

Comments

2/24/2000

3/22/2000

AN 38-00

Title Support Services

Site Plan

MSA-S-1829-875



Judge John C. North, II
Chairman

Ren Serey
Executive Director

**STATE OF MARYLAND
CHESAPEAKE BAY CRITICAL AREA COMMISSION**

45 Calvert Street, 2nd Floor, Annapolis, Maryland 21401
(410) 974-2426 Fax: (410) 974-5338

February 24, 2000

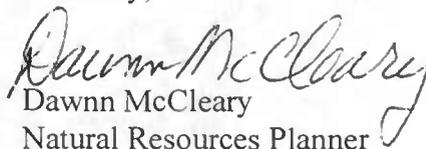
Mr. Jeff Torney
Planner
City of Annapolis Planning and Zoning
160 Duke of Gloucester Street
Annapolis, MD 21401

RE: Title Support Addition

Dear Mr. Torney:

After reviewing the above project, this office does not oppose the project but the 10% calculations must be submitted since it is in an Intensely Developed Area. Please forward all additional information to this office for review. I will provide comments at that time. If there are any questions, please feel free to call me at (410) 260-7072.

Sincerely,


Dawnn McCleary
Natural Resources Planner

cc: Regina Esslinger

AN 38-00

Branch Office: 31 Creamery Lane, Easton, MD 21601
(410) 822-9047 Fax: (410) 820-5093

TTY FOR DEAF ANNAPOLIS-974-2609 D.C. METRO-586-0450





Judge John C. North, II
Chairman

Ren Serey
Executive Director

**STATE OF MARYLAND
CHESAPEAKE BAY CRITICAL AREA COMMISSION**

45 Calvert Street, 2nd Floor, Annapolis, Maryland 21401
(410) 974-2426 Fax: (410) 974-5338

March 20, 2000

Mr. Jeff Torney
Planner
City of Annapolis Planning and Zoning
160 Duke of Gloucester Street
Annapolis, MD 21401

RE: Title Support Service Addition

Dear Mr. Torney:

After reviewing the above project's 10% calculations, this office has determined that the calculations are correct and consistent with the local Critical Area Program. If there are any questions, please feel free to call me at (410) 260-7072.

Sincerely,

Dawnn McCleary
Dawnn McCleary
Natural Resources Planner

cc: Regina Esslinger
AN 38-00

Branch Office: 31 Creamery Lane, Easton, MD 21601
(410) 822-9047 Fax: (410) 820-5093

TTY FOR DEAF ANNAPOLIS-974-2609 D.C. METRO-586-0450



TITLE SUPPORT SERVICES, INC.
425/427 FOURTH STREET

AN 38-00

Applicant's Guide to 10% Rule Compliance

Page - 20

Worksheet A: Standard Application Process

Calculating Pollutant Removal Requirements *

Step 1: Project Description

A. Calculate Percent Imperviousness

- 1) Site Acreage = 0.19 acres
- 2) Site Imperviousness, existing and proposed, (See Table 1.0 for details)

	(a) Existing (acres)	(b) Post-Development (acres)
rooftop roads	<u>0.06</u>	<u>0.05</u>
sidewalks		
parking lots	<u>0.10</u>	<u>0.07</u>
pools/ponds		
decks		
other		
Impervious Surface Area	<u>0.16</u>	<u>0.12</u>

Imperviousness (I)

Existing Impervious Surface Area/Site Area = (Step 2a)/(Step 1) = 82.42%
 Post-Development Impervious Surface Area/Site Area = (Step 2b)/(Step 1) = 64.08%

B. Define Development Category (circle)

- 1) Redevelopment: Existing imperviousness greater than 15% I (Go to Step 2A)
- 2) New development: Existing imperviousness less than 15% I (Go to Step 2B)
- 3) Single Lot Residential: Single lot being developed or improved; single family residential; and more than 250 square feet being disturbed. (Go to Page 27- Single Lot Residential sheet for remaining steps).

* NOTE: All acreage used in this worksheet refer to areas within the IDA of the critical area only.

Step 2: Calculate the Pre-Development Load (L_{pre})

A. Redevelopment

$$\begin{aligned}
 L_{pre} &= (R_v)(C)(A)8.16 \\
 R_v &= 0.05 + 0.009(L_{pre}) \\
 L_{pre} &= (0.77)(1.08)(0.19)8.16 \\
 &= \underline{1.32} \text{ lbs P/year}
 \end{aligned}$$

where:

- R_v = runoff coefficient, which expresses the fraction of rainfall which is converted into runoff.
- L_{pre} = site imperviousness (i.e., I=75 if site is 75% impervious)
- C = flow-weighted mean concentration of the pollutant in urban runoff (mg/l).
 - $C = 0.26$ if pre-development I < 20%
 - $C = 1.08$ if pre-development I ≥ 20%
- A = area of the development site (acres in the Critical Area).
- 8.16 = includes regional constants and unit conversion factors.

OR

B. New Development

~~$$\begin{aligned}
 L_{pre} &= 0.5 \text{ lbs/year} \cdot A \\
 &= (0.5 \times \dots) \\
 &= \dots \text{ lbs P/year}
 \end{aligned}$$~~

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

A. New Development and Redevelopment

$$\begin{aligned}
 L_{post} &= (R_v)(C)(A)8.16 \\
 R_v &= 0.05 + 0.009(L_{post}) \\
 &= 0.05 + 0.009(64.08) = \underline{0.63} \\
 L_{post} &= (0.63)(1.08)(0.19)8.16 \\
 &= \underline{1.06} \text{ lbs P/year}
 \end{aligned}$$

where:

- R_v = runoff coefficient, which expresses the fraction of rainfall which is converted into runoff.
- L_{post} = site imperviousness (i.e., I=75 if site is 75% impervious)
- C = flow-weighted mean concentration of the pollutant in urban runoff (mg/l).
 - $C = 0.26$ if pre-development I < 20%

C = 1.08 if pre-development I >=20%
 A = area of the development site (acres).
 8.16 = includes regional constants and unit conversion factors.

Step 4: Calculate the Pollutant Removal Requirement (RR)

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

$$= (1.05) - (0.9)(1.32)$$

$$= \underline{0.14} \text{ lbs P}$$

RR VALUE IS NEGATIVE NUMBER
 DUE TO REMOVAL OF IMPERVIOUS SURFACE.

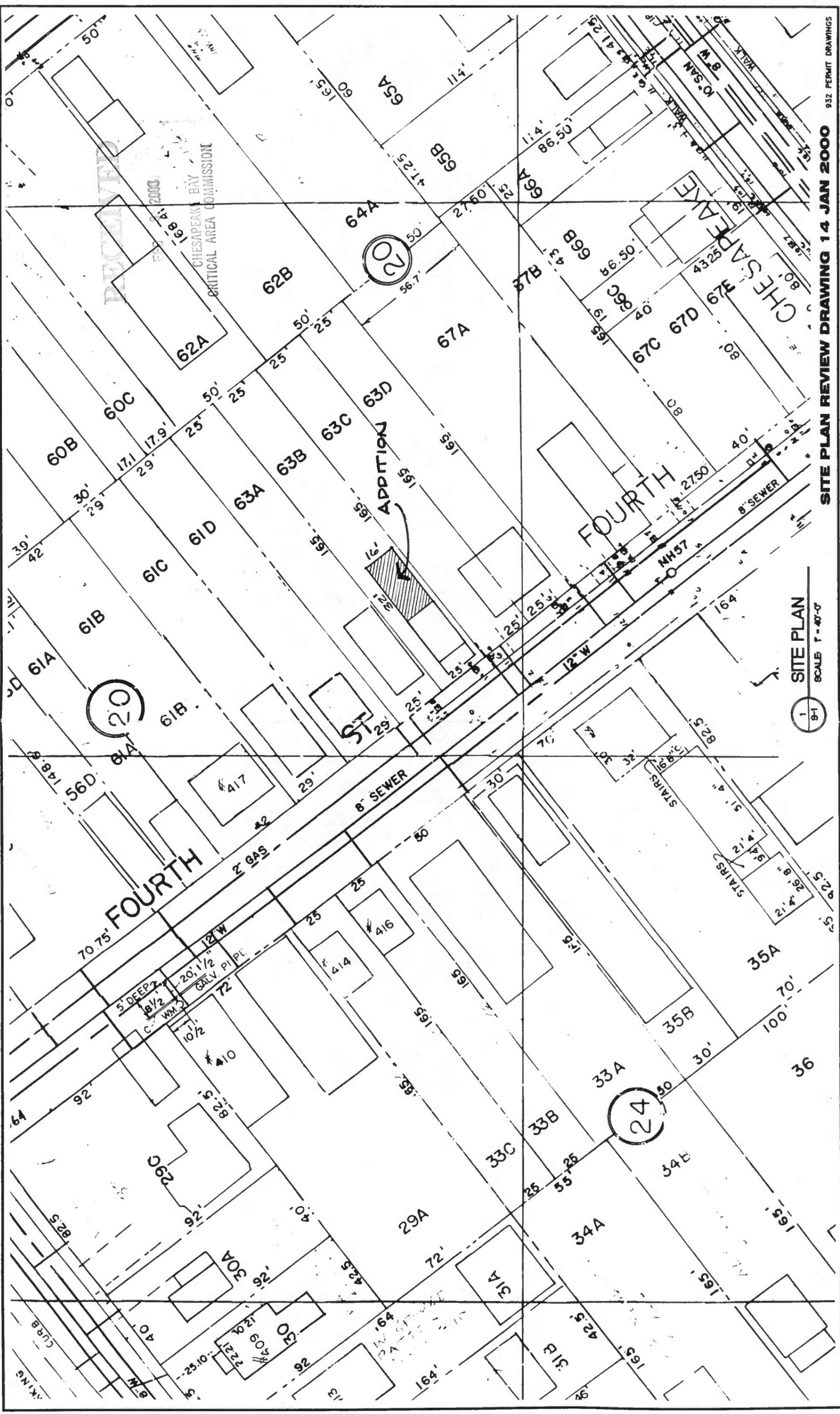
Step 5: Identify Feasible Urban BMP

Select BMP Options using the screening tools and pollutant removal rates listed in the Applicant's Guide Tables 5.0, 5.1, 5.2, and 5.4 Calculate the load removed for each option.

BMP Type	(Removal Efficiency x [use 0.50 or 50%])	(Fraction of Drainage x Area Served)	(L post)	Load Removed
_____	_____ x	_____ x	_____	= _____ lbs
_____	_____ x	_____ x	_____	= _____ lbs
_____	_____ x	_____ x	_____	= _____ lbs
_____	_____ x	_____ x	_____	= _____ lbs

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. (See Table 5.3, page 16) for submittal requirements for each BMP option.

AN 38-00



RECEIVED
 FEB 14 2000
 CHESAPEAKE BAY
 CRITICAL AREA COMMISSION

1 SITE PLAN
 SCALE 1"=40'-0"

SITE PLAN REVIEW DRAWING 14 JAN 2000 932 PERMIT DRAWINGS

Project: TITLE SUPPORT SERVICES Location: 425 FOURTH STREET, ANNAPOLIS, MARYLAND		Project No. 1999.32 Date 14JAN00		By SLR/KCS Rev. No.		SCOTT L. RAND AIA Architecture Planning Interior Design	419 FOURTH STREET ANNAPOLIS, MARYLAND 21403 TEL: (410) 241-3888 FAX: (410) 241-3889	S-1
		Project Location:		Project Name:				