HILLMAN STREET COMPLEX BUILDING #9
FIRST FLOOR RENOVATION
181 HILLMAN STREET, NEW BEDFORD, MA 02740
TASK ORDER 19207

BID DOCUMENTS
JUNE 5, 2019
## General Requirements

**Type and Spacing** is based on Class 'A' or 'B' rating where energized equipment is in use.

### Exit Signs
- **Lighted Exit Sign:** Not more than 75' from the hazard, 30' max. travel. Must exceed 8'-6" A.F.F.
- **Exit Numbers:** 4'-0" max., where mounted.
- **Lighting:** Refer to note 4.

### Fire Extinguishers
- **Type and Spacing:** 75' max. travel per one (1) extinguisher for every 3000 sq. ft. UNLESS NOTED OR DIRECTED ELSEWHERE IN DRAWING SET, fire extinguishers shall be located as follows:

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<tbody>
<tr>
<td>1'-6&quot;</td>
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<td>0'-0&quot;</td>
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<tr>
<td>3'-6&quot;</td>
<td>C</td>
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<td>4'-0&quot;</td>
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**Note:**
- Heights shall be measured from finished floor to centerline of device, except at exit signs where heights shall be measured to top of sign face.
IEBC SECTION 807
ENERGY CONSERVATION

Jurisdiction

In addition, an accessible public entrance and an accessible toilet room, Exception: Whether performed alone or in combination with each other, building compliance:

new construction only.

be provided in quantities specified in the International Plumbing Code

intended for occupancy and all spaces converted to habitable or

Code.

outlets and controls are altered, they must comply with 521 CMR.

or spaces required to be accessible under 521 CMR. Where electrical

811.1 Minimum requirements. Level 2 alterations to existing buildings or

drift, shall comply with the International Building Code.

The City has the following options regarding the requirement for full

telephone, drinking fountain (if toilets, telephones and drinking fountains

the work being performed is required to comply with 521 CMR.

will not require conformance to 521 CMR.

The anticipated construction cost for the First

$2,042,000 x 48.3%= $986,286

$295,866 (construction cost

See Plumbing drawings for information on new

delay in bringing the second floor up to full

The City will pursue a "timed variance" to allow a

M.G.L Chap. 148, Section 26G

986,286 x 30% = $295,866

determined

986,286

803.4.1 Supplemental interior

accordance with the manufacturer's instructions to achieve the required

Class C (permitted in Business use)

803.4.2 Door swing

shall swing in the direction of exit travel.

existing means of egress

automatic fire suppression system.

Alarm system to be provided.

Systems shall be evaluated in accordance with the provisions of 502

1. For Group A and H occupancies, the maximum length of an

5. In Group B occupancies, a minimum 30-minute enclosure shall be

functions specified in Section 803.2.1, shall not be

existing means of egress

PHM, a "time-based" exit access system shall be provided.

The building will be equipped with an automatic

commissioned

See electrical drawings for means of egress

classifications are determined

The work area at the First Floor exceeds 50% of

level is B (Business);

First Floor

21,511 sf

Area (sf)

Basement

20,086 sf

综述

1. ventilation

2. fire suppression

3. electrical power, lighting, and communications

4. drainage and provision for water supply

5. provisions for water supply

6. mechanical ventilation systems

7. lighting, heating, and air conditioning systems

8. mechanical ventilation systems

9. electrical power, lighting, and communications

10. drainage and provision for water supply

11. provisions for water supply

12. mechanical ventilation systems

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BASEMENT DEMOLITION PLAN

NOTE: DIMENSIONS SHOWN ARE APPROXIMATE. CONTRACTORS TO FIELD VERIFY ALL DIMENSIONS

DEMO PLAN LEGEND

EXISTING DOOR TO REMAIN
EXISTING WINDOW TO REMAIN
AREA NOT IN CONTRACT (N.I.C.)
EXISTING BRICK MASONRY WALL
EXISTING INTERIOR WALL; FULL HEIGHT
EXISTING INTERIOR WALL; PARTIAL HEIGHT
EXISTING DOOR
EXISTING INTERIOR WALL; FULL HEIGHT
EXISTING INTERIOR WALL; PARTIAL HEIGHT
EXISTING DOOR TO REMAIN
EXISTING WINDOW TO REMAIN
EXISTING CONCRETE OF INTERIOR WALL
EXISTING ELECTRICAL

DEMO NOTES

1. REMOVE EXISTING DOORS. PREPARE OPENINGS FOR NEW WORK AS SCHEDULED.
2. REMOVE PORTION OF EXISTING WALL AS REQUIRED TO ACCOMMODATE NEW WALL ENCLOSURE AT DUCTWORK. SEE ARCHITECTURAL DRAWINGS FOR MORE INFORMATION.

FILE NAME: SEAL / ORIENTATION

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NOTE: NEW WORK ON THIS BASEMENT LEVEL IS LIMITED TO WORK AS INDICATED AND HVAC, ELECTRICAL, PLUMBING, AND FIRE PROTECTION WORK AS INDICATED ON MECHANICAL, ELECTRICAL, PLUMBING, AND FIRE PROTECTION DRAWINGS.
NOT IN CONTRACT (N.I.C)

NEW 3/4" MDF PAINTED SIDE AND HEAD
NEW 3/4" G.W.B.
NEW WALL AS SCHEDULED
CONCRETE FASTENERS
SECURE BLOCKING AND HAT CHANNELS W/ CONCRETE FASTENERS
SECURE BLOCKING AND HAT CHANNELS W/ CONCRETE FASTENERS

IN-FL FLOOR PLAN

NEW 10 mil POLY VAPOR BARRIER
INFILL - FILL STUD CAVITY WITH ROCKWOOL
INFILL - FILL STUD CAVITY WITH ROCKWOOL
NEW 2x PRESSURE-TREATED WOOD FRAMED
NEW SEALANT AND BACKER ROD AROUND EXISTING WALL ASSEMBLY TO REMAIN
VERIFY OPENING IN FIELD PRIOR TO FABRICATION AND ONTO UPTURN LEG OF SILL-PAN AND AROUND EXISTING WALL ASSEMBLY TO REMAIN
NEW HENRY BLUESKIN MEMBRANE - LAP OVER FABRICATION OF STRUCTURAL UPLAND
NEW GREENHECK EHH-401 EXTRUDED
NEW 5/8" EXTERIOR SHEATHING
FABRICATION OF STRUCTURAL UPLAND
FABRICATION OF STRUCTURAL UPLAND
FABRICATION"
EXISTING SECOND FLOOR PLAN

NOTE: NEW WORK ON THIS SECOND LEVEL IS LIMITED TO WORK AS INDICATED AND HVAC, ELECTRICAL, PLUMBING, AND FIRE PROTECTION WORK AS INDICATED ON MECHANICAL, ELECTRICAL, PLUMBING, AND FIRE PROTECTION DRAWINGS.
## Ductless Cooling Unit Systems

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<tr>
<th>System</th>
<th>ABBREV SYMBOL</th>
<th>DESCRIPTION</th>
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<tr>
<td>Ductless Cooling Unit Systems</td>
<td>PEFY-P12</td>
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1. Maintain all new piping and ductwork above finish ceiling.

2. Existing steam radiators to remain.

3. Existing fixture enclosure and replace with new slope similar to Sterling model SVK. Verify height to match top fin tube enclosure minimum 14" height continuous on wall.

4. Provide 5/8" GWB both sides of wall. Provide scheduled finish.

5. Existing door: Not in Contract (N.I.C.)


7. Data transmission, or data translation. Herein is not guaranteed against defects that include, but are not limited to, errors and omissions, design calculations and dimensions, all drawn or written information or graphics and as such is not to be duplicated in any form or disclosed or otherwise used and as such is not to be duplicated in any form or disclosed or otherwise used.

8. Site note 3.


10. Furnish all new piping and ductwork above finish ceiling.

11. Existing fixture enclosure and replace with new slope similar to Sterling model SVK. Verify height to match top fin tube enclosure minimum 14" height continuous on wall.

12. Maintain all new piping and ductwork above finish ceiling.

13. Existing fixture enclosure and replace with new slope similar to Sterling model SVK. Verify height to match top fin tube enclosure minimum 14" height continuous on wall.
NOTE: THERMAL DUCT INSULATION TO START AT TERMINATION OF ACOUSTIC INSULATION.

18" HIGH PREFAB ROOF CURB

GASKET BY

FOR FLASHING DETAILS.

REFER TO ARCH. DWGS.

2" INSULATION

2 LAYERS 5/8" (BY HVAC)

6" RIGID FIBERGLASS UNFACED INSULATION (BY HVAC)

22 GA. ZC FLASHING

2" RIGID BOARD INSULATION (BY ROOF CURB MANUF.)

MIN. 12" HIGH PREFAB. ROOF CURB

NOTE: FOR RTU-3 & RTU-4 PROVIDE 30" HIGH CURB OF SIMILAR CONSTRUCTION WITH SUPPLY AND RETURN AIR PLENUM SECTIONS AS REQUIRED TO OFFSET FOR ROOF SUPPLY AIR AND RETURN AIR OPENING LOCATIONS. PLENUMS SHALL BE OF SUFFICIENT SIZE AND AREA TO MAINTAIN LOW AIRFLOW VELOCITIES (<850 CFM) WITHIN PLENUM SECTIONS.

1-1/2" DOUBLE-WALL ACOUSTICALLY AND THERMALLY LINED 20'-0" DOWNSTREAM FROM THE RTU AND EXTERNALLY INSULATED WHERE DUCT IS INTERNALLY LINED

REFERENCES: SHEETROCK LAYERED CURB (2) LAYERS 5/8" BY A.H.U. MFGR.

6" FIBERGLASS INSULATION

3" THICKNESS OF EXTERIOR THERMAL INSULATION TO BLANKET ROOF DECK WITH 6" WIDE ORIGINALLY UNINSULATED ROOF DECK. THERMAL INSULATION TO BE APPLIED TO ROOF DECK WITH A TRIPLE-DEW FORMATION AND AERATION TO AIR/WATER CHANNELS TO PREVENT CONDENSATION.

22 GA. ZC FLASHING SPRING POCKET COVER W/ ACCESS PANEL

22 GA. ZC FLASHING TUBULAR STEEL CURB BASE

ROOF MEMBRANE REFER TO ARCH. DWGS FOR DETAILS

CANT STRIP (BY ROOFING CONTRACTOR)

2" RIGID BOARD INSULATION (BY ROOF CURB MANUF.)

TYPICAL DETAIL-ROOF EXHAUST FAN

"V" BELT DRIVE (UNLESS OTHERWISE INDICATED)

FELT EDGED MOTORIZED BACKDRAFT DAMPER & CURB MANUFACTURER'S RECOMMENDATIONS

JUNCTION BOX, SEAL DUCT PENETRATION MANUFACTURER'S APPROVED SHOP DRAWINGS

REFRIGERANT PIPE SUPPORTS PROVIDED IN ACCORDANCE SIZED AND SPACED WITH MANUFACTURER'S RECOMMENDATIONS REFER TO ROOF PLAN FOR ADDITIONAL INFORMATION.

EXACT LENGTH AND WIDTH SHALL BE COORDINATED WITH VRF EQUIPMENT BY THE HVAC CONTRACTOR PRIOR TO ORDERING SUPPORT STANDS (TYP)

LARGER TYPE CONDENSING UNITS REFER TO PLANS AND SCHEDULE NUMBER OF UNITS & CONFIGURATION

STACKED TYPE SMALL CONDENSING UNITS

SINGLE TYPE SMALL CONDENSER
THE VARIABLE VOLUME AIR HANDLING UNIT CONSISTS OF A SUPPLY AIR AND EXHAUST AIR SECTION WITH OUTDOOR AIR AND EXHAUST AIR DAMPERS, EXHAUST AIR AND OUTSIDE AIR FILTERS, ENERGY (HEAT) RECOVERY WHEEL, HOT WATER HEATING COIL, AND SUPPLY AND EXHAUST FANS. THE UNIT SHALL BE DDC CONTROLLED USING ELECTRIC ACTUATION.

THE UNIT IS SCHEDULED FOR AUTOMATIC OPERATION ON A TIME OF DAY BASIS FOR OCCUPIED AND UNOCCUPIED MODES. THE UNIT OPERATES IN OCCUPIED, UNOCCUPIED, WARM-UP AND SAFETY MODES AS FOLLOWS (ALL SUGGESTED SET POINTS AND SETTINGS ARE ADJUSTABLE).

WARM-UP

THE OUTSIDE AND EXHAUST AIR DAMPERS CLOSE. RE-CIRC DAMPER OPENS AND THE SUPPLY AND EXHAUST FANS START AND THE HOT WATER HEATING COIL VALVE SHALL MODULATE, AS REQUIRED TO PROVIDE ADDITIONAL HEAT OR COOLING TO THE SUPPLY AIR STREAM TO MAINTAIN THE SPACE TEMPERATURE AIR SETPOINT TO 80°F FOR HEATING AND 55°F FOR COOLING ADJ. (60°F ADJ., UNOCCUPIED).

UNOCCUPIED

THE UNIT SUPPLY AND EXHAUST FANS SHALL THROTTLE DOWN TO APPROXIMATELY 50% (ADJ.) OF TOTAL AIR FLOW THROUGH THE CONTROL OF FAN VARIABLE FREQUENCY DRIVES. THE ENERGY RECOVERY WHEEL AND THE INDIRECT GAS HEATING COIL OR DIRECT EXPANSION COOLING COIL VALVE SHALL MODULATE, AS REQUIRED TO PROVIDE ADDITIONAL HEAT OR COOLING TO THE SUPPLY AIR STREAM TO MAINTAIN THE SPACE TEMPERATURE SETPOINT OF 60°F (ADJ.). DURING THE SUMMER MONTHS THE ENERGY RECOVERY WHEEL AND COOLING SYSTEM SHALL OPERATE TO MAINTAIN THE DISCHARGE AIR TEMPERATURE TO THE SPACE SETPOINT CONDITION 85°F (ADJ.).

ECONOMIZER

THE UNIT SHALL BE EQUIPPED WITH A COMPARATIVE ENTHALPY ECONOMIZER MODE OF OPERATION. DURING ECONOMIZER MODE OF OPERATION, THE BLOWING AND EXHAUST AIR DAMPERS SHALL NOT OPERATE FOR THE EXTENDED PERIODS OF TIME AND THE OUTSIDE AIR TEMPERATURES AND THE OUTSIDE AIR TEMPERATURES (1 HR. ADJ.) PRIOR TO UNIT SCHEDULED OCCUPIED START TIME (TIME PERIOD SHALL BE ADJUSTED THRU CONTROLLERS OPTIMIZED START LOGIC UTILIZING UNIT TREND DATA).

WHEEL DEFROST CYCLE:

IF THE WHEEL DIFFERENTIAL PRESSURE RISES 1 INCH (ADJ.) AND THE OUTSIDE AIR TEMPERATURE IS BELOW 30 DEGREES ADJ, THE WHEEL SPEED SHALL BE REDUCED UNTIL THE PRESSURE RETURNS TO NORMAL.

COOL-DOWN

CONTROLLER’S OPTIMIZED START LOGIC UTILIZING UNIT TREND DATA). THE OUTSIDE AND EXHAUST AIR DAMPERS CLOSE AND THEIR END SWITCHES ACTIVATE THE ENERGY WHEEL. RE-CIRC DAMPER OPENS THEN THE SUPPLY AND EXHAUST FANS START (1 HR. ADJ.) PRIOR TO UNIT SCHEDULED OCCUPIED START TIME (TIME PERIOD SHALL BE ADJUSTED THRU CONTROLLERS OPTIMIZED START LOGIC UTILIZING UNIT TREND DATA). ECONOMIZER MODE OF OPERATION SHALL OVER-RIDE NORMAL COOL-DOWN MODE OF OPERATION. THE SYSTEM IS PREVENTED FROM ENTERING THE WARM-UP MODE MORE THAN ONCE PER DAY.

FREEZESTAT: UPON A LLT READING (38 DEG F ADJ.) THEN UNIT'S SUPPLY AND RETURN FANS SHALL SHUT DOWN, OUTDOOR AIR AND EXHAUST AIR DAMPERS SHALL CLOSE, RE-CIRC AIR DAMPER SHALL OPEN AND HHW COIL VALVE SHALL OPEN TO 100% OPEN POSITION., AND AN ALARM SHALL BE GENERATED. ONCE LLT SENSOR READING HAS BEEN RAISED ABOVE SETPOINT FOR (20 MIN, ADJ.) THE FREEZESTAT CONTROLS SHALL BE AUTOMATICALLY RESET AND THE UNIT SHALL RETURN TO ITS NORMALLY SCHEDULED MODE OF OPERATION.
DUCTLESS COOLING UNITS (DCU)

1. DCU shall operate as primary source of heat with hydronic heat as secondary where available.
2. Provide all condensate drain pans associated with DCU's to be provided with equipment manufacturer's overflow sensors which are to be interlocked with the building management system for monitoring only.
3. Provide room temperature and hi/low alarm points in the building management system and outdoor unit.
4. All condensate drain pans to have control points in the system controller for reference.
1. Locate backflow preventor 3' to 4' above finished floor, 1' to all state and u.s. public health services codes and regulations.
2. Materials and methods for this installation shall conform to all state and u.s. public health services codes and regulations.
3. File for and obtain all required approvals and permits.

The plumbing drawings are intended to illustrate the general design and features of the main water supply and drainage system for the building. They are not intended to indicate every trap and fixture connection.

The typical pipe hanger detail includes:
- Trap hanger
- Spray hanger
- Support pipe
- Support nut (typ.)
- Pipe clamp with gasket
- Insulated pipe line with pipe clamp
- Provide pipe clamp as directed on plan view

The shock absorber schedule includes:
- Model number
- Description
- Dimensions
- Material
- Unit

The plumbing electrical equipment includes:
- Model #
- Description
- Dimensions
- Material
- Unit

The typical instantaneous water heater detail includes:
- Model number
- Description
- Dimensions
- Material
- Unit

The reduced pressure backflow preventor assembly detail includes:
- Model number
- Description
- Dimensions
- Material
- Unit

The plan view includes:
- Location of fixtures
- Location of valves
- Location of traps
- Location of connections

Notes:
1. Locate backflow preventor 3' to 4' above finished floor, 1' to all state and u.s. public health services codes and regulations.
2. File for and obtain all required approvals and permits prior to installation.

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3. Provide pipe clamp as directed on plan view.
NOTE:

MAINTAIN ALL PLUMBING SYSTEMS SUPPLYING SECOND FLOOR PLUMBING FIXTURES. SECOND FLOOR TO REMAIN ACTIVE COORDINATE ANY SYSTEM SHUTDOWN REQUIRED FOR NEW WORK WITH OWNER.
BASEMENT FLOOR PLAN - PLUMBING

SCALE: 1/8" = 1'-0"

FIRST FLOOR PLAN - PLUMBING

SCALE: 1/8" = 1'-0"

NO. 2017034.04 - CITY OF NEW BEDFORD - HILLMAN ST. COMPLEX BLDG #9 FIRST FLOOR RENOVATION - BID DOCUMENTS - JUNE 5, 2019
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