



MILLENNIUM ENGINEERING, INC.
Land Surveyors and Civil Engineers

May 26, 2026

Planning Board Chair
City of Amesbury
62 Friend St.
Amesbury, MA 02913

Attn: Chairman - Pascal Rettig

Subject: 9 Oakland Street, Amesbury, MA
Stantec Peer Review Response Letter

Dear Pascal Rettig,

The following provides our response to peer review comments received from Stantec in a memorandum dated April 13, 2026 and the site plan comments included in VHB's memorandum dated April 6, 2026. We have included the review comments and our response to facilitate the Board's review. For this round of comments, the original comment is written in italics, and the reviewers second round of comments (which this letter responds to) are written in bold italics beneath the comment that they follow-up on.

A. Stormwater Management Report	
Comment 5	<i>Standard 2: The existing conditions analysis approach assumes the entire site flows to the City's existing drainage system along Chestnut Street and does not address the specific impacts to each abutter and each street. The limits of the subcatchment delineation is unclear. Please note the existing conditions plan information provided on the pre-development plan appears incomplete and does not provide information for comparison to the post development conditions and apparent impacts to all abutters. The following relative to pre-development existing conditions plan is noted: The subcatchment delineations have been revised and clarified, but the labels for S3 and S4 are incorrect on the revised existing conditions plan. We recommend the abutting lots be labeled on the plans for clarity. In addition, the impacts to abutting lot 214 appear to be absent as noted below. <i>C. Spot elevations are absent along the southerly boundary to demonstrate the direction of runoff along the southerly side of the site along abutting lot 214. The indicated flow line for subcatchments S2A and S2B are shown on abutting lot 214, but the submission does not include analysis to this abutter lot under pre- and post-development conditions to demonstrate no increase in runoff would occur and compliance is achieved. The analysis should be revised accordingly.</i></i>
Response	C. Labels for S3 and S4 have been corrected. Copies of the Nodes that drain to lot 214 that drain to a new link node have been added to the analysis. The new link node sums up the hydrographs of the copied nodes and shows a 98.78% reduction in peak flow from pre to post.
Comment 8	<i>The post development analysis indicates a portion of the proposed roof runoff (subcatchment S1-1) will be directed to the proposed infiltration chamber system under</i>



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	<i>the proposed garage – pond ICI, however, the project plans do not indicate/address how this runoff would reach the chamber system. The limit of the subcatchment delineation is unclear and the amount of roof imperious area could not be confirmed. We note the separate architecture plans imply the proposed building will have sloped roofs that would sheet flow runoff away from the site and this appears contrary to the stormwater design information presented. Please provide additional information to clarify that the submitted stormwater design/analysis is consistent with the project design. This should include hydraulic analysis of any piping system (absent) that may be needed to connect the roof to the chamber system to demonstrate the design is appropriate.</i> <i>We recommend the hydraulic analysis of any roof drain piping system within the building be completed and demonstrate the system is adequately designed and sized to connect the roof drain system to the holding tank system within the proposed building.</i>
Response	To clarify our previous response, MEI will not be performing an analysis of the roof drain network because that design must be done concurrently with the detailed building design. As required by building code, the internal roof drainpipe network will be <u>designed</u> and <u>analyzed</u> by mechanical, electrical, and plumbing (MEP) Engineers. This design needs to be coordinated with the building structural and architectural design so cannot occur until detail building permit plans are completed. The building permit plans will be provided to the Planning Department with confirmation that all roof drains are directed to the holding tanks system and that associated drainage will be appropriately managed. We recommend that this issue be addressed in a condition of the Planning Board's decision.
Comment 12	<i>It appears the delineation of post subcatchment S1-3 does not properly address the driveway ramp down into the garage. Please review, clarify, and revise the subcatchment delineation, calculations, and analysis to be consistent with the project design.</i> <i>The revised analysis does not include or address the trench drain or identify the contributing area to the trench drain. We note that details for the trench drain were absent from the revised plans. In addition, the revised design shown on the plans includes an area drain that contributes flow to the subsurface stormwater system under the parking lot, but is missing from the analysis. Details for the area drain are also absent from the plans. Please review and revise the analysis and plans accordingly consistent with the revised design.</i>
Response	Details for the trench drain and area drains have been added to the project plans. Additionally, minimum pipe diameter calc's have been added to the report. Each of those drainage areas are very small, under 500 square feet each. The pipe capacities far exceed the required 25-year flows that are below 0.10 CFS. Even given that the pipes are well oversized, calculations are provided in the drainage report.
Comment 15	<i>Standard 2: The post development analysis does not address the CDS unit in the analysis or routing diagram. It is unknown if the CDS unit is adequately sized or designed to capture all of the site runoff and direct it to the chamber system as implied in the analysis. Please provide additional information to clarify that the project design is consistent with the stormwater analysis. This should include calculations and supporting information that the top grate and associated grading design would capture all the site runoff and not bypass the structure.</i>



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	<i>Comment not properly addressed in response – also see #20 below.</i>
Response	Calculations for the proposed grate were included in the previous submittal (see pages 21, 61, 101, and 141 of the 3/27 HydroCAD report). In preparing those calculations, a grate from a manufacturer's catalog was selected and its dimensions entered into the model. The grate was modeled so that flow must pass thru it before entering the outlet pipe of the CDS unit. In all storms, the model shows the grate controlling flow, meaning the outlet pipe does not surcharge. Therefore, the previous submittal does accurately model the CDS unit. However, the design has been revised, and a different model of water quality catch basin from the same maker of the CDS unit, Contech E.S., will be used. Calculations from Contech and the manufacturer of the new grate, EJ Co., are now included with the revised report as Attachment 6.
Comment 17	<i>Standard 2: the post development pond routing calculations for the two chamber systems indicate two primary outlet devices and one secondary automatic overflow device, but the configuration and location of these devices is unknown. In addition, it is unclear how the flow from the three devices merge together into a single pipe and discharge to the street connections as implied in the analysis. The detail in the plan set does not appear to address the outlet devices noted in the analysis. Please review and provide additional information to clarify the location and configuration of each outlet device and clarify how the flow from the devices would be collected and discharge toward the street in a single pipe as represented in the pond calculations.</i> A. The Applicant's revised outlet device design for pond DC1: Detention Chamber under the proposed garage floor indicates a 4" and 7" vertical control devices. Please clarify if these are vertical circular devices in the pond analysis. We note the design indicates there are 4 -4" devices at elevation 27.25 that would likely serve the 12" vertical standpipe but this does not appear constructable based upon the geometry. Please revise the design and analysis accordingly to provide a constructable outlet device. In addition, please update the detail on the plan to clarify the proposed outlet device design for proper construction. B. The revised routing Diagram still includes the Pond IC1 – Infiltration chamber under the garage that is no longer part of the design. We recommend the pond be removed from the analysis. C. The Applicant's revised outlet device design for pond IC2: Infiltration Chamber under Parking Lot indicated a 9" vertical control device. Please clarify if these are vertical circular devices in the pond analysis. The proposed 9" vertical weir at elevation 49.33 would likely weaken the 12" vertical standpipe and does not appear to be appropriate. Please revise the design and analysis accordingly to provide a constructable outlet device. In addition, please update the detail on the plan to clarify the proposed outlet device design for proper construction.
Response	A. All vertical orifices are circular unless otherwise noted in the HydroCAD report. The standpipe design is constructible, because each pipe component can be cut to the required length prior to assembly. Note the circumference of the 12" standpipe is 3.14 feet while the maximum cutting of the standpipe at the spring line of the four 4" orifices is only 1.36 ft. or about 43% of the pipe's total circumference. The standpipe is also supported by a steel bracket with that



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	added to the detail. See attached as-built photograph of a similar constructed outlet control device. B. IC1 has been removed from the analysis. C. No weirs are proposed; HydroCAD automatically models all orifices as weirs when there is not enough head to fully submerge the orifice, which is what is meant by “Limited to weir flow at low heads” text message that appears. The detail for this outlet has been updated with new inverts.
Comment 18	<i>Standard 2: The report lacks hydraulic pipe calculations for the proposed pipes and pipe network systems for the connections to the City’s existing stormwater system. The hydraulic pipe calculations should indicate the system pipe velocities, hydraulic grade line/elevations to demonstrate the proposed systems are of adequate size to convey flow under gravity conditions for the storm events and to demonstrate the flow range is within the minimum velocity of 3 FPS and maximum 10 FPS in accordance with section 7.10.C of the Amesbury Subdivision Rules and Regulations. The analysis should be updated accordingly.</i> <i>The hydraulic calculations were absent from the revised submission.</i>
Response	Calculations of the full-flow (flushing flow) velocity for the four proposed pipes are now included with the report.
Comment 20	<i>Standard 4: The analysis does not address the CDS unit in the analysis or routing diagram and demonstrate the unit is properly sized. In addition, the report does not provide information relative to the TSS removal amount provided before infiltration and the final TSS for the site. Please review and update accordingly to demonstrate how compliance for this standard has been met.</i> <i>The revised routing Diagram indicates CB CDS1 is still part of and connected in the analysis and the deep sump catch basin is not included in the analysis. Please revise the analysis consistent with the design intent and provide CDS design information if the unit is still to be part of the project. We note the site plans and details still include a CDS unit.</i> <i>The revised 25-year analysis for this pond location indicates a peak elevation of 51.76 and will surcharge the catch basin rim at elevation 51.60 by approximately 2 inches and is an improper design. Please review and revise the design to provide a stormwater design that does not surcharge during any event.</i>
Response	Calculations for the new water quality catch basin have been included as Attachment 6 to the stormwater report. Similar to the previous design, the new vaned grate has less capacity than the outlet pipe, therefore the pipe can only be surcharged if there is a blockage downstream from it, or if an event with more precipitation or is longer lasting than what has been previously modelled, occurs. The surcharging is simply the small ponding that temporarily occurs at the grate. To illustrate how long the peak elevation is sustained above the grate , water surface elevation (WSE) over time has been added to all outflow hydrographs. For the water quality catch basin, the WSE is 0.17ft or 2 inches above the rim for approximately 14 minutes, centered around the arrival of the peak flow during the 25-yr storm. It is very common to have minor ponding at grates during the peak



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	periods of peak events. The grading at the apron has been modified to fully capture the 100-year event by lowering the grate to be 0.3' below the back of sidewalk.
Comment 24	<i>Standard 8: The report does not include information relative to the Erosion and Sediment Control BMP's but does reference that a separate plan has been prepared that appears to be sheet C6.0 in the separate project plan set prepared by MEI. Relative to the separate plan, please clarify/address the following relative to standard 8 and the project design:</i> A. Please update the plan to include the work limits in the roadway including limits of sawcut for proper construction. B. Comment addressed with revised submission. C. Please update the plan to include waste material dumpsters, hazardous waste storage, sanitary waste facilities, vehicle maintenance/refueling locations, etc. D. Comment addressed with revised submission. E. Details for the noted BMPs, such as construction fence, stone sump, etc. needs to be provided. F. The Inspection and Maintenance Log was absent from the revised submission.
Response	A. The Erosion & Sedimentation Control (E&SC) plan has been revised to include sawcut limits C. Vehicle maintenance and dumpster locations are now called out on the Demo plan E. Detail drawings for construction entrances and silt sacks now shown F. Inspection and Maintenance Log has been attached to the Operations & Maintenance Manual
Comment 25	<i>Standard 9: The report includes a Long Term Pollution Prevention and Operation & Maintenance Plan document.</i> A. Please clarify/address the following items in Post Construction BMP's that is part of Standard 9, which typically includes the following: 1. Comment Addressed 2. Requirements for routine inspections and maintenance of each stormwater BMP (i.e. CDS unit) and checklist that identifies each BMP(provide O&M manuals for all systems); A checklist that identifies each BMP(provide O&M manuals for all systems) was absent for the submission. 3. Comment addressed 4. Comment addressed 5. Comment addressed; 6. Comment addressed; 7. Comment addressed 8. A plan identifying each BMP location requiring maintenance under the BMPS should be included in the document. This should include the maintenance requirements as specified for any manufactured BMP's. Please update the document to include a separate plan identifying each BMP location requiring maintenance.



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	9. Please clarify and provide supporting documentation that the garage design has considered access by men and equipment to conduct maintenance of the chamber system located under the floor. Comment not addressed in response. B. Amesbury is an MS4 community, and we recommend copies of the stormwater inspection checklists be provided to the City on an annual basis. This should be noted in the document. Comment not addressed in response. C. Please provide an endorsement for the illicit discharge statement to meet compliance with standard 10. Comment not addressed in response. D. We recommend the updated document be a separate complete document as typically requested by the Board Comment not addressed in response.
Response	A. Standard 9, Post-Construction BMP's: 2. Inspection schedule and checklist for stormwater BMP's have been added to the O&M Plan. 8. A key plan is now provided with the operation and maintenance manual. 9. 24" diameter manhole covers area provided for access along with vehicle access in the garage. There are no special provisions needed for the maintenance and access to this chamber system B. A note has been added requiring reports to be provided to the Amesbury DPW on an annual basis. C. The illicit discharge statement is provided and will be signed and provided with the building permit application. D. The post-construction O&M plan is a separate document, as it is an "attachment". A separate PDF file is provided with this document.
Comment 26	Standard 9: An estimated operations and maintenance budget in accordance with Standard 9 was absent from the document. Please include with the updated submission. An estimated operations and maintenance budget in accordance with Standard 9 was absent from the document.
Response	An estimated budget of \$4,500/yr was provided in paragraph 1 of page 1 of the previous O&M Manual. This has not changed with this submittal.
Site Plan Set	
Comment 2	We recommend the Applicant clarify/address the following relative to the civil site plan – sheet C-5.0: A. The revised design indicates a direct connection to the existing drain pipe in Chestnut Street that is unusual, when it is typically done by means of a new manhole. As noted previously, it is unknown whether the Department of Public Works (DPW) has agreed to this type of connection to the stormwater system within Chestnut Street. The submission did not include any documentation from the DPW associated with the proposed stormwater connection as requested. We recommend the Applicant obtain and provide documentation from the DPW



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- agreeing to the proposed stormwater connection method in Chestnut Street for Planning Board consideration and inclusion in the Planning Board project file.**
- B. Please label the size, type, length, and slope of the drain pipe from CB/WQU to the parking lot chamber system and the proposed pipe from the chamber system to the existing catch basin on Oakland Street. It is unknown if the DPW has agreed to the connection within Oakland Street or the type of connection proposed. Since design invert information for the proposed pipe and a profile of the proposed stormwater connection at Oakland Street is absent from the project plans, it is unknown if the proposed stormwater pipe would have proper cover or properly connect at the catch basin. In addition, it is unknown if the 25-year chamber system peak elevation would backwater the CB/WQU unit outlet. The stormwater design and connection should be revised to include the design information for proper construction and the separate stormwater report should include documentation the design is acceptable to the DPW.
- As noted above in comment 20, the revised 25-year analysis for this pond location indicates a peak elevation of 51.76 and will surcharge the catch basin rim at elevation 51.60 by approximately 2 inches and is an improper design. the design shall be revised to prevent stormwater surcharging. In addition, the submission did not include any documentation from the DPW associated with the proposed stormwater connection as requested. We recommend the Applicant obtain and provide documentation from the DPW agreeing to the proposed stormwater connection method in Oakland Street for Planning Board consideration and inclusion in the Planning Board project file.**
- C. As noted above, the stormwater analysis indicates all of the building roof runoff is directed to the two proposed subsurface chamber systems, but the plan does not indicate or address how this would occur. The plans should be revised accordingly and consistent with the stormwater analysis and all appropriate details should be provided in the plan set for proper construction.
- As noted in comment 8 above, we recommend the hydraulic analysis of any roof drain piping system within the building be completed and demonstrate the system is adequately designed and sized to connect the roof drain system to the holding tank system within the proposed building.**
- D. The location and rim elevations for the access manholes to the two chamber systems are absent from the plan for proper construction. We recommend a minimum of two inspection manholes be provided for each subsurface chamber system or more if required by the manufacturer. Please update the plan accordingly.
- E. Please provide spot elevations at parking lot corners, building corners, dumpster pad, patio area and other various locations around the buildings to demonstrate the grading design intent and for proper construction. It is unclear how the runoff along the rear of the building adjacent to Lot 97 is intended to drain with the proposed stone dust walkway and how the runoff would enter into the City's stormwater system as implied in the stormwater analysis. Please review and revise the design accordingly.
- F. It is unclear whether the necessary minimum cover over the chamber system and below the pavement is provided at the parking lot system near the pipe connection from the CB/WQU. In addition, it is unclear whether sufficient cover is provided over the garage chamber system. Please review and revise the design and provide



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	supporting information, including spot elevations, to demonstrate the proposed design complies with the manufacturer's requirements. Comment not addressed in response. G. A spot elevation of 31.47 is shown near the patio area adjacent to the garage that would appear to pond water at the building. Please review and revise as necessary. Comment addressed with revised submission.
Response	A. The connection will be coordinated with the City DPW prior to the issuance of the building permit, and this can be addressed in a condition in the Planning Board's decision. We received review comments from DPW staff with the only design concern/coordination being the sidewalk design at the corner of Chestnut and Oakland Street. I disagree that direct connection is unusual. Please note that this is a service connection versus a street connection. I have done over 100 site development projects in urban areas and found that more than 90% utilize a direct connection. I would say it is unusual in my experience to have a manhole provided for a property service connection. B. See response to comment #20. The surcharge is at the grate, not the outlet pipe. The grading has been modified to contain and collect this small amount of ponding that occurs briefly during peak storm events. The connection was reviewed by DPW during the technical review process. The applicant will continue to work with DPW staff prior to the start of construction. C. See response to comment #8. As with any large building project the interior plumbing is dictated by the plumbing code and as such to be designed by a licensed MEP engineer. This design occurs with the building permit plan set. The plumbing plan will be provided to the planning department for confirmation all roof runoff is directed to the chamber system, F. Minimum cover requirements for, and what was actually provided for, the cistern and infiltration chambers were provided in the previous submittal, for the former, please see the notes of detail #9 on sheet C7.0, as well as the notes for detail #2 on sheet C7.2. For cover provided, please see the proposed drainage plan and compare the top of chamber elevation to the proposed grade.
Comment 3	The drain service connection detail does not properly indicate the existing drain pipe size noted on the existing conditions plan. Please update accordingly.
Response	The proposed utility design was reviewed by DPS during the technical review process. The applicant will continue to work with the DPS as work progresses with the building permit application.
Comment 4	Other items observed during the plan review; A. The revised design submission now indicates the existing sewer line will remain in the current location and to be located under the proposed building. Although the Applicant proposes to replace the sewer with ductile iron pipe, it is unknown if the DPW has agreed to the proposed placement of a building over the existing sewer line versus relocation as originally proposed. The Applicant should obtain documentation from the DPW agreeing to the changes in the sewer pipe and placement of a proposed building over an existing sewer line for Planning Board consideration and inclusion in the Planning Board project file. We recommend the



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	sewer line be relocated outside the building construction to allow for future access and maintenance consistent with the previous submission. B. As noted in our original comment, the proposed site improvements along Oakland Street include creation of curbed sidewalks and landscape islands for the benefit of the development along the existing courtyard area, and reduce the existing roadway width to approximately 20 feet which is less than the existing conditions and minimum required width of 24 feet per the Subdivision Rules and Regulations design standards 7.09.E It is unknown if the DPW has agreed to the creation of landscape areas within the roadway right-of-way and the reduction of the roadway width. Street parking and snow banks at this reduced roadway width location could impair emergency services for the neighborhood. The Applicant should obtain documentation from the DPW agreeing to the changes in the roadway for Planning Board consideration and inclusion in the Planning Board project file.
Response:	A. DPW has not objected to the currently proposed configuration. Currently, there is no formal easement for this sewer on record. Prior to the issuance of a building permit the applicant will memorialize an easement for this sewer along with a maintenance agreement where it will be the property owner's obligation to maintain this section of sewer under the garage. We would recommend this be a condition of the Planning Board's approval decision. B. The City's Office of Economic and Community Development are strongly in favor of the reduced road width providing a wider sidewalk for enhanced pedestrian safety and experience and a narrower roadway, which tends to encourage reduced speeds.

Following are responses to the Site Plan comments provided by VHB in its April 6, 2026 Memorandum:

1. Stop lines and Stop signs should be provided facing exiting Site traffic at both driveways.

Response: Stop lines have been added at both driveways. We do not believe stop signs are required or desirable. The applicant will confirm need for stop sign with the OCED and Planning Board.

2. AAB-compliant tactile warning panels should be provided on both sides of the sidewalks intersecting each driveway.

Response: We do not believe tactile warning panels on both sides of the sidewalks intersecting each driveway are required or appropriate given the raised concrete drive aprons proposed at each driveway.

3. The Project's parking management should be discussed in terms of if parking stickers or other means will be provided to control parking. Consideration should be given to unbundling parking from the leasing of units so that any residents choosing not to own a vehicle would not have to lease a space.

Response: The project proposes 153 parking spaces – with 130 garage spaces and 23 surface spaces. The garage spaces will be for residents only. The 23 surface spaces will be available for business and visitor uses during the daytime hours (and for use by residents during nighttime hours). As discussed in GPI's February 25 and May 5, 2026 traffic letters, maximum demand for parking spaces is anticipated to occur



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between midnight and 4:00 AM and the proposed 153 parking spaces (1.23 spaces per unit) is sufficient to meet that “maximum demand” period. Peak demand period for the businesses will occur in the middle of the day when demand for the residential uses are lowest. The project team believes the proposed on-site parking is sufficient for all proposed uses. If visitors or business customers are unable at times to find available parking on site they can utilize nearby public parking spaces on nearby streets or the nearby public parking garage.

A parking management program will be developed prior to 1st occupancy in coordination with the management company contracted to operate the property. Consideration will be given to unbundling parking from the leasing of units, among other considerations.

4. *The Applicant should discuss how move-in/move-out activities are managed at other existing properties controlled by the Applicant. While this activity occurs at any residential site, there is limited room to accommodate delivery trucks, which should be discussed.*

Response: Protocol associated with move-in/move-out activities will be developed prior to 1st occupancy in coordination with the management company contracted to operate the property.

5. *The Zoning table on Sheet C5.0 “Civil Site Plan” should be modified to include the Project parking.*

Response: A parking summary is now included on Sheet C-5.0.

6. *The proposed surfacing parking lot next to Oakland Street shows a total of 24 spaces, while the SV Design LLC plans show 23 spaces. This discrepancy should be resolved. Also, the SV Design LLC plans indicate that the eleven spaces immediately next to Oakland Street are designated for visitor use. This distinction also should be shown on the civil engineering plans (which show twelve spaces in this area).*

Response: These discrepancies have been corrected and the plans now clarify that the 23 surface spaces will be available for use by businesses and visitors. Additional details and restrictions will be provided in the parking management program to be prepared prior to occupancy.

We trust this response letter provides the necessary information for the Board’s consideration. If you have any questions or comments, please feel free to contact our office at your convenience.

Sincerely,

Millennium Engineering, Inc.

Stephen Sawyer, P.E.
Sr. Project Manager



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Comment 17.A response backup (Outlet Control Device)



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