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Drawing Name: P:\2013\20130780\M3.0-CS\Drawings\20130780-M3.0-CS.dwg User: M3.0-CS.dwg Date: 07/19/2015 - 10:00am Project No.: 2013 - 0780 Title: M3.0-CS.dwg

ROOFTOP GAS/ELECTRIC A/C UNIT																	
MARK	MANUFACTURER	MODEL	EER	INDOOR BLOWER			GROSS COOLING CAP				HEAT (MBH)		AFUE	ELECTRICAL 208/3/60		O.S.A CFM	WEIGHT (LB)
				CFM	'ESP	HP	SEN MBH	TOT MBH	ENT. DBF	AIR WBF	INPUT	OUTPUT		MCA	MOCP		
AC-1	AMERICAN STANDARD	YSC090E3	11.2	3690	0.8"	2	71.5	92.1	80	67	150	120	80%	38.2	60	525	1172
AC-2	AMERICAN STANDARD	YSC090E3	11.2	3690	0.8"	2	71.5	92.1	80	67	150	120	80%	38.2	60	600	1172

- NOTES:
1. SIZE ALL UNITS ON SUMMER AMBIENT TEMPERATURE: 93 °F.
  2. VERIFY VOLTAGE/ PHASE WITH ELECTRICAL CONTRACTOR PRIOR TO ORDERING.
  3. COOLING CAPACITY, MINIMUM HEAT CAPACITY AND CFM ARE MINIMUM OUTPUT REQUIRED. ALL UNITS SHALL HAVE NO LESS THAN 98% OF THESE CAPACITIES. COOLING CAPACITY IS GROSS COIL CAPACITY REQUIRED (FAN HEAT NOT DEDUCTED).
  4. PROVIDE FACTORY ROOF MOUNTING CURB, FILTERS AND FILTER RACK SIZED AT 500 FPM VELOCITY.
  5. PROVIDE WITH 14" TAPERED ROOF CURB, ECONOMIZER WITH BAROMETRIC RELIEF, AND PROGRAMMABLE THERMOSTAT.
  6. PROVIDE WITH STANDARD FAN MOTOR.
  7. PROVIDE WITH GFOI CONVENIENCE OUTLET.
  8. PROVIDE WITH HAIL GUARDS.
  9. FAN CFM, E.S.P., COOLING AND HEATING CAPACITIES SHOWN ARE FOR ALTITUDE CONDITIONS. MANUFACTURER SELECT FAN FOR 5500 FEET ALTITUDE. MOTOR SHOWN IS CORRECTED FOR ALTITUDE.
  - 11.PROVIDE WITH BURNER ORIFICES FOR 5500 FEET ELEVATION.
  - 12.UNITS HAVE BEEN DE-RATED FOR ALTITUDE.

OUTSIDE AIR CALCULATION			
OUTSIDE AIR REQUIREMENTS PER TABLE 403.3 IMC, 2009.			
	AREA	MULTIPLIER	OUTSIDE AIR REQ'D CFM
OFFICE	48 SQ. FT.	/1,000 SQ. FT. X 7 PEOPLE = 0.74 X 20 CFM/PERSON	6.72
SALES	2508 SQ. FT.	X 0.3 CFM/SQ. FT.	752.4
STORAGE	531 SQ. FT.	X 0.15 CFM/SQ. FT.	79.6
SERVICE	258 SQ. FT.	X 0.15 CFM/SQ. FT.	38.7
TOTAL REQUIRED CFM			877.4
TOTAL CFM REQUIRED = 877.4			
TOTAL CFM REQUIRED = 877.4 / .8 = 1096.75			
TOTAL CFM PROVIDED = 1125			
BALANCE O.S.A AS FOLLOWS:			
AC-1 = 525		2009 IMC TABLE 403.3.1.2 ZONE AIR = 0.8	
AC-2 = 600		DISTRIBUTION EFFECTIVENESS	

2009 IECC LOAD SUMMARY				
AREA DESCRIPTION	COOLING LOAD CALCULATION [ MBH ]		PROVIDED EQUIPMENT COOLING CAPACITY [ MBH ]	
	SENSIBLE	TOTAL	SENSIBLE	TOTAL
AC-1,2	129.8	130.5	143.0	184.2

1. CALCULATIONS WERE PERFORMED BY THE CARRIER HAP SOFTWARE PROGRAM IN COMPLIANCE WITH ASHRAE FUNDAMENTALS
2. EQUIPMENT SIZING MEETS THE IECC 503.2.2 REQUIREMENTS

GRILLE, REGISTER, AND DIFFUSER SCHEDULE									
MARK	DESCRIPTION	MANUFACTURER	MODEL	MATERIAL	MODULE	FRAME	FRONT BLADES	DAMPER	FINISH
A	CEILING DIFFUSER	KRUEGER	1100	STEEL	24"x24"	LAY-IN	4-WAY	OPPOSED BLADE	*
B	CEILING DIFFUSER	KRUEGER	5180	STEEL	12"x12"	FLANGE	4-WAY	OPPOSED BLADE	*
C	RETURN REGISTER	KRUEGER	1190	STEEL	24"x24"	LAY-IN	-	NONE	*
D	RETURN REGISTER	KRUEGER	1190	STEEL	24"x12"	LAY-IN	-	NONE	*
E	EXHAUST GRILLE	KRUEGER	EGC-5	STEEL	18x18"	FLANGE	EGGRATE	NONE	*

- \* NOTE:
- ALL DIFFUSERS AND GRILLES SHALL BE FACTORY COLOR 44.

EXHAUST FAN SCHEDULE									
MARK	AREA SERVED	MANUFACTURER	MODEL	CFM	ESP. ("W.C.)	MOTOR		BAROMETRIC DAMPER	DRIVE
						HP	V/PH		
EF-1	MEN'S TOILET ROOM	GREENHECK	SP-A200	225	0.125"	FRAC.	120/1	YES	DIRECT
EF-2	WOMEN'S TOILET ROOM	GREENHECK	SP-A200	200	0.125"	FRAC.	120/1	YES	DIRECT
EF-3	FROSTER COVE	GREENHECK	G-121	700	0.25"	1/8	120/1	YES	DIRECT

- NOTES:
1. EF-1&2 SHALL BE PROVIDED WITH VIBRATION ISOLATORS, BACKDRAFT DAMPER, FACTORY ROOF CURB, AND FACTORY ROOF CAP.

FOR BID ONLY

AIR BALANCE SCHEDULE					
UNIT	O.A.	R.A.	S.A.	E.A.	PRESSURE
AC-1	525	3165	3690	-	+525
AC-2	600	3090	3690	-	+600
EF-1		-	-	225	-225
EF-2		-	-	200	-200
EF-3		-	-	700	-700
TOTALS	1125	6255	7380	950	0

GreenbergFarrow

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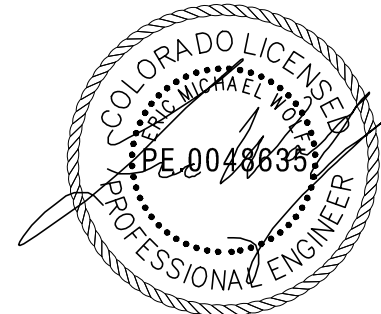
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ISSUE/REVISION RECORD

DATE DESCRIPTION  
01/19/15 PERMIT SET

PROFESSIONAL SEAL



PROFESSIONAL IN CHARGE

ERIC WOLF

PROJECT MANAGER

ALEX ADAIR

QUALITY CONTROL

DARCY HASBERRY

DRAWN BY

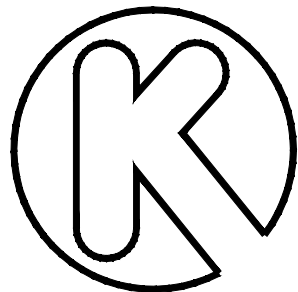
ALEX ADAIR

PROJECT NAME

CIRCLE K  
STORES, INC.

COLORADO SPRINGS  
COLORADO

E. FOUNTAIN BLVD &  
ACADEMY PARK LOOP



CIRCLE K STORES INC.

PROJECT NUMBER

20130780

SHEET TITLE

MECHANICAL  
SCHEDULES

SHEET NUMBER

M3.0-CS