

FBISD ECC HVAC PACKAGED ROOFTOP UNIT REPLACEMENTS - 2024
EARLY CHILDHOOD CENTER "ECC"
FLOUR BLUFF INDEPENDENT SCHOOL DISTRICT
CORPUS CHRISTI, TEXAS

MEP ENGINEERS

STRIDDE, COLLINS & ASSOCIATES INC.

342 S. NAVIGATION BLVD.

P.O. BOX 4146-7869, CORPUS CHRISTI, TEXAS 78405

PHONE 361.883.9199 FAX 361.883.9177

STRUCTURAL AND WINDSTORM ENGINEER

WILKERSON AND SANDERS, INC.

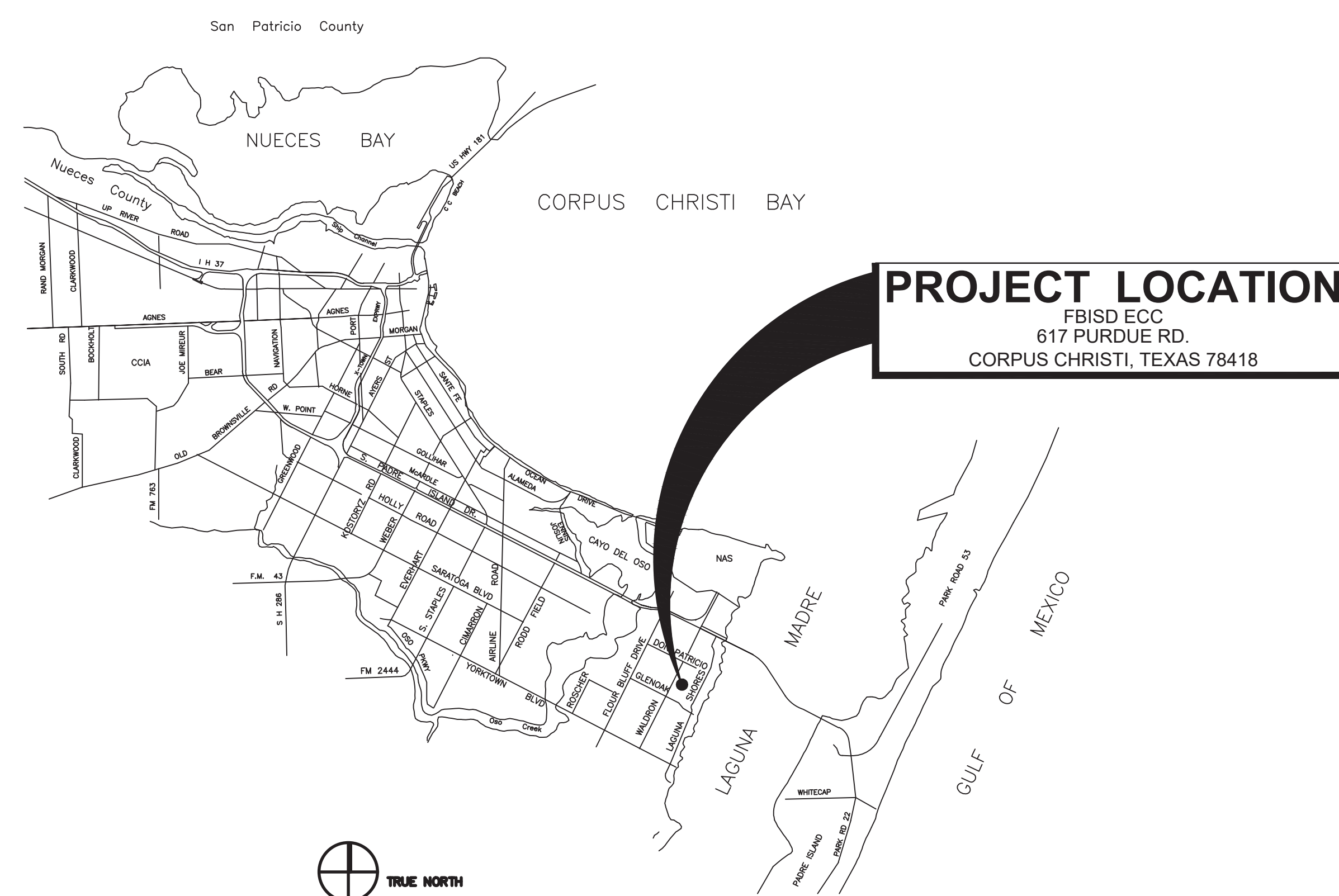
3530 SOUTH ALAMEDA ST, CORPUS CHRISTI, TEXAS 78411

PHONE 361.853.2071 FAX 361.853.3274

CODE SUMMARY

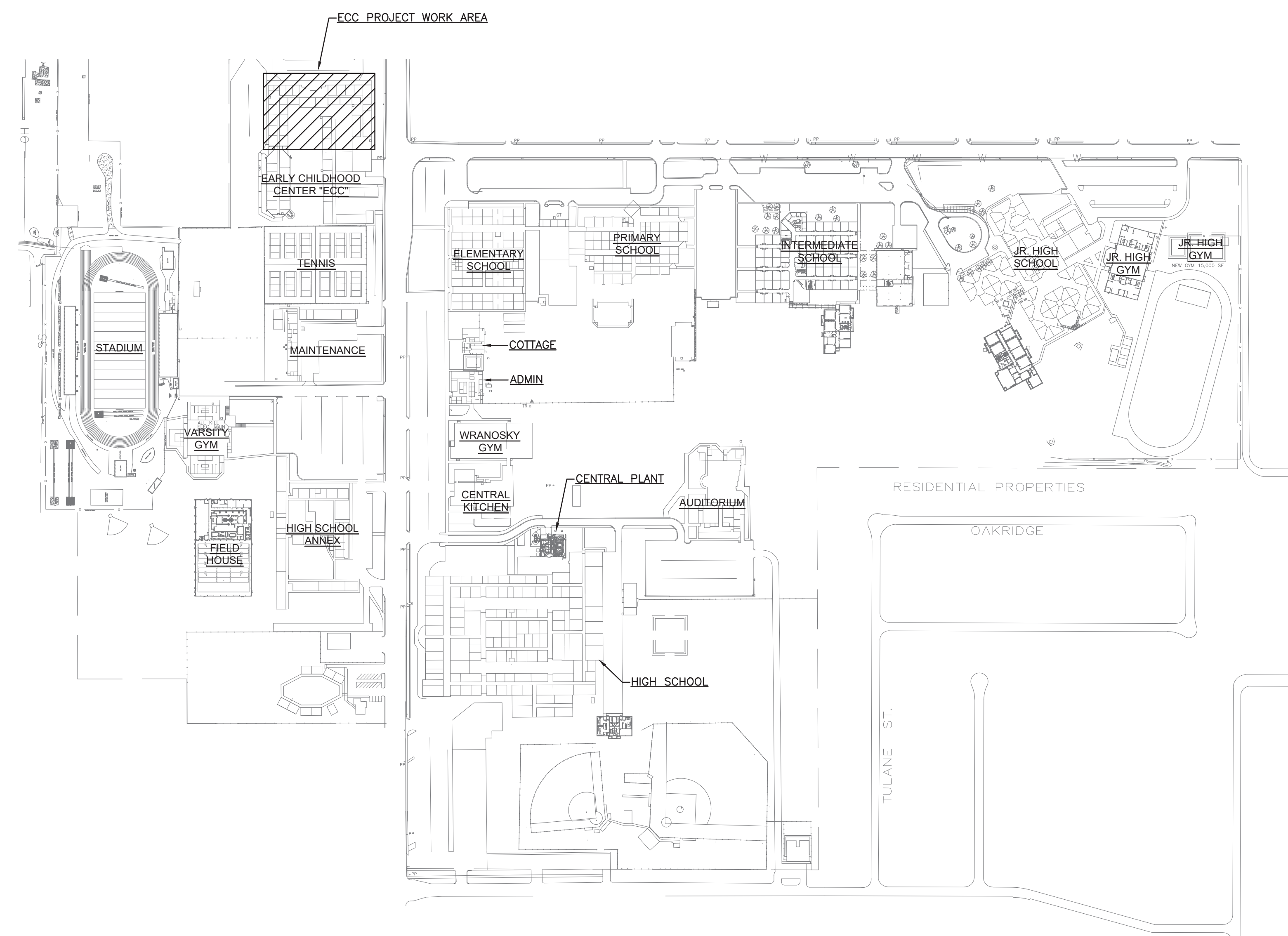
2021 INTERNATIONAL BUILDING CODES

2020 NEC



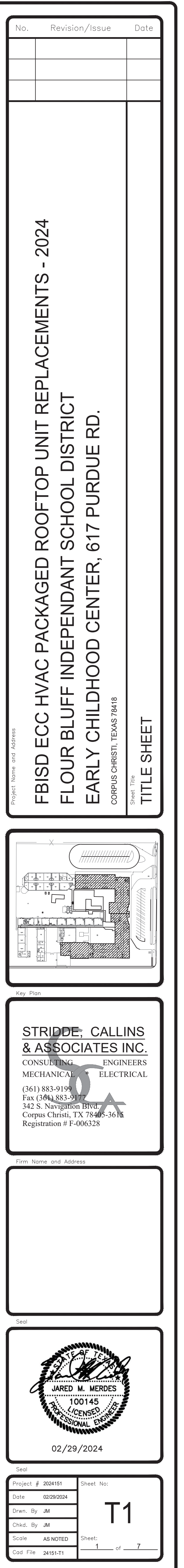
SHEET INDEX

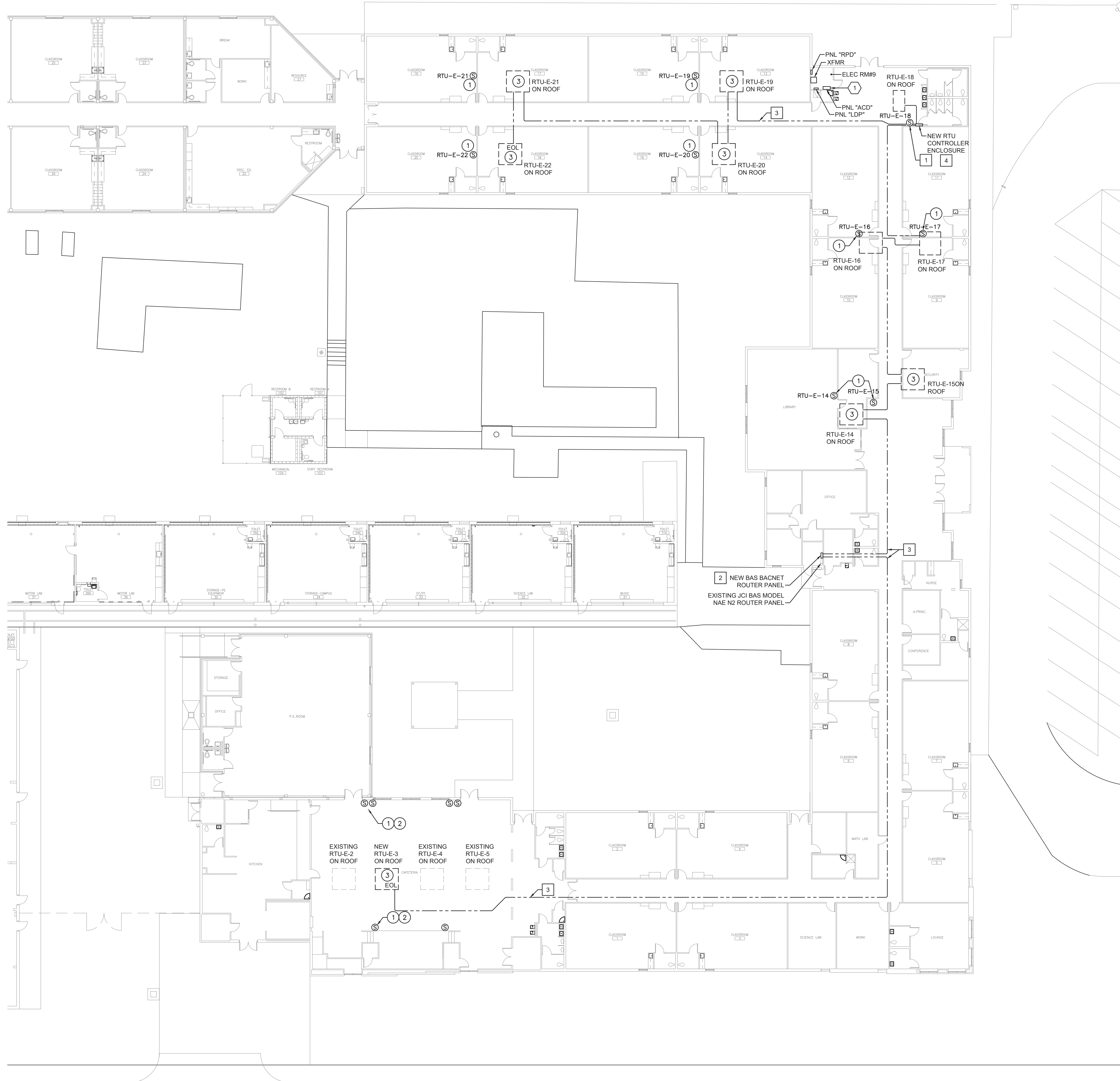
NO.	DESCRIPTION
T1	TITLE SHEET
ME1	FLOOR PLAN
ME2	ROOF PLAN - NORTH
ME3	ROOF PLAN - SOUTH
ME4	RTU PHOTOS
ME5	RTU PHOTOS
ME6	SCHEDULE, NOTES AND DETAILS



VICINITY MAP

SCALE: NOT TO SCALE
(HATCHING INDICATES WORK AREA)





GENERAL NOTES: ME1

1. CEILINGS: CONTRACTOR SHALL CAREFULLY REMOVE EXISTING LAY-IN CEILING GRID AND TILES AS NEEDED TO PERFORM WORK AND REINSTALL AT PROJECT COMPLETION. ANY DAMAGED SYSTEMS SHALL BE REPLACED WITH NEW TO MATCH EXISTING CONSTRUCTION AND FINISHED COLOR.
2. FLOORS: CONTRACTOR SHALL PROTECT ALL FLOORS WITH PANELING OR HEAVY CARDBOARD AS REQUIRED TO PREVENT DAMAGE TO EXISTING FLOORING.
3. CONTRACTOR SHALL FIELD VERIFY EXISTING CONDITIONS BEFORE THE START OF WORK AND NOTIFY THE ENGINEER OF ANY DISCREPANCIES THAT ARE PERTINENT.

MECHANICAL KEYED NOTES: ME1

1. REMOVE BOTH EXISTING SPACE MOUNTED JCI SPACE SENSORS (TEMP AND HUMIDITY) AND DELIVER TO OWNER. DEMOLISH CONTROL WIRING FROM SENSORS UP TO JCI CONTROLLER WITHIN EACH RTU. PROVIDE STAINLESS STEEL FLUSH FACE COVER AT THE EXISTING HUMIDITY SENSOR LOCATION. INSTALL NEW AON SPACE SENSOR AT EXISTING SPACE JUNCTION BOX AND INSTALL NEW E-BUS DIGITAL CABLE FROM THE AON SENSOR TO THE AON CONTROLLER WITHIN THE RTU.
2. CAFETERIA IS SERVICED BY FOUR (4) RTU UNITS. ENGINEER IS NOT SURE AS TO THE ACTUAL LOCATION OF THE EXISTING SPACE SENSORS FOR RTU-3. CONTRACTOR SHALL FIELD VERIFY THE EXISTING SENSOR LOCATIONS AND PROVIDE NEW WORK AS INDICATED BY KEYED NOTE 1 AS APPLICABLE.
3. REMOVE THE EXISTING AON SUPPLY DUCT TEMPERATURE SENSOR IN THE DUCT RISER INDOORS AND DEMOLISH SENSOR WIRING UP TO THROUGH RTU. INSTALL NEW AON DUCT SENSOR AND NEW WIRING UP TO NEW AON CONTROLLER IN RTU.

ELECTRICAL KEYED NOTES: ME1

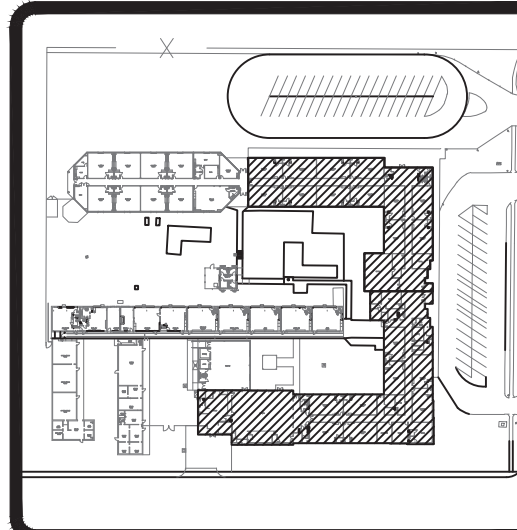
1. REMOVE EXISTING 20-AMP BREAKER (8,10,12) IN PNL "ACD" FOR RTU-18 AND REPLACE WITH NEW 30-AMP BREAKER WITH NEW 3-#10, #10G CONDUCTORS UP TO NEW RTU-18.

BAS GENERAL NOTES: ME1

1. DEMOLISH EXISTING N2-COM WIRING AS NEEDED TO INSTALL NEW RTU UNITS. PROVIDE NEW N2-COM WIRING PATCH TO ALLOW EXISTING UNITS THAT REMAIN TO OPERATE AS INTENDED ON EXISTING NETWORK.
2. ALL EXISTING CONTROL WIRING IS ROUTED UP THROUGH EQUIPMENT CURB THROUGH THE RTU RETURN AND WIRING RTU TO RTU CONTROL PANEL.

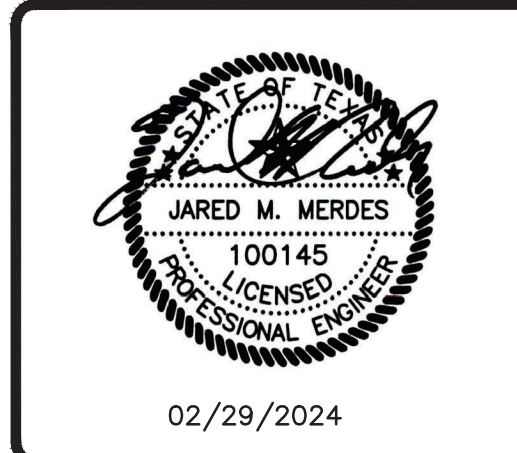
BAS KEYED NOTES: ME1

1. REMOVE EXISTING JCI SPACE SENSOR AND SENSOR WIRING AND REPLACE WITH NEW JCI SENSOR WIRING UP TO NEW CONTROLLER LOCATED ABOVE CEILING.
2. PROVIDE NEW BACNET-IP ROUTER PANEL ADJACENT TO THE EXISTING NAE N2 ROUTER PANEL. CONNECT 24-VAC POWER TO EXISTING JCI TRANSFORMER. PROVIDE CAT-6 ETHERNET WIRING TO FBISD ETHERNET SWITCH FOR CONNECTION TO MAIN SERVER AND BACNET-IP SUB-NET TO NEW HVAC EQUIPMENT.
3. PROVIDE NEW CAT6 ETHERNET COM WIRING ABOVE CEILING AND DAISY CHAIN TO EQUIPMENT AS SHOWN WITH LOOPFREE CONFIGURATION. ROUTE WIRING ALONG THE CORRIDOR WALL ABOVE CEILING ON WALL SUPPORTS. (TYPICAL.)
4. PROVIDE NEW JCI CONTROLLER IN ENCLOSURE ABOVE THE CEILING MOUNTED TO THE WALL FOR CONTROL OF NEW LENNOX RTU-18 CONNECTED TO NEW BACNET-IP ROUTER. PROVIDE NEW CONTROL WIRING FROM CONTROLLER UP THROUGH EQUIPMENT CURT TO NEW RTU ON ROOF. PROVIDE NEW 24-VAC CONTROL TRANSFORMER IN THE RTU WITH NEW WIRING DOWN TO CONTROL PANEL AS NEEDED TO POWER THE BAS CONTROLLER.

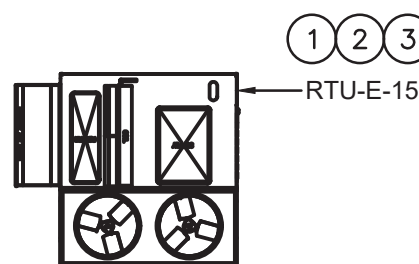
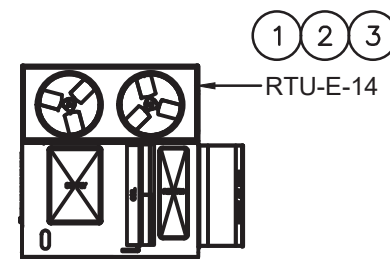
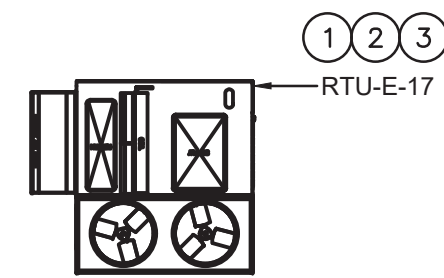
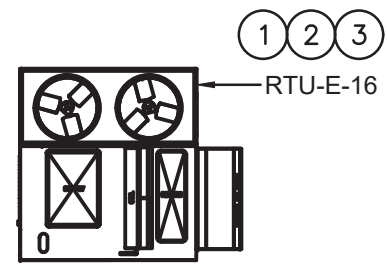
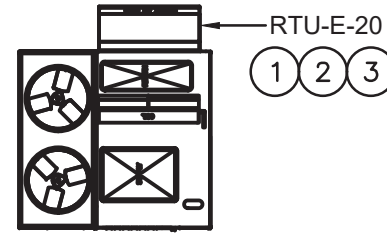
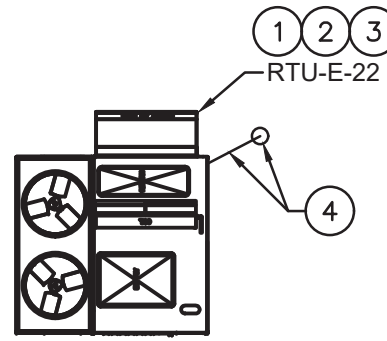
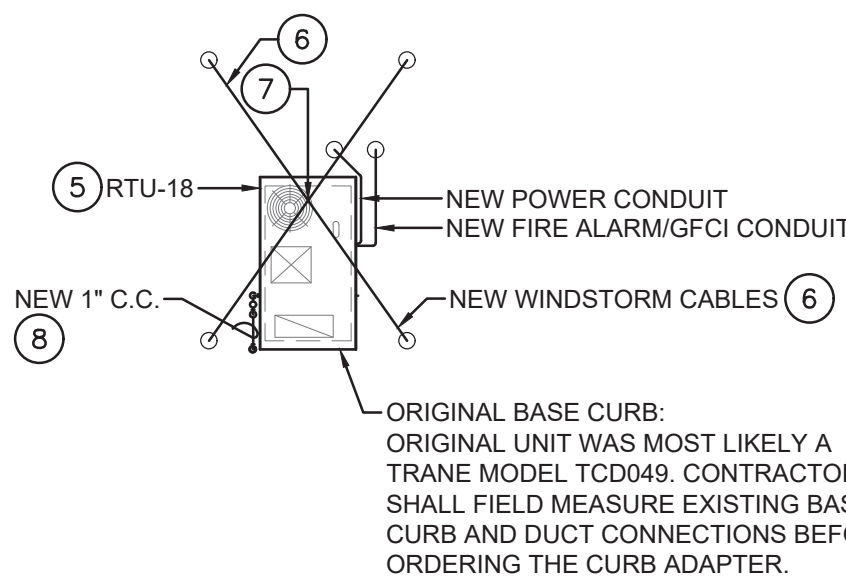
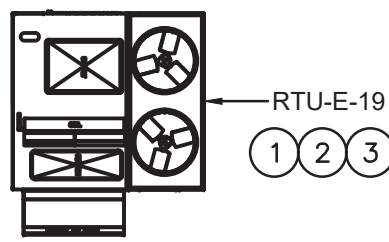
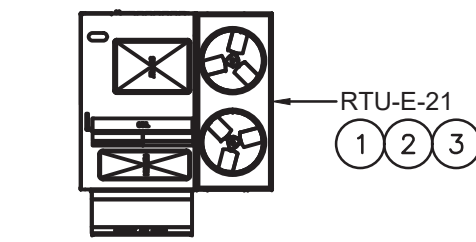


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Registration # F-006328

Firm Name and Address



Project # 2024151 Sheet No:
Date 02/29/2024
Drawn By JM
Checked By JM
Scale AS NOTED
Cust. File 24151-ME1
ME1
Sheet 2 of 7



GENERAL ROOF NOTES: ME2

1. TAKE SPECIAL PRECAUTIONS TO PROTECT EXISTING AND NEW ROOFING FROM DAMAGE DURING CONSTRUCTION. COORDINATE ALL ROOFING WORK WITH ROOFING CONTRACTOR.
2. CONTRACTOR SHALL FIELD VERIFY EXISTING CONDITIONS BEFORE THE START OF WORK AND NOTIFY THE ENGINEER OF ANY DISCREPANCIES THAT ARE PERTINENT.
3. REFER TO DRAWINGS ME-4 AND ME-5 FOR PHOTOS OF EXISTING EQUIPMENT AND CONDITIONS.
4. NOTIFY OWNER 2-WEEKS BEFORE THE DEMOLITION OF RTUs. OWNER SHALL BE ALLOWED TO REMOVE AND SALVAGE PARTS FROM THE EQUIPMENT AS NEEDED TO REPAIR OTHER EQUIPMENT AT PROJECT LOCATION.

MECHANICAL KEYED NOTES: ME2

1. RTU-E-3, 14, 15, 16, 17, 19, 20, 21, AND 22: DISCONNECT EXISTING RTU WINDSTORM SUPPORT CABLES AND CONDENSATE DRAIN PIPING AFTER BAS AND ELECTRICAL CONTRACTORS HAVE PERFORMED THEIR WORK. LIFT OFF THE RTU AND DEMOLISH. EXISTING CURB ADAPTER SHALL REMAIN FOR REUSE WITH NEW EQUIPMENT. PROVIDE NEW 1/4-3/8" FOAM GASKETING ON TOP OF THE EXISTING CURB ADAPTER AND SET THE NEW RTU ON THE EXISTING CURB. RECONNECT EXISTING CONDENSATE DRAIN PING WITH ADAPTERS NEEDED AND REINSTALL WINDSTORM SUPPORT CABLES. COORDINATE INSTALLATION OF ELECTRICAL POWER, FIRE ALARM, AND BAS CONTROL. CONNECTS WITH OTHER TRADES FOR A FULLY FUNCTIONAL SYSTEMS. (TYPICAL)
2. EXISTING CURB ADAPTERS:
 - a. BASE PROPOSAL: REMOVE EACH RTU AND TEMPORARILY CAP EACH CURB ADAPTER. ALLOW OWNER A MINIMUM OF 7-DAYS TO CLEAN AND PAINT EXISTING ROOF CURBS BEFORE INSTALLATION OF NEW EQUIPMENT.
 - b. ALTERNATE PROPOSAL NO. 2: CONTRACTOR SHALL CLEAN EXISTING CURB ADAPTERS. REMOVE RUST, RUST TREAT, PRIME PAINT, AND FINISH PAINT CURB ADAPTERS AS SPECIFIED IN SPECIFICATION SECTION 23 74 10.
3. EXISTING WINDSTORM SUPPORT CABLES:
 - a. BASE PROPOSAL: REMOVE EXISTING SUPPORT CABLES AND REINSTALL WITH NEW EQUIPMENT. LUBRICATE EXISTING TURNBUCKLES AND SET TAUGHT.
 - b. ALTERNATE PROPOSAL NO. 1: REPLACE ALL EXISTING CABLES AND TURNBUCKLES WITH NEW SAME SIZE AS EXISTING WITH ALL 316 STAINLESS STEEL CONSTRUCTION. ADJUST TURNBUCKLES TAUGHT.
4. RTU-E-22, BASE PROPOSAL. ONE OF THE EXISTING ROOF SUPPORT CABLE TIES HAS BROKEN WITHIN THE ROOF CURB. CONTRACTOR SHALL DEMOLISH THE EXISTING CHEMCURB AND BROKEN THROUGH BOLT INTO STEEL ROOF STRUCTURE AND REINSTALL NEW. NEW BOLT SHALL HAVE AN OPEN EYE END WITH HOT DIPPED GALVANIZED STEEL CONSTRUCTION WITH THE SAME SIZE AS THE EXISTING. PROVIDE NEW CHEMCURB ROOF CAP FLASHING SYSTEM SAME AS EXISTING.
5. RTU-E-18: DEMOLISH EXISTING RTU AND CURB ADAPTER. PROVIDE NEW CURB ADAPTER AND RTU ON EXISTING ROOF BASE CURB. FIELD VERIFY EXISTING BASE CURB CONSTRUCTION BEFORE ORDERING NEW CURB ADAPTER. PAINT NEW CURB ADAPTER AS SPECIFIED IN SPECIFICATION SECTION 23 74 10.
6. RTU-E-18: DEMOLISH EXISTING RTU WINDSTORM SUPPORT CABLES DOWN TO EXISTING ROOF ANCHOR OPEN EYES. PROVIDE NEW 3/8" 316 STAINLESS STEEL WIRE ROPE CABLE SYSTEMS WITH TURNBUCKLES (OPEN EYE AND HOOK) AND 316 STAINLESS STEEL HARDWARE. PROVIDE POLY TUBING SHEATHING OVER WIRE ROPE AT TOP CONNECTIONS TO RTU TO PREVENT DAMAGE TO PAINT. (TYPICAL)
7. PROVIDE U-BUCKLES AT CROSS IN ROPE AT TOP OF UNIT.
8. PROVIDE NEW COPPER CONDENSATE DRAIN PIPING WITH NEW P-TRAP AND AIR BRAKE AND TURN DOWN OVER EXITING HUB DRAIN WITH 1" AIR GAP. SUPPORT PIPING TO ROOF WITH NEW CONCRETE BLOCK TYPE ROOF SUPPORTS.

BAS GENERAL NOTES: ME2

1. PROVIDE NEW CONTROL WIRING UP THROUGH RETURN AIR DUCTWORK AND ROUTE THROUGH RTU TO RTU CONTROL PANEL LOCATION. PROTECT WIRING AT PENETRATIONS WITH SHEATHING AND SEAL AIR TIGHT.

GENERAL ELECTRICAL NOTES FOR RTU-E-15, RTU-E-17, RTU-E-19, RTU-E-20, & RTU E-22: ME2

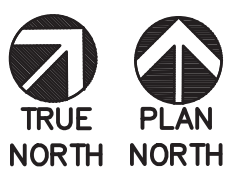
1. EXISTING ROOFTOP HVAC UNIT SHALL BE REPLACED BY NEW AT SAME APPROXIMATE LOCATION AS EXISTING ON EXISTING CURB ADAPTERS.
2. EXISTING FLEXIBLE WEATHERPROOF SEAL-TIGHT CONDUIT (POWER, AND FIRE ALARM) AND CONNECTORS SHALL BE REMOVED AND REPLACED WITH NEW WEATHERPROOF SEAL-TIGHT CONDUIT AND CONNECTORS.
3. DISCONNECT FEEDER CONDUCTORS AND FIRE ALARM CABLE AS REQUIRED TO REPLACE ROOFTOP HVAC UNIT. TERMINATE EXISTING FEEDER CONDUCTORS AND FIRE ALARM CABLE, ROUTED WITHIN NEW WEATHERPROOF SEAL-TIGHT CONDUIT, AT NEW ROOFTOP HVAC UNIT AS REQUIRED. FIRE ALARM SHALL BE CONNECTED TO RTU EMERGENCY STOP FOR FAST ACTION TERMINATION.
4. IF THE EXISTING FEEDER CONDUCTOR LENGTH IS NOT ADEQUATE TO REACH THE NEW TERMINAL LUGS AT THE REPLACED ROOFTOP HVAC UNIT, THE FEEDER CONDUCTORS CAN BE SPLICED WITHIN THE NEW CABINET WITH NSI OR EQUAL INSULATED COMPRESSION LUGS.

GENERAL ELECTRICAL NOTES FOR RTU-E-14, RTU-E-16, & RTU-E-21: ME2

1. EXISTING ROOFTOP HVAC UNIT SHALL BE REPLACED BY NEW AT SAME APPROXIMATE LOCATION AS EXISTING ON EXISTING CURB ADAPTERS.
2. EXISTING FLEXIBLE WEATHERPROOF SEAL-TIGHT CONDUIT (POWER, RECEPTACLE, AND FIRE ALARM) AND CONNECTORS SHALL BE REMOVED AND REPLACED BY NEW WEATHERPROOF SEAL-TIGHT CONDUIT AND CONNECTORS.
3. DISCONNECT FEEDER CONDUCTORS AND FIRE ALARM CABLE AS REQUIRED TO REPLACE ROOFTOP HVAC UNIT. TERMINATE EXISTING FEEDER CONDUCTORS AND FIRE ALARM CABLE, ROUTED WITHIN NEW WEATHERPROOF SEAL-TIGHT CONDUIT, AT NEW ROOFTOP HVAC UNIT AS REQUIRED. FIRE ALARM SHALL BE CONNECTED TO RTU EMERGENCY STOP FOR FAST ACTION TERMINATION.
4. IF THE EXISTING FEEDER CONDUCTOR LENGTH IS NOT ADEQUATE TO REACH THE NEW TERMINAL LUGS AT THE REPLACED ROOFTOP HVAC UNIT, THE FEEDER CONDUCTORS CAN BE SPLICED WITHIN THE NEW CABINET WITH NSI OR EQUAL INSULATED COMPRESSION LUGS.
5. REPLACE THE EXISTING SURFACE MOUNTED GFCI RECEPTACLE, WEATHERPROOF BOX AND WEATHERPROOF IN-USE COVER WITH NEW GFCI RECEPTACLE, WEATHERPROOF BOX, AND WEATHERPROOF IN-USE COVER. THE WEATHERPROOF BOX AND COVER SHALL BE MADE OF PVC.

GENERAL ELECTRICAL NOTES FOR RTU-E-18: ME2

1. EXISTING ROOFTOP HVAC UNIT SHALL BE REPLACED BY NEW IN SAME APPROXIMATE LOCATION ON NEW CURB ADAPTER.
2. EXISTING FLEXIBLE WEATHERPROOF SEAL-TIGHT CONDUIT (POWER, RECEPTACLE, AND FIRE ALARM) AND CONNECTORS SHALL BE REMOVED AND REPLACED BY NEW WEATHERPROOF SEAL-TIGHT CONDUIT AND CONNECTORS.
3. DISCONNECT FEEDER CONDUCTORS AND FIRE ALARM CABLE AS REQUIRED TO REPLACE ROOFTOP HVAC UNIT. TERMINATE EXISTING FEEDER CONDUCTORS AND FIRE ALARM CABLE, ROUTED WITHIN NEW WEATHERPROOF SEAL-TIGHT CONDUIT, AT NEW ROOFTOP HVAC UNIT AS REQUIRED. FIRE ALARM SHALL BE CONNECTED TO RTU EMERGENCY STOP FOR FAST ACTION TERMINATION.
4. THE EXISTING 3P/20 AMP CIRCUIT BREAKER AT SPACES MARK 8, 10, 12 IN EXISTING PANEL "ACD" SHALL BE REPLACED BY A NEW 3P/30 AMP CIRCUIT BREAKER. JOBSITE SURVEY EXISTING CIRCUIT BREAKER MANUFACTURER.
5. PROVIDE 3 - #10, #10 GROUND IN EXISTING / NEW CONDUIT FROM EXISTING PANEL "ACD" TO THE NEW HVAC ROOFTOP UNIT. TERMINATE THE NEW CONDUCTORS AT THE NEW EQUIPMENT INTEGRAL DISCONNECT SWITCH AT NEW HVAC ROOFTOP UNIT AS REQUIRED.
6. REPLACE THE EXISTING SURFACE MOUNTED GFCI RECEPTACLE, WEATHERPROOF BOX AND WEATHERPROOF IN-USE COVER WITH NEW GFCI RECEPTACLE, WEATHERPROOF BOX, AND WEATHERPROOF IN-USE COVER. THE WEATHERPROOF BOX AND COVER SHALL BE MADE OF PVC.



1 ROOF PLAN — NORTH
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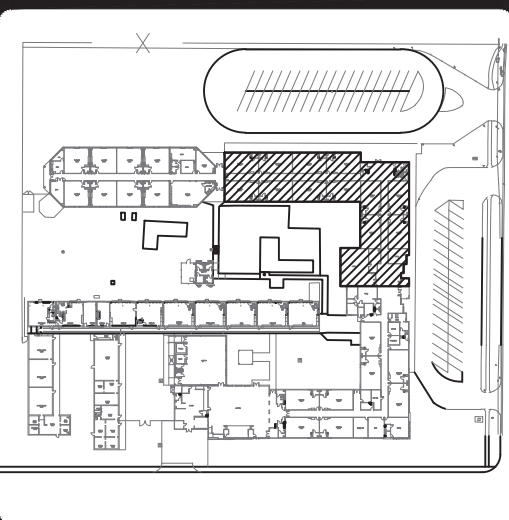
No.	Revision/Issue	Date

Project Name and Address

FBISD ECC HVAC PACKAGED ROOFTOP UNIT REPLACEMENTS - 2024
FLOUR BLUFF INDEPENDANT SCHOOL DISTRICT
EARLY CHILDHOOD CENTER, 617 PURDUE RD.
CORPUS CHRISTI, TEXAS 78418

Sheet Title

ROOF PLAN - NORTH



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Registration # F-006328

Firm Name and Address



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Date 02/29/2024	ME2
Drawn By JM	
Checkd. By JM	
Scale AS NOTED	Sheet:
Calc. File 34151-ME2	3 of 7



GENERAL ROOF NOTES: ME3

- TAKE SPECIAL PRECAUTIONS TO PROTECT EXISTING AND NEW ROOFING FROM DAMAGE DURING CONSTRUCTION. COORDINATE ALL ROOFING WORK WITH ROOFING CONTRACTOR.
- CONTRACTOR SHALL FIELD VERIFY EXISTING CONDITIONS BEFORE THE START OF WORK AND NOTIFY THE ENGINEER OF ANY DISCREPANCIES THAT ARE PERTINENT.
- REFER TO DRAWINGS ME-4 AND ME-5 FOR PHOTOS OF EXISTING EQUIPMENT AND CONDITIONS.
- NOTIFY OWNER 2-WEEKS BEFORE THE DEMOLITION FROM THE RTUs. OWNER SHALL BE ALLOWED TO REMOVE AND SALVAGE PARTS OF THE EQUIPMENT AS NEEDED TO REPAIR OTHER EQUIPMENT AT PROJECT LOCATION.

MECHANICAL KEYED NOTES: ME3

- RTU-E-3: DISCONNECT EXISTING RTU WINDSTORM SUPPORT CABLES AND CONDENSATE DRAIN PIPING AFTER BAS AND ELECTRICAL CONTRACTORS HAVE PERFORMED THEIR WORK. LIFT OFF THE RTU AND DEMOLISH. EXISTING CURB ADAPTER SHALL REMAIN FOR REUSE WITH NEW EQUIPMENT. PROVIDE NEW 1/2-3/8" FOAM GASKETING ON TOP OF THE EXISTING CURB ADAPTER AND SET THE NEW RTU ON THE EXISTING CURB. RECONNECT EXISTING CONDENSATE DRAIN PING WITH ADAPTERS NEEDED AND REINSTALL WINDSTORM SUPPORT CABLES. COORDINATE INSTALLATION OF ELECTRICAL POWER, FIRE ALARM, AND BAS CONTROL. CONNECTS WITH OTHER TRADES FOR FULLY FUNCTIONAL SYSTEMS. (TYPICAL)
- EXISTING CURB ADAPTERS:
 - BASE PROPOSAL: REMOVE EACH RTU AND TEMPORARILY CAP EACH CURB ADAPTER. ALLOW OWNER A MINIMUM OF 7-DAYS TO CLEAN AND PAINT EXISTING ROOF CURBS BEFORE INSTALLATION OF NEW EQUIPMENT.
 - ALTERNATE PROPOSAL NO. 2: CONTRACTOR SHALL CLEAN EXISTING CURB ADAPTERS, REMOVE RUST, RUST TREAT, PRIME PAINT, AND FINISH PAINT CURB ADAPTERS AS SPECIFIED IN SPECIFICATION SECTION 23 74 10.
- EXISTING WINDSTORM SUPPORT CABLES:
 - BASE PROPOSAL: REMOVE EXISTING SUPPORT CABLES AND REINSTALL WITH NEW EQUIPMENT. LUBRICATE EXISTING TURNBUCKLES AND SET TAUGHT.
 - ALTERNATE PROPOSAL NO. 1: REPLACE ALL EXISTING CABLES AND TURNBUCKLES WITH NEW SAME SIZE AS EXISTING WITH ALL 316 STAINLESS STEEL CONSTRUCTION. ADJUST TURNBUCKLES TAUGHT.
- EXISTING RTU'S SHALL REMAIN AS IS AND SHALL NOT BE PORT OF THIS PROJECT. (TYPICAL)

BAS GENERAL NOTES: ME3

- PROVIDE NEW CONTROL WIRING UP THROUGH RETURN AIR DUCTWORK AND ROUTE THROUGH RTU TO RTU CONTROL PANEL LOCATION. PROTECT WIRING AT PENETRATIONS WITH SHEATHING AND SEAL AIR TIGHT.

GENERAL ELECTRICAL NOTES FOR RTU-E-3: ME3

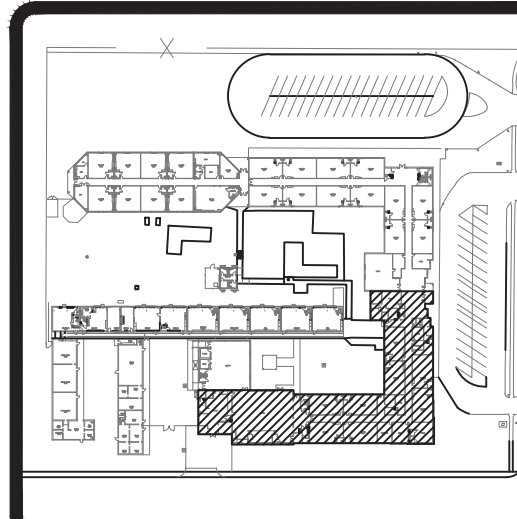
- EXISTING ROOFTOP HVAC UNIT SHALL BE REPLACED BY NEW AT SAME APPROXIMATE LOCATION AS EXISTING ON EXISTING CURB ADAPTERS.
- EXISTING FLEXIBLE WEATHERPROOF SEAL-TIGHT CONDUIT (POWER, AND FIRE ALARM) AND CONNECTORS SHALL BE REMOVED AND REPLACED WITH NEW WEATHERPROOF SEAL-TIGHT CONDUIT AND CONNECTORS.
- DISCONNECT FEEDER CONDUCTORS AND FIRE ALARM CABLE AS REQUIRED TO REPLACE ROOFTOP HVAC UNIT. TERMINATE EXISTING FEEDER CONDUCTORS AND FIRE ALARM CABLE, ROUTED WITHIN NEW WEATHERPROOF SEAL-TIGHT CONDUIT, AT NEW ROOFTOP HVAC UNIT AS REQUIRED. FIRE ALARM SHALL BE CONNECTED TO RTU EMERGENCY STOP FOR FAST ACTION TERMINATION.
- IF THE EXISTING FEEDER CONDUCTOR LENGTH IS NOT ADEQUATE TO REACH THE NEW TERMINAL LUGS AT THE REPLACED ROOFTOP HVAC UNIT, THE FEEDER CONDUCTORS CAN BE SPLICED WITHIN THE NEW CABINET WITH NSI OR EQUAL INSULATED COMPRESSION LUGS.

No. Revision/Issue Date

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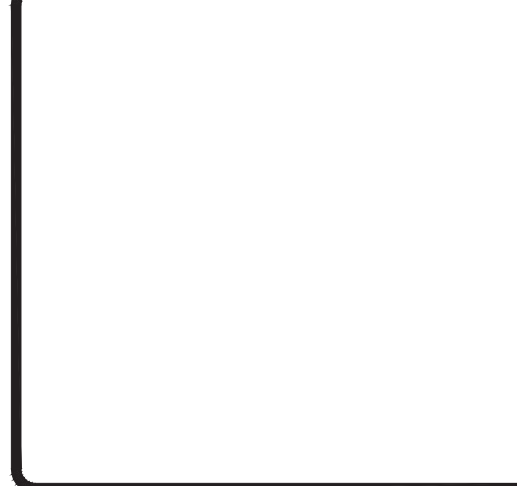
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ROOF PLAN - SOUTH



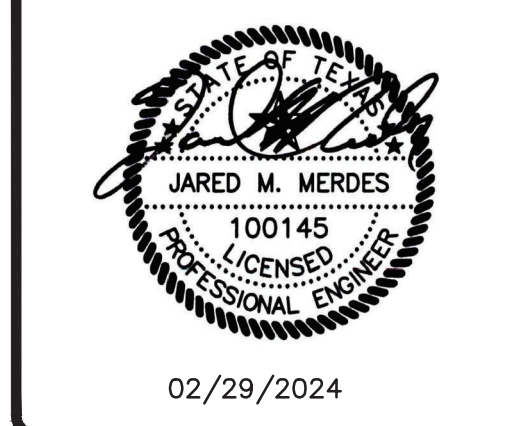
Map View

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Seal



Seal

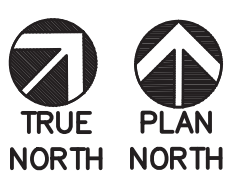
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Date 02/29/2024
Drawn By JM
Checkd By JM
Scale AS NOTED
Cad File 24151-ME3

Sheet No:

ME3

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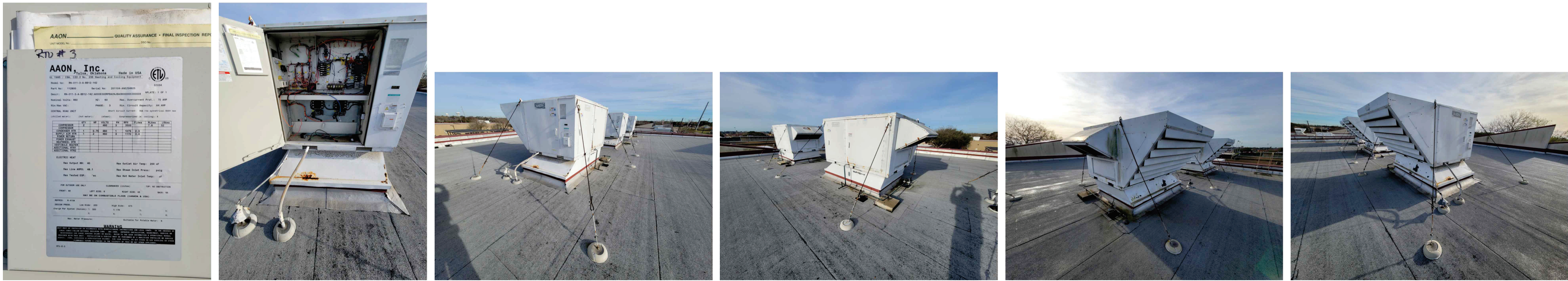
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ROOF PLAN - SOUTH

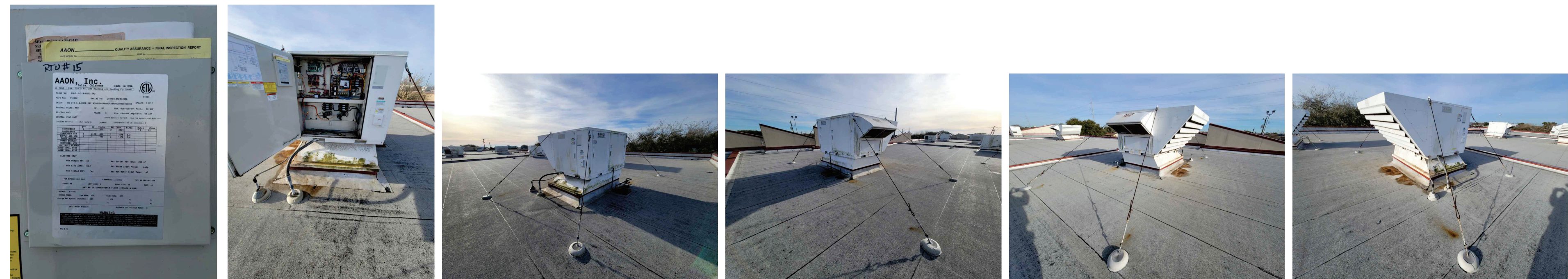
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1 RTU-E-3 (CAFETERIA) PHOTOS
ME4 SCALE:



2 RTU-E-14 PHOTOS
ME4 SCALE:



3 RTU-E-15 PHOTOS
ME4 SCALE:

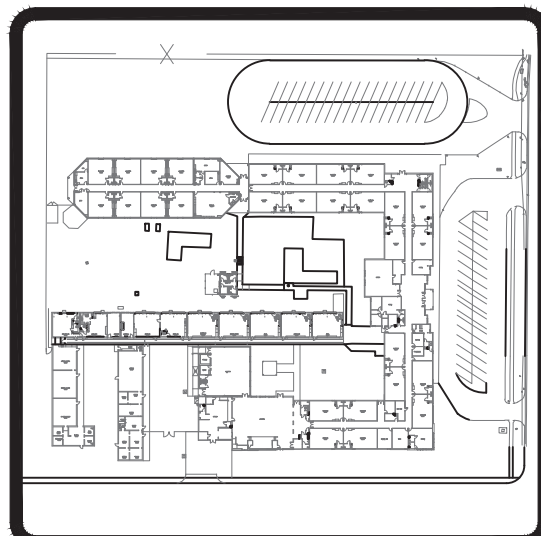


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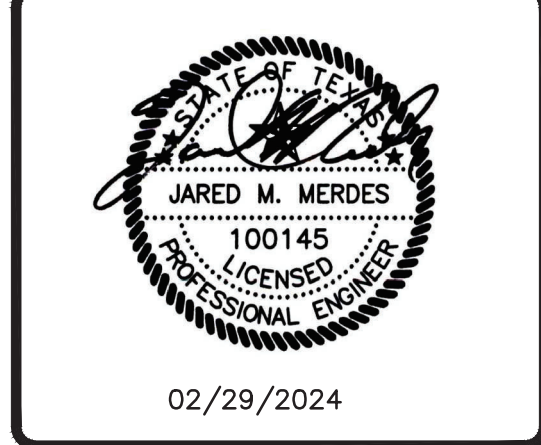
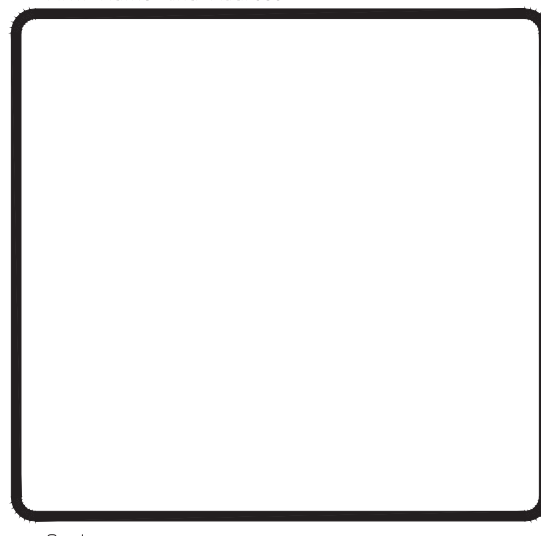


5 RTU-E-17 PHOTOS
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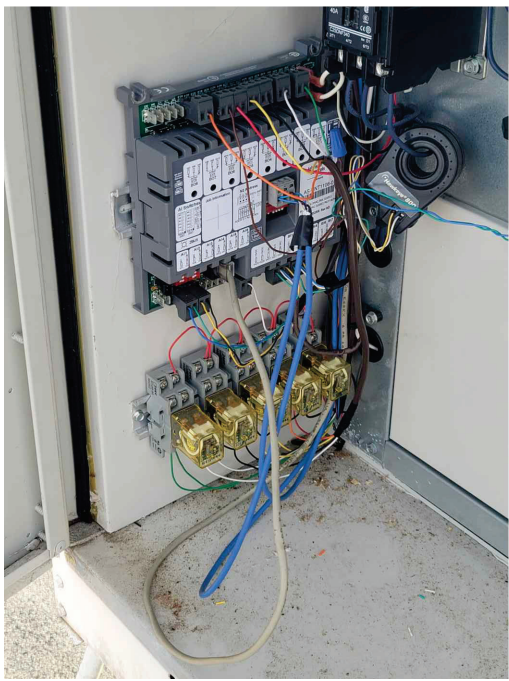
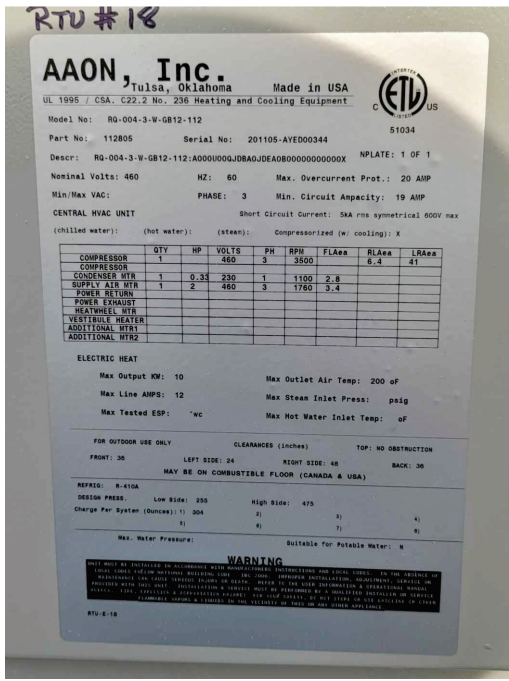
No.	Revision/Issue	Date
Project Name and Address		
FBISD ECC HVAC PACKAGED ROOFTOP UNIT REPLACEMENTS - 2024		
FLOUR BLUFF INDEPENDANT SCHOOL DISTRICT		
EARLY CHILDHOOD CENTER, 617 PURDUE RD.		
CORPUS CHRISTI, TEXAS 78418		
Sheet	Title	
	RTU PHOTOS	



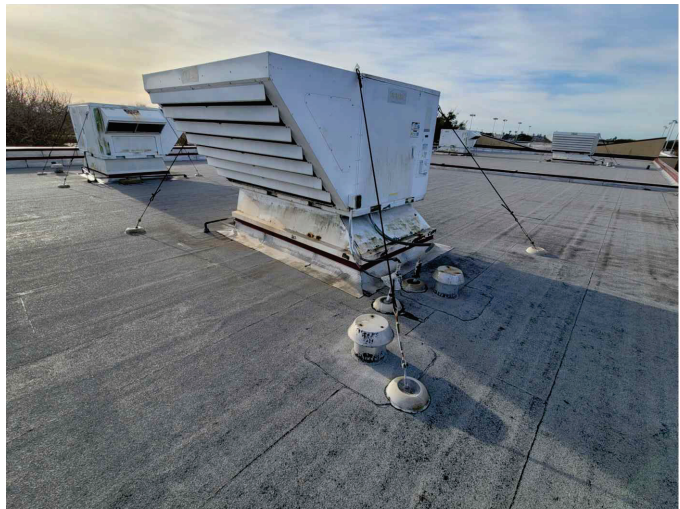
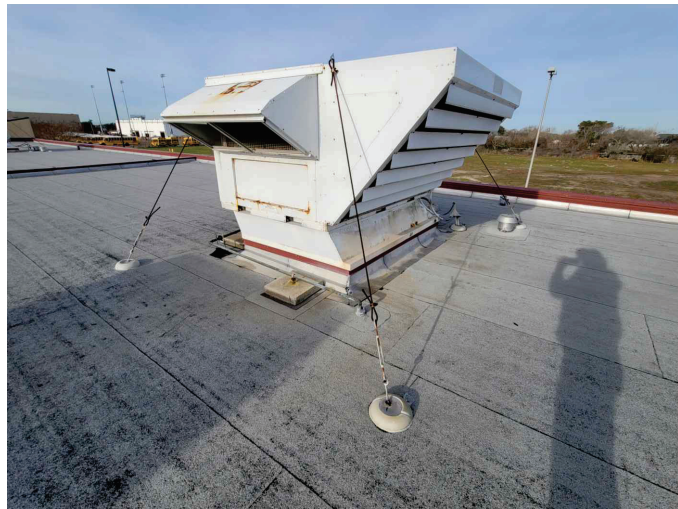
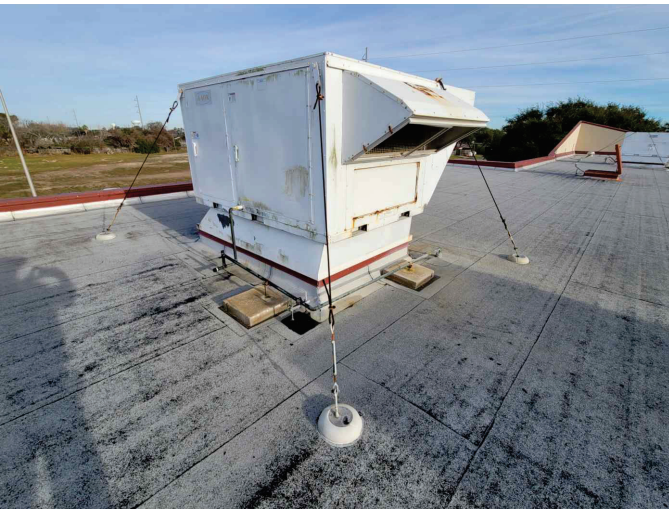
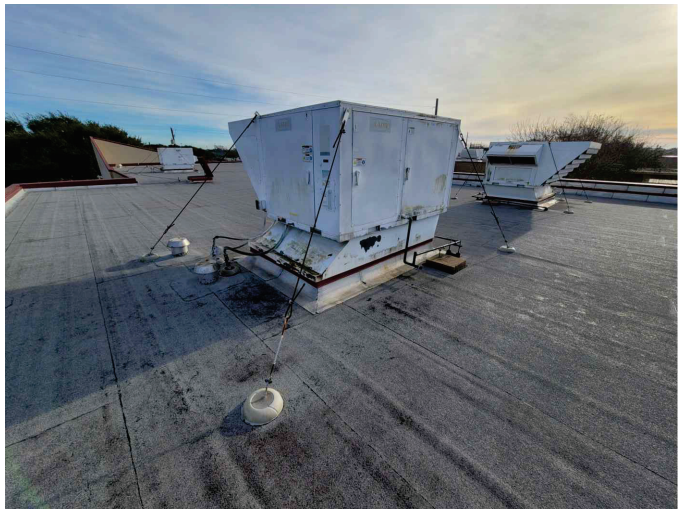
STRIDDE, CALLINS
& ASSOCIATES INC.
CONSULTING ENGINEERS
MECHANICAL ELECTRICAL
(361) 883-9199
Fax (361) 883-9197
342 S. Navigation Blvd.
Corpus Christi, TX 78405-3618
Registration # F-006328



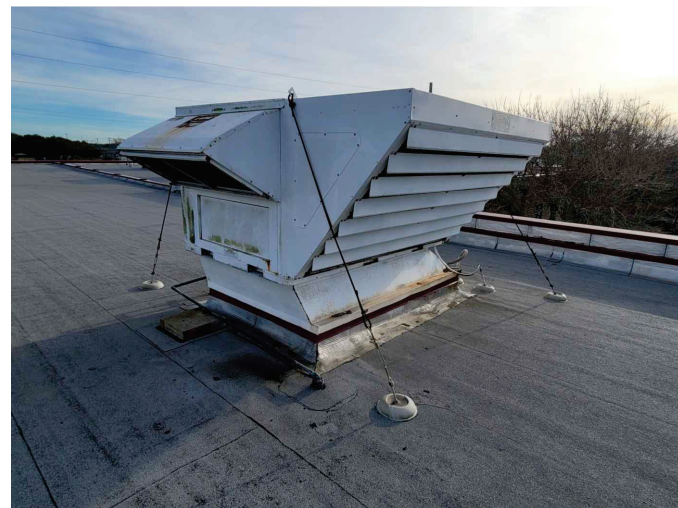
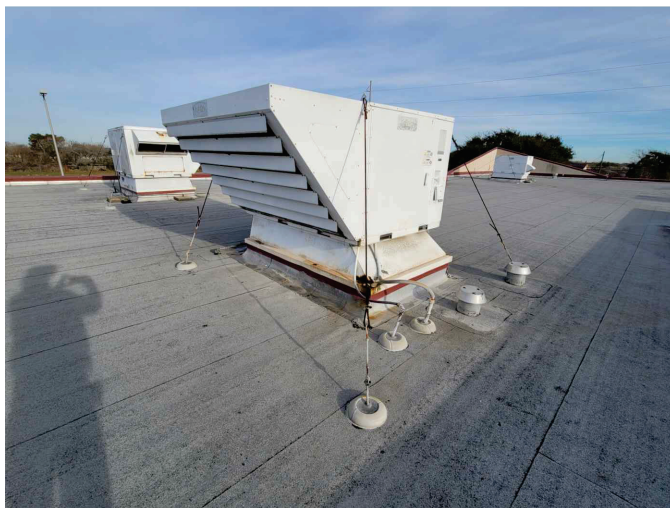
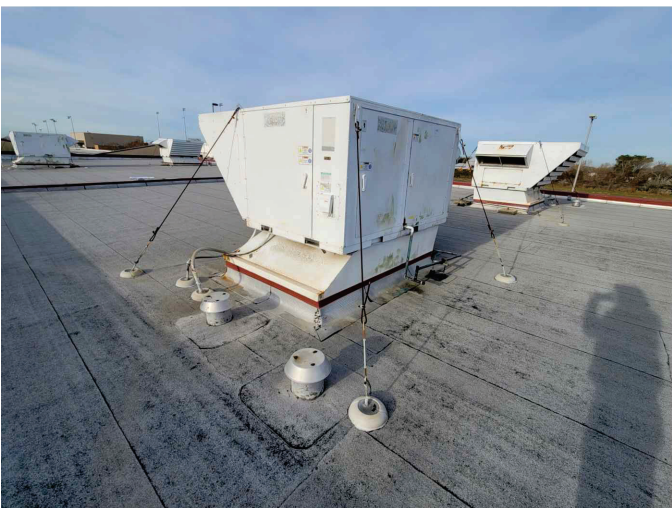
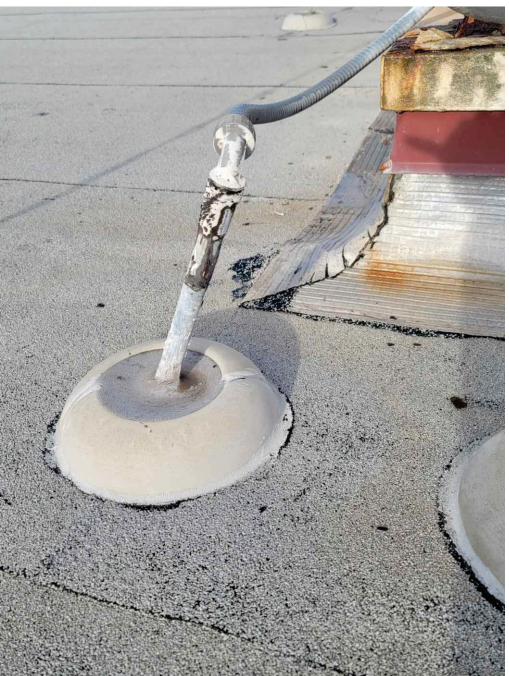
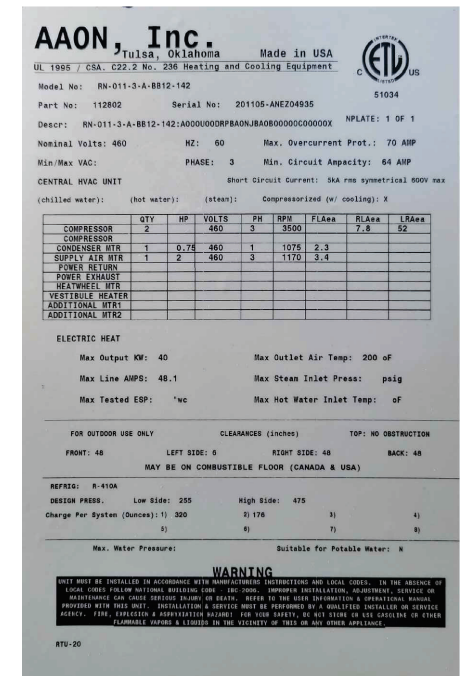
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Date 02/29/2024	ME4
Drawn By JM	
Check By JM	
Scale AS NOTED	Sheet 5 of 7
Cost File 34151-ME4	



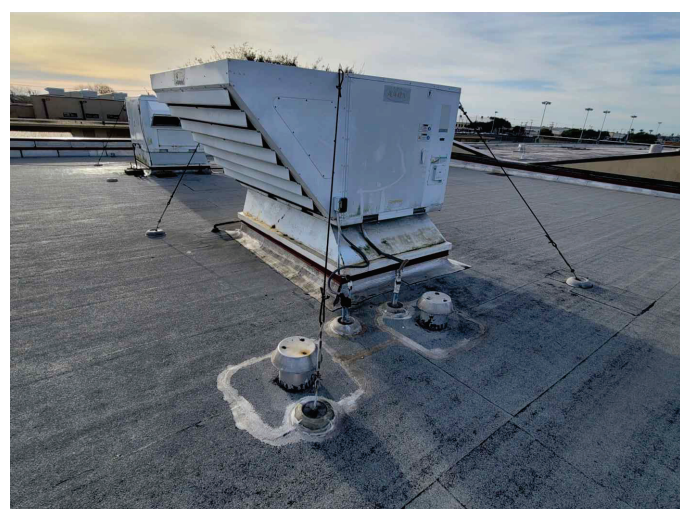
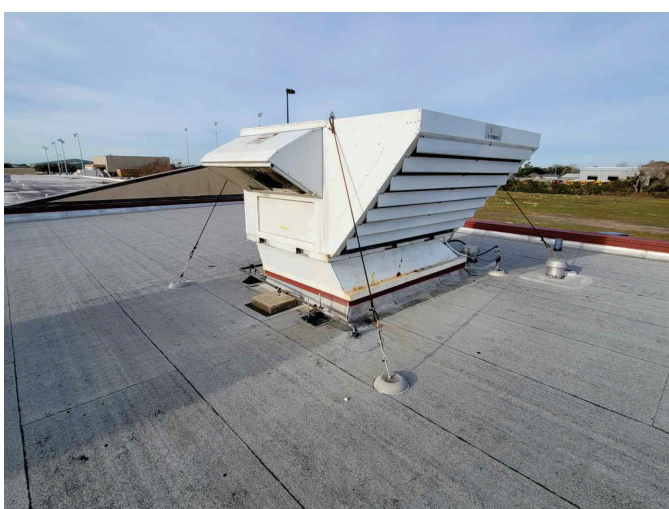
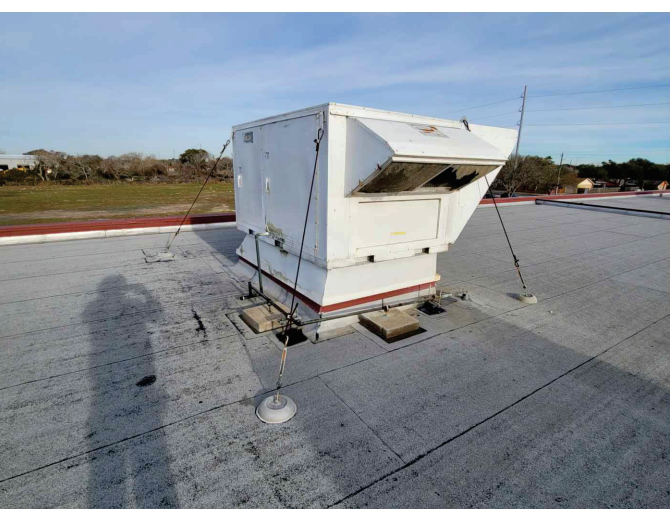
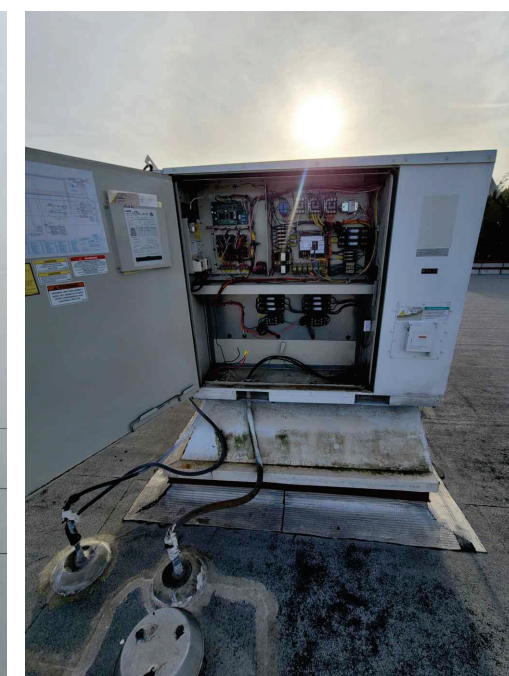
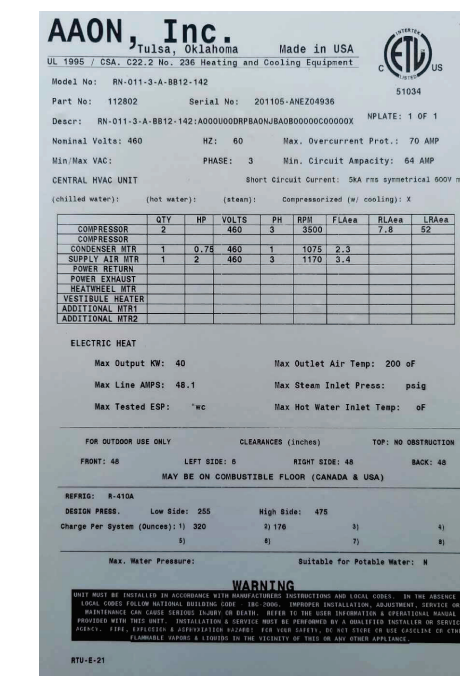
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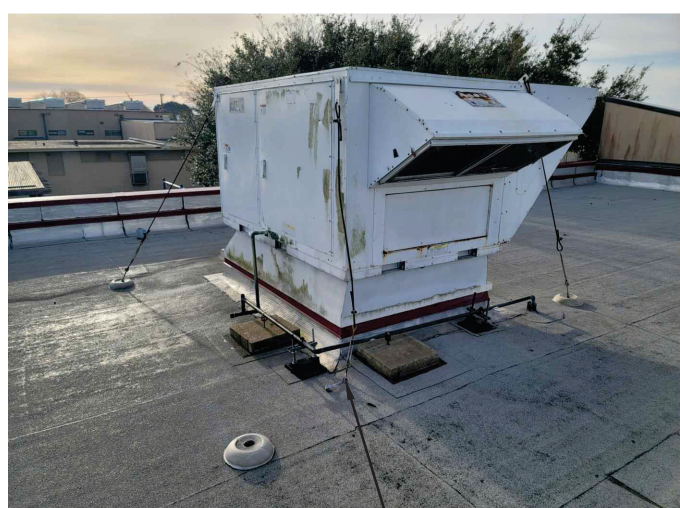
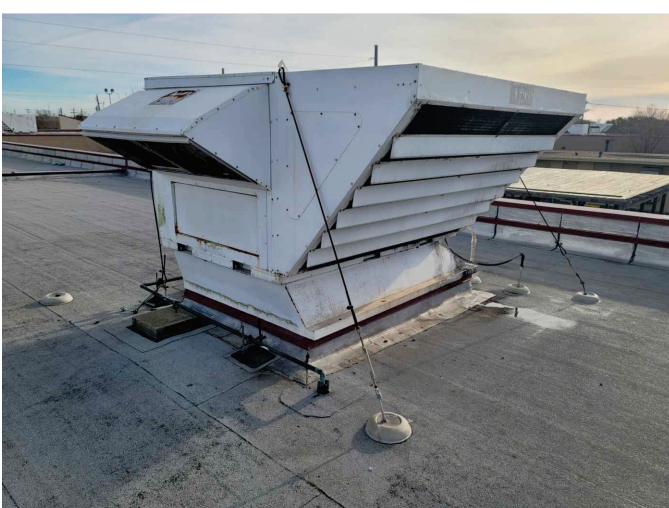
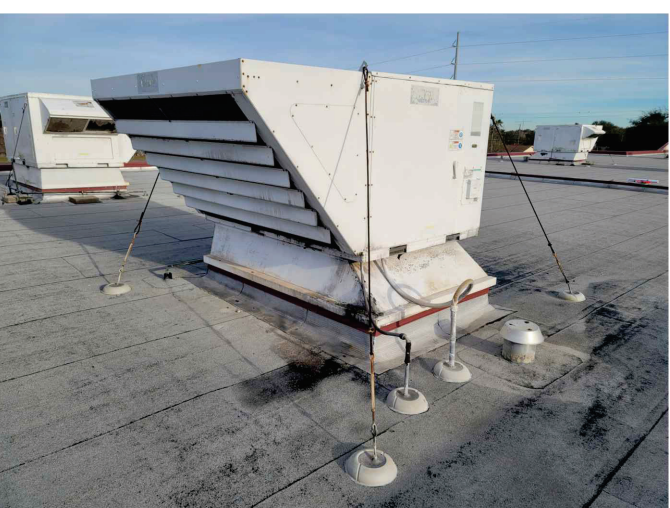
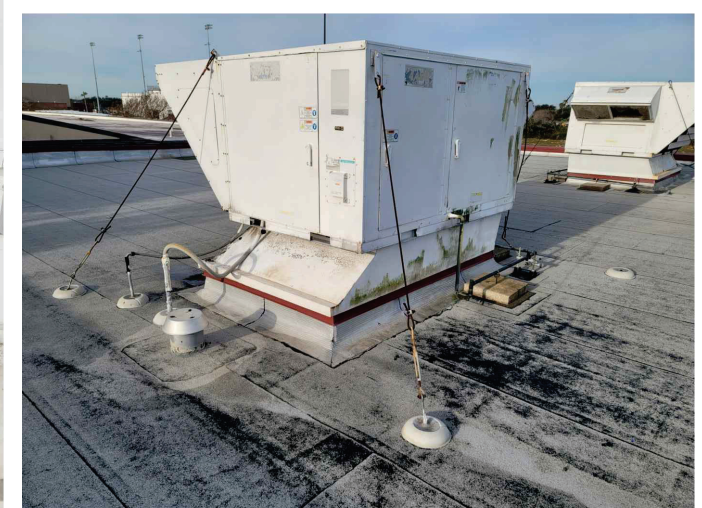
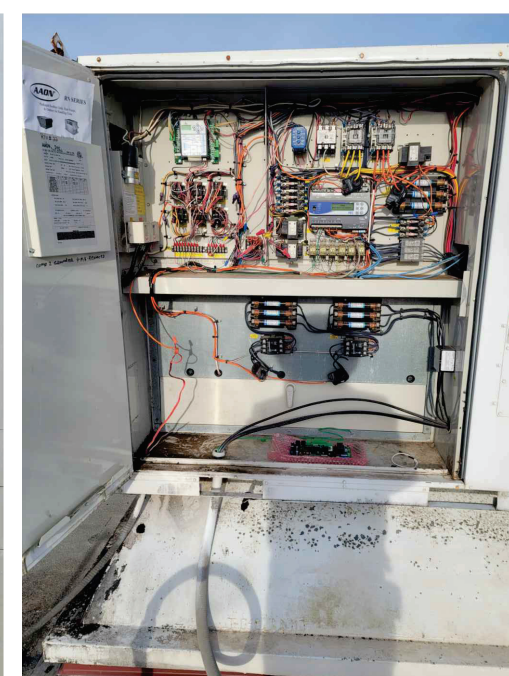
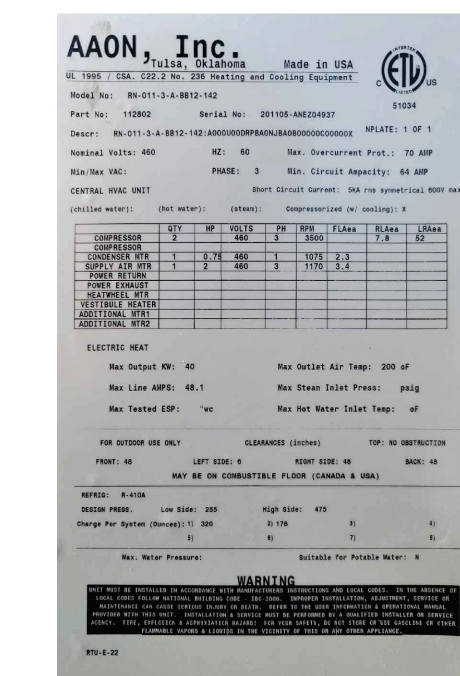
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3 RTU-E-20 PHOTOS
ME5 SCALE:



4 RTU-E-21 PHOTOS
ME5 SCALE:



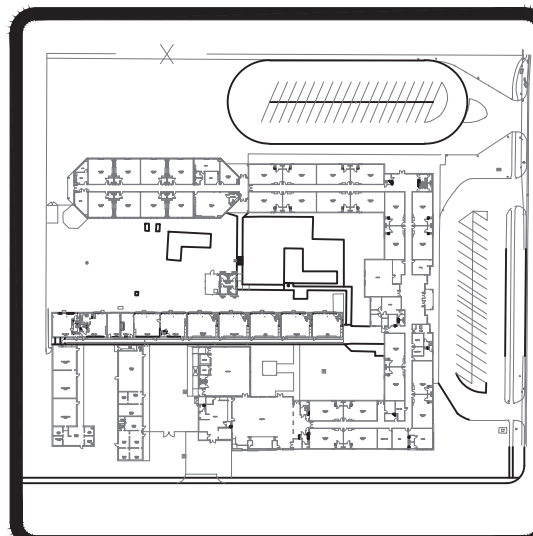
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ME5 SCALE:

PROVIDE NEW OPEN EYE THROUGH BOLT AND CHEMCURB ROOF CURB FLASHING SYSTEM AND RECONNECT WINDSTORM SUPPORT CABLE.

No.	Revision/Issue	Date

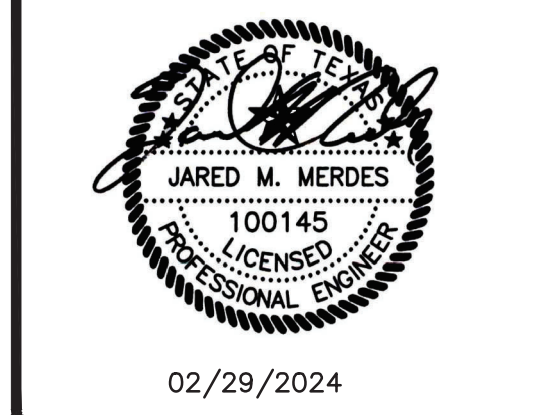
Project Name and Address
FBISD ECC HVAC PACKAGED ROOFTOP UNIT REPLACEMENTS - 2024
FLOUR BLUFF INDEPENDANT SCHOOL DISTRICT
EARLY CHILDHOOD CENTER, 617 PURDUE RD.
CORPUS CHRISTI, TEXAS 78416

Sheet Title
RTU PHOTOS



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Firm Name and Address

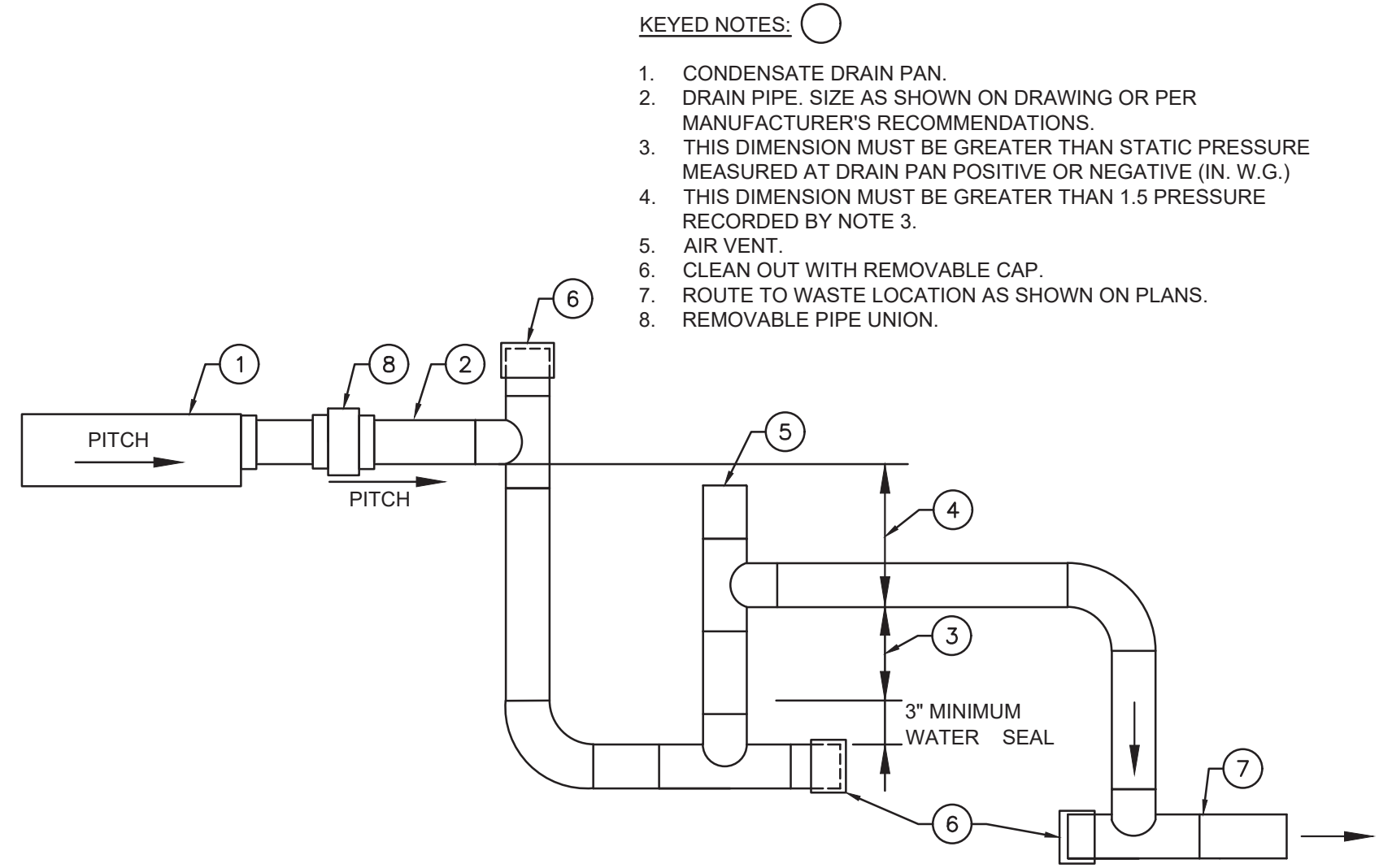


Project # 2024151
Date 02/29/2024
Drawn By JM
Checked By JM
Scale AS NOTED
Cost File 24151-ME5

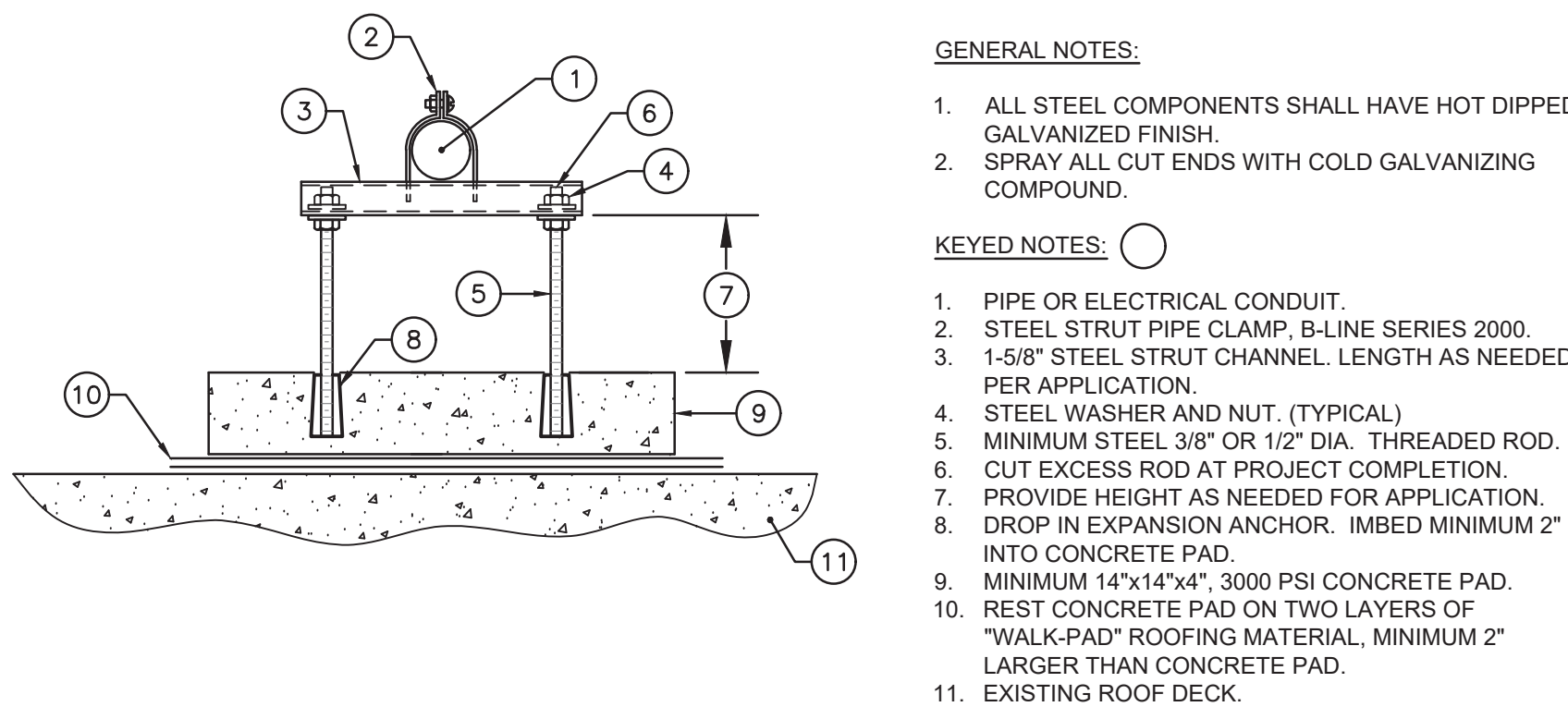
Sheet No:
ME5
6 of 7

PACKAGED ROOFTOP UNIT SCHEDULE "AAON" (OWNER FURNISHED/CONTRACTOR INSTALLED)																																									
DESIGNATION	SUPPLY FAN STAGE AIR VOLUMES (CFM)			OUTSIDE AIR CFM	RETURN AIR CFM	E.S.P. IN (W.C.)	RETURN AIR (*FDB/ *FWB)	OUTSIDE AIR (*FDB/ *FWB)	AIR ON COND. *FDB	COOLING COIL			COOLING DATA - FULL CAPACITY				HOT GAS REHEAT COIL			ELECTRIC HEATING				ELECTRICAL DATA										EER @ ARI	IEER@ ARI	APPROX. INSTALLED UNIT WEIGHT (LBS)	MANUFACTURER MODEL & NO.				
	COOL MIN	COOL MAX	HEAT ALL STAGES							FACE AREA FT²	ROWS	FPI	ENT. AIR (*FDB/ *FWB)	LVG. AIR @ COIL (*FDB/ *FWB)	GROSS TOTAL CAP. (MBH)	GROSS SENSIBLE CAP. (MBH)	OUTSIDE AIR *F DB	ENTERING AIR *F DB/ WB	LEAVING AIR *F DB/ WB	EAT *F	LAT *F	KW	STEPS	V/PH	COMPRESSORS		CONDENSER FANS		SUPPLY FAN		SINGLE POINT										
																									QTY.	STAGES	RLA	V/PH	QTY.	FLA	V/PH	MOTOR HP	FLA					V/PH	MCA	MOCF	V/PH
RTU-3	1,200	3,100	3,100	625	2,475	0.65	75/64	100/80	100	14.6	6	12	79.2/67.7	53.9/53.8	128.9	124.0	85	76.2/68.1	75.0/61.5	60.3	100.4	40	2	460/3/60	2	VARIABLE	8.1/7.2	460/3/60	2	1.6	460/1/60	3.0	4.8	460/3/60	66	70	460/3/60	14.3	19.1	1,800	AAON RN-011-3-A-HB89-142
RTU-14	1,000	2,600	2,600	485	2,115	0.65	74/64	100/80	100	14.6	6	12	78.9/67.4	54/54	104.7	100.3	85	78.9/67.4	75.0/61.4	60.9	84.8	20	2	460/3/60	2	VARIABLE	7.8/6.4	460/3/60	2	1.6	460/1/60	2.0	3.4	460/3/60	34	35	460/3/60	14.8	19.1	1,800	AAON RN-009-3-A-HB89-122
RTU-15	1,560	3,900	3,900	200	3,700	0.65	74/64	100/80	100	14.6	6	12	75.3/65	53.8/53.7	128.7	122.6	85	74.6/65.4	75.0/61.6	66.1	97.9	40	2	460/3/60	2	VARIABLE	8.1/7.2	460/3/60	2	1.6	460/1/60	3.0	4.8	460/3/60	66	70	460/3/60	14.3	19.1	1,800	AAON RN-011-3-A-HB89-142
RTU-16	1,220	3,050	3,050	660	2,390	0.65	74/64	100/80	100	14.6	6	12	79.6/68.0	54/53.9	129.1	125.1	85	79.6/68.0	75.0/61.3	59.8	100.5	40	2	460/3/60	2	VARIABLE	8.1/7.2	460/3/60	2	1.6	460/1/60	2.0	3.4	460/3/60	64	70	460/3/60	14.3	19.1	1,800	AAON RN-011-3-A-HB89-142
RTU-17	1,220	3,050	3,050	660	2,390	0.65	74/64	100/80	100	14.6	6	12	79.6/68.0	54/53.9	129.1	125.1	85	79.6/68.0	75.0/61.3	59.8	100.5	40	2	460/3/60	2	VARIABLE	8.1/7.2	460/3/60	2	1.6	460/1/60	2.0	3.4	460/3/60	64	70	460/3/60	14.3	19.1	1,800	AAON RN-011-3-A-HB89-142
RTU-19	1,220	3,050	3,050	660	2,390	0.65	74/64	100/80	100	14.6	6	12	79.6/68.0	54/53.9	129.1	125.1	85	79.6/68.0	75.0/61.3	59.8	100.5	40	2	460/3/60	2	VARIABLE	8.1/7.2	460/3/60	2	1.6	460/1/60	2.0	3.4	460/3/60	64	70	460/3/60	14.3	19.1	1,800	AAON RN-011-3-A-HB89-142
RTU-20	1,220	3,050	3,050	660	2,390	0.65	74/64	100/80	100	14.6	6	12	79.6/68.0	54/53.9	129.1	125.1	85	79.6/68.0	75.0/61.3	59.8	100.5	40	2	460/3/60	2	VARIABLE	8.1/7.2	460/3/60	2	1.6	460/1/60	2.0	3.4	460/3/60	64	70	460/3/60	14.3	19.1	1,800	AAON RN-011-3-A-HB89-142
RTU-21	1,220	3,050	3,050	660	2,390	0.65	74/64	100/80	100	14.6	6	12	79.6/68.0	54/53.9	129.1	125.1	85	79.6/68.0	75.0/61.3	59.8	100.5	40	2	460/3/60	2	VARIABLE	8.1/7.2	460/3/60	2	1.6	460/1/60	2.0	3.4	460/3/60	64	70	460/3/60	14.3	19.1	1,800	AAON RN-011-3-A-HB89-142
RTU-22	1,220	3,050	3,050	660	2,390	0.65	74/64	100/80	100	14.6	6	12	79.6/68.0	54/53.9	129.1	125.1	85	79.6/68.0	75.0/61.3	59.8	100.5	40	2	460/3/60	2	VARIABLE	8.1/7.2	460/3/60	2	1.6	460/1/60	2.0	3.4	460/3/60	64	70	460/3/60	14.3	19.1	1,800	AAON RN-011-3-A-HB89-142
* REFER TO SUBMITTAL FOR ALL EQUIPMENT CONSTRUCTION AND ACCESSORIES																																									

PACKAGED ROOFTOP UNIT SCHEDULE "LENNOX" (OWNER FURNISHED/CONTRACTOR INSTALLED)																																							
DESIGNATION	SUPPLY FAN STAGE AIR VOLUMES (CFM)				E.S.P. IN (W.C.)	AIR ON COND. *FDB	COOLING COIL		COOLING DATA - FULL CAPACITY				HOT GAS REHEAT COIL				ELECTRIC HEATING				ELECTRICAL DATA										EER @ ARI	SEER@ ARI	APPROX. INSTALLED UNIT WEIGHT (LBS)	MANUFACTURER MODEL & NO.					
	COOL STAGE 1	COOL STAGE 2	HEAT STAGE 1	HEAT STAGE 2			FACE AREA FT²	ROWS	FPI	ENT. AIR (*FDB/*FWB)	LVG. AIR @ COIL (*FDB/*FWB)	GROSS TOTAL CAP. (MBH)	GROSS SENSIBLE CAP. (MBH)	OUTSIDE AIR *F DB	DH STAGE 1 AIR FLOW CFM	ENTERING AIR *F DB/ WB	LEAVING AIR *F DB/ WB	EAT *F	LAT *F	KW	STEPS	V/PH	COMPRESSORS		CONDENSER FANS		SUPPLY FAN		SINGLE POINT										
																							QTY.	STAGES	RLA	V/PH	QTY.	FLA	V/PH	MOTOR HP	FLA	V/PH	MCA	MOCF	V/PH				
RTU-18	1,105	1,650	1,650	1,650	0.75	100	-	-	-	75/63.5	52.4/51.4	56.1	39.6	85	1,105	75/66	76.3/59.3	68	94.4	15	-	460/3/60	1	2	6.5	460/3/60	1	1.4	-	1.5	2.3	-	26	30	460/3/60	12.7	17	700	LENNOX MODEL NO. LCT060H4E
* REFER TO SUBMITTAL FOR ALL EQUIPMENT CONSTRUCTION AND ACCESSORIES																																							



1 DETAIL – CONDENSATE DRAIN TRAP
ME6 SCALE: NOT TO SCALE



2 DETAIL – ROOF PIPE SUPPORT
ME6 SCALE: NOT TO SCALE

SYMBOLS AND ABBREVIATIONS	
	DUCT SIZE, (FIRST OR TOP NO. INDICATES SIDE FACING VIEWER)
	DUCTWORK WITH INTERNAL INSULATION
	SUPPLY DUCT UP
	SUPPLY DUCT DOWN
	RETURN, EXHAUST, OR O/A DUCT UP
	RETURN, EXHAUST, OR O/A DUCT DOWN
	FLEXIBLE DUCT CONNECTION
	RECTANGULAR DUCT ELBOW WITH TURNING VANES
	MANUAL MULTI-LEAF VOLUME DAMPER WITH LOCKING QUADRANT
	DUCT RISE IN DIRECTION OF AIR FLOW
	DUCT DROP IN DIRECTION OF AIR FLOW
	DUCT ACCESS PANEL
	FIRE/ SMOKE DAMPER
	MOTORIZED DAMPER
	AIRFLOW METER
	DEWPOINT SENSOR (SUBSCRIPT IDENTIFIES ZONE)
	TEMPERATURE SENSOR (SUBSCRIPT IDENTIFIES ZONE)
	CARBON DIOXIDE SENSOR
	AIR HANDLING UNIT
	OUTSIDE AIR
	VARIABLE FREQUENCY DRIVE

MECHANICAL GENERAL NOTES

- THESE GENERAL NOTES APPLY TO ALL HVAC DRAWINGS.
- DUCT SIZES ARE INSIDE CLEAR DIMENSIONS. ADJUST AS NECESSARY TO ALLOW FOR LINER.
- INSULATE ALL DUCTWORK IN ACCORDANCE WITH SPECIFICATIONS.
- PROVIDE FLEXIBLE CONNECTION AT DUCT ATTACHMENTS TO EQUIPMENT AS INDICATED ON DRAWINGS.
- HVAC EQUIPMENT SUBMITTED OTHER THAN SCHEDULED MANUFACTURER'S SHALL NOT EXCEED PHYSICAL DIMENSIONS DUE TO SPACE LIMITATIONS.
- ALL PIPING AND DUCTWORK PENETRATIONS OF FIRE-RATED BARRIERS SHALL BE PROTECTED WITH FIRE BLOCKING MATERIAL PER SPECIFICATIONS.
- MANUAL VOLUME DAMPERS INSTALLED IN RECTANGULAR DUCTWORK SHALL BE OPPOSED BLADE TYPE. MANUAL VOLUME DAMPERS INSTALLED IN ROUND DUCTWORK SHALL BE BUTTERFLY TYPE.
- BALANCING DAMPERS IN EXTERNALLY INSULATED DUCTWORK SHALL BE PROVIDED WITH A BUILD-OUT ON DAMPER OPERATOR TO EXTEND OPERATOR HANDLE TO OUTSIDE OF INSULATION.
- CONTRACTOR SHALL VISIT THE SITE PRIOR TO SUBMITTING A BID AND DETERMINE ALL EXISTING CONDITIONS WHICH MAY AFFECT HIS WORK. ANY CONDITIONS RESULTING IN ADDITIONAL WORK ARISING AFTER AWARD OF CONTRACT AND START OF CONSTRUCTION WHICH COULD HAVE BEEN AVOIDED AND/OR RESOLVED HAD THE CONTRACTOR VISITED THE SITE AND OBSERVED EXISTING CONDITIONS SHALL BE PERFORMED BY THE CONTRACTOR AT NO ADDITIONAL COST TO OWNER.
- IT IS THE INTENT OF THESE CONTRACT DOCUMENTS TO PROVIDE COMPLETE, PROPERLY ADJUSTED AND OPERABLE MECHANICAL SYSTEMS. PROVIDE ALL NECESSARY SUPERVISION, COORDINATION, LABOR, MATERIALS, EQUIPMENT, FIXTURES, DRYAGE, HOISTING, TOOLS, MACHINERY AND CONNECTIONS TO UTILITIES FOR THE INSTALLATION OF COMPLETE AND OPERABLE MECHANICAL SYSTEMS. IF DETAILS OR SPECIAL CONDITIONS ARE REQUIRED IN ADDITION TO THOSE SHOWN ON DRAWINGS, PROVIDE ALL MATERIAL AND EQUIPMENT REQUIRED TO COMPLETE THEIR INSTALLATION, WHETHER NOTED IN PLANS OR NOT.
- MECHANICAL AND ELECTRICAL CONTRACTORS SHALL COORDINATE TO ENSURE CORRECT ELECTRICAL SERVICE TO MECHANICAL EQUIPMENT. COORDINATION SHALL PRECEDE PURCHASE OF EQUIPMENT. IMMEDIATELY REPORT ALL DISCREPANCIES TO THE OWNER'S REPRESENTATIVE. ALL DISCREPANCIES FOUND AFTER THE PURCHASE OR INSTALLATION OF EQUIPMENT SHALL BE REMEDIATED BY THE CONTRACTOR AT NO COST TO THE OWNER OR DESIGN PROFESSIONALS.
- CONTRACTOR SHALL MAKE HIMSELF FAMILIAR WITH OTHER TRADES WHICH DIRECTLY AFFECT CONTRACTOR'S SCOPE OF WORK.
- ALL HOLES IN CONCRETE, MASONRY, AND PLASTER SHALL BE CORE DRILLED WHEN POSSIBLE. VERIFY STRUCTURE BEFORE DRILLING. DO NOT CUT STRUCTURE OR STRUCTURAL REINFORCEMENT. IMMEDIATELY REPORT ANY DAMAGE CAUSED BY DRILLING TO THE OWNER'S REPRESENTATIVE.
- ANY DAMAGE TO BUILDING STRUCTURE SHALL BE PATCHED TO THE COMPLETE SATISFACTION OF THE OWNER'S REPRESENTATIVE.
- CONTRACT DRAWINGS ARE DIAGRAMMATIC IN NATURE. FIELD VERIFY EXACT DIMENSIONS AND LOCATIONS OF WALLS, DOORS, AND OTHER BUILDING STRUCTURE FROM FIELD MEASUREMENTS AND LOCATE EQUIPMENT, DUCTS, PIPING, FIXTURES, ETC., AS REQUIRED AND NECESSARY. IF CHANGES FROM PLANS ARE REQUIRED, PROVIDE SKETCH TO OWNER'S REPRESENTATIVE SHOWING CHANGES FOR APPROVAL. ALTERATIONS TO THE ROUTING OF PIPING, DUCT, ETC., OR LOCATION OF EQUIPMENT, FIXTURES, ETC., SHALL BE WITHOUT COST TO THE OWNER OR DESIGN PROFESSIONALS.
- ADJUSTMENT OF MECHANICAL EQUIPMENT, DUCT WORK, AND PIPING MAY BE NECESSARY TO FIT FIELD CONDITIONS. COORDINATE WITH ARCHITECTURAL AND STRUCTURAL DRAWINGS AND OTHER TRADES. SUCH WORK SHALL BE COMPLETED AT NO COST TO THE OWNER OR DESIGN PROFESSIONALS.
- COORDINATE ALL CEILING MOUNTED AIR DISTRIBUTION DEVICE LOCATIONS WITH CEILING PLANS.

DEFINITIONS

- "PROVIDE" SHALL MEAN FURNISHED AND INSTALLED, COMPLETE AND READY FOR INTENDED USE BY CONTRACTOR, EXCEPT AS OTHERWISE NOTED.
- "FURNISH" SHALL MEAN PURCHASE ONLY BY OWNER; INSTALLATION BY CONTRACTOR, EXCEPT AS OTHERWISE NOTED.
- "INSTALL" SHALL MEAN CONTRACTOR TO SET UP FOR USE, ERECT OR CONSTRUCT ONLY; PURCHASE BY OTHERS, EXCEPT AS OTHERWISE NOTED.
- "DEMOLISH" AND "REMOVE" SHALL MEAN CONTRACTOR TO DISASSEMBLE, TAKE AWAY FROM SITE, AND PROPERLY DISPOSE OF ITEMS AS INDICATED OR IMPLIED EXCEPT AS OTHERWISE NOTED. CONTRACTOR SHALL PATCH REMAINING SYSTEMS TO MATCH EXISTING.

CODE REVIEW

- 2021 INTERNATIONAL MECHANICAL CODE
- 2020 NEC
- 2021 INTERNATIONAL ENERGY CONSERVATION CODE - PRESCRIPTIVE COMPLIANCE PATH
- 2015 IECC SECTION C406; ADDITIONAL EFFICIENCY PACKAGE OPTION - C406.3 REDUCE LIGHTING POWER DENSITY.

No.	Revision/Issue	Date

Project Name and Address

FBISD ECC HVAC PACKAGED ROOFTOP UNIT REPLACEMENTS - 2024

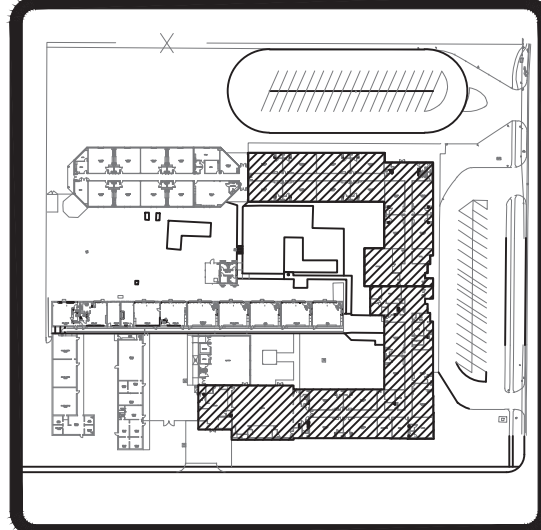
FLOUR BLUFF INDEPENDANT SCHOOL DISTRICT

EARLY CHILDHOOD CENTER, 617 PURDUE RD.

CORPUS CHRISTI, TEXAS 78418

Sheet Title

SCHEDULES, NOTES, AND DETAILS



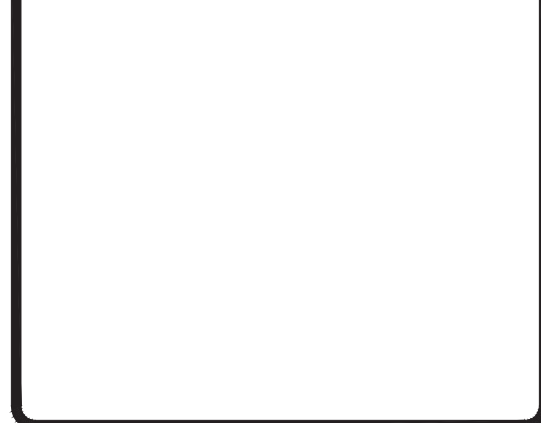
Key Plan

STRIDDE, CALLINS & ASSOCIATES INC.

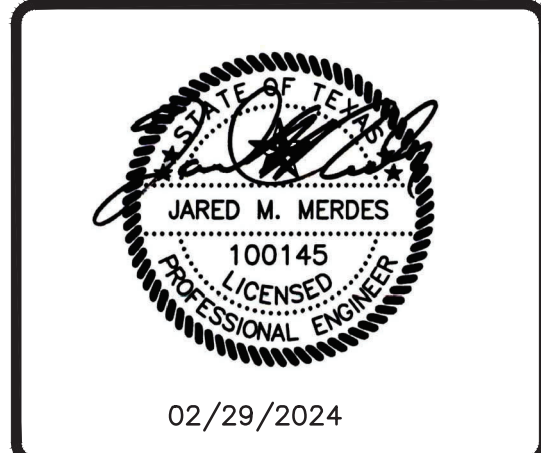
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Firm Name and Address



Seal



02/29/2024

Project #	2024151	Sheet No.	ME6
Date	02/29/2024		
Drawn By	JM		
Check By	JM		
Scale	AS NOTED	Sheet	7 of 7
Calc File	24151-ME6		