

ALL WORK SHALL BE IN ACCORDANCE WITH THE 2018 NC MECHANICAL CODE.

ALL DUCTWORK SHALL BE CONSTRUCTED OF GALVANIZED SHEET METAL IN ACCORDANCE WITH ASHRAE & SMACNA. DUCT SIZES SHOWN ARE NET FREE AREA REQUIRED. ALL SUPPLY AND RETURN DUCTS AND FLEX SHALL BE INSULATED WITH MIN. R-6.0 INSULATION UNLESS OTHERWISE NOTED IN THE DRAWING. ALL EXPOSED ROUND DUCT SHALL BE DOUBLE WALL INSULATED. EXPOSED RECTANGULAR DUCT SHALL BE INTERNALLY LINED WITH INSULATION. ALL DUCTS SHALL BE AIR TIGHT, RIGID AND FREE FROM VIBRATION AND NOISE. ALL LAP JOINTS SHALL BE IN THE DIRECTION OF FLOW. VOLUME OR SPLITTER DAMPERS SHALL BE INSTALLED WHERE NECESSARY TO GUIDE AND CONTROL THE AIR FLOW. PROVIDE SHEET METAL SLEEVES AND COLLARS WHERE DUCTS PASS THROUGH WALLS.

STRUCTURAL MEMBERS OF THE BUILDING SHALL NOT BE CUT IN ANY MANNER FOR THE INSTALLATION OF ANY EQUIPMENT UNLESS PRIOR APPROVAL IS OBTAINED FROM THE ARCHITECT.

MECHANICAL CONTRACTOR TO CONFIRM BREAKER/DISCONNECT SIZES OF HIS EQUIPMENT WITH THE ELECTRICAL CONTRACTOR.

FURNISH AND INSTALL A DUCT MOUNTED SMOKE DETECTOR IN THE RETURN DUCT OF THE A/C UNIT IN ACCORDANCE WITH 2018 NC MECHANICAL CODE. THE DETECTOR SHALL BE WIRED TO SHUT DOWN THE FAN IN THE EVENT THE DETECTOR IS ACTIVATED. THE MECHANICAL CONTRACTOR SHALL FURNISH AND INSTALL THE DUCT DETECTOR AND RUN THE NECESSARY CONTROL WIRING FROM THE DETECTOR TO HIS EQUIPMENT. SMOKE DETECTORS ARE ONLY REQUIRED FOR UNITS SUPPLYING 2000 CFM OR MORE.

MECHANICAL CONTRACTOR SHALL PROVIDE A TEST AND BALANCE REPORT. SYSTEM COMPLIANCE STATEMENT REQUIRES A WRITTEN T&B REPORT. FINAL PROJECT SIGNOFF WILL BE DENIED WITHOUT THIS REPORT.

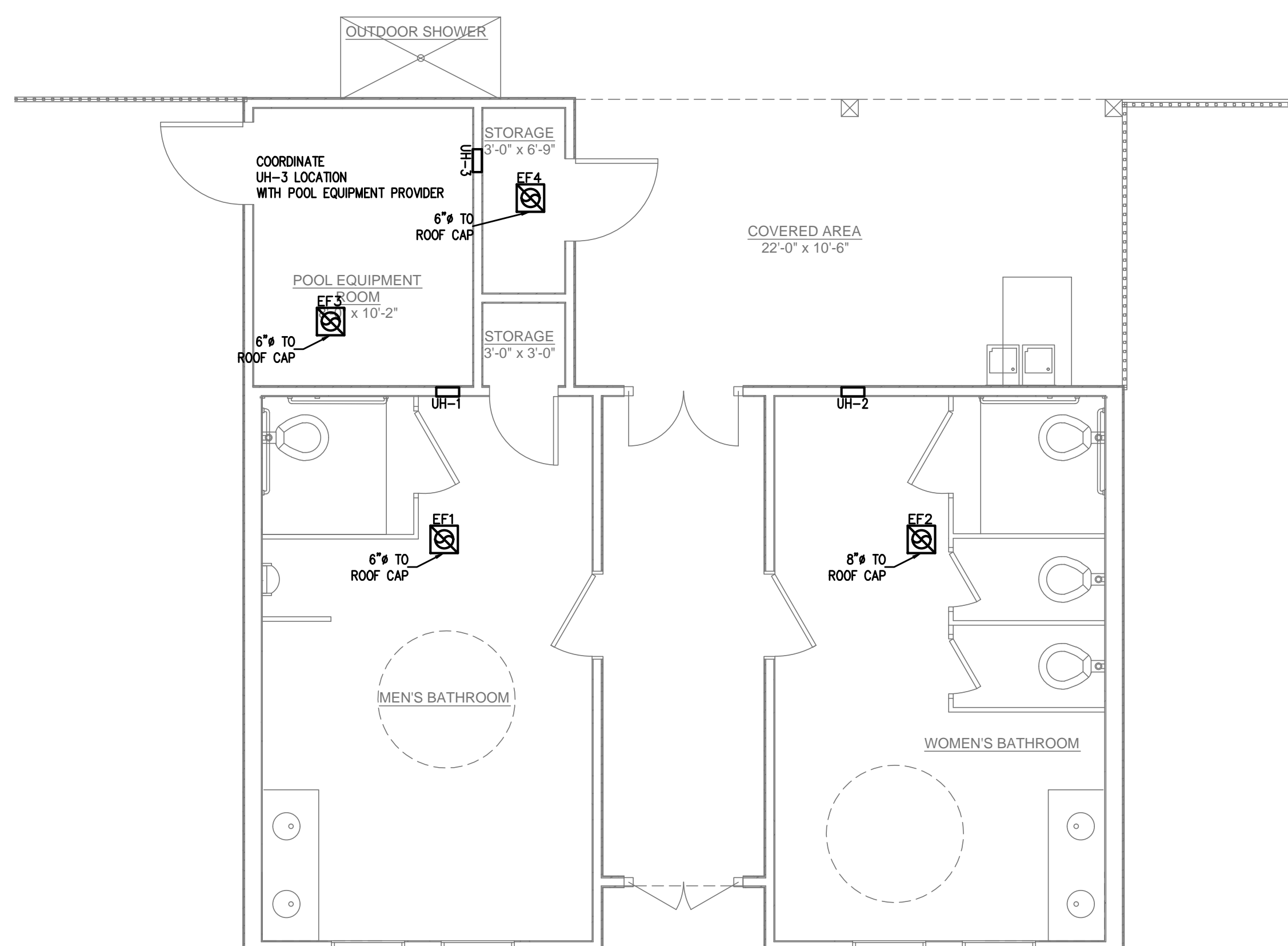
MECHANICAL CONTRACTOR IS RESPONSIBLE FOR COORDINATING THE LOCATIONS AND ROUTING OF ALL DUCTWORK WITH OTHER TRADES TO AVOID CONFLICTS.

ALL EQUIPMENT MATERIALS AND WORKMANSHIP SHALL BE GUARANTEED TO BE FREE OF DEFECTS FOR A PERIOD OF ONE YEAR AFTER FINAL ACCEPTANCE OF THE WORK OR IN ACCORDANCE WITH THE PARTICULAR MANUFACTURER'S STANDARD GUARANTEE. IF LONGER. ANY FAULTY MATERIAL OR WORKMANSHIP OR FAILURE OF ANY PART OF THE SYSTEM DURING NORMAL OPERATIONS UNDER THIS GUARANTEE SHALL BE CORRECTED WITHOUT COST TO THE OWNER.

ALL THERMOSTATS SHALL BE OF A PROGRAMMABLE TYPE.

BUILDING CONTRACTOR SHALL PROVIDE PERMANENT ACCESS TO ROOF STRUCTURE FOR ACCESS TO MECHANICAL EQUIPMENT WHEN ROOF STRUCTURE IS GREATER THAN 16'-0" HIGH.

2 HVAC NOTES
M1 N.T.S.



1 HVAC PLAN
M1 1/4"=1'-0"

MECHANICAL DESIGN
(PROVIDE ON THE MECHANICAL SHEETS IF APPLICABLE)

MECHANICAL SUMMARY

MECHANICAL SYSTEMS, SERVICE SYSTEMS AND EQUIPMENT

Thermal Zone 4A

winter dry bulb: 18°F
summer dry bulb: 94°F

Interior design conditions

winter dry bulb: 75°F
summer dry bulb: 75°F
relative humidity: 50%

Building heating load: N/A

Building cooling load: N/A

Mechanical Spacing Conditioning System

Binary
Description of unit: N/A
heating efficiency: N/A
cooling efficiency: N/A
size category of units: N/A

Description of units: ELECTRIC UNIT HEATERS
heating efficiency: N/A
cooling efficiency: N/A
size category of units: N/A

Boiler

Size category. If oversized, state reason: _____

Chiller

Size category. If oversized, state reason: _____

List equipment efficiencies: 14.0 SEER

SIGNED: _____

NAME: Christopher Locklear

TITLE: Engineer

FAN SCHEDULE										
MARK	LOCATION	SERVICE	CFM	S.P.	WATTS	RPM	VOLT	PHASE	DRIVE	REMARKS
EF1	CEILING	TOILETS	140	0.125"	128	1050	120	1	DIRECT	CEILING MOUNTED FAN, PROVIDE W/B.D.D. AND ROOF CAP. GREENHECK SPB-150 OR EQ. 6" TO ROOF/WALL CAP
EF2	CEILING	TOILETS	210	0.125"	185	980	120	1	DIRECT	CEILING MOUNTED FAN, PROVIDE W/B.D.D. AND ROOF CAP. GREENHECK SPB-200 OR EQ. 8" TO ROOF/WALL CAP
EF3,4	CEILING	POOL EQUIP.	120	.125"	52.5	1100	120	1	DIRECT	CEILING MOUNTED FAN, PROVIDE W/B.D.D. AND ROOF CAP. GREENHECK SPA-125 OR EQ. 6" TO ROOF/WALL CAP

OUTSIDE AIR CALCULATION -2018 NC MECHANICAL CODE (TABLE 403.3.1.1) Vbz = RpPz + RaAz						
OCCUPANCY TYPE:	SF (Aa)	# OF OCCUPANTS (Pa)	O.A. CFM PER PERSON (Rp)	O.A. CFM PER SqFt (Ra)	O.A. CFM REQUIRED (Vbz)	EXHAUST CFM REQUIRED
ELECTRIC POOL EQUIPMENT ROOM	61	0	0	0.12	7.32	81
UNIT STORAGE/CHEMICALS	30	0	0	0.12	3.6	40
HEATERS MEN'S RESTROOM	190	0	0	0	0	140
WOMEN RESTROOM	190	0	0	0	0	140
TOTAL CFM REQUIRED					10.92	401
TOTAL CFM FURNISHED					10.92	401

UNIT HEATER SCHEDULE								
CAPACITIES								
UNIT NO.	FLA	UNIT VOLT	UNIT PHASE	MOCP	WIRE SIZE (DU. 75 C)	INPUT BTU	OUTPUT BTU	MFG & MODEL #
UH-1,2,3	12.5	120	1	20	#12	5,120	5,120	TPI CORP 305 SERIES WALL MTD. E305512DWB

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LEXINGTON PLANTATION POOL HOUSE
HARNETT COUNTY, NC

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PROJECT NO: 2021-006
DRAWN BY: AJO
DATE: 08-29-22
REVISIONS:

SHEET NO:
M1