

## MEMORANDUM

**TO:** Shutesbury Conservation Commission

**FROM:** April Doroski, PWS, CPSS, Fuss & O'Neill  
Matthew Kissane, Fuss & O'Neill

**DATE:** January 26, 2024

**RE:** Shutesbury Public Library Notice of Intent (MassDEP File No. 286-0304)  
Supplementation Information

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The following memorandum serves as the Town of Shutesbury's (the Applicant) responses to questions posed by the Shutesbury Conservation Commission during the public hearing for this project on January 11, 2024. Please find the comments and the applicant's responses below:

*Shutesbury Conservation Commission Comment [1]: Please describe the swale next to the road and where the culvert leads. Will the detention basin connect directly to the swale?*

Response: The detention basin does not directly connect to the swale located along the southern side of Leverett Road. The emergency spillway directs stormwater to a small swale located on site; this small on-site swale directs water to the wetland. In addition, Penny Jaques and Steve Sullivan, Shutesbury Highway Superintendent, performed a recent site visit and provide photos and information to Fuss & O'Neill. In review of the information, Mr. Sullivan indicates the swale along the south side of Leverett Road does not convey water from the field portion of Lot O-32, it only collects some water well west of the field along the wooded portion of BVW-1. Basin #3 is located approximately 94 feet east of the wooded area Mr. Sullivan mentions. Refer to the attached information provided by Ms. Jaques and Mr. Sullivan.

*Shutesbury Conservation Commission Comment [2]: Can you clarify alternative 3 that was presented in the NOI.*

Response: The 7,225 square foot (sf) library layout presented as Alternative 3 in the Notice of Intent (NOI) was prepared in May 2023 as part of an early version of the schematic design. This Alternative was the original schematic design plan developed by the design team and reviewed with the Library Committee. The plan was modified to help reduce impacts to resource areas on site and a cost saving for the project. Refer to the attached supplemental information from Oudens Ello Architecture for additional information.

*Shutesbury Conservation Commission Comment [3]: Please provide additional information on the septic design.*

Response: The Plan of Proposed Sewage Disposal System (Septic Plan) was provided to the Conservation Commission via email on January 11, 2024. This Plan includes a mounded leaching field, a 4-inch force main, septic tank, and pump chamber. According to the cross section on Sheet 2 of the Septic Plan, the bottom of the leaching system will be at an approximate elevation of 1,175.6 feet. The

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final grade of the leaching system will be at approximately 1,179.5 feet. The septic design is being submitted to the Shutesbury Board of Health for review and approval.

*Shutesbury Conservation Commission Comment [4]: Can you clarify information on the tight tank?*

Response: Refer to the attached supplemental information from Oudens Ello Architecture for additional information.

*Shutesbury Conservation Commission Comment [5]: Is it possible to move trees to the back of the property to improve the viewsbed of the library from Leverett Road.*

Response: Refer to the attached supplemental information from Oudens Ello Architecture for the response.

## **ATTACHMENTS**

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## Grate on Leverett Road along Lot O-32 field



*Photo 1 - Grate in Leverett Road*

There are grates within Leverett Road along Lot O- 32's field. Steve Sullivan, Shutesbury Highway Superintendent, stated that these are tied into the drainage system for Leverett Road and empty into a basin at the corner of Montague Road and Leverett Road. Elevations are such that water from Lot O-32 could not flow into these grates.

**Swale along South side of Leverett Road**



*Photo 2 - Swale on Leverett Road along Lot O-32 field, looking east*

Sullivan stated that the swale along the South side of Leverett Road does not convey water from field portion of Lot O-32. It does collect some water well west the field along the wooded portion of BVW-1 and then heads to the culvert.

## Flow in BVW-1



*Photo 3 - Taken from within north lobe of BVW-1, looking east. Note pink Flag 1A-120.*



*Photo 4- Taken from Leverett Road looking into wooded portion of BVW-1, looking toward flags 1A-109 and 1A-110 where water from the field flows into the stream. Sullivan (in yellow jacket) is standing near flag 1A-110.*

Despite the snow we were able to see water moving through the field within the boundaries of the northern lobe of BVW-1 (Photo 3). From anecdotal information, the channel in this lobe of the BVW-1 is thought to be a remnant from the septic system associated with the former house on the site. Water travels past pink flag 1A-120 seen in Photo 3, then flows into the wooded portion of BVW-1. Near flags 1A-109 and 1A-110 (shown in Photo 4), the water flows from the field into the small stream that connects to a culvert.

## Culvert on Leverett Road



*Photo 5 - Photo of culvert inlet on Leverett Road*

Culvert is located near 81 Leverett Road. Water passes through the culvert to north side of Leverett Road and into the woods.



Oudens Ello Architecture

Project: **Shutesbury Library**

Date: **01.19.2024**

## MEMORANDUM

To: Shutesbury Conservation Commission  
From: Dominik Wit, *Project Manager*, Oudens Ello Architecture  
Copy: Matt Kissane (F&O), Aimee Bell (F&O), April Doroski (F&O)

### Shutesbury Public Library NOI Supplemental Information

The following responds to the Conservation Commission request for supplemental information pertaining to the Shutesbury Public Library project NOI submission.

The NOI submission states in section Alternatives Analysis, that the building area for Alternative Option 3 is 7,225 SF. This area refers to the total roof area for the initial building proposal as proposed during schematic design. The civil drawings refer to this building roof area as the total impervious building area impacting the site plan. The architectural drawings typically reference the gross building area of the extent of the building footprint (i.e. area created by the exterior walls).

Therefore, in the case of the Alternative Option 3 scheme, the roof area is 7,225 SF and the gross building footprint area is 6,164 SF (not including the additional outdoor meeting space with overhanging roof). This explains the discrepancy between the two different building areas as quoted in the NOI submission and any previous information presented by the architect.

End of Memorandum

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## MEMORANDUM

To: Shutesbury Conservation Commission  
From: Dominik Wit, *Project Manager*, Oudens Ello Architecture  
Copy: Matt Kissane (F&O), Aimee Bell (F&O), April Doroski (F&O)

### **Shutesbury Public Library NOI Supplemental Information – Tight Tank**

The following responds to the Conservation Commission request for supplemental information pertaining to the Shutesbury Public Library project NOI submission.

As part of the Shutesbury Library design, a tight tank is included in addition to the traditional septic system. A tight tank works as a containment unit for waste that cannot safely be processed by the septic system either causing damage to the septic system or potentially leeching undesired contaminants into the groundwater.

Massachusetts code dictating the proper installation and use of tight tanks come from the Department of Environmental Protection, 310 CMR: 15.260. It is important to note that the use of tight tanks is expressly discouraged, and Massachusetts plumbing code requires that all other available options be exhausted before a tight tank be utilized/installed. In typical operation, when the tank reaches a high-water level it will alarm allowing the Owner to coordinate proper maintenance. In the design for the Shutesbury Library, a tight tank has been proposed because wastewater from floor drains and the janitor's closet mop receptor are a concern for the septic system. The drainage piping associated with these sources is entirely independent of the drainage piping associated with the septic system and would be considered a dedicated system. A high-water alarm would be included in the design and recommendation for maintenance schedule would be part of the specification.

The next step from this point forward is to review the dedicated waste system with the septic designer to make the final determination as to whether there is a concern regarding the mop receptors and/or floor drain(s). Subsequently the intended design approach must be reviewed with the local authority to ensure it meets their approval.

Please refer to the plumbing drawing P1.01 describing the tight tank as independent to the septic system.

End of Memorandum

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### SCOPE NOTES:

- FINAL LOCATION OF WALL HYDRANTS TO BE COORDINATED WITH ARCHITECT. EXTENT OF PIPING IN EXTERIOR WALLS TO BE LIMITED AS MUCH AS POSSIBLE TO AVOID FREEZING.
- INSTALLATION OF UNDERGROUND PIPING TO BE COORDINATED WITH STRUCTURAL CONTRACTOR. UNDERGROUND PIPING TO BE HUNG FROM 5" STRUCTURAL SLAB.
- INSTALLATION OF NEW TIGHT TANK TO BE COORDINATED WITH CIVIL CONTRACTOR.

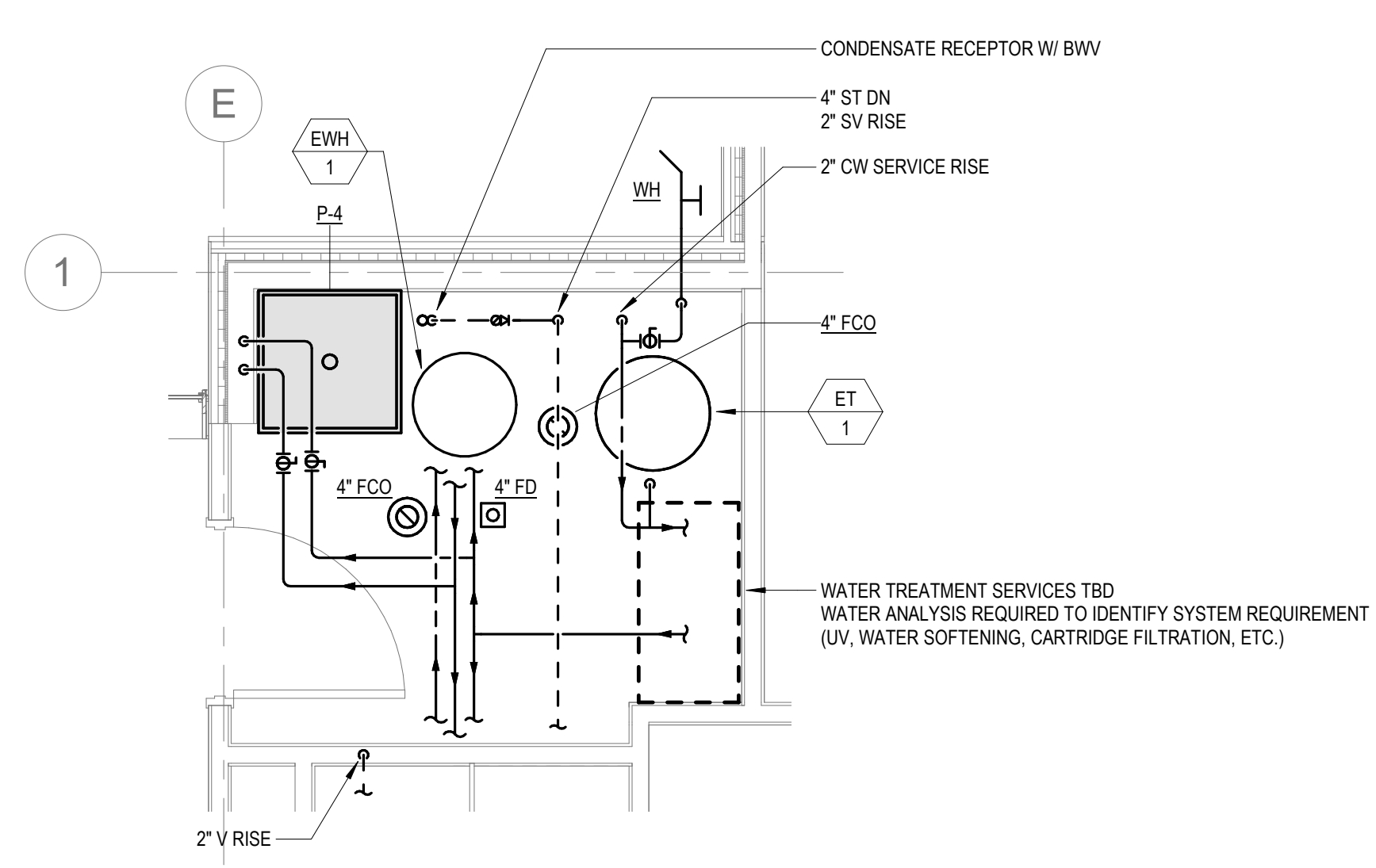
### KEY NOTES: #

- EXACT INVERT ELEVATION OF UNDERGROUND PIPING TO BE COORDINATED WITH CIVIL CONTRACTOR. MINIMUM 4'-0" OF COVER REQUIRED FOR SANITARY, WASTE, AND STORM PIPING.

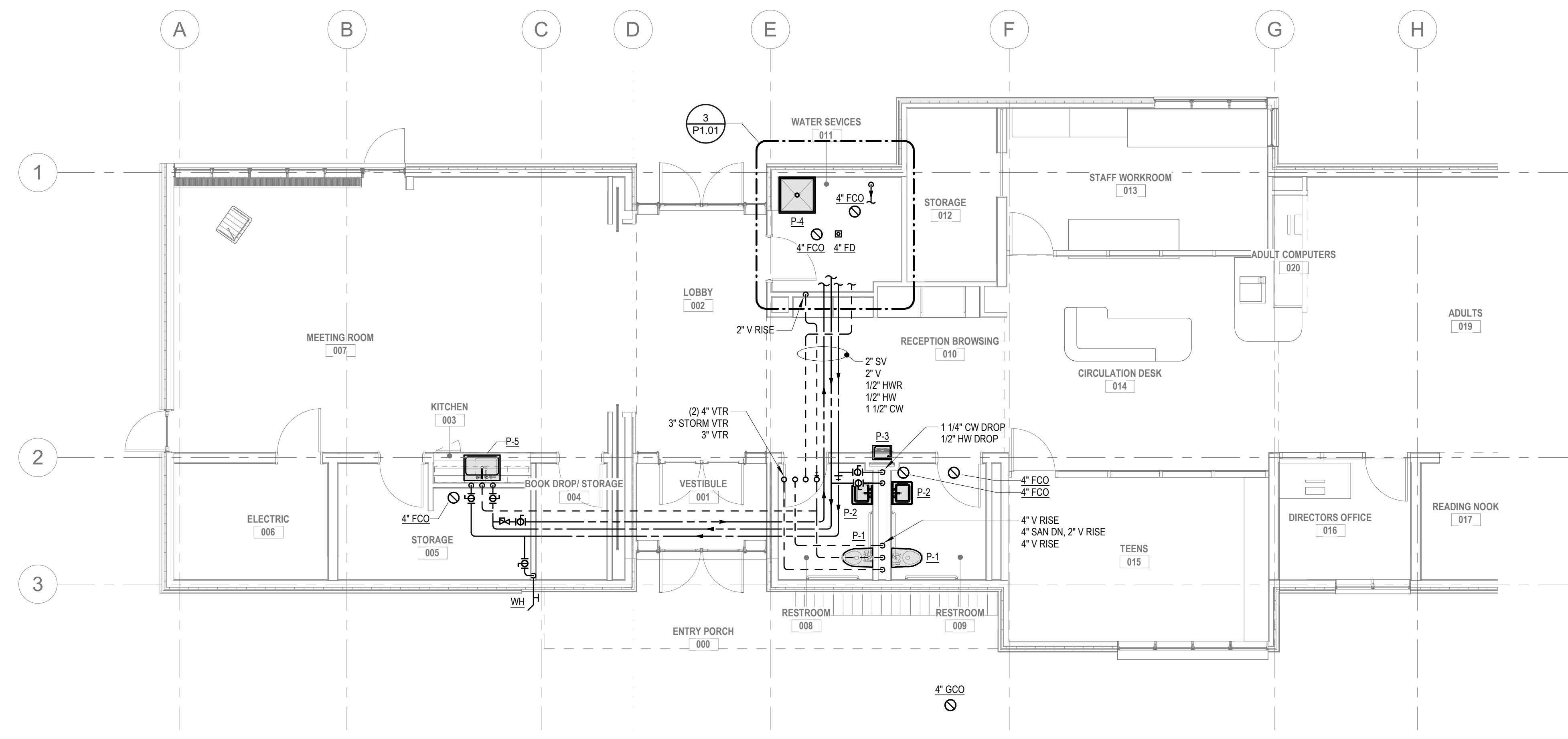


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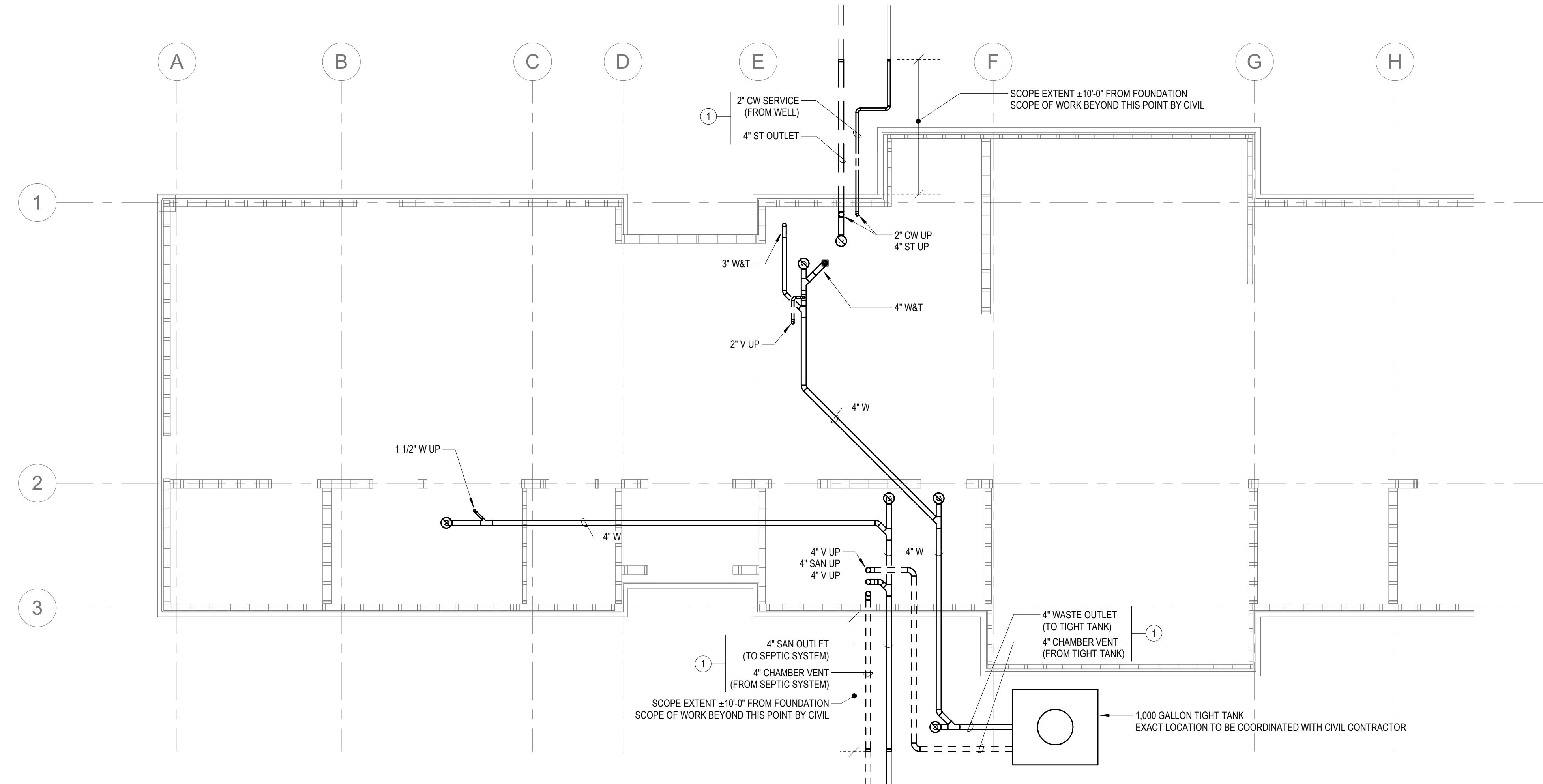
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**3 PLUMBING WATER SERVICES - ENLARGED PLAN**  
 3/8" = 1'-0"



**1 PLUMBING GROUND FLOOR**  
 3/16" = 1'-0"



**2 PLUMBING BELOW FLOOR**  
 3/16" = 1'-0"

Revision:	Date:
DD Progress Set	10.06.2023
Design Development	10.30.2023

Sheet Title:  
**PLUMBING PLAN**

Date: 10/30/23  
 Scale: As indicated  
 Drawn: NPO  
 Checked: GC  
 Project No: 6022816

Sheet No.:  
**P1.01**



## MEMORANDUM

To: Shutesbury Conservation Commission  
From: Dominik Wit, *Project Manager*, Oudens Ello Architecture  
Copy: Greg Tuzzolo (Stimpson), Lily Dendy (Stimpson), April Doroski (F&O)

### Shutesbury Public Library NOI Supplemental Information – Planting Plan

The following responds to the Conservation Commission request for supplemental information pertaining to the Shutesbury Public Library project NOI submission.

The proposed planting design, including species selection, quantities and locations, is a balancing act between the following competing project goals:

- Meeting the quota of replacement trees based on the Shutesbury Wetland Regulations formula to the maximum extent practicable.
- Minimizing the Limit of Work to the smallest possible area to limit impacts to the site.
- Maximizing solar gain on the south, east and west sides of the building for the proposed photovoltaic system mounted to the roof of the library.
- Providing adequate space for the mature size of each planted tree.

The design team feels that the proposed planting design carefully balances a number of competing factors and has arrived at an appropriate solution, optimizing the design to achieve a range of project goals as outlined above. Should any changes to the plan be required for approval, specifically the requested reduction of trees in front of the building allowing greater visibility to Leverett Road, the applicant respectfully requests that the Commission entertain an expansion of relief from the tree replacement beyond what we are currently seeking. If that approach is desired, the team will submit a revised plan with the reduced plant counts.

Please refer to the planting plan L3.0 as submitted in the original submission for reference.

End of Memorandum

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