

WESTHAMPTON PUBLIC SAFETY FEASIBILITY STUDY WESTHAMPTON, MA



Westhampton Public Safety

January 23, 2018

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EXECUTIVE SUMMARY

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EXECUTIVE SUMMARY

Caolo & Bieniek Associates (CBA) was commissioned by the Town of Westhampton to prepare a Feasibility Study of its existing Public Safety building. CBA is an architectural consulting firm with experience in approximately forty (40) similar Massachusetts Police, Fire and Public Safety studies and hundreds of public sector renovation and construction projects.

The purpose of this Study is to investigate the feasibility of renovation and expansion of the existing Public Safety building or in the alternate the demolition and removal of the existing building and construction of a new Public Safety facility, to meet the long term needs of the Town of Westhampton, MA and its Police and Fire services.

This Feasibility Study process is divided into several tasks as described in the original Request for Qualifications (RFQ) scope of work and as follows.

1. For the First Task the existing building physical conditions and systems are examined and evaluated through on-site reviews by the Study's Architectural and Engineering team. This assessment of existing building conditions would identify 1) building deficiencies and deferred maintenance, and 2) code necessitated improvements associated with a possible building renovation and addition. Preliminary conceptual budgets are then prepared for each of these two categories of work and/or scope and then summarized.
2. The necessary Police, Fire and Public Safety functions and spatial requirements are reviewed, outlined and developed in the Second Task to obtain a consensus Space Needs Analysis identifying the appropriate and specific space requirements to support all the Public Safety functions. The sum of this Space Needs Analysis identifies the minimum appropriate area of an updated, functional Westhampton Public Safety Facility. This consensus approved facility area informs the area designations on the earlier task for areas of renovation and the probable area of a new building addition.
3. The Third Task consist of reviewing and evaluating the existing Public Safety site conditions and constraints regarding prospective development of the site to support either renovation and addition of the Public Safety building, or demolition and construction of a new Public Safety facility.
4. A conceptual design for the renovation and addition of the existing Public Safety is prepared in the Fourth Task based on optimizing the identified existing conditions and required space needs. A conceptual square foot project budget is then prepared for this design option.
5. The Fifth Task is similar to the fourth but provides a prospective conceptual design for an entirely new constructed Public Safety facility, based on the demolition and removal of the existing building. This task is provided for comparison to the renovation and addition design option. A conceptual square foot project budget is then prepared for this design option.
6. A timeline or milestone schedule is prepared in the Sixth Task for the preferred design option from study phase through design, construction and eventual occupancy.

Based on this aforementioned study process it was determined that renovation of the existing facility could not support appropriate sized apparatus bays based on the current dimensions of the existing structural system and bearing walls. It then became apparent that a new Apparatus addition could be reasonably constructed allowing the existing first floor areas to be developed into other necessary Police and Fire program space. By locating all primary and public functions on the first floor, the second floor accessibility, stairs, and elevator requirements could be eliminated. This method to renovate and expand the existing Public Safety was the committee's preferred study option due to the ability to renovate and reuse most of the original facility.

Unfortunately, due to the extensive repairs and code improvements required to the existing building and the generally larger overall building renovation and addition are, this option is expected to be higher to total overall new Public Safety construction option.

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ACKNOWLEDGEMENTS

On behalf of Caolo & Bieniek Associates, we would like to thank the following individuals for their assistance and participation in the efforts of this Study.

Public Safety Review Committee:

Steve Holt, Assistant Fire Chief
Art Pichette, Selectman
Jim Houston, Selectman
Joe Pipczynski, Finance Committee
Dave White, Police Chief
John Zimmerman, Firefighter
Brian Duggan, Project Manager, Fire Service Consultant
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Christopher Norris, Fire Chief  
David Blakesley, Highway Department Superintendent  
Cheryl Provost, Administrative Assistant

Study Team

Caolo & Bieniek Associates (CBA) Study Team for this Westhampton Public Safety Feasibility Study consisted of the following participants.

|                                      |                                                                                                           |
|--------------------------------------|-----------------------------------------------------------------------------------------------------------|
| CBA Architect / Principal-in-Charge: | Curtis A. Edgin, AIA, NCARB, MCPPO                                                                        |
| CBA Architect / Principal:           | James M. Hanifan, AIA, NCARB                                                                              |
| CBA Architect / Project Manager:     | John D. MacMillan, AIA, LEED AP, MCPPO                                                                    |
| CBA Architectural Intern / Designer: | Evan Demers                                                                                               |
| Civil Engineering:                   | Mark Darnold, Berkshire Design Group                                                                      |
| Structural Engineering:              | Travis Alexander, Johnson Structural Engineering                                                          |
| Geotechnical Engineering:            | Ashley Sullivan, O'Reilly, Talbot & Okun Associates                                                       |
| Hazardous Materials:                 | Adam Lesko, Green Environmental Consulting                                                                |
| Mechanical Engineering:              | Edward Bullens, Robt. W. Hall Consulting Engineers<br>Wesley Gutowski, Robt. W. Hall Consulting Engineers |
| Electrical Engineering:              | Paul Koko, Robt. W. Hall Consulting Engineers<br>Marie Babbitt, Robt. W. Hall Consulting Engineers        |
| Fire Protection Engineering:         | Brian Zielinski, Robt. W. Hall Consulting Engineers                                                       |
| Cost Estimating:                     | Peter Timothy, A.M. Fogarty & Associates                                                                  |

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TASK 1: ASSESSMENT OF EXISTING BUILDING CONDITIONS

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## INTRODUCTION

Caolo & Bieniek Associates (CBA) initial task was to conduct a Study of the existing Westhampton Public Safety Facility to determine if there were any program and/or any physical deficiencies as part of a larger Feasibility Study for an expanded or possible New Public Safety Facility.

On August 16, 2017, John MacMillan AIA, LEED AP, Architect; Evan Demers, Architectural Designer; Ed Bullens, Mechanical Designer; Wes Gutowski, Plumbing Designer; Paul Koko, Electrical Designer; Travis Alexander, Structural Engineer; and Mark Darnold, P.E., Civil Engineer visited the Public Safety Facility and conducted a physical assessment and evaluation of the existing Facility. Later on September 18th, Marie Babbitt, Electrical Designer also visited the facility. Particular attention was provided to identify deficiencies and issues that would impact the future use, renovation and/or addition to the current building structure including code required improvements.

The following assessment is provided of our observations and of the general conditions found at the Facility. This Report is limited to the noted visually observed conditions and documentation provided by the Town and Police/Fire Departments. No invasive or destructive observations or testing were performed during our evaluation and assessment although some additional investigation may be recommended by some of the observations and descriptions provided.

CBA surveyed and measured the existing Public Safety Facility. A copy of the measured and scaled existing Facility floor plans is included with this Study and are attached in the Exhibits and Documents Section of this Report.

CBA also commissioned Berkshire Design Group to perform a site survey of the existing public safety property and adjoining town parcel. A copy of this survey site plan is included with this study and attached in the Exhibits and Documents Section of this report.

## 1. GENERAL CONDITIONS

The existing Public Safety Facility consists of approximately 7,282 gross sq. ft. within a two-story structure, originally constructed in 1948 as a Highway Garage. Several subsequent additions and renovations account for the current building configuration and area. The overall building area includes an approximate 4,063 gsf First floor, a 2,559 gsf Second floor and a 660 sf partial basement.

The building structure generally consists of concrete slab-on-grade, concrete masonry and wood framed exterior walls, and wood framed floor, roof and interior walls. Exterior finishes include painted concrete block; painted wood and vinyl siding; asphalt shingle roofing; painted metal and wood windows; and painted metal doors and overhead sectional doors.

Interior construction and finishes include painted concrete block and gypsum board walls and ceilings; concrete, painted wood and vinyl tile floors; wood stairs and wood doors.

## 2. DEFICIENT CONDITIONS

The initial condition observed in the Facility is the lack of proper space to safely perform the functions of a modern Police and Fire Department. It appears that what program space is present is too small to adequately and safely function. The fire Apparatus does not have sufficient space or clearances for personnel safety. Some Turn-out Gear lockers are less than 36 inches from moving Apparatus and Fire Fighters must don their turn-out gear outdoors or find space away from moving Apparatus.

The available Apparatus space is too small and low to fit standard size Apparatus equipment. Custom size and fitted Apparatus must be purchased to fit current Apparatus bays at increased costs. In addition the narrow and shorter Apparatus bays and bay doors risk accidental damage to the Apparatus and repair expense. Apparatus must be parked very close to rear wall and prevents passage behind some Apparatus.

The existing spatial constraints also include a lack of appropriate functional space. It is appropriate and necessary for Fire Fighters to have a decontamination area to shower and clean up when still in the Turn-out Gear, prior to exposing their person to any contaminants and carcinogens on the Turn-out Gear. A shower facility to allow cleaning and decontamination is not present in the current facility.

The Police Department is located within a single room on an inaccessible second floor. All Police functions and equipment must be located in this space causing spatial issues with personnel lockers near Evidence areas, unsegregated / shared work areas, unsegregated lunch counter space, lack of a separated public meeting space, excessive storage required in all areas, no secure evidence storage space, no proximate toilet facility, no secure prisoner or detainee, booking or processing area.

The existing Public Safety Facility if repaired, renovated or added on to will be required to meet specific criteria of the current enacted Building Code. Please note that the current code is under revision and the next Building Code has not yet been approved. For purposes of this study we will be referencing the current 8th Edition of the Massachusetts Building Code.

An addition to the current Facility will create a building larger than 7,500 sq. ft. and should sufficient water and water pressure be available require retrofitting of a new automatic fire suppression / sprinkler system into the existing building. Any sprinkler system on this site will require a reliable well-water supply, water



storage tank, and a fire pump with emergency power and generator. An emergency generator for a Public Safety Facility (Category IV Occupancy) should have 72 hour on-site fuel storage.

The existing Second floor Police Department space has only one means of egress and should have two means of egress / stairs. Further, the one existing exit stair is not in compliance with several stair code requirements.

The existing Second floor Fire Department space has two means of egress but the exterior stair requires overhead protection from ice and snow, such as a roof. Further, both stairs are not compliant with several code requirements. The exterior stair is also located directly above hazardous propane tanks for the generator creating an additional fire hazard and life-safety issue.

The existing Public Safety Facility does not comply with Massachusetts Handicap Accessibility or Americans with Disabilities Act (ADA) regulations. In accordance with their regulations any renovations or repair of the existing building which exceeds 30% of the buildings assessed value (2017 = \$10,200) or \$3,060 will require the entire Facility to comply with current accessibility regulations or variances need to be obtained for each non-compliant feature.

1. The Police Department offices are located on the inaccessible Second floor requiring elevator service to the floor.
2. The Fire Department offices are located on a separate unconnected Second floor requiring additional elevator service to the floor
3. The existing three stairs to each Second floor area do not comply with accessible tread / riser dimensions, stair width, handrail and clearance requirements. Reconstruction of these stairs would be required to comply with the current handicap accessibility regulations.
4. The one existing Restroom / Toilet room is not handicap accessible in size, features or fixture type. Reconstruction of two or more handicap accessible restrooms would be necessary for any proposed repair / renovation.
5. There are no interior accessible features including door widths, door hardware, counter heights, kitchen and sinks, controls and switches which will all require replacement.

3. ADDITIONAL CODE RELATED CONDITIONS:

Concrete retaining wall between Apparatus bays 6 and 7 exceeds 30 inches and requires a 42 inch high guard rail for safety.

Insufficient Attic ventilation and lack of appropriate soffit or eave venting in original structure causing excessive heating and moisture conditions within Attic space.

Underground fuel storage tank vent is within short distance of operable windows and gas vapor smells are noticeable within Police room.

Single existing wood framed stair from Second floor Police room has diesel fuel piping and pump directly below exit stair creating a significant fire hazard and life safety issue.

Septic system venting occurs below an existing operable window.

Propane tanks for Generator located directly below Fire Exit Stair and operable door and windows in violation of code required separation requirements.

Exterior wood Fire exit stair does not have sufficient width, handrails on both sides of stairs, properly shaped handrails, height, clearances and handrail strength, proper tread nosings, and exterior enclosure to protect stair from accumulation of ice or snow.

Interior stairs between Apparatus bays are not compliant and are missing handrails.

Interior Stair from second floor Fire Space is not compliant with code, tread / riser dimensions, handrails, clearances, tread nosings, and stair is not within a protected, fire rated enclosure with direct access to the exterior. Lower stair landing has multiple piped utilities and devices creating additional hazards to emergency use of stairs.

Interior Apparatus / garage floor drains are not connected to sewer or tight tank allowing vehicle effluents and hazardous materials to enter the ground and water table.

The single Toilet room for the entire facility is located within an Apparatus bay and is less than the necessary number of fixtures required by the Plumbing Code. The fixtures are not Handicap accessible.

Domestic water to the facility is obtained through an underground pipe from the Regional High School. This pipe was not installed below the frost line and freezes in cold weather leaving facility without water and sanitary services in violation of several codes.

The partial Basement does not have exterior wall or roof insulation.

Second floor Fire Attic areas appear to have insulation removed or displaced. Vapor barrier is shredded.

Not certain if there is a specific make-up air system to the Basement Boiler / room other than general induced air infiltration.

Stairs in Basement are not code compliant nor have handrails.

Basement storage tanks for 1000 gallon fuel oil and 2000 gallon diesel fuel may be in excess of code, but may also be detrimental and a hazard to unprotected Police Room above tanks.

#### 4. OBSERVED PHYSICAL DEFICIENCIES AND DEFERRED MAINTENANCE CONDITIONS:

Worn, lifting / cupping and damaged roof shingles, age uncertain.

Deterioration of some exterior wood trim and siding, including surface mold and loss of paint finish.

Damaged and missing gutters and downspouts.

Measureable deflection in roofline above later Fire Dept. addition.

Non-insulating, single thickness concrete block wall construction.

Single pane, non-insulating and non-thermally broken steel windows on First floor.

Suspected unreinforced concrete block wall and chimney construction.

Non-painted, unprotected concrete block chimneys.

Vinyl siding is loose and disturbed in some of areas. Siding and aluminum trim details and installation are not weathertight.

Wood stair stringers at rear exterior Fire Stair are in contact with the ground which will cause early deterioration.

Rust and deterioration of lower exterior hollow metal doors and wood trim.

Several areas of broken / cracked concrete block walls

Second floor fire spaces have areas of lifting vinyl floor tile.

Attic above Police area used for storage may have exceeded capacity and is filled with combustible materials. Lack of proper ventilation causes excessively high temperatures to occur in attic in summer.

There is critical Data and I.T. equipment located in Attic and subject to excessive temperatures and corresponding equipment failures.



Constrained Apparatus bay size  
Narrow aisle at Turn-out Gear lockers



Unprotected Fire Stair discharging into Apparatus bay



Narrow Apparatus aisle



Lower Fire Stair landing  
Non-compliant Stair  
Additional utility hazards to emergency egress





Narrow aisle in front of Turn-out Gear locker



Narrow space between Apparatus and Stairs  
Non-compliant Stairs



Narrow space between Apparatus and rear wall



Maximizing use of all Apparatus bay areas



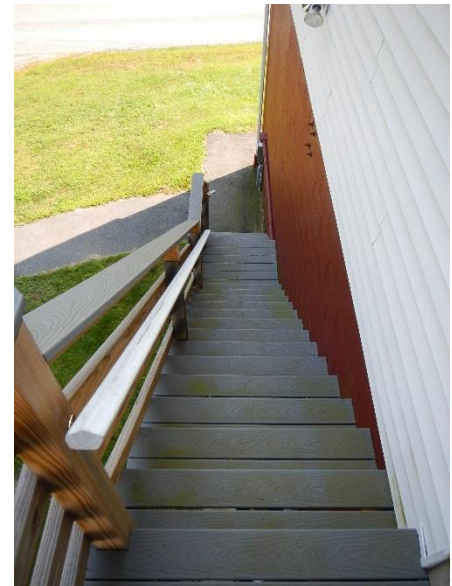
Southwest view of Public Safety Facility



Unprotected exterior Fire Stair  
Propane tanks (Hazard) under Stair  
Propane tanks below operable openings (door / window)

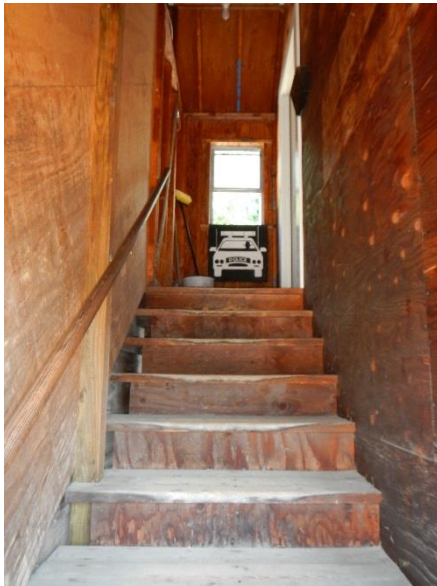


East view of Public Safety Facility



Unprotected exterior Fire Stair  
Non-compliant Stair





Non-conforming Police Stairs



Unfinished / unprotected CMU Chimneys



Diesel fuel pump (Hazard) below Police stairs



Sanitary vent below window



Cupped / unsealed roof shingles



Apparatus Floor Drain  
Leaches below building



Cupped / unsealed roof shingles

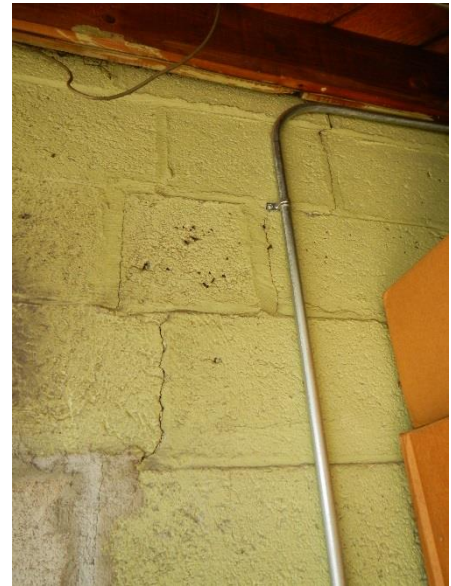


Apparatus Floor Drain  
Leaches below building





Cracked Concrete Masonry Units (CMU)



Cracked CMU Joints



Cracked CMU



Water / salt stained CMU



2000 Gal. Diesel fuel tank  
Below Police Dept. space  
Uninsulated exterior walls / roof



Attic above Police room  
Excessive storage and combustibles



1000 Gal. fuel oil tank  
Below Police Dept. space  
Uninsulated exterior walls / roof

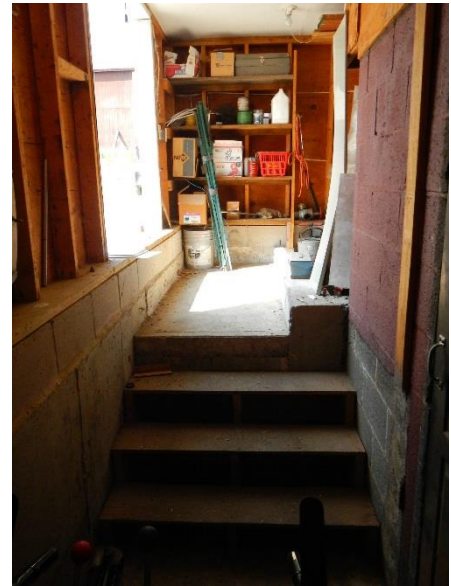


Attic above Police room  
Fan directed at I.T. Equipment





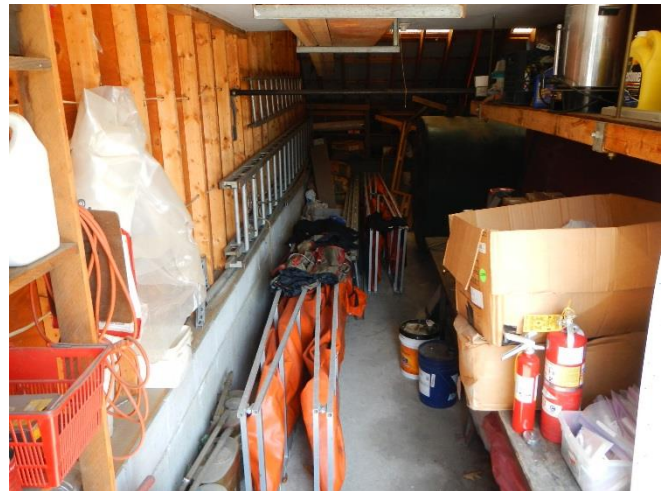
Exposed / Degraded Gas pump



Non-compliant Basement Stair



Single-pane steel windows



Basement Storage area  
Uninsulated exterior walls



Rust / Deterioration of exterior metal door  
Deterioration of lower wood door jambs

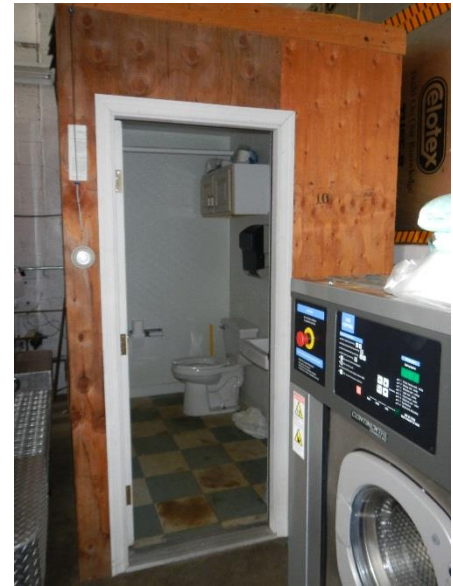


Deteriorate CMU below door threshold





Little clearance behind Apparatus ladder



Single Toilet room behind Apparatus



Work bench / storage behind Apparatus



Narrow space between Apparatus and Toilet room



Multi-purpose Fire office / Meeting room



Fire Attic area with disturbed insulation  
Miscellaneous material storage



Multi-function Fire office / Storage area



Fire Attic area with disturbed insulation  
Miscellaneous material storage





Retaining wall without guardrail  
Deflection noticeable in ridgeline



Siding with paint loss / partial deterioration



Missing roof gutter section



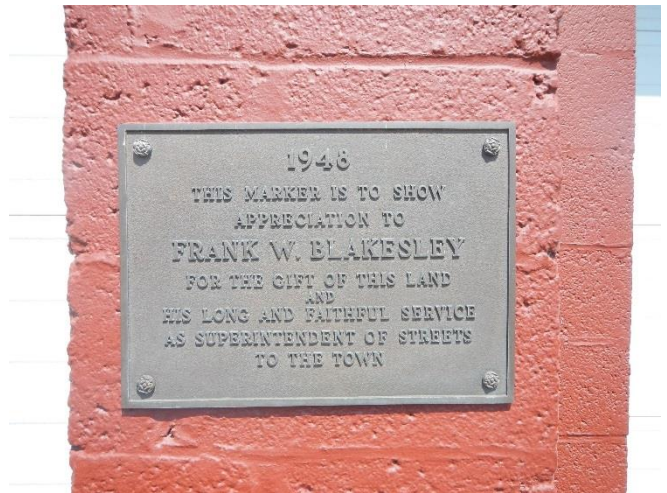
Police Department room  
Public seating  
Personnel lockers  
Kitchen sink / counter  
Evidence preparation area  
Workstation



Small water heater and storage above Toilet room



Police Department Room  
Workstation  
Communications  
Public counter



Memorial plaque of original land / building





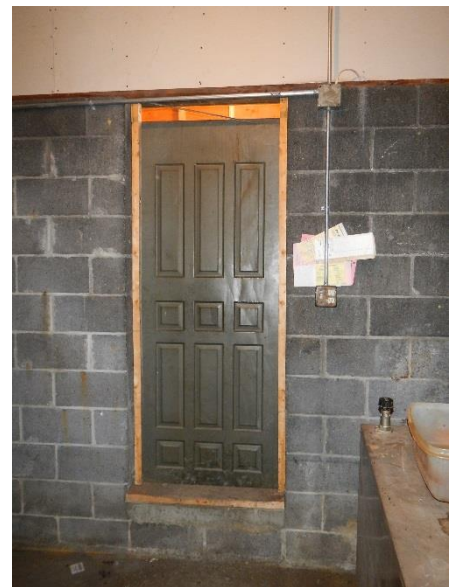
Narrow space between Apparatus and door



Opening between Apparatus bay additions  
Cracked CMU joint on left  
Unprotected primary phone line at upper left



Narrow space between Apparatus and door



Basement Boiler Room door

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## STRUCTURAL

## 1. GENERAL CONDITIONS

Johnson Structural Engineering has performed a structural code review for the proposed renovations to the existing Westhampton Public Safety Building located at 48 Stage Road in Westhampton, Massachusetts. The purpose of the code review was to identify the structural implications if the existing building is renovated. The International Existing Building Code 2009 (IEBC) and the 8th Edition of the Massachusetts Amendments to the International Building Code 2009 (780 CMR) were referenced for our code review. The following report summarizes the results of our structural code review.

## 2. EXISTING STRUCTURAL SYSTEM

Travis Alexander of Johnson Structural Engineering (JSE) performed a site visit on August 10, 2017 to inspect the existing building structure. The "original building" is comprised of six garage bays with a partial second floor over approximately half of the original building (see photograph #1). Please note that it appears that the "original building" includes an old addition that was likely constructed shortly after the original construction due to a variation in the roof structure. Three other additions have been constructed onto the existing building. The additions include a police headquarters addition (left addition), two-bay fire truck garage addition (right addition), and one-bay garage/storage addition (rear addition).

- a. As stated above, the "original building" includes six garage bays. The left side of the "original building" is a one-story structure. The roof structure is comprised of 2"x8" wood rafters spaced at approximately 18" on center (o.c.) and the attic framing is comprised of assumed 2"x8" wood joists spaced at approximately 18" o.c. There are 5/8"x7" diagonal members between the roof rafters and ceiling joists at the approximate mid-span of the rafters (see photograph #2). There are two steel beams spanning between the front and rear walls of the building (beams span parallel with the roof and attic framing) (see photograph #3). The beams are dropped below the ceiling and do not support any structure above. It is likely that the beams may be acting as ties between the front and rear walls of the building.
- b. The right side of the "original building" is a two-story structure. The roof structure, which was accessed through an access door on the second floor, is comprised of 1-3/4"x5-1/2" wood rafters spaced at 16" o.c. The second-floor structure is comprised of 1-3/4"x7-1/4" wood joists spaced at approximately 16" o.c. The joists are wall bearing along the exterior walls and are supported by a 12" deep steel beam along an interior column line (see photograph #4). The steel beam is wall bearing at its ends and supported by two 4-1/2" diameter steel columns along the span of the beam. During the site visit, it was observed that the base of one of the columns is buried in the concrete slab and the base plate for the second column is bearing on the concrete slab (see photograph #5). The footings below the two columns are unknown and will need to be verified. The first floor is a concrete slab-on-grade. The exterior walls of the "original building" are 12" unreinforced CMU bearing walls. Some vertical cracking was observed in the exterior CMU walls (see photograph #6).
- c. The roof framing for the left addition is comprised of 2x8 and 2x10 wood rafters spaced at approximately 16" o.c. The roof framing over the enclosed stairwell is comprised of 2x4 rafters that are perpendicular to the slope of the roof. The attic framing is comprised of 2x8 wood joists spaced at approximately 16" o.c. The second-floor framing was inaccessible at the time of the site visit due to a hard ceiling. The first floor is a concrete slab-on-grade. It should be noted that the first floor is approximately 3'-0" below the exterior grade. The exterior walls are wood stud walls and the foundation is comprised of a CMU block foundation wall. The foundation wall depth is unknown and will need to be verified. It is unknown if a foundation exists below the enclosed stairwell.

- d. The roof framing for the right addition was inaccessible during the site visit due to a hard ceiling. The second floor framing is comprised of 2x12 wood joists supported by a 20" +/- deep steel beam. The spacing of the wood joists is unknown due to a hard ceiling. The first floor is a concrete slab-on-grade. The exterior walls are comprised of 12" reinforced CMU bearing walls. The foundation is comprised of a concrete foundation wall and assumed continuous footing.
- e. The roof framing for the rear addition is comprised of 2x8 wood rafters spaced at 16" o.c. and the ceiling framing is comprised of 2x10 wood joists spaced at 16" o.c. The roof framing and ceiling framing are supported by two 1-3/4"x9-1/2" LVL beams along the exterior walls, which are supported by 6x6 wood posts and also bear on the existing CMU wall of the "original building" (see photograph #7). The first floor is a concrete slab-on-grade. The exterior wall is comprised of 2x4 horizontal members that span between the 6x6 posts and vertical 2x6 members centered between the posts. It is unknown if the rear addition includes a foundation. During the site visit 6x6 wood sleepers were observed along the extent of the addition below the exterior walls/posts supporting the roof structure (see photograph #8).

### 3. STRUCTURAL RENOVATIONS

For the purpose of our structural code review, it is assumed that the entire building will be renovated. Therefore, per IEBC Chapter 4 the proposed renovations are classified as Level 3 Alterations since the proposed work area will include over 50% of the entire aggregate area of the building. As a result, the structural requirements of IEBC Chapter 8 must be satisfied.

Please note that if any additions are proposed as part of the project, then the additions must be kept structurally separate from the existing building. The structural design of the additions must comply with the design loads specified in the International Building Code, 2009 (IBC) for new construction. Additionally, if the additions are taller than the existing building, then the existing roof structure within the snow drift zones adjacent to the taller addition must be reinforced accordingly (IEBC Section 1003.4).

#### a. GRAVITY SYSTEM

- i. If the existing roof is reroofed and the weight of the new roofing exceeds the existing by more than five percent or if the R-value of the new roof exceeds the existing, then the existing roof structure must be reinforced to comply with the IBC design snow load (IEBC Section 606.2). The IBC design snow load for a public safety building is 42 pounds per square foot (psf) (46.2psf for unheated buildings). JSE performed a structural analysis on the existing roof framing. The results of the analysis indicate that the existing roof framing for the Westhampton Public Safety Building does not comply with the IBC design snow loads. Therefore if it is proposed to add insulation within the attic space as part of the proposed renovation then the existing roof structure will need to be reinforced.
- ii. The IBC design live loads for assembly areas is 100psf. The existing second floor area is currently used as a meeting/conference room and lounge. It is likely that the second floor will continue to be used in the same manner after the renovation. Per IEBC Section 807.3, reinforcement is not required because the existing structure does not undergo a change of use and there is no loading increase in the second floor framing. However, it is recommended that the existing second floor framing be reinforced to meet the current design live loads specified in the IBC.

#### b. LATERAL SYSTEM

- i. At this time, it is unclear on the extent of the structural alterations to the existing floor and roof framing. If more than 30 percent of the total floor and roof areas are involved in structural alteration, then the existing lateral system of the building must comply with the IBC wind load and a reduced IBC seismic load (IEBC Section 807.4.2). The existing lateral system of the building, which

## WESTHAMPTON, MA

## STRUCTURAL EVALUATION

is comprised of unreinforced CMU walls acting as shear walls, will need to be reinforced to comply with the IBC wind and reduced seismic load. The reinforcement will likely include a combination of steel braced frames and moment frames supported by reinforced concrete footings.

- ii. If less than 30 percent of the total floor and roof areas are involved in structural alterations, then the existing lateral system of the building must comply with the seismic loads applicable at the time of the most recent substantial structural alteration (IEBC Section 807.4.3). The most recent substantial structural alteration is likely to be the two-bay fire truck garage addition. It is likely that the existing lateral system of the building (unreinforced CMU shear walls) will need to be reinforced with a combination of steel moment frames and steel braced frames supported by reinforced concrete footings. Please note that the reinforcing for this scenario would be less (fewer frames and/or smaller member sizes) than that required to comply with the IBC loads.
- iii. Additionally, wall ties must be installed to tie all existing masonry walls to the floor and roof diaphragms.

## 4. CONCLUSION

It is proposed to renovate the existing Westhampton Public Safety Building located at 48 Stage Road in Westhampton, Massachusetts. The proposed renovation is classified as Level 3 Alterations assuming that the renovation exceeds 50 percent of the aggregate area of the building. The existing roof structure will need to be reinforced in order to comply with the IBC design snow load if insulation is added in the attic space. Although there is likely no change of use for the second floor as a result of the renovation, the existing second floor structure (where accessible during the site visit) does not comply with the IBC design loads for assembly use. It is likely that the existing lateral system of the building will need to be reinforced regardless of the extent of the structural alterations to the existing floor and roof framing. Wall ties must be installed to tie all existing CMU walls to the floor and roof diaphragms.

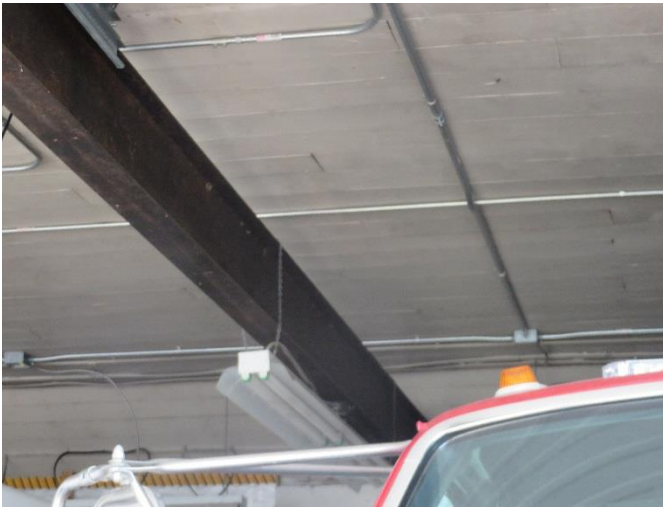




Photograph #1 – Westhampton Public Safety Building



Photograph #2 – “Original Building” Roof Framing



Photograph #3 – “Original Building” Steel Beam



Photograph #4 – “Original Building” Second Floor Structure



Photograph #5 – “Original Building” Column Base Plate



Photograph #6 – Vertical Crack in CMU Wall



Photograph #7 – Rear Addition Roof & Ceiling Framing



Photograph #8 – 6x6 Wood Sleepers below Exterior Wall

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## FIRE PROTECTION

### General Building Overview

Currently the building does not have a fire protection system. If the existing building is renovated and expanded, a fire protection system would be required to be installed in accordance with NFPA 13, 2013.

An automatic sprinkler system throughout entire building is required if any of the following are triggered:

- If the total square footage of the building is actually 12,000 ft<sup>2</sup> or more, it requires a sprinkler system regardless of the extent of renovations due to the change in use (IEBC 912.2.1). Additionally the storage of commercial trucks, S-1 occupancy would require sprinklers if the area exceeds 5,000 sf.
- The cost of renovations exceeds 1/3 of the building assessed value (MGL Chapter 148 Section 26G – see the following for a more detailed discussion).
- The area of renovations exceeds 1/3 of the building area (MGL Chapter 148 Section 26G – see the following for a more detailed discussion).

If the future addition/building is over 7,500 gross square feet in area, it is subject to the requirements of M.G.L. Chapter 148 Section 26G. <sup>Note 1</sup> These amendments require the entire building to be provided with sprinkler protection if the renovations are considered “major”.

Renovations are considered major depending on the type of work and the scope / cost of work. The following are general guidelines established by the Board to be used to determine if the scope or the cost of the planned alterations are major:

- Major alterations are reasonably considered major in scope when such work over a 5 year period affects 33% or more of the total gross square footage of the building (measured from the outside walls, regardless of firewalls).
- Major alterations are reasonably considered major in scope or expenditure, when the total cost of the work over a 5 year period, excluding costs relating to sprinkler installation, is equal to or greater than 33% of the assessed value of the building, as of the date of permit application.
- Major alterations would include work such as the demolition or reconstruction of existing ceilings, sub flooring, walls, stairways, doors, or the removal or relocation of a significant portion of the building’s HVAC, plumbing, or electrical systems. Cosmetic work such as painting or installing / replacing carpeting would be considered minor and would not trigger compliance with this law.

<sup>Note 1</sup> \*M.G.L. Chapter 148 Section 26G exempts building where insufficient water or water pressure exists. This will have to be determined by a flow test.

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## PLUMBING

### General Building Overview

A ¾" domestic water service with a ½" supply serves the building, which is located next to the Toilet room back wall. The domestic hot water is supplied by a point-of-use electric hot water heater located on the top of the Toilet room platform. The main waste discharges to an underground sanitary system. The gas/oil/sand waste reportedly discharges into an exterior tight tank and underslab drywell.

This report includes a description of the existing conditions, a discussion of the present operation and projected future requirements.

### Existing Conditions

#### GENERAL

The plumbing system is generally in good condition. The system consists of a Toilet room with a water closet and lavatory, kitchen sink, washer valve/standpipe, hose stations, garage floor drains, electric water heater, propane-fired generator, air compressor, and associated piping. The sanitary systems appear to be in reasonable condition. The domestic water piping is copper and looks to be in reasonable condition.

#### WATER HEATER

The electric water heater is a point-of-use Standard 20 gallon tank type, and is located on the top of the Toilet room.

#### WATER SERVICE

A ¾" water service with meter is located against the left wall in Fire Station Bay #1.

#### GAS SERVICE

Propane tanks are located in the back of the Fire Station and supply the generator for the building.

#### MAIN WASTE

It is assumed a main waste discharges from the Toilet room to outside the building. The garage floor drains discharge into an exterior tight tank (unconfirmed) and a second garage floor drain discharges into a drywell located below the slab, and leaches into the ground. The drywell system is not allowable by code.

#### TOILET ROOMS

A single Toilet room is on site for the Fire Station and Police Station. A tank-type water closet and lavatory are installed. The lavatory has a manual faucet set. The water closet and lavatory are in good condition.

#### MISCELLANEOUS PLUMBING FIXTURES

A kitchen-type sink with a manual faucet set is located in Police Station and is in good condition. In the garage area, water and waste connections supply a washer extractor.

Discussion

## GENERAL

The plumbing system although in reasonable condition does not comply with code. The occupancy and use of the building requires more fixtures and separate toilet facilities for male and female. All the fixtures installed are not accessible.

The main issue to address is compliance with current codes and regulations. This includes providing both female and male separate toilet fixtures in accordance with guidelines in the Commonwealth of MA Fuel Gas and Plumbing Code. This also includes that the required fixtures would be accessible.

## WATER HEATER

The water heater is acceptable for the amount of hot water system fixtures presently installed, but will not be adequate for additional fixtures required. A more efficient propane-fired water heater should be installed for energy and cost savings.

## PIPING

The piping systems will not be adequate for additional fixtures required. The existing water service would need to be upgraded.

The underground sanitary would require investigation to verify condition of piping, sizing, and how the system flows on site.

## FIXTURES

In general, the fixtures are not water efficient and it is recommended that they be replaced with water-saving fixtures that are compliant with current codes and standards.

All the fixtures are dated but in good condition. The tank-type water closet and lavatories faucet sets should be changed to a water saving type.

Public Safety Facility and Future Space Projections

## WATER HEATER

A high efficiency propane-fired, larger volume, water heater is recommended, with a mixing valve, expansion tank, valves, and all associated venting. The existing propane tanks would need to be confirmed for additional load by propane vendor.

## PIPING

A new water service and all new water distribution piping should be installed. This includes potable domestic cold water, hot water, and hot water recirculation piping to new fixtures and equipment. All new valves would be installed, including a system mixing valve on the hot water system, branch lines and Toilet room shut-off valves, and insulation on all water distribution piping in accordance with the energy code.

The underground sanitary system would require investigation to verify condition of piping, sizing, and how the system flows on site. A new main sanitary pipe may be required. This would be determined after investigation as noted in discussion above.

Additionally, the Garage floor drains would be required to discharge to a Gas/Oil/Sand Interceptor on site, before connecting into a DEP approved Industrial Waste Water (tight) tank. This includes all required new alarms, piping, venting, and excavation.

## FIXTURES

Additional fixtures would be provided in accordance with the code. This includes separate Toilet room facilities for both male and female. This is determined by the following:

The Massachusetts Plumbing Code (248 CMR) regulates the number of plumbing fixtures required throughout building. The minimum number of plumbing fixtures is established by 248 CMR 10.10(18) Table 1 based on the building use and the expected occupancy as determined by the local Plumbing Inspector per 248 CMR 10.10 (18)(2). The Plumbing Inspector must approve the building occupancy being used for requirements; however, the building occupancy can generally be based on the designer's determination of the actual number of people expected within the building. The Plumbing Code expects that the building occupancy will be divided evenly between male and female for the purpose of determining fixture counts.

The fixtures that will be required in addition to water closets and lavatories are urinals, janitor's sinks, kitchen sinks, utility sinks, hand sinks, emergency shower face/eye wash station, hose bibbs, exterior wall hydrants, laundry valve and standpipe, drinking fountains. A holding cell and prison type water closet/lavatory combination unit is not anticipated in the facility. Showers may need to be provided depending on Locker Room preferences.

Handicap fixtures would be provided where required. The fixtures would be water-savings type fixtures with sensor flush valves and sensor faucet sets.

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## HVAC

### Existing Conditions

#### BOILER

The building boiler is a 7-10 year old Buderus Logano Model G215/5 with Reillo 40 Series F10 oil burner located with its own room enclosure. The boiler has a D.O.E. Heating capacity of 207,000 btu/hr and a net IBR rating of 180,000 btu/hr with a 1.7 gph oil firing rate. The boiler system is equipped with a system pump, expansion tank, air separator and other standard hydronic heating components.

A disconnected abandoned boiler exists within the boiler room.

#### PUMPS

Five inline circulator pumps, (4) Grundfos Series UPS-20 and (1) replacement Grundfos Series UP-26 serve the Buderus boiler, circulating hot water throughout the building. Each pump acts to serve a specific heating zone loop with circulated hot water. One pump loop serves the Police Office baseboard radiation. Three others each serve individual Firehouse apparatus bay unit heaters. A fifth pump loop serves the Firehouse Day Room and Office Area baseboard radiation.

The piping serving the building heating loop is uninsulated. The existing pipe is beginning to show signs of initial deterioration. Sections of pipe have been restored/replaced.

#### HOT WATER UNIT HEATERS

The building is supplied with six Modine hot water unit heaters. Five of the six units are outdated, one is a replacement of the original and perhaps 10 years old. Limited data is available on the unit heaters, each is estimated to have a capacity of approximately 30,000 btu/hr. Each Apparatus Bay, typical for 3, is furnished with two hot water unit heaters served by an associated inline zone circulator pump.

#### BASEBOARD RADIATION

Baseboard radiation is provided in the Police Office along the north and south side walls. The Firehouse Day Rooms have radiation installed along the north, south and east sides of the area.

The existing baseboard is standard residential quality and shows signs of typical wear.

#### PORTABLE AIR CONDITIONING UNITS

The Police Office and Firehouse Day Rooms are each provided with an Amana 12,000 btu/hr, three speed portable air conditioner. The units have electronic controls with a remote. An auto evaporation system collects moisture from the dehumidifier expels it through the air vent. Each unit has a window exhaust kit and R22 refrigerant.

#### CONTROLS

Each Apparatus Bay is equipped with its own thermostat. The thermostat provides a signal to energize/de-energize an associated zone pump based upon the rise and fall above and below thermostat setpoint.

The Police Office and Firehouse Day Room are each equipped with their own thermostats. The thermostats provide a signal to energize/de-energize an associated zone pump based upon the rise and fall above and below thermostat setpoint.

## FUEL OIL STORAGE

The boiler is complemented with a double wall 1,000 gallon fuel oil storage tank.

A 2,000 gallon diesel fuel storage tank serves a pumping station for the apparatus vehicles.

### Discussion

## BOILERS

The building heat is provided by a Buderus boiler with an associated hot water piping distribution system. Hot water is circulated throughout the building via inline zone pumps to various unit heaters and baseboard radiation.

The boiler is in good condition. It can be expected to provide another 10-15 years of practical use. However, being fueled by oil, it has an efficiency rating of only 80% compared with the High Efficiency Gas Fired Boilers capable of 90%-95%. Rebates for the installation of higher efficiency products are often available from the utilities.

The heating distribution piping is uninsulated. It is standard industry practice to furnish heating pipe with 2" thick insulation.

A strong odor of oil exists within the boiler room. It is presumed the air surrounding the Boiler Room is contaminated by fuel vapor.

## PUMPS

The building is serviced by five inline zone circulator pumps. One of the pumps has already been replaced. The remaining pumps are in good to fair condition. Ultimately the replacement of these pumps should be anticipated.

## HOT WATER UNITS HEATERS and BASEBOARD RADIATION

The hot water unit heaters are the heating source for the Apparatus Bays. Each bay consists of 2 units heaters. With the exception of a heater already replaced consideration should be given for complete conversion to new units.

Unit heaters are a basic steady reliable heat. They are easy to replace at low cost, durable and suitable for the buildings environment.

The existing residential quality baseboard radiation serving the Police Office and Firehouse Day Rooms are showing signs of wear. A replacement upgrade to light commercial grade covers and elements is recommended.

## PORTABLE AIR CONDITIONING UNITS

The existing air conditioning units are both currently functional and were observed in operation. The units have been discontinued by the manufacturer and the R22 refrigerant used by the air conditioners has been phased out due to environment factors. These units are approaching the end of their usefulness.

The unit serving the Police Office was adequate to handle the heat gain and keep the space cool. The Firehouse Day Room was noted to be warm and humid indicating the unit is undersized for the space.

Replacement of these portable units in favor of ductless split system types, sized to appropriately suit the area is suggested.



## VENTILATION

There is no means of any ventilation provided for the building. There is no provision for general apparatus bay exhaust. No source of vehicle exhaust extraction exists. There is no method for the introduction of outdoor air. The existing toilet room is not equipped with an exhaust fan.

## CONTROLS

The primary control is accomplished by five zone thermostats. Thermostats round manual dial non-programmable type.

### Public Safety Facility and Future Space Projections

1. Contemporary Public Safety Complex Apparatus bays are typically equipped with a general outdoor air make-up/exhaust arrangement with CO and NO2 detection monitoring integrated into the system for proper air exchange. The general make-up air system is commonly supplemented with a vehicle exhaust extraction system and is advised to be incorporated to the overall ventilation of Apparatus Bays. The provision of these systems are fundamental to be in accordance the International Mechanical Code Sections 403, 404 502.14 and 502.16.2
2. Recommend use of combination ducted propane gas-fired heating with split system direct expansion cooling systems, designed to suit space requirements, to provide a proper conditioned environment for the facility including the introduction of outdoor air. These new systems shall incorporate state of the art high efficiency technology.
3. Dedicated exhaust systems for toilets and toilet cores is required. Provided dedicated exhaust for locker and/or shower rooms. Provide dedicated exhaust for evidence/narcotic storage.
4. Provision of dedicated 24/7 split system cooling for Server Room is recommended.
5. Upgrade of the Energy Management Control System will be necessary.

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## ELECTRICAL

### Existing Conditions

#### ELECTRICAL SERVICE

The Existing electrical service to the building is fed from an overhead service located on the right-hand side of the building at the rear. The Main electrical panel is rated 200A – 120/240-1 phase service. There is a Service rated automatic transfer switch adjacent to the main panel with a 200A-2P main breaker. A generator is located at the rear of the building. The generator is a Generac 15KW generator rated for use with 120/240V- 1 phase service. The generator has a 2P-60 circuit breaker.

There is an overhead service to the Salt Barn from the left side of the main building. The Salt Barn has a self-contained meter socket with no meter and a panel located on the inside of the barn. The panel is located approximately 9 feet above the floor and was not accessible.

#### PANEL BOARDS AND DISTRIBUTION EQUIPMENT

The main electrical panel is located in the rear corner of the right-side of the building (Fire Dept). The panel is manufacturer by Murray. A second electrical panel (Highway) is located in the rear corner of right side of the 3<sup>rd</sup> bay building. Neither panel has working clearances in accordance with code. The panels have incomplete circuit designations identifying equipment served by the branch circuits. The main disconnect switch in the main panel is not identified as the main disconnect for the building. There is a 100A-2P circuit breaker that feeds the 'Highway' panel.

There is a 100A-2P manual double throw switch mounted adjacent to the 'Highway' Panel which serves as the main disconnect switch to Highway panel. The disconnect switch is still identified as a manual transfer switch for the generator.

#### DISTRIBUTED POWER (Wiring)

Most of the offices are not on dedicated circuits. The receptacle outlets are dilapidated. They are wall mounted with surface mounted conduit and wiring. Some receptacles are mounted approximately at 6 feet from the floor and plugging any electrical device requires a ladder. There is a variety of wiring methods present in the building, conduit and wire, Wiremold and wire, MC cable, NM cable and unknown wiring method concealed in the structure of the building. The condition of the wiring methods varies from poor to acceptable. There are a number of junction box with no covers and/or wiring hanging out of the box with wirenuts. The receptacles located in the truck bays are not GFI receptacles. There is one Exterior receptacle located on the front of the building and one receptacle located on the generator at the building. The latest addition to the building is wired using MC cable and conduit and wire and is compliance with code requirements.

#### LIGHTING

Lighting fixtures in the building are a mixture of pendant mounted industrial fluorescent 2 lamp fixtures, surface mounted wraparound fluorescent fixtures and porcelain sockets with bare lamps. The fixtures with visible lamps use type T12 lamps. The wiring in the building and the Attic has not been installed in a workmanlike manner. There no occupancy sensors in the offices to control the lights. All lighting is controlled with switches.

Exterior lighting consists of incandescent adjustable flood lights, some have motion sensors.

#### EMERGENCY LIGHTING (Interior)

There is only one self-contained emergency fixtures with 2 emergency light heads noted at the time of the walk through. There are no exit signs in the building.

#### EMERGENCY LIGHTING (Exterior)

There are no exterior fixtures with emergency battery back up at the means of egress.

#### FIRE ALARM SYSTEM

The fire alarm panel in manufacturer by Fire-Lite model #MS-5UD. The panel is a 5 zone conventional panel. The panel zones were only identified on the interior of the Fire Alarm panel. The panel is located at the back of the building near the main electric service entrance equipment. The building notification devices are horn/light devices located in various areas of the building. Smoke detectors are present in the office areas and heat detectors are located in the truck bays and the Attic. The breaker feeding the fire alarm panel is neither red nor has the capability of being locked in the on position.

#### DATA/TEL/CATV

There are three overhead service drops to the building. One is adjacent to where the Electric service enters the building, the 2nd one is attached to the left-hand side of the concrete building and the 3<sup>rd</sup> is approximately centered on the building. It appears the service drop on the right side of the building is the service to the Fire Department and the service drop on the left-hand side of the building is the service to the Police department and the 3<sup>rd</sup> Tel service drop is an abandoned service which fed the Highway Department section of the building. Outlets have been added using surface mounted raceways.

#### CCTV System

There is no CCTV system in the building.

#### Discussions

#### ELECTRICAL SERVICE

The existing electrical service to the buildings appears to be adequate for the current building configuration. The electrical service would not have the capacity for an addition to the building and to accommodate the additional mechanical loads that will be required for a larger building. There is no Surge protective device (SPD) at the main electric service which would provide protection to the electrical service to the building from transient (surge) voltage. There is 3 phase power on a pole on the Corner of Southampton road and Stage road on the opposite side of the street.

Based on Serial number of the generator it was built in 2004. The existing 15KW generator appears to be in good condition and has had annual maintenance performed. Generators typically have a 20-year life span so the generator is a little more than halfway thru its life cycle. Approximately 50% of parts are no longer available and could be available through a special factory service for obsolete parts but will not be stocked locally and may take 7-14 days for research to be done to determine availability of parts.

The Salt Barn panel which is located approximately 9 feet above the floor is in violation of code. The maximum mounting height is 6ft 7inches above the floor. Based on the age of the panel it could likely be a fused panel. It is unknown if the panel has a main disconnect switch.



## PANEL BOARDS AND DISTRIBUTION EQUIPMENT

The Main Panel appears to be serviceable with a limited amount of space for any additional loads. The main panel would be undersized for the Mechanical loads required to be provided in the building and for any addition to the building. The Highway panel appears to be original to the building and has come to the end of its useful life. Half of all standard size breakers have been replaced with tandem breakers which indicates a lack of available circuit capacity in the panel for the existing building requirements. The Double pole switch appears to be several decades old and has come to the end of its useful life. The switch has been reconfigured to be used as the main disconnect switch for the Highway panel and the mounting height exceeds the height allowed by code. Insufficient working space is provided for both the main panel and the Highway panel and the Double pole switch.

## DISTRIBUTED POWER (Wiring)

The receptacles in the building and branch circuiting are in various states of conditions from poor to acceptable. Some outlets wired with conduit and wire are rusted, NM cable is attached to conduits for support in violation of the code and are installed in locations which are subject to damage. Conduits in some locations are no longer continuous as the conduit has pulled away from the fittings. There are several outlet boxes with missing covers and wiring extending beyond the box. The majority of the wiring in the building is original to the building and likely has common neutrals for circuits. Receptacles in garages are not Ground Fault type receptacles or protected with a Ground Fault circuit breaker. Receptacles within 6' of sinks shall also be Ground fault protected which is not present. Exterior receptacles are not weather resistant nor do they have 'in use heavy duty covers' in accordance with current code.

## LIGHTING

The existing lighting fixtures use fluorescent lamps and are controlled with switches. The fixtures use T12 lamps and may have ballasts with PCB's. The lamps for these fixtures are no longer being manufactured and obsolete. These fixtures have exceeded their useful life and should be replaced. Fluorescent fixtures are becoming obsolete and current industry lighting standards are fixtures using LED technology. The current IECC 2015 energy code requires lighting to be controlled by occupancy sensors, daylight sensors or by time based controls with override switches.

The exterior lighting uses incandescent lamping which is inefficient. It is likely that exterior building lighting based on the IECC 2015 energy code allowance is exceeded with the current fixtures. The lighting fixtures are a mix of lighting controlled by manual switches, motion sensors and a time clock with is in violation of the IECC 2015 energy code.

## EMERGENCY LIGHTING (Interior)

A limited number of emergency lighting is present in the building and what is present does not comply with code. No Exit lights are present in the building which is in violation of Building code.

## EMERGENCY LIGHTING (Exterior)

There is currently no emergency lighting at the means of egress which is in violation with Building code.

## FIRE ALARM

The current system is of conventional design. There were no pull stations noted at the time of the walk thru and the system coverage installed in the building is accomplished with heat detectors and smoke detectors throughout the building. The wiring is accomplished using both exposed and concealed Fire Alarm cable. Carbon monoxide detector were not noted at the time of the walk thru, no visual devices are present in the toilet room. Since this is a conventional 5 zone panel adding any future devices which require separate zoning, i.e. duct detectors and carbon monoxide detectors for mechanical equipment, elevator recall and interconnections to other systems will not be

possible. The code requires at least one pull station to be installed in a building even if the occupancy type does not require pull stations. The intensity settings of the A/V devices do not comply with current code requirements.

#### TEL/DATA/CATV

The building has a total of three (3) telephone service drops to the building and two CATV service drops to the building. One of the telephone services located at the center of the building which terminates in the Highway Dept part of the building appears to be disconnected and abandoned inside the building. The other two (2) Telephone and CATV drops appear to feed different portions of the building. The service drops on the left side of the building feeds the Police Department and is located high on the building and are not accessible. The service drops on the right hand side of the building feeds the Fire Department.

The wiring for the data system in the Attic area of the Police station where the main server is located is not done in a workman like manner. Wiring is not clearly labeled as to outlet served. Some tel/data outlets have been installed using boxes for flush mounting but have been surface mounted. Any wiring that is original to the building is likely Cat 3 cable or below. Current Tel/Data cabling is Cat 5e/6 respectively.

The CATV service into the Fire Department side of the building runs both into the upper floor and has cable bundled adjacent to the Main Electrical service to the building.

We were unable to confirm if all of the Tel/CATV services were grounded or bonded to the main electric service ground in accordance with code.

Public Safety Facility and Future Space Projections

## ELECTRICAL SERVICE

A new electrical service to the building will be required to accommodate an addition to the building and the new mechanical requirements and possible elevator requirements. Based on the close proximity of 3 phase power to the building it is probable that a new three phase underground service could be provided to the building. A transformer pad would be located adjacent to the building and a designated electric room will need to be provided for the service entrance equipment.

Due to age of the generator and parts availability to the generator we would recommend a new 3 phase generator be installed to coordinate with the new electrical service to the building and be sized to accommodate the power requirements for the existing and new addition to the building. A new transfer switch will be required.

## PANEL BOARDS AND DISTRIBUTION EQUIPMENT

With the service upgrade to the building we recommend all new panels be installed in the building. The panels will need to be installed in areas of the building which provide proper working clearances around the panels. All panels will be 3 phase panels to match the new building service upgrade and to provide balanced loads within the building.

## DISTRIBUTED POWER (Wiring)

We recommend replacement of all branch circuiting in the facility. Receptacle outlets with ground fault protection should be installed in the garage and in accordance with code. Dedicated circuits should be provided for equipment requiring same, ie microwave, ovens, refrigerators, etc.

## LIGHTING

An upgrade to LED lighting, along with occupancy and daylight sensors will provide a significant reduction in wattage and power requirements. Lighting rebates may be available thru the Utility company. The upgrade to occupancy and daylight sensors would require switch replacement. The new lighting power allowances and controls will need to comply with the IECC 2015 Energy Code.

Exterior lighting should be replaced with new LED fixtures with motion sensor and photocell to comply with the IECC 2015 Energy Code.

## EMERGENCY LIGHTING (Interior)

Self-contained exit lights, and self-contained emergency lights should be installed in the building to comply with the Building code.

## EMERGENCY LIGHTING (Exterior)

Provide new LED fixtures with emergency battery packs at all means of egress to comply with the Building Code. Fixture should be provided with motion sensors and photocell to comply with the IECC 2015 Energy Code.

## FIRE ALARM

We recommend replacement of the current Fire Alarm system with a new Addressable Fire alarm system which will be able to accommodate the new fire alarm devices for the mechanical equipment and elevator recall, if necessary. The new system will also be able to be easily monitor or control any other building gas alarm system or security system. New Pull stations would be installed at all means of egress and proper spacing and location of audio/visual devices throughout the building in accordance with NFPA is recommended. Smoke and heat detectors will be

installed in accordance with code. The new system shall comply with Mass Building code with amendments, NFPA 1 with Mass amendments and NFPA 72.

#### TEL/DATA

A single telephone and CATV service should be installed into the building with one central backboard for the building. The backboard is typically installed in the main electrical room. This centralized location would allow for a neat and orderly distribution of Telephone and Data wiring throughout the building. All new wiring would be installed to meet current industry standards for cabling. All Wiring would be clearly labeled as to outlet served. Consideration should be given to a possible UPS or battery backup with sufficient power to operate the Server in the building during the startup of the generator.

#### CCTV

Provide a new CCTV system in the building to comply with current industry standards.



**EXISTING FACILITY REPAIRS AND IMPROVEMENTS**

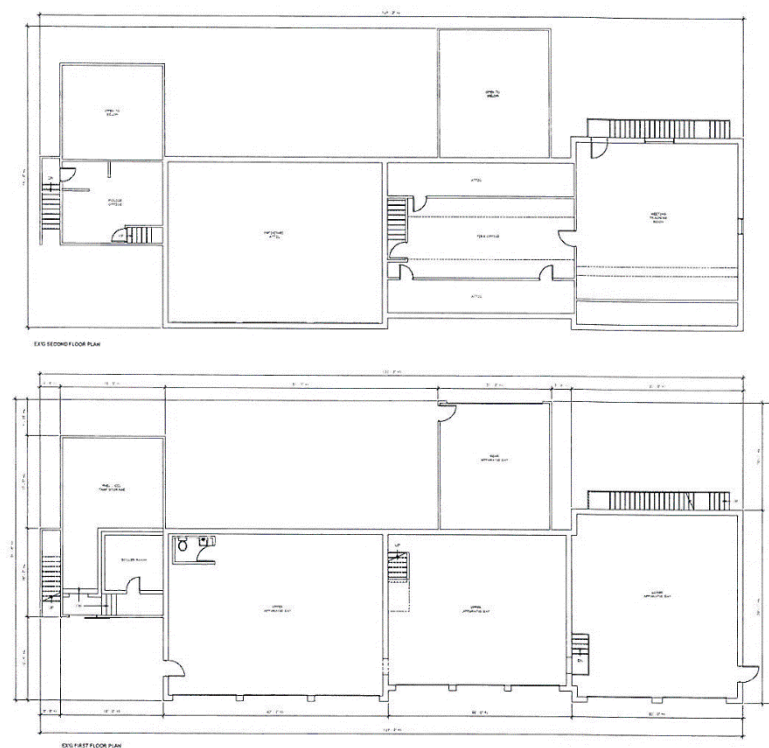
- |    |                                                              |    |
|----|--------------------------------------------------------------|----|
| 1. | Repair / replace existing damaged roof shingles              | 2. |
|    | Clean, prep and paint existing exterior wood surfaces        | 3. |
|    | Repair / replace aluminum gutters and downspouts             | 4. |
|    | Provide new wall insulation at exterior concrete block walls |    |
| 5. | Remove / Replace existing non-insulating window units        |    |
| 6. | Repair existing vinyl siding and flashings                   | 7. |
|    | Clean, prep and paint existing exterior metal door           |    |

**Subtotal Budget for Facility Repairs and Improvements:****\$100,000.**

**CODE REPAIRS AND IMPROVEMENTS**

- |     |                                                                                    |     |  |
|-----|------------------------------------------------------------------------------------|-----|--|
| 1.  | Remove / replace interior wood stair to Second floor                               | 2.  |  |
|     | Provide minimum (1) accessible Male and (1) accessible Female toilet room          |     |  |
| 3.  | Provide comprehensive Handicap Accessibility improvements                          |     |  |
| 4.  | Upgrade main Electrical service to support Code improvements                       |     |  |
| 5.  | Replace non-code compliant Electrical distribution                                 |     |  |
| 6.  | Replace / upgrade existing Exit Signage and Emergency Lighting System              |     |  |
| 7.  | Replace / upgrade existing Fire Alarm system                                       |     |  |
| 8.  | Laterally reinforce existing concrete block walls                                  |     |  |
| 9.  | Provide structural wall ties at concrete block to floor and roof diaphragm         |     |  |
| 10. | Provide new non-public water well for year round / reliable domestic water service | 11. |  |
|     | Provide new Fire Suppression / sprinkler system with storage tank and fire pump    | 12. |  |
|     | Provide new / larger emergency generator and 72 hour fuel storage                  | 13. |  |
|     | Provide new Wastewater Tight Tank and alarm system for Garage floor drains         |     |  |
| 14. | Insulate existing domestic hot water piping                                        | 15. |  |
|     | Provide safety guard rail at exterior retaining wall                               |     |  |
| 14. | Provide additional Attic eave and ridge ventilation                                | 15. |  |
|     | Relocate gas / diesel fuel storage (dispensing to Highway site), by others         |     |  |
| 16. | Upgrade and relocate of existing Sanitary Septic System and venting                |     |  |
| 17. | Provide Apparatus / Garage Exhaust Ventilation System                              |     |  |
| 18. | Re-insulate open frame areas where they occur                                      |     |  |

**Subtotal Budget for Code Repairs and Improvements:****\$815,000.**



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TASK 2: SPATIAL NEEDS ANALYSIS

1. DRAFT NO. 1 – POLICE / FIRE / PUBLIC SAFETY NEEDS ANALYSIS (8.28.17)
- 2, DRAFT NO. 2 – POLICE / FIRE / PUBLIC SAFETY NEEDS ANALYSIS (9.20.17)
3. FINAL – POLICE / FIRE / PUBLIC SAFETY NEEDS ANALYSIS (9.28.17)



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**POLICE / FIRE / PUBLIC SAFETY SPACE NEEDS ANALYSIS**

August 28, 2017

Objective: To estimate the future Police Department and Fire Department, physical and spatial program requirements based on a partial two-story combined Public Safety Facility and future space projections of fifty (50) years.

**1. PUBLIC****a. Vestibule Shared: 60 NSF**

1. Covered / Sheltered Entrance Door
2. Exterior access door open (locked after hours)
3. Energy conserving airlock to Lobby / Waiting
4. Handicap Accessible
5. Secure / Vandal resistant phone to Emergency Dispatch on Exterior
6. Continuous overnight illumination
7. Entrance walk-off mat
8. Interior door to Lobby / Waiting
9. CCTV Camera

**b. Lobby / Waiting Shared: 160 NSF**

1. Access to Vestibule
2. Access to Police Transaction window
3. Access to Police Clerical / Open Office and Police corridor
4. Access to Fire Clerical / Open Office and Fire Corridor
5. Access to shared Meeting / Training / E.O.C.
6. Access to Public Toilet (Unisex)
7. Public seating for two (2) to three (3)
8. Writing counters at Transaction windows
9. Push Button / Service Bells
10. Memorabilia Display Cabinet
11. Pamphlet Rack
12. Drug Drop Box
13. Tack board / Notice board
14. CCTV Camera and Audio Recording
15. Vestibule Door subject to locking from interior

**c. Public Interview / Meeting Room Shared: 110 NSF**

1. Private Interview space for victims and / or witnesses
2. Small Private meeting space with public
3. Family Waiting Area
4. Table, chairs or soft seating for four (4) maximum
5. Storage cabinets, counter and sink
6. Area for Firearms Permitting and Fingerprinting
7. Acoustical wall construction
8. Data / Telephone
9. CCTV Camera and Audio Recording
10. Optional use as status Juvenile Holding with Door alarms

**d. Public Toilet Shared: 50 NSF**

1. Single occupancy Unisex Toilet room
2. Handicap Accessible

**2. MEETING / TRAINING AND EMERGENCY OPERATIONS****a. Meeting / Training and Emergency Operations Center Shared: 730 NSF**

1. Direct access from Public Lobby
2. Adjacent to Emergency Management Office
3. Large Department Briefings and Training Classes
4. Dual use as Westhampton's Emergency Operations Center (E.O.C.)
5. Seating for 30 or 40 with chairs / tables (folding / stacking for multipurpose space configuration)
6. Secure doors to Police and / or Fire program areas
7. Forty-five (45) maximum occupancy
8. Kitchenette with Refrigerator, M/W, Sink, Cabinets and Countertop
9. Space for future Kitchen Stove and Hood
10. Projection screen for video projection
11. CCTV Camera Surveillance
12. CATV, Telephone, Data and Radio Connections
13. Tiered lighting levels
14. Tack board, marker board and map
15. Coat rack
16. Natural light preferred

**b. Training / Equipment Storage Shared: 80 NSF**

1. Direct access to Meeting / Training Room/ E.O.C.
2. Storage of Police Training Aids / AV Equipment
3. Storage of Police and Fire Property

**c. Emergency Management Office / Storage 130 NSF**

1. Direct access to Meeting / Training / E.O.C.
2. Storage of E.O.C. Equipment / Supplies
3. Two (2) Desks / Workstations and File Storage
4. Emergency Radio

**d. Communications Equipment Room Shared: 100 NSF**

1. Proximate to E.O.C.
2. Telephone system/ equipment / backboard
3. Radio Equipment / Interface
4. Integrated Electronic Security System / CCTV Head end
5. Public Safety data / network servers with worktable and monitor (optional)
6. Future conduits to E.O.C.
7. Dedicated 24 / 7 AC system
8. UPS system

**3. POLICE ADMINISTRATION****a. Chief of Police 150 NSF**

1. Adjacent to Squad / Report Room
2. Adjacent to Evidence Storage
3. Private Meeting and Workspace
4. Coat/ Storage closet
5. Large Desk/ Workstation
6. Window into Clerical Office
7. Natural light
8. Small private meeting / work table / seats (4)

9. File storage: (4) file cabinets
10. Computer / Printer
11. Telephone / Data / CATV

**b. Squad / Report Room 320 NSF**

1. Adjacent to Lobby
2. Adjacent to Police Chief
3. Adjacent to Locker Room
4. Adjacent to Patrol Equipment Storage Closet
5. Proximity to Records area
6. Waiting area in the Lobby
7. Option: Bullet Resistant Transaction Window and wall with counter to Lobby
8. Dutch Door to Lobby (Optional)
9. Three (3) workstations
10. Visitor's Chairs for two (2)
11. Computers / Printers / Copier
12. CCTV and CATV Monitors
13. Evidence Processing work area and counter
14. Staff Mailboxes
15. File storage: 4 - 6 file cabinets
16. Supply Storage Cabinets
17. Tackboard / Marker Board
18. Telephone / Fax / Data
19. Natural light preferred

**4. POLICE RECORDS**

**a. Public Information Area N/A**

1. Public requests will be handled at Squad / Report Room

**b. Active Files and Records Area 60 NSF**

1. Proximate to Squad / Report Room
2. Secured Record storage: 4 - 6 Cabinets and / or Storage Shelving
3. Floor live loading required: 150 lbs. / sf.

**5. POLICE DETECTIVES**

**a. Detective's Office N/A**

1. Future space in a future expansion / renovation
2. Option: Add Conference Room and convert to future office

**6. POLICE EVIDENCE**

**a. Evidence Storage 80 NSF**

1. Adjacent with access through Police Chief's office
2. Proximity to Booking
3. Secure / Restricted Access with access control / recording feature
4. One means of entry only
5. Secure Evidence Storage
6. Secure Evidence Depository or locker
7. Gun Storage Lockers
8. Secure Narcotics Storage Cabinet
9. Refrigerator / Freezer (Optional)

|           |                                                                |                |
|-----------|----------------------------------------------------------------|----------------|
| <b>b.</b> | <b>Bulk Evidence Storage</b>                                   | <b>N/A</b>     |
| 1.        | See Garage / Sallyport Bay                                     |                |
| 2.        | See Exterior Storage/ Impound                                  |                |
| 3.        | Possible Attic Storage (Non-ADA)                               |                |
| <b>7.</b> | <b>POLICE BOOKING/ DETENTION</b>                               |                |
| <b>a.</b> | <b>Booking</b>                                                 | <b>120 NSF</b> |
| 1.        | Direct access to Sallyport Bay                                 |                |
| 2.        | Proximity to Squad / Report room                               |                |
| 3.        | Proximity to Evidence Storage                                  |                |
| 4.        | Secured access door to Sallyport Bay                           |                |
| 5.        | Secured access door to Police corridor                         |                |
| 6.        | Pistol lockers at points of entry                              |                |
| 7.        | Holding bench with Lock Down Bar                               |                |
| 8.        | Booking counter with Lock Down Bar                             |                |
| 9.        | Countertop work surface for Fingerprinting with sink           |                |
| 10.       | Supply and Form Storage Cabinet                                |                |
| 11.       | Secure computer workstation at Booking counter                 |                |
| 12.       | Panic/ Duress alarm                                            |                |
| 13.       | Eliminate hard corners and edges                               |                |
| 14.       | Hose bib with mixing valve (secured) and floor drain           |                |
| 15.       | Hard, Abuse Resistant Construction                             |                |
| 16.       | CCTV and Audio Monitoring                                      |                |
| <b>b.</b> | <b>Interrogation</b>                                           | <b>N/A</b>     |
| 1.        | Optional use of Booking Room                                   |                |
| <b>c.</b> | <b>Holding Cell(s)</b>                                         | <b>N/A</b>     |
| 1.        | None, Transport Detainee(s) to County Holding Facility         |                |
| <b>d.</b> | <b>Status Juvenile Holding</b>                                 | <b>N/A</b>     |
| 1.        | Juvenile(s)                                                    |                |
| 2.        | Holding Area must not be subject to locking                    |                |
| 3.        | Utilize Public Interview Room or Squad / Report Room           |                |
| <b>8.</b> | <b>POLICE SALLYPORT</b>                                        |                |
| <b>a.</b> | <b>Sallyport</b>                                               | <b>440 NSF</b> |
| 1.        | Direct access to Booking                                       |                |
| 2.        | Exterior Overhead Sectional Door, 10ft. x 10ft.                |                |
| 3.        | Accommodate one (1) Patrol vehicle                             |                |
| 4.        | Van/ Ambulance accessible                                      |                |
| 5.        | Dual use as Evidence / Vehicle impound                         |                |
| 6.        | Wire partitions for Bulk Evidence storage and Vehicle supplies |                |
| 7.        | Floor drain to DEP IW Tight Tank                               |                |
| 8.        | CCTV and audio monitoring                                      |                |
| 9.        | Radio frequency and Key controlled overhead doors              |                |
| 10.       | Pistol locker at Booking Room door                             |                |
| 11.       | CO Exhaust fan                                                 |                |
| 12.       | Large Utility / Decon sink and Hose bib / Emergency Eye Wash   |                |



**9. POLICE PATROL****a. Briefing/ Roll Call** **N/A**

1. See Meeting Room/ Training Room (Large Briefings)
2. See Open Office / Report Room (Roll Call)

**10. PATROL****a. Patrol Equipment Storage Closet** **30 NSF**

1. Adjacent to Squad / Report Room

**b. Armory** **N/A**

1. None, Future Space Consideration

**c. Locker Rooms** **250 NSF**

1. Adjacent to Squad / Report Room Lockers: 10 spaces
2. Locker sizes: 24" w. x 24"d. x 60" h. with support bench
3. Locker area with privacy lock for either M/F use
4. Handicap, Single Occupancy Toilet Room
5. Full height mirror
6. Electrical receptacles in locker / shelf (re-charging equipment)
7. Locking Gun Cabinet in Locker

**11. FIRE ADMINISTRATION****a. Fire Chief** **160 NSF**

1. Adjacent to Fire Officers / Open Office
2. Private Meeting and Workspace
3. Coat / Storage closet
4. Large Desk / Workstation
5. Plan Table
6. File Storage: (3) File Cabinets
7. Small private meeting / work table / seats four (4)
8. Telephone / Data / CATV
9. Computer/ Printer
10. Natural light

**b. Fire Officer's (Open Office)** **220 NSF**

1. Adjacent to Lobby / Waiting
2. Adjacent to Fire Chief
3. Adjacent to Lobby / Waiting
4. Clerical work area and Window Transaction Counter for Fire Permit applications
5. Shared Workstations: Two (2)
6. Visitor Chairs: Two (2)
7. Computer / Printer / Copier
8. Office Supply Storage
9. Internal / Staff Mailboxes
10. File Storage: 4-6 file cabinets
11. Telephone / Data / Fax

**12. APPARATUS BAYS / SERVICE AREAS**

|           |                                                                               |                 |
|-----------|-------------------------------------------------------------------------------|-----------------|
| <b>a.</b> | <b>Apparatus Room</b>                                                         | <b>6200 NSF</b> |
| 1.        | Adjacent to SCBA / Workroom                                                   |                 |
| 2.        | Adjacent to Laundry / Shower Room                                             |                 |
| 3.        | Adjacent to Storage Room                                                      |                 |
| 4.        | Proximate to Lav / Shower                                                     |                 |
| 5.        | Eight (8) bays 18 ft. x 40 ft. each, includes Emergency Medical Ambulance Bay |                 |
| 6.        | Hose Storage racks                                                            |                 |
| 7.        | Flammable Liquid Storage in lockers                                           |                 |
| 8.        | Floor drains to Oil / Water Separator and DEP IW Holding tank                 |                 |
| 9.        | Local and RF remote controlled overhead doors (14 ft. x 14 ft.)               |                 |
| 10.       | Emergency Eye Wash                                                            |                 |
| 11.       | Hose bibs                                                                     |                 |
| 12.       | Apparatus exhaust capture system or Vent System (TBD)                         |                 |
| 13.       | Overhead compressed air (reels)                                               |                 |
| 14.       | Overhead electrical power (reels)                                             |                 |
| 15.       | Compressor                                                                    |                 |
| 16.       | Ceiling fans for energy efficiency                                            |                 |
| 17.       | Ultra-Violet (U.V.) Filtered lighting                                         |                 |
| 18.       | Remote radio interface / connection                                           |                 |
| 19.       | Maps, tack board and marker board                                             |                 |
| <b>b.</b> | <b>SCBA/ Work Room</b>                                                        | <b>120 NSF</b>  |
| 1.        | Adjacent to or open to Apparatus Bays                                         |                 |
| 2.        | SCBA Filling Station / Compressor                                             |                 |
| 3.        | SCBA Test/ Calibration and Cleaning                                           |                 |
| 4.        | Work bench and Utility Sink                                                   |                 |
| 5.        | Task Lighting                                                                 |                 |
| 6.        | Tool Crib                                                                     |                 |
| <b>c.</b> | <b>Turnout Gear</b>                                                           | <b>300 NSF</b>  |
| 1.        | Adjacent and open to Apparatus Bays                                           |                 |
| 2.        | Proximate to Fireman's Exterior Personnel Door                                |                 |
| 3.        | Turnout gear wire-racking for thirty-six (36)                                 |                 |
| 4.        | Ultra-Violet (U.V.) filtered lighting                                         |                 |
| <b>d.</b> | <b>Laundry</b>                                                                | <b>60 NSF</b>   |
| 1.        | Adjacent to or open to Apparatus Bays                                         |                 |
| 2.        | Adjacent to Shower (Decontamination)                                          |                 |
| 3.        | Washer / Extractor for Turnout Gear                                           |                 |
| 4.        | Utility Sink                                                                  |                 |
| 5.        | Floor drain                                                                   |                 |
| <b>e.</b> | <b>Shower (Decontamination) Room</b>                                          | <b>50 NSF</b>   |
| 1.        | Adjacent to Apparatus Bays                                                    |                 |
| 2.        | Adjacent to Laundry                                                           |                 |
| 3.        | Shower Area for (2) to clean in Turnout Gear                                  |                 |

|           |                     |                |
|-----------|---------------------|----------------|
| <b>f.</b> | <b>Storage Room</b> | <b>120 NSF</b> |
|-----------|---------------------|----------------|

1. Adjacent to Apparatus Bays
2. Secure Storage Area
3. Vehicle/Apparatus equipment and supplies
4. Locking Storage cabinets for Hazardous Material Storage

|           |                                       |               |
|-----------|---------------------------------------|---------------|
| <b>g.</b> | <b>Emergency Medical Storage Room</b> | <b>50 NSF</b> |
|-----------|---------------------------------------|---------------|

1. Proximate Ambulance Bay
2. Secure Storage of Emergency Medical Supplies
3. Access Control Hardware

**13. FIRE STAFF FACILITIES**

|           |                 |               |
|-----------|-----------------|---------------|
| <b>a.</b> | <b>Lavatory</b> | <b>50 NSF</b> |
|-----------|-----------------|---------------|

1. Proximate to Apparatus Room
2. Proximate to Shower (Decon)
3. Proximate to Fire Officer's / Open Office
4. Handicap, Single Occupancy Toilet Room

**14. COMMON SERVICES**

|           |               |                                        |
|-----------|---------------|----------------------------------------|
| <b>a.</b> | <b>Stairs</b> | <b>Shared: 180 NSF/Story = 360 NSF</b> |
|-----------|---------------|----------------------------------------|

1. Minimum one (1) stair required if each floor has grade access
2. Possible Fire Rated Construction
3. Proximate to exterior exit

|           |                 |                                       |
|-----------|-----------------|---------------------------------------|
| <b>b.</b> | <b>Elevator</b> | <b>Shared: 60 NSF/Story = 120 NSF</b> |
|-----------|-----------------|---------------------------------------|

1. Proximate to Lobby / Waiting
2. Proximate to Apparatus
3. Code required accessible Vertical Transportation
4. One (1) Two-Stop Hydraulic Elevator and Hoistway

|           |                              |                       |
|-----------|------------------------------|-----------------------|
| <b>c.</b> | <b>Elevator Machine Room</b> | <b>Shared: 60 NSF</b> |
|-----------|------------------------------|-----------------------|

1. Code required Elevator Machine Room within 10 ft. of Hoistway
2. Hoistway ventilation required

|           |                                     |                    |
|-----------|-------------------------------------|--------------------|
| <b>d.</b> | <b>Janitor / Custodial Supplies</b> | <b>Shared: N/A</b> |
|-----------|-------------------------------------|--------------------|

1. See Mechanical Room

|           |                                    |                        |
|-----------|------------------------------------|------------------------|
| <b>e.</b> | <b>Mechanical / HVAC Equipment</b> | <b>Shared: 250 NSF</b> |
|-----------|------------------------------------|------------------------|

1. Propane Gas Fired Duct Furnace with DX Cooling
2. Ducted supply and returns
3. Energy Management Temperature controls
4. Exterior wall location for ventilation
5. Compressed air system for Apparatus
6. Domestic Water Well, Pump and Tank Storage
7. Option: Connection to School Water Main
8. Domestic Hot Water Heater;  
Option: Instantaneous Water Heaters at Lavs./ Showers

9. Floor Drain
10. Possible Sanitary System pump
11. Possible Attic / Mezzanine location for HVAC Equipment
12. Possible Utility Sink and Custodial storage
13. Option: Combine Space with Fire Suppression Space

**f. Fire Suppression Option: Combine Space with Fire Suppression Space** **Shared: 80 NSF**

1. Main Sprinkler Distribution Piping, Valves, Controls and Alarms
2. Adjacent to Main Water Service
3. Requires Water Tank, Fire Pump and Emergency Generator
4. Floor Drain
5. Option: Combine Space with Mechanical / HVAC Equipment Space

**g. Electrical Room** **Shared: 130 NSF**

1. Adjacent to Electrical Service entrance
2. Proximate to exterior wall
3. Proximate to Emergency Generator
4. Normal building power Switchgear
5. Standby building power Switchgear
6. Automatic Transfer Switch

**h. Emergency Generator** **Shared: Exterior**

1. Automatic Exercising Controls
2. Natural Gas and/or Lp Gas fired generator (Option: Diesel fuel)
2. Within Secure Fence, see exterior Storage/ Impound

**15. SUMMARY**

|           |                                                         |                              |
|-----------|---------------------------------------------------------|------------------------------|
| <b>a.</b> | <b>Net Public Areas</b>                                 | <b>390 NSF</b>               |
| <b>b.</b> | <b>Net Police Dept. Areas</b>                           | <b>1,450 NSF</b>             |
| <b>c.</b> | <b>Net Fire Department Areas:</b>                       | <b>7,330 NSF</b>             |
| <b>d.</b> | <b>Net Emergency Management Areas:</b>                  | <b>130 NSF</b>               |
| <b>e.</b> | <b>Net Shared Department Areas:</b>                     | <b>1,900 NSF</b>             |
| <b>f.</b> | <b>Net Emergency Medical Service (EMS) / Ambulance:</b> | <b><u>See Fire Dept.</u></b> |
|           | <b>Subtotal Police / Fire Area:</b>                     | <b>11,200 NSF</b>            |
|           | <b>Net S.F. to Gross S.F. Ratio (assume + 25%):</b>     | <b>x 1.20</b>                |
| <b>g.</b> | <b>TOTAL GROSS POLICE / FIRE FACILITY AREA:</b>         | <b>13,440 Gross Sq. Ft.</b>  |

**17. SITE**

|           |                                                                |            |
|-----------|----------------------------------------------------------------|------------|
| <b>a.</b> | <b>Site</b>                                                    | <b>N/A</b> |
| 1.        | Public Parking Spaces: Approx. 4 to 6                          |            |
| 2.        | Police Personnel Parking Spaces: Approx. 4 spaces              |            |
| 3.        | Fire EMT / Personnel Parking Spaces: Approx. 30 spaces         |            |
| a.        | Includes EMT Parking                                           |            |
| 4.        | Exterior Storage/ Police Impound                               |            |
| a.        | Bulk exterior storage within fenced yard                       |            |
| b.        | Large gate for Automobile Access/ Impounding (Police)          |            |
| c.        | Emergency Generator and 72 hour on-site fuel supply            |            |
| 5.        | On-site sanitary absorption system                             |            |
| 6.        | On-site potable well / pump                                    |            |
| 7.        | Oil / Water separator and DEP Industrial Wastewater Tight Tank |            |
| 8.        | Fuel Dispensing relocated to Highway Facility                  |            |
| 9.        | Demolition of Existing Salt Shed / Highway Barn                |            |



**POLICE / FIRE / PUBLIC SAFETY SPACE NEEDS ANALYSIS**

August 28, 2017

Revised: September 20, 2017

Objective: To estimate the future Police Department and Fire Department, physical and spatial program requirements based on a partial two-story combined Public Safety Facility and future space projections of fifty (50) years.

**2. PUBLIC****a. Vestibule Shared: 60 NSF**

1. Covered / Sheltered Entrance Door
2. Exterior access door open (locked after hours)
3. Energy conserving airlock to Lobby / Waiting
4. Handicap Accessible
5. Secure / Vandal resistant phone to Emergency Dispatch on Exterior
6. Continuous overnight illumination
7. Entrance walk-off mat
8. Interior door to Lobby / Waiting
9. CCTV Camera

**b. Lobby / Waiting Shared: 160 NSF**

1. Access to Vestibule
2. Access to Police Transaction window
3. Access to Police Clerical / Open Office and Police corridor
4. Access to Fire Clerical / Open Office and Fire Corridor
5. Access to shared Meeting / Training / E.O.C.
6. Access to Public Toilet (Unisex)
7. Public seating for two (2) to three (3)
8. Writing counters at Transaction windows
9. Push Button / Service Bells
10. Memorabilia Display Cabinet
11. Pamphlet Rack
12. Drug Drop Box
13. Tack board / Notice board
14. CCTV Camera and Audio Recording
15. Vestibule Door subject to locking from interior

**c. Public Interview / Meeting Room Shared: 110 NSF**

1. Private Interview space for victims and / or witnesses
2. Small Private meeting space with public
3. Family Waiting Area
4. Table, chairs or soft seating for four (4) maximum
5. Storage cabinets, counter and sink
6. Area for Firearms Permitting and Fingerprinting
7. Acoustical wall construction
8. Data / Telephone
9. CCTV Camera and Audio Recording
10. Optional use as status Juvenile Holding with Door alarms

**d. Public Toilet Shared: 50 NSF**

1. Single occupancy Unisex Toilet room
2. Handicap Accessible

**2. MEETING / TRAINING AND EMERGENCY OPERATIONS****a. Meeting / Training and Emergency Operations Center Shared: 730 NSF**

1. Direct access from Public Lobby
2. Adjacent to Emergency Management Office
3. Large Department Briefings and Training Classes
4. Dual use as Westhampton's Emergency Operations Center (E.O.C.)
6. Seating for 30 or 40 with chairs / tables (folding / stacking for multipurpose space configuration)
6. Secure doors to Police and / or Fire program areas
7. Forty-five (45) maximum occupancy
8. Kitchenette with Refrigerator, M/W, Sink, Cabinets and Countertop
9. Space for future Kitchen Stove and Hood
10. Projection screen for video projection
11. CCTV Camera Surveillance
12. CATV, Telephone, Data and Radio Connections
13. Tiered lighting levels
14. Tack board, marker board and map
15. Coat rack
16. Natural light preferred

**b. Training / Equipment Storage Shared: 80 NSF**

1. Direct access to Meeting / Training Room/ E.O.C.
2. Storage of Police Training Aids / AV Equipment
3. Storage of Police and Fire Property

**3. POLICE ADMINISTRATION****a. Chief of Police 180 NSF**

1. Adjacent to Squad / Report Room
2. Adjacent to Evidence Storage
3. Private Meeting and Workspace
4. Coat/ Storage closet
5. Large Desk/ Workstation
6. Window into Clerical Office
7. Natural light
8. Small private meeting / work table / seats (4)
9. File storage: (4) file cabinets
10. Computer / Printer
11. Telephone / Data / CATV
12. Integrated Electronic Security System / CCTV Head end
13. Public Safety data / network servers with worktable and monitor (optional)

**b. Squad / Report Room 320 NSF**

1. Adjacent to Lobby
2. Adjacent to Police Chief
3. Adjacent to Locker Room
4. Adjacent to Patrol Equipment Storage Closet
5. Proximity to Records area
6. Waiting area in the Lobby
7. Option: Bullet Resistant Transaction Window and wall with counter to Lobby
8. Dutch Door to Lobby (Optional)
9. Three (3) workstations
10. Visitor's Chairs for two (2)

11. Computers / Printers / Copier
12. CCTV and CATV Monitors
13. Evidence Processing work area and counter
14. Staff Mailboxes
15. File storage: 4 - 6 file cabinets
16. Supply Storage Cabinets
17. Tackboard / Marker Board
18. Telephone / Fax / Data
19. Natural light preferred

#### 4. POLICE RECORDS

##### a. Public Information Area N/A

1. Public requests will be handled at Squad / Report Room

##### b. Active Files and Records Area 60 NSF

1. Proximate to Squad / Report Room
2. Secured Record storage: 4 - 6 Cabinets and / or Storage Shelving
3. Floor live loading required: 150 lbs. / sf.

#### 5. POLICE DETECTIVES

##### a. Detective's Office N/A

1. Future space in a future expansion / renovation
2. Option: Add Conference Room and convert to future office

#### 6. POLICE EVIDENCE

##### a. Evidence Storage 80 NSF

1. Adjacent with access through Police Chief's office
2. Proximity to Booking
3. Secure / Restricted Access with access control / recording feature
4. One means of entry only
5. Secure Evidence Storage
6. Secure Evidence Depository or locker
7. Gun Storage Lockers
8. Secure Narcotics Storage Cabinet
9. Refrigerator / Freezer (Optional)

##### b. Bulk Evidence Storage N/A

1. See Garage / Sallyport Bay
2. See Exterior Storage/ Impound
3. Possible Attic Storage (Non-ADA)

#### 7. POLICE BOOKING/ DETENTION

##### a. Booking 120 NSF

1. Direct access to Sallyport Bay
2. Proximity to Squad / Report room
3. Proximity to Evidence Storage

|            |                                        |                                                                |                |
|------------|----------------------------------------|----------------------------------------------------------------|----------------|
|            | 4.                                     | Secured access door to Sallyport Bay                           |                |
|            | 5.                                     | Secured access door to Police corridor                         |                |
|            | 6.                                     | Pistol lockers at points of entry                              |                |
|            | 7.                                     | Holding bench with Lock Down Bar                               |                |
|            | 8.                                     | Booking counter with Lock Down Bar                             |                |
|            | 9.                                     | Countertop work surface for Fingerprinting with sink           |                |
|            | 10.                                    | Supply and Form Storage Cabinet                                |                |
|            | 11.                                    | Secure computer workstation at Booking counter                 |                |
|            | 12.                                    | Panic/ Duress alarm                                            |                |
|            | 13.                                    | Eliminate hard corners and edges                               |                |
|            | 14.                                    | Hose bib with mixing valve (secured) and floor drain           |                |
|            | 15.                                    | Hard, Abuse Resistant Construction                             |                |
|            | 16.                                    | CCTV and Audio Monitoring                                      |                |
| <b>b.</b>  | <b>Interrogation</b>                   |                                                                | <b>N/A</b>     |
|            | 1.                                     | Optional use of Booking Room                                   |                |
| <b>c.</b>  | <b>Holding Cell(s)</b>                 |                                                                | <b>N/A</b>     |
|            | 1.                                     | None, Transport Detainee(s) to County Holding Facility         |                |
| <b>d.</b>  | <b>Status Juvenile Holding</b>         |                                                                | <b>N/A</b>     |
|            | 1.                                     | Juvenile(s)                                                    |                |
|            | 2.                                     | Holding Area must not be subject to locking                    |                |
|            | 3.                                     | Utilize Public Interview Room or Squad / Report Room           |                |
| <b>8.</b>  | <b>POLICE SALLYPORT</b>                |                                                                |                |
| <b>a.</b>  | <b>Sallyport</b>                       |                                                                | <b>440 NSF</b> |
|            | 1.                                     | Direct access to Booking                                       |                |
|            | 2.                                     | Exterior Overhead Sectional Door, 10ft. x 10ft.                |                |
|            | 3.                                     | Accommodate one (1) Patrol vehicle                             |                |
|            | 4.                                     | Van/ Ambulance accessible                                      |                |
|            | 5.                                     | Dual use as Evidence / Vehicle impound                         |                |
|            | 6.                                     | Wire partitions for Bulk Evidence storage and Vehicle supplies |                |
|            | 7.                                     | Floor drain to DEP IW Tight Tank                               |                |
|            | 8.                                     | CCTV and audio monitoring                                      |                |
|            | 9.                                     | Radio frequency and Key controlled overhead doors              |                |
|            | 10.                                    | Pistol locker at Booking Room door                             |                |
|            | 11.                                    | CO Exhaust fan                                                 |                |
|            | 12.                                    | Large Utility / Decon sink and Hose bib / Emergency Eye Wash   |                |
| <b>9.</b>  | <b>POLICE PATROL</b>                   |                                                                |                |
| <b>a.</b>  | <b>Briefing/ Roll Call</b>             |                                                                | <b>N/A</b>     |
|            | 1.                                     | See Meeting Room/ Training Room (Large Briefings)              |                |
|            | 2.                                     | See Open Office / Report Room (Roll Call)                      |                |
| <b>10.</b> | <b>PATROL</b>                          |                                                                |                |
| <b>a.</b>  | <b>Patrol Equipment Storage Closet</b> |                                                                | <b>30 NSF</b>  |
|            | 1.                                     | Adjacent to Squad / Report Room                                |                |

|           |               |            |
|-----------|---------------|------------|
| <b>b.</b> | <b>Armory</b> | <b>N/A</b> |
|-----------|---------------|------------|

1. None, Future Space Consideration

|           |                     |                |
|-----------|---------------------|----------------|
| <b>c.</b> | <b>Locker Rooms</b> | <b>250 NSF</b> |
|-----------|---------------------|----------------|

1. Adjacent to Squad / Report Room Lockers: 10 spaces
2. Locker sizes: 24" w. x 24"d. x 60" h. with support bench
3. Locker area with privacy lock for either M/F use
4. Handicap, Single Occupancy Toilet Room
5. Full height mirror
6. Electrical receptacles in locker / shelf (re-charging equipment)
7. Locking Gun Cabinet in Locker

**11. FIRE ADMINISTRATION**

|           |                   |                |
|-----------|-------------------|----------------|
| <b>a.</b> | <b>Fire Chief</b> | <b>160 NSF</b> |
|-----------|-------------------|----------------|

1. Adjacent to Fire Officers / Open Office
2. Private Meeting and Workspace
3. Coat / Storage closet
4. Large Desk / Workstation
5. Plan Table
6. File Storage: (3) File Cabinets
7. Small private meeting / work table / seats four (4)
8. Telephone / Data / CATV
9. Computer / Printer
10. Natural light

|           |                                     |                |
|-----------|-------------------------------------|----------------|
| <b>b.</b> | <b>Fire Officer's (Open Office)</b> | <b>220 NSF</b> |
|-----------|-------------------------------------|----------------|

1. Adjacent to Lobby / Waiting
2. Adjacent to Fire Chief
3. Adjacent to Lobby / Waiting
4. Clerical work area and Window Transaction Counter for Fire Permit applications
5. Shared Workstations: Two (2)
6. Visitor Chairs: Two (2)
7. Computer / Printer / Copier
8. Office Supply Storage
9. Internal / Staff Mailboxes
10. File Storage: 4-6 file cabinets
11. Telephone / Data / Fax

**12. APPARATUS BAYS / SERVICE AREAS**

|           |                       |                 |
|-----------|-----------------------|-----------------|
| <b>a.</b> | <b>Apparatus Room</b> | <b>5520 NSF</b> |
|-----------|-----------------------|-----------------|

1. Adjacent to SCBA / Workroom
2. Adjacent to Laundry / Shower Room
3. Adjacent to Storage Room
4. Proximate to Lav / Shower
5. Eight (8) bays 16 ft. x 40 ft. each, includes Emergency Medical Ambulance Bay
6. Hose Storage racks
7. Flammable Liquid Storage in lockers
8. Floor drains to Oil / Water Separator and DEP IW Holding tank
9. Local and RF remote controlled overhead doors (14 ft. x 14 ft.)
10. Emergency Eye Wash



11. Hose bibs
12. Apparatus exhaust capture system or Vent System (TBD)
13. Overhead compressed air (reels)
14. Overhead electrical power (reels)
15. SCBA Filling Station / Compressor
16. SCBA Test/ Calibration and Cleaning
17. Work bench and Utility Sink
18. Washer / Extractor for Turnout Gear
19. Compressor
20. Ceiling fans for energy efficiency
21. Ultra-Violet (U.V.) Filtered lighting
22. Remote radio interface / connection
23. Maps, tack board and marker board

**b. Turnout Gear 300 NSF**

---

1. Adjacent and open to Apparatus Bays
2. Proximate to Fireman's Exterior Personnel Door
3. Turnout gear wire-racking for thirty-six (36)
4. Ultra-Violet (U.V.) filtered lighting

**c. Shower (Decontamination) Room 50 NSF**

---

1. Adjacent to Apparatus Bays
2. Adjacent to Laundry
3. Shower Area for (2) to clean in Turnout Gear

**d. Storage Room 120 NSF**

---

1. Adjacent to Apparatus Bays
2. Secure Storage Area
3. Vehicle/Apparatus equipment and supplies
4. Locking Storage cabinets for Hazardous Material Storage
5. Secure Storage of Emergency Medical Supplies

**13. FIRE STAFF FACILITIES**

**a. Lavatory 50 NSF**

---

1. Proximate to Apparatus Room
2. Proximate to Shower (Decon)
3. Proximate to Fire Officer's / Open Office
4. Handicap, Single Occupancy Toilet Room

**14. COMMON SERVICES**

**a. Stairs Shared: 180 NSF/Story = 360 NSF**

---

1. Minimum one (1) stair required if each floor has grade access
2. Possible Fire Rated Construction
3. Proximate to exterior exit

|           |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |                                       |
|-----------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------|
| <b>b.</b> | <b>Elevator</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            | <b>Shared: 60 NSF/Story = 120 NSF</b> |
|           | <ol style="list-style-type: none"> <li>1. Proximate to Lobby / Waiting</li> <li>2. Proximate to Apparatus</li> <li>3. Code required accessible Vertical Transportation</li> <li>4. One (1) Two-Stop Hydraulic Elevator and Hoistway</li> </ol>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |                                       |
| <b>c.</b> | <b>Elevator Machine Room</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               | <b>Shared: 60 NSF</b>                 |
|           | <ol style="list-style-type: none"> <li>1. Code required Elevator Machine Room within 10 ft. of Hoistway</li> <li>2. Hoistway ventilation required</li> </ol>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |                                       |
| <b>d.</b> | <b>Janitor / Custodial Supplies</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        | <b>Shared: N/A</b>                    |
|           | <ol style="list-style-type: none"> <li>1. See Mechanical Room</li> </ol>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |                                       |
| <b>e.</b> | <b>Mechanical / HVAC Equipment</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         | <b>Shared: 250 NSF</b>                |
|           | <ol style="list-style-type: none"> <li>1. Propane Gas Fired Duct Furnace with DX Cooling</li> <li>2. Ducted supply and returns</li> <li>3. Energy Management Temperature controls</li> <li>4. Exterior wall location for ventilation</li> <li>5. Compressed air system for Apparatus</li> <li>6. Domestic Water Well, Pump and Tank Storage</li> <li>7. Option: Connection to School Water Main</li> <li>8. Domestic Hot Water Heater;<br/>Option: Instantaneous Water Heaters at Lavs./ Showers</li> <li>9. Floor Drain</li> <li>10. Possible Sanitary System pump</li> <li>11. Possible Attic / Mezzanine location for HVAC Equipment</li> <li>12. Possible Utility Sink and Custodial storage</li> <li>13. Option: Combine Space with Fire Suppression Space</li> </ol> |                                       |
| <b>f.</b> | <b>Fire Suppression Option: Combine Space with Fire Suppression Space</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  | <b>Shared: 80 NSF</b>                 |
|           | <ol style="list-style-type: none"> <li>1. Main Sprinkler Distribution Piping, Valves, Controls and Alarms</li> <li>2. Adjacent to Main Water Service</li> <li>3. Requires Water Tank, Fire Pump and Emergency Generator</li> <li>4. Floor Drain</li> <li>5. Option: Combine Space with Mechanical / HVAC Equipment Space</li> </ol>                                                                                                                                                                                                                                                                                                                                                                                                                                        |                                       |
| <b>g.</b> | <b>Electrical Room</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     | <b>Shared: 130 NSF</b>                |
|           | <ol style="list-style-type: none"> <li>1. Adjacent to Electrical Service entrance</li> <li>2. Proximate to exterior wall</li> <li>3. Proximate to Emergency Generator</li> <li>4. Normal building power Switchgear</li> <li>5. Standby building power Switchgear</li> <li>6. Automatic Transfer Switch</li> <li>7. Telephone system/equipment/backboard</li> </ol>                                                                                                                                                                                                                                                                                                                                                                                                         |                                       |
| <b>h.</b> | <b>Emergency Generator</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 | <b>Shared: Exterior</b>               |
|           | <ol style="list-style-type: none"> <li>1. Automatic Exercising Controls</li> <li>2. Natural Gas and/or Lp Gas fired generator (Option: Diesel fuel)</li> <li>2. Within Secure Fence, see exterior Storage/ Impound</li> </ol>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |                                       |

**15. SUMMARY**

|           |                                                         |                              |
|-----------|---------------------------------------------------------|------------------------------|
| <b>a.</b> | <b>Net Public Areas</b>                                 | <b>390 NSF</b>               |
| <b>b.</b> | <b>Net Police Dept. Areas</b>                           | <b>1,480 NSF</b>             |
| <b>c.</b> | <b>Net Fire Department Areas:</b>                       | <b>6,420 NSF</b>             |
| <b>d.</b> | <b>Net Shared Department Areas:</b>                     | <b>1,800 NSF</b>             |
| <b>e.</b> | <b>Net Emergency Medical Service (EMS) / Ambulance:</b> | <b><u>See Fire Dept.</u></b> |
|           | <b>Subtotal Police / Fire Area:</b>                     | <b>10,090 NSF</b>            |
|           | <b>Net S.F. to Gross S.F. Ratio (assume + 20%):</b>     | <b>x 1.20</b>                |
| <b>g.</b> | <b>TOTAL GROSS POLICE / FIRE FACILITY AREA:</b>         | <b>12,108 Gross Sq. Ft.</b>  |

**17. SITE**

|           |                                                                |                   |
|-----------|----------------------------------------------------------------|-------------------|
| <b>a.</b> | <b><u>Site</u></b>                                             | <b><u>N/A</u></b> |
| 2.        | Public Parking Spaces: Approx. 4 to 6                          |                   |
| 2.        | Police Personnel Parking Spaces: Approx. 4 spaces              |                   |
| 3.        | Fire EMT / Personnel Parking Spaces: Approx. 30 spaces         |                   |
| a.        | Includes EMT Parking                                           |                   |
| 4.        | Exterior Storage/ Police Impound                               |                   |
| a.        | Bulk exterior storage within fenced yard                       |                   |
| b.        | Large gate for Automobile Access/ Impounding (Police)          |                   |
| c.        | Emergency Generator and 72 hour on-site fuel supply            |                   |
| 5.        | On-site sanitary absorption system                             |                   |
| 6.        | On-site potable well / pump                                    |                   |
| 8.        | Oil / Water separator and DEP Industrial Wastewater Tight Tank |                   |
| 8.        | Fuel Dispensing relocated to Highway Facility                  |                   |
| 9.        | Demolition of Existing Salt Shed / Highway Barn                |                   |

**POLICE / FIRE / PUBLIC SAFETY SPACE NEEDS ANALYSIS**

August 28, 2017

Revised: September 20, 2017

Revised: September 28, 2017

Objective: To estimate the future Police Department and Fire Department, physical and spatial program requirements based on a partial two-story combined Public Safety Facility and future space projections of fifty (50) years.

**3. PUBLIC****a. Vestibule Shared: 60 NSF**

1. Covered / Sheltered Entrance Door
2. Exterior access door open (locked after hours)
3. Energy conserving airlock to Lobby / Waiting
4. Handicap Accessible
5. Secure / Vandal resistant phone to Emergency Dispatch on Exterior
6. Continuous overnight illumination
7. Entrance walk-off mat
8. Interior door to Lobby / Waiting
9. CCTV Camera

**b. Lobby / Waiting Shared: 160 NSF**

1. Access to Vestibule
2. Access to Police Transaction window
3. Access to Police Clerical / Open Office and Police corridor
4. Access to Fire Clerical / Open Office and Fire Corridor
5. Access to shared Meeting / Training / E.O.C.
6. Access to Public Toilet (Unisex)
7. Public seating for two (2) to three (3)
8. Writing counters at Transaction windows
9. Push Button / Service Bells
10. Memorabilia Display Cabinet
11. Pamphlet Rack
12. Drug Drop Box
13. Tack board / Notice board
14. CCTV Camera and Audio Recording
15. Vestibule Door subject to locking from interior

**c. Public Interview / Meeting Room Shared: 110 NSF**

4. Private Interview space for victims and / or witnesses
5. Small Private meeting space with public
6. Family Waiting Area
4. Table, chairs or soft seating for four (4) maximum
5. Storage cabinets, counter and sink
6. Area for Firearms Permitting and Fingerprinting
7. Acoustical wall construction
8. Data / Telephone
9. CCTV Camera and Audio Recording
10. Optional use as status Juvenile Holding with Door alarms

**d. Public Toilet Shared: 50 NSF**

1. Single occupancy Unisex Toilet room
2. Handicap Accessible

**2. MEETING / TRAINING AND EMERGENCY OPERATIONS****a. Meeting / Training and Emergency Operations Center Shared: 730 NSF**

1. Direct access from Public Lobby
2. Adjacent to Emergency Management Office
3. Large Department Briefings and Training Classes
4. Dual use as Westhampton's Emergency Operations Center (E.O.C.)
5. Seating for 30 or 40 with chairs / tables (folding / stacking for multipurpose space configuration)
6. Secure doors to Police and / or Fire program areas
7. Forty-five (45) maximum occupancy
8. Kitchenette with Refrigerator, M/W, Sink, Cabinets and Countertop
9. Space for future Kitchen Stove and Hood
10. Projection screen for video projection
11. CCTV Camera Surveillance
12. CATV, Telephone, Data and Radio Connections
13. Tiered lighting levels
14. Tack board, marker board and map
15. Coat rack
16. Natural light preferred

**b. Training / Equipment Storage Shared: 80 NSF**

1. Direct access to Meeting / Training Room/ E.O.C.
2. Storage of Police Training Aids / AV Equipment
3. Storage of Police and Fire Property

**3. POLICE ADMINISTRATION****a. Chief of Police 180 NSF**

1. Adjacent to Squad / Report Room
2. Adjacent to Evidence Storage
3. Private Meeting and Workspace
4. Coat/ Storage closet
5. Large Desk/ Workstation
6. Window into Clerical Office
7. Natural light
8. Small private meeting / work table / seats (4)
9. File storage: (4) file cabinets
10. Computer / Printer
11. Telephone / Data / CATV
12. Integrated Electronic Security System / CCTV Head end
13. Public Safety data / network servers with worktable and monitor (optional)

**b. Squad / Report Room 320 NSF**

1. Adjacent to Lobby
2. Adjacent to Police Chief
3. Adjacent to Locker Room
4. Adjacent to Patrol Equipment Storage Closet
5. Proximity to Records area
6. Waiting area in the Lobby
7. Option: Bullet Resistant Transaction Window and wall with counter to Lobby
8. Dutch Door to Lobby (Optional)
9. Three (3) workstations
10. Visitor's Chairs for two (2)

11. Computers / Printers / Copier
12. CCTV and CATV Monitors
13. Evidence Processing work area and counter
14. Staff Mailboxes
15. File storage: 4 - 6 file cabinets
16. Supply Storage Cabinets
17. Tackboard / Marker Board
18. Telephone / Fax / Data
19. Natural light preferred

**4. POLICE RECORDS****a. Public Information Area** **N/A**

1. Public requests will be handled at Squad / Report Room

**b. Active Files and Records Area** **60 NSF**

1. Proximate to Squad / Report Room
2. Secured Record storage: 4 - 6 Cabinets and / or Storage Shelving
3. Floor live loading required: 150 lbs. / sf.

**5. POLICE DETECTIVES****a. Detective's Office** **N/A**

1. Future space in a future expansion / renovation
2. Option: Add Conference Room and convert to future office

**6. POLICE EVIDENCE****a. Evidence Storage** **80 NSF**

1. Adjacent with access through Police Chief's office
2. Proximity to Booking
3. Secure / Restricted Access with access control / recording feature
4. One means of entry only
5. Secure Evidence Storage
6. Secure Evidence Depository or locker
7. Gun Storage Lockers
8. Secure Narcotics Storage Cabinet
9. Refrigerator / Freezer (Optional)

**b. Bulk Evidence Storage** **N/A**

1. See Garage / Sallyport Bay
2. See Exterior Storage/ Impound
3. Possible Attic Storage (Non-ADA)

**7. POLICE BOOKING/ DETENTION****a. Booking** **120 NSF**

1. Direct access to Sallyport Bay
2. Proximity to Squad / Report room
3. Proximity to Evidence Storage



4. Secured access door to Sallyport Bay
5. Secured access door to Police corridor
6. Pistol lockers at points of entry
7. Holding bench with Lock Down Bar
8. Booking counter with Lock Down Bar
9. Countertop work surface for Fingerprinting with sink
10. Supply and Form Storage Cabinet
11. Secure computer workstation at Booking counter
12. Panic/ Duress alarm
13. Eliminate hard corners and edges
14. Hose bib with mixing valve (secured) and floor drain
15. Hard, Abuse Resistant Construction
16. CCTV and Audio Monitoring

**b. Interrogation** **N/A**

---

1. Optional use of Booking Room

**c. Holding Cell(s)** **N/A**

---

1. None, Transport Detainee(s) to County Holding Facility

**d. Status Juvenile Holding** **N/A**

---

1. Juvenile(s)
2. Holding Area must not be subject to locking
3. Utilize Public Interview Room or Squad / Report Room

**8. POLICE SALLYPORT**

**a. Sallyport** **440 NSF**

---

1. Direct access to Booking
2. Exterior Overhead Sectional Door, 10ft. x 10ft.
3. Accommodate one (1) Patrol vehicle
4. Van/ Ambulance accessible
5. Dual use as Evidence / Vehicle impound
6. Wire partitions for Bulk Evidence storage and Vehicle supplies
7. Floor drain to DEP IW Tight Tank
8. CCTV and audio monitoring
9. Radio frequency and Key controlled overhead doors
10. Pistol locker at Booking Room door
11. CO Exhaust fan
12. Large Utility / Decon sink and Hose bib / Emergency Eye Wash

**9. POLICE PATROL**

**a. Briefing/ Roll Call** **N/A**

---

1. See Meeting Room/ Training Room (Large Briefings)
2. See Open Office / Report Room (Roll Call)

**10. PATROL**

**a. Patrol Equipment Storage Closet** **30 NSF**

---

1. Adjacent to Squad / Report Room

|           |               |            |
|-----------|---------------|------------|
| <b>b.</b> | <b>Armory</b> | <b>N/A</b> |
|-----------|---------------|------------|

1. None, Future Space Consideration

|           |                     |                |
|-----------|---------------------|----------------|
| <b>c.</b> | <b>Locker Rooms</b> | <b>250 NSF</b> |
|-----------|---------------------|----------------|

1. Adjacent to Squad / Report Room Lockers: 10 spaces
2. Locker sizes: 24" w. x 24"d. x 60" h. with support bench
3. Locker area with privacy lock for either M/F use
4. Handicap, Single Occupancy Toilet Room
5. Full height mirror
6. Electrical receptacles in locker / shelf (re-charging equipment)
7. Locking Gun Cabinet in Locker

**11. FIRE ADMINISTRATION**

|           |                   |                |
|-----------|-------------------|----------------|
| <b>a.</b> | <b>Fire Chief</b> | <b>160 NSF</b> |
|-----------|-------------------|----------------|

1. Adjacent to Fire Officers / Open Office
2. Private Meeting and Workspace
3. Coat / Storage closet
4. Large Desk / Workstation
5. Plan Table
6. File Storage: (3) File Cabinets
7. Small private meeting / work table / seats four (4)
8. Telephone / Data / CATV
9. Computer/ Printer
10. Natural light

|           |                                     |                |
|-----------|-------------------------------------|----------------|
| <b>b.</b> | <b>Fire Officer's (Open Office)</b> | <b>220 NSF</b> |
|-----------|-------------------------------------|----------------|

1. Adjacent to Lobby / Waiting
2. Adjacent to Fire Chief
3. Adjacent to Lobby / Waiting
4. Clerical work area and Window Transaction Counter for Fire Permit applications
5. Shared Workstations: Two (2)
6. Visitor Chairs: Two (2)
7. Computer / Printer / Copier
8. Office Supply Storage
9. Internal / Staff Mailboxes
10. File Storage: 4-6 file cabinets
11. Telephone / Data / Fax

**12. APPARATUS BAYS / SERVICE AREAS**

|           |                       |                 |
|-----------|-----------------------|-----------------|
| <b>a.</b> | <b>Apparatus Room</b> | <b>4880 NSF</b> |
|-----------|-----------------------|-----------------|

1. Adjacent to SCBA / Workroom
2. Adjacent to Laundry / Shower Room
3. Adjacent to Storage Room
4. Proximate to Lav / Shower
5. Seven (7) bays 16 ft. x 40 ft. each, includes Emergency Medical Ambulance Bay
6. Hose Storage racks
7. Flammable Liquid Storage in lockers
8. Floor drains to Oil / Water Separator and DEP IW Holding tank
9. Local and RF remote controlled overhead doors (14 ft. x 14 ft.)
10. Emergency Eye Wash
11. Hose bibs

12. Apparatus exhaust capture system or Vent System (TBD)
13. Overhead compressed air (reels)
14. Overhead electrical power (reels)
15. SCBA Filling Station / Compressor
16. SCBA Test/ Calibration and Cleaning
17. Work bench and Utility Sink
18. Washer / Extractor for Turnout Gear
19. Compressor
20. Ceiling fans for energy efficiency
21. Ultra-Violet (U.V.) Filtered lighting
22. Remote radio interface / connection
23. Maps, tack board and marker board

**b. Turnout Gear 300 NSF**

---

1. Adjacent and open to Apparatus Bays
2. Proximate to Fireman's Exterior Personnel Door
3. Turnout gear wire-racking for thirty-six (36)
4. Ultra-Violet (U.V.) filtered lighting

**c. Shower (Decontamination) Room 50 NSF**

---

1. Adjacent to Apparatus Bays
2. Adjacent to Laundry
3. Shower Area for (2) to clean in Turnout Gear

**d. Storage Room 120 NSF**

---

1. Adjacent to Apparatus Bays
2. Secure Storage Area
3. Vehicle/Apparatus equipment and supplies
4. Locking Storage cabinets for Hazardous Material Storage
5. Secure Storage of Emergency Medical Supplies

**13. FIRE STAFF FACILITIES**

**a. Lavatory 50 NSF**

---

1. Proximate to Apparatus Room
2. Proximate to Shower (Decon)
3. Proximate to Fire Officer's / Open Office
4. Handicap, Single Occupancy Toilet Room

**14. COMMON SERVICES**

**a. Stairs N/A**

---

1. Minimum one (1) stair required if each floor has grade access
2. Possible Fire Rated Construction
3. Proximate to exterior exit

**b. Elevator N/A**

---

1. Proximate to Lobby / Waiting
2. Proximate to Apparatus
3. Code required accessible Vertical Transportation
4. One (1) Two-Stop Hydraulic Elevator and Hoistway

|           |                                                                           |                         |
|-----------|---------------------------------------------------------------------------|-------------------------|
| <b>c.</b> | <b>Elevator Machine Room</b>                                              | <b>N/A</b>              |
|           | 1. Code required Elevator Machine Room within 10 ft. of Hoistway          |                         |
|           | 2. Hoistway ventilation required                                          |                         |
| <b>d.</b> | <b>Janitor / Custodial Supplies</b>                                       | <b>Shared: N/A</b>      |
|           | 1. See Mechanical Room                                                    |                         |
| <b>e.</b> | <b>Mechanical / HVAC Equipment</b>                                        | <b>Shared: 250 NSF</b>  |
|           | 1. Propane Gas Fired Duct Furnace with DX Cooling                         |                         |
|           | 2. Ducted supply and returns                                              |                         |
|           | 3. Energy Management Temperature controls                                 |                         |
|           | 4. Exterior wall location for ventilation                                 |                         |
|           | 5. Compressed air system for Apparatus                                    |                         |
|           | 6. Domestic Water Well, Pump and Tank Storage                             |                         |
|           | 7. Option: Connection to School Water Main                                |                         |
|           | 8. Domestic Hot Water Heater;                                             |                         |
|           | Option: Instantaneous Water Heaters at Lavs./ Showers                     |                         |
|           | 9. Floor Drain                                                            |                         |
|           | 10. Possible Sanitary System pump                                         |                         |
|           | 11. Possible Attic / Mezzanine location for HVAC Equipment                |                         |
|           | 12. Possible Utility Sink and Custodial storage                           |                         |
|           | 13. Option: Combine Space with Fire Suppression Space                     |                         |
| <b>f.</b> | <b>Fire Suppression Option: Combine Space with Fire Suppression Space</b> | <b>Shared: 80 NSF</b>   |
|           | 1. Main Sprinkler Distribution Piping, Valves, Controls and Alarms        |                         |
|           | 2. Adjacent to Main Water Service                                         |                         |
|           | 3. Requires Water Tank, Fire Pump and Emergency Generator                 |                         |
|           | 4. Floor Drain                                                            |                         |
|           | 5. Option: Combine Space with Mechanical / HVAC Equipment Space           |                         |
| <b>g.</b> | <b>Electrical Room</b>                                                    | <b>Shared: 130 NSF</b>  |
|           | 1. Adjacent to Electrical Service entrance                                |                         |
|           | 2. Proximate to exterior wall                                             |                         |
|           | 3. Proximate to Emergency Generator                                       |                         |
|           | 4. Normal building power Switchgear                                       |                         |
|           | 5. Standby building power Switchgear                                      |                         |
|           | 6. Automatic Transfer Switch                                              |                         |
|           | 7. Telephone system/equipment/backboard                                   |                         |
| <b>h.</b> | <b>Emergency Generator</b>                                                | <b>Shared: Exterior</b> |
|           | 1. Automatic Exercising Controls                                          |                         |
|           | 2. Natural Gas and/or LP Gas fired generator (Option: Diesel fuel)        |                         |
|           | 3. Within Secure Fence, see exterior Storage/ Impound                     |                         |

**15. SUMMARY**

|           |                                                         |                              |
|-----------|---------------------------------------------------------|------------------------------|
| <b>a.</b> | <b>Net Public Areas</b>                                 | <b>390 NSF</b>               |
| <b>b.</b> | <b>Net Police Dept. Areas</b>                           | <b>1,480 NSF</b>             |
| <b>c.</b> | <b>Net Fire Department Areas:</b>                       | <b>5,780 NSF</b>             |
| <b>d.</b> | <b>Net Shared Department Areas:</b>                     | <b>1,260 NSF</b>             |
| <b>e.</b> | <b>Net Emergency Medical Service (EMS) / Ambulance:</b> | <b><u>See Fire Dept.</u></b> |
|           | <b>Subtotal Police / Fire Area:</b>                     | <b>8,910 NSF</b>             |
|           | <b>Net S.F. to Gross S.F. Ratio (assume + 20%):</b>     | <b>x 1.20</b>                |
| <b>g.</b> | <b>TOTAL GROSS POLICE / FIRE FACILITY AREA:</b>         | <b>10,692 Gross Sq. Ft.</b>  |

**17. SITE**

|           |                                                                |                   |
|-----------|----------------------------------------------------------------|-------------------|
| <b>a.</b> | <b><u>Site</u></b>                                             | <b><u>N/A</u></b> |
| 3.        | Public Parking Spaces: Approx. 4 to 6                          |                   |
| 2.        | Police Personnel Parking Spaces: Approx. 4 spaces              |                   |
| a.        | Police Patrol Car Carport: 2 spaces                            |                   |
| 3.        | Fire EMT / Personnel Parking Spaces: Approx. 30 spaces         |                   |
| a.        | Includes EMT Parking                                           |                   |
| 4.        | Exterior Storage/ Police Impound                               |                   |
| a.        | Bulk exterior storage within fenced yard                       |                   |
| b.        | Large gate for Automobile Access/ Impounding (Police)          |                   |
| c.        | Emergency Generator and 72 hour on-site fuel supply            |                   |
| 5.        | On-site sanitary absorption system                             |                   |
| 6.        | On-site potable well / pump                                    |                   |
| 7.        | Oil / Water separator and DEP Industrial Wastewater Tight Tank |                   |
| 8.        | Fuel Dispensing relocated to Highway Facility                  |                   |
| 9.        | Demolition of Existing Salt Shed / Highway Barn                |                   |

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TASK 3: SITE EVALUATION

1. EXISTING SITE EVALUATION
2. EXISTING SITE SURVEY PLAN



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## 1. GENERAL SITE

The Westhampton Public Safety Complex is located on two parcels of land at 48 Stage Road, totaling approximately 62,890 sf (1.44 AC). Berkshire Design was contracted to examine the existing site and provide a preliminary assessment and evaluation of the existing site conditions to determine the suitability of the site for the construction of a new or renovated Public Safety Complex.

It should be noted that observations were made of readily available items and as such, any items concealed below the surface or not exposed to visible observations were not evaluated. A site visit was conducted on August 10<sup>th</sup> 2017 for the purpose performing the inspection of systems and the following are the results of this effort.

## 2. RESOURCE AREAS

To the north of the site, it is wooded and contains a well defined stream channel. There is a narrow wetland fringe adjacent to the stream channel that is vegetated with jewel weed, cinnamon fern, and sensitive fern.

Under the state regulations (310 CMR 10.00), wetlands are broken up into different resource areas, each of which is regulated in slightly different manner. The wetlands contain the following resource areas, to which there is a 100 foot buffer zone, which encroach onto the project site:

- Bank (10.54) –the banks of the intermittent stream
- Bordering Vegetated Wetland (10.55)
- Land Under a Water Body (10.56) – the intermittent stream.

Given that the stream is not shown on the most recent USGS Quadrangle, and the *Streamstats* program as run on the watershed indicates it is 0.28 square miles, the stream is well below the thresholds of a perennial stream, therefore there is NO Riverfront Protection Area associated with the stream.

Work is not prohibited in the 100 foot Buffer Zone; however it would require filing a Request for Determination of Applicability (RDA), or a Notice of Intent (NOI), with the local Conservation Commission for any work conducted within the buffer zone. Work conducted within the buffer would require that the stormwater meet the State Stormwater Standards and the adequate erosion controls be implemented, but these would be part of any prudent design, regardless of proximity to the wetlands.

While the buffer zone must be delineated and taken into consideration during any design process, the presence of the wetlands and buffer zone would not create an undue hardship on the development potential of the site.

## 3. SITE SOILS

According to the USDA Natural Resources Conservation Services Soil Resource Report, (attached), the site is comprised of Merrimac Fine Sandy Loam. This soil profile typically consists of 10 to 20 inches of fine sandy loam, underlain with more than 80 inches of stratified gravel and sand, with water table generally greater than 80 inches.

These soils are somewhat excessively drained with no frequency of ponding or flooding. They have a Hydrologic Soil Group classification of "A", which means they have a very low runoff classification.

These types of soils typically present no issues with regard to suitability for building construction or site use.

#### 4. DOMESTIC WATER SYSTEM

The existing complex obtains its domestic water supply from the public water supply well located south of the Hampshire Regional High school. There is a water main located in Stage Road, and a water service pipe from the main in Stage Road is connected to the building. There is a curb stop shut off valve located in the drive near the travel lane in Stage Road, (photo 4.1). The water service enters the existing structure through the floor in one of the truck bays, through a 1 inch copper pipe, which is connected to a water meter prior to distribution to the building.

According to conversation with personnel at the station, there has been a history of the water pipe in Stage Road occasionally freezing during cold weather.

The water supply to the proposed complex could be serviced by the existing water service; however it would be advantageous to either:

- a) Repair/replace the water line in Stage Road. This would prevent the freezing conditions but may be expensive depending upon the length of pipe to be replaced, and if the pipe is located in the roadway, there would be additional cost for patching of the roadway. It would be reasonable to assume that the pipe is freezing due to shallow depth, which may indicate that the pipe route contains ledge, thus the reason for the shallow pipe. In order decrease freezing, either ledge removal could be required or the pipe would require insulation, again contributing to the cost.
- b) Install a new well on the project site. There would also be cost associated with this scenario due to well construction cost. The number of people utilizing the site would not meet the threshold for a "Public Water System" so there would be no permitting beyond the local Board of Health. Siting the well would need careful consideration due to the existence of an on-site septic system (the well must be at least 100 feet from the septic system components), and there is also the possibility that the existence of the salt shed on the site may raise concerns regarding sodium in the well. Installation of the well on-site could restrict flexibility on siting any building additions, new building construction, especially as it relates to the existing or relocated septic system.

In summary, there is domestic water supply available to the site, and as such the site is viable for utilization as a future public safety complex.

#### 5. SANITARY SYSTEM

The existing complex utilizes an on-site septic system. The system consists of a septic tank and vented leach trenches. The septic tank is located immediately north of the existing building and there are three (3) leaching trenches also located immediately north of the existing building. It was not determined what the exact size of the septic tank, but according to conversations with personnel, it is a "large" tank. The leaching trenches are vented and the vents are visible above ground, (photo 5.1). It appeared that the system was functioning properly with no indication of any physical problems with the system. There is not an external grease trap, and one is not required based upon the existing use, which consist of a microwave oven and hot plate. This review was limited to site conditions and does not include analysis of any conditions inside of the building, however, it was noted that the two westerly most truck bays have floor drains, and this review did not determine the destination of those floor drains. Floor drains are NOT allowed to be connected to the septic system, and there was no indication that any of the drains are connected to the septic system.

The current State Environmental Code -Title 5, (310 CMR 15), regulates the design and siting of septic systems. 310 CMR 15.211 requires septic tanks to be at least 10 feet from a building, and leaching trenches to be 10 at least feet from a slab foundation and 20 feet from a crawl space or cellar wall. Although exact measurements were not taken, it "appears" that both the existing septic tank and leaching trenches are closer than these required setbacks from the existing building.

If any addition or new building is proposed, siting of the building would need to comply with the above stated setbacks from the existing system or a new system would need to be constructed with appropriate setbacks from the new addition or building. The site is comprised of favorable soils, so locating a new system should not pose any unusual constraints, however test pits and percolation test would need to be conducted to totally confirm that assumption, and siting of the system would also need to comply with setbacks from any new well or existing wetlands.

In summary, the existing septic system is functional, but likely will require removal and relocation with any significant change in building configuration. The site soil conditions are conducive to siting a new conventional septic system, if required. As such, the site has viable septic system capacity for use as a Public Safety Complex.

## 6. DRAINAGE SYSTEM

The existing site is comprised primarily of sandy, well drained soils. There were no indications of any unusual or significant drainage issues associated with the site.

The existing building contains multiple roof downspouts which enter underground piping, (photo 6.1 & 6.2). It was as not determined where these pipes terminate or discharge to and no outlets were found, as such it is possible that they terminate in leaching chambers.

The front of the building along Stage Road is paved and drains directly onto Stage Road with no collection or treatment. There is a catch basin located to the south east of the site in Stage Road, and some of the driveway apron is directed to that basin via a paved waterway leading from the apron, (photo 6.3). The area in front of the salt shed is mostly gravel drive and it sheet drains directly onto Stage Road. The rear (north side of the site), is partially paved but a significant portion is gravel and grass. Drainage from this area either infiltrates through the surface, or gently drains toward the wetlands located north of the site.

A review of USDA soils reports and conversations with staff indicate that the site is conducive to conventional stormwater attenuation and treatment systems and there are no indications that design for any new or altered site conditions would present any unusual concerns regarding drainage.

## 7. ENVIRONMENTAL

The site was not evaluated for hazardous materials, however several observations were noted.

The site contains a buried 500 gallon gasoline tank with gas pump located on the westerly side of the building, (photo 7.1). The tank is double walled with leak detection, with a alarm box located inside of the truck bay, ( photo 7.2). No testing or observations of the integrity of the tank are included as a part of this report.

The site also contains a diesel storage tank, located inside of the building. No review of the integrity of the tank is a part of this site analysis. There is a filling nozzle located outside under an enclosed canopy. It was observed that there appears to be some small amount of fuel that has dripped off of the nozzle onto the ground under the nozzle's holding cradle. It is suggested that this area be evaluated to determine if measures should be instituted to prevent further drips and to clean the soil and/or any other further action is required.

The site contains a salt shed, which has functioned to hold roadway salt for many years. The salt may have permeated into the ground and groundwater, which could affect the sodium levels of any existing or proposed nearby wells. Uncovered storage of salt is forbidden by Massachusetts General Law Chapter 85, section 7A in areas that would threaten water supplies. The Drinking Water Regulations, 310 CMR 22.21(2)(b), also restrict deicing chemical storage within wellhead protection areas (Zone I and Zone II) for

public water supply wells. It does not appear that there are any specific regulatory impacts associated with the salt shed on his site.



Photo 4.1 Water Service Valves



Photo 5.1 Septic Vent





Photo 6.1 Downspout



Photo 6.2 Downspout



Photo 6.3 Catch basin



Photo 7.1 Gas pumps & underground tank





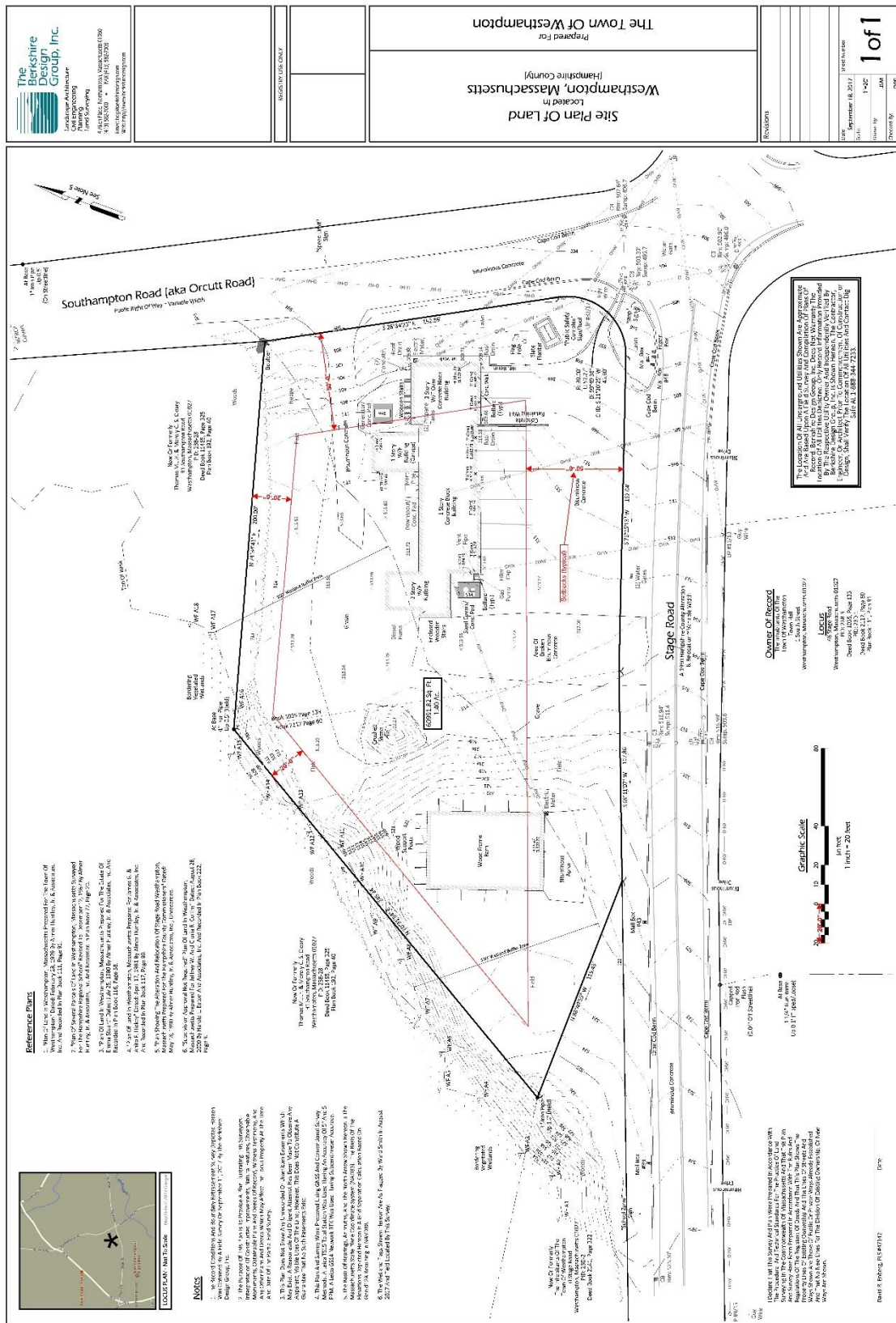
Photo 7.2 Gasoline Tank Monitor Alarm



Photo 7.3 Diesel Nozzle



Photo 7.4 Diesel Drips on Ground



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TASK 4: RENOVATION / ADDITION FEASIBILITY EVALUATION

1. RENOVATION / ADDITION FEASIBILITY RENOVATION NARRATIVE
2. CONCEPTUAL SITE PLAN, OPTION A
3. CONCEPTUAL FIRST FLOOR PLAN AND ELEVATION, OPTION A
4. CONCEPTUAL SECOND FLOOR PLAN, OPTION A
5. CONCEPTUAL BUDGET SUMMARY; OPTION A

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## RENOVATION / ADDITION FEASIBILITY EVALUATION NARRATIVE

The option to renovate and expand the existing Public Safety building will permit the Town of Westhampton to reasonably improve and expand its Police / Fire / Public Safety facilities. The development of the conceptual design for the renovation and expansion / addition of the existing Public Safety building demonstrated that it would not be possible to alter the existing Apparatus Bays to accommodate the minimal Apparatus and appropriate clearances without removing most of the bearing walls and overhead structure. Therefore the appropriate renovation / addition design includes a Pre-Engineered Metal Building addition for the Fire Apparatus and direct support space. This allowed the remaining First Floor building area to accommodate remaining Fire and Police program areas without requiring public access and handicap accessibility to the existing Second Floor, saving significant accessibility costs.

By providing an addition to appropriately accommodate the current Apparatus the remaining existing building is larger than the remaining necessary Police / Fire program area. This excess area will allow for future growth or storage opportunities but will also proportionally increase the anticipated cost for a larger area of repair / improvement and renovation than a project based on a minimum program area.

The following is an outline of the positive and negative aspects of the proposed renovation and addition appropriate for evaluation of this Study option.

## A. Positive Attributes:

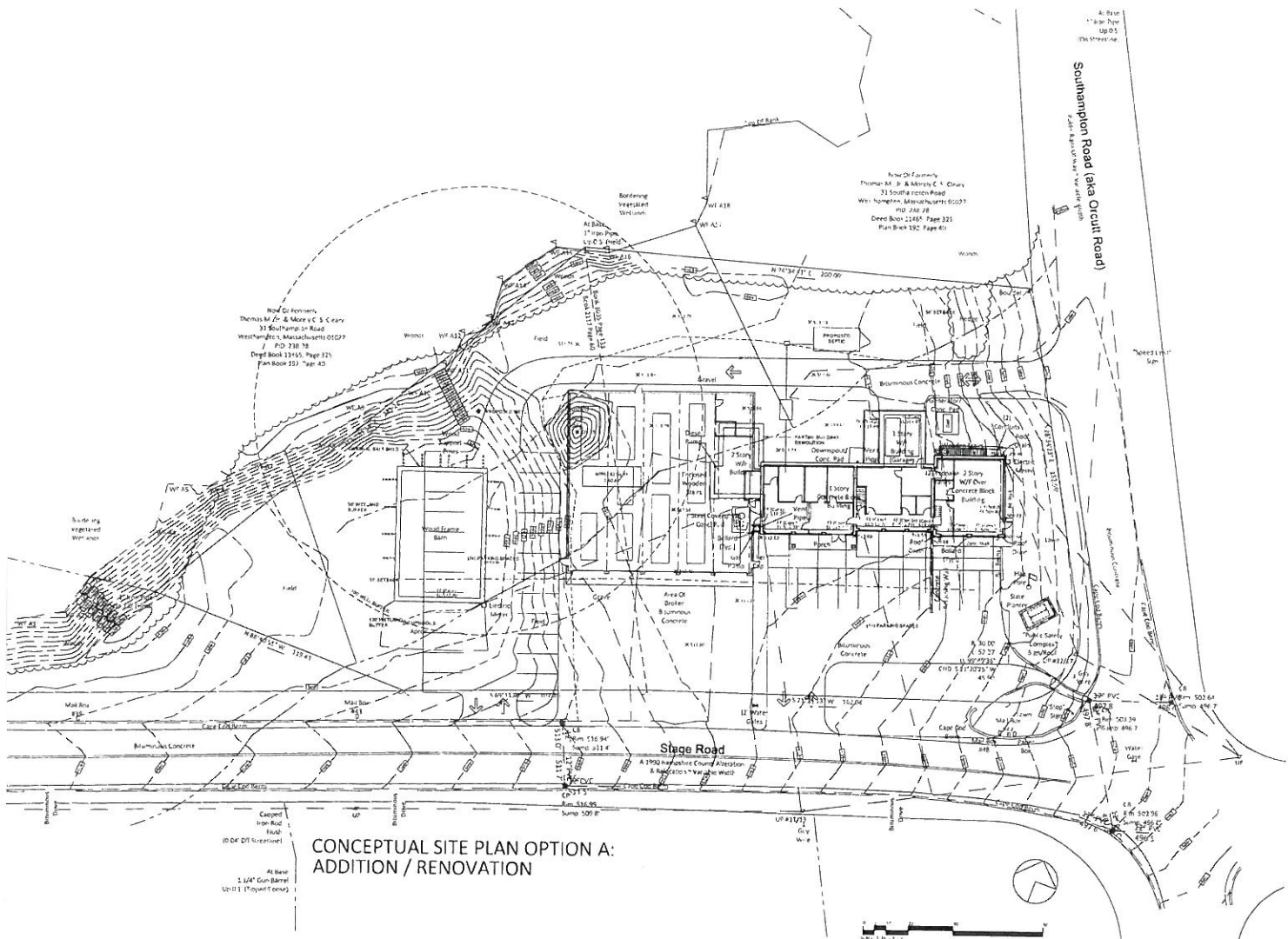
1. Phasing construction allows addition to be built first and Fire Department to remain on-site.
2. Existing building provides approximately 2,570 S.F. more total area than new building design.
3. Reduces overall waste and landfill material, and better for the environment.
4. Public access to second floor should not be required reducing elevator and handicap accessibility requirements.

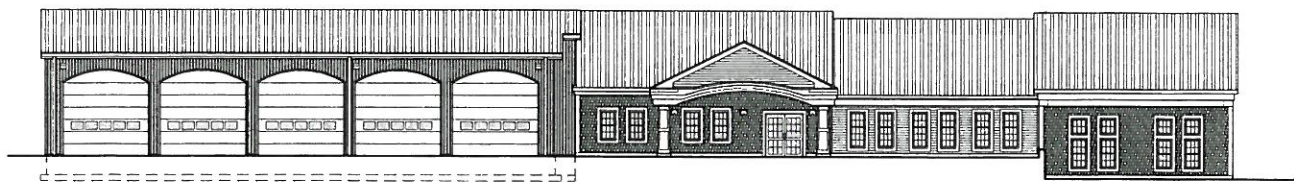
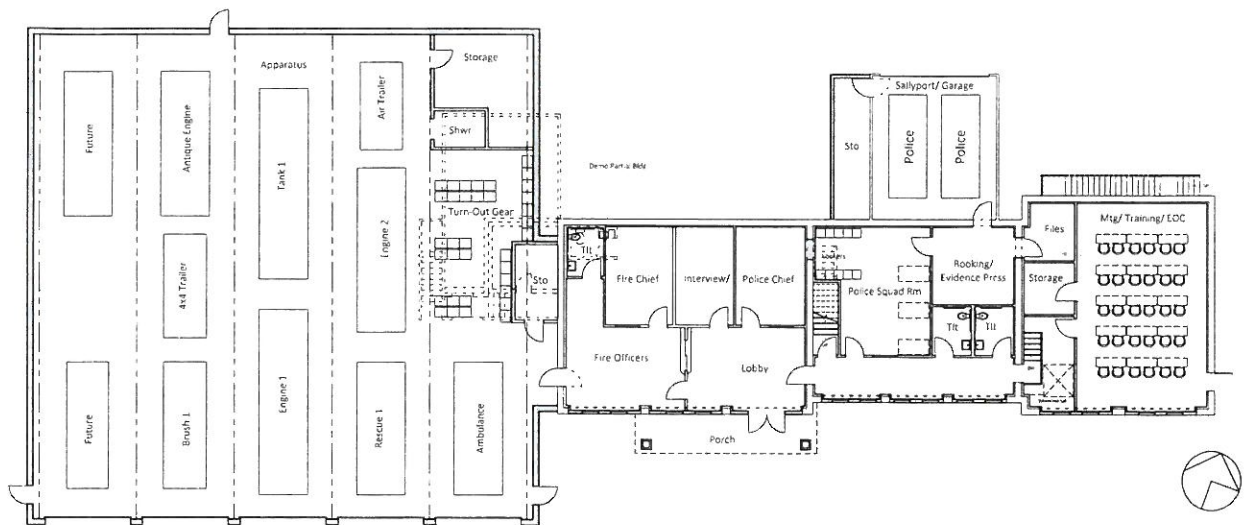
## B. Negative Attributes:

1. Anticipated higher renovation / addition cost than new construction due to larger overall building area and extensive existing building repairs and improvements.
2. Original / remaining construction will have higher remaining life cycle costs.
3. Continuation of existing building's non-conforming use requires Zoning Board of Appeals approval.
4. Additional structural reinforcement of existing construction required for continued Public Safety use as an essential facility.
5. Renovation of existing buildings requires larger contingency fund budget due to possible unforeseen design and construction conditions.



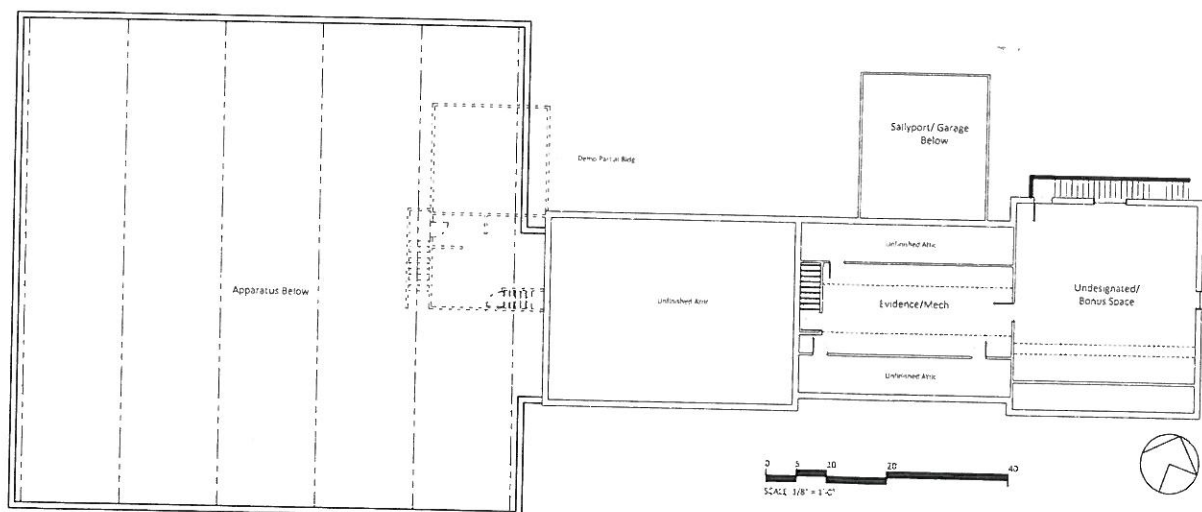
6. Extensive existing building repairs and required code improvements reduce net renovation savings.
7. Police Dept. may need to be temporarily relocated from site during construction.





CONCEPTUAL FIRST FLOOR PLAN AND ELEVATION  
OPTION A

0 5 10 20 40  
SCALE 1/8" = 1' 0"



CONCEPTUAL SECOND FLOOR PLAN  
OPTION A

**CONCEPTUAL BUDGET SUMMARY: OPTION A**

Basis of Design: Partial demolition and renovation of existing 6,250 S.F. Public Safety building, and construction of new 6,982 S.F. Pre-Engineered Metal Building addition, for total 13,232 S.F. Public Safety Facility.

**1. SITE WORK**

|                                                                    |            |
|--------------------------------------------------------------------|------------|
| a. General Site Work/Site Development: Approx. 1.4 ac. (Allowance) | \$465,000. |
| b. 1,020 S.F. existing building demolition and removal             | 20,400.    |
| c. Demolition / Removal of Salt Barn                               | By Town    |
| d. Removal of Fuel Dispensing Equipment                            | By Town    |
| e. Abatement of Hazardous Materials                                | 20,000.    |

**2. GENERAL CONSTRUCTION**

|                                                              |                     |
|--------------------------------------------------------------|---------------------|
| a. Existing Facility Repairs/Improvements (Task 1)           | \$100,000.          |
| b. Code Repairs and Improvements (Task 1)                    | 815,000.            |
| c. Renovate 4,060 S.F. existing First floor @ \$125 /S.F.    | 507,500.            |
| d. Renovate 2,190 S.F. existing Second floor @ \$60 / S.F.   | 109,500.            |
| e. Construct 6,982 GSF Building @ \$205 / S.F.               | 1,431,300.          |
| f. Construct approx. 158 S.F. Police Garage Storage Addition | 31,600.             |
| g. Construct approx. 195 S.F. Covered Entrance               | 27,300.             |
| <b>Sub-Total</b>                                             | <b>\$3,527,600.</b> |

**3. CONSTRUCTION FACTORS:**

|                                                 |                     |
|-------------------------------------------------|---------------------|
| a. General Conditions and Requirements @ 6% =   | 211,700.            |
| b. Contractor Overhead & Profit @ 4% =          | 149,600.            |
| c. Bonds and Insurance @ 2% =                   | 77,800.             |
| d. Study / Design Contingency @ 10% =           | 396,700.            |
| e. Escalation to Mid-Pt. Const. (9/19) @ 9% =   | 392,700.            |
| <b>Sub-Total and Estimated Construction Bid</b> | <b>\$4,756,100.</b> |

|                                           |          |
|-------------------------------------------|----------|
| f. Construction Change Contingency @ 5% = | 237,800. |
|-------------------------------------------|----------|

**4. TOTAL PRELIMINARY CONSTRUCTION BUDGET: \$4,993,900.**

a. Sq. Ft. Construction Budget: \$4,993,900 / 13,232 SF = \$377.41 / SF

**5. PROJECT DEVELOPMENT**

|                                                          |                   |
|----------------------------------------------------------|-------------------|
| a. Architectural / Engineering Services (DCAMM Schedule) | \$424,400.        |
| b. Owner's Project Manager (MGL c149 §44A1/2) Services   | 180,000.          |
| c. Legal / Bonding Counsel                               | 10,000.           |
| d. Bidding / Printing                                    | 8,000.            |
| e. Legal Advertising / Bid                               | 1,000.            |
| f. Clerk of the Works                                    | (OPM)             |
| g. Construction Materials Testing                        | 20,000.           |
| h. Utility Expenses                                      | 15,000.           |
| i. Furniture, Fixtures & Equipment                       | By Town.          |
| j. Tel / Data Systems                                    | 40,000.           |
| k. Moving / Temporary Relocation Expenses                | TBD               |
|                                                          | <b>\$718,400.</b> |

**6. SITE / PROPERTY ACQUISITION**

- a. Estimated property acquisition costs 0.

**7. TOTAL PRELIMINARY PROJECT BUDGET SUMMARY: \$5,712,300.****8. ALTERNATE BID OPTIONS**

- a. Alternate No. 1: TBD  
b. Alternate No. 2: TBD

**9. QUALIFICATIONS**

- a. This Summary of Probable Project Cost is based on the Conceptual Building and Site Design Option A, dated January 18, 2018, and the following assumptions:
1. Normal Construction Schedule has been used to prepare this Summary
  2. Premium time costs are not included. Costs are based on forty-hour workweek, Mon. thru Fri.
  3. This Summary is based on prevailing wage rates
  4. No costs are included for disposal or remedial work on contaminated soil.
  5. An Allowance is not included for hazardous materials
  6. Items that could impact this Summary are:
    - a. Unforeseen subsurface conditions
    - b. Restrictive technical specification
    - c. Non-competitive bid conditions (less than five qualified bids)
    - d. Sole source specification of materials or products
    - e. Delays beyond the project schedule or **January 2019 bid date**
    - f. Accelerated completion
    - g. Unforeseen permitting conditions
- b. This opinion of Probable Budget Costs is made on the basis of the experience, qualifications and best judgment of CBA's Professional Staff. This Estimate is for Initial Budget purposes only. Actual construction value is determined after the completion of the Construction Documents and the Bid Award process. Variance of +/- 5% of the estimate amount is probable.

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TASK 5: NEW CONSTRUCTION FEASIBILITY EVALUATION

1. NEW CONSTRUCTION FEASIBILITY EVALUATION NARRATIVE
2. CONCEPTUAL SITE PLAN, OPTION B
3. CONCEPTUAL FLOOR PLAN AND ELEVATIONS, OPTION B
4. CONCEPTUAL BUDGET SUMMARY: OPTION B

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## NEW CONSTRUCTION FEASIBILITY EVALUATION NARRATIVE

The option to demolish and remove the existing / older Public Safety building would permit the Town of Westhampton to construct a new, modern and efficient Public Safety Complex on the same Public Safety site. This new construction option would remove the risk of maintaining an approximately 70 year building with an anticipated lower total project expense than the proposed renovation and addition option.

The following is an outline of the positive and negative aspects of the proposed new construction of a Public Safety Complex appropriate for evaluation of this Study option.

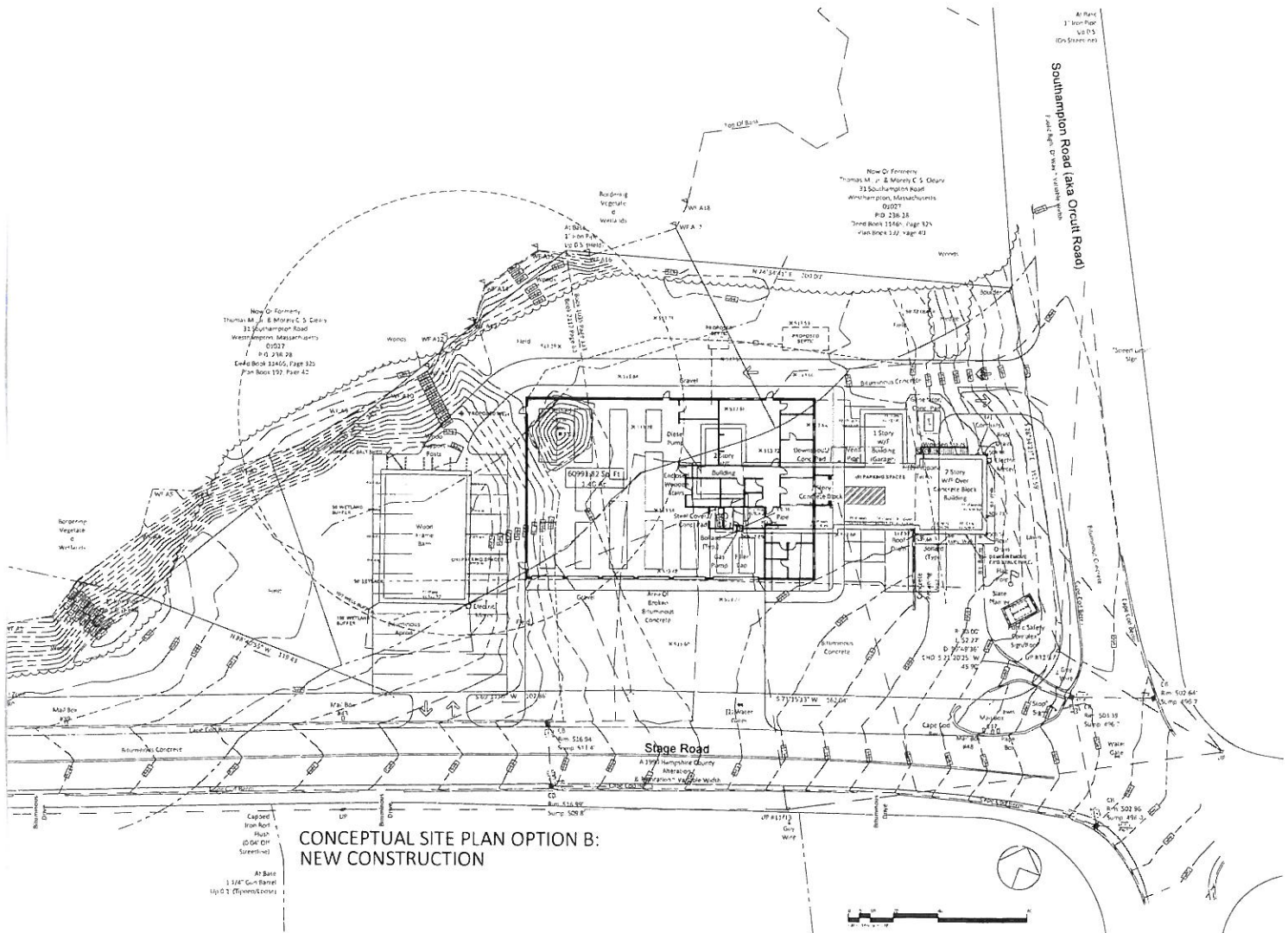
## A. Positive Attributes:

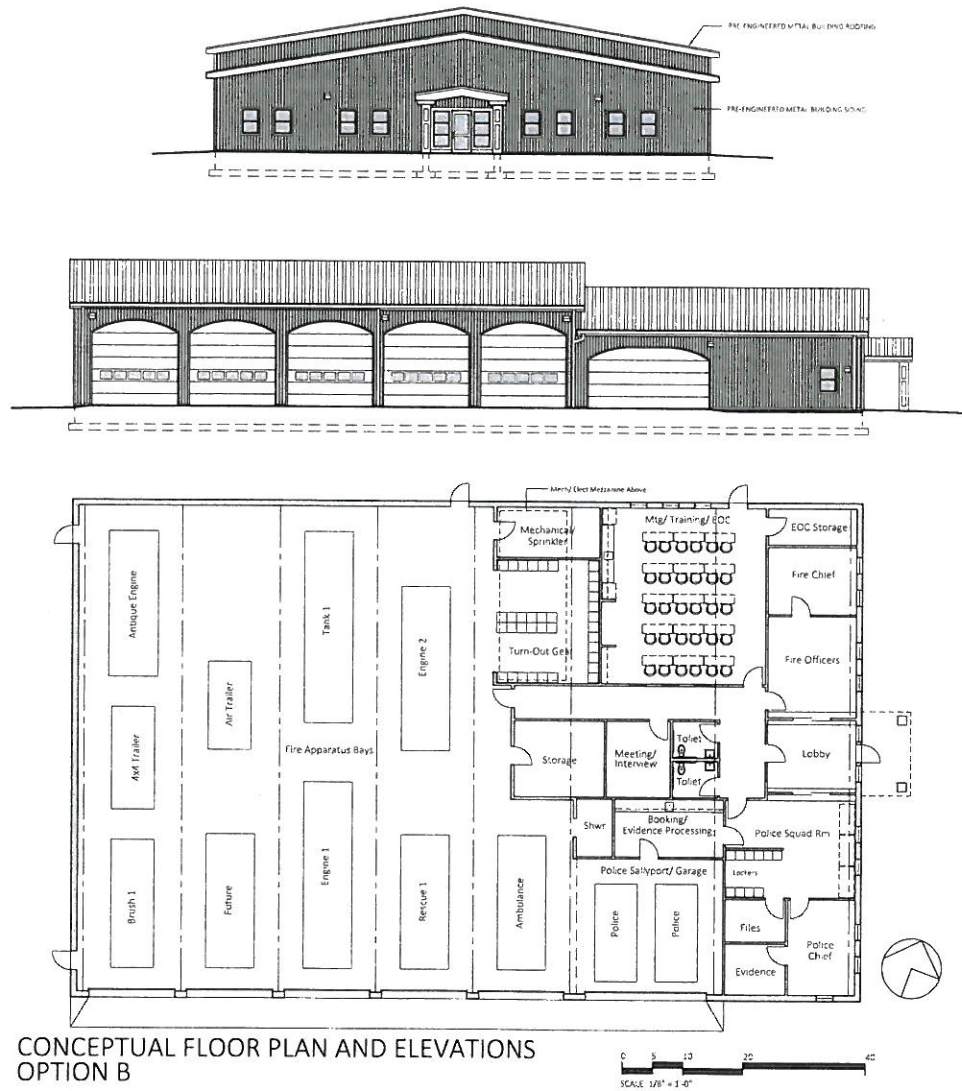
1. Anticipated new construction costs would be lower than renovation / addition option.
2. Complete customizable design to achieve optimal Fire and Police Department efficiencies.
3. Newer building materials would have longer predictable life cycle.
4. New building will conform to current site zoning criteria and setbacks.
5. Lowers contingency budget by eliminating possible existing building condition issues.
6. Smaller more efficient building construction should require less energy / cost.

## B. Negative Attributes:

1. Demolition of existing Public Safety building will require Police and Fire Departments to temporarily leave site and operate elsewhere at some additional expense.

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CONCEPTUAL FLOOR PLAN AND ELEVATIONS  
OPTION B

**CONCEPTUAL BUDGET SUMMARY: OPTION B**

Basis of Design: One Story, 10,660 S.F. Pre-Engineered Metal Building on existing Public Safety site.

**1. SITE WORK**

|                                                                    |            |
|--------------------------------------------------------------------|------------|
| a. General Site Work/Site Development: Approx. 1.4 ac. (Allowance) | \$465,000. |
| b. 7,282 S.F. existing building demolition and removal             | 80,000.    |
| c. Demolition / Removal of Salt Barn                               | By Town    |
| d. Removal of Fuel Dispensing Equipment                            | By Town    |

**2. GENERAL CONSTRUCTION**

|                                                           |                     |
|-----------------------------------------------------------|---------------------|
| a. Construct 10,660 GSF Building @ \$200 / S.F. =         | \$2,132,000.        |
| b. Construct approx. 360 S.F. Mechanical / HVAC Mezzanine | 34,000.             |
| c. Construct approx. 110 S.F. Covered Entrance            | 15,400.             |
| <b>Sub-Total</b>                                          | <b>\$2,726,600.</b> |

**3. CONSTRUCTION FACTORS:**

|                                                 |                     |
|-------------------------------------------------|---------------------|
| a. General Conditions and Requirements @ 6% =   | 163,600.            |
| b. Contractor Overhead & Profit @ 4% =          | 115,600.            |
| c. Bonds and Insurance @ 2% =                   | 60,100.             |
| d. Study / Design Contingency @ 9% =            | 275,900.            |
| e. Escalation to Mid-Pt. Const. (8/19) @ 9% =   | 300,800.            |
| <b>Sub-Total and Estimated Construction Bid</b> | <b>\$3,642,600.</b> |

|                                           |          |
|-------------------------------------------|----------|
| f. Construction Change Contingency @ 5% = | 182,100. |
|-------------------------------------------|----------|

**4. TOTAL PRELIMINARY CONSTRUCTION BUDGET: \$3,824,700.**

|                                                                    |
|--------------------------------------------------------------------|
| a. Sq. Ft. Construction Budget: \$3,824,700 / 10,660 SF = \$358.79 |
|--------------------------------------------------------------------|

**5. PROJECT DEVELOPMENT**

|                                                          |                 |
|----------------------------------------------------------|-----------------|
| a. Architectural / Engineering Services (DCAMM Schedule) | 325,000.        |
| b. Owner's Project Manager (MGL c149 §44A1/2) Services   | 122,000.        |
| c. Legal / Bonding Counsel                               | 10,000.         |
| d. Bidding / Printing                                    | 8,000.          |
| e. Legal Advertising / Bid                               | 1,000.          |
| f. Clerk of the Works                                    | (OPM)           |
| g. Construction Materials Testing                        | 20,000.         |
| h. Utility Expenses                                      | 15,000.         |
| i. Furniture, Fixtures & Equipment                       | By Town.        |
| j. Tel / Data Systems                                    | 40,000.         |
| k. Moving / Temporary Relocation Expenses                | <b>TBD</b>      |
|                                                          | <b>541,000.</b> |



**6. SITE / PROPERTY ACQUISITION**

- a. Estimated property acquisition costs \_\_\_\_\_ 0.

**7. TOTAL PRELIMINARY PROJECT BUDGET SUMMARY: \$4,365,700.**

**8. ALTERNATE BID OPTIONS**

- a. Alternate No. 1: TBD  
b. Alternate No. 2: TBD

**9. QUALIFICATIONS**

- a. This Summary of Probable Project Cost is based on the Conceptual Building and Site Design Option B, dated January 19, 2018, and the following assumptions:
1. Normal Construction Schedule has been used to prepare this Summary
  2. Premium time costs are not included. Costs are based on forty-hour workweek, Mon. thru Fri.
  3. This Summary is based on prevailing wage rates
  4. No costs are included for disposal or remedial work on contaminated soil.
  5. An Allowance is not included for hazardous materials
  6. Items that could impact this Summary are:
    - a. Unforeseen subsurface conditions
    - b. Restrictive technical specification
    - c. Non-competitive bid conditions (less than five qualified bids)
    - d. Sole source specification of materials or products
    - e. Delays beyond the project schedule or **January 2019 bid date**
    - f. Accelerated completion
    - g. Unforeseen permitting conditions
- b. This opinion of Probable Budget Costs is made on the basis of the experience, qualifications and best judgment of CBA's Professional Staff. This Estimate is for Initial Budget purposes only. Actual construction value is determined after the completion of the Construction Documents and the Bid Award process. Variance of +/- 5% of the estimate amount is probable.

IMPLEMENTATION PLAN

## TASK 6: IMPLEMENTATION PLAN

For Development of proposed Addition and Renovation of existing Public Safety Complex

| Task:                                                                                   | Projected Date:    |
|-----------------------------------------------------------------------------------------|--------------------|
| 1. Informational Presentations of Feasibility Study and Recommendations                 | Dec. 2017-May 2018 |
| 2. Town Meeting Funding Vote for Designer and OPM Services                              | May 2018           |
| 3. Ballot Funding Vote for Designer and OPM Services                                    | June 2018          |
| 4. Solicit / Contract OPM (Owner's Project Manager) Services by RFQ                     | July 2018          |
| 5. Solicit / Contract Designer (Architect) Services by RFQ                              | August 2018        |
| 6. Architect completes Design / Bid Drawings and Specifications                         | December 2018      |
| 7. Construction Bidding / Low Bid received                                              | Jan.-Feb. 2019     |
| 8. Special Town Meeting Funding Vote for Project Construction Costs                     | February 2019      |
| 9. Ballot Funding Vote for Project Construction Costs.                                  | March 2019         |
| 10. Contracting w/Low Bidder and Construction start                                     | April 2019         |
| 11. Complete partial demolition and construction of Apparatus building addition         | September 2019     |
| 12. Temporarily relocated Police / Fire Depts. To new addition or other Town facilities | September 2019     |
| 13. Complete renovations of existing Public Safety building                             | February 2020      |
| 14. Complete and occupy new Public Safety Facilities                                    | March 2020         |

EXHIBITS AND DOCUMENTATION

- A. GEOTECHNICAL REPORT
- B. HAZARDOUS MATERIAL REPORT
- C. PUBLIC SAFETY COMPLEX STUDY RFQ

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J0381-41-01  
December 1, 2017

Caolo & Bieniek Associates, Inc.  
521 East Street  
Chicopee, Massachusetts 01020-4161  
Attention: John MacMillan

Re: Geotechnical Engineering Recommendations  
Westhampton Public Safety Facility Project  
48 Stage Road  
Westhampton, Massachusetts

Dear Mr. MacMillan:

O'Reilly, Talbot & Okun Associates, Inc. (OTO) is pleased to provide this letter report summarizing our geotechnical engineering recommendations for the proposed new public safety complex, to be located at 48 Stage Road in Westhampton, Massachusetts. A Site Locus is provided as Figure 1. A Site Plan is provided as Figure 2.

Our geotechnical recommendations are based upon subsurface conditions observed in five soil borings and four test pits. Our services consisted of the full-time observation of the borings and test pits, soil suitability assessment for on-Site sewage disposal, in-Situ hydraulic conductivity testing, review of the logs and soil samples, engineering analyses, and preparation of this report. This report is subject to the attached limitations.

## **PROJECT DESCRIPTION**

### Existing Conditions

The Site is located at 48 Stage Road in Westhampton, Massachusetts. The Site is bound to the north and west by wooded and wetland areas, to the south by Stage Road, and to the east by Southampton Road. An existing one to two story, wood and concrete block framed structure is presently located in the central and eastern portions of the Site. The existing structure is currently used as the public safety complex. A wood framed salt storage barn is located in the western portion of the Site. Asphalt paved driveways and parking areas are located to the north and south of the existing buildings. The remaining driveway areas are covered with gravel. We understand that all or most of these structures and the other existing Site improvements will be demolished prior to the start of new construction. The location of the existing structures and the proposed new building are shown on Figure 2.

In general, topography slopes downward from the west (approximate elevation 523 feet) to the east (elevation 505 feet). In addition, topography slopes downward to the north, towards a wetland. The ground surface in the vicinity of the proposed new building is generally flat, approximately between an elevation of 513 to 514 feet.

### Proposed Construction

We understand the project is currently in the preliminary design phase and final project plans have not yet been developed. According to preliminary design documents, the project will consist of a 10,000 to 15,000 square foot (footprint) building. The approximate location of the building is shown on Figure 2. The new building is expected to be a single story, slab on grade, pre-engineered metal structure. We understand a small mezzanine may be included in the building. We have assumed that the new building will have a first floor elevation near that of existing grade, or between an elevation of 514 and 513 feet. Therefore, we expect cuts of approximately five feet or less will be required to construct the building.

We expect structural loads will be supported on both isolated column and continuous strip footings. Based upon the proposed construction, we anticipate that structural loads will be relatively light. We understand that the structure's intended use is considered an Occupancy Category IV (Essential Facility).

We understand that new on-Site storm water and sewage disposal systems will be installed as part of project. These systems will likely be located in the northern and western portions of the Site.

### **SUBSURFACE EXPLORATIONS**

Subsurface investigations consisted of five soil borings (B-1 through B-5) and four test pits (TP-1 through TP-4).

#### Soil Borings

The borings were performed on November 9, 2017 by Seaboard Drilling of Chicopee, Massachusetts. Borings were performed using a truck mounted drill rig using hollow stem auger drilling techniques. Each boring was performed within or adjacent to the footprint of the proposed new building. Borings B-1 and B-4 were performed in the paved driveway areas located in the eastern portions of the Site. Borings B-2, B-3, and B-5 were performed in gravel covered access ways in the southern, northern and western portions of the Site. Boring locations are shown on Figure 2. Each boring extended to a depth of between 10 and 20 feet and was terminated when drilling refusal was encountered (on a possible boulder or cobble).

In general, soil samples were collected on a continuous or semi-continuous basis from the ground surface to a depth of seven feet, at a depth of ten feet, and every five feet thereafter. Soil samples were collected using a two-inch diameter split spoon sampler, driven 24 inches with a 140 pound safety hammer falling 30 inches (American Society for Testing and Materials Test Method D1586-99 "Standard Test Method for Penetration Test and Split-Barrel Sampling of Soils"). The number of blows required to drive the sampler each six inches was recorded. The standard penetration resistance, or N-value, is the number of blows required to drive the sampler the middle 12 inches. Soil properties, such as strength and density, are related to the N-value.



An O'Reilly, Talbot & Okun Associates, Inc. (OTO) engineer observed and logged the borings. Samples were classified according to a modified version of the Burmister Soil Classification System. After drilling, bore holes were backfilled with soil cuttings and patched with asphalt, where applicable.

The headspace of each soil sample collected from the borings was screened using a Tiger LT Lite Photo-Ionization Detector (PID). PID screening provides an assessment of volatile organic content of the samples. PID readings are provided on the attached boring logs.

### Test Pits

Four test pits (TP-1 through TP-4) were performed on November 15, 2017 by the Westhampton Highway Department. The test pits were performed within the proposed storm water and sewage disposal areas located to the north and west of the proposed building footprint. The test pits were performed to observe the nature of near surface soils and existing groundwater levels, and to perform hydraulic conductivity testing as required by Massachusetts Title V Regulations. The test pit locations are shown on Figure 2. The test pits were performed using a JCB 215S loader backhoe equipped with a ½ cubic yard bucket. An OTO licensed Soil Professional observed and logged the test pits and performed hydraulic conductivity testing for the proposed new sanitary absorption system. A representative from the Town of Westhampton Board of Health observed the test pits associated with on-Site sewage disposal. Test pit logs and photographs are attached. The Soil Suitability Assessment for On-Site Sewage Disposal form (Title V, Form 11) is attached.

### Hydraulic Conductivity Testing

To aid in the design of the proposed new storm water and sanitary absorption systems, in-Situ hydraulic conductivity (or permeability) tests were performed in test pits TP-2, TP-3 and TP-4. An OTO licensed Soil Professional performed the hydraulic conductivity testing using a Guelph Permeameter. The Guelph Permeameter allows the rate of water recharge into an unsaturated soil to be measured, while maintaining a constant water head. Calculations are then made to estimate the saturated permeability of the soil for water infiltration. The permeability tests were performed by auguring a shallow hole into the soil, adding water to the apparatus and then recording the change in the rate of water flow from a reservoir over time. These data were then used to estimate the coefficient of permeability or hydraulic conductivity.

## **SUBSURFACE CONDITIONS**

This discussion of subsurface conditions at the Site is based upon published geologic information, general knowledge of the Site location and nearby vicinity, and the soil investigations performed during this study.

### General Information

Subsurface conditions were interpreted based upon the soil borings and the test pits. In general, subsurface conditions consisted of the following (in order of increasing depth): a

surface layer of gravel or asphalt with a granular base; granular fill (where present); and native granular soils. Each boring was terminated when practical drilling refusal was encountered upon dense soils or on a boulder or cobble. In general, the soil conditions are favorable for the proposed construction.

#### Soil Conditions

With the exception of borings B-1 and B-4, between one to three inches of crushed gravel was present at the ground surface. The gravel generally consisted of processed, well graded fine gravel. Borings B-1 and B-4 were performed within asphalt paved areas. The pavement consisted of between 3 and 4 inches of asphalt underlain by approximately 8 inches of granular base.

Beneath the surficial layer in borings B-1, B-3 through B-5, and test pits TP-2 and TP-3, between 1 and 3 feet of granular fill was encountered. The fill consisted of a medium dense to dense, fine to medium sand with varying amounts of gravel, coarse sand, and trace amounts of silt.

Beneath the granular fill and/or surficial layers, native, stratified soils consisting of medium dense to very dense, fine sand or fine to medium sand with trace to little amounts of silt, and various amounts of coarse sand and gravel were encountered. In some of the borings, soil layers with increased amounts of silt were observed below a depth of between five and ten feet. Each of the borings terminated upon auger refusal at a depth of between 10 and 20 feet. The refusals occurred in dense soils, or on cobbles and boulders.

#### Environmental Field Screening

The headspace of each soil sample was screened using a photoionization detector (PID). PID screening provides an assessment of volatile organic compounds (VOCs) of the samples. The PID readings were below the instrument detection limits. PID readings are presented on the boring logs.

#### Groundwater Conditions

The depth to groundwater was measured in the field during our Site explorations, and is presented on the boring and test pit logs. At the time of drilling, groundwater was encountered in borings B-3, B-4 and test pits TP-2 and TP-4, at a depth of 10 feet below ground surface (corresponding to elevations between 502.8 and 506.5 feet). In boring B-2, wet soils were observed at a depth of 5 feet, likely attributed to a perched groundwater layer. Therefore, we do not anticipate that groundwater will be encountered during construction. If perched groundwater is encountered at shallow depths, the contractor should be able to dewater excavations using pits and sump pumps.

## ON-SITE STORMWATER AND SEWAGE DISPOSAL

Soil and groundwater conditions are favorable for on-Site disposal of storm water and sewage disposal. Assessment for sewage disposal was performed in general accordance with Title V regulations. Assessment for storm water disposal was performed in general accordance with Massachusetts Storm Water Management Standards. Additional details for the on-Site sewage disposal are provided in the attached Soil Suitability Assessment for On-Site Sewage Disposal form (Title V, Form 11).

Hydraulic conductivity (K) testing was performed within the proposed storm water and sewage disposal areas (located to the north and west of the proposed building) using a Guelph Permeameter. The permeability tests were performed within test pits TP-2, TP-3 and TP-4. The tests were performed by auguring a shallow hole, inserting the test apparatus, adding water to the apparatus, and by recording the rate of water flow from a reservoir into the ground over time. This data was then used to estimate the coefficient of permeability or hydraulic conductivity.

The tests were performed within test pits TP-2, TP-3 and TP-4 at a depth of between 4.75 and 6 feet below ground surface, corresponding to an approximate elevation of between 507 and 511.75 feet. In general, the soil encountered at the test intervals consisted of fine sand with trace to little amounts of silt. As described above, stratified granular soils consisting of either fine sand or fine to medium sand with various amounts of coarse sand, gravel and silt were observed in the upper one to ten feet across the Site. The saturated hydraulic conductivity (K-value) determined during these tests were between 8.5 and 10.5 feet per day. These may vary if isolated silty soils are present. The results of the hydraulic conductivity tests and estimated depth to high groundwater are provided in Table 1.

**Table 1**  
**Hydraulic Conductivity Test Results**

| Test Pit                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         | Test Depth/<br>Approx.<br>Elevation (feet) | Soil Conditions              | ESHGWT<br>Depth/Elevation (feet) | K Value<br>(feet/day) |
|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------|------------------------------|----------------------------------|-----------------------|
| TP-2                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             | 6/506.5                                    | Fine sand, trace-little silt | 9.5/503                          | 8.5                   |
| TP-3                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             | 5/508.5                                    | Fine sand, trace-little silt | >10/<503.5                       | 10.5                  |
| TP-4                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             | 4.75/511.75                                | Fine sand, trace-little silt | 10/506.5                         | 8.5                   |
| Notes:<br>1. ESHGWT is the Estimated Seasonal High Groundwater Table. ">" indicates that no seasonal high groundwater indications were observed and may be below maximum depth explored.<br>2. Elevations presented in this table were developed by referring to the Site plan provided by Caolo Bieniek Associates and referring to measurements taken from existing Site features. Data shown in this table should be considered approximate only to the degree implied by the method(s) used. |                                            |                              |                                  |                       |

## **SIGNIFICANT GEOTECHNICAL ISSUES**

The significant geotechnical issues for the proposed construction addressed in this report include the following: the demolition of existing Site buildings; foundation bearing capacity and settlement; seismic design considerations; pavement design; and the suitability of on-Site materials for use as engineered fill.

## **DESIGN RECOMMENDATIONS**

The following recommendations are provided for the construction assumed in this report.

The recommendations in this report refer to the 9<sup>th</sup> Edition of the Massachusetts State Building Code (MSBC). We note that the 9<sup>th</sup> Edition of the MSBC recently became effective on October 20, 2017, and includes amendments to the 2015 International Building Code (IBC).

### Demolition of Existing Structures

We understand that the existing buildings will be demolished prior to the new construction. However, it is possible that a portion of the existing public safety complex will remain. Any foundation walls or slabs, basements, or utilities from the demolished structures, that are located within the footprint of the proposed building, should be removed in their entirety. These excavations may extend below the planned slab and footing levels. Any excavations resulting from the removal of existing foundations and/or slabs, should be backfilled with compacted engineered fill, consistent with the recommendations provided below and in the Earthwork Considerations section.

Abandoned buried utilities containing asbestos (such as electrical conduit insulation or transite pipe) are commonly found during construction excavations. Furthermore, former structures (pipes, conduits, foundation walls) may include materials containing asbestos. Such materials should be handled in accordance with MassDEP's asbestos regulations (310 CMR 7.15). We recommend that suspect materials be managed appropriately and tested by a Department of Labor Standards (DLS) certified asbestos inspector prior to disturbances.

#### Foundation Recommendations

The proposed new building can be founded on normal spread footing foundations, provided the former structures and any loose or unsuitable soils are removed and replaced with engineered fill. Provided the recommendations presented in this section are followed, a maximum allowable bearing pressure of 4,000 pounds per square foot may be used for the design of exterior and isolated column footings.

Exterior footings should be embedded a minimum of 48 inches below the lowest adjacent exterior grade for frost protection. Interior footings should be at least two feet (24 inches) below the surrounding floorslab. Strip footings, beneath the load bearing walls, should be at least 18 inches wide and isolated column footings should be at least 24 inches wide. All other applicable requirements of the Massachusetts State Building Code (MSBC) should be followed.

If winter construction occurs, footings should not be placed on frozen soils. Footing excavations should be free of loose or disturbed materials. Any boulders or cobbles larger than four inches in diameter should be removed from within one foot of the bottom of the footings and replaced with Sand and Gravel fill. The footing subgrades should be densified immediately prior to placement of footing concrete with at least three passes with a vibrating plate compactor. If loose materials are present in the excavations, they shall be re-compacted to form a firm, dense bearing surface.

#### Settlement

We estimate that the settlement of footings and slabs bearing on the densified native soils, or compacted engineered fill should be small and largely elastic in nature. Maximum settlement should be less than 1 inch, and should occur relatively quickly after load application (during construction).

#### Concrete Slabs

We recommend that concrete floorslabs bear on at least 12 inches of compacted Sand and Gravel fill to provide uniform support and a capillary moisture break. The subgrade should also be free of large boulders or cobbles, if encountered. The Sand and Gravel fill beneath the concrete slabs should meet the grain size distribution characteristics outlined in Table 3.

The subgrade within the footprint of the proposed building should be stripped of topsoil, asphalt, and any non-engineered fill. Prior to the placement of any engineered fill, we



recommend that the building footprint be thoroughly densified to treat any loose areas present. If non-engineered fill, soft, or disturbed areas are present below slabs or footings, these materials should be removed and re-compacted or replaced with compacted, Sand and Gravel. Fill supporting slabs should be placed in accordance with the recommendations presented on Sheet 1.

#### Seismic Considerations

Earthquake loadings must be considered under requirements in Section 1613 and 1806 of the 9<sup>th</sup> Edition (October 2017) of the Massachusetts State Building Code (MSBC). The 9<sup>th</sup> Edition of the MSBC is based upon the International Building Code 2015 (IBC) with Massachusetts amendments. Note that the IBC refers to ASCE-7, Minimum Design Loads for Buildings and Other Structures.

#### Site Class and Earthquake Design Factors

Section 1613 of the IBC covers lateral forces imposed on structures from earthquake shaking and requires that every structure be designed and constructed to resist the effects of earthquake motions in accordance with ASCE-7. Lateral forces are dependent on the type and properties of soils present beneath the Site, along with the geographic location. Per Table 1604.11, the maximum considered earthquake spectral response acceleration at short periods ( $S_s$ ) and at 1-sec ( $S_1$ ) was determined to be 0.17 and 0.066, respectively, for Westhampton, Massachusetts.

Soil properties are represented through Site Classification. Procedures for the Site-specific determination of Site Classification are provided in Section 1613.5.4 of the IBC 2009. At this Site, we evaluated Site Classification using one of the parameters allowed under the IBC 2015, Standard Penetration Resistance (N-value). The Site Class was determined to be Class D based upon soil data collected. Furthermore, the Site coefficients  $F_a$  and  $F_v$  were determined according to Tables 1613.3.3(1) and 1613.3.3(2), using both the  $S_s$  and  $S_1$  values and the Site Class. For this Site,  $F_a$  and  $F_v$  were determined to be 1.6 and 2.4, respectively.

#### Liquefaction

Section 1806.4 relates to the liquefaction potential of the underlying soils. The liquefaction potential was evaluated for Site soils encountered below the water table, using Figure 1806.4c of the MSBC. Based upon the observed density, liquefaction should not occur under the design earthquake.

#### Exterior Slabs and Pavements

This section provides recommendations for exterior entryways, and sidewalks, as well as flexible pavements.

### Entryways and Sidewalks

Exterior concrete slabs, such as those at entryways and sidewalks adjacent to the building should be designed to mitigate differential frost movement between adjacent slabs, doorways, and pavements. To address this concern, we recommend that concrete slabs at entryways be underlain by four feet of non-frost susceptible Sand and Gravel fill. Where exterior slabs butt against hard surfaces, we recommend that for the area beyond the edges of the slab, the bottom of Sand and Gravel fill should transition gradually upward at a slope of 3H:1V or flatter (zone of influence). A typical detail showing an entryway fill area is shown on Sheet 2.

We recommend that concrete sidewalks that are outside the zone of influence of the building and entryways, as well as areas where differential frost movement would not cause a tripping hazard, bear on at least 12 inches of imported, compacted Sand and Gravel to provide uniform support and a capillary moisture break. Fill should be placed in accordance with the recommendations for compaction provided on Sheet 1. Subgrades should also be free of large boulders. We recommend that the entire subgrade of the sidewalk be proof compacted with a heavy vibrating roller to treat any loose areas. The Sand and Gravel fill beneath the concrete slabs and sidewalks should meet the grain size distribution characteristics described in Table 3.

### Flexible Pavement Design

We have assumed that the proposed pavements will likely experience loads from both light passenger vehicles and heavy rescue vehicles. Therefore, we have proposed a pavement section for passenger vehicle parking lots and relatively robust flexible pavement section for use in access roads and lots accessed by heavy vehicles. Recommended designs are presented for both loading conditions in Table 2. We recommend that the pavement subgrade be proof compacted to treat any loose areas present.

**Table 2**  
**Pavement Design Sections**

| Layer                 | Thickness (in) |               |
|-----------------------|----------------|---------------|
|                       | Light Vehicle  | Heavy Traffic |
| Asphalt Finish Course | 1              | 2             |
| Asphalt Binder Course | 1.5            | 2             |
| Gravel Base Course    | 10             | 12            |

Table 3 presents recommendations for gradation requirements for the Sand and Gravel sub-base, and Gravel Base Course materials. Please note that the Sand and Gravel sub-base specification is approximately that for Mass Highway M1.03.0, Type B Gravel Borrow.



### Earthwork Considerations

We anticipate that earthwork for this project will include the following: removal of non-engineered fill and existing structures; excavation for footings; placement of compacted engineered fill beneath the building, floorslab and pavements (as needed); engineered fill to backfill the existing foundations during demolition; and the treatment of the existing soils to address any localized loose areas that may be present.

### Engineered Fill Recommendations

Three engineered fill types are recommended:

- Sand and Gravel for use immediately beneath floor slabs and sidewalks;
- Gravel Base Course for use beneath pavements; and
- Granular Fill for use as miscellaneous fill and to backfill the existing basements during demolition.

Grain size distribution requirements are presented in Table 3. Based upon visual observations, the on-Site soils may be suitable for re-use as granular fill, if free from deleterious and/or oversized material. If the contractor elects to use the on-Site material as fill, we recommend that a representative sample be collected and a grain size distribution analysis is performed to obtain approval by the engineer.

**Table 3**  
**Grain Size Distribution Requirements**

| Size    | Sand and Gravel         | Gravel Base Course | Granular Fill |
|---------|-------------------------|--------------------|---------------|
|         | Percent Finer by Weight |                    |               |
| 3 inch  | 100                     | 100                | 100           |
| 1 inch  | ---                     | ---                | ---           |
| ¾ inch  | ---                     | ---                | ---           |
| ½ inch  | 50-85                   | 50-80              | ---           |
| ⅜ inch  | ---                     | ---                | ---           |
| No. 4   | 40-75                   | 40-75              | ---           |
| No. 10  | ---                     | 30-60              | 30-90         |
| No. 40  | 10-35                   | 10-35              | 10-70         |
| No. 100 | ---                     | 5-20               | ---           |
| No. 200 | 0-8                     | 2-10               | 0-15          |

### Compaction Recommendations

Fill, debris, topsoil, or organic soils should be removed from beneath the building footprint and should not be re-used as fill beneath structures. As discussed above, foundation walls, floor slabs, utilities or debris resulting from the demolition of the existing structures should be removed in its entirety from beneath the building footprint. These excavations may extend below the planned slab and footing levels. Any excavations resulting from the removal of existing foundations and/or slabs, should be backfilled with compacted engineered fill. To avoid point loads, any cobbles or boulders larger than four inches in diameter, encountered at the footing or slab subgrade should also be removed. Prior to the placement of any engineered fill, we recommend that the entire building footprint be thoroughly proof compacted. Proof compaction should be accomplished by a minimum of six passes with a 6,000 pound vibratory roller. To facilitate compaction, the moisture content of the on-Site material should be maintained at or near the optimum moisture content as determine by ASTM D1557.

The resulting excavations should be backfilled with compacted Sand and Gravel fill or Granular fill (at depths greater than 12 inches beneath footings or outside of the building footprint). Compacted fill should be placed in lifts ranging in thickness between 6 and 12 inches depending on the size and type of equipment. Recommended degrees of compaction and compaction means and methods are presented on Sheet 1.

Compaction within five feet of foundation walls should be performed using a hand-operated roller or vibratory plate compactor. If the new walls are to be backfilled on both sides, placement and compaction of engineered fill should proceed on both sides of the wall so that the difference in top of fill on either side does not exceed two feet.

### Sloping and Earth Support

At this time, it does not appear that significant amounts of shoring and/or underpinning will be necessary to construct the proposed building and protect existing structures and personnel. However, the need for temporary earth support should be evaluated during final design of the project. Sloping and earth support may be needed during demolition, the installation of utilities and if foundations are extended to depths greater than four feet below existing grade.


Excavations should be sloped consistent with OSHA regulations. The upper unconsolidated native soils encountered at the Site are estimated to be Type C soils for slope stability purposes. The maximum allowable slope for excavations of Class C soils is 1.5H:1V (34°). We note that any water seepage will need to be considered when evaluating OSHA requirements. In addition, protective systems for any excavation exceeding 20 feet in depth must be designed by a registered professional engineer. All excavations should conform to current OSHA requirements.

## FINAL DESIGN AND CONSTRUCTION PHASE SERVICES

It is recommended that O'Reilly, Talbot & Okun Associates, Inc. (OTO) be retained during final design to prepare and/or review appropriate specification sections and drawings, if necessary. During construction phases, we recommend that OTO be retained to provide engineering support and to document subgrade conditions and preparation.

We appreciated the opportunity to be of service on this project. If you have any questions, please do not hesitate to contact the undersigned.


Sincerely yours  
O'Reilly, Talbot & Okun Associates, Inc.



Ashley L. Sullivan, P.E.  
Associate



Stephen McLaughlin  
Project Engineer



Michael J. Talbot, P.E.  
Principal

Attachments: Limitations, Site Locus, Site Plan, Sheets, Boring Logs, Test Pit Logs,  
Photographs, Soil Forms for On-Site Sewage Disposal

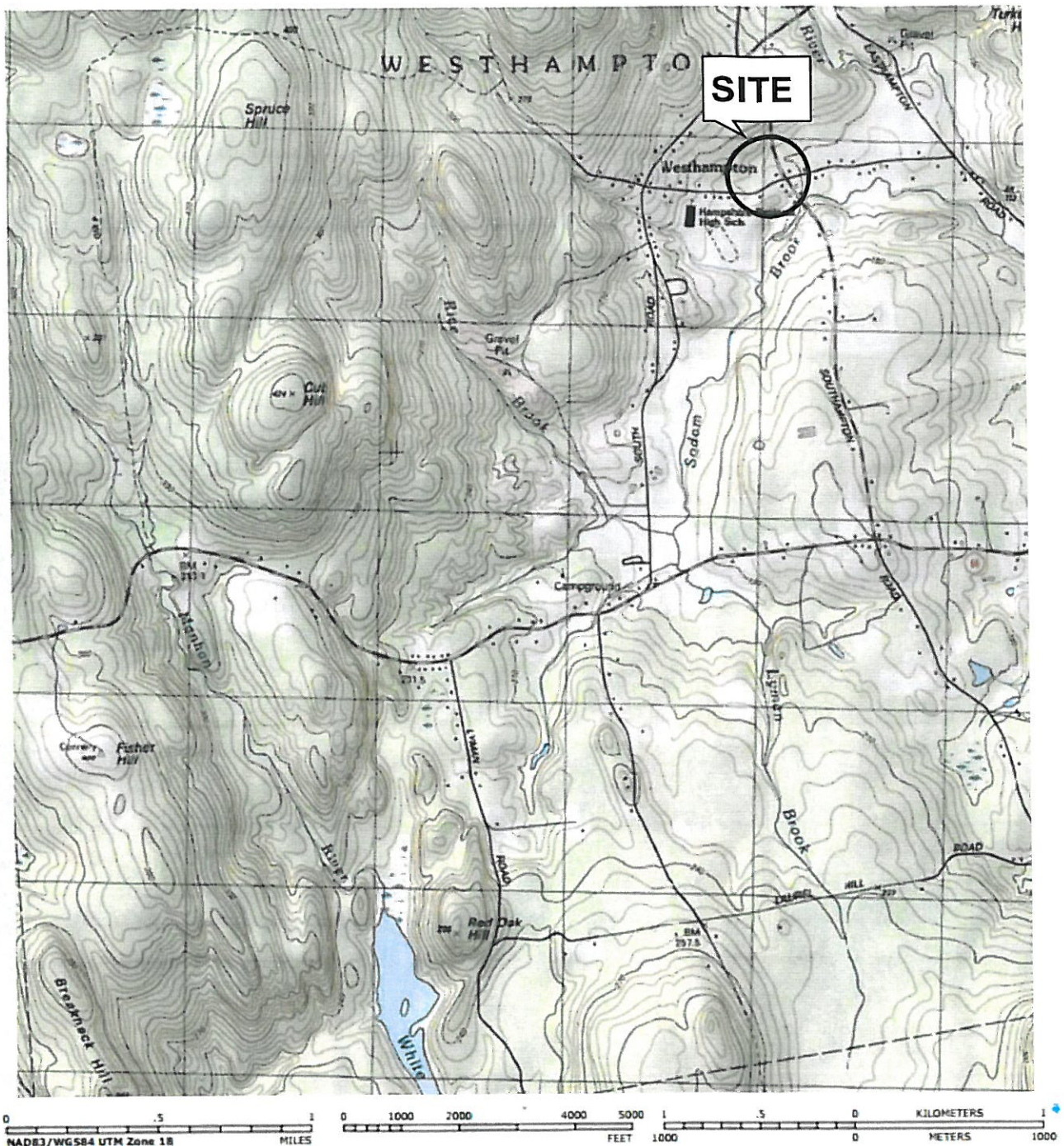


## LIMITATIONS

1. The observations presented in this report were made under the conditions described herein. The conclusions presented in this report were based solely upon the services described in the report and not on scientific tasks or procedures beyond the scope of the project or the time and budgetary constraints imposed by the client. The work described in this report was carried out in accordance with the Statement of Terms and Conditions attached to our proposal.
2. The analysis and recommendations submitted in this report are based in part upon the data obtained from widely spaced subsurface explorations. The nature and extent of variations between these explorations may not become evident until construction. If variations then appear evident, it may be necessary to reevaluate the recommendations of this report.
3. The generalized soil profile described in the text is intended to convey trends in subsurface conditions. The boundaries between strata are approximate and idealized and have been developed by interpretations of widely spaced explorations and samples; actual soil transitions are probably more erratic. For specific information, refer to the boring logs.
4. In the event that any changes in the nature, design or location of the proposed structures are planned, the conclusions and recommendations contained in this report shall not be considered valid unless the changes are reviewed and conclusions of this report modified or verified in writing by O'Reilly, Talbot & Okun Associates Inc. It is recommended that we be retained to provide a general review of final plans and specifications.
5. Our report was prepared for the exclusive benefit of our client. Reliance upon the report and its conclusions is not made to third parties or future property owners.

# FIGURES





Topographic Map Quadrant: Chester E, MA

Map Current as of: 1997

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Phone: 413-788-6222  
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48 Stage Road  
Westhampton, MA

**PROJECT NUMBER**  
J0381-41-01

## **SITE LOCUS**

NOVEMBER, 2017

Figure 1







**Table 1-1  
Degree of Compaction Recommendations**

| Location                                 | Minimum Compaction |
|------------------------------------------|--------------------|
| Below Structures (Foundations and Slabs) | 95%                |
| Below Pavements/Sidewalks/Exterior Slabs | 95%                |
| Against Basement Walls/Retaining Walls   | 92%                |
| Utility Trenches                         | 95%                |
| General Landscaped Areas                 | 90%                |

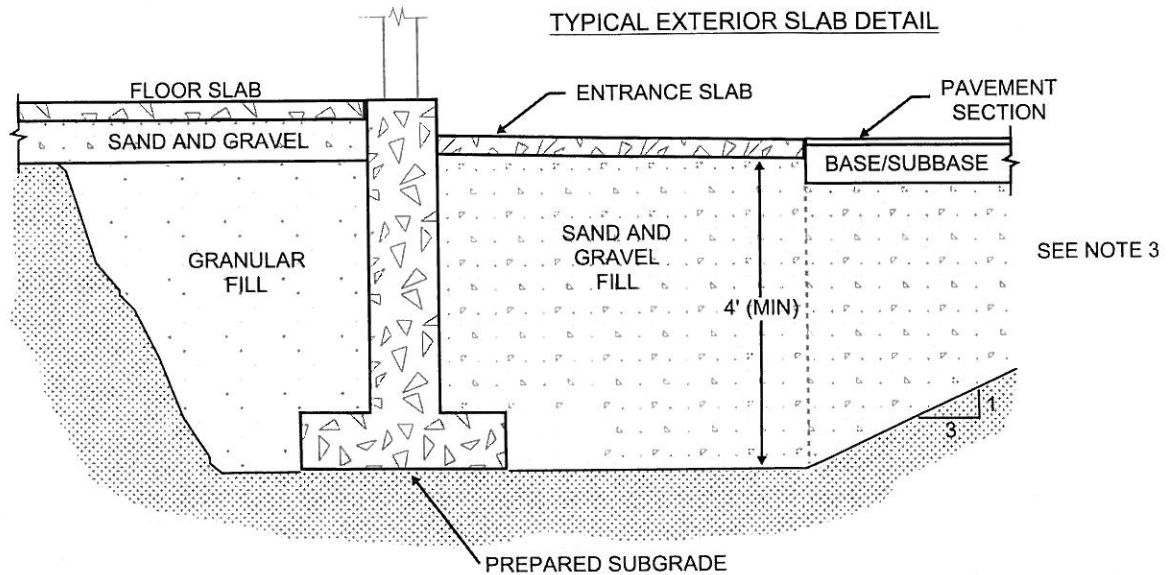
Notes.

1. Percentage of the maximum dry density as determined by Modified Proctor ASTM D1557, Method C.
2. When location falls into two or more categories, the engineer should be notified to determine appropriate compaction efforts and/or methods.
3. Crushed stone should be compacted in lifts of 12 inches to form a dense matrix using either traditional compaction methods (vibratory plate and/or roller) or tamping with an excavator bucket in deep excavations. It is generally not necessary to perform laboratory or field density testing on crushed stone.

**Table 1-2  
General Guidelines for Compaction Means and Methods**

| Compaction Method                                           | Maximum Stone Size (Inches Diameter) | Maximum Lift Thickness (Inches) |                    | Minimum Number of Passes    |                    |
|-------------------------------------------------------------|--------------------------------------|---------------------------------|--------------------|-----------------------------|--------------------|
|                                                             |                                      | Below Structures & Pavement     | Non-Critical Areas | Below Structures & Pavement | Non-Critical Areas |
| Hand-operated Vibratory Plate and confined spaces           | 3                                    | 6                               | 8                  | 6                           | 4                  |
| Hand-operated vibratory drum roller (less than 1000 pounds) | 3                                    | 6                               | 8                  | 6                           | 4                  |
| Hand-operated vibratory drum roller (at least 1,000 pounds) | 6                                    | 8                               | 10                 | 6                           | 4                  |
| Light vibratory drum roller (minimum 3000 pounds)           | 6                                    | 10                              | 14                 | 6                           | 4                  |
| Heavy vibratory drum roller (minimum 6000 pounds)           | 6                                    | 12                              | 18                 | 6                           | 4                  |

Note: The contractor should reduce or stop drum vibration if pumping of the subgrade is observed.



**NOTES:**

1. NOT FOR CONSTRUCTION, FOR ILLUSTRATION PURPOSES ONLY
2. FOR ADDITIONAL INFORMATION, REFER TO OTO's GEOTECHNICAL REPORT
3. UNPAVED AREAS SHALL INCLUDE LOAM CAP AND SHOULD BE GRADED TO DIRECT SURFACE FLOW AWAY FROM BUILDING





## BORING LOGS

### SUMMARY OF THE BURMISTER SOIL CLASSIFICATION SYSTEM (MODIFIED)

#### RELATIVE DENSITY (of nonplastic soils) OR CONSISTENCY (of plastic soils)

| STANDARD PENETRATION TEST (SPT)                                                                                                                                                                                                                                                                                                                                                                                                                                                              |
|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Method:</b> Samples were collected in accordance with ASTM D1586-99, using a 2" diameter split spoon sampler driven 24 inches. If samples were collected using direct push methodology (geoprobe), SPTs were not performed and relative density/consistency were not reported.<br><b>N-Value:</b> The number of blows with a 140 lb. hammer required to drive the sampler the middle 12 inches.<br><b>WOR:</b> Weight Of Rod (depth dependent)<br><b>WOH:</b> Weight Of Hammer (140 lbs.) |

| COHESIONLESS SOILS                     |                     | COHESIVE SOILS              |             |
|----------------------------------------|---------------------|-----------------------------|-------------|
| BLOWS/FOOT<br>(SPT N-Value)            | RELATIVE<br>DENSITY | BLOWS/FOOT<br>(SPT N-Value) | CONSISTENCY |
| 0-4                                    | Very loose          | <2                          | Very soft   |
| 4-10                                   | Loose               | 2-4                         | Soft        |
| 10-30                                  | Medium dense        | 4-8                         | Medium      |
| 30-50                                  | Dense               | 8-15                        | Stiff       |
| >50                                    | Very dense          | 15-30                       | Very stiff  |
| *Based upon uncorrected field N-values |                     | >30                         | Hard        |

#### MATERIAL: (major constituent identified in CAPITAL letters)

| COHESIONLESS SOILS |                    |                                            |
|--------------------|--------------------|--------------------------------------------|
| MATERIAL           | FRACTION           | GRAIN SIZE RANGE                           |
| GRAVEL             | Coarse             | 3/4" to 3"                                 |
|                    | Fine               | 1/4" to 3/4"                               |
| SAND               | Coarse             | 1/16" to 1/4"                              |
|                    | Medium             | 1/64" to 1/16"                             |
|                    | Fine               | Finest visible & distinguishable particles |
| SILT/CLAY          | see adjacent table | Cannot distinguish individual particles    |
| COBBLES            |                    | 3" to 6" in diameter                       |
| BOULDERS           |                    | > 6" in diameter                           |

| COHESIVE SOILS                                                                  |            |                        |
|---------------------------------------------------------------------------------|------------|------------------------|
| SMALLEST<br>DIAMETER                                                            | PLASTICITY | IDENTITY               |
| None                                                                            | Nonplastic | <b>SILT</b>            |
| 1/4" (pencil)                                                                   | Slight     | <b>Clayey SILT</b>     |
| 1/8"                                                                            | Low        | <b>SILT &amp; CLAY</b> |
| 1/16"                                                                           | Medium     | <b>CLAY &amp; SILT</b> |
| 1/32"                                                                           | High       | <b>Silty CLAY</b>      |
| 1/64"                                                                           | Very High  | <b>CLAY</b>            |
| Wetted sample is rolled in hands to smallest possible diameter before breaking. |            |                        |

**ORGANIC SILT:** Typically gray to dark gray, often has strong H<sub>2</sub>S odor. May contain shells or shell fragments. Light weight.

**Fibrous PEAT:** Light weight, spongy, mostly visible organic matter, water squeezed readily from sample. Typically near top of layer.

**Fine grained PEAT:** Light weight, spongy, little visible organic matter, water squeezed from sample. Typically below fibrous peat.

**DEBRIS:** Detailed contents described in parentheses (wood, glass, ash, crushed brick, metal, etc.)

**BEDROCK:** Underlying rock beneath loose soil, can be weathered (easily crushed) or competent (difficult to crush).

#### ADDITIONAL CONSTITUENTS

| TERM   | % OF TOTAL |
|--------|------------|
| and    | 35-50%     |
| some   | 20-35%     |
| little | 10-20%     |
| trace  | 1-10%      |

#### COMMON TERMS

**Glacial till:** Very dense/hard, heterogeneous mixture of sand, silt, clay, sub-angular gravel. Deposited at base of glaciers, which covered all of New England.

**Varved clay:** Fine-grained, post-glacial lake sediments characterized by alternating layers (or varves) of silt, sand and clay.

**Fill:** Material used to raise ground, can be engineered or non-engineered.

#### COMMON FIELD MEASUREMENTS

**Torvane:** Undrained shear strength is estimated using an E285 Pocket Torvane (TV). Values in tons/ft<sup>2</sup>.

**Penetrometer:** Unconfined compressive strength is estimated using a Pocket Penetrometer (PP). Values in tons/ft<sup>2</sup>.

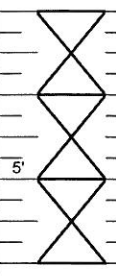

**RQD:** Rock Quality Designation is determined by measuring total length of pieces of core 4" or greater and dividing by the total length of the run, expressed as %. 100-90% excellent; 90-75% good; 75-50% fair; 50-25% poor; 25-0% very poor.

**PID:** Soil screened for volatile organic compounds (VOCs) using a photoionization detector (PID) referenced to benzene in air. Readings in parts per million by volume.

**LOG OF BORING B-1**

Page 1 of 1

|                    |                                       |                     |             |                    |                                 |                         |     |
|--------------------|---------------------------------------|---------------------|-------------|--------------------|---------------------------------|-------------------------|-----|
| PROJECT            | Westhampton Public Safety Complex     |                     |             | CONTRACTOR         | Seaboard Environmental Drilling |                         |     |
| JOB NUMBER         | 381-41-01                             | FINAL DEPTH (ft)    | 10.5        | DRILLING EQUIPMENT | B-53 Truck Mounted Rig          |                         |     |
| LOCATION           | Westhampton, MA                       | SURFACE ELEV (ft)   | 513.0       | FOREMAN            | Doug                            | CASING                  |     |
| START DATE         | 11/9/2017                             | DISTURBED SAMPLES   | 4           | HELPER             | Al                              | CASE DIAMETER           | N/A |
| FINISH DATE        | 11/9/2017                             | UNDISTURBED SAMPLES | 0           | BIT TYPE           | Hollow Stem Auger               | HAMMER WGT              | N/A |
| ENGINEER/SCIENTIST |                                       | Matt Nichols        | WATER LEVEL | ROD TYPE           | A (1 5/8" O.D.)                 | HAMMER DROP             | N/A |
| BORING LOCATION    | Southeast Corner of proposed building | FIRST (ft)          | N/E         | SAMPLER            | 2" O.D. Split Spoon             | ROCK CORING INFORMATION |     |
|                    |                                       | LAST (ft)           | N/E         | HAMMER TYPE        | Safety                          | TYPE                    | N/A |
|                    |                                       | TIME (hr)           | N/E         | HAMMER WGT/DROP    | 140 lb / 30" Wire Line          | SIZE                    | N/A |

| DEPTH (ft)/<br>SAMPLES                                                             | SAMPLES                           |              |                   |                       | SAMPLE DESCRIPTION<br>(MODIFIED BURMISTER)                                                                                                                                                                                     | PROFILE       |       | REMARKS/<br>WELL<br>CONSTRUCTION |
|------------------------------------------------------------------------------------|-----------------------------------|--------------|-------------------|-----------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------|-------|----------------------------------|
|                                                                                    | PENETR.<br>RESIST.<br>(bl / 6 in) | REC.<br>(in) | TYPE/<br>NO.      | FIELD<br>TEST<br>DATA |                                                                                                                                                                                                                                | DEPTH<br>(ft) | ELEV. |                                  |
|   | 12/23/34/40                       | 12/24        | S-1<br>(1-3')     | 0.0                   | 1" Asphalt Top Coat, 2": Asphalt Binder<br>9" Brown, fine to medium SAND, some coarse sand, some fine gravel, trace silt, damp<br>Very dense, brown, fine to medium SAND, some coarse sand, some fine gravel, trace silt, damp | 3.0           | 510.0 | 2.                               |
|                                                                                    | 20/19/18/20                       | 14/24        | S-2<br>(3-5')     | 0.0                   | Dense, gray with frequent rust partings, fine to medium SAND, trace coarse sand, trace silt, damp                                                                                                                              | 5.0           | 508.0 | 2., 3.                           |
|                                                                                    | 57/18/43/43                       | 14/24        | S-3<br>(5-7')     | 0.0                   | Very dense, brown, fine SAND, little to some silt, some medium to coarse sand, some fine gravel, moist                                                                                                                         |               |       |                                  |
|  | 15/50 for 0"                      | 3/6          | S-4<br>(10-10.5') | 0.0                   | Very dense, gray-brown, fractured ROCK pieces, dry<br>Auger refusal at 10.5' upon likely cobble or boulder                                                                                                                     | 10.5          | 502.5 |                                  |

Remarks:

1. Soil screened in field using Tiger LT Lite photoionization detector (PID) referenced to benzene in air. Readings in parts per million by volume.
2. Auger grinding from 1'-3' and 5'-10.5', auger refusal at 10.5'.
3. Auger deflecting East at a depth of 5'-7', driller adjusted position of rig to correct auger angle.
4. Drilling effort increases with depth starting at 5'.

**PROJECT NO.**  
**381-41-01**



**LOG OF BORING**  
**B-1**



**LOG OF BORING B-2**

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|                                  |                                       |                     |       |                    |                                 |                         |     |
|----------------------------------|---------------------------------------|---------------------|-------|--------------------|---------------------------------|-------------------------|-----|
| PROJECT                          | Westhampton Public Safety Complex     |                     |       | CONTRACTOR         | Seaboard Environmental Drilling |                         |     |
| JOB NUMBER                       | 381-41-01                             | FINAL DEPTH (ft)    | 11.0  | DRILLING EQUIPMENT | B-53 Truck Mounted Rig          |                         |     |
| LOCATION                         | Westhampton, MA                       | SURFACE ELEV (ft)   | 514.5 | FOREMAN            | Doug                            | CASING                  |     |
| START DATE                       | 11/9/2017                             | DISTURBED SAMPLES   | 4     | HELPER             | Al                              | CASE DIAMETER           | N/A |
| FINISH DATE                      | 11/9/2017                             | UNDISTURBED SAMPLES | 0     | BIT TYPE           | Hollow Stem Auger               | HAMMER WGT              | N/A |
| ENGINEER/SCIENTIST: Matt Nichols |                                       | WATER LEVEL         |       | ROD TYPE           | A (1 5/8" O.D.)                 | HAMMER DROP             | N/A |
| BORING LOCATION                  | Southwest corner of proposed building | FIRST (ft)          | 5.0   | SAMPLER            | 2" O.D. Split Spoon             | ROCK CORING INFORMATION |     |
|                                  |                                       | LAST (ft)           | --    | HAMMER TYPE        | Safety                          | TYPE                    | N/A |
|                                  |                                       | TIME (hr)           | --    | HAMMER WGT/DROP    | 140 lb / 30" Wire Line          | SIZE                    | N/A |

| DEPTH (ft)/<br>SAMPLES                                                            | SAMPLES                           |              |                   |                       | SAMPLE DESCRIPTION<br>(MODIFIED BURMISTER)                                                                                                                                | PROFILE                    |       | REMARKS/<br>WELL<br>CONSTRUCTION |
|-----------------------------------------------------------------------------------|-----------------------------------|--------------|-------------------|-----------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------|-------|----------------------------------|
|                                                                                   | PENETR.<br>RESIST.<br>(bl / 6 in) | REC.<br>(in) | TYPE/<br>NO.      | FIELD<br>TEST<br>DATA |                                                                                                                                                                           | DEPTH<br>(ft)              | ELEV. |                                  |
|  | 4/7/14/18                         | 16/24        | S-1<br>(0-2')     | 0.0                   | Top 1": Dark gray, crushed fine GRAVEL, dry<br>Bottom 15": Medium dense, brown, fine to medium SAND, some coarse sand,<br>little fine gravel, trace silt, damp            | GRAVEL ROAD                |       |                                  |
|                                                                                   | 20/20/20/15                       | 16/24        | S-2<br>(2-4')     | 0.0                   | Medium dense, brown, fine to medium SAND, some coarse sand, little fine gravel,<br>trace silt, damp                                                                       | FINE TO<br>MEDIUM SAND     |       |                                  |
| 5'                                                                                | 6/9/11/13                         | 18/24        | S-3<br>(5-7')     | 0.0                   | Medium dense, brown, fine SAND, little medium sand, trace to little silt, wet                                                                                             | 5.0 ↓ 509.5                |       | 3.                               |
|  | 50 for 1"                         | 1/1          | S-4<br>(10-10.1') | 0.0                   | Very dense, brown, fine SAND, little to some silt, some medium to coarse sand,<br>some fractured rock pieces, moist<br>Auger refusal at 11' upon likely cobble or boulder | 10.0 ↓ 504.5               |       | 2.                               |
|                                                                                   |                                   |              |                   |                       |                                                                                                                                                                           | SILTY SAND<br>11.0 ↓ 503.5 |       |                                  |
| 10'                                                                               |                                   |              |                   |                       |                                                                                                                                                                           |                            |       |                                  |
| 15'                                                                               |                                   |              |                   |                       |                                                                                                                                                                           |                            |       |                                  |
| 20'                                                                               |                                   |              |                   |                       |                                                                                                                                                                           |                            |       |                                  |
| 25'                                                                               |                                   |              |                   |                       |                                                                                                                                                                           |                            |       |                                  |






**Remarks:**

1. Soil screened in field using Tiger LT Lite photoionization detector (PID) referenced to benzene in air. Readings in parts per million by volume.
2. Auger grinding 10'-11', auger refusal at 11'.
3. Soils wet, likely perched groundwater layer.
4. Drilling effort increases with depth starting at 5'.

**PROJECT NO.**  
**381-41-01**

**LOG OF BORING**  
**B-2**

|                                 |                                       |                     |             |                    |                                 |                         |     |
|---------------------------------|---------------------------------------|---------------------|-------------|--------------------|---------------------------------|-------------------------|-----|
| PROJECT                         | Westhampton Public Safety Complex     |                     |             | CONTRACTOR         | Seaboard Environmental Drilling |                         |     |
| JOB NUMBER                      | 381-41-01                             | FINAL DEPTH (ft)    | 20.4        | DRILLING EQUIPMENT | B-53 Truck Mounted Rig          |                         |     |
| LOCATION                        | Westhampton, MA                       | SURFACE ELEV (ft)   | 514.0       | FOREMAN            | Doug                            | CASING                  |     |
| START DATE                      | 11/9/2017                             | DISTURBED SAMPLES   | 6           | HELPER             | Al                              | CASE DIAMETER           | N/A |
| FINISH DATE                     | 11/9/2017                             | UNDISTURBED SAMPLES | 0           | BIT TYPE           | Hollow Stem Auger               | HAMMER WGT              | N/A |
| ENGINEER/SCIENTIST Matt Nichols |                                       |                     | WATER LEVEL | ROD TYPE           | A (1 5/8" O.D.)                 | HAMMER DROP             | N/A |
| BORING LOCATION                 | Northwest corner of proposed building | FIRST (ft)          | 10.0        | SAMPLER            | 2" O.D. Split Spoon             | ROCK CORING INFORMATION |     |
|                                 |                                       | LAST (ft)           | --          | HAMMER TYPE        | Safety                          | TYPE                    | N/A |
|                                 |                                       | TIME (hr)           | --          | HAMMER WGT/DROP    | 140 lb / 30" Wire Line          | SIZE                    | N/A |

| DEPTH (ft)/<br>SAMPLES                                                                  | SAMPLES                           |              |                   |                       | SAMPLE DESCRIPTION<br>(MODIFIED BURMISTER)                                                                                                                               | PROFILE                                |       | REMARKS/<br>WELL<br>CONSTRUCTION |
|-----------------------------------------------------------------------------------------|-----------------------------------|--------------|-------------------|-----------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------|-------|----------------------------------|
|                                                                                         | PENETR.<br>RESIST.<br>(bl / 6 in) | REC.<br>(in) | TYPE/<br>NO.      | FIELD<br>TEST<br>DATA |                                                                                                                                                                          | DEPTH<br>(ft)                          | ELEV. |                                  |
|        | 7/11/15/16                        | 14/24        | S-1<br>(0-2')     | 0.0                   | Top 1": Dark gray, crushed fine GRAVEL, dry<br>Bottom 13" Medium dense, brown, fine to medium SAND, some coarse sand,<br>little fine gravel, trace (+) silt, damp (FILL) | GRAVEL ROAD                            |       |                                  |
|                                                                                         | 14/9/9/12                         | 12/24        | S-2<br>(2-4')     | 0.0                   | Medium dense, light brown with occasional rust stains, fine to medium SAND,<br>some coarse sand, trace fine gravel, trace (-) silt, damp                                 | SAND AND<br>GRAVEL FILL<br>2.0 ↓ 512.0 |       |                                  |
| 5'     | 3/14/17/14                        | 14/24        | S-3<br>(5-7')     | 0.0                   | Dense, light brown to brown with occasional rust stains, fine to medium SAND,<br>some coarse sand, some fine gravel, trace silt, damp                                    | FINE TO<br>MEDIUM SAND<br>5.0 ↓ 509.0  |       |                                  |
| 10'  | 8/6/9/14                          | 10/24        | S-4<br>(10-12')   | 0.0                   | Medium dense, brown, fine SAND, some silt, some medium to coarse sand,<br>some fine gravel, wet                                                                          | ▽ 504.0<br>SILTY SAND                  |       |                                  |
| 15'  | 9/12/12/15                        | 20/24        | S-5<br>(15-17')   | 0.0                   | Medium dense, reddish brown, fine to medium SAND, trace coarse sand, trace silt, wet                                                                                     | 15.0 ↓ 499.0<br>FINE TO<br>MEDIUM SAND |       | 3.                               |
| 20'  | 50 for 5"                         | 0/5          | S-6<br>(20-20.4') | 0.0                   | NO RECOVERY (Blow-in sand observed in spoon)<br>Auger refusal at 20.4' upon likely cobble or boulder                                                                     | 20.4 ↓ 493.6                           |       |                                  |
| 25'                                                                                     |                                   |              |                   |                       |                                                                                                                                                                          |                                        |       |                                  |

## Remarks:

1. Soil screened in field using Tiger LT Lite photoionization detector (PID) referenced to benzene in air. Readings in parts per million by volume.
2. Auger grinding intermittently from 10'-20'.
3. Auger deflecting southwest at a depth of 15'-20'.
4. Multiple boulders (1'-3' diameter) observed at ground surface in vicinity of boring.
5. Drilling effort increases with depth starting at 5'.

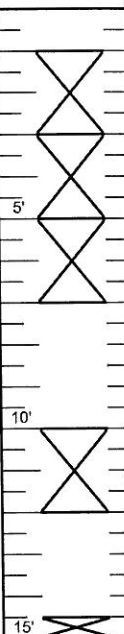
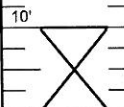

PROJECT NO.  
381-41-01

LOG OF BORING  
B-3

**LOG OF BORING B-4**

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|                                  |                                       |                     |       |                    |                                 |                         |     |
|----------------------------------|---------------------------------------|---------------------|-------|--------------------|---------------------------------|-------------------------|-----|
| PROJECT                          | Westhampton Public Safety Complex     |                     |       | CONTRACTOR         | Seaboard Environmental Drilling |                         |     |
| JOB NUMBER                       | 381-41-01                             | FINAL DEPTH (ft)    | 14.9  | DRILLING EQUIPMENT | B-53 Truck Mounted Rig          |                         |     |
| LOCATION                         | Westhampton, MA                       | SURFACE ELEV (ft)   | 513.6 | FOREMAN            | Doug                            | CASING                  |     |
| START DATE                       | 11/9/2017                             | DISTURBED SAMPLES   | 5     | HELPER             | Al                              | CASE DIAMETER           | N/A |
| FINISH DATE                      | 11/9/2017                             | UNDISTURBED SAMPLES | 0     | BIT TYPE           | Hollow Stem Auger               | HAMMER WGT              | N/A |
| ENGINEER/SCIENTIST: Matt Nichols |                                       | WATER LEVEL         |       | ROD TYPE           | A (1 5/8" O.D.)                 | HAMMER DROP             | N/A |
| BORING LOCATION                  | Northeast corner of proposed building | FIRST (ft)          | 10.0  | SAMPLER            | 2" O.D. Split Spoon             | ROCK CORING INFORMATION |     |
|                                  |                                       | LAST (ft)           | --    | HAMMER TYPE        | Safety                          | TYPE                    | N/A |
|                                  |                                       | TIME (hr)           | --    | HAMMER WGT/DROP    | 140 lb / 30" Wire Line          | SIZE                    | N/A |

| DEPTH (ft)/<br>SAMPLES                                                              | SAMPLES                           |              |                     |                       | SAMPLE DESCRIPTION<br>(MODIFIED BURMISTER)                                                                                                                                                                           | PROFILE                                          |       | REMARKS/<br>WELL<br>CONSTRUCTION |
|-------------------------------------------------------------------------------------|-----------------------------------|--------------|---------------------|-----------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------|-------|----------------------------------|
|                                                                                     | PENETR.<br>RESIST.<br>(bl / 6 in) | REC.<br>(in) | TYPE/<br>NO.        | FIELD<br>TEST<br>DATA |                                                                                                                                                                                                                      | DEPTH<br>(ft)                                    | ELEV. |                                  |
|   | 6/10/11/11                        | 14/24        | S-1<br>(1-3')       | 0.0                   | 4": Asphalt<br>8": Brown, fine to medium SAND, some coarse sand, some fine gravel, trace silt, damp (Sand and Gravel Base)<br>Medium dense, light brown, fine to medium SAND, some coarse sand, trace (-) silt, damp | ASPHALT<br>SAND AND GRAVEL BASE<br>GRANULAR FILL |       |                                  |
|                                                                                     | 11/9/8/11                         | 18/24        | S-2<br>(3-5')       | 0.0                   | Medium dense, light brown to gray with frequent rust partings, fine SAND, little to trace silt, damp                                                                                                                 | 3.0<br>FINE SAND                                 | 510.6 |                                  |
|                                                                                     | 4/7/10/10                         | 14/24        | S-3<br>(5-7')       | 0.0                   | Medium dense, light brown with occasional light rust partings, fine to medium SAND, trace coarse sand, trace (-) silt, damp                                                                                          | 5.0<br>FINE TO MEDIUM SAND                       | 508.6 |                                  |
|   | 7/8/8/8                           | 12/24        | S-4<br>(10-12')     | 0.0                   | Medium dense, brown, fine SAND, little to some silt, some medium to coarse sand, some fine gravel, wet                                                                                                               | ▽<br>SILTY SAND                                  | 503.6 | 2.                               |
|  | 50 for 4"                         | 2/4          | S-5<br>(14.5-14.9') | 0.0                   | Very dense, gray, fractured ROCK pieces, dry<br>Auger refusal at 14.9" upon likely cobble or boulder                                                                                                                 | 14.9                                             | 498.7 | 3.                               |


**Remarks:**

- Soil screened in field using Tiger LT Lite photoionization detector (PID) referenced to benzene in air. Readings in parts per million by volume.
- Auger grinding from 13'-14.9'.
- Auger plugged when removed from hole, sample possibly from plug material.
- Multiple boulders (1'-3' diameter) observed at ground surface in vicinity of boring.
- Drilling effort increases with depth starting at 5'.

**PROJECT NO.**  
**381-41-01**

**LOG OF BORING**  
**B-4**

|                    |                                   |                     |             |                    |                                 |                         |     |
|--------------------|-----------------------------------|---------------------|-------------|--------------------|---------------------------------|-------------------------|-----|
| PROJECT            | Westhampton Public Safety Complex |                     |             | CONTRACTOR         | Seaboard Environmental Drilling |                         |     |
| JOB NUMBER         | 381-41-01                         | FINAL DEPTH (ft)    | 10.3        | DRILLING EQUIPMENT | B-53 Truck Mounted Rig          |                         |     |
| LOCATION           | Westhampton, MA                   | SURFACE ELEV (ft)   | 513.5       | FOREMAN            | Doug                            | CASING                  |     |
| START DATE         | 11/9/2017                         | DISTURBED SAMPLES   | 4           | HELPER             | Al                              | CASE DIAMETER           | N/A |
| FINISH DATE        | 11/9/2017                         | UNDISTURBED SAMPLES | 0           | BIT TYPE           | Hollow Stem Auger               | HAMMER WGT              | N/A |
| ENGINEER/SCIENTIST |                                   | Matt Nichols        | WATER LEVEL | ROD TYPE           | A (1 5/8" O.D.)                 | HAMMER DROP             | N/A |
| BORING LOCATION    | Center of proposed building       | FIRST (ft)          | N/E         | SAMPLER            | 2" O.D. Split Spoon             | ROCK CORING INFORMATION |     |
|                    |                                   | LAST (ft)           | N/E         | HAMMER TYPE        | Safety                          | TYPE                    | N/A |
|                    |                                   | TIME (hr)           | N/E         | HAMMER WGT/DROP    | 140 lb / 30" Wire Line          | SIZE                    | N/A |

| DEPTH (ft)/<br>SAMPLES                                                            | SAMPLES                           |              |                   |                       | SAMPLE DESCRIPTION<br>(MODIFIED BURMISTER)                                                                                                                                                                              | PROFILE                            |       | REMARKS/<br>WELL<br>CONSTRUCTION |
|-----------------------------------------------------------------------------------|-----------------------------------|--------------|-------------------|-----------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------|-------|----------------------------------|
|                                                                                   | PENETR.<br>RESIST.<br>(bl / 6 in) | REC.<br>(in) | TYPE/<br>NO.      | FIELD<br>TEST<br>DATA |                                                                                                                                                                                                                         | DEPTH<br>(ft)                      | ELEV. |                                  |
|  | 15/15/17/20                       | 14/24        | S-1<br>(0-2')     | 0.0                   | Top 1": Dark gray, crushed fine GRAVEL, dry<br>Middle 11": Dense, brown, fine to medium SAND, some coarse sand, some fine gravel, trace silt, damp (FILL)<br>Bottom 2": Dense, light brown, fine SAND, trace silt, damp | GRAVEL ROAD                        |       | 2., 3.<br><br>6.                 |
|                                                                                   | 18/20/19/19                       | 14/24        | S-2<br>(2-4')     | 0.0                   | Dense, light brown, fine to medium SAND, some coarse sand, little fine gravel, trace silt, damp                                                                                                                         | FILL<br>↓<br>1.5                   | 512.0 |                                  |
|                                                                                   |                                   |              |                   |                       |                                                                                                                                                                                                                         | FINE TO<br>MEDIUM SAND<br>↓<br>5.0 | 508.5 |                                  |
| 5'                                                                                | 6/38/50 for 5"                    | 10/24        | S-3<br>(5-6.4')   | 0.0                   | Very dense, brown-gray, fine to medium SAND, some coarse sand, some fine gravel, trace silt, damp                                                                                                                       | GRAVELLY SAND<br>↓                 |       |                                  |
|                                                                                   |                                   |              |                   |                       |                                                                                                                                                                                                                         |                                    |       |                                  |
|                                                                                   |                                   |              |                   |                       |                                                                                                                                                                                                                         |                                    |       |                                  |
| 10'                                                                               | 50 for 3"                         | 2/3          | S-4<br>(10-10.3') | 0.0                   | Very dense, gray, fractured ROCK pieces, dry<br>Auger refusal at 10.3" upon likely cobble or boulder                                                                                                                    | 10.3                               | 503.2 |                                  |
| 15'                                                                               |                                   |              |                   |                       |                                                                                                                                                                                                                         |                                    |       |                                  |
| 20'                                                                               |                                   |              |                   |                       |                                                                                                                                                                                                                         |                                    |       |                                  |
| 25'                                                                               |                                   |              |                   |                       |                                                                                                                                                                                                                         |                                    |       |                                  |

## Remarks:

1. Soil screened in field using Tiger T Lite photoionization detector (PID) referenced to benzene in air. Readings in parts per million by volume.
2. Auger deflecting Northwest from 5'-10", driller adjusted rig to correct auger angle.
3. Auger grinding from 5'-10", auger refusal at 10", spoon refusal at 10.3'.
4. Offset 10' west.
5. Sand and gravel observed in cuttings from 0'-10" at offset location.
6. Auger grinding from 7'-10", auger/spoon refusal at 10'.
7. Drilling effort increases with depth starting at 5'.

PROJECT NO.  
381-41-01

LOG OF BORING  
B-5



# LOG OF TEST PIT TP-1

|                   |                                   |             |             |                     |          |
|-------------------|-----------------------------------|-------------|-------------|---------------------|----------|
| PROJECT           | Westhampton Public Safety Complex |             | CONTRACTOR  | Westhampton HW Dep. |          |
| JOB NO.           | 381-41-01                         | DATE        | 11/15/2017  | OPERATOR            | Bill     |
| LOCATION          | Westhampton, MA                   | WEATHER     | Sunny, 40's | BACKHOE             | JCB 2155 |
| TEST PIT LOCATION | Northwest Storm Drainage Test Pit | START TIME  | 9:30        | CAPACITY (cy)       | 1/2      |
|                   |                                   | FINISH TIME | 9:50        | GS ELEV. (ft)       | 513.5    |
|                   |                                   | OTO STAFF   | SMM         | FINAL DEPTH (ft)    | 8.0      |

| DEPTH (ft) | SOIL DESCRIPTION                                                                                              | EXCAV. EFFORT | BOULDERS/ COBBLES SIZE | COUNT | SAMPLE NO. | FIELD TEST DATA | REMARKS |
|------------|---------------------------------------------------------------------------------------------------------------|---------------|------------------------|-------|------------|-----------------|---------|
| 1'         | Top 3": Dark gray, crushed fine GRAVEL, dry<br>Brown, fine to medium SAND, trace coarse sand, trace silt, dry | E             | --                     | --    | --         | --              |         |
| 2'         | 3" Brown, fine GRAVEL, little coarse sand, dry                                                                | E             | --                     | --    | --         | --              |         |
| 3'         | Light brown, fine SAND, trace to little silt, dry                                                             | E             | --                     | --    | --         | --              |         |
| 4'         |                                                                                                               |               |                        |       |            |                 |         |
| 5'         |                                                                                                               |               |                        |       |            |                 |         |
| 6'         | Brown, fine to medium SAND, trace coarse sand, trace silt, dry                                                | E             | --                     | --    | --         | --              |         |
| 7'         |                                                                                                               |               |                        |       |            |                 |         |
| 8'         | End of exploration at 8'                                                                                      |               |                        |       |            |                 |         |
| 9'         |                                                                                                               |               |                        |       |            |                 |         |
| 10'        |                                                                                                               |               |                        |       |            |                 |         |
| 11'        |                                                                                                               |               |                        |       |            |                 |         |

| TEST PIT PLAN | EXCAVATION EFFORT                                                           | BOULDER/COBBLE CLASS                                                                                           | PROPORTIONS USED                                                                                                             | GROUNDWATER CONDITIONS                                                                              |
|---------------|-----------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------|
|               | Easy .... E<br>Moderate .... M<br>Difficult .... D<br>Very Difficult .... V | Type      Size<br>Cobble    3" - 6"<br>Small      6" - 18"<br>Medium    18" - 36"<br>Large      36" and Larger | Term      Relative Quantity<br>and        35% - 50%<br>some      20% - 35%<br>little     10% - 20%<br>trace      10% or less | GW Encountered?: N/E<br><br>GW Depth (ft): N/E<br>GW Elevation (ft): N/E<br>Elapsed Time (min): N/E |

|                                                                              |                         |
|------------------------------------------------------------------------------|-------------------------|
| Remarks:<br>1. No obvious indications of ESHGWT or saturated soil conditions | PROJECT NO.             |
|                                                                              | 381-41-01               |
|                                                                              | LOG OF TEST PIT<br>TP-1 |



# LOG OF TEST PIT TP-4

|                   |                                   |             |             |                  |                     |  |
|-------------------|-----------------------------------|-------------|-------------|------------------|---------------------|--|
| PROJECT           | Westhampton Public Safety Complex |             |             | CONTRACTOR       | Westhampton HW Dep. |  |
| JOB NO.           | 381-41-01                         | DATE        | 11/15/2017  | OPERATOR         | Bill                |  |
| LOCATION          | Westhampton, MA                   | WEATHER     | Sunny, 40's | BACKHOE          | JCB 2155            |  |
| TEST PIT LOCATION | Southwest Storm Drainage Test Pit | START TIME  | 10:45       | CAPACITY (cy)    | 1/2                 |  |
|                   |                                   | FINISH TIME | 11:00       | GS ELEV. (ft)    | 516.5               |  |
|                   |                                   | OTO STAFF   | SMM         | FINAL DEPTH (ft) | 10.0                |  |

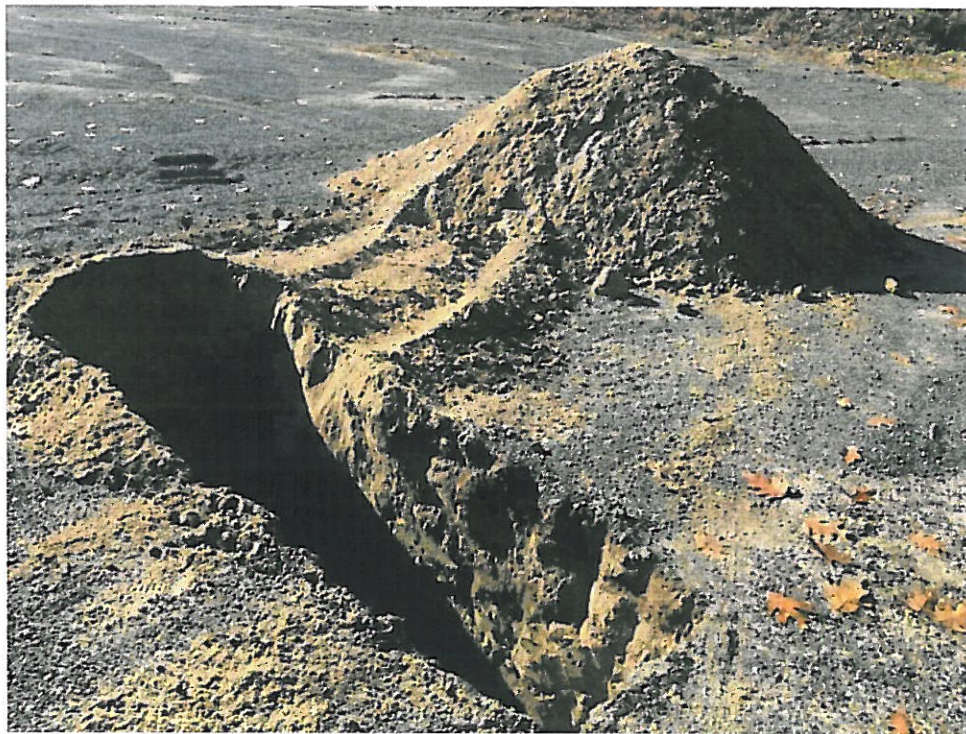
| DEPTH (ft) | SOIL DESCRIPTION                                                                                                          | EXCAV. EFFORT | BOULDERS/ COBBLES CLASS | COUNT | SAMPLE NO. | FIELD TEST DATA | REMARKS |
|------------|---------------------------------------------------------------------------------------------------------------------------|---------------|-------------------------|-------|------------|-----------------|---------|
|            | Top 3": Dark gray, crushed fine GRAVEL, dry                                                                               | E             | --                      | --    | --         | --              |         |
| 1'         | Brown, fine to medium SAND, trace silt, dry                                                                               | E             | --                      | --    | --         | --              |         |
| 2'         |                                                                                                                           |               |                         |       |            |                 |         |
| 3'         |                                                                                                                           |               |                         |       |            |                 |         |
| 4'         | Brown, medium to coarse SAND, little fine gravel, trace fine sand, trace (-) silt, dry                                    | E             | --                      | --    | --         | --              |         |
| 5'         |                                                                                                                           |               |                         |       |            |                 |         |
| 6'         | Light gray, fine SAND, little silt, moist                                                                                 | E             | --                      | --    | --         | --              |         |
| 7'         |                                                                                                                           |               |                         |       |            |                 |         |
| 8'         |                                                                                                                           |               |                         |       |            |                 |         |
| 9'         | Gray, fine SAND, little silt, little gravel, trace coarse sand, trace medium sand, water entering at bottom of excavation | E-M           | 3-6"                    | ~5    | --         | --              |         |
|            | Occasional cobbles                                                                                                        |               |                         |       |            |                 |         |
| 10'        | End of exploration at 10'                                                                                                 |               |                         |       |            |                 |         |
| 11'        |                                                                                                                           |               |                         |       |            |                 |         |

| TEST PIT PLAN | EXCAVATION EFFORT                                                       | BOULDER/COBBLE CLASS                                                                                           | PROPORTIONS USED                                                                                                         | GROUNDWATER CONDITIONS                                                                                |
|---------------|-------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------|
|               | Easy ....E<br>Moderate ....M<br>Difficult ....D<br>Very Difficult ....V | Type      Size<br>Cobble    3" - 6"<br>Small      6" - 18"<br>Medium    18" - 36"<br>Large      36" and Larger | Term      Relative Quantity<br>and       35% - 50%<br>some     20% - 35%<br>little    10% - 20%<br>trace     10% or less | GW Encountered?: Yes<br><br>GW Depth (ft): 10.0<br>GW Elevation (ft): 506.5<br>Elapsed Time (min): -- |

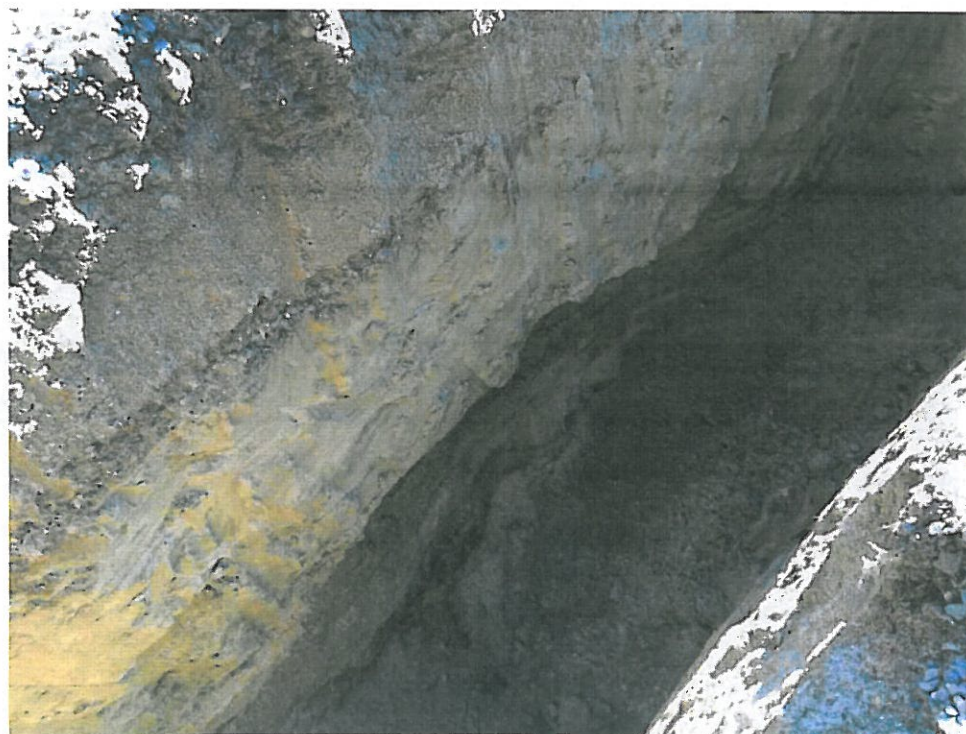
|                                                                                                                                                                                                                                                                                                                                                                              |                         |
|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------|
| Remarks:<br>1. Groundwater seeping into bottom of excavation.<br>2. Infiltration performed within test pit at approximately 5 feet below ground surface.<br>3. Estimated depth to high groundwater assumed at 10 feet, due to groundwater in bottom of test pit.<br>Unable to observe indications of high groundwater at groundwater table due to depth and stability of pit | PROJECT NO.             |
|                                                                                                                                                                                                                                                                                                                                                                              | 381-41-01               |
|                                                                                                                                                                                                                                                                                                                                                                              | LOG OF TEST PIT<br>TP-4 |



# PHOTOGRAPHS

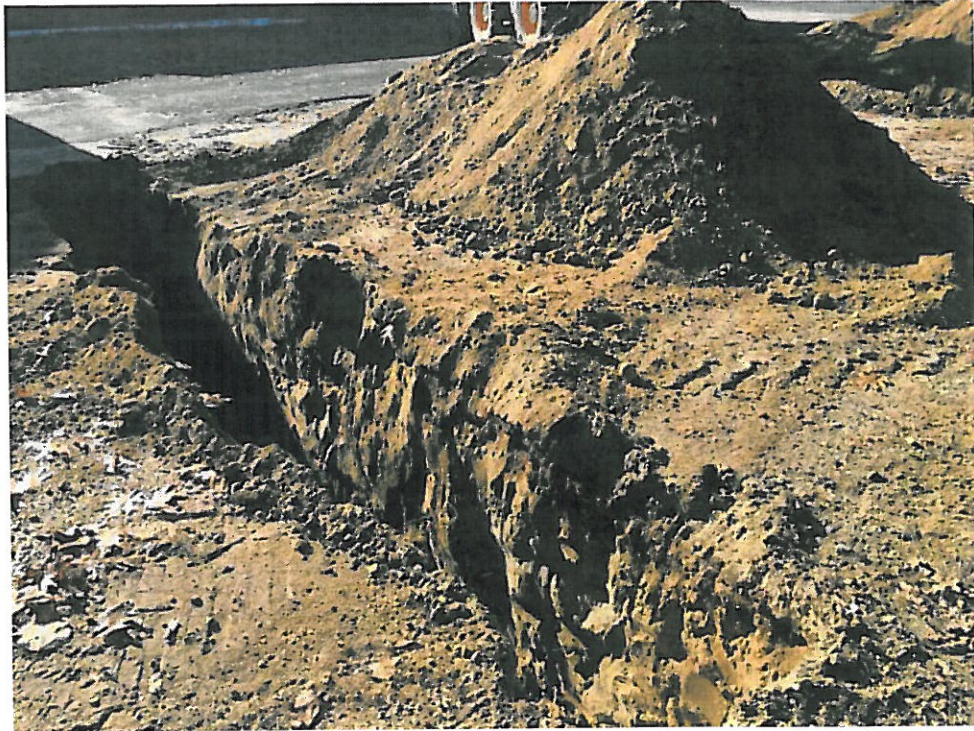


TP-1

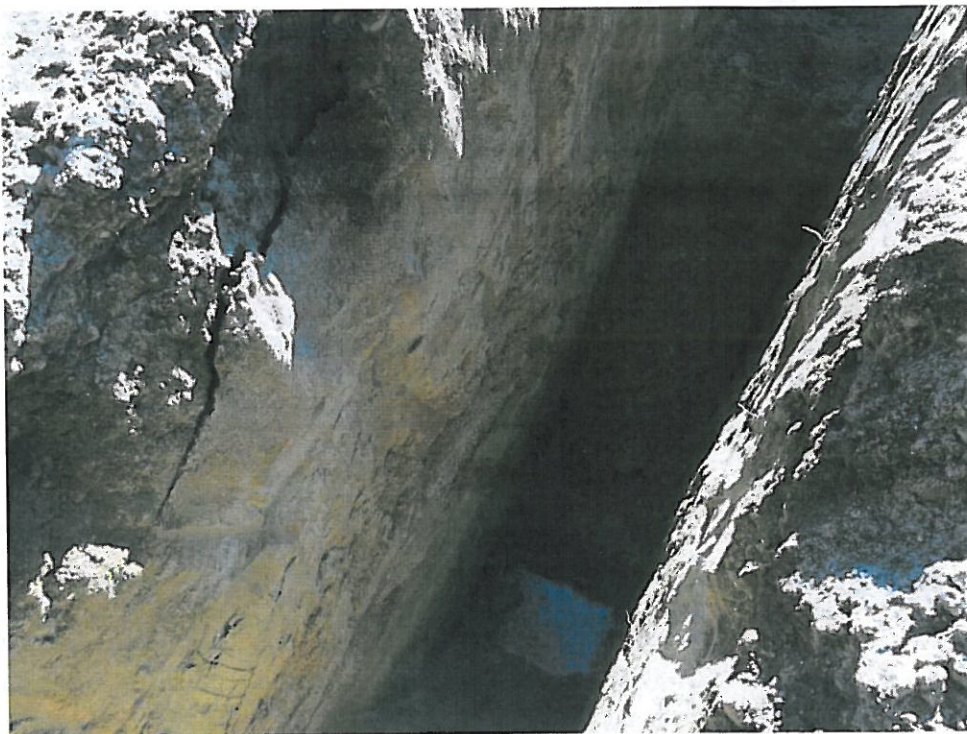


TP-1





TP-2



TP-2





TP-3



TP-3





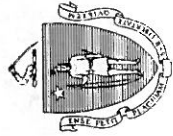
TP-4



TP-4

# Soil Forms for On-Site Sewage Disposal





Commonwealth of Massachusetts  
City/Town of Westhampton  
**Form 11 - Soil Suitability Assessment for On-Site Sewage Disposal**

**A. Facility Information**

Town of Westhampton Public Safety Complex

Owner Name

48 Stage Road

Street Address

Westhampton

City

Ma

State

Map/Lot #

Zip Code

**B. Site Information**

1. (Check one) ☒ New Construction ☐ Upgrade ☐ Repair

2. Soil Survey Available? ☒ Yes ☐ No

If yes: NRCs Web Soil Survey Source 254B Soil Map Unit

Merrimac fine sandy loam (3-8% slopes)

None Soil Limitations

Loamy glaciofluvial deposits over sand and gravelly glaciofluvial deposits

Outwash plain, Outwash terrace Landform

3. Surficial Geological Report Available? ☒ Yes ☐ No

If yes: 2010/USGS Year Published/Source 1:24,000 Publication Scale Coarse Deposits

4. Flood Rate Insurance Map

Above the 500-year flood boundary? ☒ Yes ☐ No  
If Yes, continue to #5.

Within the 100-year flood boundary? ☐ Yes ☒ No

5. Within a velocity zone? ☐ Yes ☒ No

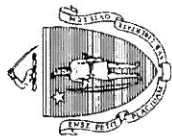
6. Within a Mapped Wetland Area? ☐ Yes ☒ No

MassGIS Wetland Data Layer: DEP Wetlands layer Wetland Type

7. Current Water Resource Conditions (USGS): 8/2017 Month/Year

Range: ☐ Above Normal ☒ Normal ☐ Below Normal

8. Other references reviewed:



Commonwealth of Massachusetts  
City/Town of Westhampton

## Form 11 - Soil Suitability Assessment for On-Site Sewage Disposal

### C. On-Site Review (minimum of two holes required at every proposed primary and reserve disposal area)

Deep Observation Hole Number: TP-2 11/15/2017 09:00 Sunny, 40s  
Date Time Weather

1. Location

Ground Elevation at Surface of Hole: \_\_\_\_\_ feet Latitude/Longitude: \_\_\_\_\_ / \_\_\_\_\_

Description of Location: North side of existing building

2. Land Use Municipal parking lot None 0-3  
(e.g., woodland, agricultural field, vacant lot, etc.) Surface Stones (e.g., cobbles, stones, boulders, etc.) Slope (%)

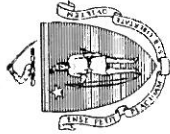
None Outwash terrace SU  
Vegetation Landform Position on Landscape (SU, SH, BS, FS, TS)  
3. Distances from: Open Water Body >70 >100 Wetlands >70  
feet feet feet feet  
Property Line >10 >100 Other feet  
feet feet feet feet

4. Parent Material: Glaciofluvial deposits Unsuitable Materials Present: ☐ Yes ☒ No

If Yes: ☐ Disturbed Soil ☐ Fill Material ☐ Impervious Layer(s) ☐ Weathered/Fractured Rock ☐ Bedrock

5. Groundwater Observed: ☒ Yes ☐ No If yes: 116" 116"  
Depth Weeping from Pit Depth Standing Water in Hole

Estimated Depth to High Groundwater: 114 inches elevation



Commonwealth of Massachusetts  
City/Town of Westhampton

**Form 11 - Soil Suitability Assessment for On-Site Sewage Disposal**

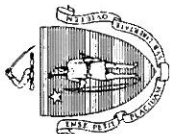
**C. On-Site Review (continued)**

Deep Observation Hole Number: TP-2

| Depth (in.) | Soil Horizon/<br>Layer | Soil Matrix: Color-<br>Moist (Munsell) | Redoximorphic Features |          |         | Soil Texture<br>(USDA) | Coarse Fragments<br>% by Volume |                     | Soil Structure | Soil<br>Consistence<br>(Moist) | Other |
|-------------|------------------------|----------------------------------------|------------------------|----------|---------|------------------------|---------------------------------|---------------------|----------------|--------------------------------|-------|
|             |                        |                                        | Depth                  | Color    | Percent |                        | Gravel                          | Cobbles<br>& Stones |                |                                |       |
| 0-12        | FILL                   | -                                      | -                      | -        | -       | -                      | -                               | -                   | -              | -                              |       |
| 12-41       | C                      | 2.5Y6/3                                | -                      | -        | -       | Sand                   | -                               | -                   | Single Grain   | Loose                          |       |
| 41-57       | C2                     | 2.5Y6/4                                | -                      | -        | -       | Sand                   | 20                              | -                   | Single Grain   | Loose                          |       |
| 57-96       | C3                     | 2.5Y6/3                                | -                      | -        | -       | Loamy Sand             | -                               | -                   | Massive        | Friable                        |       |
| 96-120      | C4                     | 10YR6/2                                | 114                    | See Note |         | Sand                   | 20                              | -                   | Single Grain   | Loose                          |       |
|             |                        |                                        |                        |          |         |                        |                                 |                     |                |                                |       |
|             |                        |                                        |                        |          |         |                        |                                 |                     |                |                                |       |

Additional Notes:

Stained layer observed at 114", likely redox features due to observed groundwater in bottom of pit, unable to retrieve sample



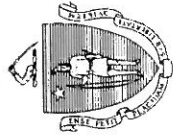
Commonwealth of Massachusetts  
City/Town of Westhampton

Form 11 - Soil Suitability Assessment for On-Site Sewage Disposal

C. On-Site Review (continued)

Deep Observation Hole Number: TP-3 Date: 11/15/2017 Time: 10:00 Sunny, 40s Weather

1. Location  
Ground Elevation at Surface of Hole: \_\_\_\_\_ feet Latitude/Longitude: \_\_\_\_\_ / \_\_\_\_\_
2. Land Use  
North side of existing building  
(e.g., woodland, agricultural field, vacant lot, etc.)  
None  
Vegetation  
Outwash terrace  
Landform  
Surface Stones (e.g., cobbles, stones, boulders, etc.)  
SU  
Position on Landscape (SU, SH, BS, FS, Wetlands  
Other  
Slope (%)  
0-3
3. Distances from:  
Open Water Body >70 feet  
Property Line >10 feet  
Drinking Water Well >100 feet  
Wetlands >70 feet  
Other  
feet
4. Parent Material: Glaciofluvial deposits  
Unsuitable Materials Present: ☐ Yes ☒ No
- If Yes: ☐ Disturbed Soil ☐ Fill Material ☐ Impervious Layer(s) ☐ Weathered/Fractured Rock ☐ Bedrock
5. Groundwater Observed: ☐ Yes ☒ No  
If yes: \_\_\_\_\_  
Estimated Depth to High Groundwater: 120+ inches  
Depth Weeping from Pit \_\_\_\_\_  
Depth Standing Water in Hole \_\_\_\_\_  
elevation



Commonwealth of Massachusetts  
City/Town of Westhampton

**Form 11 - Soil Suitability Assessment for On-Site Sewage Disposal**

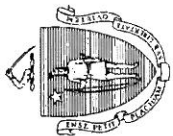
**C. On-Site Review** (continued)

Deep Observation Hole Number: \_\_\_\_\_

TP-3

| Depth (in.) | Soil Horizon/<br>Layer | Soil Matrix: Color-<br>Moist (Munsell) | Redoximorphic Features |       |         | Soil Texture<br>(USDA) | Coarse Fragments<br>% by Volume |                     | Soil Structure | Soil<br>Consistence<br>(Moist) | Other |
|-------------|------------------------|----------------------------------------|------------------------|-------|---------|------------------------|---------------------------------|---------------------|----------------|--------------------------------|-------|
|             |                        |                                        | Depth                  | Color | Percent |                        | Gravel                          | Cobbles<br>& Stones |                |                                |       |
| 0-10        | FILL                   | -                                      | -                      | -     | -       | -                      | -                               | -                   | -              | -                              |       |
| 10-40       | C                      | 10YR6/2                                | -                      | -     | -       | Sand                   | -                               | -                   | Single Grain   | Loose                          |       |
| 40-84       | C2                     | 2.5Y6/2                                | -                      | -     | -       | Loamy Sand             | -                               | -                   | Massive        | Friable                        |       |
| 84-120      | C3                     | 10YR5/3                                | -                      | -     | -       | Sand                   | 10                              | -                   | Single Grain   | Loose                          |       |
|             |                        |                                        |                        |       |         |                        |                                 |                     |                |                                |       |
|             |                        |                                        |                        |       |         |                        |                                 |                     |                |                                |       |
|             |                        |                                        |                        |       |         |                        |                                 |                     |                |                                |       |

Additional Notes:



Commonwealth of Massachusetts  
City/Town of Westhampton

Form 11 - Soil Suitability Assessment for On-Site Sewage Disposal

D. Determination of High Groundwater Elevation

1. Method Used:

- ☒ Depth observed standing water in observation hole
- ☐ Depth weeping from side of observation hole
- ☒ Depth to soil redoximorphic features (mottles)
- ☐ Depth to adjusted seasonal high groundwater ( $S_h$ ) (USGS methodology)

| Obs. Hole #TP-2 | Obs. Hole #TP-3 |
|-----------------|-----------------|
| 116<br>inches   | -<br>inches     |
| -<br>inches     | -<br>inches     |
| 114<br>inches   | -<br>inches     |
| -<br>inches     | -<br>inches     |

Reading Date

Index Well Number

$$S_h = S_c - [S_r \times (OW_c - OW_{max}) / OW_r]$$

Obs. Hole #       $S_c$        $S_r$        $OW_c$        $OW_{max}$        $OW_r$        $S_h$

Obs. Hole #       $S_c$        $S_r$        $OW_c$        $OW_{max}$        $OW_r$        $S_h$

E. Depth of Pervious Material

1. Depth of Naturally Occurring Pervious Material

- a. Does at least four feet of naturally occurring pervious material exist in all areas observed throughout the area proposed for the soil absorption system?

☒ Yes      ☐ No

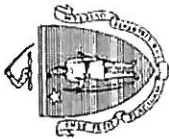
- b. If yes, at what depth was it observed?

Upper boundary: 12 inches      Lower boundary: 120+ inches

- c. If no, at what depth was impervious material observed?

Upper boundary: - inches      Lower boundary: - inches





Commonwealth of Massachusetts  
City/Town of

## Form 11 - Soil Suitability Assessment for On-Site Sewage Disposal

### F. Board of Health Witness

Ron Lavin  
Name of Board of Health Witness

[Signature]  
Board of Health

### G. Soil Evaluator Certification

I certify that I am currently approved by the Department of Environmental Protection pursuant to 310 CMR 15.017 to conduct soil evaluations and that the above analysis has been performed by me consistent with the required training, expertise and experience described in 310 CMR 15.017. I further certify that the results of my soil evaluation, as indicated in the attached Soil Evaluation Form, are accurate and in accordance with 310 CMR 15.100 through 15.107.

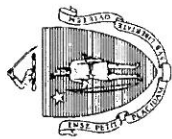
[Signature]  
Signature of Soil Evaluator

11/15/17  
Date

Stephen McLoughlin SE 14134  
Typed or Printed Name of Soil Evaluator / License #

7/1/2020  
Expiration Date of License

**Note:** In accordance with 310 CMR 15.018(2) this form must be submitted to the approving authority within 60 days of the date of field testing, and to the designer and the property owner with Percolation Test Form 12.



Commonwealth of Massachusetts  
City/Town of Westhampton

## Form 11 - Soil Suitability Assessment for On-Site Sewage Disposal

### Field Diagrams

Use this sheet for field diagrams:

See Attached Geotechnical Report

# Infiltration Test - Guelph Permeameter

|                  |                                         |
|------------------|-----------------------------------------|
| Location         | Test Pit 2                              |
| Date             | 11/15/2017                              |
| Soil Type Tested | fine Sand with trace-little silt, dry   |
| Description      | Test completed 71" below ground surface |

|                      |       |
|----------------------|-------|
| H <sub>1</sub> (cm)  | 5     |
| X (cm <sup>2</sup> ) | 35.22 |
| Y (cm <sup>2</sup> ) | 2.16  |
| Depth of Well Hole   | 71 in |

| Reading | Time (min) | Time Interval (min) | Water Level in Reservoir (cm) | Water Level Change (cm) | Rate of Water Level Change (R1) (cm/min) |
|---------|------------|---------------------|-------------------------------|-------------------------|------------------------------------------|
| 1       | 0          | -                   | 8.2                           | -                       | -                                        |
| 2       | 0:15       | 0.25                | 10.2                          | 2.0                     | 8.0                                      |
| 3       | 0:30       | 0.25                | 11.1                          | 0.9                     | 3.6                                      |
| 4       | 0:45       | 0.25                | 12.0                          | 0.9                     | 3.6                                      |
| 5       | 1:00       | 0.25                | 12.7                          | 0.7                     | 2.8                                      |
| 6       | 1:15       | 0.25                | 13.5                          | 0.8                     | 3.2                                      |
| 7       | 1:30       | 0.25                | 14.1                          | 0.6                     | 2.4                                      |
| 8       | 1:45       | 0.25                | 14.9                          | 0.8                     | 3.2                                      |
| 9       | 2:00       | 0.25                | 15.6                          | 0.7                     | 2.8                                      |
| 10      | 2:15       | 0.25                | 16.3                          | 0.7                     | 2.8                                      |
| 11      | 2:30       | 0.25                | 17.1                          | 0.8                     | 3.2                                      |
| 12      | 2:45       | 0.25                | 17.8                          | 0.7                     | 2.8                                      |
| 13      | 3:00       | 0.25                | 18.5                          | 0.7                     | 2.8                                      |
| 14      | 3:15       | 0.25                | 19.3                          | 0.8                     | 3.2                                      |
| 15      | 3:30       | 0.25                | 19.9                          | 0.6                     | 2.4                                      |

Avg R<sub>1</sub>

|                 |           |
|-----------------|-----------|
| Avg R1 (cm/min) | 2.8       |
| Avg R1 (cm/sec) | 0.0466667 |
| a (cm)          | 3         |
| C1              | 0.8031543 |

Average rate of fall of water

Well Radius

Shape Factor

C1 (Sand)

C2 (Structured loam and clays)

C3 (Unstructured clays)

$$((H/a)/(2.074+0.093*(H/a)))^{0.754}$$

$$((H/a)/(1.992+0.091*(H/a)))^{0.683}$$

$$((H/a)/(2.081+0.121*(H/a)))^{0.672}$$

For α\*

≥ 0.12

= 0.04

= 0.01

|                        |      |
|------------------------|------|
| α* (cm <sup>-1</sup> ) | 0.12 |
|------------------------|------|

Soil Structure Category

0.01

Compacted, structureless, clayey or silty material (landfill caps/liners)

0.04

Unstructured and fine textured soil (clayey or silty, may include some fine sand)

0.12

Most structured soil, from clays through loam; also includes unstructured medium and fine sands.

0.36

Coarse and gravelly sands, may also include some highly structured soils with large/numerous cracks, macropores, etc.

## One Head Analysis

|                          |           |
|--------------------------|-----------|
| K <sub>fs</sub> (cm/sec) | 0.0029894 |
| K <sub>fs</sub> (ft/day) | 8.47      |

Field Sat. Hyd. Cond.  $(C1 \cdot X \cdot \text{Avg} R1) / (2 \cdot \pi \cdot H_1^2 + \pi \cdot a^2 \cdot C1 + 2 \cdot \pi \cdot (H1/\alpha^*))$

# Infiltration Test - Guelph Permeameter

|                  |                                         |
|------------------|-----------------------------------------|
| Location         | Test Pit 3                              |
| Date             | 11/15/2017                              |
| Soil Type Tested | fine Sand with trace-little silt, dry   |
| Description      | Test completed 60" below ground surface |

|                      |       |
|----------------------|-------|
| H <sub>1</sub> (cm)  | 5     |
| X (cm <sup>2</sup> ) | 35.22 |
| Y (cm <sup>2</sup> ) | 2.16  |
| Depth of Well Hole   | 60 in |

| Reading | Time (min) | Time Interval (min) | Water Level in Reservoir (cm) | Water Level Change (cm) | Rate of Water Level Change (R1) (cm/min) |
|---------|------------|---------------------|-------------------------------|-------------------------|------------------------------------------|
| 1       | 0          | -                   | 23.8                          | -                       | -                                        |
| 2       | 0.15       | 0.25                | -                             | -                       | -                                        |
| 3       | 0.30       | 0.25                | 28.0                          | -                       | -                                        |
| 4       | 0.45       | 0.25                | 29.0                          | 1.0                     | 4.0                                      |
| 5       | 1:00       | 0.25                | 29.9                          | 0.9                     | 3.6                                      |
| 6       | 1:15       | 0.25                | 30.9                          | 1.0                     | 4.0                                      |
| 7       | 1:30       | 0.25                | 31.9                          | 1.0                     | 4.0                                      |
| 8       | 1:45       | 0.25                | 32.7                          | 0.8                     | 3.2                                      |
| 9       | 2:00       | 0.25                | 33.6                          | 0.9                     | 3.6                                      |
| 10      | 2:15       | 0.25                | 34.5                          | 0.9                     | 3.6                                      |
| 11      | 2:30       | 0.25                | 35.3                          | 0.8                     | 3.2                                      |
| 12      | 2:45       | 0.25                | 36.2                          | 0.9                     | 3.6                                      |
| 13      | 3:00       | 0.25                | 37.0                          | 0.8                     | 3.2                                      |
| 14      | 3:15       | 0.25                | 37.9                          | 0.9                     | 3.6                                      |
| 15      | 3:30       | 0.25                | 38.6                          | 0.7                     | 2.8                                      |

Avg R<sub>1</sub> 3.5

|                 |           |
|-----------------|-----------|
| Avg R1 (cm/min) | 3.5       |
| Avg R1 (cm/sec) | 0.0583333 |
| a (cm)          | 3         |
| C1              | 0.8031543 |

Average rate of fall of water

Well Radius

Shape Factor

C1 (Sand)

C2 (Structured loam and clays)

C3 (Unstructured clays)

$$((H/a)/(2.074+0.093*(H/a)))^{0.754}$$

$$((H/a)/(1.992+0.091*(H/a)))^{0.683}$$

$$((H/a)/(2.081+0.121*(H/a)))^{0.672}$$

For α\*

≥ 0.12

= 0.04

= 0.01

|                        |      |
|------------------------|------|
| α* (cm <sup>-1</sup> ) | 0.12 |
|------------------------|------|

Soil Structure Category

0.01

Compacted, structureless, clayey or silty material (landfill caps/liners)

0.04

Unstructured and fine textured soil (clayey or silty, may include some fine sand)

0.12

Most structured soil, from clays through loam; also includes unstructured medium and fine sands.

0.36

Coarse and gravelly sands, may also include some highly structured soils with large/numerous cracks, macropores, etc.

## One Head Analysis

|                          |           |
|--------------------------|-----------|
| K <sub>fs</sub> (cm/sec) | 0.0037367 |
| K <sub>fs</sub> (ft/day) | 10.59     |

$$\text{Field Sat. Hyd. Cond. } (C1 \cdot X \cdot \text{AvgR1}) / (2 \cdot \pi \cdot H_1^2 + \pi \cdot a^2 \cdot C1 + 2 \cdot \pi \cdot (H1/\alpha^*))$$





## **Town of Westhampton, Massachusetts Feasibility and Conceptual Design/Cost Estimation Study for the Development/Renovation of a Public Safety Complex**

### **1. General Information**

The Town of Westhampton (pop. 1,607 - 2010 census), located in Hampshire County, Massachusetts, through its Public Safety Complex Planning Committee requests proposals from registered architects, engineers or other firms/individuals to conduct a detailed feasibility, conceptual design and cost estimation study for a municipal public safety complex. All interested parties must submit responses in conformance with this Request for Qualifications (RFQ) to the Board of Selectmen's Office at 1 South Road, Westhampton, MA 01027. This RFQ shall be governed by the Town of Westhampton's Designer Selection Procedure and M.G.L. c.7, Section 44-57.

This RFQ is being developed under the authority of the Westhampton Board of Selectmen and will be managed by the Westhampton Public Safety Complex Planning Committee acting on behalf of the Town of Westhampton. The architectural firm or individual architect that receives the award presented by this RFQ may also be considered for the final design services contract. Should the Town support and fund subsequent project(s) based on this feasibility and conceptual design study, the Town will issue a subsequent Request for Proposals (RFP) for the required architectural services at that time.

### **2. Submission Deadline and Instruction**

Proposals shall be addressed to **Steve Holt, Chairman, Westhampton Public Safety Complex Planning Committee** and must be submitted on the Application to Designer Selection Committee Form, a copy of which is included in this RFQ under Attachment A. All responses must be delivered in a sealed envelope marked **"Request for Proposals: Public Safety Complex Feasibility Study, Conceptual Design and Cost Estimation Study,"** with the applicant's name and address. All responses shall include a non-price proposal only. No fee proposal shall be submitted since the final fee will be negotiated with the vendor deemed to be most qualified to fit the needs of the Town of Westhampton. Five copies of the proposal



are required. The proposal shall also include the name, title and/or position, role, and a current resume for everyone who will contribute to this project.

Applicants must also execute and include a sealed submission of a Certificate of Non- Collusion (Attachment B) and a Certificate of Tax Compliance (Attachment C) as required by law. The Town reserves the right to accept any proposal in whole or in part, and to reject all proposals if it shall be deemed in the best interest of the Town to do so.

Proposals must be signed as follows: (1) if the applicant is an individual, by her/him personally; (2) if the applicant is a partnership, by the name of the partnership, followed by the signature of each general partner; and (3) if the applicant is a corporation, by the authorized officer, whose signature must be attested to by the Clerk/Secretary of the corporation and the corporate seal affixed.

All proposals must contain 5 (five) copies, be sealed, and be received and registered by the Administrative Assistant at the Westhampton Town Hall, 1 South Road, Westhampton, MA 01027, **no later than 1:00p.m. Eastern Standard Time on Thursday March 16, 2017**, at which time all proposals will be publicly opened and recorded. No proposals will be accepted after the time and date noted. The Town Offices are open Tuesday, Wednesday and Thursdays between 9:00 a.m. and 1:00 p.m., but closed Tuesday and Wednesday March 14 and 15. If at the time of the scheduled opening, Town Offices are closed due to uncontrolled events, the opening will be postponed until 10:00 a.m. on the next normal business day. Proposals will be accepted until that date and time.

### **3. Questions, Addendum or Proposal Modification**

Questions concerning this RFQ must be submitted in writing to: **Steve Holt, Chairman, Westhampton Town Hall, 1 South Road, Westhampton, MA 01027**. All inquiries received seven or more days prior to the opening will be considered. Questions may be delivered, mailed, e-mailed, or faxed. Written responses will be e-mailed (or mailed in the case of documents not available electronically) to all proposers on record as having picked up this RFQ.

If any changes are made to this RFQ, an addendum will be issued. Addenda will be mailed or e-mailed to all proposers on record having picked up the RFQ.

All proposals submitted in response to this RFQ shall remain firm for one hundred

and twenty (120) days following the opening of proposals. Secondary to funding being approved for this project at the Westhampton Annual Town Meeting, the contract will be awarded within one hundred and twenty (120) day time-period noted above. The time for award may be extended for up to forty-five (45) additional days by agreement between the Town and the highest ranked responsive and responsible applicant.

An applicant may correct, modify, or withdraw a proposal by written notice received by the Town prior to the time and date set for the opening. Proposal modifications must be submitted in a sealed envelope clearly labeled "**Modification No. \_\_\_\_**". Each modification must be numbered in sequence, and must reference the original RFQ.

After the opening, an applicant may not change any provision of the proposal in a manner prejudicial to the interests of the Town or fair competition. Minor informalities will be waived or the applicant will be allowed to correct them.

#### **4. Project Background**

The Town of Westhampton currently houses its emergency services in a public safety complex that was initially constructed as a highway garage in 1948. Although the facility has had several expansions, the current conditions provide less than an adequate platform for effective public safety operations and as a facility for citizens to conduct their day to day business.

The Westhampton Public Safety Complex Planning Committee is presently focused on the development of a Public Safety Complex to house all our emergency services and provide support to other community groups. The only site being considered for this project is the site where the public safety complex presently exists at 48 Stage Road, Westhampton, MA. It should be noted that the current climate for a new Public Safety Complex is unknown. As the town retires debt, the construction or renovation of a public safety complex has been prioritized within the Town's capital plan. The development of this project is supported by the Capital Planning Committee and the Board of Selectmen. In general, there is a sentiment within the community that the current public safety facility is inadequate as a platform to provide the community with effective public safety operations.

## 5. Scope of Work

The Town of Westhampton is now seeking proposals from qualified Massachusetts registered architectural consulting firms/individuals to conduct a feasibility study, preliminary design and cost estimation study for the construction/renovation of a public safety complex on the existing site which is located at 48 Stage Road, Westhampton, MA 01027.

This project will consider two options as listed below:

**Option One** – Renovate and add onto the existing public safety complex. This option would also include the following:

- Demolition of the existing salt shed (currently utilized as a DPW storage barn);
- Construction of a DPW storage barn to replace the demolished salt shed;
- Transfer of the gasoline/diesel fuel depot to the DPW.

**Option Two** – Design and development of a new metal skinned structure similar in nature to the existing Westhampton DPW facility. This option would also include the following:

- Demolition of the existing public safety complex;
- Demolition of the existing salt shed (currently utilized as a DPW storage barn);
- Construction of a new public safety complex;
- Construction of a DPW storage barn at the current DPW site to replace the demolished salt shed;
- Transfer of the gasoline/diesel fuel depot to the DPW.

The general scope of work shall include, but not be limited to, the following tasks;

### ***Task #1: Assessment of Existing Building Conditions***

#### **DESCRIPTION:**

In consultation with all public safety department heads, the Committee, and others who may be selected by the Town, conduct an independent analysis of the current structural and operational conditions that exist within the current public safety complex. This is to include a code analysis that identifies areas of non-compliance with current code. This aspect of the study will identify barriers to effective operations, health and safety concerns, maintenance needs, structural

concerns and provide an evaluation of the feasibility of this building to serve as an effective platform for public safety operations.

**DELIVERABLES:**

A written report summarizing existing building conditions inclusive of a list of the following categories of deficiencies and evaluation of adequacy of the existing facility to serve as a modern public safety complex:

- Accessibility
- Architectural
- Structural
- Mechanical
- Electrical
- Physical
- Operational
- Code Compliance

***Note: Each category listed should include recommendations and a rough cost estimate for repairs, alterations and additions. A total rough cost estimate to make all of the repairs in the categorizes noted above shall be provided along with a recommendation as to the feasibility of the repairs and an estimation of how these repairs would extend the service life of the facility.***

***Task #2: Spatial Needs Analysis***

**DESCRIPTION:**

In consultation with all public safety department heads, the Committee, and others who may be selected by the Town, conduct an independent analysis of the current and future space needs of the public safety agencies, including those that may be shared such as training facilities, bathrooms, protective equipment storage, emergency operations center (EOC) and community meeting/storage spaces.

**DELIVERABLES:**

A written report summarizing the space needs of all (police, fire, ambulance, and emergency management director) emergency departments, including common

space needs that could be shared with the community and other municipal departments.

In addition to the development of a written narrative pertaining to current space and reasonable public safety special needs, a table similar in nature to the one below will be included within the report. It is essential that this table indicate current space, required space, and the source or reason that this type of space is required.

| FUNCTIONAL AREA                                    | NUMBER IN EXISTING STATION | SQUARE FOOTAGE | NUMBER RECOMMENDED IN NEW STATION    | SQUARE FOOTAGE | NFPA STANDARD | INDUSTRY BEST PRACTICE |
|----------------------------------------------------|----------------------------|----------------|--------------------------------------|----------------|---------------|------------------------|
| Apparatus Bays                                     | 8                          | 3,500          | 10 single bays or 5 double deep bays | 6,000          |               | X                      |
| Training Area                                      | Does Not Exist             | N/A            | 1                                    | 750            |               |                        |
| Public Entry Area/ Lobby                           | Does Not Exist             | N/A            | 1                                    | 400            |               |                        |
| Police Offices                                     | Does Not Exist             | N/A            | 2                                    | 420            |               |                        |
| Fire Offices                                       | Does Not Exist             | N/A            | 2                                    | 420            |               |                        |
| Police Interview Room                              | Does Not Exist             | N/A            | 1                                    | 160            |               |                        |
| Community Activity Storage Area                    | Does Not Exist             |                | 1                                    | 300            |               |                        |
| Radio/Communications Room                          | Does Not Exist             | N/A            | 1                                    | 200            | X             |                        |
| Decontamination Area                               | Does Not Exist             | N/A            | 1                                    | 200            | X             |                        |
| PPE Storage Room                                   | Does Not Exist             | N/A            | 1                                    | 750            | X             |                        |
| PPE Washer/Drying Area                             | Behind apparatus           | 20             | 1                                    | 150            |               | X                      |
| SCBA/Meter Repair/Calibration/Storage Room         | Does Not Exist             | N/A            | 1                                    | 150            |               | X                      |
| Hose Storage/ Drying Room                          | Does Not Exist             | N/A            | 1                                    | 200            |               | X                      |
| General Equipment Storage Room                     | Does Not Exist             | N/A            | 1                                    | 400            |               | X                      |
| Workshop                                           | In Hallway                 | N/A            | 1                                    | 200            |               | X                      |
| Grounds Maintenance Storage Room                   | Does Not Exist             | N/A            | 1                                    | 150            |               |                        |
| Storage Multi-Purpose/Meeting Room                 | Does Not Exist             | 255            | 1                                    | 300            |               |                        |
| Storage Room for Social/Multi-Purpose/Meeting Room | Does Not Exist             | N/A            | 1                                    | 200            |               |                        |
| Training/Meeting Room/EOC                          | 1                          | 1,600          | 1                                    | 1800           |               | X                      |
| Conference Room off Training/Meeting Room/EOC      | Does Not Exist             | N/A            | 1                                    | 200            |               | X                      |
| Storage Room off EOC                               | Does Not Exist             | N/A            | 1                                    | 180            |               | X                      |
| Day/Ready Room and Eating Area for responders      | Part of Meeting Room       | 300            | 1                                    | 1,000          |               | X                      |
| Small training Rooms                               | Does Not Exist             | N/A            | 2                                    | 300            |               | X                      |
| Bathrooms with Shower                              | Does Not Exist             | N/A            | 2                                    | 500            |               | X                      |
| Physical Fitness Room                              | 1                          | 700            | 1                                    | 600            |               | X                      |

|                                         |                      |              |                      |               |  |   |
|-----------------------------------------|----------------------|--------------|----------------------|---------------|--|---|
| General Storage Room                    | Does Not Exist       | N/A          | 1                    | 100           |  | X |
| Emergency Management Office and storage | Does Not Exist       | N/A          | 4                    | 260           |  | X |
| Conference Room                         | Does Not Exist       | N/A          | 2                    | 400           |  | X |
| Public Entry area                       | Does Not Exist       | N/A          | 1                    | 350           |  | X |
| Miscellaneous Spatial Needs             | Various/Multiple     | 400          | Various/Multiple     | 600           |  | X |
| <b>TOTAL SQUARE FOOTAGE</b>             | <b>APPROXIMATELY</b> | <b>7,000</b> | <b>APPROXIMATELY</b> | <b>12,500</b> |  |   |

### ***Task #3: Site Evaluation***

#### **DESCRIPTION:**

Provide a preliminary assessment and evaluation of existing site conditions to determine the suitability of the site for construction of a new or renovated Public Safety Complex. Consultant shall consult town staff and make a maximum use of available engineering and other data for the site prior to proceeding with assessment. Perform site analyses to include site survey, hazardous materials investigation if deemed appropriate, wetlands verification survey, sub-surface soil conditions inclusive of borings, storm water drainage issues, location of utilities (electrical, cable, Internet, water, other).

#### **DELIVERABLES:**

A written narrative confirming the adequacy of the site and providing detailed information relating to development potential of the site shall be included. As this is the only site under consideration, it is essential that barriers be identified and that strategies and cost estimates to overcome these barriers be included in the report.

### ***Task #4: Renovation/Addition Feasibility Evaluation***

#### **DESCRIPTION:**

Based on the evaluation of the site and spatial needs analysis the selected architect will conceptually design and develop a plan that will renovate and add onto the existing public safety complex. The goal of this option is to develop an effective and efficient public safety operating platform that will meet the needs of the Town of Westhampton for the next twenty-five years. This task will



include the development of two renderings one showing an exterior view of the proposed renovation/addition and a second rendering detailing both interior dimensions and floor plans. In addition, an estimated cost of construction for the Spring of 2019 and Spring of 2020 must be provided. This cost estimation will include a separate price for each of the following:

- Demolition of the existing salt shed;
- Construction of a DPW storage barn;
- Transfer of the gasoline/diesel fuel depot to the DPW;
- Renovation/expansion of the current public safety complex;

This process should be interactive facilitating maximum involvement by committee members and members of the public. A minimum of four schematic design sessions reflecting the incorporation of changes recommended by the committee should be anticipated.

#### **DELIVERABLES:**

Evaluate the option for renovation/expansion of the current facility. Provide a recommendation relative to the feasibility of renovation/expansion utilizing the current structure. Indicate the cost effectiveness of renovation as compared to the cost effectiveness of demolition and new construction. Provide two renderings accepted by the committee as detailed above. Provide a current cost estimate for construction and then adjust the estimate to project construction costs in the Spring of 2019 and 2020. Provide separate cost estimates for each of the following components:

- Demolition of the existing salt shed;
- Construction of a DPW storage barn;
- Transfer of the gasoline/diesel fuel depot to the DPW;

Provide a recommendation relative to the feasibility of pursuing this option in terms of the following:

- Practicality to meet current code
- Ability to address current operational issues
- Expected life of the expanded/renovated facility
- Cost/benefit or value to the Town (including cost per year calculation based on life expectancy)

Assist the Committee with the development of communication tools including plans, models, color renderings, sketches, videos and social media postings to use at public forums and presentation at town meeting at a date yet to be determined.

#### ***Task #5: New Construction Feasibility Evaluation***

##### **DESCRIPTION:**

Based on the evaluation of the site and spatial needs analysis the selected architect will conceptually design and develop a plan that will propose the construction of a new public safety complex. This facility will be a metal building similar in nature to the existing Westhampton DPW facility. The goal of this option is to develop an effective and efficient public safety operating platform that will meet the needs of the Town of Westhampton for the next fifty years. This task will include the development of two renderings one showing an exterior view of the proposed complex and a second rendering detailing both interior dimensions and floor plans. In addition, an estimated cost of construction for the Spring of 2019 and Spring of 2020 must be provided. This cost estimation will include a separate price for each of the following:

- Demolition of the existing public safety complex
- Removal of debris created by demolition;
- Demolition of the existing salt shed;
- Construction of a new public safety complex;
- Construction of a DPW storage barn;
- Transfer of the gasoline/diesel fuel depot to the DPW.

This process should be interactive facilitating maximum involvement by committee members. A minimum of four schematic design sessions reflecting the incorporation of changes recommended by the committee should be anticipated.

##### **DELIVERABLES:**

Evaluate the option for renovation/expansion of the current facility. Provide two renderings accepted by the committee as detailed above. Provide a current cost

estimate for construction and then adjust the estimate to project construction costs in the Spring of 2019 and 2020. Provide separate cost estimates for each of the following components:

- Demolition of the existing public safety complex;
- Removal of debris generated by demolition;
- Demolition of the existing salt shed;
- Construction of a new public safety complex;
- Construction of a DPW storage barn;
- Transfer of the gasoline/diesel fuel depot to the DPW.

Provide a recommendation relative to the feasibility of pursuing this option in terms of the following:

- Practicality to meet current code
- Ability to address current operational issues
- Expected life of the expanded/renovated facility
- Cost/benefit or value to the Town (including cost per year calculation based on life expectancy)

Assist the Committee with the development of communication tools including plans, models, color renderings, sketches, videos and social media postings to use at public forums and presentation at town meeting at a date yet to be determined.

#### ***Task #6: Implementation Plan for Development of Public Safety Complex***

##### **DESCRIPTION:**

The selected architect will conduct a task analysis and projected timeframe that will sequence construction to start in the Spring of 2019 or 2020. Emphasis will be placed on development of a plan to store existing fire and police resources at the existing DPW facility and in unheated spaces for the duration of construction.

Complete the above six tasks and provide five (5) copies and one (1) electronic copy formatted as a PDF file of a bound written report based on the described scope of services. The report and preliminary plans shall also be provided to the committee in an electronic format acceptable to the committee for widespread

reproduction and distribution. The Town of Westhampton shall own all rights to any reports, plans, or promotional materials produced under this Scope of Services.

#### **DELIVERABLES:**

The Consultant should also anticipate attending, in addition to the Town Meeting, a minimum of six (6) meetings with the committee and/ or the public.

Prepare a timetable that outlines each task and emphasizes sequenced demolition and construction to occur when apparatus can be stored in unheated spaces. Develop a narrative of how the Town should accomplish the relocation and storage of resources during renovation, demolition and construction.

### **6. Project Schedule and Meetings**

It is the goal of the Westhampton Public Safety Facility Planning Committee to complete the work in this Scope of Services section within approximately 6 (six) months following the execution of a contract with the selected firm or individual. The Committee will need as much time as possible to explain the project to the public before it goes before Town Meeting for a vote. The applicant's proposal should also provide detail regarding the number of meetings to be held with the committee, user groups, and any other Town body.

### **7. Fee**

The designer's fee will be negotiated between the Westhampton Public Safety Facility Planning Committee and the successful consultant. Fee proposals shall not be submitted as part of the RFQ submittal. The negotiation process will be conducted in accordance with the procedure outlined in MGL Chapter 7, Sections 44-57. Negotiations will begin with the top ranked finalist, consistent with uniform procedures; and if the committee is unable to negotiate a fee with the top ranked finalist, negotiations will take place with the second ranked finalist and so forth. The designer shall execute the Town's Standard Contract for Designer Services within ten (10) days of the notice of award.

## **8. Proposal Requirements**

Each applicant must submit a written Application to Designer Selection Committee Form, a copy of which is included in this RFQ under Attachment A.

The following information is specifically required:

- A.** Name and address of Applicant.
- B.** A resume of principals and of the staff to be assigned to the Project.
- C.** List of completed projects, which would best illustrate qualifications for the Project. References must be included.
- D.** List of ongoing projects of a similar nature with anticipated schedule(s) for completion.
- E.** Names of architects, engineers and other consultants that may be assigned to this project.
- F.** Statement of the scope and type of services proposed for the Project. The applicant should describe the process and methodology to be used in the completion of services with specific reference to examples of similar projects in which this methodology has been used.
- G.** Work plan and schedule which reflects timetable for completion of Project.
- H.** Statement of any legal administrative proceedings pending, or concluded, adversely to the applicant, within the past five (5) years, which relate to the applicant's performance of this type of work.
- I.** Appropriate certificates of insurance.
- J.** MBE/ WBE eligibility certification, if applicable.
- K.** Evidence of financial stability as judged by the Committee to be sufficient to complete this project.
- L.** Certificate of compliance with local, state, and federal tax laws (forms attached).

M. Certificate of Non-collusion (forms attached).

## 9. Evaluation Criteria

All proposals will be evaluated based upon minimum and comparative criteria. The Town will award a contract for this project to the firm(s) or individual(s) who submit(s) the most advantageous proposal based on a consideration of specified evaluation and selection criteria. The Town will then evaluate the proposals using the comparative evaluation criteria. The Town may at its own discretion schedule interviews and score them.

### ***Minimum Criteria***

Each applicant must demonstrate that it meets the following minimum requirements:

- A. Firm must have a minimum of five (5) years experience in the design and renovation of public buildings in Massachusetts. In documenting this qualification, the applicant should describe the professional background of the firm and the extent of previous experience of firm personnel or consultants to be assigned to the project and identify the anticipated role that is anticipated each will play in the project.
- B. Firm must demonstrate knowledge of, and experience in, legal and administrative requirements, procedures, and practices related to the design, funding, and construction of Massachusetts public building projects including the State Building Code, regulations of the Architectural Barriers Board and Massachusetts public building and procurement law.
- C. Firm must have experience with projects funded under local, state and federal programs or with projected funded by nonprofit agencies.
- D. Firm must possess all necessary current licenses and registrations, either within the firm or through independent consultants, to qualify under Massachusetts law to perform the function of the designer of the Project, including Massachusetts Registered Architect on staff.



- E. Firm must provide detailed description of at least three projects on which the Designer has performed similar services, identifying owners of these projects as well as the personnel who worked on them and stating whether those individuals will be assigned to this Project.
- F. Firm must provide three (3) written professional references for similar projects, including names, addresses, projects you worked on, their costs, funding sources, and phone numbers.
- G. Firm must not be debarred under MGL ch. 149, sec 44C or disqualified under MGL ch. 7, sec. 38D.

### ***Comparative Criteria***

The following rating will be used to evaluate those firms that meet the minimum evaluation criteria listed above. Those proposals that do not meet the minimum criteria may be reviewed at the town's discretion. If a proposal scores "Not Advantageous/ Does not Meet" on any of the following comparative criteria the Town may consider the proposal unacceptable and not review it any further. The Town will consider the following comparative criterion and award each on the following point schedule:

**Highly Advantageous:** Proposal excels on the specific criterion

**Advantageous:** Proposal meets evaluation standard for the criterion

**Not advantageous/ Does Not Meet:** Proposal does not fully meet criterion.

The criteria that will be used for comparative purposes are the following:

#### **A. Evaluation of Management Experience**

A firm's work examples, quality of the relationship established with clients and approach to the problem will be evaluated in conjunction with examples submitted of projects the firm references.

Evaluation criterion: Firms that clearly demonstrate their experience in conducting feasibility studies and completing preliminary designs for projects in Massachusetts, that understand the community and that articulate an understanding of the Project based upon experience background, and examples, that have more than 5 years of experience conducting feasibility studies/ performing preliminary design on projects located in Western Massachusetts, that have experience working with local committees and that have direct experience working with local or nonprofit funded projects will be considered **"Highly Advantageous."**

Firms with at least 5 years of experience with projects within Massachusetts and some demonstrated design experience on local and or nonprofit funded projects will be considered **"Advantageous."**

Firms that demonstrate only minimal understanding of the RFQ, that have less than 5 years of relevant experience, only minimally address the problem identification (simply addresses and/ or repeats the RFQ conditions), or that demonstrate no clear understanding of the problems or the community will be considered **"Not Advantageous/ Does Not Meet."**

#### **B. Qualification of the Project Personnel/ Project Team (Project Manager and Assigned Professionals)**

A key consideration for the Town is the ability of the team to go begin work immediately, establish a positive partnership with the Committee, work with town staff, complete the preliminary architectural design, prepare accurate cost estimates, identify potential funding sources, prepare presentation graphics and assist the committee in promoting the implementation of the project to the general community and Town Meeting.

Evaluation Criteria: A Design Team or an individual designer that demonstrates extensive experience with Project feasibility studies/ preliminary design, in presenting reports/ plans to the public and other town boards and commission and has seen its work translated into actual construction will be considered **"Highly Advantageous."** This will be amplified by the implementation of the design, the ability to identify and incorporate community design concerns and suggestions and demonstrated experience and familiarity with state and federal funding resources. The team or individual would have experience working on

past projects and has a strong history of cost controls during construction. Cost estimator has experience with local and nonprofit funded projects.

A team or individual that demonstrates good engineering/ design ability but whose proposals may not have been constructed, or if constructed, construction has not been completed in a timely fashion, or work has not adequately considered community concerns, or does not have a strong history of cost controls during construction, will only be considered to be **"Advantageous"** and meet the criteria. Design team or individual has some experience working together on past projects. Cost estimator has some experience with similar projects.

A Design Team or individual with no experience on similar Project Feasibility Studies/ Preliminary Design or has no local/nonprofit funded project experience or only a minimum of public design experience will be considered **"Not Advantageous/ Does Not Meet."** Design team has no experience working together on past projects and has a poor history of cost controls during construction. Cost estimator has no experience with similar projects.

#### **C. Responsiveness to Request for Qualification**

The Town is interested in how well the proposing firm or individual understands the project requirements, the firm/individual's approach to the project in meeting the specific needs of the Town, the firm's level of interest, that the firm has demonstrated a commitment to the project timetable, and the overall quality of the firm's proposal.

**Highly Advantageous:** Proposal excels on the specific criterion

**Advantageous:** Proposal meets evaluation standard for the criterion

**Not advantageous/ Does Not Meet:** Proposal does not fully meet criterion

#### **D. Financial Strength**

**Highly Advantageous:** A corporation that demonstrates revenues equal to or greater than \$500,000/ year. A partnership that demonstrates revenues of at least

\$150,000/ year. An individual who demonstrates fiscal stability necessary to meet the needs of the project.

**Advantageous:** A corporation that demonstrates revenues between \$250,000 and \$500,000/ year. A partnership that demonstrates revenues of at least \$100,000 and \$150,000/ year. An individual who demonstrates moderate fiscal stability necessary to meet the needs of the project.

**Not advantageous/ Does Not Meet:** A corporation that demonstrates revenues between less than 200,000/ year. A partnership that demonstrates revenues less than \$100,000/ year. An individual who demonstrates poor fiscal stability necessary to meet the needs of the project.

## E. Interview

The Town, after reviewing proposals and at its sole discretion, **may** interview firms that meet minimum and comparative criteria (finalists).

The interview will be held to determine the most **highly advantageous** firm based on the following:

- The professional experience of the consulting team or individual with feasibility analyses and design of local/nonprofit projects.
- The quality of the relationship that would be established with the Committee and the Town.
- The specific details of the work plan presented by the design team and questions asked of the interviewers.
- The experience of personnel assigned to the project
- Presentation skills.

## 10. Project Timetable

The following is a projected timetable. It can be adjusted as needed should each step be completed in a timely manner that warrants moving forward to

the next step.

|                      |                                                      |
|----------------------|------------------------------------------------------|
| February 2017        | Advertise Request for Qualifications                 |
| March - April 2017   | Review/ Evaluate RFQ Responses<br>conduct interviews |
| June 2017            | Announce Award                                       |
| July – December 2017 | Conduct Feasibility Study/<br>Preliminary Design     |
| January 2018         | Deliverables Due                                     |
| February – May 2018  | Public Presentations and Town<br>Meeting             |

## **11. Miscellaneous Articles**

- A.** The Contractor shall maintain worker's compensation for all employees in accordance with Massachusetts General Laws.
- B.** The Contractor shall deposit evidence of such insurance prior to the commencement of the project.
- C.** The Contractor shall be solely responsible for all claims of whatever nature arising out of the rendering of services by the Contractor during the term of this proposal and the Contractor shall indemnify and hold the Town harmless against the same to the extent permitted by law.
- D.** The selection of the successful Contractor shall be made without regard to race, sex, age, religion, political affiliation or national origin.



**ATTACHMENT A**

**APPLICATION TO DESIGNER SELECTION COMMITTEE**

PLEASE SUBMIT 5 COPIES OF THIS FORM (IT MAY BE REPRODUCED) WITH YOUR PROPOSAL.

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**1. PROJECT DESCRIPTION:**

TITLE:

LOCATION:

---

**2. NAME OF FIRM:**  
(or Joint Venture)

**FEDERAL I.D. NO:**

**TYPE OF ORGANIZATION:**  
(Proprietorship, Partnership, Corporation, etc.)

**YEAR ESTABLISHED:**

**ADDRESS:**

☐ Check here if your firm is a COMBA certified minority (MBE) or SOMBA women-owned business enterprise (WBE).

---

**3. NAME AND TITLE OF PRINCIPAL TO CONTACT:**

**PHONE NUMBER:**

---

**4a. KEY PERSONS. SPECIALISTS AND INDIVIDUALS IN YOUR FIRM TO BE ASSIGNED TO THIS PROJECT**

\* Indicate Project Manager with an asterisk. Include a one page resume of each member of your staff to be assigned to this project.

NAME AND TITLE

MASS. REG. NO.

DISCIPLINE/PROJECT ROLE  
(Architectural, Structural, Mechanical, Electrical, Principal  
in Charge, Project Manager, Project Designer)

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**4b. KEY PERSONS, SPECIALISTS AND INDIVIDUALS IN FIRMS TO BE ASSIGNED TO THS PROJECT CONSULTANT**

NAME OF PERSON/FIRM NAME/ADDRESS

MASS. REG. NO.

DISCIPLINE/PROJECT ROLE

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5. FULL TIME PERSONNEL IN YOUR FIRM'S MASSACHUSETTS OFFICE BY DISCIPLINE: (Average number employed throughout the preceding 6 month period. Indicate both the total number in each discipline, and within brackets, the total number holding Massachusetts registrations.)

|                             |                 |                           |                 |
|-----------------------------|-----------------|---------------------------|-----------------|
| Soils Engineering           | _____ (       ) | Administration            | _____ (       ) |
| Fire Protection Engineering | _____ (       ) | Specifications Writing    | _____ (       ) |
| Architecture                | _____ (       ) | H.V.A.C. Engineering      | _____ (       ) |
| Structural Engineering      | _____ (       ) | Acoustical Engineering    | _____ (       ) |
| Interior Design             | _____ (       ) | Surveying                 | _____ (       ) |
| Civil Engineering           | _____ (       ) | Landscape Architecture    | _____ (       ) |
| Traffic Engineering         | _____ (       ) | Ecology                   | _____ (       ) |
| Life Safety Code Specialist | _____ (       ) | Drafting                  | _____ (       ) |
| Electrical Engineering      | _____ (       ) | Mechanical Engineering    | _____ (       ) |
| CAD Operators               | _____ (       ) | Energy Specialists        | _____ (       ) |
| Planning                    | _____ (       ) | Environmental Engineering | _____ (       ) |
| Sanitary Engineer           | _____ (       ) | Other                     | _____ (       ) |
|                             |                 |                           |                 |
| TOTAL PERSONNEL             | _____ (       ) |                           |                 |

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6. RECENT PROJECTS BEST ILLUSTRATING CURRENT QUALIFICATIONS FOR THIS PROJECT:

| PROJECT NAME, LOCATION & DESCRIPTION | PROJECT COST,<br>STUDY/DESIGN FEE | YEAR<br>COMP. | PHASES |
|--------------------------------------|-----------------------------------|---------------|--------|
|--------------------------------------|-----------------------------------|---------------|--------|

REFERENCES, NAME & PHONE

\* In accordance with services authorized, i.e., study (St.), schematics (Sch.), design development (D.D.), construction documents (C.D.), administration of construction (A.C.), all phases (All).

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7a. ADDITIONAL INFORMATION OR DESCRIPTION OF RESOURCES SUPPORTING YOUR FIRM'S QUALIFICATIONS FOR PROJECT: (If joint venture, indicate previous experience with this joint venture.)

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7b. ESTIMATED TIME FOR YOUR FIRM TO PERFORM SCOPE OF SERVICES AS PUBLICLY ADVERTISED.

---

8. PRINCIPAL BUSINESS OF THIS FIRM AND PRINCIPAL SPECIALIZATIONS:

---

9. PROFESSIONAL LIABILITY INSURANCE:

| NAME OF COMPANY | AGGREGATE AMOUNT | POLICY NUMBER | EXPIRATION |
|-----------------|------------------|---------------|------------|
|-----------------|------------------|---------------|------------|

As a condition of application, each applicant agrees to carry, if selected for the new project, professional liability insurance. The total amount of such insurance shall at a minimum equal the lesser of one million dollars or ten percent of the project's estimated cost of construction, or such larger amounts as the public agency may require, and shall cover the applicable period of limitations. Design services for the preparation of studies, surveys, soil testing, cost estimates, or programs do not require professional liability insurance, nor do construction management or scheduling services.

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10. LIST THE NAMES AND ADDRESSES OF ALL PARTNERS, IF A PARTNERSHIP, OR ALL DISCIPLINE OFFICERS, DIRECTORS, AND ALL PERSONS WITH AN OWNERSHIP INTEREST OF MORE THAN FIVER PERCENT IF THE APPLICANT IS NOT A PARTNERSHIP:

| PARTNER | MASS. REG. NO. | % STOCK |
|---------|----------------|---------|
|---------|----------------|---------|

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11. LIST ALL CURRENT PROJECTS FOR WHICH THE APPLICANT IS PERFORMING OR IS UNDER CONTRACT TO PERFORM ANY DESIGN SERVICES:

| PROJECT NAME, LOCATION & DESCRIPTION | PROJECT COST,<br>STUDY/DESIGN FEE | YEAR<br>COMP. | PHASES |
|--------------------------------------|-----------------------------------|---------------|--------|
|--------------------------------------|-----------------------------------|---------------|--------|

REFERENCES, NAME & PHONE

---

12. APPLICANTS ARE REQUESTED TO SUBMIT A LIST OF ALL PROJECTS FOR ALL PUBLIC AGENCIES WITHIN THE COMMONWEALTH FOR WHICH THE APPLICANT HAS PERFORMED OR HAS ENTERED INTO A CONTRACT TO PERFORM DESIGN SERVICES WITH THE FIVE YEAR PERIOD IMMEDIATELY PRECEDING THE FILING OF THIS APPLICATION.

| PROJECT NAME, LOCATION & DESCRIPTION | PROJECT COST,<br>STUDY/DESIGN FEE | YEAR<br>COMP. | PHASES |
|--------------------------------------|-----------------------------------|---------------|--------|
|--------------------------------------|-----------------------------------|---------------|--------|

REFERENCES, NAME & PHONE

\* In accordance with services authorized, i.e., study (St.), schematics (Sch.), design development (D.D.), construction documents (C.D.), administration of construction (A.C.), all phases (All).

---

13. I HEREBY CERTIFY THAT THIS FIRM IS A "DESIGNER", AS THAT TERM IS DEFINED IN CHAPTER 7, SECTION 38A ½ OF THE GENERAL LAWS, OR THAT THE SERVICES REQUIRED ARE LIMITED TO CONSTRUCTION MANAGEMENT OR THE PREPARATION OF MASTER PLANS, STUDIES, SURVEYS, SOIL TESTS, COST ESTIMATES OR PROGRAMS. THE FOREGOING IS A STATEMENT OF FACTS, SWORN TO BY THE UNDERSIGNED UNDER THE PENALTIES OF PERJURY.

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|           |                        |      |
|-----------|------------------------|------|
| SIGNATURE | PRINTED NAME AND TITLE | DATE |
|-----------|------------------------|------|

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**IF ADDITIONAL SPACE IS NECESSARY, PLEASE  
ATTACH ADDITIONAL 8 1/2 x 11 SHEETS**

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**ATTACHMENT B**

**CERTIFICATE OF NON–COLLUSION**

Pursuant to M.G.L.C. 40, §4B1 /2, the undersigned certifies under penalties of perjury that this proposal is in all respects bona fide, fair, and made without collusion or fraud with any other person. As used in this certification, the word “person” shall mean any natural person, joint venture, partnership, corporation, or other business or legal entity.

---

COMPANY NAME

---

SIGNATURE OF AUTHORIZED REPRESENTATIVE

---

PRINTED NAME OF AUTHORIZED REPRESENTATIVE AND TITLE

---

DATE



**ATTACHMENT C**

**CERTIFICATE OF COMPLIANCE WITH STATE TAX LAWS**

Pursuant to M.G.L.C. 62C, §49A (b) and M.G.L.C. 151 A, §19A, J hereby certify under the penalty of perjury that \_\_\_\_\_ has complied with all laws of the Commonwealth of Massachusetts relating to taxes, repelling of employees and contractors, and withholding and remitting child support.

\_\_\_\_\_  
SIGNATURE OF INDIVIDUAL OF CORPORATE OFFICE\*

\_\_\_\_\_  
SOCIAL SECURITY NUMBER/FEDERAL IDENTIFICATION NUMBER\*\*

\_\_\_\_\_  
CORPORATE NAME (IF APPLICABLE)

\_\_\_\_\_  
NAME AND TITLE OF CORPORATE OFFICE (IF APPLICABLE)

**\*** **Approval of a contract or other agreement will not be granted unless this certification** clause is signed by the proposer. For all corporations, a certified copy of the authorizing vote of the Board of Director must be provided.

**\*\* Your social security number will be furnished to the Massachusetts Department of Revenue** to determine whether you have met tax filing or tax payment obligations. Providers who fail to correct their non-filing or delinquency will not have a contract or other agreement issued, renewed, or extended. This request is made under the authority of Massachusetts General Laws, Chapter 62C, §49A.





**Town of Westhampton, Massachusetts  
Feasibility and Conceptual Design/Cost Estimation  
Study for the Development/Renovation of a Public  
Safety Complex**

**ADDENDUM 1**

**March 9, 2017 at 2:00 p.m.**

**Proposals may be submitted on:**

- 1. Commonwealth of Massachusetts Standard Designer Application Form for Municipalities and Public Agencies not within DSB Jurisdiction (Updated July 2016), a copy of the form is provided in this RFQ Addendum 1 under Attachment D**

|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |                                                    |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |                                                |       |                  |                       |           |            |       |           |                      |       |           |       |       |           |            |       |           |                   |       |           |                   |       |           |  |       |           |                   |       |           |               |       |           |                       |       |           |  |       |           |              |       |           |                 |       |           |                       |       |           |  |       |           |                  |       |           |                 |       |           |                   |       |           |  |       |           |                         |       |           |            |       |           |           |       |           |  |       |           |                 |       |           |                    |       |           |  |       |           |  |       |           |          |       |           |           |       |           |  |       |           |  |       |           |  |  |  |  |  |  |  |  |  |       |       |           |
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| <b>Commonwealth of Massachusetts</b><br><br><b>Standard Designer Application</b><br><b>Form for Municipalities and Public</b><br><b>Agencies not within DSB</b><br><b>Jurisdiction (Updated July 2016)</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      | 1. Project Name/Location For Which Firm Is Filing: |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                | 2. Project #                                   |       |                  |                       |           |            |       |           |                      |       |           |       |       |           |            |       |           |                   |       |           |                   |       |           |  |       |           |                   |       |           |               |       |           |                       |       |           |  |       |           |              |       |           |                 |       |           |                       |       |           |  |       |           |                  |       |           |                 |       |           |                   |       |           |  |       |           |                         |       |           |            |       |           |           |       |           |  |       |           |                 |       |           |                    |       |           |  |       |           |  |       |           |          |       |           |           |       |           |  |       |           |  |       |           |  |  |  |  |  |  |  |  |  |       |       |           |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |                                                    |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                | This space for use by Awarding Authority only. |       |                  |                       |           |            |       |           |                      |       |           |       |       |           |            |       |           |                   |       |           |                   |       |           |  |       |           |                   |       |           |               |       |           |                       |       |           |  |       |           |              |       |           |                 |       |           |                       |       |           |  |       |           |                  |       |           |                 |       |           |                   |       |           |  |       |           |                         |       |           |            |       |           |           |       |           |  |       |           |                 |       |           |                    |       |           |  |       |           |  |       |           |          |       |           |           |       |           |  |       |           |  |       |           |  |  |  |  |  |  |  |  |  |       |       |           |
| 3a. Firm (Or Joint-Venture) - Name and Address Of Primary Office To Perform The Work:                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |                                                    | 3. Name Of Proposed Project Manager:<br>For Study: (if applicable)<br>For Design: (if applicable)                                                                                                                                                                                                                                                                                                                                                                                              |                                                |       |                  |                       |           |            |       |           |                      |       |           |       |       |           |            |       |           |                   |       |           |                   |       |           |  |       |           |                   |       |           |               |       |           |                       |       |           |  |       |           |              |       |           |                 |       |           |                       |       |           |  |       |           |                  |       |           |                 |       |           |                   |       |           |  |       |           |                         |       |           |            |       |           |           |       |           |  |       |           |                 |       |           |                    |       |           |  |       |           |  |       |           |          |       |           |           |       |           |  |       |           |  |       |           |  |  |  |  |  |  |  |  |  |       |       |           |
| 3b. Date Present and Predecessor Firms Were Established:                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |                                                    | 3f. Name and Address Of Other Participating Offices Of The Prime Applicant, If Different From Item 3a Above:                                                                                                                                                                                                                                                                                                                                                                                   |                                                |       |                  |                       |           |            |       |           |                      |       |           |       |       |           |            |       |           |                   |       |           |                   |       |           |  |       |           |                   |       |           |               |       |           |                       |       |           |  |       |           |              |       |           |                 |       |           |                       |       |           |  |       |           |                  |       |           |                 |       |           |                   |       |           |  |       |           |                         |       |           |            |       |           |           |       |           |  |       |           |                 |       |           |                    |       |           |  |       |           |  |       |           |          |       |           |           |       |           |  |       |           |  |       |           |  |  |  |  |  |  |  |  |  |       |       |           |
| 3c. Federal ID #:                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |                                                    | 3g. Name and Address Of Parent Company, If Any:                                                                                                                                                                                                                                                                                                                                                                                                                                                |                                                |       |                  |                       |           |            |       |           |                      |       |           |       |       |           |            |       |           |                   |       |           |                   |       |           |  |       |           |                   |       |           |               |       |           |                       |       |           |  |       |           |              |       |           |                 |       |           |                       |       |           |  |       |           |                  |       |           |                 |       |           |                   |       |           |  |       |           |                         |       |           |            |       |           |           |       |           |  |       |           |                 |       |           |                    |       |           |  |       |           |  |       |           |          |       |           |           |       |           |  |       |           |  |       |           |  |  |  |  |  |  |  |  |  |       |       |           |
| 3d. Name and Title Of Principal-In-Charge Of The Project (MA Registration Required):<br><br>Email Address:<br><br>Telephone No:                                      Fax No.:                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |                                                    | 3. Check Below If Your Firm Is Either:<br>(1) SDO Certified Minority Business Enterprise (MBE) <input type="checkbox"/><br>(2) SDO Certified Woman Business Enterprise (WBE) <input type="checkbox"/><br>(3) SDO Certified Minority Woman Business Enterprise (M/WBE) <input type="checkbox"/><br>(4) SDO Certified Service Disabled Veteran Owned Business Enterprise (SDVOBE) <input type="checkbox"/><br>(5) SDO Certified Veteran Owned Business Enterprise (VBE) <input type="checkbox"/> |                                                |       |                  |                       |           |            |       |           |                      |       |           |       |       |           |            |       |           |                   |       |           |                   |       |           |  |       |           |                   |       |           |               |       |           |                       |       |           |  |       |           |              |       |           |                 |       |           |                       |       |           |  |       |           |                  |       |           |                 |       |           |                   |       |           |  |       |           |                         |       |           |            |       |           |           |       |           |  |       |           |                 |       |           |                    |       |           |  |       |           |  |       |           |          |       |           |           |       |           |  |       |           |  |       |           |  |  |  |  |  |  |  |  |  |       |       |           |
| 4. <b>Personnel From Prime Firm Included In Question #3a Above</b> By Discipline (List Each Person Only Once, By Primary Function -- Average Number Employed Throughout The Preceding 6 Month Period. Indicate Both The Total Number In Each Discipline And, Within Brackets, The Total Number Holding Massachusetts Registrations):                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |                                                    |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |                                                |       |                  |                       |           |            |       |           |                      |       |           |       |       |           |            |       |           |                   |       |           |                   |       |           |  |       |           |                   |       |           |               |       |           |                       |       |           |  |       |           |              |       |           |                 |       |           |                       |       |           |  |       |           |                  |       |           |                 |       |           |                   |       |           |  |       |           |                         |       |           |            |       |           |           |       |           |  |       |           |                 |       |           |                    |       |           |  |       |           |  |       |           |          |       |           |           |       |           |  |       |           |  |       |           |  |  |  |  |  |  |  |  |  |       |       |           |
| <table style="width: 100%; border: none;"> <tr> <td style="width: 25%;">Admin. Personnel</td> <td style="width: 10%;">_____</td> <td style="width: 10%;">( _____ )</td> <td style="width: 25%;">Ecologists</td> <td style="width: 10%;">_____</td> <td style="width: 10%;">( _____ )</td> <td style="width: 25%;">Licensed Site Profs.</td> <td style="width: 10%;">_____</td> <td style="width: 10%;">( _____ )</td> <td style="width: 25%;">Other</td> <td style="width: 10%;">_____</td> <td style="width: 10%;">( _____ )</td> </tr> <tr> <td>Architects</td> <td>_____</td> <td>( _____ )</td> <td>Electrical Engrs.</td> <td>_____</td> <td>( _____ )</td> <td>Mechanical Engrs.</td> <td>_____</td> <td>( _____ )</td> <td></td> <td>_____</td> <td>( _____ )</td> </tr> <tr> <td>Acoustical Engrs.</td> <td>_____</td> <td>( _____ )</td> <td>Environmental</td> <td>_____</td> <td>( _____ )</td> <td>Planners: Urban./Reg.</td> <td>_____</td> <td>( _____ )</td> <td></td> <td>_____</td> <td>( _____ )</td> </tr> <tr> <td>Civil Engrs.</td> <td>_____</td> <td>( _____ )</td> <td>Fire Protection</td> <td>_____</td> <td>( _____ )</td> <td>Specification Writers</td> <td>_____</td> <td>( _____ )</td> <td></td> <td>_____</td> <td>( _____ )</td> </tr> <tr> <td>Code Specialists</td> <td>_____</td> <td>( _____ )</td> <td>Geotech. Engrs.</td> <td>_____</td> <td>( _____ )</td> <td>Structural Engrs.</td> <td>_____</td> <td>( _____ )</td> <td></td> <td>_____</td> <td>( _____ )</td> </tr> <tr> <td>Construction Inspectors</td> <td>_____</td> <td>( _____ )</td> <td>Industrial</td> <td>_____</td> <td>( _____ )</td> <td>Surveyors</td> <td>_____</td> <td>( _____ )</td> <td></td> <td>_____</td> <td>( _____ )</td> </tr> <tr> <td>Cost Estimators</td> <td>_____</td> <td>( _____ )</td> <td>Interior Designers</td> <td>_____</td> <td>( _____ )</td> <td></td> <td>_____</td> <td>( _____ )</td> <td></td> <td>_____</td> <td>( _____ )</td> </tr> <tr> <td>Drafters</td> <td>_____</td> <td>( _____ )</td> <td>Landscape</td> <td>_____</td> <td>( _____ )</td> <td></td> <td>_____</td> <td>( _____ )</td> <td></td> <td>_____</td> <td>( _____ )</td> </tr> <tr> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td>Total</td> <td>_____</td> <td>( _____ )</td> </tr> </table> |                                                    |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |                                                |       | Admin. Personnel | _____                 | ( _____ ) | Ecologists | _____ | ( _____ ) | Licensed Site Profs. | _____ | ( _____ ) | Other | _____ | ( _____ ) | Architects | _____ | ( _____ ) | Electrical Engrs. | _____ | ( _____ ) | Mechanical Engrs. | _____ | ( _____ ) |  | _____ | ( _____ ) | Acoustical Engrs. | _____ | ( _____ ) | Environmental | _____ | ( _____ ) | Planners: Urban./Reg. | _____ | ( _____ ) |  | _____ | ( _____ ) | Civil Engrs. | _____ | ( _____ ) | Fire Protection | _____ | ( _____ ) | Specification Writers | _____ | ( _____ ) |  | _____ | ( _____ ) | Code Specialists | _____ | ( _____ ) | Geotech. Engrs. | _____ | ( _____ ) | Structural Engrs. | _____ | ( _____ ) |  | _____ | ( _____ ) | Construction Inspectors | _____ | ( _____ ) | Industrial | _____ | ( _____ ) | Surveyors | _____ | ( _____ ) |  | _____ | ( _____ ) | Cost Estimators | _____ | ( _____ ) | Interior Designers | _____ | ( _____ ) |  | _____ | ( _____ ) |  | _____ | ( _____ ) | Drafters | _____ | ( _____ ) | Landscape | _____ | ( _____ ) |  | _____ | ( _____ ) |  | _____ | ( _____ ) |  |  |  |  |  |  |  |  |  | Total | _____ | ( _____ ) |
| Admin. Personnel                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                | _____                                              | ( _____ )                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      | Ecologists                                     | _____ | ( _____ )        | Licensed Site Profs.  | _____     | ( _____ )  | Other | _____     | ( _____ )            |       |           |       |       |           |            |       |           |                   |       |           |                   |       |           |  |       |           |                   |       |           |               |       |           |                       |       |           |  |       |           |              |       |           |                 |       |           |                       |       |           |  |       |           |                  |       |           |                 |       |           |                   |       |           |  |       |           |                         |       |           |            |       |           |           |       |           |  |       |           |                 |       |           |                    |       |           |  |       |           |  |       |           |          |       |           |           |       |           |  |       |           |  |       |           |  |  |  |  |  |  |  |  |  |       |       |           |
| Architects                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      | _____                                              | ( _____ )                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      | Electrical Engrs.                              | _____ | ( _____ )        | Mechanical Engrs.     | _____     | ( _____ )  |       | _____     | ( _____ )            |       |           |       |       |           |            |       |           |                   |       |           |                   |       |           |  |       |           |                   |       |           |               |       |           |                       |       |           |  |       |           |              |       |           |                 |       |           |                       |       |           |  |       |           |                  |       |           |                 |       |           |                   |       |           |  |       |           |                         |       |           |            |       |           |           |       |           |  |       |           |                 |       |           |                    |       |           |  |       |           |  |       |           |          |       |           |           |       |           |  |       |           |  |       |           |  |  |  |  |  |  |  |  |  |       |       |           |
| Acoustical Engrs.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               | _____                                              | ( _____ )                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      | Environmental                                  | _____ | ( _____ )        | Planners: Urban./Reg. | _____     | ( _____ )  |       | _____     | ( _____ )            |       |           |       |       |           |            |       |           |                   |       |           |                   |       |           |  |       |           |                   |       |           |               |       |           |                       |       |           |  |       |           |              |       |           |                 |       |           |                       |       |           |  |       |           |                  |       |           |                 |       |           |                   |       |           |  |       |           |                         |       |           |            |       |           |           |       |           |  |       |           |                 |       |           |                    |       |           |  |       |           |  |       |           |          |       |           |           |       |           |  |       |           |  |       |           |  |  |  |  |  |  |  |  |  |       |       |           |
| Civil Engrs.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    | _____                                              | ( _____ )                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      | Fire Protection                                | _____ | ( _____ )        | Specification Writers | _____     | ( _____ )  |       | _____     | ( _____ )            |       |           |       |       |           |            |       |           |                   |       |           |                   |       |           |  |       |           |                   |       |           |               |       |           |                       |       |           |  |       |           |              |       |           |                 |       |           |                       |       |           |  |       |           |                  |       |           |                 |       |           |                   |       |           |  |       |           |                         |       |           |            |       |           |           |       |           |  |       |           |                 |       |           |                    |       |           |  |       |           |  |       |           |          |       |           |           |       |           |  |       |           |  |       |           |  |  |  |  |  |  |  |  |  |       |       |           |
| Code Specialists                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                | _____                                              | ( _____ )                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      | Geotech. Engrs.                                | _____ | ( _____ )        | Structural Engrs.     | _____     | ( _____ )  |       | _____     | ( _____ )            |       |           |       |       |           |            |       |           |                   |       |           |                   |       |           |  |       |           |                   |       |           |               |       |           |                       |       |           |  |       |           |              |       |           |                 |       |           |                       |       |           |  |       |           |                  |       |           |                 |       |           |                   |       |           |  |       |           |                         |       |           |            |       |           |           |       |           |  |       |           |                 |       |           |                    |       |           |  |       |           |  |       |           |          |       |           |           |       |           |  |       |           |  |       |           |  |  |  |  |  |  |  |  |  |       |       |           |
| Construction Inspectors                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         | _____                                              | ( _____ )                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      | Industrial                                     | _____ | ( _____ )        | Surveyors             | _____     | ( _____ )  |       | _____     | ( _____ )            |       |           |       |       |           |            |       |           |                   |       |           |                   |       |           |  |       |           |                   |       |           |               |       |           |                       |       |           |  |       |           |              |       |           |                 |       |           |                       |       |           |  |       |           |                  |       |           |                 |       |           |                   |       |           |  |       |           |                         |       |           |            |       |           |           |       |           |  |       |           |                 |       |           |                    |       |           |  |       |           |  |       |           |          |       |           |           |       |           |  |       |           |  |       |           |  |  |  |  |  |  |  |  |  |       |       |           |
| Cost Estimators                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 | _____                                              | ( _____ )                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      | Interior Designers                             | _____ | ( _____ )        |                       | _____     | ( _____ )  |       | _____     | ( _____ )            |       |           |       |       |           |            |       |           |                   |       |           |                   |       |           |  |       |           |                   |       |           |               |       |           |                       |       |           |  |       |           |              |       |           |                 |       |           |                       |       |           |  |       |           |                  |       |           |                 |       |           |                   |       |           |  |       |           |                         |       |           |            |       |           |           |       |           |  |       |           |                 |       |           |                    |       |           |  |       |           |  |       |           |          |       |           |           |       |           |  |       |           |  |       |           |  |  |  |  |  |  |  |  |  |       |       |           |
| Drafters                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        | _____                                              | ( _____ )                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      | Landscape                                      | _____ | ( _____ )        |                       | _____     | ( _____ )  |       | _____     | ( _____ )            |       |           |       |       |           |            |       |           |                   |       |           |                   |       |           |  |       |           |                   |       |           |               |       |           |                       |       |           |  |       |           |              |       |           |                 |       |           |                       |       |           |  |       |           |                  |       |           |                 |       |           |                   |       |           |  |       |           |                         |       |           |            |       |           |           |       |           |  |       |           |                 |       |           |                    |       |           |  |       |           |  |       |           |          |       |           |           |       |           |  |       |           |  |       |           |  |  |  |  |  |  |  |  |  |       |       |           |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |                                                    |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |                                                |       |                  |                       |           |            | Total | _____     | ( _____ )            |       |           |       |       |           |            |       |           |                   |       |           |                   |       |           |  |       |           |                   |       |           |               |       |           |                       |       |           |  |       |           |              |       |           |                 |       |           |                       |       |           |  |       |           |                  |       |           |                 |       |           |                   |       |           |  |       |           |                         |       |           |            |       |           |           |       |           |  |       |           |                 |       |           |                    |       |           |  |       |           |  |       |           |          |       |           |           |       |           |  |       |           |  |       |           |  |  |  |  |  |  |  |  |  |       |       |           |
| 5. Has this Joint-Venture previously worked together? <input type="checkbox"/> Yes <input type="checkbox"/> No                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |                                                    |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |                                                |       |                  |                       |           |            |       |           |                      |       |           |       |       |           |            |       |           |                   |       |           |                   |       |           |  |       |           |                   |       |           |               |       |           |                       |       |           |  |       |           |              |       |           |                 |       |           |                       |       |           |  |       |           |                  |       |           |                 |       |           |                   |       |           |  |       |           |                         |       |           |            |       |           |           |       |           |  |       |           |                 |       |           |                    |       |           |  |       |           |  |       |           |          |       |           |           |       |           |  |       |           |  |       |           |  |  |  |  |  |  |  |  |  |       |       |           |

6. List **ONLY** Those Prime And Sub-Consultant Personnel Specifically Requested In The Advertisement. This Information Should Be Presented Below In The Form Of An Organizational Chart. Include Name Of Firm And Name Of The One Person In Charge Of The Discipline, With Mass. Registration Number, As Well As MBE/WBE Status, If Applicable:

**CITY / TOWN / AGENCY**

**Prime Consultant**  
Principal-In-Charge

**Project Manager for Study**

**Project Manager for Design**

**Discipline**  
(from advertisement)

Name Of Firm  
Person In Charge Of Discipline  
Mass. Registr. #  
MBE/WBE Certified (If  
Applicable)

**Discipline**  
(from advertisement)

Name Of Firm  
Person In Charge Of Discipline  
Mass. Registr. #  
MBE/WBE Certified (If  
Applicable)

**Discipline**  
(from advertisement)

Name Of Firm  
Person In Charge Of Discipline  
Mass. Registr. #  
MBE/WBE Certified (If  
Applicable)

**Discipline**  
(from advertisement)

Name Of Firm  
Person In Charge Of Discipline  
Mass. Registr. #  
MBE/WBE Certified (If  
Applicable)

|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |                                                                                                                                                                                                                                                              |
|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 7. Brief Resume of ONLY those Prime Applicant and Sub-Consultant personnel requested in the Advertisement. <u>Include Resumes of Project Managers</u> . Resumes should be consistent with the persons listed on the Organizational Chart in Question # 6. Additional sheets should be provided only as required for the number of Key Personnel requested in the Advertisement and they must be in the format provided. By including a Firm as a Sub-Consultant, the Prime Applicant certifies that the listed Firm has agreed to work on this Project, should the team be selected. |                                                                                                                                                                                                                                                              |
| a. Name and Title Within Firm:                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       | a. Name and Title Within Firm:                                                                                                                                                                                                                               |
| b. Project Assignment:                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               | b. Project Assignment:                                                                                                                                                                                                                                       |
| c. Name and Address Of Office In Which Individual Identified In 7a Resides:<br><div style="text-align: right;"> MBE <input type="checkbox"/><br/> WBE <input type="checkbox"/><br/> SDVOBE <input type="checkbox"/><br/> VBE <input type="checkbox"/> </div>                                                                                                                                                                                                                                                                                                                         | c. Name and Address Of Office In Which Individual Identified In 7a Resides:<br><div style="text-align: right;"> MBE <input type="checkbox"/><br/> WBE <input type="checkbox"/><br/> SDVOBE <input type="checkbox"/><br/> VBE <input type="checkbox"/> </div> |
| d. Years Experience: With This Firm: _____ With Other Firms: _____                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   | d. Years Experience: With This Firm: _____ With Other Firms: _____                                                                                                                                                                                           |
| e. Education: Degree(s) /Year/Specialization                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         | e. Education: Degree(s) /Year/Specialization                                                                                                                                                                                                                 |
| f. Active Registration: Year First Registered/Discipline/Mass Registration Number                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    | f. Active Registration: Year First Registered/Discipline/Mass Registration Number                                                                                                                                                                            |
| g. Current Work Assignments and Availability For This Project:                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       | g. Current Work Assignments and Availability For This Project:                                                                                                                                                                                               |
| h. Other Experience and Qualifications Relevant To The Proposed Project: (Identify Firm By Which Employed, If Not Current Firm):                                                                                                                                                                                                                                                                                                                                                                                                                                                     | h. Other Experience and Qualifications Relevant To The Proposed Project: (Identify Firm By Which Employed, If Not Current Firm):                                                                                                                             |

| 8a. Current and Relevant Work By Prime Applicant Or Joint-Venture Members. Include <b><u>ONLY</u></b> Work Which Best Illustrates Current Qualifications In The Areas Listed In The Advertisement (List Up To But Not More Than 5 Projects). |                                                                                               |                                                                                |                                                |                                                                     |                                                   |
|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------|------------------------------------------------|---------------------------------------------------------------------|---------------------------------------------------|
| a. Project Name And Location<br>Principal-In-Charge                                                                                                                                                                                          | b. Brief Description Of Project And<br>Services (Include Reference To<br>Relevant Experience) | c. Client's Name, Address And Phone<br>Number (Include Name Of Contact Person) | d. Completion<br>Date (Actual<br>Or Estimated) | e. Project Cost (In Thousands)                                      |                                                   |
|                                                                                                                                                                                                                                              |                                                                                               |                                                                                |                                                | Construction<br>Costs (Actual, Or<br>Estimated If Not<br>Completed) | Fee for Work for<br>Which Firm Was<br>Responsible |
| (1)                                                                                                                                                                                                                                          |                                                                                               |                                                                                |                                                |                                                                     |                                                   |
| (2)                                                                                                                                                                                                                                          |                                                                                               |                                                                                |                                                |                                                                     |                                                   |
| (3)                                                                                                                                                                                                                                          |                                                                                               |                                                                                |                                                |                                                                     |                                                   |
| (4)                                                                                                                                                                                                                                          |                                                                                               |                                                                                |                                                |                                                                     |                                                   |
| (5)                                                                                                                                                                                                                                          |                                                                                               |                                                                                |                                                |                                                                     |                                                   |



| 8b. List Current and Relevant Work By Sub-Consultants Which Best Illustrates Current Qualifications In The Areas Listed In The Advertisement (Up To But Not More Than 5 Projects For Each Sub-Consultant). Use Additional Sheets Only As Required For The Number Of Sub-Consultants Requested In The Advertisement. |                                                                                              |                                                                               |                                                |                                                                     |                                                      |
|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------|------------------------------------------------|---------------------------------------------------------------------|------------------------------------------------------|
| Sub-Consultant Name:                                                                                                                                                                                                                                                                                                |                                                                                              |                                                                               |                                                |                                                                     |                                                      |
| a. Project Name and Location<br>Principal-In-Charge                                                                                                                                                                                                                                                                 | b. Brief Description Of Project and<br>Services (Include Reference To<br>Relevant Experience | c. Client's Name, Address And Phone<br>Number. Include Name Of Contact Person | d. Completion<br>Date (Actual<br>Or Estimated) | e. Project Cost (In Thousands)                                      |                                                      |
|                                                                                                                                                                                                                                                                                                                     |                                                                                              |                                                                               |                                                | Construction<br>Costs (Actual, Or<br>Estimated If Not<br>Completed) | Fee For Work For<br>Which Firm Was/Is<br>Responsible |
| (1)                                                                                                                                                                                                                                                                                                                 |                                                                                              |                                                                               |                                                |                                                                     |                                                      |
| (2)                                                                                                                                                                                                                                                                                                                 |                                                                                              |                                                                               |                                                |                                                                     |                                                      |
| (3)                                                                                                                                                                                                                                                                                                                 |                                                                                              |                                                                               |                                                |                                                                     |                                                      |
| (4)                                                                                                                                                                                                                                                                                                                 |                                                                                              |                                                                               |                                                |                                                                     |                                                      |
| (5)                                                                                                                                                                                                                                                                                                                 |                                                                                              |                                                                               |                                                |                                                                     |                                                      |

| 9. List All Projects Within The Past 5 Years For Which Prime Applicant Has Performed, Or Has Entered Into A Contract To Perform, Any Design Services For All Public Agencies Within The Commonwealth. |                                          |                                                |                                                                                           |                                                                         |                                                                     |
|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------|------------------------------------------------|-------------------------------------------------------------------------------------------|-------------------------------------------------------------------------|---------------------------------------------------------------------|
| <b># of Total Projects:</b>                                                                                                                                                                           |                                          | <b># of Active Projects:</b>                   | <b>Total Construction Cost (In Thousands)<br/>of Active Projects (excluding studies):</b> |                                                                         |                                                                     |
| Role<br>P, C, JV<br>*                                                                                                                                                                                 | Phases<br>St., Sch., D.D.,<br>C.D.,A.C.* | Project Name, Location and Principal-In-Charge | Awarding Authority (Include Contact Name and<br>Phone Number)                             | Construction Costs<br>(In Thousands)<br>(Actual, Or<br>Estimated If Not | Completion Date<br>(Actual or Estimated)<br>(R)Renovation or (N)New |
|                                                                                                                                                                                                       |                                          | 1.                                             |                                                                                           |                                                                         |                                                                     |
|                                                                                                                                                                                                       |                                          | 2.                                             |                                                                                           |                                                                         |                                                                     |
|                                                                                                                                                                                                       |                                          | 3.                                             |                                                                                           |                                                                         |                                                                     |
|                                                                                                                                                                                                       |                                          | 4.                                             |                                                                                           |                                                                         |                                                                     |
|                                                                                                                                                                                                       |                                          | 5.                                             |                                                                                           |                                                                         |                                                                     |
|                                                                                                                                                                                                       |                                          | 6.                                             |                                                                                           |                                                                         |                                                                     |
|                                                                                                                                                                                                       |                                          | 7.                                             |                                                                                           |                                                                         |                                                                     |
|                                                                                                                                                                                                       |                                          | 8.                                             |                                                                                           |                                                                         |                                                                     |
|                                                                                                                                                                                                       |                                          | 9.                                             |                                                                                           |                                                                         |                                                                     |
|                                                                                                                                                                                                       |                                          | 10.                                            |                                                                                           |                                                                         |                                                                     |
|                                                                                                                                                                                                       |                                          | 11.                                            |                                                                                           |                                                                         |                                                                     |
|                                                                                                                                                                                                       |                                          | 12.                                            |                                                                                           |                                                                         |                                                                     |

\* P = Principal; C = Consultant; JV = Joint Venture; St. = Study; Sch. = Schematic; D.D. = Design Development; C.D. = Construction Documents; A.C. = Administration of Contract

|                                      |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |                                   |                                         |                |                   |                |                   |           |                   |    |  |  |  |    |  |  |  |    |  |  |  |    |  |  |  |    |  |  |  |    |  |  |  |
|--------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------|-----------------------------------------|----------------|-------------------|----------------|-------------------|-----------|-------------------|----|--|--|--|----|--|--|--|----|--|--|--|----|--|--|--|----|--|--|--|----|--|--|--|
| 10.                                  | Use This Space To Provide Any Additional Information Or Description Of Resources Supporting The Qualifications Of Your Firm And That Of Your Sub-Consultants For The Proposed Project. If Needed, Up To Three, Double-Sided 8 ½" X 11" Supplementary Sheets Will Be Accepted. <b><u>APPLICANTS ARE ENCOURAGED TO RESPOND SPECIFICALLY IN THIS SECTION TO THE AREAS OF EXPERIENCE REQUESTED IN THE ADVERTISEMENT.</u></b>                                                                                                                                                                                                                                                                                                                                              |                                   |                                         |                |                   |                |                   |           |                   |    |  |  |  |    |  |  |  |    |  |  |  |    |  |  |  |    |  |  |  |    |  |  |  |
| <b>Be Specific – No Boiler Plate</b> |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |                                   |                                         |                |                   |                |                   |           |                   |    |  |  |  |    |  |  |  |    |  |  |  |    |  |  |  |    |  |  |  |    |  |  |  |
| 11.                                  | Professional Liability Insurance:<br><br><table style="width: 100%; border: none;"> <tr> <td style="width: 30%;">Name of Company</td> <td style="width: 30%;">Aggregate Amount</td> <td style="width: 20%;">Policy Number</td> <td style="width: 20%;">Expiration Date</td> </tr> </table>                                                                                                                                                                                                                                                                                                                                                                                                                                                                            | Name of Company                   | Aggregate Amount                        | Policy Number  | Expiration Date   |                |                   |           |                   |    |  |  |  |    |  |  |  |    |  |  |  |    |  |  |  |    |  |  |  |    |  |  |  |
| Name of Company                      | Aggregate Amount                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      | Policy Number                     | Expiration Date                         |                |                   |                |                   |           |                   |    |  |  |  |    |  |  |  |    |  |  |  |    |  |  |  |    |  |  |  |    |  |  |  |
| 12.                                  | Have monies been paid by you, or on your behalf, as a result of Professional Liability Claims (in any jurisdiction) occurring within the last 5 years and in excess of \$50,000 per incident? Answer <b>YES</b> or <b>NO</b> . If YES, please include the name(s) of the Project(s) and Client(s), and an explanation (attach separate sheet if necessary).                                                                                                                                                                                                                                                                                                                                                                                                           |                                   |                                         |                |                   |                |                   |           |                   |    |  |  |  |    |  |  |  |    |  |  |  |    |  |  |  |    |  |  |  |    |  |  |  |
| 13.                                  | Name Of Sole Proprietor Or Names Of All Firm Partners and Officers:<br><table style="width: 100%; border: none;"> <tr> <td style="width: 15%;">Name</td> <td style="width: 15%;">Title</td> <td style="width: 15%;">MA Reg #</td> <td style="width: 15%;">Status/Discipline</td> <td style="width: 15%;">Name</td> <td style="width: 15%;">Title</td> <td style="width: 15%;">MA Reg #</td> <td style="width: 15%;">Status/Discipline</td> </tr> <tr> <td>a.</td> <td></td> <td></td> <td></td> <td>d.</td> <td></td> <td></td> <td></td> </tr> <tr> <td>b.</td> <td></td> <td></td> <td></td> <td>e.</td> <td></td> <td></td> <td></td> </tr> <tr> <td>c.</td> <td></td> <td></td> <td></td> <td>f.</td> <td></td> <td></td> <td></td> </tr> </table>                | Name                              | Title                                   | MA Reg #       | Status/Discipline | Name           | Title             | MA Reg #  | Status/Discipline | a. |  |  |  | d. |  |  |  | b. |  |  |  | e. |  |  |  | c. |  |  |  | f. |  |  |  |
| Name                                 | Title                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 | MA Reg #                          | Status/Discipline                       | Name           | Title             | MA Reg #       | Status/Discipline |           |                   |    |  |  |  |    |  |  |  |    |  |  |  |    |  |  |  |    |  |  |  |    |  |  |  |
| a.                                   |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |                                   |                                         | d.             |                   |                |                   |           |                   |    |  |  |  |    |  |  |  |    |  |  |  |    |  |  |  |    |  |  |  |    |  |  |  |
| b.                                   |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |                                   |                                         | e.             |                   |                |                   |           |                   |    |  |  |  |    |  |  |  |    |  |  |  |    |  |  |  |    |  |  |  |    |  |  |  |
| c.                                   |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |                                   |                                         | f.             |                   |                |                   |           |                   |    |  |  |  |    |  |  |  |    |  |  |  |    |  |  |  |    |  |  |  |    |  |  |  |
| 14.                                  | If Corporation, Provide Names Of All Members Of The Board Of Directors:<br><table style="width: 100%; border: none;"> <tr> <td style="width: 15%;">Name</td> <td style="width: 15%;">Title</td> <td style="width: 15%;">MA Reg #</td> <td style="width: 15%;">Status/Discipline</td> <td style="width: 15%;">Name</td> <td style="width: 15%;">Title</td> <td style="width: 15%;">MA Reg #</td> <td style="width: 15%;">Status/Discipline</td> </tr> <tr> <td>a.</td> <td></td> <td></td> <td></td> <td>d.</td> <td></td> <td></td> <td></td> </tr> <tr> <td>b.</td> <td></td> <td></td> <td></td> <td>e.</td> <td></td> <td></td> <td></td> </tr> <tr> <td>c.</td> <td></td> <td></td> <td></td> <td>f.</td> <td></td> <td></td> <td></td> </tr> </table>            | Name                              | Title                                   | MA Reg #       | Status/Discipline | Name           | Title             | MA Reg #  | Status/Discipline | a. |  |  |  | d. |  |  |  | b. |  |  |  | e. |  |  |  | c. |  |  |  | f. |  |  |  |
| Name                                 | Title                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 | MA Reg #                          | Status/Discipline                       | Name           | Title             | MA Reg #       | Status/Discipline |           |                   |    |  |  |  |    |  |  |  |    |  |  |  |    |  |  |  |    |  |  |  |    |  |  |  |
| a.                                   |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |                                   |                                         | d.             |                   |                |                   |           |                   |    |  |  |  |    |  |  |  |    |  |  |  |    |  |  |  |    |  |  |  |    |  |  |  |
| b.                                   |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |                                   |                                         | e.             |                   |                |                   |           |                   |    |  |  |  |    |  |  |  |    |  |  |  |    |  |  |  |    |  |  |  |    |  |  |  |
| c.                                   |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |                                   |                                         | f.             |                   |                |                   |           |                   |    |  |  |  |    |  |  |  |    |  |  |  |    |  |  |  |    |  |  |  |    |  |  |  |
| 15.                                  | Names Of All Owners (Stocks Or Other Ownership):<br><table style="width: 100%; border: none;"> <tr> <td style="width: 15%;">Name And Title</td> <td style="width: 15%;">% Ownership</td> <td style="width: 15%;">MA. Reg.#</td> <td style="width: 15%;">Status/Discipline</td> <td style="width: 15%;">Name And Title</td> <td style="width: 15%;">% Ownership</td> <td style="width: 15%;">MA. Reg.#</td> <td style="width: 15%;">Status/Discipline</td> </tr> <tr> <td>a.</td> <td></td> <td></td> <td></td> <td>d.</td> <td></td> <td></td> <td></td> </tr> <tr> <td>b.</td> <td></td> <td></td> <td></td> <td>e.</td> <td></td> <td></td> <td></td> </tr> <tr> <td>c.</td> <td></td> <td></td> <td></td> <td>f.</td> <td></td> <td></td> <td></td> </tr> </table> | Name And Title                    | % Ownership                             | MA. Reg.#      | Status/Discipline | Name And Title | % Ownership       | MA. Reg.# | Status/Discipline | a. |  |  |  | d. |  |  |  | b. |  |  |  | e. |  |  |  | c. |  |  |  | f. |  |  |  |
| Name And Title                       | % Ownership                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           | MA. Reg.#                         | Status/Discipline                       | Name And Title | % Ownership       | MA. Reg.#      | Status/Discipline |           |                   |    |  |  |  |    |  |  |  |    |  |  |  |    |  |  |  |    |  |  |  |    |  |  |  |
| a.                                   |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |                                   |                                         | d.             |                   |                |                   |           |                   |    |  |  |  |    |  |  |  |    |  |  |  |    |  |  |  |    |  |  |  |    |  |  |  |
| b.                                   |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |                                   |                                         | e.             |                   |                |                   |           |                   |    |  |  |  |    |  |  |  |    |  |  |  |    |  |  |  |    |  |  |  |    |  |  |  |
| c.                                   |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |                                   |                                         | f.             |                   |                |                   |           |                   |    |  |  |  |    |  |  |  |    |  |  |  |    |  |  |  |    |  |  |  |    |  |  |  |
| 16.                                  | I hereby certify that the undersigned is an Authorized Signatory of Firm and is a Principal or Officer of Firm. I further certify that this firm is a "Designer", as that term is defined in Chapter 7C, Section 44 of the General Laws, or that the services required are limited to construction management or the preparation of master plans, studies, surveys, soil tests, cost estimates or programs. The information contained in this application is true, accurate and sworn to by the undersigned under the pains and penalties of perjury.<br><br><table style="width: 100%; border: none;"> <tr> <td style="width: 50%;">Submitted by<br/>(Signature) _____</td> <td style="width: 50%;">Printed Name and Title _____ Date _____</td> </tr> </table>      | Submitted by<br>(Signature) _____ | Printed Name and Title _____ Date _____ |                |                   |                |                   |           |                   |    |  |  |  |    |  |  |  |    |  |  |  |    |  |  |  |    |  |  |  |    |  |  |  |
| Submitted by<br>(Signature) _____    | Printed Name and Title _____ Date _____                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |                                   |                                         |                |                   |                |                   |           |                   |    |  |  |  |    |  |  |  |    |  |  |  |    |  |  |  |    |  |  |  |    |  |  |  |