

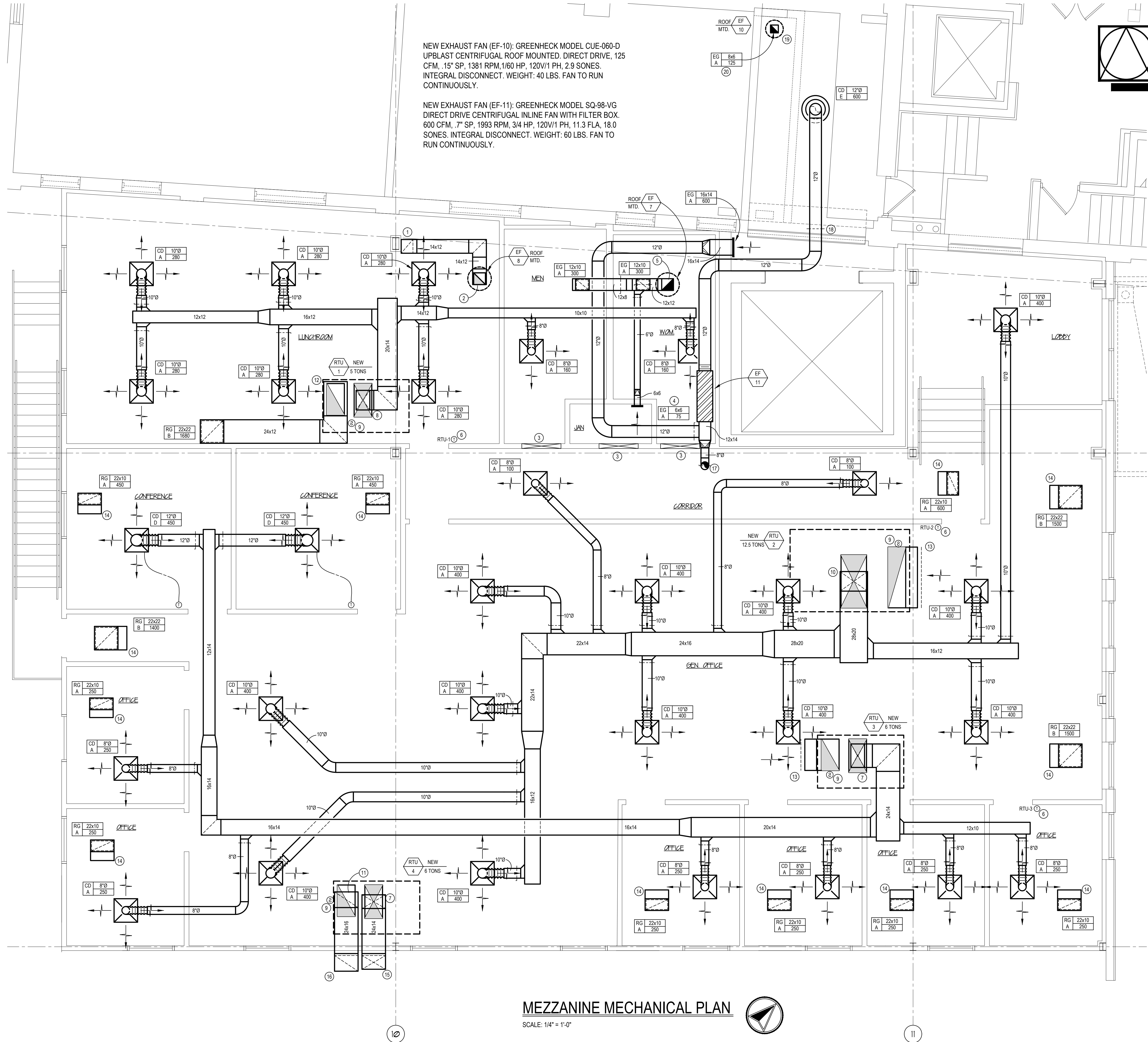
**MECHANICAL TAG NOTES:**

- 1 EXHAUST AIR DUCT RISER FROM BELOW MEZZANINE FLOOR. EXTEND 14x12 EXHAUST AIR DUCT UP ALONG COLUMN TO ABOVE CEILING AND RUN ABOVE CEILING. REFER TO OVERALL MECHANICAL PLAN ON DWG. M-1 FOR CONTINUATION BELOW MEZZANINE FLOOR.
- 2 DROP FULL SIZE EXHAUST AIR DUCT THRU ROOF FROM EXHAUST FAN AND TRANSITION TO 14x12 EXHAUST AIR DUCT AT UNDERSIDE OF ROOF DECK.
- 3 GENERAL CONTRACTOR SHALL UNDERCUT DOOR BY 1".
- 4 MOUNTED AS HIGH AS POSSIBLE BELOW ROOF DECK.
- 5 12x12 EXHAUST AIR DROP THRU ROOF FROM EXHAUST FAN.
- 6 MOUNT THERMOSTAT ON WALL 4'-0" A.F.F. COMPLETE WITH LOCKING PLASTIC CLEAR COVER. COVER TO BE VENTED AND OF HEAVY DUTY CONSTRUCTION.
- 7 DROP FULL SIZE SUPPLY AIR DUCT THRU ROOF FROM RTU AND TRANSITION TO 24x14 SUPPLY AIR DUCT IN DROP BELOW ROOF DECK.
- 8 DROP FULL SIZE RETURN AIR DUCT THRU ROOF FROM RTU AND TRANSITION TO 20x14 RETURN AIR DUCT IN DROP BELOW ROOF DECK.
- 9 DUCT MOUNTED SMOKE DETECTOR TO BE INSTALLED IN RETURN AIR DUCT BY MECHANICAL CONTRACTOR. ELECTRICAL CONTRACTOR TO FURNISH AND WIRE DUCT MOUNTED SMOKE DETECTORS.
- 10 DROP FULL SIZE SUPPLY AIR DUCT THRU ROOF FROM RTU AND TRANSITION TO 28x20 SUPPLY AIR DUCT IN DROP BELOW ROOF DECK.
- 11 DROP FULL SIZE RETURN AIR DUCT THRU ROOF FROM RTU AND TRANSITION TO 24x16 RETURN AIR DUCT IN DROP BELOW ROOF DECK.
- 12 DROP FULL SIZE RETURN AIR DUCT THRU ROOF FROM RTU AND STUB INTO TOP OF 24x12 RETURN AIR DUCT.
- 13 DROP FULL SIZE RETURN AIR DUCT THRU ROOF FROM RTU. ELBOW AND TERMINATE ABOVE CEILING. COVER OPENING WITH 1'x1' WIRE MESH SCREEN.
- 14 RETURN AIR CEILING GRILLE TO BE FURNISHED WITH SOUND BOOT. REFER TO DETAIL ON DWG. M-5 FOR MORE INFORMATION.
- 15 24x14 SUPPLY AIR DUCT TO DROP ALONG MEZZANINE WALL TO SERVE LUNCH ROOM BELOW. REFER TO DWG. M-7 FOR CONTINUATION.
- 16 24x16 RETURN AIR DUCT TO DROP ALONG MEZZANINE WALL TO SERVE LUNCH ROOM BELOW. REFER TO DWG. M-7 FOR CONTINUATION.
- 17 8"Ø OUTSIDE AIR DUCT UP THRU ROOF WITH MANUAL VOLUME DAMPER AND VENT CAP. COORDINATE WITH GENERAL CONTRACTOR FOR SEALING ROOF PENETRATION WEATHERTIGHT.
- 18 1-1/2 HR RATED FIRE DAMPER WITH ACCESS DOOR.
- 19 8x8 EXHAUST AIR DUCT DOWN THRU ROOF FROM ROOF MOUNTED EXHAUST FAN. TRANSITION AS REQUIRED. DUCT TO RUN EXPOSED IN CORNER DOWN TO FLOOR.
- 20 MOUNT EXHAUST GRILLE ON SIDE OF EXPOSED EXHAUST DUCT LOW AT 6' A.F.F.

VENTILATION AIR REQUIREMENT						
HVAC UNIT	AREA SERVED	OCCUPANT LOAD	REQUIRED VENTILATION	O.A. REQUIRED (CFM)	O.A. SUPPLIED (CFM)	REMARKS
RTU 1	LUNCH ROOM	19 (741 SF)	5 CFM/PERSON .06 CFM/SF (1.25)	174	336	PER ASHRAE STANDARD 62.1-2010
RTU 2	CORRIDOR	296 SF	.06 CFM/SF (1.25)	22	40	PER ASHRAE STANDARD 62.1-2010
	GEN. OFFICE	18 (2287 SF)	.06 CFM/SF (1.25)	283	880	PER ASHRAE STANDARD 62.1-2010
	LOBBY	2 (234 SF)	.06 CFM/SF (1.25)	30	80	PER ASHRAE STANDARD 62.1-2010
RTU 3	OFFICE	1 (120 SF)	.06 CFM/SF (1.25)	16	50	PER ASHRAE STANDARD 62.1-2010
	OFFICE	1 (120 SF)	.06 CFM/SF (1.25)	16	50	PER ASHRAE STANDARD 62.1-2010
	OFFICE	1 (120 SF)	.06 CFM/SF (1.25)	15	50	PER ASHRAE STANDARD 62.1-2010
	OFFICE	1 (120 SF)	.06 CFM/SF (1.25)	15	50	PER ASHRAE STANDARD 62.1-2010
	OFFICE	1 (120 SF)	.06 CFM/SF (1.25)	15	50	PER ASHRAE STANDARD 62.1-2010
	CONFERENCE	11 (190 SF)	.06 CFM/SF (1.25)	83	90	PER ASHRAE STANDARD 62.1-2010
	CONFERENCE	11 (190 SF)	.06 CFM/SF (1.25)	83	90	PER ASHRAE STANDARD 62.1-2010
RTU 4	LOWER LUNCH ROOM	48 (1900 SF)	.06 CFM/SF (1.25)	354	480	PER ASHRAE STANDARD 62.1-2010
EF 7	MEN	1 WC 2 UR	70 CFM PER WC OR UR (EXHAUST)	210 EA	300 EA	QUANTITIES ARE EXHAUSTED (32 CFM OF O.A. FROM RTU-1)
	WOM.	2 WC	70 CFM PER WC (EXHAUST)	140 EA	300 CFM EA	QUANTITIES ARE EXHAUSTED (32 CFM OF O.A. FROM RTU-1)
	JAN	22 SF	1 CFM/SF (EXHAUST)	22 CFM EXH	75 CFM EXH	

NOTE: ASHRAE 62.1-2010 ITEM 6.2.2.1 BREATHING ZONE OUTDOOR AIR FLOW (CFM)  $Vbz = RpPz + RaAz \times 1.25$

WHERE  
 $Az$  = ZONE FLOOR AREA  
 $Pz$  = POPULATION  
 $Rp$  = TABLE 6.1 OUTDOOR AIR PER PERSON  
 $Ra$  = TABLE 6.1 OUTDOOR AIR PER AREA

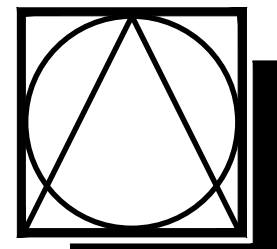


NEW EXHAUST FAN (EF-10): GREENHECK MODEL CUE-060-D UPBLAST CENTRIFUGAL ROOF MOUNTED. DIRECT DRIVE, 125 CFM, .15" SP, 1381 RPM, 1/60 HP, 120V/1 PH, 2.9 SONES. INTEGRAL DISCONNECT. WEIGHT: 40 LBS. FAN TO RUN CONTINUOUSLY.

NEW EXHAUST FAN (EF-11): GREENHECK MODEL SQ-98-VG DIRECT DRIVE CENTRIFUGAL INLINE FAN WITH FILTER BOX. 600 CFM, .7" SP, 1993 RPM, 3/4 HP, 120V/1 PH, 11.3 FLA, 18.0 SONES. INTEGRAL DISCONNECT. WEIGHT: 60 LBS. FAN TO RUN CONTINUOUSLY.

**MEZZANINE MECHANICAL PLAN**

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



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DATE  
AUGUST 28, 2015

FEB. 22, 2016  
OWNER REV 2

Proposed New Warehouse for:  
**NPA COATINGS**  
11110 Berea Road  
Cleveland, Ohio



PROJECT NO.  
14222

**M-2**