MSA-S-1829-4769

BA 445-05 West Shore Park Consist. Report

6/29/08 Commot Q(9/0

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10/27/10 initial dearing D.S.

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/

August 9, 2005

Mr. Otis Rolley Director Department of Planning and Zoning 417 East Fayette Street, Suite 100 Baltimore, Maryland 21202

RE: West Shore Park Consistency

Dear Mr. Rolley:

Thank you for providing the corrected Worksheet A for the 10 % Rule for the above project. After reviewing the information, this office found that the 10 % calculations are correct.

The Commission staff has determined that the above proposed development: 1) as environmental or economic consequences that will largely be confined to the immediate area of the site on which the development is located, 2) does not substantially affect the Critical Area program of the local jurisdiction, and 3) is not considered by the Commission as major development. (See COMAR: Chapter Two, Regulations for Development in the Critical Area Resulting from State and Local Agency Programs).

Therefore, approval of the above project by the Commission is not necessary. If there are any changes in development that may affect the habitat within the area on site, this office would like to be notified immediately at (410) 260-3483.

Sincerely,

Dawnn McCleary

Natural Resources Planner

cc: Duncan Stuart Regina Esslinger BA 445-05 revised Robert L. Ehrlich, Jr. Governor

Michael S. Steele
Lt. Governor



Martin G. Madden

Ren Serey
Executive Director

STATE OF MARYLAND CRITICAL AREA COMMISSION CHESAPEAKE AND ATLANTIC COASTAL BAYS

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

June 29, 2005

Mr. Otis Rolley Director Department of Planning and Zoning 417 East Fayette Street, Suite 100 Baltimore, Maryland 21202

RE: West Shore Park Consistency

Dear Mr. Rolley:

Thank you for providing "Notification of Certification" that the above project is consistent with Baltimore City's Critical Area Program. This office understands that the City is proposing to remove existing trailers and buildings, and pavement to create a new park. The City is also proposing to reconstruct an existing parking area, new sidewalks and landscaping. The project is partially in the 100-foot Buffer, totals 3.41 acres and is in an Intensely Developed Area.

This office understands:

- 1. That there will be a small net increase of impervious surface, therefore the City will pay the stormwater offset fee to meet the 10% Rule for phosphorus reduction;
- 2. That there are no known Federal or State threatened or endangered plant or wildlife species present on this site; and,
- 3. That 35 existing trees on-site will be removed and 112 trees will be planted for mitigation.

In order to complete my review for the 10% pollutant reduction requirement, please forward to us a breakdown in Worksheet A, Letter A, No.2 (a) for existing development and No. 2 (b) for post-development.

Continued, Page Two West Shore Park Consistency Report June 29, 2005

If there are any questions, please feel free to call me at (410) 260-3483.

Sincerely,

Dawnn McCleary
Natural Resources Planner

cc: Duncan Stuart BA 445-05

MARTIN O'MALLEY Mayor



OTIS ROLLEY III - Director

June 21, 2005

Ms. Dawnn McCleary Chesapeake Bay Critical Area Commission 1804 West Street, Suite 100 Annapolis, Maryland 21401

Dear Ms. McCleary:

Re: West Shore Park Consistency Letter and Report

Please find enclosed Site Plans and a Consistency Report for the redevelopment of the City-owned land in the Inner Harbor. The project consists of removing existing trailers, buildings and construction of a new park.

A review of the Consistency Report for this project shows that the proposed action is consistent with the City's Critical Area Management Program (CAMP). If you have any questions about this project or the attached report, please contact Mr. Duncan Stuart at 410-396-5902.

Sincerely,

Otis Rolley, III

Director

OR/ds

RECEIVED

JUN 27 2005

CRITICAL AREA COMMISSION

Enclosures

cc: Mr. Andrew Frank, Baltimore Development Corporation

Mr. Gennady Schwartz, Department of Recreation and Parks

Ms. Denise Caldwell, Department of Recreation and Parks

Mr. Duncan Stuart, Department of Planning

File Copy

WEST SHORE PARK CRITICAL AREA CONSISTENCY REPORT

The City of Baltimore is proposing to redevelop the City-owned parcel of land between the existing Visitor's Center and the Maryland Science Center as a new park. We have enclosed site plans, Worksheet A and the landscaping plan for the project. The project consists of removing existing trailers, buildings, and pavement as well as reconstruction of an existing parking area, new sidewalks and landscaping. The project is partially within the 100-foot Buffer and is identified as an Intensely Developed Area.

SOILS

The overall site is categorized as disturbed urban land mixed intricately with Udorthents (Uo). This type of soil mixture varies widely in both texture and drainage over short distances.

VEGETATION AND MITIGATION

There are 35 existing trees on-site that will be removed and 112 trees will be planted once the park is completed.

TIDAL WETLANDS AND FLOODPLAIN

The limits of disturbance are within the 100-year flood zone.

RARE AND ENDANGERED PLANTS AND ANIMALS

There are no known Federal or State threatened or endangered plant or wildlife species present at this time.

WATER QUALITY IMPROVEMENT

There will be a small net gain in impervious surface; the City proposes to pay the stormwater offset fee to meet the 10% Rule for phosphorous reduction.

A. Calculate Percent Imperviousness

6/7/05 re49/05 B/9/05

West Shore Park CA Calcis

CITY OF BALTIMORE CHESAPEAKE BAY CRITICAL AREA MANAGEMENT PROGRAM corrected

Worksheet A: Standard Application Process

Calculating Pollutant Removal Requirements * 1/12/04

Step 1: Project Description

	1) Site Area v	within the Critica vious Surface Ar	al Area IDA.	Acreage = 3.41 acres (LE	(00)
her just	Rooftop Roads Sidewalks Parking lots Pools/ponds Decks Other	(a) Existing	(acres)	(b) Post-Development (acres)	10 Kng 4100
	Impervious Surface Area	2.	06	2.08	

Imperviousness (I)

Existing Impervious Surface Area/Site Area = (Step 2a)/(Step1)=

Post-Development Impervious Surface Area/Site Area = (Step 2b)/(Step 1)=

6/90

B. Define Development Category (circle)

1) Redevelopment

Existing imperviousness greater that 15% I (Go to Step 2A)

2) New development

Existing imperviousness less that 15% I (Go to Step 2B)

*NOTE: All acreage used in this worksheet refer to areas within the Intensely Developed Areas of the Critical Area only

City of Baltimore Critical Area Management Program Manual (2002 Edition)

97

Derise 410 396-090 Mike 877-800 BABB West Shore Park CA Calc's

6/7/05

CITY OF BALTIMORE CHESAPEAKE BAY CRITICAL AREA MANAGEMENT PROGRAM

Worksheet A: Standard Application Process

Calculating Pollutant Removal Requirements *
1/12/04

Step 1: Project Description

	(a) Existing (acres)	(b) Post-Development (acres)	12
ooftop			
oads,	1		
dewalks			
urking lots			
ols/ponds			
ecks	A STATE OF THE STA		
her	of the Wilder		7.54
pervious		2 00	
rface Area	a. 04	2.08	

B. Define Development Category (circle)

A. Calculate Percent Imperviousness

	Redevelopment	Existing	imperviousness	greater	that 15°	% I (Go to	Step 2
2)	New development	Existing	imperviousness	less tha	t 15% I	(Go to Si	tep 2B)

*NOTE: All acreage used in this worksheet refer to areas within the Intensely Developed Areas of the Critical Area only

City of Baltimore Critical Area Management Program Manual (2002 Edition)

97

Step 2: Calculate the Pre-Development Load (Lpre)

A. Redevelopment

Lpre = (Rv) (C) (A) (8.16)
Rv = 0.05 + 0.009 (Ipre)
= 0.05 + 0.009 (60) =
$$_{...}$$
 5 9
Lpre = (, 57) (, 30) (3.41) 8.16
= 4.93 [lbs/year of total phosphorous

410-244-7358

Where:

Lpre = Average annual load of total phosphorous exported from the site prior to

development (lbs/year)

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

converted into runoff

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

impervious)

Flow-weighted mean concentration of the pollutant (total phosphorous) in

urban runoff

= 0.30 (milligrams per liter)

A Area of the site within the Critical Area Intensely Developed Area (IDA)

in acres

8.16 = Includes regional constants and unit conversion factors

B. New Development

- 0.5 Annual total phosphorous load from undeveloped lands (lbs/acre/year)
- A = Same as above

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

A. New Development and Redevelopment

Lpost =
$$(Rv)(C)(A)(8.16)$$

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

Lpost =
$$(...60)(...30)(3.41)$$
 (8.16)

where:

Lpost = Average annual load of total phosphorous exported from the post development site (lbs/year)

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

Ipost = Post-development (proposed) site imperviousness (i.e., I = 75 if site is 75% impervious)

Flow-weighted mean concentration of the pollutant (total phosphorous) in urban runoff

C = 0.30 milligrams per liter

A Area of the site within the Critical Area Intensely Developed Area (IDA) in 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})
=
$$(5)$$
 - (0.9) $(4,93)$ $5 - 4,437$
= 563 lbs/year of total phosphorous

Where:

RR = Poliutant removal requirement (lbs/year)

Lpost Average annual load of total phosphorous exported from the post development site (lbs/year)

Lpre = Average annual load of total phosphorous exported from the site prior to development (lbs/year)

Step 5: Identify Feasible Urban BMP

Select Best Management Practice options from the 2003 10% Rule Guidance Manual, Table 4.8 (%) at the Critical Area WEB site: http://www.dnr.state.md.us/criticalarea/ Calculate the load removed for each option.

BMP	(Lpost)	X	(BMPre)	(% DA Served)	0.00	LR
		x		x	=	lbs/year
		x		x	=	lbs/year
		x		х		lbs/year
		x		x	===	lbs/year

Load Removed, LR (total) - bs/year

Pollutant Removal Requirement, RR (from Step 4) = .563 lbs/year

Where:

Load Removed, LR = Annual total phosphorous load removed by the proposed BMP (lbs/year)

Lpost = Average annual load of total phosphorous exported from the post development site (lbs/year)

BMPre= 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)

410-244-7358

HAS THE RR (POLLUTANT REMOVAL REQUIREMENT) BEEN MET?

___XES XNO

If the Load Removed is equal to or greater than the pollutant removal requirement (RR) calculated in Step 4, then the on-site BMP option complies with the 10% Rule.

Would page CA Stormwerater

Offset Fee 35,000 per #

563 pounds

19, 705

MARTIN O'MALLEY. MAYOR



OTIS ROLLEY III. DIRECTOR

Fax Cover Sheet

No of pages (include cover sheet).

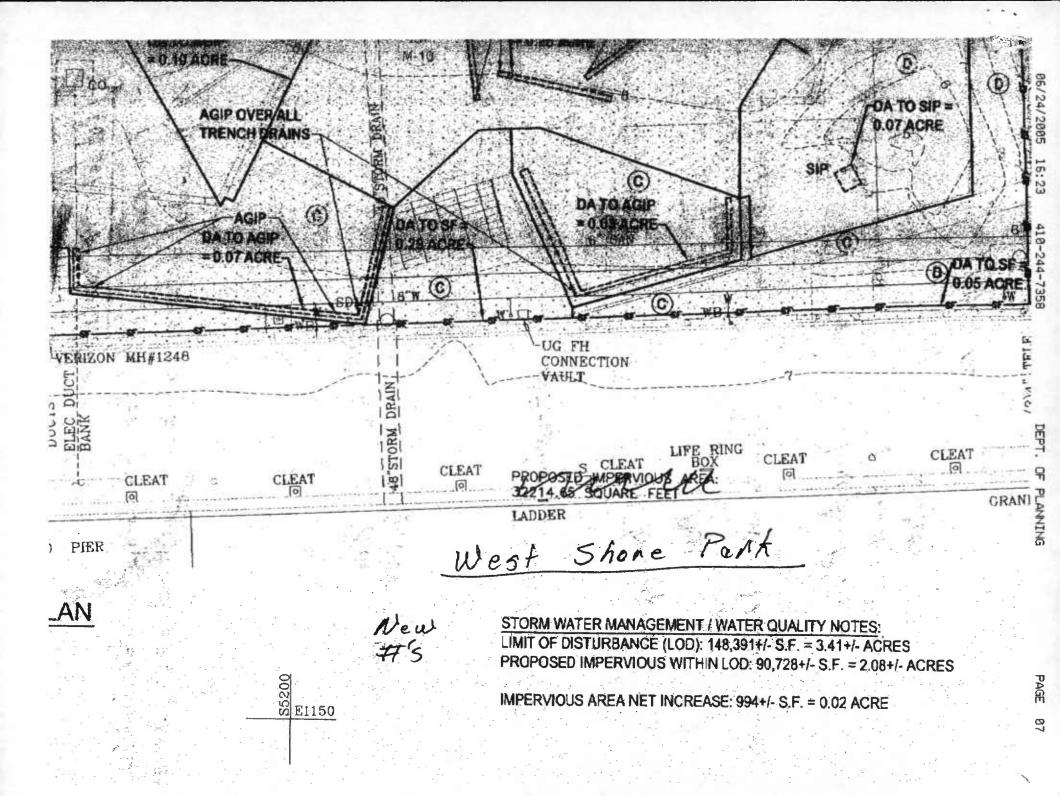
Phone: 410-396-5902

Subject: West Shope Pray

Message:

Sorry but I fonget to
Sorry but I fonget to
Include these in tellest
Include Park Packet/Project
Shore sent.

recipients(s), please note that any distribution or copying of this communication is strictly prohibited. Anyone who received this communication in error should notify the sender immediately by telephone and return the original message to the sender at the above address via the US Mail.



West Shore Pork CA Calc's

6/7/05

CITY OF BALTIMORE
CHESAPEAKE BAY CRITICAL AREA MANAGEMENT PROGRAM

Worksheet A: Standard Application Process

Calculating Pollutant Removal Requirements * 1/12/04

Step 1: Project Description

	(a) Existing (acres)	(b) Pos	-Development (acres)	
oftop		.95		
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lewalks				
king lots				
ols/ponds				
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ner				
pervious rface Area	2 06	21 II	2.08	
		· · · · · · · · · · · · · · · · · · ·	127.	
perviousnes				10
	pervious Surface Area/Si		1)/(Step1)=	0%
OSI-Develo	pment Impervious Surfac	ce Area/Site Area	= (Step 2b)/(Step 1)=	

*NOTE Affacreage used in this worksheet refer to areas within the Intensely Developed Areas of the Critical Area only

City of Baltimore Critical Area Management Program Manual (2002 Edition)

Derise 410 396-0928

Step 2: Calculate the Pre-Development Load (Lpre)

A. Redevelopment

Lpre = (Rv) (C) (A) (8.16)
Rv = 0.05 + 0.009 (Ipre)
= 0.05 + 0.009 (60) - 59
Lpre = (,57) (30) (3,41) 8.16
=
$$9.93$$
 [bs/year of total phosphorous

Where:

Lpre = Average annual load of total phosphorous exported from the site prior to

development (lbs/year)

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

converted into runoff

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

impervious)

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

urban runoff

= 0.30 (milligrams per liter)

Area of the site within the Critical Area Intensely Developed Area (IDA)

in acres

8.16 = Includes regional constants and unit conversion factors

B. New Development

- 0.5 = Annual total phosphorous load from undeveloped lands (lbs/acre/year)
- A = Same as above

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

A. New Development and Redevelopment

Lpost =
$$(Rv)(C)(A)(8.16)$$

Rv =
$$0.05 + 0.009$$
 (Ipost)

Lpost =
$$(.60)(.30)(3.41)$$
 (8.16)

where:

Lpost = Average annual load of total phosphorous exported from the post development site (lbs/year)

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

Ipost = Post-development (proposed) site imperviousness (i.e., I = 75 if site is 75% impervious)

E = Flow-weighted mean concentration of the pollutant (total phosphorous) in urban runoff

C = 0.30 milligrams per liter

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

8.16 = Includes regional constants and unit conversion factors

Step 4: Calculate the Pollutant Removal Requirement (RR)

RR = Lport - (0.9) (Lpre)
=
$$(5)$$
 - (0.9) (4.93) 5 - 4.437
= 562 lbs/year of total phosphorous

Where:

RR = Pollutant removal requirement (lbs/year)

Lpost = Average annual load of total phosphorous exported from the post development site (lbs/year)

Lpre Average annual load of total phosphorous exported from the site prior to development (lbs/year)

Step 5: Identify Feasible Urban BMP

Select Best Management Practice options from the 2003 10% Rule Guidance Manual, Table 4.8 (%) at the Critical Area WEB site: http://www.dnr.state.md.us/criticalarea/ Calculate the load removed for each option.

BMP	(Lpost)	x (BMPre)	(%]	DA Served)		LR
		x	x	~		lbs/year
		x	x		=	lbs/year
		x	x		=	lbs/year
		x	_ x		PM	lbs/year

Load Removed, LR (total) - blbs/year

Pollutant Removal Requirement, RR (from Step 4) = .563 lbs/year

Where:

Load Removed, LR = Annual total phosphorous load removed by the proposed BMP (lbs/year)

Lpost = Average annual load of total phosphorous exported from the post development site (lbs/year)

BMPre= 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)

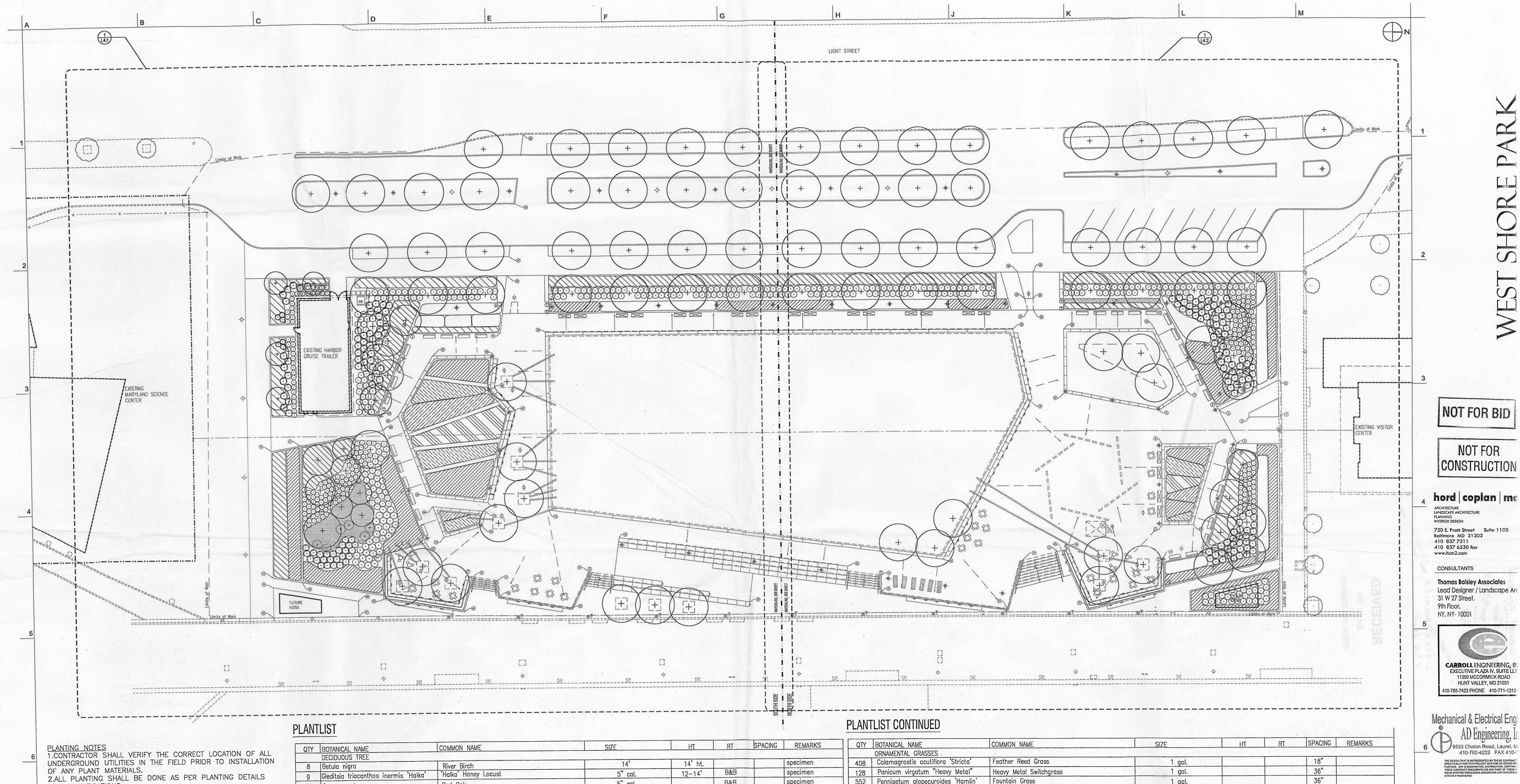
HAS THE RR (POLLUTANT REMOVAL REQUIREMENT) BEEN MET?

YES

If the Load Removed is equal to or greater than the pollutant removal requirement (RR) calculated in Step 4, then the on-site BMP option complies with the 10% Rule.

Would page CA Stormwerden
Offset Fee 35,000 per #

,563 pounds
19, 705



3.SEE SPECIFICATIONS FOR FURTHER REQUIREMENTS. 4.SEE SHEET L4.3 FOR PLANTING DETAILS.

5.NO CHANGES SHALL BE MADE WITHOUT WRITTEN CONSENT OF THE OWNER OR LANDSCAPE ARCHITECT. 6.VERIFY THAT ALL TOPSOIL HAS BEEN PLACED AS PER TOPSOIL REQUIREMENTS FOR PLANTING AREAS AS PER DETAIL

7. MAINTAIN POSITIVE DRAINAGE OUT OF PLANTING BEDS AT A MINIMUM 2% SLOPE. ALL GRADES, DIMENSIONS, AND EXISTING CONDITIONS SHALL BE VERIFIED BY THE CONTRACTOR ON SITE BEFORE CONSTRUCTION BEGINS. ANY DISCREPANCIES SHALL BE BROUGHT TO THE ATTENTION OF THE LANDSCAPE ARCHITECT OR OWNER. 8.PROVIDE PLANTING BED PREPARATION AS REQUIRED PER

9.ALL SHRUBS, GROUND COVERS, AND PERENNIALS SHALL BE PLANTED IN PLANTING BEDS PREPARED AS REQUIRED BY THE DETAILS AND SPECIFICATIONS. 10.ALL PLANT BEDS SHALL BE CONTAINED WITH A SPADED EDGE UNLESS OTHERWISE NOTED ON DRAWINGS. 11.NO SHRUBS SHALL BE PLANTED INDIVIDUALLY IN LAWN

DETAIL 4/L4.3.

12.WHERE SHRUB BEDS ARE LOCATED DIRECTLY ADJACENT TO PARKING STALLS, ALL PLANTS SHALL BE PLANTED A MINIMUM OF TWO (2) FT. FROM THE FACE OF CURB TO PREVENT DAMAGE TO THE PLANTS BY CAR BUMPERS. 11.ALL AREAS DISTRIBUTED BY PLANTING OPERATIONS SHALL BE FINE GRADED, SEEDED, SODDED, AND/OR PLANTED AS

REQUIRED BY THE PLANS. 10.QUANTITIES SHOWN ON PLANT LIST ARE FOR THE CONTRACTOR'S CONVENIENCE ONLY AND ARE NOT GUARANTEED TO BE ACCURATE. IN THE EVENT OF A DISCREPANCY BETWEEN QUANTITIES SHOWN ON THE PLAN AND QUANTITIES SHOWN ON THE PLANT LIST, THE QUANTITIES ON THE PLAN SHALL APPLY. REPORT DISCREPANCIES TO THE LANDSCAPE ARCHITECT FOR CLARIFICATION PRIOR TO BIDDING. THE CONTRACTOR SHALL FURNISH PLANT MATERIAL IN SIZES AS SPECIFIED IN PLANT

PLANTING KEY PLAN L4.0 1"=20'-0"

YTÇ	BOTANICAL NAME	COMMON NAME	SIZE	HT	RT	SPACING	REMARKS
	DECIDUOUS TREE						
8	Betula nigra	River Birch	14'	14' ht.			specimen
9	Gleditsia triacanthos inermis 'Halka'	'Halka' Honey Locust	5" cal.	12-14'	B&B		specimen
	Quercus rubra	Red Oak	5" cal.		B&B		specimen
	Quercus rubra	Red Oak	8" cal.		B&B		specimen
	Platanus x acerifolia 'Bloodgood'	Bloodgood London Plane Tree	4" cal.	12-14'	B&B		specimen
	EVERGREEN TREE					***	
2	Magnolia grandiflora	Southern Magnolia	6" cal.	18'-20'	B&B		specimen
4		Japanese Black Pine (or) Austrian Red Pine		21'			1st branch at 7
•	ORNAMENTAL TREE						
11	Lagerstroemia indica "Natchez'	Natchez Crape Myrtle		10'			multistem, specin
	SHRUBS						
220	Azalea Delaware Valley White	Delaware Valley White Azalea	18"-24"		B&B or con		full, heavy
99	Hydragea 'Nikko Blue'	'Nikko Blue' Hydrangea	30"-36"		B&B or con		full, heavy
11	Hydragea quercifolia	Oakleaf Hydrangea	36"-42"		B&B or con		full, heavy
40	llex cornuta x rugosa 'China Girl'	China Girl Holly OR American Common Boxwood			B&B or cor		full, heavy
86	Juniperus conferta	Shore Juniper	18"			18"	full, heavy
7	Nandina domestica	Heavenly Bamboo	30"-36"		B&B or con		full, heavy
14	Rosa 'Knockout'	'Knockout' Shrub Rose	30"-36"		cont.	36"	full, heavy
57	Rosa 'Simplicity'	Pink Simiplicity Shrub Rose	18"-24" spread		5 gal. cont	. 36"	full, heavy
221	Prunus laurocerasus 'Otto Luyken'	Cherry Laurel	24" HT. MIN. 18" SPREADING				full, heavy
53	Spirea bumalda 'Anthon Waterer'	Anthony Waterer Spirea	30"-36"		B&B or con	t.	full, heavy
26	Syringa vulgaris 'Miss Kim'	Miss Kim Lilac		4'	B&B or con		full, heavy
70	Viburnum carlesii	Korean Spice Viburnum	36"		B&B or con		full, heavy
18	Viburnum praegaense	Prague Viburnum	48"		B&B or con	it. 48"	full, heavy

TY BOTANICAL NAME	COMMON NAME	SIZE	HT	RT SPACING	REMARKS
ORNAMENTAL GRASSES .					
OB Calamagrostis acutiflora 'Stricta'	Feather Reed Grass	1 gal.		18"	
Panicum virgatum "Heavy Metal"	Heavy Metal Switchgrass	1 gal.		36"	
Pennisetum alopecuroides 'Hamlin'	Fountain Grass	1 gal.		36"	
PERENNIALS					
63 Echinacea purpurea	Purple Cone Flower	1 gal.		18"	
76 Hemerocalis spp.	Daylily — Mix 1/3 each: early, mid, late	1 gal.		18"	
	season bloom time				
63 Leucanthemum 'Becky'	'Becky' Shasta Daisy	1 gal.		18"	
64 Perovskia atriplicifolia 'Longin'	Russian Sage	1 gal.		18"	
00 Rudbeckia fulgida 'Goldsturm'	Blackeyed Susan	1 gal.		18"	
GROUND COVER					
305 Liriope muscarii 'Big Blue'	Big Blue Liriope	1 gal.		15"	
040 Liriope spicata		1 gal.		10"	
ANNUALS					
20 TBD				8"	
BULBS					
Narcissis bulbocodium	Daffodil			8"	bulb

NY, NY- 10001 EXECUTIVE PLAZA IV, SUITE LL1 11350 MCCORMICK ROAD

REVISIONS SHEET TITLE Planting Key Plan

AS NOTED 03.14.05 24 PROJECT PHASE 95% CD-PROGRESS SUBMITTAL NOT FOR CONSTRUCTION DRAWING#

4.0

If this drawing is not 30° x 42° it is a reduced print.

- © 2004 HORD COPLAN & MACHT

RECEIVED JUN 27 2005

CRITICAL AREA COMMISSION

Got concept orproved

West Shove
Got Prelim. appr. 10/21/04 Nols. Final Check permits
5 till here RECEIVED JUN 27 2005 CRITICAL AREA COMMISSION

If this drawing is not 30" x 42" it is a reduced print. © 2004 HORD COPLAN & MACHT, INC.

Public Works (CBDPW), "Specifications for Material, Highways, Bridges, Utilities, and Incidental Structures" and the

details in the "Book of Standards", as amended to date.

designed to connect to existing utilities, and to locate existing utilities in the vicinity where new construction is

