



STAFFORD COUNTY WETLANDS BOARD
SEPTEMBER 16, 2024 MEETING PACKAGE



STAFFORD COUNTY WETLANDS BOARD

Agenda

Monday, September 16, 2024 at 6:00 pm

Board Chambers of the George L. Gordon, Jr. Government Center

- A. Call to Order
- B. Roll Call of Members
- C. Determination of a Quorum
- D. Approval of Meeting Minutes – January 22, 2023
- E. New Business

Public Hearings

Application 1 (AP24155808)

Wetlands Permit Application WB24-01 – Mr. Andy Bonilla, applicant, is requesting a wetland permit under Section 27-19 – Application for Permit of the Stafford County Wetlands Ordinance for the purpose of installing a 183 linear foot riprap revetment. The revetment will stabilize the bank and retard erosion along a portion of Aquia Creek on TMP 31A-2-25C.

Application 2 (AP24155680):

Wetlands Permit Application WB24-03 – Mr. David & Karin Lynch, applicants, are requesting a wetland permit under Section 27-19 – Application for Permit of the Stafford County Wetlands Ordinance for the purpose of installing a 180 linear foot riprap revetment. The revetment will stabilize the bank and retard erosion along a portion of Aquia Creek on TMP 40-59.

- F. Old Business
- G. Chairman's Report
- H. Staff Report
- I. Adjournment



STAFFORD COUNTY WETLANDS BOARD

Roll Call

Monday, September 16, 2024 at 6:00 pm
Board Chambers of the George L. Gordon, Jr. Government
Center

CTO: _____ p.m.

<u>Members:</u>	Present	Absent
Sue Henderson	_____	_____
Mary Rust	_____	_____
Anthony Pineau	_____	_____
Benjamin Rudasill	_____	_____
Dan Adams	_____	_____
Robert Hayden	_____	_____
Zachary Martinez	_____	_____

Determination of a quorum:

(At minimum, 4 members are required to be present to have a quorum).

___ YES ___ No (If no the meeting is canceled)

<u>Staff:</u>	Present
Joe Fiorello	_____
Emily Torrey	_____
Vicki Sowers	_____

Adjourn: _____ p.m.

WETLANDS BOARD

JANUARY 22, 2024 DRAFT MEETING MINUTES



STAFFORD COUNTY WETLANDS BOARD

Meeting Minutes

Monday, January 22, 2024 at 6:45 p.m.

Board Chambers | George L. Gordon Government Center

A. Call to Order

The meeting was called to order at 7:27 p.m. by Paul Santay

B. Roll Call

Members Present: Sue Henderson (Chair), Mary Rust (Vice-Chair), Anthony Pineau, Dan Adams, and Benjamin Rudasill

Members Absent: Robert Hayden, Zachary Martinez

Staff Present: Paul Santay, Chief Director of Community Development; Joe Fiorello, Environmental Planner; and Savannah Wimbush, Development Services Administrative Manager

C. Determination of a Quorum

A quorum was established with 5 of the 7 members present.

D. Election of Officers

➤ Election of a Chairman

Mr. Santay called for the election of officers, starting with the nomination for the chair position. Mr. Pineau nominated Ms. Henderson, which was seconded by Ms. Rust. Ms. Henderson was unanimously elected as the chair.

➤ Election of a Vice-Chairman

Ms. Henderson called for nominations for the Vice Chair position. Mr. Rudasill nominated Ms. Rust, and Mr. Pineau seconded the nomination. Ms. Rust was elected as the Vice Chair unanimously.

E. Approval of Meeting Minutes

Mr. Rudasill made a motion to approve the January 30, 2023 Wetlands Board minutes. Mr. Pineau seconded. The motion was unanimously approved.

F. New Business



None

G. Chairman's Report

None

H. Staff Report

Mr. Santay sought permission to provide a brief staff report. He recalled Mr. Saunders mentioning a law enacted by the General Assembly in March, requiring an update to the County Wetlands ordinance effective January 1, 2024. Despite being past the deadline, Mr. Santay informed the Wetlands Board that the standard wetlands ordinance was up for consideration by the Board of Supervisors at their upcoming meeting.

He outlined the key changes in the new wetlands ordinance, noting that it maintains the tidal wetlands fund but removes certain sections related to reporting, monitoring, site inspections, and notice to comply. These changes aim to streamline enforcement procedures. The ordinance was set for a public hearing at the Board of Supervisors meeting on February 6.

Ms. Henderson requested Mr. Santay to send a link or a copy of the ordinance to the Wetlands Board for reference. She expressed uncertainty about being asked about it but emphasized the importance of being informed.

Mr. Santay assured Ms. Henderson that he would provide the requested information and clarified that while the Board of Supervisors might have seen the ordinance, it wouldn't be acted upon until the upcoming meeting.

Ms. Henderson inquired if there were any additional comments or reports from the board members.

Mr. Pineau brought up the possibility of upcoming projects for the Wetlands Board. Mr. Fiorello responded that there were no upcoming projects and mentioned that there were no applications for the month of February, resulting in the cancellation of those meetings.

Ms. Rust sought clarification regarding in-lieu fees and whether it would be appropriate to discuss potential projects with Ken Benson, their neighbor. She wondered if it would be suitable for him to present a project proposal to the board. Mr. Fiorello stated that it would be permissible for an entity to



present a project proposal to the board at their request. Ms. Henderson added that ultimately, the Board of Supervisors decides whether to allocate funds for a project recommended by the Wetlands Board. Ms. Rust sought guidance on the process of proposing and approving a project. Mr. Santay suggested that the first step would be to identify a qualifying project, after which the information could be shared with him for further consultation with county staff. He emphasized the importance of understanding the ordinance's specifications regarding project eligibility. Mr. Fiorello elaborated on the definition of restoration and emphasized the necessity for a project to involve tidal wetlands to qualify for funding. Ms. Henderson clarified that the funds must be spent on projects within the county's jurisdiction and preferably on county-owned property. Ms. Rust referenced Prince William County's successful collaboration with state parks and expressed curiosity about similar possibilities in Stafford County.

Mr. Santay reiterated that while there may be backstory regarding fund utilization, the ordinance specifically mentions the locality, providing some flexibility in project selection. Mr. Fiorello acknowledged that he lacked comprehensive information and was relaying hearsay. Mr. Santay reiterated the flexibility provided by the ordinance's wording and mentioned similar rumors about county project preferences.

Ms. Henderson thanked everyone for their input, concluding the discussion on potential projects and the utilization of in-lieu fees.

I. Adjournment

With no further business to discuss, Mr. Rudasill made a motion to adjourn. The motion was seconded by Ms. Rust. The Wetlands Board meeting adjourned at 7:40 p.m.

NEW BUISNESS

APPLICATION 1:

BONILLA WETLANDS PERMIT STAFF REPORT

APPLICATION 2:

LYNCH WETLANDS PERMIT STAFF REPORT

APPLICATION 1

BONILLA REVETMENT

WETLANDS JOINT PERMIT

APPLICATION VMRC #20241798

From: jim.beck@jbeckassociates.com
To: [Howell, Beth \(MRC\)](#)
Cc: [Payne, Khadijah \(MRC\)](#); [Andy Bonilla](#); [Joseph P. Fiorello](#)
Subject: Bonilla JPA - Aquia Creek Stafford VA
Date: Monday, July 29, 2024 6:16:26 PM
Attachments: [image001.png](#)
[Bonilla JPA Final.pdf](#)

Hi Beth:

Please find attached a JPA for a new dock, boathouse and shoreline stabilization at 54 Shady Lane in Stafford on Aquia Creek. We have the APO's completed on both adjoiners. There is a small outlot included in this project that the applicant is under contract to purchase from the north APO. Closing is scheduled for mid-August, so we showed this parcel as the applicant. I expect it will take some time for the GIS land records to be updated, so we can provide documentation on the sale if necessary.

Feel free to contact me with any questions or if additional information is needed.

Thanks,
Jim

James P. Beck, PE

(703) 801-8739 jim.beck@jbeckassociates.com



www.jbeckassociates.com

- ❖ DEQ: Permit application fees required for Virginia Water Protection permits – while detailed in 9VAC25-20 – are conveyed to the applicant by the applicable DEQ office (<http://www.deq.virginia.gov/Locations.aspx>). Complete the Permit Application Fee Form and submit it per the instructions to the address listed on the form. Instructions for submitting any other fees will be provided to the applicant by DEQ staff.
- ❖ VMRC: An application fee of \$300 may be required for projects impacting tidal wetlands, beaches and/or dunes when VMRC acts as the LWB. VMRC will notify the applicant in writing if the fee is required. Permit fees involving subaqueous lands are \$25.00 for projects costing \$10,000 or less and \$100 for projects costing more than \$10,000. Royalties may also be required for some projects. The proper permit fee and any required royalty is paid at the time of permit issuance by VMRC. VMRC staff will send the permittee a letter notifying him/her of the proper permit fees and submittal requirements.
- ❖ LWB: Permit fees vary by locality. Contact the LWB for your project area or their website for fee information and submittal requirements. Contact information for LWBs may be found at http://ccrm.vims.edu/permits_web/guidance/local_wetlands_boards.html.

FOR AGENCY USE ONLY	
	Notes:
	JPA # 24-1798

APPLICANTS

Part 1 – General Information

PLEASE PRINT OR TYPE ALL ANSWERS: If a question does not apply to your project, please print N/A (not applicable) in the space provided. If additional space is needed, attach 8-1/2 x 11 inch sheets of paper.

Check all that apply				
Pre-Construction Notification (PCN) ☐	PASDO – PGP Self Verification ☒			
NWP #	(Replaces Regional Permit 17 (RP-17) checklist)			
(For Nationwide Permits ONLY - No DEQ-VWP permit writer will be assigned)				
County or City in which the project is located: <u>Stafford County</u>				
Waterway at project site: <u>Aquia Creek</u>				
PREVIOUS ACTIONS RELATED TO THE PROPOSED WORK (Include all federal, state, and local pre application coordination, site visits, previous permits, or applications whether issued, withdrawn, or denied)				
Historical information for past permit submittals can be found online with VMRC - https://webapps.mrc.virginia.gov/public/habitat/ - or VIMS - http://ccrm.vims.edu/perms/newpermits.html				
Agency	Action / Activity	Permit/Project number, including any non-reporting Nationwide permits previously used (e.g., NWP 13)	Date of Action	If denied, give reason for denial
VMRC	JPA for existing dock	2009-0721	May 2009	

Part 1 - General Information (continued)

1. Applicant's legal name* and complete mailing address: Contact Information:

Andy Bonilla
6648 Ridgeway Drive
Springfield, VA 22150

Home () _____
Work () _____
Fax () _____
Cell (571) 340-2328
e-mail andy.greenoak@gmail.com

State Corporation Commission Name and ID Number (if applicable) _____

2. Property owner(s) legal name* and complete address, if different from applicant: Contact Information:

Home () _____
Work () _____
Fax () _____
Cell () _____
e-mail _____

State Corporation Commission Name and ID Number (if applicable) _____

3. Authorized agent name* and complete mailing address (if applicable):

Jim Beck, J Beck & Assoc.
99 Woodrow Drive
Stafford, VA 22554

Contact Information:
Home () _____
Work (703) 801-8739
Fax () _____
Cell () _____
e-mail jim.beck@jbeckassociates.com

State Corporation Commission Name and ID Number (if applicable) S480797-2

*** If multiple applicants, property owners, and/or agents, each must be listed and each must sign the applicant signature page.**

4. Provide a detailed description of the project in the space below, including the type of project, its dimensions, materials, and method of construction. Be sure to include how the construction site will be accessed and whether tree clearing and/or grading will be required, including the total acreage. If the project requires pilings, please be sure to include the total number, type (e.g. wood, steel, etc), diameter, and method of installation (e.g. hammer, vibratory, jetted, etc). If additional space is needed, provide a separate sheet of paper with the project description.

This project is for a new 6' wide x 150' long open pile residential pier with a 20'x14' platform, a 5' x 17' catwalk, a 5' x 40' catwalk, and 19'x36' (684 SF) covered boat slip along the Aquia Creek waterfront of the applicants property. This application also includes approximately 183' linear feet of rip-rap toe protection along the shoreline to mitigate erosion.

The pier will be constructed of 10" timber piles with 3x dimensional framing and timber decking. The boathouse roof will be constructed using 12" CLB piles to support the roof framing. Two boatlifts are proposed which will be supported with 10" timber piles. A side mount PWC lift will be supported by one of the dock piles. There are a total of 56 timber piles proposed which will be installed using a barge mounted vibratory hammer.

Toe protection will be CL1 rip-rap placed on filter fabric along the existing bank. There are existing tires, concrete pipe sections and other detritus along the shoreline that will be removed.

Access to the site will be via an existing right-of-way adjacent to the applicants property and by barge. No land disturbance is proposed.

Part 1 - General Information (continued)

5. Have you obtained a contractor for the project? ___ Yes* ☒ No. *If your answer is "Yes" complete the remainder of this question and submit the Applicant's and Contractor's Acknowledgment Form (enclosed)

Contractor's name* and complete mailing address:

Contact Information:

Home () _____

Work () _____

Fax () _____

Cell () _____

email _____

State Corporation Commission Name and ID Number (if applicable) _____

*** If multiple contractors, each must be listed and each must sign the applicant signature page.**

6. List the name, address and telephone number of the newspaper having general circulation in the area of the project. Failure to complete this question may delay local and State processing.

Name and complete mailing address:

Telephone number

The Free-Lance Star
1340 Central Park Blvd.
Suite 100
Fredricksburg, VA 22401

(540) 370-5000 _____

7. Give the following project location information:

Street Address (911 address if available) 54 Shady Lane, Stafford, VA 22554 _____

Lot/Block/Parcel# County Tax Map #31A-2-25C & 31A-2-26 _____

Subdivision _____

City / County Stafford _____

ZIP Code 22554 _____

Latitude and Longitude at Center Point of Project Site (Decimal Degrees):

38.43218 / - 77.35406 (Example: 36.41600/-76.30733)

If the project is located in a rural area, please provide driving directions giving distances from the best and nearest visible landmarks or major intersections. *Note: if the project is in an undeveloped subdivision or property, clearly stake and identify property lines and location of the proposed project. A supplemental map showing how the property is to be subdivided should also be provided.*

8. What are the *primary and secondary purposes of and the need for* the project? For example, the primary purpose may be "to protect property from erosion due to boat wakes" and the secondary purpose may be "to provide safer access to a pier."

The primary purpose is to repair a failing dock for safe access to the water. The secondary purpose is to protect the existing shoreline from further erosion.

Part 1 - General Information (continued)

9. Proposed use (check one):
☒ Single user (private, non-commercial, residential)
☐ Multi-user (community, commercial, industrial, government)
10. Describe alternatives considered and the measures that will be taken to avoid and minimize impacts, to the maximum extent practicable, to wetlands, surface waters, submerged lands, and buffer areas associated with any disturbance (clearing, grading, excavating) during and after project construction. *Please be advised that unavoidable losses of tidal wetlands and/or aquatic resources may require compensatory mitigation.*

Alternatives to the toe protection included a living shoreline. Toe protection was selected because subaqueous vegetation already exists along the shoreline and our proposal minimizes disturbance to the bottom lands.
11. Is this application being submitted for after-the-fact authorization for work which has already begun or been completed? ☐ Yes ☒ No. If yes, be sure to clearly depict the portions of the project which are already complete in the project drawings.
12. Approximate cost of the entire project (materials, labor, etc.): \$ 85000
Approximate cost of that portion of the project that is channelward of mean low water:
\$ 70000
13. Completion date of the proposed work: Spring - 2025
14. Adjacent Property Owner Information: List the name and complete **mailing address**, including zip code, of each adjacent property owner to the project. (NOTE: If you own the adjacent lot, provide the requested information for the first adjacent parcel beyond your property line.) Failure to provide this information may result in a delay in the processing of your application by VMRC.
- Property to the north (tax map 31A-1-1):
- Mario Rivera
53 Shady Lane
Stafford VA 22554-5213
- Property to the south (tax map 31A-2-25B):
- Donald Milleson
52 Shady Lane
Stafford, VA 22554

Part 2 - Signatures

1. Applicants and property owners (if different from applicant).

NOTE: REQUIRED FOR ALL PROJECTS

PRIVACY ACT STATEMENT: The Department of the Army permit program is authorized by Section 10 of the Rivers and Harbors Act of 1899, Section 404 of the Clean Water Act, and Section 103 of the Marine Protection Research and Sanctuaries Act of 1972. These laws require that individuals obtain permits that authorize structures and work in or affecting navigable waters of the United States, the discharge of dredged or fill material into waters of the United States, and the transportation of dredged material for the purpose of dumping it into ocean waters prior to undertaking the activity. Information provided in the Joint Permit Application will be used in the permit review process and is a matter of public record once the application is filed. Disclosure of the requested information is voluntary, but it may not be possible to evaluate the permit application or to issue a permit if the information requested is not provided.

CERTIFICATION: I am hereby applying for all permits typically issued by the DEQ, VMRC, USACE, and/or Local Wetlands Boards for the activities I have described herein. I agree to allow the duly authorized representatives of any regulatory or advisory agency to enter upon the premises of the project site at reasonable times to inspect and photograph site conditions, both in reviewing a proposal to issue a permit and after permit issuance to determine compliance with the permit.

In addition, I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.

Andy Bonilla

Applicant's Legal Name (printed/typed)

(Use if more than one applicant)



Applicant's Signature

(Use if more than one applicant)

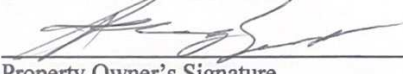
6-9-24

Date

Andy Bonilla

Property Owner's Legal Name (printed/typed)
(If different from Applicant)

(Use if more than one owner)



Property Owner's Signature

(Use if more than one owner)

6-9-24

Date

Part 2 – Signatures (continued)

2. Applicants having agents (if applicable)

CERTIFICATION OF AUTHORIZATION

I (we), Andy Bonilla, hereby certify that I (we) have authorized James Beck
(Applicant's legal name(s)) (Agent's name(s))
to act on my behalf and take all actions necessary to the processing, issuance and acceptance of this permit and any and all
standard and special conditions attached.

We hereby certify that the information submitted in this application is true and accurate to the best of our knowledge.

James P. Beck, PE
Digitally signed by James P. Beck, PE
DN: cn=JP, o=Beck Associates, c=US
Email=jpbeck@beckassociates.com, ou=James P. Beck, PE
Reason: I am approving this document
Date: 2024.07.29 17:08:45-07'

(Agent's Signature)

(Use if more than one agent)

7/29/2024

(Date)

(Applicant's Signature)

(Use if more than one applicant)

(Date)

3. Applicant's having contractors (if applicable)

CONTRACTOR ACKNOWLEDGEMENT

I (we), _____, have contracted _____
(Applicant's legal name(s)) (Contractor's name(s))
to perform the work described in this Joint Permit Application, signed and dated _____.

We will read and abide by all conditions set forth in all Federal, State and Local permits as required for this project. We understand that failure to follow the conditions of the permits may constitute a violation of applicable Federal, state and local statutes and that we will be liable for any civil and/or criminal penalties imposed by these statutes. In addition, we agree to make available a copy of any permit to any regulatory representative visiting the project to ensure permit compliance. If we fail to provide the applicable permit upon request, we understand that the representative will have the option of stopping our operation until it has been determined that we have a properly signed and executed permit and are in full compliance with all terms and conditions.

Contractor's name or name of firm

Contractor's or firms address

Contractor's signature and title

Contractor's License Number

Applicant's signature

(use if more than one applicant)

Date

Part 2 – Signatures (continued)

ADJACENT PROPERTY OWNER'S ACKNOWLEDGEMENT FORM

I (we), Mario Rivera, own land next to (across the water
(Print adjacent/nearby property owner's name)

from/on the same cove as) the land of Andy Bonilla.
(Print applicant's name(s))

I have reviewed the applicant's project drawings dated May 2024
(Date)

to be submitted for all necessary federal, state and local permits.

I HAVE NO COMMENT ☒ ABOUT THE PROJECT.

I DO NOT OBJECT ☒ TO THE PROJECT.

I OBJECT ☐ TO THE PROJECT.

The applicant has agreed to contact me for additional comments if the proposal changes prior to construction of the project.

(Before signing this form be sure you have checked the appropriate option above).

[Signature]
Adjacent/nearby property owner's signature(s)

6/9/2024
Date

Note: If you object to the proposal, the reason(s) you oppose the project must be submitted in writing to VMRC. An objection will not necessarily result in denial of the project; however, valid complaints will be given full consideration during the permit review process.

Part 2 – Signatures (continued)

ADJACENT PROPERTY OWNER'S ACKNOWLEDGEMENT FORM

I (we), Donald Milleson, own land next to (across the water
(Print adjacent/nearby property owner's name)

from/on the same cove as) the land of Andy Bonilla.
(Print applicant's name(s))

I have reviewed the applicant's project drawings dated May 2024
(Date)

to be submitted for all necessary federal, state and local permits.

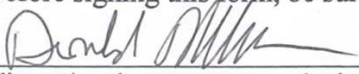
I HAVE NO COMMENT / ABOUT THE PROJECT.

I DO NOT OBJECT / TO THE PROJECT.

I OBJECT TO THE PROJECT.

The applicant has agreed to contact me for additional comments if the proposal changes prior to construction of the project.

(Before signing this form, be sure you have checked the appropriate option above).


Adjacent/nearby property owner's signature(s)

6-9-24
Date

Note: If you object to the proposal, the reason(s) you oppose the project must be submitted in writing to VMRC. An objection will not necessarily result in denial of the project; however, valid complaints will be given full consideration during the permit review process.



DEPARTMENT OF THE ARMY
U.S. ARMY CORPS OF ENGINEERS, NORFOLK DISTRICT
23-SPGP-PASDO SELF-VERIFICATION FORM
CATEGORY A PIER STRUCTURES

Expires: August 21, 2028

Please review the 23-SPGP-PASDO before completing this form. This can only be used for proposed PRIVATE USE structures that comply with the terms and conditions of the 23-SPGP-PASDO located on the Corps website: <https://www.nao.usace.army.mil/Missions/Regulatory/RBregional/>.

1. Has the permittee reviewed the 23-SPGP-PASDO and verified that the proposed structures are in compliance with all the terms, conditions, and limitations of 23-SPGP-PASDO?
☒ YES ☐ NO
2. Are the proposed structures for private use only?
☒ YES ☐ NO
3. To avoid adverse effects to navigation, do the proposed structures extend no more than one-fourth of the distance across the waterway measured from either mean high water (MHW) to MHW (including all channelward wetlands) or ordinary high water (OHW) to OHW (including all channelward wetlands)?
☒ YES ☐ NO
4. If the proposed structures cross wetland vegetation, are they an open-pile design that has a maximum width of five (5) feet and a minimum height of four (4) feet between the decking and the wetland substrate?
☐ YES ☐ NO ☒ N/A
5. Do the proposed structures include no more than two (2) lifts and no more than two (2) boat slips?
☒ YES ☐ NO ☐ N/A
6. Is the open-sided roof structure designed to shelter a boat no more than 700 square feet and/or is the open-sided roof structure or gazebo structure designed to shelter a pier no more than 400 square feet?
☒ YES ☐ NO ☐ N/A
7. Are all piles associated with the proposed structure non-steel, no more than 12" in diameter, and will there be no more than 25 piles installed channelward of MHW?
☐ YES ☒ NO **There are more than 25 piles**
8. When operationally feasible, is all work occurring behind cofferdams, turbidity curtains, or other methods used to control turbidity?
☒ YES ☐ NO
9. If the proposed structures are to be located within an anadromous fish use area, will the prospective permittee adhere to the anadromous fish use area time of year restriction (TOYR) prohibiting in-water work from occurring between February 15 through June 30 of any given year if 1) piles are to be installed with a cushioned impact hammer and there are fewer than 492 feet between the most channelward pile and mean low water (MLW) on the opposite shoreline; or 2) piles are to be installed with a vibratory hammer and there are fewer than 384 feet between the most channelward pile and MLW on the opposite shoreline? <https://services.dwr.virginia.gov/fwis/>.
☒ YES ☐ NO ☐ N/A
10. Is all work occurring outside of submerged aquatic vegetation (SAV) mapped by the Virginia Institute of Marine Sciences' (VIMS) most recent survey year and 5-year composite?
<https://mobjack.vims.edu/sav/savwabmap/> **The project is in a mapped SAV area**
☐ YES ☒ NO
11. Has the permittee ensured the construction of the proposed structures will not affect federally listed threatened or endangered species or designated critical habitat?
NOAA PRD: <https://www.fisheries.noaa.gov/new-england-mid-atlantic/consultations/section-7-consultations-greater-atlantic-region> ; and
US Fish and Wildlife Service: <https://ipac.ecosphere.fws.gov/>
☒ YES ☐ NO

12. Will the proposed structures be located outside of the following waterbodies: Broad Creek in Middlesex County, Fisherman's Cove in Norfolk, or the Salt Ponds in Hampton?
☒ YES ☐ NO
13. Is your project located outside of the Section 408 Review Area boundaries for civil works projects (e.g. federal navigation channels, flood risk management projects, or aquatic ecosystem restoration projects) as depicted on the "Norfolk District Section 408 Review Layer" in the Norfolk District Section 408 Map? <https://www.nao.usace.army.mil/408Review/>
☒ YES ☐ NO
14. Is your project located outside of any federal property? Federal property can be located on the "NAO Real Estate Data – CWLDM Land Parcel Area" layer on the Norfolk District Section 408 Map? <https://www.nao.usace.army.mil/408Review/> .
☒ YES ☐ NO
15. Will the proposed structures be located outside of any Designated Trout Waters?
<https://services.dwr.virginia.gov/fwis/>
☒ YES ☐ NO
16. If the proposed structures include floatation units, will the floating sections be braced so they will not rest on the bottom during periods of low water?
☐ YES ☐ NO ☒ N/A
17. Does the permittee recognize this form does not authorize any dredging or filling of waters of the United States (including wetlands) and does not imply that future dredging proposals or any other structures will be approved by the Corps?
☒ YES ☐ NO

If you have answered "NO" to any of the questions above, then the Category A Self-Verification of the 23-SPGP-PASDO does NOT apply, and you are required to obtain written authorization from the Corps prior to performing the work.

If you answered "YES" (or "N/A, where applicable) to all of the questions above, you are in compliance with the Category A Self-Verification of the 23-SPGP-PASDO. Please sign below and submit this self-verification form with your completed Joint Permit Application (JPA). This signed form serves as your letter of authorization from the Corps. You WILL NOT receive any other written authorization from the Corps; however, you MAY NOT proceed with construction until you have obtained all other necessary state and local permits.

By signing below, I certify that I have read and understand all conditions of the Army Corps of Engineers Norfolk District Regulatory Branch 23-SPGP-PASDO, dated August 22, 2023. I accept all of the terms and conditions of the permit, including the limits of federal liability contained in the 23-SPGP-PASDO enclosure. I acknowledge that structures authorized under this permit may be exposed to waves caused by passing vessels. The permittee is solely responsible for the integrity of the permitted structures and any resulting wave damage to such structures or moored vessels. I accept that the United States is not liable in any way for such damage and that the permittee will not seek to involve the United States in any actions or claims regarding such damage.

James P. Beck, PE  Digitally signed by James P. Beck, PE
 DN: C=US,
 E=jim.beck@beckassociates.com, O=J
 Beck & Associates, CN=James P. Beck,
 PE
 Reason: I am approving this document
 Date: 2024.07.29 17:47:37-04'00'

Signature of Property Owner(s) or Agent

7/29/2024

Date

Proposed work location:

54 Shady Lane

Stafford, VA 22554

VMRC Number

Part 3 – Appendices

Please complete and submit the appendix questions applicable to your project, and attach the required vicinity map(s) and drawings to your application. If an item does not apply to your project, please write “N/A” in the space provided.

Appendix A: (TWO PAGES) Projects for Access to the water such as private and community piers, boathouses, marinas, moorings, and boat ramps. Answer all questions that apply.

1. Briefly describe your proposed project.

This project is for a new 6' wide x 150' long open pile residential pier with a 20'x14' platform, a 5' x 17' catwalk, a 5' x 40' catwalk, and 19'x36' (684 SF) covered boat slip along the Aquia Creek waterfront of the applicants property.

The pier will be constructed of 10" timber piles with 3x dimensional framing and timber decking. The boathouse roof will be constructed using 12" CLB piles to support the roof framing. Two boatlifts are proposed which will be supported with 10" timber piles. A side mount PWC lift will be supported by one of the dock piles. There are a total of 56 timber piles proposed which will be installed using a barge mounted vibratory hammer.

2. For private, noncommercial piers:

Do you have an existing pier on your property? ☒ Yes ☐ No

If yes, will it be removed? ☒ Yes ☐ No

Is your lot platted to the mean low water shoreline? ☒ Yes ☐ No

What is the overall length of the proposed structure? ¹⁵⁰ feet.

Channelward of Mean High Water? ¹⁴⁵ feet.

Channelward of Mean Low Water? ¹⁴⁰ feet.

What is the area of the piers and platforms that will be constructed over

Tidal non-vegetated wetlands ³⁰ square feet.

Tidal vegetated wetlands ⁰ square feet.

Submerged lands ¹⁴³² square feet.

What is the total size of any and all L- or T-head platforms? ²⁸⁰ sq. ft.

For boathouses, what is the overall size of the roof structure? ⁶⁸⁴ sq. ft.

Will your boathouse have sides? ☐ Yes ☒ No.

NOTE: All proposals for piers, boathouses and shelter roofs must be reviewed by the Virginia Marine Resources Commission (Commission or VMRC), however, pursuant to § [28.2-1203](#) A 5 of the Code of Virginia a VMRC permit may not be required for such structures (except as required by subsection D of § [28.2-1205](#) for piers greater than 100 feet in length involving commercially productive leased oyster or clam grounds), provided that (i) the piers do not extend beyond the navigation line or private pier lines established by the Commission or the United States Army Corps of Engineers (USACE), (ii) the piers do not exceed six feet in width and finger piers do not exceed five feet in width, (iii) any L or T head platforms and appurtenant floating docking platforms do not exceed, in the aggregate, 400 square feet, (iv) if prohibited by local ordinance open-sided shelter roofs or gazebo-type structures shall not be placed on platforms as described in clause (iii), but may be placed on such platforms if not prohibited by local ordinance, and (v) the piers are determined not to be a navigational hazard by the Commission. Subject to any applicable local ordinances, such piers may include an attached boat lift and an open-sided roof designed to shelter a single boat slip or boat lift. In cases in which open-sided roofs designed to shelter a single boat, boat slip or boat lift will exceed 700 square feet in coverage or the open-sided shelter roofs or gazebo structures exceed 400 square feet, and in cases in which an adjoining property owner objects to a proposed roof structure, permits shall be required as provided in § [28.2-1204](#).

Part 3 – Appendices (continued)

3. **For USACE permits**, in cases where the proposed pier will encroach beyond one fourth the waterway width (as determined by measuring mean high water to mean high water or ordinary high water mark to ordinary high water mark), the following information must be included before the application will be considered complete. For an application to be considered complete:
- a. The USACE MAY require depth soundings across the waterway at increments designated by the USACE project manager. Typically 10-foot increments for waterways less than 200 feet wide and 20-foot increments for waterways greater than 200 feet wide with the date and time the measurements were taken and how they were taken (e.g., tape, range finder, etc.).
 - b. The applicant MUST provide a justification as to purpose if the proposed work would extend a pier greater than one-fourth of the distance across the open water measured from mean high water or the channelward edge of the wetlands.
 - c. The applicant MUST provide justification if the proposed work would involve the construction of a pier greater than five feet wide or less than four feet above any wetland substrate.
4. Provide the type, size, and registration number of the vessel(s) to be moored at the pier or mooring buoy.

Type	Length	Width	Draft	Registration #

5. For **Marinas, Commercial Piers, Governmental Piers, Community Piers and other non-private piers**, provide the following information:
- A) Have you obtained approval for sanitary facilities from the Virginia Department of Health? _____ (required pursuant to Section 28.2-1205 C of the Code of Virginia).
 - B) Will petroleum products or other hazardous materials be stored or handled at your facility? _____.
 - C) Will the facility be equipped to off-load sewage from boats? _____.
 - D) How many wet slips are proposed? _____. How many are existing? _____.
 - E) What is the area of the piers and platforms that will be constructed over
 - Tidal non-vegetated wetlands _____ square feet
 - Tidal vegetated wetlands _____ square feet
 - Submerged lands _____ square feet
6. For **boat ramps**, what is the overall length of the structure? _____ feet.
From Mean High Water? _____ feet.
From Mean Low Water? _____ feet.

Note: drawings must include the construction materials, method of installation, and all dimensions. If tending piers are proposed, complete the pier portion.

Note: If dredging or excavation is required, you must complete the Standard Joint Point Permit application.

Part 3 – Appendices (continued)

Appendix B: Projects for Shoreline Stabilization in tidal wetlands, tidal waters and dunes/beaches including riprap revetments and associated backfill, marsh toe stabilization, bulkheads and associated backfill, breakwaters, beach nourishment, groins, jetties, and living shoreline projects. Answer all questions that apply. Please provide any reports provided from the Shoreline Erosion Advisory Service or VIMS.

NOTE: It is the policy of the Commonwealth that living shorelines are the preferred alternative for stabilizing tidal shorelines (Va. Code § 28.2-104.1). **Information on non-structural, vegetative alternatives (i.e., Living Shoreline) for shoreline stabilization is available at http://ccrm.vims.edu/coastal_zone/living_shorelines/index.html.**

1. Describe each **revetment, bulkhead, marsh toe, breakwater, groin, jetty, other structure, or living shoreline project** separately in the space below. Include the overall length in linear feet, the amount of impacts in acres, and volume of associated backfill below mean high water and/or ordinary high water in cubic yards, as applicable:

This application includes approximately 183 linear feet of rip-rap toe protection along the shoreline to mitigate erosion. The toe protection includes a CL-1 rip-rap "wedge" placed along the existing bank. The rip-rap will be approximately 2' tall and laid back at a 2:1 slope. The rip-rap will be underlaid with a geotextile fabric to mitigate soil migration.

2. What is the maximum encroachment channelward of mean high water? ²_____ feet.
Channelward of mean low water? ⁰_____ feet.
Channelward of the back edge of the dune or beach? _____ feet.

3. Please calculate the square footage of encroachment over:

- Vegetated wetlands $\frac{100}{}$ square feet
- Non-vegetated wetlands $\frac{47}{}$ square feet
- Subaqueous bottom $\frac{0}{}$ square feet
- Dune and/or beach _____ square feet

4. For bulkheads, is any part of the project maintenance or replacement of a previously authorized, currently serviceable, existing structure? ____ Yes ____ No.

If yes, will the construction of the new bulkhead be no further than two (2) feet channelward of the existing bulkhead? ____ Yes ____ No.

If no, please provide an explanation for the purpose and need for the additional encroachment.

Part 3 – Appendices (continued)

5. Describe the type of construction and **all** materials to be used, including source of backfill material, if applicable (e.g., vinyl sheet-pile bulkhead, timber stringers and butt piles, 100% sand backfill from upland source; broken concrete core material with Class II quarry stone armor over filter cloth).

NOTE: Drawings must include construction details, including dimensions, design and all materials, including fittings if used.

CL-1 rip-rap will be quarry stone trucked in from off-site and placed on geotextile filter fabric to mitigate on-going erosion of the bank.

6. If using stone, broken concrete, etc. for your structure(s), what is the average weight of the:

Core (inner layer) material ^{n/a} pounds per stone Class size

Armor (outer layer) material ⁷⁵⁻¹⁵⁰ pounds per stone Class size ¹

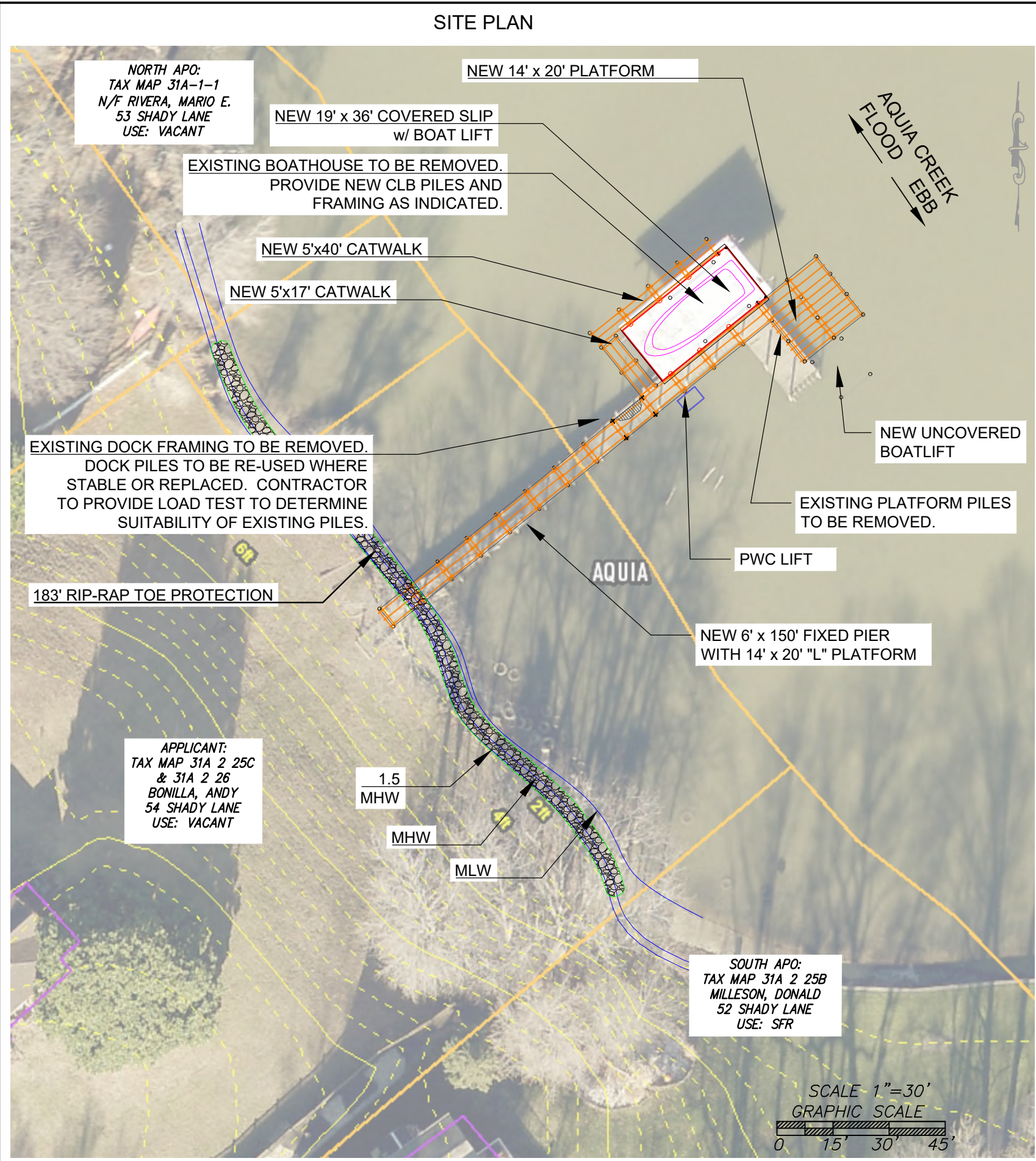
7. For **beach nourishment**, including that associated with breakwaters, groins or other structures, provide the following:

- Volume of material _____ cubic yards channelward of mean low water
- _____ cubic yards landward of mean low water
- _____ cubic yards channelward of mean high water
- _____ cubic yards landward of mean high water

- Area to be covered _____ square feet channelward of mean low water
 _____ square feet landward of mean low water
 _____ square feet channelward of mean high water
 _____ square feet landward of mean high water

- Source of material, composition (e.g. 90% sand, 10% clay): _____
- Method of transportation and placement: _____

- Describe any proposed vegetative stabilization measures to be used, including planting schedule, spacing, monitoring, etc. Additional guidance is available at <http://www.vims.edu/about/search/index.php?q=planting+guidelines>:



INDEX OF DRAWINGS:

- 1 of 5 SITE PLAN, GENERAL NOTES
- 2 of 5 DOCK PLAN AND ELEVATIONS
- 3 of 5 DOCK AND BAND BEAM FRAMING PLAN
- 4 of 5 ELEVATIONS AND DETAILS
- 5 of 5 PILING DATA AND SPECIFICATIONS

OWNER:

Andy Bonilla
6648 Ridgeway Drive
Springfield, VA 22150

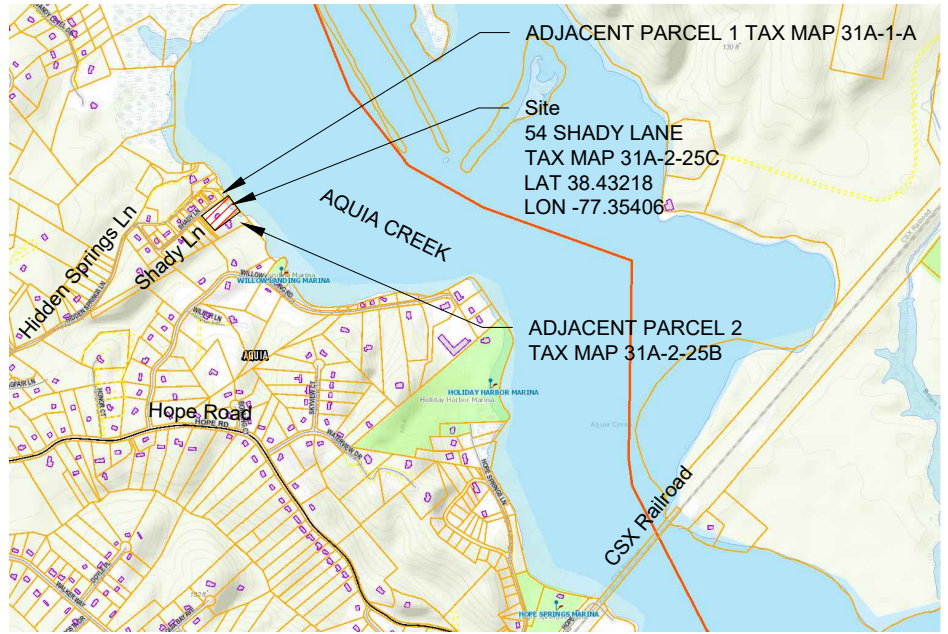
andy.greenoak@gmail.com
571-340-2328

GENERAL NOTES:

- Project is located at 54 Shady Lane, Stafford VA 22554, Tax Map #31A-2-25C & 31A-2-26. Parcel 31A-2-26 is under contract to transfer from Rivera to Bonilla.
- Property data from Stafford County GIS Data.
- This project is for the construction of a new dock and a new open sided covered boat slip and TOE PROTECTION.
- Applicable Code: 2018 VRC/VCC; ASCE 7-16; NDS2018; ASCE 50.
- This work is authorized under VMRC No Permit Required Letter (VMRC#24-xxxx) dated xxxx xx, 2024.
- Designed using Stafford County Guide for Residential Flood Resistant Construction. FEMA 100 year still water flood elevation = 8.0' NAVD88 (Zone AE); significant wave height = 1.3' per transect 13, FIS # 510154 V000B.
- Loading Criteria - Dock DL=15psf, Dock LL=40psf, Lateral Load on pile = 2,000 lbs @ 5.0ft above river bed, Roof Snow Load = 25psf.

AREA TABULATION:

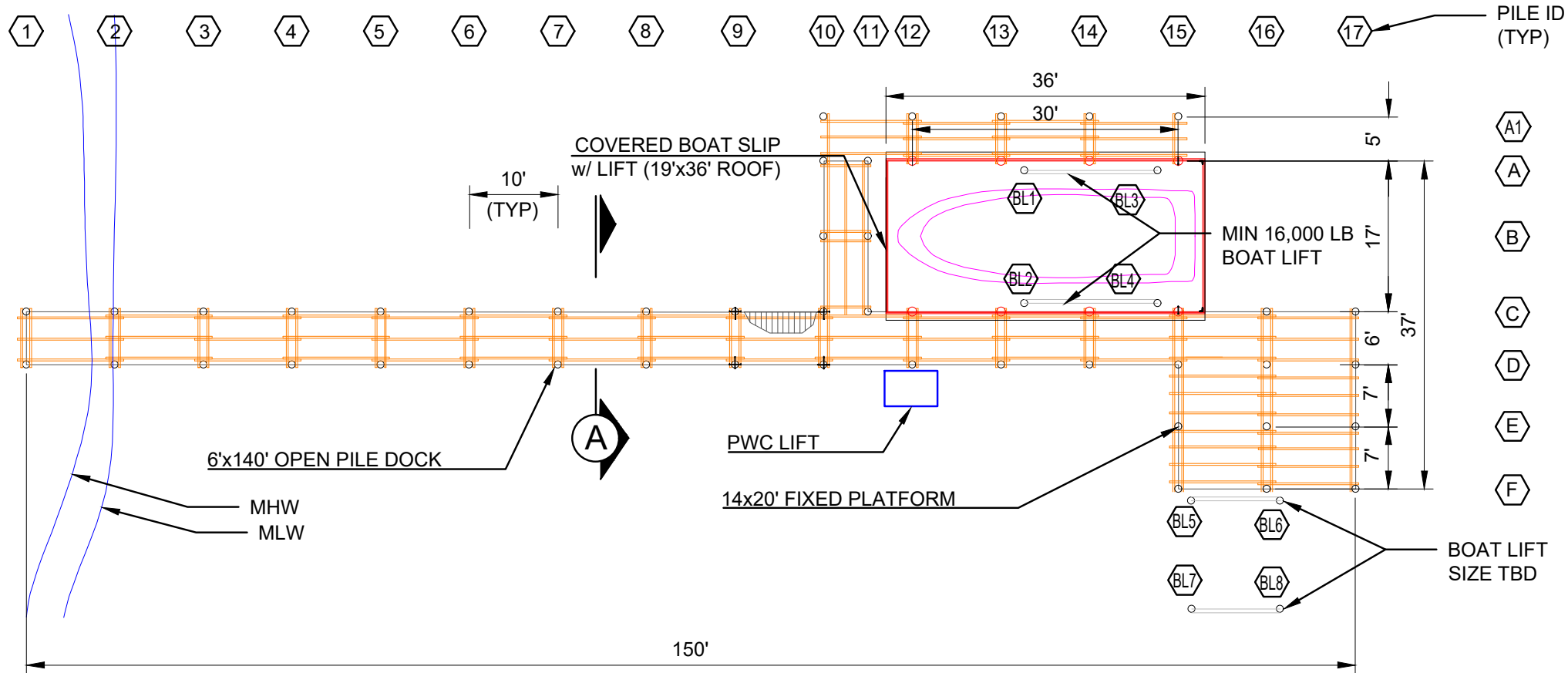
Boathouse roof area	684 SF
Dock area (incl. platforms and cat walks)	1462 SF
Vegetated Wetlands Encroachment	100 SF
Non-vegetated Wetlands Encroachment	47 SF



VICINITY MAP

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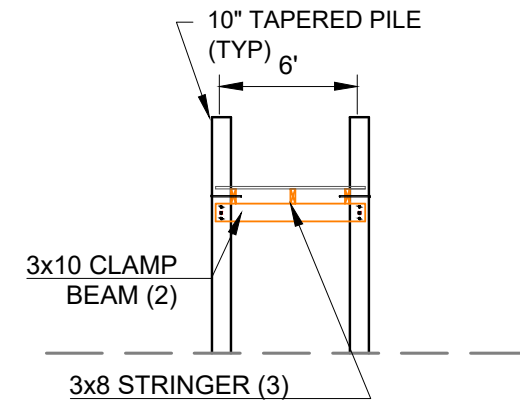
REVISIONS		
Date	Description	Approved
J Beck & Associates Engineering and Consulting 99 NAGEOTTE Drive Stafford, VA 22554 (703) 801-8739		
TITLE: SITE PLAN & DOCK, BOATHOUSE & TOE PROTECTION		
PROJECT: BONILLA DOCK, BOATHOUSE & TOE PROTECTION 54 SHADY LANE STAFFORD, VIRGINIA 22554		
May 2024		
File No. J10180		
Sheet 1 of 5		



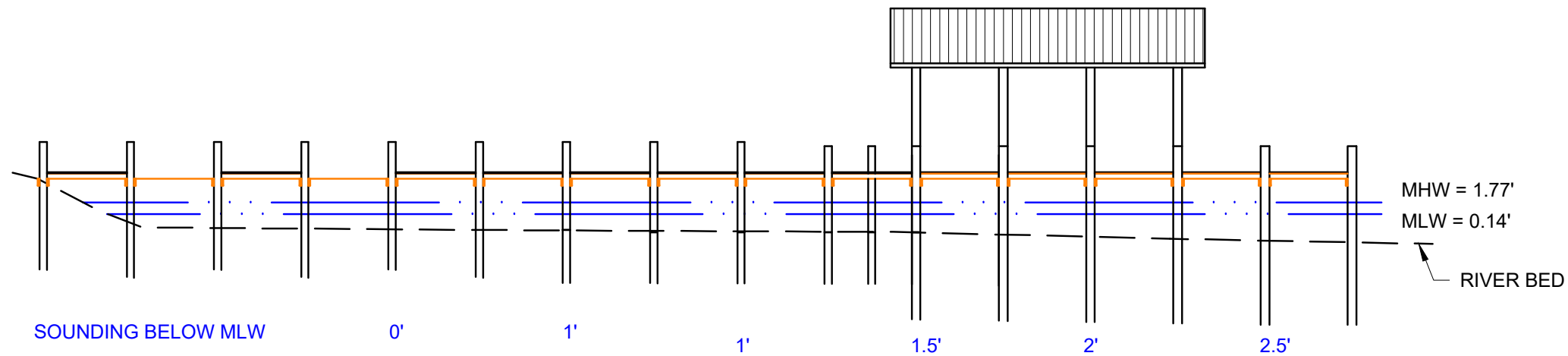
PILE LAYOUT PLAN
SCALE: 1/16" = 1'

NOTES:

1. All lumber CCA pressure treated southern yellow pine.
2. All lumber to be #1 grade.
3. All hardware and fasteners to be Grade 2 zinc plated or Grade A307 hot dipped galvanized.
4. Roof piles to be Class B.
5. Boat lift piles to be configured to per manufacturers requirements.

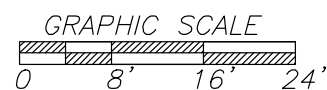


SECTION - PIER
SCALE: 1/8" = 1'



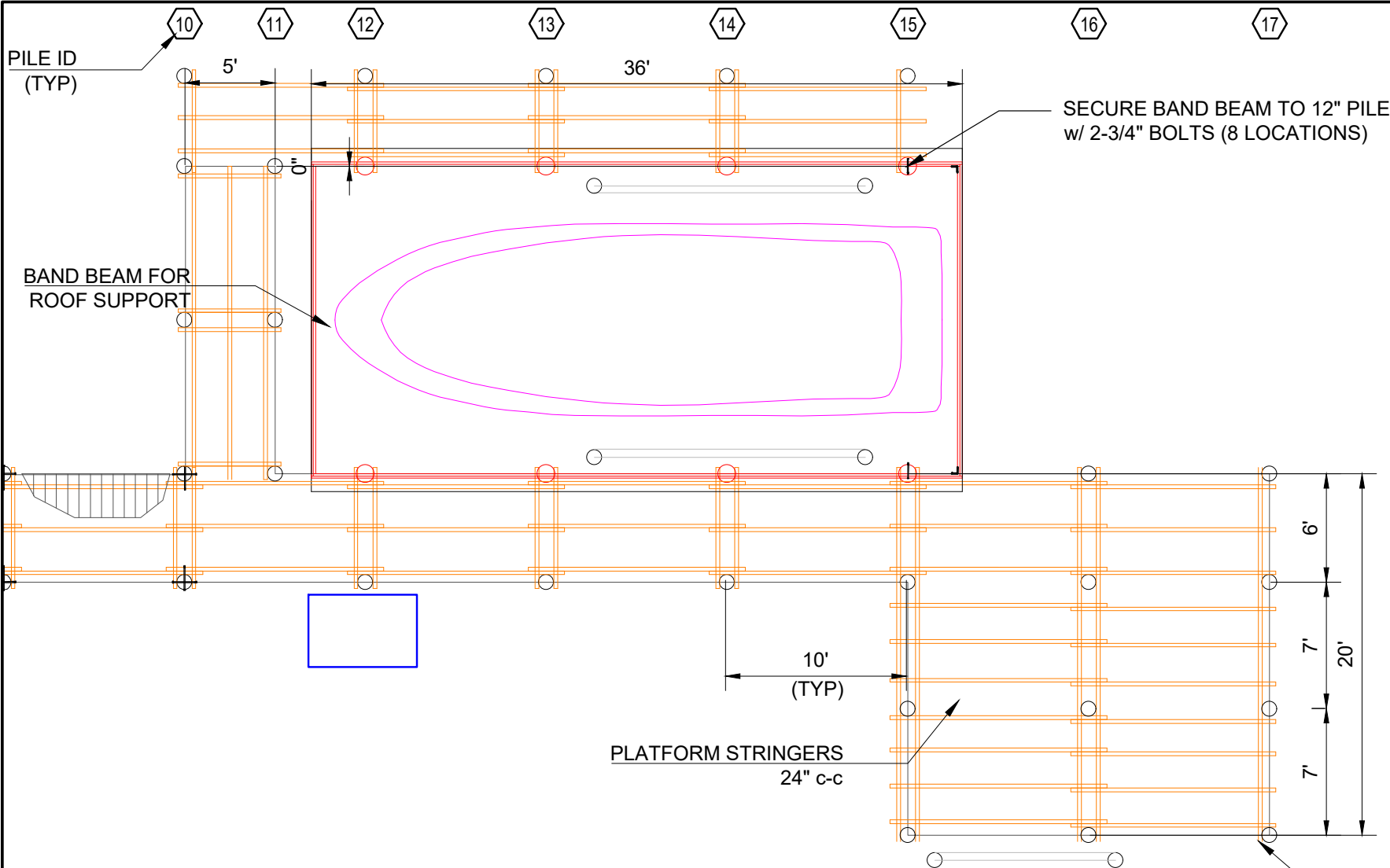
SOUNDING BELOW MLW

NOTE: BOTTOM IS FRESH WATER SILT / MUD / CLAY.



ELEVATION - SIDE VIEW
SCALE: 1/16" = 1'

REVISIONS	Approved	
	Description	
	Date	
J Beck & Associates Engineering and Consulting 99 NAGETTE Drive Stafford, VA 22554 (703) 801-8739		
DOCK PLAN & ELEVATIONS		
PROJECT: BONILLA DOCK, BOATHOUSE & TOE PROTECTION 54 SHADY LANE STAFFORD, VIRGINIA 22554		
May 2024		
File No. J10180		
Sheet 2 of 5		



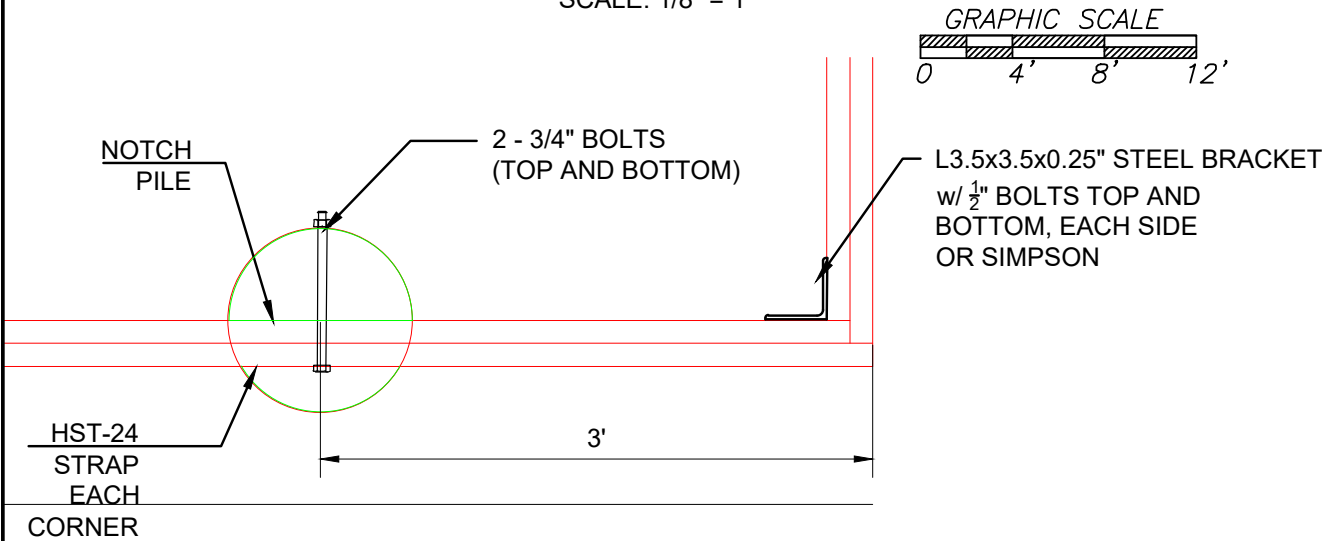
BAND BEAM NOTES:

1. CONSTRUCT ROOF BAND BEAM OF DOUBLE 18' 2X12'S BOLTED EVERY 12" ALTERNATING TOP AND BOTTOM WITH $\frac{1}{2}$ " CARRIAGE BOLTS. ALTERNATE - PROVIDE SINGLE 1.75"x11.25" LVL CONTINUOUS BEAM PER SPECIFICATION BELOW.
2. PROVIDE 2" BOLT CLEARANCE TO EDGE OF BOARD
3. REACTIONS DETERMINED BASED ON 90MPH WIND SPEED PER ASCE 7-05 FOR OPEN BUILDING, FIGURE 6-1 & 6-18B.
4. ROOF JOISTS SECURED TO BAND BEAM WITH SIMPSON H2 OR APPROVED EQUAL.

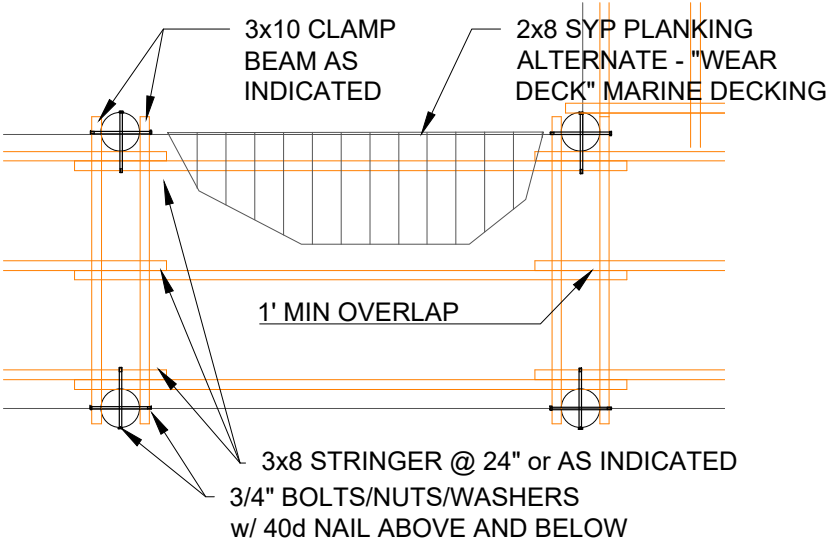
LVL SPECIFICATION (WEYERHAEUSER 2.0E MICROLAM OR EQUAL) :

1. BENDING STRESS: 2,600 psi
SHEAR: 285 psi
MODULUS OF ELASTICITY: 2,000 ksi
COMPRESSION PERPENDICULAR TO GRAIN: 845 psi
2. BOLT MULTI-PLY LVL'S TOGETHER W/ $\frac{1}{2}$ " DIA GALVANIZED MACHINE BOLTS AND WASHERS. SPACE BOLTS 12" ALTERNATING TOP AND BOTTOM OF BEAM. PROVIDE 2 BOLTS AT EACH END OF BEAM. OBSERVE 2-1/2" EDGE AND END CLEARANCE.
3. BOLT HEADS AND NUTS MAY BE COUNTERSUNK.

DOCK AND BAND BEAM FRAMING PLAN
SCALE: 1/8" = 1'

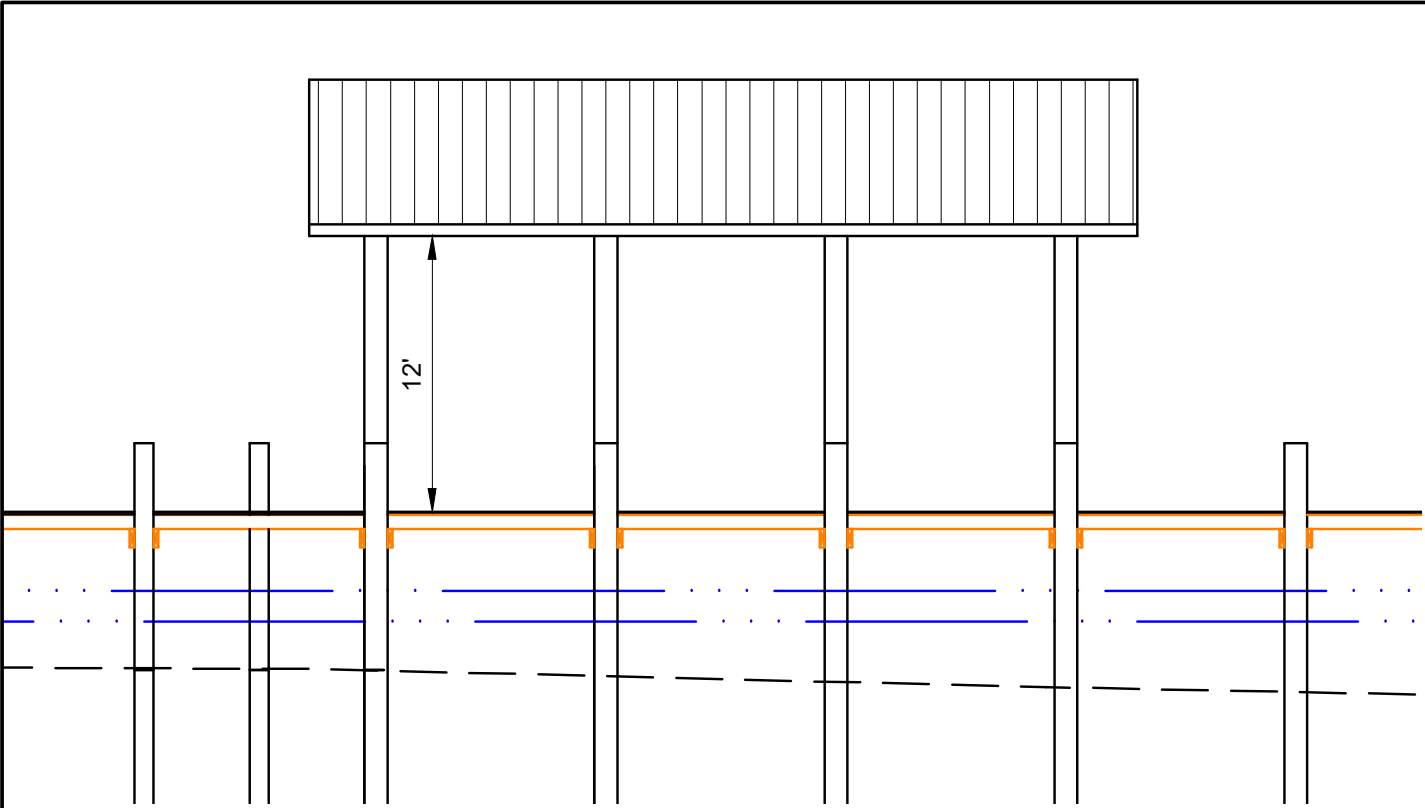


DETAIL BAND BEAM CORNER
SCALE: 1" = 1'

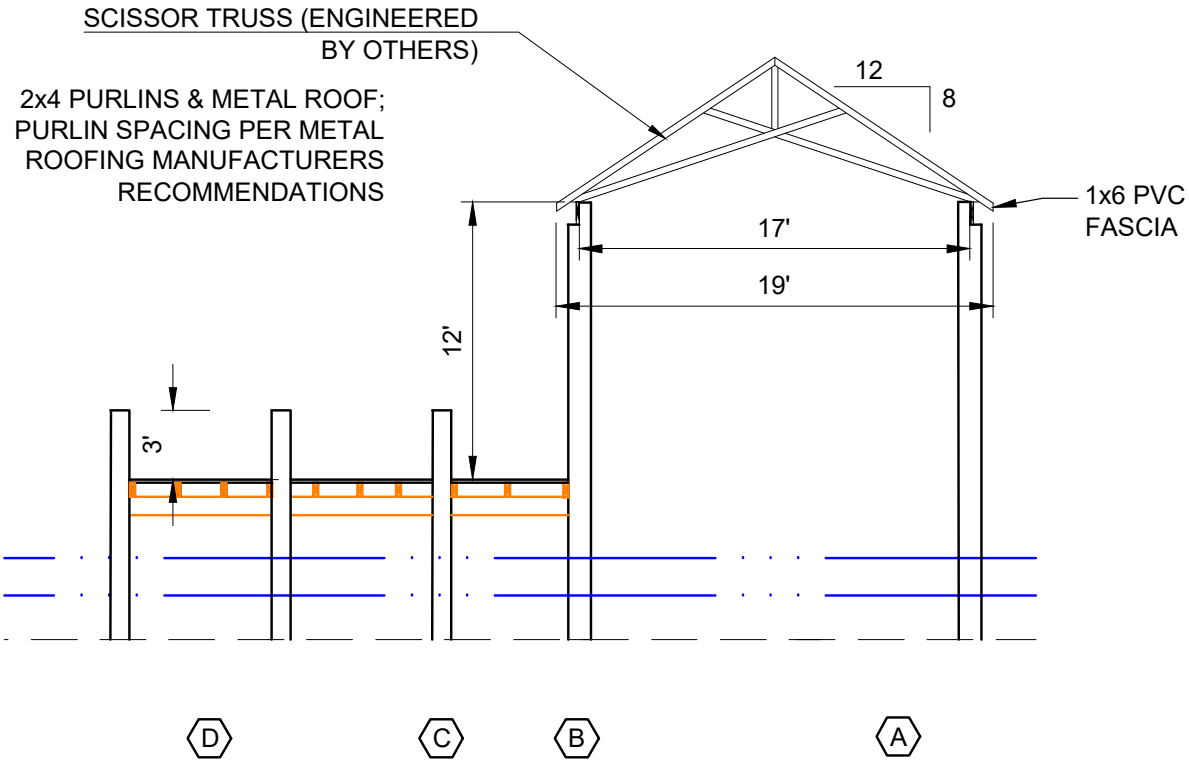


DETAIL - DOCK
SCALE: 1/4" = 1'

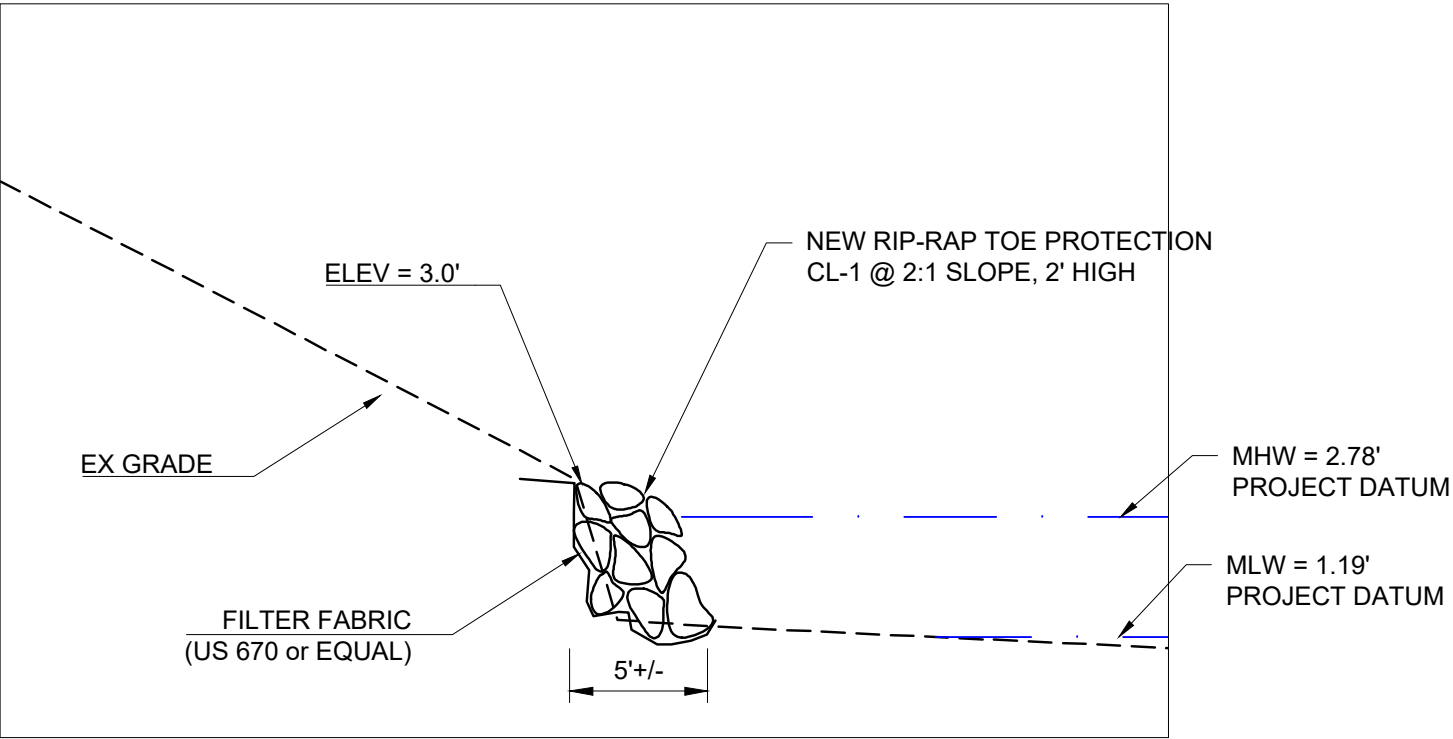
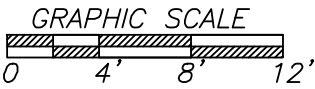
REVISIONS	Approved	
	Description	
	Date	
J Beck & Associates Engineering and Consulting 99 NAGETTEdrow Drive Stafford, VA 22554 (703) 801-8739		
DOCK AND BAND BEAM FRAMING PLAN		
PROJECT: BONILLA DOCK, BOATHOUSE & TOE PROTECTION 54 SHADY LANE STAFFORD, VIRGINIA 22554		
May 2024		
File No. J10180		
Sheet 3 of 5		



SIDE ELEVATION
SCALE: 1/8" = 1'



SECTION
SCALE: 1/8" = 1'



TOE PROTECTION
SCALE: 3/8" = 1'

REVISIONS			
Date	Description	Approved	
J Beck & Associates Engineering and Consulting 99 NAGEOTTEdrow Drive Stafford, VA 22554 (703) 801-8739			
ELEVATIONS			
PROJECT: BONILLA DOCK, BOATHOUSE & TOE PROTECTION 54 SHADY LANE STAFFORD, VIRGINIA 22554			
May 2024			
File No. J10180			
Sheet 4 of 5			

BONILLA DOCK						BONILLA DOCK					
PILE LOG						PILE LOG					
PILE DATA						PILE DATA					
PILE ID	TYPE	DELIVERED LENGTH (ft)	BUTT DIA (in)	TOTAL INGROUND (ft)	FINAL BLOW COUNT (sec / in)	PILE ID	TYPE	DELIVERED LENGTH (ft)	BUTT DIA (in)	TOTAL INGROUND (ft)	FINAL BLOW COUNT (sec / in)
1-C	DOCK		10			13-A1	DOCK		10		
1-D	DOCK		10			13-A	ROOF		12" CLB		
2-C	DOCK		10			13-C	ROOF		12" CLB		
2-D	DOCK		10			13-D	DOCK		10		
3-C	DOCK		10			14-A1	DOCK		10		
3-D	DOCK		10			14-A	ROOF		12" CLB		
4-C	DOCK		10			14-C	ROOF		12" CLB		
4-D	DOCK		10			14-D	DOCK		10		
5-C	DOCK		10			15-A1	DOCK		10		
5-D	DOCK		10			15-A	ROOF		12" CLB		
6-C	DOCK		10			15-C	ROOF		12" CLB		
6-D	DOCK		10			15-D	DOCK		10		
7-C	DOCK		10			15-E	DOCK		10		
7-D	DOCK		10			15-F	DOCK		10		
8-C	DOCK		10			16-C	DOCK		10		
8-D	DOCK		10			16-D	DOCK		10		
9-C	DOCK		10			16-E	DOCK		10		
9-D	DOCK		10			16-F	DOCK		10		
10-A1	DOCK		10			17-C	DOCK		10		
10-A	DOCK		10			17-D	DOCK		10		
10-B	DOCK		10			17-E	DOCK		10		
10-C	DOCK		10			17-E	DOCK		10		
10-D	DOCK		10			17-F	DOCK		10		
11-A	DOCK		10			BL1	LIFT		10		
11-B	DOCK		10			BL2	LIFT		10		
11-C	DOCK		10			BL3	LIFT		10		
12-A1	DOCK		10			BL4	LIFT		10		
12-A	ROOF		12" CLB			BL5	LIFT		10		
12-C	ROOF		12" CLB			BL6	LIFT		10		
12-D	DOCK		10			BL7	LIFT		10		
						BL8	LIFT		10		

MINIMUM PILE DRIVER INFORMATION:

- 1. Allied 9800 vibratory post driver mounted to 32,000 lb excavator.
- 2. Impulse Force = 20,000 lbs
- 3. Blows per minute = 2,000
- 4. Working weight = 2,963 lbs.

ALTERNATE PILE DRIVER INFORMATION:

- 1. Barge mounted drop hammer with 1000# hammer and minimum drop height of 5'.

PILE SPECIFICATIONS:

- 1. Piles shall conform to ASTM D 25, Standard Specification for Round Timber Piles.
- 2. Piles shall be Southern Yellow Pine, 10" butt, treated with 2.5 pcf waterborne CCA per AWPA C3 and C18. Piles shall be clean peeled, uniformly tapered, and free of splits or other defects.
- 3. Piles shall be driven a minimum of 6'; to practical refusal, or to a depth of 10' below river bed for dock piles; 14' below river bed for roof, lift or mooring piles. Practical refusal is defined as less than 1" for 10 blows with 1000# hammer having minimum free fall of distance of 5'. If alternate vibratory hammer is used, practical refusal is defined as less than 2" for a 60 second run of the fully loaded impact hammer.
- 4. Contractor shall maintain a pile driving record and complete the pile log on this sheet. The engineer of record shall witness installation of at least 10% of each pile type.
- 5. Installation tolerances:
 - a. Horizontal alignment at dock surface +/- 2";
 - b. Deviation from plumb: ¼" per foot of pile length, but not more than 6" overall;
 - c. Deviation from indicated top of pile elevation +/- 2".

PILE TYPES:

- 1. DOCK - #1 Southern Yellow Pine, 10" butt diameter (measured 3' from butt) set to 3.5' above dock surface.
- 2. LIFT - #1 Southern Yellow Pine, 10" butt diameter (measured 3' from butt) set to 6' above dock surface.
- 3. MOORING - #1 Southern Yellow Pine, 10" butt diameter (measured 3' from butt) set to 6' above dock surface.
- 4. ROOF - Class B Southern Yellow Pine, 12" butt diameter (measured 3' from butt) set to 12' above dock surface.

REVISIONS

Approved	
Description	
Date	



J Beck & Associates
Engineering and Consulting
99 NAGEOTTEdrow Drive
Stafford, VA 22554
(703) 801-8739

TITLE:

PILING DATA & SPECIFICATION

PROJECT:

BONILLA DOCK, BOATHOUSE & TOE PROTECTION
54 SHADY LANE
STAFFORD, VIRGINIA 22554

May 2024

File No.
J10180

Sheet 5 of 5

VMRC PERMIT 20241798

REVISION 212522

From: [Payne, Khadijah \(MRC\)](#)
To: [MRC - jpa Permits](#)
Subject: Fw: Bonilla Revetment JPA 2024-1798
Date: Tuesday, August 13, 2024 10:05:01 AM
Attachments: [image001.png](#)
[24_08_09 Pier Bonilla.pdf](#)
[Bonilla JPA Final Revised Page 17.pdf](#)

Hi!

Please upload the attached revisions to VMRC #24-1748.

Thank you,
KP

Khadijah Payne

Environmental Engineer
Habitat Management Division
Virginia Marine Resources Commission

757.247.8028
khadijah.payne@mrc.virginia.gov

From: jim.beck@jbeckassociates.com <jim.beck@jbeckassociates.com>
Sent: Friday, August 9, 2024 12:01 PM
To: Joseph P. Fiorello <JFiorello@staffordcountyva.gov>; Payne, Khadijah (MRC) <Khadijah.payne@mrc.virginia.gov>
Subject: RE: Bonilla Revetment JPA 2024-1798

Khadijah and Joe –

Please find attached revised drawings and page 17 of the JPA on the above referenced project. I revised the impact areas based on our discussions. I am assuming half of the new rip-rap toe protection is in the jurisdictional area ($183' \times 5' \times 0.5 = 457.5$, or 460 SF). I have also assumed that half of that is vegetated, due to some vegetation growing at the toe. We have 230 SF mudflat and 230 SF vegetated.

On the drawings, I have modified the site plan view and the tabulation on sheet 1 and have modified the toe protection section on sheet 4.

Feel free to call me with any questions.

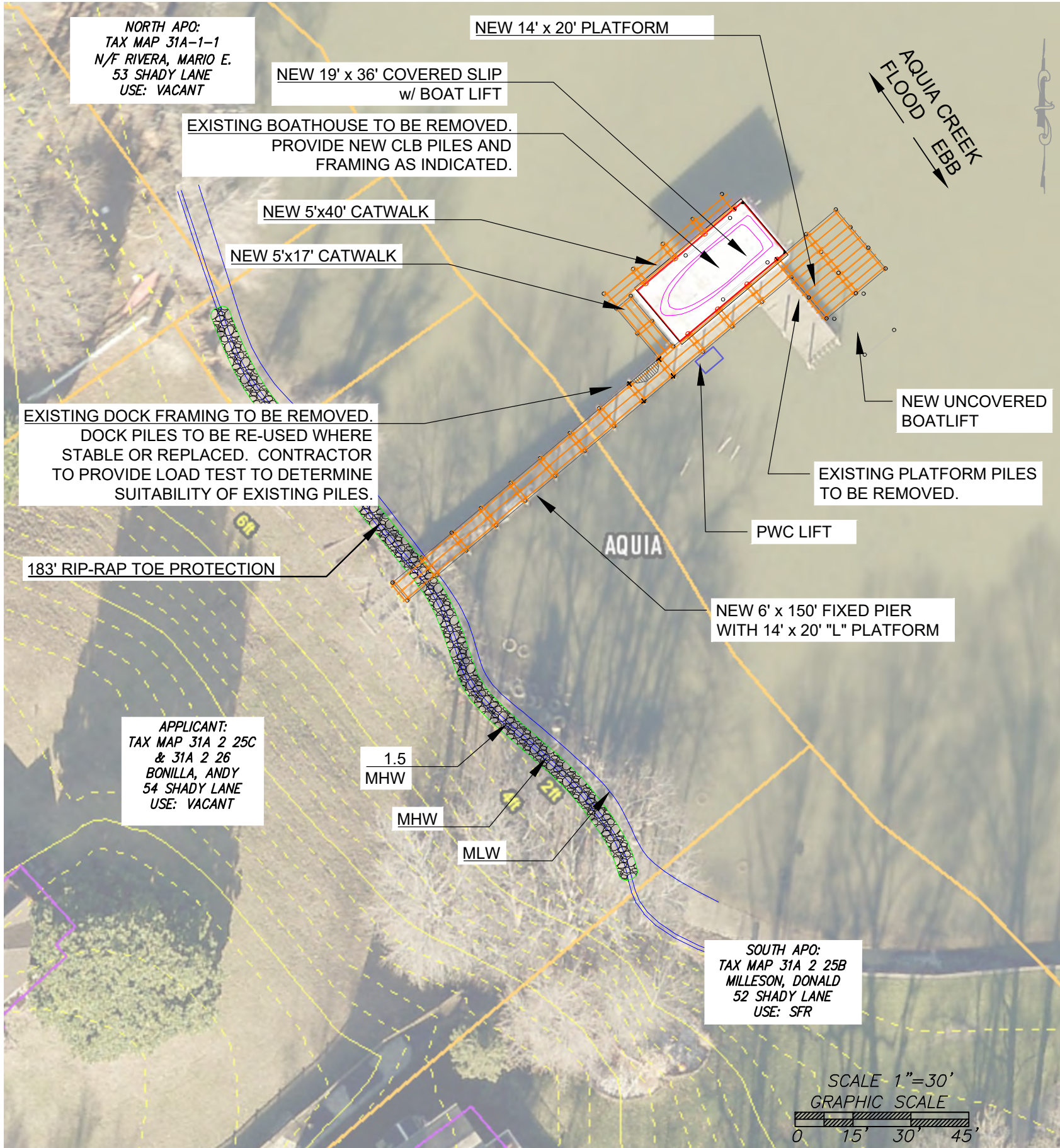
Thanks,
Jim
James P. Beck, PE

(703) 801-8739 jim.beck@jbeckassociates.com



www.jbeckassociates.com

SITE PLAN



INDEX OF DRAWINGS:

- 1 of 5 SITE PLAN, GENERAL NOTES
2 of 5 DOCK PLAN AND ELEVATIONS
3 of 5 DOCK AND BAND BEAM FRAMING PLAN
4 of 5 ELEVATIONS AND DETAILS
5 of 5 PILING DATA AND SPECIFICATIONS

OWNER:

Andy Bonilla
6648 Ridgeway Drive
Springfield, VA 22150

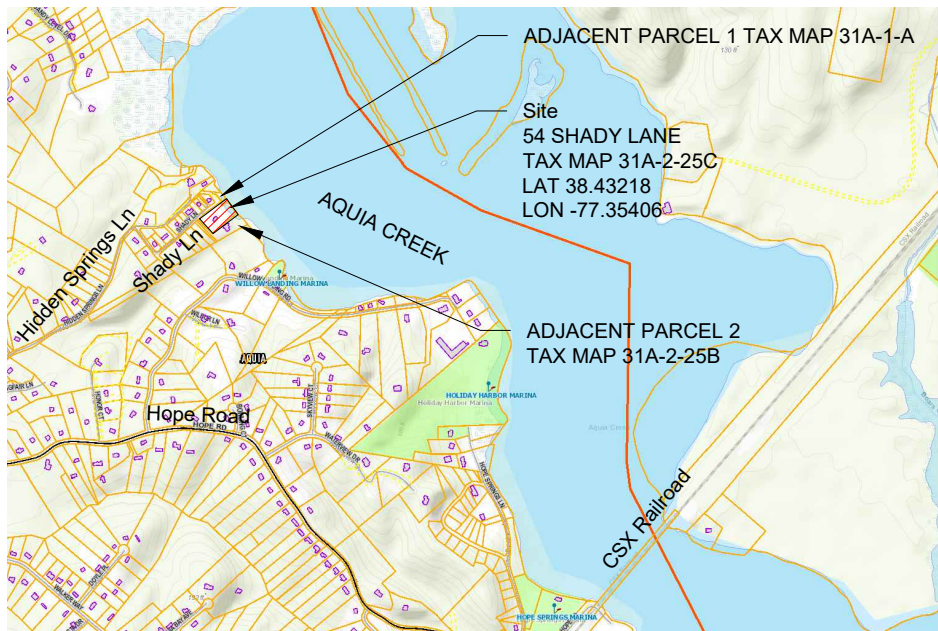
andy.greenoak@gmail.com
571-340-2328

GENERAL NOTES:

1. Project is located at 54 Shady Lane, Stafford VA 22554, Tax Map #31A-2-25C & 31A-2-26. Parcel 31A-2-26 is under contract to transfer from Rivera to Bonilla.
2. Property data from Stafford County GIS Data.
3. This project is for the construction of a new dock, a new open sided covered boat slip and rip-rap toe protection.
4. Applicable Code: 2018 VRC/VCC; ASCE 7-16; NDS2018; ASCE 50.
5. This work is authorized under VMRC No Permit Required Letter (VMRC#2024-1798) dated xxxx xx, 2024.
6. Designed using Stafford County Guide for Residential Flood Resistant Construction. FEMA 100 year still water flood elevation = 8.0' NAVD88 (Zone AE); significant wave height = 1.3' per transect 13, FIS # 510154 V000B.
7. Loading Criteria - Dock DL=15psf, Dock LL=40psf, Lateral Load on pile = 2,000 lbs @ 5.0ft above river bed, Roof Snow Load = 25psf.

AREA TABULATION:

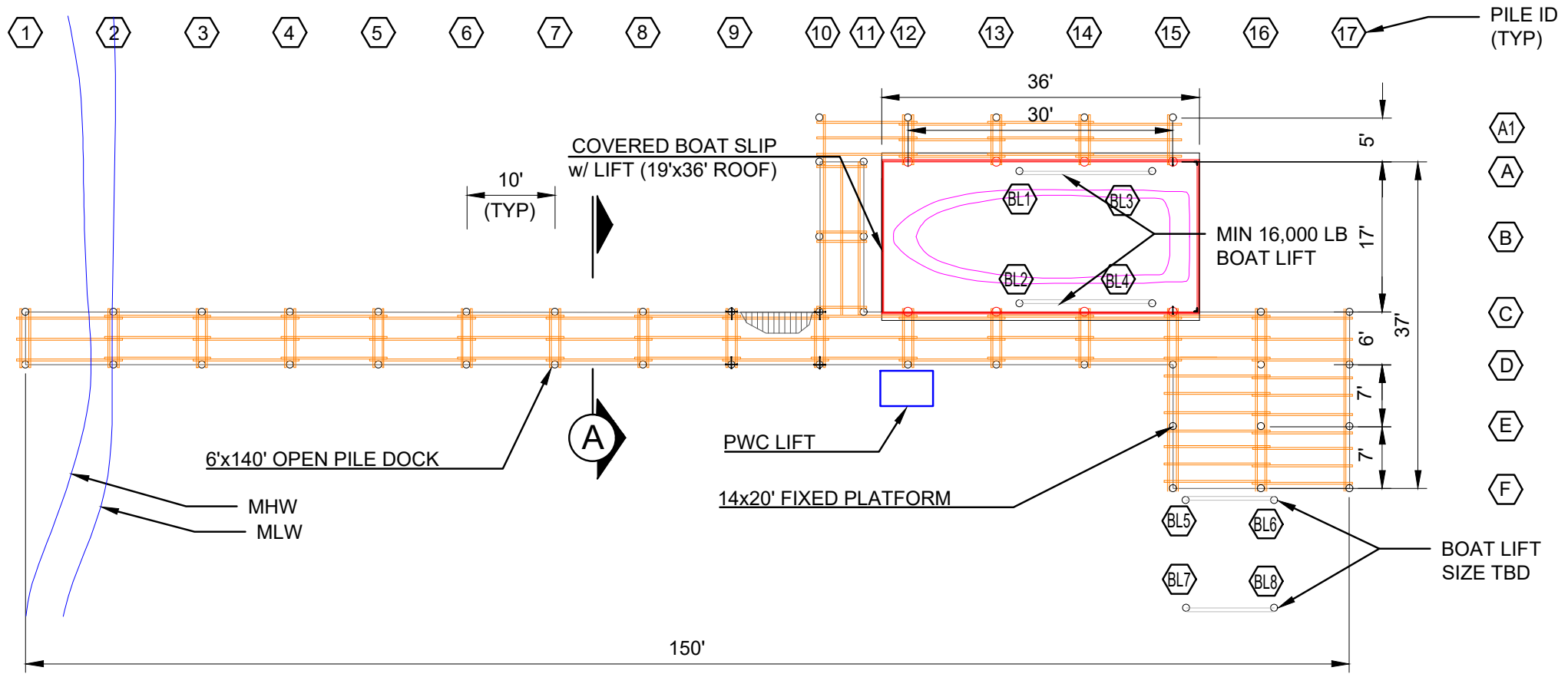
Boathouse roof area	684 SF
Dock area (incl. platforms and cat walks)	1462 SF
Vegetated Wetlands Encroachment	230 SF
Non-vegetated Wetlands Encroachment	230 SF



VICINITY MAP

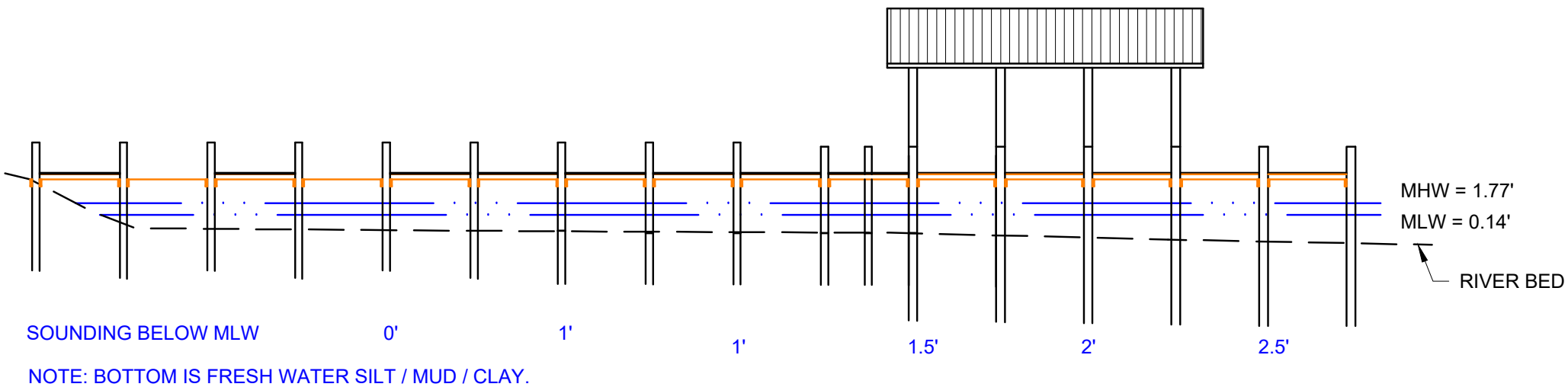
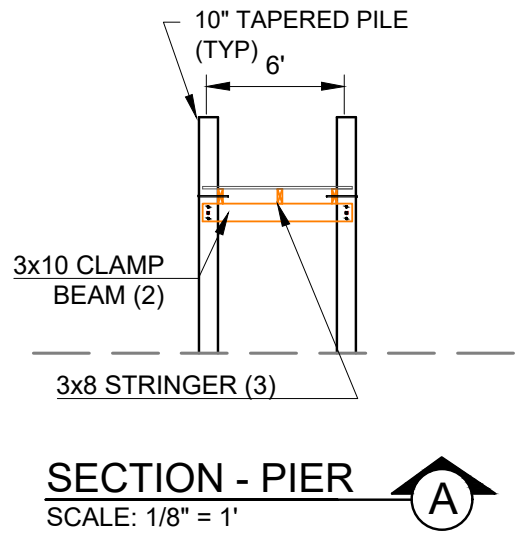
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PROJECT:		TITLE:									
BONILLA DOCK, BOATHOUSE & TOE PROTECTION 54 SHADY LANE STAFFORD, VIRGINIA 22554		 J Beck & Associates Engineering and Consulting 99 NAGEOTTEDrow Drive Stafford, VA 22554 (703) 801-8739									
May 2024		<table><tr><th colspan="2">REVISIONS</th></tr><tr><th>Date</th><th>Description</th></tr><tr><td></td><td></td></tr><tr><td></td><td></td></tr></table>		REVISIONS		Date	Description				
REVISIONS											
Date	Description										
File No.	J10180										
Sheet	1	of	5								

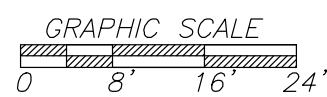


PILE LAYOUT PLAN
SCALE: 1/16" = 1'

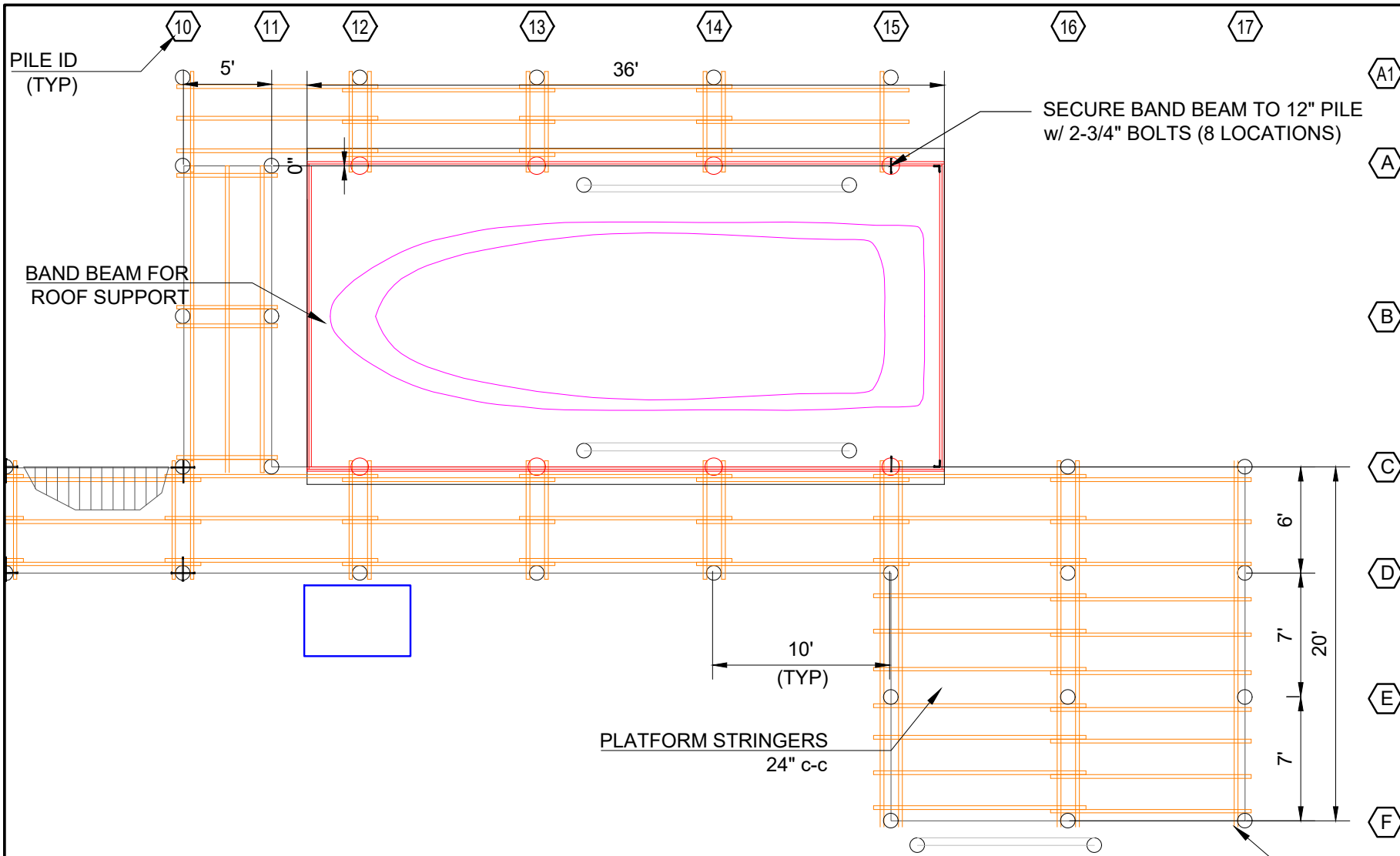
- NOTES:
1. All lumber CCA pressure treated southern yellow pine.
 2. All lumber to be #1 grade.
 3. All hardware and fasteners to be Grade 2 zinc plated or Grade A307 hot dipped galvanized.
 4. Roof piles to be Class B.
 5. Boat lift piles to be configured to per manufacturers requirements.



ELEVATION - SIDE VIEW
SCALE: 1/16" = 1'

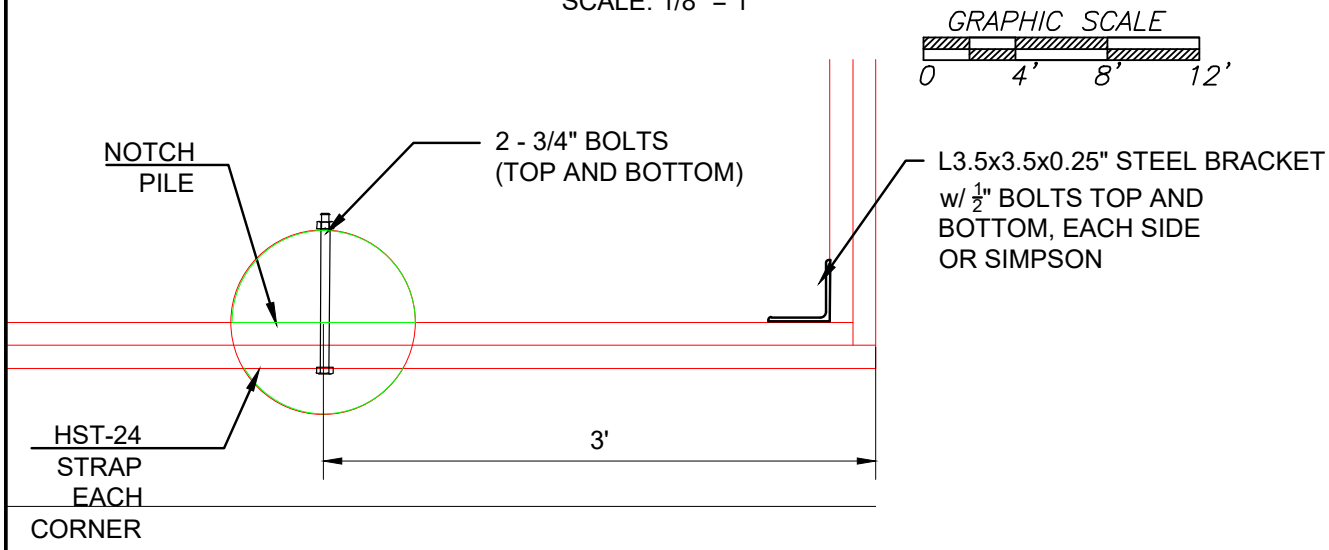


PROJECT:		BONILLA DOCK, BOATHOUSE & TOE PROTECTION 54 SHADY LANE STAFFORD, VIRGINIA 22554		DOCK PLAN & ELEVATIONS		J Beck & Associates Engineering and Consulting 99 NAGEOTTedrow Drive Stafford, VA 22554 (703) 801-8739		REVISIONS		
May 2024		File No. J10180						Date	Description	Approved
Sheet 2 of 5										

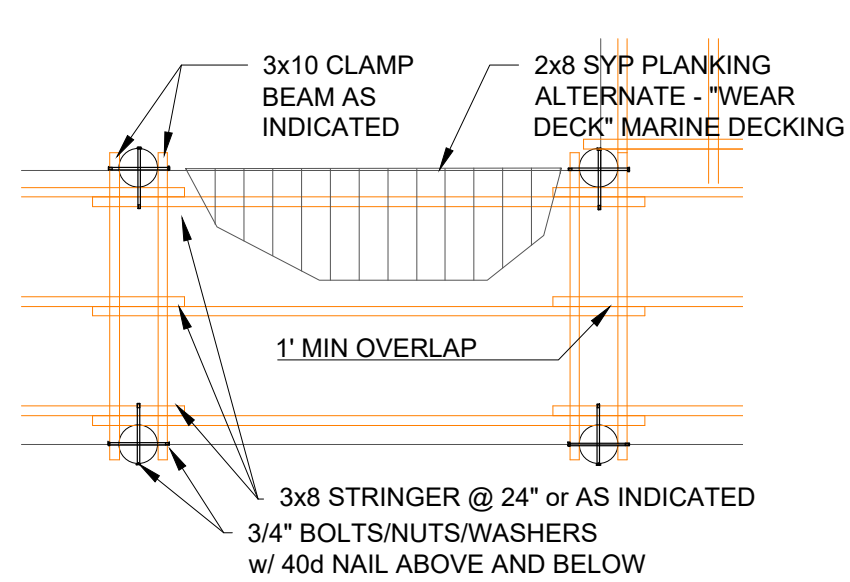


DOCK AND BAND BEAM FRAMING PLAN
SCALE: 1/8" = 1'

- BAND BEAM NOTES:**
- A1 1. CONSTRUCT ROOF BAND BEAM OF DOUBLE 18' 2X12'S BOLTED EVERY 12" ALTERNATING TOP AND BOTTOM WITH 1/2" CARRIAGE BOLTS. ALTERNATE - PROVIDE SINGLE 1.75"x11.25" LVL CONTINUOUS BEAM PER SPECIFICATION BELOW.
 - A 2. PROVIDE 2" BOLT CLEARANCE TO EDGE OF BOARD
 - 3. REACTIONS DETERMINED BASED ON 90MPH WIND SPEED PER ASCE 7-05 FOR OPEN BUILDING, FIGURE 6-1 & 6-18B.
 - B 4. ROOF JOISTS SECURED TO BAND BEAM WITH SIMPSON H2 OR APPROVED EQUAL.
- LVL SPECIFICATION (WEYERHAEUSER 2.0E MICROLAM OR EQUAL) :**
- C 1. BENDING STRESS: 2,600 psi
 - D 2. SHEAR: 285 psi
 - E 3. MODULUS OF ELASTICITY: 2,000 ksi
 - F 4. COMPRESSION PERPENDICULAR TO GRAIN: 845 psi
 - 5. BOLT MULTI-PLY LVL'S TOGETHER W/ 1/2" DIA GALVANIZED MACHINE BOLTS AND WASHERS. SPACE BOLTS 12" ALTERNATING TOP AND BOTTOM OF BEAM. PROVIDE 2 BOLTS AT EACH END OF BEAM. OBSERVE 2-1/2" EDGE AND END CLEARANCE.
 - 6. BOLT HEADS AND NUTS MAY BE COUNTERSUNK.



DETAIL
BAND BEAM CORNER
SCALE: 1" = 1'



DETAIL - DOCK
SCALE: 1/4" = 1'

REVISIONS		
Approved	Description	Date

J Beck & Associates
Engineering and Consulting
99 NAGEOTTEdrow Drive
Stafford, VA 22554
(703) 801-8739

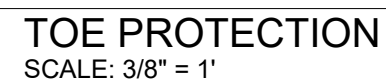
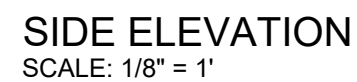
TITLE:
DOCK AND BAND
BEAM FRAMING PLAN

PROJECT:
BONILLA DOCK, BOATHOUSE & TOE
PROTECTION
54 SHADY LANE
STAFFORD, VIRGINIA 22554

May 2024

File No.
J10180

Sheet 3 of 5



BONILLA DOCK						BONILLA DOCK					
PILE LOG						PILE LOG					
PILE DATA						PILE DATA					
PILE ID	TYPE	DELIVERED LENGTH (ft)	BUTT DIA (in)	TOTAL INGROUND (ft)	FINAL BLOW COUNT (sec / in)	PILE ID	TYPE	DELIVERED LENGTH (ft)	BUTT DIA (in)	TOTAL INGROUND (ft)	FINAL BLOW COUNT (sec / in)
1-C	DOCK		10			13-A1	DOCK		10		
1-D	DOCK		10			13-A	ROOF		12" CLB		
2-C	DOCK		10			13-C	ROOF		12" CLB		
2-D	DOCK		10			13-D	DOCK		10		
3-C	DOCK		10			14-A1	DOCK		10		
3-D	DOCK		10			14-A	ROOF		12" CLB		
4-C	DOCK		10			14-C	ROOF		12" CLB		
4-D	DOCK		10			14-D	DOCK		10		
5-C	DOCK		10			15-A1	DOCK		10		
5-D	DOCK		10			15-A	ROOF		12" CLB		
6-C	DOCK		10			15-C	ROOF		12" CLB		
6-D	DOCK		10			15-D	DOCK		10		
7-C	DOCK		10			15-E	DOCK		10		
7-D	DOCK		10			15-F	DOCK		10		
8-C	DOCK		10			16-C	DOCK		10		
8-D	DOCK		10			16-D	DOCK		10		
9-C	DOCK		10			16-E	DOCK		10		
9-D	DOCK		10			16-F	DOCK		10		
10-A1	DOCK		10			17-C	DOCK		10		
10-A	DOCK		10			17-D	DOCK		10		
10-B	DOCK		10			17-E	DOCK		10		
10-C	DOCK		10			17-E	DOCK		10		
10-D	DOCK		10			17-F	DOCK		10		
11-A	DOCK		10			BL1	LIFT		10		
11-B	DOCK		10			BL2	LIFT		10		
11-C	DOCK		10			BL3	LIFT		10		
12-A1	DOCK		10			BL4	LIFT		10		
12-A	ROOF		12" CLB			BL5	LIFT		10		
12-C	ROOF		12" CLB			BL6	LIFT		10		
12-D	DOCK		10			BL7	LIFT		10		
						BL8	LIFT		10		

MINIMUM PILE DRIVER INFORMATION:

1. Allied 9800 vibratory post driver mounted to 32,000 lb excavator.
2. Impulse Force = 20,000 lbs
3. Blows per minute = 2,000
4. Working weight = 2,963 lbs.

ALTERNATE PILE DRIVER INFORMATION:

1. Barge mounted drop hammer with 1000# hammer and minimum drop height of 5'.

PILE SPECIFICATIONS:

1. Piles shall conform to ASTM D 25, Standard Specification for Round Timber Piles.
2. Piles shall be Southern Yellow Pine, 10" butt, treated with 2.5 pcf waterborne CCA per AWPA C3 and C18. Piles shall be clean peeled, uniformly tapered, and free of splits or other defects.
3. Piles shall be driven a minimum of 6'; to practical refusal, or to a depth of 10' below river bed for dock piles; 14' below river bed for roof, lift or mooring piles. Practical refusal is defined as less than 1" for 10 blows with 1000# hammer having minimum free fall of distance of 5'. If alternate vibratory hammer is used, practical refusal is defined as less than 2" for a 60 second run of the fully loaded impact hammer.
4. Contractor shall maintain a pile driving record and complete the pile log on this sheet. The engineer of record shall witness installation of at least 10% of each pile type.
5. Installation tolerances:

a. Horizontal alignment at dock surface +/- 2";

b. Deviation from plumb: $\frac{1}{4}$ " per foot of pile length, but not more than 6" overall;

c. Deviation from indicated top of pile elevation +/- 2".

PILE TYPES:

1. DOCK - #1 Southern Yellow Pine, 10" butt diameter (measured 3' from butt) set to 3.5' above dock surface.
2. LIFT - #1 Southern Yellow Pine, 10" butt diameter (measured 3' from butt) set to 6' above dock surface.
3. MOORING - #1 Southern Yellow Pine, 10" butt diameter (measured 3' from butt) set to 6' above dock surface.
4. ROOF - Class B Southern Yellow Pine, 12" butt diameter (measured 3' from butt) set to 12' above dock surface.

REVISIONS

Approved	
Description	
Date	

J Beck & Associates

Engineering and Consulting

99 NAGEOTTEDrow Drive
Stafford, VA 22554
(703) 801-8739

TITLE:

PILING DATA & SPECIFICATION

PROJECT:

BONILLA DOCK, BOATHOUSE & TOE PROTECTION

54 SHADY LANE
STAFFORD, VIRGINIA 22554

May 2024

File No.

J10180

Sheet 5 of 5

Part 3 – Appendices (continued)

Appendix B: Projects for Shoreline Stabilization in tidal wetlands, tidal waters and dunes/beaches including riprap revetments and associated backfill, marsh toe stabilization, bulkheads and associated backfill, breakwaters, beach nourishment, groins, jetties, and living shoreline projects. Answer all questions that apply. Please provide any reports provided from the Shoreline Erosion Advisory Service or VIMS.

NOTE: It is the policy of the Commonwealth that living shorelines are the preferred alternative for stabilizing tidal shorelines (Va. Code § 28.2-104.1). **Information on non-structural, vegetative alternatives (i.e., Living Shoreline) for shoreline stabilization is available at http://ccrm.vims.edu/coastal_zone/living_shorelines/index.html.**

1. Describe each **revetment, bulkhead, marsh toe, breakwater, groin, jetty, other structure, or living shoreline project** separately in the space below. Include the overall length in linear feet, the amount of impacts in acres, and volume of associated backfill below mean high water and/or ordinary high water in cubic yards, as applicable:

This application includes approximately 183 linear feet of rip-rap toe protection along the shoreline to mitigate erosion. The toe protection includes a CL-1 rip-rap "wedge" placed along the existing bank. The rip-rap will be approximately 2.5' tall and laid back at a 2:1 slope. The rip-rap will be underlaid with a geotextile fabric to mitigate soil migration.

2. What is the maximum encroachment channelward of mean high water? 2.5 feet.
Channelward of mean low water? 0 feet.
Channelward of the back edge of the dune or beach? feet.

3. Please calculate the square footage of encroachment over:

- Vegetated wetlands 230 square feet
- Non-vegetated wetlands 230 square feet
- Subaqueous bottom 0 square feet
- Dune and/or beach square feet

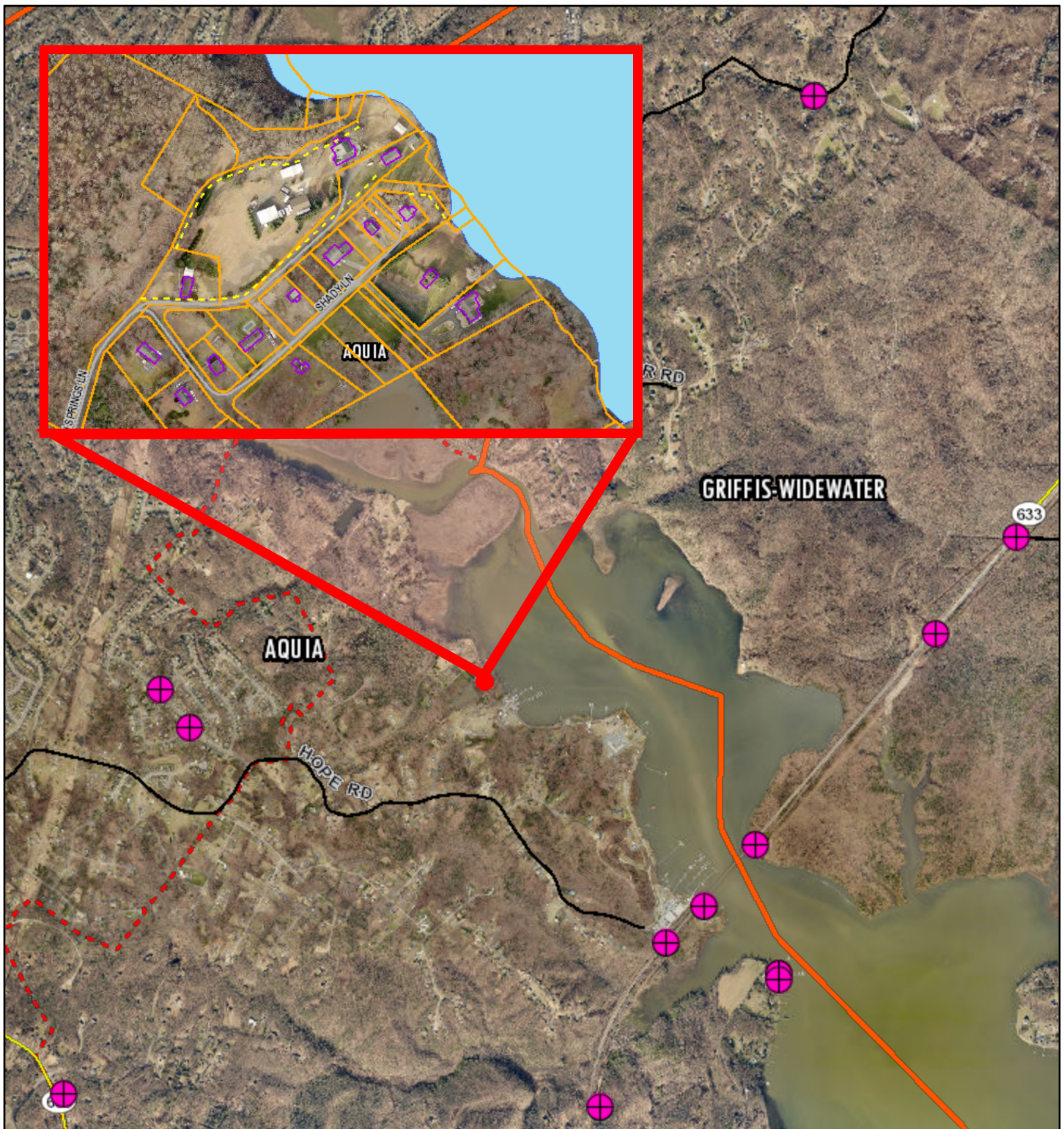
4. For bulkheads, is any part of the project maintenance or replacement of a previously authorized, currently serviceable, existing structure? Yes No.

If yes, will the construction of the new bulkhead be no further than two (2) feet channelward of the existing bulkhead? Yes No.

If no, please provide an explanation for the purpose and need for the additional encroachment.

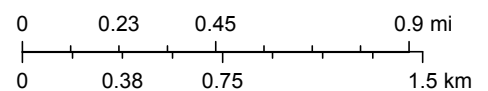
ATTACHMENT 1
VICINITY MAP
2024 AERIAL IMAGERY
2023 PICTOMETRY

Vicinity Map



8/20/2024, 4:21:14 PM

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- | | | |
|---------------------------|-----------------------|----------------------|
| Points of Interest | Community Facilities | US Route |
| Stafford Regional Airport | Public Schools | Interstate Ramps |
| Stafford Hospital | Secondary | Interstate |
| Train Stations | Secondary Major | Supervisor Districts |
| Libraries | VA Primary (Business) | Urban Services Area |
| County Administration | VA Primary | MCB Quantico |
| | US Route (Business) | |

Stafford County GIS Office, VITA, Esri, HERE, Garmin, INCREMENT P, USGS, METI/NASA, EPA, USDA

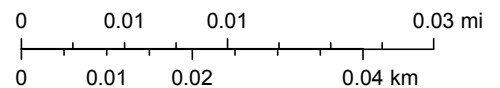
54 Shady Lane (Parcel: 31A-2-25C)



9/3/2024, 10:41:28 AM

1:1,128

- | | | | | | |
|--|---------------------------|--|-----------------------|--|-----------------------|
| | Points of Interest | | County Administration | | Secondary Major |
| | Trails | | Community Facilities | | VA Primary (Business) |
| | Stafford Regional Airport | | Public Schools | | VA Primary |
| | Stafford Hospital | | Structures | | US Route (Business) |
| | Train Stations | | Quantico Roads | | US Route |
| | Libraries | | Secondary Minor | | Interstate Ramps |
| | | | Secondary | | Interstate |



Sources: Esri, Airbus DS, USGS, NGA, NASA, CGIAR, N Robinson, NCEAS, NLS, OS, NMA, Geodatastyrelsen, Rijkswaterstaat, GSA, Geoland, FEMA, Intermap and the GIS user community, Esri Community Maps Contributors, Stafford County GIS Office, VGIN, © OpenStreetMap, Microsoft, Esri, TomTom, Garmin, SafeGraph, GeoTechnologies, Inc, METI/NASA, USGS,

Data from the Stafford County GIS Office

Virginia Geographic Information Network (VGIN) | Esri Community Maps Contributors, Stafford County GIS Office, VGIN, © OpenStreetMap, Microsoft, Esri, TomTom, Garmin, SafeGraph,

54 Shady Lane



12/07/2023

ATTACHMENT 2
BONILLA STAFF REPORT



September 16, 2024

MEMORANDUM TO: Stafford County Wetlands Board

FROM: Joseph Fiorello
Environmental Planner

SUBJECT: Stafford AP# 24155808; Wetland Permit Application - WB24-01 (VMRC#20241798); Mr. Andy Bonilla Proposed Rip-Rap Revetment located at 54 Shady Lane (TM#:31A-2-25C)

ISSUE:

Mr. Bonilla has submitted a wetland permit application to obtain the proper wetlands permit to combat present and possible future erosion of the property along the banks of Aquia Creek. The hearing is to approve or deny the request for a wetland permit for a project which involves the installation of a 183 linear foot riprap revetment along a portion of the Aquia Creek shoreline. The project also entails the removal of unsightly tires used by others to combat erosion in the past.

BACKGROUND:

The property is located at 54 Shady Lane (TM#: 31A-2-25C) within the Aquia Election District. The property is 1.23 deeded acres containing a 1 level rambler built in 1918. The house caught fire in 2015 and was approved for demolition of burnt material in April 2015. On July 29, 2024, County Staff received the joint permit application from Mr. Bonilla outlining the proposed permit request for a 183 linear foot riprap revetment to be installed along Aquia Creek. The request for a wetland permit for this type of impact requires Stafford County Wetlands Board approval. No site work has commenced in relation to this permit request.

Proposed Wetland Impacts:

The applicant proposes to permanently impact 230 square feet of non-vegetated and 230 of vegetated, tidal wetlands to install the 183 linear foot riprap revetment. Compensation for the loss of wetland habitat will be in the for of an in-lieu-fee of \$3,910.00 (\$8.50 per sq. ft.).



Role of the Board:

The board may decide to grant, grant in modified form, or deny a wetland permit application. A decision requires a weighing and balancing of all beneficial and detrimental factors relevant to a proposal, leading to a permit decision that reflects the outcome of that balancing process, known as a public interest review. The local wetlands board has the power to modify an application so that the approved permit meets the purpose of the Wetlands Act. In making this determination, the local wetlands board must consider:

1. The testimony of any person in support of or in opposition to the permit;
2. The impact of the proposed development on public health, safety, and welfare; and
3. Whether the proposed development conforms with standards prescribed in § 28.2-1308 and guidelines passed pursuant to § 28.2-1301. See Laws & Regulations.

The board must grant the permit if:

1. The anticipated public and private benefit of the proposed activity is greater than its anticipated public and private detriment;
2. Wetlands of primary ecological significance are not altered in such a way that the ecological systems in those wetlands are unreasonably disturbed;
3. The development is concentrated in wetlands of lesser ecological significance, in vegetated wetlands which have been irreversibly disturbed before July 1, 1972, in non-vegetated wetlands which have been irreversibly disturbed prior to January 1, 1983, or in areas of Virginia outside of wetlands; and
4. The proposed activity does not violate the purpose and intent of the Wetlands Act.

If all the criteria above are not met, the board shall deny the application. Specific criteria for a proposed action to destroy wetlands and provide compensation require meeting the three criteria below. If one or more criteria are not met, the activity shall be denied. [4 Virginia Administrative Code § 20-390-40]

1. All reasonable mitigative actions, including alternate siting, which would eliminate or minimize wetlands loss or disturbance shall be incorporated in the proposal.
2. The proposal shall clearly be water-dependent in nature.
3. The proposal shall demonstrate clearly its need to be in the wetlands and its overwhelming public and private benefits.



ALTERNATIVES:

The following alternatives are available to the Board:

1. Adopt proposed Resolution WB24-01 with any and all conditions and/or requirements attached there to which grants a Stafford County Wetlands Board Permit for JPA-24-1798
2. Adopt proposed Resolution WB24-02 which denies a Stafford County Wetlands Permit for JPA-24-1798.

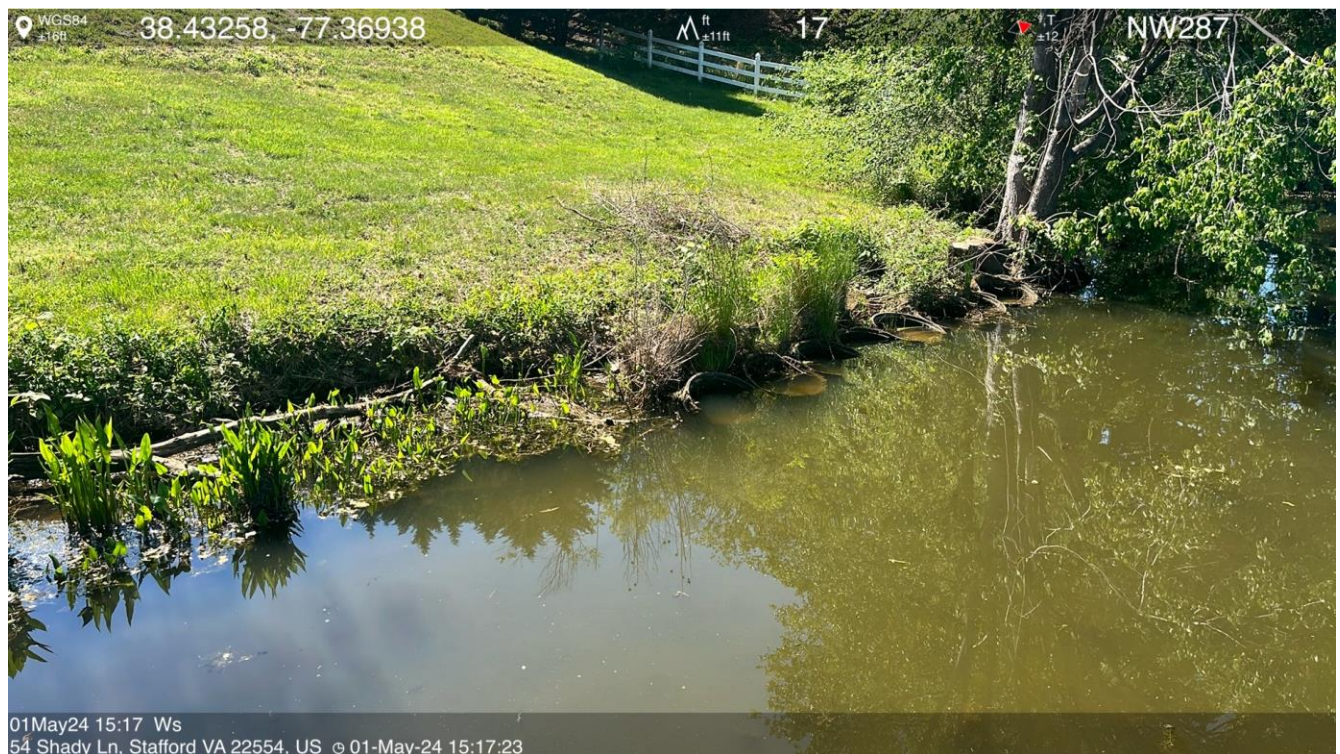
RECOMMENDATION:

Staff recommends the approval of WB24-01 which approves the installation of the 183 linear foot riprap revetment as described above. Staff believes the revetment will slow/stop the erosion of the bank along Aquia Creek.

ATTACHMENT 3
SITE PHOTOGRAPHS



Photograph taken by Jim Beck facing south showing a portion of the shoreline at 54 Shady Lane (Parcel ID: 31A-2-25C).



Photograph was taken by Jim Beck facing north showing a portion of the shoreline at 54 Shady Lane (Parcel ID: 31A-2-25C).

ATTACHMENT 4
PROPOSED RESOLUTIONS

WETLANDS BOARD
COUNTY OF STAFFORD
STAFFORD, VIRGINIA

RESOLUTION

At a regular meeting of the Stafford County Wetlands Board held in the Board Chambers, George L. Gordon, Jr., Government Center, Stafford, Virginia, on the 16th day of September 2024:

MEMBERS:	<u>VOTE:</u>
Sue Henderson, Chair	_____
Mary Rust, Vice-Chair	_____
Anthony Pineau	_____
Benjamin Rudasill	_____
Dan Adams	_____
Robert Hayden	_____
Zachary Martinez	_____

On the motion of _____, second by _____ which carried by a vote of _____, the following was adopted:

A RESOLUTION WHICH APPROVES A WETLANDS PERMIT TO INTALL A 183 LINEAR FOOT RIPRAP REVETMENT WHICH WILL PERMANENTLY IMPACT 460 SQUARE FEET OF NON-VEGETATED AND VEGETATED, TIDAL WETLANDS ALONG AQUIA CREEK ON TAX MAP PARCEL ID 31A-2-25C.

WHEREAS, the Stafford County Wetlands Board has received a request from Mr. Andy Bonilla for a permit for wetlands activities within Parcel ID 31A-2-25C and

WHEREAS, the Stafford County Wetlands Board has authority under Section 28.2-1302 of the Code of Virginia (1950), as amended, and under Section 27 of the Stafford County Code (Wetlands Zoning Ordinance) to issue a permit for the use or development of activities in a wetlands area; and

WHEREAS, the Stafford County Wetlands Board has given proper notice as required by the Code of Virginia (1950), as amended, and the Stafford County Code; and

WHEREAS, the Stafford County Wetlands Board finds the public and private benefit of the activity exceeds the anticipated public and private detriment; and

WHEREAS, the Stafford County Wetlands Board, upon careful consideration of all comments made at its public hearing, if any, and the staff report, desires to grant a wetland permit;

NOW, THEREFORE, BE IT RESOLVED by the Stafford County Wetlands Board on this the 16th day of September 2024, that the request of Mr. Andy Bonilla, applicant, for the installation of a 183 linear foot revetment; referenced as VMRC#20241798, for wetlands activities adjacent to and within the Parcel ID 31A-2-25C located along the Aquia Creek be and hereby is approved with the following conditions:

1. All site work shall be constructed in general conformance with the specifications and the location shown on the plans submitted as part of permit application VMRC-24-1798.
2. An in-lieu fee of \$3,910.00 must be paid to Stafford County prior to the commencement of work.
3. Once work is completed, the applicant shall notify the Wetlands Board staff to conduct a final inspection.

BE IT FURTHER RESOLVED that this permit for wetlands activities shall expire on September 16, 2025.

Ms. Sue Henderson
Wetlands Board Chair

JPF: EAT

WETLANDS BOARD
COUNTY OF STAFFORD
STAFFORD, VIRGINIA

RESOLUTION

At a regular meeting of the Stafford County Wetlands Board held in the Board Chambers, George L. Gordon, Jr., Government Center, Stafford, Virginia, on the 16th day of September 2024:

MEMBERS:	<u>VOTE:</u>
Sue Henderson, Chair	_____
Mary Rust, Vice-Chair	_____
Anthony Pineau	_____
Benjamin Rudasill	_____
Dan Adams	_____
Robert Hayden	_____
Zachary Martinez	_____

On the motion of _____, seconded by _____, which carried by a vote of _____, the following was adopted:

A RESOLUTION WHICH DENIES A WETLANDS PERMIT TO
INTALL A 183 LINEAR FOOT RIPRAP REVETMENT
WHICH WILL PERMANENTLY IMPACT 460 SQUARE
FEET OF NON-VEGETATED AND VEGETATED, TIDAL
WETLANDS ALONG THE POTOMAC RIVER BANK ON
TAX MAP PARCEL ID 31A-2-25C

WHEREAS, the Stafford County Wetlands Board has received a request from Mr. Bonilla for a permit for wetlands activities within and adjacent to the Parcel ID 31A-2-25C; and

WHEREAS, the Stafford County Wetlands Board has authority under Section 28.2-1302 of the Code of Virginia (1950), as amended, and under Section 27 of the Stafford County Code (Wetlands Zoning Ordinance) to issue a permit for the use or development of activities in a wetlands area; and

WHEREAS, the Stafford County Wetlands Board has given proper notice as required by the Code of Virginia (1950), as amended, and the Stafford County Code; and

WHEREAS, the Stafford County Wetlands Board finds the public and private detriment of the activity exceeds the anticipated public and private benefit; and

WHEREAS, the Stafford County Wetlands Board, upon careful consideration of all comments made at its public hearing, if any, and the staff report, desires to deny a wetland permit;

NOW, THEREFORE, BE IT RESOLVED by the Stafford County Wetlands Board on this the 16th day of September, 2024, that the request of Mr. Bonilla, applicant, for the installation of a 183 linear foot riprap revetment causing permanent impacts to 460 square feet of non-vegetated and vegetated, tidal wetlands; referenced as VMRC#20241798, for wetlands activities adjacent to and within the Parcel ID 31A-2-25C, located along Aquia Creek be and it hereby is denied.

Ms. Sue Henderson
Wetlands Board Chair

JPF:EAT

ATTACHMENT 5
BONILLA POWER POINT
PRESENTATION



Wetlands Board

September 16, 2024

Stafford County Government

Agenda

- Call to Order
- Roll Call
- Determination of a Quorum
- Approval of Meeting Minutes
 - January 22, 2024

Public Hearing

- WB24-01 - VMRC#24-1798 – Bonilla Revetment
- WB24-03 - VMRC#24-1042 – Lynch Revetment
 - Both applications request the installation of a riprap revetment to combat shoreline erosion along Aquia Creek.

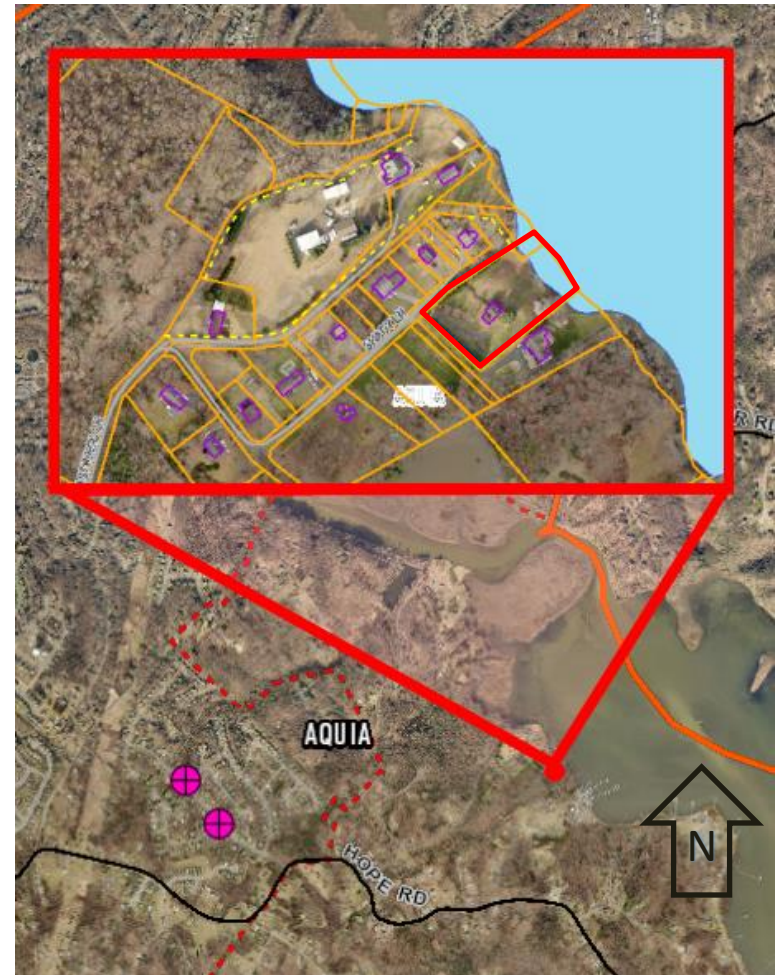
Chapter 27: Section 27-25 – Grounds for Decision of Board Regarding Application

- (a) In deciding whether to grant, grant in modified form or deny a permit, the board shall consider the following:
 - 1) The testimony of any person in support of or in opposition to the permit application;
 - 2) The impact of the proposed development on the public health, safety, and welfare; and
 - 3) The proposed development's conformance with standards prescribed in Section 28.2-1308 of the Code of Virginia and guidelines promulgated pursuant to Section 28.2-1301 of the Code of Virginia.
- (b) The board shall grant the permit if all the following criteria are met:
 - 1) The anticipated public and private benefit of the proposed activity exceeds its anticipated public and private detriment.
 - 2) The proposed development conforms with the standards prescribed in Section 28.2-1308 of the Code of Virginia and guidelines promulgated pursuant to Section 28.2-1301 of the Code of Virginia.
 - 3) The proposed activity does not violate the purposes and intent of this article or Chapter 13 (§ 28.2-1300 et seq.) of Title 28.2 of the Code of Virginia.
- (c) If the board finds that any of the criteria listed in subsection (b) of this section are not met, the board shall deny the permit application but allow the applicant to resubmit the application in modified form.

APPLICATION 1

WB24-01 (VMRC#24-1798) Bonilla Revetment

- Description:
 - Application to install a 183 linear foot riprap revetment (460 sq. ft. of non-vegetated and vegetated, tidal wetland impacts) along Aquia Creek.
- Tax Map Parcel No:
 - 31A-2-25C
- Election District:
 - Aquia



Background

- Current Condition:
 - The bank of Aquia Creek at the location of the proposed installation of the riprap revetment has suffered natural erosion over the years due to wave action. The proposed revetment will be installed to stop the erosion.
- Proposed Condition:
 - Install a 183 linear foot riprap revetment along the shoreline.
 - There will be 230 sq. ft. of non-vegetated and 230 sq. ft. of vegetated, tidal wetland impacts due to the installation.
 - The loss of 460 sq. ft. of tidal wetlands will be compensated through the payment of an in-lieu-fee of \$3,910.00
- Mr. Bonilla is requesting the Board favorably consider his application for a Wetlands Board Permit.

Location Map – 54 Shady Lane

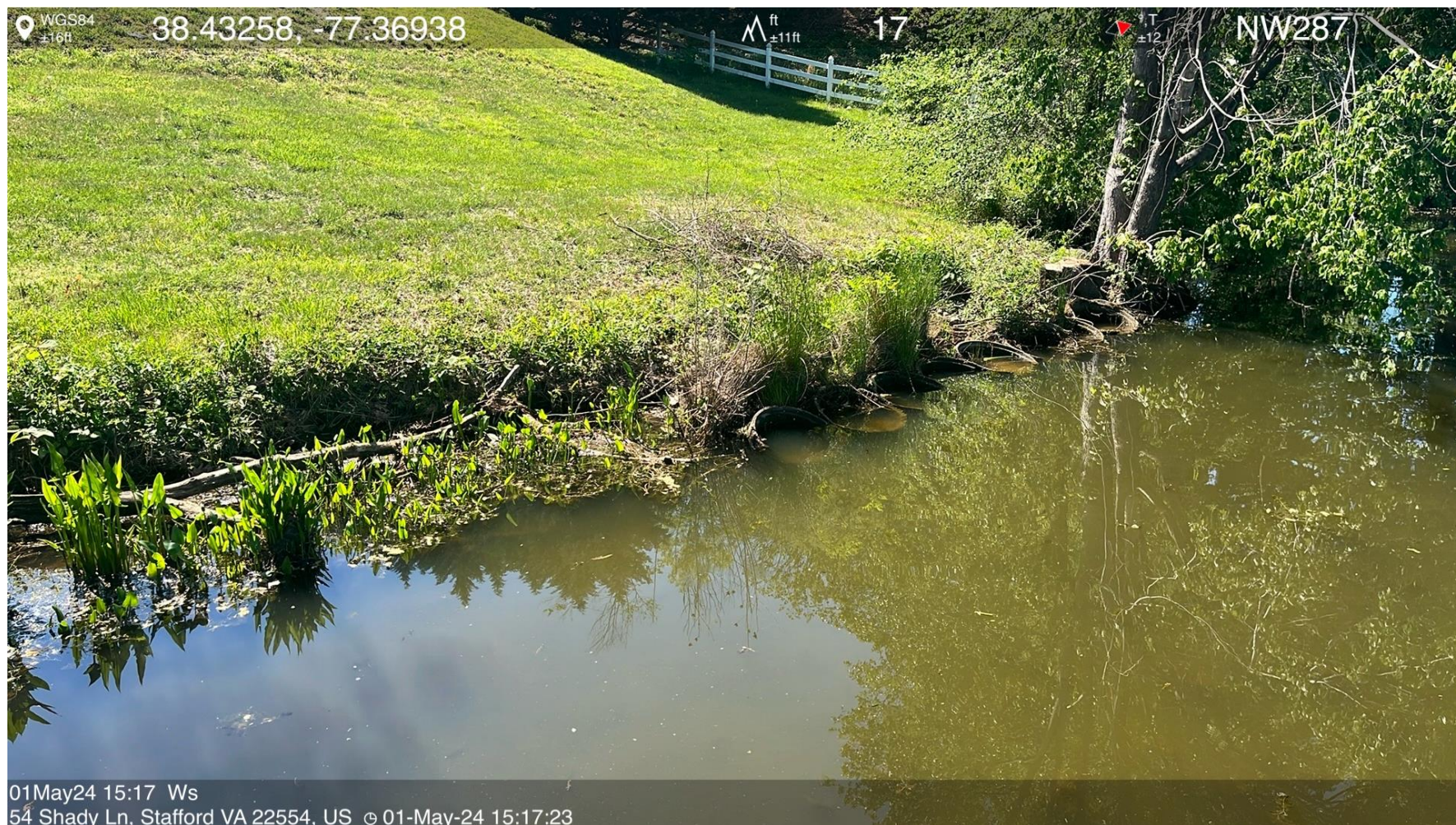


Photograph taken facing south showing the bank of the Aquia Creek at the location of the proposed riprap revetment at 54 Shady Lane (TM# 31A-2-25C).

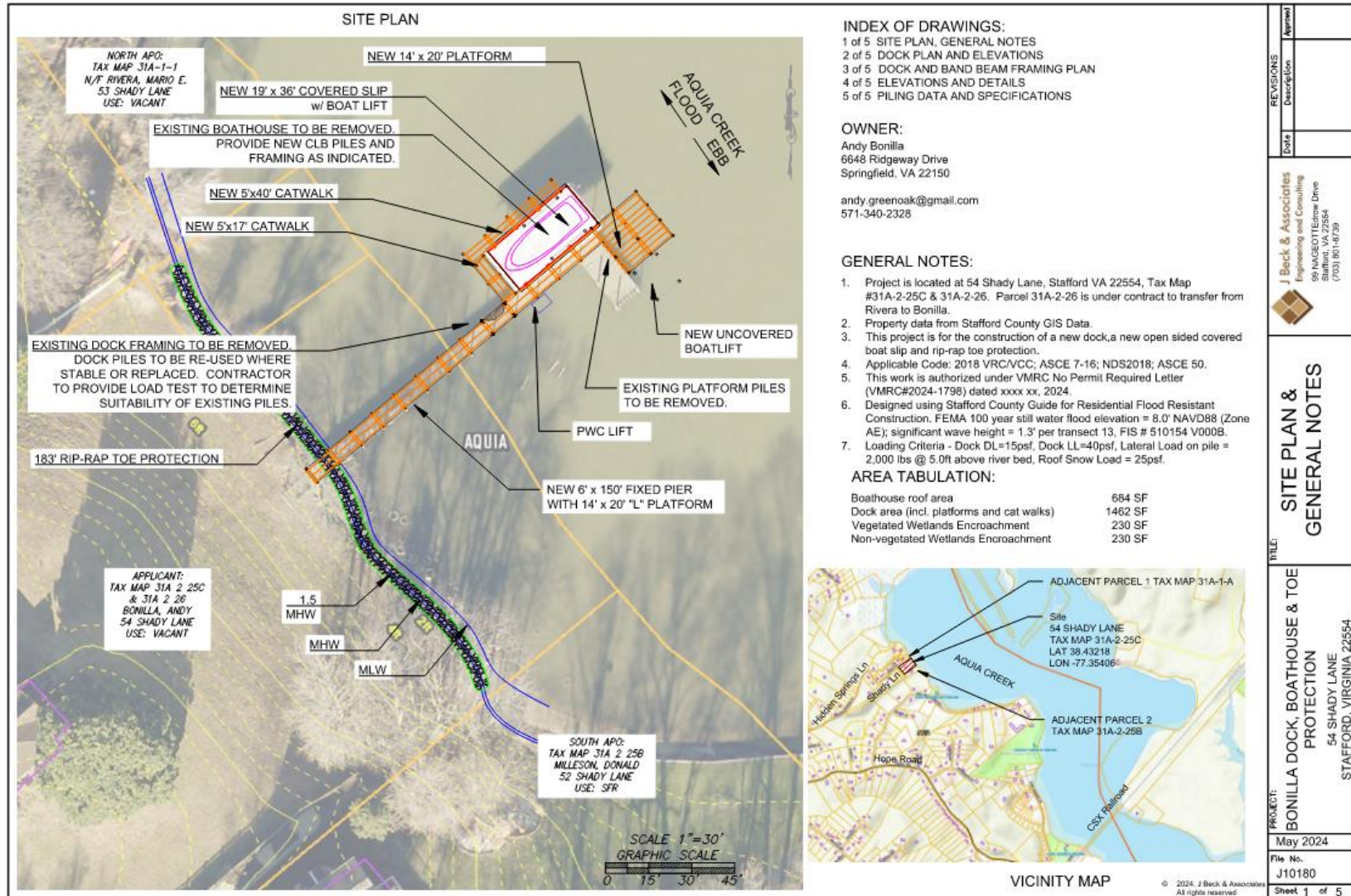


01May24 15:17 Ws
54 Shady Ln, Stafford VA 22554, US © 01-May-24 15:17:33

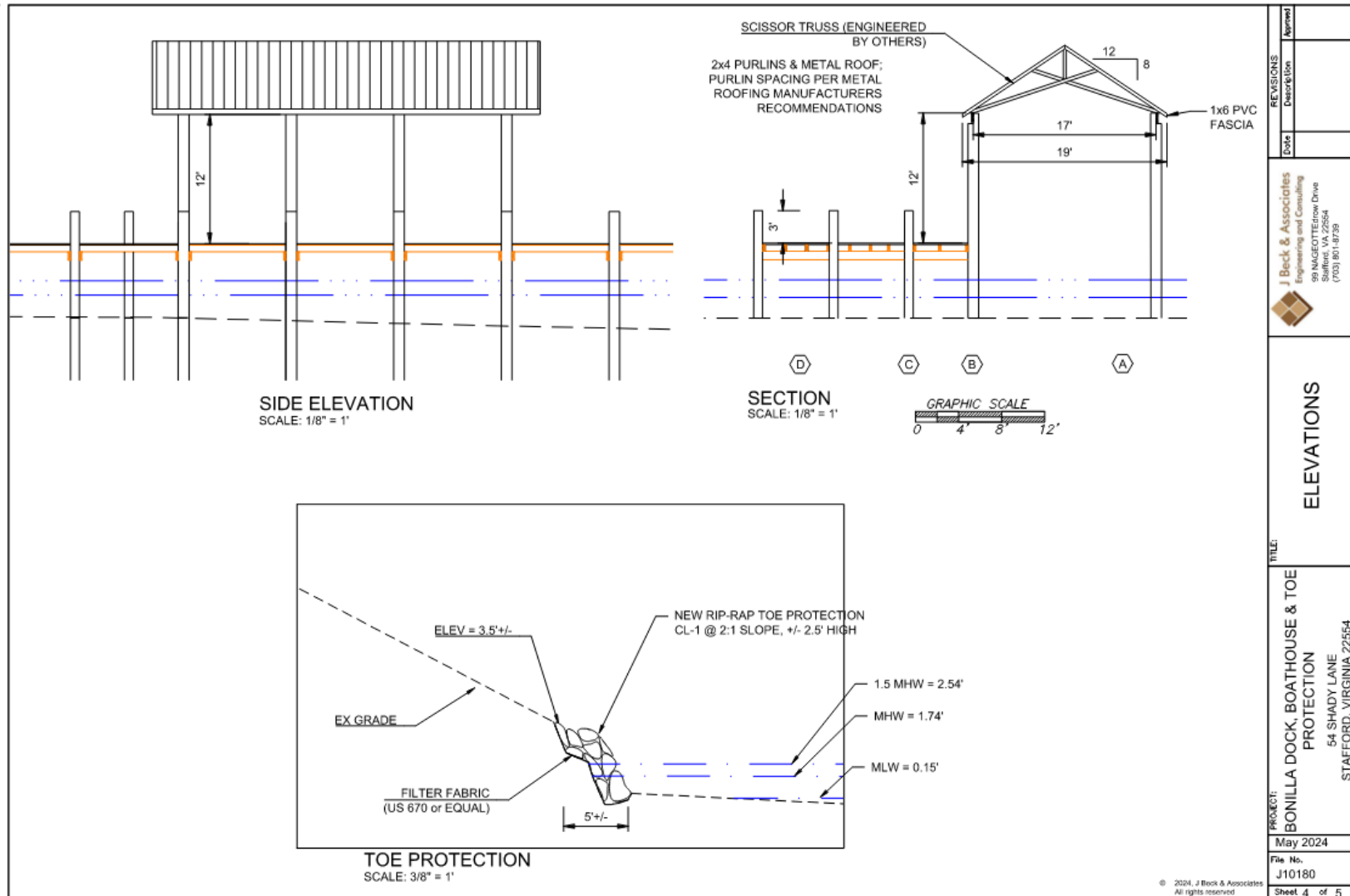
Photograph taken facing north showing the bank of the Aquia Creek at the location of the proposed riprap revetment at 54 Shady Lane (TM# 31A-2-25C).



Proposed Conditions



Proposed Conditions



Additional Information/Revisions Received by VMRC Aug. 13, 2024 map

Staff Observations

- A portion of Aquia Creek located at 54 Shady Lane (TM# 31A-2-25C) has slowly eroded over the years due to wave action.
- The proposed riprap revetment will stop/retard the continued erosion of the bank.
- The proposed in-lieu-fee of \$3,910.00 for wetland loss is acceptable.
- The removal of tires used by others to impede erosion will be removed.

APPLICATION 2

LYNCH REVETMENT

WETLANDS JOINT PERMIT

APPLICATION VMRC #20241042

From: jim.beck@jbeckassociates.com
To: [Howell, Beth \(MRC\)](#)
Cc: [David Lynch](#); [Payne, Khadijah \(MRC\)](#); [Joseph P. Fiorello](#)
Subject: Lynch Shoreline at 1 George Street Stafford VA
Date: Monday, April 29, 2024 8:30:11 AM
Attachments: [image001.png](#)
[24_04_29 Lynch Tidewater JPA.pdf](#)

Hi Beth,

Please find attached a JPA with drawings for shoreline stabilization, bulkhead repair and living shoreline at the above referenced property.

Thanks,
Jim

James P. Beck, PE

(703) 801-8739 jim.beck@jbeckassociates.com



www.jbeckassociates.com

- ❖ DEQ: Permit application fees required for Virginia Water Protection permits – while detailed in 9VAC25-20 – are conveyed to the applicant by the applicable DEQ office (<http://www.deq.virginia.gov/Locations.aspx>). Complete the Permit Application Fee Form and submit it per the instructions to the address listed on the form. Instructions for submitting any other fees will be provided to the applicant by DEQ staff.
- ❖ VMRC: An application fee of \$300 may be required for projects impacting tidal wetlands, beaches and/or dunes when VMRC acts as the LWB. VMRC will notify the applicant in writing if the fee is required. Permit fees involving subaqueous lands are \$25.00 for projects costing \$10,000 or less and \$100 for projects costing more than \$10,000. Royalties may also be required for some projects. The proper permit fee and any required royalty is paid at the time of permit issuance by VMRC. VMRC staff will send the permittee a letter notifying him/her of the proper permit fees and submittal requirements.
- ❖ LWB: Permit fees vary by locality. Contact the LWB for your project area or their website for fee information and submittal requirements. Contact information for LWBs may be found at http://ccrm.vims.edu/permits_web/guidance/local_wetlands_boards.html.

FOR AGENCY USE ONLY	
	Notes:
	JPA # 24-1042

APPLICANTS

Part 1 – General Information

PLEASE PRINT OR TYPE ALL ANSWERS: If a question does not apply to your project, please print N/A (not applicable) in the space provided. If additional space is needed, attach 8-1/2 x 11 inch sheets of paper.

<u>Check all that apply</u>				
Pre-Construction Notification (PCN) ☐	PASDO – PGP Self Verification ☐			
NWP # _____ (For Nationwide Permits ONLY - No DEQ-VWP permit writer will be assigned)	(Replaces Regional Permit 17 (RP-17) checklist)			
County or City in which the project is located: <u>Stafford County</u>				
Waterway at project site: <u>Aquia Creek</u>				
PREVIOUS ACTIONS RELATED TO THE PROPOSED WORK (Include all federal, state, and local pre application coordination, site visits, previous permits, or applications whether issued, withdrawn, or denied)				
Historical information for past permit submittals can be found online with VMRC - https://webapps.mrc.virginia.gov/public/habitat/ - or VIMS - http://ccrm.vims.edu/perms/newpermits.html				
Agency	Action / Activity	Permit/Project number, including any non-reporting Nationwide permits previously used (e.g., NWP 13)	Date of Action	If denied, give reason for denial
VMRC	Approved / NPN for pier	2015-0496	4/14/2015	

Part 1 - General Information (continued)

1. Applicant's legal name* and complete mailing address: Contact Information:

David Lynch
7308 Mallory Circle
Alexandria, VA 22315

Home (703) 304-7552
Work ()
Fax ()
Cell ()
e-mail david.lynch@cpeworldwide.com

State Corporation Commission Name and ID Number (if applicable) _____

2. Property owner(s) legal name* and complete address, if different from applicant: Contact Information:

Home ()
Work ()
Fax ()
Cell ()
e-mail _____

State Corporation Commission Name and ID Number (if applicable) _____

3. Authorized agent name* and complete mailing address (if applicable):

Jim Beck, J Beck & Assoc.
99 Woodrow Drive
Stafford, VA 22554

Contact Information:
Home ()
Work (703) 801-8739
Fax ()
Cell ()
e-mail jim.beck@jbeckassociates.com

State Corporation Commission Name and ID Number (if applicable) S480797-2

*** If multiple applicants, property owners, and/or agents, each must be listed and each must sign the applicant signature page.**

4. Provide a detailed description of the project in the space below, including the type of project, its dimensions, materials, and method of construction. Be sure to include how the construction site will be accessed and whether tree clearing and/or grading will be required, including the total acreage. If the project requires pilings, please be sure to include the total number, type (e.g. wood, steel, etc), diameter, and method of installation (e.g. hammer, vibratory, jetted, etc). If additional space is needed, provide a separate sheet of paper with the project description.

This project is for shoreline stabilization along the Aquia Creek waterfront of the applicants property. Stabilization measures will include:

1. Installation of 180 linear feet of rip-rap toe protection consisting of class 1 rip-rap, 5' high, placed at a 1.5:1 slope;
2. Repairing 139 linear feet of failing timber bulkhead with vinyl sheet pile placed less than two feet seaward of the existing timber bulkhead.
3. Installation of 990 SF Type II living shoreline consisting of class 1 / A1 rip-rap sill with course sand fill and a planted marsh. The living shoreline will be placed seaward of the rip-rap toe protection.

Part 1 - General Information (continued)

5. Have you obtained a contractor for the project? ____ Yes* ☒ No. *If your answer is "Yes" complete the remainder of this question and submit the Applicant's and Contractor's Acknowledgment Form (enclosed)

Contractor's name* and complete mailing address:

Contact Information:

Home (____)_____

Work (____)_____

Fax (____)_____

Cell (____)_____

email _____

State Corporation Commission Name and ID Number (if applicable) _____

*** If multiple contractors, each must be listed and each must sign the applicant signature page.**

6. List the name, address and telephone number of the newspaper having general circulation in the area of the project. Failure to complete this question may delay local and State processing.

Name and complete mailing address:

The Free-Lance Star
1340 Central Park Blvd.
Suite 100
Fredericksburg, VA 22401

Telephone number

(540) 370-5000

7. Give the following project location information:

Street Address (911 address if available) 1 George Street, Stafford, VA 22554

Lot/Block/Parcel# Tax map 40-59

Subdivision Widewater Beach

City / County Stafford ZIP Code 22554

Latitude and Longitude at Center Point of Project Site (Decimal Degrees):

38.41515 / - 77.33738 (Example: 36.41600/-76.30733)

If the project is located in a rural area, please provide driving directions giving distances from the best and nearest visible landmarks or major intersections. *Note: if the project is in an undeveloped subdivision or property, clearly stake and identify property lines and location of the proposed project. A supplemental map showing how the property is to be subdivided should also be provided.*

8. What are the *primary and secondary purposes of and the need for* the project? For example, the primary purpose may be "to protect property from erosion due to boat wakes" and the secondary purpose may be "to provide safer access to a pier."

The primary purpose is to stabilize the existing shoreline.

The secondary purpose is to stabilize the upland steep, failing slope.

Part 1 - General Information (continued)

9. Proposed use (check one):

- ☒ Single user (private, non-commercial, residential)
☐ Multi-user (community, commercial, industrial, government)

10. Describe alternatives considered and the measures that will be taken to avoid and minimize impacts, to the maximum extent practicable, to wetlands, surface waters, submerged lands, and buffer areas associated with any disturbance (clearing, grading, excavating) during and after project construction. *Please be advised that unavoidable losses of tidal wetlands and/or aquatic resources may require compensatory mitigation.*

Alternatives considered included no action, new bulkhead along full length of waterfront and rip-rap shoring of existing bulkhead.

11. Is this application being submitted for after-the-fact authorization for work which has already begun or been completed? ☐ Yes ☒ No. If yes, be sure to clearly depict the portions of the project which are already complete in the project drawings.

12. Approximate cost of the entire project (materials, labor, etc.): \$ 85000
Approximate cost of that portion of the project that is channelward of mean low water:
\$ 10000

13. Completion date of the proposed work: Spring - 2024

14. Adjacent Property Owner Information: List the name and complete **mailing address**, including zip code, of each adjacent property owner to the project. (NOTE: If you own the adjacent lot, provide the requested information for the first adjacent parcel beyond your property line.) Failure to provide this information may result in a delay in the processing of your application by VMRC.

Property to the east:

John / Linda Cunningham
115 Woodrow Drive
Stafford, VA 22554
Tax Map 41B-1-2

Property to the west:

Todd Santee
5 George Street
Stafford, VA 22554
Tax Map 40-60

Part 2 - Signatures

1. Applicants and property owners (if different from applicant).

NOTE: REQUIRED FOR ALL PROJECTS

PRIVACY ACT STATEMENT: The Department of the Army permit program is authorized by Section 10 of the Rivers and Harbors Act of 1899, Section 404 of the Clean Water Act, and Section 103 of the Marine Protection Research and Sanctuaries Act of 1972. These laws require that individuals obtain permits that authorize structures and work in or affecting navigable waters of the United States, the discharge of dredged or fill material into waters of the United States, and the transportation of dredged material for the purpose of dumping it into ocean waters prior to undertaking the activity. Information provided in the Joint Permit Application will be used in the permit review process and is a matter of public record once the application is filed. Disclosure of the requested information is voluntary, but it may not be possible to evaluate the permit application or to issue a permit if the information requested is not provided.

CERTIFICATION: I am hereby applying for all permits typically issued by the DEQ, VMRC, USACE, and/or Local Wetlands Boards for the activities I have described herein. I agree to allow the duly authorized representatives of any regulatory or advisory agency to enter upon the premises of the project site at reasonable times to inspect and photograph site conditions, both in reviewing a proposal to issue a permit and after permit issuance to determine compliance with the permit.

In addition, I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.

David Lynch

Applicant's Legal Name (printed/typed)

(Use if more than one applicant)

Applicant's Signature

(Use if more than one applicant)

Date

Property Owner's Legal Name (printed/typed)
(If different from Applicant)

(Use if more than one owner)

Property Owner's Signature

(Use if more than one owner)

Date

Part 2 – Signatures (continued)

2. Applicants having agents (if applicable)

CERTIFICATION OF AUTHORIZATION

I (we), David Lynch, hereby certify that I (we) have authorized James Beck
(Applicant's legal name(s)) (Agent's name(s))

to act on my behalf and take all actions necessary to the processing, issuance and acceptance of this permit and any and all standard and special conditions attached.

We hereby certify that the information submitted in this application is true and accurate to the best of our knowledge.

James P. Beck
(Agent's Signature)

(Use if more than one agent)

4/23/24
(Date)

David Lynch
(Applicant's Signature)

(Use if more than one applicant)

28 APR 2024
(Date)

3. Applicant's having contractors (if applicable)

CONTRACTOR ACKNOWLEDGEMENT

I (we), _____, have contracted _____
(Applicant's legal name(s)) (Contractor's name(s))
to perform the work described in this Joint Permit Application, signed and dated _____.

We will read and abide by all conditions set forth in all Federal, State and Local permits as required for this project. We understand that failure to follow the conditions of the permits may constitute a violation of applicable Federal, state and local statutes and that we will be liable for any civil and/or criminal penalties imposed by these statutes. In addition, we agree to make available a copy of any permit to any regulatory representative visiting the project to ensure permit compliance. If we fail to provide the applicable permit upon request, we understand that the representative will have the option of stopping our operation until it has been determined that we have a properly signed and executed permit and are in full compliance with all terms and conditions.

Contractor's name or name of firm

Contractor's or firms address

Contractor's signature and title

Contractor's License Number

Applicant's signature

(use if more than one applicant)

Date

Part 2 – Signatures (continued)

ADJACENT PROPERTY OWNER'S ACKNOWLEDGEMENT FORM

I (we), John Cunninham, own land next to (across the water
(Print adjacent/nearby property owner's name)

from/on the same cove as) the land of David Lynch.
(Print applicant's name(s))

I have reviewed the applicant's project drawings dated 2/28/2024
(Date)

to be submitted for all necessary federal, state and local permits.

I HAVE NO COMMENT _____ ABOUT THE PROJECT.

I DO NOT OBJECT ggc TO THE PROJECT.

I OBJECT _____ TO THE PROJECT.

The applicant has agreed to contact me for additional comments if the proposal changes prior to construction of the project.

(Before signing this form be sure you have checked the appropriate option above).

John J. Cunningham Jr
Adjacent/nearby property owner's signature(s)

4-28-2024
Date

Note: If you object to the proposal, the reason(s) you oppose the project must be submitted in writing to VMRC. An objection will not necessarily result in denial of the project; however, valid complaints will be given full consideration during the permit review process.

Part 2 – Signatures (continued)

ADJACENT PROPERTY OWNER'S ACKNOWLEDGEMENT FORM

I (we), Todd Santee, own land next to (across the water
(Print adjacent/nearby property owner's name)

from/on the same cove as) the land of David Lynch.
(Print applicant's name(s))

I have reviewed the applicant's project drawings dated 2/28/2024
(Date)

to be submitted for all necessary federal, state and local permits.

I HAVE NO COMMENT _____ ABOUT THE PROJECT.

I DO NOT OBJECT TR TO THE PROJECT.

I OBJECT _____ TO THE PROJECT.

The applicant has agreed to contact me for additional comments if the proposal changes prior to construction of the project.

(Before signing this form, be sure you have checked the appropriate option above).

Todd R Santee
Adjacent/nearby property owner's signature(s)

4/28/24
Date

Note: If you object to the proposal, the reason(s) you oppose the project must be submitted in writing to VMRC. An objection will not necessarily result in denial of the project; however, valid complaints will be given full consideration during the permit review process.

Part 3 – Appendices (continued)

Appendix B: Projects for Shoreline Stabilization in tidal wetlands, tidal waters and dunes/beaches including riprap revetments and associated backfill, marsh toe stabilization, bulkheads and associated backfill, breakwaters, beach nourishment, groins, jetties, and living shoreline projects. Answer all questions that apply. Please provide any reports provided from the Shoreline Erosion Advisory Service or VIMS.

NOTE: It is the policy of the Commonwealth that living shorelines are the preferred alternative for stabilizing tidal shorelines (Va. Code § 28.2-104.1). **Information on non-structural, vegetative alternatives (i.e., Living Shoreline) for shoreline stabilization is available at http://ccrm.vims.edu/coastal_zone/living_shorelines/index.html.**

1. Describe each **revetment, bulkhead, marsh toe, breakwater, groin, jetty, other structure, or living shoreline project** separately in the space below. Include the overall length in linear feet, the amount of impacts in acres, and volume of associated backfill below mean high water and/or ordinary high water in cubic yards, as applicable:

This project is for shoreline stabilization along the Aquia Creek waterfront of the applicants property. Stabilization measures will include:

1. Installation of 180 linear feet of rip-rap toe protection consisting of class 1 rip-rap, 5' high, placed at a 1.5:1 slope;

2. Repairing 139 linear feet of failing timber bulkhead with vinyl sheet pile placed less than two feet seaward of the existing timber bulkhead.

3. Installation of 990 SF Type II living shoreline consisting of class 1 and A1 rip-rap sill with course sand fill and a planted marsh. The living shoreline will be placed seaward of the rip-rap toe protection.

2. What is the maximum encroachment channelward of mean high water? ²⁵_____feet.
Channelward of mean low water? ¹⁶_____feet.
Channelward of the back edge of the dune or beach? _____feet.

3. Please calculate the square footage of encroachment over:

- Vegetated wetlands 0 square feet
 - Non-vegetated wetlands 800 square feet
 - Subaqueous bottom _____square feet
 - Dune and/or beach _____square feet
- Intertidal zone and subaqueous bottom impacted by living shoreline sill and toe protection.**

4. For bulkheads, is any part of the project maintenance or replacement of a previously authorized, currently serviceable, existing structure? ☒ Yes _____ No.

If yes, will the construction of the new bulkhead be no further than two (2) feet channelward of the existing bulkhead? ☒ Yes _____No.

If no, please provide an explanation for the purpose and need for the additional encroachment.

Part 3 – Appendices (continued)

5. Describe the type of construction and **all** materials to be used, including source of backfill material, if applicable (e.g., vinyl sheet-pile bulkhead, timber stringers and butt piles, 100% sand backfill from upland source; broken concrete core material with Class II quarry stone armor over filter cloth).

NOTE: Drawings must include construction details, including dimensions, design and all materials, including fittings if used.

The bulkhead repair will consist of vinyl sheet pile placed immediately seaward of the failing timber bulkhead. The bulkhead will have a 3" timber waler along the top and capping timbers.

The rip-rap toe protection will consist of Class 1 rip-rap over filter cloth. The sill will consist of class 1A and 1 rip-rap placed over filter cloth. Sand fill will consist of course sand.

All material will be sourced off site and trucked or barged to the site.

6. If using stone, broken concrete, etc. for your structure(s), what is the average weight of the:

Core (inner layer) material 25-75 pounds per stone Class size A1

Armor (outer layer) material 50-150 pounds per stone Class size A1 & 1

7. For **beach nourishment**, including that associated with breakwaters, groins or other structures, provide the following:

- Volume of material

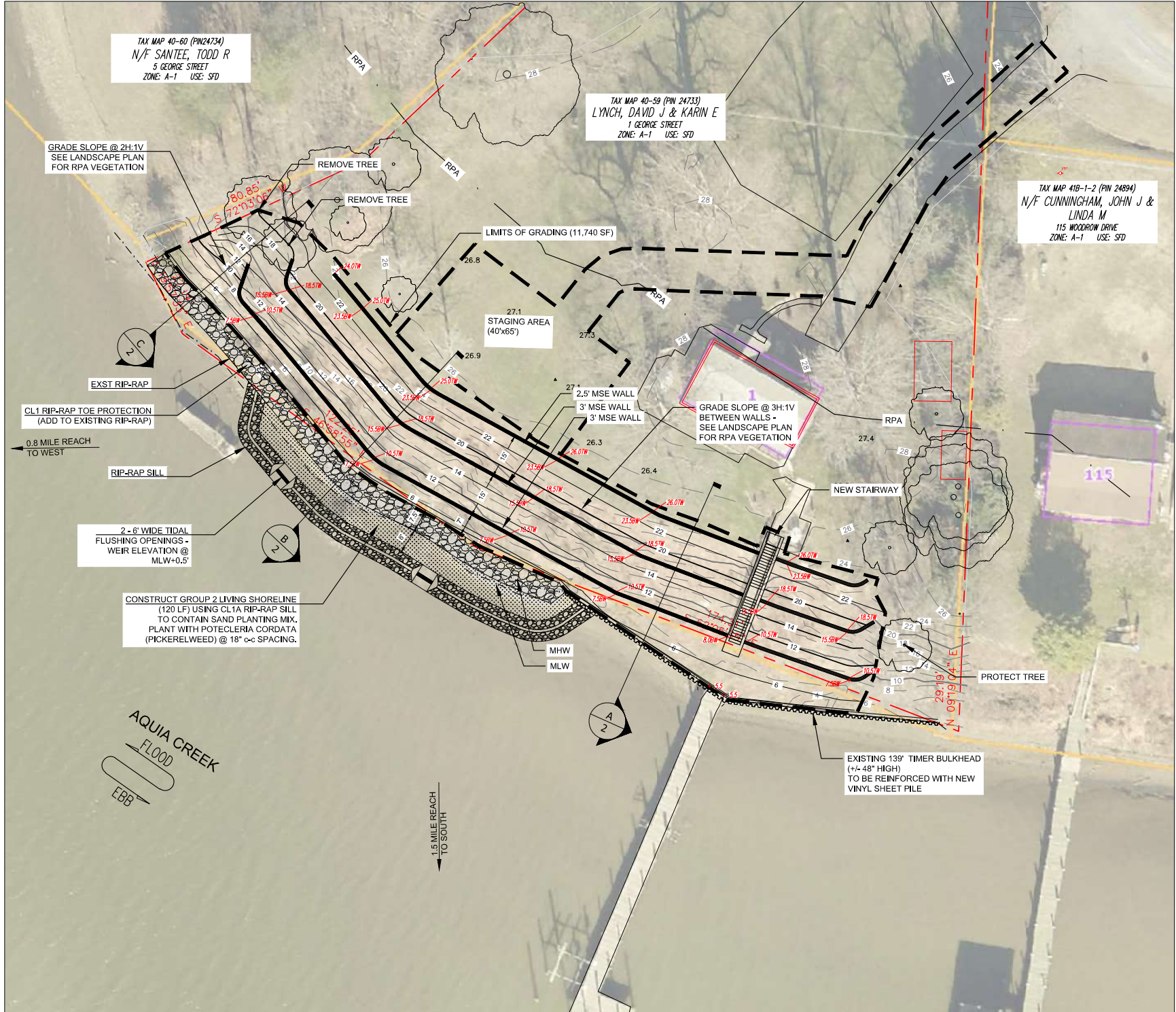
90			Sill Volume
100			Toe Volume
50			Toe Volume
50			Toe Volume
- Area to be covered

1200			Sill Area
800			Toe Area
800			Toe Area
550			Toe Area
- Source of material, composition (e.g. 90% sand, 10% clay): 90% course sand w/ 10% organics
- Method of transportation and placement:

By truck to site and then by barge for placement.

- Describe any proposed vegetative stabilization measures to be used, including planting schedule, spacing, monitoring, etc. Additional guidance is available at <http://www.vims.edu/about/search/index.php?q=planting+guidelines>:

Pickernelweed (potecleria cordata) planted 18" c-c in living shoreline area.



SITE PLAN
1" = 20'
0' 20' 40'
GRAPHIC SCALE

INDEX OF DRAWINGS:
1 of 5 SITE PLAN, GENERAL NOTES
2 of 5 SHORELINE SECTIONS AND DETAILS
3 of 5 WALL SECTIONS AND SPECIFICATIONS
4 of 5 LANDSCAPE PLAN
5 of 5 EROSION AND SEDIMENT CONTROL PLAN



OWNER / APPLICANT:
David and Karin Lynch
7308 Mallory Circle
Alexandria, VA 22315
703-304-7552
David.Lynch@cpeworldwide.com

- GENERAL NOTES:
- Project is located at 1 George Street, Stafford VA, Tax Map #40-59.
 - Property boundary information taken from drawing showing metes and bounds prepared by BFG Engineering. Topography based on a field run survey prepared by J Beck & Assoc. on Feb 5, 2022. Datum: NAVD88, NAD83. Datum Conversion based on Dahlgren Tide Station 8635027:
2.1. MLW NOAA to NAVD88 = 0.15' + 1.04 = 1.19'
2.2. MHW NOAA to NAVD88 = 1.74 + 1.04 = 2.78'
 - No title report furnished. Easement and / or encumbrances of record may not be shown.
 - This project is for the reinforcement / replacement of an existing timber bulkhead, slope stabilization and a living shoreline.
 - Designed using Stafford County Guide for Residential Flood Resistant Construction. FEMA 100 year still water flood elevation = 6.3' NAVD88; significant wave height = 2.0' NAVD88 per transect 11, FIS # 510154 V000B.

- BULKHEAD CONSTRUCTION NOTES:
- Access project work area from landside.
 - Stabilize disturbed area with seed and mulch.
 - All lumber to be #1 grade or better CCY treated SYP ground contact rated.
 - All hardware and fasteners to be Grade 2 zinc plated or Grade A307 hot dipped galvanized.
- BENCH MARKS TO EXST BULKHEAD FACE:
- 47.5' to center of exst catalba tree
 - 10' to edge of exst pier.
 - 13.5' to face of exst timber ret wall.
 - 21.5' to corner of exst timber ret wall.

PROJECT TABULATION:

Proposed bulkhead repair length	139 LF
Channelward encroachment of bulkhead	1 FT MAX
Rip-Rap Toe Protection	180 SF
Vegetated wetland encroachment	0 SF
Intertidal zone encroachment	800 SF (Toe Protection)
Subaqueous bottom encroachment	139 SF (Bulkhead)
Group 2 living shoreline area	990 SF



VICINITY MAP © 2024, J Beck & Associates All rights reserved

REVISIONS	
Date	Description

J Beck & Associates
Engineering and Consulting
99 Woodrow Drive
Stafford, VA 22554
(703) 801-8739
jim.beck@jbeckassociates.com

TITLE:
SITE PLAN &
GENERAL NOTES

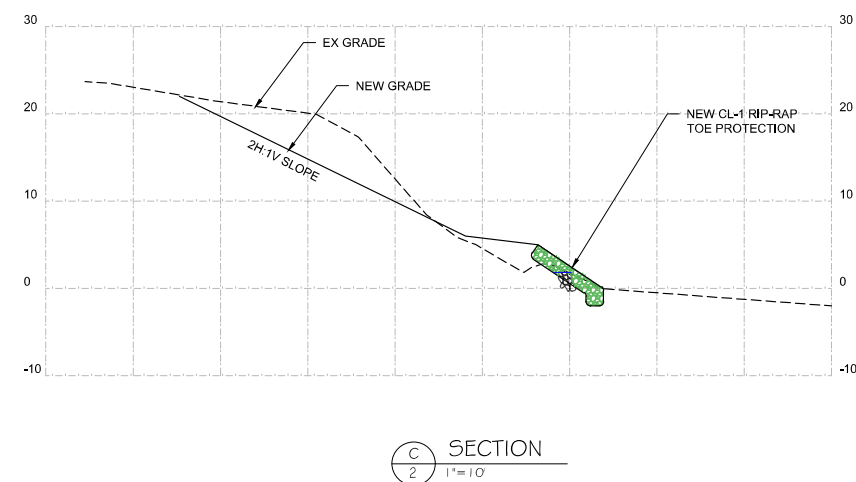
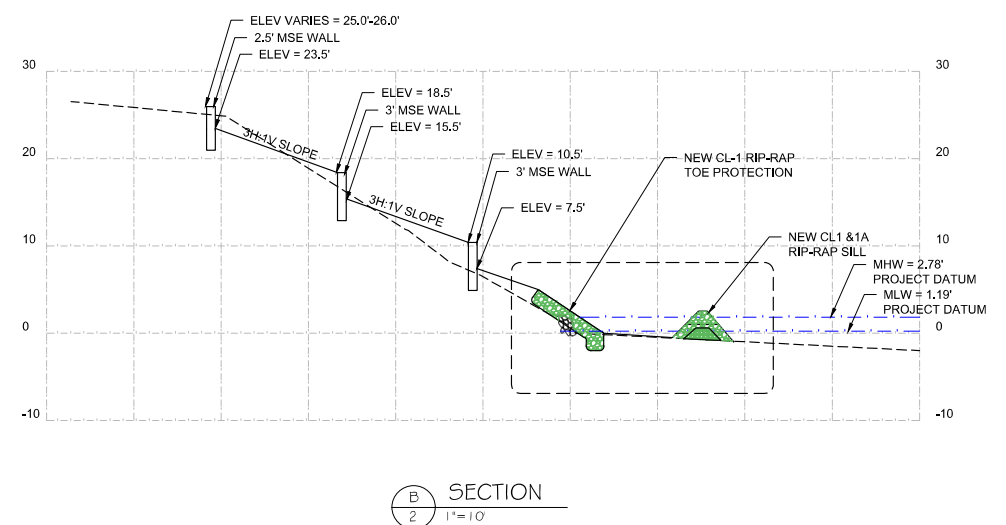
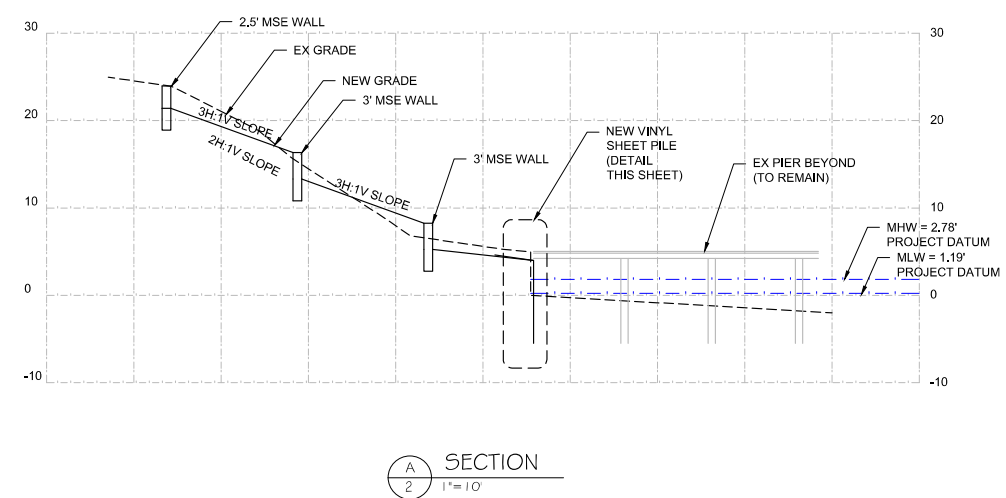
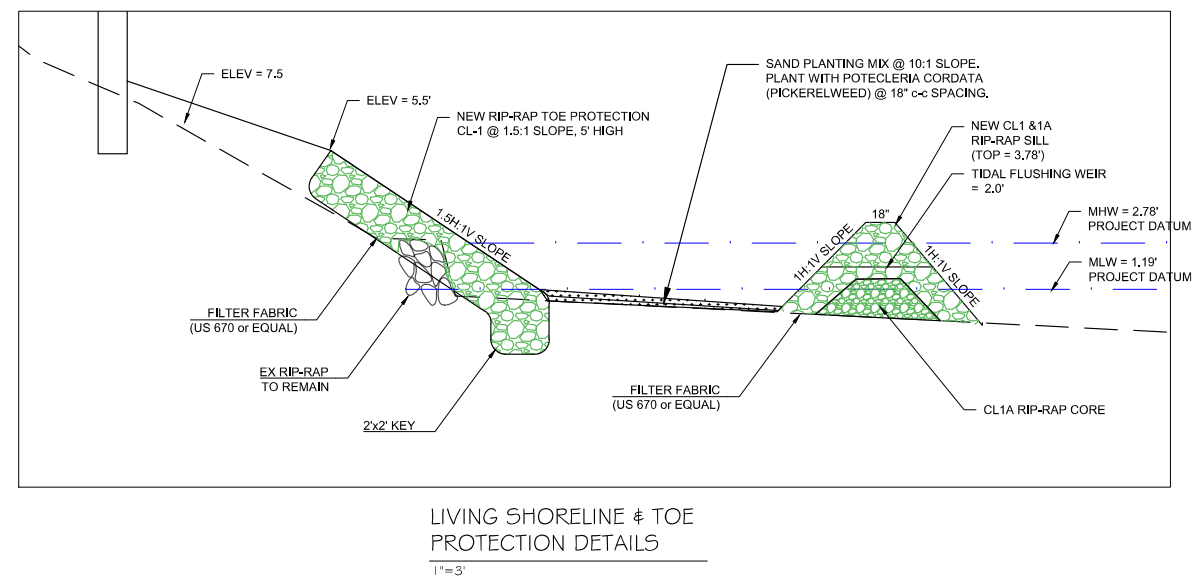
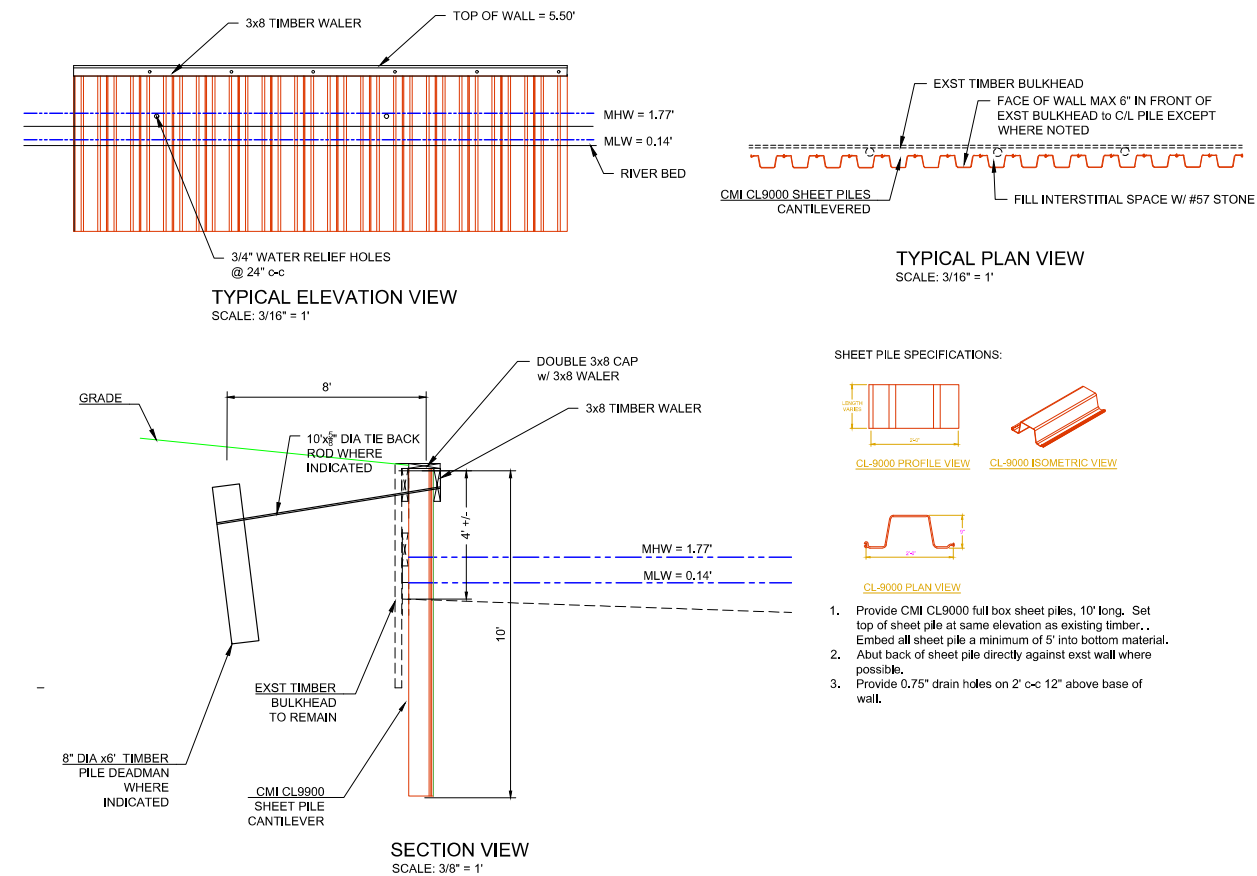
PROJECT:
LYNCH SHORELINE
1 GEORGE STREET
STAFFORD, VIRGINIA 22554
TAX MAP 40-59

GRUPPIS-WIDEWATER ELECTION DISTRICT STAFFORD COUNTY, VIRGINIA

DESIGN BY:	JPB
DRAWN BY:	JPB
CHECK:	JPB
DATE:	4/15/2024
FILE:	J10174
SCALE:	AS SHOWN

SHEET

1 of 5



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[illegible]

 **J Beck & Associates**
Engineering and Consulting

99 Woodrow Drive
Stafford, VA 22554
(703) 801-8739
jim.beck@jbeckassociates.com

TITLE: SHORELINE SECTIONS AND DETAILS

PROJECT:
LYNCH SHORELINE
1 GEORGE STREET
STAFFORD, VIRGINIA 22554
TAX MAP 40-59

DESIGN BY:	JPB
DRAWN BY:	JPB
CHECK:	JPB
DATE:	4/15/2024
FILE:	J10174
SCALE:	AS SHOWN

SHEET

2 of 5

1. GEOSYNTHETIC REINFORCEMENT WITH THE HIGHEST STRENGTH AXIS PERPENDICULAR TO THE WALL FACE.

2. PRIOR TO GEOSYNTHETIC REINFORCEMENT PLACEMENT, PLACE THE BACKFILL AND COMPACT TO THE ELEVATION OF THE TOP OF THE WALL UNITS AT THE ELEVATION OF THE GEOSYNTHETIC REINFORCEMENT.

3. PLACE GEOSYNTHETIC REINFORCEMENT AT THE ELEVATIONS AND TO THE LENGTHS SHOWN ON THESE DESIGN DRAWINGS.

4. LAY GEOSYNTHETIC REINFORCEMENT HORIZONTALLY ON TOP OF THE CONCRETE RETAINING WALL UNITS AND THE COMPACTED BACKFILL SOILS. PLACE THE GEOSYNTHETIC REINFORCEMENT WITHIN ONE INCH OF THE FACE OF THE CONCRETE RETAINING WALL UNITS FROM THE NEXT COURSE OF CONCRETE RETAINING WALL UNITS ON TOP OF THE GEOSYNTHETIC REINFORCEMENT.

5. THE GEOSYNTHETIC REINFORCEMENT SHALL BE IN TENSION AND FREE FROM WRINKLES PRIOR TO PLACEMENT OF THE REINFORCED FILL SOILS. PULL GEOSYNTHETIC REINFORCEMENT HANDS AND SECURE IN PLACE WITH STAPLES, STAPLES, OR BY HAND-TENSIONING UNTIL THE GEOSYNTHETIC REINFORCEMENT IS COVERED BY 6 INCHES OF LOOSE FILL.

6. THE GEOSYNTHETIC REINFORCEMENTS SHALL BE CONTINUOUS THROUGHOUT THEIR EMBEDDED LENGTHS SPLICES IN THE GEOSYNTHETIC REINFORCEMENT STRENGTH DIRECTION ARE NOT ALLOWED.

7. WHERE PIPES INTERFERE WITH GRID LOCATIONS/ELEVATIONS SHOWN ON PLANS, GRID SHALL BE PLACED ALONG SIDE OF UNDER, AND/OR ABOVE TO MATCH ELEVATIONS ON OTHER SIDE OF PIPE AS SHOWN. ADJUST GRID LOCATION ABOVE AND BELOW PIPE, DEPENDING ON ALIGNMENT ANGLE AND SLOPE OF PIPE.

8. DO NOT OPERATE TRACKED CONSTRUCTION EQUIPMENT DIRECTLY ON R/F GEOSYNTHETIC REINFORCEMENT AT LEAST 5 INCHES OF COMPACTED BACKFILL SOIL IS REQUIRED PRIOR TO OPERATION OF TRACKED VEHICLES OVER THE GEOSYNTHETIC REINFORCEMENT. KEEP TURNING OF TRACKED CONSTRUCTION EQUIPMENT TO A MINIMUM.

9. RUBBER-TIRED EQUIPMENT MAY PASS OVER THE GEOSYNTHETIC REINFORCEMENT AT SPEEDS OF LESS THAN 5 MILES PER HOUR TURNING OF RUBBER TIRED EQUIPMENT IS NOT ALLOWED ON THE GEOSYNTHETIC REINFORCEMENT.

K. USE SPECIAL CORNER BLOCKS AS RECOMMENDED BY THE BLOCK MANUFACTURER.

L. THE CONTRACTOR SHALL START AND FINISH WALL CONSTRUCTION WITHOUT UNDUE DELAY. IF CONTRACTOR IS INSTRUCTED BY OWNER TO STOP WORK BEFORE COMPLETE INSTALLATION OR IF WALL CONTRACTOR ELECTS TO DELAY WORK FOR ANY REASON, A CAPPING LAYER OF LOW PERMEABILITY SOIL SHALL BE PLACED OVER TOP OF THE DRAINAGE STONE AT LEAST 8 INCHES THICK AND COMPACTED A MINIMUM OF FOUR PASSES WITH A VIBRATORY PLATE COMPACTOR. THIS LAYER IS CONSIDERED TEMPORARY AND SHALL BE COMPLETELY REMOVED PRIOR TO RESUMING WALL CONSTRUCTION.

M. WALL CONTRACTOR SHALL COORDINATE WITH GENERAL CONTRACTOR/DRAWNOR THE FINAL PLACEMENT OF IMPERVIOUS FILL OVER THE DRAINAGE LAYER BEHIND THE WALL. THE IMPERVIOUS FILL IS CONSIDERED PART OF THIS WALL SYSTEM AND SHOULD BE PLACED PRIOR TO WALL CONTRACTORS DEMOBILIZATION.

3.02 REINFORCED FILL PLACEMENT

A. PLACE FILL IN THE REINFORCED ZONE, SPREAD AND COMPACT IN A MANNER THAT WILL MINIMIZE SLACK IN THE GEOSYNTHETIC REINFORCEMENT.

B. ONLY LIGHTWEIGHT HAND-OPERATED COMPACTION EQUIPMENT IS ALLOWED WITHIN 4 FEET OF THE BACK OF THE RETAINING WALL UNITS, IF THE SPECIFIED COMPACTION CANNOT BE ACHIEVED WITHIN 4 FEET OF THE BACK OF THE RETAINING WALL UNITS, REPLACE THE REINFORCED SOIL IN THIS ZONE WITH DRAINAGE AGGREGATE MATERIAL AND COMPACT WITH A MINIMUM 4 PASSES WITH A LIGHT VIBRATORY COMPACTOR AND IN THIN LIFTS.

C. MINIMUM COMPACTION REQUIREMENTS FOR FILL PLACES IN THE REINFORCED ZONE:

D. PLACE MATERIALS FOR USE IN THE REINFORCED ZONE IN LOOSE LAYS NO GREATER THAN 8 INCHES FOR SOIL AND NO GREATER THAN 10 INCHES FOR CRUSHED STONE MATERIALS.

E. WHENEVER THE REINFORCED ZONE OF THE BACK OF THE SEGMENTAL WALL UNITS SHALL BE PERFORMED WITH LIGHTWEIGHT, HAND-OPERATED COMPACTION EQUIPMENT AND IN THINNER LIFTS IF NECESSARY TO ACHIEVE COMPACTION THROUGHOUT ENTIRE LIFT.

F. COMPACT FILL (REINFORCED AND RETAINED) TO 95 PERCENT OF THE SOIL'S STANDARD PROCTOR MAXIMUM DRY WEIGHT (ASTM D698) FOR THE ENTIRE WALL HEIGHT.

G. UTILITY TRENCH BACKFILL, COMPACT UTILITY TRENCH BACKFILL IN OR BELOW THE REINFORCED ZONE TO 95 PERCENT OF THE SOIL'S STANDARD PROCTOR MAXIMUM DRY WEIGHT (ASTM D698).

H. UTILITIES MUST BE PROPERLY DESIGNED (BY OTHERS) TO WITHSTAND ALL FORCES FROM THE RETAINING WALL UNITS, REINFORCED SOIL MASS, AND SURCHARGE LOADS, IF ANY.

I. WHERE CRUSHED ROCK (OPEN GRADE) AGGREGATE SUCH AS VOOT No. 57 STONE) MATERIALS ARE USED IN THE REINFORCED ZONE, COMPACTION SHALL BE PERFORMED BY A MINIMUM OF 4 PASSES WITH A LIGHT VIBRATORY COMPACTOR AND IN THIN LIFTS, NO GREATER THAN 8 INCHES.

J. AT THE END OF EACH DAY'S OPERATION, SLOPE THE LAST LEVEL OF COMPACTED BACKFILL AWAY FROM THE INTERIOR (CONCEALED) FACE OF THE WALL TO DIRECT SURFACE WATER RUNOFF AWAY FROM THE WALL FACE.

K. THE WALL AND EARTHWORK CONTRACTORS ARE RESPONSIBLE FOR ENSURING THAT THE FINISHED SITE DRAINAGE IS DIRECTED AWAY FROM THE RETAINING WALL SYSTEM. IN ADDITION, THE CONTRACTORS ARE RESPONSIBLE FOR ENSURING THAT SURFACE WATER RUNOFF FROM ADJACENT CONSTRUCTION AREAS IS NOT ALLOWED TO ENTER THE RETAINING WALL AREA OF THE CONSTRUCTION SITE.

3.03 CAP UNIT INSTALLATION

A. APPLY ADHESIVE TO THE TOP SURFACE OF THE UNIT BELOW AND PLACE THE CAP UNIT INTO DESIRED POSITION.

B. CUT CAP UNITS AS NECESSARY TO OBTAIN THE PROPER FIT.

3.04 SITE CONSTRUCTION TOLERANCES

A. SITE CONSTRUCTION TOLERANCES

B. VERTICAL ALIGNMENT: PLUS OR MINUS 1/4 INCH OVER ANY 10'-FOOT DISTANCE, WITH A MAXIMUM DIFFERENTIAL OF 3 INCHES OVER THE LENGTH OF THE WALL.

2. HORIZONTAL LOCATION CONTROL FROM GRADING PLAN

a. STRAIGHT LINES: PLUS OR MINUS 1/2 INCHES OVER ANY 10'-FOOT DISTANCE

b. CORNER AND RADIUS LOCATIONS: PLUS OR MINUS 12 INCHES

c. CURVES AND SERPENTINE RADII: PLUS OR MINUS 2 FEET.

d. AESTHETICS OF FINISHED WALLS IS NOT RESPONSIBILITY OF WALL DESIGNER

3.10 FIELD QUALITY CONTROL

A. INSTALLER IS RESPONSIBLE FOR PROPER INSTALLATION OF SYSTEM COMPONENTS.

B. OWNER SHALL ENGAGE DEA TO VERIFY THE CORRECT INSTALLATION OF SYSTEM COMPONENTS IN ACCORDANCE WITH THESE SPECIFICATIONS AND THE DRAWINGS.

C. CORRECT ANY WORK WHICH DOES NOT MEET THESE SPECIFICATIONS SHOWN ON THE WALL DESIGN DRAWINGS.

D. DEA TO PERFORM COMPACTION TESTING OF THE FILL PLACED AND COMPACTED IN THE FOUNDATION, RETAINED AND REINFORCED FILL ZONES.

1. TESTING FREQUENCY

a. MINIMUM ONE TEST FOR EVERY BLOCK COURSE (VERTICAL) OF FILL PLACED AND COMPACTED; FOR EVERY 50 LINEAL FEET OF RETAINING WALL (MINIMUM 2 TESTS PER LIFT RECOMMENDED)

b. VARY COMPACTION TEST LOCATIONS TO COVER THE ENTIRE AREA OF THE REINFORCED SOIL ZONE, INCLUDING THE AREA COMPACTED BY THE HAND-OPERATED COMPACTION EQUIPMENT IF OPEN GRADE SOIL (SUCH AS VOOT NO. 57 STONE) IS USED AS MATERIAL IN REINFORCED ZONE. STONE SHALL BE COMPACTED BY MINIMUM FOUR PASSES WITH VIBRATORY COMPACTION EQUIPMENT.

3.11 ADJUSTING AND CLEANING

A. REPLACE DAMAGED UNITS WITH NEW UNITS AS THE WORK PROGRESSES

B. REMOVE DEBRIS GENERATED BY WALL CONTRACTOR AND LEAVE ADJACENT PAVED AREAS (AS APPLICABLE) BROOM CLEAN.

3.12 MEASUREMENT, PAYMENT AND CERTIFICATION

A. MEASUREMENT OF SEGMENTAL RETAINING WALL SHALL BE ON AN INSTALLED SQUARE FOOT BASIS COMPUTED ON THE TOTAL FACE AREA OF WALL INSTALLED. WALL FACE AREA INCLUDES THE BOTTOM OF THE BASE COURSE TO THE TOP OF THE WALL, AND THE ENTIRE LENGTH OF THE WALL.

B. PAYMENT SHALL BE IN ACCORDANCE WITH WALL INSTALLER'S CONTRACT.

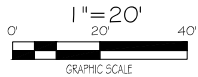
C. WALL CONTRACTOR SHALL PROVIDE CERTIFICATE LETTER WITHIN ONE WEEK OF WALL COMPLETION STATING THAT THE WALL WAS CONSTRUCTED IN ACCORDANCE WITH THE APPROVED PLANS AND SPECIFICATIONS, WARRANTY FOR THE WALL SHALL BE AS AGREED UPON WITH THE OWNER AND STATED IN THE WALL BUILDERS' CONTRACT.

END OF SPECIFICATIONS

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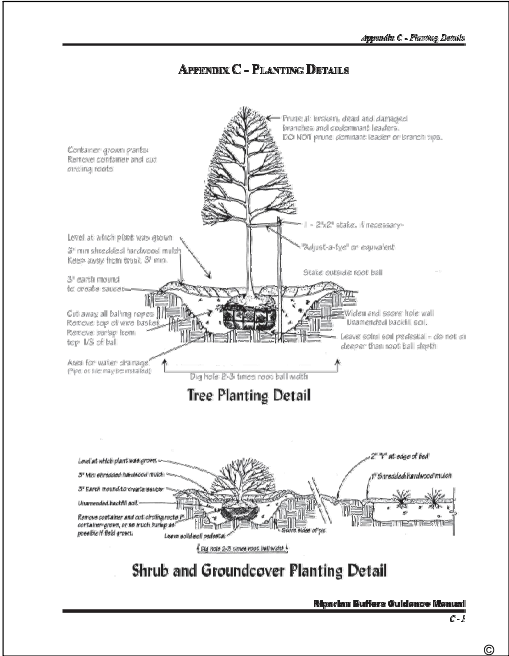
RESTORATION & LANDSCAPE PLAN



- LEGEND:
- DECIDUOUS CANOPY TREE
 - UNDERSTORY TREE / SHRUB
 - SHRUB / WOODY GROUNDCOVER

LYNCH SHORELINE RPA TREE REMOVAL AND REPLACEMENT REQUIREMENTS		
RPA AREA DISTURBED (SF)	11740	
400 SF RPA UNITS	30	
CANOPY TREES (1 per unit)	UNDERSTORY TREES (2 per unit)	SHRUBS / WOODY GROUND COVER (3 per unit)
30	60	90

PLANT LIST			
#	COMMON NAME	BOTANICAL NAME	MIN SIZE
6	Red Maple	Acer rubrum	1.5" caliper
0	Silver Maple	Acer saccharum	1.5" caliper
0	Black Birch	Betula lenta	1.5" caliper
6	River Birch	Betula nigra	1.5" caliper
6	Persimmon	Diospyros virginiana	1.5" caliper
2	Sycamore	Plantanus occidentalis	1.5" caliper
4	Pin Oak	Quercus palustris	1.5" caliper
0	Willow Oak	Quercus phellos	1.5" caliper
0	American Beech	Fagus grandifolia	1.5" caliper
0	Black Cherry	Prunus serotina	1.5" caliper
6	Eastern red cedar	Illex opaca	1.5" caliper
0	Eastern white pine	Pinus taeda	1.5" caliper
0	Virginia pine	Pinus virginiana	1.5" caliper
30			
UNDERSTORY TREES			
10	Smooth Alder	Alnus serrulata	1 gallon
10	Sp. cebrush	Lindera benzoin	1 gallon
0	Sassafras	Sassafras albidum	1 gallon
10	Service berry	Aamelanchier canadensis	1 gallon
10	Pawpaw	Asimina triloba	1 gallon
0	American hornbeam	Carpinus caroliniana	1 gallon
10	Red bud	Cercis canadensis	1 gallon
10	Sweetbay Magnolia	Magnolia virginiana	1 gallon
0	Eastern hophornbeam	Ostrya virginiana	1 gallon
0	Sparkleberry	Vaccinium arboreum	1 gallon
0	Nannyberry	Viburnum lentago	1 gallon
60			
SHRUBS / WOODY GROUND COVER			
0	Strawberry bush		1 gallon
12	Alder	Alnus serrulata	1 gallon
12	American Beauty	Celastrus americanus	1 gallon
12	Buttonbush	Cephalanthus occidentalis	1 gallon
12	Wild Hydrangea	Hydrangea arborescens	1 gallon
0	Summer Wax Myrtle	Myrica cerifera	1 gallon
0	Winterberry holly	Illex verticillata	1 gallon
0	Smooth sumac	Rhus glabra	1 gallon
0	Arrowwood viburnum	Viburnum dentatum	1 gallon
0	Sand blackberry	Rubus cuneifolius	1 gallon
12	Tea berry	Illex glabra	1 gallon
0	Sp. cebrush	Lindera benzoin	1 gallon
18	Common Juniper	Juniperus communis	5" plants
0	Bayberry	Myrica pennsylvanica	1 gallon
12	Little bluestem	Schizanthium scariosum	41 container
90			
NOTES:			
1. Existing small trees may be removed, nursed and replanted at owners discretion and based on survivability as determined by a qualified arborist.			
2. Listed plant types may be substituted with similar plant types identified above, or listed in the Virginia RPA Handbook list of native species. Any species shall not exceed 20% of the total plant mix.			
3. Planting shall be installed in September through December.			



REVISIONS

Date	Description	Approved

J Beck & Associates
Engineering and Consulting

99 Woodrow Drive
Stafford, VA 22554
(703) 801-8739
jim.beck@jbeckassociates.com

TITLE:

LANDSCAPE PLAN

PROJECT:

LYNCH SHORELINE
1 GEORGE STREET
STAFFORD, VIRGINIA 22554
TAX MAP 40-59
GRUPPIS-WIDEWATER ELECTION DISTRICT STAFFORD COUNTY, VIRGINIA

DESIGN BY:

JPB

DRAWN BY:

JPB

CHECK:

JPB

DATE:

4/15/2024

FILE:

J10174

SCALE:

AS SHOWN

SHEET

4 of 5



EROSION AND SEDIMENT CONTROL NARRATIVE:

Project Description
This project is to provide stabilization to roughly 300 linear feet of Aquia Creek shoreline by constructing a tiered retaining wall system, repairing an existing timber bulkhead, and cutting back existing vertical cliff areas to a stabilized slope. The total disturbed area of the project is 0.27 acres, which is all within the RPA. The intent of the grading is to provide stable slopes and balance any earthwork in the areas to the extent possible within the designated limits of disturbance.

Existing Conditions
The existing site consists of a failed slope along the water edge ranging in elevation from 5' to 26'. The site landward of the top of slope line has mild topography and is turf. There is an existing single family residence with several out buildings on the property.

Soils
Soils at the face of slope consist of sedimentary layers of sandy loam, and clay.

Adjacent Areas
The properties above stream and down stream are currently single family residential lots.

Off-site Areas
The properties to surrounding the project site are single family residential lots.

Stockpile Locations
Soil stockpiles or borrow areas are not anticipated. In the event that they are required, they shall be stabilized or protected with sediment trapping measures.

Vehicular Sediment Tracking
Contractor shall utilize construction entrance on site to minimize the transport of sediment off-site. Any sediment deposited on public or private roads shall be removed by shoveling or sweeping and shall be transported to an appropriate disposal area.

Erosion and Sediment Control Measures
All vegetative and structural erosion control practices shall be constructed and maintained in accordance with the Virginia Erosion and Sediment Control Handbook, latest edition, unless specifically indicated otherwise. No disturbed area shall be denuded for more than (7) days, except for those portions of the site that are continuously worked beyond fourteen (14) days.

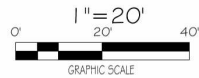
Sequence of Construction:

1. Install Construction Entrance and Safety Fence around drainfield area.
2. Stake limits of limits of clearing and grading.
3. Install shoreline toe protection and perform bulkhead work. No land disturbance is proposed with this phase of work.
4. Contact Stafford County to schedule a pre-construction meeting with the inspector at least two days prior to commencement of work.
5. Install silt fence along base of proposed work area. Contact inspector for approval of silt fence.
6. Perform cut and fill operations for construction of the lower wall, lay back 2:1 slope area and build up grade for up-slope walls.
7. Proceed to lay back upstream slope. Perform rough and fine grading and install temporary (VESCH STD & SPEC 3.31) or permanent (VESCH STD & SPEC 3.32) vegetative stabilization as schedule allows. Install erosion control matting as indicated (VESCH STD & SPEC 3.36).
8. Upon completion of work and stabilization of all denuded areas, obtain approval from County inspector to remove silt fence.

Maintenance Program

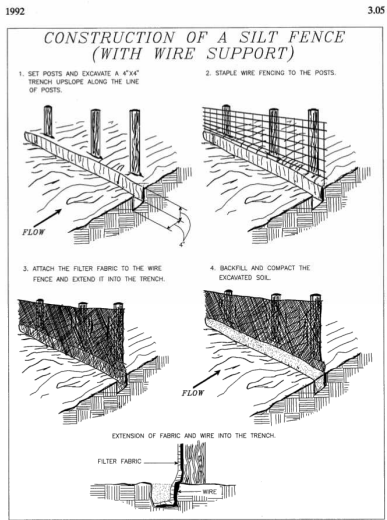
1. Perform daily site inspections. Repair or replace any damaged sediment control measure by the close of day.
2. Silt fence barrier shall be checked regularly for undermining or deterioration of the fabric. Sediment shall be removed and spread on site when the level of sediment reaches half way to the top of the barrier.
3. Seeded areas shall be checked regularly to ensure a good stand is maintained. Area shall be fertilized limed and re-seeded as necessary to encourage a good stand.

EROSION AND SEDIMENT CONTROL PLAN

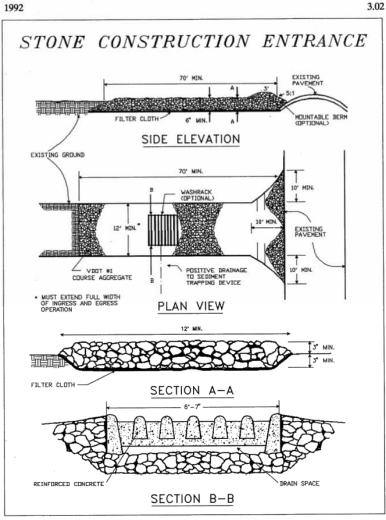


EROSION & SEDIMENT CONTROL LEGEND:

- CE TEMPORARY CONSTRUCTION ENTRANCE
STD. # SPEC. 3.02
- PS PERMANENT SEEDING
STD. # SPEC. 3.32
- SF SILT FENCE STD. # SPEC 3.05
- SSF SUPER SILT FENCE (WIRE SUPPORTED) STD. # SPEC 3.05
- SAF 36" TALL PLASTIC SAFETY FENCE
- IP INLET/OUTLET PROTECTION
STD. # SPEC. 3.18
- OP
- LOC LIMITS OF CLEARING & GRADING



Source: Adapted from Installation of Straw and Fabric Filter Barriers for Sediment Control, Sherwood and Wyant



Source: Adapted from 1983 Maryland Standards for Soil Erosion and Sediment Control, and Va. DSWC

TABLE 3.32-D SITE SPECIFIC SEEDING MIXTURES FOR COASTAL PLAIN AREA	
	Total lbs. Per Acre
Minimum Care Lawn	
• Commercial or Residential	
• Kentucky 31 or Turf-Type Tall Fescue	175-200 lbs.
or	
• Common Bermudagrass **	75 lbs.
High-Maintenance Lawn	
• Kentucky 31 or Turf-Type Tall Fescue	200-250 lbs.
or	
• Hybrid Bermudagrass (seed) **	40 lbs. (unhulled)
or	
• Hybrid Bermudagrass (by other vegetative establishment method, see Std. & Spec. 3.34)	30 lbs. (hulled)
General Slope (3:1 or less)	
• Kentucky 31 Fescue	128 lbs.
• Red Top Grass	2 lbs.
• Seasonal Nurse Crop *	20 lbs.
• Common Bermudagrass **	150 lbs.
Low Maintenance Slope (Steeper than 3:1)	
• Kentucky 31 Tall Fescue	93-108 lbs.
• Common Bermudagrass **	0-15 lbs.
• Red Top Grass	2 lbs.
• Seasonal Nurse Crop *	20 lbs.
• Sericea Lespedeza **	150 lbs.

* Use seasonal nurse crop in accordance with seeding dates as stated below:
February, March through April Annual Rye
May 1st through August Foxtail Millet
September, October through November 15th Annual Rye
November 16th through January Winter Rye

** May through October, use hulled seed. All other seeding periods, use unhulled seed. Weeping Lovegrass may be added to any slope or low-maintenance mix during warmer seeding periods; add 10-20 lbs./acre in mixes.

REVISIONS

Date	Description	Approved

J Beck & Associates
Engineering and Consulting

99 Woodrow Drive
Stafford, VA 22554
(703) 801-8739
jim.beck@beckassociates.com

TITLE:
EROSION AND
SEDIMENT CONTROL
PLAN

PROJECT:
LYNCH SHORELINE
1 GEORGE STREET
STAFFORD, VIRGINIA 22554
TAX MAP 40-59

DESIGN BY: JPB

DRAWN BY: JPB

CHECK: JPB

DATE: 4/15/2024

FILE: J10174

SCALE: AS SHOWN

SHEET

5 of 5

VMRC PERMIT 20241042

REVISION 214441

From: jim.beck@jbeckassociates.com
To: [Joseph P. Fiorello](#); [Howell, Beth \(MRC\)](#)
Cc: [Payne, Khadijah \(MRC\)](#)
Subject: RE: Lynch Revetment
Date: Thursday, August 29, 2024 8:26:27 AM
Attachments: [image001.png](#)
[image002.png](#)
[image003.png](#)
[image004.png](#)
[image005.png](#)
[RE JPA2024-1042 Lynch Shoreline.msg](#)

Hi Beth –

Attached is the e-mail with the revision I sent. I should have copied you as well.

Jim

James P. Beck, PE

(703) 801-8739 jim.beck@jbeckassociates.com



www.jbeckassociates.com

From: Joseph P. Fiorello <JFiorello@staffordcountyva.gov>
Sent: Thursday, August 29, 2024 8:23 AM
To: Howell, Beth (MRC) <beth.howell@mrc.virginia.gov>
Cc: jim.beck@jbeckassociates.com <jim.beck@jbeckassociates.com>
Subject: RE: Lynch Revetment

Good Morning Beth,

I believe Mr. Beck had sent it to Khadijah. The revision entails changing the proposed living shore line to a rip rap revetment. I have cc'd Mr. Beck here and he can send it along officially.

Thank you,

Joe

From: Howell, Beth (MRC) <beth.howell@mrc.virginia.gov>
Sent: Wednesday, August 28, 2024 5:45 PM
To: Joseph P. Fiorello <JFiorello@staffordcountyva.gov>
Subject: RE: Lynch Revetment

Joe ~ I don't see any revisions received for this JPA.

From: Joseph P. Fiorello <JFiorello@staffordcountyva.gov>
Sent: Wednesday, August 28, 2024 4:08 PM
To: Howell, Beth (MRC) <beth.howell@mrc.virginia.gov>
Subject: FW: Lynch Revetment

Hello Beth,

Could you please tell me the revision number for The Lynch JPA; 20241042? I have not received notice of the revision. It is the revision from living shoreline to revetment.

Thank you,
Joe

Joseph Fiorello, PWS, CPWD, VSWD, CA
Environmental Planner

Development Services
Office: 540.658.8689 | Mobile: 540.654.6852
Email: jfiorello@staffordcountyva.gov
www.staffordcountyva.gov



STAFFORD
Virginia

Part 1 - General Information (continued)

1. Applicant's legal name* and complete mailing address: Contact Information:

David Lynch
7308 Mallory Circle
Alexandria, VA 22315

Home (703) 304-7552
Work ()
Fax ()
Cell ()
e-mail david.lynch@cpeworldwide.com

State Corporation Commission Name and ID Number (if applicable) _____

2. Property owner(s) legal name* and complete address, if different from applicant: Contact Information:

Home ()
Work ()
Fax ()
Cell ()
e-mail _____

State Corporation Commission Name and ID Number (if applicable) _____

3. Authorized agent name* and complete mailing address (if applicable):

Jim Beck, J Beck & Assoc.
99 Woodrow Drive
Stafford, VA 22554

Contact Information:
Home ()
Work (703) 801-8739
Fax ()
Cell ()
e-mail jim.beck@jbeckassociates.com

State Corporation Commission Name and ID Number (if applicable) S480797-2

*** If multiple applicants, property owners, and/or agents, each must be listed and each must sign the applicant signature page.**

4. Provide a detailed description of the project in the space below, including the type of project, its dimensions, materials, and method of construction. Be sure to include how the construction site will be accessed and whether tree clearing and/or grading will be required, including the total acreage. If the project requires pilings, please be sure to include the total number, type (e.g. wood, steel, etc), diameter, and method of installation (e.g. hammer, vibratory, jetted, etc). If additional space is needed, provide a separate sheet of paper with the project description.

This project is for shoreline stabilization along the Aquia Creek waterfront of the applicants property. Stabilization measures will include:

1. Installation of 180 linear feet of rip-rap toe protection consisting of class 1 rip-rap, 5' high, placed at a 1.5:1 slope;
2. Repairing 139 linear feet of failing timber bulkhead with vinyl sheet pile placed less than two feet seaward of the existing timber bulkhead.

~~3. Installation of 990 SF Type II living shoreline consisting of class 1 / A1 rip-rap sill with course sand fill and a planted marsh. The living shoreline will be placed seaward of the rip-rap toe protection.~~

Part 3 – Appendices (continued)

Appendix B: Projects for Shoreline Stabilization in tidal wetlands, tidal waters and dunes/beaches including riprap revetments and associated backfill, marsh toe stabilization, bulkheads and associated backfill, breakwaters, beach nourishment, groins, jetties, and living shoreline projects. Answer all questions that apply. Please provide any reports provided from the Shoreline Erosion Advisory Service or VIMS.

NOTE: It is the policy of the Commonwealth that living shorelines are the preferred alternative for stabilizing tidal shorelines (Va. Code § 28.2-104.1). **Information on non-structural, vegetative alternatives (i.e., Living Shoreline) for shoreline stabilization is available at http://ccrm.vims.edu/coastal_zone/living_shorelines/index.html.**

1. Describe each **revetment, bulkhead, marsh toe, breakwater, groin, jetty, other structure, or living shoreline project** separately in the space below. Include the overall length in linear feet, the amount of impacts in acres, and volume of associated backfill below mean high water and/or ordinary high water in cubic yards, as applicable:

This project is for shoreline stabilization along the Aquia Creek waterfront of the applicants property. Stabilization measures will include:

1. Installation of 180 linear feet of rip-rap toe protection consisting of class 1 rip-rap, 5' high, placed at a 1.5:1 slope;
2. Repairing 139 linear feet of failing timber bulkhead with vinyl sheet pile placed less than two feet seaward of the existing timber bulkhead.

~~3. Installation of 990 SF Type II living shoreline consisting of class 1 and A1 rip-rap sill with course sand fill and a planted marsh. The living shoreline will be placed seaward of the rip-rap toe protection.~~

2. What is the maximum encroachment channelward of mean high water? ⁵ _____ feet.
Channelward of mean low water? ² _____ feet.
Channelward of the back edge of the dune or beach? _____ feet.

3. Please calculate the square footage of encroachment over:

- Vegetated wetlands 0 square feet
- Non-vegetated wetlands 800 square feet
- Subaqueous bottom _____ square feet
- Dune and/or beach _____ square feet

Intertidal zone impacted by rip-rap toe protection

4. For bulkheads, is any part of the project maintenance or replacement of a previously authorized, currently serviceable, existing structure? ☒ Yes _____ No.

If yes, will the construction of the new bulkhead be no further than two (2) feet channelward of the existing bulkhead? ☒ Yes _____ No.

If no, please provide an explanation for the purpose and need for the additional encroachment.

Part 3 – Appendices (continued)

5. Describe the type of construction and **all** materials to be used, including source of backfill material, if applicable (e.g., vinyl sheet-pile bulkhead, timber stringers and butt piles, 100% sand backfill from upland source; broken concrete core material with Class II quarry stone armor over filter cloth).

NOTE: Drawings must include construction details, including dimensions, design and all materials, including fittings if used.

The bulkhead repair will consist of vinyl sheet pile placed immediately seaward of the failing timber bulkhead. The bulkhead will have a 3" timber waler along the top and capping timbers.

The rip-rap toe protection will consist of Class 1 rip-rap over filter cloth.

All material will be sourced off site and trucked or barged to the site.

6. If using stone, broken concrete, etc. for your structure(s), what is the average weight of the:

Core (inner layer) material 25-75 pounds per stone Class size A1

Armor (outer layer) material 50-150 pounds per stone Class size A1 & 1

7. For **beach nourishment**, including that associated with breakwaters, groins or other structures, provide the following:

- | | | | |
|----------------------|------------|--|-------------|
| • Volume of material | <u>0</u> | cubic yards channelward of mean low water | Sill Volume |
| | <u>100</u> | cubic yards landward of mean low water | Toe Volume |
| | <u>50</u> | cubic yards channelward of mean high water | Toe Volume |
| | <u>50</u> | cubic yards landward of mean high water | Toe Volume |
| • Area to be covered | <u>0</u> | square feet channelward of mean low water | Sill Area |
| | <u>800</u> | square feet landward of mean low water | Toe Area |
| | <u>800</u> | square feet channelward of mean high water | Toe Area |
| | <u>550</u> | square feet landward of mean high water | Toe Area |

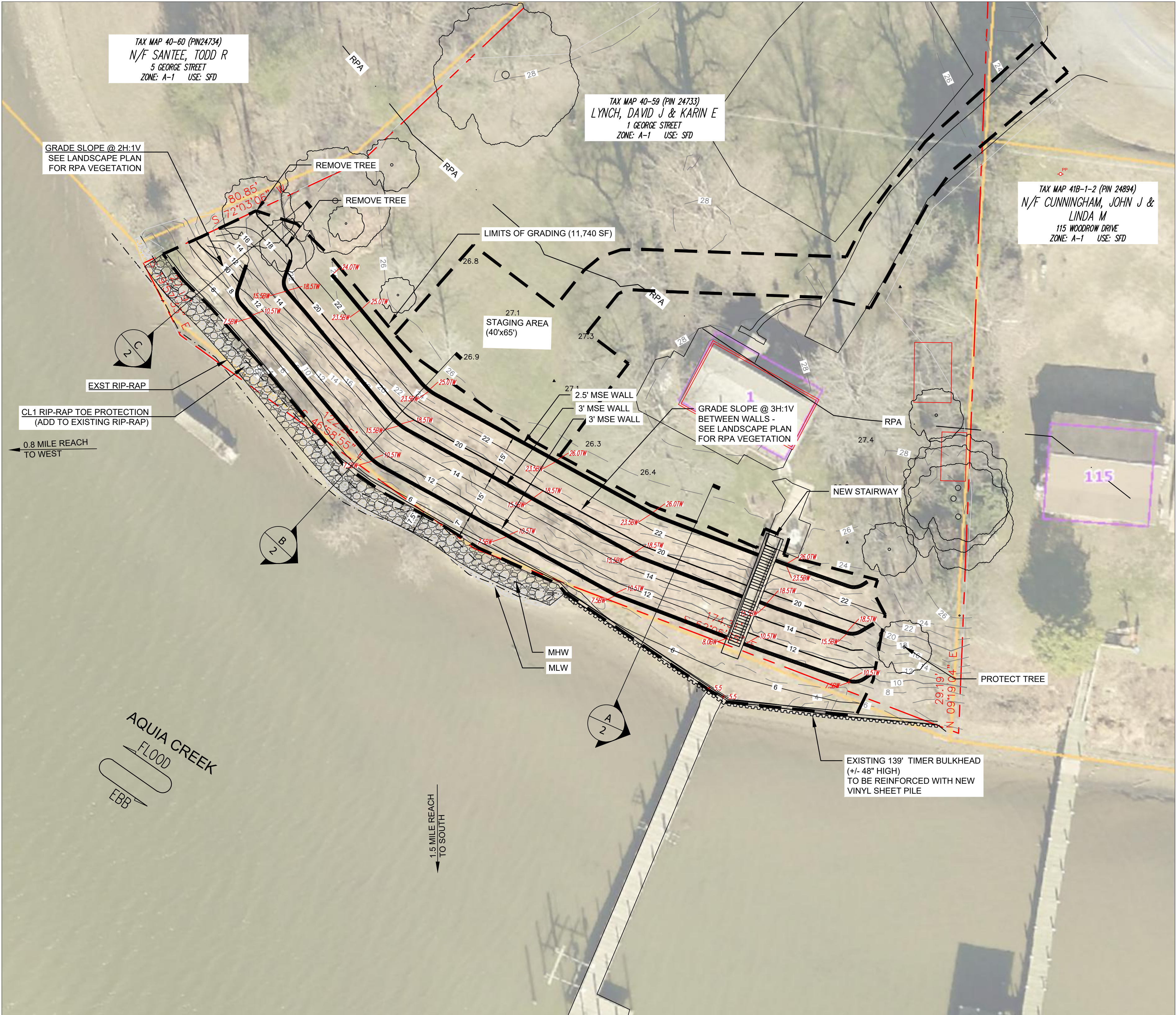
- Source of material, composition (e.g. 90% sand, 10% clay): 90% coarse sand w/ 10% organics

- Method of transportation and placement:

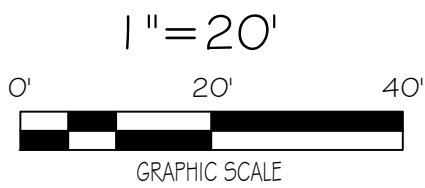
By truck to site and then by barge for placement.

- Describe any proposed vegetative stabilization measures to be used, including planting schedule, spacing, monitoring, etc. Additional guidance is available at

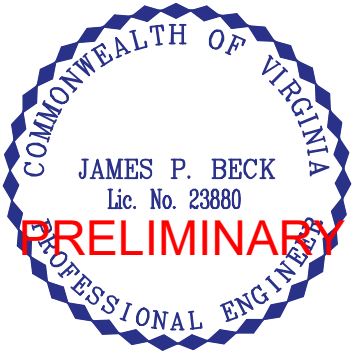
<http://www.vims.edu/about/search/index.php?q=planting+guidelines>:



SITE PLAN



- INDEX OF DRAWINGS:
- 1 of 5 SITE PLAN, GENERAL NOTES
 - 2 of 5 SHORELINE SECTIONS AND DETAILS
 - 3 of 5 WALL SECTIONS AND SPECIFICATIONS
 - 4 of 5 LANDSCAPE PLAN
 - 5 of 5 EROSION AND SEDIMENT CONTROL PLAN



OWNER / APPLICANT:
David and Karin Lynch
7308 Mallory Circle
Alexandria, VA 22315
703-304-7552
David.Lynch@cpeworldwide.com

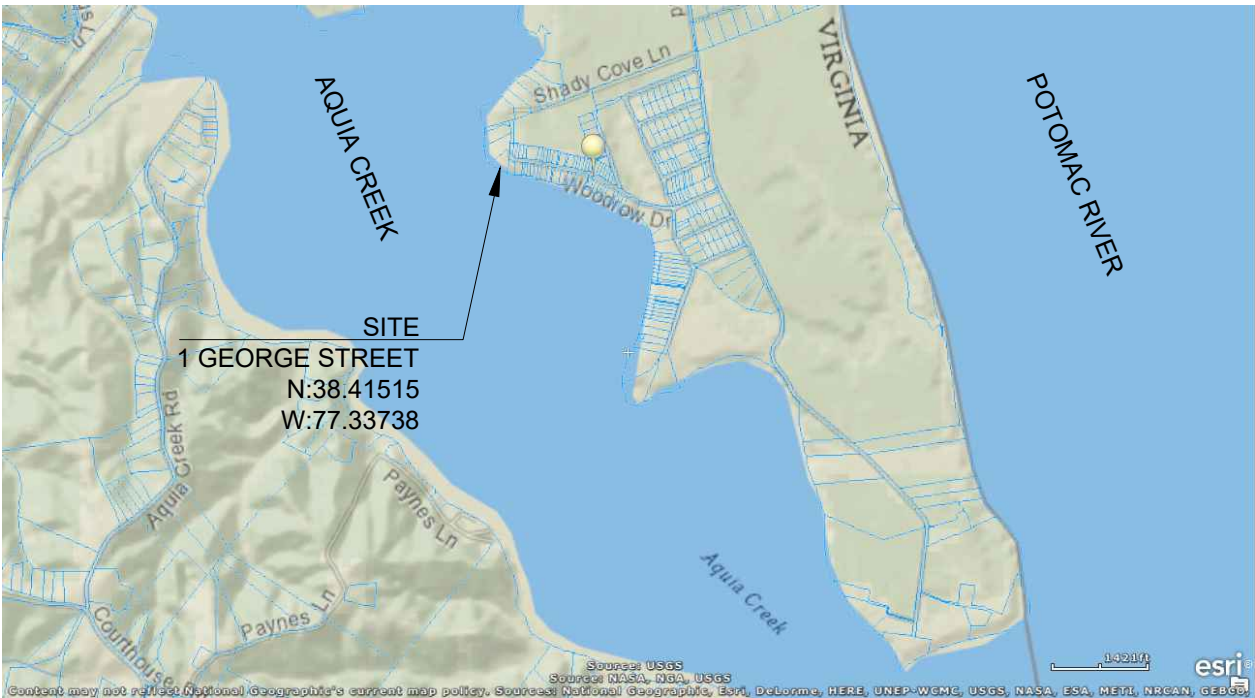
- GENERAL NOTES:
- Project is located at 1 George Street, Stafford VA, Tax Map #40-59.
 - Property boundary information taken from drawing showing metes and bounds prepared by BFG Engineering. Topography based on a field run survey prepared by J Beck & Assoc. on Feb 5, 2022. Datum: NAVD88, NAD83. Datum Conversion based on Dahlgren Tide Station 8635027:
 - 2.1. MLW NOAA to NAVD88 = 0.15' + 1.04 = 1.19'
 - 2.2. MHW NOAA to NAVD88 = 1.74 + 1.04 = 2.78'
 - No title report furnished. Easement and / or encumbrances of record may not be shown.
 - This project is for the reinforcement / replacement of an existing timber bulkhead, slope stabilization and a living shoreline.
 - Designed using Stafford County Guide for Residential Flood Resistant Construction. FEMA 100 year still water flood elevation = 6.3' NAVD88; significant wave height = 2.0' NAVD88 per transect 11, FIS # 510154 V000B.

- BULKHEAD CONSTRUCTION NOTES:
- Access project work area from landside.
 - Stabilize disturbed area with seed and mulch.
 - All lumber to be #1 grade or better CCY treated SYP ground contact rated.
 - All hardware and fasteners to be Grade 2 zinc plated or Grade A307 hot dipped galvanized.

- BENCH MARKS TO EXST BULKHEAD FACE:
- Access project work area from landside.
 - Stabilize disturbed area with seed and mulch.
 - All lumber to be #1 grade or better CCY treated SYP ground contact rated.
 - All hardware and fasteners to be Grade 2 zinc plated or Grade A307 hot dipped galvanized.

PROJECT TABULATION:

Proposed bulkehad repair length	139 LF
Channelward encroachment of bulkhead	1 FT MAX
Rip-Rap Toe Protection	180 LF
Vegetated wetland encroachment	0 SF
Intertidal zone encroachment	800 SF (Toe Protection)
Subaqueous bottom encroachment	139 SF (Bulkhead)



VICINITY MAP © 2024, J Beck & Associates All rights reserved

REVISIONS		Approved
Date	Description	

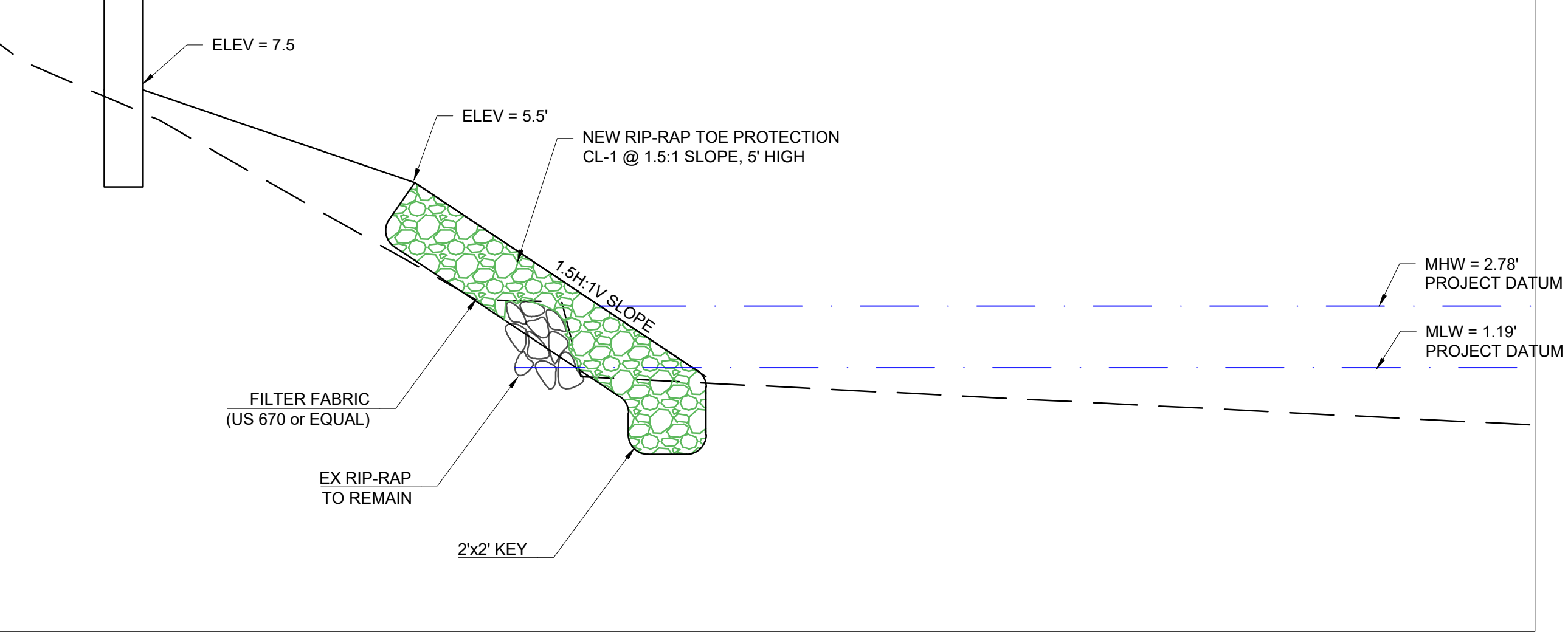
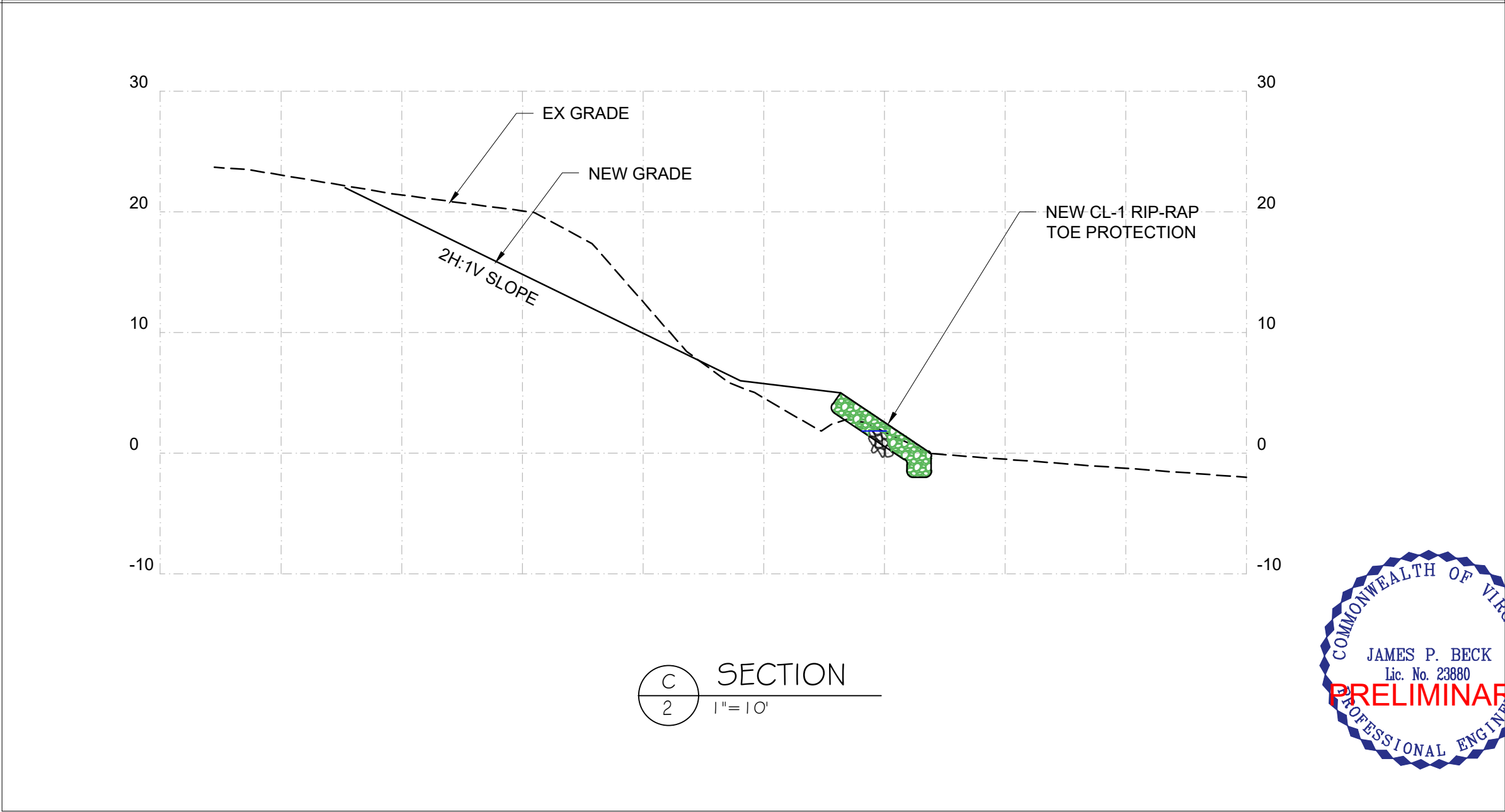
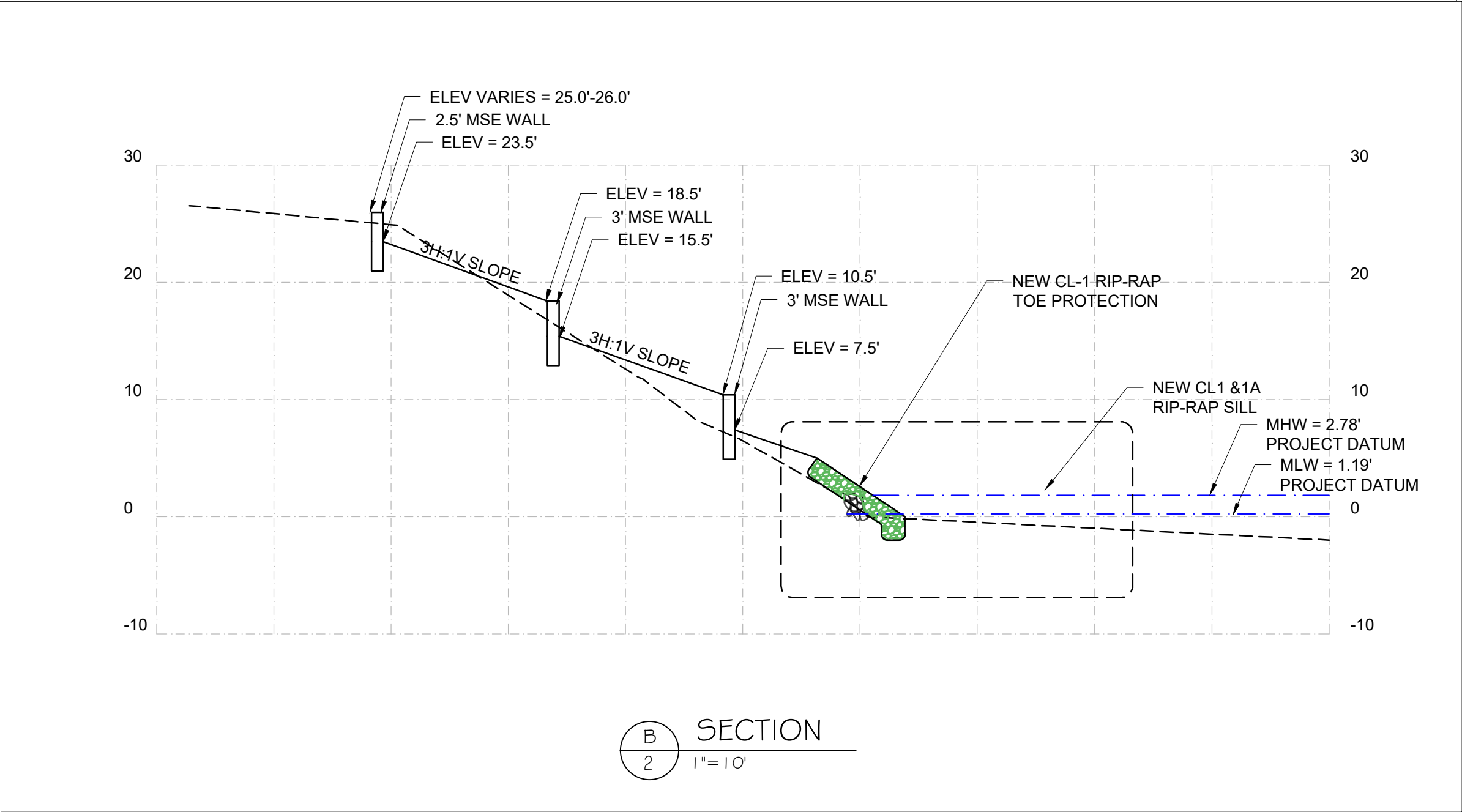
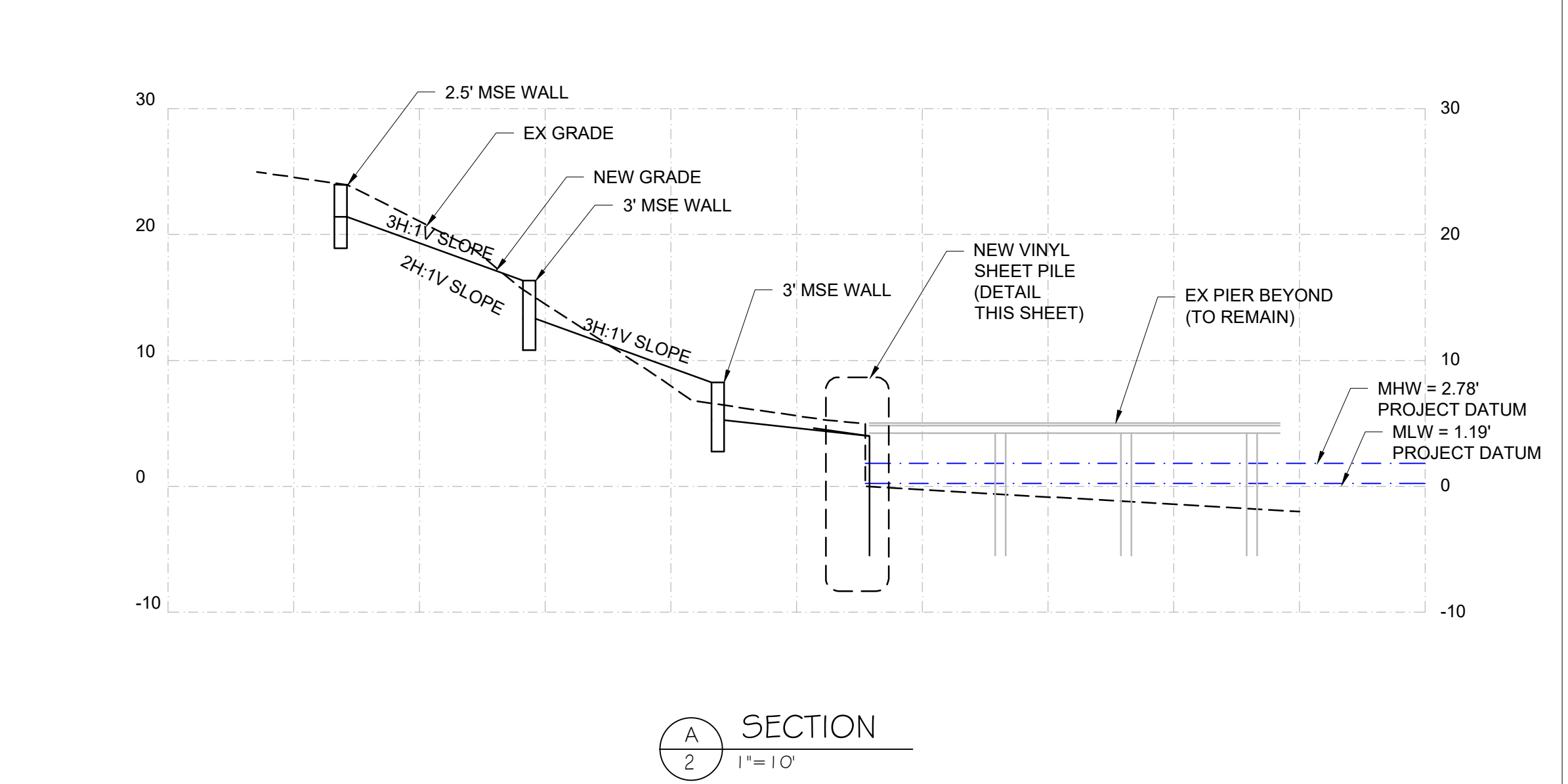
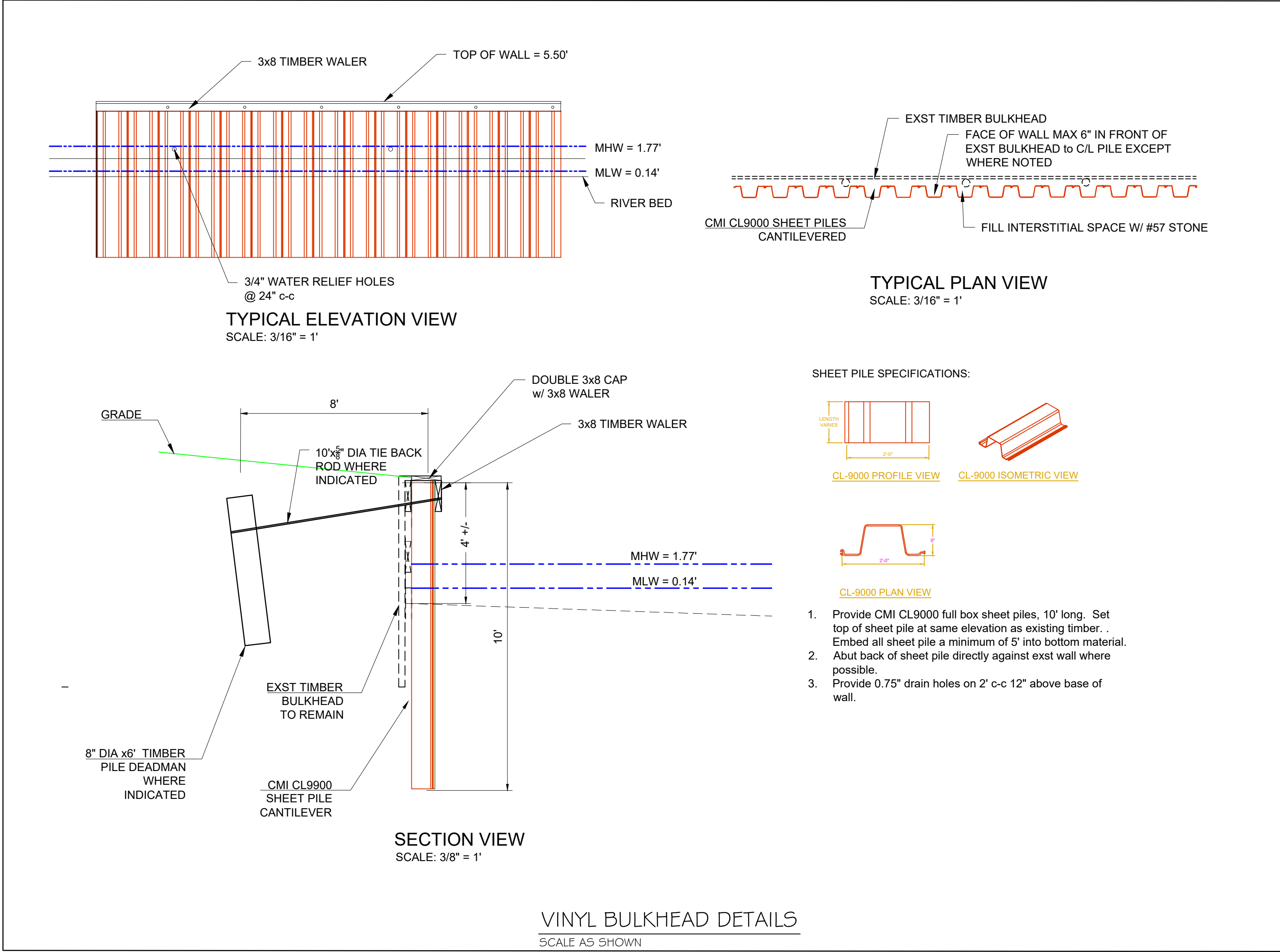
J Beck & Associates
Engineering and Consulting
99 Woodrow Drive
Stafford, VA 22554
(703) 801-8739
jim.beck@jbeckassociates.com

TITLE:
SITE PLAN &
GENERAL NOTES

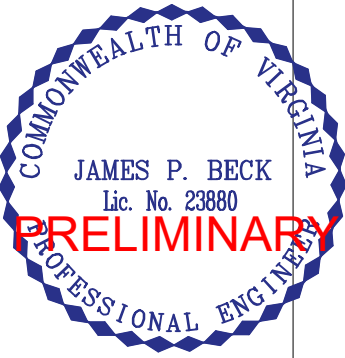
PROJECT:
LYNCH SHORELINE
1 GEORGE STREET
STAFFORD, VIRGINIA 22554
TAX MAP 40-59

GRIFFIS-WIDEWATER ELECTION DISTRICT STAFFORD COUNTY, VIRGINIA

DESIGN BY:	JPB
DRAWN BY:	JPB
CHECK:	JPB
DATE:	4/15/2024
FILE:	J10174
SCALE:	AS SHOWN
SHEET	
1 of 5	



TOE PROTECTION DETAILS
1" = 3'



REVISIONS	
Date	Description

J Beck & Associates
Engineering and Consulting

99 Woodrow Drive
Stafford, VA 22554
(703) 801-8739
jim.beck@jbeckassociates.com

TITLE:
SHORELINE SECTIONS AND DETAILS

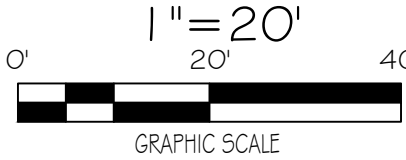
PROJECT:
LYNCH SHORELINE
1 GEORGE STREET
STAFFORD, VIRGINIA 22554
TAX MAP 40-59

GRIFFIS-WIDEWATER ELECTION DISTRICT STAFFORD COUNTY, VIRGINIA

DESIGN BY:	JPB
DRAWN BY:	JPB
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DATE:	4/15/2024
FILE:	J10174
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SHEET	
2 of 5	

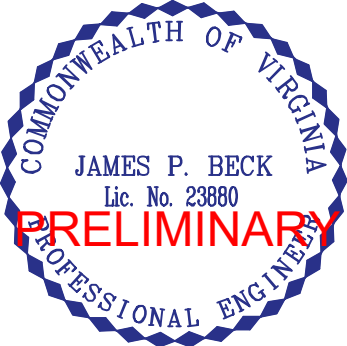


RESTORATION & LANDSCAPE PLAN



LEGEND:

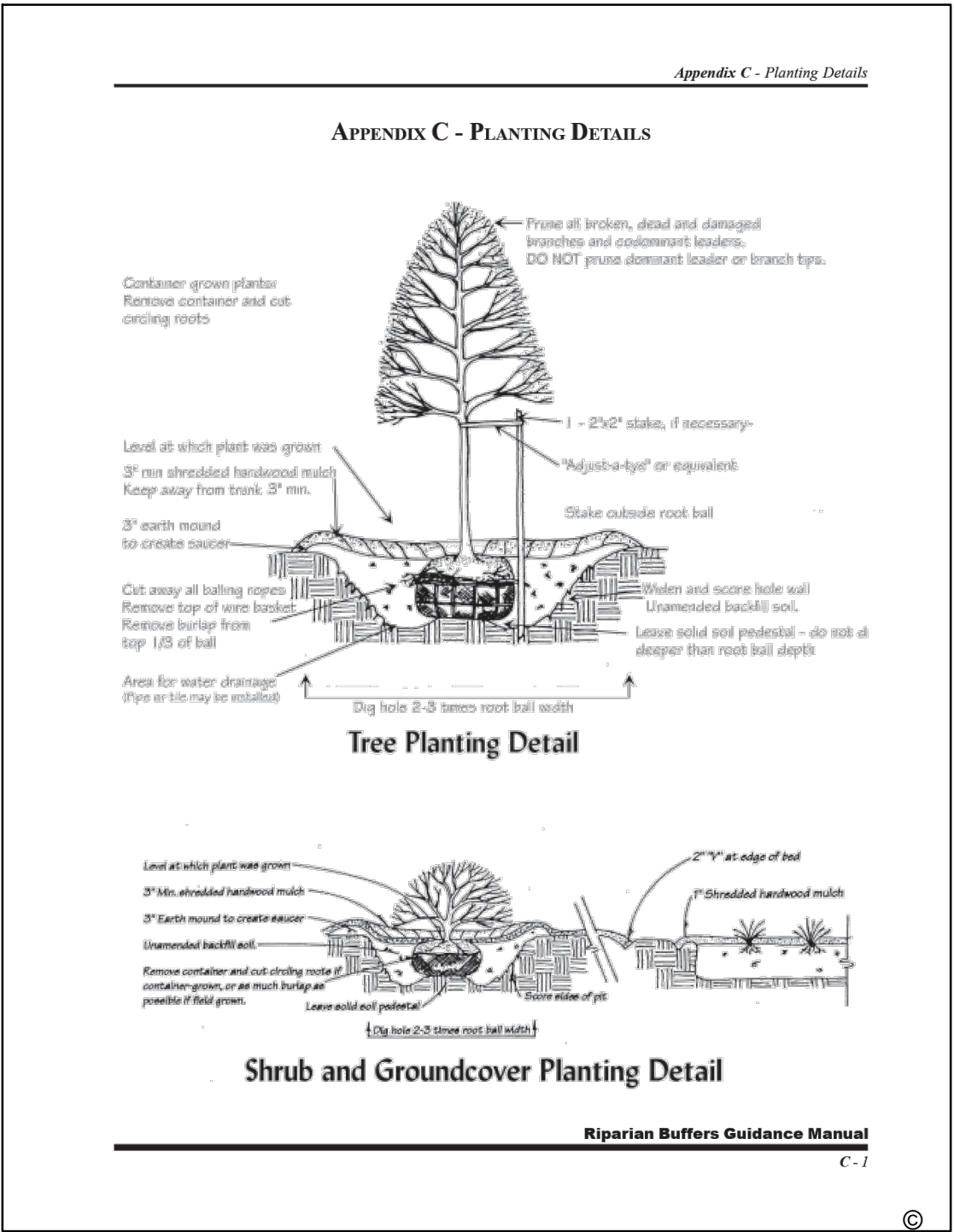
- DECIDUOUS CANOPY TREE
- UNDERSTORY TREE / SHRUB
- SHRUB / WOODY GROUNDCOVER



LYNCH SHORELINE RPA TREE REMOVAL AND REPLACEMENT REQUIREMENTS		
RPA AREA DISTURBED (SF)	11740	
400 SF RPA UNITS	30	
CANOPY TREES (1 per unit)	UNDERSTORY TREES (2 per unit)	SHRUBS / WOODY GROUNDCOVER (3 per unit)
30	60	90

PLANT LIST			
#	COMMON NAME	BOTANICAL NAME	MIN SIZE
6	Red Maple	Acer rubrum	1.5" caliper
0	Silver Maple	Acer saccharum	1.5" caliper
0	Black Birch	Betula lenta	1.5" caliper
6	River Birch	Betula nigra	1.5" caliper
6	Persimmon	Diospyros virginiana	1.5" caliper
2	Sycamore	Plantanus occidentalis	1.5" caliper
4	Pin Oak	Quercus palustris	1.5" caliper
0	Willow Oak	Quercus phellos	1.5" caliper
0	American Beech	Fagus grandifolia	1.5" caliper
0	Black Cherry	Prunus serotin	1.5" caliper
6	Eastern red cedar	Ilex opaca	1.5" caliper
0	Eastern white pine	Pinus taeda	1.5" caliper
0	Virginia pine	Pinus virginiana	1.5" caliper
30			
UNDERSTORY TREES			
10	Smooth Alder	Alnus serrulata	1 gallon
10	Spicebush	Lindera benzoin	1 gallon
0	Sassafras	Sassafras albidum	1 gallon
10	Serviceberry	Amelanchier canadensis	1 gallon
10	Pawpaw	Asimina triloba	1 gallon
0	American hornbeam	Carpinus caroliniana	1 gallon
10	Redbud	Cercis canadensis	1 gallon
10	Sweetbay Magnolia	Magnolia virginiana	1 gallon
0	Eastern hophornbeam	Ostrya virginiana	1 gallon
0	Sparkleberry	Vaccinium arboreum	1 gallon
0	Nannyberry	Viburnum lentago	1 gallon
60			
SHRUBS / WOODY GROUNDCOVER			
0	Strawberry bush	Alnus serulata	1 gallon
12	Alder	Claicarpa americanan	1 gallon
12	American Beauty	Cephalanthus occidentalis	1 gallon
12	Buttonbush	Hydrangea arborescens	1 gallon
12	Wild hydrangia	Myrica cerifera	1 gallon
0	Souther Wax Myrtle	Ilex verticillata	1 gallon
0	Winterberry holly	Rhus glabra	1 gallon
0	Smooth sumac	Viburnum dentatum	1 gallon
0	Arrowwood viburnum	Rubus cuneifolius	1 gallon
0	Sand blackberry	Ilex glabra	1 gallon
12	Inkberry	Lindera benzoin	1 gallon
0	Spicebush	Juniperus communis	6" plants
18	Common Juniper	Myrica pennsylvanica	1 gallon
0	Bayberry	Schizachyrium scoparium	#1 container
12	Little bluestem		
90			

- NOTES:
- Existing small trees may be removed, nursured and replanted at owners discretion and based on survivability as determined by a qualified arborist.
 - Listed plant types may be substituted with similar plant types identified above, or listed in the Virginia RPA Handbook list of native species. Any species shall not exceed 20% of the total plant mix.
 - Planting shall be installed in September through December.



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REVISIONS		Approved
Date	Description	

J Beck & Associates
Engineering and Consulting

99 Woodrow Drive
Stafford, VA 22554
(703) 801-8739
jim.beck@jbeckassociates.com

TITLE:
LANDSCAPE PLAN

PROJECT:
LYNCH SHORELINE
1 GEORGE STREET
STAFFORD, VIRGINIA 22554
TAX MAP 40-59

DESIGN BY: JPB

DRAWN BY: JPB

CHECK: JPB

DATE: 4/15/2024

FILE: J10174

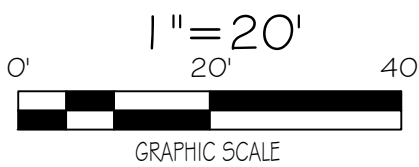
SCALE: AS SHOWN

SHEET

4 of 5



EROSION AND SEDIMENT CONTROL PLAN



EROSION & SEDIMENT CONTROL LEGEND:

- CE

TEMPORARY CONSTRUCTION ENTRANCE
STD. & SPEC. 3.02
- PS

PERMANENT SEEDING
STD. & SPEC. 3.32
- SF

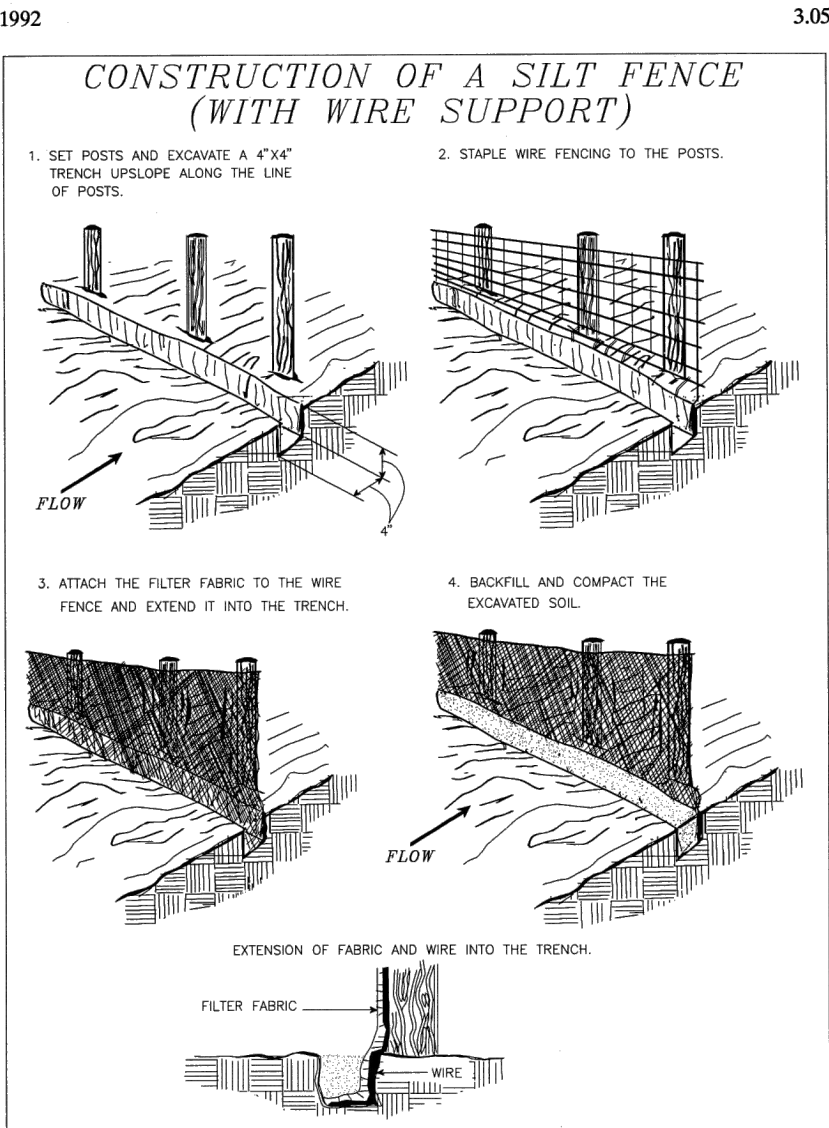
SILT FENCE STD. & SPEC 3.05
- SSF

SUPER SILT FENCE (WIRE SUPPORTED) STD. & SPEC 3.05
- SAF

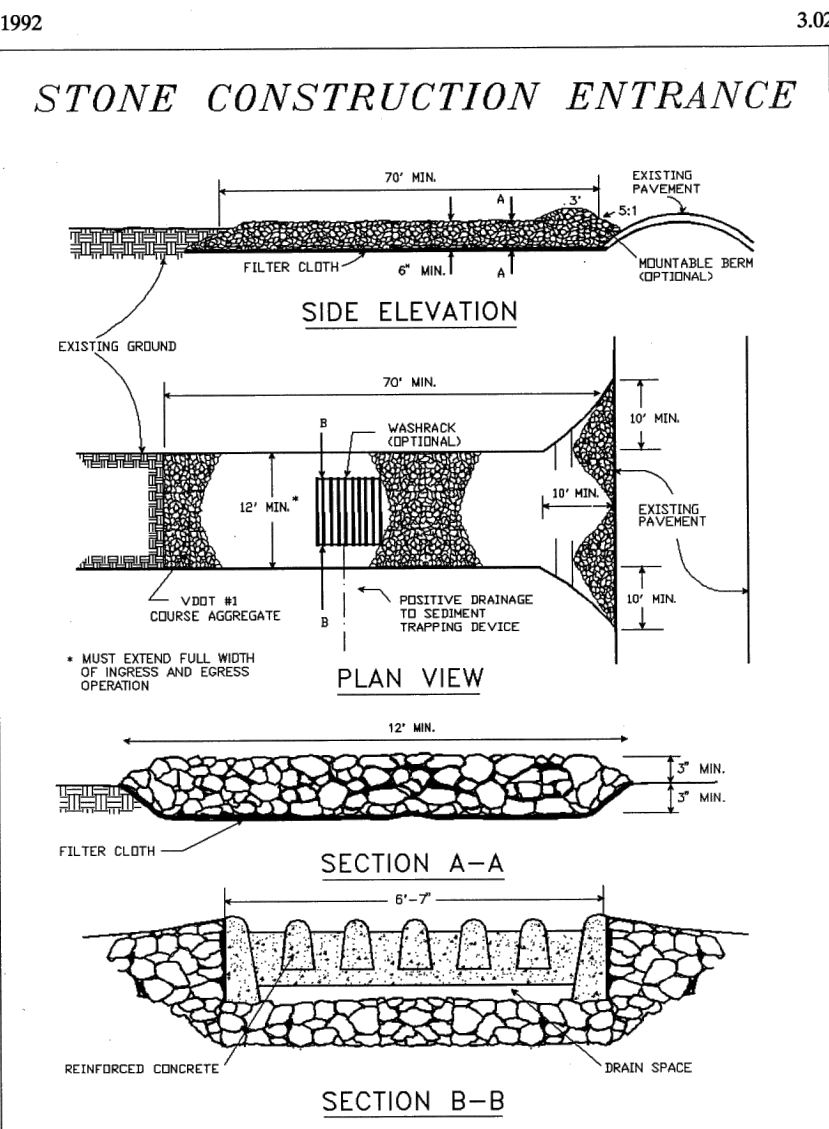
36" TALL PLASTIC SAFETY FENCE
- IP

INLET/OUTLET PROTECTION
STD. & SPEC. 3.18
- OP

LIMITS OF CLEARING & GRADING
- LOC



Source: Adapted from Installation of Straw and Fabric Filter Barriers for Sediment Control, Sherwood and Wyant Plate 3.05-1



Source: Adapted from 1983 Maryland Standards for Soil Erosion and Sediment Control, and Va. DSWC Plate 3.02-1

TABLE 3.32-D SITE SPECIFIC SEEDING MIXTURES FOR COASTAL PLAIN AREA	
	Total lbs. Per Acre.
Minimum Care Lawn	
- Commercial or Residential	175-200 lbs.
- Kentucky 31 or Turf-Type Tall Fescue	
- Common Bermudagrass **	75 lbs.
High-Maintenance Lawn	
- Kentucky 31 or Turf-Type Tall Fescue	200-250 lbs.
- Hybrid Bermudagrass (seed) **	40 lbs. (unhulled)
- Hybrid Bermudagrass (by other vegetative establishment method, see Std. & Spec. 3.34)	30 lbs. (hulled)
General Slope (3:1 or less)	
- Kentucky 31 Fescue	128 lbs.
- Red Top Grass	2 lbs.
- Seasonal Nurse Crop *	20 lbs.
Low Maintenance Slope (Steeper than 3:1)	
- Kentucky 31 Tall Fescue	93-108 lbs.
- Common Bermudagrass **	0-15 lbs.
- Red Top Grass	2 lbs.
- Seasonal Nurse Crop *	20 lbs.
- Sericea Lespedeza **	150 lbs.
* Use seasonal nurse crop in accordance with seeding dates as stated below: February, March through April Annual Rye May 1st through August Foxtail Millet September, October through November 15th Annual Rye November 16th through January Winter Rye	
** May through October, use hulled seed. All other seeding periods, use unhulled seed. Weeping Lovegrass may be added to any slope or low-maintenance mix during warmer seeding periods; add 10-20 lbs./acre in mixes.	

EROSION AND SEDIMENT CONTROL NARRATIVE:

Project Description
This project is to provide stabilization to roughly 300 linear feet of Aquia Creek shoreline by constructing a tiered retaining wall system, repairing an existing timber bulkhead, and cutting back existing vertical cliff areas to a stabilized slope. The total disturbed area of the project is 0.27 acres, which is all within the RPA. The intent of the grading is to provide stable slopes and balance any earthwork in the areas to the extent possible within the designated limits of disturbance.

Existing Conditions
The existing site consists of a failed slope along the water edge ranging in elevation from 5' to 26'. The site landward of the top of slope line has mild topography and is turf. There is an existing single family residence with several out buildings on the property.

Soils
Soils at the face of slope consist of sedimentary layers of sandy loam, and clay.

Adjacent Areas
The properties above stream and down stream are currently single family residential lots.

Off-site Areas
The properties to surrounding the project site are single family residential lots.

Stockpile Locations
Soil stockpiles or borrow areas are not anticipated. In the event that they are required, they shall be stabilized or protected with sediment trapping measures.

Vehicular Sediment Tracking
Contractor shall utilize construction entrance on site to minimize the transport of sediment off-site. Any sediment deposited on public or private roads shall be removed by shoveling or sweeping and shall be transported to an appropriate disposal area.

Erosion and Sediment Control Measures
All vegetative and structural erosion control practices shall be constructed and maintained in accordance with the Virginia Erosion and Sediment Control Handbook, latest edition, unless specifically indicated otherwise. No disturbed area shall be denuded for more than (7) days, except for those portions of the site that are continuously worked beyond fourteen (14) days.

- Sequence of Construction:**
1. Install Construction Entrance and Safety Fence around drainfield area.
 2. Stake limits of limits of clearing and grading.
 3. Install shoreline toe protection and perform bulkhead work. No land disturbance is proposed with this phase of work.
 4. Contact Stafford County to schedule a pre-construction meeting with the inspector at least two days prior to commencement of work
 5. Install silt fence along base of of proposed work area. Contact inspector for approval of silt fence.
 6. Perform cut and fill operations for construction of the lower wall, lay back 2:1 slope area and build up grade for up-slope walls.
 7. Proceed to lay back upstream slope. Perform rough and fine grading and install temporary (VESCH STD & SPEC 3.31) or permanent (VESCH STD & SPEC 3.32) vegetative stabilization as schedule allows. Install erosion control matting as indicated (VESCH STD & SPEC 3.36).
 8. Upon completion of work and stabilization of all denuded areas, obtain approval from County inspector to remove silt fence.

- Maintenance Program**
1. Perform daily site inspections. Repair or replace any damaged sediment control measure by the close of day.
 2. Silt fence barrier shall be checked regularly for undermining or deterioration of the fabric. Sediment shall be removed and spread on site when the level of sediment reaches half way to the top of the barrier.
 3. Seeded areas shall be checked regularly to ensure a good stand is maintained. Area shall be fertilized limed and re-seeded as necessary to encourage a good stand..



REVISIONS

Date	Description	Approved



99 Woodrow Drive
Stafford, VA 22554
(703) 801-8739
jim.beck@jbeckassociates.com

TITLE:

EROSION AND
SEDIMENT CONTROL
PLAN

PROJECT:

LYNCH SHORELINE
1 GEORGE STREET
STAFFORD, VIRGINIA 22554
TAX MAP 40-59

GRIFFIS-WIDEWATER ELECTION DISTRICT STAFFORD COUNTY, VIRGINIA

DESIGN BY: JPB

DRAWN BY: JPB

CHECK: JPB

DATE: 4/15/2024

FILE: J10174

SCALE: AS SHOWN

SHEET

5 of 5

ATTACHMENT 1
VIMS REPORT REGARDING
VMRC PERMIT 20241042

From: [Alexander B. Sabo](#)
To: [Payne, Khadijah \(MRC\)](#)
Cc: [Advisory; MRC - jpa Permits](#)
Subject: David Lynch 24-1042
Date: Monday, August 5, 2024 12:56:45 PM
Attachments: [24-1042 David Lynch.pdf](#)

Khadijah,

Attached are our comments for the Lynch project in Stafford County (VMRC #24-1042). Please let us know if you have any questions.

Sincerely,
Alex

Alex Sabo

Environmental Review and Advisory Specialist
Office of Research and Advisory Services
Virginia Institute of Marine Science
College of William & Mary
(804) 684-7826

5 August 2024

Ms. Khadijah Payne
Environmental Engineer
Virginia Marine Resources Commission
380 Fenwick Road, Bldg. 96
Fort Monroe, VA 23651

Dear Ms. Payne,

We have reviewed the application by Mr. David Lynch to redevelop his shoreline on Aquia Creek in Stafford County (VMRC #2024-1042). This shoreline currently consists of a failing bulkhead on the eastern side and a stone revetment on the western side. This property is located in a low-energy environment with a maximum fetch of less than two miles, and where the primary wave energy is from boat wakes.

The proposed shoreline work at this property includes replacing the timber bulkhead with a vinyl sheet pile bulkhead between two and six feet channelward of the existing structure, reinforcing the existing revetment with an additional rip rap toe, and constructing a marsh sill to be filled with sand and planted with marsh vegetation.

As observed during our site visit on July 30th, and documented in the VIMS SAV data, submerged aquatic vegetation (SAV) is present in this portion of Aquia Creek (Figure 1). Within the last five years of mapped data that define a bed (2019–2023), SAV has been present at this location at density class 4 (dense, 70–100% coverage) each year. SAV beds have been consistently present at this location since 2004, with beds documented as density class 4 for all years except for 2011 and 2015 which were density class 3 (moderate, 40–70% coverage). This suggests that this vegetation is both abundant and persistent, serving a critical ecological role for Aquia Creek and the Chesapeake Bay as a whole.

Constructing a new shoreline with the current proposed design will impact approximately 1,200 ft² of SAV (per the application). Although a living shoreline approach would create new marsh habitat, it would result in a loss of SAV. Within the Chesapeake Bay, SAV is less prevalent than vegetated tidal wetlands and therefore requires greater consideration for preservation. SAV is abundant and growing in dense, consistent beds in this area, providing a wide range of ecosystem services including improving water quality, reducing wave energy, and serving as protective nursery habitat for a variety of species. Although ecologically important, the creation of new living shoreline and wetland habitat does not compensate for the loss of submerged aquatic vegetation.

In order to avoid these impacts to SAV and the surrounding waterway, we recommend an alternative approach that does not utilize a marsh sill or bulkhead structures. Instead, a stone revetment could be constructed along the entire length of the shoreline and tied directly into the existing revetment. The construction of this revetment should minimize impacts to SAV to the greatest extent possible, working above mean high water (MHW) unless absolutely necessary. A properly constructed revetment can be incorporated into the planned upland grading and this structure will greatly reduce reflected wave energy onto the SAV bed.

If the construction of the proposed marsh sill were deemed necessary, we recommend modifications to the design of the structure. The sill that is proposed connects to the revetment on both sides, creating a closed marsh area that would not allow aquatic faunal access or marsh migration. Although habitat windows are proposed, they do not currently extend to or below mean low water (MLW) and a more effective method to preserve aquatic faunal access would involve leaving the sides of the sill open. While this would not impact marsh migration, it would allow for a more effective marsh habitat until sea level rise exceeds the marsh elevation.

Because of these reasons, this structure that is proposed would not serve as an effective living shoreline, and a revetment would effectively control erosion with fewer SAV impacts. If permitted, we recommend compensatory mitigation for any loss of SAV associated with this construction.

Please let us know if you have any questions or require further information.

Sincerely,

A handwritten signature in blue ink, appearing to read "Alex Sabo".

Alex Sabo
Environmental Review and
Advisory Specialist



Figure 1. Composite SAV map with 2018-2022 SAV areas shown in yellow, 2023 documented SAV bed in hatched green area, base imagery shows 2023 conditions. Data source:

<https://mobjack.vims.edu/sav/savwabmap/>

ATTACHMENT 2

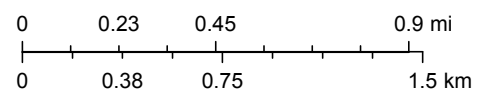
**VICINTIY MAP
2024 AERIAL IMAGERY
2024 PICTOMETRY**

Vicinity Map



8/21/2024, 4:09:45 PM

1:36,112



- | | | | | | |
|--|---------------------------|--|-----------------------|--|----------------------|
| | Points of Interest | | Community Facilities | | US Route |
| | Stafford Regional Airport | | Public Schools | | Interstate Ramps |
| | Stafford Hospital | | Secondary | | Interstate |
| | Train Stations | | Secondary Major | | Supervisor Districts |
| | Libraries | | VA Primary (Business) | | Urban Services Area |
| | County Administration | | VA Primary | | MCB Quantico |
| | | | US Route (Business) | | |

Stafford County GIS Office, VITA, Esri, HERE, Garmin, INCREMENT P, USGS, METI/NASA, EPA, USDA

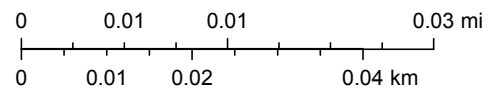
1 George Street (Parcel: 40-59)



9/3/2024, 4:31:02 PM

1:1,128

- | | | | | | |
|--|---------------------------|--|-----------------------|--|-----------------------|
| | Points of Interest | | County Administration | | Secondary Major |
| | Trails | | Community Facilities | | VA Primary (Business) |
| | Stafford Regional Airport | | Public Schools | | VA Primary |
| | Stafford Hospital | | Structures | | US Route (Business) |
| | Train Stations | | Quantico Roads | | US Route |
| | Libraries | | Secondary Minor | | Interstate Ramps |
| | | | Secondary | | Interstate |



Sources: Esri, Airbus DS, USGS, NGA, NASA, CGIAR, N Robinson, NCEAS, NLS, OS, NMA, Geodatastyrelsen, Rijkswaterstaat, GSA, Geoland, FEMA, Intermap and the GIS user community, Esri Community Maps Contributors, Stafford County GIS Office, VGIN, © OpenStreetMap, Microsoft, Esri, TomTom, Garmin, SafeGraph, GeoTechnologies, Inc, METI/NASA, USGS,

Data from the Stafford County GIS Office

1 George Street



02/04/2024

ATTACHMENT 3
LYNCH STAFF REPORT



The property is located at 1 George Street (TM#: 40-59) within the Griffis-Widewater Election District. The property is 1.28 deeded acres containing a 1 level residential structure built in 1900. The foundation of the existing structure will be utilized in constructing an expansion of the structure outside of the RPA buffer. On April 29, 2024, County Staff received the joint permit application from Mr. and Mrs. Lynch outlining the proposed request for a 180 linear foot riprap revetment to be installed above mean high-water; repair of 139 linear feet of bulkhead within VMRC's jurisdiction only; installation of a 990 sq. ft. living shoreline; and the construction of 3 retaining walls within the RPA buffer along Aquia Creek. The proposal for the retaining walls within the RPA buffer were approved at the June 17, 2024 Chesapeake Bay Board hearing (Resolution CBB24-3). At the time, there was no need for a Wetlands Board hearing since a Group B Living Shoreline does not require a wetlands board hearing and county staff had to decide regarding the application for a living shoreline within the required 60-day time frame required by law. Unfortunately, this decision had to be made without the benefit of a Virginia Institute of Marine Sciences (VIMS) report. The applicant's agent had requested a response from VIMS upon submittal of the permit application, but did not receive a response until August 5,



2024. In summary, VIMS report stated SAV preservation is of the utmost importance and have suggested other shoreline stabilization methods such as a revetment of the entire shoreline thereby avoiding SAV impacts rather than a Group B Living Shoreline. As a result, the proposal for a 180-foot riprap revetment, now requested within the intertidal zone, will require a wetland permit approval from the Stafford County Wetlands Board. No site work has commenced in relation to this permit request. As an added note, riprap exists where the currently proposed riprap revetment is to be placed but it has sunken into the subaqueous bottom.

Proposed Wetland Impacts:

The applicant proposes to permanently impact 800 sq. ft. of vegetated (SAV), tidal wetlands to install the 180 linear foot riprap revetment. Compensation for the loss of wetland habitat will be in the form of an in-lieu-fee of \$6,800.00 (\$8.50 per sq. ft.).

Role of the Board:

The board may decide to grant, grant in modified form, or deny a wetland permit application. A decision requires a weighing and balancing of all beneficial and detrimental factors relevant to a proposal, leading to a permit decision that reflects the outcome of that balancing process, known as a public interest review. The local wetlands board has the power to modify an application so that the approved permit meets the purpose of the Wetlands Act. In making this determination, the local wetlands board must consider:

1. The testimony of any person in support of or in opposition to the permit;
2. The impact of the proposed development on public health, safety, and welfare; and
3. Whether the proposed development conforms with standards prescribed in § 28.2-1308 and guidelines passed pursuant to § 28.2-1301. See Laws & Regulations.

The board must grant the permit if:

1. The anticipated public and private benefit of the proposed activity is greater than its anticipated public and private detriment;
2. Wetlands of primary ecological significance are not altered in such a way that the ecological systems in those wetlands are unreasonably disturbed;
3. The development is concentrated in wetlands of lesser ecological significance, in vegetated wetlands which have been irreversibly disturbed before July 1, 1972, in non-vegetated wetlands which have been irreversibly disturbed prior to January 1, 1983, or in areas of Virginia outside of wetlands; and
4. The proposed activity does not violate the purpose and intent of the Wetlands Act.



If all the criteria above are not met, the board shall deny the application. Specific criteria for a proposed action to destroy wetlands and provide compensation require meeting the three criteria below. If one or more criteria are not met, the activity shall be denied. [4 Virginia Administrative Code § 20-390-40]

1. All reasonable mitigative actions, including alternate siting, which would eliminate or minimize wetlands loss or disturbance shall be incorporated in the proposal.
2. The proposal shall clearly be water-dependent in nature.
3. The proposal shall demonstrate clearly its need to be in the wetlands and its overwhelming public and private benefits.

ALTERNATIVES:

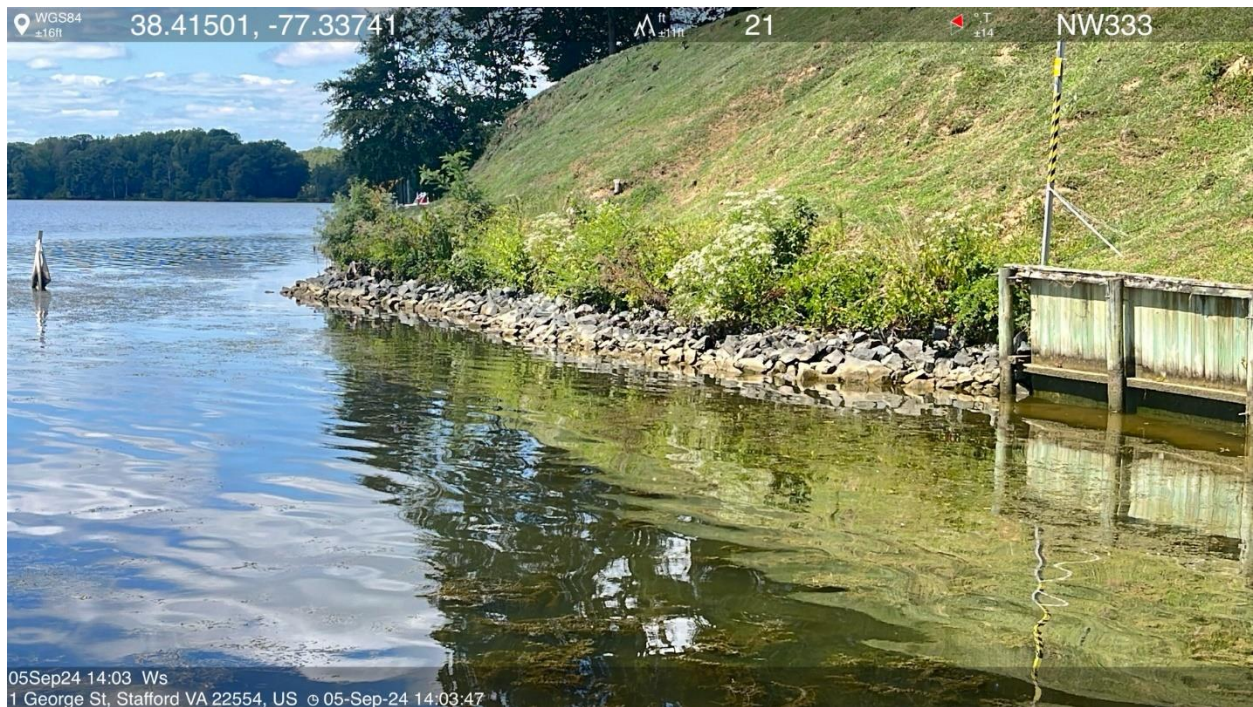
The following alternatives are available to the Board:

1. Adopt proposed Resolution WB24-03 with any and all conditions and/or requirements attached there to which grants a Stafford County Wetlands Board Permit for JPA-24-1042
2. Adopt proposed Resolution WB24-04 which denies a Stafford County Wetlands Permit for JPA-24-1042.

RECOMMENDATION:

Staff recommends the approval of WB24-03 which approves the installation of the 180 linear foot riprap revetment as described above. Staff believes the revetment will slow/stop the erosion of the bank along Aquia Creek.

ATTACHMENT 4
SITE PHOTOGRAPHS



Photograph was taken by Jim Beck facing northwest showing a portion of the shoreline at 1 George Street (Parcel ID: 40-59)



Photograph was taken by Jim Beck facing northwest showing more of the shoreline and bulkhead at 1 George Street (Parcel ID: 40-59)

ATTACHMENT 5
PROPOSED RESOLUTIONS

WETLANDS BOARD
COUNTY OF STAFFORD
STAFFORD, VIRGINIA

RESOLUTION

At a regular meeting of the Stafford County Wetlands Board held in the Board Chambers, George L. Gordon, Jr., Government Center, Stafford, Virginia, on the 16th day of September 2024:

MEMBERS:

Sue Henderson, Chair
Mary Rust, Vice-Chair
Anthony Pineau
Benjamin Rudasill
Dan Adams
Robert Hayden
Zachary Martinez

VOTE:

On the motion of _____, second by _____ which carried by a vote of _____, the following was adopted:

A RESOLUTION WHICH APPROVES A WETLANDS PERMIT TO INTALL A 180 LINEAR FOOT RIPRAP REVETMENT WHICH WILL PERMANENTLY IMPACT 800 SQUARE FEET OF VEGETATED (SAV), TIDAL WETLANDS ALONG AQUIA CREEK ON TAX MAP PARCEL ID 40-59.

WHEREAS, the Stafford County Wetlands Board has received a request from Mr. and Mrs. Lynch for a permit for wetlands activities within Parcel ID 40-59 and

WHEREAS, the Stafford County Wetlands Board has authority under Section 28.2-1302 of the Code of Virginia (1950), as amended, and under Section 27 of the Stafford County Code (Wetlands Zoning Ordinance) to issue a permit for the use or development of activities in a wetlands area; and

WHEREAS, the Stafford County Wetlands Board has given proper notice as required by the Code of Virginia (1950), as amended, and the Stafford County Code; and

WHEREAS, the Stafford County Wetlands Board finds the public and private benefit of the activity exceeds the anticipated public and private detriment; and

WHEREAS, the Stafford County Wetlands Board, upon careful consideration of all comments made at its public hearing, if any, and the staff report, desires to grant a wetland permit;

NOW, THEREFORE, BE IT RESOLVED by the Stafford County Wetlands Board on this the 16th day of September 2024, that the request of Mr. and Mrs. Lynch, applicants, for the installation of a 180 linear foot revetment; referenced as VMRC#20241042, for wetlands activities adjacent to and within the Parcel ID 40-59 located along the Aquia Creek be and hereby is approved with the following conditions:

1. All site work shall be constructed in general conformance with the specifications and the location shown on the plans submitted as part of permit application VMRC-24-1042.
2. An in-lieu fee of \$6,800.00 must be paid to Stafford County prior to the commencement of work.
3. Once work is completed, the applicant shall notify the Wetlands Board staff to conduct a final inspection.

BE IT FURTHER RESOLVED that this permit for wetlands activities shall expire on September 16, 2025.

Ms. Sue Henderson
Wetlands Board Chair

JPF: EAT

WETLANDS BOARD
COUNTY OF STAFFORD
STAFFORD, VIRGINIA

RESOLUTION

At a regular meeting of the Stafford County Wetlands Board held in the Board Chambers, George L. Gordon, Jr., Government Center, Stafford, Virginia, on the 16th day of September 2024:

MEMBERS:

Sue Henderson, Chair
Mary Rust, Vice-Chair
Anthony Pineau
Benjamin Rudasill
Dan Adams
Robert Hayden
Zachary Martinez

VOTE:

On the motion of _____, seconded by _____, which carried by a vote of _____, the following was adopted:

A RESOLUTION WHICH DENIES A WETLANDS PERMIT TO
INTALL A 180 LINEAR FOOT RIPRAP REVETMENT
WHICH WILL PERMANENTLY IMPACT 800 SQUARE
FEET OF VEGETATED (SAV), TIDAL WETLANDS
ALONG AQUIA CREEK ON TAX MAP PARCEL ID 40-59

WHEREAS, the Stafford County Wetlands Board has received a request from Mr. and Mrs. Lynch for a permit for wetlands activities within and adjacent to the Parcel ID 40-59; and

WHEREAS, the Stafford County Wetlands Board has authority under Section 28.2-1302 of the Code of Virginia (1950), as amended, and under Section 27 of the Stafford County Code (Wetlands Zoning Ordinance) to issue a permit for the use or development of activities in a wetlands area; and

WHEREAS, the Stafford County Wetlands Board has given proper notice as required by the Code of Virginia (1950), as amended, and the Stafford County Code; and

WHEREAS, the Stafford County Wetlands Board finds the public and private detriment of the activity exceeds the anticipated public and private benefit; and

WHEREAS, the Stafford County Wetlands Board, upon careful consideration of all comments made at its public hearing, if any, and the staff report, desires to deny a wetland permit;

NOW, THEREFORE, BE IT RESOLVED by the Stafford County Wetlands Board on this the 16th day of September, 2024, that the request of Mr. and Mrs. Lynch, applicants, for the installation of a 180 linear foot riprap revetment causing permanent impacts to 800 square feet of vegetated (SAV), tidal wetlands; referenced as VMRC#20241042, for wetlands activities adjacent to and within the Parcel ID 40-59, located along Aquia Creek be and it hereby is denied.

Ms. Sue Henderson
Wetlands Board Chair

JPF:EAT

ATTACHMENT 6
LYNCH POWER POINT
PRESENTATION



Wetlands Board

September 16, 2024

Stafford County Government

Agenda

- Call to Order
- Roll Call
- Determination of a Quorum
- Approval of Meeting Minutes
 - January 22, 2024

Public Hearing

- WB24-01 - VMRC#24-1798 – Bonilla Revetment
- WB24-03 - VMRC#24-1042 – Lynch Revetment
 - Both applications request the installation of a riprap revetment to combat shoreline erosion along Aquia Creek.

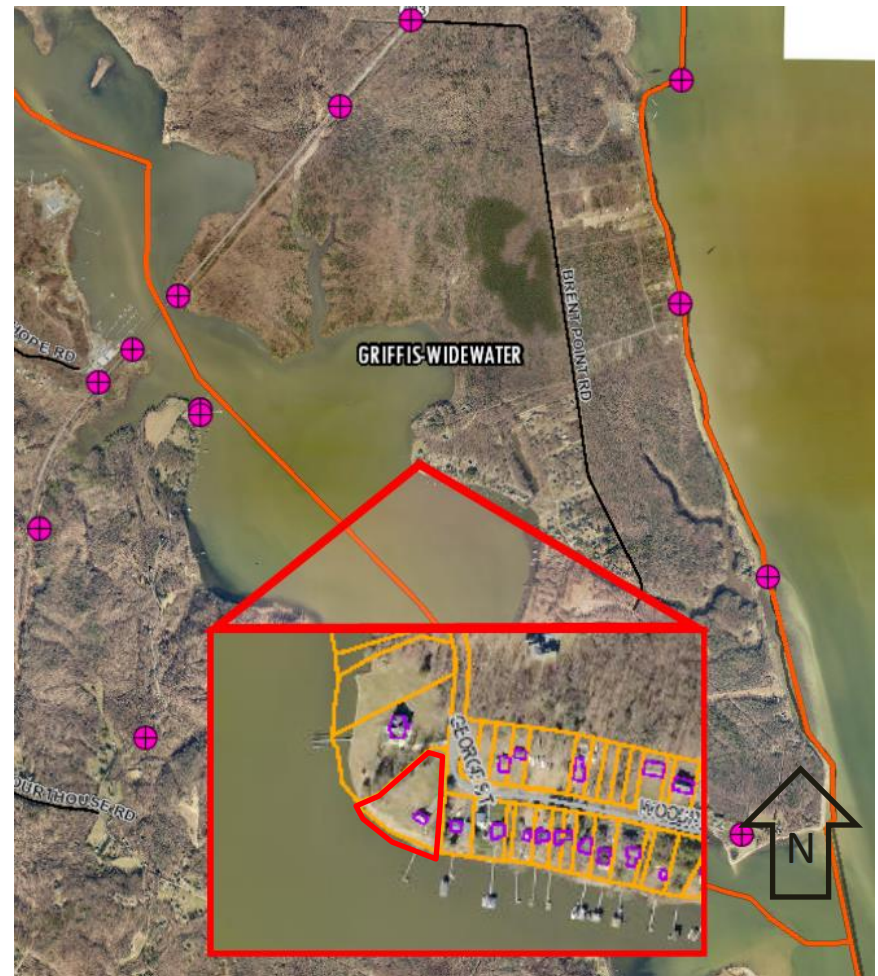
Chapter 27: Section 27-25 – Grounds for Decision of Board Regarding Application

- (a) In deciding whether to grant, grant in modified form or deny a permit, the board shall consider the following:
 - 1) The testimony of any person in support of or in opposition to the permit application;
 - 2) The impact of the proposed development on the public health, safety, and welfare; and
 - 3) The proposed development's conformance with standards prescribed in Section 28.2-1308 of the Code of Virginia and guidelines promulgated pursuant to Section 28.2-1301 of the Code of Virginia.
- (b) The board shall grant the permit if all the following criteria are met:
 - 1) The anticipated public and private benefit of the proposed activity exceeds its anticipated public and private detriment.
 - 2) The proposed development conforms with the standards prescribed in Section 28.2-1308 of the Code of Virginia and guidelines promulgated pursuant to Section 28.2-1301 of the Code of Virginia.
 - 3) The proposed activity does not violate the purposes and intent of this article or Chapter 13 (§ 28.2-1300 et seq.) of Title 28.2 of the Code of Virginia.
- (c) If the board finds that any of the criteria listed in subsection (b) of this section are not met, the board shall deny the permit application but allow the applicant to resubmit the application in modified form.

APPLICATION 2

WB24-03 (VMRC#24-1042) Lynch Revetment

- Description:
 - Application to install a 180 linear foot riprap revetment (800 sq. ft. of vegetated (SAV), tidal wetland impacts) along Aquia Creek.
- Tax Map Parcel No:
 - 40-59
- Election District:
 - Griffis-Widewater



Background

- Current Condition:
 - The bank of Aquia Creek at the location of the proposed installation of the riprap revetment has suffered natural erosion over the years due to wave action. The proposed revetment will be installed to stop the erosion.
- Proposed Condition:
 - Install a 180 linear foot riprap revetment along the shoreline.
 - There will be 800 sq. ft. of vegetated (SAV), tidal wetland impacts due to the installation.
 - The loss of 800 sq. ft. of tidal wetlands will be compensated through the payment of an in-lieu-fee of \$6,800.00
- Mr. and Mrs. Lynch are requesting the Board favorably consider their application for a Wetlands Board Permit.

Location Map – 1 George Street



Photograph taken facing northwest showing the bank of the Aquia Creek at the location of the proposed riprap revetment at 1 George Street (TM# 40-59).

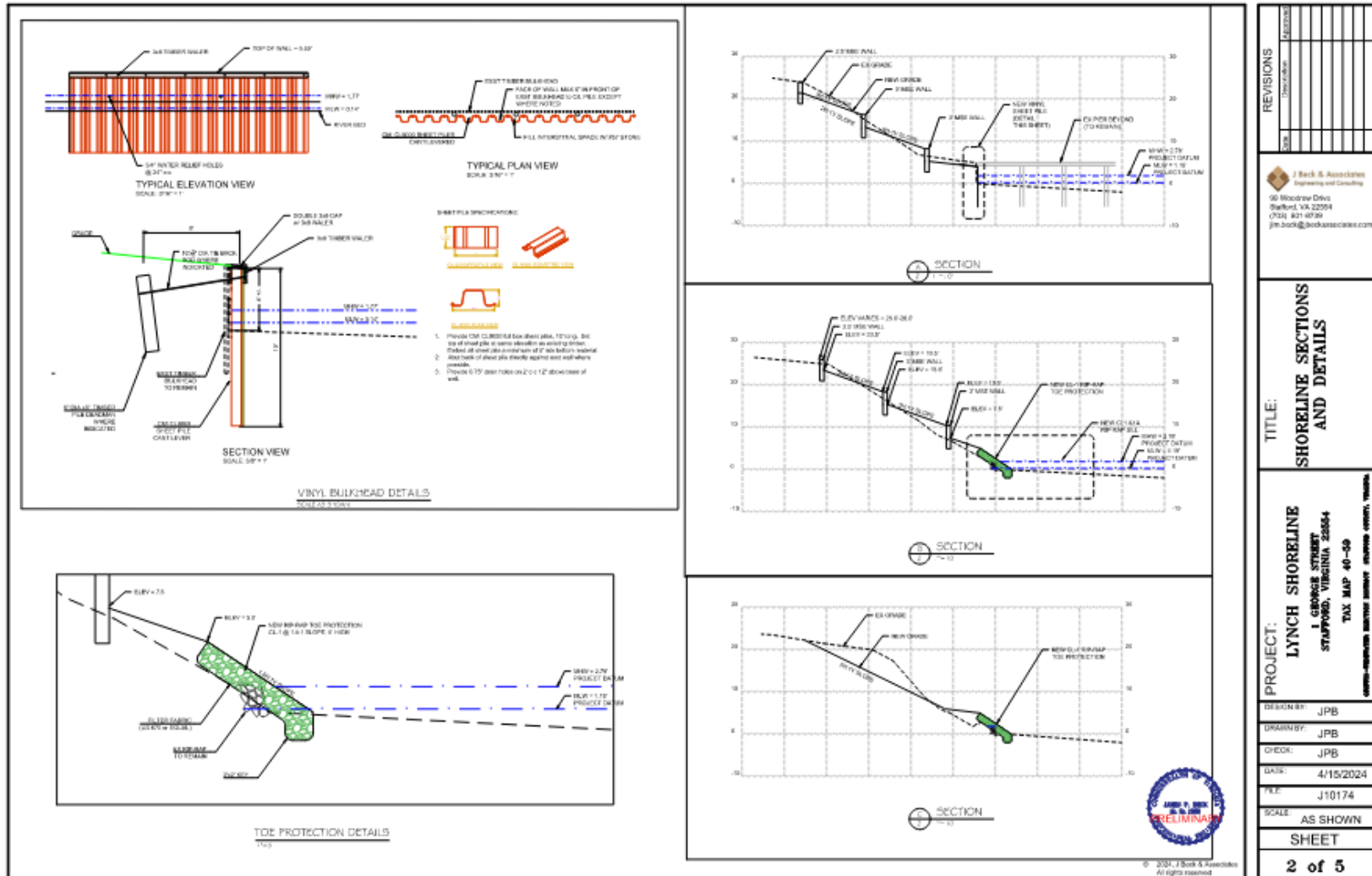


Photograph taken facing northwest showing the bank of the Aquia Creek at the location of the proposed riprap revetment at 1 George Street (TM# 40-59).





Proposed Conditions



Staff Observations

- A portion of Aquia Creek located at 1 George Street (TM# 40-59) has slowly eroded over the years due to wave action.
- The proposed riprap revetment will stop/retard the continued erosion of the bank.
- The proposed in-lieu-fee of \$6,800.00 for wetland loss is acceptable.

OLD BUISNESS: NONE

CHAIRMAN'S REPORT:

STAFF REPORT: NONE

ADJOURNMENT