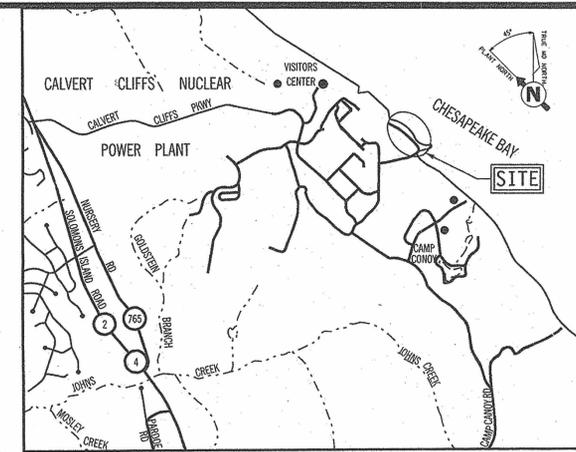


CALVERT CLIFFS POWER PLANT INTAKE PUMP TEST WELLS SEDIMENT CONTROL PLANS



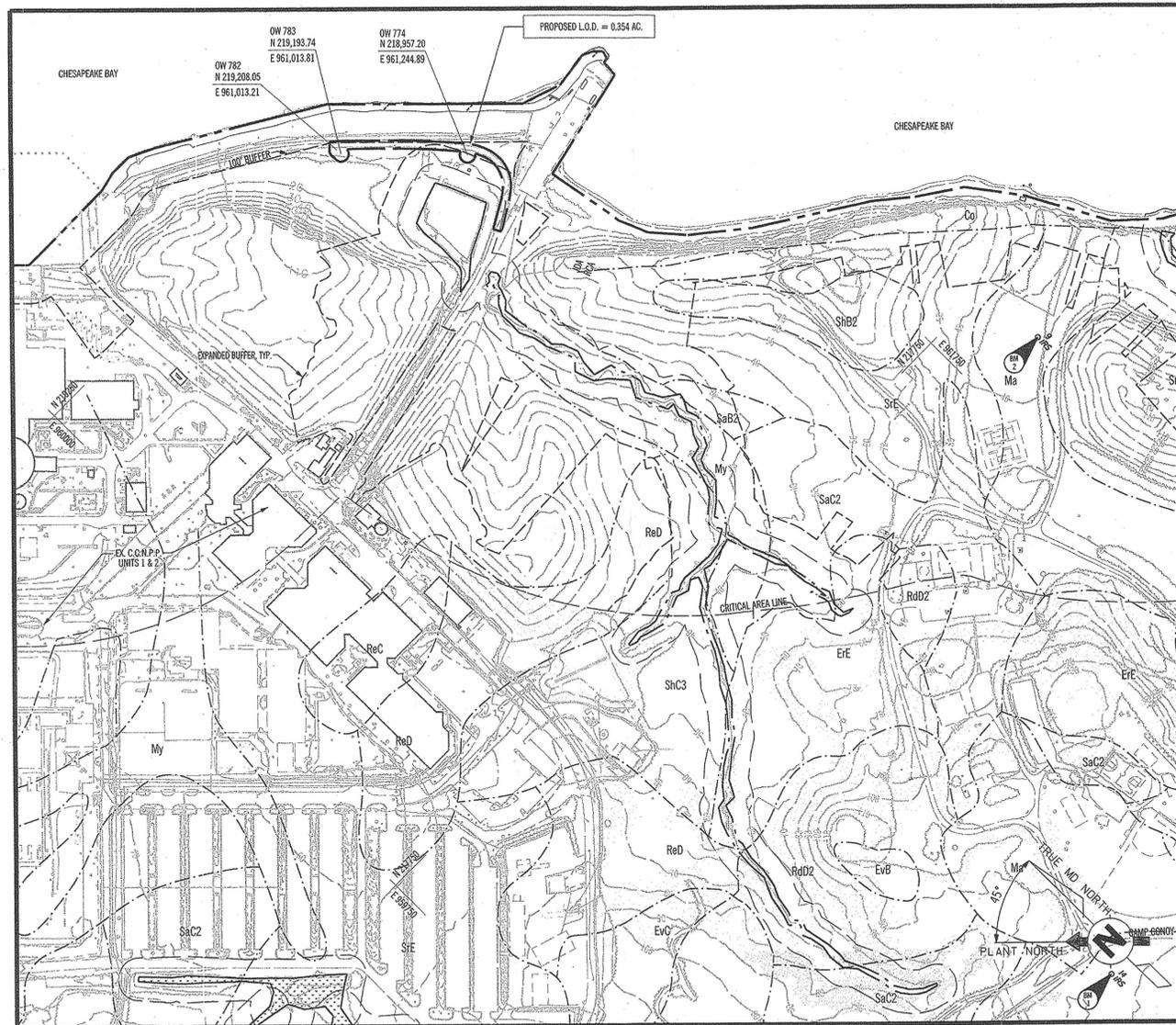
VICINITY MAP
SCALE: 1"=2000'
ADC MAP: 16617

SITE WORK SPECIFICATIONS

- I. EARTHWORK**
- A. GENERAL:**
- 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.
 - ALL SLOPES SHALL BE STABILIZED IMMEDIATELY AFTER COMPLETION OF GRADING SAID SLOPES.
 - ALL FILL SLOPES SHALL BE STABILIZED IMMEDIATELY AFTER COMPLETION OF GRADING SAID SLOPES.
- B. 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 2008, AS AMENDED. THE CONSTRUCTION SHALL ALSO BE GOVERNED BY THE STATE OF MARYLAND DEPARTMENT OF ENVIRONMENT PERMITS, U.S. ARMY CORPS OF ENGINEER PERMITS, AND THE MARYLAND STATE HIGHWAY AND COUNTY ROAD, GRADING AND BUILDING PERMITS, WHERE APPLICABLE.**
- C. BACKFILL AND FILL:**
- USE SATISFACTORY ONSITE 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 EXCAVATION AND BACKFILL, USE SATISFACTORY EXCAVATED OR BORROW MATERIAL.
 - UNDER GRASSED AREAS, USE SATISFACTORY EXCAVATED OR BORROW MATERIAL.
- D. GRADING:**
- GENERAL: UNIFORMLY GRADE AREAS WITHIN LIMITS OF GRADING. SMOOTH FINISHED SURFACES WITHIN SPECIFIED TOLERANCES, COMPACT WITH UNIFORM LEVELS OR SLOPES BETWEEN SUCH POINTS AND EXISTING GRADINGS. GRADE SMOOTH AND EVEN. FREE OF HOLES, COMPACTED AS SPECIFIED, AND TO REQUIRED ELEVATION. PROVIDE FINAL GRADINGS WITH A TOLERANCE OF 1/2" WITH POSITIVE DRAINAGE.
- E. 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.
- F. MAINTENANCE:**
- PROTECTION OF GRADED AREAS.
 - PROTECT NEWLY GRADED AREAS FROM TRAFFIC AND EROSION. KEEP FREE OF TRASH AND DEBRIS.
 - REPAIR AND REESTABLISH GRADINGS IN SETTLED, ERODED, AND RUTTED AREAS TO SPECIFIED TOLERANCES.

SITE WORK SPECIFICATIONS (CONT'D)

- G. DISPOSAL OF EXCESS AND WASTE MATERIALS OF 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.
- H. 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.
- I. SEEDING: PERMANENT AND TEMPORARY SEEDING:**
- A. SEED PREPARATION:** APPLY 100 POUNDS PER 1000 SQUARE FEET OF PULVERIZED DOLOMITIC LIMESTONE AND 15 POUNDS PER 1000 SQUARE FEET OF 10-10-10 OR EQUIVALENT FERTILIZER, HARROW OR DISC ON THE CONTOUR INTO THE SOIL TO A DEPTH OF 3 TO 4 INCHES, CONTINUE TILLAGE UNTIL A REASONABLE FINE SEDIMENT HAS BEEN PREPARED.
- B. APPLICATION SHALL BE IN ACCORDANCE WITH THE MSHA STANDARD SPECIFICATIONS FOR CONSTRUCTION AND MATERIALS, SECTION 220.04.02 SEED MIXES**
- (a) SEED MIX NO. 1
85% TALL FESCUE (CERTIFIED SEED ONLY)
10% KENTUCKY BLUEGRASS (CERTIFIED SEED ONLY)
5% PERENNIAL RYE GRASS (CERTIFIED SEED ONLY)
- ** KENTUCKY 31 FESCUE SHALL NOT BE ACCEPTABLE **
- C. THE REGULATIONS, COMAR 08.05.01.06, APPLICATION FOR APPROVAL OF EROSION AND SEDIMENT CONTROL PLANS (EAS), REQUIRE THE APPLICANT TO SUBMIT THE DETAILS OF TEMPORARY AND PERMANENT STABILIZATION MEASURES INCLUDING PLACEMENT OF THE FOLLOWING STATEMENT ON THE PLAN: FOLLOWING INITIAL SOIL DISTURBANCES OR REDISTURBANCE, PERMANENT OR TEMPORARY STABILIZATION SHALL BE COMPLETED WITHIN:**
- SEVEN (7) CALENDAR DAYS 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 (14) DAYS FOR ALL OTHER DISTURBED OR GRADED AREAS ON THE PROJECT SITE.
- D. THESE REQUIREMENTS DO NOT APPLY TO THOSE AREAS ON WHICH ACTUAL CONSTRUCTION ACTIVITIES ARE CURRENTLY BEING PERFORMED. INTERIOR AREAS OF A SURFACE MINE SITE, WHERE THE STABILIZATION MATERIAL WOULD CONTAMINATE THE RECOVERABLE RESOURCE. MAINTENANCE OF EROSION AND SEDIMENT CONTROL PRACTICES SHALL BE PERFORMED AS NECESSARY TO ENSURE THAT THE DISTURBED AREAS CONTINUOUSLY MEET THE APPROPRIATE REQUIREMENTS OF THE 1984 STANDARDS OR ITS LATEST REVISION, AND THAT RUNOFF FROM THESE AREAS DOES NOT ADVERSELY IMPACT DOWNSTREAM PROPERTIES.**
- 3. 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.
- 4. SOIL TESTS:**
- NO SITE SOIL BORINGS FOR EARTHWORK OPERATIONS PERFORMED FOR THE PREPARATION OF THESE PLANS.



OVERALL PLAN
SCALE: 1" = 200'

**THIS PLAN FOR
SEDIMENT CONTROL ONLY**

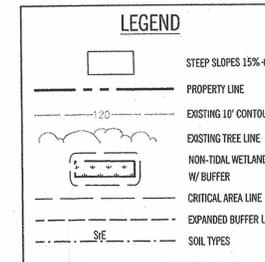
FOR SEQUENCE OF CONSTRUCTION, SEE SHEET 2.

- SHEET INDEX**
- COVER SHEET
 - SEDIMENT CONTROL PLAN, NOTES & DETAILS

THERE SHALL BE NO DISTURBANCE TO WETLANDS OR BUFFERS DURING CONSTRUCTION

SITE PLAN NOTES

- 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 MSHA STANDARD SPECIFICATIONS FOR CONSTRUCTION AND MATERIALS 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 ERROR OR OMISSION, AND WITHOUT WRITTEN DETERMINATION, SUCH WORK WILL BE CONSIDERED NOT IN COMPLIANCE WITH THESE PLANS AND SPECIFICATIONS.
- PRIOR TO CONSTRUCTION, CONTACT: THE ENFORCEMENT DIVISION, DEPARTMENT OF ENVIRONMENT SEDIMENT AND STORMWATER MANAGEMENT ADMINISTRATION 1800 WASHINGTON BLVD. BALTIMORE, MARYLAND 21220 PHONE: (410) 569-9220
- NOTIFY THE CALVERT COUNTY DEPARTMENT OF INSPECTIONS AND PERMITS, (410) 569-2155, THE CALVERT COUNTY SOIL CONSERVATION DISTRICT, (410) 565-1824, AND MISS UTILITY, (800) 257-7777, 48 HOURS PRIOR TO THE START OF ANY WORK ON THIS SITE.
- OWNER'S / DEVELOPER: CALVERT CLIFFS 3 NUCLEAR PROJECT, LLC. STE 1600P, 100 CONSTELLATION WAY BALTIMORE, MD 21202 ATTN: ED MILLER (410) 569-9220
- CONSULTANT: GREENHORNE & O'MARA 6110 FROST PLACE LAUREL, MD 20707 (410) 266-0066 ATTN: MATTHEW KELLY, P.E.
- AS CONSTRUCTION PROCEEDS, ADDITIONAL MEASURES MAY BE EMPLOYED WITH THE ENGINEER'S APPROVAL, IF CONDITIONS WARRANT, TO ENSURE EFFECTIVE STORMWATER DRAINAGE AND EROSION AND SEDIMENT CONTROL ON SITE.
- SEDIMENT CONTROL MEASURES AND PROPOSED TREE LINE REPRESENTS LIMIT OF WORK UNLESS OTHERWISE STATED.
- EXISTING ELEVATIONS SHOWN HEREON ARE FROM MAPS COMPILED BY PHOTOGRAMMETRIC METHODS FROM AERIAL PHOTOGRAPHY BY COLLINSON, OLIFF & ASSOCIATES, INC. DATED JANUARY 7, 2007. GRID BASED ON MARYLAND STATE PLANE COORDINATE SYSTEM, NAD 1927. VERTICAL DATUM BASED ON NAVD 1929. EXISTING UTILITIES SHOWN ARE TAKEN FROM FIELD SURVEY BY COLLINSON, OLIFF & ASSOCIATES, INC. DATED JULY 2008.
- ALL ELEVATIONS SHOWN HEREON ARE IN REFERENCE TO BENCH MARKS AND MUST BE FIELD VERIFIED BY THE GENERAL CONTRACTOR PRIOR TO CONSTRUCTION.
- THERE ARE NO FLOODPLAIN IMPACTS.
- IT SHALL BE DISTINCTLY UNDERSTOOD THAT FAILURE TO MENTION SPECIFICALLY ANY WORK WHICH WOULD NATURALLY BE REQUIRED TO COMPLETE THIS PROJECT SHALL NOT RELIEVE THE CONTRACTOR OF HIS RESPONSIBILITY TO COMPLETE SUCH WORK.
- ARCHAEOLOGICAL AND HISTORICAL RESOURCES: IF ARCHAEOLOGICAL MATERIALS ARE DISCOVERED DURING SITE WORK, THE CONTRACTOR OR DEVELOPER WILL CEASE WORK IN THE AFFECTED AREA AND CONTACT THE OWNER IMMEDIATELY. ALL PERSONNEL PERFORMING EARTH DISTURBANCE ACTIVITIES SHALL RECEIVE ARCHAEOLOGICAL AND HISTORIC RESOURCES TRAINING PRIOR TO STARTING WORK.
- NON-TIDAL WETLANDS SHOWN ARE BASED ON INFORMATION PROVIDED BY COLLINSON, OLIFF & ASSOCIATES, INC. DATED APRIL 2008.
- PROPERTY LINE INFORMATION SHOWN IS BASED ON INFORMATION PROVIDED BY COLLINSON, OLIFF & ASSOCIATES, INC.
- FOR WELL DETAILS AND SPECIFICATIONS, SEE PLANS AND REPORTS PREPARED BY ARCADIS.



SOILS TABLE

SOIL MAP SYMBOL	SOIL NAME	HYDRIC SOIL	SLOPES > 15%	HYDROLOGIC SOILS GROUP
ShB2	Beltville Silty Loam	No	Yes	C
Co	Coastal Beaches	Yes	Yes	A
E1E	Eroded Land	No	Yes	B
E1B	Evesboro Loamy Sand	No	Yes	A
E1C	Evesboro Loamy Sand	No	Yes	A
Ma	Made Land	No	Yes	B
MnB2	Malpeake Silty Loam	No	Yes	B
MnC2	Malpeake Silty Loam	Yes	Yes	B
My	Mixed Alluvial Land	No	Yes	D
RdD2	Rumford Loamy Sand	No	Yes	B
RdD	Rumford Evesboro Gravelly Loamy Sands	No	Yes	B
SaB2	Sassafras	No	Yes	B
SaC2	Sassafras	No	Yes	B
ShB2	Sassafras	No	Yes	B
ShC3	Sassafras	No	Yes	B
ShD3	Sassafras	No	Yes	B
ShE	Sassafras or Westphalia	No	Yes	B
W	Water	-	-	-
WoA	Woodstown Fine Sandy Loam	No	Yes	C

OWNER'S / DEVELOPER'S CERTIFICATION

WE HEREBY CERTIFY THAT WE HAVE REVIEWED THESE EROSION AND SEDIMENT CONTROL PLANS AND THAT ALL CLEARING, GRADING, CONSTRUCTION AND DEVELOPMENT WILL BE PERFORMED PURSUANT TO THESE PLANS AND THAT RESPONSIBLE PERSONNEL INVOLVED IN THE CONSTRUCTION OF THIS PROJECT WILL HAVE A CERTIFICATE OF ATTENDANCE AT A DEPARTMENT OF THE ENVIRONMENT APPROVED TRAINING PROGRAM FOR THE CONTROL OF SEDIMENT AND EROSION BEFORE BEGINNING THE PROJECT.

SIGNATURE: *Edward Jarmas* DATE: 10-28-10
NAME: EDWARD JARMAS TITLE: GENERAL MANAGER

CALVERT CLIFFS 3 NUCLEAR PROJECT, LLC
STE 1600P, 100 CONSTELLATION WAY
BALTIMORE, MD 21202
ATTN: ED MILLER
(410) 569-9220

SURVEYOR'S / ENGINEER'S CERTIFICATION

I HEREBY CERTIFY THAT THIS PLAN FOR EROSION AND SEDIMENT CONTROL MEETS THE REQUIREMENTS, STANDARDS, AND SPECIFICATIONS OF THE CALVERT COUNTY SOIL CONSERVATION DISTRICT, AND THAT ALL PROPOSED GRADING AND OTHER WORK MEET THE REQUIREMENTS OF THE APPROPRIATE CALVERT COUNTY GRADING AND EROSION & SEDIMENT CONTROL ORDINANCES.

SIGNATURE: *Matthew B. Kelly* 24836
NAME: MATTHEW B. KELLY TITLE: PROFESSIONAL ENGINEER
M.D. P.E. LICENSE NO. 24836

GREENHORNE & O'MARA
6110 FROST PLACE, LAUREL, MARYLAND 20707
ADDRESS

SEDIMENT CONTROL QUANTITY TABLE

TOTAL PROJECT AREA	0.354 AC
TOTAL DISTURBED AREA	0.354 AC
TOTAL AREA TO BE SEEDED AND MULCHED	0.00 AC
TOTAL NUMBER OF SEDIMENT TRAPS/BASINS	N/A
TOTAL LENGTH OF REINFORCED SILT FENCE	115 LF
TOTAL LENGTH OF PERIMETER DIKE/SWALE	0 LF
EARTH QUANTITIES	
TOTAL CUT	N/A
TOTAL FILL	N/A
EXCESS CUT/FILL	N/A

BENCHMARKS			
NUM.	DESCRIPTION	NORTHING	EASTING
1	IRS	216255.47	960900.95
2	IRS	217562.12	961956.87

STORMWATER MANAGEMENT NOTE:
THIS PERMIT INCLUDES THE INSTALLATION OF THREE TEST WELLS.
NO NEW IMPERVIOUS IS PROPOSED. THEREFORE, STORMWATER QUALITY AND QUANTITY CONTROL ARE NOT REQUIRED.

OWNER/DEVELOPER:
CALVERT CLIFFS 3 NUCLEAR PROJECT, LLC
100 CONSTELLATION WAY
BALTIMORE, MD 21202
ATTN: ED MILLER
(410) 569-9220

I HEREBY CERTIFY THAT THESE DOCUMENTS WERE PREPARED OR APPROVED BY ME, AND THAT I AM A DULY LICENSED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF MARYLAND, LICENSE NO. 24836 EXPIRATION DATE: 2/28/2012



No.	REVISION	DATE	BY



GREENHORNE & O'MARA
CONSULTING ENGINEERS
6110 FROST PLACE, LAUREL, MARYLAND 20707
PHONE: (410) 266-0066 FAX: (410) 266-0067
www.g-and-o.com

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© LATEST DATE HEREON

COVER SHEET
SEDIMENT CONTROL PLAN
for
CALVERT CLIFFS UNIT 3 EXPANSION
INTAKE PUMP TEST WELLS
TAX MAP 35; PARCEL 9
1ST DISTRICT, 3RD ASSESSMENT AREA
CALVERT COUNTY, MD

PJK DESIGN	SCALE	1" = 200'
PJK DRAWN	SHEET	1 OF 2
MBK CHECKED		
OCT. 2010 DATE	094293 PROJ. No.	FILE No.