Anthony G. Brown Lt. Governor



Margaret G. McHale

Ren Serey
Executive Director

STATE OF MARYLAND CRITICAL AREA COMMISSION CHESAPEAKE AND ATLANTIC COASTAL BAYS

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

December 1, 2009

Mr. Dan Gerczak Anne Arundel County Office of Planning and Zoning 2664 Riva Road, MS 6303 Annapolis, Maryland 21401

Re: Russell Fabrication/Shenton Property

C 08-0012, G 02013310

Dear Mr. Gerczak,

Thank you for forwarding revised plans for the above-referenced project for review. The applicant proposes to construct a new commercial building and parking lots on an existing 0.77 acre parcel. The property is classified as an Intensely Developed Area (IDA). Since the meeting with Commission staff and the comments in my August 31, 2009 letter, the applicant has incorporated Commission staff recommendations into the revised plans. I have provided one remaining minor comment on the project below:

• The applicant must add a note to the final plans guaranteeing the survival of all plant material shown as part of the stormwater management plan.

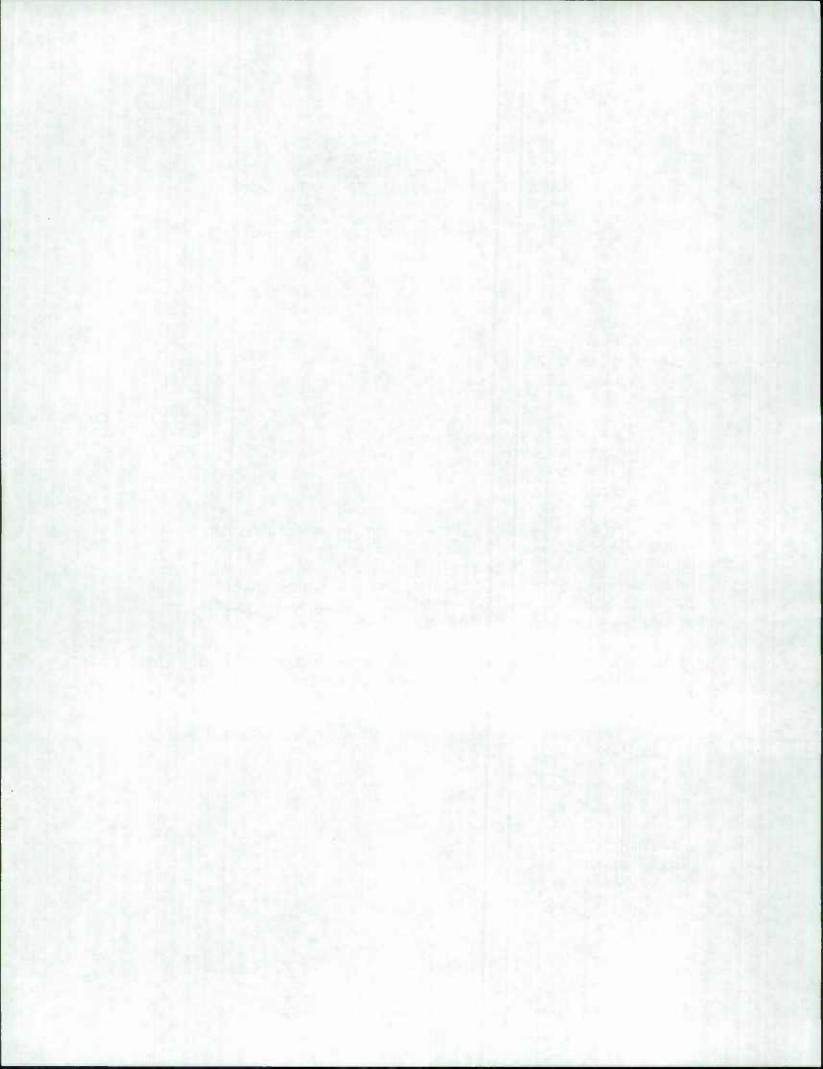
Thank you for the opportunity to provide comment. If you have questions, please call (410) 260-3479.

Sincerely,

L. Turcan Hockaday

Natural Resource Planner

cc: AA 110-08, AA 61-02



Martin O'Malley

Anthony G. Brown Lt. Governor



Margaret G. McHale Chair

Ren Serey
Executive Director

STATE OF MARYLAND CRITICAL AREA COMMISSION CHESAPEAKE AND ATLANTIC COASTAL BAYS

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August 31, 2009

Mr. Dan Gerczak Anne Arundel County Office of Planning and Zoning 2664 Riva Road, MS 6303 Annapolis, Maryland 21401

Re: Russell Fabrication/Shenton Property

C 08-0012, G 02013310

Dear Mr. Gerczak.

Thank you for forwarding revised plans for the above-referenced project for review. The applicant proposes to construct a new commercial building and parking lots on an existing 0.77 acre parcel. The property is classified as an Intensely Developed Area (IDA). Since this office last provided comments in my June 15, 2009 comment letter, the applicant met with Commission staff to determine how to resolve the remaining comments. The applicant has incorporated Commission staff recommendations from that meeting into the revised plans. I have provided remaining minor comments on the project below:

- 1. The applicant must add the area of the proposed concrete pad that is within the County right of way into the proposed impervious area section of the 10% calculations. Development on County lands within the Critical Area requires Commission review and approval under COMAR 27.02.02 - State and Local Agency Actions Resulting in Development of Local Significance on Private Lands or Lands Owned by Local Jurisdictions. In the case of this project, if the County determines that the proposed development of its lands within the Critical Area is consistent with Anne Arundel County's Critical Area program, perhaps requiring the applicant to provide a 10% pollutant reduction for the development impact of the concrete pad on its lands along with the rest of the project, in conjunction with correspondence confirming that this project is consistent with the County's Critical Area program, would be a sufficient way to meet the Commission's consistency report submittal and concurrence determination requirements. Once the applicant submits a 10% calculation worksheet showing that the concrete pad has been included in the proposed impervious surface area figure, and the County provides documentation that the proposed development and 10% treatment for the development on County lands is consistent with the County's Critical Area program, this office will consider this comment addressed
- 2. As was discussed during the meeting with Commission staff, the proposed grass swale and rain gardens will be considered Best Management Practices (BMPs) in this situation for which half of the normal efficiency rating will be calculated. Using these efficiency numbers in the

TTY for the Deaf Annapolis: (410) 974-2609 D.C. Metro: (301) 586-0450 Mr. Gerczak August 31, 2009 Page 2 of 2

calculations, 0.372 of the 0.8706 pounds of phosphorus per year pollutant removal requirement (RR) for the project is addressed with the proposed BMPs, and the applicant will address the remaining 0.499 pounds of phosphorus per year RR by providing plantings on site. The appropriate calculation for determining the number of plantings required to address the 10% requirement is 400 trees per one acre planted equals two pounds of phosphorus removed per year. The applicant has used a different formula to calculate the required number of plantings. The number of proposed plantings for this project, 62 trees and 162 shrubs, is adequate nonetheless.

Thank you for the opportunity to comment. Please telephone me if you have any questions at (410) 260-3481.

Sincerely,

Amber Widmayer

Natural Resources Planner

cc: AA 61-02

AA 110-08

Anthony G. Brown Lt. Governor



Margaret G. McHale Chair

Ren Serey
Executive Director

STATE OF MARYLAND CRITICAL AREA COMMISSION CHESAPEAKE AND ATLANTIC COASTAL BAYS

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June 15, 2009

Mr. Dan Gerczak Anne Arundel County Office of Planning and Zoning 2664 Riva Road, MS 6303 Annapolis, Maryland 21401

Re: Russell Fabrication/Shenton Property

C 08-0012, G 02013310

Dear Mr. Gerczak,

Thank you for forwarding revised plans for the above-referenced project for review. The applicant proposes to construct a new commercial building and parking lots on an existing 0.77 acre parcel. The property is classified as an Intensely Developed Area (IDA). The applicant has not sufficiently responded to this office's comments from my March 23, 2009 letter. It appears that the best course of action at this point is for the applicant to set up a meeting with Commission staff to discuss and resolve the remaining comments. I have reiterated and expanded upon these comments below:

- 1. It appears that the applicant is now referring to the proposed parking lot as a driveway in order to justify the proposed use of the grass channels instead of a BMP such as an underground sand filter as previously recommended by this office. As mentioned above, we recommend that the applicant meet with Commission staff to discuss stormwater treatment options other than the proposed grass channels.
- 2. As requested, the applicant has provided information about the proposed rain gardens that will receive stormwater runoff from the proposed commercial building rooftop. However, all of the nine 975 square foot sections of rooftop being directed to each of the nine rain gardens exceed the maximum 500 square feet of rooftop surface area that can be directed to one raingarden as specified on p. 5.7 of the MDE 2000 Stormwater Manual, and therefore, the full stormwater rooftop disconnect credit can not be deducted for the building rooftop. If the applicant has questions as to how the calculations must be revised or what stormwater treatment alternatives must be provided as a result, this can be discussed in a meeting with Commission staff.
- 3. Stormwater treatment must be provided for the proposed concrete pad that is within the County right of way in conjunction with this project. Please provide information regarding the appropriate County contact responsible for development of this portion of the site. Development on County lands within the Critical Area requires Commission review and approval under COMAR 27.02.02 State and Local Agency Actions Resulting in Development of Local Significance on Private Lands or Lands Owned by Local Jurisdictions. If the County

TTY for the Deaf Annapolis: (410) 974-2609 D.C. Metro: (301) 586-0450 Mr. Gerczak June 15, 2009 Page 2 of 2

determines that the proposed development of its lands within the Critical Area is consistent with Anne Arundel County's Critical Area program, it may submit a development proposal and consistency report with a request that the Commission concur with this determination.

Thank you for the opportunity to comment. Please telephone me if you have any questions at (410) 260-3481.

Sincerely,

Amber Widmayer

Natural Resources Planner

cc: AA 61-02

AA 110-08

Anthony G. Brown Lt. Governor



Margaret G. McHale Chair

Ren Serey
Executive Director

STATE OF MARYLAND CRITICAL AREA COMMISSION CHESAPEAKE AND ATLANTIC COASTAL BAYS

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

April 13, 2009

Ms. Kelly Krinetz Anne Arundel County Office of Planning and Zoning 2664 Riva Road, MS 6301 Annapolis, MD 21401

Re: Request for Modification – Russell Fabrication

Modification # 10309

Dear Ms. Krinetz:

Thank you for providing information on the above referenced modification request. The applicant is seeking a modification to bypass the County's subdivision process. The subject property is approximately .75 acres in size and lies entirely within the Intensely Developed Area (IDA) of the Chesapeake Bay Critical Area. The applicant is proposing to develop the property with an industrial building and nine parking spaces. This office has previously provided comments on the property's 10% calculations on March 23, 2009. At this time, this office has no comments on the applicant's request to bypass the subdivision process. As the project moves through the general site review process, this office will provide further comments.

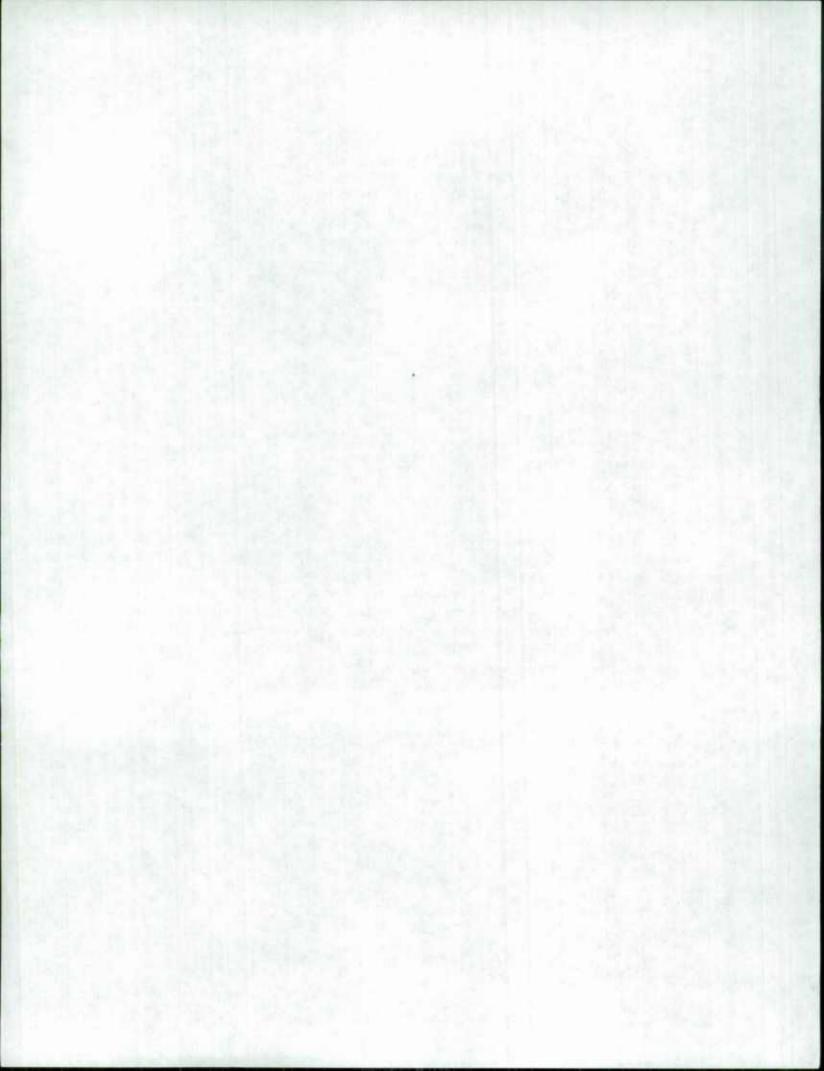
Thank you for the opportunity to provide comment. If you have any questions, please call (410) 260-3481.

Sincerely,

Amber Widmayer

Natural Resource Planner

cc: AA 110-08



Anthony G. Brown Lt. Governor



Margaret G. McHale

Ren Serey
Executive Director

STATE OF MARYLAND CRITICAL AREA COMMISSION CHESAPEAKE AND ATLANTIC COASTAL BAYS

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

March 23, 2009

Mr. Dan Gerczak Anne Arundel County Office of Planning and Zoning 2664 Riva Road, MS 6303 Annapolis, Maryland 21401

Re: Russell Fabrication/Shenton Property

C 08-0012, G 02013310

Dear Mr. Gerczak,

Thank you for forwarding revised plans for the above-referenced project for review. The applicant proposes to construct a new commercial building and parking lots on an existing .77 acre parcel. The property is classified as an Intensely Developed Area (IDA). I have provided my comments below:

- 1. The comment from my letter dated December 30, 2008 regarding the use of grass channels to treat linear impervious surfaces has not been addressed. Please find attached a copy of the Maryland Department of the Environment (MDE) memo regarding the appropriate uses of grass channels for storm water management purposes.
- 2. There is no detail included in the site plan of the proposed rain gardens.

 Additionally, the number of square feet of the roof top is too great to use a disconnect credit to treat run-off. Please have the applicant follow the specifications in the MDE stormwater manual if they wish to utilize disconnection credits.
- 3. Staff wishes to review comments from the Fire Marshal associated with comment "D" of the report, which was listed as "Intentionally Omitted". Without these comments, Staff is unconvinced of the need for second access point and the additional impervious surface associated with it. Without the second access point, the applicant would be able to meet the 10%Rule requirements with greater ease.
- 4. It is unclear whether the 'Concrete Pad' to the rear of the property is existing or proposed. Additionally, it is uncertain whether the concrete pad was included in the impervious surface calculations. Please clarify.

March 23, 2009 Russell Fabrication/Shenton Property Page 2 of 2

Thank you for the opportunity to provide comment. If you have questions, please call (410) 260- 3481.

Sincerely,

Amber Widmayer

Natural Resource Planner

Anthony G. Brown Lt. Governor



Margaret G. McHale

Ren Serey
Executive Director

STATE OF MARYLAND CRITICAL AREA COMMISSION CHESAPEAKE AND ATLANTIC COASTAL BAYS

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

December 30, 2008

Mr. Dan Gerczak Anne Arundel County Office of Planning and Zoning 2664 Riva Road, MS 6303 Annapolis, Maryland 21401

Re: Russell Fabrication/Shenton Property

C 08-0012, G 02013310

Dear Mr. Gerczak,

Thank you for forwarding revised plans for the above-referenced project for review. The applicant proposes to construct a new commercial building and parking lots on an existing 0.77 acre parcel. The property is classified as an Intensely Developed Area (IDA). I have provided my remaining comments below:

1. The applicant proposes to use grass channels for purposes of addressing the 10% calculations. However, grass channels are intended for treatment of roads and other linear impervious surfaces with an impervious flow path length not more than 75 feet in width. Therefore, the applicant must provide another treatment option to address the 10% pollutant reduction. Please have the applicant submit revised 10% calculations with information about how the pollutant removal requirement will be addressed on site by a Best Management Practice (BMP) in addition to or instead of the proposed grass channels. We note that the applicant has indicated that a high water table on the property prevents the use of a sand filter and other BMPs for addressing the 10% pollutant reduction requirement on site. If this is the case, the applicant must address this requirement by providing a BMP offsite or offsets to address the 10% requirement. This office is happy to meet with the applicant to discuss such alternative methods of meeting this requirement.

Thank you for the opportunity to comment. Please telephone me if you have any questions at (410) 260-3481.

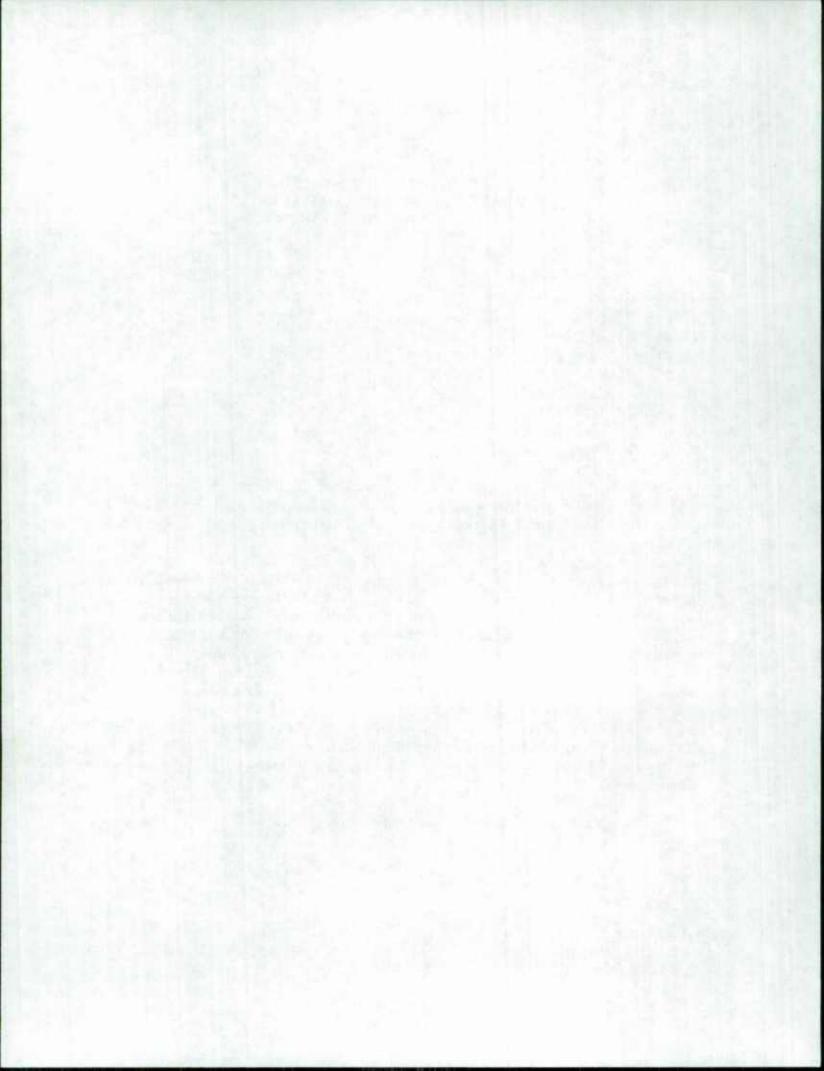
Sincerely,

Amber Widmayer

Natural Resources Planner

cc:

AA 61-02 AA 110-08



Anthony G. Brown
Lt. Governor



Margaret G. McHale Chair

Ren Serey
Executive Director

STATE OF MARYLAND CRITICAL AREA COMMISSION CHESAPEAKE AND ATLANTIC COASTAL BAYS

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June 10, 2008

Mr. Dan Gerczak Anne Arundel County Office of Planning and Zoning 2664 Riva Road, MS 6301 Annapolis, Maryland 21401

Re: Russell Fabrication/Shenton Property

C 08-0012, G 02013310

Dear Mr. Gerczak,

Thank you for forwarding revised plans for the above-referenced project for review. The applicant proposes to construct a new commercial building and parking lots on an existing 0.77 acre parcel. The property is classified as an Intensely Developed Area (IDA). The applicant has addressed this office's comments from my February 19, 2008 letter and I have provided my remaining comments below:

- 1. As requested, the applicant has provided the 10% pollutant reduction calculations. The applicant proposes to address the pollutant reduction requirement with a grass channel credit. However, grass channels are intended for treatment of roads and other linear impervious surfaces with an impervious flow path length not more than 75 feet in width. Therefore, the applicant must provide another treatment option to address the 10% pollutant reduction. For instance, it appears that there is room on the site to install a perimeter sand filter. Please have the applicant submit revised 10% calculations with information about how the pollutant removal requirement will be addressed on site by a Best Management Practice (BMP) in addition to or instead of the proposed grass channels.
- 2. It appears that there is a minor math error in Step 3 of the applicant's 10% calculations. The applicant's calculation for "Rv" is 0.524, and it seems that it should be 0.527 instead. This mistake results in a slightly higher pollutant removal requirement of 0.6486 pounds of phosphorus per year instead of 0.6428 pounds of phosphorus per year. Please have the applicant adjust these calculations as necessary in future submittals.

Thank you for the opportunity to comment. Please telephone me if you have any questions at (410) 260-3481.

Mr. Gerczak June 10, 2008 Page 2 of 2

Sincerely,

Amber Widmayer Natural Resources Planner

AA 61-02 cc:

AA 110-08

Anthony G. Brown



Margaret G. McHale

Ren Serey
Executive Director

STATE OF MARYLAND CRITICAL AREA COMMISSION CHESAPEAKE AND ATLANTIC COASTAL BAYS

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

February 19, 2008

Ms. Kelly Krinetz Anne Arundel County Office of Planning and Zoning 2664 Riva Road, MS 6301 Annapolis, Maryland 21401

Re: Shenton Property/Russell Fabrication

C 08-0012, G 02013310

Dear Ms. Krinetz,

I have received the above-referenced project for review. The applicant proposes to construct a new commercial building and parking lots on an existing 0.77 acre parcel. The property is classified as an Intensely Developed Area (IDA). I have provided my comments below:

- 1. Because the property is designated IDA, the applicant must show how the 10% pollutant removal requirement will be addressed for this project. Please have the applicant complete and submit the 10% pollutant reduction calculations using the worksheet which can be found on our website under the guidance documents link, or by going directly to the web address below. http://www.dnr.state.md.us/criticalarea/10percent_rule_manual/worksheet_a.pdf
- 2. Please have the applicant provide a revised site plan which includes the 10% calculations described above, and demonstrates any stormwater best management practices (BMPs) required to address the pollutant removal requirement.
- 3. COMAR 27.01.02.03.D(4) requires that if practicable, permeable areas within IDA shall be established in vegetation. Please provide a landscape plan demonstrating that this requirement has been addressed.

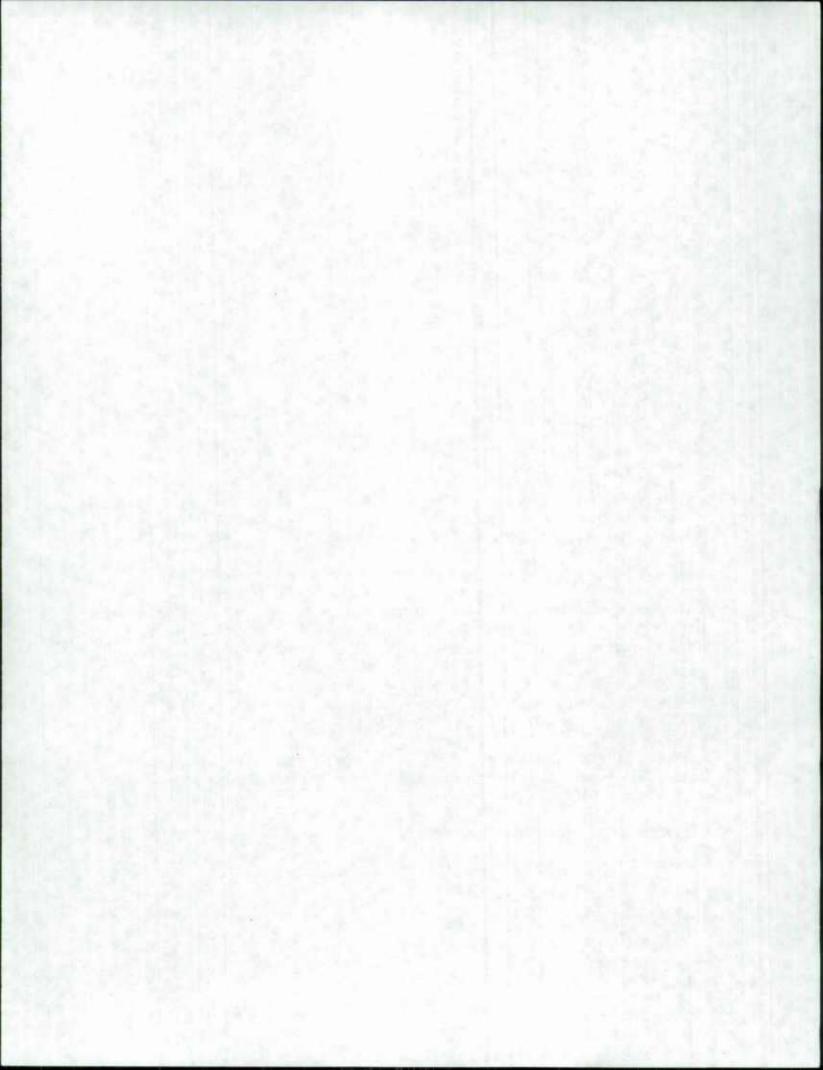
Thank you for the opportunity to comment. Please telephone me if you have any questions at (410) 260-3481.

Sincerely.

Amber Widmayer

Natural Resources Planner

cc: AA 61-02





2664 RIVA ROAD, P.O. BOX 6675 ANNAPOLIS, MARYLAND 21401 OFFICE OF PLANNING AND ZONING

JAN 12 2010

CRITICAL A COMMISSION

Chesapeake & Atlastic Chaetal Rage

January 6, 2010 RECEIVED

Ms. Michele D. Bennett Wilkerson & Associates P. O. Box 17 Dunkirk, MD 20754

Re:

Name: Russell Fabrication

Site Development Plan: C # 2008-0012-00NC

Grading Permit # G02013310

Dear Ms. Bennett:

The Site Development Plan for the referenced project has been reviewed by the agencies listed below and copies of their comments are attached.

A.	OPZ/Planning	Approved w/comments December 1, 2009
B.	OPZ/Engineering	Approved w/comments December 8, 2009
C.	Critical Area Commission	Approved w/comment December 1, 2009

I. The agency comments listed below (copies attached) must be addressed with grading and building permit submittals:

A.	OPZ/Planning	Comments dated December 1, 2009
В.	OPZ/Engineering	Comments dated December 8, 2009
C.	Critical Area Commission	Comment dated December 1, 2009

- 11. Adequacies of Facilities issues for items A through E have been reviewed and are approved subject to any noted conditions.
 - A. Fire Suppression: Adequacy of Fire Suppression has been addressed. The Fire Marshal approved the project on March 18, 2009.
 - B. Roads: Adequacy of Facilities for Roads has been addressed for this development. The site will generate less than 50 trips.
 - C. Schools: Adequacy of Facilities for Schools is not applicable. There are no new residential lots being created.
 - D. Utilities: Adequacy of Facilities for Utilities has been addressed. A SWAMP analysis of public sewer services was performed and the Department of Public Works has approved 7 EDU's of sewer. The Health Department has approved the private well.
 - E. Storm Drains: Adequacy of Facilities for Storm Drains has been addressed. The proposed storm drainage system adequately conveys stormwater runoff in a non-erosive manner to the Site and Tributary Outfalls, and to the Point-of-Investigation (POI), located approximately 360 feet north-northeast of the intersection of Snug Harbor Road and Woods Wharf Road, where an existing drainage channel discharges into an existing 30-inch culvert, discharging into Parish Creek.

Ms. Michele D. R. Bennett January 6, 2010 Page 2

III. Decision:

Based upon the information submitted for the above referenced project, this office recommends Site Development Plan approval to the Department of Inspection and Permits as of the date of this letter. This recommendation is subject to items in Section I listed above being satisfactorily addressed prior to the issuance of the grading and building permit for the project.

IV. Resubmittal/Agreements/Expiration:

Each agency submittal package for the grading/building permit(s) shall include a point-by-point response letter addressing the items in Section I.

The developer/owner shall prepare, execute and deliver at one time all agreements, including a public works agreement, a forestation agreement, a deed to right-of-ways containing public road improvements constructed by the developer, and all other deeds, easements, rights-of-way, agreements and other documents required by Article 17, of the Anne Arundel County Code.

Please be advised that the Adequacy of Facilities approval is valid for six months from the date of this letter (July 6, 2010) per Article 17-5-205 and the Site Development Plan expires one year from the date of this letter (January 6, 2011) per Article 17-4-206 unless the developer/owner obtains the appropriate permit(s) or in the case where the Site Development Plan is not associated with a permit, establishes the use within one year.

If you have any questions regarding this project, please call Dan Gerczak at 410-222-7458 or e-mail to pzgerc@aacounty.org

Sincerely,

Planning and Zoning Officer

cc: Kelly Krinetz, Critical Area Team Administrator CA Team: JFB, DWG
Permit Application Center: Judy Motta
Lt. Francis X. Fennell, Fire Marshal Division
Amber Widemayer, Critical Area Commission
Site Plan File/Diary C 2008-0012-00NC



Office of Planning and Zoning Development Division

INTER-OFFICE CORRESPONDENCE

DATE: December 1, 2009

TO: File

FROM: Environmental/Planning/Landscape, OPZ, Mail Stop 6305, Dan Gerczak

SUBJECT: C 2008-0012, Russell Fabrication, G02013310

Planning: Approved with comment

- 1) The Allocation letter/notification will be forthcoming under a separate cover. The Allocation information must be noted on the SDP and grading permit plans (cover sheet).
- 2) The modification decision (M10309) must be noted on the SDP and grading permit plans (cover sheet).

Environmental: Approved

Landscape: Approved



County Executive John R. Leopold

Office of Planning and Zoning Development Division

INTER-OFFICE CORRESPONDENCE

DATE:

December 8, 2009

TO:

Dan Gerczak - Planner II

FROM:

John F. Bassford Jr., PE - Engineer III

SUBJECT:

Russell Fabrication

SDP C#08-0012 Permit #G02013310

Engineering and Utility Review #8

The above-referenced project has been reviewed for Public Works and Utility issues based on the package dated 10/29/09, and the following comments apply:

Adequacy of Public Facilities is being addressed as follows:

Fire Suppression:

The site will be served by a private well. A fire suppression tank may be required by the Fire Marshal's Office. The final decision regarding Adequacy of Facilities for Fire Suppression is being deferred to the Office of the Fire Marshal.

Utilities:

The site will be served by a private well. Adequacy of Facilities for Water will be deferred to the Anne Arundel County Department of Health. A SWAMP Analysis of public sewer service was performed and the Department of Public Works has indicated that capacity is currently available for 7 EDU's of sewer. The consultant/developer is being advised that the availability of capacity is not guaranteed until an allocation request has been processed and approved by the Department of Public Works.

Storm Drainage:

Adequacy of Facilities for Storm Drainage has been addressed. The proposed storm drainage system adequately conveys storm water runoff in a non-erosive manner to the Site and Tributary Outfalls, and to the Point-of-Investigation (POI), located approximately 360-ft north-northeast of the

December 8, 2009 Russell Fabrication SDP C#08-0012 Permit #G02013310 Page 2 of 3

intersection of Snug Harbor Road and Woods Wharf Road, where an existing drainage channel discharges into an existing 30-in culvert, discharging into Parish Creek.

The following are comments regarding the plans as submitted; only the comments indicated in the closing paragraph require a point-by-point response:

A. Roads

The site has frontage along Woods Wharf Road which is a County public road and is currently classified as a Collector road. The road along the entire frontage of this development has been fully improved to the required county standard based upon its classification, therefore right-of-way dedication and frontage improvements are not being required.

1. No Comment

B. Storm Drainage

Storm drainage through and from this development is accomplished by utilizing a combination of open swales and closed storm drain system.

- 1. The overall text in the plan view on the public drain & fire suppression tank plan is too small. See the standards established in the County Design Manual. The labels for the plan features must be clear and readable, and the proposed public features easily identifiable.
- 2. Address all comments as outlined in the marked public plans and in the Storm Drainage Design Checklist.

C. Stormwater Management

The proposed SWM design for this "New Development" site consists of the use of the Grass Channel and Rooftop Disconnect Credits to address the required Water Quality volume (WQ_v) and Groundwater Recharge volume (Re_v) for the industrial building, the parking lot and drive onsite. Quantity management of the Channel Protection volume (Cp_v) is not proposed, as the discharge from the developed site is indicated as less than 2-cfs. Quantity management of the Overbank and Extreme Flood volumes (Q_p and Q_f) are not proposed, based on the assertion that the site has adequate conveyance to tidal outfall.

- 1. As a condition of Site Development Plan approval, it is incumbent upon the Applicant to provide a copy of the building architectural plans as part of the grading permit review, which clearly show the necessary roof details to divide the roof into the 975-sf drainage areas so runoff is distributed properly to the proposed raingardens as designed.
- 2. In regards to previous comment #C.6, the raingarden details provided do not specify that the underdrain must be in a gravel layer below the planting soil. Add a gravel layer to the detail.

D. Utilities

This development will be served by:

- i) Public sewer in Sewer Service Area #08 Broadwater (Existing Service)
- ii) Private water in Water Service Area #07 Rural (No Public Service)
- 1. Previous comment #D.1 has not been adequately addressed. Revise the easement for the fire suppression tank on the public plans to reflect the revised dimensions (21.5-ft x 51-ft) as previously indicated.

December 8, 2009 Russell Fabrication SDP C#08-0012 Permit #G02013310 Page 3 of 3

E. Site Development/Grading Plan

- 1. A Private Stormwater Management Agreement will be required at time of grading permit.
- 2. Please ensure that the grading permit is resubmitted through the Permit Application Center to address comments that have been deferred to permit and ensure that the set of plans approved with the grading permit is the same as the final site development plan.

F. Plat

- 1. Revise the easement plat to reflect the same bearings (the same direction) as indicated in the description. Also note the Point-of-Beginning on the plat.
- 2. A Public Works Agreement is required for the culvert pipe replacement and fire suppression tank installation.

G. Floodplain

1. A floodplain study is not required for this project.

Additional comments are provided on redline mark-ups of the plans and checklist. The documents can be picked up from the Office of Planning and Zoning, Development Division, 2664 Riva Road, 3rd Floor, Annapolis, MD 21401.

We recommend Site Development Plan approval with the comments B.1-2, C.1-2, D.1, E.1-2, F.1-2, the marked plans and checklist items being addressed prior to approval of the grading permit plans for this project.

Cc: Sub-comments
SDP File



County Executive John R. Leopold

2664 RIVA ROAD, P.O. BOX 6675 ANNAPOLIS, MARYLAND 21401

OFFICE OF PLANNING AND ZONING

December 8, 2009

Wilkerson & Associates, Inc. Box 17 Dunkirk, Maryland 20754

Attn: Mr. Bob Lee, R.L.S

Re: Marked-up Plans Associated with

Russell Fabrication SDP #C-08-0012 Permit #G02013310

Dear Mr. Lee,

Please find attached the Public Storm Drain / Fire Suppression Tank Plans, and the Storm Drainage Design Checklist for the above referenced project with marked comments. Make the necessary changes to the plans in conjunction with the written comments dated December 8, 2009 and resubmit the revised easement plat, description, and public plans directly to this office for review. The marked plans and checklist must accompany the re-submittal of the public plans. All other comments not related to the public plans are to be addressed with resubmission of the grading permit.

If you have any questions, please contact me at 410-222-7960.

Sincerely,

John F. Bassford Jr.,

Engineer III

Development Division

Attachments

Cc: SDP File

J\Shared\subdiv\BASSFORD\SDP's\C#08-0012 Russell Fabrication - Mark-up Trans#8 DOC

Anthony G. Brown



Margan G. McHale

Re Serey
Execut 'e Director

STATE OF MARYLAND CRITICAL AREA COMMISSION CHESAPEAKE AND ATLANTIC COASTAL BAYS

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

December 1, 2009

Mr. Dan Gerezak
Anne Arundel County
Office of Planning and Zoning
2664 Riva Road, MS 6303
Annapolis, Maryland 21401

Re: Russell Fabrication/Shenton Property

C 08-0012, G 02013310

Dear Mr. Gerczak,

Thank you for forwarding revised plans for the above-referenced project for review. The applicant proposes to construct a new commercial building and parking lots on an existing 0.77 acre parcel. The property is classified as an Intensely Developed Area (IDA). Since the meeting with Commission staff and the comments in my August 31, 2009 letter, the applicant has incorporated Commission staff recommendations into the revised plans. I have provided one remaining minor comment on the project below:

 The applicant must add a note to the final plans guaranteeing the survival of all plant material shown as part of the stormwater management plan.

Thank you for the opportunity to provide comment. If you have questions, please call (410) 260-3479.

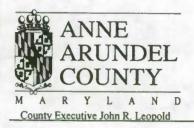
Sincerely,

L. Turcan Hockaday

Natural Resource Planner

cc: AA 110-08, AA 61-02

AA 110-05



2664 RIVA ROAD, P.O. BOX 6675 ANNAPOLIS, MARYLAND 21401 OFFICE OF PLANNING AND ZONING

June 16, 2009

Mr. Bob Lee Wilkerson & Associates P. O. Box 17 Dunkirk, MD 20754

Re:

Name: Russell Fabrication Property

Site Development Plan No. C # 2008-0012

Grading Permit # G02013310

Dear Ms. Bennett:

The Site Development Plan for the referenced project has been reviewed by the agencies listed below and copies of their comments are attached.

A.	OPZ/Planning	Approval withheld June 15, 2009
B.	OPZ/Engineering	Approval withheld June 12, 2009
C.	OPZ/Landscape	Approved w/comment June 15, 2009
D	Critical Area Commission	Approval withheld June 15, 2009
E.	OPZ/Environmental	Approved w/comment June 15, 2009

I. Before approval of the Site Development Plan, the following agency comments must be resolved:

A.	OPZ/Planning	Comments dated June 15, 2009
B.	OPZ/Engineering	Comments dated June 12, 2009
C.	Critical Area Commission	Comments dated June 15, 2009

- II. Adequacy of Facilities for item E has been reviewed and must be resolved with resubmittal. Items A, B, C and D are acceptable and will be approved with the final Site Development Plan provided no changes occur and subject to any noted conditions.
 - A. Fire Suppression: Adequacy of Fire Suppression has been addressed. The Fire Marshal approved the project on March 18, 2009.
 - B. Roads: Adequacy of Facilities for Roads has been addressed for this development. The site will generate less than 50 trips.
 - C. Schools: Adequacy of Facilities for Schools is not applicable. There are no new residential lots being created.
 - D. Utilities: Adequacy of Facilities for Utilities has been addressed. A SWAMP analysis of public sewer services was performed and the Department of Public Works has approved 7 EDU's of sewer. The Health Department has approved the private well.

E. Storm Drains: Adequacy of Facilities for Storm Drains has not been addressed. Engineering comments from John Bassford dated June 12, 2009 must be resolved before adequacy of storm drains can be determined.

IV. Decision:

- A. This office must withhold approval of the Site Development Plan until the issues set forth in Sections I and II have been resolved.
- B. In accordance with Article 17-4-203 the resubmittal must be made within forty-five (45) days of the date of this letter and must include separate packages labeled with the name of the required review agency. Each package is to include a point-by-point response letter addressing the items in section I and II above, and any other supplemental information necessary for review. Resubmittal in accordance with the attached Resubmittal Cover Sheet must be sent directly to Judy Motta at the Permit Application Center by August 5, 2009.

If you have any questions regarding this project, please call me at 410-222-7960 or email to pzgerc05@aacounty.org.

Sincerely,

Dan Gerczal

Planner II

Site Plan File/Diary



Office of Planning and Zoning Development Division

INTER-OFFICE CORRESPONDENCE

DATE: June 15, 2009

TO: File

FROM: Environmental/Planning/Landscape, OPZ, Mail Stop 6305, Dan Gerczak

SUBJECT: C 2008-0012, Russell Fabrication, G02013310

Environmental: Approved with comment

1) The IDA water quality improvements must be approved by OPZ/Engineering and the Critical Area Commission.

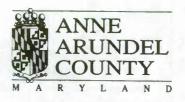
Planning: Approval withheld

1) The OPZ/Planning approval is withheld pending resolution of all agency review comments.

Landscape: Approved with comment

1) On the landscape plan, please identify the landscape professional.

This office does not recommend Planning approval for the Site Development Plan at this time.



County Executive John R. Leopold

Office of Planning and Zoning Development Division

INTER-OFFICE CORRESPONDENCE

DATE:

June 12, 2009

TO:

Dan Gerczak - Planner II

FROM:

John F. Bassford Jr., PE - Engineer III

SUBJECT:

Russell Fabrication

Site Development Plan

SDP C#08-0012 Permit #G02013310

Engineering and Utility Review #6

The above-referenced project has been reviewed for Public Works and Utility issues based on the package dated 5/13/09, and the following comments apply:

Adequacy of Public Facilities is being addressed as follows:

Fire Suppression:

The site will be served by a private well. A fire suppression tank may be required by the Fire Marshal's Office. The final decision regarding Adequacy of Facilities for Fire Suppression is being deferred to the Office of the Fire Marshal.

Utilities:

The site will be served by a private well. Adequacy of Facilities for Water will be deferred to the Anne Arundel County Department of Health. A SWAMP Analysis of public sewer service was performed and the Department of Public Works has indicated that capacity is currently available for 7 EDU's of sewer. The consultant/developer is being advised that the availability of capacity is not guaranteed until an allocation request has been processed and approved by the Department of Public Works.

Storm Drainage:

Adequacy of Facilities for Storm Drainage has not been addressed. It has not been demonstrated that the proposed storm drainage system adequately conveys storm water runoff in a non-erosive manner to the Site and Tributary Outfalls, and to the Point-of-Investigation.

June 12, 2009 Russell Fabrication SDP C#08-0012 Permit #G02013310 Page 2 of 4

The following are comments regarding the plans as submitted; only the comments indicated in the closing paragraph require a point-by-point response:

A. Roads

The site has frontage along Woods Wharf Road which is a County public road and is currently classified as a Collector road. The road along the entire frontage of this development has been fully improved to the required county standard based upon its classification, therefore right-of-way dedication and frontage improvements are not being required.

1. No Comment

B. Storm Drainage

- 1. Previous comment #B.1 has not been adequately addressed. The following revisions to Sheets 1, 4, 5 & 6 of 6 of the SDP plan set are required so the right-to-discharge computations can be verified:
 - A. Provide separate existing and proposed condition drainage area maps, at the same scale, at a scale no smaller than 1"= 100'.
 - B. Clearly show the proposed site features on the proposed condition drainage area map.
 - C. Address all checklist items as indicated on the Storm Drainage Design Checklist.
- 2. In regards to previous comment #B.3, the drainage areas used in the computations for culvert sizing are not consistent. The Storm Drain Flow Tabulation (Sheet 1 of 6) indicates 6.2-acres. The 100-scale Proposed SWM and Storm Drain Drainage Area Map below the computations shows Area A = 0.73-ac and Area C = 5.53-ac, for a total of 6.26-ac. The map on Sheets 5 & 6 of 6 shows the Tributary Drainage Area (the same total drainage area) as being 6.57-ac. Make these areas consistent, revise the necessary computations, and confirm the proposed culvert sizes.
- 3. Provide a storm drain drainage area map, at a minimum scale of 1"= 100', as part of the Public Storm Drain Plan. See the Storm Drainage Design Checklist.
- 4. Address all comments as outlined in the marked Public Storm Drain Plan and in the Storm Drainage Design Checklist. The Storm Drainage Design Checklist impacts both the Public Storm Drain Plan and the SDP.

C. Stormwater Management

The proposed SWM design for this "New Development" site consists of the use of the Grass Channel, Rooftop and Non-Rooftop Disconnect Credits to address the required Water Quality volume (WQ_v) and Groundwater Recharge volume (Re_v) for the industrial building, the parking lot and drive on-site. Quantity management of the Channel Protection volume (Cp_v) is not proposed, as the discharge from the developed site is indicated as less than 2-cfs. Quantity management of the Overbank and Extreme Flood volumes (Q_p and Q_f) are not proposed, based on the assertion that the site has adequate conveyance to tidal outfall.

1. Previous comment #C.1 has still not been adequately addressed. Refer to comment #B.1 above. The Site/Tributary Outfalls and the POI locations have been shown on Sheet 5 of 6. However, the existing and proposed condition drainage area maps are still not at the same scale (Sheet 4 of 6 is 20-scale, Sheet 6 of 6 is 40-scale), and the proposed conditions map shows no proposed features. Revise.

June 12, 2009 Russell Fabrication SDP C#08-0012 Permit #G02013310 Page 3 of 4

- 2. Previous comment #C.2 has still not been adequately addressed. The computations provided for the grass channel credit are now consistent with plan view on Sheet 2 of 6, but are not consistent with the SWM Concept notes on the same sheet. Each grass channel now has a unique design cross-section. Indicate all three unique cross-sections on the plan.
- 3. In regards to previous comment #C.3, see the items below:
 - a. Runoff to the western end of the proposed building must drain around the building, either into Grass Channel #1 or Grass Channel #3. Revise the drainage area and computations accordingly. If the velocity is above 1-fps for the WQ_v storm, alternate methods must be implemented to address the WQ_v in that drainage area.
 - b. The drainage area indicated for Grass Channel #1 or Grass Channel #3 does not account for off-site area which reaches the channels. Off-site area to the west reaches Grass Channel #1 and off-site area to the south reaches Grass Channel #3. The entire drainage area to the channel must be considered for the WQ_v runoff, flow, and velocity calculations. Revise accordingly. If the velocity is above 1-fps for the WQ_v storm, alternate methods must be implemented to address the WQ_v in that drainage area.
- 4. Previous comment #C.4 has still not been adequately addressed. The evaluation of the 10-yr and 100-yr cannot be confirmed. See item #B.1 above and revise the drainage area maps accordingly.
- 5. Previous comment #C.6 has not been adequately addressed. Provide a detail of the building roof showing how the 975-sf areas are being divided and distributed to the raingardens. The detail will also need to be part of the architectural plans, and the architectural plans will need to be submitted to the Public Works reviewer at time of building permit for verification.
- 6. Previous comment #C.7 has not been adequately addressed. Provide *full* construction details for the proposed raingardens. How is rooftop discharge to be diverted through/around the raingarden once the soil is saturated and any freeboard inundated? These are elevated raingardens. What are the walls constructed of? Does a membrane protect the building wall from the raingarden in case of seepage? Provide all construction details.

D. Utilities

This development will be served by:

- i) Public sewer in sewer service area "Broadwater" (08).
- ii) Private water in water service area "Rural" (07).
- 1. Add the proposed fire suppression tank, notes, details, etc., to the Public Storm Drain Plan.
- 2. Add an easement for the fire suppression tank to the SDP and the Public Storm Drain Plan.

E. Site Development/Grading Plan

- 1. A Private Stormwater Management Agreement will be required at time of grading permit.
- 2. Please ensure that the grading permit is resubmitted through the Permit Application Center to address any comments that may have been deferred to permit and ensure that the set of plans approved with the grading permit is the same as the final site development plan.

F. Plat

1. A plat is no longer being processed to legalize this parcel. Provide an easement plat and description for the fire suppression tank.

June 12, 2009 Russell Fabrication SDP C#08-0012 Permit #G02013310 Page 4 of 4

2. A Public Works Agreement is required for the culvert pipe replacement and fire suppression tank installation.

G. Floodplain

1. A floodplain study is not required for this project.

Additional comments are provided on redline mark-ups of the plans and checklist. The documents can be picked up from the Office of Planning and Zoning, Development Division, 2664 Riva Road, 3rd Floor, Annapolis, MD 21401.

We are unable to grant Site Development Plan approval of these plans until comments B.1-4, C.1-6, D.1-2, F.1-2, the marked plans and checklist items have been adequately addressed.

Cc: Jamie Richardson SDP File



County Executive John R. Leopold

2664 RIVA ROAD, P.O. BOX 6675 ANNAPOLIS, MARYLAND 21401

OFFICE OF PLANNING AND ZONING

June 12, 2009

Wilkerson & Associates, Inc. Box 17 Dunkirk, Maryland 20754

Attn: Mr. Bob Lee, R.L.S

Re: Marked-up Plans Associated with

Russell Fabrication SDP #C-08-0012 Permit #G02013310

Dear Mr. Lee,

Please find attached the Public Storm Drain Plan and the Storm Drainage Design Checklist for the above referenced project with marked-up comments (in red). Make the necessary changes to the plans in conjunction with the written comments dated June 12, 2009 and resubmit for review. The marked-up plans and checklist must accompany the next resubmittal of the Site Development Plan package, or review will not be conducted.

If you have any questions, please contact me at 410-222-7960.

Sincerely

John F. Bassford Jr. F.E.

Engineer III

Development Division

Attachments

Cc: SDP File

J:\Shared\subdiv\JBASSFORD\SDPs\C#08-0012 Russell Fabrication - Mark-up Trans#6.DOC

Anthony G. Brown



Margaret G. McHale

Ren Serey

Executive Director

STATE OF MARYLAND CRITICAL AREA COMMISSION CHESAPEAKE AND ATLANTIC COASTAL BAYS

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

June 15, 2009

Mr. Dan Gerezak Anne Arundel County Office of Planning and Zoning 2664 Riva Road, MS 6303 Annapolis, Maryland 21401

Rc:

Russell Fabrication/Shenton Property

C 08-0012, G 02013310

Dear Mr. Gerezak,

Thank you for forwarding revised plaus for the above-referenced project for review. The applicant proposes to construct a new commercial building and parking lots on an existing 0.77 acre parcel. The property is classified as an Intensely Developed Area (IDA). The applicant has not sufficiently responded to this office's comments from my March 23, 2009 letter. It appears that the best course of action at this point is for the applicant to set up a meeting with Commission staff to discuss and resolve the remaining comments. I have reiterated and expanded upon these comments below:

- It appears that the applicant is now referring to the proposed parking lot as a driveway in order
 to justify the proposed use of the grass channels instead of a BMP such as an underground sand
 filter as previously recommended by this office. As mentioned above, we recommend that the
 applicant meet with Commission staff to discuss stormwater treatment options other than the
 proposed grass channels.
- 2. As requested, the applicant has provided information about the proposed rain gardens that will receive stormwater runoff from the proposed commercial building rooftop. However, all of the nine 975 square foot sections of rooftop being directed to each of the nine rain gardens exceed the maximum 500 square feet of rooftop surface area that can be directed to one raingarden as specified on p. 5.7 of the MDE 2000 Stormwater Manual, and therefore, the full stormwater rooftop disconnect credit can not be deducted for the building rooftop. If the applicant has questions as to how the calculations must be revised or what stormwater treatment alternatives must be provided as a result, this can be discussed in a meeting with Commission staff.
- 3. Stomwater treatment must be provided for the proposed concrete pad that is within the County right of way in conjunction with this project. Please provide information regarding the appropriate County contact responsible for development of this portion of the site. Development on County lands within the Critical Area requires Commission review and approval under COMAR 27.02.02 State and Local Agency Actions Resulting in Development of Local Significance on Private Lands or Lands Owned by Local Jurisdictions. If the County

TTY for the Deaf
Annapolis: (410) 974-2609 D.C. Metro: (301) 586-0450

Mr. Gerezak June 15, 2009 Page 2 of 2

determines that the proposed development of its lands within the Critical Area is consistent with Anne Arundel County's Critical Area program, it may submit a development proposal and consistency report with a request that the Commission concur with this determination.

Thank you for the opportunity to comment. Please telephone me if you have any questions at (410) 260-3481.

Sincerely,

Amber Widmayer

Natural Resources Planner

cc:

AA 61-02

AA 110-08



2664 RIVA ROAD, P.O. BOX 6675 ANNAPOLIS, MARYLAND 21401

APR 2

CRITICAL AREA COMMISSION

Chesapeake & Atlantic Coa tal Bay

OFFICE OF PLANNING AND ZONING

March 27, 2009

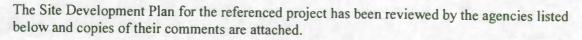
Ms. Michele D. R. Bennett Wilkerson & Associates P. O. Box 17 Dunkirk, MD 20754

Re: Name: Russell Fabrication Property

Site Development Plan No. C # 2008-0012

Grading Permit # G02013310

Dear Ms. Bennett:



A. B. C. D. E	OPZ/Planning OPZ/Engineering OPZ/Landscape Fire Marshal Division Critical Area Commission OPZ/Environmental	Approval withheld March 26, 2009 Approval withheld March 26, 2009 Approval withheld March 26, 2009 Approved March 18, 2009 Approval withheld March 23, 2009
F.	OPZ/Environmental	Approved w/comment March 26, 2009

Before approval of the Site Development Plan, the following agency comments must be I. resolved:

A.	OPZ/Planning	Comments dated March 26, 2009
B.	OPZ/Engineering	Comments dated March 26, 2009
C.	OPZ/Landscaping	Comments dated March 26, 2009
D.	Critical Area Commission	Comments dated March 23, 2009

- Adequacy of Facilities for item E has been reviewed and must be resolved with II. resubmittal. Items A, B, C and D are acceptable and will be approved with the final Site Development Plan provided no changes occur and subject to any noted conditions.
 - A. Fire Suppression: Adequacy of Fire Suppression has been addressed. The Fire Marshal Fire approved the project on March 18, 2009.
 - B. Roads: Adequacy of Facilities for Roads has been addressed for this development.

C. Schools: Adequacy of Facilities for Schools is not applicable. There are no new residential lots or uses created or proposed.

D. Utilities: Adequacy of Facilities for Utilities has been addressed. A SWAMP analysis of public sewer services was performed and the Department of Public Works has approved 7 EDU's of sewer. The Health Department has approved the private well.

Ms. Michele D. R. Bennett March 27, 2009 Page 2

E. Storm Drains: Adequacy of Facilities for Storm Drains has not been addressed. Engineering comments from John Bassford dated March 26, 2009 must be resolved before adequacy of storm drains can be determined.

IV. Decision:

- A. This office must withhold approval of the Site Development Plan until the issues set forth in Sections I and II have been resolved.
- B. In accordance with Article 17-4-203 the resubmittal must be made within forty-five (45) days of the date of this letter and must include separate packages labeled with the name of the required review agency. Each package is to include a point-by-point response letter addressing the items in section I and II above, and any other supplemental information necessary for review. Resubmittal in accordance with the attached Resubmittal Cover Sheet must be sent directly to Judy Motta at the Permit Application Center by May 13, 2009.

If you have any questions regarding this project, please call me at 410-222-7960.

par.

Sincerely.

Dan Gerczak Planner II



Office of Planning and Zoning Development Division

INTER-OFFICE CORRESPONDENCE

DATE: March 26, 2009

TO: File

FROM: Environmental/Planning/Landscape, OPZ, Mail Stop 6305, Dan Gerczak

SUBJECT: C 2008-0012, Russell Fabrication, G02013310

Environmental: Approved with comment

1) The IDA water quality improvements must be approved by OPZ/Engineering.

Planning: Approval withheld

- 1) The modification (M10309) decision to legality will be forthcoming under a separate cover. The simultaneous development of two illegal adjacent parcels (parcel 841 and parcel 212) must be coordinated. Access to the W2 manufacturing building from parcel 841 (Paglia) may be required.
- 2) Please provide a copy of the architectural plans. Please elaborate on the proposed manufacturing activity. Please address whether there will be boat storage at this location. Please address whether there will be multiple units with bay doors and whether there will be free flowing internal movement/flow of the structure.
- 3) Please show the one loading (15' x 30') parking space location on the plan. Please address if there will be any boat trailer parking on the site.
- 4) Please identify the main entrance/pedestrian doors to the building. Please address pedestrian safety. The proposed sidewalks are on the opposite side of the building from the parking areas.

Landscape: Approval withheld

- 1) Please provide the name of the landscape professional who prepared the plan on the plan.
- 2) Please provide an updated cost estimate on the plan. The estimate must be bonded at permit.
- 3) The proposed plantings must meet the 50% of the building façade requirement.
- 4) The interior planting requirements are contradictory on the landscape plan (720 sq. ft. vs. 859 sq. ft.).
- 5) Please identify the plantings being utilized for interior planting. Please note that interior plantings cannot be utilized to meet buffer planting requirements.

This office does not recommend Planning or Landscape approval for the Site Development Plan at this time.



County Executive John R. Leopold

Office of Planning and Zoning Development Division

INTER-OFFICE CORRESPONDENCE

DATE:

March 26, 2009

TO:

Dan Gerczak - Planner II

FROM:

John F. Bassford Jr., PE - Engineer III

SUBJECT:

Russell Fabrication Site Development Plan

SDP C#08-0012 Permit #G02013310

Engineering and Utility Review #5

The above-referenced project has been reviewed for Public Works and Utility issues based on the package dated 2/20/09, and the following comments apply:

Adequacy of Public Facilities is being addressed as follows:

Fire Suppression:

The site will be served by a private well. A fire suppression tank may be required by the Fire Marshal's Office. The final decision regarding Adequacy of Facilities for Fire Suppression is being deferred to the Office of the Fire Marshal.

Utilities:

The site will be served by a private well. Adequacy of Facilities for Water will be deferred to the Anne Arundel County Department of Health. Adequacy of Facilities for Sewer has been adequately addressed for this development. A SWAMP Analysis of public sewer services was performed and the Department of Public Works has indicated that capacity is currently available for 7 EDU's of sewer. The consultant/developer is being advised that the availability of capacity is not guaranteed until an allocation request has been processed and approved by the Department of Public Works.

Storm Drainage:

Adequacy of Facilities for Storm Drainage has not been addressed. It has not been demonstrated that the proposed storm drainage system adequately conveys storm water runoff in a non-erosive manner to the Site and Tributary Outfalls, and to the Point-of-Investigation.

March 26, 2009 Russell Fabrication SDP C#08-0012 Permit #G02013310 Page 2 of 3

The following are comments regarding the plans as submitted; only the comments indicated in the closing paragraph require a point-by-point response:

A. Roads

The site has frontage along Woods Wharf Road which is a County public road. Right-of-way dedication and frontage improvements are not being required.

1. No Comment

B. Storm Drainage

- 1. In regards to previous comment #B.2, make the following revisions to Sheet 5 of 5, the POI Drainage Area Map, so the right-to-discharge computations can be verified:
 - A. Provide at a scale of 1"= 100".
 - B. Provide separate existing and proposed condition maps.
 - C. Show the soil type delineations.
 - D. Show the T_c path and segments.
- 2. Previous comment #B.4 was not addressed. Provide a public storm drain plan for installation of the proposed 19-in x 30-in ERCP culvert in Woods Wharf Road for review. Include a completed copy of the current Storm Drainage Design Checklist.
- 3. Complete computations are to be provided with each submittal. Provide culvert computations for the proposed 18-in and 19-in x 30-in culverts with subsequent submittals.

C. Stormwater Management

The proposed SWM design for this "New Development" site consists of the use of the Grass Channel, Rooftop and Non-Rooftop Disconnect Credits to address the required Water Quality volume (WQ_v) and Groundwater Recharge volume (Re_v) for the industrial building, the parking lot and drive on-site. Quantity management of the Channel Protection volume (Cp_v) is not proposed, as the discharge from the developed site is indicated as less than 2-cfs. Quantity management of the Overbank and Extreme Flood volumes (Q_p and Q_f) are not proposed, based on the assertion that the site has adequate conveyance to tidal outfall.

- 1. Previous comment #C.1 has not been adequately addressed. Refer to comment #B.1 above. Clearly label the Site/Tributary Outfall and the POI locations on the DA Map on Sheet 5 of 5, and provide both existing and proposed Stormwater Management DA maps at the same scale, no smaller than 1"= 100' in scale.
- 2. In regards to previous comment #C.2 (in general), the computations provided for the grass channel credit indicate the use of a 4-ft wide bottom. The plan view and grass channel cross-section both show a 2-ft wide bottom. Make the necessary revisions. Also indicate on the cross-section the design side slope of 3:1.
- 3. Previous comment #C.2.a has not been adequately addressed. Provide a drainage area map specifically for the areas draining to the grass channels, so the credit computations can be verified.
- 4. Previous comment #C.3 has not been adequately addressed. The evaluation of the 10-yr and 100-yr cannot be confirmed. See item #B.1 above and revise the drainage area maps accordingly.

March 26, 2009 Russell Fabrication SDP C#08-0012 Permit #G02013310 Page 3 of 3

- 5. In regards to previous comment #C.4, the SWM Concept Note (on Sheet 2 of 5) makes reference to use of the Non-Rooftop Disconnect Credit. Where is this credit being applied? The grass channels are designed for the Grass Channel Credit. Clarify.
- 6. Provide a detail of the building roof showing how the 975-sf areas are being divided and distributed to the raingardens. The detail will also need to be part of the architectural plans, and the architectural plans will need to be submitted to the Public Works reviewer at time of building permit for verification.
- 7. Provide full construction and planting details for the proposed raingardens.

D. Utilities

This development will be served by:

- i) Public sewer in sewer service area "Broadwater" (08).
- ii) Private water in water service area "Rural" (07).
- 1. No Comments

E. Site Development/Grading Plan

- 1. A Private Stormwater Management Agreement will be required at time of grading permit.
- 2. Please ensure that the grading permit is resubmitted through the Permit Application Center to address any comments that may have been deferred to permit and ensure that the set of plans approved with the grading permit is the same as the final site development plan.

F. Plat

1. A Public Works Agreement is required for the culvert pipe replacement and fire suppression tank installation.

G. Floodplain

1. A floodplain study is not required for this project.

We are unable to grant Site Development Plan approval of these plans until comments B.1-3, C.1-7, and F.1 have been adequately addressed.

Cc: Jamie Richardson SDP File

Martin O'Malley
Governor

Anthony G. Brown Lt. Governor



Margaret G. McHale

Ren Serey
Executive Director

STATE OF MARYLAND CRITICAL AREA COMMISSION CHESAPEAKE AND ATLANTIC COASTAL BAYS

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

March 23, 2009

Mr. Dan Gerczak Anne Arundel County Office of Planning and Zoning 2664 Riva Road, MS 6303 Annapolis, Maryland 21401

Re: Russell Fabrication/Shenton Property

C 08-0012, G 02013310

Dear Mr. Gerczak,

Thank you for forwarding revised plans for the above-referenced project for review. The applicant proposes to construct a new commercial building and parking lots on an existing .77 acre parcel. The property is classified as an Intensely Developed Area (IDA). I have provided my comments below:

- 1. The comment from my letter dated December 30, 2008 regarding the use of grass channels to treat linear impervious surfaces has not been addressed. Please find attached a copy of the Maryland Department of the Environment (MDE) memo regarding the appropriate uses of grass channels for storm water management purposes.
- 2. There is no detail included in the site plan of the proposed rain gardens. Additionally, the number of square feet of the roof top is too great to use a disconnect credit to treat run-off. Please have the applicant follow the specifications in the MDE stormwater manual if they wish to utilize disconnection credits.
- 3. Staff wishes to review comments from the Fire Marshal associated with comment "D" of the report, which was listed as "Intentionally Omitted". Without these comments, Staff is unconvinced of the need for second access point and the additional impervious surface associated with it. Without the second access point, the applicant would be able to meet the 10%Rule requirements with greater ease.
- 4. It is unclear whether the 'Concrete Pad' to the rear of the property is existing or proposed. Additionally, it is uncertain whether the concrete pad was included in the impervious surface calculations. Please clarify.

March 23, 2009 Russell Fabrication/Shenton Property Page 2 of 2

Thank you for the opportunity to provide comment. If you have questions, please call (410) 260-3481.

Sincerely,

Amber Widmayer

Natural Resource Planner

ANNE ARUNDEL COUNTY

Annapolis, Maryland

RESUBMITTAL COVER SHEET

TO:	Office of Planning and Zoning/Develo	opment Div	ision
FRO	M:		
RE:	Subdivision Name – Russell Fabricati Site Development Plan # C 2008-001	on Property 2	
PLEA	ASE FIND ATTACHED RESPONSE LI EKED PRINTS) PACKAGES FOR:	ETTER/RE	VISED PLAN (AND ANY AGENCY-
X X	OPZ/Subdivision Review Planner OPZ/Engineering Review OPZ/Traffic Review OPZ/Utilities Review House Numbers/Street Names OPZ/Environmental	ζ	Health Department Board of Education Archaeological/Historical Fire Marshal Division Md. State Aviation Adm. Office of Law
X	OPZ/Landscape Soil Conservation District Recreation and Parks State Highway Administration	X	Other Agency: I & P DPW/Street Light-Signs Critical Area Commission

The engineer/developer certify that all of the above-mentioned agencies are being responded to with their own completed package. Each package shall contain the necessary response letter/plans/plats/studies, computations (if applicable) and agency marked-up plans (if provided) addressing all of the items required to be addressed in the prior review comments from each agency. All correspondence, plans, plats, studies, comps, etc. must list both the correct subdivision and project numbers.

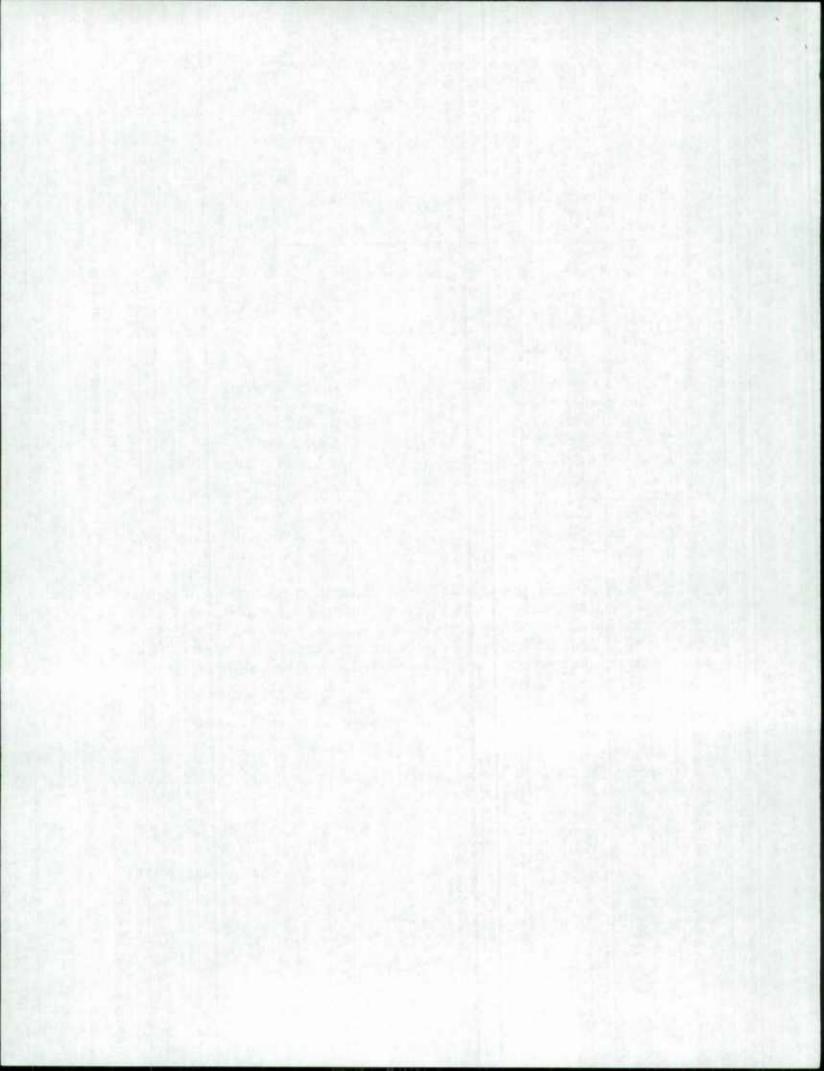
Submit the completed resubmittal package to Nancy McGuckian on the 1st floor of PAC prior to acceptance by OPZ/Development Division.

This marked form highlighting the specific agency must accompany your resubmittal otherwise it can not be accepted by P&Z/Development Division.

Developer/Engineer (SEAL)

Attachments

J:\subdiv\Callahan, Steve-Resubmittal Cover Sheet.doc 01/02/07



RECEIVED



OCT 2 0 2008

CRITICAL AREA COMMISSION

2664 RIVA ROAD, P.O. BOX 6675 ANNAPOLIS, MARYLAND 21401

OFFICE OF PLANNING AND ZONING

October 16, 2008

Ms. Michele D. R. Bennett Wilkerson & Associates P. O. Box 17 Dunkirk, MD 20754

Re:

Name: Russell Fabrication Property

Site Development Plan No. C # 2008-0012

Grading Permit # G02013310

Dear Ms. Bennett:

The Site Development Plan for the referenced project has been reviewed by the agencies listed below and copies of their comments are attached.

A.	OPZ/Planning	Approval withheld September 29, 2008
B.	OPZ/Engineering	Approval withheld September 25, 2008
C.	OPZ/Utilities	Approved September25, 2008
D.	OPZ/Environmental	Approved September 29, 2008
E.	OPZ/Landscape	Approval withheld September 29, 2008
F.	Fire Marshal Division	Approval withheld September 17, 2008
G.	Health Department	Approved August 28, 2008
H.	Critical Area Commission	Approval withheld October 11, 2008

I. Issues:

- Legality Waiver #4785 granted on May 26, 1993 for parcel 119 states that this parcel is an improperly subdivided parcel. This critical area parcel must obtain a Modification to legality.
- 2) The second access onto Snug Harbor Road issue must be resolved.
- 3) The Critical Area Commission has reiterated their comments from June 10, 2008 via an e-mail notice. Those comments are attached for your review.
- II. Before approval of the Site Development Plan, the following agency comments must be resolved:

A.	OPZ/Planning	Comments dated September 29, 2008
B.	OPZ/Engineering	Comments dated September 25, 2008
C.	OPZ/Landscaping	Comments dated September 29, 2008
D.	Fire Marshal Division	Comments dated September 17, 2008
E.	Critical Area Commission	Comments dated June 10, 2008

- III. Adequacy of Facilities for item A and E have been reviewed and must be resolved with resubmittal. Items B, C and D are acceptable and will be approved with the final Site Development Plan provided no changes occur and subject to any noted conditions.
 - A. Fire Suppression: Adequacy of Fire Suppression has not been addressed. Fire comments from Lt. Francis X. Fennell dated September 17, 2008 must be resolved before adequacy of fire suppression can be determined.
 - B. Roads: Adequacy of Facilities for Roads has been addressed for this development.
 - C. Schools: Adequacy of Facilities for Schools is not applicable. There are no new residential lots or uses created or proposed.
 - D. Utilities: Adequacy of Facilities for Utilities has been addressed. A SWAMP analysis of public sewer services was performed and the Department of Public Works has approved 7 EDU's of sewer. The Health Department has approved the private well.
 - E. Storm Drains: Adequacy of Facilities for Storm Drains has not been addressed. Engineering comments from Rania Carriker dated September 25, 2008 must be resolved before adequacy of storm drains can be determined.

IV. Decision:

CC:

A. This office must withhold approval of the Site Development Plan until the issues set forth in Sections I, II and III have been resolved.

B. In accordance with Article 17-4-203 the resubmittal must be made within forty-five (45) days of the date of this letter and must include separate packages labeled with the name of the required review agency. Each package is to include a point-by-point response letter addressing the items in section I, II and III above, and any other supplemental information necessary for review. Resubmittal in accordance with the attached Resubmittal Cover Sheet must be sent directly to Judy Motta at the Permit Application Center by December 1, 2008.

If you have any questions regarding this project, please call me at 410-222-7960.

Dan Gerezak Planner II

Sincerely.

Kelly Krinetz, Critical Area Team Administrator CA Team: RSC, DWG
Permit Application Center: Jamie Richardson
Lt. Francis X. Fennell, Fire Marshal Division
Amber Widemayer, Critical Area Commission
Tom Gruver, Health Dept.
Site Plan File/Diary



Office of Planning and Zoning Development Division

INTER-OFFICE CORRESPONDENCE

DATE: September 29, 2008

TO: File

FROM: Environmental/Planning/Landscape, OPZ, Mail Stop 6305, Dan Gerczak

SUBJECT: C 2008-0012, Russell Fabrication, G02013310

Environmental: Approved with comment

1) The IDA water quality improvements must be approved by OPZ/Engineering.

Planning: Approval withheld pending your meeting with Chris Soldano

- 1) The submitted deed work and previous waiver decision for parcel 119 (W4785) indicates this parcel was created by deed without subdivision approval. This critical area parcel is not legally buildable without subdivision review and approval of a plat or a Modification to legality and the subdivision process is obtained. The simultaneous development of two illegal adjacent parcels (parcel 841 and parcel 212) must be coordinated. Access to the W1 manufacturing building from parcel 212 may be considered.
- 2) The general layout and multiple accesses are not desirable. Please eliminate the access closest to Snug Harbor Road and provide the interior drive access as necessary. The building must be moved closer to Woods Wharf Road (north and east direction) to maximize the retention of woodland on site. Please note that parking may occur 15 feet from the property line without a Modification.
- 3) Please note that access to parcel 841 from this site is also to be investigated and coordinated with the Paglia-Pamarast subdivision. Or access from parcel 841 to this site may be warranted.

Landscape: Approval withheld

1) The Planning design issues must be resolved prior to landscape approval.

This office does not recommend Planning or Landscape approval for the Site Development Plan at this time.



Office of Planning and Zoning Development Division

INTER-OFFICE CORRESPONDENCE

DATE:

September 25, 2008

TO:

Dan Gerczak - Planning and Zoning / Planner

FROM:

Rania Carriker - Planning and Zoning / Engineer

SUBJECT:

C#08-0012 Russell Fabrication

(See: G02013310)

Engineering and Utility Review

The above-referenced project has been reviewed for Public Works and Utility issues and the following comments apply:

Adequacy of public facilities is being addressed as follows:

Fire Suppression:

The site will be served by a private well. A fire suppression tank may be required by the Fire Marshal's office. The final decision regarding adequacy of facilities for fire suppression is being deferred to the Office of the Fire Marshal.

Utilities:

Adequacy of facilities for utilities has been adequately addressed for this development. A SWAMP analysis of public sewer services was performed and the Department of Public Works has approved 7 EDUs of sewer.

Storm Drainage:

Adequacy of facilities for storm drainage has not been adequately addressed.

The site outfall, the tributary outfall, and to the Point of Investigation (POI) have not been addressed per county SWM code/guidelines.

The following are comments regarding the plans as submitted; only the comments indicated in the closing paragraph require a point-by-point response:

A. Roads

The site has frontage along Woods Wharf Road which is a county public road. Right of way dedication and frontage improvements are not being required.

Our previous comment concerning the number of accesses to the site remain outstanding.
 Per county Engineer Manager, during your August meeting she did not come to an agreement with

your office on this issue, therefore, your August 18, 2008 response that "the number of entrances to the site is pending the planner's decision and that a modification for the minimum 300' sight distance on Woods Wharf Road may be required" is not currently acceptable.

B. Storm drains

- 1. The Environmental Conservation Plan (ECP), indicated in your August 18, 2008 response letter, was not included in the submittal package. Therefore, our previous comment B.1 "provide separate DA map (per county SWM guidelines) that clearly shows the site outfall, the tributary drainage area, the tributary outfall, and the point of investigation (POI)" remain outstanding. Please, also refer to the adequacy of facilities/storm drainage in this letter.
- 2. Add an "outfall statement" to the plans, as it was previously requested.

C. Stormwater Management

It is proposed to manage the Water Quality volume (WQv) and the Recharge (Rev) volume for the industrial building, the two parking lots, and the two drives via onsite grass channels. Per county Engineer Manager, during your August meeting it was not determined that the site has "direct outfall to tidal waters", therefore, the Cpv and Qp volumes are required.

- 1. WQv, Rev, and Cpv computations "for the entire site" are required and they must be submitted in the SWM report and/or onto the plans, as it was previously requested.
- 2. Please also refer to comment B.1 above. An ECP was not received, and the DA that addresses the site and tributary outfalls and the POI on plan 1 of 4 is not acceptable as proposed. Please make note that the DA map must include the tributary drainage area (based on which the tributary outfall is defined) and the POI must be downstream from the tributary outfall.
- 3. The CPv, Qp, and Qf volumes must addressed for this project, as required. Please address previous comments C.2 and C.10.
- 4. Revise the SWM Note (on plan 2 of 4) accordingly.

D. <u>Utilities</u>

This development will be served by:

- i) Public sewer in sewer service area "Broadwater" (08).
- ii) Private water in water service area "Rural" (07/07).
- 1. A SWAMP analysis of water and sewer was requested and the results were attached to our March 19, 2008 letter.

E. Final Development/Grading Plan

1. A private stormwater management agreement will be required for the proposed grass channels.

We are unable to grant Site Development Plan approval of these plans until comments A, B, and C have been adequately addressed.

J:\Shared\Subdiv\RANIA\ C#08-0012 Russell Fabrication 9.25.08



INTEROFFICE CORRESPONDENCE Fire Department

John R. Leopold, County Executive David L. Stokes, Fire Chief

TO:

Dan Gerczak, Planning & Zoning

CC:

SUBCOMMENTS@aacounty.org

FROM:

Lt. Francis X. Fennell CFPS, Fire Marshal Division

DATE:

September 17, 2008

SUBJECT:

Project Name:

Russell Fabrication

Site Development Plan No.:

C08-0012

Site Development Plan Review

Conditional approval is granted subject to compliance with the following comments:

- 1. Underground fire suppression drafting tanks shall be shown on the record plat.
- 2. Tanks should be installed per Anne Arundel County detail 1/64 and 1/64A, Department of Public Works, underground storage tank for fire suppression.

The following comments are provided for informational purposes. These requirements will be enforced during the building permit review process.

- 3. A person may not stand or park a vehicle within 15 feet of a fire department water supply.
- 4. Dumpsters may not be placed within 15' of any structure.
- 5. Street signs and curb/roadway markings designating the road as NO PARKING may be required by the fire department as deemed necessary for adequate access and operational requirements. Roadways and fire lanes must provide 20' of width, free of any obstructions.
- 6. Requirements for establishment of "NO PARKING-FIRE LANE" zone:

- a. All curb areas designated as Fire Lanes are to be painted YELLOW for the entire length of the designation.
- b. On the yellow curb areas, "NO PARKING" is to be painted in four (4) to six (6) inch letters (BLACK) at intervals not to exceed fifty (50) feet.
- c. All wall or curb areas that have been designated as Fire Lanes shall have a six (6) inch YELLOW line painted approximately fifteen (15) feet from the wall along the entire length of the designation.
- d. Along the entire length of the designated Fire Lane area, at intervals not be exceed fifty (50), "NO PARKING FIRE LANE" is to be painted on the roadway in twelve (12) inch YELLOW letters. This shall be done along the curb area and within the yellow lined area.
- e. All parking lines which have been superceded by the Fire Lane designation shall be removed or painted over to obliterate the lines.
- f. Marking (unpaved surfaces) A 20' wide entrance shall be provided marked. The entire length of the unpaved fire lane shall be permanently outlined with shrubs, fencing, reflective signs or similar markers shall have markers placed across the lane. Curb cuts should be provided.
- g. Curb-cuts extend at least 2 feet beyond each edge of the fire lane.
- h. No parking fire lane signs provided by Anne Arundel County are needed for areas designated as fire lane. Contact the Fire Marshal Division after roadways or unpaved fire lanes have been marked for information or obtaining signs.



County Executive John R. Leopold

Anne Arundel County Department of Health J. Howard Beard Health Services Building 3 Harry S. Truman Parkway Annapolis, MD 21401 Phone 410-222-7193 Fax 410-222-7678 TTY: 410-222-7153 www.aahealth.org

Frances B. Phillips, R.N., M.H.A. Health Officer

MEMORANDUM

TO: Judy Motta, MS-6001

Office of Planning and Code Enforcement

FROM: J. Thomas Gruver, MS-3101

Division of Environmental Health

DATE: August 28, 2008

RE: SUBJECT NAME: Russell Fabrication

> SITE DEV PLAN: C08-0012000NC

Tax Map #: 69 Block #: 11 Parcel #: 212

The Anne Arundel County Department of Health has no objection subject to the availability of public sewer.

Chris Saldano cc:

Janet Scott

Martin O'Malley
Governor

Anthony G. Brown
Lt. Governor



Margaret G. McHale

Ren Serey
Executive Director

STATE OF MARYLAND CRITICAL AREA COMMISSION CHESAPEAKE AND ATLANTIC COASTAL BAYS

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

June 10, 2008

Mr. Dan Gerczak Anne Arundel County Office of Planning and Zoning 2664 Riva Road, MS 6301 Annapolis, Maryland 21401

Re: Russell Fabrication/Shenton Property

C 08-0012, G 02013310

Dear Mr. Gerczak.

Thank you for forwarding revised plans for the above-referenced project for review. The applicant proposes to construct a new commercial building and parking lots on an existing 0.77 acre parcel. The property is classified as an Intensely Developed Area (IDA). The applicant has addressed this office's comments from my February 19, 2008 letter and I have provided my remaining comments below:

- 1. As requested, the applicant has provided the 10% pollutant reduction calculations. The applicant proposes to address the pollutant reduction requirement with a grass channel credit. However, grass channels are intended for treatment of roads and other linear impervious surfaces with an impervious flow path length not more than 75 feet in width. Therefore, the applicant must provide another treatment option to address the 10% pollutant reduction. For instance, it appears that there is room on the site to install a perimeter sand filter. Please have the applicant submit revised 10% calculations with information about how the pollutant removal requirement will be addressed on site by a Best Management Practice (BMP) in addition to or instead of the proposed grass channels.
- 2. It appears that there is a minor math error in Step 3 of the applicant's 10% calculations. The applicant's calculation for "Rv" is 0.524, and it seems that it should be 0.527 instead. This mistake results in a slightly higher pollutant removal requirement of 0.6486 pounds of phosphorus per year instead of 0.6428 pounds of phosphorus per year. Please have the applicant adjust these calculations as necessary in future submittals.

Thank you for the opportunity to comment. Please telephone me if you have any questions at (410) 260-3481.

Mr. Gerczak June 10, 2008 Page 2 of 2

Sincerely,

Amber Widmayer

Natural Resources Planner

cc: AA 61-02

AA 110-08

ANNE ARUNDEL COUNTY

Annapolis, Maryland

RESUBMITTAL COVER SHEET

Office of Planning and Zoning/Development Division

FRO	M:		
RE:	Subdivision Name – Russell Fabricatio Site Development Plan # C 2008-0012		
	ASE FIND ATTACHED RESPONSE LE LKED PRINTS) PACKAGES FOR:	TTER/RE	VISED PLAN (AND ANY AGENC
X X	OPZ/Subdivision Review Planner OPZ/Engineering Review OPZ/Traffic Review	×	Health Department Board of Education Archaeological/Historical
, X	OPZ/Utilities Review House Numbers/Street Names OPZ/Environmental	X	Fire Marshal Division Md. State Aviation Adm. Office of Law
X	OPZ/Landscape Soil Conservation District		Other Agency: I & P DPW/Street Light-Signs
	Recreation and Parks State Highway Administration	X	Critical Area Commission

The engineer/developer certify that all of the above-mentioned agencies are being responded to with their own completed package. Each package shall contain the necessary response letter/plans/plats/studies, computations (if applicable) and agency marked-up plans (if provided) addressing all of the items required to be addressed in the prior review comments from each agency. All correspondence, plans, plats, studies, comps, etc. must list both the correct subdivision and project numbers.

Submit the completed resubmittal package to Nancy McGuckian on the 1st floor of PAC prior to acceptance by OPZ/Development Division.

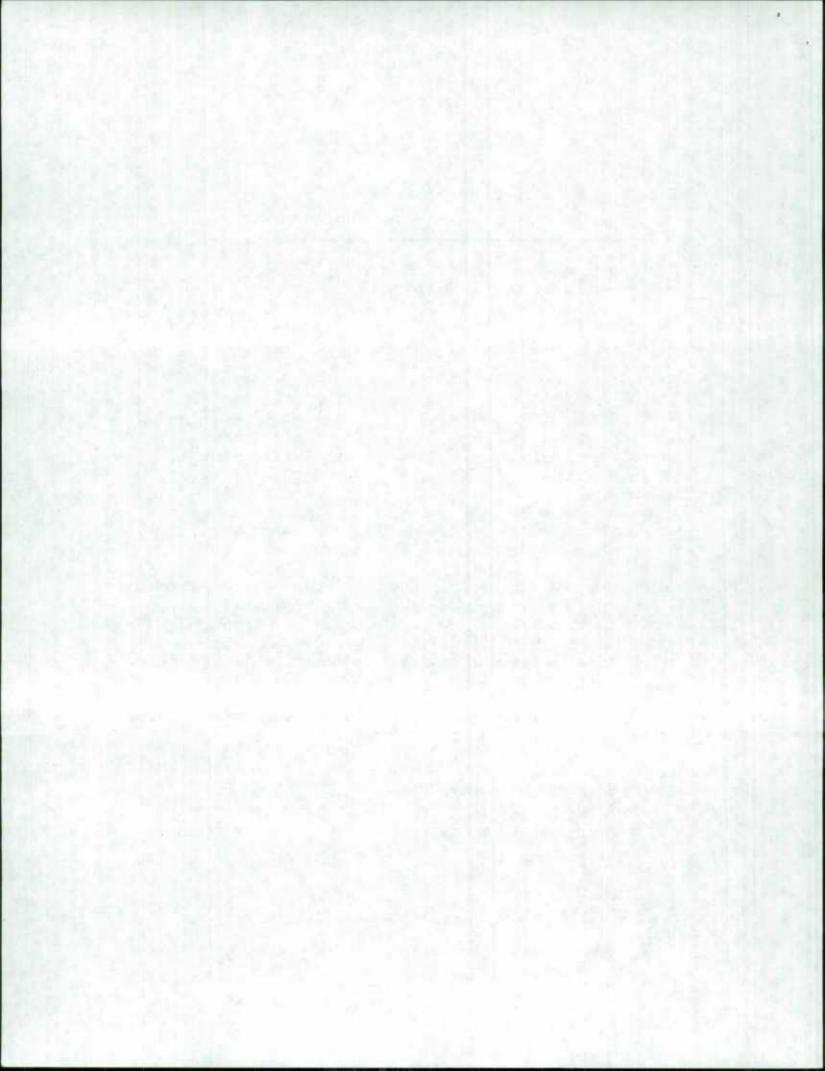
This marked form highlighting the specific agency must accompany your resubmittal otherwise it can not be accepted by P&Z/Development Division.

Developer/Engineer (SEAL)

Attachments

TO:

J:\subdiv\Callahan, Steve-Resubmittal Cover Sheet.doc 01/02/07





2664 RIVA ROAD, P.O. BOX 6675 ANNAPOLIS, MARYLAND 21401

RECEIVED

JUL 1 5 2008

CRITICAL AREA COMMISSION

Chesapeake & Atlantic Coastal Bays

OFFICE OF PLANNING AND ZONING

July 3, 2008-

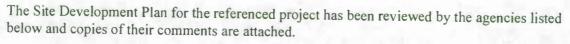
Ms. Michele D. R. Bennett Wilkerson & Associates P. O. Box 17 Dunkirk, MD 20754

Re: Name: Russell Fabrication Property

Site Development Plan No. C # 2008-0012

Grading Permit # G02013310

Dear Ms. Bennett:



A.	OPZ/Planning	Approval withheld June 27, 2008
B.	OPZ/Engineering	Approval withheld June 20, 2008
C.	OPZ/Utilities	Approval withheld June 20, 2008
D.	OPZ/Environmental	Approval withheld June 27, 2008
E.	OPZ/Landscape	Approval withheld June 27, 2008
F.	Fire Marshal Division	Approval withheld June 18, 2008
G.	I&P- Permit Application Center	Approved May 22, 2008
H.	Health Department	Approved w/comment Feb. 13, 2008
I.	Critical Area Commission	Approval withheld June 10, 2008

I. Issucs:

- 1) Legality Waiver #4785 granted on May 26, 1993 for parcel 119 states that this parcel is an improperly subdivided parcel. This critical area parcel must obtain a Modification to legality.
- 2) The second access onto Snug Harbor Road must be eliminated per OPZ/Administration.

Before approval of the Site Development Plan, the following agency comments must be II. resolved:

A.	OPZ/Planning	Comments dated June 27, 2008
B.	OPZ/Engineering	Comments dated June 20, 2008
C.	OPZ/Utilities	Comments dated June 20, 2008
D.	OPZ/Environmental	Comments dated June 27, 2008
E.	OPZ/Landscaping	Comments dated June 27, 2008
F.	Fire Marshal Division	Comments dated June 18, 2008

- G. Critical Area Commission
- H. Health Department

Comments dated June 10, 2008 Comment dated February 13, 2008

- III. Adequacy of Facilities for item A and E have been reviewed and must be resolved with resubmittal. Items B, C and D are acceptable and will be approved with the final Site Development Plan provided no changes occur and subject to any noted conditions.
 - A. Fire Suppression: Adequacy of Fire Suppression has not been addressed. Fire comments from Inspector Charles Disney dated June 18, 2008 must be resolved before adequacy of fire suppression can be determined.
 - B. Roads: Adequacy of Facilities for Roads has been addressed for this development.
 - C. Schools: Adequacy of Facilities for Schools is not applicable. There are no new residential lots or uses created or proposed.
 - D. Utilities: Adequacy of Facilities for Utilities has been addressed. A SWAMP analysis of public sewer services was performed and the Department of Public Works has approved 7 EDU's of sewer. The Health Department must approve the private well.
 - E. Storm Drains: Adequacy of Facilities for Storm Drains has not been addressed. Engineering comments from Rania Carriker dated June 20, 2008 must be resolved before adequacy of storm drains can be determined.

IV. Decision:

- A. This office must withhold approval of the Site Development Plan until the issues set forth in Sections I, II and III have been resolved.
- B. In accordance with Article 17-4-203 the resubmittal must be made within forty-five (45) days of the date of this letter and must include separate packages labeled with the name of the required review agency. Each package is to include a point-by-point response letter addressing the items in section I, II and III above, and any other supplemental information necessary for review. Resubmittal in accordance with the attached Resubmittal Cover Sheet must be sent directly to Judy Motta at the Permit Application Center by August 18, 2008.

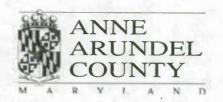
If you have any questions regarding this project, please call me at 410-222-7960.

Sincerely,

Dan Gerczak

Planner II

cc: Kelly Krinetz, Critical Area Team Administrator
CA Team: RSC, MWM, DWG
Permit Application Center: Dan Kane, Jamie Buser
Inspector Charles Disney, Fire Marshal Division
Kate Schmidt, Critical Area Commission
Tom Gruver, Health Dept.
Site Plan File/Diary



Office of Planning and Zoning Development Division

INTER-OFFICE CORRESPONDENCE

DATE: June 27, 2008

TO: File

FROM: Environmental/Planning/Landscape, OPZ, Mail Stop 6305, Dan Gerczak

SUBJECT: C 2008-0012, Russell Fabrication, G02013310

Environmental: Approval withheld

1) Please show and provide the critical area information on the Final Development Plan.

2) The IDA water quality improvements must be approved by OPZ/Engineering.

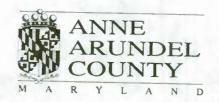
Planning: Approval withheld

- 1) The submitted deed work and previous waiver decision for parcel 119 (W4785) indicates this parcel was created by deed without subdivision approval. This critical area parcel is not legally buildable without subdivision review and approval of a plat or a Modification to legality and the subdivision process is obtained. The simultaneous development of two illegal adjacent parcels (parcel 841 and parcel 212) must be coordinated. Access to the W1 manufacturing building from parcel 212 may be considered.
- 2) The general layout and multiple accesses are not desirable. Please eliminate the access closest to Snug Harbor Road and provide the interior drive access as necessary. The building must be moved closer to Woods Wharf Road (north and east direction) to maximize the retention of woodland on site. Please note that parking may occur 15 feet from the property line without a Modification.
- 3) Please note that access to parcel 841 from this site is also to be investigated and coordinated with the Paglia-Pamarast subdivision. Or access from parcel 841 to this site may be warranted.

Landscape: Approval withheld

1) The cost estimate to the Landscape Plan was not found with this resubmittal.

This office does not recommend Environmental, Planning or Landseape approval for the Site Development Plan at this time.



Office of Planning and Zoning Development Division

INTER-OFFICE CORRESPONDENCE

DATE:

June 20, 2008

TO:

Dan Gerczak - Planning and Zoning / Planner

FROM:

Rania Carriker - Planning and Zoning / Engineer

SUBJECT:

C#08-0012 Russell Fabrication

(See: G02013310)

Engineering and Utility Review

The above-referenced project has been reviewed for Public Works and Utility issues and the following comments apply:

Adequacy of public facilities is being addressed as follows:

Fire Suppression:

The site will be served by a private well. A fire suppression tank may be required by the Fire Marshal's office. The final decision regarding adequacy of facilities for fire suppression is being deferred to the Office of the Fire Marshal.

Utilities:

Adequacy of facilities for utilities has been adequately addressed for this development. A SWAMP analysis of public sewer services was performed and the Department of Public Works has approved 7 EDUs of sewer.

Storm Drains:

Adequacy of facilities for storm drainage has not been adequately addressed.

The site outfall, the tributary outfall, and to the Point of Investigation (POI) have not been addressed per county SWM code/guidelines.

The following are comments regarding the plans as submitted; only the comments indicated in the closing paragraph require a point-by-point response:

A. Roads

The site has frontage along Woods Wharf Road which is a county public road. Right of way dedication and frontage improvements are not being required.

1. Address previous comment A.1: Reduce the number of access points into the site to one.

www.aacounty.org Recycled paper

B. Storm drains

- 1. Previous comment B.1 was addressed incorrectly. Please provide "separate" drainage area map (per county SWM guidelines) that clearly shows the site outfall, the "tributary drainage area", the tributary outfall, and the point of investigation (POI).
- 2. Please properly address previous comment B.2: Submit "downstream analysis" (including cross-sections, Qs -in cfs, and velocities for the 1-year and 10-year storm events) at the outlet of the currently proposed 19"x30" RCP stormdrain.
- 3. Address previous comment B.3: submit computations demonstrating adequacy of the further downstream ex. 30" RCP.
- 4. Address previous comment B.4: Provide an outfall statement on the plans.

C. Stormwater Management

It is proposed to manage the industrial building, the two parkings, and the two drives via onsite grass channels.

- 1. Address previous comment C.1: Submit completed checklists, as required.
- 2. Per previous comment: "The runoff computation for the 1-year from the site is computed to be 2.19 cfs. Channel protection volume is required". However, based on your response and since the submitted SWM computations are unclear, please submit for review the following: WQv, Rev, and Cpv computations (per MDE guidelines) for the entire site. The need for Cpv management will be re-evaluated with resubmittal.
- 3. Address previous comment C.4: Provide computations as shown on page 5.16 of the State SWM to address your use of the grass channel credit.
- 4. Previous comment C.5 was addressed incorrectly. Please submit a "separate" Environmental Conservation Plan on which the environmental features are shown clearly and are labeled.
- 5. Address previous comment C.6: refer to comment B.1 above.
- 6. Submit a "separate photo location map" for the color photo walking tour, on which the location of the existing ditches and culverts (shown in the pictures) are also shown on said map.
- 7. Address previous comment C.8: Q10 is required. This project does not have a direct discharge to tidal waters. Please make note that complete pre- and post- development DAs for the 10-year storm event are required.

D. Utilities

This development will be served by:

- i) Public sewer in sewer service area "Broadwater" (8).
- ii) Private water in water service area "Rural" (7).
- 1. A SWAMP analysis of water and scwer was requested and the results were attached to our March 19, 2008 letter.

E. Final Development/Grading Plan

- 1. The need for a private stormwater management agreement will be determined with next submittal.
- 2. The plans and the "professional's certification" must be re-sealed –since they are either smeared or not shown at all.

We are unable to grant *Site Development Plan* approval of these plans until comments A, B, C, D.2, E.2, and E.3 have been adequately addressed.

Please call Janct Scott at 410-222-7455 to schedule a meeting to discuss the comments.

J-\Shared\Subdiv\RANIA\ C#08-0012 Russell Fabrication 6.20.08



INTEROFFICE CORRESPONDENCE Fire Department

John R. Leopold, County Executive David L. Stokes, Fire Chief

TO:

Dan Gerczak, Planning & Zoning

CC:

Jamie Richardson, Planning & Zoning

FROM:

Inspector Charles Disney, Fire Marshal Division

DATE:

June 18, 2008

SUBJECT:

Project Name: Russell Fabrication Site Development Plan No; C08-0012

Site Development Plan Review

Approval is withheld pending compliance with the following comments:

- 1. Underground fire suppression drafting tanks shall be shown on the record plat.
- 2. Tanks should be installed per Anne Arundel County detail 1/64 and 1/64A, Department of Public Works, underground storage tank for fire suppression.

The following comments are provided for informational purposes. These requirements will be enforced during the building permit review process.

- Roadways or fire lanes must be provided such that no exterior portion of a structure is greater than 150 feet from fire vehicle access. Provide fire department access such that all points of the buildings can be reached by an 150 foot hose line as measured from the closest point of fire vehicle access.
- 2. Fire lanes, if required to provide emergency vehicle access, must have a clear height of 14ft. and be a minimum of 20 ft. in width, with 10 ft. setback from outer most projection of the structure. The surface must be capable of supporting a minimum of 35 tons. Maximum grades for fire lanes are as follows:
 - a. Concrete surfaces 15%
 - b. Asphalt surfaces 12%
 - Unpaved surfaces 5%

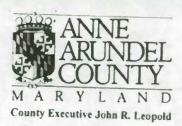
- d. Cross grade 5%
- 3. Requirements for establishment of "NO PARKING-FIRE LANE" zone.
 - a. All curb areas designated as Fire Lanes are to be painted YELLOW for the entire length of the designation.
 - b. On the yellow curb areas, "NO PARKING" is to be painted in four (4) to six (6) inch letters (BLACK) at intervals not to exceed fifty (50) feet.
 - c. All wall or curb areas that have been designated as Fire Lanes shall have a six (6) inch YELLOW line painted approximately fifteen (15) feet from the wall along the entire length of the designation.
 - d. Along the entire length of the designated Fire Lane area, at intervals not be exceed fifty (50), "NO PARKING FIRE LANE" is to be painted on the roadway in twelve (12) inch YELLOW letters. This shall be done along the curb area and within the yellow lined area.
 - e. All parking lines which have been superceded by the Fire Lane designation shall be removed or painted over to obliterate the lines.
 - f. Marking (unpaved surfaces) A 20' wide entrance shall be provided marked. The entire length of the unpaved fire lane shall be permanently outlined with shrubs, fencing, reflective signs or similar markers shall have markers placed across the lane. Curb cuts should be provided.
 - g. Curb-cuts extend at least 2 feet beyond each edge of the fire lane.
 - h. No parking fire lane signs provided by Anne Arundel County are needed for areas designated as fire lane. Contact the Fire Marshal Division after roadways or unpaved fire lanes have been marked for information or obtaining signs.
- 4. Dead end roadways/streets greater than 150 foot in length shall be provided with an approved turn-around.
- 5. An on site water supply must be provided for fire protection in accordance with NFPA 1142, Standard on Water Supplies for Suburban and Rural Fire Fighting. The tank must be located within 1000 feet of any structure as measured linearly along approved roads or fire lanes and will be used by fire apparatus to draft water from. Tanks shall be installed per Anne Arundel County detail 1/64 and 1/64A, Department of Public Works, underground storage tank for fire suppression. Tank locations must be shown on the site plans however, the capacity of the tank and calculations in accordance with NFPA 1142 should be indicated at the time of building permit application. A review of tank capacity is not completed during the site plan review process.

OR

If the building is provided with a sprinkler system, an on site water supply in accordance with NFPA 1142 is *not* required. On site water supply requirements for the sprinkler system must be determined in accordance with NFPA 13,

Standard for the Installation of Sprinkler Systems. This tank will be used only for the sprinkler system. The plans should indicate if this option is selected (i.e., the building will have a fire sprinkler system). Note: Drafting sites are not accepted as a reliable source of water for fire suppression. Per conversation with Lt. Frank Fennel and Michele D.R. Bennett.





/

Anne Arundel County Department of Health J. Howard Beard Health Services Building 3 Harry S. Truman Parkway Annapolis, MD 21401 Phone 410-222-7193 Fax 410-222-7678 TTY: 410-222-7153 www.aahealth.org

Frances B. Phillips, R.N., M.H.A. Health Officer

MEMORANDUM

TO:

Nancy McGuckian, MS-6001

Office of Planning and Code Enforcement

FROM:

J. Thomas Gruver, MS-3101

Division of Environmental Health

DATE:

February 13, 2008

RE:

SUBJECT NAME: Russell Fabrication

SITE DEV PLAN: 08-0012

Tax Map #: 69 Block #: 11 Parcel #: 212

The Anne Arundel County Department of Health has no objection to the above referenced project subject to the availability of public sewer & public water.

NOT AVAILABLE

JTG/mnc

Martin O'Malley Governor

Anthony G. Brown
Lt. Governor



Margaret G. McHale

Ren Serey
Executive Director

STATE OF MARYLAND CRITICAL AREA COMMISSION CHESAPEAKE AND ATLANTIC COASTAL BAYS

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

June 10, 2008

Mr. Dan Gerczak Anne Arundel County Office of Planning and Zoning 2664 Riva Road, MS 6301 Annapolis, Maryland 21401

Re: Russell Fabrication/Shenton Property

C 08-0012, G 02013310

Dear Mr. Gerczak,

Thank you for forwarding revised plans for the above-referenced project for review. The applicant proposes to construct a new commercial building and parking lots on an existing 0.77 acre parcel. The property is classified as an Intensely Developed Area (IDA). The applicant has addressed this office's comments from my February 19, 2008 letter and I have provided my remaining comments below:

- 1. As requested, the applicant has provided the 10% pollutant reduction calculations. The applicant proposes to address the pollutant reduction requirement with a grass channel credit. However, grass channels are intended for treatment of roads and other linear impervious surfaces with an impervious flow path length not more than 75 feet in width. Therefore, the applicant must provide another treatment option to address the 10% pollutant reduction. For instance, it appears that there is room on the site to install a perimeter sand filter. Please have the applicant submit revised 10% calculations with information about how the pollutant removal requirement will be addressed on site by a Best Management Practice (BMP) in addition to or instead of the proposed grass channels.
- 2. It appears that there is a minor math error in Step 3 of the applicant's 10% calculations. The applicant's calculation for "Rv" is 0.524, and it seems that it should be 0.527 instead. This mistake results in a slightly higher pollutant removal requirement of 0.6486 pounds of phosphorus per year instead of 0.6428 pounds of phosphorus per year. Please have the applicant adjust these calculations as necessary in future submittals.

Thank you for the opportunity to comment. Please telephone me if you have any questions at (410) 260-3481.

Mr. Gerczak June 10, 2008 Page 2 of 2

Sincerely,

Amber Widmayer Natural Resources Planner

cc:

AA 61-02 AA 110-08

ANNE ARUNDEL COUNTY

Annapolis, Maryland

RESUBMITTAL COVER SHEET

Office of Planning and Zoning/Development Division

RE:	Subdivision Name – Russell Fabrication Property Site Development Plan # C 2008-0012					
	ASE FIND ATTACHED RESPONSE LE RKED PRINTS) PACKAGES FOR:	TTER/RE	VISED PLAN (AND ANY AGENCY			
X	OPZ/Subdivision Review Planner	X	Health Department			
X	OPZ/Engineering Review OPZ/Traffic Review		Board of Education Archaeological/Historical			
X	OPZ/Utilities Review House Numbers/Street Names	X	Fire Marshal Division Md. State Aviation Adm.			
X	OPZ/Environmental		Office of Law			
X	OPZ/Landscape		Other Agency: I & P			
	Soil Conservation District		DPW/Street Light-Signs			
	Recreation and Parks State Highway Administration	X	Critical Area Commission			

The engineer/developer certify that all of the above-mentioned agencies are being responded to with their own completed package. Each package shall contain the necessary response letter/plans/plats/studies, computations (if applicable) and agency marked-up plans (if provided) addressing all of the items required to be addressed in the prior review comments from each agency. All correspondence, plans, plats, studies, comps, etc. must list both the correct subdivision and project numbers.

Submit the completed resubmittal package to Nancy McGuckian on the 1st floor of PAC prior to acceptance by OPZ/Development Division.

This marked form highlighting the specific agency must accompany your resubmittal otherwise it can not be accepted by P&Z/Development Division.

Devcloper/Engineer (SEAL)

Attachments

TO:

J:\subdiv\Callahan, Steve-Resubmittal Cover Sheet.doc 01/02/07

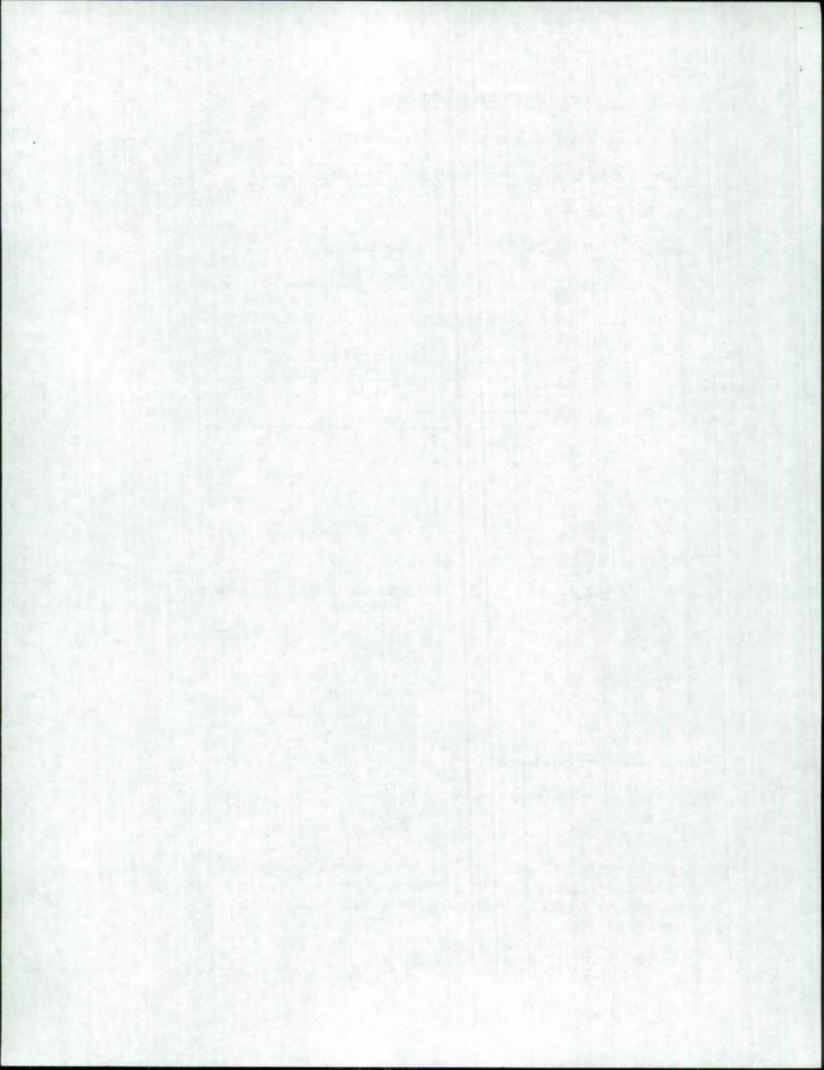
Worksheet A: Standard Application Process

Calculating Pollutant Removal Requirements

RECEIVED

Step 1: Calculate Existing	g and Proposed Si	ite imper	viousnes	SS	_	
A. Calculate Percent Imper	viousness			DEC 0	9 2008	
1) Site Area within the Critica	I Area IDA, A =	0.7718	Acres	PLANNING AI DEVELO	ND ZONI	NG
2) Site Impervious Surface A	rea, Existing and Pro	posed, (Se	ee Table 4			
Roads Parking Lots Driveways Sidewalks/paths Rooftops Decks Swimming pools/ponds Other Impervious Surface Area	(a) Existing (acres)		(b) Propo	0.1976 0.2089	00	N
3) Imperviousness (I)						
Existing Imperviousness, Ipre	= = = =	Impervious Step 2a / S		Area / Site Area		
Proposed Imperviousness, Ip	post	Step 2b / \$ 0.4065	Step 1	0.7718		
B. Define Development Cat	tegory (circle)					

- 1) New Development: Existing imperviousness less than 15% I (Go to Step 2A)
- 2) Redevelopment: Existing imperviousness of <u>15%</u> I or more (Go to Step 2B)
- 3) <u>Single Lot Development:</u> Single lot being developed or improved; single family residential development; and more than 250 square feet of impervious area and associated disturbance (Go to Section 5, Residential Approach, for detailed criteria and requirements).



Step 2: Calculate the Predevelopment Load (Lpre)

A. New Development

Lpre = (0.5)A

= 0.5 **0.7718**

= 0.3859

Where:

Lpre = Average annual load of total phosphorus exported from site prior

to development (lbs/year)

0.5 = Annual total phosphorus load from undeveloped lands (lbs/acre/yr.)

A = Area of site within the Critical Area IDA (acres)

B. Redevelopment

Lpre = (Rv)(C)(A)(8.16)

Rv = 0.05 + 0.009 (ipre)

0.05 + 0.009 * =

Lpre = * _____ (8.16)

= lbs/year of total phosphorus

Where:

Lpre = Average annual load of total phosphorus exported from site prior

to development (lbs/year)

Rv = Runoff coefficient, which expresses the fraction of rainfall which is

coverted into runoff

Ipre = Pre-development (existing) site imperviousness (I.e. I=75 if site is

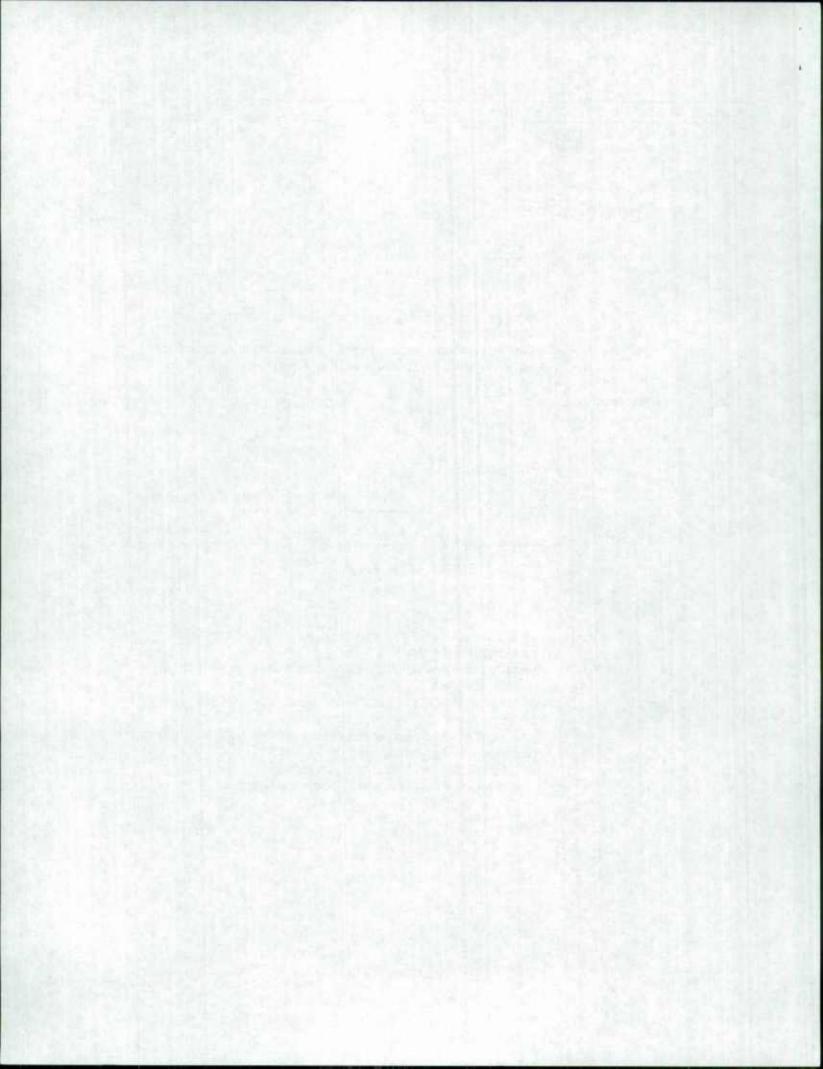
75% impervious)

C = Flow-weighted mean concentration of the pollutant (total phosphorus)

in urban runoff (mg/l) = 0.30 mg/l

A = Area of site within the Critical Area IDA (acres)

8.16 = Includes regional constants and unit conversion factors



Step 3: Calculate the Post-Development Load (Lpost)

A. New Development and Redevelopment

Rv = 0.05 + 0.009 (Ipost)

(Rv) (C) (A) (8.16)

= 0.05 + 0.009 * 53 = 0.5270

Lpost = 0.5270 * 0.30 * 0.7718 (8.16)

= 0.9956 lbs/year of total phosphorus

Where:

Lpost

Lpost = Average annual load of total phosphorus exported from site

post-development (lbs/year)

Rv = Runoff coefficient, which expresses the fraction of rainfall which is

coverted into runoff

lpost = Pre-development (existing) site imperviousness (l.e. I=75 if site is

75% impervious)

C = Flow-weighted mean concentration of the pollutant (total phosphorus)

in urban runoff (mg/l) = 0.30 mg/l

A = Area of site within the Critical Area IDA (acres)

8.16 = Includes regional constants and unit conversion factors

Step 4: Calculate the Pollutant Removal Requirements (RR)

RR = Lpost - (0.9) (Lpre)

= **0.9956** - (0.9) **0.3859**

= 0.6484

Where:

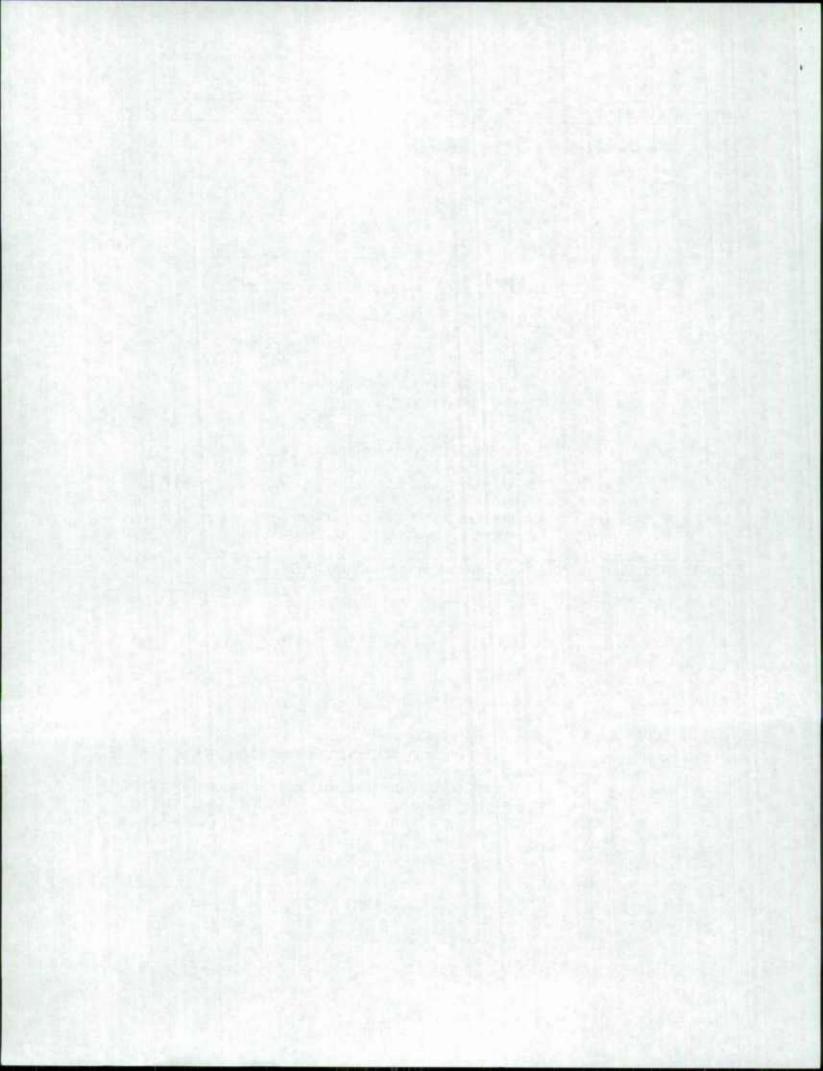
RR = Pollutant removal requirement (lbs/year)

Lpost = Average annual load of total phosphorus exported from site

post-development (lbs/year)

Lpre = Average annual load of total phosphorus exported from site prior

to development (lbs/year)



Step 5: Identify Feasible BMP (s)

Select BMP Options using the screening matrices provided in the Chapter 4 of the 2000 Maryland Stormwater Design Manual. Calculate the load removed for each option.

(% DA Served) = LR (BMPre) **BMP** Type (Lpost) 0.6484 lbs/year **GRASS CHANNEL CREDIT** lbs/year lbs/year lbs/year X Load Removed, LR (total) = 0.6484 lbs/year Pollutant Removal Requirement, RR (from Step 4) = 0.6484 lbs/year

Where:

Annual total phosphorus load removed by the proposed BMP Load Removed, LR =

(lbs/year)

Average annual load of total phosphorus exported from site Lpost

post-development (lbs/year)

BMP removal efficiency for total phosphorus, Table 4.8(%) **BMPre** % DA Served

Fraction of the site area within the critical area IDA served by

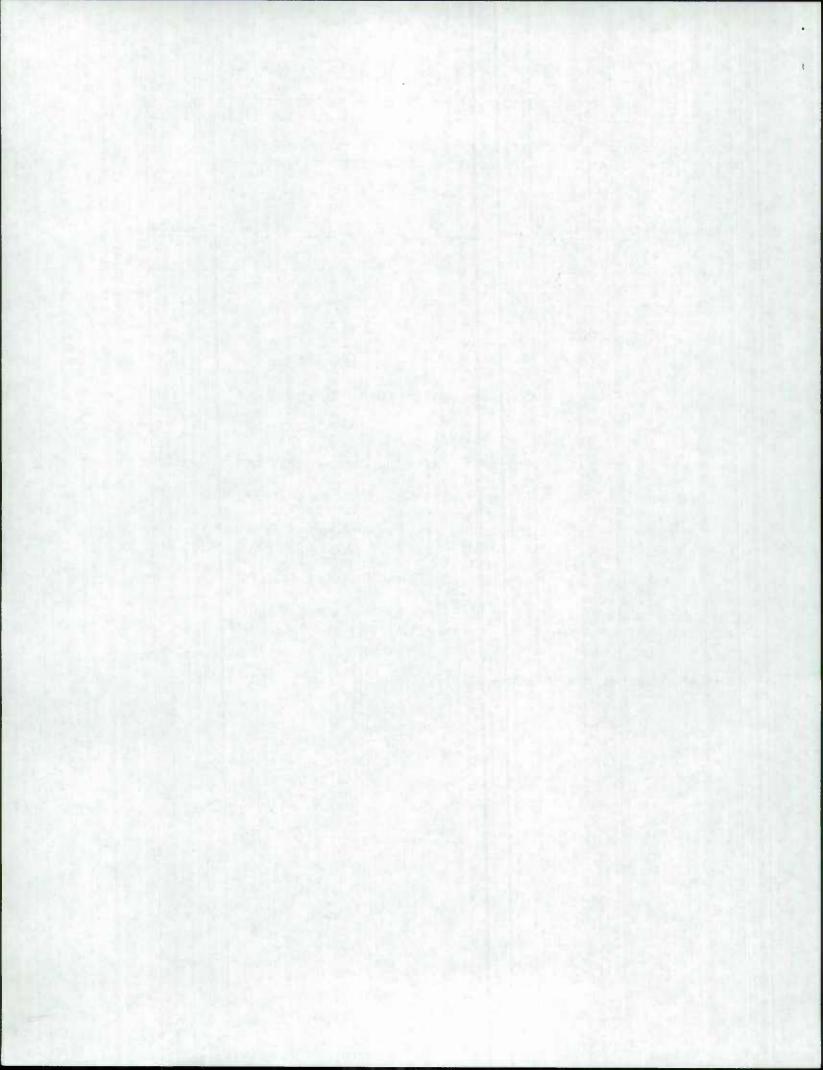
Pollutant removal requirement (lbs/year) RR

If the Load Removed is equal to or greater than the Pollutant Removal Requirement computed in Step 4, then the on-site BMP complies with the 10% Rule.

Had the RR (pollutant removal requirement) been met?

YES

NO



Widmayer, Amber

From:

Widmayer, Amber

Sent:

Friday, October 10, 2008 4:38 PM

To:

'Dan Gerczak'

Subject:

Russell Fabrication- C08-001200NC

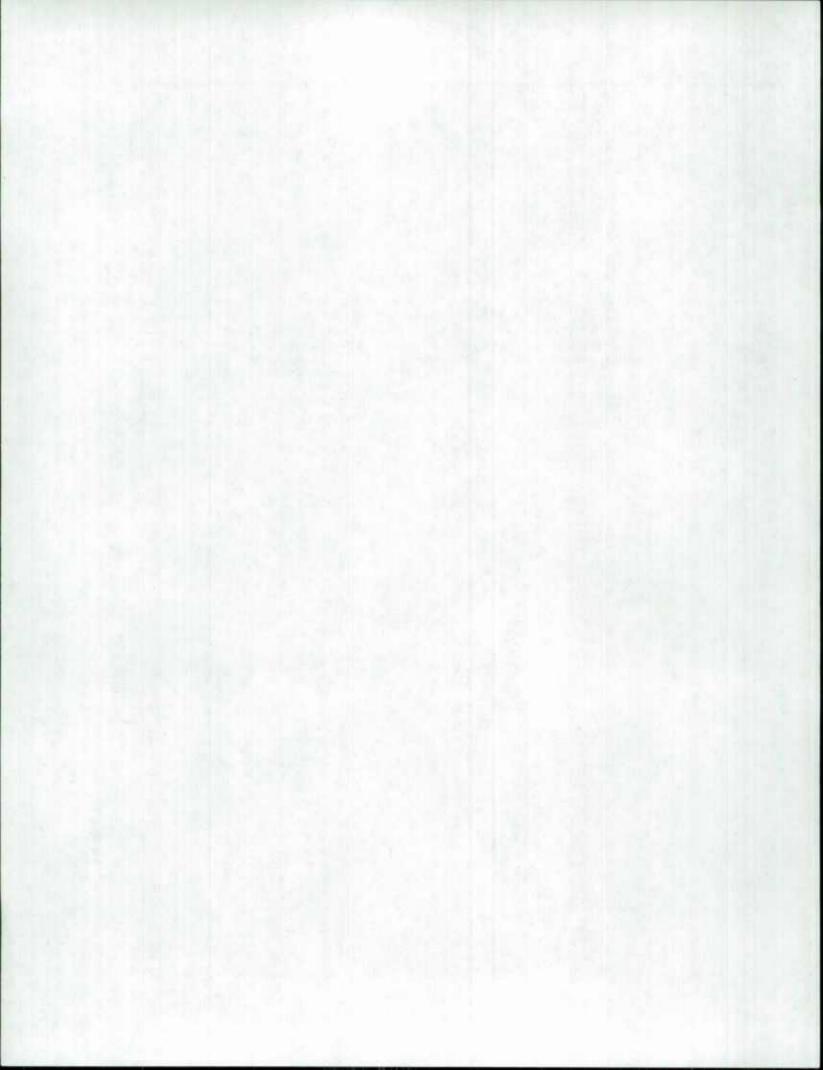


Grass Channel.pdf (39 KB)

Hello Dan,

I apologize for the delay in getting back to you on this project. We were waiting to hear back from MDE on a question about the proposed 10% treatment. I am attaching a memo from MDE on the proper use of grass channels. We do not believe that the grass channel credit is an appropriate way of addressing the 10% requirement for this project based on this memo. Therefore, our comments remain the same as in our last comment letter. We are happy to meet with the applicant if necessary to discuss alternative ways of meeting the 10% requirement.

Thanks, Amber Widmayer 410 260 3481





MARYLAND DEPARTMENT OF THE ENVIRONMENT

1800 Washington Boulevard • Baltimore MD 21230 410-537-3000 • 1-800-633-6101

Martin O'Malley Governor Shari T. Wilson Secretary

Anthony G. Brown Lieutenant Governor Robert M. Summers, Ph.D. Deputy Secretary

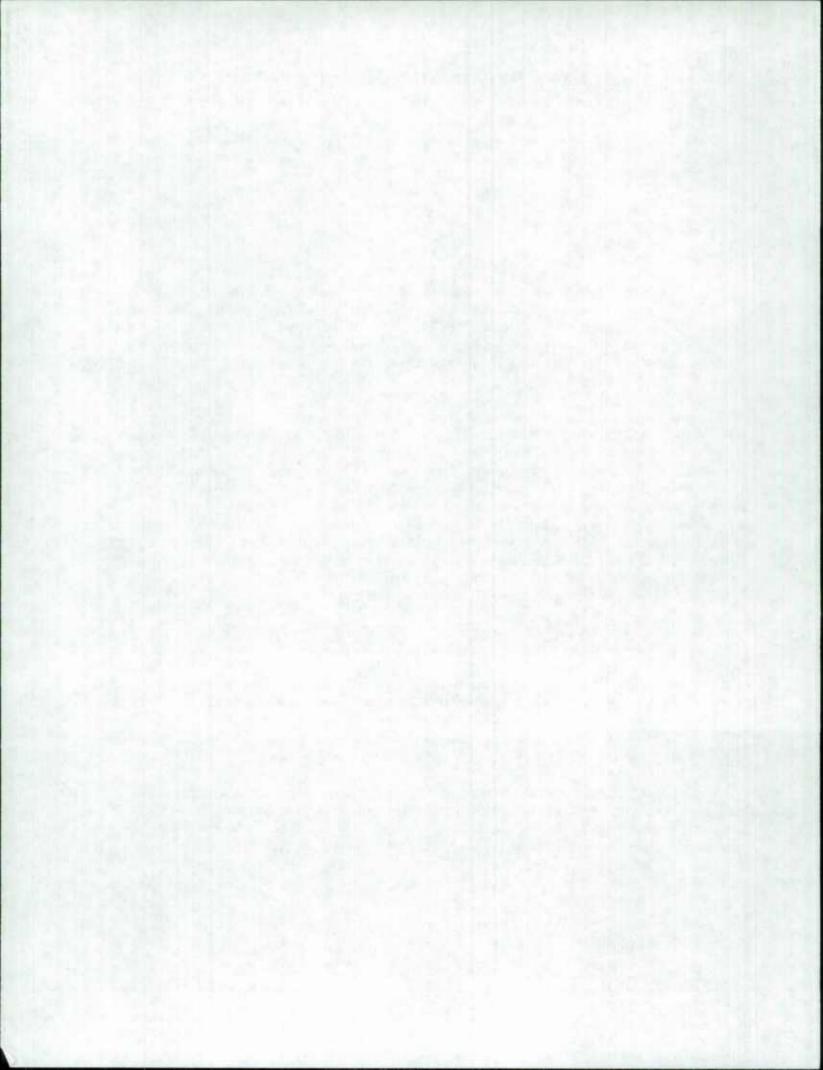
Grass Channel Credit Implementation

The Maryland Department of the Environment (MDE), Water Management Administration (WMA) offers the following to clarify a common issue concerning the implementation of the Grass Channel credit as found in Chapter 5 of the 2000 Maryland Stormwater Design Manual (the Manual). This credit encourages the use of open section roads and conveyances to disconnect linear or small discrete impervious areas. Unfortunately, the Manual provides too little detail on the design of qualifying channels. Please consider the following:

The Manual states that the use of open grass channels will automatically meet the Re_v for impervious areas draining into the channel. Furthermore, grass channels that meet the additional criteria listed on page 5.14 may also be used to address WQ_v. What is typically overlooked when considering this credit are conditions provided in Figure 5.3 and implied throughout Chapter 5. First, please consider the plan view drawing on Figure 5.3. This detail is clearly marked "Channel length is directly proportional to roadway length". Second, sheetflow conditions are critical for water quality treatment in several of the credits, including this one. To ensure sheetflow, MDE limits the application of nonstructural practices to 1,000 square feet of imperviousness per single discharge point. This condition is outlined on page 5.9 (Non Rooftop Disconnection) and may be applied wherever sheetflow is encouraged. Other conditions that apply include the 75 foot maximum contributing impervious area flow path and that the length of disconnection be equal to or greater than the contributing length.

Although not explicit, there are limiting requirements placed on the use of grass channels, especially with respect to their use for treating non-linear blocks of imperviousness. In absence of better guidance, and in addition to the listed requirements (page 5.14), MDE currently recommends that the grass channels be used for linear imperviousness only and that the length of a qualifying channel be proportional (or 1:1) to the length of the contributing imperviousness. If grass channels are used to treat blocks of imperviousness (e.g., parking lots, buildings) then the maximum contributing length of imperviousness shall be 75 feet or less, maximum imperviousness to a single discharge point shall be 1,000 square feet or less, and the grass channel length must be greater than the contributing length.

As with many facets of the new stormwater program, MDE encourages professional judgment and common sense in the application of setbacks from other site features. Also, designers should check with the local approval authority for any additional requirements. Any questions may be directed to the Sediment, Stormwater & Dam Safety Program at 410.537.3543 or email (scomstock@mde.state.md.us).



ANNE ARUNDEL SOIL CONSERVATION DISTRICT DETAILS
AND SPECIFICATIONS FOR VEGETATIVE ESTABLISHMENT

Following initial soil disturbance or redisturbance, permanent or temporary stabilization shall be completed within seven calendar days for the surface of all perimeter controls, dikes, swales, ditches, perimeter slopes, and all slopes greater than 3 horizontal to 1 vertical (3:1) and fourteen days for all other disturbed or graded

areas on the project site. . Permanent Seeding: A. Soil Tests: Lime and fertilizer will be applied per soil tests results for sites greater than 5 acres. Soil tests will be done at completion of rough grading. Rates and analyses will be provided to the grading inspector as well as the contractor. 1. Occurrence of acid sulfate soils (grayish black color) will require covering with a minimum capping of top soil. No stockpiling of material is allowed. If needed, soil tests should be done before and after a 6 week incubation period to allow oxidation of sulfates. The minimum soil conditions

> required for permanent vegetative establishment are: a. Soil PH shall be between 6.0 and 7.0. b. Soluble salts shall be less than 500 parts per million (ppm). c. The soil shall contain less than 40% clay but enough fine grained material (>30 % silt plus clay) to provide the capacity to hold a moderate amount of moisture. An exception is if lovegrass or serecia lespedeza is to be planted, than a sandy soil (<30 % silt plus clay) would be acceptable. d. Soil shall contain 1.5% minimum organic matter by weight.

e. Soil must contain sufficient pore space to permit adequate root penetration. f. If these conditions cannot be met by soils on site, adding topsoil is required in accordance with Section 21 Standard and Specification for Topsoil or amendments made as recommended by a certified agronomist.

B. Seedbed Preparation: Area to be seeded shall be loose and friable to a depth of at least 3 inches. The top layer shall be loosened by raking, disking or other acceptable means before seeding occurs. For sites less than 5 acres, apply 100 pounds of dolomitic limestone and 21 pounds of 10-10-10 fertilizer per 1,000 square feet. Harrow or disk lime and fertilizer into the soil to a depth of at least 3 inches on slopes flatter than 3:1. Seeding: Apply 5-6 pounds per 1,000 square feet of tall fescue between February 1, and April 30 or between August 15 and

Apply seed uniformly on a moist firm seedbed with a cylcone seeded drill, cultipacker seeder or hydro seeder (slurry includes seeds and fertilizer, recommended for steep slopes only). Maximum seed depth should be 1/4 inch in clayey soils and $\frac{1}{2}$ inch in sandy soils when using other than the hydroseeder method. Irrigate if soil moisture is deficient to support adequate gorwth until vegetation is firmly established. If other seed mixes are to be used, select from Table 25, entitled "Permanent Seeding for Low Maintenance Areas" from the 1994 Standards and Specifications for Soil Erosion and Sediment Control. Mixes suitable for this area are 1, 3 and 5-7. Mixes 5-7 are suitable in non-mowable situations.

D. Mulching: Mulch shall be applied to all seeded areas immediately after seeding. During the time period when seeding is not permitted, mulch shall be applied immediately after grading. Mulch shall be unrotted, unchopped, small grain straw applied at a rate of 2 tons per acre or 90 pounds per 1,000 square feet (2 pales). If a mulch anchoring tool is used, apply 2.3 tons pe acre. Mulch materials shall be relatively free of all kinds of weeds and shall be completely free of prohibited noxious weeds. Spread mulch uniformly, mechanically or by hand, to a depth of

Standards and Specifications for Soil Erosion and Sediment Control. Mixes suitable for this area are 1, 3 and 5-7. Mixes 5-7 are suitable in non-mowable situations.

E. Securing Straw Mulch: Straw mulch shall be secured immediately following mulch application to minimize movement by wind or water. The following methods are

(i). Use a mulch anchoring tool which is desinged to punch and anchor mulch into the soil surface to a minimum depth of 2 inches. This is the most effective method for securing mulch, however, it is limited to relatively flat areas where equipment can operate safely. (ii). Wood cellulose fiber may be used for anchoring straw. Apply the fiber binder at a net dry weight of 750 pounds per acre. If mixed with water, use 50 pounds

of wood cellulose fiber per 100 gallons of water. (iii). Liquid binders may be used and applied heavier at the edges where wind catches mulch, such as in valleys and on crests of slopes. The remainder of the area should appear uniform after binder application. Binders listed in the 1994 Standards and Specifications for Soil Erosion and Sediment Control of approved equal shall be applied at rates recommended by the manufacturers.

(iv). Lightweight plastic netting may be used to secure mulch. The netting will be stapled to the ground according to manufacturer's recommendations Temporary Seeding.

Lime: 100 pounds of dolomitic limestone per 1,000 square feet. Fertilizer: 15 pounds of 10-10-10 per 1,000 square feet. Seed: Perennial rye - 0.92 pounds per 1,000 square feet. (February 1 through April 30 or August 15 through

November 1). Millet - 0.92 pounds per 1,000 square feet (May 1 through August 15).

Mulch: Same as 1D and E above. No fills may be placed on frozen ground. All fill to be placed in approximately horizontal layers, each layer having a loose thickness of not more than 8 inches. All fill in roadways and parking areas is to be classified Type 2 as per Anne Arundel County Code - Article 21. Section2-308, and compacted to 90 % density; compaction to be determined by ASTM D-1557-66T (Modified Proctor). Any fill within the building area is to be compacted to a minimum of 95 % as determined by methods previously mentioned. Fills for pond embankments shall be compacted as per MD-378 Construction Specifications. All other fills shall be compacted sufficiently so

as to be stable and prevent erosion and slippage. . Permanent Sod:pecifi Installation of sod should follow permanent seeding dates. Permanent sod is to be tall fescue, state approved sod; lime and fertilizer per Mixe permanent seeding specificaitons and lightly irrigate soil prior to laying sod. Sod is to be laid on the contour with all ends tightly abutting. Joints are to be staggered between rows. Water and roll or tamp sod to insure positive root contact with the soil. All slopes steeper that 3:1, as shown, are to be permanently sodded or protected with an approved erosion control netting. Additional

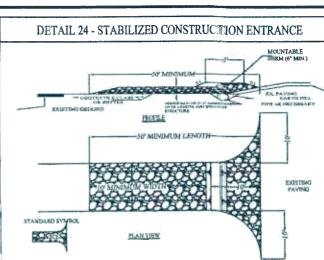
watering for establishment may be required. Sod is not to be applied on frozen ground. Sod shall not be harvested or transplanted when moisture content (dry or wet) and/or extreme temperature may adversely affect its survival. In the absence of adequate rainfall, irrigation should be performed to insure established sod.

. Mining Operations. Sediment control plans for mining operations must include the following seeding dates and mixtures:

For seeding dates of: February 1 through April 30 and August 15 through October 31, use seed mixture of tall fescue at the rate of 2 pounds per 1,000 square feet and sericea lespedeza at the minimum rate

of 0.5 pounds per 1,000 square feet. Topsoil shall be applied as per the Standard and Specifications for Topsoil from the current Maryland Standards and Specifications for Soil Erosion and Sediment Control. NOTE: Use of this information does not preclude receting of all the

current Maryland Standards and Specifications for Soil Erosion and Sediment Control. NOTE: Projects within 4 miles of the BWI Airport will need to adhere to Maryland Aviation Administration's seeding specification restrictions.



2. Width - 10' minimum, should be floored at the existing road/40 provide a turning radius. 3. geotextile fahric (filter cloth) shall be placed over the existing ground prior to placing stone. ** the plan approval authority may not require single family residence to use geotexti

4. Stone- crush aggregate (2" to 3") or reclaimed or recycled @nncrete equivalent shall be placed at least 6" deep over the length and width of the entrange,

5. Surface water- all surface water flowing to or diverted toward construction entrances shall be piped through the entrance, maintaining positive drainage. Ripe installed through stabilized construction entrance shall be protected with a mountable berm with 5:1 slopes and a minimum of 6" of stone over pipe. Pipe has to be sized according to drainage. When the SCE is located at a high spot and has no drainage to convey a pipe will not be necessary. Pipe should be sized ccording to the amount of runoff to be conveyed. A 6" minimum will be required.

6. hearing- A stabilized construction entrance shall be located at every point where construtraffic enter or leaves a construction site. Vehicles leaving the site must travel over the entire length of the stabilized entrance.

US DEPARTMENT OF AGRICULTURS PAGE MAIN/YLAND DEPARTMENT OF ENVIRONMENT SOIL CONSERVATION SERVICE F - 17 - 3 WATER MANAGEMENT ADMINISTRATION DETAIL 33 - SUPER SILT FENCE Construction Specifications . Fencing shall be 42" in height and constructed in accordance with the

test Maryland State Highway Details for Chain Link Fencing. The specification or a 6' fence shall be used, substituting 42" fabric and 6' length Chain link fence shall be fasteoed securely to the Sence posts with wire ties. The lower tension wire, brace and truss rods, drive anothers and post caps are not equired except on the cods of the feoce.

3. Filter cloth shall be fastened securely to the chain, link fcoce with ties spaced every 24" at the top and mid sectioo. Filter cloth shall be embedded a minimum of B" into the ground.

5. When two sections of filter cloth adjoin each other, they shall be overlapped develop in the silt fence, or when silt reaches 50% of hence height Fifter cloth shall be fastened securely to each fence post with wire ties or staples at top and mid section and shall meet the following requirements for

| Tensile Strength | 50 lbs/in (min.) | Test: MSMT 509 |
| Tensile Modulus | 20 lbs/in (min.) | Test: MSMT 509 |
| Flow Rate | 0.3 gal/ft /minute (max...) | Test: MSMT 322

STANDARDS & SPECIFICATIONS FOR TOPSOIL Per 1994 MD, standards and specifications for soils erosion and sediment control construction and material specifications i- topsoil salvaged from the existing site may be used provided that it meets the standards as set forth in these

specifications typically, the depth of topsoil to he salvaged

for a given soil type can be found in the resentative soil profile section in the soil survey published hyy usda-scs in

ooperation with maryland agricultural experimental station. i- topsoil specifications - soil to be used as topsoil must meet the following: a-topsoil shall be a loam, clay loam, silt loam, sandy clay loam, or loamy sand, other soils may be used if recommended approval authority, regardless, topsoil shall mot be a mixture of contrasting textured subsoils and shall contain less than 5 % hy olume of cinders, stones, slag, coarse fragments, gravel, sticks,

roots, trasb, or other materials larger than 1 11/2" in diameter. h-topsoil must he free of plants or plant parts such as hermuda grass, quackgrass, johnsongrass, mutsedge, poison ivy, thistle, or others as specified. c-where the subsoil is either highly acidic or composed of beavy clays, ground limestone shall be spread at the rate of 4-8 tons/acre (200-400) pounds per 1,000 square feet) prior to the placement of topsoil. lime shall be distributed uniformly over designated areas and workedlinto the soil

a conjuction with tillage operations as described in the following procedures. iii- for sites having disturbed areas under 5 acres: place topsoil (if required) and apply soil amendments as specified in 20.0 vegatative stabilization - section i getative stabilization methods and materials. iv- for sites having disturbed area over 5 acres: 1- on soil meeting topsoil specifications, obtain test results

dictating fertilizer and limeamendments required to bring the soil into compliance with the following a, ph for topsoil shall be hetween 6.0 and 7.5. if the tested soil demonstrates a ph of less than 6.0, sufficient lime shall be prescribed to raise the ph to 6.5

h. organic content of topsoil shall he not less than 1.5 percent hy weight, c. topsoil having soluble salt content greaten than 500 parts per million shall not be used. d. no sod or seed shall be placed on soil which bas been treated with soil sterilants or chemicals used for weed control until sufficient time has elapsed (1/4 days min.) to permit dissipation of phyto-toxic materialis. NOTE: topsoil substitutes or amendments, as recommended

hy the appropriate authority, may be used in lieu of 2- place topsoil (if required) and apply soil amendments as specified in 20.0 vegatative stabilization - section i vegatative stabilization methods and materials.

a qualified agronomist or soil scientist and approved

v- topsoil application a- when topsoiling, maintain needed erosion and sediment control practices such as diversions, grade stabilizations structures, earth dikes, slope silt fence and sediment traps and hasins. b- grades on the areas to be topsoiled, which have been previously established, shall be maintained, albeit 4" - 8"

higher in elevation. c-topsoil shall be uniformly distributed in a 4" - 8" layer and lightly compacted to a minimum thickness of 4". spreading shall he performed in such a manner that soldding or seeding can proceed with a minimum of additional soil preparation and tillage, any irregularities in the surface resulting from topsoiling r other operations shall be corrected in order to prevent the formation of depressions or water pockets.

d-topsoil shall not he placed while the topsoil or subsoil is in a frozen or muddy condition, when the subsoil is excessively wet or in a condition that may otherwise be detrimental to proper grading and seedbed preparation. e-topsoil shall not he placed while the topsoil or subsoil is in a frozen or muddy condition, when the subsoil is excessively wet or in a condition that may otherwise be detrimental to proper

grading and seedbed preparation. f-alternative for permanent seeding - instead of applying the full amounts of lime and commercial fertilizer, composted sludge and amendments may be applied as specified below: -composted sludge material for use as a soil conditioner for sites having disturbed areas over 5 acres shall be tested to prescribe amendments, and for sites having disturbed areas under 5 acres shall conform to the following requirements: A-composted sludge shall he supplied by, or originate from,

a person or persons that are permitted (at the time of acquisition of the compost) by the maryland departmen of the environment under comar 26.04.06. -composted sludge shall contain at least 1 percent nitrogen, 1.5 percent phosphorus, and 0.2 percent photassium and bave

a ph of 7.0 to 8.0. if compost does not meet these requirements, the appropriate constituents; must be added to meet the requirements prior to use. composted sludge shall be applied at a rate of 1 ton/1,000 - composted sludge shall be amended with a motassium fertilizer

applied at the rate of 4 lb per 1,000 square feet, and 1/3 the SOILS TABLE

SoA 0.43 SHADYOAK-ELKTON COMPLEX SHADYOAK-ELKTON COMPLEX SrA 0.43 SHADYOAK-ELKTON URBAN LAND Y C/D
DcA 0.43 DEALE-SHADYOAK COMPLEX Y C
DcA 0.43 DEALE-SHADYOAK URBAN LAND Y C CRITICAL AREA: IDA

.....3 WEEKS

...1 MONTH

....3 WEEKS

..3 MONTHS

3 WEEKS

...2 WEEKS

10% RULE Worksheet A: Standard Application Process Calculating Pollutant Removal Requirements Step 1: Calculate Existing and Proposed Site Imperviousness Calculate Percent Imperviousness
Sita Area within the Critical Area IDA, A = __0.772 acres Site Impervious Surface Area, Existing and Proposed, (See Tebla 4.1 for details)

(a) Existing (acres)

(b) Proposed (acres) Parking lots Driveways: Sidewalks/paths Rooftops: 0.21 AC 0.020 AC Other(Concrete PAD for Fire Superssion Tank) 0.5315 AC Impervious Surface Aree Imperviousness (I) Imparvious Surface Area / Sita Area Impervious Surfece Area / Site Area Proposed Imperviousness, Ipont = (Step 2b) / (Step 1) = (0.5315) / (__0.772__) = __68.84_% B. Define Development Category (Cross) 1) Naw Devalopment Existing imparviousness less than 15% (Go to Step 2A) X 2) Redevelopment: Existing imperviousness of 15% I or more (Go to Step 2B)

Singla Lot Residential Development: Singla lot heing developed or improved;

Averege annual load of total phosphorus axported from the sita

Average annual load of total phosphorus exported from the site

Runoff coefficient, which expresses the fraction of rainfall which is

Annual total phosphorus load from undeveloped lands

Area of the sita within the Critical Area IDA (acres)

fbs/year of total phosphorus

in urban runoff (mg/l) = 0.30 mg/l Area of tha site within the Critical Area IDA (acres)

 $\begin{array}{l} (R_{\circ}) (C) (A) (8.16) \\ 0.05 + 0.009 (bos) \\ 0.05 + 0.009 (bos) \\ \hline (0.05 + 0.009 (bos) \\ \hline (0.070) (0.30) (0.772) (8.16) \\ \hline \end{array}$

Averaga annual load of total phosphorus exported from tha post

Runoff coefficient, which axpresses the fraction of rainfall which is

converted into runoff
Post-davalopment (proposed) sita Imperviousness (i.e., 1 = 75 if

Flow-weighted mean concentration of the pollutant (total

Includes regionel constants and unit conversion factors

lbs/year of total phosphorus

Averaga annual load of total phosphorus exported from the post

Average annual load of total phosphorus exported from tha sita

Area of the site within the Critical Area IDA (acres)

1.265 ____) - (0.9) (___0.386____)

Pollutant removal requirement (lbs/year)

Select BMP Options using the screening matrices provided in the Chapter 4 of the 2000

NOTE: AS DISCUSSED IN THE MEETING ON 7/07/09, THE CREDITS ARE TO BE CONSIDERED PARTIAL CREDITS

If the Load Removed is aqual to or greater than the Pollutant Removal Requirement

Plan View

Not to Scale

Has the RR (pollutant removal requiremet) bean met?

X (% D.A SERVED)

Pollutant Removal Raquirament, RR (from step 4) = 0.918 | lbs/year

Annual total phosphorus load removed by tha

oost-development sita (lbs/year)

Pollutant removal requirement (lbs/year

Avaraga annual load of total phosphorus exported

% DA Served = Fraction of the site area within the

= 0.082 lbs/year

= 0.289 lbs/year

Load Ramoved, LR (total) = 0.372 lbs/year

to dayalopment (lhs/year)

Step 5: Idantify Faasible BMP(s)

BMP TYPE (Lpost) X (BMPre)

GRASS CHAMMEL (AS Dry SWALE) 1,22 X (50/2)%

RAIN GARDEN (AS DRYWELL) 1.22 X (65/2)%

Load Ramoved, LR =

Includes regional constants and unit conversion factors

Singla-family residential development; and more than 250 square faat of

area end essociated disturbance (Go to Saction 5, Rasidantial Approach, for

Step 2: Calculate tha Predevelopment Load (L. pre)

0.05 + 0.009 (law)

0.05 + 0.009 (

to development (bs/ves/)

forum othi betrevnos

Step 3: Calculata the Post -Development Load (L post)

Step 4: Calculata the Pollutant Removal Requirement (RF

New Development and Redevelopmen

AREA TABULATION SITE ZONING 33,628 SQ. FT OR .772 ACRES SITE AREA CRITICAL AREA DESIGNATION 22.216 SO. FT OR 0.510 ACRES LOT COVERAGE 12,528.0 SQ. FT OR 0.288 ACRES PARKING AREA & D/W 588 SQ. FT OR 0.0135 ACRES SIDEWALK 9,100 SQ. FT OR 0.209 ACRES BUILDING CONCRETE PAD FOR 930 SQ. FT OR 0.021 ACRES FIRE TANK LOT COVERAGE PERCENTAGE 66.09% MAXIMUM BUILDING 40' HEIGHT PARKING SPACES REQUIRED 7 SPACES 7 SPACES MANUFACTORING (9.100 X 75 % /1000) = 0 SPACES HANDICAP(7/25) =9 SPACES PARKING PROVIDED 9 SPACES REGULAR 0 SPACES HANDICAP LOADING SPACES REQUIRED 1 SPACES LOADING SPACES PROVIDED I SPACES

SEQUENCE OF CONSTRUCTION

. CLEAR AND GRUB THE SITE......

WITH THE INSPECTOR'S APPROVAL

TEMPORARY STABILIZATION.....

HOUSE CONNECTION...

CONTROL DEVICES......

OMMENCING WORK.

STAGE TWO

CONTRACTOR/DEVELOPER IS TO NOTIFY INSPECTIONS

CLEAR FOR AND INSTALL STABILIZED CONSTRUCTION

3. OBTAIN PHASE ONE APPROVAL FROM INSPECTOR......1 DAY

NOTE: ITEMS 5 THROUGH 8 MAY BE DONE CONCURRENTLY,

5. ROUGH GRADE THE SITE AS SHOWN ON THE PLANS. UPON

COMPLETION OF GRADING, IMMEDIATELY STABILIZE WITH

6. CONSTRUCT STORM DRAIN, SWALES, WELL, AND SEWER

10. WITH THE INSPECTOR'S APPROVAL, REMOVE SEDIMENT

11. FINE GRADE AND STABILIZE ANY REMAINING DISTURBED

7. CONSTRUCT CURB AND GUTTER AND PAVEMENT.....

8. CONSTRUCT BUILDING AND SIDEWALKS....

9. FINE GRADE AND STABILIZE SITE.....

ND PERMITS AT 410-222-7780 48 HOURS PRIOR TO

ENTRANCE AND SUPER SILT FENCE.....

DISTURBED AREA 39,835.41 SQ. FT OR 0.915 ACRES VEGETATIVE 0.405 ACRES STABILIZATION 0.51 ACRES STRUCTURAL STABILIZATION 230 LINEAR FEET SUPERSILT FENCE STABILIZED CONSTRUCTION ENTRANCES

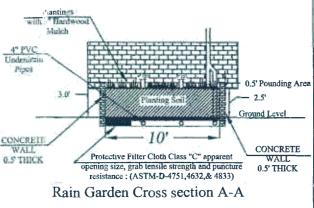
1,000 CUBIC YARDS

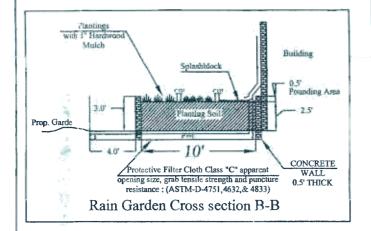
1,000 CUBIC YARDS

RAIN GARDEN SPECS & DETAILS with flandwood

TOTAL CUT

TOTAL FILL





The planting Criteria of the Raibn Garden is as follow: Approximately Plant I shrub for each I sq.ft of rain garden provided. The Rain agrden Provided in our projects are 9 of 100 sq.ft and 1 of 33 sq.ft. (R.G.A). Therefore the total number of planting for each rain garden will be 100

plants, for the R.G.A will be 33 plants.

YMBOL	Species Name	Common Name	No. Of Plants
AL	Aster lateriflorus	Side Flowering aster	10
Ca	Campanula americana	Tall beliflower	. 10
Cxg	Carex Grayii	Bur sedge	10
Ev	Elymus virginicus	Virginia Wild rye	10
Iv	Ins virginica-shrever	Wild blue flag iris	10
Lc	Lobeila cardinalis	Cardinal flower	10
Mv	Mertensia virginica	Virginia bluebells	10
Oc	Osmunda clayoniana	Interupted fern	10
Pd	Pholx divaricata	woodland phlox	10
Sf	Solidago flexicaulis	Zig zag goldenrod	10
		Total	100

Side Flowering aster Bur sedge Virginia Wild rye Rain Garden Planting Details

ARCHITECTURAL PLANS CONTAINING DETIALS FOR ROOTOP DISCONNECTION AND SYSTEM FOR DISTRIBUTION OF STORMWATER TO

N= (23,149/2)/100 = 115.73 PLANTS

NOTE: DUE THE THE FACT THAT THE RR REMOVAL IS NOT MET THEREFORE THE AMOUNT OF IPMERVIOUS A LEAS WILL BE TREATED

BY PLANTINGS.
CONSIDERING THAT 50 % OF ALL THE PROPOSED AREA IS TREATED BY THE NON-STRUCTURAL BMPS HEREWITH SHOWN AND THE OTHER 50% WILL BE MET BY PLANTING NATIVE 8 PECIES TO THE ENVIRONMENT AND TALL ACCIDITY.

TOTAL IMPERVIOUS AREA PROPOSEILIS: 23,146 SQ.FT NOTE THAT

CONSIDERED IN THE TOTAL LOT COVERAGE.
50% OF THIS AREA IS COVERED BY THE CREUIT AND THE SECOND 50 %.

REFERAD & CONSIDER HE CHAIR OF THE CONTROL & WHY IS NOT

THE RAINGARDENS PROVIDED HEREON SHALL BE PROVIDED PRIOR TO ISSUANCE OF ACCOMPANYING G02013301

OUT FALL STATEMENT

FIELD EXAMINATIONS WERE PERFORMED BY WILKERSON & ASSOCIATES, INC. NOVEMBER & 2008. IT WAS DETERMINED THAT THIS SITE HAS ONE DISTINCT OUTFALL POINT/TIBUTARY POINT. THE ENTIRE SITE DRAINAGE AREA OUTFALLS AT THE EXISTING 15" CMP BELOW WOODS WHARF ROAD, LOCATED AT THE APPROXIMATELY 190' NORTH FROM THE INTESTECTION OF WOODS WHART ROAD WITH SNUG HARBOR ROAD. THIS CULVERT IS CONVERYING THE RUNOFF THROUGH THE EXETING WET SWALE THAT OUTFALL BY ITSELF INTO AN EXISTING 30" RCP AND DIRECTLY TO THE BAY. THE SITE IS LOCATED IN THE 100-YRS FLOOD PLAIN PER FEMA MAP AND THE EXISTING WETCHANNEL

GRASSED WITH TAPEZOIDAL SHAPE, AND CURRENTLY IN STABLE CONDITION WITH NO VISBLE SIGNS IT IS OUR BELIEF THAT THE DEVELOPMENT COUPLED WITH THE IMPROVEMENTS, MANAGED AND MAINTAINED PROPERLY, WILL CAUSE NO EFFECT TO DOWNSTREAM PROPERTIES.

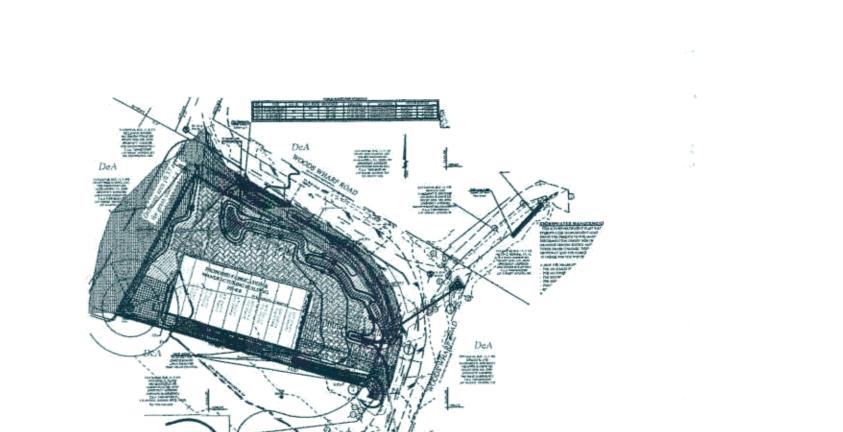
FOR STORMWATER MANAGEMENT CONCEPT AND STORM DRAIN PROFILES SEE SHEET 2 OF 6.

STORM DRAIN FLOW TABULATIONS REMARKS SIZE SLOPE VELOCITY LENGTH 7.60/6.60 CULVERT-20 YEAR STORM 7.60/6.60 15.83 18" 2.05% 8.5 46' 0,38 REPLACE EX. PIPE 0.67% 5.9 6.50 18.79 19 X 30" 6.28 EX.ES



N427,875

DEVELO

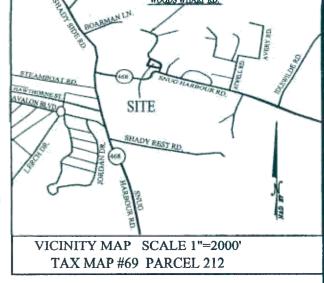


PROPOSED STORM DRAIN DRAINAGE AREA MAP

SCALE 1"= 100'

SEDIMENT CONTROL DRAINAGE AREA MAP

SCALE 1"= 100'



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POS

SITE INFO: TAX ID: 07-000-90007618 ADDRES: 4846 WOODS WHARF ROAD, SHADY SIDE, MD 20764

STANDARD RESPONSIBILITY NOTES

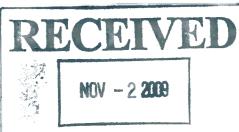
a. All development and construction will be done in accordance with this sediment and erosion control plan, and further, authorize the right of entry for periodic on-site evaluation by the Anne Arundel Soil

6. The developer must request that the Department of Inspections and Permits sediment control plan, the grading or building permit, and the Ordinance.

All material shall be taken to the site with an approved sediment and

installation of perimeter erosion and sediment controls, but before proceeding with any other earth disturbance or grading. Other huilding or disturbed areas in excess of 2 ages befor reproved of controls.

10. Existing topography must be a serifical by responsibl personnel o the



CRITICAL AREA COMMISSION Chesapeake & Atlantic Coastal Bays

CO8-0012 00.

LEGEND DENOTES EX. TREE LINE -X-X-X-DENOTES EX. FENCE LINE DENOTES EXISTING CONTOURS DENOTES PROPOSED CONTOURS DENOTES PROPOSED SUPER SILT FENCE DENOTES LIMIT OF DISTURBANCE DENOTES SOIL BOUNDARY

DENOTES PROPOSED CURBING DENOTES PICTURE LOCATION



SHEET INDEX

. COVER SHEET

2. GRADING PLAN (1"=20")

(& Ex. condition)

LANDSCAPE PLAN (I"=20")

SWM POST CONDITIONS

6. POI DRAINAGE AREA(pre)

POI DRAINAGE AREA (post)

S

4. ENVIRONMENTAL CONSERVATION PLAN

