

ENGINEERING SPECIFICATIONS

JOB NAME: PUBLIX - ALT  
 LOCATION: MARIETTA, GA  
 DATE PREPARED: Revised 05/18/2020  
 SEASONS-4 REFERENCE # P09482-01 ALT  
 UNIT MODEL # AHXXX: 1HU31-6453-TN7-D-13HR  
 UNIT DESIGNATION: AC-1  
 SYSTEM VOLTAGE: 208/230

DESIGN DATA

TOTAL COOLING CAPACITY (BTUH)	548,274
SENSIBLE CAPACITY (BTUH)	286,873
LATENT CAPACITY (BTUH)	259,401
TOTAL AIRFLOW (CFM)	13,000
OUTDOOR AIR (CFM)	4,500
RETURN AIR (CFM)	8,500
OUTDOOR AIR TEMP (DB/FWB)	81.2/76.2
MOTOR HEAT (BTUH)	34,120
SPACE TEMP (DB/FWB/DP)	74.0/81.0/2.0
UNIT LEAVING AIR TEMP (FDB/FWB/DP)	55.5/52.0/3.0
ESTIMATED REFRIGERANT CHARGE (R410A)	145.0
UNIT ESH (REF. AHR-340350)	11.0
UNIT BEER (REF. ANSI/AHR-340350-2007)	11.4
LIQUID CONNECTION SIZE	1 @ 7/8", 2 @ 1/2"
DISCHARGE CONNECTION SIZE	1 @ 7/8", 2 @ 1/2"
UNIT DESIGNED AS CONSTANT AIR VOLUME	
UNIT DESIGNED WITH CONDENSER FAN VFD	

COMPRESSOR SECTION

COMPRESSOR TYPE	CATALYTIC 900A R410A
NUMBER/MOTORPOWER	1/14.0, 1/17.0, 1/20.0
STAGES OF CAPACITY	

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ENGINEERING SPECIFICATIONS

COOLING SYSTEM 2 PRECOOL

FACE AREA (SQ-FT)	13.2
ROWS/FPS	3/10
COIL CIRCUITS (NUMBER)	1
TOTAL CAPACITY (BTUH)	194,281
SENSIBLE CAPACITY (BTUH)	74,250
ENTERING AIR TEMP (FDB/FWB)	81.2/76.2
COIL LEAVING AIR TEMP (FDB/FWB)	66.4/68.0
CONDITIONED AIR (CFM)	4,500
AIR PRESSURE DROP	0.17

COOLING SYSTEM 1 DEHUMIDIFICATION

FACE AREA (SQ-FT)	13.2
ROWS/FPS	8/10
COIL CIRCUITS (NUMBER)	1
TOTAL CAPACITY (BTUH)	200,150
SENSIBLE CAPACITY (BTUH)	82,430
ENTERING AIR TEMP (FDB/FWB)	66.4/68.0
COIL LEAVING AIR TEMP (FDB/FWB)	49.7/49.4
CONDITIONED AIR (CFM)	4,500
AIR PRESSURE DROP	0.44

COOLING SYSTEM 3 RETURN AIR

FACE AREA (SQ-FT)	48.0
ROWS/FPS	8/10
COIL CIRCUITS (NUMBER)	1
TOTAL CAPACITY (BTUH)	150,721
SENSIBLE CAPACITY (BTUH)	134,085
ENTERING AIR TEMP (FDB/FWB)	69.5/69.4
COIL LEAVING AIR TEMP (FDB/FWB)	63.0/62.1
CONDITIONED AIR (CFM)	7,200
BYPASS AIR (CFM)	1,000

SUPPLY AIR BLOWER SECTION

TYPE	AF SWIRL PLENUM (BOX WHEEL WIDTH)
NUMBER/SIZE	1/27"
AIRFLOW (CFM)	13,000
CLASS	0
TOTAL STATIC PRESSURE (TSP) IN WC	4.06
EXTERNAL STATIC (ESP) IN WC	2.00
DESIGN FAN SPEED (RPM)	1,700
FAN BHP	12.40
MOTOR HP	10
MOTOR DRIVE	DIRECT DRIVE W/ VFD

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OA FILTER SECTION

TYPE	2" Pleated MERV 8
NUMBER/SIZE	9/18x20
TOTAL FACE AREA (SQ-FT)	13.5
FACE VELOCITY (FPM)	105

RA FILTER SECTION

TYPE	2" Pleated MERV 8
NUMBER/SIZE	9/18x20
TOTAL FACE AREA (SQ-FT)	238.3
FACE VELOCITY (FPM)	300

GAS HEAT SECTION

TYPE	Natural Gas, Tubular Dual Flue
INPUT CAPACITY (BTUH)	700,000
OUTPUT CAPACITY (BTUH)	580,000
CONDITIONED AIR (CFM)	9,000
BYPASS AIR (CFM)	4,000
CONDITIONED AIR TR (F)	87.6
STAGING	Microchannel
GAS CONNECTION SIZE (INPT)	1/2"
MIN GAS PRESSURE (IN WC)	7"
MAX GAS PRESSURE (IN WC)	14"

NOT WATER SECTION 1

FACE AREA (SQ-FT)	27.5
NUMBER/SIZE	8/10
COIL CIRCUITS (NUMBER)	1
CAPACITY (BTUH)	342,436
ENTERING AIR TEMP (DEG F)	65.5
LEAVING AIR TEMP (DEG F)	59.7
CONDENSED AIR (CFM)	13,000
ENTERING WATER TEMP (DEG F)	60
LEAVING WATER TEMP (DEG F)	59.2
FLOW RATE (GPM)	13.0
TYPE FLUID	3% Propylene Glycol
FLUID PRESSURE DROP (FT WATER)	2.97
SUPPLY/RETURN CONNECTION SIZE	2.5/2.0/2.5

UNIT WEIGHT (LBS) 11,290

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ENGINEERING SPECIFICATIONS

JOB NAME: PUBLIX - ALT  
 LOCATION: MARIETTA, GA  
 DATE PREPARED: Revised 05/18/2020  
 SEASONS-4 REFERENCE # P09482-02 ALT  
 UNIT MODEL # LAXXX: 1R303-045A-XXXX-XXCU  
 UNIT DESIGNATION: CU-1  
 SYSTEM VOLTAGE: 208/230

DESIGN DATA

TOTAL COOLING CAPACITY (BTUH)	548,274
SENSIBLE CAPACITY (BTUH)	300,372
LATENT CAPACITY (BTUH)	239,401
ESTIMATED REFRIGERANT CHARGE (R410A)	145.0
LIQUID CONNECTION SIZE	3 @ 7/8"
DISCHARGE CONNECTION SIZE	1 @ 7/8", 2 @ 1/2"
UNIT DESIGNED AS CONSTANT AIR VOLUME	
UNIT DESIGNED WITH CONDENSER FAN VFD	

AIR COOLED CONDENSER SECTION

CONDENSER COIL	
COIL FACE AREA (SQ-FT)	86.74
DESIGN AMBIENT TEMPERATURE (FDB)	
CONDENSER FANS	
TYPE	PROPELLER
DIAMETER	20.140
CFM/FAN	307

UNIT WEIGHT (LBS) 2,720

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ELECTRICAL DATA

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 DATE PREPARED: Revised 05/18/2020  
 SEASONS-4 REF # P09482-01 ALT  
 UNIT MODEL # AHXXX: 1HU31-6453-TN7-D-13HR  
 UNIT DESIGNATION: AC-1  
 SYSTEM VOLTAGE: 208 CONTROL VOLTAGE: 120 EXT. VOLTAGE: 24

ITEM	QTY	HP	FLA	LRA	NM	TYPE
COMP 2 PRECOOL	1	17.0	48.4	308.0	12.6	08MA021
COMP 1 DEHUMID	1	20.0	57.0	358.0	14.6	08MA024
COMP 3 RETURN AIR	1	14.0	39.0	259.0	11.3	08MA018
SA FAN	1	15.0	37.4	261.0	10.0	Balder Super-E
CONTROL CIRCUIT			9.6			
TOTALS (COND.)	4	66.0	192.3		48.5	
TOTALS (MOT)	1	15.0	47.0		10.0	

M.C.A. 267 (MINIMUM CIRCUIT AMPACITY)  
 M.O.P. 290 (MAXIMUM OVERCURRENT PROTECTION)  
 S.C.C.R. 65,000 (SHORT CIRCUIT CURRENT RATING)

SEASONS-4, Inc. P09482-01 ALT  
 3006 8450379AL AC1202083040 + 2002024300AL15 18037006 + 01094-0041 + 05018660730 + FAX 770400-2336 + 1070613026220A.MET

ENGINEERING SPECIFICATIONS

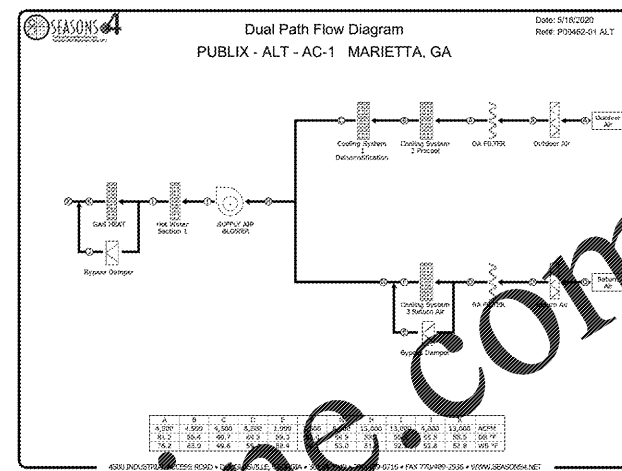
ELECTRICAL DATA

JOB NAME: PUBLIX - ALT  
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 SEASONS-4 REF # P09482-02 ALT  
 UNIT MODEL # LAXXX: 1R303-045A-XXXX-XXCU  
 UNIT DESIGNATION: CU-1  
 SYSTEM VOLTAGE: 208 CONTROL VOLTAGE: 120 EXT. VOLTAGE: 24

ITEM	QTY	HP	FLA	LRA	NM	TYPE
COND FAN	4	1.0		29.2	1.0	
CONTROL CIRCUIT			9.6			
TOTALS (COND.)	4					
TOTALS (MOT)	1					

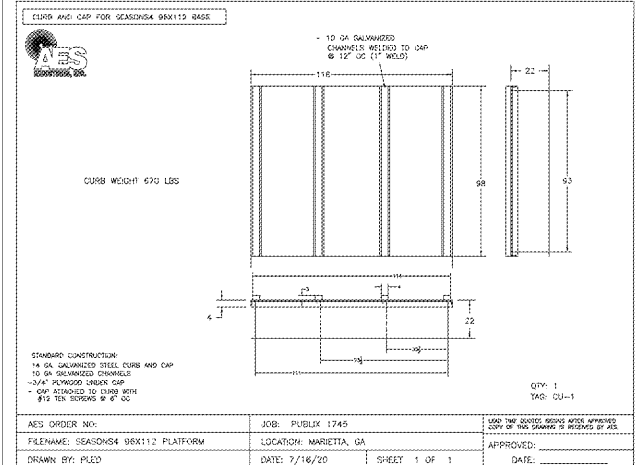
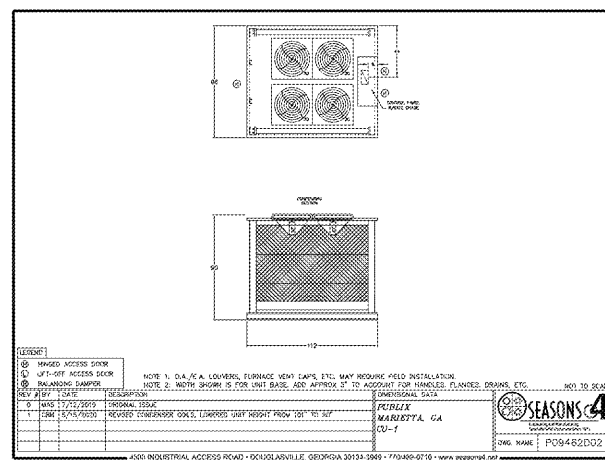
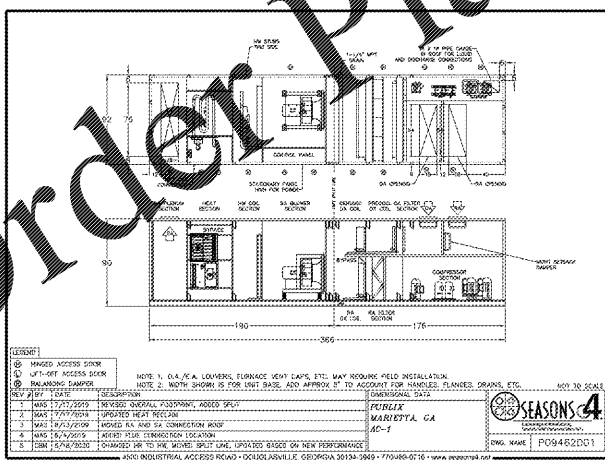
M.C.A. 28 (MINIMUM CIRCUIT AMPACITY)  
 M.O.P. 30 (MAXIMUM OVERCURRENT PROTECTION)  
 S.C.C.R. 65,000 (SHORT CIRCUIT CURRENT RATING)

SEASONS-4, Inc. P09482-02 ALT  
 3006 8450379AL AC1202083040 + 2002024300AL15 18037006 + 01094-0041 + 05018660730 + FAX 770400-2336 + 1070613026220A.MET



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Publix PROTOTYPE BASIS OF DESIGN  
 20M EXPANDED RECEIVED: 09.14.18

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FISHER AND ASSOCIATES, LLC.  
 ARCHITECTS  
 PLANNERS  
 INTERIOR DESIGNERS  
 232 BELLEAIR RD., CLEWISTON, FL 33744 727/444408

AC-1 SCHEDULES AND DETAILS  
 EAST COBB PUBLIX - #1745  
 EAST COBB CROSSING SHOPPING CENTER  
 ROSEWELL ROAD  
 MARIETTA, GA 30062

RELEASED FOR:  
 BID  
 PERMIT 07/16/20  
 CONSTR.

REVISIONS:

07/16/2020

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