

Stormwater Division

MEMORANDUM

DATE: March 13, 2010
TO: Michael J. Gillis, Virginia Correctional Enterprises Document Management Services
FROM: Jo Anna Ripley, Stormwater
PO: 270712
RE: Files Approved for Scanning

General File ID or BMP ID: PC193

PIN: 3824000015

Subdivision, Tract, Business or Owner

Name (if known):

New Town

Property Description:

Block 2 Parcel A New Town

Site Address:

5122 Main Street

(For internal use only)

Box 3

Drawer: 2

Agreements: (in file as of scan date) N

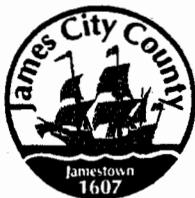
Book or Doc#:

Page:

Comments
Commercial Section

1.

Maintenance agreement



COUNTY ATTORNEY

101-C MOUNTS BAY ROAD, P.O. Box 8784, WILLIAMSBURG, VIRGINIA 23187-8784
(757) 253-6612

Fax: (757) 253-6833

FRANK M. MORTON, III
COUNTY ATTORNEY
E-MAIL ADDRESS: fmorton@james-city.va.us
(757) 253-6613

LEO P. ROGERS
DEPUTY COUNTY ATTORNEY
E-MAIL ADDRESS: lprogers@james-city.va.us
(757) 253-6614

MICHAEL H. DREWRY
ASSISTANT COUNTY ATTORNEY
E-MAIL ADDRESS: michaeldr@james-city.va.us
(757) 253-6832

July 13, 2004

Mrs. Betsy Woolridge
Clerk of the Circuit Court
5201 Monticello Avenue, Suite 6
Williamsburg, Virginia 23188



Dear Mrs. Woolridge:

RE: Documents for Recordation

Enclosed please find a Declaration of Covenants between the County of James City and New Town Associates, LLC, dated July 8, 2004, and a Declaration of Covenants between the County of James City and Newtown of Williamsburg, VA, L.L.C., dated July 9, 2004, for recordation.

Please deduct the recording fees from our escrow account. After the documents have been recorded, I would appreciate you returning them to me.

Thank you for your assistance. If you have any questions, please feel free to call me.

Sincerely,

Leo P. Rogers (mfr)

Leo P. Rogers
Acting County Attorney

LPR/bk

Enclosures

cc: ✓ Joan Etchberger



COUNTY ATTORNEY

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(757) 253-6614

MICHAEL H. DREWRY
ASSISTANT COUNTY ATTORNEY
E-MAIL ADDRESS: michaeldr@james-city.va.us
(757) 253-6832

KATHRYN M. ASTON
ASSISTANT COUNTY ATTORNEY
E-MAIL ADDRESS: kaston@james-city.va.us
(757) 253-6613

November 9, 2004

Mrs. Betsy Woolridge
Clerk of the Circuit Court
5201 Monticello Avenue, Suite 6
Williamsburg, VA 23188-8218

Dear Mrs. Woolridge:

RE: Document for Recordation

Enclosed for recordation is the Declaration of Covenants between New Town Associates, Inc., and the County of James City, Virginia, dated October 26, 2004.

Please deduct the recording fee from our escrow account. After the document has been recorded, I would appreciate you returning it to me.

Thank you for your assistance. If you have any questions, please feel free to call me.

Sincerely,

Leo P. Rogers
(mfr)

Leo P. Rogers
County Attorney

LPR/kck

Enclosure

Cc: Joan Etchberger, Environmental Division (w/out enc.)

2.

**Completed
construction
certification**

James City County, Virginia Environmental Division

Stormwater Management/BMP Record Drawing and Construction Certification Review Tracking Form

County Plan No.: SP-118-03 AMINOS SP-25-03
 Project Name: NEW TOWN SEC 2 BLVD 2 PARCELA
 Stormwater Management Facility: BIORETENTION BASIN # 2-1
 BMP Phase #: I II III

Information Package Received. Date/By: 12/8/04 AES
 Administrative Check.
 Record Drawing Date/By: 5/13/05 AES
 Construction Certification Date/By: 12/8/04 AES
 RD/CC Standard Forms (Required for all BMPs after Feb 1st 2001 Only)
 Insp/Maint Agreement ? #/Date: _____ ? NOTIFICATION TO JOHN
 BMP Maintenance Plan Location: NO
 Other: _____

Standard E&SC Note on Approved Plan Requiring RD/CC or County comment in plan review file.
 Yes No Location: Note 20 Sheet C13; ENV DIV Comm #3
 Assign County BMP ID Code #: Code: PC193 4/1/03

Preliminary Input/Log into Division's "As-Built Tracking Log"
 Add Location to GIS Database Map. Obtain site information (GPIN, Owner, Site Area, Address, etc.)
 Preliminary Log into Access BMP Database (BMP ID #, Plan No., GPIN, Project Name, etc.)
 Active Project File Review (correspondence, H&H, etc.)
 Initial As-Built File setup (Label, copy hydraulics, BMP plan and detail information, etc.)
 Inspector Check of RD/CC (forward to inspector using transmittal for cursory review). Jordan
 Pre-Inspection Drawing Review - Approved Plan (Quick look prior to Field Inspection).
 Final Inspection (FI) Performed Date: 02-06-05
 Record Drawing (RD) Review (***) Date: 06-23-05
 Construction Certification (CC) Review Date: 02-07-05

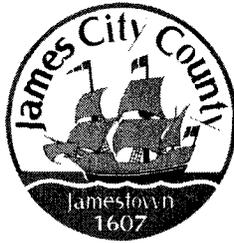
Actions:
 No comments.
 Comments. Letter Forwarded. Date: _____
 Record Drawing (RD)
 Construction Certification (CC)
 Construction-Related (CR)
 Site Issues (SI)
 Other : _____

Second Submission: _____
 Reinspection (if necessary): _____
 Acceptable for stormwater management facility purposes (RD/CC/CR/Other). Proceed with bond release.
 Notify Inspector and Inspector Supervisor using "Surety Request Form".
 Check/Clean active file of any remaining material and finish "As-Built" file.
 Add to County BMP Inventory/Inspection schedule (Phase I, II or III).
 Copy Final Inspection Report into County BMP Inspection Program file.
 Obtain Digital Photographs of BMP and log into computer.
 Request mylar/reproducible from As-Built plan preparer. 11x17 IS OK
 Complete "As-built Tracking Log"
 Last check of BMP Access Database.
 Add to JCC Hydrology & Hydraulic database (optional).
 Add to PRIDE BMP ratings database

Final Sign-Off

Plan Reviewer: [Signature] Date: 06/23/05

*** See separate checklist, if needed.



James City County, Virginia
Environmental Division

Stormwater Management / BMP Facilities
Record Drawing and Construction Certification Forms

(Note: In accordance with the requirements of the Chesapeake Bay Preservation Ordinance, Chapter 23, Section 23-10(4), BMP's shall be designed and constructed in accordance with the manual entitled James City County Guidelines for Design and Construction of Stormwater Management BMP's. Erosion and sediment control policy and approved plans generally require that at the completion of the project and prior to release of surety, an "as-built" plan prepared by a registered Professional Engineer or Certified Land Surveyor must be provided for the drainage system for the project, including any Best Management Practice (BMP) facilities. In addition, for BMP facilities involving the construction of an impounding structure or dam embankment, certification is required by a Professional Engineer who has inspected the structure during its construction. Currently there are over 20 water quality type BMP's accepted by the County.)

Section 1 – Site Information:

Project Name: New Town
Structure/BMP Name: Bioretention cell #2-1 JCC ID CODE # PC-193
Project Location: New Town Block 2
BMP Location: _____
County Plan No.: SP - 118 - 03

Project Type: Residential Business Tax Map/Parcel No.: _____
 Commercial Office BMP ID Code (if known): PC193
 Institutional Industrial Zoning District: _____
 Public Roadway Land Use: _____
 Other Mixed Use Site Area (sf or acres): _____

Brief Description of Stormwater Management/BMP Facility: #2-1 is a bioretention area

Nearest Visible Landmark to SWM/BMP Facility: 1st Advantage Credit Union

Nearest Vertical Ground Control (if known):
 JCC Geodetic Ground Control USGS Temporary Arbitrary Other
Station Number or Name: _____
Datum or Reference Elevation: _____
Control Description: _____
Control Location from Subject Facility: _____

Section 2 – Stormwater Management / BMP Facility Construction Information:

PreConstruction Meeting Held for Construction of SWM/BMP Facility: Yes No Unknown
Approx. Construction Start Date for SWM/BMP Facility: May 2004
Facility Monitored by County Representative during Construction: Yes No Unknown
Name of Site Work Contractor Who Constructed Facility: Branscome Inc.
Name of Professional Firm Who Routinely Monitored Construction: AES Consulting Engineers
Date of Completion for SWM/BMP Facility: June 2004
Date of Record Drawing/Construction Certification Submittal: 12/6/04

(Note: Record Drawing and Construction Certifications are required within thirty (30) days of the completion of Stormwater Management and/or BMP facility construction. Record Drawings and Construction Certifications must be reviewed and approved by the James City County Environmental Division prior to final inspection, acceptance and bond or surety release.)

Section 3 – Owner / Designer / Contractor Information:

Owner/Developer: *(Note: Site Owner or Applicant responsible for development of the project.)*
Name: New Town Associates, L.L.C.
Mailing Address: 4801 Courthouse St., Suite 329
Business Phone: (757) 565-6200 Fax: (757) 565-6291
Contact Person: John McCann Title: _____

Design Professional: *(Note: Professional Engineer or Certified Land Surveyor responsible for the design and preparation of plans and specifications for the Stormwater Management / BMP facility.)*
Firm Name: AES Consulting Engineers
Mailing Address: 5248 Olde Towne Rd., Suite 1
Business Phone: (757) 253-0040
Fax: (757) 220-8994
Responsible Plan Preparer: Robert Cosby III, P.E.
Title: Project Manager
Plan Name: New Town - Block 2
Firm's Project No. 6632-E-31-1
Plan Date: 11/7/03
Sheet No.'s Applicable to SWM/BMP Facility: 5 / 12 / _____ / _____ / _____

BMP Contractor: *(Note: Site Work Contractor directly responsible for construction of the Stormwater Management / BMP facility.)*
Name: Branscome Inc.
Mailing Address: _____
Business Phone: _____
Fax: _____
Contact Person: Danny Johnson
Site Foreman/Supervisor: _____
Specialty Subcontractors & Purpose (for BMP Construction Only):

Section 4 – Professional Certifications:

Certifying Professionals: *(Note: A Registered Professional Engineer of Certified Land Surveyor is responsible for preparation of a Record Drawing, sometimes referred to as an As-Built plan, for the drainage system for the project including any Stormwater Management/BMP Facilities. A Registered Professional Engineer is responsible for the inspection, monitoring and certification of Stormwater Management / BMP facilities during its construction.)*

Record Drawing and Construction Certifications for Stormwater Management / BMP Facilities

Record Drawing Certification

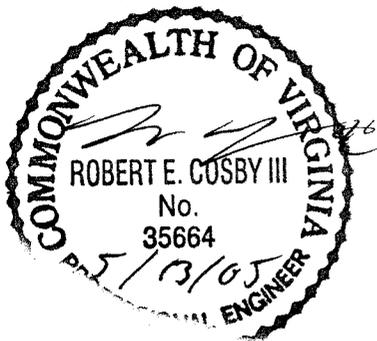
Firm Name: AES Consulting Engineers
Mailing Address: 5248 Olde Towne Rd., Suite 1

Business Phone: (757) 253-0040
Fax: (757) 220-8994

Name: Robert Cosby III, P.E.
Title: Project Manager

Signature: 
Date: 5/13/05

I hereby certify to the best of my knowledge and belief that this record drawing represents the actual condition of the Stormwater Management / BMP facility. The facility appears to conform with the provisions of the approved design plan, specifications and stormwater management plan, except as specifically noted.



(Seal)

Virginia Registered Professional Engineer
Or Certified Land Surveyor

Construction Certification

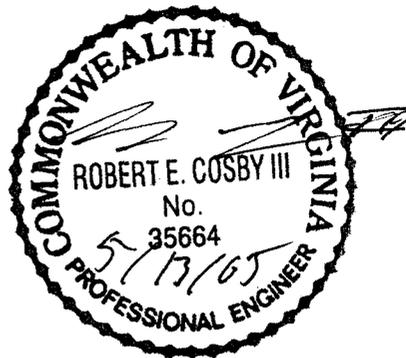
Firm Name: AES Consulting Engineers
Mailing Address: 5248 Olde Towne Rd., Suite 1

Business Phone: (757) 253-0040
Fax: (757) 220-8994

Name: Robert Cosby III, P.E.
Title: Project Manager

Signature: 
Date: 5/13/05

I hereby certify to the best of my knowledge and belief that this Stormwater Management / BMP facility was monitored and constructed in accordance with the provisions of the approved design plan, specifications and stormwater management plan, except as specifically noted.



(Seal)

Virginia Registered
Professional Engineer



James City County, Virginia
Environmental Division

Stormwater Management / BMP Facilities
Record Drawing and Construction Certification Forms

(Note: In accordance with the requirements of the Chesapeake Bay Preservation Ordinance, Chapter 23, Section 23-10(4), BMP's shall be designed and constructed in accordance with the manual entitled James City County Guidelines for Design and Construction of Stormwater Management BMP's. Erosion and sediment control policy and approved plans generally require that at the completion of the project and prior to release of surety, an "as-built" plan prepared by a registered Professional Engineer or Certified Land Surveyor must be provided for the drainage system for the project, including any Best Management Practice (BMP) facilities. In addition, for BMP facilities involving the construction of an impounding structure or dam embankment, certification is required by a Professional Engineer who has inspected the structure during its construction. Currently there are over 20 water quality type BMP's accepted by the County.)

SEC 2 BLOCK 2 PARCELA

Section 1 - Site Information:

Project Name: New Town
Structure/BMP Name: Bioretention cell #2-1 & #2-2
Project Location: New Town Block 2, SEC 2, PARCEL
BMP Location: WILLIAM E. WOOD BUILDING
County Plan No.: SP - 118 - 03 (SP-25-03)

Project Type: Residential Business Office Tax Map/Parcel No.:
 Commercial Office BMP ID Code (if known): PC 193 + PC 194
 Institutional Industrial Zoning District:
 Public Roadway Land Use:
 Other Mixed Use Site Area (sf or acres):

Brief Description of Stormwater Management/BMP Facility: #2-1 is a bioretention area and #2-2 is a bioretention area with a low profile timber wall

Nearest Visible Landmark to SWM/BMP Facility: 1st Advantage Credit Union and William E. Wood Buildings

Nearest Vertical Ground Control (if known):
 JCC Geodetic Ground Control USGS Temporary Arbitrary Other
Station Number or Name: _____
Datum or Reference Elevation: _____
Control Description: _____
Control Location from Subject Facility: _____

Section 2 – Stormwater Management / BMP Facility Construction Information:

PreConstruction Meeting Held for Construction of SWM/BMP Facility: Yes No Unknown
Approx. Construction Start Date for SWM/BMP Facility: May 2004
Facility Monitored by County Representative during Construction: Yes No Unknown
Name of Site Work Contractor Who Constructed Facility: Branscome Inc.
Name of Professional Firm Who Routinely Monitored Construction: AES Consulting Engineers
Date of Completion for SWM/BMP Facility: June 2004
Date of Record Drawing/Construction Certification Submittal: 12/6/04

(Note: Record Drawing and Construction Certifications are required within thirty (30) days of the completion of Stormwater Management and/or BMP facility construction. Record Drawings and Construction Certifications must be reviewed and approved by the James City County Environmental Division prior to final inspection, acceptance and bond or surety release.)

Section 3 – Owner / Designer / Contractor Information:

Owner/Developer: *(Note: Site Owner or Applicant responsible for development of the project.)*

Name: New Town Associates, L.L.C.
Mailing Address: 4801 Courthouse St., Suite 329
Business Phone: (757) 565-6200 Fax: (757) 565-6291
Contact Person: John McCann Title: _____

Design Professional: *(Note: Professional Engineer or Certified Land Surveyor responsible for the design and preparation of plans and specifications for the Stormwater Management / BMP facility.)*

Firm Name: AES Consulting Engineers
Mailing Address: 5248 Olde Towne Rd., Suite 1
Business Phone: (757) 253-0040
Fax: (757) 220-8994
Responsible Plan Preparer: Robert Cosby III, P.E.
Title: Project Manager
Plan Name: New Town - Block 2
Firm's Project No. 6632-E-31-1
Plan Date: 11/7/03
Sheet No.'s Applicable to SWM/BMP Facility: 5 / 12 / _____ / _____ / _____

BMP Contractor: *(Note: Site Work Contractor directly responsible for construction of the Stormwater Management / BMP facility.)*

Name: Branscome Inc.
Mailing Address: _____
Business Phone: _____
Fax: _____
Contact Person: Danny Johnson
Site Foreman/Supervisor: _____
Specialty Subcontractors & Purpose (for BMP Construction Only):

Section 4 – Professional Certifications:

Certifying Professionals: *(Note: A Registered Professional Engineer or Certified Land Surveyor is responsible for preparation of a Record Drawing, sometimes referred to as an As-Built plan, for the drainage system for the project including any Stormwater Management/BMP Facilities. A Registered Professional Engineer is responsible for the inspection, monitoring and certification of Stormwater Management / BMP facilities during its construction.)*

Record Drawing and Construction Certifications for Stormwater Management / BMP Facilities

Record Drawing Certification

Firm Name: _____

Mailing Address: _____

Business Phone: _____

Fax: _____

Name: _____

Title: _____

Signature: _____

Date: _____

I hereby certify to the best of my knowledge and belief that this record drawing represents the actual condition of the Stormwater Management / BMP facility. The facility appears to conform with the provisions of the approved design plan, specifications and stormwater management plan, except as specifically noted.

Construction Certification

Firm Name: AES Consulting Engineers

Mailing Address: 5248 Olde Towne Rd., Suite 1

Business Phone: (757) 253-0040

Fax: (757) 220-8994

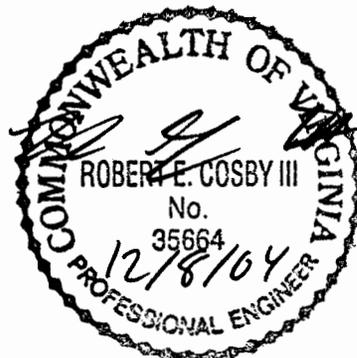
Name: Robert Cosby III, P.E.

Title: Project Manager

Signature: *Robert Cosby III*

Date: 12/8/04

I hereby certify to the best of my knowledge and belief that this Stormwater Management / BMP facility was monitored and constructed in accordance with the provisions of the approved design plan, specifications and stormwater management plan, except as specifically noted.

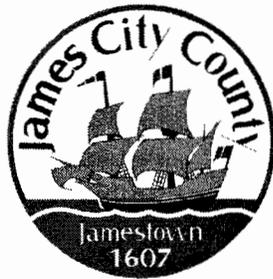


(Seal)

Virginia Registered Professional Engineer
Or Certified Land Surveyor

(Seal)

Virginia Registered
Professional Engineer



pc 193
#2204
#2-1

**James City County, Virginia
Environmental Division**

**Stormwater Management / BMP Facilities
Record Drawing and Construction Certification**

Standard Forms & Instructions

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*Issue Date
February 1, 2001*



James City County, Virginia
Environmental Division

Stormwater Management / BMP Facilities
Record Drawing and Construction Certification Forms

(Note: In accordance with the requirements of the Chesapeake Bay Preservation Ordinance, Chapter 23, Section 23-10(4), BMP's shall be designed and constructed in accordance with the manual entitled James City County Guidelines for Design and Construction of Stormwater Management BMP's. Erosion and sediment control policy and approved plans generally require that at the completion of the project and prior to release of surety, an "as-built" plan prepared by a registered Professional Engineer or Certified Land Surveyor must be provided for the drainage system for the project, including any Best Management Practice (BMP) facilities. In addition, for BMP facilities involving the construction of an impounding structure or dam embankment, certification is required by a Professional Engineer who has inspected the structure during its construction. Currently there are over 20 water quality type BMP's accepted by the County.)

SEC 2 BLOCK 2 PARCELA

Section 1 - Site Information:

Project Name: New Town
Structure/BMP Name: Bioretention cell #2-1 & #2-2
Project Location: New Town Block 2, SEC 2, PARCEL
BMP Location: WILLIAM E. WOOD BUILDING
County Plan No.: SP - 118 - 03 (SP-25-03)

Project Type: Residential Business Tax Map/Parcel No.:
 Commercial Office BMP ID Code (if known): PC 193 + PC 194
 Institutional Industrial Zoning District:
 Public Roadway Land Use:
 Other Mixed Use Site Area (sf or acres):

Brief Description of Stormwater Management/BMP Facility: #2-1 is a bioretention area and #2-2 is a bioretention area with a low profile timber wall

Nearest Visible Landmark to SWM/BMP Facility: 1st Advantage Credit Union and William E. Wood Buildings

Nearest Vertical Ground Control (if known):
 JCC Geodetic Ground Control USGS Temporary Arbitrary Other
Station Number or Name: _____
Datum or Reference Elevation: _____
Control Description: _____
Control Location from Subject Facility: _____

Section 2 – Stormwater Management / BMP Facility Construction Information:

PreConstruction Meeting Held for Construction of SWM/BMP Facility: Yes No Unknown
Approx. Construction Start Date for SWM/BMP Facility: May 2004
Facility Monitored by County Representative during Construction: Yes No Unknown
Name of Site Work Contractor Who Constructed Facility: Branscome Inc.
Name of Professional Firm Who Routinely Monitored Construction: AES Consulting Engineers
Date of Completion for SWM/BMP Facility: June 2004
Date of Record Drawing/Construction Certification Submittal: 12/6/04

(Note: Record Drawing and Construction Certifications are required within thirty (30) days of the completion of Stormwater Management and/or BMP facility construction. Record Drawings and Construction Certifications must be reviewed and approved by the James City County Environmental Division prior to final inspection, acceptance and bond or surety release.)

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Owner/Developer: *(Note: Site Owner or Applicant responsible for development of the project.)*
Name: New Town Associates, L.L.C.
Mailing Address: 4801 Courthouse St., Suite 329
Business Phone: (757) 565-6200 Fax: (757) 565-6291
Contact Person: John McCann Title: _____

Design Professional: *(Note: Professional Engineer or Certified Land Surveyor responsible for the design and preparation of plans and specifications for the Stormwater Management / BMP facility.)*
Firm Name: AES Consulting Engineers
Mailing Address: 5248 Olde Towne Rd., Suite 1
Business Phone: (757) 253-0040
Fax: (757) 220-8994
Responsible Plan Preparer: Robert Cosby III, P.E.
Title: Project Manager
Plan Name: New Town - Block 2
Firm's Project No. 6632-E-31-1
Plan Date: 11/7/03
Sheet No.'s Applicable to SWM/BMP Facility: 5 / 12 / _____ / _____ / _____

BMP Contractor: *(Note: Site Work Contractor directly responsible for construction of the Stormwater Management / BMP facility.)*
Name: Branscome Inc.
Mailing Address: _____
Business Phone: _____
Fax: _____
Contact Person: Danny Johnson
Site Foreman/Supervisor: _____
Specialty Subcontractors & Purpose (for BMP Construction Only):

Section 4 – Professional Certifications:

Certifying Professionals: *(Note: A Registered Professional Engineer or Certified Land Surveyor is responsible for preparation of a Record Drawing, sometimes referred to as an As-Built plan, for the drainage system for the project including any Stormwater Management/BMP Facilities. A Registered Professional Engineer is responsible for the inspection, monitoring and certification of Stormwater Management / BMP facilities during its construction.)*

Record Drawing and Construction Certifications for Stormwater Management / BMP Facilities

Record Drawing Certification

Firm Name: _____
Mailing Address: _____

Business Phone: _____
Fax: _____
Name: _____
Title: _____
Signature: _____
Date: _____

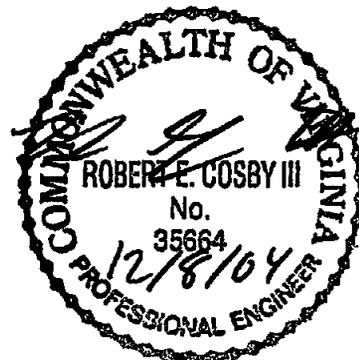
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Construction Certification

Firm Name: AES Consulting Engineers
Mailing Address: 5248 Olde Towne Rd., Suite 1

Business Phone: (757) 253-0040
Fax: (757) 220-8994
Name: Robert Cosby III, P.E.
Title: Project Manager
Signature: *Robert Cosby III*
Date: 12/18/04

I hereby certify to the best of my knowledge and belief that this Stormwater Management / BMP facility was monitored and constructed in accordance with the provisions of the approved design plan, specifications and stormwater management plan, except as specifically noted.

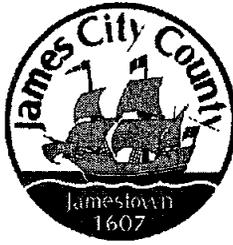


(Seal)

Virginia Registered Professional Engineer
Or Certified Land Surveyor

(Seal)

Virginia Registered
Professional Engineer



James City County, Virginia
Environmental Division

**Stormwater Management / BMP Facilities
Record Drawing and Construction Certification Forms**

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Section 1 – Site Information:

Project Name: New Town
Structure/BMP Name: Bioretention cell #2-1 JCC ID CODE # PC-193
Project Location: New Town Block 2
BMP Location: _____
County Plan No.: SP - 118 - 03

Project Type: Residential Business Office Commercial Institutional Industrial Public Roadway Other Mixed Use
Tax Map/Parcel No.: _____
BMP ID Code (if known): PC193
Zoning District: _____
Land Use: _____
Site Area (sf or acres): _____

Brief Description of Stormwater Management/BMP Facility: #2-1 is a bioretention area

Nearest Visible Landmark to SWM/BMP Facility: 1st Advantage Credit Union

Nearest Vertical Ground Control (if known):
 JCC Geodetic Ground Control USGS Temporary Arbitrary Other
Station Number or Name: _____
Datum or Reference Elevation: _____
Control Description: _____
Control Location from Subject Facility: _____

Section 2 – Stormwater Management / BMP Facility Construction Information:

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Contact Person: John McCann Title: _____

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Mailing Address: _____
Business Phone: _____
Fax: _____
Contact Person: Danny Johnson
Site Foreman/Supervisor: _____
Specialty Subcontractors & Purpose (for BMP Construction Only):

Section 4 – Professional Certifications:

Certifying Professionals: *(Note: A Registered Professional Engineer or Certified Land Surveyor is responsible for preparation of a Record Drawing, sometimes referred to as an As-Built plan, for the drainage system for the project including any Stormwater Management/BMP Facilities. A Registered Professional Engineer is responsible for the inspection, monitoring and certification of Stormwater Management / BMP facilities during its construction.)*

Record Drawing and Construction Certifications for Stormwater Management / BMP Facilities

Record Drawing Certification

Firm Name: AES Consulting Engineers
Mailing Address: 5248 Olde Towne Rd., Suite 1

Business Phone: (757) 253-0040
Fax: (757) 220-8994

Name: Robert Cosby III, P.E.
Title: Project Manager

Signature: 
Date: 5/13/05

I hereby certify to the best of my knowledge and belief that this record drawing represents the actual condition of the Stormwater Management / BMP facility. The facility appears to conform with the provisions of the approved design plan, specifications and stormwater management plan, except as specifically noted.

Construction Certification

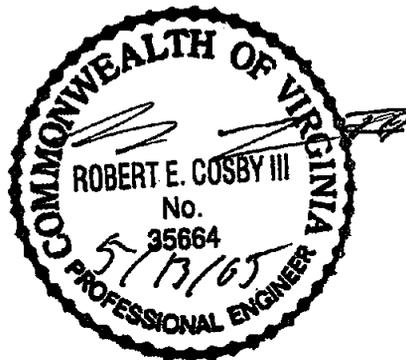
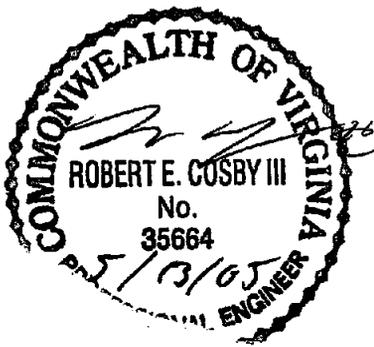
Firm Name: AES Consulting Engineers
Mailing Address: 5248 Olde Towne Rd., Suite 1

Business Phone: (757) 253-0040
Fax: (757) 220-8994

Name: Robert Cosby III, P.E.
Title: Project Manager

Signature: 
Date: 5/13/05

I hereby certify to the best of my knowledge and belief that this Stormwater Management / BMP facility was monitored and constructed in accordance with the provisions of the approved design plan, specifications and stormwater management plan, except as specifically noted.



(Seal)

Virginia Registered Professional Engineer
Or Certified Land Surveyor

(Seal)

Virginia Registered
Professional Engineer

**James City County, Virginia
Environmental Division**

**Stormwater Management/BMP Record Drawing and Construction Certification Review
Tracking Form**

County Plan No.: SP-118-03 AMINOS SP-25-03
 Project Name: NEW TOWN SEC 2 BLK 2 PARCELA
 Stormwater Management Facility: BIORETENTION BASIN # 2-1

BMP Phase #: I II III

Information Package Received. Date/By: 12/8/04 AES

Administrative Check. Date/By: 5/13/05 AES

Record Drawing Date/By: 12/8/04 AES

Construction Certification (Required for all BMPs after Feb 1st 2001 Only)

RD/CC Standard Forms #/Date: _____

Insp/Maint Agreement ? #/Date: _____

BMP Maintenance Plan Location: NO

Other: _____

Standard E&SC Note on Approved Plan Requiring RD/CC or County comment in plan review file.

Yes No Location: Note 20 Sheet C13; ENV DIV Comm #3

Assign County BMP ID Code #: Code: PC193 4/1/03

Preliminary Input/Log into Division's "As-Built Tracking Log"

Add Location to GIS Database Map. Obtain site information (GPIN, Owner, Site Area, Address, etc.)

Preliminary Log into Access BMP Database (BMP ID #, Plan No., GPIN, Project Name, etc.)

Active Project File Review (correspondence, H&H, etc.)

Initial As-Built File setup (Label, copy hydraulics, BMP plan and detail information, etc.)

Inspector Check of RD/CC (forward to inspector using transmittal for cursory review). Jordan

Pre-Inspection Drawing Review - Approved Plan (Quick look prior to Field Inspection).

Final Inspection (FI) Performed Date: 02-06-05

Record Drawing (RD) Review (***) Date: 06-23-05

Construction Certification (CC) Review Date: 02-07-05

Actions:

No comments.

Comments. Letter Forwarded. Date: _____

Record Drawing (RD)

Construction Certification (CC)

Construction-Related (CR)

Site Issues (SI)

Other : _____

Second Submission: _____

Reinspection (if necessary): _____

Acceptable for stormwater management facility purposes (RD/CC/CR/Other). Proceed with bond release.

Notify Inspector and Inspector Supervisor using "Surety Request Form".

Check/Clean active file of any remaining material and finish "As-Built" file.

Add to County BMP Inventory/Inspection schedule (Phase I, II or III).

Copy Final Inspection Report into County BMP Inspection Program file.

Obtain Digital Photographs of BMP and log into computer.

Request mylar/reproducible from As-Built plan preparer. 11/17/04 OK

Complete "As-built Tracking Log"

Last check of BMP Access Database.

Add to JCC Hydrology & Hydraulic database (optional).

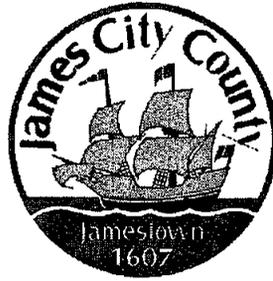
Add to PRIDE BMP ratings database.

Final Sign-Off

Plan Reviewer: [Signature]

Date: 06/23/05

*** See separate checklist, if needed.



pc 193
#2221
#2-1

**James City County, Virginia
Environmental Division**

**Stormwater Management / BMP Facilities
Record Drawing and Construction Certification**

Standard Forms & Instructions

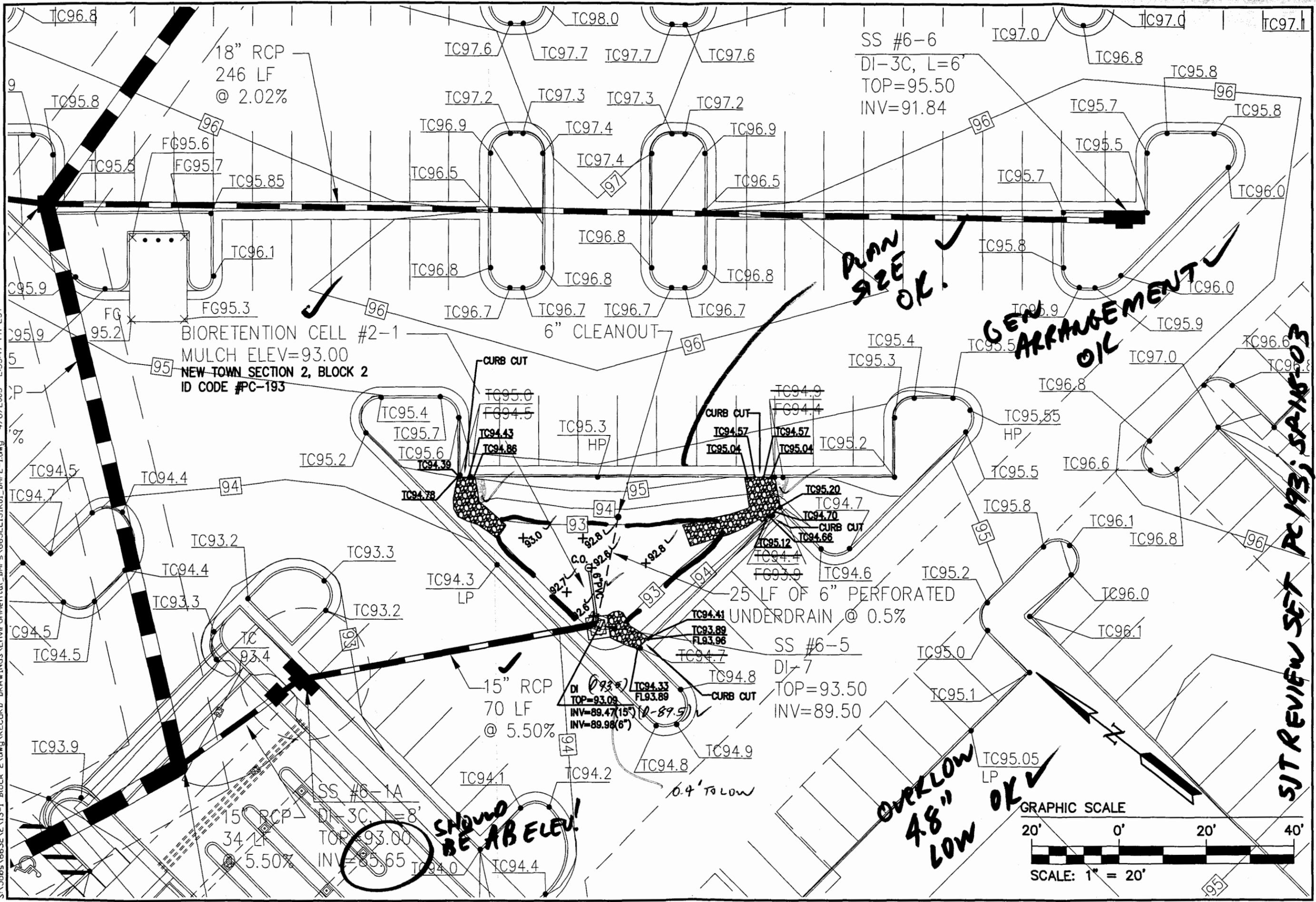
<u>Contents</u>	Page
Record Drawing and Construction Certification Forms	
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Section 4 – Professional Certifications	3
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IV. Group B – Wetlands	9
V. Group C – Infiltration Practices	10
VI. Group D – Filtering Systems	11
VII. Group E – Open Channel Systems	12
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*Issue Date
February 1, 2001*

3.

As-built plan

S:\Jobs\6632\LEV13-1 Block 2\dwg\RECORD DRAWINGS\Environmental\BMPs\6632\LEV13R01_BMP2-1.dwg 4/6/2005 2:35:47 PM EST

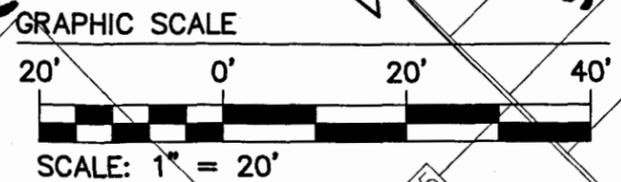


PLAN SIZE OK ✓

GEN ARRANGEMENT OIL ✓

SHOULD BE AB ELEV!

OVERFLOW 4.8\"/>



NO.	DATE	REVISION / COMMENT / NOTE

5248 Olde Towne Road, Suite 1
Williamsburg, Virginia 23188
(757) 253-0040
Fax (757) 220-8994



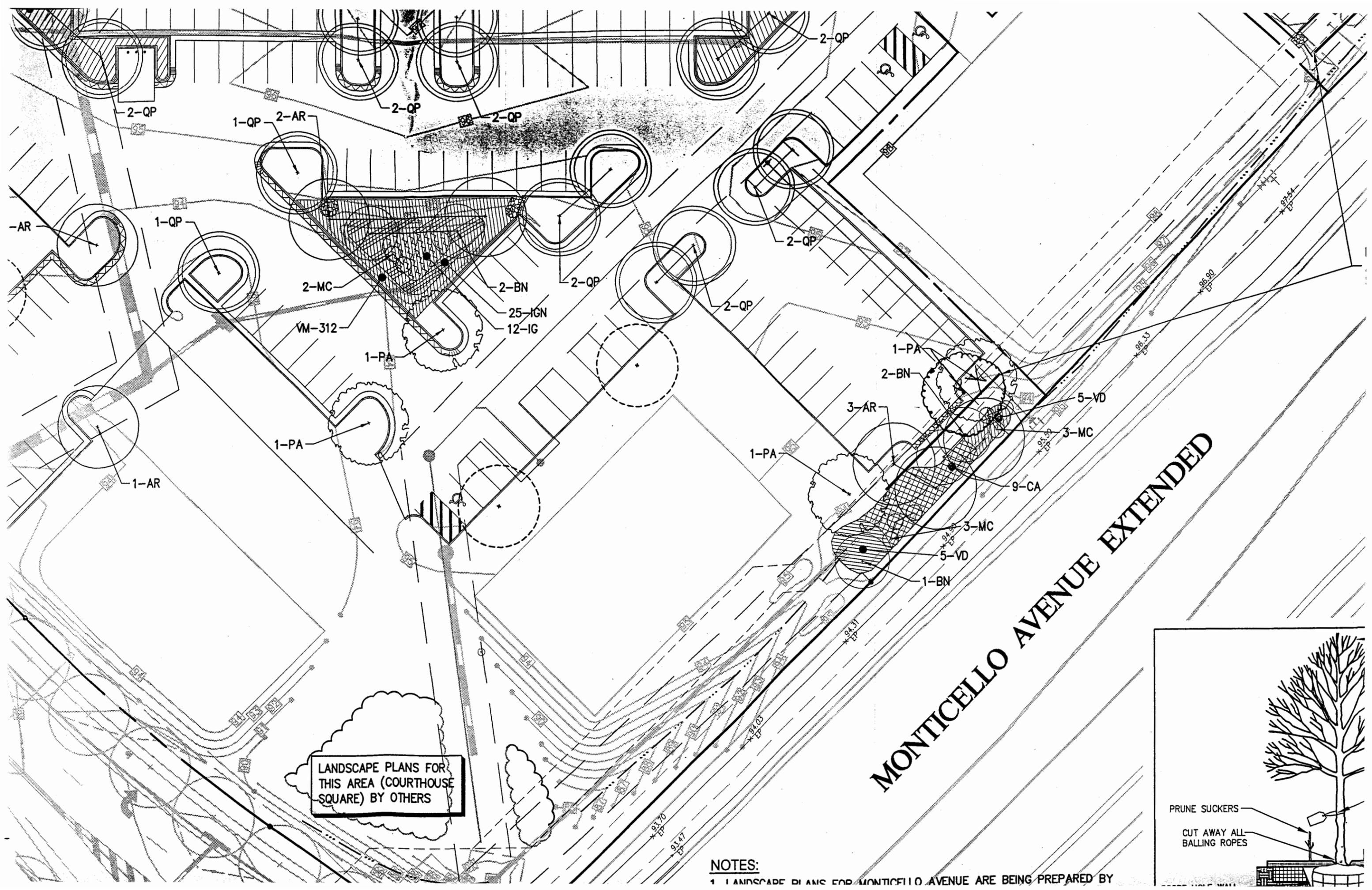
SJT REVIEW SET PC193; SJA18503

RECORD DRAWING
NEWTOWN BLOCK 2
BIORETENTION CELL #2-1
ID CODE #PC-193

Designed REC	Drawn FOD/EAW
Scale 1"=20'	Date 4/6/05
Project No. 6632-13-1	
Drawing No. 1 OF 1	

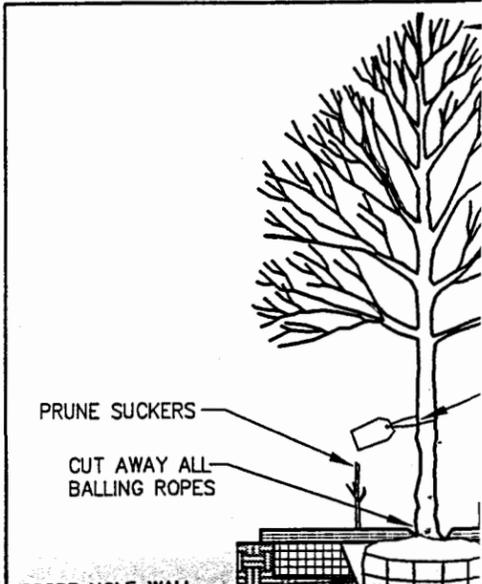
5.

Construction plan



LANDSCAPE PLANS FOR THIS AREA (COURTHOUSE SQUARE) BY OTHERS

MONTICELLO AVENUE EXTENDED



NOTES:
 1 LANDSCAPE PLANS FOR MONTICELLO AVENUE ARE BEING PREPARED BY



SECTION 4

SECTION 2

VILLAGE GREEN

PECAN SQUARE

NEW TOWN AVENUE

MAIN STREET
VILLAGE SQUARE

COURTHOUSE STREET

BLOCK 5
PARCEL A

PARCEL C
(CORNER
POCKET)

PARCEL B
(SUNTRUST)

BLOCK 2
PARCEL A

PC 193
#2-1

PARCEL B
(W.E. WOOD)

BMP#1
JCC BMP I.D. CODE
PC 173

IRONBOUND ROAD

CELLO AVENUE EXTENDED

WILLIAMSBURG/JCC
COURTHOUSE

TIDEWATER
PHYSICAL
THERAPY

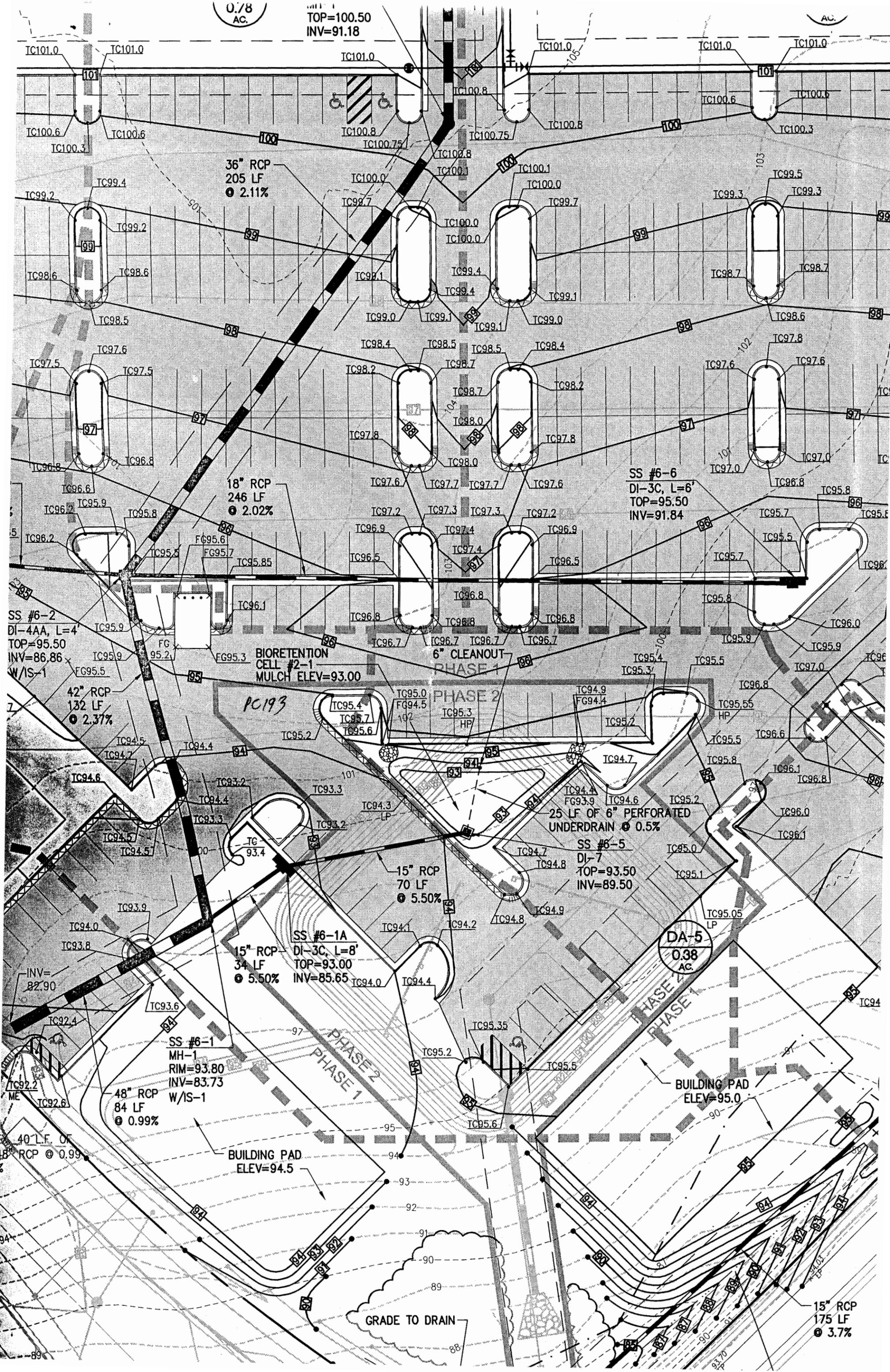
COURTHOUSE
GREEN

8-18-03
59-25-03

0.78 AC.

TOP=100.50
INV=91.18

AC.



36" RCP
205 LF
@ 2.11%

18" RCP
246 LF
@ 2.02%

SS #6-6
DI-3C, L=6'
TOP=95.50
INV=91.84

SS #6-2
DI-4AA, L=4'
TOP=95.50
INV=86.86
W/IS-1

42" RCP
132 LF
@ 2.37%

BIORETENTION
CELL #2-1
MULCH ELEV=93.00

6" CLEANOUT
PHASE 1

PC193

PHASE 2

25 LF OF 6" PERFORATED
UNDERDRAIN @ 0.5%

SS #6-5
DI-7
TOP=93.50
INV=89.50

15" RCP
70 LF
@ 5.50%

SS #6-1A
DI-3C, L=8'
TOP=93.00
INV=85.65

DA-5
0.38
AC

SS #6-1
MH-1
RIM=93.80
INV=83.73
W/IS-1

48" RCP
84 LF
@ 0.99%

BUILDING PAD
ELEV=94.5

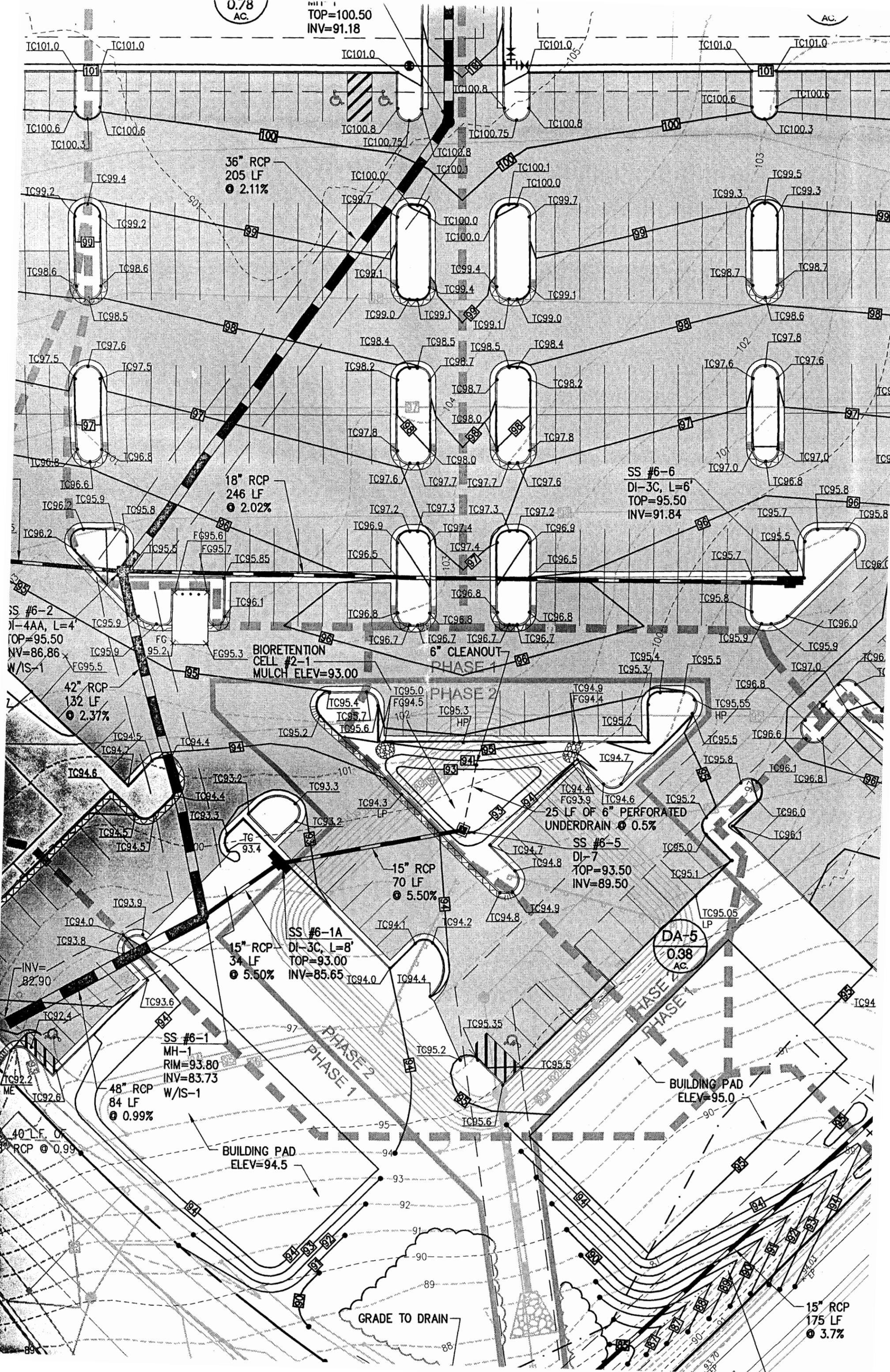
BUILDING PAD
ELEV=95.0

GRADE TO DRAIN

15" RCP
175 LF
@ 3.7%

0.78 AC.
TOP=100.50
INV=91.18

AC.



36" RCP
205 LF
@ 2.11%

18" RCP
246 LF
@ 2.02%

SS #6-6
DI-3C, L=6'
TOP=95.50
INV=91.84

SS #6-2
DI-4AA, L=4'
TOP=95.50
INV=86.86
W/IS-1

BIORETENTION
CELL #2-1
MULCH ELEV=93.00

6" CLEANOUT
PHASE 1

25 LF OF 6" PERFORATED
UNDERDRAIN @ 0.5%

SS #6-5
DI-7
TOP=93.50
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SS #6-1A
DI-3C, L=8'
TOP=93.00
INV=85.65

DA-5
0.38
AC.

SS #6-1
MH-1
RIM=93.80
INV=83.73
W/IS-1

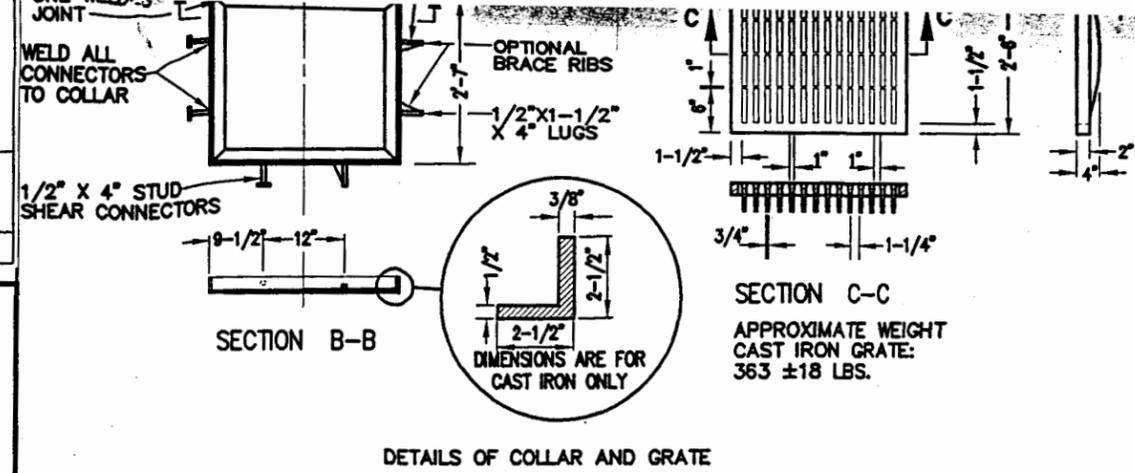
48" RCP
84 LF
@ 0.99%

BUILDING PAD
ELEV=94.5

BUILDING PAD
ELEV=95.0

GRADE TO DRAIN

15" RCP
175 LF
@ 3.7%



NOTES:
ANY ALTERNATE METHODS OF ANCHORAGE, MEETING THE APPROVAL OF THE ENGINEER, MAY BE SUBSTITUTED FOR THE CAST IRON LUGS AS SHOWN HEREON.

INLET
H (H) = 8'

PLANTING SOIL MIXTURE OF 50% SAND, 30% LEAF LITTER (LEAF LITTER SHOULD BE FREE OF TWIGS, BRANCHED TWIGS, AND OTHER FOREIGN MATERIALS), AND 20% TOPSOIL. TOPSOIL SHOULD BE OF GOOD COMPOSITION, CONTAINING NO MORE THAN 5% OF ORGANIC MATTER, OR SIMILAR OBJECTS GREATER THAN ONE INCH IN LENGTH WHICH MAY BE HARMFUL TO PLANT GROWTH. THE TOPSOIL SHALL BE FREE OF WEED SEEDS, QUACK GRASS, JOHNSON GRASS, MUGWORT, RYEBLASS, OR OTHERS AS SPECIFIED. IT SHALL NOT INHIBIT PLANT GROWTH.

MINIMUM CRITERIA SET FORTH IN SECTION 104.01 OF THE STANDARD SPECIFICATION HANDBOOK (LATEST EDITION).

THE PLANTING SOIL SHALL BE AN ACCEPTABLE SOIL MIXTURE OF 50% SAND, 30% LEAF LITTER OR SHREDDED WOOD CHIPS OR OTHER ORGANIC MATERIALS, AND 20% TOPSOIL.

MAINTENANCE SCHEDULE	VEGETATION	COLLECT AT THE
MONTHLY	MONTHLY	AFTER MAJOR STORM EVENTS/OR SEMI-ANNUALLY
WHENEVER NEEDED	WHENEVER NEEDED	
EVERY 3 YEARS		

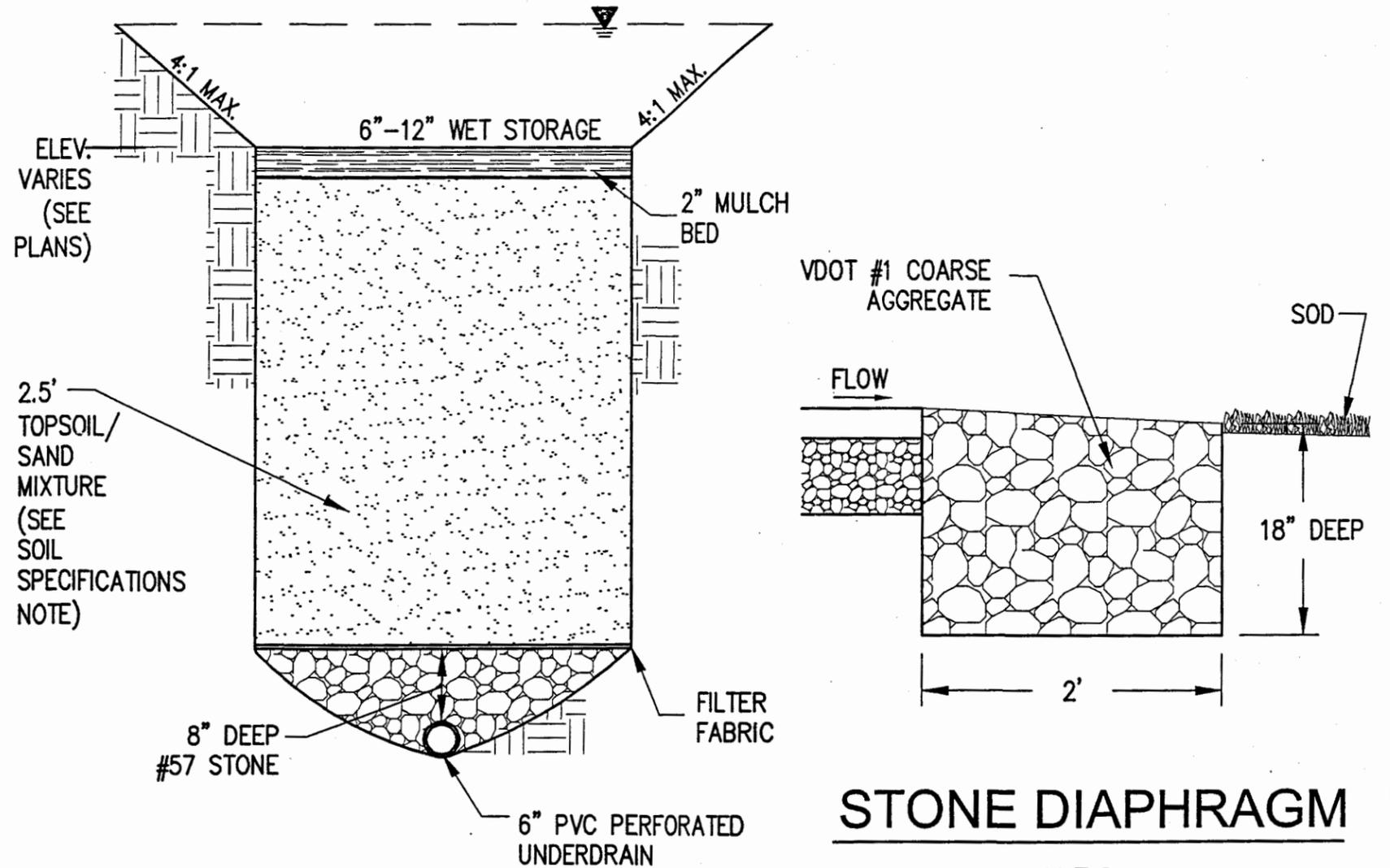
ON SEVEN CONSECUTIVE DAYS AFTER CONSTRUCTION.

ANNUAL (GROUP D, PGS. 48-50) AND MINIMUM MAINTENANCE RESPONSIBILITY OR LIABILITY FOR THE BIORETENTION FACILITY AND ITS COMPONENTS.

MAINTENANCE RESPONSIBILITY OR LIABILITY FOR THE BIORETENTION FACILITY AND ITS COMPONENTS.

THE BIORETENTION BASIN DURING CONSTRUCTION SHALL BE PROTECTED FROM DAMAGE. THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE BIORETENTION BASIN CONSTRUCTION SCHEDULE WITH THE PROJECT SCHEDULE.

STANDARD DROP INLET		SPECIFICATION REFERENCE
12"-24" PIPE MAXIMUM DEPTH (H)=10'		233
SOURCE: VDOT ROAD AND BRIDGE STANDARDS, VOLUME 1		302



- Installation of pipe culverts, storm sewers, and drainage structures shall be in accordance with VDOT specifications (a minimum of 4" under pipes and a minimum of 6" under drainage structures). The backfill material shall be suitable material free of debris, silt, tree roots (organic material) and shall be compacted in uniform lifts and tested for density.
- All vegetation (organic material, roots, stumps) and overburden are to be removed to a minimum depth of 12" below the road's subgrade.
- All concrete shall be Class A3-AE (3000PSI with air entrained additive) and tested for conformance to VDOT specifications and standards.
- There shall be a minimum of 6" of compacted 21-B aggregate material under the curb and gutter. Density tests shall be taken prior to the placement of the curb and gutter. Underdrains will be installed on raised curb medians in accordance with VDOT specifications and standards.
- All streets with curb and gutter shall have a standard CG entrance installed in accordance with VDOT Bridge Specifications and Standards. The curb and gutter pan shall be removed prior to the installation of the curb and gutter. The slope of the curb and gutter shall be as shown on the plans. The slope of the curb and gutter shall be as shown on the plans. The slope of the curb and gutter shall be as shown on the plans.
- All underground utilities are to be in place prior to the placement of the base mat. On curb and gutter streets, the area directly behind the curb to the right of way shall be a minimum of 36". The developer's contractor should cut embankments to the right of way to insure a minimum 36" of cover.
- The sub-base and/or base material shall have a roller pattern and a control strip and the test results submitted to VDOT prior to the proof roll of the material and the test results submitted to VDOT prior to the proof roll of the material and the test results submitted to VDOT prior to the proof roll of the material.
- All Hot Mix (asphalt) courses shall be placed in accordance with Section 315 of the VDOT Specifications. The weather limitations of a 40° F surface temperature or 50° F and rise in temperature shall be as shown on the plans. The developer's Geotechnical Engineer shall test the material to insure compliance with current job mix design. The developer's Geotechnical Engineer shall also perform a roller pattern and density (compaction) of the material in conformance with the current VDOT specifications.
- All utility cabinets, pedestals, and streetlights shall be located in accordance with VDOT Design Manual. There shall not be any cabinets, pedestals, or fire hydrants located on the right of way.
- All storm pipe, drop inlet structures, ditches, and curb and gutter shall be cleaned and maintained in accordance with VDOT specifications and standards.
- Flowers, shrubs, and trees shall not be placed within the proposed right of way by the developer. No irrigation (sprinkler) systems shall be installed within the right of way. Any irrigation system found within the right of way will be removed prior to the construction of the bioretention basin. No easements shall encroach upon the proposed right of way. No easements shall encroach upon the proposed right of way. No easements shall encroach upon the proposed right of way.
- Contact Mr. Sal Sibilio 72 hours in advance of all pavement markings/sign installation. Contact Traffic Engineering at (757) 925-2693 a minimum of 48 hours in advance of all utility line across a road is within 400 feet of a traffic signal, so the lines can be marked and repaired for the developer.

SECTION 4

VILLAGE GREEN

NEW TOWN AVENUE

VILLAGE SQUARE

MAIN STREET

COURTHOUSE STREET

PECAN SQUARE

BLOCK 5
PARCEL A

PARCEL C
(CORNER
POCKET)

PARCEL B
(SUNTRUST)

SECTION 2

IRONBOUND ROAD

MAIN STREET

BMP#1
JCC BMP I.D. CODE
PC 173

BLOCK 2
PARCEL A

PC 193
#21

PARCEL B
(W.E. WOOD)

CELLO AVENUE EXTENDED

WILLIAMSBURG/JCC
COURTHOUSE

TIDEWATER
PHYSICAL
THERAPY

COURTHOUSE
GREEN

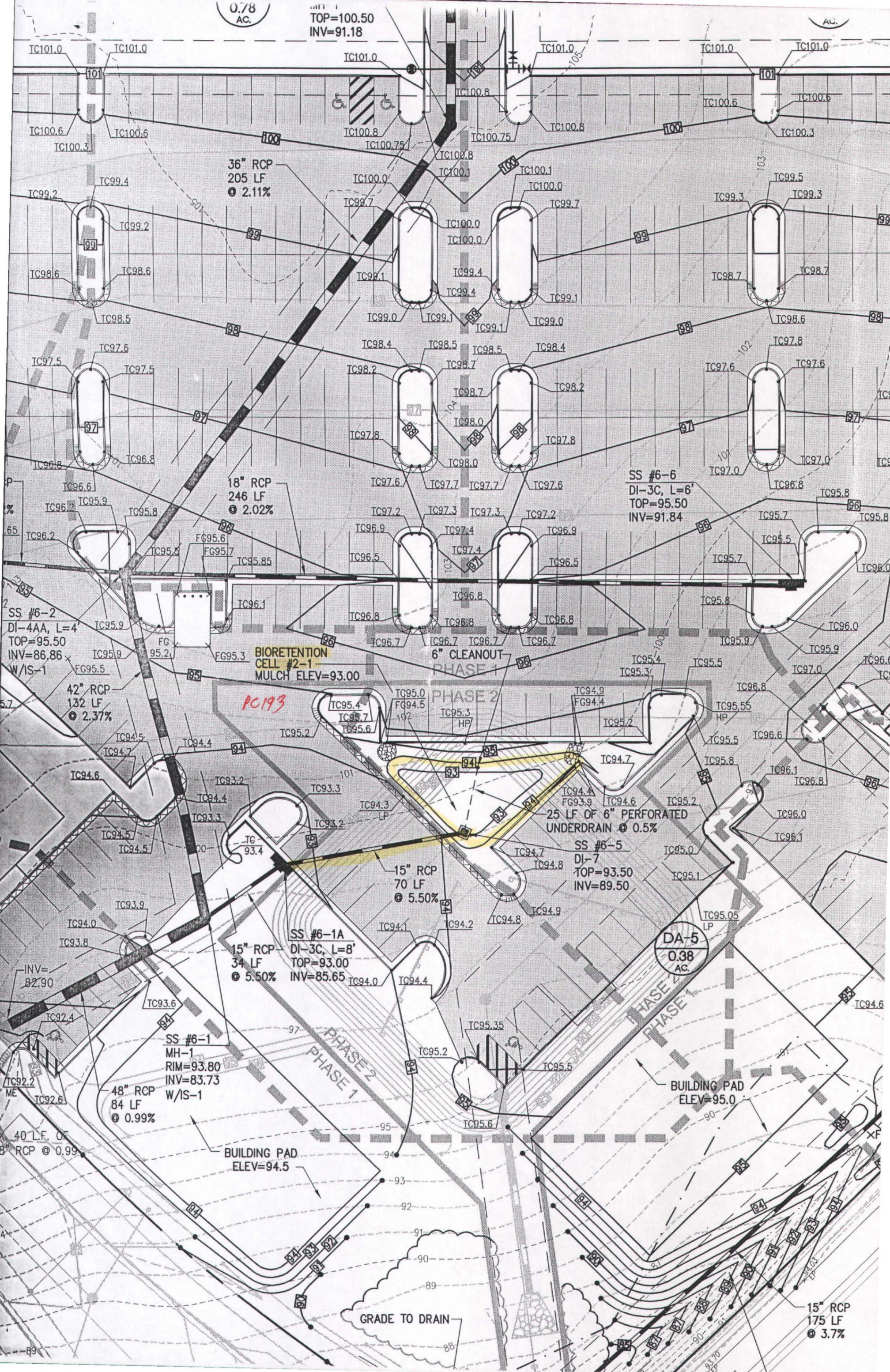
8-118-033
8-25-033



U.78
AC.

TOP=100.50
INV=91.18

AC.



36" RCP
205 LF
@ 2.11%

18" RCP
246 LF
@ 2.02%

SS #6-6
DI-3C, L=6'
TOP=95.50
INV=91.84

SS #6-2
DI-4AA, L=4'
TOP=95.50
INV=86.86
W/IS-1

42" RCP
132 LF
@ 2.37%

BIORETENTION
CELL #2-1
MULCH ELEV=93.00

SS #6-1A
DI-3C, L=8'
TOP=93.00
INV=85.65

SS #6-1
MH-1
RIM=93.80
INV=83.73
W/IS-1

48" RCP
84 LF
@ 0.99%

BUILDING PAD
ELEV=94.5

BUILDING PAD
ELEV=95.0

DA-5
0.38
AC.

GRADE TO DRAIN

15" RCP
175 LF
@ 3.7%

PC193

6" CLEANOUT
PHASE 1

PHASE 2

25 LF OF 6" PERFORATED
UNDERDRAIN @ 0.5%

SS #6-5
DI-7
TOP=93.50
INV=89.50

PHASE 1

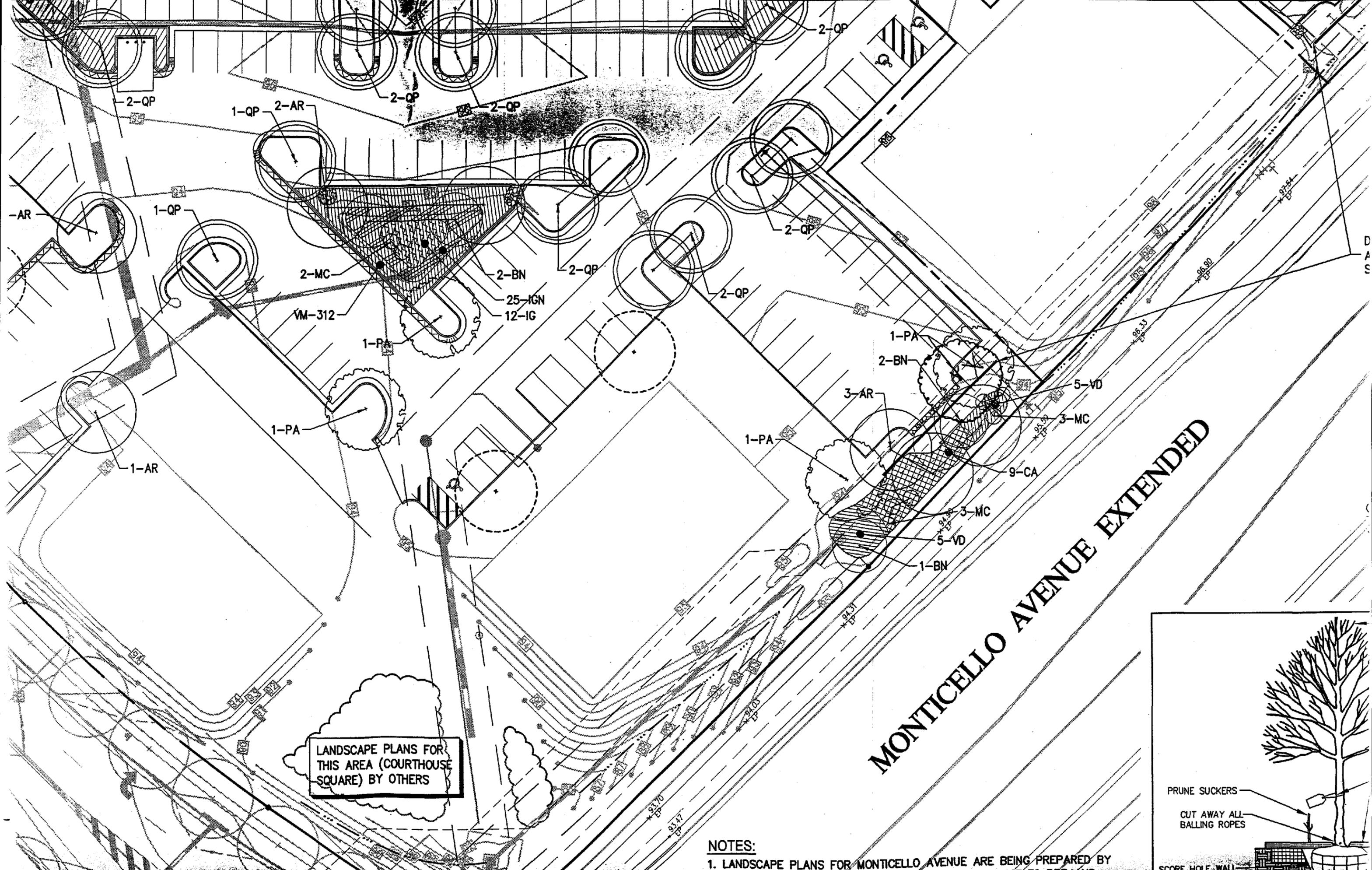
PHASE 2

PHASE 1

PHASE 2

PHASE 1

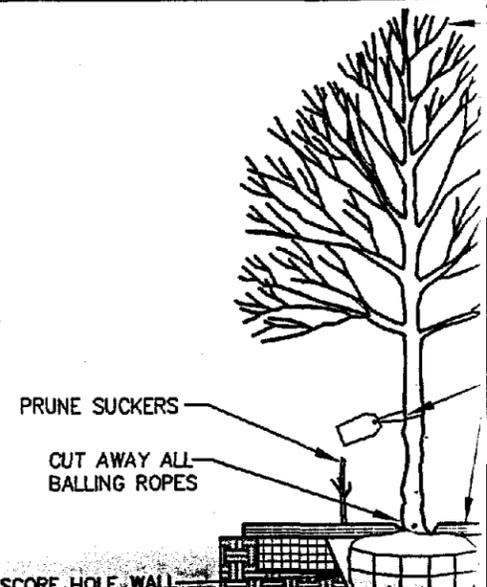
PHASE 2



LANDSCAPE PLANS FOR THIS AREA (COURTHOUSE SQUARE) BY OTHERS

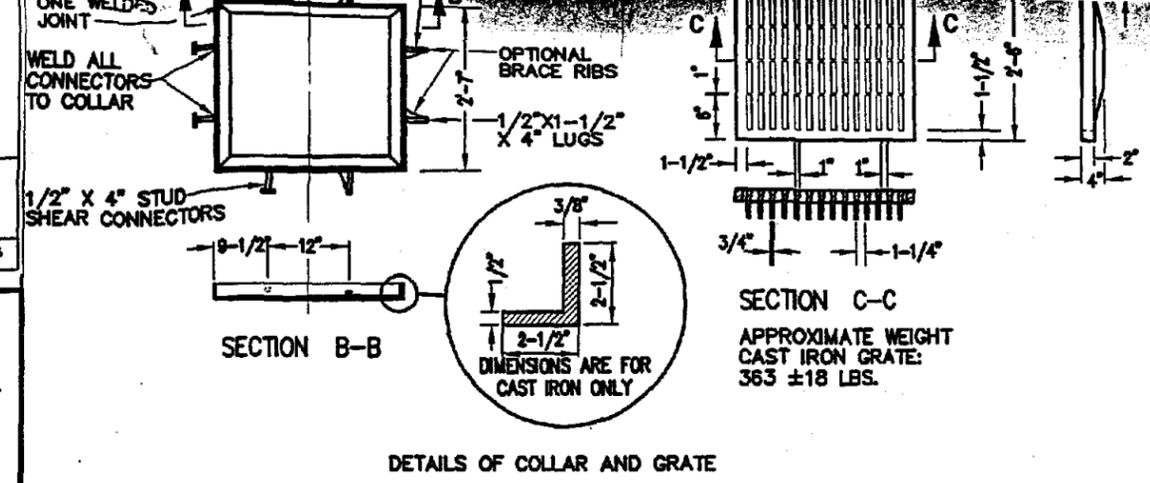
MONTICELLO AVENUE EXTENDED

NOTES:
 1. LANDSCAPE PLANS FOR MONTICELLO AVENUE ARE BEING PREPARED BY



INLET
H (H) = 8'

104.16



NOTES:
ANY ALTERNATE METHODS OF ANCHORAGE, MEETING THE APPROVAL OF THE ENGINEER, MAY BE SUBSTITUTED FOR THE CAST IRON LUGS AS SHOWN HEREON.

TING SOIL MIXTURE OF 50% SAND, 30% LEAF (DECOMPOSED LEAVES), AND 20% TOPSOIL. TOPSOIL SHALL BE OF A GOOD OR SIMILAR COMPOSITION, CONTAINING NO MORE THAN 2% OF STONES OR SIMILAR OBJECTS GREATER THAN ONE INCH IN DIAMETER WHICH MAY BE HARMFUL TO PLANT GROWTH. THE TOPSOIL SHALL BE FREE OF QUACK GRASS, JOHNSON GRASS, MUGWORT, AND OTHERS AS SPECIFIED. IT SHALL NOT INHIBIT PLANT GROWTH.

MINIMUM CRITERIA SET FORTH IN SECTION 2.0.1 OF THE MAINTENANCE HANDBOOK (LATEST EDITION).

THE PLANTING SOIL. AN ACCEPTABLE SOIL MIXTURE OF 50% SAND, 30% LEAF (DECOMPOSED WOOD CHIPS OR OTHER

VEGETATION	SCHEDULE
GRASS	MONTHLY
SHRUBS	WHENEVER NEEDED
TREES	EVERY 3 YEARS
PLANTS	WHENEVER NEEDED
SOIL	MONTHLY
COLLECT AT THE	AFTER MAJOR STORM EVENTS/OR SEMI-ANNUALLY

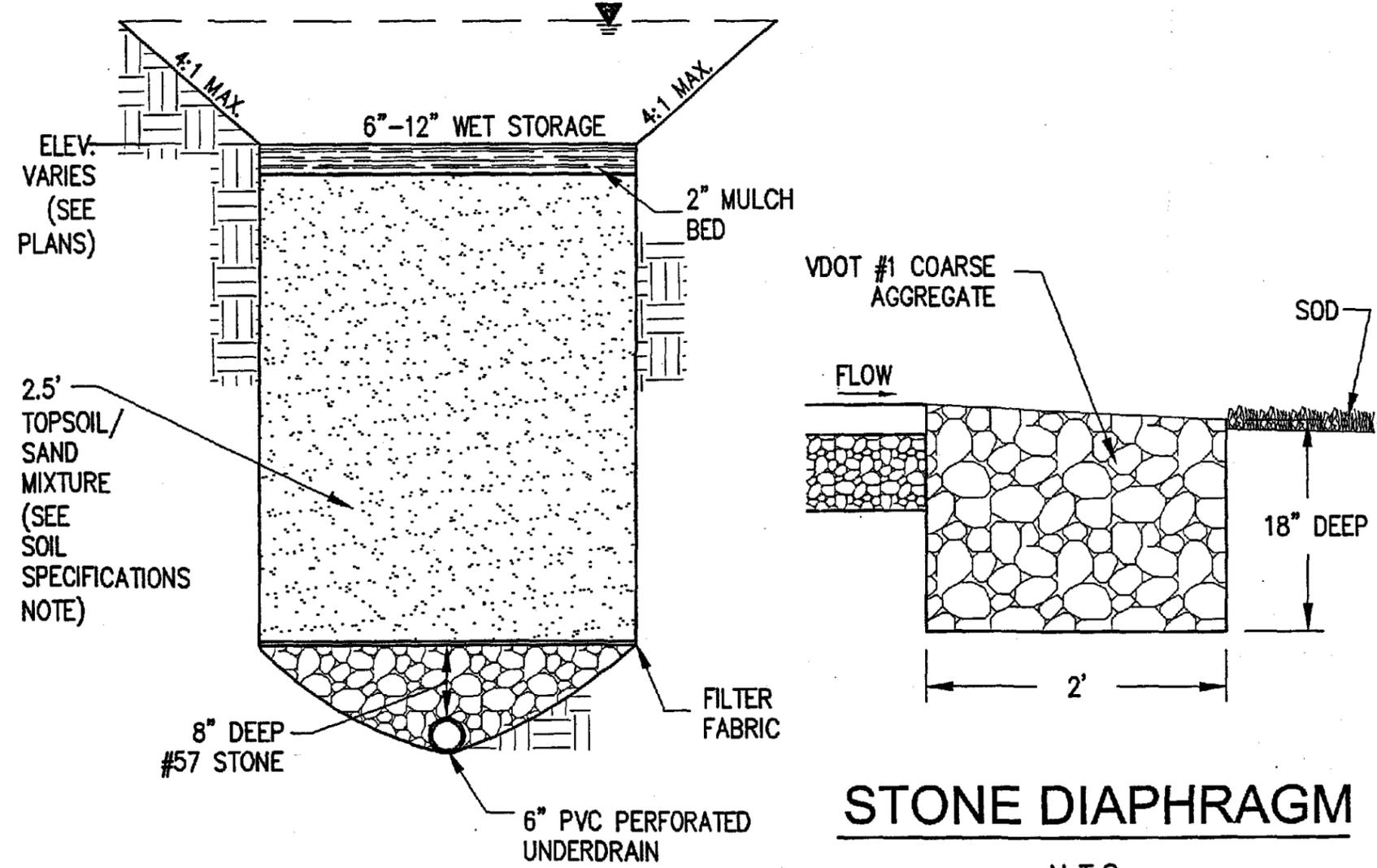
WITHIN SEVEN CONSECUTIVE DAYS AFTER CONSTRUCTION. THE MAINTENANCE HANDBOOK (LATEST EDITION) AND MINIMUM MAINTENANCE SCHEDULE FOR BIORETENTION CELLS.

MAINTENANCE RESPONSIBILITY OR LIABILITY FOR BIORETENTION WATER MANAGEMENT FACILITY AND ITS

THE BASIN DURING CONSTRUCTION SHALL BE PROTECTED. THE CONTRACTOR SHALL BE RESPONSIBLE FOR BIORETENTION BASIN CONSTRUCTION SCHEDULE WITH

STANDARD DROP INLET
12"-24" PIPE MAXIMUM DEPTH (H)=10'
N.T.S.
SOURCE: VDOT ROAD AND BRIDGE STANDARDS, VOLUME 1

SPECIFICATION REFERENCE
233
302



BIORETENTION FILTER
N.T.S.

STONE DIAPHRAGM
N.T.S.

- Installation of pipe culverts, storm sewers, and drainage structures shall have bedding structures in accordance with VDOT specifications (a minimum of 4" under pipes and a 4" under manholes). The backfill material shall be suitable material free of debris, silt, tree roots (organic material) and shall be compacted in uniform lifts and tested for density.
- All vegetation (organic material, roots, stumps) and overburden are to be removed to the road's subgrade.
- All concrete shall be Class A3-AE (3000PSI with air entrained additive) and tested in accordance with VDOT specifications and standards.
- There shall be a minimum of 6" of compacted 21-B aggregate material under the curb and gutter. Density tests shall be taken prior to the placement of the curb and gutter. Underdrains will be installed on raised curb medians in accordance with VDOT specifications and standards.
- All streets with curb and gutter shall have a standard CG entrance installed in accordance with VDOT specifications and standards. The curb and gutter pan shall be removed prior to the installation of the curb and gutter. The slope of the curb and gutter is not allowed. It is the developer's responsibility to insure that the builders have installed the curb and gutter in accordance with VDOT specifications and standards.
- All underground utilities are to be in place prior to the placement of the base material. On curb and gutter streets, the area directly behind the curb to the right of way shall be a minimum 36" from the curb to the entrance location. The developer's contractor should cut embankments to the right of way to insure a minimum 36" of cover.
- The sub-base and/or base material shall have a roller pattern and a control strip installed. The test results submitted to VDOT prior to the proof roll of the material and the roller pattern shall be at finished grade, have the template as shown on the pavement test roll performed by VDOT and the developer's soils engineer. Density (compaction) tests will be performed on a control strip in accordance with current VDOT specifications and standards to acquire optimum moisture. Optimum moisture shall come from the supplier of the material. Any yield material must be removed. The Hot Mix (asphalt). The Hot Mix shall be placed within 72 hours after the proof roll. Significant rainfall prior to the placement of the prime coat and/or Hot Mix will require the material to be stabilized and non-yielding.
- In accordance with Section 311 of the VDOT Road and Bridge Specifications, a primer shall be applied for any pavement typical with less than 4" of Hot Mix prior to the placement of the sub-base.
- All Hot Mix (asphalt) courses shall be placed in accordance with Section 315 of the VDOT Road and Bridge Specifications. The weather limitations of a 40° F surface temperature or 50° F and rising shall be observed. The developer's Geotechnical Engineer shall test the material to insure compliance with current VDOT specifications. The developer's Geotechnical Engineer shall also perform a roller pattern test and density (compaction) of the material in conformance with the current VDOT specifications.
- All utility cabinets, pedestals, and streetlights shall be located in accordance with VDOT Design Manual. There shall not be any cabinets, pedestals, or fire hydrants located on the curb and gutter.
- All storm pipe, drop inlet structures, ditches, and curb and gutter shall be cleaned and maintained.
- Flowers, shrubs, and trees shall not be placed within the proposed right of way by the developer. No irrigation (sprinkler) system shall be installed within the right of way. Any irrigation system found within the right of way will be removed prior to the start of construction. No easements shall encroach upon the proposed right of way. Any easements located within the proposed right of way prior to the acceptance of the system. No brick columns, endwalls, and/or brick mailboxes will be constructed or installed. The above items found in the proposed right of way will be removed, and all costs of removal shall be borne by the developer.
- Contact Mr. Sal Sibilla 72 hours in advance of all pavement markings/sign installation. Any markings/sign installation may result in additional cost to the developer.
- Contact Traffic Engineering at (757) 925-2693 a minimum of 48 hours in advance of any utility line across a road is within 400 feet of a traffic signal, so the lines can be marked and repaired for the developer.

6.

Design calculations

DRAINAGE CALCULATIONS

FOR

**NEW TOWN
BLOCK 2**

SITE:

James City County

SUBMITTED TO:

Environmental Division
James City County

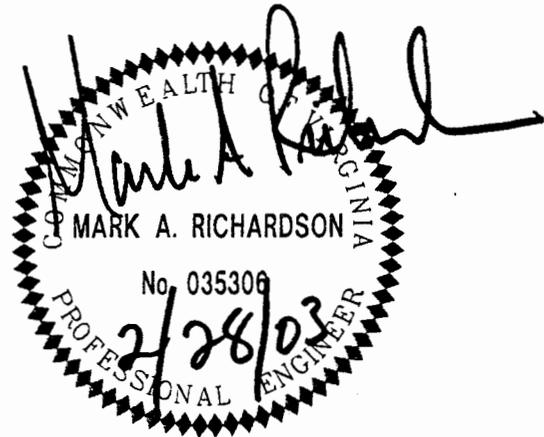
Need see Comps.

5-25-03

Prepared By:

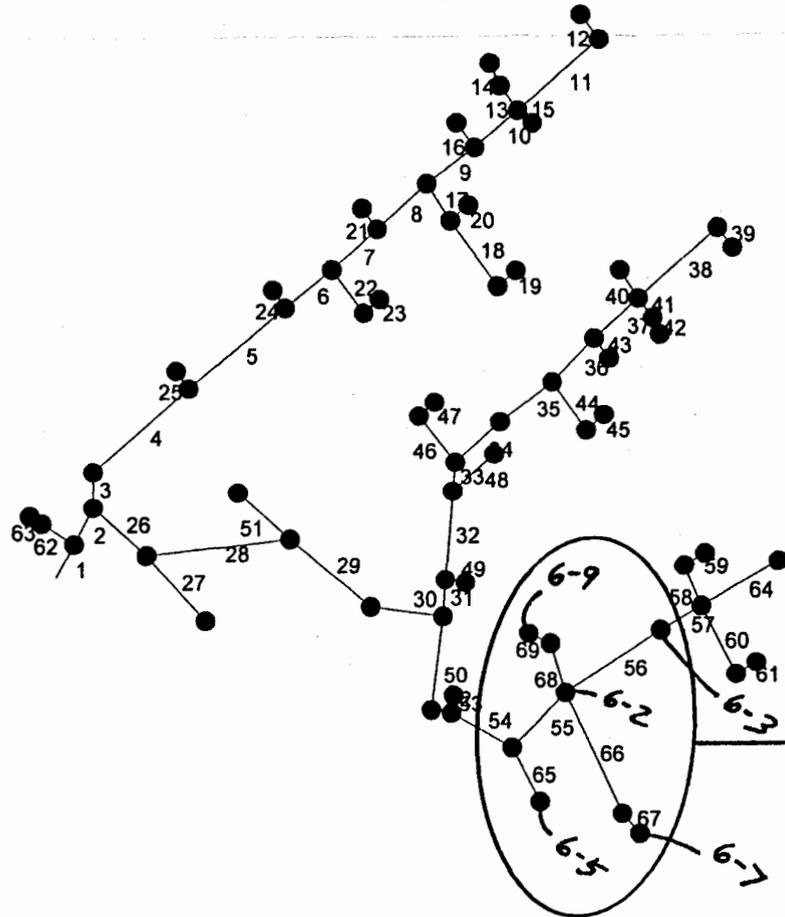
AES Consulting Engineers
5248 Olde Towne Road, Suite 1
Williamsburg, Virginia 23188

February 28, 2003
AES Project No. 6632E131



Hydraflow Plan View

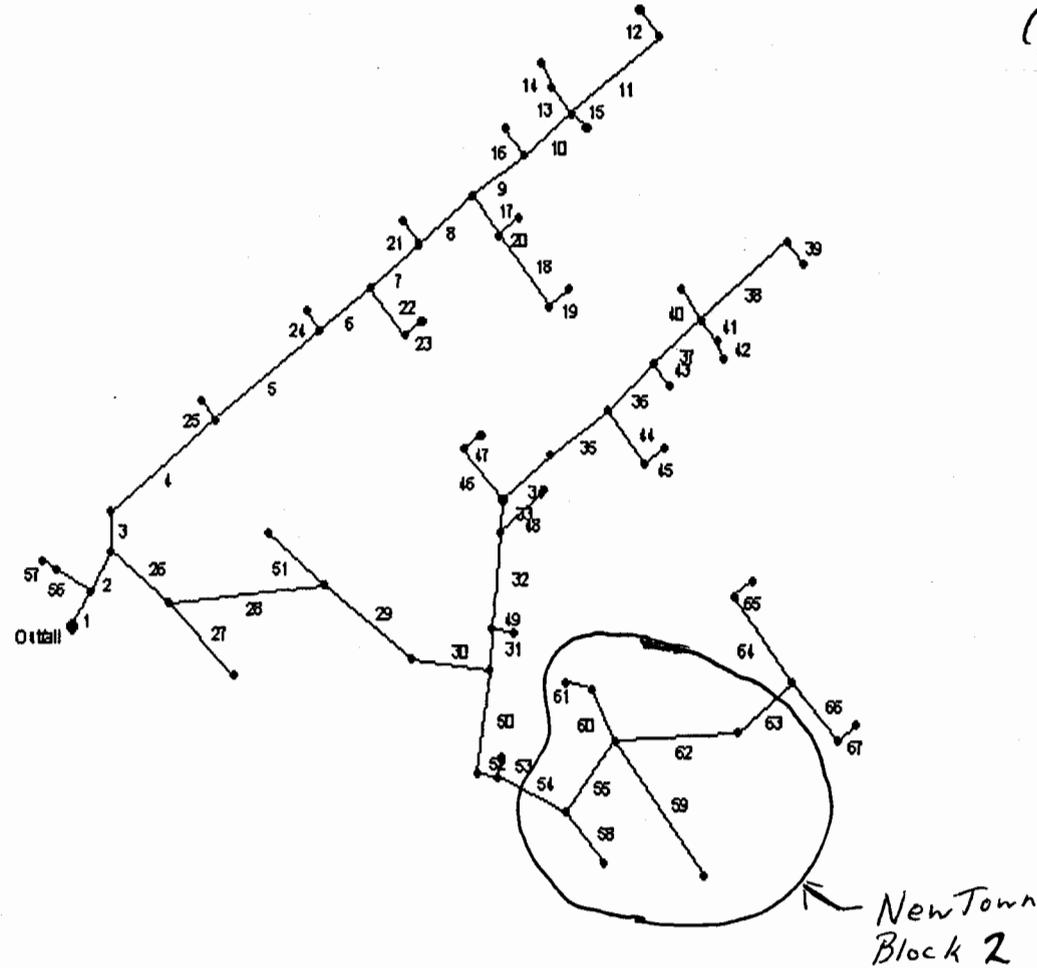
SYSTEM # 2



NEWTOWN, BLOCK 2
MODIFICATIONS

Hydraflow Plan View

STORM SYSTEM
REVISED PER BLOCK 2
AMENDMENT #1
SP-118-03
(prev Approved SP-25-03)



Storm Sewer Tabulation

Station		Len (ft)	Drng Area		Rnoff coeff (C)	Area x C		Tc		Rain (l) (in/hr)	Total flow (cfs)	Cap full (cfs)	Vel (ft/s)	Pipe		Invert Elev		HGL Elev		Grnd / Rim Elev		Line ID
Line	To Line		Incr (ac)	Total (ac)		Incr	Total	Inlet (min)	Syst (min)					Size (in)	Slope (%)	Up (ft)	Dn (ft)	Up (ft)	Dn (ft)	Up (ft)	Dn (ft)	
1	End	61.0	0.00	40.70	0.00	0.00	31.02	0.0	10.0	6.0	184.9	650.1	9.42	60	6.23	68.80	65.00	79.21	78.90	77.00	82.76	#2-1A TO #2-1
2	1	68.0	0.00	40.23	0.00	0.00	30.64	0.0	9.9	6.0	183.5	565.0	9.35	60	4.71	72.00	68.80	80.92	80.59	84.50	77.00	#2-2 TO #2-1A
3	2	59.0	0.37	9.14	0.65	0.24	6.95	5.0	9.4	6.1	42.27	182.1	5.98	36	7.46	76.40	72.00	82.52	82.28	83.80	84.50	#2-20 TO #2-2
4	3	220.0	0.34	8.77	0.65	0.22	6.71	5.0	9.0	6.2	41.45	67.73	8.44	30	2.73	82.40	76.40	86.53	82.94	89.89	83.80	#2-21 TO #2-20
5	4	219.0	0.12	8.25	0.65	0.08	6.36	5.0	8.5	6.3	39.88	60.08	8.57	30	2.15	87.10	82.40	91.45	86.53	96.70	89.89	#2-22 TO #2-21
6	5	105.0	0.00	8.04	0.00	0.00	6.21	0.0	8.3	6.3	39.30	41.98	8.01	30	1.05	88.20	87.10	92.41	91.45	98.76	96.70	#2-23 TO #2-22
7	6	105.0	0.13	6.93	0.65	0.08	5.44	5.0	8.0	6.4	34.68	41.98	7.07	30	1.05	89.30	88.20	94.16	93.41	99.65	98.76	#2-24 TO #2-23
8	7	116.0	0.00	6.71	0.00	0.00	5.29	0.0	7.7	6.4	34.07	41.71	6.94	30	1.03	90.50	89.30	95.74	94.94	99.93	99.65	FUTURE
9	8	104.0	0.11	4.57	0.70	0.08	3.73	5.0	7.4	6.5	24.33	49.25	4.96	30	1.44	92.00	90.50	96.85	96.49	101.23	99.93	FUTURE
10	9	98.0	0.17	4.33	0.80	0.14	3.57	5.0	7.0	6.6	23.55	41.43	4.80	30	1.02	93.00	92.00	97.56	97.23	103.15	101.23	FUTURE
11	10	188.0	0.18	0.47	0.80	0.14	0.35	5.0	5.5	7.0	2.43	12.10	2.97	15	3.51	99.60	93.00	100.55	97.92	106.92	103.15	FUTURE
12	11	52.0	0.29	0.29	0.70	0.20	0.20	5.0	5.0	7.1	1.45	3.12	2.40	12	0.77	100.00	99.60	100.65	100.55	106.92	106.92	FUTURE
13	10	51.0	0.16	1.41	0.75	0.12	1.17	5.0	5.2	7.1	8.29	9.30	4.69	18	0.78	93.40	93.00	98.23	97.92	103.15	103.15	FUTURE
14	13	40.0	1.25	1.25	0.84	1.05	1.05	5.0	5.0	7.1	7.48	10.50	4.23	18	1.00	93.80	93.40	98.59	98.39	100.00	103.15	FUTURE
15	10	33.0	2.28	2.28	0.84	1.92	1.92	5.0	5.0	7.1	13.65	24.90	4.34	24	1.21	93.40	93.00	98.04	97.92	100.00	103.15	FUTURE
16	9	51.0	0.13	0.13	0.65	0.08	0.08	5.0	5.0	7.1	0.60	3.15	0.77	12	0.78	94.20	93.80	97.25	97.23	101.23	101.23	FUTURE
17	8	73.0	0.51	2.14	0.75	0.38	1.56	5.0	5.8	6.9	10.79	23.68	3.43	24	1.10	91.30	90.50	96.65	96.49	99.45	99.93	FUTURE
18	17	136.0	0.49	1.03	0.65	0.32	0.70	5.0	5.2	7.1	4.92	6.55	4.01	15	1.03	92.70	91.30	97.63	96.84	100.12	99.45	FUTURE
19	18	41.0	0.54	0.54	0.70	0.38	0.38	5.0	5.0	7.1	2.69	3.52	3.43	12	0.98	93.10	92.70	98.11	97.88	100.12	100.12	FUTURE
20	17	41.0	0.60	0.60	0.80	0.48	0.48	5.0	5.0	7.1	3.42	5.83	4.36	12	2.68	92.40	91.30	97.21	96.84	99.45	99.45	FUTURE
21	7	43.0	0.09	0.09	0.70	0.06	0.06	5.0	5.0	7.1	0.45	3.64	0.57	12	1.05	92.55	92.10	94.94	94.94	99.50	99.65	#2-24A TO #2-24

Project File: 6632e131opt2.stm

Number of lines: 67

Run Date: 09-03-2003

Intensity = 143.72 / (Inlet time + 19.20) ^ 0.94; Return period = 10 Yrs.

Storm Sewer Tabulation

Station		Len (ft)	Drng Area		Rnoff coeff (C)	Area x C		Tc		Rain (l) (in/hr)	Total flow (cfs)	Cap full (cfs)	Vel (ft/s)	Pipe		Invert Elev		HGL Elev		Grnd / Rim Elev		Line ID
Line	To Line		Incr (ac)	Total (ac)		Incr	Total	Inlet (min)	Syst (min)					Size (in)	Slope (%)	Up (ft)	Dn (ft)	Up (ft)	Dn (ft)	Up (ft)	Dn (ft)	
22	6	90.0	0.54	1.11	0.65	0.35	0.78	5.0	5.2	7.1	5.51	7.46	4.49	15	1.33	90.30	89.10	94.06	93.41	97.75	98.76	#2-23A TO #2-23
23	22	36.0	0.57	0.57	0.75	0.43	0.43	5.0	5.0	7.1	3.05	3.75	3.88	12	1.11	90.70	90.30	94.64	94.38	97.75	97.75	#2-23B TO #2-23
24	5	36.0	0.09	0.09	0.70	0.06	0.06	5.0	5.0	7.1	0.45	3.75	0.57	12	1.11	89.60	89.20	91.45	91.45	96.70	96.70	#2-22A TO #2-22
25	4	36.0	0.18	0.18	0.75	0.14	0.14	5.0	5.0	7.1	0.96	3.75	1.22	12	1.11	82.80	82.40	86.56	86.53	89.89	89.89	#2-21A TO #2-21
26	2	123.0	3.48	31.09	0.84	2.92	23.69	5.0	9.6	6.0	143.1	250.8	9.00	54	1.63	74.00	72.00	82.93	82.28	82.00	84.50	#2-3 TO #2-2
27	26	150.0	0.59	0.59	0.84	0.50	0.50	5.0	5.0	7.1	3.53	9.13	2.88	15	2.00	77.00	74.00	84.33	83.88	85.80	82.00	#2-4 TO #2-3
28	26	258.0	0.29	27.02	0.84	0.24	20.27	5.0	9.0	6.2	125.0	229.1	7.86	54	1.36	77.50	74.00	84.92	83.88	91.00	82.00	#2-5 TO #2-3
29	28	183.0	0.14	26.16	0.84	0.12	19.55	5.0	8.6	6.3	122.4	195.0	7.70	54	0.98	79.30	77.50	86.59	85.88	94.30	91.00	#2-6 TO #2-5
30	29	131.0	0.00	26.02	0.00	0.00	19.43	0.0	8.2	6.3	123.0	195.9	7.73	54	0.99	80.60	79.30	87.52	87.01	95.04	94.30	#2-7 TO #2-6
31	30	59.0	0.27	7.74	0.65	0.18	5.93	5.0	8.1	6.4	37.72	41.36	8.18	30	1.02	86.60	86.00	90.66	88.45	96.37	95.04	#2-8 TO #2-7
32	31	145.0	0.00	7.09	0.00	0.00	5.49	0.0	7.7	6.4	35.35	41.71	7.20	30	1.03	88.10	86.60	91.74	90.66	98.54	96.37	#2-9 TO #2-8
33	32	48.0	0.00	6.83	0.00	0.00	5.32	0.0	7.6	6.5	34.41	41.86	7.01	30	1.04	88.60	88.10	92.68	92.34	98.55	98.54	#2-10 TO #2-9
34	33	104.0	0.12	5.96	0.70	0.08	4.70	5.0	7.3	6.5	30.73	40.22	6.26	30	0.96	89.60	88.60	93.84	93.25	100.07	98.55	#2-11 TO #2-10
35	34	116.0	0.00	5.84	0.00	0.00	4.62	0.0	7.0	6.6	30.53	41.71	6.22	30	1.03	90.80	89.60	94.57	93.93	101.03	100.07	FUTURE
36	35	104.0	0.13	5.12	0.65	0.08	4.14	5.0	6.7	6.7	27.64	42.18	5.63	30	1.06	91.90	90.80	95.65	95.17	102.27	101.03	FUTURE
37	36	103.0	0.14	4.87	0.80	0.11	3.97	5.0	6.4	6.8	26.82	42.38	5.46	30	1.07	93.00	91.90	96.58	96.14	104.11	102.27	FUTURE
38	37	183.0	0.27	0.68	0.70	0.19	0.48	5.0	5.3	7.1	3.36	12.99	3.61	15	4.04	100.40	93.00	101.58	97.04	107.80	104.11	FUTURE
39	38	42.0	0.41	0.41	0.70	0.29	0.29	5.0	5.0	7.1	2.05	3.48	2.68	12	0.95	100.80	100.40	101.70	101.58	107.80	107.80	FUTURE
40	37	56.0	1.62	1.62	0.84	1.36	1.36	5.0	5.0	7.1	9.70	23.41	3.09	24	1.07	93.60	93.00	97.15	97.04	100.00	104.11	FUTURE
41	37	41.0	0.26	2.43	0.75	0.20	2.02	5.0	5.1	7.1	14.31	22.34	4.56	24	0.98	95.00	94.60	97.21	97.04	104.11	104.11	FUTURE
42	41	29.0	2.17	2.17	0.84	1.82	1.82	5.0	5.0	7.1	12.99	23.00	4.13	24	1.03	95.30	95.00	97.45	97.35	100.00	104.11	FUTURE

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Number of lines: 67

Run Date: 09-03-2003

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Storm Sewer Tabulation

Station		Len (ft)	Drng Area		Rnoff coeff (C)	Area x C		Tc		Rain (l) (in/hr)	Total flow (cfs)	Cap full (cfs)	Vel (ft/s)	Pipe		Invert Elev		HGL Elev		Grnd / Rim Elev		Line ID
Line	To Line		Incr (ac)	Total (ac)		Incr	Total	Inlet (min)	Syst (min)					Size (in)	Slope (%)	Up (ft)	Dn (ft)	Up (ft)	Dn (ft)	Up (ft)	Dn (ft)	
43	36	42.0	0.12	0.12	0.70	0.08	0.08	5.0	5.0	7.1	0.60	3.48	0.80	12	0.95	95.30	94.90	96.15	96.14	102.27	102.27	FUTURE
44	35	100.0	0.34	0.72	0.70	0.24	0.49	5.0	5.3	7.0	3.42	6.46	2.78	15	1.00	93.00	92.00	95.45	95.17	100.44	101.03	FUTURE
45	44	41.0	0.38	0.38	0.65	0.25	0.25	5.0	5.0	7.1	1.76	3.52	2.24	12	0.98	93.40	93.00	95.67	95.57	100.44	100.44	FUTURE
46	33	101.0	0.36	0.87	0.65	0.23	0.62	5.0	5.2	7.1	4.36	6.43	3.56	15	0.99	90.60	89.60	93.71	93.25	97.75	98.55	#2-10A TO #2-10
47	46	36.0	0.51	0.51	0.75	0.38	0.38	5.0	5.0	7.1	2.73	3.75	3.47	12	1.11	91.00	90.60	94.12	93.91	97.75	97.75	#2-10B TO #2-10
48	32	96.0	0.26	0.26	0.65	0.17	0.17	5.0	5.0	7.1	1.20	6.59	2.52	15	1.04	92.70	91.70	93.32	92.34	99.68	98.54	#2-9A TO #2-9
49	31	36.0	0.38	0.38	0.70	0.27	0.27	5.0	5.0	7.1	1.90	3.75	2.41	12	1.11	89.40	89.00	90.76	90.66	96.37	96.37	#2-8A TO #2-8
50	30	155.0	0.35	18.28	0.65	0.23	13.50	5.0	7.5	6.5	87.81	193.5	5.52	54	0.97	82.10	80.60	88.76	88.45	92.73	95.04	#2-7A TO #2-7
51	28	120.0	0.57	0.57	0.84	0.48	0.48	5.0	5.0	7.1	3.41	8.34	2.81	15	1.67	85.00	83.00	86.19	85.88	90.40	91.00	#2-5A TO #2-5
52	50	36.0	0.00	17.93	0.00	0.00	13.27	0.0	7.4	6.5	86.62	151.4	6.89	48	1.11	82.50	82.10	89.36	89.23	92.45	92.73	#2-7B TO #2-7A
53	52	29.0	0.32	0.32	0.75	0.24	0.24	5.0	5.0	7.1	1.71	7.54	2.18	12	4.48	86.30	85.00	90.17	90.10	93.10	92.45	#2-7BB TO #2-7
54	52	124.0	0.57	17.61	0.84	0.48	13.03	5.0	7.0	6.6	86.06	143.1	6.85	48	0.99	83.73	82.50	90.55	90.10	92.80	92.45	#6-1 TO #2-7B
55	54	132.0	1.05	16.40	0.84	0.88	12.07	5.0	6.8	6.7	80.53	154.9	8.37	42	2.37	86.86	83.73	92.12	91.28	95.50	92.80	#6-2 TO #6-1
56	1	67.0	0.13	0.47	0.80	0.10	0.38	5.0	5.2	7.1	2.66	20.42	2.17	15	10.00	75.50	68.80	80.70	80.59	82.76	77.00	#2-1B TO #2-1A
57	56	24.0	0.34	0.34	0.80	0.27	0.27	5.0	5.0	7.1	1.94	3.98	2.47	12	1.25	75.80	75.50	80.78	80.71	82.76	82.76	#2-1C TO #2-1B
58	54	100.0	0.64	0.64	0.75	0.48	0.48	5.0	5.0	7.1	3.42	15.51	2.79	15	5.77	89.50	83.73	91.56	91.28	93.00	92.80	#6-5 TO #6-1
59	55	249.0	1.68	1.68	0.84	1.41	1.41	5.0	5.0	7.1	10.06	14.85	5.69	18	2.00	91.84	86.86	95.49	93.21	95.50	95.50	#6-6 TO #6-2
60	55	86.0	0.26	1.10	0.84	0.22	0.85	5.0	5.2	7.1	6.00	7.91	4.89	15	1.50	88.15	86.86	93.95	93.21	95.50	95.50	#6-8 TO #6-2
61	60	43.0	0.84	0.84	0.75	0.63	0.63	5.0	5.0	7.1	4.49	7.94	3.66	15	1.51	88.80	88.15	94.44	94.23	95.00	95.50	#6-9 TO #6-8
62	55	205.0	1.05	12.57	0.00	0.00	8.93	5.0	6.3	6.8	60.48	96.82	8.56	36	2.11	91.18	86.86	95.64	93.21	100.50	95.50	#6-3 TO #6-2
63	62	116.0	6.92	11.52	0.84	5.81	8.93	5.0	6.1	6.8	60.99	94.32	8.63	36	2.00	93.50	91.18	98.01	95.64	99.50	100.50	#6-4 TO #6-3

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Number of lines: 67

Run Date: 09-03-2003

Intensity = 143.72 / (Inlet time + 19.20) ^ 0.94; Return period = 10 Yrs.

Storm Sewer Tabulation

Station		Len (ft)	Drng Area		Rnoff coeff (C)	Area x C		Tc		Rain (l) (in/hr)	Total flow (cfs)	Cap full (cfs)	Vel (ft/s)	Pipe		Invert Elev		HGL Elev		Grnd / Rim Elev		Line ID
Line	To Line		Incr (ac)	Total (ac)		Incr	Total	Inlet (min)	Syst (min)					Size (in)	Slope (%)	Up (ft)	Dn (ft)	Up (ft)	Dn (ft)	Up (ft)	Dn (ft)	
64	63	161.0	0.38	0.74	0.65	0.25	0.54	5.0	5.2	7.1	3.78	6.64	3.08	15	1.06	95.20	93.50	98.56	98.01	100.59	99.50	FUTURE
65	64	38.0	0.36	0.36	0.80	0.29	0.29	5.0	5.0	7.1	2.05	3.65	2.61	12	1.05	95.60	95.20	98.83	98.71	100.59	100.59	FUTURE
66	63	115.0	3.13	3.86	0.65	2.03	2.58	5.0	5.2	7.1	18.26	23.10	5.81	24	1.04	94.70	93.50	98.76	98.01	100.59	99.50	FUTURE
67	66	38.0	0.73	0.73	0.75	0.55	0.55	5.0	5.0	7.1	3.90	6.63	3.18	15	1.05	95.10	94.70	99.42	99.29	100.59	100.59	FUTURE

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Number of lines: 67

Run Date: 09-03-2003

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DEVELOPED AREA TRACKING FOR BMP#2

PER INTERIM STORMWATER MANAGEMENT PLAN DATED 11-18-97

<u>SITE PLAN ID</u>	<u>PROJECT NAME</u>	<u>DEVELOPED AREA</u>
<u>OFFSITE</u>		
SP NO. 125-97	WILLIAMSBURG/JCC COURTHOUSE	6.21 AC.
SP NO. 101-99	TIDEWATER PHYSICAL THERAPY	2.27 AC.
SP NO. 62-99	COURTHOUSE GREEN	6.99 AC.
SP NO. 155-00	ADVANCED VISION INSTITUTE	2.50 AC.
SP NO. 63-00	U.S. POST OFFICE	4.55 AC.
<u>NEW TOWN</u>		
SP NO. 49-02	BLOCK 5	7.52 AC.
SP NO. 50-02	SEC. 2 AND 4, PHASE I ROAD PLANS	4.47 AC.
SP NO. 25-03	BLOCK 2	8.22 AC.

TOTAL CURRENT DEVELOPED AREA 42.73 AC.

SECTION 2 AND 4 LAND USE SUMMARY TABLE

<u>SITE PLAN ID</u>	<u>PROJECT NAME</u>	<u>IMPERVIOUS AREA</u>
SP NO. 29-03	SEC. 4, BLOCK 5, PARCEL A	3.28 AC.
SP NO. 29-03	SEC. 4, BLOCK 5, PARCEL B (SUNTRUST)	0.76 AC.
SP NO. 50-02	SEC. 2 AND 4, PHASE I ROAD PLANS	3.48 AC.
SP NO. 139-02	SEC. 4, BLOCK 5, PARCEL C (CORNER POCKET)	0.20 AC.
SP NO. 25-03	SEC. 2, BLOCK 2, PARCEL A	3.41 AC.
SP NO. 57-03	SEC. 2, BLOCK 2, PARCEL B (WILLIAM E WOOD)	0.31 AC.
TOTAL CURRENT SECTION 2 & 4 IMPERVIOUS AREA =		11.44 AC.
TOTAL SECTION 2 & 4 SITE AREA =		83.61 AC.

DRAINAGE CALCULATIONS

FOR

**NEW TOWN
BLOCK 2**

SITE:

James City County

SUBMITTED TO:

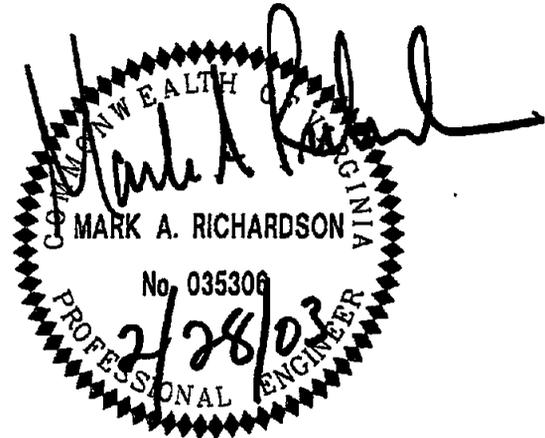
Environmental Division
James City County

*Need see Comps.
5-25-03*

Prepared By:

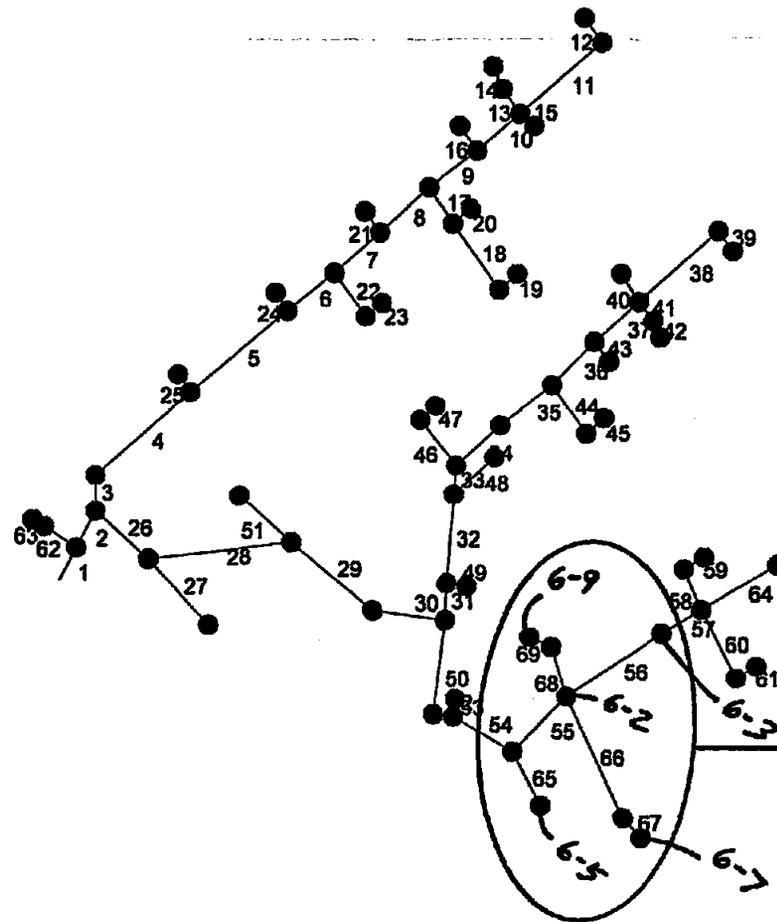
AES Consulting Engineers
5248 Olde Towne Road, Suite 1
Williamsburg, Virginia 23188

February 28, 2003
AES Project No. 6632E131



Hydraflow Plan View

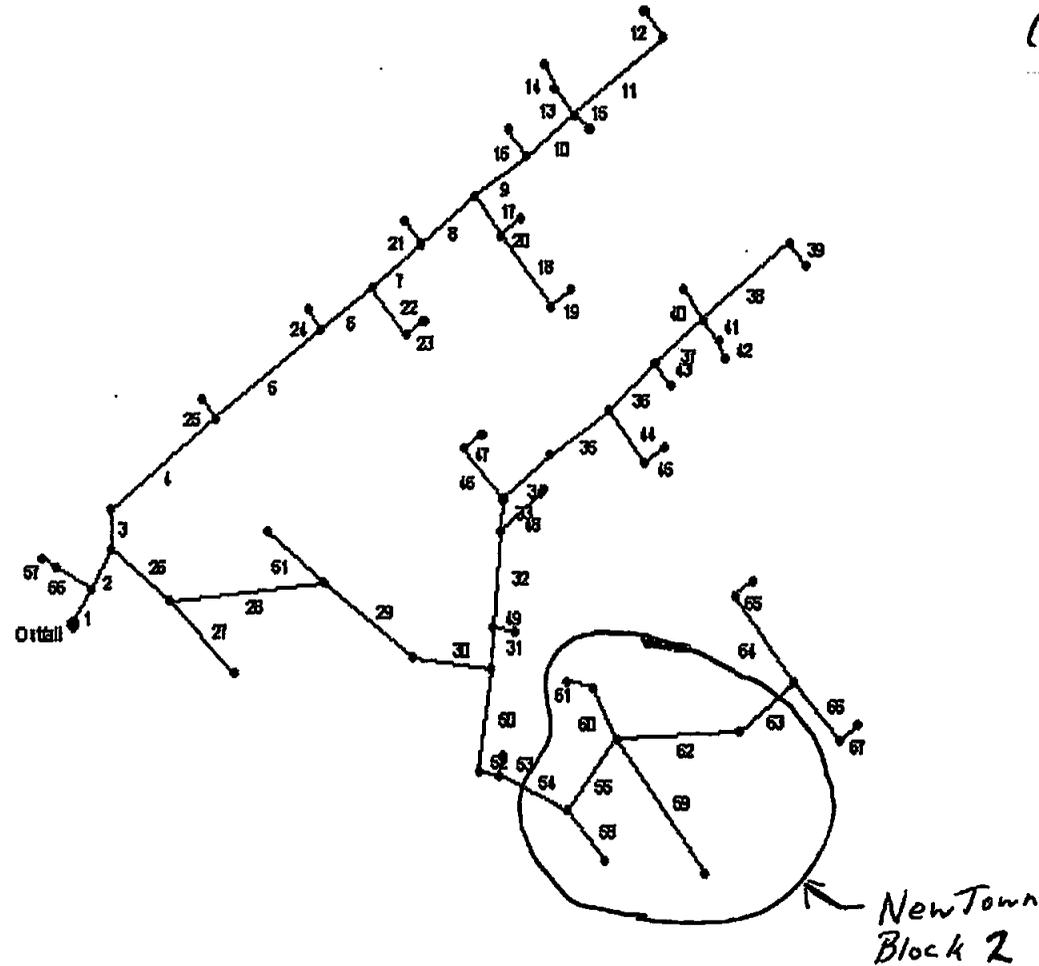
SYSTEM # 2



NEWTOWN, BLOCK 2
MODIFICATIONS

Hydraflow Plan View

STORM SYSTEM
REVISED PER BLOCK 2
AMENDMENT #/
SP-118-03
(PWA Approved SP-25-03)



Storm Sewer Tabulation

Station		Len (ft)	Drng Area		Rnoff coeff (C)	Area x C		Tc		Rain (l) (ln/hr)	Total flow (cfs)	Cap full (cfs)	Vel (ft/s)	Pipe		Invert Elev		HGL Elev		Grnd / Rim Elev		Line ID
Line	To Line		Incr (ac)	Total (ac)		Incr	Total	Inlet (min)	Syst (min)					Size (in)	Slope (%)	Up (ft)	Dn (ft)	Up (ft)	Dn (ft)	Up (ft)	Dn (ft)	
1	End	81.0	0.00	40.70	0.00	0.00	31.02	0.0	10.0	6.0	184.9	650.1	9.42	60	6.23	68.80	65.00	79.21	78.90	77.00	82.76	#2-1A TO #2-1
2	1	88.0	0.00	40.23	0.00	0.00	30.64	0.0	9.9	6.0	183.5	665.0	9.35	60	4.71	72.00	68.80	80.92	80.59	84.50	77.00	#2-2 TO #2-1A
3	2	59.0	0.37	9.14	0.65	0.24	6.95	5.0	9.4	6.1	42.27	182.1	5.98	36	7.46	76.40	72.00	82.52	82.28	83.80	84.50	#2-20 TO #2-2
4	3	220.0	0.34	8.77	0.65	0.22	6.71	5.0	9.0	6.2	41.45	67.73	8.44	30	2.73	82.40	76.40	86.53	82.94	89.89	83.80	#2-21 TO #2-20
5	4	219.0	0.12	8.25	0.65	0.08	6.36	5.0	8.5	6.3	39.88	60.08	8.57	30	2.15	87.10	82.40	91.45	86.53	96.70	89.89	#2-22 TO #2-21
6	5	105.0	0.00	8.04	0.00	0.00	6.21	0.0	8.3	6.3	39.30	41.98	8.01	30	1.05	88.20	87.10	92.41	91.45	98.76	96.70	#2-23 TO #2-22
7	6	105.0	0.13	6.93	0.65	0.08	5.44	5.0	8.0	6.4	34.68	41.98	7.07	30	1.05	89.30	88.20	94.16	93.41	99.66	98.76	#2-24 TO #2-23
8	7	116.0	0.00	6.71	0.00	0.00	5.29	0.0	7.7	6.4	34.07	41.71	6.94	30	1.03	90.50	89.30	95.74	94.94	99.93	99.66	FUTURE
9	8	104.0	0.11	4.57	0.70	0.08	3.73	5.0	7.4	6.5	24.33	49.25	4.96	30	1.44	92.00	90.50	96.85	96.49	101.23	99.93	FUTURE
10	9	98.0	0.17	4.33	0.80	0.14	3.57	5.0	7.0	6.6	23.55	41.43	4.80	30	1.02	93.00	92.00	97.56	97.23	103.15	101.23	FUTURE
11	10	188.0	0.18	0.47	0.80	0.14	0.35	5.0	5.5	7.0	2.43	12.10	2.97	15	3.51	99.60	93.00	100.55	97.92	106.92	103.15	FUTURE
12	11	52.0	0.29	0.29	0.70	0.20	0.20	5.0	5.0	7.1	1.45	3.12	2.40	12	0.77	100.00	99.60	100.65	100.55	106.92	106.92	FUTURE
13	10	51.0	0.16	1.41	0.75	0.12	1.17	5.0	5.2	7.1	8.29	9.30	4.69	18	0.78	93.40	93.00	98.23	97.92	103.15	103.15	FUTURE
14	13	40.0	1.25	1.25	0.84	1.05	1.05	5.0	5.0	7.1	7.48	10.50	4.23	18	1.00	93.80	93.40	98.59	98.39	100.00	103.15	FUTURE
15	10	33.0	2.28	2.28	0.84	1.92	1.92	5.0	5.0	7.1	13.65	24.90	4.34	24	1.21	93.40	93.00	98.04	97.92	100.00	103.15	FUTURE
16	9	51.0	0.13	0.13	0.65	0.08	0.08	5.0	5.0	7.1	0.60	3.15	0.77	12	0.78	94.20	93.80	97.25	97.23	101.23	101.23	FUTURE
17	8	73.0	0.51	2.14	0.75	0.38	1.56	5.0	5.8	6.9	10.79	23.68	3.43	24	1.10	91.30	90.50	96.65	96.49	99.45	99.93	FUTURE
18	17	136.0	0.49	1.03	0.65	0.32	0.70	5.0	5.2	7.1	4.92	6.55	4.01	15	1.03	92.70	91.30	97.63	96.84	100.12	99.45	FUTURE
19	18	41.0	0.54	0.54	0.70	0.38	0.38	5.0	5.0	7.1	2.69	3.52	3.43	12	0.98	93.10	92.70	98.11	97.88	100.12	100.12	FUTURE
20	17	41.0	0.60	0.60	0.80	0.48	0.48	5.0	5.0	7.1	3.42	5.83	4.36	12	2.68	92.40	91.30	97.21	96.84	99.45	99.45	FUTURE
21	7	43.0	0.09	0.09	0.70	0.06	0.06	5.0	5.0	7.1	0.45	3.64	0.57	12	1.05	92.55	92.10	94.94	94.94	99.50	99.65	#2-24A TO #2-24

Project File: 6632e131opt2.stm

Number of lines: 67

Run Date: 09-03-2003

Intensity = 143.72 / (Inlet time + 19.20) ^ 0.94; Return period = 10 Yrs.

Storm Sewer Tabulation

Station		Len (ft)	Drng Area		Rnoff coeff (C)	Area x C		Tc		Rain (l) (In/hr)	Total flow (cfs)	Cap full (cfs)	Vel (ft/s)	Pipe		Invert Elev		HGL Elev		Grnd / Rim Elev		Line ID
Line	To Line		Incr (ac)	Total (ac)		Incr	Total	Inlet (min)	Syst (min)					Size (In)	Slope (%)	Up (ft)	Dn (ft)	Up (ft)	Dn (ft)	Up (ft)	Dn (ft)	
22	6	90.0	0.54	1.11	0.65	0.35	0.78	5.0	5.2	7.1	5.51	7.46	4.49	15	1.33	90.30	89.10	94.06	93.41	97.75	98.76	#2-23A TO #2-23
23	22	36.0	0.57	0.57	0.75	0.43	0.43	5.0	5.0	7.1	3.05	3.75	3.88	12	1.11	90.70	90.30	94.64	94.38	97.75	97.75	#2-23B TO #2-23
24	5	36.0	0.09	0.09	0.70	0.06	0.06	5.0	5.0	7.1	0.45	3.75	0.57	12	1.11	89.60	89.20	91.45	91.45	96.70	96.70	#2-22A TO #2-22
25	4	36.0	0.18	0.18	0.75	0.14	0.14	5.0	5.0	7.1	0.96	3.75	1.22	12	1.11	82.80	82.40	86.56	86.53	89.89	89.89	#2-21A TO #2-21
26	2	123.0	3.48	31.09	0.84	2.92	23.69	6.0	9.6	6.0	143.1	250.8	9.00	54	1.63	74.00	72.00	82.93	82.28	82.00	84.50	#2-3 TO #2-2
27	26	150.0	0.59	0.59	0.84	0.50	0.50	5.0	5.0	7.1	3.53	9.13	2.88	15	2.00	77.00	74.00	84.33	83.88	85.80	82.00	#2-4 TO #2-3
28	26	258.0	0.29	27.02	0.84	0.24	20.27	5.0	9.0	6.2	125.0	229.1	7.86	54	1.36	77.50	74.00	84.92	83.88	91.00	82.00	#2-5 TO #2-3
29	28	183.0	0.14	26.16	0.84	0.12	19.55	5.0	8.6	6.3	122.4	195.0	7.70	54	0.98	79.30	77.50	86.59	85.88	94.30	91.00	#2-6 TO #2-5
30	29	131.0	0.00	26.02	0.00	0.00	19.43	0.0	8.2	6.3	123.0	195.9	7.73	54	0.99	80.60	79.30	87.52	87.01	95.04	94.30	#2-7 TO #2-6
31	30	59.0	0.27	7.74	0.65	0.18	5.93	5.0	8.1	6.4	37.72	41.36	8.18	30	1.02	86.60	86.00	90.66	88.45	96.37	95.04	#2-8 TO #2-7
32	31	145.0	0.00	7.09	0.00	0.00	5.49	0.0	7.7	6.4	35.35	41.71	7.20	30	1.03	88.10	86.60	91.74	90.66	98.54	96.37	#2-9 TO #2-8
33	32	48.0	0.00	6.83	0.00	0.00	5.32	0.0	7.6	6.5	34.41	41.86	7.01	30	1.04	88.60	88.10	92.68	92.34	98.55	98.54	#2-10 TO #2-9
34	33	104.0	0.12	5.96	0.70	0.08	4.70	5.0	7.3	6.5	30.73	40.22	6.26	30	0.96	89.60	88.80	93.84	93.25	100.07	98.55	#2-11 TO #2-10
35	34	116.0	0.00	5.84	0.00	0.00	4.62	0.0	7.0	6.6	30.53	41.71	6.22	30	1.03	90.80	89.60	94.57	93.93	101.03	100.07	FUTURE
36	35	104.0	0.13	5.12	0.65	0.08	4.14	5.0	6.7	6.7	27.64	42.18	5.63	30	1.06	91.90	90.80	95.66	95.17	102.27	101.03	FUTURE
37	36	103.0	0.14	4.87	0.80	0.11	3.97	5.0	6.4	6.8	26.82	42.38	5.46	30	1.07	93.00	91.90	96.58	96.14	104.11	102.27	FUTURE
38	37	183.0	0.27	0.68	0.70	0.19	0.48	5.0	5.3	7.1	3.36	12.99	3.61	15	4.04	100.40	93.00	101.58	97.04	107.80	104.11	FUTURE
39	38	42.0	0.41	0.41	0.70	0.29	0.29	5.0	5.0	7.1	2.05	3.48	2.68	12	0.95	100.80	100.40	101.70	101.58	107.80	107.80	FUTURE
40	37	56.0	1.62	1.62	0.84	1.36	1.36	5.0	6.0	7.1	9.70	23.41	3.09	24	1.07	93.60	93.00	97.15	97.04	100.00	104.11	FUTURE
41	37	41.0	0.26	2.43	0.75	0.20	2.02	5.0	5.1	7.1	14.31	22.34	4.56	24	0.98	95.00	94.60	97.21	97.04	104.11	104.11	FUTURE
42	41	29.0	2.17	2.17	0.84	1.82	1.82	5.0	5.0	7.1	12.99	23.00	4.13	24	1.03	95.30	95.00	97.45	97.35	100.00	104.11	FUTURE

Plot File: 6632e131opt2.stm

Number of lines: 67

Run Date: 09-03-2003

Intensity = 143.72 / (Inlet time + 19.20) ^ 0.94; Return period = 10 Yrs.

Storm Sewer Tabulation

Station		Len (ft)	Drng Area		Rnoff coeff (C)	Area x C		Tc		Rain (l) (ln/hr)	Total flow (cfs)	Cap full (cfs)	Vel (ft/s)	Pipe		Invert Elev		HGL Elev		Grnd / Rim Elev		Line ID
Line	To Line		Incr (ac)	Total (ac)		Incr	Total	Inlet (min)	Syst (min)					Size (In)	Slope (%)	Up (ft)	Dn (ft)	Up (ft)	Dn (ft)	Up (ft)	Dn (ft)	
43	36	42.0	0.12	0.12	0.70	0.08	0.08	5.0	5.0	7.1	0.60	3.48	0.80	12	0.95	95.30	94.80	96.15	96.14	102.27	102.27	FUTURE
44	35	100.0	0.34	0.72	0.70	0.24	0.49	5.0	5.3	7.0	3.42	6.46	2.78	15	1.00	93.00	92.00	95.45	95.17	100.44	101.03	FUTURE
45	44	41.0	0.38	0.38	0.65	0.25	0.25	5.0	5.0	7.1	1.76	3.52	2.24	12	0.98	93.40	93.00	95.67	95.57	100.44	100.44	FUTURE
46	33	101.0	0.36	0.87	0.65	0.23	0.62	5.0	5.2	7.1	4.36	6.43	3.56	15	0.99	90.60	89.60	93.71	93.25	97.75	98.55	#2-10A TO #2-10
47	46	36.0	0.51	0.51	0.75	0.38	0.38	5.0	5.0	7.1	2.73	3.75	3.47	12	1.11	91.00	90.60	94.12	93.91	97.75	97.75	#2-10B TO #2-10
48	32	96.0	0.26	0.26	0.65	0.17	0.17	5.0	5.0	7.1	1.20	6.59	2.52	15	1.04	92.70	91.70	93.32	92.34	99.68	98.54	#2-9A TO #2-9
49	31	36.0	0.38	0.38	0.70	0.27	0.27	5.0	5.0	7.1	1.90	3.76	2.41	12	1.11	89.40	89.00	80.76	80.66	96.37	96.37	#2-8A TO #2-8
50	30	155.0	0.35	18.28	0.65	0.23	13.50	5.0	7.5	6.5	87.81	193.5	5.52	54	0.97	82.10	80.60	88.76	88.45	92.73	95.04	#2-7A TO #2-7
51	28	120.0	0.57	0.57	0.84	0.48	0.48	5.0	5.0	7.1	3.41	8.34	2.81	15	1.67	85.00	83.00	86.19	85.88	90.40	91.00	#2-5A TO #2-5
52	50	36.0	0.00	17.93	0.00	0.00	13.27	0.0	7.4	6.5	86.62	151.4	6.89	48	1.11	82.50	82.10	89.36	89.23	92.45	92.73	#2-7B TO #2-7A
53	52	29.0	0.32	0.32	0.75	0.24	0.24	5.0	5.0	7.1	1.71	7.54	2.18	12	4.48	86.30	85.00	90.17	90.10	93.10	92.46	#2-7BB TO #2-7
54	52	124.0	0.57	17.61	0.84	0.48	13.03	5.0	7.0	6.6	86.06	143.1	6.85	48	0.99	83.73	82.50	90.55	90.10	92.80	92.45	#6-1 TO #2-7B
55	54	132.0	1.05	16.40	0.84	0.88	12.07	5.0	6.8	6.7	80.53	154.9	8.37	42	2.37	86.86	83.73	92.12	91.28	95.50	92.80	#6-2 TO #6-1
56	1	67.0	0.13	0.47	0.80	0.10	0.38	5.0	5.2	7.1	2.66	20.42	2.17	15	10.00	75.50	68.80	80.70	80.59	82.76	77.00	#2-1B TO #2-1A
57	56	24.0	0.34	0.34	0.80	0.27	0.27	5.0	5.0	7.1	1.94	3.98	2.47	12	1.25	75.80	75.50	80.78	80.71	82.76	82.76	#2-1C TO #2-1B
58	54	100.0	0.64	0.64	0.75	0.48	0.48	5.0	5.0	7.1	3.42	15.51	2.79	15	5.77	89.50	83.73	91.56	91.28	93.00	92.80	#6-5 TO #6-1
59	55	249.0	1.68	1.68	0.84	1.41	1.41	5.0	5.0	7.1	10.06	14.85	5.69	18	2.00	91.84	86.86	95.49	93.21	95.50	95.50	#6-6 TO #6-2
60	55	86.0	0.26	1.10	0.84	0.22	0.85	5.0	5.2	7.1	6.00	7.91	4.89	15	1.50	88.15	86.86	93.95	93.21	95.50	95.50	#6-8 TO #6-2
61	60	43.0	0.84	0.84	0.75	0.63	0.63	5.0	5.0	7.1	4.49	7.94	3.66	16	1.51	88.80	88.15	94.44	94.23	95.00	95.50	#6-9 TO #6-8
62	55	205.0	1.05	12.57	0.00	0.00	8.93	5.0	6.3	6.8	60.48	96.82	8.56	36	2.11	91.18	86.86	95.64	93.21	100.50	95.50	#6-3 TO #6-2
63	62	116.0	6.92	11.52	0.84	5.81	8.93	5.0	6.1	6.8	60.99	94.32	8.63	36	2.00	93.50	91.18	98.01	95.64	99.50	100.50	#6-4 TO #6-3

Project File: 6632e131opt2.stm

Number of lines: 67

Run Date: 09-03-2003

Intensity = 143.72 / (Inlet time + 19.20) ^ 0.94; Return period = 10 Yrs.

Storm Sewer Tabulation

Station		Len (ft)	Drng Area		Rnoff coeff (C)	Area x C		Tc		Rain (l) (ln/hr)	Total flow (cfs)	Cap full (cfs)	Vel (ft/s)	Pipe		Invert Elev		HGL Elev		Grnd / Rim Elev		Line ID
Line	To Line		Incr (ac)	Total (ac)		Incr	Total	Inlet (min)	Syst (min)					Size (In)	Slope (%)	Up (ft)	Dn (ft)	Up (ft)	Dn (ft)	Up (ft)	Dn (ft)	
64	63	161.0	0.38	0.74	0.65	0.25	0.54	5.0	5.2	7.1	3.78	6.64	3.08	15	1.06	95.20	93.50	98.56	98.01	100.59	99.50	FUTURE
65	64	38.0	0.36	0.36	0.80	0.29	0.29	5.0	5.0	7.1	2.05	3.65	2.61	12	1.05	95.60	95.20	98.83	98.71	100.59	100.59	FUTURE
66	63	115.0	3.13	3.86	0.65	2.03	2.58	5.0	5.2	7.1	18.26	23.10	5.81	24	1.04	94.70	93.50	98.76	98.01	100.59	99.50	FUTURE
67	66	38.0	0.73	0.73	0.75	0.55	0.55	5.0	5.0	7.1	3.90	6.63	3.18	15	1.05	95.10	94.70	99.42	99.29	100.59	100.59	FUTURE

File: 6632e131opt2.stm

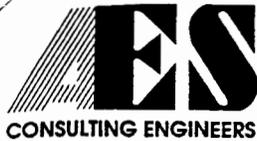
Number of lines: 67

Run Date: 09-03-2003

Intensity = 143.72 / (Inlet time + 19.20) ^ 0.94; Return period = 10 Yrs.

8.

Correspondence



5248 Olde Towne Road • Suite 1 • Williamsburg, Virginia 23188
(757) 253-0040 • Fax (757) 220-8994 • E-mail aes@aesva.com

June 25, 2003

Mr. Scott Thomas, P.E.
Environmental Division
James City County Development Management
101-E Mounts Bay Road
Williamsburg, VA 23187-8784

**RE: JCC Case No. SP-25-03. New Town Block 2
AES Job No. 6632-E-13-1**

Dear Mr. Thomas:

The following letter is in response to the comments received by this office, dated May 28, 2003. This submittal is for the purpose of acquiring a land disturbing permit for New Town Block 2. Upon receipt of final comments from Planning and JCSA the plans will be submitted to Planning for review and approval.

Included with this submittal is 2 copies of Plan Sheets 2, 3, 5, 6, and 12 which were modified as requested. A copy of the most recent land use summary spreadsheet is attached for your information. Remaining sheets will be submitted at a later date to Planning as noted above.

Environmental:
General Comments:

1. A Standard Inspection / Maintenance agreement is required to be executed with the County due to the proposed stormwater conveyance systems and the onsite stormwater management/BMP facilities associated with this project.
New Town Associates will execute the Standard Inspection / Maintenance agreement with the County.
2. Site Information. The following comments pertain to site information and tabulations as presented on plan Sheet 2.
 - 2a) For New Town Sections 2 and 4 Land Use Summary, break out the SunTrust Building Parcel (B) from the remaining parcel (A). The site plan number is the same. It should read: SP NO. 49-02, Sec. 4, Block 5, Parcel A with an impervious cover of 3.24 acres (please verify) and SP NO. 49-02, Sec. 4, Block 5, Parcel B (SunTrust Building) with an impervious cover of 0.80 acres (please verify). The idea would be that as each out-parcel is bought and

AES CONSULTING ENGINEERS
Engineering, Surveying, and Planning
 5248 Olde Towne Road, Suite 1
 WILLIAMSBURG, VIRGINIA 23188

LETTER OF TRANSMITTAL

Phone: (757) 253-0040
Fax: (757) 220-8994

ATTN: **Scott Thomas**

CO.: **James City County**

Address: **Environmental Division**

cc:

DATE 5/13/05	JOB NO. 6632-E-13-1
FROM: Victoria Bains	
RE New Town - Block 2 JCC-SP-118-03 BMP Certification	

WE ARE SENDING YOU THE FOLLOWING ITEMS:

- Attached
 Under separate cover via
 Original(s) Print(s) Plan(s) Specification(s) Change Order
 Copy of letter(s) Other:

COPIES	DATE	No. of Pages	DESCRIPTION
1		3	BMP Certification for BioFiltration 2-1 <i>PC 113</i>
1		1	Record Drawing for BioFiltration 2-1 <i>PC 113</i>
1		3	BMP Certification for BioFiltration 2-2 <i>PC 114</i>
1		1	Record Drawing for BioFiltration 2-2 <i>PC 114</i>
1		1	CD with pics of installation <i>(Book 8)</i>



THESE ARE TRANSMITTED as checked below:

- For your approval For your signature For review and comment
 For your use As you requested As requested by:
 Other:

REMARKS:

If enclosures are not as noted, kindly notify us at once.

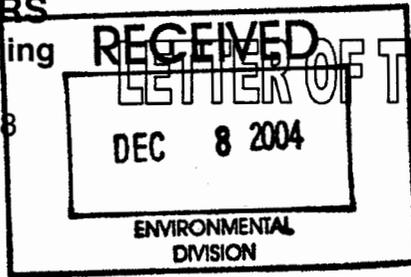
AES CONSULTING ENGINEERS

Engineering, Surveying, and Planning

5248 Olde Towne Road, Suite 1
WILLIAMSBURG, VIRGINIA 23188

Phone: (757) 253-0040

Fax: (757) 220-8994



ATTN: **Scott Thomas**

CO.: James City County

Address: Environmental Division

cc:

DATE 12/8/04	JOB NO. 6632-E-13-1
FROM: Robert Cosby	
RE New Town - Block 2 JCC-SP-118-03 BMP Certification	

*section 2
Block 2
PARCEL A*

WE ARE SENDING YOU THE FOLLOWING ITEMS:

- Attached
- Under separate cover via
- Original(s)
- Print(s)
- Plan(s)
- Specification(s)
- Change Order
- Copy of letter(s)
- Other:

COPIES	DATE	No. of Pages	DESCRIPTION
1	12/8/04	3	BMP Certification for BioFiltration 2-1 and 2-2 <i>PC193 PC194</i> <i>PC 193</i> <i>PC 194</i> <i>SP-118-03</i> <i>SP-25-03</i>

THESE ARE TRANSMITTED as checked below:

- For your approval
- For your signature
- For review and comment
- For your use
- As you requested
- As requested by:
- Other:

REMARKS:

Please let me know if you need any additional information related to the construction certification of these two Bio-Retention Areas located in Block 2. Based on our conversations with Jordan and others it would appear that upon submission and acceptance of the BMP Certification that the Subdivision Surety for Block 2 can be released for New Town.

Thanks
Bob Cosby

If enclosures are not as noted, kindly notify us at once.

TRANSMITTAL



DATE: September 4, 2003

TO: Environmental
Fire
JCSA
VDOT
Wayland Bass
Lee Schnappinger

FROM: Matthew Arcieri, Planner

SUBJECT: SP-118-03, New Town, Block 2 SP Amendment

*SEC 2 BLOCK 2
PARCEL A
(PREVIOUS APPROVED SP-25-03)*

ITEMS

ATTACHED: Plan
Water Data Sheet
Drainage Calculations

ACTION: Please review and return comments by September 18, 2003

Approved DEC 10/13/03

RECEIVED SEP 17 2003
DVC Sept 26



COUNTY ATTORNEY

101-C MOUNTS BAY ROAD, P.O. BOX 8784, WILLIAMSBURG, VIRGINIA 23187-8784
(757) 253-6612

Fax: (757) 253-6833

LEO P. ROGERS
COUNTY ATTORNEY
E-MAIL ADDRESS: lprogers@james-city.va.us
(757) 253-6614

MICHAEL H. DREWRY
ASSISTANT COUNTY ATTORNEY
E-MAIL ADDRESS: michaeldr@james-city.va.us
(757) 253-6832

KATHRYN M. ASTON
ASSISTANT COUNTY ATTORNEY
E-MAIL ADDRESS: kaston@james-city.va.us
(757) 253-6613

November 9, 2004

Mrs. Betsy Woolridge
Clerk of the Circuit Court
5201 Monticello Avenue, Suite 6
Williamsburg, VA 23188-8218

Dear Mrs. Woolridge:

RE: Document for Recordation

Enclosed for recordation is the Declaration of Covenants between New Town Associates, Inc., and the County of James City, Virginia, dated October 26, 2004.

Please deduct the recording fee from our escrow account. After the document has been recorded, I would appreciate you returning it to me.

Thank you for your assistance. If you have any questions, please feel free to call me.

Sincerely,

Leo P. Rogers
(mfr)

Leo P. Rogers
County Attorney

LPR/kck

Enclosure

Cc: Joan Etchberger, Environmental Division (w/out enc.)

9.

Inspection records



**James City County Environmental Division
Stormwater Management / BMP Inspection Report
Bioretention Facilities**

SP-118-03

County BMP ID Code (if known): PC193

Name of Facility: NEW TOWN SEC BLK 2 PARCEL A BMP No.: 2 OF 2 Date: 2-6-05

Location: William E. Wood Building, Interior Parking Lot

Name of Owner: NEW TOWN ASSOC. LLC

Name of Inspector: SJ Thomas

Type of Facility: Bioretention # 2-1 (North of Building)

Weather Conditions: Sunny 60 Type: Final Inspection County BMP Inspection Program Owner Inspection

If an inspection item is not applicable, mark NA, otherwise mark the appropriate column.

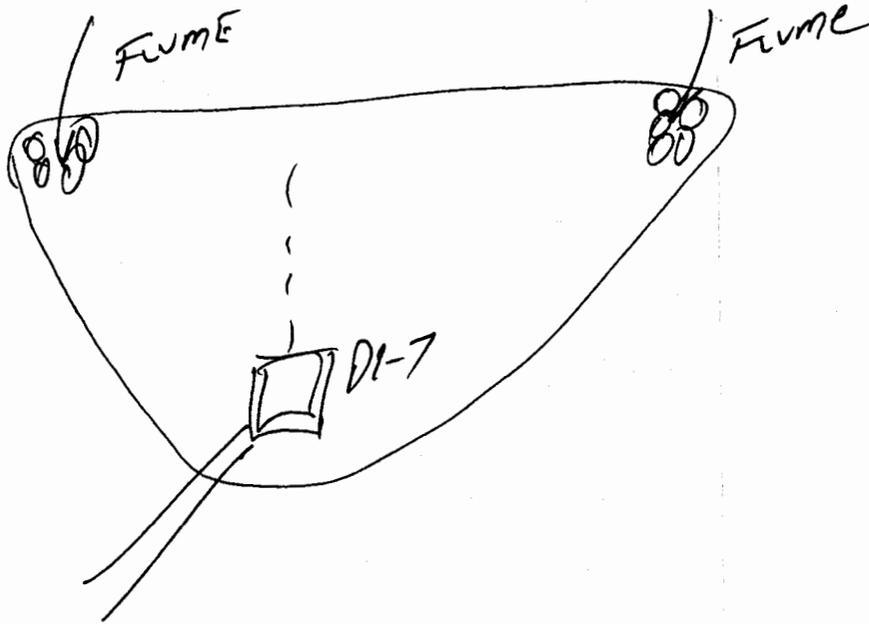
- O.K. - The item checked is in adequate condition and the maintenance program is currently satisfactory. No action required.
- Routine - The item checked requires attention, but does not present an immediate threat to the function/integrity of the BMP.
- Urgent - The item checked requires immediate attention to keep the BMP operational and prevent damage to the facility.

Provide an explanation and details in the comment column, if routine or urgent are marked.

Facility Item	O.K.	Routine	Urgent	Comments
Accessibility:				
Roads	✓			Parking Lot
Parking Areas	✓			
Gates	NA			
Locks	NA			
Safety Fencing	NA			
Observation Wells/Areas: <u>N/A</u>				
Trap Doors	NA			
Manhole Covers	NA			
Grates	NA			
Steps	NA			
Pretreatment Devices: <input type="checkbox"/> Inlet <input type="checkbox"/> Sump <input type="checkbox"/> Forebay <input type="checkbox"/> Other <u>Rintrap flume w/OP</u>				
Sediment	✓			
Trash & Debris	✓			
Structure	✓			
Other	✓			
<u>Serves Parking Lot & Building area</u>				

Facility Item	O.K.	Routine	Urgent	Comments
Inflow Structure (Describe Type/Location): 2 - CURB CUT FUMES.				
Condition	✓			
Erosion	✓			
Trash and Debris	✓			Minor
Sediment	✓			Minor.
Aesthetics	✓			
Other	✓			
Primary Infiltration (Bioretention Cell) Area: Triangular - 50' L x 30' W				
Specialty Landscaping	✓			SHRUBS
Mulch Layer	✓			
Planting Soil/Sand	✓			
Subgrade Soil	✓			
Aggregate	✓			
Underdrain	✓			6" PERF
Sediment	✓			
Aesthetics	✓			
Overflow or Bypass Control Structure (Describe Type/Location): DI-7				
Condition	✓			
Erosion	✓			
Trash & Debris	✓			
Sediment	✓			
Other	✓			
Outlet Structure (Describe Type/Location): 15" RCP				
Condition	✓			
Erosion	✓			
Trash & Debris	✓			
Sediment	✓			
Other	✓			
Contributing Drainage Area/Perimeter Conditions: Mostly paved parking area				
Land Use	✓			
Stabilization	✓			
Trash & Debris	✓			
Pollutant Hazard	✓			
Other				

Sketch and/or Remarks:



Overall Environmental Division Internal Rating: 3

Signature: Scott J. Thomas P.E.

Date: 2-6-05

Title: SENIOR ENGINEER ENV DIV



**James City County Environmental Division
Stormwater Management / BMP Inspection Report
Bioretention Facilities**

SP-118-03

County BMP ID Code (if known): PC193

Name of Facility: New Town SEC Bldg 2 Parcel A BMP No.: 2 of 2 Date: 2-6-05

Location: William E. Wood Building, Interior Parking Lot

Name of Owner: New Town Assoc. LLC

Name of Inspector: SJ Thomas

Type of Facility: Bioretention # 2-1 (North of Building)

Weather Conditions: Sunny 60 Type: Final Inspection County BMP Inspection Program Owner Inspection

If an inspection item is not applicable, mark NA, otherwise mark the appropriate column.

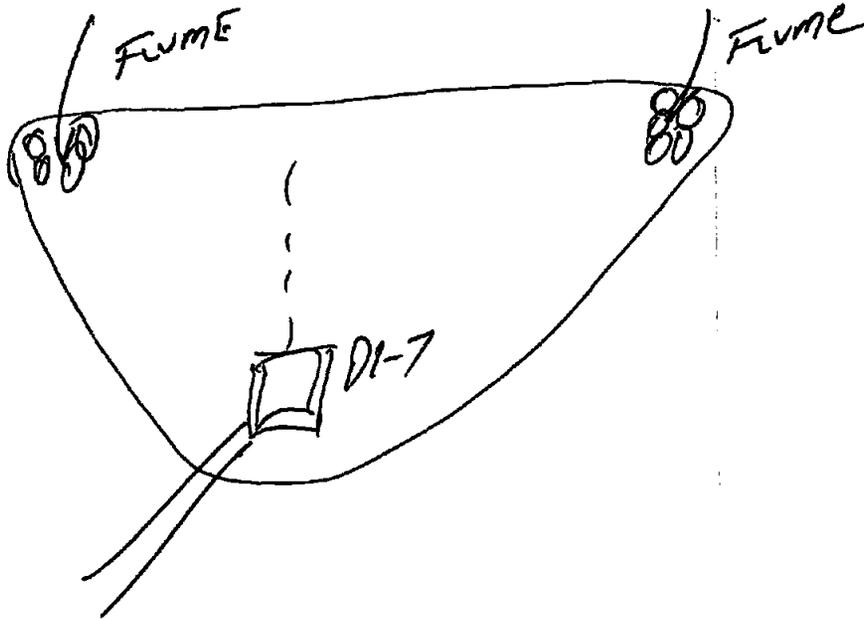
- O.K. - The item checked is in adequate condition and the maintenance program is currently satisfactory. No action required.
- Routine - The item checked requires attention, but does not present an immediate threat to the function/integrity of the BMP.
- Urgent - The item checked requires immediate attention to keep the BMP operational and prevent damage to the facility.

Provide an explanation and details in the comment column, if routine or urgent are marked.

Facility Item	O.K.	Routine	Urgent	Comments
Accessibility:				
Roads	✓			Parking Lot
Parking Areas	✓			
Gates	NA			
Locks	NA			
Safety Fencing	NA			
Observation Wells/Areas: <u>N/A</u>				
Trap Doors	NA			
Manhole Covers	NA			
Grates	NA			
Steps	NA			
Pretreatment Devices: <input type="checkbox"/> Inlet <input type="checkbox"/> Sump <input type="checkbox"/> Forebay <input type="checkbox"/> Other <u>Rinrap flume w/OP</u>				
Sediment	✓			
Trash & Debris	✓			
Structure	✓			
Other	✓			
<u>Serves Parking Lot & Building area</u>				

Facility Item	O.K.	Routine	Urgent	Comments
Inflow Structure (Describe Type/Location): 2 - CURB CUT FUMES.				
Condition	✓			
Erosion	✓			
Trash and Debris	✓			Minor
Sediment	✓			Minor.
Aesthetics	✓			
Other	✓			
Primary Infiltration (Bioretention Cell) Area: Triangular - 50' L x 30' W				
Specialty Landscaping	✓			SHRUBS
Mulch Layer	✓			
Planting Soil/Sand	✓			
Subgrade Soil	✓			
Aggregate	✓			
Underdrain	✓			6" PERF
Sediment	✓			
Aesthetics	✓			
Overflow or Bypass Control Structure (Describe Type/Location): DI-7				
Condition	✓			
Erosion	✓			
Trash & Debris	✓			
Sediment	✓			
Other	✓			
Outlet Structure (Describe Type/Location): 15" RCP				
Condition	✓			
Erosion	✓			
Trash & Debris	✓			
Sediment	✓			
Other	✓			
Contributing Drainage Area/Perimeter Conditions: Mostly paved parking area				
Land Use	✓			
Stabilization	✓			
Trash & Debris	✓			
Pollutant Hazard	✓			
Other				

Sketch and/or Remarks:



Overall Environmental Division Internal Rating: 3

Signature: *Scott Thomas P.E.*

Date: 2-6-05

Title: SENIOR ENGINEER ENV DIV

11.

Miscellaneous

Date Record Created: []

WS_BMPNO:
PC193

Created By: []

WATERSHED PC
 BMP ID NO 193
 PLAN NO SP-118-03
 TAX PARCEL (38-4)(24-15)
 PIN NO 3842400015
 CONSTRUCTION DATE 6/1/2004
 PROJECT NAME New Town - Sec 2, Block 2, Parcel A
 FACILITY LOCATION Near William E. Wood Building
 CITY-STATE Williamsburg, Va. 23185
 CURRENT OWNER New Town Associates LLC
 OWNER ADDRESS 4801 Courthouse Street
 OWNER ADDRESS 2 Suite 329
 CITY-STATE-ZIP CODE Williamsburg, Va. 23185
 OWNER PHONE 565-6200
 MAINT AGREEMENT No
 EMERG ACTION PLAN No

MAINTENANCE PLAN No
 SITE AREA acre 8.217
 LAND USE Mixed Use
 old BMP TYP Bioretention
 JCC BMP CODE D1 Bioretention
 POINT VALUE 8
 SVC DRAIN AREA acres 0.64
 SERVICE AREA DESCR Building and Parking
 IMPERV AREA acres 0.64
 RECV STREAM UT of Powhatan Creek
 EXT DET-WQ-CTRL Yes
 WTR QUAL VOL acre-ft 0.01
 CHAN PROT CTRL No
 CHAN PROT VOL acre-ft 0
 SW/FLOOD CONTROL Yes
 GEOTECH REPORT No

CTRL STRUC DESC DI-7 Conc
 CTRL STRUC SIZE inches
 OTLT BARRL DESC RCP
 OTLT BARRL SIZE inch 15
 EMERG SPILLWAY No
 DESIGN HW ELEV unk
 PERM POOL ELEV na
 2-YR OUTFLOW cfs 0.00
 10-YR OUTFLOW cfs 3.42
 REC DRAWING Yes
 CONSTR CERTIF Yes
 LAST INSP DATE 2/6/2005 Inspected by: []
 INTERNAL RATING 3
 MISC/COMMENTS
 Cell # 2-1. LID component. Also see PC 194.

Get Last BMP No

Return to Menu

Print Record

Additional Comments:

[Empty comment box]

ENVIRONMENTAL DIVISION REVIEW COMMENTS
NEW TOWN, SECTION 2, BLOCK 2
COUNTY PLAN NO. SP - 25 - 03
May 28, 2003

MDW/SJT

General Comments:

1. A Standard Inspection / Maintenance agreement is required to be executed with the County due to the proposed stormwater conveyance systems and the onsite stormwater management/BMP facilities associated with this project.
2. Site Information. The following comments pertain to site information and tabulations as presented on plan Sheet 2.
 - 2a) For New Town Sections 2 and 4 Land Use Summary, break out the SunTrust Building Parcel (B) from the remaining parcel (A). The site plan number is the same. It should read: SP NO. 49-02, Sec. 4, Block 5, Parcel A with an impervious cover of 3.24 acres (please verify) and SP NO. 49-02, Sec. 4, Block 5, Parcel B (SunTrust Building) with an impervious cover of 0.80 acres (please verify). The idea would be that as each out-parcel is bought and developed, the remaining Parcel A would continue to get smaller (at least in open space) while the total area for Section 4, Block 5 would remain the same.
 - 2b) For clarification purposes, it would be helpful to add in parentheses the anticipated "owner" of each out-parcel (ie. Corner Pocket, William E. Wood, etc.) under the "project name" portions of the table.
 - 2c) For clarification purposes, list the Section 2, Block 2 portion as Parcel A as well. Our records show this parcel as having an impervious cover of 3.45 ac., not 3.41 ac. Please confirm this and change as required, including the total impervious cover for Section 2 and 4 and the percentage of impervious cover in Sections 2 and 4. Also update the Impervious Cover Tracking for BMP # 2 as necessary.
3. Site Information. For general clarification purposes, on Environmental Inventory Sheet 3, add the 'Owner' of each out-parcel in parentheses (ie. Corner Pocket, SunTrust, William E. Wood, etc.).

Erosion & Sediment Control Plan:

4. E&SC Plan. Relative to previous comment # 9 and it's subsequent response, it appears construction of the William E. Wood Building (County Plan No. SP-057-03) will affect and impact use of the previous perimeter temporary diversion dike as shown at the southeast corner of this site. This diversion intercepts upslope drainage away from the disturbed site and will collect and convey onsite disturbed area drainage to the temporary sediment trap. Plan Sheet 6 clearly shows a conflict between the location of the diversion dike and grading as necessary, especially fill necessary at the El. 98 building pad area. Further explain use of the diversion dike or if any adjustments are necessary due to onsite construction.
5. Other. Previous comment # 12 was not fully addressed. Although dust control (DC) was added to the E&SC legend on Sheet 6, keys and symbols consistent with Chapter 3 of the VESCH must be shown at select locations on the plan (ie. Monticello Avenue, Courthouse Street, Main Street, etc.).

Stormwater Management / Drainage:

6. Bioretention Basin. Previous comment # 13f was not addressed. Provide a single, low profile timber within Basin # 2-2 to promote filtering, infiltration and to minimize erosion of the mulch layer.

ENVIRONMENTAL DIVISION REVIEW COMMENTS
NEW TOWN, SECTION 2, BLOCK 2
COUNTY PLAN NO. SP - 025 - 03
April 1, 2003

MDW/SJT

General Comments:

1. A Land-Disturbing Permit and Siltation Agreement, with surety, are required for this project.
2. A Subdivision Agreement, with surety, shall be executed with the County prior to recordation of lots.
3. Water and sewer inspection fees must be paid prior to the issuance of a Land Disturbing Permit.
4. Record Drawing and Construction Certification. The onsite "filtering" stormwater management/BMP facilities as proposed for this project will require submission, review and approval of a record drawing (as-built) and construction certification prior to release of the posted bond/surety. Provide notes on the plan accordingly to ensure this activity is adequately coordinated and performed before, during and following construction in accordance with current County guidelines.
5. VPDES. Land disturbance for the project will exceed one (1) acre. Therefore, it is the owners responsibility to register for a General Virginia Pollutant Discharge Elimination System (VPDES) Permit for Discharges of Stormwater from Construction Activities, in accordance with current requirements of the Virginia Department of Environmental Quality and 9 VAC 25-180-10 et seq. Contact the Tidewater Regional Office of the DEQ at (757) 518-2000 or the Central Office at (804) 698-4000 for further information.
6. Watershed. Provide a note on the cover sheet of the plans indicating that this portion of the project is situated in subwatershed 208 (Lower Chisel Run) and catchment 208-103-1 of the Powhatan Creek watershed.

Chesapeake Bay Preservation:

7. Environmental Inventory. Label the non-tidal wetland impact area associated with this project and indicate the U.S. Army Corps of Engineers permit number (# 02-V2250-18).

Erosion & Sediment Control Plan:

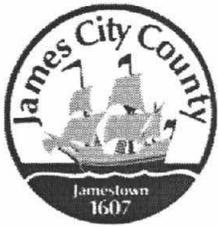
8. Temporary Stockpile Areas. Step 2 of the sequence of construction shows topsoil removal from the site. Show any temporary soil stockpile, staging and equipment storage areas (with required erosion and sediment controls) or indicate on the plans that none are anticipated for the project site.
9. Erosion and sediment control plan. Although it is stated in the sequence of construction, show perimeter erosion and sediment control measures from County Plan No. SP-050-02 (Sheet 12) which may be necessary to provide onsite control for this specific plan of development.
10. Stabilization. Temporary stabilization of the building pad sites will be an important component of the erosion and sediment control plan for the site. Although future construction may occur on these outparcels, once the pad sites are at proposed grades as indicated on Sheet 5, stabilization with seed and mulch should be performed, regardless of the status of the parking lot, utility and site landscaping activities.

11. Sequence of construction. Revise or adjust the sequence of construction as shown on Sheet 12 to indicate the following:
 - 11a. Clarify when the perimeter silt fence is to be installed and when the silt fence is to be installed around each building pad site.
 - 11b. Include the riser and barrel in the removal of the sediment basin.
 - 11c. Include all offsite areas as shown on SP-050-02 upstream of the sediment basin to be stabilized prior to the basin being removed.
 - 11d. Include a note about written permission to remove the sediment basin from the Environmental Division prior to the removal.
12. Other. Due to the project's proximity to existing sidewalk and roadway along Monticello Avenue, include provisions in the erosion and sediment control plan for the site for safety fencing and dust control along Monticello Avenue in accordance with Minimum Standard & Specifications. 3.01 and 3.39 of the VESCH.

Stormwater Management / Drainage:

13. Bioretention Basins. The following pertains to the two bioretention (filtering) basins as proposed for the site. It is acknowledged that stormwater management for this site is provided by the offsite regional dry detention facility (County BMP ID Code: PC 173) and use of the onsite measures as proposed are an effort to provide additional stormwater management benefits for the site consistent with the Chesapeake Bay Preservation ordinance and the Powhatan Creek watershed management plan. As such, some flexibility can exist as it pertains to adherence to County and State minimum standards for design and construction of bioretention basins. For this specific review case, a written request for waiver from the minimum standards will not be necessary; however, some important features for design and construction of the basins will need addressed as follows:
 - 13a. For clarity purposes, provide identifiers for the two bioretention basins such as # 2-1 and # 2-2 or by other similar designations.
 - 13b. In the bioretention soils specifications on Sheet 11, add cattail to the deletrious plant specie list.
 - 13c. Change the minimum size of the underdrain from 4-inch to 6-inch on Sheets 5 and 11.
 - 13d. Show minimum slope for the bioretention underdrain pipes and include at least one cleanout at the terminus of each of the drains.
 - 13e. For the bioretention basin at the south end of the project along Monticello Avenue, it appears the slope of the vegetative filter strip between the pea gravel diaphragm and the basin bottom is too steep (greater than 8 percent). Flatten the slope to less than 6 percent or provide for slope erosion protection from the diaphragm to the basin bottom.
 - 13f. Provide a single, low profile timber across the bioretention basin at the south end of the project along Monticello Avenue to promote filtering, infiltration and to minimize erosion of the mulch layer.
 - 13g. Use of a DI-7 type inlet top is recommended rather than a DI-1 type unit at storm drainage structure SS # 6-5 for the bioretention basin in the center parking lot island.
 - 13h. Provide additional construction information or a typical detail for the curb cut and outlet protection stone for the bioretention basin in the center parking lot island. Indicate stone size and quantity for the outlet protections.
 - 13i. Add an outlet protection device at the west end of the grass swale prior to entry into the bioretention basin along Monticello Avenue.
 - 13j. For plant diversity, use a minimum of three species of trees and three species of shrubs as well as herbaceous ground cover in both bioretention cells. This conforms with Minimum Standard & Spec. 3.11 of the VSMH.
 - 13k. Provide a note on the detail on Sheet 11 indicating that materials and installation of the bioretention basin shall conform with the provisions of the County BMP manual and Minimum Standard & Spec. 3.11 of the Virginia Stormwater Management Handbook to the greatest extent possible.

131. The large parking lot island as situated at/near storm drainage structure # SS 6-7 should also be considered as a feasible location for the use of a bioretention basin as it can receive a considerable amount of drainage area and easily connect to the receiving downstream storm pipe system. Use of bioretention at this location may lessen the need for irrigation of proposed landscaping within the parking lot island as shown on Sheet 9.
14. Storm System. Provide a note or show a proposed invert for connection of the proposed 48-inch pipe to the existing 48-inch pipe just east of existing storm drainage structure SS # 2-7B (Courthouse Street). Typically an access structure would be necessary at this location unless it can be shown that the pipe alignment is extended (not deflected) or if deflected, joint deflection(s) are within allowables based on pipe manufacturer and pipe association guidelines.
15. Inlets. For storm drainage inlets SS # 6-1 and SS # 6-2 as shown on Sheet 5, show the length (l) dimension for the DI-4A inlets. *(Note: Also, it appears that both these inlets may exceed 8 ft. depth. Per VDOT 104.15 a DI-MB structure may be necessary).*
16. Stormwater Conveyance Channel. Provide computations for the stormwater conveyance channel at the south end of the project which runs along Monticello Avenue. Although a typical section was shown on Sheet 5, it must be shown that the grass lined channel segments have adequate erosion resistance for the 2-year design storm and a one foot deep constructed channel with 4H:1V side slopes has adequate capacity for the 10-year design storm event. Label the channels on Sheet 6 with appropriate keys and symbols per Chapter 3 of the VESCH (SCC).



Stormwater Division

MEMORANDUM

DATE: March 13, 2010
TO: Michael J. Gillis, Virginia Correctional Enterprises Document Management Services
FROM: Jo Anna Ripley, Stormwater
PO: 270712
RE: Files Approved for Scanning

General File ID or BMP ID: PC193

PIN: 3824000015

Subdivision, Tract, Business or Owner

Name (if known):

New Town

Property Description:

Block 2 Parcel A New Town

Site Address:

5122 Main Street

(For internal use only)

Box 3

Drawer: 2

Agreements: (in file as of scan date)

N

Book or Doc#:

Page:

Comments
Commercial Section

Date Record Created:

[Redacted]

WS_BMPNO:

PC193

Created By:

[Redacted]

WATERSHED PC
BMP ID NO 193
PLAN NO SP-118-03
TAX PARCEL (38-4)(24-15)
PIN NO 3842400015
CONSTRUCTION DATE 6/1/2004
PROJECT NAME New Town - Sec 2, Block 2, Parcel A
FACILITY LOCATION Near William E. Wood Building
CITY-STATE Williamsburg, Va. 23185
CURRENT OWNER New Town Associates LLC
OWNER ADDRESS 4801 Courthouse Street
OWNER ADDRESS 2 Suite 329
CITY-STATE-ZIP CODE Williamsburg, Va. 23185
OWNER PHONE 565-6200
MAINT AGREEMENT No
EMERG ACTION PLAN No

[Get Last BMP No](#)

[Return to Menu](#)

[Print Record](#)

MAINTENANCE PLAN

SITE AREA acre

No

8.217

LAND USE

Mixed Use

old BMP TYP

Bioretention

JCC BMP CODE

D1 Bioretention

POINT VALUE

8

SVC DRAIN AREA acres

0.64

SERVICE AREA DESCRI

Building and Parking

IMPERV AREA acres

0.64

RECV STREAM

UT of Powhatan Creek

EXT DET-WQ-CTRL

Yes

WTR QUAL VOL acre-ft

0.01

CHAN PROT CTRL

No

CHAN PROT VOL acre-ft

0

SW/FLOOD CONTROL

Yes

GEOTECH REPORT

No

CTRL STRUC DESC

DI-7 Conc

CTRL STRUC SIZE inches

OTLT BARRL DESC

RCP

OTLT BARRL SIZE inch

15

EMERG SPILLWAY

No

DESIGN HW ELEV

unk

PERM POOL ELEV

na

2-YR OUTFLOW cfs

0.00

10-YR OUTFLOW cfs

3.42

REC DRAWING

Yes

CONSTR CERTIF

Yes

LAST INSP DATE 2/6/2005

Inspected by: [Redacted]

INTERNAL RATING

3

MISC/COMMENTS

Cell # 2-1. LID component. Also see PC 194.

Additional Comments:

[Redacted]

AES CONSULTING ENGINEERS
Engineering, Surveying, and Planning
 5248 Olde Towne Road, Suite 1
 WILLIAMSBURG, VIRGINIA 23188

LETTER OF TRANSMITTAL

Phone: (757) 253-0040
Fax: (757) 220-8994

ATTN: Scott Thomas

CO.: James City County

Address: Environmental Divison

cc:

DATE 5/13/05	JOB NO. 6632-E-13-1
FROM: Victoria Bains	
RE New Town - Block 2 JCC-SP-118-03 BMP Certification	

WE ARE SENDING YOU THE FOLLOWING ITEMS:

- Original(s)
 Print(s)
 Plan(s)
 Specification(s)
 Change Order
 Copy of letter(s)
 Other:
 Attached
 Under separate cover via

COPIES	DATE	No. of Pages	DESCRIPTION
1		3	BMP Certification for BioFiltration 2-1 <i>PC 1193</i>
1		1	Record Drawing for BioFiltration 2-1 <i>PC 1193</i>
1		3	BMP Certification for BioFiltration 2-2 <i>PC 1194</i>
1		1	Record Drawing for BioFiltration 2-2 <i>PC 1194</i>
1		1	CD with pics of installation <i>(Block 8)</i>



THESE ARE TRANSMITTED as checked below:

- For your approval
 For your signature
 For review and comment
 For your use
 As you requested
 As requested by:
 Other:

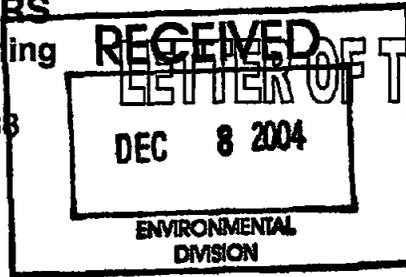
REMARKS:

If enclosures are not as noted, kindly notify us at once.

AES CONSULTING ENGINEERS

Engineering, Surveying, and Planning
 5248 Olde Towne Road, Suite 1
 WILLIAMSBURG, VIRGINIA 23188

Phone: (757) 253-0040
 Fax: (757) 220-8994



ATTN: **Scott Thomas**

CO.: **James City County**

Address: **Environmental Division**

cc:

DATE 12/8/04	JOB NO. 6632-E-13-1
FROM: Robert Cosby	
RE New Town - Block 2 JCC-SP-118-03 BMP Certification	

*Section 2
Block 2
PARCEL A*

WE ARE SENDING YOU THE FOLLOWING ITEMS:

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- Copy of letter(s) Other:

COPIES	DATE	No. of Pages	DESCRIPTION
1	12/8/04	3	BMP Certification for BioFiltration 2-1 and 2-2 <i>PC 193</i> <i>PC 194</i> <i>SP-118-03</i> <i>SP-25-03</i>

THESE ARE TRANSMITTED as checked below:

- For your approval For your signature For review and comment
- For your use As you requested As requested by:
- Other:

REMARKS:

Please let me know if you need any additional information related to the construction certification of these two Bio-Retention Areas located in Block 2. Based on our conversations with Jordan and others it would appear that upon submission and acceptance of the BMP Certification that the Subdivision Surety for Block 2 can be released for New Town.

Thanks
 Bob Cosby

If enclosures are not as noted, kindly notify us at once.

DEVELOPED AREA TRACKING FOR BMP#2

PER INTERIM STORMWATER MANAGEMENT PLAN DATED 11-18-97

<u>SITE PLAN ID</u>	<u>PROJECT NAME</u>	<u>DEVELOPED AREA</u>
<u>OFFSITE</u>		
SP NO. 125-97	WILLIAMSBURG/JCC COURTHOUSE	6.21 AC.
SP NO. 101-99	TIDEWATER PHYSICAL THERAPY	2.27 AC.
SP NO. 62-99	COURTHOUSE GREEN	6.99 AC.
SP NO. 155-00	ADVANCED VISION INSTITUTE	2.50 AC.
SP NO. 63-00	U.S. POST OFFICE	4.55 AC.
<u>NEW TOWN</u>		
SP NO. 49-02	BLOCK 5	7.52 AC.
SP NO. 50-02	SEC. 2 AND 4, PHASE I ROAD PLANS	4.47 AC.
SP NO. 25-03	BLOCK 2	8.22 AC.

TOTAL CURRENT DEVELOPED AREA 42.73 AC.

SECTION 2 AND 4 LAND USE SUMMARY TABLE

<u>SITE PLAN ID</u>	<u>PROJECT NAME</u>	<u>IMPERVIOUS AREA</u>
SP NO. 29-03	SEC. 4, BLOCK 5, PARCEL A	3.28 AC.
SP NO. 29-03	SEC. 4, BLOCK 5, PARCEL B (SUNTRUST)	0.76 AC.
SP NO. 50-02	SEC. 2 AND 4, PHASE I ROAD PLANS	3.48 AC.
SP NO. 139-02	SEC. 4, BLOCK 5, PARCEL C (CORNER POCKET)	0.20 AC.
SP NO. 25-03	SEC. 2, BLOCK 2, PARCEL A	3.41 AC.
SP NO. 57-03	SEC. 2, BLOCK 2, PARCEL B (WILLIAM E WOOD)	0.31 AC.
TOTAL CURRENT SECTION 2 & 4 IMPERVIOUS AREA =		11.44 AC.
TOTAL SECTION 2 & 4 SITE AREA =		83.61 AC.

TRANSMITTAL



DATE: September 4, 2003

TO: Environmental
Fire
JCSA
VDOT
Wayland Bass
Lee Schnappinger

FROM: Matthew Arcieri, Planner

SUBJECT: SP-118-03, New Town, Block 2 SP Amendment

ITEMS

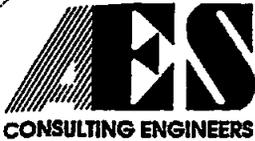
ATTACHED: Plan
Water Data Sheet
Drainage Calculations

SEC 2 BLOCK 2
PARCEL A
(PREVIOUS APPROVED SP-25-03)

ACTION: Please review and return comments by September 18, 2003

Approved DEC 10/13/03

RECEIVED SEP 17 2003
DVC Sept 26



5248 Olde Towne Road • Suite 1 • Williamsburg, Virginia 23188
(757) 253-0040 • Fax (757) 220-8994 • E-mail aes@aesva.com

June 25, 2003

Mr. Scott Thomas, P.E.
Environmental Division
James City County Development Management
101-E Mounts Bay Road
Williamsburg, VA 23187-8784

**RE: JCC Case No. SP-25-03. New Town Block 2
AES Job No. 6632-E-13-1**

Dear Mr. Thomas:

The following letter is in response to the comments received by this office, dated May 28, 2003. This submittal is for the purpose of acquiring a land disturbing permit for New Town Block 2. Upon receipt of final comments from Planning and JCSA the plans will be submitted to Planning for review and approval.

Included with this submittal is 2 copies of Plan Sheets 2, 3, 5, 6, and 12 which were modified as requested. A copy of the most recent land use summary spreadsheet is attached for your information. Remaining sheets will be submitted at a later date to Planning as noted above.

Environmental:
General Comments:

1. A Standard Inspection / Maintenance agreement is required to be executed with the County due to the proposed stormwater conveyance systems and the onsite stormwater management/BMP facilities associated with this project.
New Town Associates will execute the Standard Inspection / Maintenance agreement with the County.
2. Site Information. The following comments pertain to site information and tabulations as presented on plan Sheet 2.
 - 2a) For New Town Sections 2 and 4 Land Use Summary, break out the SunTrust Building Parcel (B) from the remaining parcel (A). The site plan number is the same. It should read: SP NO. 49-02, Sec. 4, Block 5, Parcel A with an impervious cover of 3.24 acres (please verify) and SP NO. 49-02, Sec. 4, Block 5, Parcel B (SunTrust Building) with an impervious cover of 0.80 acres (please verify). The idea would be that as each out-parcel is bought and

ENVIRONMENTAL DIVISION REVIEW COMMENTS
NEW TOWN, SECTION 2, BLOCK 2
COUNTY PLAN NO. SP - 25 - 03
May 28, 2003

NDW/SJT

General Comments:

1. A Standard Inspection / Maintenance agreement is required to be executed with the County due to the proposed stormwater conveyance systems and the onsite stormwater management/BMP facilities associated with this project.
2. Site Information. The following comments pertain to site information and tabulations as presented on plan Sheet 2.
 - 2a) For New Town Sections 2 and 4 Land Use Summary, break out the SunTrust Building Parcel (B) from the remaining parcel (A). The site plan number is the same. It should read: SP NO. 49-02, Sec. 4, Block 5, Parcel A with an impervious cover of 3.24 acres (please verify) and SP NO. 49-02, Sec. 4, Block 5, Parcel B (SunTrust Building) with an impervious cover of 0.80 acres (please verify). The idea would be that as each out-parcel is bought and developed, the remaining Parcel A would continue to get smaller (at least in open space) while the total area for Section 4, Block 5 would remain the same.
 - 2b) For clarification purposes, it would be helpful to add in parentheses the anticipated "owner" of each out-parcel (ie. Corner Pocket, William E. Wood, etc.) under the "project name" portions of the table.
 - 2c) For clarification purposes, list the Section 2, Block 2 portion as Parcel A as well. Our records show this parcel as having an impervious cover of 3.45 ac., not 3.41 ac. Please confirm this and change as required, including the total impervious cover for Section 2 and 4 and the percentage of impervious cover in Sections 2 and 4. Also update the Impervious Cover Tracking for BMP # 2 as necessary.
3. Site Information. For general clarification purposes, on Environmental Inventory Sheet 3, add the 'Owner' of each out-parcel in parentheses (ie. Corner Pocket, SunTrust, William E. Wood, etc.).

Erosion & Sediment Control Plan:

4. E&SC Plan. Relative to previous comment # 9 and it's subsequent response, it appears construction of the William E. Wood Building (County Plan No. SP-057-03) will affect and impact use of the previous perimeter temporary diversion dike as shown at the southeast corner of this site. This diversion intercepts upslope drainage away from the disturbed site and will collect and convey onsite disturbed area drainage to the temporary sediment trap. Plan Sheet 6 clearly shows a conflict between the location of the diversion dike and grading as necessary, especially fill necessary at the El. 98 building pad area. Further explain use of the diversion dike or if any adjustments are necessary due to onsite construction.
5. Other. Previous comment # 12 was not fully addressed. Although dust control (DC) was added to the E&SC legend on Sheet 6, keys and symbols consistent with Chapter 3 of the VESCH must be shown at select locations on the plan (ie. Monticello Avenue, Courthouse Street, Main Street, etc.).

Stormwater Management / Drainage:

6. Bioretention Basin. Previous comment # 13f was not addressed. Provide a single, low profile timber within Basin # 2-2 to promote filtering, infiltration and to minimize erosion of the mulch layer.

ENVIRONMENTAL DIVISION REVIEW COMMENTS
NEW TOWN, SECTION 2, BLOCK 2
COUNTY PLAN NO. SP - 025 - 03
April 1, 2003

MDW/SJT

General Comments:

1. A Land-Disturbing Permit and Siltation Agreement, with surety, are required for this project.
2. A Subdivision Agreement, with surety, shall be executed with the County prior to recordation of lots.
3. Water and sewer inspection fees must be paid prior to the issuance of a Land Disturbing Permit.
4. Record Drawing and Construction Certification. The onsite "filtering" stormwater management/BMP facilities as proposed for this project will require submission, review and approval of a record drawing (as-built) and construction certification prior to release of the posted bond/surety. Provide notes on the plan accordingly to ensure this activity is adequately coordinated and performed before, during and following construction in accordance with current County guidelines.
5. VPDES. Land disturbance for the project will exceed one (1) acre. Therefore, it is the owners responsibility to register for a General Virginia Pollutant Discharge Elimination System (VPDES) Permit for Discharges of Stormwater from Construction Activities, in accordance with current requirements of the Virginia Department of Environmental Quality and 9 VAC 25-180-10 et seq. Contact the Tidewater Regional Office of the DEQ at (757) 518-2000 or the Central Office at (804) 698-4000 for further information.
6. Watershed. Provide a note on the cover sheet of the plans indicating that this portion of the project is situated in subwatershed 208 (Lower Chisel Run) and catchment 208-103-1 of the Powhatan Creek watershed.

Chesapeake Bay Preservation:

7. Environmental Inventory. Label the non-tidal wetland impact area associated with this project and indicate the U.S. Army Corps of Engineers permit number (# 02-V2250-18).

Erosion & Sediment Control Plan:

8. Temporary Stockpile Areas. Step 2 of the sequence of construction shows topsoil removal from the site. Show any temporary soil stockpile, staging and equipment storage areas (with required erosion and sediment controls) or indicate on the plans that none are anticipated for the project site.
9. Erosion and sediment control plan. Although it is stated in the sequence of construction, show perimeter erosion and sediment control measures from County Plan No. SP-050-02 (Sheet 12) which may be necessary to provide onsite control for this specific plan of development.
10. Stabilization. Temporary stabilization of the building pad sites will be an important component of the erosion and sediment control plan for the site. Although future construction may occur on these outparcels, once the pad sites are at proposed grades as indicated on Sheet 5, stabilization with seed and mulch should be performed, regardless of the status of the parking lot, utility and site landscaping activities.

11. Sequence of construction. Revise or adjust the sequence of construction as shown on Sheet 12 to indicate the following:
 - 11a. Clarify when the perimeter silt fence is to be installed and when the silt fence is to be installed around each building pad site.
 - 11b. Include the riser and barrel in the removal of the sediment basin.
 - 11c. Include all offsite areas as shown on SP-050-02 upstream of the sediment basin to be stabilized prior to the basin being removed.
 - 11d. Include a note about written permission to remove the sediment basin from the Environmental Division prior to the removal.
12. Other. Due to the project's proximity to existing sidewalk and roadway along Monticello Avenue, include provisions in the erosion and sediment control plan for the site for safety fencing and dust control along Monticello Avenue in accordance with Minimum Standard & Specifications. 3.01 and 3.39 of the VESCH.

Stormwater Management / Drainage:

13. Bioretention Basins. The following pertains to the two bioretention (filtering) basins as proposed for the site. It is acknowledged that stormwater management for this site is provided by the offsite regional dry detention facility (County BMP ID Code: PC 173) and use of the onsite measures as proposed are an effort to provide additional stormwater management benefits for the site consistent with the Chesapeake Bay Preservation ordinance and the Powhatan Creek watershed management plan. As such, some flexibility can exist as it pertains to adherence to County and State minimum standards for design and construction of bioretention basins. For this specific review case, a written request for waiver from the minimum standards will not be necessary; however, some important features for design and construction of the basins will need addressed as follows:
 - 13a. For clarity purposes, provide identifiers for the two bioretention basins such as # 2-1 and # 2-2 or by other similar designations.
 - 13b. In the bioretention soils specifications on Sheet 11, add cattail to the deleterious plant species list.
 - 13c. Change the minimum size of the underdrain from 4-inch to 6-inch on Sheets 5 and 11.
 - 13d. Show minimum slope for the bioretention underdrain pipes and include at least one cleanout at the terminus of each of the drains.
 - 13e. For the bioretention basin at the south end of the project along Monticello Avenue, it appears the slope of the vegetative filter strip between the pea gravel diaphragm and the basin bottom is too steep (greater than 8 percent). Flatten the slope to less than 6 percent or provide for slope erosion protection from the diaphragm to the basin bottom.
 - 13f. Provide a single, low profile timber across the bioretention basin at the south end of the project along Monticello Avenue to promote filtering, infiltration and to minimize erosion of the mulch layer.
 - 13g. Use of a DI-7 type inlet top is recommended rather than a DI-1 type unit at storm drainage structure SS # 6-5 for the bioretention basin in the center parking lot island.
 - 13h. Provide additional construction information or a typical detail for the curb cut and outlet protection stone for the bioretention basin in the center parking lot island. Indicate stone size and quantity for the outlet protections.
 - 13i. Add an outlet protection device at the west end of the grass swale prior to entry into the bioretention basin along Monticello Avenue.
 - 13j. For plant diversity, use a minimum of three species of trees and three species of shrubs as well as herbaceous ground cover in both bioretention cells. This conforms with Minimum Standard & Spec. 3.11 of the VSMH.
 - 13k. Provide a note on the detail on Sheet 11 indicating that materials and installation of the bioretention basin shall conform with the provisions of the County BMP manual and Minimum Standard & Spec. 3.11 of the Virginia Stormwater Management Handbook to the greatest extent possible.

131. The large parking lot island as situated at/near storm drainage structure # SS 6-7 should also be considered as a feasible location for the use of a bioretention basin as it can receive a considerable amount of drainage area and easily connect to the receiving downstream storm pipe system. Use of bioretention at this location may lessen the need for irrigation of proposed landscaping within the parking lot island as shown on Sheet 9.
14. Storm System. Provide a note or show a proposed invert for connection of the proposed 48-inch pipe to the existing 48-inch pipe just east of existing storm drainage structure SS # 2-7B (Courthouse Street). Typically an access structure would be necessary at this location unless it can be shown that the pipe alignment is extended (not deflected) or if deflected, joint deflection(s) are within allowables based on pipe manufacturer and pipe association guidelines.
15. Inlets. For storm drainage inlets SS # 6-1 and SS # 6-2 as shown on Sheet 5, show the length (l) dimension for the DI-4A inlets. *(Note: Also, it appears that both these inlets may exceed 8 ft. depth. Per VDOT 104.15 a DI-MB structure may be necessary).*
16. Stormwater Conveyance Channel. Provide computations for the stormwater conveyance channel at the south end of the project which runs along Monticello Avenue. Although a typical section was shown on Sheet 5, it must be shown that the grass lined channel segments have adequate erosion resistance for the 2-year design storm and a one foot deep constructed channel with 4H:1V side slopes has adequate capacity for the 10-year design storm event. Label the channels on Sheet 6 with appropriate keys and symbols per Chapter 3 of the VESCH (SCC).