



**SCHEMATIC DESIGN SUBMISSION**

**Renovation**

of

**Suffield Town Hall**

83 Mountain Road  
Suffield, CT

for the:

**Suffield Permanent Building Commission**

**August 15, 2019**

QuisenberryArcariMalik



Aerial View

QuisenberryArcariMalik

195 Scott Swamp Road Farmington, CT 06032 + (860) 677-4594 + [qamarch.com](http://qamarch.com)

SUFFIELD TOWN HALL

EXISTING BUILDING PHOTOGRAPHS



North Façade and Entrance

QuisenberryArcariMalik

195 Scott Swamp Road Farmington, CT 06032 + (860) 677-4594 + [qamarch.com](http://qamarch.com)

SUFFIELD TOWN HALL

EXISTING BUILDING PHOTOGRAPHS



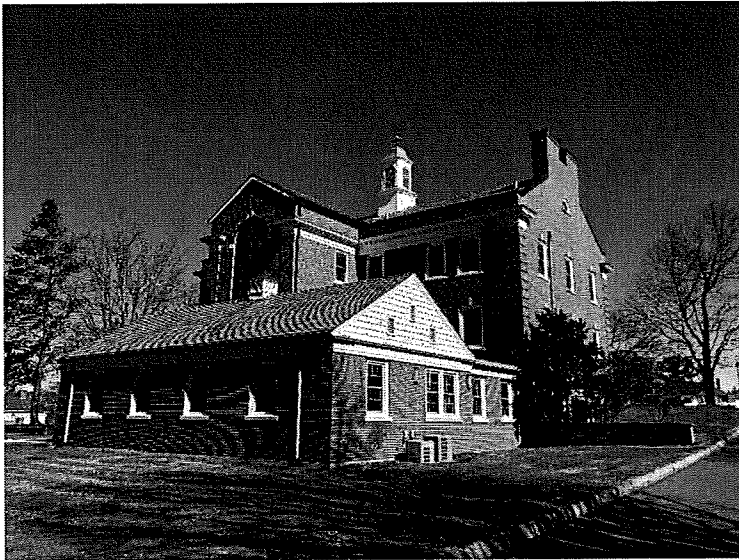
South Elevation and Entrance

QuisenberryArcariMalik

195 Scott Swamp Road Farmington, CT 06032 + (860) 677-4594 + [qamarch.com](http://qamarch.com)

## SUFFIELD TOWN HALL

## EXISTING BUILDING PHOTOGRAPHS



SouthEast Corner



East Façade



West Façade



East Façade, South Section

QuisenberryArcariMalik

195 Scott Swamp Road Farmington, CT 06032 + (860) 677-4594 + [qamarch.com](http://qamarch.com)



## SUFFIELD TOWN HALL

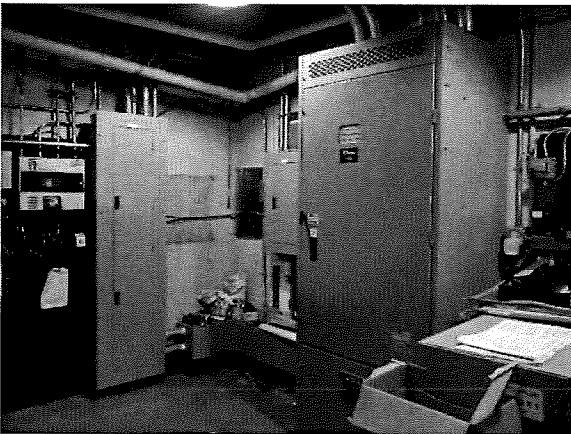
## EXISTING BUILDING PHOTOGRAPHS



Rear Entrance Vestibule



Meeting Room



East side of boiler room



West side of boiler room



Lower level corridor



Stair 2 at lower level

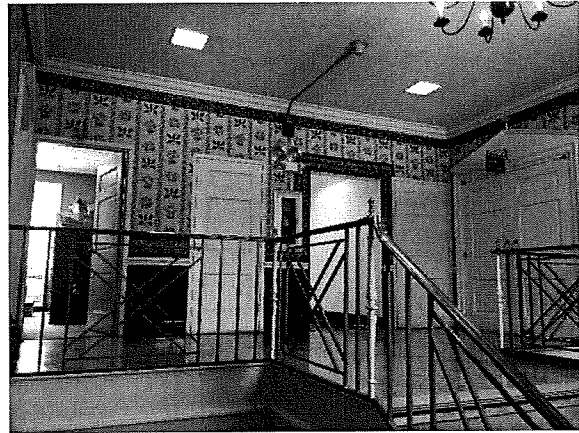


Lower level storage room

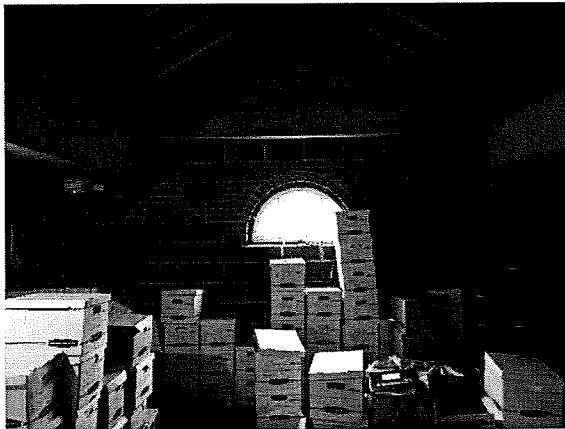
QuisenberryArcariMalik

SUFFIELD TOWN HALL

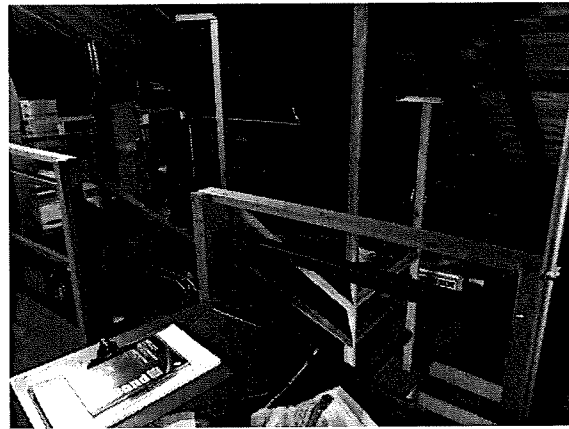
EXISTING BUILDING PHOTOGRAPHS



Main Stair and Hall



Attic



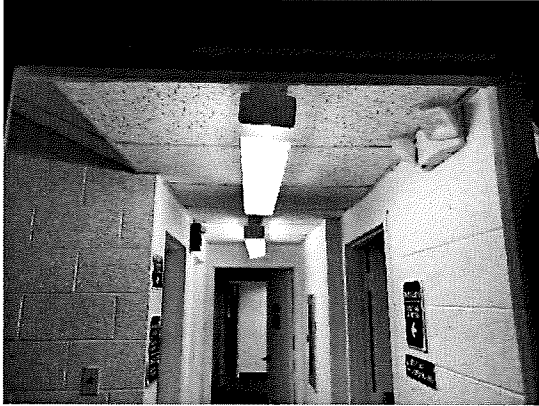
Attic stair

QuisenberryArcariMalik

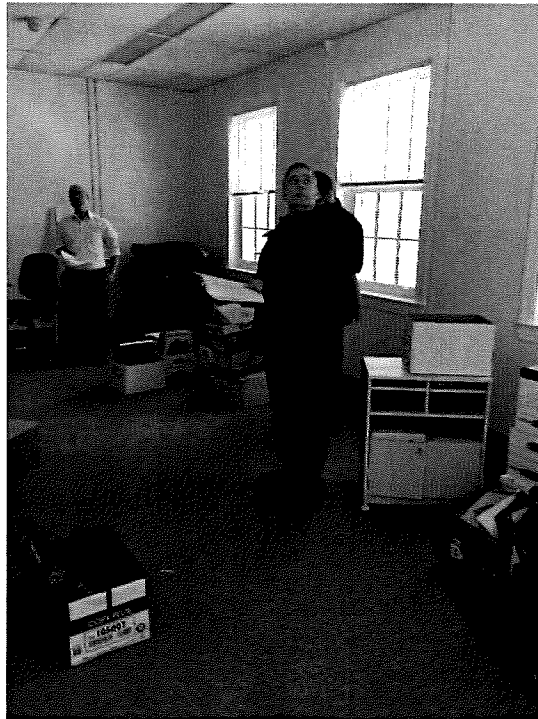
195 Scott Swamp Road Farmington, CT 06032 + (860) 677-4594 + qamarch.com

## SUFFIELD TOWN HALL

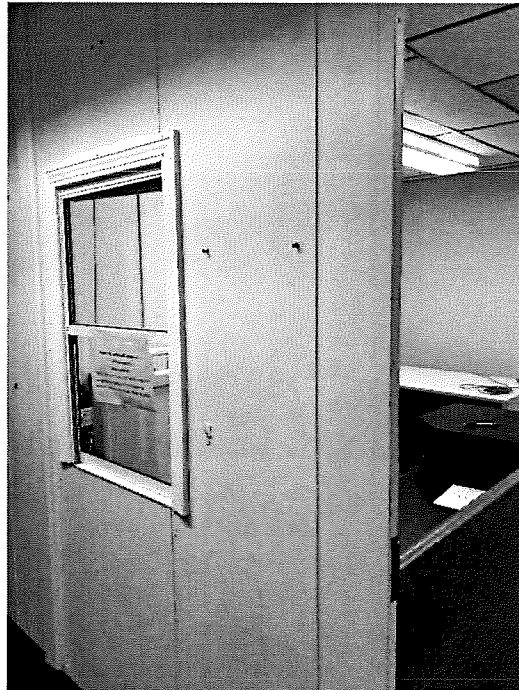
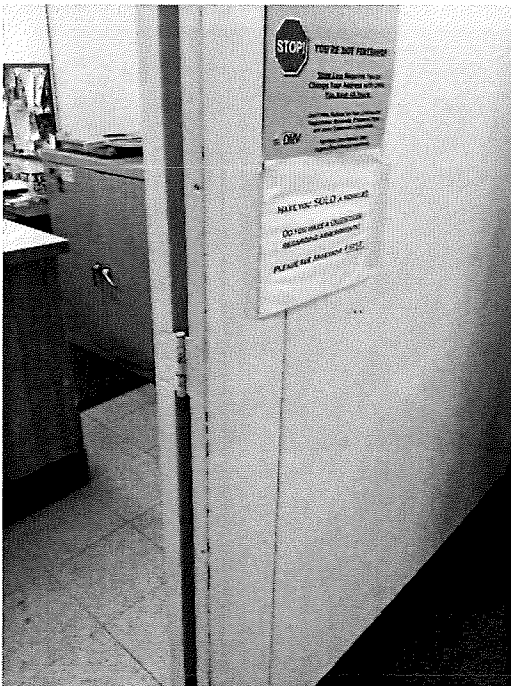
## EXISTING BUILDING PHOTOGRAPHS



Lower level corridor / ceiling



Upper level office area



Typical office area wall construction

QuisenberryArcariMalik

195 Scott Swamp Road Farmington, CT 06032 + (860) 677-4594 + qamarch.com





## **Suffield Town Hall**

### **Schematic Narrative**

**8/15/19**

#### **A. SITE NARRATIVE (reference attached site sketch)**

##### **Site Demolition**

Entrance stairs, and all entrance walks on the north side of the building between the east, west and north entrance drives.

##### **Site Materials**

- Bituminous concrete pavement – minor re-grading of a small area of the north entrance drive to re-construct an area for accessible loading and parking.
- Brick Pavers on concrete base – reconstructed entrance walk
- Sidewalks and curb ramp – 5" concrete on stone base - north side to serve main entrance stairs, west side to serve new metal exit stair.
- Concrete ramp and stair entrance system with brick planter and steel pipe handrails

##### **Planting**

- Planting shall be robust 30-36" shrubs
- Planting beds to be planting soil to 18" depth
- Re-seed disturbed lawn areas

**B. ARCHITECTURAL NARRATIVE (reference architectural drawings)**

*(see also MEP narrative for coordination of work)*

**Existing Building Demolition includes:**

- 1) Basement level bathrooms – all finishes and fixtures. Slab demo as required for new plumbing fixture layout.
- 2) Basement level boiler room – remove portion of wall from Stair 2 for new opening. Coordinate with relocation of electrical equipment.
- 3) Basement level office and meeting room areas – all walls, doors, casework and finishes (reference demo plans)
- 4) Removal of basement level window on west facade adjacent to new exterior exit stair.
- 5) Three portions of basement level exterior walls, south façade, to allow for new vault room door, stair 2 exit door, and office area door.
- 6) Ground and upper level office areas – selected walls & doors as shown on demo plans. All finishes and casework.
- 7) Entrance / Stair Hall – Flooring on landings, all ceilings and wall covering
- 8) West elevation ground floor level – demo portion of exterior wall to allow for new exit door and stair
- 9) Limited floor openings to be demolished for mechanical shafts, see MEP narrative.

**Existing Building renovation work includes:**

- 10) Concrete: repair and patching at slab trenching and shaft openings.
- 11) Concrete: New vault construction 8" load bearing walls, foundation walls, footings, and slab on grade construction with all associated underslab work.
- 12) Masonry: New vault construction, exterior veneer walls with associated insulation, weeps, and flashings.
- 13) Masonry: Brick and CMU: Minor repair and patching at interior & exterior door openings; infill of selected exterior window openings.
- 14) Masonry: New CMU wall for stair 2 exit corridor on basement level
- 15) Metals: New steel flat roof framing on vault area concrete load bearing concrete walls. Include metal components necessary for brick veneer construction
- 16) Metals: New exterior covered exit stair on west façade for meeting room exit.
- 17) Metals: Loose lintels as required for new openings.
- 18) Woods: Blocking and minor rough carpentry
- 19) Woods: Finishes carpet includes repair and adjustment of existing running trims.
- 20) Thermal and Moisture protection: New Single ply membrane flat roofing system with tapered insulation over new vault addition and all associated flashings, gutters, etc.

- 21) Doors and Windows: New steel exterior doors (3), new interior wood and steel doors (reference floor plans), new steel frames, and new hardware on all new doors. Install sweeps on existing doors in office areas.
- 22) Finishes: New light gauge steel wall framing at all new walls shown on floor plans. Include acoustic insulation and gypsum board sheathing. At existing interior walls in office areas, install additional layer of gypsum board sheathing for acoustical value. Where interior existing office walls do not extend to structure above, install new framing and gypsum board.
- 23) Finishes: New 2x2 suspended ceilings throughout. Coordinate with new lighting and fire protection system. Provide above ceiling acoustical insulation in office areas. Gypsum soffits at transition areas. See reflected ceiling plans.
- 24) Finishes: New flooring throughout office and meeting room areas, bathrooms, vault, and stair landings including the main entrance vestibule. Wall base to be rubber, ceramic tile, or porcelain tile.
  - Carpet tile – offices and conference rooms
  - LVT – Meeting room
  - Ceramic tile – bathrooms
  - VCT – vault, storage rooms, corridors, break room
  - Porcelain tile – stair landings, entrance vestibule
- 25) Finishes: Fire rated separations (existing to be augmented) comprised of CMU, or metal stud framing with insulation and gypsum sheathing, at all stair enclosures and exit access. Ceiling of main Stair 1 Hall to be fire rated horizontal assembly. Refer to code plans.
- 26) Finishes: Painting of walls, trims, frames, etc. throughout renovated areas.
- 27) Specialties: New room signage throughout building
- 28) Specialties: Phenolic toilet partition systems in new basement level bathrooms.
- 29) Equipment: Wood millwork and laminate counters in open office areas and mail/break room. Include residential appliances in break room.

# **Mechanical, Fire Protection, Plumbing and Electrical Systems Schematic Design Narrative**

**Suffield Town Hall**  
Suffield, CT

August 15, 2019



Prepared by:

Consulting Engineering Services, Inc

CES PN – 2019202.00

## **OVERVIEW:**

The following describes the proposed fire protection, plumbing, mechanical and electrical systems which shall serve the renovated portions of the Suffield Town Hall.

## **DIVISION 21 - FIRE PROTECTION SPRINKLER SYSTEM**

- A new 4" fire main service including backflow preventer assembly shall be installed in accordance with Connecticut Water Company requirements.
- A new fire protection system, in accordance to NFPA 13 & 24 Standards, shall be installed throughout all areas of the building. The attic will remain unheated and will therefore require a dry pipe sprinkler system in lieu of the wet pipe system used throughout the remainder of the building.
- Upright sprinkler heads shall be provided in combustible concealed spaces above ceilings. It is currently assumed that several areas will require sprinklers both above and below finished ceilings due to existing wood framing. These areas include the entire upper floor and rear building addition (current meeting area). The lower floor and ground level generally appear to have steel and concrete noncombustible framing and do not require concealed sprinkler heads.
- The fire protection systems shall include a building mounted fire department connection. The type and location of this connection will be coordinated with the local fire department.
- Sprinklers shall be concealed, fully recessed in finished areas with ceilings. Sidewall, exposed, extended coverage sprinklers shall be installed where appropriate. Quick response sprinkler heads shall be used in light hazard locations. Sprinklers, unless noted otherwise, shall have a 1/2" orifice and a 165°F temperature rating. Intermediate temperature classification sprinklers shall be installed within the mechanical room, skylights and other applicable areas.
  1. Dry type sprinklers shall be provided to protect below building overhangs that are greater than 48" and constructed of combustible materials.
- Piping for the sprinkler system shall be steel pipe, ASTM A 53; Schedule 40 seamless carbon steel. Schedule 10 pipe shall be allowed for pipe sizes larger than 2" diameter when roll grooved mechanical couplings are used. Sprinkler piping shall be installed above ceilings and concealed within chases where applicable. Dry piping shall be galvanized.
- Fittings shall be grooved mechanical fittings: ANSI A21.10 ductile iron; ASTM A47 grade malleable iron. Couplings shall be ASTM A 536 ductile iron or malleable iron housing, EPDM gasket with nuts, bolts, locking pin, locking toggle or lugs to secure roll grooved pipe and fittings.
- Inspector's test connections and drains shall be provided at hydraulically remote areas of the building. Drains shall terminate at the building exterior at a splash block.

## **DIVISION 22 - PLUMBING SYSTEMS:**



## **Plumbing and Piping Systems**

- Plumbing scope is generally minimized to spot a renovation. The following items are included in the scope of work:
  1. Renovate bathrooms at lower level – provide new fixtures and local piping as needed to connect the new fixtures. Provide new ball valves for the bathroom as existing valves are likely to be inoperable.
  2. All other plumbing within the building shall remain.
- Storm, waste, and vent piping shall be no-hub cast iron with standard torque clamps, conforming to CISPI 301 for above ground piping and hub and spigot cast iron conforming to ASTM A74 for piping installed below the floor slab. Storm, waste, and vent piping shall be concealed within chases and walls where possible.
- The existing domestic water service shall remain. Domestic cold water, domestic hot water, and domestic hot water recirculation piping shall be Type L copper conforming to ASTM B 88. Domestic water piping shall be insulated with rigid molded, noncombustible glass fiber insulation conforming to ASTM C335. Domestic water piping throughout the building shall be installed above ceilings and concealed within walls. Jacketing shall be provided on piping exposed in occupied areas (when exposed pipe is located below 10').
- The natural gas service shall be existing to remain and will be modified to serve the new boiler plant. No additional load or increase in service size is expected.

## **Hot Water Systems**

- The existing domestic hot water heater, pumps, mixing valve, and associated piping shall remain.

## **Plumbing Fixtures and Specialties**

- Water closets shall be wall hung, vitreous china, low consumption (0.125 gallon per flush urinals and high efficiency 1.28 gallon per flush water closets), by American Standard Flowise Flush Free or approved equal.
- Urinals shall be wall hung, vitreous china, waterless. American Standard or approved equal. Flush valves shall 120 volt operated, by Toto or approved equal.
- Lavatories for single use bathrooms shall be wall hung, vitreous china, by Toto or approved equal. Faucets shall be low consumption 120 volt operated, by Symmons or approved equal.
- Lavatories (for larger bathroom groups) shall be wall hung, solid synthetic surface with integral soap dispensers, by Willoughby. Faucets shall be low consumption 120 volt operated, by Willoughby.

- Wall hangers for water closets, urinals, and lavatories shall be heavy duty adjustable height type installed within chase spaces provided behind fixtures, by J.R. Smith or approved equal.

## **DIVISION 23 - MECHANICAL SYSTEMS**

### **HVAC Controls**

A Building Management System (BMS) shall be installed to control the mechanical and selected electrical systems.

- The system shall include a personal computer with graphics based display (all graphics and programs will be custom to the project), color printer, modem and capabilities for alarming off-site. This computer shall be placed in the mechanical control room on emergency power and a dedicated network source.
- The BMS shall provide temperature control for all HVAC systems and control select plumbing in the new building.
- The system shall be programmed for occupied/unoccupied cycles for the air handling equipment, with an override feature for spaces that would be utilized after-hours.
- The system shall monitor occupancy sensing devices to control the amount of outside air being brought in to assist in energy conservation.
- The BMS shall be accessible from any Web browser, with proper authorization.
- Further definition of exact controls sequences implemented for owner convenience, occupant comfort and energy savings will be defined as design is progressed.
- The BMS shall be configured to optimize energy savings. When outdoor air is below 40°F the BMS shall enable the boiler plant to be the primary heating source, with VRF units as secondary. When outdoor air is above 40°F the BMS shall enable the VRF units as primary source of heating to minimize fossil fuel consumption and optimize energy.

### **Heating Plant**

Hot water will be generated to provide heat to perimeter radiation and an indoor air handler. The heating system shall consist of two (2) hot water condensing boilers and two (2) in line pumps. Each boiler will be sized for 65% capacity. Boilers and pumps shall be located in a Mechanical room on the lower level. Listed below is the boiler plant summary:

- Each boiler shall be Thermal Solutions APEX rated for 400 MBH input. Boilers shall be stainless steel, condensing, 97% efficient, with 5 to 1 turndown. These will replace the existing boiler plant. Primary pumps shall be packaged with the boilers.
- Each pump shall be Taco in line rated for 35 GPM. Each pump controlled with a variable frequency drive or electrically commutating motor built internal to the pump.

- Two inch diameter hot water mains shall originate at the boiler room and distribute throughout the building.

### **Heating, Ventilation, and Cooling**

- Overview: The existing building is under negative pressure and is showing signs of moisture infiltration. Constant exhaust is creating suction which draws moist outdoor air through the envelope and deposits moisture within the building where it is not removed. The proposed ventilation system will offset all exhaust with additional ventilation air, making the overall building positive. This incoming ventilation air will be cooled, heated, or dehumidified as needed to provide a constant air stream of neutral dry air.
- Ventilation with energy core heat exchanger: The main building will be served by a dedicated outdoor air system (DOAS). Preconditioned outside ventilation air will be distributed to the building interior to address dehumidification and ventilation loads. Rooms with perimeter operable windows will not receive ducted ventilation, only interior spaces where code requires. The DOA unit will provide outside air via an indoor air handling unit located in the attic. The energy recovery unit shall be provided with hot water heating coil, split DX cooling, hot gas reheat coil and energy recovery core. The DOA units will be by Renewaire DE2IN or approved equal. Estimated capacity for the DOA unit is 800 CFM. The outdoor condenser will be located outdoors on grade in a concealed location.
- Perimeter Heating: All new spaces will have perimeter fin tube located at the outside walls, the fin will run wall to wall and be 18" high by Rittling or approved equal. New hot water piping will be located throughout the lower level and main level ceiling spaces. Heating runouts to fin tube units will be within walls or through floor penetrations.

- Cooling and auxiliary heating: The cooling system serving the entire building shall be a Variable Refrigerant Flow (VRF) system with heat recovery capability. This system shall consist of indoor fan coil units and outdoor aircooled condensing units. The indoor fan coil units will be a combination of ducted concealed type which will be located above the ceiling, low wall units and cassette units. The aircooled condensing unit will be located on grade outdoors. The outdoor unit generates heating and cooling. The indoor units deliver the heating and cooling to the occupants. Refrigerant pipe distribution will be used to convey heating and cooling energy between the indoor units and the outdoor condensing unit. Within the refrigerant pipe distribution, refrigerant distribution boxes with solenoid valves will be used to distribute refrigerant flow to each zone. Indoor VRF units will modulate refrigerant flow as required to maintain the space temperature set-point. VRF system shall be by Mitsubishi or approved equal. The quantity and size of the units shall be as follows:

| Indoor VRF Unit Schedule |              |          |   |
|--------------------------|--------------|----------|---|
| Unit Size (Ton)          | Unit Type    | Quantity | Comment   |
| 0.5                      | Cassette     | 14       | Typically used only in small offices or where ductwork cannot be installed. (typical) |
| 0.5                      | Ducted       | 1        | Preferred for aesthetics and acoustics. (typical)                                     |
| 0.5                      | Wall-Mounted | 0        | Only used in IT closets and server rooms. (typical)                                   |
| 1                        | Cassette     | 4        | See above   |
| 1                        | Ducted       | 1        | See above   |
| 1                        | Wall-Mounted | 0        | See above   |
| 2                        | Cassette     | 2        | See above   |
| 2                        | Ducted       | 2        | See above   |
| 2                        | Wall-Mounted | 0        | See above   |

Based on the above approximate connected capacity of the VRF system, a 20-ton Mitsubishi PURY-EP-240 outdoor condensing unit is recommended. This unit is capable of providing both cooling and heating below freezing temperatures.

- Corridors/Miscellaneous areas
  - The corridors, lobbies and vestibules shall be served by hot water cabinet unit heaters and control valves, these spaces will also be ventilated and exhausted by the dedicated outdoor air unit.
  - All storage areas, mechanical rooms, elevator machine rooms, and electrical rooms shall be provided with hot water unit heaters.

### Materials and Methods for New Work

1. Include the following basic materials and methods of construction:

- All motors provided shall be high efficiency or better.
- All ductwork and accessories shall meet SMACNA standards.
- Air distribution shall be accomplished by using sheet metal duct for supply, return and exhaust ductwork, no plenum air will be allowed.
- Provide all HVAC equipment with extra set of filters.
- Seismic restraints shall be installed as required per State of Connecticut Building Code and Fire Safety Code. This includes piping, ductwork, equipment, and equipment bases.
- Provide glass fiber insulation for all hydronic piping and ductwork. Insulation shall be installed to meet the Energy Code.
- Provide firestopping around mechanical penetrations in accordance with fire stopping requirements. System shall be capable of maintaining against flame and gases. System shall be UL listed and comply with ASTM E814.
- Provide mechanical identification for mechanical systems. Identification shall comply with ANSI A13.1.
- All pipe connections shall be installed to allow for freedom of movement of the piping during expansion and contraction without springing. Swing joints, expansion loops and expansion joints with proper anchors and guides shall be provided by the Contractor where necessary and/or where shown.
- Provide vibration isolation for hydronic piping, ductwork, and equipment.
- Hydronic piping 2"φ and under shall be Type L copper.
- All equipment served by hydronic piping shall have isolation valves on the supply and return lines with auto flow balance valves.

## **DIVISION 26 - ELECTRICAL SYSTEMS**

### **APPLICABLE CODES AND STANDARDS**

The electrical systems will be designed in conformance with the requirements of the following codes and regulations and all applicable local authority requirements.

- 2018 Connecticut State Building Code, including adopted supplements and amendments.
- 2018 Connecticut State Fire Safety Code, including adopted supplements and amendments.
- 2015 International Building Code (IBC).
- 2015 International Energy Conservation Code.



- Illuminating Engineering Society Lighting Handbook (IESNA), 10th Edition.
- NFPA, Latest Versions.

### **Existing Conditions:**

- The existing 208V, 3-phase, 4-wire electrical service consists of a 400A service disconnect and c/t cabinet located in the existing Boiler Room. The equipment is original to the building and is in serviceable condition. The main disconnect serves a 600A rated MLO Main Distribution Panel “MDP”, located in the same room. This panel serves various branch panels located throughout the building, including panels “LPE” and “LBP” located on the lower level, as well as panels on the ground and upper levels.
- The main service has a separate utility meter socket located inside the existing Boiler Room, adjacent to the main service disconnect.
- Panels “MDP”, “LPE” and a small load center “AC1” appear to be of recent vintage and are in good condition. The sub-panels on the ground and upper levels look to be original to the building and are in poor, but serviceable condition.
- Emergency power is provided by an Onan diesel generator with sub-base fuel tank, rated at 125kW, 208/120V, 3-phase, 4-wire, located at the back of the building, adjacent to the Boiler Room. The generator is fed from a single 600A-3P automatic transfer switch (ATS), which is connected to the main disconnect so as to provide emergency power to the entire building.
- All fire alarm, telecommunications and security devices within the existing building appear to be functional.
- Existing interior lighting is a combination of fluorescent and incandescent, controlled via single and three-way toggle switches. Lighting and lighting controls within the building will be replaced.
- The existing Simplex 4001 fire alarm control panel in the Boiler Room is serviceable, but has limited functionality and is non-addressable.
- The scope of demolition will be selective and include areas of work within the existing main building with the exception of the fire alarm, telecommunications, security and electrical service and distribution as indicated above. Selective demolition in the areas of renovation shall include demolition of: all existing lighting (including, but not limited to, fixtures, mounts, switches and circuits); all existing branch circuits and devices associated with HVAC equipment slated for removal/replacement. Where demolition disrupts existing circuits feeding devices outside of the area of work, the contractor shall extend existing circuits as required to maintain continuity.

### **Recommendations:**

#### **Electrical Distribution**

1. Consideration should be given to replacing the existing branch panels that are original to the building and in poor condition. Replacement panelboards shall consist of the following:

- New recessed panelboard, Square-D NQ Series (or equal) to match existing AIC rating. Provide circuit breakers to match existing size and quantity as required.
  - Verify existing panelboard feeders and reuse existing gutter, conduit and wiring wherever possible. Provide adapters/reducers as required to accommodate panel lug sizes.
2. New branch circuits installed in EMT conduit. Type MC cable shall be limited to concealed spaces above accessible finished ceilings in or drywall type partitions. EMT conduit shall be used to the first device in a branch circuit and shall be used in all masonry or CMU partitions. The following branch circuits shall be provided:
- Circuits for fire alarm and low voltage equipment as required.
  - Circuits for all HVAC equipment as required. 120V Wiring to control panels, control transformers, etc. shall be provided by the electrician, while low voltage control wire shall be included in Division 23.
  - Circuits for lighting and lighting controls, where required.
  - Maintenance lighting, GFCI and weatherproof outlets where required for HVAC equipment.
  - Boiler emergency shutdown buttons at door(s) to the mechanical/boiler room.

#### Lighting Systems

1. The following fixtures shall be provided (subject to approval):
- Recessed 2x4 LED fixtures in private offices.
  - Recessed 2x2 LED fixtures in open offices.
  - 1x4, LED recessed fixtures in corridors.
  - 2x4, LED recessed fixtures in conference rooms.
  - 2x4, LED recessed fixtures in bathrooms.
  - 4-foot industrial type LED fixtures with chain hangers and wire guards in, mechanical/electrical spaces and unfinished areas without suspended ceilings.
  - Recessed 4" LED downlights to supplement lighting in toilet rooms where applicable.
  - LED exit signs.
  - Accent and feature lighting will be provided as selected by the Owner, in areas such as corridors, main lobby etc.
  - Emergency lighting shall be accomplished using battery self-contained wall-pack type emergency lighting.

- Typical lighting illumination levels include:
  - a. 15fc - Corridors, toilet rooms and storage rooms
  - b. 40fc – Offices
- Daylight sensors and dimming control shall be provided in offices, conference rooms and other select rooms containing exterior windows. The light fixture at the window wall will be dimmed via a daylight sensor. The remaining rows of lights can be manually step-dimmed to 50% light output by the occupants via a momentary pushbutton switch. There will be one master on/off toggle switch for all the lighting in the room. This control will turn off the lights and overriding the sensors.
- Occupancy/vacancy sensors shall be provided in all lit areas except in utility rooms and other rooms exempted by code.
- Occupancy/vacancy sensor switches with wall override shall be provided in all small offices, single occupancy toilet rooms, storage rooms and janitors closets.

#### Fire Alarm System

1. Consideration should be given to replacing the existing Simplex 4001 fire alarm system control panel and devices with a new NFPA 72 compliant addressable, speaker-type fire alarm system with voice evacuation in compliance with code requirements and ADA regulations. New manual pull stations should be installed in the egress paths at exterior doors and at entrances to stairwells. Audible and visual signaling devices should be installed in corridors, toilets, etc. Visual-only signaling devices should be installed in all conference rooms, work rooms, etc. The system should include, but not be limited to, the following equipment:
  - Remote annunciators installed at main entry doors.
  - Speaker/strobes in all corridors.
  - Speaker/strobe units with voice evacuation in designated places of assembly.
  - Smoke detection only in egress paths, corridors, and storage areas or areas that are infrequently used. Heat detection will be in the mechanical/boiler room via 190 degree detectors.
  - Manual pull stations at ends of corridors and at egress doors.
  - Monitoring modules for sprinkler tamper and flow switches.
  - Duct smoke detectors for each air-handling unit, where required.
  - (2) dedicated phone lines fire alarm panel to the telephone demarcation board.
  - Fire alarm system wiring in fire alarm MC cable. EMT conduit with type THHN wire provided where exposed. Painted Wiremold and fittings where exposed.
  - Carbon Monoxide detectors in rooms or just outside rooms where fossil fuels are being burned such as the mechanical/boiler room.

### Materials and Methods

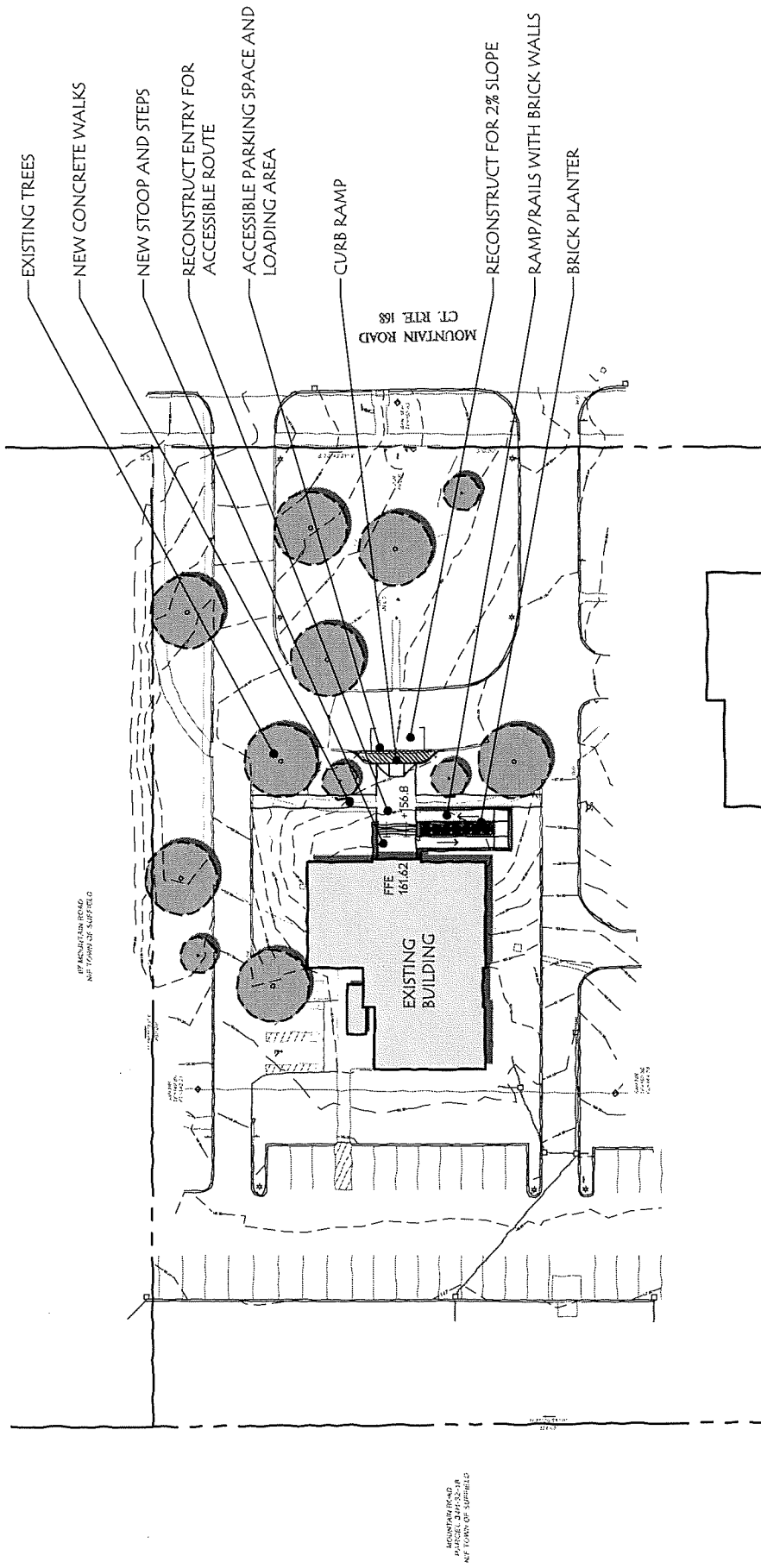
1. Include the following basic materials and methods of construction:
  - Wiring shall be THHN/THWN copper, installed in EMT conduit for most circuits.
  - Type MC cable shall be used as prescribed in sections above.
  - Devices shall be specification grade, NEMA 5-20R etc.
  - Disconnect switches shall be fusible heavy-duty type. NEMA 1 or 3R as required for locations installed.
  - Circuit breakers shall be fixed element, thermal magnetic type.
  - Panelboards shall be copper bus, with hinged door-in-door trim.
  - Branch circuit breakers shall be bolt-on.
  - All conduits, circuits and devices shall be labeled.
1. Include the following miscellaneous items:
  - Emergency call light/bell mounted above the doors and associated call switches provided for accessible toilet rooms.

### Energy Conservation

1. All new equipment specified, shall be designed per the International Energy Conservation Code.

### Code Compliance

1. All electrical systems will be designed in accordance with the *State of Connecticut Building Code*, the *State of Connecticut Fire Safety Code*, *Americans with Disabilities Act* and the *National Electrical Code, 504 and UFAS*.



MOUNTAIN ROAD  
PARCELS 3.041-32-1R  
NOT PART OF SUFFIELD

OFFICIAL DESIGN RECORD  
NOT TO SCALE

# Accessible Entrance SUFFIELD TOWN HALL

**QA+M**  
architecture  
195 South Street  
Farmington, CT 06032  
qa+m.com

**todesign**  
114 WEST MAIN STREET  
FARMINGTON  
NEW BRITAIN, CT 06051  
860-932-1700  
todesign@todesign.com

**SITE DESIGN**  
LANDSCAPE ARCHITECTURE  
URBAN PLANNING

August 2019



