

CS 689-05 Beach Elementary School
Site Plan

MSA-S-1829-4937

Martin O'Malley
Governor

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/

August 3, 2008

Mr. William Watson
The Town of Chesapeake Beach
8200 Bayside Road
P.O. Box 400
Chesapeake Beach, MD 20732

Re: Beach Elementary School Parking Lot Expansion
Consistency Report

Dear Mr. Watson:

Thank you for forwarding the above-referenced project to this office per the requirements of COMAR 27.02.02 - State and Local Agency Actions Resulting in Development of Local Significance on Private Lands or Lands Owned by Local Jurisdictions. The Town is proposing to expand the school's existing parking with the construction of a 0.08 acre parking lot. The project site is within the Critical Area and is designated as an Intensely Developed Area (IDA).

The Town has submitted the necessary 10% calculations for development within an IDA and there is a pollutant removal requirement of 0.1 pounds of phosphorus per year. The Town has proposed to address this requirement with a surface sand filter which will remove 0.2 pounds of phosphorous per year, which meets the Town's Critical Area stormwater requirement.

The project will result in the clearing of 4 non-native and one native tree and the Town proposes mitigation plantings of the functional equivalent of 9 trees on site. There are no impacts to any Habitat Protection Areas.

In summary we find the project consistent with the Towns Program. We appreciate the opportunity to provide comments on this development proposal. If you have any questions, please contact me at 410-260-3468.

Sincerely,

A handwritten signature in black ink, appearing to read "Roby Hurley".

Roby Hurley
Natural Resources Planner
cc: CB 689-05
Keith Ulrich (via fax)

Martin O'Malley
Governor

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/

Draft
April 8, 2008

Mr. William Watson
The Town of Chesapeake Beach
8200 Bayside Road
P.O. Box 400
Chesapeake Beach, MD 20732

Re: Beach Elementary School Parking Lot Expansion
Consistency Report

Dear Mr. Watson:

Thank you for forwarding the above-referenced project to this office per the requirements of COMAR 27.02.02 - State and Local Agency Actions Resulting in Development of Local Significance on Private Lands or Lands Owned by Local Jurisdictions. The Town is proposing to expand the school's existing parking with the construction of a 0.21 acre parking lot. The project site is within the Critical Area and is designated as an Intensely Developed Area (IDA).

The Town has submitted the necessary 10% calculations for development within an IDA and there is a pollutant removal requirement of 0.374 pounds of phosphorus per year. The City has proposed to address this requirement with a surface sand filter which will remove 0.25 pounds of phosphorous per year, and it appears that the remaining requirement can be met by providing a combination of plantings in the amount of 24 trees or 72 shrubs. The Town should provide a revised planting plan showing the additional plantings. Also, please complete and return the enclosed consistency report form.

Once this office receives the information from the Town showing that the 10% pollutant reduction will be provided for the project site as described above, it appears that the proposed project will be consistent with the Town of Chesapeake Beach's Critical Area Program and will require no further Commission review or action. This office will provide written confirmation of this consistency determination upon receipt and review of the necessary information.

We appreciate the opportunity to provide comments on this development proposal. If you have any questions, please contact me at 410-260-3481.

TTY for the Deaf

Annapolis: (410) 974-2609 D.C. Metro: (301) 586-0450



Mr. Watson
April 8, 2008
Page Two

Sincerely,

A handwritten signature in black ink, appearing to read 'AW', with a horizontal line extending to the right.

Amber Widmayer
Natural Resources Planner
cc: CB 689-05



689-05

June 17, 2008

Critical Area Commission
Ms. Amber Widmayer
Natural Resources Planner
1804 West Street, Suite 100
Annapolis, MD. 21401

**RE: Site Plan Application
Beach Elementary School Parking Lot Expansion**

Dear Amber;

I fessed one...

Enclosed, please find 2 copies of the recently re-submitted Site Plan and 1 copy of the Storm Drainage and Stormwater Management (DPW & CAC) Computations for an expansion of The Beach Elementary School Parking Lot, located at the intersection of Bayside Road (MD. Rte. 261) and Old Bayside Road. The plans have had 2 substantive revisions: Reduce the number of new parking spaces to only those needed to satisfy the Zoning Ordinance; Provide a storm water routing analysis to determine if the drainage impact affects the property owner across Bayside Road in a negative manner (This had previously been a major concern to the Town).

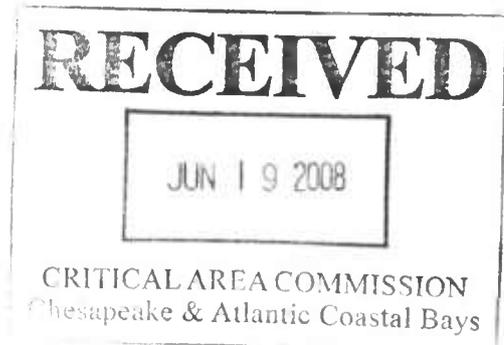
The Chesapeake Beach Planning & Zoning Commission is scheduled to review this application on July 8, 2008. If you are unable to complete your review and provide me comments in time for the meeting, I will reference them in the report and make them a condition of approval.

If you have any questions or need additional information, please feel free to call me at (410) 286-5222.

Yours truly,

William R. Watson
Zoning Administrator

*Dev's
Advo*



CB 689-05



OFFICE OF THE MAYOR AND TOWN COUNCIL

February 4, 2008

Critical Area Commission
Ms. Amber Widmayer
Natural Resources Planner
1804 West Street, Suite 100
Annapolis, MD. 21401

**RE: Site Plan Application
Beach Elementary School Parking Lot Expansion**

Dear Amber;

Enclosed, please find 2 copies of the recently submitted Site Plan and 1 copy of the Storm Drainage and Stormwater Management Computations for an expansion of The Beach Elementary School Parking Lot, located at the intersection of Bayside Road (MD. Rte. 261) and Old Bayside Road.

The Chesapeake Beach Planning & Zoning Commission is scheduled to review this application on February 12, 2008, however, I am recommending that a formal review be postponed until your comments are received.. I have suggested to do this formal review on March 11, 2008 at 7:00 PM. If at all possible, I would appreciate your comments in time to incorporate into my staff report at that meeting. If not I will reference them in the report and make them a condition of approval.

If you have any questions or need additional information, please feel free to call me at (410) 286-5222.

Yours truly,

William R. Watson
Zoning Administrator



8200 BAYSIDE ROAD, P.O. BOX 400, CHESAPEAKE BEACH, MARYLAND 20732

(410) 257-2230 • (301) 855-8398

Stormwater Management Study

For

BEACH ELEMENTARY SCHOOL ~ Parking Lot Addition
10 SPACE ADDITION

By

Collinson Oliff & Associates

P.O. Box 2209

Prince Frederick, Maryland 20678

410-535-3101 or 301-855-1599



KEU
January 15, 2008
Revised February 21, 2008
Revised June 9, 2008
Auth. 1-9184

Table of Contents

	<u>Page</u>
Introduction	1
Pollutant Removal Requirement Calculation and BMP Selection	2
Conclusion	3

Appendices

Appendix A	Pre & Post Developed Site Map
Appendix B	IDA 10% computation sheet, WQv computation sheet, and Surface Sand Filter Device Sizing
Appendix C	Pre and Post Routing of Sand Filter Drainage Area

Introduction

The following is a revised storm water management study for a parking lot addition at Beach Elementary School. The project has been decreased in scope to provide only 10 parking spaces. The project is located at 7900 Old Bayside Road, Chesapeake Beach, Calvert County, Maryland.

The proposed development consists of the construction of a 10 space parking lot addition. Minimal clearing is proposed as part of the project. The area where the parking lot addition is planned is currently a grassed yard (See Appendix A).

The Calvert County Soil Survey indicated the site as predominantly "B" type soils.

The site is entirely within the Chesapeake Bay Critical Area Intensely Developed Area (IDA). It is a requirement in this zone to provide a 10% reduction in pollutants for any development.

The following report will provide computations for the Pollutant removal requirement and the Water Quality Volume needed to achieve the pollutant removal required for the proposed development.

Conclusion

This stormwater management study was conducted in accordance with the 2000 Maryland Stormwater Design Manual Volumes I & II (MSDM), and the Calvert County Stormwater Management Ordinance, dated July 2001. The first steps of this study provided computations for the 10% IDA Pollutant Removal required and the Water Quality Volume (WQv) needed to provide the pollutant removal.

It was determined that with a disturbed area of 0.40 acres and a proposed impervious area of 0.10 acres, 0.10 lbs of pollutants are required to be removed from the proposed development as shown on the IDA Zone 10% Rule Calculation Worksheet (Appendix B). The surface sand filter provides 0.20 lbs of removal. There are no offsets required with this portion of the development on the property.

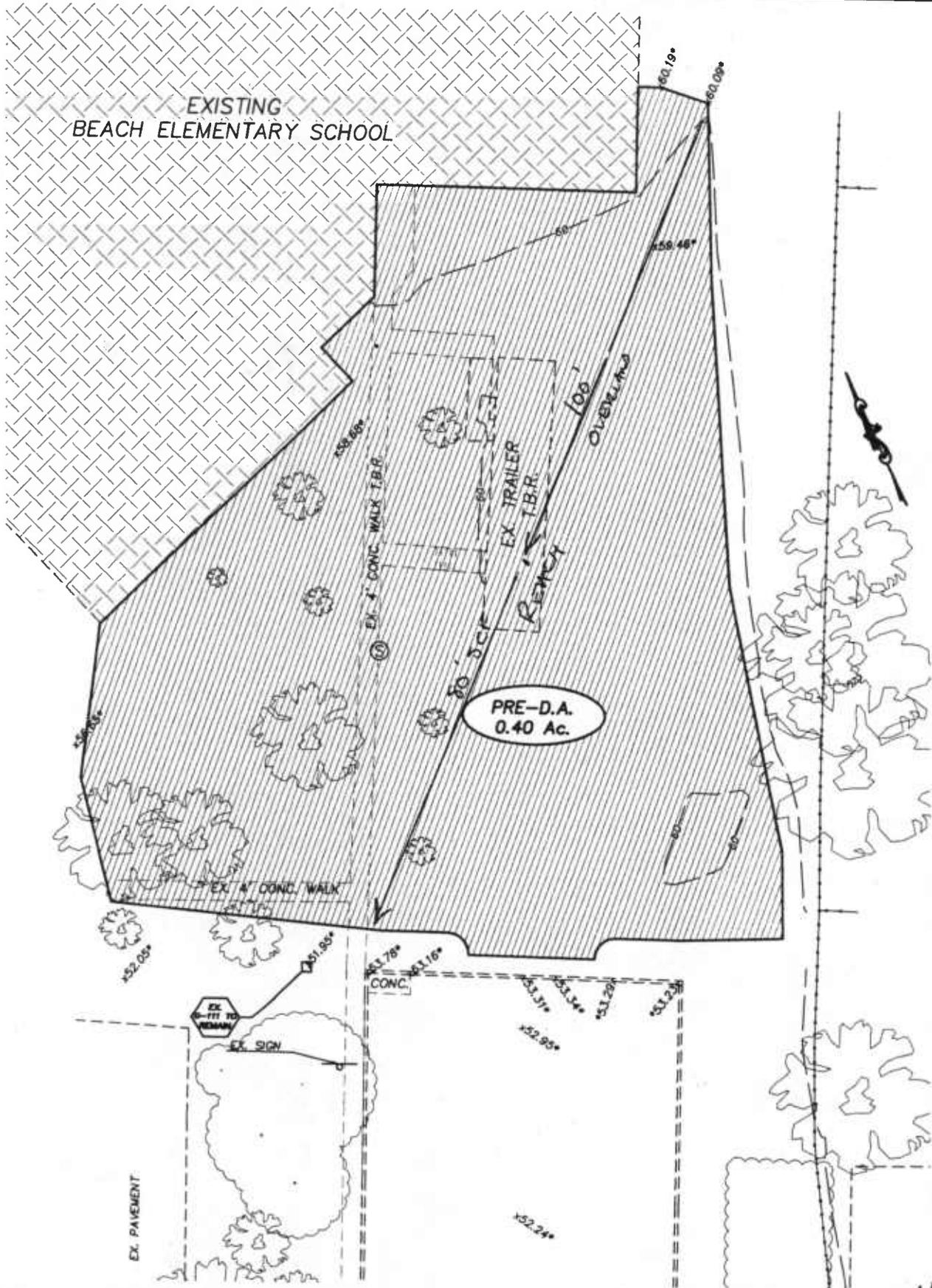
This pollutant removal can be accomplished by constructing a Surface Sand Filter (F-1) that will capture 100% of the disturbed area (0.40 Acres). All of the proposed impervious area is to be captured by the Surface Sand Filter. The Water Quality volume required is 0.01 acre feet or 436 cubic feet as shown on the WQV worksheet (Appendix B). A surface sand filter has been designed to accommodate the 0.02 acre feet of storage as part of the development.

Also, due to down stream erosion concerns the proposed development runoff condition has been routed through the sand filter to show that due to the storage provided and the controlled release rate through the structure the post development peak discharges are less than the proposed condition (See Appendix C).

With the construction of the proposed development in this manner this site can be developed in accordance with the 2000 Maryland Stormwater Design Manual and the Calvert County Stormwater Management Ordinance, dated July 2001.

Appendix A
Pre & Post Developed Site Map

EXISTING
BEACH ELEMENTARY SCHOOL



BEACH ELEMENTARY

PRE-DRAINAGE AREA MAP

900 OLD BAYSIDE RD., CHESAPEAKE BEACH

3rd DISTRICT, CALVERT COUNTY, MD.

FOR: CALVERT COUNTY PUBLIC SCHOOLS



COLLINSON, CLIFF & ASSOCIATES, INC.

Surveyors • Engineers
Land Planners

110 MAIN STREET
PRINCE FREDERICK, MARYLAND 20678

301-855-1599 • 410-535-3101 • FAX 410-535-3103

DRAWN BY KVT

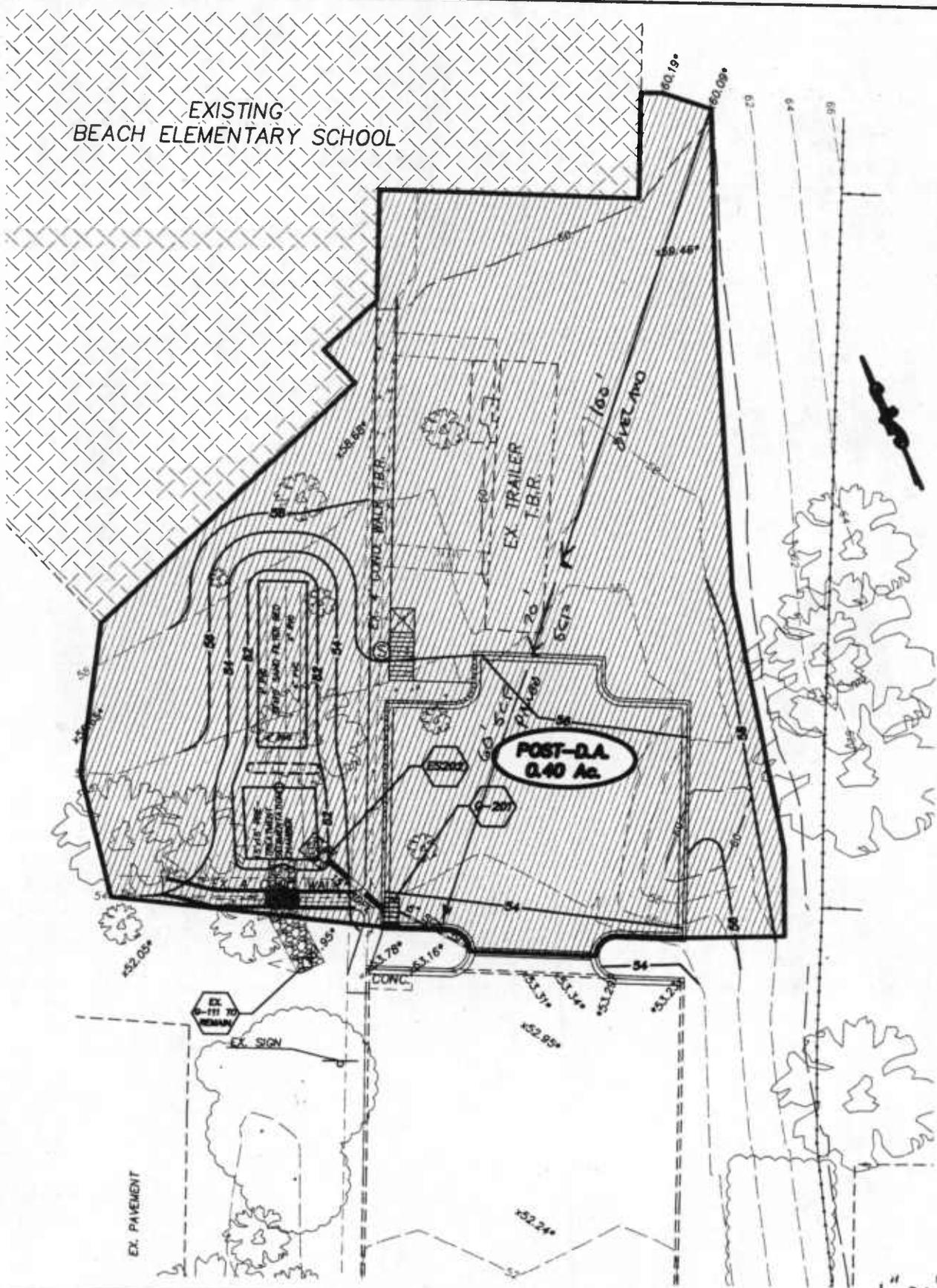
SCALE AS SHOWN

DATE 6-09-08

JOB NO. 1-9184

FOLDER 1-9184

EXISTING
BEACH ELEMENTARY SCHOOL



1"=30'

BEACH ELEMENTARY

POST-DRAINAGE AREA MAP

7900 OLD BAYSIDE RD., CHESAPEAKE BEACH

3rd DISTRICT, CALVERT COUNTY, MD.

FOR: CALVERT COUNTY PUBLIC SCHOOLS



COLLINSON, OLIFF & ASSOCIATES, INC.

Surveyors • Engineers
Land Planners

110 MAIN STREET
PRINCE FREDERICK, MARYLAND 20678
301-855-1599 • 410-535-3101 • FAX 410-535-3103

DRAWN BY KVT

SCALE AS SHOWN

DATE 6-09-08

JOB NO. 1-9184

FOLDER 1-9184

Appendix B
IDA 10% computation sheet and WQv computation sheet

Collinson, Oliff Associates, Inc.

Surveyors ~ Engineers ~ Land Planners
288 Merrimac Court

Prince Frederick, Maryland 20678

10% IDA 10 spaces.xls
6/9/2008

IDA Zone: 10% Rule Calculations

PROJECT: BEACH ELEMENTARY - 10 SPACE Addition
LOCATION: 7900 Old Bayside Rd., Chesapeake Beach
3rd District, Calvert County

JOB #: 1-9184

NEW DEVELOPMENT

date = 06.09.08

STEP 1: Estimate parameters.

		<u>Pre - Dev.</u>	<u>Post - Dev.</u>
A (Total area)	=	0.40 acres	0.40 acres
Ia:			
Bldg.	=	0.02 acres	0.00 acres
Pave	=	0.00 acres	0.08 acres
Alleys	=	0.00 acres	0.00 acres
Conc.	=	0.00 acres	0.00 acres
Sidewlk	=	0.02 acres	0.02 acres
Gravel	=	0.00 acres	0.00 acr
<u>Drives</u>	=	<u>0.00 acres</u>	<u>0.00 acres</u>
<u>Total</u>	=	<u>0.04 acres</u>	<u>0.10 acres</u>
I = (Ia Tot / A)	=	10%	25%
Rv = 0.05 + 0.009 * I	=	0.14	0.28
C:	=	0.3 mg/l	0.3 mg/l

Handwritten notes:
-13 + -15 + .13
- Tracker not 28?

STEP 2: Calculate the pre-development load (L pre).

L pre = 0.5 x A = 0.2 lbs./year

STEP 3: Calculate the post-development load (L post).

L post = [(Rv x C x A x 8.16)] = 0.3 lbs./year

STEP 4: Calculate the pollutant removal requirement (RR).

RR = L post - (0.9 * L pre) = 0.07 lbs.

STEP 5: Select BMP options using the screening tools and list them below. Then calculate the load removal for each option.

SELECTED BMP OPTION	REMOVAL EFFICIENCY %	SERIES DEVICE EFFICIENCY 50%	FRACTION D. A. SERVED	X	L post (STEP 3)	= LOAD REMOVED lbs.	RR Balance lbs.
Surface Sand Filter	50%	X	100.0%	X	0.3	= 0.2 lbs.	-0.1 lbs.
		X		X		= 0.0 lbs.	-0.1 lbs.
		X		X		= lbs.	-0.1 lbs.
		X		X		= lbs.	-0.1 lbs.
		X		X		= lbs.	-0.1 lbs.
		X		X		= lbs.	-0.1 lbs.

Offset Required = (0.1) lbs.

** If the LOAD REMOVED is equal or greater than the pollutant removal requirement (RR) calculated in STEP 4, then the on-site BMP options(s) comply with the Critical Area 20% Rule.

Collinson Oliff & Associates, Inc.

Surveyors - Engineers - Land Planners

P.O. Box 2209 Prince Frederick, Maryland 20678

410-535-3101 : 301-855-1599 : Fax 410-535-3103

Water Quality & Recharge Volume Computation Sheet

Site:	BEACH ELEMENTARY~Parking Lot Addition 10 SPACES		
Location:	3rd District, Calvert County, MD		
COA Authorization #:	1-9184		
Date:	06.09.08		
Designer:	K.E.U.		
For:	Calvert County Public Schools		
Drainage Area :	G-201		
Water Quality Volume - WQv			
Drainage Area(A) :	0.40	Acres	
Impervious Area (I) :	0.10	Acres	
Precipitation (P) :	1.00	inches	
		% Impervious cover = I / A =	25.00
Rv = 0.05 + 0.009(I) =		0.28	
		WQv (Ac-ft) = (P)(Rv)(A)/12 =	0.01
Sites w/ < 15% Imp. cover - WQv (Acre-ft) = (0.2)(A)/12 =			0.01
		WQv (Acre-ft) =	0.01

SITE PLAN NOTES

- THESE PLANS AND SPECIFICATIONS ARE THE PROPERTY OF: COLLINSON, OLIFF AND ASSOCIATES, INC.
- IT IS THE RESPONSIBILITY OF THE CONTRACTOR TO MEET ALL OF THE REQUIREMENTS OF THE FEDERAL, STATE, AND LOCAL AUTHORITIES, HEALTH DEPARTMENT AND UTILITY COMPANIES, IN ADDITION TO THE INFORMATION STATED ON THESE PLANS.
- ALL WORK SHALL BE IN CONFORMANCE WITH AASHTO STANDARDS AND SPECIFICATIONS FOR CONSTRUCTION AS CURRENTLY AMENDED.
- IN CASE OF CONFLICT BETWEEN ANY PART OF THESE PLANS AND SPECIFICATIONS, OR IF ANY ERRORS OR OMISSIONS ARE DISCOVERED IN THE LINES, GRADES AND DIMENSIONS, THE CONTRACTOR SHALL NOTIFY THE SITE CONSULTANT IMMEDIATELY AND SHALL REQUEST A WRITTEN DETERMINATION PRIOR TO PROCEEDING WITH THE WORK INVOLVED. IF THE WORK PROCEEDS WITH THE KNOWLEDGE OF THE ERROR OR OMISSION, AND WITHOUT A WRITTEN DETERMINATION, SUCH WORK WILL NOT BE CONSIDERED IN COMPLIANCE WITH THESE PLANS AND SPECIFICATIONS.
- PRIOR TO CONSTRUCTION, CONTACT: THE ENFORCEMENT DIVISION, DEPARTMENT OF THE ENVIRONMENT SEDIMENT AND STORMWATER MANAGEMENT ADMINISTRATION 1800 WASHINGTON BLVD. BALTIMORE, MARYLAND 21230 PHONE: (410) 537-3000
- NOTIFY THE CALVERT COUNTY DEPARTMENT OF INSPECTIONS AND PERMITS, (410) 535-2155, THE CALVERT COUNTY SOIL CONSERVATION DISTRICT, (410) 535-1521, AND MISS UTILITY, (800) 257-7777, 3 DAYS PRIOR TO THE START OF ANY WORK ON THIS SITE.
- A) OWNER(S): CC BOE
1305 DARES BEACH ROAD
PRINCE FREDERICK, MD 20678
PHONE: (410) 535-1700
- B) DEVELOPER: CC BOE
1305 DARES BEACH ROAD
PRINCE FREDERICK, MD 20678
PHONE: (410) 535-1700
- C) CONSULTANT: COLLINSON, OLIFF AND ASSOCIATES, INC.
P.O. BOX 2209
PRINCE FREDERICK, MARYLAND 20678
PHONE: (410) 535-3101
- AS CONSTRUCTION PROCEEDS, ADDITIONAL MEASURES MAY BE EMPLOYED WITH THE ENGINEER'S APPROVAL, IF CONDITIONS WARRANT, TO ENSURE EFFECTIVE STORMWATER DRAINAGE AND SEDIMENT CONTROL.
- SEDIMENT CONTROL MEASURES REPRESENTS LIMIT OF WORK UNLESS OTHERWISE STATED.
- A) EXISTING ELEVATIONS SHOWN HEREON ARE FROM A FIELD RUN SURVEY BY C.O.A., INC. DATED JANUARY 2002. EXISTING UTILITIES SHOWN ARE FROM FIELD INFORMATION AND ALSO THE BEST AVAILABLE PLANS OF THE EXISTING UTILITIES.
- B) ALL ELEVATIONS SHOWN HEREON ARE IN REFERENCE TO BENCH MARKS AND MUST BE FIELD VERIFIED BY THE GENERAL CONTRACTOR PRIOR TO CONSTRUCTION.
- NO NON-TIDAL WETLANDS DELINEATION OR LOCATION PERFORMED FOR THE PREPARATION OF THESE PLANS.
- NO PROPERTY LINE SURVEY PERFORMED FOR THE PREPARATION OF THESE PLANS.
- PROPERTY IS LOCATED WITHIN CRITICAL AREA, ZONE IDA.
- THIS SITE IS EXEMPT FROM THE FOREST CONSERVATION ACT DUE TO LESS THAN 40,000 S.F. OF CLEARING(5-7.02H).
- IT SHALL BE DISTINCTLY UNDERSTOOD THAT FAILURE TO SPECIFICALLY MENTION ANY WORK WHICH WOULD NATURALLY BE REQUIRED TO COMPLETE THIS PROJECT SHALL NOT RELIEVE THE CONTRACTOR OF HIS RESPONSIBILITY TO COMPLETE SUCH WORK.

CONSULTANT'S CERTIFICATION:

I HEREBY CERTIFY THAT THESE DOCUMENTS WERE PREPARED OR APPROVED BY ME, AND THAT I AM A FULLY LICENSED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF MARYLAND.

[Signature] 6/11/03
SIGNATURE: DANIEL J. KELSH, MD P.E. LICENSE #17627 DATE
COLLINSON, OLIFF AND ASSOCIATES, INC.
P.O. BOX 2209, PRINCE FREDERICK, MARYLAND 20678
PHONE: 410-535-3101, 301-855-1599

SURVEYOR'S / ENGINEER'S ADA CERTIFICATE

I HEREBY CERTIFY THAT THE PROPOSED ADA ACCESSIBLE ROUTE (SIDEWALKS, RAMPS, AND CURB RAMPS) SHOWN HEREON HAS BEEN DESIGNED IN ACCORDANCE WITH THE DEPT. OF JUSTICE ADA STANDARDS FOR ACCESSIBLE DESIGN SPECIFICALLY SECTIONS 4.3.1 TO 4.3.8, 4.7 AND 4.8.

BY: *[Signature]* DATE: 6/11/03
DANIEL J. KELSH MD PE #17627

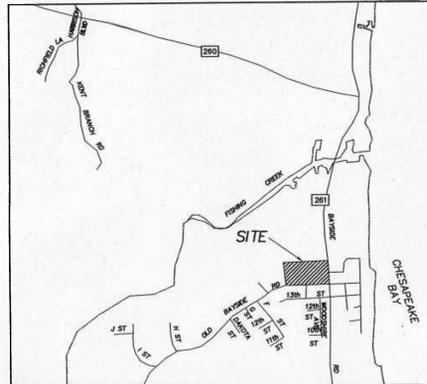
OWNER'S / DEVELOPER'S CERTIFICATE

I HEREBY CERTIFY THAT ALL CLEARING, GRADING, CONSTRUCTION AND/OR DEVELOPMENT WILL BE DONE PURSUANT TO THIS PLAN AND THAT ANY RESPONSIBLE PERSONNEL INVOLVED IN THE CONSTRUCTION PROJECT WILL HAVE A CERTIFICATE OF ATTENDANCE AT A MARYLAND DEPARTMENT OF THE ENVIRONMENT APPROVED TRAINING PROGRAM FOR THE CONTROL OF SEDIMENT AND EROSION BEFORE BEGINNING THE PROJECT. I HEREBY AUTHORIZE THE RIGHT OF ENTRY FOR PERIODIC ON-SITE EVALUATION BY STATE OF MARYLAND, DEPARTMENT OF THE ENVIRONMENT, COMPLIANCE INSPECTORS.

BY: _____ DATE: _____
GEORGE LEAH

BEACH ELEMENTARY SCHOOL PARKING LOT ADDITION

7900 OLD BAYSIDE ROAD
THIRD DISTRICT, CALVERT COUNTY
CHESAPEAKE BEACH, MARYLAND
FOR: CALVERT COUNTY PUBLIC SCHOOLS



VICINITY MAP
TM: 103, BLOCK 62 AND P/O BLOCKS 63-65
SCALE: 1" = 2000'

INDEX OF DRAWINGS

COVER SHEET	SHEET C. 1.0
S.E.C. PLAN	SHEET C. 2.0
GRADING & STORMDRAIN PLAN	SHEET C. 3.0
STORMWATER MANAGEMENT PLAN	SHEET C. 4.0
STORMWATER MANAGEMENT PROFILES	SHEET C. 4.1
SITE LAYOUT	SHEET C. 5.0
LANDSCAPE PLAN	SHEET C. 6.0
S.E.C. DETAILS	SHEET C. 7.0
STORMDRAIN DETAILS	SHEET C. 7.1
SITE DETAILS	SHEET C. 7.2
DRAINAGE AREA MAP	SHEET C. 8.0

SITE WORK SPECIFICATIONS

- CLEARING:**
THE EXISTING VEGETATION AND ROOTMATS IS TO BE CLEARED AND GRUBBED FROM THE SITE WITHIN THE LIMIT OF WORK UNLESS NOTED OTHERWISE. BURNING IS BY PERMIT ONLY.
- EARTHWORK:**
 - GENERAL:
 - ALL TREES, STUMPS, RUBBISH, DEBRIS, ROOTMATS AND ORGANIC MATERIAL SHALL BE REMOVED FROM THE LIMITS OF THE GRADING.
 - FILLING MAY BE ACCOMPLISHED AFTER DEMOLITION, CLEARING AND GRUBBING IS COMPLETED AND UNSUITABLE SOILS HAVE BEEN REMOVED.
 - NO FILL IS TO BE PLACED ON FROZEN GROUND.
 - NO SLOPES ARE TO BE GREATER THAN 2:1 WITHOUT MECHANICAL STABILIZATION.
 - ALL FILL SLOPES SHALL BE STABILIZED IMMEDIATELY AFTER COMPLETION OF GRADING SAID SLOPES.
 - TOPSOIL SHALL BE REMOVED PRIOR TO PLACING ANY CONTROLLED FILLS.
 - ALL AREAS TO BE SEEDED AND MULCHED ARE TO RECEIVE A MINIMUM 4 INCHES OF TOPSOIL.
 - SITE CONSTRUCTION STATED ON THESE PLANS SHALL BE IN ACCORDANCE WITH THE MARYLAND DEPARTMENT OF TRANSPORTATION, STATE HIGHWAY ADMINISTRATION STANDARD SPECIFICATIONS FOR CONSTRUCTION AND MATERIALS, DATED 2001, AS AMENDED. THE CONSTRUCTION SHALL ALSO BE GOVERNED BY THE STATE OF MARYLAND DEPARTMENT OF THE ENVIRONMENT PERMITS, U.S. ARMY CORPS OF ENGINEER PERMITS, AND THE MARYLAND STATE HIGHWAY AND COUNTY ROAD, GRADING AND BUILDING PERMITS, WHERE APPLICABLE.
- COMPACTION:**
 - GENERAL: CONTROL SOIL COMPACTION DURING CONSTRUCTION PROVIDING MINIMUM PERCENTAGE OF DENSITY SPECIFIED FOR EACH AREA CLASSIFICATION INDICATED BELOW. IF COMPACTION AS INDICATED CANNOT BE ACHIEVED, REMOVE UNSUITABLE SOIL TO DEPTH REQUIRED, FILL AND COMPACT SOIL TO MEET REQUIREMENTS OR AS DIRECTED BY THE OWNERS REPRESENTATIVE.
 - PERCENTAGE OF MAXIMUM DENSITY REQUIREMENTS: COMPACT SOIL TO NOT LESS THAN THE FOLLOWING PERCENTAGES OF MAXIMUM DENSITY FOR SOILS WHICH EXHIBIT A WELL-DEFINED MOISTURE RELATIONSHIP DETERMINED IN ACCORDANCE WITH ASTM D 698.
 - AREAS OF PROPOSED CONCRETE SLAB AND PARKING SPACES: COMPACT TOP 12" OF EXISTING SUBGRADE AND EACH LAYER OF BACKFILL OR FILL MATERIAL AT 95% COMPACT THE TOP 6" OF SUBGRADE AND BASE COURSE PAVEMENT MATERIAL TO AT LEAST 100% MAXIMUM DENSITY.
 - LAWN OR UNPAVED AREAS: COMPACT EACH LAYER OF BACKFILL OR FILL MATERIAL AT 90%.
 - WALKWAYS: COMPACT EACH LAYER OF BACKFILL OR FILL MATERIAL AT 95% MAXIMUM DENSITY.
 - BACKFILL: COMPACT EACH LAYER AT 95%.
- PARKING SURFACE:**
 - GENERAL: SUBBASE COURSE IS TO CONSIST OF PLACING SUBBASE MATERIAL IN LAYERS OF SPECIFIED THICKNESS, OVER SUBGRADE SURFACE TO SUPPORT A PAVEMENT BASE AND SURFACE COURSE.
 - GRADE CONTROL: DURING CONSTRUCTION, MAINTAIN LINES AND GRADES INCLUDING CROWN AND CROSS-SLOPE OF SUBBASE COURSE.
 - MATERIALS AND INSTALLATION: GRAVEL AND BITUMINOUS CONCRETE MATERIALS AND INSTALLATION ARE TO BE IN ACCORDANCE WITH THE MARYLAND DEPARTMENT OF TRANSPORTATION, STATE HIGHWAY ADMINISTRATION (SHA) STANDARD SPECIFICATIONS FOR CONSTRUCTION AND MATERIALS, DATED 1993, AS AMENDED, AND INSTALLED AS SHOWN ON PLANS.
- FIELD QUALITY CONTROL:**
 - QUALITY CONTROL TESTING DURING CONSTRUCTION: THE OWNER MAY RETAIN A TESTING SERVICE TO INSPECT AND APPROVE THE SITEWORK CONSTRUCTION.
 - IF, IN THE OPINION OF THE OWNER OR OWNER'S REPRESENTATIVE, BASED ON TESTING, MATERIALS AND/OR PLACEMENT OF MATERIALS ARE SUBSTANDARD, THE CONTRACTOR IS TO PROVIDE NEW MATERIALS CONSTRUCTED AND TESTED, AT NO ADDITIONAL EXPENSE TO THE OWNER.
- MAINTENANCE:**
 - PROTECTION OF GRADED AREAS:
 - PROTECT NEWLY GRADED AREAS FROM TRAFFIC AND EROSION. KEEP FREE OF GRASS AND DEBRIS.
 - REPAIR AND REESTABLISH GRADES IN SETTLED, ERODED, AND RUTTED AREAS TO SPECIFIED TOLERANCES.
 - DISPOSAL OF EXCESS AND WASTE MATERIALS (IF REQUIRED):
 - REMOVE EXCESS EXCAVATED MATERIAL, TRASH, DEBRIS AND WASTE MATERIALS AND DISPOSE OF IT OFF OWNER'S PROPERTY IN A MANNER CONSISTENT WITH LOCAL, STATE AND FEDERAL AGENCIES.
 - DEWATERING:
 - THE CONTRACTOR SHALL PROVIDE ALL NECESSARY TEMPORARY DRAINAGE AND KEEP THE SAME OPERATING UNTIL PERMANENT DRAINAGE HAS BEEN COMPLETED. IF WATER IS ENCOUNTERED IN EXCAVATING AND UTILITY CONSTRUCTION, THE CONTRACTOR SHALL PROVIDE AND MAINTAIN PUMPS OF SUFFICIENT CAPACITY TO REMOVE THE WATER WHILE THE EXCAVATIONS ARE BEING MADE AND UNTIL THE CONCRETE FOOTINGS ARE MADE DURING THE FOUNDATION WALLS OR OTHER STRUCTURES ERECTED UP TO GRADE, AND THE EXCAVATION HAS BEEN BACKFILLED.
- BRACING OR SHEETING:**
 - THE CONTRACTOR SHALL SUPPORT THE SIDES AND ENDS OF ALL EXCAVATIONS WHEREVER NECESSARY OR DIRECTED WITH BRACES, SHEETING, SHORES OR STRINGS OF THE QUALITY AND CHARACTER REQUIRED TO PROVIDE ADEQUATE SUPPORT, AS GOVERNED BY LOCAL, STATE, AND FEDERAL REGULATIONS.

SITE DATA BLOCK	
TAX MAP	103 GRID N/A BLOCKS 62, P/O 63-65 DEED AWR 35/385 TAX ID NO 03-057402
PARCEL AREA	6.10 AC±
ZONING	R-MD
BUILDING RESTRICTION LINES: FT	FRONT 15' SIDE 8' REAR 20'
LAND USE	EXISTING ELEMENTARY SCHOOL PROPOSED N/A
BUILDING DATA	AREA s/f± 55.895 HEIGHT ft± N/A USE EX. SCHOOL
FLOOR AREA RATIO	# OF EMPLOYEES N/A PROPOSED s/f± 0
UTILITIES	TOTAL s/f± 55.895 F.A.R. 0.39 - LIMIT OF WORK, NO F.A.R. WATER PUBLIC WATER SEWER PUBLIC SEWER
PREDOMINANT SOILS	W03 W03 W03
POWER	ELECTRIC
WASTE	STANDARD REFUSE: ON-SITE DUMPSTER
GREEN AREA WITHIN L.O.W. ONLY	EXISTING AC± 0.34Ac PROPOSED AC± 0.17Ac
IMPERVIOUS AREA WITHIN L.O.W. ONLY	EXISTING AC± 0.05Ac PROPOSED AC± 0.22Ac

PARKING & LOADING REQUIREMENTS						
DESCRIPTION OF APPROVED USES	GROSS AREA NET AREA SF	PARKING MULTIPLES SPACE/UNIT	PARKING		LOADING	
			REQUIRED	PROPOSED	REQ.	PROP.
ELEMENTARY SCHOOL	N/A	3 SPACES PER TEACHING STATION (25 STATIONS)	75 SPACES	66 EX. SPACES + 1 HC SPACE	N/A	N/A
GRAND TOTAL	N/A		75 SPACES	76 SPACES	N/A	N/A

PLEASE NOTE THERE ARE NO TEACHING STATIONS BEING ADDED. ADDITIONAL PARKING IS BEING ADDED TO THE EXISTING PARKING AREA. THERE IS NO PARKING REQUIREMENT.

LEGEND		
DESCRIPTION	EXISTING	PROPOSED
BENCHMARK		N/A
BUILDING		
TO BE REMOVED	T.B.R.	N/A
CONTOUR	118 120 122	118 120
CURB	-----	-----
FENCE	-----	N/A
LIMIT OF WORK	N/A	
SITE PAVEMENT		
SIDEWALK (CONCRETE)		
SIGN		N/A
SPOT ELEVATION	*123.45x	*123.45
SURGE STONE / RIP RAP	N/A	-----
STORMDRAIN	-----	12" CMP
STORMDRAIN INLET		
TREE LINE		N/A
LAMP POST		N/A
SEWER LINE	--- EX S ---	N/A

SITE WORK SPECS (CONT)

- EARTHWORK (CONT)**
 - MOISTURE CONTROL:
 - WHERE SUBGRADE OR LAYER OF SOIL MATERIAL MUST BE MOISTURE CONDITIONED BEFORE COMPACTION, UNIFORMLY APPLY WATER TO SURFACE OF SUBGRADE, OR LAYER OF SOIL MATERIAL. APPLY WATER IN MANNER TO PREVENT FREE WATER APPEARING ON SURFACE DURING OR SUBSEQUENT TO COMPACTION OPERATIONS. "MOISTURE CONTENT SHALL BE WITHIN 3 PERCENT OF OPTIMUM MOISTURE CONTENT AS DETERMINED BY ASTM D 698."
 - IF SOILS ARE FOUND TO EXCEED THE OPTIMUM MOISTURE CONTENT RANGE OF -1 TO +4 PERCENT, THEN THE SOILS SHALL BE SCARIFIED TO BE BROUGHT INTO COMPLIANCE.
 - BACKFILL AND FILL:
 - USE SATISFACTORY ON-SITE SOIL MATERIAL, APPROVED FOR USE BY THE OWNER OR THEIR REPRESENTATIVE.
 - GENERAL: PLACE ACCEPTABLE SOIL MATERIAL IN LAYERS TO REQUIRED SUBGRADE ELEVATIONS FOR EACH AREA CLASSIFICATION LISTED BELOW.
 - UNDER EXCAVATIONS AND BACKFILL, USE SATISFACTORY EXCAVATED OR BORROW MATERIAL.
 - UNDER GRASSED AREAS, USE SATISFACTORY EXCAVATED OR BORROW MATERIAL.
 - UNDER WALKS, PARKING AREA, AND CONCRETE SLAB AREAS, USE SUBBASE MATERIAL OR SATISFACTORY EXCAVATED OR BORROW MATERIAL, OR COMBINATION OF BOTH AS INDICATED ON THESE PLANS.
 - UNDER PIPING AND CONDUIT, USE SUBBASE MATERIAL WHERE SUBBASE IS INDICATED UNDER PIPING OR CONDUIT. SHAPE TO FIT BOTTOM 90 DEGREES OF CYLINDER.
 - PLACEMENT AND COMPACTION:
 - PLACE BACKFILL AND FILL MATERIALS IN LAYERS NOT MORE THAN 8" IN LOOSE DEPTH PER LAYER FOR MATERIAL COMPACTED BY HEAVY COMPACTION EQUIPMENT, AND NOT MORE THAN 4" IN LOOSE DEPTH FOR MATERIAL COMPACTED BY HAND-OPERATED TAMPERS.

SITE WORK SPECS (CONT)

- SEEDING: PERMANENT AND TEMPORARY SEEDING:**
 - SEED PREPARATION: APPLY 100 POUNDS PER 1000 SQUARE FEET OF PULVERIZED LIMESTONE AND 12 POUNDS PER 1000 SQUARE FEET OF 10-20-20 EQUIVALENT FERTILIZER, HARROW OR DISC ON THE CONTOUR INTO THE SOIL TO A DEPTH OF 3 TO 4 INCHES, CONTINUE TILLAGE UNTIL A REASONABLY FINE SEEDBED HAS BEEN PREPARED.
 - SEEDING: USE KENTUCKY 31, TALL FESCUE AT THE RATE OF 5 TO 7 POUNDS PER 1000 SQUARE FEET ON A MOIST SEEDBED, MINIMUM COVERAGE 1/4 INCH. STABILIZE BY MULCHING WITH UNWEATHERED, UNCHOPPED, SMALL GRAIN STRAW SPREAD AT THE RATE OF 1-1/2 TO 2 TONS PER ACRE. MULCH IS TO BE ANCHORED BY ASPHALT TIE-DOWN METHOD (OAE). SEEDING IS TO BE DONE ONLY BETWEEN FEBRUARY 1 AND APRIL 15 OR AUGUST 15 TO OCTOBER 15.
 - TEMPORARY SEEDING TO BE DONE ON COMPLETION OF CONSTRUCTION SOILING: TO BE ROOTED KENTUCKY 31 TALL FESCUE. SOD SHALL BE TRANSPLANTED WITHIN 36 HOURS OF HARVESTING, EACH STRIP OF SOD TO BE PLANTED WITH AT LEAST 2 STAKES SPACED NOT MORE THAN 2 FEET APART.
 - THE REGULATIONS, COMAR .08.05.01.06, APPLICATION FOR APPROVAL OF EROSION AND SEDIMENT CONTROL PLANS (B)(V), REQUIRE THE APPLICANT TO SUBMIT (IV) DETAILS OF TEMPORARY AND PERMANENT STABILIZATION MEASURES INCLUDING PLACEMENT OF THE FOLLOWING STATEMENT ON THE PLAN: FOLLOWING INITIAL SOIL DISTURBANCE OR REDISTURBANCE, PERMANENT OR TEMPORARY STABILIZATION SHALL BE COMPLETED WITHIN:
 - SEVEN (7) CALENDAR DAYS AS TO 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 AS TO ALL OTHER DISTURBED OR GRADED AREAS ON THE PROJECT SITE.
 - THE REQUIREMENTS OF .08.05.01.06(B)(E)(IV) DO NOT APPLY TO THOSE AREAS WHICH ARE SHOWN ON THE PLAN AND ARE CURRENTLY BEING USED FOR MATERIAL STORAGE, OR FOR THOSE OF A SURFACE MINE SITE, WHERE THE STABILIZATION MATERIAL WOULD CONTAMINATE THE RECOVERABLE RESOURCE. MAINTENANCE SHALL BE PERFORMED AS NECESSARY TO ENSURE THAT THE STABILIZED AREAS CONTINUOUSLY MEET THE APPROPRIATE REQUIREMENTS OF THE "STANDARDS AND SPECIFICATIONS FOR SOIL EROSION AND SEDIMENT CONTROL IN DEVELOPING AREAS" (1975), WHICH IS INCORPORATED BY REFERENCE IN REGULATION .08.05.01.10.
- SEDIMENT AND EROSION CONTROL:**
SEDIMENT AND EROSION CONTROL MEASURES ARE TO BE INSTALLED PER THE "MARYLAND STANDARDS AND SPECIFICATIONS FOR SOIL EROSION AND SEDIMENT CONTROL" MARYLAND DEPARTMENT OF THE ENVIRONMENT (1994) AS CURRENTLY AMENDED AND AS DETAILS STATED PER THESE PLANS.
- FIRE PROTECTION:**
 - FIRE DEPARTMENT VEHICULAR ACCESS TO ALL STRUCTURES UNDER CONSTRUCTION SHALL BE PROVIDED AT ALL TIMES, IN AREAS WHERE GROUND SURFACES ARE SOFT OR LIKELY TO BECOME SOFT, HARD ALL-WEATHER SURFACE ACCESS ROADS SHALL BE PROVIDED.
 - TRASH AND DEBRIS SHALL BE REMOVED FROM THE CONSTRUCTION SITE AS OFTEN AS NECESSARY TO MAINTAIN A FIRE-SAFE CONSTRUCTION SITE.
 - AS-BUILT DRAWINGS SHOWING BUILDING FLOOR PLANS, FIRE PROTECTION SYSTEMS, AND ITEMS OF FIRE SUPPRESSION INTEREST SUCH AS STANDPIPE CONNECTIONS, SPRINKLER CONNECTIONS, HYDRANTS, ETC. SHALL BE SUBMITTED TO THIS OFFICE PRIOR TO ISSUANCE OF USE AND OCCUPANCY PERMIT UPON COMPLETION OF THE PROJECT.
- SOIL TESTS:**
NO SITE SOIL BORINGS FOR EARTHWORK OPERATIONS PERFORMED FOR THE PREPARATION OF THESE PLANS.
- WATER AND SEWER SYSTEM:**
WATER AND SEWER SYSTEMS ARE TO BE CONSTRUCTED OR UTILIZED IN ACCORDANCE WITH ALL COUNTY AND STATE SPECIFICATIONS AND PERMITS.
- SIGNAGE:**
 - ALL SITE SIGNAGE IS TO BE IN ACCORDANCE WITH THE "MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES" DATED 1988 OR AS CURRENTLY AMENDED.
 - ALL HANDICAP SPACES AND SIGNAGE ARE TO BE IN ACCORDANCE WITH THE AMERICAN DISABILITIES ACT (ADA) STANDARDS AS ADOPTED BY CALVERT COUNTY DATED SEPTEMBER 6, 1991.
- BOUNDARY INFORMATION:**
 - THIS PLAT IS A SPECIAL PURPOSE SURVEY PER SECTION 09.13.06.10 OF COMAR REGULATIONS.
 - THE PROPERTY LINES SHOWN HEREON ARE BASED ON FIELD WORK PERFORMED BY C.O.A., INC.
 - THIS PLAT IS NOT A BOUNDARY SURVEY AND DOES NOT MEET THE MINIMUM STANDARDS FOR A BOUNDARY SURVEY AS DEFINED BY COMAR REGULATION.
- STORMWATER MANAGEMENT:**
THE CONSTRUCTION OF THE STORMWATER MANAGEMENT SYSTEM(S) IS TO BE IN ACCORDANCE WITH THE CALVERT COUNTY STORMWATER MANAGEMENT ORDINANCE, JULY 2001 WHICH INCORPORATES BY REFERENCE THE MARYLAND DEPT. OF THE ENVIRONMENT "2000 MARYLAND STORMWATER DESIGN MANUAL, VOLUMES I & II AND THE USDA NATURAL RESOURCES CONSERVATION SERVICE CONSTRUCTION PRACTICE STANDARD POND CODE 37B ALL AS CURRENTLY AMENDED."
- ARCHAEOLOGICAL AND HISTORICAL RESOURCES:**
IF ANY ARCHAEOLOGICAL AND/OR HISTORICAL DISCOVERIES ARE MADE DURING THE COURSE OF CONSTRUCTION ON THIS SITE, THE CONTRACTOR MUST CONTACT THE DEPT. OF PLANNING AND ZONING SO THAT A HISTORIC PRESERVATION SPECIALIST CAN EVALUATE AND RECORD THE NECESSARY INFORMATION.

COLLINSON, OLIFF & ASSOCIATES, INC.
Surveyors • Engineers
Land Planners
110 MAIN STREET
PRINCE FREDERICK, MARYLAND 20678
PHONE: 410-535-3101 • FAX: 410-535-3103 • EMAIL: INFO@COA.CC

RECEIVED
JUN 19 2003

COVER SHEET
BEACH ELEMENTARY
PARKING LOT ADDITION
7900 OLD BAYSIDE ROAD
LOCATED IN CHESAPEAKE BEACH
THIRD DISTRICT, CALVERT COUNTY, MARYLAND
FOR: CALVERT COUNTY PUBLIC SCHOOLS

THIS STAMP IN RED COLOR INDICATES ORIGIN!

SHEET NO. C 1.0
FILE NO. B-37-26

SEDIMENT & EROSION CONTROL TABLE		
DESCRIPTION	SYMBOL	QUANTITY
DISTURBED AREA	—LOD—	0.39 AC±
VEGETATIVE STABILIZATION	-----	0.14 AC±
STABILIZED CONSTRUCTION ENTRANCE	—SCE—	1 EACH
SILT FENCE	—S—	660 LF±
INLET PROTECTION	□	2 EACH

CAUTION - NOTICE TO CONTRACTOR

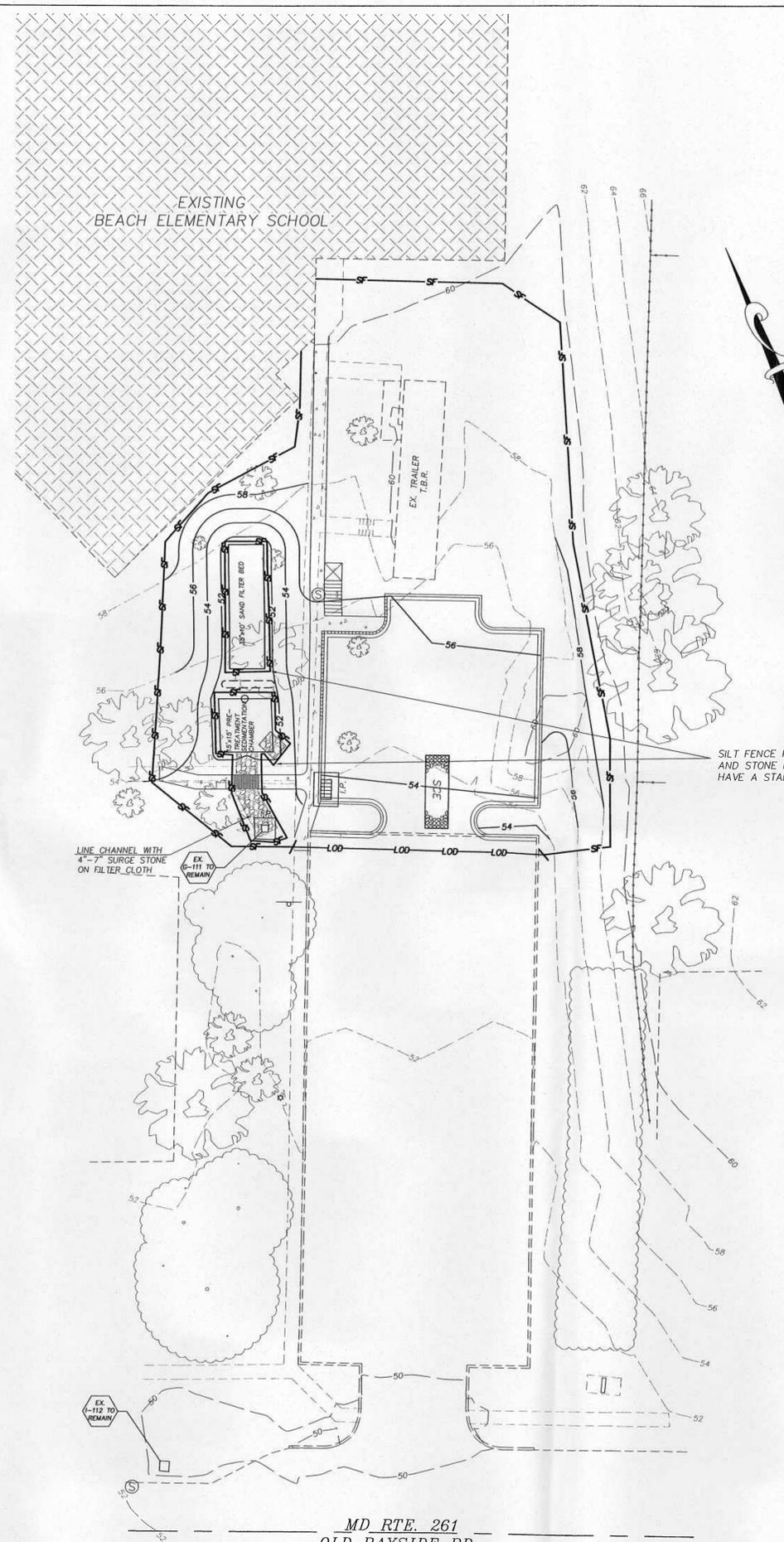
THE CONTRACTOR IS SPECIFICALLY CAUTIONED THAT THE LOCATION AND/OR ELEVATION OF EXISTING UTILITIES AS SHOWN ON THE PLANS IS BASED ON RECORDS OF THE VARIOUS UTILITY COMPANIES AND, WHERE POSSIBLE, MEASUREMENTS TAKEN IN THE FIELD. THE INFORMATION IS NOT TO BE RELIED ON AS BEING EXACT OR COMPLETE. THE CONTRACTOR MUST CALL THE APPROPRIATE UTILITY COMPANY AT LEAST 48 HOURS BEFORE ANY EXCAVATION TO REQUEST EXACT FIELD LOCATION OF UTILITIES. IT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR TO RELOCATE ALL EXISTING UTILITIES WHICH CONFLICT WITH THE PROPOSED IMPROVEMENTS SHOWN ON THESE PLANS.

SEQUENCE OF CONSTRUCTION

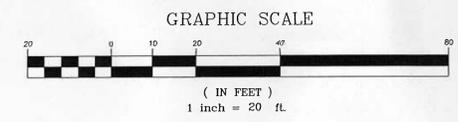
- CONTRACTOR/DEVELOPER IS TO NOTIFY THE CALVERT COUNTY DEPARTMENT OF INSPECTIONS AND PERMITS (410) 535-2155 AT LEAST 48 HOURS PRIOR TO CONSTRUCTION.
- ALL SEDIMENT CONTROLS SHALL BE REGULARLY INSPECTED AND MAINTAINED, AT A MINIMUM AFTER EACH RAIN EVENT AND THROUGHOUT THE LIFE OF THIS CONSTRUCTION.
- LIMIT OF DISTURBANCE MUST BE STAKED IN THE FIELD PRIOR TO BEGINNING CONSTRUCTION.

ITEM	DESCRIPTION	ESTIMATED TIME
1	CONTACT CALVERT SOIL CONSERVATION DISTRICT AT 65 DUKE ST., KAINE BUILDING, SUITE 106, PRINCE FREDERICK, MARYLAND TO SCHEDULE A PRECONSTRUCTION MEETING 10 DAYS PRIOR TO THE BEGINNING OF ANY CONSTRUCTION.	
2	DISTURB ONLY WHERE NEEDED TO INSTALL REQUIRED EROSION AND SEDIMENT CONTROL PRACTICES.	2 DAY(S)
3	PROCEED WITH INSTALLING EROSION AND SEDIMENT CONTROL PRACTICES WHERE INDICATED ON THIS APPROVED EROSION AND SEDIMENT CONTROL PLAN.	1 DAY
4	CONTACT THE APPROPRIATE INSPECTING AGENCY. NO FURTHER CLEARING, GRADING, OR OTHER LAND DISTURBANCE ACTIVITY IS PERMITTED UNTIL THE INSPECTING AGENCY CERTIFIES THAT ALL REQUIRED EROSION AND SEDIMENT CONTROLS ARE PROPERLY INSTALLED ACCORDING TO THE RELEVANT CONSTRUCTION STANDARD. ALL OTHER BUILDING OR GRADING INSPECTION APPROVALS MAY NOT BE AUTHORIZED UNTIL THE INITIAL APPROVAL BY THE INSPECTING AGENCY IS GIVEN.	2 DAY(S)
5*	SEDIMENT CONTROL PRACTICES WILL BE MAINTAINED ACCORDING TO THE MARYLAND 1994 STANDARDS AND COUNTY REGULATIONS, UNTIL THE ENTIRE SITE IS STABILIZED, INSPECTED, AND FINAL APPROVAL IS GIVEN BY THE APPROPRIATE STATE/COUNTY AGENCY.	20 DAY(S)
6	EXCAVATE AND FILL TO THE LIMITS AND GRADES SHOWN ON THE APPROVED PLANS, CONSTRUCT STORMWATER MANAGEMENT, CURBING, PAVING, SIDEWALK, SIGNAGE, AND LANDSCAPING.	30 DAY(S)
7*	PERMANENTLY STABILIZE ALL DISTURBED AREAS.	2 DAY(S)
9*	REQUEST AGENCY APPROVAL FOR THE REMOVAL OF EROSION AND SEDIMENT CONTROL PRACTICES AND DEVICES.	2 DAY
10	REMOVAL OF EROSION AND SEDIMENT PRACTICES. STABILIZE WHERE NEEDED.	2 DAY
TOTAL ESTIMATED TIME OF CONSTRUCTION:		61 DAYS

* THESE ITEMS MAY BE DONE CONCURRENTLY.



SILT FENCE PLACED ONCE SAND FILTER HAS BEEN CONSTRUCTED AND STONE PLACED. SILT FENCE IS TO REMAIN UNTIL SLOPES HAVE A STAND OF GRASS.



MD RTE. 261
OLD BAYSIDE RD.

COLLISON, OLIFF & ASSOCIATES, INC.
COA
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 110 MAIN STREET
 PRINCE FREDERICK, MARYLAND 20678
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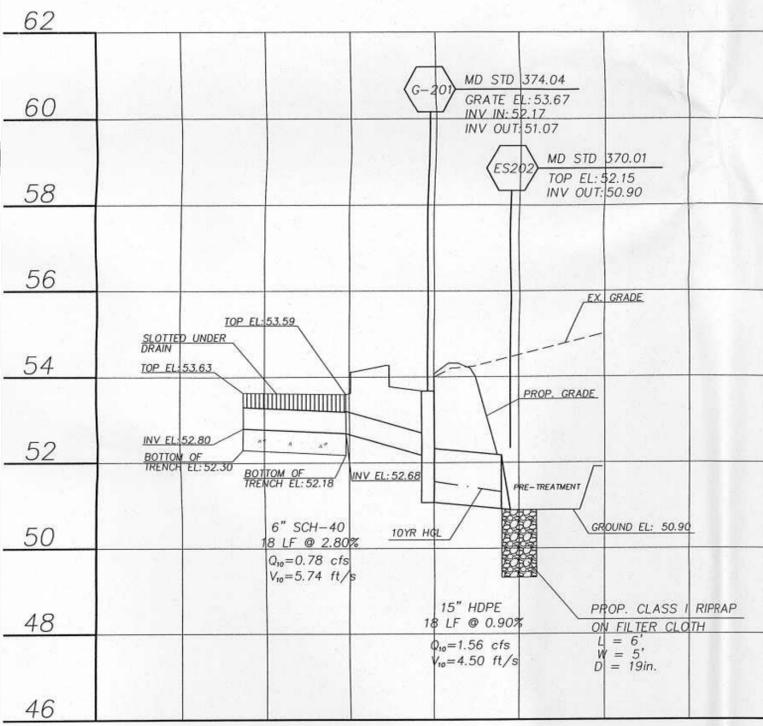
STATE OF MARYLAND
 PROFESSIONAL SEAL
 DANIEL J. KELSH MD PE # 17827
 6/10/08
 DATE

SCALE AS SHOWN	DATE	JOB NO.	DRAWN BY	APPROVED	CASE NO.
JAN. 2008	1-9184	RYT	KEU		
FOLDER REFERENCE	DATE	REVISION	ADDRESS P&Z COMMENTS FROM JAN. 2008	ILLUSTRATE TO PARKING SPACES	
TAX MAP 103	2/19/08	6/06/08			

SEDIMENT & EROSION CONTROL PLAN
BEACH ELEMENTARY
 PARKING LOT ADDITION
 7900 OLD BAYSIDE ROAD
 LOCATED IN CHESAPEAKE BEACH
 THIRD DISTRICT, CALVERT COUNTY, MARYLAND
 FOR: CALVERT COUNTY PUBLIC SCHOOLS

THIS STAMP IN RED COLOR INDICATES ORIGINAL.

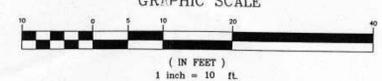
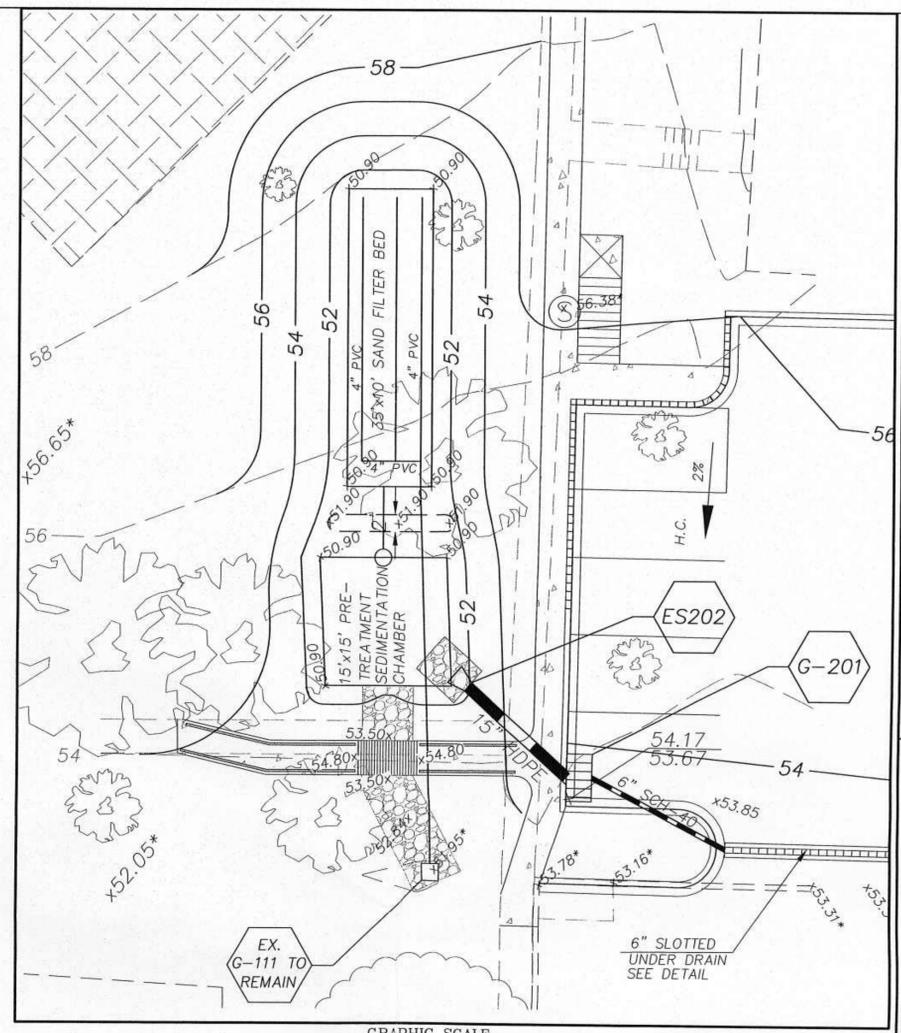
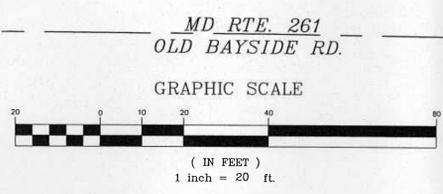
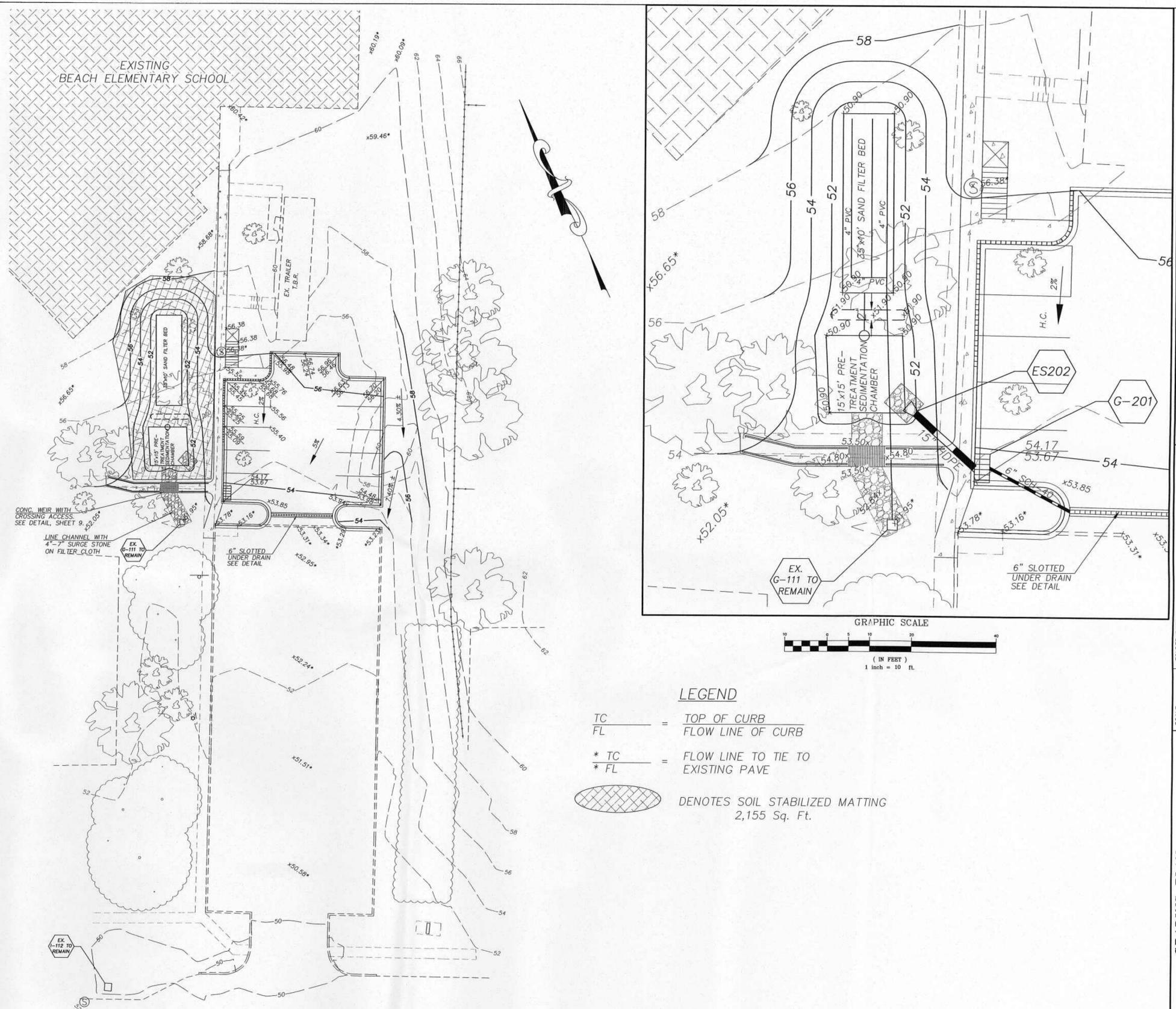
Q:\Projects\07\Ketch\114-COAS\Bearing\USDA\CE-SITE.dwg, 6/20/08 11:49:41 AM



STORMDRAIN PROFILE 6" UNDER DRAIN TO ES-202
 H: 1"=20'
 V: 1"=2'

STORMWATER MANAGEMENT SUMMARY TABLE				
AREA	SWM DEVICE	REMOVAL RATE REQ.	REMOVAL RATE PROVIDED	OFFSET REQ.
ADDITIONAL PARKING LOT	Surface Sand Filter	0.10 lbs	0.20 lbs	NONE

INLET REPORT										
Label	Description	Curb Opening Length (ft)	Known Flow (cfs)	Intercepted Rational Flow (cfs)	Capture Efficiency (%)	Total Bypassed Flow (cfs)	Gutter Ditch Depth (ft)	Gutter Ditch Spread (ft)	Rim Elevation (ft)	Has Flooding?
G-201	MD STD 374.04 - STD WR	5.50	0.00	1.56	100.00	0.00	0.11	5.73	54.17	FALSE



- LEGEND**
- TC = TOP OF CURB
 - FL = FLOW LINE OF CURB
 - * TC = FLOW LINE TO TIE TO EXISTING PAVE
 - * FL = FLOW LINE TO TIE TO EXISTING PAVE
 - DENOTES SOIL STABILIZED MATTING 2,155 Sq. Ft.

CAUTION - NOTICE TO CONTRACTOR

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COLLISON, OLIFF & ASSOCIATES, INC.
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STATE OF MARYLAND
 PROFESSIONAL ENGINEER
 DANIEL J. KELSH NO. PE # 17827
 6/1/08
 DATE

SCALE	AS SHOWN	FOLDER REFERENCE
JAN. 2008	JAN. 2008	TAX MAP 103
1-9184	2/19/08	DATE
KVT	6/06/08	REVISION
KEU		ADDRESS P&Z COMMENTS FROM JAN. 2008
		ILLUSTRATE TO PARKING SPACES.

GRADING PLAN
BEACH ELEMENTARY
 PARKING LOT ADDITION
 7900 OLD BAYSIDE ROAD
 LOCATED IN CHESAPEAKE BEACH
 THIRD DISTRICT, CALVERT COUNTY, MARYLAND
 FOR: CALVERT COUNTY PUBLIC SCHOOLS

THIS STAMP IN RED COLOR INDICATES ORIGINAL
 SHEET NO. C 3.0
 FILE NO. B-37-26b

NOTES

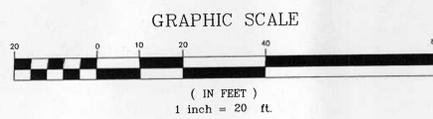
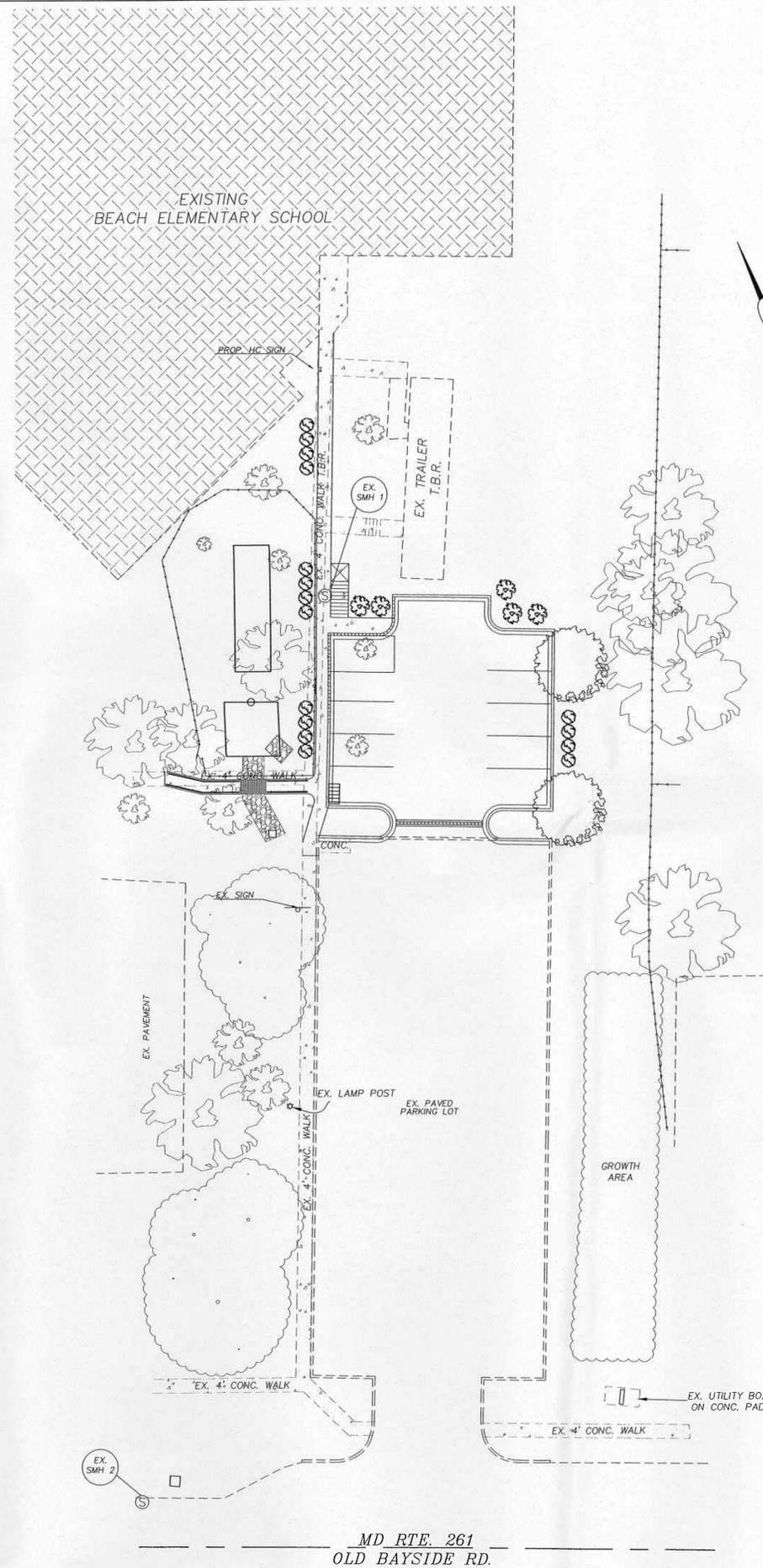
1. ALL PLANT MATERIAL SHALL BE TENDED AND MAINTAINED IN A HEALTHY GROWING CONDITION, REPLACED WHEN NECESSARY AND KEPT FREE OF REFUSE AND DEBRIS.
2. THE OWNER, OR HIS AGENT, SHALL BE RESPONSIBLE FOR THE MAINTENANCE, REPAIR AND REPLACEMENT OF ALL LANDSCAPING AND SCREENING MATERIALS AS MAY BE REQUIRED BY THE PROVISIONS OF SECTION 5-308 OF THE ZONING ORDINANCE FOR THE TOWN OF CHESAPEAKE BEACH.

LANDSCAPE SCHEDULE

SYMBOL	BOTANICAL NAME / COMMON NAME	QUANTITY	SIZE	SPACING
OVERSTORY TREES				
OR	QUERCUS PHELLOS / RED OAK	2	2 1/2" CAL. B&B	40' C/C
SHRUBS				
RR	ROSEDAY RHODODENDRON/RHODODENDRON MAXIMUM	5	18"-24" CONT OR B&B	5' C/C
SP	SWEET PEPPERBUSH/CLETHRA ALNIFOLIA	16	18"-24" CONT OR B&B	3' C/C

fully = 9 500

replaces
5 (4 NN / 1 N)



MD RTE. 261
OLD BAYSIDE RD.



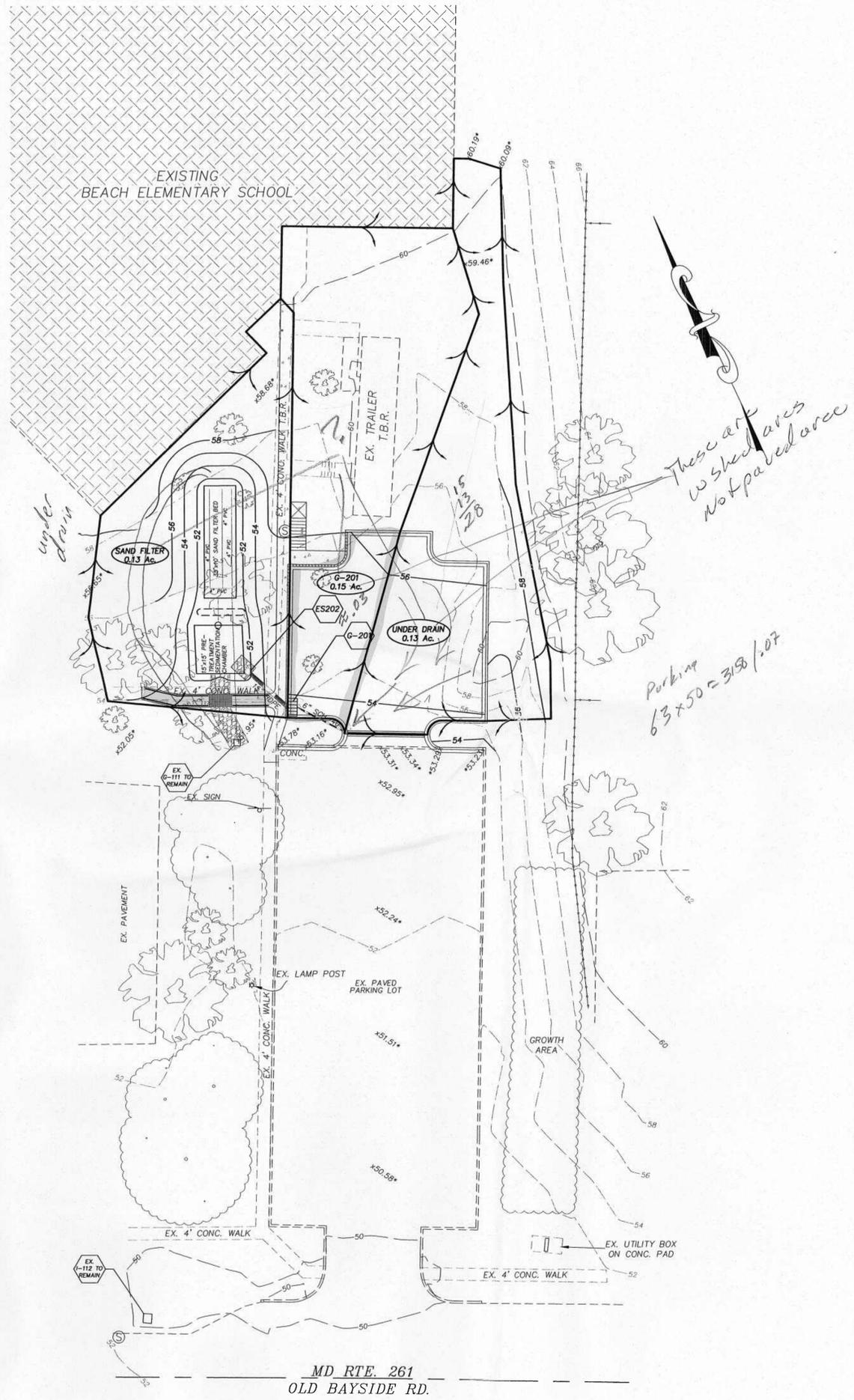
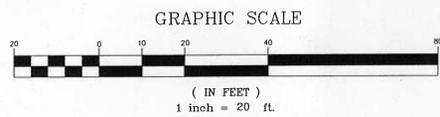
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SCALE AS SHOWN	FOLDER REFERENCE
JAN. 2008	TAX MAP 103
DATE	DATE
2/19/08	2/19/08
REVISION	REVISION
ADDRESS P&Z COMMENTS FROM JAN. 2008	ADDRESS P&Z COMMENTS FROM JAN. 2008
ILLUSTRATE 10 PARKING SPACES.	ILLUSTRATE 10 PARKING SPACES.
JOB NO. 1-9184	DATE 6/06/08
DRAWN BY KVT	APPROVED BY KEU
APPROVED BY KEU	CASE NO.

LANDSCAPE PLAN
BEACH ELEMENTARY
 PARKING LOT ADDITION
 7900 OLD BAYSIDE ROAD
 LOCATED IN CHESAPEAKE BEACH
 THIRD DISTRICT, CALVERT COUNTY, MARYLAND
 FOR: CALVERT COUNTY PUBLIC SCHOOLS

THIS STAMP IN RED COLOR INDICATES ORIGINAL

SHEET NO. C 6.0
 FILE NO. B-37-26f



MD RTE 261
OLD BAYSIDE RD.

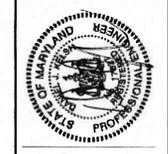
Keith Ulrich

DRAINAGE AREA MAP
BEACH ELEMENTARY
PARKING LOT ADDITION
7900 OLD BAYSIDE ROAD
LOCATED IN CHESAPEAKE BEACH
THIRD DISTRICT, CALVERT COUNTY, MARYLAND
FOR: CALVERT COUNTY PUBLIC SCHOOLS

THIS STAMP IN RED COLOR INDICATES ORIGINAL

SHEET NO. C 8.0

FILE NO. B-37-26j



DANIEL J. KELSCH MD PE # 17827
DATE

SCALE AS SHOWN	FOLDER REFERENCE
JAN. 2008	TAX MAP 103
DATE	DATE
1-9184	6/06/08
DRAWN BY KVT	REVISION
APPROVED KEU	ILLUSTRATE TO PARKING SPACES.
CASE NO.	

COLLINSON, OLIFF & ASSOCIATES, INC.
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Surveyors • Engineers
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410-535-3101 • 301-855-1599 • FAX: 410-535-3103 • EMAIL: INFO@COAINC.COM

Robert L. Ehrlich, Jr.
Governor



Michael S. Steele
Lt. Governor

Martin G. Madden
Chairman

Ren Serey
Executive Director

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

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

March 7, 2006

Mr. William R. Watson
Town of Chesapeake Beach
8200 Bayside Road
P. O. Box 400
Chesapeake Beach, Maryland 20732

**Re: Beach Elementary School – Kindergarten Addition
Consistency Report**

Dear Mr. ~~Watson~~ *Bill*:

Thank you for forwarding the consistency report for the referenced project to this office in accordance with the requirements of COMAR 27.02.02 - State and Local Agency Actions Resulting in Development of Local Significance on Private Lands or Lands Owned by Local Jurisdictions. After reviewing the consistency report, and the accompanying drawings provided by Mr. George R. Leah, Jr., this office agrees that the project is consistent with the Town of Chesapeake Beach Critical Area Program.

The project involves the construction of a building addition and related appurtenances, totaling approximately 4,800 square feet. The project site is designated IDA, and the location of the addition is currently developed with a paved play area. The addition is not located within the 100-foot Buffer and there are no proposed impacts to other Habitat Protection Areas. Stormwater management will be addressed by directing roof-top run-off into new drywells as a roof-top disconnect strategy in accordance with the design standards in the 2000 Maryland Stormwater Design Manual.

It is my understanding that the parking lot shown on the plans is not proposed to be constructed at this time, and it will be submitted to the Commission as a separate project at a later date. Because of this, the parking lot has not been included in the stormwater calculations.

This project is considered development of a minor scale that does not substantially affect the Town's Critical Area Program; therefore, it will not require formal approval by the Critical Area Commission.

Mr. Watson
March 7, 2006
Page 2

Thank you again for your cooperation and assistance with reviewing this project. If you have any questions, please telephone me at (410) 260-3480.

Sincerely,

A handwritten signature in cursive script that reads "Mary R. Owens".

Mary R. Owens, Chief
Program Implementation Division

cc: George Leah, Calvert County Public Schools
CB 689-05

Robert L. Ehrlich, Jr.
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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/

November 2, 2005

Mr. William R. Watson
Planning and Zoning Administrator
8200 Bayside Road
P O Box 400
Chesapeake Beach, Maryland 20732

Re: Beach Elementary School Plan

Dear Mr. Watson:

We have received the site plan for Beach Elementary School. The applicant proposes to construct a kindergarten addition over an area that is partially impervious. The property is 6.1 acres and is designated an Intensely Developed Area. I have reviewed the plans and have the following comments.

1. No information is provided as the existing and proposed impervious surface. This information, as well as the 10% phosphorus reduction calculations, must be provided. The application must show how they will address the 10% Rule.
2. The Town must provide certification that the proposal is consistent with the local Critical Area regulations, as required in COMAR 27.02.02. Once we receive this certification, we will review and respond.

Thank you for the opportunity to provide comments for this project. Please contact me at (410) 260-3479 if you have questions.

Sincerely,

A handwritten signature in cursive script that reads "Regina A. Esslinger".

Regina A. Esslinger, Chief
Project Evaluation Division

RAE/jjd

cc: CB 689-05

TTY for the Deaf

Annapolis: (410) 974-2609 D.C. Metro: (301) 586-0450



OFFICE OF THE MAYOR AND TOWN COUNCIL

March 3, 2006

Mrs. Mary Owens, Chief
Program Implementation Division
Critical Area Commission
1804 West Street, Suite 100
Annapolis, MD. 21401

VIA Fax (410) 974-5338

**RE: Beach Elementary School Site Plan
Consistency Report**

Dear Mary;

This letter is to address the Site Plan for Beach Elementary School, as it relates to the Town Critical Area Protection Program and Zoning Ordinance. It is my understanding that the applicant has provided you with acceptable revised copies of the plans and 10% rule computations.

Site Location

The subject site is presently an elementary school located at the intersection of Old Bayside Road and Md. Rte. 261 - Bayside Road. The site consists of 2 separate parcels containing 6.1 acres. The Town Zoning is R-MD - Residential Medium Density and the Critical Area Land Use designation is IDA - Intensely Developed Area.

The portion of the site being proposed for development is mostly open and has some impervious surfaces, at this time. These surfaces are hard surface play areas. The proposal is for a small addition to satisfy the State required kindergarten facility. Additionally, a small amount of additional parking is being proposed, together with some landscaping around the perimeter.

Public water and sewer systems are presently serving this site.

Chesapeake Beach Critical Area Protection Program

Due to the absence of many the environmental features listed for protection in the program, this site has little impact on the Critical Area other than the introduction of new impervious surfaces. The building is being offset through the construction of non-structural drywells. The computations provided with the site plan for the removal of pollutants in the stormwater appear to be satisfactory.

As relates to the various programs within the protection program, as stated, above, there are no known environmentally critical features to address.

8200 BAYSIDE ROAD, P.O. BOX 400, CHESAPEAKE BEACH, MARYLAND 20732

(410) 257-2290 • (301) 855-8398

*Mrs. Mary Owens, Chief
Beach Elementary School Site Plan
Consistency Report
Page 2*

Chesapeake Beach Zoning Ordinance

The Critical Area Component for the Chesapeake Beach Zoning Ordinance is found in Article 4-400. The Zoning Ordinance requires consideration of the following, in developing within the Critical Area:

Article 4-404 **Buffer Regulations.** There are no Critical Area buffers on this site.

Article 4-405 **Non-tidal Wetlands Regulations** There are no Non-tidal Wetlands on or immediately adjacent to the site.

Article 4-406 **Rare Species and Habitat Protection Regulations** There are no known rare species and no habitat protection areas on or immediately adjacent to the site.

Article 4-408 **Woodland Reforestation and Afforestation Standards** There are no forested areas and no reforestation requirements with this site.

Article 4-409 **Agricultural, Soil Conservation and Water Quality Standards** Water quality improvements for the construction impact area are being provided through the 10% Rule and the dry-wells. The Soil Conservation Service has reviewed the plans and given an approval, unless other agencies required a revision which necessitated SCS to re-review the plans.

Article 4-410 **District Regulations (a)** Intensely Developed Areas requirements have been met.

In conclusion, this site has met all Critical Area requirements.

Should you have any questions, please feel free to call me at (410) 286-5222. Thank you.

Yours truly,



William R. Watson
Zoning Administrator



ENGINEERS • PLANNERS • SCIENTISTS • CONSTRUCTION MANAGERS

10 NORTH PARK DRIVE • HUNT VALLEY, MD 21030-1846 • 410-316-7800 • (FAX) 410-316-7853

September 21, 2005

IDA

Planning Commission of Calvert County
150 Main Street
Prince Frederick, Maryland 20678

Attention: Ms. Bobbie Hutchison

Subject: Calvert County Public Schools – Kindergarten Additions
Beach Elementary School
Water Quality Devices
KCI Job No. 01-053951

Dear Ms. Hutchison:

We are pleased to submit the attached plans for stormwater management review. KCI Technologies, Inc. was recently contracted as part of the project A/E team as the site/civil engineer for the kindergarten addition project at the above referenced location. The project is associated with the design and construction of a small kindergarten classroom addition. For funding purposes the project has been designed with a two (2) classroom addition as the base bid (approximately 3,250 s.f.), with an additional one (1) classroom addition as the add alternate bid (approximately 1,050 s.f.). If favorable bids are received all three (3) classrooms, totaling 4,300 s.f. will be constructed. If favorable bids are not received only the base bid (3,250 s.f.) will be constructed.

Based on the size of the new construction (minimal) all stormwater management is being provided via drywells to reduce rooftop run-off. The sizing for these Drywells was to be based on one inch (1") of runoff over the new roof area, with no more than five thousand square feet (5,000 sq. ft.) of roof area going to a single Drywell. The volumes for the Drywells have been provided in a table on the plans along with a detail showing the required sizes and materials. Drywells have been designed to accommodate both the base bid and add alternate construction.

The intent of this letter is to explain how the stormwater management devices were selected for this project and to be used as the stormwater management report.

Should you have any questions or comments regarding any of the information please feel free to call me at (410) 316-7983.

Very truly yours,

Nicholas C. Wilson
Senior Designer/Project Manager
Site & Facilities Engineering

cc: File

RECEIVED

OCT 18 2005

CRITICAL AREA COMMISSION

CRITICAL AREA FORM

April 21, 1999

If Your property is located within the Critical Area (land within 1,000 feet of the mean high water line of the Chesapeake Bay or Patuxent River, its tributaries or the landward boundary of tidal wetlands). Please complete the following information. Supplying this information will greatly expedite the processing time of your permit.

Owners Name: Calvert County Public. Serv. Address: 1305 Drees Peach Pond, Prince Frederick, MD 20678
 Phone: 410.539.1700 Tax ID: 03-057402 Tax Map: 103 Parcel: B Lot: —
Property address: 7900 old bay side Rd. Chesapeake Beach, MD 20752

Block: — Section: — IDA: LDA-3: — LDA: — RCA: —

Total square footage of disturbance for the property: 0.59 Ac.

1. Purpose of the permit: CONSTRUCT A SMALL KINDERGARTEN ADDITION.

2. Total square footage of ^{disturbance} distance for the project: 0.59 Ac.

3. Will any of the proposed disturbance occur within the 100 ft. Buffer adjacent to a tidal waterway or wetland? Yes: — No:

4. Do trees cover at least 15% of the property? Yes: No: —
 Calculate: size of property: — x 15% = — / 400 = — = approximate number of 6' tall and 1 1/2" caliper or larger trees required to meet the 15% tree cover requirement)

5. What is the square footage of the area of tree cover to be removed? 0 Sq. Ft.

6. Is the proposed building site on slopes of 15% or greater? Yes: — No: (If yes, this information should be shown on the plat. Any development on 15% or greater slopes will require a variance from the Board of Appeals.)

7. Identify on the plat any waterways and wetlands which may be adjacent to or on the property. (This includes both tidal and non-tidal river, bays, creeks, streams, marshlands, swamps, bogs, etc.)

8. Identify on the plat and give the square footage of the impervious areas on the property. (Impervious areas are surfaces through which water cannot seep. For example, house, garage, shed, pool, or driveways which are constructed with concrete, asphalt, or CR 6 stone, etc. Wooden decks are not included unless there is no spacing between the boards, they are covered, enclosed, or have an impervious surface underneath.)

Total square footage of existing impervious area = 4,350 sq. ft.
 Square footage of proposed impervious area = 4,792 sq. ft. - (4,300 sq. ft. for rooftop runoff discount credit)

Note: Lot under 1/2 acre may not have impervious area in excess of 25% of total lot area.
 Lots over 1/2 acre may not have impervious area in excess of 15% of total lot area.
 If the recorded plat for this property indicates the impervious area limit to be different than indicated above, we will be required to use that amount.

9. In addition, if the property is in the IDA designation, then section 4-7.06 of the Calvert County Zoning ordinance will need to be addressed.

ADDITIONAL INFORMATION REQUIRED FOR WATER DEPENDENT PROJECTS:

10. What type of water dependent project are you proposing?

- A. Private Pier Yes _____ N/A
- B. Community Pier Yes _____ N/A
- C. Revetment Yes _____ N/A
- D. Marsh Creation Yes _____ N/A
- E. Other _____

How many feet of shoreline exist on site? 0

11. The drawings/plats to be submitted with the building permit application must include the following:

- A. Show both existing and proposed water dependent facilities on the plat.
- B. Show the lateral lines and adjacent properties shorelines - must stay 25 feet from each lateral line (See Section 5-4.06 of the Calvert County Zoning Ordinance)
- C. Show harbor line if applicable (See Harbor Line map in the office of Planning and Zoning.)

12. A County Building Permit Application must be submitted with the following additional information if proposing a water dependent project which meets the requirements of the State of Maryland Pier and Piling Notification Form.

- A. A copy of the completed State of Maryland Pier and Piling Notification Form
- B. A copy of the approval letter from the state
- C. A completed County grading permit or grading exemption form if applicable

13. A County Building Permit Application must be submitted with the following additional information if proposing a water dependent project which does not meet requirements in # 12 above.

- A. Copy of State approval(s)
- B. Copy of Federal approval letter(s)
- C. A completed County grading permit or grading exemption form if applicable

I hereby certify that I have the authority to make this application and the information given is correct.

DATE: _____ SIGNATURE: _____
(Property owner or authorized agents)

See the Calvert County Zoning Ordinance and the Calvert County Critical Area Program for additional information and requirements.

Worksheet A: Standard Application Process

Calculating Pollutant Removal Requirements'

Step 1: Calculate Existing and Proposed Site Imperviousness

A. Calculate Percent Imperviousness

- 1) Site Area within the Critical Area IDA, A = 0.59 acres
- 2) Site Impervious Surface Area, Existing and Proposed, (See Table 4.1 for details)

	(a) Existing (acres)	(b) Proposed (acres)
Roads	_____	_____
Parking lots	_____	_____
Driveways	_____	_____
Sidewalks/paths	_____	<u>0.02</u>
Rooftops	_____	<u>0.11 (0.12 rooftop credit)</u>
Decks	_____	_____
Swimming pools/ponds	_____	_____
Other	<u>0.10 (paved play area)</u>	_____
Impervious Surface Area	<u>0.10</u>	<u>0.13 - 0.11 = 0.02</u>

3) Imperviousness (I)

Existing Imperviousness, I_{pre} = Impervious Surface Area / Site Area
 = (Step 2a) / (Step 1)
 = $(\frac{0.10}{0.59}) / (\frac{0.11}{0.59})$
 = $\frac{18.64}{16.95}$ %

Proposed Imperviousness, I_{post} = Impervious Surface Area / Site Area
 = (Step 2b) / (Step 1)
 = $(\frac{0.02}{0.59}) / (\frac{0.59}{0.59})$
 = $\frac{3.39}{3.39}$ %

↑ Rooftop disconnect credit

B. Define Development Category (circle)

- 1) New Development: Existing imperviousness less than 15% I (Go to Step 2A)
- 2) Redevelopment: Existing imperviousness of 15% I or more (Go to Step 2B)
- 3) Single Lot Residential Development: 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).

¹ NOTE: All acreage used in this worksheet refers to areas within the IDA of the Critical Area only.

Section 4.0 Standard Application Process

Step 2: Calculate the Predevelopment Load (L_{pre})

A. New Development

$$L_{pre} = (0.5) (A)$$

$$= (0.5) (\underline{\hspace{2cm}})$$

$$= \underline{\hspace{2cm}} \text{ lbs /year of total phosphorus}$$

Where:

- L_{pre} = Average annual load of total phosphorus exported from the site prior to development (lbs/year)
- 0.5 = Annual total phosphorus load from undeveloped lands (lbs/acre/year)
- A = Area of the site within the Critical Area IDA (acres)

B. Redevelopment

$$L_{pre} = (R_v) (C) (A) (8.16)$$

$$R_v = 0.05 + 0.009 (I_{pre}) \quad 16.95 = .202$$

$$= 0.05 + 0.009 (\underline{18.64}) = \underline{0.21776}$$

$$L_{pre} = (\underline{0.21776}) (\underline{0.30}) (\underline{0.59}) (8.16)$$

$$= \underline{0.31} \text{ lbs/year of total phosphorus}$$

Where:

- L_{pre} = Average annual load of total phosphorus exported from the site prior to development (lbs/year)
- R_v = Runoff coefficient, which expresses the fraction of rainfall which is converted into runoff
- I_{pre} = Pre-development (existing) site imperviousness (i.e., 1 = 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 the site within the Critical Area IDA (acres)
- 8.16 = Includes regional constants and unit conversion factors

Step 3: Calculate the Post-Development Load (L_{post})

A. New Development and Redevelopment:

$$L_{post} = (R_v) (C) (A) (8.16)$$

$$R_v = 0.05 + 0.009 (I_{post})$$

$$= 0.05 + 0.009 (\overset{.050}{0.02}) = \overset{.050}{0.0518}$$

$$L_{post} = (\overset{.050}{0.0518}) (\overset{.07}{0.30}) (\overset{.07}{0.59}) (8.16)$$

$$= \overset{.07}{0.07} \text{ lbs/year of total phosphorus}$$

Where:

- L_{post} = Average annual load of total phosphorus exported from the post-development site (lbs/year)
- R_v = Runoff coefficient, which expresses the fraction of rainfall which is converted into runoff
- I_{post} = Post-development (proposed) 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 the site within the Critical Area IDA (acres)
- 8.16 = includes regional constants and unit conversion factors

Step 4: Calculate the Pollutant Removal Requirement (RR)

$$RR = L_{post} - (0.9) (L_{pre})$$

$$= (\overset{.07 - .9(.29)}{0.07}) - (0.9) (\overset{.07 - .261}{0.31})$$

$$= \overset{.07 - .261}{-0.21} \text{ lbs/year of total phosphorus}$$

Where:

- RR = Pollutant removal requirement (lbs/year)
- L_{post} = Average annual load of total phosphorus exported from the post-development site (lbs/year)
- L_{pre} = Average annual load of total phosphorus exported from the site prior to development (lbs/year)

Section 4.0 Standard Application Process

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.

BMP Type	(L_{post})	x	(BMP_{RE})	x	(% DA Served)	=	LR
_____	_____	x	_____	x	_____	=	_____ lbs/year
_____	_____	x	_____	x	_____	=	_____ lbs/year
_____	_____	x	_____	x	_____	=	_____ lbs/year
_____	_____	x	_____	x	_____	=	_____ lbs/year
Load Removed, LR (total) =							_____ lbs/year
Pollutant Removal Requirement, RR (from Step 4) =							<u>-0.21</u> lbs/year

Where:

- Load Removed, LR = Annual total phosphorus load removed by the proposed BMP (lbs/year)
- L_{post} = Average annual load of total phosphorus exported from the post-development site (lbs/year)
- BMP_{RE} = BMP removal efficiency for total phosphorus, Table 4.8 (%)
- % DA Served = Fraction of the site area within the critical area IDA served by the BMP (%)
- RR = Pollutant removal requirement (lbs/year)

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.

Has the RR (pollutant removal requirement) been met? Yes No

FOREST CONSERVATION WORKSHEET

Project: Beach Elementary School Application #: _____
 Tax ID #: 03-057402 Tax Map #: 103 Parcel #: 8 Lot #: n/a

EXEMPTIONS:

This project is exempt per Section: _____ of the Forest Conservation Program. If applicable, Declarations of Intent must be attached. For projects which are exempt based on lot size, site area must be provided in (A) below. For projects which are exempt based on the 40,000 s.f. clearing threshold, total forest area to be cleared must be provided in (M) below.

FOR PROJECTS THAT ARE NOT EXEMPT, OR AS NOTED ABOVE:

INPUT:	A)	Total site area	10.89 AC
	B)	Area within 100 yr. floodplain	<u>0</u>
	C)	Area of Ag. land (no chng in status)	<u>0</u>
	D)	Net tract Area	10.89 AC.
	E)	Land Use Category	<u>Institutional</u>
	F)	Afforestation Threshold (see Table on back)	<u>15%</u>
	G)	Conservation Threshold (see Table on back)	<u>15%</u>
	H)	Current Forest Cover	2.27 AC.
	I)	Forest Area above Afforestation Threshold	<u>1.63</u>
	J)	Forest Area above Conservation Threshold	<u>1.63</u>
	K)	Amount above Cons. Threshold to be cleared	<u>0</u>
	L)	Amount below Cons. Threshold to be cleared	<u>0</u>
	M)	Total Forested Area to be cleared	<u>0</u>
	N)	Forested Area above Cons Thresh to be saved	<u>0.64</u>

CALCULATIONS

Break-even Point

O) Acres above Cons. Threshold to be retained for no required reforestation: J * 20% 0.33

Afforestation Requirement

P) Forested Acres required: D * F 1.63
 Q) Acres to be Afforested: P - H -0.64

Reforestation Requirement

R) Acres cleared above Threshold: K * 1/4 0
 S) Acres cleared below Threshold: L * 2.0 0
 T) Reforestation Credit: N * 1.0 0.64
 U) Total Reforestation Requirement: R+S-T 0

Total Planting Requirement:

V) Afforestation and Reforestation: Q + U 0 On-site
V * 2.0 0 Off-site

Total Forest Preservation:

W) Current Forest cover saved: H - M 2.27 AC.

Planting Fees-in-Lieu: $V * 2.0 * \$0.45/sf$ Amount: _____
 Forestry TDR purchase: Round up (V * 2.0) TDR(s) to be purchased: _____

Prepared by: Nicholas Wilson KCI Technologies, Inc.
Name Firm

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FEB 28 2006

LAGANA, CHARLES 1400/187

GOTT, LUCIA A 202/840

PATRICIA E. & LAUREN DALE VINCENT 1868/769

BEAN, JONATHAN W 715/486

MICHAEL A. & SUSAN L. MCGUIAN 517/602

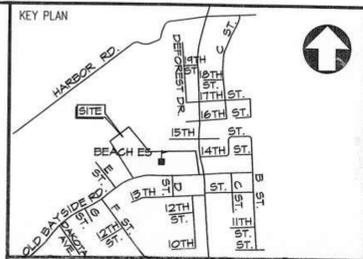
JOHN S. JR. & SHEILA K. L. MORETZ 916/128

INDEX OF SITE PLANS

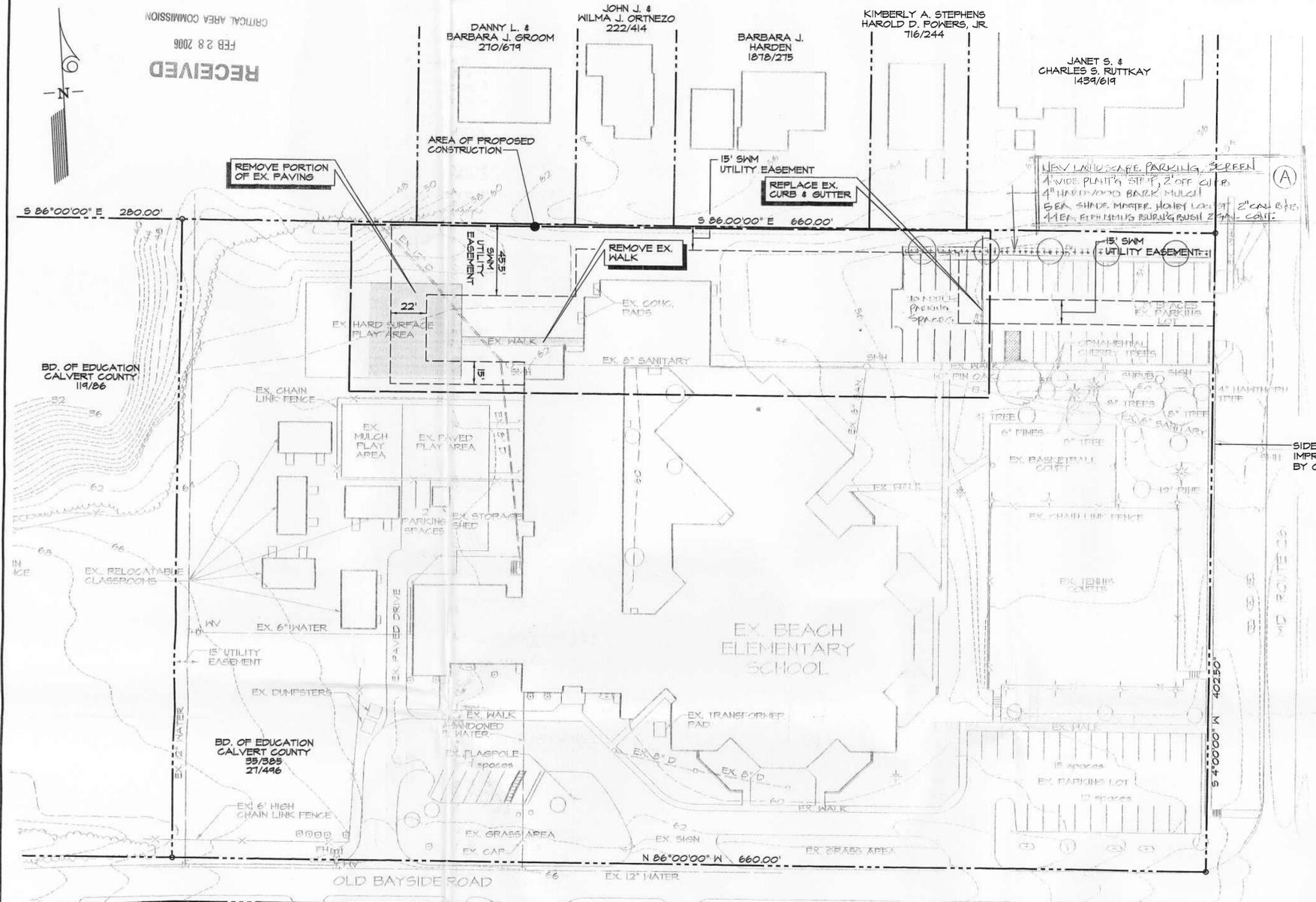
- C-1 EXISTING CONDITIONS/DEMOLITION PLAN
- C-2 SITE PLAN
- C-3 EROSION AND SEDIMENT CONTROL NOTES AND DETAILS

GENERAL NOTES

- THE CONTRACTOR SHALL NOTIFY "MISS UTILITY" (1-800-257-7777) AT LEAST FIVE (5) WORKING DAYS PRIOR TO STARTING ANY WORK.
- TOPOGRAPHIC & BOUNDARY INFORMATION SHOWN HEREON IS BASED ON THE EXISTING BEACH ELEMENTARY SCHOOL CONTRACT DRAWINGS DATED JUNE, 1980 PROVIDED BY CALVERT COUNTY PUBLIC SCHOOLS.
- EXISTING UTILITY INFORMATION SHOWN HEREON IS BASED ON THE BEST AVAILABLE INFORMATION PROVIDED BY CALVERT COUNTY PUBLIC SCHOOLS.
- OBSTRUCTIONS SHOWN ON THIS DRAWING ARE FOR THE CONVENIENCE OF THE CONTRACTOR ONLY. KCI TECHNOLOGIES, INC. DOES NOT WARRANT OR GUARANTEE THE CORRECTNESS OR THE COMPLETENESS OF THE INFORMATION GIVEN. THE CONTRACTOR SHALL VERIFY ALL SUCH INFORMATION TO HIS OWN SATISFACTION. IN THE EVENT THAT INFORMATION IS IN CONFLICT WITH INFORMATION OBTAINED BY THE CONTRACTOR, THE CONTRACTOR SHALL IMMEDIATELY NOTIFY THE ARCHITECT PRIOR TO STARTING ANY WORK.
- CONTRACTOR SHALL REMOVE DRIVEWAY ENTRANCES, STRUCTURES, AND CONCRETE WALK TO LIMITS INDICATED ON THE DRAWING.
- CONTRACTOR SHALL NOT PROCEED WITH ANY DEMOLITION WORK UNTIL ALL UTILITY DISCONNECTIONS HAVE BEEN COMPLETED AND VERIFIED IN WRITING BY UTILITY COMPANY.
- BURNING OF COMBUSTIBLE MATERIALS FROM DEMOLISHED STRUCTURES WILL NOT BE PERMITTED ON-SITE.
- SEE SITE PLAN FOR LIMITS OF APPROXIMATE SIDEWALK, CURB AND GUTTER AND PAVING REMOVAL.
- EXISTING CURB AND GUTTER & CONCRETE SIDEWALK SHALL BE REMOVED TO THE NEAREST JOINT.
- THE CONTRACTOR SHALL SUBMIT A DEMOLITION/CONSTRUCTION STAGING PLAN TO THE OWNER AND ARCHITECT FOR APPROVAL, PRIOR TO BEGINNING ANY CONSTRUCTION.
- CONTRACTOR TO VERIFY LOCATION AND ELEVATION OF EXISTING UTILITIES SHOWN HEREON BEFORE STARTING ANY WORK ON THESE PLANS. CONTRACTOR AGREES TO BE FULLY RESPONSIBLE FOR THE COST OF ANY AND ALL DAMAGES WHICH OCCUR AS A RESULT OF A FAILURE TO EXACTLY LOCATE AND PRESERVE ANY AND ALL EXISTING UTILITIES TO REMAIN.
- ALL WORK SHALL BE ACCOMPLISHED IN ACCORDANCE WITH THE CONTRACT DOCUMENTS.
- CONTRACTOR SHALL ADJUST ALL FRAMES, GRATES AND COVERS OF ALL EXISTING UTILITIES WITHIN THE LIMITS OF THE CONTRACT TO THE PROPOSED GRADES AS REQUIRED.
- THE CONTRACTOR SHALL MAINTAIN POSITIVE DRAINAGE AWAY FROM STRUCTURES AT ALL TIMES.
- CONTRACTOR SHALL COORDINATE ALL DISCONNECTIONS AND REMOVAL OF EXISTING GAS, ELECTRIC AND TELEPHONE SERVICES AND EQUIPMENT WITH BALTIMORE GAS & ELECTRIC AND VERIZON. SEE MECHANICAL AND ELECTRICAL PLANS FOR ADDITIONAL INFORMATION.
- CONTRACTOR SHALL REMOVE AND DISPOSE OF ALL EXISTING MECHANICAL AND ELECTRICAL EQUIPMENT AND ACCESSORIES NOT REMOVED BY LOCAL UTILITY COMPANIES, OR SPECIFIED TO BE REMOVED BY OWNER.
- CONTRACTOR SHALL INSTALL SEDIMENT CONTROLS PRIOR TO BEGINNING ANY WORK AND SHALL MAINTAIN SEDIMENT CONTROLS THROUGHOUT THE ENTIRE DURATION OF DEMOLITION & CONSTRUCTION ACTIVITIES, IN ACCORDANCE WITH ALL APPLICABLE STATE & COUNTY REQUIREMENTS.
- ALL UTILITY LINES, STRUCTURES, ETC. SHALL BE REMOVED IN THEIR ENTIRETY UNLESS OTHERWISE INDICATED. UTILITY AND UNDERGROUND STRUCTURE REMOVAL AND/OR ABANDONMENT SHALL BE COMPLETED IN ACCORDANCE WITH THE LATEST ANNE CALVERT CO. STD. DETAILS AND SPECIFICATIONS. ALL EXCAVATION SHALL BE BACKFILLED IN ACCORDANCE WITH THE PROJECT SPECIFICATIONS. IN THE EVENT THAT A PORTION OF A UTILITY IS TO BE REMOVED THE CONTRACTOR SHALL TERMINATE & CAP TO THE LIMITS INDICATED IN ACCORDANCE WITH ALL STATE & LOCAL REQUIREMENTS.
- IT SHALL BE DISTINCTLY UNDERSTOOD THAT FAILURE TO MENTION SPECIFICALLY ANY WORK WHICH WOULD NORMALLY BE REQUIRED TO COMPLETE THIS PROJECT SHALL NOT RELIEVE THE CONTRACTOR OF HIS RESPONSIBILITY TO COMPLETE SUCH WORK.
- IT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR TO NOTIFY THE ENGINEER OF ANY DEVIATION FROM THIS PLAN PRIOR TO ANY CHANGE BEING MADE. ANY DEVIATION FROM THIS PLAN WITHOUT WRITTEN AUTHORIZATION FROM THE ENGINEER WILL BE THE RESPONSIBILITY OF THE CONTRACTOR.
- SEE MECHANICAL & ELECTRICAL PLANS FOR ADDITIONAL INFORMATION RELATED TO GAS, TELEPHONE & ELECTRICAL SERVICE.
- THE DEMOLITION INFORMATION SHOWN ON THIS DRAWING IS FOR THE CONVENIENCE OF THE CONTRACTOR ONLY. IT IS THE CONTRACTOR'S RESPONSIBILITY TO DETERMINE THE EXACT LIMITS OF DEMOLITION AND REMOVAL OF AFFECTED SITE ITEMS.
- FOR "BASE BID" SITE PLAN SEE SHEET C-2A.
- FOR ADD ALTERNATE SITE PLAN SEE SHEET C-2A.
- FOR EROSION AND SEDIMENT CONTROL NOTES AND DETAILS SEE SHEET C-3A.
- PROPOSED CONSTRUCTION FOR THIS PROJECT WILL NOT AFFECT ANY CRITICAL AREAS, FLOODPLAINS, WETLANDS OR ADJACENT STREAMS.
- THE CONTRACTOR MUST NOTIFY DEPARTMENT OF INSPECTIONS AND PERMITS AT LEAST 48 HOURS PRIOR TO THE START OF CONSTRUCTION.
- NO NEW LIGHTING FACILITIES ARE PROPOSED.



VICINITY MAP SCALE: 1" = 1000'



EXISTING CONDITIONS / DEMOLITION PLAN

SCALE: 1" = 40'

STORM DRAINAGE IMPACT STATEMENT

A FIELD INVESTIGATION OF THE OUTFALL FOR THE PROPOSED DEVELOPMENT AND THE EXISTING GROUND DRAINAGE WAS CONDUCTED BY KCI TECHNOLOGIES, INC. THE PROPOSED DEVELOPMENT IS MINIMAL AND DOES NOT ALTER THE EXISTING DRAINAGE AREA FOR THE PROPERTY. THE PROPOSED ROOF IS TREATED FOR WATER QUALITY BY UNDERGROUND DRYWELLS. THE REMAINDER OF THE PROPOSED DEVELOPMENT SHEET FLOWS TO THE EXISTING WOODS THE SAME AS IT DID UNDER EXISTING CONDITIONS. THE OUTFALL IS WELL VEGETATED AND ESTABLISHED, SHOWING NO SIGNS OF EROSION, THEREFORE, THE RUNOFF GENERATED BY THE PROPOSED DEVELOPMENT WILL NOT ADVERSELY IMPACT THE EXISTING OUTFALL OR ITS RECEIVING WATER COURSE.

SITE DATA

- OWNER: BOARD OF EDUCATION CALVERT COUNTY, MARYLAND 1305 DARES BEACH ROAD PRINCE FREDERICK, MARYLAND 20618-4208
- PROPERTY: TAX MAP 103, PARCEL 8
- PROPERTY ADDRESS: 1900 OLD BAYSIDE ROAD CHESAPEAKE BEACH 20732
- TAX ACCOUNT NO.: 03-051402
- ELECTION DISTRICT: 03
- DEED: ANR/35/365 & ANR/21/446
- LOT AREA: 14.98 ACRES
- EXISTING USE: ELEMENTARY SCHOOL
- PROPOSED USE: ELEMENTARY SCHOOL (KINDERGARTEN CLASSROOM ADDITION)
- WATER AND SEWER: PUBLIC WATER AND SEWER
- ADC MAP: ADC MAP PAGE 4, GRID F-12
- EXISTING BLDG. FLOOR AREA 51,508± S.F. PROPOSED BLDG. FLOOR AREA 4,300± S.F. (TOTAL) BASE BID 3,250± S.F. + ADD ALTERNATE 1,050± S.F.
- EXISTING TEACHING STATIONS = 23. NEW TEACHING STATIONS = 2. BASE BID, 1 ADD ALTERNATE. TOTAL EXISTING PARKING SPACES = 65. TOTAL SPACES ADDED BY CCPS DURING FALL 06' = 10

LEGEND

- EX. INDEX CONTOUR
- EX. INTERMEDIATE CONTOUR
- EX. 12" D STORM DRAIN
- EX. 18" SANITARY
- EX. 6" WATER
- EX. CHAIN LINK FENCE
- EX. FIRE HYDRANT
- EX. WATER VALVE
- EX. TREES
- EX. SHRUBS
- EX. FLAGPOLE
- EX. MANHOLE
- EX. SIGN
- EX. LIGHT POLE
- EX. INLET
- APPROXIMATE LIMITS OF EXISTING SIDEWALKS, CURBS, AND HARD SURFACE PLAY AREAS TO BE REMOVED

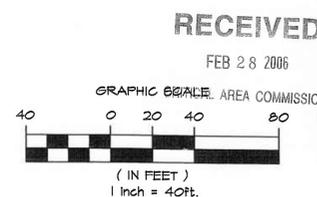
APPROVALS

CHESAPEAKE BEACH PLANNING AND ZONING COMMISSION

CHAIRMAN _____ DATE _____

CALVERT CONSERVATION DISTRICT

DIRECTOR _____ DATE _____



100% CONSTRUCTION DOCUMENTS

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2-22-04

G|W
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I CERTIFY THAT THESE DOCUMENTS WERE PREPARED OR APPROVED BY ME, AND THAT I AM A DULY LICENSED ENGINEER UNDER THE LAWS OF THE STATE OF MARYLAND.
LICENSE NUMBER _____, EXPIRATION DATE _____

Revisions:

Sym.	Date	Ref.
(A)	2/23/06	Revised for Screen Wall CCPS

Project Title: **Addition Beach ES Chesapeake Beach, MD**
CCPS

Job No. 01054023 CTB/BES
Scale BES
Date SEPTEMBER 9, 2005 MAL
Drawing Title: EXISTING CONDITIONS/DEMOLITION PLAN
Drawing Number: **C-1**

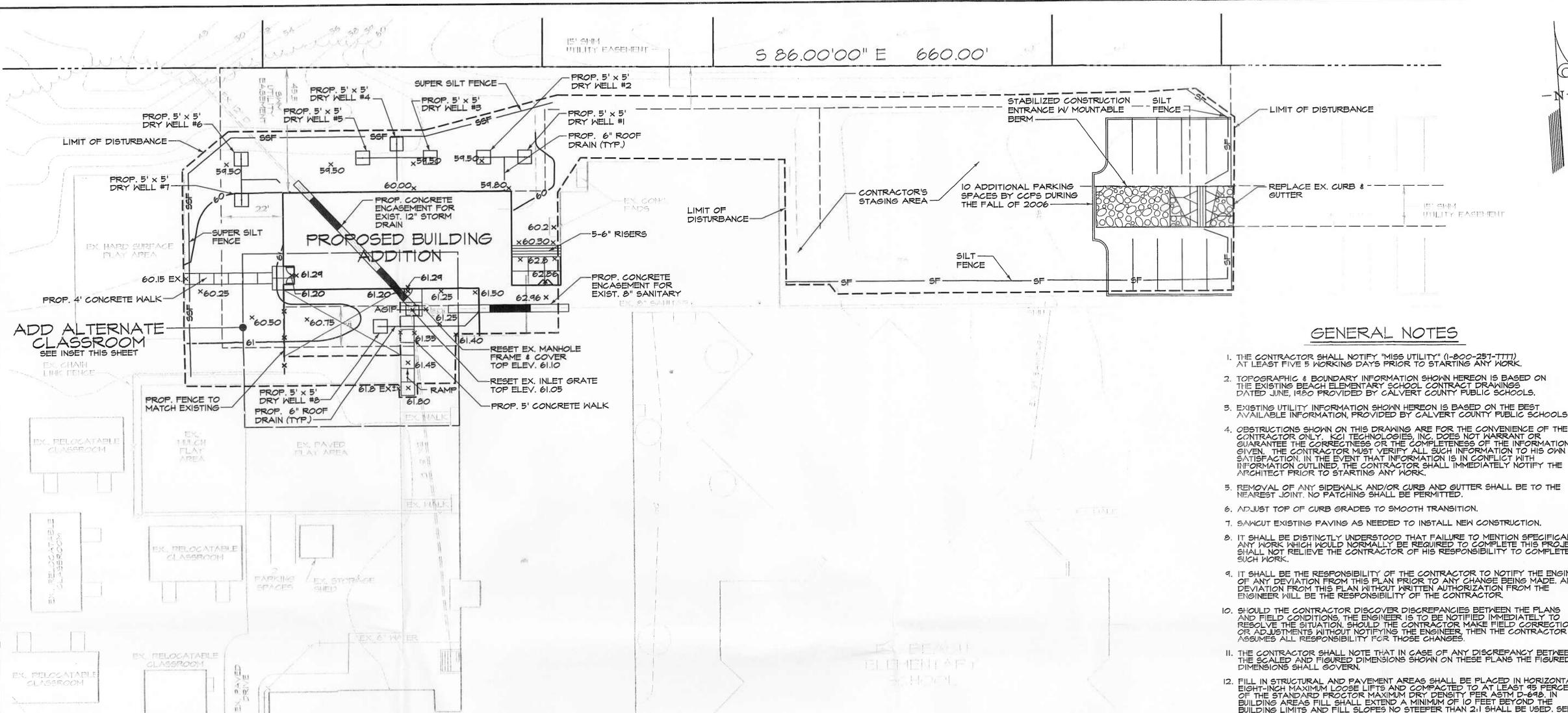
RECEIVED

FEB 28 2006

GRAPHIC SCALE: AREA COMMISSION

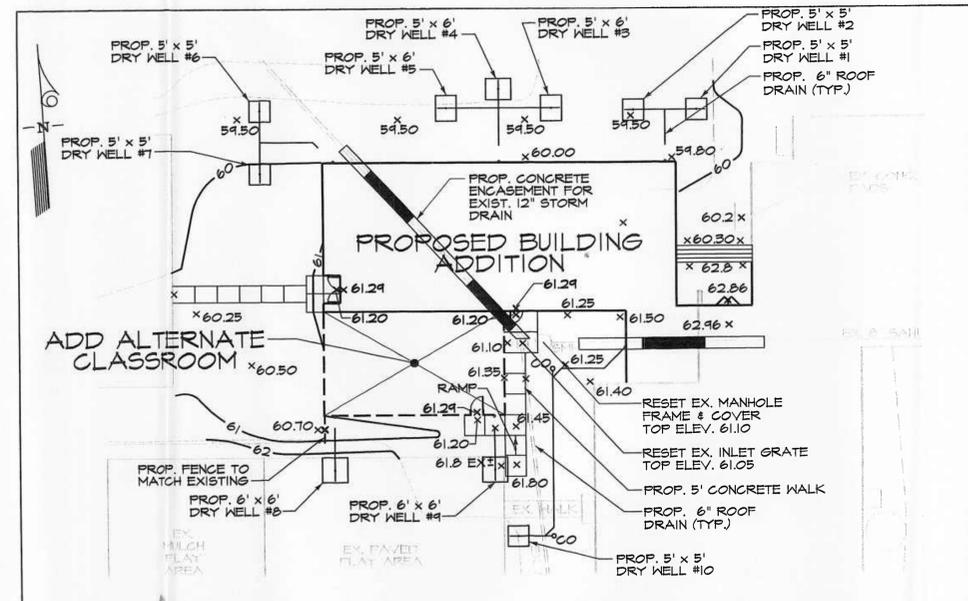
Sheet

CF



SITE PLAN
SCALE: 1" = 20'

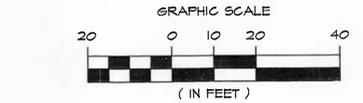
- LEGEND**
- EX. INDEX CONTOUR
 - EX. INTERMEDIATE CONTOUR
 - EX. 12" D. STORM DRAIN
 - EX. 8" SANITARY
 - EX. 6" WATER
 - EX. CHAIN LINK FENCE
 - EX. WATER VALVE
 - EX. TREES
 - EX. SHRUBS
 - EX. FLAGPOLE
 - EX. MANHOLE
 - EX. SIGN
 - EX. LIGHT POLE
 - EX. INLET
 - PROPOSED FENCE
 - PROPOSED SIDEWALK
 - PROPOSED CONCRETE ENCASUREMENT
 - AT GRADE INLET PROTECTION
 - PROPOSED DRYWELL
 - PROPOSED CONTOUR
 - LIMIT OF DISTURBANCE
 - SILT FENCE
 - SUPER SILT FENCE
 - PROPOSED CURB & GUTTER
 - STABILIZED CONSTRUCTION ENTRANCE



ADD ALTERNATE CLASSROOM INSET
SCALE: 1" = 20'

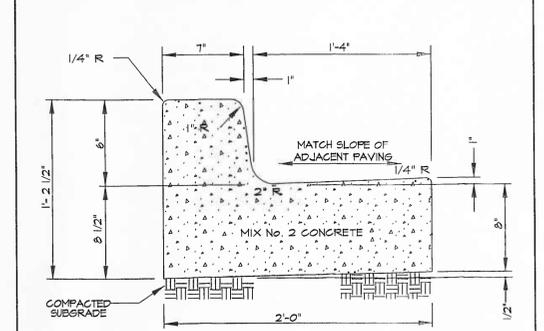
GENERAL NOTES

1. THE CONTRACTOR SHALL NOTIFY "MISS UTILITY" (1-800-257-7777) AT LEAST FIVE (5) WORKING DAYS PRIOR TO STARTING ANY WORK.
2. TOPOGRAPHIC & BOUNDARY INFORMATION SHOWN HEREON IS BASED ON THE EXISTING BEACH ELEMENTARY SCHOOL CONTRACT DRAWINGS DATED JUNE, 1980 PROVIDED BY CALVERT COUNTY PUBLIC SCHOOLS.
3. EXISTING UTILITY INFORMATION SHOWN HEREON IS BASED ON THE BEST AVAILABLE INFORMATION, PROVIDED BY CALVERT COUNTY PUBLIC SCHOOLS.
4. OBSTRUCTIONS SHOWN ON THIS DRAWING ARE FOR THE CONVENIENCE OF THE CONTRACTOR ONLY. KCI TECHNOLOGIES, INC. DOES NOT WARRANT OR GUARANTEE THE CORRECTNESS OR THE COMPLETENESS OF THE INFORMATION GIVEN. THE CONTRACTOR MUST VERIFY ALL SUCH INFORMATION TO HIS OWN SATISFACTION. IN THE EVENT THAT INFORMATION IS IN CONFLICT WITH INFORMATION OBTAINED, THE CONTRACTOR SHALL IMMEDIATELY NOTIFY THE ARCHITECT PRIOR TO STARTING ANY WORK.
5. REMOVAL OF ANY SIDEWALK AND/OR CURB AND GUTTER SHALL BE TO THE NEAREST JOINT. NO PATCHING SHALL BE PERMITTED.
6. ADJUST TOP OF CURB GRADES TO SMOOTH TRANSITION.
7. SANGUINATE EXISTING PAVING AS NEEDED TO INSTALL NEW CONSTRUCTION.
8. IT SHALL BE DISTINCTLY UNDERSTOOD THAT FAILURE TO MENTION SPECIFICALLY ANY WORK WHICH WOULD NORMALLY BE REQUIRED TO COMPLETE THIS PROJECT SHALL NOT RELIEVE THE CONTRACTOR OF HIS RESPONSIBILITY TO COMPLETE SUCH WORK.
9. IT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR TO NOTIFY THE ENGINEER OF ANY DEVIATION FROM THIS PLAN PRIOR TO ANY CHANGE BEING MADE. ANY DEVIATION FROM THIS PLAN WITHOUT WRITTEN AUTHORIZATION FROM THE ENGINEER WILL BE THE RESPONSIBILITY OF THE CONTRACTOR.
10. SHOULD THE CONTRACTOR DISCOVER DISCREPANCIES BETWEEN THE PLANS AND FIELD CONDITIONS, THE ENGINEER IS TO BE NOTIFIED IMMEDIATELY TO RESOLVE THE SITUATION. SHOULD THE CONTRACTOR MAKE FIELD CORRECTIONS OR ADJUSTMENTS WITHOUT NOTIFYING THE ENGINEER, THEN THE CONTRACTOR ASSUMES ALL RESPONSIBILITY FOR THOSE CHANGES.
11. THE CONTRACTOR SHALL NOTE THAT IN CASE OF ANY DISCREPANCY BETWEEN THE SCALED AND FIGURED DIMENSIONS SHOWN ON THESE PLANS THE FIGURED DIMENSIONS SHALL GOVERN.
12. FILL IN STRUCTURAL AND PAVEMENT AREAS SHALL BE PLACED IN HORIZONTAL EIGHT-INCH MAXIMUM LOOSE LIFTS AND COMPACTED TO AT LEAST 95 PERCENT OF THE STANDARD PROCTOR MAXIMUM DRY DENSITY PER ASTM D-698. IN BUILDING AREAS FILL SHALL EXTEND A MINIMUM OF 10 FEET BEYOND THE BUILDING LIMITS AND FILL SLOPES NO STEEPER THAN 2:1 SHALL BE USED. SEE THE PROJECT SPECIFICATIONS FOR ADDITIONAL INFORMATION.
13. ALL CONSTRUCTION SHALL BE COMPLETED IN ACCORDANCE WITH THE LATEST CALVERT COUNTY STANDARD DETAILS AND SPECIFICATIONS AND ALL REVISIONS THERETO, UNLESS OTHERWISE NOTED.
14. THE CONTRACTOR SHALL MAINTAIN POSITIVE DRAINAGE TO SWALES AND/OR STORM DRAIN SYSTEMS AT ALL TIMES.
15. FOR EXISTING CONDITIONS / DEMOLITION PLAN SEE SHEET C-1.

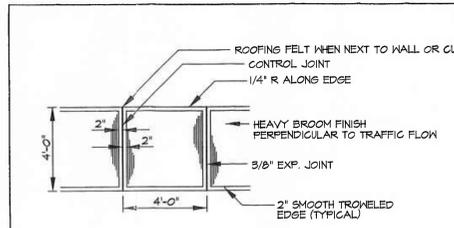


SEDIMENT CONTROL QUANTITY TABLE

TOTAL PROJECT AREA	265,716 SQ. FT.
TOTAL DISTURBED AREA	25,605 SQ. FT.
TOTAL AREA TO BE SEEDED AND MULCHED	40,407 SQ. FT.
TOTAL NUMBER OF CONSTRUCTION ENTRANCE	150 SQ. FT.
TOTAL LENGTH OF SILT FENCE	250 FT.
TOTAL LENGTH OF SUPER SILT FENCE	205 FT.
TOTAL NUMBER OF INLET PROTECTION DEVICES	1 EA.



COMBINATION CURB AND GUTTER
SCALE: N.T.S.



CONCRETE SIDEWALK
SCALE: N.T.S.

100% CONSTRUCTION DOCUMENTS

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**Addition
Beach ES
Chesapeake Beach, MD
CCPS**

Job No. 01054023
Scale BES
Date SEPTEMBER 9, 2005
Drawing Title SITE PLAN

CTB/BES
BES
MAL
Drawing Number

Sheet C-2 of