORED.



SECTION ABOVE CEILING
DUCT PENETRATIONS

PARTITION NOTES N.T.S. 01

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REV.	DESCRIPTION	DATE:
	PERMIT SET	01/15/22
A	CITY COMMENTS	04/03/22
B	CITY COMMENTS	05/31/22

SHEET CONTENTS
PARTITION TYPE

SHEET NUMBER
A4.0

DATE: 05/31/22

NOTES:

1. FURNISH AND INSTALL A COMPLETE WORKABLE HVAC SYSTEM. COMPLY WITH THE LATEST EDITION OF APPLICABLE CODES. OBTAIN PERMITS AND PAY INCURRED FEES.
2. MATERIALS SHALL BE NEW AND UNDAMAGED EXCEPT AS NOTED. POWERED EQUIPMENT SHALL BE UL LISTED.
3. GUARANTEE INSTALLATION FOR A PERIOD OF ONE YEAR. GUARANTEE COMPRESSORS IN AIR CONDITIONING EQUIPMENT FOR A PERIOD OF FIVE YEARS.
4. PROVIDE REQUIRED TEMPORARY POWER AND UTILITIES.
5. EQUIPMENT PROTECTION: PROTECT COMPONENTS FROM DAMAGE DURING HANDLING AND INSTALLATION.
6. COORDINATE WORK WITH OTHER TRADES AND WITH JOBSITE CONDITIONS. VISIT THE SITE BEFORE BID DATE AND BECOME ACQUAINTED W/EXISTING CONDITIONS. DETERMINE THE EXTENT OF WORK REQUIRED. NO COMPENSATION WILL BE MADE FOR FAILURE TO UNDERSTAND THE SCOPE OF WORK.
7. REMOVE MATERIALS NOT TOO BE REUSED UNLESS NOTED OR DIRECTED BY THE ARCHITECT. DO NOT DAMAGE EXISTING CONSTRUCTION NOT TO BE REMOVED OR RENOVATED.
8. THE PLANS SHOW THE DESIRED LOCATIONS OF SYSTEM COMPONENTS. HOWEVER, CHANGES TO THE LOCATIONS OF EQUIPMENT AND MATERIALS MAY BE REQUIRED. VERIFY THE FINAL LOCATIONS OF EQUIPMENT WITH THE OWNER AND HIS STRUCTURAL ENGINEER PRIOR TO INSTALLATION.MAKE THESE CHANGES TO AVOID CONFLICTS AT NO ADDITIONAL COST.
9. DUCT SIZES SHOWN ARE NET FREE INSIDE CLEAR DIMENSIONS. FURNISH AND INSTALL INSULATED DUCTWORK TRANSITIONS CONFORMING TO SMACNA STANDARDS FROM CONNECTIONS TO EQUIPMENT TO DUCT SIZES SHOWN ON THE DRAWINGS.
10. VERIFY THE FINAL LOCATION OF CEILING MOUNTED COMPONENTS WITH THE ARCHITECT PRIOR TO THEIR INSTALLATION.
11. COORDINATE THE SIZE AND LOCATION FOR NEW OPENINGS AND/OR PENETRATIONS REQUIRED. SECURE NECESSARY ROUGH-IN DATA, TEMPLATES, ROOFJACKS, ROOF CURBS, ETC. TO COMPLETE THE WORK IN A TIMELY FASHION AND TO FACILITATE PROPER INSTALLATION. CUT REQUIRED OPENINGS OR PENETRATIONS, INSTALL APPROPRIATE FRAMING DEVICES, AND RESTORE EXISTING CONSTRUCTION TO ITS ORIGINAL CONDITION.
12. PROVIDE ACCESS PANELS OR DOORS FOR DEVICES REQUIRING ADJUSTMENT. INSURE THAT NEW OUTSIDE AIR INTAKES ARE AT LEAST 15 FEET AWAY FROM PLUMBING VENTS. FURNISH AND INSTALL THE FOLLOWING HVAC MATERIALS.

DUCTWORK:

A. FLEXIBLE DUCT SHALL BE CLASS 1 U.L. #181 LISTED; WITH 1-1/2" FIBERGLASS BLANKET, 0.1 PERM RATED POLYETHYLENE INNER JACKET, AND 0.1 PERM RATED REINFORCED METALIZED FILM OUTER JACKET. DUCT SHALL BE FLEXMASTER TYPE #F31 OR APPROVED EQUAL. SECURE DUCT TO RIGID COLLARS WITH ADJUSTABLE STAINLESS STEEL CLAMPING BANDS. TAPE AND SEAL JOINTS AIRTIGHT WITH UL LISTED DUCT TAPE WITH ACRYLIC BASED ADHESIVE (LATEX BASED ADHESIVE IS NOT ACCEPTABLE) PER THE MANUFACTURER'S RECOMMENDATIONS. SUSPEND DUCTWORK FROM STRUCTURE ABOVE USING MINIMUM 18 GA., 1" WIDE GALVANIZED SHEET METAL HANGER STRAPS (NOT TO EXCEED 4'-0") OR HANGERS AS ALLOWED BY SMACNA STANDARDS (WHICHEVER IS MORE STRINGENT).

B. RIGID ROUND DUCTWORK SHALL BE GALVANIZED SHEET METAL, EXTERNALLY INSULATED WITH 1-1/2 POUNDS PER CUBIC FOOT DENSITY GLASS FIBER, FABRICATED AND INSTALLED SMACNA STANDARDS. TAPE AND SEAL JOINTS AIRTIGHT WITH U.L. LISTED DUCT TAPE WITH ACRYLIC BASED ADHESIVE PER THE MANUFACTURER'S RECOMMENDATIONS. LATEX BASED ADHESIVE IS NOT ACCEPTABLE. SUSPEND DUCTWORK FROM STRUCTURE USING MINIMUM 19 GA., 1" WIDE GALVANIZED SHEET METAL HANGER STRAPS (NOT TO EXCEED 4'-0" O.C.) OR WITH HANGERS ALLOWED BY SMACNA STANDARDS (WHICHEVER IS MORE STRINGENT). PROVIDE SHEET METAL SADDLES AT HANGER STRAPS.

C. EXPOSED DUCTWORK SHALL BE GALVANIZED SHEET METAL, INTERNALLYLINED WITH 1-1/2# DENSITY NEOPRENE COATED FIBERGLASS, FABRICATED AND INSTALLED PER SMACNA STANDARDS. TAPE AND SEAL JOINTS AIRTIGHT WITH UL LISTED DUCT TAPE WITH ACRYLIC BASED ADHESIVE (LATEX BASED ADHESIVE IS NOT ACCEPTABLE).

D. RECTANGULAR SUPPLY AND RETURN DUCTWORK SHALL BE 1-1/2" FIBERGLASS DUCTBOARD, TYPE #800 AS MANUFACTURED BY OWENS/CORNING FIBERGLASS OR APPROVED EQUAL. ADHERE TO THE LATEST SMACNA REQUIREMENTS. DUCTBOARD SHALL UL 181 LISTED CLASS I. SEAL DUCTWORK IN THE FOLLOWING MANNER:

i. STAPLE JOINTS WITH OUTWARD FLARING, 1/2" (MINIMUM) STAPLES 2" O.C.
ii. WIPE SURFACE WHERE TAPE IS TO BE APPLIED WITH A CLEAN CLOTH. (IF SURFACE HAS GREASE OR OIL, SATURATE CLOTH WITH APPROVED SOLVENT PRIOR TO WIPING).
iii RUB TAPE (HARD CAST TYPE #AM-401, NO EXCEPTIONS) FIRMLY IN PLACE IMMEDIATELY AFTER APPLICATION, USING A "SQUEEGEE" OR SIMILAR TOOL.
iv. SUSPEND DUCTWORK FROM STRUCTURE ABOVE USING 20 GA. (MINIMUM) GALVANIZED STEEL HANGER STRAPS AND SADDLES, SPACED NOT TO EXCEED 4'-0" ON CENTER.

15. PIPING: CONDENSATE DRAIN LINES: CONDENSATE DRAIN LINES SHALL BE TYPE "L" COPPER PIPE. PROVIDE UNISTRUT PIPE CLAMPS AT PIPE SUPPORTS AS REQUIRED (NOT TO EXCEED 6 FEET O.C.). PROVIDE DIELECTRIC SEPARATION BETWEEN ALL DISSIMILAR MATERIALS.
16. AIR DEVICES: AIR DEVICES AS MANUFACTURED BY PRICE ARE SCHEDULED. AIR DEVICES MANUFACTURED BY KRUEGER, Metal*AIRE, NAILOR, J&J REGISTER, OR TITUS THAT ARE OF LIKE KIND WILL BE CONSIDERED EQUAL.
17. INSULATION: INSULATE CONDENSATE DRAIN LINES WITH 1/2" ARMAFLEX 'AP-2000' INSULATION. SEAL JOINTS AIRTIGHT WITH ARMSTRONG #520 VAPOR BARRIER ADHESIVE AND TWO COATS OF ARMSTRONG FINISH AS PER THE MANUFACTURER'S RECOMMENDATIONS. PROVIDE 16 GA. GALVANIZED SHEET METAL SUPPORT SADDLE AT EACH HANGER OR SUPPORT.
18. MISCELLANEOUS ITEMS:

A. THERMOSTATS SHALL BE SEVEN DAY PROGRAMMABLE ELECTRONIC TYPE HONEYWELL VISION PRO 8000 THEMOSTAT FOR MOSQUES.
B. RETURN AIR FILTERS SHALL BE 2" PLEATED MEDIA MERV 8 CAMFIL FARR 30/30 OR APPROVED EQUAL (NO EXCEPTIONS). PROVIDE FOUR COMPLETE SETS. SIZES SHALL BE COMPATIBLE WITH EQUIPMENT REQUIREMENTS.
C. SMOKE DETECTORS SHALL BE 24 VOLT, U.L. LISTED, DUCT MOUNTED IONIZATION DETECTORS IN NEMA 1 ENCLOSURES, WITH TWO ALARM RELAY CONTACTS, SENSITIVITY ADJUSTMENTS, AND RESET BUTTONS. INTERLOCK DETECTORS WITH RESPECTIVE EQUIPMENT CONTROLS. INSURE THAT SMOKE DETECTORS ARE INSTALLED IN THE INLET SIDE OF AIR MOVING EQUIPMENT OF 2000 CFM OR GREATER AND ARE CIRCUITED TO SHUT DOWN THE EQUIPMENT IN THE EVENT SMOKE IS DETECTED.

19. EQUIPMENT: FURNISH AND INSTALL EQUIPMENT AS SCHEDULED.
20. TESTING AND BALANCING: TEST AND BALANCE THE ENTIRE SYSTEM IN ACCORDANCE WITH NEBB STANDARDS AND CRITERIA TO INSURE THAT ALL SPACES ARE PERFORMING PROPERLY AS INDICATED ON THE PLANS. MAKE MODIFICATIONS TO THE SATISFACTION OF THE OWNER. SUBMIT THREE COPIES OF THE TEST AND BALANCE REPORT ON NEBB STANDARD FORMS TO THE ENGINEER AT LEAST ONE DAY BEFORE FINAL INSPECTION.
21. VIBRATION ISOLATION PADS SHALL BE ACOUSTICAL SOLUTIONS BRAND, MEDIUM VIBRATION ISOLATION PAD 18"X18"X3/8" THK WITH 45 PSI RATING. CUT TO FIT ON JOB SITE.
22. RTUS CONDENSATE DRAIN SHALL BE FIELD ROUTED TO ROOF SANITARY DRAIN.

HVAC SPECIFICATIONS | 1

ENERGY CODE – COMPLETION REQUIREMENTS

THE FOLLOWING REQUIREMENTS ARE MANDATORY PROVISIONS AND ARE NECESSARY FOR COMPLIANCE WITH THE CODE.

DRAWINGS: CONSTRUCTION DOCUMENTS SHALL REQUIRE THAT WITHIN 90 DAYS AFTER THE DATE OF SYSTEM ACCEPTANCE RECORD DRAWINGS OF THE ACTUAL INSTALLATION BE PROVIDED TO THE BUILDING OWNER OR THE DESIGNATED REPRESENTATIVE OF THE BUILDING OWNER. RECORD DRAWINGS SHALL INCLUDE AS A MINIMUM THE LOCATION AND PERFORMANCE DATA ON EACH PIECE OF EQUIPMENT, GENERAL CONFIGURATION OF DUCT AND PIPE DISTRIBUTION SYSTEM INCLUDING SIZES, AND THE TERMINAL AIR OR WATER DESIGN FLOW RATES.

MANUALS. CONSTRUCTION DOCUMENTS SHALL REQUIRE THAT AN OPERATING MANUAL AND A MAINTENANCE MANUAL BE PROVIDED TO THE BUILDING OWNER OR THE DESIGNATED REPRESENTATIVE OF THE BUILDING OWNER WITHIN 90 DAYS AFTER THE DATE OF SYSTEM ACCEPTANCE. THESE MANUALS SHALL BE IN ACCORDANCE WITH INDUSTRY-ACCEPTED STANDARDS (SEE APPENDIX E) AND SHALL INCLUDE, AT A MINIMUM, THE FOLLOWING:
(A) SUBMITTAL DATA STATING EQUIPMENT SIZE AND SELECTED OPTIONS FOR EACH PIECE OF EQUIPMENT REQUIRING MAINTENANCE.
(B) OPERATION MANUALS AND MAINTENANCE MANUALS FOR EACH PIECE OF EQUIPMENT REQUIRING MAINTENANCE, EXCEPT EQUIPMENT NOT FURNISHED AS PART OF THE PROJECT. REQUIRED ROUTINE MAINTENANCE ACTIONS SHALL BE CLEARLY IDENTIFIED.
(C) NAMES AND ADDRESSES OF AT LEAST ONE SERVICE AGENCY.
(D) HVAC CONTROLS SYSTEM MAINTENANCE AND CALIBRATION INFORMATION, INCLUDING WIRING DIAGRAMS, SCHEMATICS, AND CONTROL SEQUENCE DESCRIPTIONS. DESIRED OR FIELD-DETERMINED SET-POINTS SHALL BE PERMANENTLY RECORDED ON CONTROL DRAWINGS AT CONTROL DEVICES OR, FOR DIGITAL CONTROL SYSTEMS, IN PROGRAMMING COMMENTS.
(E) A COMPLETE NARRATIVE OF HOW EACH SYSTEM IS INTENDED TO OPERATE, INCLUDING SUGGESTED SET-POINTS.

MECHANICAL DETAILS | 4

FLEXIBLE DUCT SIZES SCHEDULE | 2

MINIMAL FLEXIBLE/SHEETMETAL ROUND DUCT SIZES

CFM	DUCT SIZES
100 CFM	6" ø
200 CFM	8" ø
300 CFM	10" ø
400 CFM	12" ø
500 CFM	14" ø
600 CFM	14" ø
800 CFM	16" ø
1000 CFM	16" ø
1200 CFM	18" ø
1400 CFM	18" ø
1600 CFM	20" ø
1800 CFM	22" ø
2000 CFM	22" ø

BUILDING AIR BALANCE | 3

AIR BALANCE CALCULATION					
SYMBOL	MFG. MODEL NO.	TOTAL S/A CFM	EXHAUST CFM	O.S.A. CFM	A.R. CFM
AHU-01	GARUF49C14	1420	-	237	1183
AHU-02	GARUF49C14	1420	660	660	760
EF-1	TOILET EXH. FAN	--	75	-	
	TOTAL	2840	735	897	1943
BUILDING PRESSURE					+77 CFM

PLAN REVIEW-CITY COMMENTS

OUTDOOR AIR/VENTILATION CALC. | 5

OUTDOOR AIR REQ./VENTILATION (MINIMUM)				
SPACE DESIG.	PEOPLE OUTDOOR AIR RATE RP (CFM/PERSON	AREA OUTDOOR AIR RATE RA (CFM/FT2)	DEFAULT OCCUPANT DENSITY (PEOPLE /1000 FT2)	O.S.A REQUIRED (CFM)
SUITE 103	7.5X14 = 105	0.12	1103*0.12= 132	237 CFM
TOTAL O.S.A.				237 CFM

FAN SCHEDULE | 6

FAN SCHEDULE				
DESIG.	EF-1			
MFR.	GREENHECK			
MODEL	SP-A90			
SERVICE	TOILET EXHAUST			
CFM	75			
TESP (in.w.g.)	1/8			
HP	23.1 WATTS			
RPM	836			
TIP SPEED (FPM)	--			
V-P-H	120/1/60			
REMARKS	CEILING MTD. EXHAUST FAN			

NOTES:
1. FACTORY FABRICATED ROOF JACK WITH FLASHING SKIRT
2. BIRDSCREEN
3. BACKDRAFT DAMPER
4. DISCONNECT SWITCH.
5. DIRECT DRIVE.

HVAC LEGEND | 7

HVAC LEGEND			
—C—C—	CONDENSATE DRAIN LINE	T/A	TO ABOVE
VD	MANUAL VOLUME CONTROL DAMPER	T/B	TO BELOW
	SUPPLY/FRESH AIR DUCT RISER (UP/DWN)	F/A	FROM ABOVE
	RETURN/EXH. AIR DUCT RISER (UP/DWN)	F/B	FROM BELOW
	FLEXIBLE DUCTWORK	SAD	SUPPLY AIR DUCT
	SUPPLY AIR DUCT	RAD	RETURN AIR DUCT
	RETURN AIR DUCT	FAD	FRESH AIR DUCT
FAD	FRESH/OUTSIDE AIR DUCT	EAD	EXHAUST AIR DUCT
EAD	EXHAUST AIR DUCT	CFM	CUBIC FEET PER MINUTE
SCD	SUPPLY AIR CEILING DIFFUSER	W.B.D.P	WASH BASIN DRAINAGE PIPE
RCD	RETURN AIR CEILING DIFFUSER	REF.P	REFRIGERANT PIPE
EF	EXHAUST FAN		
AHU	AIR HANDLING UNIT		
OU	OUT DOOR DX UNIT		
RTU	ROOF TOP UNIT		

SPLIT AIR CONDITIONING UNIT SCHEDULE | 8

EQUIPMENT SCHEDULE

MARK	UNIT	DESCRIPTION	TYPE	MFR.	MODEL NO.	NOTE	AIR FLOW CFM	OUTSIDE AIR CFM	COOLING STAGES	EXHAUST CFM	FAN "HP"	TOTAL POWER "KW"	ELEC. HEAT	ELECT.	MIN. CKT. AMPS	MAX. OCP. AMPS	SEER/ EER	REFRIGERANT	UNIT WEIGHT (LBS)	DIMENSIONS (LXWXH) in	ACCESSORIES
CU-01 CU-02	4 TON	COOLED CONDENSING UNIT	AIRCOOLED	DAINKIN	GDX13SA048A	OUTDOOR	-		1	-	"1/4"	11.00	-	460 /3Ø/60HZ	24	35	15 /--	R-410A	186	35X35X39	- DISCONNECT SWITCH - SPECIFICATIONS: COIL PROTECTION, -10F AMBIENT TEMPERATURE CONTROL, LOUVERED HAIL GUARD
AHU-01 AHU-02	4 TON	AIR HANDLING UNIT	AIRCOOLED	DAIKIN	GARUF49C14/ WKS1505A	INDOOR	1100-1600 CFM	VAR.		-	"3/4"		15.00 KW	460 /3Ø/60HZ				R-410A	125	48X74X28	-ECONOMIZER AND DAMPER ACTUATORS -CO2 SENSOR -DRAIN TRAP

05/31/2022

SCALE: NTS

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REV.	DESCRIPTION	DATE:
	PERMIT SET	01/15/22
B	CITY COMMENTS	05/31/22

SHEET CONTENTS
MECHANICAL GENERAL NOTES AND SCHEDULES

SHEET NUMBER
M1.0

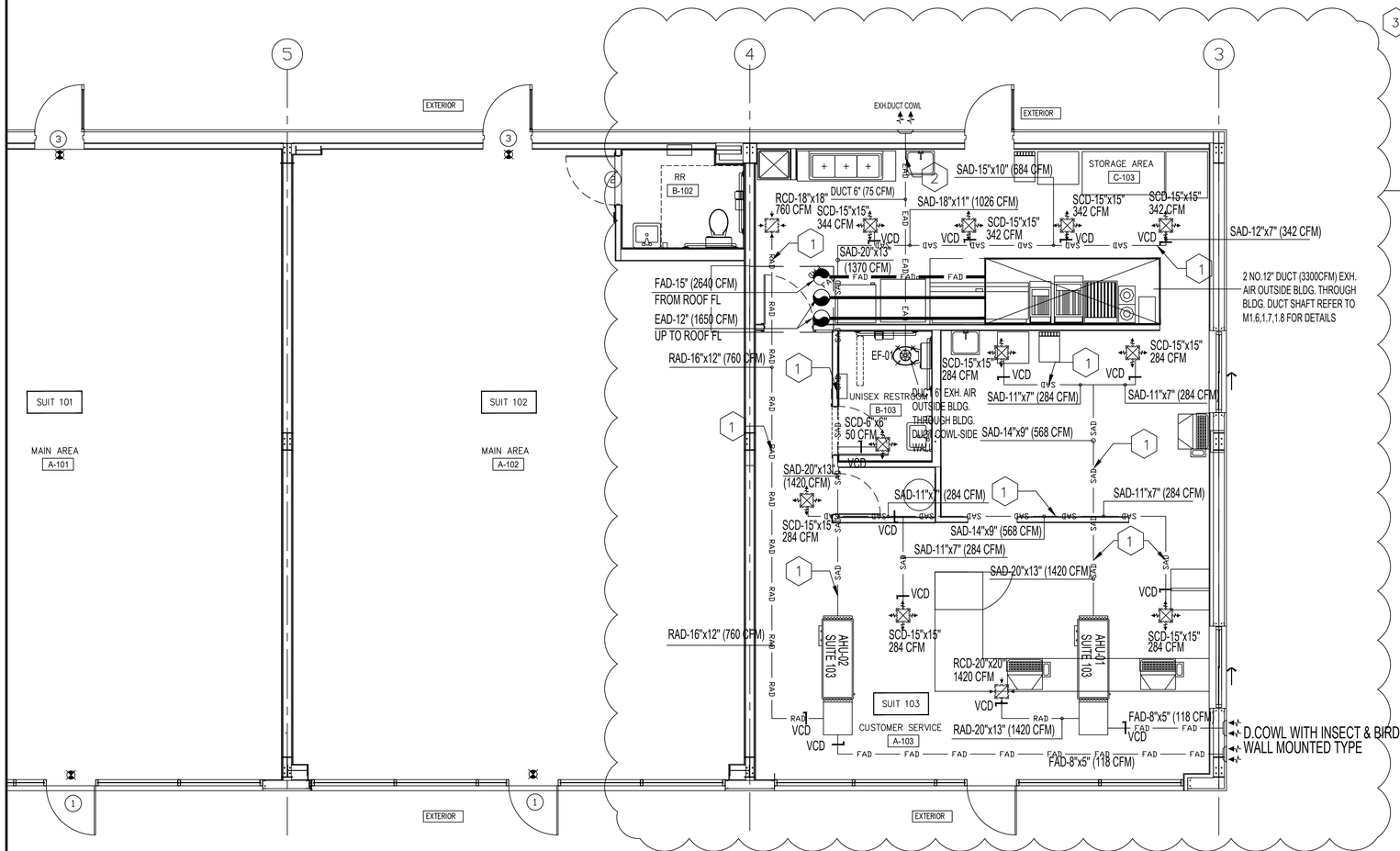
DATE: 05/31/22

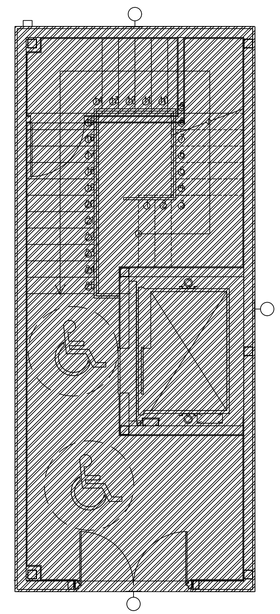
SUPPLY/RETURN DUCT CONSTRUCTION MATERIAL AND TYPE

UNLESS OTHER WISE STATED IN THE PLAN, DUCT CONSTRUCTION MATERIAL SHALL BE AS PER THE IDENTIFICATION TAG AS REFLECTED:

1. ASTM A53 G-90 GALVANIZED STEEL SHEET MAIN DUCT, SUB MAIN OR BRANCH DUCT.
2. ASTM A53 G-90 SPIRAL DUCT SUB MAIN OR BRANCH DUCT
3. INSULATED FLEXIBLE DUCT FROM SUB MAIN/BRANCH TO DIFFUSER

PLAN REVIEW-CITY COMMENTS





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

ALANI DESIGN
PH:315-450-6591
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HAMSSA@ALANI-DESIGN.COM

NOMA
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www.NOMAENGINEERING.com
FIRM: 16913

REV.	DESCRIPTION	DATE:
	PERMIT SET	01/15/22
B	CITY COMMENTS	05/31/22

STATE OF TEXAS
AHMAD M. ELKOT
129559
LICENSED
PROFESSIONAL ENGINEER
05/31/2022

SHEET CONTENTS
FIRST FLOOR HVAC DUCTING SYSTEM

SHEET NUMBER
M1.1

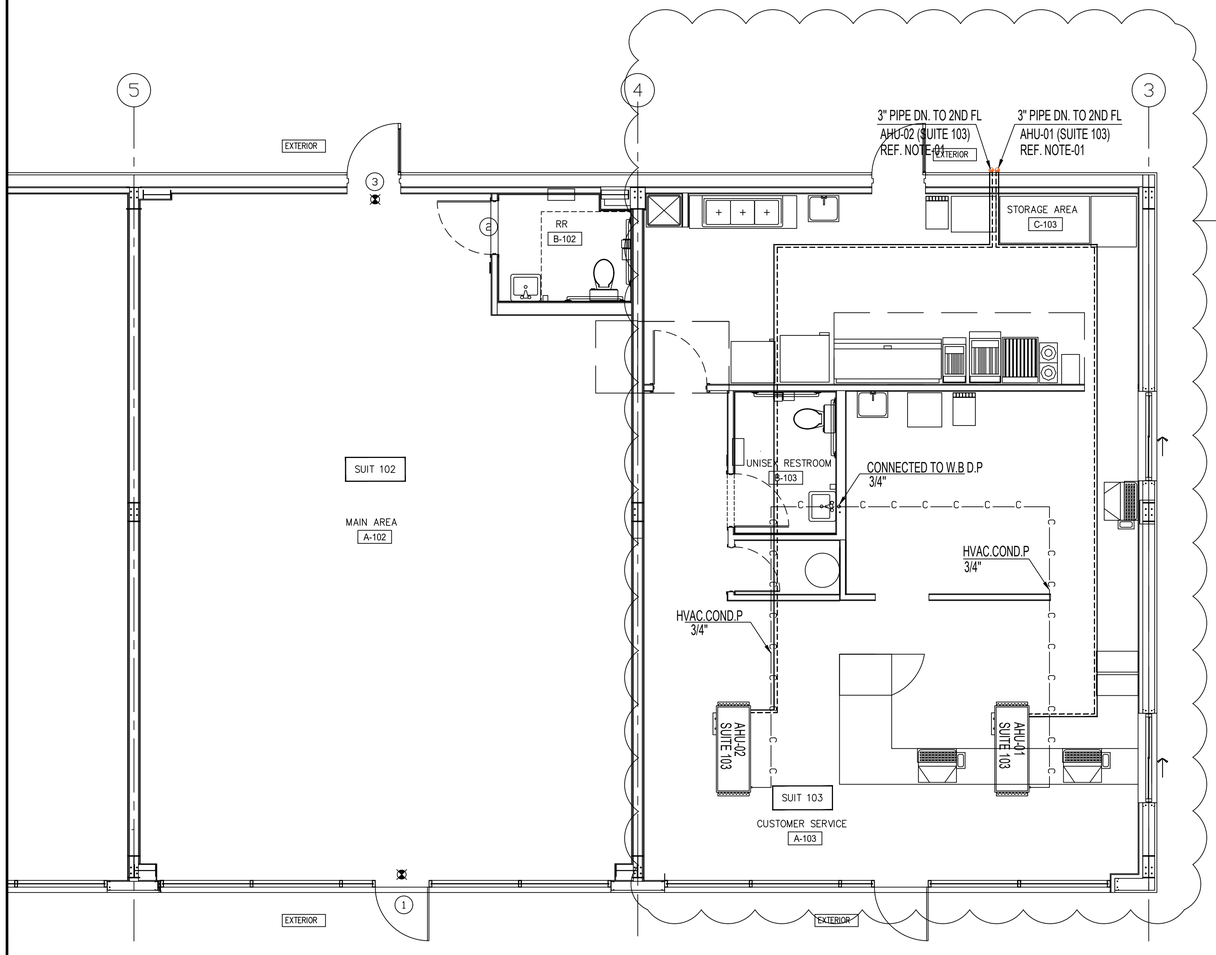
DATE: 05/31/22

ADRIAN TACOS
701 PIN OAK ROAD, SUITE 103 - KATY , TX 77494

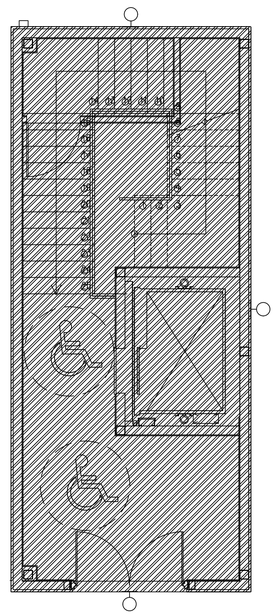
MOHAMMED SORATHIA
701 PIN OAK ROAD - KATY , TX 77494

GENERAL NOTES

NOTE–1: REFRIGERANT PIPES SHALL BE INSULATED AND INSTALLED INSIDE A 3" PIPE WHERE EXPOSED TO OUTSIDE.



PLAN REVIEW-CITY COMMENTS



SCALE: 1/4'' = 1'–0''

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STATE OF TEXAS

05/31/2022

ADRIAN TACOS
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REV.	DESCRIPTION	DATE:
	PERMIT SET	01/15/22
B	CITY COMMENTS	05/31/22

SHEET CONTENTS

FIRST FLOOR HVAC PIPING SYSTEM

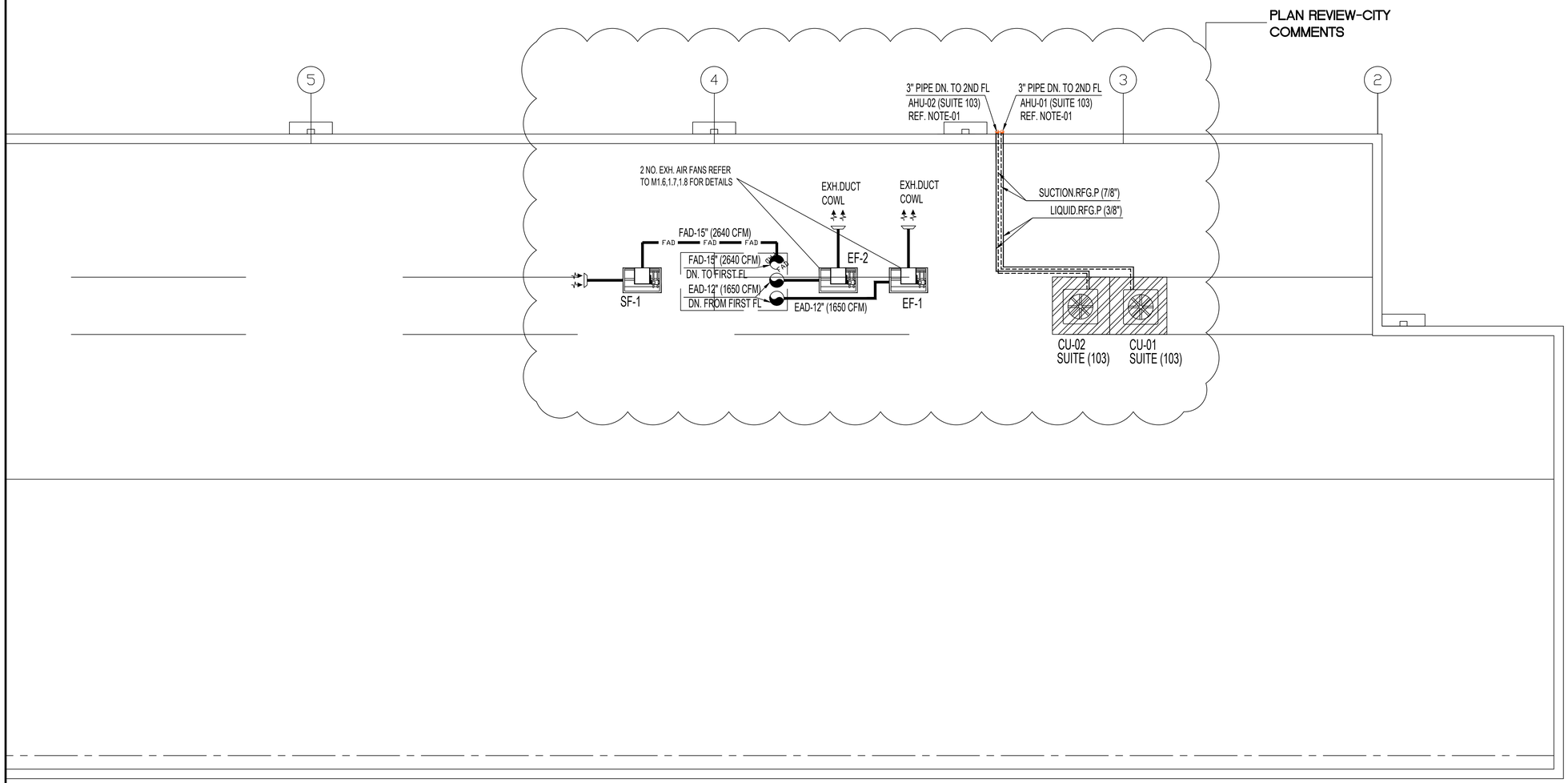
SHEET NUMBER

M1.2

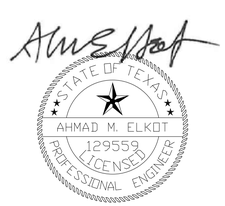
DATE: 05/31/22

GENERAL NOTES

NOTE-1: REFRIGERANT PIPES SHALL BE INSULATED AND INSTALLED INSIDE A 3" PIPE WHERE EXPOSED TO OUTSIDE.



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



05/31/2022

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REV.	DESCRIPTION	DATE:
	PERMIT SET	01/15/22
B	CITY COMMENTS	05/31/22

SHEET CONTENTS

ROOF FLOOR HVAC PIPING SYSTEM

SHEET NUMBER

M1.3

DATE: 05/31/22

HVAC NOTES:

1. PROVIDE AUXILIARY DRAIN FOR ALL UNITS LOCATED ABOVE THE CEILING. DRAIN PAN SHALL BE CONSTRUCTED OF 12 GAUGE SHEET METAL WITH A 1 INCH DRAIN AND SHALL BE LARGE ENOUGH TO COVER THE ENTIRE UNIT.

2. ROUTE AUXILIARY DRAIN PIPE TO OUTSIDE OF BUILDING IN AN AREA WHERE IT CAN BE OBSERVED.

3. UNITS LOCATED ABOVE THE CEILING SHALL BE SUPPORTED WITH UNISTRUT AND–THREAD IN A MANNER TO ALLOW EASY ACCESS TO MAINTANCE PANELS.

4. INSULATE ALL REFRIGERATION SUCTION LINES WIHT ARMSTRONG ARMAFLEX AP, 1" INCH WALL THICKNESS. INSULATION SHALL BE FINISHED WITH TWO COATS OF VINLY LACQUER PER MANUFACTURE'S PUBLISHED PROCEDURES.

5. ALL SUPPLY AND RETURN AIR DUCTS SHALL BE INSULATED. R–8

6. DUCT LINER SHALL BE 1 1/2" INCH THICKNESS MANUFACTURED BY JOHN MANVILLE.

7. PROVIDE WALL MOUNTED THERMOSTATS FOR EACH SYSTEM. CONTRACTOR SHALL CONSULT WITH OWNER AND ARCHITECT FOR THE TYPE AND LOCATION OF THERMOSTATS PROGRAMABLE.

8. COMPUTER HVAC EQUIPMENT SHALL BE POWERED FROM ELECTRICAL DISTRIBUTION PANEL "HV"

9. ALL DUCT PENETRATION THROUGH FIRE WALLS SHALL BE PROVIDED WITH FIRE OR FIRE/SMOKE DAMPERS IF REQUIRED

10. PROVIDE 110V, 15A GFCI/WP RECEPTALES WITHIN 25' OF ALL REFRIGERATION AND MECHANICAL EQUIPMENT

11. ALL INTAKE, AND EXHAUST DUCTS TO BE PROVIDED W/ MOTORIZED SHUTOFF DAMPERS. EXCEPTION: GRAVITY DAMPERS ARE ACCEPTABLE WHERE THE AIR INTAKE OR EXHAUST IS 300 CFM OR LESS (NOTE MAXIMUM LEAKAGE NOT TO EXCEED 0.3 CFM PER SQ.FT.)

12. EACH RTU RETURN AND OR SUPPLY AIR DUCT, SMOKE DETECTORS SHALL BE CONNECTED TO A SUPERVISORY SIGNAL AND ACTIVATE BOTH A VISIBLE AND AUDIBLE SIGNAL IN AN APPROVED OCCUPIED LOCATION TO COMPLY WITH SECTION 609 OF THE 2012 UMC.

13. ALL CONDENSATE FROM AIR WASHERS, AIR COOLING COILS, FUEL–BURNING CONDENSING APPLIANCES. THE OVERFLOW FROM EVAPORATIVE COOLERS & SIMULAR WATER SUPPLIED EQUIPMENT SHALL BE COLLECTED AND DISCHARGED TO AN APPROVED PLUMBING FIXTURE OR DISPOSAL AREA,– 2012 UNIFORM MECHANICAL CODE.

14. INSTALLER SHALL CONDUCT AND CERTIFY ALL REQUIRED TESTS TO ENSURE SAFE AND PROPER OPERATION FOR ALL INSTALLED HVAC EQUIPMENTS IN THE PROJECT.

15. INSTALLER SHALL CONDUCT AND CERTIFY ALL REQUIRED TESTS, CALIBRATIONS AND ADJUSTMENTS TO ENSURE SAFE AND PROPER OPERATION FOR ALL INSTALLED HVAC SYSTEM AIR/ HYDRONIC CONTROL DEVICES AND EQUIPMENTS IN THE PROJECT.

MECHANICAL NOTES:

DUCTWORK, REGISTERS AND DIFFUSERS NOTES:

1. CEILING OR WALL DIFFUSERS FOR SUPPLY AIR SHALL BE ALUMINUM" WITH ADJUSTABLE DAMPERS AS MANUFACTURED BY" KRUEGER" SERIES "S" OR "SH" OR OWNER APPROVED EQUAL.

2. REGISTERS AND GRILLES FOR RETURN AIR SHALL BE "ALUMINUM" AS MANUFACTURED BY "KRUEGER" SERIES "S580" OR "S585 OR OWNER APPROVED EQUAL.

3. PROVIDE A MINIMUM OF R–6 INSULATION AROUND SUPPLY AIR NECK AND OVER SUPPLY AIR DIFFUSERS TO MINIMIZE CONDENSATION.

4. FOR EXACT LOCATION OF ALL DIFFUSERS AND REGISTERS REFER TO REFLECTED CEILGIN PLAN.

5. CEILING SUPPLY DIFFUSERS ARE 4–WAY THROW UNLESS INDICATED OTHERWISE BY ARROWS ON FLOOR PLAN.

6. PROVIDE SPIN–IN FITTING WITH AIR SCOOP AND LOCKING QUADRANT BUTTERFLY DAMPER AT ALL ROUND FLEXIBLE DUCT CONNECTIONS TO RECTANGULAR DUCT.

7. DUCT SIZES INDICATED ON PLANS ARE INSIDE FREE AREA. REFER TO SPECIFICATIONS FOR INSULATION.

8. PROVIDE ROUND FLEXIBLE DUCT, SAME SIZE AS DIFFUSER NECK.

9. DUCT SYSTEM SMALLER THAN 30" WIDE TO BE OF RIGID FIBERGLASS INSULATION BOARDS AS MANUFACTURED BY "OWENS CORNIN" TYPE 475–FRK OR OWNER APPROVED EQUAL. ALL JOINTS SHALL BE SEALED WITH PRESSURE–SENSITIVE ALUMINUM FOIL TAPE OR MASTIC AND GLASS FABRIC TAPE IN ACCORDANCE WITH NFPA 90A AND SMACNA REQUIREMENTS.

10. DUCTS 30" WIDE AND LARGER SHALL BE MADE OF INSULATED SHEET METAL MEETING NFPA 90A AND SMACNA REQUIREMENTS.

11. HORIZONTAL DUCT RUNS SHALL BE SUPPORTED BY GALVANIZED STEEL ANGLES SPACED NO MORE THAN 5 FT. APART AND CONNECTED TO THE BUILDING STRUCTURE." NO METAL STRAPS OR HANGING WIRES DIRECTLY ATTACHED TO DUCT, ALLOWED.

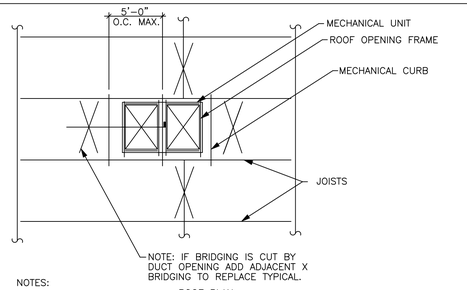
12. PROVIDE CONTROL DAMPERS AT SUPPLY BRANCHES AND INDIVIDUAL AIR SUPPLY OUTLETS FOR COMPLETE CONTROL OF AIR FLOW.

13. PROVIDE TURNING VANES AT EACH TURNS IN DIRECTION TO MINIMIZE FRICTION LOSS.

14. COORDINATE ALL WORK WITH ARCHITECTURAL, STRUCTURAL, ELECTRICAL & PLUMBING DRAWINGS, TO ENSURE PROPER DIMENSIONS AND CLEARENCES.

15.VIBRATION ISOLATION PADS SHALLE BE ACOUSTICAL SOLUTION BRAND, MEDIUM VIBRATION ISOLATION PAD 18"X18"X3/8" THK WITH 45 PSI RATING, CUTO TO FIT ON JOBS SITE.

HVAC SPECIFICATIONS | 1



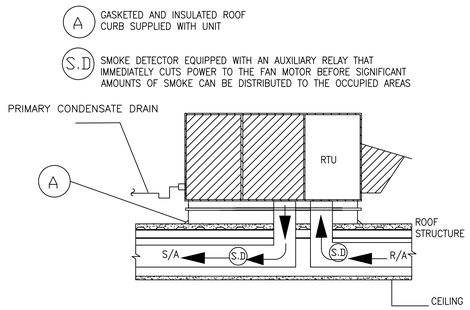
NOTES:

1. MECHANICAL CURB SHALL BE STRUCTURALLY ADEQUATE TO TRANSFER VERTICAL AND LATERAL LOADS TO THE ROOF JOISTS AND INSTALLED PER CURB MANUFACTURER RECOMMENDATION.
2. MECHANICAL EQUIPEMENT SHALL BE LOCATED IN THE DESIGNATED AREA STATED ON THE STRUCTURAL DRAWINGS. THE WEIGHT OF MECHANICAL EQUIPMENT SHALL NOT EXCEED THE DESIGNED CAPACITY OF STRUCTURAL FRAMING AND SHALL BE APPROVED BY A STRUCTURAL ENGINEER.

ROOF PLAN

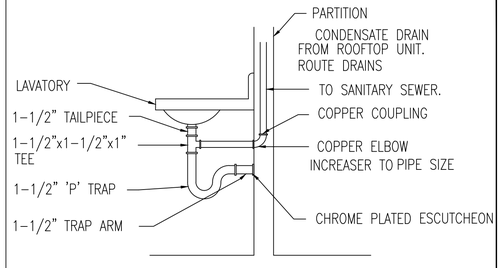
NOT TO SCALE

TYPICAL RTU SUPPORT/FRAMING DETAIL | 2

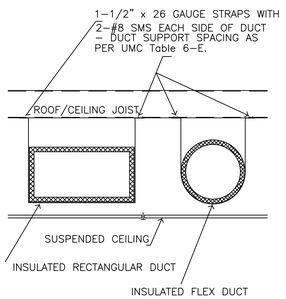


NOT TO SCALE

ROOF SUPPORTED INSTALLATION | 3

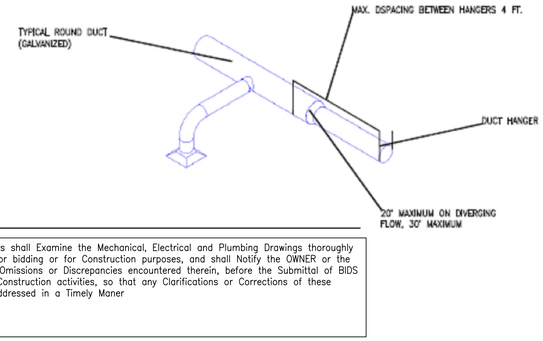


RTU CONDENSATE DRAIN | 4



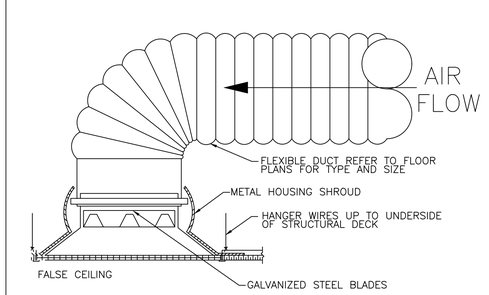
NOT TO SCALE

DUCT SUPPORT DETAILS | 5



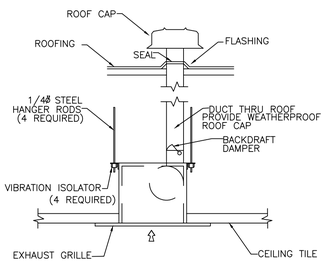
NOTE: The Contractor's shall Examine the Mechanical, Electrical and Plumbing Drawings thoroughly when utilizing them for bidding or for Construction purposes, and shall Notify the OWNER or the ENGINEER about any Omissions or Discrepancies encountered therein, before the Submittal of BIDS or the Beginning of Construction activities, so that any Clarifications or Corrections of these Documents can be addressed in a Timely Maner

TRANSITION DETAIL | 6



NOT TO SCALE

SUPPLY DIFFUSER | 7



CEILING EXHAUST FAN DETAIL

NO SCALE

CEILING EXHAUST FAN DETAIL | 8

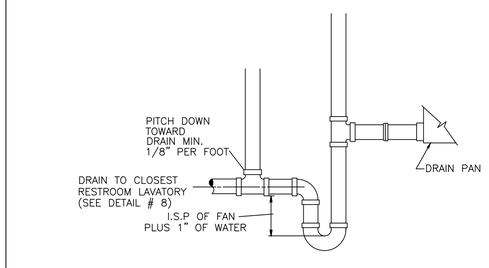
ENERGY CODE – COMPLETION REQUIREMENTS

THE FOLLOWING REQUIREMENTS ARE MANDATORY PROVISIONS AND ARE NECESSARY FOR COMPLIANCE WITH THE CODE.

DRAWINGS: CONSTRUCTION DOCUMENTS SHALL REQUIRE THAT WITHIN 90 DAYS AFTER THE DATE OF SYSTEM ACCEPTANCE RECORD DRAWINGS OF THE ACTUAL INSTALLATION BE PROVIDED TO THE BUILDING OWNER OR THE DESIGNATED REPRESENTATIVE OF THE BUILDING OWNER. RECORD DRAWINGS SHALL INCLUDE AS A MINIMUM THE LOCATION AND PERFORMANCE DATA ON EACH PIECE OF EQUIPMENT, GENERAL CONFIGURATION OF DUCT AND PIPE DISTRIBUTION SYSTEM INCLUDING SIZES, AND THE TERMINAL AIR OR WATER DESIGN FLOW RATES.

MANUALS. CONSTRUCTION DOCUMENTS SHALL REQUIRE THAT AN OPERATING MANUAL AND A MAINTENANCE MANUAL BE PROVIDED TO THE BUILDING OWNER OR THE DESIGNATED REPRESENTATIVE OF THE BUILDING OWNER WITHIN 90 DAYS AFTER THE DATE OF SYSTEM ACCEPTANCE. THESE MANUALS SHALL BE IN ACCORDANCE WITH INDUSTRY–ACCEPTED STANDARDS (SEE APPENDIX E) AND SHALL INCLUDE, AT A MINIMUM, THE FOLLOWING:
(A) SUBMITTAL DATA STATING EQUIPMENT SIZE AND SELECTED OPTIONS FOR EACH PIECE OF EQUIPMENT REQUIRING MAINTENANCE.
(B) OPERATION MANUALS AND MAINTENANCE MANUALS FOR EACH PIECE OF EQUIPMENT REQUIRING MAINTENANCE, EXCEPT EQUIPMENT NOT FURNISHED AS PART OF THE PROJECT. REQUIRED ROUTINE MAINTENANCE ACTIONS SHALL BE CLEARLY IDENTIFIED.
(C) NAMES AND ADDRESSES OF AT LEAST ONE SERVICE AGENCY.
(D) HVAC CONTROLS SYSTEM MAINTENANCE AND CALIBRATION INFORMATION, INCLUDING WIRING DIAGRAMS, SCHEMATICS, AND CONTROL SEQUENCE DESCRIPTIONS. DESIRED OR FIELD–DETERMINED SET–POINTS SHALL BE PERMANENTLY RECORDED ON CONTROL DRAWINGS AT CONTROL DEVICES OR, FOR DIGITAL CONTROL SYSTEMS, IN PROGRAMMING COMMENTS.
(E) A COMPLETE NARRATIVE OF HOW EACH SYSTEM IS INTENDED TO OPERATE, INCLUDING SUGGESTED SET–POINTS.

MECHANICAL DETAILS | 9



NOT TO SCALE

(TYPICAL)

RTU CONDENSATE DRAIN DETA" | 10

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REV.	DESCRIPTION	DATE:
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B	CITY COMMENTS	05/31/22

SHEET CONTENTS

MECHANICAL GENERAL DETAILS

SHEET NUMBER

M1.4

DATE: 05/31/22

STATE OF TEXAS
AHMAD M. ELKOT
129559
LICENSED
PROFESSIONAL ENGINEER

05/31/2022

SCALE: NTS

EXHAUST FAN INFORMATION – JOB#5228960

FAN UNIT NO	TAG	QTY	FAN UNIT MODEL #	MANUFACTURER	CFM	ESP	RPM	MOTOR ENCL	HP	BHP	PHASE	VOLT	FLA	DISCHARGE VELOCITY	WEIGHT (LBS)	SONES
1	EF1	1	TUSB115DD-RM	THERMOTEK	1650	2.000	1632	ODP_PREMIUM	1.500	0.9480	3	208	4.4	1147 FPM	296	19.2
2	EF2	1	TUSB115DD-RM	THERMOTEK	1650	2.000	1632	ODP_PREMIUM	1.500	0.9480	3	208	4.4	1147 FPM	296	19.2

MUA FAN INFORMATION – JOB#5228960

FAN UNIT NO	TAG	QTY	FAN UNIT MODEL #	BLOWER	HOUSING	MIN CFM	DESIGN CFM	ESP	RPM	MOTOR ENCL	HP	BHP	PHASE	VOLT	FLA	MCA	MOCP	WEIGHT (LBS)	SONES
3	SF1	1	T-A2-20D	20MF-2-MOD	A2	1500	2640	0.500	1055	ODP_PREMIUM	1.000	0.6530	3	208	3.8	4.8A	15A	376	10.9

FAN OPTIONS

FAN UNIT NO	TAG	QTY	DESCRIPTION
1	EF1	1	B115 – INLET SERVICE DUCT CONNECTION. USED TO CONNECT TO STANDARD 16" GREASE DUCT OR FIELD WELDED DUCT. INCLUDES (2) 7" RISERS BOLTED TO STANDARD INLET RISER
		1	UTILITY SET GREASE CUP
		1	B115 – 24" DISCHARGE EXTENSION
		1	BI – DISCHARGE ORIENTATION VERTICAL UPPER LEFT – CW INLET SIDE
		1	B115 – INLET CONNECTION STANDARD 16" FLANGED GREASE DUCT
		1	UTILITY SET – SPRING VIBRATION ISOLATORS – B111 THRU B115 / EQUIVALENT SIZED UTILITY SET – INDOOR/OUTDOOR USE
		1	2 YEAR PARTS WARRANTY
2	EF2	1	B115 – INLET SERVICE DUCT CONNECTION. USED TO CONNECT TO STANDARD 16" GREASE DUCT OR FIELD WELDED DUCT. INCLUDES (2) 7" RISERS BOLTED TO STANDARD INLET RISER
		1	UTILITY SET GREASE CUP
		1	B115 – 24" DISCHARGE EXTENSION
		1	BI – DISCHARGE ORIENTATION VERTICAL UPPER LEFT – CW INLET SIDE
		1	B115 – INLET CONNECTION STANDARD 16" FLANGED GREASE DUCT
		1	UTILITY SET – SPRING VIBRATION ISOLATORS – B111 THRU B115 / EQUIVALENT SIZED UTILITY SET – INDOOR/OUTDOOR USE
		1	2 YEAR PARTS WARRANTY
3	SF1	1	GRAVITY BACKDRAFT DAMPER FOR SIZE 2 HOUSING
		1	2 YEAR PARTS WARRANTY

FAN ACCESSORIES

FAN UNIT NO	TAG	EXHAUST			SUPPLY			
		GREASE CUP	GRAVITY DAMPER	WALL MOUNT	SIDE DISCHARGE	GRAVITY DAMPER	MOTORIZED DAMPER	WALL MOUNT
1	EF1	YES						
2	EF2	YES						
3	SF1				YES	YES		

CURB ASSEMBLIES

NO	ON FAN	TAG	WEIGHT	ITEM	SIZE
1	# 1	EF1	38 LBS	RAIL	4.000"W X 36.000"L X 14.000"H ALONG WIDTH, RIGHT COMES AS A SET OF 2.
2	# 2	EF2	38 LBS	RAIL	4.000"W X 36.000"L X 14.000"H ALONG WIDTH, RIGHT COMES AS A SET OF 2.
3	# 3	SF1	42 LBS	CURB	31.000"W X 31.000"L X 14.000"H ALONG LENGTH, RIGHT.

SINGLE WALL FACTORY BUILT DUCTWORK

- ALL DUCTWORK IS REQUIRED TO BE INSTALLED WITH THE MAXIMUM SUPPORT SPACING LISTED BELOW.
- FOR A COMPLETE LIST OF APPROVED SUPPORT METHODS, SEE THE INSTALLATION AND OPERATION MANUAL.
- DUCTWORK SHALL SLOPE NOT LESS THAN 1/16" PER LINEAR FOOT TOWARDS THE HOOD OR AN APPROVED GREASE COLLECTION RESERVOIR.
- WHERE HORIZONTAL DUCTS EXCEED 75 FEET IN LENGTH, THE SLOPE SHALL NOT BE LESS THAN 3/16" PER LINEAR FOOT.

DUCT DIAMETER	HORIZONTAL SUPPORT (FT)	VERTICAL WALL SUPPORT (FT)	VERTICAL CURB SUPPORT (FT)
5"	10'	10'	24'
6"	10'	10'	24'
7"	10'	10'	24'
8"	10'	10'	24'
10"	10'	10'	24'
12"	10'	10'	24'
14"	10'	10'	24'
16"	10'	10'	24'
18"	10'	10'	24'
20"	10'	10'	24'
22"	10'	10'	24'
24"	10'	10'	24'
26"	10'	10'	24'
28"	10'	10'	24'
30"	10'	10'	24'
32"	10'	10'	24'
34"	10'	10'	24'
36"	10'	10'	24'

HOOD INFORMATION – JOB#5228960

HOOD NO	TAG	MODEL	MANUFACTURER	LENGTH	MAX COOKING TEMP	TYPE	APPLIANCE DUTY	DESIGN CFM/FT	TOTAL EXH CFM	EXHAUST PLENUM RISER(S) WIDTH	LENG	HEIGHT	DIA	CFM	VEL	SP	TOTAL SUPPLY CFM	HOOD CONSTRUCTION	HOOD CONFIG END TO END	HOOD CONFIG ROW
1	K1	5424 T-ND-2-PSP-P	THERMOTEK	14' 6"	450 DEG	1	MEDIUM	228	3300			4"	12"	1650	2101	-0.431"	2640	430 SS WHERE EXPOSED	ALONE	ALONE
												4"	12"	1650	2101	-0.431"				

HOOD INFORMATION

HOOD NO	TAG	FILTER(S) TYPE	QTY	HEIGHT	LENGTH	EFFICIENCY @ 7 MICRONS	LIGHT(S) QTY	TYPE	WIRE GUARD	LOCATION	SIZE	UTILITY CABINET(S) FIRE SYSTEM TYPE	SIZE	ELECTRICAL MODEL #	SWITCHES QUANTITY	FIRE SYSTEM PIPING	HOOD HANGING WEIGHT
1	K1	SS BAFFLE WITH HANDLES	10	20"	16"	30%	5	L55 SERIES E26	NO	RIGHT	12"x54"x24"	TANK FS	4.0/4.0	DCV-2111	1 LIGHT 1 FAN	YES	1116 LBS

HOOD OPTIONS

HOOD NO	TAG	OPTION
1	K1	FIELD WRAPPER 18.00" HIGH FRONT, LEFT, RIGHT.
		RISER SENSOR INSTALL 6IN PLEN.
		LEFT VERTICAL END PANEL 27" TOP WIDTH, 21" BOTTOM WIDTH, 80" HIGH INSULATED 430 SS.

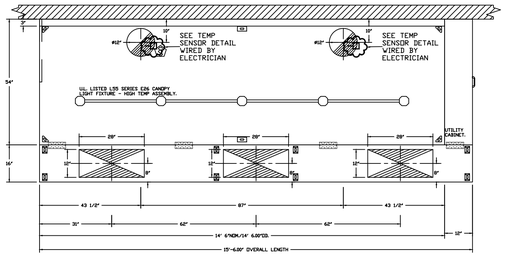
PERFORATED SUPPLY PLENUM(S)

HOOD NO	TAG	POS	LENGTH	WIDTH	HEIGHT	TYPE	RISER(S) WIDTH	LENG	DIA	CFM	SP
1	K1	Front	186"	16"	6"	MUA	12"	216"		880	0.247"
						MUA	12"	216"		880	0.247"

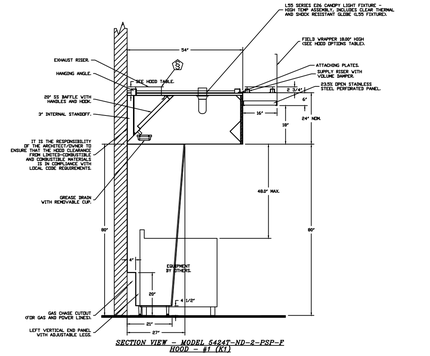
ETL LISTING DESCRIPTION BLOCK
THE THERMOTEK MODEL
ND HAS BEEN E.T.L
TESTED, LISTED, AND
APPROVED TO EXHAUST
A MINIMUM OF 150/200/250 CFM PER
LINEAR FOOT OVER 450/600/700
DEGREE COOKING EQUIPMENT

THERMOTEK HOODS ARE
BUILT IN COMPLIANCE WITH
NSF, NOT INTENDED FOR USE IN HOUSEHOLD APPLICATIONS, ETL
NFPA #96
NSF
UL 710 & ULC710 STANDARDS
E.T.L. LISTED 3054804-001

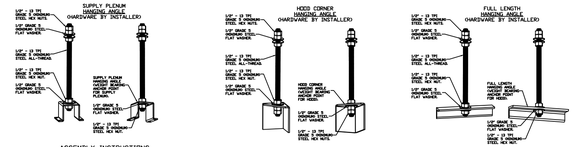
DO NOT LEAK TEST USING SMOKE BOMBS CONTAINING CHLORINES/CHLORIDES. CONSULT WITH CAPTIVEAIRE FOR PROPER LEAK TESTING METHODS.



PLAN VIEW – HOOD #1 (K1)
14' 6.00" LONG 5424T-ND-2-PSP-P
NOTE: ADDITIONAL HANGING ANGLES PROVIDED FOR HOODS 12' AND LONGER.



SECTION VIEW – MODEL 5424T-ND-2-PSP-P
HOOD – #1 (K1)



ASSEMBLY INSTRUCTIONS

HANGING ANGLE MUST BE SUPPORTED WITH 1/2" – 13 TPI GRADE 5 OMINIMUM ALL-THREAD SANDWICH HANGING ANGLES AND CEILING ANCHOR POINTS WITH 1/2" GRADE 5 OMINIMUM STEEL FLAT WASHERS AND 1/2" – 13 TPI GRADE 5 OMINIMUM HEX NUTS AS SHOWN MUST USE DOUBLED HEX NUT CONFIGURATION ABOVE CEILING ANCHORS. SINGLE HEX NUT BENEATH HANGING ANGLE IS ACCEPTABLE FOR PSP HANGING ANGLES. MAINTAIN 1/4" OF EXPOSED THREADS BENEATH BOTTOM HEX NUT. TORQUE ALL HEX NUTS TO 57 FT-LBS.

ASSEMBLY INSTRUCTIONS

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THERMOTEK RECOMMENDS THE USE OF LISTED, PRE-FABRICATED ROUND GREASE EXHAUST DUCT TO REDUCE STATIC PRESSURE IN THE SYSTEM, MINIMIZE INSTALLATION AND INSPECTION TIMES, AND ENSURE DUCT IS LIQUID TIGHT

HVAC DISTRIBUTION NOTE
HIGH VELOCITY DIFFUSERS OR HVAC RETURNS SHOULD NOT BE PLACED WITHIN TEN (10) FEET OF THE EXHAUST HOOD. PERFORATED DIFFUSERS ARE RECOMMENDED.

VERIFY CEILING HEIGHT
___' - ___"
HEIGHT REQUIRED TO VERIFY THAT HOOD FITS SPACE AND TO SIZE THE ENCLOSURE PANELS

CUSTOMER APPROVAL TO MANUFACTURE:
APPROVED AS NOTED ☐
APPROVED WITH NO EXCEPTION TAKEN ☐
REVISE AND RESUBMIT ☐
SIGNATURE _____
YOUR TITLE _____ DATE _____

SPECIFICATIONS

THE RESTAURANT FIRE SUPPRESSION SYSTEM SHALL BE THE PRE-ENGINEERED TYPE WITH A FIXED NOZZLE AGENT DISTRIBUTION NETWORK. IT SHALL BE LISTED WITH UNDERWRITERS LABORATORIES, INC. (UL)

THE SYSTEM SHALL BE CAPABLE OF AUTOMATIC DETECTION AND ACTUATION WITH LOCAL OR REMOTE MANUAL ACTUATION. ACCESSORIES SHALL BE AVAILABLE FOR MECHANICAL OR ELECTRICAL GAS LINE SHUT-OFF APPLICATIONS.

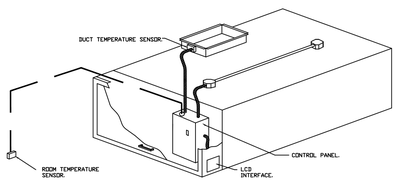
THE EXTINGUISHING AGENT SHALL BE A POTASSIUM CARBONATE, POTASSIUM ACETATE-BASED FORMULATION DESIGNED FOR FLAME KNOCKDOWN AND SECUREMENT OF GREASE RELATED FIRES. IT SHALL BE AVAILABLE IN PLASTIC CONTAINERS WITH INSTRUCTIONS FOR LIQUID AGENT HANDLING AND USAGE.

THE REGULATED RELEASE MECHANISM SHALL BE COMPATIBLE WITH AN ELECTRICAL DETECTION SYSTEM. THE ELECTRICAL DETECTION SYSTEM SHALL BE SELECTED AND INSTALLED ACCORDING TO THE OPERATING TEMPERATURE IN THE VENTILATING SYSTEM.

ELECTRICAL WET CHEMICAL SYSTEM

DEMAND CONTROL VENTILATION HOOD CONTROL PANEL SPECIFICATIONS:

- CONTROLS SHALL BE LISTED BY ETL (UL 508A) AND SHALL COMPLY WITH DEMAND VENTILATION SYSTEM TURNDOWN REQUIREMENTS OUTLINED IN IECC 403.2.8 (2015).
- THE CONTROL ENCLOSURE SHALL BE NEMA 1 RATED AND LISTED FOR INSTALLATION INSIDE OF THE EXHAUST HOOD UTILITY CABINET. THE CONTROL ENCLOSURE MAY BE CONSTRUCTED OF STAINLESS STEEL OR PAINTED STEEL.
- TEMPERATURE PROBE(S) LOCATED IN THE EXHAUST DUCT RISER(S) SHALL BE CONSTRUCTED OF STAINLESS STEEL.
- A DIGITAL CONTROLLER SHALL BE PROVIDED TO ACTIVATE THE HOOD EXHAUST FANS DYNAMICALLY BASED ON A FIXED DIFFERENTIAL BETWEEN THE AMBIENT AND DUCT TEMPERATURES SENSORS. THIS FUNCTION SHALL MEET THE REQUIREMENTS OF IMC 507.1.1.
- A DIGITAL CONTROLLER SHALL PROVIDE ADJUSTABLE HYSTERESIS SETTINGS TO PREVENT CYCLING OF THE FANS AFTER THE COOKING APPLIANCES HAVE BEEN TURNED OFF AND/OR THE HEAT IN THE EXHAUST SYSTEM IS REDUCED.
- A DIGITAL CONTROLLER SHALL PROVIDE AN ADJUSTABLE MINIMUM FAN RUN-TIME SETTING TO PREVENT FAN CYCLING.
- VARIABLE FREQUENCY DRIVES (VFDS) SHALL BE PROVIDED FOR FANS AS REQUIRED. THE DIGITAL CONTROLLER SHALL MODULATE THE VFDS BETWEEN A MINIMUM SETPOINT AND A MAXIMUM SETPOINT ON DEMAND. THE DUCT TEMPERATURE SENSOR INPUT(S) TO THE DIGITAL CONTROLLER SHALL BE USED TO CALCULATE THE SPEED REFERENCE SIGNAL.
- THE VFD SPEED RANGE OF OPERATION SHALL BE FROM 0% TO 100% FOR THE SYSTEM, WITH THE ACTUAL MINIMUM SPEED SET AS REQUIRED TO MEET MINIMUM VENTILATION REQUIREMENTS.
- AN INTERNAL ALGORITHM TO THE DIGITAL CONTROLLER SHALL MODULATE SUPPLY FAN VFD SPEED PROPORTIONAL TO ALL EXHAUST FANS THAT ARE LOCATED IN THE SAME FAN GROUP AS THE SUPPLY FAN.
- THE SYSTEM SHALL OPERATE IN PREP MODE DURING LIGHT COOKING LOAD OR COOL DOWN MODE WHEN SUFFICIENT HEAT REMAINS UNDERNEATH THE HOOD SYSTEM AFTER COOKING OPERATIONS HAVE COMPLETED. OPERATION DURING EITHER OF THESE PERIODS WILL DISABLE THE SUPPLY FANS AND PROVIDE AN EXHAUST FAN SPEED THAT IS EQUAL TO THE MINIMUM VENTILATION REQUIREMENT.
- A DIGITAL CONTROLLER SHALL DISABLE THE SUPPLY FAN(S), ACTIVATE THE EXHAUST FAN(S), ACTIVATE THE APPLIANCE SHUNT TRIP, AND DISABLE AN ELECTRIC GAS VALVE AUTOMATICALLY WHEN FIRE CONDITION IS DETECTED ON A COVERED HOOD.
- A DIGITAL CONTROLLER SHALL ALLOW FOR EXTERNAL BMS FAN CONTROL VIA DRY CONTACT (EXTERNAL CONTROL SHALL NOT OVERRIDE FAN OPERATION LOGIC AS REQUIRED BY CODE).
- AN LCD INTERFACE SHALL BE PROVIDED WITH THE FOLLOWING FEATURES:
  - A. ON/OFF PUSH BUTTON FAN & LIGHT SWITCH ACTIVATION.
  - B. INTEGRATED GAS VALVE RESET FOR ELECTRONIC GAS VALVES (NO RESET RELAY REQUIRED).
  - C. VFD FAULT DISPLAY WITH AUDIBLE & VISUAL ALARM NOTIFICATION.
  - D. DUCT TEMPERATURE SENSOR FAILURE DETECTION WITH AUDIBLE & VISUAL ALARM NOTIFICATION.
  - E. MIS-WIRED DUCT TEMPERATURE SENSOR DETECTION WITH AUDIBLE & VISUAL ALARM NOTIFICATION.
  - F. A SINGLE LOW VOLTAGE CAT-5 RJ45 WIRING CONNECTION.
  - G. AN ENERGY SAVINGS INDICATOR THAT UTILIZES MEASURED KWH FROM THE VFDS.



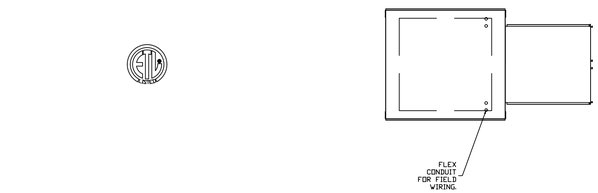
TYPICAL HOOD CONTROL PANEL INSTALLATION

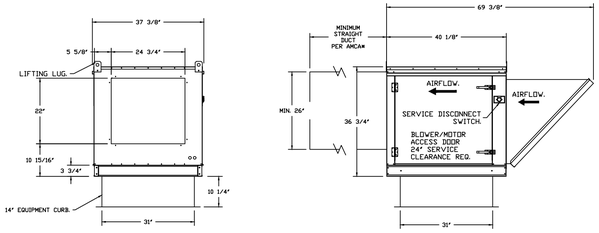
SEQUENCE OF OPERATIONS:
THE HOOD CONTROL PANEL IS CAPABLE OF OPERATING IN ONE OR MORE OF THE FOLLOWING STATES AT ANY GIVEN TIME:

- AUTOMATIC: THE SYSTEM OPERATES BASED ON THE DIFFERENTIAL BETWEEN ROOM TEMPERATURE AND THE TEMPERATURE AT THE HOOD CAVITY OR EXHAUST DUCT COLLAR. FANS ACTIVATE AT A CONFIGURABLE TEMPERATURE DIFFERENTIAL THRESHOLD. DEPENDING ON THE JOB CONFIGURATION EACH FAN ZONE CAN BE CONFIGURED AS STATIC OR DYNAMIC. THESE TERMS REFER TO WHETHER A VARIABLE MOTOR (SUCH AS EC MOTORS OR VFD DRIVEN MOTORS) MODULATE WITH TEMPERATURE. IF THE PANEL IS EQUIPPED WITH VARIABLE SPEED FANS AND THE ZONE IS DEFINED AS "DYNAMIC", THESE WILL MODULATE WITHIN A USER-DEFINED RANGE BASED ON THE TEMPERATURE DIFFERENTIAL. PANELS EQUIPPED WITH VARIABLE SPEED FANS AND A FAN ZONE DEFINED AS "STATIC", FANS WILL RUN AT A SET SPEED CALCULATED FOR THE DRIVE. DEMAND CONTROL VENTILATION SYSTEMS ARE CAPABLE OF MODULATING EXHAUST AND MAKE UP AIR FAN SPEEDS PER THE REQUIREMENTS OUTLINED IN IECC 403.2.8.
- MANUAL: THE SYSTEM OPERATES BASED ON HUMAN INPUT FROM AN HMI.
- SCHEDULE: A WEEKLY SCHEDULE CAN BE SET TO RUN FANS FOR A SPECIFIED PERIOD THROUGHOUT THE DAY. THERE ARE THREE OCCUPIED TIMES PER DAY TO ALLOW FOR THE USER TO SET UP A TIME THAT IS SUITABLE TO THEIR NEEDS. ANY TIME THAT IS WITHIN THE DEFINED OCCUPIED TIME, THE SYSTEM WILL RUN AT MODULATION MODE AND FOLLOW THE FAN PROCEDURE ALGORITHM BASED ON TEMPERATURE DURING THIS TIME. DURING UNOCCUPIED TIME, THE SYSTEM WILL HAVE AN EXTRA OFFSET TO PREVENT UNINTENDED ACTIVATION OF THE SYSTEM DURING A TIME WHERE THE SYSTEM IS NOT BEING OCCUPIED.
- OTHER: THE SYSTEM OPERATES BASED ON THE INPUT FROM AN EXTERNAL SOURCE (DDC, BMS OR HARD-WIRED INTERLOCK).
- FIRE: UPON ACTIVATION OF THE HOOD FIRE SUPPRESSION SYSTEM, THE EXHAUST FAN WILL COME ON OR CONTINUE TO TO RUN. THE HOOD MAKEUP AIR WILL SHUTDOWN, AND A SIGNAL WILL BE SENT FOR ACTIVATING THE SHUNT TRIP BREAKER PROVIDED BY THE ELECTRICIAN. FUEL GAS WILL SHUT OFF VIA A MECHANICAL/ELECTRICAL GAS VALVE ACTUATED BY THE HOOD FIRE SUPPRESSION SYSTEM.

FAN #3 T-A2-20D - SUPPLY FAN (SF1)
1. UNTEMPERED SUPPLY UNIT WITH 20" MIXED FLOW DIRECT DRIVE FAN IN SIZE #2 HOUSING.
2. INTAKE HOOD WITH EZ FILTERS-LOW CFM.
3. SIDE DISCHARGE – AIR FLOW RIGHT -> LEFT.
4. GRAVITY BACK DRAFT DAMPER 20" X 24" , STANDARD GALVANIZED CONSTRUCTION, 1 1/4" REAR FLANGE, FOR SIZE 2 UNTEMPERED FAN HOUSING (SIZE2).
5. HINGED DOUBLE WALL INSULATED DOOR ASSEMBLY (BURNER/BLOWER SECTION).
6. 2 YEAR PARTS WARRANTY

#NOTE: SUPPLY DUCT MUST BE INSTALLED TO MEET SMACNA STANDARDS. A MINIMUM STRAIGHT DUCT LENGTH MUST BE MAINTAINED DOWNSTREAM OF UNIT DISCHARGE AS OUTLINED IN AMCA PUBLICATION 201. WHEN USING RECTANGULAR DUCTWORK, ELBOWS MUST BE RADIUS THROAT, RADIUS BACK WITH TURNING VANES. FLEXIBLE DUCTWORK AND SQUARE THROAT/SQUARE BACK ELBOWS SHOULD NOT BE USED. ANY TRANSITION AND/OR TURNS IN THE DUCTWORK WILL CAUSE SYSTEM EFFECT. SYSTEM EFFECT WILL DRASTICALLY INCREASE STATIC PRESSURE AND REDUCE AIRFLOW. DO NOT RELY ON UNIT TO SUPPORT DUCT IN ANY WAY. FAILURE TO PROPERLY SIZE DUCTWORK MAY CAUSE SYSTEM EFFECTS AND REDUCE PERFORMANCE OF THE EQUIPMENT.
SUGGESTED STRAIGHT DUCT SIZE IS 26" x 26".





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REV.	DESCRIPTION	DATE:
	PERMIT SET	01/15/22
B	CITY COMMENTS	05/31/22

STATE OF TEXAS
AHMAD M. ELKOT
129559
LICENSED
PROFESSIONAL ENGINEER
05/31/2022

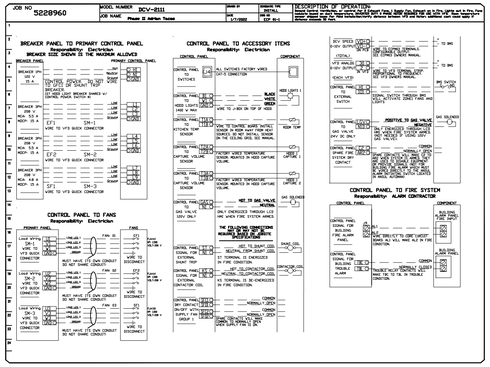
SHEET CONTENTS
KITCHEN HOOD SCHEDULES AND DETAILS

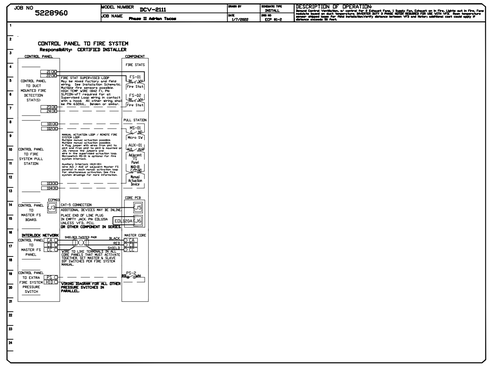
SHEET NUMBER
M1.6

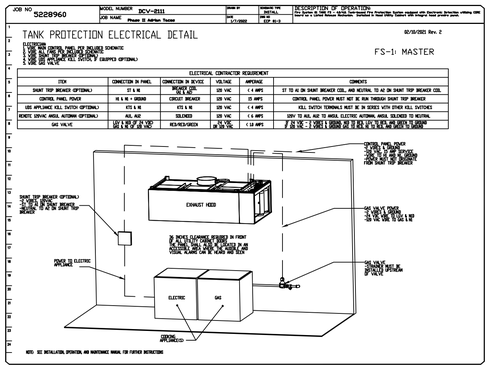
DATE: 05/31/22

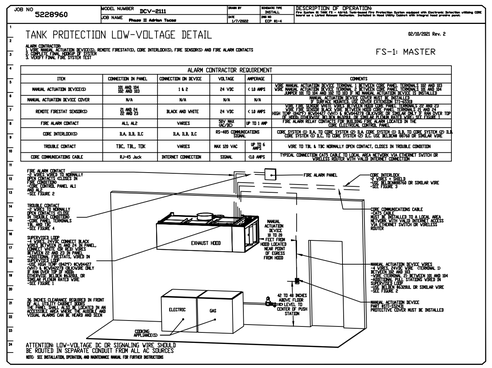
ELECTRICAL PACKAGE – JOB#5228960

NO	TAG	PACKAGE #	LOCATION	SWITCHES		OPTION	FANS CONTROLLED					
				LOCATION	QUANTITY		FAN TAG	TYPE	Ø	HP	VOLT	FLA
1		DCV-2111	UTILITY CABINET RIGHT	S4 – UTILITY CABINET RIGHT	1 LIGHT	SMART CONTROLS DCV	EF1	EXHAUST	3	1.500	208	4.4
				HOOD # 1	1 FAN		EF2	EXHAUST	3	1.500	208	4.4
							SF1	SUPPLY	3	1.000	208	3.8





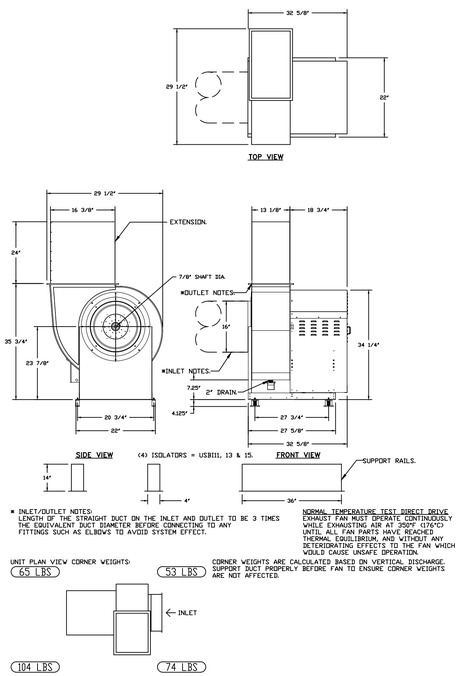




DUCTWORK #1 PARTS – JOB#5228960

TAG	PART #	CFM	GPM	ZONE	COVEREDBY	SP	WEIGHT	VELOCITY	QTY	DESCRIPTION
P1 ASSEMBLED W/P40	TDK12TEASY	1650		1		-0.2117	12.93	2100.85	1	SINGLE WALL DUCT TEE, 12" DUCT, ASSEMBLY.
P2	TDK1204C1D	1650				-0.003	2.12	2100.85	1	SINGLE WALL DUCT OFF SET COLLAR – 12" DIAMETER DUCT – 1/4" PITCH.
P3	TDK1210L T	1650				-0.008	4.01	2100.85	1	SINGLE WALL DUCT 12" DIAMETER, 10" LONG, FLANGE AT BOTH ENDS. STAINLESS STEEL.
P4	TDK1204C1D	1650				-0.003	2.12	2100.85	1	SINGLE WALL DUCT OFF SET COLLAR – 12" DIAMETER DUCT – 1/4" PITCH.
P5 ASSEMBLED W/P6	TDK12TEASY	1650		1		-0.242	12.93	2100.85	1	SINGLE WALL DUCT TEE, 12" DUCT, ASSEMBLY.
P6 ASSEMBLED W/P5 D=S	TDK1213ADIASY						11.53		1	DUCT ACCESS DOOR – INSULATED – USED WITH 12" DUCT – GREASE DAM INCLUDED – ASSEMBLY.
P7	TDK1204C1D	1650				-0.003	2.12	2100.85	1	SINGLE WALL DUCT OFF SET COLLAR – 12" DIAMETER DUCT – 1/4" PITCH.
P8	TDK1247L T	1650				-0.036	18.70	2100.85	1	SINGLE WALL DUCT 12" DIAMETER, 47" LONG, FLANGE AT BOTH ENDS. STAINLESS STEEL.
P9	TDK1235L T	1650				-0.0268	14.03	2100.85	1	SINGLE WALL DUCT 12" DIAMETER, 35" LONG, FLANGE AT BOTH ENDS. STAINLESS STEEL.
P10	TDK1248AJDKIT	1650				-0.0291	22.74	2100.85	1	SINGLE WALL DUCT ADJUSTABLE, 12" DIAMETER, 47.5" LONG, FLANGE AT ONE END WITH A 12" ADJUSTABLE COLLAR – STAINLESS STEEL.
P11	TDK125UBRASY						2.76		1	DUCT SUPPORT BRACKET KIT, 12" DUCT, USED FOR HANGING DUCT. 12 GA STEEL, CLEAR ZINC COATING. – 2 RINGS, 4 BRACKETS, & HARDWARE BAG 2.
P12	TDK1204C1D	1650				-0.003	2.12	2100.85	1	SINGLE WALL DUCT OFF SET COLLAR – 12" DIAMETER DUCT – 1/4" PITCH.
P13 ASSEMBLED W/P39	TDK12TEASY	1650		1		-0.018	12.93	2100.85	1	SINGLE WALL DUCT TEE, 12" DUCT, ASSEMBLY.
P14	TDK1204C1D	1650				-0.003	2.12	2100.85	1	SINGLE WALL DUCT OFF SET COLLAR – 12" DIAMETER DUCT – 1/4" PITCH.
P15	TDK1247L T	1650				-0.036	18.70	2100.85	1	SINGLE WALL DUCT 12" DIAMETER, 47" LONG, FLANGE AT BOTH ENDS. STAINLESS STEEL.
P16	TDK1235L T	1650				-0.0268	14.03	2100.85	1	SINGLE WALL DUCT 12" DIAMETER, 35" LONG, FLANGE AT BOTH ENDS. STAINLESS STEEL.
P17	TDK1248AJDKIT	1650				-0.0291	22.74	2100.85	1	SINGLE WALL DUCT ADJUSTABLE, 12" DIAMETER, 47.5" LONG, FLANGE AT ONE END WITH A 12" ADJUSTABLE COLLAR – STAINLESS STEEL.
P18	TDK125UBRASY						2.76		1	DUCT SUPPORT BRACKET KIT, 12" DUCT, USED FOR HANGING DUCT. 12 GA STEEL, CLEAR ZINC COATING. – 2 RINGS, 4 BRACKETS, & HARDWARE BAG 2.
P19	TDK125UBRASY						2.76		1	DUCT SUPPORT BRACKET KIT, 12" DUCT, USED FOR HANGING DUCT. 12 GA STEEL, CLEAR ZINC COATING. – 2 RINGS, 4 BRACKETS, & HARDWARE BAG 2.
P20	TDK1204C1D	1650				-0.003	2.12	2100.85	1	SINGLE WALL DUCT OFF SET COLLAR – 12" DIAMETER DUCT – 1/4" PITCH.
P21 ASSEMBLED W/P22	TDK12TEASY	1650		1		-0.121	12.93	2100.85	1	SINGLE WALL DUCT TEE, 12" DUCT, ASSEMBLY.
P22 ASSEMBLED W/P21 D=S	TDK1213ADIASY						11.53		1	DUCT ACCESS DOOR – INSULATED – USED WITH 12" DUCT – GREASE DAM INCLUDED – ASSEMBLY.
P23	TDK1247L T	1650				-0.036	18.70	2100.85	1	SINGLE WALL DUCT 12" DIAMETER, 47" LONG, FLANGE AT BOTH ENDS. STAINLESS STEEL.
P24	TDK1235L T	1650				-0.0268	14.03	2100.85	1	SINGLE WALL DUCT 12" DIAMETER, 35" LONG, FLANGE AT BOTH ENDS. STAINLESS STEEL.
P25	TDK1248AJDKIT	1650				-0.0291	22.74	2100.85	1	SINGLE WALL DUCT ADJUSTABLE, 12" DIAMETER, 47.5" LONG, FLANGE AT ONE END WITH A 12" ADJUSTABLE COLLAR – STAINLESS STEEL.
P26	TDK12VESU8						19.78		1	DUCT VERTICAL SUPPORT KIT, 12" DUCT, 18' CLEARANCE TO COMBUSTIBLES. PARTS ARE ZINC COATED. HARDWARE KIT #3 USED ON DVXXVESU & DVXXVESU8.
P27 ASSEMBLED W/P28	TDK12TEASY	1650		1		-0.018	12.93	2100.85	1	SINGLE WALL DUCT TEE, 12" DUCT, ASSEMBLY.
P28 ASSEMBLED W/P27 D=T	TDK1213ADIASY						11.53		1	DUCT ACCESS DOOR – INSULATED – USED WITH 12" DUCT – GREASE DAM INCLUDED – ASSEMBLY.
P29	TDK1247L T	1650				-0.0361	18.70	2100.85	1	SINGLE WALL DUCT 12" DIAMETER, 47" LONG, FLANGE AT BOTH ENDS. STAINLESS STEEL.
P30	TDK1229L T	1650				-0.0223	11.69	2100.85	1	SINGLE WALL DUCT 12" DIAMETER, 29" LONG, FLANGE AT BOTH ENDS. STAINLESS STEEL.
P31	TDK1230AJDKIT	1650				-0.0146	15.04	2100.85	1	SINGLE WALL DUCT ADJUSTABLE, 12" DIAMETER, 29.5" LONG, FLANGE AT ONE END WITH A 12" ADJUSTABLE COLLAR – STAINLESS STEEL.
P32	TDK12VESU8						19.78		1	DUCT VERTICAL SUPPORT KIT, 12" DUCT, 18' CLEARANCE TO COMBUSTIBLES. PARTS ARE ZINC COATED. HARDWARE KIT #3 USED ON DVXXVESU & DVXXVESU8.
P33 ASSEMBLED W/P34	TDK12TEASY	1650		1		-0.121	12.93	2100.85	1	SINGLE WALL DUCT TEE, 12" DUCT, ASSEMBLY.
P34 ASSEMBLED W/P33 D=S	TDK1213ADIASY						11.53		1	DUCT ACCESS DOOR – INSULATED – USED WITH 12" DUCT – GREASE DAM INCLUDED – ASSEMBLY.
P35	TDK1223L T	1650				-0.0176	9.41	2100.85	1	SINGLE WALL DUCT 12" DIAMETER, 23" LONG, FLANGE AT BOTH ENDS. STAINLESS STEEL.
P36	TDK1207L T	1650				-0.0054	3.11	2100.85	1	SINGLE WALL DUCT 12" DIAMETER, 7" LONG, FLANGE AT BOTH ENDS. STAINLESS STEEL.
P37	TDK125UBRASY						2.76		1	DUCT SUPPORT BRACKET KIT, 12" DUCT, USED FOR HANGING DUCT. 12 GA STEEL, CLEAR ZINC COATING. – 2 RINGS, 4 BRACKETS, & HARDWARE BAG 2.
P38	TDK1216ADP	1650				-0.085	6.40	2100.85	1	SINGLE WALL DUCT ADAPTER, 12" DUCT DIA TO 16" DUCT DIA, ASSEMBLY.
SYSTEM AT P38						-1.6452	0.00			
P39 ASSEMBLED W/P13 D=T	TDK1213ADIASY						11.53		1	DUCT ACCESS DOOR – INSULATED – USED WITH 12" DUCT – GREASE DAM INCLUDED – ASSEMBLY.
P40 ASSEMBLED W/P1 D=S	TDK1213ADIASY						11.53		1	DUCT ACCESS DOOR – INSULATED – USED WITH 12" DUCT – GREASE DAM INCLUDED – ASSEMBLY.
P41 ASSEMBLED W/P73	TDK12TEASY	1650		1		-0.2117	12.93	2100.85	1	SINGLE WALL DUCT TEE, 12" DUCT, ASSEMBLY.
P42	TDK1204C1D	1650				-0.003	2.12	2100.85	1	SINGLE WALL DUCT OFF SET COLLAR – 12" DIAMETER DUCT – 1/4" PITCH.
P43	TDK1247L T	1650				-0.0359	18.70	2100.85	1	SINGLE WALL DUCT 12" DIAMETER, 47" LONG, FLANGE AT BOTH ENDS. STAINLESS STEEL.
P44	TDK1235L T	1650				-0.0267	14.03	2100.85	1	SINGLE WALL DUCT 12" DIAMETER, 35" LONG, FLANGE AT BOTH ENDS. STAINLESS STEEL.

FANS #1 (EF1), #2 (EF2) – TUSB1120-RM EXHAUST FAN



FEATURES:

- ROOF MOUNTED FANS.
- UL705.
- UL762 AND ULC-S645 (RESTAURANT MODEL).
- HIGH HEAT OPERATION DIRECT DRIVE 350°F (176°C).
- HEAT SLINGER.
- NEMA 3R SAFETY DISCONNECT SWITCH.
- GREASE CLASSIFICATION TESTING.
- 2" DRAIN.
- MOTOR WEATHER COVER.
- FULLY SEALED SCROLL HOUSING.
- SCROLL ACCESS DOOR.
- FLANGE 1 1/4".

OPTIONS

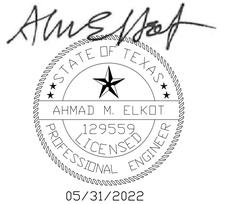
BI2S – INLET SERVICE DUCT CONNECTION. USED TO CONNECT TO STANDARD 16" GREASE DUCT OR FIELD WELDED DUCT. INCLUDES (2) 1" RISERS BOLTED TO HOUSING AND (4) 1" UTILITY SET GREASE CUP.
BI2S – 24" DISCHARGE EXTENSION.
BI – DISCHARGE ORIENTATION VERTICAL UPPER LEFT – CW INLET SIDE.
BI – DISCHARGE ORIENTATION STANDARD 16" FLANGED GREASE DUCT.
UTILITY SET – SPRING VIBRATION ISOLATORS – BI11 THRU BI15 / EQUEVALENT SIZED UTILITY SET – INDOOR/OUTDOOR USE.
2 YEAR PARTS WARRANTY.

DUCTWORK #1 PARTS – JOB#5228960

TAG	PART #	CFM	GPM	ZONE	COVEREDBY	SP	WEIGHT	VELOCITY	QTY	DESCRIPTION
P45	TDK1248AJDKIT	1650				-0.0214	22.74	2100.85	1	SINGLE WALL DUCT ADJUSTABLE, 12" DIAMETER, 47.5" LONG, FLANGE AT ONE END WITH A 12" ADJUSTABLE COLLAR – STAINLESS STEEL.
P46	TDK12SUBRASY						2.76		1	DUCT SUPPORT BRACKET KIT, 12" DUCT, USED FOR HANGING DUCT. 12 GA STEEL, CLEAR ZINC COATING. – 2 RINGS, 4 BRACKETS, & HARDWARE BAG 2.
P47	TDK1204C1D	1650				-0.003	2.12	2100.85	1	SINGLE WALL DUCT OFF SET COLLAR – 12" DIAMETER DUCT – 1/4" PITCH.
P48 ASSEMBLED W/P72	TDK12TEASY	1650		1		-0.018	12.93	2100.85	1	SINGLE WALL DUCT TEE, 12" DUCT, ASSEMBLY.
P49	TDK1204C1D	1650				-0.003	2.12	2100.85	1	SINGLE WALL DUCT OFF SET COLLAR – 12" DIAMETER DUCT – 1/4" PITCH.
P50	TDK1223L T	1650				-0.0178	9.41	2100.85	1	SINGLE WALL DUCT 12" DIAMETER, 23" LONG, FLANGE AT BOTH ENDS. STAINLESS STEEL.
P51	TDK1217L T	1650				-0.0132	7.05	2100.85	1	SINGLE WALL DUCT 12" DIAMETER, 17" LONG, FLANGE AT BOTH ENDS. STAINLESS STEEL.
P52	TDK12SUBRASY						2.76		1	DUCT SUPPORT BRACKET KIT, 12" DUCT, USED FOR HANGING DUCT. 12 GA STEEL, CLEAR ZINC COATING. – 2 RINGS, 4 BRACKETS, & HARDWARE BAG 2.
P53	TDK1204C1D	1650				-0.003	2.12	2100.85	1	SINGLE WALL DUCT OFF SET COLLAR – 12" DIAMETER DUCT – 1/4" PITCH.
P54 ASSEMBLED W/P55	TDK12TEASY	1650		1		-0.121	12.93	2100.85	1	SINGLE WALL DUCT TEE, 12" DUCT, ASSEMBLY.
P55 ASSEMBLED W/P54 D=S	TDK1213ADIASY						11.53		1	DUCT ACCESS DOOR – INSULATED – USED WITH 12" DUCT – GREASE DAM INCLUDED – ASSEMBLY.
P56	TDK1247L T	1650				-0.036	18.70	2100.85	1	SINGLE WALL DUCT 12" DIAMETER, 47" LONG, FLANGE AT BOTH ENDS. STAINLESS STEEL.
P57	TDK1235L T	1650				-0.0268	14.03	2100.85	1	SINGLE WALL DUCT 12" DIAMETER, 35" LONG, FLANGE AT BOTH ENDS. STAINLESS STEEL.
P58	TDK1248AJDKIT	1650				-0.0291	22.74	2100.85	1	SINGLE WALL DUCT ADJUSTABLE, 12" DIAMETER, 47.5" LONG, FLANGE AT ONE END WITH A 12" ADJUSTABLE COLLAR – STAINLESS STEEL.
P59	TDK12VESU8						19.78		1	DUCT VERTICAL SUPPORT KIT, 12" DUCT, 18' CLEARANCE TO COMBUSTIBLES. PARTS ARE ZINC COATED. HARDWARE KIT #3 USED ON DVXXVESU & DVXXVESU8.
P60 ASSEMBLED W/P61	TDK12TEASY	1650		1		-0.018	12.93	2100.85	1	SINGLE WALL DUCT TEE, 12" DUCT, ASSEMBLY.
P61 ASSEMBLED W/P60 D=T	TDK1213ADIASY						11.53		1	DUCT ACCESS DOOR – INSULATED – USED WITH 12" DUCT – GREASE DAM INCLUDED – ASSEMBLY.
P62	TDK1247L T	1650				-0.0362	18.70	2100.85	1	SINGLE WALL DUCT 12" DIAMETER, 47" LONG, FLANGE AT BOTH ENDS. STAINLESS STEEL.
P63	TDK1235L T	1650				-0.027	14.03	2100.85	1	SINGLE WALL DUCT 12" DIAMETER, 35" LONG, FLANGE AT BOTH ENDS. STAINLESS STEEL.
P64	TDK1230AJDKIT	1650				-0.0139	15.04	2100.85	1	SINGLE WALL DUCT ADJUSTABLE, 12" DIAMETER, 29.5" LONG, FLANGE AT ONE END WITH A 12" ADJUSTABLE COLLAR – STAINLESS STEEL.
P65	TDK12VESU8						19.78		1	DUCT VERTICAL SUPPORT KIT, 12" DUCT, 18' CLEARANCE TO COMBUSTIBLES. PARTS ARE ZINC COATED. HARDWARE KIT #3 USED ON DVXXVESU & DVXXVESU8.
P66 ASSEMBLED W/P67	TDK12TEASY	1650		1		-0.121	12.93	2100.85	1	SINGLE WALL DUCT TEE, 12" DUCT, ASSEMBLY.
P67 ASSEMBLED W/P66 D=S	TDK1213ADIASY						11.53		1	DUCT ACCESS DOOR – INSULATED – USED WITH 12" DUCT – GREASE DAM INCLUDED – ASSEMBLY.
P68	TDK1223L T	1650				-0.0176	9.41	2100.85	1	SINGLE WALL DUCT 12" DIAMETER, 23" LONG, FLANGE AT BOTH ENDS. STAINLESS STEEL.
P69	TDK1207L T	1650				-0.0054	3.11	2100.85	1	SINGLE WALL DUCT 12" DIAMETER, 7" LONG, FLANGE AT BOTH ENDS. STAINLESS STEEL.
P70	TDK12SUBRASY						2.76		1	DUCT SUPPORT BRACKET KIT, 12" DUCT, USED FOR HANGING DUCT. 12 GA STEEL, CLEAR ZINC COATING. – 2 RINGS, 4 BRACKETS, & HARDWARE BAG 2.
P71	TDK1216ADP	1650				-0.085	6.40	2100.85	1	SINGLE WALL DUCT ADAPTER, 12" DUCT DIA TO 16" DUCT DIA, ASSEMBLY.
SYSTEM AT P71						-1.3242	0.00			
P72 ASSEMBLED W/P48 D=T	TDK1213ADIASY						11.53		1	DUCT ACCESS DOOR – INSULATED – USED WITH 12" DUCT – GREASE DAM INCLUDED – ASSEMBLY.
P73 ASSEMBLED W/P41 D=S	TDK1213ADIASY						11.53		1	DUCT ACCESS DOOR – INSULATED – USED WITH 12" DUCT – GREASE DAM INCLUDED – ASSEMBLY.
	TDK-2000PLUS						0.80		14	DUCT – 3M FIRE BARRIER 2000 PLUS SILICONE – USED AS SEALANT TO SEAL DUCT JOINTS.
	TDK4680600507XL						52.00		29	DUCT – DUCT INSULATION FOR ZERO CLEARANCE TO COMBUSTIBLES – 300' X 24" X 1-1/2" ROLL. PYROCAT VRAP.
	TDKNDING5						5.00		8	DUCT – FIRE BARRIER WRAP STAINLESS STEEL BANDING .5" WIDTH – 200 FT PER ROLL.
	TDK12CLASY						0.94		62	DUCT "V" CLAMP WITH NEV DESIGN 14 GA BRACKETS, 12" DUCT, ASSEMBLY.
	TDK16CLASY						1.18		2	DUCT "V" CLAMP WITH NEV DESIGN 14 GA BRACKETS, 16" DUCT, ASSEMBLY.
	TDKAL-50-50						0.50		12	DUCT – FIRE BARRIER WRAP STAINLESS STEEL BANDING SEAL 5" WIDTH. QUANTITY OF 50.
	TDKPEALUM						0.25		8	DUCT – FIRE BARRIER WRAP ALUMINUM FOIL TAPE – 3" X 150' ROLL.
TOTAL WEIGHT							2445.40			

GREASE DUCT & CHIMNEY SPECIFICATIONS:
PROVIDE GREASE DUCT EQUAL TO THERMOTEK MODEL "TDW" ROUND 20 GAUGE 430 STAINLESS STEEL DUCTWORK. MODEL "TDW" IS LISTED TO UL-1978 AND IS INSTALLED USING "V" CLAMP LOCKING CONNECTIONS SEALED WITH 3M FIRE BARRIER 2000 PLUS. MODEL "TDW" DOES NOT REQUIRE WELDING PROVIDING IT HAS BEEN INSTALLED PER THE MANUFACTURES INSTALLATION GUIDE.
PROVIDE RATED ACCESS DOORS AT EVERY CHANGE IN DIRECTION AND EVERY 12' ON CENTER. PER MANUFACTURES LISTING MODEL "TDW" HORIZONTAL RUNS LESS THAN 75 FT. CAN BE SLOPED 1/16" PER 12", HORIZONTAL RUNS MORE THAN 75 FT. CAN BE SLOPED 3/16" PER 12". DUCT SHOULD BE SLOPED AS MUCH AS POSSIBLE TO REDUCE THE CHANCE OF GREASE ACCUMULATION IN HORIZONTAL RUNS.

IF THE DUCT OR CHIMNEY IS WITHIN 18 INCHES OF COMBUSTIBLE MATERIAL, PROVIDE UL-2221 OR UL-103 HT LISTED DOUBLE WALL GREASE DUCT OR DOUBLE WALL CHIMNEY EQUAL TO THERMOTEK MODEL "TDW- 2R, 2R TYPE HT, 3R, OR 3Z" ROUND 20 GAUGE 430 STAINLESS INNER DUCT INSULATED WITH A 24 GAUGE 430 STAINLESS OUTER SHELL.



05/31/2022

SCALE: NTS

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REV.	DESCRIPTION	DATE:
	PERMIT SET	01/15/22
B	CITY COMMENTS	05/31/22

SHEET CONTENTS

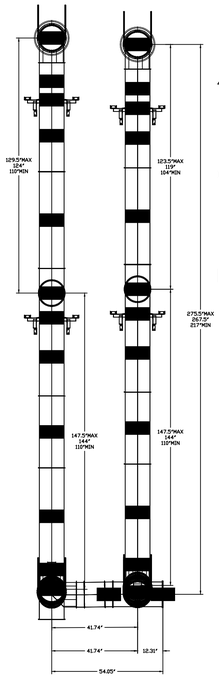
KITCHEN HOOD SCHEDULES AND DETAILS

SHEET NUMBER

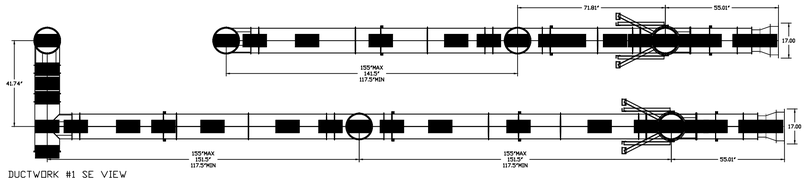
M1.7

DATE: 05/31/22

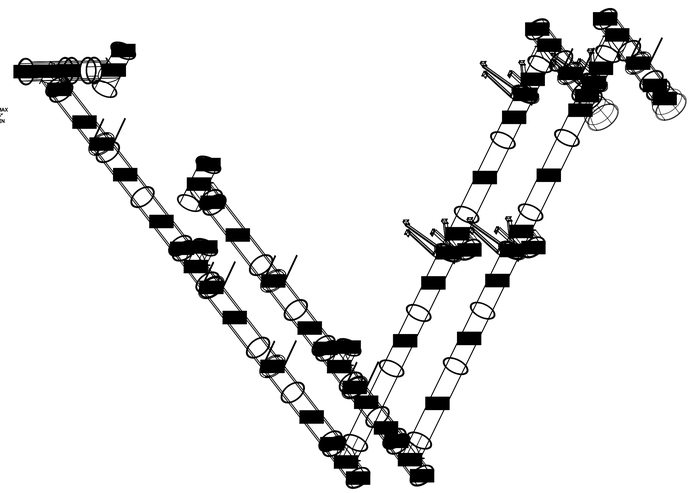
DUCTWORK #1 SIDE VIEW



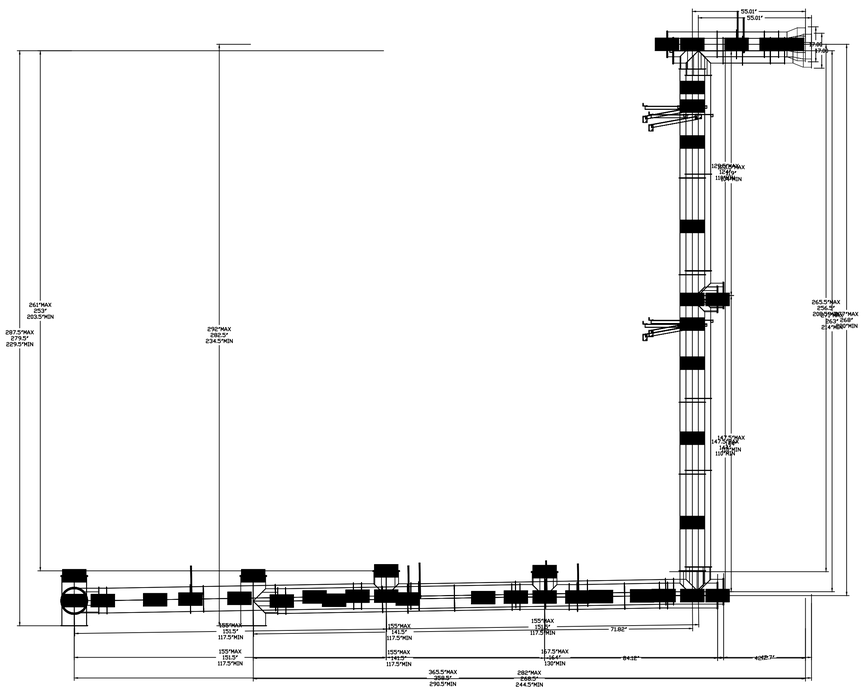
DUCTWORK #1 TOP VIEW



DUCTWORK #1 SE VIEW



DUCTWORK #1 FRONT VIEW



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SHEET CONTENTS

KITCHEN HOOD SCHEDULES AND DETAILS

SHEET NUMBER

M1.8

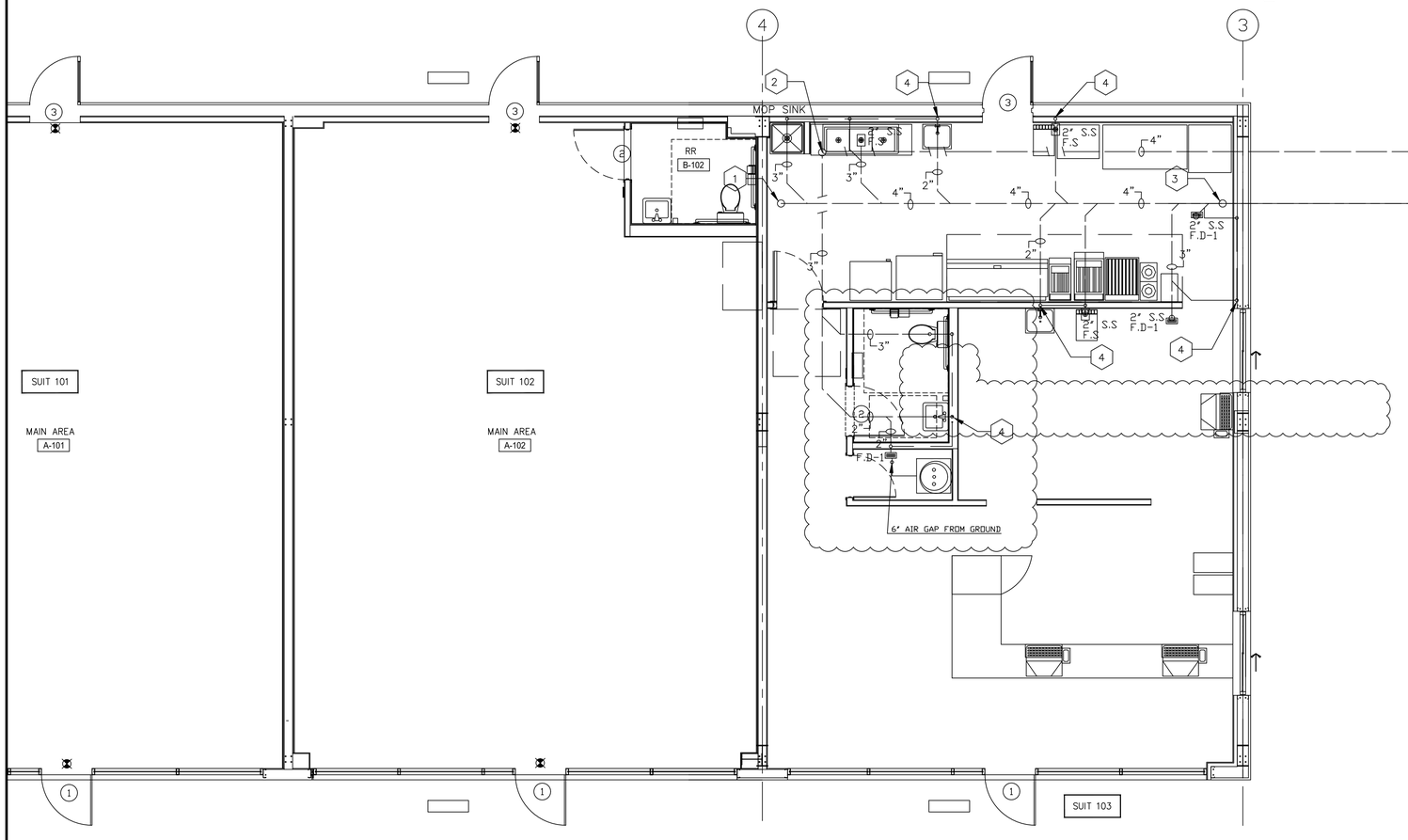
DATE: 05/31/22

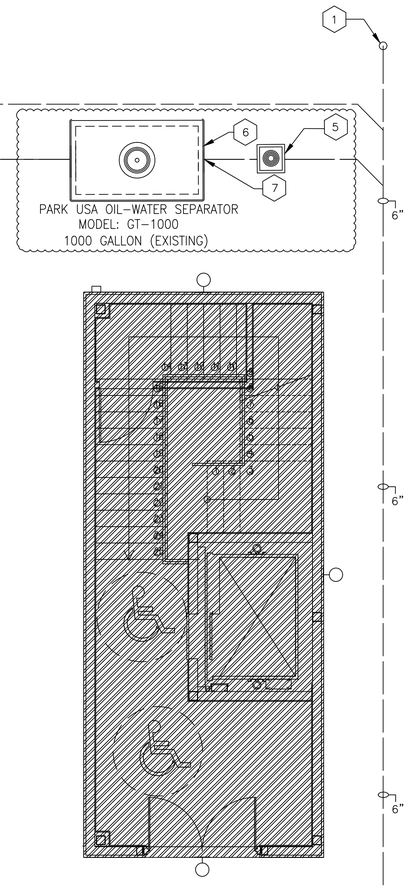
PLUMBING PIPE MATERIALS

ABOVE GRADE:
SANITARY DRAIN, WASTE AND VENT PIPING SHALL BE:
SCHEDULE 40 DWV POLY VINYL CHLORIDE PIPE AND FITTINGS CONFORMING TO ASTM–2655 WITH SOLVENT–WELDED JOINTS.
DOMESTIC WATER PIPING SHALL BE:
DRAIN (HARD) COPPER TUBE, TYPE "L" ASTM B88, WITH WROUGHT COPPER FITTINGS, ANSI B16.22AND 95–5 SOLDER JOINTS.
BELOW GRADE:
SANITARY WASTE,AND VENT PIPING SHALL BE SCHEDULE 40 DWV POLYVINYL CHLORIDE PIPE AND FITTINGS CONFORMING TO ASTM–2665 WITH SOLVENT–WELDED JOINTS.

PLUMBING PLAN NOTES

1. CLEAN OUT
2. 3 INCH SANITARY PIPE CONNECTION TO EXISTING LINE
3. 4 INCH SANITARY PIPE CONNECTION TO EXISTING LINE
4. 2 INCH VENT PIPE UP TO ROOF
5. SAMPLING WELL
6. 1000 GALLONS GREASE TRAP
7. SET FLOW LINE ELEVATION OF GREASE TRAP DISCHARGE LINE 6 INCH BELOW FLOW LINE ELEVATION OF GREASE TRAP INLET LINE





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STATE OF TEXAS
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SCALE: 1/4'' = 1'–0''

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SHEET CONTENTS
FIRST FLOOR SANITARY SEWER

SHEET NUMBER
P1.0

DATE: 05/31/22

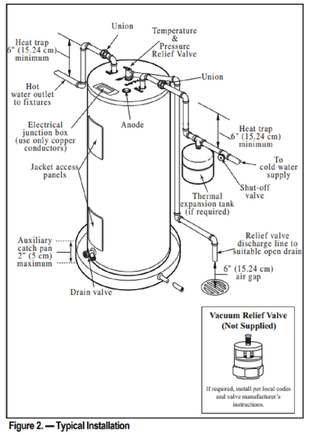


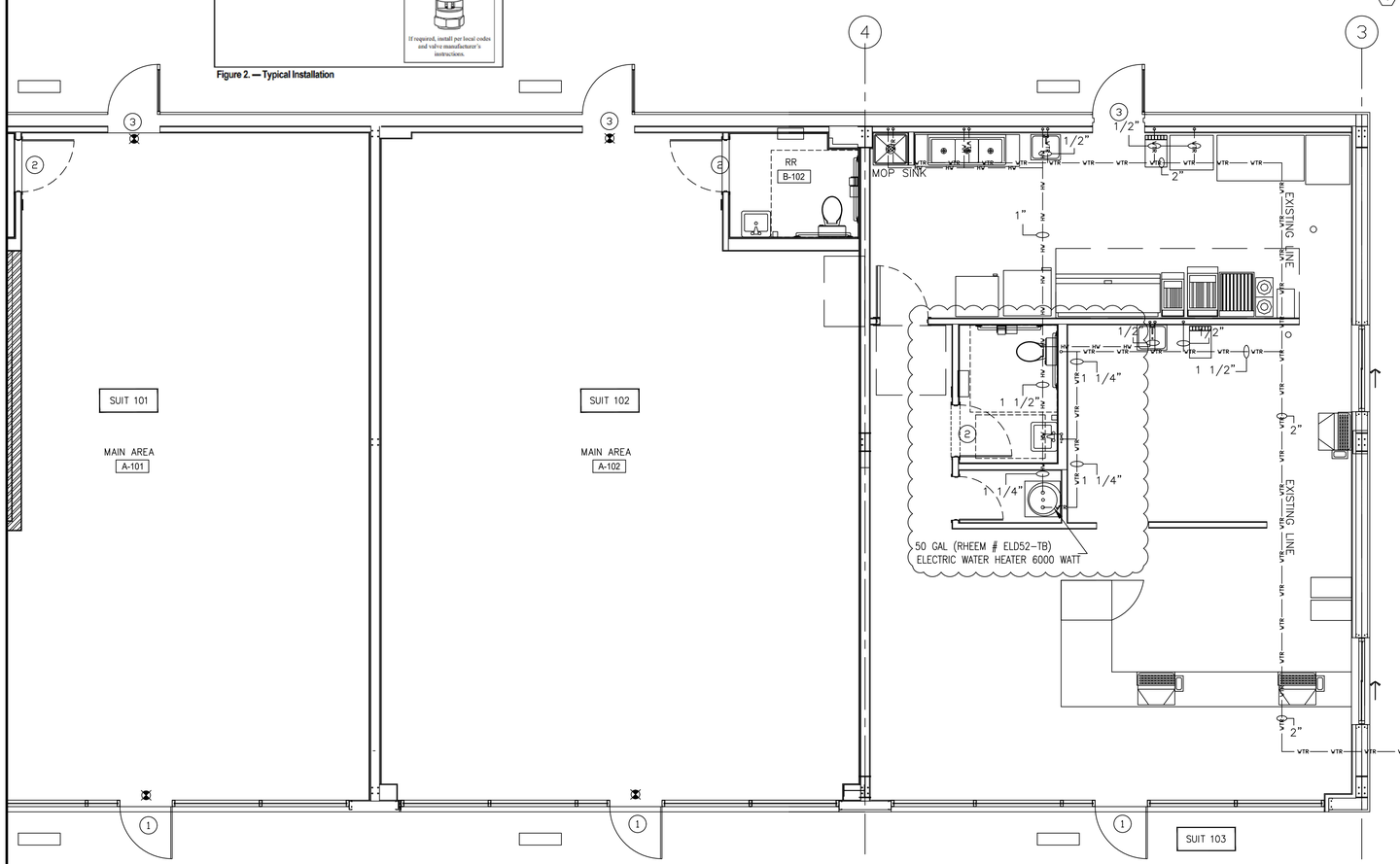
Figure 2. — Typical Installation

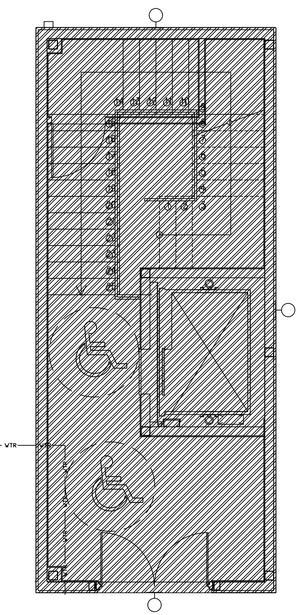
PLUMBING PIPE MATERIALS

ABOVE GRADE:
SANITARY DRAIN, WASTE AND VENT PIPING SHALL BE: SCHEDULE 40 DWV POLY VINYL CHLORIDE PIPE AND FITTINGS CONFORMING TO ASTM–2655 WITH SOLVENT–WELDED JOINTS.
DOMESTIC WATER PIPING SHALL BE:
DRAIN (HARD) COPPER TUBE, TYPE "L" ASTM B88, WITH WROUGHT COPPER FITTINGS, ANSI B16.22AND 95–5 SOLDER JOINTS.
BELOW GRADE:
SANITARY WASTE,AND VENT PIPING SHALL BE SCHEDULE 40 DWV POLYVINYL CHLORIDE PIPE AND FITTINGS CONFORMING TO ASTM–2665 WITH SOLVENT–WELDED JOINTS.

PLUMBING PLAN NOTES

1. CLEAN OUT
2. 3 INCH SANITARY PIPE CONNECTION TO EXISTING LINE
3. 4 INCH SANITARY PIPE CONNECTION TO EXISTING LINE
4. 2 INCH VENT PIPE UP TO ROOF
5. SAMPLING WELL
6. 1000 GALLONS GREASE TRAP
7. SET FLOW LINE ELEVATION OF GREASE TRAP DISCHARGE LINE 6 INCH BELOW FLOW LINE ELEVATION OF GREASE TRAP INLET LINE





SCALE: 1/4'' = 1'–0''

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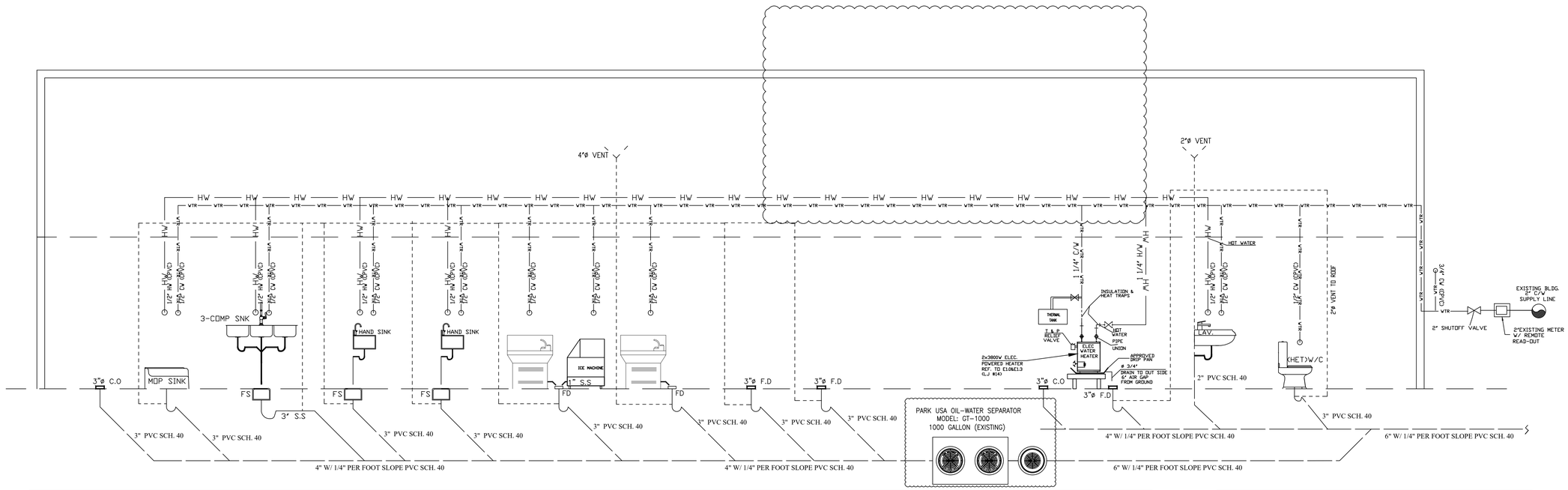
SHEET CONTENTS
FIRST FLOOR DOMESTIC WATER

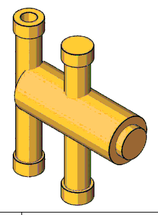
SHEET NUMBER
P1.1

DATE: 05/31/22



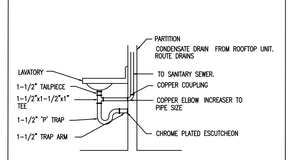
SYMBOLS & NEW MATERIALS/FIXTURE'S

MAT	QTY.	
——— —		ALL SANITARY SEWER LINES SCH. 40 PVC
— · —		ALL GREASE LINE SCH. 40 PVC
———		ALL COLD WATER TO BE CPVC
———		ALL HOT WATER LINES TO BE CPVC
– – – –		ALL SANITARY VENT TO BE SCH.40 PVC
WH		ELECTRIC WATER HEATER
MOP		MOP SINK
H.S.		WALL HUNG LAVATORY / HAND SINK
W.C		HIGH EFFICIENCY TOILET (1.28 gpf)
HB		HOSE BIBB
C.O.		CLEAN OUT (FLOOR MOUNTED)
		EX.FAN VTO (75 CFM PER TOILET MIN.)
MIXED HW CW		NEW WATER TEMP. MIXING VALVE 120° MAX FOR PUBLIC RSTRM. LAVATORYS
		NATURAL GAS PIPING (SCH.40 BLACK IRON)
		FLOOR DRAIN WITH TRAP GUARD
		FLOOR SINK WITH TRAP GUARD

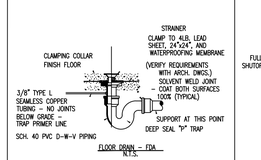


WATTS SERIES LFUSG-B (110° MAX) HOT WATER TEMP. CONTROL VALVE

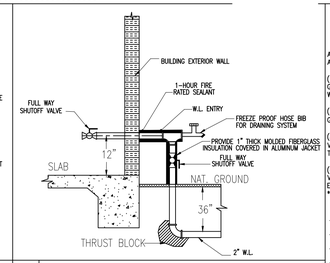
1. HOT WATER MIXING VALVE
NOT TO SCALE



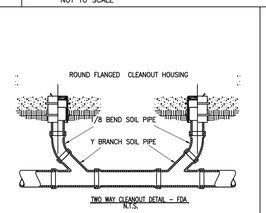
2. SINK DETAIL
NOT TO SCALE



3. FLOOR DRAIN DETAIL
NOT TO SCALE

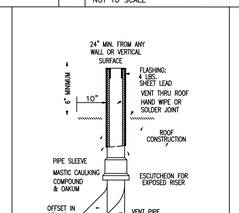


4. WATER LINE BUILDING ENTRY DETAIL
NOT TO SCALE



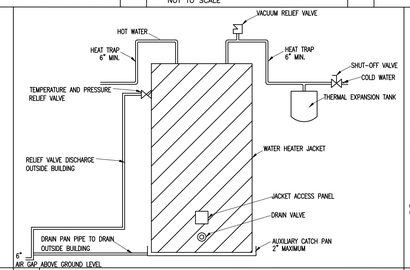
TWO WAY CLEANOUT DETAIL – FDA
N.T.S.

5. TWO WAY CLEANOUT DETAIL – FDA
NOT TO SCALE

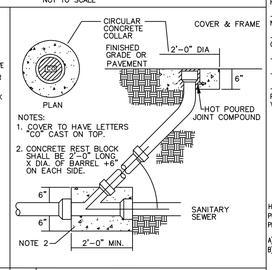


VENT THRU ROOF – FDA
N.T.S.

6. ROOF VENT DETAIL
NOT TO SCALE



7. ELEC. WATER HEATER DETAIL
NOT TO SCALE



8. CLEAN OUT DETAIL
NOT TO SCALE

PLUMBING WATER CONSERVATION NOTES

THE WATER SAVING PERFORMANCE STANDARD FOR A PLUMBING FIXTURE ARE THOSE ESTABLISHED BY THE AMERICAN NATIONAL STANDARDS INSTITUTE(ANSI), CURRENT REVISION, OR THE FOLLOWING STANDARDS, WHICHEVER ARE MORE RESTRICTIVE.

(1) THE MAXIMUM FLOW FROM A SINK OR LAVATORY FAUCET OR A FAUCET AERATOR SHALL NOT EXCEED 2.20 GALLON OF WATER PER MINUTE AT A PRESSURE OF 60 POUNDS PER SQUARE INCH WHEN TESTED IN ACCORDANCE WITH ANSI TESTING PROCEDURE.

(2) THE MAXIMUM VOLUME OF WATER PER FLUSH FROM A TANK TOILET SHALL NOT EXCEED AN AVERAGE OF 1.28 GALLON PER 1.6/1.1 gpf DUAL FLUSH WHEN TESTED IN ACCORDANCE WITH ANSI TESTING PROCEDURES.

(3) THE MAXIMUM VOLUME OF WATER PER FLUSH FROM A WALL MOUNTED TOILET THAT EMPLOY A FLUSHOMETER VALVE SHALL NOT EXCEED AN AVERAGE OF 1.28 (H.E.T.) GALLONS WHEN TESTED IN ACCORDANCE WITH ANSI TESTING PROCEDURES.

(4) THE MAXIMUM VOLUME OF WATER PER FLUSH FROM A WALL MOUNTED URINAL THAT EMPLOYS A FLUSHOMETER VALVE SHALL NOT EXCEED AN AVERAGE OF 0.5 gpf WHEN TESTED IN ACCORDANCE WITH ANSI TESTING PROCEDURES
*NOTE: ALL RESTROOM FIXTURES ARE EXISTING.

ADDITIONAL NOTES

–PROVIDE ALL FITTINGS AND PIPING REQUIRED AND MAKE FINAL CONNECTIONS TO ALL EQUIPMENT.

–VERIFY THE EXACT LOCATION OF ALL EQUIPMENT BEFORE ROUGH–IN.

–ALL DRAINS MUST HAVE TRAPS AND VENTS AS PER LOCAL STANDARDS.

–ALL FLOOR & WALL PENETRATIONS SHALL BE WEATHER & WATER TIGHT USING SLEEVES OR OTHER APPROPIATE MEANS, AN ASSEMBLY SEAL MADE WITH AN EXTRA HIGH QUALITY NON–HARDENING CAULKING COMPOUND WATER SUPPLIES TO EACH FIXTURE SHALL BE MOUNTED ON PLASTIC MOUNTING RACK SUPPORTED FROM WASTE OR VENT PIPING USING FIBERGLASS ISOLATION COLLARS BETWEEN THE RACK AND SUPPORTED PIPING.

–PIPING SHALL BE MOUNTED WITH A COLLAR OF SUFFICIENT THICKNESS TO ACOUSTICALLY ISOLATE PIPING SEWAGE NOISE.

–ALL PLUMBING SHALL BE INSTALLED IN STRICT ACCORDANCE WITH THE 2015 UPC CODE AMD THE CITY OF HOUSTON CODE OF ORDINASNCES.

–ALL DOMESTIC HOT AND COLD WATER INSTALLED ABOVE CEILING SHALL BE INSULATED AS IF EXPOSED TO OUTSIDE.

–COORDINATE ALL PIPING PENETRATIONS (WATER, WASTE, VENT) WITH OTHER TRADES TO AVOID CONFLICT.

–ALL WATER PIPING TO BE TYPE CPVC. ALL WASTE PIPING BELOW FLOOR SLAB TO BE SCH.40 PVC. ALL VENT/WASTE PIPING IN R/A PLENUM SPACES TO COMPLY WITH 2012 UPC CODE. COORDINATE WITH MECHANICAL CONTRACTOR. ALL VENT PIPING TO RISE A MIN. OF 6" ABOVE FLOOD RIM PRIOR TO STARTING ANY HORIZONTAL RUN.

NOTES ON ENERGY CODE:

HEAT TRAPS ARE REQUIRED ON NONCIRCULATING WATER HEATING SYSTEMS ON BOTH INLET AND OUTLET CONNECTIONS. HEAT TRAPS MAY BE PURCHASED OR FIELD–FABRICATED BY CREATING A LOOP OR INVERTED U – SHAPED ARRANGEMENT ON THE INLET AND OUTLET PIPES.

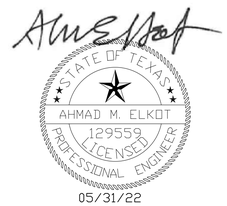
CONTRACTOR TO INSURE ALL JOINTS AND PENETRATION ARE CAULKED, GASKETED, WEATHER–STRIPPED OR OTHERWISE SEALED.

WATER HEATER AND DOMESTIC WATER PIPING REGARDING THE PERFORMANCE EFFICIENCY, TEMPERATURE CONTROLS, HEAT TRAPS, PIPE INSULATION AND HOT WATER SYSTEM CONTROL SHALL COMPLY WITH ALL THE PROVISIONS ON SECTION 804 , 2015 I.E.C.C.

CITY WATER HEATER GENERAL NOTES

HEAT TRAPS ARE REQUIRED ON NONCIRCULATING WATER HEATING SYSTEMS ON BOTH INLET AND OUTLET CONNECTIONS. HEAT TRAPS MAY BE PURCHASED OR FIELD FABRICATED BY CREATING A LOOP OR INVERTED U-SHAPED ARRANGEMENT ON THE INLET AND OUTLET PIPES.
PIPE INSULATION FOR THE SPECIFIED NONCIRCULATING SERVICE HOT WATER SYSTEM IS REQUIRED FOR ALL PIPING IN THE FOLLOWING CATEGORIES;

A) THE ENTIRE HOT WATER OUTLET PIPING TO BE INSULATED (1 1/4" & SMALLER INSULATION 1" THK., 1 1/2" & ABOVE 2" THK. INSULATION)
B) THE INLET PIPING BETWEEN THE STORAGE TANK AND A HEAT TRAP IN A NONCIRCULATING STORAGE SYSTEM PIPE INSULATION MUST BE AT LEAST 1/2" AND HAVE A CONDUCTIVITY NO >0.28BTU*IN/(HR*FT2*F)



05/31/22

SCALE: NTS

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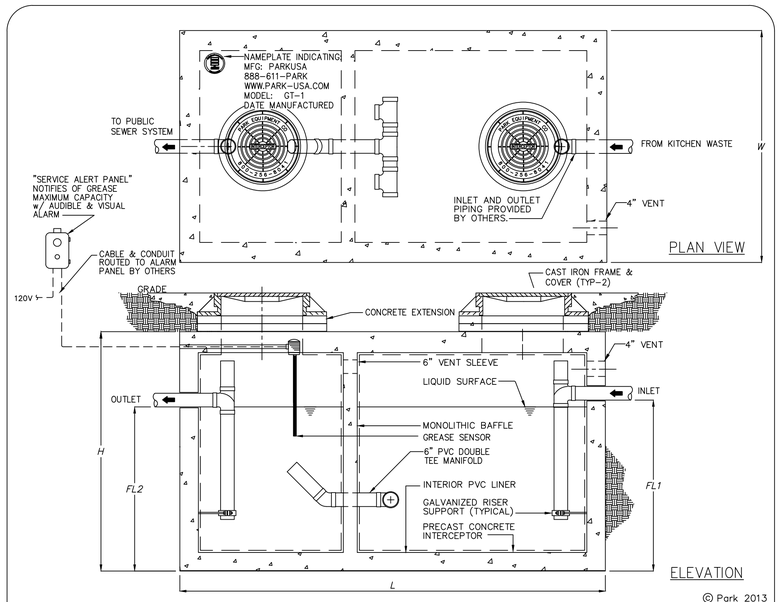
FIRM: 16913

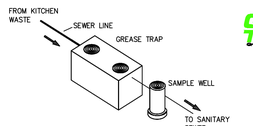
REV.	DESCRIPTION	DATE:
	PERMIT SET	01/15/22
B	CITY COMMENTS	05/31/22

SHEET CONTENTS
RISER DIAGRAM AND SCHEDULES

SHEET NUMBER
P1.2

DATE: 05/31/22





Typical applications include commercial and industrial food service kitchens where excessive grease may interfere with the proper drainage of the sewer system. The grease interceptor is generally buried below grade for gravity flow sewer systems. A sample well is utilized on the outlet side for sampling by the local water authority.

GREASE INTERCEPTOR SCHEDULE								
MODEL NO.	CAPACITY USGal	GREASE CAP. (LBS)	EMPTY WT (LBS)	LENGTH L	WIDTH W	HEIGHT H	INLET FL1	OUTLET FL2
GT-500	500	1,200	9,500	7'-10"	4'-4"	4'-6"	3'-3"	3'-0"
GT-750	750	1,700	9,900	7'-10"	4'-4"	6'-0"	4'-5"	4'-2"
GT-1000	1,000	2,300	13,350	8'-8"	5'-0"	6'-0"	4'-9"	4'-6"
GT-1250	1,250	2,900	14,650	9'-2"	5'-8"	6'-0"	4'-9"	4'-6"
GT-1500	1,500	3,500	16,050	9'-2"	5'-8"	7'-0"	5'-9"	5'-6"
GT-2000	2,000	4,600	21,250	9'-0"	6'-0"	8'-0"	6'-9"	6'-6"
GT-2500	2,500	5,700	27,050	13'-0"	7'-0"	7'-0"	5'-9"	5'-6"
GT-3000	3,000	6,900	33,150	13'-0"	7'-0"	8'-0"	6'-9"	6'-6"
GT-3500	3,500	8,000	38,550	13'-0"	7'-0"	8'-6"	7'-3"	7'-0"
GT-4000	4,000	9,300	38,100	16'-0"	8'-6"	7'-0"	5'-9"	5'-6"

OTHER SIZES ARE AVAILABLE. CONTACT US FOR MORE INFORMATION

Specifications

CONCRETE : Class I/II concrete with design strength of 4500 PSI at 28 days. Unit is of monolithic construction at floor, first stage of wall and baffle with sectional riser to required depth. (Monolithic baffle required, slide-in type is not acceptable)

REINFORCEMENT: Grade 60 reinforced with steel rebar conforming to ASTM A615 on required centers or equal.

C.I. CASTINGS: Manhole frames, covers or grates are manufactured of grey cast iron conforming to ASTM A48-76 Class 30. Manhole shall be nominal 24 inch diameter and be traffic duty.

Engineering Data

The grease interceptor is structurally & hydraulically engineered to conform to UPC/IPC and regional plumbing codes recommended in most cities. Consult with local authorities for specific application requirements.

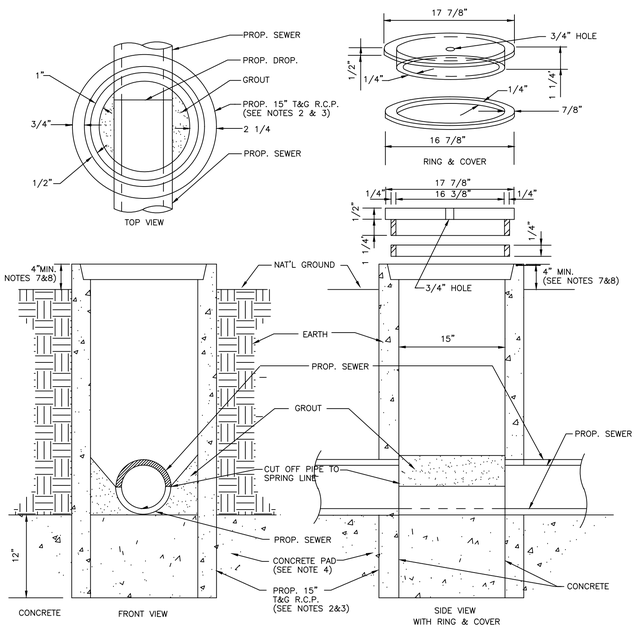
Shop drawings shall include complete structural & bouyancy calculations certified by a licensed professional engineer upon request.

Consult with Park Equipment Company for exact excavation dimensions & shipping information.

888.611.7275
www.park-usa.com
PARK USA
Design for Water

GREASE INTERCEPTOR SERIES GT
500 THRU 4000 GALLON CAPACITY

SCALE	NONE	DWG. NO.	GT-1	REV.	A
DATE	03/13				



SAMPLE WELL

NOT TO SCALE

GENERAL NOTES:

1. SAMPLE WELL MUST BE INSTALLED UNDER A SEPARATE PLUMBING PERMIT.
2. USE 15" T&G R.C.P., FOR INSTALLATION 6'-0" DEEP
3. USE 24" T&G R.C.P., FOR INSTALLATION GREATER THAN 6'-0" DEEP (STD. RING & M.H. COVER REQ'D)
4. SAMPLE WELL MUST BE SET IN A CIRCULAR OR SQUARE CONCRETE PAD (1'-0" GREATER THAN OUTSIDE DIAMETER OF PIPE.)
5. INSIDE INSTALLATION NOT PERMITTED, WHERE OUTSIDE INSTALLATION IS POSSIBLE.
6. INSTALLATION INSIDE BLDG. MUST BE POURED IN PLACE (15" MIN.) NO CONCRETE PIPE PERMITTED, (AIR TIGHT COVER REQ'D.)
7. LAWN INSTALLATION MUST BE 4" ABOVE FINISHED GRADE.
8. DRIVE AND SIDEWALK INSTALLATION MUST BE BROUGHT TO FINISHED GRADE.
9. TO BE INSTALLED ON PRIVATE PROPERTY, IN AN ACCESSIBLE LOCATION TO CITY PERSONNEL.

KITCHEN PLUMBING SERVICE CALCULATION (REF. 2012 UPC)					
DESIGNATION	QTY.	WATER F.U.	WASTE F.U.	TOTAL WATER F.U.	TOTAL WASTE F.U.
SNK	2	1.5	2.0	3.00	4.00
FD	4	-	2.0	0.00	8.00
3 COM	1	3.0	3.0	3.00	3.00
MOP	1	3.0	3.0	3.00	3.00
TOTAL				9.00	18.00
USE EXISTING 2" WATER LINE					

Gravity Grease Interceptor Sizing	
DFUs	Interceptor Sizing (gallons)
8	500
21	750
35	1,000
90	1,250
172	1,500
216	2,000
307	2,500
342	3,000
428	4,000
576	5,000
720	7,500
2112	10,000
2640	15,000

USING TABLE 1014.3.6 OF UPC 2015, USE EXISTING 1000 GALLON GREASE INTERCEPTOR

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05/31/22

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REV.	DESCRIPTION	DATE:
	PERMIT SET	01/15/22
B	CITY COMMENTS	05/31/22

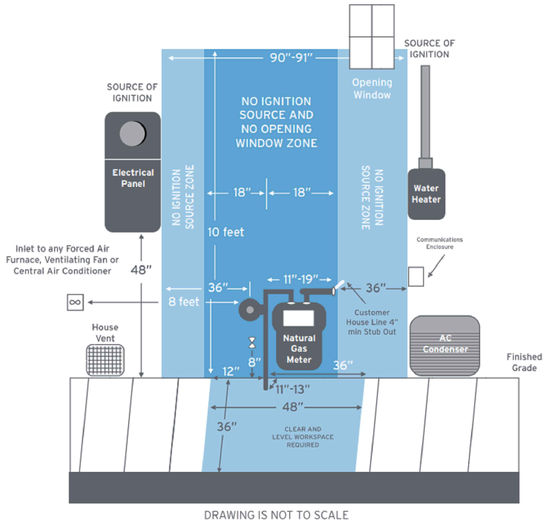
SHEET CONTENTS

GREASE TRAP DETAILS & CALCULATIONS

SHEET NUMBER

P1.3

DATE: 05/31/22



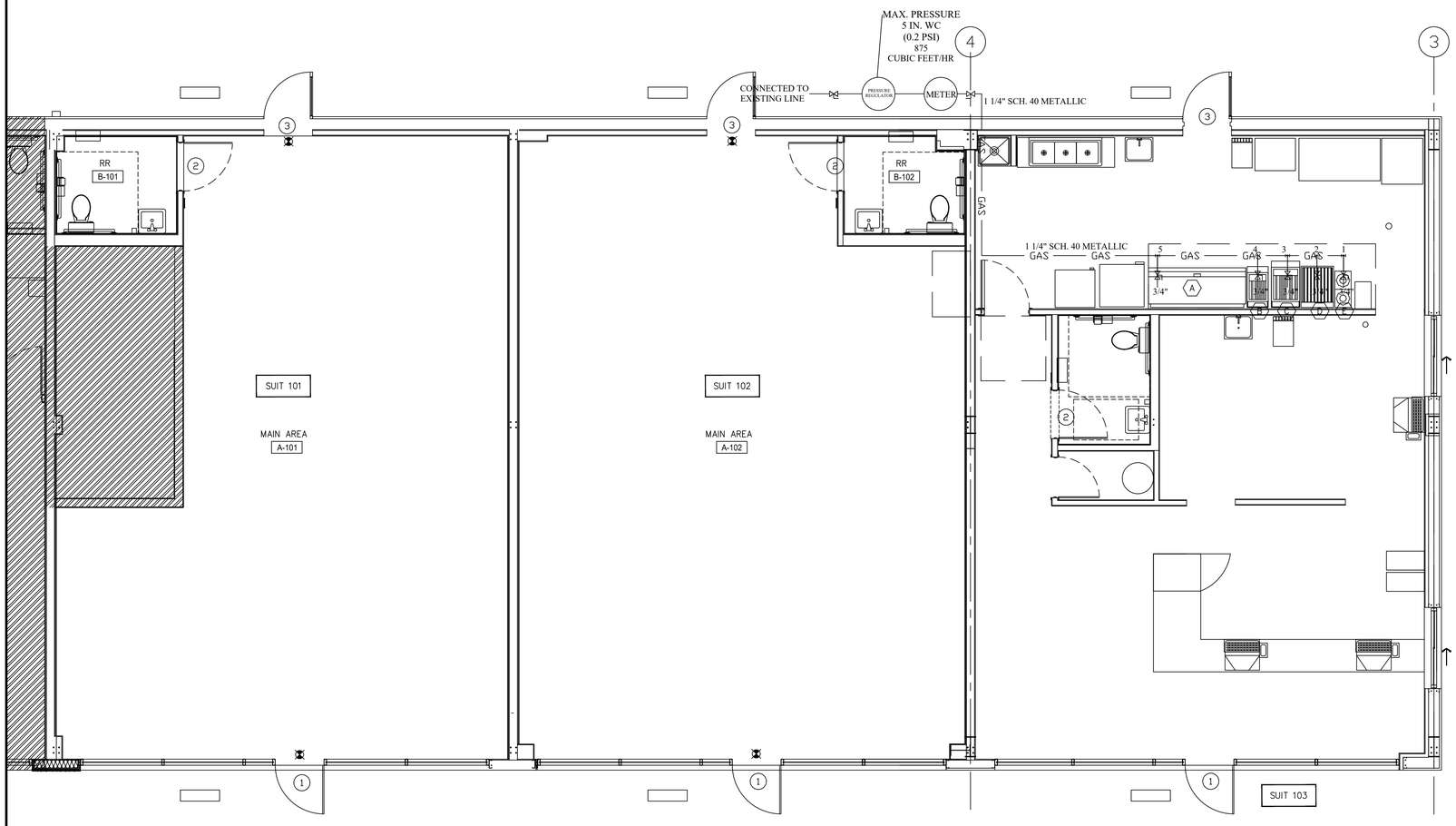
DRAWING IS NOT TO SCALE

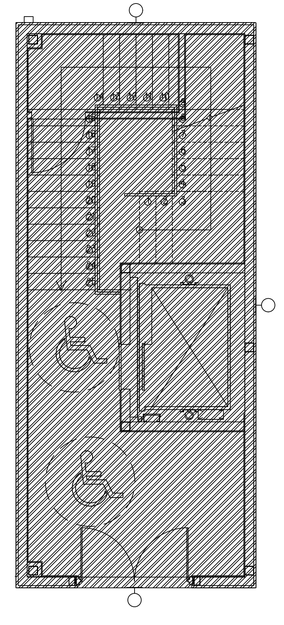
MAX GAS DEMAND CALCULATION	
APPLIANCE	TOTAL BTU/HR
FRYER	90,000
GRIDLLE	180,000
FRYER	150,000
CHARBROILER	60,000
RANGE	44,000
TOTAL MAX. GAS DEMAND BTU/HR	524,000
CAPACITY IN CUBIC FEET OF GAS PER HOUR	510

- (A) COOKING PERFORMANCE GROUP G72T-NG(CPG) 72" GAS COUNTERTOP GRIDDLE WITH THERMOSTATIC CONTROLS – 180,000 BTU
- (B) MAIN STREET EQUIMPMT LIQUID PROPANE 40LB. STAINLESS STEEL FLOOR FRYER – 90,000 BTU
- (C) MAIN STREET EQUIMPENT NATURAL GAS 70-100 LB STAINLESS STEEL FLOOR FRYER – 150,000 BTU
- (D) AVANTCO CHEF SERIES CAG24RC 24" GAS COUNTERTOP RADIANT CHARBROILER – 60,000 BTU
- (E) COOKING PERFORMANCE GROUP HP212 2 BURNER GAS COUNTERTOP RANGE / HOT PLATE – 44,000 BTU

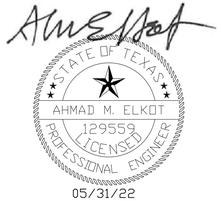
NATURAL GAS PIPE SIZING ANALYSIS			
SECTION	TOTAL CUBIC FEET / HR	TOTAL BTU/HR	PIPE SIZE
1	42.8	44000	3/4"
2	101	104000	1"
3	247	254000	1 1/4"
4	334	344000	1 1/4"
5	510	524000	1 1/4"

REFERENCE: UPC 2015, TABLE 1216.2 (1). PIPE MATERIAL: SCH.40 METALLIC PIPE [NFPA 54: TABLE 6.2(b)]^1,2.
" GAS: NATURAL, INLET PRESSURE: LESS THAN 2 PSI, PRESSURE DROP: 0.5 IN.W.C."
APPROX. TOTAL LENGTH FROM METER TO THE MOST REMOTE OUTLET IS 150 FEET





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



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REV.	DESCRIPTION	DATE:
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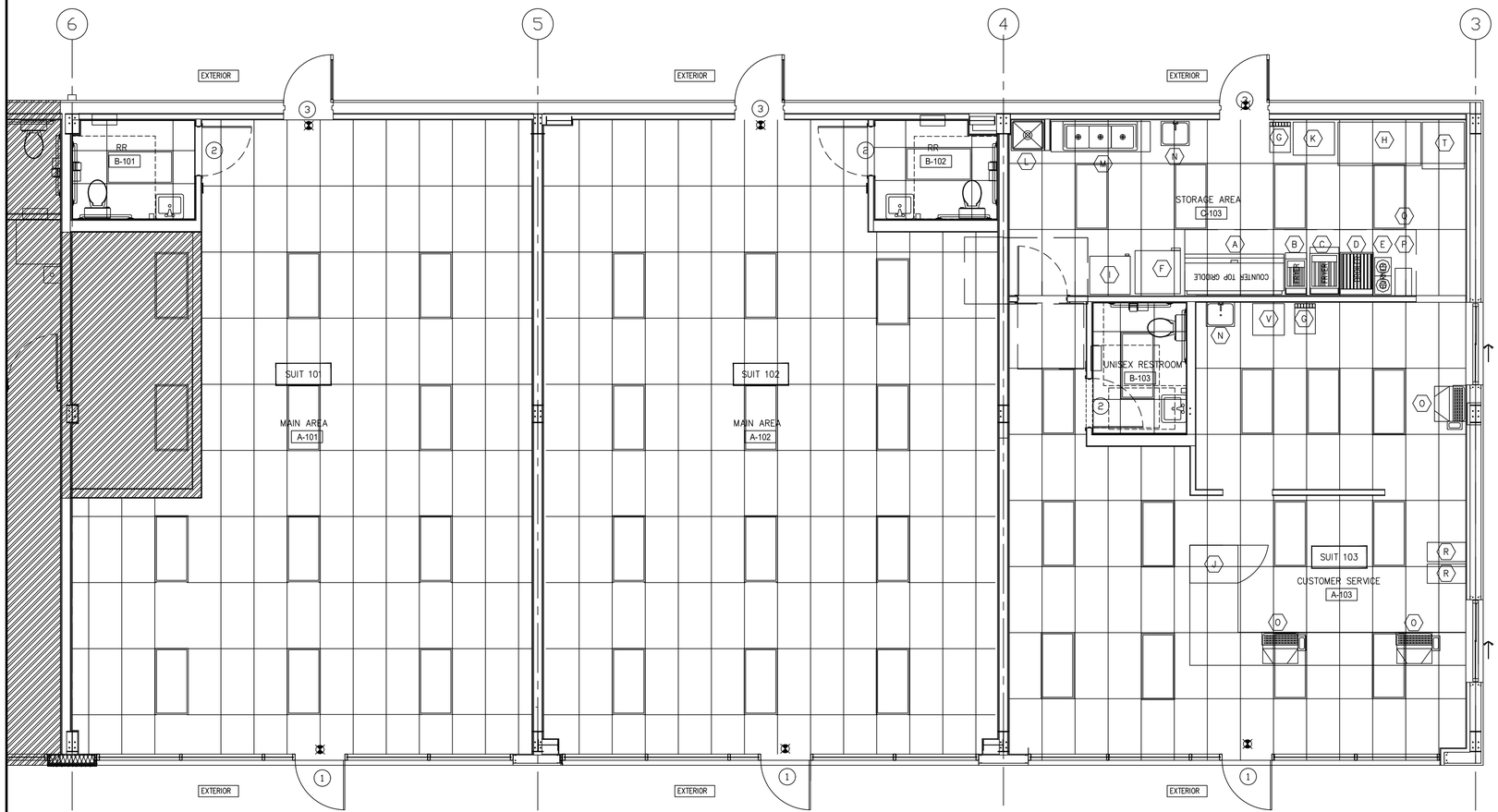
B	CITY COMMENTS	05/31/22

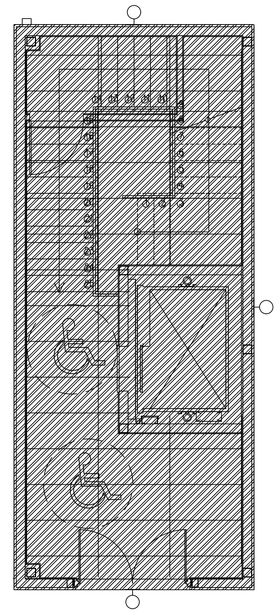
SHEET CONTENTS
GAS SYSTEM PLAN, DETAILS & CALCULATIONS

SHEET NUMBER
P1.4

DATE: 05/31/22



- A — COOKING PERFORMANCE GROUP G72T-NG(CPG) 72" GAS COUNTERTOP GRIDDLE WITH THERMOSTATIC CONTROLS – 180,000 BTU
- B — MAIN STREET EQUIMPMT LIQUID PROPANE 40LB. STAINLESS STEEL FLOOR FRYER – 90,000 BTU
- C — MAIN STREET EQUIMPENT NATURAL GAS 70-100 LB STAINLESS STEEL FLOOR FRYER – 150,000 BTU
- D — AVANTCO CHEF SERIES CAG24RC 24" GAS COUNTERTOP RADIANT CHARBROILER – 60,000 BTU
- E — COOKING PERFORMANCE GROUP HP212 2 BURNER GAS COUNTERTOP RANGE / HOT PLATE – 44,000 BTU
- F — GARAGE READY 21.3 CU. FT. FROST-FREE UPRIGHT FREEZER IN WHITE, ENERGY STAR
- G — SERVEND 2705936 DI-1522 6 VALVE SANITARY LEVER DROP-IN BEVERAGE DISPENSER WITH 60 LB. ICE STORAGE AND INTERNAL CARBONATOR (FOUNTAIN MACHINE)
- H — AVANTCO SSPPT-260 60" 2 DOOR REFRIGERATED PIZZA PREP TABLE
- I — BEVOI BVIREF18SS 18CU. FT. TOP MOUNT FREEZER REFRIGERATOR STAINLESS STEEL
- J — AVANTCO APT-27M-HC 27" 1 DOOR MEGA TOP REFRIGERATED SANDWICH PREP TABLE
- K — AVANTCO ICE MC-500-30-HA 30" AIR COOLED MODULAR HALF CUBE ICE MACHINE- 500LB
- L — MOP SINK
- M — REGENCY 70" 16-GAUGE STAINLESS STEEL THREE COMPARTMENT COMMERCIAL SINK WITH STAINLESS STEEL LEGS, CROSS BRACING, AND 2 DRAINBOARDS – 14" X 16" X 12" BOWLS
- N — HAND SINK
- O — POS
- R — CRATHCO, MP SERIES CRATHCO SINGLE BARREL FREEZER (MARGARITA MACHINE)
- T — AVANTCO_ICE_MACHINES_194KMC500L3F
- P — INFRARED STRIP HEATERS, NEMCO, 66089, 66099
- Q — NEW HOOD



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05/31/22

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

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REV	DESCRIPTION	DATE:
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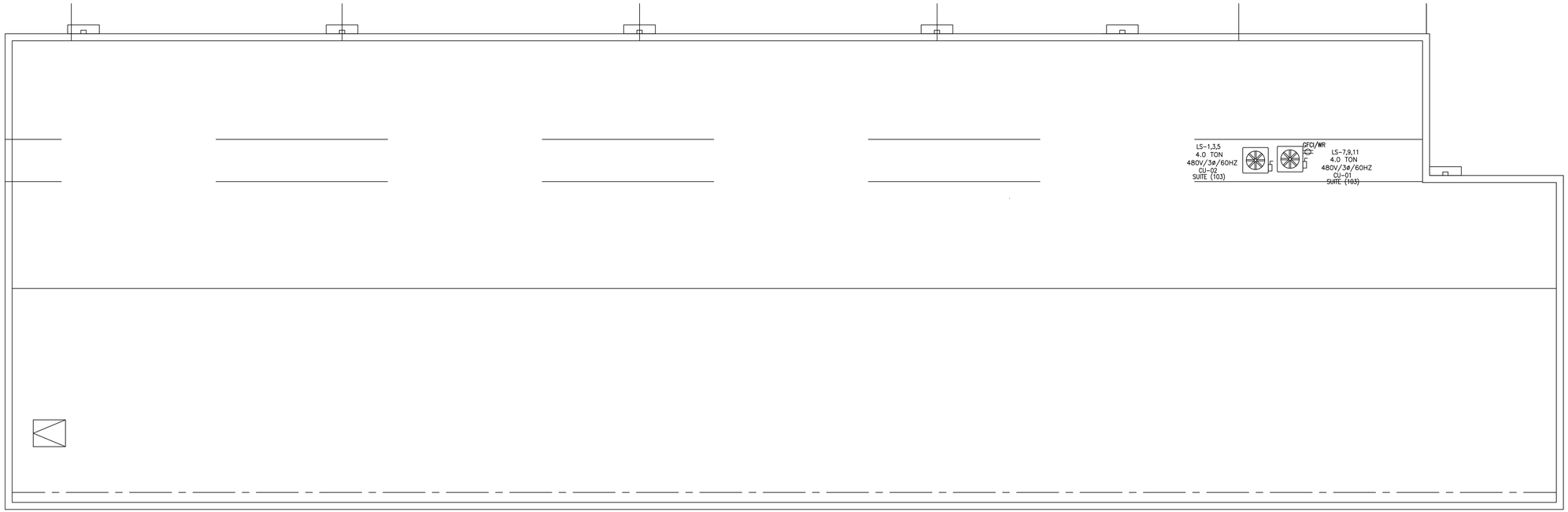
SHEET CONTENTS
KITCHEN EQUIPMENT DETAILS

SHEET NUMBER
P1.5

DATE: 05/31/22



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REV.	DESCRIPTION	DATE:
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B	CITY COMMENTS	05/31/22

SHEET CONTENTS

ELECTRICAL
POWER PLAN

SHEET NUMBER

E1.1

DATE: 05/31/22

STATE OF TEXAS
AHMAD M. ELKOT
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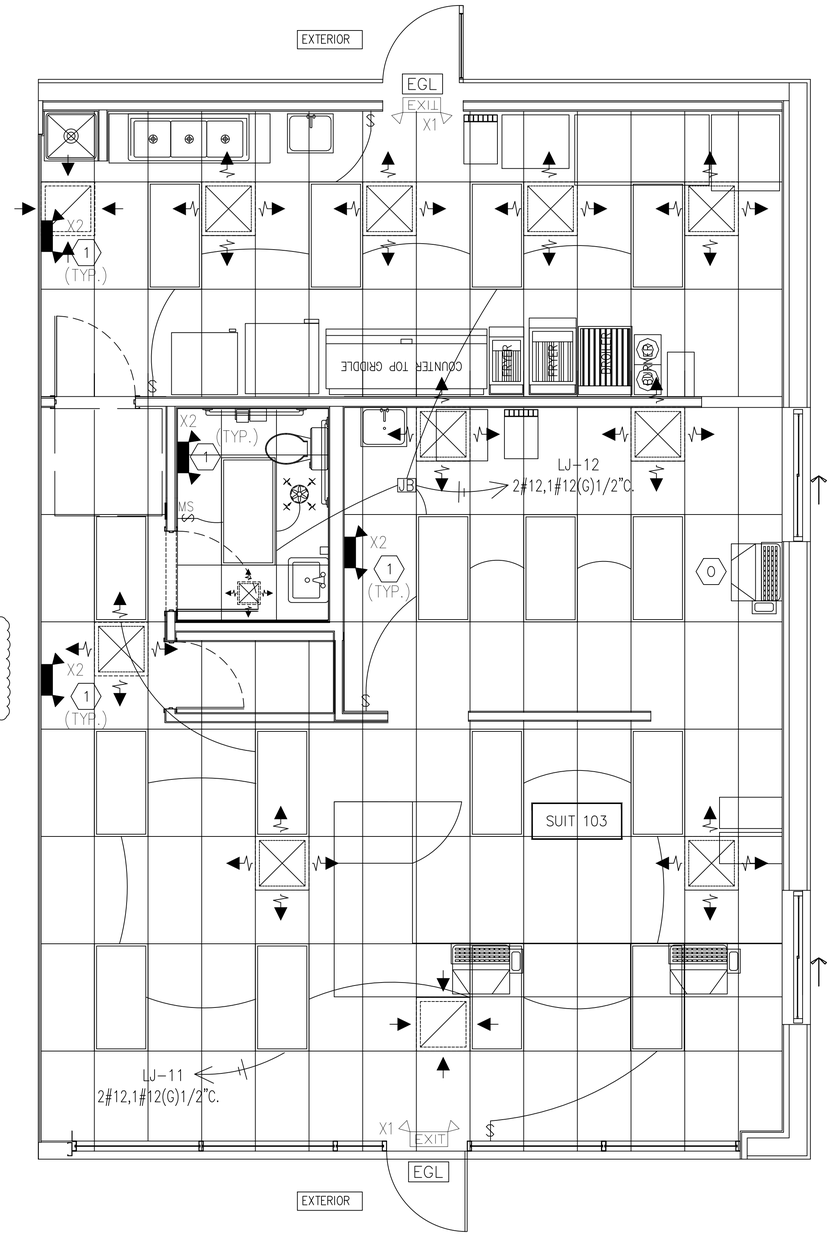
LICENSED
PROFESSIONAL ENGINEER

05/31/2022

ELECTRICAL SYMBOLS LIST	
▼	DATA OUTLET
$	Intermatic FF12HC, 20A, 120/277v, Manually Operated
TRRS	TAMPER RESISTANT RECEPTACLES 15A OR 20A, 125V
JB	JUNCTION BOX
	EF– RESTROOM EXHAUST FAN,75CFM PER TOILET FIXTURE
EXIT	FIXTURE (2–26 WATTS , 120 V) W/BATTERY BACK UP
MS $	277V 20A SPST SWITCH SPEC. GRADE W/MOTION SENSOR CONTROL DEVICE SHALL AUTOMATICALLY TURNS LIGHTS OFF WITHIN 30 MINUTES OF ALL OCCUPANTS LEAVING THE SENSOR
	QUAD RECEPTACLES 15A OR 20A, 125V

B



LIGHT FIXTURE SCHEDULE					
TYPE	MANUFACTURER & MODEL	FINISH	MOUNTING	NO. , SIZE & TYPE LAMPS	NOTE
A	METALUX # 2GR8332A125120VEB81	WHITE	RECESSED	3–F32/T8/735	
X1	EVENLITE#TCXCOM–R–U–W	WHITE	UNIVERSAL	LED (INCLUDED)	1,2
X2	EVENLITE#TCL2W	WHITE	UNIVERSAL	LED (INCLUDED)	1

NOTES:

1. INCLUDES BATTERY PACK FOR EMERGENCY POWER (1 1/2 HOUR MINIMUM).
2. CONNECT REMOTE HEAD # TCWP1 (OUTSIDE) TO EXIT SIGN (INSIDE).

1 / E1.2 ELECTRICAL LIGHTING PLAN
SCALE: 3/8"=1'

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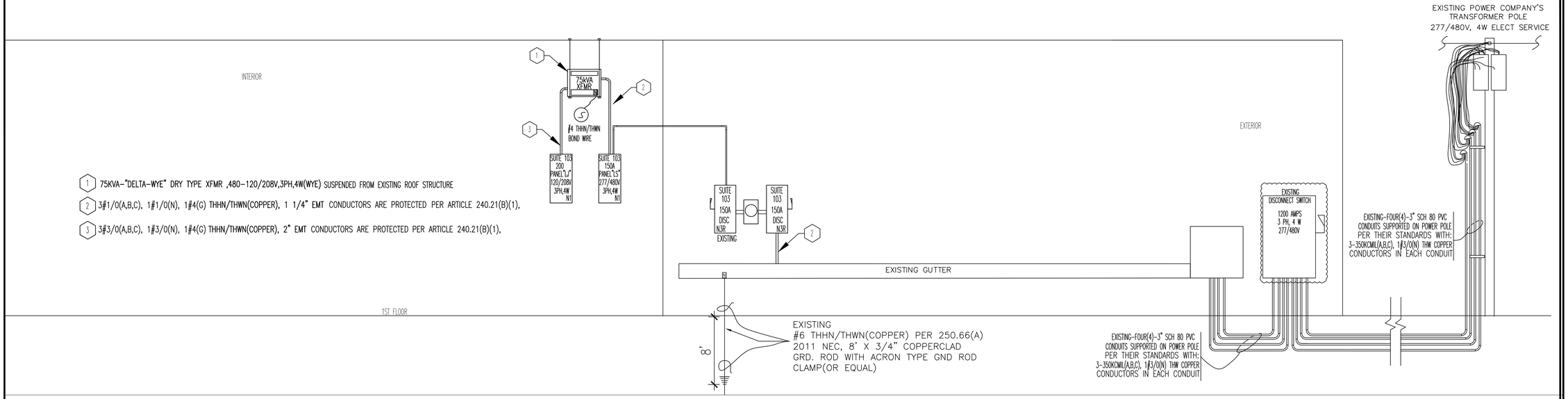
SHEET CONTENTS
ELECTRICAL LIGHTING PLAN

SHEET NUMBER
E1.2

DATE: 05/31/22



1. 75KVA–"DELTA–WYE" DRY TYPE XFMR ,480–120/208V,3PH,4W(WYE) SUSPENDED FROM EXISTING ROOF STRUCTURE
2. 3#1/0(A,B,C), 1#1/0(N), 1#4(G) THHN/THWN(COPPER), 1 1/4" EMT CONDUCTORS ARE PROTECTED PER ARTICLE 240.21(B)(1),
3. 3#3/0(A,B,C), 1#3/0(N), 1#4(G) THHN/THWN(COPPER), 2" EMT CONDUCTORS ARE PROTECTED PER ARTICLE 240.21(B)(1),

PANEL BOARD LJ **SUITE 103**

VOLT: 120/208 PH: 3 WIRE: 4 AIC RATING: 65,000 — Existing / X New — BY: MARWAN KARIB
MAIN AMPS: 200 AMP, MCB NEMA 1 MOUNTING RECESSED — PROJECT: PIN OAK PLAZA — NO.: 20-035

LOAD TYPE	LOAD DESCRIPTION	POLES & AMPS	CONNECTED LOAD VOLT-AMPS A	B	C	CKT #	A	B	C	CKT #	CONNECTED LOAD VOLT-AMPS A	B	C	POLES & AMPS	LOAD DESCRIPTION	LOAD TYPE
R	QUAD RECEPT	20/1	1,800			1	X			2	1,200			20/1	J.B FOR SINAGE	R
R	QUAD RECEPT	20/1		1,080		3		X		4		1,080		20/1	QUAD RECPT	R
R	QUAD RECEPT	20/1			720	5			X	6			1,080	20/1	QUAD RECEPT	R
R	HOOD	30/2	400			7	X			8	1,080			20/1	QUAD RECEPT	R
R	3#10,1#10(G)3/4"C.			400		9		X		10		1,080		20/1	QUAD RECEPT	R
L					400	11			X	12			320	20/1	LIGHT	L
L	LIGHTS	20/1	360			13	X			14	2,000			35/3	WATER HEATER 50 GALS	W.H
						15		X		16		2,000			3#8,1#10(G)3/4"C.	
						17			X	18			2,000			
						19	X			20						
						21		X		22						
						TOTAL PHASE A	6,840									
						TOTAL PHASE B	5,640									
						TOTAL PHASE C	4,520									

TOTAL LIGHTING	680	X 1.25	850	* INDICATES GFCI CIRCUIT BREAKERS, LABEL EACH RECEPTACLE SERVED AS " GFCI PROTECTED".
TOTAL WATER HEATER	6,000	X 0.65	3,900	NOTE: IN LIEU OF A 42 SLOT PANEL, A 2-SECTION 84 SLOT PANEL MAY BE USED
TOTAL RECEPTACLE	9,120	X 0.5 >10KVA	4,560	
TOTAL MISC EQUIPMENT	1,200	X 1.00	1,200	
TOTAL HVAC/ MOTOR		X 1.00	-	
TOTAL NONCOINCIDENTAL		X 1.00	-	
LARGEST MOTOR	4,000	X 1.25	5,000	
TOTAL CONN. LOAD	21,000	TOTAL DEMAND LOAD	15,510	
DIVERSIFIED DESIGN LOAD =	15,510	/ 208 X 1.73 =	44	

PANEL BOARD LS **SUITE 103**

VOLT: 277/480 PH: 3 WIRE: 4 AIC RATING: 65,000 — Existing / X New — BY: MARWAN KARIB
MAIN AMPS: 150 AMP, MCB NEMA 1 MOUNTING RECESSED — PROJECT: ADRIAN TACOS — NO.: 20-035

LOAD TYPE	LOAD DESCRIPTION	POLES & AMPS	CONNECTED LOAD VOLT-AMPS A	B	C	CKT #	A	B	C	CKT #	CONNECTED LOAD VOLT-AMPS A	B	C	POLES & AMPS	LOAD DESCRIPTION	LOAD TYPE
AC	4 TON AC CU-01(SUITE 103)	30/3	3,333			1	X			2	20,000			100/3	PANEL A(208V)	
	3#8,1#10(G),3/4"C			3,333		3		X		4		20,000				
					3,333	5			X	6			20,000			
AC	4 TON AC CU-02(SUITE 103)	30/3	3,333			7	X			8	4,000			40/3	4 TON AC AHU-02(SUITE 103)	AC
	3#8,1#10(G),3/4"C			3,333		9		X		10		4,000			3#8,1#10(G),3/4"C	
					3333	11			X	12			4,000			
AC	4 TON AC AHU-01(SUITE 103)	40/3	4,000			13	X			14						
	3#8,1#10(G),3/4"C			4,000		15		X		16						
					4,000	17			X	18						
						19	X			20						
						21		X		22						
						TOTAL PHASE A	34,666									
						TOTAL PHASE B	34,666									
						TOTAL PHASE C	34,666									

TOTAL LIGHTING		X 1.25	-	* INDICATES GFCI CIRCUIT BREAKERS, LABEL EACH RECEPTACLE SERVED AS " GFCI PROTECTED".
TOTAL WATER HEATER	3,333	X 0.65	2,166	NOTE: IN LIEU OF A 42 SLOT PANEL, A 2-SECTION 84 SLOT PANEL MAY BE USED
TOTAL RECEPTACLE		X 0.5 >10KVA	-	
TOTAL MISC EQUIPMENT	60,000	X 1.00	60,000	
TOTAL HVAC/ MOTOR	43,998	X 1.00	43,998	
TOTAL NONCOINCIDENTAL		X 1.00	-	
LARGEST MOTOR	12,000	X 1.25	15,000	
TOTAL CONN. LOAD	119,331	TOTAL DEMAND LOAD	121,164	
DIVERSIFIED DESIGN LOAD =	121,164	/ 480 X 1.73 =	146	

ELECTRICAL LOAD ANALYSIS

AREA: 1,164 S.F " ADRIAN TACOS"

A. INTERIOR LIGHTING	
1.STORE SPACE @ 1,164 SQFT X 3 VA/SQFT	3.49 KVA
B. RECEPTACLE	
1. RECEP : 21 X 180W =	3.78 KVA
C. HVAC LOAD (GREATER OF TWO)	
1. NEW @ 2 X 10 KW =	20 KVA
2. NEW @ 10 KW X 0.25 =	2.5 KVA
D. EXTERIOR LIGHTING AND SIGN:	
1. POLE+ WALL PACK + RECESSED =	1.25 KVA
E. WATER HEATER:	
1. WH: 4.0 KW =	4.0 KVA
TOTAL LOAD:	17.02 KVA

17.02 KVA WILL RESULT IN 21 AMPS @ 277/408V, 3ø,4W
ELECTRICAL SERVICE IS SIZED FOR 150 AMPS.

Available Fault Current Labeling. In lieu of the maximum available fault current marking as required by 110.24, a permanently affixed label shall be applied with the available fault current at the time of installation and calculation. The label shall be 2" x 3" in size and shall be blue lettering on a contrasting background. This label shall also include the date of the calculation.

1 / E1.3 ELECTRICAL RISER DIAGRAM & LOAD ANALYSIS
SCALE: NTS

STATE OF TEXAS — AHMAD M. ELKOT — 129559 — LICENSED — PROFESSIONAL ENGINEER
05/31/2022

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www.NOMAENGINEERING.com
FIRM: 16913

REV.	DESCRIPTION	DATE:
	PERMIT SET	1/19/2022
B	CITY COMMENTS	05/31/22

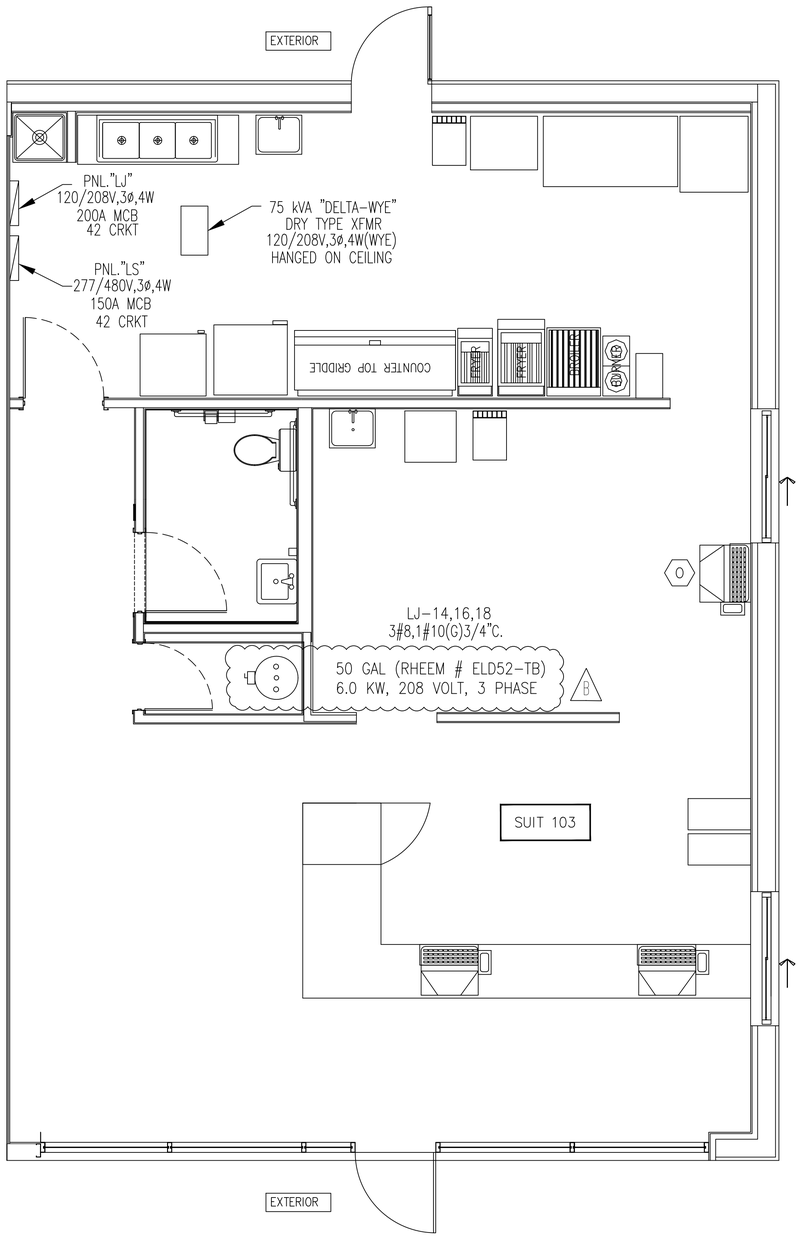
SHEET CONTENTS
RISER DIAGRAM & LOAD ANALYSIS

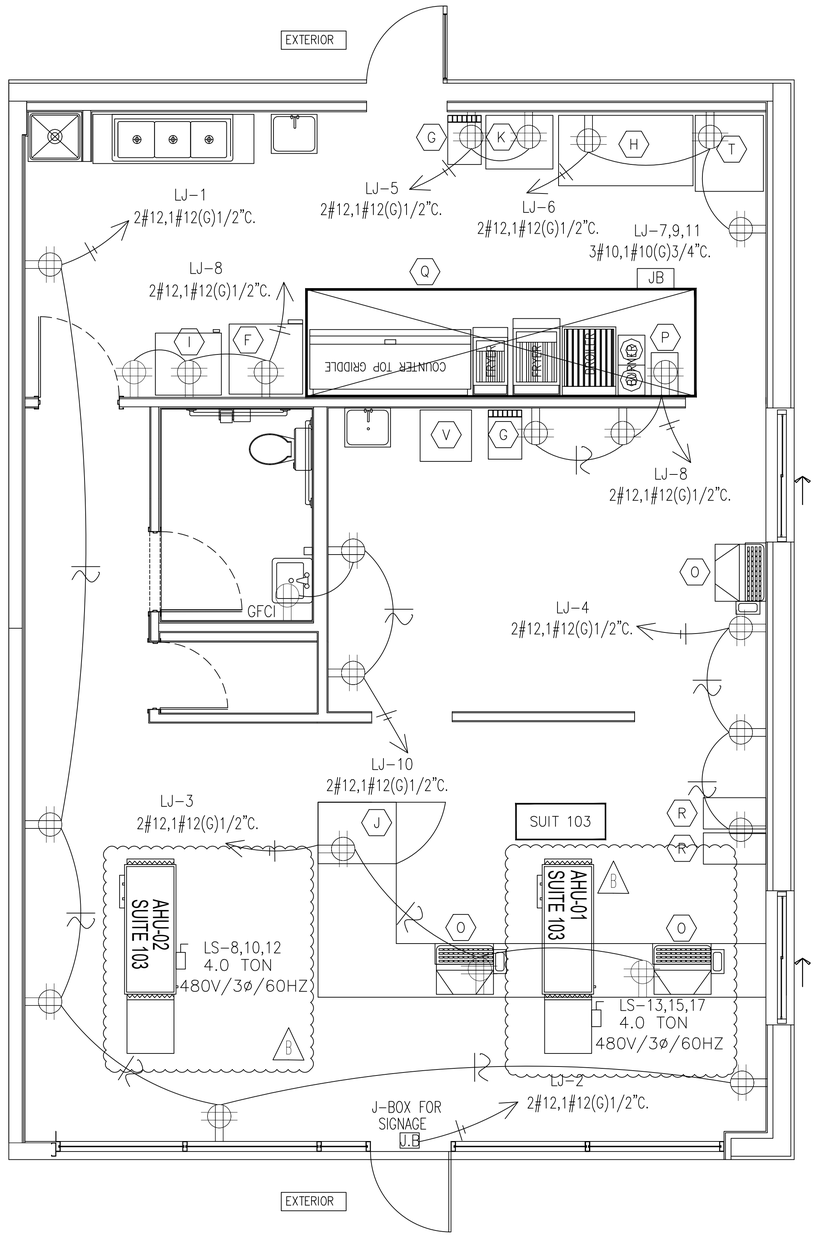
SHEET NUMBER
E1.3

DATE: 05/31/22

Total Water Heater Wattage	Phase	Recommended Over Current Protection (Fuse or Circuit Breaker) Amperage Rating				Copper Wire Size - AWG Based on N.E.C. Table 310-16 (75°C)			
		208V	240V	277V	480V	208V	240V	277V	480V
3,000	1	20	20	15	15	12	12	14	14
	3	20	20	—	15	12	12	—	14
4,000	1	25	25	20	15	10	10	12	14
	3	25	25	—	15	10	10	—	14
4,500	1	30	25	25	15	10	10	10	14
	3	30	25	—	15	10	10	—	14
5,000	1	30	30	—	15	10	10	—	14
	3	30	30	—	15	10	10	—	14
5,500	1	35	30	25	15	8	10	10	14
	3	35	30	—	15	8	10	—	14
6,000	1	40	40	30	20	8	8	10	12
	3	35	30	—	15	8	10	—	14
6,500	1	50	45	40	25	8	8	8	10
	3	45	40	—	20	8	8	—	12
9,000	1	—	50	45	25	—	8	8	10
	3	50	45	—	25	8	8	—	10
10,000	1	—	—	50	30	—	—	8	10
	3	—	50	—	25	—	8	—	10
11,000	1	—	—	50	30	—	—	8	10
	3	—	50	—	25	—	8	—	10
12,000	1	—	—	—	35	—	—	—	8
	3	—	—	—	30	—	—	—	10

Table 1.— Branch Circuit Sizing and Wire Size Guide Based on N.E.C. ANSI / NFPA 70





- E — COOKING PERFORMANCE GROUP HP212 2 BURNER GAS COUNTERTOP RANGE / HOT PLATE – 44,000 BTU
- F — GARAGE READY 21.3 CU. FT. FROST-FREE UPRIGHT FREEZER IN WHITE, ENERGY STAR
- G — SERVEND 2705936 DI-1522 6 VALVE SANITARY LEVER DROP-IN BEVERAGE DISPENSER WITH 60 LB. ICE STORAGE AND INTERNAL CARBONATOR (FOUNTAIN MACHINE)
- H — AVANTCO SSPPT-260 60" 2 DOOR REFRIGERATED PIZZA PREP TABLE
- I — BEVOI BVIREF18SS 18CU. FT. TOP MOUNT FREEZER REFRIGERATOR STAINLESS STEEL
- J — AVANTCO APT-27M-HC 27" 1 DOOR MEGA TOP REFRIGERATED SANDWICH PREP TABLE
- K — AVANTCO ICE MC-500-30-HA 30" AIR COOLED MODULAR HALF CUBE ICE MACHINE- 500LB
- O — POS
- R — CRATHCO, MP SERIES CRATHCO SINGLE BARREL FREEZER (MARGARITA MACHINE)
- T — AVANTCO_ICE_MACHINES_194KMC500L3F
- P — INFRARED STRIP HEATERS, NEMCO, 66089, 66099
- Q — NEW HOOD

1 / E1.0 — ELECTRICAL POWER PLAN
SCALE: 3/8"=1'

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REV.	DESCRIPTION	DATE:
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B	CITY COMMENTS	05/31/22

SHEET CONTENTS
ELECTRICAL POWER PLAN

SHEET NUMBER
E1.0

DATE: 05/31/22