14'-8" ±
3'-4" 3'-0" 2'-0" 3'-0" 3'-4"

Stepped wall @ location

ALUM. CANOPY

UPPER WALLS TO BE EXTEND'D OUT PAST LOWER EXIST'G

North

EXIST'G 6"x6" ST. COL.

EXIST'G AIR HANDLER ON R/A BOX, ALONG W/ DUCTING TO BE REMOVED
· NEW P-TAC DUCTLESS UNIT TO BE INSTALLED
-VERIFY-

Remove Duct & AC

ALUM. CANOPY

CEILING
· EXIST'G ACOUS. TILE IN ALUM GRID TO BE REMOVED W/ INSULATION
· DUCTWORK TO BE REPLACED W/ EXPOSED TYPE (INSULATED)
· STRUCTURE TO BE PAINTED BLACK - VERIFY COLOR
· GRID W/ LIGHT FIXT'S TO BE RE-INSTALLED
· WALLS ABOVE GRID TO BE PAINTED BLACK

Double wall Spiral Duct

EXIST'G 6"x6" ST. COL.

EXISTING CONC. BEAMS & COLUMN

New

2'-10"

EXISTING RETAIL AREA

ELEC. PANELS

ELEC. METER

EXIST'G 6"x6" ST. COL.

STOREFRONTS TO BE REPLACED - TYP.
SPACES AS SHOWN ARE TO HAVE STEEL STUD FRAMING W/ DRYWALL @ INT.; R-19 INSUL; STUCCO ON SHEATHING

East

PAIR 3'-0" Ø

C 5

Solid wall

Replace door Bathroom

EXISTING STEEL TUBE - SOLID BACKED FACADE TO BE REMOVED & NEW CANOPY TO BE CONSTRUCTED
· W/ ROOF TO TIE INTO EXIST'G
· STUCCO ON SHEATHING ON ST. FRAME & WALLS & CEILING

RESTROOM
· 36" DOOR TO BE REPLACED OR REUSED - VERIFY
· TO REVERSE THE SWING
· TO HAVE CLOSURE HINGES OR EQUAL
· PRIVACY LATCH

EXIST'G 6"x6" ST. COL.

45° BEVELED CORNER

NEW ROOF STRUCTURE OVER THIS AREA

PK 5.8°

EXISTING STEEL COL. TO BE REMOVED

South Elev.

New

LINE OF OUT TIPPED WALL

ALUM. CANOPY

New Canopy

ALUM. CANOPIES ℄ CENTER ON DOORS

B 5

A 5

EXISTING 6" SQ. ST. TUBE COL. TO BE BOXED OUT W/ ST. STUDS AS REQ'D · W/ SHEATHING (DENSGLASS) W/ STUCCO ON GALV. MTL LATH · PTD

3'-0" 1'-6" 2'-0" 3'-0" 3'-0" 3'-0" 2'-0" 3'-6" ± 2'-0" 11'-2" ± 2'-0" 11'-2" ± 2'-0" 2'-0"

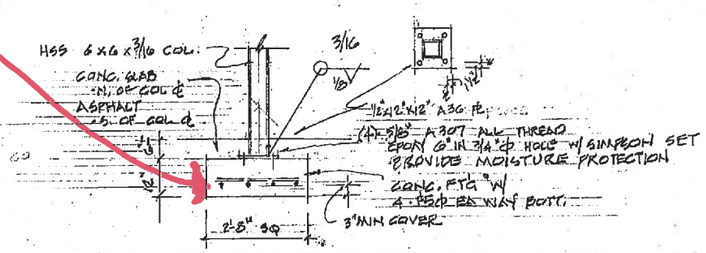
19'-4" ± 18'-4" ± 113'-4" ±

NORTH

GC TO VERIFY 1-#5 ⌀ IN FILLED CELL · IF MISSING ADD 1-#5 ⌀ IN FILLED CELL CONTINUOUS FROM TOP OF SLAB TO TIE BEAM
EMBED 6" INTO TIE BEAM W/ SIMPSON SET EPOXY

(2) HSS 6x6 x 3/16 STEEL TUBE COL'S

FLOOR PLAN SCALE: 1/4"=1'-0"




FOOTING DETAIL 1/2"=1'-0"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BUILDING RENOVATION
FLORIDA GIFT OUTLET
7403 INTERNATIONAL DR.
ORLANDO, FLORIDA 32819

DATE
4-9-18
6-4-18

SHEET 2 OF 8

OPEN STEEL TUBE FRAME STRUCTURE W/ SOLID WALL @ REAR SIDE TO BE REMOVED

PAINTED

DRIP FLASHG

INFILL PANELS

FACADE BEYOND

OPEN STEEL TUBE FRAME STRUCTURE W/ ENCLOSED WALL @ THE REAR TO BE REMOVED

STUCCO ON CONC. BLK W/ INFILL PANELS OF FRAME

DRIP FLASHING

16

11'-6"

8'-0"

Fill In

These Panels are to be Filled in and 2 storefront windows to be added

64'-0"

12-0

12-0

Door as shown

NORTH ELEVATION 1/8"=1'-0"

EXISTING WEST ELEVATION 1/8"=1'-0"

EXISTING SOUTH ELEVATION

SCALE: 1/8"=1'-0"

15-6

15-6

6" HSS COL

6" HSS COL

6" HSS COL

6" HSS COL

PARAPET BEYOND

NEW ROOFING

6"W x 8"T GUTTER

5" ⌀ DOWNSPOUTS

col added

DIVERT ROOF RUN OFF TO THIS CORNER TO RUN OFF TO THE EAST

PROPOSED NORTH ELEVATION 1/8"=1'-0"

24" 24"

S.M. CAP FLASHING

STUCCO ON SHEATHING ON METAL STUD FRAMING

TILT OUT WALL

ALUM. SHADE CANOPIES W/ DIAGONAL BRACING

3'-0"±

S.M. CAP FLSH'G

APPROX. 30" OF HEIGHT ADDED TO TOP OF THIS WALL W/ STUCCO ON FR.

SPLAYED SURFACES

Remove storefront

Remove and replace with new Doors & Sidelights!

NEW STOREFRONT

STOREFRONT TO BE PROTECTED OPENINGS

PAINT EXIST'G

PATCH & REPAIR AS NEEDED

PROPOSED SOUTH ELEVATION

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

3'-0"±

S.M. CAP FLASHG

STEEL STUD FRAME WALLS "TILTED OUT" W/ STUCCO ON SHEATHING & MINERAL SURFACE WEATHER PROOF FRONT & SIDE SIDE.

12" HIGH CONTRASTING STREET ADDRESS NUMBER

8"

REAR OF PARAPET BEYOND

PARAPET

ELEC. FOR SIGN

ALUM CANOPIES W/ DIAG. BRACING

ALUM CANOPIES W/ DIAG BRACES

6"W x 8" TALL GUTTER

5" ⌀ DOWNSPOUTS

EXISTING INFILL PANELS TO BE REPLACED W/ 6T. STUDS W/ STUCCO ON MIL ON SHEATHG & 2:9 INSULG DRYWALL & INT

NEW

NEW

NEW

NEW

8'-0"

21'-0"

16'-0"

8'-0"±

3'-0"±

8'-0"

SPLAYED SURFACES SLOPED BACK TO STOREFRONT

7403

NEW

INFILL

INFILL

NEW DOORS

3-0

3-0

3-0

3-0

PROPOSED NORTH ELEVATION

PROPOSED WEST ELEVATION

SCALE: 1/4"=1'


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Structural Engineering


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DATE
4-9-18
6-1-18

SHEET
3 OF 8

## MECHANICAL SYMBOLS
(ALL SYMBOLS SHOWN ARE NOT NECESSARILY USED ON THE DRAWINGS)

### DUCT (DUCTWORK)

- SUPPLY AIR DIFFUSER - ARROWS INDICATE PATTERN. NO PATTERN SHOWN EQUALS 4-WAY.
- RETURN AIR DEVICE
- EXHAUST DEVICE
- SUPPLY AIR SLOT DEVICE / RETURN AIR SLOT DEVICE
- 12" Ø — ROUND DUCT. DIAMETER INDICATED IN INCHES.
- 20"X12" — RECTANGULAR DUCT. SIZE INDICATED IN INCHES, FIRST NUMBER IS SIDE SHOWN.
- RIGID ROUND DUCT TO FLEX
- 24"X8" — SINGLE LINE SUPPLY AIR DUCTWORK
- 24"X8" — SINGLE LINE RETURN AIR DUCTWORK
- SPIN-IN TAKE OFF-FITTING WITH DAMPER AND SCOOP
- SPIN-IN TAKE OFF-FITTING ONLY
- SUPPLY OR OUTSIDE AIR DUCT
- RETURN AIR DUCT.
- RELIEF OR EXHAUST AIR DUCT.
- 24x24,CD / 220 CFM — DIFFUSER/GRILLE LABEL:
  - TYPE/DESIGNATION
  - AIRFLOW (CFM)
  - NECK SIZE (INCHES)
- 90 DEGREE DUCT ELBOW.
- RADIUS DUCT ELBOW - ROUND OR RECTANGULAR.
- RECTANGULAR DUCT BRANCH TAKE-OFF WITH 45 DEGREE BRANCH INLET.
- FLARED SPIN-IN WITH DAMPER AND FLEX DUCT (DIFFUSER CONNECTION).
- ROUND DUCT BRANCH TAKE-OFF FROM RECTANGULAR MAIN WITH CONICAL TAP.
- DUCT SIZE TRANSITION.
- 8" / 220 — REQUIRED NECK SIZE SA DUCT, SPIN-IN DAMPER, FLEX DUCT TO AIR DEVICE WITH CFM REQUIRED CFM
- SUPPLY OR OUTSIDE AIR DUCT UP
- SUPPLY OR OUTSIDE AIR DUCT DOWN
- RETURN AIR DUCT UP
- RETURN AIR DUCT DOWN
- RELIEF OR EXHAUST AIR DUCT UP
- RELIEF OR EXHAUST AIR DUCT DOWN
- IN-LINE 90 DEGREE DROP (RISE) IN DUCT
- UP — INCLINED RISE IN DUCT
- DN — INCLINED DROP IN DUCT
- TURNING VANES
- DUCT EXTRACTOR
- 5"N — SPLITTER DAMPER/W NECK SIZE
- DUCT MOUNTED HEATING COIL

### DUCT (DUCTWORK) CONT.

- H — DUCT MOUNTED HUMIDIFIER
- M — MOTORIZED DAMPER
- MD — DAMPER TYPE: OPPOSITE BLADE MANUAL DAMPER
- FD/AD — FIRE DAMPER W/ACCES DOOR
- FSD/AD — FIRE SMOKE DAMPER W/ACCES DOOR
- FD — FIRE DAMPER
- BBD / BDD — BAROMETRIC BY-PASS DAMPER (BBD) BACKDRAFT DAMPER (BDD)
- EXISTING TO REMAIN
- EXISTING TO REMOVE
- FUTURE DUCT TO BE INSTALLED
- AIR TRANSFER GRILLE

### PIPING TYPES

- CD — CONDENSATE DRAIN (COLD) GRAVITY
- RG — REFRIGERANT HOT GAS
- RL — REFRIGERANT LIQUID LINE

### MISCELLANEOUS

- UC — UNDERCUT DOOR 1"
- SD — DUCT SMOKE DETECTOR
- T — SPACE THERMOSTAT
- H — HUMIDISTAT
- T — TEMPERATURE SENSOR
- H — HUMIDITY SENSOR
- T — SPACE THERMOSTAT WITH REMOTE SENSOR
- T/H — THERMOSTAT/HUMIDISTAT
- PNEUMATIC TUBING OR CONTROL WIRING
- A — DRAWING NOTE REFERENCE
- ROUND
- OVAL OR FLAT OVAL
- 2 / M-2 — SECTION MARK & PAGE
- OS — OCCUPANCY SENSOR.
- POINT OF NEW CONNECTION
- LIMIT OF DEMOLITION
- EXISTING TO BE REMOVED

### DRAWING/DETAIL REFERENCE KEY

REFER TO DRAWING/DETAIL NUMBER — 3 / M4.01

RE: 3/M4.01 — SHEET NUMBER

## BRANCH DUCT SIZE CHART

| CFM | SUPPLY BRANCH DUCT SIZE(Ø") | RETURN BRANCH DUCT SIZE(Ø") |
|---|---|---|
| 0-100 | 6 | 8 |
| 101-150 | 8 | 10 |
| 151-250 | 8 | 10 |
| 251-380 | 10 | 12 |
| 381-550 | 12 | 14 |
| 551-750 | 14 | 16 |
| 751-950 | 14 | 16 |

INTERIOR HELIX SHALL BE ALUMINUM.
TYPE FLEX-MASTER NI-35

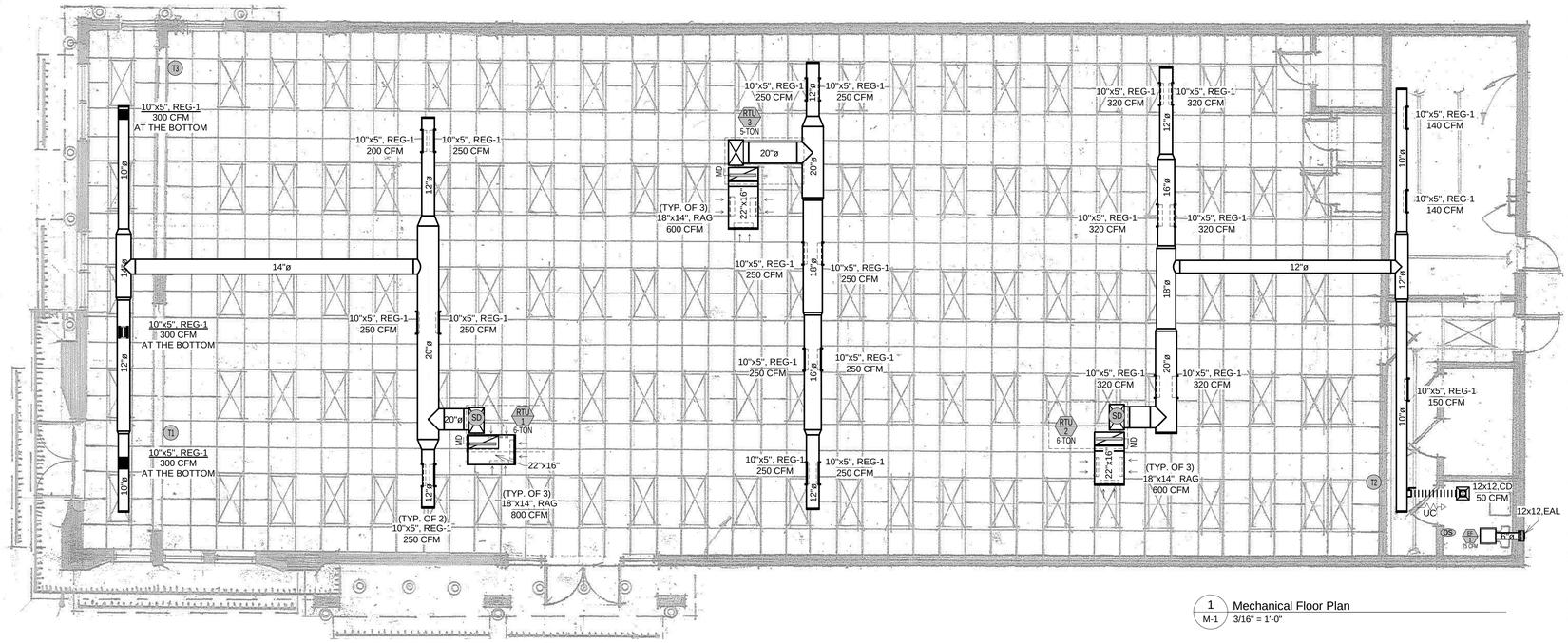
## THERMOSTAT SCHEDULE

| MARK | SERVICE & LOCATION | OCCUPIED COOLING | OCCUPIED HEATING | UNOCCUPIED COOLING | UNOCCUPIED HEATING | %RH |
|---|---|---|---|---|---|---|
| T1 | RETAIL STORE | 78 | 72 | 80 | 60 | 55 |
| T2 | RETAIL STORE | 78 | 72 | 80 | 60 | 55 |
| T3 | RETAIL STORE | 78 | 73 | 80 | 60 | 55 |

NOTES:
1. CONTRACTOR SHALL COORDINATE EXACT OPERATIONAL TIMES WITH OWNER/MANAGER PRIOR TO PROGRAMMING.

## REFERENCE NOTES:

1. PROVIDE THE PIPE SUPPORTS FOR ALL PVC CONDENSATE PIPING SPACING AT A MINIMUM 4'-0" ON CENTER PER FBCM SECTION 305.4. SUPPORTS EQUAL TO KNUCKLEHEAD WITH PIPE CLAMP.
2. PROVIDE ALL NEW ROOFTOP UNITS WITH PRE-FABRICATED MINIMUM 14 INCH HIGH INSULATED ROOF CURBS.
3. COORDINATE ALL RTU'S WITH THE APPROVED EQUIPMENT FURNISHED FOR LOCATIONS, AND OPENING SIZES REQUIRED IN THE ROOF BETWEEN THE STRUCTURAL MEMBERS AND EQUIPMENT CURBS.
4. MAINTAIN 10 FOOT CLEARANCE FROM ANY FRESH AIR INTAKE. CONTRACTOR TO FIELD VERIFY AND MAINTAIN A 25 FOOT RADIUS FROM THE ADJACENT TENANT'S FRESH AIR INTAKE.
5. CONDENSATE DRAIN SHALL BE DISPOSE TO PROPER LOCATION PER FBCP SECTION 314.2.1.
6. OWNER SHALL COORDINATE WITH STRUCTURE ENGINEER FOR NEW LOAD WEIGHT PROVIDED ON PLAN & GET APPROVAL BEFORE PLACING ROOF TOP UNITS ON THE ROOF.

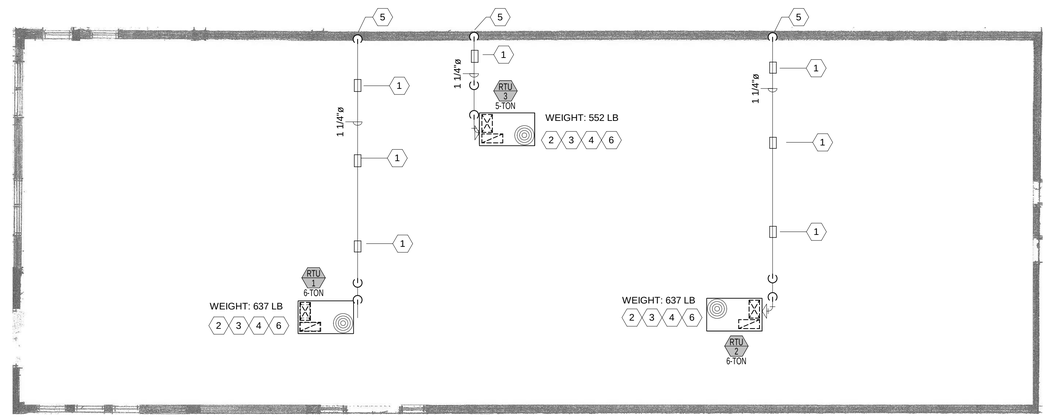



1 / M-1 Mechanical Floor Plan
3/16" = 1'-0"

## ROOF TOP A/C UNIT SCHEDULE

| Mark | Manufacturer | Model No. | CFM Total | CFM O.A | Total Capacity (MBH) | Sensible Capac. (MBH) | Ent. Air Temp.(F) (DB/WB) | Leav. Air Temp.(F)(DB/WB) | E.S.P.(*W.G.) | System Power kW | Electric Heating kW | No. Compressors | VOL/PH/60 | MCA | Comp. RLA No1/No2 | WOCP | Minimum System SEER | Weight | Remarks |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| RTU-1 | Carrier | 50TC-A07A2B50A0 | 2400 | 200 | 73.20 | 56.25 | 77.5/65.1 | 55.7/55.1 | 0.5 | 5.05 | 4.9 | 1 | 208/3/60 | 33 | 19 | 50 | 11.4 | 637 | 1 TO 12 |
| RTU-2 | Carrier | 50TC-A07A2B50A0 | 2400 | 200 | 73.20 | 56.25 | 77.5/65.1 | 55.7/55.1 | 0.5 | 5.05 | 4.9 | 1 | 208/3/60 | 33 | 19 | 50 | 11.4 | 637 | 1 TO 12 |
| RTU-3 | Carrier | 50KCA06A2B50A0 | 2000 | 200 | - | - | - | - | 0.5 | 5.05 | 4.9 | 1 | 208/3/60 | 30 | 15.9 | 50 | 14 | 552 | 1/3/5/6/8/9/10/11/12 |

**Remarks:**
1. Provide 1" thick 30% throwaway filter. farr 30/30 or equal.
2. Provide smoke detector at supply duct in accordance to section 606 of FBCM 6th edition 2017. whenever the smoke detector senses products of combustion, shall initiate a supervisory signal to the building fire alarm control panel. the supply fan shall be de-energised via the fire control alarm panel. if building does not have alarm control system , smoke detector shall initiate supervisory signal to audible/visual signals for activation and troubles. must be located below ceiling not more than 6 feet aff. comply with nfpa 90a chapter 6, section 6.4.4.3. and FBCM 6th edition 2017 section 606.4.
3. Provide 24 v control for a programmable 24, 7-day time clock t'stat or combination of thermostat. control system shall have a 5 °f deadband, set point overlap restriction, capability of setback to 55 °f(heat) and 85 °f(cool), 7 day clock, 2 hour occupant override; 10 hour back up. capability of proportional integral calculation to determine the number of stages required for heating or cooling to provide accurate temperature control. equal to 33cs2pprh-03 carrier.
4. N/A.
5. Outside air for ventilation are calculated using florida building code chapter 4 FBCM 6th edition 2017.
6. Provide factory insulated roof curb to match roof slope.
7. N/A.
8. Provide 5 minute time delay to prevent short cycling of compressor.
9. Provide phase loss protection for three phase units.
10. Water-level monitoring device shall be installed inside primary drain pan of down flow unit in accordance to section 307.2.3.1 of FBCM, if such unit does not have provisions for the installation of secondary or auxiliary drain.
11. Provide auto reset low pressure switch, manual reset high pressure switch, and low ambient head pressure control.
12. Model Number for AC units are provide to establish standard of quality and necessary specifications. Coordinate with manufacture for final Model numbers.




2 / M-1 Mechanical Roof Plan
1/8" = 1'-0"

## AIR DISTRIBUTION SCHEDULE
(ALL SYMBOLS SHOWN ARE NOT NECESSARILY USED ON THE DRAWINGS)

| Mark | Description | Material | Finish | Manufacturer | Model | Remarks |
|---|---|---|---|---|---|---|
| CD | Ceiling Diffuser -Square and Rectangular with opposed blade volume damper. | Aluminum | Baked Off-White Enamel | PRICE | ASCD | 2,3,5 |
| DG | Transfer Grille, fixed 45° angle, Blade with 1/2" spacing. | Aluminum | Baked Off-White Enamel | PRICE | ATG1 | 1,2,3,5 |
| EAL | Exhaust Air Louver, Flange Frame with Bird Screen, Wind Driven Rain type Louver | Aluminum | Aluminium | GREENHECK | EHH601D | - |
| RAG | Eggcrate Return | Aluminum | Baked Off-White Enamel | PRICE | 85 Series | 1,2,3,4,5 |
| REG-1 | Spiral Duct Grille Return | Aluminum | Baked Off-White Enamel | PRICE | SDGE Series | 1,2,3,4,5 |

**Remarks:**
1. Paint flat black inside of ducts behind grilles. provide duct collar with all grilles.
2. See architectural ceiling plan for frame type.
3. Provide surface mount border for hard ceiling.
4. Provide with plenum.
5. Insulated plenum.

12X12,CD / 400 CFM
- FACE SIZE
- SCHEDULED DESIGNATOR, IE.
- AIR QUANTITY IN CUBIC FEET PER MINUTE

## EXHAUST FAN SCHEDULE

| Mark | Manufacturer | Model No. | Air Flow Rate | Location | SP. inches of water | RPM | Motor HP/Watts | Voltage | Drive | Type | Weight (lb) | Remarks |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| EF-1 | Greenheck | SP A90 | 75 CFM | RESTROOM | 0.20 | 900 | 29 W | 120 V | Direct | Ceiling | 12 lb | 2,4,5,6,8,9 |

**Remarks:**
1. Operate with wall switch.
2. Operate with Occupancy sensor and Overrides Switch.
3. Operate with timer switch.
4. Provide Speed Controllers.
5. Provide support Rods and Vibration Isolator.
6. Provide Bird Screen Protection.
7. Provide Weather Hood.
8. Provide Backdraft Damper (BDD).
9. Contractor shall coordinate voltage selection with this Project provide transformer if necessary.
10. Provide disconnect switch.

## REQUIRED OUTDOOR VENTILATION AIR CALCULATION (PER FBCM403.3)

### RTU-1 / RTU-2/RTU-3

| AREA CLASSIFICATION | SQ.FT | OCCUPANCY | Rp [CFM/PERSON] | Ra [CFM/SF] | EXHAUST RATE [CFM/SF] | CALCULATION | VENTILATION REQUIRED [CFM] |
|---|---|---|---|---|---|---|---|
| SALE AREA | 2400 | 36 | 7.5 | 0.12 | - | 36 PERSONS x 7.5 CFM/PERSON + 2400 SF x 0.12 CFM/SF | 558 |
| STORAGE | 221 | - | - | 0.06 | - | 221 SF x 0.06 CFM/SF | 13.26 |
| | | | | | | TOTAL OUTSIDE AIR REQUIRED [CFM] | 571.26 |
| | | | | | | TOTAL OUTSIDE AIR PROVIDED [CFM] (RTU-1)+(RTU-2)+(RTU-3) (200)+(200)+(200) | =600 |

## PROJECT OUTDOOR DESIGN CONDITION

| DESIGN LOCATION | SUMMER MAXIMUM TEMPERATURE (°F) DB | SUMMER MAXIMUM HUMIDITY (RH%) | WINTER MINIMUM TEMPERATURE (°F) |
|---|---|---|---|
| ORLANDO | 93.8/76.5 | 53 | 38 |

## PROJECT INDOOR DESIGN CONDITION

| SPACE SERVED | DESIGN LOCATION | SUMMER MINIMUM TEMPERATURE (°F) DB | SUMMER MAXIMUM HUMIDITY (RH%) | WINTER MAXIMUM TEMPERATURE (°F) | REMARK |
|---|---|---|---|---|---|
| RETAIL SHOPS FOR SHORTER TERMS OCCUPANCY, BANK, BARBER SHOP, BEAUTY SHOP, DEPARTMNT STORE, SUPERMARKET, ETC | ORLANDO | 77 | 55(+/-2) | 74 | 1,2 |

NOTES:
1. MINIMUM TEMPERATURE IN BUILDING MUST BE MAINTAINED AT 55 °F EVEN WHEN UNOCCUPIED.
2. DRY BULB AND RELATIVE HUMIDITY ARE TO BE MAINTAINED 6 INCH TO 6 FEET ABOVE THE FLOOR.

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| REV | DRWN / DATE | DESCRIPTION: |
|---|---|---|
| 1 | | |

# BUILDING RENOVATION FLORIDA GIFT OUTLET

7403 International Dr. Orlando, Florida 32819

MECHANICAL FLOOR PLAN

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EMAIL: EPGroup@att.net
CA#8126
Farshad Antikchi, P.E. # 72998

Not valid for construction unless there is a raised seal affixed.

CERTIFIED:
DATE: 08/10/2018

DRWN: OC DATE:
CHKD: FA DATE:
SCALE: AS SHOWN
PROJECT No.: MTF18107
SHEET No.: M-1