CS 167-06 Morgantown Generating Plant Bldg Dermit site CPepco)

MSA. 5. 1829- 5743

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 10, 2006

Ms. Aimee Dailey Charles County Department of Planning And Growth Management P O Box 2150 La Plata, Maryland 20646

Re: Morgantown Generating Station Plant Area Improvements

Dear Ms. Dailey:

Thank you for providing information on the above referenced site plan. The applicant is requesting approval of a building permit to construct multiple improvements to the existing Morgantown Generating Station plant. The property lies within a designated Intensely Developed Area (IDA) and is currently developed.

Based on the site plan provided, my understanding is that the current project proposes to place approximately 19,720 square feet of new impervious surface area within the Critical Area. In addition, there will be approximately 35,968 square feet of impervious surface area placed within an area currently impervious in nature. As the proposed disturbance occurs within the IDA, the applicant is required to provide compliance with the 10% pollutant reduction requirements. In order to meet this requirement, the applicant is proposing to construct a grassed swale and an extended detention facility. Based on an analysis of the calculations provided, we concur that the 10% pollutant reduction requirement has been met. Therefore, we do not oppose the granting of a building permit for the proposed improvements.

Thank you for the opportunity to provide comments on this site plan. If you have any questions, please contact me at 410-260-3482.

Sincerely,

Kerri Sall

Kerrie L. Gallo Natural Resource Planner

Scope of Project

This project involves work for the installation of mandated air quality improvement equipment at the Morgantown Generation Plant The project will be constructed within the Critical Area, However, the work lies within the 1000 foot critical area limits of the Potomac River but outside the 100 foot buffer area within an IDA zoned portion of the critical area. The actual construction will be from April 1, 2006 through the summer of 2008.

The work to be performed under MIC 06-0011 permit application is only for construction of the deep foundation (piles) and structural steel for the Unit 1 SCR. This Storm water and Critical Area impacts application covers the entire project scope. That scope includes both Unit 1 and 2 SCR, auxiliary power systems and a common urea system.

The new additional impervious area will be 0.4527 acres, approximately 19,720 square feet and the replacement or redevelopment impervious area will be 0.8257 acres, or 35,968 square feet.

Quality treatment for storm water ordinance compliance will be a net decrease in the site's total impervious area. This is due to the fact that the urea handling system and the new (additional) station service transformers will be constructed within individual containment structures. (The structures will convert a volume of storm water discharge from runoff to a "batch" controlled discharge under plant operational processes.) The Operational processes will include plant operator interface to determine acceptability for discharge as storm water or as process water under a NPDES Permit treatment.

The upgrades are made upon an existing system of storm water best management practices implemented under the former owner (PEPCO) of Morgantown Generating Station Pollutant Load Reduction System, a copy of which is in the appendix.

For purposes of this report, all of the impervious area, both new and replacement area of existing impervious area under redevelopment is considered as new for quality treatment. Similarly new additions, even within containment areas, are treated for quality purposes. This is done to eliminate variations between standards in effect at the time of the original design and as a conservative measure for effective treatment.

There are sections of the affected drainage areas that do not contribute to the general storm vater system. These are referred to as containment areas. These containment structures are BMPs for their respective industrial processes and storm water is not allowed to run off with the general storm drainage. These process waters are held and subsequently handled by separate treatment. These sections are identified and permitted Permit (MD 0 00-2674) up

dated August 2005. A copy is attached in the appendix.

Storm water Management

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The four components of storm water management are to be addressed as follows:

Recharge Volume (Rev): While not normally required in the critical area, this is supplied by the Grass Channel using a percent area method for all of the redevelopment and new impervious area.

Quality Treatment (WQv): The areas are totally met for the Urea Handling Area by credits under the Grass Channel Credit in Section 5.5 of the Maryland Storm Water Management Manual. New and replacement impervious areas for transformers and other work immediately adjacent to the plant building are provided by underground extended detention within bottomless manholes.

Channel Protection Volume (CPv). This is not required as the entire drainage areas drain directly to the Potomac without passing through any offsite watercourses.

Overbank Flood Protection (Qp): Not required as project drains directly to Potomac.

WQv is provided by the Grass Channel Credit and the criteria are met as follows:

Maximum flow velocity has been reduced to less than 1.0 fps for the 1 inch rainfall. Maximum flow is non-erosive. Bottom width has been set at 6 feet and side slopes are at 3:1. Channel slopes are approximately 1% and rooftop disconnection is not in use.

This BMP is proposed because it is simple, non-structural in nature and requires no easement and minimal maintenance and feeds into existing grass channels employed on the premises.

Extended Detention:

We have proposed an underground Extended Detention structure to provide water quality within the heavily impervious area near the plant. These are proposed primarily as the only BMP available since infiltration is not viable within what are essentially fill soils and above ground methods are unavailable due to space requirements. The proposed structure is a bottomless manhole or chamber with storage capacity for the water quality volume generated by all replacement impervious area and the new impervious area. Three chambers are proposed and shown on the drainage lines that service the respective impervious area. The bottomless feature will allow the water to slowly percolate into the fill soils, which are typically fine sand. A one inch orifice protected by surge stone will provide the detention time for water above the invert of the outfall pipe in each structure.

Critical Area Requirements

2

The primary additional requirement of the critical area is compliance with the 10% Rule. For purposes of this permit, we have analyzed the drainage areas of the overall site that have been impacted by the improvements. This consists of 21.81 acres, with 6.25 associated with the Urea Handling area and the remaining 15.56 acres around the plant. The full overall site has been reviewed on several occasions and there are numerous BMPs in place. Four drainage areas are involved in this project and they are combined for analysis. Only new BMPs are counted for this \sim project and they consist of three extended detention facilities and a grass swale.

Computations using only the new BMPs show that the required 10% Reduction is met from the existing conditions. For purposes of the Extended Detention facility a 50% removal rate was used. The proposed structures will function somewhere between a micro pool and an infiltration basin so a 50% removal rate appears reasonable. Between the two BMPs 19.62 pounds are removed with a requirement of only 4.55 pounds.

	Worksheet A: S	Standard Applicat	ion Process
		llutant Removal Req	
Step 1:	Calculate Existing a	and Proposed Site Impe	rviousness
A. (Calculate Percent Impervio		
1) s	Site Area within the Critical A	Area IDA, A =21.8135	acres
2) S	Site Impervious Surface Area	a, Existing and Proposed,	
		(a) Existing (acres)	(b) Proposed (acres)
P D S D S O Im 3) Im Ex	Roads Parking lots Parking lots briveways idewalks/paths ooftops ecks wimming pools/ponds ther opervious Surface Area operviousness (I) tisting Imperviousness, I _{pre}	= (51ep 2a) / (= (14.8199)= -68.21	$ \begin{array}{r} 1 55 99 \\ 1 33 15 \\ 6 6 3 3 5 \\ 5 75 98 \\ 5 75 98 \\ 0 \cdot 0489 \\ 15 \cdot 33 13 \\ 15 \cdot 33 13 \\ Surface Area / Site Area (Step 1) \\ 2 $
3. Define I	Development Category (cir	= 70.29	<u> </u>
			159/ 1/0 / 0/ -
		mperviousness less than mperviousness of <u>15%</u> I o	
) <u>Sinc</u> fami and	ale Lot Residential Developm ily residential development; associated disturbance (Go ria and requirements).	nent: Single lot being deve	eloped or improved; single
NOTE: All a	creage used in this worksheet re	efers to areas within the IDA	of the Critical Area only

Ste	p 2:	Ca	Iculate the Predevelopment Load (L _{pre})
Α.	Nev	v Deve	elopment
	L_{pre}	=	(0.5) (A)
		= .	(0.5) (
		=	lbs /year of total phosphorus
	Whe	ere:	
	L_{pre}	=	Average annual load of total phosphorus exported from the site prior
	0.5 A	= =	Annual total phosphorus load from undeveloped londs (the local contents)
B.	Rede	evelop	acres)
	L_{pre}	=	(R _v) (C) (A) (8.16)
	Rv	=	0.05 + 0.009 (I _{pre})
		=	(0.05 + 0.009 (68.21) = 0.6639
	L_{pre}	=	(0.6639) (0.30) (21.8135) (8.16)
		=	35.45 lbs/year of total phosphorus
	Where	э:	
	L_{pre}	=	Average annual load of total phosphorus exported from the site prior to development (lbs/year)
	Rv	=	Runoff coefficient, which expresses the fraction of rainfall which is converted into runoff
	_{pre}	=	Pre-development (existing) site imperviousness (i.e., I = 75 if site is 75% impervious)
	С	=	Flow-weighted mean concentration of the pollutant (total phosphorus) in urban runoff (mg/l) = 0.30 mg/l
	A 8.16	=	Area of the site within the Critical Area IDA (acres) Includes regional constants and unit conversion factors

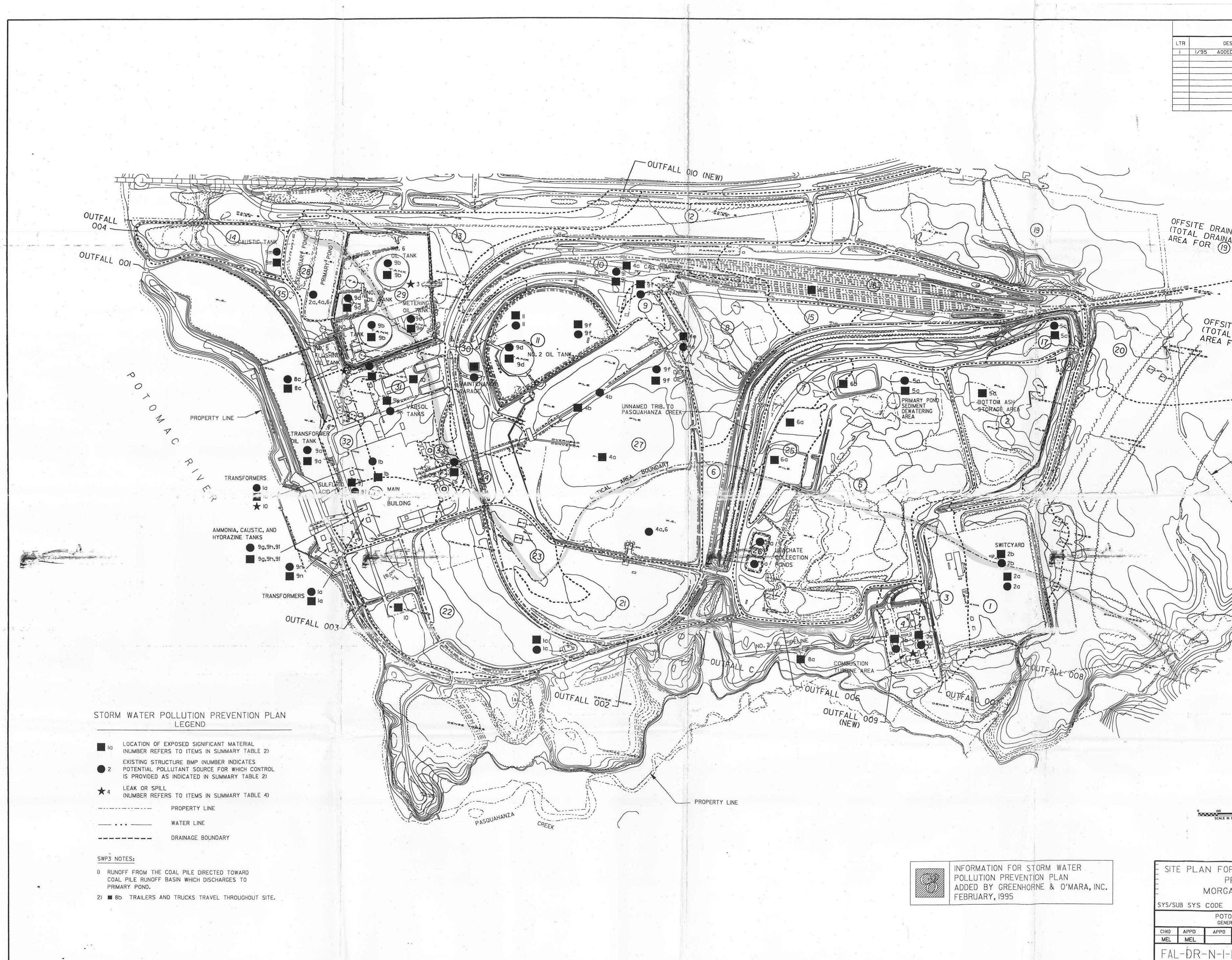
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Step 3:	Calculate the Post-Development Load (L _{post})
A. New	Development and Redevelopment:
L _{post}	= (R _v) (C) (A) (8.16)
R _v	= 0.05 + 0.009 (I _{post})
	= 0.05 + 0.009 (70.29) = 0.6826
L _{post}	= (0.6826) (0.30) (21.8135) (8.16)
	= <u>36.45</u> Ibs/year of total phosphorus
Where	
L _{post}	Average annual load of total phosphorus exported from the post- development site (line)
R _v	 Runoff coefficient, which expresses the fraction of rainfall which is
Ipost	 Post-development (proposed) site imperviousness (i.e., l = 75 if site
С	 Flow-weighted mean concentration of the pollutant (total phosphorus)
A 8.16	 in urban runoff (mg/l) = 0.30 mg/l Area of the site within the Critical Area IDA (acres) Includes regional constants and unit conversion factors
tep 4:	Calculate the Pollutant Removal Requirement (RR)
RR	= L _{post} - (0.9) (L _{pre})
. · · ·	= (36.45) - (0.9) (35.45)
:	= 4.545 Ibs/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)

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 (Lpost) X (BMPRe) X (% DA Served) = LR									
BMP Type (L_{post}) x (BMP_{RE}) x $(0 DA Served)$ LR ED $3b.45$ x 0.50^{+} 0.71 = 12.94 lbs/yea OI 35.45 x 0.55^{+} 0.29 = 12.94 lbs/yea OI 35.45 x 0.55^{+} 0.24 = 12.94 lbs/yea OI 35.45 x 0.55^{+} 0.24 = 19.42 lbs/yea OI 35.45 0.45 x 0.24 = 19.42 lbs/yea OI 35.45 0.45 x 0.24 = 19.42 lbs/yea $V_{Coald Removed, LR X $	Step 5:	Identify F	easi	ble BMP(s	5)				
$\frac{ED}{DI} = \frac{3b \cdot 45}{35 \cdot 45} \times \frac{0.50^{+}}{0.45} \times \frac{0.71}{0.349} = \frac{12 \cdot 94}{1.548} \text{ lbs/yea}$ $\frac{DI}{25 \cdot 45} \times \frac{0.45}{2.548} \times \frac{0.71}{0.349} = \frac{12 \cdot 94}{1.548} \text{ lbs/yea}$ $\frac{X}{2} \times \frac{X}{2} = \frac{12 \cdot 94}{1.558} \text{ lbs/yea}$ $\frac{X}{2} \times \frac{X}{2} = \frac{12 \cdot 94}{1.558} \text{ lbs/yea}$ $\frac{X}{2} \times \frac{X}{2} = \frac{12 \cdot 94}{1.558} \text{ lbs/yea}$ $\frac{X}{2} \times \frac{X}{2} = \frac{12 \cdot 94}{1.558} \text{ lbs/yea}$ $\frac{X}{2} \times \frac{X}{2} = \frac{12 \cdot 94}{1.558} \text{ lbs/yea}$ $\frac{X}{2} \times \frac{X}{2} = \frac{12 \cdot 94}{1.558} \text{ lbs/yea}$ $\frac{X}{2} \times \frac{X}{2} = \frac{12 \cdot 94}{1.558} \text{ lbs/yea}$ $\frac{X}{2} \times \frac{X}{2} = \frac{12 \cdot 94}{1.558} \text{ lbs/yea}$ $\frac{X}{2} \times \frac{X}{2} = \frac{12 \cdot 94}{1.558} \text{ lbs/yea}$ $\frac{X}{2} \times \frac{X}{2} = \frac{12 \cdot 94}{1.558} \text{ lbs/yea}$ $\frac{X}{2} \times \frac{X}{2} = \frac{19 \cdot 52}{1.588} \text{ lbs/yea}$ $\frac{X}{2} \times \frac{X}{2} = \frac{19 \cdot 52}{1.588} \text{ lbs/yea}$ $\frac{X}{2} \times \frac{X}{2} = \frac{19 \cdot 52}{1.588} \text{ lbs/yea}$ $\frac{X}{2} \times \frac{X}{2} = \frac{19 \cdot 52}{1.588} \text{ lbs/yea}$ $\frac{X}{2} \times \frac{X}{2} = \frac{19 \cdot 52}{1.588} \text{ lbs/yea}$ $\frac{X}{2} \times \frac{X}{2} = \frac{19 \cdot 52}{1.588} \text{ lbs/yea}$ $\frac{X}{2} \times \frac{X}{2} = \frac{19 \cdot 52}{1.588} \text{ lbs/yea}$ $\frac{X}{2} \times \frac{X}{2} = \frac{19 \cdot 52}{1.588} \text{ lbs/yea}$ $\frac{X}{2} \times \frac{X}{2} = \frac{19 \cdot 52}{1.588} \text{ lbs/yea}$ $\frac{X}{2} \times \frac{X}{2} = \frac{19 \cdot 52}{1.588} \text{ lbs/yea}$ $\frac{X}{2} \times \frac{X}{2} = \frac{19 \cdot 52}{1.588} \text{ lbs/yea}$ $\frac{X}{2} \times \frac{X}{2} = \frac{19 \cdot 52}{1.588} \text{ lbs/yea}$ $\frac{X}{2} \times \frac{X}{2} = \frac{19 \cdot 52}{1.588} \text{ lbs/yea}$ $\frac{X}{2} \times \frac{X}{2} = \frac{19 \cdot 52}{1.588} \text{ lbs/yea}$ $\frac{X}{2} \times \frac{X}{2} = \frac{19 \cdot 52}{1.588} \text{ lbs/yea}$ $\frac{X}{2} \times \frac{X}{2} = \frac{19 \cdot 52}{1.588} \text{ lbs/yea}$ $\frac{X}{2} \times \frac{X}{2} = \frac{19 \cdot 52}{1.588} \text{ lbs/yea}$ $\frac{X}{2} \times \frac{X}{2} = \frac{19 \cdot 52}{1.588} \text{ lbs/yea}$ $\frac{X}{2} \times \frac{X}{2} = \frac{19 \cdot 52}{1.588} \text{ lbs/yea}$ $\frac{X}{2} \times \frac{X}{2} = \frac{19 \cdot 52}{1.588} \text{ lbs/yea}$ $\frac{X}{2} \times \frac{100}{1.588} lbs/y$		is using the sitter Design Ma	creei anua	ning matric I. Calculate	es pi e the	ovided in the load remove	he Chap /ed for e	oter 4 of the each option	e 2000 1.
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x x	01	35.45	_ × _	0.65	_ ×	0.29	=	6.68	_lbs/year
Load Removed, LR (total) = 19.62 ibs/yea Pollutant Removal Requirement, RR (from Step 4) = 4.55 ibs/yea Where: Load Removed, LR = Annual total phosphorus load removed by the proposed BMP (ibs/year) Lpost = Average annual load of total phosphorus exported from the post-development site (ibs/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 (ibs/year) f 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? If Yes INO moval crueded by 15.07 without considuration of additional moval in string BMPs.	······································		_ × _		×		=		_lbs/year
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SITE PLAN FOR STORM WATER POLLUTION PREVENTION PLAN MORGANTOWN GENERATING SYS/SUB SYS CODE STATION SH 1 OF 1 POTOMAC ELECTRIC POWER CO.

APPD	DR. BY LMM	SCALE " = 200'	
	JOB NO.	DATE FEB., 1995	
I-T2	031-G&O-)01-00 ^{RI}	EV

GENERAL NOTE:

a. All work shall be in accordance with the latest Charles County Department of Planning and Growth Management Standards and Specifications For Construction Manual, the latest Charles County Detail Manual and in accordance with current county ordinances.

b. The contractor is responsible for contacting "Miss Utility" at 1-800-257-7777 forty-eight (48) hours prior to any excavation work.

c. The developer is reponsible to hold a "Preconstruction" meeting to include the contractor, Charles County Inspection personnel, public utilities, and any local, state or federal agencies as required prior to the start of construction.

d. The contractor is responsible for contacting the Charles County Department of Planning and Growth Management/Development Services Department 24 hours prior to the start of all construction in accordance to all permits issued at (301) 645-0618.

e. Maximum slopes shall not be greater than three (3) feet horizontal to one (1) foot vertical, outside the road right-of-way. Slopes within the road right-of-way shall be not greater than two (2) feet horizontal to one (1) foot vertical, or as specified in the County Road Ordinance and in the Charles County Detail Manual.

f. Certified compaction tests are required for all trench/fill work on site in accordance with the latest edition of the Specifications Manual and Grading Ordinance. Final reports and certifications shall be provided prior to prefinal inspections.

g. Certified compaction tests and geotechnical reports shall be submitted on a bi-weekly basis throughout the course of construction as required by the Specifications Manual.

h. A progress set of as-built plans shall be submitted prior to "Substantial Inspections" for water and sewer construction for the purpose of obtaining an approval for substantial inspection.

i. As-built plans are not required for private improvements shown on the plan.

j. With approval from the Maryland Department of the Environment all erosion and sediment control structures must be removed prior to the release of bonds.

k. Building permits shall include a SWM plan showing compliance with MDE Stormwater Management and Critical DR AREA Commission regulations.

EXISTING
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LEGEND

PROPERTY LINES PAVEMENT CONTOUR SPOT ELEVATION **CURB & GUTTER** SIDEWALK ELECTRIC LINE GAS MAIN WATER LINE SEWER LINE STORM DRAIN WATER VALVE REDUCER FIRE HYDRANT **BLOW-OFFS** MANHOLE (SEWER) BENCHMARK FENCE EASEMENT TELEPHON EARTH DIK STRAW BALE DIK

SILT FENCE

EMPORARY SWALE

LEGEND

PROPOSED
N/A N/A N/A
<u>S</u>
Q
<u>MH</u>

 \triangle _____×-___×--___×-----<u>A=2____</u>

EXISTING

PROPOSED

	N/A	STABILIZED CONSTRUCTION ENTRANCE W/ MOUNTABLE BERM	
	N/A	INLET PROTECTION	
		EARTH DIKE	
	N/A	SUPER SILT FENCE	
	N/A		
1		DRAINAGE DIVIDE	1
	N/A	SAFETY FENCE	SAFETY FENCE
	N/A	MAX. DRAINAGE DIVIDE TO SEDIMENT TRAP	TRAP NO.
	N/A	TREE/WOOD LINE	
	N/A	LIMIT OF DISTURBANCE	
	N/A	WETLAND BUFFER	
	N/A	WETLAND	
	N/A	FLOW DIRECTION ARROW	j Flow

PREMISES ADDRESS NEWBURG 20664

ABBREVIATION LIST

INVERT OF PIPE INV. H.P. L.P. HIGH POINT LOW POINT STA. STATION VERT. HORZ VERTICAL HORIZONTAL V.C. VERTICAL CURVE ELEV. N.T.S. ELEVATION NOT TO SCALE R.P. RADIUS POINT RCP CMP **REINFORCED CONCRETE PIPE** CORRUGATED METAL PIPE DIF PG DUCTILE IRON PIPE PROFILE GRADE LINE SPIRAL RIB CORRUGATED METAL PIPE SRCMP FINISHED FLOOR ELEVATION F.F. BASEMENT ELEVATION GARAGE SLAB ELEVATION MINIMUM ELEVATION FOR GRAVITY SEWER LT = LEFT M.S SEWER HOUSE CONNECTION SHC DHC WHC DROP HOUSE CONNECTION WATER HOUSE CONNECTION

LEGEND FOR PROFILES

- PVC = POINT OF VERTICAL CURVE PVT = POINT OF VERTICAL TANGENCY
- PVI = POINT OF VERTICAL INTERSECION STA = ST = STATION
- ELV = EL = ELEVATION
- VCL = VERTICAL CURVE LENGTH Corr = CORRECTION (ALSO KNOWN AS "E")
- SST = SAG STATION
- SEV = SAG ELEVATION BST = BEGINNING STATION
- **BEV = BEGINNING ELEVATION** EST = ENDING STATION
- EEV = ENDING ELEVATION
- CL = CENTERLINEPGL = PROFILE GRADE LINE
- RT = RIGHT

SSD = STOPPING SIGHT DISTANCE HEAD LIGHT SIGHT DISTANCE

UTILITY COMPANY CONTACTS: 1. SMECO - Southern Maryland Electric Cooperative contact: Chuck Stone - District Engineering Supervisor 4415 Crain Highway P.O. Box 248 White Plains, Maryland 20635

Phone: 301-705-8686 Fax: 301-705-8629 Washington Gas contact: Nazim Kahn - New Service Supervisor

- 16045 Accolawn Road Accokeek, Maryland 20607 Phone: 301-750-5626 Fax: 301-283-5272
- 3. Comcast CableVision contact: Kevin Kadjeski - Construction Division 101 Skipjack Road Prince Frederick, Maryland 20678
- Phone: 410-535-6880 Extn: #316 4. Bell Atlantic contact: Karl Benton / Kevin Chandler 6205 Crain Highway La Plata, Maryland 20646
- Phone: 301-934-5022 Fax: 301-934-9946

DISTURBED AREA =1.19 acres

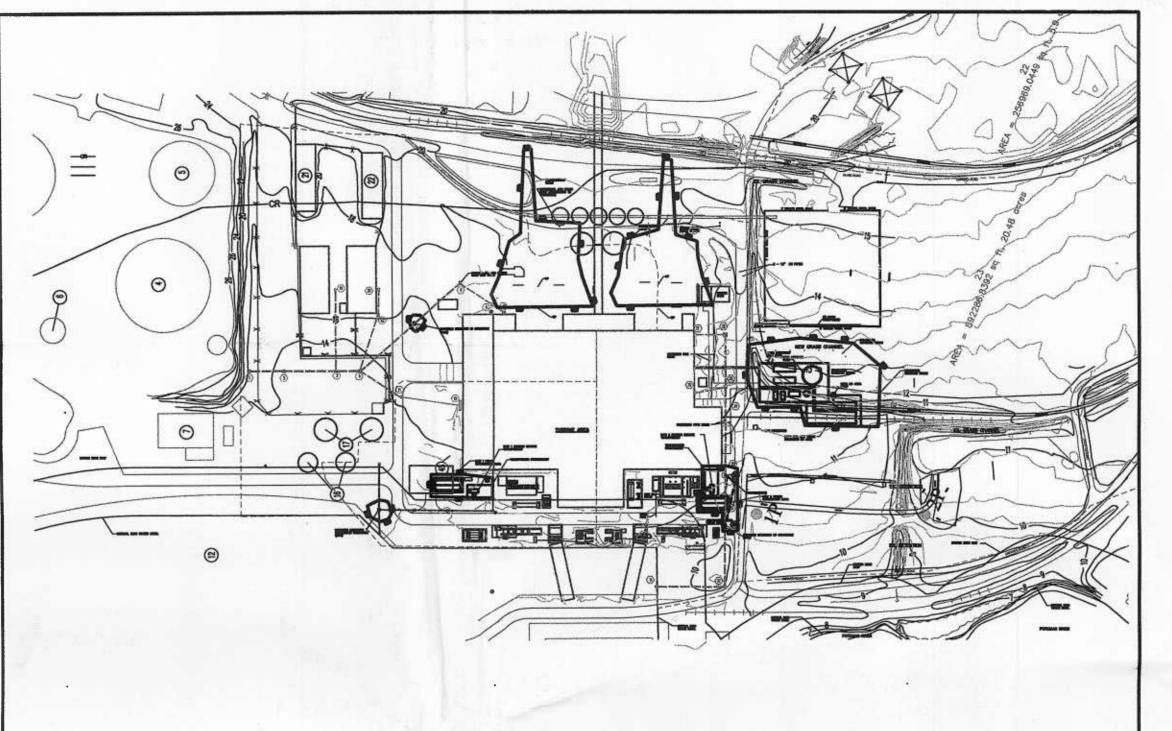
CALL "MISS UTILITY" TELEPHONE: 1-800-257-7777 FOR UTILITY LOCATIONS AT LEAST 48 HOURS BEFORE BEGINNING CONSTRUCTION.

RECEIVED

FEB 1 7 2006

CRITICAL AREA COMMISSIO

MORGANTOWN GENERATING STA BP# MIC 06-0011



LOCATION PLAN SCALE: 1" = 200'

CONSTRUCTION SHEET INDEX

1	COVER SHEET
2	SITE PLAN
3	SWM/STORMDRAIN PLAN
4	STORMDRAIN DIVIDES
5	STORMDRAIN PROFILES-1
6	STORMDRAIN PROFILES-2
7	SEDIMENT CONTROL PLAN-1
8	SEDIMENT CONTROL PLAN-2

STANDARD STABILIZATION NOTE:

FOLLOWING INITIAL SOIL DISTURBANCE OR REDISTUBANCE, PERMANENT OR TEMPORARY STABILIZATION SHALL BE COMPLETED WITHIN SEVEN (7) CALENDAR DAYS AS TO THE SURFACE OF ALL PERIMETER DIKES, SWALES, DITCHES, PERIMETER SLOPES, AND ALL SLOPES GREATER THAN 3H:1V AND FOURTEEN (14) DAYS AS TO ALL OTHER DISTURBED OR GRADED DR AREAS ON THE PROJECT SITE. ONCE VEGETATION IS ESTABLISHED, THE SITE SHALL HAVE 95% GROUNDCOVER TO BE CONSIDERED ADEQUATELY STABILIZED.

CONSULTANT CERTIFICATION:

I hereby certify that this plan has been design in accordance with the 1994 standards and specifications for Soil Erosion and Sediment Control or current revisions thereof, and Department of the Environment Stormwater Management Regulations.

	MP-P-F. License#	23343
RECE	Name	BRIAN OLSON
CCR 7	2000 Name	ATCS PLC
ILU I.	Street Address	7 POST OFFICE RD SUITE G
CRITICAL AREA	Street Address	WALDORF, MD 20602

Signature Date

CHARLES SOIL CONSERVATION DISTRICT

CHARLES SCD SEDIMENT AND EROSION CO 129-05

CHARLES SCD SMALL POND APPROVAL NUMBER(S)

Sediment and Erosion Control Plan (if applic Soil Conservation District.

Signature and Date

This Approval expires_ Written Requests for Extension May be sub

This plan meets the technical requirements Conservation Service

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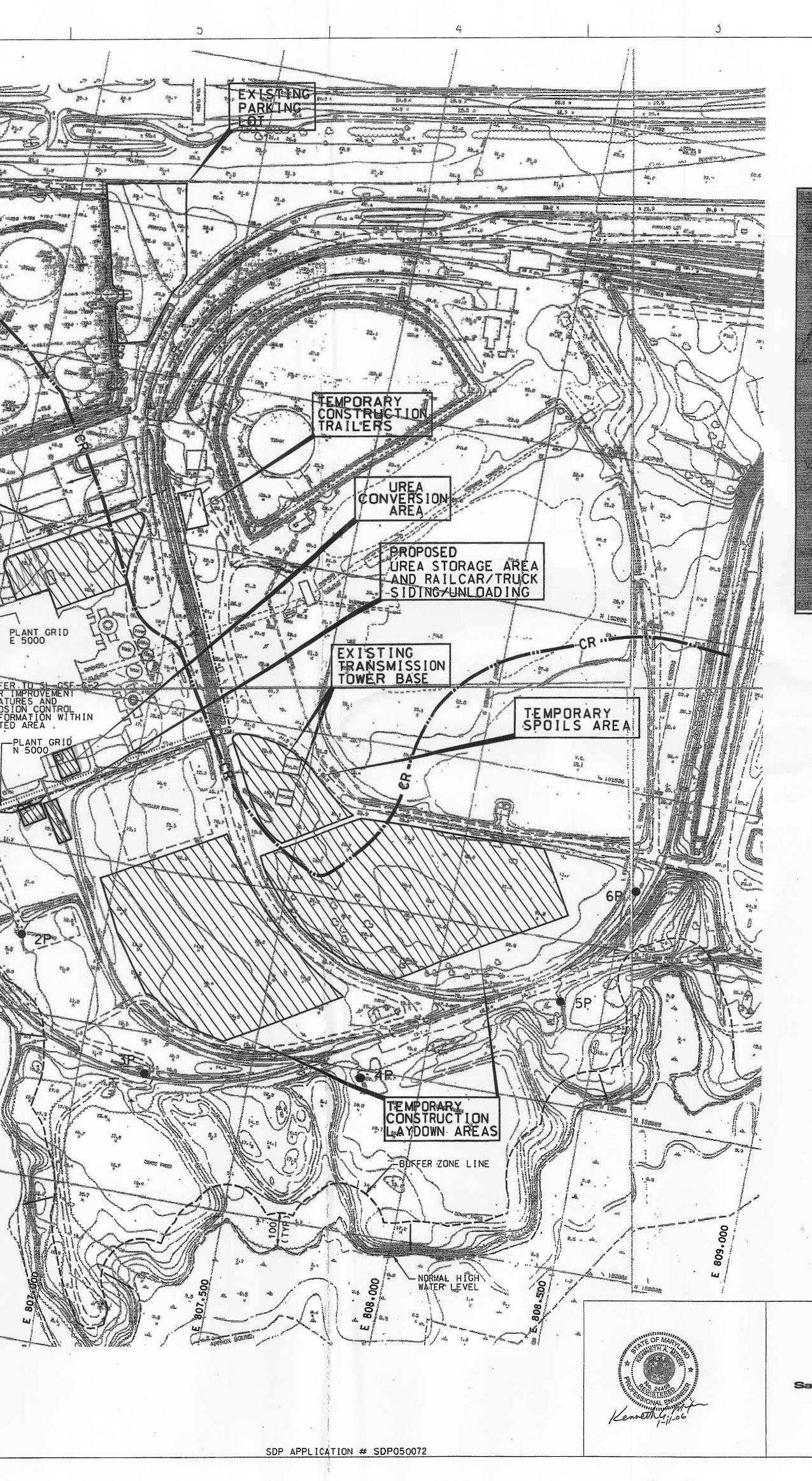
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ATION	20664	NEPPOR		HITEHEAD, PI BY: CHKD BRO		WING SCALE NO. DATE REVISION
	VICINITY MAP 1"=2000')	-	J. W. WI DESIGN BRO	RPK DATE 02/	DRAWING 1"=200
	ADC 33E11				IIING STATION GHWAY	
				NS SND	IICHWA)	+-400/ -4612
OWNER'S/DEVELOPER'S CERTIFICATION				CLIENT . STEVE	MBURG 20664	01-843
I/We hereby certify that all clearing, grading, con			lant		72	M
o this plan and that any responsible personnel in rertificate of attendance at a Maryland Departme				DAN	126 126	FAX:
or the control of erosion and sediment before be	ginning the project. I hereby au	thorize the right o			De la companya de la	
entry for periodic on-site evaluation by State of M Compliance Inspectors.	arylanu, Department of the Envi	ronment,		UNIX	2	Va.
Robert	sinta			SURVE	3-1262	Sterling, \
Date Owne	er/Developer Signature	M		Р.	Suite G 02 01) 843	1
	ed Name and Title	p MALALEN	-	202	Road, Suit 0 20602 Fax (301)	.pM
Colombono No.					e MD	Waldorf,
elephone No:					Post Office Waldorf, MI 2-8043	•
ddress:					SO NO R	
				RING	7 Pc	er, Va.
ENGINEER'S CERTIFICATION STATEMENT I hereby certify that this plan meets or exceeds Storm Drainage Ordinance, Floodplain Managem	ent Ordinance, Grading Ordinand	ce, Road Ordinan	ce,	ENCINEERING		ŗ.
I hereby certify that this plan meets or exceeds Storm Drainage Ordinance, Floodplain Managem Water & Sewer Ordinance, the 2000 Maryland St and federal codes, the Charles County Standards Charles County Details Manual, the approved site regulations and any conditions imposed by Charl BRIAN OLSON	ent Ordinance, Grading Ordinance cormwater Design Manual, Volum and Specifications for Construct plan or preliminary plan, other	ce, Road Ordinan nes I & II, all stat tion Manual, the	ce, e	COVER SHEET MORGANTOWN ENERATING STATION ENGINEERING	7 P 932-	S - 23
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NOTES BACKGROUND DRAWING FROM MORGANTOWN			1 3	No. of the second s
BACKGROUND DRAWING FROM MORGANTOWN GENERATING STATION TOPOGRAPHIC MAP, JOB NUMBER 7-E-GSF-4064, SHEETS 1-4, REVISION B, DATED 5/3/90, PREPARED BY	and a second secon	<u>****////</u>		
PHOTO SCIENCE, INC., GAITH, MD. DETAILE TOPOGRAPHIC CONTOURS AND SPOT ELEVATION	D IS			
IN AREA OF CONSTRUCTION ARE PRESENTED ON SUBSEQUENT DRAWINGS. THE GRID ON THIS DRAWING IS STATE PLANE	27	1933000		
100' BUFFER ZONE LINE IS LOCATED APPROXIMATELY BASED ON MEASURING 100'	<u>د</u> ا	22 - 17	Contraction of the second	Stat
LANDWARD FROM THE MEAN HIGH TIDE, OR FROM WETLANDS, SHOWN ON THIS DRAWING BACKGROUND.	and the second se		7.5	
CRITICAL BAY AREA LINE (CR) BASED UPON MORGANTOWN GENERATING STATION "F" NPDES		14.2	/a.// 4	Cp
PERMIT. DISCHARGE OUTFALLS PLAT, JOB N 7E-GSF-4007, REVISION C. DATED 9/16/98, PREPARED BY PHOTO SCIENCE INC., GAITH, 1	34		3 a	
FOR ADDITIONAL NOTES AND LEGEND REFER T SL-GSF-C-2				1-12
PROVIDE SILT FENCING OR STRAW BALES ARO TRANSMISSION FOUNDATION POLE INSTALLATI AREA PER DETAIL C5-03 OR C5-04, WHICH I	ON	N 192 500		1 He
SHOWN ON DWG. SL-GSF-C-3. PROVIDE SILT FENCING OR STRAW BALES ACR ENTIRE DITCH. 3' PRIOR TO CULVERT ENTRA	ROSS THE			
PER DETAIL C5-03 OR C5-04, WHICH IS SHO DWG. SL-GSF-C-3.				日本
PROVIDE CURB INLET PROTECTION PER DETAIL C5-01, WHICH IS SHOWN ON DWG. SL-GSF-C-2,				-
PROVIDE AT GRADE INLET PROTECTION PER DETAIL C5-02, WHICH IS SHOWN ON DWG. SL-GSF-C-2.			EX THE	art 1
SL-GSF-C-2. FOLLOWING CONSTRUCTION, PROVIDE GRASS SEEDING ON DISTURBED AREAS.		TEMPORA		C MAR
OR CONSTRUCTIONS DEWATERING REQUIREMENT NOTE 2, DRAWING SL-GSF-C-5.		N 192.000	A States	U- AL
ALL SEDIMENT AND EROSION CONTROL PROCED SHALL COMPLY WITH THE 1994 MARYLAND STA AND SPECIFICATIONS FOR SOIL EROSION AND	ANDARDS	X I We and a way of the second		INSC.
SEDIMENT CONTROL. FOLLOWING INITIAL SOIL DISTURBANCE OR				THE
REDISTURBANCE, PERMANENT OR TEMPORARY STABILIZATION SHALL BE COMPLETED WITHIN (7) CALENDAR DAYS AS TO THE SURFACE OF	ALL . 1			19870
PERIMETER CONTROLS, DIKES, SWALES, DITO PERIMETER SLOPES, AND ALL SLOPES GREATE 3 HORIZONTAL TO 1 VERTICAL (3:1); FOURT	ER THAN			NAR
DAYS (14) AS TO ALL OTHER DISTURBED OR AREAS ON THE PROJECT SITE. EROSION AND SEDIMENT PRACTICES, AND SIT	TE IN			/shet
GENERAL, MUST BE INSPECTED WEEKLY AND A EACH RAIN FALL EVENT, BY THE CONTRACTOR OTHER REPONSIBLE PERSON, AND ANY NEEDED	AFTER R OR	N 10+		find (fill you)
MAINTENANCE PERFORMED IMMEDIATELY. DUST WILL BE CONTROLLED BY WATERING OR		N 191,500		Litt
CONTROL METHODS ACCEPTABLE TO THE DEPANAND IN CONFORMANCE WITH APPLICABLE AIR POLLUTION ORDINANCE.	RIMENI	ţ,		All has
NO INCLUSIONS OF ORGANIC OR OTHER HARMMATERIALS WHICH MAY BE SUBJECT TO DECA	FUL	ne	NACK-	Aller
SHALL BE PERMITTED. NO ROCK OR SIMILAR MATERIAL GREATER TH INCHES SHALL BE BURIED OR PLACED IN AN	AN 8		· M. Panl	
BEARING FILL WITHIN 2 FEET OF FINISHED OR FOUNDATION BASE, MATERIAL SHALL BE P UNDER DIRECT SUPERVISION OF AN ENGINEE	GRADE		A Contraction of the second se	
THE NATURAL GROUND SHALL RECEIVE FILL REMOVING ALL ORGANIC SURFACE MATERIALS	BY NON	N ea		
COMPLYING FILL AND UNSUITABLE SOILS IN ACCORDANCE WITH THE FOLLOWING PROVISIO OTHERWISE APPROVED BY THE DEPARTMENT OF PROFESSIONAL ENGINEER	NSUR	N 191.000		These
PROFESSIONAL ENGINEER. BEFORE PLACING TYPE I AND II FILLS THE SHALL BE COMPACTED TO ACHIEVE A DENSIT	YOF			AN
NOT LESS THAN 90% OF MAXIMUM DENSITY W THE TOP 6 INCHES. NO FILL SHALL BE PLACED ON FROZEN GROU		and the second se		NUTS
TYPE I AND II FILLS SHALL BE COMPACTED MINIMUM OF 95% AND 90%, RESPECTIVELY	TO A	The second s		West W
MAXIMUM DENSITY AS DETERMINED IN THE LABORATORY BY THE MODIFIED PROCTOR TEST. TYPE III FILL SHALL BE COMPACTED			FEMA MAP PANEL	
SUFFICIENTLY SO AS TO BE STABLE AND TO PREVENT AN EROSION HAZARD.		n The second sec	2400890110B INDI 100-YR FLOOD ELE RANGING FROM 7 T	VATIONS
FIELD DENSITY SHALL BE DETERMINED BY A TEST OR BY EQUIVALENT. TEST APPROVED B DEPARTMENT OF INSPECTIONS.	Y wa	N 190.500		. (
FILL SHALL BE PLACED IN HORIZONTAL LAY EACH LAYER HAVING A LOOSE THICKNESS OF MORE THAN EIGHT (8) INCHES.	ERS. NOT		D .	. /. 1
ALL AREAS SHALL BE GRADED TO PROVIDE F POSITIVE DRAINAGE AWAY FROM THE BUILDI	OR NG		OTOMAC	
TOWARD THE APPROVED DISCHARGE AREA. ANY MATERIAL TAKEN OFF SITE WILL GO TO PERMITTED FACILITY.	A	in the second	OWF	1.240 (1.040)
FOR ADDITIONAL RECENT TOPOGRAPHIC SURVE DRAWINGS 1 THRU 24, GREENHORNE AND O'M	ARA,	an in the second second		3 There is a set of the set of th
INC., 9001 EDMONSTON ROAD, GREENBELT, 1 20770, JOB #2872 DATE 7/12/05	MARYLAND		RI	
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		99 90 90		a construction of the second second
		ER'S/DEVELOPERS CERTIF		
	will be done pursuant to construction project will	ify that all clearing, grading, co this plan and that any responsibl have a certificate of attendance ining program for the control of e	e personnel involved in the at a Maryland Department of t rosion and sediment before	the
This Plan (<u>129-05</u>) Approved for Erosian and Sediment Control by the Charles Sail Conservation District.	bootoning the project. I	bartment of the Environment. Compl	ry for periodic on-site evolution	
Signature This Approval expires4/30/08	Date		Owner/Developer Signature	
Written Requests for Extension May be submitted to the District.	Card No.		Printed Name ond Title	N 180
Reviewed for Charles S.C.D. and Meets Technical Requirements.		Design Certificate	. .	N 189.5(
DateDate	Standards and Specificat	that this plan has been designed lans for Soil Erosion and Sedimen of the Environment Stornwater Man	Control or current revisions	
U.S.D.A. Natural Resources conservation Service		,		

Md. Registration No. 24459 P.E. R.L.S. or R.L.A. (Circle)

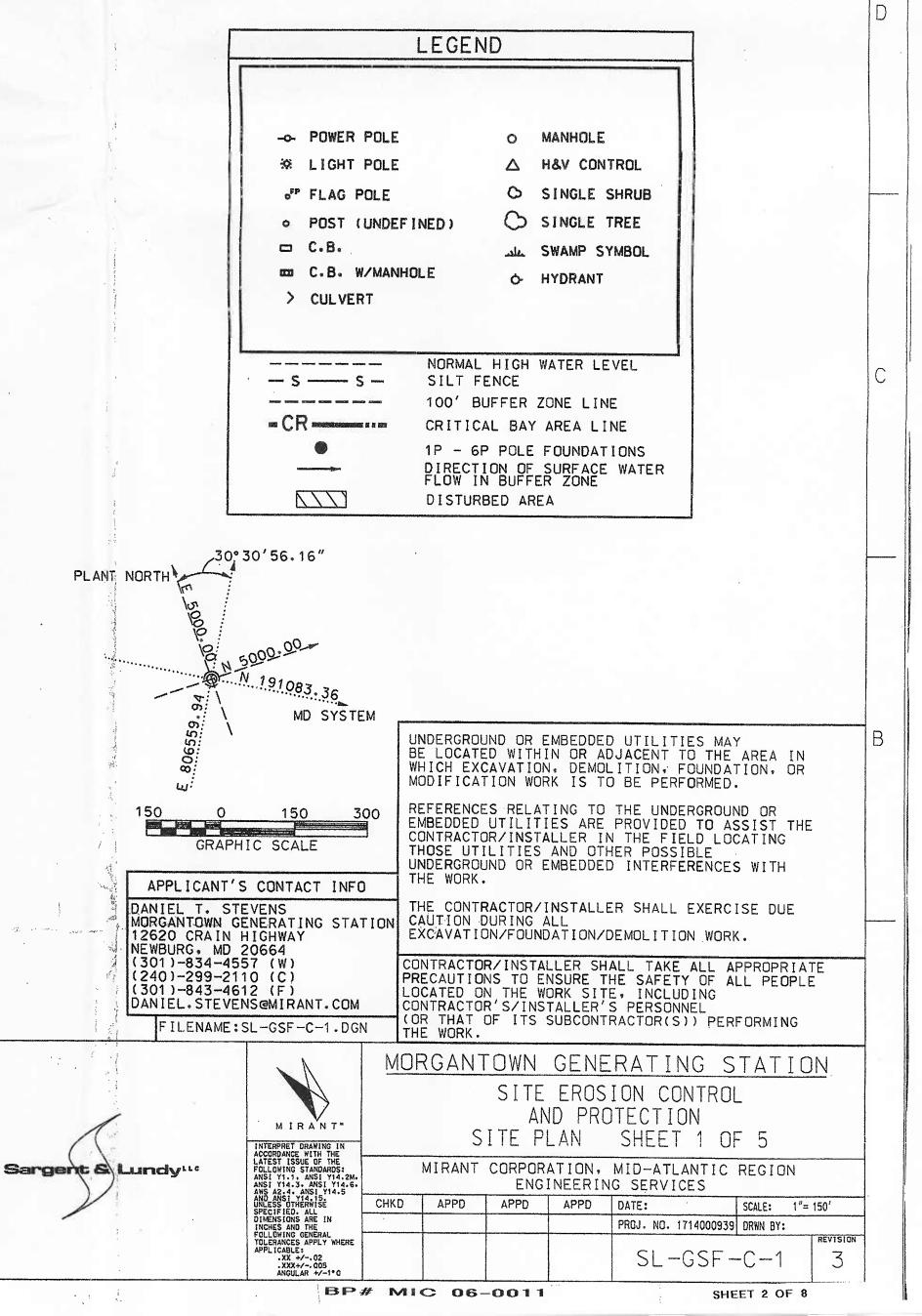
9 KENNETH

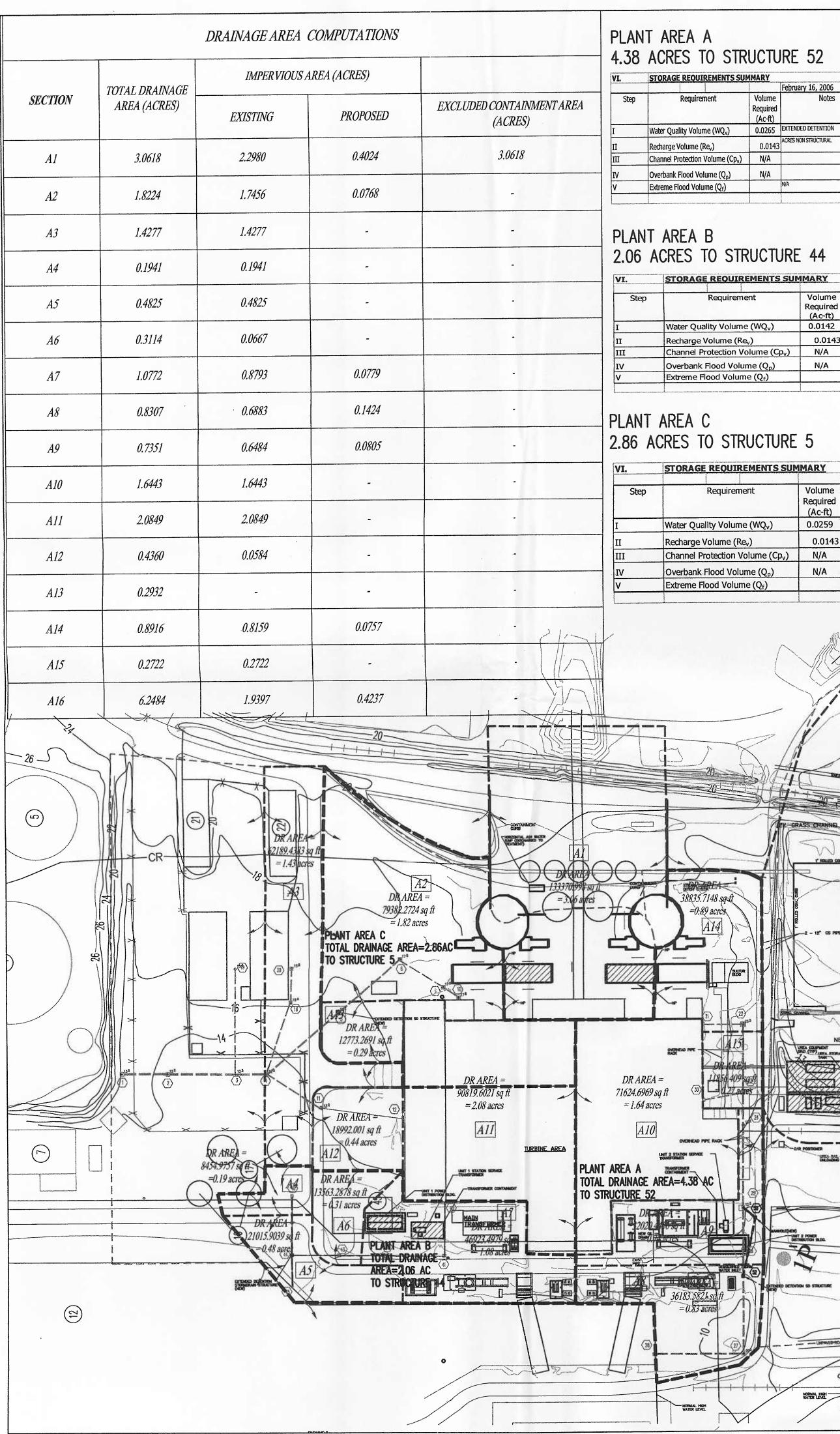
Designer's Signature KENNETH A. MIXER Printed Name



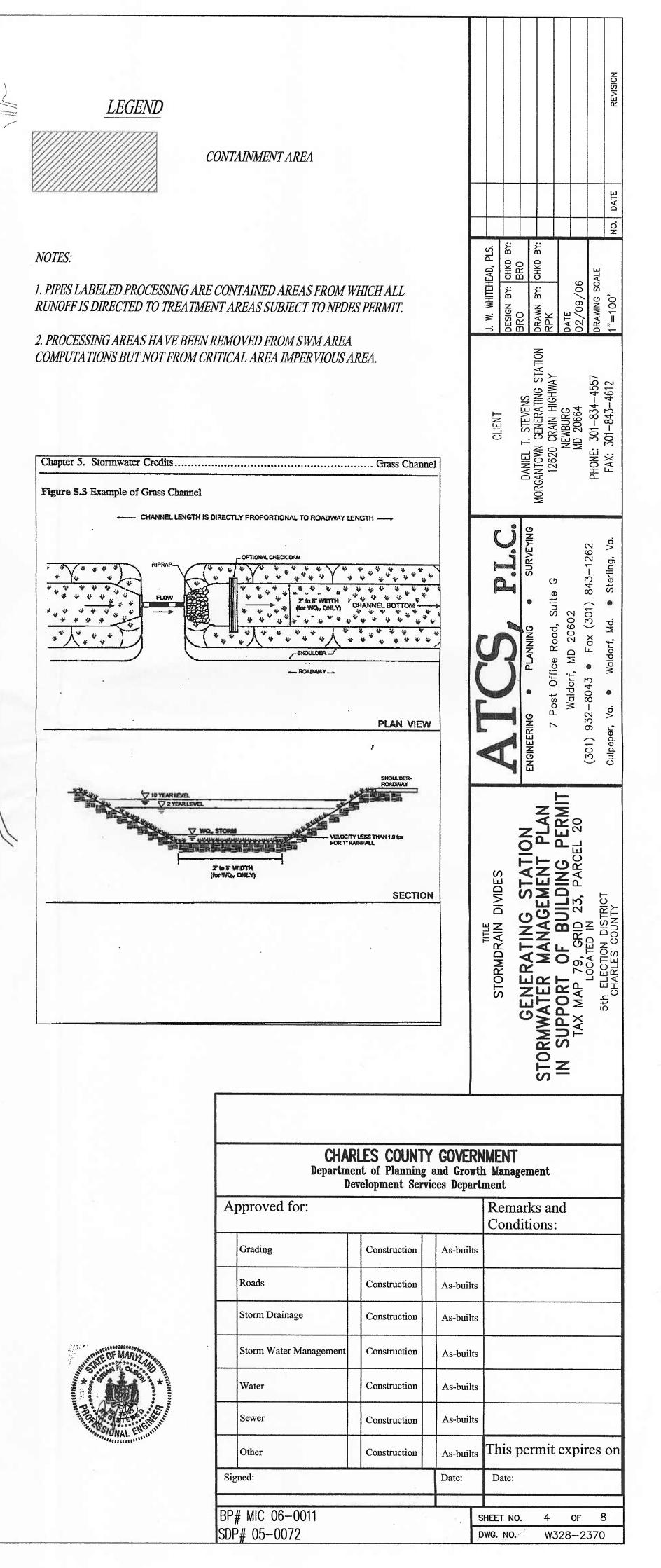
REVISIONS							
LTR	DESCRIPTION	DATE	CORR	снкр	APPD	APPD	APPD
1	FOR PERMIT SUPPORT	11-04-2005	CAF/	DJD			
2	FOR PERMIT SUPPORT	12-05- 2005	CAF/	DJD			
3	FOR PERMIT SUPPORT	1-11- 2006	CAF/ ALS	DJD			

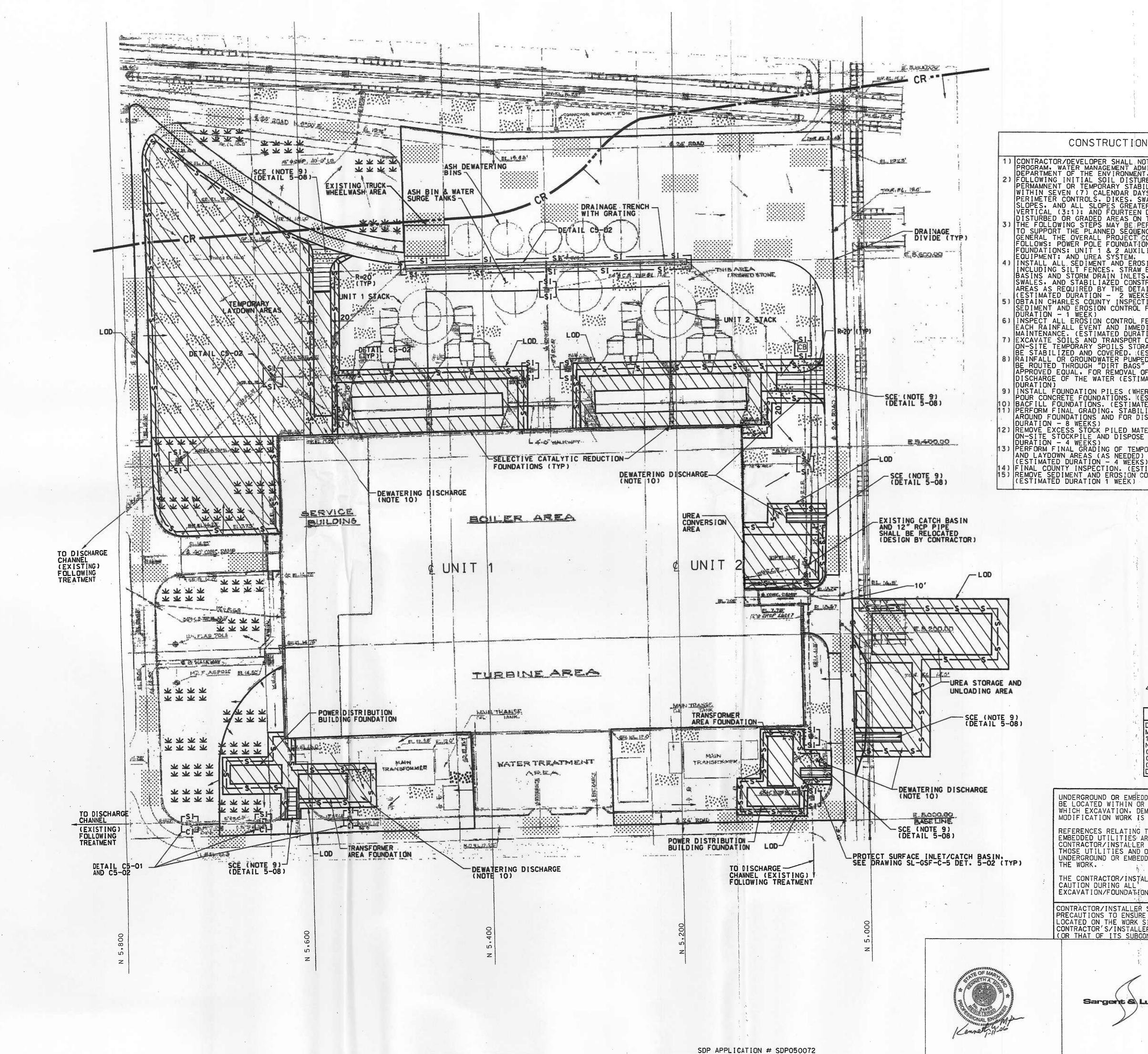
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February 16, 2006 Notes 0.0143 ACRES NON STRUCTURAL February 16, 2006 Volume Required (Ac-ft) TENDED DETENTION 0.0142 CRES NON STRUCTURAL 0.0143 N/A February 16, 2006 Volume Notes Required (Ac-ft) 0.0259 EXTENDED DETENTION ACRES NON STRUCTURAL 0.0143 N/A d. PANED ROAD 2 ROLED CONC. CURS I' ROLLED CONC. CURD DR AREA = 272182.1235 591 =6.2484 acres A16 CS PIPES B.M.L. ROLLED CONC. CURS NEW GRASS CHANNE > TANK W MBIZION 30 EX GRASS CHANNEL UNLOADING OR AREA VA ECTIVATION DETINITION SO STRUCTURE XI BETENTIO -BATTER ZONE WATER LEVEL POTOMAC RIVER





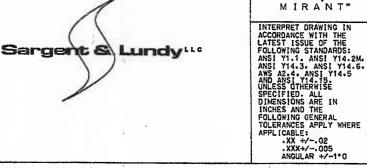
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	T	REVISIONS
LTR	DESCRIPTION	DATE CORR CHKD APPD APPD APPD
1	FOR PERMIT SUPPORT	11-04- CAF/ DJD
2	FOR PERMIT SUPPORT	12-05- CAF/ DJD
3	FOR PERMIT SUPPORT	12-13- CAF/ 2005 ALS RHC
4	FOR PERMIT SUPPORT	1-11- CAF/ RHC
-		
SEQUENCE		
TIFY THE COMPLIANCE INISTRATION, MARYLAND • 5 DAYS PRIOR TO THE WO BANCE OR REDISTURBANCE. LIZATION SHALL BE COMPLI S AS TO THE SURFACE OF ALES, DITCHES, PERIMETER R THAN 3 HORIZONTAL TO DAYS (14) AS TO ALL OTH THE PROJECT SITE. RFORMED IN EACH WORK ARE CING OF CONSTRUCTION. DNSTRUCTION SEQUENCE IS NS; LAYDOWN AREAS; SCR	ETED ALL I ER EA	
IARY POWER TRANSFORMERS	AND	
ION CONTROL FEATURES BALES AT EXISTING CATCH CHECK DAMS IN EXSITING RUCTION ENTRANCES TO WOR	ак	
ILS ON THESE DRAWINGS. S) ION AND APPROVAL OF FEATURES, (ESTIMATED	***	AGGREGATE SURFACING EXISTING)
EATURES WEEKLY AND AFTER IATELY PERFORM ANY NEFDE		GRASS SURFACING (EXISTING)
ION - PROJECT DURATION) DFF-SITE OR TO DESIGNATE AGE AREA. SPOILS PILE S STIMATED DURATION - 16 W	SHALL	ASPHALT PAVEMENT (EXISTING)
D FROM EXCAVATIONS SHALL AS MANUFACTURED BY ACF F SEDIMENTS PRIOR TO	OR CR	CRITICAL BAY AREA LINE
ATED DURATION - PROJECT RE APPLICABLE) FORM AND STIMATED DURATION - 26 W		SEDIMENT TRAP AT EXISTING SURFACE INLET/CATCHBASIN
ED DURATION - 12 WEEKS) ZATION AND SURFACING STURBED AREAS, (ESTIMATE		EXISTING CATCH BASIN/CATCH BASIN CURB INLET COMBINATION. ADD SILT FENCE AT CATCH BASIN (SI) AND AT
DERIALS FROM TEMPORAY OFFSITE, (ESTIMATED DRAY STOCK PILE AREA	EL. 19.23 OR	CURB INLET, AS APPROPRIATE.
AND STABILIZATION/SEEDI	NG. <u>GR.EL.19.2</u> 3	
ONTROL FEATURES		DRAINAGE DIVIDES
	FDN	FOUNDATION
	TOR	TOP OF ROAD
	INV.EL.	INVERT ELEVATION
	₿ PCP	CENTERLINE
	RCP CB	REINFORCED CONCRETE PIPE CATCH BASIN
	Ø	DIAMETER
·		FLOW DIRECTION
		DISTURBED AREA
		SCE (STABILIZED CONSTRUCTION
\cap		ENTRANCE)
PLANT	LOD	LIMITS OF DISTURBANCE
(NORTH)		NOTES
		SL-GSF-C-1 FOR GENERAL NOTES
\smile	COORDINA	DRAWING SL-GF-C-1 FOR GRID TES, STATE PLANE TO SITE GRID
40 0 40	80 AND LEGE	
GRAPHIC SCALE APPLICANT'S. CONTACT I	3. BACKGROU JOB # 60 PAVING,	ND INFORMATION DRAWING C-16, REV.A, 65, 1"=40' MAIN BUILDING, GRADING, AND DRAINAGE, SHEET 1, BECHTEL 'ION, POTOMAC ELECTRIC POWER COMPANY,
DANIEL T. STEVENS	WASHINGT	ON DC.
MORGANTOWN GENERATING S 12620 CRAIN HIGHWAY NEWBURG, MD 20664		SL-GSF-C-3 SHOWS FEATURES ASSOCIATED NSMISSION POLE ADDITION.
(301)-834-4557 (W) (240)-299-2110 (C)	5. FOR ADDI	TIONAL RECENT TOPOGRAPHIC SURVEY SEE 1 THRU 24, GREENHORNE AND O'MARA,
(301)-843-4612 (F) DANIEL.STEVENS@MIRANT.C(INC., 90	01 EDMONSTON ROAD, GREENBELT, MARYLAND OB #2872 DATE 7/12/05
FILENAME:SL-GSF-C-2.	DGN 6. REFER TO	DRAWING SL-GSF-C-5 FOR EROSION
DED UTILITIES MAY	CONTROL	DETAILS. NCE AREA IS LIMITED TO THE APPROXIMATE
ADJACENT TO THE AREA IN MOLITION, FOUNDATION, OR TO BE PERFORMED.		NEW FOUNDATION
TO BE DEDEODMED	1 8. TRUCKS L	EAVING THE SITE WILL HAVE WHEELS

UNDERGROUND OR EMBEDDED UTILITIES MAY BE LOCATED WITHIN OR ADJACENT TO THE AREA IN WHICH EXCAVATION, DEMOLITION, FOUNDATION, OR MODIFICATION WORK IS TO BE PERFORMED. REFERENCES RELATING TO THE UNDERGROUND OR EMBEDDED UTILITIES ARE PROVIDED TO ASSIST THE CONTRACTOR/INSTALLER IN THE FIELD LOCATING THOSE UTILITIES AND OTHER POSSIBLE UNDERGROUND OR EMBEDDED INTERFERENCES WITH THE WORK.

THE CONTRACTOR/INSTALLER SHALL EXERCISE DUE CAUTION DURING ALL EXCAVATION/FOUNDATION/DEMOLITION WORK.

CONTRACTOR/INSTALLER SHALL TAKE ALL APPROPRIATE PRECAUTIONS TO ENSURE THE SAFETY OF ALL PEOPLE LOCATED ON THE WORK SITE, INCLUDING CONTRACTOR'S/INSTALLER'S PERSONNEL (OR THAT OF ITS SUBCONTRACTOR(S)) PERFORMING



BP# MIC 06-0011

CHKD APPD APPD

SHEET 7 OF 8

PROJ. NO. 1714000939 DRWN BY:

SL-GSF-C-2

8. TRUCKS LEAVING THE SITE WILL HAVE WHEELS INSPECTED/WASHED AS NEEDED AT EXISTING TRUCK WHEEL WASH AREA.

• SCE LOCATION CAN BE ADJUSTED IN FIELD AS REQUIRED FOR CONTRACTOR'S ACCESS TO THE CONSTRUCTION AREAS.

ALL PUMPED DEWATERING DISCHARGES SHALL BE CONNECTED TO DEWATERING BAG TO CONTAIN SEDIMENT PER NPDES, 40 CFR 122.26 (1999)

MORGANTOWN GENERATING STATION

MAIN POWER BLOCK PLAN SHEET 2 OF 5

MIRANT CORPORATION, MID-ATLANTIC REGION

ENGINEERING SERVICES

APPD DATE:

SITE EROSION CONTROL AND PROTECTION

DRAWINGS

SCALE: 1" = 40'

REVISION

RÉFERENCE

