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Planning & Zoning Commission
Town of East Haddam
1 Plains Road
Moodus, CT 06469

RE: **Development Narrative**
East Haddam Firehouse #2
44 William F. Palmer Road

Dear Commission Members:

Attached please find the application and associated plan set for the above proposed firehouse construction. Following is a development narrative that provides detail additional to the application and plans.

The proposed project is located on a 2.00-acre parcel, on William F. Palmer Road at the intersection of Oak Grove and William F. Palmer Road in Moodus, Connecticut. The subject parcel is bound by an automotive repair center to the north, Oak Grove apartments to the east, East Haddam youth & family services center to the south, and residential/commercial properties to the west. The existing parcel houses the existing East Haddam Firehouse, nine garages, and associated amenities.

The proposed project consists of the demolition of the existing firehouse and associated utilities, and the construction of a new firehouse with associated paved parking, drive, and landscaped areas.

Site Plan

The firehouse construction, which meets town bulk/dimensional requirements, will be constructed to cut into the existing site to provide maximum space in the back of the building and match the existing steep topography in the front of the building. The existing site slopes from southeast to northwest/southwest with flows being conveyed into the on-site drainage system and then William F. Palmer Road, or directly off-site to the north and southwest into Oak Grove and William F. Palmer Road Respectively. Due to the existing topography, the underground detention system has been placed towards the front of the site under the driveway and will provide adequate water quality volume and peak flow reduction.

The site will be accessed via two (2) site entrance drives located on William F. Palmer Road and Oak Grove. Both entrances will match that of the existing firehouse site. Emergency egress from the building from all egress doors is provided with concrete walks. Fire access is provided around all sides of the building bituminous drive aisles. The total required parking space for the firehouse use, which is not listed in the Zoning Regulations, shall be comparable to the closest other similar use as determined by the Commission. Total site parking includes 41 parking spaces, with 2 accessible spaces, which is enough for the staff, visitors, and volunteers.

New sidewalks are being provided along all sides of proposed building. Additional sidewalks are being provided to the accessible parking spaces west of the building.

Site amenities include sidewalks, landscaped areas, and gathering spaces.

Wetlands

There are no wetlands located directly on-site. However, there are wetlands just east of the project site at the edge of maintained lawn. None of the project work takes place within the wetlands but approximately 0.32 acres of work takes place within the 100' upland review area.

Earthwork

Design of the site has been performed in a manner that seeks to balance the site to minimize the hauling of existing materials off site. Due to the existing topographical drop across the site, the grading design will result in the moving of approximately 6,714 cy of on-site material. Additionally, imported material will be required for the following:

- Bituminous pavement and curbing aggregate base.
- Paver and sidewalk aggregate base.
- Building footing and slab
- Utility trenching crushed stone.
- Utility structure aggregate base.

All imported material will be clean and not contain any hazardous or other type of waste. All slope areas have been designed at maximum slope of 2(H):1(V). Slopes equal of 2(H):1(V) will have a permanent stabilization blanket.

All work will be performed above seasonal-high groundwater, including the infiltration basin.

Stormwater

The existing site elevations (NAVD 88) range from 263 ft located at the southeast side of the site to 251 ft located at the southwest corner. The majority of the site currently flows overland and piped into the William F. Plamer Road ROW. Under proposed conditions, a large portion of flow will be conveyed into an underground detention system that detains and pipes flow into the William F. Palmer Road ROW. A small portion of flow will reach William F. Palmer Road Directly.

NRCS soils mapping indicated 3 different soil types located within the property limits; defined as:

- 57B – Udorthent-Urban Land Complex – HSG A
- 306 – Udorthent-Urban Land Complex – HSG B
- 308 – Udorthent-Urban Land Complex – HSG B

The goal of the stormwater management design are as follows:

- Peak Flows – the site is connected to the William F. Palmer Road right of way. In order to provide the necessary peak rate runoff reduction a majority of the flow offsite was directed to the underground

detention system that is size to hold the necessary water quality volume and rain within the required 48-hour window. The detention system is a closed bottom system and utilizes the outlet control structure and chamber storage to reduce peak flows.

- Stormwater Quality – we have designed treatment per the 2024 DEEP Stormwater Quality Manual. All site flows are being captured via a series of drainage structures and piping, which capture and convey flow to an underground detention system. The underground detention system has been sized to treat the required water quality volume of the entire site. An outlet control structure will be utilized to discharge stormwater from the underground detention system for storm events larger than those producing the water quality volume.

- Erosion Control – erosion control facilities have been designed per the CT DEEP 2023 Erosion Control Guidelines and include items such as construction entrances, silt fences, and filter basket inserts. The project will require a general stormwater permit from CT DEEP, and part of that permit requires weekly/ongoing erosion control inspections throughout the duration of construction.

Landscaping

The proposed design includes new plants surrounding the proposed building to enhance the main entrance, a patio near the training room and separate patio near the day room staff use. Additional plantings will be used to screen the emergency generator and to soften the equipment enclosure.

The landscape design for this project is intended to provide the development with trees, shrubs, ornamental grasses and ground covers that are non-invasive species.

All plant material for this project will meet the East Haddam Zoning requirements. This will include a mix of evergreen, deciduous and flowering varieties. All overstory and ornamental trees will have a minimum caliper of 2.5 inches planted. Shrub planting variety will show year-round appeal. Lawn areas will be planted with a blend of fescue, perennial rye and Kentucky bluegrass for thick and lush lawn areas.

Utilities

Fire Protection – this will be provided via new underground fire tank.

Domestic Water – this will be provided via a new water well.

Sewer – this will be provided via new concrete leaching galleries constructed to the east of the proposed building under the grassed area in the back of the building.

Power/Telecommunications – this will be provided via existing connections.

Traffic

Traffic patterns along with access to and from the site will match that of the existing site. The open hours will remain the same. Therefore, no increase in traffic is anticipated. A turning movement was performed with the largest fire truck to ensure it could maneuver the site. The locations/access to the proposed bays match that of the existing site.

We look forward to working with the Commissions to ensure a successful project that meets required town regulations.

Sincerely,



Will Walter, PE, LEED AP
Alfred Benesch & Company