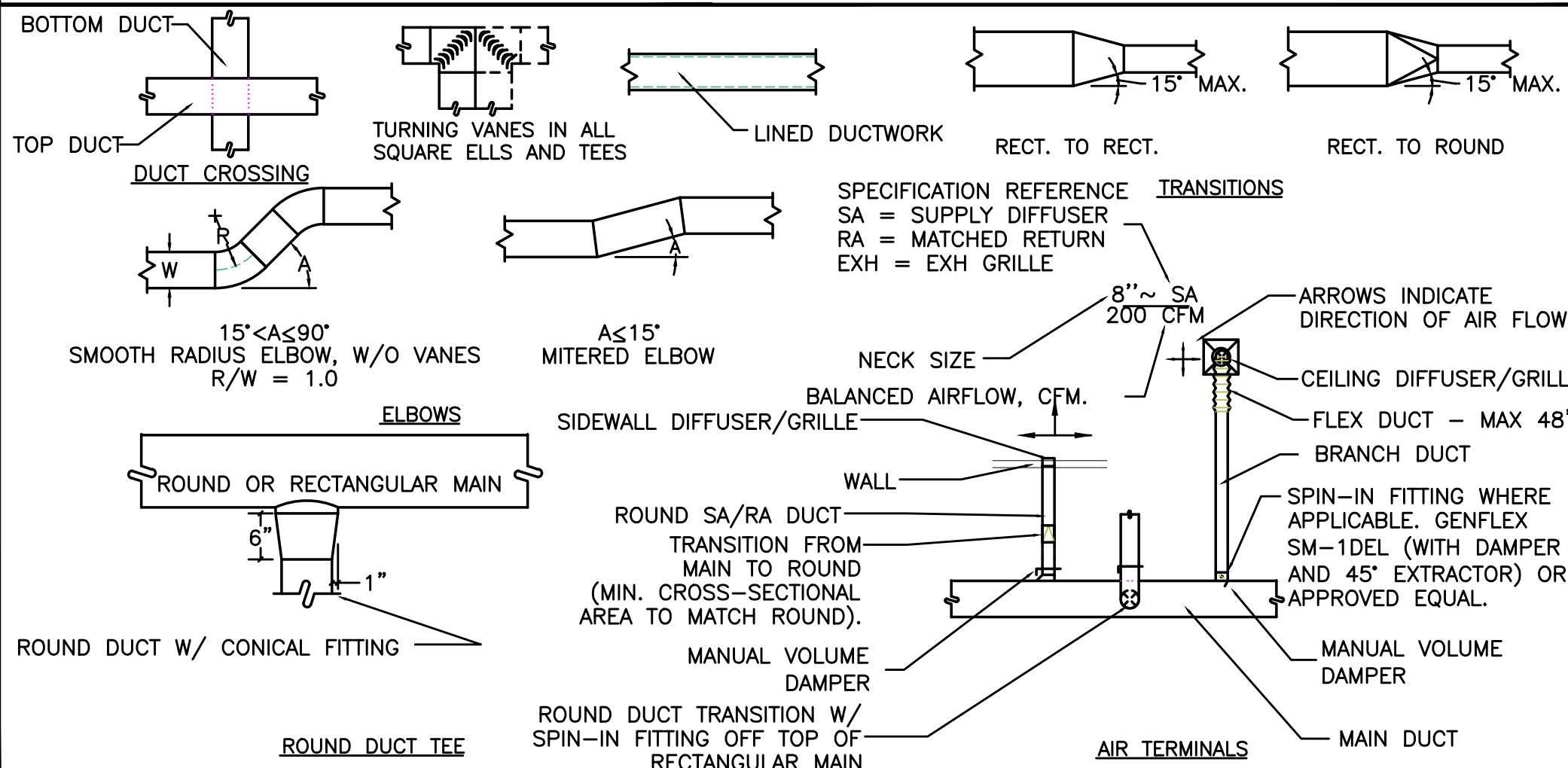


MECHANICAL LEGEND

	SUPPLY AIR DIFFUSER	AFF	ABOVE FINISH FLOOR
	RETURN AIR GRILLE	AHU	AIR HANDLING UNIT
	EXHAUST AIR GRILLE	B.D.	BOTTOM OF DUCT
	PERFORATED RETURN AIR PANEL	BHP	BRAKE HORSEPOWER
	DIRECTIONAL AIR FLOW	BTU	BRITISH THERMAL UNITS
	MANUAL VOLUME DAMPER	CFM	CUBIC FEET PER MINUTE
	SUPPLY OR OUTSIDE AIR DUCT UP & DOWN	CONN.	CONNECTION
	RETURN AIR DUCT UP & DOWN	CONT.	CONTINUATION
	EXHAUST AIR DUCT UP & DOWN	CW	DOMESTIC COLD WATER
	SUPPLY OR OUTSIDE AIR DUCT UP & DOWN	DB	DRY BULB
	RETURN AIR DUCT UP & DOWN	DIA.	DIAMETER
	EXHAUST AIR DUCT UP & DOWN	DIST.	DISTRIBUTION
	VAV TERMINAL UNIT	EA	EXHAUST AIR
	VAV TERMINAL UNIT	EDB	ENTERING DRY BULB TEMPERATURE
	VAV TERMINAL UNIT	EWB	ENTERING WET BULB TEMPERATURE
	VAV TERMINAL UNIT	EWT	ENTERING WATER TEMPERATURE
	VAV TERMINAL UNIT	FF	FINISH FLOOR
	VAV TERMINAL UNIT	FIXT.	FIXTURE
	VAV TERMINAL UNIT	FPM	FEET PER MINUTE
	VAV TERMINAL UNIT	FPS	FEET PER SECOND
	VAV TERMINAL UNIT	FT.	FEET / FOOT
	VAV TERMINAL UNIT	GA.	GAUGE
	VAV TERMINAL UNIT	GPM	GALLONS PER MINUTE
	VAV TERMINAL UNIT	H	HEIGHT
	VAV TERMINAL UNIT	HP	HORSEPOWER
	VAV TERMINAL UNIT	I.D.	INSIDE DIAMETER
	VAV TERMINAL UNIT	IN.	INCHES
	VAV TERMINAL UNIT	L	LENGTH
	VAV TERMINAL UNIT	LBS.	POUNDS
	VAV TERMINAL UNIT	LDB	LEAVING DRY BULB
	VAV TERMINAL UNIT	LWB	LEAVING WET BULB
	VAV TERMINAL UNIT	LWT	LEAVING WATER TEMPERATURE
	VAV TERMINAL UNIT	MAX.	MAXIMUM
	VAV TERMINAL UNIT	MBH	THOUSANDS OF BTUs PER HOUR
	VAV TERMINAL UNIT	MIN.	MINIMUM
	VAV TERMINAL UNIT	NC	NOISE CRITERIA
	VAV TERMINAL UNIT	N.C.	NORMALLY CLOSED
	VAV TERMINAL UNIT	N.I.M.	NOT IN MECHANICAL
	VAV TERMINAL UNIT	NO.	NUMBER
	VAV TERMINAL UNIT	N.O.	NORMALLY OPEN
	VAV TERMINAL UNIT	O.A.	OUTSIDE AIR
	VAV TERMINAL UNIT	P	PERSON
	VAV TERMINAL UNIT	PSI	POUNDS PER SQUARE INCH
	VAV TERMINAL UNIT	P/T	PRESSURE / TEMPERATURE
	VAV TERMINAL UNIT	R.A.	RETURN AIR
	VAV TERMINAL UNIT	RECT.	RECTANGULAR
	VAV TERMINAL UNIT	REQ'D	REQUIRED
	VAV TERMINAL UNIT	S.A.	SUPPLY AIR
	VAV TERMINAL UNIT	S.P.	STATIC PRESSURE
	VAV TERMINAL UNIT	SO.	SQUARE
	VAV TERMINAL UNIT	TEMP.	TEMPERATURE
	VAV TERMINAL UNIT	TYP.	TYPICAL
	VAV TERMINAL UNIT	VAV	VARIABLE AIR VOLUME
	VAV TERMINAL UNIT	W	WIDTH
	VAV TERMINAL UNIT	WB	WET BULB
	VAV TERMINAL UNIT	WPD	WATER PRESSURE DROP
	VAV TERMINAL UNIT	Ø	DIAMETER
	PRESSURE GAUGE	(E)	EXISTING
	PETE'S PLUG	(D)	DEMOLISH
	DOUBLE CHECK ASSEMBLY		NEW WORK
	PRESSURE REDUCING VALVE	HWS	(HWS) HEATING WATER SUPPLY
	UNION	HWR	(HWR) HEATING WATER RETURN
	2-WAY CONTROL VALVE		FIRE DAMPER
	3-WAY CONTROL VALVE		FIRE / SMOKE DAMPER
	CAP		SMOKE DAMPER
	SMOKE DETECTOR		SEISMIC BRACING
	MOTORIZED DAMPER		LATERAL BRACING
			LONGITUDINAL BRACING
			LONGITUDINAL & LATERAL BRACING

AIR DISTRIBUTION DETAILS



VENTILATION AIR SCHEDULE

ROOM NUMBER AND NAME	AREA (SQ. FT.)	OCCUPANT LOAD (#/1000 SQ. FT.)	NUMBER OF OCCUPANTS	OUTSIDE AIR REQUIREMENT (CFM/P)	OUTSIDE AIR REQUIREMENT (CFM/SQ FT.)	OUTSIDE AIR REQUIRED (CFM)	BATHROOM EXHAUST (CFM)
	Az		Pz	Rp	Ra	Vbz	
Residential Units							
Townhouse 2 BED 1.5 BA			3	15		45	60
							90
Townhouse 3 BED 2 BA			4	15		60	60
							90
2 BED 1 BA			3	15		45	45/60
							EF-3: LOW SPEED CONTINUOUS/ HIGH SPEED WITH MOTION SENSOR
ADA Suite: 3 BED 1.5 BA			3	15		45	60
							90
							EF-1: CONTINUOUS EF-2: ON/OFF WITH MOTION SENSOR

VENTILATION AIR SCHEDULE

ROOM NUMBER AND NAME	AREA (SQ. FT.)	OCCUPANT LOAD (#/1000 SQ. FT.)	NUMBER OF OCCUPANTS	OUTSIDE AIR REQUIREMENT (CFM/P)	OUTSIDE AIR REQUIREMENT (CFM/SQ FT.)	OUTSIDE AIR REQUIRED (CFM)		ZONE OSA (CFM)	SUPPLY AIR (CFM)	PRIMARY OSA FRACTION	RETURN AIR (CFM)	EXHAUST AIR (CFM)	AIR SYSTEMS
	Az		Pz	Rp	Ra	Vbz	Ez	Voz	Vpz	Zp			
OFFICE SPACE	460	5	3	5	0.06	43	1.0	43	800	0.05	800	0	FC-2/OHP-10
COMMUNITY ROOM	1215	50	61	5	0.06	378	1.0	378	1200	0.31	1200	0	FC-1/OHP-9
CORRIDORS 312	1187	0	0	0	0.06	71	1.0	71	900	0.08	0	0	RTU-3
CORRIDORS 412	760	0	0	0	0.06	46	1.0	46	200	0.23	0	0	RTU-1
LAUNDRY 415	260	20	6	7.5	0.06	61	1.0		400			0	RTU-1
JANITORIAL 413	110	0	0	0	0	0	1.0					75	RTU-1
TRASH/RECYLING 417	225	0	0	0	0	0	1.0		150			550	RTU-1
ELECT ROOM 414	125	0	0	0	0.12	15	1.0	15	50	0.30	0	0	RTU-1
CORRIDORS 312	760	0	0	0	0.06	46	1.0	46	200	0.23	0	0	RTU-1
LAUNDRY 315	260	20	6	7.5	0.06	61	1.0		400			0	RTU-1
JANITORIAL 313	110	0	0	0	0	0	1.0					75	RTU-1
TRASH/RECYLING 317	225	0	0	0	0	0	1.0		150			550	RTU-1
ELECT ROOM 314	125	0	0	0	0.12	15	1.0	15	50	0.30	0	0	RTU-1
CORRIDORS 212	760	0	0	0	0.06	46	1.0	46	200	0.23	0	0	RTU-1
LAUNDRY 215	260	20	6	7.5	0.06	61	1.0		400			0	RTU-1
JANITORIAL 213	110	0	0	0	0	0	1.0					75	RTU-1
TRASH/RECYLING 217	225	0	0	0	0	0	1.0		150			550	RTU-1
ELECT ROOM 214	125	0	0	0	0.12	15	1.0	15	50	0.30	0	0	RTU-1
TOTAL									2400			1875	
CORRIDORS 402	760	0	0	0	0.06	46	1.0	46	300	0.15	0	0	RTU-2
CORRIDORS 302	760	0	0	0	0.06	46	1.0	46	300	0.15	0	0	RTU-2
CORRIDORS 202	760	0	0	0	0.06	46	1.0	46	300	0.15	0	0	RTU-2
LOBBY 401, 301, 201,101	3823	0	0	0	0.06	229	1.0	229	400	0.57	0	0	RTU-2
TOTAL									1300				

VENTILATION CALCULATIONS:

ALL DWELLING UNITS ARE VENTILATED BY MECHANICAL VENTILATION, SIZED FOR:
30 CFM ON 1 BEDROOM UNITS
45 CFM ON 2 BEDROOMS UNITS
60 CFM ON 3 BEDROOMS UNITS

FRESH AIR INTO UNITS WITH PTACS ARE PROVIDED DIRECTLY THROUGH PTACS.

FRESH AIR INTO UNITS WITH SPLIT SYSTEMS ARE PROVIDED FROM VENTILATION INTAKE INLETS (AMERICAN ALDES AIRLET TL96).

COMMON SPACES AND HALLWAYS ARE VENTILATED BY PACKAGED ROOF TOP UNITS PROVIDING 100% OUTSIDE AIR THAT FAR EXCEEDS THE MINIMUM 0.06 SQFT REQUIREMENT.

SEE VENTILATION SCHEDULES FOR ALL OTHER COMMON SPACES WITH DEDICATED HVAC/VENTILATION SYSTEMS.

ROOFTOP HVAC UNITS

MARK NUMBER		RTU 1	RTU 2	RTU 3
SYSTEM		WEST HALLWAYS	NORTH HALLWAYS	EAST HALLWAYS
TYPE		C.V.	C.V.	C.V.
DISCHARGE		VERTICAL	VERTICAL	VERTICAL
FAN SECTION	TOTAL CFM	2400	1300	900
	ECONOMIZER	NONE-100% OSA	NONE-100% OSA	NONE-100% OSA
	MIN. OSA	-	-	-
	MAX OSA (FULL OCCUPANCY)	NA	NA	NA
	CO2 CONTROL	NA	NA	NA
	EXTERNAL SP. ("H2O)	1.20"	1.0"	0.75
	TOTAL SP. ("H2O)	---	---	---
	RPM	1007	1007	1007
	WHEEL TYPE/ SIZE	F.C. 10X10(DIRECT)	F.C. 1X010 (DIRECT)	F.C. 10X10 (DIRECT)
	MOTOR HP.	2.5, NOTE 1	1.0, NOTE 1	0.50" NOTE 1
POWER EXH FAN/ACCESSORY		NONE	NONE	NONE
FILTER TYPE		2"- 30%	2"- 30%	2"- 30%
HEATING	GAS INPUT/OUTPUT (MBH)	150 / 120	150 / 117	115/ 89
	EFF. (AFUE)	80.0%	78.8%	78.5%
	STAGES/TYPE	2-S.S. HIGH HEAT	1-S.S. HIGH HEAT	2-S.S. HIGH HEAT
COOLING	TOTAL CLG. (TONS)	6.0	4.0	3
	SENSIBLE CLG. (MBH)	70	34.58	28
	ENT. EVAP AIR TEMP (DB/WB.)	90/67	90/67	90/67
	LVG. EVAP AIR TEMP (DB/WB.)	55/54	55/54	55/54
	AMBIENT AIR (°F)	95	95	95
	EER/SEER	11 SEER	13.0 SEER	13.0 SEER
	REFRIGERANT	410A	410A	410A
DESIGN WEIGHT (LBS.)		750	650	600
SMOKE DETECTOR (RETURN DUCT)		NO	NO	NO
SPRING ISOLATION ROOF CURB		YES	YES	YES
CONVENIENCE OUTLET - ALWAYS POWERED		YES	YES	YES
VOLTAGE/PHASE		208/3	208/1	208/1
BASIS OF DESIGN - CARRIER MODEL		48TCTA07	48TCTA05	48TCTA04

NOTES:
1. PROVIDE WITH HIGH STATIC FAN.

PRELIMINARY
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CONSTRUCTION

KING+PARKS MULTI-FAMILY RESIDENCES

PROJECT SITE: NE Martin Luther King Jr. Boulevard & N Rosa Parks Way
OWNER: Portland Community Reinvestment Initiatives Inc. (PCRI)
6329 NE Martin Luther King Jr. Blvd. Portland, Oregon 97211

PROJECT NO. 16-0602
ISSUE DATE 06.23.2017

REVISIONS

SHEET

MECHANICAL LEGENDS
AND SCHEDULES

M6.0

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PRICING SET

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MERRYMAN BARNES ARCHITECTS
Consulting Engineers
2007 S.E. Ash St.
Portland, OR 97214
PHN: (503) 234-0548
FAX: (503) 234-0677
WWW.MFIA-ENG.COM
CONTACT: Takako Baker