

MECHANICAL SYMBOLS ABBREVIATIONS

(SOME SYMBOLS MAY NOT BE USED ON THE DRAWINGS)

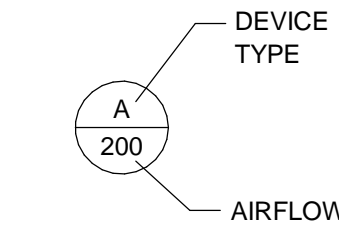
%	PERCENT
ABS	ABSOLUTE
ACC	AIR-COOLED CHILLER
ACU	AIR CONDITIONING UNIT
AD	ACCESS DOOR
AF	AIR FOIL
AFF	ABOVE FINISHED FLOOR
AHU	AIR HANDLING UNIT
ALT	ALTITUDE
AMB	AMBIENT
AMCA	AIR MOVEMENT AND CONTROL ASSOCIATION
ANSI	AMERICAN NATIONAL STANDARDS INSTITUTE
APPROX	APPROXIMATE
ARI	AIR-CONDITIONING AND REFRIGERATION INSTITUTE
ASHRAE	AMERICAN SOCIETY OF HEATING, REFRIGERATION, AND AIR-CONDITIONING ENGINEERS
ASME	AMERICAN SOCIETY OF MECHANICAL ENGINEERS
ASTM	AMERICAN SOCIETY OF TESTING MATERIALS
AVG	AVERAGE
B	BOILER
BD	BACKDRAFT DAMPER
BG	BELOW GRADE
BEMCS	BUILDING ENERGY MANAGEMENT AND CONTROL SYSTEM
BHP	BRAKE HORSEPOWER
BI	BACKWARD INCLINED
BOD	BOTTOM OF DUCT
BOP	BOTTOM OF PIPE
BTU	BRITISH THERMAL UNIT
BTUH	BTU PER HOUR
CD	COLD DECK
CF	CUBIC FEET
CFM	CUBIC FEET PER MINUTE
CHET	CHILLED WATER EXPANSION TANK
CMPR	COMPRESSOR
COND	CONDENSER
CRAC	COMPUTER ROOM AIR CONDITIONER
CT	COOLING TOWER
CHWR	CHILLED WATER RETURN
CHWS	CHILLED WATER SUPPLY
CU IN	CUBIC INCH
dB	DECIBEL
DB	DRY BULB
DCP	DISTRIBUTED CONTROL PANEL
DEG	DEGREE
DIA	DIAMETER
DWG	DRAWING
DX	DIRECT-EXPANSION
EAT	ENTERING AIR TEMPERATURE
EDH	ELECTRIC DUCT HEATER
EF	EXHAUST FAN
EFF	EFFICIENCY
EL	ELEVATION
ENT	ENTERING
ESP	EXTERNAL STATIC PRESSURE
EXP	EXPANSION
F	FAHRENHEIT
FA	FACE AREA
FCU	FAN COIL UNIT
FD	FIRE DAMPER
FH	FUME HOOD
FLEX	FLEXIBLE
FPM	FEET PER MINUTE
FPS	FEET PER SECOND
FRP	FIBERGLASS REINFORCED PIPE
FS	FLOW SWITCH
FSD	COMBINATION FIRE-SMOKE DAMPER
FT	FEET OR FOOT
FTU	FAN TERMINAL UNIT
GA	GAUGE OR GAGE
GAL	GALLONS
GALV	GALVANIZED
GPD	GALLONS PER DAY
GPH	GALLONS PER HOUR
GPM	GALLONS PER MINUTE
GR	GRAINS
H	ENTHALPY
HD	HEAD
HD	HOT DECK
HG	HEAT GAIN OR MERCURY
HGT	HEIGHT
HP	HORSEPOWER
HPS	HIGH PRESSURE STEAM
HR	HOUR
HTHW	HIGH TEMPERATURE HEATING WATER
HVAC	HEATING/VENTILATING/AIR-CONDITIONING
HVU	HEATING AND VENTILATING UNIT
HWR	HEATING HOT WATER RETURN
HWS	HEATING HOT WATER SUPPLY
HZ	FREQUENCY
ID	INSIDE DIAMETER
IPS	INTERNATIONAL PIPE STANDARD
ips	IRON PIPE SIZE
K	THERMAL CONDUCTIVITY
KH	KITCHEN HOOD
KW	KILOWATT
LAT	LEAVING AIR TEMPERATURE
LBS	POUNDS
LF	LINEAR FEET
LG	LENGTH
LPS	LOW PRESSURE STEAM
LTHW	LOW TEMPERATURE HOT WATER
LWT	LEAVING WATER TEMPERATURE
MCA	MINIMUM CIRCUIT AMPACITY
MOC	MAXIMUM OVERCURRENT PROTECTION
MAX	MAXIMUM
MBH	BTU PER HOUR (THOUSAND)
MIN	MINIMUM
N.C.	NORMALLY CLOSED
N.O.	NORMALLY OPEN
N/A	NOT APPLICABLE
NC	NOISE CRITERIA
NIC	NOT IN CONTRACT
NTS	NOT TO SCALE
OA	OUTSIDE AIR
OBD	OPPOSED BLADE DAMPER
OD	OUTSIDE DIAMETER
PD	PUMPED DISCHARGE
PBD	PARALLEL BLADE DAMPER
PH	PHASE (ELECTRICAL)
PPM	PARTS PER MILLION
PRESS	PRESSURE
PSF	POUNDS PER SQUARE FOOT
PSI	POUNDS PER SQUARE INCH
PSIA	PSI ABSOLUTE
PSIG	PSI GAGE
R	RANKINE
R-22	REFRIGERANT (NUMBER INDICATES TYPE)
RA	RETURN AIR
RAF	RELIEF AIR FAN
RECIRC	RECIRCULATE
RH	RELATIVE HUMIDITY
RHC	REHEAT COIL
RPM	REVOLUTIONS PER MINUTE
SA	SUPPLY AIR
SC	SHADING COEFFICIENT
SCFM	CUBIC FEET PER MINUTE-STANDARD CONDITIONS
SD	SMOKE DAMPER
SEC	SECOND
SF	SQUARE FEET
SG	SPECIFIC GRAVITY
SHG	SENSIBLE HEAT GAIN
SHR	SENSIBLE HEAT RATIO
SP	STATIC PRESSURE
SPEC	SPECIFICATION
SQ	SQUARE
SSD	SUB-SOIL DRAINAGE
STD	STANDARD
SUCT	SUCTION
t	TIME
T	TEMPERATURE SENSOR
TD	TEMPERATURE DIFFERENCE
TEMP	TEMPERATURE
TOC	TOP OF CONCRETE
TOD	TOP OF DUCT
TONS	TONS OF REFRIGERATION
TOP	TOP OF PIPE
TOS	TOP OF STEEL
TSP	TOTAL STATIC PRESSURE
T-STAT	THERMOSTAT
TU	TERMINAL UNIT
TYP	TYPICAL
U	HEAT TRANSFER COEFFICIENT
UH	UNIT HEATER
UF	UNDER FLOOR
V	VOLT
VA	VOLT AMPERE
VAC	VACUUM
VAV	VARIABLE AIR VOLUME
VD	VOLUME DAMPER
VENT	VENTILATION
VERT	VERTICAL
VFD	VARIABLE FREQUENCY DRIVE
VOL	VOLUME
VP	VELOCITY PRESSURE
W	HUMIDITY RATIO OR WATT
W.C.	WATER COLUMN
W.G.	WATER GAUGE
WB	WET BULB
WT	WEIGHT
YR	YEAR

SHEET SYMBOLS

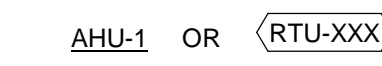
X **DETAIL TITLE**
SCALE: 1/2" = 1'-0"



NORTH ARROW



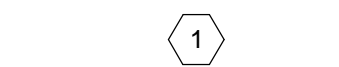
NECK/CFM BUBBLE



EQUIPMENT TAG



AIR FLOW INDICATOR



NOTE BY SYMBOL (KEYNOTE)



REVISION



POINT OF CONNECTION (NEW TO EXISTING)



POINT OF DISCONNECTION

MECHANICAL EQUIPMENT



COMBINATION FIRE/SMOKE DAMPER



FIRE DAMPER



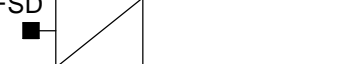
SMOKE DAMPER



COMBINATION FIRE/SMOKE DAMPER IN VERTICAL SA DUCT



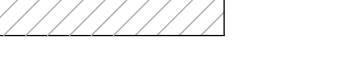
COMBINATION FIRE/SMOKE DAMPER IN VERTICAL RA DUCT



NEW EQUIPMENT (SIZE, SHAPE WILL VARY)



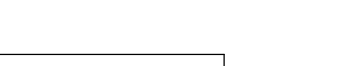
FUTURE KITCHEN / VENTILATION EQUIPMENT (SIZE, SHAPE WILL VARY)



EQUIPMENT TO REMAIN (SIZE, SHAPE WILL VARY)



DUCT STATIC PRESSURE SENSOR



DIFFERENTIAL PRESSURE SENSOR



WALL MOUNTED THERMOSTAT



WALL MOUNTED TEMPERATURE SENSOR

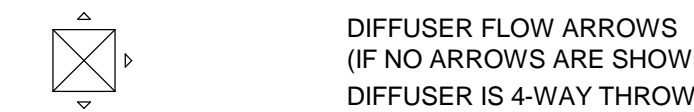


CARBON DIOXIDE SENSOR



OCCUPANCY SENSOR

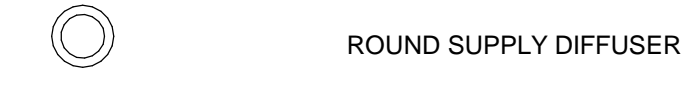
DUCTWORK



DIFFUSER FLOW ARROWS (IF NO ARROWS ARE SHOWN, DIFFUSER IS 4-WAY THROW)



SUPPLY DIFFUSER



ROUND SUPPLY DIFFUSER



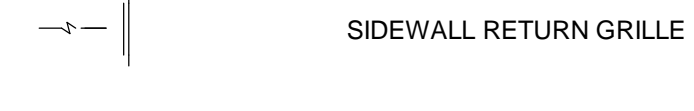
RETURN REGISTER



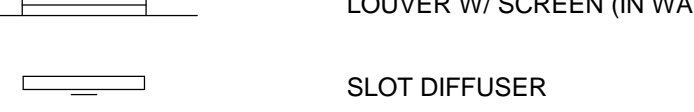
EXHAUST REGISTER



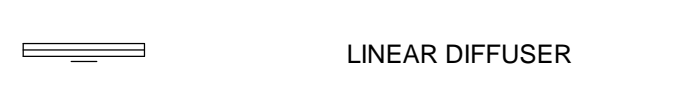
SIDEWALL SUPPLY GRILLE



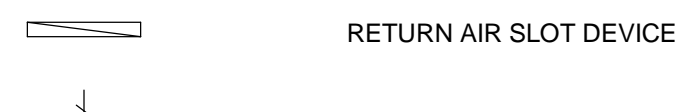
SIDEWALL RETURN GRILLE



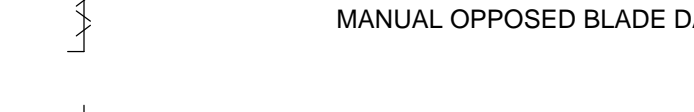
LOUVER W/ SCREEN (IN WALL)



SLOT DIFFUSER



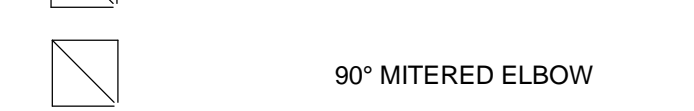
LINEAR DIFFUSER



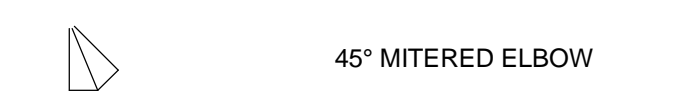
RETURN AIR SLOT DEVICE



MANUAL OPPOSED BLADE DAMPER



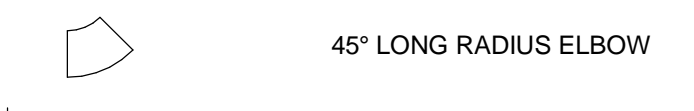
MANUAL BLADE DAMPER



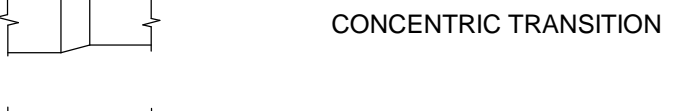
90° ELBOW W/ TURNING VANES



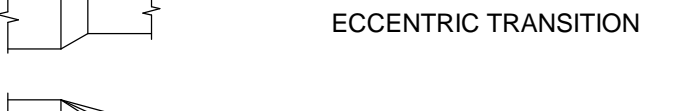
90° MITERED ELBOW



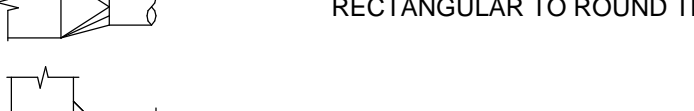
45° MITERED ELBOW



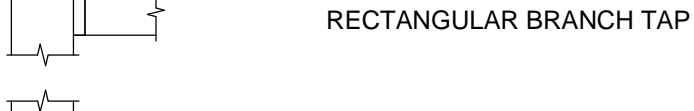
90° LONG RADIUS ELBOW



45° LONG RADIUS ELBOW



CONCENTRIC TRANSITION



ECCENTRIC TRANSITION



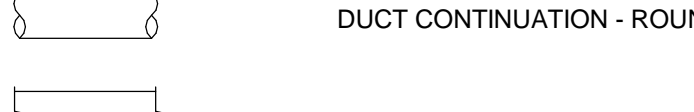
RECTANGULAR TO ROUND TRANSITION



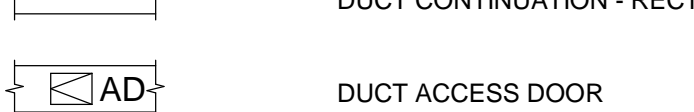
RECTANGULAR BRANCH TAP (SMACNA 45)



CONICAL BRANCH TAP



CONICAL LATERAL BRANCH TAKE-OFFS



DUCT CAP



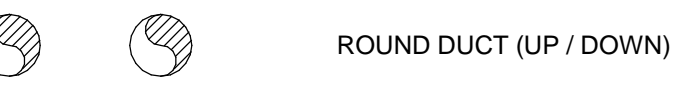
DUCT CONTINUATION - ROUND



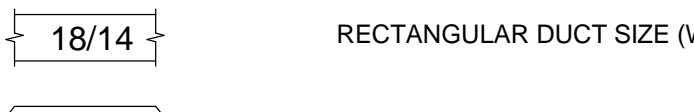
DUCT CONTINUATION - RECTANGULAR



DUCT ACCESS DOOR



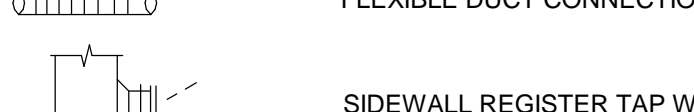
SUPPLY DUCT (UP / DOWN)



RETURN DUCT (UP / DOWN)



EXHAUST DUCT (UP / DOWN)



ROUND DUCT (UP / DOWN)



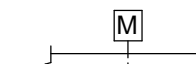
RECTANGULAR DUCT SIZE (WIDTH / HEIGHT)



ROUND DUCT SIZE

FLEXIBLE DUCT CONNECTION

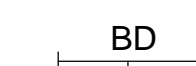
SIDEWALL REGISTER TAP WITH DAMPER



MOTORIZED DAMPER



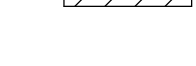
OPPOSED BLADE MOTORIZED DAMPER



BACKDRAFT DAMPER



FLEXIBLE DUCT CONNECTION

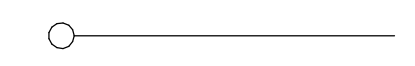


MAJOR SPLIT



TRANSFER BOOT

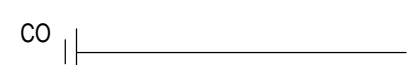
PIPING SYMBOLS



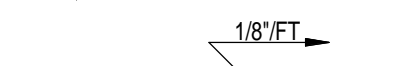
PIPING UP



PIPING DOWN



CLEANOUT



DIRECTION OF SLOPE



CONDENSATE DRAIN

HVAC DESIGN CRITERIA

ASHRAE FUNDAMENTALS - 2017:

SUMMER COOLING DESIGN (0.4%):

WEATHER STATION - TAMPA EXECUTIVE, FL

95.4 °F DRY BULB

ELEVATION: 22'

77.6 °F MEAN COINCIDENT WET BULB

WINTER HEATING DESIGN (99.6%):

34.3 °F DRY BULB

GENERAL NOTES

- REFER TO SPECIFICATIONS FOR MATERIALS AND METHODS FOR CONSTRUCTION.
- DUCTWORK SIZES SHOWN ARE FREE AIR STREAM DIMENSIONS.
- INSTALL DUCTWORK AND PIPING TO PROVIDE THE MAXIMUM POSSIBLE CLEAR HEIGHT UNDERNEATH. (BETWEEN STRUCTURE OR CEILING AND TOP OF DUCT).
- WHERE APPROVAL CODES HAVE BEEN ESTABLISHED BY OSHA, UNDERWRITER'S LABORATORY, AMERICAN CODES, ANSI, ASME, ASA, ASHRAE, ASTM, ARI, NEL, NFPA, SMACNA, OR THE STATE FIRE INSURANCE REGULATORY BODY, FOLLOW THESE STANDARDS WHETHER OR NOT INDICATED ON THE DRAWINGS AND SPECIFICATIONS.
- PROVIDE THE ENTIRE SYSTEM AND ITS COMPONENT ITEMS OF EQUIPMENT IN OPERATING CONDITION FREE OF OBJECTIONABLE VIBRATION OR NOISE.
- PERFORM WORK IN ACCORDANCE WITH THE LATEST EDITIONS, REVISIONS, AMENDMENTS OR SUPPLEMENTS OF APPLICABLE STATUTES, ORDINANCES, CODES OR REGULATIONS OF FEDERAL, STATE AND LOCAL AUTHORITIES HAVING JURISDICTION IN EFFECT ON THE DATE BIDS ARE RECEIVED.
- COORDINATE WORK SO THAT INTERFERENCES BETWEEN PIPING, DUCTWORK, EQUIPMENT, PLUMBING WORK, ELECTRICAL WORK, AND BUILDING STRUCTURE WILL BE AVOIDED.
- FURNISH ACCESS DOORS FOR INSTALLATION IN WALLS AND CEILINGS WHERE ACCESS IS REQUIRED TO CONCEALED MECHANICAL EQUIPMENT, VALVES, CONTROLS AND OTHER DEVICES.
- COORDINATE THE EXACT LOCATION OF DRAIN AND MECHANICAL EQUIPMENT LOCATIONS WITH MECHANICAL, ARCHITECTURAL, AND STRUCTURAL DRAWINGS PRIOR TO INSTALLATION.
- RECTANGULAR ELBOWS SHALL BE LONG-RADIUS ELBOWS UNLESS OTHERWISE SHOWN OR NOTED. SUPPLY AIR STANDARD NON-RADIUS 90° ELBOWS SHALL HAVE TURNING VANES.
- AIR CONDITIONING LOAD CALCULATIONS BASED ON LOCAL CLIMATE DATA. ADJUST UNIT SIZES, AIRFLOW, DUCT SIZES AND AIR DEVICES TO HVAC LOAD CALCULATIONS BASED ON STORE LOCATION. COORDINATE RTU LOCATIONS, DIMENSIONS, AND WEIGHTS WITH STRUCTURAL ENGINEER AND ARCHITECT.

sevan
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INTEGRITY | RESPECT | TEAMWORK
EXCELLENCE | CHARITY

SEAL

I HEREBY CERTIFY THAT THESE DRAWINGS HAVE BEEN PREPARED UNDER MY DIRECT SUPERVISION AND THAT TO THE BEST OF MY KNOWLEDGE AND BELIEF THEY COMPLY WITH THE BUILDING CODES AND ORDINANCES OF FLORIDA.



DATE: 10/22/2025
EXPIRATION DATE: 02/28/2027

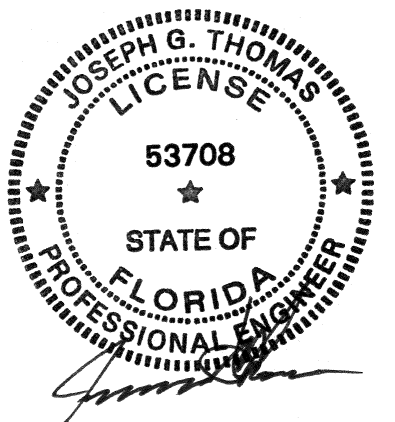
REV	DESCRIPTION	DATE
1	ISSUED FOR PERMIT	06/23/2025
2	ISSUED FOR CONSTRUCTION	10/22/2025

WHATABURGER - LUTZ
25340 SIERRA CENTER BLVD,
LUTZ, FL 33559



SEAL

I HEREBY CERTIFY THAT THESE DRAWINGS HAVE BEEN PREPARED UNDER MY DIRECT SUPERVISION AND THAT TO THE BEST OF MY KNOWLEDGE AND BELIEF THEY COMPLY WITH THE BUILDING CODES AND ORDINANCES OF LUTZ, FL.



DATE: 10/22/2025
EXPIRATION DATE: 02/28/2027

REV	DESCRIPTION	DATE
1	ISSUED FOR PERMIT	06/23/2025
2	CLIENT CHANGES FRYER & GRILL	10/13/2025
	ISSUED FOR CONSTRUCTION	10/22/2025

GREASE DUCT NOTES

- GREASE DUCT SERVING TYPE I HOODS SHALL BE FACTORY BUILT DOUBLE WALL COMMERCIAL GREASE DUCTS LISTED AND LABELED IN ACCORDANCE WITH UL 1978 AND INSTALLED IN ACCORDANCE WITH THE IMC SECTION 304.1. GREASE DUCT SHALL BE LISTED GOT 0' CLEARANCE TO COMBUSTIBLES.
OR
GREASE DUCT SERVING TYPE I HOODS SHALL BE CONSTRUCTED OF STEEL HAVING A MINIMUM THICKNESS OF 0.0575" (1/16 GA.) OR STAINLESS STEEL NOT LESS THAN 0.0450" (1/8 GA.). GREASE DUCTS SHALL BE CONTINUOUSLY COVERED ON ALL SIDES WITH A LISTED AND LABELED FIELD APPLIED GREASE DUCT ENCLOSURE MATERIAL, SYSTEM, PRODUCT OR METHOD OF CONSTRUCTION SPECIFICALLY EVALUATED FOR SUCH PURPOSE IN ACCORDANCE WITH ASTM E2336 TO PROVIDE 0' CLEARANCE TO COMBUSTIBLES IN ACCORDANCE WITH THE LISTING OF SUCH MATERIAL, SYSTEM, PRODUCT OR METHOD.
- GREASE DUCT SYSTEM INSTALLED SHALL BE REVIEWED AND APPROVED BY THE AHJ PRIOR TO INSTALLATION.

GREASE DUCT CALCULATIONS

KH-1	KEF-1	1995 CFM 16" GREASE DUCT 1.4 SQ. FT. AREA 1429 FT/MIN VELOCITY
KH-2	KEF-2	1091 CFM 12" GREASE DUCT 0.8 SQ. FT. AREA 1388 FT/MIN VELOCITY

KEYNOTES

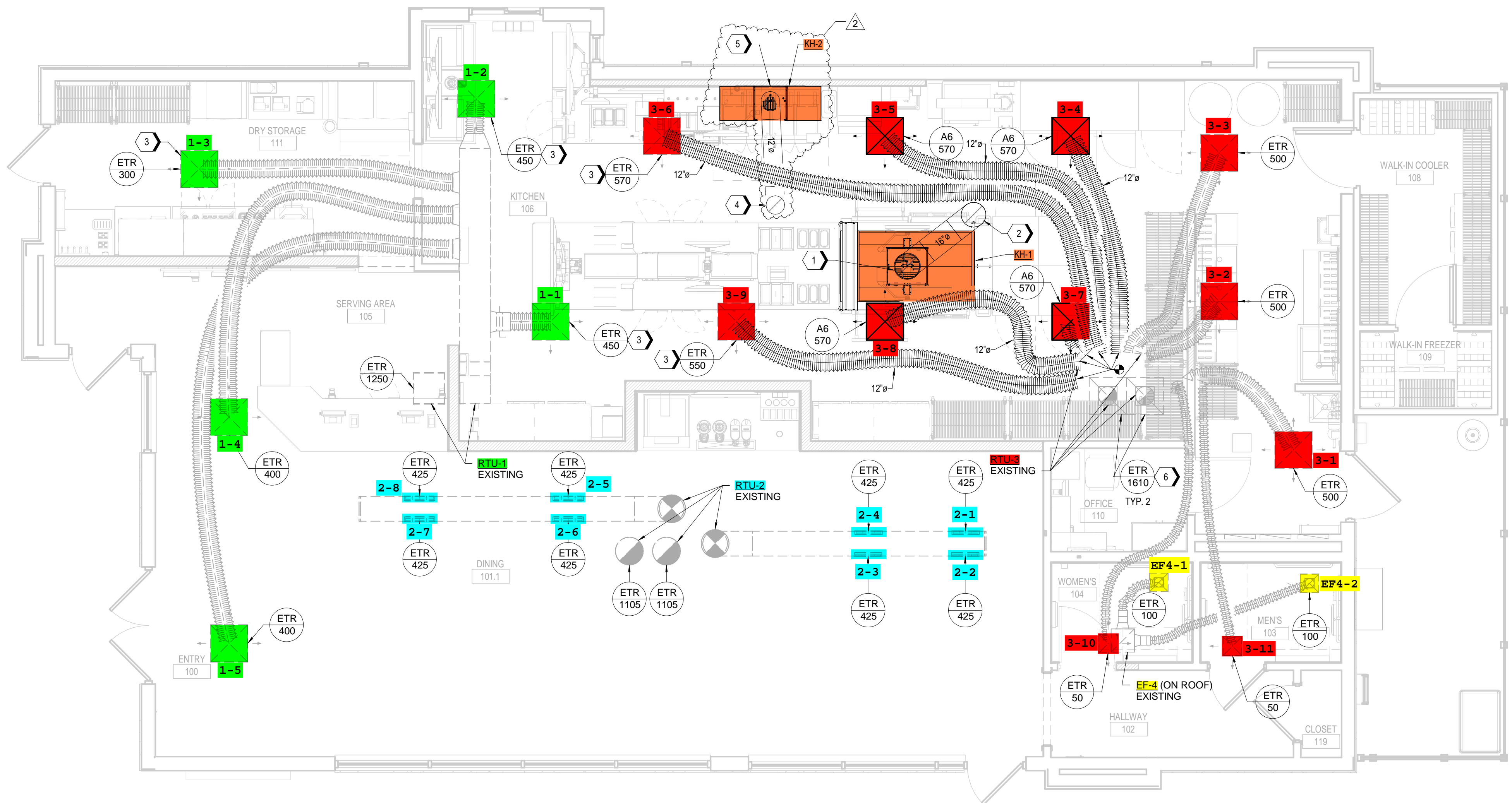
- CONNECT KITCHEN EXHAUST HOOD ABOVE GRILL UP TO KEF-1 WITH 16" DIA. PRE-FABRICATED UL 1978 LISTED AND LABELED GREASE DUCT. PROVIDE TRANSITIONS ABOVE CEILING AS REQUIRED.
- ROUTE NEW 16" EXHAUST DUCT UP TO ROOF. INSTALL NEW KEF-1 ON NEW ROOF CURB. RE: A1M2.1
- RELOCATED EXISTING SUPPLY AIR DIFFUSER.
- ROUTE NEW 12" EXHAUST DUCT UP TO ROOF. INSTALL NEW KEF-2 ON EXISTING ROOF CURB. RE: A2-1M2.1.
- CONNECT KITCHEN EXHAUST HOOD ABOVE FRYER UP TO KEF-2 WITH 12" DIA. PREFABRICATED UL 1978 LISTED AND LABELED GREASE DUCT. PROVIDE TRANSITIONS ABOVE CEILING AS REQUIRED.
- RELOCATED EXISTING RETURN AIR GRILLE.

GENERAL NOTES

- REFER TO M0.1 FOR GENERAL NOTES, SYMBOLS AND ABBREVIATIONS.
- EXISTING ROOFTOP HVAC UNITS ARE NOTED TO BE INSTALLED WITH SMOKE DETECTORS. CONTRACTOR TO FIELD VERIFY EXISTING INSTALLATION AND THAT SMOKE DETECTORS ARE IN PROPER OPERATING CONDITION. NOTIFY OWNER/G.C. OF ANY DEFICIENCIES.
- EXISTING ROOFTOP HVAC UNITS TEMPERATURE CONTROLS ARE EXISTING TO REMAIN. CONTRACTOR TO VERIFY TEMPERATURE CONTROLS ARE OPERATING PROPERLY. NOTIFY OWNER/G.C. OF ANY DEFICIENCIES.
- KITCHEN HOODS, ANSUL FIRE SUPPRESSION SYSTEM AND HOOD CONTROLS SHALL BE OWNER - FURNISHED AND CONTRACTOR-INSTALLED.
- ALL TESTS AND BALANCES TO BE PERFORMED BY A THIRD PARTY - NOT BY MEP SUBCONTRACTOR.

TEST AND BALANCE NOTE

NEW AND EXISTING HVAC SYSTEMS AND EXHAUST SYSTEMS SHALL BE TESTED AND BALANCED TO AIRFLOW CAPACITIES SHOWN ON THESE DRAWINGS. HEATING AND COOLING CAPACITIES SHALL MATCH DATA PLATE INFORMATION. NOTIFY OWNER/G.C. OF ANY DEFICIENCY.



A1 MECHANICAL FLOOR PLAN
1/4" = 1'-0"

WHATABURGER - LUTZ
25340 SIERRA CENTER BLVD,
LUTZ, FL 33559

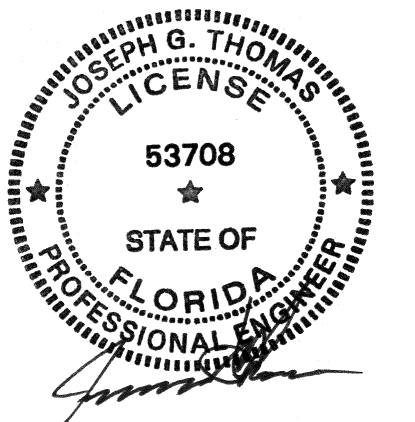
WHATABURGER

Project No.: 1687
Client Project No.:
Drawing Title:
MECHANICAL FLOOR PLAN

Date: 10/22/2025 Phase: IFC SET
Designed: DG Drawn: DG Checked: JT
Drawing No.: **M1.1**

SEAL

I HEREBY CERTIFY THAT THESE DRAWINGS HAVE BEEN PREPARED UNDER MY DIRECT SUPERVISION AND THAT TO THE BEST OF MY KNOWLEDGE AND BELIEF THEY COMPLY WITH THE BUILDING CODES AND ORDINANCES OF LUTZ, FL.



DATE: 10/22/2025
EXPIRATION DATE: 02/28/2027

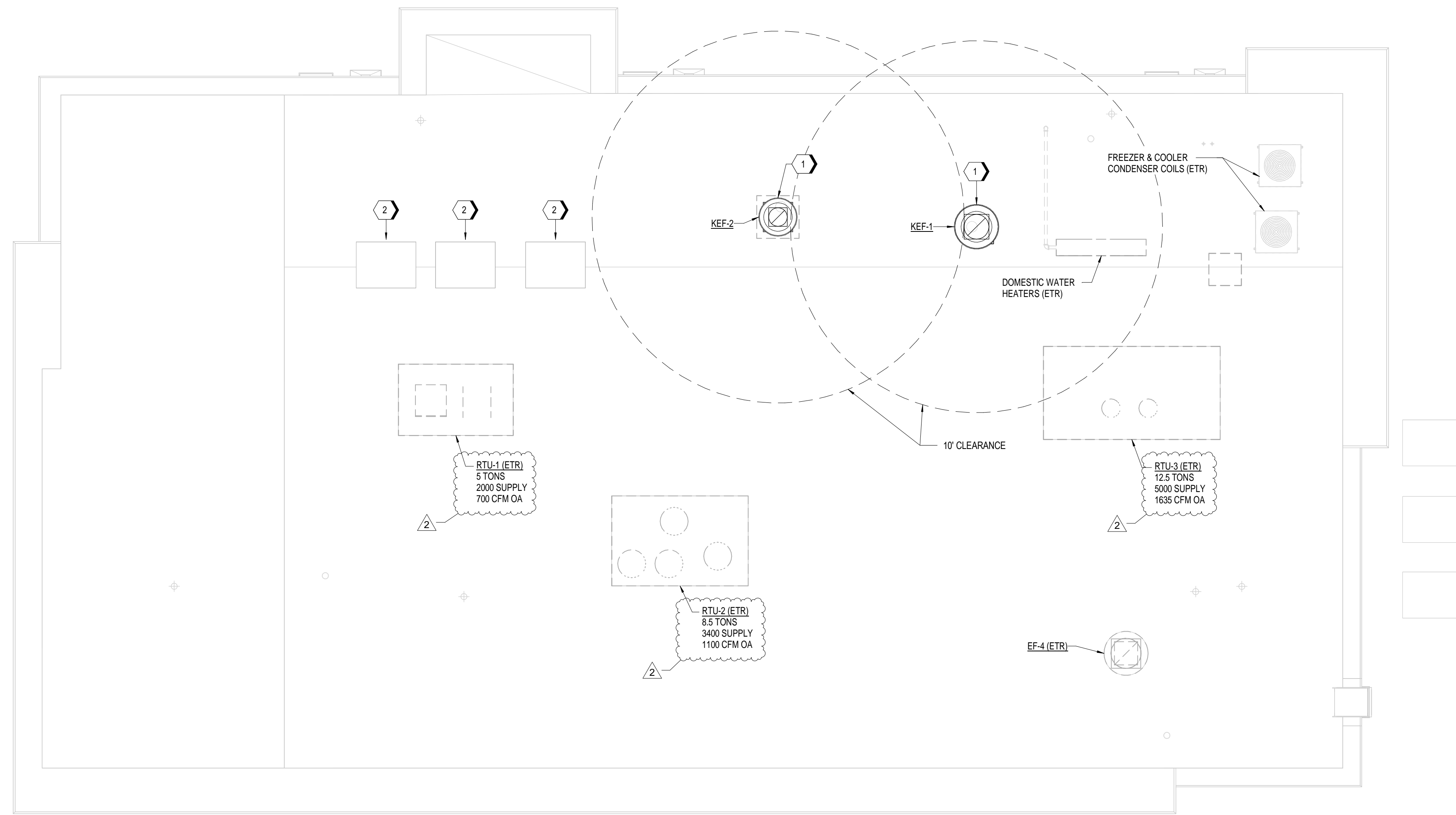
REV	DESCRIPTION	DATE
	ISSUED FOR PERMIT	06/23/2025
1	BUILDING REVIEW COMMENTS	07/18/2025
2	CLIENT CHANGES FRYER & GRILL	10/13/2025
	ISSUED FOR CONSTRUCTION	10/22/2025

KEYNOTES

1. INSTALL NEW CENTRIFUGAL UPBLAST GREASE HOOD EXHAUST FAN KEF-2 MOUNTED ON EXISTING ROOF CURB. RE: A2-1M5.1
2. KITCHEN ICEMAKER CONDENSING UNIT MOUNTED ON ROOFTOP; FURNISHED BY OWNER. COORDINATE EXACT LOCATION ON SITE AND ROUTE REFRIGERATION PIPING THROUGH ROOF PENETRATION (BY OTHERS). CONDENSING UNIT SUPPORT SHALL BE BY MIAMI-TECH FL PA NUMBER - 24-0117.04, PRODUCT APPROVAL NUMBER - FL42314, MODEL NUMBER - STANDARD DUTY ASMUS OR HEAVY DUTY ASMUH DEPENDING ON CONDENSING UNIT SIZE AND COMPLY WITH THE REQUIREMENTS OF THE FLORIDA BUILDING CODE.

GENERAL NOTES

- REFER TO M0.1 FOR GENERAL NOTES, SYMBOLS AND ABBREVIATIONS.
- EXISTING ROOFTOP HVAC UNITS ARE NOTED TO BE INSTALLED WITH SMOKE DETECTORS. CONTRACTOR TO FIELD VERIFY EXISTING INSTALLATION AND THAT SMOKE DETECTORS ARE IN PROPER OPERATING CONDITION. NOTIFY OWNER/G.C. OF ANY DEFICIENCIES.
- EXISTING ROOFTOP HVAC UNITS TEMPERATURE CONTROLS ARE EXISTING TO REMAIN. CONTRACTOR TO VERIFY TEMPERATURE CONTROLS ARE OPERATING PROPERLY. NOTIFY OWNER/G.C. OF ANY DEFICIENCIES.
- KITCHEN HOODS, ANSUL FIRE SUPPRESSION SYSTEM AND HOOD CONTROLS SHALL BE OWNER - FURNISHED AND CONTRACTOR-INSTALLED.
- ALL TESTS AND BALANCES TO BE PERFORMED BY A THIRD PARTY - NOT BY MEP SUBCONTRACTOR.



1 MECHANICAL ROOF PLAN
1/4" = 1'-0"

WHATABURGER - LUTZ
25340 SIERRA CENTER BLVD,
LUTZ, FL 33559



Project No.: 1687
Client Project No.:
Drawing Title:
MECHANICAL ROOF PLAN

Date: 10/22/2025 Phase: IFC SET
Designed: DG Drawn: DG Checked: JT
Drawing No.:
M2.1

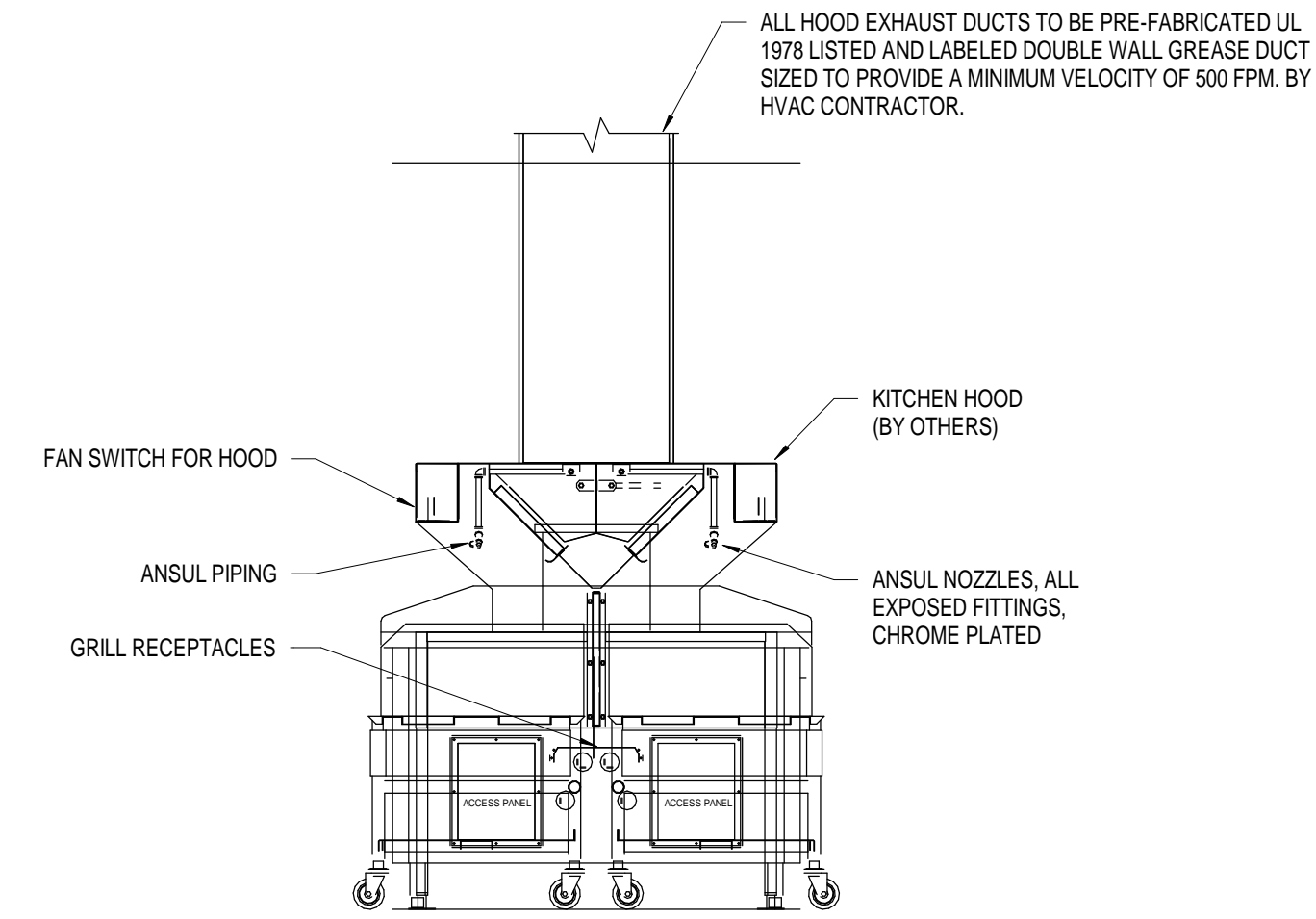
SEAL

I HEREBY CERTIFY THAT THESE DRAWINGS HAVE BEEN PREPARED UNDER MY DIRECT SUPERVISION AND THAT TO THE BEST OF MY KNOWLEDGE AND BELIEF THEY COMPLY WITH THE BUILDING CODES AND ORDINANCES OF LUTZ, FL.

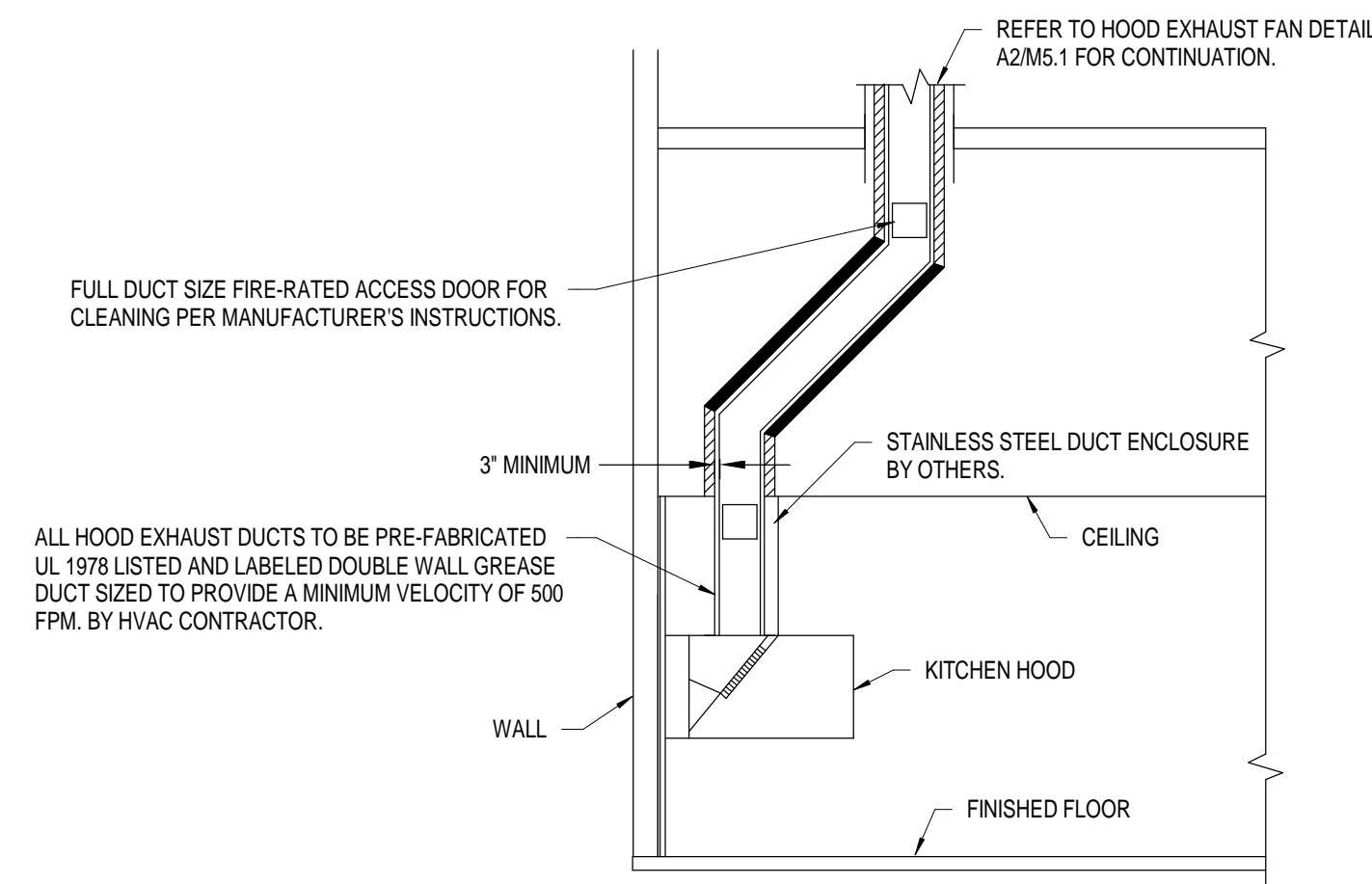


DATE: 10/22/2025
EXPIRATION DATE: 02/28/2027

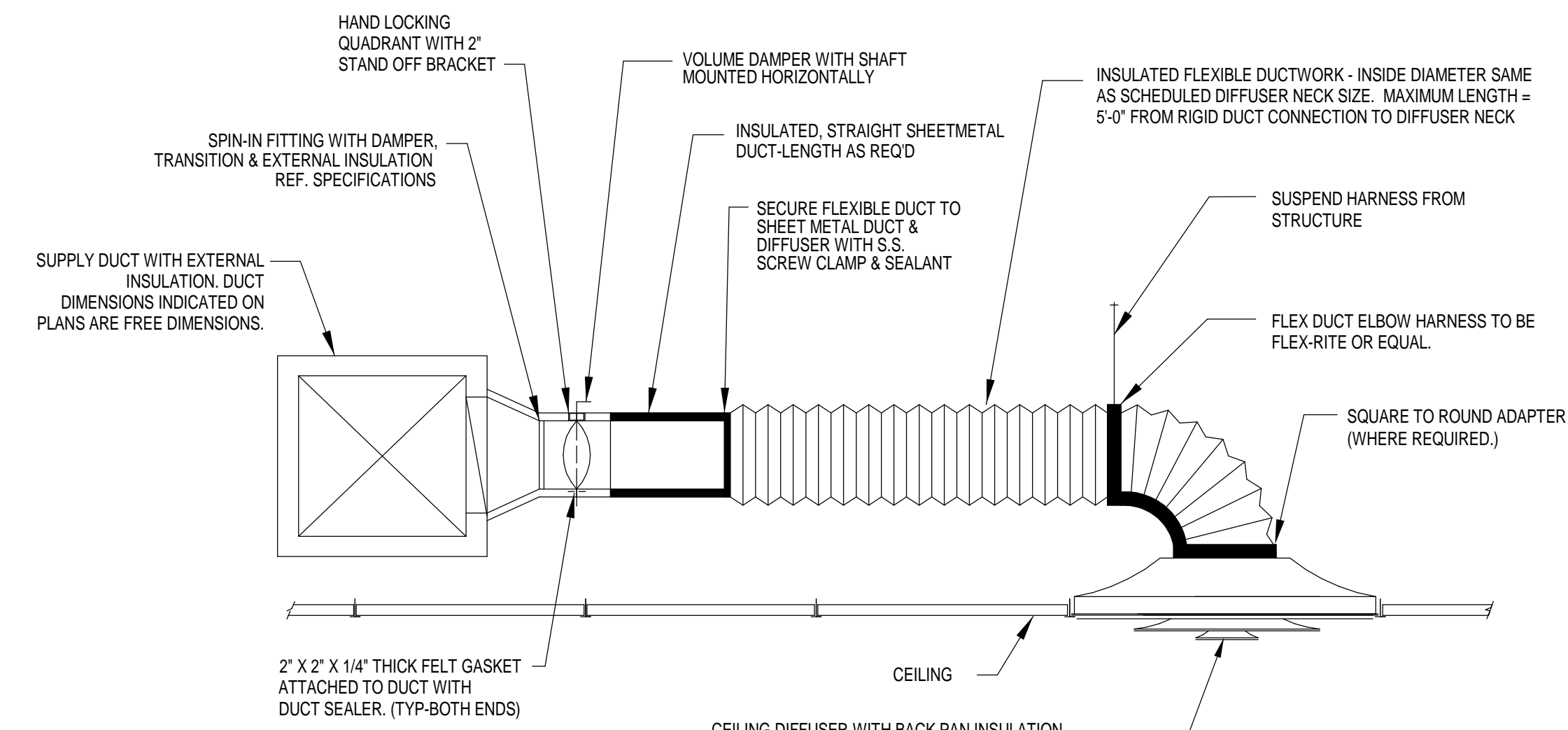
REV	DESCRIPTION	DATE
	ISSUED FOR PERMIT	06/23/2025
	ISSUED FOR CONSTRUCTION	10/22/2025



C3 LOW PROFILE HOOD DETAIL
N.T.S.

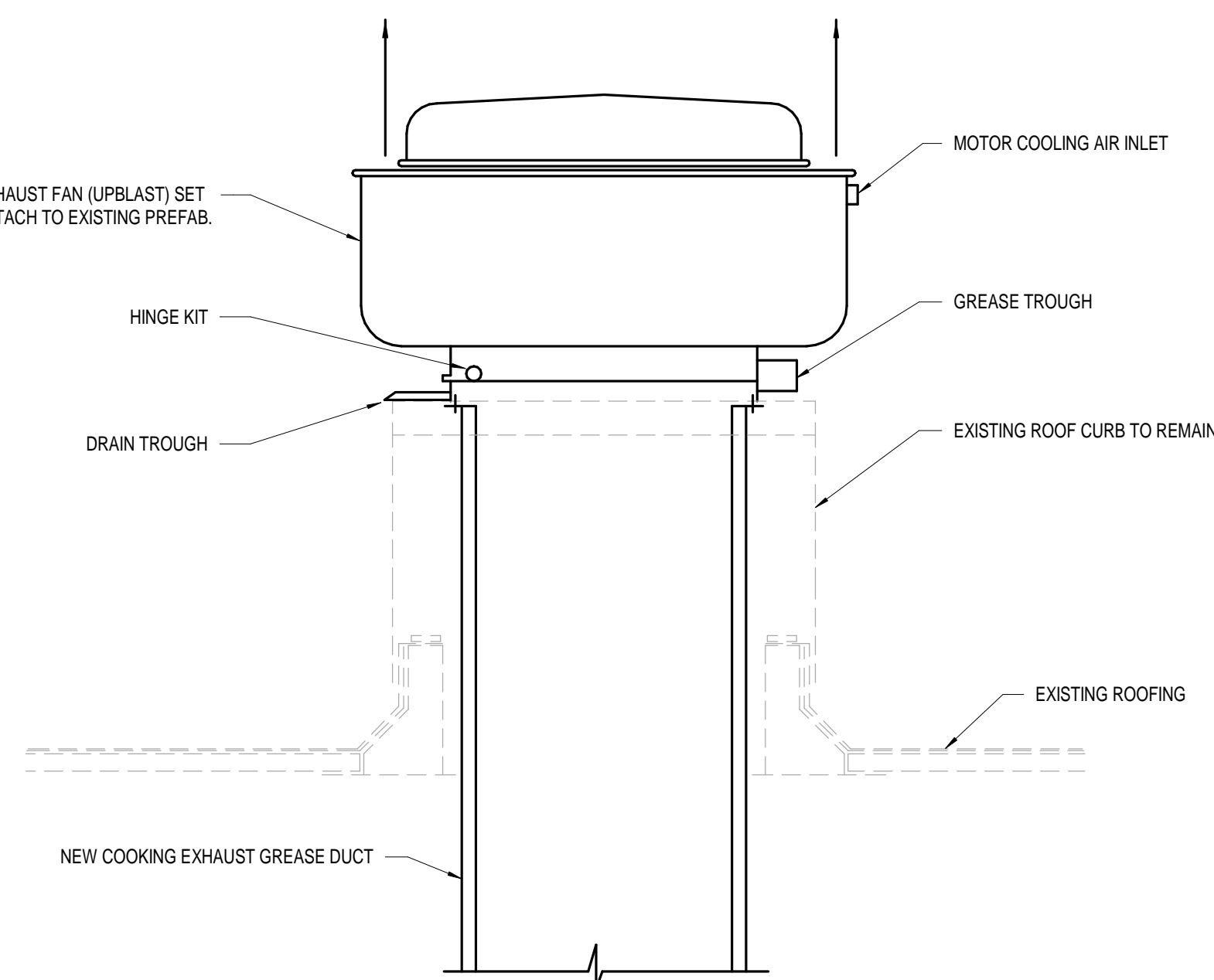


B4 HOOD EXHAUST DUCT DETAIL
N.T.S.



NOTE: INSTALL FLEXIBLE DUCTWORK SUPPORTS AT ALL ROUND NECK OUTLETS/INLETS UNLESS OTHERWISE NOTED ON DRAWINGS.

B2 DIFFUSER CONNECTION DETAIL
N.T.S.



A2 ROOFTOP GREASE EXHAUST FAN DETAIL
N.T.S.

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LUTZ, FL 33559



Project No.: 1687

Client Project No.:

Drawing Title:

MECHANICAL DETAILS

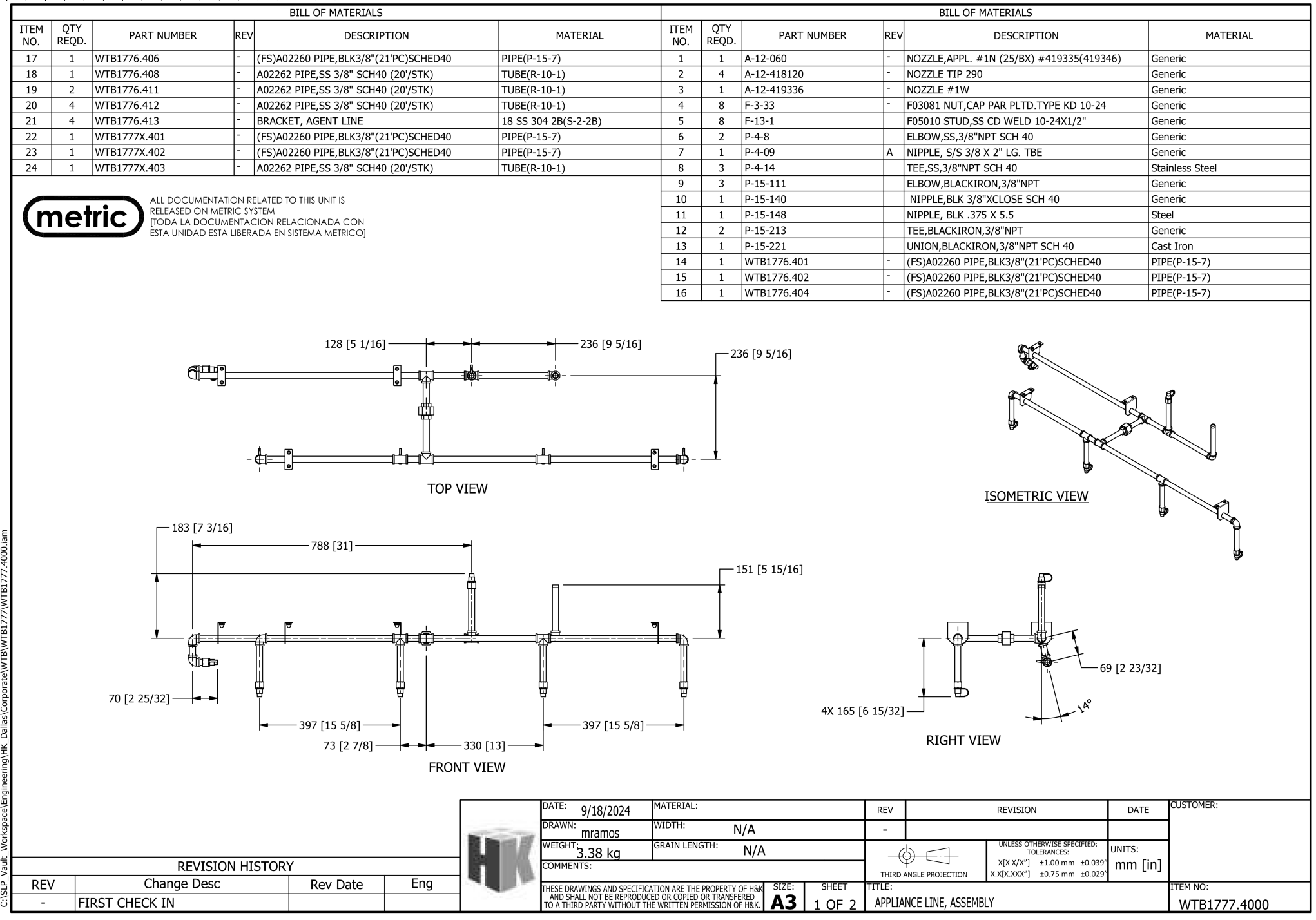
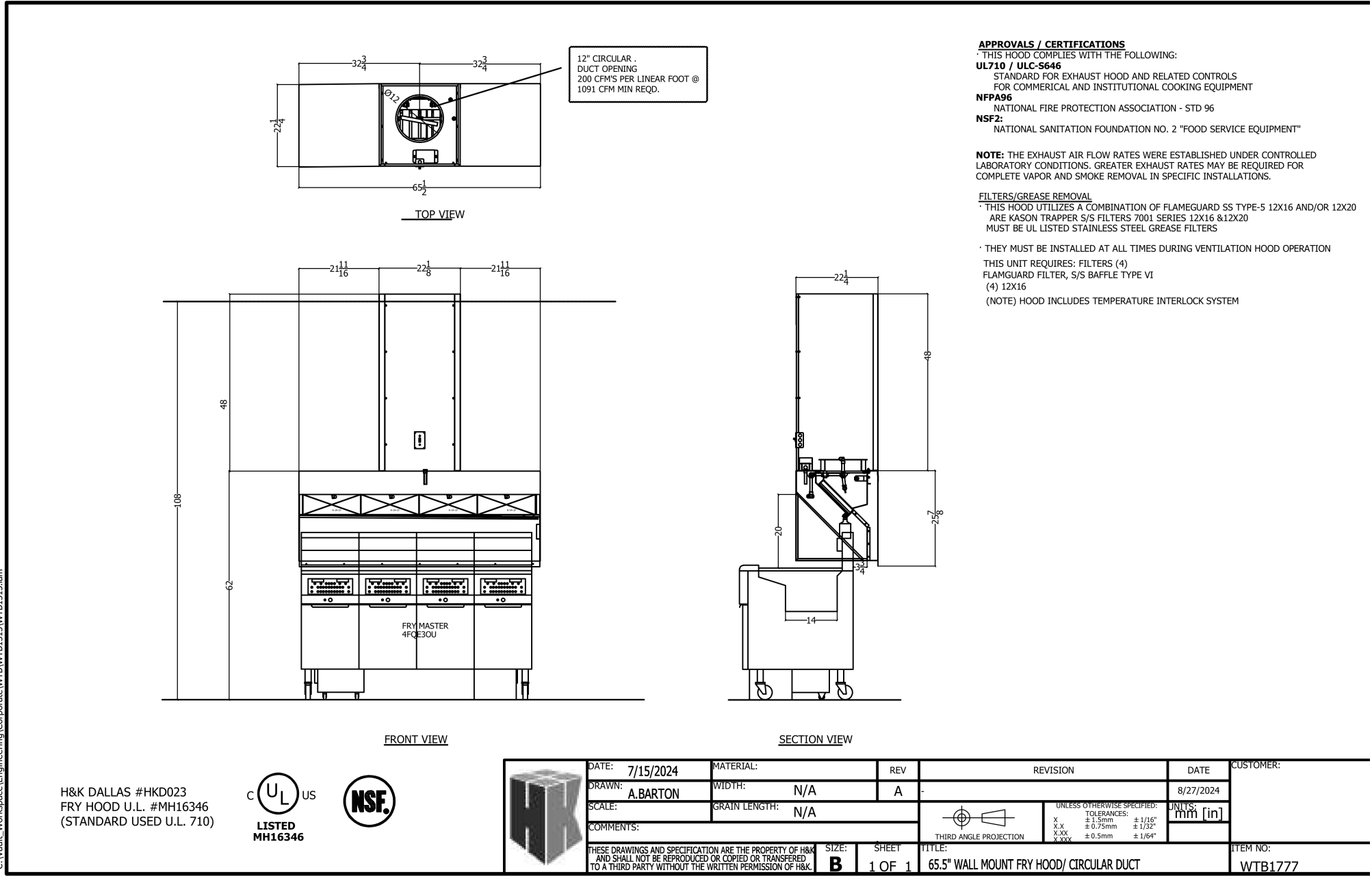
Date: 10/22/2025 Phase: IFC SET

Designed: DG Drawing No.:

Drawn: DG

Checked: JT

M5.1



July 20th, 2022

To Whom It May Concern,
H+K Hoods comply with IMC Section 506.5.4 and 507.2.6 for zero clearance to combustibles and non-combustibles walls.

Should you have any questions, please contact me.

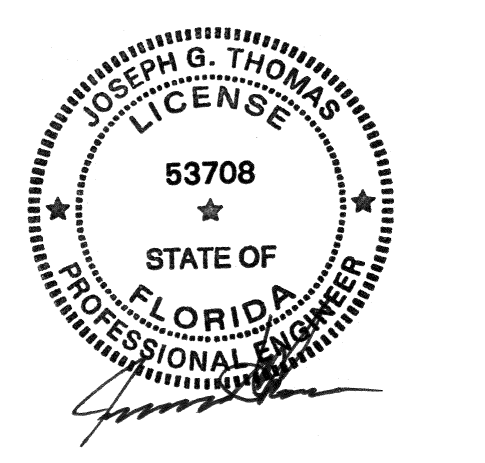
Sincerely,

Bryan Tonn
Director of Engineering, H+K International, Inc.
2200 Skyline Drive
Mesquite, TX 75149
(214) 818-3580
Bryan.tonn@hki.com

H&K International
P.O. Box 180728 Dallas, Texas 75218, Telephone (214) 818-3500 FAX (214) 818-3502

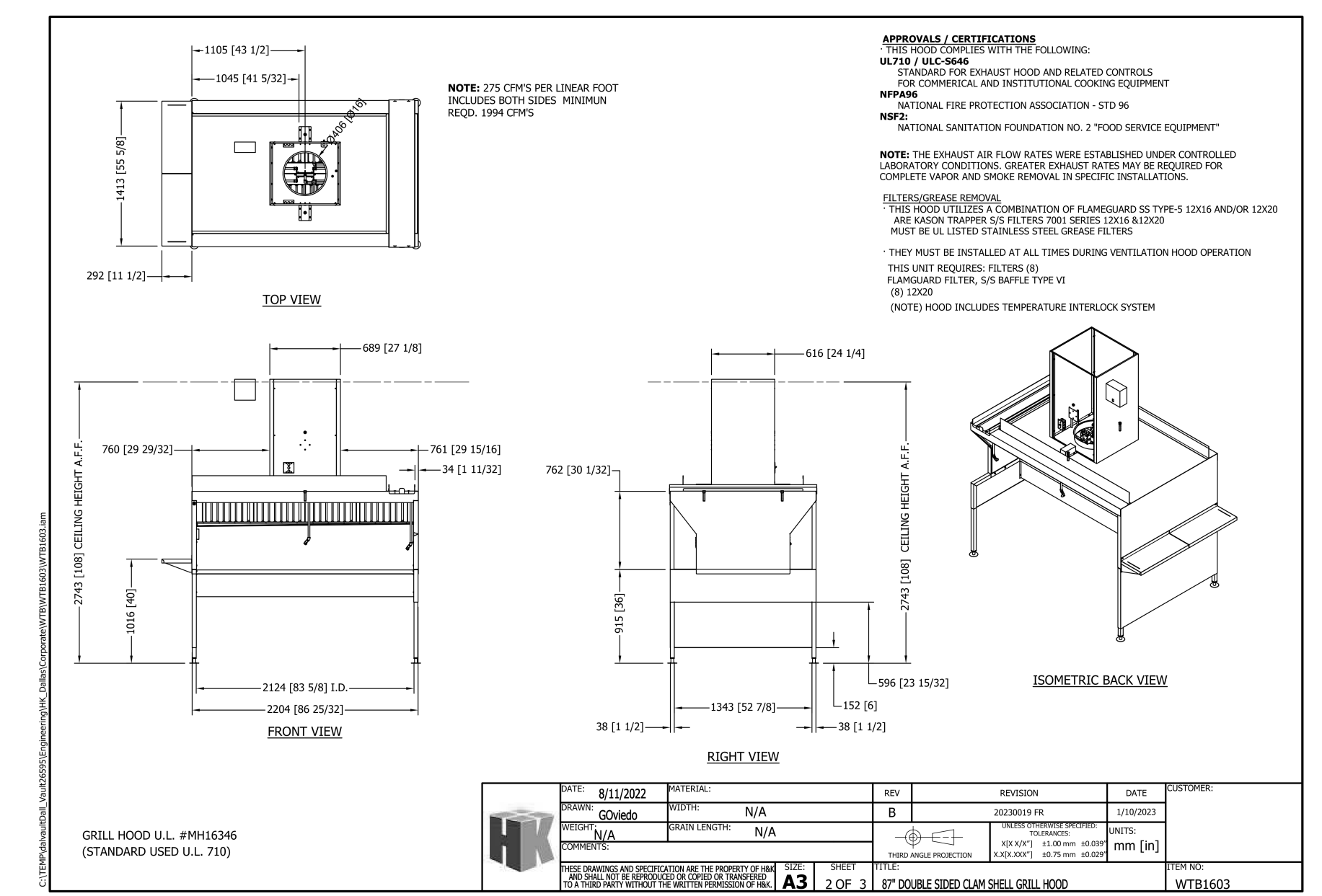
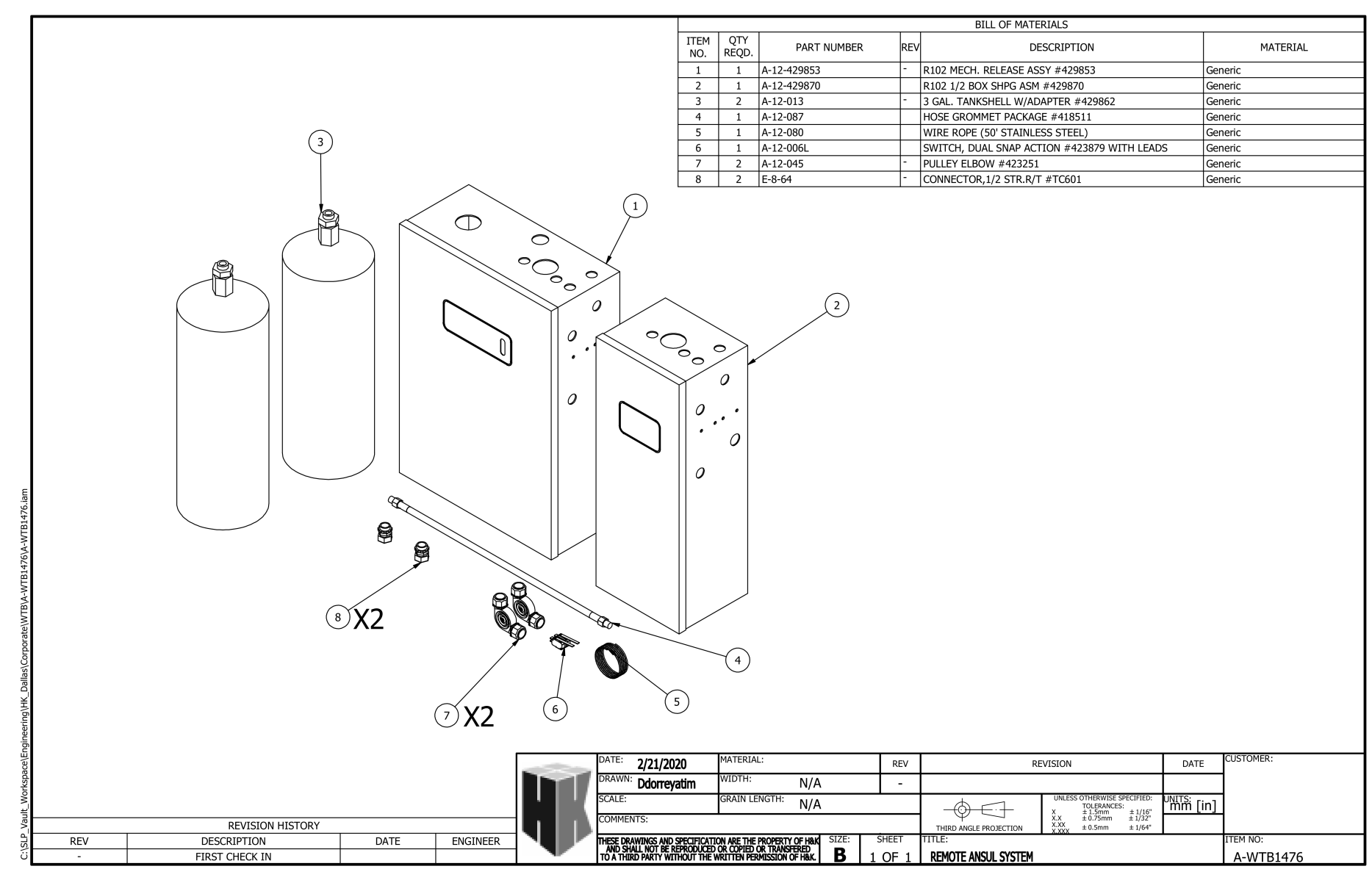
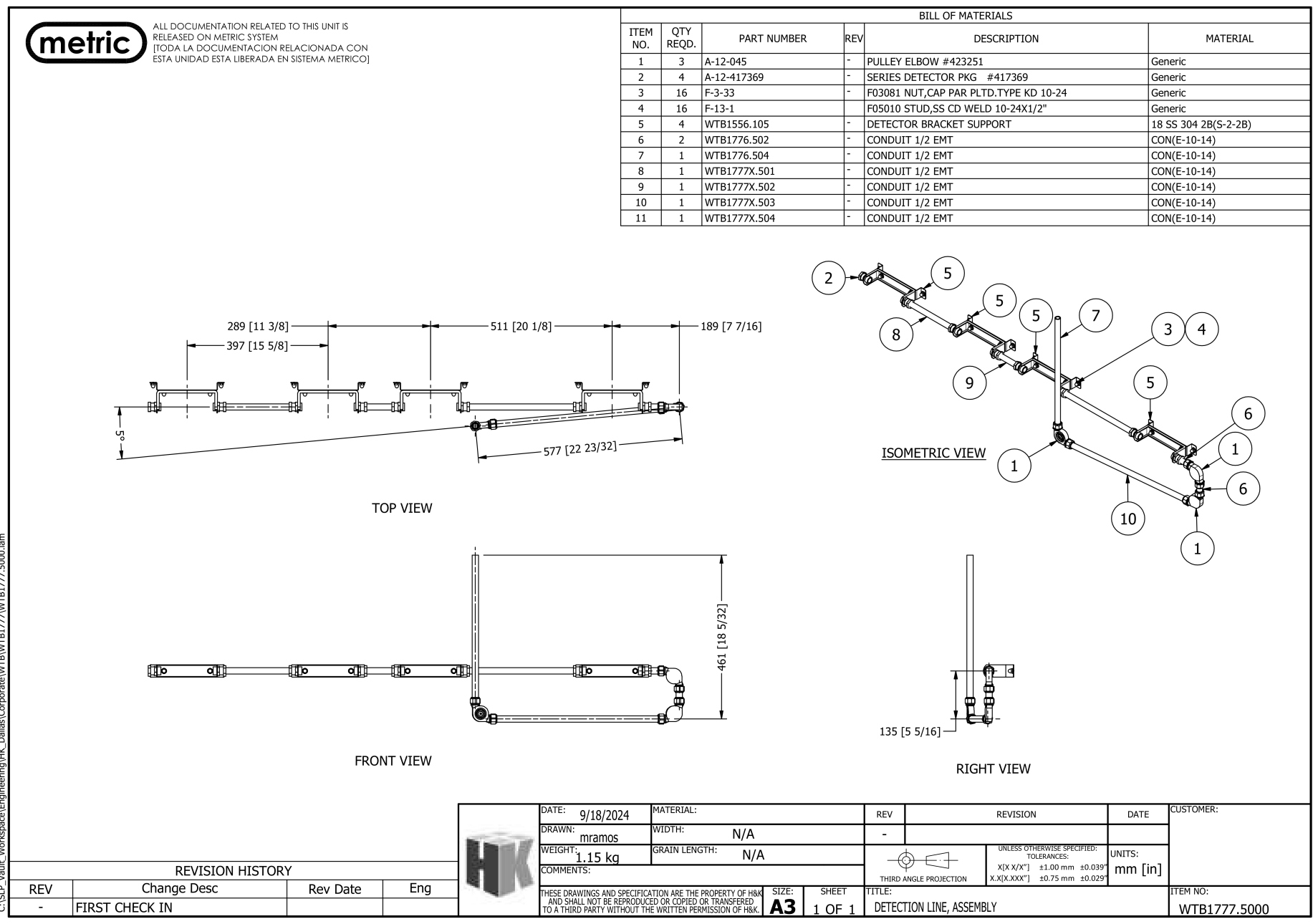
sevan
DESIGN SOLUTIONS, P.C.
Corporate Office
3025 Highland Parkway | Suite 850
Downers Grove, IL 60515
info@sevan.com
www.sevan.com

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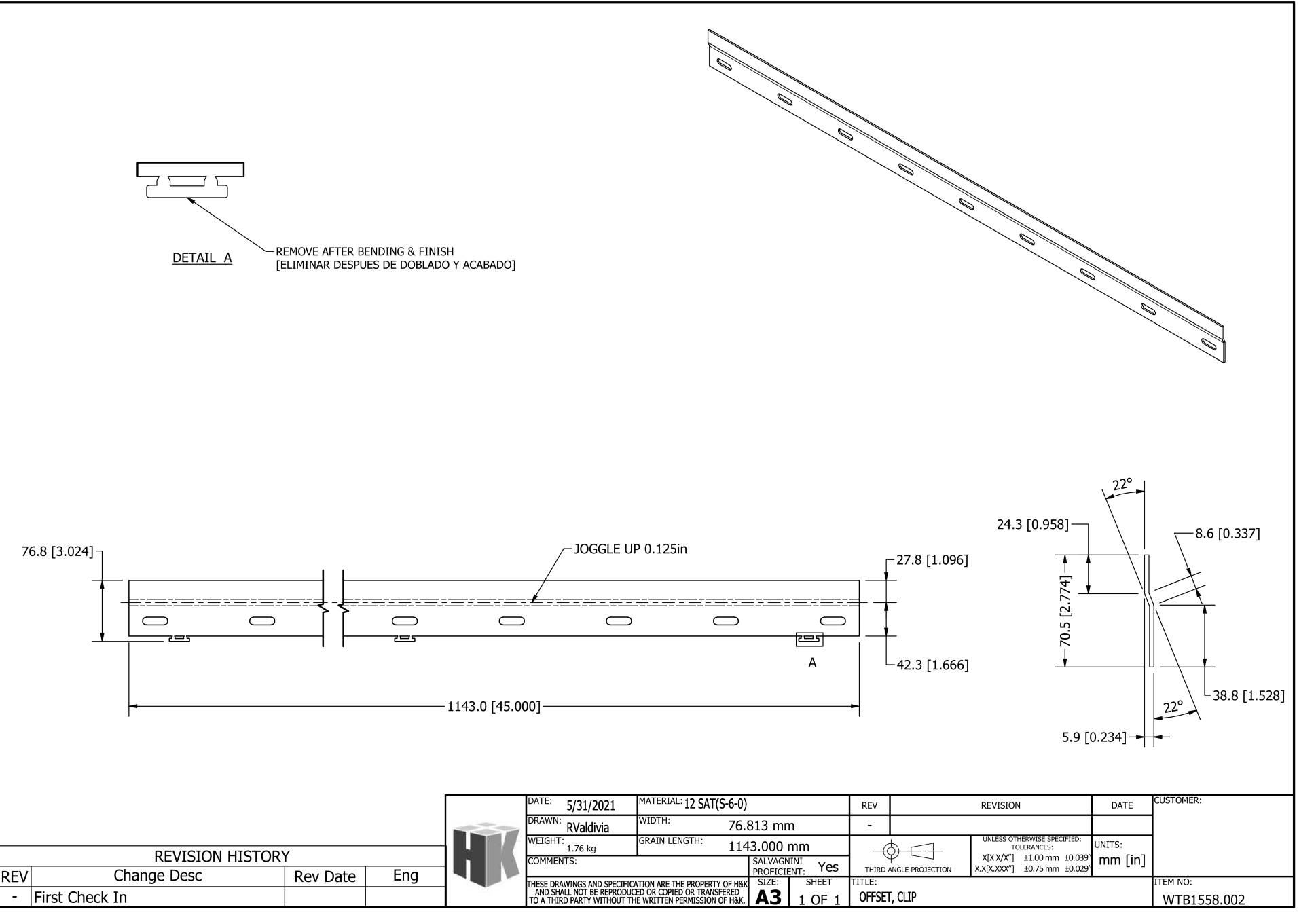
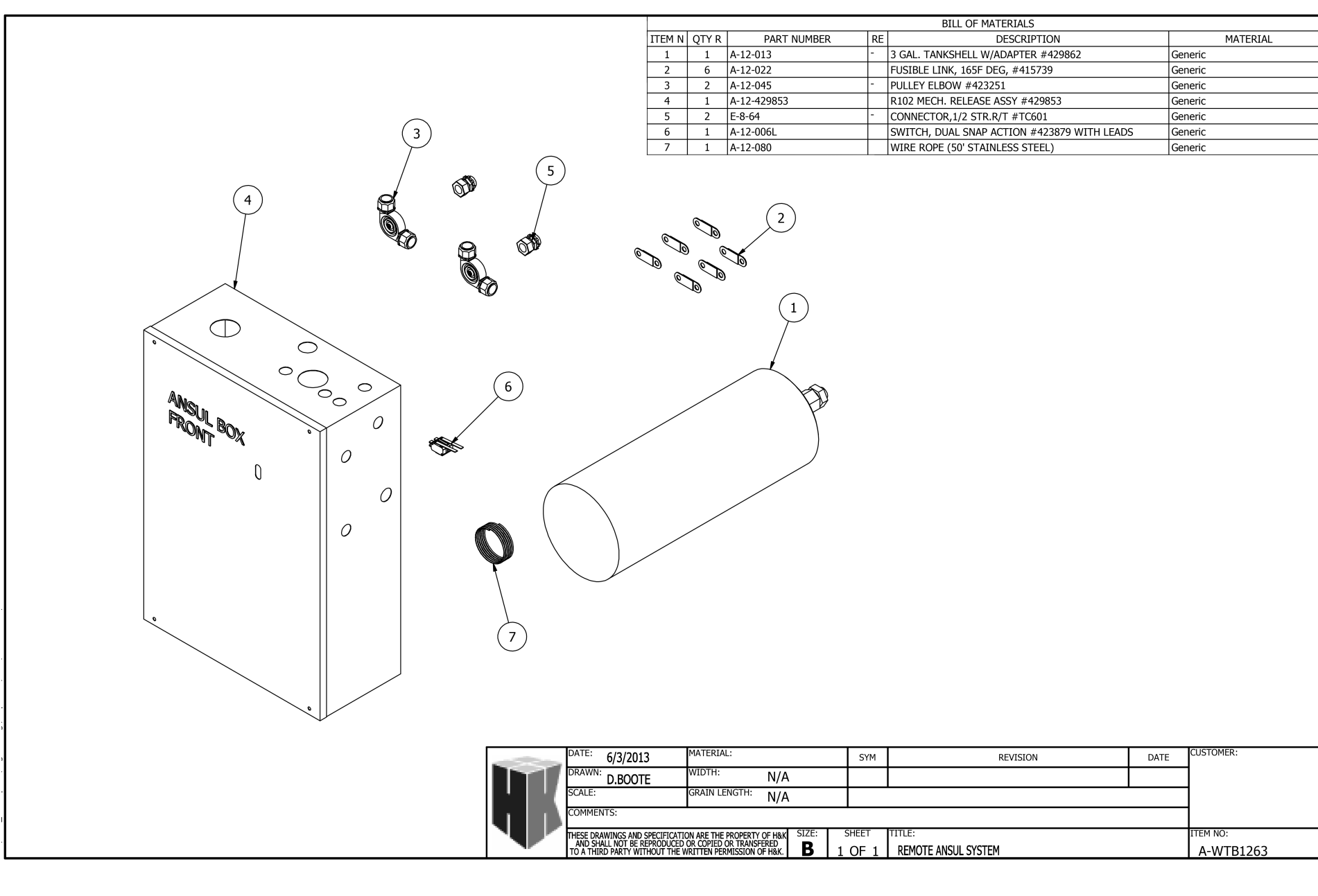
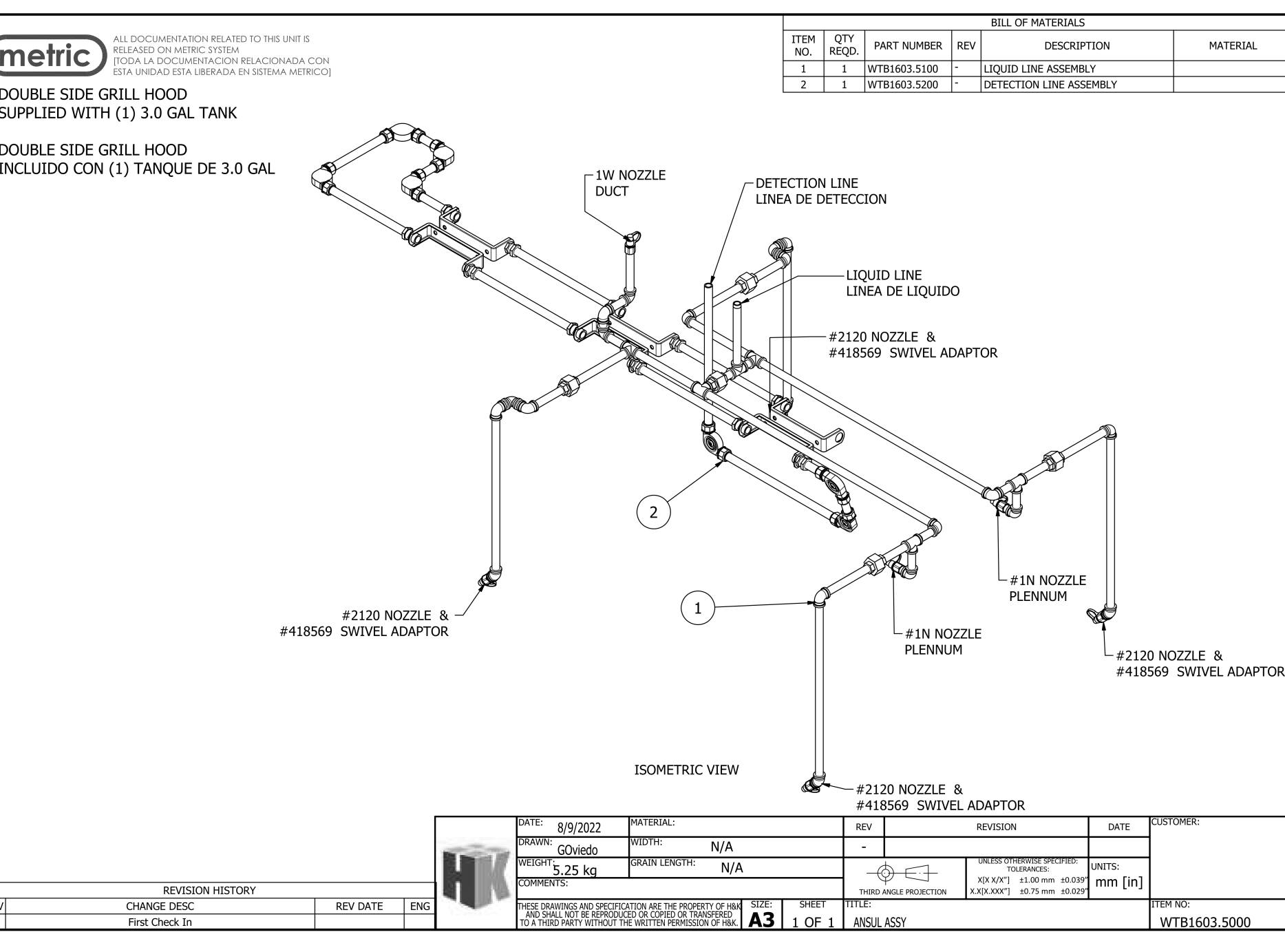


DATE: 10/22/2025
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1	ISSUED FOR PERMIT	06/23/2025
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25340 SIERRA CENTER BLVD,
LUTZ, FL 33559



Autodesk Docs: /WBR - Lutz FL\WBR_LUTZ_FL_MECH_R22.rvt 10/22/2025 12:08:54 PM

Project No.: 1687
Client Project No.:
Drawing Title: MECHANICAL HOOD DETAILS
Date: 10/22/2025 Phase: IFC SET
Designed: DG
Drawn: DG
Checked: JT
Drawing No.: M5.2

VENTILATION SCHEDULE - 2021 IMC - 2023FBC FLORIDA BUILDING CODE

ROOM NO.	ROOM AREA SF	ROOM NAME	OCCUPANCY CLASSIFICATION	TOILET ROOM # WC+UR	OCC. DENSITY PER/1000 SF	AIRFLOW RATE CFM/ PERSON	AIRFLOW RATE CFM/SF	EXHAUST RATE CFM/SF	EXHAUST RATE (CONT.) CFM/FIXT	EXHAUST RATE (INTERM.) CFM/FIXT	REQUIRED OUTDOOR VENTILATION AIR & NUMBER OF PEOPLE				EXHAUST		SUPPLY		REMARKS		
											OA(PER)	OA(SF)	TOTAL OA (Ez = 1)	REQUIRED (CFM)	ACTUAL (CFM)	SYSTEM	ACTUAL (CFM)	SYSTEM			
100	36	ENTRY	PUBLIC - CORRIDORS		0	0	0.06	0	0	0	0	0	3	3	0.0		400	RTU-1			
101	866	DINING ROOM	FOOD & BEV - DINING ROOMS		70	7.5	0.18	0	0	0	61	457.5	156	614	0.0		3,400	RTU-2			
105	98	SERVING AREA	OFFICE - OFFICE SPACES		5	5	0.06	0	0	0	1	5	6	11	0.0		400	RTU-1			
104	40	WOMENS TOILET RM	PUBLIC - TOILETROOMS	1	0	0	0	0	50	70	0	0	0	0	70.0	100	EF-1	50	RTU-3		
103	40	MENS TOILET RM	PUBLIC - TOILETROOMS	1	0	0	0	0	50	70	0	0	0	0	70.0	100	EF-1	50	RTU-3		
102	59	HALL	PUBLIC - CORRIDORS		0	0	0.06	0	0	0	0	0	4	4	0.0				RTU-2	SUPPLY FROM DINING	
106	975	KITCHEN	FOOD & BEV - KITCHEN (COOKING)		20	7.5	0.12	0.7	0	0	20	150	118	268	682.6	3085	KEF-1&2	5,800	RTU-3/1		
110	41	OFFICE	OFFICE - OFFICE SPACES		5	5	0.06	0	0	0	1	5	3	8	0.0				RTU-3	SUPPLY FROM KITCHEN	
111	183	DRY STORAGE	STORAGE - STORAGE ROOMS		0	0	0.12	0	0	0	0	0	22	22	0.0				300	RTU-1	
TOTAL:											930	822.6	3285	10400							

EXHAUST FAN SCHEDULE

TAG	TYPE	MANUFACTURER	MODEL	AIR FLOW (CFM)	TSP (IN W.C.)	RPM	BHP	HP	DRIVE TYPE	VOLTAGE	PHASE	WEIGHT (LBS.)	NOTES
KEF-1	ROOF MOUNTED UPBLAST	GREENHECK	CUE-140-VG	1995	1.00	1517	0.66	0.75	DIRECT	208	1	119	2,3,4,6,7
KEF-2	ROOF CENTRIFUGAL UPBLAST	GREENHECK	CUE-120-VG	1091	0.75	1338	0.22	0.25	DIRECT	208	1	96	2,3,5,6,7

NOTES:
1. NOT USED.
2. PROVIDE WITH INTEGRAL DISCONNECT SWITCH.
3. PROVIDE GREASE BOX.
4. PROVIDE INSULATED AND VENTED 26" SQUARE ROOF CURB. ROOF CURB TO BE HURRICANE RATED - REFER TO STRUCTURAL FOR WIND RATING.
5. PROVIDE INSULATED AND VENTED 22" SQUARE ROOF CURB. ROOF CURB TO BE HURRICANE RATED - REFER TO STRUCTURAL FOR WIND RATING.
6. PROVIDE HINGED ACCESS KIT.
7. PROVIDE STAINLESS STEEL FASTNERS.

AIR DEVICE SCHEDULE

TAG	MANUFACTURER	MODEL	FACE SIZE	NECK SIZE (IN.)	MAX NC	PATTERN	MOUNTING	SLOT LENGTH	SLOT WIDTH	SLOT QTY	SYSTEM CLASSIFICATION	COMMENTS
A6	TITUS	TMS	24 X 24	12	30	4-WAY	LAY-IN	-	-	-	SUPPLY AIR	1

NOTES:
1. PROVIDE BACKPAN INSULATION.

AIR BALANCE AND VENTILATION CALCULATION:

TOTAL OUTSIDE AIR INTAKE = 3435 CFM
TOTAL GREASE HOOD EXHAUST = 3085 CFM
TOTAL RESTROOM EXHAUST = 200 CFM

OUTSIDE AIRFLOW - (GREASE HOOD EXHAUST AIRFLOW + RESTROOM EXHAUST AIRFLOW) = NET POSITIVE AIRFLOW
3435 CFM - (3085 + 200) = 150 CFM

KITCHEN HOOD SCHEDULE

MANUFACTURER	MODEL	DESCRIPTION	EXHAUST VENT DIAMETER	EXHAUST VOLUME
H&K DALLAS INC.	CUSTOM	87" DOUBLE SIDED GRILL HOOD	1'-4"	1994
H&K DALLAS INC.	WTB1777	65.5" WALL MOUNT FRY HOOD	1'-0"	1091

FLEX DUCT SCHEDULE

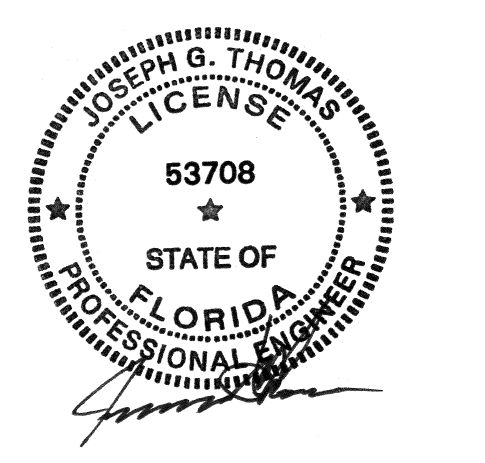
CFM RANGE	SIZE (DIAMETER) *
< 50	5
51 - 100	6
101 - 250	8
251 - 400	10
401 - 650	12
651 - 900	14
901 - 1300	16
1301 - 1800	18
1801 - 2300	20

* ALL FLEX DUCT SHALL BE SIZED IN ACCORDANCE W/ FLEX DUCT SCHEDULE. PROVIDE RIGID REDUCER AT NECK OF AIR DEVICE, VAV INLET DUCT, ETC. TO TRANSITION FROM FLEX DUCT SIZE TO DIFFUSER INLET AND/OR EQUIPMENT CONNECTION SIZE. FLEX DUCT NOT TO EXCEED 5ft.



SEAL

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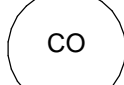

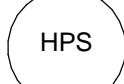



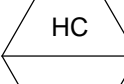

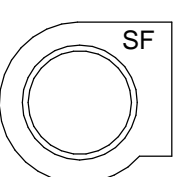
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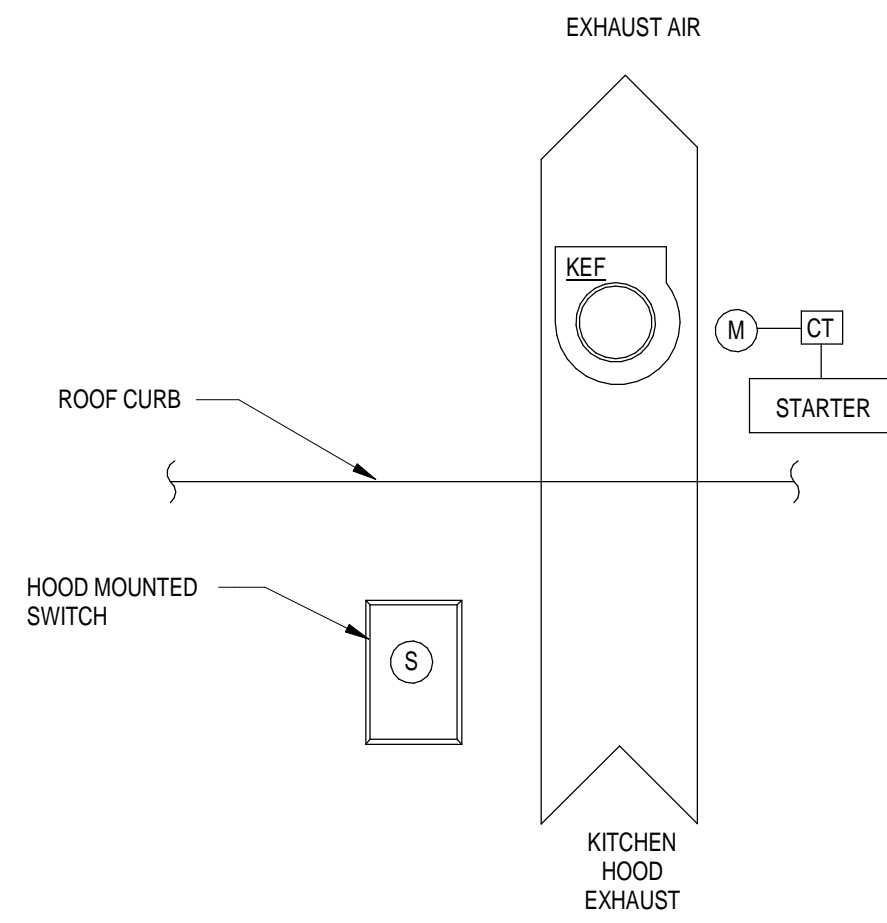
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LUTZ, FL 33559



Project No.: 1687
Client Project No.:
Drawing Title:
MECHANICAL SCHEDULES
Date: 10/22/2025 Phase: IFC SET
Designed: DG Drawing No.:
Drawn: DG
Checked: JT **M6.1**

CONTROL SYMBOLS

AE	ANALYZER ELEMENT		CARBON MONOXIDE SENSOR
DDC	DIRECT DIGITAL CONTROL		
BMS	BUILDING MANAGEMENT SYSTEM		
RDC	ROOFTOP UNIT DDC CONTROLLER		COMMUNICATION SIGNAL
FACP	FIRE ALARM CONTROL PANEL		
DPI	DIFFERENTIAL PRESSURE INDICATOR		HIGH STATIC PRESSURE SENSOR
DPS	DIFFERENTIAL PRESSURE SWITCH		DAMPER ACTUATOR
DPT	DIFFERENTIAL PRESSURE TRANSMITTER		CONTROL VALVE
EDH	ELECTRIC DUCT HEATER		DX COOLING COIL
EF	EXHAUST FAN		NATURAL GAS HEATING COIL
FE	FLOW ELEMENT		HOT GAS REHEAT
FLTR	FILTER		SUPPLY AIR FAN
FS	FLOW SWITCH		
H	HUMIDISTAT		
HL	HIGH TEMPERATURE LIMIT SWITCH		
M	MOTOR		
PCV	PRESSURE CONTROL VALVE		
PT	PRESSURE TRANSMITTER		
SMK	SMOKE DETECTOR		
T	TEMPERATURE SENSOR		
TCV	TEMPERATURE CONTROL VALVE		
TSL	LOW LIMIT THERMOSTAT (FREEZESTAT)		
TT	TEMPERATURE TRANSMITTER		
VFD	VARIABLE FREQUENCY DRIVE		
STARTER	MOTOR STARTER (PROVIDE CONTROL RELAY)		
CT	CURRENT TRANSDUCER		
OS	OCCUPANCY SENSOR		



SEQUENCE OF OPERATION

OPERATING CONDITIONS - CONTINUOUS 24/7:
THE KITCHEN HOOD EXHAUST FAN SHALL RUN CONTINUOUSLY WHEN THE KITCHEN HOOD MOUNTED SWITCH IS ON.

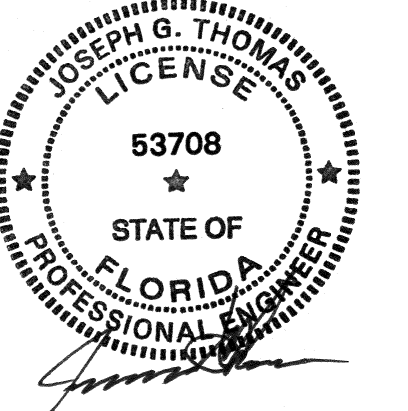
INTEGRATED ANSUL FIRE SUPPRESSION SYSTEM:
UPON ACTIVATION OF THE INTEGRATED ANSUL FIRE SUPPRESSION SYSTEM DURING NORMAL KITCHEN OPERATION, THE KITCHEN HOOD EXHAUST FAN SHALL REMAIN ENERGIZED.

FIRE/SMOKE CONTROL:
UPON SENSING DUCT SMOKE, THE KITCHEN EXHAUST FAN SHALL BE CYCLED OFF. FAN STATUS SHALL BE REPORTED TO THE BAS.

C2 KITCHEN HOOD EXHAUST FAN CONTROL DIAGRAM
N.T.S.

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LUTZ, FL 33559



Project No.: 1687

Client Project No.:

Drawing Title:

MECHANICAL CONTROLS

Date: 10/22/2025 Phase: IFC SET

Designed: DG Drawing No.:

Drawn: DG

Checked: JT

M7.1