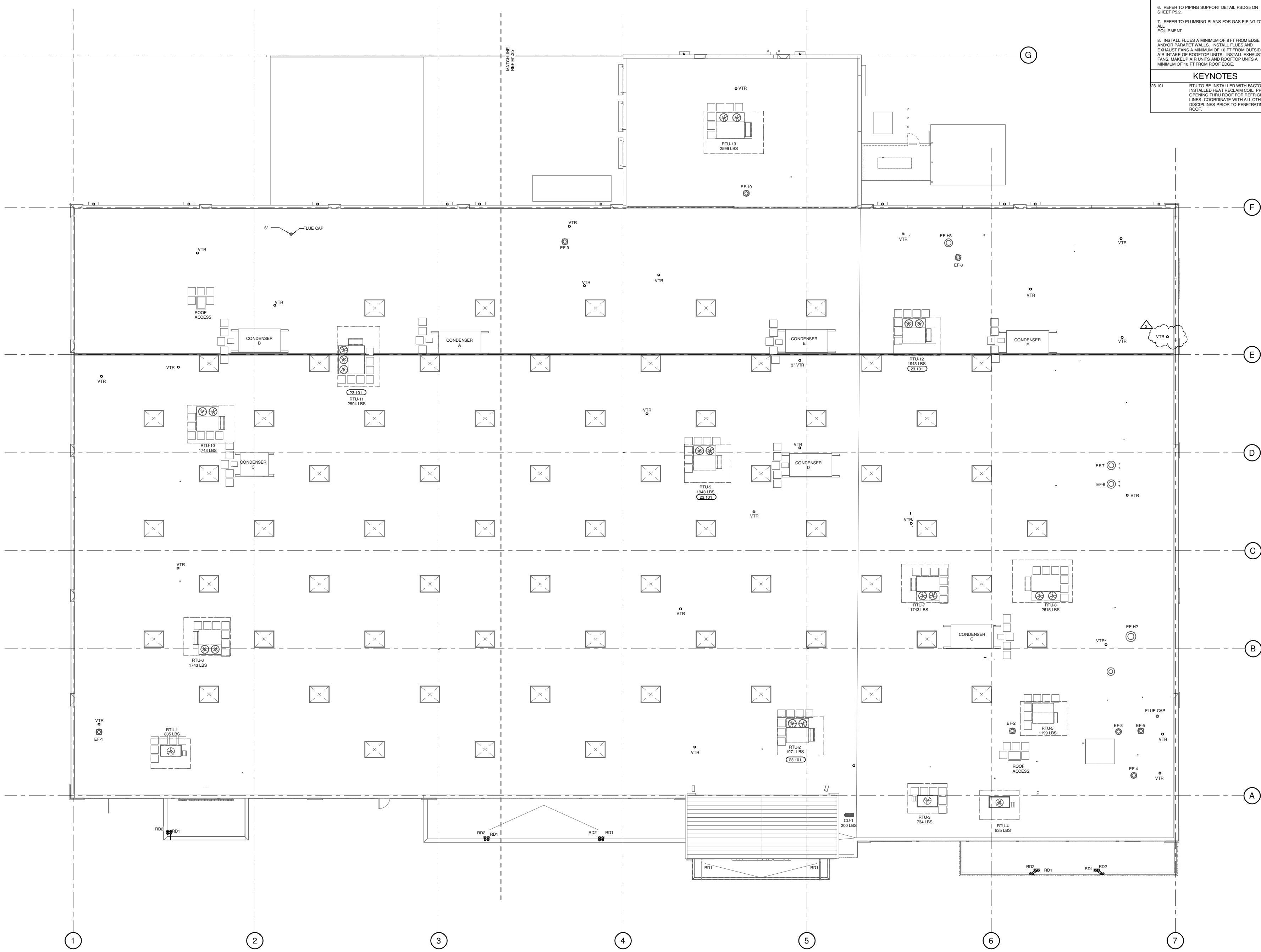

1 ROOF PLAN
3/32" = 1'-0"

GENERAL NOTES

1. REFER TO ARCHITECTURAL AND STRUCTURAL DRAWINGS FOR EXACT LOCATIONS OF ROOFTOP EQUIPMENT.

2. REFER TO HEATING, VENTILATING & AIR CONDITIONING SPECIFICATIONS AND GENERAL CONDITIONS FOR ADDITIONAL REQUIREMENTS.

3. REFER TO ENERGY MANAGEMENT DRAWINGS FOR EQUIPMENT CONTROLS NOT SHOWN ON HVAC DRAWINGS.

4. PROVIDE LEVEL CURBS FOR RTU INSTALLATION.

5. REFER TO CURB DETAILS ON SHEETS M5.1 AND M5.2 FOR CURB MOUNTING INFORMATION.

6. REFER TO PIPING SUPPORT DETAIL PSD-35 ON SHEET P5.2.

7. REFER TO PLUMBING PLANS FOR GAS PIPING TO ALL EQUIPMENT.

8. INSTALL FLUES A MINIMUM OF 8 FT FROM EDGE AND/OR PARAPET WALLS. INSTALL FLUES AND EXHAUST FANS A MINIMUM OF 10 FT FROM OUTSIDE AIR INTAKE OF ROOFTOP UNITS. INSTALL EXHAUST FANS, MAKEUP AIR UNITS AND ROOFTOP UNITS A MINIMUM OF 10 FT FROM ROOF EDGE.

KEYNOTES

23.101	RTU TO BE INSTALLED WITH FACTORY INSTALLED HEAT RECLAIM COIL. PROVIDE OPENING THRU ROOF FOR REFRIGERATION LINES. COORDINATE WITH ALL OTHER DISCIPLINES PRIOR TO PENETRATING ROOF.

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05/27/2015

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Kroger

ISSUE/REVISION

	01/12/2015 90% PROGRESS REVIEW
03/27/2015	BID/PERMIT ISSUE

3	BULLETIN NO.2	05/28/15

PROJECT TITLE

KROGER STORE

NEC N. Tarrant Parkway &
Ray White Rd.
Fort Worth, TX

COMMISSION NO.	514501.03
ISSUE DATE	03/27/15

SHEET TITLE

ROOF PLAN

SHEET NO.

M1.2

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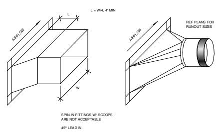
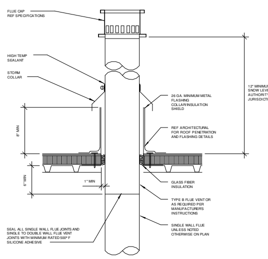


BRANCH DUCT FITTING	DATE: SCALE: NONE DRAWN:
	BGH-1



FLUE THRU ROOF	DATE: SCALE: NONE DRAWN:
	BGH-2

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ISSUE/REVISION

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PROJECT TITLE

KROGER STORE

NEC N. Tarrant Parkway &
Ray White Rd.
Fort Worth, TX

COMMISSION NO.	514501.03
ISSUE DATE	03/27/15

SHEET TITLE

HVAC DETAILS

SHEET NO.

M3.1

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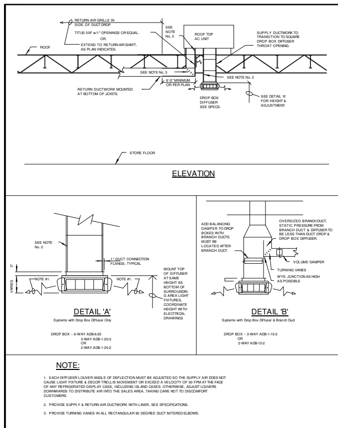
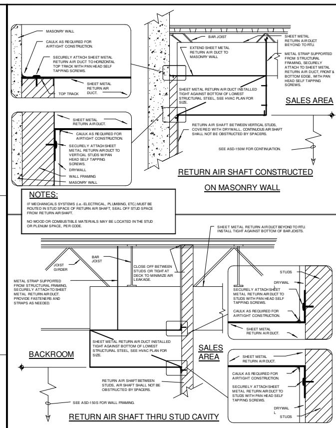


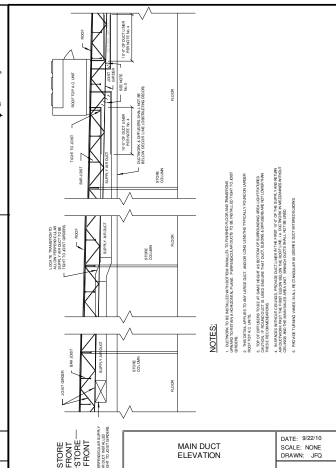
ORIGINAL ISSUE DATE 2/20/06

DROP BOX DIFFUSER	DATE: 7/29/14 SCALE: NONE DRAWN: ZAW
MASTER SPECIFICATION DETAIL	HSD-1

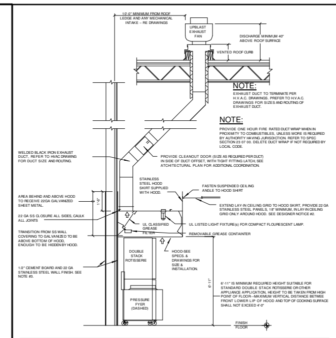


ORIGINAL ISSUE DATE 2/20/06

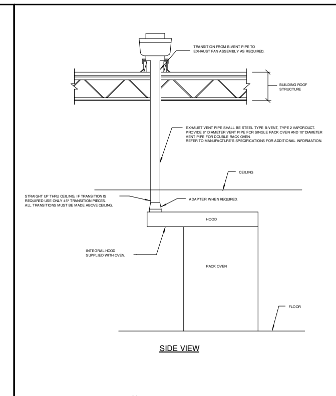
SHEET METAL RETURN AIR DUCT CONNECTION TO AIR SHAFT	DATE: 1/14/13 SCALE: NONE DRAWN: ZAW
MASTER SPECIFICATION DETAIL	HSD-2



MAIN DUCT ELEVATION	DATE: 9/22/10 SCALE: NONE DRAWN: JFQ
MASTER SPECIFICATION DETAIL	HSD-3

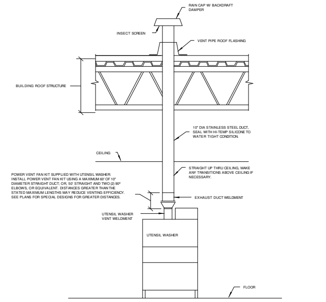


DELI-BAKERY EXHAUST HOOD INSTALLATION	DATE: 3/13/12 SCALE: NONE DRAWN: ZAW
MASTER SPECIFICATION DETAIL	HSD-4



Notice:

BAKERY RACK OVEN EXHAUST	DATE: 10/11/12 SCALE: NONE DRAWN: ZAW
MASTER SPECIFICATION DETAIL	HSD-7

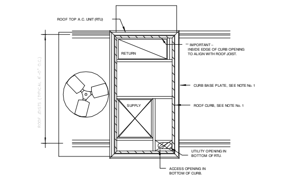


Front Elevation

Notes:

Notice:

UTENSIL WASHER EXHAUST	DATE: 9/22/10 SCALE: NONE DRAWN: JQ
MASTER SPECIFICATION DETAIL	HSD-8

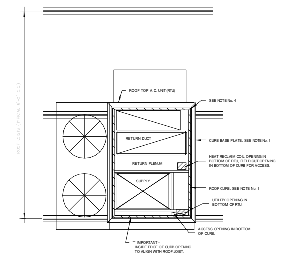


Notes:

Note:

ORIGINAL ISSUE DATE 10/1/09

ADJUSTABLE ROOF CURB FOR A-CABINET RTU	DATE: 10/11/12 SCALE: NONE DRAWN: ZAW
MASTER SPECIFICATION DETAIL	HSD-9A

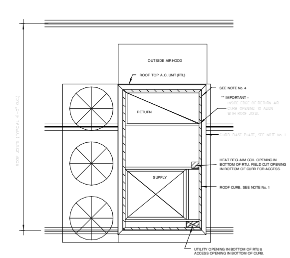


Notes:

Note:

ORIGINAL ISSUE DATE 10/1/09

ADJUSTABLE ROOF CURB FOR B-CABINET RTU	DATE: 10/11/12 SCALE: NONE DRAWN: ZAW
MASTER SPECIFICATION DETAIL	HSD-9B

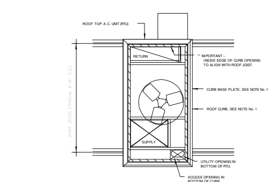


Notes:

Note:

ORIGINAL ISSUE DATE 10/1/09

ADJUSTABLE ROOF CURB FOR C-CABINET RTU	DATE: 10/11/12 SCALE: NONE DRAWN: ZAW
MASTER SPECIFICATION DETAIL	HSD-9C

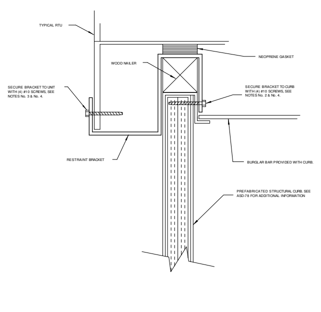


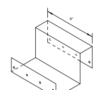
Notes:

Note:

ORIGINAL ISSUE DATE 5/7/10

ADJUSTABLE ROOF CURB FOR RQ-CABINET RTU	DATE: 10/11/12 SCALE: NONE DRAWN: ZAW
MASTER SPECIFICATION DETAIL	HSD-9RQ

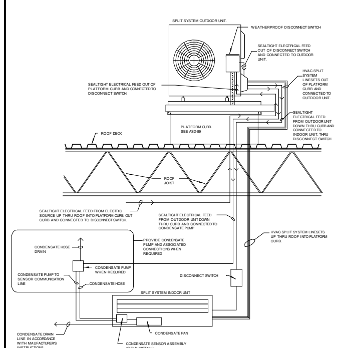




Bracket Isometric

NOTES:

RTU WIND-SEISMIC RESTRAINT BRACKET	DATE: 4/22/13 SCALE: NONE DRAWN: ZAW
MASTER SPECIFICATION DETAIL	HSD-10



Notes:

HVAC SPLIT SYSTEM DIAGRAM	DATE: 10/11/12 SCALE: NONE DRAWN: ZAW
MASTER SPECIFICATION DETAIL	HSD-11

03/27/2015

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ROOFTOP UNIT SCHEDULE - AAON SERIES

MARK	AREA SERVED	MODEL	SUPPLY AIR (CFM)	ESP (IN-WG)	OUTSIDE AIR (CFM)	COOLING TOTAL CAPACITY (MBH)	COOLING SENSIBLE CAPACITY (MBH)	HEATING TOTAL CAPACITY (MBH)	GAS INPUT (MBH)	FLA (AMPS)	MCA (AMPS)	MOCP (AMPS)	NOTES
RTU-1	PHARMACY	RQ-005	2000	0.50	400	57.1	52.0	48.6	60	12	14	20	B, D
RTU-2	VESTIBULE #1	RN-015	6000	0.35	250	172.7	148.7	156.0	195	37	40	50	A, B, D
RTU-3	MEZZANINE OFFICES	RQ-003	1200	0.20	240	33.3	30.7	48.6	60	9	10	15	B
RTU-4	BREAKROOM / CONFERENCE ROOM	RQ-005	2200	0.30	440	57.9	54.9	48.6	60	12	14	20	B, D
RTU-5	SEATING / PUBLIC RR'S	RN-010	3000	0.30	600	103.3	85.1	72.9	90	22	27	40	B, D
RTU-6	SALES	RN-015	5000	0.35	0	166.1	132.0	156.0	195	34	37	45	B, D
RTU-7	SALES	RN-015	5000	0.35	0	166.1	132.0	156.0	195	34	37	45	B, D
RTU-8	BAKERY / DELI PREP	RN-020	7500	0.50	1500	228.1	200.8	218.7	270	46	50	60	B, D
RTU-9	SALES	RN-015	5000	0.35	1000	173.4	142.5	156.0	195	34	37	45	A, B, D
RTU-10	SALES	RN-015	5000	0.35	0	166.1	132.0	156.0	195	34	37	45	B, D
RTU-11	SALES	RN-030	9000	0.55	4500	332.7	286.2	328.1	405	61	67	90	A, B, D
RTU-12	SALES	RN-015	5000	0.35	1000	173.4	142.5	156.0	195	34	37	45	A, B, D
RTU-13	DOCK / BACKROOM	RN-020	7500	0.40	1000	224.6	195.4	218.7	270	46	50	60	B, D

1

GENERAL INFORMATION (ALL UNITS):
1. UNITS ARE INCLUDED IN KROGER'S DIRECT BUY PROGRAM AND ARE SUPPLIED BY OWNER. INSTALLATION BY MECHANICAL CONTRACTOR.
2. ALL UNITS ARE 460V, 3 PHASE, 60 HERTZ, MINIMUM AFUE=80%.
3. REFER TO SPECIFICATIONS FOR MANUFACTURED CURBS.
4. UNIT ENERGY EFFICIENCY RATINGS (EER) PER AHRI 340 AND 360.
5. TEMPERATURE AND/ OR HUMIDITY SENSORS SUPPLIED BY BUILDING CONTROL PROVIDER. REFER TO DRAWINGS FOR LOCATIONS.
6. CURB HEIGHTS SHALL BE 20" TALL.

1

NOTES:
A. RTU TO BE EQUIPPED WITH FACTORY INSTALLED HEAT RECLAIM COIL. PROVIDE OPENING THROUGH ROOF FOR REFRIGERATION LINES.
B. UNIT FAN OPERATION SHALL BE CONTINUOUS.
C. UNIT SHALL BE PROVIDED WITH CORROSION PROTECTION FOR HIGH HUMIDITY AREA.
D. SMOKE DETECTORS ARE INSTALLED IN RETURN AIR BY FIRE ALARM CONTRACTOR.

FAN SCHEDULE

MARK	AREA SERVED	MANUFACTURER	MODEL	MOUNTING FAN TYPE	EXHAUST AIR (CFM)	ESP (in-wg)	VOLT PHASE HERTZ	HORSEPOWER	DRIVE	CONTROL METHOD	NOTES
EF-1	FAMILY RESTROOMS	CAPTIVE-AIRE	DR12HFA	ROOFTOP DOWNBLAST	210	0.13	120/1/60	.18	DIRECT	CONTINUOUS	
EF-2	EQUIPMENT ROOM	CAPTIVE-AIRE	DR12HFA	ROOFTOP DOWNBLAST	400	0.13	120/1/60	.18	DIRECT	CONTINUOUS	
EF-3	ELEVATOR EQUIPMENT ROOM	CAPTIVE-AIRE	DR12HFA	ROOFTOP DOWNBLAST	400	0.13	120/1/60	.50	DIRECT	T-STAT	
EF-4	MEZZANINE RESTROOMS	CAPTIVE-AIRE	DR12HFA	ROOFTOP DOWNBLAST	280	0.25	120/1/60	.18	DIRECT	CONTINUOUS	
EF-5	PUBLIC RESTROOMS	CAPTIVE-AIRE	DR12HFA	ROOFTOP DOWNBLAST	490	0.25	120/1/60	.18	DIRECT	CONTINUOUS	
EF-6	BAKERY OVEN	CAPTIVE-AIRE	NCA14HPFA	ROOFTOP UPBLAST	900	1.20	208/3/60	.50	DIRECT	INTERLOCK	A
EF-7	BAKERY OVEN	CAPTIVE-AIRE	NCA14HPFA	ROOFTOP UPBLAST	900	1.20	208/3/60	.50	DIRECT	INTERLOCK	A
EF-8	SEAFOOD PREP	CAPTIVE-AIRE	DR12HFA	ROOFTOP DOWNBLAST	600	0.25	120/1/60	.18	DIRECT	CONTINUOUS	
EF-9	REAR RESTROOMS	CAPTIVE-AIRE	DR12HFA	ROOFTOP DOWNBLAST	140	0.13	120/1/60	.18	DIRECT	CONTINUOUS	
EF-10	ELECTRICAL ROOM	CAPTIVE-AIRE	DR12HFA	ROOFTOP DOWNBLAST	700	0.13	120/1/60	.18	DIRECT	CONTINUOUS	
EF-H1	DELI FRYERS	CAPTIVE-AIRE	NCA10FA	ROOFTOP UPBLAST	875	0.75	120/1/60	.5	DIRECT	INTERLOCK	A
EF-H2	DELI FRYERS	CAPTIVE-AIRE	NCA16FA	ROOFTOP UPBLAST	2800	1.20	208/3/60	1.5	DIRECT	INTERLOCK	A
EF-H3	SEAFOOD STEAMER	CAPTIVE-AIRE	DU30HFA	ROOFTOP UPBLAST	600	0.25	120/1/60	.25	DIRECT	INTERLOCK	A

1

GENERAL INFORMATION (ALL DEVICES):
1. UNITS ARE INCLUDED IN KROGER'S DIRECT BUY PROGRAM AND ARE SUPPLIED BY OWNER. INSTALLATION BY MECHANICAL CONTRACTOR.
2. FANS ARE FURNISHED WITH FACTORY-MOUNTED DISCONNECT.
3. ROOF CURB PROVIDED BY GENERAL CONTRACTOR. REFER TO SPECIFICATIONS AND HVAC EQUIPMENT ORDERING SCHEDULE.

NOTES:
A. REFERENCE ELECTRICAL DRAWINGS FOR INFORMATION REGARDING FAN INTERLOCK.

DIFFUSER SCHEDULE

MARK	SERVICE	MANUFACTURER	MODEL	STYLE	FRAME TYPE	FACE SIZE	NOTES
CD	SUPPLY AIR	TITUS	TMS	ROUND NECK CEILING DIFFUSER	LAY-IN	24x24	
CD1	SUPPLY AIR	TITUS	TDC	SQ/RECTANGULAR CEILING DIFFUSER	SURFACE MOUNT	REF DRAWINGS	
DB2	SUPPLY AIR	AES	ADB-1-20-2	DROP BOX DIFFUSER			
DB3	SUPPLY AIR	AES	ADB-1-20-3	DROP BOX DIFFUSER			E, F
EAG	EXHAUST AIR	TITUS	TDC	SQ / RECTANGULAR CEILING DIFFUSER	LAY-IN	24x24	C
EAG1	EXHAUST AIR	TITUS	350	LOUVERED FACE REGISTER	SURFACE MOUNT	REF DRAWINGS	C
EAW	EXHAUST AIR	TITUS	23RL0A25	FIXED BLADE WALL GRILLE	SURFACE MOUNT	REF DRAWINGS	C
RAG	RETURN AIR	TITUS	TDC	SQ / RECTANGULAR CEILING DIFFUSER	LAY-IN	24x24	D, F
RAG1	RETURN AIR	TITUS	350	LOUVERED FACE REGISTER	SURFACE MOUNT	REF DRAWINGS	
RAG2	RETURN AIR	TITUS	50F (TYPE 3)	1/2"x1/2"x1/2" EGGCRATE CEILING GRILLE	SURFACE MOUNT	REF DRAWINGS	
RD	SUPPLY AIR	TITUS E.H. PRICE CARNES	XC-310 RID SSDB	ROUND NECK CEILING DIFFUSER	DUCT MOUNT	REF DRAWINGS	B D
SAW	SUPPLY AIR	TITUS	272RLS	LOUVER FACE REGISTER	SURFACE MOUNT	REF DRAWING	B
TG	TRANSFER AIR	TITUS	TDC	SQ / RECTANGULAR CEILING DIFFUSER	LAY-IN	24x24	
TG2	TRANSFER AIR	TITUS	50F (TYPE 3)	1/2"x1/2"x1/2" EGGCRATE CEILING GRILLE	SURFACE MOUNT	REF DRAWINGS	
TG4	TRANSFER AIR	TITUS	PAR-AA	SQUARE NECK CEILING DIFFUSER	LAY-IN	24x24	
TGW	TRANSFER AIR	TITUS	33RL	FIXED BLADE WALL GRILLE	SURFACE MOUNT	REF DRAWINGS	A
VSD	SUPPLY AIR VAV	TITUS E.H. PRICE	T3SQ-1 PPD1	ROUND NECK CEILING DIFFUSER	LAY-IN	24x24	B D E O

GENERAL INFORMATION (ALL UNITS):
1. PROVIDED AND INSTALLED BY MECHANICAL CONTRACTOR.
2. ALL AIR DEVICES ARE 4-WAY THROW UNLESS OTHERWISE NOTED IN SCHEDULES OR WITH FLOW ARROWS ON DRAWINGS.
3. REFER TO SPECIFICATIONS FOR APPROVED ALTERNATES.
4. BRANCH DUCT SIZE SHALL BE SAME AS NOTED DIFFUSER NECK SIZE UNLESS NOTED OTHERWISE.

NOTES:
A. WITH 45-DEGREE ANGLE BLADES. INSTALL WITH BLADES ANGLED UPWARDS.
B. WITH FACE-OPERABLE DAMPER
C. PROVIDE OPPOSED-BLADE DAMPER IN NECK OF GRILLE.
D. 2-WAY THROW. REF DRAWINGS FOR THROW DIRECTIONS.
E. 3-WAY THROW. REF DRAWINGS FOR THROW DIRECTIONS.
F. PROVIDE OBD'S IN DROP BOXES WHEN A BRANCH DUCT TAKEOFF CONNECTS TO THE MAIN DUCT.

EXHAUST HOOD SYSTEM SCHEDULE

MARK	AREA SERVED	MODEL	CAPTURE LENGTH	CAPTURE WIDTH	HEIGHT	EXHAUST RECT COLLAR	EXHAUST ROUND COLLAR	EXHAUST AIR (CFM)	ESP (in-wg)	V/P/HZ	NOTES
EH-1	DELI PREP	6024 ND-2	5' - 0"	5' - 0"	1' - 6"	9x9	0"	875	0.27	208/3/60	
EH-2L	DELI PREP	6024 ND-2	8' - 0"	5' - 0"	2' - 0"	13"x10"		1400	0.34	208/3/60	
EH-2R	DELI PREP	6024 ND-2	8' - 0"	5' - 0"	2' - 0"	13"x10"		1400	0.34	208/3/60	
EH-3	SEAFOOD PREP	4824 VHB-G	4' - 0"	4' - 0"	1' - 6"	9"x8"	0"	600	0.10	120/1/60	

GENERAL INFORMATION (ALL UNITS AS APPLICABLE):
1. HOOD & FAN(S) FURNISHED BY OWNER, INSTALLATION AND START UP BY MECHANICAL CONTRACTOR.

MINI-SPLIT AIR CONDITIONING UNIT SCHEDULE

MARK	AREA SERVED	MANUFACTURER	MODEL	COOLING TOTAL CAPACITY (MBH)	MCA (AMPS)	OCP (AMPS)
AC-1	ECR	MITSUBISHI	MSY-D36NA	33.2		
CU-1	ECR	MITSUBISHI	MUY-D36NA	0.0	21	25

GENERAL INFORMATION (ALL UNITS):
1. UNITS ARE INCLUDED IN KROGER'S DIRECT-BUY PROGRAM AND ARE SUPPLIED BY OWNER. INSTALLATION BY MECHANICAL CONTRACTOR.
2. ALL UNITS ARE 208 V, 1 PHASE, 60 HERTZ.

HVAC EQUIPMENT ORDERING INFORMATION

MARK	MFGR	MODEL	ePRO	AES CURB MODEL
AC-1	MITSUBISHI	MSY-D36NA	N/A	N/A
CU-1	MITSUBISHI	MUY-D36NA	N/A	42486
EF-1	CAPTIVE-AIRE	DR12HFA	K-0002357	42408
EF-2	CAPTIVE-AIRE	DR12HFA	K-0002357	42408
EF-3	CAPTIVE-AIRE	DR12HFA	K-0002357	42408
EF-4	CAPTIVE-AIRE	DR12HFA	K-0002357	42408
EF-5	CAPTIVE-AIRE	DR12HFA	K-0002356	42408
EF-6	CAPTIVE-AIRE	NCA14HPFA	K-0002387	42413
EF-7	CAPTIVE-AIRE	NCA14HPFA	K-0002387	42413
EF-8	CAPTIVE-AIRE	DR12HFA	K-0002356	42408
EF-9	CAPTIVE-AIRE	DR12HFA	K-0002357	42408
EF-10	CAPTIVE-AIRE	DR12HFA	K-0002356	42408
EF-H1	CAPTIVE-AIRE	NCA10FA	K-0002374	42412
EF-H2	CAPTIVE-AIRE	NCA16FA	K-0002381	42414
EF-H3	CAPTIVE-AIRE	DU30HFA	K-0002365	42412
EH-1	CAPTIVE-AIRE	6024 ND-2	K-0002299	
EH-2L	CAPTIVE-AIRE	6024 ND-2	K-0002317	
EH-2R	CAPTIVE-AIRE	6024 ND-2	K-0002317	
EH-3	CAPTIVE-AIRE	4824 VHB-G	K-0002337	
RTU-1	Aaon, Inc.	RQ-005	NA	42460
RTU-2	Aaon, Inc.	RN-015	NA	42472
RTU-3	Aaon, Inc.	RQ-003	NA	42460
RTU-4	Aaon, Inc.	RQ-005	NA	42460
RTU-5	Aaon, Inc.	RN-010	NA	42475
RTU-6	Aaon, Inc.	RN-015	NA	42472
RTU-7	Aaon, Inc.	RN-015	NA	42472
RTU-8	Aaon, Inc.	RN-020	NA	42473
RTU-9	Aaon, Inc.	RN-015	NA	42472
RTU-10	Aaon, Inc.	RN-015	NA	42472
RTU-11	Aaon, Inc.	RN-030	NA	42473
RTU-12	Aaon, Inc.	RN-015	NA	42472
RTU-13	Aaon, Inc.	RN-020	NA	42473

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VENTILATION CALCULATIONS

ROOM NUMBER	ROOM NAME	RTU SYSTEM	AREA	PEOPLE	CFM/ PERSON	CFM/ SQ-FT	REQ'D TOTAL	DESIGN OSA CFM	NOTES:
142	RX STORAGE	1	105	0	0	0.12	13		
143	PHARMACY	1	1023	10	5	0.18	235		
144	RX WAITING	1	316	9	5	0.06	66		
145	RX COUNSEL	1	165	1	5	0.06	14		
153	FAMILY 1	1	65	0	0	0	0		
	SUBTOTAL						328	400	Add'l OSA shared with open sales
100/101	VESTIBULE/ CART CORRAL 1	2	1840	18	5	0.06	202		
158	ACCOUNTING	2	118	1	5	0.06	12		
	SUBTOTAL						214	250	Add'l OSA shared with open sales
200	OPEN OFFICE	3	867	4	5	0.06	74		
201	MANAGER	3	174	2	5	0.06	20		
202	ECR	3	134	3	10	0.12	50		
203	CBT	3	143	4	5	0.06	26		
204	HR OFFICE	3	133	2	5	0.06	18		
205	HALL 'E'	3	103	0	0	0	6		
	SUBTOTAL						194	240	Add'l OSA shared with open sales
209	MEZZANINE MEN	4	141	0	0	0	0		
210	MEZZANINE WOMEN	4	150	0	0	0	0		
211	KTV CONFERENCE ROOM	4	339	17	5	0.06	105		
213	LUNCH ROOM	4	783	14	5	0.06	117		
	SUBTOTAL						222	440	Add'l OSA shared with open sales
105	RESTROOM ALCOVE	5	51	0	0	0	0		
107	CUSTOMER WOMEN	5	179	0	0	0	0		
108	CUSTOMER MEN	5	176	0	0	0	0		
109	SEATING	5	1355	52	7.5	0.18	634		
110	STARBUCKS STORAGE	5	116	0	0	0.12	14		
111	VESTIBULE 2	5	66	1	5	0.06	7		
	SUBTOTAL						655	600	Add'l req'd OSA from open sales
159	SALES	6, 7, 9, 10, 11, 12	50279	402	7.5	0.06	6033	6265	
102	FLORAL PREP	7	281	3	15	0	42		
110	SUSHI PREP	7	288	2	7.5	0.06	35		
161	CHEESE SHOP	7	197	2	7.5	0.06	24		
	SUBTOTAL						100	0	Add'l req'd OSA from open sales
112	DELI SERVICE	8	833	7	7.5	0.06	100		
113	DELI PREP	8	1026	8	15	0	123		
118	HALL 'A'	8	132	0	0	0.06	8		
119	HALL 'B'	8	192	0	0	0.06	12		
120	BAKERY PREP	8	986	10	15	0	148		
	SUBTOTAL						390	1500	Add'l OSA shared with open sales
162	CUSTOMER SERVICE	11	186	1	7.5	0.06	22	135	Add'l OSA shared with open sales
128	SEAFOOD PREP	12	642	6	15	0	96	100	Add'l OSA shared with open sales
129	BACKROOM	13	4524	0	0	0.12	543		
133	RX RECORD STORAGE	13	104	0	0	0.12	12		
134	DOCK	13	3624	0	0	0.12	435		
137	CLEANING CENTER	13	96	0	0	0.12	12		
140	HBC/ GM SECURE STORAGE	13	97	0	0	0.12	12		
	SUBTOTAL						1013	1000	

CALC BUILDING PRESSURE

MARK	MANUFACTURER	MODEL	SUPPLY AIR (CFM)	OUTSIDE AIR (CFM)	EXHAUST AIR (CFM)	PRESSURE (CFM)
EF-1	CAPTIVE-AIRE	DR12HFA	0	0	210	-210
EF-2	CAPTIVE-AIRE	DR12HFA	0	0	400	-400
EF-3	CAPTIVE-AIRE	DR12HFA	0	0	400	-400
EF-4	CAPTIVE-AIRE	DR12HFA	0	0	280	-280
EF-5	CAPTIVE-AIRE	DR12HFA	0	0	490	-490
EF-6	CAPTIVE-AIRE	NCA14HPFA	0	0	900	-900
EF-7	CAPTIVE-AIRE	NCA14HPFA	0	0	900	-900
EF-8	CAPTIVE-AIRE	DR12HFA	0	0	600	-600
EF-9	CAPTIVE-AIRE	DR12HFA	0	0	140	-140
EF-10	CAPTIVE-AIRE	DR12HFA	0	0	700	-700
EF-H1	CAPTIVE-AIRE	NCA10FA	0	0	875	-875
EF-H2	CAPTIVE-AIRE	NCA16FA	0	0	2800	-2800
EF-H3	CAPTIVE-AIRE	DU30HFA	0	0	600	-600
RTU-1	Aaon, Inc.	RQ-005	2000	400	0	400
RTU-2	Aaon, Inc.	RN-015	6000	250	0	250
RTU-3	Aaon, Inc.	RQ-003	1200	240	0	240
RTU-4	Aaon, Inc.	RQ-005	2200	440	0	440
RTU-5	Aaon, Inc.	RN-010	3000	600	0	600
RTU-6	Aaon, Inc.	RN-015	5000	0	0	0
RTU-7	Aaon, Inc.	RN-015	5000	0	0	0
RTU-8	Aaon, Inc.	RN-020	7500	1500	0	1500
RTU-9	Aaon, Inc.	RN-015	5000	1000	0	1000
RTU-10	Aaon, Inc.	RN-015	5000	0	0	0
RTU-11	Aaon, Inc.	RN-030	9000	4500	0	4500
RTU-12	Aaon, Inc.	RN-015	5000	1000	0	1000
RTU-13	Aaon, Inc.	RN-020	7500	1000	0	1000
Grand total			63400	10930	9295	1635

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HEAT RECLAIM COIL DESIGN INFORMATION

Store Number	SW 532
Refrigeration Designer	C. Baker
Date	2/16/15
Refrigeration Side Information	
Refrigeration Application Type	Protocol
Number of Circuits	1
Inlet Gas Temperature (degrees F)	160
RTU-2	
System	Protocol "G"
Refrigerate	R407a
Condensing Temp. (degrees F)	120
THR (MBH)	357.2
*Derated THR (MBH)	178.6
Mass Flow Rate (lb/Hr)	4,060
*Racks Derated to 60% *Singles Derated to 80% *Protocols Derated to 50%	
Air Side Information	
Design CFM	6,000
EAT (degrees F)	55.0
LAT (degrees F)	82.4
Total Reclaim Heat (Btu/Hr) =	178,600

HEAT RECLAIM COIL DESIGN INFORMATION

Store Number	SW 532
Refrigeration Designer	C. Baker
Date	2/16/15
Refrigeration Side Information	
Refrigeration Application Type	Protocol
Number of Circuits	1
Inlet Gas Temperature (degrees F)	160
RTU-9	
System	Protocol "F"
Refrigerant	R407a
Condensing Temp. (degrees F)	117
THR (MBH)	284.1
*Derated THR (MBH)	142.1
Mass Flow Rate (lb/Hr)	2,820
*Racks Derated to 60% *Singles Derated to 80% *Protocols Derated to 50%	
Air Side Information	
Design CFM	5,000
EAT (degrees F)	55.0
LAT (degrees F)	81.2
Total Reclaim Heat (Btu/Hr) =	142,050

HEAT RECLAIM COIL DESIGN INFORMATION

Store Number	SW 532	
Refrigeration Designer	C. Baker	
Date	2/16/15	
Refrigeration Side Information		
Refrigeration Application Type	Protocol	
Number of Circuits	2	
Inlet Gas Temperature (degrees F)	160	
RTU-11		
System	Protocols "A" and "D"	
Refrigerant	R407a	R407a
Condensing Temp. (degrees F)	120	120
THR (MBH)	472.9	427.4
*Derated THR (MBH)	236.4	213.7
Mass Flow Rate (lb/Hr)	5,520	4,920
*Racks Derated to 60% *Singles Derated to 80% *Protocols Derated to 50%		
Air Side Information		
Design CFM	9,000	
EAT (degrees F)	55.0	
LAT (degrees F)	101.1	
Total Reclaim Heat (Btu/Hr) =	450,150	

HEAT RECLAIM COIL DESIGN INFORMATION

Store Number	SW 532
Refrigeration Designer	C. Baker
Date	2/16/15
Refrigeration Side Information	
Refrigeration Application Type	Protocol
Number of Circuits	1
Inlet Gas Temperature (degrees F)	160
RTU-12	
System	Protocol "E"
Refrigerate	R407a
Condensing Temp. (degrees F)	120
THR (MBH)	439.8
*Derated THR (MBH)	219.9
Mass Flow Rate (lb/Hr)	5,010
*Racks Derated to 60% *Singles Derated to 80% *Protocols Derated to 50%	
Air Side Information	
Design CFM	5,000
EAT (degrees F)	55.0
LAT (degrees F)	95.5
Total Reclaim Heat (Btu/Hr) =	219, 900

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04/24/2015

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David P. Kimball P.E.
SUITE 5238 479-636-5004 800-321-8721
1805 N 2ND ST JOB NO.: 17137
ROGERS, AR 72756 DESIGNED BY: LPC

OWNER

Kroger

ISSUE/REVISION

01/12/2015 90% PROGRESS REVIEW
03/27/2015 BID/PERMIT ISSUE

1	BULLETIN NO.1	04/24/15

PROJECT TITLE

KROGER STORE

NEC N. Tarrant Parkway &
Ray White Rd.
Fort Worth, TX

COMMISSION NO. 514501.03
ISSUE DATE 03/27/15

SHEET TITLE

HVAC SCHEDULES

SHEET NO.

M6.1

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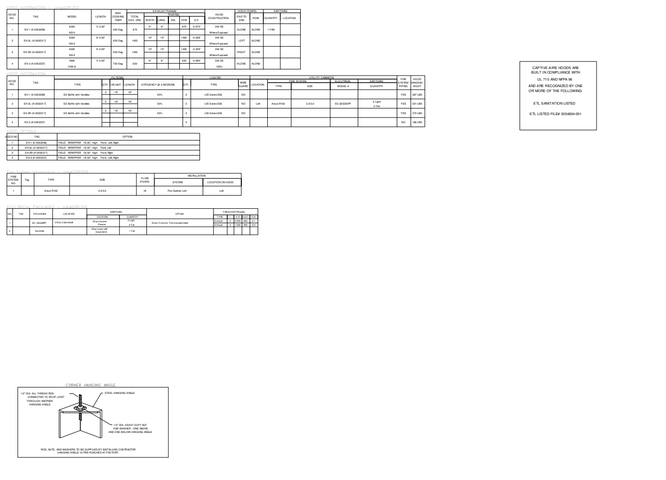

CAPTIVE-AIRE HOODS ARE BUILT IN COMPLIANCE WITH

UL 710 AND NFPA 96

AND ARE RECOGNIZED BY ONE OR MORE OF THE FOLLOWING:

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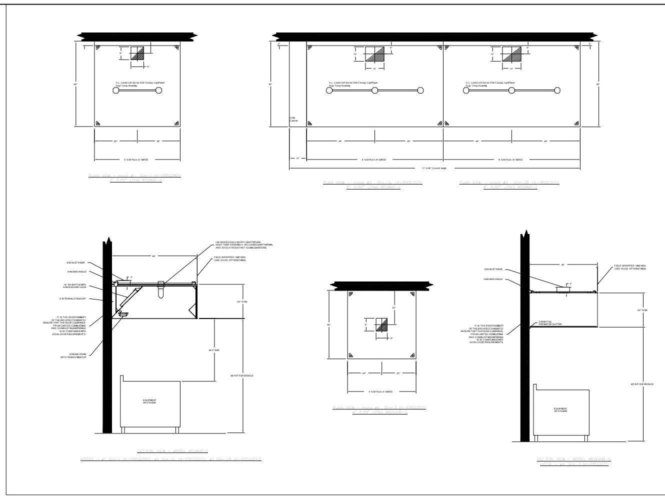
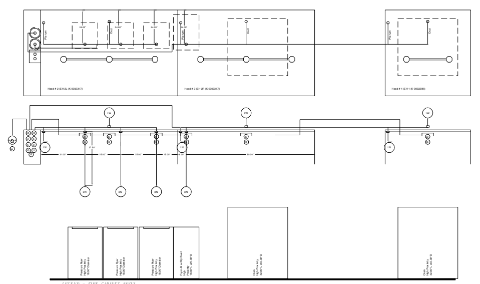
ETL LISTED FILE# 3054804-001



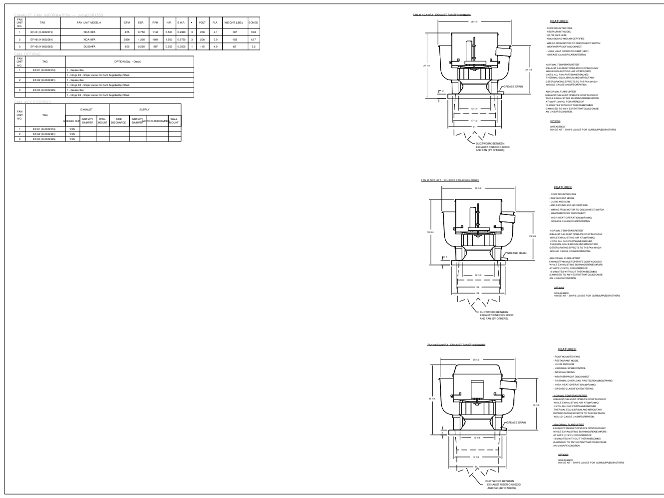


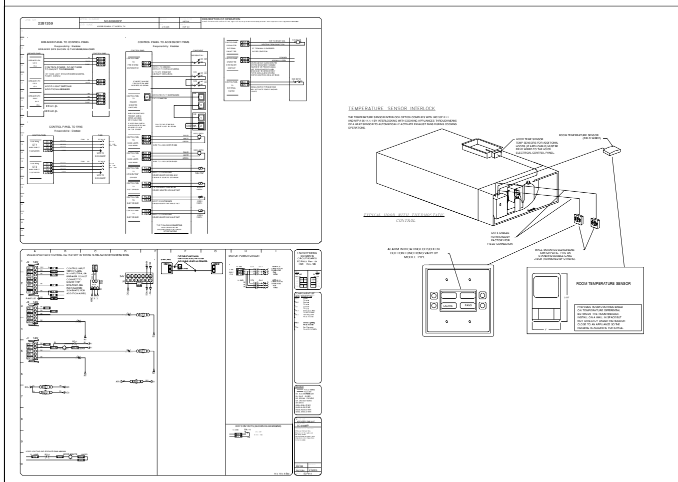
LEGEND - FIRE CABINET ANSUL SYSTEM

1A	1.5 GALLON TANK
1B	3 GALLON TANK
2	OEM AUTOMAN RELEASE
3	OEM REGULATED RELEASE
4	OEM REGULATED ACTUATOR
5	ANSULEX LIQUID AGENT (3 GAL.)
6	ANSULEX LIQUID AGENT (1.5 GAL.)
7	CARTRIDGE (101-20)
8	CARTRIDGE (101-10)
9	CARTRIDGE (101-30)
9A	CARTRIDGE (LT-A-101-30)
9B	DOUBLE TANK CARTRIDGE
10	TEST LINK
11	DOUBLE MICROSWITCH
12	HOSE ASSEMBLY
1100	DUCT NOZZLE (430913)
2W	DUCT NOZZLE (419337)
1W	NOZZLE ASSEMBLY (419336)
1F	NOZZLE ASSEMBLY (419333)
1N	NOZZLE ASSEMBLY (419335)
1/2N	NOZZLE ASSEMBLY (419334)
3N	NOZZLE ASSEMBLY (419338)
245	NOZZLE ASSEMBLY (419340)
230	NOZZLE ASSEMBLY (419339)
2120	NOZZLE ASSEMBLY (419343)
290	NOZZLE ASSEMBLY (419342)
260	NOZZLE ASSEMBLY (419341)
28	DETECTOR BRACKET
29	LOW TEMP FUSIBLE LINK
30	HIGH TEMP FUSIBLE LINK
MGV	MECHANICAL GAS VALVE
EGV	ELECTRICAL GAS VALVE
34	REMOTE MANUAL PULL STATION
S	SWIVEL ADAPTOR

NOTES
- FIELD PIPE DROPS AS SHOWN
  SLEEVING, ELBOWS, TEES, AND NOZZLES SUPPLIED BY CAS
- RELOCATE NOZZLES IF FLOW PATTERN IS BLOCKED BY SHELVING, SALAMANDERS, ETC.
- MAXIMUM 9 ELBOWS IN SUPPLY LINE.
- MINIMUM 72 INCHES OF AGENT LINE FROM TANK TO FIRST NOZZLE.
- IF APPLICABLE, PRE-PIPED CHARBROILER DROPS ARE SHIPPED LOOSE.
- FACTORY PIPING EXTENDS A MAXIMUM OF 6" ABOVE THE TOP OF THE HOOD.
- APPLIANCE DIMENSIONS LISTED REPRESENT THE COOKING SURFACE SIZE, NOT THE OVERALL APPLIANCE SIZE.
- THIS FIRE SYSTEM COMPLIES WITH U.L. 300 REQUIREMENTS

Job #: 2281359
Job Name: KROGER SW532 - FT WORTH, TX
Drawn By:
System Size: ANSUL-3.0/3.0 Total FP required: 18
Hood # 1 5' 0.00" Long x 60" Wide x 24" High
Riser # 1 Size: 9" x 9"
Hood # 2 8' 0.00" Long x 60" Wide x 24" High
Riser # 1 Size: 10" x 13"
Hood # 3 8' 0.00" Long x 60" Wide x 24" High
Riser # 1 Size: 10" x 13"





KROGER SW532 - FT WORTH, TX
KELLER, TX, 76244

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OWNER

Kroger

ISSUE/REVISION

09/04/2014
90% PROGRESS REVIEW

09/26/2014
BID/PERMIT ISSUE

1	BULLETIN NO.1	04/24/15

FOR INFORMATION ONLY

PROJECT TITLE

KROGER STORE

NEC N. Tarrant Parkway &
Ray White Rd.
Fort Worth, TX

COMMISSION NO. 514501.03

ISSUE DATE 03/27/15

SHEET TITLE

CAPTIVE AIRE DETAILS

SHEET NO.

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