LAKE METROPARKS EXECUTIVE OFFICE'S HVAC IMPROVEMENTS: PHASES 1 AND 2

INDEX OF DRAWINGS

TITLE SHEET	1
ARCHITECTURAL PLANS	1
ARCHITECTURAL NOTES AND SPECIFICATIONS	2
MECHANICAL DEMOLITION PLANS	1
MECHANICAL PROPOSED ROOF PLAN AND DETAILS	2
MECHANICAL PROPOSED FLOOR PLAN	3
MECHANICAL SCHEDULES AND SPECIFICATIONS	4



11211 SPEAR ROAD, CONCORD TOWNSHIP, OHIO

AUGUST, 2024



GRETCHE FRANK J. F JOHN C. RE

PAUL PALA VINCE URB TOM ADAII TOM KORI GEORGE F CHRISTOP JIM SIVAK

LOCATION MAP N.T.S.



BID SET

BOARD OF COMMISSIONERS

N SKOK DISANTO	. COMMISSIONER
POLIVKA	. COMMISSIONER
EDMOND	. COMMISSIONER

ADMINISTRATION

AGYI	.EXECUTIVE DIRECTOR
BANSKI	. DEPUTY DIRECTOR
R	. DIRECTOR OF PARK SERVICES
TANSKY	. DIRECTOR OF PARK OPERATIONS
PLAATJE	. ASSISTANT DIRECTOR OF PARK OPERATIONS
PHER J. BRASSEL	.CHIEF FINANCIAL OFFICER
	.CHIEF RANGER



CONTRACT No. 220856 DRAWING NO. T-1





NDED ACOUSTICAL	SD	SMOKE DETECTOR
ECESSED LIGHT E	O	RECESSED LIGHT FIXTURES
ECESSED LIGHT E	Ø	SPRINKLER HEADS
VAC DIFFUSER	EXIT	EXIT SIGN
N AIR GRILLE		





SPECIFICATIONS

DIVISION 1 - GENERAL CONDITIONS

EXAMINATION OF SITE - EACH BIDDER SHALL, BEFORE SUBMITTING HIS PROPOSAL, VISIT THE SITE AND THOROUGHLY FAMILIARIZE THEMSELVES WITH THE SCOPE OF WORK AND THE CONDITIONS UNDER WHICH IT WILL BE EXECUTED. LACK OF SUCH KNOWLEDGE WILL NOT BE ACCEPTED AS CAUSE FOR GRANTING EXTRA COMPENSATION, OR FOR FAILURE, NEGLECT OR REFUSAL TO PERFORM ANY OR ALL OF THE WORK INCLUDED IN THE CONTRACT.

PERMITS: THE BUILDING PERMIT MUST BE PROCURED BY THE CONTRACTOR. EACH SUBCONTRACTOR SHALL SECURE AND PAY FOR OTHER PERMITS REQUIRED FOR THE COMPLETE EXECUTION OF HIS WORK, INCLUDING ALL INSPECTION FEES.

CHANGES IN THE WORK: EXCEPT FOR MINOR CHANGES IN THE WORK, NOT INVOLVING EXTRA COST, NO ORDER FOR EXTRA WORK SHALL BE VALID UNLESS SIGNED BY THE OWNER.

LAYOUT: CONTRACTOR SHALL LAY OUT ALL OF THE WORK IN ACCORDANCE WITH THE DIMENSIONS GIVEN ON THE DRAWINGS. VERIFY ALL DIMENSIONS AND CONDITIONS AT THE BUILDING FOR PROPER FIT OF ALL SHOP FABRICATED ITEMS.

CLEAN- UP: CONTRACTOR SHALL PERFORM SPECIAL AT THE COMPLETION OF WORK. CLEAN ALL GLASS, REMOVE ALL PAINT SPOTS, STAINS, MARKS AND DIRT FOR ALL PAINTED, DECORATED AND FINISHED SURFACES. REMOVE ALL TEMPORARY PROTECTIONS AND CLEAN AREAS.

PROTECTION OF PROPERTY: ALL DOORWAYS AND WINDOWS SHALL BE PROVIDED WITH LOCKS WHICH SHALL BE UNDER THE CONTROL OF THE CONTRACTOR, WHO SHALL LOCK DOORS AND WINDOWS TO PREVENT UNAUTHORIZED ENTRY TO THE BUILDING DURING CONSTRUCTION.

DIVISION 5 - METALS

STEEL DECKING - TO MATCH EXISTING ROOF RIBBED ROOF DECKING.

METAL STUDS: 3-5/8", 20 GAUGE NON-STRUCTURAL STEEL STUDS COMPLYING WITH ASTM C645 AND INSTALLED IN ACCORDANCE WITH ASTM A1003. STUDS TO HAVE AN EQUIVALENT CORROSION RESISTANCE AS SPECIFIED IN A653/A653.

DIVISION 7 - THERMAL & MOISTURE PROTECTION

ROOF SYSTEM: TO MATCH EXISTING SYSTEM, BY TREMCO OR AN APPROVED EQUAL. INSTALL IN ACCORDANCE TO MANUFACTURERS INSTRUCTIONS.

NOTE: INFILL ROOF

SEALANT: DYMONIC ONE PART NON-SAG URETHANE AS MANUFACTURED BY TREMCO, INC. COLOR TO MATCH ADJACENT SURFACE.

DIVISION 9 - FINISHES

ACOUSTICAL LAY-IN UNITS: NOMINAL 24" x 24" x 5/8" MINERAL FIBER LAY-IN UNITS WITH CLASS 'A' FLAME SPREAD RATING, " SECOND LOOK II" NO. 2767B6 AS MANUFACTURED BY " ARMSTRONG WORLD CO." OR APPROVED EQUAL.



MATCH RIGID INSULATION

DETAIL @ ROOF EQUIPMENT A-01 SCALE: 1"=1'-0"

INFILL ROOF CONSTRUCTION TO MATCH EXISTING ROOF.	NEW EXHAUST HOOD - SEE MECHANICAL
	CONT. 2 x NAILERS PROVIDE AS REQ'D
	BASE FLASHING
	RIGID INSUL.
	EXIST'G ROOF DECK
	EXIST'G ROOF CURBING
IG	3 DETAIL @ EXHAUST HOOD A-01 SCALE: 1"=1'-0"





H:\2022\220856\DWG\SHEETS\M_220856_ADMIN BUILDING PLANS.DWG - M-01 - 7/25/2024 3:17:37 PM - JON MEOLA









MECHANICAL SPECIFICATIONS

1. PROVIDE ALL EQUIPMENT INDICATED, LABOR, MATERIALS, TOOLS, ETC. REQUIRED FOR COMPLETE, FULLY ADJUSTED AND READY-TO-USE MECHANICAL SYSTEMS IN ACCORDANCE WITH THE INTENT OF THE PLANS. ALL MECHANICAL WORK SHALL COMPLY WITH THE OHIO BUILDING CODE, OHIO MECHANICAL AND PLUMBING CODES, LOCAL DEPARTMENT OF HEALTH REGULATIONS, FUEL GAS CODE, ALL APPLICABLE LOCAL CODES, NFPA STANDARDS NO. 90A, 54 AND 70, THE PLANS PROVIDED AND ACCEPTED ENGINEERING PRACTICES. THE MOST STRINGENT CODE OR STANDARD SHALL APPLY. THE CONTRACTOR SHALL ENSURE THAT ALL WORK IS PERFORMED IN ACCORDANCE WITH OSHA SAFETY RULES AND REGULATIONS. DRAWINGS INDICATE SIZE AND APPROXIMATE LOCATION OF VARIOUS WORK AND ARE TO BE USED AS GENERAL GUIDE FOR INSTALLATION. THE CONTRACTOR IS RESPONSIBLE FOR INSPECTING PROPOSED CONSTRUCTION SITE AND BECOMING AWARE OF ALL CONDITIONS AFFECTING THIS WORK, REGARDLESS OF THE DETAILS SHOWN ON THE PLANS, PRIOR TO BIDDING THE JOB. CONTACT THE ENGINEER WHEREVER ANY CLARIFICATION OF THE PLANS OR SPECIFICATIONS IS REQUIRED.

- 2. <u>SECURE ALL NECESSARY PERMITS</u> IN ACCORDANCE WITH LOCAL JURISDICTION. ACQUIRE ALL INSPECTIONS REQUIRED OF MECHANICAL SYSTEMS IN ACCORDANCE WITH THE BUILDING DEPARTMENT HAVING JURISDICTION.
- 3. PROVIDE ALL HVAC EQUIPMENT INDICATED ON THE PLANS AND SCHEDULES. ALL EQUIPMENT SHALL BE INSTALLED IN ACCORDANCE WITH THE MANUFACTURER'S INSTRUCTIONS.
- 4. <u>BALANCING</u> SHALL BE PERFORMED ON ALL HVAC AIR SYSTEMS. BALANCING SHALL BE PERFORMED BY CERTIFIED BALANCING CONTRACTOR. SUBMIT TWO COPIES OF BALANCE REPORT UPON COMPLETION. INCLUDE A COPY OF BALANCE REPORT IN OPERATION AND MAINTENANCE MANUALS.

5. ALL DUCTWORK, SHALL BE GALVANIZED SHEET STEEL, CONSTRUCTED AND INSTALLED PER ASHRAE AND SMACNA STANDARDS. ALL ELBOWS SHALL HAVE RADIUS/HEIGHT RATIO OF 1.5 MINIMUM OR CONTAIN TURNING VANES. TAKE-OFF FITTINGS SHALL BE 1.5 TIMES THE BRANCH AREA. INSULATE ALL SUPPLY AIR DUCTS WITH 1.5-INCH THICK FIBERGLASS DUCT BLANKET WITH FSK FACING; MANVILLE "MICROLITE", OR EQUAL BY CERTAINTEED, OWENS-CORNING. FLEXIBLE INSULATED DUCT CONNECTIONS SHALL BE UL CLASS 1 LISTED, AND SHALL BE LIMITED TO 4-FOOT LENGTHS TO ATTACH TO AIR DIFFUSERS.

A. ALL DUCTS TO HAVE JOINTS SEALED WITH UNITED DUCT SEALER AS MANUFACTURED BY UNITED MCGILL CORP. WITH U.L. CLASSIFICATION #15 FLAME SPREAD AND #20 SMOKE RATING OR APPROVED EQUAL. STATIC PRESSURE CLASS TO BE 1.0" OR AS INDICATED. DUCT SEAL CLASS FOR SUPPLY AND EXHAUST DUCTS TO BE TYPE "A", ALL TRANSVERSE JOINTS LONGITUDINAL SEAMS, AND DUCT WALL PENETRATIONS.

B. PROVIDE DUCT ACCESSORIES AS INDICATED ON THE PLAN AND IN ACCORDANCE WITH OMC. CONNECT ALL SHEET METAL DUCT WORK TO MOTOR DRIVEN DEVICES WITH FLEXIBLE NEOPRENE COLLARS. FASTEN WITH STEEL ANGLES TO ACHIEVE AIRTIGHT JOINTS.

- 6. HANGERS AND SUPPORTS: ALL HANGERS, SUPPORTS, HARDWARE, ETC. SHALL BE CORROSION RESISTANT; HOT-DIPPED GALVANIZED STEEL OR GREEN EPOXY COATED. PROVIDE ALL DUCTS, PIPES, EQUIPMENT, ETC., WITH APPROPRIATE HANGERS, SUPPORTS, CURBS, ETC., AS REQUIRED TO ENSURE A SAFE AND PERMANENT INSTALLATION IN ACCORDANCE WITH ACCEPTED ENGINEERING PRACTICES. INSTALL EQUIPMENT LEVEL WITHIN THE MANUFACTURER'S TOLERANCES.
- 7. PROVIDE COMPLETE ELECTRIC AUTOMATIC TEMPERATURE CONTROLS FOR ALL HVAC UNITS AS RECOMMENDED BY THE UNIT MANUFACTURERS. PROVIDE ALL TEMPERATURE CONTROL WIRING. PROVIDE ALL REQUIRED THERMOSTATS, TRANSFORMERS, RELAYS, ETC., AND PERFORM LOW VOLTAGE CONTROL WIRING.
- 8. NATURAL GAS PIPING SHALL BE SCHEDULE 40, BLACK STEEL, SEAMLESS PIPE PER ASTM A53, INSTALLED IN COMPLIANCE WITH THE INTERNATIONAL FUEL GAS CODE. PIPE SIZES 2" AND SMALLER SHALL HAVE THREADED MALLEABLE IRON FITTINGS. PROVIDE GAS VALVE, UNION AND DIRT LEG AT EQUIPMENT CONNECTIONS. GAS VALVES SHALL BE TWO-PIECE, FULL PORT, BRASS BALL VALVES, SUITABLE FOR NATURAL GAS, WITH "WOG" INDICATED ON BODY, IN COMPLIANCE WITH ASME B16.44. TEST ALL PIPING IN ACCORDANCE WITH THE INTERNATIONAL FUEL GAS CODE. ALL EXTERIOR GAS PIPING SHALL BE PAINTED WITH 2 COATS OF RUST INHIBITIVE PAINT, YELLOW COLOR. PROVIDE PIPE IDENTIFICATION.
- A. INTERRUPTION OF EXISTING NATURAL GAS SYSTEM: DO NOT INTERRUPT NATURAL GAS SERVICE TO FACILITIES OR EQUIPMENT UNLESS PERMITTED UNDER THE FOLLOWING CONDITIONS AND THEN ONLY AFTER ARRANGING TO PROVIDE PURGING AND STARTUP OF NATURAL GAS SUPPLY TO REQUIREMENTS INDICATED:
- 1. NOTIFY OWNER NO FEWER THAN FIVE DAYS IN ADVANCE OF PROPOSED INTERRUPTION OF NATURAL GAS SYSTEM.
- 2. DO NOT PROCEED WITH INTERRUPTION OF NATURAL GAS SYSTEM WITHOUT OWNER'S WRITTEN PERMISSION.
- 9. CLOSEOUT PROCEDURES:
- A. INSTRUCT THE OWNER OR HIS REPRESENTATIVE FULLY IN THE OPERATION, ADJUSTMENT AND MAINTENANCE OF ALL EQUIPMENT PROVIDED. FURNISH THE OWNER TYPEWRITTEN OR BLUEPRINTED INSTRUCTIONS FOR OPERATING AND MAINTAINING ALL EQUIPMENT.
- B. PROVIDE START-UP SERVICES FOR ALL EQUIPMENT. LUBRICATE ALL EQUIPMENT PER THE MANUFACTURER'S INSTRUCTIONS PRIOR TO START-UP.

C. CONTRACTOR SHALL KEEP AN ACCURATE RECORD OF ALL DEVIATIONS FROM CONTRACT DRAWINGS AND SPECIFICATIONS. AT COMPLETION OF JOB AND BEFORE FINAL APPROVAL, MAKE ANY FINAL CORRECTIONS TO DRAWINGS AND PROVIDE "AS-BUILT" DRAWINGS.

			HVAC EQUIPMENT SCHEDUI	_E
SYMBOL	QUANT.	AREA SERVED	DESCRIPTION	
RTU-7	1	ADMINISTRATION BLDG. EXECUTIVE OFFICES	TRANE #YHJ-072A3SOM "PRECEDENT" AIR CONDITIONING UNIT PACKAGED, GAS/ELEC, 16 SEER, PURON R-410A REFRIGERANT, 2 SCROLL COMPRESSORS, STAGES; 32/68/100%, DOWNFLOW DUCT CONFIGURATION, BC FAN WITH DIRECT DRIVE ECM MOTOR, 6 TONS 3-STAGE COOLING, 76/59 THC/SC @ 80/67 EDB/EWB, 95 AMB., 2-STAGE MEDIUM HEAT: 120/84 MBH INPUT, 97/68 MBH OUTPUT, 2,400 CFM @ 0.80" E.S.P., 0.70 BHP, 3 HP MOTOR, 360 CFM (15%) OUTSIDE AIR	
RH-1	3	ADMINISTRATION BLDG. EXECUTIVE OFFICES	GREENHECK #GRSR-8 RELIEF HOOD SPUN ALUMINUM, INTEGRAL BIRDSCREEN, BUILT-IN CURB CAP, 0.37 S.F. THROAT, 225 CFM @ 0.04" PRESSURE DROP	

NOTES: 1. FOR PHASE-1: PROVIDE UNIT WITH ALL NECESSARY INTERNAL CONTROL COMPONENTS FOR CONTROL VIA EXISTING HONEYWELL ZONE (CHANGEOVER BYPASS, VVT) CONTROLS. FOR PHASE-2: PROVIDE UNIT WITH ALL NECESSARY INTERNAL CONTROL COMPONENTS FOR REVISION TO ZONEX ZONE (CHANGEOVER BYPASS, VVT) CONTROLS.

PHASE-2 WORK

2. PROVIDE ALL NECESSARY CONTROL COMPONENTS FOR A COMPLETE FULLY FUNCTIONAL ZONE VVT (CHANGEOVER BYPASS) CONTROL SYSTEM. SYSTEM TO BE COMMERCIAL GRADE "GEN V" AS MFR'D BY ZONEX. INCLUDE GEN-V SYSTEM CONTROLLER, PROGRAMMABLE TIMECLOCK, #STMPD ROUND MEDIUM PRESSURE ZONE DAMPERS AND #STCD RECTANGULAR HEAVY DUTY ZONE DAMPERS, AND ZONE THERMOSTATS, RECTANGULAR BYPASS DAMPER, ETC. AND ANY OTHER COMPONENTS AS RECOMMENDED BY THE MANUFACTURER FOR A COMPLETE OPERATING SYSTEM.

|--|

//

AIR GRILLE SCHEDULE			
SYMBOL	DESCRIPTION		
SA-1	PRICE #SCD STEEL SQUARE CEILING DIFFUSER, LAY-IN CEILING, PANEL MOUNTED, 12"x12" DIFFUSER, 24"x24" CEILING MODULE, ROUND NECK, COLOR WHITE. WITH RADIAL DAMPER.		
SA-2	PRICE #SCD STEEL SQUARE CEILING DIFFUSER, LAY-IN CEILING, 24"x24" CEILING MODULE, ROUND NECK, COLOR WHITE. WITH RADIAL DAMPER.		
RA-1	PRICE #80 RETURN GRILLE, 1/2" ALUMINUM EGGCRATE, LAY-IN CEILING, 24"x8" CEILING PANEL, 21"x5"± DUCT, COLOR WHITE.		
RA-2	PRICE #80 RETURN GRILLE, 1/2" ALUMINUM EGGCRATE, LAY-IN CEILING, 24"x24" CEILING PANEL, 21"x21"± DUCT, COLOR WHITE.		
NOTES: 1. SEE PLANS FOF	GRILLE MARK		



KK }	TURNING VANES (ELBOW)	 	UNION
	VOLUME DAMPER		SHUT-OFF VALVE
FD	FIRE DAMPER		CHECK VALVE
MOD	MOTOR OPERATED DAMPER	——————————————————————————————————————	BALANCING VALVE
SD	DUCT SMOKE DETECTOR		REDUCER, CONCENTRIC
\leq	SUPPLY DUCT	→	SHUT OFF VALVE IN RISER
	RETURN OR EXHAUST DUCT FLEXIBLE CONNECTION		REGULATING VALVE
	LINED DUCTWORK		FLOW DIRECTION
	TRANSITION (RECTANGULAR	SAN	SANITARY PIPING
	TO ROUND)	— D —	DRAIN PIPING
77]	VVT DAMPER, OR	—— G ——	NATURAL GAS PIPING
	BYPASS DAMPER (BD)	ST	STORM PIPING
SC	SYSTEM CONTROLLER	OD	OVERFLOW DRAIN PIPING
		— — v — —	VENT PIPING
	IMECLOCK		EXISTING PIPING
(T)	THERMOSTAT		PIPING - UNDERFLOOR OR UNDERGROUND
S		CW	COLD WATER PIPING
	SP = STATIC PRESSURE	——— HW ———	HOT WATER PIPING
	^ = OTHERS AS NOTED	—— TW——	TEPID WATER PIPING (85°F-
////	ITEM TO BE DEMOLISHED	S	REFRIGERANT SUCTION
////.	·	L	REFRIGERANT LIQUID
		C	CONDENSATE

ACCESSORIES	ELECTRICAL REQUIREMENTS
HUMIDITY CONTROL (HGRH), WITH DUCT MOUNTED HUMIDITY SENSOR. LOW LEAK ECONOMIZER, DRY BULB, WITH POWERED EXHAUST. HINGED ACCESS PANELS 2" MERV 13 FILTERS HAIL GUARD THROUGH THE BASE ELECTRICAL WITH UNIT MOUNTED N.F. DISCONNECT SWITCH. POWERED SERVICE RECEPTACLE BACNET COMMUNICATIONS INTERFACE RETURN AIR SMOKE DETECTOR 14" ROOF CURB STAINLESS STEEL DRAIN PAN ZONE CONTROLS. SEE NOTES 1, 2.	208/3/60 43 MCA 50A MOCP
14" ROOF CURB	



AD	ACCESS DOOR
AFF	ABOVE FINISHED FLOOR
BFF	BELOW FINISHED FLOOR
BDD	BACKDRAFT DAMPER
BOD	BOTTOM OF DUCT
CA	COMBUSTION AIR
CTE	CONNECT TO EXISTING
EA	EXHAUST AIR
EL	ELEVATION
ETR	EXISTING TO REMAIN
EX	EXISTING
MO	MASONRY OPENING
OA	OUTSIDE AIR
RA	RETURN AIR
SA	SUPPLY AIR
ТА	TRANSFER AIR
TOD	TOP OF DUCT



35°F+/-)