

MECHANICAL SPECIFICATIONS	
SYSTEMS NOTE	CONTRACTOR NOTE
1. TEMPERATURE CONTROLS: A. FOR NEW STANDALONE UNITS, THERMOSTAT SHALL BE COMBINATION COOLING/HEATING, WITH SYSTEM "COOL-AUTO-HEAT-OFF" AND FAN "ON-AUTO" SELECTOR SWITCHES, PROVIDE PROGRAMMABLE TYPE AS RECOMMENDED BY MANUFACTURER, HONEYWELL OR EQUAL. PROVIDE SOFTWARE LOCK AND/OR TAMPER PROOF COVERS AS COORDINATED WITH OWNER/END USER. B. FOR EXISTING EQUIPMENT, SHALL BE SERVICED AND RELOCATED AS SHOWN; IF NEW THERMOSTAT IS PROVIDED IT SHALL MATCH BUILDING STANDARDS. C. POWER PROVISIONING: SHALL BE FURNISHED AND INSTALLED BY ELEC. CONTRACTOR UNLESS OTHERWISE NOTED; CONTROL WIRING BY MECH/CONTROL CONTRACTOR. - 24V TRANSFORMER SHALL BE PROVIDED BY MANUFACTURER FOR ALL UNITS/EQUIPMENT THAT REQUIRE CONTROL POWER FOR UNITARY CONTROLS, IF NOT OTHERWISE NOTED. - 120V POWER AS REQUIRED BY SYSTEM CONTROLLERS SHALL BE PROVIDED/COORDINATED BY ELEC. CONTRACTOR WITH MEC. AND CONTROLS CONTRACTORS. 2. THERMOSTAT LOCATION SHALL BE APPROVED BY OWNER AND ENGINEER BEFORE INSTALLATION. INSTALL THERMOSTAT PER AIA REQUIREMENTS WHERE APPLICABLE; MAX .48" HIGH FOR FORWARD READING, MAX .48" HIGH FOR SIDE READING. MECHANICAL CONTRACTOR SHALL COORDINATE WITH ELECTRICAL CONTRACTOR ALL REQUIREMENTS FOR JUNCTION BOXES, CONDUITS, CONTROL WIRING, POWER, ETC. AND DEFINE RESPONSIBILITIES AND SCOPE OF WORK FOR EACH TRADE PRIOR TO PURCHASING/INSTALLATION. SPECIAL NOTE: WHEREVER THERE ARE MORE THAN ONE SENSOR OR THERMOSTAT, SITE NO. TYPE, THEY SHALL BE GANGED TOGETHER WITHIN THE SAME COVER PLATE WHEREEVER POSSIBLE. CONTRACTOR SHALL COORDINATE THIS ISSUE WITH ARCHITECT/OWNER PRIOR TO INSTALLATION AND SHALL BRING ANY DISCREPANCY TO THE ENGINEER'S ATTENTION. 3. REFLECTING LINES SHALL BE COPPER, TYPE "L" HARD DRAWN WITH BROUGHT COPPER BRAZING-JOINT TYPE FITTINGS, USE BRASSING MATERIALS FOR HIGH PRESSURE PIPING PER AWS AGS. B30P SEALS. COPPER-PHOSPHOR ALLOY OR SNAI SILVER ALLOY. REFLECTANT LINES SHALL BE SIZED PER MANUFACTURER'S RECOMMENDATIONS; SOFT COPPER TYPE "M" SHALL BE ALLOWED FOR RISER PIPING INSIDE CONDENSATE DRAIN NUMBER OF JOINTS COORDINATED BY ENGINEER FOR RIGID APPROVAL. ALL GASED INSULATION SHALL BE PROTECTED WITH A PROTECTIVE, PUNCTURE AND TEAR RESISTANT ADHESIVE SYSTEM, EQUIVALENT TO "VENTURE CLAD" AND COMPLY WITH FMC 2020, SEC.1101.3 PROTECTION. PIPING INSULATION EXPOSED TO WEATHER SHALL BE PROTECTED WITH AN OVERLAP OF TWO INCHES TO ELIMINATE MOISTURE. EQUIPMENT WINDINGS AND WIND, AND SHALL PROVIDE SHIELDING FROM SOLAR RADIATION THAT CAN CAUSE DEGRADATION OF THE MATERIAL. (ADHESIVE TAPE SHALL NOT BE PERMITTED) COMPLIANT WITH FMC 2020, SEC. C403.2.10. 4. "AIRWAYS" OR EQUAL INSULATION SHALL BE USED FOR SECTION REPRESENT LINES WITH THICKNESS PER FLUORO ENERGY CODE TABLE C403.2.10, FILTER/DROPTOP AND SIGHT GLASS SHALL BE PROVIDED AT LIQUID LINES. 5. PROVIDE NEW FILTERS FOR ALL AIR CONDITIONING EQUIPMENT BEFORE START-UP, REPLACE PRIOR TO FINAL INSPECTION, BY OWNER. 6. HVAC CONTRACTOR SHALL PROVIDE VENTILATION CONTROLS COMPLIANT WITH FMC 2020, SEC. 403 AND 406. FOR ALL SYSTEMS AND SHALL VERIFY EXISTING CONDITIONS FOR COMPLIANCE, AS REQUIRED, FOR A FULLY OPERATIONAL SYSTEM. 7. MECHANICAL EQUIPMENT ON ROOF OR ELEVATED STRUCTURES SHALL COMPLY WITH FMC 2020 PAR. 306.5 IF INSTALLED HEIGHT MORE THAN 10 FEET A.F.T. MECHANICAL EQUIPMENT INSTALLED IN ATTICS SHALL MEET THE REQUIREMENTS OF FMC 2020 PAR. 306.3 IF THE EQUIPMENT CAN NOT BE SERVICED/REMOVED THROUGH EXISTING OPENING. MECHANICAL EQUIPMENT SHALL BE PROTECTED WITH MECHANICAL BARRIERS IF EXPOSED TO WEATHER DAMAGE. ALL EQUIPMENT SHALL BE INSTALLED ON CONCRETE PAD AT GRADE LEVEL, SIZED PER STRUCTURAL PLANS. SPECIAL NOTE: ALL WIND LOAD AND OTHER COMPLIANCE CALCULATIONS AND/OR INSTALLATION DETAILS FOR OUTDOOR MOUNTED MECHANICAL EQUIPMENT AS REQUIRED BY FMC 2020, SEC. 1022 AND CHAPTER 16, SHALL BE PROVIDED BY A STRUCTURAL ENGINEER AND ARE SHOWN ON THESE PLANS FOR REFERENCE ONLY. SUCH CALCULATIONS SHALL BE PROVIDED BY THE EQUIPMENT MANUFACTURER OR BY THE GENERAL OR MECHANICAL CONTRACTOR ON BEHALF OF CLIENT. CONTRACTOR TO PROVIDE WIND LOAD CALCULATIONS SIGNED AND SEALED BY A FLORIDA REGISTERED STRUCTURAL ENGINEER. BELONGERS FOR COMPLIANCE WITH SEC. 301.6 OF FMC 2020, INCLUDING ANY DOCUMENTATION REQUIRED BY JURISDICTION FOR PERMIT PURPOSES. 8. PROVIDE A MIN. OF 36" CLEARANCE IN FRONT OF ALL 120-208/240 VOLT PANELS AND MIN. 42" CLEARANCE IN FRONT OF ANY 277-480 VOLT PANEL. PROVIDE ADEQUATE SIZE CLEARANCE PER NEC 110.28. 9. MECHANICAL PLANS IN GENERAL ARE DIAGRAMMATIC IN NATURE, AND ARE TO BE READ IN CONJUNCTION WITH ARCHITECTURAL, PLUMBING, ELECTRICAL, FIRE SPRINKLER, AND STRUCTURAL PLANS SHALL BE CONSIDERED AS ONE SET OF DOCUMENTS. DUCT AND PIPING OFFSETS, RISERS AND TRANSITIONS SHALL BE REQUIRED TO PROVIDE AND INSTALL A COMPLETE FUNCTIONAL SYSTEM AND SHALL BE PROVIDED BY THE CONTRACTOR AT NO ADDITIONAL COST TO THE OWNER. CHANGES IN DUCTWORK SIZE AND ROUTE WILL BE REQUIRED BY AUTO. STRUCTURAL, PLUMBING, FIRE SPRINKLER AND ARCHITECTURAL. BUILDING FEATURES, DUCTWORK CHANGES MAY BE MADE BY CONTRACTOR USING EQUIPMENT SIZED TO DOCT. CONTACT ENGINEER DUCT AREA WILL NOT FIT. 10. CONDENSATE DRAIN PIPING TO BE AS SPECIFIED PER PLUMBING PLANS. IF NOT SPECIFIED THEY SHALL BE TYPE "L" COPPER OR PVC WHERE ALLOWED BY CODE WITH INSULATION THICKNESS PER FMC 2020 TABLE C403.2.11. WATER LEAK DETECTOR OR FLOAT SWITCH TO AUTOMATICALLY SHUT DOWN THE AIR COND. UNIT. AS A SECONDARY DRAIN SYSTEM TO COMPLY WITH FMC 2020, SEC. 307.3 SUPPLY CONDENSATE PUMP, WHERE NECESSARY AS IMPOSED BY FIELD CONDITIONS OR INSTALLATION CHANGES AND PIPE TO CONDENSATE DRAIN PER PLUMBING PLANS. 11. CLEANLINESS FOR MAINTENANCE, SERVICE, REPAIRS, AND REPLACEMENT FOR ALL MECHANICAL EQUIPMENT SHALL BE PROVIDED TO COMPLY WITH FMC 2020, SEC. 306. SERVICE ACCESS PANELS FOR MEDIA EQUIPMENT IN CONCEALED SPACES SHALL BE PROVIDED TO COMPLY WITH THE REQUIREMENTS OF SEC. 306. 12. CORROSION CONTROL: CONTRACTOR SHALL PROVIDE CORROSION CONTROL TO CONDENSER/EVAPORATOR COILS, EQUIPMENT CASINGS/CABINETS AND ALL EXPOSED COPPER PIPING/COMPRESSORS/CONDENSER SECTION, AS WELL AS LINE AND INSULATED WITH RUSTPROOF METAL FINISH. PROTECTIVE COATINGS BY BLOKOD, LUVATA, ADVANTAGE OR APPROVED EQUAL WITH STANDARD 5-YEAR WARRANTY. 13. MATERIALS ALLOWED IN RETURN AIR PLenums OR ABOVE CEILING: USE RETURN AIR PLeNUM SHALL COMPLY WITH FMC 2020, SEC. 602.2.1. IF SPACE WITH RETURN AIR PLeNUM HAS ANY DECK TO DECK PARTITIONS, AIR TRANSFER DUCTS MUST BE INSTALLED, WITH RETURN PIPING TO BE USED FOR SPRINKLER SYSTEMS, THE R/A GRATES LAYOUT SHALL BE (FIELD) COORDINATED WITH SUCH PIPING SO THAT NO PORTION OF THE GRATES WILL BE DIRECTLY BELOW THE OPVC PIPING. STUD CAVITIES AND JUST SPACE PLenums SHALL COMPLY WITH FMC 2020, SEC. 602.3.	THE CONTRACTOR SHALL FURNISH ALL LABOR, MATERIALS, AND EQUIPMENT NECESSARY FOR THE INSTALLATION OF A COMPLETE SYSTEM IN ACCORDANCE WITH THESE DRAWINGS, THE FLORIDA BUILDING CODE 2020 AND ALL OTHER APPLICABLE STATE, COUNTY AND LOCAL ORDINANCES, AND THE LATEST EDITION OF THE FOLLOWING PUBLICATIONS: SMACNA/HVAC-2016, SMACNA/REF-2016, ASHRAE 154-2016, ASHRAE 155-2016, ASHRAE 156-2016, ASHRAE 157-2016, ASHRAE 158-2016, ASHRAE 159-2016, ASHRAE 160-2016, ASHRAE 161-2016, ASHRAE 162-2016, ASHRAE 163-2016, ASHRAE 164-2016, ASHRAE 165-2016, ASHRAE 166-2016, ASHRAE 167-2016, ASHRAE 168-2016, ASHRAE 169-2016, ASHRAE 170-2016, ASHRAE 171-2016, ASHRAE 172-2016, ASHRAE 173-2016, ASHRAE 174-2016, ASHRAE 175-2016, ASHRAE 176-2016, ASHRAE 177-2016, ASHRAE 178-2016, ASHRAE 179-2016, ASHRAE 180-2016, ASHRAE 181-2016, ASHRAE 182-2016, ASHRAE 183-2016, ASHRAE 184-2016, ASHRAE 185-2016, ASHRAE 186-2016, ASHRAE 187-2016, ASHRAE 188-2016, ASHRAE 189-2016, ASHRAE 190-2016, ASHRAE 191-2016, ASHRAE 192-2016, ASHRAE 193-2016, ASHRAE 194-2016, ASHRAE 195-2016, ASHRAE 196-2016, ASHRAE 197-2016, ASHRAE 198-2016, ASHRAE 199-2016, ASHRAE 200-2016, ASHRAE 201-2016, ASHRAE 202-2016, ASHRAE 203-2016, ASHRAE 204-2016, ASHRAE 205-2016, ASHRAE 206-2016, ASHRAE 207-2016, ASHRAE 208-2016, ASHRAE 209-2016, ASHRAE 210-2016, ASHRAE 211-2016, ASHRAE 212-2016, ASHRAE 213-2016, ASHRAE 214-2016, ASHRAE 215-2016, ASHRAE 216-2016, ASHRAE 217-2016, ASHRAE 218-2016, ASHRAE 219-2016, ASHRAE 220-2016, ASHRAE 221-2016, ASHRAE 222-2016, ASHRAE 223-2016, ASHRAE 224-2016, ASHRAE 225-2016, ASHRAE 226-2016, ASHRAE 227-2016, ASHRAE 228-2016, ASHRAE 229-2016, ASHRAE 230-2016, ASHRAE 231-2016, ASHRAE 232-2016, ASHRAE 233-2016, ASHRAE 234-2016, ASHRAE 235-2016, ASHRAE 236-2016, ASHRAE 237-2016, ASHRAE 238-2016, ASHRAE 239-2016, ASHRAE 240-2016, ASHRAE 241-2016, ASHRAE 242-2016, ASHRAE 243-2016, ASHRAE 244-2016, ASHRAE 245-2016, ASHRAE 246-2016, ASHRAE 247-2016, ASHRAE 248-2016, ASHRAE 249-2016, ASHRAE 250-2016, ASHRAE 251-2016, ASHRAE 252-2016, ASHRAE 253-2016, ASHRAE 254-2016, ASHRAE 255-2016, ASHRAE 256-2016, ASHRAE 257-2016, ASHRAE 258-2016, ASHRAE 259-2016, ASHRAE 260-2016, ASHRAE 261-2016, ASHRAE 262-2016, ASHRAE 263-2016, ASHRAE 264-2016, ASHRAE 265-2016, ASHRAE 266-2016, ASHRAE 267-2016, ASHRAE 268-2016, ASHRAE 269-2016, ASHRAE 270-2016, ASHRAE 271-2016, ASHRAE 272-2016, ASHRAE 273-2016, ASHRAE 274-2016, ASHRAE 275-2016, ASHRAE 276-2016, ASHRAE 277-2016, ASHRAE

MECHANICAL SHEET INDEX	
SHEET #	DESCRIPTION
M-1	MECHANICAL NOTES, LEGEND, INDEX & PLAN
M-2	MECHANICAL PLAN
M-3	MECHANICAL PLAN
M-4	MECHANICAL SCHEDULES & DETAILS

LEGEND	
	NEW S/A CEILING DIFFUSER
	NEW R/A CEILING GRILLE
	EXISTING S/A CEILING DIFFUSER
	EXISTING R/A CEILING GRILLE
	VOLUME CONTROL DAMPER
	REDUCER OR INCREASE
	NEW FLEX DUCT
	NEW DUCTWORK
	BELLMOUTH TAP
	CEILING EXHAUST FAN
	SUPPLY AIR DIFFUSER OR GRILLE DESIGNATION
	RETURN/EXHAUST AIR DIFFUSER OR GRILLE DESIGNATION
	EQUIPMENT TAG
	THERMOSTAT
	SUPPLY AIR
	RETURN AIR
	DOOR UNDER CUT

HVAC ABBREVIATION LEGEND	
AFF	ABOVE FINISH FLOOR
AHU	AIR HANDLING UNIT
CU	CONDENSING UNIT
EAG	EXHAUST AIR GRILLE
EF	EXHAUST FAN
EXH	EXHAUST
E/A	EXHAUST AIR
S/A	SUPPLY AIR
N	NEW
E	EXISTING
GR	GRILLE
R/A	RETURN AIR
RAG	RETURN AIR GRILLE
O/A	OUTSIDE AIR
M/A	MAKE-UP AIR
WMS	WIRE MESH SCREEN
CG	CEILING
BDO	BACK DRAFT DAMPER
RE	RELOCATED

EXHAUST AIR CALCULATIONS							
SPACE SERVED OR UNIT TAG	SPACE AREA (SQ. FT.)	SPACE HEIGHT (FT.)	SPACE VOLUME (CUFT.)	VENT. REQD. AC/HR OR CFM	TOTAL CFM REQUIRED	TOTAL CFM PROVIDED	EXHAUST FAN
GUEST ROOM BATHROOM	32	-	-	50 CFM/N/C.	50	50	EF-1
NEW 2ND MASTER POWDER Rm.	32	-	-	50 CFM/N/C.	50	50	EF-1
NEW 2ND MASTER SHOWER Rm.	170	-	-	50 CFM/N/C.	50	50	EF-1
NEW POWDER Rm.	32	-	-	50 CFM/N/C.	50	50	EF-1
NEW MASTER POWDER Rm.	32	-	-	50 CFM/N/C.	50	50	EF-1
NEW MASTER SHOWER Rm.	135	-	-	50 CFM/N/C.	50	50	EF-1
NEW BATH #1 SHOWER Rm.	81	-	-	50 CFM/N/C.	50	50	EF-1
NEW BATH #1 POWDER Rm.	16	-	-	50 CFM/N/C.	50	50	EF-1
NEW BATHROOM #2	75	-	-	50 CFM/N/C.	50	50	EF-1
TOTAL	604.0				450.0	450.0	

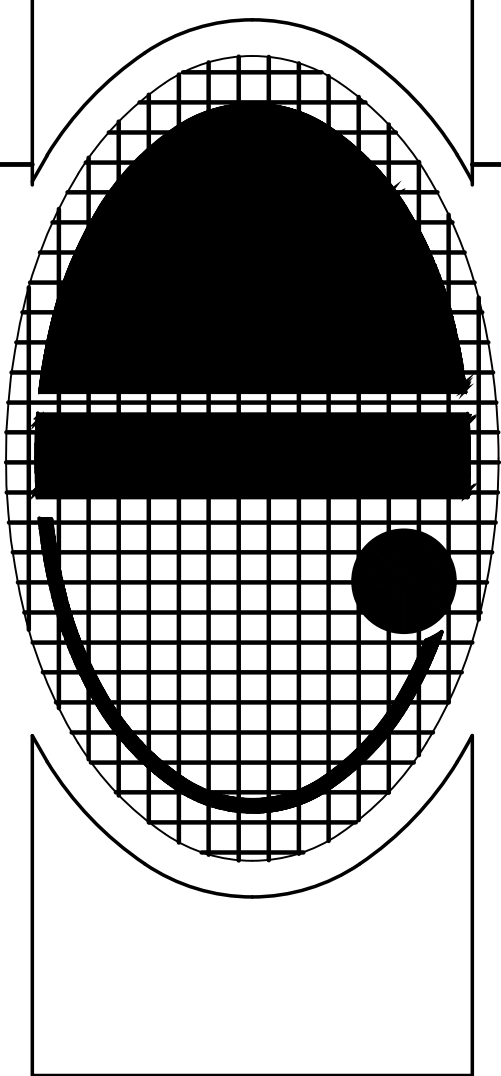
NOTES:
 1. CALCULATIONS ARE BASED ON LOCAL CODE REQUIREMENTS, FBC-2020 AND ICC.

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[illegible]

RENOVATION AND ADDITION
FOR:
CHRISTOPHER AND LISA MONTERO
LOCATED AT:
6445 SW 107 STREET
VILLAGE OF PINECREST, FLORIDA

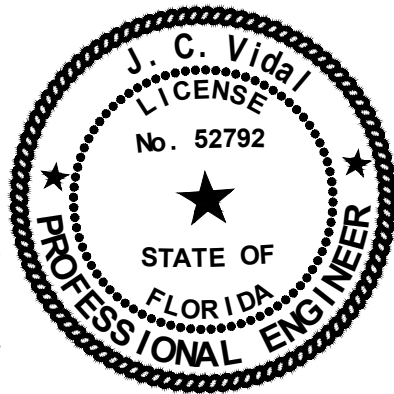
J L D
ARCHITECT
CORPORATION
AA-26003440
8592 s.w. 169th terrace
miami, florida 33157
(305) 310-5992



JOSE L. DIAZ, ARCHITECT
AR-0015547

DRAWN
CHECKED
DATE 11/14/22
SCALE
JOB NO.
SHEET

M-1 }
OF SHEETS



PSI
ENGINEERING INC.

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DRAWN

CHECKED
DATE 11/14/22

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SCALE _____

JOB NO. _____

SHEET _____

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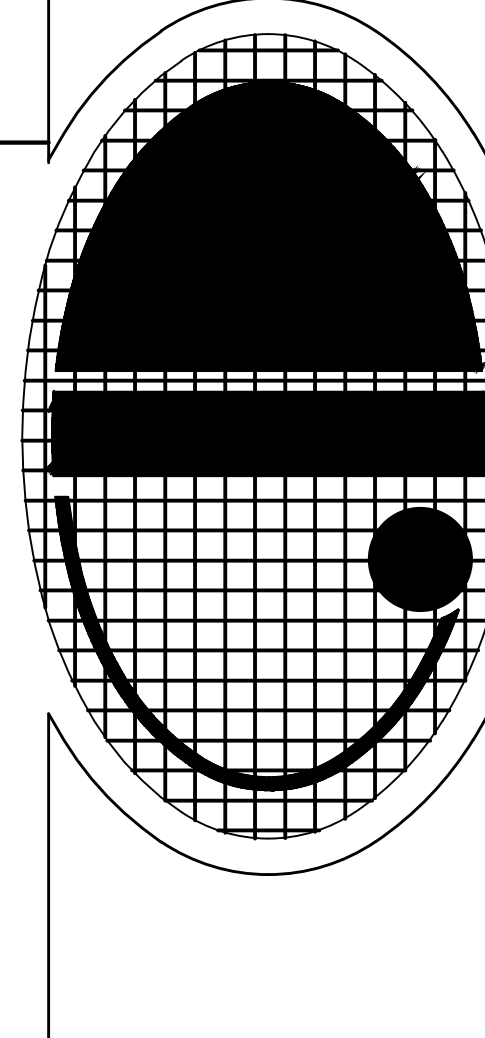
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OF SHEETS

REVISION	BY
△ DWYER REV. 11-26-2025	
△ B.D.C. 03-31-2026	

RENOVATION AND ADDITION
FOR:
CHRISTOPHER AND LISA MONTERO
LOCATED AT:
6445 SW 107 STREET
VILLAGE OF PINECREST, FLORIDA

J.L.D.
ARCHITECT
CORPORATION
AA-26003440
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miami, florida 33157
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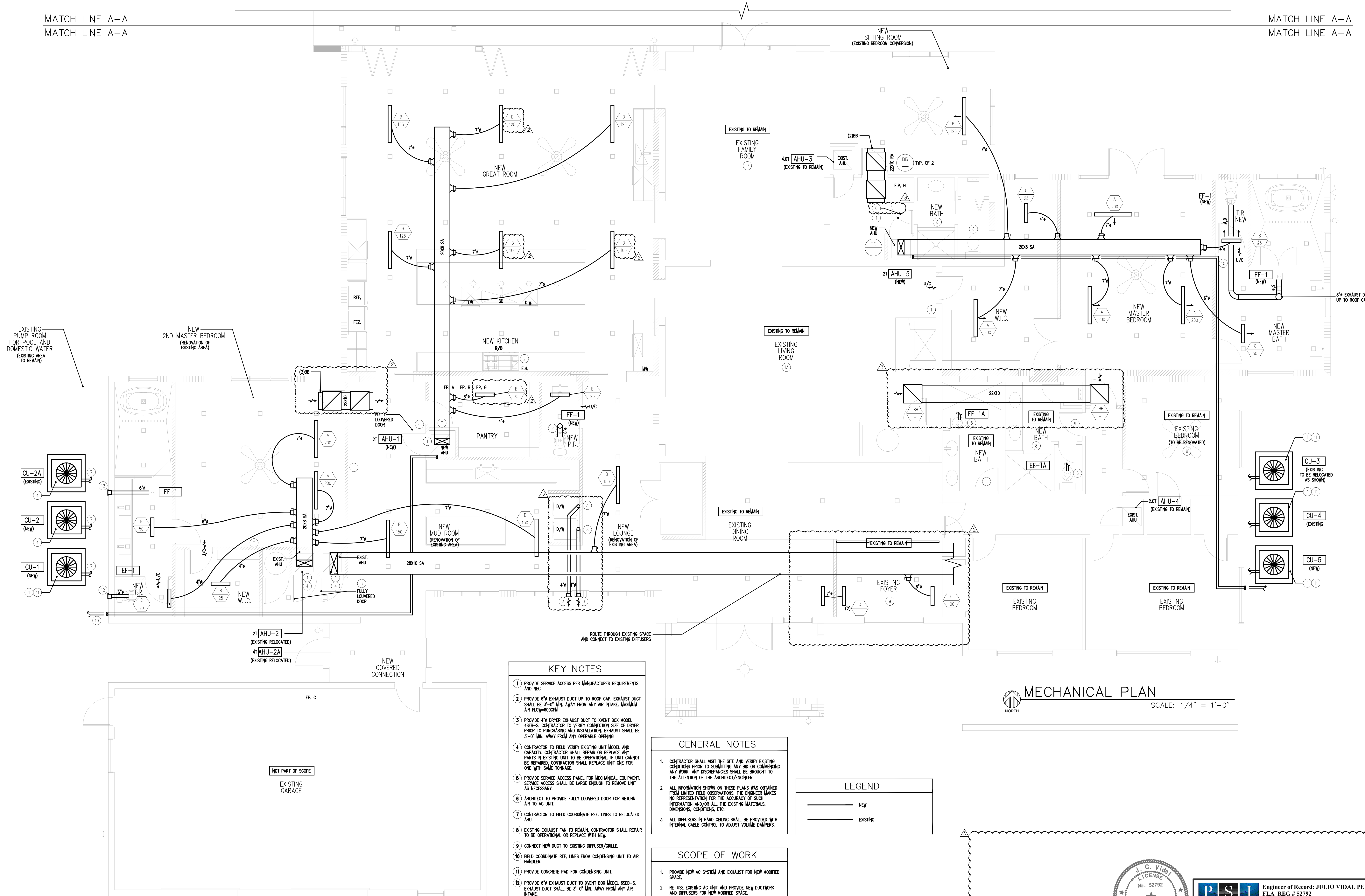


JOSE L. DIAZ, ARCHITECT
AR-0015547

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SCALE	
JOB NO.	
SHEET	
M-2	
OF	SHEETS

MATCH LINE A-A
MATCH LINE A-A

MATCH LINE A-A
MATCH LINE A-A



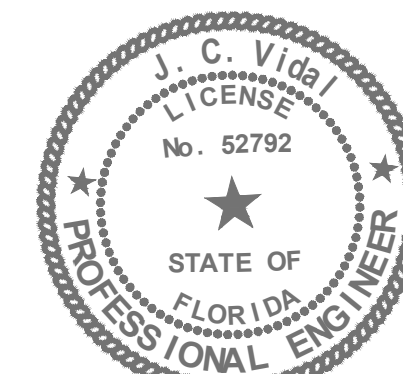
- KEY NOTES**
1. PROVIDE SERVICE ACCESS PER MANUFACTURER REQUIREMENTS AND NEC.
 2. PROVIDE 6" EXHAUST DUCT UP TO ROOF CAP. EXHAUST DUCT SHALL BE 3'-0" MIN. AWAY FROM ANY AIR INTAKE. MAXIMUM AIR FLOW=800CFM.
 3. PROVIDE 4" DRYER EXHAUST DUCT TO VENT BOX MODEL 45B-S. CONTRACTOR TO VERIFY CONNECTION SIZE OF DRYER PRIOR TO PURCHASING AND INSTALLATION. EXHAUST SHALL BE 3'-0" MIN. AWAY FROM ANY OPERABLE OPENING.
 4. CONTRACTOR TO FIELD VERIFY EXISTING UNIT MODEL AND CAPACITY. CONTRACTOR SHALL REPAIR OR REPLACE ANY PARTS IN EXISTING UNIT TO BE OPERATIONAL. IF UNIT CANNOT BE REPAIRED, CONTRACTOR SHALL REPLACE UNIT ONE FOR ONE WITH SAME TONNAGE.
 5. PROVIDE SERVICE ACCESS PANEL FOR MECHANICAL EQUIPMENT. SERVICE ACCESS SHALL BE LARGE ENOUGH TO REMOVE UNIT AS NECESSARY.
 6. ARCHITECT TO PROVIDE FULLY LOUVERED DOOR FOR RETURN AIR TO AC UNIT.
 7. CONTRACTOR TO FIELD COORDINATE REF. LINES TO RELOCATED AHU.
 8. EXISTING EXHAUST FAN TO REMAIN. CONTRACTOR SHALL REPAIR TO BE OPERATIONAL OR REPLACE WITH NEW.
 9. CONNECT NEW DUCT TO EXISTING DIFFUSER/GRILLE.
 10. FIELD COORDINATE REF. LINES FROM CONDENSING UNIT TO AIR HANDLER.
 11. PROVIDE CONCRETE PAD FOR CONDENSING UNIT.
 12. PROVIDE 6" EXHAUST DUCT TO VENT BOX MODEL 65B-S. EXHAUST DUCT SHALL BE 3'-0" MIN. AWAY FROM ANY AIR INTAKE.

- GENERAL NOTES**
1. CONTRACTOR SHALL VISIT THE SITE AND VERIFY EXISTING CONDITIONS PRIOR TO SUBMITTING ANY BID OR COMMENCING ANY WORK. ANY DISCREPANCIES SHALL BE BROUGHT TO THE ATTENTION OF THE ARCHITECT/ENGINEER.
 2. ALL INFORMATION SHOWN ON THESE PLANS WAS OBTAINED FROM LIMITED FIELD OBSERVATIONS. THE ENGINEER MAKES NO REPRESENTATION FOR THE ACCURACY OF SUCH INFORMATION AND/OR ALL THE EXISTING MATERIALS, DIMENSIONS, CONDITIONS, ETC.
 3. ALL DIFFUSERS IN HARD CEILING SHALL BE PROVIDED WITH INTERNAL CABLE CONTROL TO ADJUST VOLUME DAMPERS.

- SCOPE OF WORK**
1. PROVIDE NEW AC SYSTEM AND EXHAUST FOR NEW MODIFIED SPACE.
 2. RE-USE EXISTING AC UNIT AND PROVIDE NEW DUCTWORK AND DIFFUSERS FOR NEW MODIFIED SPACE.

LEGEND
— NEW
— EXISTING

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

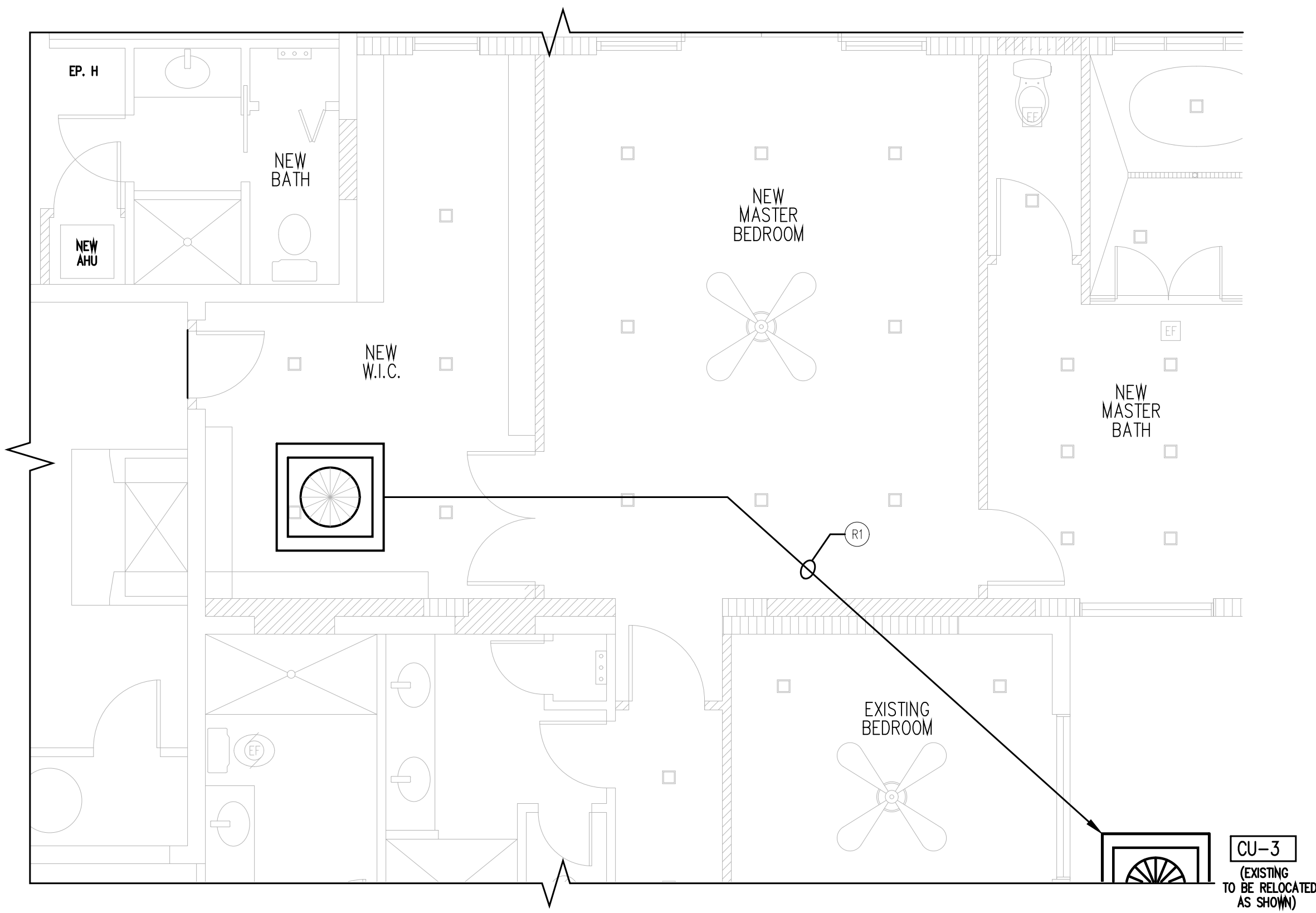
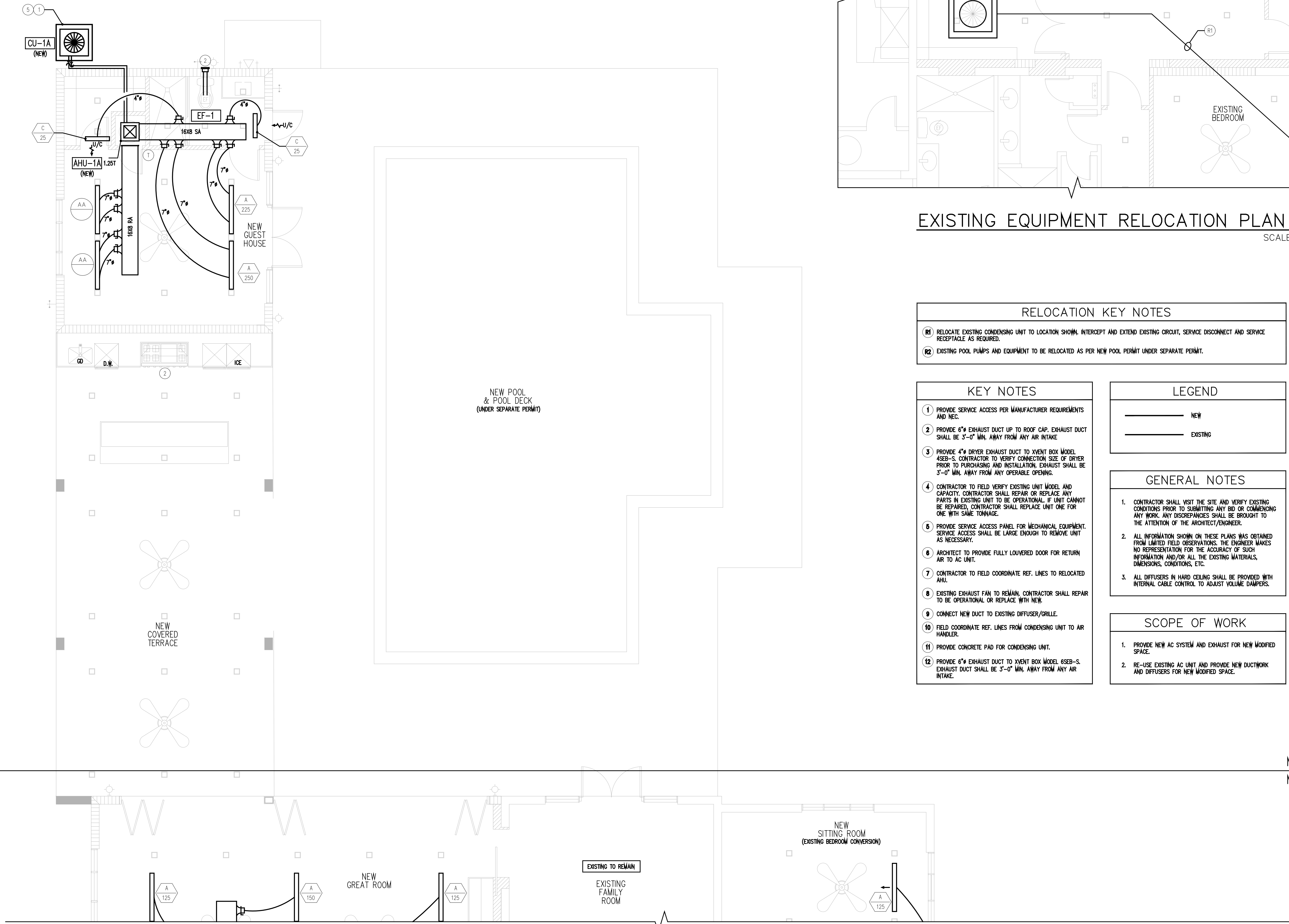


PSI ENGINEERING INC.
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Project Manager: ROGER PEREZ
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THIS DRAWING HAS BEEN ELECTRONICALLY SIGNED AND SEALED BY JULIO C. VIDAL PE, USING A DIGITAL SIGNATURE ON THE DATE ADJACENT TO THE SEAL. PRINTED COPIES OF THIS DOCUMENT ARE NOT CONSIDERED SIGNED AND SEALED AND THE SIGNATURE MUST BE VERIFIED ON ANY ELECTRONIC COPIES.

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MATCH LINE A-A



EXISTING EQUIPMENT RELOCATION PLAN
SCALE: 1/4" = 1'-0"

RELOCATION KEY NOTES
(R1) RELOCATE EXISTING CONDENSING UNIT TO LOCATION SHOWN. INTERCEPT AND EXTEND EXISTING CIRCUIT, SERVICE DISCONNECT AND SERVICE RECEPTACLE AS REQUIRED.
(R2) EXISTING POOL PUMPS AND EQUIPMENT TO BE RELOCATED AS PER NEW POOL PERMIT UNDER SEPARATE PERMIT.

KEY NOTES
(1) PROVIDE SERVICE ACCESS PER MANUFACTURER REQUIREMENTS AND NEC.
(2) PROVIDE 6" EXHAUST DUCT UP TO ROOF CAP. EXHAUST DUCT SHALL BE 3'-0" MIN. AWAY FROM ANY AIR INTAKE.
(3) PROVIDE 4" DRYER EXHAUST DUCT TO XVENT BOX MODEL 4SEB-S. CONTRACTOR TO VERIFY CONNECTION SIZE OF DRYER PRIOR TO PURCHASING AND INSTALLATION. EXHAUST SHALL BE 3'-0" MIN. AWAY FROM ANY OPERABLE OPENING.
(4) CONTRACTOR TO FIELD VERIFY EXISTING UNIT MODEL AND CAPACITY. CONTRACTOR SHALL REPAIR OR REPLACE ANY PARTS IN EXISTING UNIT TO BE OPERATIONAL. IF UNIT CANNOT BE REPAIRED, CONTRACTOR SHALL REPLACE UNIT ONE FOR ONE WITH SAME TONNAGE.
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(9) CONNECT NEW DUCT TO EXISTING DIFFUSER/GRILLE.
(10) FIELD COORDINATE REF. LINES FROM CONDENSING UNIT TO AIR HANDLER.
(11) PROVIDE CONCRETE PAD FOR CONDENSING UNIT.
(12) PROVIDE 6" EXHAUST DUCT TO XVENT BOX MODEL 6SEB-S. EXHAUST DUCT SHALL BE 3'-0" MIN. AWAY FROM ANY AIR INTAKE.

LEGEND
— NEW
— EXISTING

GENERAL NOTES
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3. ALL DIFFUSERS IN HARD CEILING SHALL BE PROVIDED WITH INTERNAL CABLE CONTROL TO ADJUST VOLUME DAMPERS.

SCOPE OF WORK
1. PROVIDE NEW AC SYSTEM AND EXHAUST FOR NEW MODIFIED SPACE.
2. RE-USE EXISTING AC UNIT AND PROVIDE NEW DUCTWORK AND DIFFUSERS FOR NEW MODIFIED SPACE.

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

THIS DRAWING HAS BEEN ELECTRONICALLY SIGNED AND SEALED BY JULIO C. VIDAL, P.E. USING A DIGITAL SIGNATURE ON THE DATE ADJACENT TO THE SEAL. PRINTED COPIES OF THIS DOCUMENT ARE NOT CONSIDERED SIGNED AND SEALED AND THE SIGNATURE MUST BE REPRODUCED AS SHOWN ON THE ORIGINAL.

STATE OF FLORIDA
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No. 62792
PROFESSIONAL ENGINEER

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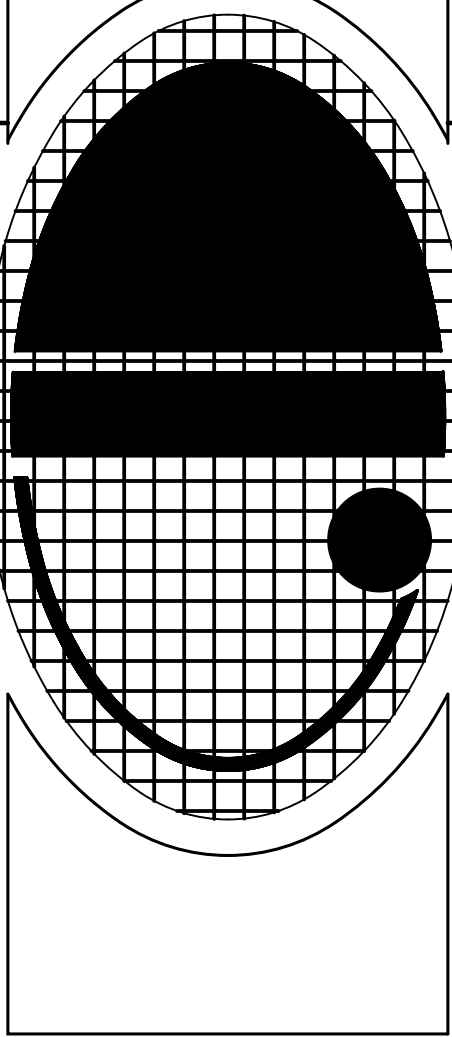
Engineer of Record: JULIO VIDAL PE
FLA. REG. # S2792
Project Manager: ROGER PEREZ

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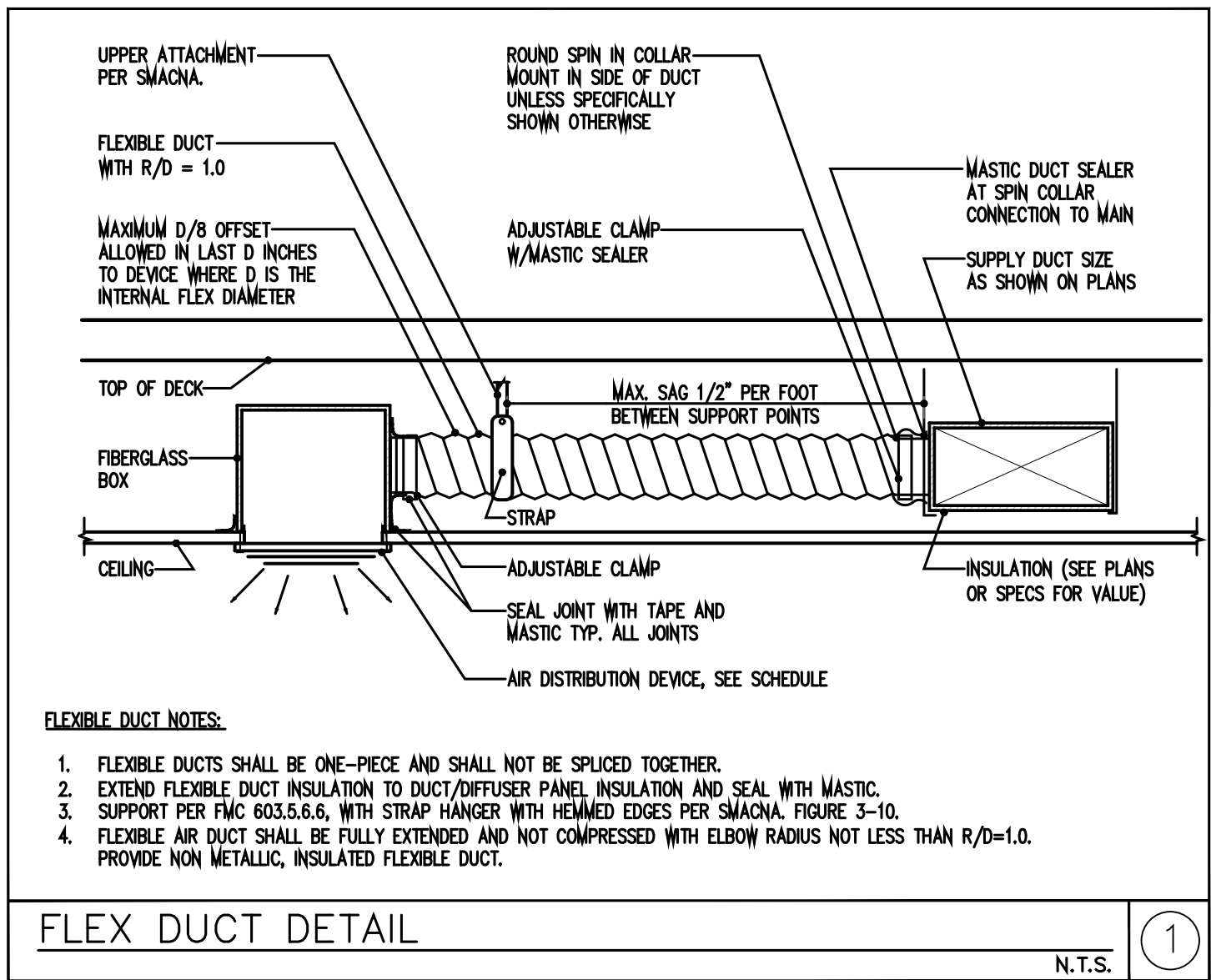
RENOVATION AND ADDITION
FOR:
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LOCATED AT:
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miami, florida 33157
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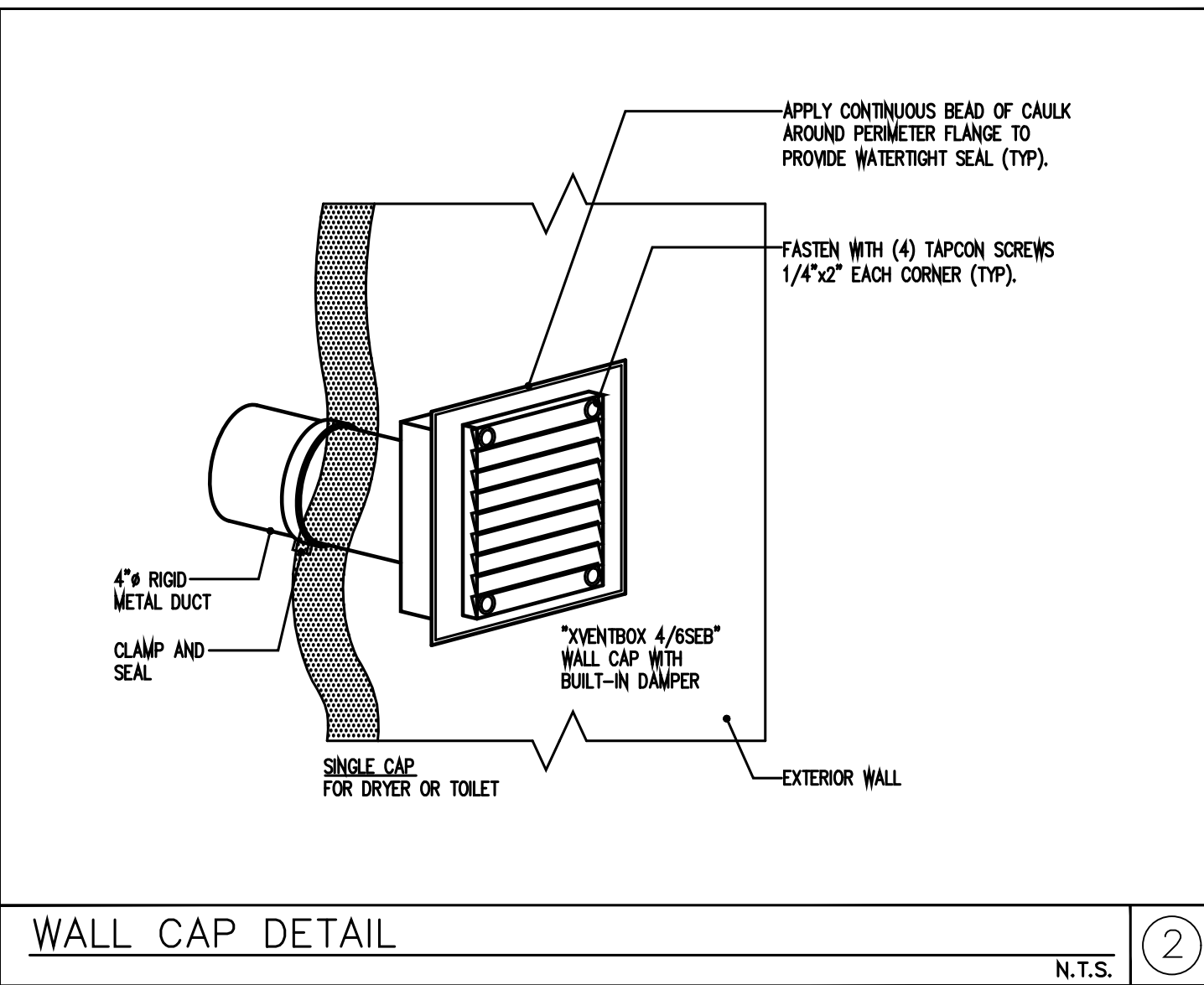
JOSE L. DIAZ, ARCHITECT
AR-0015547

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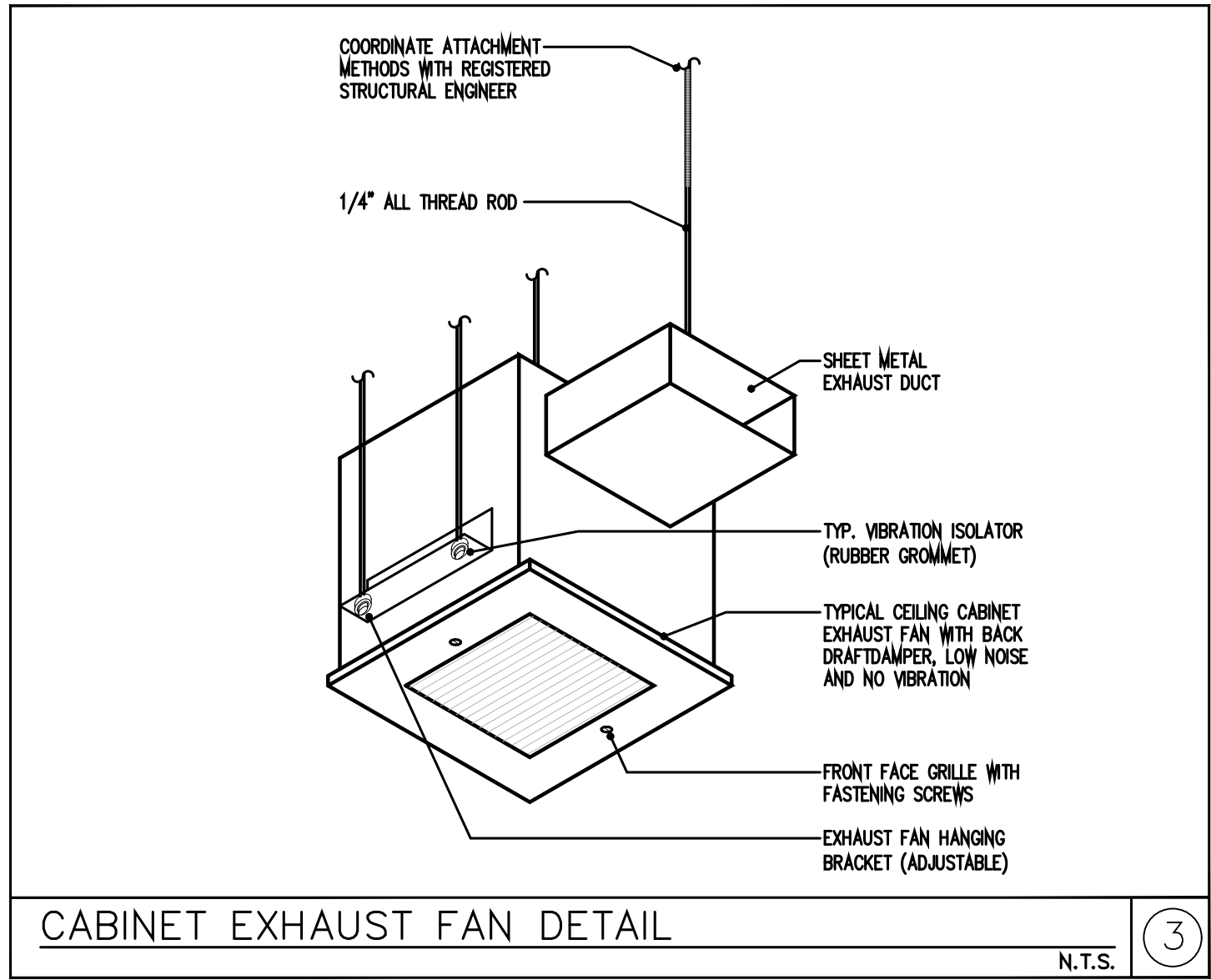
FLEX DUCT DETAIL

N.T.S.



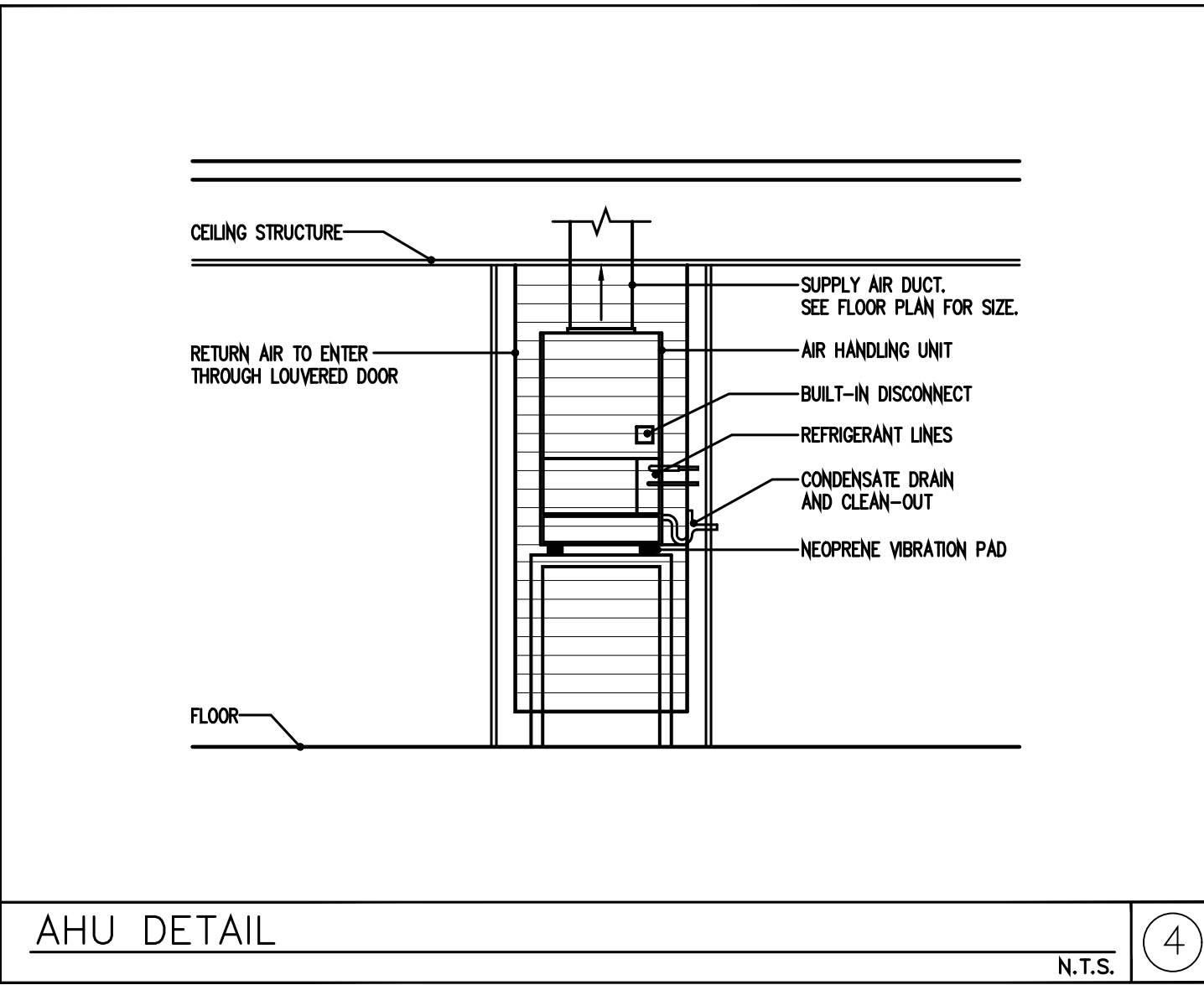
WALL CAP DETAIL

N.T.S.



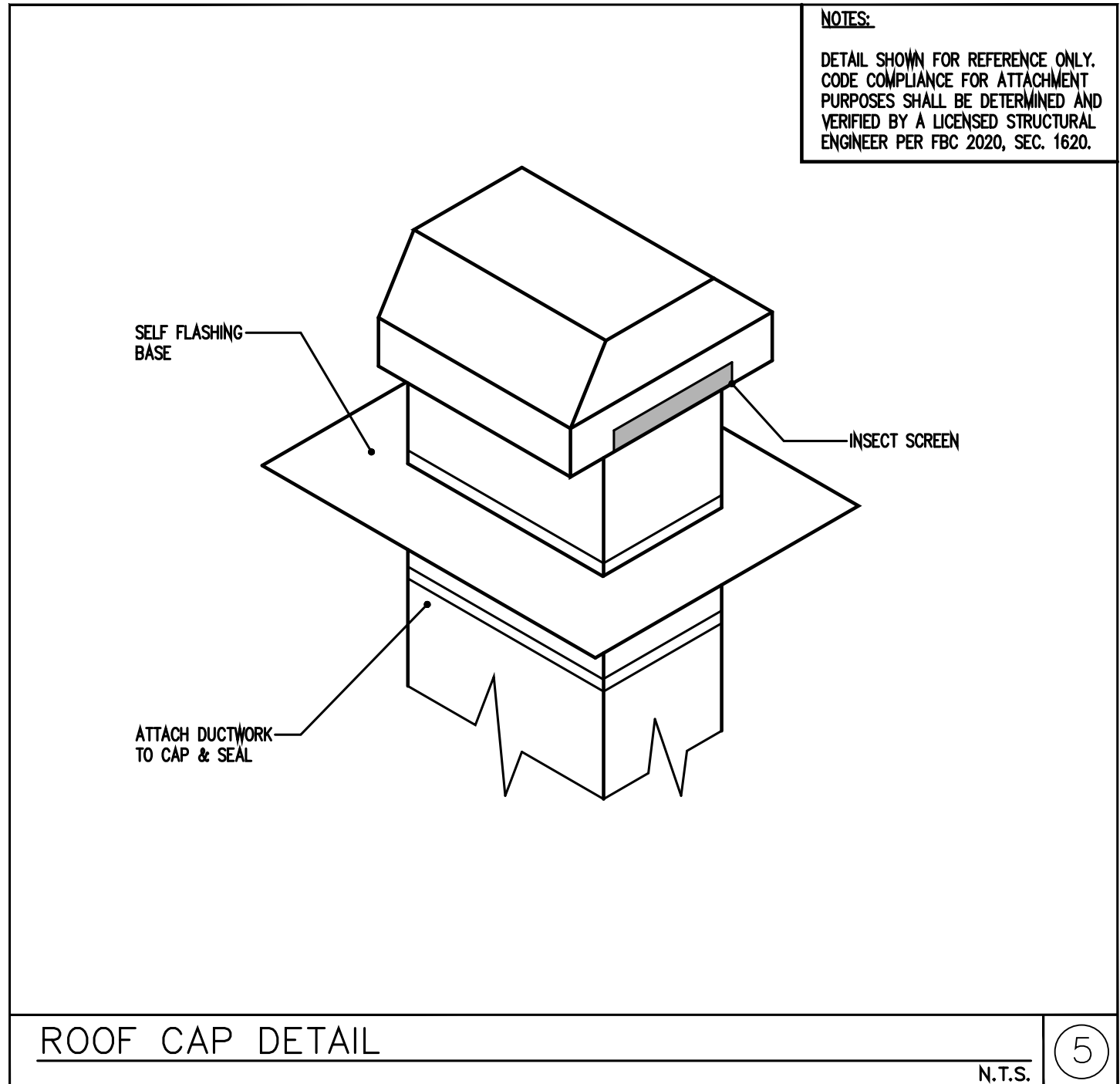
CABINET EXHAUST FAN DETAIL

N.T.S.



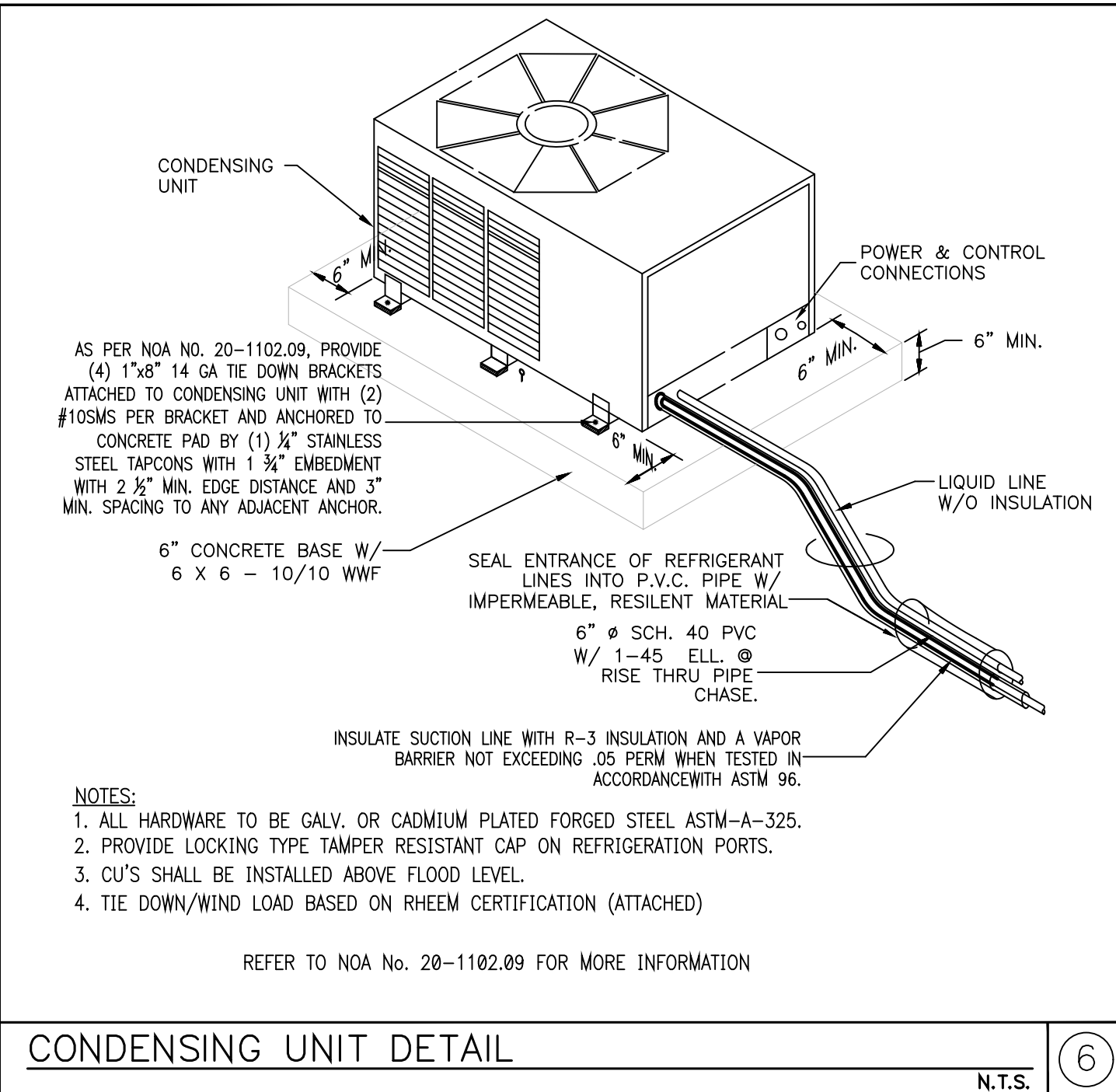
AHU DETAIL

N.T.S.



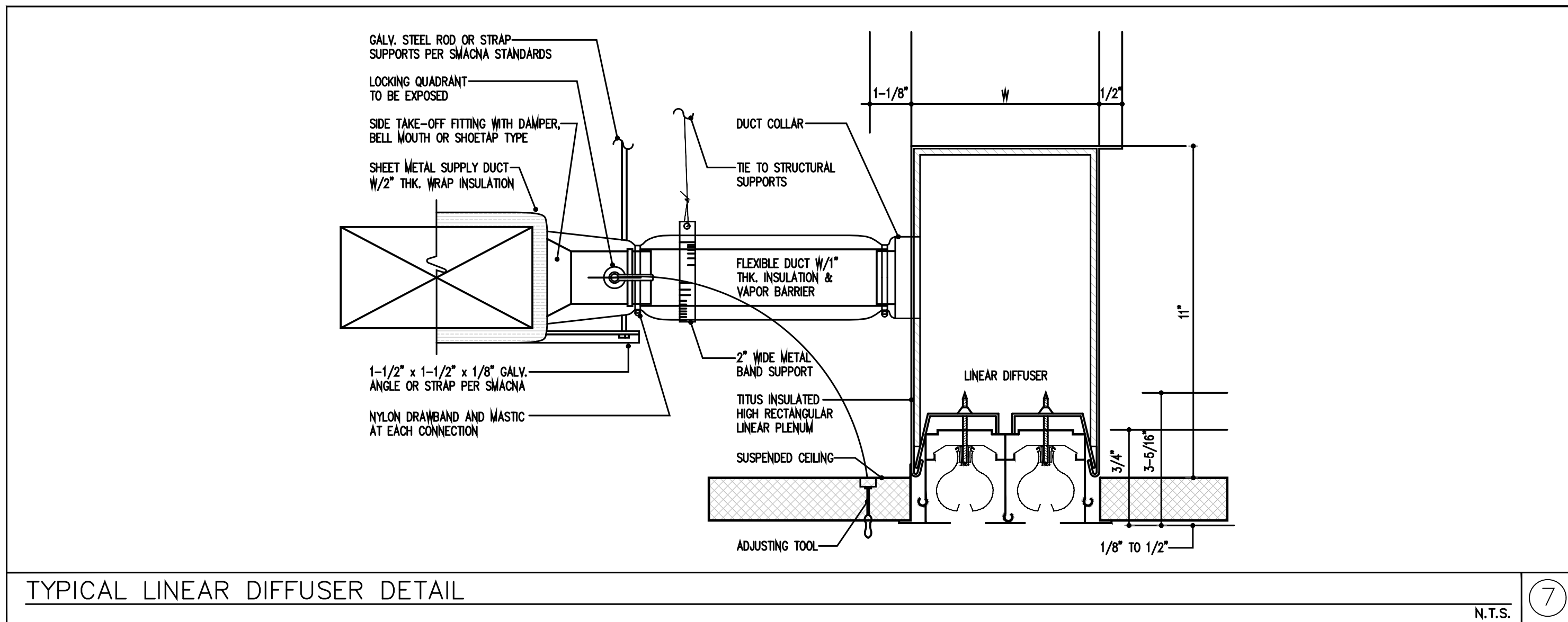
ROOF CAP DETAIL

N.T.S.



CONDENSING UNIT DETAIL

N.T.S.



TYPICAL LINEAR DIFFUSER DETAIL

N.T.S.

AC EQUIPMENT SCHEDULE																
CONDENSING UNIT																
CU TAG	MANUFACTURER & MODEL	NOMINAL TONNAGE	CAP. STAGES	(S)EER/(P)LY REFRIG./LBS	LIQ./SUCT.	NO. FANS	FAN FLA/(EA)	NO. COMP.	COMP. RLA (EA)	VOLTAGE/PH	MCA/MOCP	WEIGHT (LBS)	L x W x H (IN.)	NOTES	SERVICE AREA	
NEW CU-1A	TRANE-MITSUBISHI NTXSK515A12AA	1.25	1	19.0	R410A/-	SEE MANUAL	1	0.5	1-TWIN ROT.	7.4	208-230/1	10/18	81	12x32x22	SEE BELOW	NEW GUESS HOUSE
NEW CU-1	TRANE 4TR8024J	2.0	1	16.5	R410A/-	SEE MANUAL	1	0.64	1-CLIMATEUFF	10.1	200-230/1	13/20	162	33x30x29	SEE BELOW	NEW GREAT ROOM
NEW CU-2	TRANE 4TR8024J	2.0	1	16.5	R410A/-	SEE MANUAL	1	0.64	1-CLIMATEUFF	10.1	200-230/1	13/20	162	33x30x29	SEE BELOW	EXISTING WEST MASTER BEDROOM
EXISTING CU-2A	TRANE 4TR8046J	4.0	-	-	R410A/-	SEE MANUAL	1	-	-	SEE ELECT.	24/40	-	-	-	**	EXISTING MAIN HOUSE
EXISTING CU-3	TRANE 4TR8046J	4.0	-	-	R410A/-	SEE MANUAL	1	-	-	SEE ELECT.	24/40	-	-	-	**	EXISTING MAIN HOUSE
EXISTING CU-4	TRANE 4TR8036J	2.0	-	-	R410A/-	SEE MANUAL	1	-	-	SEE ELECT.	18/30	-	-	-	**	EXISTING MAIN HOUSE
NEW CU-5	TRANE 4TR8024J	2.0	1	16.5	R410A/-	SEE MANUAL	1	0.64	1-CLIMATEUFF	10.1	200-230/1	13/20	162	33x30x29	SEE BELOW	NEW EAST MASTER BEDROOM
AIR HANDLING UNIT																
AHU TAG	MANUFACTURER & MODEL	TOTAL MBH	SENSIBLE MBH	TOTAL CFM	O/A CFM	E.S.P. ("W.G.)	ENT. DB/°F	LEAV. DB/°F	ROWS/FPI	FAN HP/FLA	HEATER KW	VOLTAGE/PH	MCA/MOCP	WEIGHT (LBS)	L x W x H (IN.)	NOTES
NEW AHU-1A	TRANE-MITSUBISHI NTXSK515A12AA	15.0	12.9	525	-	.3	75/63	56/56	-/-	- / 0.74	18.0 MBH	208-230/1	1/(*)	54	28x39x8	SEE BELOW
NEW AHU-1	TRANE TEM40B24	22.8	17.7	800	-	.4	75/63	54.4/52.9	3/-	1/3 / 2.5	4.8 KW	240/1	28/30	117	22x19x47	SEE BELOW
NEW AHU-2	TRANE TEM40B24S15BA	22.8	17.7	800	-	.4	75/63	54.4/52.9	3/-	1/3 / 2.5	4.8 KW	240/1	28/30	117	22x19x47	SEE BELOW
EXISTING AHU-2A	TRANE TEM40B48H41SBA	48.0	36.0	1600	-	.4	75/63	56/56	-/-	3/4 / 6.8	SEE ELECT.	SEE ELECT.	SEE ELECT.	-	-	**
EXISTING AHU-3	TRANE TEM40B48H41SBA	48.0	36.0	1600	-	.4	75/63	56/56	-/-	3/4 / 6.8	SEE ELECT.	SEE ELECT.	SEE ELECT.	-	-	**
EXISTING AHU-4	TRANE TEM40C42S41SBA	42.0	31.0	1400	-	.4	75/63	56/56	-/-	1/2 / 4.10	SEE ELECT.	SEE ELECT.	SEE ELECT.	-	-	**
NEW AHU-5	TRANE TEM40B24	22.8	17.7	800	-	.4	75/63	54.4/52.9	3/-	1/3 / 2.5	4.8 KW	240/1	28/30	117	22x19x47	SEE BELOW
NOTES: 1. UNITS RATED PER ARI 210, 240 AND 270, APPROVED EQUAL: ARI, CARRIER, LENOX, TRANE, YORK. 2. PROVIDE WITH THERMAL EXPANSION VALVES, LIQUID LINE FILTER DRYER AND MULTI-USE SERVICE VALVES. 3. PROVIDE COMPRESSOR WITH CRANKCASE HEATER AND MIN. 5-YEAR WARRANTY. 4. PROVIDE HIGH AND LOW PRESSURE CONTROL AND OVER TEMPERATURE PROTECTION. 5. PROVIDE WEATHERPROOF ELECTRIC CONTROLS AND SINGLE SERVICE ACCESS. 6. PROVIDE SINGLE POINT POWER ENTRY AND HEAVY DUTY MODEL-CHROMIUM ELEMENT HEATER. 7. PROVIDE 1" THROUGH-WALL, MIN. 30% EFF. FILTER AND VIBRATION ISOLATION FOR AHU. 8. PROVIDE FACTORY MOUNTED FUSIBLE DISCONNECT/STARTER FOR AHU's, COORDINATE PRIOR TO PURCHASING. 9. PROVIDE DISCONNECT FOR CU's (INSTALLED BY ELECTRICAL) COORDINATE PRIOR TO PURCHASING. 10. PROVIDE FACTORY PROGRAMMABLE THERMOSTAT TO MATCH CAPACITY STAGES. 11. PROVIDE REFRIGERANT LINES SIZE AS RECOMMENDED BY MANUFACTURER, NOT TO EXCEED 150 FT. EQUIV. LENGTH FOR LONGER RUNS. 12. COORDINATE WITH MANUFACTURER PRIOR TO PURCHASE OR ANY WORK. 13. PROVIDE CONDENSATE PUMP AS REQUIRED. 14. PROVIDE CORROSION PROTECTION COATING FOR CONDENSER COIL WITH MIN. 5-YEAR WARRANTY COATING BY SURFSL, LUYATA, THERMOGUARD OR BYCOLD. 15. PROVIDE 3" AUXILIARY DRAIN PAN WITH AUTOMATIC SHUT OFF FLOAT SWITCH OR SENSOR SWITCH IN UNIT'S DRAIN PAN SECONDARY CONNECTION, EQUAL TO "WATER GARD". 16. AS APPLICABLE, MANUFACTURE AND INSTALLATION SHALL COMPLY W/IRC 301.12 FOR WIND RESISTANCE. (*) INDOOR UNIT POWERED BY OUTDOOR UNIT (**) EXISTING UNITS SHOWN FOR REFERENCE ONLY. REFRIGERATION LINE NOTE FOR INSTALLATION/RELOCATION: MECHANICAL CONTRACTOR SHALL COORDINATE ALL LIQUID & SUCTIONS LINES AND ACCESSORIES WITH MANUFACTURER PRIOR TO RELOCATION AND INSTALLATION. ALL LINE SIZES SHALL BE APPROVED BY MANUFACTURER PRIOR TO INSTALLATION AND CONTRACTOR SHALL COORDINATE FIELD CONDITION WITH LINE RUNS. COORDINATION NOTE FOR INSTALLATION/RELOCATION: MECHANICAL CONTRACTOR SHALL COORDINATE ALL ELECTRICAL REQUIREMENTS AND ACCESSORIES WITH ELECTRICAL CONTRACTOR PRIOR TO RELOCATING AND INSTALLATION AND SHALL BRING ANY DISCREPANCIES TO THE ATTENTION OF ENGINEER.																

EXHAUST FAN SCHEDULE													
SELECTION DATA				FAN DATA				MOTOR DATA					
TAG	SERVICE AREA	MANUF. (*)	MODEL	CONFIG.	CFM	ESP ("WG)	SONES	HP	RPM	DRIVE	VOLTAGE	WEIGHT (LBS)	GENERAL DATA
EF-1	1ST FL BATHROOM	GREENHECK	SP-80-VG	CEILING	50	.37	<0.3	6 WATTS	935	DIRECT	120V/60	12	11x11x8
EF-1A	MATCH EXISTING	MATCH EXISTING	MATCH EXISTING	CEILING	MATCH EXISTING	MATCH EXISTING	MATCH EXISTING	MATCH EXISTING	MATCH EXISTING	DIRECT	120V/60	MATCH EXISTING	MATCH EXISTING
ACCESSORIES NOTES: 1. PROVIDE GRILLE COLOR PER ARCH. SPECS. 2. PROVIDE BACK DRAFT DAMPER. 3. PROVIDE FACTORY MOUNTED DISCONNECT SWITCH AND INTEGRAL THERMAL OVERLOAD PROTECTION, COORDINATE WITH ELECTRICAL CONTRACTOR PRIOR TO ANY PURCHASING. 4. PROVIDE BIRD SCREEN. 5. LOCATE BACK DRAFT DAMPER AT DISCHARGE. 6. SUPPORT FROM STRUCTURE COMPLETE WITH VIBRATION ISOLATORS. 7. PROVIDE ROOF CAP. 8. PROVIDE STEP DOWN TRANSFORMER FOR LIGHT INTERLOCK. (*) APPROVED EQUAL MANUFACTURER: COOK, TWIN-CITY, ARIE. NOTES: A. MOTOR STARTERS, FUSED DISCONNECTS AND ALL EQUIPMENT POWER WIRING PROVIDED BY ELEC. CONTRACTOR. B. MECHANICAL AND ELECTRICAL CONTRACTORS TO COORDINATE PRIOR TO ANY WORK AND PURCHASING. C. FIELD ADJUST OPENINGS WITH STRUCTURE. D. COORDINATE WITH ELECTRICAL CONTRACTOR BEFORE BIDDING OR ORDERING ANY EQUIPMENT. E. SEE PROJECT PLANS AND SPECIFICATIONS FOR OTHER FIELD SUPPLIED ITEMS AND ADDITIONAL INFORMATION. F. COORDINATE FINISH WITH ARCHITECT/OWNER.													

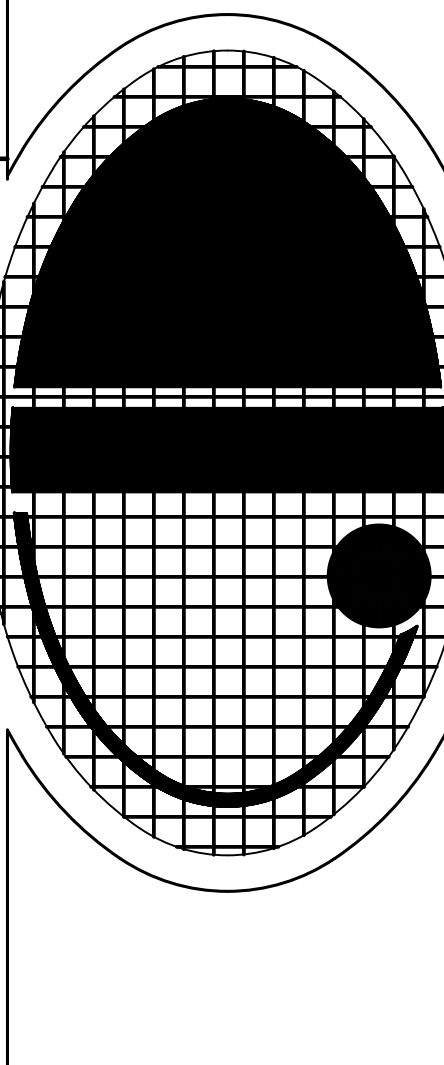
DIFFUSER/GRILLE SCHEDULE												
SUPPLY												
TAG	MANUF. & MODEL	FACE SIZE	NECK SIZE	MATERIAL	FRAME	FINISH	DAMPER	THROW	NC	CFM RANGE	NOTES	
A	PRICE OF /AS/OPP	48" LONG	SEE SCHEDULE	ALUM.	SURFACE	OFF WHITE	NOTE #B	(2) 1" SLOTS	MAX. 30	SEE SCH.	SEE BELOW	
B	PRICE OF /AS/OPP	36" LONG	SEE SCHEDULE	ALUM.	SURFACE	OFF WHITE	NOTE #B	(2) 1" SLOTS	MAX. 30	SEE SCH.	SEE BELOW	
C	PRICE OF /AS/OPP	24" LONG	SEE SCHEDULE	ALUM.	SURFACE	OFF WHITE	NOTE #B	(1) 1" SLOTS	MAX. 30	SEE SCH.	SEE BELOW	
RETURN												
AA	PRICE OF /RT/OPP	48" LONG	SEE SCHEDULE	ALUM.	SURFACE	OFF WHITE	NOTE #B	(2) 1" SLOTS	MAX. 30	SEE SCH.	SEE BELOW	
BB	PRICE 630	24 x 24	22 x 22	ALUM.	SURFACE	OFF WHITE	-	-	MAX. 30	SEE SCH.	SEE BELOW	
CC	PRICE 630	24 x 24	22 x 22	ALUM.	SURFACE	OFF WHITE	-	-	MAX. 30	SEE SCH.	SEE BELOW	
GENERAL NOTES: 1. PROVIDE SPIN-IN COLLAR WITH VOLUME DAMPER AT TRUNK TO FLEX DUCT CONNECTION (SEE DETAIL). 2. PROVIDE TYPICAL 4-WAY DIFFUSION, 2-WAY OR 3-WAY ONLY WHERE INDICATED ON PLANS. 3. REFER TO ARCHITECT PLANS FOR CEILING TYPE. 4. FINA COLOR SELECTION SUBJECT TO ARCHITECT APPROVAL. 5. FLEX DUCT SIZE TO BE SAME AS DIFFUSER NECK SIZE. 6. PROVIDE INSULATION ON THE BACK OF DIFFUSER IF IN UNCONDITIONED SPACE. 7. PROVIDE VOLUME CONTROL DAMPERS FOR ALL RETURN GRILLES OR REGISTERS FOR BALANCED AIRFLOW. 8. PROVIDE INTERNAL CABLE CONTROL FOR DIFFUSERS IN HARD CEILINGS. (*) EQUIVALENT MANUFACTURER: TITUS, KRUEGER, AIRGUIDE, T & B, NALOR. CONTRACTOR SHALL VERIFY WITH ARCHITECT AND TENANT/OWNER, PRIOR TO ANY PURCHASING OR INSTALLATION, IF A BUILDING STANDARD HAS TO BE FOLLOWED REGARDING A SPECIFIC MODEL OR MANUFACTURER AND SHALL BRING ANY DISCREPANCY TO THE ATTENTION OF ENGINEER.												

S/A FLEX SCHEDULE	
60"	50-125 CFM
66"	130-200 CFM
106"	205-330 CFM
126"	335-450 CFM
146"	455-700 CFM

REVISION	BY
1. BDC 05/15/24	

RENOVATION AND ADDITION
FOR:
CHRISTOPHER AND LISA MONTERO
LOCATED AT:
6445 SW 107 STREET
VILLAGE OF PINECREST, FLORIDA

J.L.D.
ARCHITECT
CORPORATION
AA-26003440
8592 s.w. 169th terrace
miami, florida 33157
(305) 310-5992



JOSE L. DIAZ, ARCHITECT
AR-0015547

DRAWN	
CHECKED	
DATE	11/14/22
SCALE	
JOB NO.	
SHEET	
M-4	
OF	SHEETS

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J. C. Vidal
LICENSE
No. 52792
STATE OF
FLORIDA
PROFESSIONAL ENGINEER

Engineer of Record: JULIO VIDAL PE
FLA REG # 52792
Project Manager: ROGER PEREZ

18556 NW 26 STREET, SUITE D-202 DORAL, FL 33172 PH: 786-615-7520, FAX: 786-752-3284
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