## A G E N D A JAMES CITY COUNTY DEVELOPMENT REVIEW COMMITTEE REGULAR MEETING

Building A Large Conference Room 101 Mounts Bay Road, Williamsburg, VA 23185 September 18, 2019 4:00 PM

- A. CALL TO ORDER
- B. ROLL CALL
- C. MINUTES
  - 1. August 21, 2019 Meeting Minutes
- D. OLD BUSINESS
- E. NEW BUSINESS
  - 1. SP-19-0065. Chickahominy Riverfront Park Shoreline Stabilization Tree Removal
  - 2. Colonial Heritage Deer Lake Estates Rezoning
- F. ADJOURNMENT

#### **AGENDA ITEM NO. C.1.**

#### **ITEM SUMMARY**

DATE: 9/18/2019

TO: The Development Review Committee

FROM: Paul D. Holt, III, Secretary

SUBJECT: August 21, 2019 Meeting Minutes

#### **ATTACHMENTS:**

Description Type

Minutes of the August 21, 2019 DRC Meeting Minutes

#### **REVIEWERS:**

Department	Reviewer	Action	Date
Development Review Committee	Cook, Ellen	Approved	9/12/2019 - 11:00 AM
Development Review Committee	Holt, Paul	Approved	9/12/2019 - 1:23 PM
Publication Management	Daniel, Martha	Approved	9/12/2019 - 1:33 PM
Development Review Committee	Holt, Paul	Approved	9/12/2019 - 1:35 PM

### M I N U T E S JAMES CITY COUNTY DEVELOPMENT REVIEW COMMITTEE REGULAR MEETING

Building A Large Conference Room 101 Mounts Bay Road, Williamsburg, VA 23185 August 21, 2019 4:00 PM

#### A. CALL TO ORDER

Mr. Frank Polster called the meeting to order at 4:00 p.m. He introduced a member of the press who was joining the meeting, Ms. Sarah Fearing from the *Williamsburg Yorktown Daily*.

#### B. ROLL CALL

Present:

Frank Polster, Chair

Odessa Dowdy

Jack Haldeman

Danny Schmidt

Also Present:

Rich Krapf

Staff in Attendance:

Ellen Cook, Principal Planner

Tom Leininger, Planner

Juan Carlos Morgado, Stormwater and Resource Protection Division (SRP)

Katie Pelletier, Community Development Assistant

#### C. MINUTES

#### 1. July 24, 2019 Meeting Minutes

Mr. Polster asked if there were any comments regarding the minutes.

Mr. Haldeman made a motion to approve the July 24, 2019 minutes. The minutes were approved by a unanimous voice vote of 4-0.

#### D. OLD BUSINESS

There was no old business.

#### E. NEW BUSINESS

#### 1. C-19-0041. Hill Pleasant Farm Solar Farm

Mr. Polster stated the applicant requests feedback on the proposal, and there is no required decision on the proposal by the Committee at this time.

Mr. Leininger addressed the Committee and stated that Mr. Ben Vollmer of Strata Solar Development has submitted a conceptual plan for a Special Use Permit (SUP) for a solar farm located at 7150 Richmond Road. The parcel is currently zoned A-1 and is designated Economic Opportunity by the 2035 Comprehensive Plan Land Use map.

Mr. Leininger stated that, in addition to the SUP requirement for a solar farm, a portion of the parcel would need to be removed from the Hill Pleasant Farm Agricultural and Forestal District (AFD). He said the AFD Advisory Committee met on July 25, 2019 and recommended approval to the Planning Commission and Board of Supervisors for the removal of 192.76 acres from the AFD.

Mr. Leininger said the solar farm proposal is located on approximately 193 of the 391.30 parcel acres and would take access from Rochambeau Drive. He also noted the Comprehensive Plan does not specifically identify solar farms as a compatible use for the Economic Opportunity (EO) area. Mr. Leininger said the proposal would have a lease with the property owner, and this use might serve as a transitional land use until market forces determine a more intense economic use.

Mr. Leininger stated the applicant requested this item be placed on the Development Review Committee (DRC) agenda in order to discuss the project and seek input and questions from the DRC members. He said no action by the DRC is required at this time.

Mr. Polster asked if the Committee had any questions for the applicant.

Mr. Schmidt asked whether the property was located inside or outside the Primary Service Area (PSA).

Mr. Leininger answered the parcel is located just outside the PSA.

Mr. Haldeman spoke about the Comprehensive Plan language, recalling that it calls for the EO area to be master planned, after which it could be brought in to the PSA.

Mr. Krapf confirmed it would then be included in the PSA.

Mr. Polster then asked the applicant for their presentation.

Mr. Adam Pratt from the law firm of Kaufman & Canoles, PC stated he and his colleague, Mr. Greg Davis, represent their client Strata Solar. Mr. Pratt said with a pending SUP application they thought it prudent to hear any questions or concerns the Committee may have in order to prepare for any questions while the project is under review by the Planning Commission.

Mr. Pratt gave the Committee some background information on the property, stating it is owned by Hill Pleasant Farm, Inc. Mr. Pratt said its President, Mr. Don Hunt, has not farmed the property since he retired about 10 years ago. Mr. Pratt said Mr. Hunt rents out a small house on the property as well as some hunting rights, which generates a modest income to cover the property taxes. Mr. Pratt said Mr. Hunt has been unable to find a buyer for the property because of the general lack of development in the area related to the extension of Mooretown Road.

Mr. Pratt explained Mr. Hunt has entered into a lease with Strata Solar to develop a solar farm on a portion of the property. He stated the solar farm would generate some productivity on the property while also serving as a holding use, using the property while the surrounding area develops and more business and economic opportunity comes into the area. Mr. Pratt said the lease has a development term of four years, with the option to go to six years, and a one-year construction term. He said the initial operations term of 30 years has two 5-year extension options. Mr. Pratt said the total term of the lease would be between 35-45 years.

Mr. Pratt noted the benefits of the project to the County and surrounding area. He said it would not only serve as a holding use but also attract more business to the area with the provision of and an access to green energy. Mr. Pratt said the project construction's use of

local contractors to build the facility would likely create jobs to staff the project. He also stated the project would have practically no traffic impact, with the facility requiring low manpower and only one or two trips per month to maintain.

Mr. Pratt stated Strata Solar is willing to commit to the construction of a vegetative buffer of approximately 50 feet to aid the aesthetics of the project. Regarding the topography of the parcel, he noted the CSX Railroad runs adjacent to Richmond Road on a hill and would act as a visibility shield for the arrays along Richmond Road.

Mr. Pratt said the development of a solar array also allows flexibility to aid the biodiversity of the area through the development of so-called pollinator habitats, a common feature of solar arrays. He explained that within the footprint of the facility they would plant regional plants native to the area which would attract pollinators such as birds and bees.

Lastly, Mr. Pratt stated the project would not have any negative fiscal impacts as with a residential development. He said they feel the project is a net benefit not only for the property owner and applicant but also for the County and surrounding area.

Mr. Pratt then introduced Mr. Ben Vollmer, Development Manager for Strata Solar, and Mr. Joe Davis, Civil Engineer for the project, to assist in answering questions or addressing concerns from the Committee.

Mr. Haldeman asked about the terms of the lease and whether there was an exit clause or possibility for buyout, potentially allowing a more profitable or intensive use of the property.

Mr. Vollmer answered those options would not be available to the landowner. He stated there are options for the tenant, the owner of the solar farm, but he said their intent is to maintain the project for the duration of the operational term.

Mr. Pratt said the terms could be amended or renegotiated if both parties agreed.

Mr. Haldeman asked if the contract included an agreement to return the property to its current condition at the end of the lease.

Mr. Vollmer replied they would decommission and return the property to approximately the same condition with fewer trees. He said the nature of a solar farm easily allows for this process, as racks then panels are mounted to posts driven into the ground and wiring is buried in some locations.

Mr. Polster asked if the decommissioning process and associated costs were detailed contractually in the lease.

Mr. Vollmer stated this was included in the lease.

Mr. Haldeman asked if the 50-foot buffer would go around the other three sides of the project, not just along Richmond Road.

Mr. Vollmer told the Committee they would plant the buffer on the south and east sides and use the existing vegetative buffer to screen the project on the other sides.

Mr. Schmidt asked what would happen if Strata Solar as a company goes out of business in the future.

Mr. Vollmer replied this is a common concern so they often provide projects an estimate from an independent engineer of the salvage value of the equipment on site. He said in each instance

the salvage value greatly exceeds the cost of removing the equipment, since steel and copper wiring have a high value in the recycle market.

Ms. Dowdy asked how long the project construction would take.

Mr. Vollmer stated it depends on the site but takes roughly one year. He said this site would need some clearing of trees which would take longer than a purely agricultural field.

Mr. Morgado noted half of the property is wooded and half is farmland. He asked if regrading would be necessary for the installation.

Mr. Davis replied they do not have a survey yet, but expect some grading required in the wooded area.

Mr. Schmidt asked if their company operated solar farms off Route 17 in North Carolina.

Mr. Davis said some were likely their projects, and they also have a new project in New Kent County.

Mr. Morgado asked how their plans address stormwater management.

Mr. Davis said, rather than using level spreaders, their strategy is to use more permanent dry detention basins and reserve some conserved open space. He said they view this as better for long-term stability and their ability to close out the site at the end of the project.

Mr. Morgado asked how much of the land would be used for planting.

Mr. Davis replied it depends on the soils, but the impervious percentage is usually very low, around 4%, with only the impact of roads and posts. He said the ground beneath the panels is still available for infiltration, similar to a deck.

Mr. Haldeman noted the Norge Solar Farm application had five pages of conditions.

Mr. Leininger stated he did present the conditions to the applicant. He said the majority of the conditions will likely carry over, except some pertaining to traffic in neighborhoods which would not apply given the access to Rochambeau Drive.

Mr. Polster stated that Planning Commissioner Mr. Krapf circulated an article about pollinators.

Mr. Polster said he has asked staff to look at not only the nutrient but also the pollination piece as an agricultural Best Management Practice (BMP) and make it a requirement for the SUP.

Mr. Davis stated they have pollinators on their Suffolk project, but the location was ambiguous in the permit. He said the problem can be the front-end expense to plant pollinators which may not withstand the construction phase. He also pointed out the requirement to return the property to its original condition at the end of the project. Mr. Davis suggested a solution for long-term stability and success may be to plant pollinators within the lease area but outside the fence.

Mr. Polster acknowledged the pollinator studies may not fully apply and questions about execution remain, but he believes the pollinator condition makes sense. He asked them to consider the agricultural BMP idea and work with the SRP Division on the design.

Mr. Polster then asked the applicant and staff about the drawing of the plan, to distinguish

between the property lines, remaining AFD land, and project area, and role of the Resource Protection Area (RPA) around that area. He asked them what is being protected, and what is the acreage and location of the 100-foot buffer area.

Mr. Vollmer stated the site plan displayed was slightly outdated after their recent meeting with their environmental consultants, whose report delineated the streams on site and mapped the buffer. He stated a surveyor will follow.

Mr. Leininger traced the property lines on the displayed plan for the Committee.

Mr. Polster asked what is the acreage in the RPA.

Mr. Vollmer stated they could provide that information once the survey is complete.

Mr. Polster said that will be useful information to know and helpful in understanding why or to whose benefit it would be if the approximately 198 acres of the property will remain in the AFD. Mr. Polster said he has also asked staff for the AFD property tax rates before the case goes before the Planning Commission.

Mr. Vollmer said after the survey is done they can provide exact measurements in acreage.

Mr. Polster said he is interested to know how much of the remaining AFD land is not in the RPA.

Mr. Schmidt asked about the plantings around the solar farm project site and other potential uses on the property such as grazing or agricultural cultivation of some kind under the panels. He asked if the lease will allow the property owner to utilize the land for anything else besides solar.

Mr. Vollmer replied that property owners do not have permission to enter the premises for liability reasons. He said they are exploring the option of grazing, but this is a new concept.

Mr. Schmidt asked about the profile and appearance of the security fences.

Mr. Davis replied Virginia requires a total height of eight feet, which he said usually equates to seven feet of chain link fence and one foot of barbed wire at the top. He said a height of six feet with barbed wire is the National Electrical Code requirement.

Mr. Schmidt said he envisions the buffer would block that from view.

Ms. Dowdy asked if the fencing would be visible from Rochambeau Drive.

Mr. Davis replied the fencing would probably not be visible, based on the topography and trees.

Mr. Schmidt commented his home now uses solar energy and finds the benefits remarkable. He asked how many homes could be served by the proposed project's approximately 20 megawatts of power.

Mr. Vollmer replied this is yet to be determined.

Mr. Schmidt asked if there is current infrastructure to support and harness the energy from the solar farm.

Mr. Davis replied the power would connect to and be distributed from the nearest existing

substation.

Mr. Haldeman asked if they have a customer for their solar power yet.

Mr. Vollmer replied they are in commercial talks but nothing is finalized. He said they would have an agreement before construction begins.

Mr. Krapf stated he is very interested in the pollinator component and inquired about their experience and methodology in Gloucester. He asked whether they would use RoundUp or other herbicides to kill the existing vegetation. He also asked if they envisioned having a series of pollinator beds throughout the solar farm or more of a widespread parcel over-planted with pollinators. Mr. Krapf asked if the conditions would also include the responsibility to maintain or replant the pollinators after a severe winter.

Mr. Davis stated they would likely bring their horticulturalist to the Planning Commission meeting in order to answer or address questions.

Mr. Krapf asked staff to look at a replacement or replenishing condition.

Mr. Polster said it would be similar to the conditions placed on buffers in corridor zones. He stated at the Planning Commission there would be two parts to the package, the AFD withdrawal request and the solar farm. Mr. Polster said he thinks the project is a smart idea, addressing future economic development and accessing from Rochambeau Drive. He said his concern is keeping any of the parcel in the AFD.

Mr. Schmidt said with concerns for traffic and future development, he views the project as a win-win for the community and environment. He said he is excited about the work the company is doing.

Mr. Morgado asked about their past and current solar farm projects and whether they were meeting expectations.

Mr. Davis said their company recently moved into Virginia with the New Kent and Gloucester projects completed last year, and they are currently building a solar farm in Surry County.

Mr. Vollmer said they apply lessons learned, and there are many similarities to their multiple projects in North Carolina.

Mr. Davis stated they have approximately 120 solar farm projects in North Carolina.

Mr. Vollmer thanked the Committee for its time and feedback and said they will address the concerns raised in advance of or at the Planning Commission meeting.

#### F. ADJOURNMENT

Mr. Polster thanked everyone for attending the meeting and asked for any additional comments.

Mr. Schmidt made a motion to Adjourn the meeting.

Mr. Polster adjourned the meeting at 4:40 p.m. after a unanimous voice vote.

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#### **AGENDA ITEM NO. E.1.**

#### **ITEM SUMMARY**

DATE: 9/18/2019

TO: The Development Review Committee

FROM: Alex Baruch, Senior Planner

SUBJECT: SP-19-0065. Chickahominy Riverfront Park Shoreline Stabilization - Tree Removal

#### **ATTACHMENTS:**

	Description	Type
D	Staff Report	Staff Report
ם	Location Map	Backup Material
ם	Applicant Letter	Backup Material
ם	Site Plan Part 1	Backup Material
ם	Site Plan Part 2	Backup Material
ם	Site Plan Part 3	Backup Material
ם	Tree Survey	Backup Material
D	Chickahominy Riverfront Park Master Plan	Backup Material
ם	Chickahominy Riverfront Park SUP Conditions	Backup Material

#### **REVIEWERS:**

Department	Reviewer	Action	Date
Development Review Committee	Cook, Ellen	Approved	9/9/2019 - 3:51 PM
Development Review Committee	Holt, Paul	Approved	9/10/2019 - 7:35 AM
Publication Management	Burcham, Nan	Approved	9/10/2019 - 7:43 AM
Development Review Committee	Holt, Paul	Approved	9/10/2019 - 7:47 AM

#### SITE PLAN-19-0065. Chickahominy Riverfront Park Shoreline Stabilization - Tree Removal

#### Staff Report for the September 18, 2019, Development Review Committee

#### **SUMMARY FACTS**

Applicant: Mr. Darryl Cook, James City County

**Assistant Stormwater Director** 

Land Owner: James City County

Proposal: To stabilize portions of the shoreline of

Chickahominy Riverfront Park that are

experiencing excessive erosion.

Development Review

Adopted Special Use Permit (SUP)

Committee (DRC)

Conditions require the Planning Director and DRC approval for tree clearing on the

Chickahominy Riverfront Park property.

Location: 1350 John Tyler Highway

Tax Map/Parcel No.: 3430100002

Project Acreage: +/- 139.42 Acres

Zoning: PL, Public Lands

Comprehensive Plan: Open Space or Recreation

Primary Service Area: Outside

Staff Contact: Alex Baruch, Senior Planner

#### FACTORS FAVORABLE

- 1. Limit further erosion of the shoreline through stabilization measures and planting a living shoreline.
- 2. The proposal will only remove trees necessary for shoreline stabilization project.

#### **FACTORS UNFAVORABLE**

1. Staff finds that there are no unfavorable factors.

#### STAFF RECOMMENDATION

The Planning Director finds the proposal acceptable; however, SUP Condition No. 7 states that both the Planning Director and DRC need to approve the removal of trees on the property.

#### PROJECT DESCRIPTION

A site plan amendment has been submitted proposing a shoreline stabilization project at Chickahominy Riverfront Park.

SUP Condition No. 7 for Chickahominy Riverfront Park (SUP-0014-2009), requires that, "Tree clearing on the entire property shall be limited to the minimum necessary to accommodate the proposed recreational uses shown on the Master Plan and related driveways, entrance improvements and facilities as determined by the Director of Planning or designee and the DRC."

The applicant is requesting to stabilize portions of the shoreline that are experiencing excessive erosion. The bank erosion is limiting environmental habitat, encroaching on park infrastructure, reducing the existing riparian buffer as the shoreline moves inland and the

#### Staff Report for the September 18, 2019, Development Review Committee

eroded banks present a safety hazard for park patrons (Attachment No. 2). The shoreline stabilization project would remove approximately 65 trees of 12 inches in diameter or larger along with many smaller trees along the shoreline banks that need to be regraded. There are an additional eight trees that may have to be removed because of the proximity to the construction area, but every effort will be made to preserve them during the construction process (Attachment No. 2). Many of the trees present along the areas of the bank that will be regraded are being undermined by erosion and could easily fall over and accelerate the existing rate of erosion without intervention. Pictures showing the types of trees that will be removed from the banks are available in Attachment No. 2 along with a narrative explaining the necessity of the tree removal and project goals for this shoreline stabilization project.

#### RECOMMENDATION

The Planning Director finds the proposal acceptable, however the SUP Condition No. 7 states that both the Planning Director and DRC need to approve the removal of trees on the property.

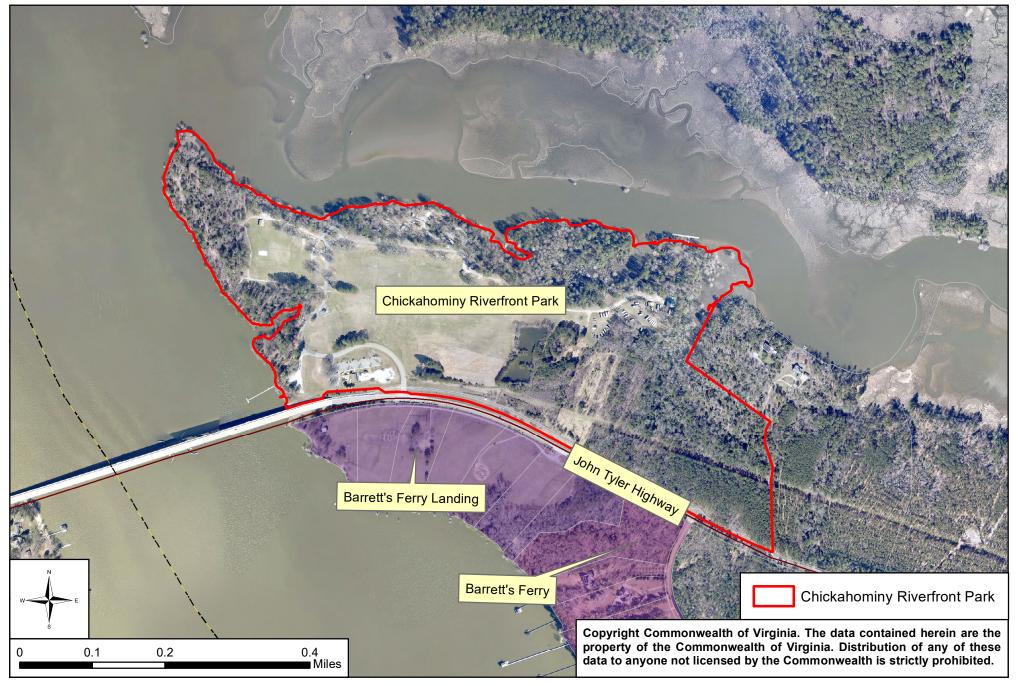
AB/nb SP65-19CRPStlzr

#### Attachments:

- 1. Location Map
- 2. Applicant Narrative/Site Pictures
- 3. Site Plan
- 4. Tree Survey Map
- 5. Adopted Master Plan for Chickahominy Riverfront Park
- 6. Adopted SUP Conditions for Chickahominy Riverfront Park

### SITE PLAN- 19-0065 Chickahominy Riverfront Park Shoreline Stabilization







## General Services MEMORANDUM

**DATE:** September 3, 2019

**TO:** Alex Baruch, Planner

FROM: Darryl Cook, Assistant Stormwater Director

**RE:** Chickahominy Riverfront Park Shoreline Stabilization – Tree Removal

James City County is proposing to stabilize portions of the shoreline of the Chickahominy Riverfront Park that are experiencing excessive erosion. The shoreline is characterized by nearly vertical eroding banks ranging from approximately 3 to 15 feet in height broken up by localized areas of bank stability. The bank erosion is limiting environmental habitat, encroaching on park infrastructure, reducing the existing riparian buffer as the shoreline moves inland and the eroded banks present a safety hazard for park patrons. The erosion is also causing a significant amount of sediment and nutrient pollution to downstream waterways including the James River.

The design of the stabilization project involves the creation of a living shoreline with breakwaters, rock marsh sills, coir logs, submerged logs, marsh creation and beach nourishment. The marsh sills and coir logs incorporate marsh plantings and also serve to protect existing shoreline vegetation. Additionally, above the breakwaters and the rock marsh sills, portions of the existing steep banks will be graded back to a stable vegetated slope for long-term viability of the project. There will also be the creation of approximately 0.75 acres of riparian buffer as part of the project.

The regraded portions of the eroding banks along the Chickahominy River will be graded to a 3:1 slope and the areas along Gordon Creek will be regraded to a 2:1 slope. The grading of the slopes will result in the loss of all the vegetation in those areas including the trees. A tree survey of all the trees 12 inches and greater in size in the project area was undertaken as a first step in the design. Review of the tree survey in the areas impacted by the grading reveals that 65 trees of 12 inches and greater diameter will be removed as a result of this project. There are an additional 8 trees that may have to be removed because of their proximity to the construction area but every effort will be made to preserve them during the construction process. There will be approximately 2.5 acres of disturbance to regrade the slopes.

One of the objectives of the project design was to preserve as many trees as possible. Locations where bald cypress trees are present along the toe of existing banks will be preserved and expanded with marsh creation where possible. In addition, areas where the slopes are relatively stable will not subject to grading. Many of the trees present along the areas of the bank that will be regraded are

being undermined by the erosion and many have exposed roots and little support such that they could easily fall over and accelerate the existing rate of erosion.

The submitted photos document the condition of the existing banks and trees in the areas to be regraded. There is also a photo of the areas to be preserved in their existing condition. There are two photos that document the condition of the construction access routes above the regraded slopes. There are two photos of cypress trees that will be preserved. These areas are relatively open in that they are existing campsites and it is anticipated that no trees beyond those associated with the graded slopes will be removed.

As trees over time add to the instability of a slope, no trees will be replanted on the newly graded slopes. However, there will be 194 trees planted in the riparian buffer expansion area and 17 cypress trees will be planted along Gordon Creek near its confluence with the Chickahominy River.

The project on May 8, 2019 received an exception from the Chesapeake Bay Board to disturb the Resource Protection Area provided all other required federal, state and local permits are obtained. All other permits have been applied for and should be received in September. The project has received a \$781,000 grant from the Virginia Environmental Endowment because of the benefits realized by the project's reduction of pollutants and sediments into the local waterways including the James River. The project is expected to start in the late fall or early winter of this year.



Figure 1 Existing Bank Condition



Figure 3 Existing Bank Condition



Figure 2. Existing Bank Condition



Figure 4 Existing Bank Condition



Figure 5 Existing Bank Condition



Figure 7 Existing Bank Condition - Undermined Tree



Figure 6 Safety Warning Sign at Top of Eroded Slope

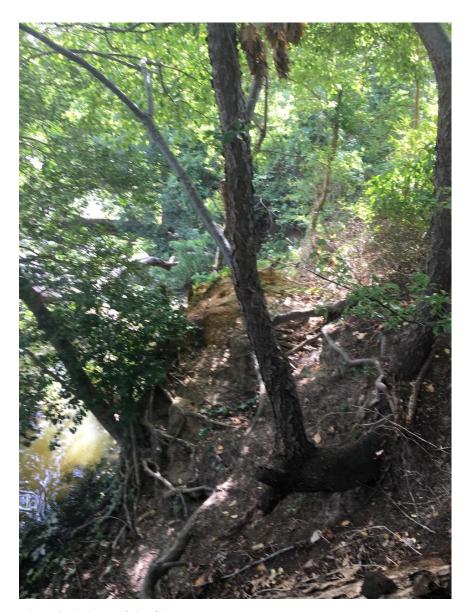


Figure 8 Existing Bank Condition



Figure 9 Example of Cypress Tree to Remain



Figure 10 Example of Cypress Tree to Remain



Figure 11 Top of Slope to be Regraded showing open Work Zone



Figure 12 Top of Slope to be Regraded showing open Work Zone



Figure 13 Example of existing Stable Shoreline that will not be Graded

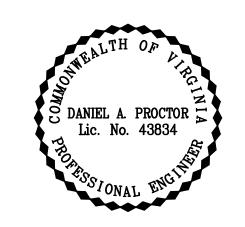




## JAMES CITY COUNTY GENERAL SERVICES JAMES CITY COUNTY, VA

# CHICKAHOMINY RIVERFRONT PARK LIVING SHORELINE

2019.08.01 PROJECT NUMBER: 203401193



	SHEET LIST	
SHEET NUMBER	SHEET TITLE	
1	COVER SHEET	
2	EXISTING CONDITIONS - SEGMENT A (1)	
3	EXISTING CONDITIONS - SEGMENT A (2)	
4	EXISTING CONDITIONS - SEGMENT B	
5	EXISTING CONDITIONS - SEGMENTS C AND D	
6	PROPOSED IMPROVEMENTS - SEGMENT A (1)	
7	PROPOSED IMPROVEMENTS - SEGMENT A (2)	
8	CROSS-SECTIONS (SEGMENT A)	
9	PROPOSED IMPROVEMENTS - SEGMENT B	
10	CROSS-SECTIONS (SEGMENT B)	
11	PROPOSED IMPROVEMENTS - SEGMENTS C AND D	
12	NOTES & DETAILS (1)	
13	NOTES & DETAILS (2)	
14	EROSION AND SEDIMENT CONTROL PLAN - SEGMENT A (1)	
15	EROSION AND SEDIMENT CONTROL PLAN - SEGMENT A (2)	
16	EROSION AND SEDIMENT CONTROL PLAN - SEGMENT B	
17	EROSION AND SEDIMENT CONTROL PLAN - SEGMENTS C AND D	
18	EROSION AND SEDIMENT CONTROL NOTES	
19	EROSION AND SEDIMENT CONTROL DETAILS (1)	
20	EROSION AND SEDIMENT CONTROL DETAILS (2)	
21	PLANTING NOTES AND DETAILS	
22	HYDROLOGIC AND HYDRAULIC SUMMARY	

NOTE: THESE PLANS WERE PRODUCED IN A 22 X 34 INCH FORMAT DOCUMENT PRODUCTION ON AN 11X17 INCH SHEET MAY NOT PRODUCE ACCURATE 1/2 SCALE SETS. IF THIS OCCURS, ADJUSTMENTS TO THE MARGINS ON THE CHOSEN PRINTING DEVICE MAY BE REQUIRED.

JURISDICTIONAL DETERMINATION: A PRELIMINARY JURISDICTIONAL DETERMINATION (JD) WAS PROVIDED BY THE U.S. ARMY CORPS OF ENGINEERS SOUTHERN VIRGINIA REGULATORY SECTION ON DECEMBER 19, 2018 UNDER NAO-2018-01837 (CHICKAHOMINY RIVER). THE JD IS VALID FOR A PERIOD OF 5 YEARS FROM THAT DATE.

14.39 AC ±

3.85 AC ±

0.71 AC ±

SITE DATA PROJECT AREA: LIMITS OF DISTURBANCE: EXISTING WETLANDS: PROPOSED LIMITS OF GRADING: 2.55 AC ± EXISTING STEEP SLOPES >25%: IMPACTED STEEP SLOPES >25%: 0.59 AC ± RPA IN PROJECT AREA: IMPACTED RPA: FEMA FIRM PANEL:

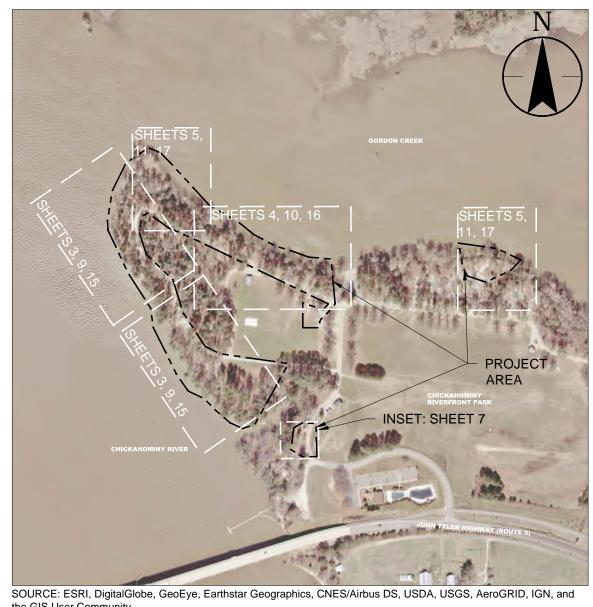
12.52 AC ± 3.48 AC ± 51095 C0113 D (EFF. 12/16/2015) 51095 C0094 D (EFF. 12/16/2015)

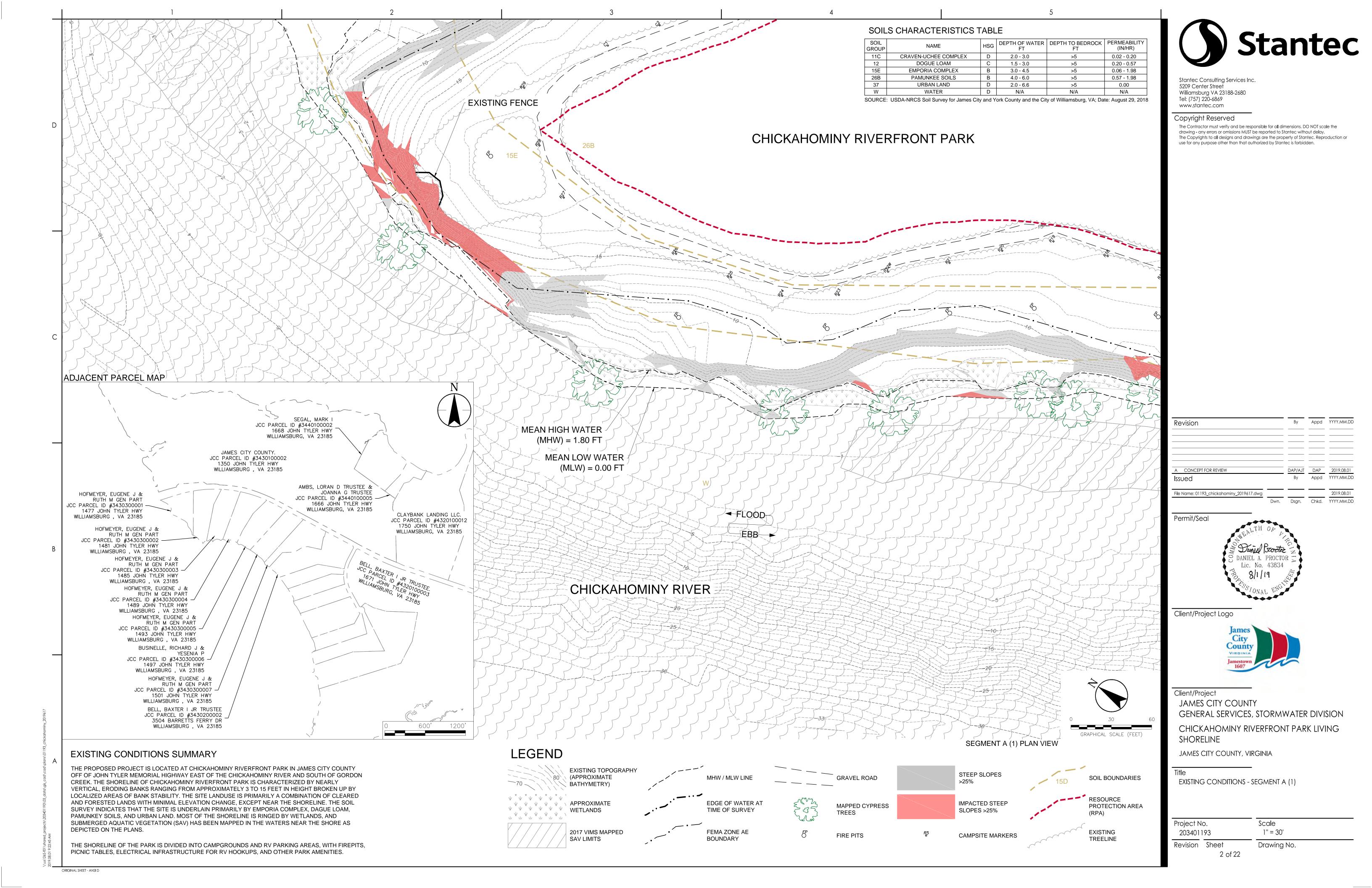
HUC12 (VAHU6): 020802060605 (JL29 CHICKAHOMINY RIVER-MORRIS CREEK)

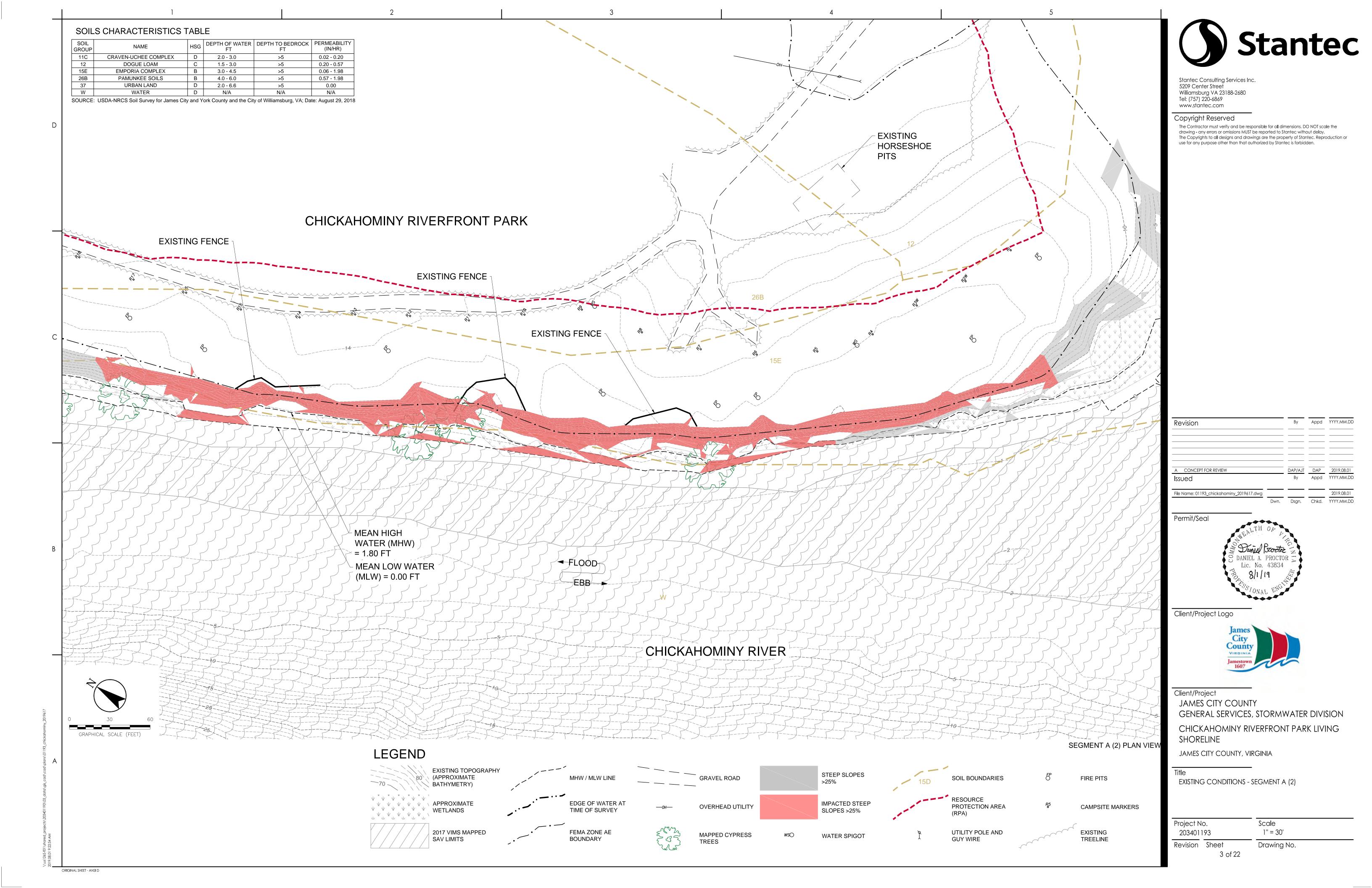
#### LOCATION MAP

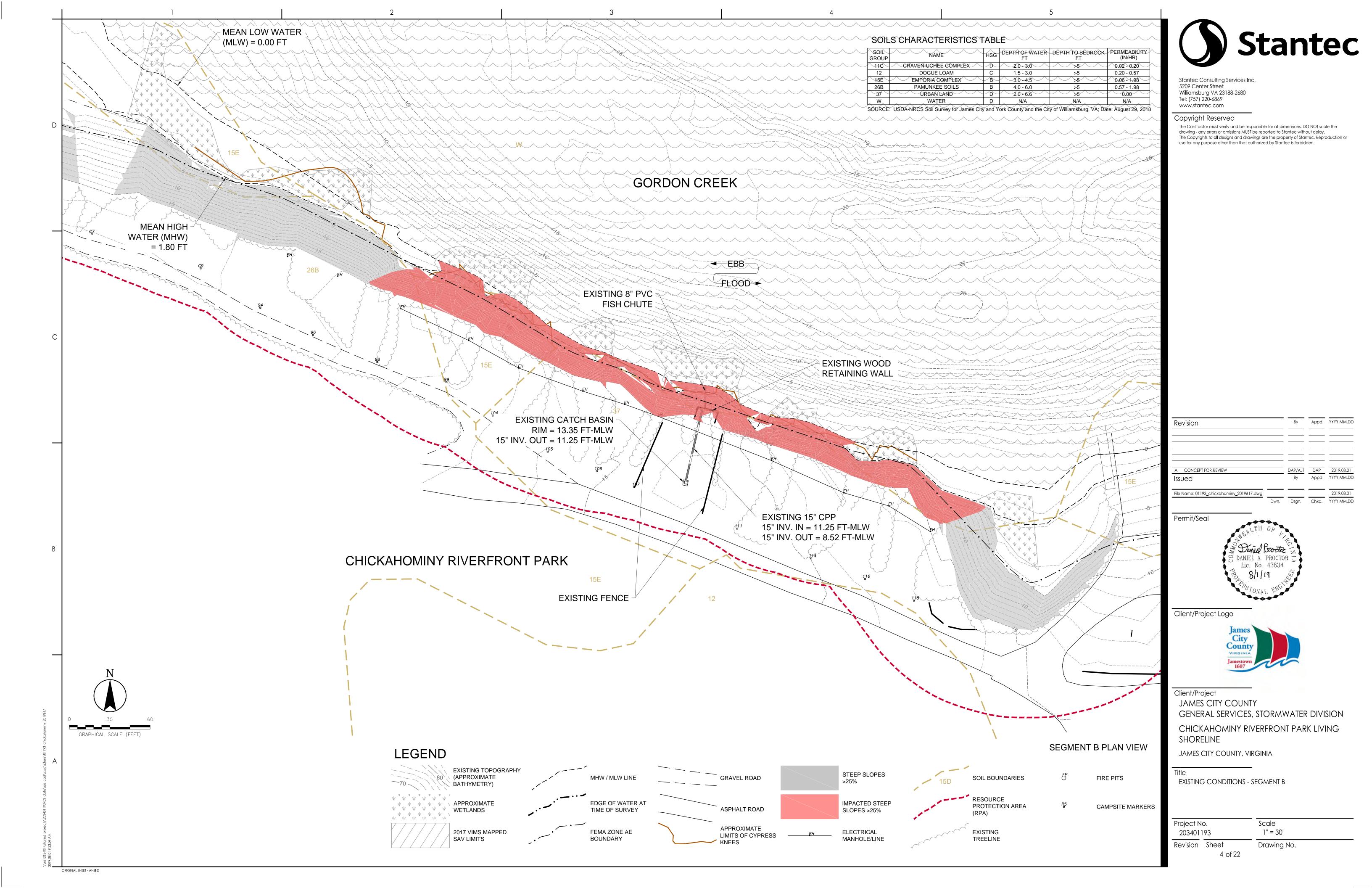


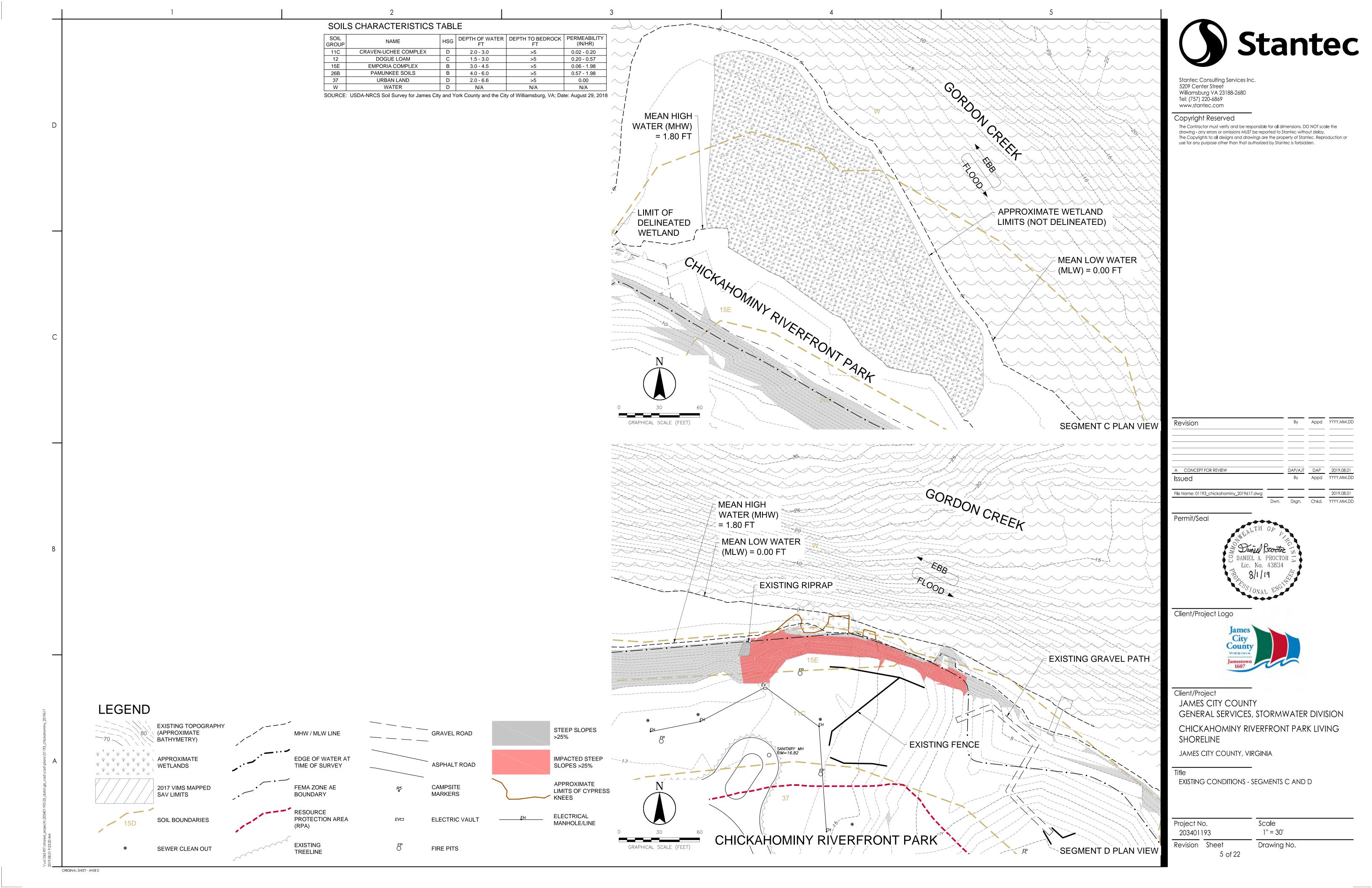
#### VICINITY MAP / SHEET INDEX

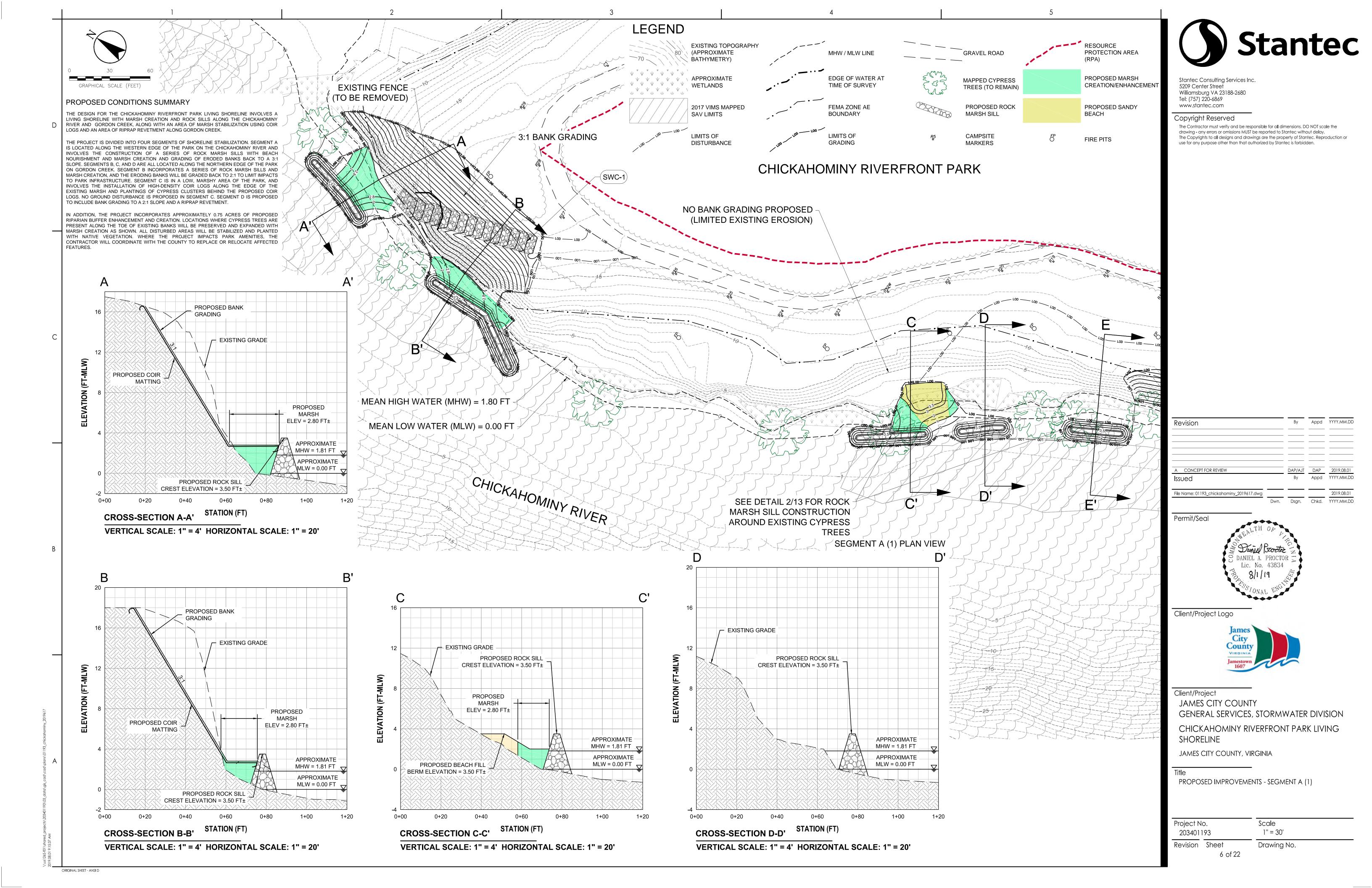


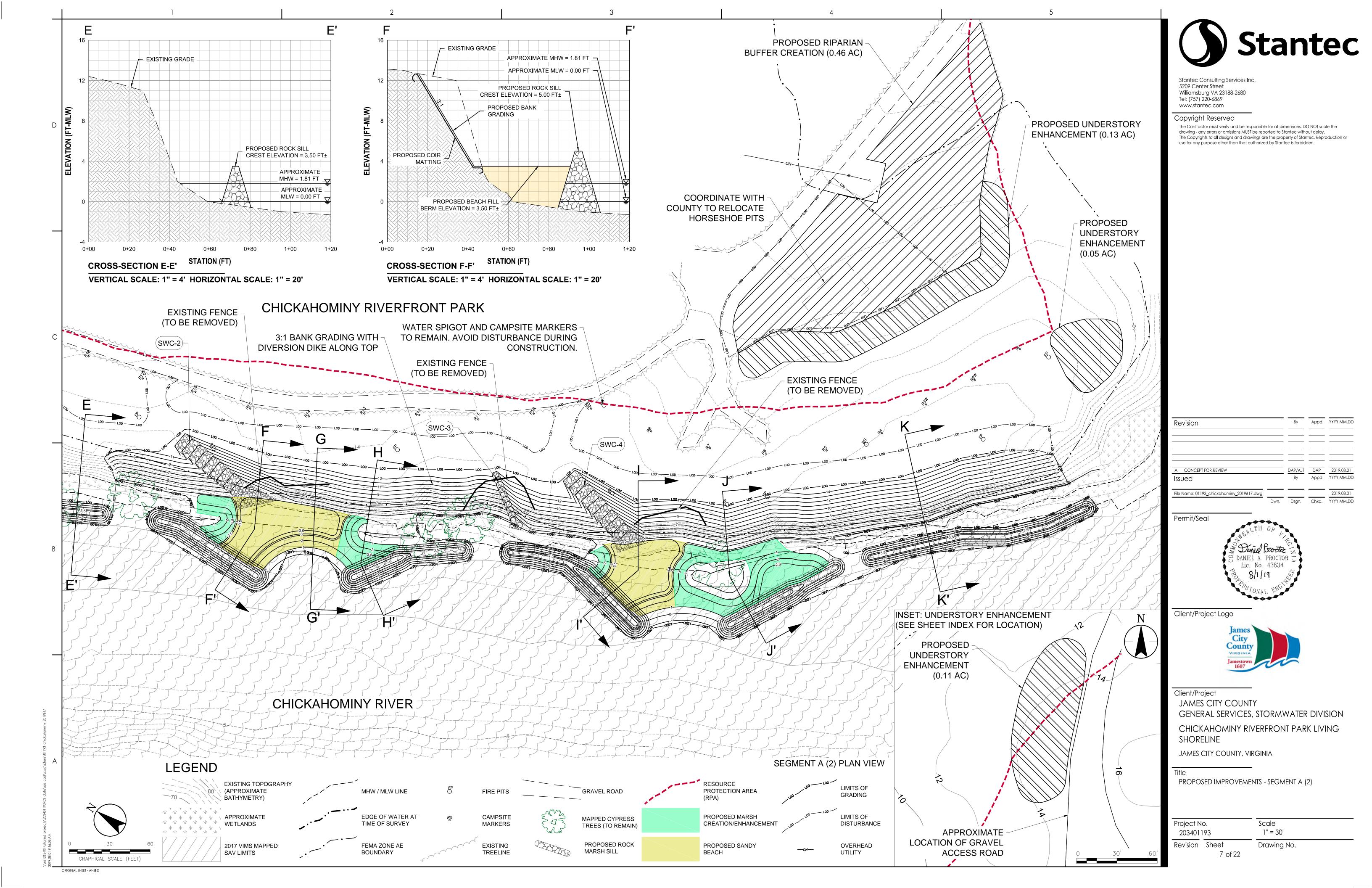


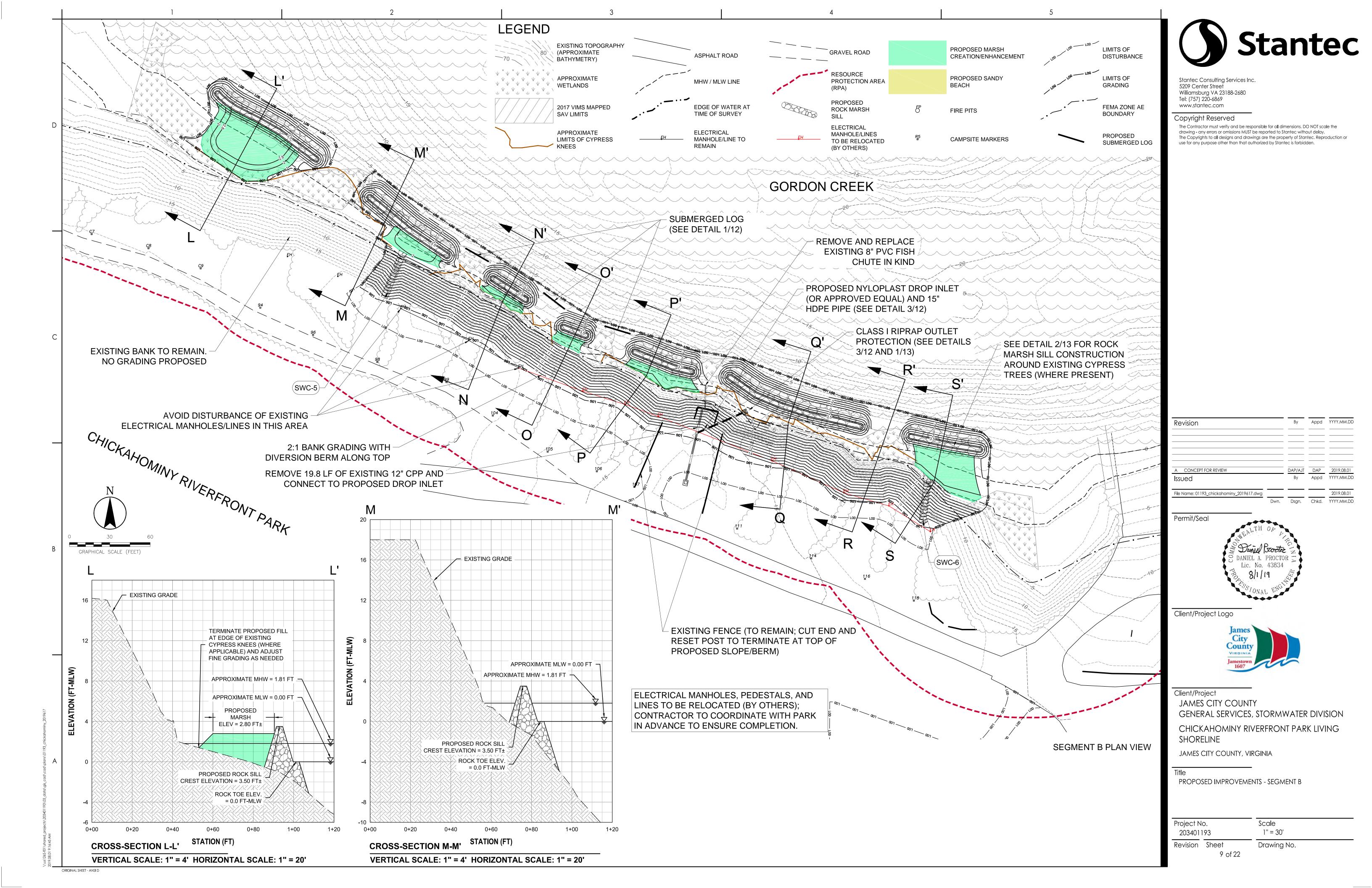












MISS UTILITY (811) PRIOR TO THE COMMENCEMENT OF ANY CONSTRUCTION ACTIVITIES. THE CONTRACTOR MUST ARRANGE A PRE-CONSTRUCTION MEETING WITH THE ENGINEERING AND RESOURCE PROTECTION DIVISION.

- PHASE 1 SITE PREPARATION:
- 1. INSTALL STONE CONSTRUCTION ENTRANCES PER STD. & SPEC. 3.02.
- 2. INSTALL SILT FENCE, SAFETY FENCE, AND TREE PROTECTION WHERE SHOWN.
- 3. STAKEOUT ACCESS ROADS AND ADJUST ALIGNMENTS WHERE FEASIBLE TO MINIMIZE TREE REMOVAL.
- 4. INSTALL PHASE I EROSION AND SEDIMENT CONTROL MEASURES ACCORDING TO STANDARDS SET FORTH IN THE VIRGINIA EROSION AND SEDIMENT CONTROL HANDBOOK, THIRD EDITION 1992. THESE MEASURES SHALL BE IMPLEMENTED PRIOR TO THE COMMENCEMENT OF ANY EARTHWORK ACTIVITIES
- 5. ESTABLISH ONSITE STAGING AND STOCKPILE LOCATIONS. COORDINATE WITH PARK TO VERIFY LOCATION OF SPOIL PLACEMENT VERSUS PROPOSED LOCATION SHOWN HEREIN. INSTALL ALL
- 6. UPON APPROVAL OF COUNTY STAFF, COMMENCE WITH TREE REMOVAL AND CLEARING AND GRUBBING OPERATIONS. TREE REMOVAL, CLEARING, GRUBBING, AND ANY DEMOLITION SHALL BE PERFORMED IN PHASES TO MINIMIZE EARTH DISTURBANCE DURING CONSTRUCTION.
- 7. CONCURRENT WITH THE TREE REMOVAL AND CLEARING AND GRUBBING OPERATIONS, CONTRACTOR STABILIZATION. INSTALLATION SHALL BE PROGRESSIVELY IN ADVANCE OF HEAVY EQUIPMENT USED TO PLACE THESE PRACTICES SUCH THAT THE WEIGHT OF THE EQUIPMENT IS BORNE BY PREVIOUSLY INSTALLED SECTION OF THE ROAD AS IT IS CONSTRUCTED.
- 8. IT IS THE INTENT OF THESE PLANS TO AVOID CLEARING TO THE GREATEST EXTENT PRACTICAL. HOWEVER, CLEARING AND GRUBBING OPERATIONS SHALL PROCEED AS NECESSARY TO FACILITATE EARTHWORK ACTIVITIES. EXISTING VEGETATION CALLED OUT TO BE PRESERVED SHALL BE PROTECTED FROM DISTURBANCE AND COMPACTION OF HEAVY EQUIPMENT. SELECT TREES THAT MEET SPECIFICATIONS FOR USE AS PROPOSED SUBMERGED LOGS IN SEGMENT B AND STOCKPILE ONSITE AS SPECIFIED IN SUBMERGED LOG DETAIL. ALL ADDITIONAL CLEARED WOODY VEGETATION SHALL BE REMOVED AND PROPERLY DISPOSED OF OFFSITE.
- 9. PROTECT ALL SANITARY SEWER PIPES, MAN HOLES, EXISTING DRY UTILITIES (E.G. ELECTRICAL, GAS, CABLE, PHONE, TV, ETC) AND STORM SEWER PIPES CROSSED THROUGHOUT THE PROJECT USING
- TIMBER MATTING OR APPROVED ALTERNATIVE. 10.AT COMPLETION OF PHASE 1 ALL E&S PHASE 1 PROTECTION MEASURES, ACCESS ROADS, STAGING AREAS, SHALL BE ESTABLISHED.
- THE SEEDING/MATTING OF THE PREVIOUS SEGMENT BANKS IS COMPLETED.
- PHASE 2 BANK GRADING:

13.INSTALLED E&S MEASURES (E.G. TREE PROTECTION, SILT FENCE, TURBIDITY CURTAIN, AND SAFETY FENCE) TO REMAIN IN PLACE UNTIL FINAL STABILIZATION OF ALL DISTURBED AREAS HAS BEEN

- STOCKPILE), PERMANENT SEEDING, AND COIR MATTING AS SOON AS POSSIBLE TO LIMIT EROSION
- POTENTIAL. 16.INSTALL DIVERSION DIKES ALONG TOP OF SLOPE AND CONVEYANCE CHANNELS (WITH PROPOSED LINING) AS SPECIFIED HEREIN.
- 17. INSTALL RIPRAP REVETMENT DURING PHASE 2 OF SEGMENT D.
- 18. PROCEED TO PHASE 3 ONLY AFTER SLOPE STABILIZATION IS PROVIDED.
- PHASE 3 IN-WATER ROCK MARSH SILL CONSTRUCTION:
- 19. FOLLOWING BANK GRADING, COMMENCE WITH ROCK MARSH SILL CONSTRUCTION. COMPLY WITH ALL
- 20.ACCESS FOR ROCK MARSH SILL CONSTRUCTION IS INTENDED TO BE VIA LAND FOR SEGMENT A. ACCESS FOR SEGMENT B ROCK MARSH SILL CONSTRUCTION AND SEGMENT D REVETMENT IS INTENDED TO BE VIA BARGE. ACCESS FOR SEGMENT C IS INTENDED TO BE VIA FOOT OR BOAT (NO HEAVY EQUIPMENT). CONTRACTOR MAY PROVIDE AN ALTERNATE ACCESS PLAN FOR COUNTY AND ENGINEER REVIEW PRIOR TO CONSTRUCTION, IF DESIRED.
- 21.RESET TURBIDITY CURTAIN REGULARLY AS NEEDED TO ENSURE PROPER FUNCTION AND/OR ACCOMMODATE WATER ACCESS.
- 22.PROVIDE TEMPORARY MATS AS NEEDED ALONG TOE OF SLOPE TO ACCOMMODATE ACCESS (SEGMENT
- SHALL INSTALL TIMBER MATS, MULCH ACCESS ROAD STABILIZATION, AND/OR GRAVEL ACCESS ROAD

  23.PROCEED WITH ROCK SILL INSTALLATION AND CLEAN SAND PLACEMENT WITHIN MARSH AND BEACH AREAS. ALLOW SAND FILL TO EQUILIBRATE FOR AT LEAST TWO WEEKS PRIOR TO INSTALLATION OF TOPSOIL, COIR MATTING, AND PLANTINGS.
  - 24.IN AREAS RECEIVING HERBACEOUS TIDAL PLANTINGS, 3 INCHES OF TOPSOIL SHALL BE PLACED TO ACHIEVE FINAL GRADE. THESE AREAS SHALL BE IMMEDIATELY COVERED AND SECURED WITH COIR
  - 25.AFTER HYBRID ACCESS PATHS/STORMWATER CONVEYANCES ARE NO LONGER NEEDED FOR SHORELINE CONSTRUCTION, REMOVE TEMPORARY STONE AND PROVIDE FINAL STABILIZATION AS NOTED IN CONVEYANCE CHANNEL DESIGN.
  - 26.UPON COMPLETION OF ALL SHORELINE STABILIZATION ACTIVITIES, ALL TEMPORARY EROSION AND SEDIMENT CONTROL MEASURES SHALL BE REMOVED WITHIN 30 DAYS. ANY CONCENTRATED SEDIMENT ALONG THE EROSION AND SEDIMENT CONTROL MEASURES SHALL BE RESPREAD AND STABILIZED WITH
  - SEED/MULCH IN UPLANDS. 27.CONTRACTOR SHALL NOTIFY COUNTY AND ENGINEER/DESIGNER UPON COMPLETION OF CLEANUP ACTIVITIES TO ARRANGE AN FINAL SITE INSPECTION.

CONTRACTOR SHALL COORDINATE WITH COUNTY AND ENGINEER/DESIGNER TO SCHEDULE INSTALLATION 11. CONTRACTOR SHALL PROCEED WITH PHASES 2 AND 3 ON A SEGMENT-BY-SEGMENT BASIS TO REDUCE OF WOODY VEGETATION INCLUDING TREES AND SHRUBS. AS THE PLANTING WINDOW FOR THIS VEGETATION OVERALL DISTURBANCE. PHASE 2 DISTURBANCE OF THE NEXT SEGMENT SHALL NOT PROCEED UNTIL MAY NOT FALL WITHIN THE CONSTRUCTION WINDOW, THE PLANTING SHALL BE SCHEDULED AT THE EARLIEST TIME POSSIBLE AS SHOWN IN SPECIFICATIONS OR AS APPROVED BY COUNTY AND ENGINEER/DESIGNER.

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JAMES CITY COUNTY GENERAL SERVICES, STORMWATER DIVISION

CHICKAHOMINY RIVERFRONT PARK LIVING SHORELINE

JAMES CITY COUNTY, VIRGINIA

EROSION AND SEDIMENT CONTROL - SEGMENT A (1)

Scale Project No. 1'' = 30' 203401193 Revision Sheet Drawing No.

ORIGINAL SHEET - ANSI D

CONTRACTOR RESPONSIBLE FOR ENSURING ALL EXISTING ON-SITE UTILITIES, BOTH

ABOVE AND BELOW GROUND, ARE PROTECTED FROM DAMAGE DUE T CONSTRUCTION ACTIVITIES AND SITE ACCESS. 8. CONTRACTOR SHALL COORDINATE WITH JAMES CITY SERVICE AUTHORITY (JCSA) TO

PROTECT EXISTING UTILITIES WITHIN THE PROJECT AREA. 9. SEE SHEET 18, EROSION AND SEDIMENT CONTROL NOTES, AND SHEET 21, PLANTING NOTES AND DETAILS, FOR PROPOSED TEMPORARY AND PERMANENT VEGETATIVE

CONTRACTOR MUST COORDINATE WITH COUNTY TO RELOCATE FIRE PIT

PICNIC TABLES, AND OTHER PARK AMENITIES PRIOR TO CONSTRUCTION

1. ALL POTENTIAL ACCESS AND STAGING AREAS TO BE COORDINATED WITH JAMES CITY

2. CONTRACTOR TO AVOID CLEARING TO THE EXTENT POSSIBLE AND SHIFT ACCESS A

3. STOCKPILES ARE ALL TEMPORARY IN NATURE, AND WILL BE NO LARGER THAN 8 FEET

5. THE CONTRACTOR IS RESPONSIBLE TO CONTACT MISS UTILITY (DIAL 811 IN VA OR

4. ALL STAGING AND STOCKPILE AREAS SHALL BE UNDERLAIN BY TIMBER MATTING

IF THEY WILL BE AFFECTED BY CONSTRUCTION ACTIVITIES.

UNLESS OTHERWISE DIRECTED BY JAMES CITY COUNTY.

COUNTY PRIOR TO CONSTRUCTION.

IN HEIGHT.

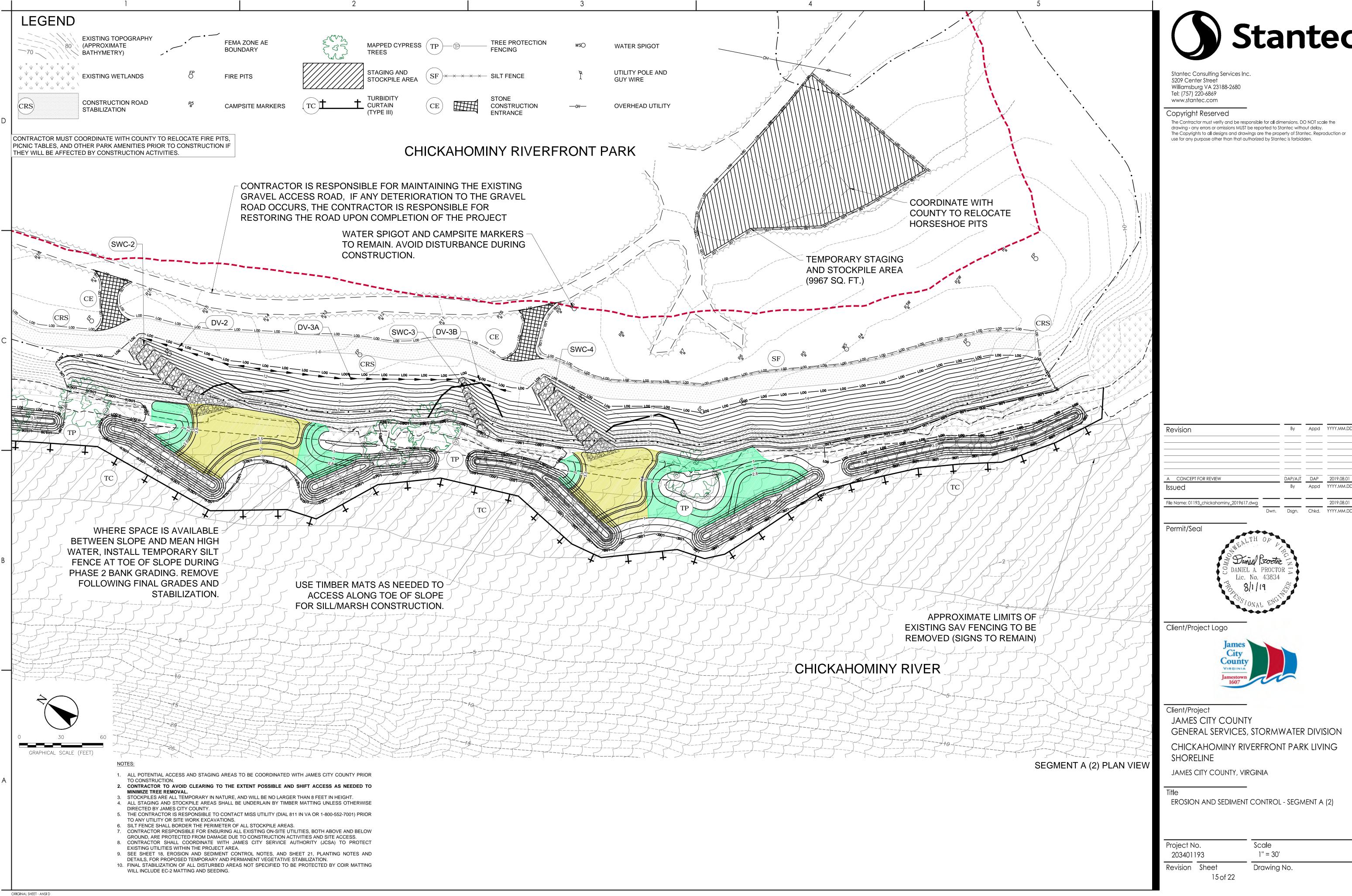
NEEDED TO MINIMIZE TREE REMOVAL.

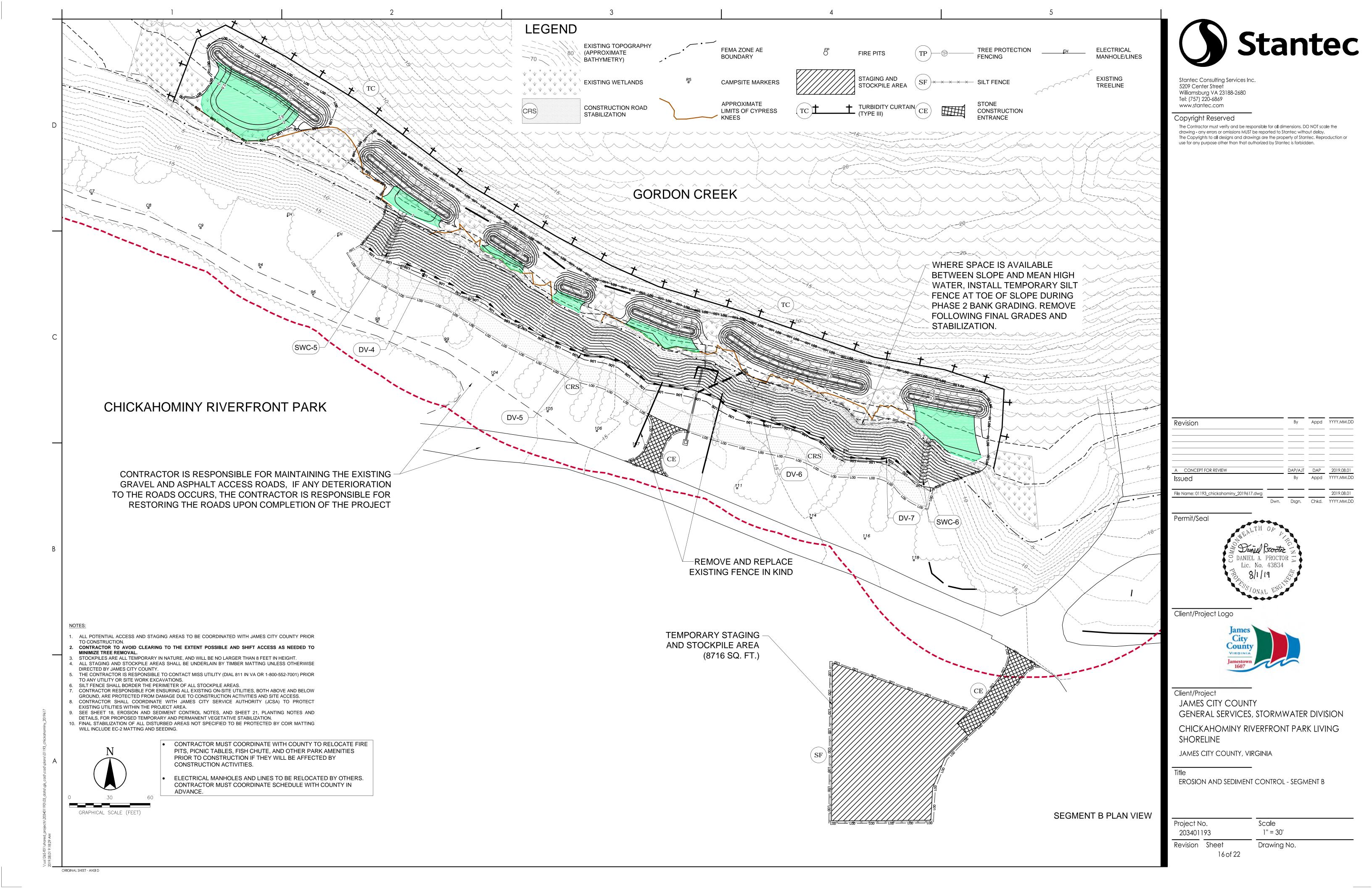
STABILIZATION. 10. FINAL STABILIZATION OF ALL DISTURBED AREAS NOT SPECIFIED TO BE PROTECTED BY

COIR MATTING WILL INCLUDE EC-2 MATTING AND SEEDING.

1-800-552-7001) PRIOR TO ANY UTILITY OR SITE WORK EXCAVATIONS.

SILT FENCE SHALL BORDER THE PERIMETER OF ALL STOCKPILE AREAS.



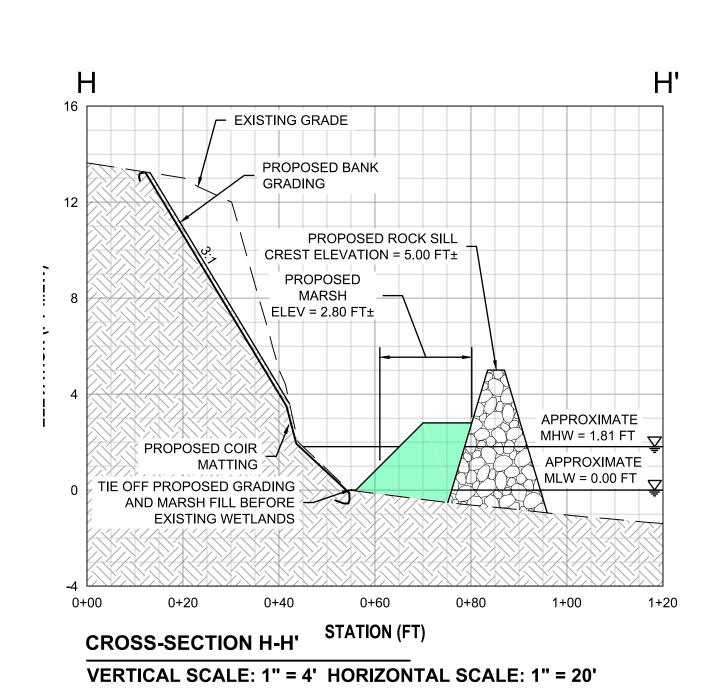


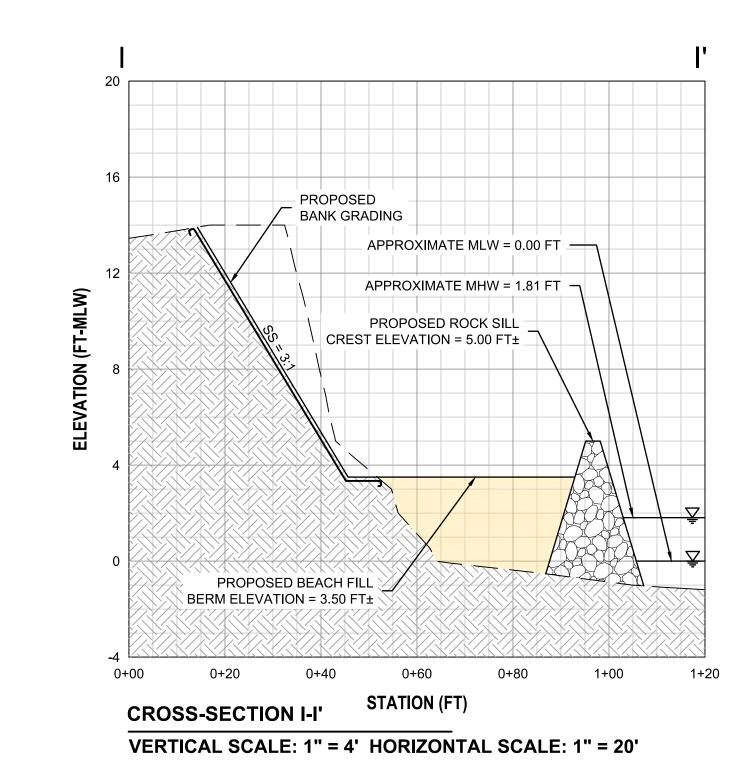
PROPOSED BEACH FILL

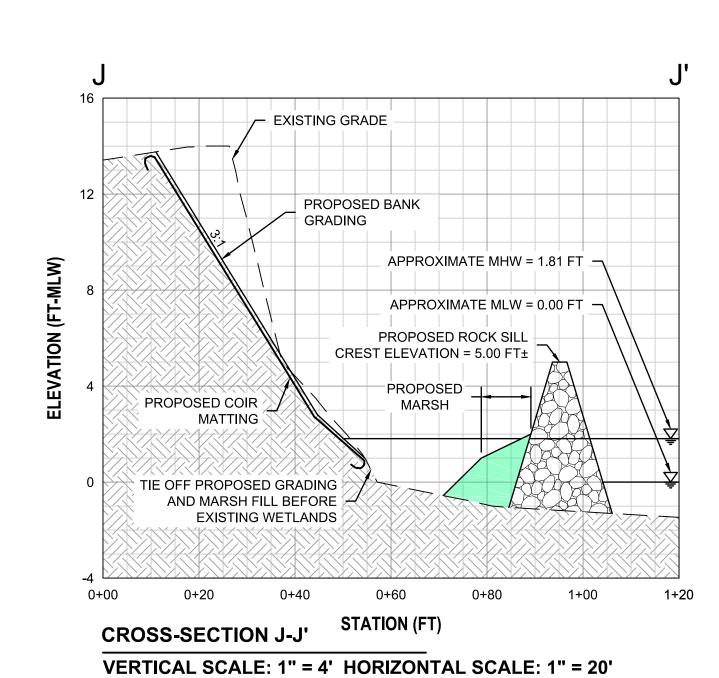
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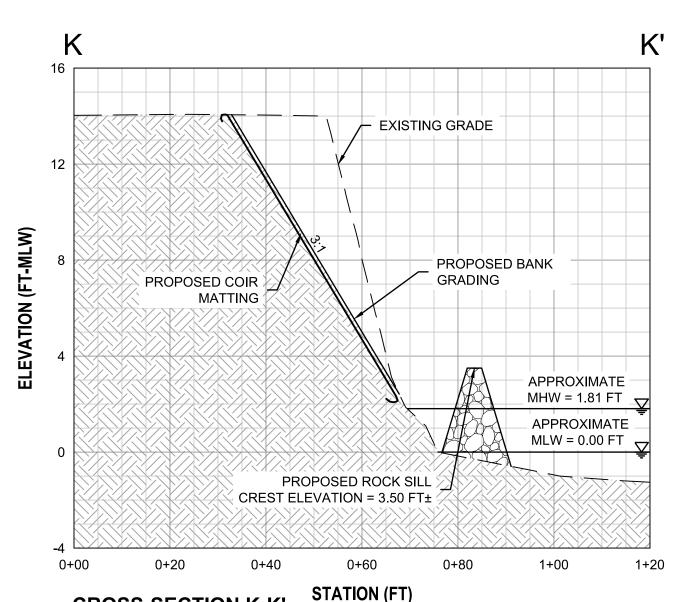
APPROXIMATE MILW = 0.00 FT

VERTICAL SCALE: 1" = 4' HORIZONTAL SCALE: 1" = 20'









CROSS-SECTION K-K'

VERTICAL SCALE: 1" = 4' HORIZONTAL SCALE: 1" = 20'

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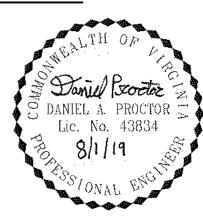
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GENERAL SERVICES, STORMWATER DIVISION

CHICKAHOMINY RIVERFRONT PARK LIVING SHORELINE

JAMES CITY COUNTY, VIRGINIA

Title

CROSS-SECTIONS - SEGMENT A

Project No.

203401193

Revision Sheet

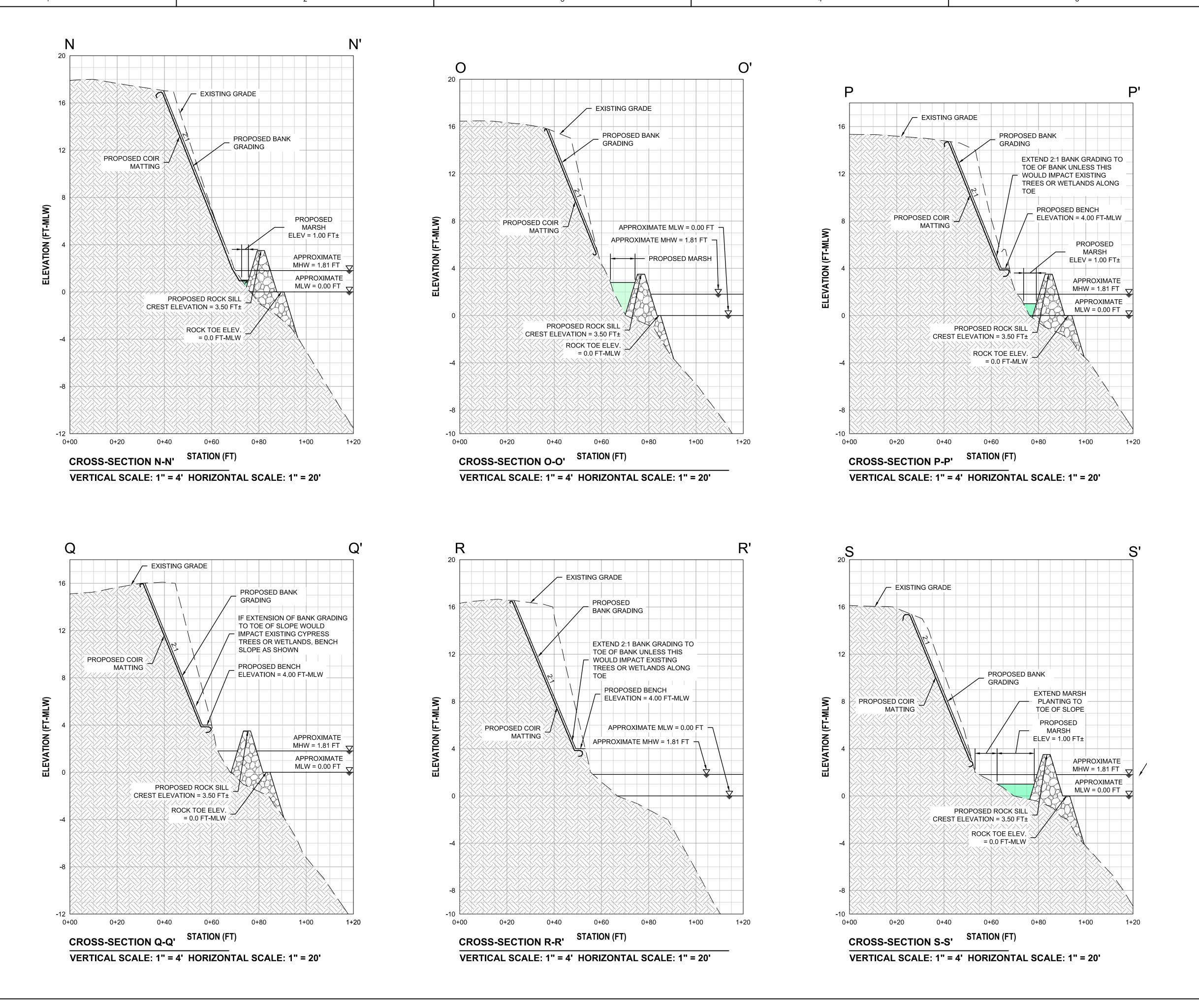
Scale

AS SHOWN

Drawing No.

ORIGINAL SHEET - ANSI D

8 of 22



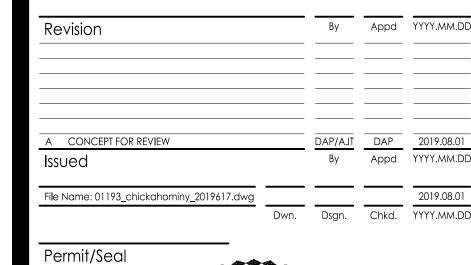


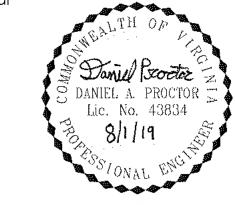
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CHICKAHOMINY RIVERFRONT PARK LIVING SHORELINE

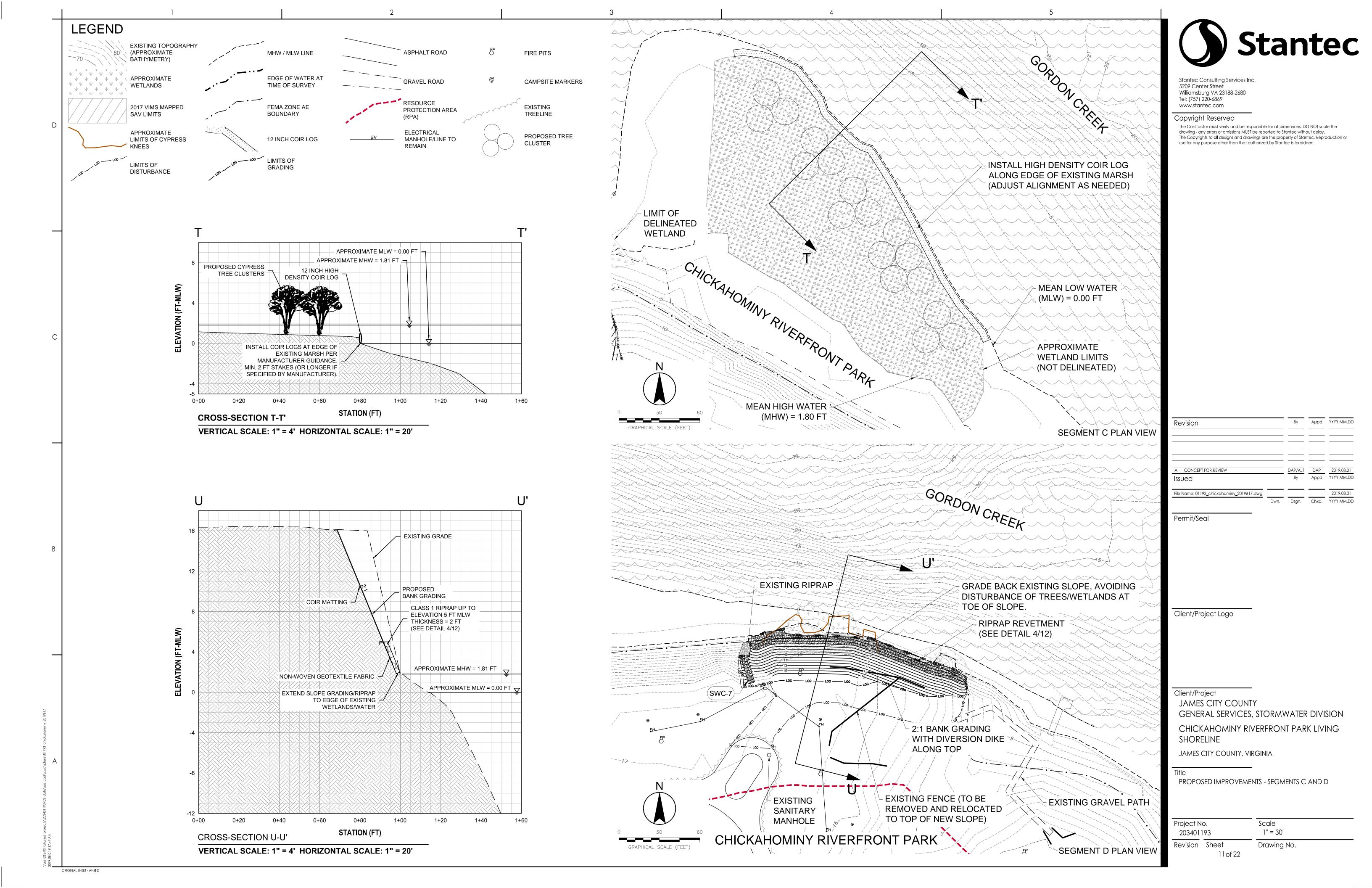
JAMES CITY COUNTY, VIRGINIA

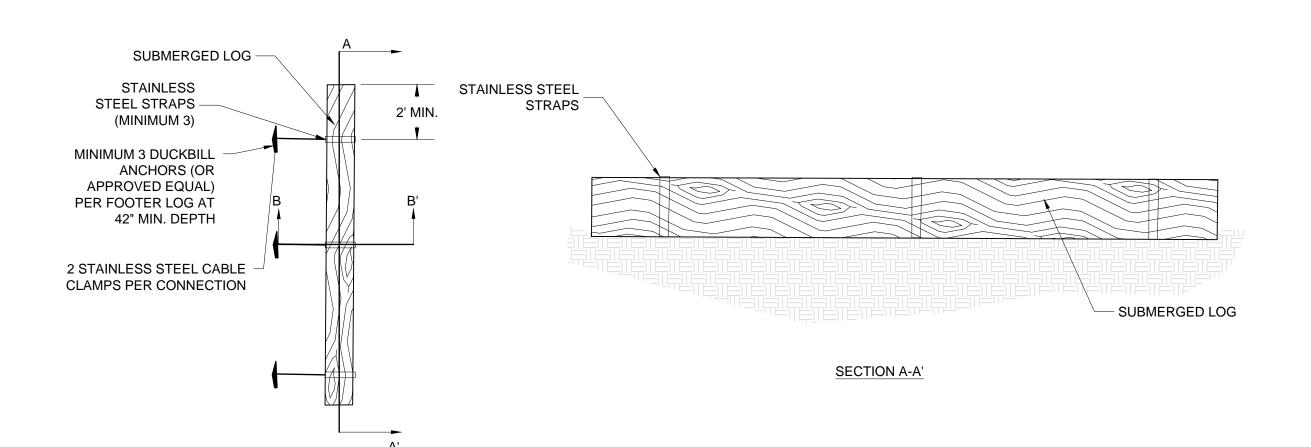
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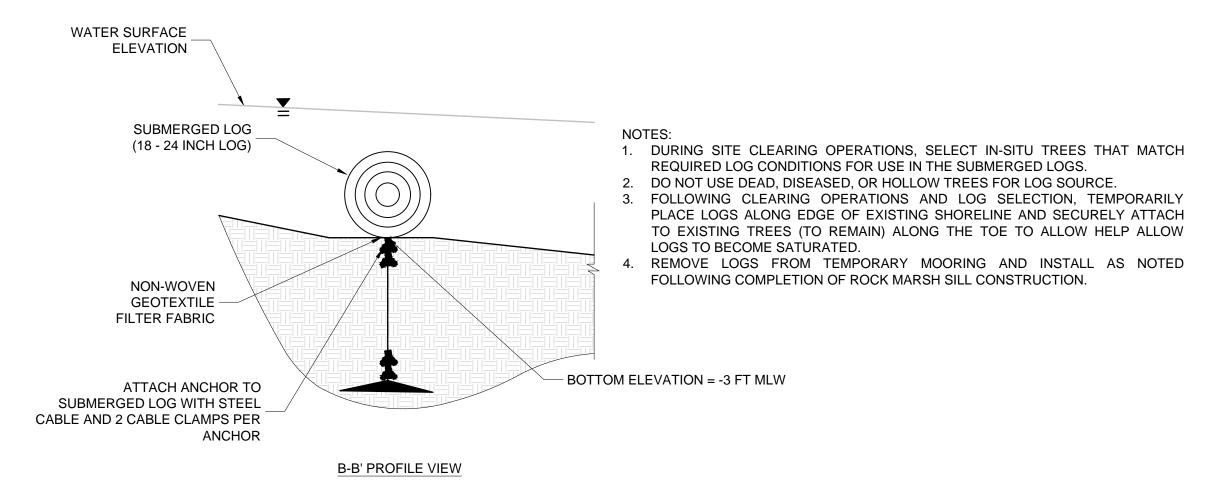
CROSS-SECTIONS - SEGMENT B

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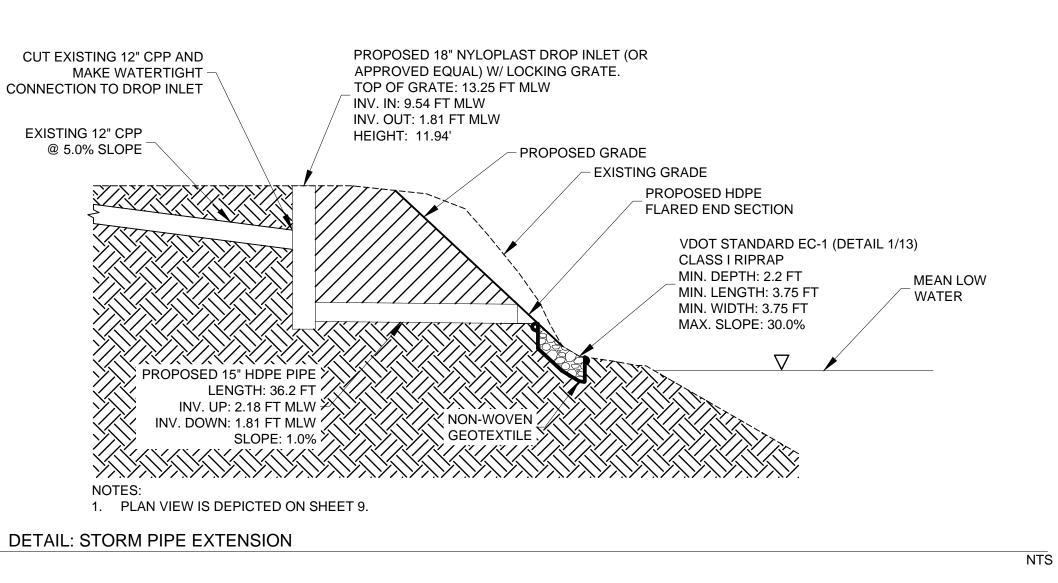


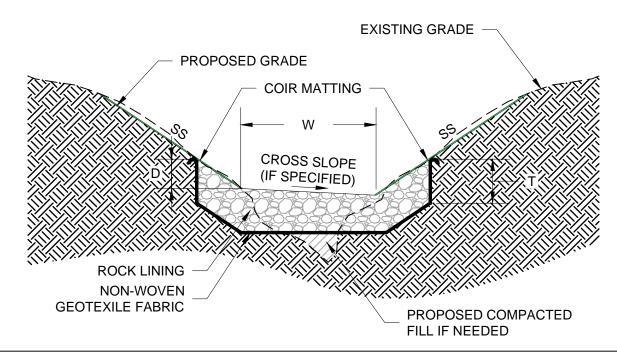




1 DETAIL: SUBMERGED LOG







	CONVEYANCE CHANNEL DESIGN TABLE										
CONVEYANCE ID	W (FT)	SS (H:V)	D (FT)	LONG. SLOPE	CROSS SLOPE**	Q10 (CFS)	VELOCITY (FT/S)	HYDRAULIC RADIUS (FT)	SHEAR STRESS (LB/FT <sup>2</sup> )	ROCK LINING	T (FT)
SWC-1* TEMPORARY	12	3:1	0.5	15%	5%	0.39	2.6	0.06	0.6	VDOT #1 STONE*	0.5
SWC-1* PERMANENT	12	3:1	0.5	15%	5%	0.39	3.5	0.05	0.5	COIR MATTING	N/A
SWC-2 TEMPORARY	12	2:1	0.5	15%	5%	1.39	3.6	0.09	0.8	6" RIPRAP*	1.0
SWC-2* PERMANENT	12	2:1	0.5	15%	5%	1.39	4.9	0.07	0.7	COIR MATTING	N/A
SWC-3	3	2:1	0.5	15%	0%	0.85	2.2	0.11	1.7	CLASS A1 RIPRAP	1.6
SWC-4* TEMPORARY	12	2:1	0.5	15%	5%	0.28	2.4	0.05	0.5	VDOT #1 STONE*	0.5
SWC-4* PERMANENT	12	2:1	0.5	15%	5%	0.28	3.3	0.04	0.4	COIR MATTING	N/A
SWC-5	3	2:1	0.5	50%	0%	0.15	1.2	0.03	0.8	CLASS A1 RIPRAP	1.6
SWC-6	3	2:1	0.5	42%	0%	0.25	1.6	0.05	1.2	CLASS A1 RIPRAP	1.6
SWC-7	3	2:1	0.5	35%	0%	0.16	1.4	0.04	1.0	CLASS A1 RIPRAP	1.6

\*SWC-1, -2, AND -4 FUNCTION AS HYBRID CONSTRUCTION ACCESS AND STORMWATER CONVEYANCE. AFTER CONSTRUCTION, REMOVE THE TEMPORARY ROCK LINING AND GEOTEXTILE FABRIC, INSTALL FILL TO BRING ACCESS TO FINAL GRADE, AND INSTALL COIR MATTING AND SEED ON THE ACCESS PATH TO PROVIDE PERMANENT STABILIZATION.

\*\*CROSS SLOPE TO PROVIDE A DEEPER CHANNEL ON THE SIDE OF THE CONVEYANCE THAT RECEIVES FLOW FROM DIVERSION DIKE.

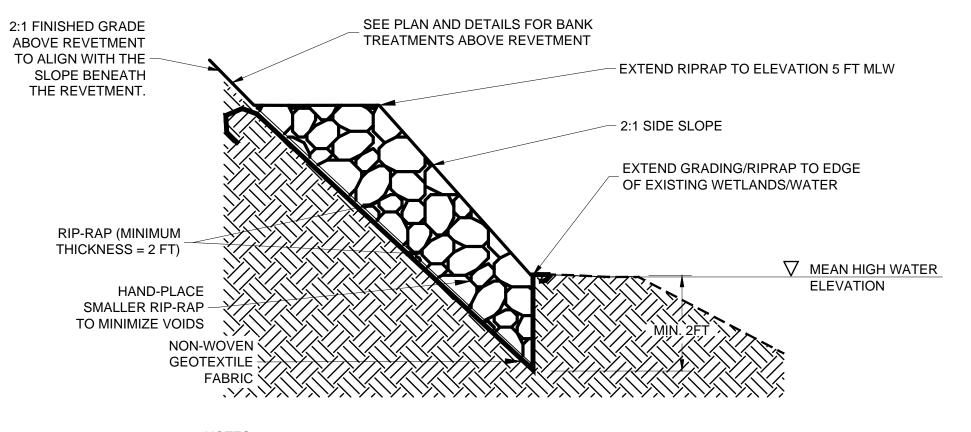
NOTES:

UPLAND RUNOFF CONVEYANCE CHANNELS ARE INTENDED TO CONVEY UPLAND FLOW TO WATERWAY FROM PROPOSED STORMWATER DIVERSIONS TO PROTECT GRADED SLOPES FROM EROSION BY UPLAND RUNOFF. SEE SHEETS 14 -18

2. CHANNEL LINING STONE MUST BE ANGULAR GRADED ROCK TO FORM A FLEXIBLE, SELF-HEALING COVER.

DETAIL: UPLAND RUNOFF CONVEYANCE CHANNEL

12



NOTES:
1. CLASS I RIPRAP TO BE USED FOR ROCK REVETMENT.

DETAIL: ROCK REVETMENT
12

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Daniel A PROCTOR I Lic. No. 43834

8/1/19

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CHICKAHOMINY RIVERFRONT PARK LIVING SHORELINE

JAMES CITY COUNTY, VIRGINIA

12 of 22

\*\*11 -

notes and details (1)

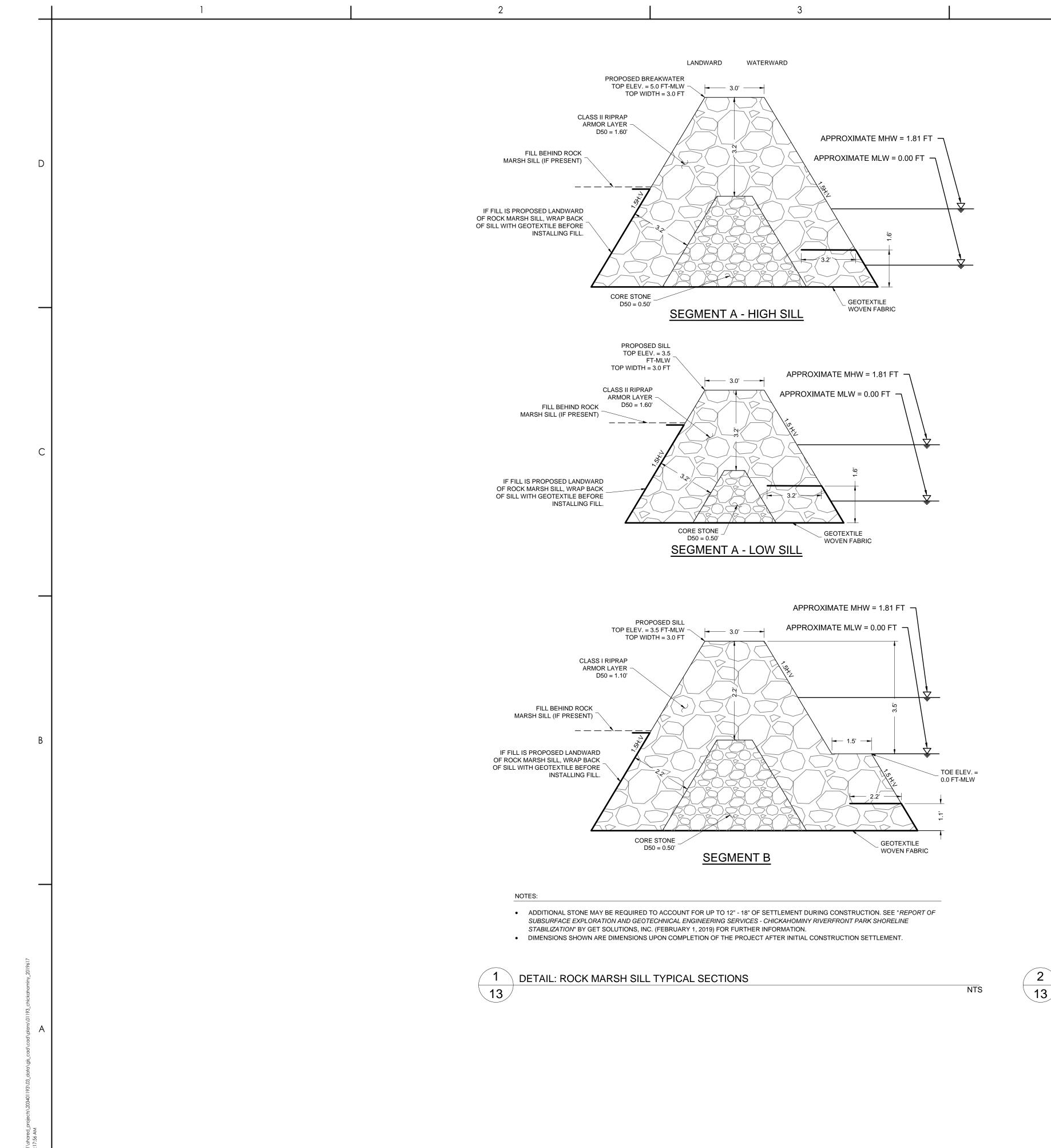
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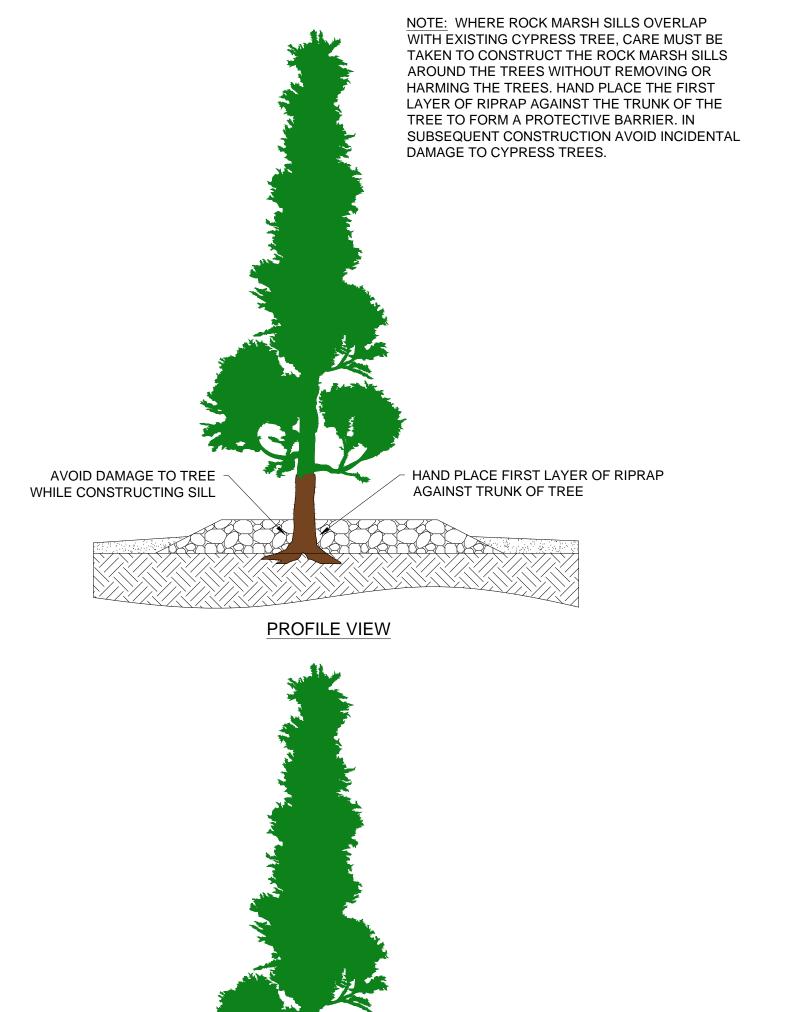
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Revision Sheet Drawing No.

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**12** 





**SECTION VIEW** 

DETAIL: CYPRESS TREE ROCK MARSH SILL

LOCATION OF CYPRESS TREE VARIES WITHIN SILL

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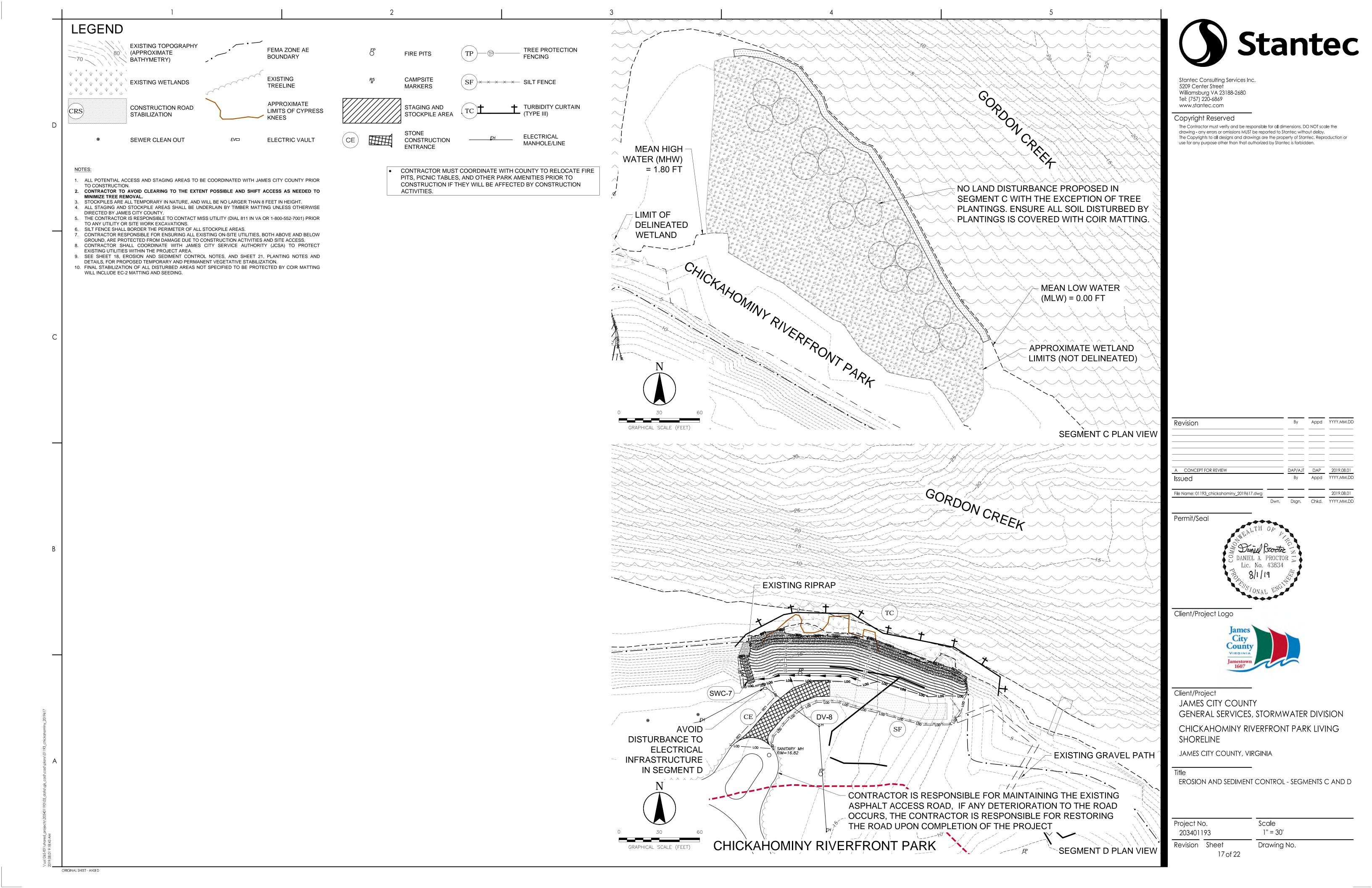
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NOTES AND DETAILS (2)

Project No. Scale
203401193 N/A

Revision Sheet Drawing No.

ORIGINAL SHEET - ANSI D



- 1 ALL THE PROVISIONS OF VIRGINIA FROSION AND SEDIMENT CONTROL (F&SC) LAW AND REGULATIONS. THE VIRGINIA STORMWATER MANAGEMENT ACT AND REGULATIONS (VSMP). THE VIRGINIA BMP CLEARINGHOUSE WEBSITE, STATE EROSION AND SEDIMENT CONTROL AND STORMWATER MANAGEMENT HANDBOOKS, AND ANY ASSOCIATED TECHNICAL BULLETINS AND GUIDANCE DOCUMENTS AS PUBLISHED BY THE STATE WATER CONTROL BOARD. THE VIRGINIA DEPARTMENT OF ENVIRONMENTAL QUALITY (DEQ), AND THE LOCAL VESCP
- 2. MINIMUM STANDARDS NO. 1 THROUGH NO. 19 OF THE VIRGINIA EROSION AND SEDIMENT CONTROL REGULATIONS 9VAC25- 840 ET SEQ. SHALL APPLY TO THE PROJECT.

AND VSMP AUTHORITY SHALL APPLY TO THE PROJECT.

- 3. THE OWNER, APPLICANT, OPERATOR, OR PERMITTEE SHALL BE RESPONSIBLE TO REGISTER FOR CONSTRUCTION GENERAL PERMIT (CGP) COVERAGE, AS APPLICABLE, IN ACCORDANCE WITH THE GENERAL VPDES PERMIT FOR DISCHARGE OF STORMWATER FROM CONSTRUCTION ACTIVITIES (VAR10) CHAPTER 880: THE VIRGINIA STORMWATER MANAGEMENT PROGRAM REGULATIONS CHAPTER 870, AND IN ACCORDANCE WITH CURRENT REQUIREMENTS OF THE VIRGINIA STORMWATER MANAGEMENT PROGRAM (VSMP). THE STATE WATER CONTROL BOARD, THE VIRGINIA DEPARTMENT OF ENVIRONMENTAL QUALITY, CHAPTER 8 OF THE COUNTY CODE AND THE LOCAL VESCP/VSMP AUTHORITY.
- 4. THE OWNER, APPLICANT, OPERATOR OR PERMITTEE SHALL PROVIDE THE NAME OF AN INDIVIDUAL HOLDING A VALID RESPONSIBLE LAND DISTURBER (RLD) CERTIFICATE OF COMPETENCE WHO WILL BE RESPONSIBLE FOR THE LAND DISTURBING ACTIVITY PRIOR TO ENGAGING IN THE LAND DISTURBING ACTIVITY. THIS WILL BE NECESSARY PRIOR TO ISSUANCE OF A LOCAL LAND DISTURBING AND/OR STORMWATER CONSTRUCTION PERMIT FOR THE PROJECT. THE RLD IS REQUIRED TO ATTEND THE PRECONSTRUCTION CONFERENCE FOR THE PROJECT.
- 5. THE CONTRACTOR IS RESPONSIBLE TO CONTACT MISS UTILITY (DIAL 811 IN VA OR 1-800-552-7001) PRIOR TO ANY UTILITY OR SITE WORK EXCAVATIONS.
- 6. ALL EROSION AND SEDIMENT CONTROL MEASURES SHALL BE PLANNED, DESIGNED, IMPLEMENTED, INSTALLED AND MAINTAINED IN ACCORDANCE WITH THE PROVISIONS OF THE LATEST EDITION OF THE VIRGINIA EROSION AND SEDIMENT CONTROL HANDBOOK (VESCH). THE CONTRACTOR SHALL MAINTAIN, INSPECT. AND REPAIR ALL EROSION AND SEDIMENT CONTROL MEASURES AS NEEDED THROUGHOUT THE LIFE OF THE PROJECT TO ENSURE CONTINUED ACCEPTABLE PERFORMANCE
- 7. A PRECONSTRUCTION CONFERENCE (MEETING) SHALL BE HELD ON SITE AND INCLUDE REPRESENTATIVES FROM THE LOCAL VESCP/VSMP AUTHORITY THE OWNER/APPLICANT/OPERATOR/PERMITTEE THE RESPONSIBLE LAND-DISTURBER (RLD), AND THE CONTRACTOR, ENGINEER, AND OTHER RESPONSIBLE AGENCIES, AS APPLICABLE, PRIOR TO AUTHORIZATION AND ISSUANCE OF A LOCAL LAND DISTURBING OR STORMWATER CONSTRUCTION PERMIT. THE OWNER, APPLICANT, OPERATOR OR PERMITTEE IS REQUIRED TO COORDINATE SCHEDULING OF THE PRECONSTRUCTION CONFERENCE BETWEEN ALL APPLICABLE PARTIES. THE CONTRACTOR SHALL SUBMIT A SEQUENCE OF CONSTRUCTION AND A REVISED POLLUTION PREVENTION PLAN (P2 PLAN OR PPP), IF APPLICABLE, TO THE LOCAL VESCP/VSMP AUTHORITY FOR REVIEW AND APPROVAL PRIOR TO THE PRECONSTRUCTION MEETING.
- 8. A POLLUTION PREVENTION PLAN (P2 PLAN OR PPP). IF REQUIRED. SHALL BE DEVELOPED. IMPLEMENTED AND UPDATED AS NECESSARY AND MUST DETAIL THE DESIGN. INSTALLATION. IMPLEMENTATION. AND MAINTENANCE OF EFFECTIVE POLLUTION PREVENTION MEASURES TO: MINIMIZE THE DISCHARGE OF POLLUTANTS FROM EQUIPMENT AND VEHICLE WASHING, WHEEL WASH WATER AND OTHER WASH WATERS; MINIMIZE THE EXPOSURE OF ALL MATERIALS ON THE SITE (SUCH AS BUILDING MATERIALS AND PRODUCTS, CONSTRUCTION WASTE, TRASH, LANDSCAPE MATERIALS, FERTILIZERS, PESTICIDES, HERBICIDES, DETERGENTS, SANITARY WASTE, ETC.) TO PRECIPITATION AND STORMWATER: MINIMIZE THE DISCHARGE OF POLLUTANTS FROM SPILLS AND LEAKS; IMPLEMENT CHEMICAL SPILL AND LEAK PREVENTION AND RESPONSE PROCEDURES; AND INCLUDE EFFECTIVE BEST MANAGEMENT PRACTICES TO PROHIBIT THE DISCHARGE OF WASTEWATER FROM: CONCRETE WASHOUT AREAS. DISCHARGE OF WASTEWATER FROM WASHOUT AND CLEANOUT OF STUCCO, PAINT, FORM RELEASE OILS, CURING COMPOUNDS AND OTHER CONSTRUCTION MATERIALS; DISCHARGE OF FUELS, OILS, OTHER POLLUTANTS USED IN VEHICLE AND EQUIPMENT OPERATION AND MAINTENANCE ACTIVITIES; AND THE DISCHARGE OF SOAPS AND SOLVENTS USED FOR VEHICLE AND EQUIPMENT WASHING. THIS PLAN SHALL BE AVAILABLE ONSITE FOR REVIEW AT REASONABLE TIMES BY THE LOCAL VESCP/VSMP AUTHORITY WHEN REQUESTED.
- 9. THE OWNER, APPLICANT, OPERATOR, OR PERMITTEE IS RESPONSIBLE FOR ALL OPERATOR SELF-INSPECTIONS AS REQUIRED IN THE POLLUTION PREVENTION PLAN (P2 PLAN OR PPP) OR AS REQUIRED AS PART OF A DEVELOPED STORMWATER POLLUTION PREVENTION PLAN (SWPPP). THESE INSPECTIONS SHALL BE MADE AVAILABLE, UPON REQUEST, BY THE LOCAL VESCP/VSMP AUTHORITY.
- 10. ALL PERIMETER EROSION AND SEDIMENT CONTROL (E&SC) MEASURES SHALL BE CONSTRUCTED AS A FIRST STEP IN ANY LAND- DISTURBING ACTIVITY AND SHALL BE MADE FUNCTIONAL BEFORE UPSLOPE LAND DISTURBANCE ACTIVITY TAKES PLACE.
- 11. ADDITIONAL SAFETY FENCE OR DUST CONTROL MEASURES, IN ACCORDANCE WITH THE PROVISIONS OF MINIMUM STANDARDS & SPECS 3.01 AND 3.39 OF THE VIRGINIA FROSION AND SEDIMENT CONTROL HANDBOOK (VESCH), MAY BE REQUIRED TO BE IMPLEMENTED ON THE SITE IN ADDITION TO THAT SHOWN ON THE APPROVED PLAN AND SPECIFICATIONS IN ORDER TO ENSURE ADEQUATE PROTECTION OF THE HEALTH, SAFETY AND WELFARE OF THE PUBLIC OR IF SITE CONDITIONS CHANGE, BECOME APPARENT OR ALTER SIGNIFICANTLY FOLLOWING THE DATE OF PLAN APPROVAL.
- 12.EROSION AND SEDIMENT CONTROL MEASURES MAY REQUIRE MINOR FIELD ADJUSTMENTS AT OR ADEQUATE PROTECTION OF THE HEALTH, SAFETY, AND WELFARE OF THE PUBLIC, OR IF SITE CONDITIONS CHANGE, BECOME APPARENT OR ALTER SIGNIFICANTLY FOLLOWING THE DATE OF PLAN APPROVAL, LOCAL VESCP/VSMP AUTHORITY APPROVAL SHALL BE REQUIRED FOR ANY DEVIATION OF EROSION AND SEDIMENT CONTROL MEASURES FROM THE APPROVED PLAN.
- 13.OFF-SITE WASTE OR BORROW AREAS SHALL BE APPROVED BY THE LOCAL VESCP/VSMP AUTHORITY PRIOR TO THE IMPORT OF ANY BORROW OR EXPORT OF ANY WASTE TO OR FROM THE PROJECT SITE.
- 14. TEMPORARY SOIL STOCKPILES SHALL COMPLY WITH THE PROVISIONS OF SECTION 24-46 OF THE COUNTY
- 15.CULVERT AND STORM DRAIN INLET PROTECTIONS, IN ACCORDANCE WITH THE PROVISIONS OF MINIMUM STANDARDS & SPECS. 3.07 AND 3.08 OF THE VIRGINIA EROSION AND SEDIMENT CONTROL HANDBOOK (VESCH). MAY BE REMOVED AT THE DISCRETION OF THE ASSIGNED LOCAL VESCP/VSMP AUTHORITY COMPLIANCE INSPECTOR. SHOULD PLACEMENT OF THE MEASURE RESULT IN EXCESSIVE ROAD FLOODING. TRAFFIC OR SAFETY HAZARD, OR RESULT IN THE REDIRECTION OF DRAINAGE ONTO OR TOWARD EXISTING LOTS, HOMES, DRIVEWAYS, GARAGES OR OTHER STRUCTURES. DECISIONS SHALL BE MADE BY THE VESCP/VSMP AUTHORITY ON A CASE-BY-CASE BASIS BASED ON FIELD SITUATIONS ENCOUNTERED.
- 16.DRAINAGE FACILITIES SHALL BE INSTALLED AND FUNCTIONAL WITHIN 30 DAYS FOLLOWING COMPLETION OF ROUGH GRADING AT ANY POINT WITHIN THE PROJECT.
- 17.NO MORE THAN 300 FEET OF TRENCH MAY BE OPEN AT ONE TIME FOR UNDERGROUND UTILITY LINES, INCLUDING STORM WATER CONVEYANCES. ALL OTHER PROVISIONS OF MINIMUM STANDARD NO. 16 OF THE VIRGINIA EROSION AND SEDIMENT CONTROL REGULATIONS APPLY.
- 18.PERMANENT OR TEMPORARY STABILIZATION OF DISTURBED SOIL AREAS SHALL COMPLY WITH MINIMUM STANDARD # 1 AND # 3 OF THE VIRGINIA EROSION AND SEDIMENT CONTROL REGULATIONS.
- 19.THE TERM SEEDING, FINAL VEGETATIVE COVER OR STABILIZATION ON THE APPROVED PLAN SHALL MEAN THE SUCCESSFUL GERMINATION AND ESTABLISHMENT OF A STABLE GRASS COVER FROM A PROPERLY PREPARED SEEDBED, IN ACCORDANCE WITH MINIMUM STANDARD # 1 AND # 3 FROM THE VIRGINIA EROSION AND SEDIMENT CONTROL REGULATIONS, MINIMUM STANDARDS & SPECS. 3.29 THROUGH 3.37 OF THE VIRGINIA EROSION AND SEDIMENT CONTROL HANDBOOK (VESCH). AND ANY TECHNICAL BULLETINS ISSUED BY THE STATE WATER CONTROL BOARD OR VIRGINIA DEQ, AS APPLICABLE. IRRIGATION, IF NECESSARY, SHALL COMPLY WITH ALL APPLICABLE SEASONAL OUTDOOR WATER USE RESTRICTIONS OF THE JAMES CITY
- 20.IF DISTURBED AREA STABILIZATION IS TO BE ACCOMPLISHED DURING THE MONTHS OF DECEMBER, JANUARY OR FEBRUARY, STABILIZATION SHALL CONSIST OF MULCHING IN ACCORDANCE WITH MINIMUM STANDARD & SPEC. 3.35 OF THE VIRGINIA EROSION AND SEDIMENT CONTROL HANDBOOK (VESCH). SEEDING WILL THEN TAKE PLACE AS SOON AS THE SEASON PERMITS.
- 21.TEMPORARY EROSION AND SEDIMENT CONTROL MEASURES SHALL NOT BE REMOVED UNTIL ALL DISTURBED AREAS ARE STABILIZED. REMOVAL SHALL NOT OCCUR WITHOUT AUTHORIZATION BY THE LOCAL VESCP/VSMP AUTHORITY. DISTURBANCES ASSOCIATED WITH THE REMOVAL OF TEMPORARY EROSION AND SEDIMENT CONTROL MEASURES SHALL BE PROPERLY STABILIZED.
- 22.NO SEDIMENT TRAP OR SEDIMENT BASIN SHALL BE REMOVED UNTIL A) AT LEAST 75 PERCENT OF THE SINGLE-FAMILY LOTS WITHIN THE DRAINAGE AREA TO THE TRAP OR BASIN HAVE BEEN SOLD TO A THIRD PARTY FOR THE CONSTRUCTION OF HOMES (UNRELATED TO THE DEVELOPER); AND/OR, B) 60 PERCENT OF THE SINGLE-FAMILY LOTS WITHIN THE DRAINAGE AREA TO THE TRAP OR BASIN ARE COMPLETED AND STABILIZED. A BULK SALE OF THE LOTS TO ANOTHER BUILDER DOES NOT SATISFY THIS PROVISION. SEDIMENT TRAPS AND SEDIMENT BASINS SHALL NOT BE REMOVED WITHOUT AUTHORIZATION OF THE LOCAL VESCP/VSMP AUTHORITY.
- 23.DESIGN AND CONSTRUCTION OF PRIVATE-TYPE STORM DRAINAGE SYSTEMS, OUTSIDE VDOT RIGHT-OF-WAY, SHALL BE PERFORMED IN ACCORDANCE WITH THE CURRENT VERSION OF THE JAMES CITY COUNTY. ENGINEERING AND RESOURCE PROTECTION DIVISION, STORMWATER DRAINAGE CONVEYANCE SYSTEMS

(NON-BMP RELATED), GENERAL DESIGN AND CONSTRUCTION GUIDELINES (IE. COUNTY DRAINAGE STANDARDS).

24.RECORD DRAWINGS (ASBUILTS) AND CONSTRUCTION CERTIFICATIONS ARE REQUIRED FOR ALL STORMWATER FACILITIES INCLUDING STORMWATER MANAGEMENT/BMP FACILITIES AND STORM DRAINAGE CONVEYANCE SYSTEMS. THE CERTIFICATION PROCESS SHALL INCLUDE AN INTERNAL CLOSED-CIRCUIT TELEVISION CAMERA (CCTV) POST INSTALLATION INSPECTION PERFORMED BY THE OWNER IN ACCORDANCE WITH STANDARDS AND SPECIFICATIONS DEVELOPED BY THE VSMP AUTHORITY, RECORD DRAWINGS AND CONSTRUCTION CERTIFICATIONS MUST MEET ESTABLISHED PROGRAM REQUIREMENTS OF THE COUNTY'S CHAPTER 8 EROSION AND SEDIMENT CONTROL AND VSMP ORDINANCE AND THE LOCAL VESCP/VSMP

25.ALL STORMWATER FACILITIES INCLUDING BMPS, STORM DRAINAGE PIPES, STORMWATER CONVEYANCES. INLETS, MANHOLES, OUTFALLS AND ROADSIDE AND OTHER OPEN CHANNELS SHALL BE INSPECTED BY THE LOCAL VESCP/VSMP AUTHORITY, THE OWNER, AND THE APPLICANT/OPERATOR/PERMITTEE DESIGNATED GEOTECHNICAL ENGINEER FOR THE PROJECT IN ACCORDANCE WITH ESTABLISHED COUNTY STORMWATER FACILITY INSPECTION PROGRAM REQUIREMENTS

### PROJECT DESCRIPTION

THE PLAN CONSISTS OF SHORELINE STABILIZATION AT FOUR SEGMENTS OF THE PARK SHORELINE ALONG WITH RIPARIAN BUFFER AND WETLAND PLANTINGS. THE DESIGN PLAN PROPOSES A LIVING SHORELINE WITH ROCK MARSH SILLS AND BEACH NOURISHMENT ON THE WEST SIDE OF THE PARK ALONG THE CHICKAHOMINY RIVER AND MARSH CREATION AND STABILIZATION USING ROCK MARSH SILLS, SUBMERGED LOGS, MARSH CREATION, AND PLANTINGS. A SMALL AREA OF THE SHORELINE OF GORDON CREEK IS PROPOSED TO BE STABILIZED USING A ROCK REVETMENT. THE WETLAND PLANTINGS INCORPORATED INTO THE SHORELINE STABILIZATION WILL AID IN WATER QUALITY IMPROVEMENT THROUGH NUTRIENT UPTAKE AND SEDIMENTATION AND WILL CREATE ADDITIONAL HABITAT ALONG THE SHORELINE. LOCATIONS WHERE BALD CYPRESS TREES ARE PRESENT ALONG THE TOE OF EXISTING BANKS ARE PRESERVED AND EXPANDED WITH MARSH CREATION WHEREVER FEASIBLE. A PLANTING PLAN CONSISTING OF NATIVE PLANTINGS APPROPRIATE FOR THEIR LOCATION HAS BEEN DEVELOPED AND IS LOCATED ON SHEET 21. THE TOTAL LIMITS OF DISTURBANCE PROPOSED ARE 3.85 ACRES.

### **EXISTING SITE CONDITIONS**

THE PROJECT IS LOCATED AT CHICKAHOMINY RIVERFRONT PARK OFF OF JOHN TYLER MEMORIAL HIGHWAY AND EXTENDS ALONG SEVERAL SHORELINE LOCATIONS ON THE CHICKAHOMINY RIVER AND GORDON CREEK. THE EXISTING SHORELINE IS CHARACTERIZED BY NEARLY VERTICAL. ERODING BANKS RANGING FROM APPROXIMATELY 3 TO 15 FEET IN HEIGHT BROKEN UP BY LOCALIZED AREAS OF BANK STABILITY. THE BANK EROSION IS IMPACTING DOWNSTREAM WATER QUALITY, LIMITING ENVIRONMENTAL HABITAT, ENCROACHING ON PARK INFRASTRUCTURE, AND REDUCING THE EXISTING RIPARIAN BUFFER AS THE SHORELINE MOVES INLAND.

# ADJACENT AREAS

THE SITE IS SURROUNDED BY RESIDENTIAL PARCELS. ALL WORK SHALL BE CONDUCTED DURING NORMAL DAYLIGHT HOURS.

# OFF-SITE AREAS

OFF-SITE AREAS WILL NOT BE USED OR ENCROACHED UPON FOR ANY CONSTRUCTION ACTIVITY.

SOILS WITHIN THE PROJECT LIMITS CONSIST OF CRAVEN-UCHEE COMPLEX (11C), DOGUE LOAM (12), EMPORIA COMPLEX (15E), PAMUNKEE SOILS (26B), AND URBAN LAND (37). SEE SOILS TABLES ON THE EXISTING CONDITIONS SHEETS 2-5.

### CRITICAL AREAS

THE CHICKAHOMINY RIVERFRONT PARK LIVING SHORELINE PROJECT AREA IS LOCATED ENTIRELY ON THE BANKS OF THE CHICKAHOMINY RIVER AND GORDON CREEK, AND IS EXHIBITING ACTIVE EROSION AND MASS WASTING, ALL CONSTRUCTION ACTIVITIES WILL BE PERFORMED IN A MANNER THAT MINIMIZES THE TRANSPORT OF SEDIMENT DOWNSTREAM. THE PROJECT GOALS INCLUDE THE STABILIZATION OF ERODING BANKS AND ENHANCING THE EXISTING RIPARIAN BUFFER WITH NATIVE PLANTINGS.

# EROSION AND SEDIMENT CONTROL MEASURES

THE FOLLOWING EROSION AND SEDIMENT CONTROL MEASURES ARE RECOMMENDED IN ACCORDANCE WITH MS-12. WHEN WORK IN A LIVE WATERCOURSE IS PERFORMED, PRECAUTIONS SHALL BE TAKEN TO MINIMIZE THE VIRGINIA EROSION AND SEDIMENT CONTROL HANDBOOK (VESCH, 1992). ALL SPECIFICATION NUMBERS LISTED BELOW REFER TO THE PRACTICES' PLATE NUMBER IN THE VESCH.

# STRUCTURAL PRACTICES

- SAFETY FENCE 3.01 A PROTECTIVE BARRIER INSTALLED TO PREVENT ACCESS TO THE CONSTRUCTION
- TEMPORARY STONE CONSTRUCTION ENTRANCE 3.02 A STABILIZED STONE PAD WITH A FILTER FABRIC UNDERLINER LOCATED AT THE POINT OF VEHICULAR INGRESS AND EGRESS ON A CONSTRUCTION SITE. ITS PURPOSE IS TO REDUCE THE AMOUNT OF MUD TRANSPORTED ONTO PAVED PUBLIC ROADS BY MOTOR VEHICLES OR RUNOFF FENCE - 3.05 - SILT FENCE WILL BE INSTALLED IN ORDER TO INTERCEPT AND DETAIN SMALL AMOUNTS OF
- SEDIMENT FROM LEAVING THE CONSTRUCTION SITE. DIVERSION - 3.12 - A CHANNEL CONSTRUCTED ACROSS A SLOPE WITH A SUPPORTING EARTHEN RIDGE ON THE
- LOWER SIDE TO REDUCE SLOPE LENGTH AND TO INTERCEPT AND DIVERT STORMWATER RUNOFF TO MS-16. NO UNDERGROUND UTILITY LINES SHALL BE INSTALLED IN THIS PLAN. STABILIZED OUTLETS AT NON-EROSIVE VELOCITIES. RIPRAP PROTECTION - 3.19 - RIPRAP PROTECTION SHALL BE INSTALLED FOR BANK ARMORING ON A SECTION OF
- THE GORDON CREEK SHORELINE AS SHOWN ON SHEET 11. CHECK DAM - 3.20 - CHECK DAMS SHALL BE INSTALLED TO REDUCE THE VELOCITY OF CONCENTRATED STORMWATER FLOWS AND TO TRAP SEDIMENT GENERATED FROM ADJACENT AREAS AND THE CHANNEL ITSELF DURING CONSTRUCTION. CHECK DAMS SHOULD BE CHECKED FOR SEDIMENT ACCUMULATION AFTER EACH
- RUNOFF PRODUCING STORM EVENT. SEDIMENT SHOULD BE REMOVED WHEN IT REACHES ONE HALF THE ORIGINAL HEIGHT OF THE DAM. REGULAR INSPECTIONS SHOULD BE MADE TO INSURE THAT THE CENTER OF THE DAM IS LOWER THAN THE EDGES. EROSION CAUSED BY HIGH FLOWS AROUND THE EDGES OF THE DAM SHOULD BE CORRECTED IMMEDIATELY.
- TURBIDITY CURTAIN 3.27 A FLOATING GEOTEXTILE TURBIDITY CURTAIN WILL MINIMIZE SEDIMENT TRANSPORT FROM DISTURBED AREAS ADJACENT TO OR WITHIN NEARBY WATERWAYS, DUE TO THE TIDAL CONDITIONS ON-SITE, THE TURBIDITY CURTAIN MUST BE IMPLEMENTED IN SUCH A WAY TO ALLOW WATER TO FLOW FROM ONE SIDE OF THE CURTAIN TO ANOTHER WITHOUT TRANSPORTING SEDIMENT AS THE TIDE RISES AND FALLS. SOIL STABILIZATION BLANKETS AND MATTING - 3.36 - THE INSTALLATION OF A PROTECTIVE COVERING OR A SOIL STABILIZATION MAT ON A PREPARED PLANTING AREA OF A STEEP SLOPE, CHANNEL OR SHORELINE. TREE PRESERVATION AND PROTECTION - 3.38 - IN ORDER TO ENSURE THE SURVIVAL OF THOSE TREES SPECIFIED IN THE PLAN, SAFETY FENCE SHALL BE PLACED OUTSIDE OF THE CANOPY OF THOSE TREES.

TOPSOIL (STOCKPILE) - 3.30 - EXCAVATED EXISTING TOPSOIL SHALL BE STRIPPED AND STOCKPILED FOR USE IN ACHIEVING FINAL GRADES. REAPPLY TOPSOIL IN GRADED SLOPE AREAS TO PROVIDE A SUITABLE GROWTH MEDIUM FOR FINAL SITE STABILIZATION. TOPSOIL FILL IN UPLAND AREAS SHALL BE A MINIMUM OF 3 INCHES DEEP. IN AREAS RECEIVING HERBACEOUS TIDAL PLANTINGS, 3 INCHES OF TOPSOIL SHALL BE PLACED TO ACHIEVE FINAL GRADE. THESE AREAS SHALL BE IMMEDIATELY COVERED AND SECURED WITH COIR MATTING. TEMPORARY SEEDING - 3.31 - RAPIDLY GROWING ANNUAL PLANTS SHALL BE SEEDED ON DISTURBED AREAS NOT YET BROUGHT TO FINAL GRADE.

PERMANENT SEEDING - 3.32 - THE ESTABLISHMENT OF PERENNIAL VEGETATIVE COVER ON DISTURBED AREAS

MULCHING - 3.35 - MULCH SHALL BE APPLIED TO AREAS THAT REQUIRE TEMPORARY SEEDING TO PREVENT EROSION BY PROTECTING THE SOIL FROM RAINDROP IMPACT AND REDUCING THE VELOCITY OF OVERLAND FLOW. IN ADDITION THE MULCH WILL FOSTER THE GROWTH OF VEGETATION BY INCREASING AVAILABLE MOISTURE AND PROVIDING INSULATION AGAINST EXTREME HEAT OR COLD. STRAW MULCH SHALL BE APPLIED AT 2 TONS/ACRE. MULCH MUST BE WEED FREE. STRAW MULCH MAY BE OMITTED IF SUITABLE MATTING IS

IMMEDIATELY SECURED OVER SEEDED AREAS PER PLAN SPECIFICATIONS.

ALL AREAS DISTURBED BY CONSTRUCTION SHALL BE STABILIZED WITH PERMANENT SEEDING AND PLANTING IMMEDIATELY FOLLOWING FINAL GRADING. SEEDING AND SEEDBED PREPARATION SHALL FOLLOW MATERIALS, SEQUENCING, AND COVERAGE AS SPECIFIED IN THE PLANTING PLAN. COIR MATTING SHALL BE PLACED OF ALL DISTURBED SLOPES AND UNLINED STREAM BANKS IN ORDER TO PROTECT FRESHLY DISTURBED AREAS FROM RILL AND GULLY EROSION AND TO ALLOW PROPER ESTABLISHMENT OF SEED MIXES. STRAW MULCH MAY BE USED ON RELATIVELY FLAT AREAS.

# STORMWATER MANAGEMENT

THIS PROJECT WILL PROVIDE WATER QUALITY AS WELL AS BANK PROTECTION. THERE IS NO PROPOSED ADDITIONAL IMPERVIOUS SURFACE WITH THIS PROJECT AND DISCHARGES LEAVING THE SITE WILL BE

### ALL EROSION AND SEDIMENT CONTROL MEASURES WILL BE CHECKED DAILY AND AFTER EACH SIGNIFICANT STORM EVENT. ANY SEDIMENT THAT HAS ACCUMULATED BEHIND ANY CONTROL MEASURE WILL BE REMOVED,

RESPREAD IN RELATIVELY FLAT AREAS, AND SEEDED. SEEDED AREAS WILL BE CHECKED REGULARLY TO ENSURE A HEALTHY STAND IS MAINTAINED AND WILL BE RE-SEEDED AS NEEDED. THE FOLLOWING WILL BE CHECKED IN PARTICULAR:

- 3.18 RIPRAP PROTECTION ALL RIPRAP SHALL BE CHECKED PERIODICALLY TO DETERMINE IF SCOUR IS OCCURRING BENEATH THE FABRIC UNDERLINING. IT SHOULD ALSO BE CHECKED FOR DISLODGED RIPRAP.
- 3.26 DEWATERING STRUCTURE THE FILTERING DEVICE MUST BE INSPECTED FREQUENTLY. THE ACCUMULATED SEDIMENT WHICH IS REMOVED FROM THE DEVICE MUST BE SPREAD ON-SITE AND STABILIZED OR PROPERLY DISPOSED OF.
- 3.36 SOIL STABILIZATION BLANKETS & MATTING BLANKETING & MATTING SHALL BE INSPECTED PERIODICALLY FOLLOWING INSTALLATION, PARTICULARLY AFTER RAINSTORMS TO CHECK FOR EROSION AND UNDERMINING. ANY DISLOCATION OR FAILURE SHOULD BE REPAIRED IMMEDIATELY. IF WASHOUTS OR BREAKAGE OCCURS, RE-INSTALL THE MATERIAL AFTER REPAIRING DAMAGE TO THE SLOPE OR DITCH.

## **EROSION & SEDIMENT CONTROL MINIMUM STANDARDS**

THE INTENT OF THIS SECTION IS TO SUMMARIZE HOW THE EROSION AND SEDIMENT CONTROL MEASURES PROPOSED IN THE EROSION AND SEDIMENT CONTROL PLAN SATISFY THE 19 MINIMUM STANDARDS SET FORTH IN THE VIRGINIA EROSION AND SEDIMENT CONTROL REGULATIONS (4VAC50-30-40). THE FOLLOWING IS A BRIEF SYNOPSIS OF THE MINIMUM STANDARDS (MS) AND HOW THEY ARE ADDRESSED IN THE PLAN.

MS-1. PERMANENT OR TEMPORARY SOIL STABILIZATION SHALL BE APPLIED TO DENUDED AREAS WITHIN SEVEN DAYS AFTER FINAL GRADE IS REACHED ON ANY PORTION OF THE SITE. TEMPORARY SOIL STABILIZATION SHALL BE APPLIED WITHIN SEVEN DAYS TO DENUDED AREAS THAT MAY NOT BE AT FINAL GRADE BUT WILL REMAIN DORMANT FOR LONGER THAN 14 DAYS. PERMANENT STABILIZATION SHALL BE APPLIED TO AREAS THAT ARE TO BE LEFT DORMANT FOR MORE THAN ONE YEAR.

MS-2. DURING CONSTRUCTION OF THE PROJECT, SOIL STOCK PILES AND BORROW AREAS SHALL BE STABILIZED OR PROTECTED WITH SEDIMENT TRAPPING MEASURES. THE APPLICANT IS RESPONSIBLE FOR THE TEMPORARY PROTECTION AND PERMANENT STABILIZATION OF ALL SOIL STOCKPILES ON SITE AS WELL AS BORROW AREAS AND SOIL INTENTIONALLY TRANSPORTED FROM THE PROJECT SITE.

MS-3. A PERMANENT VEGETATIVE COVER SHALL BE ESTABLISHED ON DENUDED AREAS NOT OTHERWISE PERMANENTLY STABILIZED. PERMANENT VEGETATION SHALL NOT BE CONSIDERED ESTABLISHED UNTIL A GROUND COVER IS ACHIEVED THAT IS UNIFORM, MATURE ENOUGH TO SURVIVE AND WILL INHIBIT EROSION.

MS-4. SEDIMENT BASINS AND TRAPS, PERIMETER DIKES, SEDIMENT BARRIERS AND OTHER MEASURES INTENDED TO TRAP SEDIMENT SHALL BE CONSTRUCTED AS A FIRST STEP IN ANY LAND-DISTURBING ACTIVITY AND SHALL BE MADE FUNCTIONAL BEFORE UPSLOPE LAND DISTURBANCE TAKES PLACE.

MS-5. STABILIZATION MEASURES SHALL BE APPLIED TO EARTHEN STRUCTURES SUCH AS DAMS, DIKES AND DIVERSIONS IMMEDIATELY AFTER INSTALLATION.

MS-6. SEDIMENT TRAPS AND SEDIMENT BASINS SHALL BE DESIGNED AND CONSTRUCTED BASED UPON THE TOTAL DRAINAGE AREA TO BE SERVED BY THE TRAP OR BASIN. HOWEVER, SEDIMENT TRAPS AND BASINS ARE NOT APPLICABLE FOR THIS PLAN.

MS-7. CUT AND FILL SLOPES SHALL BE DESIGNED AND CONSTRUCTED IN A MANNER THAT WILL MINIMIZE EROSION. SLOPES THAT ARE FOUND TO BE ERODING EXCESSIVELY WITHIN ONE YEAR OF PERMANENT STABILIZATION SHALL BE PROVIDED WITH ADDITIONAL SLOPE STABILIZING MEASURES UNTIL THE PROBLEM IS CORRECTED.

MS-8. CONCENTRATED RUNOFE SHALL NOT FLOW DOWN CUT OR FILL SLOPES UNLESS CONTAINED WITHIN AN ADEQUATE TEMPORARY OR PERMANENT CHANNEL, FLUME OR SLOPE DRAIN STRUCTURE.

MS-9. WHENEVER WATER SEEPS FROM A SLOPE FACE, ADEQUATE DRAINAGE OR OTHER PROTECTION SHALL BE PROVIDED.

MS-10. ALL STORM SEWER INLETS THAT ARE MADE OPERABLE DURING CONSTRUCTION SHALL BE PROTECTED SO THAT SEDIMENT-LADEN WATER CANNOT ENTER THE CONVEYANCE SYSTEM WITHOUT FIRST BEING FILTERED OR OTHERWISE TREATED TO REMOVE SEDIMENT.

MS-11. BEFORE NEWLY CONSTRUCTED STORMWATER CONVEYANCE CHANNELS OR PIPES ARE MADE OPERATIONAL, ADEQUATE OUTLET PROTECTION AND ANY REQUIRED TEMPORARY OR PERMANENT CHANNEL LINING SHALL BE INSTALLED IN BOTH THE CONVEYANCE CHANNEL AND RECEIVING CHANNEL.

ENCROACHMENT, CONTROL SEDIMENT TRANSPORT AND STABILIZE THE WORK AREA TO THE GREATEST EXTENT POSSIBLE DURING CONSTRUCTION. NONERODIBLE MATERIAL SHALL BE USED FOR THE CONSTRUCTION OF CAUSEWAYS AND COFFERDAMS. EARTHEN FILL MAY BE USED FOR THESE STRUCTURES IF ARMORED BY NONERODIBLE COVER MATERIALS.

MS-13. WHEN A LIVE WATERCOURSE MUST BE CROSSED BY CONSTRUCTION VEHICLES MORE THAN TWICE IN ANY

SIX-MONTH PERIOD, A TEMPORARY VEHICULAR STREAM CROSSING CONSTRUCTED OF NONERODIBLE MATERIAL SHALL BE PROVIDED, HOWEVER LIVE WATERCOURSE CROSSINGS ARE NOT APPLICABLE FOR THIS PLAN.

MS-14. ALL APPLICABLE FEDERAL, STATE AND LOCAL REQUIREMENTS PERTAINING TO WORKING IN OR CROSSING LIVE WATERCOURSES SHALL BE MET.

SEDIMENT FROM THE DISTURBED AREAS DURING CONSTRUCTION OPERATIONS IN ORDER TO PREVENT MS-15. THE BED AND BANKS OF THE PROPOSED SHORELINE STABILIZATION SHALL BE STABILIZED IMMEDIATELY AFTER WORK IN EACH AREA IS COMPLETED EACH WORK DAY.

MS-17. WHERE CONSTRUCTION VEHICLE ACCESS ROUTES INTERSECT PAVED OR PUBLIC ROADS, PROVISIONS SHALL BE MADE TO MINIMIZE THE TRANSPORT OF SEDIMENT BY VEHICULAR TRACKING ONTO THE PAVED SURFACE. WHERE SEDIMENT IS TRANSPORTED ONTO A PAVED OR PUBLIC ROAD SURFACE, THE ROAD SURFACE SHALL BE CLEANED THOROUGHLY AT THE END OF EACH DAY. SEDIMENT SHALL BE REMOVED FROM THE ROADS BY SHOVELING OR SWEEPING AND TRANSPORTED TO A SEDIMENT CONTROL DISPOSAL AREA. STREET WASHING SHALL BE ALLOWED ONLY AFTER SEDIMENT IS REMOVED IN THIS MANNER. THIS PROVISION SHALL APPLY TO INDIVIDUAL DEVELOPMENT LOTS AS WELL AS TO LARGER LAND-DISTURBING ACTIVITIES.

MS-18. ALL TEMPORARY EROSION AND SEDIMENT CONTROL MEASURES SHALL BE REMOVED WITHIN 30 DAYS AFTER FINAL SITE STABILIZATION OR AFTER THE TEMPORARY MEASURES ARE NO LONGER NEEDED, UNLESS OTHERWISE AUTHORIZED BY THE VESCP AUTHORITY. TRAPPED SEDIMENT AND THE DISTURBED SOIL AREAS RESULTING FROM THE DISPOSITION OF TEMPORARY MEASURES SHALL BE PERMANENTLY STABILIZED TO PREVENT FURTHER **EROSION AND SEDIMENTATION.** 

MS-19. PROPERTIES AND WATERWAYS DOWNSTREAM FROM DEVELOPMENT SITES SHALL BE PROTECTED FROM SEDIMENT DEPOSITION, EROSION AND DAMAGE DUE TO INCREASES IN VOLUME, VELOCITY AND PEAK FLOW RATE OF STORMWATER RUNOFF FOR THE STATED FREQUENCY STORM OF 24-HOUR DURATION. NO PERMANENT STORMWATER MANAGEMENT MEASURES ARE NECESSARY FOR THIS PROJECT. STREAM RESTORATION AND RELOCATION PROJECTS THAT INCORPORATE NATURAL CHANNEL DESIGN CONCEPTS ARE NOT MAN-MADE CHANNELS AND SHALL BE EXEMPT FROM ANY FLOW RATE CAPACITY AND VELOCITY REQUIREMENTS FOR NATURAL OR MAN-MADE CHANNELS.

# **GENERAL E&S NOTES**

ES-1 UNLESS OTHERWISE INDICATED, ALL VEGETATIVE AND STRUCTURAL EROSION AND SEDIMENT CONTROL PRACTICES WILL BE CONSTRUCTED AND MAINTAINED ACCORDING TO MINIMUM STANDARDS AND SPECIFICATIONS OF THE VIRGINIA EROSION AND SEDIMENT CONTROL HANDBOOK AND VIRGINIA REGULATIONS 4VAC50-30 EROSION AND SEDIMENT CONTROL REGULATIONS.

ES-2 THE PLAN APPROVING AUTHORITY MUST BE NOTIFIED ONE WEEK PRIOR TO THE PRE-CONSTRUCTION CONFERENCE, ONE WEEK PRIOR TO THE COMMENCEMENT OF LAND DISTURBING ACTIVITY, AND ONE WEEK PRIOR TO THE FINAL INSPECTION

ES-3 ALL EROSION AND SEDIMENT CONTROL MEASURES ARE TO BE PLACED PRIOR TO, OR AS THE FIRST STEP IN,

ES-4 A COPY OF THE APPROVED EROSION AND SEDIMENT CONTROL PLAN SHALL BE MAINTAINED ON THE SITE AT ALL TIMES.

ES-5 PRIOR TO COMMENCING LAND DISTURBING ACTIVITIES IN AREAS OTHER THAN INDICATED ON THESE PLANS (INCLUDING, BUT NOT LIMITED TO, OFF-SITE BORROW OR WASTE AREAS), THE CONTRACTOR SHALL SUBMIT A SUPPLEMENTARY EROSION CONTROL PLAN TO THE OWNER FOR REVIEW AND APPROVAL BY THE PLAN APPROVING

ES-6 THE CONTRACTOR IS RESPONSIBLE FOR INSTALLATION OF ANY ADDITIONAL EROSION CONTROL MEASURES NECESSARY TO PREVENT EROSION AND SEDIMENTATION AS DETERMINED BY THE PLAN APPROVING AUTHORITY.

ES-7 ALL DISTURBED AREAS ARE TO DRAIN TO APPROVED SEDIMENT CONTROL MEASURES AT ALL TIMES DURING LAND DISTURBING ACTIVITIES AND DURING SITE DEVELOPMENT UNTIL FINAL STABILIZATION IS ACHIEVED.

ES-8 DURING DEWATERING OPERATIONS, WATER WILL BE PUMPED INTO AN APPROVED FILTERING DEVICE.

ES-9 THE CONTRACTOR SHALL INSPECT ALL EROSION CONTROL MEASURES PERIODICALLY AND AFTER EACH RUNOFF-PRODUCING RAINFALL EVENT. ANY NECESSARY REPAIRS OR CLEANUP TO MAINTAIN THE EFFECTIVENESS OF THE EROSION CONTROL DEVICES SHALL BE MADE IMMEDIATELY.

## **ADDITIONAL NOTES:**

LOCAL, STATE AND FEDERAL REGULATIONS.

- 1. PRIOR TO CONSTRUCTION ACTIVITIES. THE FOLLOWING REQUIREMENTS MUST BE MET
- -A LAND DISTURBING PERMIT MUST BE OBTAINED FROM JAMES CITY COUNTY. -A VSMP PERMIT MUST BE OBTAINED THROUGH THE DEPARTMENT OF CONSERVATION AND RECREATION.
- 2. ALL EXCESS FILL AND MATERIALS SHALL BE HAULED OFF-SITE AND DISPOSED IN ACCORDANCE WITH ALL
- 3. THE CONTRACTOR SHOULD UTILIZE THE PROPOSED CONSTRUCTION ACCESS ROUTE AS SHOWN ON THE PLAN UNLESS AN ALTERNATIVE ACCESS WOULD BENEFIT NATIVE VEGETATION (E.G. SAVING TREES). SHOULD ALTERNATIVE ACCESS ROUTES BE REQUIRED, CONTRACTOR SHALL SEEK APPROVAL FROM

ENGINEER/DESIGNER AND COUNTY PRIOR TO DEVIATION FROM THOSE SHOWN IN PLAN VIEW.

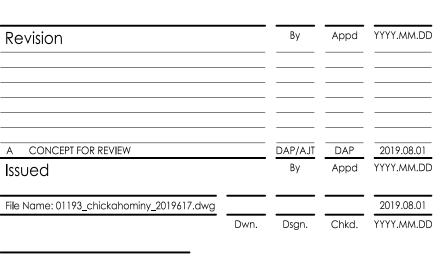
4. EXCESS CUT MATERIAL FROM CONSTRUCTION ACTIVITY MUST BE HAULED OFF SITE AND DISPOSED OF PROPERLY.



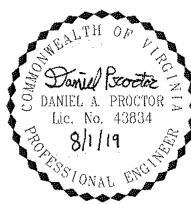
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JAMES CITY COUNTY GENERAL SERVICES, STORMWATER DIVISION

CHICKAHOMINY RIVERFRONT PARK LIVING SHORELINE

JAMES CITY COUNTY, VIRGINIA

**EROSION AND SEDIMENT CONTROL NOTES** 

Project N	0.	Scale
203401	193	N/A
Revision	Sheet	Drawing No.
	10 100	

NTS

**DETAIL: BLANKET & MATTING** 

INSTALATION

GRADE IS CREATED. HUMPS OR BULGES IN THE FINISHED MATTING PRACTICE WILL NOT

BE PERMITTED.

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3.27

5/16 IN.

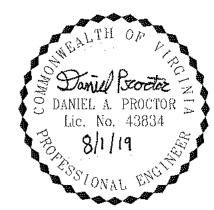
Plate 3.27-2

DETAIL: TURBIDITY CURTAIN TYPE 3

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A CONCEPT FOR REVIEW Issued File Name: 01193 chickahominy 2019617.dwa 2019.08.01



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Client/Project JAMES CITY COUNTY GENERAL SERVICES, STORMWATER DIVISION

CHICKAHOMINY RIVERFRONT PARK LIVING SHORELINE

JAMES CITY COUNTY, VIRGINIA

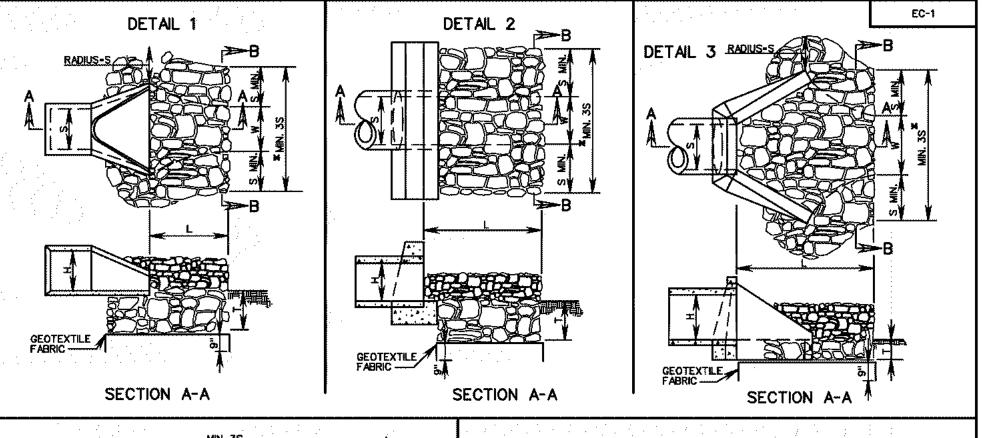
EROSION AND SEDIMENT CONTROL DETAILS (1)

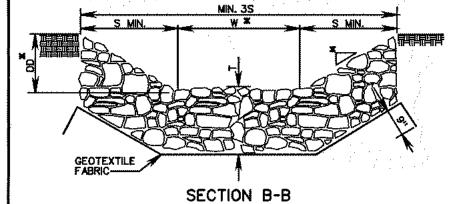
Project N	0.	Scale
203401	193	N/A
Revision Sheet		Drawing No.
	19 of 22	

**DETAIL: COIR FIBER MATTING** 

INSTALLATION

## 2016 ROAD & BRIDGE STANDARDS





TYPE OF O	UTLET PROTECTION MATERIAL	MAXIMUM OUTLET VELOCITY (FOR DESIGN STORM)	MINIMUM "T" (INCHES)
CLASS A1	CLASS AT DRY RIPRAP	8 fps	18
CLASS I	CLASS I DRY RIPRAP	14 fps	24
C: 4CC #	CLASS T DRY BIDGAS	10 4	76

# NOTES:

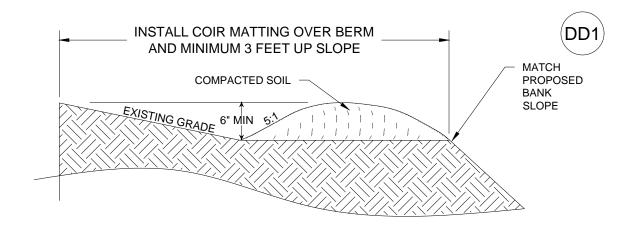
- 1. FOR MULTIPLE LINE INSTALLATIONS, DIMENSION S IS TO GOVERN THE PROTECTION OUTSIDE THE CHANNEL WIDTH (W).
- 2. ON ANY INSTALLATION REQUIRING CULVERT OUTLET PROTECTION WHERE NO ENDWALL OR ENDSECTION IS SPECIFIED ON THE PLANS, CONSTRUCTION IS TO BE IN ACCORDANCE WITH DETAIL 2 SHOWN ABOVE.
- 3. GEOTEXTILE FABRIC TO BE INSTALLED UNDER CLASS ALI, AND I MATERIALS IN ACCORDANCE WITH THE SPECIFICATIONS.
- H DIAMETER OF CIRCULAR CULVERT OR RISE/HEIGHT FOR BOX, ELLIPTICAL OR ARCH CULVERT.
- USE TYPICAL SECTION SHOWN ON PLANS FOR SIDE SLOPE, BOTTOM WIDTH AND DEPTH OF CHANNEL OR MATCH EXISTING DITCH OR NATURAL GROUND.

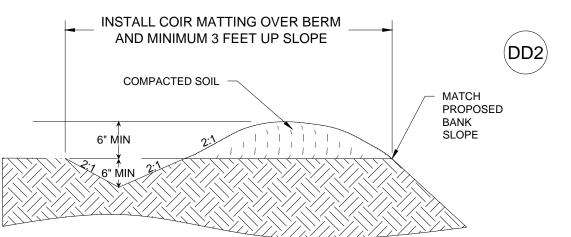
OUTLET PROTECTION ME	NUMUM LENGTH (L)
TYPE A INSTALLATION	3H
TYPE B INSTALLATION	5H

SS I	CLASS I	DRY RIPRAP	19 fps	36		***************************************		
FICATION								
204 245 303				- · · · · · · · · · · · · · · · · · · ·	_	TRANSPORTATION	REVISION DATE	SHEET 1 OF 1

2016 ROAD & BRIDGE STANDARDS







# NOTES:

113.01

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MINIMUM LONGITUDINAL SLOPE OF DIVERSION DIKE = 0.5%
 LEAVE DIVERSION DIKES IN PLACE PERMANENTLY FOLLOWING CONSTRUCTION



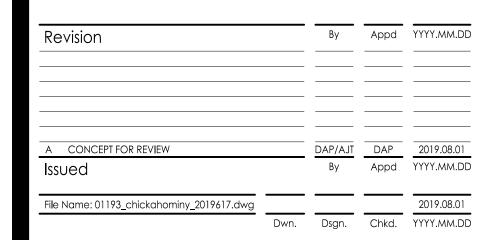


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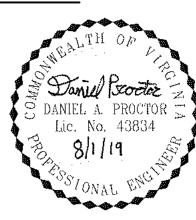
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JAMES CITY COUNTY

GENERAL SERVICES, STORMWATER DIVISION

CHICKAHOMINY RIVERFRONT PARK LIVING SHORELINE

JAMES CITY COUNTY, VIRGINIA

Title

EROSION AND SEDIMENT CONTROL DETAILS (2)

Project No.
203401193

Revision Sheet
20 of 22

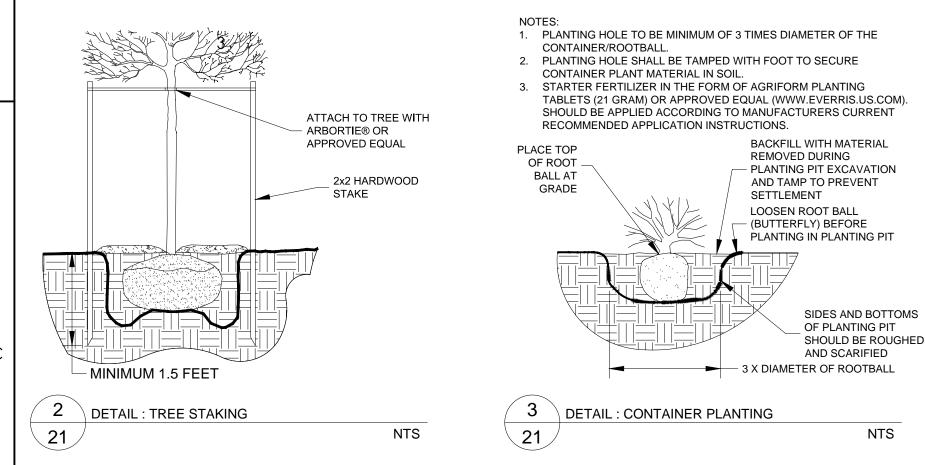
Scale
N/A

Drawing No.

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ORIGINAL SHEET - ANSI D

1 \ DETAIL: WETLAND PLANT INSTALLATION WITH GOOSE EXCLUSION NETTING (TYP.)



# PLANTING AND SEEDING NOTES

1. CONTRACTOR MUST SUBMIT ALL PAPER WORK AND CERTIFICATION FOR ALL SEED MIXES AND TOPSOIL FOR APPROVAL TO COUNTY AND ENGINEER PRIOR TO PURCHASING AND INSTALLATION.

2. ANY PLANT SUBSTITUTIONS OR CHANGES MUST BE APPROVED BY THE COUNTY PRIOR TO INSTALLATION. REQUESTS FOR SUBSTITUTIONS OR CHANGES SHALL BE SUBMITTED IN WRITING TO JAMES CITY COUNTY. CONTRACTOR SHOULD ALLOW JAMES CITY COUNTY REVIEW TIME, AND CONTRACTOR SHOULD BE PROACTIVE WITH ALL REQUESTS, IF SUBSTITUTIONS ARE REQUESTED.

3. IN AREAS RECEIVING HERBACEOUS TIDAL PLANTINGS, WAIT AT LEAST 2 WEEKS AFTER CLEAN SAND FILL PLACEMENT BEFORE INSTALLATION OF PLANTS. WHEN PLANTING, 3 INCHES OF TOPSOIL SHALL BE PLACED TO ACHIEVE FINAL GRADE. THESE AREAS SHALL BE IMMEDIATELY COVERED AND SECURED WITH COIR

# NURSE CROP

21 /

1. CONTRACTOR SHALL APPLY A TEMPORARY STABILIZATION/ SEASONAL NURSE CROP SEED MIX ALONG WITH EACH STABILIZATION MIX ACCORDING TO PLANT

# SEEDING MATERIALS

PERCENTAGE IS EQUAL TO OR GREATER THAN THAT WHICH IS SPECIFIED ON THE PLANT SCHEDULES. IF THE PLS IS LESS THAN SPECIFIED, THE CONTRACTOR SHALL INCREASE THE SEEDING RATE TO COMPENSATE FOR THE PLS DIFFERENCE AT HIS/HER OWN EXPENSE.

# SEEDING INSTALLATION

1. ALL AREAS DISTURBED ABOVE MEAN HIGH WATER BY CONSTRUCTION (NOT RECEIVING STONE) SHALL BE SEEDED IN ACCORDANCE WITH THE PLANTING PLANS AND SCHEDULES. AREAS NOT DISTURBED, SHALL NOT BE SEEDED.

2. CONTRACTOR SHALL SUPPLY THE CONTENT ANALYSIS SEED TAG FROM EACH BAG OF SEED USED TO JAMES CITY COUNTY FOR APPROVAL PRIOR TO SEEDING.

3. ALL AREAS TO BE SEEDED SHALL CONFORM TO THE FINISHED GRADES AS 11.HOLES FOR INDIVIDUAL PLANTINGS SHALL BE EXCAVATED TO PRODUCE VERTICAL SPECIFIED ON THE PLANS AND BE FREE OF ALL WEEDS, TRASH, DEBRIS, BRUSH, CLODS, LOOSE ROCKS AND OTHER FOREIGN MATERIALS LARGER THAN 3 INCHES IN DIAMETER OR LENGTH THAT WOULD INTERFERE WITH SEEDING. ALL GULLIES, WASHES OR DISTURBED AREAS THAT DEVELOP SUBSEQUENT TO FINAL DRESSING SHALL BE REPAIRED PRIOR TO SEEDING.

4. TO ALL AREAS WHERE GRADING IS PROPOSED, APPLY TOPSOIL PRIOR TO SEED APPLICATION.

5. NO SEEDING SHALL BE PERFORMED ON FROZEN GROUND OR WHEN THE TEMPERATURE IS 32F / 0C OR LOWER.

6. SEEDING SHALL BE ACCOMPLISHED BY USING A BROADCAST SPREADER OR HAND SEED. ANY ALTERNATIVE SEEDING METHODS MUST BE APPROVED BY JAMES CITY COUNTY, PRIOR TO SEEDING. APPLICATION METHOD SHALL BE CAPABLE OF PLACING SEED AT THE SPECIFIED RATE. ALL SEEDING EQUIPMENT SHALL BE CALIBRATED BEFORE APPLICATION TO THE SATISFACTION OF JAMES CITY COUNTY PROJECT MAINTENANCE AND WARRANTY SO THAT THE MATERIAL IS APPLIED ACCURATELY AND EVENLY TO AVOID MISSES AND OVERLAPS.

7. SEED SHALL BE APPLIED TO THE TOP OF THE TOPSOIL IN TWO DIFFERENT DIRECTIONS. FOLLOWING THE PLACEMENT OF THE TOPSOIL AND PERMANENT PERMANENT SEED MIX INTO THE FIRST  $\frac{1}{4}$  TO  $\frac{1}{2}$  INCH OF THE TOPSOIL. THE CONTRACTOR SHALL THEN COVER THE SEEDED AREAS WITH APPROPRIATE

# MATTING AS SPECIFIED IN THESE PLANS. SHRUB AND TREE INSTALLATION

LOCATIONS OF ALL EXISTING UTILITIES WITHIN THE PROJECT AREA PRIOR TO THE COMMENCEMENT OF PLANTING OPERATIONS.

2. THE CONTRACTOR SHALL BE RESPONSIBLE FOR LAYOUT OF ALL WORK COVERED UNDER THESE PLANS.

NTS

- 3. ALL PLANT MATERIAL, UNLESS OTHERWISE SPECIFIED, SHALL BE UNIFORMLY BRANCHED AND HAVE A VIGOROUS ROOT SYSTEM. PLANT MATERIAL SHALL BE HEALTHY, VIGOROUS, AND FREE FROM DEFECTS, DECAY, DISEASES, INSECT PEST EGGS, AND ALL FORMS OF INFESTATION. ALL PLANT MATERIAL SHALL BE FRESH, FREE FROM TRANSPLANT SHOCK OR VISIBLE WILT. PLANTS DEEMED UNHEALTHY WILL BE REJECTED.
- 4. ALL PLANT MATERIAL SHALL MEET THE MINIMUM SPECIFICATIONS AND STANDARDS DESCRIBED IN THE CURRENT ISSUE OF "THE AMERICAN STANDARD FOR NURSERY STOCK", PUBLISHED BY THE AMERICAN ASSOCIATION OF NURSERYMEN, 1250 I STREET, N.W., SUITE 500, WASHINGTON, D.C. 20005.
- ALL CONTAINER STOCK SHALL HAVE BEEN PROPAGATED IN A CONTAINER LONG ENOUGH FOR THE ROOT SYSTEM TO HAVE DEVELOPED SUFFICIENTLY TO HOLD ITS SOIL. CONTAINER STOCK WITH POORLY DEVELOPED ROOT SYSTEMS OR ROOT BOUND MATERIAL WILL NOT BE ACCEPTED.
- 6. PLANTS WILL BE PREPARED FOR SHIPMENT IN A MANNER THAT WILL NOT CAUSE DAMAGE TO THE BARK, BUDS, BRANCHES, STEMS, OR OVERALL SHAPE OF THE STOCK. CONTAINER GROWN PLANTS WILL BE TRANSPORTED IN THE CONTAINERS IN WHICH THEY HAVE BEEN GROWN.
- 1. SEED MIX SEED SHALL BE CERTIFIED THAT THE PURE LIVE SEED (PLS) 7. PLANTS NOT INSTALLED ON THE DAY OF ARRIVAL ONSITE SHALL BE STORED AND PROTECTED BY THE CONTRACTOR. OUTSIDE STORAGE AREAS WILL BE SHADED AND PROTECTED FROM THE WIND AND SUN. PLANTS STORED ONSITE SHALL BE PROTECTED FROM ANY DRYING AT ALL TIMES BY COVERING THE BALLS OR ROOTS WITH MOIST SAWDUST, WET BURLAP, WOODCHIPS, SHREDDED BARK, PEAT MOSS, OR OTHER SIMILAR MULCHING MATERIAL
  - 8. NO SUBSTITUTIONS IN SIZE OR VARIETY OF PLANT MATERIAL WITHOUT THE PRIOR APPROVAL OF THE ENGINEER.
  - 9. VERIFY ALL DIMENSIONS IN THE FIELD. NOTIFY THE ENGINEER OF ANY VARIANCE

# 10.NO PLANTING IS TO OCCUR WHEN THE SOIL IS FROZEN.

SIDES AND FLAT BOTTOMS. ALL PLANTING HOLES SHALL HAVE ROUGHED, SCARIFIED SIDES AND BOTTOMS.

12.CONTAINERIZED PLANTS SHALL BE SET IN THE PLANTING PIT AT THE PROPER DEPTH ON TAMPED SOIL. SOIL REMOVED FROM THE PLANTING PIT SHALL THEN BE FILLED AROUND THE ROOTS AND TAMPED.

13.DURING PLANTING THE CONTRACTOR SHALL WATER EACH CONTAINERIZED PLANT INSTALLED WITH A MINIMUM OF 1/2 GALLON OF WATER, UNLESS OTHERWISE DIRECTED BY THE ENGINEER DUE TO EXISTING SITE CONDITIONS AND SATURATIONS.

14.THE CONTRACTOR SHALL RESTORE DISTURBED AREAS TO INDICATED FINAL GRADES IF DISTURBED BY THE INSTALLATION OF TREES, SHRUBS, AND HERBACEOUS MATERIAL.

1. THE CONTRACTOR SHALL RESTORE DISTURBED AREAS TO INDICATED FINAL GRADES IF DISTURBED BY THE INSTALLATION OF TREES, SHRUBS, AND HERBACEOUS MATERIAL.

SEED MIX, THE CONTRACTOR SHALL HAND RAKE THE SEEDED AREAS TO MIX 2. CONTRACTOR MUST GUARANTEE 100% SURVIVAL OF ALL WOODY SPECIES AND 80% COVERAGE (EXCLUDING INVASIVE SPECIES) OF ALL HERBACEOUS PLANTING AREAS AFTER THE FIRST COMPLETE GROWING SEASON. THE CONTRACTOR MUST REPLACE ALL DEAD OR UNHEALTHY TREES AND SHRUBS AS WELL AS REPLANT AREAS WITH LESS THAN 80% AERIAL COVERAGE TO THEIR ORIGINAL SPECIFIED DENSITIES AT NO ADDITIONAL COST TO THE OWNER.

1. THE CONTRACTOR SHALL BE RESPONSIBLE FOR DETERMINING THE EXACT 3. THE GOOSE EXCLUSION SHALL BE RESTORED TO ITS ORIGINAL CONDITION AT THE TIME OF WARRANTY PLANTING. CONTRACTOR IS RESPONSIBLE FOR REMOVING GOOSE EXCLUSION 1 YEAR AFTER WARRANTY PLANTING.

DO NOT PRUNE PRUNE CODOMINANT LEADERS -TERMINAL LEADER 1. PLANTING HOLE SHALL BE MINIMUM OF 3 TIMES OR BRANCH TIPS DIAMETER OF THE CONTAINER/ROOTBALL. PRUNE RUBBING OR CROSS BRANCHES — PLANTING HOLE SHALL BE TAMPED WITH FOOT TO SECURE PLANT MATERIAL IN SOIL. 3. INSTALL 3" THICK SHREDDED HARDWOOD PRUNE NARROW MULCH ON TOP OF PLANTING AREA IN UPLAND CROTCH ANGLES PLANTING AREAS ONLY. PULL MULCH AWAY AND WATER SPOUTS FROM BASE OF TREE. DO NOT STAKE OR WRAP TRUNK UNLESS NECESSARY 4. STARTER FERTILIZER IN THE FORM OF AGRIFORM PLANTING TABLETS (21 GRAM) OR PRUNE BROKEN BRANCHES APPROVED EQUAL (WWW.EVERRIS.US.COM). REMOVE TAGS AND LABELS -SHOULD BE APPLIED ACCORDING TO MANUFACTURERS CURRENT RECOMMENDED PRUNE SUCKERS APPLICATION INSTRUCTIONS. 5. CONTRACTOR SHALL USE TREE STAKING ONLY CUT AWAY ALL BALLING ROPES AS NECESSARY TO ENSURE ALL INSTALLED TREES REMAIN UPRIGHT DURING THE REMOVE TOP OF WIRE BASKET WARRANTY PERIOD (SEE TREE STAKING DETAIL). UNAMENDED BACKFILL SOIL **INSTALL SLOW-RELEASE** FERTILIZER TABLET(S) PARTIALLY BACKFILL, WATER TO REMOVE CONTAINER AND CUT CIRCLING SETTLE SOIL, FINISH BACKFILLING ROOTS IF CONTAINER-GROWN, OR \_\_\_ AREA FOR WATER DRAINAGE AS MUCH BURLAP AS POSSIBLE IF FIELD-GROWN (PIPE OR TILE COULD BE INSTALLED) LEAVE SOLID SOIL PEDESTAL -DO NOT DIG DEEPER THAN BALL DEPTH —DIG HOLE 3 TIMES ROOT BALL WIDTH— 4 \ DETAIL : CALIPER TREE PLANTING

**21** LEGEND **BOTANICAL NAME** COMMON NAME INDICATOR **SPECIFICATION MINIMUM HEIGHT** REMARKS RIPARIAN BUFFER PLANT PALETTE (0.75 AC) ACER RUBRUM RED MAPLE FAC 3/4"-1" CALIPER PLANT APPROXIMATELY 10 FEET ON CENTER ACER RUBRUM RED MAPLE FAC #1 CONTAINER 24" OCATE PLANTS ACCORDING TO INDICATOR STAT AMERICAN HORNBEAM CARPINUS CAROLINIANA FAC #1 CONTAINER DISTRIBUTE RANDOMLY AMONG SPECIES. CARYA CORDIFORMIS BITTERNUT HICKORY FAC 3/4"-1" CALIPER 6' NO WOODY PLANTING SHALL OCCUR IN UTILITY FAC CARYA CORDIFORMIS BITTERNUT HICKORY 24" #1 CONTAINER CORNUS FLORIDA FLOWERING DOGWOOD FACU 24" 10 #1 CONTAINER ILEX OPACA AMERICAN HOLLY FAC #1 CONTAINER 24" MORELLA CERIFERA WAX MYRTLE FAC #1 CONTAINER 24" TULIPTREE FACU LIRIODENDRON TULIPIFERA 3/4"-1" CALIPER 6' LIRIODENDRON TULIPIFERA TULIPTREE FACU #1 CONTAINER 24" PINUS TAEDA LOBLOLLY PINE FAC B&B 6' PINUS TAEDA LOBLOLLY PINE FAC #1 CONTAINER 24" PLATANUS OCCIDENTALIS AMERICAN SYCAMORE **FACW** 3/4"-1" CALIPER 6' AMERICAN SYCAMORE PLATANUS OCCIDENTALIS FACW #1 CONTAINER 24" QUERCUS ALBA NORTHERN WHITE OAK FACU 3/4"-1" CALIPER QUERCUS ALBA NORTHERN WHITE OAK FACU #1 CONTAINER 24" QUERCUS PHELLOS WILLOW OAK 3/4"-1" CALIPER 6' 18 QUERCUS PHELLOS WILLOW OAK FACW #1 CONTAINER 24" QUERCUS RUBRA NORTHERN RED OAK FACU 3/4"-1" CALIPER 18 NORTHERN RED OAK FACU #1 CONTAINER 24" TREE CLUSTER PLANT PALETTE STAKE CYPRESS TREES WITH 2 HARDWOOD STAKE **BALD CYPRESS** 1" CALIPER TAXODIUM DISTICHUM OBL MARSH CREATION/ENHANCEMENT PLANT PALETTE (0.28 AC) seg A LOCATE HERBACEOUS QUARTS AT 18" ON CENTER ASCLEPIAS INCARNATA OBL QUART SWAMP MILKWEED SMOOTH BUR-MARIGOLD QUART 162 108 BIDENS LAEVIS OBL CLUMP PLANTS IN MINIMUM GROUPS OF 9 BY SPEC CHASMANTHIUM LATIFOLIUM QUART INDIAN WOODOATS FAC 162 108 PLANTS TO BE LOCATED ACCORDING TO INDICATOR 162 HIBISCUS MOSCHEUTOS SWAMP ROSE-MALLOW OBL QUART SOFT RUSH **FACW** QUART 323 JUNCUS EFFUSUS 215 PLUGS SHALL BE INSERTED THOUGH SLITS IN COIR MATTING, WITH A 6" SOD STAPLE SECURING BOTH TH VIRGINIA SALTMARSH MALLOW KOSTELETZKYA VIRGINICA OBL QUART 162 108 PLUG AND COIR MATTING. QUART 162 108 LOBELIA CARDINALIS CARDINAL FLOWER **FACW** PELTANDRA VIRGINICA **GREEN ARROW-ARUM** OBL QUART 645 430 QUART 484 323 PONTEDERIA CORDATA PICKERELWEED OBL SCHOENOPLECTUS PUNGENS COMMON THREESQUARE OBL QUART 323 215 SCHOENOPLECTUS ROBUSTUS STURDY BULRUSH OBL QUART 484 323 GENERAL SLOPE STABILIZATION SEED MIX (2.37 AC) SEED MIX SHALL BE APPLIED ON ALL DISTURBED AUTUMN BENTGRASS AGROSTIS PERENNANS FACU SEED AREAS ABOVE MEAN HIGH WATER AT A RATE OF 3 3% **ASCLEPIAS TUBEROSA** BUTTERFLY MILKWEED UPL SEED CAREX VULPINOIDEA FOX SEDGE SEED 1% FACW INCORPORATE NURSE CROP BELOW BASED ON DA OF APPLICATION. PARTRIDGE PEA 18% CHAMAECRISTA FASCICULATA FACU SEED 7% CHASMANTHIUM LAXUM SLENDER WOODOADS FAC SEED CONTRACTOR RESPONSIBLE FOR DETERMINING AMOUNT SEED REQUIRED BASED ON ACTUAL COREOPSIS TINCTORIA PLAINS COREOPSIS 3% FAC SEED DICHANTHELIUM CLANDESTINUM DEER TONGUE SEED 8% **FACW** ELYMUS VIRGINICUS 20% VIRGINIA WILD RYE FAC SEED COMMON SNEEZEWEED (FL) 1% HELENIUM AUTUMNALE **FACW** SEED SLENDER LESPEDEZA LESPEDEZA VIRGINICA SEED 5% UPL PANICUM ANCEPS **BEAKED PANIC GRASS** FAC SEED 8% PANICUM VIRGATUM **SWITCH GRASS** FAC SEED 3% BLACKEYED SUSAN 1% RUDBECKIA HIRTA FACU SEED 12% SCHIZACHYRIUM SCOPARIUM LITTLE BLUESTEM FACU SEED SORGHASTRUM NUTANS INDIAN GRASS FACU SEED 9% TEMPORARY/NURSE STABILIZATION SEED MIX (2.37 AC) RATE (LBS./ACRE) **SPECIFICATION SEEDING DATE BOTANICAL NAME COMMON NAME** APPLY TEMPORARY STABILIZATION /SEASONAL NU AS NURSE CROP AS TEMP SEEDING CROP TO ALL DISTURBED AREAS IN ACCORDANCE SEEDING DATES AND RATES AS SHOWN, APPLY AS **NOVEMBER 16 - JANUARY 31** 100% SECALE CEREALE CEREAL RYE SEED 100 TEMPORARY SEED MIX AS NEEDED WITH DATES AN RATES ARE SHOWN. FEBRUARY 1 - APRIL 30 100% LOLIUM MULTIFLORUM ANNUAL RYEGRASS SEED

SEED

SEED

MAY 1 - AUGUST 31

SEPTEMBER 1 - NOVEMBER

**BROWN TOP MILLET** 

ANNUAL RYEGRASS

100%

100%

**UROCHLOA RAMOSA** 

LOLIUM MULTIFLORUM

NTS

60



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Revision		Ву	Appd	YYYY.MM.DD
A CONCEPT FOR REVIEW		DAP/AJT	DAP	2019.08.01
Issued		Ву	Appd	YYYY.MM.DD
File Name: 01193_chickahominy_2019617.dwg			_	2019.08.01
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Client/Project Logo



Client/Project JAMES CITY COUNTY

CHICKAHOMINY RIVERFRONT PARK LIVING SHORELINE

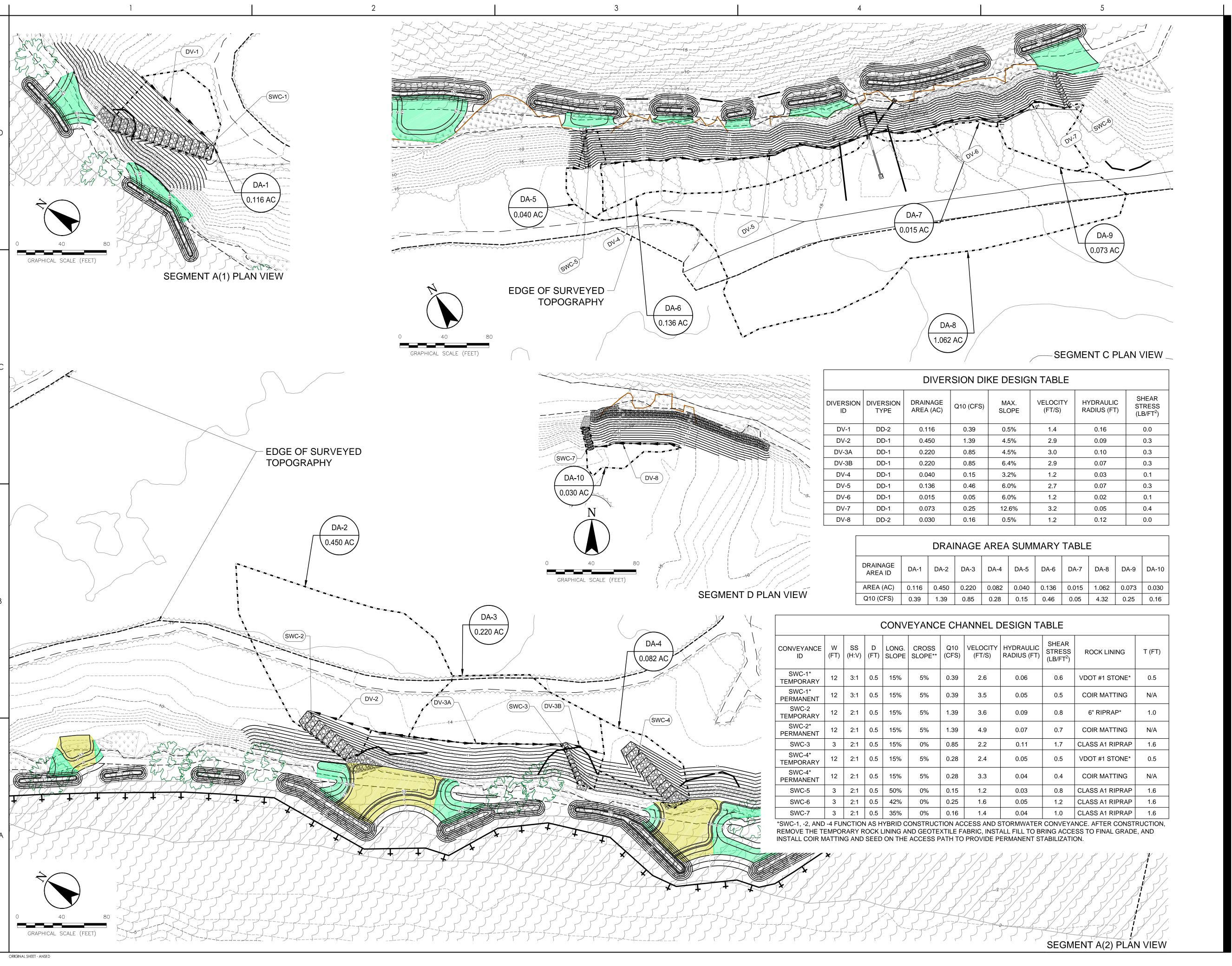
GENERAL SERVICES, STORMWATER DIVISION

JAMES CITY COUNTY, VIRGINIA

PLANTING NOTES AND DETAILS

Project N	0.	Scale
203401	193	N/A
Revision	Sheet	Drawing No.

ORIGINAL SHEET - ANSI D



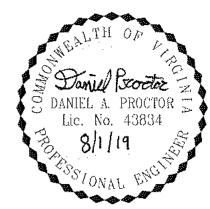


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Revision		Ву 	Appd	YYYY.MM.DI
A CONCEPT FOR REVIEW		DAP/AJT	DAP	2019.08.01
Issued		Ву	Appd	YYYY.MM.DI
File Name: 01193_chickahominy_2019617.dwg				2019.08.01
	Dwn.	Dsgn.	Chkd.	YYYY.MM.DI



Client/Project Logo

Permit/Seal



Client/Project

JAMES CITY COUNTY GENERAL SERVICES, STORMWATER DIVISION

CHICKAHOMINY RIVERFRONT PARK LIVING SHORELINE

JAMES CITY COUNTY, VIRGINIA

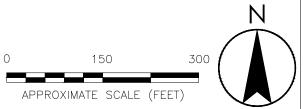
Title

HYDROLOGIC AND HYDRAULIC SUMMARY

Project N	O.	Scale	
203401	193	N/A	
Revision	Sheet	Drawing No.	
	22 of 22		



Notes:
THE APPROXIMATE TREE SURVEY REFLECTED HEREIN IS BASED ON GPS-LOCATION
OF TREES WITHIN THE PROJECT AREA THAT WERE GREATER THAN 12 INCHES DBH.
THEY WERE LOCATED, CLASSIFIED, AND MEASURED BY VOLUNTEERS COORDINATED
BY JAMES CITY COUNTY.

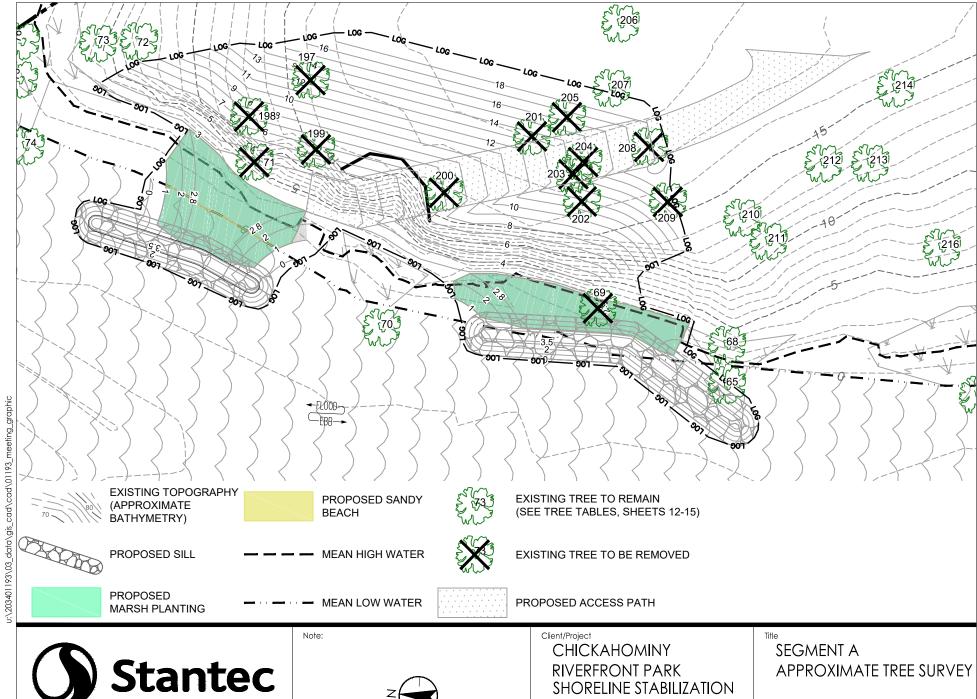


CHICKAHOMINY
RIVERFRONT PARK
SHORELINE STABILIZATION

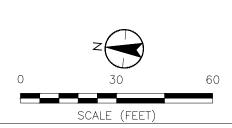
Project No. 203401193

MASTER SUMMARY
APPROXIMATE TREE SURVEY

Revision Date

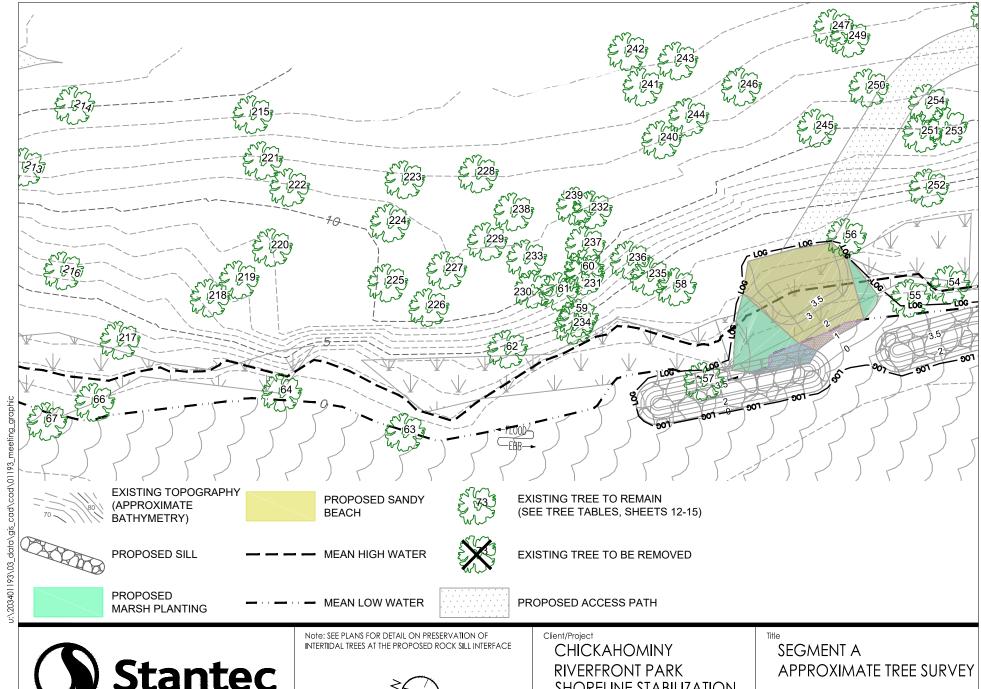




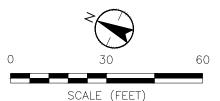


Project No. 203401193

Revision	Date 2019.08.29
Reference Sheet	SHEET #
	2 OF 16



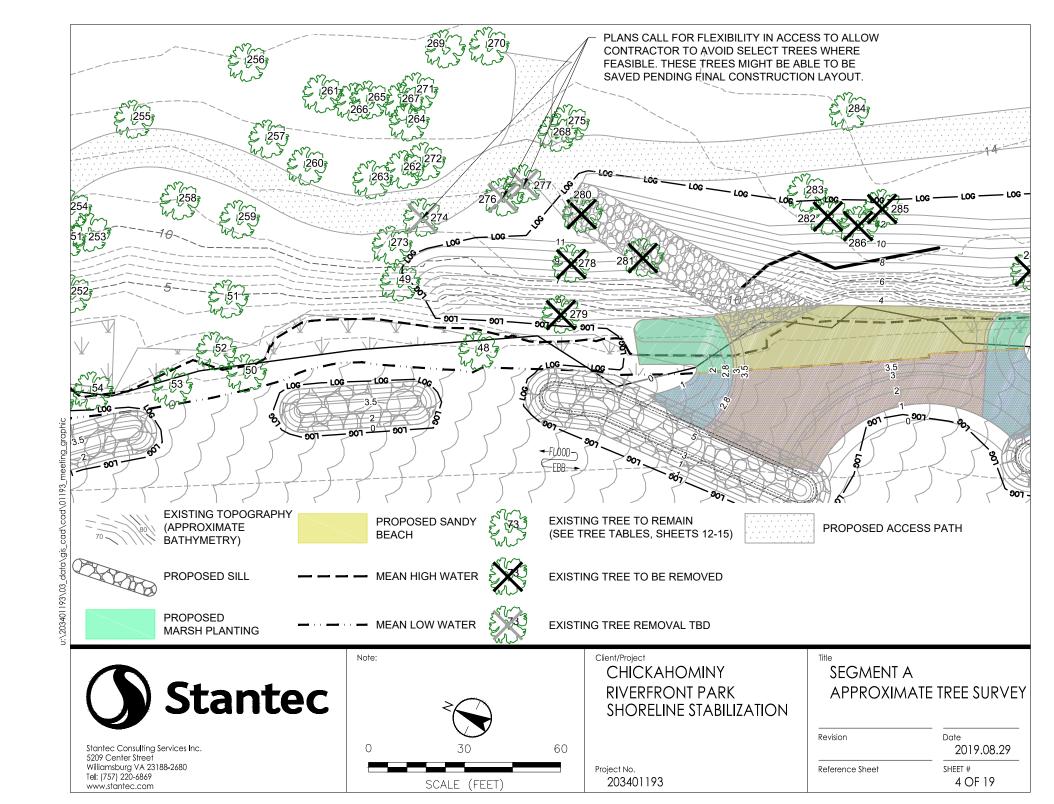


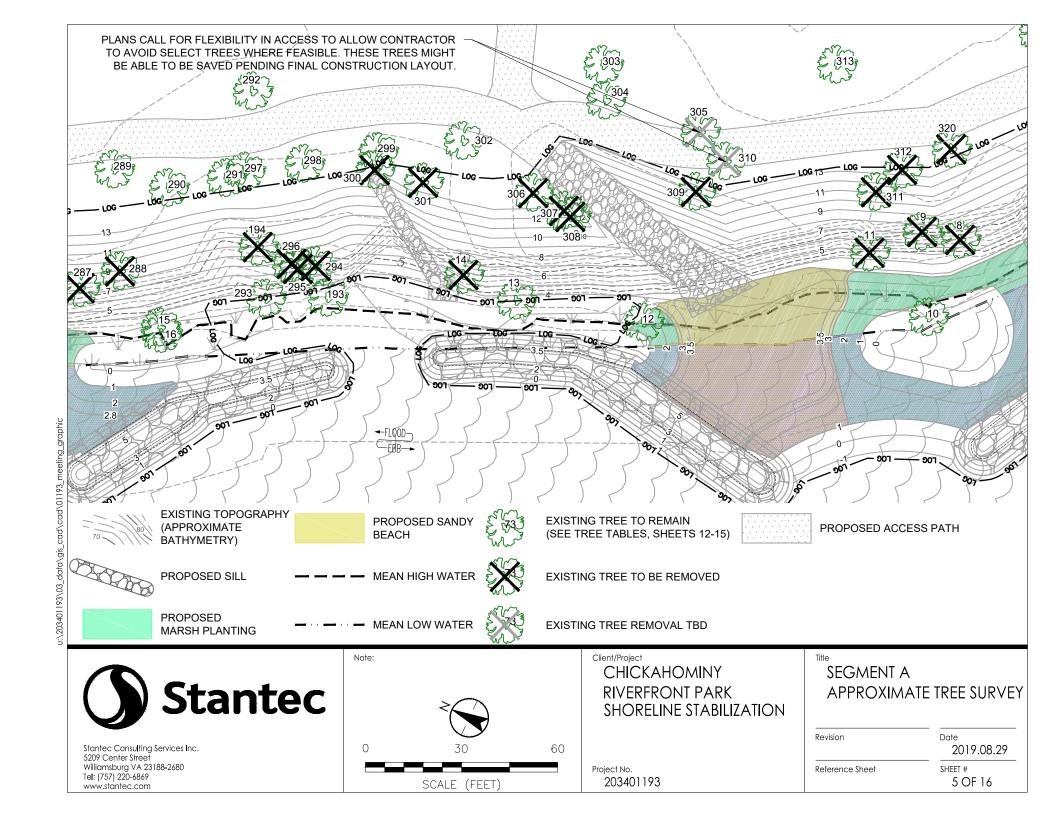


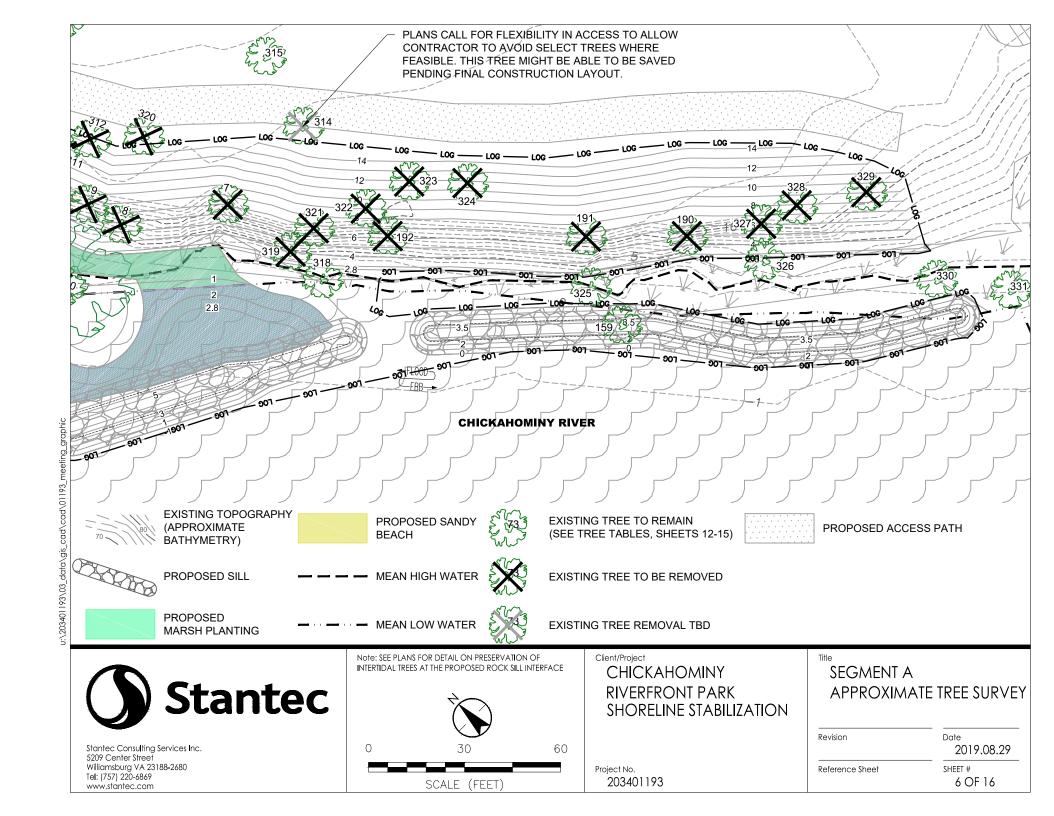
SHORELINE STABILIZATION

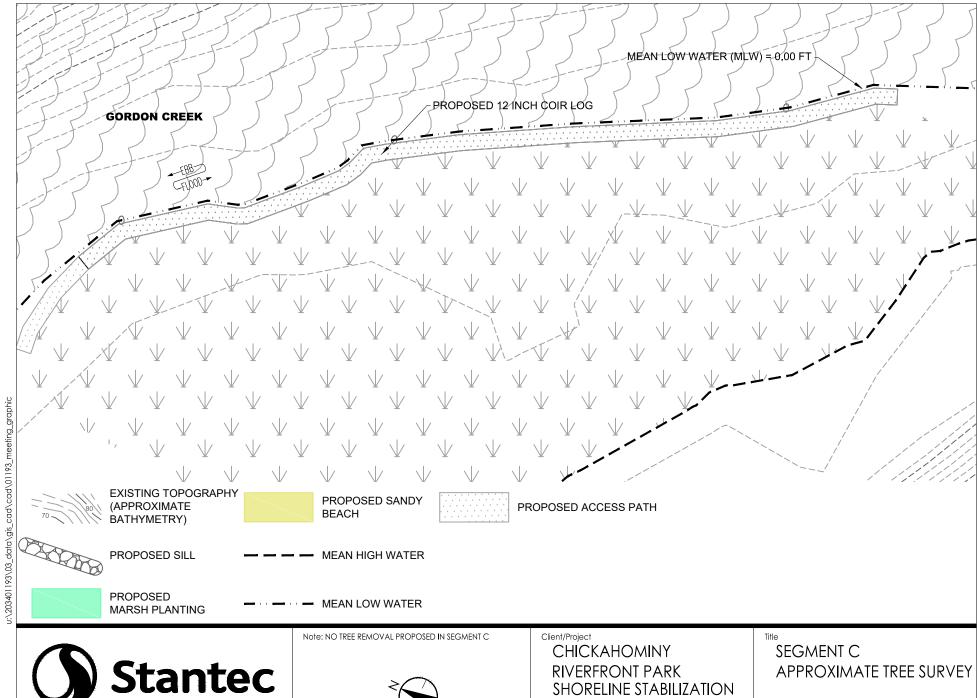
Project No. 203401193

Revision	Date 2019.08.29
Reference Sheet	SHEET # 3 OF 16







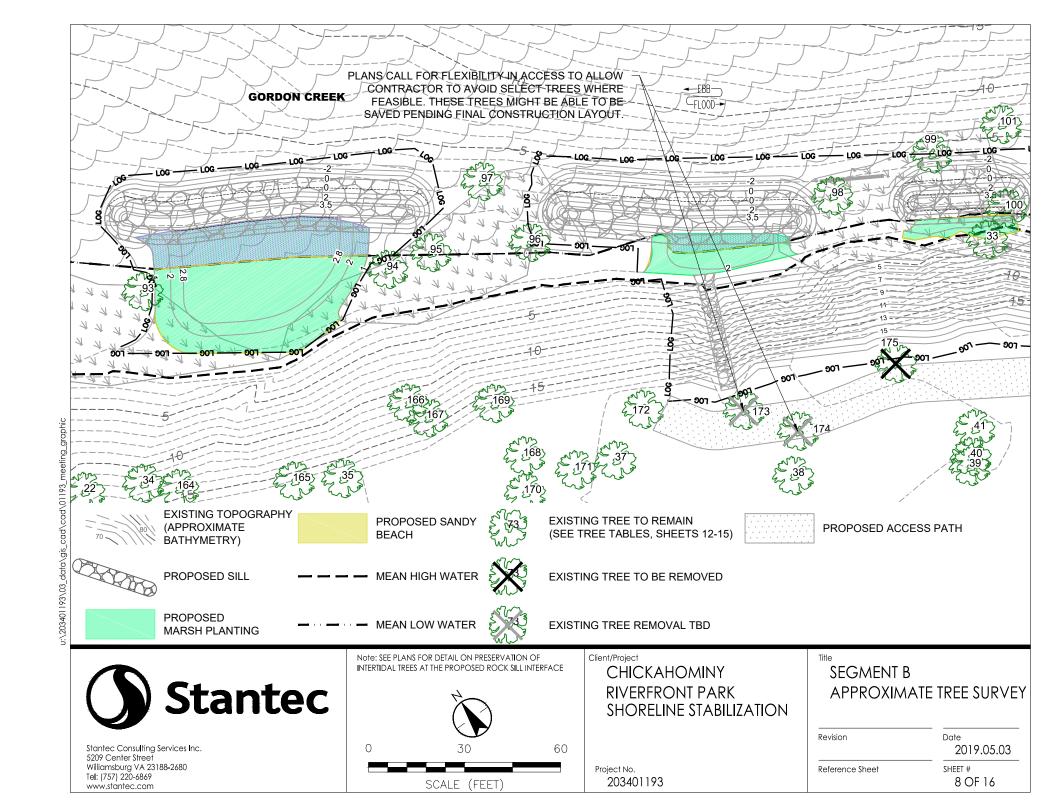


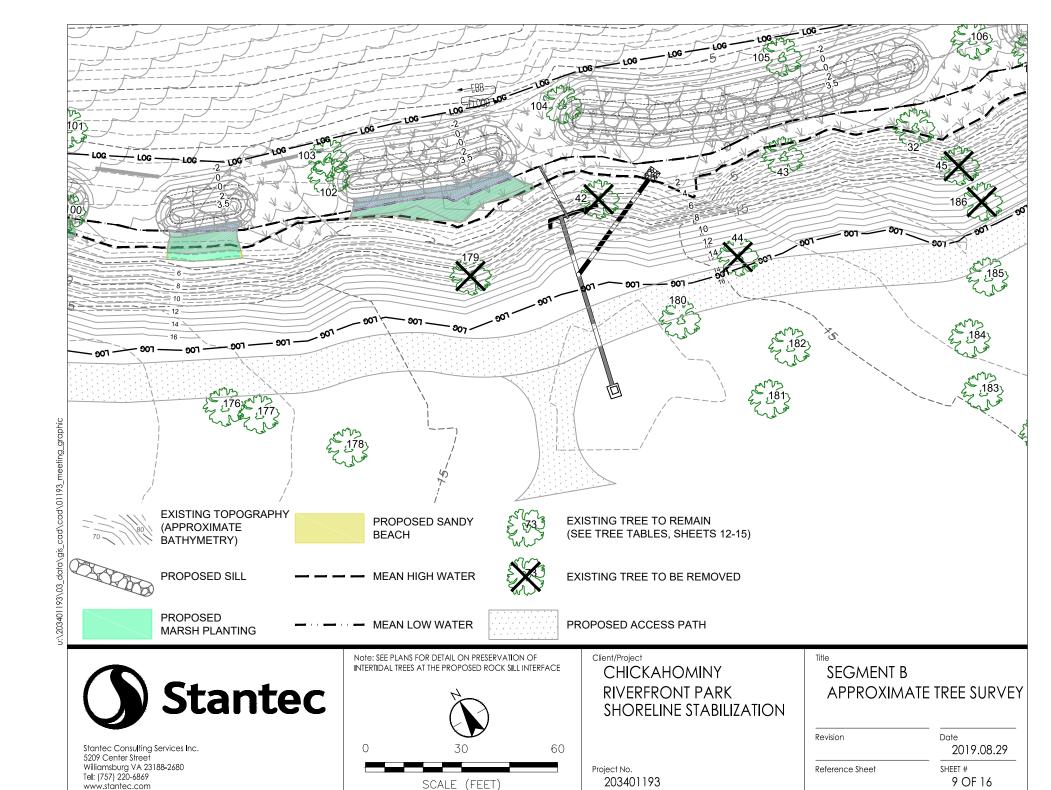


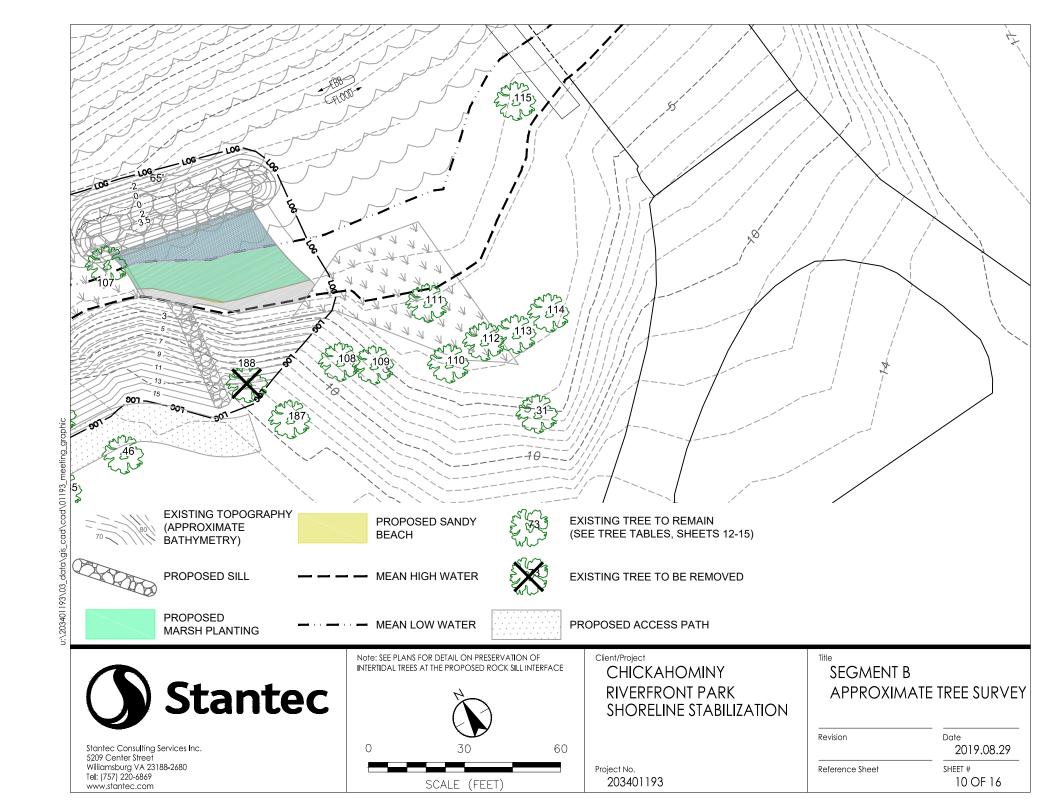
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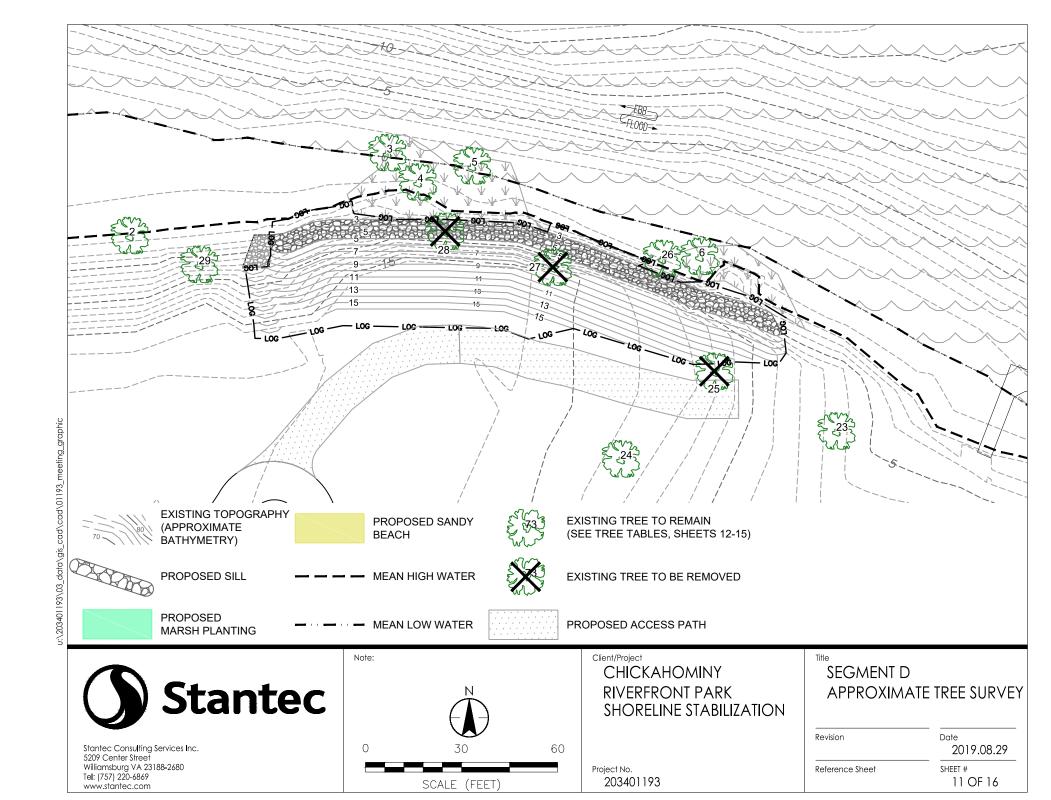
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TREE NUMBER	TYPE	DIA. (IN.)	REMOVE
1	Taxodium distichum	17	NO
2	Quercus montana	12	NO
3	Taxodium distichum	24	NO
4	Taxodium distichum	25.5	NO
5	Taxodium distichum	31	NO
6	Quercus phellos	17.5	NO
7	Pinus taeda	14.7	YES
8	Pinus taeda	25	YES
9	Juniperus virginiana	13	YES
10	Pinus taeda	21	NO
11	Pinus taeda	20.7	YES
12	Carya ulam	13	NO
13	Liquidambar styraciflua	15.8	NO
14	Pinus taeda	24.2	YES
15	Pinus taeda	22	NO
16	Pinus taeda	18.5	NO
17	Carya glabra	13.4	NO
18	Pinus taeda	13.4	NO
19	Pinus taeda	19.2	NO
20	Liriodendron tulipifera	24	NO
21	Nyssa sylvatica	14	NO
22	Quercus alba	19.5	NO
23	Quercus falcata	20	NO
24	Quercus montana	17	NO
25	Quercus montana	20.5	YES
26	Quercus montana	19.5	NO

TREE NUMBER	TYPE	DIA. (IN.)	REMOVE
27	Pinus taeda	23	YES
28	Quercus montana	20.5	YES
29	Quercus montana	33	NO
30	Quercus montana	40	NO
31	Quercus alba	24	NO
32	Carya xx	15	NO
33	Quercus rubra	13	NO
34	Nyssa sylvatica	18	NO
35	llex opaca	13	NO
36	Acer rubrum	16	NO
37	Acer rubrum	19	NO
38	Pinus taeda	24	NO
39	Pinus taeda	23	NO
40	Quercus falcata	25	NO
41	Carya glabra	12	NO
42	Quercus rubra	15	YES
43	Pinus taeda	12	NO
44	Quercus falcata	32.9	YES
45	Pinus taeda	13	YES
46	Quercus rubra	23.5	NO
47	Quercus velutina	34	NO
48	Taxodium distichum	16.3	NO
49	Quercus stellata	16.8	NO
50	Acer rubrum	17	NO
51	Liriodendron tulipifera	17.3	NO
52	Nyssa sylvatica	13	NO

TREE NUMBER	TYPE	DIA. (IN.)	REMOVE
53	Taxodium distichum	18.5	NO
54	Acer rubrum	13.5	NO
55	Juniperus virginiana	12.5	NO
56	Acer rubrum	18	NO
57	Pinus taeda	19	NO
58	Pinus taeda	27.5	NO
59	Pinus taeda	18	NO
60	llex opaca	14	NO
61	Acer rubrum	21.9	NO
62	Fraxinus pennsylvanica	14	NO
63	Taxodium distichum	44	NO
64	Acer rubrum	15	NO
65	Ulrya glabra	17.3	NO
66	Taxodium distichum	19.5	NO
67	Taxodium distichum	16.5	NO
68	Acer rubrum	17.5	NO
69	Acer rubrum	13	YES
70	Taxodium distichum	18.3	NO
71	Quercus rubra	15.8	YES
72	Pinus taeda	22	NO
73	Pinus taeda	27	NO
74	Taxodium distichum	40.3	NO
75	Carya ul	15	NO
76	Liquidambar styraciflua	17.3	NO
77	Taxodium distichum	32.3	NO
78	Taxodium distichum	21.5	NO



Note: SEE PLANS FOR DETAIL ON PRESERVATION OF INTERTIDAL TREES AT THE PROPOSED ROCK SILL INTERFACE Client/Project CHICKAHOMINY RIVERFRONT PARK SHORELINE STABILIZATION

Project No. 203401193 TREE TABLE APPROXIMATE TREE SURVEY

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TREE NUMBER	TYPE	DIA. (IN.)	REMOVE
79	Taxodium distichum	36	NO
80	Liquidambar styraciflua	24.6	NO
81	Taxodium distichum	15	NO
82	Taxodium distichum	15.5	NO
83	Taxodium distichum	27	NO
84	Taxodium distichum	18	NO
85	Taxodium distichum	14	NO
86	Taxodium distichum	12.5	NO
87	Taxodium distichum	23	NO
88	Taxodium distichum	24	NO
89	Taxodium distichum	14.7	NO
90	Taxodium distichum	27.7	NO
91	Taxodium distichum	27.5	NO
92	Taxodium distichum	25.5	NO
93	UNKNOWN		NO
94	Taxodium distichum	37.5	NO
95	Taxodium distichum	27.5	NO
96	Taxodium distichum	14	NO
97	Taxodium distichum	36	NO
98	Taxodium distichum	22.5	NO
99	Taxodium distichum	18	NO
100	Acer rubrum	16	NO
101	Taxodium distichum	23	NO
102	Carya ulam	26	NO
103	Taxodium distichum	34.5	NO
104	Taxodium distichum	35.5	NO

TREE NUMBER	TYPE	DIA. (IN.)	REMOVE
106	Taxodium distichum	22	NO
107	Taxodium distichum	22.5	NO
108	Taxodium distichum	57	NO
109	Quercus falcata	27.5	NO
110	llex opaca	13	NO
111	Taxodium distichum	23.5	NO
112	Taxodium distichum	25.2	NO
113	Nyssa sylvatica	22.5	NO
114	Quercus montana	16	NO
115	Taxodium distichum	51	NO
116	Acer rubrum	13	NO
117	Taxodium distichum	37	NO
118	Taxodium distichum	56	NO
119	Taxodium distichum	17.5	NO
120	Taxodium distichum	20.4	NO
121	Nyssa sylvatica	23.5	NO
122	Quercus palustris	13.5	NO
123	Taxodium distichum	33	NO
124	Taxodium distichum	24.5	NO
125	Taxodium distichum	25	NO
126	Taxodium distichum	22	NO
127	Taxodium distichum	23.5	NO
128	Taxodium distichum	33.8	NO
129	Taxodium distichum	31	NO
130	Taxodium distichum	23.8	NO
131	Liquidambar styraciflua	17.5	NO
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TREE NUMBER	TYPE	DIA. (IN.)	REMOVE
132	Taxodium distichum	32.5	NO
133	Taxodium distichum	26.5	NO
134	Taxodium distichum	24.5	NO
135	Taxodium distichum	24.5	NO
136	Taxodium distichum	28	NO
137	Taxodium distichum	12.4	NO
138	Taxodium distichum	14	NO
139	Taxodium distichum	24	NO
140	Taxodium distichum	35	NO
141	Quercus bicolor	25	NO
142	Quercus alba	32	NO
143	Taxodium distichum	12	NO
144	Taxodium distichum	12.5	NO
145	Taxodium distichum	16.5	NO
146	Taxodium distichum	22	NO
147	Taxodium distichum	29	NO
148	Taxodium distichum	27	NO
149	Taxodium distichum	20	NO
150	Taxodium distichum	24	NO
151	Taxodium distichum	15.9	NO
152	Taxodium distichum	14	NO
153	Taxodium distichum	34.5	NO
154	Quercus montana	25	NO
155	Liquidambar styraciflua	17	NO
156	Taxodium distichum	17.4	NO
157	Taxodium distichum	33	NO



Note: SEE PLANS FOR DETAIL ON PRESERVATION OF INTERTIDAL TREES AT THE PROPOSED ROCK SILL INTERFACE

Client/Project
CHICKAHOMINY
RIVERFRONT PARK
SHORELINE STABILIZATION

Project No. 203401193

TREE TABLE APPROXIMATE TREE SURVEY

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TREE NUMBER	TYPE	DIA. (IN.)	REMOVE
158	Taxodium distichum	32.6	NO
159	Pinus taeda	23.5	NO
160	Taxodium distichum	35	NO
161	Liriodendron tulipifera	21	NO
162	Liriodendron tulipifera	17	NO
163	llex opaca	13	NO
164	Quercus alba	26	NO
165	Nyssa sylvatica	14	NO
166	Pinus taeda	21	NO
167	Pinus taeda	25	NO
168	Quercus velutina	21	NO
169	Nyssa sylvatica	13	NO
170	Liquidambar styraciflua	16	NO
171	Quercus rubra	28	NO
172	Acer rubrum	15	NO
173	Quercus falcata	31	TBD
174	Pinus taeda	27	TBD
175	Quercus falcata	23.5	YES
176	Quercus falcata	20	NO
177	Pinus taeda	22	NO
178	Pinus taeda	30	NO
179	Pinus taeda	14	YES
180	Pinus taeda	26	NO
181	Pinus taeda	12	NO
182	Quercus falcata	52	NO
183	Pinus taeda	27	NO

TREE NUMBER	TYPE	DIA. (IN.)	REMOVE
184	Quercus falcata	30	NO
185	llex opaca	12	NO
186	Quercus falcata	23	YES
187	Pinus taeda	34	NO
188	Quercus velutina	20	YES
189	Pinus taeda	27	NO
190	Pinus taeda	15.9	YES
191	Pinus virginiana	16.6	YES
192	Pinus taeda	20.3	YES
193	Pinus virginiana	12	NO
194	Pinus taeda	22	YES
195	Quercus alba	23	NO
196	Quercus coccinea	28	NO
197	Quercus velutina	35	YES
198	Carya tomentosa	12	YES
199	Pinus virginiana	18	YES
200	Quercus velutina	14	YES
201	Quercus stellata	22	YES
202	Quercus falcata	20	YES
203	Quercus falcata	17	YES
204	Quercus rubra	16	YES
205	Pinus taeda	26	YES
206	Pinus taeda	15	NO
207	Quercus rubra	14	NO
208	Quercus falcata	17	YES
209	Quercus velutina	23	YES
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	TREE NUMBER	TYPE	DIA. (IN.)	REMOVE
İ	210	Pinus virginiana	20	NO
İ	211	Quercus velutina	14	NO
İ	212	Pinus virginiana	16	NO
ĺ	213	Quercus falcata	17	NO
ĺ	214	Quercus stellata	13	NO
ĺ	215	Quercus stellata	19	NO
İ	216	Carya alba	12	NO
İ	217	Pinus taeda	22	NO
İ	218	Pinus taeda	23	NO
ĺ	219	llex opaca	12	NO
ĺ	220	Quercus alba	16	NO
ĺ	221	Quercus rubra	23	NO
Ī	222	Quercus coccinea	14	NO
Ī	223	Nyssa sylvatica	13	NO
Ī	224	Quercus coccinea	17	NO
Ī	225	Quercus stellata	24	NO
Ī	226	Carya tomentosa	12.5	NO
Ī	227	Pinus taeda	23	NO
Ī	228	llex opaca	14	NO
Ī	229	Carya tomentosa	12	NO
Ī	230	Acer rubrum	21	NO
ĺ	231	llex opaca	14	NO
	232	Quercus stellata	20	NO
	233	Acer rubrum	21	NO
	234	Pinus taeda	18	NO
	235	Pinus taeda	27.5	NO



Note: SEE PLANS FOR DETAIL ON PRESERVATION OF INTERTIDAL TREES AT THE PROPOSED ROCK SILL INTERFACE

Client/Project
CHICKAHOMINY

RIVERFRONT PARK SHORELINE STABILIZATION

Project No. 203401193

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TREE NUMBER	TYPE	DIA. (IN.)	REMOVE
236	Nyssa sylvatica	12	NO
237	llex opaca	14	NO
238	Nyssa sylvatica	12	NO
239	Quercus stellata	20	NO
240	Pinus virginiana	12	NO
241	Pinus taeda	25	NO
242	Liquidambar styraciflua	16	NO
243	Liquidambar styraciflua	16	NO
244	Pinus taeda	22	NO
245	Carya tomentosa	12.5	NO
246	Pinus taeda	15.5	NO
247	Nyssa sylvatica	15	NO
248	Nyssa sylvatica	12	NO
249	Nyssa sylvatica	13.5	NO
250	Nyssa sylvatica	12	NO
251	Acer rubrum	23	NO
252	Pinus taeda	18.5	NO
253	Carya alba	18.5	NO
254	Nyssa sylvatica	13	NO
255	Liquidambar styraciflua	15.5	NO
256	Liquidambar styraciflua	21	NO
257	Liquidambar styraciflua	16.5	NO
258	Pinus taeda	21	NO
259	Pinus taeda	18	NO
260	Pinus taeda	19	NO
261	Quercus rubra	11	NO

TREE NUMBER	TYPE	DIA. (IN.)	REMOVE
262	Pinus taeda	21	NO
263	Pinus taeda	19	NO
264	Quercus rubra	12.5	NO
265	llex opaca	13	NO
266	Quercus falcata	14.5	NO
267	Liquidambar styraciflua	13	NO
268	Quercus rubra	15.5	NO
269	Quercus rubra	20	NO
270	Liquidambar styraciflua	17	NO
271	Pinus taeda	27.5	NO
272	Pinus taeda	19	NO
273	Pinus taeda	15	NO
274	Quercus falcata	17	TBD
275	Quercus falcata	12	NO
276	Nyssa sylvatica	12	TBD
277	Pinus taeda	23.5	TBD
278	Quercus stellata	17	YES
279	Pinus taeda	21	YES
280	llex opaca	12	YES
281	Pinus taeda	23.5	YES
282	Quercus rubra	14	YES
283	Quercus stellata	20	NO
284	Acer rubrum	15	NO
285	Quercus rubra	18	YES
286	Quercus rubra	17	YES
287	Pinus taeda	15.5	YES

TREE NUMBER	TYPE	DIA. (IN.)	REMOVE
288	Quercus stellata	15	YES
289	Quercus stellata	21	NO
290	Quercus alba	16.5	NO
291	Quercus velutina	18	NO
292	Quercus rubra	21	NO
293	Pinus taeda	22	NO
294	Pinus virginiana	12	YES
295	Pinus taeda	22	YES
296	Nyssa sylvatica	13.5	YES
297	Quercus velutina	13.5	NO
298	Pinus virginiana	16.5	NO
299	Quercus rubra	13.5	NO
300	Quercus falcata	15	YES
301	Carya glabra	15	YES
302	Quercus rubra	15	NO
303	Quercus falcata	18	NO
304	Quercus velutina	19	NO
305	Quercus velutina	13	TBD
306	Pinus virginiana	14	YES
307	Pinus taeda	15	YES
308	Quercus rubra	14.5	YES
309	Carya tomentosa	12	YES
310	Taxodium distichum	19	TBD
311	Pinus taeda	22	YES
312	Pinus taeda	13	YES
313	Pinus virginiana	17	NO



Note: SEE PLANS FOR DETAIL ON PRESERVATION OF INTERTIDAL TREES AT THE PROPOSED ROCK SILL INTERFACE

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RIVERFRONT PARK
SHORELINE STABILIZATION

Project No. 203401193

TREE TABLE APPROXIMATE TREE SURVEY

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TYPE	DIA. (IN.)	REMOVE
Quercus falcata	27	TBD
Quercus falcata	23	NO
Unknown	23.5	NO
Quercus falcata	27.5	NO
Pinus taeda	17.1	NO
Pinus taeda	14.6	YES
Quercus alba	34.2	YES
Pinus taeda	14.8	YES
Pinus taeda	13.1	YES
Pinus virginiana	20.1	YES
Pinus taeda	13	YES
Pinus taeda	23.5	NO
Pinus taeda	26	NO
Pinus taeda	13.7	YES
Pinus taeda	26.2	YES
Carya tomentosa	13.5	YES
Taxodium distichum	30.5	NO
Taxodium distichum	13.5	NO
Taxodium distichum	24.5	NO
Taxodium distichum	17.5	NO
	Quercus falcata  Quercus falcata  Unknown  Quercus falcata  Pinus taeda  Pinus taeda  Pinus taeda  Pinus taeda  Pinus taeda  Pinus virginiana  Pinus taeda  Pinus taeda  Pinus taeda  Pinus taeda  Pinus taeda  Carya tomentosa  Taxodium distichum  Taxodium distichum	Quercus falcata         27           Quercus falcata         23           Unknown         23.5           Quercus falcata         27.5           Pinus taeda         17.1           Pinus taeda         14.6           Quercus alba         34.2           Pinus taeda         14.8           Pinus taeda         13.1           Pinus virginiana         20.1           Pinus taeda         13           Pinus taeda         23.5           Pinus taeda         26           Pinus taeda         13.7           Pinus taeda         26.2           Carya tomentosa         13.5           Taxodium distichum         30.5           Taxodium distichum         13.5           Taxodium distichum         24.5



Note: SEE PLANS FOR DETAIL ON PRESERVATION OF INTERTIDAL TREES AT THE PROPOSED ROCK SILL INTERFACE

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Figure 4-2 Master Plan Chickahominy Riverfront Park

### RESOLUTION

### CASE NO. SUP-0014-2009. CHICKAHOMINY RIVERFRONT PARK -

### **RV LOOP AND MASTER PLAN**

- WHEREAS, the Board of Supervisors of James City County has adopted by Ordinance specific land uses that shall be subjected to a Special Use Permit (SUP) process; and
- WHEREAS, Mr. Aaron Small of AES Consulting Engineers, on behalf of James City County Parks and Recreation, has applied for an SUP to make improvements to existing facilities at Chickahominy Riverfront Park and to master-plan the entire park property for community recreation; and
- WHEREAS, the property is located on land zoned PL, Public Land, and can be further identified as James City County Real Estate Tax Map/Parcel No. 3430100002; and
- WHEREAS, the Planning Commission of James City County, following its public hearing on October 7, 2009, recommended approval of this application by a vote of 6-1; and
- WHEREAS, the Board of Supervisors of James City County, Virginia, finds this use to be consistent with the 2003 Comprehensive Plan Land Use Map designation for this site.
- NOW, THEREFORE, BE IT RESOLVED that the Board of Supervisors of James City County, Virginia, after a public hearing does hereby approve the issuance of SUPNo. 0014-2009 as described herein with the following conditions:
  - 1. Master Plan. This SUP shall permit a public community recreation facility and accessory uses thereto, including, but not limited to, tent sites, cabins, recreational vehicle (RV) camping areas, special event areas, docks/piers, swimming facilities, playgrounds, boat launches, rowing facilities, picnic pavilions, camp store, and seasonal concession stands on property located at 1350 John Tyler Highway (the "Property"). Improvements to the site shall generally be located as shown on the document entitled "Figure 4-2: Master Plan-Chickahominy Riverfront Park," (the "Master Plan") prepared by Vanasse, Hangen, and Brustlin, Inc. (VHB) and date-stamped October 14, 2009, with only changes thereto that the Development Review Committee (DRC) determines to be generally consistent with the Master Plan and Shaping Our Shores report.
  - 2. Soil Studies. Soil feasibility studies to determine appropriate areas for septic drainfields shall be submitted to the Virginia Department of Health for review and approval prior to final development plan approval for any new development on the Property. Redevelopment plans ("Redevelopment") for the Property shall not be subjected to this requirement. Redevelopment shall include the removal and replacement, renovation, or rehabilitation of existing buildings or facilities that does not increase or change the general shape or location of impervious area or number of tent sites or RV spaces, does not change the existing primary use of an area, and/or

does not change existing points of access. Based on the findings of any study, if a proposed use needs to be relocated, a plan detailing the relocation shall be provided to the DRC to determine whether the plan is generally consistent with the Master Plan and Shaping Our Shores report.

- Right-of-Way Buffer. A 150-foot buffer shall be maintained along John Tyler Highway. That buffer shall remain undisturbed with the exception of breaks for roadways and pedestrian connections, utilities, walking, hiking, and biking trails, and other uses specifically approved by the Director of Planning and the DRC.
- 4. <u>Lighting</u>. Any new exterior site or building lighting shall have recessed fixtures with no bulb, lens, or globe extending below the casing. The casing shall be opaque and shall completely surround the entire light fixture and light source in such a manner that all light will be directed downward and the light source are not visible from the side. Fixtures which are horizontally mounted on poles shall not exceed 15 feet in height. No glare defined as 0.1 foot-candle or higher shall extend outside the property lines.
- 5. <u>Speakers</u>. All permanent public address speakers used on the site shall be oriented generally toward the interior of the property and away from exterior property lines.
- **Archaeology.** Additional archaeological studies for any area to be disturbed that is identified as 'eligible' for inclusion on the National Register of Historic Places and/or 'unknown (further work needed)' on pages 109-112 of the report titled "Phase I Cultural Resources Survey and Archaeological Inventory of the Chickahominy Riverfront Park, James City County, Virginia" by Geo-Marine, Inc. and dated June 2008, shall be submitted to the Director of Planning for review and approval prior to the commencement of any land-disturbing activity on the property. If a Phase II study is undertaken, such a study shall be approved by the Director of Planning and a treatment plan for said sites shall be submitted to, and approved by, the Director of Planning for sites that are determined to be eligible for inclusion on the National Register of Historic Places and/or those sites that require a Phase III study. If in the Phase III study, a site is determined eligible for nomination to the National Register of Historic Places and said site is to be preserved in place, the treatment plan shall include nomination of the site to the National Register of Historic Places. If a Phase III study is undertaken for said sites, such studies shall be approved by the Director of Planning prior to land disturbance within the study areas. All Phase I, Phase II, and Phase III studies shall meet the Virginia Department of Historic Resources' Guidelines for Preparing Archaeological Resource Management Reports and the Secretary of the Interior's Standards and Guidelines for Archaeological Documentation, as applicable, and shall be conducted under the supervision of a qualified archaeologist who meets the qualifications set forth in the Secretary of the Interior's Professional Qualification Standards. All approved treatment plans shall be incorporated into the plan of development for the site and the clearing, grading, or construction activities thereon.
- 7. <u>Tree Clearing</u>. Tree clearing on the entire property shall be limited to the minimum necessary to accommodate the proposed recreational uses shown on the Master Plan and related driveways, entrance improvements, and facilities as determined by the Director of Planning or designee and the DRC.

- Master Stormwater Management Plan. A Master Stormwater Management Plan for the Property shall be submitted for review and approval by the County's Environmental Division Director prior to final development plan approval for any new development on the Property. Redevelopment of the Property shall not be subjected to this requirement.
- Special Stormwater Criteria. Special Stormwater Criteria (SSC) as adopted by the County in the Powhatan and Yarmouth Creek watersheds shall apply to this project. Low-impact development principles and techniques shall also be used in all development plans to reduce and control impacts associated with any increased storm water runoff. The owner shall demonstrate the application of SSC and low-impact design on all development plans to the satisfaction and approval of the County's Environmental Division Director prior to final development plan approval for any new development on the Property. Redevelopment of the Property shall not be subjected to this requirement.
- 10. Resource Management Area (RMA) Buffers. All development plans shall have the RMA buffers delineated in accordance with the Powhatan Creek Watershed Management Plan revision dated October 11, 2006, or any such RMA buffers as outlined in any future Gordon Creek Watershed Management Plan, to the satisfaction and approval of the County's Environmental Division Director prior to final development plan approval for any new development on the Property. Redevelopment of the Property shall not be subjected to this requirement.

11. Severance Clause. This SUP is not severable. Invalidation of any word, phrase,

clause, sentence, or paragraph shall invalidate the remainder.

James G. Kennedy

Chairman, Board of Supervisors

SUPERVISOR VOTE GOODSON AYE JONES AYE MCGLENNON AYE

**ICENHOUR** AYE KENNEDY AYE

ATTEST:

Sanford B. Wanner

Clerk to the Board

Adopted by the Board of Supervisors of James City County, Virginia, this 10th day of November, 2009.

SUP 0014 09 res

### **AGENDA ITEM NO. E.2.**

### ITEM SUMMARY

DATE: 9/18/2019

TO: The Development Review Committee

FROM: Tori Haynes, Planner

SUBJECT: Colonial Heritage Deer Lake Estates Rezoning

### **ATTACHMENTS:**

	Description	Type
D	Memorandum	Cover Memo
D	Attachment 1. Location Map	Backup Material
D	Attachment 2. Adopted Resolution and Master Plan (SUP-0003-2015)	Backup Material
D	Attachment 3. Proposed Master Plan	Backup Material
D	Attachment 4. Proposed Community Impact Statement	Backup Material
D	Attachment 5. Applicant Letter dated September 5, 2019	Backup Material
D	Attachment 6. LU-0015-2008 Staff Report	Backup Material
D	Attachment 7. LU-0003-2014 Staff Report	Backup Material
ם	Attachment 8. SUP-0003-2015 Staff Report	Backup Material

### **REVIEWERS:**

Department	Reviewer	Action	Date
Development Review Committee	Cook, Ellen	Approved	9/13/2019 - 8:14 AM

#### MEMORANDUM

DATE: September 18, 2019

TO: The Development Review Committee

FROM: Tori Haynes, Planner

SUBJECT: Colonial Heritage Deer Lake Estates Rezoning

Mr. Wesley Dollins of Lennar will be submitting an application to rezone the Deer Lake Estates section of Colonial Heritage from A-1, General Agricultural, with Proffers and Rural Cluster Special Use Permit (SUP), to MU, Mixed Use, with Proffers.

### **Current Proposal**

The applicant is currently proposing to rezone the area comprising Deer Lake Estates from A-1, General Agricultural, with Proffers and Rural Cluster SUP, to MU, Mixed Use, with Proffers. This proposal may also require amendments to the Colonial Heritage Master Plan and/or Proffers. Notable differences between the existing Deer Lake Estates SUP and new proposal include:

- An increase in the proposed number of units from 50 to 150 (single-family detached). Per the applicant, the unit count will still be under the overall 2,000-unit cap specified in the adopted Colonial Heritage Proffers.
- The elimination of external access from Jolly Pond Road. Access will be via the internal private road system within Colonial Heritage.
- An additional  $\pm$  77 acres of conservation area.
- Age-restricted ownership.
- Inclusion of a potential four-acre lot for a future fire station.

At this time, staff has not formally received the rezoning application or reviewed the submitted materials.

#### Discussion

Prior to the public hearing with the full Planning Commission, the applicant has requested that this item be placed on the Development Review Committee (DRC) agenda to discuss the project and obtain input from DRC members. No action by the DRC is required.

Staff notes that a rural cluster subdivision construction plan in accordance with Case No. SUP-0003-2015 is currently under review. Should the proposed rezoning be denied, the applicant has indicated that Lennar will continue development of the submitted plans.

### History

#### 2001 Case Nos. Z-0004-2000 and MP-0001-2001 (approved 11/27/01)

The Board of Supervisors approved rezoning and master plan applications for a 2,000-unit gated and age-restricted community known as Colonial Heritage at Williamsburg. The applications rezoned ± 777 acres from A-1, General Agricultural, and M-1, Limited Business/Industrial, to MU,

Colonial Heritage Deer Lake Estates Rezoning September 18, 2019 Page 2

Mixed Use with Proffers. The master plan included 425,000 square feet of commercial development fronting on Richmond Road.

Case Nos. Z-0003-2002, Z-0004-2002, MP-0001-2002, and SUP-0021-2004 (approved 12/14/04) The applicant filed rezoning and master plan amendment applications to incorporate the neighboring ± 731-acre Boy Scouts of America (BSA) property into the Colonial Heritage development. At that time, the western 2/3 of the BSA property (± 503 acres) was located outside the Primary Service Area (PSA), zoned A-1, and designated Rural Lands. The eastern 1/3 (± 229 acres) was located inside the PSA, zoned A-1, and designated Low Density Residential.

The applicant received approval to rezone the eastern 229-acre portion from A-1, General Agricultural, to MU, Mixed Use, with Proffers, with no increase to the existing 2,000-unit cap. The applicant also applied to rezone the 503-acre portion from A-1, General Agricultural, to A-1, General Agricultural, with Proffers. The 503-acre portion would be subject to the amended Proffers but would not be subject to the amended master plan.

An SUP was approved concurrently to develop the 503-acre portion as a rural cluster not to exceed 50 lots, known as Deer Lake Estates. Deer Lake Estates was to have separate access from Jolly Pond Road and would not be age-restricted. Of the 503 acres, the SUP required that 282 acres be placed under conservation easement. The rural cluster was to be developed on the remaining 221 acres surrounding Deer Lake. Because the rural cluster was located outside of the PSA, the SUP also required a central well system. Again, there were no changes to the existing 2,000-unit cap.

### 2009 <u>Case No. LU-0015-2008 (denied 11/24/09)</u>

As part of the Comprehensive Plan update process, and in conjunction with a new rezoning/master plan amendment application, the applicant requested that the 221-acre Deer Lake Estates property be redesignated from Rural Lands to Low Density Residential (LDR). They also requested a PSA extension to allow Deer Lakes Estates to connect to public water/sewer.

Staff recommended denial, citing concerns that the LDR designation inside the PSA could allow for upzoning the property to permit more intensive development. Extension of the PSA could set a precedent for similarly situated properties, weakening the effectiveness of the PSA as a growth management tool. The Comprehensive Plan Steering Committee echoed these concerns. The Board of Supervisors denied the requests, and the property remained outside the PSA and designated Rural Lands.

2010 <u>Case Nos. Z-0001-2009, MP-0001-2009, and SUP-0007-2010 (deferred indefinitely 8/2/10)</u> In conjunction with the land use application, the applicant applied to rezone ± 130 acres of the 221-acre Deer Lake Estates property from A-1, General Agricultural, with Proffers and Rural Cluster SUP, to MU, Mixed Use, with amended Proffers and SUP for the extension of public utilities outside the PSA. The remaining ± 90 acres would be placed under conservation easement.

Of the 130 acres proposed to be MU,  $\pm$  66 acres would be rolled into Colonial Heritage land bays 7 and 8 with a proposed density of 4.6 units per acre (versus the recommended 0.33 units per acre for the existing designation of Rural Lands outside the PSA, and the approved rural cluster development potential of 0.226 units per acre). The remaining  $\pm$  64 acres would be developed as a newly designed 50-lot non-rural cluster-like development, which would have been achievable in MU without the need for a cluster overlay SUP.

Staff recommended denial, citing that the Board of Supervisors had already denied the requested land use changes, thus the proposal to rezone to MU and extend public utilities for residential growth outside the PSA was in conflict with the adopted policies of the Comprehensive Plan and

Colonial Heritage Deer Lake Estates Rezoning September 18, 2019 Page 3

with the PSA as a growth management tool. While the proposal added 90 acres of contiguous conservation land, staff did not find a distinct environmental benefit compared to the approved rural cluster.

The Board of Supervisors cited similar concerns, prompting the applicant to defer the case indefinitely. The case was formally withdrawn in 2014.

### 2015 Case No. LU-0003-2014 (approved 6/23/15)

As part of the Comprehensive Plan update process, the applicant again filed a request to change the land use designation of the Deer Lake Estates rural cluster from Rural Lands to Low Density Residential, and to extend the PSA so that it could be served by public water/sewer rather than a central well system. Unlike the previous land use application, this request was not associated with a proposal to rezone or amend the master plan to increase units or density.

Staff recommended denial, citing the same concerns with potential upzoning and weakening of the PSA as a growth management tool. The Board of Supervisors also expressed specific concern that a designation of Low Density Residential inside the PSA could open the door for a future application to rezone and increase the number of units or density, and asked that the applicant confirm that they would not bring forth additional requests to rezone or otherwise increase the number of units beyond 50. The applicant confirmed that Lennar was pursuing the PSA change for the sole purpose of serving the approved rural cluster, thus eliminating the need for a central well and septic systems.

With the understanding that the applicant did not intend to propose additional units in the future, the requested land use designation and PSA boundary changes were adopted by the Board of Supervisors as part of the 2035 Comprehensive Plan Land Use Map.

### Case No. SUP-0003-2015 (approved 11/10/15)

The applicant then applied for an amendment to the rural cluster SUP to formally eliminate the central well requirement and allow for public water/sewer connections. The other SUP conditions generally remained the same with minor updates, and a new condition was added to install pedestrian/bicycle accommodations. The Board of Supervisors approved this application in November 2015.

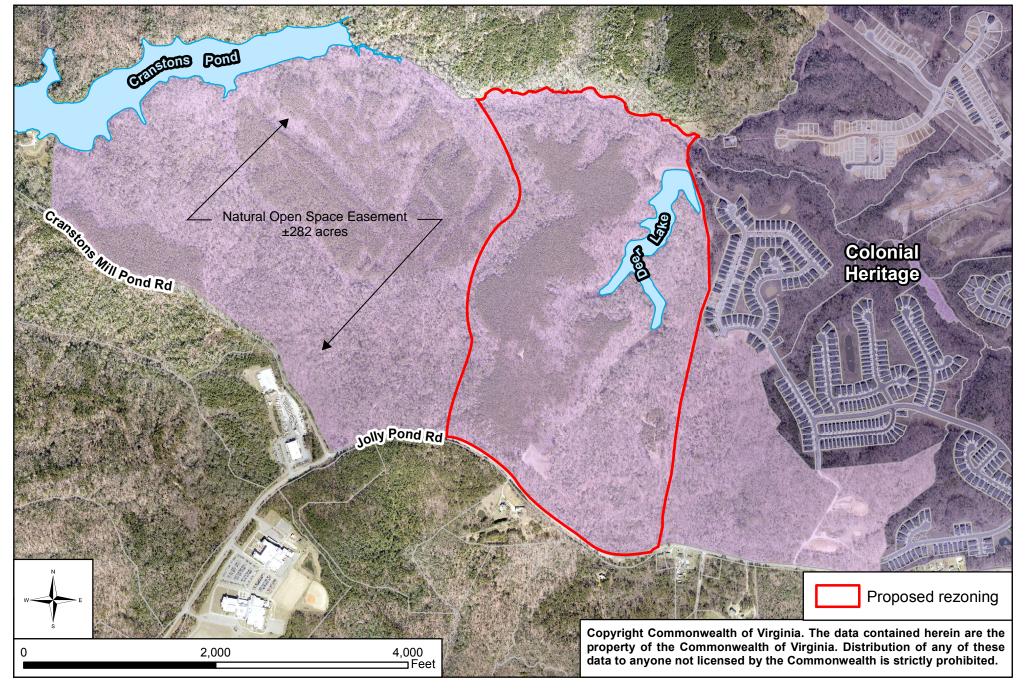
TH/md CHDeerLkEstRZ-mem

### Attachments:

- 1. Location Map
- 2. Adopted Resolution and Master Plan (SUP-0003-2015)
- 3. Proposed Master Plan
- 4. Proposed Community Impact Statement
- 5. Applicant Letter dated September 5, 2019
- 6. LU-0015-2008 Staff Report
- 7. LU-0003-2014 Staff Report
- 8. SUP-0003-2015 Staff Report

# Colonial Heritage Deer Lake Estates Rezoning





### RESOLUTION

#### CASE NO. SUP-0003-2015. COLONIAL HERITAGE DEER LAKE ESTATES UTILITY

### EXTENSION: AMENDMENT AND RESTATEMENT OF CASE NO. SUP-0021-2004

- WHEREAS, the Board of Supervisors of James City County, Virginia (the "Board") has adopted by Ordinance specific land uses that shall be subjected to a Special Use Permit (SUP) process; and
- WHEREAS, Mr. William Holt, of Kaufman and Canoles (the "Applicant"), on behalf of Colonial Heritage LLC (the "Owner"), has applied to extend public utilities to a ±228 acre portion of land associated with the Colonial Heritage Deer Lake SUP 0021-2004; and
- WHEREAS, the subject property is located at 499 Jolly Pond Road on land zoned A-1, General Agricultural, with proffers, and can be further identified as James City County Real Estate Tax Map Parcel No. 2240100007 (the "Property"), as shown on the exhibit titled "Deer Lake Estates Utility Extension-Water/Sewer SUP Exhibit" dated September 17, 2015 ("the Exhibit"), prepared by AES Consulting Engineers; and
- WHEREAS, on December 14, 2004, the Board approved SUP 0021-2004 permitting a 50-lot rural cluster development ("Deer Lake Estates") on the Property and prohibiting the extension of utilities to the Property; and
- WHEREAS, as part of SUP-0003-2015, the Owner seeks to amend and restate conditions associated with SUP-0021-2004 to allow the 50-lot rural cluster to connect to public utilities; and
- WHEREAS, the subject ±228 acres of the Deer Lake Estates development was included in the Primary Service Area on the adopted 2035 Comprehensive Plan Land Use Map; and
- WHEREAS, a public hearing was advertised, adjoining property owners notified and a hearing conducted on Case SUP-0003-2015; and
- WHEREAS, the Planning Commission, following its public hearing on October 7, 2015, recommended approval of this application by a vote of 7-0.
- NOW, THEREFORE, BE IT RESOLVED that the Board of Supervisors of James City County, Virginia, after consideration of the factors in Section 24-9 of the James City County Code, does hereby approve the issuance of SUP 0003-2015 as described herein with the following conditions.
- BE IT FURTHER RESOLVED that the Board of Supervisors of James City County, Virginia, upon application by the Owner, and after consideration of the factors in Section 24-9 of the James City County Code, does hereby amend and restate the conditions of James City County Case No. SUP-0021-2004 with the following conditions:

- 1. Development Limitation. No more than 50 residential lots shall be platted on the 50-lot rural cluster portion of the Boy Scout of America property (known as "Deer Lake Estates"), as shown on the Exhibit. Any residential lots developed on the Property shall be subject to the 2,000-residential-unit density cap.
- 2. Conservation Easement. The conservation easement of ±282 acres (the "Conservation Easement") shall be dedicated to James City County or an agency acceptable to the County and recorded prior to final subdivision approval by the County for any lot within Deer Lake Estates, as shown on the Exhibit. The area within the Conservation Easement shall be available and the Owner shall retain the right to utilize the open space and conservation area for stormwater management structures and facilities, required open space, required impervious/pervious cover calculations and watershed protection measures for the Colonial Heritage development and Deer Lake Estates. The Conservation Easement shall clearly state that no clearing, land disturbing or development shall occur on the ± 282 acres unless otherwise approved by the Planning Director.
- 3. Buffers. A minimum 150-foot buffer shall be maintained along Jolly Pond Road and Cranston's Mill Pond Road (the "Buffers"). The Buffers shall remain undisturbed with the exception of breaks for any entrance road, pedestrian connections, utilities, walking, hiking and biking trails, any required clearing necessary to create adequate sight distance and other uses specifically approved by the Planning Director. The Planning Director shall approve the design of such features located within the Buffers.
- 4. Vehicular Access. Access to the Deer Lake Estates development shall be from a single entrance road onto Jolly Pond Road unless a second entrance road is approved by the Planning Commission following the review of the Development Review Committee.
- 5. *Public Utilities*. Construction and operation of public utilities shall be subject to the following conditions:
  - a. *Commencement:* Construction on this project shall commence within 36 months from the date of approval of this SUP or this permit shall be void.
  - b. Construction Management:
    - i. Construction, operation and maintenance of the water and sewer extensions shall comply with all local, state and federal requirements.
    - ii. Adequate dust and siltation control measures, as determined by the Director of Engineering and Resource Protection, shall be taken to prevent adverse effects the adjacent properties.
    - iii. All construction activity on the water and sewer extensions shall occur between 7 a.m. and 5 p.m., Monday through Friday.
  - c. Regulatory Requirements: All state and local permits and easements shall be acquired prior to the issuance of a land disturbing permit for any lot within the previously approved 50-lot rural cluster known as Deer Lake Estates.
  - d. Erosion and Sediment Control: The project shall comply with all Virginia erosion and sediment control regulations as specified in the 1992 Virginia Erosion and Sediment Control Handbook as amended.

- e. Construction Access: Vehicular access to all residences along the affected rights-of-way, including Jolly Pond Road and Cranston's Mill Pond Road, shall be maintained at all times.
- f. Vegetation Protection: The applicant shall avoid removing trees and bushes within the 150 feet Jolly Pond Road vegetative buffer and along the water and sewer extension corridors, except as shown on the approved site plan. Trees and bushes damaged during construction shall be replaced with a tree or bush of equal type as approved by the Planning Director or his designee.
- 6. Water Conservation. The Water Conservation Regulations for Residential properties applicable to the Colonial Heritage development shall be implemented and enforced for the Deer Lake Estates development.
- 7. Archaeology. Prior to issuance of a land-disturbing permit for any portion of the Property, the applicant shall provide written evidence to the Planning Director which demonstrates that the recommendations of a professional archaeologist have been implemented in a manner consistent with the preservation objectives of the Board of Supervisors Archaeological Policy, as determined by the Planning Director or his designee.
- 8. Master Stormwater Plan. A Master Stormwater Plan shall be submitted with the development plan for the alternative which is submitted for review and approval by the Director of Engineering and Resource Protection. The Master Stormwater Plan should specifically address how Deer Lake will be utilized as a primary Best Management Practices (by use of drawings/narratives), whether additional onsite structural or non-structural practices are necessary and whether there is a better site design/low-impact development component proposed for stormwater compliance.
- 9. Steep Slopes. Any plan of development for Deer Lake Estates shall maintain a separation of at least 35 feet between the top of 25% and steeper slopes and any structure and a 20-foot separation from the limits of grading to the top of 25% and steeper slopes. This is intended to apply to the larger, contiguous areas of steep slopes, not isolated areas, as determined by the Director of Engineering and Resource Protection. The Director of Engineering and Resource Protection shall have the ability to grant variances from this criteria to provide flexibility in application of this condition.
- 10. RPA/Perennial Stream. The applicant shall conduct a perennial stream evaluation which shall receive approval from the Director of Engineering and Resource Protection prior to preliminary approval being granted for any plan of development for Deer Lake Estates. If perennial streams are present on the site, a 100-foot buffer shall be required around them and any wetlands contiguous to and connected by surface flow to the stream. Any plan of development for Deer Lake Estates shall also maintain a structural separation of 35 feet from any Resource Protection Area on the property.
- 11. Pedestrian Accommodations. In accordance with the adopted Pedestrian Accommodations Master and Regional Bicycle Facilities plans, sidewalk and a shoulder bike lane shall be provided along the Property's Jolly Pond Road frontage. This requirement may be waived by the Planning Director should the Owner

demonstrate that existing pavement width or section, drainage or other engineering constraints would restrict the ability of the Owner to install the bike lane or sidewalk in a manner that would meet Virginia Department of Transportation requirements. Such analysis shall be submitted prior to or concurrent with the initial site plan submission. If a bike lane and/or can be installed, it shall be completed prior to the issuance of a Certificate of Occupancy for any of the 50 lots approved under James City County Case No. SUP-21-04, unless otherwise approved by the Planning Director. In the event that the Planning Director disapproves the waiver, the applicant may appeal the decision to the Development Review Committee, which shall forward a recommendation to the Planning Commission.

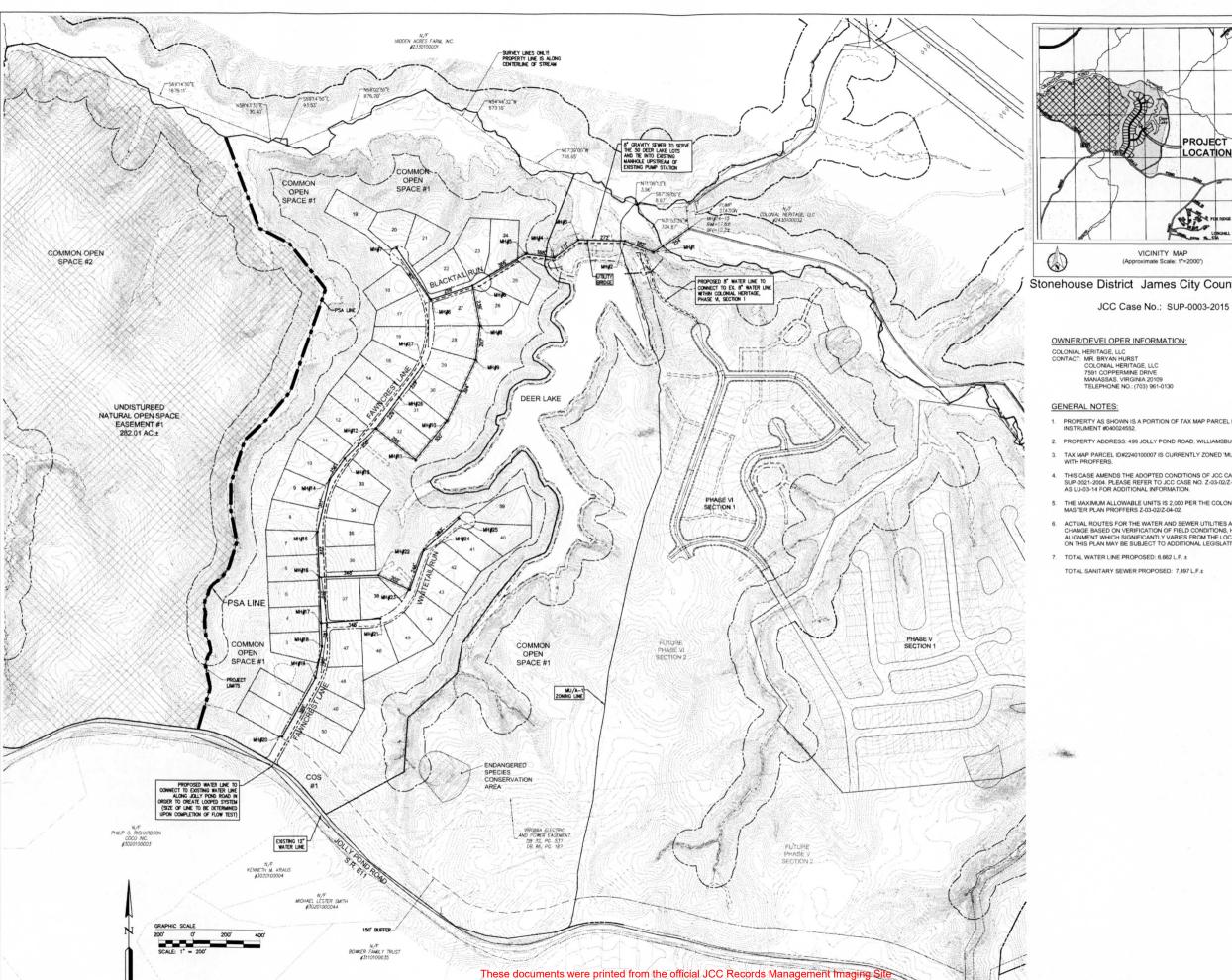
12. Severability. This SUP is not severable. Invalidation of any word, phrase, clause, sentence or paragraph shall invalidate the remainder.

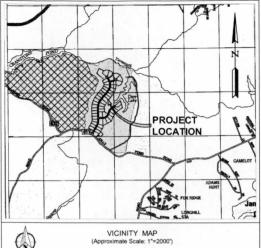
Michel Dodant
Michael J. Hippie
Chairman, Board of Supervisors

A MONTH OF THE CONTRACT OF THE	VOTES					
ATTEST:	<u>AYE</u>	NAY	<b>ABSTAIN</b>			
JONES MCGLENNON ONIZUK KENNEDY HIPPLE		<u></u>				

Adopted by the Board of Supervisors of James City County, Virginia, this 10th day of November, 2015.

SUP03-2015DeerLakeEstates-res





#### Stonehouse District James City County Virginia

- PROPERTY AS SHOWN IS A PORTION OF TAX MAP PARCEL ID#2240100007, INSTRUMENT #040024552.
- 2. PROPERTY ADDRESS: 499 JOLLY POND ROAD, WILLIAMSBURG, VA 23188.
- TAX MAP PARCEL ID#2240100007 IS CURRENTLY ZONED 'MU' MIXED USE WITH PROFFERS.
- THIS CASE AMENDS THE ADOPTED CONDITIONS OF JCC CASE NO SUP-0021-2004. PLEASE REFER TO JCC CASE NO. Z-03-02/Z-04-02 AS WELL AS LU-03-14 FOR ADDITIONAL INFORMATION.
- THE MAXIMUM ALLOWABLE UNITS IS 2,000 PER THE COLONIAL HERITAGE MASTER PLAN PROFFERS Z-03-02/Z-04-02.
- ACTUAL ROUTES FOR THE WATER AND SEWER UTILITIES ARE SUBJECT TO CHANGE BASED ON VERIFICATION OF FIELD CONDITIONS, HOWEVER ANY ALIGNMENT WHICH SIGNIFICANTLY VARIES FROM THE LOCATION SHOWN ON THIS PLAN MAY BE SUBJECT TO ADDITIONAL LEGISLATIVE APPROVAL.
- 7. TOTAL WATER LINE PROPOSED: 6.662 L.F. ±

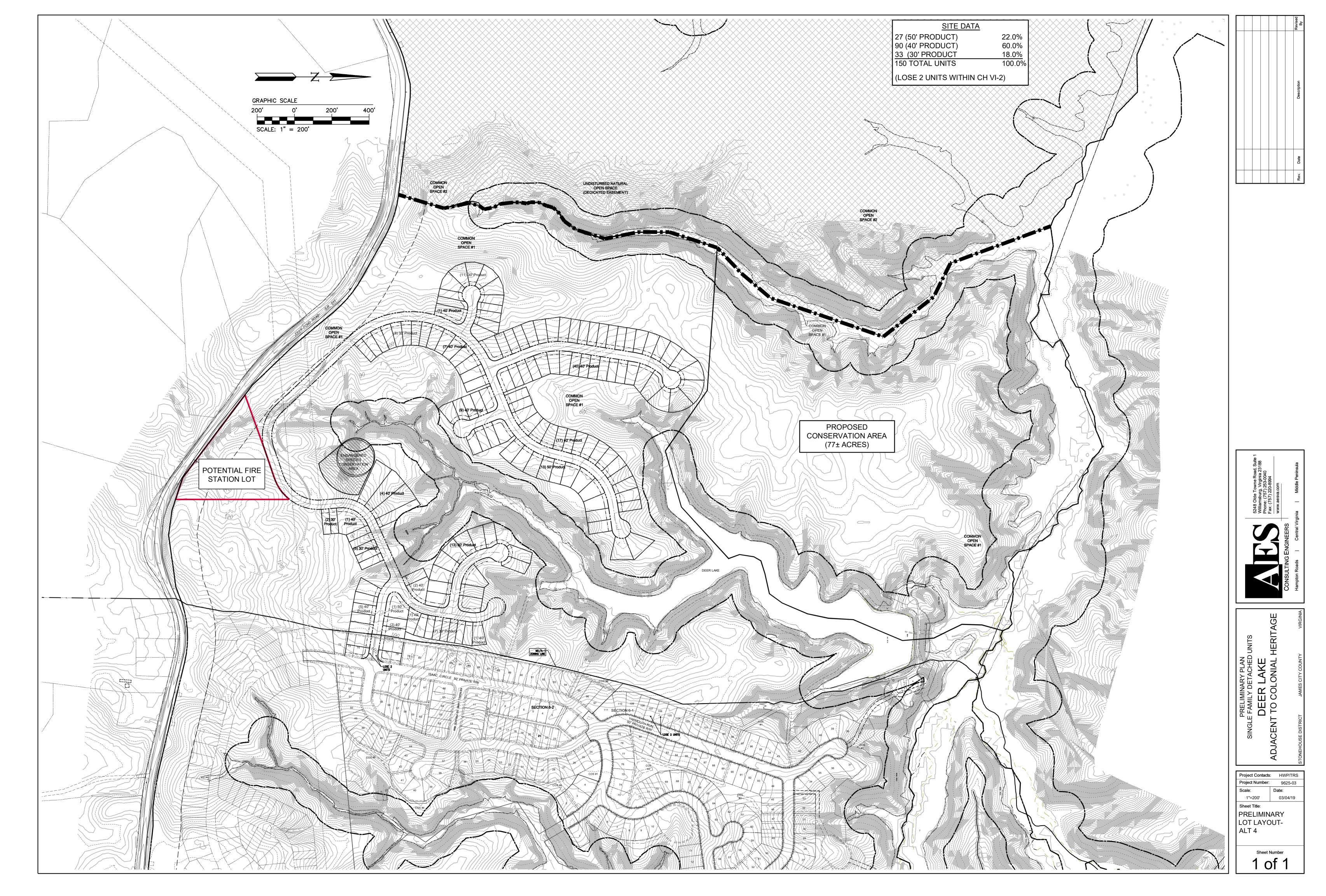
TOTAL SANITARY SEWER PROPOSED: 7,497 L.F.±



DEER LAKE ESTATES UTILITY EXTENSION

Sheet 78s: WATER / SEWER SUP EXHIBIT

1 of 1



S:JJOBS\9825\03-DeerLake 2012\Planning\Conceptual & Preliminary\W0982500 Layout 2019-3-04\_150 lots.dwg.3442019

## Community Impact Statement

For

# Conceptual Plan at Colonial Heritage Adjacent to Deer Lake

Prepared For

Colonial Heritage, LLC 14280 Park Meadow Drive, Suite 105 Chantilly, VA 20151

#### PLANNING CONSIDERATIONS

#### A. Summary

The proposed Conceptual Plan on the property within Colonial Heritage adjacent to Deer Lake shows approximately 150 age restricted (active adult) single family detached lots. These lots fall within the Primary Service Area in a portion of land zoned A1. The proposed Conceptual Plan would require the land to be rezoned from A1 to Mixed Use (similar to the adjacent lots within Colonial Heritage). This proposal would also require an amendment to the Colonial Heritage Master Plan and corresponding Proffers.

Though the proposed lot count in this area would increase from 50 lots to 150 lots, the overall development would still be well below the maximum allowable density. The Conceptual Plan shows an approximate configuration of these lots, with roughly 77 additional acres of conservation area provided and therefore less impact to the Yarmouth Creek. A potential fire station lot (or other use by James City County) is included which totals approximately 4.0 acres. This layout would also eliminate the proposed Jolly Pond Road connection as the development would tie into an existing private road system within Colonial Heritage. In addition, these lots would now be considered age restricted and not provide a burden on James City County schools.

#### B. Environmental

Watershed protection surrounding Yarmouth Creek played an important role when originally planning this Master Plan development. A large portion of the property west of Deer Lake has been dedicated as Natural Open Space and the required RPA buffers have been acknowledged. The proposed Conceptual Plan was laid out to adhere to the Stormwater Master Plan, provide substantial Natural Open Space in excess of the Master Plan and limit disturbance to the existing RPA buffer and wetlands.

#### ANALYSIS OF IMPACTS TO PUBLIC FACILITIES AND SERVICES

The subject property is located within the Primary Service Area (PSA) of James City County. Parcels and subsequent land development activities within the PSA are conventionally provided water and sanitary sewer service by the James City Service Authority (JCSA).

#### A. Public Water Facilities

Public water shall be provided by the JCSA system. The water service shall be extended to the site from the existing water main located within Colonial Heritage and the corresponding looped system.

Flow test data was previously provided by JCSA and will be incorporated into the existing water model for the entire development and will be completed and submitted prior to or with the final site plan. The model will examine volume and pressures throughout the immediate water system area, however based on the information provided and coordination with JCSA, there should be adequate availability for the proposed facility.

#### B. Public Sewer Facilities

Sanitary sewer service is provided to the site by a proposed on-site gravity sewer collection system which will convey wastewater flows to an existing JCSA gravity sewer system located within the existing Colonial Heritage development. This existing sewer system was designed for flows associated with this Conceptual Plan and will therefore be adequately handled.

All system components shall be designed to JCSA standards for acceptance into the JCSA gravity system. Please find "Table 1" which shows the anticipated sewage flows for the project.

Table 1 - Projected Wastewater Flows

Type of	No. of	Flow	Average	Duration	Avg. Flow	Peak Flow
Development	Units	(GPD/Unit)	Daily Flow	(hrs)	(GPM)	(GPM)
			(GPD)			
RESIDENTIAL						
Single Family						
Detached Units	150	225**	33,750	24	23.4	70.2
TOTAL			33,750		23.4	70.2

<sup>\*\*</sup> A value of 225 GPD/Unit is utilized for Colonial Heritage per prior agreement with JCSA based on reduced flows associated with the age restricted community.

#### C. Fire Protection and Emergency Services

There are currently five (5) fire stations providing fire protection and Emergency Medical Services (EMS) services to James City County. The property falls nearly halfway between its two closest fire stations, located on Olde Towne Road and Forge Road. From these stations, an estimated response time would be less than five minutes. Additionally, the proximity of the site to all five fire stations affords the future residents of the project more than adequate response to potential emergencies.

#### D. Schools

Because the proposed development will be age restricted, there will be no school age children residing within this development and subsequently there will be no direct impacts on the local school system.

#### ANALYSIS OF STORMWATER MANAGEMENT

### A. Water Quality

The goals of the stormwater management plan is to adhere to local and state stormwater requirements using Best Management Practices (BMPs) that provide the maximum coverage while minimizing environmental impacts. Stormwater management for this site seeks to manage the quality and quantity of the stormwater runoff. In James City County, a 10-point BMP method is required to demonstrate compliance with the County's Chesapeake Bay Preservation Ordinance (CBPO). The methodology allocates open space credit for land that is not developed and provides credit for all segments of the site that drain and are controlled by an adequately sized structural BMP.

This project will utilize a highly efficient wet pond BMP to treat all of the proposed impervious cover associated with the development. Additional Natural Open Space will also be dedicated to James City County which will push the overall points for Colonial Heritage well over the 10 points that are required.

### B. Water Quantity

Water quantity control is required to ensure that the post construction stormwater runoff is controlled to a point that is either at or below the existing condition in terms of flow rates. This quantity of stormwater can be reduced by storing the increased stormwater runoff for a period of time before releasing it back into the downstream waterway. The wet pond as previously used for water quality control will also be used to store the stormwater to reduce the flow. Appropriate measures will be taken to ensure that the 1, 2, 10, and 100-year storms are properly contained within the pond and discharges the stormwater over time with appropriate flows to maintain or better the existing condition.

#### C. Special Stormwater Criteria

The proposed development is located within the Yarmouth Creek Watershed and is therefore subject to the corresponding Yarmouth Creek Management Plan. This plan was put in place to help prevent any degradation of the ecosystem and waterways downstream of Yarmouth. Once the disturbed area is determined for this development, the required number of Special Stormwater Criteria (SSC) measures will be provided. The exact methods to be utilized will be determined at the site plan stage.

# KAUFMAN & CANOLES attorneys at law

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September 5, 2019

#### **VIA HAND DELIVERY**

Paul Holt James City County Planning Director 101 Mounts Bay Rd. Williamsburg, VA 23185

Re:

Colonial Heritage, LLC Deer Lake Estates MP-19-0011 PLANNING DIVISION

SEP 05 2019

RECEIVED

#### Dear Paul:

My client Colonial Heritage, LLC recently filed an application for amendment of the Colonial Heritage master plan which would affect Deer Lake Estates. I was subsequently engaged, and worked with your staff to confirm that a rezoning application would be necessary in order to accomplish the requested master plan changes. Accordingly work on a rezoning application with submittal requirements is under way.

In the meantime, the master plan amendment is set to be considered by the DRC at its September 18<sup>th</sup> meeting. In order to obtain thorough comments from the DRC, I provide this letter supplementing the master plan amendment application, in order that a true picture of the proposal for Deer Lake Estates can be understood by members of the DRC.

#### **Background**

When the Colonial Heritage development with associated MU-zoning was approved in 2004 (see 2-3-02/2-4-02/MP-1-02), a separate development known as Deer Lake Estates was created as an A-1 rural cluster adjacent to Colonial Heritage. The Deer Lake Estates development was originally slated to be served by a private well with septic systems, a separate entrance from Jolly Pond Road and would contain fifty large lots with frontage on Deer Lake. In 2015, the Board of Supervisors approved inclusion of the Deer Lake Estates development into the primary service area, in order to avoid the private water system and septic systems otherwise required in Deer Lake Estates (see SUP-0003-2015).

#### **Proposed Changes for Deer Lake Estates**

Colonial Heritage, LLC now seeks to extend MU-Zoning and the age restricted master planned Colonial Heritage Community onto a portion of the Deer Lake Estates property. The plan would permit up to 150 age restricted Colonial Heritage units, but the total number of residential dwellings constructed would

September 5, 2019 Page 2

remain fewer than the 2,000 unit cap proffered when Colonial Heritage was established.

Deer Lake Estates now comprises 219 acres. As a part of the proposal, Colonial Heritage, LLC will proffer dedication of an additional 77 acres of conservation area adjoining Deer Lake and the Cranston's Mill Pond water shed. This additional conservation area would be in addition to the 282 acres of conservation area previously dedicated by my client in connection with approval of the Colonial Heritage development.

Access to the planned section of Colonial Heritage surrounding Deer Lake would be via the internal Colonial Heritage road system, eliminating an additional access on Jolly Pond Road.

In addition, the proposed master plan amendment establishes a four acre parcel of land fronting on Jolly Pond Road which would be conveyed to James City County for future public use.

The plan involves few if any negative of impacts on existing Colonial Heritage residents. The dwellings constructed around Deer Lake would not be visible from existing homes in Colonial Heritage. The expansion is carefully planned to avoid interfering with vistas and view sheds which existing residents enjoy and expected when buying homes. Additionally, an increase in the number of dwellings in Colonial Heritage means that more home owners would be bearing the costs of Colonial Heritage amenities and upkeep, such as the aquatic center, community landscaping and recreation facilities. More residences means more golfers to utilize the golf course at Colonial Heritage as well.

#### **Reasons for Change**

Colonial Heritage, LLC and its parent company Lennar study carefully housing trends and demand in the James City County market. Home buyers seeking to locate in the County are attracted to the smaller, lower maintenance yards and single story floor plans offered in the age-restricted community. The presently approved Deer Lake Estates development would give rise to larger homes on bigger lots, which require more upkeep. Further, the Deer Lake Estates home prices would be higher than those of Colonial Heritage residences proposed there. The challenges facing large lot rural developments in the County have been the primary driver for this proposed change in the use of the Deer Lake Estates property. This plan offers a better result for County residents and a better housing product for Colonial Heritage, LLC.

It is our hope that this background material will provide for a more thorough consideration of the proposed master plan by the DRC. If I may provide further information in regard to the proposal, please do not hesitate to contact me.

Very truly yours,

Gregory R. Davis

GRD:kl

cc: Colonial Heritage, LLC

AES, Attn: Ryan Stephenson

Ellen Cook

### LU-0015-2008 499 Jolly Pond Road

This staff report is prepared by the James City County Planning Division to provide information to the Steering Committee, Planning Commission and Board of Supervisors to assist them in making a recommendation on this application. It may be useful to members of the general public interested in this application.

**SUMMARY FACTS** 

Applicant: Gregory R. Davis of Kaufman & Canoles, on behalf of Colonial Heritage,

LLC

Property Owner: Colonial Heritage, LLC

Location: 499 Jolly Pond Road

Tax Map #: 2240100007

Size: 731.6 acres (Proposed change affects approximately 219 acres)

Current Land Use Designation: Low Density Residential (eastern third of property) and Rural Lands

(remainder)

Current Property Use (per applicant): 50-lot rural cluster ("Deer Lake" SUP), with private well and waste water

treatment

Owner Proposed Land Use

Designation: Low Density Residential (eastern two-thirds of property) and Rural Lands

(remainder)

Owner Proposed Property Use: 50-lot rural cluster ("Deer Lake" SUP), with public well and waste water

treatment

Owner Justification: The 219-acre area under consideration was approved by the Board of

Supervisors as a 50-lot rural cluster under SUP-0021-2004. It is currently outside of the PSA, designated Rural Lands, and Zoned A-1. The 50-lot cluster has not been developed to date. The applicant wishes to bring the subject area into the PSA and to re-designate it Low Density Residential. The reasoning provided for this is that the 50-lot cluster would then be served by the public water and sewer infrastructure of JCSA, rather than a private well facility and private septic fields. This was cited as beneficial by the applicant because 1) all of the lines needed to serve the 50-lot cluster and to connect it to the existing JCSA water and sewer networks would be constructed at the developers expense; 2) it would be cheaper for JCSA (and thus, the County) to serve the new development by connecting it to the existing JCSA water system rather than creating a new well facility that JCSA would then have to operate and maintain; 3) connecting the new development to the existing JCSA water system could reduce the demand on the ground water aquifer, as some of the water provided to the development could then come from the reverse osmosis water treatment facility; 4) connecting the new development to the existing JCSA water system could reduce the potential for a salinity increase, the leeching of

contaminants, and similar impacts to the Yarmouth Creek Watershed.

Zoning: MU, Mixed Use (eastern third of property) and A-1, General Agricultural

(remainder)

Inside PSA: Yes (eastern third of property) and No (remainder)

Requesting Extension of PSA: Yes

Water or Sewer Availability: Public water and public sewer available (eastern third of property is

served; remainder is not served)

Watershed: Yarmouth Creek

Staff Contact: David W. German Phone: 253-6685

#### **STAFF RECOMMENDATION:** Denial

#### **RATIONALE:**

- 1. A re-designation of the Deer Lake portion of the property (approximately 219 acres) would increase the likelihood for a potential amendment to the approved Master Plan, and/or a rezoning, both of which may result in an increase in the total number of lots (beyond the 50 lots that are approved for this area). When the BOS approved Z-0004-2002 and SUP-0021-2004, it acknowledged and expected that 50 lots would be located outside the PSA, and that these lots would be served by a public community well facility and private on-lot septic fields. The costs and challenges at that intensity of development were understood and accounted for.
- 2. If the new proposal led to a rezoning that allowed for an increase in density, there would potentially be increased costs to JCSA due to increases in needed infrastructure to support the higher density, and potential environmental damages in the Deer Lake natural area. The original intent of the 50-lot cluster overlay was to limit development in the Deer Park natural area, which is marked by large tracts of environmentally sensitive land, characterized by several riparian areas, wetlands, dense forest, and RPA.
- 3. The Environmental Division notes that there is no guarantee that eliminating the public community well facility will affect the salinity of the area, and further notes that, regardless of whether a private system (biological treatment) or a public system (mechanical treatment) is used to treat sewage, any system must still be carefully monitored and maintained to properly treat whatever effluent is generated. Any gains recognized from the reduction in the number of drain fields in the area would likely be offset by the clearing of additional trees, increases in impervious surfaces, and additional stromwater management features needed in the event a future rezoning was approved that allowed for additional density on the site.

### LU-0003-2014 499 Jolly Pond Road

This staff report is prepared by the James City County Planning Division to provide information to the Planning Commission Working Group, Planning Commission and Board of Supervisors to assist them in making a recommendation on this application. It may be useful to members of the general public interested in this application.

#### **MEETING INFORMATION**

Group: Planning Commission Working Group Date: November 20, 2014

**SUMMARY FACTS** 

Applicant: Greg Davis, Kaufman and Canoles

Property Owner: Colonial Heritage, LLC

Property Address(es): 499 Jolly Pond Road

Tax Map #: 2240100007

Size: 725.09 total acres

220 acres covered by this application

Current Land Use Designation(s): Rural Lands

Current Property Use (per applicant): Undeveloped, with SUP for 50-lot rural cluster

Owner Proposed Land Use Designation: Low Density Residential

Owner Proposed Property Use: Residential

Owner Justification: See attached letter

Zoning: 220 acres requesting the designation change is A-1, General Agricultural

Inside PSA:

Requesting Extension of PSA: Yes

Water or Sewer Availability: Sewer would be brought in through existing Colonial Heritage service.

Water would be available from the Jolly Pond Road school sites.

Watershed: Yarmouth Creek

Staff Contact: Jason Purse Phone: 757-253-6689

#### **BACKGROUND:**

The Board of Supervisors approved Z-0004-2002 and SUP-0021-2004, expanding the Colonial Heritage Master Plan area to include a 50-lot rural cluster on property zoned A-1, General Agriculture. At that time the BOS acknowledged and expected that 50 lots would be located outside the PSA, and that these lots would be served by a public community well

facility and private on-lot septic fields. The costs and challenges at that intensity of development were understood and accounted for.

During the 2009 Comprehensive Plan update process, the applicant requested a Land Use Designation change to incorporate the area of the 50-lot rural cluster into the Primary Service Area. This request was also accompanied by a rezoning application that would have further clustered the 50-lots onto a smaller area, and also added additional developable area (from the 220 acres requesting a change from Rural Lands to Low Density Residential) to be included in the Colonial Heritage Mixed Use development. This proposal would have allowed for increased density for Colonial Heritage, under the 2,000 unit cap, and would have resulted in more than 50 lots on this 220 acre area. The BOS ultimately did not expand the PSA or change the Land Use designation at that time. The 2009 rezoning application is still on file with Planning staff, as it was indefinitely deferred by the applicant at that time.

#### **AGENCY COMMENTS:**

Engineering and Resource Protection

ERP notes that although public sewer service could be seen as a benefit from the potential from nonpoint source pollution associated with failed or failing septic drainfield systems, increased lots/density would result in an increase from other forms of nonpoint source pollution such as impervious cover. The Engineering and Resource Protection Division is not supportive of any proposal which results in the need for mass clearing and grading of land bays within the defined land tract - especially within areas intended to be within the A-1 rural cluster area or dedicated natural open spaces.

Any new development from this land use application within the PSA would be subject to the County's Special Stormwater Criteria (SSC). It would also be subject to the provisions of the readopted and revised Yarmouth Creek watershed management plan (October 2006) which would require 50 ft. intermittent stream and nontidal wetlands buffers as well as the variable width (up to 300 ft.) mainstem buffers.

The parcel is currently a portion of the previously approved special use permit application SUP-21-04 for 50 lots zoned A-1. Environmental conditions on this SUP included a 282 acre conservation easement for stormwater management purposes, master stormwater management plan requirements, building structure and limit of work separations (setbacks) from steep slopes, and separation (setbacks) from RPA.

The PSA exhibit map as supplied with the land use permit application is incorrect in that it states by legend and hatch pattern that the far west side of the land tract is "Existing Conservation Open Space (282 acres)". The ERP Division has not received a conservation easement plat or deed of easement for this parcel; however, as previously indicated it is intended to be dedicated by SUP-21-04 and the approved master stormwater management plan SWM-01-05.

**JCSA** 

During the design phase, a water model and a water and sewer master plan shall be required.

#### TRANSPORTATION IMPACTS:

No transportation improvements are recommended based on this proposed land use application. Updated traffic information was not modeled for this application, as proposed changes did not trigger the need for further study. The Colonial Heritage proffers include improvements on Richmond Road and Centerville Road. In the 2035 Comprehensive Plan, Centerville Road, from Longhill Road to Richmond Road, is recommended to be kept at 2-lanes, but should be watched for potential need for widening.

Jolly Pond Road (Cranston's Mill Pond Road to Centerville Road) is currently functioning at a LOS A. In 2034, this section of road is anticipated to be functioning at LOS B.

See attached sheet entitled Transportation Impacts LU-0003-2014.

#### STAFF RECOMMENDATION:

Staff recommends denial of the change in Land Use designation to Low Density Residential and against bringing this property inside the Primary Service Area.

#### **RATIONALE:**

The Deer Lake portion of the property was approved for a 50-acre residential cluster under the current A-1 zoning. At the time of the special use permit review, the initial evaluation of the cluster development did not identify undue environmental impacts that would suggest that public water and sewer was a necessity on this site.

If the PSA boundary is extended and the property becomes eligible for sewer and water service with a Low Density Residential designation, with a possible density of up to four dwelling units per acre could allow for rezoning the property to permit more intensive development.

Furthermore, extension of the PSA boundary could set a precedent for similarly situated properties, weakening the effectiveness of the PSA boundary as a tool for managing growth. Boundary changes to the PSA should be conditioned upon significant changes in development trends and patterns, significant changes in County policy, and projected community needs. The 50-lot rural cluster does not represent a new development trend or pattern and does not meet a currently unmet County need.

The central well requirement for major subdivisions outside the Primary Service Area has been an effective tool in the past, as it has represented a major deterrent to growth due to prohibitive costs. However, in recent years, a number of applications have come forward that propose central wells, including this 50-lot rural cluster. Allowing these subdivisions to connect to public water and sewer after they receive approval of a development with a central well, and removing this cost deterrent, may ultimately increase the amount of growth in rural lands.

As an alternative to this request to expand the PSA, the applicant was presented with the idea of requesting a waiver to the central well requirement, and they are currently investigating the feasibility. In one special circumstance in recent years, the director of the James City Service Authority consulted and received approval from the Board of Supervisors to allow a central well waiver for a development that provided exceptional design characteristics and provided for substantial environmental protection. This development provided 55% open space with a wildlife management plan, as well as a limit on the number of piers/docks to mitigate the impact on sensitive waterways (to name just a few of the benefits). Authority for allowing this waiver to the central well requirement can be found in section 19-59 of the Subdivision Ordinance.

#### **ATTACHMENTS:**

- 1. Location Map
- 2. Existing Land Use Designation Map
- 3. Proposed Land Use Designation Map
- 4. Applicant justification letter
- 5. Public comment
- 6. Transportation impacts evaluation

# SPECIAL USE PERMIT-0003-2015. Colonial Heritage Deer Lake Estates Utility Extension Staff Report for the November 10, 2015, Board of Supervisors Public Hearing

This staff report is prepared by the James City County Planning Division to provide information to the Planning Commission and Board of Supervisors to assist them in making a recommendation on this application. It may be useful to members of the general public interested in this application.

PUBLIC HEARINGS Building F Board Room; County Government Complex

Planning Commission: October 7, 2015, 7:00 p.m.
Board of Supervisors: November 10, 2015, 6:30 p.m.

**SUMMARY FACTS** 

Applicant: Mr. William Holt, Kaufman and Canoles

Land Owner: Colonial Heritage LLC

Proposal: Water facilities (public or private) and sewer facilities (public), including

transmission mains and associated equipment, are specially permitted uses in the A-1, General Agricultural, zoning district. If approved, this request would allow for the extension of public utilities to the subject property. The request would also amend the adopted conditions of Case No. SUP-0021-2004, eliminating the prohibition of public water and sewer to the subject property and changing the timing of the dedication

of a conservation easement.

Location: 499 Jolly Pond Road

Tax Map/Parcel No.: 2240100007

Parcel Size:  $\pm 725$  acres

Existing Zoning: A-1, General Agricultural, with proffers and MU, Mixed-Use, with

proffers

Comprehensive Plan: Low-Density Residential

Primary Service Area: Inside

#### **STAFF RECOMMENDATION**

Staff finds the proposal to be compatible with surrounding zoning and development and consistent with the 2035 Comprehensive Plan. Staff recommends that James City County Board of Supervisors approve this application subject to the conditions listed in the attached resolution.

Staff Contact: Roberta Sulouff, Planner Phone: 253-6783

#### PLANNING COMMISSION RECOMMENDATION

At its October 7, 2015 meeting, the Planning Commission recommended approval of this Special Use Permit (SUP) application and the proposed conditions by a vote of 7-0.

#### Proposed changes made since the Planning Commission meeting

None.

#### PROJECT HISTORY

On November 27, 2001, the Board of Supervisors approved rezoning and master plan applications (Case Nos. Z-4-00 and MP-1-01) for a 2,000-unit, age-restricted community known as Colonial Heritage at Williamsburg. In 2004 the applicant filed a rezoning application to incorporate the approximately 725-acre Boy Scouts of America property (BSA), into the existing Colonial Heritage at Williamsburg development. Additionally, the applicant received an SUP to allow for a 50-lot rural cluster development (SUP-21-04) on a portion of the BSA, which was then located outside of the Primary Service Area (PSA). Per the conditions of that SUP the rural cluster was to be served by a central well. The conditions also prohibited connections to James City Service Authority (JCSA) public facilities, as the property was located outside of the PSA at that time.

In 2015 as part of the Comprehensive Plan update process, the applicant filed a request to change the land use designation of the  $\pm 220$  acre, 50-lot rural cluster portion of the BSA property from Rural Lands to Low Density Residential. The applicant also requested an extension of the PSA to include the area of the 50-lot cluster into the PSA. The request was approved and the new land use designation and PSA lines were adopted by the Board of Supervisors as part of the 2035 Comprehensive Plan Land Use Map.

#### PROJECT DESCRIPTION

Mr. William Holt, of Kaufman and Canoles, has applied on behalf of Colonial Heritage LLC, to allow for the extension of approximately 7,500 linear feet of 8-inch sanitary sewer force main from the existing JCSA pump station located within Colonial Heritage, Section VI and an extension of approximately 6,660 linear feet of water main to connect the existing JCSA water main on Jolly Pond Road to an existing water main within Colonial Heritage. The subject area of the property is zoned A-1, General Agricultural, with proffers.

If approved, the application will also amend the adopted conditions of Case No. SUP-21-04 as more fully described below.

#### **Previous SUP Conditions Amended by the Approval of this Proposal**

The proposed conditions can be divided into three categories: several conditions of SUP-21-04 are being carried-over "as-is" (restated); a number of SUP-21-04 conditions have been amended, as referenced above; and several conditions have been added (new) specifically in reference to the extension, construction and operation of public facilities on the subject property.

In addition to the conditions which are carrying-over from the original, rural cluster SUP, conditions for the new specially permitted use (public water/sewer facilities) must address Board approved policies which were not in place during the application process for SUP-0021-2004. The Pedestrian Accommodations Map and the Regional Bicycle Facilities Plan, both of which were adopted and included as transportation resources in the 2035 Comprehensive Plan, indicate that a sidewalk and a shoulder bike lane are planned for the Jolly Pond Road frontage of the property. The provision of pedestrian accommodations along the Jolly Pond Road frontage is also a Zoning Ordinance requirement. As the development of this property occurs, staff has applied these policies and added conditions accordingly.

The conditions of this application would amend and restate the adopted conditions of the previously adopted SUP conditions for the 50-lot rural cluster (JCC Case No. SUP-21-04). The majority of changes amend the language of the conditions to more accurately describe the 50-lot rural cluster, specifically to reflect that it is now inside the PSA. Other principal changes are as follows:

- Condition No. 2, amended to adjust the timing of the dedication of a  $\pm 282$ -acre conservation easement to align with the final approval of any development plan at Deer Lake Estates.
- Condition No. 5, which originally prohibited connection of public utilities to the property, is to be replaced with a condition regarding the construction of public facilities, as is allowed and required by the Ordinance and the Comprehensive Plan now that the property is within the PSA.

• Condition No. 6, updated with the most current water conservation language used for the Colonial Heritage development as a whole.

#### SURROUNDING ZONING AND DEVELOPMENT

Colonial Heritage is located along Richmond Road across from the Williamsburg Pottery Factory and adjacent to the Colonial Towne Plaza shopping center. The Deer Lake portion of this development extends from the intersection of Jolly Pond Road and Centerville Road down Cranston's Mill Pond across the street from the School Operations Center. Adjacent properties are zoned A-1, General Agricultural; PL, Public Land (WJCC School Operations Center); and MU, Mixed-Use with proffers (Colonial Heritage).

#### **PUBLIC IMPACTS**

#### **Environmental**

Watershed: Yarmouth Creek

**Staff Comments**: The Engineering and Resource Protection (ERP) Division has reviewed the proposal and concurs with the conditions included in the attached resolution. Staff notes that the exact alignment of transmission lines will likely be subject to Chesapeake Bay Board review during the development plan review phase. The ERP staff notes that the dam embankment is currently undergoing remediation for seepage and that the Deer Lake dam is currently under a safety review by the Virginia Department of Conservation and Recreation.

#### **Public Utilities**

Given the recent adoption of the 2035 Comprehensive Plan, the site is now located inside the PSA. Section 19-59 of the Subdivision Ordinance states that major subdivisions within the PSA must connect to public water and sewer, thus the extension of public water and sewer facilities would conform to the utilities requirement in the Ordinance. Staff finds that this extension would also be in conformance with the Utility Policy as referenced in the 2035 Comprehensive Plan, which is discussed in more detail below. Staff also notes that the proposed utilities extensions would effectively create a more efficient "looped" water system, connecting with an existing main on Jolly Pond Road.

**Staff Comments:** The JCSA has reviewed the proposal and concurs with conditions included in the attached resolution.

#### **COMPREHENSIVE PLAN**

The subject property is designated Low Density Residential on the 2035 Comprehensive Plan Land Use Map and is located inside the PSA. The Utility Policy, referenced in the Land Use section of the 2035 Comprehensive Plan, states that "…inside the PSA, development is connected to public water and sewer, and new development must connect if it is a major residential subdivision or within 1,000 feet of a water or sewer main." The proposed condition amendments and utilities extension would bring the existing SUP and any future development within the area of the 50-lot rural cluster into conformance with the 2035 Comprehensive Plan.

#### RECOMMENDATION

Staff finds the proposal to be compatible with surrounding zoning and development and consistent with the 2035 Comprehensive Plan.

Staff recommends that James City County Board of Supervisors approve this application subject to the conditions listed in the attached resolution.

#### RS/nb SUP03-2015DeerLakeEstates

#### Attachments:

- 1. Resolution
- 2. Location Map
- 3. Unapproved Minutes of the October 7, 2015, Planning Commission Meeting
- 4. Adopted Conditions for James City County Case No. SUP-0021-2004, Boy Scout Property Rural Cluster
- 5. Exhibit Titled "Deer Lake Estates Utility Extension" dated September 17, 2015, by AES Consulting Engineers