

NEW VRV SYSTEMS "DAIKIN" "i-TOUCH MGR."
 DDC SYSTEM CONTROLS PANEL w/NEW MAIN
 CENTRAL "i-TOUCH" DDC CONTROLLER (MTD
 IN NEW CONTL. PANEL THIS LOCATION)
 (REQUIRES NEW ELECTRICAL CONTROLS PWR.
 120v-1PH-60Hz SERVICE TO PANEL)

"ADD ALTERNATE BID ITEM" MODIFY & ADJUST TO
 RE-SET & TEST & BALANCE EACH EXIST. "CHIE-1 & 2"
 CHILLER PUMPS (EXIST. RATED @ 250 GPM EACH) FOR
 THIS ADD ALTERNATE WORK ONLY. PUMPS TO BE RESET
 FOR NEW CHW WATER FLOW RATE AS LISTED FOR THE
 NEW ADD-ALTERNATE AIR-COOLED CHILLER (SEE
 REQUIREMENTS LISTED FOR "ADD ALTERNATE BID ITEM")
 (EACH EXIST. CHILLER PUMP IS "TACOT" NO. TFM300M,
 90-FPM/1750 RPM, 15-HP EACH, 460V-3-PH-60HZ.)

"ADD ALTERNATE BID ITEM" EXIST. (158-TON)
 "ASC-1" AIR-COOLED CHILLER TO BE REMOVED
 AND REPLACED WITH NEW (99-TON) AIR-COOLED
 CHILLER (SEE SCHEDULE REQUIREMENTS LISTED
 FOR "ADD ALTERNATE BID ITEM") EXIST. CHILLER
 IS "MOQUAY" MODEL "ALR-185-0", RATED @
 483 GPM, EWT=48F, LWT=38F, USING 23K
 ETHYLENE GLYCOL/WATER MIX. 265.5 KW,
 W/4 COMPRESSORS @ RLA=93A EACH, FOR
 372A1013 + (14-CONDENSER FANS)
 (ADD-ALTERNATE REQUIRES NEW ELECTRICAL
 SERVICE DISCONNECT SIZES/REPLACEMENT & NEW
 BREAKER SIZE CHANGE IN EXIST. ELECT. PANEL
 IN EXIST. ELECT. ROOM OF ICE HOUSE; SEE
 ELECTRICAL DWGS.)

NOTE: (SEE ENLARGED MECH HVAC PLAN
 DWG. "FR-M-2" FOR NEW HVAC ZONES
 NO. 1 & 5 ("CU-1" & "CU-5 SYSTEMS")
 FOR ADDITIONAL INFO & REQUIREMENTS)

NOTE: (SEE MECH HVAC DEMO DWGS.) CONNECT NEW (150 CFM) 8" VENT
 S/A DUCTS TO EXIST. RE-USED 6" & 8" VENT DUCT CONNS. @ EXIST.
 BRANCH MAIN DUCTS ABV. NEW CEILINGS & ROUTE NEW 8" VENT S/A
 DUCTS TO NEW 24" SQ. "PRICE" NO. "PDN-0" ALL ALUMINUM S/A DIFFUSERS
 IN ROOM CEILINGS SHOWN (TYP. FOR ALL NEW HVAC ZONES WHERE SHOWN)

PROVIDE NEW 1-1/2" NATURAL GAS
 PIPING CONN. & GAS COCK VALVE FROM
 EXIST. 3" OVHD. NAT. GAS PIPE IN MAIN
 MECH. ROOM & ROUTE NEW LINE OVHD.
 INSIDE BLDG. ABV. EXIST. CEILINGS &
 ROUTE TO NEW ROOFTOP "RTU-1" HVAC
 UNIT ON ROOF (SEE PLAN CONTINUED)

NOTE: (SEE ENLARGED MECH HVAC PLAN DWG.
 "FR-M-4" FOR NEW HVAC ZONE NO. 2"
 ("CU-2" SYSTEM) & NEW "RTU-1" ROOFTOP
 UNIT FOR 100% O/A SYSTEM FOR LOCKER
 ROOMS FOR ADDITIONAL INFO & REQUIREMENTS)

PROVIDE NEW 1-1/2" NATURAL GAS PIPING FROM MAIN MECH. ROOM & OVHD.
 INSIDE BLDG. ABV. EXIST. CEILINGS & ROUTE TO NEW ROOFTOP "RTU-1" HVAC
 UNIT ON ROOF OVER LOCKERS AREAS AS SHOWN (PROVIDE L.P. NAT GAS PRV-STATION
 SYSTEM & ASSEMBLY FOR NEW "RTU-1")

PROVIDE NEW 30"x14" INSULATED EXHAUST DUCTWORK & CONN. TO & FROM
 EXIST. OVHD. ABV. CEILING 24"x24" EXH. DUCT MAIN AT THIS LOCATION &
 ROUTE NEW EXH. DUCT OVHD. TO CONNECT TO NEW INLET EXH. AIR CONN. ON
 NEW "RTU-1" ROOF MTD. PACKAGED HVAC UNIT (100%-O/A UNIT) MOUNTED
 ON NEW INTEGRAL UNIT ROOF CURB. SECURED TO EXISTING ROOF
 DECK/JOISTS AT THIS EXIST. LOCATION SHOWN; INSULATE ALL EXHAUST
 DUCT w/"OCF" 2"-THK. FOIL-FACED DUCT WRAP INSULATION

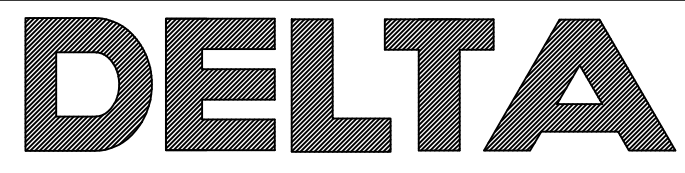
PROVIDE NEW INSULATED ROOF CURB
 w/INSULATED CURB COVER SECURED TO
 EXISTING ROOF CURB AT EXIST. LOCATION OF
 DEMO'D OLD EXIST. ROOF EXHAUST FAN &
 CURB & SECURE NEW CURB WATER-TITE
 & SEALED PERMANENTLY ON ROOF

NOTE: (SEE ENLARGED MECH HVAC
 PLAN DWG. "FR-M-3" FOR NEW HVAC
 ZONE NO. 3 ("CU-3" SYSTEM) FOR
 ADDITIONAL INFO & REQUIREMENTS)

NOTE: (SEE MECH HVAC DEMO DWGS.) CONNECT NEW (150 CFM) 8" VENT
 S/A DUCTS TO EXIST. RE-USED 6" & 8" VENT DUCT CONNS. @ EXIST.
 BRANCH MAIN DUCTS ABV. NEW CEILINGS & ROUTE NEW 8" VENT S/A
 DUCTS TO NEW 24" SQ. "PRICE" NO. "PDN-0" ALL ALUMINUM S/A DIFFUSERS
 IN ROOM CEILINGS SHOWN (TYP. FOR ALL NEW HVAC ZONES WHERE SHOWN)

FLAT ROCK - NEW HVAC UPGRADE VRV SYSTEMS (ZONES NO. 1 - 5)
 OVERALL FLOOR PLAN @ EXIST. MAIN FLOOR

SCALE: 3/32" = 1'-0"

NO. DATE		ISSUED FOR OWNER BIDDING.		BY JJC		DESIGNED BY: S.BRAUNBECK & J.CAPITAN		DRAWN BY: CAPITAN		CHECKED BY: CAPITAN		DATE: DECEMBER-16-2019		SCALE: AS NOTED		JOB NO.: DEJ JOB NO. 19005		DESIGN & ENGINEERING ENERGY SYSTEMS INFRASTRUCTURE UTILITIES SYSTEMS ANALYSIS COMMISSIONING REVIEW		 DELTA ENGINEERING, INC. CONSULTING ENGINEERS 315 EAST BROAD STREET, GREENVILLE, SC 29601 GREENVILLE, SC TEL. NO. (864) 505-5359 3106 RIVERINE VIEW, CHARLESTON, SC 29414 CHARLESTON, SC TEL. NO. (864) 505-2976 Em: jcapitan@gmail.com		PROJECT: 2019 - 2020 HVAC UPGRADES TO FLAT ROCK & RUGBY MIDDLE SCHOOLS HENDERSON COUNTY PUBLIC SCHOOLS 414 - 4TH STREET, HENDERSONVILLE, HENDERSON COUNTY, NORTH CAROLINA 29621		DRAWING: FR-M - 1 SHEET: 4 OF 10 REV. NO.: IFOB	
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