

LH  
Comment  
7/11/05

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LH  
Comment  
9/13-105

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LH  
Comment  
3/14/06

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LH  
Comment  
7/14/06

MSA-5-1829-4565

Robert L. Ehrlich, Jr.  
Governor



Michael S. Steele  
Lt. Governor

Martin G. Madden  
Chairman

Ren Serey  
Executive Director

**STATE OF MARYLAND  
CRITICAL AREA COMMISSION  
CHESAPEAKE AND ATLANTIC COASTAL BAYS**

1804 West Street, Suite 100, Annapolis, Maryland 21401  
(410) 260-3460 Fax: (410) 974-5338  
[www.dnr.state.md.us/criticalarea/](http://www.dnr.state.md.us/criticalarea/)

July 14, 2006

Ms. Karen Llanes  
Office of Planning and Zoning  
2664 Riva Road, MS 6305  
Annapolis, Maryland 21401

Re: Bonney Property  
S 99-009, P 05-0022

Dear Ms. Llanes

This office has received a resubmittal for the above-referenced subdivision request. The applicant addressed the comments of my last letter dated March 8, 2006. I have outlined my remaining comments below.

1. The impervious surface chart on the plat has not been corrected. It should match the corrected impervious surface chart that appears on the Site, Utility, Sediment and Erosion Control Plan.
2. The total proposed impervious area listed on the impervious surface chart is 9,518 square feet; however on sheet 2 of 2 under the description of lot areas, the proposed impervious surface coverage total is listed as 9,293 square feet. These numbers need to match.
3. Since the amount of clearing on proposed lot 3 could change at the grading permit stage, we recommend that a note be added to the plat indicating the maximum allowable clearing, in order to avoid clearing above 30%.

Thank you for the opportunity to comment. Please telephone me at (410) 260-3478 if you have any questions.

Sincerely,

A handwritten signature in cursive script that reads "Lisa A. Hoerger".

Lisa A. Hoerger  
Natural Resources Planner

cc: AA 62-05

Robert L. Ehrlich, Jr.  
*Governor*

Michael S. Steele  
*Lt. Governor*



Martin G. Madden  
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March 8, 2006

Ms. Karen Llanes  
Anne Arundel County  
Office of Planning and Zoning  
2664 Riva Road, MS 6305  
Annapolis, Maryland 21401

Re: Bonney Property - S 99-009, P 05-022

Dear Ms. Llanes:

I have received another resubmittal for the above-referenced subdivision request. The applicant proposes to create a total of three lots in the Limited Development Area. It appears most of the comments of my last letter dated September 30, 2005 were addressed in the resubmittal. I have outlined my remaining comments below.

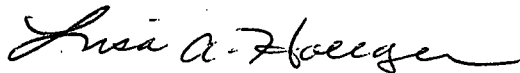
1. We note the applicant has amended the forest clearing information. Please have the applicant change the total proposed forest coverage to 29,959 square feet instead of 28,627 square feet. There appears to be an addition error.
2. The impervious coverage summary must be changed. While lots less than one acre are permitted up to 25% coverage, the total area of the subdivision is restricted to 15% impervious coverage. The table is misleading in that it lists each lot as having an allowable coverage up to 25%; however, if each future homeowner were to use their 25% allotment, the impervious coverage over the entire subdivision would exceed 15%. We recommend the applicant change the information in this summary so it is clear how much each lot is allotted to that the allowable impervious coverage column actually adds up to 10,764 square feet (15%).
3. The impervious coverage summary needs to include the impervious area created by the driveway.

Ms. Llanes  
March 8, 2006  
Page Two

4. It is unclear why the limits of clearing can change between the plat approval and the grading permit stage. Particularly on this site where there appears to be sufficient room on proposed lot 2 for a new dwelling so as to not affect clearing on this lot. In regard to proposed lot 3 it is equally unclear why the area shown as cleared may be changed.
5. In addition, it is unclear why the house sizes may change. If this is true, then the impervious coverage figures provided will not match what is approved at grading and ultimately developed on this site. This potential discrepancy needs to be resolved prior to final plat approval; otherwise if there are changes at the grading permit stage, they could be in violation of an approved plat.
6. We continue to recommend a replanting area be shown and put in an easement at the plat approval stage, and that this area provide a forest connection to off-site forested areas.

Thank you for the opportunity to comment. Please telephone me at (410) 260-3478 if you have any questions.

Sincerely,



Lisa A. Hoerger  
Natural Resources Planner

cc: AA 62-05

Robert L. Ehrlich, Jr.  
Governor

Michael S. Steele  
Lt. Governor



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September 30, 2005

Ms. Karen Llanes  
Anne Arundel County  
Office of Planning and Zoning  
2664 Riva Road, MS 6305  
Annapolis, Maryland 21401

Re: Bonney Property - S 99-009, P 05-022

Dear Ms. Llanes:

I have received the resubmittal for the above-referenced subdivision request. The applicant proposes to create a total of three lots in the Limited Development Area. It appears most of the comments of my last letter dated February 11, 2005 were addressed in the resubmittal. I have outlined my remaining comments below.

1. The total clearing allowed is still listed as .5 acres. It appears this number is being based on the total acreage of the site, rather than the existing forest area. From information provided in the previous submittal, the existing forest area is 40,616 square feet; therefore, 30% of the existing forest area would equal 12,185 square feet or .28 acres. Please have the applicant amend this figure.
2. We recommend a table be added to the final plat that indicates the allowable impervious area per lot and the proposed impervious area per lot.
3. We continue to recommend that the dwelling on proposed lot 3 be moved closer to the minimum 25-foot setback in order to minimize clearing.
4. There appears to be stormwater management measures located in the rear of lots 1 and 3. In the case of lot 3, this will necessitate additional clearing. Please have the applicant investigate alternative methods to treat stormwater on this lot without the need to clear. While this site may not be in a Bog Protection area, the more forested area that can be maintained the better water quality will be that leaves this site and drains towards the bog contributing drainage area.

Ms. Llanes  
September 30, 2005  
Page Two

5. We continue to recommend showing the forest easement area at the time of plat approval, rather than at the grading permit stage to ensure this requirement is approved by an environmental reviewer, and the proper amount of forest is retained on-site (70% of existing forest).
6. We also continue to recommend a replanting area be shown and put in an easement at the plat approval stage, and that this area provide a forest connection to off-site forested areas.

Thank you for the opportunity to comment. Please telephone me at (410) 260-3478 if you have any questions.

Sincerely,



Lisa A. Hoerger  
Natural Resources Planner

cc: AA 62-05

**Robert L. Ehrlich, Jr.**  
*Governor*

**Michael S. Steele**  
*Lt. Governor*



**Martin G. Madden**  
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February 11, 2005

Mr. Steve Callahan  
Anne Arundel County  
Office of Planning and Zoning  
2664 Riva Road, MS 6305  
Annapolis, Maryland 21401

Re: Bonney Property, Lot AR  
S 99-009, P 05-022

Dear Mr. Callahan:

I have received the above-referenced project for review and comment. The applicant proposes to create three lots from one existing lot in the Limited Development Area. I have outlined my comments below.

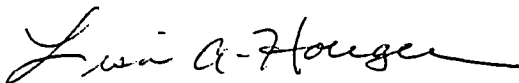
1. Please verify whether this subdivision is in a Bog Protection Area.
2. The proposed clearing exceeds 30%. It appears there is a 25-foot setback and the proposed dwelling is currently sited 50 feet from the road. In order to reduce clearing, we recommend that the proposed dwelling be sited closer to Ross Landing Road.
3. We recommend the remaining forested areas be placed in an easement. We also recommend that some replanting occur on-site on lots 1 and 2 where a connection can be made with remaining forested areas.
4. We recommend a note or table that indicates the total allowable impervious area for each lot. Please remind the applicant that the overall impervious area for the entire subdivision cannot exceed 15%, and any proposed sidewalks and accessory structures must be included.

Mr. Callahan  
February 11, 2005  
Page Two

5. We recommend the existing driveway on proposed lot 1 be labeled "to be removed".
6. What type of stormwater management is proposed for these lots?

Thank you for the opportunity to comment. Please telephone me if you have any questions at (410) 260-3478.

Sincerely,



Lisa A. Hoerger  
Natural Resources Planner

cc: AA 62-05



RECEIVED

P 05-022

FEB 2 2005

PERMIT APPLICATION CENTER

***CRITICAL AREA  
REPORT***

**Resubdivision of Lot AR – Bonney Property  
221 Cyrpass Creek Road  
Severna Park, MD**

January, 2005

Prepared by:  
Bay Engineering, Inc.  
190 Adm. Cochrane Dr. Ste175  
Annapolis, MD 21401

## INTRODUCTION

This site is a 75,069 square foot property that is located on the south side of Cypress Creek Road in Severna Park, MD. The proposed subdivision is a 3 lot minor subdivision and contains a single-family house and associated improvements. Public water and private septic will be utilized on site. The property is completely inside the Chesapeake Bay Critical Area Boundary and is designated as Limited Development Area (LDA). The property is zoned R-5.

## EXISTING USE

The property consists of 75,069 square foot located on Tax Map 32E, Block 1, Parcel 424. There is currently a dwelling on the site. Cypress Creek Road currently services the site, which is a paved and maintained county road with adequate drainage.

## SURROUNDING LAND USE

The properties that abut the site are developed as single-family lots. The general area is developed as single-family lots. The site is bounded by a developed property to the north, south, east and west. Ross Landing Road, a 40 foot wide private right-of-way serves as access to the Ross Landing Subdivision to the east.

## SOILS

The U.S. Department of Agriculture Soil Survey, dated 5/5/03, defines the property to have a soil type of CpB Collington-Wist-Urban land complex, 0-5 percent slopes, DwB Downer-Hammonton-Urban land complex, 0-5 percent slopes and TsC Tinton loamy sand, 5-10 percent slopes. A copy of the soils report is attached.

## FLOODPLAIN

The property is located on the Federal Emergency Management Agency Map (FEMA), panel 240008-0027 C dated May 2, 1983 and lies within zone C.

## NON-TIDAL WETLANDS

There are no Non Tidal Wetlands on the site.

## TIDAL WETLANDS

There are no Tidal Wetlands on this site.

## BODIES OF WATER

The site drains into Cypress Creek.

## STEEP SLOPES

The site has no steep slopes.

## RARE AND ENDANGERED SPECIES

A review of Federal and/or State listed species of rare, threatened or endangered species of plants or animals has been issued and a copy of this letter is attached..

## STORMWATER MANAGEMENT

Stormwater management will be provided as required at the time of permit.

## FOREST COVER

The existing forest cover is limited to over story trees which occur through a portion of the site. The under story consists of trees similar to the over story and green brier, as well as other invasive species.

The following are typical trees, which are present on site

<u>Common Name</u>	<u>Scientific Name</u>
American Beech	<i>Fagus grandifolia</i>
American Holly	<i>Ilex opaca</i>
Tulip Poplar	<i>Liriodendron tulipifera</i>
Mountain Laurel	<i>Kalmia latifolia</i>

## TYPICAL WILDLIFE

<u>Common Name</u>	<u>Scientific Name</u>
Eastern Gray Squirrel	<i>Sciurus Carolinensis</i>
Blue Jay	<i>Cyanocitta Cristata</i>
Common Crow	<i>Corvus Brachythynchos</i>
Northern Cardinal	<i>Richmondena Cardinalis</i>

## SITE CALCULATIONS

1. Total Site area.....75,069 sq. ft. 1.723 ac.
2. Site area in Critical area.....75,069 sq. ft. 1.723 ac.
3. Existing impervious area .....8,004 sq. ft. 0.183 ac.
4. Proposed Impervious area ...1,995 sq. ft. 0.0458 ac. (Lot 1)  
2,860 sq. ft. 0.0656 ac. (Lot 2)  
2,191 sq. ft. 0.0503 ac. (Lot 3)  
7,046 sq. ft. 0.1617 ac. Total
5. Total Impervious Coverage Allowed .....11,260 sq. ft. 0.258 ac.
7. Total Woodland....40,616 sq. ft. 0.9324 ac.
8. Total Woodland Removed ....14,373 sq. ft. 0.329 ac. *-3570*
9. Total Woodland Remaining.....22,728 sq. ft. 0.5217 ac. *24,243*
10. Proposed Disturbed Area.....23,821 sq. ft. 0.5468 ac.

## Soils Report

**Soil Survey:** Anne Arundel County, Maryland

**Survey Status:** Update

**Correlation Date:** 05/05/2003

**Distribution Date:** 04/12/2004

**Map**

Symbol	Soil Name	Rating
CpB	Collington-Wist-Urban land complex, 0 to 5 percent slopes	B
DwB	Downer-Hammonton- Urban land complex, 0 to 5 percent slopes	B
TsC	Tinton loamy sand, 5 to 10 percent slopes	A

**Map Unit:** *CpB Collington-Wist-Urban land complex, 0 to 5 percent slopes*

**Description Category:** *SOI*

**CpB--Collington-Wist-Urban Land Complex, 0 To 5 Percent Slopes**

Urban Land component makes up 35 percent of the map unit. The assigned Kw erodibility factor is .28. Available water capacity is very low and shrink swell potential is low. This soil is not flooded and is not ponded. The water table is deeper than 6 feet. There are no saline horizons. It is in nonirrigated land capability class 8s. This component is not a hydric soil.

Collington component makes up 25 percent of the map unit. The assigned Kw erodibility factor is .28. This soil is well drained. The slowest permeability within 60 inches is moderately slow. Available water capacity is very high and shrink swell potential is low. This soil is not flooded and is none ponded. The water table is deeper than 6 feet. There are no saline horizons. It is in nonirrigated land capability class 2e. This component is not a hydric soil.

Wist component makes up 25 percent of the map unit. The assigned Kw erodibility factor is .28. This soil is well drained. The slowest permeability within 60 inches is moderately slow. Available water capacity is very high and shrink swell potential is low. This soil is not flooded and is none ponded. The top of the seasonal high water table is at 56 inches. There are no saline horizons. It is in nonirrigated land capability class 2e. This component is not a hydric soil.

**Map Unit:** *DwB Downer-Hammonton-Urban land complex, 0 to 5 percent slopes*

**Description Category:** *SOI*

**DwB--Downer-Hammonton-Urban Land Complex, 0 To 5 Percent Slopes**

Downer component makes up 25 percent of the map unit. The assigned Kw erodibility factor is .32. This soil is well drained. The slowest permeability within 60 inches is moderate. Available water capacity is very high and shrink swell potential is low. This soil is not flooded and is not ponded. The water table is deeper than 6 feet. There are no saline horizons. It is in nonirrigated land capability class 2e. This component is not a hydric soil.

Urban Land component makes up 25 percent of the map unit. The assigned Kw erodibility factor is .28. Available water capacity is very low and shrink swell potential is low. This soil is not flooded and is not ponded. The water table is deeper than 6 feet. There are no saline horizons. It is in nonirrigated land capability class 8s. This component is not a hydric soil.

Hammonton component makes up 20 percent of the map unit. The assigned Kw erodibility factor is .32.

This soil is moderately well drained. The slowest permeability within 60 inches is moderate. Available water capacity is very high and shrink swell potential is low. This soil is not flooded and is not ponded. The top of the seasonal high water table is at 30 inches. There are no saline horizons. It is in nonirrigated land capability class 2w. This component is not a hydric soil.

**Map Unit: TsC Tinton loamy sand, 5 to 10 percent slopes**

**Description Category: SOI**

TsC--Tinton Loamy Sand, 5 To 10 Percent Slopes

Tinton component makes up 65 percent of the map unit. The assigned Kw erodibility factor is .20. This soil is well drained. The slowest permeability within 60 inches is moderate. Available water capacity is very high and shrink swell potential is low. This soil is not flooded and is not ponded. The water table is deeper than 6 feet. There are no saline horizons. It is in nonirrigated land capability class 3s. This component is not a hydric soil.



**Dedication by Owners**

James H. Anderson and Kristine N. Anderson, owners of the property shown and described herein, hereby adopt this plan of subdivision; establish the minimum building restriction lines and dedicate the streets, alleys, walkways and other easements, widening strips and floodplains, to public use; such lands to be deeded to Anne Arundel County or the State Highway Administration, as may be appropriate on request.

There are no suits, actions at law, leases, liens, mortgages, trusts easements, or rights-of-way affecting the property included in this plan of subdivision, and all parties in interest have hereto affixed their signatures indicating their willingness to join in this plan of subdivision.

Further, the requirements of Section 3-10B, the Real Property Article, Annotated Code of Maryland, 1996 replacement volume (as supplemented) and Article 26, Section 3-304 of the Anne Arundel County Code as far as they relate to the making of these plats and the setting of markers shall be complied with.

James H. Anderson \_\_\_\_\_ Date \_\_\_\_\_ Witness \_\_\_\_\_ Date \_\_\_\_\_  
 Kristine N. Anderson \_\_\_\_\_ Date \_\_\_\_\_ Witness \_\_\_\_\_ Date \_\_\_\_\_

**Private Non County Road**

Ross Landing Road is a 50 foot wide private right-of-way and is intended to provide access to and from lot 3 as well as Lots 3-B designated by the Ross Landing Subdivision and Lot BR as shown on the Bonney Property. The owners of these lots are responsible for maintenance of the roadways and are not eligible to receive County services provided to lot owners abutting county roads. Further subdivision or acceptance into the County road system may be accomplished only if the private roadways, are improved to County road standards at the lot owner's expense. See Private Road Maintenance Agreement recorded in Liber \_\_\_\_\_ Folio \_\_\_\_\_

**Private Access Easement**


The 30' Wide Private Access Easement is intended to provide access to and from Lots 1 & 2. The owners of these lots are responsible for maintenance of the roadways and are not eligible to receive County services provided to lot owners abutting county roads.

**Surveyor's Certificate**

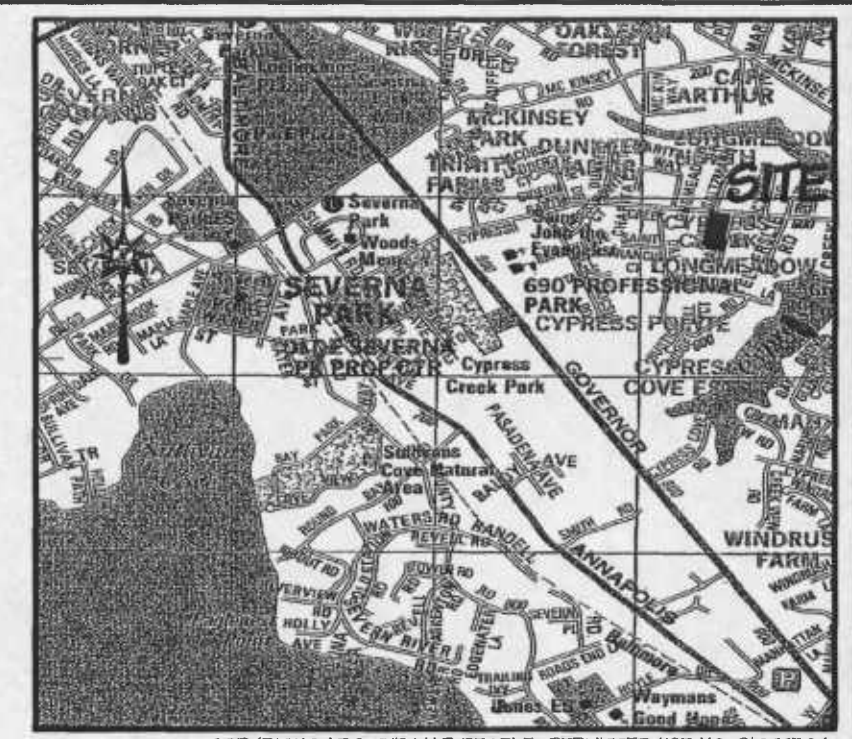
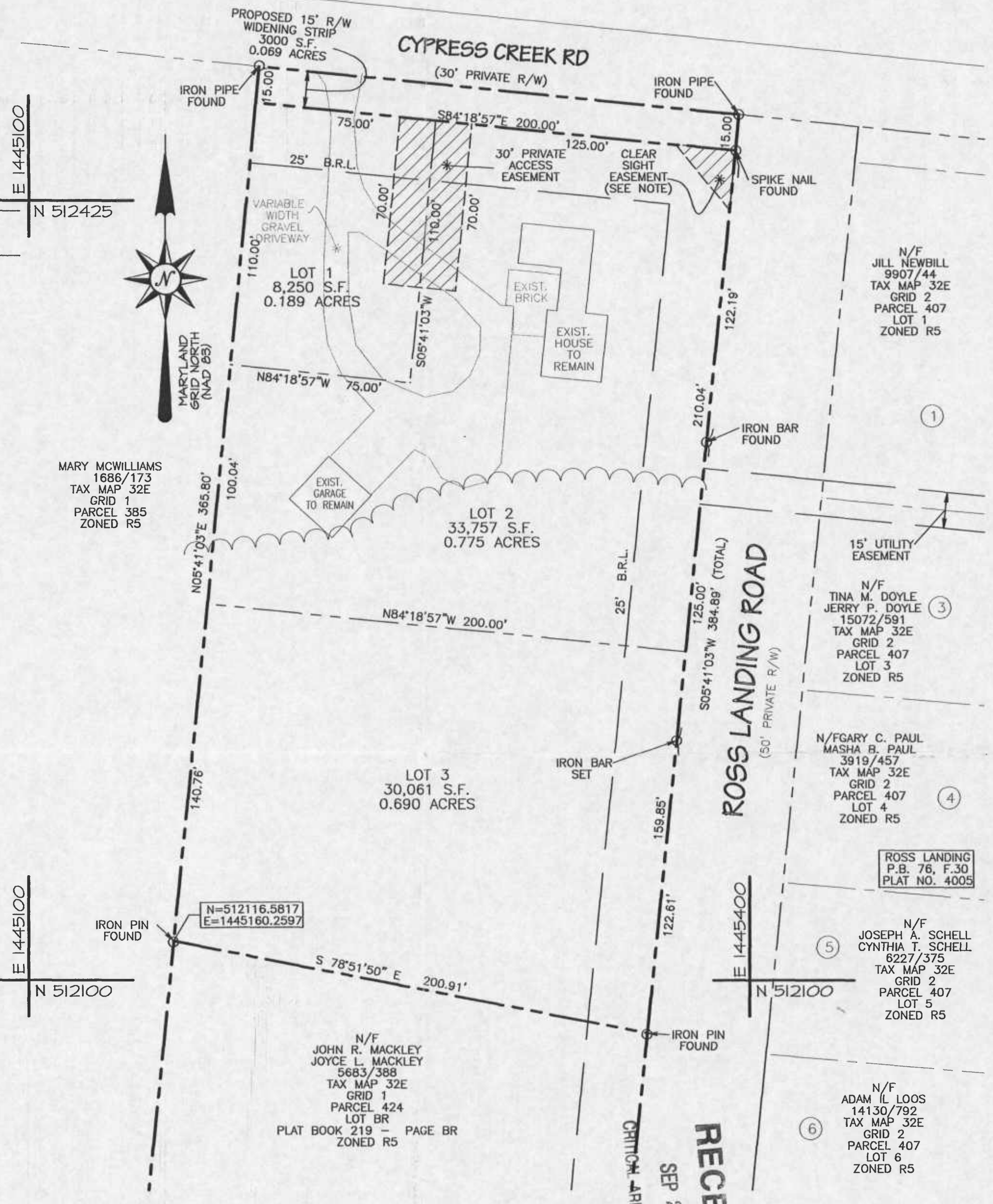
I hereby certify that this plat shown hereon is correct, that it represents a survey of the property by the surveyor and that it is a subdivision of all of the lands conveyed by:

Frederick H. Hallett, trustee of the Frederick H. Hallett Revocable Trust and Anne Marshall Hallett, trustee for the Anne Marshall Hallett Revocable Trust to James H. Anderson and Kristine N. Anderson by a deed dated June 24, 2004 and recorded among the Land Records of Anne Arundel County, Maryland in Liber 15083, Folio 225.

The requirements of Section 3-10B, the Real Property Article, Annotated Code of Maryland, 1996 replacement volume, (as supplemented) and Article 26, Sec. 3-304 of the Anne Arundel County Code as far as they relate to the making of these plats and setting of markers have been complied with.

Timothy J. Martin \_\_\_\_\_ Date 9/23/05  
 Professional Land Surveyor #10989  
 Bay Engineering Inc.  


James H. Anderson \_\_\_\_\_ Date \_\_\_\_\_  
 Kristine N. Anderson \_\_\_\_\_ Date \_\_\_\_\_



COPYRIGHT ADC THE MAP PEOPLE PERMITTED USE NO. 21041504

**Vicinity Map**  
1" = 2000'

**General Notes**

1. The purpose of this plat is to create two additional lots from Lot AR.
2. The property is shown on Anne Arundel County topographic sheet M-41.
3. The coordinates and bearings shown hereon are referred to the Maryland State Plane Coordinate System (NAD 83).
4. #221 House Number
5. The properties shown hereon are zoned R5. See Below for zoning setbacks.
6. OSD and Recreation Fees have been paid on (CR#).
7. The existing driveway on Lot 1 will need to be removed prior to the issuance of any permits for any of the lots being created with this plat.
8. The clear sight easement must remain unimproved and no vegetation can block vehicular sight distances.

**Stormwater Management Note**

Stormwater Management for this project shall be provided in accordance with Article 21, Title 3 of the Anne Arundel County Ordinance, and approved plans on file with the Office of Planning and Zoning. In accordance with the requirements of Article 21, Section 3-305(b), Anne Arundel County Code, an Inspection and Maintenance Agreement shall be executed with Anne Arundel County before a building or grading permit is issued.

Area Tabulations		
LOT 1	8,250 S.F.	0.189 AC.
LOT 2	33,757 S.F.	0.775 AC.
LOT 3	30,061 S.F.	0.690 AC.
15' WIDENING	3000 S.F.	0.069 AC.
<b>TOTAL</b>	<b>75,069 S.F.</b>	<b>1.723 AC.</b>

**Yards and Setbacks**

R5 ZONING  
 Yards (Principle Structure)  
 Front - 25' minimum  
 Side - 7' minimum/20' combined  
 Rear - 20' minimum

**Critical Area Note**

This site is located entirely within the LDA, designation of the Critical Area and will be subject to all Critical Area requirements in effect at the time of grading and/or building permit.

**Widening Strip Note**

The right-of-way widening strip indicated hereon is intended to be deeded and recorded herewith in Liber \_\_\_\_\_, Folio \_\_\_\_\_. If accompanying deed is not recorded, this plat shall be null and void.

	ALLOWED	ACTUAL
CLEARING	30% (0.5 AC.)	29% (0.48 ac.)
IMPERVIOUS COVERAGE	15% (0.25 AC)	14.8% (0.245 AC)

	ALLOWED	ACTUAL
CLEARING	30% (0.5 AC.)	29% (0.48 ac.)
IMPERVIOUS COVERAGE	15% (0.25 AC)	14.8% (0.245 AC)

APPROVED: ANNE ARUNDEL COUNTY, MARYLAND  
 OFFICE OF PLANNING AND ZONING

JOSEPH RUTTER, OFFICER \_\_\_\_\_ DATE \_\_\_\_\_  
 PLANNING AND ZONING, AND ALSO FOR  
 THE HEALTH OFFICER, DEPARTMENT OF HEALTH  
 (PUBLIC SYSTEMS AVAILABLE)

RECEIVED  
 SEP 27 2005  
 PLANNING AND ZONING  
 DEVELOPMENT  
 05-022  
 A RESUBDIVISION OF LOT AR  
**BONNEY PROPERTY**  
 SUB.# 1999-09 PROJ.# 2005-22  
 TAX MAP 32E ~ BLOCK 1 ~ PARCEL 424  
 1" = 40'  
 JANUARY 2005  
 Zip Code: 21146  
 DRAWN BY: D. MILLER  
 THIRD DISTRICT ~ A.A. Co. MARYLAND

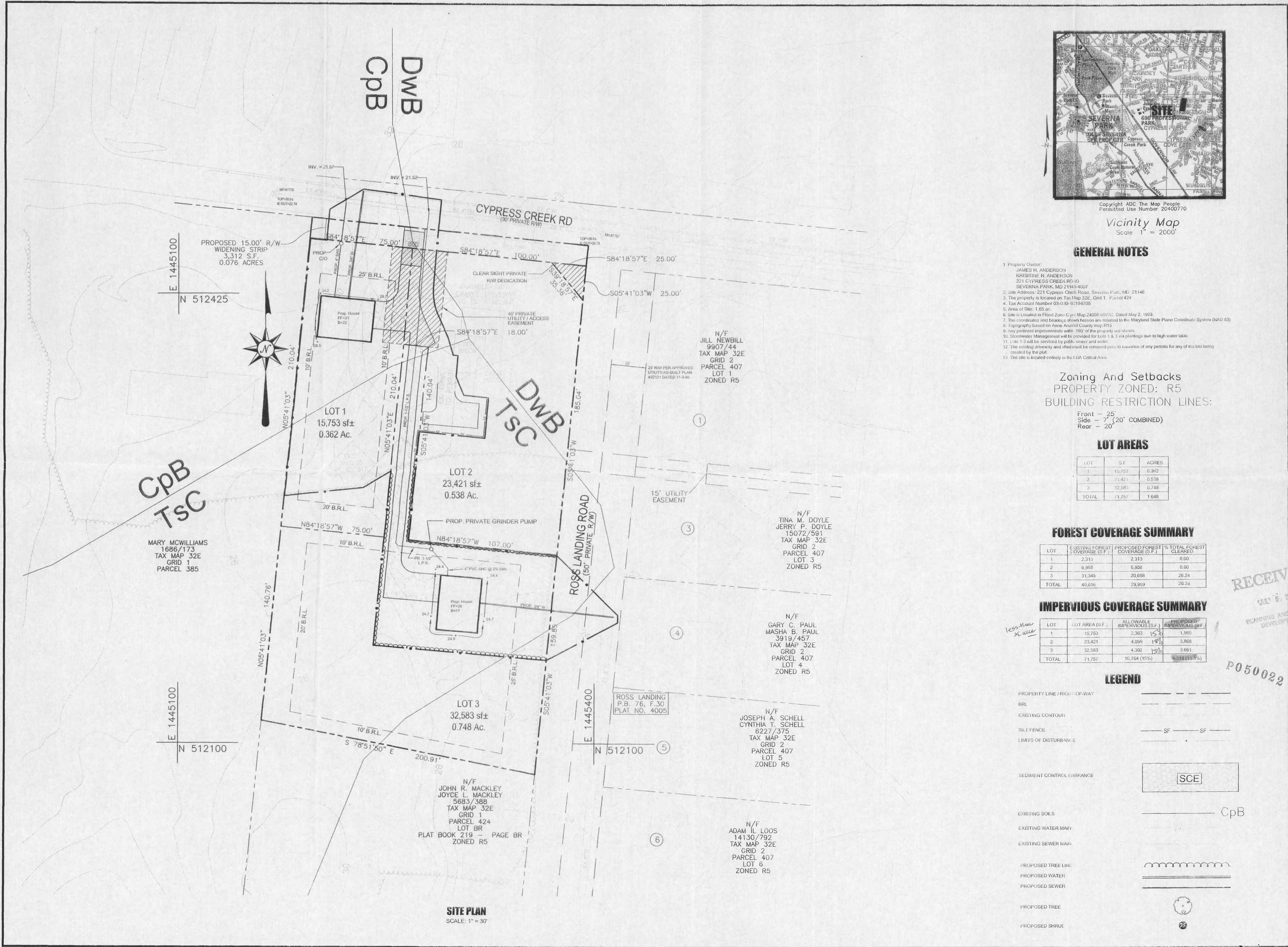
**Bay Engineering Inc.**  
 Engineers, Planners and Surveyors  
 190 Admiral Cochrane Drive, Suite 175  
 Annapolis, Maryland 21401  
 410.897.9290  
 410.897.9295 fax  
 email: info@bayengineering.com

**Previously Recorded Plat Note**  
 This site was previously recorded under M5 1999-009 in Plat Book 219, Page 26 and is subject to all previous plat notes unless said notes have been superseded by a subsequent plat including this plat.

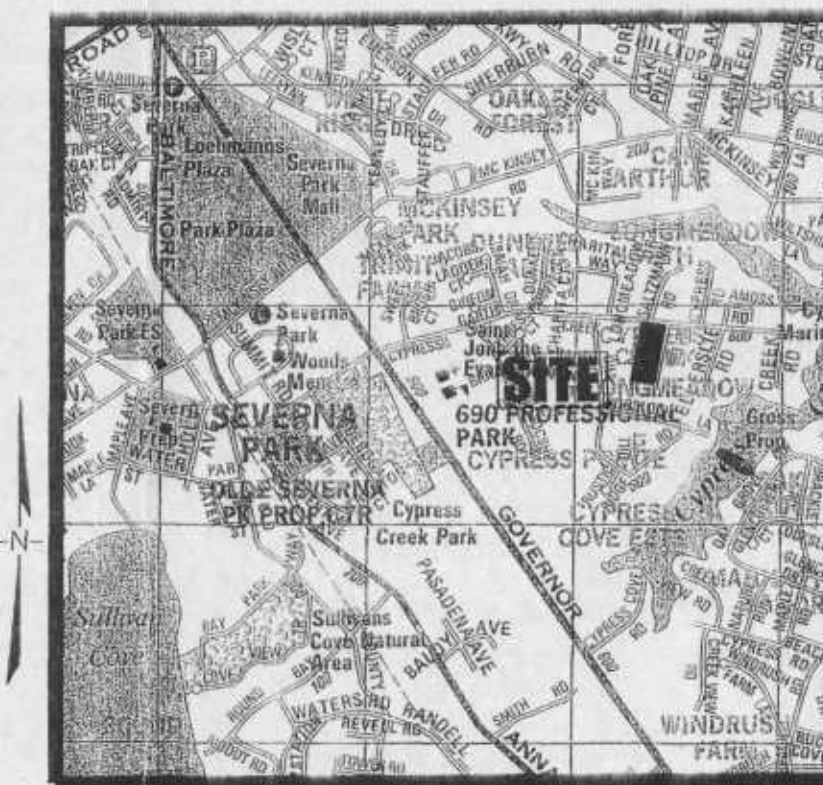
RECORDED IN BOOK \_\_\_\_\_ PAGE \_\_\_\_\_ PLAT NO. \_\_\_\_\_



PLOTTED: Jun 28, 2006 - 5:45pm



**SITE PLAN**  
SCALE: 1" = 30'



Copyright ADC The Map People  
Permitted Use Number 20400770  
**Vicinity Map**  
Scale 1" = 2000'

**GENERAL NOTES**

1. Property Owner:  
JAMES H. ANDERSON  
KRISTINE N. ANDERSON  
221 CYPRESS CREEK RD. LD  
SEVERNA PARK, MD 21145-4007
2. Site Address: 221 Cypress Creek Road, Severna Park, MD 21146
3. The property is located on Tax Map 32E, Grid 1, Parcel 424
4. Tax Account Number 03-039-02949705
5. Area of Site: 1.65 ac.
6. Site is Located in Flood Zone C<sub>1</sub> Map 24008-0027C. Dated May 2, 1983.
7. The coordinates and bearings shown hereon are referred to the Maryland State Plane Coordinate System (NAD 83)
8. Topography based on Anne Arundel County map R13
9. Any permanent improvements within 100' of the property set shown.
10. Stormwater Management will be provided for Lots 1 & 3 via plantings due to high water table.
11. Lots 1-3 will be serviced by public sewer and water.
12. The existing driveway and shed must be removed prior to issuance of any permits for any of the lots being created by the plat.
13. The site is located entirely in the LDA Critical Area.

**Zoning And Setbacks**  
PROPERTY ZONED: R5  
BUILDING RESTRICTION LINES:

- Front - 25'
- Side - 7' (20' COMBINED)
- Rear - 20'

**LOT AREAS**

LOT	S.F.	ACRES
1	15,753	0.362
2	23,421	0.538
3	32,583	0.748
<b>TOTAL</b>	<b>71,757</b>	<b>1.648</b>

**FOREST COVERAGE SUMMARY**

LOT	EXISTING FOREST COVERAGE (S.F.)	PROPOSED FOREST COVERAGE (S.F.)	% TOTAL FOREST CLEARED
1	2,313	2,313	0.00
2	6,958	6,958	0.00
3	31,345	20,688	26.24
<b>TOTAL</b>	<b>40,616</b>	<b>29,959</b>	<b>26.24</b>

**IMPERVIOUS COVERAGE SUMMARY**

LOT	LOT AREA (S.F.)	ALLOWABLE IMPERVIOUS (S.F.)	PROPOSED IMPERVIOUS (S.F.)
1	15,753	2,383 (15%)	1,989
2	23,421	4,099 (18%)	3,868
3	32,583	4,302 (13%)	3,661
<b>TOTAL</b>	<b>71,757</b>	<b>10,784 (15%)</b>	<b>9,518 (13%)</b>

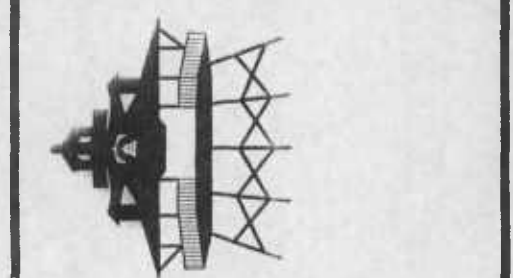
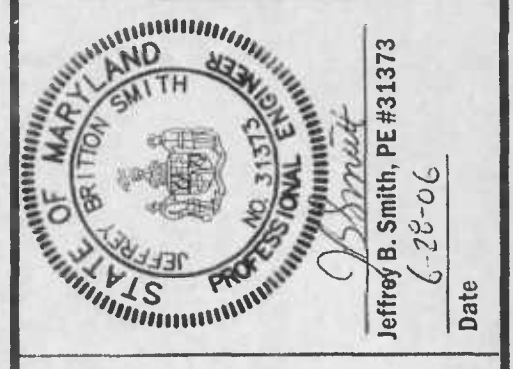
**LEGEND**

- PROPERTY LINE / RIGHT-OF-WAY: - - - - -
- BRL: - - - - -
- EXISTING CONTOUR: ~ ~ ~ ~ ~
- SILT FENCE: SF - - - - SF
- LIMITS OF DISTURBANCE: - - - - -
- SEDIMENT CONTROL ENTRANCE: [SCE]
- EXISTING SOILS: CpB
- EXISTING WATER MAIN: - - - - -
- EXISTING SEWER MAIN: - - - - -
- PROPOSED TREE LINE: - - - - -
- PROPOSED WATER: - - - - -
- PROPOSED SEWER: - - - - -
- PROPOSED TREE: [Tree Symbol]
- PROPOSED SHRUB: [Shrub Symbol]

**REVISIONS**

Rev. #	By	Date

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CRITICAL AREA PERMITTING  
Chesapeake & Atlantic Coastal Bays



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Date: SEPT 2005  
Job Number: 04-1201  
Scale: 1" = 30'  
Drawn By: JS  
Designed By: JS  
Approved By: JS  
Folder Reference: ROCCO ROSS LANDING

SITE, UTILITY, SEDIMENT AND EROSION CONTROL PLAN  
OF THE FINAL PLAN FOR  
**RESUBDIVISION OF LOT AR  
BONNEY PROPERTY**  
TAX MAP 32E, GRID 1 & PARCEL 424  
221 CYPRESS CREEK ROAD, SEVERNA PARK 21146  
SUBDIVISION #1999-0009 PROJECT #2005-022  
DISTRICT 03 ANNE ARUNDEL COUNTY

Sheet No. **1 OF 2**  
File No.

Cadd File: F:\Bailey-Ross Landing 04-1201\Drawing Files\G01.dwg  
SITE - Xrefs / Images



### Stormwater Management Note

Private on-site stormwater management systems and/or alternate best Management Practices shall be provided for future development of Lots 1, 2, & 3, in accordance with Article 21, Title 3 of the Anne Arundel County Code. Lot 2 has an existing house which will remain. No improvements are proposed to Lot 2 and therefore no SWM is required. The developer/owner shall be responsible for the execution of a private maintenance agreement prior to the approval of any grading or building permits. A grading permit may be required for lots with private individual systems as determined by the Office of Planning and Zoning Application Center. For the proposed development shown hereon, the following SWM Notes are proposed.

#### Stormwater Management Summary Note:

- Due to existing site conditions (i.e. topography, high water table, etc.), the Water Quality Volume (WQv) and Recharge Volume (Rev) for Lots 1 and 3 are being managed via plantings. Plantings will be installed at a rate of 1 tree and three shrubs per 400 sq. ft. of impervious coverage.
- The Channel Protection Volume (Cpv) is not required for development of this site as the runoff for the 1 year storm event is less than 2 c.f.s.
- Overbank Flood Protection (Op) is not required as the development of the site does not increase the discharge, velocity or water surface elevation of the existing outfall to Ross Landing Road by greater than 10%.
- The Extreme Flood Volume (Qf) is not required as there is no evidence of flooding downstream of the project, and the project is not located in a floodplain. The increase in the 100-year runoff is insignificant in relationship to the 100-year runoff event.

### S.W.M. RECORD DRAWING CERTIFICATION

TO THE BEST OF MY KNOWLEDGE AND BELIEF THE RECORD DRAWING DATA SHOWN WAS CONSTRUCTED PER ANNE ARUNDEL COUNTY STANDARDS. THE LOCATIONS AND SPECIFICATIONS SHOWN ARE BASED ON A FIELD INSPECTION CONDUCTED ON

JEFFREY B. SMITH, P.E. #31373

DATE

### POST DEVELOPMENT OWNERS/DEVELOPER STABILIZATION CERTIFICATION

"ALL GRADING, DRAINAGE STRUCTURES AND/OR SYSTEMS, EROSION AND SEDIMENT CONTROL PRACTICES INCLUDING FACILITIES AND VEGETATIVE MEASURES HAVE BEEN COMPLETED IN CONFORMANCE WITH THE APPROVED PLANS AND SPECIFICATIONS."

OWNER/DEVELOPER

DATE

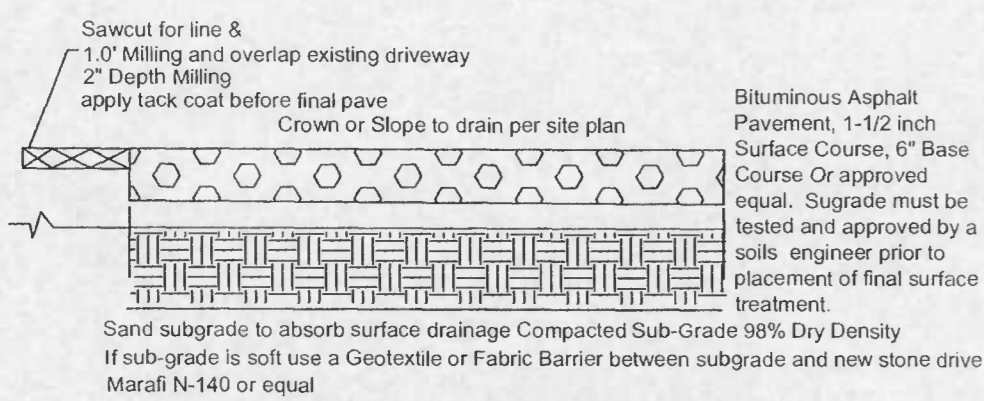
### Outfall Statement

This is to certify that a field investigation has been made to the outfall of this project. The site currently outfalls to Ross Landing Road and ultimately discharges to Cypress Creek. The tributary outfall is currently in a stable state and no erosion or sedimentation will occur as a result of the development.

### PLANTING SCHEDULE

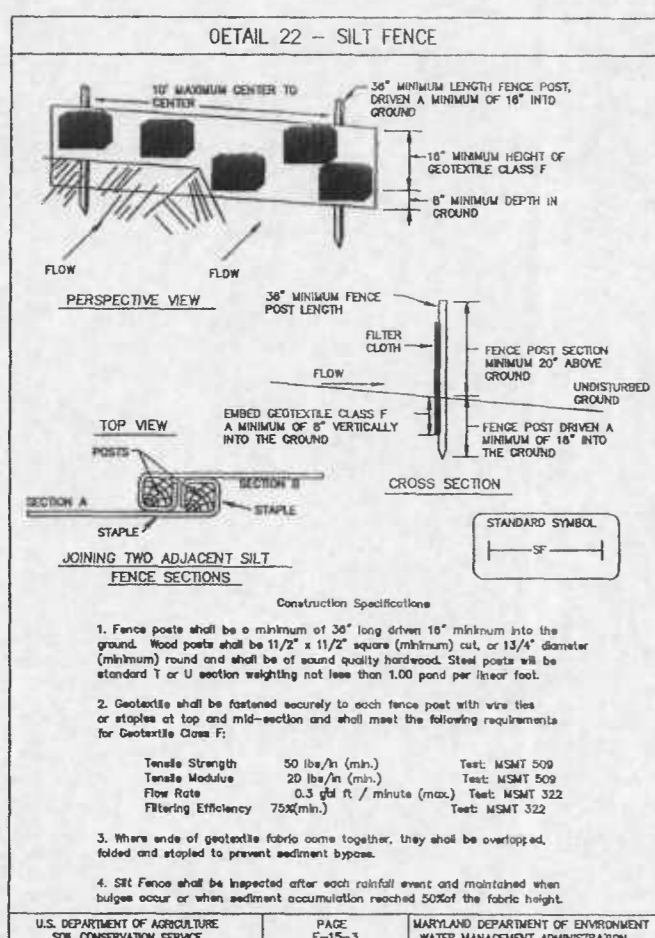
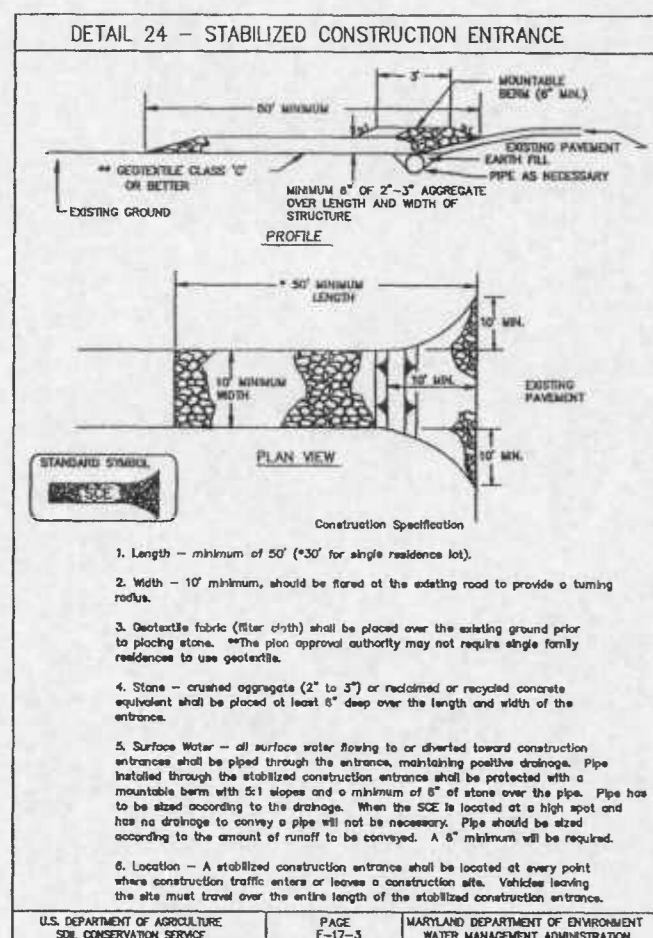
KEY	BOTANICAL NAME	COMMON NAME	QTY	SIZE	CONT.	SPACING
<b>TREES:</b>						
AR	ACER RUBRUM	OCTOBER GLORY	0	2-1/2" CAL.	8.8B	15' O.C.
QP	QUERCUS PHELLOS	WILLOW OAK	15	2-1/2" CAL.	8.8B	15' O.C.
<b>SHRUBS:</b>						
CA	CLETHRA ALNIFOLIA	SUMMERSWEET	0	24"-30"	5-GALLON	
IG	ILEX GLABRA	INKBERRY	0	24"-30"	5-GALLON	4' O.C.
MP	MYRTA PENNSYLVANICA	BAYBERRY	45	24"-30"	5-GALLON	5'-6" O.C.
AM	ARONIA MELANOCARPA	BLACK CHOKEBERRY	0	24"-30"	5-GALLON	5' O.C.

DISTRIBUTION AND LOCATIONS OF PLANTING TO BE DETERMINED BY OWNER AND A.A.Co. AT TIME OF BOND PAYMENT.



### DRIVEWAY PAVING SECTION:

OR APPROVED EQUAL FOR MATERIALS AND DEPTH  
No Scale:



### SWM Computations for Lots 1 and 3

#### Calculation of Peak Discharge for Water Quality (Lot 1)

$$I = \text{Imp}/A$$

$$I = 0.084 / 0.362$$

$$I = 12.71\%$$

Where: Imp = Impervious coverage  
A = Site Area 0.362 ac.  
I = Percent Impervious

$$Rv = 0.05 + 0.009(I)$$

$$Rv = 0.05 + 0.009(12.71\%)$$

$$Rv = 0.1644$$

$$WQv = (P)(Rv)(A)(12 \text{ in acre/ft})$$

$$WQv = (1.0)(0.1644)(0.362)(12)$$

$$WQv = 0.00456 \text{ acre/ft} \times 43560 \text{ s.f.}$$

$$WQv = 216 \text{ c.f.}$$

Where: WQv = water quality volume in acre/ft  
A = Site Area 0.362 ac.  
P = 1.0 inch of rainfall  
Rv = 0.1644

#### Calculation of Recharge Volume

$$Rev = (S)(Rv)(A)(12 \text{ in acre/ft})$$

$$Rev = (0.35)(0.1644)(0.362)(12)$$

$$Rev = 0.0074 \text{ acre/ft} \times 43560 \text{ s.f.}$$

$$Rev = 322 \text{ c.f.}$$

Where: Rev = Recharge Volume  
S = Soil Permeability for Site Soils  
A = Site Area

\* Soil specific recharge factor (S) calculated by percentage of HSG in lot area

#### Calculation of Peak Discharge for Water Quality (Lot 3)

$$I = \text{Imp}/A$$

$$I = 0.084 / 0.784$$

$$I = 10.71\%$$

Where: Imp = Impervious coverage  
A = Site Area 0.784 ac.  
I = Percent Impervious

$$Rv = 0.05 + 0.009(I)$$

$$Rv = 0.05 + 0.009(10.71\%)$$

$$Rv = 0.1464$$

$$WQv = (P)(Rv)(A)(12 \text{ in acre/ft})$$

$$WQv = (1.0)(0.1464)(0.784)(12)$$

$$WQv = 0.00856 \text{ acre/ft} \times 43560 \text{ s.f.}$$

$$WQv = 417 \text{ c.f.}$$

Where: WQv = water quality volume in acre/ft  
A = Site Area 0.784 ac.  
P = 1.0 inch of rainfall  
Rv = 0.1464

#### Calculation of Recharge Volume

$$Rev = (S)(Rv)(A)(12 \text{ in acre/ft})$$

$$Rev = (0.39)(0.1464)(0.784)(12)$$

$$Rev = 0.00373 \text{ acre/ft} \times 43560 \text{ s.f.}$$

$$Rev = 162 \text{ c.f.}$$

Where: Rev = Recharge Volume  
S = Soil Permeability for Site Soils  
A = Site Area

\* Soil specific recharge factor (S) calculated by percentage of HSG in lot area

### Cpv Calculations for the Entire Site

#### Channel Protection Volume Computations

$$I = \text{Imp}/A$$

$$I = 0.213 / 1.647$$

$$I = 12.93\%$$

Where: Imp = Impervious coverage  
A = Site Area 1.647 ac.  
I = Percent Impervious

$$Rv = 0.05 + 0.009(I)$$

$$Rv = 0.05 + 0.009(12.93\%)$$

$$Rv = 0.1664$$

$$WQv = (P)(Rv)(A)(12 \text{ in acre/ft})$$

$$WQv = (1.0)(0.1664)(1.647)(12)$$

$$WQv = 0.00956 \text{ acre/ft} \times 43560 \text{ s.f.}$$

$$WQv = 417 \text{ c.f.}$$

Where: WQv = water quality volume in acre/ft  
A = Site Area 1.647 ac.  
P = 1.0 inch of rainfall  
Rv = 0.1664

#### Developed Conditions Peak Discharge Computation

Where: Qp =  $q_u \times A \times C_u$   
A = 1.647 ac. (0.002573 sq.m.)  
Q = 0.449 watershed inches per 740 acres  
I = 8.4 in (0.14 hr)  
I = (200CN) / (2 - 0.985 I)  
I = 0.365

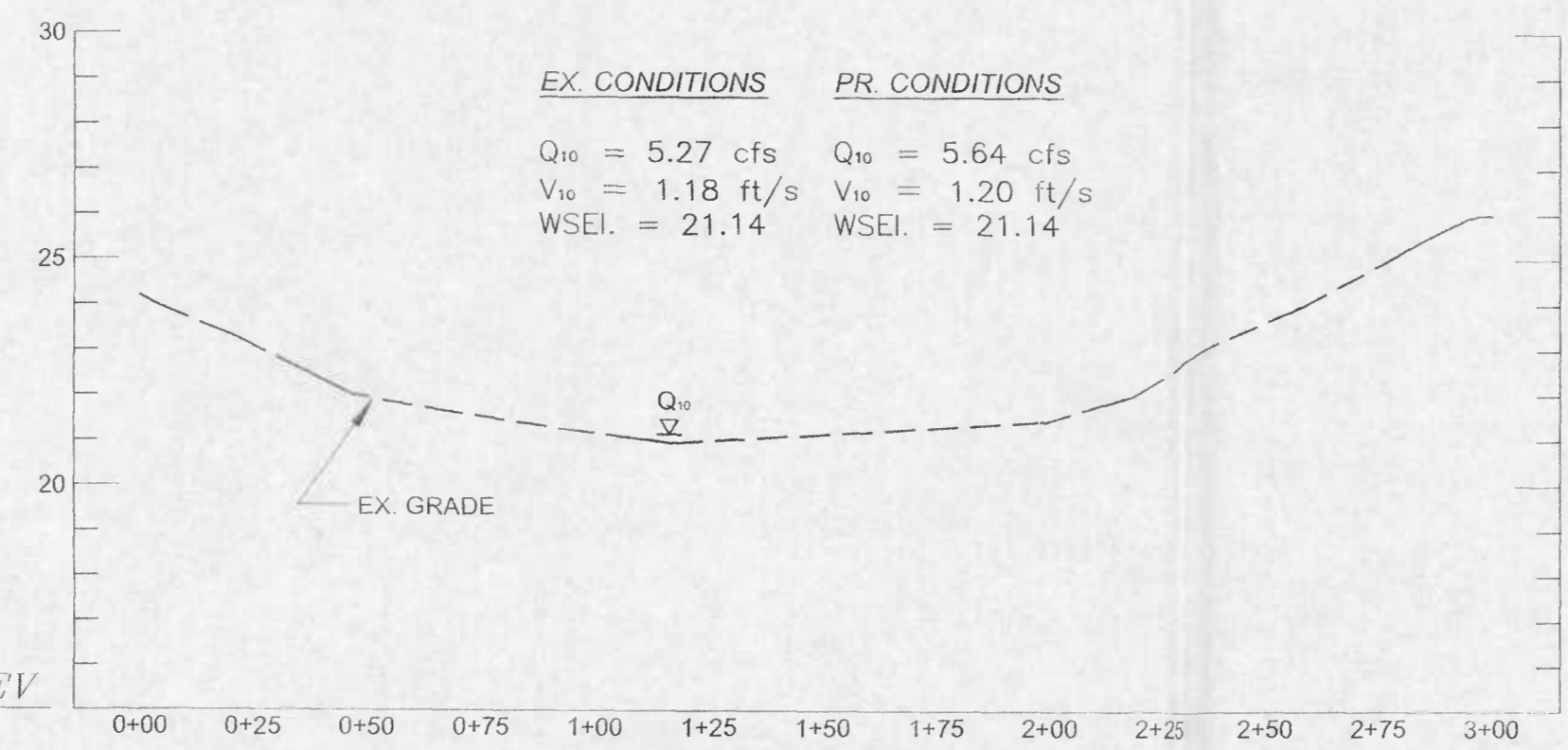
Qp = 760 x 0.002573 x 0.449  
Qp = 0.86 cfs

Channel Protection Volume is not required due to 1 year storm runoff less than 2 cfs.

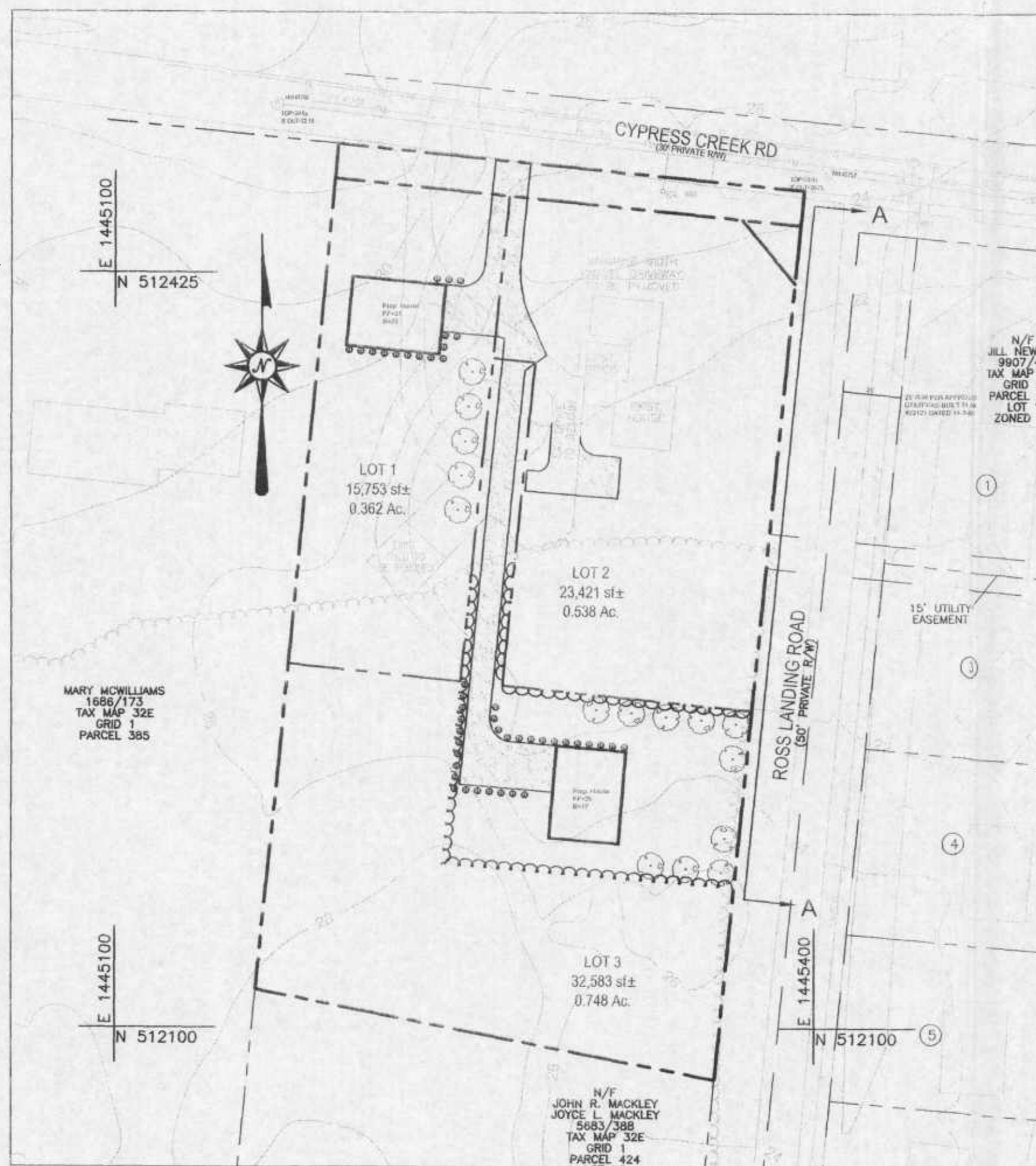
### SEQUENCE OF CONSTRUCTION

#### SEQUENCE OF CONSTRUCTION PERTAINS TO DEVELOPMENT OF BOTH LOTS

- CONTRACTOR/DEVELOPER TO CONTACT THE DEPARTMENT OF INSPECTIONS & PERMITS AT 222-7780 48 HOURS PRIOR TO THE START OF CONSTRUCTION. WITH INSPECTOR'S APPROVAL WORK MAY BEGIN. ... 2 DAYS
  - INSTALL SCE AND SILT FENCE AS INDICATED. ... 1 WEEK
  - EXCAVATE FOR FOOTERS AND FOUNDATION BEGIN HOUSE CONSTRUCTION AND EARTHWORK. ... 2 MONTHS
  - INSTALL ALL UTILITIES INCLUDING SEWER & WATER LINES & SWM SYSTEM. ... 1 MONTH
  - FINISH CONSTRUCTION OF HOUSE. ... 3 MONTHS
  - FINE GRADE SITE. ... 2 DAYS
  - STABILIZE ALL DISTURBED AREAS WITH SEED AND MULCH AS INDICATED. WITH INSPECTOR'S APPROVAL REMOVE ANY REMAINING SEDIMENT CONTROL DEVICES. ... 2 DAYS
  - FINAL CLEAN-UP AND MAINTENANCE. ... 2 DAYS
- \*\* TASKS 3-6 CAN BE DONE CONCURRENTLY WITH INSPECTOR APPROVAL
- \* UTILITY NOTE: DISTURB ONLY THAT AREA THAT CAN BE BACKFILLED AND STABILIZED IN ONE WORKING DAY

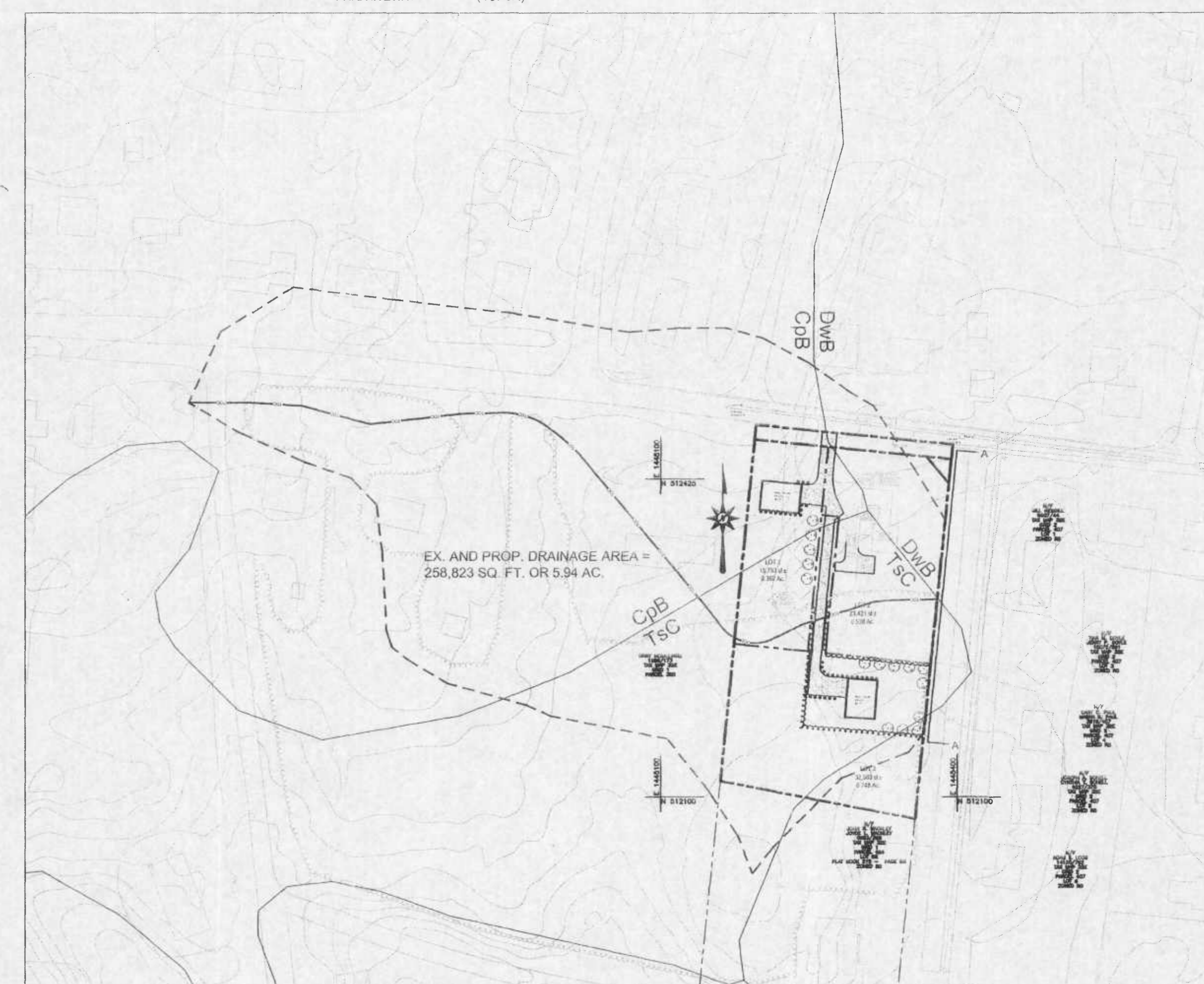


SECTION "A-A"  
EXISTING OUTFALL TO ROSS LANDING ROAD  
SCALE: 1" = 40' HORIZONTAL AND 1" = 4' VERTICAL



PROP. SWM PLANTING PLAN

SCALE: 1" = 40'



EX. AND PROP. DRAINAGE AREA TO ROSS LANDING ROAD

SCALE: 1" = 50'

MINIMUM SIZING CRITERIA	LOT	VOLUME REQUIRED	VOLUME PROVIDED	SWM PRACTICE	CREDITS	NOTES
Water Quality Volume - WQv	Lot 1	216 cf	216 cf	SWM Plantings		PLANTINGS TO BE INSTALLED AT 1 TREE AND 3 SHRUBS PER 400 SQ. FT. OF IMPERVIOUS COVERAGE
	Lot 2	N/A	N/A	N/A		
	Lot 3	417 cf	417 cf	SWM Plantings		
Recharge Volume - Rev	Total	633 cf	633 cf			REV IS INCLUDED IN THE WQV
	Lot 1	76 cf	76 cf	SWM Plantings		
	Lot 2	N/A	N/A	N/A		
Channel Protection Volume - Cpv	Lot 1	N/A	N/A	N/A		POST-DEVELOPMENT PEAK DISCHARGE IS LESS THAN 2 CFS
	Lot 2	N/A	N/A	N/A		
	Lot 3	N/A	N/A	N/A		
Overbank Flood Protection Volume - Op10	Lot 1	N/A	N/A	N/A		DEVELOPMENT WILL CAUSE MINIMAL INCREASE IN DISCHARGE TO ROSS LANDING ROAD. MANAGEMENT OF OVERBANK FLOOD PROTECTION NOT REQUIRED.
	Lot 2	N/A	N/A	N/A		
	Lot 3	N/A	N/A	N/A		
Extreme Flood Volume - Qf	Total	N/A	N/A	N/A		NO DOWNSTREAM EROSION OR SEDIMENTATION AS A RESULT OF THE PROPOSED DEVELOPMENT
	Lot 1	N/A	N/A	N/A		
	Lot 2	N/A	N/A	N/A		

### DESCRIPTION

EXISTING LOT AREA ...

NOTE: 1. BREAKDOWN OF PROPOSED IMPERVIOUS AREAS ARE AS FOLLOWS:

SITE PLAN TABULATIONS:  
TOTAL SITE AREA: 71,757 SF OR 1.647 ACRES  
TOTAL EXISTING WOODLAND COVERAGE: 40,816 SF OR 0.932 ACRES  
TOTAL DISTURBED AREA: 33,994 SF OR 0.780 ACRES  
PROPOSED IMPERVIOUS COVERAGE TOTAL IS 258,823 SF OR 5.94 ACRES (12.95% OF SITE AREA)  
AREA TO BE STRUCTURALLY STABILIZED: 9,239 SF OR 0.213 ACRES  
AREA TO BE VEGETATIVELY STABILIZED: 24,701 SF OR 0.567 ACRES

LOT 1 (TOTAL AREA = 15,753 SF OR 0.362 ACRES)

EXISTING IMPERVIOUS COVERAGE TOTAL IS: 3,166 SF OR 0.073 ACRES

EX. DRIVEWAY (2,589 SF)

PROPOSED IMPERVIOUS COVERAGE IS 1,989 SF OR 0.046 ACRES

PR. HOUSE (1,200 SF)

PR. DRIVEWAY (789 SF)

### AREA

71,757 SQ. FT. OR 1.647 ACRES ±

LOT 2 (TOTAL AREA = 23,421 SF OR 0.538 ACRES)

EXISTING IMPERVIOUS COVERAGE TOTAL IS: 3,643 SF OR 0.084 ACRES

EX. DRIVEWAY (1,721 SF)

EX. HOUSE / PATIO (1,922 SF)

TOTAL EXISTING WOODLAND COVERAGE: 33,868 SF OR 0.089 ACRES

PR. DRIVE (1,946 SF)

EX. HOUSE / PATIO (1,922 SF)

LOT 3 (TOTAL AREA = 32,283 SF OR 0.748 ACRES)

EXISTING IMPERVIOUS COVERAGE TOTAL IS: 521 SF OR 0.012 ACRES

EX. DRIVEWAY (521 SF)

PROPOSED IMPERVIOUS COVERAGE IS 3,661 SF OR 0.084 ACRES

PR. HOUSE (1,200 SF)

PR. DRIVEWAY (2,461 SF)

REVISIONS

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JUL 7 2006  
CRITICAL AREA COMMISSION  
Chesapeake & Annapolis Coastal Bays

DATE

JEFFREY B. SMITH, P.E. #31373  
6-28-06

DATE

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Date: FEBRUARY 2006  
Job Number: 04-1201  
Scale: AS SHOWN  
Drawn By: JS  
Designed By: JS  
Approved By: TM  
Folder Reference: ROCCO ROSS LANDING

SWM PLANTING PLAN AND DETAIL SHEET

OF THE FINAL PLAN FOR  
**RESUBDIVISION OF LOT AR BONNEY PROPERTY**  
TAX MAP 02E, GRID 1, & PARCEL 424  
221 CYPRESS CREEK ROAD SEVERNA PARK 21146  
SUBDIVISION #1999-0009 PROJECT #2005-022  
DISTRICT 03 ANNE ARUNDEL COUNTY

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