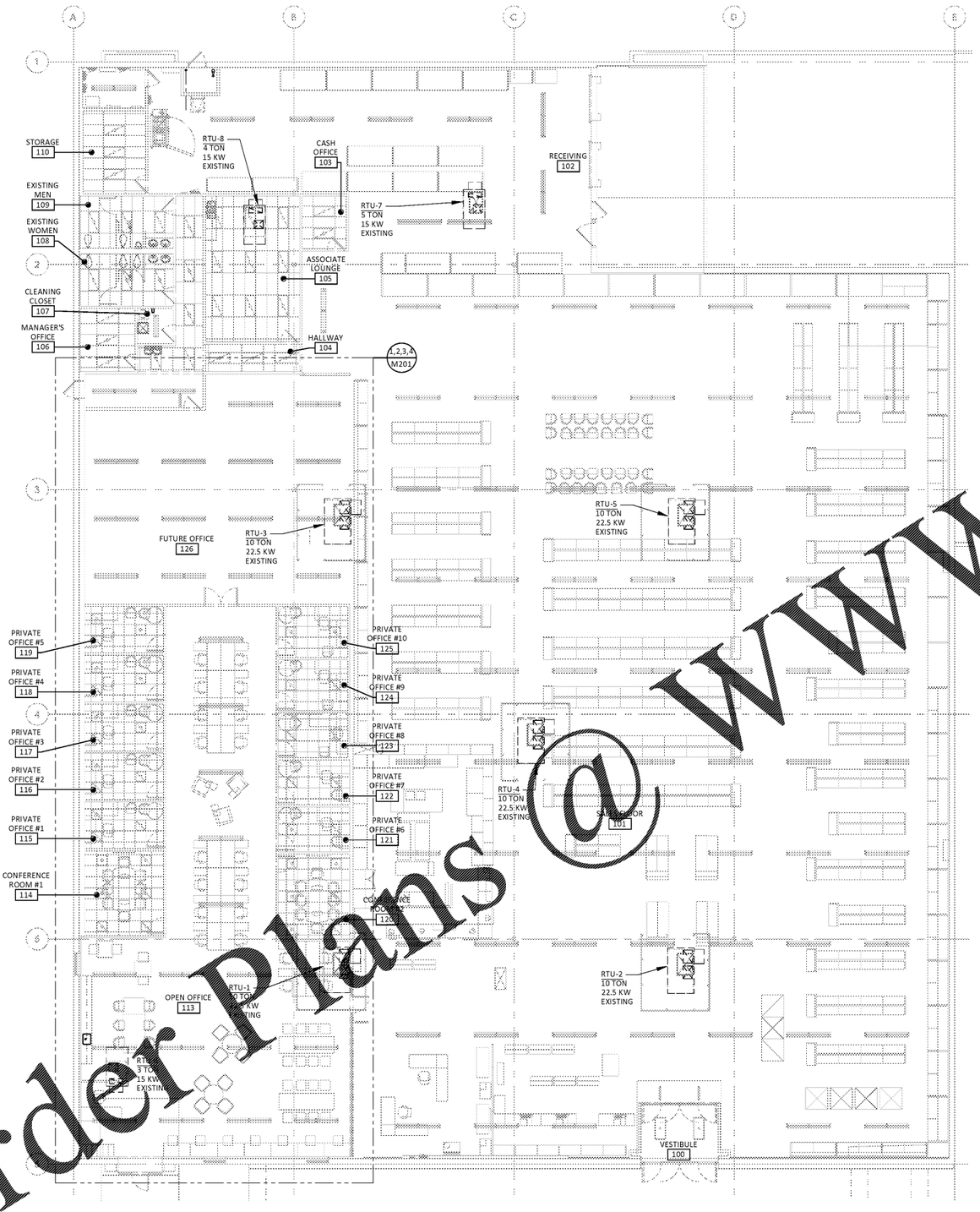

1 **MECHANICAL PLAN**

SCALE: 3/32" = 1'-0"

NORTH

MECHANICAL KEY NOTES

1. ROOFTOP UNIT AND ALL RELATED ACCESSORIES, PIPING, WIRING, CURBS AND DUCTWORK ABOVE THE ROOF AND DOWN THROUGH THE ROOF TO REMAIN. FIELD VERIFY EXISTING LOCATION. CONTRACTOR SHALL PROVIDE TEMPORARY MINIMUM MERV 8 FILTRATION MEDIA AT EACH RETURN AIR OPENING FOR RTU IS USED DURING CONSTRUCTION.

MECHANICAL GENERAL NOTES

A. COORDINATE ALL SUPPLY AIR OUTLETS, EXHAUST GRILLES, AND RETURN AIR GRILLES WITH ARCHITECTURAL PLANS AND WITH ELECTRICAL LIGHT FIXTURES.

ALL AIR DEVICES SHALL BE OF PREFORMED CONSTRUCTION. PROVIDE CEILING RADIATION DAMPERS WHEN PENETRATING A FIRE RATED CEILING ASSEMBLY. PROVIDE FIRE DAMPERS WHEN PENETRATING A FIRE RATED WALL ASSEMBLY.

C. ALL RECTANGULAR, ROUND AND FLEXIBLE DUCTS SHALL BE SIZED AS SHOWN ON THESE DRAWINGS. MINIMUM INTERNAL DIMENSIONS GIVEN. ADD DUCT LINER THICKNESS FOR SHEET METAL SIZE.

D. ALL TRANSVERSE JOINTS SHALL BE SEALED WITH TAPE OR MASTIC PER SMACNA STANDARDS. SEAL LONGITUDINAL SEAMS FOR RETURN DUCTS IN CEILING SPACES. ALL SEALANTS AND ADHESIVES SHALL BE LOW VOC TYPE.

E. INSTALL TURNING VANES IN ALL 90 DEG. DUCT ELBOWS AND AT ALL DUCT "TEES". INSTALL 45-DEGREE TAKE-OFFS AT ALL BRANCH TO MAIN DUCT CONNECTIONS.

F. ALL DUCTWORK SHALL BE FABRICATED AND INSTALLED ACCORDING TO THE MOST RECENTLY PUBLISHED ASHRAE AND SMACNA STANDARDS.

G. FLEX-DUCT SHALL BE INSTALLED FULLY LENGTHENED AND WITHOUT UNNECESSARY SAGS OR BENDS TO REDUCE THE REQUIRED STATIC PRESSURE AS MUCH AS POSSIBLE. FLEX-DUCT INSTALLED WITH EXCESSIVE SAGS, BENDS OR NOT FULLY LENGTHENED SHALL BE CORRECTED AT NO COST TO OFFICE DEPOT.

H. ALL SUPPLY AND RETURN AIR DUCTS SHALL BE INSULATED. EXTERIOR INSULATION SHALL BE USED FOR ALL CONCEALED DUCTWORK. EXPOSED DUCTS IN CONDITIONED SPACES MAY BE UNINSULATED UNLESS NOTED OTHERWISE, OR WHEN INSULATION IS REQUIRED BY ENERGY CODE EXPOSED DUCTWORK SHALL BE INTERNALLY INSULATED.

I. PRIME AND PAINT ALL CONCENTRIC DIFFUSERS AND EXPOSED DUCTWORK TO MATCH ADJACENT SURFACES.

J. TEST AND BALANCE THE SYSTEMS TO THE QUANTITIES SHOWN ON THESE PLANS. PROVIDE A COMPLETE TEST AND BALANCE REPORT SIGNED BY A REGISTERED ENGINEER CERTIFIED IN THIS TYPE OF WORK TO THE OFFICE DEPOT REPRESENTATIVE IN ACCORDANCE WITH AIR BALANCE COUNCIL STANDARDS.

K. PROVIDE ADDITIONAL SETS OF PLEATED MERV 8 FILTERS FOR EACH RTU AS REQUIRED. ONE SET TO BE USED DURING CONSTRUCTION. REPLACE FILTER JUST PRIOR TO AIR BALANCING. REPLACE FILTER ONE WEEK PRIOR TO STORE OPENING. FILTER INSTALLATION DATE TO BE WRITTEN ON THE FACE OF THE FILTER IN PERMANENT MAGIC MARKER.

L. FURNISH TEMPERATURE CONTROLS EXCEPT AS SPECIFIED HEREIN. REFER TO ELECTRICAL DRAWINGS FOR DETAILS OF CONTROLS FOR ALL HEATING, VENTILATING, AND AIR CONDITIONING EQUIPMENT.

M. CONTRACTOR TO MOUNT AND WIRE ALL EMS THERMOSTATS, ZONE SENSORS, C02 SENSORS, HUMIDITY SENSORS AND MONITORING SENSORS. REFER TO ELECTRICAL PLANS.

N. FURNISH AND INSTALL ALL SWITCHES, DISCONNECTS, CONTACTORS, CONTROL WIRING AND DEVICES NOT FURNISHED WITH THE EQUIPMENT. REFER TO EQUIPMENT SCHEDULES FOR FACTORY FURNISHED OR INSTALLED ITEMS. REFER TO ELECTRICAL PLANS.

O. WHEN REQUIRED BY FIRE MARSHALL, THE CONTRACTOR SHALL PROVIDE IONIZATION DETECTOR (24V/120V) IN SUPPLY AND/OR RETURN AIR DUCTS TO STOP FAN UPON SENSING SMOKE. EACH IONIZATION DETECTOR SHALL BE SUPPLIED WITH AUDIO AND VISUAL DEVICE IF REQUIRED BY LOCAL FIRE MARSHAL.

P. ALL ROOFTOP EQUIPMENT SHALL BE SECURED TO THE ROOF CURBS. EACH ROOF MOUNTED UNIT SHALL BE PROVIDED WITH FACTORY SUPPLIED ROOF CURB, WHICH SHALL BE PITCHED, AS REQUIRED, TO PROVIDE DEAD LEVEL MOUNTING IN ALL DIRECTIONS. PROVIDE CANT ON HIGH ROOF SIDE. COORDINATE ALL DETAILS OF ROOF CURB WITH ROOF CONSTRUCTION.

Q. VERIFY THE REQUIRED VOLTAGE AND PHASE OF ALL HVAC EQUIPMENT REQUIRING POWER CONNECTIONS WITH THE ELECTRICAL PLANS AND THE EQUIPMENT MANUFACTURER PRIOR TO PLACING EQUIPMENT ON ROOF.

R. EQUIPMENT AND INSTALLATION SHALL COMPLY WITH ALL APPLICABLE CODES AND REGULATIONS. ALL HVAC EQUIPMENT SHALL BE UL LISTED. MANUFACTURERS MINIMUM CLEARANCE RECOMMENDATIONS SHALL BE MAINTAINED ON ALL EQUIPMENT AND DUCTWORK.

S. THE CONTRACTOR SHALL COORDINATE FULLY WITH ALL OTHER TRADES.

T. CONTRACTOR SHALL VISIT THE PROJECT SITE PRIOR TO BID TO VERIFY EXISTING CONDITIONS.

MECHANICAL LEGEND

IDENTIFIER	DESCRIPTION
	NEW DUCTWORK
	EXISTING DUCTWORK TO REMAIN
	EXISTING DUCTWORK TO BE REMOVED
	INSULATED FLEXIBLE DUCT
VD	VOLUME DAMPER
FD	FIRE DAMPER
T	THERMOSTAT
S	TEMPERATURE SENSOR
H	HUMIDITY SENSOR
C	HVAC UNIT CONTROLLER
	CONNECT NEW TO EXISTING
CO2	CARBON DIOXIDE (CO2) SENSOR FOR DEMAND CONTROLLED VENTILATION
SDD	DUCT SMOKE DETECTOR
RTS	SMOKE DETECTOR REMOTE TEST STATION
RTU-#	EQUIPMENT MARK
A-### CFM #" DIA W"XH"	AIR DEVICE MARK, CFM, NECK DIAMETER INTERNAL DIMENSIONS
	CEILING DIFFUSER
	NEW 2 WAY CEILING DIFFUSER
	RETURN GRILLE
	EXHAUST GRILLE

IDENTIFIER	DESCRIPTION
AFF	ABOVE FINISHED FLOOR
BTU	BRITISH THERMAL UNITS
CFM	CUBIC FEET PER MINIUTE
CD	CONDENSATE
DB	DRY BULB
EAT	ENTERING AIR TEMPERATURE
ESP	EXTERNAL STATIC PRESSURE
ETR	EXISTING TO REMAIN
EF	EXHAUST FAN
FD	FIRE DAMPER
FPM	FEET PER MINUTE
G	GAS
HP	HORSEPOWER
LAT	LEAVING AIR TEMPERATURE
MC	MECHANICAL CONTRACTOR
MBH	THOUSAND BTU PER HOUR
OA	OUTSIDE AIR
RPM	REVOLUTIONS PER MINUTE
S	SENSOR
T	THERMOSTAT
TYP	TYPICAL
UNO	UNLESS OTHERWISE NOTED
VIF	VERIFY IN FIELD
WB	WET BULB
W.C.	WATER COLUMN

SYMBOL LIST NOTES:

1. SYMBOL LIST IS SHOWN FOR GENERAL REFERENCE ONLY. THE PRESENCE OF A SYMBOL DOES NOT IMPLY IT'S USE ON THIS PROJECT. REFER TO DRAWINGS FOR SPECIFIC SYMBOLS USED.

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OWNER

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BOCA RATON, FL 33496

PHONE: (561) 438-6299
FAX: (561) 438-7237

PROJECT

Office DEPOT
STORE #0409
BOCA RATON, FL

4901 N. FEDERAL HIGHWAY
BOCA RATON, FL 33431

ISSUE DATE:	11/09/2018
STORE NUMBER:	#0409
LEASABLE AREA:	29,701 S.F.
GROSS FLOOR AREA:	28,752 S.F.
JOB NUMBER:	2018.0120.00

ISSUE

ISSUED FOR BID	11/09/18

SEAL

JOHN M. BRUNS LICENSE No. 54430 STATE OF FLORIDA PROFESSIONAL ENGINEER

JOHN M. BRUNS
#54430|EXP. 02/28/2019

SHEET

MECHANICAL PLAN AND NOTES

DRAWN: DJH
CHECKED: JMB

M101

FILE NAME: 2018.0120 M101 - Mechanical Plan and Notes.dwg DATE: 11/7/2018 TIME: 4:03 PM USER: Stephanie Rainey