

A G E N D A
JAMES CITY COUNTY CHESAPEAKE BAY BOARD
REGULAR MEETING
County Government Center, Building F
101 Mounts Bay Road, Williamsburg, Virginia 23188
October 13, 2021
5:00 PM

A. CALL TO ORDER

B. ROLL CALL

C. MINUTES

1. Minutes from September 8, 2021 Regular Meeting

D. PUBLIC HEARINGS

1. CBPA-21-0150 : 110 Pasbehegh Drive
2. CBPA-21-0155 : 210 Red Oak Landing Road

E. BOARD CONSIDERATIONS

F. MATTERS OF SPECIAL PRIVILEGE

1. Appeal - 5032 River Drive

G. ADJOURNMENT

ITEM SUMMARY

DATE: 10/13/2021

TO: Chesapeake Bay Board

FROM: Michael Woolson, Wetlands Board Secretary

SUBJECT: Minutes from September 8, 2021 Regular Meeting

ATTACHMENTS:

	Description	Type
	Minutes	Minutes

REVIEWERS:

Department	Reviewer	Action	Date
Chesapeake Bay Group	Woolson, Michael	Approved	10/6/2021 - 1:17 PM
Chesapeake Bay Group	Small, Toni	Approved	10/6/2021 - 3:34 PM
Publication Management	Daniel, Martha	Approved	10/7/2021 - 8:13 AM
Chesapeake Bay Group	Secretary, ChesBay	Approved	10/7/2021 - 9:14 AM

MINUTES
JAMES CITY COUNTY CHESAPEAKE BAY BOARD
REGULAR MEETING
County Government Center, Building D
101 Mounts Bay Road, Williamsburg, Virginia 23188
September 8, 2021
5:00 PM

A. CALL TO ORDER

The Chesapeake Bay Board meeting for September 8, 2021, was called to order.

The responsibility of this Board is to carry out locally the Commonwealth policy to protect against and minimize pollution and deposition of sediment in wetlands, streams, and lakes in James City County, which are tributaries of the Chesapeake Bay.

B. ROLL CALL

Board Members Present:

David Gussman, Chairman
Halle Dunn
William Apperson
Charles Roadley
Larry Waltrip

Board Members Absent:

None

Other Staff Present:

Toni Small, Director, Stormwater and Resource Protection
Liz Parman, Assistant County Attorney
Michael Woolson, Resource Protection Section Chief, Stormwater and Resource Protection
Trevor Long, Watershed Planner, Stormwater and Resource Protection

C. MINUTES

1. Minutes from August 11, 2021, Regular Meeting

A motion to Approve the minutes was made by Mr. Gussman.
The minutes were approved on a voice vote.

D. PUBLIC HEARINGS

1. CBPA-21-0128 : 155 Wareham's Point

Mr. Trevor Long, Watershed Planner, presented the exception request submitted by Mr. Kyle Polk, The Structures Group, Inc. on behalf of Kingsmill Community Services Association for encroachments into the Resource Protected Area (RPA) buffer for the construction of a retaining wall located at 155 Wareham's Point, within Wareham's Point Subdivision, Kingsmill on the James and the Skiffes Creek watershed. The property is further identified as James City County Tax Map Parcel No. 5041900001B. The presentation described the current and proposed site conditions. If the Board approved the request, staff asked that the suggested conditions be incorporated into the approval.

The Board deliberated the pros and cons of this application.

Mr. Gussman opened, then closed the Public Hearing, as no one wished to speak.

Mr. Roadley asked to see the picture where the erosion was occurring.

Mr. Apperson made a motion to Adopt the resolution for Chesapeake Bay Board Case No. CBPA-21-0128 at 155 Wareham's Point.

A motion to Approve with Conditions was made by Mr. Apperson, the motion result was:

AYES: 5 NAYS: 0 ABSTAIN: 0 ABSENT: 0

AYES: Gussman, Dunn, Apperson, Roadley, Waltrip

NAYS: None

ABSENT: None

2. CBPA-21-0079 : 6015 Richmond Road

Mr. Gussman stated that the applicant had withdrawn the request.

Mr. Gussman closed the Public Hearing, which had been previously opened at the August 11, 2021, Board meeting.

E. BOARD CONSIDERATIONS

1. Emergency Permit - Temporary Repairs at 5030 River Drive

Mr. Michael Woolson, Resource Protection Section Chief, Stormwater and Resource Protection, presented the emergency exception request submitted by Mr. Gary McSherry, on September 8, 2021, to the Chesapeake Bay Board of James City County, to request to use the RPA on a parcel of property identified as James City County Tax Map Parcel No. 093030006 and further identified as 5030 River Drive, as set forth in the application CBPA-21-0144 for the purpose of temporarily stabilizing a slope.

A. Mr. McSherry, was available to answer questions from the Board.

Mr. Roadley made a motion to Adopt the resolution for Chesapeake Bay Board Case No. CBPA-21-0144 at 5030 River Drive.

A motion to Approve with Conditions was made by Mr. Roadley, the motion result was:

AYES: 5 NAYS: 0 ABSTAIN: 0 ABSENT: 0

AYES: Gussman, Dunn, Apperson, Roadley, Waltrip

NAYS: None

ABSENT: None

F. MATTERS OF SPECIAL PRIVILEGE

1. Appeal - 5032 River Drive

Mr. Michael Woolson, Resource Protection Section Chief, Stormwater and Resource Protection, requested the appeal be deferred to the October 13, 2021, meeting for the RPA violation on a parcel of property identified as James City County Parcel No. 093030007 and further identified as 5032 River Drive.

Mr. Dunn inquired of the timeframe for repairs as required by James City County.

Mr. Roadley made a motion of Deferral for the Appeal of Chesapeake Bay Board Case No. CBPA-21-0144 at 5032 River Drive.

A motion of Deferral for the Appeal was made by Mr. Roadley, the motion result was:

AYES: 5 NAYS: 0 ABSTAIN: 0 ABSENT: 0

AYES: Gussman, Dunn, Apperson, Roadley, Waltrip

NAYS: None

ABSENT: None

G. ADJOURNMENT

A motion to Adjourn was made by Mr. Roadley and approved on a voice vote.

The meeting adjourned at 6:35 p.m.

ITEM SUMMARY

DATE: 9/22/2021

TO: Chesapeake Bay Board

FROM: Trevor Long, Watershed Planner

SUBJECT: CBPA-21-0150 : 110 Pasbehegh Drive

Mr. John Moore has filed an exception request for encroachments into the RPA buffer for construction of a shed at 110 Pasbehegh Drive, JCC Parcel ID No. 4520200215.

ATTACHMENTS:

	Description	Type
▣	Staff Report	Staff Report
▣	Resolution	Resolution
▣	Presentation	Presentation
▣	Site Plan	Exhibit
▣	Adjacent Property Owner Letter	Backup Material
▣	Adjacent Property Owner List	Backup Material
▣	Public Advertisement	Backup Material

REVIEWERS:

Department	Reviewer	Action	Date
Chesapeake Bay Group	Woolson, Michael	Approved	10/6/2021 - 3:11 PM
Chesapeake Bay Group	Small, Toni	Approved	10/6/2021 - 3:33 PM
Publication Management	Daniel, Martha	Approved	10/7/2021 - 8:08 AM
Chesapeake Bay Group	Secretary, ChesBay	Approved	10/7/2021 - 9:12 AM

**CHESAPEAKE BAY BOARD EXCEPTION No. CBPA 21-0155. 210 Red Oak Landing
Staff Report for the October 13, 2021, Chesapeake Bay Board Public Hearing**

This staff report is prepared by the James City County Stormwater and Resource Protection to provide information to the Chesapeake Bay Board to assist them in making a recommendation on this assessment. It may be useful to members of the general public interested in this assessment.

EXISTING SITE DATA AND INFORMATION

Applicant: Mr. Clinton Morgeson

Agent: None

Location: 210 Red Oak Landing

Parcel Identification No.: 4730100032

Parcel: 2 T T Nixon E

Lot Size: 2.86 acres

Area of Lot in Resource Protection Area (RPA): 2.14 acres +/- (75%)

Watershed: Powhatan Creek (HUC JL 31)

Floodplain: Zone AE - Base flood elevation is determined to be 7 feet mean sea level

Proposed Activity: Construction of a retaining wall

Impervious Cover: 20 square feet

RPA Encroachment: 20 square feet, seaward 50-foot RPA

Staff Contact: Trevor A. Long, Watershed Planner Phone: 253-6789

BRIEF SUMMARY AND DESCRIPTION OF ACTIVITIES

Mr. Clint Morgeson has applied for a Chesapeake Bay Exception for encroachments into the RPA buffer for the construction of a retaining wall on property located at 210 Red Oak Landing within the Powhatan Creek watershed. The property is further identified as James City County Tax Map Parcel No. 4730100032. The parcel was platted in 1962, prior to the adoption of the Chesapeake Bay Preservation Ordinance in 1990.

The total lot size of this property is 2.86 acres, of which 75% is located within the RPA. There is an existing 40-square-foot retaining wall on property adjacent to an existing pier. The applicant is proposing to replace this retaining wall and extend it by a total of 20 square feet. The proposed extension will be constructed on both sides of the existing pier. Total mitigation requirements for the proposed impacts equate to the plantings of three shrubs.

STAFF EVALUATION

Staff has evaluated the application and exception request for the construction of a retaining wall. This application meets the Ordinance conditions in Sections 23-11 and 23-14 and should be heard by the Board because the construction of a retaining wall is considered accessory in nature.

CONSIDERATION BY THE CHESAPEAKE BAY BOARD

The Board may grant exceptions to Section 23-7 if the application meets the following five conditions:

1. The exception request is the minimum necessary to afford relief; and
2. Granting the exception will not confer upon the Applicant any special privileges denied by Chapter 23, Chesapeake Bay Preservation, of the James City County Code, to other property owners similarly situated in the vicinity; and
3. The exception request will be in harmony with the purpose and intent of Chapter 23 of the James City County Code and is not of substantial detriment to water quality; and
4. The exception request is not based on conditions or circumstances that are self-created or self-imposed, nor does the request arise from conditions or circumstances, either permitted or non-conforming that are related to adjacent parcels; and
5. Reasonable and appropriate conditions are imposed which will prevent the exception request from causing a degradation of water quality.

STAFF RECOMMENDATIONS

Staff has reviewed the application and exception request and has determined the impacts associated with the proposal to be minor for the proposed development. Staff recommends approval for this exception request and if the Board wishes to approve this request, staff recommends the following conditions be incorporated into the approval:

1. The applicant must obtain all other necessary federal, state, and local permits as required for the project, including a building permit if necessary; and
2. The submittal of a mitigation plan equating to three shrubs be submitted to the Stormwater and Resource Protection Division; and
3. A surety of \$250 be submitted in a form acceptable to the James City County Attorney's Office to guarantee the mitigation plantings; and
4. This exception request approval shall become null and void if construction has not begun by October 13, 2022; and
5. Written requests for an extension to an exception shall be submitted to the Stormwater and Resource Protection Division no later than September 1, 2022, six weeks prior to the expiration date.

TAL/md
CBPA21-155_210RdOakLdg

Attachments:

1. Resolution
2. Site Plan

RESOLUTION

CASE NO. CBPA 21-0150.110 PASBEHEGH DRIVE

JAMES CITY COUNTY CHESAPEAKE BAY PRESERVATION ORDINANCE EXCEPTION

WHEREAS, Mr. John Moore, (the “Applicant”), has applied to the Chesapeake Bay Board of James City County (the “Board”) on October 13, 2021, to request an exception to use the Resource Protection Area (the “RPA”) on a parcel of property identified as James City County Real Estate Tax Map Parcel No. 4520200215 and further identified as 110 Pasbehegh Drive (the “Property”) as set forth in the application CBPA 21-0150 for the purpose of construction of a shed; and

WHEREAS, the Board has listened to the arguments presented and has carefully considered all evidence entered into the record.

NOW, THEREFORE, BE IT RESOLVED that the Chesapeake Bay Board of James City County, Virginia, following a public hearing, by a majority vote of its members FINDS that:

1. The exception request is the minimum necessary to afford relief.
2. Granting the exception will not confer upon the Applicant any special privileges denied by Chapter 23, Chesapeake Bay Preservation, of the James City County Code, to other property owners similarly situated in the vicinity.
3. The exception request will be in harmony with the purpose and intent of Chapter 23 of the James City County Code and is not of substantial detriment to water quality.
4. The exception request is not based on conditions or circumstances that are self-created or self-imposed, nor does the request arise from conditions or circumstances either permitted or non-conforming that are related to adjacent parcels.
5. Reasonable and appropriate conditions are hereby imposed, as set forth below, which will prevent the exception request from causing a degradation of water quality.
6. In granting this exception, the following conditions are hereby imposed to prevent this exception request from causing degradation of water quality:
 - a. The applicant must obtain all other necessary federal, state, and local permits as required for the project, including a building permit if necessary; and
 - b. The submittal of a mitigation plan equaling seven shrubs be submitted to the Stormwater and Resource Protection Division; and
 - c. A surety of \$250 be submitted in a form acceptable to the James City County Attorney’s Office to guarantee the mitigation plantings; and

- d. This exception request approval shall become null and void if construction has not begun by October 13, 2022; and
- e. Written requests for an extension to an exception shall be submitted to the Stormwater and Resource Protection Division no later than September 1, 2022, six weeks prior to the expiration date.

David Gussman
Chair, Chesapeake Bay Board

Michael D. Woolson
Secretary to the Board

Adopted by the Chesapeake Bay Board of James City County, Virginia, this 13th day of October, 2021.

CBPA21-150-110Pasbehegh-res



Chesapeake Bay Board of James City County, Virginia

October 13, 2021

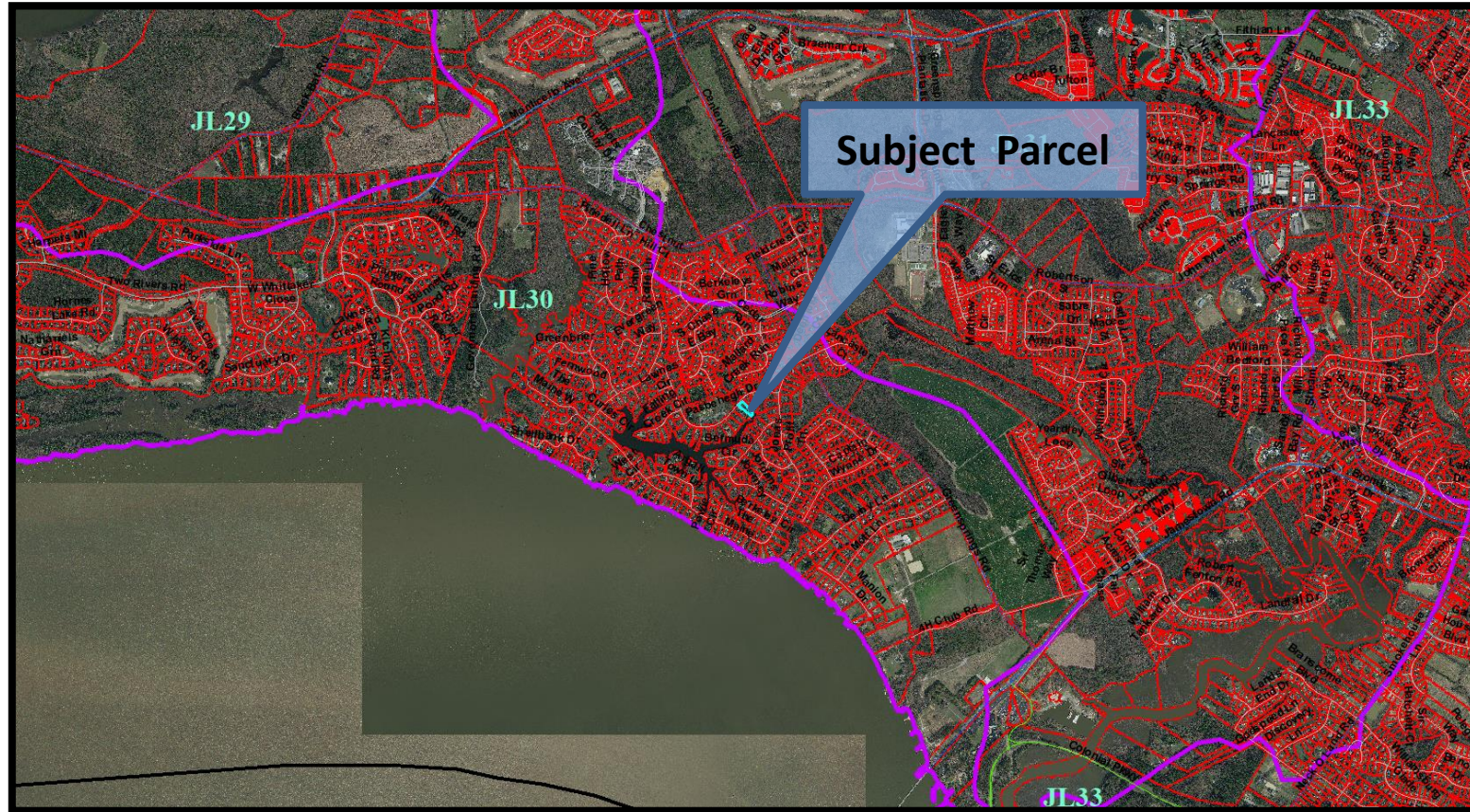
CBPA 21-0150

John Moore

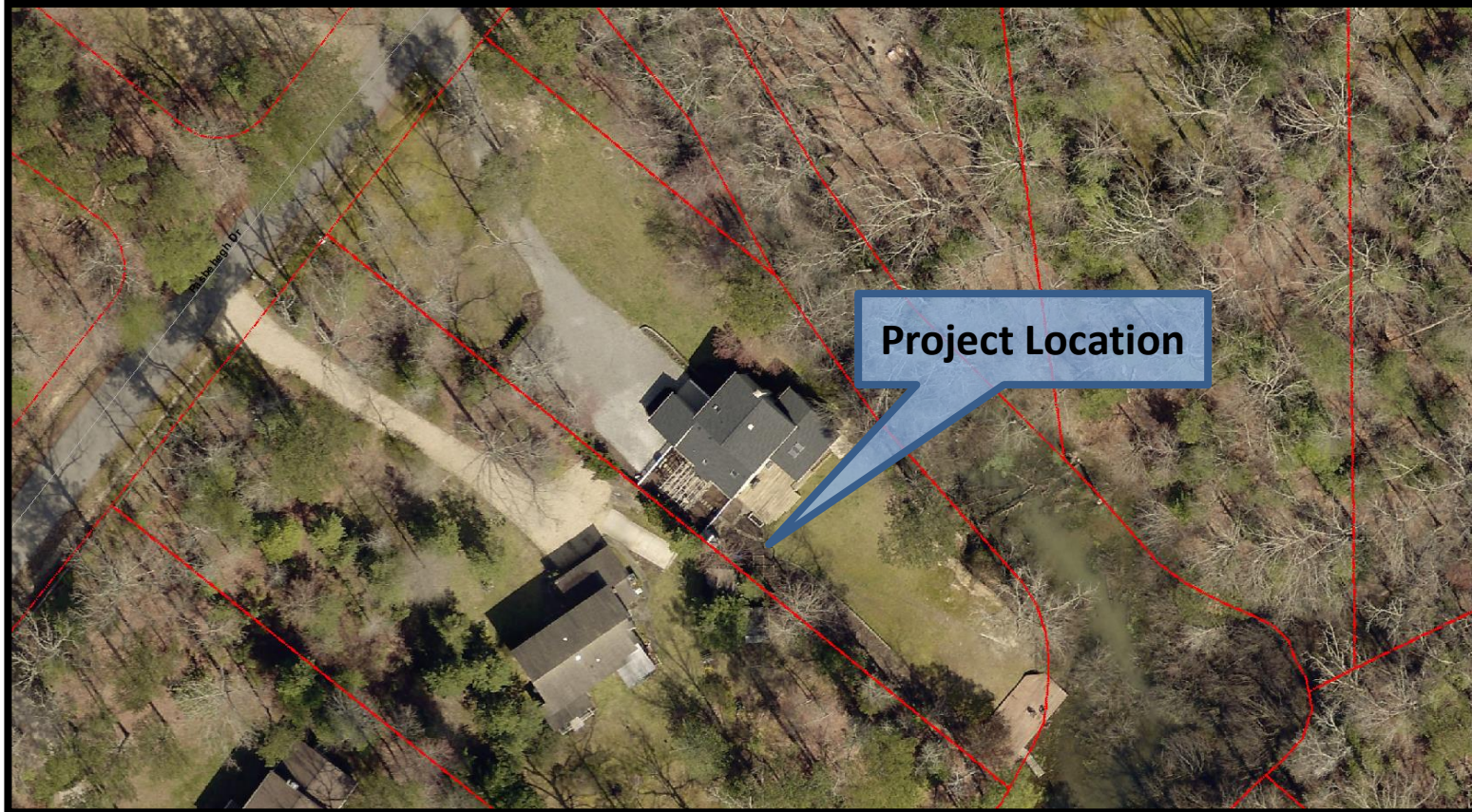
110 Pasbehegh Drive

Applicant Request

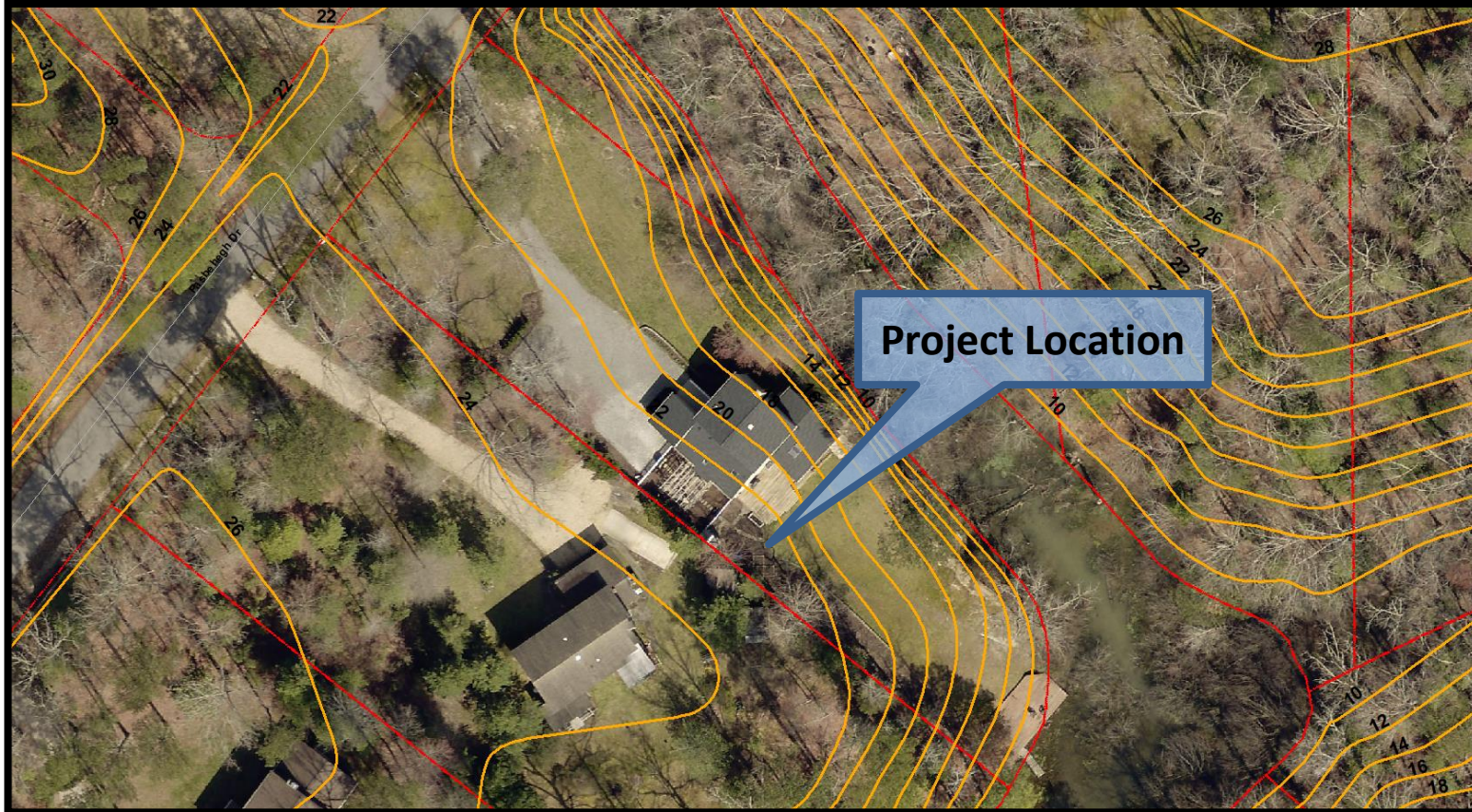
- ✓ Construct a shed.



Vicinity Map
CBPA-21-0150
110 Pasbehegh Drive



Aerial Photograph
CBPA-21-0150
110 Pasbeheg Drive

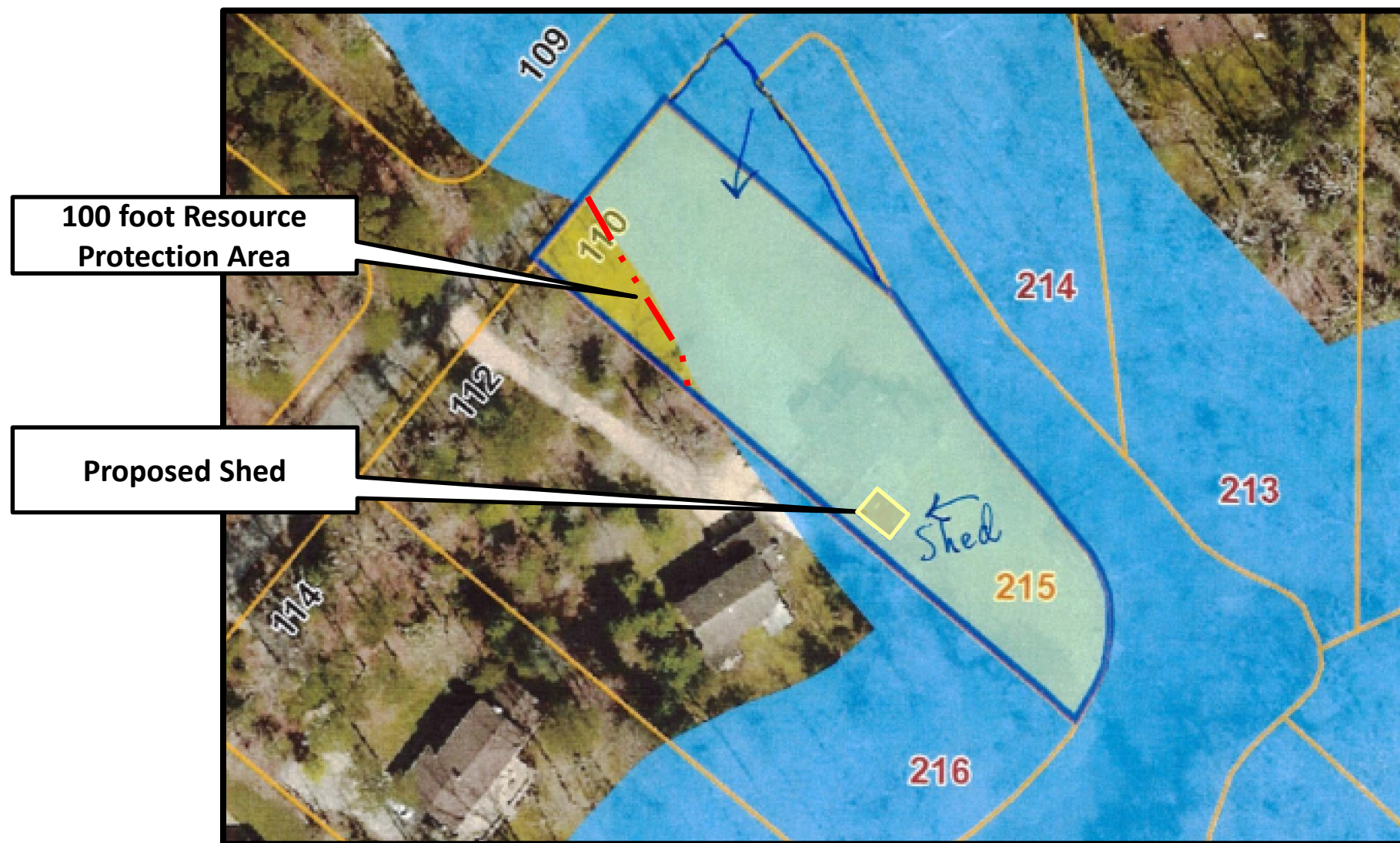


Topography
CBPA-21-0150
110 Pasbehegh Drive



Resource Protection Area
CBPA-21-0150
110 Pasbehegh Drive

Site Plan showing
proposed improvements,
submitted August 31,
2021. For representative
use only for presentation
of case #CBPA-21-0150



Site Plan - CBPA-21-0150
110 Pasbehegh Drive

Stakes



Site Photograph #1 - CBPA-21-0150
110 Pasbehegh Drive

Permit Conditions



Staff Recommendation – Approval

- ✓ All other necessary local, state and federal permits
- ✓ A mitigation plan consisting of three shrubs
- ✓ A surety of \$250 to guarantee plantings
- ✓ This exception request approval shall become null and void if construction has not begun by October 13, 2022
- ✓ Written requests for extension submitted no later than September 1, 2022





General Services
107 Tewning Road
Williamsburg, VA 23188
P: 757-259-4080
General.Services@jamestownva.gov
jamestownva.gov

Capital Projects 107 Tewning Road Williamsburg, VA 23188 757-259-4080	Fleet 103 Tewning Road Williamsburg, VA 23188 757-259-4122	Stormwater and Resource Protection 101-E Mounts Bay Road Williamsburg, VA 23185 757-253-6670	Facilities & Grounds 113 Tewning Road Williamsburg, VA 23188 757-259-4080	Solid Waste 1204 Jolly Pond Road Williamsburg, VA 23188 757-565-0971
---	--	--	---	--

September 22, 2021

RE: CBPA 21-0150
110 Pasbehegh Drive
Shed

Dear Adjacent Property Owner:

In accordance with State and County Codes, this letter is to notify you that a request has been filed with the James City County Chesapeake Bay Board by Mr. John and Mrs. Belinda Moore for encroachment into the Resource Protection Area (RPA) buffer for the construction of a shed. The project is located at 110 Pasbehegh Drive and further identified as JCC Parcel No. 4520200215.

A complete description, plan and other information are on file in the Stormwater and Resource Protection Division and are available for inspection during normal business hours, should anyone desire to review them.

The Chesapeake Bay Board will hold an advertised public hearing on **Wednesday, October 13, 2021 at 5:00 p.m.**, in the Board Room of Building F, 101 Mounts Bay Road, James City County, Virginia, at which time you may request to speak on the above referenced project.

Sincerely,

Michael D. Woolson

Michael D. Woolson
Chesapeake Bay Board Secretary
757-253-6823
michael.woolson@jamestownva.gov

MDW: jep

Mailing List for: CBPA-21-0150–110 Pasbehegh Drive:- Shed

Owner: 4520200215

Moore, John N & Belinda
110 Pasbehegh Drive
Williamsburg, VA 23185-1417

4520200213

Niedzwick, Matthew G
106 Pasbehegh Drive
Williamsburg, VA 23185-1417

4520200216

Lawrence, Jeffrey D, Trustee & Sharon A,
Trustee
112 Pasbehegh Drive
Williamsburg, VA 23185-1417

4520200180

McGann, Tracey L
103 Jordans Journey
Williamsburg, VA 23185-1413

4520200214

Basford, Michael J & Stefanie A
108 Pasbehegh Drive
Williamsburg, VA 23185-1417

4520200179

Barley, Michael A & Gail A
105 Jordans Journey
Williamsburg, VA 23185-1413

4520200009

Margiano, Christopher T
109 Pasbehegh Drive
Williamsburg, VA 23185-1416

4520100007- 125 Pasbehegh Drive

Greater First Colony Area Civic Association
P.O. Box 5123
Williamsburg, VA 23188-5202



PUBLIC HEARING NOTICE

THE WETLANDS BOARD AND THE CHESAPEAKE BAY BOARD OF JAMES CITY COUNTY, VIRGINIA, WILL HOLD PUBLIC HEARINGS ON **WEDNESDAY, OCTOBER 13, 2021 AT 5 P.M.** IN THE COUNTY GOVERNMENT CONFERENCE ROOM OF BUILDING F, 101 MOUNTS BAY ROAD, JAMES CITY COUNTY, VIRGINIA.

THE WETLANDS BOARD WILL CONSIDER THE FOLLOWING CASES:

WJPA-21-0050/VMRC-2021-1634: Ms. Karla Haven, Mid-Atlantic Resource Consulting, on behalf of Mr. Richard J. and Mrs. Yesenia P. Businelle, has applied for a wetlands permit for the installation of an offshore sill with beach nourishment, and bank grading at 1493 John Tyler Highway, JCC Parcel ID No. 3430300005.

WJPA-21-0052/VMRC-2021-1705: Mr. Daniel R. Winall, Water's Edge Construction, on behalf of Mr. Willem L. Blindenbach, Trustee and Mrs. Floriena Petronella Blindenbach-Driessen, Trustee, has applied for a wetlands permit for the installation of two rip-rap sills with beach nourishment at 1481 John Tyler Highway, JCC Parcel ID No. 3430300002.

WJPA-21-0054/VMRC-2021-1762: Mrs. Rebecca Francese, Waterway Surveys and Engineering, Ltd. on behalf of Mr. Andrew Mayfield, First Colony Marina and Greater First Colony Area Civic Association, has applied for a wetlands permit for the dredging of the First Colony Marina, at 94 Shellbank Drive, JCC Parcel ID No. 4530400001.

THE CHESAPEAKE BAY BOARD WILL CONSIDER THE FOLLOWING CASES:

CBPA-21-0150: Mr. John Moore has filed an exception request for encroachments into the RPA buffer for construction of a shed at 110 Pasbehegh Drive, JCC Parcel ID No. 4520200215.

CBPA-21-0155: Mr. Clinton Morgeson has filed an exception request for encroachments into the RPA buffer for construction of a retaining wall at 210 Red Oak Landing Road, JCC Parcel ID No. 4730100032.

Appeals from decisions under the Chesapeake Bay Preservation Ordinance may also be heard.

The applications and plans are on file and may be viewed during normal office hours in the Stormwater and Resource Protection Division, 101-E Mounts Bay Road, James City County, Virginia.

NOT FOR PUBLICATION

DISPLAY: WEDNESDAY – SEPTEMBER 29, 2021 and OCTOBER 6, 2021.
ACCOUNT NO. CU00015112
VIRGINIA GAZETTE
1/8 PAGE, VERTICAL, B/W
CARD # x9941

COPIES: PLANNING
 ASSISTANT COUNTY ATTORNEY
 WETLANDS/CHESAPEAKE BAY BOARD MEMBERS

ITEM SUMMARY

DATE: 10/13/2021

TO: Chesapeake Bay Board

FROM: Trevor Long, Watershed Planner

SUBJECT: CBPA-21-0155 : 210 Red Oak Landing Road

Mr. Clinton Morgeson has filed an exception request for encroachments into the RPA buffer for construction of a retaining wall at 210 Red Oak Landing Road, JCC Parcel ID No. 4730100032.

ATTACHMENTS:

	Description	Type
▣	Staff Report	Staff Report
▣	Resolution	Resolution
▣	Presentation	Presentation
▣	Site Plan	Exhibit
▣	Adjacent Property Owner Letter	Backup Material
▣	Adjacent Property Owner List	Backup Material
▣	Public Advertisement	Backup Material

REVIEWERS:

Department	Reviewer	Action	Date
Chesapeake Bay Group	Woolson, Michael	Approved	10/6/2021 - 3:11 PM
Chesapeake Bay Group	Small, Toni	Approved	10/6/2021 - 3:33 PM
Publication Management	Daniel, Martha	Approved	10/7/2021 - 8:10 AM
Chesapeake Bay Group	Secretary, ChesBay	Approved	10/7/2021 - 9:13 AM

**CHESAPEAKE BAY BOARD EXCEPTION No. CBPA 21-0155. 210 Red Oak Landing
Staff Report for the October 13, 2021, Chesapeake Bay Board Public Hearing**

This staff report is prepared by the James City County Stormwater and Resource Protection to provide information to the Chesapeake Bay Board to assist them in making a recommendation on this assessment. It may be useful to members of the general public interested in this assessment.

EXISTING SITE DATA AND INFORMATION

Applicant: Mr. Clinton Morgeson

Agent: None

Location: 210 Red Oak Landing

Parcel Identification No.: 4730100032

Parcel: 2 T T Nixon E

Lot Size: 2.86 acres

Area of Lot in Resource Protection Area (RPA): 2.14 acres +/- (75%)

Watershed: Powhatan Creek (HUC JL 31)

Floodplain: Zone AE - Base flood elevation is determined to be 7 feet mean sea level

Proposed Activity: Construction of a retaining wall

Impervious Cover: 20 square feet

RPA Encroachment: 20 square feet, seaward 50-foot RPA

Staff Contact: Trevor A. Long, Watershed Planner Phone: 253-6789

BRIEF SUMMARY AND DESCRIPTION OF ACTIVITIES

Mr. Clint Morgeson has applied for a Chesapeake Bay Exception for encroachments into the RPA buffer for the construction of a retaining wall on property located at 210 Red Oak Landing within the Powhatan Creek watershed. The property is further identified as James City County Tax Map Parcel No. 4730100032. The parcel was platted in 1962, prior to the adoption of the Chesapeake Bay Preservation Ordinance in 1990.

The total lot size of this property is 2.86 acres, of which 75% is located within the RPA. There is an existing 40-square-foot retaining wall on property adjacent to an existing pier. The applicant is proposing to replace this retaining wall and extend it by a total of 20 square feet. The proposed extension will be constructed on both sides of the existing pier. Total mitigation requirements for the proposed impacts equate to the plantings of three shrubs. The applicant has already planted 6 shrubs, exceeding mitigation requirements for the proposed retaining wall.

STAFF EVALUATION

Staff has evaluated the application and exception request for the construction of a retaining wall. This application meets the Ordinance conditions in Sections 23-11 and 23-14 and should be heard by the Board because the construction of a retaining wall is considered accessory in nature.

CONSIDERATION BY THE CHESAPEAKE BAY BOARD

The Board may grant exceptions to Section 23-7 if the application meets the following five conditions:

1. The exception request is the minimum necessary to afford relief; and
2. Granting the exception will not confer upon the Applicant any special privileges denied by Chapter 23, Chesapeake Bay Preservation, of the James City County Code, to other property owners similarly situated in the vicinity; and
3. The exception request will be in harmony with the purpose and intent of Chapter 23 of the James City County Code and is not of substantial detriment to water quality; and
4. The exception request is not based on conditions or circumstances that are self-created or self-imposed, nor does the request arise from conditions or circumstances, either permitted or non-conforming that are related to adjacent parcels; and
5. Reasonable and appropriate conditions are imposed which will prevent the exception request from causing a degradation of water quality.

STAFF RECOMMENDATIONS

Staff has reviewed the application and exception request and has determined the impacts associated with the proposal to be minor for the proposed development. Staff recommends approval for this exception request and if the Board wishes to approve this request, staff recommends the following conditions be incorporated into the approval:

1. The applicant must obtain all other necessary federal, state, and local permits as required for the project, including a building permit if necessary; and
2. This exception request approval shall become null and void if construction has not begun by October 13, 2022; and
3. Written requests for an extension to an exception shall be submitted to the Stormwater and Resource Protection Division no later than September 1, 2022, six weeks prior to the expiration date.

TAL/md
CBPA21-155_210RdOakLdg

Attachments:

1. Resolution
2. Site Plan

RESOLUTION

CASE NO. CBPA 21-0155. 210 RED OAK LANDING ROAD

JAMES CITY COUNTY CHESAPEAKE BAY PRESERVATION ORDINANCE EXCEPTION

WHEREAS, Mr. Clinton Morgeson, (the “Applicant”), has applied to the Chesapeake Bay Board of James City County (the “Board”) on October 13, 2021, to request an exception to use the Resource Protection Area (the “RPA”) on a parcel of property identified as James City County Real Estate Tax Map Parcel No. 4730100032 and further identified as 210 Red Oak Landing Road (the “Property”) as set forth in the application CBPA 21-0155 for the purpose of construction of a retaining wall; and

WHEREAS, the Board has listened to the arguments presented and has carefully considered all evidence entered into the record.

NOW, THEREFORE, BE IT RESOLVED that the Chesapeake Bay Board of James City County, Virginia, following a public hearing, by a majority vote of its members FINDS that:

1. The exception request is the minimum necessary to afford relief.
2. Granting the exception will not confer upon the Applicant any special privileges denied by Chapter 23, Chesapeake Bay Preservation, of the James City County Code, to other property owners similarly situated in the vicinity.
3. The exception request will be in harmony with the purpose and intent of Chapter 23 of the James City County Code and is not of substantial detriment to water quality.
4. The exception request is not based on conditions or circumstances that are self-created or self-imposed, nor does the request arise from conditions or circumstances either permitted or non-conforming that are related to adjacent parcels.
5. Reasonable and appropriate conditions are hereby imposed, as set forth below, which will prevent the exception request from causing a degradation of water quality.
6. In granting this exception, the following conditions are hereby imposed to prevent this exception request from causing degradation of water quality:
 - a. The applicant must obtain all other necessary federal, state, and local permits as required for the project, including a building permit if necessary; and
 - b. This exception request approval shall become null and void if construction has not begun by October 13, 2022; and
 - c. Written requests for an extension to an exception shall be submitted to the Stormwater and Resource Protection Division no later than September 1, 2022, six weeks prior to the expiration date.

David Gussman
Chair, Chesapeake Bay Board

Michael D. Woolson
Secretary to the Board

Adopted by the Chesapeake Bay Board of James City County, Virginia, this 13th day of October, 2021.

CBPA21-150_210RdOakLdg-res



Chesapeake Bay Board of James City County, Virginia

October 13, 2021

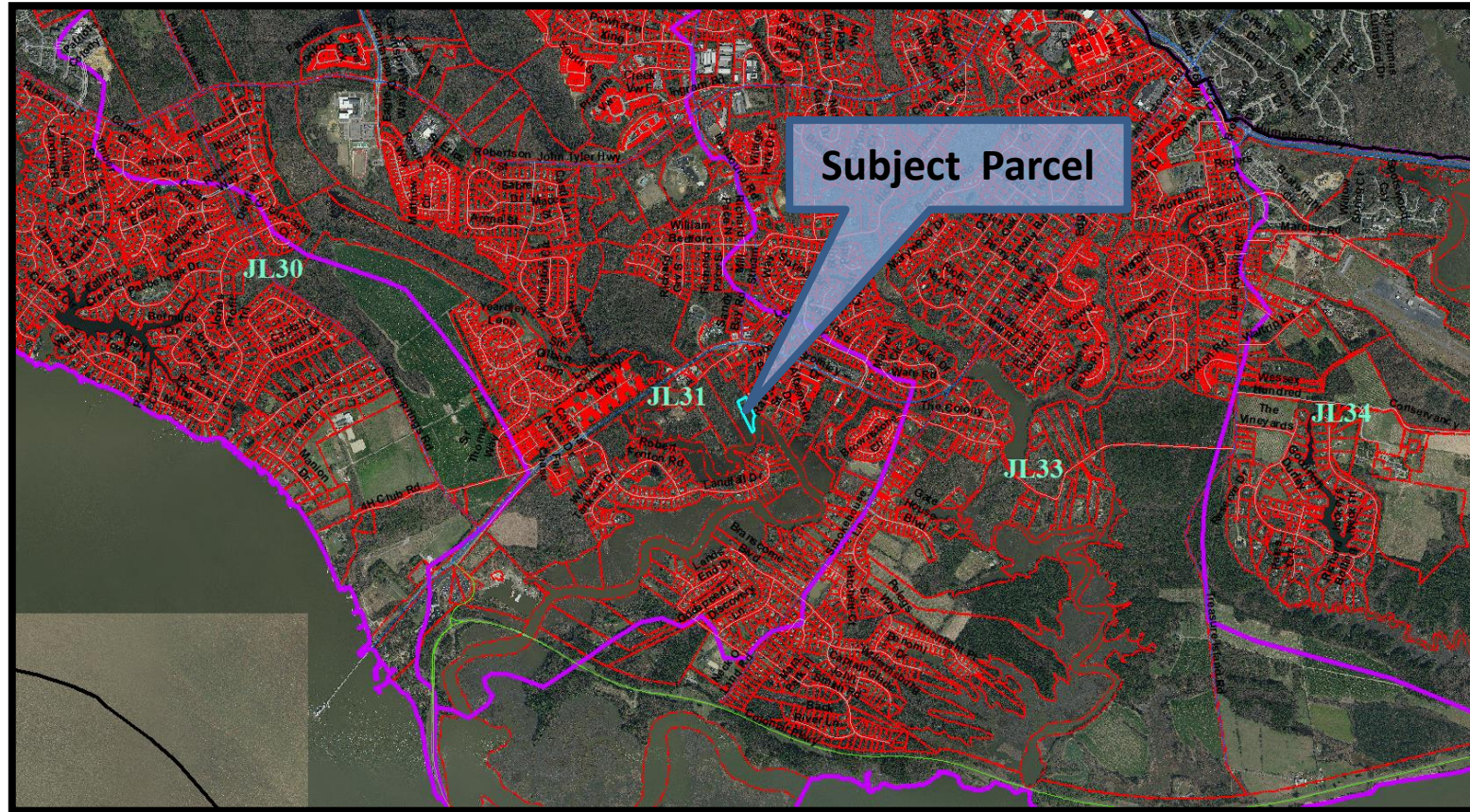
CBPA 21-0155

Clint Morgeson

210 Red Oak Landing

Applicant Request

- ✓ Construct a retaining wall.



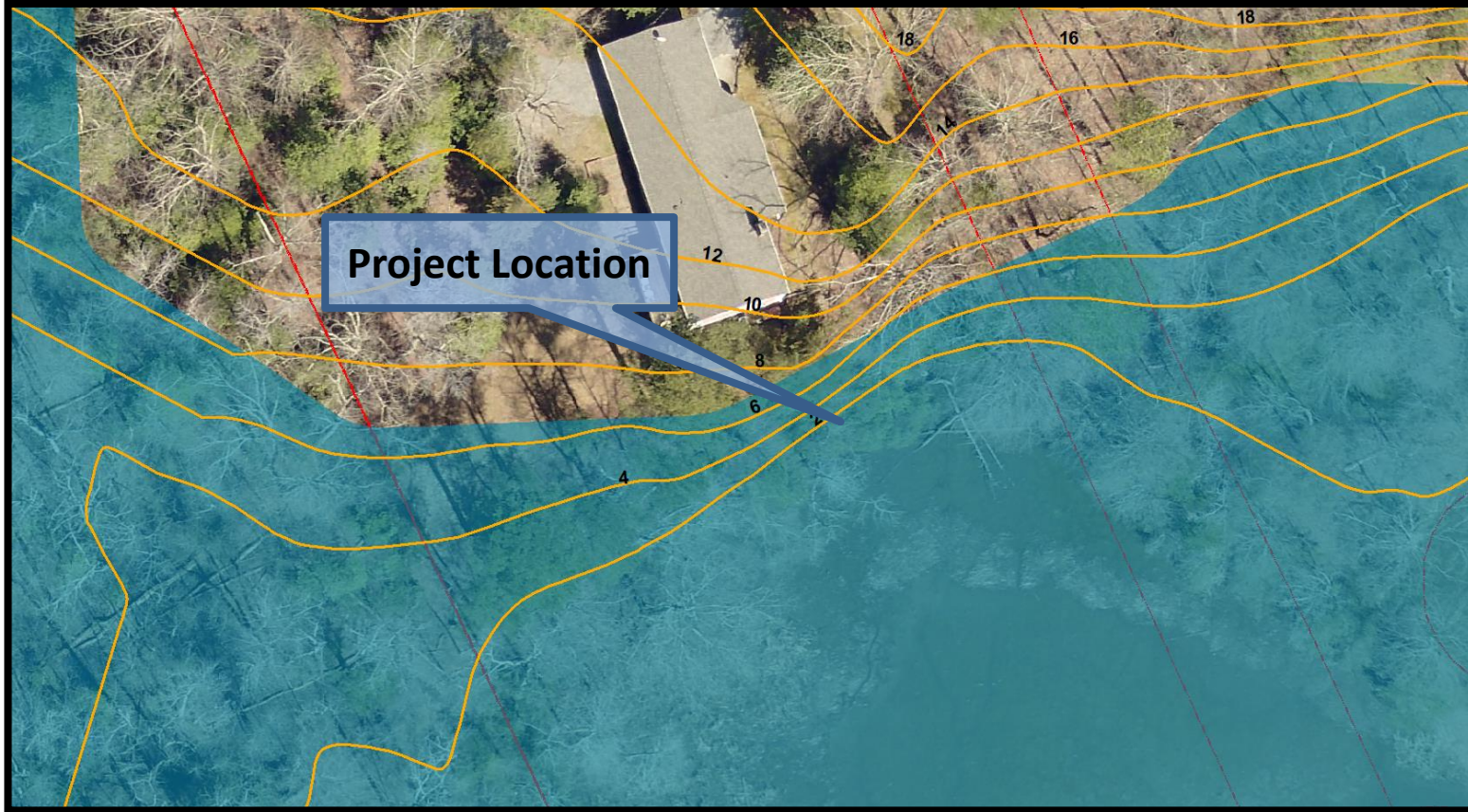
Vicinity Map
CBPA-21-0155
210 Red Oak Landing



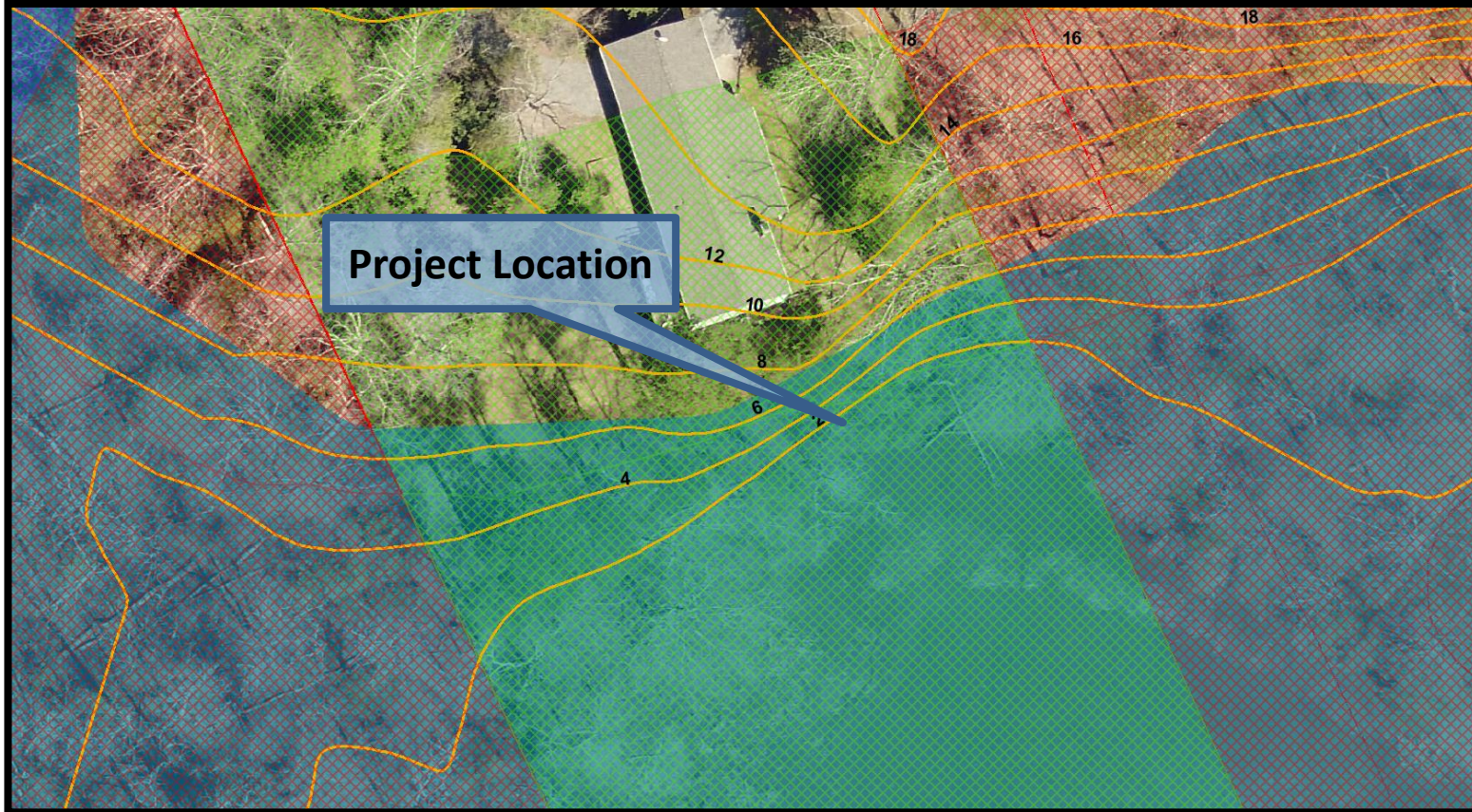
Aerial Photograph
CBPA-21-0155
210 Red Oak Landing



Topography
CBPA-21-0155
210 Red Oak Landing



Floodplain
CBPA-21-0155
210 Red Oak Landing



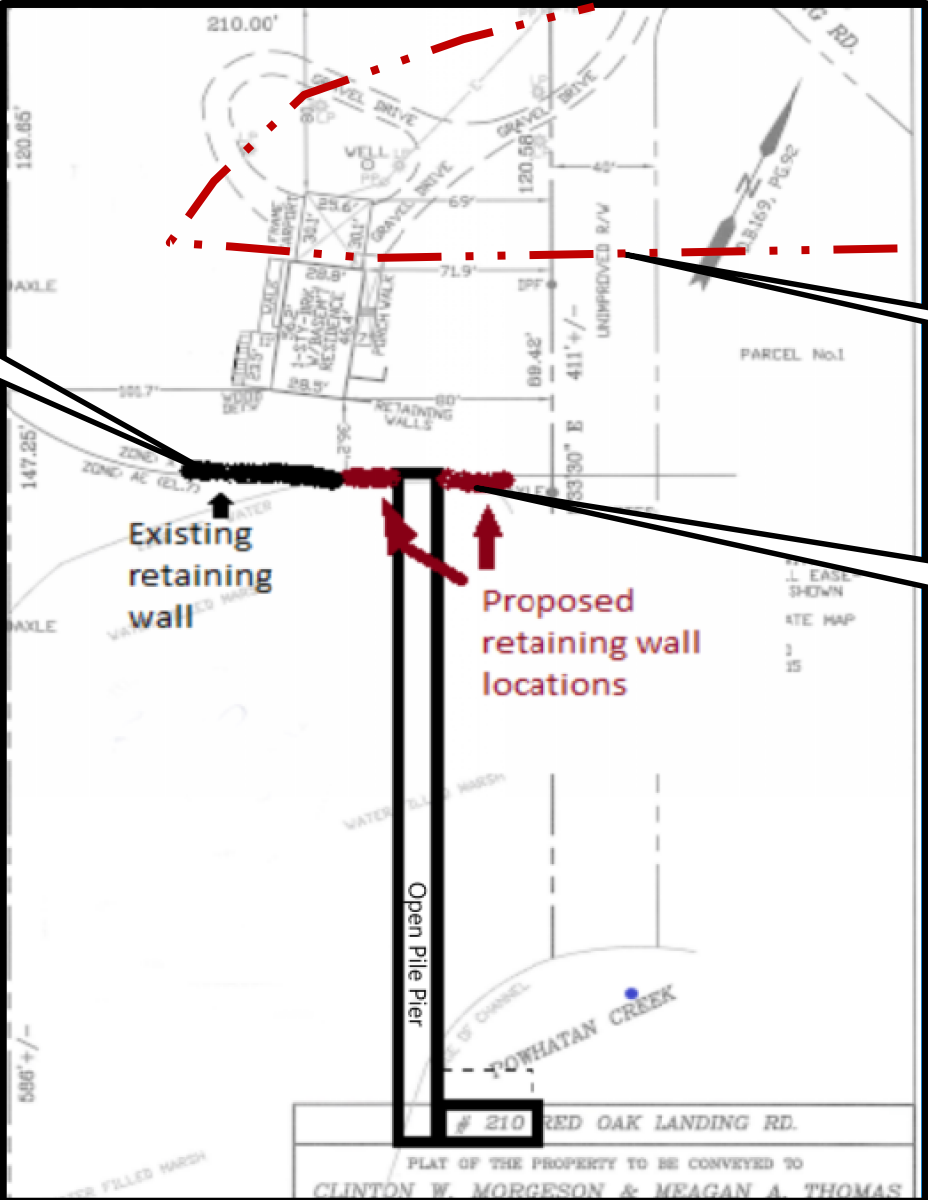
Resource Protection Area
CBPA-21-0155
210 Red Oak Landing

Site Plan showing proposed improvements, submitted August 30, 2021. For representative use only for presentation of case #CBPA-21-0155

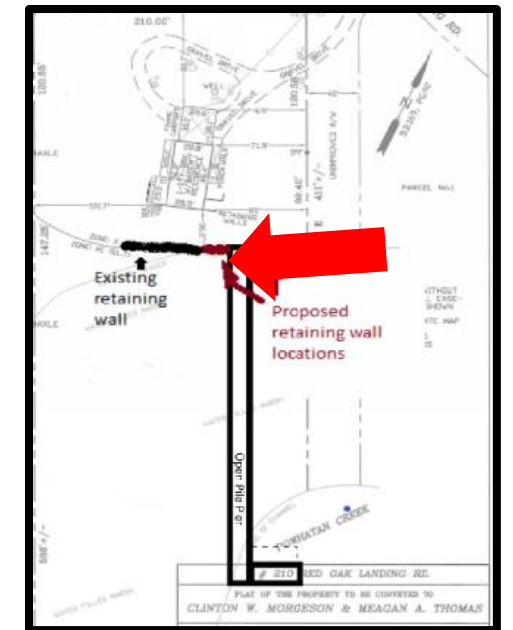
Existing Retaining Wall

100 foot Resource Protection Area

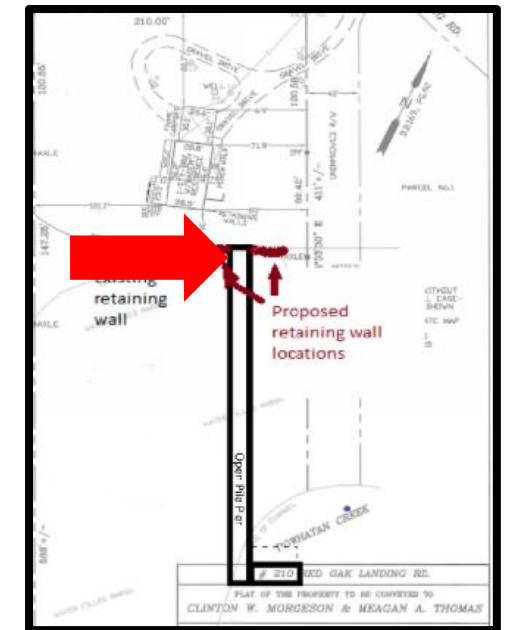
Proposed Retaining Wall



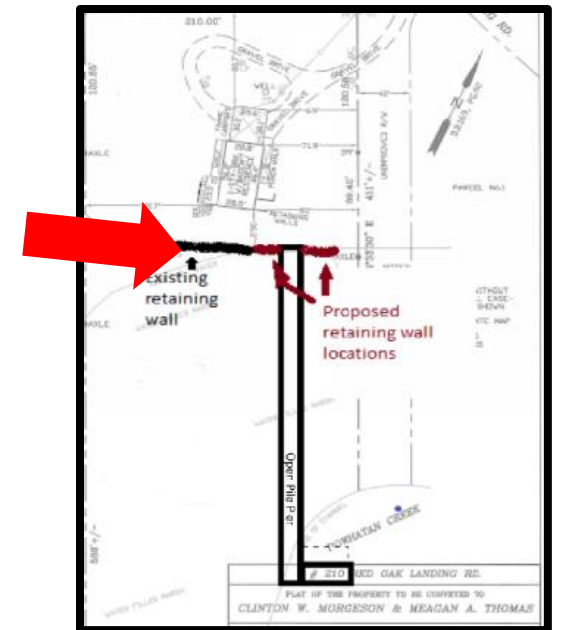
Site Plan - CBPA-21-0155
210 Red Oak Landing



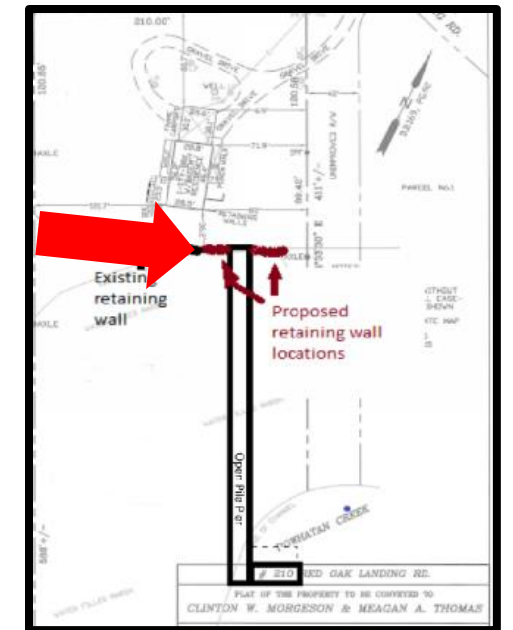
Site Photograph #1 - CBPA-21-0155
210 Red Oak Landing



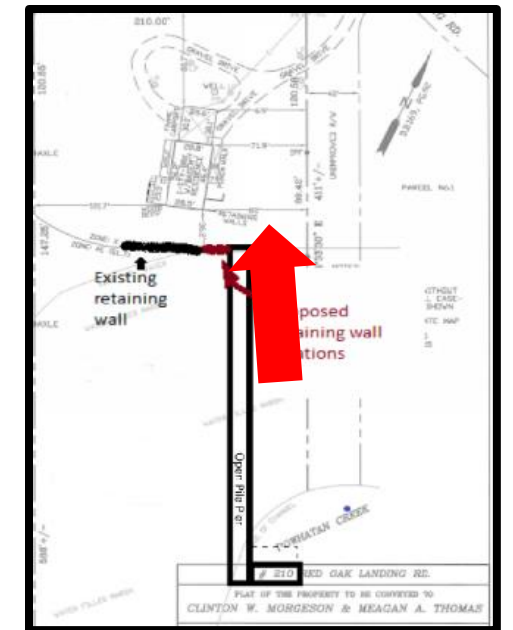
Site Photograph #2 - CBPA-21-0155
210 Red Oak Landing



Site Photograph #3 - CBPA-21-0155
210 Red Oak Landing



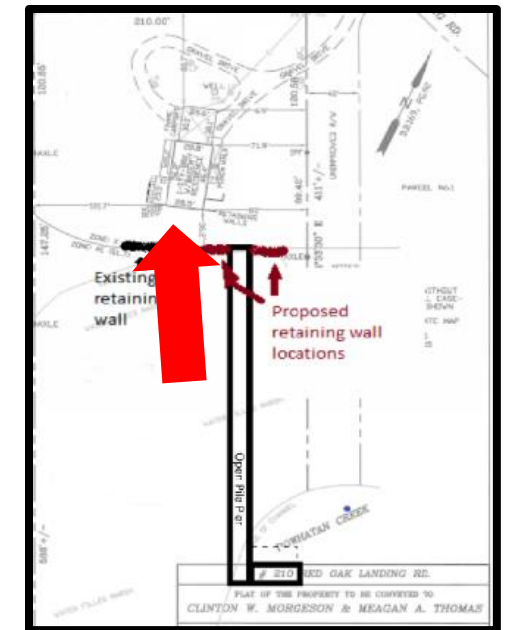
Site Photograph #4 - CBPA-21-0155
210 Red Oak Landing



Mitigation Photograph #1 - CBPA-21-0155
210 Red Oak Landing



October 8, 2021
1:58 PM



Mitigation Photograph #2 - CBPA-21-0155
210 Red Oak Landing



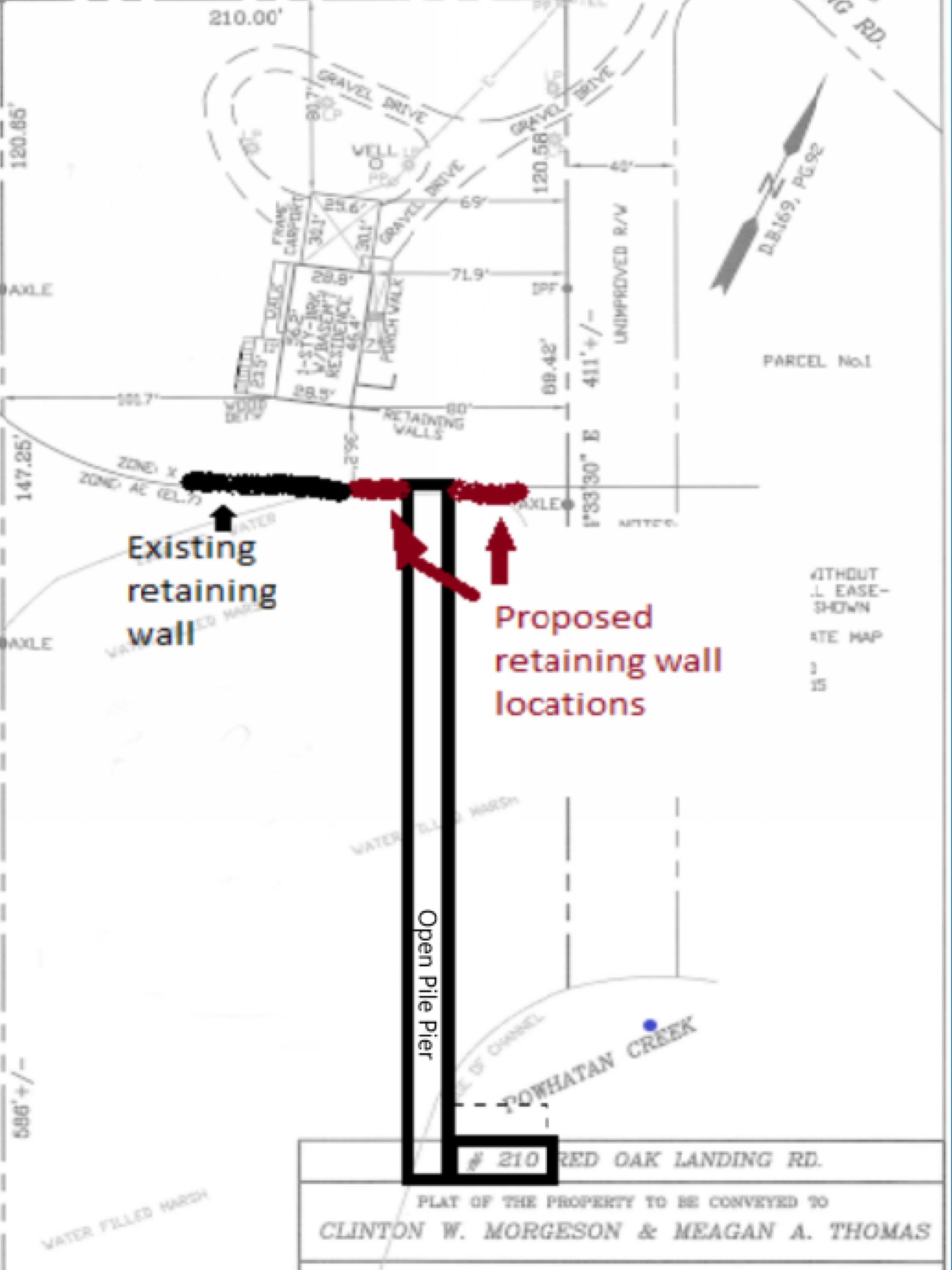
Mitigation Photograph #3 - CBPA-21-0155
210 Red Oak Landing

Permit Conditions



Staff Recommendation – Approval

- ✓ All other necessary local, state and federal permits
- ✓ This exception request approval shall become null and void if construction has not begun by October 13, 2022
- ✓ Written requests for extension submitted no later than September 1, 2022





General Services
107 Tewning Road
Williamsburg, VA 23188
P: 757-259-4080
General.Services@jamestowncountyva.gov
jamestowncountyva.gov

Capital Projects 107 Tewning Road Williamsburg, VA 23188 757-259-4080	Fleet 103 Tewning Road Williamsburg, VA 23188 757-259-4122	Stormwater and Resource Protection 101-E Mounts Bay Road Williamsburg, VA 23185 757-253-6670	Facilities & Grounds 113 Tewning Road Williamsburg, VA 23188 757-259-4080	Solid Waste 1204 Jolly Pond Road Williamsburg, VA 23188 757-565-0971
---	--	--	---	--

September 22, 2021

RE: CBPA 21-0155
210 Red Oak Landing Road
Retaining Wall

Dear Adjacent Property Owner:

In accordance with State and County Codes, this letter is to notify you that a request has been filed with the James City County Chesapeake Bay Board by Mr. Clinton Morgeson for encroachment into the Resource Protection Area (RPA) buffer for the construction of a retaining wall. The project is located at 210 Red Oak Landing Road and further identified as JCC Parcel No. 4730100032.

A complete description, plan and other information are on file in the Stormwater and Resource Protection Division and are available for inspection during normal business hours, should anyone desire to review them.

The Chesapeake Bay Board will hold an advertised public hearing on **Wednesday, October 13, 2021 at 5:00 p.m.**, in the Board Room of Building F, 101 Mounts Bay Road, James City County, Virginia, at which time you may request to speak on the above referenced project.

Sincerely,

Michael D. Woolson

Michael D. Woolson
Chesapeake Bay Board Secretary
757-253-6823
michael.woolson@jamestowncountyva.gov

MDW: jep

Mailing List for: CBPA-21-0155–210 Red Oak Landing Road Road:- Retaining Wall

Owner: 4730100032

Morgeson, Clinton W & Thomas, Meagan A
210 Red Oak Landing Road
Williamsburg, VA 23185-2356

4730100032A

Seltzer, Michael E & Karis J
138 Red Oak Landing Road
Williamsburg, VA 23185-2383

4730100016- 234 Sandy Bay Road

Murphy, Stephen E, Trustee & Rebecca
3401 Ironbound Road
Williamsburg, VA 23188-2418

4730100026 – 119 Red Oak Landing Road

Helseth, Glenn O
1782 Jamestown Road
Williamsburg, VA 23185-2348

4732400001A- 4381 Landfall Drive

Landfall at Jamestown Community
Association
103 Bulifants Boulevard, Suite A
Williamsburg, VA 23188-5722

4730100026A – 127 Red Oak Landing Road

James City Service Authority
119 Tewning Road
Williamsburg, VA 23188-2639



PUBLIC HEARING NOTICE

THE WETLANDS BOARD AND THE CHESAPEAKE BAY BOARD OF JAMES CITY COUNTY, VIRGINIA, WILL HOLD PUBLIC HEARINGS ON **WEDNESDAY, OCTOBER 13, 2021 AT 5 P.M.** IN THE COUNTY GOVERNMENT CONFERENCE ROOM OF BUILDING F, 101 MOUNTS BAY ROAD, JAMES CITY COUNTY, VIRGINIA.

THE WETLANDS BOARD WILL CONSIDER THE FOLLOWING CASES:

WJPA-21-0050/VMRC-2021-1634: Ms. Karla Haven, Mid-Atlantic Resource Consulting, on behalf of Mr. Richard J. and Mrs. Yesenia P. Businelle, has applied for a wetlands permit for the installation of an offshore sill with beach nourishment, and bank grading at 1493 John Tyler Highway, JCC Parcel ID No. 3430300005.

WJPA-21-0052/VMRC-2021-1705: Mr. Daniel R. Winall, Water's Edge Construction, on behalf of Mr. Willem L. Blindenbach, Trustee and Mrs. Floriena Petronella Blindenbach-Driessen, Trustee, has applied for a wetlands permit for the installation of two rip-rap sills with beach nourishment at 1481 John Tyler Highway, JCC Parcel ID No. 3430300002.

WJPA-21-0054/VMRC-2021-1762: Mrs. Rebecca Francese, Waterway Surveys and Engineering, Ltd. on behalf of Mr. Andrew Mayfield, First Colony Marina and Greater First Colony Area Civic Association, has applied for a wetlands permit for the dredging of the First Colony Marina, at 94 Shellbank Drive, JCC Parcel ID No. 4530400001.

THE CHESAPEAKE BAY BOARD WILL CONSIDER THE FOLLOWING CASES:

CBPA-21-0150: Mr. John Moore has filed an exception request for encroachments into the RPA buffer for construction of a shed at 110 Pasbehegh Drive, JCC Parcel ID No. 4520200215.

CBPA-21-0155: Mr. Clinton Morgeson has filed an exception request for encroachments into the RPA buffer for construction of a retaining wall at 210 Red Oak Landing Road, JCC Parcel ID No. 4730100032.

Appeals from decisions under the Chesapeake Bay Preservation Ordinance may also be heard.

The applications and plans are on file and may be viewed during normal office hours in the Stormwater and Resource Protection Division, 101-E Mounts Bay Road, James City County, Virginia.

NOT FOR PUBLICATION

DISPLAY: WEDNESDAY – SEPTEMBER 29, 2021 and OCTOBER 6, 2021.
ACCOUNT NO. CU00015112
VIRGINIA GAZETTE
1/8 PAGE, VERTICAL, B/W
CARD # x9941

COPIES: PLANNING
 ASSISTANT COUNTY ATTORNEY
 WETLANDS/CHESAPEAKE BAY BOARD MEMBERS

ITEM SUMMARY

DATE: 10/13/2021

TO: Chesapeake Bay Board

FROM: Michael Woolson, Section Chief - Resource Protection

SUBJECT: Appeal - 5032 River Drive

ATTACHMENTS:

	Description	Type
☐	Staff Report	Staff Report
☐	Resolution to Affirm CBPA Violation	Resolution
☐	Resolution to Deny CBPA Violation	Resolution
☐	Figure 1. June 23, 2017	Exhibit
☐	Figure 2. July 2, 2017	Exhibit
☐	Figure 3. September 15, 2017	Exhibit
☐	Figure 4. September 15, 2017	Exhibit
☐	Figure 5. October 17, 2020	Exhibit
☐	Figure 6. May 31, 2021	Exhibit
☐	Figure 7. June 18, 2021	Exhibit
☐	Figure 8. June 21, 2021	Exhibit
☐	Figure 9. June 23, 2021	Exhibit
☐	Figure 10. July 1, 2021	Exhibit
☐	Figure 11. July 1, 2021	Exhibit
☐	Exhibit A. Notice of Violation	Exhibit
☐	Exhibit B. Sensitive Area Activity Application, June 28, 2017	Exhibit
☐	Exhibit C. The Structures Group, forensic review and structural design of retaining wall, June 19, 2017	Exhibit
☐	Exhibit D. ECS slope evaluation, August 3, 2021	Exhibit
☐	Exhibit E: Building Permit application, June 21, 2017	Exhibit
☐	Exhibit F: Building Permit Final, December 8, 2017	Exhibit

REVIEWERS:

Department	Reviewer	Action	Date
Chesapeake Bay Group	Secretary, ChesBay	Approved	10/7/2021 - 9:48 AM

MEMORANDUM

DATE: September 8, 2021

TO: The Chesapeake Bay Board

FROM: Michael D. Woolson, Section Chief, Resource Protection
Elizabeth Parman, Assistant County Attorney

SUBJECT: Appeal of Notice of Violation for Chesapeake Bay Preservation Ordinance Violations,
dated June 28, 2021 - 5032 River Drive

Mr. Gregory S. Bean filed an appeal to the James City County Chesapeake Bay Board (the “Board”) on July 28, 2021, on behalf of Mr. Danny Patterson (the “Owner”). The Owner is appealing the administrative decision that there are violations of County Code Chapter 23 - Chesapeake Bay Preservation Ordinance (“Ordinance”) at 5032 River Drive (the “Property”) because the requirements outlined in Sections 23-7 and 23-10 of the James City County Code have not been met.

Pursuant to James City County Code Section 23-17, the Chesapeake Bay Board shall hear appeals of administrative decisions under the Ordinance. In rendering its decision, the Board shall balance the hardship to the property owner with the purpose, intent and objectives of this chapter. The Board shall not decide in favor of the appellant unless it finds: (1) the hardship is not generally shared by other properties in the vicinity; (2) the Chesapeake Bay, its tributaries, and other properties in the vicinity will not be adversely affected; and (3) the appellant acquired the property in good faith and the hardship is not self-inflicted. After considering the evidence and opinions, the Board may affirm, reverse, or modify the decision of the County agent. The Board’s decision is subject to review by the circuit court of James City County if appealed.

Background Information

On June 21, 2021, staff received a phone call from the Virginia Marine Resources Commission (VMRC) about a potential navigation hazard in Diascund Creek due to some trees in the water. Staff conducted a field investigation on June 21, 2021, and discovered that the hillside between the existing house located at 5032 River Drive and Diascund Creek had collapsed, sending debris into the creek. The hillside collapse appeared to affect 5030, 5032, and 5034 River Drive, an area of approximately 6,000 square feet. In the ensuing office investigation, staff was not able to locate the submittal of any Chesapeake Bay Exception request showing the work to be done at 5032 River Drive. After talking to neighbors, it was determined that approximately 30 to 50 dump truck loads of dirt were delivered and spread out in the rear yard with the understanding that it was intended to fill in holes from a recently removed deck.

On June 28, 2021, staff sent a Notice of Violation to Mr. Patterson that outlined the nature of the violations on the property. Specifically, the work caused a global rotational slope failure in the Resource Protection Area (RPA). Neither Mr. Patterson nor his contractor submitted a plan of development as required by County Code Chapter 23, an erosion and sediment control plan or applied for a land disturbing permit as required by County Code Chapter 8.

History

In 2017, Mr. Patterson applied for a Chesapeake Bay Preservation Waiver (CBE-17-095) to allow for the construction of a retaining wall to help stabilize the structural integrity of the existing home and submitted

an erosion and sediment control plan (E&S-028-17). He received both approvals and a building permit (B17-2037) to build the retaining wall. The retaining wall received final building approval on December 8, 2017. When E&S-028-17 was approved, it was determined that a land disturbing permit was not required because the extent to the work was less than 2,500 square feet.

In 2001, Mr. Patterson commissioned ECS Consulting Engineers to do a slope stability analysis. The report was supplied to the County on June 28, 2017 as supporting documentation for the justification of a retaining wall in the Chesapeake Bay Preservation Ordinance Sensitive Area Activity Application. The results of this slope stability analysis showed that a rotational slope failure was possible.

The retaining wall built in 2017 was removed at some point in time prior to the slope failure of June 21, 2021. There are no records that Mr. Patterson applied for a demolition permit to remove the retaining wall or the deck on the back of the house.

Staff Findings

Staff has reviewed the appeal and associated documents and offers the following information for the Board's consideration.

1. Mr. Danny Patterson is the current owner of the Property located at 5032 River Drive.
2. On June 21, 2021, Mr. Patterson hired a contractor to fill in a portion of his rear yard, the entirety of which is in the RPA.
3. At approximately 3:30 p.m. on June 21, 2021, the slope collapsed due to the extra weight that had been placed on it over the course of the day. The slope failure affected neighboring properties and resulted in land disturbance of approximately 6,000 square feet. Staff received a call from the VMRC at approximately 4:30 p.m. relaying concerns about navigation hazards in Diascund Creek.
4. Neither Mr. Patterson nor his contractor applied for or received any County approvals for the work that was done. He did not submit a plan of development nor seek approval to work in the RPA as required by County Code Section 23-10, he did not submit an erosion and sediment control plan as required by County Code Section 8-4, and he did not apply for a land disturbing permit as required by County Code Section 8-22. Mr. Patterson previously applied for these plans and permits for a retaining wall completed in 2017.

Issues to be Decided by the Board

1. Whether Mr. Patterson violated County Code Section 23-10 for failing to submit a plan of development for land disturbing activity.

MDW/EP/md
AppCBBViol5032RvrDr-mem

Attachments:

1. Figures
Figure 1. Picture, June 23, 2017
Figure 2. Picture, July 2, 2017

Figure 3. Picture, September 15, 2017

Figure 4. Picture, September 15, 2017

Figure 5. Picture, October 17, 2020

Figure 6. Picture, May 31, 2021

Figure 7. Picture, June 18, 2021

Figure 8. Picture, June 21, 2021

Figure 9. Picture, June 23, 2021

Figure 10. Picture, July 1, 2021

Figure 11. Picture, July 1, 2021

2. Exhibits

Exhibit A: Notice of Violation, June 28, 2021

Exhibit B: Sensitive Area Activity Application, June 28, 2017

Exhibit C: The Structures Group, forensic review and structural design of retaining wall, June 19, 2017

Exhibit D: ECS slope evaluation, August 3, 2001

Exhibit E: Building Permit application, June 21, 2017

Exhibit F: Building Permit Final, December 8, 2017

RESOLUTION

AFFIRMING THE CHESAPEAKE BAY PRESERVATION VIOLATION AT 5032 RIVER DRIVE

WHEREAS, Mr. Gregory Bean, Esq., on behalf of Mr. Danny Patterson (“Appellant”), has appeared before the Chesapeake Bay Board of James City County (the “Board”) on September 8, 2021, to appeal a Notice of Violation issued on June 28, 2021, to the Appellant for violations of County Code Chapter 23, Chesapeake Bay Preservation Ordinance on a parcel of property identified as James City County Real Estate Tax Map Parcel No. 0930300007 and further identified as 5032 River Drive (the “Property”); and

WHEREAS, the Board, pursuant to County Code Section 23-17, has listened to the arguments presented by the Appellant and by the County agent and has carefully considered all evidence entered into the record.

NOW, THEREFORE, BE IT RESOLVED that the Chesapeake Bay Board of James City County, Virginia, by a majority vote of its members affirms the Notice of Violation issued to Mr. Danny Patterson on June 28, 2021, and finds that Mr. Danny Patterson is in violation of County Code, Chapter 23, Chesapeake Bay Preservation, Sections 23-7 and 23-10.

NOW, THEREFORE, BE IT FURTHER RESOLVED that the Chesapeake Bay Board of James City County, Virginia, encourages the parties to reach a settlement agreement to abate the violation and for a one-time civil charge in the amount of \$10,000.

NOW, THEREFORE, BE IT FINALLY RESOLVED that the Chesapeake Bay Board of James City County, Virginia, urges the County Attorney’s Office to seek the maximum penalties allowed by the County Code if this matter is brought before the Circuit Court.

David Gussman
Chair, Chesapeake Bay Board

Michael D. Woolson
Secretary to the Board

Adopted by the Chesapeake Bay Board of James City County, Virginia, this 8th day of September, 2021.

AffCBBViol5032RvrDr-res

RESOLUTION

REVERSING THE CHESAPEAKE BAY PRESERVATION VIOLATION AT 5032 RIVER DRIVE

WHEREAS, Mr. Gregory Bean, Esq., on behalf of Mr. Danny Patterson (“Appellant”), has appeared before the Chesapeake Bay Board of James City County (the “Board”) on September 8, 2021, to appeal a Notice of Violation issued on June 28, 2021, to the Appellant for violations of County Code Chapter 23, Chesapeake Bay Preservation Ordinance on a parcel of property identified as James City County Real Estate Tax Map Parcel No. 0930300007 and further identified as 5032 River Drive (the “Property”); and

WHEREAS, the Board, pursuant to County Code Section 23-17, has listened to the arguments presented by the Appellant and by the County agent and has carefully considered all evidence entered into the record.

NOW, THEREFORE, BE IT RESOLVED that the Chesapeake Bay Board of James City County, Virginia, following a public hearing, by a majority vote of its members reverses the Notice of Violation issued to Mr. Danny Patterson on June 28, 2021, and FINDS that Mr. Danny Patterson is not in violation of County Code, Chapter 23, Chesapeake Bay Preservation.

David Gussman
Chair, Chesapeake Bay Board

Michael D. Woolson
Secretary to the Board

Adopted by the Chesapeake Bay Board of James City County, Virginia, this 8th day of September, 2021.

RevCBBViol5032RvrDr-res























**General Services**

107 Tewning Road
Williamsburg, VA 23188
P: 757-259-4080

General.Services@jamescitycountyva.gov

jamescitycountyva.gov

Capital Projects

107 Tewning Road
Williamsburg, VA 23188
757-259-4080

Fleet

103 Tewning Road
Williamsburg, VA 23188
757-259-4122

**Stormwater and
Resource Protection**

101-E Mounts Bay Road
Williamsburg, VA 23185
757-253-6670

Facilities & Grounds

113 Tewning Road
Williamsburg, VA 23188
757-259-4080

Solid Waste

1204 Jolly Pond Road
Williamsburg, VA 23188
757-565-0971

NOTICE OF VIOLATION

of James City County's Environmental Regulations

June 28, 2021

Mr. Danny Patterson
5032 River Drive
Lanexa, VA 23089

Re: **Chesapeake Bay Preservation Ordinance Violation, Land Disturbing Violation, Erosion and Sediment Control Ordinance Violation, Stormwater Management Ordinance Violation and an Erosion Impact Area.**
5032 River Drive, James City County PIN 0930300007
SRP-21-0005

Dear Mr. Patterson:

On June 21, 2021, representatives of the James City County Stormwater and Resource Protection Division inspected the properties adjacent to 5032 River Drive after a complaint was received at the County for work occurring within the resource protection area. This work caused a global rotational slope failure to occur affecting property at 5030 River Drive, 5032 River Drive and 5034 River Drive. This work also caused fill and debris to impact a portion of Diascund Creek. The County does not have any active Chesapeake Bay Preservation Exception requests, Wetland Permit applications, Erosion and Sediment Control Plans, or Land Disturbing Permit applications on file for any of these properties.

This activity is a violation of: (1) James City County Code ("County Code") Chapter 23 Chesapeake Bay Preservation Ordinance, (2) County Code Chapter 8, Article I Erosion and Sediment Control Ordinance, and (3) County Code Chapter 8, Article II Stormwater Management Ordinance. Civil penalties can range from \$1,000 to \$32,500 per day per violation. These civil penalties may be ordered by the James City County Circuit Court upon petition from the County. Civil charges may be agreed upon instead of the County initiating a lawsuit against you. Civil charges can range from \$1,000 to \$32,500 per violation.

Please be advised that this is an official notification that the filling of the resource protection area and resultant global slope failure of the hillside into Diascund Creek is a Chesapeake Bay Ordinance, Stormwater Management Ordinance and Erosion and Sediment Control Ordinance violation. In order to rectify these violations, please contact our office at your earliest convenience to arrange for a meeting with representatives of the Stormwater and Resource Protection Division staff to discuss

civil penalties, restoring the creek, and restoring the RPA by entering into a Chesapeake Bay Restoration Agreement.

Should you wish to appeal any of these violations, the appeals would be heard by the following entities:

- Chesapeake Bay Preservation Ordinance appeals are heard by the James City County Chesapeake Bay Board (County Code sec. 23-17);
- Stormwater Management Ordinance appeals are heard by the James City County Circuit Court (County Code sec. 8-32) ;
- Erosion and Sediment Control Ordinance appeals are heard by the James City County Board of Supervisors (County Code sec. 8-8).

Please contact our office at 757-253-6670 to discuss this matter within the next 30 days. If you wish to appeal this determination you must initiate an appeal within 30 days After 30 days from the date of this letter, the matter is no longer appealable.

Sincerely,



Michael Woolson
Section Chief, Resource Protection
Stormwater and Resource Protection Division

cc: Toni Small, Stormwater and Resource Protection Division Director, via email
Liz Parman, Assistant County Attorney, via email
Paul Holt, Community Development Director, via email
Christy Parrish, Zoning Administrator, via email



Chesapeake Bay Preservation Ordinance
Sensitive Area Activity Application

Engineer JUN 28 2017 Election

For Office Use Only CBE 17-095
CB Number CBS 17-028

Submission Requirements: (Check all applicable)

- ☒ A \$25 non-refundable processing fee payable to Treasurer, James City County.
- ☒ RPA - landward 50' - Complete Items 1 - 5, and sign on Page 3.
- ☐ RPA - seaward 50' - Complete Items 1 - 5, sign on Page 3 and submit an additional \$100 non-refundable fee payable to Treasurer, James City County, for the Chesapeake Bay Board.
- ☐ Conservation Easement - Complete Items 1, 2, 3, and 5, and sign on Page 3.
- ☒ Steep Slopes ≥ 25 percent - Complete Items 1, 2, 3, and 5, and sign on Page 3.
- ☒ Attach plans as required (see instruction on Page 4, Item 4).
- ☐ Applicable surety as required for mitigation (see **Mitigation Rates Table** on Page 2).

Upon completion, please return pages 1-3 to the JCC Engineering and Resource Protection Division

Property Owner Information:

Date: 6-19-17

Name: Danny E. Patterson
Address: 5032 River Drive; Lanexa, VA 23089
Phone: 757-897-2871 Fax: _____ Email: depatterson@verizon.net

Contact (if different from above):

Name: Michael A. Matthews Phone: 757-220-0465
Email: mmatthews@thestructuresgroup.com

Project Information:

Project Address: 5032 River Drive; Lanexa, VA 23089
Subdivision Name, Lot, and Section No.: Cyprus Point Subdivision
Parcel Identification No. or Tax Map No.: 0930300007
Date Lot was platted: 7-8-83 Line or Bldg Permit No.: A171119/EIS-28-17

Activity Location and Impacts (Square Feet - SF): (check all that apply)

- | | |
|--|--|
| ☒ Steep Slopes ≥ 25 percent <u>2,197</u> (SF) | ☒ RPA - Landward 50' <u>2,197</u> (SF) |
| ☐ Conservation Easement _____ (SF) | ☐ RPA - Seaward 50' _____ (SF) |
| ☐ Trees to be Removed _____ (#) | ☒ Proposed Impervious Cover <u>+122</u> (SF) |

Activity involves: (check all that apply)

- | | | |
|---|---|--|
| ☐ New principal structure construction | ☐ Building addition to principal structure | ☐ Attached Deck |
| ☐ Permitted buffer modifications: | ☐ Dead/diseased/dying tree removal | ☐ Sightline |
| ☒ Accessory (Detached) Structure or Patio | ☐ Invasive/noxious weed removal | ☐ Access path/trail |
| ☐ Other: _____ | ☐ Redevelopment: _____ | |

**Chesapeake Bay Preservation Ordinance
Sensitive Area Activity Application**

Page 2

For Office Use Only CBK17-028
CB5
CB Number 17-028

1. Description of requested sensitive area activity and reason for request:

(In the description, please indicate the reason for the proposed structure or activity, the location, sizes and dimensions of feature. For decks or expansions, indicate if ground floor, first floor or other levels)

A timber retaining wall is proposed to be installed approximately 20'-0" down slope from the existing residence to prevent additional erosion and distress to the residence. The retaining wall is proposed to be 122' long and up to 8-0" tall.

2. As per Section 23-9 of the Chesapeake Bay Preservation Ordinance, if there is an on-site sewage disposal system on this property, has it been inspected and/or pumped out in the past five years? ☒ Yes ☐ No
3. Are permits from other local, State or Federal agencies required for any portion of this project? ☒ Yes ☐ No
(If yes, please explain) James City County Building Permit

4. Water Quality Impact Assessment

The purpose of a water quality impact assessment is to demonstrate that the project will result in the removal of no less than 75 percent of sediments and 40 percent of nutrients from post-development stormwater run-off and that it will retard runoff, prevent accelerated erosion, promote infiltration, and filter non-point source pollution equivalent to the full undisturbed 100-foot buffer.

A. Why is this encroachment necessary? Can it be relocated to avoid RPA impacts?

The existing slope has failed. No, The entire rear portion of the property is completely within the RPA boundary.

B. What measures will be used to minimize impervious area? Examples: pervious pavers, removal of existing impervious surfaces (concrete, pavement, etc.) in the RPA not needed for the project

The proposed retaining wall will be filled and graded with topsoil to minimize the impact of the impervious cover.

5. Proposed mitigation measures:

Note: All mitigation measures must be shown in detail on a mitigation plan. Show both location of mitigation measures and plant species if applicable. All mitigation plants must be native species and be located in the sensitive area (RPA or Conservation Easement).

Mitigation Rates Table

<u>Impervious Area (SF)</u>	<u>Mitigation Required</u>	<u>Surety</u>
<400	1 tree and 3 shrubs	\$250
400-1,000	1 canopy tree, 2 understory trees and 3 shrubs per 400 SF (or fraction thereof)	\$1,000
>1,000	Plant at same rate as 400 – 1,000; or may be determined by Director of Engineering and Resource Protection Division	To be determined

Chesapeake Bay Preservation Ordinance
Sensitive Area Activity Application

Page 3

For Office Use Only *CBB 17-098*
CB Number *CBS 17-028*

A. Vegetation/ground cover enhancement of buffer (see Mitigation Rates Table on previous page).

- ☐ Number of native canopy trees _____
☐ Number of native understory trees _____
☐ Number of native shrubs _____
☐ Square feet of native ground cover _____
☐ Square feet of mulch _____

B. Best Management Practices (BMPs)

- ☐ EC-2 (degradable) erosion control matting
☐ Dry Swale
☒ Silt fence
☐ Turf (Nutrient) Management Plan
☐ Gravel under deck (3" of gravel over synthetic filter fabric under entire deck area)
☐ Other: _____
- ☐ Bioretention or rain garden practice
☐ Infiltration Area/Trench/Drywell
☐ Structural BMP (Wet or Dry Pond)
☐ Rain Barrel

I understand that the following are approval conditions:

- 1) Mitigation for the above activity shall follow the approved mitigation plan and be guaranteed with a form of surety acceptable to the County Attorney.
- 2) Limits of disturbance as shown on the approved plan shall not be exceeded.
- 3) This approval shall become null and void if construction has not begun within 12 months of the approval date.
- 4) Surety will be released following the completion and inspection of mitigation plantings.

Property owner signature *Don S. Pate* Date *6/16/17*
Program Administrator *[Signature]* Date *7/6/17*
Authorized Signature

For Office Use Only

Approval of retaining wall and drainage structures to guarantee the structural integrity of the existing home.
Approval expires 7/6/18

Surety Amount: _____
Date/Rec No.: _____
Fee Paid? ☒ Yes ☐ No
Amount: *25.00*
Date/Rec No.: *6/29/17 # 3158*



ENGINEERING CONSULTING SERVICES, LTD.

Geotechnical • Construction Materials • Environmental

August 3, 2001

Mr. Danny Patterson
5032 River Drive
Lanexa, VA 23089

ECS Project No. 6521

Reference: Slope Evaluation
Patterson Residence – 5032 River Drive
Lanexa, Virginia

Dear Mr. Patterson:

Engineering Consulting Services, Ltd. is pleased to present the results of the subsurface exploration and geotechnical engineering analysis for the above referenced project.

Overview:

It is our understanding that the existing residence was built on a relatively level plateau in 1980. The north side of the property slopes down about 20 feet to Diascund Creek, a tributary of the Chickahominy River that is located about 1,500 feet to the south. Bulkheads were constructed between the house and the creek in 1987 and 1994. These bulkheads (retaining walls) failed, along with a significant portion of the slope in August 2000. Repairs to the slope ("rip-rip" toe support and slope reconstruction) was performed in October 2000; however, settlement/movement of the "rip-rip" and slope cracks were detected in March/April 2001.

Scope of Work:

Two (2) soil test borings (extended to depths of 20 and 30 feet) were performed by Scott Drilling on May 11, 2001. The 20 foot boring (B-2) was performed within the front yard of the house and the 30 foot boring (B-1) was performed near the top of the slope at the rear of the house. A slotted PVC-Pipe was installed at each borehole location for groundwater readings. The purpose of the borings was to ascertain the general subsurface conditions (soil type and groundwater), to aid in evaluating the stability of the existing slope. A location diagram and the boring logs are attached with this report.

2119-D North Hamilton Street, Richmond Virginia 23230 • (804) 353-6333 • Fax (804) 353-9478

Offices: Richmond, VA • Washington, D.C. • Norfolk, VA • Williamsburg, VA • Roanoke, VA • Fredericksburg, VA • Danville, VA
Baltimore, MD • Frederick, MD • Research Triangle Park, NC • Wilmington, NC • Charlotte, NC • Greensboro, NC • Greenville, SC • Atlanta, GA

The test borings were performed with an ATV-mounted drill rig, which utilized continuous flight augers to advance the boreholes. Representative soil samples were obtained from the borings by means of the split-barrel sampling procedure in accordance with ASTM Specification D-1586. In this procedure, a 2 inch O.D., split barrel sampler is driven into a soil a distance of 24 inches by a 140-pound hammer falling 30 inches. The first 6 inches is considered the seating interval. The number of blows required to drive the sampler through the next two 6-inch intervals is termed the Standard Penetration Test (SPT) value, and is indicated for each sample on the boring logs. A reference notes sheet for the boring logs is attached with this letter.

ECS engineering personnel visually classified representative soil samples that were collected from the borings and returned to our ECS office. The engineering properties of the soil, along with groundwater data collected on various dates (5/13, 5/14, and 6/1/01), were utilized for slope stability analysis.

Conclusions and Recommendations:

Based on visual inspection of the existing slope, in it's current condition, it is obvious that the "Rip-Rap" toe reinforcement and slope reconstruction that was performed in or about October 2000 wasn't effective in stabilizing the already weakened slope. Although the concept of reinforcing the toe of the previously failed slope with "Rip-Rap" is considered an acceptable stabilization method (alternative), it is my opinion that prudent engineering design wasn't employed. In this respect, if the base of the slope was mucked-out (including the excavation at the toe), and if a heavy duty geosynthetic fabric and/or geogrid had been used to retain the "Rip-Rap", the additional slope movement may have been prevented. Furthermore, the depth of the excavation and "Rip-Rap" placement should have been extended below the potential failure plane for maximum effectiveness. It should be noted, however, that the actual conditions at the time of "Rip-Rap" placement are not fully known at this time. Reportedly, the base area was very wet and soft, which made construction difficult. Typically under these working conditions, the quality of the work is greatly reduced, and some form of additional failure occurs regardless of the design.

ECS has performed a limited evaluation of the existing slope using PCSTABL software. This evaluation is considered limited since a detailed survey of the slope isn't available. The evaluation was performed based on linear measurements and slope angle approximation. Based on this evaluation the existing slope is approximately 2H (horizontal) to 1V (vertical), and has a calculated Safety Factor of 1.33 against failure. Most slopes are designed with a maximum slope of 2H:1V and a minimum Safety Factor of 1.5. A plot of the slope configuration is included with this report.

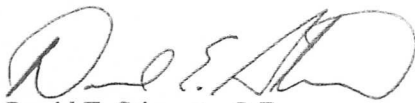
Since the calculated Safety Factor of the existing slope is less than 1.5, consideration should be given to improving the stability of the slope. Typically, flattening the slope is the most common and inexpensive method for slope stability improvement; however, this alternative is not practical due to space restrictions. Reinforcing the toe is also a common alternative; however, the presence of surface water (in this case a tidal condition) and the presence of existing "Rip-Rap" stone makes standard excavation impractical. Installation of a retaining wall supported by a piling system could possibly be the most practical and cost effective alternative. Generally speaking, the pilings could consist of driven timber or concrete piles, or cast-in-place concrete piles. The piles should be installed in a row along the face of the slope, just beyond the edge of the "Rip-Rap" or at the approximate mid-point of the slope (where the current fault line exists). The tip of the piles should extend at least 15 feet below the MLW elevation. Piles should be installed on approximate 5 foot center-to-center spacing. The top of the piles should be extended above the surface as required for pile cap (bracing) or retaining wall construction.

Closing:

We have enjoyed being of service to you on this project. If you should have any questions regarding the information and recommendations contained herein or if we can be of further assistance, please do not hesitate to contact us.

Respectfully,

ENGINEERING CONSULTING SERVICES, LTD.

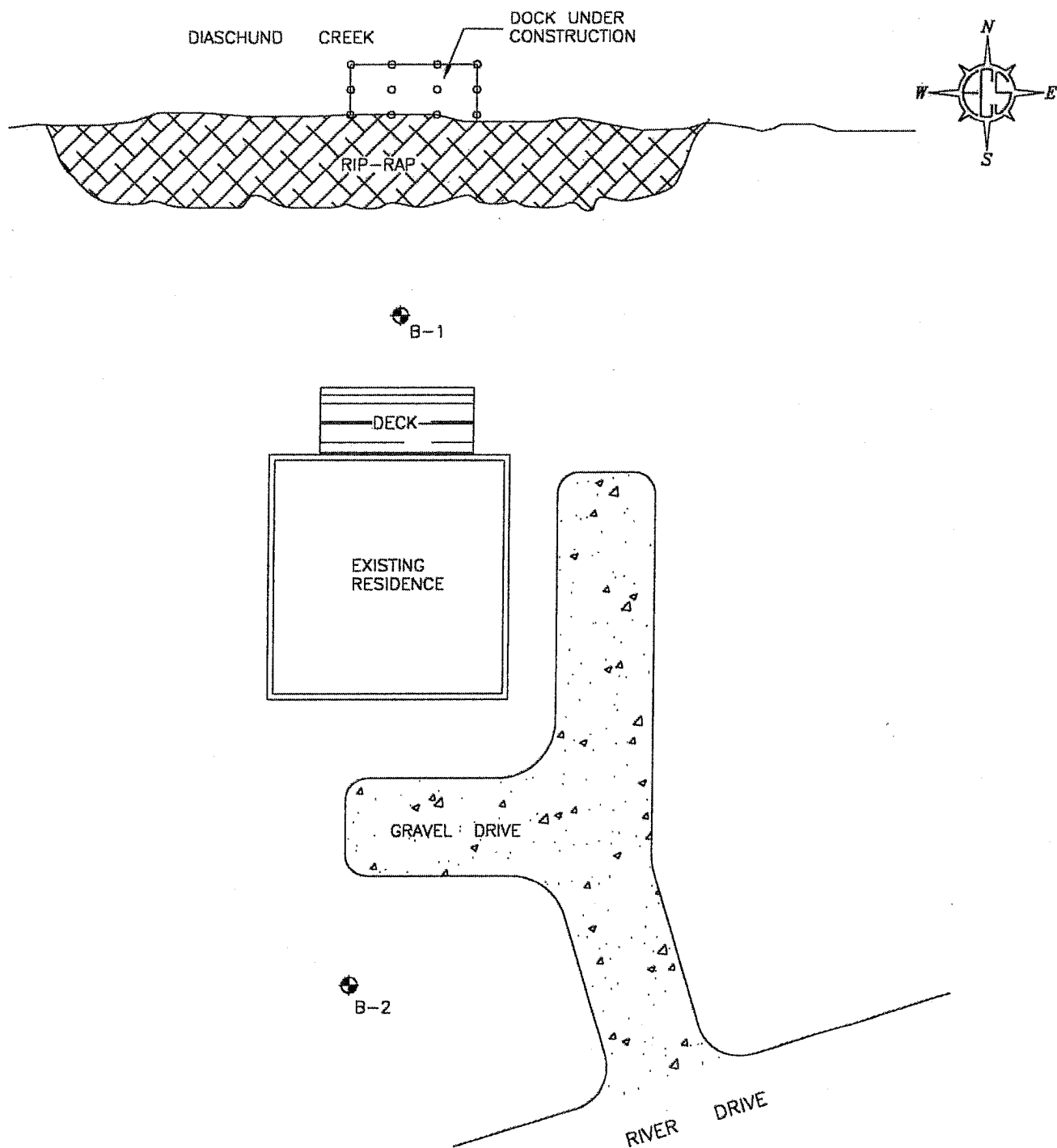


David E. Stinnette, P.E.
Engineering Services Manager



Attachments: Boring Location Diagram
Boring Logs
PCSTABL Plot (with comments/notes)
Reference Notes Sheet For Boring Logs and USCS Sheet

GEOTECH/REPORTS/6521.doc



⊕ — Approximate Boring Location

Not to Scale

PREPARED FOR:

DANNY E. PATTERSON

ECS_{LTD}
ENGINEERING
CONSULTING
SERVICES, LTD

BORING LOCATION DIAGRAM

PATTERSON RESIDENCE
SLOPE FAILURE EVALUATION
JAMES CITY CO., VIRGINIA

ECS, LTD. PROJECT NO. 6521

CLIENT DANNY E. PATTERSON				JOB # 6521	BORING # B-1	SHEET 1 OF 1	ECS LTD
PROJECT NAME PATTERSON RESIDENCE-SLOPE FAILURE EVAL.				ARCHITECT-ENGINEER			
SITE LOCATION 5032 RIVER DRIVE, JAMES CITY COUNTY, VA							

DEPTH (FT)	SAMPLE NO.	SAMPLE TYPE	SAMPLE DISTANCE (IN)	RECOVERY (IN)	DESCRIPTION OF MATERIAL	WATER LEVELS	ELEVATION (FT)	CALIBRATED PENETROMETER TONS/FT. ²									
								1	2	3							
								4	5	6							
								7	8	9							
					ENGLISH UNITS												
					SURFACE ELEVATION												
0	1	SS	24	24	Topsoil												
	2	SS	24	24	Silty Fine to Medium SAND, Orangish Brown, Moist, Loose, (SM) [Possible Fill]												
5	3	SS	24	24	Fine Sandy Lean CLAY, Light Brown and Tan, Moist, Medium Stiff, (CL)												
	4	SS	24	24	Lean CLAY, Orange and Light Gray, Dry to Moist, Very Stiff to Medium Stiff, (CH)												
	5	SS	24	24													
10																	
	6	SS	24	24													
15																	
	7	SS	24	24													
20																	
	8	SS	24	24													
25																	
	9	SS	24	24													
30																	

END OF BORING @ 30.0'

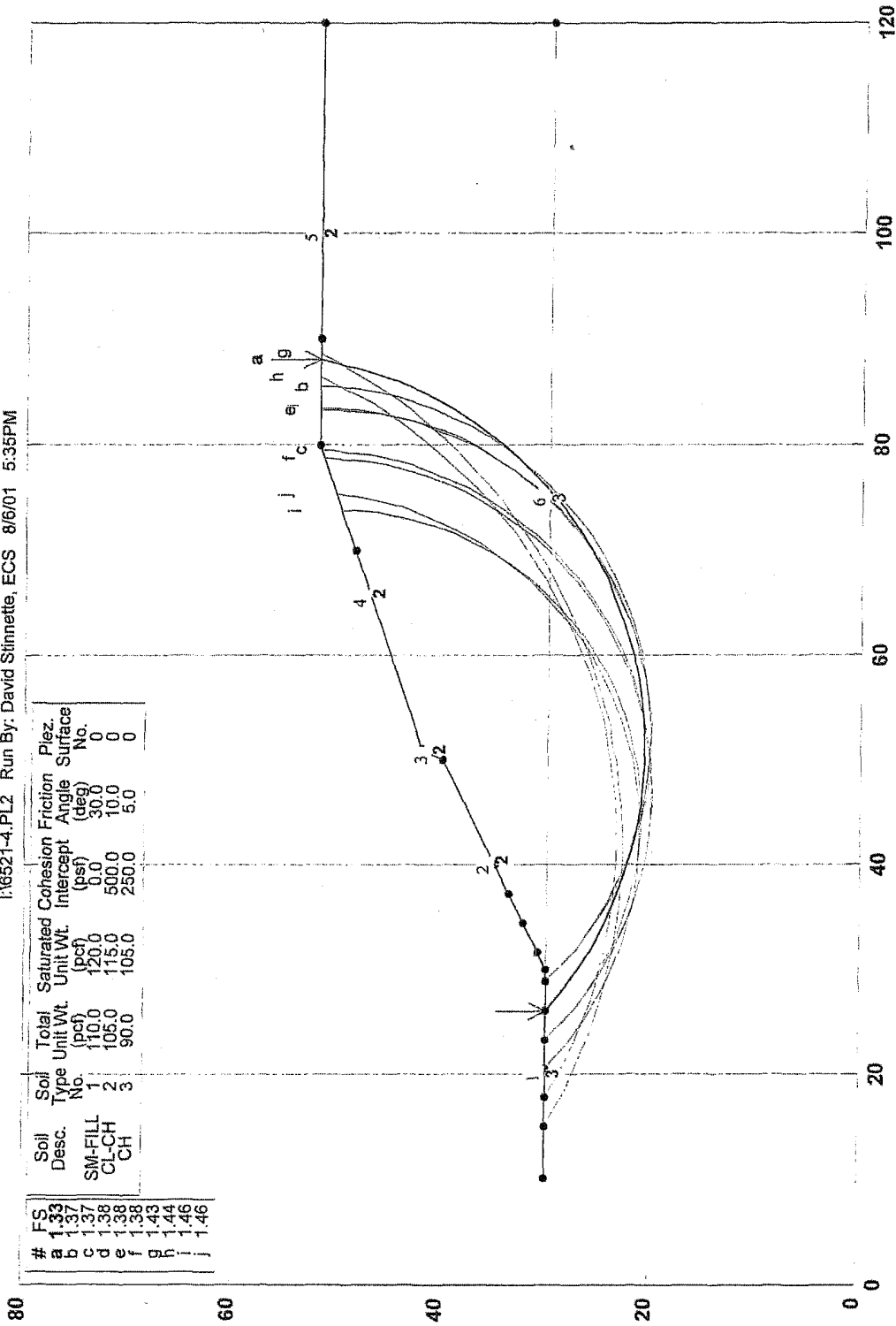
THE STRATIFICATION LINES REPRESENT THE APPROXIMATE BOUNDARY LINES BETWEEN SOIL TYPES IN-SITU THE TRANSITION MAY BE GRADUAL			
▽ WL 18.0'	WS OR (WD)	BORING STARTED 5-11-01	TOPSOIL DEPTH 2"
▽ WL (AB)	▽ WL (AC)	BORING COMPLETED 5-11-01	CAVE IN DEPTH • N/A
▽ WL 15.9' @ 6-1-01		RIG ATV FOREMAN SCOTT	DRILLING METHOD HOLLOW STEM AGUER

CLIENT DANNY E. PATTERSON				JOB # 6521	BORING # B-2	SHEET 1 OF 1	ECS LTD
PROJECT NAME PATTERSON RESIDENCE-SLOPE FAILURE EVAL.				ARCHITECT-ENGINEER			
SITE LOCATION 5032 RIVER DRIVE, JAMES CITY COUNTY, VA							
DEPTH (FT)	SAMPLE NO.	SAMPLE TYPE	SAMPLE DISTANCE (IN)	RECOVERY (IN)	DESCRIPTION OF MATERIAL		WATER LEVELS ELEVATION (FT)
					ENGLISH UNITS SURFACE ELEVATION		
0	1	SS	24	24	Topsoil Lean CLAY, Light Brown, Dry, Stiff, (CL)		12
	2	SS	24	24			
5	3	SS	24	24	Lean CLAY With Silt, Orange, Light Gray, and White, Moist, Very Stiff, (CL)		29
	4	SS	24	24			19
	5	SS	24	24			20
10	6	SS	24	24	Fat CLAY, Orange, Gray, and Dark Red, Dry to Moist, Medium Stiff to Soft, (CH)		12
	7	SS	24	24			4
15							4
20	8	SS	24	24	END OF BORING @ 20.0'		4
25							
30							

THE STRATIFICATION LINES REPRESENT THE APPROXIMATE BOUNDARY LINES BETWEEN SOIL TYPES IN-SITU THE TRANSITION MAY BE GRADUAL			
▽WL DRY	WS OR (D)	BORING STARTED	5-11-01
▽WL(AB)	▽WL(AC)	BORING COMPLETED	5-11-01
▽WL 18.2' @	6-1-01	RIG ATV	FOREMAN SCOTT
		DRILLING METHOD HOLLOW STEM AGUER	

PATTERSON RESIDENCE - SLOPE EVALUATION /ECS PROJECT NO. 6521

I:\6521-4.PL2 Run By: David Stinnette, ECS 8/6/01 5:35PM



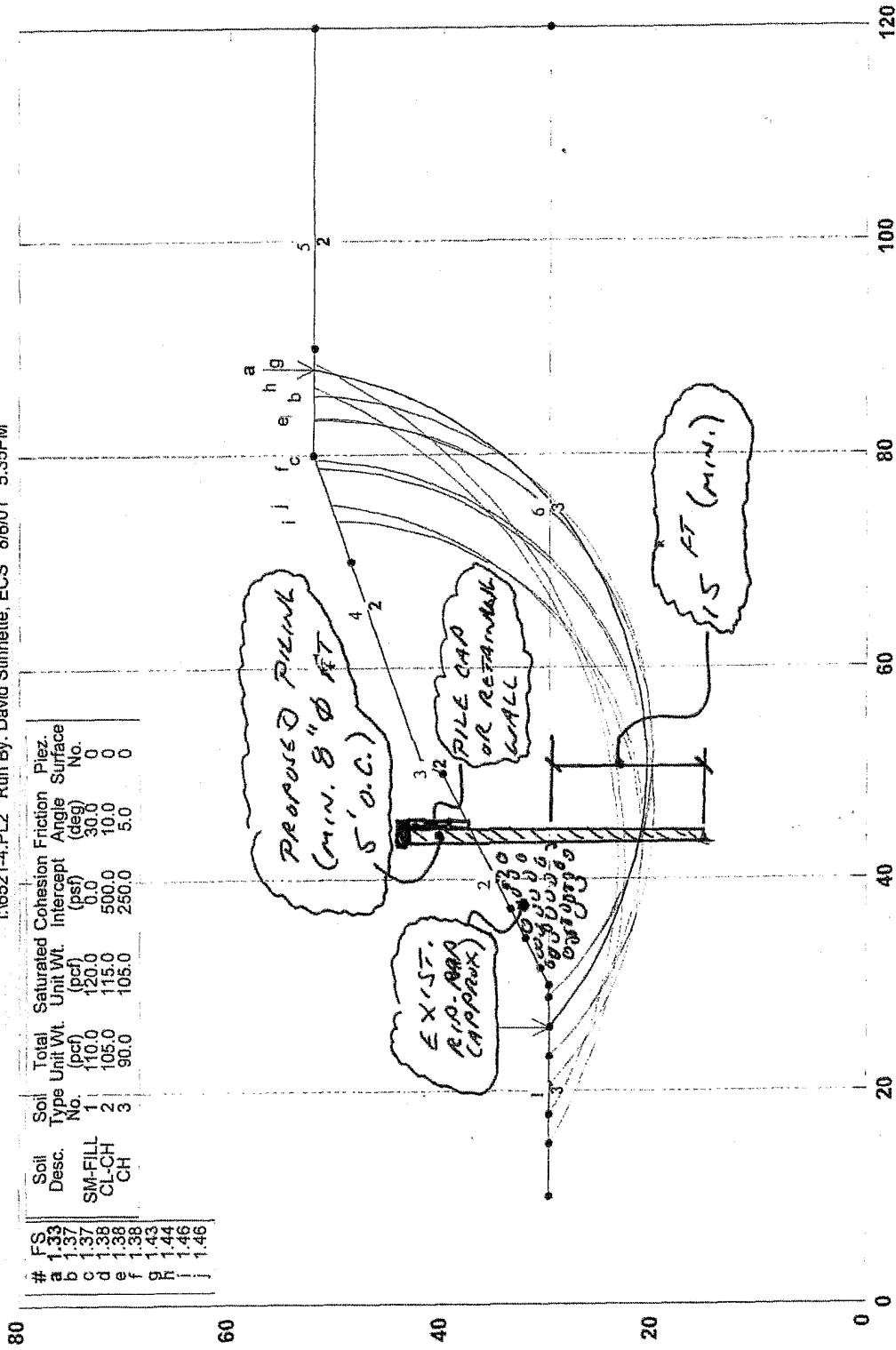
PCSTABL5M/si FSmin=1.33
Safety Factors Are Calculated By The Modified Bishop Method

STED



PATTERSON RESIDENCE - SLOPE EVALUATION /ECS PROJECT NO. 6521

I:\6521-4, PL2 Run By: David Stinnette, ECS 8/6/01 5:35PM



PCSTABL5M/si FSmin=1.33
Safety Factors Are Calculated By The Modified Bishop Method

STED



REFERENCE NOTES FOR BORING LOGS

I. Drilling and Sampling Symbols:

SS - Split Spoon Sampler	DC - Dutch Cone Penetrometer	PM - Pressuremeter	BS - Bulk Sample of Cuttings
ST - Shelby Tube Sampler	PA - Power Auger (no sample)	WS - Wash Sample	RB - Rock Bit Drilling
RC - Rock Core; NX, BX, AX	HSA - Hollow Stem Auger		

Standard Penetration Test (SPT) refers to the blows per foot of a 140 lb hammer free falling 30 inches on a 2 in. O.D. split-spoon sampler, as specified in ASTM D-1586. The SPT blow count is commonly referred to as the N-value. Typically the split-spoon sampler is driven to depths of 18 to 24 inches. The SPT result, N-value, is commonly determined by summing the second and third 6-inch increments.

II. Correlation of Penetration Resistances to Soil Properties:

COHESIVE SOILS (CLAY, SILT and COMBINATIONS)

CONSISTENCY	SPT, N (Blows/Foot)	UNDRAINED SHEAR STRENGTH C, (PSF)
VERY SOFT	< 2	<250
SOFT	3 - 5	250 - 500
MEDIUM STIFF	6 - 10	500 - 1000
STIFF	11 - 15	1000 - 2000
VERY STIFF	16 - 30	2000 - 4000
HARD	> 31	> 4000

NON-COHESIVE SOILS (SAND, GRAVEL, SILT and COMBINATIONS)

DENSITY	SPT, N (Blows/Foot)	RELATIVE DENSITY (%)
VERY LOOSE	< 5	0 - 15
LOOSE	6 - 10	16 - 35
MEDIUM DENSE	11 - 30	36 - 65
DENSE	31 - 50	66 - 85
VERY DENSE	51 - 80	86 - 98
EXTREMELY DENSE	> 81	99 - 100

[Particle Size Identification]:

- Boulders: 8 inch diameter or more
- Cobbles: 3 to 8 inch diameter
- Gravel:
 - Coarse 1 to 3 inch
 - Medium 1/2 to 1 inch
 - Fine 1/4 to 1/2 inch
- Sand:
 - Coarse 2.00 mm to 1/4 inch (diameter of pencil lead)
 - Medium .42 mm to 2.00 mm (diameter of broom straw)
 - Fine .074 mm to .42 mm (diameter of human hair)

III. Water Level Measurement Symbols:

WL - Water Level	WS - While Sampling	WD - While Drilling	ACR - After Casing Removal
WCI - Wet Cave In	DCI - Dry Cave In	BCR - Before Casing Removal	

The water levels are those water levels actually measured in the borehole at the times indicated by the symbol. The measurements are relatively reliable when augering, without adding drilling fluids in a granular soil. In clays and plastic silts, the accurate determination of water levels may require several days for the water level to stabilize. In such cases additional methods of measurement are generally applied.

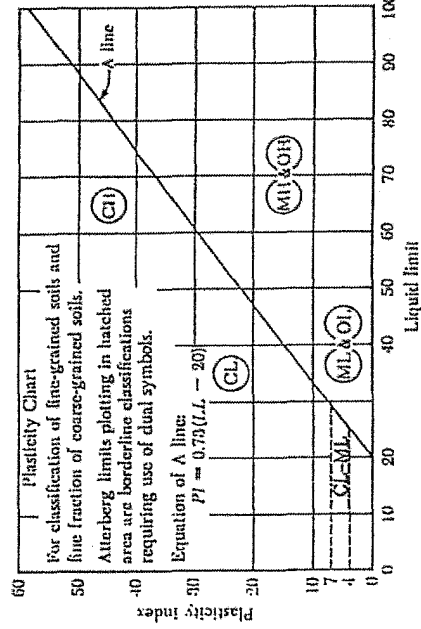
UNIFIED SOIL CLASSIFICATION SYSTEM (USCS)

Table Unified System of Classification

Major divisions			Group symbols	Typical names
Coarse-Grained Soils More than 50% retained on No. 200 sieve	Gravels 50% or more of coarse fraction retained on No. 4 sieve	Clean Gravels	GW	Well-graded gravels and gravel-sand mixtures, little or no fines
		Gravels with Fines	GP	Poorly graded gravels and gravel-sand mixtures, little or no fines
	Sands More than 50% of coarse fraction passes No. 4 sieve	Clean Sands	SW	Well-graded sands and gravelly sands, little or no fines
		Sands with Fines	SP	Poorly graded sands and gravelly sands, little or no fines
Fine-Grained Soils 50% or more passes No. 200 sieve	Sils and Clays Liquid limit 50% or less	Sils and Clays	ML	Inorganic silts, very fine sands, rock flour, silty or clayey fine sands
		Sils and Clays	CL	Inorganic clays of low to medium plasticity, gravelly clays, sandy clays, silty clays, lean clays
	Sils and Clays Liquid limit greater than 50%	Sils and Clays	OL	Organic silts and organic silty clays of low plasticity
		Sils and Clays	MH	Inorganic silts, micaceous or diatomaceous fine sands or silts, elastic silts
Highly Organic Soils	Sils and Clays Liquid limit greater than 50%	Sils and Clays	CH	Inorganic clays of high plasticity, fat clays
		Sils and Clays	OH	Organic clays of medium to high plasticity
Highly Organic Soils	Sils and Clays Liquid limit greater than 50%	Sils and Clays	PT	Peat, muck, and other highly organic soils

Table (Continued)

Classification criteria		
Classification on basis of percentage of fines Less than 5% pass No. 200 sieve GW, GP, SW, SP More than 12% pass No. 200 sieve GM, GC, SM, SC 5% to 12% pass No. 200 sieve Borderline classification requiring use of dual symbols	$C_u = D_{60}/D_{10}$ Greater than 4 $C_c = \frac{(D_{30})^3}{D_{10} \times D_{60}}$ Between 1 and 3	
	Not meeting both criteria for GW	
	Atterberg limits plot below "A" line or plasticity index less than 4	Atterberg limits plotting in hatched area are borderline classifications requiring use of dual symbols
	Atterberg limits plot above "A" line and plasticity index greater than 7	Atterberg limits plotting in hatched area are borderline classifications requiring use of dual symbols
Classification on basis of percentage of fines Less than 5% pass No. 200 sieve GW, GP, SW, SP More than 12% pass No. 200 sieve GM, GC, SM, SC 5% to 12% pass No. 200 sieve Borderline classification requiring use of dual symbols	$C_u = D_{60}/D_{10}$ Greater than 6 $C_c = \frac{(D_{30})^3}{D_{10} \times D_{60}}$ Between 1 and 3	
	Not meeting both criteria for SW	
	Atterberg limits plot below "A" line or plasticity index less than 4	Atterberg limits plotting in hatched area are borderline classifications requiring use of dual symbols
	Atterberg limits plot above "A" line and plasticity index greater than 7	Atterberg limits plotting in hatched area are borderline classifications requiring use of dual symbols



Visual-manual identification, see ASTM Designation D2488.



ENGINEERING CONSULTING SERVICES, LTD.

Geotechnical • Construction Materials • Environmental

August 3, 2001

Mr. Danny Patterson
5032 River Drive
Lanexa, VA 23089

ECS Project No. 6521

Reference: Slope Evaluation
Patterson Residence – 5032 River Drive
Lanexa, Virginia

Dear Mr. Patterson:

Engineering Consulting Services, Ltd. is pleased to present the results of the subsurface exploration and geotechnical engineering analysis for the above referenced project.

Overview:

It is our understanding that the existing residence was built on a relatively level plateau in 1980. The north side of the property slopes down about 20 feet to Diascund Creek, a tributary of the Chickahominy River that is located about 1,500 feet to the south. Bulkheads were constructed between the house and the creek in 1987 and 1994. These bulkheads (retaining walls) failed, along with a significant portion of the slope in August 2000. Repairs to the slope ("rip-rip" toe support and slope reconstruction) was performed in October 2000; however, settlement/movement of the "rip-rip" and slope cracks were detected in March/April 2001.

Scope of Work:

Two (2) soil test borings (extended to depths of 20 and 30 feet) were performed by Scott Drilling on May 11, 2001. The 20 foot boring (B-2) was performed within the front yard of the house and the 30 foot boring (B-1) was performed near the top of the slope at the rear of the house. A slotted PVC-Pipe was installed at each borehole location for groundwater readings. The purpose of the borings was to ascertain the general subsurface conditions (soil type and groundwater), to aid in evaluating the stability of the existing slope. A location diagram and the boring logs are attached with this report.

2119-D North Hamilton Street, Richmond Virginia 23230 • (804) 353-6333 • Fax (804) 353-9478

Offices: Richmond, VA • Washington, D.C. • Norfolk, VA • Williamsburg, VA • Roanoke, VA • Fredericksburg, VA • Danville, VA
Baltimore, MD • Frederick, MD • Research Triangle Park, NC • Wilmington, NC • Charlotte, NC • Greensboro, NC • Greenville, SC • Atlanta, GA

The test borings were performed with an ATV-mounted drill rig, which utilized continuous flight augers to advance the boreholes. Representative soil samples were obtained from the borings by means of the split-barrel sampling procedure in accordance with ASTM Specification D-1586. In this procedure, a 2 inch O.D., split barrel sampler is driven into a soil a distance of 24 inches by a 140-pound hammer falling 30 inches. The first 6 inches is considered the seating interval. The number of blows required to drive the sampler through the next two 6-inch intervals is termed the Standard Penetration Test (SPT) value, and is indicated for each sample on the boring logs. A reference notes sheet for the boring logs is attached with this letter.

ECS engineering personnel visually classified representative soil samples that were collected from the borings and returned to our ECS office. The engineering properties of the soil, along with groundwater data collected on various dates (5/13, 5/14, and 6/1/01), were utilized for slope stability analysis.

Conclusions and Recommendations:

Based on visual inspection of the existing slope, in it's current condition, it is obvious that the "Rip-Rap" toe reinforcement and slope reconstruction that was performed in or about October 2000 wasn't effective in stabilizing the already weakened slope. Although the concept of reinforcing the toe of the previously failed slope with "Rip-Rap" is considered an acceptable stabilization method (alternative), it is my opinion that prudent engineering design wasn't employed. In this respect, if the base of the slope was mucked-out (including the excavation at the toe), and if a heavy duty geosynthetic fabric and/or geogrid had been used to retain the "Rip-Rap", the additional slope movement may have been prevented. Furthermore, the depth of the excavation and "Rip-Rap" placement should have been extended below the potential failure plane for maximum effectiveness. It should be noted, however, that the actual conditions at the time of "Rip-Rap" placement are not fully known at this time. Reportedly, the base area was very wet and soft, which made construction difficult. Typically under these working conditions, the quality of the work is greatly reduced, and some form of additional failure occurs regardless of the design.

ECS has performed a limited evaluation of the existing slope using PCSTABL software. This evaluation is considered limited since a detailed survey of the slope isn't available. The evaluation was performed based on linear measurements and slope angle approximation. Based on this evaluation the existing slope is approximately 2H (horizontal) to 1V (vertical), and has a calculated Safety Factor of 1.33 against failure. Most slopes are designed with a maximum slope of 2H:1V and a minimum Safety Factor of 1.5. A plot of the slope configuration is included with this report.

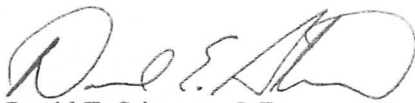
Since the calculated Safety Factor of the existing slope is less than 1.5, consideration should be given to improving the stability of the slope. Typically, flattening the slope is the most common and inexpensive method for slope stability improvement; however, this alternative is not practical due to space restrictions. Reinforcing the toe is also a common alternative; however, the presence of surface water (in this case a tidal condition) and the presence of existing "Rip-Rap" stone makes standard excavation impractical. Installation of a retaining wall supported by a piling system could possibly be the most practical and cost effective alternative. Generally speaking, the pilings could consist of driven timber or concrete piles, or cast-in-place concrete piles. The piles should be installed in a row along the face of the slope, just beyond the edge of the "Rip-Rap" or at the approximate mid-point of the slope (where the current fault line exists). The tip of the piles should extend at least 15 feet below the MLW elevation. Piles should be installed on approximate 5 foot center-to-center spacing. The top of the piles should be extended above the surface as required for pile cap (bracing) or retaining wall construction.

Closing:

We have enjoyed being of service to you on this project. If you should have any questions regarding the information and recommendations contained herein or if we can be of further assistance, please do not hesitate to contact us.

Respectfully,

ENGINEERING CONSULTING SERVICES, LTD.

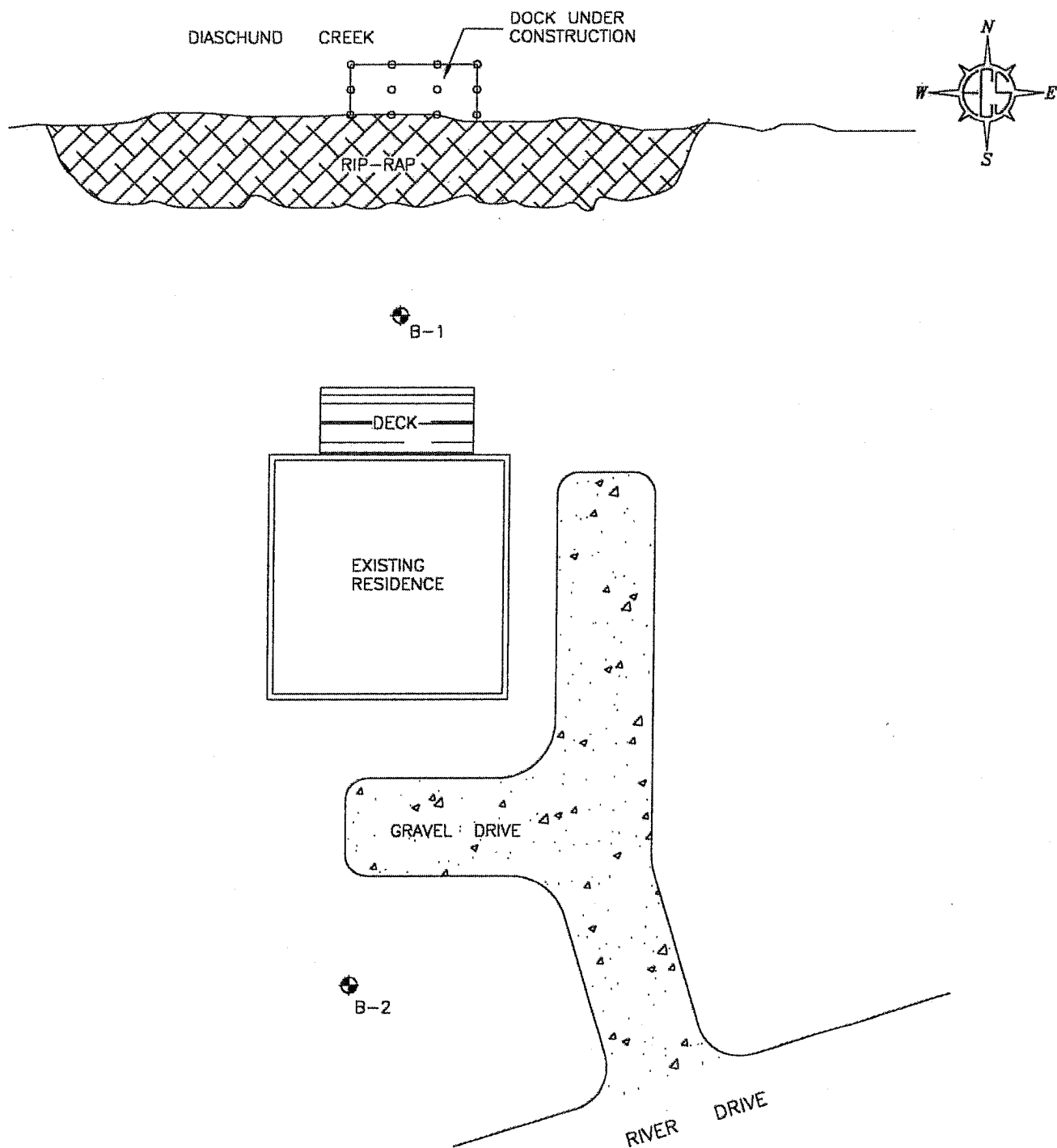


David E. Stinnette, P.E.
Engineering Services Manager



Attachments: Boring Location Diagram
Boring Logs
PCSTABL Plot (with comments/notes)
Reference Notes Sheet For Boring Logs and USCS Sheet

GEOTECH/REPORTS/6521.doc



⊕ — Approximate Boring Location

Not to Scale

PREPARED FOR:

DANNY E. PATTERSON

ECS_{LTD}
ENGINEERING
CONSULTING
SERVICES, LTD

BORING LOCATION DIAGRAM

PATTERSON RESIDENCE
SLOPE FAILURE EVALUATION
JAMES CITY CO., VIRGINIA

ECS, LTD. PROJECT NO. 6521

CLIENT DANNY E. PATTERSON				JOB # 6521		BORING # B-1		SHEET 1 OF 1		ECS LTD
PROJECT NAME PATTERSON RESIDENCE-SLOPE FAILURE EVAL.				ARCHITECT-ENGINEER						
SITE LOCATION 5032 RIVER DRIVE, JAMES CITY COUNTY, VA										

DEPTH (FT)	SAMPLE NO.	SAMPLE TYPE	SAMPLE DISTANCE (IN)	RECOVERY (IN)	DESCRIPTION OF MATERIAL	WATER LEVELS	ELEVATION (FT)	CALIBRATED PENETROMETER TONS/FT. ²		
								1	2	3
								4	5	6
								7	8	9
								PLASTIC LIMIT % WATER CONTENT % LIQUID LIMIT %		
								X	●	Δ
								10	20	30
								STANDARD PENETRATION BLOWS/FT.		
								10	20	30
								40	50	60
								70	80	90
								100	110	120
								130	140	150
								160	170	180
								190	200	210
								220	230	240
								250	260	270
								280	290	300
								310	320	330
								340	350	360
								370	380	390
								400	410	420
								430	440	450
								460	470	480
								490	500	510
								520	530	540
								550	560	570
								580	590	600
								610	620	630
								640	650	660
								670	680	690
								700	710	720
								730	740	750
								760	770	780
								790	800	810
								820	830	840
								850	860	870
								880	890	900
								910	920	930
								940	950	960
								970	980	990
								1000	1010	1020
								1030	1040	1050
								1060	1070	1080
								1090	1100	1110
								1120	1130	1140
								1150	1160	1170
								1180	1190	1200
								1210	1220	1230
								1240	1250	1260
								1270	1280	1290
								1300	1310	1320
								1330	1340	1350
								1360	1370	1380
								1390	1400	1410
								1420	1430	1440
								1450	1460	1470
								1480	1490	1500
								1510	1520	1530
								1540	1550	1560
								1570	1580	1590
								1600	1610	1620
								1630	1640	1650
								1660	1670	1680
								1690	1700	1710
								1720	1730	1740
								1750	1760	1770
								1780	1790	1800
								1810	1820	1830
								1840	1850	1860
								1870	1880	1890
								1900	1910	1920
								1930	1940	1950
								1960	1970	1980
								1990	2000	2010
								2020	2030	2040
								2050	2060	2070
								2080	2090	2100
								2110	2120	2130
								2140	2150	2160
								2170	2180	2190
								2200	2210	2220
								2230	2240	2250
								2260	2270	2280
								2290	2300	2310
								2320	2330	2340
								2350	2360	2370
								2380	2390	2400
								2410	2420	2430
								2440	2450	2460
								2470	2480	2490
								2500	2510	2520
								2530	2540	2550
								2560	2570	2580
								2590	2600	2610
								2620	2630	2640
								2650	2660	2670
								2680	2690	2700
								2710	2720	2730
								2740	2750	2760
								2770	2780	2790
								2800	2810	2820
								2830	2840	2850
								2860	2870	2880
								2890	2900	2910
								2920	2930	2940
								2950	2960	2970
								2980	2990	3000
								3010	3020	3030
								3040	3050	3060
								3070	3080	3090
								3100	3110	3120
								3130	3140	3150
								3160	3170	3180
								3190	3200	3210
								3220	3230	3240
								3250	3260	3270
								3280	3290	3300
								3310	3320	3330
								3340	3350	3360
								3370	3380	3390
								3400	3410	3420
								3430	3440	3450
								3460	3470	3480
								3490	3500	3510
								3520	3530	3540
								3550	3560	3570
								3580	3590	3600
								3610	3620	3630
								3640	3650	3660
								3670	3680	3690
								3700	3710	3720
								3730	3740	3750
								3760	3770	3780
								3790	3800	3810
								3820	3830	3840
								3850	3860	3870
								3880	3890	3900
								3910	3920	3930
								3940	3950	3960
								3970	3980	3990
								4000	4010	4020
								4030	4040	4050
								4060	4070	4080
								4090	4100	4110
								4120	4130	4140
								4150	4160	4170
								4180	4190	4200
								4210	4220	4230
								4240	4250	4260
								4270	4280	4290
								4300	4310	4320
								4330	4340	4350
								4360	4370	4380
								4390	4400	4410
								4420	4430	4440
								4450	4460	4470
								4480	4490	4500
								4510	4520	4530
								4540	4550	4560
								4570	4580	4590
								4600	4610	4620
								4630	4640	4650
								4660	4670	4680
								4690	4700	4710
								4720	4730	4740
								4750	4760	4770
								4780	4790	4800
								4810	4820	4830
								4840	4850	4860
								4870	4880	4890
								4900	4910	4920
								4930	4940	4950
								4960	4970	4980
								4990	5000	5010
								5020	5030	5040
								5050	5060	5070
								5080	5090	5100
								5110	5120	5130
								5140	5150	5160
								5170	5180	5190
								5200	5210	5220
								5230	5240	5250
								5260	5270	5280
								5290	5300	5310
								5320	5330	5340
								5350	5360	5370
								5380	5390	5400
								5410	5420	5430
								5440	5450	5460
								5470	5480	5490
								5500	5510	5520
								5530	5540	5550

CLIENT DANNY E. PATTERSON				JOB # 6521	BORING # B-2	SHEET 1 OF 1	ECS LTD
PROJECT NAME PATTERSON RESIDENCE-SLOPE FAILURE EVAL.				ARCHITECT-ENGINEER			
SITE LOCATION 5032 RIVER DRIVE, JAMES CITY COUNTY, VA							
DEPTH (FT)	SAMPLE NO.	SAMPLE TYPE	SAMPLE DISTANCE (IN)	RECOVERY (IN)	DESCRIPTION OF MATERIAL		WATER LEVELS ELEVATION (FT)
					ENGLISH UNITS		
					SURFACE ELEVATION		
0	1	SS	24	24	Topsoil Lean CLAY, Light Brown, Dry, Stiff, (CL)		
	2	SS	24	24			
5	3	SS	24	24	Lean CLAY With Silt, Orange, Light Gray, and White, Moist, Very Stiff, (CL)		
	4	SS	24	24			
	5	SS	24	24			
10	6	SS	24	24	Fat CLAY, Orange, Gray, and Dark Red, Dry to Moist, Medium Stiff to Soft, (CH)		
	7	SS	24	24			
15							
	8	SS	24	24	END OF BORING @ 20.0'		
20							
25							
30							

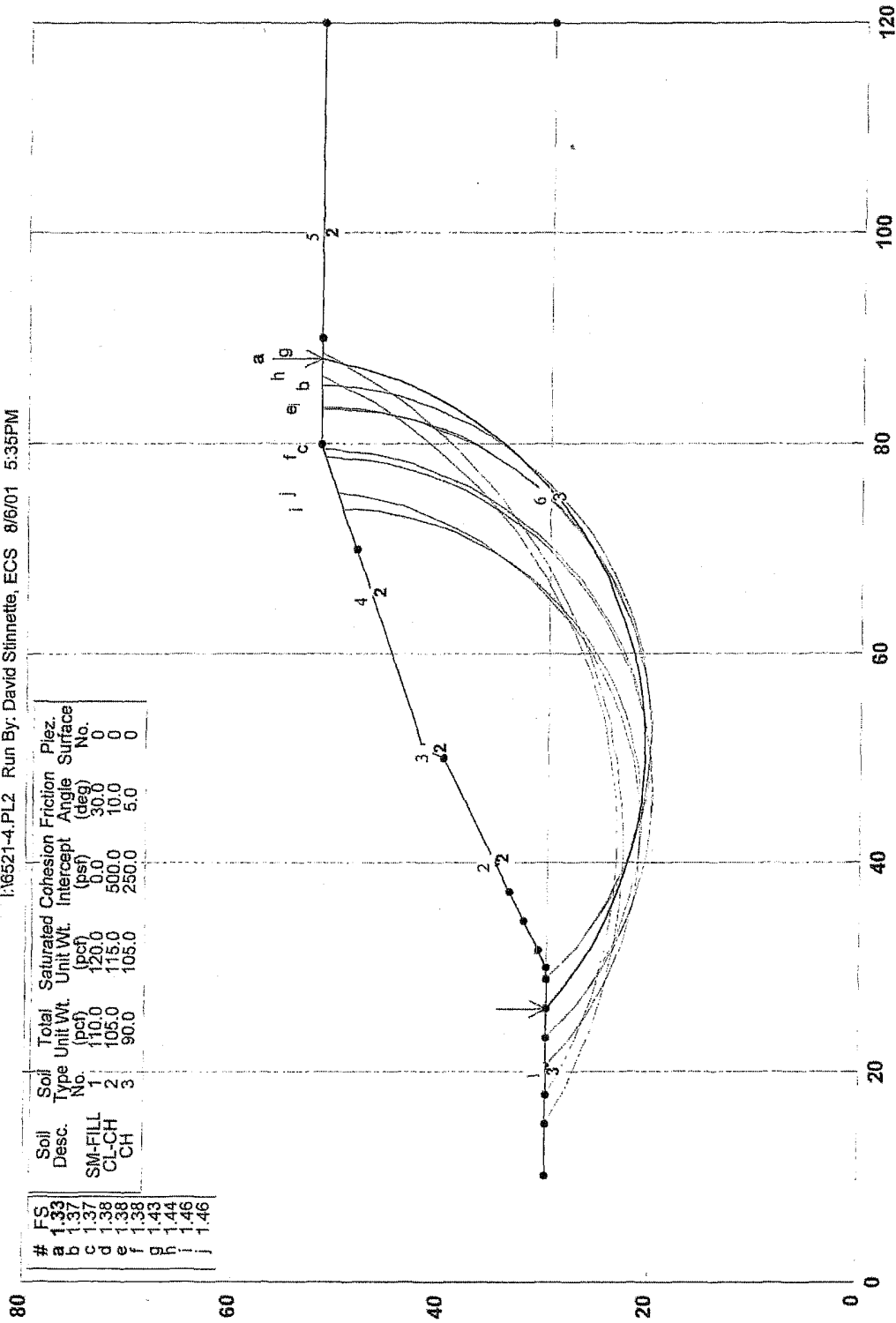
CALIBRATED PENETROMETER TONS/FT. ²				
1	2	3	4	5+
PLASTIC LIMIT %		WATER CONTENT %		LIQUID LIMIT %
X		●		Δ
10	20	30	40	50+
STANDARD PENETRATION BLOWS/FT.				
10	20	30	40	50+

--	--

THE STRATIFICATION LINES REPRESENT THE APPROXIMATE BOUNDARY LINES BETWEEN SOIL TYPES IN-SITU THE TRANSITION MAY BE GRADUAL			
▽WL DRY	WS OR (D)	BORING STARTED	5-11-01
▽WL(AB)	▽WL(AC)	BORING COMPLETED	5-11-01
▽WL 18.2' @	6-1-01	RIG ATV	FOREMAN SCOTT
		DRILLING METHOD HOLLOW STEM AGUER	

PATTERSON RESIDENCE - SLOPE EVALUATION /ECS PROJECT NO. 6521

I:\6521-4.PL2 Run By: David Stinnette, ECS 8/6/01 5:35PM

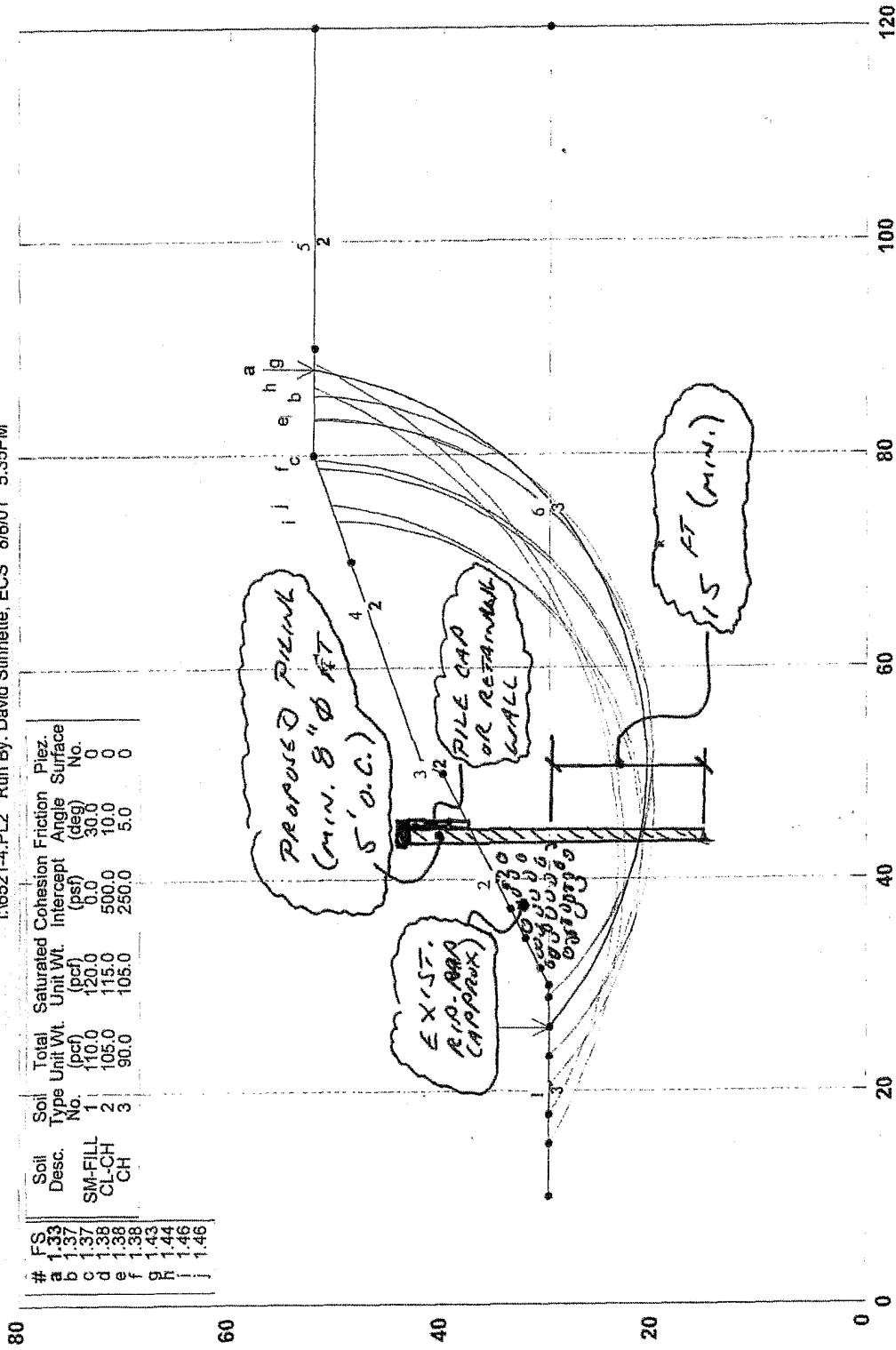


PCSTABL5M/si FSmin=1.33
Safety Factors Are Calculated By The Modified Bishop Method



PATTERSON RESIDENCE - SLOPE EVALUATION /ECS PROJECT NO. 6521

I:\6521-4, PL2 Run By: David Stinnette, ECS 8/6/01 5:35PM



PCSTABL5M/si FSmin=1.33
Safety Factors Are Calculated By The Modified Bishop Method

STED



REFERENCE NOTES FOR BORING LOGS

I. Drilling and Sampling Symbols:

SS - Split Spoon Sampler DC - Dutch Cone Penetrometer PM - Pressuremeter BS - Bulk Sample of Cuttings
ST - Shelby Tube Sampler PA - Power Auger (no sample) WS - Wash Sample RB - Rock Bit Drilling
RC - Rock Core; NX, BX, AX HSA - Hollow Stem Auger

Standard Penetration Test (SPT) refers to the blows per foot of a 140 lb hammer free falling 30 inches on a 2 in. O.D. split-spoon sampler, as specified in ASTM D-1586. The SPT blow count is commonly referred to as the N-value. Typically the split-spoon sampler is driven to depths of 18 to 24 inches. The SPT result, N-value, is commonly determined by summing the second and third 6-inch increments.

II. Correlation of Penetration Resistances to Soil Properties:

COHESIVE SOILS (CLAY, SILT and COMBINATIONS)

CONSISTENCY	SPT, N (Blows/Foot)	UNDRAINED SHEAR STRENGTH C, (PSF)
VERY SOFT	< 2	<250
SOFT	3 - 5	250 - 500
MEDIUM STIFF	6 - 10	500 - 1000
STIFF	11 - 15	1000 - 2000
VERY STIFF	16 - 30	2000 - 4000
HARD	> 31	> 4000

NON-COHESIVE SOILS (SAND, GRAVEL, SILT and COMBINATIONS)

DENSITY	SPT, N (Blows/Foot)	RELATIVE DENSITY (%)
VERY LOOSE	< 5	0 - 15
LOOSE	6 - 10	16 - 35
MEDIUM DENSE	11 - 30	36 - 65
DENSE	31 - 50	66 - 85
VERY DENSE	51 - 80	86 - 98
EXTREMELY DENSE	> 81	99 - 100

[Particle Size Identification]:

- Boulders: 8 inch diameter or more
- Cobbles: 3 to 8 inch diameter
- Gravel: Coarse 1 to 3 inch
Medium 1/2 to 1 inch
Fine 1/4 to 1/2 inch
- Sand: Coarse 2.00 mm to 1/4 inch (diameter of pencil lead)
Medium .42 mm to 2.00 mm (diameter of broom straw)
Fine .074 mm to .42 mm (diameter of human hair)

III. Water Level Measurement Symbols:

WL - Water Level WS - While Sampling WD - While Drilling ACR - After Casing Removal
WCI - Wet Cave In DCI - Dry Cave In BCR - Before Casing Removal

The water levels are those water levels actually measured in the borehole at the times indicated by the symbol. The measurements are relatively reliable when augering, without adding drilling fluids in a granular soil. In clays and plastic silts, the accurate determination of water levels may require several days for the water level to stabilize. In such cases additional methods of measurement are generally applied.

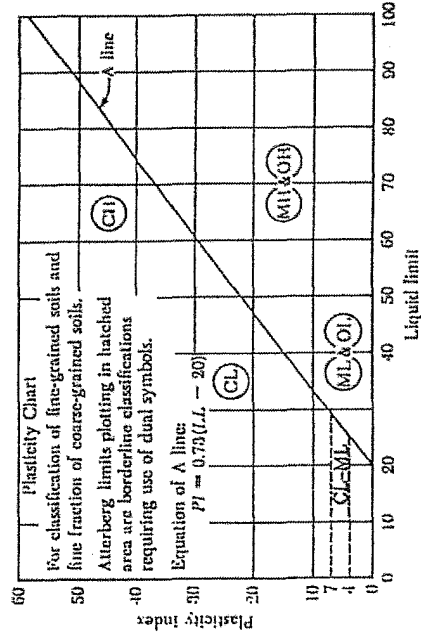
UNIFIED SOIL CLASSIFICATION SYSTEM (USCS)

Table Unified System of Classification

Major divisions			Group symbols	Typical names
Coarse-Grained Soils More than 50% retained on No. 200 sieve	Gravels 50% or more of coarse fraction retained on No. 4 sieve	Clean Gravels	GW	Well-graded gravels and gravel-sand mixtures, little or no fines
		Gravels with Fines	GP	Poorly graded gravels and gravel-sand mixtures, little or no fines
	Sands More than 50% of coarse fraction passes No. 4 sieve	Clean Sands	SW	Well-graded sands and gravelly sands, little or no fines
		Sands with Fines	SP	Poorly graded sands and gravelly sands, little or no fines
Fine-Grained Soils 50% or more passes No. 200 sieve	Sils and Clays Liquid limit 50% or less	Sils and Clays	ML	Inorganic silts, very fine sands, rock flour, silty or clayey fine sands
		Sils and Clays	CL	Inorganic clays of low to medium plasticity, gravelly clays, sandy clays, silty clays, lean clays
	Sils and Clays Liquid limit greater than 50%	Sils and Clays	OL	Organic silts and organic silty clays of low plasticity
		Sils and Clays	MH	Inorganic silts, micaceous or diatomaceous fine sands or silts, elastic silts
Highly Organic Soils	Sils and Clays Liquid limit greater than 50%	Sils and Clays	CH	Inorganic clays of high plasticity, fat clays
		Sils and Clays	OH	Organic clays of medium to high plasticity
Highly Organic Soils	Sils and Clays Liquid limit greater than 50%	Sils and Clays	PT	Peat, muck, and other highly organic soils

Table (Continued)

Classification on basis of percentage of fines		Classification criteria	
Less than 5% pass No. 200 sieve GW, GP, SW, SP More than 12% pass No. 200 sieve GM, GC, SM, SC 5% to 12% pass No. 200 sieve	Borderline classification requiring use of dual symbols	$C_u = D_{60}/D_{10}$ Greater than 4 $C_c = \frac{(D_{30})^3}{D_{10} \times D_{60}}$ Between 1 and 3	
		Not meeting both criteria for GW	
		Atterberg limits plot below "A" line or plasticity index less than 4	Atterberg limits plotting in hatched area are borderline classifications requiring use of dual symbols
		Atterberg limits plot above "A" line and plasticity index greater than 7	Atterberg limits plotting in hatched area are borderline classifications requiring use of dual symbols
Classification on basis of percentage of fines	Borderline classification requiring use of dual symbols	$C_u = D_{60}/D_{10}$ Greater than 6 $C_c = \frac{(D_{30})^3}{D_{10} \times D_{60}}$ Between 1 and 3	
		Not meeting both criteria for SW	
		Atterberg limits plot below "A" line or plasticity index less than 4	Atterberg limits plotting in hatched area are borderline classifications requiring use of dual symbols
		Atterberg limits plot above "A" line and plasticity index greater than 7	Atterberg limits plotting in hatched area are borderline classifications requiring use of dual symbols



Visual-manual identification, see ASTM Designation D2488.

Patterson

Application for Building Permit

Contractor Information

License No.: 2705156333
 Company Name: RA Coloman Inc
 Address: 4626 Hickory Glen Road
 City: Williamsburg State: VA Zip: 23185
 Phone No.: (757) 903-4855 Fax No. ()
 Email Address: RANDY @ RA COLMAN INC. COM
 Signature: Randy A Colman Jr
 Print Name: Randy A Colman Jr President

Owner Information

Name: Danny Patterson
 Address: 5032 River Drive
 City: Lanexa State: VA Zip: 23089
 Phone No.: (757) 897-2871 Fax No. ()
 Email Address: depatterson@verizon.net
 Signature: Danny S. Patterson
 Print name: Danny Patterson
 Agent: The Structures Group, Inc.
 Print Name: Michael A. Matthews, P.E.

Description of Work: Construction of new timber retaining to be installed to prevent additional slope failure

The retaining wall is approximately 122'-0" long and up to 8'-0" tall

Location of Work

Tax Map No.: 0930300007
 Street Address: 5032 River Drive
 City: Lanexa State: VA Zip: 23089
 Zone: A1 Subdivision: _____

(For Commercial Projects Only)

Site Plan No. _____ Date Approved: _____
Mechanic's Lien Agent
 Name: _____
 Address: _____
 City: _____ State: _____ Zip: _____
 Phone No.: () Fax No. ()

Building Information

Stories _____ No. Rooms _____ No. Baths _____ No. Bath Fix _____
 No. Fireplaces _____ Type: _____
 Exterior Finish: ☐ vinyl ☐ brick ☐ wood ☐ other _____
 Interior Finish: ☐ Gypsum ☐ wallboard ☐ wood ☐ other _____
 Flooring: ☐ carpet ☐ wood ☐ vinyl ☐ other _____
 Roofing: ☐ asphalt ☐ fiberglass ☐ wood ☐ other _____
 Heat Type: ☐ gas ☐ heat pump ☐ electric ☐ other _____
 Air Conditioning Type: ☐ central ☐ window ☐ none _____
 Estimated Construction Value: (\$50,000)
 (Do not include Lot \$)

Floor Area (sq.ft.): _____
 (Do not include Basement, Garage, and Deck/Porch)
 Deck (sq.ft.): _____
 Porch (sq.ft.): _____
 Basement Area (sq.ft.): _____
 Garage Area (sq.ft.): _____
 Total Area (sq.ft.): _____
☐ Public Sewer ☐ Septic ☐ Well ☐ Grinder Pump
☐ Public H₂O

OFFICE USE ONLY

Lot Width: _____
 Lot Depth: _____
 Front Property Line: _____
 Right Property Line: _____
 Left Property Line: _____
 Rear Property Line: _____
 PERMIT NO.: B17-2037
 LINE NO.: A17-1119
 Date/Time In: 8/22/17
 Date Plan Reviewed: 8/9/17

Improvement Code: RW
 Structure Used As: Retaining Wall
 Occupancy Class: R5
 Occupancy Load: _____
 Type Construction: VB
 Zoning Approved: sem
 Plan Approved: _____
 PLAN REVIEW FEE: 15.00
 PERMIT FEE: 500.00
 ERF FEE: 10.00
 SMR FEE: \$525
 TOTAL: \$525

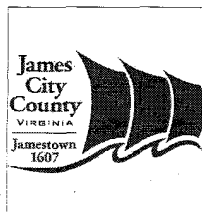
Special Flood Hazard Area: Yes ☒ No ☐ Zone AE

Notes: 2012 USBC

Taxes are current

**FLOOD
ZONE**

Notes: CALL RANDY AT 757-342-3316 FOR PLANS AND MEET



Building Safety and Permits Inspection Request/Report

Permit No: **B17-2037**

08-Dec-2017

Address: **5032 RIVER DRIVE**

Ticket **439903**

Tax Map #: **0930300007**

Soil: **MODERAT**

Time Preference (Not Guaranteed)

SubDivision: **CYPRESS POINT**

Owner: **DANNY E PATTERSON**

Permit Type	Improvement	Type of Inspection	Contractor
Building	RW	Final	R A COLEMAN LAN (757) 903-4855

Last Inspection (if not approved)

9/20/2017

Building

LK 0

Sched: PILINGS RANDY COLEMAN 757-342-3316
RESULT:

Final

99 12/8/17

☒ Approved	☐ Rejected	☐ Code	☒ Kirkpatrick Inspector	☐ Verified
--	-----------------------------------	-------------------------------	---	-----------------------------------