(#) KEYED NOTES

1 LOCATION OF DIGITAL THERMOSTAT CONTROL. INSTALL AND WIRE NEW 7-DAY PROGRAMMABLE THERMOSTAT. COORDINATE EXACT LOCATION WITH ARCHITECT AND OWNER PRIOR TO ROUGH-IN. PROVIDE LOCKABLE COVER.

2 EF-1 TO BE INTERLOCKED WITH TIME CLOCK.

3 CONNECT AIR DISTRIBUTION DUCT TO ROOF MOUNTED UNIT EQUIPMENT AS NECESSARY. PROVIDE TRANSITION IN CURB AS REQUIRED FOR UNIT CONNECTION.

4 TEMPERATURE SENSOR SHALL BE INSTALLED IN RETURN AIR DUCTWORK AND WIRE BACK TO T-STAT IN OFFICE.

5 6" EXHAUST AIR DUCT UP THROUGH ROOF. TERMINATE ON ROOF WITH GOOSENECK & BIRD SCREEN.

6 Ø3"/Ø5" CONCENTRIC VENT LINE FOR COMBUSTION AIR INTAKE / EXHAUST FROM GAS FIRED EQUIPMENT TO ROOF TERMINATION KIT. ROUTE PIPING FROM RESPECTIVE UNIT TO LOCATION INDICATED ON ROOF PLAN. ROUTE PIPING WITH MINIMAL AMOUNT OF BENDS AND MINIMUM LENGTH AS REQUIRED BY RESPECTIVE UNIT MANUFACTURER'S REQUIREMENTS.

7 1" UNDER CUT TO BE PROVIDED FOR RETURN AIR TRANSFER.

THERMOSTATIC CONTROLS

A. C403.2.4.1 THERMOSTATIC CONTROLS (MANDATORY)

THE SUPPLY OF HEATING AND COOLING ENERGY TO EACH ZONE SHALL BE CONTROLLED BY INDIVIDUAL THERMOSTATIC CONTROLS CAPABLE OF RESPONDING TO TEMPERATURE WITHIN THE ZONE. WHERE HUMIDIFICATION OR DEHUMIDIFICATION OR BOTH IS PROVIDED, AT LEAST ONE HUMIDITY CONTROL DEVICE SHALL BE PROVIDED FOR EACH HUMIDITY CONTROL SYSTEM.

B. C403.2.4.1.2 DEADBAND (MANDATORY)

WHERE USED TO CONTROL BOTH HEATING AND COOLING, ZONE THERMOSTATIC CONTROLS SHALL BE CONFIGURED TO PROVIDE A TEMPERATURE RANGE OR DEADBAND OF NOT LESS THAN 5°F (2.8°C) WITHIN WHICH THE SUPPLY OF HEATING AND COOLING ENERGY TO THE ZONE IS SHUT OFF OR REDUCED TO A MINIMUM.

C. C403.2.4.1.3 SETPOINT OVERLAP RESTRICTION (MANDATORY)

WHERE A ZONE HAS A SEPARATE HEATING AND A SEPARATE COOLING THERMOSTATIC CONTROL LOCATED WITHIN THE ZONE, A LIMIT SWITCH, MECHANICAL STOP OR DIRECT DIGITAL CONTROL SYSTEM WITH SOFTWARE PROGRAMMING SHALL BE CONFIGURED TO PREVENT THE HEATING SETPOINT FROM EXCEEDING THE COOLING SETPOINT AND TO MAINTAIN A DEADBAND IN ACCORDANCE WITH SECTION C403.4.1.2.

D. C403.2.4.2.1 THERMOSTATIC SETBACK. (MANDATORY)

THERMOSTATIC CONTROLS SHALL HAVE THE CAPABILITIES TO SET BACK OR TEMPORARILY OPERATE THE SYSTEM TO MAINTAIN ZONE TEMPERATURE DOWN TO 55 DEG. F (13 DEG. C) OR UP TO 85 DEG.F (29 DEG. C).

E. C403.2.4.2.2 AUTOMATIC SETBACK AND SHUTDOWN (MANDATORY)

AUTOMATIC TIME CLOCK OR PROGRAMMABLE CONTROLS SHALL BE CAPABLE OF STARTING AND STOPPING THE SYSTEM FOR SEVEN DIFFERENT DAILY SCHEDULES PER WEEK AND RETAINING THEIR PROGRAMMING AND TIME SETTING DURING A LOSS OF POWER FOR NOT FEWER THAN 10 HOURS. ADDITIONALLY, THE CONTROLS SHALL HAVE A MANUAL OVERRIDE THAT ALLOWS TEMPORARY OPERATION OF THE SYSTEM FOR UP TO 2 HOURS; A MANUALLY OPERATED TIMER CONFIGURED TO OPERATE THE SYSTEM FOR UP TO 2 HOURS; OR AN OCCUPANCY SENSOR.

F. C403.2.4.1.3 SETPOINT OVERLAP RESTRICTION

WHERE A ZONE HAS A SEPARATE HEATING AND A SEPARATE COOLING THERMOSTATIC CONTROL LOCATED WITHIN THE ZONE , A LIMIT SWITCH, MECHANICAL STOP OR DIRECT DIGITAL CONTROL SYSTEM WITH SOFTWARE PROGRAMMING SHALL BE PROVIDED WITH THE CAPABILITY TO PREVENT THE HEATING SET POINT FROM EXCEEDING THE COOLING SET POINT AND TO MAINTAIN A DEADBAND IN ACCORDANCE WITH SECTION C403.2.4.1.2.

G. C403.2.4.3 AUTOMATIC START

AUTOMATIC START CONTROLS SHALL BE PROVIDED FOR EACH HVAC SYSTEM. THE CONTROLS SHALL BE CAPABLE OF AUTOMATICALLY ADJUSTING THE DAILY START TIME OF THE HVAC SYSTEM IN ORDER TO BRING EACH SPACE TO THE DESIRED OCCUPIED TEMPERATURE IMMEDIATELY PRIOR TO SCHEDULED OCCUPANCY.

BUILDING DEPARTMENT NOTES:

ALL WORK SHALL COMPLY WITH APPLICABLE SECTIONS OF 2015 IBC AND ALL AMENDMENTS AND RULES AND REGULATIONS OF THE DEPARTMENT OF BUILDINGS TO DATE.

1. THE LICENSED PROFESSIONAL ENGINEER, ARCHITECT OR OTHER PERSON HAVING NOT LESS THAN FIVE (5) YEARS EXPERIENCE SUPERVISING THE INSTALLATION OF SUCH MECHANICAL SYSTEMS AND CONDUCTING SUCH TESTS WILL FILE DOCUMENTATION AND REPORTS OF TESTS THAT THE SYSTEM COMPLIES WITH THE CONSTRUCTION DOCUMENTS AND APPLICABLE LAWS.

2. TESTS OF MECHANICAL SYSTEMS SHALL BE PERFORMED IN ACCORDANCE WITH THE FOLLOWING SECTIONS OF THE 2015 IMC:

   A. VENTILATION SYSTEM SERVING COMMERCIAL COOKING APPLIANCES - MC 506

3. THE FOLLOWING WORK ITEMS, COMPONENTS, MATERIALS, CAPACITIES, ETC. SHALL COMPLY WITH THE REFERENCED CODE OR STANDARD:

   A. DUCT CONSTRUCTION AND INSTALLATION- 2015 IMC 603
   B. AIR INTAKES, EXHAUSTS AND RELIEF - 2015 IMC 401.5
   C. GAS FIRED EQUIPMENT -2015 INTERNATIONAL FUEL GAS CODE

4. MINIMUM TEMPERATURE TO BE MAINTAINED IN OCCUPIED SPACES DURING HEATING SEASON: 68 DEG. FAHRENHEIT.

5. VENTILATION FOR ALL AREA SHALL COMPLY WITH 2015 IMC 401.

6. A STATEMENT SHALL BE FILED BY THE OWNER OR TENANT IN POSSESSION THAT THE VENTILATION SYSTEM WILL BE KEPT IN CONTINUOUS OPERATION AT ALL TIMES DURING THE NORMAL OCCUPANCY OF THE STRUCTURE AS REQUIRED BY 2015 IMC 403.3

7. REFER TO ARCHITECTURAL DRAWINGS FOR REQUIRED FIRE-RATED WALL AND SMOKE WALL CONSTRUCTION AND LOCATION.

8. THESE PLANS ARE APPROVED ONLY FOR THE WORK INDICATED ON THE APPLICATION SPECIFICATION SHEET. ALL OTHER MATTERS SHOWN ARE NOT TO BE RELIED UPON OR TO BE CONSIDERED AS BEING APPROVED OR IN ACCORDANCE WITH APPLICABLE CODES.

9. ALL HEATING AND COOLING LOADS CALCULATED PER ASHRAE/ACCA 183.

10. SMOKE DETECTOR SHALL MEET UL268A.

11. VENTILATION SYSTEMS SHALL BE BALANCED TO MAINTAIN THE MINIMUM VENTILATION AIRFLOW RATE AS SHOWN IN VENTILATION REQUIREMENT TABLE. THIS SYSTEM SHALL BE BALANCED BY APPROVED METHOD - IMC 2015 403.3.1.5. CONTRACTOR SHALL SUBMIT THE AIR BALANCE REPORT TO THE INSPECTOR.

12. INDOOR DUCT AND PLENUM INSULATION SCHEDULE; (SECTION 230713)
   A. CONCEALED, RECTANGULAR, ROUND AND FLAT-OVAL, SUPPLY-RETURN, OUTDOOR-AND EXHAUST-AIR DUCT AND AIR PLENUM INSULATION:
   B. FLEXIBLE ELASTOMERIC, MINERAL-FIBER BLANKET, MINERAL-FIBER BOARD OR POLYOLEFIN WITH MINIMUM INSTALLED THERMAL RESISTANCE AS FOLLOWS:
   UNCONDITIONED SPACES WITHIN BUILDING: R-6
   WITHIN BUILDING ENVELOPE ASSEMBLY: R-8
   OUTSIDE OF BUILDING: R-8

MECHANICAL NOTES:

A. ALL WORK SHALL COMPLY WITH ALL LOCAL AND STATE CODES AND AUTHORITIES HAVING JURISDICTION.
B. THE CONTRACTOR SHALL SECURE AND PAY FOR ALL REQUIRED PERMITS AND ARRANGE ALL REQUIRED INSPECTIONS.
C. THE CONTRACTOR SHALL COORDINATE HIS WORK WITH OTHER CONTRACTORS AND TRADES.
D. THESE DRAWINGS, AS PREPARED, ARE DIAGRAMMATIC BUT SHALL BE FOLLOWED AS CLOSELY AS CONSTRUCTION OF THE PROJECT AND THE WORK OF THE TRADES WILL PERMIT. EQUIPMENT LOCATIONS INDICATED ARE APPROXIMATE. COORDINATE EXACT LOCATIONS AND REQUIRED CLEARANCES WITH EQUIPMENT SUPPLIER AND ALL TRADES PRIOR TO INSTALLATION.
E. THE CONTRACTOR SHALL FURNISH AND INSTALL ALL THE EQUIPMENT INDICATED WITHIN THE MECHANICAL DRAWINGS UNLESS OTHERWISE NOTED. ALL EQUIPMENT SHALL BE UL LISTED. VERIFY LOCATION AND DIMENSIONS IN THE FIELD PRIOR TO FABRICATION AND / OR INSTALLATION.
F. ALL ROOF PENETRATIONS SHALL BE AT THE CONTRACTOR'S EXPENSE. COORDINATE WITH OWNER'S ROOFING CONTRACTOR SO AS NOT TO VOID ANY EXISTING ROOF WARRANTIES.
G. EACH UNIT GENERATING CONDENSATE SHALL BE PROVIDED WITH A CONDENSATE DRAIN WITH EXTERNAL, 4" DEEP P-TRAP. EXTEND DRAIN TO A ROOF MOUNTED SPLASH PAD OR AN ACCEPTABLE LOCATION REQUIRED BY CODE.
H. DUCT SIZES SHOWN ON DRAWINGS ARE CLEAR INSIDE DIMENSION.
I. ALL METAL DUCT AND AIR DISTRIBUTION DEVICES SHALL BE INSULATED WITH R-6, 75 DENSITY FOIL-BACKED INSULATION WITH FIRE AND SMOKE RATING 25-50).
J. ALL DUCTWORK SHALL BE FABRICATED, INSTALLED, SEALED, AND INSULATED PER THE LATEST ISSUE OF SMACNA LOW-VELOCITY DUCT MANUAL.
K. UNLESS OTHERWISE NOTED, ALL SUPPLY TAKEOFFS SHALL HAVE A MANUAL VOLUME CONTROL DAMPER.
L. ALL FLEX DUCT SHALL BE UL LISTED, R-6. FOIL-BACKED, CLASSIFIED AS A CLASS 1 AIR DUCT. MAXIMUM LENGTH IS TO BE 12'-O" PER DROP OR PER LOCAL CODE.
M. THE CONTRACTOR SHALL COORDINATE DIFFUSER LOCATIONS ON SITE WITH THE MOST RECENT REFLECTED CEILING PLAN.
N. THE CONTRACTOR IS TO MAKE ALL LOW-VOLTAGE WIRING CONNECTIONS FOR ALL HVAC EQUIPMENT INCLUDING TEMPERATURE CONTROLS, ROOF TOP UNITS, SMOKE DETECTORS AND CONTACTOR PANEL.
O. AIR MOVING SYSTEMS SUPPLYING AIR IN EXCESS OF 2000 CUBIC FEET PER MINUTE TO ENCLOSED SPACES SHALL BE EQUIPPED WITH AN AUTOMATIC SHUTOFF. AUTOMATIC SHUTOFF SHALL BE ACCOMPLISHED BY INTERRUPTING THE POWER SOURCE OF THE AIR-MOVING EQUIPMENT UPON DETECTION OF SMOKE IN THE MAIN SUPPLY AIR DUCT SERVED BY SUCH EQUIPMENT. WHERE FIRE DETECTION OR ALARM SYSTEMS ARE PROVIDED FOR THE BUILDING, THE SMOKE DETECTORS REQUIRED TO BE SUPERVISED BY SUCH SYSTEMS AND SHALL ACTIVATE THE FIRE ALARM SYSTEM.
P. THE ENTIRE INSTALLATION SHALL BE GUARANTEED FREE OF DEFECTS AND CONTRACTOR SHALL REPAIR AND / OR REPLACE ANY DEFECTIVE MATERIALS OR EQUIPMENT AT NO COST TO THE OWNER FOR A MINIMUM PERIOD OF ONE YEAR FROM THE DATE OF ACCEPTANCE BY ARCHITECT OR ENGINEER.
Q. ALL WORK SHALL BE SUBJECT TO THE ACCEPTANCE AND APPROVAL OF THE ARCHITECT AND OWNER. THE ARCHITECT SHALL BE NOTIFIED OF ANY AND ALL DISCREPANCIES BETWEEN FIELD CONDITIONS AND THE CONTRACT DOCUMENTS BEFORE PROCEEDING WITH THAT PORTION OF THE WORK. FAILURE OF PROPER NOTIFICATION DOES NOT RELIEVE THE CONTRACTOR. tHE CONTRACTOR SHALL CORRECT ANY AND ALL WORK ARISING FROM SUCH FAILURE TO COORDINATE DISCREPANCIES TO THE SATISFACTION OF THE ARCHITECT WITHOUT ADDITIONAL COST TO THE OWNER.
R. THE CONTRACTOR SHALL, UPON COMPLETION OF PROJECT, PERFORM A COMPLETE TEST AND BALANCE OF ALL EQUIPMENT. PROVIDE A WRITTEN REPORT TO THE ARCHITECT. ALL CAPACITIES MUST BE SET TO WITHIN ±10% OF AMOUNTS INDICATED ON THE FLOOR PLAN AND SCHEDULES.
S. ALL EQUIPMENT AND APPLIANCES REGULATED BY THE INTERNATIONAL MECHANICAL CODE AND INTERNATIONAL FUEL GAS CODE SHALL BE LISTED, LABELED FOR SPECIFIC USE AND INSTALLED PER CODE AND MANUFACTURER INSTRUCTIONS AS REQUIRED BY 2015 INTERNATIONAL MECHANICAL CODE SECTION 301.7 & CHAPTER 9 AND 2015 INTERNATIONAL FUEL GAS CODE SECTION 301.3 & CHAPTER 6.
T. PROVIDE FIRE OR FIRE+ SMOKE DAMPER WHEREVER DUCTS ARE CROSSING FIRE/SMOKE RATED WALL/BARRIERS. COORDINATE WITH ARCHITECTURAL DRAWING FOR FIRE RATING OF THE WALLS.
U. EXPOSED DUCT SHALL HAVE THE INTERNAL INSULATION AND CONCEALED DUCT SHALL HAVE EXTERNAL INSULATION.

EXHAUST FAN SCHEDULE

SYMBOL	MANUF	MODEL	CFM	TYPE	FAN RPM	S.P. (IN W.G.)	MOTOR H.P.	MOTOR VOLT	MOTOR PH.	SERVICE	INTERLOCKED WITH	NOTES / ACCESSORIES
EF1	BROAN	676	110	CEILING	-	0.375	1/8	120	1	RESTROOM	TIME CLOCK	1-6

NOTES / ACCESSORIES:
1. ALUMINIZED BIRDSCREEN
2. SAFETY DISCONNECT SWITCH
3. GRAVITY BACKDRAFT DAMPER
4. AMCA SEAL & UL CERTIFIED
5. SPEED CONTROL SWITCH MOUNTED TO FAN CABINET FOR EXACT BALANCING
6. COORDINATE WITH MANUFACTURER FOR FINAL SELECTION

DIFFUSER AND REGISTER SCHEDULE

UNIT ID	MANUFACTURER	MODEL	SIZE	DESCRIPTION	NOTES / ACCESSORIES
A	METALAIRE	5700-6 AL	24x24	ALUMINUM, 2-CONE SQUARE FACE OFFICE DIFFUSER WITH ROUND NECK. ALUMINUM, WITH ADJUSTABLE DISCHARGE AND RADIAL OPPOSED BLADE DAMPER, MODEL D3	1, 2, 3, 4, 5
B	METALAIRE	5700-6 AL	12x12	ALUMINUM, 2-CONE SQUARE FACE OFFICE DIFFUSER WITH ROUND NECK. ALUMINUM, WITH ADJUSTABLE DISCHARGE AND RADIAL OPPOSED BLADE DAMPER, MODEL D3	1, 2, 3, 4, 5
C	METALAIRE	RH-6	24x24	ALUMINUM RETURN GRILLE - 0.667" SPACING SET AT 45 DEGREE ANGLE, VOLUME CONTROL OPPOSED BLADE DAMPERS, MODEL OBDA	1, 2, 4
D	METALAIRE	4002PCF	10x6	ALUMINUM, SPIRAL MOUNT GRILLE. VERTICAL FRONT BLADES CURVED FLANGE AND AIR SCOOP, MODEL 4002PCF.	1, 2, 4
E	METALAIRE	RH-6	30x18	ALUMINUM RETURN GRILLE - 0.667" SPACING SET AT 45 DEGREE ANGLE, VOLUME CONTROL OPPOSED BLADE DAMPERS, MODEL OBDA	1, 2, 4

NOTES:
1. MAXIMUM NOISE CRITERION RATING <35 DBA.
2. BAKED ENAMEL FINISH, COLOR TO BE SELECTED BY ARCHITECT
3. DIFFUSERS SHALL BE 4-WAY BLOW UNLESS OTHERWISE INDICATED ON PLANS.
4. MOUNTING FRAME TYPE SHALL BE COORDINATE WITH CEILING / WALL CONSTRUCTION TYPE.
5. NECK SIZE SHALL BE AS SCHEDULED.

ROUND NECK SIZE SCHEDULE:
UP TO 100 CFM - 6" DIA.
101 TO 225 CFM - 8" DIA.
226 TO 375 CFM - 10" DIA.
376 TO 600 CFM - 12" DIA.
601 TO 900 CFM - 14" DIA.
901 TO 1100 CFM - 15" DIA.

ROOF TOP UNIT SCHEDULE

SYMBOL	TONS	MODEL NUMBER	AIR FLOW UNIT CFM	AIR FLOW OA CFM	AIR FLOW ESP (IN. WC)	COOLING TOTAL MBH	COOLING SENS MBH	SA TEMP DB/WB °F	HEATING EFF. % TYPE	HEATING INPUT MBH	HEATING OUTPUT MBH	ELECTRICAL V/PH/H	ELECTRICAL MCA	ELECTRICAL MOCP	REF.	EER	SEER	WEIGHT Lbs
RTU1	5	TRANE YSK060A4S0L	2000	355	1.0	57	45.8	80/67	81 % Std.	80	64.8	460/3/60	15	20	R454B	12	14	910 Approx.
RTU2	5	TRANE YSK060A4S0L	2000	235	1.0	57	45.8	80/67	81 % Std.	80	64.8	460/3/60	15	20	R454B	12	14	910 Approx.

NOTES:
1. CONTRACTOR TO BALANCE OUTSIDE AIR DAMPER ON RTU TO MATCH VALUE MENTIONED IN EQUIPMENT SCHEDULE.
2. 2" MERV 8 STANDARD FILTERS.
3. BOTTOM DISCHARGE & RETURN CONFIGURATION. ELECTRICAL CONNECTION TO BE SINGLE POINT AND TO BE THROUGH THE BOTTOM OF THE UNIT.
4. UNIT TO BE PROVIDED WITH LOW LEAKAGE VOLUME CONTROL DAMPER, NEMA 3R DISCONNECT, FAN WITH VFD, VIBRATION ISOLATION SPRING SUPPORTED BLOWER, INTAKE HOOD, SCREEN INTAKE.
5. STAINLESS STEEL DRIP PAN.
6. PROVIDE FLEXIBLE CONNECTION AT DUCT CONNECTION TO UNIT.
7. PROVIDE 14" ROOF CURB AND CONTRACTOR SHALL FILED INSULATE THE CURB.
8. PROVIDE 8-WIRE, 24 VAC, AUTOMATIC CHANGEOVER, 2-STAGE HEAT / COOL, REMOTELY PROGRAMMABLE THERMOSTAT.
9. PROVIDE VIBRATION ISOLATOR FOR UNIT MOUNTING.
10. REMOTE SENSORS SHALL BE PROVIDED IN RETURN AIR PATH & WIRED BACK TO PROGRAMMABLE, 24 HOUR, 7 DAY, THERMOSTATS.
11. PROVIDE ALL COMPRESSORS WITH 5 YEAR WARRANTY.
12. PLUMBING CONTRACTOR TO COORDINATE EXACT GAS REQUIREMENTS OF RTU'S INSTALLED ON SITE.
13. 1" CONDENSATE DRAIN WITH DEEP VENTED TRAP DISCHARGE TO SPLASH BLOCK ON ROOF.
14. DRY-BULB ECONOMIZER WITH BAROMETRIC RELIEF/25% MANUAL OUTSIDE AIR DAMPER ASSEMBLY HOOD. PROVIDE FDD.
15. PROVIDE HOT GAS REHEAT WITH ASSOCIATED CONTROLS AND SENSORS FOR DEHUMIDIFICATION CONTROL.

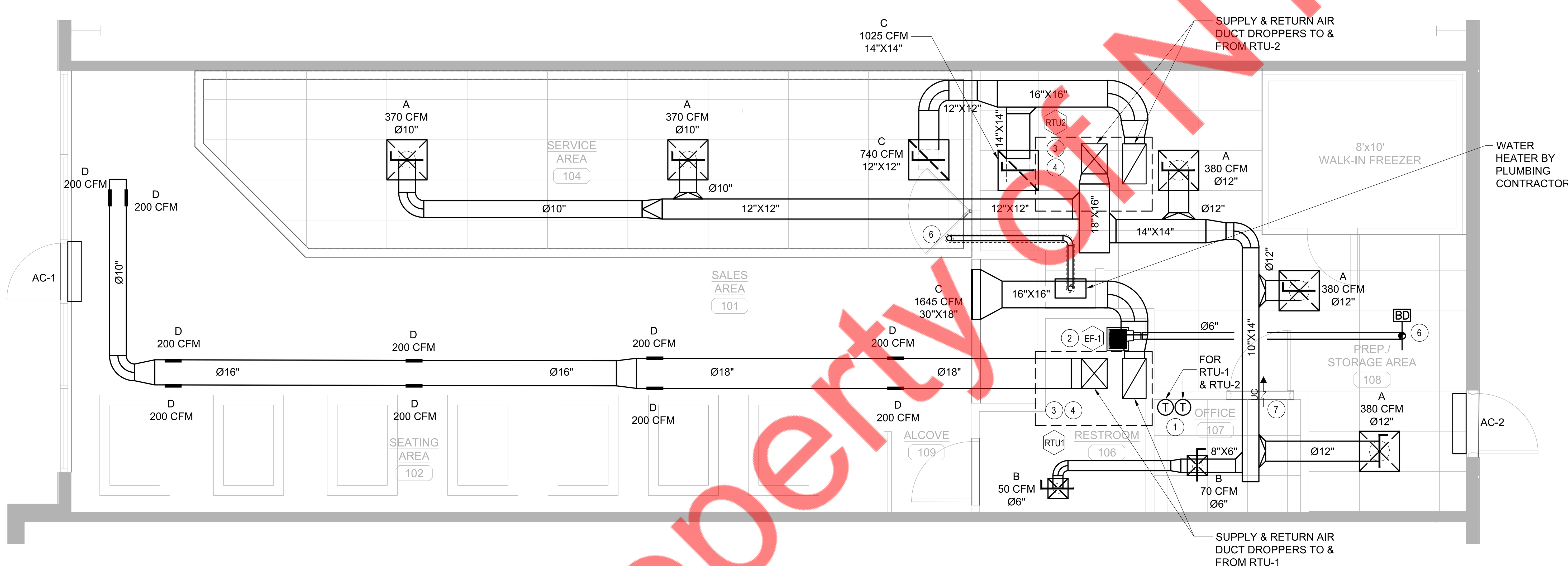
AIR CURTAIN SCHEDULE

UNIT ID	MANUFACTURER	MODEL	TYPE	ELECTRICAL (V/HZ/PH)	AMPS	NUMBER OF MOTORS	HP	CFM	dBA	DIMENSIONS (WXHXL)
AC-1 & AC-2	MARS	LPV236-1UA-OB	UNHEATED	115/60/1	2.4	1	1/6	900	49	36X8X8

NOTES:
1. PROVIDE MANUFACTURER RECOMMENDED ACCESSORIES.
2. COORDINATE WITH ELECTRICAL CONTRACTOR FOR POWER REQUIREMENT.

TESTING AND ADJUSTING NOTES

HVAC SYSTEM AND COMPONENTS WILL BE TESTED, ADJUSTED AND BALANCED IN ACCORDANCE WITH ONE OF THE FOLLOWING STANDARDS:
- TABB'S CONSTRUCTION SPECIFICATION INSTITUDE MASTERFORMAT
- NEBB'S STANDARDS FOR TESTING, ADJUSTMENT, AND BALANCING OF ENVIRONMENTAL SYSTEMS (7th. Ed.)
- AABC'S NATIONAL STARDARDS FOR TOTAL SYSTEM BALANCE (6th. Ed.)
- ASHRAE'S STANDARD 111-2008



MECHANICAL FLOOR PLAN (A)

1/4"=1'-0"

BASKIN ROBBINS

ARCHITECT

ENGINEER

NY ENGINEERS
NEARBY ENGINEERS

SHEET TITLE
MECHANICAL FLOOR PLAN

M-1.0

RDS PROJECT NUMBER: 24028 NOTE: DRAWINGS ARE NOT TO SCALE IF SHEET IS PLOTTED ON 11" x 17". PLOTS TO SCALE ON 24" x 36" SHEETS.

KEYED NOTES

1 CONNECT AIR DISTRIBUTION DUCT TO ROOF MOUNTED UNIT EQUIPMENT AS NECESSARY. PROVIDE TRANSITION IN CURB AS REQUIRED FOR UNIT CONNECTION.

2 COORDINATE FINAL LOCATION OF EQUIPMENT WITH STRUCTURAL DRAWINGS.

3 COMBUSTION AIR INTAKE AND FLUE VENT FROM GAS FIRED WATER HEATER, TERMINATE 10FT AWAY FROM MECHANICAL AIR INTAKE.

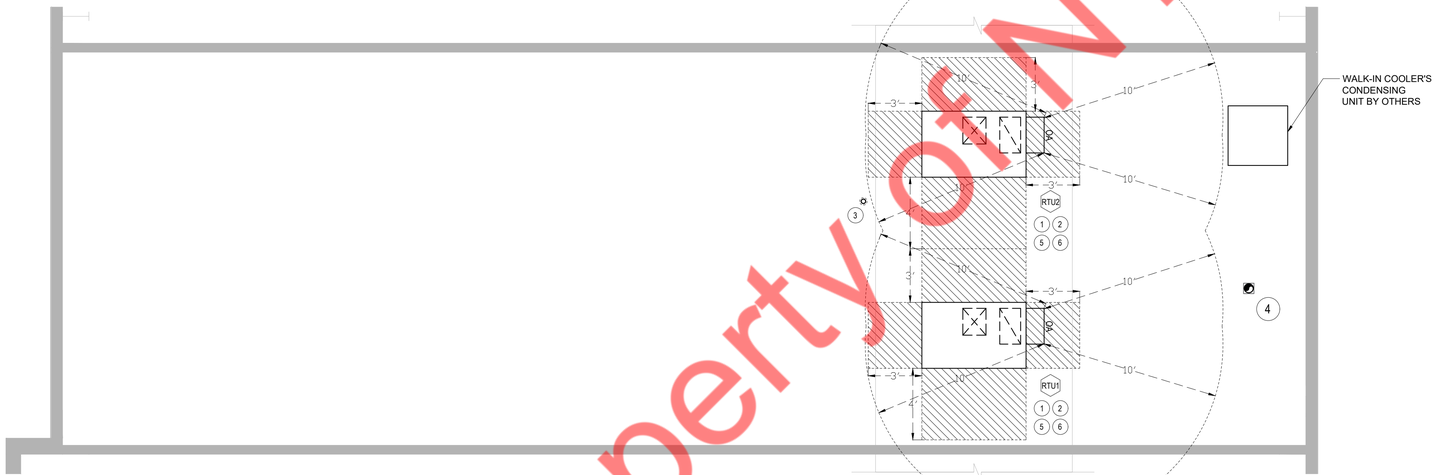
4 RESTROOM EXHAUST SHALL TERMINATE 3 FEET FROM THE PROPERTY LINE, 3 FEET FROM THE EXTERIOR WALL AND ROOFS, 3 FEET FROM THE OPERABLE OPENING INTO THE BUILDING AND 10 FEET FROM THE OUTSIDE AIR INTAKE OPENINGS.

5 CONTRACTOR TO FIELD VERIFY THAT THE LOCATION OF ANY EXHAUST SOURCE SHOULD BE AT LEAST 10' AWAY AND 3' ABOVE FROM THE RTU'S OUTSIDE AIR INTAKE.

6 CONTRACTOR TO RUN CONDENSATE DRAIN FROM RTU'S TO NEAREST ROOF DRAIN OR DOWN SPOUT. COORDINATE IN FIELD.

MECHANICAL NOTES

A. ALL WORK SHALL COMPLY WITH ALL LOCAL AND STATE CODES AND AUTHORITIES HAVING JURISDICTION.
B. THE CONTRACTOR SHALL SECURE AND PAY FOR ALL REQUIRED PERMITS AND ARRANGE ALL REQUIRED INSPECTIONS.
C. THE CONTRACTOR SHALL COORDINATE HIS WORK WITH OTHER CONTRACTORS AND TRADES.
D. THESE DRAWINGS, AS PREPARED, ARE DIAGRAMMATIC BUT SHALL BE FOLLOWED AS CLOSELY AS CONSTRUCTION OF THE PROJECT AND THE WORK OF THE TRADES WILL PERMIT. EQUIPMENT LOCATIONS INDICATED ARE APPROXIMATE. COORDINATE EXACT LOCATIONS AND REQUIRED CLEARANCES WITH EQUIPMENT SUPPLIER AND ALL TRADES PRIOR TO INSTALLATION.
E. THE CONTRACTOR SHALL FURNISH AND INSTALL ALL THE EQUIPMENT INDICATED WITHIN THE MECHANICAL DRAWINGS UNLESS OTHERWISE NOTED. ALL EQUIPMENT SHALL BE UL LISTED. VERIFY LOCATION AND DIMENSIONS IN THE FIELD PRIOR TO FABRICATION AND / OR INSTALLATION.
F. ALL ROOF PENETRATIONS SHALL BE AT THE CONTRACTOR'S EXPENSE. COORDINATE WITH OWNER'S ROOFING CONTRACTOR SO AS NOT TO VOID ANY EXISTING ROOF WARRANTIES.
G. EACH UNIT GENERATING CONDENSATE SHALL BE PROVIDED WITH A CONDENSATE DRAIN WITH EXTERNAL, 4" DEEP P-TRAP. EXTEND DRAIN TO A ROOF MOUNTED SPLASH PAD OR AN ACCEPTABLE LOCATION REQUIRED BY CODE.
H. DUCT SIZES SHOWN ON DRAWINGS ARE CLEAR INSIDE DIMENSION.
I. ALL METAL DUCT AND AIR DISTRIBUTION DEVICES SHALL BE INSULATED WITH R-6, 75 DENSITY FOIL-BACKED INSULATION WITH FIRE AND SMOKE RATING 25-50).
J. ALL DUCTWORK SHALL BE FABRICATED, INSTALLED, SEALED, AND INSULATED PER THE LATEST ISSUE OF SMACNA LOW-VELOCITY DUCT MANUAL.
K. UNLESS OTHERWISE NOTED, ALL SUPPLY TAKEOFFS SHALL HAVE A MANUAL VOLUME CONTROL DAMPER.
L. ALL FLEX DUCT SHALL BE UL LISTED, R-6, FOIL-BACKED, CLASSIFIED AS A CLASS 1 AIR DUCT. MAXIMUM LENGTH IS TO BE 10'-0" PER DROP OR PER LOCAL CODE.
M. THE CONTRACTOR SHALL COORDINATE DIFFUSER LOCATIONS ON SITE WITH THE MOST RECENT REFLECTED CEILING PLAN.
N. THE CONTRACTOR IS TO MAKE ALL LOW-VOLTAGE WIRING CONNECTIONS FOR ALL HVAC EQUIPMENT INCLUDING TEMPERATURE CONTROLS, ROOF TOP UNITS, SMOKE DETECTORS AND CONTACTOR PANEL.
O. AIR MOVING SYSTEMS SUPPLYING AIR IN EXCESS OF 2000 CUBIC FEET PER MINUTE TO ENCLOSED SPACES SHALL BE EQUIPPED WITH AN AUTOMATIC SHUTOFF. AUTOMATIC SHUTOFF SHALL BE ACCOMPLISHED BY INTERRUPTING THE POWER SOURCE OF THE AIR-MOVING EQUIPMENT UPON DETECTION OF SMOKE IN THE MAIN SUPPLY AIR DUCT SERVED BY SUCH EQUIPMENT. WHERE FIRE DETECTION OR ALARM SYSTEMS ARE PROVIDED FOR THE BUILDING, THE SMOKE DETECTORS REQUIRED TO BE SUPERVISED BY SUCH SYSTEMS AND SHALL ACTIVATE THE FIRE ALARM SYSTEM.
P. THE ENTIRE INSTALLATION SHALL BE GUARANTEED FREE OF DEFECTS AND CONTRACTOR SHALL REPAIR AND / OR REPLACE ANY DEFECTIVE MATERIALS OR EQUIPMENT AT NO COST TO THE OWNER FOR A MINIMUM PERIOD OF ONE YEAR FROM THE DATE OF ACCEPTANCE BY ARCHITECT OR ENGINEER.
Q. ALL WORK SHALL BE SUBJECT TO THE ACCEPTANCE AND APPROVAL OF THE ARCHITECT AND OWNER. THE ARCHITECT SHALL BE NOTIFIED OF ANY AND ALL DISCREPANCIES BETWEEN FIELD CONDITIONS AND THE CONTRACT DOCUMENTS BEFORE PROCEEDING WITH THAT PORTION OF THE WORK. FAILURE OF PROPER NOTIFICATION DOES NOT RELIEVE THE CONTRACTOR. THE CONTRACTOR SHALL CORRECT ANY AND ALL WORK ARISING FROM SUCH FAILURE TO COORDINATE DISCREPANCIES TO THE SATISFACTION OF THE ARCHITECT WITHOUT ADDITIONAL COST TO THE OWNER.
R. THE CONTRACTOR SHALL, UPON COMPLETION OF PROJECT, PERFORM A COMPLETE TEST AND BALANCE OF ALL EQUIPMENT. PROVIDE A WRITTEN REPORT TO THE ARCHITECT. ALL CAPACITIES MUST BE SET TO WITHIN ±10% OF AMOUNTS INDICATED ON THE FLOOR PLAN AND SCHEDULES.



NORTH

MECHANICAL ROOF PLAN — B
1/4"=1'-0"

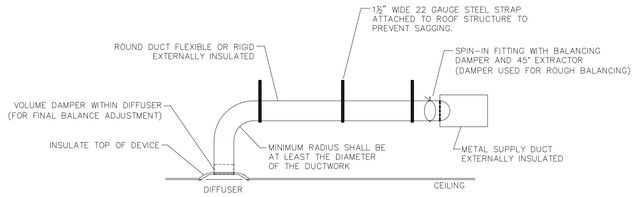
BASKIN ROBBINS

ARCHITECT

ENGINEER
NY ENGINEERS
NEARBY ENGINEERS
MICHAEL TOBIAS
382 NE 191ST STREET
SUITE 49674, MIAMI, FL 33179
PH-914.257.3455
WWW.NY-ENGINEERS.COM

SHEET TITLE
MECHANICAL ROOF PLAN

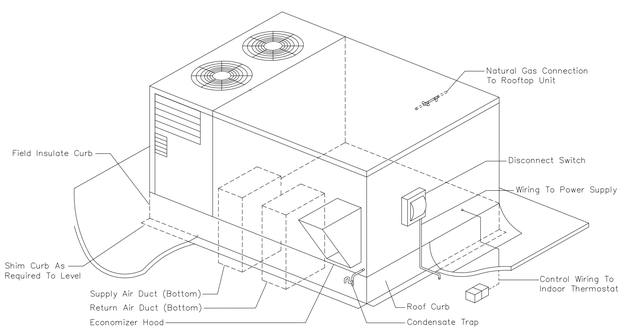
M-1.1



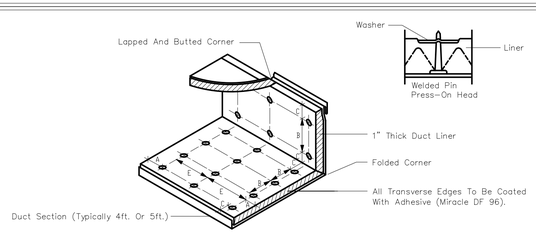
COMMENTS:

1. REFER TO THE MECHANICAL EQUIPMENT SCHEDULE FOR COMPONENT AND DEVICE SPECIFICATIONS.
2. SUPPORTS FOR FLEX DUCTWORK SHALL BE SPACED AT 4'–0" MAX. FLEX DUCT SHALL SAG NO MORE THAN ½"PER FOOT OF RUN.
3. ALL DUCT INSULATION SHALL HAVE A MINIMUM INSULATING VALUE OF R–6.
4. APPLY MASTIC DUCT SEALER AT EACH JOINT OR SEAM OR CONNECTION.
5. APPLY MASTIC TO DIFFUSER COLLAR AND SLIDE FLEX OVER WHILE STILL WET, BAND CLAMP AND TAPE.
6. SUPPORT DUCTWORK WITH 1½"WIDE 22 GAUGE STEEL STRAPS FIRMLY ATTACHED TO THE BUILDING STRUCTURE. SPACING SHALL BE MAXIMUM 10'–0" FOR RIGID DUCTWORK, AND MINIMUM 4'–0" FOR FLEXIBLE DUCTWORK. 12 GAUGE WIRE MAY BE SUBSTITUTED FOR STRAPS IF 1 ½" WIDE 22 GAUGE STEEL SADDLES ARE USED TO FULLY ENCIRCLE DUCT. REFER TO THE HVAC DUCT CONSTRUCTION STANDARDS PUBLISHED BY SMACNA FOR ADDITIONAL DETAILS. FULLY COMPLY WITH MECHANICAL CODES.

1 NTS — DIFFUSER / FLEX DUCT CONNECTION DETAIL



2 NTS — ROOF TOP UNIT SCHEMATIC DIAGRAM

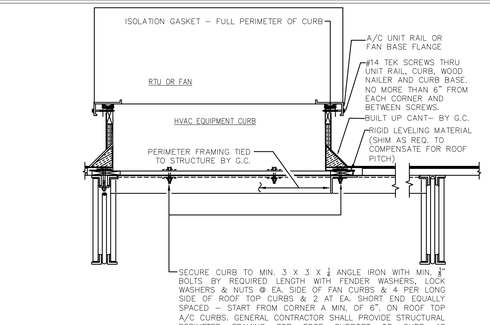


Velocity	Dimensions A	B	C	E
0–2500 FPM	3"	1/2"	4"	18"
2501–6000 FPM	3"	6"	4"	18"

COMMENTS:

1. LINER SHALL EXTEND A MINIMUM OF 15' FROM ALL SUPPLY RETURN AND EXHAUST DUCTWORK CONNECTED TO ANY FAN DRIVEN EQUIPMENT.
2. TOILET EXHAUST SYSTEM DUCTWORK DOES NOT REQUIRE LINING.
3. MAXIMUM SPACING FOR FASTENERS. ACTUAL INTERVALS ARE APPROXIMATE.
4. LINER ADHERED TO THE DUCT WITH 90% MIMIMUM AREA COVERAGE OF ADHESIVE.
5. THE VELOCITY RATED SIDE OF LINER MUST FACE THE AIR FLOW.

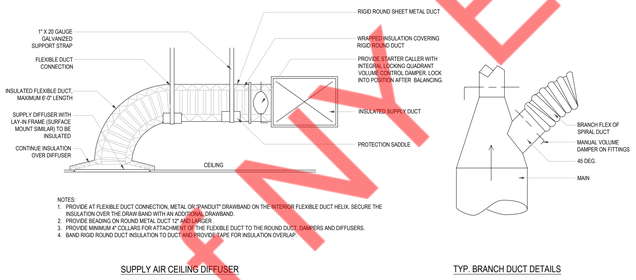
3 NTS — DUCT LINER INSTALLATION DETAIL



ACCEPTABLE FOR 170 MPH ZONE

VERIFY ON SITE WITH GENERAL CONTRACTOR

4 NTS — ROOF TOP UNIT INSTALLATION



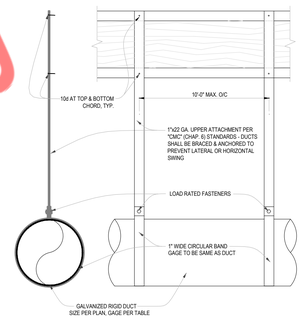
NOTES:

1. PROVIDE AT FLEXIBLE DUCT CONNECTION, METAL OR "PANDUIT" DRAWBAND ON THE INTERIOR FLEXIBLE DUCT HELIX. SECURE THE INSULATION OVER THE DRAW BAND WITH AN ADDITIONAL DRAWBAND.
2. PROVIDE BEADING ON ROUND METAL DUCT 12" AND LARGER.
3. PROVIDE MINIMUM 6" COLLARS FOR ATTACHMENT OF THE FLEXIBLE DUCT TO THE ROUND DUCT, DAMPERS AND DIFFUSERS.
4. BAND RIGID ROUND DUCT INSULATION TO DUCT AND PROVIDE TAPE FOR INSULATION OVERLAP.

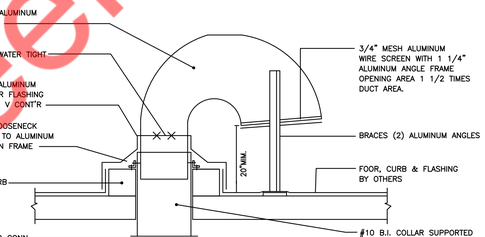
SUPPLY AIR CEILING DIFFUSER

TYP. BRANCH DUCT DETAILS

5 NTS — SUPPLY DIFFUSER AND DUCT DETAILS



6 NTS — DUCT HANGING METHOD



7 NTS — DETAIL OF ROOF GOOSENECK

BASKIN ROBBINS

ARCHITECT

ENGINEER

NY ENGINEERS
NEARBY ENGINEERS
MICHAEL TOBIAS
382 NE 191ST STREET
SUITE 49674, MIAMI, FL 33179
PH-914.257.3455
WWW.NY-ENGINEERS.COM

SHEET TITLE

MECHANICAL DETAILS

M-2.0

ELECTRICAL POWER PLAN KEYED WORK NOTES

1. REFER TO BASKIN ROBBINS STANDARDS FOR FURTHER INFORMATION REGARDING POS AND UNDER COUNTER ELECTRICAL SERVICE.
2. J-BOX FOR AIR CURTAIN. G.C. SHALL PROVIDE DELIVERY DOOR AIR CURTAIN FAN. INSTALL AND WIRE FOR MICRO SWITCH IN DOOR FRAME FOR ON/OFF CONTROL OF DOOR AIR CURTAIN FAN. ELECTRICAL CONTRACTOR SHALL PROVIDE JUNCTION BOX WITH TOGGLE DISCONNECT SWITCH PER NEC FOR THE
3. EXTERIOR BUILDING SIGNAGE. INSTALL THE JUNCTION BOX WITHIN THE BUILDING. THE SIGNS SHOULD BE SUPPLIED WITH WHIPS FOR FINAL CONNECTION TO THIS JUNCTION BOX. COORDINATE WITH THE SIGN VENDOR ON THE QUANTITY AND LOCATION OF THE REQUIRED JUNCTION BOXES. THE CONTRACTOR SHALL PROPERLY SIZE THE JUNCTION BOX BASED ON THE QUANTITY OF CONNECTIONS REQUIRED. VERIFY LOCATION WITH ARCHITECTURAL DRAWINGS AND SIGN VENDOR PRIOR TO INSTALLING. ALL SIGNS SHALL BE CONTROLLED VIA TIME CLOCK/EXTERNAL MOUNTED
4. MOUNT RECEPTACLES FOR DIPPER CABINETS IN KNEE WALL OF ADJACENT CABINET. PROVIDE MANUFACTURER APPROVED CORD AND PLUG FROM DIPPER CABINET TO RECEPTACLE. COORDINATE AS REQUIRED.
5. DEDICATED RECEPTACLE AND DATA PORT FOR DIGITAL MENU BOARD MOUNTED AT 16" ABOVE SOFFIT. REFER TO BASKIN ROBBINS STANDARDS FOR FURTHER INFORMATION.
6. PROVIDE JUNCTION BOXES AT TOILETS, SINKS AND OPTIONAL URINAL IF ALTERNATE "HANDS FREE" TOILET FIXTURES ARE BEING PROVIDED.
7. E.C. SHALL MAINTAIN CLEARANCE FOR ELECTRICAL PANELS PER NEC 110.26 (A) (1).
8. JB FOR HAND DRYER. E.C. TO COORDINATE JUNCTION BOX AND ITS POWER DETAILS AS PER ADA REQUIREMENT.
9. E.C. TO COORDINATE THE EXACT LOCATION AND ELECTRICAL REQUIREMENT OF MECHANICAL/PLUMBING EQUIPMENTS WITH MECHANICAL/PLUMBING CONTRACTOR. PROVIDE THE ELECTRICAL CONNECTION AS PER MECHANICAL/PLUMBING
10. E.C TO INSTALL SHOW WINDOW RECEPTACLES AS PER NEC 210.62. COORDINATE THE EXACT LOCATION WITH ARCHITECT/OWNER.
11. NEW 100A (MCB), 120/208V, 3-PHASE, 4-WIRE ELECTRICAL PANEL 'A' FOR THE PROJECT SPACE. E.C. SHALL COORDINATE WITH LANDLORD/OWNER FOR THE EXACT LOCATION OF ELECTRICAL PANEL 'A' IN FIELD.
12. NEW 100A (MCB), 120/208V, 3-PHASE, 4-WIRE ELECTRICAL PANEL 'B' FOR THE PROJECT SPACE. E.C. SHALL COORDINATE WITH LANDLORD/OWNER FOR THE EXACT LOCATION OF ELECTRICAL PANEL 'B' IN FIELD.
13. NEW 200A (MCB), 480/277V, 3-PHASE, 4-WIRE ELECTRICAL PANEL 'MDP' FOR THE PROJECT SPACE. E.C. SHALL COORDINATE WITH LANDLORD/OWNER FOR THE EXACT LOCATION OF ELECTRICAL PANEL 'MDP' IN FIELD.
14. NEW 45KVA CEILING MOUNTED, STED DOWN 480/277V TO 208/120V TRANSFORMER FOR THE PROJECT SPACE. REFER TO ELECTRICAL RISER DIAGRAM AND PANEL SCHEDULES FOR ADDITIONAL INFORMATION. E.C. SHALL COORDINATE WITH LANDLORD/OWNER FOR THE EXACT LOCATION IN FIELD. MAINTAIN CLEARANCE AS PER NEC 110.26.

ELECTRICAL PLAN GENERAL NOTES

1. ALL WORK SHALL COMPLY WITH ALL LOCAL AND STATE CODES AND AUTHORITIES HAVING JURISDICTION.
2. THE CONTRACTOR SHALL SECURE AND PAY FOR ALL REQUIRED PERMITS AND ARRANGE ALL REQUIRED INSPECTIONS.
3. THE CONTRACTOR SHALL COORDINATE HIS WORK WITH OTHER CONTRACTORS AND TRADES.
4. THESE DRAWINGS, AS PREPARED, ARE DIAGRAMMATIC BUT SHALL BE FOLLOWED AS CLOSELY AS CONSTRUCTION OF THE PROJECT AND THE WORK OF THE TRADES WILL PERMIT. EQUIPMENT LOCATIONS INDICATED ARE APPROXIMATE. COORDINATE EXACT LOCATIONS AND REQUIRED CLEARANCES WITH EQUIPMENT SUPPLIER AND ALL TRADES PRIOR TO INSTALLATION.
5. THE CONTRACTOR SHALL FURNISH AND INSTALL ALL THE EQUIPMENT INDICATED WITHIN THESE DRAWINGS UNLESS OTHERWISE NOTED. VERIFY LOCATION AND DIMENSIONS IN THE FIELD PRIOR TO FABRICATION AND / OR INSTALLATION.
6. ALL ROOF PENETRATIONS SHALL BE AT THE CONTRACTOR'S EXPENSE. COORDINATE WITH OWNER'S ROOFING CONTRACTOR SO AS NOT TO VOID ANY EXISTING ROOF WARRANTIES.
7. THE ENTIRE INSTALLATION SHALL BE GUARANTEED FREE OF DEFECTS AND CONTRACTOR SHALL REPAIR AND / OR REPLACE ANY DEFECTIVE MATERIALS OR EQUIPMENT AT NO COST TO THE OWNER FOR A MINIMUM PERIOD OF ONE YEAR FROM THE DATE OF ACCEPTANCE BY ARCHITECT OR ENGINEER.
8. ALL WORK SHALL BE SUBJECT TO THE ACCEPTANCE AND APPROVAL OF THE ARCHITECT AND OWNER. THE ARCHITECT SHALL BE NOTIFIED OF ANY AND ALL DISCREPANCIES BETWEEN FIELD CONDITIONS AND THE CONTRACT DOCUMENTS BEFORE PROCEEDING WITH THAT PORTION OF THE WORK. FAILURE OF PROPER NOTIFICATION DOES NOT RELIEVE THE CONTRACTOR. THE CONTRACTOR SHALL CORRECT ANY AND ALL WORK ARISING FROM SUCH FAILURE TO COORDINATE DISCREPANCIES TO THE SATISFACTION OF THE ARCHITECT WITHOUT ADDITIONAL COST TO THE OWNER.
9. COORDINATE ALL EQUIPMENT UTILITY INFORMATION SHOWN ON THIS SHEET WITH THE DUNKIN' BRANDS EQUIPMENT SCHEDULE AND EQUIPMENT MANUFACTURER'S CUT SHEETS.
10. ALL EXTERIOR LIGHTS TO BE TIMECLOCK CONTROLLED.
11. ALL 15A AND 20A, 120V KITCHEN RECEPTACLES SHALL BE GFCI TYPE OR PROTECTED BY GFCI BREAKER. ALL RECEPTACLES SHALL BE NEMA SIZED AND RATED FOR THE LOAD SERVED. ALL RECEPTACLES WITHIN 6 FT. OF SINKS OR WATER FAUCETS SHALL BE GFCI TYPE OR PROTECTED BY GFCI BREAKER.
12. ALL JUNCTION BOXES SHOWN ON THIS PLAN ARE TO BE INSTALLED ABOVE THE FINISHED CEILING.
13. ALL FIXTURES TAGGED WITH "NL/EM" SHALL BE PROVIDED WITH AN EMERGENCY BALLAST TO SUPPORT ONE OR MORE LAMPS PER FIXTURE. COORDINATE WITH ARCHITECT AND GENERAL CONTRACTOR.
14. ALL EMERGENCY AND EXIT FIXTURES SHALL BE CONNECTED TO LOCAL LIGHTING CIRCUIT AHEAD OF ANY SWITCHING. PROVIDE ADDITIONAL FIXTURES AS NEEDED TO MEET THE CODE REQUIREMENTS PER LOCAL REQUIREMENTS.
15. PROVIDE WOOD BLOCKING BEHIND ALL EXTERIOR LIGHTING FIXTURES COORDINATE WITH GENERAL CONTRACTOR.
16. THE CONTRACTOR IS RESPONSIBLE FOR REVIEWING THE LATEST KITCHEN PLANS AND EQUIPMENT CUTS SHEETS FOR PROPER EQUIPMENT LOCATIONS AND CONNECTION REQUIREMENTS PRIOR TO STARTING WORK.
17. a. ELECTRICAL SUBJECT TO FIELD INSPECTIONS.
    b. ALL EQUIPMENT SHALL BE LISTED BY A NATIONALLY RECOGNIZED TESTING LABORATORY.
18. NO. 10 AND SMALLER, SOLID CONDUCTOR, COPPER TYPES, TW, THW, THWN, R, RH, RHW, WITH IDEAL WINGNUTS AND SCOTCHLOCK CONNECTORS.
19. NO. 8 AND LARGER, STRANDED CONDUCTOR, COPPER TYPES, THW, THWN, RHW, WITH SOLDERLESS BOLTED PRESSURE CONNECTORS.
20. MINIMUM SIZE, SHALL BE NO. 12 AWG, TYPE THWN, EXCEPT FOR CONTROL CIRCUITS.
21. NO ARMORED CABLE (BX) SHALL BE USED FOR BRANCH CIRCUIT WORK. MC TYPE CABLE MAY BE USED FOR FINAL CONNECTIONS, BUT MUST BE LESS THAN 6'-0" IN LENGTH. CONDUCTOR INSULATION SHALL BE COLOR CODED AS STATED BELOW.
22. ALL WIRING SHALL BE COLOR CODED THROUGHOUT AS FOLLOWS:
    120/208 VOLT SYSTEM
    PHASE A - BLACK
    PHASE B - RED
    PHASE C - BLUE
    NEUTRAL - WHITE
23. FUSES SHALL BE PROVIDED WITH REJECTION TYPE FUSE HOLDER.
24. ALL EQUIPMENT PANELS, BREAKERS, FUSES ARE FULLY RATED FOR THE MAXIMUM AVAILABLE FAULT VALUE. NO SERIES RATING ALLOWED.
25. ALL 125-VOLT THROUGH 250-VOLT RECEPTACLES SUPPLIED BY SINGLE-PHASE BRANCH CIRCUITS RATED 150 VOLTS OR LESS TO GROUND, 50 AMPERES OR LESS, AND ALL RECEPTACLES SUPPLIED BY THREE-PHASE BRANCH CIRCUITS RATED 150 VOLTS OR LESS TO GROUND, 100 AMPERES OR LESS, INSTALLED IN THE LOCATIONS SPECIFIED IN 210.8(B) SHALL BE WITH GFCI PROTECTION.
26. THE RECEPTACLES MARKED AS "GFI" ON THE FLOOR PLAN INDICATES THAT THE RECEPTACLES SHALL BE GFI PROTECTED. E.C. SHALL PROVIDE GFI BREAKER IN PANEL IF GFI RECEPTACLES IN NOT READILY ACCESSIBLE OR FOR THE RECEPTACLES OTHER THAN 20A.
27. SEE ARCHITECTURAL ELEVATIONS FOR PLACEMENT OF DEVICES.
28. COORDINATE EXACT LOCATION OF HVAC EQUIPMENTS ON ABOVE CEILING WITH MECHANICAL CONTRACTOR.
29. ELECTRICAL CONTRACTOR SHALL COORDINATE WITH THE EQUIPMENT SUPPLIER/OWNER AND PROVIDE PLUGS / RECEPTACLE/DISCONNECTS AS REQUIRED. IF ANY EQUIPMENT NEEDS TO BE TERMINATED AS A HARD WIRE, IT IS THE CONTRACTOR RESPONSIBILITY TO PROVIDE THE CONNECTION WITH SUITABLE DISCONNECT / PLUG. BASE BID ACCORDINGLY.
30. E.C. SHALL VERIFY THE EXACT ELECTRICAL REQUIREMENT INCLUDING RECEPTACLE, PLUG/CIRCUIT BREAKER AND CABLES FOR ALL THE KITCHEN EQUIPMENTS IN FIELD AND ACCORDINGLY PROVIDE THE ELECTRICAL CONNECTION FOR ALL KITCHEN EQUIPMENTS AS REQUIRED.
31. FOR KITCHEN EQUIPMENT SCHEDULE REFER TO ARCHITECTURAL SHEET K-1.0 . E.C. SHALL VERIFY AND PROVIDE THE EXACT ELECTRICAL REQUIREMENT INCLUDING RECEPTACLE, PLUG, CORD, CIRCUIT BREAKER AND CABLES FOR ALL THE KITCHEN EQUIPMENTS IN COORDINATION WITH EQUIPMENT SUPPLIER/MANUFACTURER IN FIELD. BASE BID ACCORDINGLY.
32. ALL ROOF PENETRATIONS SHALL BE AT THE CONTRACTOR'S EXPENSE. COORDINATE WITH OWNER'S ROOFING CONTRACTOR SO AS NOT TO VOID ANY EXISTING ROOF WARRANTIES

CIRCUIT PLAN NOTES

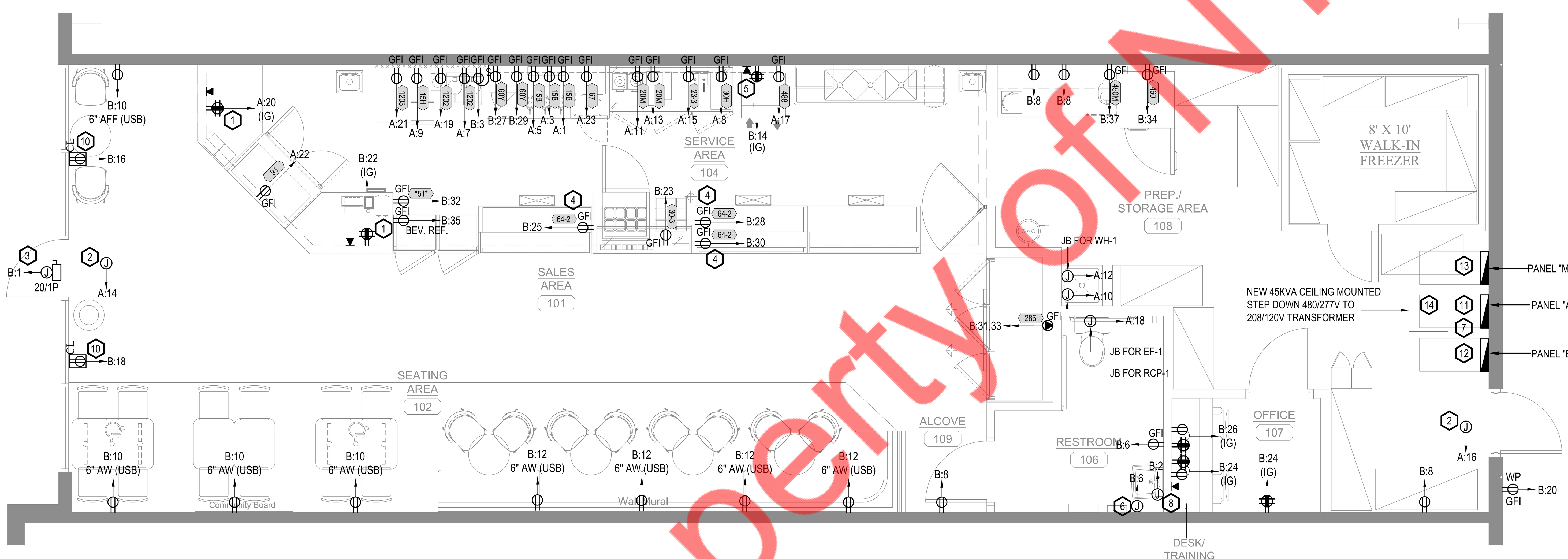
1. ELECTRICAL CONTRACTOR SHALL COORDINATE EXACT ELECTRICAL REQUIREMENTS WITH KITCHEN EQUIPMENT SUPPLIER BEFORE ROUGH-IN.
2. COORDINATE EXACT NEMA CONFIGURATION WITH KITCHEN EQUIPMENT SUPPLIER CONTRACTOR PRIOR TO FINAL INSTALLATION.
3. ALL CONDUIT AND FLEXIBLE CONDUITS THAT ARE EXPOSED TO WATER, SPLASHING, OR WEATHER SHALL BE LIQUID TIGHT.
4. FOOD SERVICE EQUIPMENT HAVING MOTORS, ELECTRICAL HEATING UNITS, LIGHTING FIXTURES, RECEPTACLES AND THE LIKE SHALL BE INTERNALLY WIRED TO JUNCTION BOX MOUNTED ON THE EQUIPMENT BY THE ELECTRICAL CONTRACTOR. PROVIDE REMOTE SWITCHES FOR LIGHTING IN EXHAUST VENTILATORS TO JUNCTION BOX MOUNTED ON THE EQUIPMENT BY THE ELECTRICAL CONTRACTOR. PROVIDE REMOTE SWITCHES FOR LIGHTING IN EXHAUST VENTILATORS.
5. CIRCUIT NUMBERS ARE SHOWN FOR DESCRIPTIVE PURPOSES ONLY. EXACT NUMBERS SHALL BE DETERMINED IN FIELD AND SHALL BE NOTED ON THE CONTRACTOR'S AS-BUILT DRAWINGS.
6. ELECTRICAL CONTRACTOR TO PROVIDE BREAKER OR FUSES AND METER SOCKET AS REQUIRED TO LANDLORD'S ELECTRIC SERVICE EQUIPMENT LOCATION OR CONNECTION TO LOCAL UTILITY WITH ANY ASSOCIATED EQUIPMENT OR REQUIREMENTS. ALL SHUT DOWN SHALL BE COORDINATED WITH LANDLORD. ELECTRICAL CONTRACTOR TO PAY ANY BACK CHARGES IF ANY BY LOCAL POWER COMPANY FOR SERVICE CONNECTION.
7. ELECTRICAL CONTRACTOR TO CONTACT LOCAL TELEPHONE COMPANY FOR TELEPHONE SERVICE TO SPACE.
8. BACK CHARGE TO BE BY OWNER. ALL ELECTRICAL PENETRATIONS IN THE WALK-IN COOLER/FREEZER SHALL BE SEALED PER GOVERNING CODES.

ELECTRICAL DEVICE LEGEND

ALL SYMBOLS DO NOT NECESSARILY APPLY — MOUNTING HGT. TO CENTERLINE U.N.O.

SYMBOL	DESCRIPTION	HEIGHT
J	WIRED JUNCTION BOX	18"
	DUPLEX RECEPTACLE, 3 WIRE GRD. TYPE, 20A	18"
WP	DUPLEX RECEPTACLE, WEATHERPROOF,20A	18"
GFI	GROUND FAULT PROTECTED DUPLEX RECEPTACLE, 20A	-
	QUADRAPLEX WALL RECEPTACLE, 20A	AS REQUIRED
	SPECIAL RECEPTACLE, VOLTAGE AND AMPERAGE BASED ON CONNECTED CIRCUIT	AS REQUIRED
	DUPLEX RECEPTACLE, MOUNT ABOVE COUNTER HEIGHT UNO	AS REQUIRED
CL	DUPLEX RECEPTACLE, 20A, 120V CEILING MOUNTED	-
	QUAD DATA OUTLET	18"
	NON FUSED DISCONNECT SWITCH RATED TO ACCOMODATE EQUIPMENT BEING SERVED	AS REQUIRED

NOTE:
IN HANDICAPPED AREAS, THE RECEPTACLES AND TELEPHONE OUTLETS SHALL BE MOUNTED AT 24" A.F.F.; THE TOGGLE SWITCHES, THERMOSTATS AND MANUAL MOTOR STARTERS SHALL BE MOUNTED AT 42" A.F.F.



ELECTRICAL POWER PLAN

A

1/4"=1'-0"

BASKIN ROBBINS

ARCHITECT

ENGINEER

NY ENGINEERS
NEARBY ENGINEERS
MICHAEL TOBIAS
382 NE 191ST STREET
SUITE 49674, MIAMI, FL 33179
PH-914.257.3455
WWW.NY-ENGINEERS.COM

SHEET TITLE

ELECTRICAL POWER PLAN

E-1.0

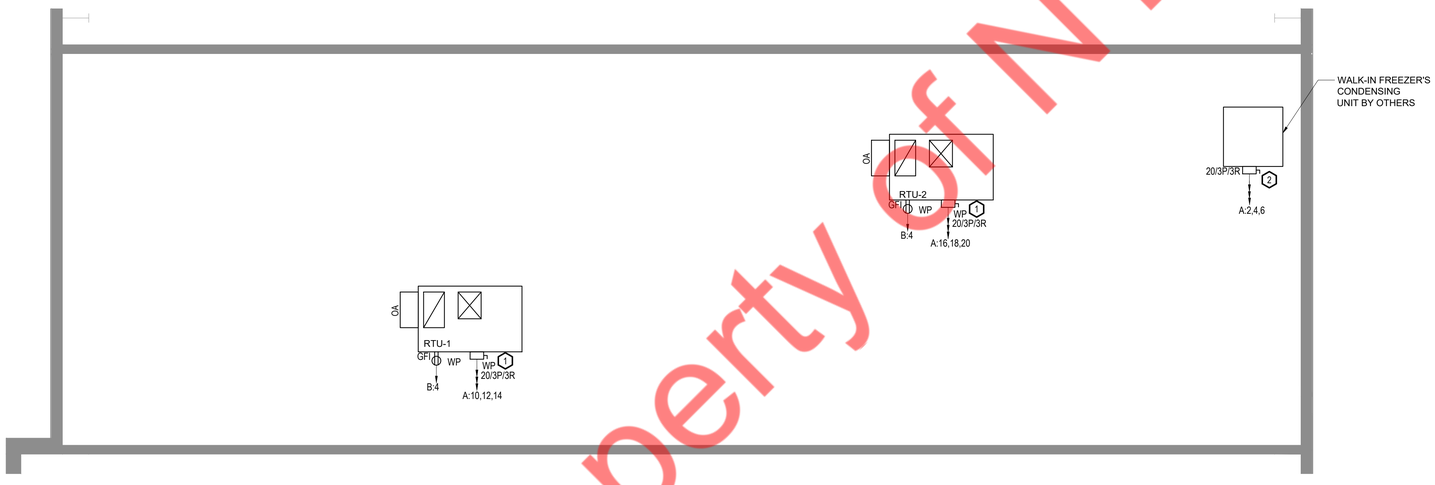
RDS PROJECT NUMBER: 24028 NOTE: DRAWINGS ARE NOT TO SCALE IF SHEET IS PLOTTED ON 11" x 17". PLOTS TO SCALE ON 24" x 36" SHEETS.

ELECTRICAL POWER PLAN KEYED WORK NOTES

1. E.C. TO COORDINATE THE EXACT LOCATION AND ELECTRICAL REQUIREMENT OF MECHANICAL/PLUMBING EQUIPMENTS WITH MECHANICAL/PLUMBING CONTRACTOR AND MANUFACTURER. PROVIDE THE ELECTRICAL CONNECTION AS PER MECHANICAL/PLUMBING EQUIPMENTS REQUIREMENT IN FIELD.
2. SINGLE POINT CONNECTION FOR WALK-IN FREEZER. THE CONTRACTOR SHALL CONFIRM ELECTRICAL REQUIREMENTS AND MEANS OF DISCONNECT OF THE ROOF MOUNTED CONDENSING UNIT AND EVAPORATOR UNIT LOCATED WITHIN THE BOXES. ALSO, PROVIDE ELECTRICAL CONNECTION OF DOOR HEATER, CONDENSATE DRAIN AND HEAT TRACE TAPE.

POWER DEVICE LEGEND

- DUPLEX RECEPTACLE, 20A, 120V
- DISCONNECT SWITCH - FUSED OR UNFUSED



ELECTRICAL ROOF POWER PLAN — A

1/4"=1'-0"

BASKIN ROBBINS

ARCHITECT

ENGINEER
NY ENGINEERS
NEARBY ENGINEERS
MICHAEL TOBIAS
382 NE 191ST STREET
SUITE 49674, MIAMI, FL 33179
PH-914.257.3455
WWW.NY-ENGINEERS.COM

SHEET TITLE

ELECTRICAL ROOF POWER PLAN

E-1.1

LIGHTING FIXTURE SCHEDULE

SYMBOL	NOTATION	DESCRIPTION	LAMP	MANUF. & CATALOG NO.	SYMBOL	NOTATION	DESCRIPTION	LAMP	MANUF. & CATALOG NO.
	LT-01	6" DIA RECESSED DOWNLIGHT W/ LED LAMP	12W LED	CREE CR6T-1600L-35K-12-E26GU24		LT-07	SUSPENDED "GLOBE" LIGHT CLUSTERS (SIZE AND MOUNTING HEIGHTS VARY; MIN. 7'-3" A.F.F.	9W LED	VILLA LIGHTING NV-HGRA540
	LT-02	10W TRACK HEAD ON BLACK MONO POINT BASE CANOPY	10W LED	JUNO R600L-35-K-F-BLL		LT-09	RESTROOM WALL SCONCE	32W LED	FJORD 62482LEDD-CH/OPL
	LT-03	PENDANT CYLINDER (BLACK) W/ LED LAMP AT 11'-6" TO BTM OF FIXTURE	12W LED	NORA NYLD-6C9130DD-B4		EX1	LED EMERGENCY EXIT	2W LED	SUR APC7R
	LT-04	LED 2X2 RECESSED FIXTURE W/ SHATTERPROOF LENS	35W LED	LSI #ELFP-24-LED-35-U-E		EBU-W	THERMOPLASTIC LED EMERGENCY LIGHT	4W LED	EXITRONIX EQMS
	LT-05	4'/8' BLACK TRACK AND LIVE END FEED		JUNO T4BL/T38BL					

LIGHTING FIXTURE NOTES :

1. ELECTRICAL CONTRACTOR SHALL ENSURE THAT LIGHT BULBS SHALL BE SHIELDED, COATED, OR OTHERWISE SHATTER-RESISTANT IN AREAS WHERE THERE IS EXPOSED FOOD, CLEAN EQUIPMENT, UTENSILS, AND LINENS, OR UNWRAPPED SINGLE-SERVICE AND SINGLE-USE ARTICLES AS PER HEALTH DEPARTMENT AND LOCAL AHJ REQUIREMENTS.
2. COORDINATE WITH ARCHITECT/OWNER FOR FINAL SELECTION OF LIGHT FIXTURES IN FIELD.

ELECTRICAL LIGHTING PLAN KEYED WORK NOTES

1. INSTALL SWITCH HEIGHT MOUNTED OCCUPANCY SENSOR IN THE RESTROOMS.
2. DIMMER SWITCH BANK. COORDINATE EXACT LOCATION WITH ARCHITECT/OWNER.
3. INTERLOCK TOILET ROOM LIGHT WITH EXHAUST FAN.
4. SPEAKER AND SOUND SYSTEM TO BE PROVIDED AND INSTALLED BY ELECTRICAL CONTRACTOR. LOCATE VOLUME CONTROL NEAR THE OFFICE DESK. SEE ARCHITECTURAL CEILING PLAN FOR EXACT LOCATION AND CONTROL.
5. PROVIDE CONTROL RELAY PANEL AS SPECIFIED BY THE LIGHTING VENDOR. PROVIDE AND INSTALL DIGITAL/DIMMER SWITCH(ES) AS REQUIRED. LOCATION OF SWITCHES BY ARCHITECT OR OWNER.
6. WIRE ALL EMERGENCY, EXIT LIGHT AND NIGHT LAMP TO THE NEAREST CIRCUIT AHEAD OF ALL CONTROLS & SWITCHING FOR CONTINUOUS OPERATION.
7. LIGHTING NEAR ELECTRICAL PANELS SHALL NOT BE CONTROLLED BY ANY AUTOMATIC MEANS AND SHALL BE COMPLIED AS PER NEC 110.26(D).
8. LIGHT FIXTURE AND ITS CONTROL SHALL BE PROVIDED BY WALK-IN-FREEZER MANUFACTURER / SUPPLIER. E.E. SHALL PROVIDE ELECTRICAL CONNECTION TO IT.

MUSIC SYSTEM NOTES

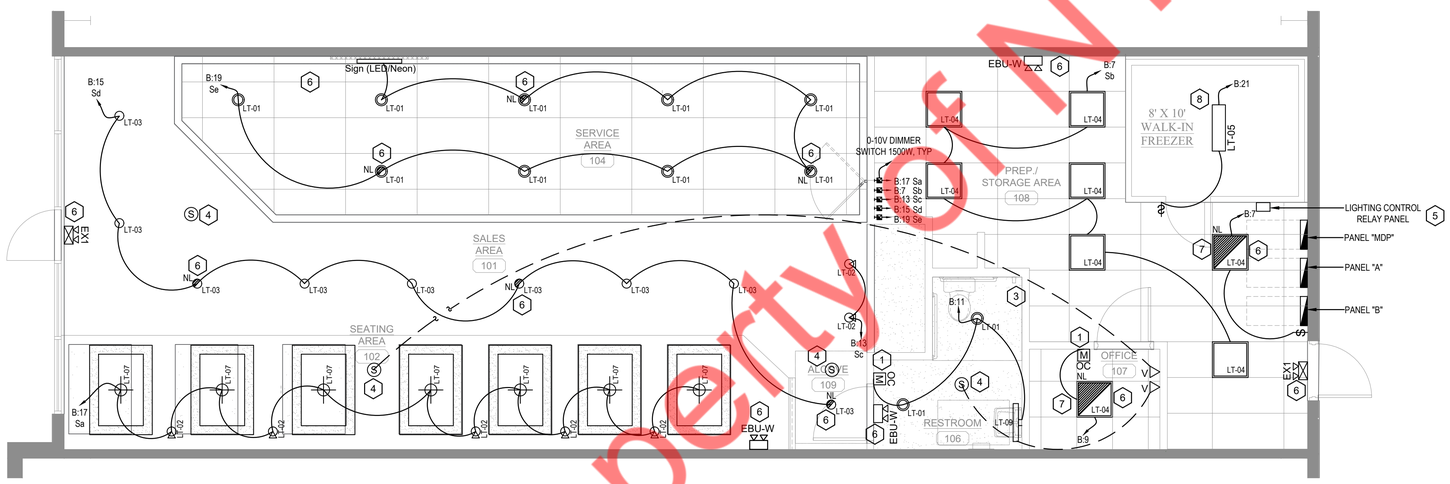
1. MUSIC SYSTEM IS REQUIRED IN ALL NEW AND REMODEL STORES. MUSIC SYSTEM TO USE DBI APPROVED PROGRAMMING
2. ALL CEILING SPEAKERS TO BE FLUSH MOUNTED WHITE. ALL EXTERIOR SPEAKERS TO BE BLACK, WITH EXTERIOR GRADE CONSTRUCTION.
3. ONE SPEAKER IN EACH BATHROOM TO BE FLUSH MOUNTED WHITE.
4. A MINIMUM OF TWO SPEAKERS IN THE SEATING AREA (NO SPEAKERS IN THE SERVICE AREA).
5. A MINIMUM OF TWO SPEAKERS AT EXTERIOR SEATING AREAS WHERE APPLICABLE.
6. SPEAKER AT EXTERIOR OF BUILDING ADJACENT TO ENTRY.
7. PROVIDE AND INSTALL SEPARATE VOLUME CONTROLS FOR EACH AREA (RESTROOMS, SEATING AREA, EXTERIOR)
8. HARDWARE TO BE INSTALLED IN THE OFFICE. FIELD VERIFY AND COORDINATE WITH FRANCHISE FOR THE EXACT LOCATION OF THE UNIT AND VOLUME CONTROLS.

LEGEND:

	MANUAL SWITCH
	EXHAUST FAN
OS M	OCCUPANCY SENSOR WALL MOUNTED
S	SPEAKER

LIGHTING PLAN NOTES

1. REFER TO ARCHITECTURAL DRAWING FOR LIGHTING FIXTURE SCHEDULE.
2. LIGHT FIXTURES SHALL BE INSTALLED AT MOUNTING HEIGHTS AND LOCATIONS AS INDICATED ON THE ARCHITECTURAL REFLECTED CEILING PLANS, ELEVATIONS, PART PLANS AND DETAILS. CONTRACTOR SHALL REFER TO THE ARCHITECTURAL DRAWINGS FOR INFORMATION.
3. CIRCUIT NUMBERS ARE SHOWN FOR DESCRIPTIVE PURPOSES ONLY. EXACT NUMBERS SHALL BE DETERMINED IN FIELD AND SHALL BE NOTED ON THE CONTRACTOR'S AS-BUILT DRAWINGS.
4. ALL LIGHTING SWITCHES SHALL BE LABELED TO INDICATE ASSOCIATED AREAS OF CONTROL.
5. EMERGENCY LIGHTING SHALL BE PROVIDED AS REQUIRED BY ALL APPLICABLE CODES AND AUTHORITIES HAVING JURISDICTION.
6. EXIT SIGNS, FIXTURES DESIGNATED AS NIGHT LIGHTS AND EMERGENCY BATTERY UNITS SHALL BE CONNECTED TO LOCAL LIGHTING CIRCUITS SERVING THE AREA. THE ASSOCIATED CIRCUIT BREAKER SHALL BE PROVIDED WITH A HANDLE LOCK.
7. FURNISH, ASSEMBLE, HANG AND CONNECT ALL LIGHTING FIXTURES. LIGHTING FIXTURES SHALL BE AS INDICATED ON THE DRAWINGS.
8. ALL FIXTURES SHALL BE FURNISHED COMPLETE WITH SOCKETS, WIRING TRIMS, HANGERS, FRAMES, LAMPS, BALLASTS, ETC.
9. ALL LAMPS AND BALLASTS SHALL BE OF THE ENERGY SAVING TYPE.
10. PROVIDE ALL FIXTURES COMPLETE WITH LAMPS. REFER TO NATIONAL ACCOUNT SOURCE INFO FOR LAMP SPECS. & VENDOR INFORMATION.
11. ALL INCANDESCENT LAMPS SHALL BE RATED 130 VOLTS.
12. ALL BALLASTS SHALL BE HIGH POWER FACTOR. FLUORESCENT BALLASTS FOR T8 LAMPS TO BE OSRAM/SYLVANIA OR MAGNATEK FULL-OUTPUT ELECTRONIC, EXCEPT OUTDOOR FIXTURES TO BE ZERO-DEGREE MAGNETIC BALLASTS.
13. PROVIDE HOLD DOWN CLIPS FOR EACH CORNER OF FLUORESCENT GRID TROFFERS.
14. PROVIDE ALL REQUIRED MOUNTING OR HANGING HARDWARE.
15. COORDINATE AND VERIFY ALL FIXTURE INFORMATION, TYPES AND FINAL LOCATIONS WITH THE REFLECTED CEILING PLAN.
16. LAMPS SHALL BE AS MANUFACTURED BY SYLVANIA, WESTINGHOUSE, GENERAL ELECTRIC, OR APPROVED EQUAL.
17. THE WATTAGE OF LUMINAIRES WITH PERMANENTLY INSTALLED OR REMOTELY INSTALLED BALLASTS OR DRIVERS SHALL BE THE INOUT WATTAGE RATING OF THE LAMP/BALLAST OR LAMP/DRIVER COMBINATION
18. THE WATTAGE OF LIGHT EMITTING DIODE (LED) LUMINAIRES SHALL BE THE MAXIMUM RATED INPUT WATTAGE OF THE SYSTEM AS INDICATED ON THE FACTORY INSTALLED LABEL.
19. ALL FIXTURES TAGGED WITH "NL/EM" SHALL BE PROVIDED WITH AN EMERGENCY BALLAST TO SUPPORT ONE OR MORE LAMPS PER FIXTURE. COORDINATE WITH ARCHITECT AND GENERAL CONTRACTOR.
20. ALL EMERGENCY AND EXIT FIXTURES SHALL BE CONNECTED TO LOCAL LIGHTING CIRCUIT AHEAD OF ANY SWITCHING . PROVIDE ADDITIONAL FIXTURES AS NEEDED TO MEET THE CODE REQUIREMENTS PER LOCAL REQUIREMENTS.
21. PROVIDE WOOD BLOCKING BEHIND ALL EXTERIOR LIGHTING FIXTURES. COORDINATE WITH GENERAL CONTRACTOR.

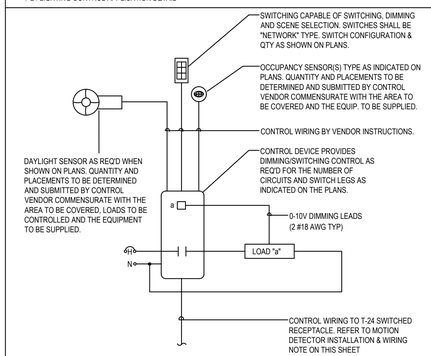


ELECTRICAL LIGHTING PLAN — 1/4"=1'-0" — A

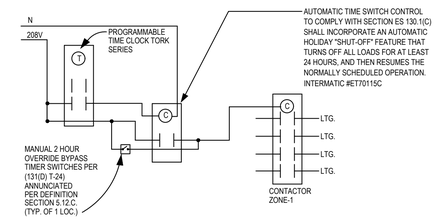
WATT STOPPER - T-24 CONTROL LEGEND

LMRC-211	P1	1-RELAY CONTROL DEVICE PROVIDES DIMMING/ SWITCHING CONTROL AS REQ'D FOR THE NUMBER OF CIRCUITS AND SWITCH LEGS AS INDICATED ON THE PLANS
LMDC-100	OS	DUAL TECHNOLOGY CEILING MOUNT OCCUPANCY SENSOR
LMDM-101	S	NETWORK TYPE DIMMING SWITCHING

T-24 LIGHTING CONTROL APPLICATION DETAIL



INTERIOR LIGHTING CONTROL DIAGRAM



BASKIN ROBBINS

ARCHITECT

ENGINEER
NY ENGINEERS
NEARBY ENGINEERS
MICHAEL TOBIAS
382 NE 191ST STREET
SUITE 49674, MIAMI, FL 33179
PH-914.257.3455
WWW.NY-ENGINEERS.COM

SHEET TITLE
ELECTRICAL LIGHTING PLAN

E-2.0

PANEL: MDP (NEW) — **MOUNTING:** SURFACE

480Y/277 VOLTS, **3** PHASE, **4** WIRE — **PANEL LOCATION:** BACK OF THE HOUSE

MAIN CB: 200 A — **MLO:** NA — **BUS:** 225 A MIN, — **FED FROM:** NEW EL SERVICE

NOTE: L : LIGHTING, R : RECEPTACLES, H : HVAC LOAD, M : MOTOR LOAD, E:KITCHEN/EQUIPMENTS, C: REFRIGERATION, O : OTHER/MISC. (TYPICAL)

CKT NO.	TRIP AMPS	DESCRIPTION OF LOAD	LOAD TYPE	LOAD (KVA)	MINIMUM BRANCH CIRCUIT	PER PHASE (KVA) A	B	C	MINIMUM BRANCH CIRCUIT	LOAD (KVA)	LOAD TYPE	DESCRIPTION OF LOAD	TRIP AMPS	CKT NO.
1			E	2.40	3#12, #12G, 3/4"C	15.18				12.78	O			2
3	3P-20	RTU1	E	2.40	3#12, #12G, 3/4"C		15.18		4#6, #10G, 3/4"C	12.78	O	TRANSFORMER	3P-60	4
5			E	2.40	3#12, #12G, 3/4"C			15.18		12.78	O			6
7			E	2.40	3#12, #12G, 3/4"C	2.40						SPARE	20	8
9	3P-20	RTU2	E	2.40	3#12, #12G, 3/4"C		2.40					SPARE	20	10
11			E	2.40	3#12, #12G, 3/4"C			2.40				SPARE	20	12
13	20	SPARE				0.00						SPARE	20	14
15	20	SPARE					0.00					SPARE	20	16
17	20	SPARE						0.00				SPARE	20	18
19	20	SPARE				0.00						SPARE	20	20
21	20	SPARE					0.00					SPARE	20	22
23	20	SPARE						0.00				SPARE	20	24
25	20	SPARE				0.00						SPARE	20	26
27	20	SPARE					0.00					SPARE	20	28
29	20	SPARE						0.00				SPARE	20	30
31	20	SPARE				0.00						SPARE	20	32
33	20	SPARE					0.00					SPARE	20	34
35	20	SPARE						0.00				SPARE	20	36
37	20	SPARE				0.00						SPARE	20	38
39	20	SPARE					0.00					SPARE	20	40
41	20	SPARE						0.00				SPARE	20	42
					TOTAL CONNECTED LOAD (KVA)	17.58	17.58	17.58						

PANEL: A (NEW) — **MOUNTING:** SURFACE

208Y/120 VOLTS, **3** PHASE, **4** WIRE — **PANEL LOCATION:** BACK OF THE HOUSE

MAIN CB: 100 A — **MLO:** NA — **BUS:** 125 A MIN, — **FED FROM:** TRANSFORMER

NOTE: L : LIGHTING, R : RECEPTACLES, H : HVAC LOAD, M : MOTOR LOAD, E:KITCHEN/EQUIPMENTS, C: REFRIGERATION, O : OTHER/MISC. (TYPICAL)

CKT NO.	TRIP AMPS	DESCRIPTION OF LOAD	LOAD TYPE	LOAD (KVA)	MINIMUM BRANCH CIRCUIT	PER PHASE (KVA) A	B	C	MINIMUM BRANCH CIRCUIT	LOAD (KVA)	LOAD TYPE	DESCRIPTION OF LOAD	TRIP AMPS	CKT NO.
1	20	15B_HOT FUDGE WARMER W/INSERTS	E	0.50	2#12, #12G, 3/4"C	0.80				0.30	C			2
3	20	15B_HOT FUDGE WARMER W/INSERTS	E	0.50	2#12, #12G, 3/4"C		0.80		3#12, #12G, 3/4"C	0.30	C	WALK-IN FREEZER	3P-20	4
5	20	15B_HOT FUDGE WARMER W/INSERTS	E	0.50	2#12, #12G, 3/4"C			0.80		0.30	C			6
7	20	1203_SINGLE DIPPING WARMER	E	1.20	2#12, #12G, 3/4"C	1.56			2#12, #12G, 3/4"C	0.36	C	30H_REFRIGERATED DAIRY AND SYRUP DISPENSER	20	8
9	20	15H_SCALE	E	0.12	2#12, #12G, 3/4"C		0.62		2#12, #12G, 3/4"C	0.50	M	RCP-1 (RECIRCULATING PUMP)	20	10
11	20	20M_BLENDING STATION ADVANCE	E	1.80	2#12, #12G, 3/4"C			2.30	2#12, #12G, 3/4"C	0.50	O	WATER HEATER IGNITION	20	12
13	20	20M_BLENDING STATION ADVANCE	E	1.80	2#12, #12G, 3/4"C	2.00			2#12, #12G, 3/4"C	0.20	H	AC-1	20	14
15	20	23-3_BACKLINE WORKTOP REFRIGERATED BASE	E	1.19	2#12, #12G, 3/4"C		1.39		2#12, #12G, 3/4"C	0.20	H	AC-2	20	16
17	20	488_ICE MACHINE	C	0.84	2#12, #12G, 3/4"C			1.04	2#12, #12G, 3/4"C	0.20	M	EF-1	20	18
19	20	1202_WAFFLE CONE BAKER	E	1.20	2#12, #12G, 3/4"C	1.56			2#12, #12G, 3/4"C	0.36	R	POS STATION RECEPTACLE	20	20
21	20	1202_WAFFLE CONE BAKER	E	1.20	2#12, #12G, 3/4"C		2.76		2#12, #12G, 3/4"C	1.56	E	91_PARTY CASE	20	22
23	20	67_MICROWAVE	E	1.61	2#12, #12G, 3/4"C			1.61				SPARE	20	24
25	20	SPARE				0.00						SPARE	20	26
27	20	SPARE					0.00					SPARE	20	28
29	20	SPARE						0.00				SPARE	20	30
31	20	SPARE				0.00						SPARE	20	32
33	20	SPARE					0.00					SPARE	20	34
35	20	SPARE						0.00				SPARE	20	36
37	20	SPARE				0.00						SPARE	20	38
39	20	SPARE					0.00					SPARE	20	40
41	20	SPARE						0.00				SPARE	20	42
					TOTAL CONNECTED LOAD (KVA)	5.92	5.57	5.75						

PANEL: B (NEW) — **MOUNTING:** SURFACE

208Y/120 VOLTS, **3** PHASE, **4** WIRE — **PANEL LOCATION:** BACK OF HOUSE

MAIN CB: 100 A — **MLO:** NA — **BUS:** 125A MIN, — **FED FROM:** TRANSFORMER

NOTE: L : LIGHTING, R : RECEPTACLES, H : HVAC LOAD, M : MOTOR LOAD, E:KITCHEN/EQUIPMENTS, C: REFRIGERATION, O : OTHER/MISC. (TYPICAL)

CKT NO.	TRIP AMPS	DESCRIPTION OF LOAD	LOAD TYPE	LOAD (KVA)	MINIMUM BRANCH CIRCUIT	PER PHASE (KVA) A	B	C	MINIMUM BRANCH CIRCUIT	LOAD (KVA)	LOAD TYPE	DESCRIPTION OF LOAD	TRIP AMPS	CKT NO.
1	20	JB FOR BUILDING SIGNAGE	L	1.00	2#12, #12G, 3/4"C	2.00			2#12, #12G, 3/4"C	1.00	O	RESTROOM HAND DRYER	20	2
3	20	LED NEON SIGN	L	0.50	2#12, #12G, 3/4"C		0.86		2#12, #12G, 3/4"C	0.36	R	ROOF RECEPTACLES	20	4
5	20	JB FOR BUILDING SIGNAGE	L	1.00	2#12, #12G, 3/4"C			1.36	2#12, #12G, 3/4"C	0.36	R	RESTROOM RECEPTACLES	20	6
7	20	PREP/STORAGE AREA LTG	L	0.27	2#12, #12G, 3/4"C	1.17			2#12, #12G, 3/4"C	0.90	R	GENERAL RECEPTACLES	20	8
9	20	OFFICE LTG	L	0.05	2#12, #12G, 3/4"C		0.77		2#12, #12G, 3/4"C	0.72	R	SEATING AREA USB RECEPTACLES	20	10
11	20	RESTROOMS LTG	L	0.50	2#12, #12G, 3/4"C			1.22	2#12, #12G, 3/4"C	0.72	R	SEATING AREA USB RECEPTACLES	20	12
13	20	TRACK LIGHTS	L	0.08	2#12, #12G, 3/4"C	0.44			2#12, #12G, 3/4"C	0.36	R	DMB MENUBOARD RECEPTACLE	20	14
15	20	SALES AREA LIGHTS	L	0.20	2#12, #12G, 3/4"C		1.80		2#12, #12G, 3/4"C	1.60	R	SHOW WINDOW RECEPTACLE	20	16
17	20	SEATING AREA LIGHTS	L	0.38	2#12, #12G, 3/4"C			1.98	2#12, #12G, 3/4"C	1.60	R	SHOW WINDOW RECEPTACLE	20	18
19	20	SERVICE AREA LIGHTS	L	0.12	2#12, #12G, 3/4"C	0.30			2#12, #12G, 3/4"C	0.18	R	EXTERIOR RECEPTACLES	20	20
21	20	WALK IN FREEZER LTG	L	0.10	2#12, #12G, 3/4"C		0.82		2#12, #12G, 3/4"C	0.72	R	POS STATION RECEPTACLES	20	22
23	20	30-3_SUNDAE STATION W/ CASTERS	E	0.40	2#12, #12G, 3/4"C			1.30	2#12, #12G, 3/4"C	0.90	R	OFFICE DESK RECEPTACLES	20	24
25	20	64-2_12 FACINGS DIPPING CABINET	E	1.50	2#12, #12G, 3/4"C	2.04			2#12, #12G, 3/4"C	0.54	R	OFFICE DESK RECEPTACLES	20	26
27	20	60Y_WAFFLE CONE MERCHANDISER	E	1.20	2#12, #12G, 3/4"C		2.70		2#12, #12G, 3/4"C	1.50	E	64-2_12 FACINGS DIPPING CABINET	20	28
29	20	60Y_WAFFLE CONE MERCHANDISER	E	1.20	2#12, #12G, 3/4"C			2.70	2#12, #12G, 3/4"C	1.50	E	64-2_12 FACINGS DIPPING CABINET	20	30
31	2P-30	286_UPRIGHT FREEZER-3 SECTION CAKE & QUART DISPLAY	C	1.66	3#10, #10G, 3/4"C	2.18			2#12, #12G, 3/4"C	0.52	E	51 TRUE GDM-10F_FREEZER	20	32
33			C	1.66			3.16		2#12, #12G, 3/4"C	1.50	E	460_HARDENING CABINET	20	34
35	20	TRUE GDM-10_BEVERAGE REFRIGERATOR	C	0.51	2#12, #12G, 3/4"C			0.51				SPARE	20	36
37	20	450M_5 QUART STAND MIXER	E	0.96	2#12, #12G, 3/4"C	0.96						SPARE	20	38
39	20	SPARE					0.00					SPARE	20	40
41	20	SPARE						0.00				SPARE	20	42
					TOTAL CONNECTED LOAD (KVA)	9.09	10.11	9.06						

ELECTRICAL LOAD SUMMARY

VOLTAGE : 208/120V, 3-PH, 4W

SR. NO.	LOAD TYPE	CONNECTED LOAD (KVA)	DEMAND FACTOR	DEMAND LOAD (KVA)
1	LIGHTING	4.19	125%	5.24
2	RECEPTACLES	9.32	100%	9.32
3	HVAC	0.40	100%	0.4
4	MOTOR	0.70	100%	0.7
5	KITCHEN/EQUIPMENT	23.46	65%	15.2516
6	REFRIGERATION	5.94	100%	5.938
7	OTHER/MISC.	1.50	100%	1.5
	TOTAL LOAD (KVA)	45.51		38.35

ELECTRICAL LOAD SUMMARY

VOLTAGE : 480/277V, 3-PH, 4W

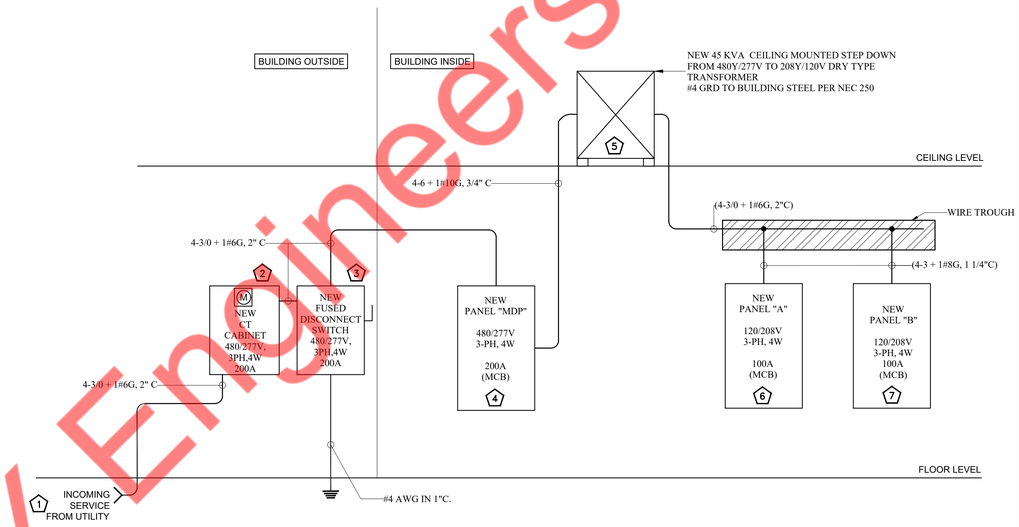
SR. NO.	LOAD TYPE	CONNECTED LOAD (KVA)	DEMAND FACTOR	DEMAND LOAD (KVA)
1	LIGHTING	0.00	125%	0.00
2	RECEPTACLES	0.00	100%	0.00
3	HVAC	0.00	100%	0.00
4	KITCHEN	0.00	100%	0.00
5	MOTOR	14.40	65%	9.36
6	REFRIGERATOR	0.00	100%	0.00
7	OTHER/MISC.	38.35	100%	38.35
	TOTAL LOAD (KVA)	52.75		47.71

ELECTRICAL PANEL SCHEDULE

N.T.S — A

ELECTRICAL RISER SYMBOL

- NEW
- EXISTING ITEM/FEEDER TO REMAIN
- EXISTING ITEM/FEEDER TO BE DISCONNECTED & REMOVED



ELECTRICAL RISER DIAGRAM

N.T.S — B

RISER DIAGRAM GENERAL NOTES

1. ABOVE RISER DIAGRAM IS FOR REFERENCE PURPOSES ONLY. E.C. SHALL VERIFY EXACT POWER DISTRIBUTION IN FIELD AND INFORM ENGINEER ON RECORD FOR ANY DISCREPANCY.
2. E.C. SHALL VERIFY INCOMING SERVICE AMPERAGE, WIRE SIZING AND DISTRIBUTION WITH UTILITY COMPANY/OWNER.
3. ELECTRICAL CONTRACTOR TO COORDINATE FAULT CURRENT (Isc) RATING WITH UTILITY COMPANY AND AHJ PRIOR TO COMMENCING ANY WORK.
4. E.C. SHALL PROVIDE ALL REQUIRED ACCESSORIES/WIRES AND DEVICES REQUIRED FOR THE PROPER DISTRIBUTION PER LOCAL AHJ REQUIREMENTS. BASE BID ACCORDINGLY.
5. E.C. SHALL ENSURE THAT VOLTAGE DROP SHALL BE WITHIN THE LIMIT OF PERMISSIBLE VALUES PER LOCAL AHJ AND NEC REQUIREMENTS..

RISER DIAGRAM KEYED WORK NOTES

1. NEW 200A, 480/277V, 3-PHASE, 4-WIRE UNDERGROUND ELECTRICAL SERVICE FOR THE PROJECT SPACE. E.C. SHALL VERIFY THE EXACT LOCATION/DETAILS OF SERVICE EQUIPMENTS WITH LANDLORD/OWNER/UTILITY COMPANY IN FIELD.
2. NEW 200A, 480/277V, 3-PHASE, 4-WIRE ELECTRICAL METER & CT CABINET FOR THE PROJECT SPACE. E.C. SHALL VERIFY THE EXACT LOCATION OF ELECTRICAL METER & CT CABINET WITH LANDLORD/OWNER/UTILITY COMPANY IN FIELD. BASE BID ACCORDINGLY.
3. NEW 200A, 480/277V, 3-PHASE, 4-WIRE FUSED DISCONNECT SWITCH FOR THE PROJECT SPACE. E.C. SHALL VERIFY THE EXACT LOCATION OF ELECTRICAL SERVICE ENTRANCE MANUAL TRANSFER SWITCH WITH LANDLORD/OWNER/UTILITY COMPANY IN FIELD. BASE BID ACCORDINGLY.
4. NEW 200A (MCB), 480/277V, 3-PHASE 4-WIRE ELECTRICAL PANEL "MDP FOR THE PROJECT SPACE. E.C. SHALL COORDINATE WITH ARCHITECT/OWNER FOR EXACT LOCATION OF ELECTRICAL PANEL "A" IN FIELD.
5. NEW CEILING MOUNTED 45 KVA, 480/277V TO 208/120V STEP DOWN DRY TYPE TRANSFORMER FOR THE PROJECT SPACE. E.C. SHALL COORDINATE WITH ARCHITECT/OWNER FOR EXACT LOCATION OF TRANSFORMER IN FIELD.
6. NEW 100A (MCB), 120/208V, 3-PHASE 4-WIRE ELECTRICAL PANEL "A" FOR THE PROJECT SPACE. E.C. SHALL COORDINATE WITH ARCHITECT/OWNER FOR EXACT LOCATION OF ELECTRICAL PANEL "A" IN FIELD.
7. NEW 100A (MCB), 120/208V, 3-PHASE 4-WIRE ELECTRICAL PANEL "B" FOR THE PROJECT SPACE. E.C. SHALL COORDINATE WITH ARCHITECT/OWNER FOR EXACT LOCATION OF ELECTRICAL PANEL "B" IN FIELD.

ELECTRICAL PANEL SCHEDULE NOTES

1. ALL CIRCUITING SHOWN IS FOR REFERENCE PURPOSE ONLY. E.C. SHALL VERIFY THE ELECTRICAL REQUIREMENT FOR CIRCUITING IN FIELD AS PER THE FINAL ELECTRICAL LOAD AND INFORM ENGINEER FOR ANY DISCREPANCIES.
2. E.C. SHALL VERIFY THE BREAKER AND CABLE RATING WITH EQUIPMENT SUPPLIER/OWNER AND ACCORDINGLY UPDATE THE BREAKER RATING CABLE SIZE IN FIELD.
3. E.C. SHALL COORDINATE WITH WALK-IN SUPPLIER FOR THE BREAKER AND CABLE REQUIREMENT AND ACCORDINGLY UPDATE IF REQUIRED IN FIELD.
4. ALL 125-VOLT THROUGH 250-VOLT RECEPTACLES SUPPLIED BY SINGLE-PHASE BRANCH CIRCUITS RATED 150 VOLTS OR LESS TO GROUND, 50 AMPERES OR LESS. AND ALL RECEPTACLES SUPPLIED BY THREE-PHASE BRANCH CIRCUITS RATED 150 VOLTS OR LESS TO GROUND. 100 AMPERES OR LESS. INSTALLED IN THE LOCATIONS SPECIFIED IN 210.8(B) SHALL BE WITH GFCI PROTECTION.
5. REFER TO ARCHITECTURAL SHEET K-1.0 FOR KITCHEN EQUIPMENT SCHEDULE. E.C. SHALL VERIFY THE BREAKER. CABLE. ELECTRICAL LOAD AND CONDUIT REQUIREMENT/SIZES/RATINGS FOR ALL KITCHEN EQUIPMENTS/MECHANICAL EQUIPMENTS WITH EQUIPMENT SUPPLIER/MANUFACTURER AND PROVIDE THE ELECTRICAL CONNECTION ACCORDINGLY. BASE BID ACCORDINGLY.

BASKIN ROBBINS

ARCHITECT

ENGINEER
NY ENGINEERS
NEARBY ENGINEERS
MICHAEL TOBIAS
382 NE 191ST STREET
SUITE 49674, MIAMI, FL 33179
PH-914.257.3455
WWW.NY-ENGINEERS.COM

SHEET TITLE

ELECTRICAL RISER PLAN

E-3.0

RDS PROJECT NUMBER: 24028 NOTE: DRAWINGS ARE NOT TO SCALE IF SHEET IS PLOTTED ON 11" x 17". PLOTS TO SCALE ON 24" x 36" SHEETS.

RDS PROJECT NUMBER: 24028

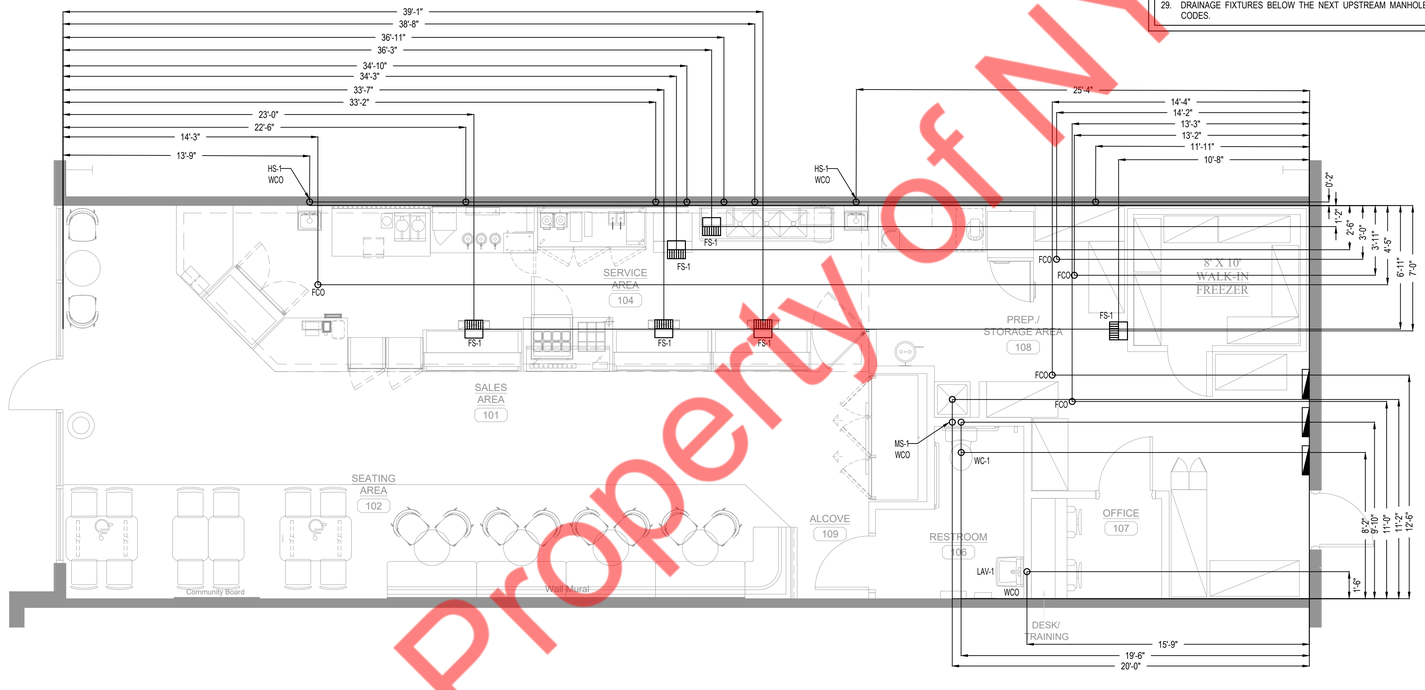
MATERIAL SCHEDULE

SYSTEM	OUTSIDE BLDG.						INSIDE BLDG.						NOTES
	BELOW GRADE			ABOVE GRADE			BELOW GRADE			ABOVE GRADE			
	MATERIAL	JOINTS	FITTINGS	MATERIAL	JOINTS	FITTINGS	MATERIAL	JOINTS	FITTINGS	MATERIAL	JOINTS	FITTINGS	
SOIL, WASTE AND VENT PIPING	SCHED. 40 ABS	SOLVENT WELD	SCHED. 40 ABS	SCHED. 40 ABS	SOLVENT WELD	SCHED. 40 ABS	SCHED. 40 ABS	SOLVENT WELD	SCHED. 40 ABS	SCHED. 40 ABS	SOLVENT WELD	SCHED. 40 ABS	WHERE APPROVED BY CODE, ABS PLASTIC PIPING, WRAPPED PER CODE WHERE PENETRATING CONCRETE.
WATER PIPE	SCHED. 40 PVC	SOLVENT WELD	SCHED. 40 PVC	TYPE "L" COPPER	LEAD FREE SOLDER	WROUGHT COPPER	TYPE "K" COPPER	LEAD FREE SOLDER	WROUGHT COPPER	TYPE "L" COPPER	LEAD FREE SOLDER	WROUGHT COPPER	OUTSIDE BLDG. BELOW GRADE - WHERE APPROVED BY LOCAL GOVERNING AGENCY, SCHEDULE 40 PVC PIPE AND FITTINGS MAY BE USED. INSIDE & OUTSIDE BLDG. ABOVE GRADE-TYPE "L" COPPER TUBE w/RECESSED SHOULDER FITTINGS. WHERE APPROVED BY GOVERNING AGENCY, TYPE 'M' MAY BE USED.
ROOF DRAINS	SCHED. 40 ABS	SOLVENT WELD	SCHED. 40 ABS	SCHED. 40 ABS	SOLVENT WELD	SCHED. 40 ABS	SCHED. 40 ABS	SOLVENT WELD	SCHED. 40 ABS	SCHED. 40 ABS	SOLVENT WELD	SCHED. 40 ABS	WHERE APPROVED BY LOCAL AUTHORITIES, ABS OR PVC PLASTIC. SPILL TO AN APPROVED POINT OF DISCHARGE
CONDENSATE DRAIN PIPE & INDIRECT DRAINAGE PIPE	SCHED. 40 PVC	SOLVENT WELD	SCHED. 40 PVC	TYPE 'M' COPPER	95/5 SILVER SOLDER JOINT	TYPE 'M' COPPER	TYPE 'M' COPPER	95/5 SILVER SOLDER JOINT	TYPE 'M' COPPER	TYPE 'M' COPPER	95/5 SILVER SOLDER JOINT	TYPE 'M' COPPER	INSULATE WITH 1/2" ARMAFLEX CLOSED CELL PIPE INSULATION WITH SELF SEALING ADHESIVE JOINTS, OR EQUIVALENT.

NOTES:
1. IT IS THE CONTRACTORS RESPONSIBILITY TO VERIFY WITH THE LOCAL GOVERNING AUTHORITY, THE ACCEPTABILITY OF PLASTIC PIPE AS SPECIFIED ABOVE.
2. ALL HOT WATER MAINS, EXCEPT RUN-OUTS TO FIXTURES SHALL BE INSULATED WITH 3/4" THICK, SNAP ON FIBERGLASS INSULATION WITH CANVAS JACKET, 4.5 MINIMUM.

GENERAL NOTES:

1. ALL WORK SHALL COMPLY WITH ALL LOCAL AND STATE CODES AND AUTHORITIES HAVING JURISDICTION.
2. THE CONTRACTOR SHALL SECURE AND PAY FOR ALL REQUIRED PERMITS AND ARRANGE ALL REQUIRED INSPECTIONS.
3. THE CONTRACTOR SHALL COORDINATE HIS WORK WITH OTHER CONTRACTORS AND TRADES.
4. THESE DRAWINGS, AS PREPARED, ARE DIAGRAMMATIC BUT SHALL BE FOLLOWED AS CLOSELY AS CONSTRUCTION OF THE PROJECT AND THE WORK OF THE TRADES WILL PERMIT. EQUIPMENT LOCATIONS INDICATED ARE APPROXIMATE. COORDINATE EXACT LOCATIONS AND REQUIRED CLEARANCES WITH EQUIPMENT SUPPLIER AND ALL TRADES PRIOR TO INSTALLATION.
5. THE CONTRACTOR SHALL FURNISH AND INSTALL ALL THE EQUIPMENT INDICATED WITHIN THESE DRAWINGS UNLESS OTHERWISE NOTED. VERIFY LOCATION AND DIMENSIONS IN THE FIELD PRIOR TO FABRICATION AND / OR INSTALLATION.
6. ALL ROOF PENETRATIONS SHALL BE AT THE CONTRACTOR'S EXPENSE. COORDINATE WITH OWNER'S ROOFING CONTRACTOR SO AS NOT TO VOID ANY EXISTING ROOF WARRANTIES.
7. THE ENTIRE INSTALLATION SHALL BE GUARANTEED FREE OF DEFECTS AND CONTRACTOR SHALL REPAIR AND / OR REPLACE ANY DEFECTIVE MATERIALS OR EQUIPMENT AT NO COST TO THE OWNER FOR A MINIMUM PERIOD OF ONE YEAR FROM THE DATE OF ACCEPTANCE BY ARCHITECT OR ENGINEER.
8. ALL WORK SHALL BE SUBJECT TO THE ACCEPTANCE AND APPROVAL OF THE ARCHITECT AND OWNER. THE ARCHITECT SHALL BE NOTIFIED OF ANY AND ALL DISCREPANCIES BETWEEN FIELD CONDITIONS AND THE CONTRACT DOCUMENTS BEFORE PROCEEDING WITH THAT PORTION OF THE WORK. FAILURE OF PROPER NOTIFICATION DOES NOT RELIEVE THE CONTRACTOR. THE CONTRACTOR SHALL CORRECT ANY AND ALL WORK ARISING FROM SUCH FAILURE TO COORDINATE DISCREPANCIES TO THE SATISFACTION OF THE ARCHITECT WITHOUT ADDITIONAL COST TO THE OWNER.
9. ALL KITCHEN, PREP AREA AND SALES AREA EQUIPMENT WILL BE FURNISHED AND INSTALLED. EQUIPMENT WILL BE FURNISHED WITH TRIM, FAUCETS, ESCUTCHEONS, ETC. PLUMBING CONTRACTOR SHALL PROVIDE ALL ROUGH-IN TRAPS AND MAKE ALL FINAL CONNECTIONS (SEE EQUIPMENT SCHEDULE).
10. ALL PIPING TO BE CONCEALED IN HUNG CEILINGS, CHASES AND FURRED SPACES.
11. REFER TO EQUIPMENT SCHEDULE AND EQUIPMENT SPECIFICATIONS FOR EXACT LOCATIONS OF PLUMBING CONNECTIONS.
12. THE CONTRACTOR SHALL VERIFY DEPTH, SIZE, LOCATION OF ALL EXISTING UTILITIES IN FIELD PRIOR TO STARTING WORK.
13. THE CONTRACTOR SHALL PROVIDE AND INSTALL ALL PIPE HANGERS, AND SUPPORTS IN ACCORDANCE WITH THE LOCAL APPLICABLE CODES.
14. THE CONTRACTOR TO PROVIDE TRAP PRIMERS, DEEP SEAL TRAP OR TRAP SEAL ON ALL FLOOR DRAINS AS PER APPLICABLE CODE.
15. ALL PENETRATIONS REQUIRED FOR PLUMBING EQUIPMENT AND PIPING THROUGH ANY WALL SHALL BE PROPERLY SEALED OFF TO MAINTAIN THE INTEGRITY OF THE STRUCTURE.
16. ALL SHUT OFF AND ISOLATION VALVES SHALL BE BALL TYPE. ALL VALVES SERVING TOILETS AND SINKS SHALL BE ANGLE STOP TYPE.
17. PROVIDE AN INDIVIDUAL BALL VALVE AND BACK CHECK VALVE TO EACH INDIVIDUAL PIECE OF EQUIPMENT.
18. PROVIDE BACKFLOW PREVENTERS AT ALL COFFEE MAKERS, BAGEL OVEN, DIPPING WELLS, ICE MAKER AND ALL OTHER EQUIPMENT AS REQUIRED BY CODE.
19. PROVIDE AERATORS ON ALL HAND SINKS AND LAVATORIES THROUGHOUT THE FACILITY.
20. PROVIDE KAY CHEMICAL DISPENSER (SEE NATIONAL ACCOUNTS) AT MOP SINK AND THREE COMP SINK. MOUNT BOTTLE AND DISPENSER ABOVE SINK AS REQUIRED BY CHEMICAL SUPPLIER.
21. SANITARY SEWER AND VENT - SOIL LINES, WASTE LINES, VENTS, AND BUILDING DRAINS SHALL BE POLYVINYLCHLORIDE (PVC) PLASTIC, SCHEDULE 40 MINIMUM. ABS PLASTIC, CAST IRON AND DWV COPPER ARE ALSO ACCEPTABLE SUBSTITUTES WHERE ALLOWED OR REQUIRED BY CODE. ALL PRODUCTS SHALL BEAR THE SEAL OF A NATIONALLY-RECOGNIZED LISTING OR CERTIFYING AGENCY.
22. DOMESTIC WATER AND HOT WATER PIPING SHALL BE TYPE "L" COPPER, INSULATED WITH 1" ARMAFLEX OR EQUIVALENT.
23. DOMESTIC WATER PIPING UNDER FLOOR SHALL BE TYPE "K" COPPER.
24. THE PLUMBING FIXTURES SHALL MEET THE LOW FLOW STANDARDS:
    - 24.1. WATER CLOSET (TOILETS) = 1.25 GALLONS PER FLUSH
    - 24.2. LAVATORY (SINK, FAUCETS) = 1.5 GALLONS PER MINUTE MAX.
25. ROOFTOP PIPING EXPOSED TO WEATHER OR SUNLIGHT MUST BE METALLIC.
26. ALL FERROUS PIPING EXPOSED TO WEATHER MUST BE GALVANIZED.
27. PLASTIC CONDENSATE PIPING MUST BE DVW RATED, OR 90° TURNS ACCOMPLISHED WITH TWO 45° FITTINGS.
28. ALL DRAINAGE PIPING TO HAVE A MINIMUM SLOPE OF ¼" PER FOOT
29. DRAINAGE FIXTURES BELOW THE NEXT UPSTREAM MANHOLE COVER, OR BELOW THE MAIN SEWER SHALL COMPLY WITH GOVERNING CODES.



S E W NORTH

UNDER SLAB ROUGH-IN PLAN — A

1/4"=1'-0"

NOTES:
1. REFER TO SHEET K-1.0 FOR EQUIPMENT SCHEDULE.
2. ALL DIMENSIONS SHOWN ARE FROM FACE OF EXTERIOR FRAMING WALL TO CENTER OF FIXTURE, U.N.O.
3. DIMENSIONS ARE SHOWN FOR REFERENCE ONLY AND MUST BE FIELD VERIFIED w/ WALL DIMENSIONS SHOWN ON FLOOR PLAN

PLUMBING LEGEND

SYMBOL	ABBREV.	DESCRIPTION
EX.SAN	EX.SAN	EXISTING SOIL OR WASTE (BELOW GRADE)
EX.V	EX.V	EXISTING VENT
EX.GW	EX.GW	EXISTING GREASE WASTE (BELOW GRADE)
SAN	SAN	SOIL OR WASTE (BELOW GRADE)
V	V	VENT
GW	GW	GREASE WASTE (BELOW GRADE)
	CD	CONDENSATE DRAIN
	CW	COLD WATER
	HW	HOT WATER
	HWR	HOT WATER RETURN
	EX.CW	EXISTING COLD WATER
	G	GAS
	UP	PIPE UP
	DN.	TEE DOWN
	DN.	PIPE DOWN
FCO	FCO	FLOOR CLEAN OUT
	SOV	SHUT-OFF VALVE
	C.V.	CHECK VALVE
	U	UNION
	POC	POINT OF CONNECTION
	T&P	TEMPERATURE & PRESSURE RELIEF VALVE
	VTR	VENT TO ROOF
	FS	FLOOR SINK (COORDINATE GRATE REQS)
WCO	WCO	WALL CLEAN OUT
	BV	BALANCING VALVE
	RCP	RECIRCULATION PUMP
		GAS COCK VALVE
		GAS ISOLATION VALVE
	KEC	KITCHEN EQUIPMENT CONTRACTOR
	EX	EXISTING
	I.E.	INVERT ELEVATION
	CONN	CONNECTION
	FU	FIXTURE UNITS
	GPM	GALLONS PER MINUTE
	GPH	GALLONS PER HOUR
	HP	HORSEPOWER
	PSI	POUNDS PER SQUARE INCH
	AP	ACCESS PANEL
	W/	WITH
	FLR	FLOOR
	CLG	CEILING
	ABV	ABOVE
	BEL	BELOW
	UG	UNDERGROUND
	DN	DOWN
	CONT.	CONTINUE
	TYP.	TYPICAL
	FOH	FRONT OF HOUSE
	BOH	BACK OF HOUSE
	A.D.A.	AMERICAN DISABILITIES ACT
	A.F.F.	ABOVE FINISH FLOOR
	B.F.F.	BELOW FINISH FLOOR
	GT	GREASE TRAP
	BTUH	THOUSAND BRITISH THERMAL UNIT PER HOUR

FIXTURE FLOW RATE TABLE

FIXTURE TYPE	MAX. FLOW RATE AT 20% REDUCTION
LAVATORY FAUCETS	0.4 GPM @ 60 PSI
KITCHEN FAUCETS	1.8 GPM @ 60 PSI
METERING FAUCETS	0.2 GALLONS/CYCLE
GRAVITY TANK TYPE WATER CLOSETS	1.28 GALLONS/FLUSH
URINALS	0.5 GALLONS/FLUSH

STANDARD FOR PLUMBING FIXTURES & FITTINGS

REQUIRED STANDARDS	
WATER CLOSETS (TOILETS) -TANK TYPE	U.S. EPA WATERSENSE TANK-TYPE HIGH EFFICIENCY TOILET SPECIFICATIONS
URINALS, MAXIMUM FLUSH VOLUME	ASME A 112.19.2/CSA B45.1 - 0.5 GAL
LAVATORY FAUCETS: MAXIMUM FLOW RATE - 0.5 GPM	ASME A 112.18.1/CSA B 125.1
METERING SELF-CLOSING FAUCETS: MAXIMUM WATER USAGE - 0.25 GAL PER METERING CYCLE	ASME A 112.18.1/CSA B 125.1

BASKIN ROBBINS

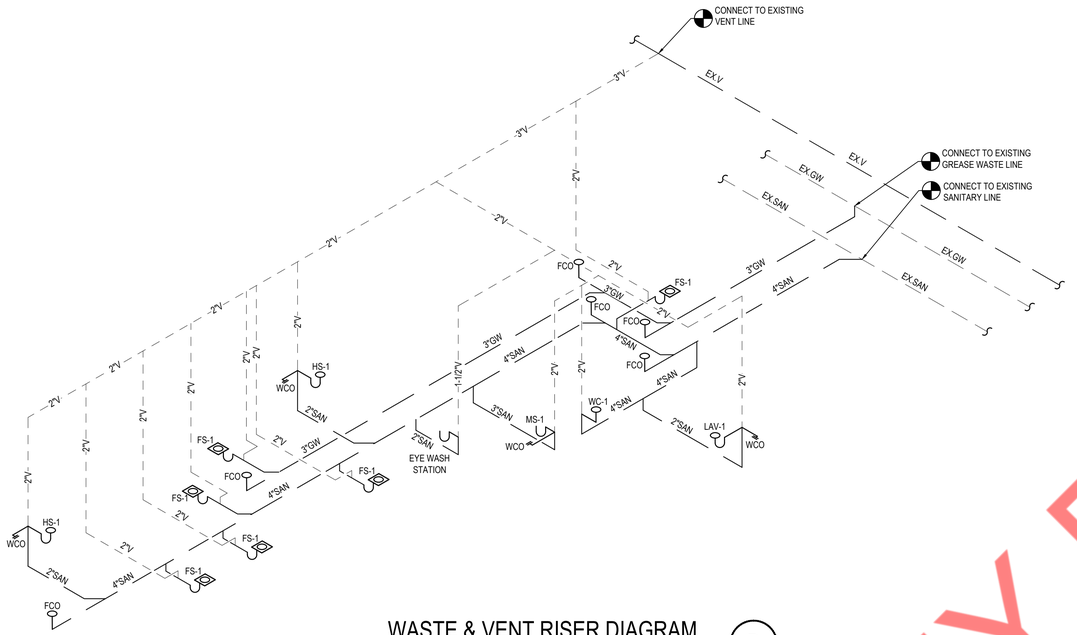
ARCHITECT

ENGINEER
NY ENGINEERS
NEARBY ENGINEERS
MICHAEL TOBIAS
382 NE 191ST STREET
SUITE 49674, MIAMI, FL 33179
PH-914.257.3455
WWW.NY-ENGINEERS.COM

SHEET TITLE
UNDER SLAB ROUGH IN PLAN & NOTES

P-1.0

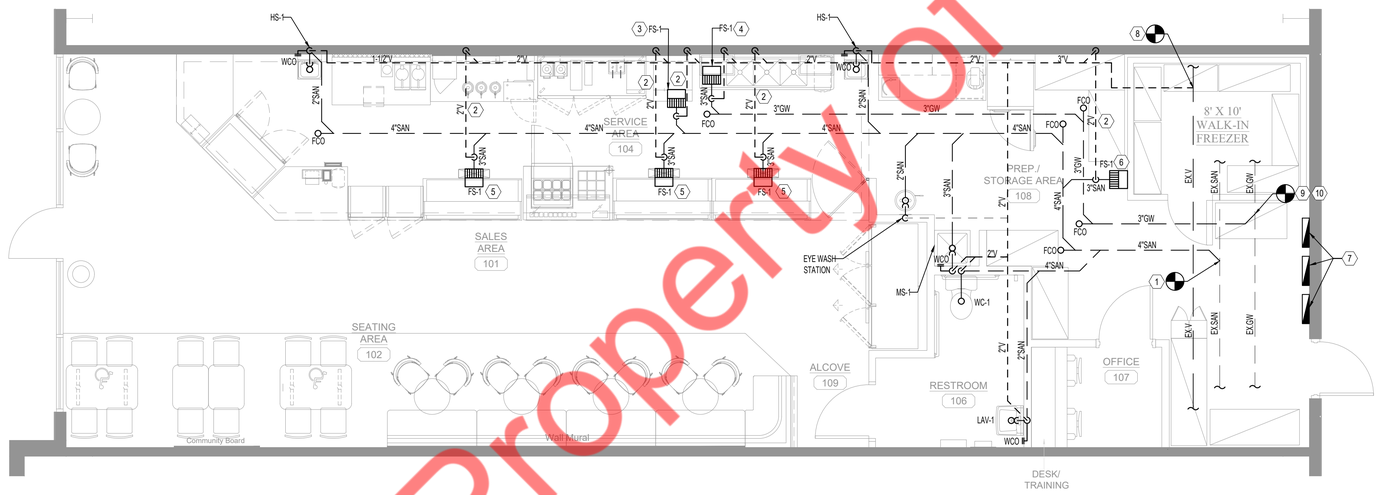
RDS PROJECT NUMBER: 24028



WASTE & VENT RISER DIAGRAM

N.T.S.

B



PLUMBING WASTE & VENT PLAN

1/4"=1'-0"

A

NOTES:

1. REFER TO SHEET P-1.0 FOR NOTES AND SCHEDULES.
2. REFER TO SHEET K-1.0 FOR EQUIPMENT SCHEDULE.
3. VERIFY ALL UTILITY CONNECTION REQUIREMENTS w/ EQUIP. MANUFACTURER PRIOR TO INSTALLATION.

PLUMBING EQUIPMENT & FIXTURE SCHEDULE

LEGEND	PLUMBING FIXTURE	QTY	CONNECTION SIZE - INCHES				REMARKS
			SOIL/WASTE	VENT	COLD WATER	HOT WATER	
WC-1	WATER CLOSET	1	4"	2"	1/2"	-	AMERICAN STANDARD CADET NOT TO EXCEED 1.6 GALLONS PER FLUSH
LAV-1	LAVATORY	1	2"	2"	1/2"	1/2"	PROVIDE P-TRAP AMERICAN STANDARD LUCERNE
MS-1	MOP SINK BASIN & FAUCET	1	3"	2"	3/4"	3/4"	FIAT MSB 2424 OR EQUAL.
FS-1	FLOOR SINK	6	3"	2"	-	-	ZURN Z-1901, 12" SQUARE TOP, 8" DEEP DOME STRAINER, 1/2 GRATE
ET-1	EXPANSION TANK	1	-	-	3/4"	-	AMTROL ST-5C, 10" DIA X 10" HEIGHT, TANK VOLUME: 2.1 GALLONS
IWH-1	INSTANTANEOUS WATER HEATER (RINNAI CU199i)	1	-	-	3/4"	3/4"	GAS TANKLESS WATER HEATER, 4.8 GPM RECOVERY AT 80°F RISE. 120V, 60HZ, 199.000 BTU/H
3CS	3-COMPARTMENT SINK	1	-	-	1/2"	1/2"	MIDDLEBY FABRICATION BR002662
HS-1	HAND SINK	2	2"	2"	1/2"	1/2"	UNIVERSAL EHS-1RL-WH
RCP-1	RE-CIRCULATION PUMP FOR HWR LINE	1	-	-	-	3/4" HWR	GRUNDFOS UPS 15-18, 2GPM, HEAD 10FT AND 0.115HP. PROVIDE WITH TIMER & AQUASTAT.
BFP-1	BACKFLOW PREVENTER	3	-	-	1/2"	-	WATTS LF9D DUAL CHECK VALVE BACKFLOW PREVENTER WITH INTERMEDIATE ATMOSPHERIC VENT
RPZ-1	REDUCED PRESSURE ZONE	1	-	-	1/2"	-	WATTS LF009 REDUCED PRESSURE ZONE ASSEMBLY
TMV-1	THERMOSTATIC MIXING VALVES ON LAV/HS/3CS	4	-	-	1/2"	-	WATTS USG-B-M2 OR EQUIVALENT COMPLIANT WITH ASSE 1070.
TMV-2	THERMOSTATIC MIXING VALVES ON IWH-1	1	-	-	3/4"	-	WATTS LF1170M2-US OR EQUIVALENT COMPLIANT WITH ASSE 1017.
EYE WASH STATION	EYE WASHING STATION	1	2"	1-1/2"	1/2"	-	"

PLUMBING KEYED NOTES:

1. CONNECT TO EXISTING WASTE LINE. CONTRACTOR TO VERIFY P.O.C. SIZE, LOCATION, FLOW OF DIRECTION & INVERT IN FIELD.
2. VENT LINES ROUTED BELOW GRADE AS SHOWN.
3. ROUTE INDIRECT WASTE FROM ICE MACHINE & ICE BIN TO FLOOR SINK WITH APPROVED AIR GAP. CONSULT ICE MACHINE INSTRUCTION MANUAL FOR INDIRECT PIPING REQUIREMENTS. REFER DETAIL F/P-3.0.
4. ROUTE INDIRECT WASTE FROM 3 COMP. SINK TO FLOOR SINK WITH APPROVED AIR GAP.
5. ROUTE INDIRECT WASTE FROM DIPPERWELL TO FLOOR SINK WITH APPROVED AIR GAP
6. ROUTE WALK-IN CONDENSATE DRAIN LINE IN WALL CAVITY AS HIGH AS POSSIBLE AND ALONG WALLS. PROVIDE ACCESS PANEL WHERE IT PENETRATES WALK IN BOX. INSULATE ALL CONDENSATE PIPING AND PITCH A MINIMUM OF 1/4" PER FOOT IN THE DIRECTION OF FLOW. ALL CONDENSATE LINES MOUNTED ON INSIDE OF COOLER WALLS TO HAVE 3/4" NYLON STAND OFF BLOCKS WITH NYLON TIE. SEAL ALL COOLER WALL PENETRATIONS WATER TIGHT AND COVER EACH WITH AN ESCUTCHEON PLATE. PROVIDE FULL SIZE TRAP AND EXTEND ABOVE FLOOR AND BEHIND EQUIPMENT FOR AN INDIRECT CONNECTION TO FLOOR SINK. REFER TO DETAIL I/P-3.0.

   NO PIPING SHALL BE RUN ABOVE OR BELOW ELECTRIC PANELS.
7. EXTEND AND CONNECT TO EXISTING VENT PIPE IN THE SPACE. CONTRACTOR TO VERIFY EXACT LOCATION OF VTR ON SITE. IF THERE IS LESS THAN 10'-0" CLEARANCE BETWEEN MECHANICAL UNIT INTAKES AND EXISTING VTR. CONTRACTOR TO PROPOSE NEW SUITABLE LOCATION FOR VTR.
8. CONNECT TO EXISTING GREASE WASTE LINE IN THE SPACE. CONTRACTOR TO FIELD VERIFY EXACT P.O.C., SIZE, LOCATION, FLOW OF DIRECTION & INVERT IN FIELD. CONFIRM WITH OWNER THAT GREASE INTERCEPTOR WILL RECEIVE MOSTLY CREAM AND BUTTER TYPE WASTE.
9. CONTRACTOR TO FIELD VERIFY THE EXISTING GREASE INTERCEPTOR'S CAPACITY AND CONDITION. IF THE CAPACITY IS INSUFFICIENT BASED ON THE CALCULATED TOTAL GALLONS REQUIRED, REPLACE THE GREASE INTERCEPTOR. BEFORE REUSING, ENSURE THE EXISTING GREASE INTERCEPTOR IS THOROUGHLY CLEANED.
10.

GREASE TRAP SIZING CALCULATIONS

SR. NO.	FIXTURE	QUANTITY	Dimensions (Inches)			Volume		PERCENTAGE USAGE	ACTUAL USAGE	FLOW RATE (GPM)	
			LENGTH (L)	WIDTH (W)	DEPTH (D)	CUBIC INCHES	GALLONS			1 MINUTE	2 MINUTES
1	3 COMP SINK (3CS)	3	18	18	14	13608	58.9	0.75	44.18	44.18	22.09
TOTAL										44.18	22.09

THE PROJECT IS AN ICE CREAM SHOP. 3-COMP SINK WILL RECEIVE MOSTLY CREAM & BUTTER TYPE WASTE. OTHER FIXTURES / EQUIPMENT ARE NOT EXPECTED TO PRODUCE ANY SIGNIFICANT AMOUNT OF PRODUCE FAT, OIL OR GREASE WASTE.

CONTRACTOR NOTE:

IT IS RESPONSIBILITY OF THE CONTRACTOR TO NOTIFY THE ARCHITECT, LANDLORD OR TENANT OF ANY DISCREPANCIES ENCOUNTERED ON THE PLANS OR IN EXISTING SITE CONDITIONS PRIOR TO SUBMISSION OF BID.

BIDDERS ARE TO VISIT THE SITE AND FAMILIARIZE THEMSELVES WITH EXISTING CONDITIONS AND SATISFY THEMSELVES AS TO THE NATURE AND SCOPE OF THE WORK.

THE BASE BID SHALL REFLECT MODIFICATIONS TO SYSTEMS AND DEVICES AS REQUIRED BY STATE, LOCAL AND FEDERAL CODES WHETHER INDICATED OR NOT ON CONTRACT DOCUMENTS.

THE SUBMISSIONS OF A BID WILL BE EVIDENCE THAT SUCH AS EXAMINATION AND COMPLIANCE WITH THE GOVERNING CODES/REQUIREMENTS HAS BEEN MADE.

LATER CLAIMS FOR LABOR, EQUIPMENT OR MATERIALS REQUIRED OR FOR DIFFICULTIES ENCOUNTERED WHICH COULD HAVE BEEN FORSEEN HAD AND EXAMINATION AND CODE/REQUIREMENTS REVIEW BEEN MADE, WILL NOT BE ALLOWED.

BASKIN ROBBINS

ARCHITECT

ENGINEER
NY ENGINEERS
NEARBY ENGINEERS
MICHAEL TOBIAS
382 NE 191ST STREET
SUITE 49674, MIAMI, FL 33179
PH-914.257.3455
WWW.NY-ENGINEERS.COM

SHEET TITLE

PLUMBING WASTE & VENT PLAN

P-2.0

RDS PROJECT NUMBER: 24028

GAS CONNECTION SCHEDULE	
EQUIPMENT	GAS LOAD
RTU-1	80,000 BTUH
RTU-2	80,000 BTUH
IWH-1	199,000 BTUH
TOTAL LOAD	359,000 BTUH

1. DEVELOPED LENGTH IS 60'-0"
2. EQUIVALENT TO 360 CFH
3. LESS THAN 2 PSI DELIVERY PRESSURE

GAS PIPING SIZED PER INTERNATIONAL FUEL GAS CODE 2015 EDITION TABLE #402.4(1):
FOR GAS PRESSURE LESS THAN 2 PSI.
PRESSURE DROP: 0.5" W.C. , SPECIFIC GRAVITY: 0.60
TOTAL NEW GAS LOAD: 359,000 BTU/HR, MAXIMUM DISTANCE: 60'-0" (V.I.F.)

NOTE:
CONTRACTOR SHALL VERIFY EXACT DEVELOPED DISTANCE FROM GAS METER TO FARTHEST GAS LINE POINT. ADJUST GAS SIZES AND METER CAPACITY ACCORDINGLY.

CONTRACTOR TO FIELD VERIFY EXISTING AVAILABLE GAS PRESSURE AND MAKE SURE TO PROVIDE ADEQUATE INLET PRESSURE REQUIRED FOR MECHANICAL EQUIPMENTS.

PROVIDE GAS PRESSURE REGULATOR FOR EQUIPMENT IF THE PRESSURE IS EXCESSIVE.

PROVIDE SHUT-OFF VALVE AN ACCESSIBLE LOCATION.

CONTRACTOR SHALL VERIFY ACTUAL GAS PRESSURE AND LONGEST LENGTH OF RUN FROM METER TO FARTHEST APPLIANCE PRIOR TO INSTALLATION AND NOTIFY ENGINEER IF CONDITIONS DIFFER FROM THOSE SHOWN ON THE PLAN.

PLUMBING KEYED NOTES:

1. EXTEND AND CONNECT NEW 1" CW PIPING TO EXISTING WATER LINE. CONTRACTOR TO VERIFY P.O.C. SIZE & LOCATION IN FIELD. COORDINATE REQUIREMENT OF BACKFLOW PREVENTER WITH LANDLORD. IF EXISTING RPZ IS NOT IN SERVICEABLE CONDITION, ADD NEW RPZ TO BASE BID.
2. PROVIDE 1" CW SHUT-OFF VALVE & CHECK VALVE ABOVE CEILING IF NOT EXISTING. MARK CEILING PANEL WITH SHUT-OFF VALVE.
3. INSTALL SUPPLIES TO LAVATORIES AND HAND SINKS COMPLETE WITH HOT WATER TEMPERING VALVE. SET TEMPERING VALVE AT 110°F. LOCATE TEMPERING VALVE AS CLOSE TO FIXTURE AS POSSIBLE.
4. ROUTE 3/4" CW LINE TO WATER CLOSET.
5. PROVIDE 1/2" WATTS LF5D (OR EQUIVALENT) BACKFLOW PREVENTER IN SUPPLY LINE TO DIPPERWELL. LOCATE IN ACCESSIBLE LOCATION ABOVE CEILING.
6. ROUTE 1/2" CW LINE TO ICE MACHINE. REFER TO DETAIL F/P-3.0.
7. NO PIPING SHALL BE RUN ABOVE OR BELOW ELECTRIC PANELS.
8. ROUTE 3/4" HW & CW LINES TO 3-COMP SINK FAUCET. INSTALL SUPPLIES COMPLETE WITH HOT WATER TEMPERING VALVE. TEMPERING VALVE SET AT 110°F, LOCATE IN ACCESSIBLE LOCATION ABOVE LAY-IN CEILING.
9. ROUTE 1/2" CW LINE IN WALL. TRANSITION TYPE-K COPPER PIPE. ROUTE LINES UNDERGROUND THROUGH 2" PVC PIPE TO UNDER COUNTER. TRANSITION BACK TO STANDARD COPPER PIPING AND ROUTE TO EQUIPMENT AS NECESSARY. PVC PIPE SHALL STUB UP 4" ABOVE FINISHED FLOOR.
10. ROUTE 1/2" CW LINE TO DIPPER WELL.
11. ROUTE 3/4" CW, HW & HWR LINES TO WATER HEATER WH-1 WALL MOUNTED ABOVE MOP SINK. PROVIDE EXPANSION TANK (ET-1), RE-CIRCULATION PUMP (RCP-1) & THERMOSTATIC MIXING VALVE (TMV-2). REFER TO DETAIL O/P-3.0.
12. ROUTE 3/4" CW & HW LINES TO MOP SINK. PROVIDE MOP SINK FAUCET WITH VACUUM BREAKER (FLORES TONE #MR-371 OR EQUAL)
13. PROVIDE 1/2" WATTS LF009 (OR EQUIVALENT) REDUCED PRESSURE ZONE ASSEMBLY IN SUPPLY LINE TO ICE MACHINE. LOCATE IN ACCESSIBLE LOCATION ABOVE CEILING.
14. CONNECT NEW 1-1/4 GAS LINE TO NEW GAS METER. CONTRACTOR TO FIELD VERIFY AND COORDINATE FINAL LOCATION, SIZE AND PRESSURE FOR NEW GAS METER AND MAIN LINE WITH UTILITY COMPANY.
15. RAISE GAS PIPE UP TO ROOF AND CONNECT TO RTU.

ENERGY CONSERVATION NOTES:

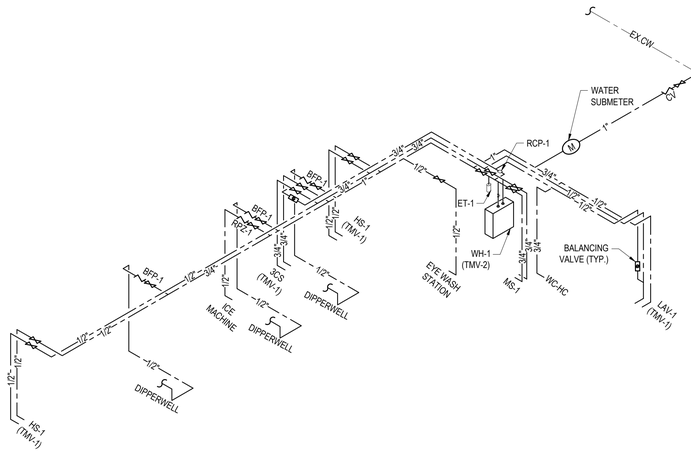
1. AS PER 2015 INTERNATIONAL ENERGY CONSERVATION CODE C404.4, PIPING FROM A WATER HEATER TO THE TERMINATION OF HEATED WATER FIXTURE SUPPLY PIPE SHALL BE INSULATED IN ACCORDANCE WITH TABLE OF MINIMUM PIPE INSULATION THICKNESS.

MINIMUM PIPE INSULATION THICKNESS							
FLUID OPERATING TEMPERATURE RANGE AND USAGE (°F)	INSULATION CONDUCTIVITY		NOMINAL PIPE OR TUBE SIZE (INCHES)				
	CONDUCTIVITY BTU- IN / (H- FT2- °F)	MEAN RATING TEMPERATURE, °F	<1	1 to < 1½	1½ to < 4	4 to < 8	≥8
141-200	0.25-0.29	125	1.5	1.5	2	2	2
105-140	0.21-0.28	100	1.0	1.0	1.5	1.5	1.5
40-60	0.21-0.27	75	0.5	0.5	1.0	1.0	1.0

2. HOT WATER SYSTEM PIPING IS DESIGNED AS PER MAXIMUM ALLOWED PIPE LENGTH METHOD AS PER 2015 INTERNATIONAL ENERGY CONSERVATION CODE C404.5.1. THE MAXIMUM ALLOWABLE PIPE LENGTH FROM THE NEAREST SOURCE FROM THE THE NEAREST SOURCE OF HEATED WATER TO THE TERMINATION OF THE FIXTURE SUPPLY SHALL BE AS PER MAXIMUM PIPING LENGTH TABLE.

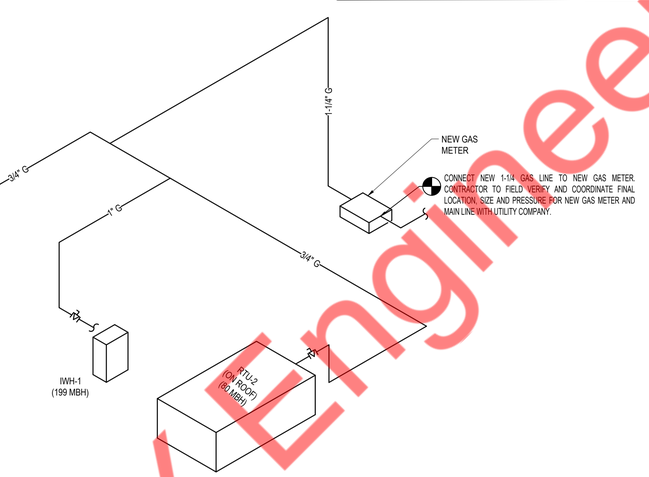
NOMINAL PIPE SIZE (INCHES)	MIXIMUM PIPING LENGTH (FEET)	
	PUBLIC LAV	OTHER FIXTURES
½"	2'	43'
¾"	0.5'	21'
1"	0.5'	13'
1¼"	0.5'	8'
1½"	0.5'	6'
2" OR LARGER	0.5'	4'

3. AS PER 2015 INTERNATIONAL ENERGY CONSERVATION CODE C404.6.1, AUTOMATIC CONTROLS SHALL BE INSTALLED THAT LIMITS THE OPERATION OF A RE-CIRCULATING PUMP AND THE SYSTEM RETURN PIPE SHALL BE A DEDICATED RETURN PIPE OR A COLD WATER SUPPLY PIPE.
4. AS PER 2015 INTERNATIONAL ENERGY CONSERVATION CODE C404.7, PUMPS SHALL HAVE CONTROLS THAT COMPLY WITH BOTH OF THE FOLLOWING:
   A. THE CONTROL SHALL START THE PUMP UPON RECEIVING A SIGNAL FROM THE ACTION OF A USER OF A FIXTURE OR APPLIANCE, SENSING THE PRESENCE OF A USER OF A FIXTURE OR SENSING THE FLOW OF HOT OR TEMPERED WATER TO A FIXTURE FITTING OR APPLIANCE.
   B. THE CONTROL SHALL LIMIT THE TEMPERATURE OF THE WATER ENTERING THE COLD-WATER PIPING TO 104°F (40°C).
5. AS PER 2015 INTERNATIONAL ENERGY CONSERVATION CODE C404.3, WATER HEATING EQUIPMENT NOT SUPPLIED WITH INTEGRAL HEAT TRAPS AND SERVING NON RE-CIRCULATING SYSTEM SHALL BE PROVIDED WITH HEAT TRAPS ON SUPPLY AND DISCHARGE PIPING ASSOCIATED WITH EQUIPMENT.



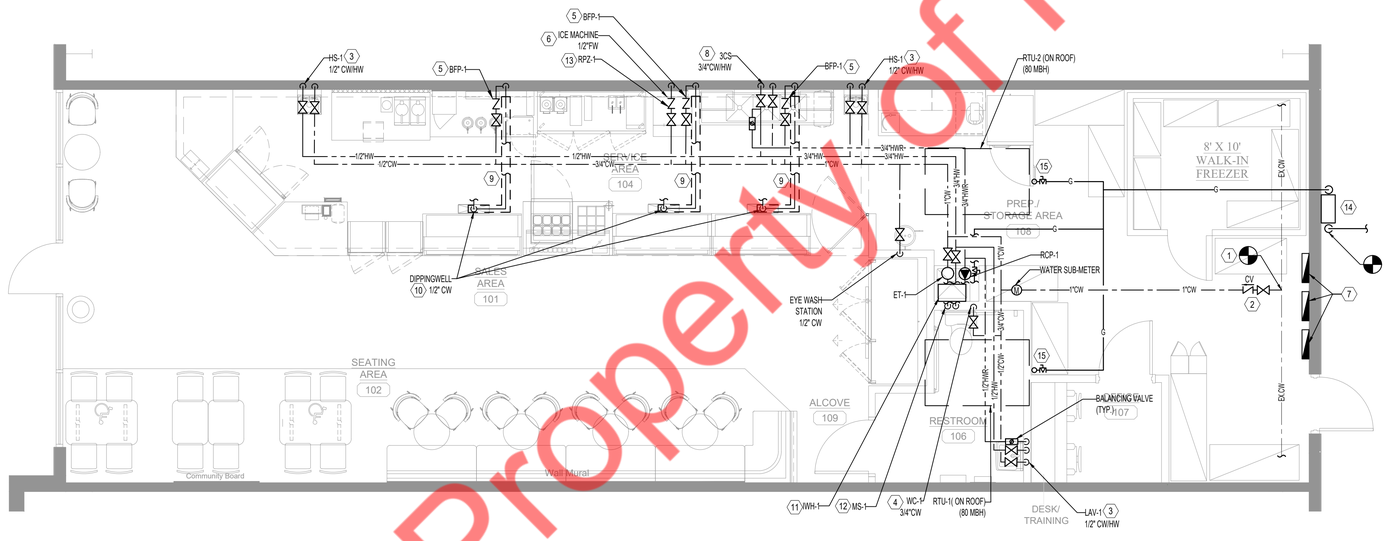
WATER RISER DIAGRAM B

N.T.S.



GAS RISER DIAGRAM C

N.T.S.



PLUMBING WATER PLAN A

1/4"=1'-0"

S E W NORTH

NOTES:
1. REFER TO SHEET P-1.0 FOR NOTES AND SCHEDULES.
2. REFER TO SHEET K-1.0 FOR EQUIPMENT SCHEDULE.
3. VERIFY ALL UTILITY CONNECTION REQUIREMENTS w/ EQUIP. MANUFACTURER PRIOR TO INSTALLATION.

BASKIN ROBBINS

ARCHITECT

ENGINEER
NY ENGINEERS
NEARBY ENGINEERS
MICHAEL TOBIAS
382 NE 191ST STREET
SUITE 49674, MIAMI, FL 33179
PH-914.257.3455
WWW.NY-ENGINEERS.COM

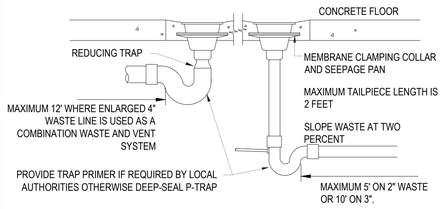
SHEET TITLE
PLUMBING WATER & GAS SUPPLY PLAN

P-2.1

RDS PROJECT NUMBER: 24028

FLOOR DRAIN AND SINK DETAIL — A

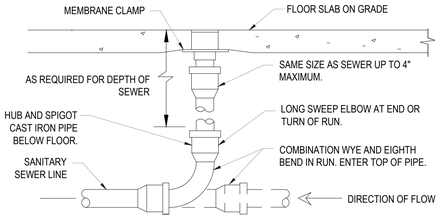
NO SCALE



COMMENTS:
1. LOCATE FLOOR DRAIN/SINK WHERE SHOWN ON DIMENSIONED FLOOR PLAN. IF SITUATION IS FLOOR SLAB ON GRADE, SET DRAIN BODY IN PLACE, PROVIDE BACKFILL, AND POUR AROUND IT. RECESS TOP OF FLOOR DRAINS 1/2" BELOW FLOOR DATUM AND SLOPE FLOOR TO IT. DO NOT RECESS FLOOR SINKS.
2. OTHER VENTING METHODS MAY BE USED, IF APPROVED BY LOCAL CODE AND/OR LOCAL AUTHORITIES.

FLOOR CLEANOUT DETAIL — B

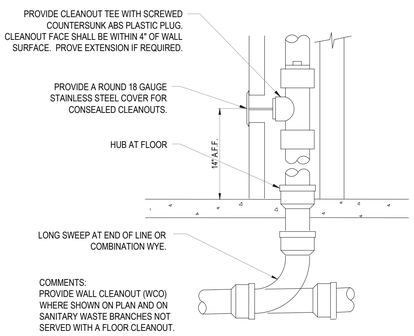
NO SCALE



COMMENTS:
1. LOCATE AT BUILDING EXIT, AT ENDS OF RUNS, AT TURNS OF PIPE GREATER THAN 45 DEGREES, AT 50' INTERVALS ON STRAIGHT RUNS, AND/OR WHERE SHOWN ON PLANS. PROVIDE BACKFILL PER ARCHITECTURAL SPECIFICATIONS. LOCATE CLEANOUTS WHERE THERE IS 18" CLEAR AROUND. CONSULT LOCAL CODES FOR OTHER FCO REQUIREMENTS.
2. ROUND SECURED GASKETED NICKEL BRONZE ADJUSTABLE TOP WITH "CO" CAST IN COVER. PROVIDE CLEANOUT TOP WITH VARIATIONS SUITABLE FOR FLOOR COVERING (CARPET MARKER, RECESSED FOR TILE, SCORIATED FOR UNFINISHED FLOORS). PROVIDE GASKETED PLASTIC PLUG IN CAST IRON BODY. USE TEFLON JOINT COMPOUND ON PLUG THREADS. CLEAN THE TOP OF EXPOSED FCO AFTER INSTALLATION.

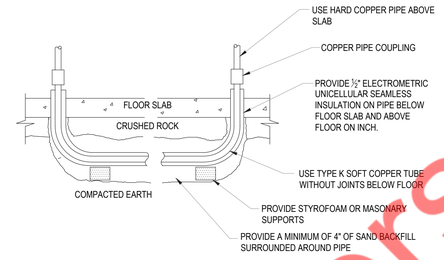
WALL CLEANOUT — C

NO SCALE



WATER PIPE UNDER SLAB — D

NO SCALE



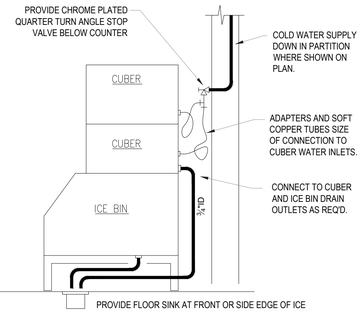
COMMENTS:
1. IF FLOOR SLAB IS EXISTING, SAW CUT FLOOR, EXCAVATE AS REQUIRED. INSTALL PIPING, REPAIR VAPOR BARRIER AND PATCH FLOOR AS REQUIRED.
2. PIPING TO HAVE LONG RADIUS TURNS WITH NO KINKS IN THE LINE.
3. THERE SHALL BE NO CONTACT OF COPPER PIPE WITH ANY OTHER PIPE, CONDUIT, OR REINFORCING STEEL.
4. SEPARATE HOT AND COLD WATER LINES BY 12" MINIMUM.

NOT USED — E

NO SCALE

ICE MACHINE PIPING SCHEMATIC — F

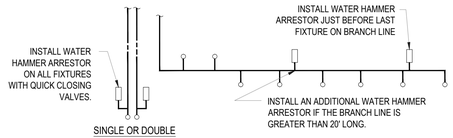
NO SCALE



COMMENTS:
1. PROVIDE COLD WATER ROUGH-IN AT FRONT OF ICE MACHINE. ARRANGEMENT SHOWN IS SCHEMATIC. ADJUST AS REQUIRED TO SUIT CONDITIONS. VERIFY CONNECTIONS WITH MANUFACTURER.
2. INSTALL WATER FILTERS PER MANUFACTURER'S INSTRUCTIONS.

WATER HAMMER ARRESTER DETAIL — G

NO SCALE



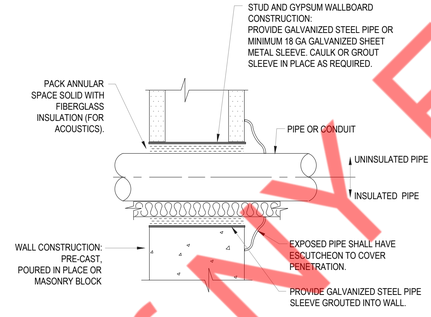
PDI SIZE	PIPE SIZE	FIXTURE UNIT LOAD
A	1/2"	1-11
B	3/4"	12-32
C	1"	33-60
D	1-1/4"	61-113
E	1-1/2"	114-154
F	2"	154-330

WATER SUPPLY FIXTURE UNIT (WSFU)		
FIXTURE	COLD	HOT
VALVE WATER CLOSET	5	--
URINAL	4	--
LAVATORY/SINK	1.5	1.5
JANITOR'S SINK	3	3

COMMENTS:
1. WATER HAMMER ARRESTERS SHALL BE HAVE PISTON AND O-RING CONSTRUCTION WITH PDI #WH-201, ASSE # 1010 AND ANSI # A112.26.1M CERTIFICATION. INSTALL IN HORIZONTAL OR VERTICAL POSITION, BUT NEVER UPSIDE DOWN. SIZE THE UNITS AS SHOWN PER THE TABLES SHOWN ABOVE.

PIPE PENETRATION (NON-RATED WALL) — H

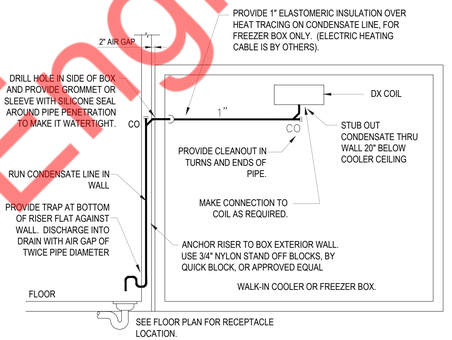
NO SCALE



COMMENTS:
1. CENTER PIPE ALONG WITH THE INSULATION IN SLEEVE. CONTINUE THE INSULATION THRU THE SLEEVE.

CONDENSATE DRAIN (WALK-IN BOX) — I

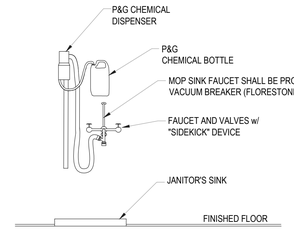
NO SCALE



COMMENTS:
1. INSTALL PIPE HIGH AS POSSIBLE. ANCHORED TO WALL OF BOX WITH SUPPORTS AT MAXIMUM SIX FOOT CENTERS. USE TYPE "M" HARD COPPER TUBE AND FITTINGS WITH LEAD-FREE SOLDER JOINTS. SLOPE HORIZONTAL PIPE AT MINIMUM TWO PERCENT. PROVIDE CHROMATONE PAINT ON PIPE EXTERIOR TO BOX. REFER TO "INDIRECT DRAIN" DETAIL FOR OTHER REQUIREMENTS.

CHEMICAL SYSTEM AT JANITOR'S SINK — J

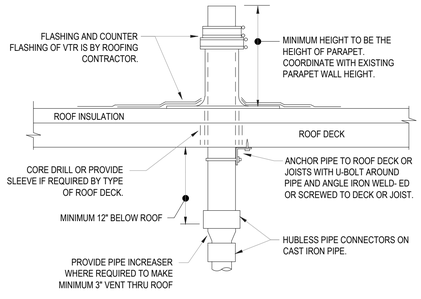
NO SCALE



COMMENTS:
1. EACH CHEMICAL DISPENSER MUST HAVE A DEDICATED WATER SUPPLY, LOCATED WITHIN 4 FEET OF THE DISPENSER. IT MUST PROVIDE TEMPERED WATER (ADJUSTABLE FROM 60-120F) WITH A FLOW RATE OF 4 GPM AT 40 PSI DYNAMIC/FLOWING PRESSURE (35 PSID MIN.). THE HOT AND COLD WATER SUPPLY LINES MUST HAVE CHECK VALVES TO PREVENT HOT/COLD WATER CROSSOVER, IF THE TEMPERING VALVE DOES NOT INCLUDE THEM. IT MUST INCLUDE A SHUTOFF VALVE TERMINATING IN A ¾" GARDEN HOSE MALE FITTING.

VENT THRU ROOF (VTR) DETAIL — K

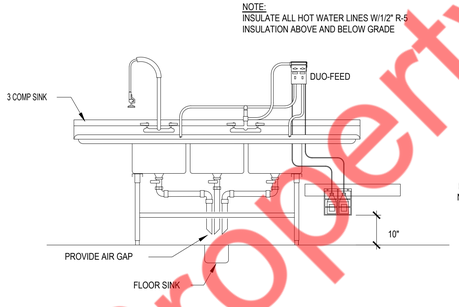
NO SCALE



COMMENTS:
1. REFER TO PLANS FOR VTR PIPE SIZES AND LOCATIONS. LOCATE VTR MINIMUM THREE FEET FROM PROPERTY LINE, OR TEN FEET HORIZONTAL OR THREE FEET VERTICAL ABOVE ANY BUILDING OPENING OR FRESH AIR INTAKE, OR ONE FOOT FROM ANY VERTICAL SURFACE. LOCATE VTR MINIMUM 18" FROM PARAPET, EXPANSION JOINT, EQUIPMENT CURB, ETC. OFFSET IN CEILING SPACE WHERE REQUIRED TO MEET THESE CONDITIONS.

3 COMPARTMENT SINK DETAIL — L

NO SCALE

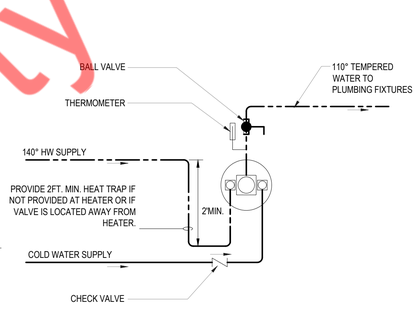


NOTE: GREASE INTERCEPTOR REQUIREMENT DEPENDS ON JURISDICTION. VERIFY WITH LOCAL OFFICIAL WHETHER OR NOT IT IS REQUIRED FOR AN ICE CREAM SHOP. IF IT IS NOT, REMOVE GREASE INTERCEPTOR & FUNNEL DRAIN FROM BASE BID. ROUTE INDIRECT WASTE LINES FROM 3-COMP SINK TO FLOOR SINK WITH APPROVED AIR GAP.

COMMENTS:
1. ARRANGEMENT SHOWN IS SCHEMATIC. ADJUST TO SUIT FIELD CONDITIONS OR MEET LOCAL CODE REQUIREMENTS. HUBLESS CAST IRON PIPE, FITTINGS AND CONNECTORS ALL AROUND SINK AND TRAP.
2. COORDINATE INDIVIDUAL BAY DRAINAGE , AIR GAP, & FLOOR SINK WITH LOCAL CODE REQUIREMENTS.

THERMOSTATIC MIXING VALVE — M

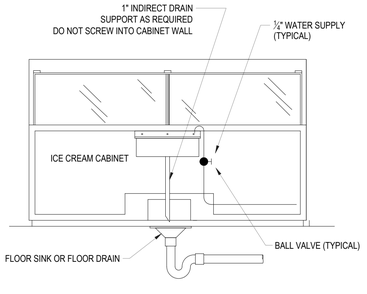
NO SCALE



DETAIL NOTES:
1. SURFACE MOUNTED THERMOSTATIC MIXING VALVE ASSEMBLY TO BE SYMMONS SERIES 5 OR APPROVED EQUAL. 15 PSI MAXIMUM PRESSURE DROP. COORDINATE FINAL SELECTION WITH FLOW AND PRESSURE TESTS TO ENSURE PROPER OPERATION.
2. SEE PLANS FOR HW SIZES FROM WATER HEATER SYSTEM TO MIXING VALVE ASSEMBLY. REDUCE AT ASSEMBLY AS REQUIRED.
3. INSTALL PER MANUFACTURERS PUBLISHED RECOMMENDATIONS.

DIPPER WELL CONNECTION — N

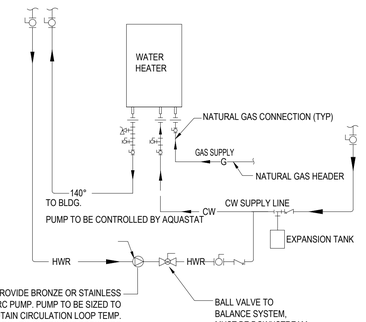
NO SCALE



COMMENTS:
1. ARRANGEMENT SHOWN IS SCHEMATIC. ADJUST AS REQUIRED TO SUIT CONDITIONS. VERIFY CONNECTIONS WITH MANUFACTURER.
2. FLOW RATE FOR WATER TO DIPPER WELLS IS 5-10 G.P.H.

WATER HEATER DETAIL — O

NO SCALE



NOTES:
1. WATER HEATER OUTLET TEMPERATURE CANNOT BE ADJUSTED WHEN RECIRC. PUMP IS RUNNING.
2. WATER SUPPLY TO EACH HEATER SHALL BE 1". REDUCE TO 3/4" IMMEDIATELY AT CONNECTION.
3. INTERLOCK CONTROL WIRING WITH QUICK CONNECT CHORD FURNISHED WITH WATER HEATER PER MANUFACTURER'S INSTALLATION INSTRUCTIONS

BASKIN ROBBINS

ARCHITECT

ENGINEER
NY ENGINEERS
NEARBY ENGINEERS
MICHAEL TOBIAS
382 NE 191ST STREET
SUITE 49674, MIAMI, FL 33179
PH-914.257.3455
WWW.NY-ENGINEERS.COM

SHEET TITLE
PLUMBING DETAILS

P-3.0