### **HVAC NOTES:**

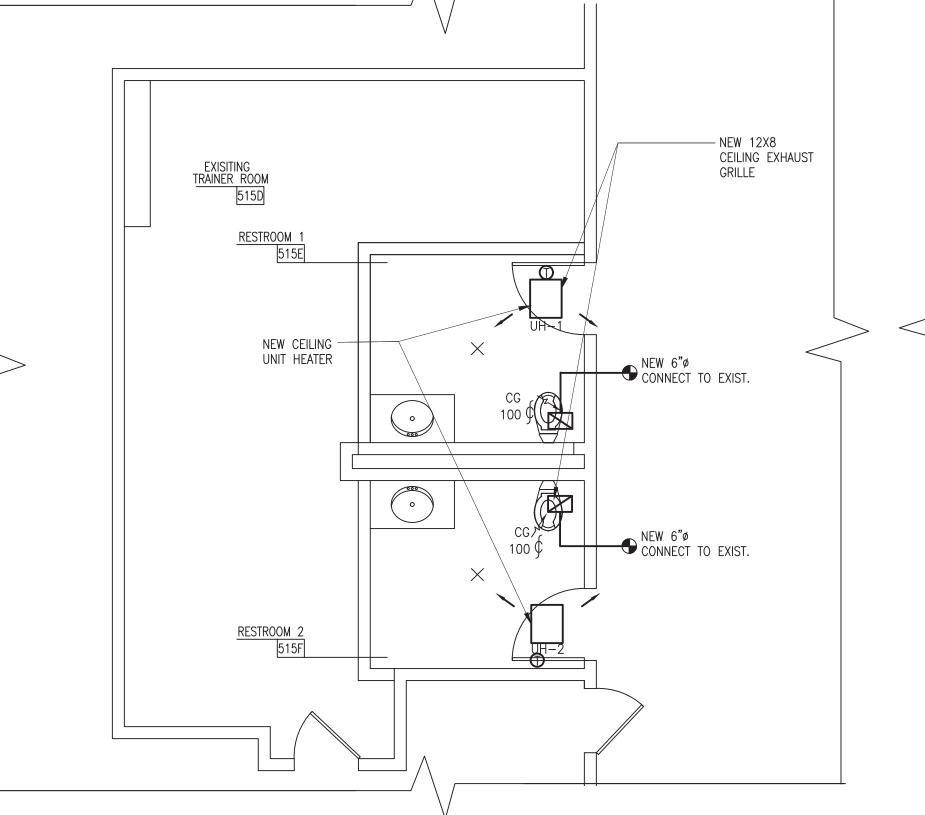
- PROVIDE LABOR, MATERIALS, TOOLS, MACHINERY, EQUIPMENT, AND SERVICES NECESSARY TO COMPLETE THE HVAC WORK UNDER THIS CONTRACT. ALL SYSTEMS AND EQUIPMENT SHALL BE COMPLETE IN EVERY ASPECT AND ALL ITEMS OF MATERIAL, EQUIPMENT AND LABOR SHALL BE PROVIDED FOR A FULLY OPERATIONAL SYSTEM AND READY FOR USE. COORDINATE THE WORK WITH THE WORK OF THE OTHER SUBCONTRACTORS IN ORDER TO RESOLVE ALL CONFLICTS WITHOUT IMPEDING THE JOB PROGRESS.
- . EXAMINE THE ARCHITECTURAL, STRUCTURAL, AND ELECTRICAL DRAWINGS AND OTHER DIVISIONS, AND SECTIONS OF THE SPECIFICATIONS IN ORDER TO DETERMINE THE EXTENT OF THE WORK REQUIRED TO BE COMPLETED UNDER THIS DIVISION. FAILURE TO EXAMINE ALL THE CONTRACT DOCUMENTS FOR THIS PROJECT WILL NOT RELIEVE THIS CONTRACTOR OF HIS RESPONSIBILITIES TO PERFORM THE WORK REQUIRED FOR A COMPLETE FULLY OPERATIONAL AND SATISFACTORY INSTALLATION.
- THE WORK INCLUDES BUT IS NOT LIMITED TO THE DEPICTED SYSTEMS, EQUIPMENT AND SERVICES, AS SPECIFIED HEREIN.
- 4. START-UP SERVICES SHALL BE INCLUDED.
- . ALL SYSTEMS, EQUIPMENT AND SERVICES SPECIFIED HEREIN SHALL BE PROVIDED COMPLETE AND READY FOR USE. ALL EQUIPMENT, DUCTWORK, PIPING, DAMPERS, OUTLETS ARE NEW, FURNISHED AND INSTALLED BY THIS CONTRACTOR, UNLESS OTHERWISE NOTED.
- 3. DUCTWORK AND PIPING ARE SHOWN DIAGRAMMATICALLY AND DO NOT SHOW ALL OFFSETS, DROPS AND RISES OF RUNS. THE CONTRACTOR SHALL ALLOW IN HIS PRICE FOR ROUTING OF DUCTWORK AND PIPING TO AVOID OBSTRUCTIONS. EXACT LOCATIONS ARE SUBJECT TO APPROVAL OF ENGINEER. COORDINATION WITH THE EXISTING SERVICES, INCLUDING THOSE OF OTHER SUBCONTRACTORS IS REQUIRED. PROVIDE COORDINATION DRAWINGS SHOWING ALL TRADES WORK AND EXISTING CONDITION.
- INSTALL WORK SO AS TO BE READILY ACCESSIBLE FOR OPERATION, MAINTENANCE AND REPAIR. MINOR DEVIATIONS FROM DRAWINGS MAY BE MADE TO ACCOMPLISH THIS, BUT CHANGES INVOLVING EXTRA COST SHALL NOT BE MADE WITHOUT APPROVAL.
- 3. VERIFY FINAL LOCATIONS FOR ROUGH WORK WITH FIELD MEASUREMENTS AND WITH THE REQUIREMENTS OF THE ACTUAL EQUIPMENT BEING CONNECTED.
- PROVIDE A COMPLETE SYSTEM OF VIBRATION ISOLATION FOR EACH ITEM OF HVAC EQUIPMENT AND APPARATUS AS SPECIFIED HEREIN, AS SHOWN ON THE DRAWINGS AND AS NEEDED FOR A COMPLETE AND PROPER INSTALLATION.
- THE CONTRACTOR SHALL KEEP ALL EQUIPMENT AND MATERIALS, AND ALL PARTS OF THE BUILDING, EXTERIOR SPACE AND ADJACENT STREETS, SIDEWALKS AND PAVEMENTS, FREE FROM MATERIAL AND DEBRIS RESULTING FROM THE EXECUTION OF THIS WORK. EXCESS MATERIALS WILL NOT BE PERMITTED TO ACCUMULATE EITHER IN THE INTERIOR OR THE EXTERIOR.
- ALL PRESENT MATERIAL, EQUIPMENT AND CONSTRUCTION DEBRIS TO BE REMOVED UNDER THIS CONTRACT SHALL BECOME THE PROPERTY OF THE CONTRACTOR WITH THE EXCEPTION OF SPECIFIC EQUIPMENT AND APPARATUS REQUESTED BY NYPL, OR AS NOTED TO BE RELOCATED ON THE DRAWINGS, AND SHALL BE PROPERLY DISPOSED OF BY THE CONTRACTOR.
- 12. THE FINAL ACCEPTANCE WILL BE MADE AFTER THE CONTRACTOR HAS ADJUSTED HIS EQUIPMENT. BALANCED THE VARIOUS SYSTEMS. DEMONSTRATED THAT IT FULFILLS THE REQUIREMENTS OF THE DRAWINGS AND SPECIFICATIONS AND HAS FURNISHED ALL THE REQUIRED CERTIFICATES OF INSPECTION AND APPROVAL.
- ALL CONTROL WIRING SHALL BE DONE BY MECHANICAL CONTRACTOR, IN ACCORDANCE WITH SEQUENCE OF OPERATION, AS SPECIFIED, AND IN ACCORDANCE WITH MANUFACTURER'S CONTROL DATA.
- CONTRACTOR IS RESPONSIBLE TO ATTEND COORDINATION MEETING WITH ALL TRADES TO DETERMINE LOCATIONS OF DEVICES AND DISCOVER IF ANY CONFLICTS MAY EXIST.
- 15. ALL PIPING EXPOSED OR INSULATED, DUCTWORK, CONDUIT AND CONTROL WIRING SHALL BE CONCEALED IN CEILINGS, WALLS AND FLOORS OR CONCEALED IN NEW SOFFITS OR FRAMED ENCLOSURES.

#### GENERAL NOTES

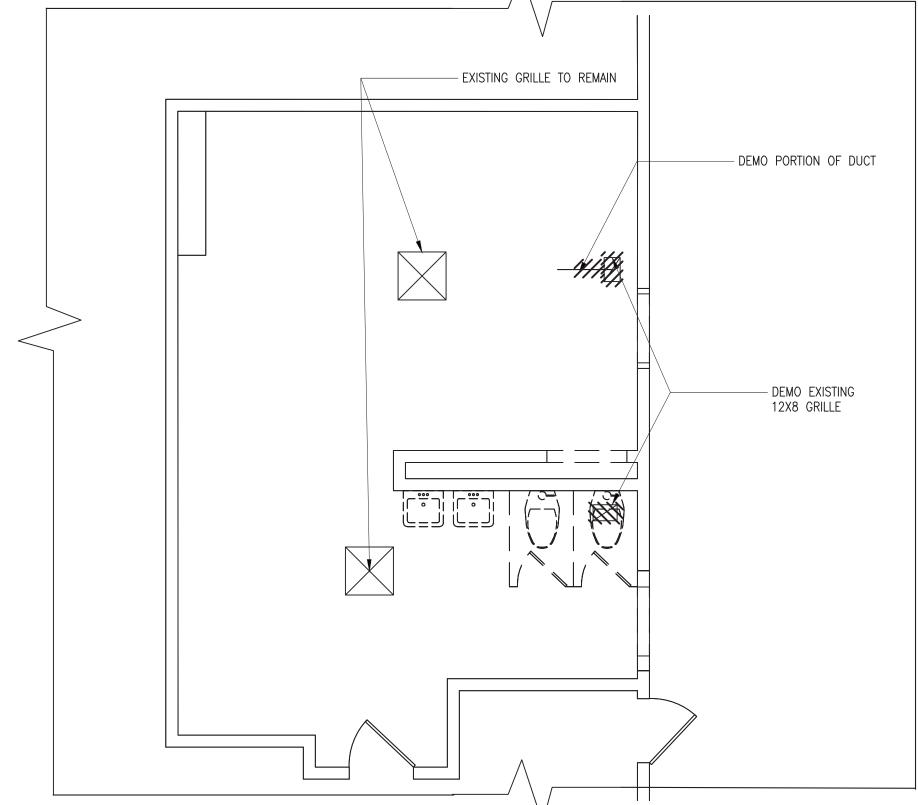
- 1. THE CONTRACTOR SHALL VERIFY THE EXISTING CONDITIONS AND COORDINATE THE WORK WITH OTHER TRADES.
- 2. THE FULL DEMOLITION SCOPE IS NOT SPECIFICALLY SHOWN ON THE DRAWINGS. PROVIDE DEMOLITION WORK CONSIDERED NECESSARY FOR THE COMPLETION OF THE WORK. SURVEY THE PREMISES TO ACCURATELY DETERMINE THE FULL SCOPE OF THE REMOVAL AND DISPOSAL WORK. NO ADDITIONAL PAYMENTS WILL BE MADE DUE TO CONTRACTOR'S FAILURE TO ADEQUATELY SURVEY THE PREMISES.
- 3. CONTRACTOR TO REMOVE AND PROPERLY DISPOSE OF EQUIPMENT FROM SITE INDICATED FOR DEMOLITION, UNLESS OTHERWISE DIRECTED BY THE AUTHORITY.
- 4. THE MECHANICAL CONTRACTOR SHALL PROVIDE POWER SUPPLIES, ELECTRICAL WIRING AND CONDUIT FOR POWER AND CONTROL TO PNEUMATIC OR MOTORIZED DAMPER AND VALVE OPERATORS, THERMOSTATS, AUTOMATIC CONTROL INSTRUMENTATION. COORDINATE WITH THE ELECTRICAL CONTRACTOR TO PROVIDE A COMPLETE AND FUNCTIONAL SYSTEM.
- 5. FOR POWERED EQUIPMENT INTENDED FOR DEMOLITION, THE CONTRACTOR SHALL COORDINATE SHUT-OFF POWER SUPPLIES AND DISCONNECT SWITCHES ASSOCIATED WITH THE EQUIPMENT TO BE DISCONNECTED. RECONNECT ELECTRICAL POWER TO NEW EQUIPMENT AFTER INSTALLATION. PROVIDE ELECTRICAL MATERIAL AND LABOR AS REQUIRED FOR A COMPLETE AND FUNCTIONAL INSTALLATION.
- TEMPORARY SHUTDOWNS OF SERVICE OF EXISTING ELECTRICAL, STEAM, HEATING, AIR CONDITIONING AND VENTILATION SYSTEMS SHALL BE PERFORMED WITH A MINIMUM OF DISRUPTION OF SERVICE, HELD TO AN ABSOLUTE MINIMUM DURATION OF TIME, AND ONLY AFTER HAVING NOTIFIED THE BUILDING OPERATIONS MANAGEMENT AT LEAST TWO WEEKS IN ADVANCE AND HAVING RECEIVED THEIR PERMISSION IN WRITING, AT LEAST TWO WEEKS PRIOR TO THE SCHEDULED SHUTDOWN. COMMUNICATIONS SHALL BE RELAYED THROUGH THE OWNER'S REPRESENTATIVE.
- 7. PROVIDE MOTOR STARTERS AS REQUIRED FOR MECHANICAL EQUIPMENT.
- LOAD CALCULATIONS HAVE BEEN PERFORMED IN ACCORDANCE WITH GENERALLY ACCEPTED ENGINEERING STANDARDS, SPECIFICALLY ASHRAE HANDBOOK -FUNDAMENTALS.
- 10. CONTRACTOR SHALL PERFORM ALL TESTS AND STARTUP PROCEDURES FOR EACH VENTILATION SYSTEM IN ACCORDANCE WITH THE MANUFACTURER AND SPECIFICATIONS.
- 11. ALL THERMOSTATIC CONTROLS SHALL BE TESTED FOR FUNCTIONALITY AND PROPER OPERATION AS REQUIRED BY NYS ECC.
- 12. ELECTRIC MOTORS SHALL COMPLY WITH THE REQUIREMENTS OF THE ENERGY POLICY ACT OF 1992 AS SHOWN IN ASHRAE 90.1-2007 TABLE #10.8.
- 13. PROVIDE EQUIPMENT MAINTENANCE MANUALS AND REQUIRED EQUIPMENT LABELS FOR

ALL NEW MECHANICAL, ELECTRICAL AND SERVICE HOT WATER HEATING EQUIPMENT.

- 14. IT IS THE RESPONSIBILITY OF THE MECHANICAL CONTRACTOR TO PROVIDE CONTROL WIRING. THE MECHANICAL CONTRACTOR SHALL ALSO PROVIDE ALL POWER SUPPLIES, ELECTRICAL WIRING AND CONDUIT FOR POWER AND CONTROL TO ALL VALVE OPERATORS, THERMOSTATS AND AUTOMATIC CONTROL INSTRUMENTATION. ELECTRICAL CONTRACTOR TO INSTALL AND ROUTE POWER WIRING FOR EACH MECHANICAL SYSTEM.
- 15. MOUNTING HEIGHTS FOR ASSOCIATED MECHANICAL THERMOSTAT CONTROLS, ETC. SHALL MEET THE AMERICANS WITH DISABILITIES ACT ACCESSIBILITY GUIDELINES FOR BUILDING AND FACILITIES. MOUNTING HEIGHTS FOR ALL THERMOSTATS, ETC SHALL BE 48" AFF.
- 16. PATCH AND REPAIR EXISTING CEILING AT THE NEW UNIT HEATERS TO REPAIR ANY DAMAGE CAUSED BY THE WORK OR AS NECESSARY COMPENSATE FOR ANY DIFFERENCE IN THE SIZE OF THE UNIT HEATERS.



**PARTIAL FIRST FLOOR PLAN - NEW WORK** 



PARTIAL FIRST FLOOR PLAN - DEMO **SCALE:** 1/4" = 1'-0"

## GENERAL SYMBOLS

# DEMOLISH

POINT OF CONNECTION POINT OF DISCONNECT

SECTION A-A

(UH REFERS TO UNIT HEATER) (AC REFERS TO SPLIT A/C UNIT) (RTU REFERS TO ROOFTOP UNIT)

NEW CEILING UNIT HEATER

HVAC SYMBOLS

## ELECTRICAL WIRING AND CONTROL:

- . MECHANICAL CONTRACTOR SHALL PROVIDE TRANSFORMERS AND MAKE ALL CONNECTIONS TO MOTORIZED DAMPERS, DIFFUSERS AND REMOTE TEMPERATURE ADJUST UNITS. COORDINATE WORK WITH OTHER TRADES. GENERALLY ALL LOW VOLTAGE WIRING SHALL BE BY MECHANICAL CONTRACTOR, AND ALL HIGH VOLTAGE WIRING (120V AND HIGHER), SHALL BE BY ELECTRICAL CONTRACTOR (TYP., U.O.N.).
- 2. ALL CONTROL WIRING SHALL BE DONE ACCORDING TO SEQUENCE OF OPERATION, AS SPECIFIED, AND IN ACCORDANCE WITH MANUFACTURER CONTROL DATA.
- 3. ALL DISCONNECT SWITCHES AND STARTERS SHALL BE FURNISHED BY MECHANICAL CONTRACTOR AND INSTALLED BY ELECTRICAL CONTRACTOR. COORDINATE WITH ELECTRICAL PLAN FOR SIZES.

## BUILDING DEPARTMENT NOTES:

- THE FOLLOWING NOTES SHALL APPLY THROUGHOUT:
- 1. WORK SHALL BE EXECUTED IN FULL COMPLIANCE WITH THE APPLICABLE PROVISIONS OF ALL LAWS, BY-LAWS, STATUTES, ORDINANCES, CODES, RULES, REGULATIONS AND LAWFUL ORDERS OF PUBLIC AUTHORITIES BEARING ON THE PERFORMANCE AND EXECUTION OF THE WORK.
- 2. THESE DRAWINGS HAVE BEEN PREPARED BY OR AT THE DIRECTION OF THE UNDERSIGNED AND TO THE BEST OF THE UNDERSIGNED'S KNOWLEDGE, INFORMATION AND BELIEF MEET THE REQUIREMENTS OF THE BUILDING CODE.
- ALL NEW WORK SHALL COMPLY WITH NEW YORK STATE MECHANICAL CODE PLUMBING CODE, BUILDING CODE & IECC. ALL NEW WORK SHALL MEET GUIDELINES OUTLINED IN THE CITY OF YONKERS GREEN DEVELOPMENT STANDARD.
- APPLICATION.

### **ABBREVIATIONS** TEMPERATURE SENSOR/THERMOSTAT

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

ABOVE FINISHED FLOOR BRAKE HORSEPOWER BRITISH THERMAL UNIT PER HOUR CUBIC FEET PER MINUTE CFM

DB DECIBELS DRY-BULB TEMPERATURE DEG DEGREE DIA, Ø DIAMETER

EXISTING EX. **EXISTING** FAHRENHEIT FRESH AIR INTAKE

FEET GA GAUGE GPM GALLONS PER MINUTE HORSEPOWER

HERTZ INSIDE DIAMETER

IN WC INCH WATER COLUMN IN WG INCH WATER GAUGE KILOWATT

KWH KILOWATT HOUR LINEAR FOOT (FEET) METER

MAXIMUM 1000 BTU/H MOTORIZED DAMPER

MOTOR HORSEPOWER MINIMUM NOT APPLICABLE

UON

UTR

W/

NOT TO SCALE OUTSIDE AIR OUTSIDE DIAMETER

REVOLUTIONS PER MINUTE STATIC PRESSURE STAINLESS STEEL

UP THROUGH ROOF

WITH

TESTING, ADJUSTING, BALANCE UNLESS OTHERWISE NOTED

4. NO CHANGE IN USE EGRESS OR OCCUPANCY GROUP PROPOSED UNDER THIS

REQUIRED VENTILATION SCHEDULE									
			MIN. VENTILATION REQUIRED BY CODE	ACTUAL OUTSIDE AIR OR EXHAUST AIR (WHERE NOTED) CFM					
		OCCUPANCY	EXHAUST AIR(WHERE NOTED)						
FUNCTION	AREA (SQ. FT.)	CLASSIFICATION	CFM						
TOILET RM #1	47	TOILET	70 (a)	100 (b)					
TOILET RM #2	52	TOILET	70 (a)	100 (b)					

(a) - CODE REQUIRED EXHAUST FOR TOILET ROOMS, 70 CFM PER WATER CLOSET/URINAL

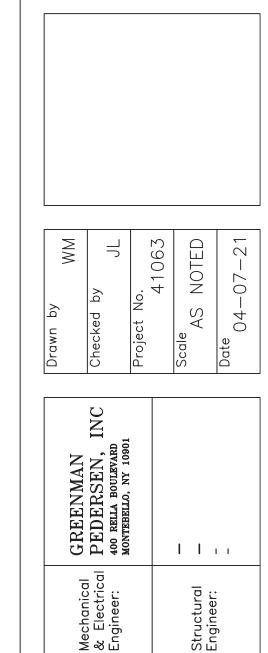
(b) - ACTUAL EXHAUST AIRFLOW SHOWN.

ELECTRIC UNIT HEATER SCHEDULE														
						ELECTRIC DATA								
UNIT No.	LOCATION	QTY	KW	BTU/HR	INLET CFM	VOLTS	PHASE	HZ	AMPS	TEMP RISE	AIR THROW	WEIGHT (LBS)	MANUFACTURER & MODEL	REMARKS
UH-1 & 2	CLGRECESSED	2	1.5	5,120	300	120	1	60	6.7	42°F	16'	27	EFF1500 BY QMARK	NOTES 1,2,3,4,5

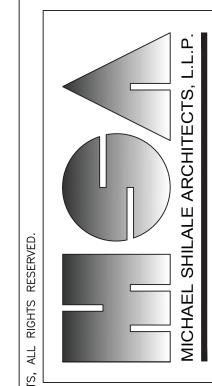
PROVIDE DISCONNECT SWITCH, THERMAL CUTOUT, STARTERS, CONTROL DEVICES AND WIRING AS REQUIRED.

2. PROVIDE WALL MOUNTED THERMOSTAT AT 48" AFF FOR EACH UNIT HEATER, TAMPER RESISTANT TYPE. 3. PROVIDE VIBRATION ISOLATORS WITH WALL/CEILING MOUNT BRACKET AND ASSOCIATED SUPPORTS.

4. PROVIDE ASSOCIATED RECESSED MOUNT FRAME AND TRIM KIT. OR APPROVED EQUAL.



 $\infty$   $\Xi$ NORTH ROCKLAND
RESTROOM AND SI
IMPROVEMENTS
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MECHANICAL PART PLAN AND DETAILS