Source: Renderings provided by Silver/Petrucelli & Associates

Environmental Assessment for Construction of New Fire Station and Apparatus Maintenance Facility

Date: March 2010	Sheet: Figure 3
Scale: NTS	

Engineering, Landscape Architecture and Environmental Science

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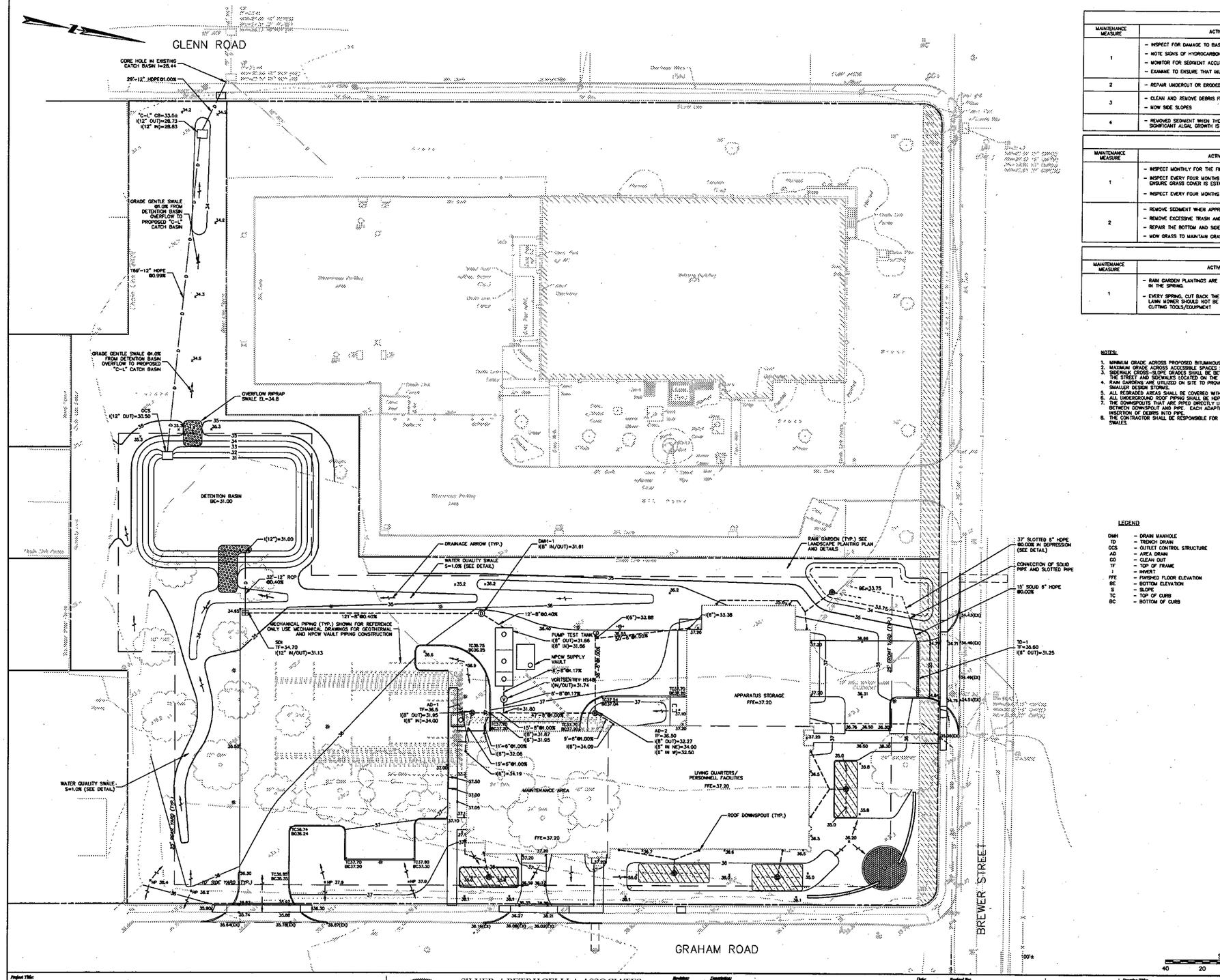

DETENTION BASIN MAINTENANCE SCHEDULE		
MAINTENANCE MEASURE	ACTIVITY	SCHEDULE
1	– INSPECT FOR DAMAGE TO BASIN – NOTE SIGNS OF HYDROCARBON BUILDUP, AND REMOVE IF DETECTED – MONITOR FOR SEDIMENT ACCUMULATION – EXAMINE TO ENSURE THAT INLET AND OUTLET DEVICES ARE FREE OF DEBRIS AND OPERATIONAL	ANNUAL INSPECTION
2	– REPAIR UNDERCUT OR ERODED AREAS	AS-NEEDED MAINTENANCE
3	– CLEAN AND REMOVE DEBRIS FROM INLET AND OUTLET STRUCTURES – MOW SIDE SLOPES	MONTHLY MAINTENANCE
4	– REMOVED SEDIMENT WHEN THE BASIN VOLUME HAS BEEN SIGNIFICANTLY REDUCED OR WHEN SIGNIFICANT ALGAL GROWTH IS OBSERVED	10 YEAR MAINTENANCE

WATER QUALITY SWALE MAINTENANCE SCHEDULE		
MAINTENANCE MEASURE	ACTIVITY	SCHEDULE
1	– INSPECT MONTHLY FOR THE FIRST FOUR MONTHS TO ENSURE GRASS COVER IS ESTABLISHED – INSPECT EVERY FOUR MONTHS AND AFTER MAJOR STORM EVENTS FOR THE NEXT 8 MONTHS TO ENSURE GRASS COVER IS ESTABLISHED – INSPECT EVERY FOUR MONTHS AND AFTER MAJOR STORM EVENTS FOR THE NEXT 8 MONTHS TO	FIRST YEAR INSPECTIONS
2	– REMOVE SEDIMENT WHEN APPROXIMATELY 25% OF CHANNEL CAPACITY HAS BEEN EXCEEDED – REMOVE EXCESSIVE TRASH AND DEBRIS – REPAIR THE BOTTOM AND SIDES OF SWALE IF EROSION HAS OCCURRED – MOW GRASS TO MAINTAIN GRASS HEIGHTS OF FOUR TO SIX INCHES	AS-NEEDED MAINTENANCE

RAIN GARDEN MAINTENANCE SCHEDULE		
MAINTENANCE MEASURE	ACTIVITY	SCHEDULE
1	– RAIN GARDEN PLANTINGS ARE HERBACEOUS SO THEY WILL DIE BACK EVERY FALL AND REEMERGE IN THE SPRING. – EVERY SPRING, CUT BACK THE DEAD PLANTINGS THAT REMAIN FROM THE PREVIOUS FALL. A LAWN MOWER SHOULD NOT BE USED – REMOVE DEAD PLANTINGS BY HAND OR WITH APPROPRIATE CUTTING TOOLS/EQUIPMENT	ANNUAL

NOTES:

1. MINIMUM GRADE ACROSS PROPOSED BITUMINOUS PARKING AREA SHALL BE 1.50%
2. MAXIMUM GRADE ACROSS ACCESSIBLE SPACES SHALL BE 2.00%
3. SIDEWALK CROSS-SLOPE GRADES SHALL BE BETWEEN 1.00% AND 2.00%. SIDEWALKS LOCATED IN THE RIGHT OF WAY SHALL SLOPE TOWARDS THE STREET AND SIDEWALKS LOCATED ON THE SITE SHALL SLOPE TOWARD PAVED AREAS.
4. RAIN GARDENS ARE UTILIZED ON SITE TO PROVIDE WATER QUALITY TREATMENT, AS WELL AS ATTENUATE PEAK FLOWS GENERATED BY THE SMALLER DESIGN STORMS.
5. ALL REGRADED AREAS SHALL BE COVERED WITH 6" (MINIMUM) TOPSOIL, SEED, FERTILIZER, AND MULCH.
6. ALL UNDERGROUND ROOF PIPING SHALL BE HDPE PIPE, UNLESS OTHERWISE SPECIFIED.
7. THE DOWNSPOUTS THAT ARE PIPED DIRECTLY UNDERGROUND SHALL CONNECT TO PVC PIPE WITH AN ADAPTER THAT SEALS THE OPENING BETWEEN DOWNSPOUT AND PIPE. EACH ADAPTER SHALL BE SEALED WITH A SCREW ON BOTH SIDES TO PREVENT EASY REMOVAL AND INSERTION OF DEBRIS INTO PIPE.
8. THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE FIRST 18 MONTHS OF MAINTENANCE ON THE DETENTION BASIN AND THE WATER QUALITY SWALES.

LEGEND

DMH	– DRAIN MANHOLE
TD	– TRENCH DRAIN
OCS	– OUTLET CONTROL STRUCTURE
AD	– AREA DRAIN
CO	– CLEAN OUT
TF	– TOP OF FRAME
I	– INVERT
FFE	– FINISHED FLOOR ELEVATION
BE	– BOTTOM ELEVATION
S	– SLOPE
TC	– TOP OF CURB
BC	– BOTTOM OF CURB

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Project Title:
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141 Brewer Street
East Hartford, Connecticut

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Revision:	Description:	Date:	Revised By:

Drawing Title:
GRADING & DRAINAGE PLAN

Date: AUGUST 4, 2009
Scale: 1"=20'
Drawn By:
Project Number:
Drawing Number: C-2

LEED Certification

The proposed facility is intended to be Leadership in Energy and Environmental Design (LEED™) certified as recognized by the United States Green Building Council (USGB). The project has been registered with the USGB as project identification number 1000000677. The one-story 16,000 SF facility will implement a geothermal closed loop system, which will reduce the energy costs by 20% to 25%. Solar panels will be used to generate electricity and produce hot water. The majority of the building materials will consist of preconsumer and postconsumer recycled materials. The lighting systems will implement occupancy sensors and daylight controls to reduce electrical costs. The building's envelope insulation system will exceed the current energy standards. A radiant floor system will be designed to take advantage of the thermal mass of the concrete floors. Low-flow plumbing fixtures and waterless urinals will be used throughout the facility. The design team proposed to manage on-site drainage and recycle a portion of rainwater for reuse to wash the vehicles. Rain gardens are implemented to capture on-site drainage and recharge the aquifers, along with landscaping that will not require irrigation. Large shade trees are used to block solar heat gain close to the building. Lastly, a majority of the materials will be procured within a 500-mile radius of the project.

2.0 PURPOSE AND NEED

The purpose of the proposed project is to replace the existing outdated and deteriorating Fire Station #5 with a new workable, durable, energy-efficient state-of-the-art facility and construct a town-owned apparatus repair facility. The new fire station and apparatus maintenance facility will allow the East Hartford Fire Department to continue to protect the life and property within its community and the vital infrastructure located within the town's boundaries that serves our region, state, and nation. The Fire Department fulfills its goal through fire suppression, rescue, hazardous material incident response, and the delivery of emergency medical services at both the basic and advanced life support levels. The department maintains five stations and a roster of 132 personnel that responded to 9,213 incidents in 2008.

East Hartford is located at the crossroads of two major interstate highways and the three Connecticut River crossings to the city of Hartford. Two of these river crossings are major interstate routes classified as critical infrastructure supporting commerce and emergency response to the capital city during large-scale incidents. East Hartford is the site of the information technology hub for all State of Connecticut agencies and a similar facility supporting a major national financial institution. A major petroleum pipeline serving much of southern New England is located along the Connecticut River in East Hartford. Several critical utilities traverse the Connecticut River and enter East Hartford prior to extending into other communities east of the river.

Pratt & Whitney's main aircraft engine manufacturing plant is located in East Hartford. Due to its use as a military installation for the research and development of military aircraft propulsion systems, the complex has been identified as critical infrastructure and a potential target of domestic and international terrorism. This complex utilizes multiple Tier II chemicals, which pose a significant threat to the surrounding communities if released or involved in fire. Emergency response to this complex and its many hazards is the responsibility of the East Hartford Fire Department due to the significant reduction in plant protection resources.

East Hartford is home to the 40,000-seat Rentschler Field, home of the University of Connecticut's football team. The stadium, which is also classified as critical infrastructure, annually hosts many athletic events, concerts, and a multitude of other mass gathering events. The stadium is designated as the reserve Emergency Operations Center for the State of Connecticut and serves as the operational base for the deployment of state and federal assets in the event of a large-scale incident.

As one of the largest fire departments in the Capitol Region, the East Hartford Fire Department plays a lead role in regional response. The department is one of only five departments that comprise the Capitol Region Hazardous Materials Response Team with responsibility for technician level response to more than 40 communities in Hartford County and two other contiguous counties. Further, the department is frequently requested to provide mutual aid to the city of Hartford and other surrounding communities.

Deficiencies of Fire Station #5

The current Fire Station #5 houses a single in-service engine company. The response area of this company includes the Pratt & Whitney industrial complex, United Technologies Corporation Research and Testing facility, and the 40,000-seat Rentschler Field, all of which have been identified as critical infrastructure. The Station #5 district also includes a mix of old housing stock, a limited access highway, and the entire campus of Goodwin College. The needs of Pratt & Whitney are particularly critical. The in-plant fire department has shrunk from a large industrial fire department of nearly 150 firefighters to a skeleton force with limited response capabilities.

The current Fire Station #5 was built in 1931 to provide fire protection to the south end of town. As early photos indicate, the building was constructed as a one-story, two-bay fire station. Around 1938, under the Work Projects Administration program authored by President Franklin D. Roosevelt, a second floor was added to the building. It appears that little, if any, engineering design was completed prior to the addition of the second floor. The additional weight of the structure has led to a constant sag in the upper floor system.

Despite nearly constant maintenance, the existing fire station has suffered from a number of deficiencies for several years. They include:

- → Mold
- → Scabies mite infestation
- → Apparatus storage shortages
- → Second floor structural issues
- → Roof leaks
- → Fire Safety Code and OSHA concerns
- → Compliance with Americans with Disabilities Act (ADA)
- → Location
- → Building mechanicals located below grade

Mold: The town hired an environmental testing company in 2005 to conduct an indoor air quality survey. This survey found a high level of fungi in several areas of the building. It is believed to have been caused by water seepage from the ground and from persistent leaks in the roof. Measures have been completed that have temporarily mitigated the leaks. However, given the age of the structure, frequent repairs to the roof are necessary to prevent a reoccurrence. Most recently, a large section of the ceiling on the second floor was replaced due to deterioration caused by water leakage.

Scabies: On Saturday, August 20, 2005, several firefighters on duty at Fire Station #5 developed a rash. A cursory investigation found no relevant exposure outside of the fire station that may have caused the rash among the firefighters. This led to a more in-depth investigation involving the local health director and several testing companies finding that the rash was scabies. The fire station was closed, and the fire company relocated for a period of several days. This allowed all

personnel that worked at, or were assigned to, Fire Station #5 to have a detailed medical exam and, if necessary, receive treatment. This also enabled extensive cleaning and sterilization of the building.

Apparatus Storage: The addition of the second floor left the first floor apparatus bays virtually untouched. The remaining space is small, cramped, and unsuited for modern fire apparatus. Even with prudent design and specification, the department finds itself having to spend additional funds to purchase an apparatus that fits inside the apparatus bay at Fire Station #5 and yet still suits the needs of the community.

Second Floor Loading: It appears that little, if any, engineering design was completed prior to the addition of the second floor, leading to a floor assembly that cannot withstand the existing weight load. The additional weight of the structure has led to a constant deflection in the upper floor system despite much of the original one-story roof structure remaining in place. This floor deflection is noticeable to the naked eye even with limited floor loading.

Roof: The roof of the fire station has had several leaks over the years. Recent efforts to repair the leaks have only been marginally successful.

Fire Safety Code and OSHA Concerns: Fire Station #5 has significant code compliance issues. There is inadequate separation between the apparatus storage and the upper living area. The stair to the second floor is not code compliant and does not have rated doors. The installation of a diesel exhaust removal system has provided some immediate relief; however, there is not an air-tight separation among the areas of the fire station. The storage space for the firefighters' personal protective clothing (turn-out gear) is in the apparatus bay and exposes their gear to sunlight. The second means of egress for the upper floor is an older, outdoor, spiral metal stair. It is doubtful that it meets the current code requirements.

Compliance with Americans with Disabilities Act (ADA): The building, as a public facility, is noncompliant with the provisions of the ADA. The second floor of the building is inaccessible to a mobility-impaired person. The only first floor access for a mobility-impaired person is through the overhead doors in the apparatus bay.

Location: The location of the current fire station is not a recently occurring problem but is still one that must be overcome on a daily basis. The fire station is located on a one-way section of road. This necessitates very cautious response and, at times, may lead to a delay in response.

Utilities Located Below Grade: The electric and phone services, the boiler, and the hot water heater are housed in a below-grade area that is prone to flooding. Without the constant use of two submersible pumps, the area floods and disrupts the utility service to the fire station.

Deficiencies of Apparatus Maintenance Facility

The East Hartford Fire Department has identified the need to staff its own Apparatus Repair Division. Detailed cost analysis has clearly demonstrated the benefit of this service. By utilizing the Apparatus Repair Division, the department receives high quality service at a cost that is less

than that of area apparatus repair services. The Apparatus Repair Division is responsible for the maintenance and repair of six pumping engines, three aerial ladders, three rescue vehicles, a marine unit, multiple gasoline-powered small engine units, and a number of light fleet vehicles.

The master mechanic and an assistant mechanic are also responsible for the maintenance of Fire Department equipment including fire hose, self contained breathing apparatus (SCBA), and firefighting tools.

The complexity of department apparatus has grown exponentially over the past several years. The fire service has embraced new technologies to provide more effective, safer, and efficient use of personnel and equipment. Because of this increased sophistication, the knowledge base of the Fire Apparatus Repair Division has expanded well beyond simple heavy truck mechanics. Maintenance of mission critical firefighting tools and equipment that ensure the safety of the firefighters is also coordinated through this division.

The Apparatus Repair Division currently works out of a small facility that has been rented for a number of years from the regional water authority. The term "works out of" is wholly accurate as the building is too small to fit any of the current fire apparatus inside. This is not due to the apparatus being too big, but the building and its doors are too small.

The replacement of the Apparatus Repair Division shop has been a priority for the department and town for several years. The research into potential solutions has included the possible purchase of a retired State of Connecticut facility, the construction of a stand-alone building, or conversion of an existing auto repair facility. None of these options appeared viable. This led to the conclusion that combining both the replacement of Fire Station #5 and the Apparatus Repair Division into a single project provided the most realistic and economically feasible plan.

Overall, the current Fire Station #5 is a building that has served the community well but has functionally outlived its usefulness. The current apparatus maintenance facility is limiting available services to both the Fire Department and the community. East Hartford and the East Hartford Fire Department have recognized the deficiencies in the current facilities and their negative impact on service delivery. This has led to the decision to construct a new fire station with a maintenance repair facility that will better serve the department and community.

3.0 ALTERNATIVES

This section describes the alternatives that were considered in addressing the purpose and need stated in Section 2 above. Two alternatives were evaluated, the No Action Alternative and the Proposed Action Alternative, which is the construction of a new fire station at 141 Brewer Street.

3.1 Alternatives Considered and Dismissed

As stated under Section 1.4 of this EA, East Hartford and the Fire Department spent five years evaluating potential sites for the new fire station. To meet the project goals and needs, the selected parcel of land had to be located in this station's same servicing district and large enough to accommodate a new station. These requirements limited East Hartford's selection of suitable parcels given that this part of the town is already heavily developed with few available undeveloped parcels that do not require some sort of environmental remediation.

3.2 Alternative 1: No Action

Under the No Action Alternative, the fire station would not be constructed at 141 Brewer Street. Fire Station #5 currently located on Main Street would continue to potentially impact firefighters' health; the building's roof and second floor building supports would continue to deteriorate; the building size would continue to limit the Fire Department from purchasing less expensive apparatus equipment; the building would remain deficient in Fire Safety Code, OSHA, and ADA-compliant requirements; and existing utilities would still be prone to flooding.

3.3 Alternative 2: Construction of a Fire Station and Apparatus Maintenance Facility

East Hartford proposes to construct a 16,000 SF LEED certified fire station, consisting of space for two fire companies, fire personnel offices and living quarters, an apparatus maintenance facility, and associated parking lot. The new fire station would replace the existing outdated, undersized, and deteriorating station located on Main Street.

Site work would require excavation in the project area to accommodate the building foundation, detention basin, and utility installation.

3.3.1 Alternative 2.1: Construction of a Fire Station and Apparatus Maintenance Facility at 26-36 Brewer Street

A parcel located at 26-36 Brewer Street was identified as a possible location for Fire Station #5. This parcel is owned by Pratt & Whitney and is located along the northern side of Brewer Street approximately 2,200 feet east of the existing fire station. The feasibility of a fire station at this location was dependent upon future plans to develop roadway infrastructure on the Pratt & Whitney property. This development was critical to the operation of a fire station at this location. The roadway and associated infrastructure, as a private development, represented a significant uncertainty for East Hartford. That reason, as well as others identified during an environmental due diligence phase (Phase I and Phase II Environmental Assessments) indicated

various impediments to the unrestricted development of the property for use as a fire station. In addition, the parcel was bisected by water, sanitary sewer, natural gas, and jet fuel lines. The location of these utilities and the proposed layout of a new fire station would have required that these utilities be relocated, which would have significantly added to construction costs.

For these reasons, this alternative was eliminated from consideration prior to the performance of this EA.

3.3.2 Alternative 2.2: Construction of a Fire Station and Apparatus Maintenance Facility at 141 Brewer Street

A parcel located at 141 Brewer Street was identified as a possible location for Fire Station #5. This parcel was owned by the local telephone utility service and was originally part of a larger parcel. This location was deemed consistent with the needs of the fire district and upon completion of environmental due diligence investigations, including a Phase I Environmental Site Assessment, East Hartford entered into negotiations to purchase the parcel.

No other sites meeting the necessary criteria for siting of a new fire station were identified. As such, the location at 141 Brewer Street was identified as the site of the Proposed Action Alternative.

4.0 AFFECTED ENVIRONMENT AND IMPACTS

This section describes the potential impacts of the No Action Alternative and the Proposed Action Alternative. Where potential impacts exist, conditions or mitigation measures to offset these impacts are described. A summary table is provided in Section 4.11.

4.1 Physical Resources

4.1.1 Geology and Soils

According to the surficial geology and bedrock mapping of Connecticut, the entire project area is underlain by quaternary age glaciofluvial deposits (glacial material deposited by flowing water) and Portland Arkose (brownstone). The glaciofluvial deposits consist of stratified sand and gravel. Based on geotechnical borings conducted at this project site in 2009, the soils were classified as being generally fine to medium sand with some silt and were underlain by a deep clay stratum. Ground water was found at a depth of five to seven feet.

The topography at the project site is relatively flat (less than three percent). Existing grades on the subject site range from elevation 34 feet to 36 feet NAVD 88.

According to the U.S. Department of Agriculture (USDA) Natural Resources Conservation Service (NRCS) online Web Soil Survey, the proposed project site is mapped as "Windsor Loamy Sand," which consists of very deep, excessively drained soils formed in sandy glacial outwash. They are nearly level to very steep soils on glaciofluvial landforms. Slope ranges from 0 to 6 percent. Saturated hydraulic conductivity is high or very high. Windsor soils at this site are classified as farmland soils of statewide importance.

The Farmland Protection Policy Act (FPPA) states that federal agencies must "minimize the extent to which Federal programs contribute to the unnecessary conversion of farmland to nonagricultural uses." Given the small size of this undeveloped parcel (2.3 acres) and the fact that it is entirely surrounded by development, the site is unlikely to serve a useful agricultural purpose.

No Action Alternative – Under the No Action Alternative, no construction would occur, and there would be no impacts to geology or soils.

Proposed Action Alternative – Under the Proposed Action Alternative, construction activities would not be deep enough to affect underlying geologic resources. Because ground water was found at shallow depths of five to seven feet, the proposed fire station will be built with a slab-on-grade foundation. For frost protection, the footings will need to be at least 3.5 feet below the soil surface. Soil will be stockpiled on site and used as needed to complete final grading. A sediment and erosion control plan has been prepared as part of the local permit approvals. Adherence to the plan will minimize erosion and prevent the off-site transport of sediment. Excavated soil and waste materials would be managed and disposed of in accordance with applicable local, state, and federal regulations.

Proposed Action Mitigation – Under the Proposed Action Alternative, no additional mitigation is required or proposed. Due to a shallow ground water table (five to seven feet below surface), excavation depths have been limited, thus preserving the underlying geologic resources.

4.1.2 Air Quality

The Clean Air Act (CAA) requires that states adopt ambient air quality standards to be protective of the public from potentially harmful amounts of pollutants. Under the CAA, the Environmental Protection Agency (EPA) establishes primary and secondary air quality standards. Primary air quality standards protect the public health, including the health of "sensitive populations, such as people with asthma, children, and older adults." Secondary air quality standards protect public welfare by promoting ecosystems' health and preventing decreased visibility and damage to crops and buildings. The EPA has set national ambient air quality standards (NAAQS) for the following six criteria pollutants: ozone (O_3), particulate matter ($PM_{2.5}$, PM_{10}), nitrogen dioxide (NO_2), carbon monoxide (CO), sulfur dioxide (SO_2), and lead (Pb). Areas with air quality that does not meet the NAAQS are referred to as nonattainment zones. In order to improve air quality in nonattainment zones, states must draft a plan known as a State Implementation Plan (SIP).

According to the EPA and Connecticut Department of Environmental Protection (CTDEP), all eight counties of Connecticut and all of neighboring states of Massachusetts Rhode Island and a portion of New York form a single nonattainment area referred to as an 8-hour Ozone nonattainment area. This area is further subdivided into individual zones. East Hartford is part of the Greater Hartford nonattainment zone (EPA and CTDEP 2008).

Ground level ozone is formed when nitrogen oxides (NOx) and volatile organic compounds (VOCs) such as xylene react in the atmosphere in the presence of sunlight. Motor vehicle exhaust, industrial emissions, and chemical solvents are the major sources of these chemicals. Various state and federal programs have been initiated to limit NOx emissions through gasoline reformulation and the capping of emissions from major point sources such as power plants. Connecticut has proposed air emission rule changes applicable to the metal parts cleaning industry, the VOC content of various consumer products, and industrial coatings as a result of the nonattainment zone status.

No Action Alternative – Under the No Action Alternative, no construction would occur, and there would be no impacts to air quality.

Proposed Action Alternative – Under the Proposed Action Alternative, no long-term impacts to air quality are anticipated. Short-term impacts can be expected during construction.

Proposed Action Mitigation – Short-term impacts to air quality may occur during construction from hauling, loading, dumping, and bulldozing on any areas proposed for development. Meteorological conditions and the intensity of the activities as well as soil moisture content also govern the extent to which particles will become airborne.

Standard controls can be implemented to reduce the impact from dust emissions as well as the effects of wind erosion. Additionally, use of water or wetting agents to control dust from exposed soil or gravel areas can further minimize airborne particulate matter, as can periodic sweeping and daily rinsing of truck tires. This can reduce the impact of off-site tracking of soil, which occurs when residual soil particles are displaced from construction sites onto higher traffic roadways and then become airborne and waterborne.

Even well-maintained fire apparatus and construction equipment typically emit small amounts of pollutants, such as nitrogen oxides, sulfur oxides, and carbon monoxide related to internal combustion or diesel engines. Thus, proper maintenance of portable generators, on-site machinery, and vehicles is important to reduce the potential for higher emissions associated with improperly operating equipment.

The East Hartford Fire Department maintains all its fire apparatus, vehicles, and generators in accordance with federal and state emission levels.

Overall, the fire station will not have a significant long-term impact on air quality.

4.2 Water Resources

4.2.1 Surface Water and Water Quality

There are no surface water resources on site. Pewter Pot Brook, a perennial watercourse, occurs north and west of the project site. Pewter Pot Brook is located within a highly urbanized watershed and has been channelized in sections and impacted over the years. However, despite its urbanized watershed and associated channel impacts, the water quality within Pewter Pot Brook is classified as Class A. Class A watercourses are known or presumed to meet water quality criteria that support designated uses including potential drinking water supply, fish and wildlife habitat, recreational use, agricultural and industrial supply, and other legitimate uses including navigation.

The ground water quality at the project site is classified as GA. GA areas are ground waters within the area of influence of private and potential public water supply wells. The ground water is presumed suitable for direct human consumption without the need for treatment.

No Action Alternative – Under the No Action Alternative, no construction would occur, and there would be no impacts to surface waters and/or their water quality. In addition, ground water would not be impacted.

Proposed Action Alternative – Under the Proposed Action Alternative, there are potential short- and long-term impacts to surface water quality and/or ground water quality.

Proposed Action Mitigation – During construction, the sediment and erosion control plan will be implemented to minimize erosion and prevent the off-site transport of sediment to nearby

watercourses. In addition, the stormwater collection system has been designed to collect and treat (remove pollutants) stormwater runoff before leaving the project site. Stormwater from the fire station parking lot will be collected within a planted detention basin. The basin will retain the first flush, which typically has the highest concentration of stormwater runoff pollutants. The pollutants will be absorbed by the basin's vegetation. Overflows from the basin will then be discharged into a grass swale and then into an existing stormwater sewer system located under Glenn Road. This stormwater sewer system eventually discharges into Pewter Pot Brook.

In addition to the detention basin, roof water runoff is being collected and stored within underground cisterns and will be reused to irrigate landscape plants and for washing of apparatus. A planted rain garden is also being proposed along the northwest corner of the fire station, which will serve to collect runoff from the front entry drive and part of the building's roof runoff.

Maintenance activities associated with the proposed apparatus repair facility will not impact ground water quality because all potential pollutants such as oils, grease, and other fluids are being collected within an oil and grease trap. Washing of apparatus vehicles will be completed indoors, and the washwater will be collected in a series of floor drains that will be discharged to the sanitary sewer via an oil and water separator.

Overall, the fire station has been designed to manage and treat stormwater runoff and protect surface water and ground water quality in accordance with local, state, and federal best management practice guidelines.

4.2.2 Wetlands

The United States Army Corps of Engineers (USACE) regulates the discharge of dredged or filled material into waters of the United States, including wetlands, pursuant to Section 404 of the Clean Water Act (CWA). Additionally, EO 11990 (protection of wetlands) requires federal agencies to avoid, to the extent possible, adverse impacts to wetlands.

Based on the USDA NRCS web soil survey mapping, the National Wetland Inventory (NWI) mapping (NWI, 2009), and field reconnaissance by Milone & MacBroom, Inc. (MMI) professional certified soil scientists, there are no wetlands on the subject parcel.

No Action Alternative – Under the No Action Alternative, no construction would occur, and there would be no impacts to wetlands.

Proposed Action Alternative – Under the Proposed Action Alternative, there will be no impacts to wetlands because wetlands do not exist on site or within close proximity of the site (<100 feet).

Proposed Action Mitigation – Under the Proposed Action Alternative, there is no proposed mitigation.

4.2.3 Floodplains

FEMA recently updated (September 2008) the Hartford County flood base mapping and flood profiles. According to the FEMA maps, the project site is located within a FEMA-designated 100-year AE flood zone and a 500-year X floodzone. The northwest corner of the property along Brewer Street is shown within the 100-year flood zone. Most of the site is within the 500-year flood zone. The September 26, 2008 Flood Insurance Rate Map (FIRM) and Flood Profile Panel 306P are located in Appendix A.

FEMA floodplain regulation 44 CFR 9 states that critical actions within the 500-year flood zone must comply with floodplain regulations. A critical action is defined as any action for which even a slight chance of flooding is too great. A fire station would be categorized as a critical action because it provides emergency operation services to the community. Because the new fire station will be partially located within a 500-year flood zone, the eight-step process for evaluating projects involving critical actions has been prepared and is appended as Appendix B.

In addition to reviewing the FEMA flood maps, MMI has also reviewed the flood profiles and flood elevations as shown on the profiles. According to the FEMA profile for this site, the 100-year floodplain occurs up to an elevation of 31.5 feet NAVD 88. The 500-year floodplain elevation occurs up to an elevation of 34.5 feet NAVD 88.

No Action Alternative – Under the No Action Alternative, no construction would occur, and there would be no impacts to floodplains.

Proposed Action Alternative – Under the Proposed Action Alternative, there will be no significant impacts to floodplains. The 100-year floodplain located along the northeast corner of the property will be partially filled in for the apparatus exit driveway. Fill will be placed within the 500-year flood zone to accommodate the construction of the fire station.

Proposed Action Mitigation – To compensate for the proposed fill activities within the 100-year flood zone, a shallow depression will be constructed to serve as compensatory storage for fill placed within the 100-year flood zone. The formation of this depression results in a net cut of approximately seven cubic yards within the 100-year flood zone over existing conditions. The creation of the shallow depression will maintain the 100-year flood zone's existing capacity and conveyance, thereby eliminating any long-term impacts to this flood zone.

A portion of the 500-year floodplain will be filled (approximately 45 cubic yards) for construction of the fire station. Compensatory storage is not typically required within a 500-year flood zone and, as such, none is proposed. Although compensatory storage is not required, floodproofing of buildings may be necessary. As stated earlier, the fire station is considered a critical action/facility and, as such, must be operable during flood events. Therefore, the design team set the finished floor of the building at an elevation that is above both the 100-year and 500-year flood zones. The finished floor elevation of the new fire station has been set at elevation 37.2 feet NAVD 88. The fire station is being placed approximately 5.7 feet above the published 100-year flood zone elevation and 2.7 feet above the 500-year flood zone elevation,

allowing the fire station to remain operable and responsive during flood events. In addition, it should be noted that access to the fire station will be maintained during a 100-year flood event.

Although the project site is located within 100-year and 500-year designated flood zones, the proposed mitigation measures will prevent long-term impacts to the existing floodplain and the new fire station.

4.3 Coastal Resources

The Coastal Zone Management Act (CZMA) enables coastal states, including Connecticut, to designate state coastal zone boundaries and develop coastal management programs to improve protection of sensitive shoreline resources and guide sustainable use of coastal areas. According to the National Oceanic and Atmosphere Administration (NOAA) and the CTDEP Office of Long Island Sound Programs (OLISP), the project area is not located within a coastal resource boundary.

No Action Alternative – Under the No Action Alternative, no construction would occur, and there would be no impacts to coastal resources.

Proposed Action Alternative – Under the Proposed Action Alternative, there will be no impacts to coastal resources because there are no such resource boundaries within the project site.

Proposed Action Mitigation – Under the Proposed Action Alternative, mitigation of this resource is not required.

4.4 Biological Resources

Under Section 7 of the Federal Endangered Species Act (FESA) as amended, federal agencies, in consultation with the U.S. Fish and Wildlife Service (USFWS) and the National Marine Fisheries Service (NMFS), are required to evaluate the effects of their actions on federally protected species of fish, wildlife, plants, and their habitats, and to take steps to conserve and protect these species. Federally protected species are defined as plants or animals that are listed as threatened or endangered by the USFWS.

Although the proposed project site is undeveloped and serves as a meadow, the property provides little high quality habitat for wildlife and/or plant species. There are a few scattered trees (pin oak and honey locust) on the property. The property is surrounded by land uses that are highly urbanized, is small and fragmented, is surrounded by roads, and has no wildlife corridor linkage to other valuable natural resources. Site visits by MMI biologists in 2009 and 2010 confirmed that the proposed project area does not contain habitat for any federally protected species.

No Action Alternative – Under the No Action Alternative, no construction would occur, and there would be no impacts to biological resources, including federally protected species.

Proposed Action Alternative – Under the Proposed Action Alternative, no impacts to threatened or endangered species are anticipated because there is no suitable or critical habitat for federally protected species in the project area.

A consultation letter dated January 19, 2010 was submitted to the USFWS requesting agency review and concurrence that the proposed project will not adversely affect suitable or critical habitat for federally protected species in the project area. The USFWS concurred with FEMA's findings (see Appendix C).

Consultation with the NMFS was not completed because the project is not located in a marine environment.

Proposed Action Mitigation – Under the Proposed Action Alternative, mitigation for threatened or endangered species or critical habitat resources is not required.

4.5 Cultural Resources

Section 106 of the National Historic Preservation Act (NHPA) of 1966, as amended, and as implemented by 36 CFR Part 800 requires federal agencies to consider the effects of their actions on historic properties and to provide the Advisory Council on Historic Preservation (ACHP) an opportunity to comment prior to project implementation. Historic properties are defined as those buildings, structures, sites (including archaeological sites), objects, and districts that are listed in or eligible for listing in the National Register of Historic Places (NRHP). For purposes of the NEPA documentation, effects on cultural resources are primarily evidenced through Section 106 of the NHPA.

No Action Alternative – Under the No Action Alternative, no construction would occur, and there would be no impacts to cultural resources. Therefore, the alternative would have no adverse effect on historic properties.

Proposed Action Alternative – Under the Proposed Action Alternative, there will be no adverse effects on historic or archaeological properties and/or artifacts.

Identification of Historic Properties: In January and March 2010, Historical Perspectives Incorporated (HPI), qualified under the Secretary of the Interior's Professional Qualification Standards (36 CFR Part 61), conducted a cultural resources study, including an aboveground resources survey and an archaeological assessment, of the project area to identify historic properties in the Area of Potential Effects (APE). The APE is the geographic area within which an undertaking may directly or indirectly cause changes in the character or use of historic properties, if such properties exist.

In February 2010, HPI prepared a Phase IA cultural resources study for this project site. In that study, HPI concluded that the site may be sensitive for precontact archaeological deposits due to the high number of documented sites on similar landforms in the immediate vicinity of the site and that a portion of the ca.1855 Brewer/Vibert farm complex may have extended onto this

parcel of land. Due to the archaeological sensitivity of the project site, HPI recommended that Phase IB archaeological field testing be completed in order to verify the presence/absence of buried resources.

HPI Phase IB field testing was completed by a team of five archaeologists under the direction of William Sandy, RPA, on March 5, 2010. The weather was warm and partly cloudy with no snow cover present on the ground surface. A total of 40 shovel tests (STs) was excavated during the field survey. HPI concluded that much of the project site has two or three layers of fill, about 30 cm to 50 cm thick. This fill and the buried A horizon contained modern material and a few historical artifacts. There were no concentrations or features identified during the investigation. The recovered historical artifacts were determined to represent typical field scatter and are not considered potentially significant. No additional archaeological consideration or further investigation is warranted for 141 Brewer Street. Both the Phase IA and IB reports are found in Appendix D.

Following the findings of the HPI Phase IA and IB reports, FEMA sent a concurrence letter to the Connecticut Commission on Culture and Tourism (CCT) to verify that the project would not adversely impact significant historic properties and/or archaeological resources.

Correspondence from CCT concurs that the proposed fire station will not adversely affect any significant historic and/or archaeological artifacts or properties. The correspondence letters are found in Appendix D.

4.6 Socioeconomic Resources

4.6.1 Environmental Justice

EO 12898 (Federal Actions to Address Environmental Justice in Minority Population and Low-Income Populations) mandates that federal agencies identify and address, as appropriate, disproportionately high and adverse human health or environmental effects of their programs, policies, and activities on minority and low-income populations.

East Hartford has a population of 49,575 individuals. According to the 2000 Census, in 1999 the median household income reported in East Hartford was $41,424, with 8.1 percent of the individuals living below the poverty level. The median household income reported in Hartford County was $50,756, with 7.1 percent of the individuals living below the poverty level. The median household income in the state of Connecticut was $65,976, with 9.3 percent of the individuals living below the poverty level (2000 and 2008 U.S. Census Bureau).

Minorities represented 35 percent, 32 percent, and 15.7 percent, respectively, of East Hartford, Hartford County, and the state of Connecticut populations. Table 1 shows the specific ethnic composition of East Hartford, Hartford County, and the state of Connecticut populations.

Table 1: Racial Composition of East Hartford, Connecticut

Ethnicity	Town of East Hartford	Hartford County	State of Connecticut
White	65%	68%	84.3%
Black or African American	19%	11%	10.3%
American Indian or Native Alaskan	0.3%	0.2%	0.4%
Asian	4.0%	3.1%	3.5%
Native Hawaiian or other Pacific Islander	0%	0%	0.1%
Hispanic or Latino	15.2%	11%	12%
Other	12.1%	6.6%	5.6%
Source: U.S. Census Bureau 2000 and 2008			

No Action Alternative – Under the No Action Alternative, no construction would occur, and there would be no impacts to minority populations.

Proposed Action Alternative – The Proposed Action Alternative, a new fire station, would provide a benefit to all members of the community. There would be no anticipated disproportionately high or adverse impact on minority or low-income portions of the population; all populations would benefit from a new fire station.

Proposed Action Mitigation – Under the Proposed Action Alternative, there would be no mitigation required.

4.6.2 Neighborhood Character

The neighborhood of the proposed project consists of predominantly single-family homes that were generally constructed in the 1960s. The area is adjacent to an aircraft engine manufacturing facility and a telecommunications service center. The economic character of the neighborhoods of the existing fire station as well as the proposed site consists of greater than 50% low to moderate income residents according to the 2000 census information. The majority of family households (51%) are headed by persons between 25 and 44 years of age. The median age of all persons living in the census block is 32.7 years.

The telecommunications facility located adjacent to the proposed project is of masonry construction. The surrounding residential community is characterized by wood-framed clapboard-clad dwellings.

The proposed action alternative has been discussed at the local level since approximately 2006, at which time the town appropriated funds for the project. No significant opposition to the proposed alternative was encountered during the appropriation process. A townwide vote concerning the fiscal appropriation passed by a nearly 2:1 margin. Within the voting district of the proposed project, 70% of the votes cast were in favor of the project. Informal comments

received by town personnel from passers-by at the proposed alternative site have been positive and in favor of the alternative.

No Action Alternative – Under the No Action Alternative, no construction would occur, and there would be no impacts to the existing neighborhood character.

Proposed Action Alternative – The Proposed Action Alternative would place a new fire station into a neighborhood similar in demographics to the current fire station. The proposed facility has been designed using a combination of brick and clapboard siding to blend with the character of the neighborhood. Architecturally, it will provide a visual transition from the adjacent brick telecommunications facility to the wood-frame clapboard dwellings to the east.

Proposed Action Mitigation – Under the proposed alternative, there would be no mitigation required.

4.6.3 Noise

Noise is generally defined as unwanted sound. Sound is most commonly measured in decibels (dB) on the A-weighted scale, which is the scale most similar to the range of sounds that the human ear can hear. The Day-Night Average Sound level (DNL) is an average measure of sound. The DNL descriptor is accepted by federal agencies as a standard for estimating sound impacts and establishing guidelines for compatible land uses. The EPA guideline, and those of many other federal agencies, states that outdoor sound levels in excess of 55 dB DNL are "normally unacceptable" for noise-sensitive land uses such as residences, schools, or hospitals. The proposed project site is located in a mainly residential area.

No Action Alternative – Under the No Action Alternative, no construction would occur, and there would be no impacts to noise levels. Mitigation would not be required.

Proposed Action Alternative – Under the Proposed Action Alternative, there is potential for both short- and long-term increases in noise levels. Short-term impacts are anticipated during construction. Long-term impacts such as apparatus sirens and horns, idling apparatus engines, and mechanical tools associated with the repair facility have the potential to increase noise levels over current site conditions.

Proposed Action Mitigation – Under the Proposed Action Alternative, the short-term noise impacts during construction will be mitigated by only allowing construction activities to take place during normal business hours. Equipment and machinery installed and used at the proposed project site would meet all local, state, and federal noise regulations.

For long-term impacts, the Fire Department has developed several mitigation measures for potential noise impacts. The Fire Department operates under two modes, the emergency mode and the nonemergency mode. The emergency mode conditions usually require the use of sirens; however, this is dependent upon the amount of traffic. Typically, traffic on Brewer Street will be light during the late evening and early morning hours and would likely not require siren usage

during response. If traffic is minimal during the day, sirens will not be used. Under the nonemergency mode, sirens are not used. There will be no external warning speakers on the fire station. The apparatus engines will not be left to idle unless the department needs to respond to either an emergency or nonemergency mode call.

During the preliminary design phases of the fire station, the apparatus maintenance facility bay doors were relocated to the rear of the maintenance facility building to help reduce noise impacts generated from mechanical tools and/or apparatus engines. In addition, trees will be planted along the southern property line to help buffer noises to nearby homes.

Overall, the new fire station has been designed to minimize noise levels at this site and, given the mitigation measures, the fire station will have no significant impact on noise levels.

4.6.4 Traffic

The project site is bounded to the north by Brewer Street, to the east by Graham Road, to the south by Leichtner Drive and residential properties, and to the west by Glenn Road and an AT&T service building. The site can be accessed from Brewer Street, Graham Road, and/or Glenn Road. The posted speed limit for Brewer Street is 30 miles per hour (mph) and for Graham and Glenn Roads 25 mph.

No Action Alternative – Under the No Action Alternative, no construction would occur, and there would be no impacts to traffic.

Proposed Action Alternative – Under the Proposed Action Alternative, there is potential for both short- and long-term impacts.

Proposed Action Mitigation – During construction, there will be construction equipment entering and leaving the site. Temporary construction warning signs will be posted along Brewer Street, Graham Road, and Glenn Road. The site will be surrounded with construction fence to decrease access to the site. In addition, the construction entrance will be limited to Graham Road, where traffic volume is lighter.

To help reduce long-term traffic impacts, the fire station has been designed with a drive-through apparatus bay system. Apparatus will pull into the fire station via the parking lot entrance located on Graham Road and will load into the rear of the bays. This is important because the apparatus will not have to back into the station's bays from Brewer Street, which increases safety for both firefighter personnel and motorists using Brewer Street.

In addition, the fire station will have traffic control signs with flashing lights located on Brewer Street. These signs are intended to alert oncoming motorists to the potential of an apparatus response and to protect them from same.

The main entrance to the fire station parking lot has been located on Graham Road, a state classified local road that primarily services the existing local residences adjacent to this subject

parcel. Locating the main entrance on a low traveled road decreases potential traffic impacts. The proposed drive for the fire companies will be located on Brewer Street, which would allow the fire companies to be able to turn right or left onto Brewer Street. This is unlike the existing condition currently located at Fire Station #5 on Main Street, where the apparatus must turn right onto a one-way street, causing some delay in emergency response time.

As described above, the new fire station will be implementing a series of traffic mitigation measures to reduce long-term traffic impacts. These measures are not anticipated to have a negative impact on traffic.

4.6.5 Public Service and Utilities

Water System: The fire station will require water for the personnel living quarters (kitchen and restrooms), the apparatus maintenance facility, and the building's fire protection service. The Metropolitan District Commission (MDC) has water mains located in both Brewer Street and Graham Road.

Sanitary Sewer System: The MDC operates a sewage treatment plant on Pitkin Street in East Hartford and has the capacity to support the new fire station. Public sewer service is currently provided along Graham Road and Brewer Street.

Natural Gas: Connecticut Natural Gas Corporation (CNG) has adequate capacity to service the future fire station. Gas service is currently provided in the project area.

Storm Drainage System: The EPA recognizes the expanding significance of nonpoint pollution sources in water quality concerns. In rebuilding or expanding urban infrastructure, the EPA recommends incorporating appropriate stormwater management technologies to minimize adverse impacts of runoff on surface waters or ground waters. For new development, the EPA promotes the design and engineering approaches to stormwater handling that minimize the amount of impervious cover that results and incorporate nonstructural design features and management techniques to renovate runoff. Stormwater from the project site currently infiltrates into the underlying soils and/or is directed into topographic low spots on the property, where the water sits until it evaporates and/or infiltrates. There are no formal drainage structures on site.

Energy Use and Conservation: The local electrical service provider has utility poles and service along Brewer Street and Graham Road.

Telephone and Cable: The local telephone and cable utilities are required to extend capacity to serve developments if they are located on a public street. Both telephone and cable services are currently available in the project area.

No Action Alternative – Under the No Action Alternative, no construction would occur, and there would be no direct impact to public services and utilities.

Proposed Action Alternative – Under the Proposed Action Alternative, there may be impacts to existing public services and utilities.

Proposed Action Mitigation – Under the Proposed Action Alternative, the following mitigation measures are being implemented:

Water System: The fire station will be connected to the MDC water main located in Brewer Street. A two-inch domestic water line and a six-inch fire protection service line will be routed along the western periphery of the property and directed into the rear of the new building. Water conservation measures are being used within the new fire station such as high efficiency toilets and urinals, faucets, and showerheads. No relocation of the water main is necessary, and no measurable impacts are anticipated as a result of the fire station.

Sanitary Sewer System: Sanitary sewer connections will be made along the Graham Road service system. No relocation of the sewer collection system is necessary, and no significant impacts are anticipated as a result of this project.

Gas: CNG has adequate capacity to service the future fire station. Gas service is currently provided in the project area, and no significant impacts are anticipated by the new fire station.

Storm Drainage System: The stormwater from the new fire station is being collected, treated, and stored within a detention basin, rain gardens, water quality swales, and a fire pump pit. The detention basin will be located along the southern portion of the site and will collect and detain stormwater runoff from the paved parking lot areas. The detention basin has been designed to detain up to the 100-year storm event with no net peak increase. The basin will discharge to the west via a swale. Stormwater will then be conveyed into a new catch basin and discharged into the existing stormwater sewer collection system located under Glenn Road.

The stormwater collected from the roof drains located along the north, south, and east sides of the building will be directed into rain gardens to help promote ground water recharge and water quality renovation. Roof drains along the west are being discharged into an underground fire pump pit that will be for the reuse of water for fire pump tests as well as other nonpotable uses for the station. The use of green technologies for stormwater management and treatment will have no impact on the existing storm drainage system located in Glenn Road.

Energy Use and Conservation: Electrical service will be provided by an underground electrical line connected to a relocated Connecticut Light and Power utility pole. The fire station has been designed to meet LEED certified standards and will be implementing energy saving measures including geothermal heating and cooling systems, solar panels to generate electricity, LED light fixtures with occupancy sensors and daylight controls, and energy star appliances.

Telephone and Cable: The new fire station will be serviced by the existing telephone and cable provider, and no impacts are anticipated.

Overall, the proposed mitigation measures for public service and utilities prevent this project from having negative impacts on existing utilities. In addition, this project will not require the extension of utilities into an area not currently served.

4.6.6 Public Health and Safety

Safety and security issues considered in this EA include the health and safety of the area residents and the public at large and the protection of personnel involved in activities related to the proposed construction of the new fire station.

Executive Order 13045, Protection of Children, requires federal agencies to make a high priority to identify and assess environmental health and safety risks that may disproportionately affect children.

No Action Alternative – Under the No Action Alternative, no construction would occur, and there would be no direct impact to the safety of the population. However, the current Fire Station #5 would continue to pose health concerns for its personnel (see health problems identified under Section 2.0 of this EA).

Proposed Action Alternative – Under the Proposed Action Alternative, positive impacts to safety are anticipated. The community will be receiving a new fire station equipped with amenities required to serve, respond, and protect area residences and businesses.

Proposed Action Mitigation – The new fire station has been designed with a drive-through apparatus bay allowing fire apparatus to load from the rear of the building. The building is being designed to LEED certified standards and is ADA compliant. The new fire station will continue to allow the Fire Department to respond to all emergencies. Locating the fire station on a two-way street will allow the Fire Department to respond to emergencies more quickly. The station will have a meeting room that could serve as a local public health and safety meeting room for the community.

Construction activities may present safety risks to those performing the activities. To minimize risks to safety and human health, all construction activities would be performed using qualified personnel trained in the proper use of appropriate equipment, including all appropriate safety precautions. Additionally, all activities would be conducted in a safe manner in accordance with the standards specified in the OSHA regulations. The appropriate signage and barriers would be in place prior to construction activities to alert pedestrians and motorists to project activities. No disproportionate health and safety risks to children are anticipated.

4.6.7 Hazardous Materials

Hazardous substances are defined as any solid, liquid, contained gaseous or semisolid waste, or any combination of wastes that pose a substantial present or potential hazard to human health and the environment. Hazardous substances are primarily generated by industries, hospitals, research facilities, and the government. Improper management and disposal of hazardous

substances can lead to pollution of ground water or other drinking water supplies and the contamination of surface water and soil. The primary federal regulations on the management and disposal of hazardous substances are the Comprehensive Environmental Response, Compensation and Liability Act (CERCLA) and the Resource Conservation and Recovery Act (RCRA).

In October 2008, MMI conducted a Phase I Environmental Site Assessment (ESA) on the subject parcel. As part of the Phase I, MMI reviewed historical data, historical topographic and Sanborn Fire Insurance maps obtained from Environmental Data Resources, Inc., previous environmental assessments, and zoning information. In addition, MMI reviewed environmental databases and files obtained from federal and state regulatory agencies and interviewed the persons knowledgeable about the property. A visual inspection of the subject property assessed existing conditions both on and adjacent to the site and included photo documentation. A report of findings was prepared that concluded that the subject site has a low potential for environmental hazards.

No Action Alternative – Under the No Action Alternative, no construction would occur, and there would be no impacts from hazardous materials or waste.

Proposed Action Alternative – Under the Proposed Action Alternative, there is potential for the generation of small quantities of hazardous waste related to construction operations, the fire station, and the apparatus maintenance facility. Potential hazardous wastes include lubricating oil, fuel, and other engine-related fluids. The proposed fire station does not have either an aboveground or underground storage area for such wastes.

Proposed Action Mitigation – During construction, all fuel and other potential hazardous materials shall be stored within appropriate containers. Excavation would take place within the project area at depths ranging from four to five feet below ground surface. Based on the Phase I conclusions, it is not anticipated that hazardous substances would be encountered during excavation; however, if a hazardous material or waste is discovered, generated, or used during construction, the material and/or waste would be handled and disposed of in accordance with applicable local, state, and federal regulations.

It is assumed that potentially hazardous materials and wastes will be generated within the apparatus maintenance facility. Examples of such materials and wastes may include motor oil, diesel oil, hydraulic fluids, engine coolant, brake fluids, and other engine maintenance related fluids. All of these fluids are to be handled, stored, and disposed of in accordance with applicable local, state, and federal regulations. The Fire Department currently contracts with a vendor to collect and dispose of all waste oil and liquids. These are temporarily stored in a drum and then transported away from the site for disposal. Spill prevention and containment kits will be placed within the maintenance facility.

Floor drains located within both the apparatus maintenance facility and the two apparatus fire company storage bays will drain incidental water to an underground oil and grit separator system

and then will be discharged into East Hartford's sanitary sewer system. This waste treatment system will provide protection of surface water resources and ground water.

4.7 Summary

The following table summarizes the potential impacts of the Proposed Action Alternative and conditions or mitigation measures to offset those impacts.

Affected Environment	Impacts	Mitigation
Geology and Soils	No significant impacts to underlying geology are anticipated. Soils on the project site would be temporarily disturbed during construction.	A detailed sediment and erosion control plan has been prepared for the site. In addition, a General Permit for Stormwater and Dewatering Wastewaters from Construction Activities will be obtained. Excavated soil and waste materials would be managed and disposed of in accordance with applicable local, state, and federal regulations. If contaminated materials are discovered during the construction activities, the work would cease until the appropriate procedures and permits could be implemented.
Air Quality	Short-term impacts to air quality are anticipated during construction.	Construction contractors would be required to dampen construction areas when necessary. Running times of fuel-burning equipment would be kept to a minimum, and engines would be properly maintained.
Surface Water Quality, Wetlands, and Coastal Resources	No impacts to surface waters, wetlands, and/or coastal resources are anticipated.	None
Floodplains	The new fire station will be located within a FEMA-designated 500-year flood zone. Access to the new fire station will not be impacted during a 100-year flood event.	The new fire station's finished floor elevation has been designed to be approximately 5.7 feet above the 100-year flood zone and approximately 2.7 feet above the published 500-year flood zone elevation for this site.
Biological Resources/Threatened and Endangered Species	No impacts to threatened or endangered species are anticipated.	None
Cultural Resources	No significant impact to historic properties and/or archaeological artifacts.	None
Environmental Justice	All populations would benefit from the Proposed Action.	None
Neighborhood Character	No significant impacts to the existing neighborhood character.	None

Affected Environment	Impacts	Mitigation
Noise	Short-term impacts to noise levels are anticipated at the proposed project site during the construction period. Long-term impacts to noise levels have been mitigated.	Construction would take place during normal business hours, and equipment installed and used will meet, local, state, and federal noise regulations. The apparatus maintenance facility loading bay doors have been located at the rear of the building facing the existing AT&T building to help buffer noises from adjacent residential properties. The Fire Department will limit use of sirens at the fire station.
Traffic	Short-term, minor, temporary increases in the volume of construction traffic on roads in the immediate vicinity of the project site are anticipated. Potential long-term traffic impacts associated with apparatus loading and parking requirements have been mitigated.	None. The use of rear loading apparatus fire bays prevents apparatus from having to back up into the bays. This provides safety for fire personnel and oncoming motorists. The parking lot entrance has been located on a road that primarily services the adjacent residential properties, thus reducing potential traffic problems along Brewer Street, a more heavily traveled local road.
Public Services and Utilities	No impacts to public services and utilities are anticipated.	None
Public Health and Safety	Positive impacts to public safety are anticipated. The new fire station will continue to provide emergency services to the community.	All construction activities would be performed using qualified personnel and in accordance with standards specified in OSHA regulations. Appropriate signage and barriers would be in place prior to construction activities to alert pedestrians and motorists to project activities.

Affected Environment	Impacts	Mitigation
Hazardous Materials	Impacts from hazardous materials or waste are not anticipated; however, excavation activities may expose subsurface hazardous materials or waste.	Any hazardous/contaminated materials or waste discovered, generated, or used during construction would be disposed of and handled in accordance with applicable local, state, and federal regulations. If hazardous/contaminated materials are discovered during the construction activities, the work will cease until the appropriate procedures and/or permits can be implemented. Consultation with the EPA and CTDEP will determine allowable thresholds for hazardous/contaminated materials encountered during construction. The fire station apparatus maintenance facility will store and dispose of hazardous materials associated with apparatus maintenance operations in accordance with all applicable local, state, and federal regulations.

5.0 CUMULATIVE IMPACTS

According to CEQ regulations, cumulative impacts represent the "impact on the environment which results from the incremental impact of the action when added to other past, present, and reasonably foreseeable future actions, regardless of what agency (Federal or Non-Federal) or person undertakes such other actions. Cumulative impacts can result from individually minor but collectively significant actions taking place over a period of time" (40 CFR 1508.7). In accordance with NEPA and to the extent reasonable and practical, this EA considers the combined effect of the Proposed Action Alternative and other actions occurring or proposed in the vicinity of the proposed project site.

This EA concerns the construction of a new LEED certified fire station to replace an existing outdated, undersized, and deteriorating fire station and replace an undersized and rented apparatus maintenance repair facility. The new fire station and maintenance facility will have a positive effect on the community and does not adversely affect the environment.

The proposed alternative will not have a significant impact upon the neighborhood character. The inhabitants of the district were in favor of the project as evidenced by the results of a townwide appropriation vote. Seventy percent of those voting within the district voted in favor of the project appropriation. The project planners have designed the project to blend into the architectural character of the neighborhood while providing a visual transition from the adjacent telecommunications facility. The town's tax assessor believes that the proposed alternative will have a slight positive impact upon overall property values in the area of the proposed alternative.

Only short-term impacts to air quality, noise, and traffic are anticipated during construction of the proposed project. All short-term impacts require conditions to minimize and mitigate impacts to the proposed project site and surrounding areas.

Potential impacts associated with the closure of the existing fire station have not been quantified as the ultimate reuse of the property and building has not been determined. The existing building is of little value due to the structural and other issues noted in Section 2.0. As such, removal of the building is one possible alternative that would likely have a net positive impact upon the immediate area. Emergency response time to the area will not be significantly affected by the proposed relocation as the proposed alternative site is less than three-quarters of a mile away. Any reuse of the property that involves demolition or new construction would be subject to appropriate reviews by Town of East Hartford planning agencies.

6.0 PUBLIC INVOLVEMENT

FEMA is the lead federal agency for conducting the NEPA compliance process for the Proposed Action. It is the goal of the lead agency to expedite the preparation and review of NEPA documents and to be responsive to the needs of the community and the purpose and need of the proposed action while meeting the intent of NEPA and complying with all NEPA provisions.

The subapplicant (Town of East Hartford) will notify the public of the availability of the draft EA through publication of a public notice in a local newspaper. FEMA will conduct a 30-day public comment period commencing on the initial date of publication of the public notice.

The Town of East Hartford has been considering the construction of a new fire station to replace the existing Fire Station #5 for several years. The town has sought the involvement of the public throughout the planning process. This process began with a public hearing on August 1, 2006 and the subsequent appropriation of funding by a townwide vote on November 7, 2006. On October 7, 2008 at a meeting open to the public, the Town Council approved the purchase of the property at 141 Brewer Street. Members of the public were involved with planning and design meetings held on May 12, May 26, and June 2, 2009. The public was also provided an opportunity to comment on the proposed alternative on June 10, 2009 at the public hearing held as part of the planning and zoning approval process.

7.0 AGENCY COORDINATION AND PERMITS

The following agencies and organizations were contacted by letter requesting project review during the preparation of this EA:

- → Connecticut Department of Environmental Protection
- → Connecticut Commission on Culture & Tourism
- → Connecticut State Museum of Natural History
- → U.S. Fish and Wildlife Service, New England Field Office

In accordance with applicable local, state, and federal regulations, the subapplicant is responsible for acquiring any necessary permits prior to commencing construction at the proposed project site. The following permits and approvals are likely to be required for the work associated with the Proposed Action:

- → Planning & Zoning Permit from the Town of East Hartford (project received approval on June 10, 2009)
- → Stormwater and Dewatering Wastewaters from Construction Activities permit from Connecticut Department of Environmental Protection
- → Discharge of Vehicle Maintenance Wastewaters permit from the Connecticut Department of Environmental Protection

8.0 CONCLUSIONS

No long-term detrimental impacts to geology and soils; surface waters; floodplains; wetlands; coastal zones; traffic; air; noise; environmental justice; biological resources, including threatened and endangered species; public services and utilities; or public health and safety are anticipated with the Proposed Action Alternative.

Positive impacts to public health and safety are expected. There would be minor temporary impacts that are typically associated with construction projects of this nature (e.g., dust, noise, and traffic). Short-term impacts to soils, traffic, air quality, and noise are anticipated. All short-term impacts require measures to minimize and mitigate impacts to the proposed project site and surrounding areas.

9.0 REFERENCES

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