SCOPE OF WORK

REUSE ONE EXISTING 5.0 TON ELECTRIC ROOF TOP UNITS. PROVIDE NEW DUCTWORK AND NECESSARY ACCESSORIES FOR COMPLETE HVAC SYSTEM.

PROVIDE 1 NEW BATHROOM EXHAUST FAN & 1 NEW OTHER EXHAUST FANS AS SHOWN IN PLAN.

COORDINATE WITH GC ANY ADDITIONAL REFRIGERATION WORK REQUIRED AND WITH GC AND PLUMBING CONTRACTOR PROVIDING CONDENSATE LINES FOR MECHANICAL EQUIPMENT.

MECHANICAL PLAN NOTES

A. REUSE ONE EXISTING 5.0 TON ELECTRIC ROOF TOP UNITS. PROVIDE NEW DUCTWORK AND NECESSARY ACCESSORIES FOR COMPLETE HVAC SYSTEM. PROVIDE FLEXIBLE CONNECTORS ON SUPPLY AIR DUCT CONNECTIONS. TRANSITION TO DUCT SIZES SHOWN. PROVIDE DUCTWORK AND AIR DISTRIBUTION DEVICES AS INDICATED ON THE PLAN. REFER TO AC UNIT SCHEDULES FOR ADDITIONAL REQUIREMENTS.

B. FOR SYSTEM OVER 2,000 CFM CHECK FOR DUCT MOUNTED AIR SMOKE DETECTORS AND THAT MEET THE REQUIREMENTS OF U.L. 268A, INTERLOCKED TO SHUTDOWN A/C UNIT UPON DETECTION OF SMOKE. IF NECESSARY PROVIDE SMOKE DETECTOR WITH AN ANNUNCIATOR, ALARM AND POWER L.E.D.'S FOR VISIBLE AND AUDIBLE ALARM SIGNAL, AND VISIBLE TROUBLE SIGNAL. MOUNT ANNUNCIATOR ON ROOM SIDE OF CEILING.

C. ALL DUCTS SHALL BE FABRICATED AND INSTALLED IN ACCORDANCE WITH SMACNA/ANSI-HVAC DUCT CONSTRUCTION STANDARDS - METAL AND FLEXIBLE, LATEST EDITION, SMACNA HVAC AIR DUCT LEAKAGE TEST MANUAL LATEST EDITION, NAIMA FIBROUS GLASS DUCT CONSTRUCTION STANDARD AND 2020 FLORIDA BUILDING CODE, SECTION 603. THE MORE STRINGENT REQUIREMENT OF ANY CODES SHALL APPLY.

D. FACTORY-MADE FLEXIBLE AIR DUCTS AND CONNECTORS SHALL BE NOT MORE THAN 5 FEET IN LENGTH AND SHALL NOT BE USED IN LIEU OF RIGID ELBOW OR FITTINGS. FLEXIBLE AIR DUCTS SHALL BE PERMITTED TO BE USED AS AN ELBOW AT A TERMINAL DEVICE.

E. THERMOSTATS SHALL BE 7-DAY PROGRAMMABLE TYPE. MOUNT THERMOSTAT 48" A.F.F. IF EXISTING THERMOSTAT AND REMOTE SENSOR ARE NOT REUSABLE THEN PROVIDE NEW THERMOSTAT WITH LOCKABLE COVER. COORDINATE LOCATION OF THERMOSTAT. PROVIDE REMOTE SENSOR LOCATED 72" ABOVE FINISHED FLOOR NEAR LOCATION INDICATED. SEAL WALL OPENINGS WITH CAULK. COORDINATE LOCATION ON SITE WITH GENERAL CONTRACTOR AND EQUIPMENT.

F. ALL INDOOR DUCT AND PLENUM INSULATION SCHEDULE;
1. CONCEALED, RECTANGULAR, ROUND AND FLAT-OVAL, SUPPLY-RETURN, OUTDOOR-AND EXHAUST-AIR DUCT AND AIR PLENUM INSULATION:
2. FLEXIBLE ELASTOMERIC, MINERAL-FIBER BLANKET, MINERAL-FIBER BOARD OR POLYOLEFIN WITH MINIMUM INSTALLED THERMAL RESISTANCE AS FOLLOWS:

	SA PLENUM	RA PLENUM
UNCONDITIONED SPACES:	R-4.2	R-4.2
UNVENTED ATTIC ABOVE INSULATED CEILING	R-6	R-4.2
EXTERIOR OF BUILDING:	R-6	R-4.2

G. ALL SEAMS, JOINTS, ETC WILL BE SEALED TO MAKE AIR DUCT AIRTIGHT. PRESSURE SENSITIVE MATERIALS AND OTHERS APPROVED BY LATEST SMACNA. SEALING MATERIALS WILL BE USED.

H. ALL EVAPORATOR UNITS SHALL HAVE A FLOAT SWITCH TO CONTROL OVERFLOW THAT WILL AUTOMATICALLY SHUT DOWN THE HVAC SYSTEM. THE DEVICE SHALL BE ATTACHED TO THE SECONDARY DRAIN OUTLET ON THE UNIT.

I. ALL CONDENSATE DRAINS WILL BE PVC FULL DIAMETER OF OUTLET AND WILL TERMINATE IN THE NEAREST APPROVED PLACE OF DISPOSAL.

J. ALL EQUIPMENT AND MATERIALS WILL BE INSTALLED ACCORDING TO THE MANUFACTURER'S INSTRUCTIONS AND ACCORDING TO THE BEST PRACTICE.

K. TESTING AND BALANCING SHALL BE DONE IN ACCORDANCE WITH 2020 FBC - ENERGY CONSERVATION, 7TH EDITION SECTION C408.2.2. BALANCING PROCEDURES SHALL BE IN ACCORDANCE WITH THE NATIONAL ENVIRONMENTAL BALANCING BUREAU (N.E.B.B.), THE ASSOCIATED AIR BALANCE COUNCIL (A.A.B.C) NATIONAL STANDARDS OR EQUIVALENT PROCEDURES.

L. HANGER ATTACHMENTS TO THE STEEL STRUCTURE WILL BE RATED POWDER ACTUATED FASTENERS, "C" CLAMPS, WELDED STUDS, CLAMP HANGERS, JOIST CLAMPS OR OTHER METHODS RECOMMENDED BY SMACNA'S "METAL AND FLEXIBLE STANDARDS", CHAPTER 4, AND WILL HAVE A MINIMUM SAFETY MARGIN OF 4:1. SUSPENDED FROM TOP CHORD OF JOISTS, NOTHING FROM DECK OR CROSS BRACING.

M. PROVIDE FIRE/SMOKE +SMOKE COMBINATION DAMPERS WHEREVER REQUIRED.COORDINATE WITH ARCHITECTURAL DRAWINGS FOR SMOKE/FIRE RATING OF THE WALLS/SLABS/ROOF.COORDINATE ELECTRICAL POWER REQUIREMENT FOR DAMPER ACTUATORS WITH ELECTRICAL CONTRACTOR.

N. ALL HVAC CONTROLS AND CONTROL WIRING SHALL BE PROVIDED BY THE MECHANICAL CONTRACTOR.

O. FACTORY-MADE FLEXIBLE AIR DUCTS, BOTH METALLIC AND NONMETALLIC, SHALL BE TESTED IN ACCORDANCE WITH UL 181. SUCH DUCTS SHALL BE LISTED AND LABELED AS CLASS 0 OR CLASS 1 FLEXIBLE AIR DUCTS AND SHALL BE INSTALLED IN ACCORDANCE WITH SECTION 304.1, 2020 FLORIDA MECHANICAL CODE 7TH EDITION.

CORAL SPRINGS BUILDING DEPARTMENT NOTES

ALL WORK SHALL COMPLY WITH APPLICABLE SECTIONS OF THE 2020 FLORIDA BUILDING CODE 7TH EDITION, AND ALL AMENDMENTS AND RULES AND REGULATIONS OF THE DEPARTMENT OF BUILDINGS TO DATE.

1. ALL HEATING AND COOLING LOADS CALCULATED PER ASHRAE/ACCA 183.
2. VENTILATION FOR ALL AREA SHALL COMPLY WITH 2020 FLORIDA MECHANICAL CODE 7TH EDITION, CHAPTER 4.
3. 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.
4. TESTS OF MECHANICAL SYSTEMS SHALL BE PERFORMED IN ACCORDANCE WITH THE FOLLOWING SECTIONS OF THE 2020 FLORIDA MECHANICAL CODE 7TH EDITION:
   A. VENTILATION SYSTEM BALANCING 2020 FLORIDA MECHANICAL CODE 7TH EDITION - 403.3
5. THE FOLLOWING WORK ITEMS, COMPONENTS, MATERIALS, CAPACITIES, ETC. SHALL COMPLY WITH THE REFERENCED CODE OR STANDARD:
   A. STANDARDS OF HEATING 2020 FLORIDA MECHANICAL CODE 7TH EDITION - 309.1
   B. DUCT CONSTRUCTION AND INSTALLATION 2020 FLORIDA MECHANICAL CODE 7TH EDITION - 603
   C. AIR INTAKES, EXHAUSTS AND RELIEF 2020 FLORIDA MECHANICAL CODE 7TH EDITION - 401.5
   D. AIR FILTERS 2020 FLORIDA MECHANICAL CODE 7TH EDITION - 605
   E. MANUAL AND AUTOMATIC FIRE AND SMOKE CONTROLS FOR AIR DISTRIBUTION SYSTEMS - 2020 FLORIDA MECHANICAL CODE 7TH EDITION - 606
6. MINIMUM TEMPERATURE TO BE MAINTAINED IN OCCUPIED SPACES DURING HEATING SEASON: 68 DEG. FAHRENHEIT.
7. 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 2020 FLORIDA MECHANICAL CODE 7TH EDITION
8. REFER TO ARCHITECTURAL DRAWINGS FOR REQUIRED FIRE-RATED WALL AND SMOKE WALL CONSTRUCTION AND LOCATION.
9. 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 EITHER BEING APPROVED OR IN ACCORDANCE WITH APPLICABLE CODES.
10. 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 - 2020 FLORIDA MECHANICAL CODE 7TH EDITION 403.3.1.5. CONTRACTOR TO SUBMIT THE AIR - BALANCE REPORT TO INSPECTOR. OF RESPECTIVE BUILDING DEPARTMENT PRIOR FINAL INSPECTION.

GENERAL NOTES

A. CONTRACTORS AND SUB-CONTRACTORS SHALL CAREFULLY REVIEW THE CONSTRUCTION DOCUMENTS. INFORMATION REGARDING THE COMPLETE WORK IS DISPERSED THROUGHOUT THE DOCUMENT SET AND CANNOT BE ACCURATELY DETERMINED WITHOUT REFERENCE TO THE COMPLETE DOCUMENT SET. PAY SPECIAL ATTENTION TO THE RESPONSIBILITY SCHEDULE. WORK DESIGNATED ON SCHEDULE SHALL BE CONSIDERED INCLUDED IN YOUR SCOPE OF WORK AND CONTRACT AMOUNT.

B. CONTRACTOR TO VERIFY THAT ALL EQUIPMENT SHOWN AS EXISTING MATCHES THE DESCRIPTIONS AND SPECIFICATIONS SHOWN ON DRAWINGS AND SCHEDULES. IF DIFFERENT NOTIFY ARCHITECT/ENGINEER BEFORE BIDDING, ORDERING, OR PROCEEDING WITH WORK.

C. DRAWINGS/DETAILS ARE TO BE CONSIDERED DIAGRAMMATIC, NOT NECESSARILY SHOWING IN DETAIL OR TO SCALE ALL MINOR ITEMS. UNLESS SPECIFIC DIMENSIONS ARE SHOWN, THE STRUCTURAL, ARCHITECTURAL AND SITE CONDITIONS SHALL GOVERN EXACT LOCATIONS. CONTRACTOR SHALL FOLLOW DRAWINGS IN LAYING OUT WORK, AND CHECK/COORDINATE DRAWINGS OF ALL TRADES.

D. COORDINATE WITH THE WORK OF OTHERS SECTIONS, EQUIPMENT FURNISHED BY OTHERS, REQUIREMENTS OF THE OWNER, AND WITH THE CONSTRAINTS OF THE EXISTING CONDITIONS OF THE PROJECT SITE. PROVIDE DUCT RISES AND DRIPS AS REQUIRED FOR FIELD INSTALLATION AND TRADE COORDINATION. NOTIFY ARCHITECT OF ANY DISCREPANCIES BEFORE STARTING WORK.

E. DRAWINGS FOR HVAC WORK ARE DIAGRAMMATIC, SHOWING THE GENERAL LOCATION, TYPE, LAYOUT, AND EQUIPMENT REQUIRED. THE DRAWINGS SHALL NOT BE SCALED FOR EXACT MEASUREMENT. REFER TO MANUFACTURERS STANDARD INSTALLATION DRAWINGS FOR EQUIPMENT CONNECTIONS AND INSTALLATION REQUIREMENTS. PROVIDE DUCTWORK, CONNECTIONS, ACCESSORIES, OFFSETS, AND MATERIALS NECESSARY FOR A COMPLETE SYSTEM.

F. ALL WORK SHALL COMPLY WITH STATE AND LOCAL CODE REQUIREMENTS AS APPROVED AND AMENDED BY THE GOVERNING CITY. PURCHASE ALL PERMITS ASSOCIATED WITH THE WORK. OBTAIN ALL INSPECTIONS REQUIRED BY CODE.

G. USE OF COMBUSTIBLE MATERIALS IS NOT ALLOWED IN THE RETURN AIR PLENUM. MATERIALS USED IN THE PLENUM SHALL HAVE FLAME SPREAD RATING NOT TO EXCEED 25, AND SMOKE DEVELOPED RATING NOT TO EXCEED 50 WHEN TESTED IN ACCORDANCE WITH ASTM E 84. ALL EXPOSED WIRING IN THE PLENUM SHALL BE PLENUM RATED.

H. VERIFY LOCATION OF PERMISSIBLE NEW STRUCTURAL ROOF PENETRATIONS AND ADAPT THE REQUIRED DUCTS ACCORDINGLY. THE OPENINGS MUST BE LOCATED USING A REBAR LOCATOR, TRYING TO LEAVE A TRANSVERSE BAR WITHIN 4" FROM THE OPENING. LOCATE OPENINGS AT MID-DISTANCE BETWEEN THE STEMS OF THE DOUBLE TEE AND LONGITUDINAL REINFORCEMENT SHALL NEVER BE CUT. CALL THE ARCHITECT'S OFFICE IN CASE OF UNEXPECTED DIFFICULTIES.

I. ALL EXPOSED DUCTS WILL BE SPIRAL GALVANIZED AND READY FOR PAINTING. ALL RECTANGULAR DUCTS OVER CEILINGS MAY BE SHEET METAL WITH EXTERNAL INSULATION.

J. G.C. SHALL CONTRACT LANDLORD-APPROVED ROOFING CONTRACTOR TO FLASH AND SEAL ALL ROOF PENETRATIONS TO MAINTAIN ROOFING WARRANTY.

K. REQUIRED INSURANCE SHALL BE PROVIDED BY THE PLUMBING CONTRACTOR FOR PROTECTION AGAINST PUBLIC LIABILITY AND PROPERTY DAMAGE FOR THE DURATION OF THE WORK.

L. CONSTRUCTION "AS BUILT" DRAWINGS AND DOCUMENTS SHALL BE PROVIDED TO THE OWNER WITHIN 30 DAYS AFTER THE DATE OF ACCEPTANCE AND PROVIDE COPY TO LL.

M. OPERATION MANUALS AND MAINTENANCE MANUALS SHALL BE PROVIDED TO THE BUILDING OWNER.

MECHANICAL SYMBOLS

	EXHAUST FAN		EXHAUST FAN WITH LIGHT
	SUPPLY OR OUTSIDE AIR DUCT		OPPOSED BLADE DAMPER
	RETURN OR EXHAUST AIR DUCT	S	DUCT SMOKE DETECTOR
	INSULATED RIGID DUCTWORK	T	PROGRAMMABLE THERMOSTAT
	DUCT TRANSITION	RS	REMOTE SENSOR
	MANUAL VOLUME DAMPER	TS	TEMPERATURE SENSOR
	FLEX DUCT	Ø	ROUND DUCT DIAMETER
		CFM	CUBIC FEET/ MINUTE
	ROOF MOUNTED EXHAUST FAN OUTLET	S/A	SUPPLY AIR
		R/A	RETURN AIR
	ROOFTOP UNIT	SG	SUPPLY GRILLE
		CD	CONDENSATE PIPING
BD	BACK DRAFT DAMPER	GC	GENERAL CONTRACTOR
	SUPPLY DIFFUSER REFER TO DIFFUSER SCHEDULE FOR SPECIFICATIONS		RETURN DIFFUSER REFER TO DIFFUSER SCHEDULE FOR SPECIFICATIONS

NOTE: THIS PROJECT MAY NOT USE EVERY SYMBOL OR DEVICE APPEARING ON THIS LEGEND.

ROOF TOP UNIT SCHEDULE

TAG	RTU-1(E)
QUANTITY	1
UNIT	ELECTRIC HEAT
MANUFACTURER	RHEEM
MODEL	RACA14060CJT (V.I.F.)
STATUS	EXISTING
MOUNTING	ROOF
NOMINAL CAPACITY	5.0 TON
TOTAL COOLING CAPACITY	S.A.E.
SENSIBLE CAPACITY	S.A.E.
EER/SEER	S.A.E.
ELECTRIC HEAT(kW)/MODEL	7.2 (V.I.F.)/RXQJ-B10J (V.I.F.)
SUPPLY CFM	2000
OUTDOOR AIR CFM	510
V/HZ/P	208/60/1 (V.I.F.)
MCA (A)	53 (V.I.F.)
MCB (A)	60 (V.I.F.)
WEIGHT (LBS)	S.A.E.

NOTES FOR EXISTING RTU-

1. EXISTING RTU WITH ALL ACCESSORIES TO REMAIN SAME AND TO BE REUSED.
2. CONTRACTOR TO FIELD VERIFY IF ALL RTU ARE WORKING AT THEIR 100% RATED CAPACITIES / LOADS. INFORM TO DESIGN ENGINEER IF ANY DISCREPANCIES ARE FOUND IN PERFORMANCE PRIOR TO CONSTRUCTION.
3. CONTRACTOR TO FIELD VERIFY EXACT LOCATION AND CONFIGURATION OF UNIT ON SITE.
4. IF REQUIRED, PROVIDE NEW THERMOSTAT AND TEMPERATURE SENSOR COMPATIBLE WITH EXISTING RTU. CO-ORDINATE FINAL LOCATION OF T-SENSOR WITH ARCHITECT / OWNER.
5. CONTRACTOR TO BALANCE OUTSIDE AIR & RETURN AIR DAMPERS ON EXISTING RTU TO MATCH VALUES MENTIONED IN ABOVE TABLE.
6. REPLACE FILTERS, IF REQUIRED.

CONTRACTOR SHALL VERIFY EXACT ELECTRICAL CONNECTIONS, WIRE SIZES, BREAKERS, DISCONNECT ETC. PRIOR TO ORDERING AND BID.

CONTRACTOR TO FIELD VERIFY THE EXACT POWER REQUIREMENT FOR THE REPLACEMENT OF THE INBUILT ELECTRIC KIT AND COORDINATE WITH THE E.C. FOR EXACT CAPACITY AND NUMBER OF BREAKERS AND CONTROLS.

OCCUPANCY CALCULATION PER 2020 FBC - MECHANICAL 7TH EDITION, TABLE 403.3.1.1

LOUNGE AREA	140 SQ. FT.	@70 PEOPLE/1000SQ.FT.	10 PEOPLE
DINING AREA	441 SQ. FT.	@70 PEOPLE/1000SQ.FT.	31 PEOPLE
SERVICE AREA	163 SQ. FT.	@20 PEOPLE/1000SQ.FT.	4 PEOPLE
BOH AREA	144 SQ. FT.	@20 PEOPLE/1000SQ.FT.	3 PEOPLE
OFFICE	22 SQ. FT.	@5 PEOPLE/1000SQ.FT.	1 PEOPLE
		TOTAL	49 PEOPLE

VENTILATION REQUIREMENTS PER 2020 FBC - MECHANICAL 7TH EDITION 403.3.1.1

LOUNGE AREA	66 SQ. FT. X 0.18 CFM/SQ. FT. =	12 CFM
	10 PEOPLE. X 7.5 CFM/PEOPLE. =	75 CFM
DINING AREA	441 SQ. FT. X 0.18 CFM/SQ. FT. =	79 CFM
	31 PEOPLE. X 7.5 CFM/PEOPLE. =	233 CFM
SERVICE AREA	163 SQ. FT. X 0.12 CFM/SQ. FT. =	20 CFM
	4 PEOPLE. X 7.5 CFM/PEOPLE. =	30 CFM
BOH AREA	144 SQ. FT. X 0.12 CFM/SQ. FT. =	17 CFM
	3 PEOPLE. X 7.5 CFM/PEOPLE. =	23 CFM
OFFICE	22 SQ. FT. X 0.06 CFM/SQ. FT. =	2 CFM
	1 PEOPLE. X 5 CFM/PEOPLE. =	5 CFM
HALLWAY	90 SQ. FT. X 0.06 CFM/SQ. FT. =	6 CFM
OUTSIDE AIR REQUIRED		502 CFM
SERVICE AREA	163 SQ. FT. X 0.7 CFM/SQ. FT. =	114 CFM
BOH AREA	144 SQ. FT. X 0.7 CFM/SQ. FT. =	101 CFM
UNISEX RESTROOM	70 CFM PER FIXTURE	70 CFM
MOP SINK		50 CFM
EXHAUST AIR REQUIRED		335 CFM
OUTSIDE AIR PROVIDED		510 CFM
EXHAUST PROVIDED		340 CFM
AIR BALANCE		
O/A PROVIDED THROUGH RTU-1(E)		+510 CFM
EF-1(N)		-70 CFM
KEF-1(N)		-270 CFM
BUILDING PRESSURE		+170 CFM

FAN SCHEDULE

DESIGNATION	EF-1 (N)	KEF-1 (N)
STATUS	NEW	NEW
QUANTITY	1	1
MANUFACTURER	GREENHECK	GREENHECK
MODEL	SP-A90	SQ-90
CFM	70@ 0.3" W.C. ESP	270@ 0.5" W.C. ESP
HP	-	1/10
AMPS	0.17	-
ACCESSORIES	BDD,LITE KIT	BDD,LITE KIT
WEIGHT (LBS)	12	50
V/P/HZ	115/60/1	115/60/1

NOTE:
1. PROVIDE DISCONNECT SWITCH.
2. EF-1(N) SHALL BE INTERLOCKED WITH RTU-1(E).
3. PROVIDE BACK DRAFT DAMPER.
4. KEF-1(N) INTERLOCK WITH RTU-1(E).

DIFFUSER SCHEDULE

MANUFACTURER	TITUS	TITUS	TITUS	TITUS	TITUS	TITUS
DESIGNATION	A	A1	A2	R	R1	E
USE	SUPPLY	SUPPLY	SUPPLY	RETURN	RETURN/ EXHAUST	EXHAUST
MODEL	TDC-AA	TDC-AA	300FS	TDC-AA	56FL	TDC-AA
MOUNTING	CEILING	CEILING	DUCT/WALL	CEILING	WALL	CEILING
LOCATION	SEE PLAN	SEE PLAN	SEE PLAN	SEE PLAN	SEE PLAN	SEE PLAN
FACE SIZE	24" X 24"	12"X12"	SEE PLAN	SEE PLAN	SEE PLAN	SEE PLAN
NECK SIZE	REFER TABLE - A	REFER TABLE - A	-	REFER TABLE - A	-	REFER TABLE - A
FRAME TYPE	LAY IN	LAY IN/ FLANGED	FLANGED	LAY IN/ FLANGED	FLANGED	LAY IN
FINISH	WHITE	WHITE	WHITE	WHITE	WHITE	WHITE
NOISE CRITERIA	<30	<30	<30	<30	<30	<30
ACCESSORIES	VOLUME DAMPER	VOLUME DAMPER	VOLUME DAMPER	-	VOLUME DAMPER	VOLUME DAMPER

NOTES :
1. MAX. NC LEVEL 30 OR LESS.
2. PROVIDE SQUARE TO ROUND NECK ADAPTOR.
3. CO-ORDINATE WITH ARCHITECT FOR FINAL MOUNTING, FRAME TYPE, PAINT AND FINISH.
4. PROVIDE 4-WAY AIR THROW PATTERN UNLESS NOTED OR INDICATED.
5. PROVIDE INSULATED BACKS ON ALL DIFFUSERS.

NECK SIZE TABLE - A

NECK SIZE DIA	CFM RANGE
Ø6"	0-100
Ø8"	101-200
Ø10"	201-400
Ø12"	401-600

NY ENGINEERS

PROJECT

ELLA CAFE

REVISIONS DATES:

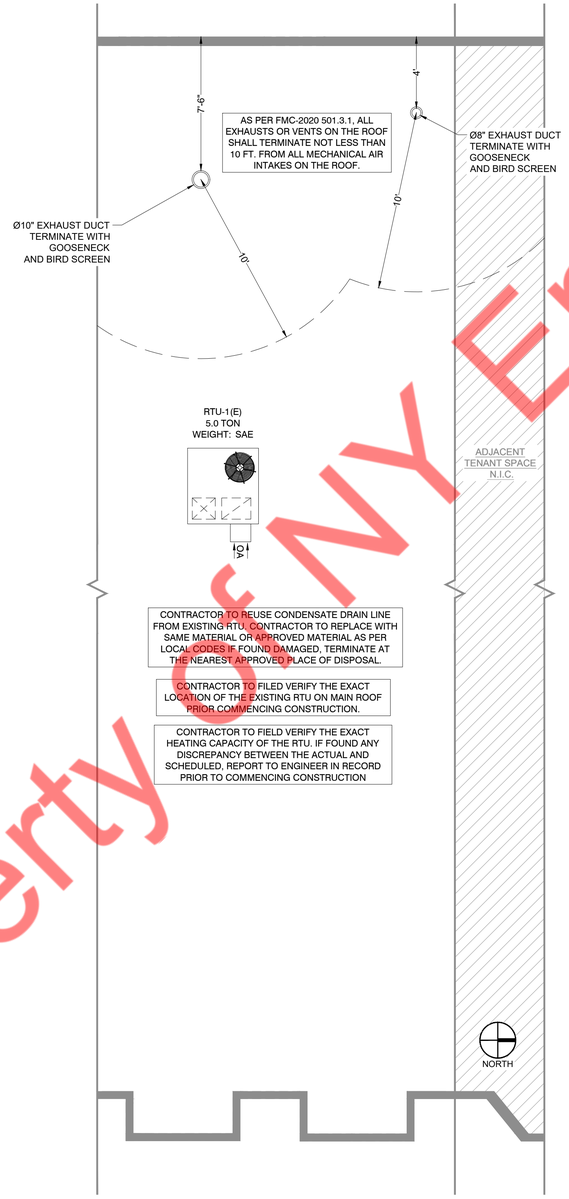
SR. NO.	DETAIL	DATE
01	PROJ COORDN.	12/18/23
02	BD COMMENTS.	12/18/23

PROFESSIONAL SEAL

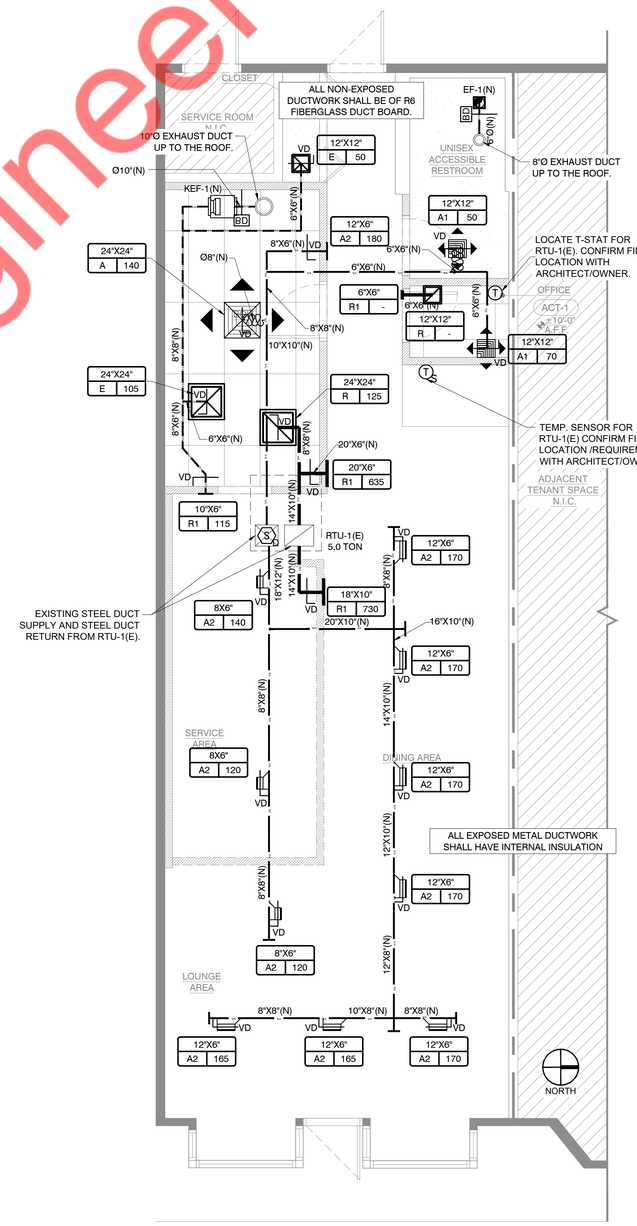
ISSUE DATE: 08.11.23
PROJECT #: 387B.1373B
DRAWN BY: NYE
CHECKED BY: NYE

MECHANICAL NOTES & SCHEDULES

M-1



HVAC ROOF PLAN | SCALE 1/4" = 1'-0" | 2



HVAC FLOOR PLAN | SCALE 1/4" = 1'-0" | 1

NY ENGINEERS

PROJECT

ELLA CAFE

REVISIONS DATES:

SR. NO.	DETAIL	DATE
01	1 PROJ COORDN.	12/18/23
02	BD COMMENTS.	12/18/23

PROFESSIONAL SEAL

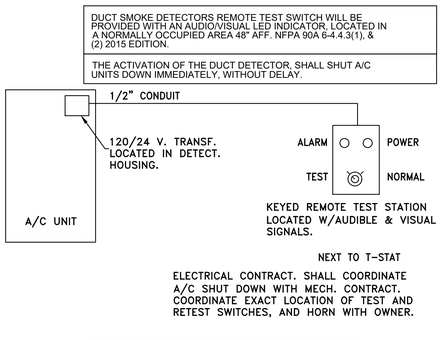
ISSUE DATE: 08.11.23
PROJECT #: 387B.1373B
DRAWN BY: NYE
CHECKED BY: NYE

HVAC FLOOR & ROOF PLANS

M-2

DUCT SMOKE DETECTORS REMOTE TEST SWITCH WILL BE PROVIDED WITH AN AUDIO/VISUAL LED INDICATOR, LOCATED IN A NORMALLY OCCUPIED AREA 48" AFF. NFPA 90A 6-4.4.3(1), & (2) 2015 EDITION.

THE ACTIVATION OF THE DUCT DETECTOR, SHALL SHUT A/C UNITS DOWN IMMEDIATELY, WITHOUT DELAY.

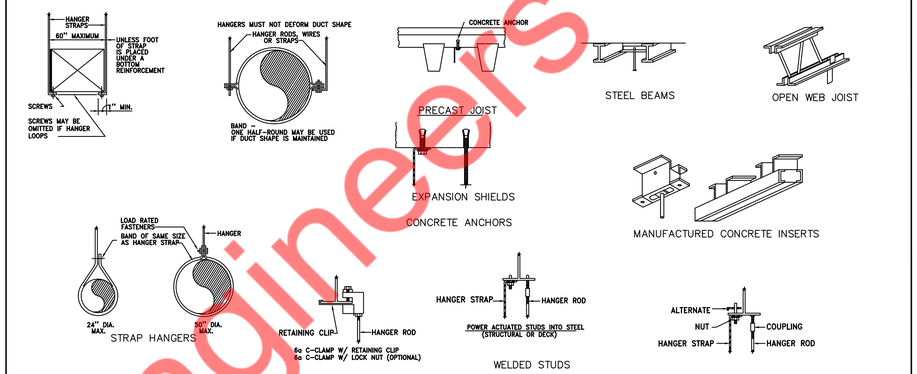


ELECTRICAL CONTRACT. SHALL COORDINATE A/C SHUT DOWN WITH MECH. CONTRACT. COORDINATE EXACT LOCATION OF TEST AND RETEST SWITCHES, AND HORN WITH OWNER.

DUCT SMOKE DETECTOR SHALL BE CONNECTED TO BUILDING FIRE ALARM SYSTEM TO ACTIVATE BUILDING FIRE ALARM IF ONE IS PRESENT.

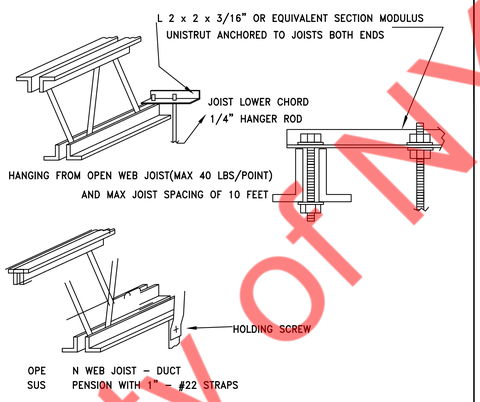
DUCT DETECTOR DETAIL

NOT TO SCALE



UPPER & LOWER ATTACHMENTS & DEVICES

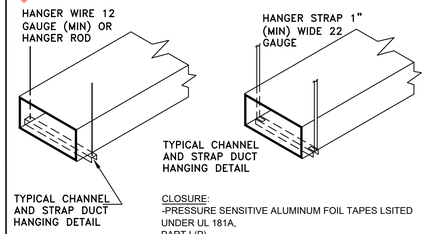
NOT TO SCALE



DUCT MOUNTING DETAIL

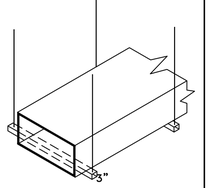
NOT TO SCALE

CHANNEL SELECTION		
DUCT WIDTH MIN.	CHANNEL GUAGE MIN.	CHANNEL PROFILE
LESS THAN 18"	22 3"x 2"	
LESS THAN 30"	18 3"x 2"	



CLOSURE:
-PRESSURE SENSITIVE ALUMINUM FOIL TAPES LSITED UNDER UL 181A, PART I (P)
- HEAT ACTIVATED ALUMINUM FOIL/SCRIM TAPES LISTED UNDER UL 181A, PART II (H)
- MASTIC AND GLASS FABRIC TAPE CLOSURE SYSTEMS LISTED UNDER UL 181A, PART III (M)

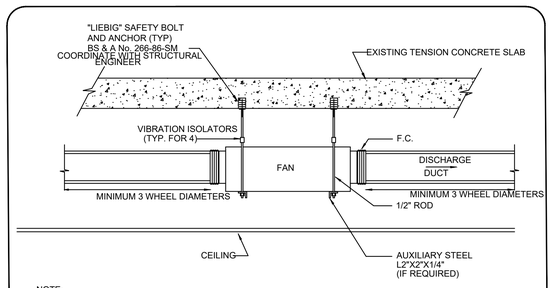
DUCT SIZE,IN.	MAXIMUM HANGER SPACING
① WIDTH 48" OR GREATER	4'-0"
② LESS THEN 48"W X 12"H	6'-0"
③ WIDTH BETWEEN 24" & 48" & HEIGHT OVER 24"	6'-0"
④ WIDTH BETWEEN 24" & 48" & HEIGHT BETWEEN 12" & 24"	8'-0"
⑤ WIDTH LESS THAN 24" & HEIGHT GREATER THAN 12"	8'-0"
DUCT REINFORCING PER SMACNA REQUIRED	



HANGER SPACING AND EXTENSION 3" WIDE CHANNELS

DUCT SUPPORTS

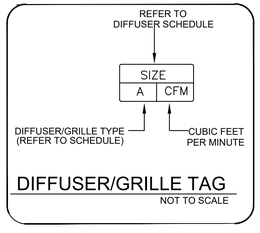
NOT TO SCALE



NOTE:
1. DUCT LENGTH TO BE MINIMUM THREE WHEEL DIAMETER ON DISCHARGE AND INLET.

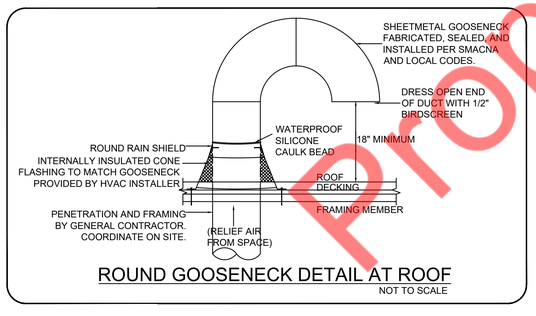
INLINE FAN SUPPORT DETAILS

NOT TO SCALE



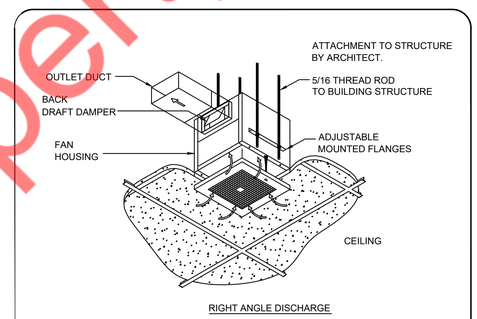
DIFFUSER/GRILLE TAG

NOT TO SCALE



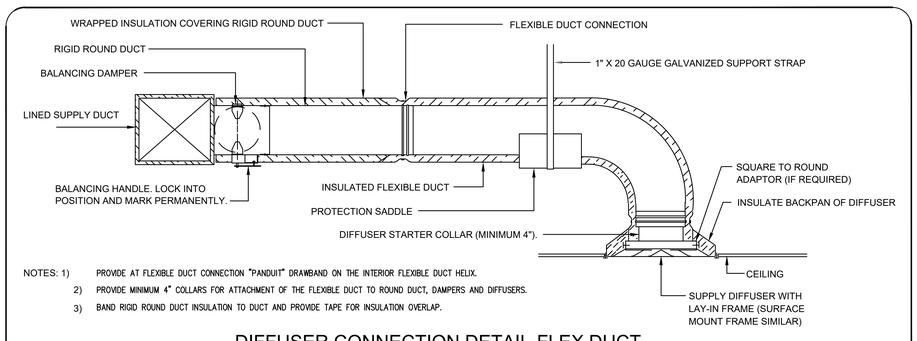
ROUND GOOSENECK DETAIL AT ROOF

NOT TO SCALE



CEILING EXHAUST FAN DETAIL

NOT TO SCALE



NOTES: 1) PROVIDE AT FLEXIBLE DUCT CONNECTION "PANDUIT" DRAWBAND ON THE INTERIOR FLEXIBLE DUCT HELIX.
2) PROVIDE MINIMUM 4" COLLARS FOR ATTACHMENT OF THE FLEXIBLE DUCT TO ROUND DUCT, DAMPERS AND DIFFUSERS.
3) BAND RIGID ROUND DUCT INSULATION TO DUCT AND PROVIDE TAPE FOR INSULATION OVERLAP.

DIFFUSER CONNECTION DETAIL-FLEX DUCT

NOT TO SCALE

NY ENGINEERS

PROJECT

ELLA CAFE

REVISIONS DATES:

SR. NO.	DETAIL	DATE
01	PROJ COORDN.	12/18/23
02	BD COMMENTS.	12/18/23

PROFESSIONAL SEAL

ISSUE DATE: 08.11.23
PROJECT #: 387B.1373B
DRAWN BY: NYE
CHECKED BY: NYE

MECHANICAL DETAILS

M-3

SCOPE OF WORK

1. REUSE EXISTING 200A, 120/208V, 3-PHASE, 4-WIRE ELECTRICAL SERVICE FOR THE PROJECT SPACE.
2. PROVIDE NEW (1) 225A(M.L.O.), 120/208V, 3-PHASE, 4-WIRE ELECTRICAL PANEL "A" FOR THE PROJECT SPACE.
3. ALL NECESSARY EQUIPMENT, WIRING AND LIGHTING FOR THE PROJECT SPACE INCLUDING WIRING FOR VENTILATION EQUIPMENT. COORDINATE WITH G.C FOR LOW VOLTAGE WIRING.

ELECTRICAL PLAN NOTES

1. ELECTRICAL CONTRACTOR SHALL REVIEW ALL DRAWINGS OF THIS SET.
2. CONTRACTOR TO VERIFY THAT ALL EQUIPMENT SHOWN AS EXISTING MATCHES THE DESCRIPTIONS AND SPECIFICATIONS SHOWN ON DRAWINGS AND SCHEDULES. IF DIFFERENT, NOTIFY ARCHITECT/ENGINEER BEFORE BIDDING, ORDERING, OR PROCEEDING WITH WORK.
3. ELECTRICAL CONTRACTOR SHALL SUPPLY AND INSTALL ALL NEW ELECTRICAL WORK INDICATED. CONSTRUCTION SHALL BE IN ACCORDANCE WITH DRAWINGS AND APPLICABLE SPECIFICATIONS. IF A PROBLEM IS ENCOUNTERED IN COMPLYING WITH THIS REQUIREMENT, CONTRACTOR SHALL NOTIFY THE OWNER OR HIS REPRESENTATIVE AS SOON AS POSSIBLE AFTER DISCOVERY OF THE PROBLEM AND SHALL NOT PROCEED WITH THAT PORTION OF THE WORK UNTIL OWNER HAS DIRECTED CORRECTIVE ACTION TO BE TAKEN.
4. ELECTRICAL CONTRACTOR SHALL VISIT JOB SITE AND FAMILIARIZE HIMSELF WITH ALL CONDITIONS AFFECTING ELECTRICAL AND COMMUNICATIONS INSTALLATION AND MAKE PROVISIONS AS TO THE COST THEREOF. EXISTING CONDITIONS OF ELECTRICAL EQUIPMENT, LIGHT FIXTURES, ETC., THAT ARE PART OF THE FINAL SYSTEM SHALL BE VERIFIED BY THE CONTRACTOR PRIOR TO SUBMITTING HIS BID.
5. ALL WORK SHALL BE PERFORMED IN ACCORDANCE WITH THE 2017 EDITION OF THE NATIONAL ELECTRIC CODE AND ALL CODES AND ORDINANCES OF THE AUTHORITY HAVING JURISDICTION.
6. DO NOT SCALE THE ELECTRICAL DRAWINGS. REFER TO ARCHITECTURAL PLANS AND ELEVATIONS FOR EXACT LOCATION FOR ALL EQUIPMENT. CONFIRM WITH OWNER'S REPRESENTATIVE.
7. ALL ELECTRICAL NOT BEING REUSED MUST BE REMOVED IN ITS ENTIRETY.
8. ALL CONDUIT IN OR UNDERGROUND OR IN CONCRETE MUST BE RIGID GALVANIZED STEEL.
9. CIRCUIT BREAKERS AND PANELS TO BE BOLT ON TYPE.
10. ALL EQUIPMENT SHALL BE APPROVED BY UL OR OTHER NATIONALLY RECOGNIZED TESTING COMPANY.
11. ALL RECEPTACLES SHALL BE GROUNDED AS REQUIRED BY NEC 250.146.
12. SUBMIT SERVICE ENTRANCE EQUIPMENT FOR SEPARATE APPROVAL.
13. ALL LOW VOLTAGE MUST BE IN CONDUIT TO ABOVE THE DROP CEILING. BRIDAL RINGS OR "J" HOOKS REQUIRED.
14. SEPARATE PERMITS ARE REQUIRED FOR ALL LOW VOLTAGE SUCH AS TELEPHONE, DATA, THERMOSTAT, MUSIC, ALARMS ETC.
15. SEPARATE PERMIT REQUIRED FOR SIGNAGE.
16. PRIOR TO ANY CONSTRUCTION WORK BEGINNING AN ON-SITE MEETING WITH GENERAL CONTRACTORS IS REQUIRED.
17. ELECTRICIAN MUST BE ON SITE FOR ALL INSPECTIONS.
18. MINIMUM WIRE SIZE SHALL BE #12 A.W.G. EXCLUDING CONTROL WIRING. ALL CONDUCTORS SHALL BE COPPER AND UNLESS OTHERWISE NOTED THHN INSULATION.
19. OUTLET BOXES SHALL BE PRESSED STEEL IN DRY LOCATIONS, PLASTIC AND CAST ALLOY WITH THREADED HUBS IN WET OR DAMP LOCATIONS, AND SPECIAL ENCLOSURES FOR OTHER CLASSIFIED AREAS.
20. IT IS NOT THE INTENT OF THESE PLANS TO SHOW EVERY MINOR DETAIL OF CONSTRUCTION. THE CONTRACTOR IS EXPECTED TO FURNISH AND INSTALL ALL ITEMS FOR A COMPLETE ELECTRICAL SYSTEM AND PROVIDE ALL REQUIREMENTS NECESSARY FOR EQUIPMENT TO BE PLACED IN PROPER WORKING ORDER.
21. ELECTRICAL SYSTEM SHALL BE COMPLETE AND EFFECTIVELY GROUNDED AS REQUIRED BY THE N.E.C. OR LOCAL CODES.
22. ALL MATERIALS SHALL BE NEW AND BEAR UNDERWRITERS' LABELS WHERE APPLICABLE.
23. ALL WORK SHALL BE PERFORMED BY A LICENSED ELECTRICAL CONTRACTOR IN A FIRST CLASS WORKMANLIKE MANNER. THE COMPLETED SYSTEM SHALL BE FULLY OPERATIVE AND ACCEPTED BY ENGINEER/ARCHITECT.
24. ALL WORK SHALL BE COORDINATED WITH OTHER TRADES TO AVOID INTERFERENCE WITH THE PROGRESS OF CONSTRUCTION.
25. ELECTRICAL CONTRACTOR SHALL GUARANTEE ALL MATERIALS AND WORKMANSHIP FREE FROM DEFECTS FOR A PERIOD OF NOT LESS THAN ONE YEAR FROM DATE THAT CERTIFICATE OF OCCUPANCY IS ISSUED. WARRANTY SHALL BE PROVIDED IN WRITING. PROVIDE COPY TO LL.
26. CORRECTION OF ANY DEFECTS SHALL BE COMPLETED WITHOUT ADDITIONAL CHARGE AND SHALL INCLUDE REPLACEMENT OR REPAIR OF ANY OTHER PHASE OF THE INSTALLATION WHICH MAY HAVE BEEN DAMAGED THEREBY.
27. ALL REQUIRED INSURANCE SHALL BE PROVIDED FOR PROTECTION AGAINST PUBLIC LIABILITY AND PROPERTY DAMAGE FOR THE DURATION OF THE WORK.
28. CONTRACTOR SHALL PAY FOR ALL PERMITS, FEES, INSPECTIONS AND TESTING. CONTRACTOR TO OBTAIN PERMIT AND APPROVED SUBMITTALS PRIOR TO BEGINNING WORK OR ORDERING EQUIPMENT.
29. THE ELECTRICAL INSTALLATION SHALL MEET ALL STANDARD REQUIREMENTS OF POWER AND TELEPHONE COMPANIES.
30. CONTRACTOR SHALL COORDINATE WITH MECHANICAL DRAWINGS AND PROVIDE ALL NECESSARY CONTROL WIRING.
31. ALL CIRCUIT BREAKERS FEEDING MECHANICAL EQUIPMENT SHALL BE HACR TYPE CIRCUIT BREAKERS.
32. PROVIDE AND INSTALL CONDUIT, CONDUCTORS, PULL WIRES, BOXES, COVER PLATES, DEVICES, ETC. FOR ALL OUTLETS AS INDICATED.
33. MATERIALS, PRODUCTS, AND EQUIPMENT, INCLUDING ALL COMPONENTS THEREOF, SHALL BE NEW AND SUCH AS APPEAR ON THE UL LIST OF APPROVED ITEMS AND SHALL MEET OR EXCEED THE REQUIREMENTS OF N.E.C. NEMA, AND IECE.
34. CONTRACTOR SHALL SUBMIT SHOP DRAWINGS OR CUT SHEETS OF LIGHTING FIXTURES, SWITCHES, AND OTHER ELECTRICAL ITEMS FOR APPROVAL BY ENGINEER/ARCHITECT.
35. ELECTRICAL CONTRACTOR SHALL BE RESPONSIBLE FOR ALL CUTTING, PATCHING AND FIRED CAULKING REQUIRED OF HIS WORK.
36. ELECTRICAL CONTRACTOR SHALL LABEL ALL PANELS W/TYPE WRITTEN DIRECTORIES.
37. ALL ELECTRICAL AND COMMUNICATIONS OUTLETS TO BE AT 24" A.F.F. UNLESS NOTED OTHERWISE, AND VERTICALLY MOUNTED.
38. ALL LIGHT SWITCHES TO BE AT 42" A.F.F.
39. ALL ELECTRICAL WIRING SHALL BE THE RESPONSIBILITY OF THE ELECTRICAL CONTRACTOR. ALL ELECTRICAL WIRING FOR HVAC SYSTEM INCLUDING CONTROLS, THERMOSTATS, POWER, ETC. SHALL BE THE RESPONSIBILITY OF THE ELECTRICAL CONTRACTOR.
40. BREAKER AND PANELS – ALL CURRENT CARRYING BUSSES SHALL BE COPPER. ALL GROUND BUS BARS SHALL BE COPPER. PANEL BOARD ENCLOSURES SHALL BE FURNISHED WITHOUT PRE-PUNCHED CONCENTRIC HOLES. A.I.C. RATINGS SHALL BE AS INDICATED ON PANEL BOARD SCHEDULES.
41. DISCONNECT SWITCHES SHALL BE H.P. RATED, GENERAL DUTY, QUICK-MAKE, QUICK-BREAK ENCLOSURES AS REQUIRED BY EXPOSURE.
42. MOTOR STARTERS SHALL BE MANUAL OR MAGNETIC, WITH OVERLOAD RELAYS IN EACH HOT LEG.
43. THE TERM "PROVIDE" USED IN THE CONSTRUCTION DOCUMENTS AND SPECIFICATIONS INDICATES THE CONTRACT SHALL FURNISH AND INSTALL.
44. CONTRACTOR SHALL CONFIRM WITH ANY AND ALL REQUIREMENTS SUCH AS: LUG SIZE RESTRICTIONS, CONDUIT ENTRY, TRANSFORMER SIZE, SCHEDULED DOWN TIME FOR OWNERS CONFIRMATION, ETC. ANY CONFLICTS SHALL BE BROUGHT TO ATTENTION OF THE ENGINEER BEFORE PROCEEDING WITH ANY WORK.
45. VOLTAGE DROP FOR ALL BRANCH CONDUCTORS SHALL NOT EXCEED 3%. WHERE VOLTAGE DROP EXCEEDS 3%, CONTRACTOR SHALL INCREASE SIZE OF CONDUCTORS.
46. CONTRACTOR SHALL PROVIDE GFI TYPE BREAKER FOR ALL EXTERIOR 120V CIRCUITS OR GFI PROTECTION – FOR THE WHOLE CIRCUIT.
47. GAS PIPING SHALL BE BONDED.
48. ELECTRICAL CONTRACTOR SHALL COORDINATE SERVICE ENTRY WITH SERVICE PROVIDER PRIOR TO DETERMINING EXACT LOCATION OF THE METER BOX IN ORDER TO AVOID DISCREPANCIES BETWEEN DRAWINGS AND JOB CONDITIONS.
49. ALL OUTDOOR EQUIPMENT SHALL BE WEATHERPROOF.
50. CONSTRUCTION "AS BUILT" DRAWINGS AND DOCUMENTS SHALL BE PROVIDED TO THE OWNER WITHIN 30 DAYS AFTER THE DATE OF ACCEPTANCE. PROVIDE A COPY TO LL.
51. OPERATION MANUALS AND MAINTENANCE MANUALS SHALL BE PROVIDED TO THE BUILDING OWNER.
52. ABSOLUTELY NO FLEXIBLE CONDUIT IS PERMITTED IN DEMISING WALLS. FLEXIBLE CONDUIT IS PERMITTED FOR SHORT FINAL CONNECTIONS ONLY (6'-0" OR LESS).
53. EXPOSED CONDUIT SHALL BE INSTALLED IN STRAIGHT LINES, PARALLEL OR IN RIGHT ANGLES TO THE BUIDING STRUCTURE. DO NOT LOOP EXCESS FLEXIBLE CONDUIT IN CEILING SPACE OR WALL CAVITY. NO CONDUIT TO BE SUPPORTED FROM THE ROOF DECK.
54. CABLE TYPES AC AND NM CABLES ARE NOT ACCEPTABLE. TYPE MC CABLE, ELECTRIC METALLIC TUBING (EMT) AND RIGID GALVANIZED CONDUIT ARE PERMITTED.
55. ALL EQUIPMENT, DEVICES AND FIXTURES SHALL BE GROUNDED IN COMPLIANCE WITH NEC AND UL REQUIREMENTS.
56. ALL PANELS TO BE UL LABELED WITH BOLT-ON TYPE CIRCUIT BREAKERS.
57. 7-DAY 24-HOUR TIME CLOCK IS REQUIRED TO CONTROL STOREFRONT ENTRY LIGHTS, SHOW WINDOW LIGHTS, SHOW WINDOW RECEPTACLES AND STOREFRONT SIGNAGE. ILLUMINATED STOREFRONT SIGNS MUST REMAIN LIT DURING ALL MALL BUSINESS HOURS.
58. TENANT IS REQUIRED TO MAKE A FIELD SURVEY OF THE EXISTING ELECTRICAL SERVICE TO ENSURE THAT THE TOTAL CONNECTED LOAD DOES NOT EXCEED THE ELECTRIC SERVICE. ANY/ALL MODIFICATIONS OR UPGRADES NEEDED ARE SUBJECT TO LANDLORD'S PRIOR APPROVAL AND WILL BE COMPLETED BY TENANT/TENANT'S GC AT TENANT'S SOLE EXPENSE.
59. ALL ELECTRICAL PANELS TO BE MOUNTED ON PLYWOOD BACKER BOARD.
60. PANEL PHASE LOADS TO BE BALANCED WITHIN 10%.

GENERAL LIGHTING NOTES

A. UPPER CASE LETTER NEXT TO LIGHT FIXTURE DENOTES FIXTURE TYPE.

B. ALL EMERGENCY FIXTURES SHALL BE CONNECTED TO AN UNSWITCHED HOT CONDUCTOR.

ELECTRICAL LEGEND

SYMBOL	DESCRIPTION
	EXHAUST FAN
	COMBINATION EXHAUST FAN/LIGHT (REFER TO MECHANICAL PLANS)
J	JUNCTION BOX
	BATTERY BACK UP EXIT LIGHT
	BATTERY BACK UP EMERGENCY LIGHT
$	WALL SWITCH (SINGLE, DOUBLE,)
$3	WALL SWITCH (3 WAY, 4 WAY)
$M	MOTOR SWITCH
$D	DIMMER WALL SWITCH
$T	WALL SWITCH (TIMER)
$OS	OCCUPANCY SENSOR WALL SWITCH
	SINGLE RECEPTACLE
	DUPLEX RECEPTACLE
	DUPLEX RECEPTACLE, 46" TO AFF AT KITCHEN, BATHS AND TOPS
	HALF SWITCHED DUPLEX RECEPTACLE
	230 VOLT RECEPTACLE
	QUADRUPLEX RECEPTACLE
	FLOOR MOUNTED. FLUSH DUPLEX RECEPTACLE
	FLOOR MOUNTED. FLUSH QUAD. RECEPTACLE
	FLOOR MOUNTED. FLUSH 230 VOLT RECEPTACLE
CL	CEILING MOUNTED DUPLEX RECEPTACLE
	ELECTRICAL PANEL
	DISCONNECT SWITCH
	USB CHARGER RECEPTACLE
TV	TELEVISION OUTLET
T	TELEPHONE OUTLET
	TELEPHONE/DATA OUTLET
D	DATA OUTLET
T D	FLOOR MTD. FLUSH TELEPHONE/DATA OUTLET
QUAD	QUAD. DATA OUTLET RJ45
	NON FUSED DISCONNECT SWITCH

ABBREVIATIONS:

ABOVE FINISH FLOOR= A.F.F.	BELOW COUNTER= BC
COUNTER TOP LEVEL= C	PUSH BUTTON= PB
GROUND FAULT INTERRUPTER= GFCI	UNDER CABINET= UC
VERIFY PRIOR TO INSTALL= VH	VAPOR PROOF= VP
WEATHER PROOF= WP	ELECTRICAL CONTRACTOR=E.C.
KITCHEN EXHAUST FAN = KEF	BATHROOM EXHAUST FAN=BEF
WATER HEATER= WH	RECIRCULATION PUMP=RCP
AUTHORITY HAVING JURISDICTION= A.H.J.	ROOF TOP UNIT= RTU
EXHAUST FAN=EF	

LIGHTING FIXTURE SCHEDULE

SYMBOL	TYPE	DESCRIPTION	MANUFACTURER	CATALOG NUMBER	VOLT	LAMP WATTAGE	MOUNTING
	A	2x2 RECESSED LED FLAT PANEL	LITHONIA LIGHTING	CPX-2X2-AL07-SWW7-M4	120	27.5 WATTS	RECESSED
	A1	2x4 RECESSED LED FLAT PANEL	LITHONIA LIGHTING	CPX-2X4-AL08-SWW7-M2	120	38 WATTS	RECESSED
	B	DECORATIVE PENDENT LED	TBD	TBD	120	18 WATTS	PENDANT
	C	TRACK LIGHTS	ABL-JUNO	R600L-G2-16623	120	10 WATTS	TRACK
	D	6" RECESSED DOWNLIGHT	TBD	TBD	120	18 WATTS	RECESSED
	X1	EXIT SIGN	TBD	TBD	120	TBD	CEILING
	Y1	EMERGENCY LIGHTS	TBD	TBD	120	TBD	WALL
$D	DS	DIMMER WALL SWITCH	TBD	TBD	120	TBD	WALL
$T	T	TIMER WALL SWITCH	TBD	TBD	120	TBD	WALL
$OS	OS	OCCUPANCY WALL SWITCH	TBD	TBD	120	TBD	WALL
OS	OS	CEILING OCCUPANCY SENSOR	TBD	TBD	120	TBD	CEILING
	(E)	EXISTING LIGHTING FIXTURE TO REMAIN	–	–	–	–	–

LIGHT FIXTURE SCHEDULE NOTES:

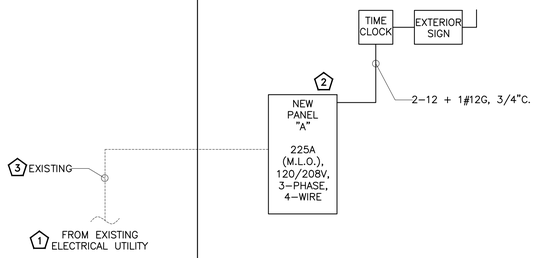
REFER TO SHEET A-2 - REFLECTED CEILING PLAN IN ARCHITECTURAL DRAWINGS FOR MORE INFORMATION ON COLORS AND TRIMS REQUIRED

(*) EXISTING FIXTURES ARE ACCEPTABLE. IF THEY NEED TO BE REPLACED, REPLACE W/ EXACT MATCH OR MATCH SCHEDULE

SUBSTITUTIONS TO THE ABOVE FIXTURE SCHEDULE MUST BE SUBMITTED 14 DAYS PRIOR TO BID & REVIEWED BY THE ARCHITECT, ENGINEER & OWNER. SUBSTITUTIONS WILL NOT BE REVIEWED AFTER THIS TIME. SUBMITTAL PACKAGES MUST INCLUDE COLOR, CUT SHEETS, ALL PHOTO METRICS & FIXTURE SAMPLES FOR ALL DECORATIVE FIXTURES, LANDSCAPE FIXTURES & OUTDOOR FIXTURES. WITHOUT THIS INFORMATION NO REVIEW WILL BE PROVIDED.

NOTE:

1. E.C. SHALL COORDINATE WITH ARCHITECT FOR FINAL FIXTURE COUNT AND TYPE.
2. COORDINATE EXACT CONTROL REQUIREMENTS WITH OWNER.
3. E.C SHALL PROVIDE REQUIRED POWER PACKS AND RELAYS SUITABLE FOR THE ABOVE LIGHT FIXTURES IN COORDINATION WITH THE LIGHTING VENDOR. BASE BID ACCORDINGLY.



ELECTRICAL RISER KEYED NOTES:

1. EXISTING 200A, 120/208V, 3-PHASE, 4-WIRE INCOMING ELECTRICAL SERVICE FROM THE EXISTING ELECTRICAL BASE BUILDING DISTRIBUTION TO THE PROJECT'S SPACE SHALL REMAIN. E.C. SHALL COORDINATE WITH THE BASE BUILDING/LANDLORD/OWNER FOR EXACT POWER DISTRIBUTION. REPORT TO ENGINEER ON RECORD FOR ANY DISCREPANCIES. BASE BID ACCORDINGLY.
2. NEW 200A(M.L.O) 120/208V, 3-PHASE, 4-WIRE ELECTRICAL PANEL "A". E.C. TO COORDINATE EXACT LOCATION OF PANEL WITH ARCHITECT/OWNER.
3. EXISTING INCOMING FEEDER TO REMAIN. E.C. TO VERIFY EXACT SIZE AND OPERABLE CONDITION OF FEEDER IN FIELD AND PROVIDE NEW IF FOUND UNDERSIZE OR INOPERABLE. BASE BID ACCORDINGLY.

RISER DIAGRAM GENERAL NOTES:

A. 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.

B. E.C. SHALL VERIFY INCOMING SERVICE AMPERAGE, WIRE SIZING AND DISTRIBUTION.

C. ELECTRICAL CONTRACTOR TO COORDINATE FAULT CURRENT (Isc) RATING WITH UTILITY COMPANY AND AHJ PRIOR TO COMMENCING ANY WORK.

D. E.C. TO VERIFY OPERABLE CONDITIONS OF EXISTING DEVICES IN FIELD. REPLACE/RECTIFY IF FOUND IN OPERABLE. BASE BID ACCORDINGLY.

E. EXISTING ELECTRICAL DISTRIBUTION TO BE MAINTAINED AND UTILIZED TO SERVE PROJECT SPACE. POWER RISER DIAGRAM INDICATED FOR REFERENCE PURPOSES ONLY.

ELECTRICAL RISER SYMBOLS:

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

FEEDER SIZE SCHEDULE:-

AMPS	FEEDER SIZE
200A	4-3/0 + 1#6G, 2"C.
225A	4-4/0 + 1#4G, 2"C.

* E.C. TO VERIFY THE RATING, SIZE AND OPERABLE CONDITION OF EXISTING ELECTRICAL FEEDER/CONNECTION IN FIELD. INFORM ENGINEER FOR ANY DISCREPANCY FOUND BEFORE COMMENCING ANY WORK.

ELECTRICAL RISER | SCALE N.T.S. | 1

NY ENGINEERS

PROJECT

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ELECTRICAL PLAN NOTES AND RISER DIAGRAM

E-1

LIGHTING PLAN GENERAL NOTES:

1. CONTRACTOR ADVISED TO UPDATE THE EMERGENCY LIGHT FIXTURES LOCATIONS/QUANTITY PER SITE REQUIREMENT UP ON FINAL INSPECTION OR PER LOCAL AHJ REQUIREMENT.
2. PROVIDE MANUAL OVERRIDE SWITCH AS PER IECC C405.2.2.1
3. (E) IN THE PLAN INDICATES EXISTING TO REMAIN.

LIGHTING PLAN KEYED NOTES:

(A) CONNECT EMERGENCY AND EGRESS LIGHTING FIXTURES TO THE NEAREST LIGHTING CIRCUIT AHEAD OF ALL SWITCHING AND CONTROLS PER STATE AND LOCAL CODES.

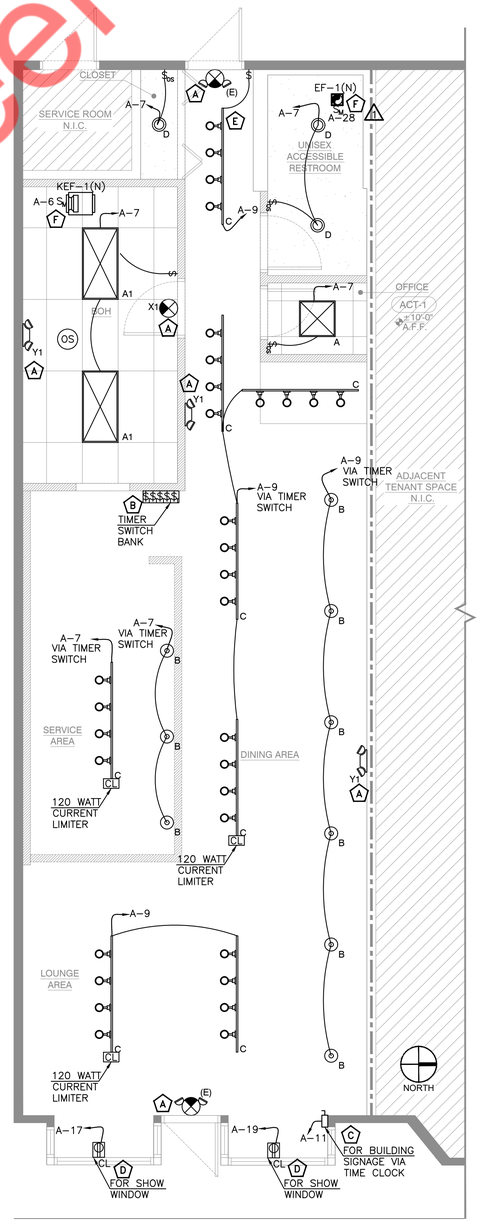
(B) COORDINATE EXACT LOCATION OF THE TIMER SWITCH BANK WITH OWNER/ARCHITECT.

(C) PROVIDE DISCONNECT SWITCH, TIMER AND OTHER ELECTRICAL CONNECTIONS FOR EXTERIOR SIGN. E.C SHALL COORDINATE EXACT POWER REQUIREMENT, LOCATION AND MOUNTING DETAILS WITH OWNER/LANDLORD & SIGN VENDOR.

(D) PROVIDE SHOW WINDOW RECEPTACLE AS PER N.E.C. 210.62. VERIFY EXACT LOCATION WITH ARCHITECT.

(E) LIGHTING NEAR ELECTRICAL PANELS SHALL NOT BE CONTROLLED BY ANY AUTOMATIC MEANS AND SHALL BE COMPLIED AS PER NEC 110.26(D).

(F) EXHAUST FANS BEF–1(N) & EF–1(N) SHALL BE INTERLOCKED WITH RTU–1(E). E.C. SHALL COORDINATE WITH THE MECHANICAL CONTRACTOR IN THE FIELD. PRIOR TO ROUGH IN.



LIGHTING PLAN | SCALE 1/4" = 1'-0" | 1

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LIGHTING & LOW VOLTAGE PLAN

E-2

POWER PLAN GENERAL NOTES:

2

1. 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 HAVE GFCI PROTECTION. ALL THE KITCHEN EQUIPMENT SHALL HAVE GFI RECEPTACLES, IF GFCI RECEPTACLE IS NOT READLIY ACCESSIBLE THEN GFCI BREAKER SHALL BE PROVIDED IN THE PANELS.
2. E.C. SHALL COORDINATE WITH THE EQUIPMENT VENDOR FOR EXACT RECEPTACLE REQUIREMENT AND WITH ARCHITECT/OWNER FOR EXACT LOCATION AND MOUNTING HEIGHT OF THE RECEPTACLES IN THE FIELD.

POWER PLAN KEYED NOTES:

(A) QUAD RECEPTACLE OUTLET FOR PC/OFFICE DESK. ELECTRICAL CONTRACTOR TO CO-ORDINATE WITH ARCHITECT/OWNER FOR EXACT POWER REQUIREMENT, LOCATION, MOUNTING HEIGHT OF OUTLET/DATA AND OTHER DETAILS BEFORE COMMENCING ANY WORK. BASE BID ACCORDINGLY.

(B) NEW 200A(M.L.O), 120/208V, 3-PHASE, 4-WIRE ELECTRICAL PANEL "A". E.C. SHALL COORDINATE EXACT LOCATION WITH ARCHITECT/OWNER.

(C) E.C SHALL VERIFY THE INSTALLATION OF ELECTRICAL EQUIPMENTS ARE IN COMPLIANCE WITH N.E.C. ARTICLE 110.26(A) AND (B). E.C. SHALL FIELD VERIFY THAT THE PANELS ARE UNOBSTRUCTED AND THE AREA WHERE THE PANELS ARE PLACED SHALL NOT BE USED AS A STORAGE SPACE.

(D) ELECTRICAL CONTRACTOR SHALL COORDINATE WITH THE PLUMBING CONTRACTOR FOR EXACT LOCATION AND POWER REQUIREMENT OF THE PLUMBING UNITS IN THE FIELD. PROVIDE CIRCUIT AND CONTROL AS REQUIRED. △1

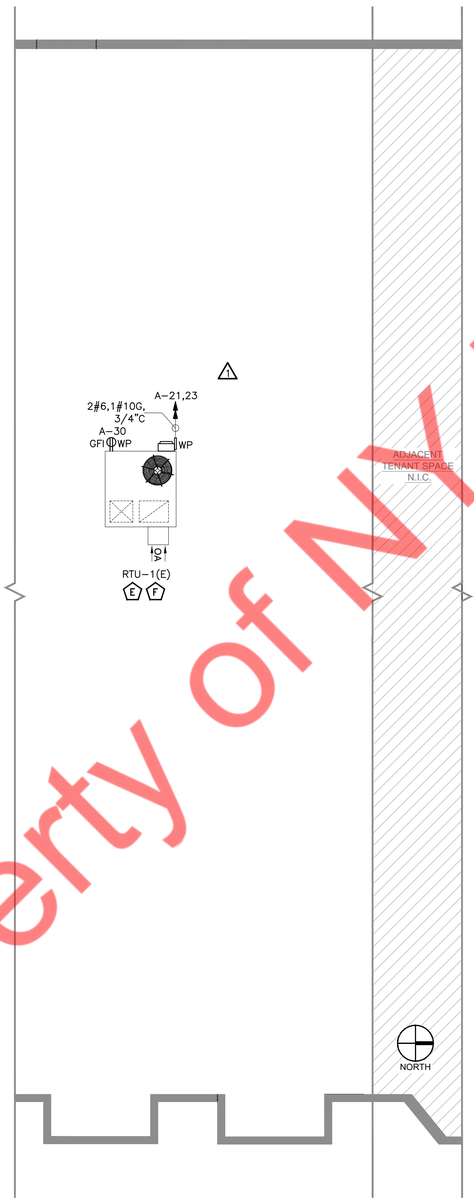
(E) ELECTRICAL CONTRACTOR SHALL COORDINATE EXACT LOCATION OF MECHANICAL EQUIPMENTS WITH MECHANICAL DRAWINGS.

(F) ELECTRICAL CONTRACTOR SHALL COORDINATE DISCONNECT AND FUSE REQUIREMENT FOR MECHANICAL UNIT WITH MECHANICAL CONTRACTOR AND EQUIPMENT MANUFACTURER PRIOR TO ROUGH-IN AND PROVIDE AS REQUIRED. LOCATE AS REQUIRED TO MAINTAIN NEC CLEARANCES. BASE BID ACCORDINGLY.

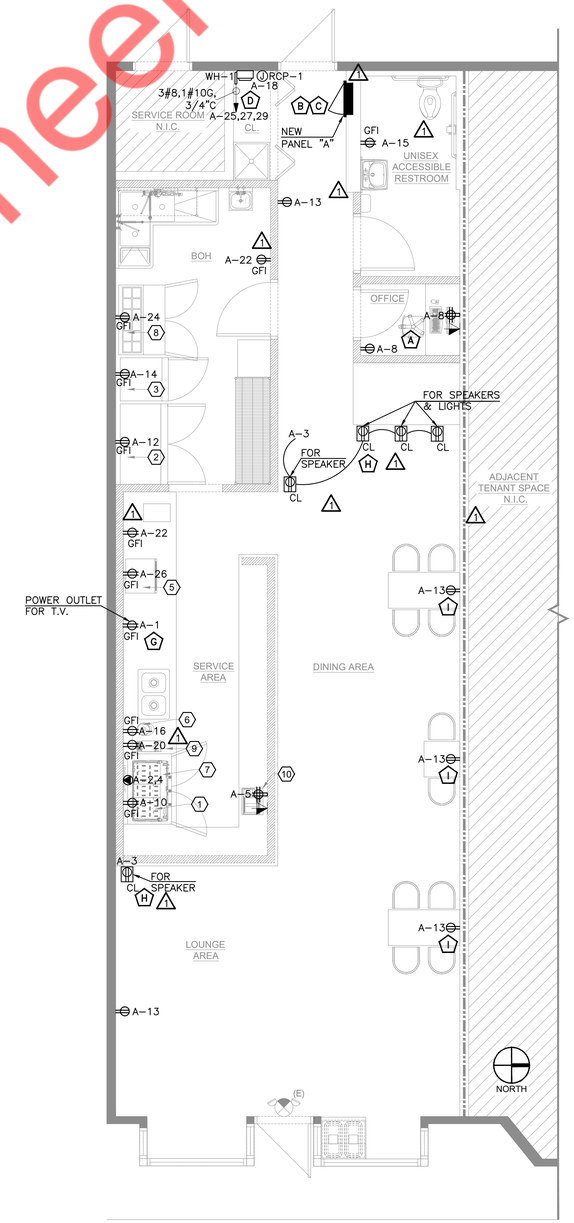
(G) E.C. SHALL COORDINATE WITH THE ARCHITECT/OWNER FOR EXACT LOCATION OF THE T.V. AND MOUNTING HEIGHT OF THE RECEPTACLE IN THE FIELD PRIOR TO ROUGH-IN. BASE BID ACCORDINGLY.

(H) E.C. SHALL COORDINATE WITH LOW VOLTAGE VENDOR FOR EXACT QUANTITY AND POWER REQUIREMENTS FOR LOW VOLTAGE EQUIPMENTS PRIOR TO ROUGH-IN. BASE BID ACCORDINGLY.

(I) E.C. SHALL COORDINATE WITH THE ARCHITECT/OWNER FOR EXACT LOCATION AND MOUNTING HEIGHT OF THE RECEPTACLES IN THE FIELD PRIOR TO ROUGH-IN. BASE BID ACCORDINGLY.



ROOF PLAN | SCALE 1/4" = 1'-0" | 2



POWER PLAN | SCALE 1/4" = 1'-0" | 1

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02	△2 BD COMMENTS.	12/18/23

PROFESSIONAL SEAL

ISSUE DATE: 08.11.23
PROJECT #: 387B.1373B
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POWER & ROOF PLAN

E-3

ELECTRICAL PANEL SCHEDULE:–

PANEL:	A(N)						MOUNTING:	RECESSED
208Y/120	VOLTS,	3	PHASE,	4	WIRE		LOCATION:	BOH
MAIN CB	NA	MLO:	225A	BUS:	225A	MIN,	FED FROM:	EXISTING ELECTRICAL UTILITY

NOTE: L : LIGHTING, H : HVAC LOAD, M : MOTOR LOAD, R : RECEPTACLES, 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	RECEPTACLE-T.V.	R	0.18	2-12,#12G,3/4"C	2.88			2-12,#12G,3/4"C	2.70	E	3 WAVE ESPRESSO COFFEE MACHINE_(#7)	40/2P	2
3	20	RECEPTACLE-SPEAKERS & LIGHTS	R	0.90	2-12,#12G,3/4"C		3.60			2.70	E			4
5	20	POS_(#10)	R	1.20	2-12,#12G,3/4"C			1.22	2-12,#12G,3/4"C	0.02	M	KEF-1(N)	20	6
7	20	LIGHTING-SERVICE AREA, BOH, OFFICE, RESTROOM,CLOSET	L	0.50	2-12,#12G,3/4"C	1.04			2-12,#12G,3/4"C	0.54	R	RECEPTACLES-OFFICE	20	8
9	20	LIGHTING-DINING AREA, HALLWAY	L	0.50	2-12,#12G,3/4"C		0.65		2-12,#12G,3/4"C	0.15	E	UNDERCOUNTER REFRIGERATOR_(#1)	20*	10
11	20	EXTERIOR SIGNAGE/TIMECLOCK	L	1.20	2-12,#12G,3/4"C			1.56	2-12,#12G,3/4"C	0.36	E	REACH-IN REFRIGERATOR_(#2)	20	12
13	20	CONVENIENCE RECEPTACLES	R	0.72	2-12,#12G,3/4"C	0.90			2-12,#12G,3/4"C	0.30	E	REACH-IN FREEZER_(#3)	20	14
15	20	RECEPTACLE-RESTROOM	R	0.18	2-12,#12G,3/4"C		0.43		2-12,#12G,3/4"C	0.25	E	ESPRESSO COFFEE MACHINE_(#6)	20	16
17	20	SHOW WINDOW RECEPTACLE	L	1.80	2-12,#12G,3/4"C			1.89	2-12,#12G,3/4"C	0.09	M	RECIRCULATION PUMP(RCP-1)	20	18
19	20	SHOW WINDOW RECEPTACLE	L	1.80	2-12,#12G,3/4"C	3.12			2-12,#12G,3/4"C	1.32	E	BLACK BULK COFFEE GRINDER_(#9)	20	20
21	60/2P	RTU-1(E)	H	5.51	2-6,#10G,3/4"C		5.87		2-12,#12G,3/4"C	0.36	R	RECEPTACLES-BOH & SERVICE AREA	20	22
23			H	5.51				5.79	2-12,#12G,3/4"C	0.28	E	REFRIGERATED SANDWICH PREP TABLE_(#8)	20	24
25	50/3P	WATER HEATER(WH-1)	E	4.10	3-8,#10G,3/4"C	5.70			2-12,#12G,3/4"C	1.60	E	COUNTERTOP CONVECTION OVEN_(#5)	20	26
27			E	4.10			4.12		2-12,#12G,3/4"C	0.02	M	EF-1(N)	20	28
29			E	4.10				4.28	2-12,#12G,3/4"C	0.18	R	RECEPTACLE-ROOF	20	30
31	20	SPARE				0.00						SPARE	20	32
33	20	SPARE					0.00					SPARE	20	34
35		SPACE						0.00				SPACE		36
37		SPACE				0.00						SPACE		38
39		SPACE					0.00					SPACE		40
41		SPACE						0.00				SPACE		42
TOTAL CONNECTED LOAD (KVA)						13.64	14.67	14.73						

EQUIPMENT SCHEDULE:–

ITEM NO.	DESCRIPTION	VOLTAGE	PHASE	AMPS	KVA	PLUG TYPE
1	UNDERCOUNTER REFRIGERATOR	115	1	1.33	0.15	NEMA 5-15P
2	REACH-IN REFRIGERATOR	115	1	3.14	0.36	NEMA 5-15P
3	REACH-IN FREEZER	115	1	2.62	0.30	NEMA 5-15P
5	COUNTERTOP CONVECTION OVEN	120	1	13.30	1.60	NEMA 5-15P
6	ESPRESSO COFFEE MACHINE	110	1	3.00	0.25	NEMA 5-15P
7	3 WAVE ESPRESSO MACHINE	208	2	25.00	5.40	L6-30
8	REFRIGERATED SANDWICH PREP TABLE	115	1	2.40	0.28	NEMA 5-15P
9	BLACK BULK COFFEE GRINDER	115	1	11.00	1.32	NEMA 5-15P
10	POS	120	1	10.00	1.20	NEMA 5-15P

PANEL SCHEDULE NOTES:
* INDICATES GFCI BREAKER PROVISION

NY ENGINEERS

PROJECT

ELLA CAFE

REVISIONS DATES:

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PANEL SCHEDULES

E-4

PLUMBING NOTES

1. ALL WORKMANSHIP AND MATERIALS SHALL BE IN STRICT ACCORDANCE WITH APPLICABLE LOCAL CODES, RULES AND ORDINANCES.
2. PLUMBING CONTRACTOR SHALL REVIEW ALL DRAWINGS OF THIS SET. CONTRACTOR TO VERIFY THAT ALL EQUIPMENT SHOWN AS EXISTING MATCHES THE DESCRIPTIONS AND SPECIFICATIONS SHOWN ON DRAWINGS AND SCHEDULES. IF DIFFERENT NOTIFY ARCHITECT/ENGINEER BEFORE BIDDING, ORDERING OR PRECEDING WITH WORK.
3. ALL EQUIPMENT WHICH IS TO REMAIN MUST BE REFURBISHED TO A LIKE NEW CONDITION.
4. PLUMBING CONTRACTOR SHALL VISIT THE JOB SITE AND THOROUGHLY FAMILIARIZE HIMSELF WITH ALL EXISTING CONDITIONS.
5. ALL MATERIALS SHALL BE NEW.
6. ALL WORK SHALL BE PERFORMED BY A LICENSED PLUMBING CONTRACTOR IN A FIRST CLASS WORKMANLIKE MANNER. THE COMPLETED SYSTEM SHALL BE FULLY OPERATIVE. ALL EXCAVATION AND BACKFILL AS REQUIRED FOR THIS PHASE OF CONSTRUCTION SHALL BE A PART OF THIS CONTRACT.
7. REQUIRED INSURANCE SHALL BE PROVIDED BY THE PLUMBING CONTRACTOR FOR PROTECTION AGAINST PUBLIC LIABILITY AND PROPERTY DAMAGE FOR THE DURATION OF THE WORK.
8. PLUMBING CONTRACTOR SHALL SECURE AND PAY FOR ALL PERMITS, FEES, INSPECTION AND TESTS. PLUMBING CONTRACTOR TO OBTAIN PERMIT AND APPROVED SUBMITTALS PRIOR TO BEGINNING WORK OR ORDERING EQUIPMENT. PLUMBING CONTRACTOR MUST BE PRESENT FOR ALL INSPECTIONS OF HIS WORK BY REGULATORY AUTHORITIES.
9. DRAWINGS ARE DIAGRAMMATIC. DO NOT SCALE FOR THE EXACT LOCATION OF FIXTURES, PIPING, EQUIPMENT, ETC.
10. ALL WORK SHALL BE COORDINATED WITH OTHER TRADES TO AVOID INTERFERENCE WITH THE PROGRESS OF CONSTRUCTION. REPORT ANY DISCREPANCY TO ENGINEER/ARCHITECT PRIOR TO BEGINNING CONSTRUCTION.
11. VERIFY LOCATION, SIZE, DIRECTION OF FLOW AND INVERTS OF ALL EXISTING UTILITIES PRIOR TO BEGINNING OF CONSTRUCTION. ADVISE ENGINEER OF ANY DISCREPANCIES.
12. EXPOSED WATER PIPING SHALL BE TYPE "L" COPPER FOR 2" AND UNDER. WATER PIPING IN WALLS AND UNDERGROUND MAY BE "PEX" TYPE PIPING THAT MEETS ANSI/NSF STANDARD 61.
13. SOIL, WASTE, VENT AND RAINWATER PIPING SHALL BE PVC BUT MAY NOT RUN THRU RATED ASSEMBLIES OR IN PLENUMS.
14. ALL FIXTURES MUST BE PROVIDED WITH READILY ACCESSIBLE STOPS AND APPROPRIATELY MARKED ACCESS PANELS. COORDINATE LOCATIONS WITH GENERAL CONTRACTOR PRIOR TO INSTALLATION.
15. FURNISH AND INSTALL APPROVED AIR CHAMBERS AT EACH PLUMBING FIXTURE GROUP AS PER CODE AND WITH GOOD ENGINEERING PRACTICE.
16. DIELECTRIC COUPLINGS ARE REQUIRED BETWEEN ALL DISSIMILAR METAL IN PIPING AND EQUIPMENT CONNECTIONS; EXCEPT AT WATER HEATER AS PER CODE.
17. ISOLATE COPPER PIPE FROM HANGER OR SUPPORTS WITH ISOLATOR PAD.
18. ALL FIRE RATED FLOOR AND WALL PENETRATIONS SHALL BE PROPERLY PROTECTED FROM FIRE, SMOKE AND WATER PENETRATION BY FILLING VOIDS BETWEEN PIPE AND WALL/FLOOR SLEEVES WITH FIRE RATED FOAM, TO ACHIEVE THE SAME RATING AS WALLS OR FLOORS AS PART OF THE PLUMBER'S WORK.
19. PLUMBING CONTRACTOR SHALL GUARANTEE ALL MATERIALS AND WORKMANSHIP FREE FROM DEFECTS FOR A PERIOD OF NOT LESS THAN ONE (1) YEAR FROM DATE OF CERTIFICATE OF OCCUPANCY. CORRECTION OF ANY DEFECTS SHALL BE COMPLETED WITHOUT ADDITIONAL CHARGE WITHIN 72 HOURS OF NOTIFICATION AND SHALL INCLUDE REPLACEMENT OR REPAIR OF ANY OTHER PHASE OF THE INSTALLATION WHICH MAY HAVE BEEN DAMAGED. PROVIDE COPY TO LL.
20. STUDOR MINI/MAXI AIR ADMITTANCE VALVES MAY NOT BE USED AS AN ALTERNATE TO VENT PIPING THRU ROOF.
21. PROVIDE CHROME PLATED COMBINATION COVER PLATE AND CLEAN OUT PLUG OR ACCESS PANEL FOR ALL CLEANOUTS.
22. NO COMBUSTIBLE MATERIAL TO BE USED IN MECHANICAL ROOMS OR IN CEILING SPACES WHERE USED AS RETURN AIR PLENUMS.
23. NO WATER, SANITARY OR DRAINAGE PIPING PERMITTED IN ELECTRICAL OR ELEVATOR EQUIPMENT ROOMS.
24. WATER PIPING INSULATION SHALL BE 1" THICK ARMAFLEX INSTALLED IN ACCORDANCE WITH MANUFACTURER'S INSTRUCTIONS FOR ALL HOT WATER PIPING. WHERE DOMESTIC WATER TEMPERATURES CAN CAUSE SWEATING, ALL COLD WATER PIPING SHALL BE INSULATED WITH 1/2" THICK ARMAFLEX INSULATION.
25. CONDENSATE DRAIN LINES TO BE RUN UNDER SLAB IN PVC SCH40 PIPE AND STUBBED OUT OF WALL TO UNIT. TIE-IN OF A/C TO BE BY OTHERS. PVC PIPING WITH 1/2" THICK ARMAFLEX INSULATION MAY BE USED IN LOCATIONS WHERE ALLOWED BY LOCAL CODES. SEE PLUMBING DRAWINGS FOR SIZE AND LOCATION OF PIPING. PVC WILL BE MIN. SCHEDULE 40 FOR SIZE AND LOCATION OF PIPING. PVC WILL BE MIN. SCHEDULE 40.
26. PROVIDE ANGLE STOPS ON ALL WATER SERVICE LINES TO FIXTURES FOR INDIVIDUAL SHUT-OFF.
27. NO JOINTS UNDERGROUND FOR COPPER.
28. PLUMBING FIXTURES SHALL COMPLY WITH FBC-PLUMBING, 7TH EDITION(2020).
29. WATER HAMMER ARRESTORS AS PER FBC-PLUMBING, 7TH EDITION(2020).
30. PLUMBING CONTRACTOR SHALL REVIEW ALL BID DOCUMENTATION.
31. PLUMBING CONTRACTOR SHALL REVIEW WALL FINISHES @ LOCATION REQUIRING BARRIER-FREE COMPLIANCE (EXAMPLE: CENTER LINE TO TOILET).
32. CONSTRUCTION "AS BUILT" DRAWINGS AND DOCUMENTS SHALL BE PROVIDED TO THE OWNER WITHIN 30 DAYS AFTER THE DATE OF ACCEPTANCE. PROVIDE A COPY TO LL.
33. OPERATION MANUALS AND MAINTENANCE MANUALS SHALL BE PROVIDED TO THE BUILDING OWNER. PROVIDE A COPY TO LL.

PLUMBING REQUIREMENTS

•ANY BELOW GRADE WATER LINES TO BE PEX (NO JOINTS BELOW GRADE) AND SLEEVED, OR AS PER AHJ.

•ALL FLOOR DRAINS/SINKS TO HAVE A TRAP PRIMER OR TRAP GUARD.

•PROVIDE FCO'S AT ANY SANITARY SEWER AND GREASE LINE CONNECTIONS TO THE MAIN LINE (OR EXISTING RISERS).

•EXTEND VTRS (NEW & EXISTING) TO ALIGN WITH NEAREST PARAPET HEIGHT OR 60" ABOVE ROOF SURFACE, WHICHEVER IS LOWER.

•CONSOLIDATE SEWER LINES (SAN. & GREASE) AND OTHER BELOW GRADE UTILITIES/INFRASTRUCTURE INTO AS FEW TRENCHES (12" MIN.) AND BRANCH LINES AS POSSIBLE, OR AS PER AHJ, AND REINFORCE AS PER LL'S INSTRUCTIONS.

•WATER LINES WITHIN DEMISING WALLS TO BE COPPER, PEX, OR PER AHJ, WHICHEVER IS MORE STRINGENT.

•ENSURE WATER SUBMETER IS IN WORKING ORDER AND REPAIR/REPLACE AS NECESSARY. IF ONE IS NOT ALREADY IN PLACE, PROVIDE AND INSTALL WATER SUBMETER, AS PER PROPERTY MANAGEMENT'S REQUIREMENTS WITH SHUTOFF VALVE TO IMMEDIATELY FOLLOW, MUST HAVE A NON-RESETTABLE, REMOTE READER, PLACED AT A LEVEL THAT CAN BE READ WITHOUT USE OF A LADDER OR STEPSTOOL, AND HAVE A MULTIPLIER OF 1.

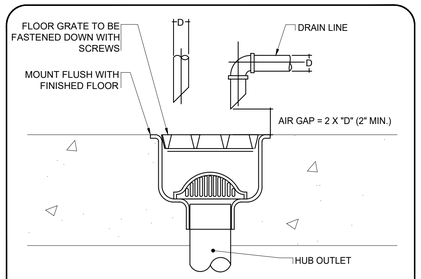
PLUMBING LEGEND

—SAN—	SANITARY SEWER PIPING
— V- —	VENT PIPING
—GSAN—	GREASE SANITARY SEWER PIPING
	DOMESTIC COLD WATER PIPING
	HOT WATER PIPING
	HOT WATER RETURN PIPING
	PIPE UP
	PIPE DROP
EX.CW	EXISTING DOMESTIC COLD WATER PIPING
	CAPPED END OF PIPE
FCO	FLOOR CLEAN OUT
	P-TRAP
S.O.V.	SHUT-OFF VALVE
CW	DOMESTIC COLD WATER
HW	DOMESTIC HOT WATER
HWR	DOMESTIC HOT WATER RETURN
DCVA	DOUBLE CHECK VALVE ASSEMBLY
	GATE VALVE
	CHECK VALVE
	BALANCING VALVE
	WATER HAMMER ARRESTER
I.W.	INDIRECT WASTE
	FLOOR SINK
	POINT OF CONNECTION
	THERMOSTATIC MIXING VALVE

SCOPE OF WORK

PROVIDE ALL PLUMBING FOR NEW FAST FOOD RESTAURANT INCLUDING ALL WATER, GREASE, SANITARY LINES AND CONNECT TO EXISTING UTILITIES. PROVIDE NEW ELECTRICAL WATER HEATER AND GREASE INTERCEPTOR.

COORDINATE WITH GC AND MECH CONTRACTOR FOR ANY REQUIRED CONDENSATE LINES.



FLUSH TO FLOOR SINK DETAIL

NOT TO SCALE

*NOTE- COORDINATE WITH ARCHITECT FOR PATCHING/TRENCHING THE SLAB.

FIXTURE BRANCH SCHEDULES

FIXTURE	COLD WATER	HOT WATER	WASTE	VENT
WATER CLOSET (TANK)	E	--	E	E
LAVATORY	1/2"	1/2"	2"	1-1/2"
SERVICE SINK	1/2"	1/2"	3"	2"

ENERGY CONSERVATION NOTES

1. AS PER 2020 FBC-ENERGY CONSERVATION CODE (ADOPTS IECC 2018) C404.4, PIPING FROM A WATER HEATER TO THE TERMINATION OF HEATED WATER FIXTURE SUPPLY PIPE SHALL BE INSULATED IN ACCORDANCE WITH TABLE C403.2.10 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. AS PER 2020 FBC-ENERGY CONSERVATION CODE(ADOPTS IECC 2018),C404.6.1, AUTOMATIC CONTROLS SHALL BE INSTALLED THAT LIMITS THE OPERATION OF A RECIRCULATING PUMP AND THE SYSTEM RETURN PIPE SHALL BE A DEDICATED RETURN PIPE OR A COLD WATER SUPPLY PIPE.
3. AS PER 2020 FBC-ENERGY CONSERVATION CODE(ADOPTS IECC 2018) 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).

GREASE INTERCEPTOR SCHEDULE

ITEM	SERVICE	FLOW RATE (GPM)	GREASE CAPACITY (LBS)	MANUFACTURER AND MODEL
GREASE INTERCEPTOR (GI)	KITCHEN WASTE	50	439.5	SCHIER MODEL GB-50

NOTE- CONTRACTOR TO PROVIDE ALL REQUIRED ACCESSORIES FOR SATISFACTORY WORKING OF GREASE TRAP AS PER SITE CONDITIONS.

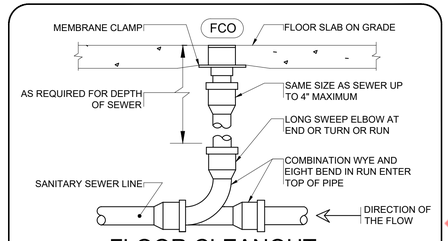
RESTROOM FIXTURE SCHEDULE

Item No.	Qty.	Description	Manufacturer	Model	WATER Hot	WATER Cold	WASTE Waste	Usage	Spec
A1	1	WATER CLOSET	EXISTING TO REMAIN	EXISTING TO REMAIN		E	E		
B	1	ACCESSIBLE LAVATORY	AMERICAN STANDARD	0355.012.020			2"		
C	1	LAVATORY FAUCET	AMERICAN STANDARD	7075.050.002	1/2"	1/2"		0.5	GPM
TMV	3	THERMAL MIXING VALVES	WATTS	LFMMV	1/2"	1/2"			
--	1	INSULATED PLUMBING COVERS	PLUMBEREX	HANDI SHIELD					

KITCHEN EQUIPMENT PLUMBING SCHEDULE

Item No.	Qty.	Description	MANUFACTURER	MODEL	WATER Hot	WATER Cold	WASTE Direct	WASTE Indirect
7	1	3 WAVE ESPRESSO COFFEE MACHINE	NUOVA SIMONELLI	AURELIA WAVE 3		1/2"		1-1/4"
11	1	CORNER SINK 3 COMPARTMENT	-					3 @ 1-1/2"****
11A	1	STANDARD DUTY FAUCET 8"	-	-	1/2"*	1/2"		
11B	1	SPLASH MOUNT PRE-RINSE FAUCET 8"	-	-	1/2"*	1/2"		
12	1	HAND SINK	-	-	1/2"	1/2"	1-1/2"	
13	1	TWO COMPARTMENT SINK	-	-	1/2"	1/2"		1-1/2"****
16	1	MOP SINK	-	-			3***	
16A	1	SERVICE FAUCET	-	-	1/2"*	1/2"		
17	1	WATER HEATER (WH-1)	SEE SCHEDULE	SEE SCHEDULE				
FS	2	FLOOR SINKS	ZURN	Z1900-23-31 (ZS1900 IF IN EXPOSED AREAS)			3"	

*HOT WATER 140°F/**ADAPTOR REQUIRED/***LEVER WASTE VALVE REQUIRED



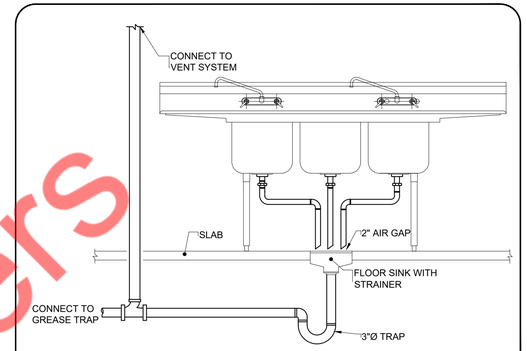
FLOOR CLEANOUT

NOT TO SCALE

*NOTE- COORDINATE WITH ARCHITECT FOR PATCHING/TRENCHING THE SLAB.

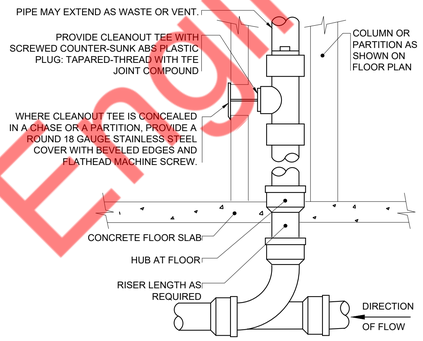
FLOOR CLEANOUT DETAIL NOTES

1) LOCATE CLEANOUT AT THIS LOCATIONS:
   A) BUILDING EXIT
   B) AT TURNS OF PIPES GREATER THAN 45 DEGREES
   C) AT 90' INTERVALS ON STRAIGHT RUNS
   D) WHERE IS SHOWN ON PLANS
   E) WHERE IS 18" CLEAR AROUND



3-COMP SINK DETAILS

NOT TO SCALE

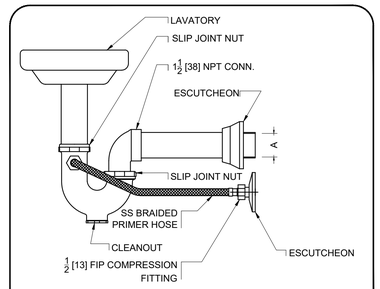


WALL CLEANOUT

NOT TO SCALE

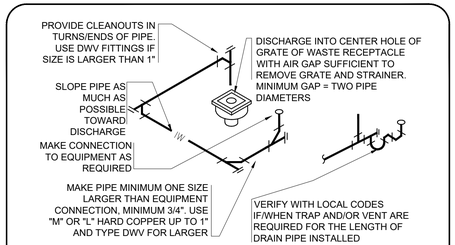
WALL CLEANOUT DETAIL NOTES

1) PROVIDE WCO WHERE SHOWN ON PLANE, AND ON SANITARY WASTE BRANCHES NOT SERVED WITH A FLOOR CLEANOUT
2) LOCATE ABOVE FIXTURE FLOOR RIM WITHIN 4' OF FLOOR.
3) CONSULT LOCAL CODES FOR OTHER WCO REQUIREMENTS.
4) LONG SWEEP AT END OF LINE OR COMBINATION WYE AND EIGHT BEND IN RUN OF LINE.
5) CLEAN OUT FACE SHALL BE WITHIN 4" OF WALL SURFACE. PROVIDE A PIPE EXTENSION IF REQUIRED.



TRAP RESEAL DETAIL

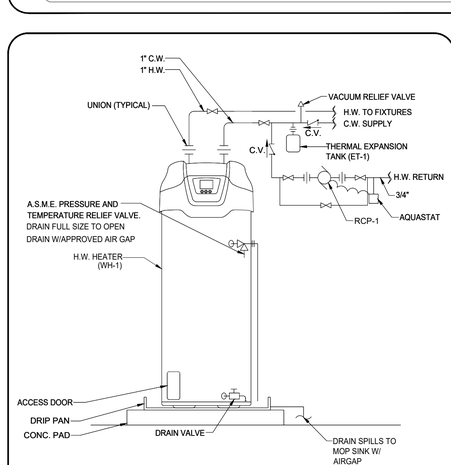
NOT TO SCALE



ROUTE PIPE INCONSPICUOUSLY AND UNOBTRUSIVELY. HANG PIPE AS REQUIRED. DO NOT INSULATE INDIRECT DRAIN PIPE WHEN INSTALLED EXPOSED IN FOOD SERVICE FACILITY. REFER TO LOCAL CODES FOR FURTHER INFORMATION.

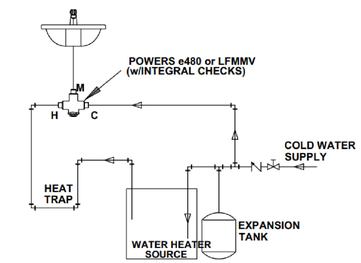
INDIRECT WASTE CONNECTION DETAIL

NOT TO SCALE



WATER HEATER DETAIL

NOT TO SCALE



PIPING DIAGRAM

NOT TO SCALE

NY ENGINEERS

PROJECT

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PLUMBING LEGENDS, NOTES & DETAILS

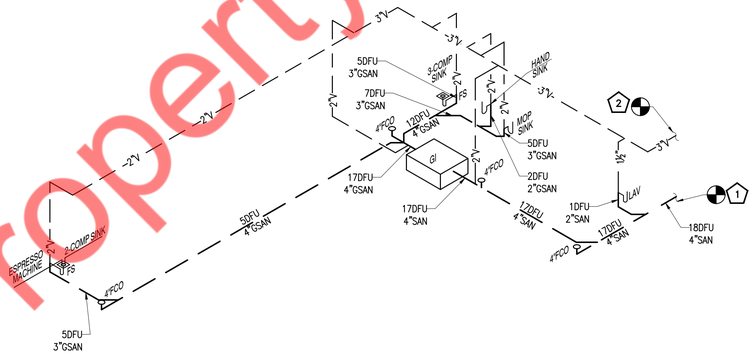
P-1

SANITARY PLAN & RISER KEY NOTE

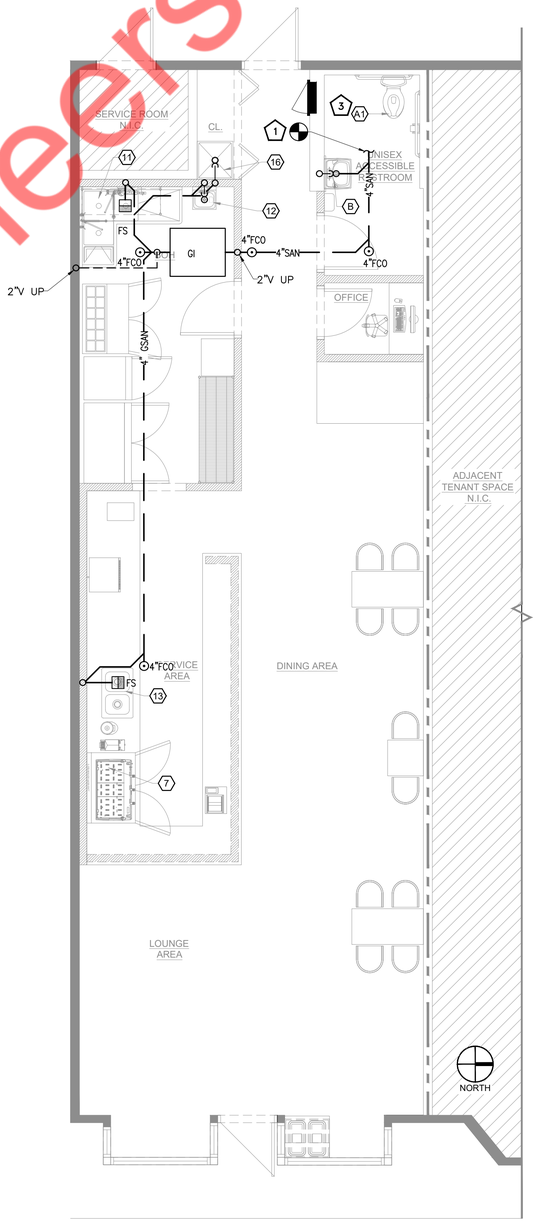
1. CONNECT NEW 4" SANITARY WASTE PIPING TO EXISTING SANITARY LINE OF ADEQUATE SIZE IN SPACE. CONTRACTOR TO FIELD VERIFY EXACT SIZE, LOCATION, ROUTING AND INVERT OF EXISTING SANITARY LINE AND MAKE NECESSARY CHANGES IF REQUIRED.
2. CONNECT NEW 3" VENT PIPING TO EXISTING VENT LINE OF ADEQUATE SIZE IN SPACE. CONTRACTOR TO FIELD VERIFY EXACT SIZE, LOCATION AND ROUTING OF EXISTING VENT LINE AND UPGRADE IF REQUIRED.
3. EXISTING WATER CLOSET TO BE REMAIN WITH EXISTING SANITARY AND VENT PIPING. CONTRACTOR TO FIELD VERIFY THE CONDITION OF EXISTING PIPING AND REPLACE IF REQUIRED.

GENERAL NOTES

1. UNLESS OTHERWISE NOTED, SLOPE OF DRAINAGE SYSTEM TO BE 1/16" PER FOOT OF RUN FOR PIPE 8" AND OVER, 1/8" PER FOOT FOR PIPE 3" TO 6" and 1/4" PER FOOT FOR PIPE 2-1/2" AND SMALLER.
2. 1. CONTRACTOR TO FIELD VERIFY FEASIBILITY OF SLAB PENETRATION AS PER STRUCTURAL REQUIREMENT.
2. ALL MATERIAL INDICATED AND IMPLIED ON THESE DRAWINGS SHALL BE NEW UNLESS OTHERWISE NOTED.
3. ALL CLEANOUTS TO BE ACCESSIBLE.



SANITARY RISER | SCALE N.T.S. | 2



SANITARY PLAN | SCALE 1/4" = 1'-0" | 1

NY ENGINEERS

PROJECT

ELLA CAFE

REVISIONS DATES:

SR. NO.	DETAIL	DATE
01	PROJ COORDN.	12/18/23
02	BD COMMENTS.	12/18/23

PROFESSIONAL SEAL

ISSUE DATE: 08.11.23
PROJECT #: 387B.1373B
DRAWN BY: NYE
CHECKED BY: NYE

SANITARY PLAN & RISER

P-2

RECIRCULATION PUMP SCHEDULE	
MANUFACTURER & MODEL	GRUNDFOS UP 15-18 B5
EQUIPMENT TAG	RCP-1
STATUS	NEW
GPM	2
WATER TEMP.(°F)	140
PUMP TYPE	INLINE
MHP	85 WATTS
V/PH/HZ	115/1/60
RPM	2280
SERVICE FACTOR	1.0

NOTE:

PROVIDE AQUA STAT WITH AUTOMATIC TIMER KIT FOR THE TEMPERATURE CONTROL OF HOT WATER SYSTEM. COORDINATE ELECTRICAL REQUIREMENTS FOR TIMER WITH ELECTRICAL CONTRACTOR.

NEW STORAGE WATER HEATER SCHEDULE	
MANUFACTURER	AO SMITH
MODEL	DSE-30A
EQUIPMENT TAG	WH-1
STATUS	NEW
CAPACITY	30 GALLONS
QUANTITY	1
KW	12.3
FLOW RATE	71 GPH*
STANDBY LOSS	0.85
VOLTAGE	208/3/60
AMPERAGE	34.2
WEIGHT	218 LBS

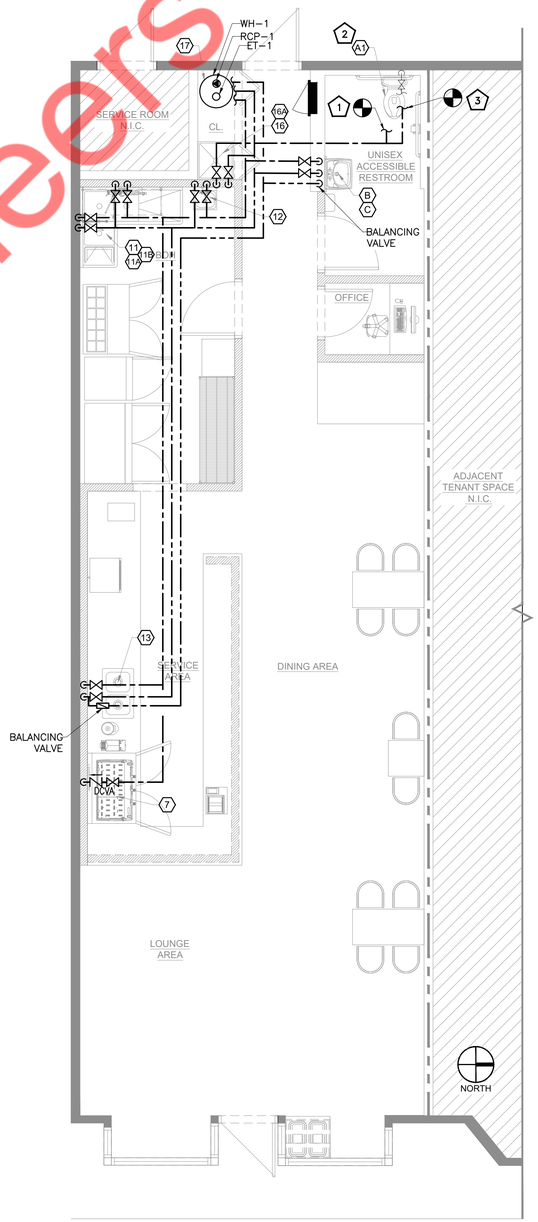
1. *ELEMENT OPERATION @ 70° F TEMPERATURE RISE
2. INSTALL NEW EXPANSION TANK AMTROL MODEL THERM-X-TROL ST-5C-DD, 2.0 (ET-1) GAL PER LOCAL CODE REQUIREMENTS

WATER PLAN & RISER KEY NOTE

1. CONNECT NEW 1-1/4" CW LINE TO EXISTING WATER LINE WITH EXISTING WATER METER. CONTRACTOR TO FIELD VERIFY EXACT LOCATION AND SIZE OF EXISTING WATER LINE & EXISTING WATER METER. UPGRADE THE SIZE OF EXISTING LINE AND WATER METER IF REQUIRED.
2. EXISTING WATER CLOSET TO BE REMAIN WITH EXISTING CW PIPING. CONTRACTOR TO VERIFY THE CONDITION OF EXISTING PIPING. REPLACE IF REQUIRED.
3. EXTEND AND CONNECT ¾" CW PIPING TO THE EXISTING WATER CLOSET PIPING.

GENERAL NOTES

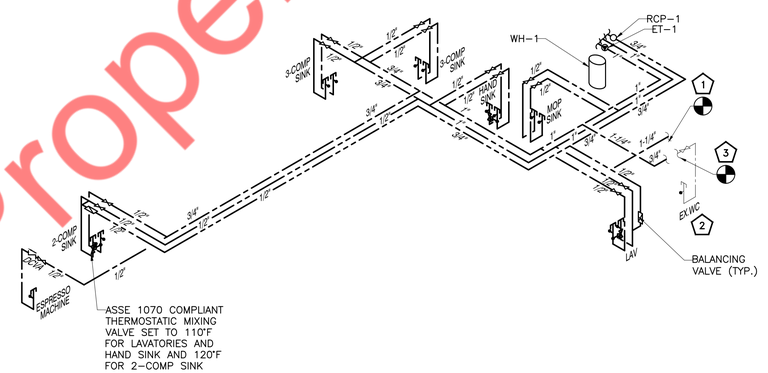
1. CW/HW/HWR PIPING TO BE PROVIDED WITH INSULATION AS PER 2020 FLORIDA ENERGY CONSERVATION CODE (REFER NOTES ON SHEET P-1).
2. PROVIDE BRANCH PRV IF PRESSURE EXCEEDS 80 PSI.
3. PROVIDE ACCESS PANELS FOR WATER HAMMER ARRESTOR & SHUT-OFF VALVES AS REQUIRED.
4. NEW WATER HEATER DRAIN SPILLS TO FLOOR DRAIN.
5. CONTRACTOR TO FIELD VERIFY THE EXISTING WATER SERVICE SIZE BEFORE COMMENCING THE BID AND LET THE ENGINEER/OWNER KNOW IF THE EXISTING SERVICE SIZE IS SMALLER THAN THE PROPOSED. CONSIDER UPGRADING OF WATER SERVICE SIZE AND BASE BID ACCORDINGLY.



WATER PLAN | SCALE 1/4" = 1'-0" | 1

FIXTURE FACTOR VALUE *	
1 WATER CLOSET(E) @ 5	= 5
1 LAVATORY @ 2	= 2
1 HAND SINK @ 2	= 2
2-COMP SINKS @ 4	= 4
3-COMP SINK @ 4	= 8
1 MOP SINK @ 3	= 3
1**MISC. @ 0.25	= 0.25
TOTAL	= 24.25

*AS PER 2020 FLORIDA PLUMBING CODE TABLE E103.3(2)
**ESPRESSO MACHINE
1-1/4"Ø WATER METER & WATER SERVICE LINE SIZE REQUIRED.
CONTRACTOR TO FIELD VERIFY THE EXISTING SERVICE SIZE AND UPGRADE IF REQUIRED.



WATER RISER | SCALE N.T.S. | 2

NY ENGINEERS

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WATER PLAN & RISER

P-3